SDG COVER PAGE

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No.: SDG No.: MBHK41

SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MBHK41	P5030-01	X			
MBHK42	P5030-02	X			
MBHK43	P5030-03	X			
MBHK44	P5030-04	X			
MBHK44D	P5030-05	X			
MBHK44S	P5030-06	X			
MBHK45	P5030-07	X			
MBHK46	P5030-08	X			
MBHK47	P5030-09	X			
MBHK48	P5030-10	X			
MBHK49	P5030-11	X			
MBHK50	P5030-12	X			
MBHKC4	P5030-13	X			
MBHKC5	P5030-14	X			
MBHKC6	P5030-15	X			
MBHKC7	P5030-16	X			
MBHKC8	P5030-17	X			
MBHKC9	P5030-18	X			
MBHKD0	P5030-19	X			
MBHKD1	P5030-20	X			
MBHKG4	P5030-21	X			
MBHKG5	P5030-22	X			

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 # MBHK41

USEPA CLP COC (LAB COPY)

DateShipped: 11/26/2024

CarrierName: FedEx

AirbillNo: 7702 6139 3237

CHAIN OF CUSTODY RECORD

Case #: 51879

Cooler #: 3

No: 2-112624-102812-0028

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

Lab Phone: 908-789-8900

2

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
P175-SB-04-Z00-02	MBHK41	Soil/		ICP-AES(35)	4728 (Wet ice < 6 C) (1)	P175-SB-04	11/20/2024 14:20	
P175-SB-04-Z02-06	MBHK42	Soil/		ICP-AES(35)	4729 (Wet ice < 6 C) (1)	P175-SB-04	11/20/2024 14:20	
P175-SB-04-Z06-12	MBHK43	Soil/		ICP-AES(35)	4690 (Wet ice < 6 C) (1)	P175-SB-04	11/20/2024 14:20	
P175-SB-04-Z12-18	MBHK44	Soil/		ICP-AES(35)	4691 (Wet ice < 6 C) (1)	P175-SB-04	11/20/2024 14:20	QC
P175-SB-04-Z18-24	MBHK45	Soil/		ICP-AES(35)	4692 (Wet ice < 6 C) (1)	P175-SB-04	11/20/2024 14:20	
P175-SB-04-Z24-30	MBHK46	Soil/		ICP-AES(35)	4693 (Wet ice < 6 C) (1)	P175-SB-04	11/20/2024 14:20	
P175-SB-04-Z30-36	MBHK47	Soil/		ICP-AES(35)	4694 (Wet ice < 6 C) (1)	P175-SB-04	11/20/2024 14:20	
P175-SB-05-Z00-02	MBHK48	Soil/		ICP-AES(35)	4695 (Wet ice < 6 C) (1)	P175-SB-05	11/21/2024 09:30	
P175-SB-05-Z02-06	MBHK49	Soil/		ICP-AES(35)	4696 (Wet ice < 6 C) (1)	P175-SB-05	11/21/2024 09:30	
P175-SB-05-Z06-12	MBHK50	Soil/		ICP-AES(35)	4697 (Wet ice < 6 C) (1)	P175-SB-05	11/21/2024 09:30	

Sample(s) to be used for Lab QC: P175-SB-04-Z12-18 Tag 4691 - Special Instructions: Samples MBHKC0 and MBHK44 are MS/MSDs. Samples MBHK45, MBHK46 and MBHK47 have limited sample mass.	**Shipment for Case Complete? N**
	Samples Transferred From Chain of Custody #
Analysis Key: ICP-AES=CLP Routine - SFAM01.1/LSASD SOP C-109 Metals	

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
1 cooler	[signature] WSP	11/26/2024 16:53	R. Melendez	10:05 11.27.24	IR gun #1 3.1°
		N/A	[signature] 11/26/24		Temp Blank present
					custody seal intact

68HERH20D0011

SDG # MBHK41

USEPA CLP COC (LAB COPY)

DateShipped: 11/26/2024

CarrierName: FedEx

AirbillNo: 7702 6139 3237

CHAIN OF CUSTODY RECORD

Case #: 51879

Cooler #: 3

No: 2-112624-102812-0028

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

Lab Phone: 908-789-8900

3

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	For Lab Use Only
P175-SB-18-Z30-36	MBHKC4	Soil/		ICP-AES(35)	4822 (Wet ice < 6 C) (1)	P175-SB-18	11/20/2024 14:25	
P175-SB-19-Z00-02	MBHKC5	Soil/		ICP-AES(35)	4823 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-19-Z02-06	MBHKC6	Soil/		ICP-AES(35)	4824 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-19-Z06-12	MBHKC7	Soil/		ICP-AES(35)	4825 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-19-Z12-18	MBHKC8	Soil/		ICP-AES(35)	4826 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-19-Z18-24	MBHKC9	Soil/		ICP-AES(35)	4827 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-19-Z24-30	MBHKD0	Soil/		ICP-AES(35)	4828 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-19-Z30-36	MBHKD1	Soil/		ICP-AES(35)	4829 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-19-Z30-36-FD	MBHKG4	Soil/		ICP-AES(35)	5495 (Wet ice < 6 C) (1)	P175-SB-19	11/20/2024 14:35	
P175-SB-05-Z24-30-FD	MBHKG5	Soil/		ICP-AES(35)	5496 (Wet ice < 6 C) (1)	P175-SB-05	11/21/2024 09:30	

N/A 11/26/24

Special Instructions: Samples MBHKC0 and MBHK44 are MS/MSDs. Samples MBHK45, MBHK46 and MBHK47 have limited sample mass.

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: ICP-AES=CLP Routine - SFAM01.1/LSASD SOP C-109 Metals

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
1 cooler	WSP	11/26/2024 16:53	R. Melendez	10:05 11.27.24	IR gun #1 3.1°
		N/A	11/26/24		Temp Blank present
					custody seal intact

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 1 of 1
Received By (Print Name) Cassandra Lira		Log-in Date 11/27/2024
Received By (Signature)		
Case Number 51879	SDG No. MBHK41	MA No. N/A

Remarks:	
1. Custody Seal (s)	Present, Intact
2. Custody Seal Nos.	n/a
3. Traffic Reports/Chain Of Custody Records	Present
4. Airbill	Present
5. Airbill No. and Shipping Container ID No.	770261393237 1
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	3.1 Degree C
8. Sample Condition	Intact
9. Sample Tags Sample Tag Numbers	Absent Listed on Traffic Report
10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ?	Yes
11. Date Received at Lab	11/27/2024
12. Time Received	10:05

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MBHK41	N/A	4728	P5030-01	Intact
2	MBHK42	N/A	4729	P5030-02	Intact
3	MBHK43	N/A	4690	P5030-03	Intact
4	MBHK44	N/A	4691	P5030-04	Intact
5	MBHK44D	N/A	4691	P5030-05	Intact
6	MBHK44S	N/A	4691	P5030-06	Intact
7	MBHK45	N/A	4692	P5030-07	Intact
8	MBHK46	N/A	4693	P5030-08	Intact
9	MBHK47	N/A	4694	P5030-09	Intact
10	MBHK48	N/A	4695	P5030-10	Intact
11	MBHK49	N/A	4696	P5030-11	Intact
12	MBHK50	N/A	4697	P5030-12	Intact
13	MBHKC4	N/A	4822	P5030-13	Intact
14	MBHKC5	N/A	4823	P5030-14	Intact
15	MBHKC6	N/A	4824	P5030-15	Intact
16	MBHKC7	N/A	4825	P5030-16	Intact
17	MBHKC8	N/A	4826	P5030-17	Intact
18	MBHKC9	N/A	4827	P5030-18	Intact
19	MBHKD0	N/A	4828	P5030-19	Intact
20	MBHKD1	N/A	4829	P5030-20	Intact
21	MBHKG4	N/A	5495	P5030-21	Intact
22	MBHKG5	N/A	5496	P5030-22	Intact
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	11/27/24	Logbook Page No.	N/A

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

LAB NAME	**Alliance Technical Group, LLC**		
LAB CODE	**ACE**		
CONTRACT NO.	**68HERH20D0011**		
CASE NO.	**51879**	SDG NO.	**MBHK41**
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: FROM	PAGE NOs: TO	CHECK LAB	CHECK REGION
1. SDG Cover Page	1	1	✓	
2. Traffic Report/Chain of Custody Record(s)	2	3	✓	
3. Sample Log-In Sheet (DC-1)	4	4	✓	
4. CSF Inventory Sheet (DC-2)	5	7	✓	
5. SDG Narrative	8	10	✓	
6. Communication Logs	NA	NA	✓	
7. Percent Solids Log	11	13	✓	
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	14	33	✓	
9. Instrument raw data by instrument in analysis order	34	420	✓	
Other Data				
10. Standard and Reagent Preparation Logs	421	574	✓	
11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	575	576	✓	
12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	577	600	✓	
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	NA	NA	✓	
18. Instrument raw data by instrument in analysis order	NA	NA	✓	
Other Data				
19. Standard and Reagent Preparation Logs	NA	NA	✓	
20. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
22. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	

	PAGE NOs: FROM	TO	CHECK LAB	REGION
23. Extraction Logs for TCLP and SPLP	NA	NA	✓	
24. Raw GPC Data	NA	NA	✓	
25. Raw Florisil Data	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	NA	NA	✓	
27. Instrument raw data by instrument in analysis order	NA	NA	✓	
Other Data				
28. Standard and Reagent Preparation Logs	NA	NA	✓	
29. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
30. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
31. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
32. Extraction Logs for TCLP and SPLP	NA	NA	✓	
33. Raw GPC Data	NA	NA	✓	
34. Raw Florisil Data	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	NA	NA	✓	
36. Instrument raw data by instrument in analysis order	NA	NA	✓	
Other Data				
37. Standard and Reagent Preparation Logs	NA	NA	✓	
38. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	NA	NA	✓	
39. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	NA	NA	✓	
40. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
41. Extraction Logs for TCLP and SPLP	NA	NA	✓	
42. Raw GPC Data	NA	NA	✓	
43. Raw Florisil Data	NA	NA	✓	

	PAGE NOs: FROM	TO	CHECK LAB	REGION
Additional				
44. EPA Shipping/Receiving Documents				
Airbill (No. of Shipments 1)	601	601	✓	
Sample Tags	NA	NA	✓	
Sample Log-In Sheet (Lab)	602	603	✓	
45. Misc. Shipping/Receiving Records (list all individual records)				
	NA	NA	✓	
46. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
	604	605	✓	
47. Other Records and related Communication Logs (describe or list)				
	NA	NA	✓	

48. Comments:

Completed by: (CLP Lab)		Nimisha Pandya, Document Control Officer	
	(Signature)	(Print Name & Title)	(Date)
Audited by: (EPA)			
	(Signature)	(Print Name & Title)	(Date)

284 Sheffield Street
Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG # MBHK41
CASE # 51879
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID # P5030

A. Number of Samples and Date of Receipt

20 Soil samples were delivered to the laboratory intact on 11/27/2024.

B. Parameters

Test requested for Metals CLP FULL = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc.

C. Cooler Temp

Indicator Bottle**: Presence/**Absence

Cooler: 3.1^{o}C

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

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

E. Corrective Action taken for above:

Resolution: 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.

F. Analytical Techniques:

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

Inter Element correction factors (IECs) are determined annually and correction factor are applied during ICP-AES analysis.

G. Calculation:

Calculation for ICP-AES Soil Sample:

Conversion of Results from mg/L or ppm to mg/kg (Dry Weight Basis):

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

Where,

C = Instrument value in ppm (The average of all replicate exposures)
Vf = Final digestion volume (mL)
W = Initial aliquot amount (g) (Sample amount taken in prep)
S = % Solids / 100 (Fraction of Percent Solids)
DF = Dilution Factor

Example Calculation For Sample MBHK41 For Arsenic:

If C = 0.1463630 ppm
Vf = 100 ml
W = 1.26 g
S = 0.825(82.5/100)
DF = 1

$$\text{Concentration (mg/kg)} = 0.1463630 \times \frac{100}{1.26 \times 0.825} \times 1$$

$$= 14.08013 \text{mg/kg}$$

= 14 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 except for Arsenic, Silver, Thallium. Duplicate sample did meet requirements. Serial Dilution did meet requirements except for Beryllium, Cobalt, Iron, Manganese, Zinc.

Chemical or physical interference effect was suspected and the data for all affected analytes in the sample received and associated with this serial dilution were flagged.

284 Sheffield Street
Mountainside, NJ 07092

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

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/2/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 13:25
In Date: 11/28/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:00
Out Date: 11/29/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB133673

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
P5030-01	MBHK41	1	1.16	8.50	9.66	8.17	82.5	
P5030-02	MBHK42	2	1.15	8.57	9.72	8.39	84.5	
P5030-03	MBHK43	3	1.15	8.83	9.98	8.89	87.7	
P5030-04	MBHK44	4	1.18	8.47	9.65	8.72	89.0	
P5030-05	MBHK44D	5	1.18	8.47	9.65	8.72	89.0	
P5030-06	MBHK44S	6	1.18	8.47	9.65	8.72	89.0	
P5030-07	MBHK45	7	1.18	8.47	9.65	9.06	93.0	
P5030-08	MBHK46	8	1.15	8.75	9.9	9.04	90.2	
P5030-09	MBHK47	9	1.16	8.57	9.73	8.88	90.1	
P5030-10	MBHK48	10	1.15	6.32	7.47	7.2	95.7	
P5030-11	MBHK49	11	1.16	8.80	9.96	9.35	93.1	
P5030-12	MBHK50	12	1.19	8.55	9.74	9.41	96.1	
P5030-13	MBHKC4	13	1.15	8.82	9.97	8.49	83.2	
P5030-14	MBHKC5	14	1.19	8.58	9.77	7.61	74.8	
P5030-15	MBHKC6	15	1.16	8.72	9.88	8.29	81.8	
P5030-16	MBHKC7	16	1.18	8.74	9.92	8.48	83.5	
P5030-17	MBHKC8	17	1.18	8.33	9.51	8.24	84.8	
P5030-18	MBHKC9	18	1.17	8.52	9.69	8.75	89.0	
P5030-19	MBHKD0	19	1.16	8.60	9.76	8.81	89.0	
P5030-20	MBHKD1	20	1.13	8.70	9.83	8.71	87.1	
P5030-21	MBHKG4	21	1.19	8.56	9.75	8.7	87.7	
P5030-22	MBHKG5	22	1.18	8.64	9.82	8.54	85.2	

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

WORKLIST(Hardcopy Internal Chain)

VB 133673

WorkList Name : %1-p5030 **WorkList ID :** 185862 **Department :** Wet-Chemistry **Date :** 11-28-2024 09:38:31

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5030-01	MBHK41	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-02	MBHK42	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-03	MBHK43	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-04	MBHK44	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-05	MBHK44D	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-06	MBHK44S	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-07	MBHK45	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-08	MBHK46	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-09	MBHK47	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-10	MBHK48	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-11	MBHK49	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/21/2024	Chemtech -SO
P5030-12	MBHK50	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/21/2024	Chemtech -SO
P5030-13	MBHKC4	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/21/2024	Chemtech -SO
P5030-14	MBHKC5	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-15	MBHKC6	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-16	MBHKC7	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-17	MBHKC8	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-18	MBHKC9	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-19	MBHKD0	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-20	MBHKD1	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO
P5030-21	MBHKG4	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/20/2024	Chemtech -SO

12

Date/Time 11-28-24 12:50

Raw Sample Received by: JB WC1

Raw Sample Relinquished by: AP SM

Date/Time 11-28-24 13:30

Raw Sample Received by: AP SM

Raw Sample Relinquished by: JB WC1

WORKLIST(Hardcopy Internal Chain)

NB133673

WorkList Name : %1-p5030 **WorkList ID :** 185862 **Department :** Wet-Chemistry **Date :** 11-28-2024 09:38:31

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5030-22	MBHKG5	Solid	Percent Solids	Cool 4 deg C	USEP01	C13	11/21/2024	Chemtech -SO

13

Date/Time 11-28-24 1250

Raw Sample Received by: JR Lopez

Raw Sample Relinquished by: OP SM

Date/Time 11-28-24 1330

Raw Sample Received by: OP SM

Raw Sample Relinquished by: JR Lopez

EPA SAMPLE NO.

MBHK41

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-01

% Solids: 82.5 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	9300		12/29/2024	0315
7440-36-0	Antimony	6.9		12/29/2024	0315
7440-38-2	Arsenic	14	*	12/29/2024	0315
7440-39-3	Barium	100		12/29/2024	0315
7440-41-7	Beryllium	2.3	*	12/29/2024	0315
7440-43-9	Cadmium	0.76		12/29/2024	0315
7440-70-2	Calcium	11000		12/29/2024	0315
7440-47-3	Chromium	12		12/29/2024	0315
7440-48-4	Cobalt	4.8	U*	12/29/2024	0315
7440-50-8	Copper	17		12/29/2024	0315
7439-89-6	Iron	37000	*	12/29/2024	0315
7439-92-1	Lead	170		12/29/2024	0315
7439-95-4	Magnesium	4900		12/29/2024	0315
7439-96-5	Manganese	940	*	12/29/2024	0315
7440-02-0	Nickel	20		12/29/2024	0315
7440-09-7	Potassium	1100		12/29/2024	0315
7782-49-2	Selenium	21		12/29/2024	0315
7440-22-4	Silver	0.26	J*	12/29/2024	0315
7440-23-5	Sodium	480	U	12/29/2024	0315
7440-28-0	Thallium	2.4	U*	12/29/2024	0315
7440-62-2	Vanadium	24		12/29/2024	0315
7440-66-6	Zinc	84	*	12/29/2024	0315

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK42

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-02

% Solids: 84.5 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8300		12/29/2024	0319
7440-36-0	Antimony	2.0	J	12/29/2024	0319
7440-38-2	Arsenic	14	*	12/29/2024	0319
7440-39-3	Barium	110		12/29/2024	0319
7440-41-7	Beryllium	1.3	*	12/29/2024	0319
7440-43-9	Cadmium	0.80		12/29/2024	0319
7440-70-2	Calcium	11000		12/29/2024	0319
7440-47-3	Chromium	14		12/29/2024	0319
7440-48-4	Cobalt	5.9	*	12/29/2024	0319
7440-50-8	Copper	27		12/29/2024	0319
7439-89-6	Iron	18000	*	12/29/2024	0319
7439-92-1	Lead	290		12/29/2024	0319
7439-95-4	Magnesium	4600		12/29/2024	0319
7439-96-5	Manganese	1100	*	12/29/2024	0319
7440-02-0	Nickel	23		12/29/2024	0319
7440-09-7	Potassium	1000		12/29/2024	0319
7782-49-2	Selenium	9.5		12/29/2024	0319
7440-22-4	Silver	0.21	J*	12/29/2024	0319
7440-23-5	Sodium	450	U	12/29/2024	0319
7440-28-0	Thallium	2.2	U*	12/29/2024	0319
7440-62-2	Vanadium	19		12/29/2024	0319
7440-66-6	Zinc	110	*	12/29/2024	0319

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK43

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-03

% Solids: 87.7 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7100		12/29/2024	0323
7440-36-0	Antimony	2.1	J	12/29/2024	0323
7440-38-2	Arsenic	18	*	12/29/2024	0323
7440-39-3	Barium	110		12/29/2024	0323
7440-41-7	Beryllium	1.2	*	12/29/2024	0323
7440-43-9	Cadmium	1.0		12/29/2024	0323
7440-70-2	Calcium	8400		12/29/2024	0323
7440-47-3	Chromium	12		12/29/2024	0323
7440-48-4	Cobalt	6.4	*	12/29/2024	0323
7440-50-8	Copper	38		12/29/2024	0323
7439-89-6	Iron	17000	*	12/29/2024	0323
7439-92-1	Lead	420		12/29/2024	0323
7439-95-4	Magnesium	3100		12/29/2024	0323
7439-96-5	Manganese	1200	*	12/29/2024	0323
7440-02-0	Nickel	25		12/29/2024	0323
7440-09-7	Potassium	830		12/29/2024	0323
7782-49-2	Selenium	9.3		12/29/2024	0323
7440-22-4	Silver	0.35	J*	12/29/2024	0323
7440-23-5	Sodium	430	U	12/29/2024	0323
7440-28-0	Thallium	2.1	U*	12/29/2024	0323
7440-62-2	Vanadium	18		12/29/2024	0323
7440-66-6	Zinc	130	*	12/29/2024	0323

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK44

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-04

% Solids: 89 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6900		12/29/2024	0327
7440-36-0	Antimony	2.8	J	12/29/2024	0327
7440-38-2	Arsenic	21	*	12/29/2024	0327
7440-39-3	Barium	100		12/29/2024	0327
7440-41-7	Beryllium	1.3	*	12/29/2024	0327
7440-43-9	Cadmium	1.1		12/29/2024	0327
7440-70-2	Calcium	7400		12/29/2024	0327
7440-47-3	Chromium	13		12/29/2024	0327
7440-48-4	Cobalt	6.4	*	12/29/2024	0327
7440-50-8	Copper	39		12/29/2024	0327
7439-89-6	Iron	19000	*	12/29/2024	0327
7439-92-1	Lead	400		12/29/2024	0327
7439-95-4	Magnesium	2600		12/29/2024	0327
7439-96-5	Manganese	1300	*	12/29/2024	0327
7440-02-0	Nickel	24		12/29/2024	0327
7440-09-7	Potassium	660		12/29/2024	0327
7782-49-2	Selenium	11		12/29/2024	0327
7440-22-4	Silver	0.45	J*	12/29/2024	0327
7440-23-5	Sodium	390	U	12/29/2024	0327
7440-28-0	Thallium	2.0	U*	12/29/2024	0327
7440-62-2	Vanadium	18		12/29/2024	0327
7440-66-6	Zinc	110	*	12/29/2024	0327

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK45

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-07

% Solids: 93 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7100		12/29/2024	0350
7440-36-0	Antimony	2.1	J	12/29/2024	0350
7440-38-2	Arsenic	18	*	12/29/2024	0350
7440-39-3	Barium	90		12/29/2024	0350
7440-41-7	Beryllium	1.2	*	12/29/2024	0350
7440-43-9	Cadmium	0.93		12/29/2024	0350
7440-70-2	Calcium	7900		12/29/2024	0350
7440-47-3	Chromium	11		12/29/2024	0350
7440-48-4	Cobalt	7.1	*	12/29/2024	0350
7440-50-8	Copper	27		12/29/2024	0350
7439-89-6	Iron	17000	*	12/29/2024	0350
7439-92-1	Lead	270		12/29/2024	0350
7439-95-4	Magnesium	2600		12/29/2024	0350
7439-96-5	Manganese	1300	*	12/29/2024	0350
7440-02-0	Nickel	20		12/29/2024	0350
7440-09-7	Potassium	660		12/29/2024	0350
7782-49-2	Selenium	8.9		12/29/2024	0350
7440-22-4	Silver	0.23	J*	12/29/2024	0350
7440-23-5	Sodium	410	U	12/29/2024	0350
7440-28-0	Thallium	2.0	U*	12/29/2024	0350
7440-62-2	Vanadium	17		12/29/2024	0350
7440-66-6	Zinc	89	*	12/29/2024	0350

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK46

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-08

% Solids: 90.2 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7500		12/29/2024	0354
7440-36-0	Antimony	2.2	J	12/29/2024	0354
7440-38-2	Arsenic	19	*	12/29/2024	0354
7440-39-3	Barium	100		12/29/2024	0354
7440-41-7	Beryllium	1.4	*	12/29/2024	0354
7440-43-9	Cadmium	0.80		12/29/2024	0354
7440-70-2	Calcium	13000		12/29/2024	0354
7440-47-3	Chromium	11		12/29/2024	0354
7440-48-4	Cobalt	6.4	*	12/29/2024	0354
7440-50-8	Copper	30		12/29/2024	0354
7439-89-6	Iron	19000	*	12/29/2024	0354
7439-92-1	Lead	200		12/29/2024	0354
7439-95-4	Magnesium	3300		12/29/2024	0354
7439-96-5	Manganese	1100	*	12/29/2024	0354
7440-02-0	Nickel	19		12/29/2024	0354
7440-09-7	Potassium	850		12/29/2024	0354
7782-49-2	Selenium	9.7		12/29/2024	0354
7440-22-4	Silver	0.31	J*	12/29/2024	0354
7440-23-5	Sodium	470	U	12/29/2024	0354
7440-28-0	Thallium	2.4	U*	12/29/2024	0354
7440-62-2	Vanadium	18		12/29/2024	0354
7440-66-6	Zinc	89	*	12/29/2024	0354

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK47

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-09

% Solids: 90.1 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7400		12/29/2024	0358
7440-36-0	Antimony	1.7	J	12/29/2024	0358
7440-38-2	Arsenic	16	*	12/29/2024	0358
7440-39-3	Barium	94		12/29/2024	0358
7440-41-7	Beryllium	1.3	*	12/29/2024	0358
7440-43-9	Cadmium	0.66		12/29/2024	0358
7440-70-2	Calcium	17000		12/29/2024	0358
7440-47-3	Chromium	9.8		12/29/2024	0358
7440-48-4	Cobalt	7.5	*	12/29/2024	0358
7440-50-8	Copper	26		12/29/2024	0358
7439-89-6	Iron	17000	*	12/29/2024	0358
7439-92-1	Lead	130		12/29/2024	0358
7439-95-4	Magnesium	3500		12/29/2024	0358
7439-96-5	Manganese	1200	*	12/29/2024	0358
7440-02-0	Nickel	17		12/29/2024	0358
7440-09-7	Potassium	860		12/29/2024	0358
7782-49-2	Selenium	8.7		12/29/2024	0358
7440-22-4	Silver	0.22	J*	12/29/2024	0358
7440-23-5	Sodium	460	U	12/29/2024	0358
7440-28-0	Thallium	2.3	U*	12/29/2024	0358
7440-62-2	Vanadium	16		12/29/2024	0358
7440-66-6	Zinc	70	*	12/29/2024	0358

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK48

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-10

% Solids: 95.7 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	2700		12/29/2024	0402
7440-36-0	Antimony	6.2	U	12/29/2024	0402
7440-38-2	Arsenic	3.3	*	12/29/2024	0402
7440-39-3	Barium	7.7	J	12/29/2024	0402
7440-41-7	Beryllium	0.63	*	12/29/2024	0402
7440-43-9	Cadmium	0.26	J	12/29/2024	0402
7440-70-2	Calcium	140000	D	12/30/2024	2021
7440-47-3	Chromium	5.6		12/29/2024	0402
7440-48-4	Cobalt	7.8	*	12/29/2024	0402
7440-50-8	Copper	5.1		12/29/2024	0402
7439-89-6	Iron	8500	*	12/29/2024	0402
7439-92-1	Lead	23		12/29/2024	0402
7439-95-4	Magnesium	69000		12/29/2024	0402
7439-96-5	Manganese	530	*	12/29/2024	0402
7440-02-0	Nickel	10		12/29/2024	0402
7440-09-7	Potassium	1600		12/29/2024	0402
7782-49-2	Selenium	3.6	U	12/29/2024	0402
7440-22-4	Silver	0.16	J*	12/29/2024	0402
7440-23-5	Sodium	180	J	12/29/2024	0402
7440-28-0	Thallium	1.5	J*	12/29/2024	0402
7440-62-2	Vanadium	5.3		12/29/2024	0402
7440-66-6	Zinc	51	*	12/29/2024	0402

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK49

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-11

% Solids: 93.1 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	1900		12/29/2024	0406
7440-36-0	Antimony	5.1	U	12/29/2024	0406
7440-38-2	Arsenic	2.8	*	12/29/2024	0406
7440-39-3	Barium	13	J	12/29/2024	0406
7440-41-7	Beryllium	0.52	*	12/29/2024	0406
7440-43-9	Cadmium	0.79		12/29/2024	0406
7440-70-2	Calcium	170000	D	12/31/2024	1344
7440-47-3	Chromium	6.3		12/29/2024	0406
7440-48-4	Cobalt	6.0	*	12/29/2024	0406
7440-50-8	Copper	5.1		12/29/2024	0406
7439-89-6	Iron	8000	*	12/29/2024	0406
7439-92-1	Lead	69		12/29/2024	0406
7439-95-4	Magnesium	92000	D	12/30/2024	2025
7439-96-5	Manganese	540	*	12/29/2024	0406
7440-02-0	Nickel	8.0		12/29/2024	0406
7440-09-7	Potassium	1000		12/29/2024	0406
7782-49-2	Selenium	3.0	U	12/29/2024	0406
7440-22-4	Silver	0.085	J*	12/29/2024	0406
7440-23-5	Sodium	200	J	12/29/2024	0406
7440-28-0	Thallium	1.8	J*	12/29/2024	0406
7440-62-2	Vanadium	3.5	J	12/29/2024	0406
7440-66-6	Zinc	180	*	12/29/2024	0406

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHK50

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-12

% Solids: 96.1 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	1200		12/29/2024	0410
7440-36-0	Antimony	4.7	U	12/29/2024	0410
7440-38-2	Arsenic	3.3	*	12/29/2024	0410
7440-39-3	Barium	13	J	12/29/2024	0410
7440-41-7	Beryllium	0.53	*	12/29/2024	0410
7440-43-9	Cadmium	2.4		12/29/2024	0410
7440-70-2	Calcium	200000	D	12/31/2024	1352
7440-47-3	Chromium	3.8		12/29/2024	0410
7440-48-4	Cobalt	4.6	*	12/29/2024	0410
7440-50-8	Copper	2.6		12/29/2024	0410
7439-89-6	Iron	9600	*	12/29/2024	0410
7439-92-1	Lead	210		12/29/2024	0410
7439-95-4	Magnesium	100000	D	12/30/2024	2029
7439-96-5	Manganese	610	*	12/29/2024	0410
7440-02-0	Nickel	7.0		12/29/2024	0410
7440-09-7	Potassium	720		12/29/2024	0410
7782-49-2	Selenium	2.8	U	12/29/2024	0410
7440-22-4	Silver	0.15	J*	12/29/2024	0410
7440-23-5	Sodium	210	J	12/29/2024	0410
7440-28-0	Thallium	1.1	J*	12/29/2024	0410
7440-62-2	Vanadium	4.4		12/29/2024	0410
7440-66-6	Zinc	440	*	12/29/2024	0410

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKC4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-13

% Solids: 83.2 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	9400		12/29/2024	0414
7440-36-0	Antimony	4.3	J	12/29/2024	0414
7440-38-2	Arsenic	24	*	12/29/2024	0414
7440-39-3	Barium	67		12/29/2024	0414
7440-41-7	Beryllium	1.6	*	12/29/2024	0414
7440-43-9	Cadmium	0.50	J	12/29/2024	0414
7440-70-2	Calcium	3100		12/29/2024	0414
7440-47-3	Chromium	13		12/29/2024	0414
7440-48-4	Cobalt	10	*	12/29/2024	0414
7440-50-8	Copper	41		12/29/2024	0414
7439-89-6	Iron	24000	*	12/29/2024	0414
7439-92-1	Lead	67		12/29/2024	0414
7439-95-4	Magnesium	2200		12/29/2024	0414
7439-96-5	Manganese	2200	*	12/29/2024	0414
7440-02-0	Nickel	20		12/29/2024	0414
7440-09-7	Potassium	820		12/29/2024	0414
7782-49-2	Selenium	14		12/29/2024	0414
7440-22-4	Silver	0.16	J*	12/29/2024	0414
7440-23-5	Sodium	530	U	12/29/2024	0414
7440-28-0	Thallium	2.7	U*	12/29/2024	0414
7440-62-2	Vanadium	18		12/29/2024	0414
7440-66-6	Zinc	67	*	12/29/2024	0414

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKC5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-14

% Solids: 74.8 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8500		12/29/2024	0418
7440-36-0	Antimony	2.4	J	12/29/2024	0418
7440-38-2	Arsenic	14	*	12/29/2024	0418
7440-39-3	Barium	370		12/29/2024	0418
7440-41-7	Beryllium	1.4	*	12/29/2024	0418
7440-43-9	Cadmium	2.0		12/29/2024	0418
7440-70-2	Calcium	8900		12/29/2024	0418
7440-47-3	Chromium	25		12/29/2024	0418
7440-48-4	Cobalt	5.9	*	12/29/2024	0418
7440-50-8	Copper	80		12/29/2024	0418
7439-89-6	Iron	18000	*	12/29/2024	0418
7439-92-1	Lead	740		12/29/2024	0418
7439-95-4	Magnesium	2700		12/29/2024	0418
7439-96-5	Manganese	720	*	12/29/2024	0418
7440-02-0	Nickel	26		12/29/2024	0418
7440-09-7	Potassium	830		12/29/2024	0418
7782-49-2	Selenium	9.4		12/29/2024	0418
7440-22-4	Silver	0.54	J*	12/29/2024	0418
7440-23-5	Sodium	550	U	12/29/2024	0418
7440-28-0	Thallium	2.7	U*	12/29/2024	0418
7440-62-2	Vanadium	23		12/29/2024	0418
7440-66-6	Zinc	520	*	12/29/2024	0418

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKC6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-15

% Solids: 81.8 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8100		12/29/2024	0422
7440-36-0	Antimony	4.1	J	12/29/2024	0422
7440-38-2	Arsenic	21	*	12/29/2024	0422
7440-39-3	Barium	420		12/29/2024	0422
7440-41-7	Beryllium	1.7	*	12/29/2024	0422
7440-43-9	Cadmium	2.4		12/29/2024	0422
7440-70-2	Calcium	11000		12/29/2024	0422
7440-47-3	Chromium	22		12/29/2024	0422
7440-48-4	Cobalt	4.1	J*	12/29/2024	0422
7440-50-8	Copper	87		12/29/2024	0422
7439-89-6	Iron	24000	*	12/29/2024	0422
7439-92-1	Lead	820		12/29/2024	0422
7439-95-4	Magnesium	2500		12/29/2024	0422
7439-96-5	Manganese	720	*	12/29/2024	0422
7440-02-0	Nickel	27		12/29/2024	0422
7440-09-7	Potassium	770		12/29/2024	0422
7782-49-2	Selenium	13		12/29/2024	0422
7440-22-4	Silver	0.56	J*	12/29/2024	0422
7440-23-5	Sodium	130	J	12/29/2024	0422
7440-28-0	Thallium	2.4	U*	12/29/2024	0422
7440-62-2	Vanadium	25		12/29/2024	0422
7440-66-6	Zinc	590	*	12/29/2024	0422

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKC7

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-16

% Solids: 83.5 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8700		12/29/2024	0426
7440-36-0	Antimony	2.5	J	12/29/2024	0426
7440-38-2	Arsenic	15	*	12/29/2024	0426
7440-39-3	Barium	210		12/29/2024	0426
7440-41-7	Beryllium	1.3	*	12/29/2024	0426
7440-43-9	Cadmium	1.2		12/29/2024	0426
7440-70-2	Calcium	6800		12/29/2024	0426
7440-47-3	Chromium	17		12/29/2024	0426
7440-48-4	Cobalt	5.6	*	12/29/2024	0426
7440-50-8	Copper	35		12/29/2024	0426
7439-89-6	Iron	18000	*	12/29/2024	0426
7439-92-1	Lead	260		12/29/2024	0426
7439-95-4	Magnesium	2500		12/29/2024	0426
7439-96-5	Manganese	1100	*	12/29/2024	0426
7440-02-0	Nickel	20		12/29/2024	0426
7440-09-7	Potassium	710		12/29/2024	0426
7782-49-2	Selenium	9.2		12/29/2024	0426
7440-22-4	Silver	0.31	J*	12/29/2024	0426
7440-23-5	Sodium	460	U	12/29/2024	0426
7440-28-0	Thallium	2.3	U*	12/29/2024	0426
7440-62-2	Vanadium	23		12/29/2024	0426
7440-66-6	Zinc	210	*	12/29/2024	0426

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKC8

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-17

% Solids: 84.8 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	8700		12/29/2024	0430
7440-36-0	Antimony	1.9	J	12/29/2024	0430
7440-38-2	Arsenic	8.1	*	12/29/2024	0430
7440-39-3	Barium	120		12/29/2024	0430
7440-41-7	Beryllium	1.2	*	12/29/2024	0430
7440-43-9	Cadmium	0.67		12/29/2024	0430
7440-70-2	Calcium	32000		12/29/2024	0430
7440-47-3	Chromium	16		12/29/2024	0430
7440-48-4	Cobalt	4.7	*	12/29/2024	0430
7440-50-8	Copper	13		12/29/2024	0430
7439-89-6	Iron	17000	*	12/29/2024	0430
7439-92-1	Lead	58		12/29/2024	0430
7439-95-4	Magnesium	4500		12/29/2024	0430
7439-96-5	Manganese	520	*	12/29/2024	0430
7440-02-0	Nickel	18		12/29/2024	0430
7440-09-7	Potassium	610		12/29/2024	0430
7782-49-2	Selenium	7.4		12/29/2024	0430
7440-22-4	Silver	0.15	J*	12/29/2024	0430
7440-23-5	Sodium	410	U	12/29/2024	0430
7440-28-0	Thallium	2.0	U*	12/29/2024	0430
7440-62-2	Vanadium	19		12/29/2024	0430
7440-66-6	Zinc	67	*	12/29/2024	0430

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKC9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-18

% Solids: 89 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6200		12/29/2024	0434
7440-36-0	Antimony	1.4	J	12/29/2024	0434
7440-38-2	Arsenic	4.8	*	12/29/2024	0434
7440-39-3	Barium	71		12/29/2024	0434
7440-41-7	Beryllium	0.97	*	12/29/2024	0434
7440-43-9	Cadmium	0.37	J	12/29/2024	0434
7440-70-2	Calcium	50000		12/29/2024	0434
7440-47-3	Chromium	9.3		12/29/2024	0434
7440-48-4	Cobalt	5.3	*	12/29/2024	0434
7440-50-8	Copper	11		12/29/2024	0434
7439-89-6	Iron	16000	*	12/29/2024	0434
7439-92-1	Lead	21		12/29/2024	0434
7439-95-4	Magnesium	10000		12/29/2024	0434
7439-96-5	Manganese	550	*	12/29/2024	0434
7440-02-0	Nickel	18		12/29/2024	0434
7440-09-7	Potassium	640		12/29/2024	0434
7782-49-2	Selenium	5.8		12/29/2024	0434
7440-22-4	Silver	0.81	U*	12/29/2024	0434
7440-23-5	Sodium	96	J	12/29/2024	0434
7440-28-0	Thallium	2.0	U*	12/29/2024	0434
7440-62-2	Vanadium	14		12/29/2024	0434
7440-66-6	Zinc	41	*	12/29/2024	0434

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKD0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-19

% Solids: 89 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6000		12/29/2024	0438
7440-36-0	Antimony	0.96	J	12/29/2024	0438
7440-38-2	Arsenic	4.0	*	12/29/2024	0438
7440-39-3	Barium	57		12/29/2024	0438
7440-41-7	Beryllium	0.94	*	12/29/2024	0438
7440-43-9	Cadmium	0.28	J	12/29/2024	0438
7440-70-2	Calcium	42000		12/29/2024	0438
7440-47-3	Chromium	8.7		12/29/2024	0438
7440-48-4	Cobalt	6.3	*	12/29/2024	0438
7440-50-8	Copper	11		12/29/2024	0438
7439-89-6	Iron	15000	*	12/29/2024	0438
7439-92-1	Lead	9.1		12/29/2024	0438
7439-95-4	Magnesium	10000		12/29/2024	0438
7439-96-5	Manganese	590	*	12/29/2024	0438
7440-02-0	Nickel	18		12/29/2024	0438
7440-09-7	Potassium	670		12/29/2024	0438
7782-49-2	Selenium	5.4		12/29/2024	0438
7440-22-4	Silver	0.87	U*	12/29/2024	0438
7440-23-5	Sodium	440	U	12/29/2024	0438
7440-28-0	Thallium	2.2	U*	12/29/2024	0438
7440-62-2	Vanadium	13		12/29/2024	0438
7440-66-6	Zinc	31	*	12/29/2024	0438

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKD1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-20

% Solids: 87.1 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6400		12/29/2024	0442
7440-36-0	Antimony	1.0	J	12/29/2024	0442
7440-38-2	Arsenic	6.1	*	12/29/2024	0442
7440-39-3	Barium	52		12/29/2024	0442
7440-41-7	Beryllium	0.92	*	12/29/2024	0442
7440-43-9	Cadmium	0.27	J	12/29/2024	0442
7440-70-2	Calcium	44000		12/29/2024	0442
7440-47-3	Chromium	9.1		12/29/2024	0442
7440-48-4	Cobalt	6.7	*	12/29/2024	0442
7440-50-8	Copper	11		12/29/2024	0442
7439-89-6	Iron	14000	*	12/29/2024	0442
7439-92-1	Lead	8.8		12/29/2024	0442
7439-95-4	Magnesium	9400		12/29/2024	0442
7439-96-5	Manganese	480	*	12/29/2024	0442
7440-02-0	Nickel	19		12/29/2024	0442
7440-09-7	Potassium	660		12/29/2024	0442
7782-49-2	Selenium	5.3		12/29/2024	0442
7440-22-4	Silver	0.84	U*	12/29/2024	0442
7440-23-5	Sodium	93	J	12/29/2024	0442
7440-28-0	Thallium	2.1	U*	12/29/2024	0442
7440-62-2	Vanadium	14		12/29/2024	0442
7440-66-6	Zinc	32	*	12/29/2024	0442

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKG4

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-21

% Solids: 87.7 Date Received: 11/27/2024

Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	7000		12/29/2024	0445
7440-36-0	Antimony	1.4	J	12/29/2024	0445
7440-38-2	Arsenic	5.9	*	12/29/2024	0445
7440-39-3	Barium	56		12/29/2024	0445
7440-41-7	Beryllium	1.0	*	12/29/2024	0445
7440-43-9	Cadmium	0.27	J	12/29/2024	0445
7440-70-2	Calcium	43000		12/29/2024	0445
7440-47-3	Chromium	9.7		12/29/2024	0445
7440-48-4	Cobalt	6.9	*	12/29/2024	0445
7440-50-8	Copper	12		12/29/2024	0445
7439-89-6	Iron	16000	*	12/29/2024	0445
7439-92-1	Lead	9.9		12/29/2024	0445
7439-95-4	Magnesium	9900		12/29/2024	0445
7439-96-5	Manganese	450	*	12/29/2024	0445
7440-02-0	Nickel	19		12/29/2024	0445
7440-09-7	Potassium	810		12/29/2024	0445
7782-49-2	Selenium	5.6		12/29/2024	0445
7440-22-4	Silver	0.91	U*	12/29/2024	0445
7440-23-5	Sodium	92	J	12/29/2024	0445
7440-28-0	Thallium	2.3	U*	12/29/2024	0445
7440-62-2	Vanadium	15		12/29/2024	0445
7440-66-6	Zinc	34	*	12/29/2024	0445

NOTE: Hardness (total) is reported in mg/L

Comments:

EPA SAMPLE NO.

MBHKG5

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011

Lab Code: ACE Case No.: 51879 MA No. : SDG No.: MBHK41

Matrix: SOIL Lab Sample ID: P5030-22

% Solids: 85.2 Date Received: 11/27/2024

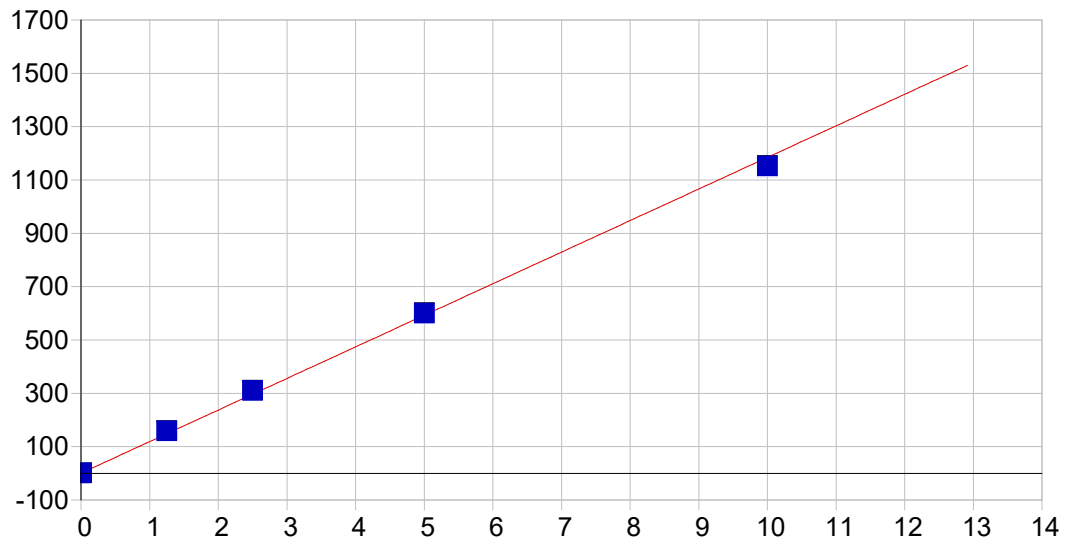
Analytical Method: ICP_AES

Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	9400		12/29/2024	0449
7440-36-0	Antimony	4.8	J	12/29/2024	0449
7440-38-2	Arsenic	18	*	12/29/2024	0449
7440-39-3	Barium	63		12/29/2024	0449
7440-41-7	Beryllium	1.5	*	12/29/2024	0449
7440-43-9	Cadmium	0.51		12/29/2024	0449
7440-70-2	Calcium	2100		12/29/2024	0449
7440-47-3	Chromium	13		12/29/2024	0449
7440-48-4	Cobalt	4.4	J*	12/29/2024	0449
7440-50-8	Copper	24		12/29/2024	0449
7439-89-6	Iron	25000	*	12/29/2024	0449
7439-92-1	Lead	47		12/29/2024	0449
7439-95-4	Magnesium	2300		12/29/2024	0449
7439-96-5	Manganese	1600	*	12/29/2024	0449
7440-02-0	Nickel	17		12/29/2024	0449
7440-09-7	Potassium	800		12/29/2024	0449
7782-49-2	Selenium	15		12/29/2024	0449
7440-22-4	Silver	0.19	J*	12/29/2024	0449
7440-23-5	Sodium	540		12/29/2024	0449
7440-28-0	Thallium	2.3	U*	12/29/2024	0449
7440-62-2	Vanadium	22		12/29/2024	0449
7440-66-6	Zinc	71	*	12/29/2024	0449

NOTE: Hardness (total) is reported in mg/L

Comments:



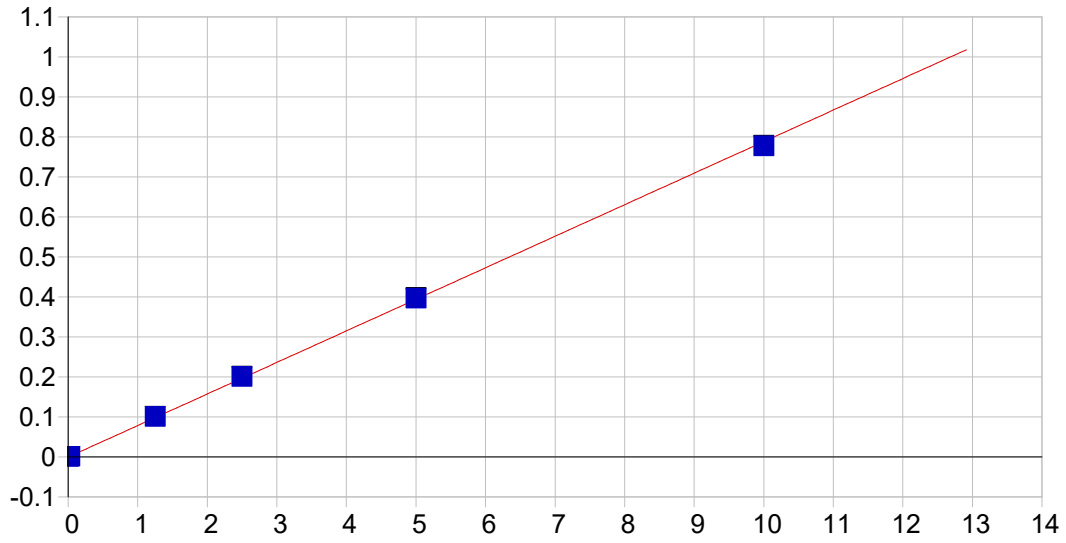
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A1 (Gain):	118.415562	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999465	Status:	OK.
Std Error of Est:	0.064686		
Predicted MDL:	0.006216		
Predicted MQL:	0.020719		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.44832	.500	1
S1	.01000	.00927	-.001	-7.31	1.5442	.163	1
S2	1.2500	1.3377	.088	7.02	158.23	.513	1
S3	2.5000	2.6157	.116	4.63	308.95	1.13	1
S4	5.0000	5.0692	.069	1.38	598.23	1.61	1
S5	10.000	9.7281	-.272	-2.72	1147.4	1.95	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



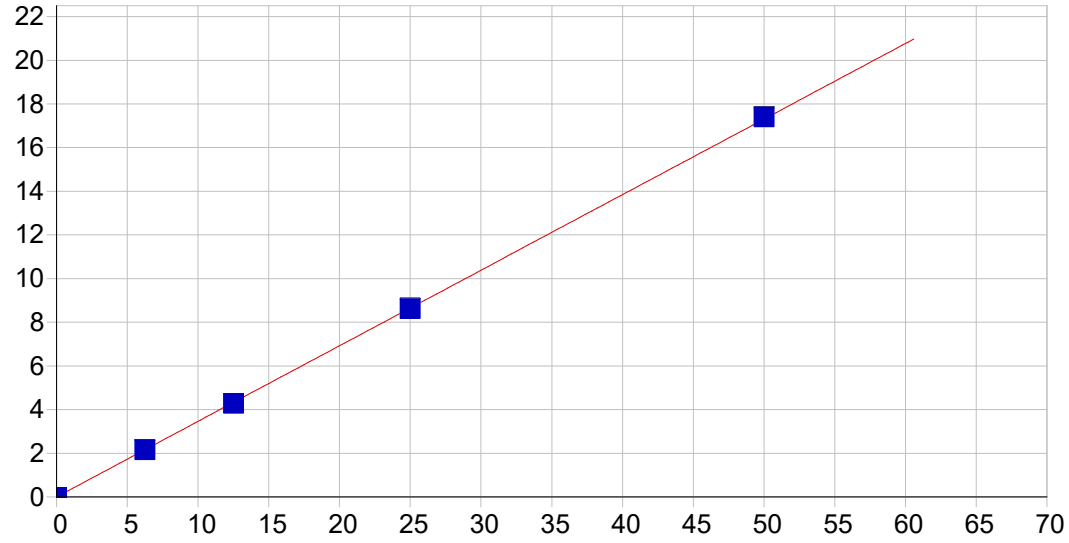
Tl 190.856 {477}

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A1 (Gain):	0.078861	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999878	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.003985		
Predicted MQL:	0.013285		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00039	.000	1
S1	.02500	.02787	.003	11.5	.00174	.000	1
S2	1.2500	1.2856	.036	2.85	.10074	.000	1
S3	2.5000	2.5527	.053	2.11	.20041	.001	1
S4	5.0000	5.0416	.042	.831	.39618	.001	1
S5	10.000	9.8674	-.133	-1.33	.77573	.002	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



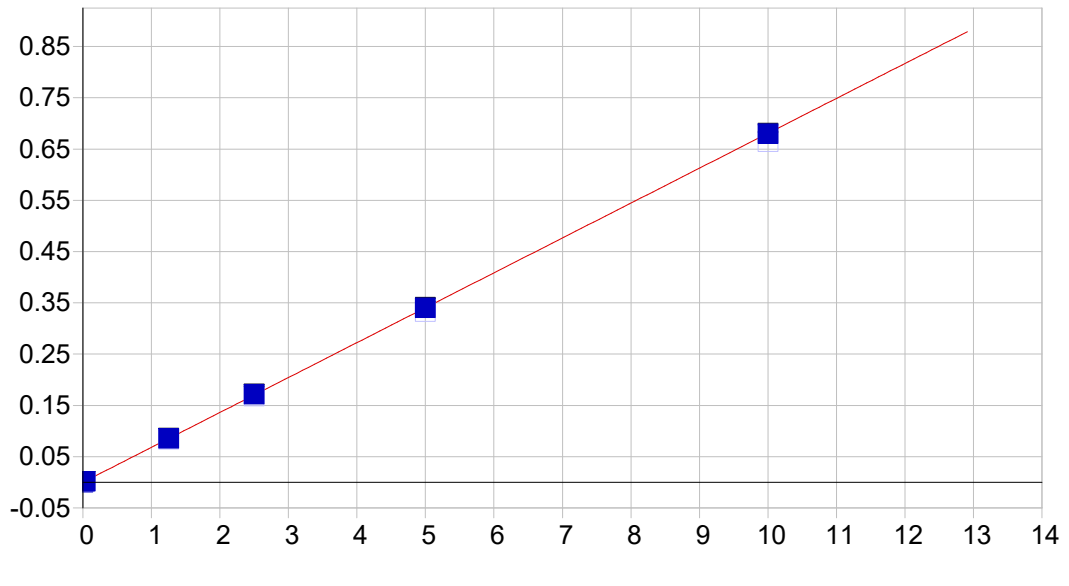
Pb 220.353 {453}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000899	Re-Slope:	1.000000
A1 (Gain):	0.346133	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000076		
Predicted MDL:	0.002171		
Predicted MQL:	0.007236		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00090	.000	1
S1	.01000	.00972	-.000	-2.76	.00425	.000	1
S2	6.2500	6.2027	-.047	-.757	2.1474	.005	1
S3	12.500	12.374	-.126	-1.01	4.2830	.003	1
S4	25.000	24.918	-.082	-.328	8.6240	.020	1
S5	50.000	50.256	.256	.511	17.392	.023	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



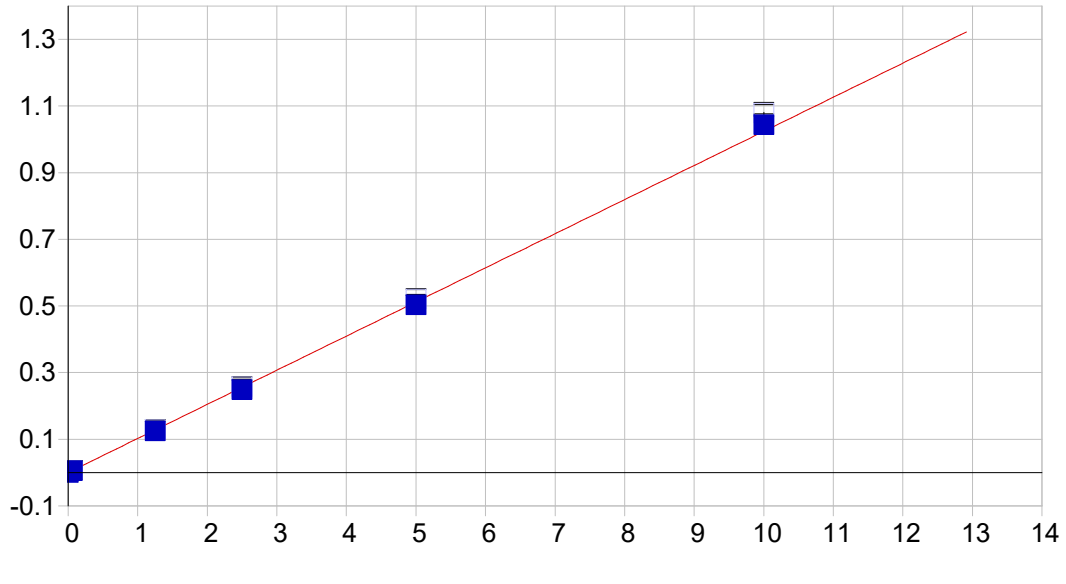
Se 196.090 {472}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000083	Re-Slope:	1.000000
A1 (Gain):	0.068066	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000019		
Predicted MDL:	0.005525		
Predicted MQL:	0.018417		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00008	.000	1
S1	.03500	.02851	-.006	-18.5	.00202	.000	1
S2	1.2500	1.2578	.008	.620	.08378	.001	1
S3	2.5000	2.5191	.019	.764	.16772	.001	1
S4	5.0000	4.9991	-.001	-.017	.33270	.001	1
S5	10.000	9.9806	-.019	-.194	.66411	.001	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



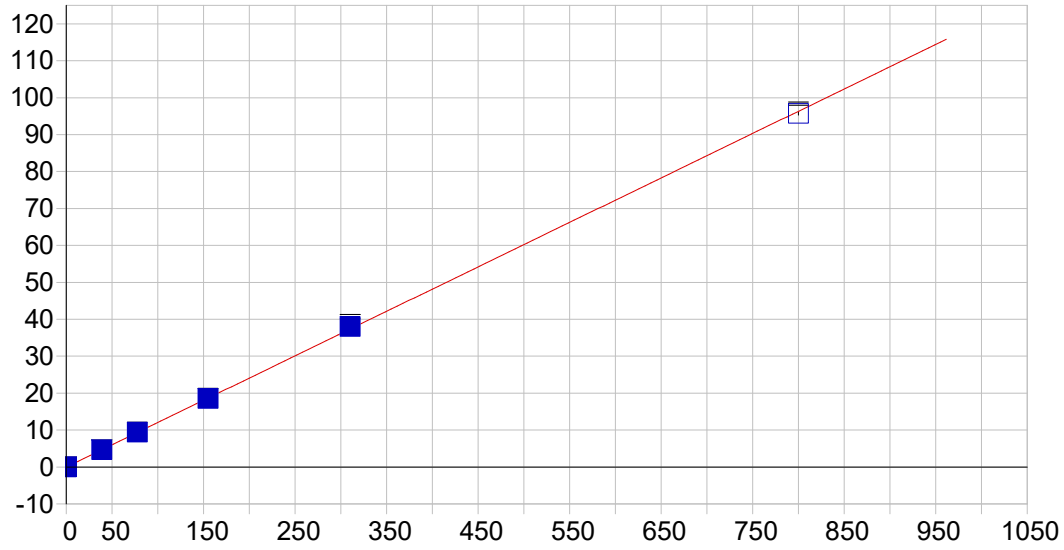
Sb 206.833 {463}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.102398	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999794	Status:	OK.
Std Error of Est:	0.000088		
Predicted MDL:	0.004494		
Predicted MQL:	0.014979		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00000	.000	1
S1	.06000	.05577	-.004	-7.05	.00572	.000	1
S2	1.2500	1.2137	-.036	-2.91	.12856	.000	1
S3	2.5000	2.4316	-.068	-2.74	.25755	.001	1
S4	5.0000	4.9169	-.083	-1.66	.52060	.001	1
S5	10.000	10.192	.192	1.92	1.0779	.003	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



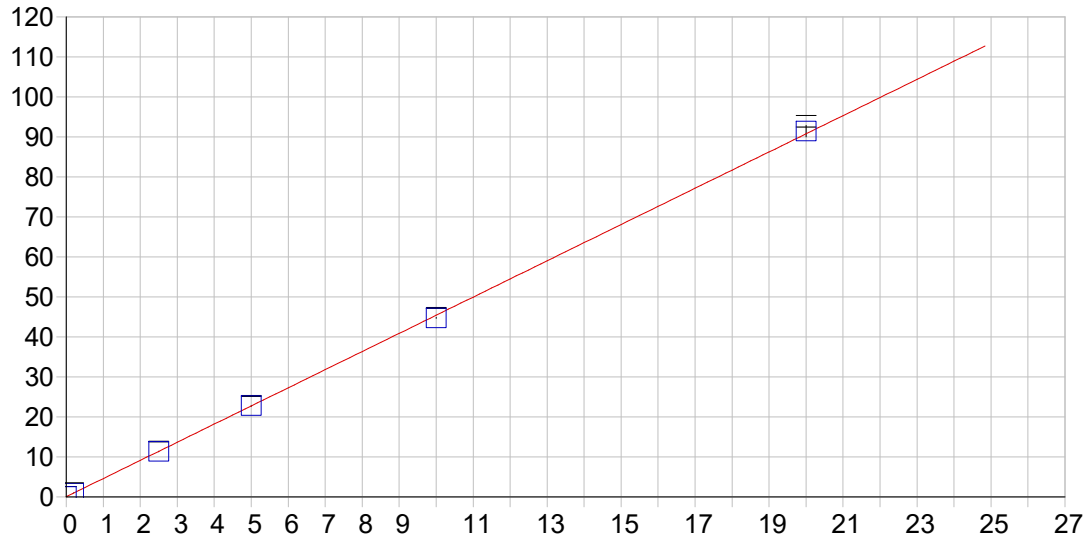
Al 396.152 { 85}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001994	Re-Slope:	1.000000
A1 (Gain):	0.120415	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999948	Status:	OK.
Std Error of Est:	0.000760		
Predicted MDL:	0.026066		
Predicted MQL:	0.086887		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00199	.003	1
S1	.20000	.20082	.001	.409	.02223	.001	1
S2	38.750	38.883	.133	.342	4.6851	.024	1
S3	77.500	77.982	.482	.622	9.3984	.037	1
S4	155.00	153.96	-1.04	-.671	18.557	.062	1
S5	310.00	315.55	5.55	1.79	38.035	.609	1
S6	800.00	794.87	-5.13	-.641	95.713	.392	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



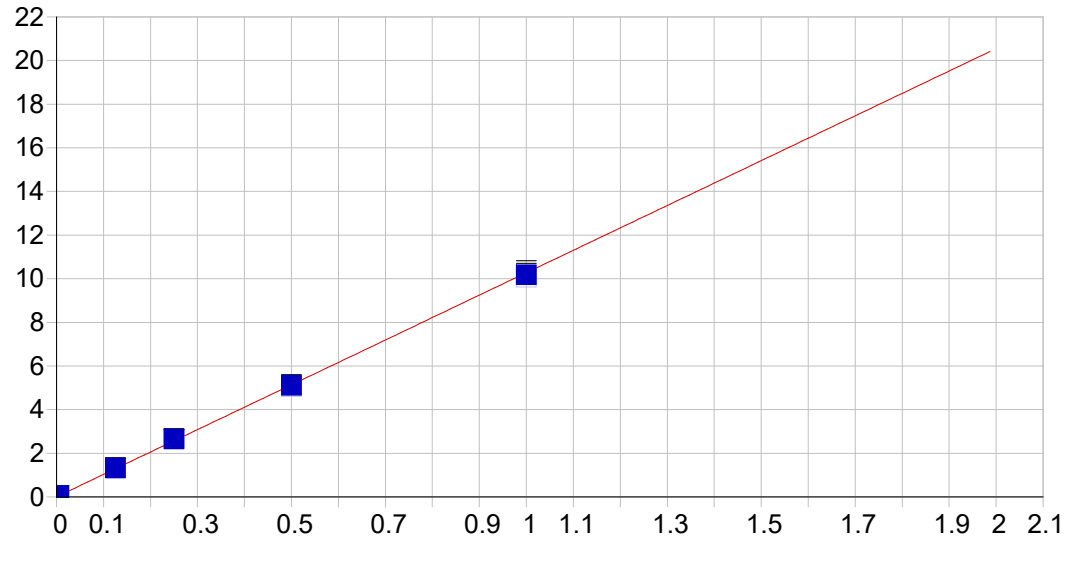
Ba 493.409 { 68}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.058496	Re-Slope:	1.000000
A1 (Gain):	4.535959	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999954	Status:	OK.
Std Error of Est:	0.004605		
Predicted MDL:	0.001461		
Predicted MQL:	0.004870		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.05848	.003	1
S1	.20000	.20647	.006	3.23	.99502	.007	1
S2	2.5000	2.4918	-.008	-.328	11.361	.096	1
S3	5.0000	5.0065	.006	.130	22.768	.118	1
S4	10.000	9.8525	-.147	-1.47	44.749	.142	1
S5	20.000	20.143	.143	.714	91.425	1.42	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



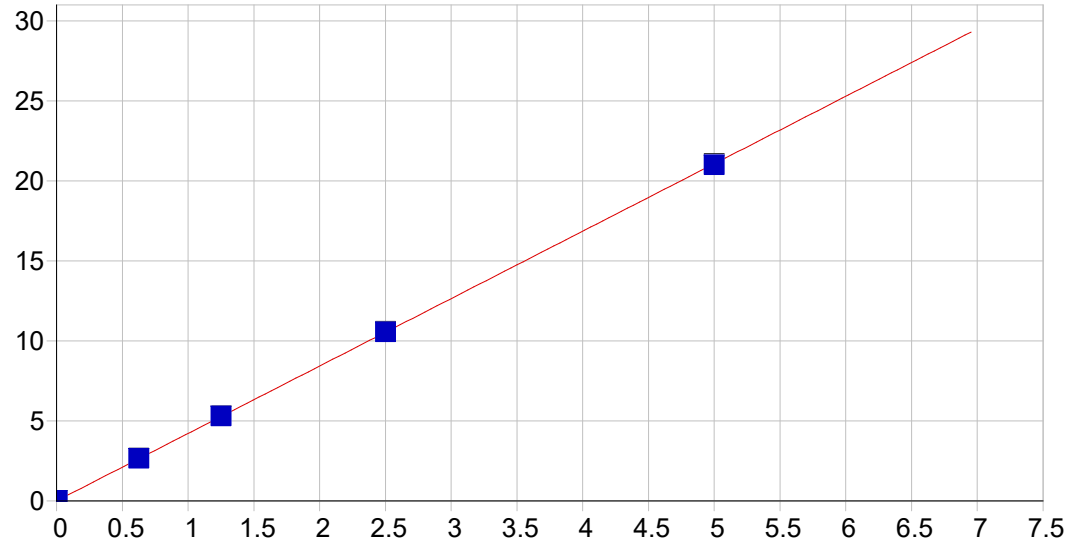
Be 234.861 {144}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002231	Re-Slope:	1.000000
A1 (Gain):	10.273377	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999866	Status:	OK.
Std Error of Est:	0.000624		
Predicted MDL:	0.000162		
Predicted MQL:	0.000540		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00223	.002	1
S1	.00500	.00518	.000	3.54	.05534	.003	1
S2	.12500	.12894	.004	3.15	1.3114	.005	1
S3	.25000	.25804	.008	3.22	2.6222	.018	1
S4	.50000	.49710	-.003	-.581	5.0470	.042	1
S5	1.0000	.99074	-.009	-.926	10.056	.190	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



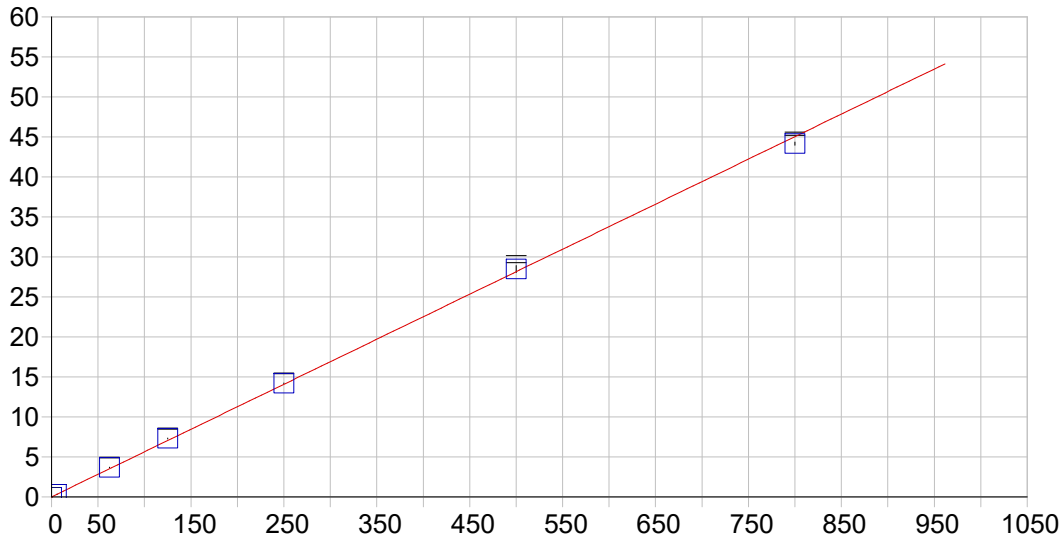
Cd 214.438 {457}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000592	Re-Slope:	1.000000
A1 (Gain):	4.214745	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999991	Status:	OK.
Std Error of Est:	0.000153		
Predicted MDL:	0.000111		
Predicted MQL:	0.000371		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00059	.000	1
S1	.00500	.00507	.000	1.48	.02206	.001	1
S2	.62500	.63057	.006	.891	2.6623	.004	1
S3	1.2500	1.2585	.008	.677	5.3128	.005	1
S4	2.5000	2.5035	.003	.139	10.568	.035	1
S5	5.0000	4.9824	-.018	-.352	21.033	.040	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



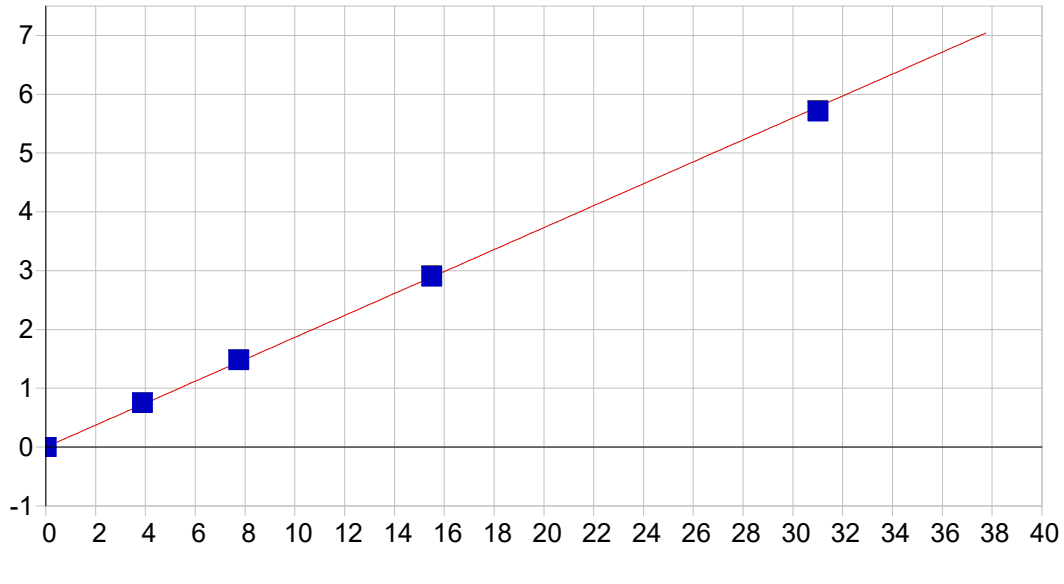
Ca 373.690 { 90}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008380	Re-Slope:	1.000000
A1 (Gain):	0.056286	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999801	Status:	OK.
Std Error of Est:	0.003920		
Predicted MDL:	0.037206		
Predicted MQL:	0.124020		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00070	-.001	.000	.00834	.002	1
S1	5.0000	5.2922	.292	5.84	.30626	.003	1
S2	62.500	65.208	2.71	4.33	3.6787	.028	1
S3	125.00	129.64	4.64	3.72	7.3056	.048	1
S4	250.00	252.27	2.27	.908	14.208	.043	1
S5	500.00	505.64	5.64	1.13	28.469	.432	1
S6	800.00	784.45	-15.6	-1.94	44.162	.209	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



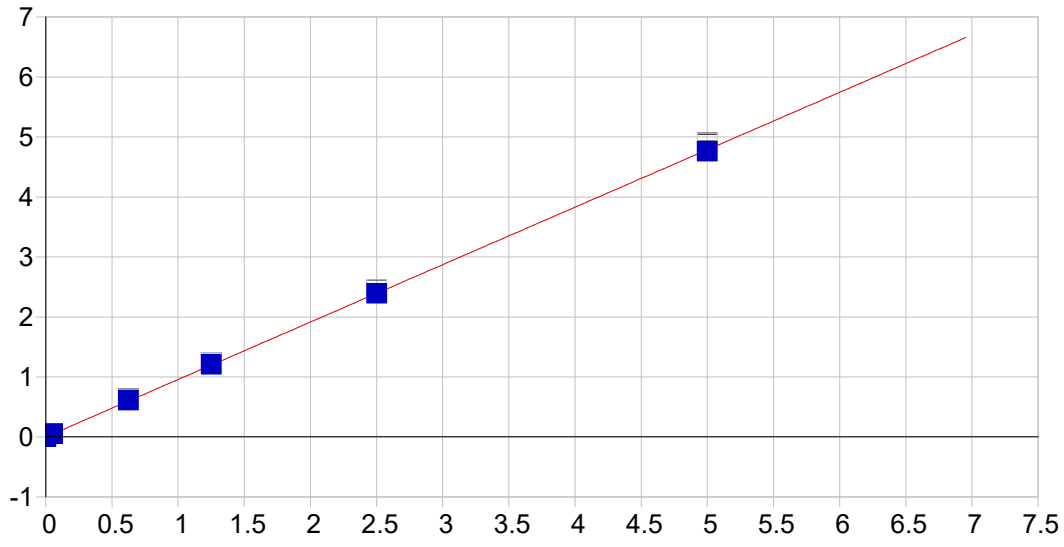
Cr 267.716 {126}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.186593	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999870	Status:	OK.
Std Error of Est:	0.000089		
Predicted MDL:	0.001035		
Predicted MQL:	0.003449		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.000	1
S1	.01000	.01055	.001	5.46	.00197	.000	1
S2	3.8750	4.0265	.152	3.91	.75189	.001	1
S3	7.7500	7.9262	.176	2.27	1.4801	.001	1
S4	15.500	15.561	.061	.392	2.9058	.004	1
S5	31.000	30.611	-.389	-1.25	5.7163	.008	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



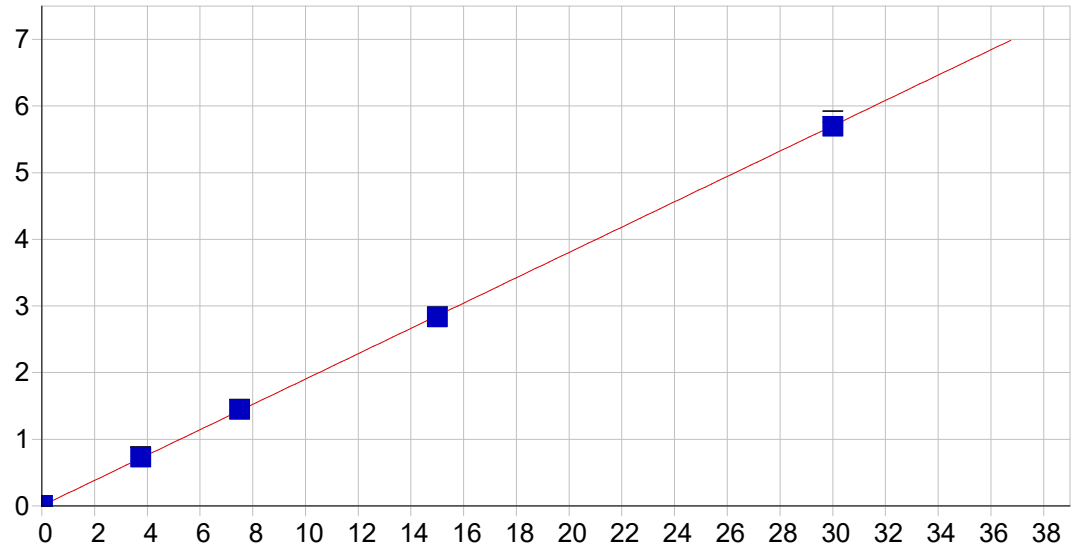
Co 228.616 {448}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000720	Re-Slope:	1.000000
A1 (Gain):	0.957363	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000282		
Predicted MDL:	0.000491		
Predicted MQL:	0.001638		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00073	.000	1
S1	.05000	.05504	.005	10.1	.05216	.001	1
S2	.62500	.63979	.015	2.37	.62808	.002	1
S3	1.2500	1.2626	.013	1.01	1.2407	.001	1
S4	2.5000	2.4968	-.003	-.128	2.4548	.003	1
S5	5.0000	4.9709	-.029	-.583	4.8885	.009	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



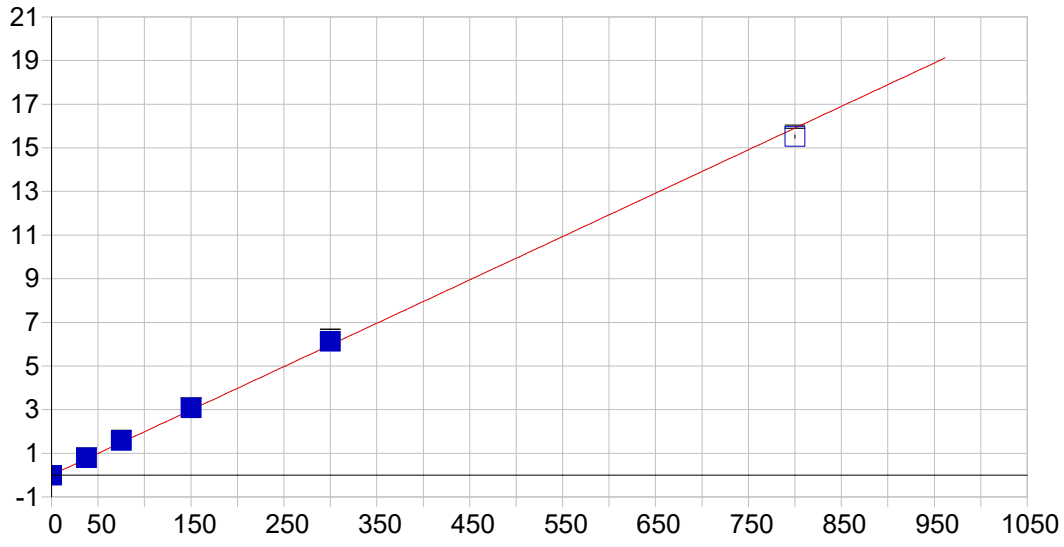
Cu 324.754 {104}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002973	Re-Slope:	1.000000
A1 (Gain):	0.190033	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999965	Status:	OK.
Std Error of Est:	0.000073		
Predicted MDL:	0.008266		
Predicted MQL:	0.027555		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00297	.000	1
S1	.02500	.02242	-.003	-10.3	.00723	.002	1
S2	3.7500	3.8248	.075	1.99	.72972	.008	1
S3	7.5000	7.5934	.093	1.24	1.4458	.006	1
S4	15.000	14.882	-.118	-.790	2.8306	.014	1
S5	30.000	29.953	-.047	-.157	5.6944	.081	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

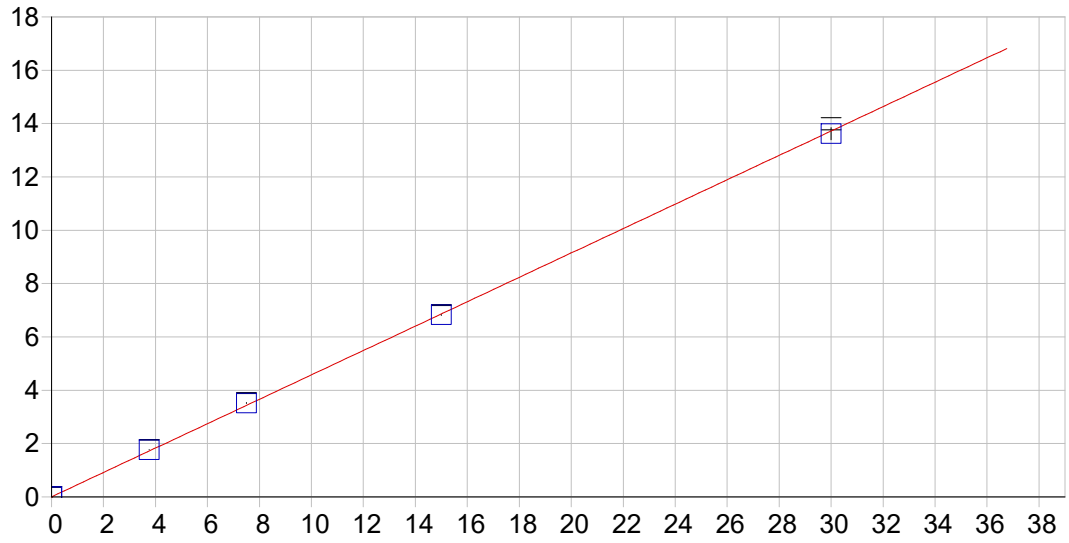


Fe 259.837 {130}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000101	Re-Slope:	1.000000
A1 (Gain):	0.019881	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999525	Status:	OK.
Std Error of Est:	0.000268		
Predicted MDL:	0.038303		
Predicted MQL:	0.127677		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00005	-.000	.000	.00010	.001	1
S1	.10000	.12973	.030	29.7	.00268	.000	1
S2	37.500	40.013	2.51	6.70	.79576	.006	1
S3	75.000	79.490	4.49	5.99	1.5808	.009	1
S4	150.00	154.81	4.81	3.21	3.0786	.008	1
S5	300.00	307.90	7.90	2.63	6.1228	.106	1
S6	800.00	780.25	-19.8	-2.47	15.512	.072	1



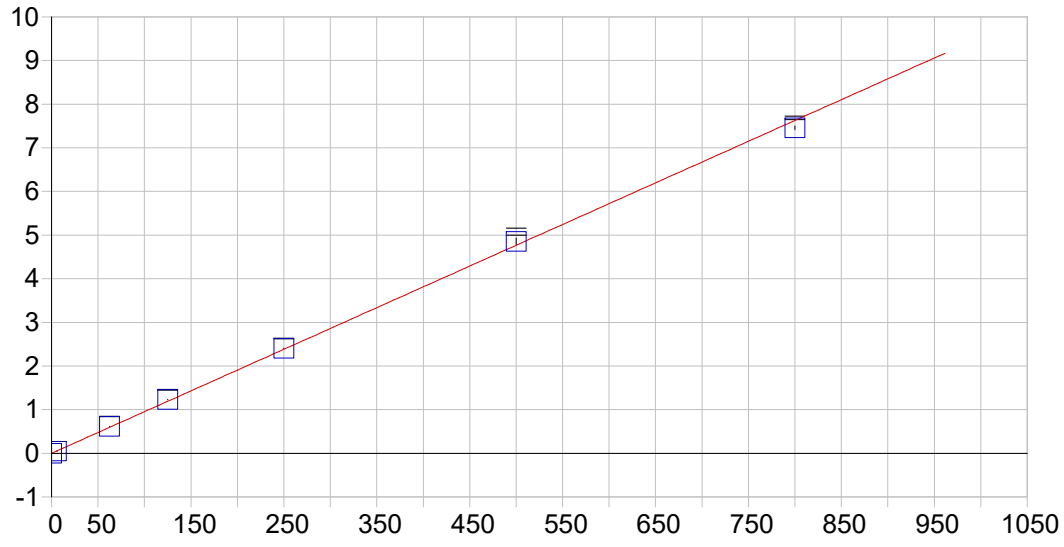
Mn 257.610 {131}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001233	Re-Slope:	1.000000
A1 (Gain):	0.457311	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000222		
Predicted MDL:	0.001458		
Predicted MQL:	0.004860		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00123	.001	1
S1	.01500	.01540	.000	2.69	.00828	.001	1
S2	3.7500	3.8622	.112	2.99	1.7675	.009	1
S3	7.5000	7.6928	.193	2.57	3.5192	.019	1
S4	15.000	14.919	-.081	-.542	6.8237	.016	1
S5	30.000	29.776	-.224	-.747	13.618	.229	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



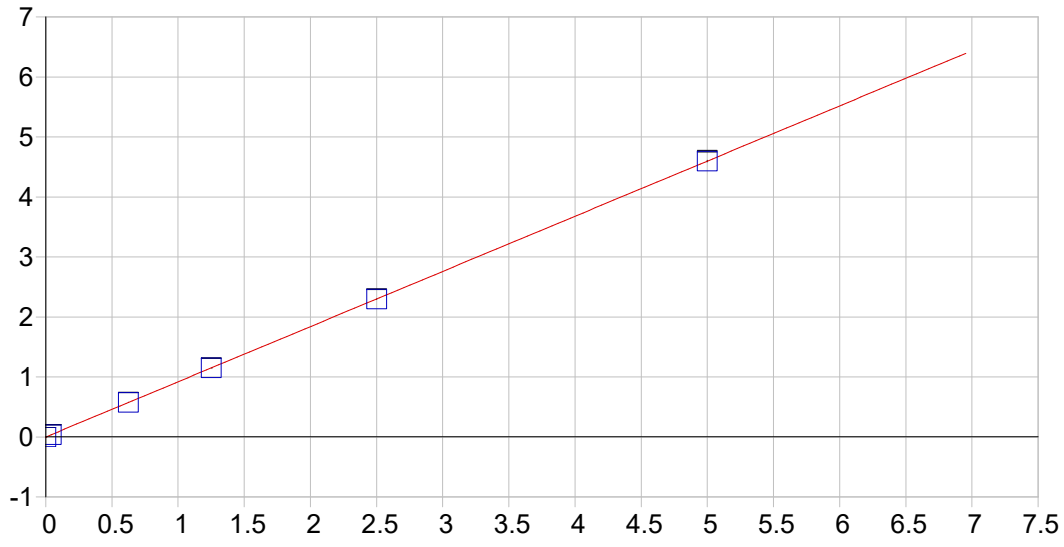
Mg 279.079 {121}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000488	Re-Slope:	1.000000
A1 (Gain):	0.009535	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999770	Status:	OK.
Std Error of Est:	0.000713		
Predicted MDL:	0.100492		
Predicted MQL:	0.334972		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00068	-.001	.000	-.00049	.002	1
S1	5.0000	5.3250	.325	6.50	.05028	.001	1
S2	62.500	64.663	2.16	3.46	.61606	.005	1
S3	125.00	128.96	3.96	3.17	1.2291	.007	1
S4	250.00	252.15	2.15	.860	2.4037	.007	1
S5	500.00	509.14	9.14	1.83	4.8540	.082	1
S6	800.00	782.26	-17.7	-2.22	7.4582	.042	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



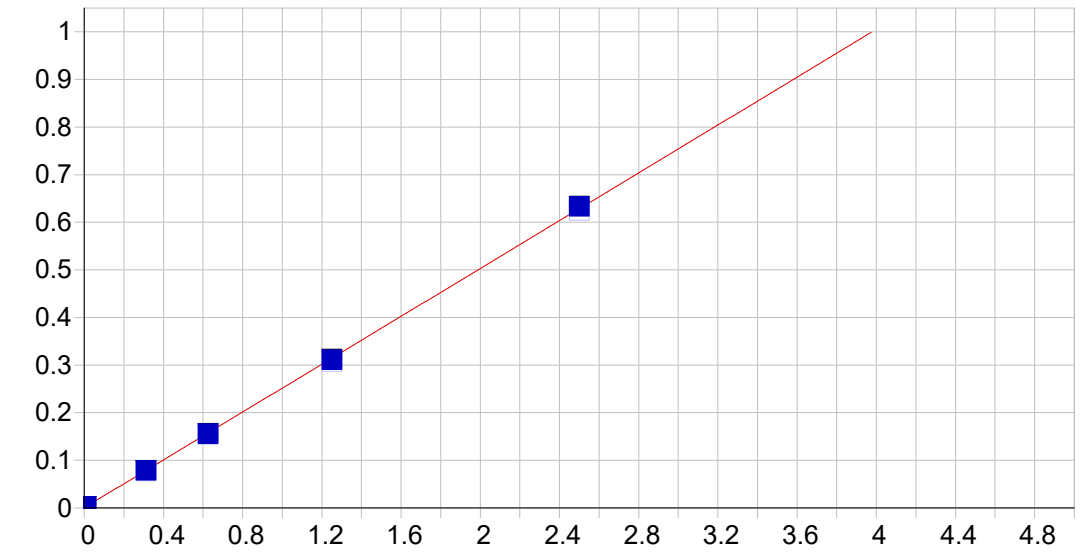
Ni 231.604 {446}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000531	Re-Slope:	1.000000
A1 (Gain):	0.919575	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.000616		
Predicted MQL:	0.002054		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00053	.000	1
S1	.04000	.04094	.001	2.35	.03712	.000	1
S2	.62500	.62509	.000	.015	.57429	.002	1
S3	1.2500	1.2509	.001	.073	1.1498	.001	1
S4	2.5000	2.4992	-.001	-.033	2.2976	.006	1
S5	5.0000	4.9989	-.001	-.022	4.5963	.012	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



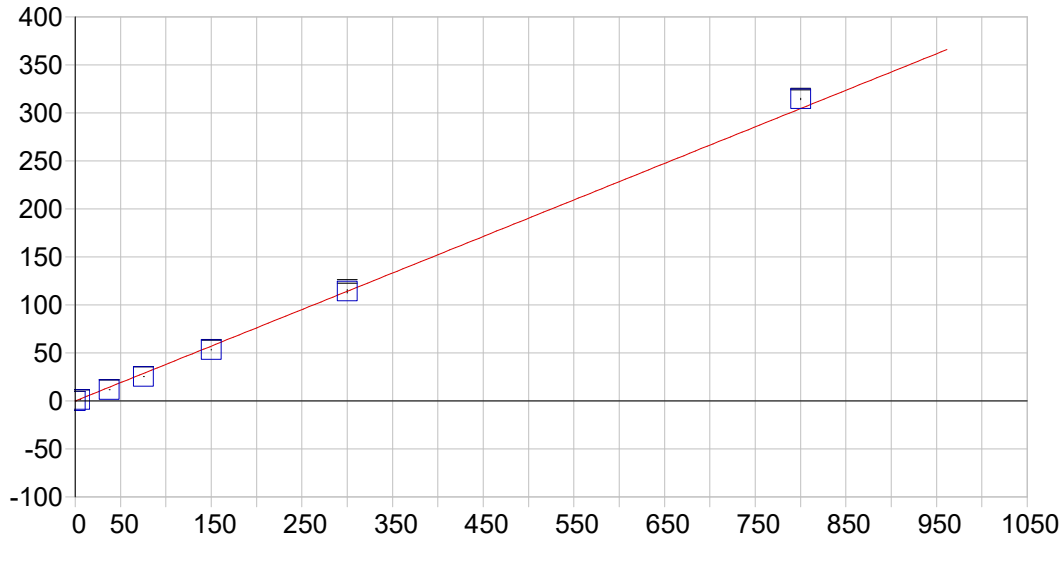
Ag 328.068 {103}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000486	Re-Slope:	1.000000
A1 (Gain):	0.251214	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.001441		
Predicted MQL:	0.004805		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00049	.000	1
S1	.01000	.00997	-.000	-.271	.00299	.000	1
S2	.31250	.30992	-.003	-.827	.07721	.000	1
S3	.62500	.61969	-.005	-.849	.15390	.000	1
S4	1.2500	1.2382	-.012	-.942	.30702	.001	1
S5	2.5000	2.5197	.020	.788	.62443	.001	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

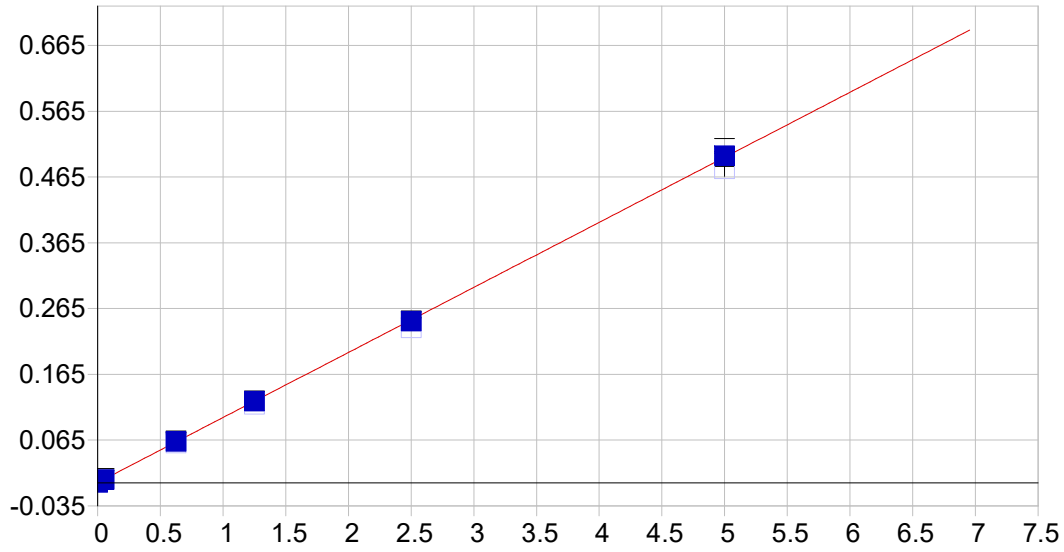


Na 818.326 { 41}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.023855	Re-Slope:	1.000000
A1 (Gain):	0.380679	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998474	Status:	OK.
Std Error of Est:	0.065106		
Predicted MDL:	0.027301		
Predicted MQL:	0.091005		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00309	.003	.000	-.02268	.010	1
S1	5.0000	3.5590	-1.44	-28.8	1.3310	.020	1
S2	37.500	30.514	-6.99	-18.6	11.592	.019	1
S3	75.000	66.613	-8.39	-11.2	25.334	.137	1
S4	150.00	140.14	-9.86	-6.57	53.326	.332	1
S5	300.00	300.14	.145	.048	114.23	1.74	1
S6	800.00	826.53	26.5	3.32	314.62	.793	1



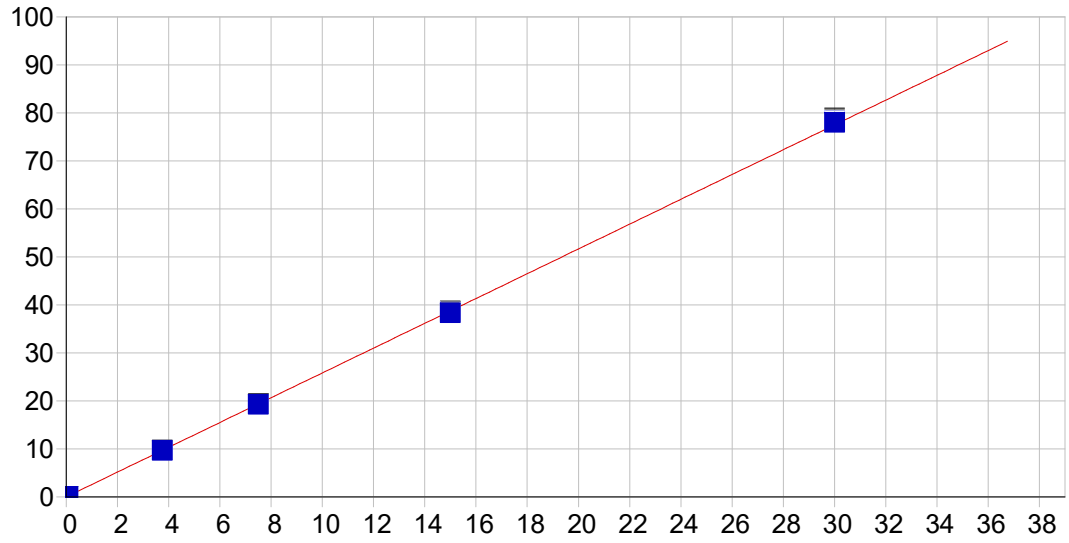
V 292.402 {115}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000489	Re-Slope:	1.000000
A1 (Gain):	0.098915	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999967	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.011745		
Predicted MQL:	0.039149		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00049	.001	1
S1	.05000	.04663	-.003	-6.74	.00509	.001	1
S2	.62500	.62958	.005	.734	.06029	.001	1
S3	1.2500	1.2483	-.002	-.135	.11901	.000	1
S4	2.5000	2.4773	-.023	-.908	.23562	.001	1
S5	5.0000	5.0233	.023	.466	.47755	.011	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



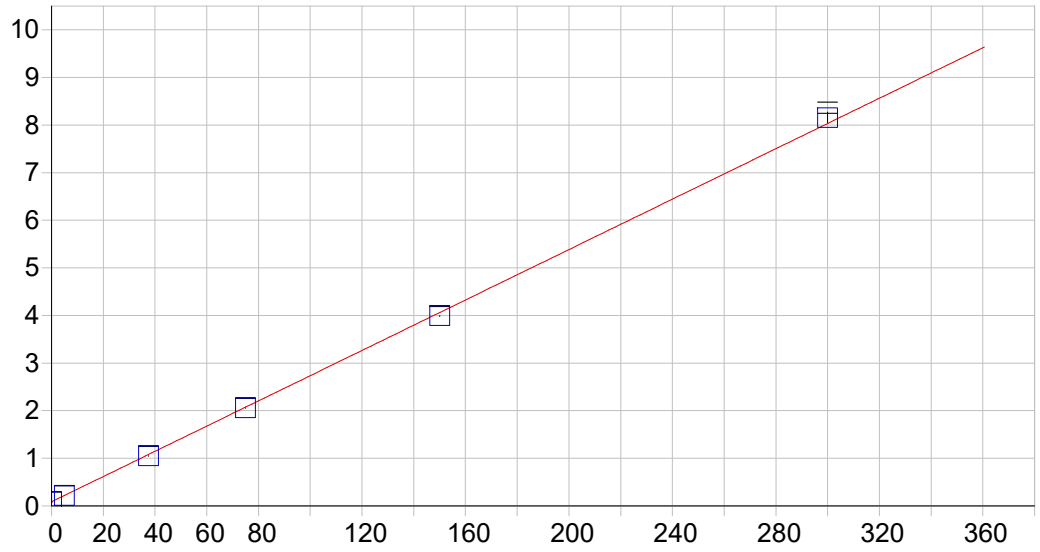
Zn 213.856 {158}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008135	Re-Slope:	1.000000
A1 (Gain):	2.582716	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999969	Status:	OK.
Std Error of Est:	0.001444		
Predicted MDL:	0.000617		
Predicted MQL:	0.002058		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00813	.000	1
S1	.06000	.06267	.003	4.45	.17048	.002	1
S2	3.7500	3.7416	-.008	-.225	9.7189	.047	1
S3	7.5000	7.4577	-.042	-.564	19.364	.097	1
S4	15.000	14.841	-.159	-1.06	38.529	.172	1
S5	30.000	30.207	.207	.689	78.403	.507	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

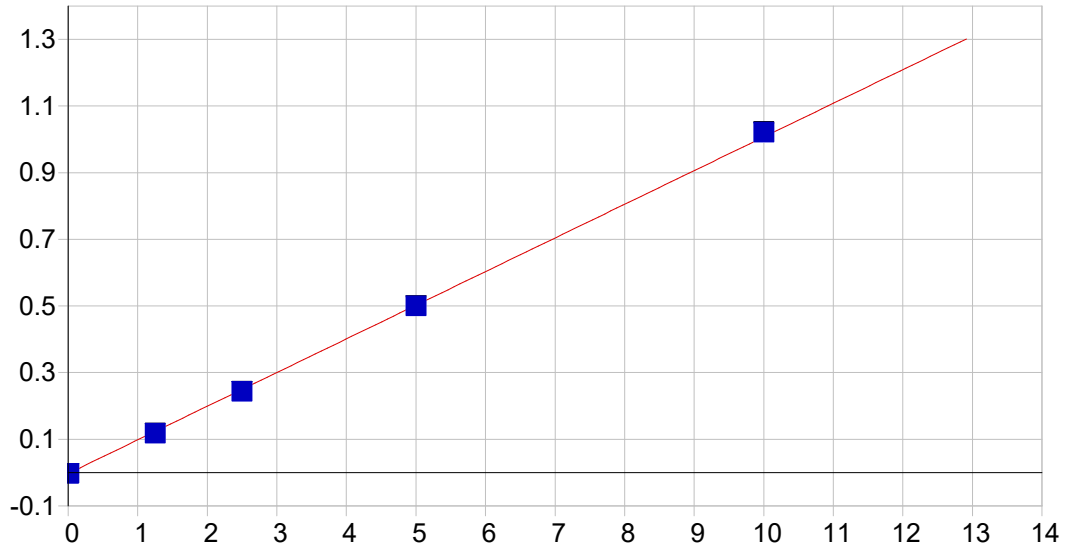


K 769.896 { 44}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear
Weighting:	1/Conc		

A0 (Offset):	0.087242	Re-Slope:	1.000000
A1 (Gain):	0.026489	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999856	Status:	OK.
Std Error of Est:	0.000927		
Predicted MDL:	0.157273		
Predicted MQL:	0.524243		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00034	.000	.000	.08725	.001	1
S1	5.0000	4.8669	-.133	-2.66	.21616	.004	1
S2	37.500	36.366	-1.13	-3.02	1.0505	.006	1
S3	75.000	74.298	-.702	-.935	2.0553	.007	1
S4	150.00	147.33	-2.67	-1.78	3.9899	.008	1
S5	300.00	304.64	4.64	1.55	8.1567	.119	1

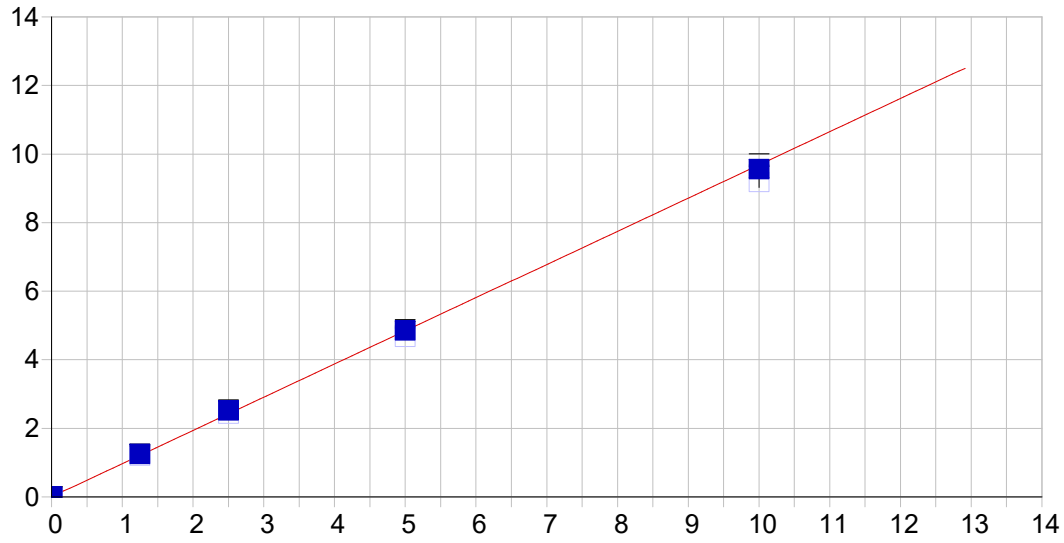


P 177.495 {490}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002756	Re-Slope:	1.000000
A1 (Gain):	0.100987	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999822	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.002776		
Predicted MQL:	0.009254		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00276	.000	1
S1	.01000	.00780	-.002	-22.0	-.00196	.000	1
S2	1.2500	1.1938	-.056	-4.50	.11762	.000	1
S3	2.5000	2.4387	-.061	-2.45	.24316	.001	1
S4	5.0000	4.9766	-.023	-.467	.49909	.002	1
S5	10.000	10.143	.143	1.43	1.0201	.002	1

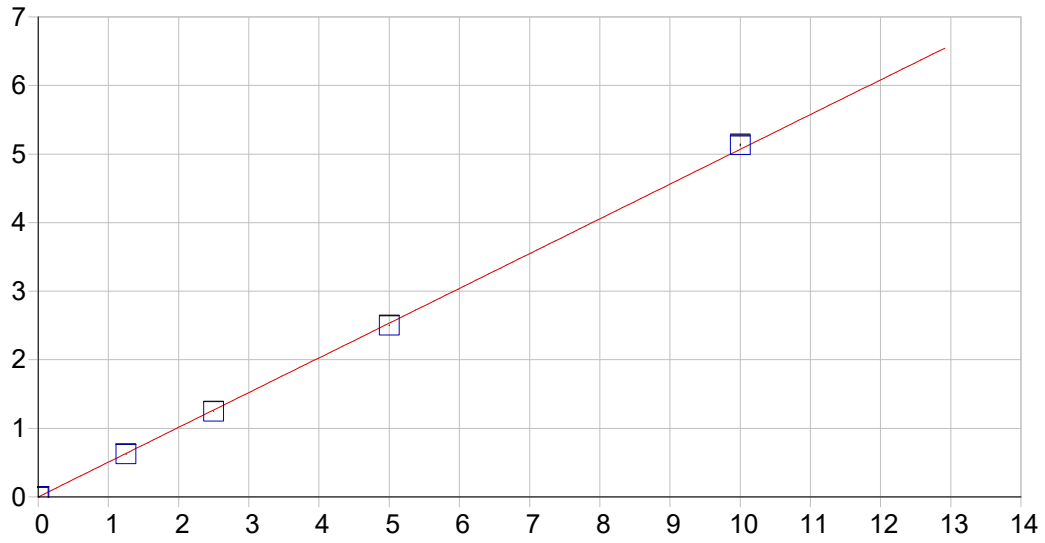


B 249.678 {135}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005014	Re-Slope:	1.000000
A1 (Gain):	0.967752	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999470	Status:	OK.
Std Error of Est:	0.000509		
Predicted MDL:	0.002022		
Predicted MQL:	0.006740		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00502	.002	1
S1	.01000	-.00078	-.011	-108.	.00421	.001	1
S2	1.2500	1.2832	.033	2.66	1.2008	.005	1
S3	2.5000	2.6021	.102	4.08	2.4312	.018	1
S4	5.0000	5.0077	.008	.154	4.6672	.027	1
S5	10.000	9.8681	-.132	-1.32	9.1869	.162	1



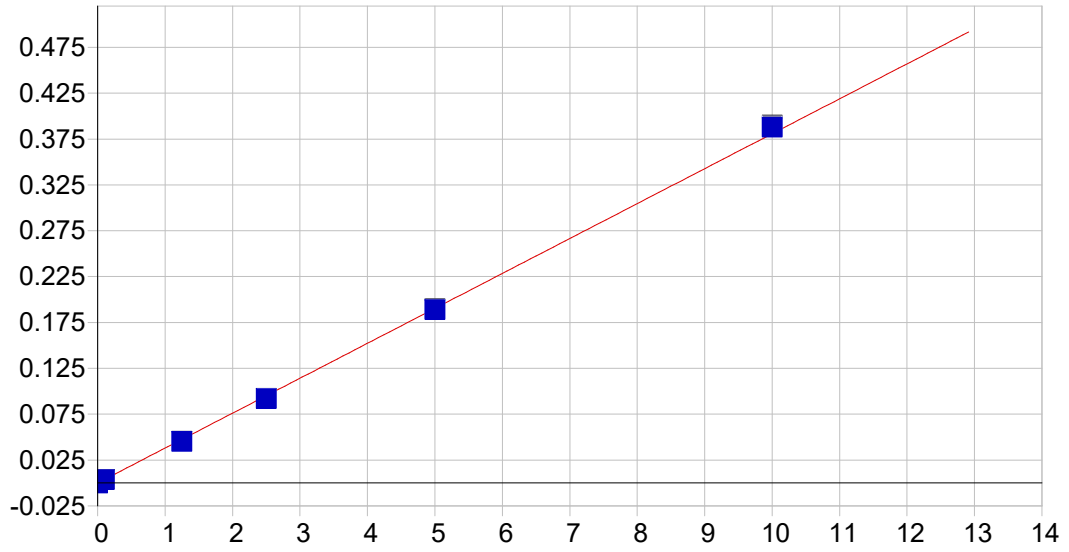
Mo 202.030 {467}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000168	Re-Slope:	1.000000
A1 (Gain):	0.506802	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000116		
Predicted MDL:	0.000637		
Predicted MQL:	0.002125		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00017	.000	1
S1	.01000	.01068	.001	6.75	.00558	.000	1
S2	1.2500	1.2314	-.019	-1.49	.62425	.001	1
S3	2.5000	2.4603	-.040	-1.59	1.2470	.002	1
S4	5.0000	4.9314	-.069	-1.37	2.4994	.005	1
S5	10.000	10.126	.126	1.26	5.1322	.013	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



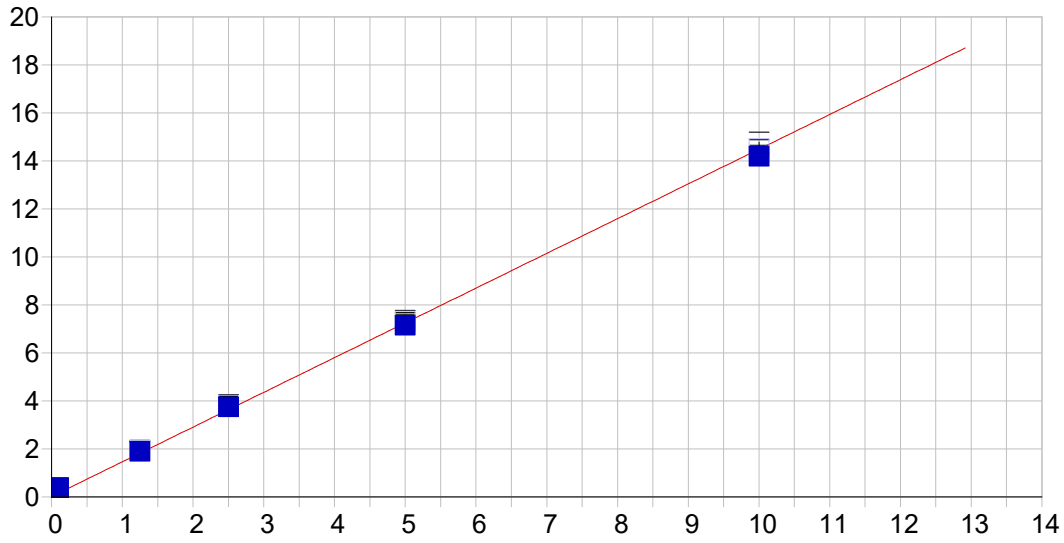
S 182.034 {485}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000074	Re-Slope:	1.000000
A1 (Gain):	0.038087	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999741	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.006109		
Predicted MQL:	0.020363		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00007	.000	1
S1	.10000	.09805	-.002	-1.95	.00366	.000	1
S2	1.2500	1.1884	-.062	-4.93	.04534	.000	1
S3	2.5000	2.4145	-.086	-3.42	.09219	.000	1
S4	5.0000	4.9614	-.039	-.771	.18950	.000	1
S5	10.000	10.188	.188	1.88	.38916	.001	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



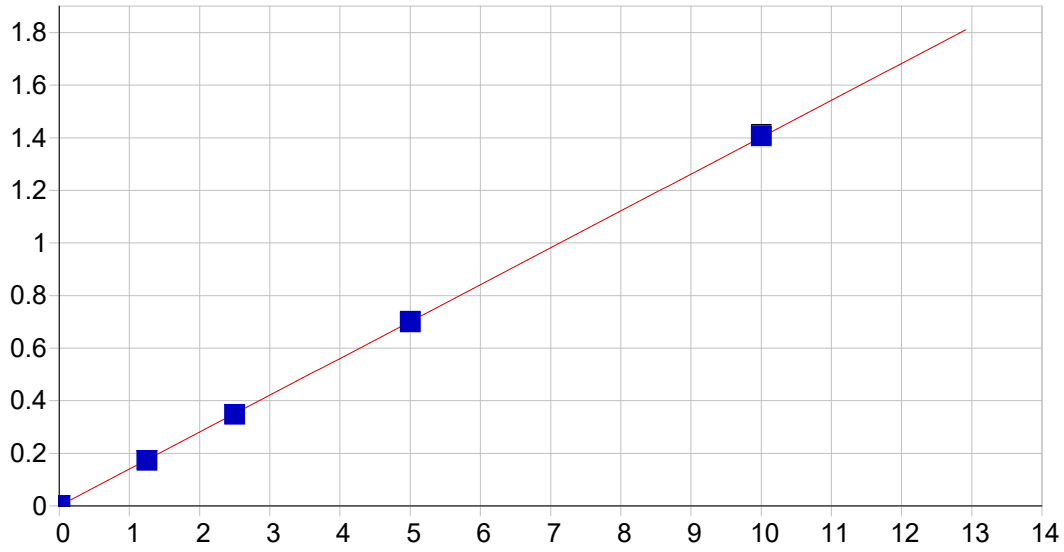
Si 251.611 {134}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.014545	Re-Slope:	1.000000
A1 (Gain):	1.447384	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994149	Status:	OK.
Std Error of Est:	0.008546		
Predicted MDL:	0.001317		
Predicted MQL:	0.004390		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00015	-.000	.000	.01432	.003	1
S1	.10000	.24922	.149	149.	.37731	.004	1
S2	1.2500	1.2982	.048	3.86	1.9346	.008	1
S3	2.5000	2.5812	.081	3.25	3.8326	.027	1
S4	5.0000	4.9311	-.069	-1.38	7.3160	.046	1
S5	10.000	9.7915	-.208	-2.08	14.515	.275	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

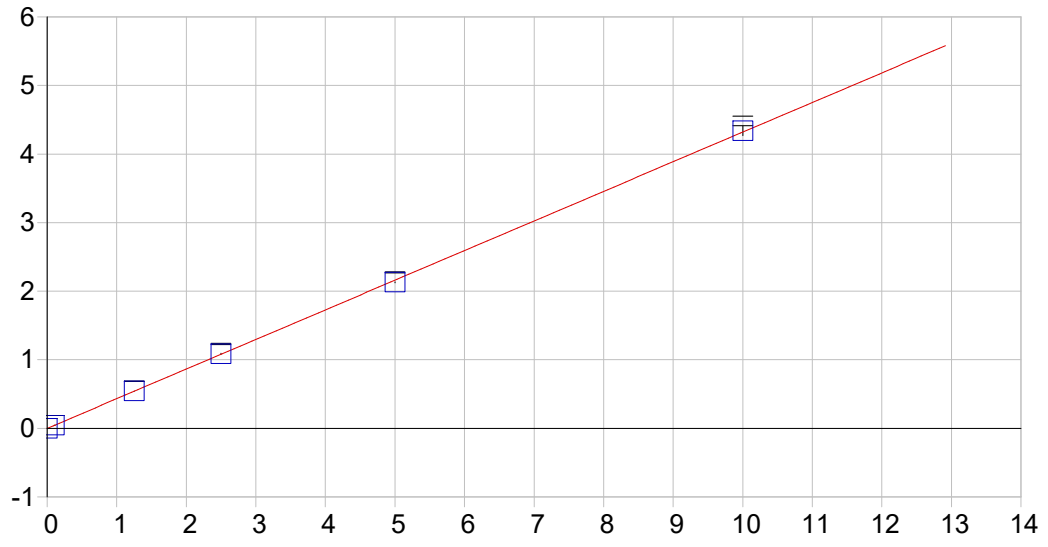


Sn 189.989 {478}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000291	Re-Slope:	1.000000
A1 (Gain):	0.140174	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.001630		
Predicted MQL:	0.005434		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00029	.000	1
S1	.00700	.00763	.001	8.98	.00132	.000	1
S2	1.2500	1.2303	-.020	-1.58	.17186	.000	1
S3	2.5000	2.4796	-.020	-.818	.34611	.001	1
S4	5.0000	4.9930	-.007	-.141	.69667	.002	1
S5	10.000	10.047	.047	.466	1.4015	.004	1



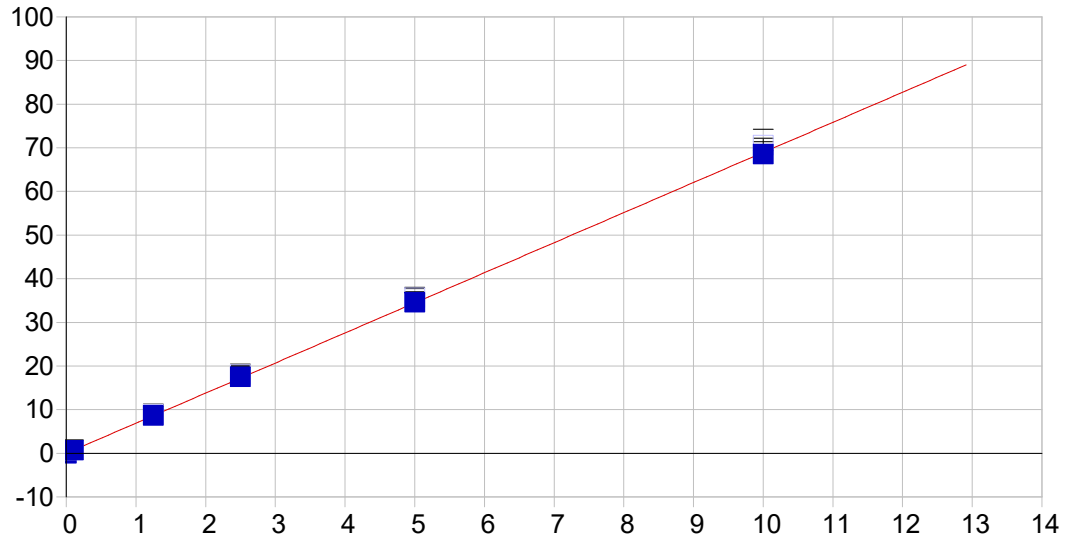
Ti 336.121 {100}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000132	Re-Slope:	1.000000
A1 (Gain):	0.431982	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000212		
Predicted MDL:	0.004090		
Predicted MQL:	0.013635		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00013	.001	1
S1	.10000	.10607	.006	6.07	.04595	.000	1
S2	1.2500	1.2553	.005	.427	.54241	.002	1
S3	2.5000	2.5144	.014	.576	1.0863	.008	1
S4	5.0000	4.9312	-.069	-1.38	2.1303	.007	1
S5	10.000	10.043	.043	.430	4.3385	.071	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



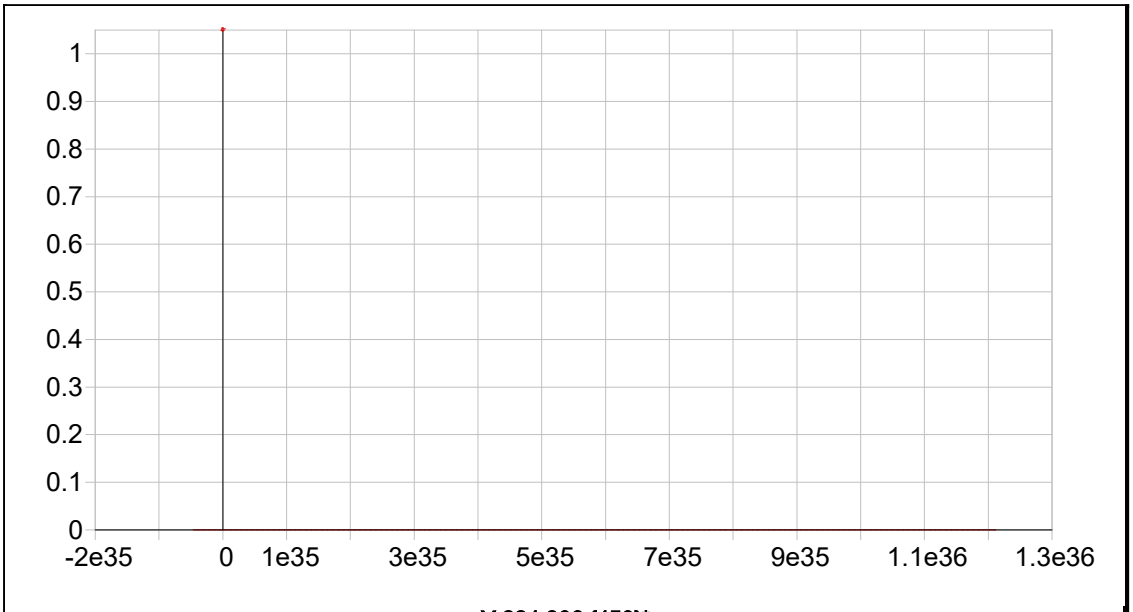
Sr 407.771 { 83}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002286	Re-Slope:	1.000000
A1 (Gain):	6.894000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.003216		
Predicted MDL:	0.000321		
Predicted MQL:	0.001071		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00235	.003	1
S1	.10000	.10706	.007	7.06	.73647	.007	1
S2	1.2500	1.2565	.006	.518	8.9184	.082	1
S3	2.5000	2.5355	.036	1.42	17.995	.135	1
S4	5.0000	5.0130	.013	.259	35.591	.156	1
S5	10.000	9.9382	-.062	-.618	70.580	1.44	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

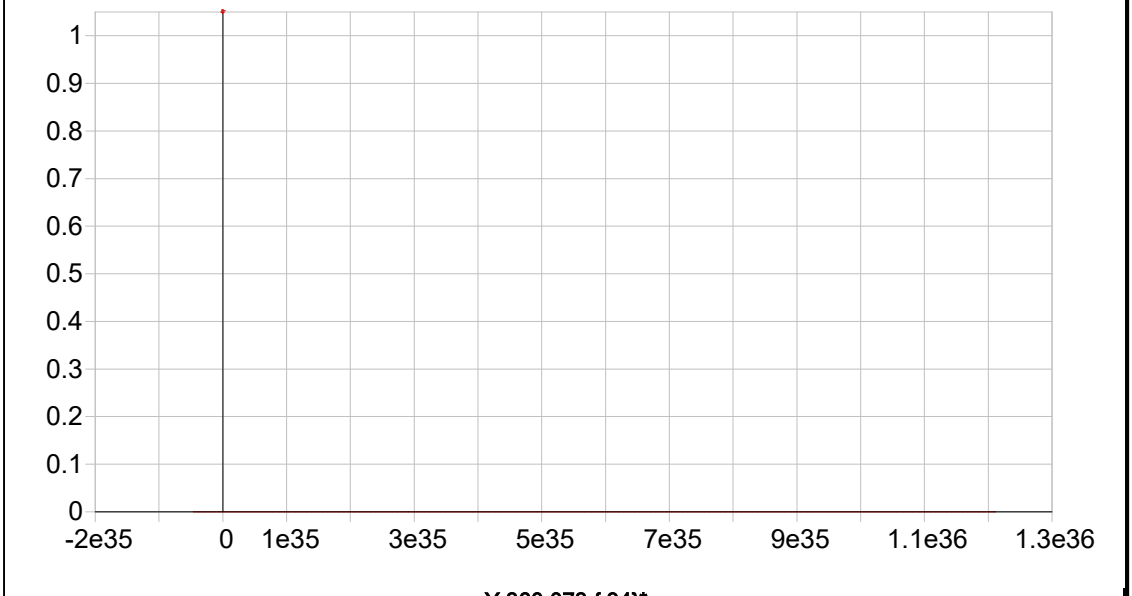


Y 224.306 {450}*

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

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

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



Y 360.073 { 94}*

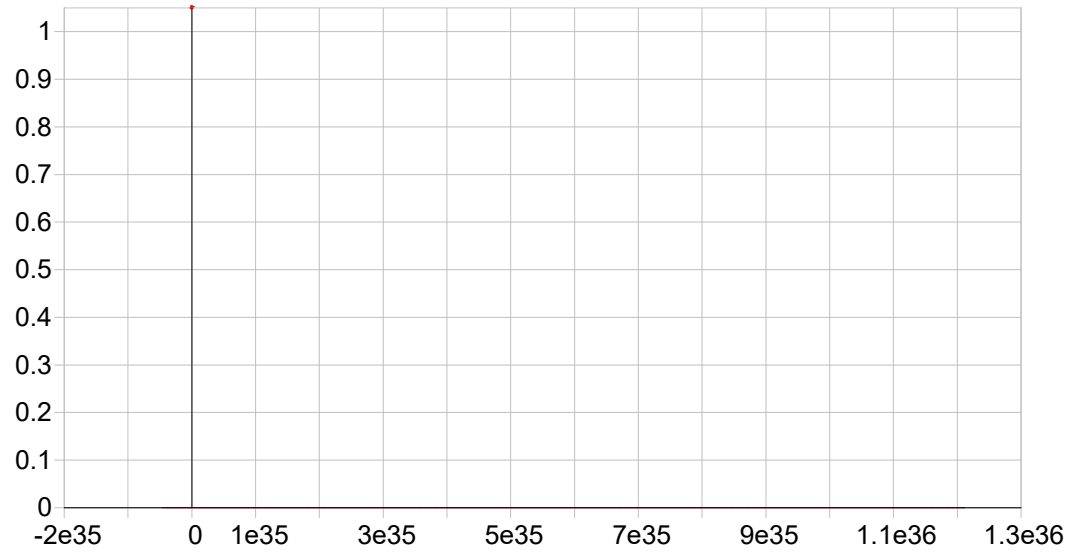
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

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

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



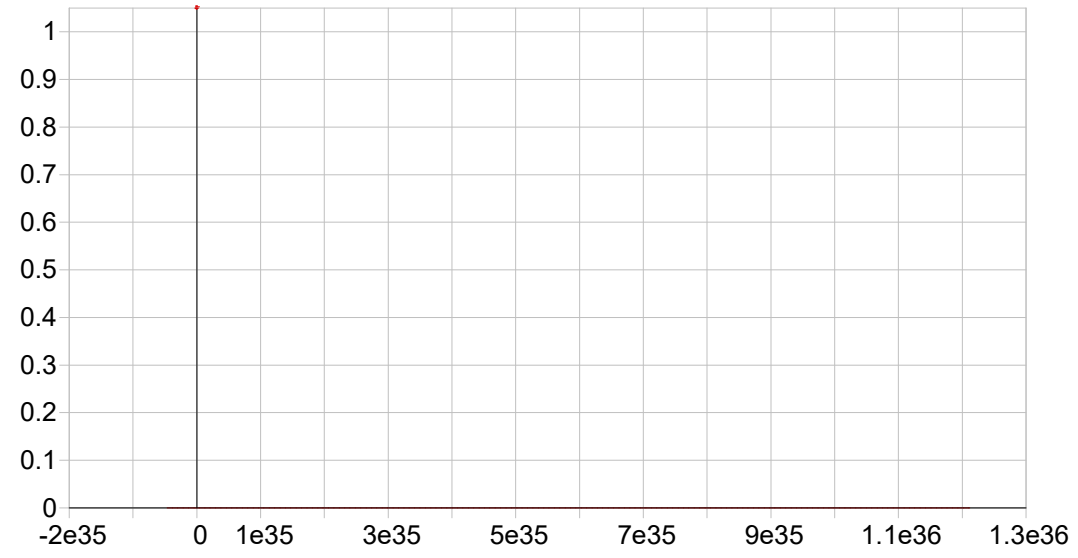
Y 371.030 { 91}*

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

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

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

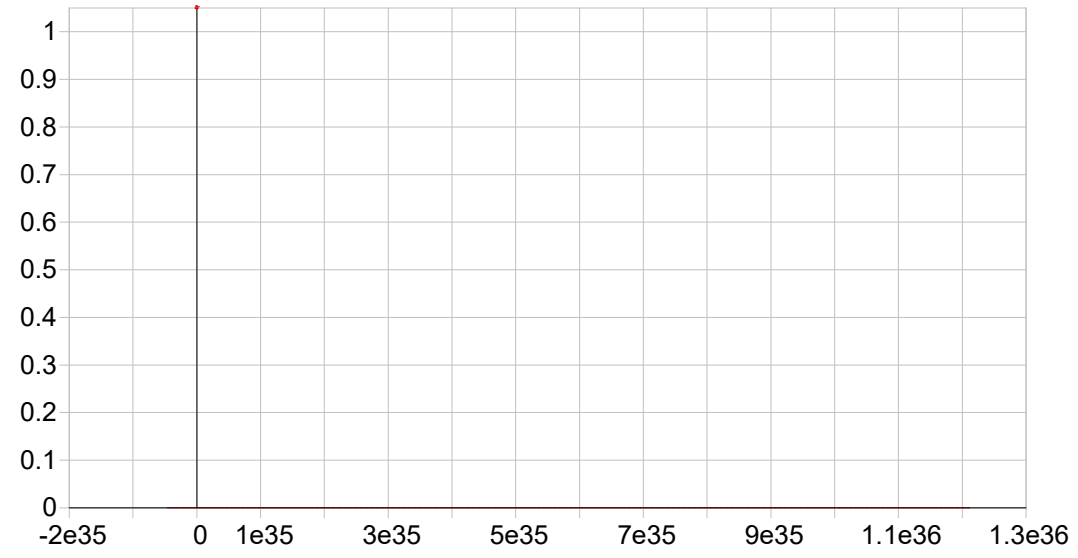
Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5



Y 224.306 {150}*

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

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



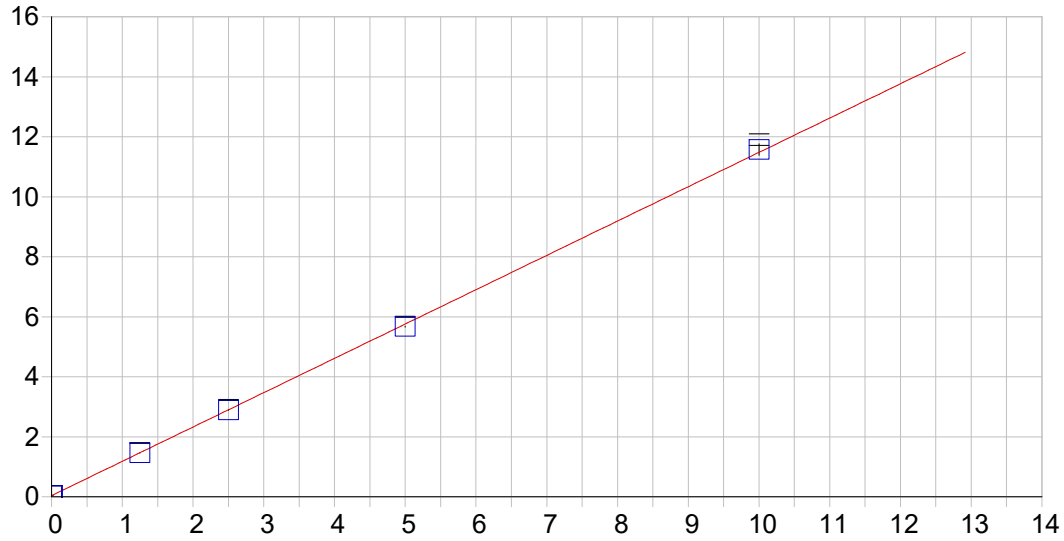
In 230.606 {446}*

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

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

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

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



Li 670.784 { 50}

Date of Fit:	12/29/2024 23:24:26	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.037148		Re-Slope:	1.000000	
A1 (Gain):	1.144100		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999947	Status:	OK.		
Std Error of Est:	0.000242				
Predicted MDL:	0.004104				
Predicted MQL:	0.013680				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.03715	.005	1
S5	10.000	10.086	.086	.861	11.577	.190	1
S4	5.0000	4.9234	-.077	-1.53	5.6700	.014	1
S3	2.5000	2.4978	-.002	-.088	2.8949	.017	1
S2	1.2500	1.2434	-.007	-.526	1.4597	.011	1
S1	.01500	.01428	-.001	-4.79	.05349	.002	1

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S0 Acquired: 12/29/2024 1:11:54 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.44832	-.00039	.00090	.00008	.00000	-.00199	.05848	.00223
Stddev	.50001	.00014	.00015	.00014	.00002	.00313	.00317	.00180
%RSD	111.53	35.531	16.163	165.96	544.62	156.91	5.4269	80.801
#1	1.0256	-.00035	.00084	.00002	.00000	-.00258	.05913	.00126
#2	.15210	-.00054	.00079	-.00001	-.00002	-.00479	.05503	.00430
#3	.16725	-.00028	.00107	.00024	.00003	.00139	.06127	.00112

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00059	.00834	.00001	-.00073	.00297	.00010	.00123	-.00049
Stddev	.00019	.00215	.00003	.00015	.00042	.00068	.00057	.00165
%RSD	32.555	25.814	558.73	21.161	14.280	683.53	46.565	333.08
#1	.00062	.00888	-.00002	-.00068	.00319	.00087	.00067	.00139
#2	.00076	.00597	.00003	-.00060	.00325	-.00045	.00120	-.00163
#3	.00038	.01017	.00001	-.00090	.00248	-.00012	.00182	-.00125

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00053	.00049	-.02268	.00049	.00813	.08725	-.00276	.00502
Stddev	.00037	.00015	.00998	.00065	.00018	.00087	.00027	.00249
%RSD	69.334	31.123	44.016	133.42	2.1644	.99502	9.9426	49.654
#1	-.00070	.00031	-.03362	.00096	.00794	.08770	-.00247	.00217
#2	-.00011	.00059	-.02034	.00077	.00815	.08780	-.00278	.00676
#3	-.00079	.00056	-.01407	-.00026	.00829	.08625	-.00302	.00615

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00017	-.00007	.01432	.00029	.00013	-.00235	.03715
Stddev	.00011	.00028	.00311	.00020	.00137	.00289	.00493
%RSD	63.236	376.99	21.679	68.952	1057.6	123.16	13.283
#1	.00016	-.00001	.01350	.00051	-.00071	.00097	.03372
#2	.00007	-.00038	.01776	.00012	-.00061	-.00367	.03492
#3	.00028	.00017	.01171	.00024	.00171	-.00433	.04280

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S0 Acquired: 12/29/2024 1:11:54 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2045.6	25678.	1942.2	1298.6	1850.2
Stddev	5.5	195.	5.5	9.0	4.4
%RSD	.26710	.75996	.28553	.68971	.24028
#1	2039.6	25475.	1935.9	1289.3	1845.2
#2	2050.3	25864.	1946.4	1307.2	1853.4
#3	2046.9	25696.	1944.3	1299.3	1852.2

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S1 Acquired: 12/29/2024 1:16:00 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.5442	.00174	.00425	.00202	.00572	.02223	.99502	.05534
Stddev	.1633	.00044	.00038	.00038	.00036	.00074	.00724	.00257
%RSD	10.577	25.492	8.8234	19.040	6.3508	3.3175	.72754	4.6390
#1	1.4409	.00123	.00441	.00180	.00560	.02255	.99074	.05405
#2	1.7325	.00199	.00452	.00246	.00543	.02138	1.0034	.05830
#3	1.4592	.00200	.00382	.00180	.00612	.02275	.99094	.05368

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02206	.30626	.00197	.05216	.00723	.00268	.00828	.05028
Stddev	.00050	.00274	.00012	.00059	.00207	.00024	.00059	.00085
%RSD	2.2809	.89368	5.9792	1.1283	28.694	8.9452	7.0907	1.6872
#1	.02152	.30471	.00199	.05220	.00721	.00278	.00888	.05081
#2	.02251	.30942	.00209	.05156	.00516	.00241	.00824	.05074
#3	.02214	.30465	.00185	.05273	.00931	.00286	.00771	.04931

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03712	.00299	1.3310	.00509	.17048	.21616	-.00196	.00421
Stddev	.00032	.00014	.0196	.00134	.00157	.00357	.00049	.00065
%RSD	.87299	4.7825	1.4692	26.418	.92381	1.6518	24.692	15.347
#1	.03748	.00306	1.3119	.00373	.16975	.21222	-.00201	.00362
#2	.03687	.00282	1.3510	.00513	.16940	.21708	-.00243	.00412
#3	.03700	.00308	1.3300	.00641	.17228	.21918	-.00146	.00490

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00558	.00366	.37731	.00132	.04595	.73647	.05349
Stddev	.00041	.00016	.00368	.00012	.00006	.00701	.00205
%RSD	7.3530	4.4741	.97444	9.3576	.12622	.95184	3.8374
#1	.00576	.00384	.37546	.00130	.04602	.73104	.05123
#2	.00511	.00362	.38155	.00121	.04594	.74438	.05400
#3	.00587	.00352	.37493	.00145	.04590	.73398	.05523

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S1 Acquired: 12/29/2024 1:16:00 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2044.3	25511.	1957.2	1300.8	1854.6
Stddev	5.5	58.	24.2	8.4	3.4
%RSD	.27134	.22724	1.2343	.64574	.18103
#1	2038.9	25531.	1979.4	1308.8	1851.9
#2	2050.0	25556.	1931.5	1301.6	1858.3
#3	2044.0	25445.	1960.7	1292.0	1853.5

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S2 Acquired: 12/29/2024 1:20:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	158.23	.10074	2.1474	.08378	.12856	4.6851	11.361	1.3114
Stddev	.51	.00028	.0046	.00056	.00017	.0237	.096	.0054
%RSD	.32399	.27596	.21183	.67039	.12903	.50523	.84786	.41070
#1	158.25	.10090	2.1483	.08330	.12875	4.7123	11.451	1.3110
#2	158.74	.10042	2.1424	.08365	.12847	4.6689	11.373	1.3169
#3	157.71	.10090	2.1514	.08439	.12846	4.6741	11.259	1.3062

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.6623	3.6787	.75189	.62808	.72972	.79576	1.7675	.61606
Stddev	.0041	.0284	.00057	.00164	.00762	.00597	.0090	.00496
%RSD	.15362	.77098	.07622	.26151	1.0445	.75031	.50731	.80448
#1	2.6649	3.7063	.75153	.62774	.73804	.80182	1.7758	.62029
#2	2.6576	3.6803	.75255	.62664	.72807	.79557	1.7686	.61728
#3	2.6645	3.6496	.75158	.62987	.72306	.78989	1.7580	.61061

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.57429	.07721	11.592	.06029	9.7189	1.0505	.11762	1.2008
Stddev	.00211	.00019	.019	.00083	.0468	.0065	.00017	.0047
%RSD	.36827	.24261	.16482	1.3783	.48099	.61785	.14829	.39391
#1	.57601	.07735	11.581	.06118	9.7710	1.0563	.11771	1.1997
#2	.57193	.07700	11.614	.06014	9.6805	1.0518	.11742	1.2060
#3	.57493	.07728	11.581	.05954	9.7052	1.0435	.11772	1.1968

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.62425	.04534	1.9346	.17186	.54241	8.9184	1.4597
Stddev	.00082	.00010	.0078	.00021	.00245	.0821	.0113
%RSD	.13183	.22218	.40114	.12156	.45156	.92077	.77339
#1	.62341	.04524	1.9383	.17200	.54517	9.0111	1.4699
#2	.62506	.04535	1.9399	.17162	.54158	8.8891	1.4617
#3	.62428	.04544	1.9257	.17196	.54049	8.8550	1.4476

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S2 Acquired: 12/29/2024 1:20:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2032.2	25754.	2001.1	1296.0	1765.5
Stddev	1.0	160.	14.6	10.9	3.1
%RSD	.04798	.62193	.73163	.83722	.17780
#1	2032.3	25573.	1984.7	1283.8	1765.7
#2	2031.2	25877.	2006.0	1304.6	1768.5
#3	2033.1	25812.	2012.7	1299.7	1762.2

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S3 Acquired: 12/29/2024 1:23:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	308.95	.20041	4.2830	.16772	.25755	9.3984	22.768	2.6222
Stddev	1.13	.00100	.0028	.00056	.00109	.0365	.118	.0177
%RSD	.36566	.50111	.06462	.33259	.42359	.38881	.51611	.67447
#1	308.37	.20139	4.2802	.16710	.25874	9.4168	22.862	2.6408
#2	310.25	.20046	4.2831	.16819	.25730	9.4220	22.804	2.6056
#3	308.22	.19938	4.2857	.16786	.25660	9.3563	22.636	2.6201

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.3128	7.3056	1.4801	1.2407	1.4458	1.5808	3.5192	1.2291
Stddev	.0053	.0484	.0011	.0011	.0061	.0091	.0186	.0075
%RSD	.09944	.66308	.07323	.08555	.42203	.57539	.52735	.60777
#1	5.3067	7.3543	1.4814	1.2395	1.4516	1.5862	3.5363	1.2360
#2	5.3162	7.3049	1.4796	1.2408	1.4463	1.5858	3.5219	1.2302
#3	5.3155	7.2575	1.4794	1.2416	1.4395	1.5703	3.4995	1.2211

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.1498	.15390	25.334	.11901	19.364	2.0553	.24316	2.4312
Stddev	.0013	.00039	.137	.00040	.097	.0067	.00053	.0175
%RSD	.10861	.25460	.54200	.33952	.50001	.32545	.21917	.72161
#1	1.1488	.15348	25.491	.11926	19.375	2.0630	.24356	2.4494
#2	1.1512	.15425	25.275	.11923	19.455	2.0525	.24336	2.4143
#3	1.1494	.15397	25.237	.11854	19.262	2.0505	.24255	2.4300

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.2470	.09219	3.8326	.34611	1.0863	17.995	2.8949
Stddev	.0020	.00009	.0271	.00053	.0084	.135	.0173
%RSD	.16123	.09961	.70750	.15436	.77365	.75115	.59912
#1	1.2461	.09210	3.8618	.34549	1.0915	18.129	2.9060
#2	1.2493	.09229	3.8081	.34639	1.0908	17.997	2.9038
#3	1.2457	.09219	3.8280	.34644	1.0766	17.858	2.8749

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S3 Acquired: 12/29/2024 1:23:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1970.5	25133.	1947.7	1248.5	1688.6
Stddev	3.5	70.	7.8	5.8	2.9
%RSD	.17881	.27917	.40040	.46519	.17079
#1	1966.4	25208.	1939.2	1250.4	1685.4
#2	1972.7	25069.	1954.4	1241.9	1690.9
#3	1972.3	25122.	1949.6	1253.0	1689.6

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S4 Acquired: 12/29/2024 1:27:42 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	598.23	.39618	8.6240	.33270	.52060	18.557	44.749	5.0470
Stddev	1.61	.00126	.0198	.00082	.00138	.062	.142	.0424
%RSD	.26916	.31740	.22972	.24537	.26491	.33585	.31798	.83944
#1	597.10	.39521	8.6011	.33211	.51931	18.624	44.898	5.0919
#2	597.51	.39572	8.6360	.33235	.52044	18.548	44.734	5.0412
#3	600.07	.39760	8.6349	.33363	.52205	18.500	44.615	5.0078

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10.568	14.208	2.9058	2.4548	2.8306	3.0786	6.8237	2.4037
Stddev	.035	.043	.0042	.0030	.0138	.0083	.0155	.0070
%RSD	.33319	.30504	.14585	.12249	.48665	.26861	.22765	.29262
#1	10.528	14.251	2.9067	2.4515	2.8375	3.0854	6.8410	2.4110
#2	10.588	14.208	2.9012	2.4553	2.8396	3.0809	6.8109	2.3970
#3	10.589	14.164	2.9095	2.4575	2.8148	3.0694	6.8193	2.4030

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.2976	.30702	53.326	.23562	38.529	3.9899	.49909	4.6672
Stddev	.0063	.00084	.332	.00091	.172	.0079	.00160	.0269
%RSD	.27325	.27423	.62175	.38526	.44675	.19705	.31978	.57686
#1	2.2906	.30651	53.671	.23576	38.473	3.9972	.49756	4.6955
#2	2.3026	.30657	53.298	.23465	38.391	3.9911	.50074	4.6642
#3	2.2997	.30799	53.009	.23645	38.722	3.9816	.49896	4.6419

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.4994	.18950	7.3160	.69667	2.1303	35.591	5.6700
Stddev	.0048	.00031	.0462	.00201	.0068	.156	.0140
%RSD	.19252	.16459	.63137	.28879	.31906	.43827	.24756
#1	2.4944	.18936	7.3670	.69449	2.1368	35.702	5.6843
#2	2.4997	.18929	7.3041	.69846	2.1309	35.658	5.6695
#3	2.5041	.18986	7.2769	.69704	2.1233	35.413	5.6562

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S4 Acquired: 12/29/2024 1:27:42 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1883.5	24352.	1950.6	1182.1	1598.6
Stddev	2.7	61.	14.3	3.4	.8
%RSD	.14121	.24897	.73117	.28589	.04966
#1	1885.6	24381.	1939.5	1186.0	1599.5
#2	1884.3	24282.	1945.6	1179.8	1598.4
#3	1880.5	24393.	1966.7	1180.6	1598.0

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S5 Acquired: 12/29/2024 1:31:26 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1147.4	.77573	17.392	.66411	1.0779	38.035	91.425	10.056
Stddev	1.9	.00166	.023	.00139	.0033	.609	1.415	.190
%RSD	.16983	.21463	.13341	.20959	.31023	1.6010	1.5481	1.8883
#1	1146.2	.77744	17.417	.66453	1.0751	38.736	93.054	10.275
#2	1146.4	.77564	17.389	.66255	1.0769	37.641	90.495	9.9387
#3	1149.7	.77411	17.371	.66523	1.0816	37.728	90.727	9.9548

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	21.033	28.469	5.7163	4.8885	5.6944	6.1228	13.618	4.8540
Stddev	.040	.432	.0083	.0086	.0813	.1056	.229	.0823
%RSD	.19025	1.5192	.14538	.17611	1.4274	1.7241	1.6805	1.6948
#1	21.076	28.968	5.7094	4.8980	5.7876	6.2438	13.881	4.9480
#2	21.023	28.212	5.7255	4.8862	5.6568	6.0497	13.463	4.7953
#3	20.998	28.227	5.7139	4.8813	5.6387	6.0748	13.510	4.8186

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.5963	.62443	114.23	.47755	78.403	8.1567	1.0201	9.1869
Stddev	.0124	.00069	1.74	.01117	.507	.1186	.0017	.1625
%RSD	.27067	.10970	1.5194	2.3381	.64638	1.4534	.16685	1.7688
#1	4.6105	.62397	116.18	.49044	78.735	8.2936	1.0217	9.3738
#2	4.5913	.62521	113.68	.47083	78.654	8.0881	1.0202	9.0795
#3	4.5872	.62409	112.84	.47138	77.819	8.0885	1.0183	9.1073

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.1322	.38916	14.515	1.4015	4.3385	70.580	11.577
Stddev	.0133	.00104	.275	.0040	.0714	1.437	.190
%RSD	.26003	.26790	1.8922	.28199	1.6461	2.0356	1.6433
#1	5.1242	.39002	14.832	1.4059	4.4200	72.078	11.796
#2	5.1247	.38946	14.353	1.4005	4.2866	70.447	11.460
#3	5.1476	.38800	14.360	1.3982	4.3090	69.214	11.474

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S5 Acquired: 12/29/2024 1:31:26 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1761.7	23541.	1903.6	1079.3	1506.9
Stddev	1.2	96.	36.7	8.9	3.6
%RSD	.06686	.40632	1.9301	.82311	.23779
#1	1762.7	23561.	1861.7	1076.1	1504.2
#2	1762.0	23437.	1919.1	1072.4	1505.4
#3	1760.4	23625.	1930.1	1089.3	1510.9

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: S6 Acquired: 12/29/2024 1:35:28 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95.713	44.162	15.512	7.4582	314.62
Stddev	.392	.209	.072	.0423	.79
%RSD	.40908	.47427	.46164	.56647	.25214
#1	95.719	44.165	15.522	7.4669	314.01
#2	96.101	44.370	15.578	7.4954	315.51
#3	95.318	43.951	15.436	7.4123	314.32

Int. Std.	Y_3710
Units	Cts/S
Avg	1871.0
Stddev	.5
%RSD	.02652
#1	1870.9
#2	1870.5
#3	1871.5

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: ICV004 Acquired: 12/29/2024 1:54:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.098885	1.003591	.9734783	1.009322	.9639804	2.403303
Stddev	.005852	.008227	.0025810	.001266	.0042531	.013086
%RSD	.5325039	.8198048	.2651320	.1254604	.4412051	.5445062
#1	1.092139	1.000418	.9739037	1.009370	.9591191	2.409087
#2	1.102592	.997422	.9707111	1.008032	.9658071	2.388322
#3	1.101923	1.012933	.9758202	1.010563	.9670150	2.412501

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5122599	.5196395	.5026764	10.27296	.5434993	.5089894
Stddev	.0016213	.0008888	.0012486	.04958	.0004497	.0014306
%RSD	.3165091	.1710382	.2483804	.4826046	.0827374	.2810703
#1	.5104314	.5188555	.5015247	10.22950	.5430065	.5075325
#2	.5128257	.5194580	.5025013	10.32696	.5438873	.5090434
#3	.5135225	.5206050	.5040033	10.26241	.5436043	.5103922

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4868060	10.45946	.5173931	6.003799	.5120696	.2432002
Stddev	.0046707	.04868	.0025847	.044921	.0020766	.0004320
%RSD	.9594613	.4654409	.4995641	.7482155	.4055243	.1776279
#1	.4888287	10.40346	.5144764	6.033757	.5100618	.2430756
#2	.4814648	10.49170	.5193996	6.025492	.5119384	.2436808
#3	.4901244	10.48323	.5183032	5.952148	.5142087	.2428441

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.458800	.5080237	.9786025	9.066799	F .0023521	F .0048546
Stddev	.031423	.0155939	.0048954	.081798	.0012275	.0028686
%RSD	.3322088	3.069531	.5002418	.9021738	52.18773	59.08946
#1	9.423760	.5259446	.9815022	9.161252	.0030435	.0069267
#2	9.468161	.5005806	.9813548	9.019357	.0030778	.0015806
#3	9.484478	.4975460	.9729504	9.019789	.0009348	.0060565

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: ICV004 Acquired: 12/29/2024 1:54:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0009572	F .0090615	F .0004874	F .0013679	F .0003981	F -.009259
Stddev	.0002041	.0033864	.0011532	.0003719	.0008774	.000343
%RSD	21.32138	37.37126	236.6251	27.19030	220.4138	3.704210
#1	.0007297	.0099955	.0003297	.0009421	-.000496	-.009040
#2	.0010176	.0118828	.0017113	.0015323	.001258	-.009082
#3	.0011243	.0053061	-.000579	.0016293	.000433	-.009654

Elem	Li6707
Units	ppm
Avg	F .0078623
Stddev	.0029066
%RSD	36.96823
#1	.0112183
#2	.0061482
#3	.0062204

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2102.323	26445.87	1985.334	1342.619	1887.452
Stddev	1.082	34.11	9.464	3.610	.332
%RSD	.0514530	.1289719	.4767162	.2688908	.0175814
#1	2101.099	26479.63	1993.699	1341.502	1887.263
#2	2102.719	26446.55	1987.241	1339.699	1887.257
#3	2103.150	26411.43	1975.061	1346.656	1887.835

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: ICB004 Acquired: 12/29/2024 1:58:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000230	.0006604	.0001994	.0008052	-.000675	.0008452	-.001250
Stddev	.002840	.0013343	.0011193	.0031475	.000674	.0233225	.001723
%RSD	1233.084	202.0263	561.3142	390.8873	99.77258	2759.285	137.8507
#1	-.003102	.0018992	.0014729	.0044392	-.001330	-.006077	.000518
#2	.002578	-.000752	-.000629	-.000963	-.000713	.026845	-.002923
#3	-.000167	.000834	-.000246	-.001060	.000016	-.018233	-.001344

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000087	.0001137	.0273715	.0011604	.0003847	-.005304	.0128153
Stddev	.000007	.0000228	.0640886	.0009448	.0003721	.004668	.0214279
%RSD	8.423154	20.08205	234.1436	81.42155	96.74403	88.02114	167.2061
#1	-.000079	.0001107	.0727456	.0003029	.0000042	-.004484	.0284049
#2	-.000091	.0001380	-.045944	.0021733	.0007478	-.001099	.0216600
#3	-.000092	.0000926	.055313	.0010052	.0004020	-.010328	-.011619

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003813	.0229955	.0004191	-.000081	.0592061	-.008701	.0000101
Stddev	.0005487	.0055358	.0000573	.000788	.0194104	.005823	.0004367
%RSD	143.8905	24.07360	13.68091	972.0907	32.78444	66.92727	4321.374
#1	.0002040	.0270275	.0003536	.000040	.0654087	-.004287	-.000419
#2	-.000057	.0166838	.0004603	-.000922	.0374525	-.015301	-.000004
#3	.000997	.0252752	.0004434	.000639	.0747572	-.006515	.000454

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1357920	.0027407	.0013612	.0007353	-.000764	-.000488	-.000325
Stddev	.1884484	.0023609	.0036552	.0004355	.002046	.000459	.001231
%RSD	138.7772	86.14159	268.5292	59.22481	267.7613	93.93665	379.1307
#1	.2586942	.0032332	.0046431	.0011907	.001576	-.000614	.000768
#2	-.081171	.0001724	-.002578	.0003228	-.002218	.000020	-.000083
#3	.229853	.0048166	.002019	.0006925	-.001651	-.000872	-.001659

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: ICB004 Acquired: 12/29/2024 1:58:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB004 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0020958	.0002520	.0057479
Stddev	.0020294	.0001810	.0038260
%RSD	96.83233	71.83588	66.56335
#1	.0036052	.0002624	.0013302
#2	.0028933	.0004275	.0079925
#3	-.000211	.0000660	.0079211

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2075.476	26009.49	1950.265	1317.034	1872.394
Stddev	4.698	46.37	26.768	3.106	1.720
%RSD	.2263563	.1782834	1.372534	.2358650	.0918862
#1	2070.784	26060.51	1953.087	1314.724	1872.862
#2	2075.464	25969.90	1975.510	1315.812	1870.488
#3	2080.180	25998.06	1922.198	1320.565	1873.833

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: ICSA004 Acquired: 12/29/2024 2:02:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020400	-.016230	-.007998	.0209043	-.004613	243.6935
Stddev	.0035318	.003847	.000636	.0104193	.006383	.2577
%RSD	173.1269	23.70195	7.947183	49.84303	138.3692	.1057617
#1	-.002016	-.014336	-.008481	.0194453	.001386	243.8923
#2	.004439	-.013698	-.008235	.0112913	-.011320	243.7859
#3	.003697	-.020657	-.007278	.0319762	-.003905	243.4023

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035555	.0045441	.0008689	248.9655	.0516854	.0053239
Stddev	.0005994	.0002461	.0001151	.4477	.0006116	.0003541
%RSD	16.85929	5.415423	13.24390	.1798238	1.183332	6.650519
#1	.0041802	.0043126	.0009744	249.4825	.0517059	.0051298
#2	.0029850	.0045172	.0007462	248.7049	.0522865	.0057326
#3	.0035014	.0048026	.0008861	248.7092	.0510638	.0051094

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.014790	103.1241	.0092838	261.4306	.0030770	.0007914
Stddev	.011698	.3453	.0008058	.3216	.0003618	.0008031
%RSD	79.09024	.3348273	8.680131	.1230092	11.75840	101.4814
#1	-.015725	103.0157	.0092739	261.0803	.0026610	.0017110
#2	-.002653	102.8460	.0100946	261.4989	.0032507	.0002282
#3	-.025992	103.5105	.0084830	261.7125	.0033191	.0004349

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1283626	.0124767	-.034618	-.252869	.0004366	F .0263406
Stddev	.0159392	.0089585	.000327	.092468	.0019205	.0011242
%RSD	12.41734	71.80212	.9451123	36.56753	439.9329	4.268098
#1	.1146006	.0227984	-.034462	-.299712	.0014115	.0275537
#2	.1458273	.0079081	-.034397	-.146353	.0016740	.0261341
#3	.1246599	.0067234	-.034994	-.312541	-.001776	.0253339

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: ICSA004 Acquired: 12/29/2024 2:02:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018990	.0113739	-.003332	F .0115438	.0027027	.0003317
Stddev	.0005765	.0011394	.000168	.0030977	.0009712	.0008366
%RSD	30.36046	10.01807	5.028410	26.83406	35.93411	252.1954
#1	.0021321	.0114779	-.003348	.0089960	.0017052	.0008485
#2	.0012424	.0101860	-.003491	.0149919	.0027576	.0007801
#3	.0023225	.0124578	-.003157	.0106436	.0036453	-.000633

Elem	Li6707
Units	ppm
Avg	.0142620
Stddev	.0015282
%RSD	10.71499
#1	.0125000
#2	.0152261
#3	.0150599

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1974.478	24733.18	1924.499	1262.417	1673.965
Stddev	3.007	110.34	4.143	10.032	3.043
%RSD	.1522877	.4461299	.2152954	.7946960	.1817705
#1	1974.062	24606.41	1919.834	1251.399	1677.241
#2	1977.671	24807.68	1925.909	1264.828	1673.426
#3	1971.701	24785.44	1927.753	1271.025	1671.227

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: ICSAB004 Acquired: 12/29/2024 2:06:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1118776	.0902661	.0454975	.0671178	.6258105	241.7928
Stddev	.0027533	.0080685	.0011954	.0156508	.0039188	.1671
%RSD	2.460966	8.938586	2.627335	23.31846	.6262033	.0691190
#1	.1149922	.0993057	.0468375	.0654370	.6292711	241.8254
#2	.1108724	.0837930	.0445409	.0835411	.6215552	241.6118
#3	.1097681	.0876996	.0451139	.0523751	.6266052	241.9412

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5620740	.5698206	1.087140	246.4959	.6230870	.5447231
Stddev	.0025663	.0025451	.001308	.3235	.0024054	.0018359
%RSD	.4565821	.4466581	.1203552	.1312490	.3860538	.3370374
#1	.5609856	.5681219	1.086819	246.7250	.6205242	.5455640
#2	.5650052	.5727469	1.086022	246.6371	.6234407	.5426173
#3	.5602313	.5685930	1.088580	246.1258	.6252960	.5459879

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4882767	102.5813	.5603140	259.8846	1.080984	.2179611
Stddev	.0181526	.1212	.0014494	.9389	.001274	.0014534
%RSD	3.717698	.1181418	.2586804	.3612915	.1178463	.6668052
#1	.5078297	102.7210	.5619657	260.9668	1.081740	.2163477
#2	.4719596	102.5043	.5592544	259.2859	1.079513	.2183680
#3	.4850409	102.5185	.5597218	259.4012	1.081698	.2191678

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1163312	.5504531	1.042323	-.498539	.0006253	F .0264078
Stddev	.0297385	.0082175	.003599	.203992	.0055238	.0007416
%RSD	25.56360	1.492860	.3453101	40.91805	883.3752	2.808309
#1	.1384750	.5426655	1.040507	-.560669	.0007880	.0266951
#2	.1279886	.5590418	1.046469	-.664242	.0060659	.0255656
#3	.0825302	.5496521	1.039994	-.270705	-.004978	.0269629

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: ICSAB004 Acquired: 12/29/2024 2:06:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010875	.0221817	-.000917	F .0105060	-.003374	-.000398
Stddev	.0011451	.0026426	.001279	.0030422	.005351	.000730
%RSD	105.3022	11.91350	139.5579	28.95707	158.6099	183.5243
#1	.0021298	.0227342	-.000002	.0123220	-.008939	-.001218
#2	.0012709	.0193065	-.000369	.0069938	-.002917	.000182
#3	-.000138	.0245043	-.002379	.0122022	.001734	-.000158

Elem	Li6707
Units	ppm
Avg	.0070975
Stddev	.0037647
%RSD	53.04287
#1	.0031845
#2	.0106939
#3	.0074142

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1987.087	25013.61	1944.798	1271.857	1683.903
Stddev	3.367	120.94	1.297	3.867	2.833
%RSD	.1694210	.4834908	.0667023	.3040578	.1682220
#1	1990.056	25059.00	1946.293	1272.457	1685.564
#2	1987.774	25105.29	1943.970	1275.390	1685.513
#3	1983.429	24876.55	1944.132	1267.725	1680.632

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCV033 Acquired: 12/29/2024 2:10:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV033 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.072976	4.786423	24.55027	5.011241	4.932659	398.6572	9.922427
Stddev	.007198	.004474	.00843	.014093	.009689	3.7633	.108083
%RSD	.1418799	.0934635	.0343494	.2812332	.1964209	.9439933	1.089280
#1	5.080031	4.791511	24.55657	5.001586	4.924731	400.2453	9.970314
#2	5.073254	4.784652	24.54069	5.027414	4.929786	394.3602	9.798674
#3	5.065644	4.783106	24.55354	5.004725	4.943459	401.3661	9.998294

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5123268	2.475789	398.8472	15.59437	2.387948	14.62614	404.8100
Stddev	.0060724	.001351	3.6243	.45867	.000692	.10301	3.1735
%RSD	1.185262	.0545657	.9086938	2.941246	.0289640	.7042882	.7839360
#1	.5193364	2.476113	400.8080	15.22180	2.388292	14.64650	406.1086
#2	.5089758	2.474305	394.6650	16.10664	2.388400	14.51447	401.1932
#3	.5086682	2.476948	401.0687	15.45465	2.387151	14.71745	407.1281

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.59925	399.7624	2.487871	1.282914	413.6465	2.465894	15.03623
Stddev	.14163	3.9731	.001312	.034682	3.8259	.024389	.46576
%RSD	.9701104	.9938543	.0527185	2.703403	.9249147	.9890461	3.097586
#1	14.67007	401.6970	2.489365	1.255058	417.2888	2.474441	14.62736
#2	14.43619	395.1926	2.487334	1.321759	409.6602	2.438382	15.54324
#3	14.69151	402.3976	2.486913	1.271923	413.9904	2.484859	14.93808

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.0521	4.964559	4.932342	4.924602	5.014034	4.849377	4.998613
Stddev	1.9241	.004830	.044727	.008284	.010835	.055390	.003551
%RSD	1.282317	.0972845	.9068076	.1682156	.2160973	1.142218	.0710325
#1	150.9262	4.970128	4.980959	4.917042	5.002401	4.908557	4.999739
#2	147.8461	4.961504	4.923126	4.933458	5.015860	4.840796	5.001465
#3	151.3841	4.962047	4.892942	4.923305	5.023839	4.798778	4.994636

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: CCV033 Acquired: 12/29/2024 2:10:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV033 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	4.955065	4.612590	5.034153
Stddev	.049824	.039949	.058735
%RSD	1.005518	.8660783	1.166721
#1	4.986758	4.628979	5.060555
#2	4.897636	4.567053	4.966851
#3	4.980800	4.641737	5.075054

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1835.412	23342.78	1906.191	1136.801	1548.289
Stddev	3.954	658.80	19.124	36.467	2.625
%RSD	.2154454	2.822268	1.003272	3.207898	.1695243
#1	1839.953	23911.46	1884.166	1169.887	1550.275
#2	1833.551	22620.87	1918.581	1097.700	1549.280
#3	1832.732	23496.00	1915.828	1142.814	1545.314

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCB033 Acquired: 12/29/2024 2:14:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB033 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002973	-.000043	.0033779	-.000950	-.003358	-.027518
Stddev	.002013	.004577	.0012894	.005534	.002279	.028885
%RSD	67.70574	10764.56	38.17220	582.7386	67.88599	104.9696
#1	-.005142	.003730	.0019360	-.006934	-.003062	-.060685
#2	-.002614	.001276	.0044202	.003982	-.005771	-.007883
#3	-.001164	-.005133	.0037776	.000104	-.001241	-.013985

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001103	-.000017	.0000656	.0070440	.0005421	.0000038
Stddev	.001764	.000046	.0000955	.0061972	.0003477	.0005951
%RSD	159.8847	278.6767	145.5898	87.97833	64.13194	15862.33
#1	-.001344	.000036	-.000039	.0136483	.0002006	-.000456
#2	-.002735	-.000048	.000087	.0013559	.0005300	.000676
#3	.000769	-.000039	.000148	.0061277	.0008956	-.000209

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000212	.0260694	.0002083	-.059989	.0001182	-.000117
Stddev	.004010	.0210888	.0004465	.081109	.0002010	.000900
%RSD	1892.214	80.89489	214.3174	135.2076	170.0017	767.1565
#1	.003957	.0415334	-.000062	-.102679	.0001214	-.000575
#2	-.000552	.0020467	.000724	-.110837	.0003176	-.000695
#3	-.004041	.0346281	-.000037	.033550	-.000084	.000919

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0796504	-.003692	.0020285	.3251604	.0006514	.0110715
Stddev	.0406265	.016949	.0001238	.1335230	.0010860	.0026845
%RSD	51.00609	459.0789	6.104394	41.06374	166.7222	24.24691
#1	.0330594	-.021336	.0021456	.2827759	.0017868	.0119931
#2	.0982046	-.002203	.0020411	.2179740	-.000377	.0131738
#3	.1076871	.012463	.0018989	.4747312	.000545	.0080476

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCB033 Acquired: 12/29/2024 2:14:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB033 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007256	.0063367	-.000421	-.000143	.0004941	.0000533
Stddev	.0003076	.0020552	.000107	.001280	.0021983	.0001638
%RSD	42.38430	32.43310	25.54548	898.3593	444.9540	307.3666
#1	.0003710	.0086888	-.000308	-.001149	.0027922	-.000135
#2	.0009198	.0054338	-.000433	-.000577	-.001589	.000137
#3	.0008861	.0048875	-.000522	.001299	.000278	.000158

Elem	Li6707
Units	ppm
Avg	F .0168108
Stddev	.0058634
%RSD	34.87900
#1	.0100621
#2	.0206550
#3	.0197154

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2077.598	26049.45	1938.825	1322.321	1875.729
Stddev	2.812	160.35	5.894	12.027	6.632
%RSD	.1353390	.6155609	.3040215	.9095623	.3535942
#1	2075.335	26204.64	1942.574	1332.860	1868.965
#2	2080.746	26059.33	1941.870	1324.885	1882.222
#3	2076.713	25884.40	1932.031	1309.218	1876.001

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165360BL Acquired: 12/29/2024 2:18:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS360 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005241	-.001248	-.000869	-.003772	-.002100	-.002027	-.001856
Stddev	.000808	.001027	.001396	.001515	.001700	.004813	.001140
%RSD	15.41545	82.24935	160.7296	40.17358	80.96838	237.3929	61.41491
#1	-.005610	-.002274	.000272	-.002257	-.003990	.002238	-.003163
#2	-.005799	-.000221	-.000452	-.003771	-.000696	-.007245	-.001069
#3	-.004315	-.001249	-.002425	-.005288	-.001613	-.001075	-.001335

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000104	-.000055	.0066567	-.000137	.0000236	-.007154	-.016769
Stddev	.000103	.000038	.0354285	.000610	.0006984	.007622	.022151
%RSD	98.75488	69.38875	532.2232	443.9157	2960.713	106.5411	132.0925
#1	-.000214	-.000025	.0014482	-.000710	-.000018	-.007030	.007422
#2	-.000012	-.000098	-.025879	.000503	.000742	.000405	-.036058
#3	-.000086	-.000041	.044401	-.000205	-.000653	-.014837	-.021670

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001589	-.062669	-.000408	-.000090	.0175610	-.001841	-.000553
Stddev	.002629	.094345	.000536	.001006	.0206390	.003610	.000279
%RSD	165.4568	150.5453	131.3821	1121.706	117.5271	196.1125	50.35113
#1	-.000250	-.133940	-.000173	.000027	.0383474	-.006006	-.000252
#2	.000101	.044320	-.000030	-.001149	.0172630	.000087	-.000606
#3	-.004618	-.098385	-.001021	.000853	-.002927	.000396	-.000802

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2015665	.0007209	.0027185	.0001266	.0048630	-.000627	-.001338
Stddev	.0199533	.0022907	.0019249	.0002336	.0039291	.001022	.002257
%RSD	9.899136	317.7670	70.80650	184.5673	80.79595	163.1540	168.7781
#1	.2062354	.0013173	.0008926	.0001521	.0005800	.000301	-.002382
#2	.2187714	.0026545	.0025338	-.000119	.0057084	-.000458	.001253
#3	.1796927	-.001809	.0047291	.000346	.0083006	-.001723	-.002883

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165360BL Acquired: 12/29/2024 2:18:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS360 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0006477	-.000100	.0077230
Stddev	.0015952	.000335	.0056340
%RSD	246.2955	336.2041	72.95135
#1	.0001158	-.000431	.0118855
#2	.0024409	.000238	.0013119
#3	-.000614	-.000106	.0099717

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2063.786	26166.07	1904.238	1327.918	1860.055
Stddev	1.835	63.50	9.839	.429	2.400
%RSD	.0889205	.2426690	.5166818	.0323412	.1290551
#1	2065.616	26150.11	1911.978	1327.573	1857.953
#2	2061.946	26236.03	1907.572	1327.782	1859.542
#3	2063.796	26112.08	1893.166	1328.399	1862.671

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165360BS Acquired: 12/29/2024 2:22:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS360 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0145751	.0497997	.0185250	.0653098	.1089777	.3747955
Stddev	.0009952	.0020420	.0013385	.0046672	.0025873	.0131998
%RSD	6.828264	4.100488	7.225147	7.146201	2.374141	3.521865
#1	.0135393	.0516889	.0174355	.0698000	.1087731	.3898345
#2	.0146621	.0476332	.0181204	.0656457	.1064988	.3694223
#3	.0155240	.0500772	.0200190	.0604838	.1116612	.3651298

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3937035	.0102966	.0096126	9.791184	.0207404	.1041248
Stddev	.0023972	.0002049	.0001625	.064039	.0007391	.0009754
%RSD	.6088960	1.989937	1.690460	.6540485	3.563456	.9367670
#1	.3909467	.0100745	.0097088	9.717357	.0212203	.1039394
#2	.3948654	.0104783	.0094249	9.824472	.0198893	.1032554
#3	.3952984	.0103369	.0097040	9.831724	.0211116	.1051796

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0540259	.2086816	.0291732	10.03812	.0776117	.0187700
Stddev	.0026747	.0136440	.0006749	.09577	.0006911	.0010626
%RSD	4.950806	6.538209	2.313275	.9541110	.8904408	5.661300
#1	.0559897	.2147821	.0286865	10.02472	.0775746	.0175926
#2	.0551085	.1930516	.0299436	10.13989	.0769399	.0190597
#3	.0509796	.2182109	.0288894	9.94975	.0783206	.0196578

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.212712	.0981009	.1200436	9.557450	.0191221	F .0016193
Stddev	.024134	.0054117	.0007698	.104179	.0013702	.0024093
%RSD	.3346098	5.516465	.6412328	1.090027	7.165282	148.7872
#1	7.189446	.0921922	.1191939	9.546916	.0175674	.0009714
#2	7.211059	.0992942	.1206944	9.458938	.0196456	.0042864
#3	7.237630	.1028164	.1202425	9.666495	.0201534	-.000400

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165360BS Acquired: 12/29/2024 2:22:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS360 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0206363	.1828277	F .4861489	.0123154	.2012396	.1971406
Stddev	.0001277	.0041561	.0034182	.0017256	.0023821	.0020483
%RSD	.6189947	2.273235	.7031274	14.01152	1.183700	1.039001
#1	.0206933	.1833404	.4840016	.0115546	.1985174	.1950238
#2	.0204900	.1784390	.4900907	.0142906	.2022596	.1991127
#3	.0207256	.1867036	.4843544	.0111009	.2029419	.1972854

Elem	Li6707
Units	ppm
Avg	F .0394626
Stddev	.0033208
%RSD	8.415051
#1	.0358686
#2	.0424172
#3	.0401019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2080.056	26242.29	1940.563	1332.759	1875.171
Stddev	12.224	24.52	4.747	3.610	10.575
%RSD	.5876667	.0934393	.2446122	.2708337	.5639542
#1	2086.585	26246.65	1944.108	1334.948	1880.200
#2	2087.628	26215.88	1935.170	1328.593	1882.293
#3	2065.954	26264.34	1942.410	1334.736	1863.020

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165369BL Acquired: 12/29/2024 2:26:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS369 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001262	-.000662	-.001368	-.001814	-.004068	-.017166	-.001392
Stddev	.003409	.004643	.000830	.001283	.003416	.008890	.000880
%RSD	270.0979	701.5597	60.64564	70.74215	83.98321	51.79076	63.17868
#1	.000966	.004681	-.000519	-.002075	-.007357	-.022712	-.002020
#2	.000434	-.003715	-.002176	-.000420	-.004310	-.006911	-.001770
#3	-.005187	-.002952	-.001408	-.002945	-.000537	-.021874	-.000387

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000021	-.000094	-.003386	.0004407	-.000052	-.009033	-.009126
Stddev	.000033	.000037	.019861	.0005070	.000571	.007709	.013407
%RSD	159.6224	39.55399	586.5845	115.0531	1100.147	85.33860	146.9193
#1	.000017	-.000051	-.017694	-.000127	.000570	-.015102	.005310
#2	-.000045	-.000118	.019289	.000601	-.000551	-.011638	-.011498
#3	-.000034	-.000114	-.011753	.000848	-.000175	-.000359	-.021188

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000334	-.098420	-.000256	.0002290	.0327227	-.001272	-.002259
Stddev	.000589	.076853	.000233	.0008692	.0309152	.000788	.000400
%RSD	176.2281	78.08714	91.08978	379.6209	94.47650	61.96830	17.71427
#1	-.000097	-.186983	-.000280	-.000033	.0682245	-.001953	-.001823
#2	.000099	-.049253	-.000012	.001199	.0117368	-.001455	-.002609
#3	-.001004	-.059024	-.000477	-.000479	.0182066	-.000408	-.002347

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2244814	.0013409	-.001277	.0000686	.0034085	-.001085	-.001660
Stddev	.3450367	.0020952	.001045	.0004756	.0061562	.001247	.000795
%RSD	153.7039	156.2506	81.86124	693.1265	180.6117	114.9894	47.90729
#1	.5863104	-.000722	-.001894	-.000455	-.002619	-.001211	-.002566
#2	.1879973	.001278	-.000070	.000474	.003159	.000221	-.001339
#3	-.100864	.003467	-.001866	.000186	.009686	-.002264	-.001076

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165369BL Acquired: 12/29/2024 2:26:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS369 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0008218	-.000194	.0058163
Stddev	.0004096	.000362	.0024945
%RSD	49.83849	186.6365	42.88858
#1	.0009864	.000223	.0076354
#2	.0011235	-.000383	.0068410
#3	.0003556	-.000422	.0029726

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2079.488	26253.71	1948.682	1335.727	1878.077
Stddev	4.945	111.34	10.282	8.619	1.685
%RSD	.2378022	.4240951	.5276408	.6452465	.0897303
#1	2085.146	26131.98	1937.525	1325.853	1880.004
#2	2077.331	26278.74	1957.777	1339.588	1876.875
#3	2075.989	26350.40	1950.743	1341.740	1877.354

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165369BS Acquired: 12/29/2024 2:30:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS369 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156093	.0479353	.0175573	.0604666	.1070948	.3679428	.3837457
Stddev	.0018244	.0039263	.0004708	.0038371	.0009021	.0078269	.0023424
%RSD	11.68816	8.190857	2.681636	6.345786	.8423054	2.127210	.6104023
#1	.0168861	.0498684	.0177138	.0606428	.1081361	.3593105	.3820612
#2	.0135197	.0505203	.0179299	.0642126	.1065970	.3745771	.3827554
#3	.0164221	.0434172	.0170281	.0565445	.1065514	.3699407	.3864206

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098108	.0093975	9.600411	.0199538	.1013565	.0498359	.1907741
Stddev	.0002049	.0000300	.096694	.0004687	.0000867	.0023918	.0240212
%RSD	2.088370	.3190643	1.007182	2.348888	.0854951	4.799308	12.59144
#1	.0097655	.0093752	9.509885	.0194198	.1012676	.0525916	.1636199
#2	.0096323	.0094316	9.589077	.0202969	.1014408	.0486175	.2092510
#3	.0100345	.0093857	9.702273	.0201447	.1013611	.0482988	.1994513

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0294436	9.803131	.0753031	.0183411	6.988406	.0926337	.1147710
Stddev	.0005601	.072071	.0004628	.0004969	.106445	.0080455	.0004262
%RSD	1.902245	.7351795	.6145641	2.709093	1.523173	8.685288	.3713318
#1	.0288273	9.885346	.0748498	.0178160	6.932831	.0858186	.1152621
#2	.0299216	9.750858	.0752848	.0188038	6.921250	.1015090	.1144979
#3	.0295819	9.773188	.0757748	.0184034	7.111136	.0905734	.1145531

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.128015	.0185093	-.001811	.0190711	.1788929	.4685964	.0131402
Stddev	.158325	.0017372	.001410	.0008759	.0049813	.0055010	.0015333
%RSD	1.734499	9.385768	77.86397	4.592929	2.784536	1.173922	11.66859
#1	8.963973	.0199596	-.000522	.0200823	.1804449	.4644434	.0121087
#2	9.140148	.0189845	-.003318	.0185464	.1829134	.4665106	.0149021
#3	9.279926	.0165840	-.001594	.0185847	.1733203	.4748352	.0124096

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165369BS Acquired: 12/29/2024 2:30:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS369 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.1960218	.1916168	.0329289
Stddev	.0071354	.0011220	.0006543
%RSD	3.640081	.5855652	1.987098
#1	.1877831	.1906001	.0332602
#2	.2000623	.1914296	.0321752
#3	.2002200	.1928206	.0333513

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2119.304	26661.17	1980.065	1354.943	1913.682
Stddev	3.707	76.36	18.271	2.552	.573
%RSD	.1749082	.2863929	.9227252	.1883701	.0299449
#1	2116.945	26732.25	1996.990	1356.422	1914.100
#2	2123.577	26580.45	1982.509	1351.996	1913.029
#3	2117.390	26670.82	1960.695	1356.411	1913.918

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165395BL Acquired: 12/29/2024 2:34:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS395 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000891	.0006390	-.001288	.0002934	-.000916	-.017680	-.002417
Stddev	.003309	.0015559	.001206	.0009101	.002337	.032739	.001750
%RSD	371.2156	243.4756	93.65882	310.1873	255.1375	185.1719	72.38603
#1	-.004197	-.001141	-.000399	.0000408	.001492	-.044965	-.000576
#2	.002422	.001739	-.000804	.0013032	-.003175	.018622	-.002617
#3	-.000900	.001319	-.002661	-.000464	-.001066	-.026698	-.004058

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001866	-.000036	-.036486	-.000478	.0002745	-.004435	.0037184
Stddev	.0001093	.000133	.037688	.000578	.0001716	.004358	.0370404
%RSD	58.56508	366.4668	103.2937	121.0363	62.49638	98.26124	996.1318
#1	.0001329	-.000189	-.010830	-.000231	.0000778	-.005220	-.016679
#2	.0001146	.000035	-.018873	-.000064	.0003528	.000262	-.018640
#3	.0003124	.000046	-.079755	-.001139	.0003929	-.008348	.046474

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002983	-.042123	.0003044	.0001492	.0192357	-.001968	-.002272
Stddev	.0017953	.077006	.0005516	.0013365	.0116699	.006738	.000163
%RSD	601.8044	182.8117	181.2560	895.9170	60.66792	342.3511	7.161713
#1	-.001354	-.005278	-.000248	-.000485	.0228449	-.008707	-.002384
#2	.000040	-.130630	.000307	.001685	.0061876	-.001967	-.002086
#3	.002209	.009538	.000855	-.000752	.0286747	.004770	-.002347

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1538573	-.000047	-.002435	.0000169	.0025363	-.000266	-.000509
Stddev	.1648549	.002979	.002370	.0005507	.0027161	.000508	.001275
%RSD	107.1479	6326.577	97.35819	3259.992	107.0916	190.8990	250.6875
#1	-.027233	.003184	-.001010	-.000044	-.000186	.000244	.000624
#2	.193591	-.002685	-.001123	-.000501	.002548	-.000270	-.000260
#3	.295214	-.000641	-.005171	.000596	.005247	-.000773	-.001890

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165395BL Acquired: 12/29/2024 2:34:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS395 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0018975	.0000177	.0027182
Stddev	.0038536	.0004447	.0052072
%RSD	203.0923	2512.169	191.5666
#1	.0056580	.0005120	.0085643
#2	-.002043	-.000350	-.001423
#3	.002077	-.000109	.001013

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2082.687	26416.95	1949.419	1344.091	1881.408
Stddev	5.525	58.04	2.362	6.638	4.717
%RSD	.2652905	.2197226	.1211813	.4938752	.2507182
#1	2088.471	26481.97	1950.111	1346.936	1886.706
#2	2077.463	26370.36	1946.788	1336.504	1877.666
#3	2082.128	26398.51	1951.358	1348.831	1879.852

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165395BS Acquired: 12/29/2024 2:38:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS395 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0147537	.0474446	.0167806	.0540696	.1067300	.3927263
Stddev	.0048038	.0006981	.0021548	.0036201	.0027779	.0249059
%RSD	32.55971	1.471316	12.84109	6.695247	2.602721	6.341793
#1	.0164460	.0475787	.0162784	.0517707	.1098441	.4202606
#2	.0093328	.0480658	.0191421	.0582425	.1045073	.3717689
#3	.0184823	.0466892	.0149211	.0521956	.1058385	.3861493

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3862778	.0099473	.0093545	9.653266	.0200717	.1015324
Stddev	.0009947	.0002687	.0001602	.037314	.0009387	.0000672
%RSD	.2575045	2.700812	1.712108	.3865467	4.676699	.0661619
#1	.3854146	.0096386	.0095260	9.631096	.0211482	.1015657
#2	.3860531	.0101281	.0093290	9.696347	.0194233	.1014551
#3	.3873656	.0100752	.0092087	9.632355	.0196437	.1015764

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0486706	.1887063	.0288573	9.932938	.0750436	.0185276
Stddev	.0077641	.0181742	.0014738	.132966	.0001892	.0008705
%RSD	15.95241	9.630954	5.107116	1.338634	.2520918	4.698435
#1	.0397059	.1696238	.0285630	9.984879	.0751342	.0188831
#2	.0530673	.1906847	.0304560	9.781842	.0748261	.0175356
#3	.0532385	.2058104	.0275529	10.03209	.0751704	.0191641

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.768373	.0917771	.1152016	9.374356	.0195526	F -.002042
Stddev	.136816	.0074798	.0003246	.109547	.0036696	.001392
%RSD	1.761192	8.149941	.2817667	1.168578	18.76762	68.19011
#1	7.615665	.0875979	.1155646	9.285380	.0220238	-.003304
#2	7.809673	.0873209	.1149392	9.340979	.0212977	-.002272
#3	7.879781	.1004126	.1151009	9.496709	.0153361	-.000549

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165395BS Acquired: 12/29/2024 2:38:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS395 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0194642	.1813483	F .4737802	.0117451	.1902876	.1937825
Stddev	.0006109	.0056006	.0057944	.0003178	.0018463	.0012022
%RSD	3.138760	3.088321	1.223019	2.705500	.9702854	.6204018
#1	.0199574	.1857805	.4671084	.0120778	.1898985	.1933321
#2	.0187808	.1832106	.4766782	.0114448	.1886669	.1928705
#3	.0196545	.1750537	.4775538	.0117126	.1922975	.1951449

Elem	Li6707
Units	ppm
Avg	.0337440
Stddev	.0026869
%RSD	7.962654
#1	.0323491
#2	.0320414
#3	.0368415

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2093.763	26467.48	1973.017	1347.216	1893.213
Stddev	.501	266.71	15.889	16.632	2.034
%RSD	.0239487	1.007683	.8053295	1.234519	.1074113
#1	2093.483	26179.05	1985.955	1328.449	1891.390
#2	2093.465	26518.21	1977.813	1353.069	1895.406
#3	2094.342	26705.17	1955.282	1360.130	1892.843

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165396BL Acquired: 12/29/2024 2:42:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS396 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000291	.0020937	-.003321	-.002026	-.000433	-.016057	-.000915
Stddev	.004397	.0057806	.001619	.006350	.001020	.021314	.001059
%RSD	1508.958	276.0946	48.73814	313.4143	235.9258	132.7445	115.7284
#1	.000374	.0085032	-.001621	-.002592	.000619	-.030852	-.000359
#2	-.004983	.0005025	-.004843	.004588	-.001419	.008374	-.000250
#3	.003735	-.002725	-.003500	-.008074	-.000498	-.025692	-.002136

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000168	-.000103	-.033343	.0007810	-.000072	.0032191	.0236806
Stddev	.000093	.000042	.030529	.0000484	.000317	.0019949	.0100678
%RSD	55.54595	40.46378	91.56118	6.200584	441.3612	61.96970	42.51503
#1	-.000212	-.000083	.001325	.0007965	-.000412	.0013422	.0267436
#2	-.000061	-.000075	-.056214	.0008198	.000215	.0030011	.0318611
#3	-.000231	-.000151	-.045141	.0007267	-.000018	.0053141	.0124370

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001476	-.036577	.0004053	.0000789	.0072891	-.008158	-.002818
Stddev	.002001	.097665	.0003881	.0012789	.0205575	.008677	.000229
%RSD	135.5448	267.0133	95.76170	1621.036	282.0293	106.3644	8.142458
#1	-.000550	.076070	.0005987	.0003408	-.006601	-.013595	-.003077
#2	-.000106	-.097525	.0006588	.0012066	-.002436	.001849	-.002638
#3	-.003773	-.088276	-.000042	-.001311	.030905	-.012729	-.002741

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0946488	.0025828	-.004408	.0008377	.0030857	-.001236	-.001555
Stddev	.1171845	.0021712	.000509	.0001944	.0011244	.001297	.001055
%RSD	123.8097	84.06089	11.54789	23.20364	36.43869	104.9400	67.85489
#1	.0173153	.0039825	-.003996	.0009205	.0040640	-.002514	-.002416
#2	.2294761	.0036843	-.004977	.0009769	.0018573	.000079	-.000378
#3	.0371551	.0000817	-.004252	.0006156	.0033357	-.001273	-.001872

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165396BL Acquired: 12/29/2024 2:42:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS396 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0063388	-.000180	.0003237
Stddev	.0036865	.000264	.0070555
%RSD	58.15719	146.9808	2179.728
#1	.0068712	.000108	.0054381
#2	.0024151	-.000411	-.007725
#3	.0097302	-.000236	.003258

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2097.808	26501.36	1961.102	1339.338	1903.268
Stddev	2.526	250.71	58.445	10.400	2.264
%RSD	.1203889	.9460423	2.980196	.7764725	.1189338
#1	2097.451	26766.27	1897.076	1351.339	1904.464
#2	2095.480	26470.01	1974.643	1333.700	1900.658
#3	2100.493	26267.79	2011.588	1332.975	1904.683

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165396BS Acquired: 12/29/2024 2:46:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS396 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192401	.0479919	.0178305	.0609958	.1127922	.4079792
Stddev	.0008155	.0019630	.0003621	.0006739	.0081662	.0363561
%RSD	4.238546	4.090249	2.030642	1.104806	7.240082	8.911269
#1	.0183062	.0461210	.0178607	.0614564	.1035232	.3703359
#2	.0198112	.0478191	.0181765	.0602223	.1189274	.4107072
#3	.0196029	.0500356	.0174542	.0613086	.1159260	.4428945

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3897207	.0100422	.0097007	9.772591	.0210752	.1048302
Stddev	.0191110	.0004017	.0001154	.458849	.0004283	.0002818
%RSD	4.903763	4.000179	1.189486	4.695260	2.032064	.2687868
#1	.3720348	.0095852	.0095697	9.311834	.0210021	.1046830
#2	.3871339	.0103395	.0097450	9.776433	.0215353	.1046524
#3	.4099933	.0102018	.0097874	10.22951	.0206882	.1051550

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0397202	.1794466	.0314613	10.11432	.0782353	.0191450
Stddev	.0063983	.0097638	.0019375	.46120	.0004321	.0007868
%RSD	16.10855	5.441087	6.158473	4.559829	.5522407	4.109741
#1	.0403300	.1874301	.0292468	9.67223	.0786918	.0192422
#2	.0457919	.1823490	.0322927	10.07823	.0778327	.0183141
#3	.0330388	.1685606	.0328444	10.59250	.0781814	.0198787

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.203092	.1027307	.1197692	9.315703	.0203552	F -.002217
Stddev	.384556	.0118648	.0015165	.535441	.0010280	.000945
%RSD	4.178553	11.54940	1.266179	5.747728	5.050520	42.62991
#1	8.804465	.1060680	.1180671	8.729436	.0205157	-.003010
#2	9.232978	.0895546	.1209766	9.438791	.0192564	-.001171
#3	9.571833	.1125694	.1202638	9.778882	.0212936	-.002470

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165396BS Acquired: 12/29/2024 2:46:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS396 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204782	.1844796	F .4786554	.0116604	.1935522	.1974817
Stddev	.0009721	.0017081	.0215431	.0005589	.0105339	.0092613
%RSD	4.746782	.9258904	4.500748	4.793447	5.442401	4.689706
#1	.0193558	.1829308	.4558329	.0122924	.1833994	.1886512
#2	.0210364	.1841964	.4814962	.0114580	.1928274	.1966732
#3	.0210424	.1863116	.4986372	.0112309	.2044297	.2071208

Elem	Li6707
Units	ppm
Avg	.0315776
Stddev	.0064187
%RSD	20.32671
#1	.0250324
#2	.0318385
#3	.0378618

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2044.804	25694.75	1950.494	1303.314	1848.113
Stddev	4.260	109.87	71.237	3.179	5.114
%RSD	.2083233	.4275875	3.652235	.2439202	.2767079
#1	2047.294	25592.00	2024.328	1302.258	1851.010
#2	2047.233	25810.56	1944.978	1306.886	1851.120
#3	2039.886	25681.69	1882.176	1300.797	1842.208

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165434BL Acquired: 12/29/2024 2:51:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS434 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002084	.0010072	-.003004	-.002745	-.001363	.0034539	-.000524
Stddev	.002775	.0006947	.001137	.003051	.002358	.0341674	.001025
%RSD	133.1848	68.97454	37.84628	111.1532	173.0269	989.2402	195.4256
#1	-.001445	.0004067	-.001707	-.006126	-.003578	-.024994	-.001540
#2	.000317	.0017681	-.003829	-.001915	-.001624	.041352	.000509
#3	-.005122	.0008469	-.003475	-.000195	.001115	-.005996	-.000541

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000128	-.000055	-.026464	-.000736	.0001030	-.009443	-.011193
Stddev	.000134	.000072	.024157	.001062	.0002618	.019345	.047227
%RSD	104.7029	130.9851	91.28216	144.3686	254.2932	204.8720	421.9206
#1	-.000215	-.000024	.001373	-.001295	.0002471	.006396	-.031784
#2	.000026	-.000137	-.038838	.000489	-.000199	-.031004	-.044629
#3	-.000195	-.000004	-.041928	-.001402	.000261	-.003720	.042833

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000959	-.065482	.0003811	-.000438	-.021054	-.010224	-.003206
Stddev	.000886	.117175	.0005826	.000350	.049687	.001494	.000723
%RSD	92.40568	178.9430	152.8697	80.02282	235.9977	14.61110	22.55366
#1	-.000421	.056626	.0000442	-.000824	.026990	-.009401	-.003487
#2	-.001981	-.177007	.0010538	-.000141	-.072236	-.009322	-.002385
#3	-.000474	-.076065	.0000453	-.000348	-.017917	-.011948	-.003747

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0524357	.0007691	-.002898	-.000197	.0047815	-.002520	-.002002
Stddev	.1407496	.0009598	.001648	.000371	.0052572	.000563	.000901
%RSD	268.4234	124.7894	56.84342	188.2533	109.9487	22.34853	45.02265
#1	-.087502	.0008400	-.004797	.000211	.0046198	-.002747	-.000971
#2	.193984	.0016915	-.002059	-.000290	-.000393	-.001879	-.002398
#3	.050825	-.000224	-.001840	-.000513	.010118	-.002934	-.002638

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165434BL Acquired: 12/29/2024 2:51:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS434 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0005064	.0001445	-.000692
Stddev	.0024321	.0002665	.002663
%RSD	480.3222	184.3636	384.5639
#1	.0017727	.0004461	-.002175
#2	.0020440	-.000059	.002382
#3	-.002298	.000047	-.002283

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2023.970	25483.85	1917.914	1290.053	1831.724
Stddev	3.522	53.73	11.560	6.854	1.339
%RSD	.1739905	.2108557	.6027432	.5313294	.0731124
#1	2024.216	25424.33	1930.249	1297.925	1833.204
#2	2027.363	25498.39	1907.328	1285.408	1831.372
#3	2020.333	25528.81	1916.165	1286.826	1830.595

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165434BS Acquired: 12/29/2024 2:55:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS434 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0164334	.0498400	.0153327	.0535539	.1038283	.3603779
Stddev	.0039946	.0041954	.0015784	.0041804	.0011046	.0258820
%RSD	24.30796	8.417829	10.29420	7.805885	1.063869	7.181901
#1	.0208596	.0513297	.0150866	.0556033	.1048586	.3444190
#2	.0130962	.0451029	.0170196	.0563141	.1039642	.3464743
#3	.0153445	.0530872	.0138918	.0487443	.1026620	.3902402

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3782532	.0097549	.0093794	9.583180	.0193517	.1006559
Stddev	.0023895	.0002219	.0001344	.052199	.0008541	.0001539
%RSD	.6317337	2.275135	1.432519	.5446963	4.413370	.1529066
#1	.3810117	.0095496	.0093146	9.569551	.0201442	.1005714
#2	.3769283	.0097246	.0095339	9.539147	.0184471	.1008335
#3	.3768196	.0099904	.0092898	9.640842	.0194638	.1005627

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0431720	.1910609	.0280423	9.739074	.0743727	.0194595
Stddev	.0050879	.0558743	.0015242	.153332	.0006963	.0015214
%RSD	11.78512	29.24425	5.435420	1.574403	.9362858	7.818112
#1	.0402665	.1315494	.0276516	9.905602	.0747417	.0184981
#2	.0402026	.1992359	.0267515	9.707886	.0748070	.0186668
#3	.0490468	.2423974	.0297239	9.603733	.0735695	.0212135

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.741416	.0788800	.1131157	9.076595	.0206637	F -.005137
Stddev	.080691	.0076187	.0006157	.072234	.0020934	.001851
%RSD	.9230862	9.658614	.5442873	.7958281	10.13093	36.02712
#1	8.707611	.0856632	.1129802	9.159044	.0226722	-.003671
#2	8.833511	.0706370	.1137878	9.024444	.0184946	-.007217
#3	8.683125	.0803400	.1125790	9.046297	.0208242	-.004523

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165434BS Acquired: 12/29/2024 2:55:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS434 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0194195	.1739495	F .4641618	.0119337	.1871036	.1945887
Stddev	.0006099	.0086523	.0035111	.0042283	.0052367	.0011563
%RSD	3.140706	4.974015	.7564310	35.43171	2.798846	.5942167
#1	.0196316	.1645911	.4617923	.0129201	.1900371	.1951880
#2	.0187319	.1755993	.4681955	.0155816	.1810576	.1953224
#3	.0198951	.1816581	.4624975	.0072993	.1902160	.1932558

Elem	Li6707
Units	ppm
Avg	.0283772
Stddev	.0033052
%RSD	11.64740
#1	.0251865
#2	.0281590
#3	.0317861

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2077.328	26139.87	1970.618	1337.382	1877.209
Stddev	3.363	143.98	7.591	5.793	2.167
%RSD	.1619071	.5508073	.3851981	.4331517	.1154358
#1	2079.157	26180.99	1977.985	1337.645	1879.553
#2	2073.447	26258.82	1962.822	1343.039	1875.279
#3	2079.381	25979.80	1971.047	1331.462	1876.795

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165465BL Acquired: 12/29/2024 2:59:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS465 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002740	.0000377	-.002847	-.003725	-.002040	-.009924	-.002322
Stddev	.002631	.0014804	.002228	.000544	.003040	.011072	.000768
%RSD	96.02326	3927.563	78.25118	14.60139	149.0198	111.5700	33.08495
#1	-.000066	.0003076	-.003658	-.004095	-.004116	-.022181	-.002338
#2	-.002829	.0013646	-.004556	-.003100	-.003453	-.006944	-.003083
#3	-.005325	-.001559	-.000327	-.003979	.001449	-.000647	-.001546

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000114	-.000057	-.019327	.0003357	.0000079	-.008989	.0144926
Stddev	.000080	.000040	.013071	.0013293	.0002432	.000548	.0673391
%RSD	70.29506	70.08579	67.63356	395.9303	3064.494	6.091968	464.6439
#1	-.000204	-.000085	-.015913	.0018706	.0002826	-.008756	-.061577
#2	-.000049	-.000074	-.008301	-.000428	-.000180	-.009614	.038575
#3	-.000090	-.000011	-.033766	-.000436	-.000079	-.008595	.066479

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002190	-.009696	-.000061	-.000804	.0146897	-.014674	-.002676
Stddev	.001707	.077028	.000317	.001020	.0387114	.009951	.000560
%RSD	77.91891	794.4171	519.7791	126.9127	263.5285	67.81442	20.93019
#1	-.002556	.017720	-.000391	-.001104	.0387901	-.025979	-.002301
#2	-.003684	.049873	.000240	-.001641	.0352423	-.010804	-.003319
#3	-.000330	-.096682	-.000032	.000333	-.029963	-.007239	-.002406

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.030492	.0011814	-.002395	-.000223	.0025401	-.000918	-.003571
Stddev	.013134	.0010624	.001486	.000412	.0059615	.000968	.001227
%RSD	43.07571	89.92169	62.01939	184.5312	234.6922	105.4625	34.35712
#1	-.015877	.0011354	-.002293	-.000005	-.003282	-.000382	-.003391
#2	-.041309	.0022661	-.000964	-.000698	.008632	-.000336	-.002444
#3	-.034288	.0001429	-.003929	.000034	.002270	-.002035	-.004878

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165465BL Acquired: 12/29/2024 2:59:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS465 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0009438	-.000167	-.004045
Stddev	.0026228	.000400	.006521
%RSD	277.9043	239.1348	161.2078
#1	.0035303	-.000272	-.003279
#2	-.001714	-.000504	-.010916
#3	.001015	.000274	.002059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2090.874	26209.24	1977.458	1323.866	1887.689
Stddev	1.737	237.58	16.606	11.783	1.789
%RSD	.0830775	.9064711	.8397718	.8900441	.0947787
#1	2091.650	26405.18	1958.328	1331.576	1889.631
#2	2088.884	25944.99	1988.152	1310.303	1886.109
#3	2092.088	26277.55	1985.896	1329.720	1887.325

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165465BS Acquired: 12/29/2024 3:03:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS465 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0231373	.0487896	.0159731	.0574278	.1057745	.3955640
Stddev	.0022799	.0041671	.0022227	.0015260	.0036701	.0069812
%RSD	9.853691	8.540862	13.91495	2.657251	3.469703	1.764875
#1	.0257554	.0535346	.0178593	.0590721	.1040477	.4032974
#2	.0215895	.0457259	.0135227	.0571542	.1032863	.3897267
#3	.0220670	.0471081	.0165372	.0560571	.1099895	.3936678

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3898906	.0100723	.0094652	9.733947	.0204789	.1027179
Stddev	.0042903	.0001896	.0000926	.132769	.0010168	.0005387
%RSD	1.100376	1.881961	.9787097	1.363980	4.964938	.5244225
#1	.3907071	.0100478	.0093583	9.821738	.0213657	.1033397
#2	.3937139	.0102729	.0095221	9.798896	.0207018	.1023922
#3	.3852507	.0098961	.0095153	9.581207	.0193692	.1024219

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0377417	.1776266	.0273938	9.876404	.0765703	.0197843
Stddev	.0057495	.0427851	.0012196	.070710	.0003238	.0009033
%RSD	15.23392	24.08712	4.451954	.7159438	.4229287	4.565952
#1	.0443293	.2120098	.0278623	9.943987	.0763673	.0195406
#2	.0351624	.1911583	.0283096	9.882288	.0764000	.0207846
#3	.0337335	.1297118	.0260094	9.802936	.0769438	.0190279

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.980116	.0947935	.1168290	9.225723	.0198985	F -.002892
Stddev	.135240	.0041468	.0008592	.108041	.0022722	.002356
%RSD	1.505993	4.374537	.7354675	1.171089	11.41883	81.45647
#1	9.018699	.0992216	.1161496	9.229080	.0217003	-.003017
#2	9.091871	.0941573	.1177949	9.332046	.0173459	-.000476
#3	8.829777	.0910016	.1165424	9.116042	.0206491	-.005184

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165465BS Acquired: 12/29/2024 3:03:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS465 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197885	.1872356	F .4736512	.0116941	.1928600	.1978052
Stddev	.0003037	.0036579	.0068325	.0006029	.0059600	.0018144
%RSD	1.534669	1.953622	1.442509	5.155277	3.090298	.9172825
#1	.0194493	.1886396	.4745173	.0112500	.1993685	.1993865
#2	.0200352	.1830837	.4800094	.0114519	.1915425	.1982048
#3	.0198810	.1899835	.4664271	.0123804	.1876691	.1958243

Elem	Li6707
Units	ppm
Avg	.0246227
Stddev	.0028611
%RSD	11.61968
#1	.0267463
#2	.0257527
#3	.0213692

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2081.990	26214.60	1974.006	1334.479	1879.880
Stddev	2.515	282.77	27.234	11.612	1.606
%RSD	.1208168	1.078686	1.379625	.8701558	.0854055
#1	2084.883	26511.23	1963.154	1344.622	1880.699
#2	2080.316	25948.09	1953.872	1321.813	1880.911
#3	2080.772	26184.48	2004.993	1337.001	1878.030

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165488BL Acquired: 12/29/2024 3:07:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS488 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006122	.0002238	-.004451	-.003246	-.001321	-.009422	-.000899
Stddev	.002122	.0048542	.002532	.004089	.002017	.019002	.001026
%RSD	34.66118	2168.674	56.87998	125.9572	152.6849	201.6751	114.0874
#1	-.006290	.0055807	-.006386	.000066	-.003393	-.026871	-.000607
#2	-.008155	-.003883	-.001586	-.001989	.000637	-.012219	-.000051
#3	-.003921	-.001026	-.005383	-.007816	-.001207	.010824	-.002039

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000055	-.000027	-.017188	-.000647	.0003976	-.011068	-.022115
Stddev	.000148	.000066	.007082	.000880	.0001442	.008232	.033679
%RSD	270.8018	243.4065	41.20147	136.1465	36.25373	74.37783	152.2889
#1	-.000214	-.000064	-.012938	-.001547	.0002479	-.001833	.006344
#2	.000080	-.000066	-.025364	-.000606	.0004097	-.013737	-.013392
#3	-.000031	.000049	-.013263	.000213	.0005354	-.017635	-.059298

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001894	-.026011	-.000522	.0004847	.0229791	-.004459	-.002219
Stddev	.001557	.114333	.000366	.0010023	.0355846	.009864	.000483
%RSD	82.24047	439.5608	70.14289	206.7907	154.8563	221.2256	21.75373
#1	-.000130	-.127379	-.000839	.0012063	.0065942	-.008402	-.001915
#2	-.003080	.097922	-.000606	.0009076	-.001461	.006767	-.001967
#3	-.002471	-.048576	-.000121	-.000660	.063805	-.011741	-.002776

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.079591	-.000028	-.004063	-.000019	-.002185	-.001325	-.001053
Stddev	.115364	.003455	.001604	.000578	.004329	.001404	.001279
%RSD	144.9460	12454.13	39.47697	3064.831	198.1781	105.9228	121.4663
#1	-.209661	-.003266	-.002766	-.000676	-.000705	-.001939	.000111
#2	-.039460	-.000426	-.003567	.000408	-.007060	-.002317	-.000848
#3	.010348	.003609	-.005857	.000212	.001211	.000281	-.002421

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: PB165488BL Acquired: 12/29/2024 3:07:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS488 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0022260	-.000104	-.006945
Stddev	.0045722	.000066	.000854
%RSD	205.4006	63.82885	12.29090
#1	-.002939	-.000097	-.007875
#2	.005756	-.000174	-.006198
#3	.003861	-.000041	-.006760

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2089.067	26080.60	1972.370	1322.057	1885.920
Stddev	.856	157.07	9.273	13.221	3.654
%RSD	.0409841	.6022548	.4701688	1.000058	.1937257
#1	2089.212	26188.97	1982.228	1325.803	1884.410
#2	2088.148	25900.46	1963.819	1307.366	1883.263
#3	2089.842	26152.36	1971.063	1333.001	1890.086

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165488BS Acquired: 12/29/2024 3:11:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS488 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238740	.0485024	.0148332	.0582887	.1073497	.4009119
Stddev	.0042882	.0045181	.0024680	.0026085	.0010864	.0184018
%RSD	17.96166	9.315232	16.63844	4.475145	1.012024	4.589976
#1	.0224015	.0511579	.0170983	.0612346	.1081108	.3809919
#2	.0287044	.0432856	.0151983	.0562723	.1078328	.4044674
#3	.0205161	.0510637	.0122030	.0573592	.1061055	.4172766

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3887606	.0099774	.0095157	9.793779	.0204490	.1028120
Stddev	.0054544	.0003208	.0000702	.102188	.0007799	.0005088
%RSD	1.403034	3.215054	.7376565	1.043402	3.814093	.4948639
#1	.3948920	.0098123	.0095492	9.911771	.0199091	.1026371
#2	.3869420	.0097728	.0094351	9.733793	.0213432	.1033852
#3	.3844478	.0103471	.0095629	9.735774	.0200947	.1024138

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0445658	.2307566	.0289556	10.05085	.0767432	.0173209
Stddev	.0085852	.0271931	.0027027	.05128	.0008207	.0015336
%RSD	19.26415	11.78434	9.333786	.5102155	1.069346	8.853888
#1	.0418962	.2521112	.0319263	10.07387	.0758431	.0170942
#2	.0376326	.2400155	.0282979	10.08658	.0774499	.0159133
#3	.0541687	.2001431	.0266424	9.99209	.0769365	.0189552

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.949352	.0998108	.1171617	9.428030	.0198170	F -.003027
Stddev	.065807	.0021471	.0010151	.288715	.0025790	.002110
%RSD	.7353223	2.151181	.8664260	3.062306	13.01416	69.71083
#1	9.016632	.0979566	.1168474	9.703082	.0168536	-.000593
#2	8.885125	.0993126	.1163408	9.453647	.0215535	-.004147
#3	8.946299	.1021632	.1182967	9.127359	.0210440	-.004342

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: PB165488BS Acquired: 12/29/2024 3:11:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS488 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193268	.1803390	F .4732374	.0110670	.1952332	.1986391
Stddev	.0003826	.0069716	.0030520	.0009297	.0051201	.0031148
%RSD	1.979595	3.865810	.6449171	8.400251	2.622536	1.568092
#1	.0193852	.1869483	.4756479	.0108412	.2011380	.2018666
#2	.0189183	.1730543	.4698058	.0102710	.1925359	.1984002
#3	.0196767	.1810144	.4742586	.0120888	.1920258	.1956506

Elem	Li6707
Units	ppm
Avg	.0218573
Stddev	.0056830
%RSD	26.00050
#1	.0159890
#2	.0273349
#3	.0222479

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2090.002	26299.01	1978.458	1334.174	1887.591
Stddev	1.455	130.34	20.789	13.057	1.196
%RSD	.0696093	.4955896	1.050770	.9786838	.0633778
#1	2088.592	26151.46	1955.242	1320.674	1886.428
#2	2091.498	26347.13	1995.353	1346.738	1888.818
#3	2089.916	26398.44	1984.778	1335.112	1887.526

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-01 Acquired: 12/29/2024 3:15:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK41 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1463630	-.159005	1.750721	.2170751	.0715134	96.66161
Stddev	.0014979	.003098	.002090	.0037833	.0011440	.64102
%RSD	1.023379	1.948244	.1194022	1.742837	1.599681	.6631560
#1	.1473952	-.156970	1.749270	.2136024	.0717929	95.92183
#2	.1470489	-.157474	1.749777	.2211067	.0702556	97.05266
#3	.1446451	-.162570	1.753117	.2165162	.0724918	97.01034

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.057762	.0237052	.0078709	111.5652	.1279395	-.019296
Stddev	.008195	.0002112	.0001281	.7081	.0009696	.001804
%RSD	.7747332	.8908936	1.627389	.6347391	.7578370	9.346598
#1	1.048353	.0235958	.0077388	110.7643	.1290277	-.017239
#2	1.063334	.0239486	.0079946	112.1087	.1276232	-.020604
#3	1.061598	.0235711	.0078793	111.8224	.1271675	-.020046

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1776267	387.7172	9.780538	50.87502	.2028598	.0026568
Stddev	.0066732	3.1290	.082890	.38432	.0012479	.0007915
%RSD	3.756880	.8070215	.8474953	.7554271	.6151360	29.79292
#1	.1752947	384.1327	9.685335	50.44093	.2037453	.0019014
#2	.1851529	389.9021	9.836680	51.01218	.2034014	.0025889
#3	.1724323	389.1167	9.819600	51.17195	.2014326	.0034801

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5474760	.2511179	.8721306	11.81448	F 10.93557	.1442247
Stddev	.0543258	.0118338	.0024962	.21091	.02073	.0061901
%RSD	9.922961	4.712439	.2862138	1.785211	.1895219	4.291983
#1	.5364793	.2377476	.8750122	11.86317	10.95522	.1371678
#2	.4994898	.2602453	.8707442	11.99679	10.93756	.1467700
#3	.6064590	.2553607	.8706353	11.58348	10.91391	.1487364

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-01 Acquired: 12/29/2024 3:15:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK41 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079569	5.031465	13.18990	.0667018	1.001848	-.175852
Stddev	.0002509	.005408	.04843	.0029777	.006881	.001179
%RSD	3.153569	.1074736	.3671586	4.464251	.6868504	.6705879
#1	.0080842	5.030767	13.23847	.0656076	.994657	-.174504
#2	.0076678	5.026441	13.14161	.0700718	1.008371	-.176361
#3	.0081185	5.037188	13.18961	.0644260	1.002516	-.176691

Elem	Li6707
Units	ppm
Avg	.1097696
Stddev	.0013126
%RSD	1.195745
#1	.1082587
#2	.1104209
#3	.1106291

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2463.880	30856.37	2367.876	1566.336	1873.190
Stddev	3.041	88.48	7.297	2.543	1.025
%RSD	.1234049	.2867621	.3081746	.1623460	.0547024
#1	2466.259	30915.62	2367.453	1568.872	1872.036
#2	2464.927	30898.82	2375.376	1566.348	1873.993
#3	2460.454	30754.65	2360.800	1563.787	1873.541

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-02 Acquired: 12/29/2024 3:19:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK42 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1609571	-.054255	3.218585	.1055491	.0218032	92.52334	1.189512
Stddev	.0094211	.002626	.009483	.0070023	.0054283	.48909	.004664
%RSD	5.853174	4.841066	.2946431	6.634185	24.89685	.5286147	.3920891
#1	.1715301	-.054152	3.211205	.0975790	.0165843	93.04136	1.194895
#2	.1534534	-.056931	3.215268	.1107132	.0274191	92.45916	1.186682
#3	.1578878	-.051681	3.229281	.1083551	.0214063	92.06951	1.186959

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0147774	.0089642	119.2024	.1515204	.0652965	.3020112	200.6600
Stddev	.0001312	.0000843	.4667	.0001728	.0008838	.0030193	.8855
%RSD	.8879263	.9402889	.3914880	.1140374	1.353503	.9997232	.4412860
#1	.0147976	.0088672	119.6259	.1513970	.0642770	.3000877	201.6823
#2	.0146372	.0090203	119.2791	.1517179	.0658448	.3054911	200.1645
#3	.0148973	.0090049	118.7021	.1514464	.0657677	.3004548	200.1332

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.89893	51.65427	.2550616	.0022932	.5314412	.2161816	1.253712
Stddev	.05511	.31893	.0008437	.0001797	.0207666	.0032596	.005949
%RSD	.4631894	.6174415	.3307656	7.834060	3.907592	1.507796	.4745366
#1	11.96167	51.78765	.2549160	.0023768	.5198137	.2157849	1.258474
#2	11.87677	51.88486	.2543002	.0020870	.5190931	.2131385	1.255619
#3	11.85834	51.29029	.2559686	.0024158	.5554167	.2196214	1.247043

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.34601	9.926209	.1073646	.0103826	5.279164	12.68114	.0806380
Stddev	.07696	.029015	.0013554	.0009085	.007010	.08570	.0016884
%RSD	.6782725	.2923062	1.262426	8.750666	.1327790	.6757963	2.093790
#1	11.43437	9.920543	.1081315	.0094690	5.279192	12.77804	.0796512
#2	11.30992	9.900445	.1081626	.0112860	5.272141	12.65007	.0796752
#3	11.29373	9.957639	.1057996	.0103927	5.286160	12.61532	.0825875

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-02 Acquired: 12/29/2024 3:19:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK42 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.042649	.0228593	.1084351
Stddev	.002620	.0007021	.0025922
%RSD	.2512596	3.071431	2.390568
#1	1.045087	.0231335	.1064635
#2	1.039879	.0220615	.1074705
#3	1.042982	.0233830	.1113714

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2543.235	31975.36	2405.487	1623.708	1834.017
Stddev	5.826	50.49	12.823	4.153	4.442
%RSD	.2290967	.1579182	.5330549	.2557738	.2422011
#1	2547.989	31925.97	2390.681	1618.952	1836.057
#2	2544.980	32026.89	2412.854	1625.549	1837.074
#3	2536.735	31973.22	2412.926	1626.622	1828.922

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-03 Acquired: 12/29/2024 3:23:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK43 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2090971	-.060112	4.889952	.1094327	.0241046	82.79550
Stddev	.0048623	.003274	.013658	.0107974	.0016515	.25071
%RSD	2.325356	5.447013	.2793016	9.866697	6.851177	.3028105
#1	.2123033	-.061326	4.874903	.1063858	.0235308	82.96748
#2	.2114854	-.062605	4.893392	.1004862	.0228167	82.50783
#3	.2035025	-.056404	4.901561	.1214262	.0259665	82.91119

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.234106	.0142652	.0119395	98.55484	.1412919	.0749064
Stddev	.004827	.0002334	.0000750	.20026	.0004429	.0008567
%RSD	.3911169	1.636136	.6284093	.2032003	.3134610	1.143727
#1	1.234893	.0144761	.0119547	98.73731	.1408676	.0754809
#2	1.228934	.0143050	.0120057	98.34058	.1412568	.0739217
#3	1.238491	.0140144	.0118580	98.58664	.1417513	.0753167

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4480507	198.3693	14.22448	36.17607	.2979263	.0040819
Stddev	.0104321	.6339	.06644	.16232	.0015779	.0008754
%RSD	2.328320	.3195539	.4670562	.4486825	.5296129	21.44662
#1	.4576663	198.9149	14.27478	36.28971	.2961105	.0039767
#2	.4369594	197.6739	14.14917	35.99018	.2987049	.0050052
#3	.4495263	198.5191	14.24949	36.24833	.2989636	.0032638

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4719113	.2140762	1.522498	9.801546	F 10.48362	.1084030
Stddev	.0268415	.0113357	.003184	.059100	.02555	.0021342
%RSD	5.687818	5.295192	.2090997	.6029694	.2437342	1.968739
#1	.4416346	.2009869	1.525647	9.734198	10.46603	.1075384
#2	.4813091	.2205672	1.519281	9.844762	10.51293	.1068368
#3	.4927902	.2206744	1.522566	9.825679	10.47190	.1108338

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-03 Acquired: 12/29/2024 3:23:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK43 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107109	4.577994	11.80004	.1217919	1.005226	.0124731
Stddev	.0002459	.010857	.04779	.0016316	.006471	.0006755
%RSD	2.296237	.2371581	.4049588	1.339699	.6437224	5.416013
#1	.0105139	4.567298	11.84453	.1207758	1.012324	.0125366
#2	.0106323	4.589006	11.80607	.1236740	.999656	.0131146
#3	.0109866	4.577678	11.74953	.1209260	1.003697	.0117680

Elem	Li6707
Units	ppm
Avg	.0912714
Stddev	.0021907
%RSD	2.400182
#1	.0887531
#2	.0923231
#3	.0927378

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2619.805	32942.47	2491.205	1674.344	1838.591
Stddev	7.334	238.52	16.335	7.045	1.699
%RSD	.2799382	.7240364	.6557240	.4207868	.0924175
#1	2619.332	32796.94	2472.746	1667.573	1839.849
#2	2627.363	33217.73	2497.073	1681.635	1839.265
#3	2612.719	32812.74	2503.795	1673.823	1836.658

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-04 Acquired: 12/29/2024 3:27:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2673423	-.074750	5.102137	.1409318	.0354449	88.17917
Stddev	.0029061	.002570	.034112	.0052454	.0007311	.29048
%RSD	1.087046	3.438412	.6685827	3.721908	2.062711	.3294167
#1	.2659277	-.077306	5.073985	.1450678	.0355408	87.90912
#2	.2654143	-.074776	5.140072	.1426957	.0346706	88.48648
#3	.2706849	-.072166	5.092356	.1350319	.0361233	88.14190

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.300262	.0165473	.0134803	93.73716	.1670647	.0809681
Stddev	.003412	.0000581	.0001955	.19176	.0007291	.0009976
%RSD	.2623735	.3513175	1.450089	.2045758	.4364113	1.232124
#1	1.296355	.0164826	.0132888	93.52220	.1673418	.0810775
#2	1.301781	.0165950	.0136796	93.89065	.1662376	.0799203
#3	1.302650	.0165645	.0134726	93.79862	.1676145	.0819066

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4924001	244.0990	16.91175	33.08288	.3051263	.0057162
Stddev	.0070126	1.0398	.05925	.17851	.0025519	.0017593
%RSD	1.424172	.4259734	.3503564	.5395760	.8363588	30.77799
#1	.4857439	243.2162	16.84762	32.88719	.3044394	.0037306
#2	.4997217	245.2452	16.96446	33.23680	.3079514	.0070810
#3	.4917347	243.8357	16.92316	33.12466	.3029881	.0063370

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5095922	.2277521	1.421525	8.336619	F 11.77534	.1106744
Stddev	.0406066	.0073975	.007341	.089212	.08637	.0012162
%RSD	7.968456	3.248052	.5163971	1.070126	.7335102	1.098890
#1	.5353766	.2277842	1.415012	8.235916	11.71077	.1103761
#2	.5306157	.2203387	1.429480	8.368181	11.87345	.1096352
#3	.4627844	.2351336	1.420083	8.405760	11.74179	.1120120

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-04 Acquired: 12/29/2024 3:27:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0099988	3.779626	12.47545	.0934257	.7972505	-.044572
Stddev	.0002287	.031655	.14079	.0004533	.0073617	.000835
%RSD	2.287224	.8375193	1.128516	.4852495	.9233900	1.872970
#1	.0097363	3.757577	12.49175	.0930157	.8055967	-.043897
#2	.0101046	3.815898	12.60738	.0939126	.7916808	-.045506
#3	.0101554	3.765404	12.32722	.0933487	.7944740	-.044313

Elem	Li6707
Units	ppm
Avg	.0907086
Stddev	.0023002
%RSD	2.535858
#1	.0894765
#2	.0933624
#3	.0892869

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2676.787	33631.47	2565.624	1714.341	1823.218
Stddev	6.548	188.38	19.584	10.114	7.564
%RSD	.2446392	.5601333	.7633054	.5899759	.4148467
#1	2683.903	33664.42	2562.852	1725.010	1827.423
#2	2671.015	33801.20	2547.575	1713.121	1814.487
#3	2675.441	33428.79	2586.446	1704.892	1827.745

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-05 Acquired: 12/29/2024 3:31:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2631522	-.072265	4.812199	.1344588	.0348988	84.24845
Stddev	.0020108	.002105	.041123	.0015702	.0022626	.22466
%RSD	.7641210	2.912702	.8545639	1.167768	6.483388	.2666636
#1	.2636417	-.071740	4.787614	.1330715	.0362970	84.46750
#2	.2609418	-.074583	4.789308	.1341416	.0322883	84.25928
#3	.2648730	-.070473	4.859674	.1361634	.0361110	84.01857

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.244073	.0157609	.0127578	89.66916	.1602416	.0750555
Stddev	.003864	.0001424	.0002018	.27598	.0010133	.0024676
%RSD	.3105998	.9035764	1.581701	.3077809	.6323403	3.287659
#1	1.248044	.0156367	.0125957	89.97251	.1613495	.0733538
#2	1.243850	.0157297	.0126938	89.60204	.1600137	.0739271
#3	1.240326	.0159163	.0129838	89.43292	.1593618	.0778855

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4675949	233.1865	16.15060	31.68008	.2884471	.0036638
Stddev	.0047300	.8633	.04944	.01863	.0021385	.0002402
%RSD	1.011560	.3702188	.3061104	.0588164	.7413917	6.555664
#1	.4701044	234.0571	16.20456	31.65989	.2880622	.0033936
#2	.4621389	233.1718	16.13976	31.69661	.2865272	.0037447
#3	.4705412	232.3307	16.10748	31.68375	.2907519	.0038530

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4833822	.2075009	1.368308	7.985648	F 11.10022	.1064656
Stddev	.0132216	.0016021	.005798	.020453	.08729	.0026546
%RSD	2.735234	.7720923	.4237497	.2561270	.7864245	2.493427
#1	.4950739	.2083464	1.361710	7.995138	11.06294	.1093965
#2	.4860387	.2056532	1.372591	7.962174	11.03776	.1057774
#3	.4690340	.2085031	1.370623	7.999633	11.19997	.1042228

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-05 Acquired: 12/29/2024 3:31:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091290	3.573437	12.03966	.0898828	.7657725	-.041837
Stddev	.0002629	.019315	.06816	.0029276	.0049131	.000582
%RSD	2.879826	.5405035	.5661357	3.257168	.6415874	1.391595
#1	.0092769	3.563472	11.98159	.0865267	.7712826	-.042482
#2	.0092846	3.561140	12.11470	.0912092	.7618479	-.041351
#3	.0088254	3.595699	12.02268	.0919124	.7641870	-.041678

Elem	Li6707
Units	ppm
Avg	.0840984
Stddev	.0011809
%RSD	1.404228
#1	.0838947
#2	.0853679
#3	.0830326

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2786.447	34997.50	2650.531	1777.773	1924.413
Stddev	22.041	142.47	3.708	4.380	17.569
%RSD	.7910240	.4070801	.1398882	.2464006	.9129776
#1	2798.561	34878.74	2654.350	1777.189	1933.373
#2	2799.775	35155.46	2646.946	1782.416	1935.696
#3	2761.006	34958.28	2650.298	1773.713	1904.170

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-04LX5 Acquired: 12/29/2024 3:35:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0464693	-.019081	.9925688	.0248409	.0038491	21.06240	.3109699
Stddev	.0040397	.002527	.0029276	.0029436	.0025587	.28574	.0038932
%RSD	8.693207	13.24421	.2949533	11.84986	66.47616	1.356614	1.251966
#1	.0487994	-.018423	.9936640	.0251168	.0032234	20.95343	.3096859
#2	.0488037	-.021872	.9892515	.0276367	.0016612	21.38659	.3153430
#3	.0418047	-.016948	.9947909	.0217690	.0066626	20.84719	.3078809

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042404	.0023648	22.52935	.0394492	.0209306	.1150000	58.92649
Stddev	.0000417	.0000520	.28795	.0007606	.0001879	.0010976	.70646
%RSD	.9824295	2.197086	1.278097	1.927984	.8978205	.9544261	1.198888
#1	.0042522	.0023620	22.45201	.0394167	.0207844	.1162504	58.73882
#2	.0042748	.0023143	22.84807	.0387054	.0208647	.1141957	59.70784
#3	.0041940	.0024181	22.28797	.0402255	.0211426	.1145539	58.33282

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.111245	7.934428	.0586778	.0015517	.1111036	.0401030	.3451110
Stddev	.059050	.094569	.0000461	.0013524	.0131948	.0100648	.0005994
%RSD	1.436309	1.191878	.0784986	87.15896	11.87608	25.09743	.1736865
#1	4.096220	7.947379	.0587081	.0026974	.1012561	.0516092	.3457720
#2	4.176356	8.021854	.0587006	.0018978	.1260957	.0357661	.3446027
#3	4.061159	7.834052	.0586248	.0000598	.1059590	.0329336	.3449583

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.966092	2.293109	.0242216	.0022392	.7395020	3.087831	.0178751
Stddev	.059311	.008331	.0027475	.0000927	.0047256	.043633	.0020149
%RSD	3.016716	.3633129	11.34316	4.137721	.6390287	1.413051	11.27220
#1	1.947658	2.299416	.0258937	.0021379	.7433728	3.071995	.0194570
#2	1.918186	2.283665	.0210506	.0023196	.7408974	3.137170	.0185617
#3	2.032431	2.296247	.0257204	.0022602	.7342358	3.054327	.0156066

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-04LX5 Acquired: 12/29/2024 3:35:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.1932578	-.011185	.0166581
Stddev	.0015902	.000208	.0045898
%RSD	.8228236	1.859761	27.55273
#1	.1915092	-.011043	.0119791
#2	.1946174	-.011424	.0168421
#3	.1936467	-.011088	.0211532

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2252.215	28280.44	2096.856	1437.585	1909.225
Stddev	4.154	130.55	31.523	4.573	3.878
%RSD	.1844286	.4616101	1.503326	.3181117	.2031085
#1	2247.446	28263.69	2105.578	1433.762	1906.210
#2	2254.150	28159.07	2061.891	1436.342	1913.599
#3	2255.047	28418.55	2123.099	1442.651	1907.866

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCV034 Acquired: 12/29/2024 3:39:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV034 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.081333	4.734131	24.27078	4.964531	4.888245	399.6703	9.956456
Stddev	.013900	.018855	.07353	.014227	.013391	1.5963	.039367
%RSD	.2735598	.3982682	.3029383	.2865652	.2739350	.3994045	.3953899
#1	5.068769	4.730687	24.23577	4.967039	4.891282	400.2392	9.982948
#2	5.078965	4.717235	24.22131	4.949217	4.873597	397.8675	9.911220
#3	5.096266	4.754469	24.35527	4.977337	4.899857	400.9042	9.975200

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5126186	2.448403	399.6341	15.15410	2.357587	14.61847	405.0345
Stddev	.0051099	.006010	1.8443	.01151	.005516	.03998	2.0948
%RSD	.9968229	.2454818	.4615012	.0759577	.2339615	.2735189	.5171932
#1	.5163274	2.446850	400.7524	15.15522	2.353196	14.61760	405.9831
#2	.5067899	2.443321	397.5053	15.16502	2.355786	14.57892	402.6332
#3	.5147384	2.455037	400.6445	15.14208	2.363778	14.65888	406.4872

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.61115	400.0810	2.460042	1.252059	410.6452	2.451951	14.60519
Stddev	.07169	1.9204	.004559	.000492	3.4242	.018874	.05025
%RSD	.4906535	.4800086	.1853272	.0392938	.8338516	.7697650	.3440402
#1	14.63436	400.5890	2.457062	1.251523	411.7206	2.470586	14.57921
#2	14.53073	397.9576	2.457773	1.252164	406.8124	2.432847	14.66311
#3	14.66836	401.6963	2.465290	1.252490	413.4026	2.452421	14.57325

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	149.8953	4.917804	4.940079	4.865406	4.967343	4.850763	4.929492
Stddev	.6542	.008984	.041406	.006421	.028941	.035647	.009600
%RSD	.4364302	.1826808	.8381636	.1319822	.5826264	.7348828	.1947389
#1	150.2134	4.915485	4.968893	4.872597	4.933946	4.872352	4.923625
#2	149.1428	4.910206	4.892630	4.860243	4.983021	4.809617	4.924281
#3	150.3295	4.927720	4.958715	4.863380	4.985063	4.870319	4.940571

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCV034 Acquired: 12/29/2024 3:39:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV034 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	4.955387	4.621376	5.037160
Stddev	.024140	.012680	.013833
%RSD	.4871391	.2743802	.2746167
#1	4.971407	4.632303	5.037197
#2	4.927623	4.607472	5.023308
#3	4.967133	4.624353	5.050974

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1858.863	23982.27	1909.705	1172.094	1567.019
Stddev	5.574	81.98	15.276	7.507	4.599
%RSD	.2998724	.3418173	.7999082	.6404405	.2934761
#1	1854.343	23939.97	1896.191	1171.125	1567.007
#2	1865.092	23930.09	1926.279	1165.119	1571.623
#3	1857.156	24076.76	1906.645	1180.038	1562.426

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCB034 Acquired: 12/29/2024 3:42:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB034 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035315	.0007507	.0022614	.0006241	-.003852	-.015481	-.000072
Stddev	.0021031	.0044909	.0007566	.0026328	.002584	.013963	.000156
%RSD	59.55439	598.2124	33.45536	421.8649	67.09361	90.19407	217.2609
#1	.0038830	-.002466	.0031070	-.002371	-.001159	-.025366	-.000247
#2	.0012747	-.001164	.0016487	.002574	-.006312	-.021570	.000052
#3	.0054367	.005882	.0020285	.001669	-.004085	.000492	-.000021

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000554	.0000284	-.009293	-.000309	.0000861	-.004569	-.006787
Stddev	.0000188	.0001484	.012208	.001157	.0006588	.005000	.005915
%RSD	33.91822	522.3901	131.3627	374.0911	765.2868	109.4242	87.14691
#1	.0000400	.0001035	.002072	.001026	-.000423	-.008906	-.012184
#2	.0000764	.0001242	-.007754	-.000942	.000830	.000899	-.000464
#3	.0000498	-.000142	-.022198	-.001012	-.000148	-.005700	-.007713

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001400	-.109393	.0001128	.0001483	.0826512	-.011704	.0026223
Stddev	.000807	.078998	.0006616	.0012458	.0144417	.011838	.0011776
%RSD	57.62051	72.21472	586.6996	840.1075	17.47304	101.1451	44.90806
#1	-.001662	-.122722	.0004430	.0001632	.0800598	-.020282	.0035297
#2	-.000495	-.180878	.0005442	-.001105	.0696806	.001802	.0030455
#3	-.002044	-.024579	-.000649	.001387	.0982131	-.016631	.0012915

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0751523	-.000284	.0104587	.0001486	.0016780	.0003263	-.000291
Stddev	.2437157	.002704	.0003130	.0003991	.0005909	.0005378	.000979
%RSD	324.2956	953.7824	2.992604	268.6448	35.21307	164.8207	336.3375
#1	-.186791	-.002194	.0103842	-.000241	.0023303	-.000244	.000501
#2	.117037	-.001467	.0101896	.000131	.0011785	.000399	.000012
#3	.295212	.002811	.0108022	.000556	.0015253	.000824	-.001385

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: CCB034 Acquired: 12/29/2024 3:42:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB034 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0030903	-.000113	.0116582
Stddev	.0016416	.000337	.0020129
%RSD	53.12149	299.4899	17.26594
#1	.0017138	.000271	.0125964
#2	.0049071	-.000247	.0093475
#3	.0026499	-.000362	.0130308

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2032.501	25499.19	1919.163	1296.751	1832.266
Stddev	9.816	899.91	22.460	41.985	10.221
%RSD	.4829525	3.529171	1.170304	3.237723	.5578609
#1	2032.660	26034.12	1944.852	1318.934	1830.143
#2	2022.607	26003.23	1909.405	1322.991	1823.273
#3	2042.237	24460.21	1903.233	1248.327	1843.382

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-06 Acquired: 12/29/2024 3:46:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3419226	-.002701	4.834845	.2774898	.1819826	88.61579
Stddev	.0031284	.004944	.010647	.0018925	.0009987	.22133
%RSD	.9149498	183.0712	.2202175	.6820101	.5487872	.2497616
#1	.3447169	-.001157	4.830942	.2781587	.1808317	88.76131
#2	.3385428	-.008232	4.826700	.2753537	.1826208	88.72497
#3	.3425083	.001288	4.846893	.2789570	.1824954	88.36108

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.303417	.0928353	.1058123	90.78350	.4837573	1.030202
Stddev	.010137	.0004601	.0004143	.15136	.0011741	.002414
%RSD	.2355607	.4955774	.3915586	.1667208	.2427030	.2343327
#1	4.308268	.0933550	.1060378	90.71997	.4834214	1.032151
#2	4.310218	.0926705	.1053342	90.95626	.4827878	1.027502
#3	4.291766	.0924803	.1060650	90.67426	.4850627	1.030955

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8492089	237.2452	17.06947	32.09725	1.245821	.0595937
Stddev	.0042569	.3274	.03467	.08572	.003160	.0009467
%RSD	.5012787	.1379989	.2031300	.2670647	.2536433	1.588583
#1	.8447464	237.2452	17.09409	32.10019	1.248102	.0601110
#2	.8532251	237.5727	17.08450	32.01009	1.242214	.0601691
#3	.8496552	236.9179	17.02981	32.18146	1.247148	.0585011

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5244464	.9958298	2.115370	8.166533	F 11.06142	.1108611
Stddev	.0070002	.0073353	.004873	.164837	.02494	.0016864
%RSD	1.334769	.7366050	.2303389	2.018447	.2254766	1.521159
#1	.5207566	1.000975	2.120502	8.242183	11.08188	.1093626
#2	.5325195	.999084	2.110807	8.279966	11.03363	.1105335
#3	.5200630	.987430	2.114800	7.977450	11.06874	.1126872

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-06 Acquired: 12/29/2024 3:46:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0092201	3.534575	12.13086	.0914454	.7719896	-.043234
Stddev	.0003758	.007416	.02323	.0007566	.0028840	.000562
%RSD	4.076235	.2098258	.1915117	.8274194	.3735811	1.299851
#1	.0091288	3.542934	12.15103	.0911751	.7717243	-.042730
#2	.0096332	3.532008	12.13609	.0923001	.7749970	-.043132
#3	.0088983	3.528783	12.10546	.0908610	.7692474	-.043840

Elem	Li6707
Units	ppm
Avg	.0887708
Stddev	.0027367
%RSD	3.082848
#1	.0863840
#2	.0881707
#3	.0917577

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2691.451	33909.39	2567.810	1715.277	1868.151
Stddev	3.120	108.18	7.049	6.310	4.444
%RSD	.1159272	.3190325	.2745033	.3678964	.2378762
#1	2691.899	33895.83	2559.827	1710.113	1867.632
#2	2694.324	34023.72	2573.176	1722.311	1872.831
#3	2688.132	33808.63	2570.427	1713.407	1863.989

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-07 Acquired: 12/29/2024 3:50:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK45 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2179198	-.052832	3.346650	.1091996	.0262871	86.50454	1.101809
Stddev	.0047958	.000206	.007583	.0044730	.0028267	.74321	.010190
%RSD	2.200701	.3906478	.2265942	4.096170	10.75306	.8591554	.9248271
#1	.2156610	-.052598	3.347507	.1053363	.0256303	85.65154	1.090148
#2	.2146705	-.052986	3.338675	.1141001	.0238466	86.84943	1.106274
#3	.2234278	-.052913	3.353768	.1081626	.0293843	87.01265	1.109003

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0149364	.0114701	97.51545	.1337284	.0868009	.3323914	204.8613
Stddev	.0000969	.0001925	.83255	.0015624	.0008228	.0052709	1.8166
%RSD	.6487224	1.678457	.8537601	1.168342	.9479230	1.585753	.8867435
#1	.0149510	.0116919	96.55422	.1353316	.0877507	.3265545	202.7642
#2	.0148331	.0113453	97.98285	.1322103	.0863078	.3368033	205.9487
#3	.0150252	.0113733	98.00926	.1336435	.0863441	.3338165	205.8711

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.53242	31.37636	.2474038	.0028447	.5021671	.2109354	1.094999
Stddev	.15517	.27931	.0014008	.0008894	.0050990	.0068588	.002031
%RSD	.9989787	.8901772	.5662158	31.26388	1.015402	3.251615	.1855196
#1	15.35325	31.07550	.2481181	.0018180	.4977122	.2179697	1.096005
#2	15.62075	31.62741	.2457898	.0033754	.5077285	.2105697	1.092661
#3	15.62325	31.42617	.2483036	.0033408	.5010606	.2042668	1.096332

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.155901	8.401602	.1092126	.0083779	3.734407	11.08860	.0790667
Stddev	.071233	.019714	.0027871	.0002673	.004315	.01595	.0015037
%RSD	.8733866	.2346466	2.551949	3.190199	.1155506	.1438611	1.901757
#1	8.077605	8.391977	.1061714	.0086681	3.729846	11.07204	.0792196
#2	8.216875	8.388549	.1116448	.0081419	3.734952	11.08989	.0774925
#3	8.173222	8.424280	.1098216	.0083237	3.738424	11.10387	.0804881

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-07 Acquired: 12/29/2024 3:50:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK45 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8312728	-.001274	.0880719
Stddev	.0036788	.001384	.0021849
%RSD	.4425480	108.6205	2.480858
#1	.8270688	-.000024	.0857038
#2	.8328471	-.002762	.0900097
#3	.8339025	-.001037	.0885022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2763.483	34915.85	2637.642	1770.455	1810.196
Stddev	6.686	151.94	6.283	3.491	3.905
%RSD	.2419418	.4351487	.2381960	.1971761	.2157159
#1	2770.760	34935.48	2643.092	1770.276	1813.463
#2	2762.077	34755.05	2630.770	1767.057	1811.252
#3	2757.611	35057.01	2639.062	1774.032	1805.871

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-08 Acquired: 12/29/2024 3:54:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK46 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2063577	-.055498	2.139523	.1028243	.0237047	79.64315	1.058728
Stddev	.0014122	.004493	.007212	.0019489	.0046387	.15319	.002960
%RSD	.6843323	8.094861	.3370617	1.895318	19.56883	.1923437	.2795935
#1	.2065705	-.051377	2.145744	.1042525	.0190125	79.47430	1.055463
#2	.2048511	-.054831	2.131618	.1006041	.0238136	79.68194	1.059482
#3	.2076513	-.060287	2.141205	.1036162	.0282880	79.77322	1.061238

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0151658	.0085437	143.0220	.1159402	.0680313	.3212645	201.1998
Stddev	.0001078	.0001277	.4239	.0004976	.0009424	.0056887	.9033
%RSD	.7108454	1.495293	.2963733	.4292146	1.385198	1.770734	.4489600
#1	.0152047	.0084610	142.6322	.1164849	.0677516	.3151691	200.1567
#2	.0150440	.0084794	142.9605	.1158260	.0672605	.3221919	201.7141
#3	.0152488	.0086909	143.4733	.1155095	.0690819	.3264326	201.7284

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.01839	34.75360	.2037214	.0032607	.6335414	.1945763	.9436590
Stddev	.03911	.12321	.0020491	.0007434	.0038935	.0013275	.0057749
%RSD	.3254589	.3545347	1.005838	22.79760	.6145616	.6822536	.6119735
#1	11.97441	34.62839	.2035405	.0024674	.6292871	.1930711	.9407592
#2	12.03148	34.75769	.2017687	.0039412	.6369275	.1955800	.9503092
#3	12.04928	34.87471	.2058549	.0033734	.6344095	.1950777	.9399087

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.080457	7.909462	.1261234	.0081072	4.618072	10.97524	.0696353
Stddev	.184960	.014242	.0019272	.0002553	.024768	.06343	.0013933
%RSD	2.036901	.1800657	1.527985	3.148878	.5363248	.5778973	2.000828
#1	8.889774	7.903937	.1245408	.0078394	4.600536	10.95052	.0711619
#2	9.092490	7.898810	.1282695	.0083478	4.607274	10.92791	.0684322
#3	9.259106	7.925639	.1255600	.0081342	4.646406	11.04731	.0693118

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-08 Acquired: 12/29/2024 3:54:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK46 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.9389791	.0955469	.0915708
Stddev	.0048211	.0018667	.0019350
%RSD	.5134361	1.953683	2.113166
#1	.9389282	.0944733	.0896372
#2	.9341836	.0944651	.0915679
#3	.9438253	.0977023	.0935073

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2562.546	32298.77	2481.097	1639.798	1797.650
Stddev	3.563	118.91	6.127	10.613	2.795
%RSD	.1390453	.3681529	.2469637	.6472161	.1555080
#1	2558.560	32209.11	2480.546	1642.343	1794.525
#2	2563.656	32253.55	2487.482	1628.144	1799.914
#3	2565.422	32433.66	2475.264	1648.907	1798.511

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-09 Acquired: 12/29/2024 3:58:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK47 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1685342	-.043071	1.439818	.0947027	.0188119	80.94927	1.024450
Stddev	.0040457	.001591	.001540	.0027720	.0054411	.34117	.003188
%RSD	2.400509	3.694858	.1069716	2.927015	28.92386	.4214646	.3111462
#1	.1727391	-.043003	1.441069	.0935893	.0161332	80.99527	1.024165
#2	.1681942	-.041515	1.438098	.0926605	.0250730	80.58744	1.021414
#3	.1646692	-.044696	1.440287	.0978582	.0152294	81.26512	1.027770

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0137889	.0071502	189.3699	.1069087	.0817532	.2857009	189.2688
Stddev	.0001501	.0001820	.9691	.0008975	.0000886	.0031199	.6702
%RSD	1.088437	2.545108	.5117600	.8395009	.1084105	1.092008	.3541108
#1	.0139470	.0071591	189.6495	.1058760	.0816646	.2866466	189.3827
#2	.0136483	.0073276	188.2918	.1073497	.0817530	.2822175	188.5490
#3	.0137715	.0069640	190.1686	.1075003	.0818419	.2882384	189.8748

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.24017	38.48906	.1847396	.0024171	.5732466	.1777443	.7654455
Stddev	.03367	.20389	.0001767	.0012131	.0059310	.0165368	.0025696
%RSD	.2542969	.5297265	.0956588	50.18934	1.034627	9.303690	.3356978
#1	13.25675	38.67974	.1848918	.0012056	.5796551	.1968253	.7678759
#2	13.20143	38.27414	.1847811	.0036318	.5679507	.1675702	.7657044
#3	13.26233	38.51331	.1845458	.0024137	.5721340	.1688374	.7627563

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.366595	7.479805	.1076790	.0076321	2.973114	10.71574	.0554558
Stddev	.048985	.023039	.0028876	.0010022	.013924	.13311	.0010637
%RSD	.5229805	.3080166	2.681679	13.13169	.4683211	1.242220	1.918062
#1	9.355371	7.465174	.1052821	.0065685	2.957360	10.75302	.0542286
#2	9.324196	7.467879	.1108848	.0085588	2.978212	10.56796	.0561135
#3	9.420219	7.506362	.1068702	.0077688	2.983770	10.82624	.0560253

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-09 Acquired: 12/29/2024 3:58:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK47 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7750058	.1157227	.0896467
Stddev	.0014781	.0025098	.0013037
%RSD	.1907235	2.168813	1.454246
#1	.7742279	.1161919	.0903176
#2	.7740791	.1130114	.0881442
#3	.7767104	.1179648	.0904783

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2576.550	32588.49	2504.111	1645.082	1786.671
Stddev	5.379	172.85	22.109	6.712	3.814
%RSD	.2087547	.5303877	.8829007	.4080246	.2134513
#1	2578.767	32710.84	2496.498	1650.923	1791.059
#2	2570.417	32390.75	2529.021	1637.750	1784.153
#3	2580.466	32663.86	2486.815	1646.574	1784.801

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-10 Acquired: 12/29/2024 4:02:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK48 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0323348	.0144719	.2199476	-.004709	-.017346	26.54638
Stddev	.0061215	.0068700	.0034815	.001874	.001816	.05310
%RSD	18.93175	47.47165	1.582891	39.79419	10.47226	.2000458
#1	.0252770	.0168239	.2212204	-.003193	-.016578	26.48525
#2	.0362005	.0067347	.2160088	-.006804	-.016039	26.57280
#3	.0355270	.0198570	.2226137	-.004129	-.019420	26.58110

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0754424	.0061752	.0025524	F 1246.911	.0545162	.0758249
Stddev	.0006649	.0003882	.0001811	.442	.0008747	.0004054
%RSD	.8812646	6.286716	7.093700	.0354613	1.604558	.5346359
#1	.0748322	.0058543	.0023437	1246.543	.0548455	.0754043
#2	.0753441	.0060645	.0026457	1247.401	.0535247	.0758573
#3	.0761509	.0066067	.0026677	1246.789	.0551786	.0762131

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0492490	83.18088	5.193891	668.3116	.1005192	.0015972
Stddev	.0012612	.25845	.014278	1.4098	.0001425	.0009363
%RSD	2.560846	.3107119	.2748907	.2109476	.1417418	58.62333
#1	.0478358	82.88266	5.180475	668.4888	.1004238	.0025599
#2	.0496511	83.33990	5.192301	669.6244	.1006829	.0006896
#3	.0502601	83.32008	5.208897	666.8216	.1004507	.0015422

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.768701	.0515257	.5015344	15.37752	1.827439	.1898552
Stddev	.020388	.0083751	.0021027	.08872	.001472	.0019858
%RSD	1.152731	16.25426	.4192498	.5769257	.0805757	1.045957
#1	1.777427	.0598716	.5022075	15.47604	1.825740	.1916756
#2	1.745402	.0515838	.4991775	15.30396	1.828220	.1877375
#3	1.783275	.0431217	.5032181	15.35255	1.828355	.1901525

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-10 Acquired: 12/29/2024 4:02:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK48 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000571	30.63787	6.364922	.0202087	.0575181	.6203872
Stddev	.000772	.09822	.012896	.0013382	.0043678	.0025001
%RSD	135.1402	.3205700	.2026100	6.621676	7.593745	.4029975
#1	.000085	30.52762	6.378073	.0198432	.0565377	.6208862
#2	-.000376	30.66997	6.364397	.0216916	.0622928	.6176752
#3	-.001421	30.71602	6.352297	.0190912	.0537239	.6226002

Elem	Li6707
Units	ppm
Avg	.0897855
Stddev	.0021114
%RSD	2.351631
#1	.0880523
#2	.0921370
#3	.0891672

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2039.899	26162.82	2093.242	1303.033	1509.032
Stddev	6.064	82.43	6.448	5.382	5.061
%RSD	.2972522	.3150486	.3080605	.4130186	.3354051
#1	2034.352	26101.03	2086.359	1299.116	1505.339
#2	2046.372	26256.41	2094.221	1309.170	1514.802
#3	2038.972	26131.02	2099.144	1300.814	1506.956

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-11 Acquired: 12/29/2024 4:06:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0325543	.0210511	.8141696	-.003616	-.023776	22.40412
Stddev	.0066461	.0017381	.0003021	.014710	.005998	.05418
%RSD	20.41551	8.256329	.0371091	406.7860	25.22708	.2418378
#1	.0289759	.0219793	.8138236	.011797	-.025823	22.46158
#2	.0284640	.0190460	.8143040	-.017505	-.017023	22.35396
#3	.0402228	.0221279	.8143812	-.005141	-.028484	22.39683

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1476691	.0061358	.0092774	F 1850.292	.0740492	.0708374
Stddev	.0001907	.0002000	.0002110	12.814	.0007722	.0014885
%RSD	.1291118	3.259972	2.274811	.6925650	1.042836	2.101271
#1	.1475652	.0063668	.0095169	1835.698	.0749408	.0699509
#2	.1475530	.0060237	.0091967	1855.474	.0735953	.0725559
#3	.1478891	.0060170	.0091187	1859.703	.0736115	.0700055

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0606459	94.62805	6.370674	F 1048.706	.0945866	.0010085
Stddev	.0141948	.20452	.012086	3.269	.0007573	.0018812
%RSD	23.40611	.2161339	.1897091	.3117091	.8005894	186.5321
#1	.0454850	94.83046	6.384179	1050.261	.0938412	-.000414
#2	.0736211	94.42147	6.366969	1050.907	.0953552	.000298
#3	.0628315	94.63223	6.360875	1044.950	.0945633	.003142

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.353899	.0411526	2.069327	11.86236	2.007568	.1772778
Stddev	.013631	.0085642	.009583	.04182	.002339	.0011972
%RSD	.5790710	20.81083	.4631179	.3525809	.1165135	.6753473
#1	2.350822	.0502929	2.080053	11.90926	2.004915	.1759371
#2	2.342071	.0333135	2.066321	11.84889	2.009334	.1782401
#3	2.368806	.0398513	2.061607	11.82894	2.008456	.1776563

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-11 Acquired: 12/29/2024 4:06:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK49 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000199	48.43142	7.122129	.0230828	.0936265	.7637709
Stddev	.0012978	.08910	.017692	.0025274	.0019186	.0022205
%RSD	6516.231	.1839743	.2484068	10.94939	2.049199	.2907319
#1	.0014522	48.33546	7.142480	.0217087	.0920099	.7658945
#2	-.000314	48.51154	7.113492	.0215402	.0931230	.7614647
#3	-.001078	48.44725	7.110414	.0259996	.0957467	.7639534

Elem	Li6707
Units	ppm
Avg	.0803086
Stddev	.0035462
%RSD	4.415759
#1	.0817974
#2	.0828678
#3	.0762607

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1966.271	25153.87	2030.526	1241.374	1436.262
Stddev	2.635	108.63	15.407	8.173	1.233
%RSD	.1340281	.4318692	.7587757	.6583900	.0858531
#1	1968.527	25047.93	2014.630	1232.079	1437.204
#2	1966.911	25265.00	2045.392	1247.435	1436.717
#3	1963.374	25148.69	2031.556	1244.609	1434.866

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-12 Acquired: 12/29/2024 4:10:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK50 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0416345	.0134415	2.645773	.0013340	-.018955	14.94570
Stddev	.0068427	.0036042	.007865	.0060342	.001671	.07152
%RSD	16.43514	26.81387	.2972835	452.3361	8.815827	.4785611
#1	.0491967	.0175585	2.636762	-.002606	-.017137	14.87805
#2	.0358703	.0119096	2.651264	.008281	-.019304	15.02055
#3	.0398367	.0108563	2.649292	-.001673	-.020424	14.93849

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1619912	.0067261	.0306431	F 2224.019	.0482448	.0578917
Stddev	.0016919	.0001545	.0002820	19.702	.0007019	.0011472
%RSD	1.044461	2.296992	.9201338	.8858789	1.454838	1.981646
#1	.1603858	.0067971	.0303234	2215.289	.0474355	.0571629
#2	.1637581	.0065488	.0308564	2246.578	.0486120	.0572981
#3	.1618298	.0068323	.0307495	2210.191	.0486870	.0592141

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0327143	122.0702	7.691195	F 1252.918	.0885150	.0019171
Stddev	.0065132	.4706	.038395	4.991	.0005643	.0011149
%RSD	19.90934	.3855387	.4992076	.3983650	.6375098	58.15236
#1	.0401744	121.5268	7.646987	1247.585	.0891544	.0008129
#2	.0298099	122.3366	7.716210	1257.477	.0883036	.0030423
#3	.0281585	122.3473	7.710386	1253.692	.0880869	.0018963

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.716993	.0557028	5.575534	9.092567	1.096621	.1665616
Stddev	.036514	.0054680	.010633	.065951	.008256	.0022026
%RSD	1.343929	9.816326	.1907017	.7253262	.7528667	1.322398
#1	2.709479	.0494085	5.586262	9.167501	1.087471	.1641145
#2	2.756680	.0584204	5.575342	9.043346	1.098878	.1671850
#3	2.684820	.0592797	5.564999	9.066854	1.103514	.1683853

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-12 Acquired: 12/29/2024 4:10:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK50 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022411	98.19683	6.149214	.0259046	.0017310	.7440101
Stddev	.0003226	.59982	.005693	.0009715	.0033611	.0043130
%RSD	14.39524	.6108381	.0925862	3.750264	194.1777	.5797013
#1	.0021582	97.54371	6.145922	.0260372	-.001607	.7416545
#2	.0019680	98.32374	6.145932	.0268029	.005115	.7489880
#3	.0025971	98.72305	6.155788	.0248736	.001685	.7413877

Elem	Li6707
Units	ppm
Avg	.0656358
Stddev	.0012385
%RSD	1.886918
#1	.0642058
#2	.0663369
#3	.0663648

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1908.976	24490.87	1995.699	1206.517	1397.021
Stddev	4.707	73.42	6.650	5.482	2.791
%RSD	.2465773	.2997812	.3331927	.4543502	.1998118
#1	1911.933	24478.04	1997.607	1202.036	1399.877
#2	1903.548	24424.71	1988.305	1204.886	1394.299
#3	1911.447	24569.86	2001.187	1212.630	1396.888

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-13 Acquired: 12/29/2024 4:14:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2235744	-.072111	.6326948	.1350963	.0402090	88.77365	.6261557
Stddev	.0008145	.005177	.0033293	.0011545	.0010342	.29113	.0005767
%RSD	.3643213	7.179009	.5262090	.8545745	2.572143	.3279467	.0921088
#1	.2244860	-.075667	.6364716	.1344953	.0405558	89.03710	.6266788
#2	.2229182	-.066172	.6314278	.1343662	.0390460	88.82276	.6255372
#3	.2233190	-.074494	.6301851	.1364273	.0410254	88.46109	.6262511

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0148946	.0047271	28.86268	.1174858	.0939025	.3888793	221.2117
Stddev	.0002741	.0001208	.05668	.0002429	.0013116	.0056199	.7356
%RSD	1.840213	2.556129	.1963750	.2067707	1.396807	1.445149	.3325500
#1	.0151484	.0047994	28.92790	.1172154	.0952833	.3830735	221.9182
#2	.0149315	.0045876	28.83474	.1175565	.0926731	.3892717	221.2670
#3	.0146039	.0047944	28.82539	.1176856	.0937512	.3942927	220.4500

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.26935	20.87442	.1906226	.0015323	.3361109	.1732610	.6305217
Stddev	.07341	.01651	.0013937	.0008222	.0200129	.0070148	.0019891
%RSD	.3621942	.0790948	.7311239	53.65875	5.954257	4.048676	.3154713
#1	20.33117	20.87265	.1910986	.0007250	.3514423	.1653185	.6326230
#2	20.28868	20.85887	.1890533	.0015033	.3434194	.1786089	.6302741
#3	20.18821	20.89175	.1917160	.0023687	.3134710	.1758554	.6286679

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.677680	2.699652	.0918013	.0101073	.8440712	10.49549	.0261916
Stddev	.057517	.015004	.0004888	.0003361	.0140332	.10482	.0012716
%RSD	.7491400	.5557818	.5324205	3.324840	1.662566	.9987472	4.855002
#1	7.666953	2.716315	.0912412	.0100566	.8528953	10.59180	.0265032
#2	7.739805	2.687212	.0920210	.0097994	.8514292	10.51081	.0272784
#3	7.626282	2.695430	.0921416	.0104658	.8278891	10.38384	.0247931

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-13 Acquired: 12/29/2024 4:14:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5067299	-.078501	.0818565
Stddev	.0050805	.000871	.0021832
%RSD	1.002612	1.109764	2.667162
#1	.5084242	-.079101	.0804191
#2	.5107468	-.078899	.0843688
#3	.5010187	-.077502	.0807816

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2886.766	36117.91	2703.717	1837.413	1858.424
Stddev	14.184	196.00	22.740	4.361	11.805
%RSD	.4913495	.5426731	.8410683	.2373513	.6352105
#1	2876.992	36184.84	2678.936	1837.849	1848.084
#2	2903.035	36271.69	2708.589	1841.540	1871.286
#3	2880.271	35897.21	2723.626	1832.851	1855.901

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-14 Acquired: 12/29/2024 4:18:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1263744	-.051339	6.769343	.0854763	.0216041	77.61853
Stddev	.0068687	.006801	.016762	.0053952	.0021590	3.12016
%RSD	5.435204	13.24737	.2476153	6.311960	9.993635	4.019868
#1	.1187479	-.043823	6.754031	.0814972	.0219028	74.03563
#2	.1283016	-.053126	6.766746	.0833145	.0235982	79.08207
#3	.1320736	-.057069	6.787252	.0916172	.0193112	79.73789

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.351218	.0127947	.0179693	80.89841	.2247904	.0538297
Stddev	.125225	.0005197	.0002912	3.09599	.0003836	.0028248
%RSD	3.736691	4.061889	1.620556	3.827009	.1706263	5.247639
#1	3.206843	.0121986	.0182749	77.32348	.2247635	.0569159
#2	3.416474	.0131524	.0176951	82.69471	.2251867	.0532009
#3	3.430338	.0130331	.0179379	82.67703	.2244211	.0513723

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7267991	162.4107	6.527641	24.44384	.2358295	.0049180
Stddev	.0253305	6.1599	.250252	.87663	.0007382	.0009198
%RSD	3.485218	3.792791	3.833734	3.586312	.3130341	18.70266
#1	.6987632	155.3021	6.238870	23.43906	.2359011	.0038776
#2	.7480370	165.7538	6.662818	24.83998	.2350581	.0056231
#3	.7335972	166.1764	6.681234	25.05249	.2365293	.0052534

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6657312	.2065052	4.777013	7.589719	F 16.82013	.0989364
Stddev	.0101698	.0050622	.034056	.550395	.05380	.0038180
%RSD	1.527617	2.451383	.7129104	7.251845	.3198693	3.859068
#1	.6556488	.2018171	4.791619	6.967378	16.76136	.0945709
#2	.6759862	.2118729	4.801330	7.789295	16.83206	.1005861
#3	.6655586	.2058256	4.738091	8.012483	16.86696	.1016521

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-14 Acquired: 12/29/2024 4:18:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113871	5.234045	11.31807	.1798742	1.103884	.2212424
Stddev	.0007767	.013815	.35583	.0021551	.044136	.0083630
%RSD	6.820520	.2639471	3.143895	1.198095	3.998231	3.780029
#1	.0105545	5.235931	10.90765	.1780932	1.053396	.2116019
#2	.0120921	5.219384	11.50662	.1822698	1.123110	.2255775
#3	.0115147	5.246821	11.53996	.1792597	1.135146	.2265478

Elem	Li6707
Units	ppm
Avg	.1239826
Stddev	.0099101
%RSD	7.993141
#1	.1127276
#2	.1278205
#3	.1313998

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2468.705	30970.30	2415.962	1572.853	1851.963
Stddev	2.373	54.69	85.540	9.962	1.211
%RSD	.0961258	.1765805	3.540621	.6334005	.0653687
#1	2466.893	30988.06	2513.654	1570.845	1853.244
#2	2467.831	31013.91	2379.739	1564.048	1850.838
#3	2471.391	30908.94	2354.493	1583.667	1851.808

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-15 Acquired: 12/29/2024 4:22:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2223565	-.092918	8.685747	.1394764	.0436424	85.37290
Stddev	.0066623	.002398	.011084	.0022726	.0048388	.36728
%RSD	2.996236	2.580715	.1276063	1.629358	11.08749	.4302042
#1	.2152494	-.093694	8.680243	.1417492	.0491470	85.72383
#2	.2233600	-.094832	8.678494	.1372041	.0417206	84.99121
#3	.2284602	-.090228	8.698506	.1394759	.0400597	85.40366

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.421138	.0178284	.0254491	114.1514	.2335760	.0430272
Stddev	.017736	.0003316	.0000775	.5007	.0013365	.0014665
%RSD	.4011672	1.860164	.3045745	.4386079	.5721780	3.408347
#1	4.437706	.0181687	.0253651	114.6292	.2321382	.0432628
#2	4.402428	.0178106	.0254645	113.6306	.2347804	.0414572
#3	4.423279	.0175061	.0255178	114.1943	.2338095	.0443617

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9155107	257.1377	7.555239	26.51735	.2822544	.0058861
Stddev	.0052247	.6896	.019761	.08464	.0013311	.0012300
%RSD	.5706918	.2681937	.2615514	.3191690	.4715879	20.89756
#1	.9096020	257.8966	7.573226	26.52375	.2810884	.0055859
#2	.9195203	256.9670	7.534086	26.59860	.2819701	.0072384
#3	.9174099	256.5494	7.558405	26.42970	.2837046	.0048338

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.336615	.2603449	6.214655	8.152603	F 20.30942	.1269559
Stddev	.032570	.0169987	.014201	.107545	.03609	.0021805
%RSD	2.436736	6.529298	.2285148	1.319153	.1777233	1.717544
#1	1.372917	.2499835	6.198317	8.129208	20.27344	.1274843
#2	1.326975	.2510882	6.224049	8.269920	20.30918	.1245597
#3	1.309953	.2799629	6.221598	8.058681	20.34563	.1288236

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-15 Acquired: 12/29/2024 4:22:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0149513	4.424441	11.31627	.9395766	1.256975	.2979246
Stddev	.0002346	.010519	.16353	.0038222	.005681	.0040455
%RSD	1.569082	.2377572	1.445114	.4067957	.4519903	1.357887
#1	.0152093	4.432802	11.49645	.9387521	1.250776	.3014991
#2	.0147507	4.412630	11.27512	.9362339	1.258216	.2935329
#3	.0148940	4.427892	11.17724	.9437437	1.261934	.2987419

Elem	Li6707
Units	ppm
Avg	.1351299
Stddev	.0034741
%RSD	2.570942
#1	.1375168
#2	.1311442
#3	.1367286

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2463.331	31022.53	2364.413	1576.980	1846.298
Stddev	6.868	142.34	23.814	11.294	3.374
%RSD	.2788247	.4588326	1.007171	.7161777	.1827398
#1	2456.096	31168.54	2337.729	1587.577	1844.565
#2	2469.762	31014.89	2372.006	1578.262	1850.186
#3	2464.133	30884.17	2383.505	1565.099	1844.143

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-16 Acquired: 12/29/2024 4:26:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1671487	-.064538	2.884543	.1010123	.0274738	94.71021
Stddev	.0053289	.001715	.003578	.0020910	.0016947	.14914
%RSD	3.188091	2.656573	.1240461	2.070014	6.168517	.1574704
#1	.1698615	-.062561	2.882293	.1029643	.0268812	94.87739
#2	.1705754	-.065618	2.888669	.1012670	.0293853	94.59083
#3	.1610093	-.065435	2.882668	.0988057	.0261550	94.66240

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.295724	.0146453	.0125310	74.60802	.1813777	.0610583
Stddev	.001751	.0000414	.0000290	.11584	.0019397	.0005042
%RSD	.0762526	.2828239	.2312816	.1552582	1.069421	.8257833
#1	2.297660	.0146604	.0125081	74.73702	.1793815	.0606558
#2	2.295257	.0146770	.0125636	74.57415	.1814964	.0616239
#3	2.294253	.0145984	.0125213	74.51289	.1832554	.0608953

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3808986	196.2900	11.59884	27.08277	.2154683	.0034071
Stddev	.0038816	.1563	.03440	.16053	.0005537	.0007689
%RSD	1.019076	.0796026	.2965653	.5927235	.2569712	22.56840
#1	.3839634	196.2399	11.62425	27.11989	.2160906	.0025266
#2	.3821986	196.1649	11.55969	26.90694	.2152842	.0039461
#3	.3765338	196.4652	11.61257	27.22149	.2150302	.0037488

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5942951	.2536249	2.295904	7.723258	F 14.09524	.0915215
Stddev	.0207984	.0085303	.018041	.105673	.02626	.0019183
%RSD	3.499667	3.363354	.7857696	1.368240	.1862800	2.095981
#1	.5808944	.2606235	2.297040	7.801983	14.07712	.0937343
#2	.5837360	.2561281	2.277322	7.764632	14.08324	.0904997
#3	.6182548	.2441230	2.313350	7.603158	14.12535	.0903304

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-16 Acquired: 12/29/2024 4:26:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113743	3.075805	11.97200	.1246326	1.000740	.1246031
Stddev	.0008422	.003672	.07079	.0028828	.003046	.0010798
%RSD	7.404645	.1193960	.5913006	2.313044	.3043591	.8665764
#1	.0104877	3.071566	12.04466	.1267906	1.001334	.1254813
#2	.0121637	3.077808	11.96808	.1213586	.997441	.1249304
#3	.0114713	3.078039	11.90324	.1257485	1.003445	.1233975

Elem	Li6707
Units	ppm
Avg	.1608960
Stddev	.0024905
%RSD	1.547899
#1	.1596294
#2	.1592934
#3	.1637652

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2614.786	32464.25	2502.333	1648.983	1847.352
Stddev	4.793	362.40	1.071	17.587	1.708
%RSD	.1833113	1.116304	.0428171	1.066554	.0924424
#1	2610.323	32709.98	2501.392	1655.857	1845.727
#2	2614.184	32634.73	2503.499	1662.095	1847.198
#3	2619.853	32048.05	2502.109	1628.997	1849.132

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-17 Acquired: 12/29/2024 4:30:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0996525	-.064689	.7072809	.0909494	.0233805	106.3343
Stddev	.0078082	.003995	.0033441	.0034883	.0020634	1.4688
%RSD	7.835401	6.176219	.4728138	3.835394	8.825279	1.381328
#1	.0922774	-.060733	.7083932	.0894486	.0239103	106.5448
#2	.1078315	-.064610	.7099272	.0884628	.0211038	104.7716
#3	.0988486	-.068723	.7035224	.0949369	.0251273	107.6865

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.449746	.0148999	.0082849	395.4196	.1957501	.0581658
Stddev	.016751	.0001427	.0001169	6.7982	.0010637	.0017459
%RSD	1.155436	.9577320	1.411228	1.719227	.5434087	3.001594
#1	1.452516	.0148728	.0083635	396.6578	.1948168	.0582591
#2	1.431783	.0147727	.0081505	388.0875	.1969083	.0598631
#3	1.464940	.0150542	.0083406	401.5136	.1955252	.0563751

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1575227	208.5895	6.413797	55.12334	.2148310	.0018143
Stddev	.0077667	3.0674	.092665	.51236	.0008255	.0013000
%RSD	4.930526	1.470539	1.444777	.9294826	.3842700	71.65398
#1	.1617942	209.2001	6.424600	55.44005	.2149223	.0010096
#2	.1485578	205.2627	6.316204	54.53222	.2156070	.0011192
#3	.1622160	211.3056	6.500587	55.39775	.2139635	.0033140

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6764991	.2351638	.8236097	7.507341	F 12.17086	.0964880
Stddev	.0228198	.0093117	.0026619	.261512	.01645	.0013260
%RSD	3.373214	3.959648	.3232025	3.483420	.1351230	1.374259
#1	.7009486	.2457747	.8211789	7.469565	12.16018	.0977433
#2	.6557651	.2283540	.8264543	7.266772	12.16260	.0951011
#3	.6727836	.2313627	.8231959	7.785687	12.18980	.0966194

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-17 Acquired: 12/29/2024 4:30:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058917	2.787400	10.57376	.0466997	1.140283	.1429669
Stddev	.0002001	.010626	.11851	.0006491	.010407	.0028974
%RSD	3.396653	.3812284	1.120768	1.389988	.9126456	2.026605
#1	.0060902	2.786693	10.65025	.0469992	1.145816	.1434494
#2	.0056900	2.777145	10.43725	.0459548	1.128278	.1398585
#3	.0058950	2.798363	10.63377	.0471449	1.146754	.1455927

Elem	Li6707
Units	ppm
Avg	.1820265
Stddev	.0040062
%RSD	2.200890
#1	.1826441
#2	.1777473
#3	.1856880

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2604.979	32823.35	2535.087	1660.868	1768.345
Stddev	11.023	124.65	29.697	8.194	5.453
%RSD	.4231618	.3797515	1.171450	.4933521	.3083418
#1	2599.388	32945.17	2525.645	1669.294	1764.704
#2	2617.678	32828.83	2568.357	1660.383	1774.614
#3	2597.872	32696.06	2511.259	1652.927	1765.718

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-18 Acquired: 12/29/2024 4:34:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0589099	-.042550	.2581734	.0716627	.0169224	76.16062	.8698866
Stddev	.0041999	.003353	.0015715	.0069232	.0032580	.50317	.0058681
%RSD	7.129404	7.881209	.6087160	9.660813	19.25279	.6606673	.6745786
#1	.0545406	-.046415	.2571087	.0698966	.0141306	75.86037	.8661292
#2	.0592721	-.040825	.2599784	.0657936	.0205022	75.87997	.8668821
#3	.0629169	-.040410	.2574332	.0792979	.0161344	76.74152	.8766485

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0119358	.0044825	617.5616	.1138967	.0646154	.1346416	190.8217
Stddev	.0002113	.0001281	4.1235	.0002371	.0005392	.0015298	1.2763
%RSD	1.770728	2.857913	.6677112	.2082003	.8344434	1.136235	.6688308
#1	.0116934	.0043598	614.7900	.1138404	.0645798	.1329280	189.9137
#2	.0120322	.0046154	615.5944	.1141570	.0651715	.1351267	190.2703
#3	.0120818	.0044723	622.3003	.1136929	.0640949	.1358701	192.2809

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.731249	127.7344	.2150447	-.000776	1.176733	.1654305	.5053699
Stddev	.052510	1.1161	.0008062	.000748	.039964	.0030778	.0057557
%RSD	.7800972	.8737869	.3749150	96.35956	3.396168	1.860462	1.138919
#1	6.688619	127.2380	.2159217	-.000856	1.131335	.1638695	.5090061
#2	6.715224	126.9526	.2143358	-.001480	1.206600	.1634461	.4987339
#3	6.789905	129.0126	.2148766	.000008	1.192263	.1689760	.5083697

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.898240	7.738268	.0939235	.0053756	1.136197	10.59760	.0329624
Stddev	.266062	.029644	.0018287	.0006856	.006941	.06141	.0013491
%RSD	3.368629	.3830820	1.946987	12.75407	.6109350	.5794329	4.092775
#1	7.764867	7.713405	.0954754	.0046602	1.128182	10.53065	.0344668
#2	7.725244	7.730323	.0919074	.0060269	1.140271	10.61085	.0318602
#3	8.204610	7.771074	.0943875	.0054397	1.140137	10.65130	.0325600

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-18 Acquired: 12/29/2024 4:34:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKC9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.397275	.4956914	.1403358
Stddev	.008334	.0027374	.0012533
%RSD	.5964715	.5522450	.8931045
#1	1.402302	.4946008	.1402265
#2	1.387655	.4936674	.1391406
#3	1.401870	.4988061	.1416401

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2369.942	29965.15	2356.339	1503.276	1686.702
Stddev	4.643	130.09	14.501	12.877	2.403
%RSD	.1959132	.4341477	.6154020	.8565879	.1424882
#1	2366.797	29879.65	2370.076	1499.501	1689.466
#2	2367.754	30114.86	2357.762	1517.619	1685.104
#3	2375.274	29900.93	2341.179	1492.709	1685.537

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-19 Acquired: 12/29/2024 4:38:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKD0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0462027	-.035931	.1046537	.0619321	.0110186	68.78017	.6507544
Stddev	.0019939	.003493	.0031026	.0085495	.0021488	.54257	.0046173
%RSD	4.315494	9.721977	2.964656	13.80460	19.50204	.7888482	.7095335
#1	.0441071	-.031943	.1024370	.0646183	.0085933	69.35709	.6560111
#2	.0480762	-.038449	.1081995	.0523621	.0117775	68.70327	.6488975
#3	.0464248	-.037402	.1033248	.0688159	.0126850	68.28015	.6473547

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107750	.0032172	476.1992	.1003373	.0723160	.1228642	171.8166
Stddev	.0003236	.0001417	2.2364	.0005503	.0011373	.0008670	1.4681
%RSD	3.003462	4.403231	.4696250	.5484548	1.572725	.7056656	.8544372
#1	.0111477	.0032242	478.7129	.1003341	.0716873	.1223529	173.4226
#2	.0106115	.0030721	475.4543	.0997887	.0716318	.1223745	171.4835
#3	.0105657	.0033552	474.4303	.1008893	.0736289	.1238653	170.5437

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.779646	116.5093	.2118175	-.000709	.9648184	.1534198	.3544020
Stddev	.046147	.9652	.0004227	.000911	.0206730	.0066173	.0009839
%RSD	.6806638	.8284281	.1995331	128.4715	2.142683	4.313220	.2776081
#1	6.822901	117.4213	.2114299	.000312	.9886679	.1587072	.3549921
#2	6.784966	116.6080	.2122681	-.000999	.9520136	.1555534	.3532662
#3	6.731069	115.4985	.2117545	-.001440	.9537738	.1459989	.3549477

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.660318	7.013817	.0822888	.0048179	.6336580	9.664723	.0224794
Stddev	.085149	.005184	.0020148	.0004839	.0092759	.065987	.0022889
%RSD	1.111564	.0739078	2.448485	10.04334	1.463872	.6827626	10.18243
#1	7.617753	7.013987	.0809144	.0047725	.6418948	9.711285	.0218848
#2	7.758358	7.008550	.0846017	.0053230	.6236101	9.693674	.0250069
#3	7.604845	7.018913	.0813504	.0043584	.6354692	9.589209	.0205464

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-19 Acquired: 12/29/2024 4:38:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKD0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.384952	.4623062	.1252917
Stddev	.003130	.0021387	.0016704
%RSD	.2260044	.4626243	1.333201
#1	1.384228	.4643249	.1238012
#2	1.388381	.4600649	.1270971
#3	1.382248	.4625287	.1249768

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2358.916	29895.18	2311.176	1508.863	1714.034
Stddev	4.904	110.90	10.962	5.784	5.450
%RSD	.2078858	.3709718	.4743245	.3833449	.3179495
#1	2356.478	30012.16	2303.474	1506.878	1711.622
#2	2355.709	29791.56	2306.328	1504.334	1710.206
#3	2364.561	29881.83	2323.727	1515.379	1720.273

Reviewed By:mohan
On:12/31/2024
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Inst Id :P5

Sample Name: P5030-20 Acquired: 12/29/2024 4:42:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKD1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0724122	-.033769	.1054803	.0627528	.0120612	75.87354	.6255160
Stddev	.0046811	.007321	.0011720	.0009726	.0051711	.31810	.0030989
%RSD	6.464464	21.68102	1.111107	1.549858	42.87344	.4192559	.4954190
#1	.0760739	-.025594	.1067045	.0638736	.0093652	75.51673	.6222653
#2	.0671380	-.039722	.1043686	.0622540	.0087953	75.97643	.6284368
#3	.0740246	-.035990	.1053678	.0621308	.0180231	76.12747	.6258458

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109637	.0032577	522.8859	.1081465	.0797165	.1324544	170.5290
Stddev	.0001198	.0000695	2.3353	.0001589	.0004400	.0055867	.4453
%RSD	1.092462	2.134068	.4466119	.1469169	.5519012	4.217797	.2611154
#1	.0110976	.0031991	520.1977	.1079794	.0799554	.1260136	170.0238
#2	.0109266	.0033345	524.0464	.1081646	.0799854	.1353615	170.8644
#3	.0108668	.0032394	524.4135	.1082956	.0792088	.1359880	170.6987

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.688083	111.8324	.2219985	-.000351	1.104716	.1694384	.3778453
Stddev	.014203	.3774	.0016169	.000723	.012153	.0133004	.0038207
%RSD	.2497047	.3374949	.7283544	205.7291	1.100141	7.849694	1.011182
#1	5.671698	111.4009	.2225442	-.001172	1.111731	.1837477	.3816390
#2	5.695653	112.1011	.2201793	.000189	1.111734	.1671140	.3739981
#3	5.696899	111.9953	.2232720	-.000070	1.090682	.1574533	.3778987

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.928358	7.214936	.0788930	.0040785	.6788246	11.49171	.0213699
Stddev	.058778	.014038	.0006993	.0006500	.0029434	.01200	.0015783
%RSD	.7413611	.1945699	.8864559	15.93649	.4336013	.1044063	7.385415
#1	7.949477	7.219402	.0792068	.0037386	.6754346	11.50280	.0199014
#2	7.861939	7.199208	.0793804	.0048280	.6807305	11.49336	.0211695
#3	7.973658	7.226197	.0780917	.0036690	.6803088	11.47897	.0230388

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-20 Acquired: 12/29/2024 4:42:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKD1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.415946	.5378416	.1428535
Stddev	.006649	.0019916	.0054720
%RSD	.4695824	.3702934	3.830507
#1	1.408924	.5362579	.1365651
#2	1.416768	.5371894	.1454637
#3	1.422146	.5400776	.1465317

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2368.717	30019.89	2304.959	1505.218	1697.855
Stddev	3.316	113.08	8.581	8.640	2.501
%RSD	.1399955	.3766906	.3722977	.5740118	.1472848
#1	2364.975	30129.19	2313.968	1505.318	1695.012
#2	2369.881	30027.11	2304.028	1513.809	1699.716
#3	2371.293	29903.37	2296.881	1496.529	1698.835

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-21 Acquired: 12/29/2024 4:45:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKG4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0642520	-.038594	.1088591	.0615444	.0152514	76.24008	.6115035
Stddev	.0033776	.002151	.0034386	.0070675	.0049924	1.06422	.0100661
%RSD	5.256850	5.572937	3.158802	11.48360	32.73392	1.395883	1.646120
#1	.0678584	-.039711	.1124733	.0636290	.0200660	77.46791	.6231181
#2	.0611627	-.039956	.1056281	.0536691	.0155896	75.58253	.6053063
#3	.0637350	-.036114	.1084760	.0673352	.0100985	75.66981	.6060861

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112873	.0029838	470.5185	.1060905	.0753433	.1343531	176.1622
Stddev	.0002240	.0000388	6.3724	.0008597	.0009235	.0081726	2.4848
%RSD	1.984096	1.301685	1.354328	.8103058	1.225765	6.082890	1.410534
#1	.0114206	.0029483	477.8708	.1052722	.0744109	.1347610	179.0254
#2	.0114126	.0029779	466.5872	.1060132	.0753614	.1259843	174.8921
#3	.0110288	.0030253	467.0975	.1069863	.0762577	.1423141	174.5691

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.976421	108.8903	.2106136	.0003180	1.006285	.1682757	.3709866
Stddev	.072057	1.4973	.0006544	.0004179	.023920	.0155200	.0014565
%RSD	1.447963	1.375060	.3107157	131.4104	2.377076	9.222949	.3926133
#1	5.059080	110.6192	.2098877	-.000126	1.021568	.1861888	.3697695
#2	4.943330	108.0126	.2111585	.000376	.978718	.1597776	.3726004
#3	4.926854	108.0392	.2107945	.000704	1.018568	.1588607	.3705899

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.867604	7.087870	.0846486	.0035420	.6151418	10.86465	.0236371
Stddev	.052615	.016257	.0019083	.0002920	.0106728	.10189	.0033929
%RSD	.5933420	.2293602	2.254339	8.244157	1.735022	.9378552	14.35407
#1	8.896503	7.081324	.0867373	.0032225	.6211925	10.97618	.0240533
#2	8.899437	7.075907	.0829964	.0036084	.6028185	10.84134	.0200553
#3	8.806873	7.106380	.0842121	.0037950	.6214142	10.77642	.0268027

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-21 Acquired: 12/29/2024 4:45:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKG4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.527053	.4855971	.1390509
Stddev	.023549	.0068092	.0032910
%RSD	1.542088	1.402236	2.366791
#1	1.554243	.4932898	.1406639
#2	1.513665	.4803427	.1412243
#3	1.513250	.4831589	.1352645

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2321.527	29614.99	2250.526	1490.243	1675.068
Stddev	5.411	16.65	20.934	4.130	4.033
%RSD	.2330973	.0562279	.9301622	.2771483	.2407876
#1	2326.883	29608.73	2226.355	1494.981	1676.881
#2	2321.636	29633.86	2262.405	1488.342	1677.877
#3	2316.062	29602.37	2262.817	1487.405	1670.447

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-22 Acquired: 12/29/2024 4:49:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKG5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1944030	-.112282	.5129073	.1644619	.0525250	102.4335	.6864725
Stddev	.0039509	.004957	.0016543	.0041641	.0017293	1.2205	.0102891
%RSD	2.032310	4.414797	.3225292	2.531970	3.292379	1.191509	1.498838
#1	.1898578	-.117967	.5141877	.1682632	.0530843	102.9960	.6910496
#2	.1963358	-.110013	.5134947	.1651113	.0539054	103.2712	.6936789
#3	.1970154	-.108866	.5110395	.1600112	.0505852	101.0332	.6746891

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0168369	.0055559	23.37630	.1417435	.0479116	.2646732	268.1891
Stddev	.0001105	.0001990	.32412	.0004944	.0006091	.0016636	3.2117
%RSD	.6560025	3.582224	1.386531	.3488004	1.271307	.6285605	1.197569
#1	.0167791	.0057332	23.49846	.1419368	.0476145	.2665494	269.2974
#2	.0167674	.0053406	23.62160	.1411816	.0475080	.2633779	270.6999
#3	.0169643	.0055937	23.00886	.1421120	.0486122	.2640922	264.5700

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.06980	25.09844	.1883135	.0020532	5.880561	.2417812	.7685598
Stddev	.21417	.27102	.0004784	.0003308	.040664	.0078406	.0026378
%RSD	1.254676	1.079840	.2540278	16.11036	.6914911	3.242847	.3432151
#1	17.16212	25.14844	.1882857	.0023046	5.881338	.2327964	.7715918
#2	17.22234	25.34099	.1888051	.0016785	5.920831	.2453086	.7672952
#3	16.82496	24.80590	.1878496	.0021766	5.839515	.2472384	.7667923

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.681827	2.961106	.1110181	.0052198	2.724458	11.15226	.0320802
Stddev	.185408	.004641	.0038870	.0007319	.016652	.06566	.0012473
%RSD	2.135584	.1567338	3.501251	14.02136	.6112112	.5887251	3.888089
#1	8.633727	2.959934	.1128156	.0060381	2.706418	11.09714	.0307447
#2	8.886544	2.966220	.1136811	.0046278	2.739241	11.22490	.0322808
#3	8.525209	2.957163	.1065577	.0049936	2.727714	11.13473	.0332150

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5030-22 Acquired: 12/29/2024 4:49:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKG5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.206880	-.164106	.0985085
Stddev	.009829	.001886	.0054334
%RSD	.8144336	1.149086	5.515664
#1	1.204825	-.164518	.0991625
#2	1.217574	-.165753	.1035853
#3	1.198240	-.162049	.0927777

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.142	32294.55	2432.948	1647.047	1828.019
Stddev	2.833	158.92	18.868	5.990	2.056
%RSD	.1106924	.4921025	.7755062	.3636899	.1124805
#1	2557.459	32154.26	2441.292	1641.450	1829.185
#2	2557.555	32262.24	2411.347	1646.325	1825.645
#3	2562.413	32467.14	2446.206	1653.365	1829.227

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5032-01 Acquired: 12/29/2024 4:53:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK55 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1203315	-.033670	2.951218	.0638859	.0192583	51.90131
Stddev	.0018297	.001155	.007720	.0022265	.0062623	.17109
%RSD	1.520562	3.429217	.2615823	3.485187	32.51762	.3296374
#1	.1208893	-.032442	2.943399	.0645351	.0264487	52.02343
#2	.1182878	-.034733	2.951420	.0657157	.0149995	51.70577
#3	.1218174	-.033836	2.958834	.0614069	.0163266	51.97474

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.400620	.0110157	.0065634	59.67670	.1200074	.0533817
Stddev	.007707	.0002101	.0000811	.09764	.0013959	.0008209
%RSD	.5502642	1.907145	1.236044	.1636174	1.163214	1.537862
#1	1.409272	.0112472	.0066527	59.57078	.1205649	.0524849
#2	1.394490	.0109626	.0064943	59.69620	.1210385	.0540961
#3	1.398099	.0108372	.0065431	59.76312	.1184189	.0535642

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3540095	124.4942	6.356625	13.62088	.1700882	.0033304
Stddev	.0009004	.2933	.032436	.17127	.0003520	.0009782
%RSD	.2543411	.2355757	.5102708	1.257421	.2069577	29.37221
#1	.3541975	124.8114	6.393368	13.81588	.1702331	.0039262
#2	.3548011	124.2329	6.331962	13.55194	.1703446	.0038635
#3	.3530300	124.4385	6.344547	13.49482	.1696868	.0022014

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6784071	.1558154	1.674464	7.360749	F 14.40303	.0868605
Stddev	.0288623	.0144694	.010538	.025274	.04347	.0022256
%RSD	4.254428	9.286241	.6293093	.3433552	.3018367	2.562277
#1	.6900422	.1441986	1.666187	7.366819	14.36287	.0844589
#2	.6455432	.1512242	1.686327	7.332993	14.39703	.0872692
#3	.6996359	.1720234	1.670879	7.382435	14.44920	.0888534

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5032-01 Acquired: 12/29/2024 4:53:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK55 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0132857	6.773430	9.395986	.1066163	.7826686	.2343045
Stddev	.0003052	.015608	.071281	.0006609	.0015636	.0002843
%RSD	2.297009	.2304289	.7586299	.6198629	.1997733	.1213220
#1	.0133236	6.778493	9.457056	.1069758	.7841681	.2341797
#2	.0129633	6.755919	9.413240	.1070196	.7827895	.2346299
#3	.0135701	6.785877	9.317662	.1058536	.7810480	.2341041

Elem	Li6707
Units	ppm
Avg	.0600578
Stddev	.0013005
%RSD	2.165492
#1	.0594525
#2	.0591702
#3	.0615506

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2417.794	30538.68	2293.448	1545.611	1901.394
Stddev	5.076	149.06	16.760	5.832	5.447
%RSD	.2099611	.4881049	.7307591	.3773401	.2864914
#1	2419.666	30657.33	2274.109	1551.879	1902.941
#2	2421.669	30587.33	2302.502	1544.611	1905.901
#3	2412.048	30371.37	2303.733	1540.344	1895.341

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5032-02 Acquired: 12/29/2024 4:57:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK56 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2185459	-.047100	1.452741	.0726354	.0188287	57.30974
Stddev	.0070356	.003659	.005803	.0042157	.0030183	.13050
%RSD	3.219287	7.767850	.3994322	5.803915	16.03041	.2277098
#1	.2201904	-.050934	1.448609	.0767190	.0194724	57.16082
#2	.2108336	-.043647	1.459375	.0682990	.0214732	57.36426
#3	.2246135	-.046720	1.450240	.0728882	.0155404	57.40413

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8182015	.0180885	.0042881	57.93315	.0898572	.0462247
Stddev	.0018089	.0001044	.0000611	.11423	.0005981	.0003771
%RSD	.2210881	.5771829	1.425625	.1971834	.6655620	.8158112
#1	.8174214	.0179695	.0042992	57.80129	.0899730	.0457936
#2	.8169134	.0181646	.0042222	58.00231	.0892097	.0463868
#3	.8202696	.0181314	.0043429	57.99584	.0903889	.0464936

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2594478	136.9527	2.953999	6.507321	.1384212	.0012379
Stddev	.0060386	.4458	.006378	.065381	.0001794	.0006142
%RSD	2.327494	.3255239	.2158943	1.004725	.1295936	49.61836
#1	.2526003	136.6258	2.947886	6.435413	.1386283	.0007806
#2	.2617318	136.7718	2.960612	6.523358	.1383189	.0019360
#3	.2640114	137.4605	2.953499	6.563190	.1383164	.0009970

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.153353	.1616417	.8787042	5.207971	F 10.71831	.0981164
Stddev	.016282	.0157988	.0054940	.045141	.01607	.0017937
%RSD	1.411735	9.773965	.6252348	.8667730	.1498989	1.828099
#1	1.159144	.1698905	.8849906	5.251636	10.70969	.1000540
#2	1.134967	.1434258	.8748234	5.210791	10.70839	.0977811
#3	1.165948	.1716087	.8762985	5.161486	10.73684	.0965140

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5032-02 Acquired: 12/29/2024 4:57:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK56 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156102	6.820837	7.076286	.0654933	1.661463	.2536752
Stddev	.0005151	.008384	.026583	.0002979	.015396	.0006655
%RSD	3.299572	.1229199	.3756689	.4547864	.9266491	.2623563
#1	.0161981	6.818074	7.057967	.0656533	1.663804	.2529199
#2	.0152383	6.830254	7.106776	.0656769	1.645031	.2541757
#3	.0153942	6.814183	7.064115	.0651497	1.675555	.2539299

Elem	Li6707
Units	ppm
Avg	.0403608
Stddev	.0032395
%RSD	8.026437
#1	.0409035
#2	.0368842
#3	.0432948

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2330.583	29478.00	2169.550	1494.649	1895.190
Stddev	12.024	140.91	6.603	12.194	7.066
%RSD	.5159080	.4780242	.3043502	.8158169	.3728346
#1	2343.769	29322.37	2164.614	1480.579	1903.071
#2	2327.750	29596.93	2166.985	1501.224	1893.077
#3	2320.228	29514.70	2177.051	1502.143	1889.421

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5032-03 Acquired: 12/29/2024 5:01:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK57 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1170559	-.037778	5.413705	.0581468	.0113717	73.30417
Stddev	.0043561	.003853	.009369	.0038379	.0010079	.30592
%RSD	3.721342	10.19812	.1730611	6.600422	8.863453	.4173237
#1	.1220718	-.033952	5.417337	.0537328	.0103789	72.97683
#2	.1148726	-.041657	5.403064	.0606963	.0113421	73.58281
#3	.1142232	-.037726	5.420714	.0600113	.0123941	73.35289

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.042836	.0124499	.0058805	69.62234	.1443344	.0847534
Stddev	.007751	.0002310	.0001315	.23939	.0020041	.0002115
%RSD	.3794076	1.855362	2.236073	.3438383	1.388507	.2495537
#1	2.035819	.0122595	.0060310	69.39506	.1450676	.0848612
#2	2.051155	.0123832	.0058229	69.87223	.1420670	.0845098
#3	2.041533	.0127068	.0057877	69.59972	.1458687	.0848894

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4430799	119.6022	5.032908	9.850656	.1962281	.0007224
Stddev	.0090581	.5675	.009903	.180829	.0011467	.0002073
%RSD	2.044340	.4744564	.1967592	1.835701	.5843663	28.68779
#1	.4489870	119.0746	5.022799	9.661555	.1974997	.0009499
#2	.4326512	120.2025	5.042591	9.868529	.1959118	.0005443
#3	.4476015	119.5295	5.033334	10.02188	.1952728	.0006731

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.820482	.2252634	2.490431	11.70138	F 22.92082	.1100280
Stddev	.011938	.0079969	.003702	.11578	.06637	.0017893
%RSD	.4232569	3.550019	.1486509	.9894156	.2895532	1.626220
#1	2.811448	.2226985	2.492647	11.59119	22.99540	.1111087
#2	2.815983	.2188637	2.486158	11.82203	22.86826	.1079626
#3	2.834016	.2342281	2.492490	11.69091	22.89881	.1110127

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: P5032-03 Acquired: 12/29/2024 5:01:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK57 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0162913	3.197374	9.328454	.1243163	1.397132	.7462087
Stddev	.0011092	.006037	.015961	.0032164	.001849	.0040554
%RSD	6.808461	.1888144	.1711017	2.587238	.1323689	.5434733
#1	.0169701	3.201042	9.342547	.1277022	1.396659	.7415436
#2	.0168924	3.190407	9.331693	.1213017	1.395566	.7481884
#3	.0150113	3.200675	9.311122	.1239450	1.399172	.7488940

Elem	Li6707
Units	ppm
Avg	.0965796
Stddev	.0037489
%RSD	3.881688
#1	.0923151
#2	.0993561
#3	.0980677

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2399.926	30181.33	2261.393	1528.879	1861.098
Stddev	5.702	63.31	9.721	6.744	3.529
%RSD	.2375759	.2097815	.4298630	.4411287	.1896227
#1	2400.162	30118.32	2266.499	1528.058	1858.718
#2	2394.110	30180.74	2250.183	1522.582	1859.423
#3	2405.506	30244.95	2267.497	1535.996	1865.152

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCV035 Acquired: 12/29/2024 5:05:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV035 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.056951	4.828862	24.69422	5.103009	4.993810	407.1872	10.06755
Stddev	.018447	.019821	.02868	.010365	.009683	12.8825	.31862
%RSD	.3647931	.4104630	.1161276	.2031160	.1939091	3.163775	3.164812
#1	5.061545	4.850931	24.66111	5.092245	4.982629	392.3517	9.70123
#2	5.036641	4.823080	24.71139	5.103857	4.999382	415.5483	10.28035
#3	5.072667	4.812575	24.71016	5.112923	4.999421	413.6617	10.22106

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5133500	2.486667	403.1379	15.57269	2.409872	14.85081	408.7950
Stddev	.0150065	.001914	12.3080	.05954	.004832	.40200	13.0313
%RSD	2.923251	.0769609	3.053044	.3823658	.2005094	2.706938	3.187734
#1	.4960263	2.484460	388.9290	15.53322	2.415446	14.38682	393.7663
#2	.5216771	2.487868	410.4991	15.64118	2.407279	15.09475	416.9571
#3	.5223467	2.487673	409.9857	15.54367	2.406889	15.07086	415.6615

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.72101	403.4109	2.508948	1.289991	424.0965	2.490280	15.21644
Stddev	.46947	12.0758	.005046	.006012	15.0405	.081834	.01728
%RSD	3.189128	2.993424	.2011212	.4660569	3.546479	3.286148	.1135605
#1	14.18087	389.5333	2.503288	1.283712	406.7293	2.396569	15.20385
#2	15.03098	411.5260	2.510580	1.295695	432.7859	2.547649	15.20933
#3	14.95118	409.1734	2.512976	1.290566	432.7744	2.526622	15.23614

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	152.0092	5.005879	4.967473	5.017898	5.055999	4.847656	5.026952
Stddev	4.6260	.017359	.155170	.009168	.019859	.151004	.007734
%RSD	3.043249	.3467746	3.123721	.1826986	.3927848	3.114993	.1538411
#1	146.6693	4.987049	4.788441	5.013551	5.035960	4.674966	5.018196
#2	154.5610	5.009341	5.050804	5.028431	5.056365	4.913121	5.029813
#3	154.7974	5.021246	5.063174	5.011713	5.075673	4.954880	5.032847

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCV035 Acquired: 12/29/2024 5:05:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV035 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	4.993908	4.673709	5.153885
Stddev	.159098	.140527	.160901
%RSD	3.185838	3.006752	3.121934
#1	4.812934	4.511443	4.970110
#2	5.111752	4.755082	5.269414
#3	5.057039	4.754602	5.222133

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1801.249	23294.88	1902.220	1127.113	1533.096
Stddev	8.304	221.84	56.136	6.329	4.899
%RSD	.4609978	.9522972	2.951073	.5615662	.3195801
#1	1804.522	23288.49	1966.198	1124.300	1535.587
#2	1791.808	23076.31	1861.214	1122.678	1527.451
#3	1807.418	23519.84	1879.247	1134.362	1536.249

Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCB035 Acquired: 12/29/2024 5:09:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB035 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000194	.0021408	.0036185	-.000328	.0012870	-.032376	-.000661
Stddev	.002662	.0028440	.0012644	.001206	.0033195	.013417	.002654
%RSD	1368.860	132.8488	34.94258	367.5297	257.9299	41.44013	401.7544
#1	-.002690	-.000179	.0023379	-.001090	-.000616	-.019617	.002400
#2	.002608	.001288	.0048660	.001062	.005120	-.031146	-.002324
#3	-.000501	.005314	.0036517	-.000956	-.000643	-.046366	-.002057

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000035	.0000600	-.016627	.0012289	.0006355	-.007345	.0121232
Stddev	.0001575	.0001947	.029098	.0002744	.0003421	.004080	.0286398
%RSD	4501.329	324.6856	175.0016	22.33143	53.82727	55.54848	236.2391
#1	.0001769	.0002842	-.049258	.0009674	.0010162	-.006335	.0214939
#2	-.000036	-.000038	.006622	.0012048	.0005364	-.011835	.0349039
#3	-.000131	-.000066	-.007245	.0015147	.0003539	-.003865	-.020028

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000671	-.043895	.0001036	-.000107	.0410313	-.010813	.0021656
Stddev	.001266	.130282	.0003883	.000881	.0334081	.010498	.0004018
%RSD	188.7648	296.8050	374.8032	822.1767	81.42087	97.08669	18.55372
#1	-.000474	-.082569	-.000264	-.000956	.0279031	-.006247	.0025521
#2	-.002023	-.150461	.000066	.000802	.0161815	-.022820	.0017501
#3	.000485	.101345	.000510	-.000168	.0790094	-.003371	.0021944

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1909806	.0003166	.0092393	.0003305	.0100498	.0004734	.0001158
Stddev	.0410113	.0001885	.0016893	.0003196	.0017944	.0019929	.0007499
%RSD	21.47404	59.54476	18.28347	96.71301	17.85481	420.9915	647.4018
#1	.1959581	.0001586	.0111069	-.000017	.0120887	.0010686	.0009175
#2	.2292760	.0002660	.0087931	.000612	.0087109	.0021008	-.000001
#3	.1477078	.0005253	.0078180	.000396	.0093498	-.001749	-.000569

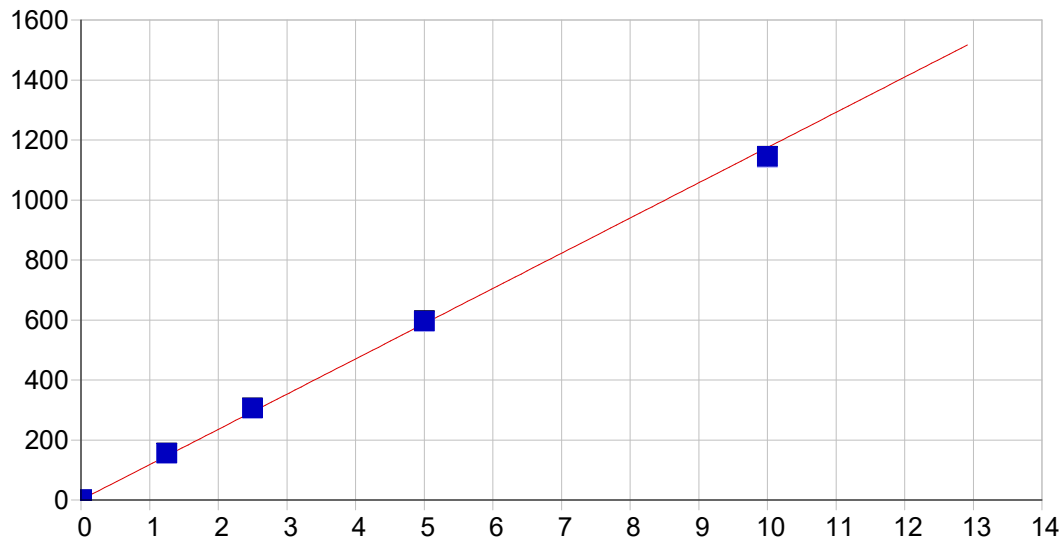
Reviewed By:mohan
On:12/31/2024
11:25:59 PM
Inst Id :P5

Sample Name: CCB035 Acquired: 12/29/2024 5:09:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v49) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB035 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0024778	.0000257	.0139934
Stddev	.0031536	.0003609	.0027727
%RSD	127.2715	1402.266	19.81428
#1	.0014507	-.000222	.0171879
#2	.0060169	-.000140	.0122111
#3	-.000034	.000440	.0125813

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2030.918	25929.85	1941.774	1310.178	1847.171
Stddev	7.408	186.96	8.078	8.815	4.096
%RSD	.3647575	.7210241	.4159982	.6728421	.2217419
#1	2028.683	25721.29	1940.598	1300.070	1846.282
#2	2039.186	26082.43	1950.375	1314.195	1851.638
#3	2024.885	25985.82	1934.348	1316.270	1843.593

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



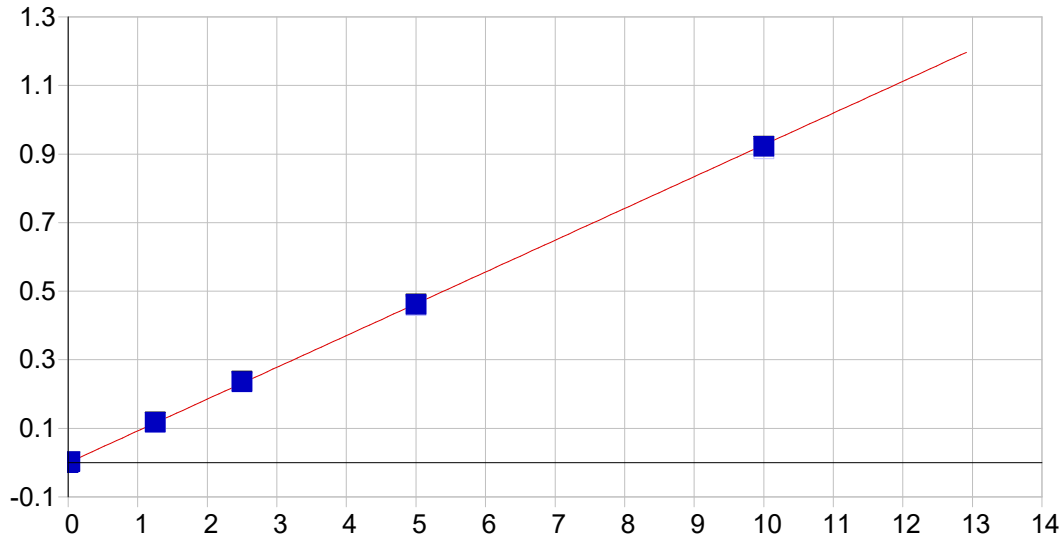
As 189.042 {478}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.487541	Re-Slope:	1.000000
A1 (Gain):	117.421288	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999548	Status:	OK.
Std Error of Est:	0.058949		
Predicted MDL:	0.006092		
Predicted MQL:	0.020308		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.48771	.366	1
S1	.01000	.00763	-.002	-23.7	1.3820	.511	1
S2	1.2500	1.3236	.074	5.89	155.29	.349	1
S3	2.5000	2.6043	.104	4.17	305.05	.377	1
S4	5.0000	5.0772	.077	1.54	594.19	.796	1
S5	10.000	9.7473	-.253	-2.53	1140.1	.765	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



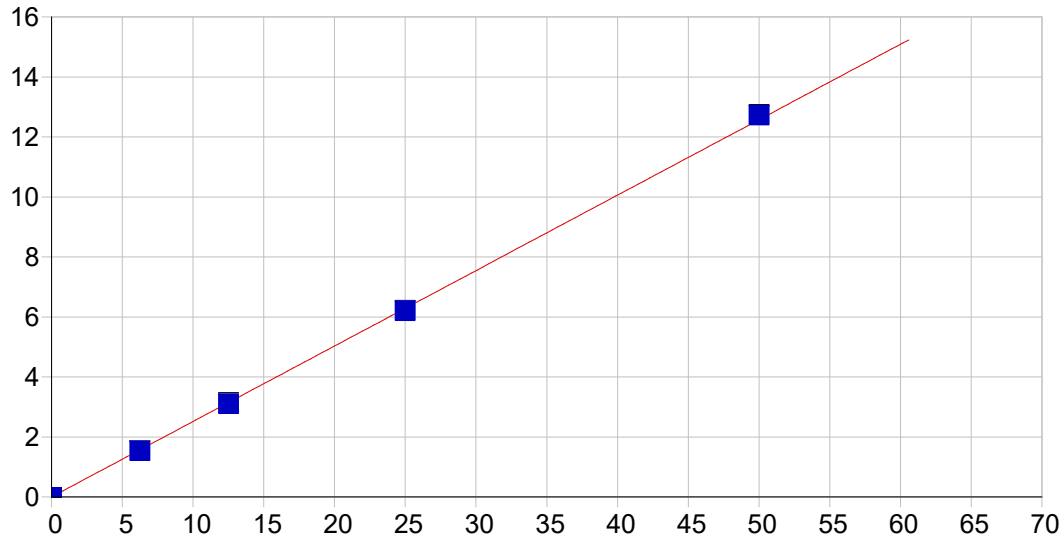
Tl 190.856 {477}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000178	Re-Slope:	1.000000
A1 (Gain):	0.092687	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.003364		
Predicted MQL:	0.011214		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00018	.000	1
S1	.02500	.02740	.002	9.61	.00228	.000	1
S2	1.2500	1.2724	.022	1.79	.11676	.000	1
S3	2.5000	2.5488	.049	1.95	.23407	.002	1
S4	5.0000	4.9764	-.024	-.472	.45709	.002	1
S5	10.000	9.9501	-.050	-.499	.91411	.001	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



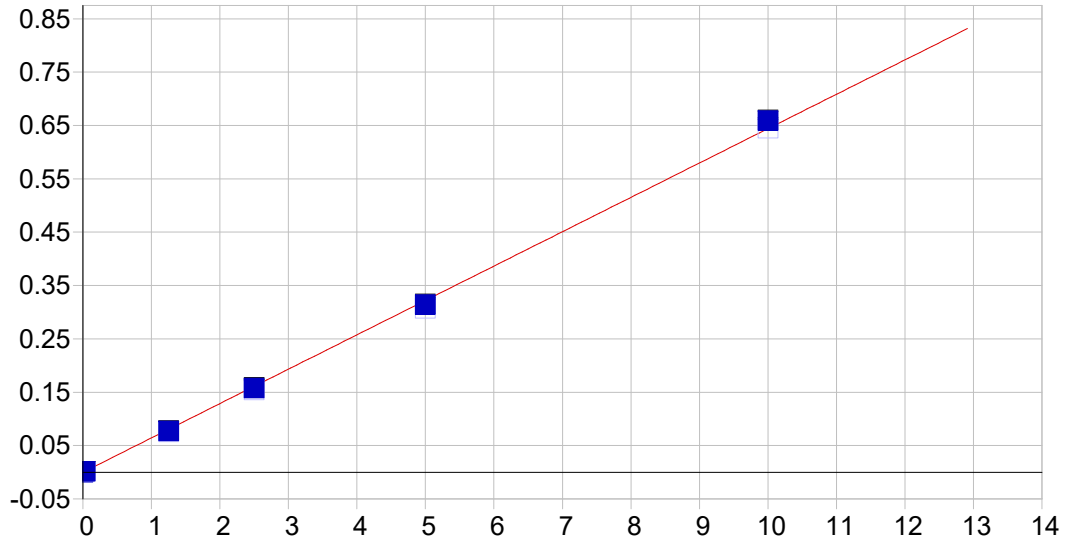
Pb 220.353 {453}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000232	Re-Slope:	1.000000
A1 (Gain):	0.251458	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999915	Status:	OK.
Std Error of Est:	0.000123		
Predicted MDL:	0.002610		
Predicted MQL:	0.008701		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00023	.000	1
S1	.01000	.01046	.000	4.55	.00285	.000	1
S2	6.2500	6.1203	-.130	-2.08	1.5375	.002	1
S3	12.500	12.360	-.140	-1.12	3.1049	.033	1
S4	25.000	24.669	-.331	-1.32	6.1967	.019	1
S5	50.000	50.600	.600	1.20	12.710	.018	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



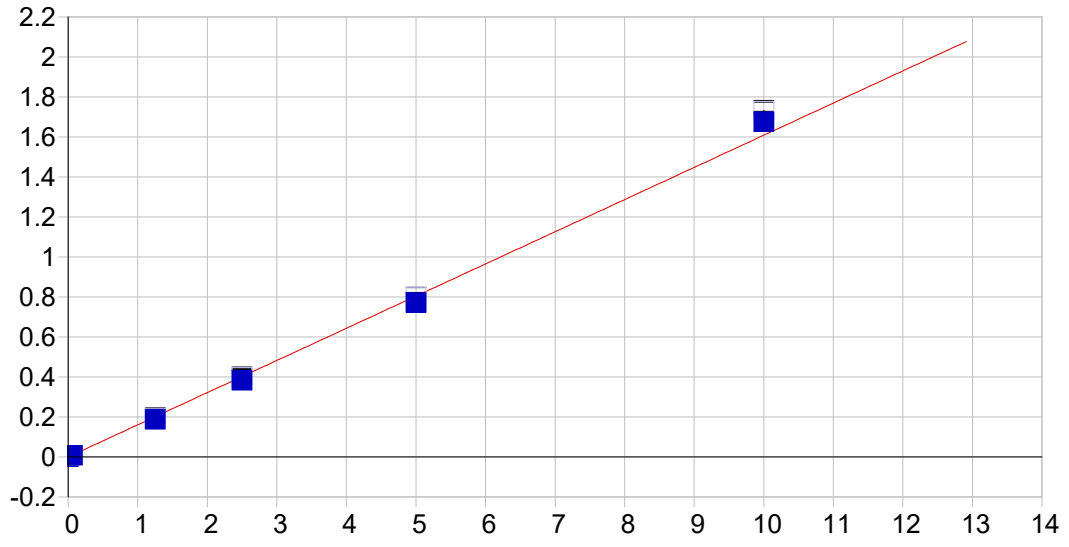
Se 196.090 {472}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000074	Re-Slope:	1.000000
A1 (Gain):	0.064417	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999649	Status:	OK.
Std Error of Est:	0.000052		
Predicted MDL:	0.006553		
Predicted MQL:	0.021842		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00007	.000	1
S1	.03500	.02902	-.006	-17.1	.00179	.000	1
S2	1.2500	1.1970	-.053	-4.24	.07522	.001	1
S3	2.5000	2.4479	-.052	-2.08	.15399	.001	1
S4	5.0000	4.8798	-.120	-2.40	.30702	.001	1
S5	10.000	10.231	.231	2.31	.64451	.001	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



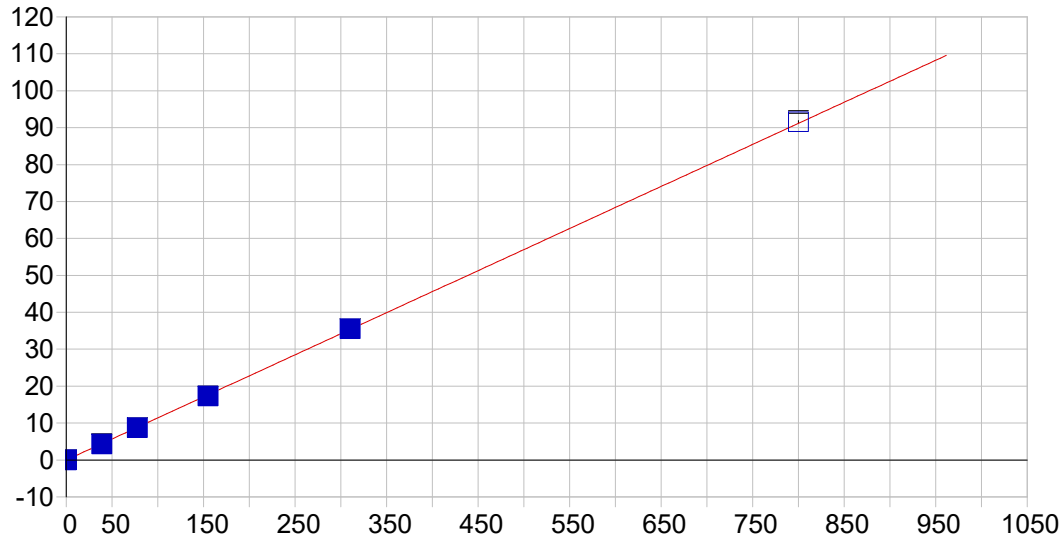
Sb 206.833 {463}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000312	Re-Slope:	1.000000
A1 (Gain):	0.160865	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999083	Status:	OK.
Std Error of Est:	0.000293		
Predicted MDL:	0.003552		
Predicted MQL:	0.011838		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00031	.000	1
S1	.06000	.05564	-.004	-7.27	.00864	.001	1
S2	1.2500	1.1671	-.083	-6.63	.19415	.000	1
S3	2.5000	2.3809	-.119	-4.76	.39614	.004	1
S4	5.0000	4.7946	-.205	-4.11	.79786	.001	1
S5	10.000	10.412	.412	4.12	1.7283	.004	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



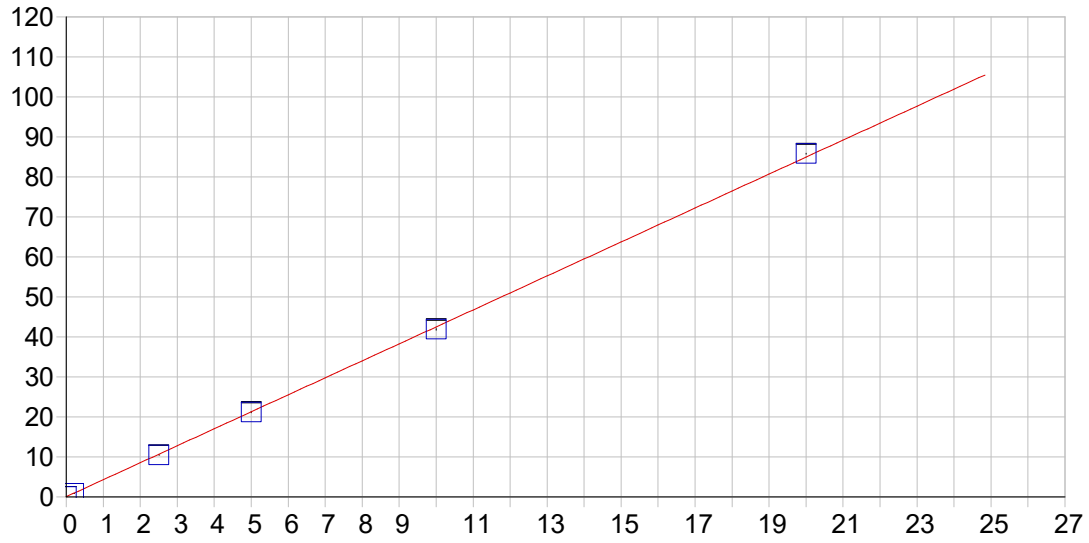
Al 396.152 { 85}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000875	Re-Slope:	1.000000
A1 (Gain):	0.113968	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999951	Status:	OK.
Std Error of Est:	0.000702		
Predicted MDL:	0.024766		
Predicted MQL:	0.082552		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00088	.004	1
S1	.20000	.19692	-.003	-1.54	.02336	.004	1
S2	38.750	37.889	-.861	-2.22	4.3239	.022	1
S3	77.500	76.718	-.782	-1.01	8.7538	.052	1
S4	155.00	151.41	-3.59	-2.32	17.276	.046	1
S5	310.00	311.86	1.86	.599	35.581	.036	1
S6	800.00	803.38	3.38	.423	91.561	.340	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



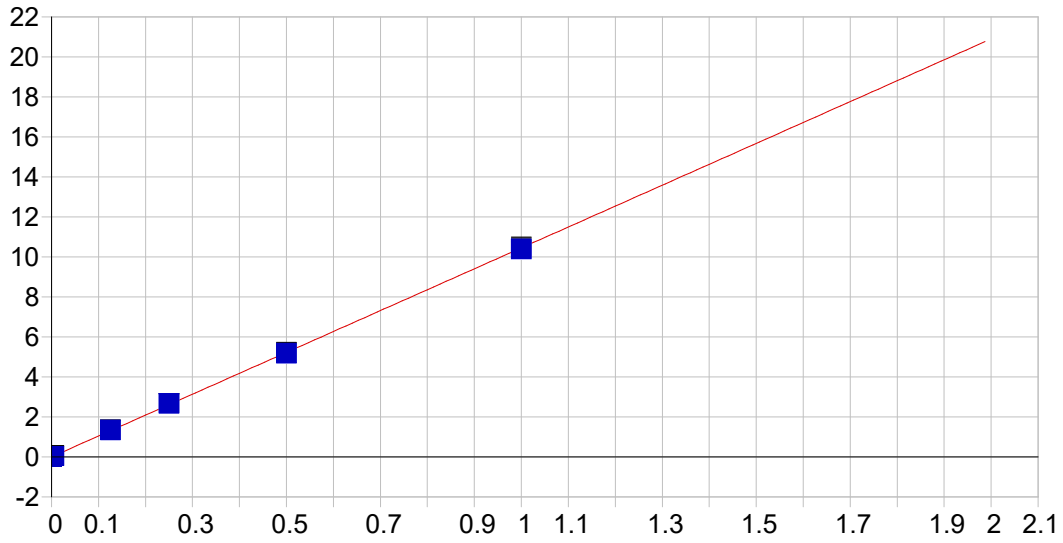
Ba 493.409 { 68}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.053605	Re-Slope:	1.000000
A1 (Gain):	4.245252	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.005162		
Predicted MDL:	0.001435		
Predicted MQL:	0.004784		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.05361	.002	1
S1	.20000	.20272	.003	1.36	.91421	.000	1
S2	2.5000	2.4567	-.043	-1.73	10.483	.032	1
S3	5.0000	4.9861	-.014	-.278	21.221	.148	1
S4	10.000	9.8546	-.145	-1.45	41.889	.180	1
S5	20.000	20.200	.200	.999	85.807	.127	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



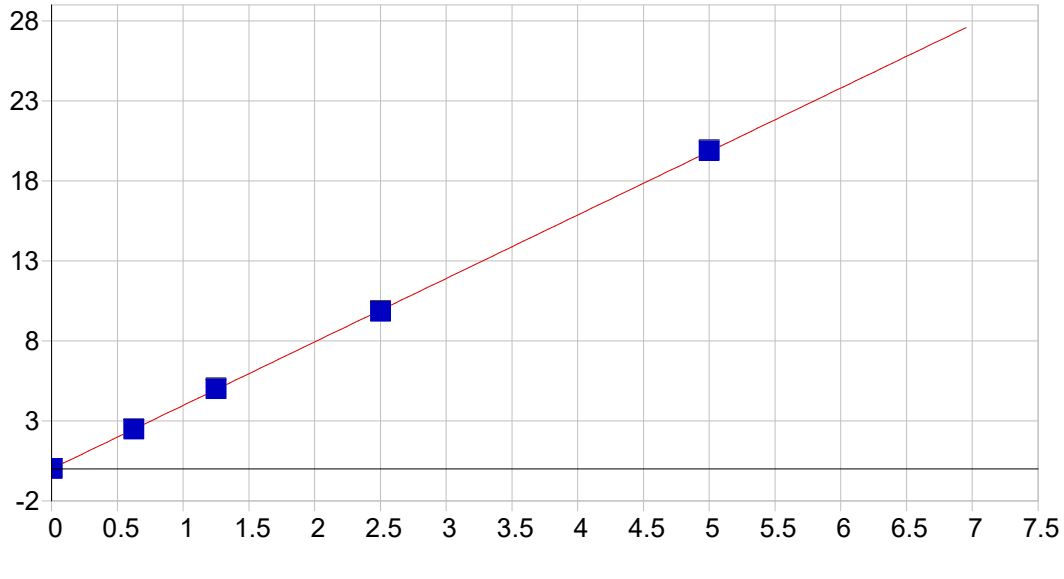
Be 234.861 {144}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000173	Re-Slope:	1.000000
A1 (Gain):	10.450081	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000477		
Predicted MDL:	0.000141		
Predicted MQL:	0.000469		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00018	.001	1
S1	.00500	.00532	.000	6.46	.05540	.002	1
S2	.12500	.12825	.003	2.60	1.3341	.006	1
S3	.25000	.25540	.005	2.16	2.6568	.005	1
S4	.50000	.49601	-.004	-.799	5.1591	.043	1
S5	1.0000	.99502	-.005	-.498	10.350	.101	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



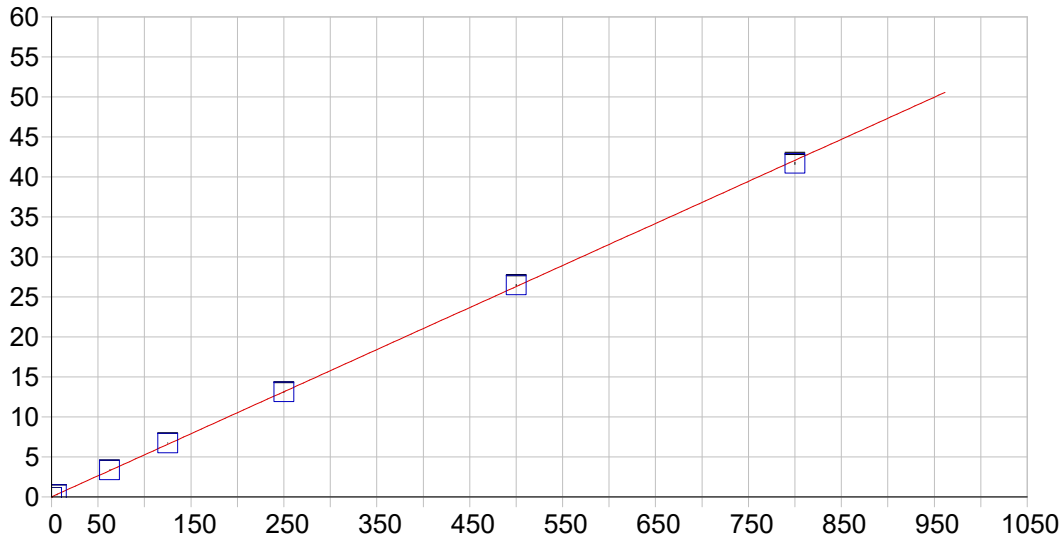
Cd 214.438 {457}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000151	Re-Slope:	1.000000
A1 (Gain):	3.967115	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000162		
Predicted MDL:	0.000112		
Predicted MQL:	0.000372		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00015	.000	1
S1	.00500	.00494	-.000	-1.24	.01982	.000	1
S2	.62500	.62359	-.001	-.226	2.4778	.003	1
S3	1.2500	1.2579	.008	.633	4.9981	.056	1
S4	2.5000	2.4813	-.019	-.747	9.8590	.027	1
S5	5.0000	5.0122	.012	.245	19.915	.032	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



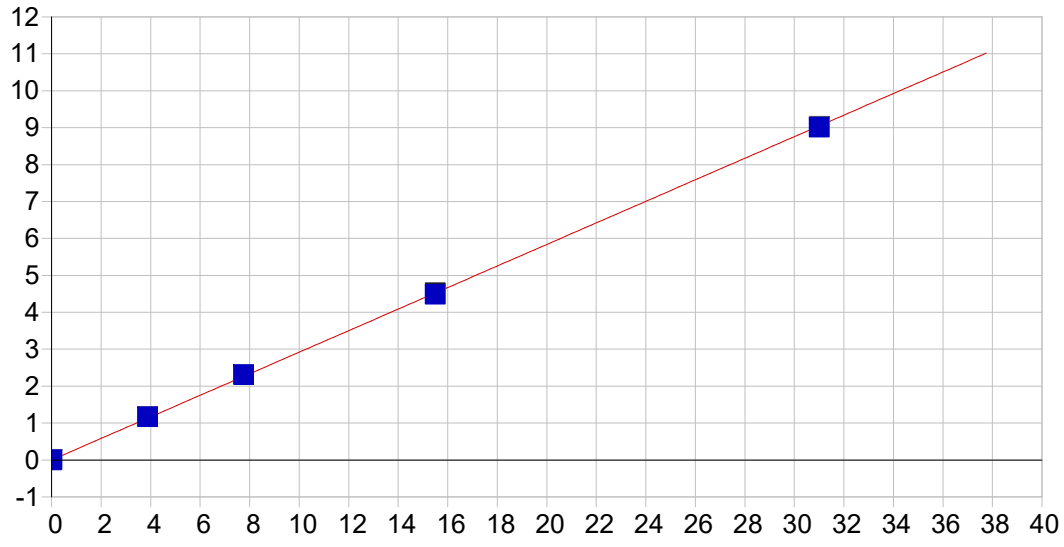
Ca 373.690 { 90}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005249	Re-Slope:	1.000000
A1 (Gain):	0.052583	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.001892		
Predicted MDL:	0.035846		
Predicted MQL:	0.119486		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00025	-.000	.000	.00524	.000	1
S1	5.0000	5.0615	.061	1.23	.27139	.003	1
S2	62.500	63.753	1.25	2.01	3.3576	.009	1
S3	125.00	127.86	2.86	2.29	6.7287	.027	1
S4	250.00	249.14	-.856	-.342	13.106	.057	1
S5	500.00	503.75	3.75	.751	26.494	.078	1
S6	800.00	792.92	-7.08	-.885	41.699	.136	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



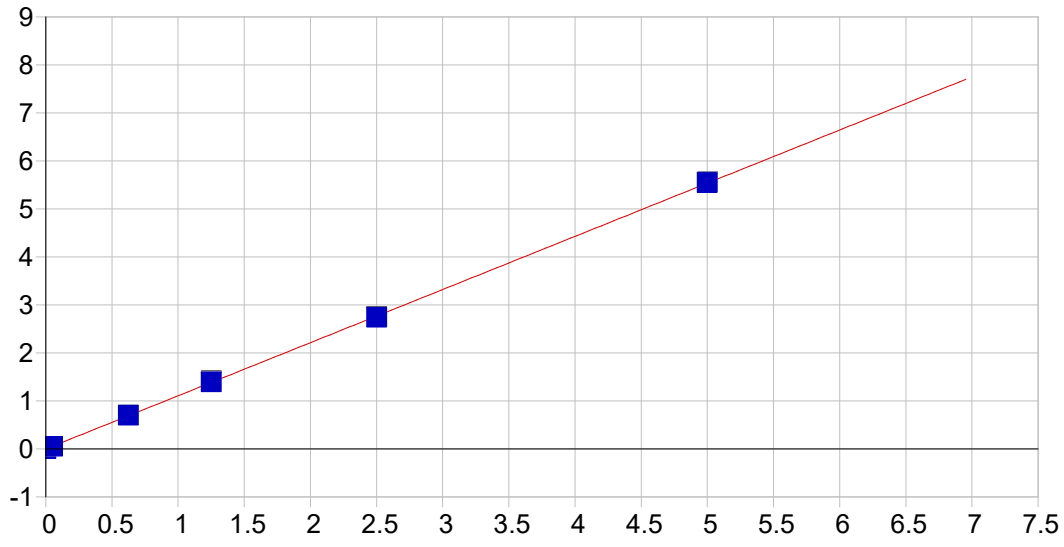
Cr 267.716 {126}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000123	Re-Slope:	1.000000
A1 (Gain):	0.291879	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999926	Status:	OK.
Std Error of Est:	0.000105		
Predicted MDL:	0.000838		
Predicted MQL:	0.002792		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00012	.000	1
S1	.01000	.01079	.001	7.89	.00303	.000	1
S2	3.8750	3.9911	.116	3.00	1.1657	.001	1
S3	7.7500	7.9095	.159	2.06	2.3102	.002	1
S4	15.500	15.363	-.137	-.887	4.4874	.036	1
S5	31.000	30.861	-.139	-.448	9.0146	.021	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



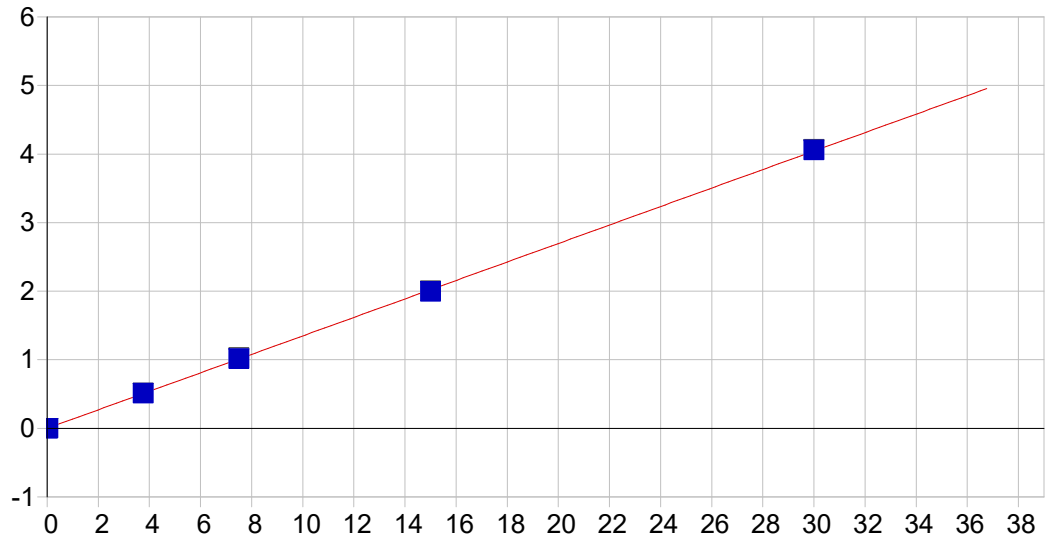
Co 228.616 {448}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000442	Re-Slope:	1.000000
A1 (Gain):	1.107243	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999977	Status:	OK.
Std Error of Est:	0.000202		
Predicted MDL:	0.000431		
Predicted MQL:	0.001438		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00044	.000	1
S1	.05000	.05071	.001	1.42	.05588	.001	1
S2	.62500	.63052	.006	.883	.69992	.001	1
S3	1.2500	1.2609	.011	.869	1.4001	.016	1
S4	2.5000	2.4738	-.026	-1.05	2.7476	.008	1
S5	5.0000	5.0091	.009	.181	5.5637	.012	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



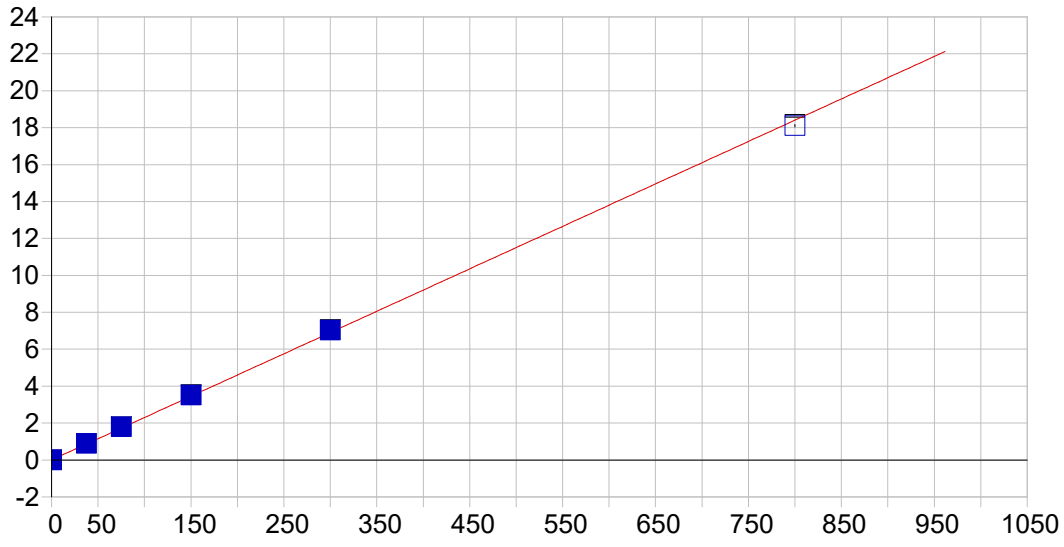
Cu 324.754 {104}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000698	Re-Slope:	1.000000
A1 (Gain):	0.134754	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000064		
Predicted MDL:	0.009928		
Predicted MQL:	0.033093		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00070	.001	1
S1	.02500	.03233	.007	29.3	.00505	.001	1
S2	3.7500	3.7869	.037	.984	.51094	.001	1
S3	7.5000	7.5440	.044	.586	1.0172	.006	1
S4	15.000	14.796	-.204	-1.36	1.9943	.007	1
S5	30.000	30.116	.116	.387	4.0585	.009	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



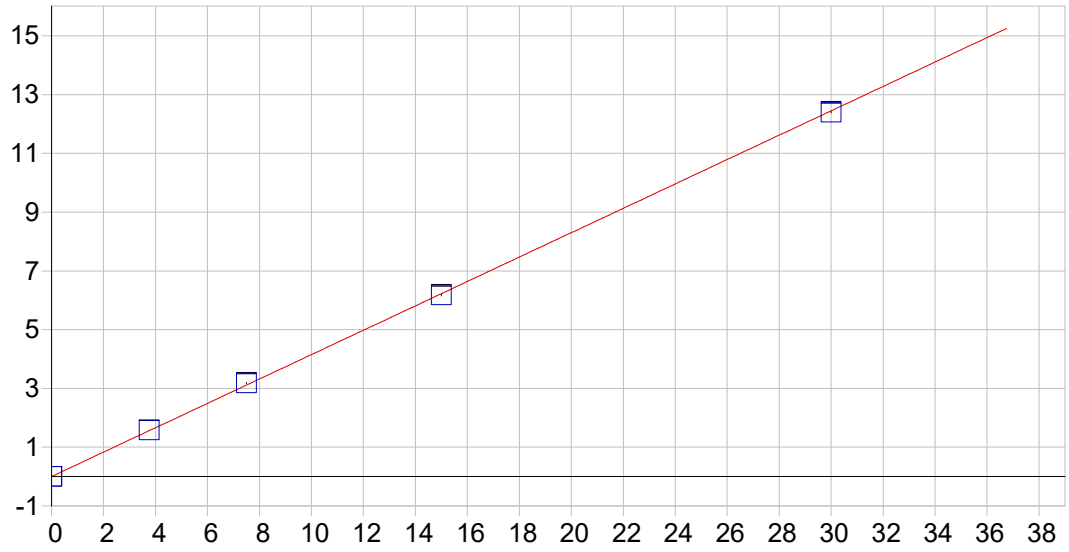
Fe 259.837 {130}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000335	Re-Slope:	1.000000
A1 (Gain):	0.023007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999784	Status:	OK.
Std Error of Est:	0.000209		
Predicted MDL:	0.030909		
Predicted MQL:	0.103030		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00033	.001	1
S1	.10000	.07923	-.021	-20.8	.00216	.001	1
S2	37.500	38.915	1.41	3.77	.89583	.003	1
S3	75.000	78.396	3.40	4.53	1.8044	.011	1
S4	150.00	152.69	2.69	1.79	3.5140	.010	1
S5	300.00	305.77	5.77	1.92	7.0366	.023	1
S6	800.00	786.75	-13.2	-1.66	18.101	.066	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



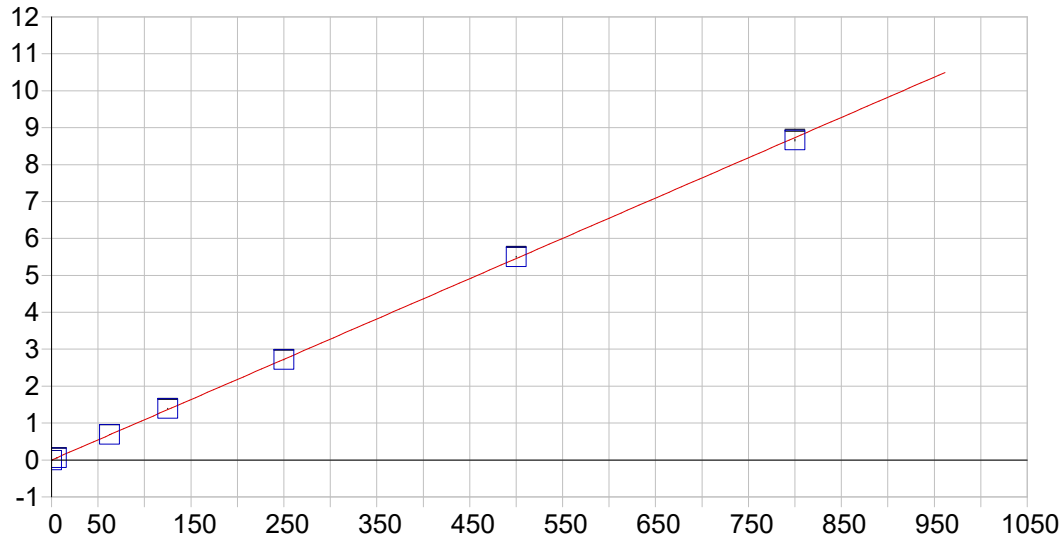
Mn 257.610 {131}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.414990	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000155		
Predicted MDL:	0.001440		
Predicted MQL:	0.004801		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.001	1
S1	.01500	.01584	.001	5.58	.00658	.000	1
S2	3.7500	3.8023	.052	1.40	1.5779	.005	1
S3	7.5000	7.6753	.175	2.34	3.1852	.022	1
S4	15.000	14.886	-.114	-.757	6.1778	.027	1
S5	30.000	29.885	-.115	-.383	12.402	.029	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



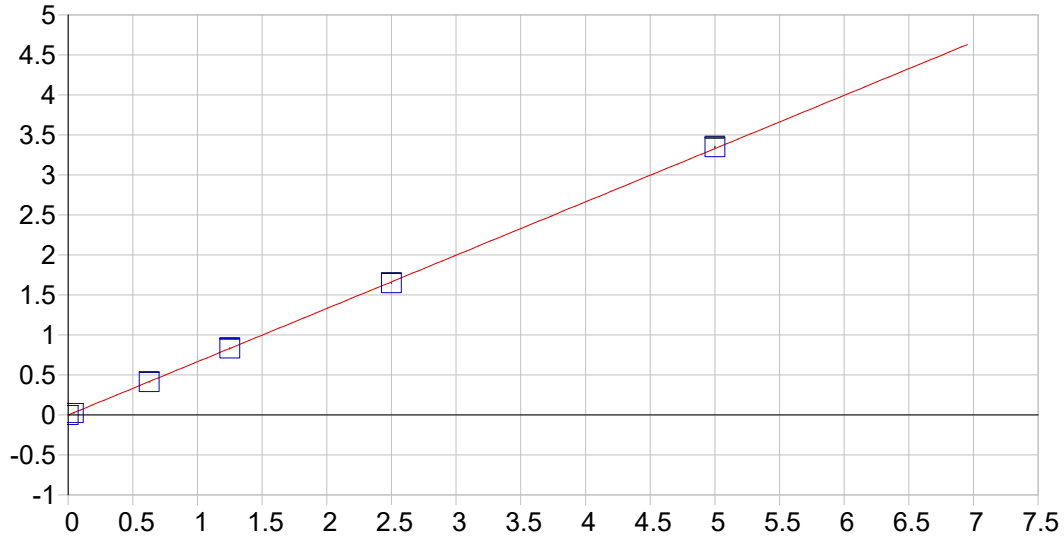
Mg 279.079 {121}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001169	Re-Slope:	1.000000
A1 (Gain):	0.010916	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999957	Status:	OK.
Std Error of Est:	0.000352		
Predicted MDL:	0.082729		
Predicted MQL:	0.275763		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00030	-.000	.000	-.00117	.001	1
S1	5.0000	5.1700	.170	3.40	.05527	.000	1
S2	62.500	63.240	.740	1.18	.68914	.000	1
S3	125.00	127.33	2.33	1.87	1.3888	.012	1
S4	250.00	248.82	-1.18	-.473	2.7148	.010	1
S5	500.00	504.23	4.23	.846	5.5028	.016	1
S6	800.00	793.71	-6.29	-.786	8.6628	.025	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



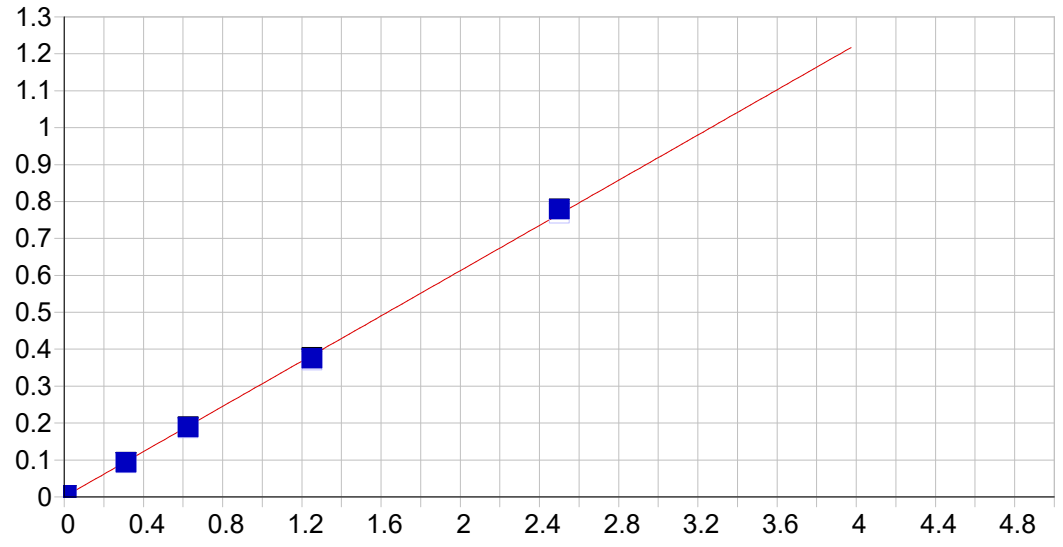
Ni 231.604 {446}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001016	Re-Slope:	1.000000
A1 (Gain):	0.665882	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000115		
Predicted MDL:	0.000743		
Predicted MQL:	0.002475		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00102	.000	1
S1	.04000	.03859	-.001	-3.54	.02468	.001	1
S2	.62500	.61828	-.007	-1.07	.41069	.000	1
S3	1.2500	1.2512	.001	.094	.83212	.009	1
S4	2.5000	2.4775	-.023	-.901	1.6487	.003	1
S5	5.0000	5.0295	.029	.590	3.3480	.011	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



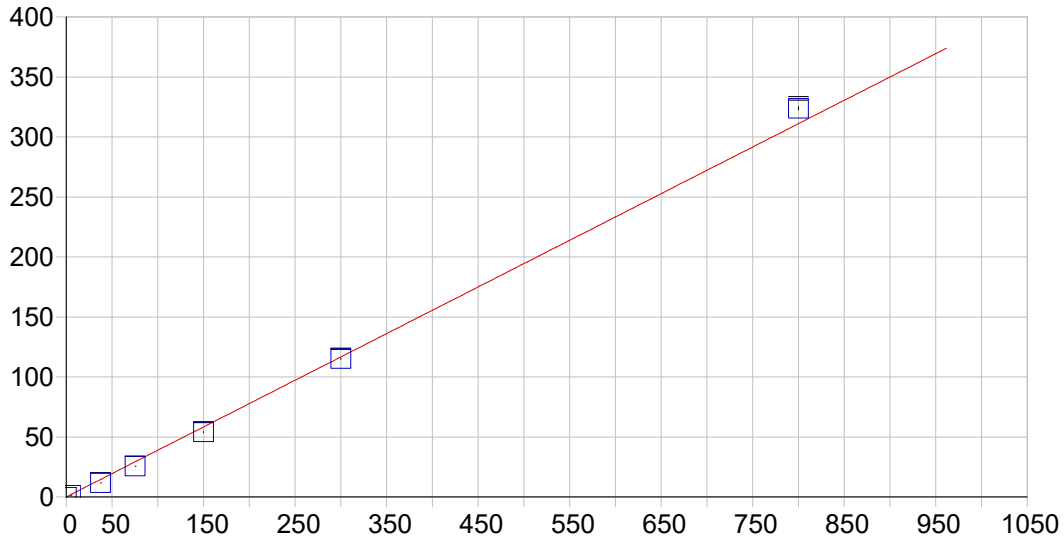
Ag 328.068 {103}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000378	Re-Slope:	1.000000
A1 (Gain):	0.306197	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999823	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.001408		
Predicted MQL:	0.004694		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00038	.000	1
S1	.01000	.01034	.000	3.36	.00354	.000	1
S2	.31250	.30442	-.008	-2.58	.09221	.000	1
S3	.62500	.61524	-.010	-1.56	.18601	.001	1
S4	1.2500	1.2247	-.025	-2.02	.36987	.003	1
S5	2.5000	2.5428	.043	1.71	.76795	.001	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



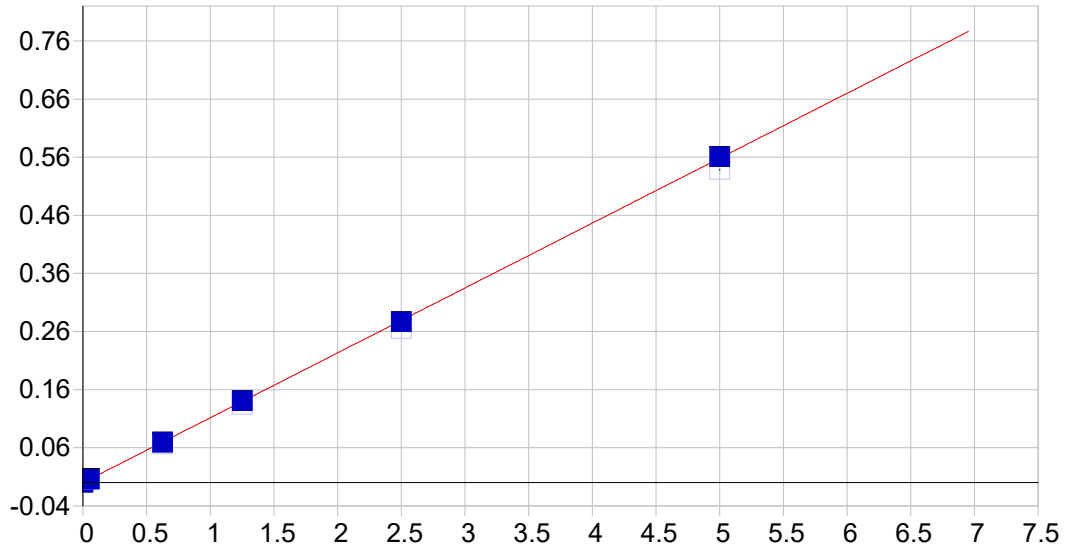
Na 818.326 { 41}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006771	Re-Slope:	1.000000
A1 (Gain):	0.388794	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998069	Status:	OK.
Std Error of Est:	0.074804		
Predicted MDL:	0.024427		
Predicted MQL:	0.081424		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00338	.003	.000	.00809	.008	1
S1	5.0000	3.4397	-1.56	-31.2	1.3441	.018	1
S2	37.500	30.223	-7.28	-19.4	11.757	.037	1
S3	75.000	65.587	-9.41	-12.6	25.506	.035	1
S4	150.00	138.97	-11.0	-7.35	54.039	.366	1
S5	300.00	296.33	-3.67	-1.22	115.22	.528	1
S6	800.00	832.94	32.9	4.12	323.85	1.50	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



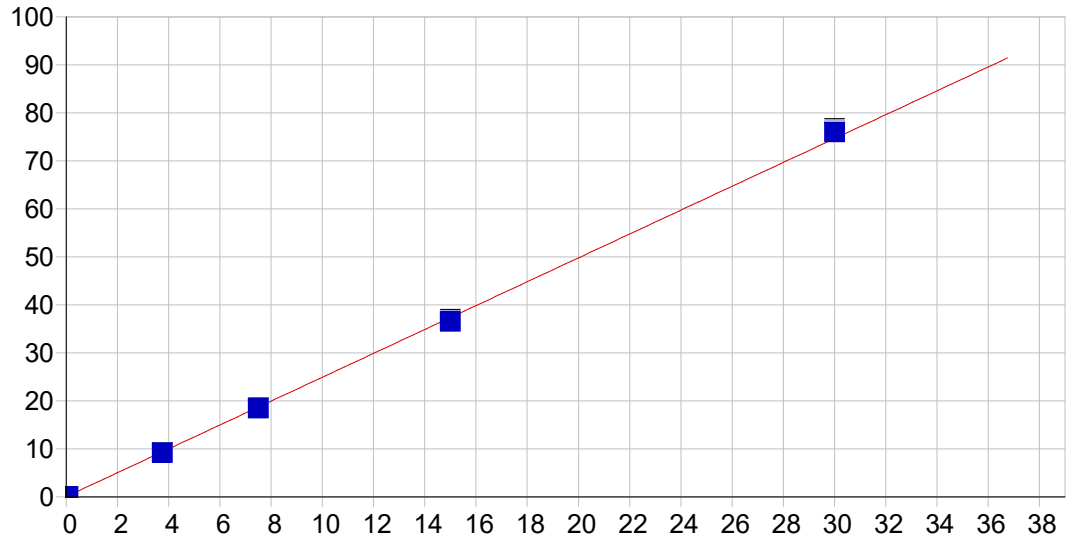
V 292.402 {115}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.111652	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	0.009828		
Predicted MQL:	0.032760		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00000	.000	1
S1	.05000	.04957	-.000	-.863	.00552	.002	1
S2	.62500	.61975	-.005	-.839	.06640	.001	1
S3	1.2500	1.2573	.007	.585	.13479	.001	1
S4	2.5000	2.4760	-.024	-.962	.26526	.001	1
S5	5.0000	5.0224	.022	.449	.53839	.001	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



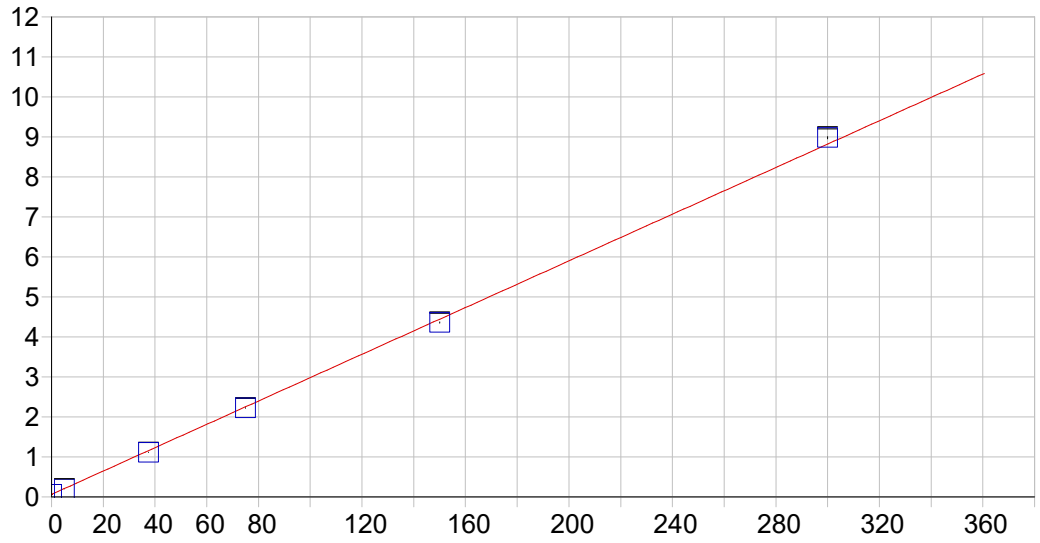
Zn 213.856 {158}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.070515	Re-Slope:	1.000000
A1 (Gain):	2.486116	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999817	Status:	OK.
Std Error of Est:	0.003397		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.07052	.000	1
S1	.06000	.05901	-.001	-1.65	.21769	.003	1
S2	3.7500	3.6616	-.088	-2.36	9.2194	.074	1
S3	7.5000	7.3918	-.108	-1.44	18.539	.042	1
S4	15.000	14.663	-.337	-2.25	36.707	.266	1
S5	30.000	30.535	.535	1.78	76.348	.417	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



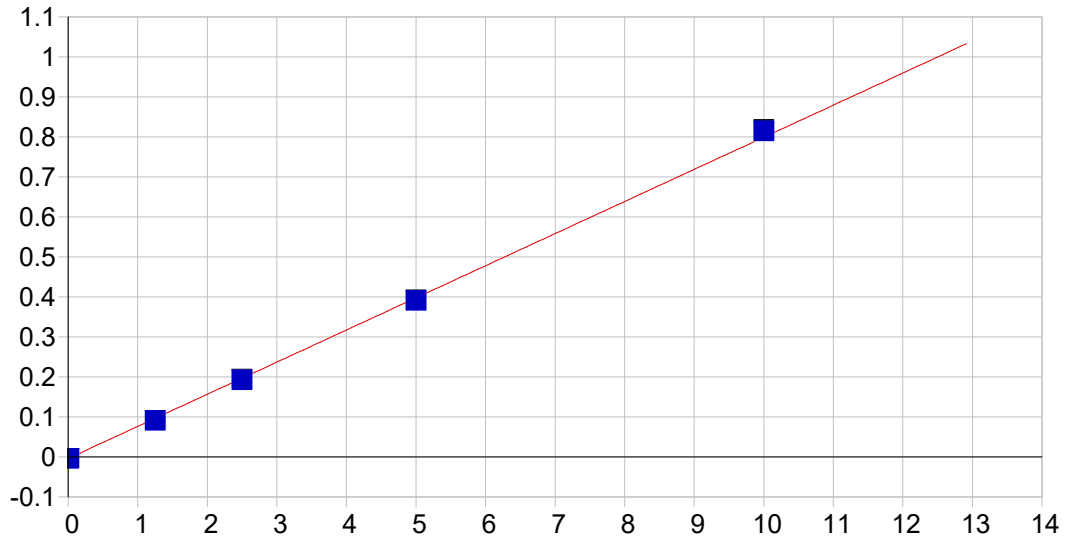
K 769.896 { 44}

Date of Fit: 12/30/2024 18:57:49 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.063542	Re-Slope:	1.000000
A1 (Gain):	0.029187	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999790	Status:	OK.
Std Error of Est:	0.001234		
Predicted MDL:	0.139000		
Predicted MQL:	0.463334		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00053	.001	.000	.06356	.003	1
S1	5.0000	4.7361	-.264	-5.28	.20177	.004	1
S2	37.500	36.018	-1.48	-3.95	1.1148	.003	1
S3	75.000	73.917	-1.08	-1.44	2.2209	.007	1
S4	150.00	147.30	-2.70	-1.80	4.3628	.017	1
S5	300.00	305.53	5.53	1.84	8.9808	.025	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



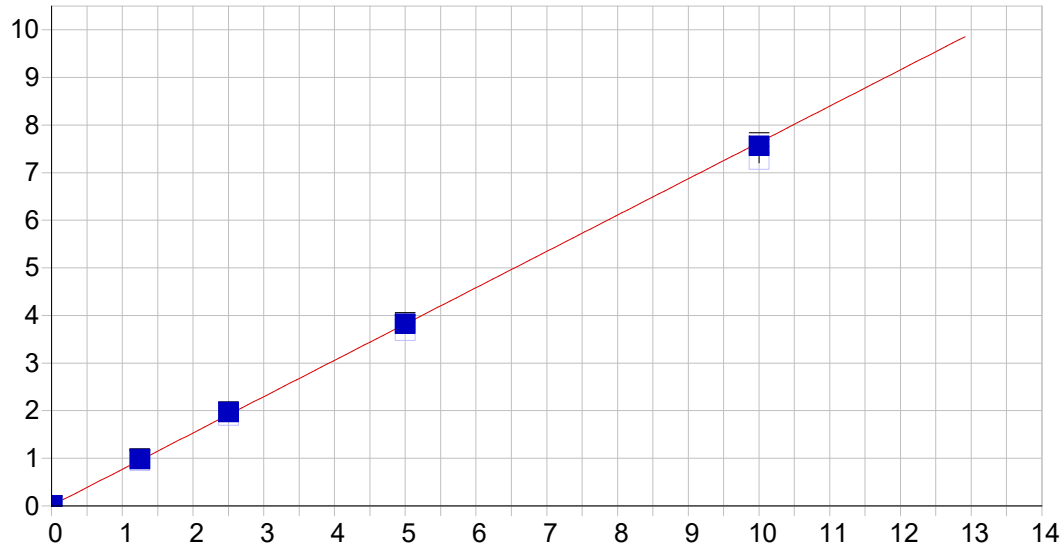
P 177.495 {490}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003951	Re-Slope:	1.000000
A1 (Gain):	0.080303	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999733	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.003405		
Predicted MQL:	0.011350		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00395	.000	1
S1	.01000	.00769	-.002	-23.1	-.00333	.000	1
S2	1.2500	1.1868	-.063	-5.05	.09121	.000	1
S3	2.5000	2.4484	-.052	-2.07	.19237	.002	1
S4	5.0000	4.9194	-.081	-1.61	.39050	.001	1
S5	10.000	10.198	.198	1.98	.81379	.003	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



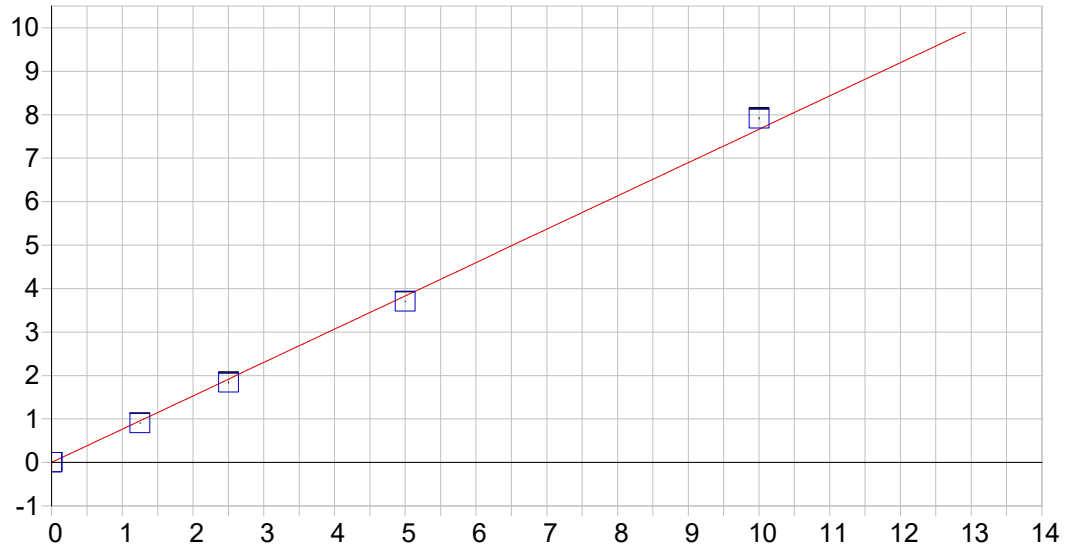
B 249.678 {135}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006534	Re-Slope:	1.000000
A1 (Gain):	0.762832	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999296	Status:	OK.
Std Error of Est:	0.000462		
Predicted MDL:	0.002176		
Predicted MQL:	0.007255		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00654	.002	1
S1	.01000	-.00434	-.014	-143.	.00318	.001	1
S2	1.2500	1.2817	.032	2.54	.94803	.001	1
S3	2.5000	2.5736	.074	2.94	1.8972	.006	1
S4	5.0000	5.0044	.004	.089	3.6790	.025	1
S5	10.000	9.9050	-.095	-.950	7.2723	.067	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



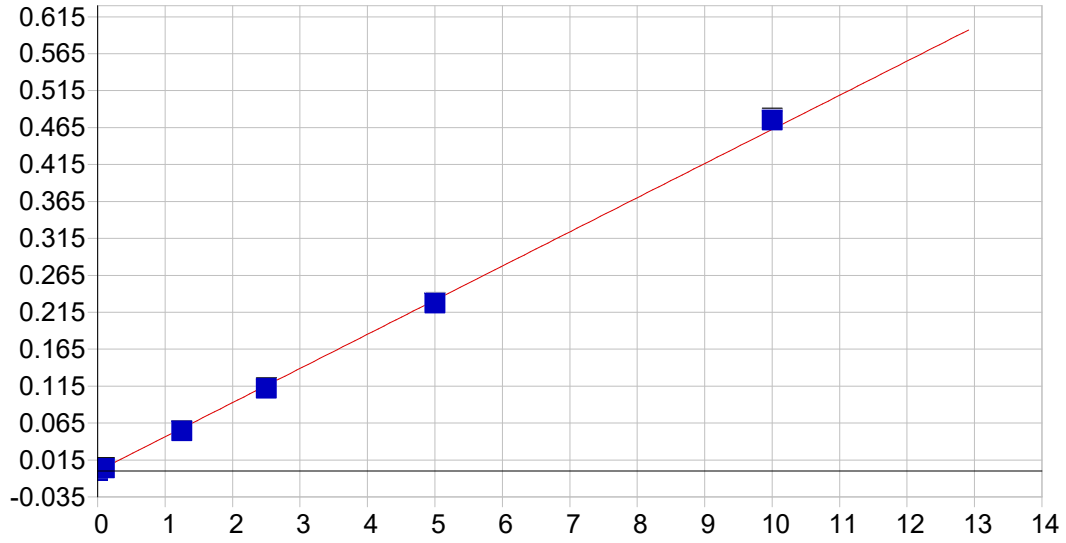
Mo 202.030 {467}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000025	Re-Slope:	1.000000
A1 (Gain):	0.766525	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999370	Status:	OK.
Std Error of Est:	0.000456		
Predicted MDL:	0.000537		
Predicted MQL:	0.001789		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.01000	.00944	-.001	-5.57	.00721	.000	1
S2	1.2500	1.1830	-.067	-5.36	.90680	.004	1
S3	2.5000	2.4057	-.094	-3.77	1.8440	.014	1
S4	5.0000	4.8325	-.168	-3.35	3.7042	.008	1
S5	10.000	10.329	.329	3.29	7.9177	.019	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



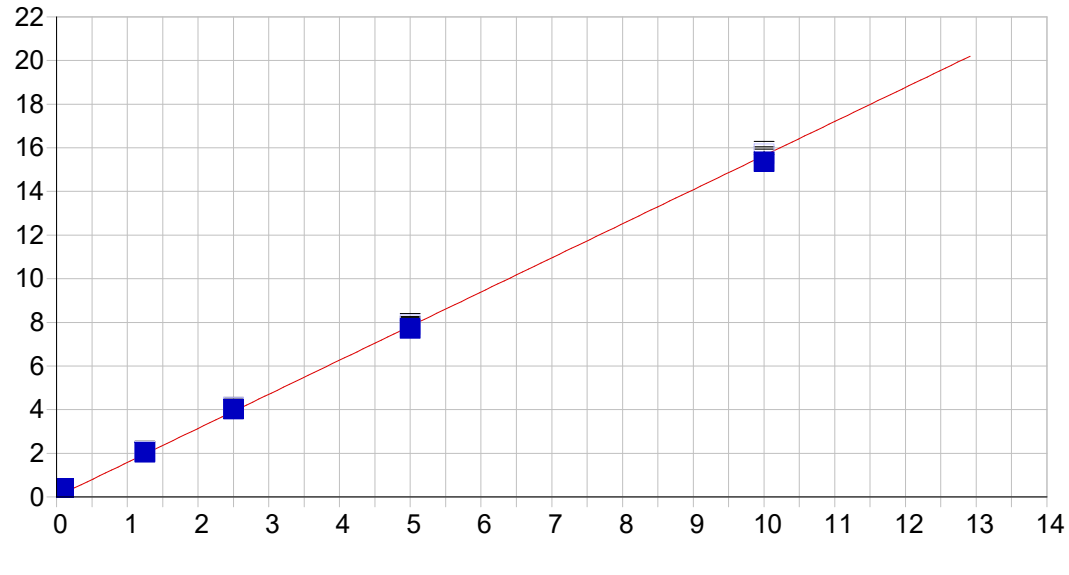
S 182.034 {485}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000099	Re-Slope:	1.000000
A1 (Gain):	0.046242	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999510	Status:	OK.
Std Error of Est:	0.000077		
Predicted MDL:	0.005146		
Predicted MQL:	0.017152		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00010	.000	1
S1	.10000	.08812	-.012	-11.9	.00417	.000	1
S2	1.2500	1.1663	-.084	-6.69	.05422	.000	1
S3	2.5000	2.4155	-.084	-3.38	.11217	.001	1
S4	5.0000	4.9120	-.088	-1.76	.22798	.001	1
S5	10.000	10.268	.268	2.68	.47640	.002	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



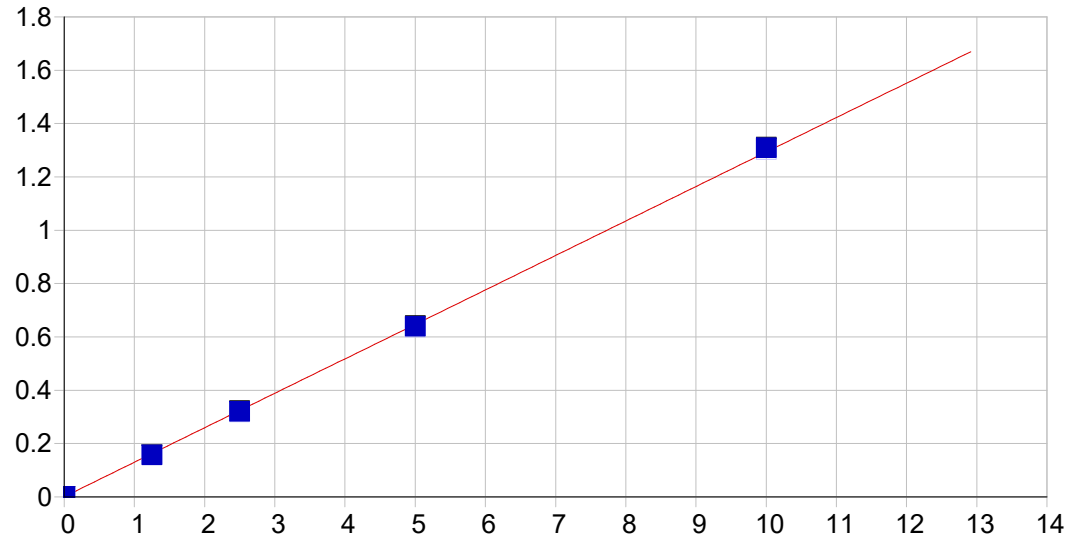
Si 251.611 {134}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.013342	Re-Slope:	1.000000
A1 (Gain):	1.563030	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994404	Status:	OK.
Std Error of Est:	0.009024		
Predicted MDL:	0.001097		
Predicted MQL:	0.003655		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00015	-.000	.000	.01311	.003	1
S1	.10000	.24651	.147	147.	.40085	.003	1
S2	1.2500	1.2974	.047	3.79	2.0855	.005	1
S3	2.5000	2.5611	.061	2.44	4.1051	.007	1
S4	5.0000	4.9262	-.074	-1.48	7.8905	.066	1
S5	10.000	9.8201	-.180	-1.80	15.717	.129	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



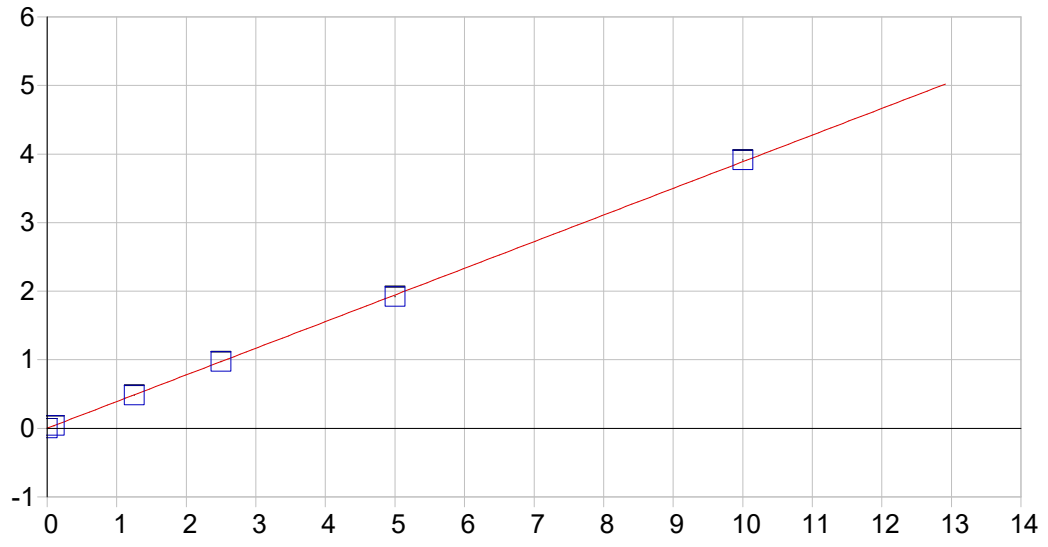
Sn 189.989 {478}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000797	Re-Slope:	1.000000
A1 (Gain):	0.129221	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999898	Status:	OK.
Std Error of Est:	0.000026		
Predicted MDL:	0.001670		
Predicted MQL:	0.005568		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00080	.000	1
S1	.00700	.00560	-.001	-20.1	.00148	.000	1
S2	1.2500	1.2142	-.036	-2.86	.15689	.000	1
S3	2.5000	2.4716	-.028	-1.14	.31856	.003	1
S4	5.0000	4.9428	-.057	-1.14	.63628	.002	1
S5	10.000	10.123	.123	1.23	1.3024	.003	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



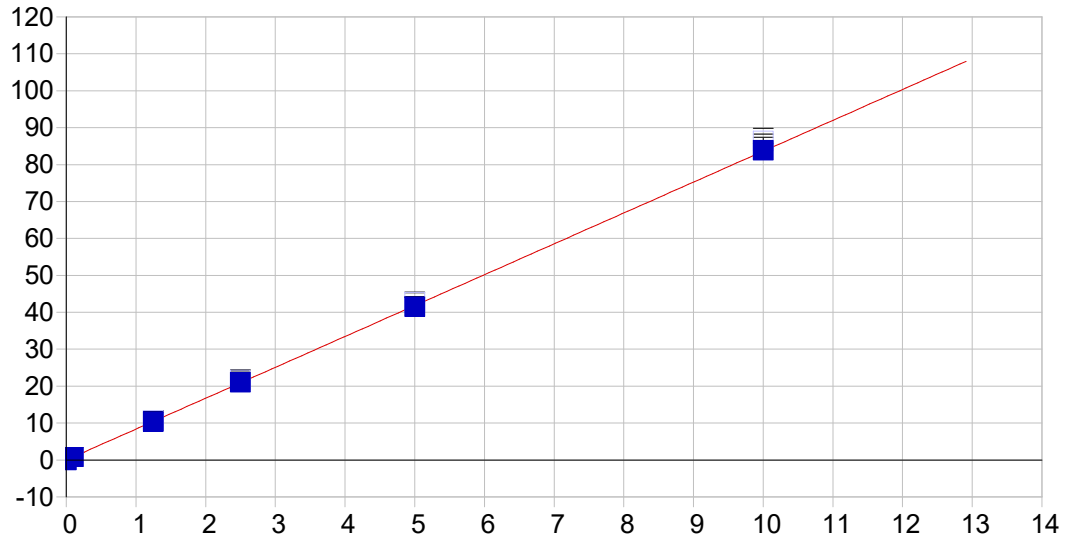
Ti 336.121 {100}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002097	Re-Slope:	1.000000
A1 (Gain):	0.388603	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999965	Status:	OK.
Std Error of Est:	0.000173		
Predicted MDL:	0.004024		
Predicted MQL:	0.013415		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00210	.002	1
S1	.10000	.09714	-.003	-2.86	.03985	.002	1
S2	1.2500	1.2373	-.013	-1.02	.48291	.004	1
S3	2.5000	2.5026	.003	.103	.97461	.005	1
S4	5.0000	4.9439	-.056	-1.12	1.9233	.008	1
S5	10.000	10.069	.069	.691	3.9150	.005	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5



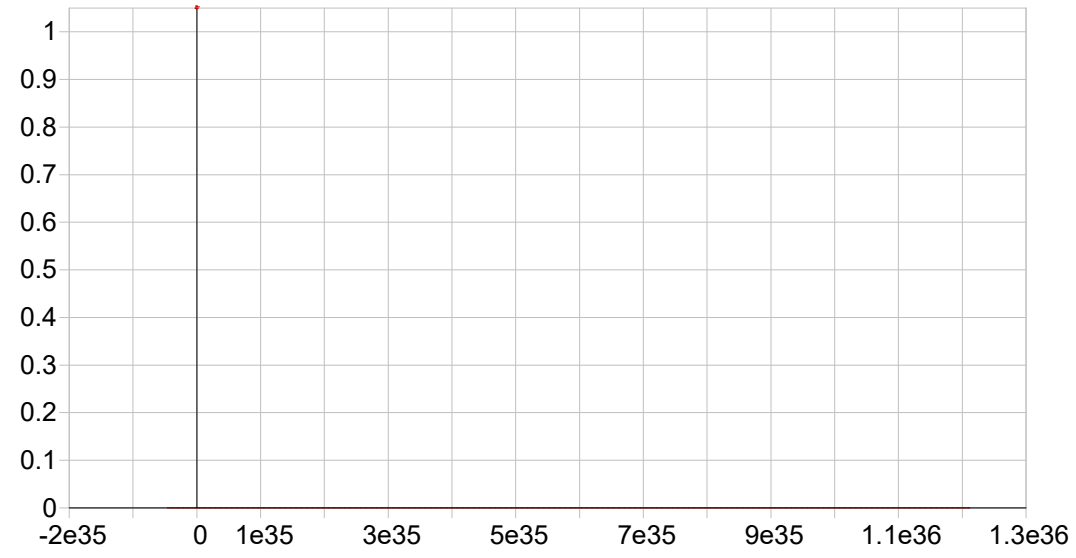
Sr 407.771 { 83}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001176	Re-Slope:	1.000000
A1 (Gain):	8.362116	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.002942		
Predicted MDL:	0.000258		
Predicted MQL:	0.000859		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00120	.002	1
S1	.10000	.10392	.004	3.92	.86866	.004	1
S2	1.2500	1.2398	-.010	-.818	10.680	.048	1
S3	2.5000	2.5160	.016	.639	21.665	.084	1
S4	5.0000	4.9568	-.043	-.864	42.702	.098	1
S5	10.000	10.034	.034	.336	86.410	.786	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

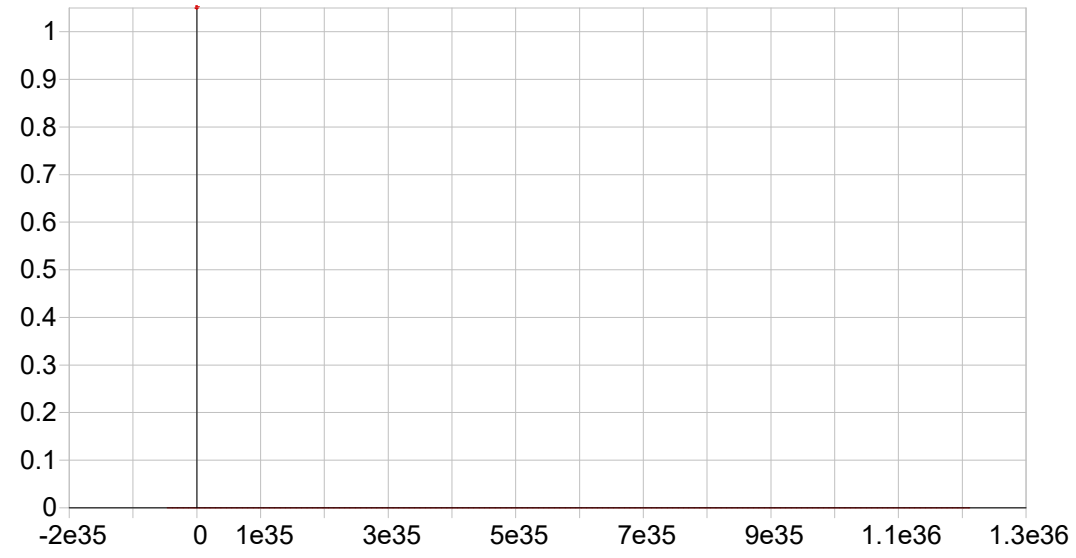


Y 224.306 {450}*

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

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

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



Y 360.073 { 94}*

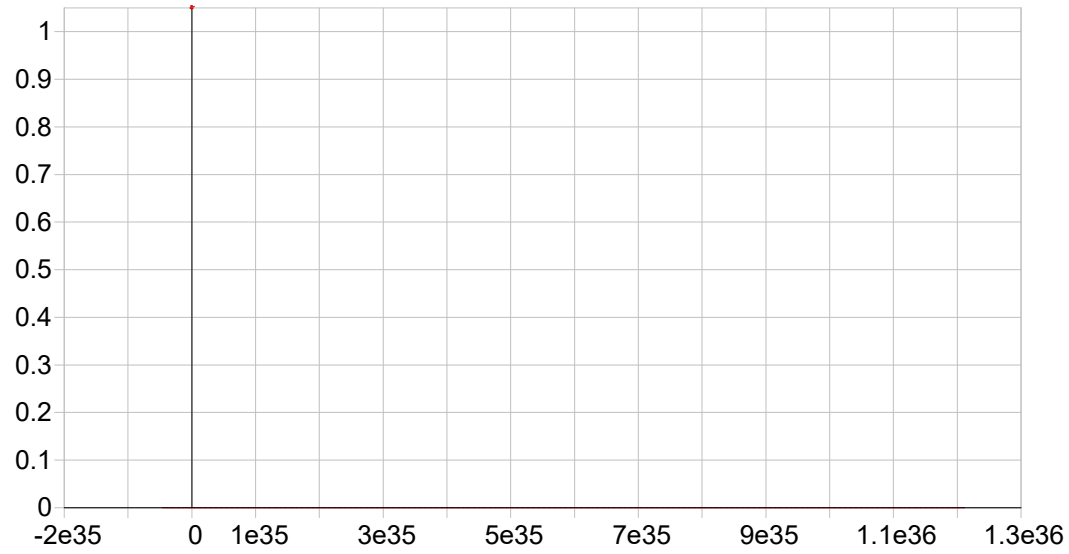
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

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

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



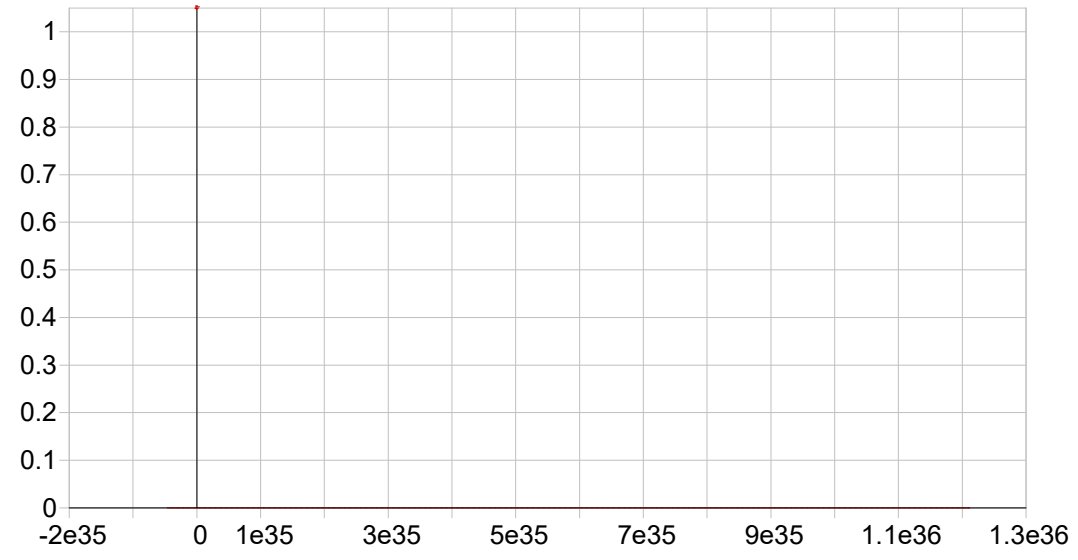
Y 371.030 { 91}*

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

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

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

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

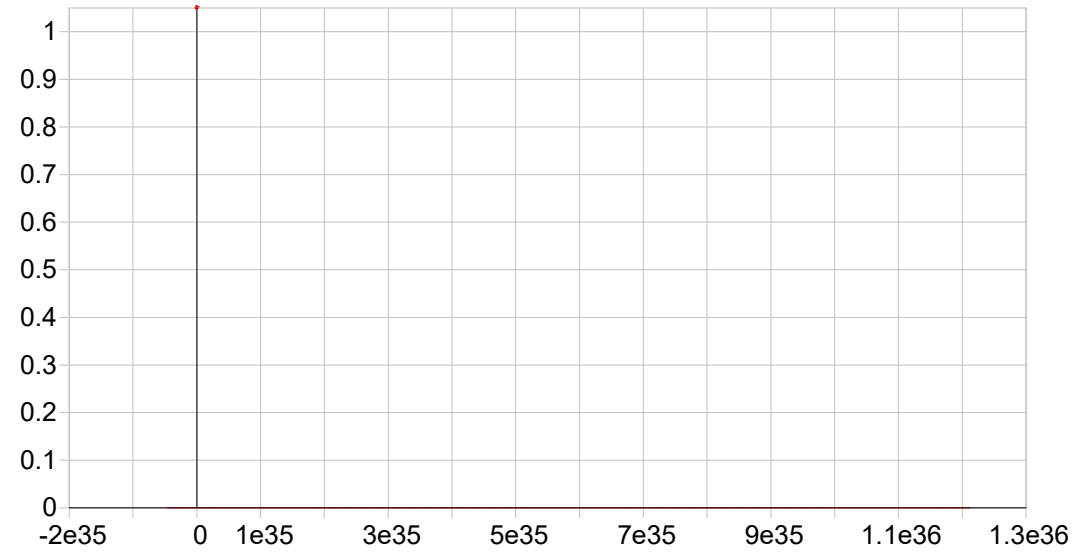


Y 224.306 {150}*

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

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

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



In 230.606 {446}*

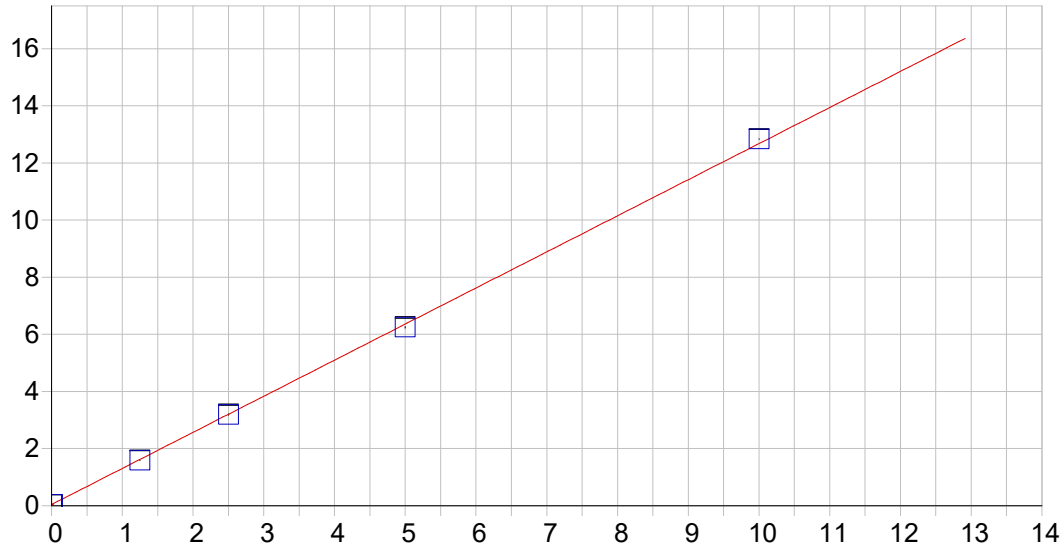
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

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

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



Li 670.784 { 50}

Date of Fit:	12/30/2024 18:57:49	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.042925		Re-Slope:	1.000000	
A1 (Gain):	1.263612		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999886	Status:	OK.		
Std Error of Est:	0.000391				
Predicted MDL:	0.003626				
Predicted MQL:	0.012087				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.04293	.005	1
S5	10.000	10.124	.124	1.24	12.836	.010	1
S4	5.0000	4.9118	-.088	-1.76	6.2495	.028	1
S3	2.5000	2.4909	-.009	-.366	3.1904	.024	1
S2	1.2500	1.2263	-.024	-1.90	1.5925	.008	1
S1	.01500	.01181	-.003	-21.3	.05784	.004	1

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S0 Acquired: 12/30/2024 18:31:54 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.48771	-.00018	.00023	-.00007	-.00031	.00088	.05361	-.00018
Stddev	.36601	.00012	.00021	.00027	.00041	.00428	.00201	.00143
%RSD	75.047	67.224	89.359	364.32	132.22	488.47	3.7550	802.64
#1	.06555	-.00021	.00000	-.00036	-.00052	.00551	.05197	-.00104
#2	.68158	-.00028	.00040	.00017	-.00057	.00005	.05301	.00147
#3	.71602	-.00004	.00030	-.00003	.00016	-.00293	.05586	-.00096

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00015	.00524	-.00012	-.00044	.00070	.00033	.00001	-.00117
Stddev	.00040	.00019	.00013	.00009	.00090	.00069	.00067	.00112
%RSD	262.17	3.5611	104.42	20.663	128.77	205.07	10345.	95.638
#1	-.00013	.00509	-.00026	-.00047	.00018	.00054	-.00042	-.00004
#2	.00061	.00517	-.00010	-.00034	.00173	-.00043	.00078	-.00228
#3	-.00002	.00545	-.00001	-.00052	.00018	.00090	-.00034	-.00120

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00102	.00038	.00809	-.00000	.07052	.06356	-.00395	.00654
Stddev	.00048	.00014	.00777	.00033	.00026	.00290	.00010	.00228
%RSD	46.986	36.901	96.117	20248.	.36704	4.5598	2.4303	34.807
#1	-.00067	.00026	.00212	-.00009	.07040	.06675	-.00386	.00500
#2	-.00156	.00035	.01687	.00036	.07082	.06108	-.00405	.00548
#3	-.00082	.00053	.00526	-.00028	.07035	.06285	-.00395	.00916

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00002	.00010	.01311	.00080	.00210	-.00120	.04293
Stddev	.00026	.00038	.00263	.00017	.00218	.00183	.00544
%RSD	1113.1	381.33	20.034	20.718	103.87	152.07	12.677
#1	-.00003	-.00018	.01612	.00095	-.00037	.00088	.03678
#2	-.00028	-.00005	.01127	.00063	.00376	-.00256	.04711
#3	.00024	.00053	.01194	.00081	.00290	-.00193	.04490

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S0 Acquired: 12/30/2024 18:31:54 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1639.6	20600.	2264.6	1361.8	1934.7
Stddev	5.3	91.	17.0	1.3	3.6
%RSD	.32023	.44136	.75257	.09292	.18563
#1	1634.2	20686.	2256.6	1363.2	1930.9
#2	1640.1	20609.	2284.2	1360.7	1935.3
#3	1644.6	20504.	2253.0	1361.4	1938.0

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S1 Acquired: 12/30/2024 18:36:02 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.3820	.00228	.00285	.00179	.00864	.02336	.91421	.05540
Stddev	.5105	.00020	.00007	.00027	.00094	.00350	.00047	.00156
%RSD	36.939	8.7924	2.4382	15.327	10.933	14.998	.05156	2.8150
#1	.91488	.00250	.00292	.00170	.00917	.01942	.91368	.05582
#2	1.3043	.00211	.00284	.00157	.00755	.02612	.91459	.05671
#3	1.9270	.00223	.00278	.00210	.00921	.02453	.91434	.05368

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01982	.27139	.00303	.05588	.00505	.00216	.00658	.05527
Stddev	.00013	.00313	.00013	.00053	.00057	.00051	.00029	.00039
%RSD	.67127	1.1522	4.2074	.94534	11.267	23.597	4.4785	.70442
#1	.01972	.27257	.00311	.05647	.00515	.00182	.00692	.05545
#2	.01976	.26785	.00288	.05574	.00556	.00191	.00639	.05552
#3	.01997	.27376	.00309	.05544	.00444	.00274	.00643	.05482

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02468	.00354	1.3441	.00552	.21769	.20177	-.00333	.00318
Stddev	.00051	.00015	.0179	.00181	.00266	.00354	.00036	.00070
%RSD	2.0528	4.3105	1.3288	32.737	1.2220	1.7551	10.706	22.053
#1	.02490	.00361	1.3612	.00540	.21973	.20077	-.00372	.00391
#2	.02503	.00336	1.3256	.00377	.21468	.20571	-.00326	.00251
#3	.02410	.00365	1.3456	.00738	.21865	.19884	-.00301	.00313

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00721	.00417	.40085	.00148	.03985	.86866	.05784
Stddev	.00039	.00007	.00346	.00015	.00199	.00369	.00355
%RSD	5.3484	1.7529	.86390	9.9932	4.9955	.42486	6.1326
#1	.00703	.00422	.40047	.00156	.04171	.86598	.05417
#2	.00766	.00421	.39760	.00131	.03775	.86714	.05811
#3	.00695	.00409	.40449	.00157	.04009	.87287	.06125

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S1 Acquired: 12/30/2024 18:36:02 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1671.7	20999.	2283.5	1389.8	1978.9
Stddev	3.6	63.	10.6	2.1	3.5
%RSD	.21736	.29841	.46504	.15268	.17545
#1	1675.6	21058.	2276.4	1387.8	1982.8
#2	1668.5	21006.	2295.7	1392.0	1977.7
#3	1670.9	20933.	2278.4	1389.6	1976.2

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S2 Acquired: 12/30/2024 18:40:09 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	155.29	.11676	1.5375	.07522	.19415	4.3239	10.483	1.3341
Stddev	.35	.00025	.0019	.00060	.00043	.0220	.032	.0058
%RSD	.22466	.21246	.12189	.79447	.22352	.50772	.30081	.43554
#1	155.69	.11648	1.5358	.07477	.19376	4.3037	10.449	1.3279
#2	155.04	.11694	1.5395	.07500	.19407	4.3472	10.512	1.3395
#3	155.13	.11686	1.5373	.07590	.19462	4.3207	10.488	1.3347

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.4778	3.3576	1.1657	.69992	.51094	.89583	1.5779	.68914
Stddev	.0030	.0093	.0009	.00131	.00134	.00271	.0046	.00014
%RSD	.11954	.27582	.08027	.18775	.26195	.30272	.28911	.02071
#1	2.4744	3.3473	1.1667	.69960	.51028	.89678	1.5769	.68919
#2	2.4798	3.3601	1.1652	.70137	.51248	.89794	1.5829	.68898
#3	2.4793	3.3653	1.1650	.69880	.51006	.89277	1.5740	.68924

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.41069	.09221	11.757	.06640	9.2194	1.1148	.09121	.94803
Stddev	.00021	.00018	.037	.00087	.0742	.0031	.00018	.00121
%RSD	.05046	.19289	.31262	1.3055	.80526	.28113	.20013	.12792
#1	.41046	.09242	11.725	.06627	9.1533	1.1119	.09141	.94672
#2	.41074	.09212	11.749	.06560	9.2053	1.1143	.09115	.94911
#3	.41086	.09210	11.797	.06732	9.2997	1.1181	.09106	.94826

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.90680	.05422	2.0855	.15689	.48291	10.680	1.5925
Stddev	.00351	.00016	.0051	.00050	.00362	.048	.0083
%RSD	.38728	.28681	.24254	.31819	.74884	.45263	.51824
#1	.90315	.05404	2.0798	.15638	.48191	10.624	1.5836
#2	.90709	.05433	2.0875	.15738	.48692	10.710	1.5939
#3	.91015	.05428	2.0893	.15691	.47990	10.705	1.6000

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S2 Acquired: 12/30/2024 18:40:09 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1617.5	20628.	2283.7	1343.4	1841.2
Stddev	3.5	54.	7.9	8.8	2.7
%RSD	.21621	.26008	.34596	.65207	.14665
#1	1621.4	20585.	2290.9	1349.6	1842.2
#2	1616.3	20688.	2284.9	1347.3	1838.1
#3	1614.7	20613.	2275.2	1333.4	1843.2

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S3 Acquired: 12/30/2024 18:44:01 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	305.05	.23407	3.1049	.15399	.39614	8.7538	21.221	2.6568
Stddev	.38	.00207	.0328	.00135	.00427	.0517	.147	.0054
%RSD	.12356	.88581	1.0574	.87878	1.0792	.59121	.69510	.20348
#1	304.94	.23416	3.1080	.15400	.39737	8.6985	21.061	2.6621
#2	304.74	.23610	3.1361	.15534	.39967	8.7621	21.248	2.6568
#3	305.47	.23195	3.0707	.15263	.39139	8.8010	21.353	2.6513

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.9981	6.7287	2.3102	1.4001	1.0172	1.8044	3.1852	1.3888
Stddev	.0564	.0274	.0024	.0156	.0064	.0107	.0221	.0120
%RSD	1.1286	.40670	.10165	1.1133	.62877	.59271	.69314	.86705
#1	4.9991	6.6994	2.3076	1.4019	1.0100	1.7924	3.1681	1.3825
#2	5.0539	6.7330	2.3112	1.4147	1.0191	1.8080	3.1773	1.3812
#3	4.9411	6.7537	2.3120	1.3837	1.0223	1.8128	3.2101	1.4027

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.83212	.18601	25.506	.13479	18.539	2.2209	.19237	1.8972
Stddev	.00905	.00123	.035	.00094	.042	.0073	.00163	.0064
%RSD	1.0876	.66380	.13767	.69406	.22900	.32713	.84583	.33568
#1	.83279	.18482	25.474	.13378	18.502	2.2126	.19226	1.8977
#2	.84081	.18728	25.543	.13494	18.585	2.2247	.19404	1.9034
#3	.82275	.18592	25.502	.13564	18.529	2.2255	.19079	1.8907

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8440	.11217	4.1051	.31856	.97461	21.665	3.1904
Stddev	.0137	.00121	.0066	.00312	.00538	.084	.0242
%RSD	.74473	1.0793	.15964	.97865	.55245	.38935	.75691
#1	1.8446	.11220	4.0977	.31816	.96887	21.573	3.1671
#2	1.8574	.11336	4.1073	.32186	.97540	21.682	3.1887
#3	1.8299	.11094	4.1102	.31567	.97955	21.739	3.2154

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S3 Acquired: 12/30/2024 18:44:01 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1561.5	20211.	2259.2	1295.9	1763.7
Stddev	14.8	50.	3.7	3.4	19.6
%RSD	.94807	.24650	.16502	.26284	1.1134
#1	1556.8	20266.	2263.4	1299.2	1760.1
#2	1549.5	20199.	2256.3	1292.3	1746.1
#3	1578.0	20168.	2257.9	1296.1	1784.9

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S4 Acquired: 12/30/2024 18:47:50 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	594.19	.45709	6.1967	.30702	.79786	17.276	41.889	5.1591
Stddev	.80	.00152	.0186	.00115	.00133	.046	.180	.0428
%RSD	.13396	.33317	.29951	.37504	.16721	.26773	.42994	.83007
#1	595.10	.45637	6.1879	.30758	.79926	17.301	41.967	5.1630
#2	593.84	.45607	6.1843	.30570	.79772	17.304	42.017	5.1999
#3	593.63	.45884	6.2181	.30778	.79660	17.223	41.683	5.1145

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.8590	13.106	4.4874	2.7476	1.9943	3.5140	6.1778	2.7148
Stddev	.0270	.057	.0355	.0083	.0067	.0095	.0271	.0097
%RSD	.27331	.43262	.79189	.30304	.33537	.27053	.43881	.35654
#1	9.8472	13.153	4.4478	2.7459	1.9980	3.5192	6.1949	2.7128
#2	9.8401	13.121	4.5164	2.7403	1.9982	3.5197	6.1918	2.7254
#3	9.8899	13.043	4.4979	2.7567	1.9865	3.5030	6.1465	2.7064

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.6487	.36987	54.039	.26526	36.707	4.3628	.39050	3.6790
Stddev	.0030	.00289	.366	.00083	.266	.0167	.00113	.0250
%RSD	.18373	.78165	.67732	.31359	.72487	.38380	.28878	.67872
#1	1.6498	.36654	54.230	.26437	36.426	4.3779	.39131	3.6739
#2	1.6452	.37175	54.269	.26602	36.955	4.3658	.38921	3.7062
#3	1.6510	.37132	53.617	.26539	36.739	4.3448	.39098	3.6570

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.7042	.22798	7.8905	.63628	1.9233	42.702	6.2495
Stddev	.0076	.00053	.0662	.00239	.0082	.098	.0279
%RSD	.20655	.23070	.83839	.37525	.42790	.23019	.44639
#1	3.7083	.22767	7.8990	.63532	1.9317	42.771	6.2568
#2	3.6954	.22769	7.9520	.63452	1.9230	42.747	6.2731
#3	3.7089	.22859	7.8205	.63900	1.9152	42.590	6.2187

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S4 Acquired: 12/30/2024 18:47:50 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1499.0	19874.	2261.1	1243.3	1699.6
Stddev	2.1	76.	21.0	5.2	5.5
%RSD	.14157	.38012	.92956	.41884	.32074
#1	1499.2	19938.	2247.1	1246.4	1702.5
#2	1501.0	19790.	2251.0	1237.3	1702.9
#3	1496.8	19892.	2285.3	1246.3	1693.3

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S5 Acquired: 12/30/2024 18:51:37 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1140.1	.91411	12.710	.64451	1.7283	35.581	85.807	10.350
Stddev	.8	.00117	.018	.00139	.0041	.036	.127	.101
%RSD	.06710	.12806	.14539	.21644	.23912	.10092	.14769	.97868
#1	1140.6	.91279	12.712	.64489	1.7289	35.589	85.952	10.467
#2	1139.2	.91455	12.691	.64297	1.7239	35.541	85.717	10.289
#3	1140.4	.91500	12.728	.64568	1.7321	35.612	85.752	10.294

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	19.915	26.494	9.0146	5.5637	4.0585	7.0366	12.402	5.5028
Stddev	.032	.078	.0211	.0124	.0091	.0226	.029	.0155
%RSD	.16066	.29331	.23397	.22230	.22492	.32061	.23783	.28171
#1	19.915	26.566	9.0291	5.5589	4.0661	7.0627	12.430	5.5199
#2	19.883	26.411	9.0243	5.5544	4.0484	7.0235	12.371	5.4895
#3	19.947	26.504	8.9904	5.5777	4.0611	7.0236	12.404	5.4992

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.3480	.76795	115.22	.53839	76.348	8.9808	.81379	7.2723
Stddev	.0110	.00063	.53	.00057	.417	.0254	.00315	.0670
%RSD	.32868	.08189	.45805	.10559	.54574	.28279	.38680	.92133
#1	3.3518	.76856	115.58	.53830	75.968	9.0094	.81357	7.3478
#2	3.3356	.76730	114.61	.53900	76.283	8.9609	.81076	7.2198
#3	3.3567	.76799	115.47	.53787	76.794	8.9720	.81704	7.2493

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.9177	.47640	15.717	1.3024	3.9150	86.410	12.836
Stddev	.0191	.00174	.129	.0025	.0053	.786	.010
%RSD	.24092	.36460	.81948	.19257	.13590	.90961	.08134
#1	7.9092	.47744	15.866	1.3014	3.9211	85.799	12.841
#2	7.9043	.47439	15.633	1.3006	3.9121	87.297	12.824
#3	7.9396	.47735	15.653	1.3052	3.9117	86.134	12.843

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S5 Acquired: 12/30/2024 18:51:37 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1332.0	18781.	2196.3	1101.3	1563.0
Stddev	2.4	13.	15.3	7.2	2.4
%RSD	.18182	.06791	.69769	.65430	.15263
#1	1334.3	18789.	2179.4	1108.8	1565.2
#2	1332.3	18767.	2209.2	1100.8	1563.4
#3	1329.5	18788.	2200.5	1094.4	1560.5

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: S6 Acquired: 12/30/2024 18:55:40 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	91.561	41.699	18.101	8.6628	323.85
Stddev	.340	.136	.066	.0251	1.50
%RSD	.37135	.32567	.36613	.28962	.46347
#1	91.559	41.747	18.130	8.6725	323.18
#2	91.222	41.546	18.025	8.6343	325.57
#3	91.902	41.804	18.148	8.6815	322.80

Int. Std.	Y_3710
Units	Cts/S
Avg	2140.5
Stddev	2.6
%RSD	.12357
#1	2140.0
#2	2138.1
#3	2143.3

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICV005 Acquired: 12/30/2024 19:07:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV005 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.080223	1.029759	.9950504	1.002528	.9538177	2.512872
Stddev	.006231	.003851	.0014438	.008291	.0025610	.031874
%RSD	.5768535	.3739331	.1450981	.8270506	.2684958	1.268415
#1	1.082836	1.025542	.9966301	1.005659	.9542617	2.496117
#2	1.084722	1.033088	.9937991	.993127	.9510637	2.549629
#3	1.073110	1.030647	.9947220	1.008797	.9561276	2.492870

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5410605	.5418135	.5131480	10.63053	.5619677	.5137286
Stddev	.0115337	.0093399	.0007659	.23816	.0075221	.0001505
%RSD	2.131690	1.723813	.1492525	2.240294	1.338531	.0292946
#1	.5376641	.5380958	.5125968	10.49550	.5688669	.5137301
#2	.5539110	.5524397	.5128248	10.90551	.5539483	.5135774
#3	.5316063	.5349049	.5140226	10.49057	.5630878	.5138784

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5330611	10.90618	.5503640	6.441025	.5209222	.2501392
Stddev	.0036034	.24624	.0084662	.095550	.0004804	.0025269
%RSD	.6759847	2.257772	1.538295	1.483457	.0922211	1.010200
#1	.5304848	10.74570	.5479440	6.414045	.5208427	.2518996
#2	.5371788	11.18969	.5597768	6.547164	.5204865	.2472438
#3	.5315195	10.78315	.5433713	6.361866	.5214374	.2512741

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.432906	.5373080	.9847268	9.838333	F -.002858	F -.022855
Stddev	.115921	.0244940	.0156095	.112916	.003258	.000228
%RSD	1.228903	4.558655	1.585158	1.147713	113.9792	.9955645
#1	9.380408	.5333702	.9967002	9.732140	-.002683	-.022994
#2	9.565789	.5635324	.9670725	9.956945	-.006200	-.022980
#3	9.352522	.5150214	.9904077	9.825915	.000309	-.022593

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICV005 Acquired: 12/30/2024 19:07:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0007553	F .0103732	F .0002918	F .0014187	F .0004416	F -.009780
Stddev	.0001869	.0019412	.0008796	.0004184	.0046983	.000215
%RSD	24.73849	18.71314	301.4705	29.49398	1063.990	2.193752
#1	.0008575	.0119618	.0009212	.0010072	-.001756	-.009668
#2	.0005397	.0082095	.0006675	.0014052	.005836	-.010027
#3	.0008688	.0109484	-.000713	.0018437	-.002755	-.009644

Elem	Li6707
Units	ppm
Avg	F .0206045
Stddev	.0063842
%RSD	30.98433
#1	.0166640
#2	.0279703
#3	.0171792

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1665.388	20948.27	2254.700	1386.999	1953.339
Stddev	.951	323.02	30.597	26.015	1.037
%RSD	.0571213	1.541967	1.357019	1.875631	.0530879
#1	1665.616	20722.96	2275.379	1370.115	1952.328
#2	1666.205	21318.35	2219.552	1416.958	1954.400
#3	1664.344	20803.51	2269.169	1373.925	1953.288

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICB005 Acquired: 12/30/2024 19:11:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB005 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004422	-.000055	.0006760	.0094432	.0032602	-.017424
Stddev	.000589	.003508	.0012038	.0063903	.0008928	.034597
%RSD	13.31514	6376.647	178.0634	67.67020	27.38489	198.5532
#1	-.005050	.002086	.0020641	.0092697	.0039381	-.005690
#2	-.003883	-.004103	.0000456	.0159185	.0035939	.009779
#3	-.004332	.001852	-.000082	.0031415	.0022486	-.056362

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018960	.0001969	.0000913	.0117123	-.000236	-.000205
Stddev	.0008401	.0001511	.0000552	.0144878	.000398	.000308
%RSD	44.30695	76.73582	60.39428	123.6977	169.0779	150.1010
#1	.0028649	.0002296	.0001479	-.004512	-.000642	-.000371
#2	.0013708	.0003289	.0000377	.016291	-.000219	.000150
#3	.0014524	.0000321	.0000884	.023357	.000154	-.000395

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061687	-.023173	-.000546	.0481811	-.000764	.0008865
Stddev	.0089478	.014484	.001420	.0353511	.000402	.0011057
%RSD	145.0504	62.50541	260.2503	73.37118	52.61609	124.7215
#1	.0147270	-.030691	-.001316	.0120598	-.001218	.0020471
#2	-.003123	-.006475	.001093	.0497756	-.000623	-.000155
#3	.006903	-.032352	-.001414	.0827080	-.000452	.000767

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0262150	-.007058	.0006547	.1011701	-.001412	-.001380
Stddev	.0123692	.006383	.0000754	.1566626	.001358	.001677
%RSD	47.18383	90.43841	11.51386	154.8506	96.17765	121.5110
#1	.0197096	-.004658	.0005681	.0568419	-.002017	-.000752
#2	.0184559	-.002222	.0007059	.2752204	.000143	-.000108
#3	.0404793	-.014293	.0006900	-.028552	-.002363	-.003281

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICB005 Acquired: 12/30/2024 19:11:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004424	.0011069	.0001734	.0008751	-.001252	-.000130
Stddev	.0004210	.0022354	.0010305	.0010993	.002767	.000249
%RSD	95.15588	201.9442	594.1416	125.6246	220.9722	190.6955
#1	.0008973	-.000199	-.000174	.0021129	.000030	-.000046
#2	.0003632	.003688	-.000639	.0000127	.000641	.000065
#3	.0000667	-.000168	.001333	.0004996	-.004428	-.000410

Elem	Li6707
Units	ppm
Avg	F .0201766
Stddev	.0028008
%RSD	13.88160
#1	.0217487
#2	.0218383
#3	.0169429

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1617.831	20661.87	2244.670	1370.334	1905.590
Stddev	21.190	131.88	16.038	8.275	24.201
%RSD	1.309759	.6382684	.7144734	.6038481	1.270015
#1	1639.371	20747.44	2226.211	1377.092	1929.791
#2	1597.010	20728.18	2252.616	1372.805	1881.389
#3	1617.111	20510.00	2255.183	1361.106	1905.590

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICSA005 Acquired: 12/30/2024 19:15:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA005 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019224	.0064219	.0070429	-.006256	.0029989	247.5376
Stddev	.0056777	.0073943	.0009340	.004508	.0029282	.4298
%RSD	295.3463	115.1420	13.26176	72.06210	97.64188	.1736117
#1	-.001574	.0017314	.0059875	-.010565	.0016897	247.6627
#2	-.001133	.0149457	.0073784	-.006632	.0063534	247.8909
#3	.008474	.0025885	.0077629	-.001572	.0009537	247.0592

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069434	.0014372	.0009415	254.8073	.0546590	.0362012
Stddev	.0003974	.0000756	.0000864	.1908	.0008419	.0006535
%RSD	5.723151	5.260761	9.175395	.0748799	1.540249	1.805307
#1	.0067619	.0014009	.0009821	254.9558	.0554176	.0356354
#2	.0066692	.0013865	.0010001	254.8739	.0548062	.0360516
#3	.0073992	.0015241	.0008423	254.5921	.0537533	.0369166

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040628	104.5612	.0081151	265.9305	.0072743	-.005853
Stddev	.0140723	.1068	.0005219	1.0380	.0008964	.000520
%RSD	346.3688	.1021870	6.431323	.3903212	12.32247	8.889388
#1	.0195258	104.6501	.0087000	265.8863	.0062648	-.006372
#2	-.007993	104.5908	.0076968	266.9899	.0079770	-.005331
#3	.000656	104.4426	.0079487	264.9154	.0075810	-.005857

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1246495	.0057452	-.022565	-.217994	.0058272	F -.244283
Stddev	.0361432	.0033235	.000251	.046698	.0041154	.005263
%RSD	28.99587	57.84806	1.110835	21.42165	70.62349	2.154508
#1	.1481180	.0049062	-.022385	-.242136	.0014085	-.245926
#2	.1428025	.0094078	-.022459	-.164167	.0095507	-.238395
#3	.0830279	.0029216	-.022851	-.247679	.0065225	-.248529

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICSA005 Acquired: 12/30/2024 19:15:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024792	.0159462	-.001970	F .0146502	-.005251	.0039033
Stddev	.0005627	.0087397	.000571	.0010760	.001646	.0003420
%RSD	22.69673	54.80710	28.99347	7.344695	31.34462	8.762206
#1	.0030583	.0091696	-.001514	.0143841	-.003557	.0036702
#2	.0019344	.0128584	-.001786	.0158343	-.006845	.0037439
#3	.0024449	.0258106	-.002611	.0137322	-.005351	.0042960

Elem	Li6707
Units	ppm
Avg	F .0249194
Stddev	.0031040
%RSD	12.45628
#1	.0228785
#2	.0284916
#3	.0233883

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1570.153	19536.80	2239.211	1305.365	1734.218
Stddev	7.818	110.80	17.790	3.274	4.926
%RSD	.4979338	.5671282	.7944773	.2508457	.2840742
#1	1572.784	19553.67	2219.631	1305.838	1737.591
#2	1576.317	19418.53	2254.383	1301.879	1736.499
#3	1561.358	19638.20	2243.618	1308.377	1728.565

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICSAB005 Acquired: 12/30/2024 19:50:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB005 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1018566	.0998692	.0576695	.0392489	.5991666	231.7798
Stddev	.0087626	.0051157	.0041732	.0025021	.0026822	.8584
%RSD	8.602880	5.122373	7.236340	6.374888	.4476521	.3703320
#1	.1117581	.0953886	.0624386	.0397611	.5994371	230.8086
#2	.0987096	.0987759	.0558827	.0414552	.5963595	232.4369
#3	.0951021	.1054432	.0546873	.0365303	.6017033	232.0938

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5424965	.5405325	1.061315	240.3109	.6203899	.5472687
Stddev	.0017840	.0053971	.002727	.5044	.0016266	.0016058
%RSD	.3288520	.9984758	.2569782	.2099028	.2621899	.2934155
#1	.5405982	.5416880	1.060308	239.7791	.6217169	.5463216
#2	.5427530	.5452582	1.059235	240.3713	.6208775	.5463618
#3	.5441385	.5346512	1.064403	240.7825	.6185753	.5491228

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4965447	98.16970	.5467131	248.7891	1.054149	.2109795
Stddev	.0148174	.29137	.0034264	.7576	.002468	.0013625
%RSD	2.984093	.2968029	.6267227	.3045110	.2341084	.6457770
#1	.5081233	98.05458	.5436099	247.9197	1.053344	.2123633
#2	.5016645	97.95347	.5461391	249.1404	1.052183	.2096394
#3	.4798464	98.50104	.5503902	249.3074	1.056918	.2109358

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0714130	.5313850	1.008942	-.628636	.0017804	F -.238675
Stddev	.0119023	.0095604	.004816	.200760	.0048004	.004835
%RSD	16.66690	1.799156	.4773220	31.93583	269.6189	2.025929
#1	.0682484	.5208842	1.013824	-.672055	.0000757	-.243424
#2	.0614127	.5336856	1.008806	-.804135	-.001935	-.238844
#3	.0845777	.5395853	1.004195	-.409720	.007201	-.233757

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: ICSAB005 Acquired: 12/30/2024 19:50:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025634	.0324169	.0005468	F .0112974	-.007134	.0036982
Stddev	.0003400	.0051773	.0016273	.0012809	.000854	.0006773
%RSD	13.26177	15.97086	297.6038	11.33775	11.96583	18.31451
#1	.0029113	.0275147	.0018078	.0106119	-.006225	.0038987
#2	.0025470	.0319049	.0011228	.0127751	-.007257	.0042526
#3	.0022320	.0378311	-.001290	.0105052	-.007919	.0029433

Elem	Li6707
Units	ppm
Avg	.0008555
Stddev	.0034199
%RSD	399.7545
#1	-.003093
#2	.002809
#3	.002850

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1577.431	19662.38	2278.562	1311.421	1746.493
Stddev	1.087	25.04	14.844	5.340	3.671
%RSD	.0688916	.1273550	.6514606	.4071694	.2101737
#1	1577.503	19633.49	2272.191	1305.447	1749.292
#2	1578.480	19675.91	2267.967	1315.730	1747.850
#3	1576.310	19677.75	2295.528	1313.085	1742.337

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCV049 Acquired: 12/30/2024 19:54:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV049 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.954220	4.820814	24.67484	4.928340	4.904377	403.6664
Stddev	.007127	.007446	.03523	.013375	.003710	.9030
%RSD	.1438658	.1544526	.1427659	.2713935	.0756367	.2236967
#1	4.945997	4.816615	24.64162	4.915678	4.901798	404.7090
#2	4.958622	4.829411	24.67113	4.942329	4.902706	403.1340
#3	4.958041	4.816416	24.71178	4.927014	4.908629	403.1561

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.08487	.5058581	2.489382	410.2640	15.50336	2.486900
Stddev	.01531	.0032236	.003768	1.2386	.01266	.004228
%RSD	.1518013	.6372583	.1513674	.3019055	.0816549	.1700255
#1	10.10234	.5086082	2.485410	411.6817	15.48968	2.483209
#2	10.07379	.5066555	2.489831	409.7188	15.51465	2.485977
#3	10.07847	.5023106	2.492906	409.3915	15.50576	2.491513

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.10156	409.0644	15.03071	403.3444	2.512215	1.264303
Stddev	.05823	1.4306	.04156	1.3341	.003856	.000396
%RSD	.3856014	.3497168	.2765299	.3307560	.1535020	.0312870
#1	15.16880	410.7104	15.07272	404.3779	2.510054	1.264560
#2	15.06804	408.3616	15.02979	403.8170	2.509923	1.264502
#3	15.06784	408.1212	14.98961	401.8384	2.516667	1.263848

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	408.0286	2.487329	14.90307	152.7635	4.894061	F 4.350231
Stddev	.7441	.021434	.10303	.5062	.004398	.025270
%RSD	.1823611	.8617170	.6913187	.3313353	.0898542	.5808821
#1	408.6593	2.511326	14.84620	153.3260	4.892494	4.378696
#2	407.2079	2.480575	14.84100	152.6196	4.890661	4.341554
#3	408.2185	2.470086	15.02200	152.3448	4.899027	4.330443

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCV049 Acquired: 12/30/2024 19:54:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV049 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.808307	4.977871	4.974573	5.033391	5.032397	4.821186
Stddev	.010329	.002191	.032792	.003314	.003508	.011616
%RSD	.2148122	.0440048	.6592003	.0658485	.0697171	.2409266
#1	4.811806	4.979539	5.007911	5.029929	5.034703	4.833882
#2	4.796683	4.978684	4.973453	5.036535	5.028359	4.818582
#3	4.816432	4.975390	4.942354	5.033709	5.034128	4.811094

Elem	Li6707
Units	ppm
Avg	5.079033
Stddev	.007151
%RSD	.1407868
#1	5.080603
#2	5.071227
#3	5.085268

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1433.484	18782.51	2183.176	1178.744	1607.459
Stddev	3.230	15.63	13.211	8.838	2.571
%RSD	.2253068	.0832173	.6051132	.7497961	.1599591
#1	1429.774	18799.28	2169.567	1183.743	1604.982
#2	1435.017	18779.90	2184.012	1183.950	1607.281
#3	1435.662	18768.35	2195.949	1168.539	1610.116

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCB049 Acquired: 12/30/2024 19:58:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB049 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000949	-.003074	.0029558	.0010957	-.000451	.0226319	.0009061
Stddev	.005150	.001956	.0013712	.0069894	.003450	.0108423	.0008298
%RSD	542.9495	63.64263	46.38867	637.8645	765.5776	47.90740	91.57721
#1	-.003628	-.003773	.0014111	-.006901	.003000	.0296089	.0018244
#2	.004989	-.000864	.0040290	.004148	-.000451	.0101407	.0002100
#3	-.004206	-.004585	.0034273	.006040	-.003900	.0281460	.0006840

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001324	.0001528	.0424126	.0006210	-.000032	.0018386	.0400512
Stddev	.0000846	.0001138	.0206334	.0004698	.000216	.0055688	.0126412
%RSD	63.92587	74.50172	48.64930	75.64381	679.4934	302.8769	31.56255
#1	.0001725	.0000235	.0655014	.0000787	-.000154	-.003238	.0263144
#2	.0001895	.0002381	.0359590	.0008831	.000218	.000959	.0426450
#3	.0000352	.0001968	.0257773	.0009013	-.000160	.007795	.0511944

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004557	.0982321	-.000608	.0011610	.0644596	.0010683	.0026544
Stddev	.0013445	.0577988	.000352	.0010077	.0186929	.0105502	.0011254
%RSD	295.0460	58.83898	57.95804	86.79613	28.99945	987.5905	42.39569
#1	.0002183	.1615614	-.000987	.0000443	.0763259	.0035315	.0039440
#2	.0019031	.0848089	-.000546	.0014362	.0741412	-.010496	.0021476
#3	-.000754	.0483261	-.000290	.0020026	.0429118	.010169	.0018716

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0807830	-.002732	.0110931	.0006819	-.000283	.0009773	.0000654
Stddev	.1041563	.002413	.0038659	.0008693	.002653	.0009751	.0027229
%RSD	128.9334	88.34133	34.84942	127.4760	938.4186	99.77931	4164.445
#1	.0028219	-.000841	.0066842	.0016815	.002056	.0020288	.0013661
#2	.0404535	-.005450	.0126923	.0002610	.000261	.0001028	.0018940
#3	.1990736	-.001904	.0139028	.0001032	-.003166	.0008003	-.003064

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCB049 Acquired: 12/30/2024 19:58:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB049 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	-.002024	.0001103	.0129394
Stddev	.002339	.0001582	.0023618
%RSD	115.5596	143.4285	18.25233
#1	-.000220	.0001140	.0156661
#2	-.004667	.0002665	.0115308
#3	-.001186	-.000050	.0116215

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1682.786	21083.90	2236.699	1399.218	1981.144
Stddev	16.505	315.78	29.053	22.991	19.347
%RSD	.9808192	1.497727	1.298921	1.643165	.9765643
#1	1692.481	20723.13	2211.502	1372.684	1991.795
#2	1692.148	21310.08	2268.478	1413.235	1992.826
#3	1663.728	21218.51	2230.118	1411.735	1958.812

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-07DLX2 Acquired: 12/30/2024 20:02:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK19 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0434769	.0152753	.1535327	-.010542	-.001019	29.50271	.4568861
Stddev	.0048016	.0029561	.0011148	.005923	.003943	.31674	.0036984
%RSD	11.04408	19.35199	.7260735	56.18337	386.9164	1.073607	.8094768
#1	.0379325	.0130014	.1523278	-.010729	.003094	29.15822	.4527649
#2	.0462272	.0186169	.1545273	-.004528	-.001386	29.56854	.4579774
#3	.0462710	.0142076	.1537431	-.016369	-.004765	29.78136	.4599161

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026668	.0024728	521.4104	.0505103	.0832344	.1460967	87.91561
Stddev	.0000291	.0000549	4.6044	.0017262	.0004957	.0130964	.91273
%RSD	1.090688	2.219615	.8830671	3.417497	.5954972	8.964195	1.038185
#1	.0026796	.0024948	516.1791	.0486272	.0829271	.1423857	86.94671
#2	.0026873	.0024104	523.2038	.0520178	.0838062	.1606481	88.04091
#3	.0026335	.0025133	524.8482	.0508858	.0829698	.1352562	88.75921

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.524421	200.4422	.0989303	-.003429	.9743230	.0839301	.2318832
Stddev	.097009	1.9120	.0008919	.000394	.0052467	.0091151	.0049619
%RSD	1.018526	.9539038	.9015509	11.49256	.5384931	10.86034	2.139806
#1	9.413764	198.3301	.0999109	-.002977	.9701377	.0747330	.2298778
#2	9.564687	200.9413	.0981674	-.003613	.9726224	.0840964	.2375338
#3	9.594812	202.0551	.0987127	-.003698	.9802091	.0929610	.2282378

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.548820	3.422686	-.159906	.0023690	.8012198	5.040831	.0129702
Stddev	.085756	.015837	.001230	.0005166	.0048860	.048420	.0014488
%RSD	1.545490	.4627029	.7689385	21.80501	.6098213	.9605602	11.17050
#1	5.458350	3.407501	-.160379	.0018836	.7968836	5.014882	.0125860
#2	5.559190	3.421455	-.158510	.0023115	.8002620	5.010916	.0145725
#3	5.628920	3.439102	-.160828	.0029119	.8065137	5.096695	.0117522

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-07DLX2 Acquired: 12/30/2024 20:02:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK19 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5939829	.2956660	.0803411
Stddev	.0070245	.0017308	.0042452
%RSD	1.182609	.5854063	5.283919
#1	.5865940	.2938127	.0850147
#2	.5947796	.2972405	.0792846
#3	.6005750	.2959447	.0767239

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1728.204	21664.23	2489.576	1417.586	1697.679
Stddev	4.479	392.98	16.633	24.680	3.417
%RSD	.2591981	1.813954	.6680963	1.740962	.2012988
#1	1728.233	21884.92	2505.587	1430.153	1700.772
#2	1723.710	21210.51	2490.756	1389.152	1694.010
#3	1732.669	21897.26	2472.385	1433.453	1698.256

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-13DLX2 Acquired: 12/30/2024 20:06:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK23 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0580937	.0103484	.3262740	.0004320	.0024288	35.08406	.6049268
Stddev	.0075167	.0069200	.0012861	.0050586	.0029262	.45199	.0071075
%RSD	12.93890	66.87013	.3941804	1170.952	120.4785	1.288309	1.174929
#1	.0499609	.0081716	.3276401	-.001468	.0008137	34.62289	.5968587
#2	.0647858	.0047785	.3250865	.006165	.0006661	35.10301	.6076588
#3	.0595343	.0180950	.3260956	-.003402	.0058066	35.52627	.6102629

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038395	.0033934	611.7892	.0581775	.0864383	.2000040	90.97233
Stddev	.0001401	.0001222	5.1209	.0005526	.0004154	.0069012	.86534
%RSD	3.650095	3.600275	.8370397	.9498399	.4805242	3.450527	.9512107
#1	.0039182	.0033591	606.3923	.0585159	.0869176	.2079120	90.04368
#2	.0036777	.0035290	612.3951	.0584768	.0861829	.1951990	91.11724
#3	.0039227	.0032920	616.5802	.0575398	.0862145	.1969009	91.75606

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.010547	53.02422	.0939538	-.003085	.5768913	.0843874	.4749167
Stddev	.058443	.75308	.0005495	.000601	.0148632	.0056459	.0011618
%RSD	.9723470	1.420248	.5848752	19.47017	2.576421	6.690417	.2446370
#1	5.951096	52.21052	.0945861	-.002747	.5651840	.0891141	.4740317
#2	6.012616	53.16547	.0935926	-.003778	.5936132	.0859123	.4762324
#3	6.067928	53.69666	.0936825	-.002729	.5718768	.0781357	.4744861

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.485326	4.069600	-.160573	.0030091	1.050995	5.453320	.0341282
Stddev	.204710	.013572	.002359	.0001781	.006494	.033933	.0013950
%RSD	2.734821	.3334896	1.468907	5.917778	.6178887	.6222391	4.087527
#1	7.253695	4.077374	-.159185	.0030318	1.057830	5.420552	.0356846
#2	7.641965	4.053929	-.163296	.0028208	1.044906	5.451102	.0337094
#3	7.560318	4.077498	-.159237	.0031748	1.050247	5.488308	.0329905

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-13DLX2 Acquired: 12/30/2024 20:06:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK23 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.3202627	.4610435	.0675465
Stddev	.0078198	.0040460	.0038397
%RSD	2.441697	.8775810	5.684528
#1	.3123699	.4567498	.0662864
#2	.3204108	.4615956	.0644952
#3	.3280075	.4647852	.0718579

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1795.661	22722.39	2559.554	1486.537	1727.095
Stddev	3.799	82.70	10.815	2.342	4.158
%RSD	.2115717	.3639530	.4225368	.1575140	.2407441
#1	1792.971	22655.16	2570.484	1486.775	1724.240
#2	1800.007	22697.27	2559.321	1484.085	1731.865
#3	1794.004	22814.73	2548.858	1488.750	1725.180

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-14DLX2 Acquired: 12/30/2024 20:10:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK24 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0536274	.0148332	.2585458	-.004387	-.003227	29.99283	.3959171
Stddev	.0023569	.0047180	.0024000	.000456	.005561	.11192	.0026728
%RSD	4.394880	31.80682	.9282750	10.39385	172.3572	.3731402	.6750995
#1	.0559850	.0095077	.2566094	-.004895	-.009373	29.88220	.3937628
#2	.0536259	.0184903	.2577971	-.004014	-.001763	29.99032	.3950803
#3	.0512712	.0165016	.2612309	-.004252	.001456	30.10599	.3989082

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028649	.0036196	623.0600	.0485587	.0883845	.1831172	85.88856
Stddev	.0000623	.0000840	3.1653	.0008382	.0001652	.0100484	.53369
%RSD	2.175552	2.321185	.5080301	1.726099	.1869100	5.487426	.6213797
#1	.0028248	.0035238	619.4597	.0494535	.0885734	.1946696	85.36017
#2	.0029367	.0036809	624.3147	.0477918	.0883133	.1782780	85.87810
#3	.0028331	.0036540	625.4057	.0484309	.0882668	.1764040	86.42741

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.477869	69.85676	.0918938	-.002459	.8027131	.0815111	.6663326
Stddev	.031825	.14128	.0006842	.000544	.0158954	.0061581	.0034675
%RSD	.4255852	.2022404	.7445482	22.14581	1.980208	7.554919	.5203904
#1	7.450154	69.74537	.0926451	-.003002	.7880935	.0760294	.6688004
#2	7.470827	69.80922	.0917299	-.001913	.8196335	.0803296	.6678293
#3	7.512624	70.01567	.0913064	-.002460	.8004121	.0881743	.6623681

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.190310	7.601224	-.156952	.0045916	.9077847	5.228611	.0282725
Stddev	.049401	.018547	.002428	.0006528	.0100594	.013119	.0012023
%RSD	.9517936	.2440014	1.547161	14.21664	1.108131	.2508984	4.252690
#1	5.198329	7.597071	-.159332	.0053030	.8970923	5.235675	.0282632
#2	5.137391	7.585105	-.157045	.0040202	.9092005	5.236683	.0270748
#3	5.235212	7.621495	-.154478	.0044516	.9170612	5.213474	.0294795

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-14DLX2 Acquired: 12/30/2024 20:10:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK24 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5137295	.5452238	.0636905
Stddev	.0047193	.0042832	.0023767
%RSD	.9186420	.7855931	3.731565
#1	.5106212	.5402833	.0652205
#2	.5114074	.5478920	.0648985
#3	.5191600	.5474963	.0609525

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1805.903	22559.84	2587.391	1486.042	1716.802
Stddev	2.963	28.31	8.721	4.404	1.289
%RSD	.1640700	.1254694	.3370761	.2963247	.0751095
#1	1809.175	22577.33	2580.987	1482.940	1718.290
#2	1803.403	22527.18	2583.862	1484.104	1716.024
#3	1805.129	22575.01	2597.324	1491.082	1716.091

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-15DLX2 Acquired: 12/30/2024 20:14:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK25 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0397766	.0214879	.0636681	-.028189	-.006000	20.26041	.3428308
Stddev	.0032157	.0034830	.0009764	.007246	.004547	.21154	.0045712
%RSD	8.084387	16.20930	1.533518	25.70389	75.78489	1.044117	1.333363
#1	.0374935	.0253014	.0643190	-.034807	-.000803	20.01685	.3375799
#2	.0434542	.0184745	.0641397	-.020447	-.007951	20.39831	.3449910
#3	.0383822	.0206880	.0625454	-.029314	-.009245	20.36608	.3459215

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019996	.0023251	488.6351	.0426390	.0764463	.0999365	55.65061
Stddev	.0001177	.0000686	5.2570	.0009071	.0006889	.0041684	.50736
%RSD	5.887339	2.948742	1.075858	2.127479	.9011329	4.171097	.9116953
#1	.0019872	.0022598	483.0047	.0416904	.0758919	.1034186	55.15670
#2	.0018885	.0023965	493.4150	.0427288	.0772175	.1010733	56.17044
#3	.0021230	.0023189	489.4857	.0434980	.0762295	.0953175	55.62467

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.087665	21.79728	.0624460	-.002048	.4227535	.0352964	.1798317
Stddev	.047357	.24424	.0004281	.000772	.0282039	.0083330	.0007123
%RSD	.9308200	1.120508	.6854650	37.70840	6.671489	23.60871	.3960772
#1	5.034833	21.51658	.0627520	-.002937	.3960661	.0332751	.1792574
#2	5.126300	21.96131	.0626291	-.001540	.4199324	.0281600	.1806287
#3	5.101862	21.91394	.0619568	-.001667	.4522620	.0444541	.1796088

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.121523	4.171243	-.099240	.0063253	.5335168	5.210184	.0111181
Stddev	.082212	.001566	.002993	.0003920	.0102113	.017358	.0013447
%RSD	1.605224	.0375308	3.016094	6.197428	1.913960	.3331575	12.09420
#1	5.027332	4.169517	-.099389	.0064739	.5289737	5.227764	.0119587
#2	5.158381	4.171640	-.102155	.0066212	.5452113	5.209731	.0095673
#3	5.178856	4.172572	-.096174	.0058807	.5263655	5.193057	.0118284

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-15DLX2 Acquired: 12/30/2024 20:14:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK25 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.3487715	.3187374	.0430200
Stddev	.0069614	.0043855	.0103670
%RSD	1.995965	1.375906	24.09804
#1	.3412551	.3142136	.0315729
#2	.3500624	.3229701	.0517763
#3	.3549971	.3190286	.0457106

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1726.894	21797.32	2438.080	1434.772	1783.644
Stddev	4.017	61.86	7.247	6.717	3.558
%RSD	.2326077	.2838074	.2972258	.4681483	.1994687
#1	1722.960	21748.48	2440.621	1437.250	1779.543
#2	1730.989	21776.60	2429.905	1427.169	1785.906
#3	1726.733	21866.88	2443.714	1439.898	1785.482

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-17DLX2 Acquired: 12/30/2024 20:17:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK27 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0079321	.0337417	.0386367	-.059444	-.018527	3.740971
Stddev	.0114662	.0014946	.0042286	.009310	.002611	.066382
%RSD	144.5538	4.429439	10.94447	15.66139	14.09221	1.774458
#1	-.004804	.0328219	.0379551	-.048759	-.021542	3.668964
#2	.011168	.0354662	.0347903	-.063767	-.017077	3.799729
#3	.017433	.0329371	.0431646	-.065807	-.016964	3.754220

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0277708	.0010782	.0007658	F 1291.503	.0262064	.0522824
Stddev	.0009119	.0001410	.0001223	18.833	.0004479	.0009197
%RSD	3.283762	13.07839	15.97090	1.458204	1.709138	1.759164
#1	.0276415	.0010044	.0008354	1276.726	.0256947	.0512208
#2	.0287405	.0012408	.0006246	1312.708	.0263969	.0528386
#3	.0269304	.0009895	.0008374	1285.074	.0265275	.0527879

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0090678	20.46903	.6691677	58.89462	.0353388	-.000910
Stddev	.0058597	.19135	.0088488	.87453	.0014202	.000790
%RSD	64.62119	.9348162	1.322356	1.484913	4.018701	86.75671
#1	.0050774	20.27878	.6609195	58.06866	.0349869	-.001762
#2	.0157952	20.66146	.6785145	59.81074	.0369019	-.000202
#3	.0063308	20.46687	.6680691	58.80447	.0341277	-.000767

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8174411	.0145783	.1079640	2.374843	.6524216	-.020310
Stddev	.0291345	.0043222	.0010407	.191902	.0080907	.000868
%RSD	3.564107	29.64852	.9638850	8.080637	1.240107	4.274847
#1	.8256493	.0195646	.1086629	2.242627	.6610866	-.020378
#2	.8415910	.0122692	.1084610	2.594950	.6511138	-.021143
#3	.7850831	.0119010	.1067680	2.286952	.6450645	-.019410

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-17DLX2 Acquired: 12/30/2024 20:17:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK27 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035319	14.62169	3.029351	.0095312	-.006435	.8529834
Stddev	.0005418	.00605	.042751	.0024568	.003908	.0125724
%RSD	15.33919	.0414111	1.411241	25.77666	60.72842	1.473931
#1	.0041423	14.62175	3.013964	.0122624	-.006502	.8435726
#2	.0031080	14.62772	3.077666	.0075011	-.002495	.8672618
#3	.0033454	14.61561	2.996424	.0088301	-.010310	.8481157

Elem	Li6707
Units	ppm
Avg	.0280142
Stddev	.0041455
%RSD	14.79784
#1	.0233026
#2	.0296381
#3	.0311020

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1632.581	20640.60	2344.226	1346.883	1680.756
Stddev	2.730	47.84	36.256	11.887	3.247
%RSD	.1671928	.2317875	1.546627	.8825209	.1931767
#1	1630.399	20592.64	2354.377	1338.215	1677.752
#2	1631.702	20640.84	2303.976	1342.001	1680.314
#3	1635.642	20688.32	2374.325	1360.433	1684.200

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-10DLX2 Acquired: 12/30/2024 20:21:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK48 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0099155	.0282640	.1234359	-.039048	-.013768	13.80895	.0394042
Stddev	.0077967	.0040048	.0023295	.008539	.002835	.08496	.0009147
%RSD	78.63110	14.16932	1.887180	21.86694	20.58887	.6152685	2.321239
#1	.0184939	.0290579	.1207508	-.034615	-.011918	13.72200	.0385738
#2	.0032607	.0318125	.1246415	-.033638	-.012355	13.89178	.0403846
#3	.0079919	.0239217	.1249155	-.048892	-.017032	13.81307	.0392542

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020148	.0012205	664.8337	.0303679	.0640053	.0483471	44.01879
Stddev	.0000135	.0000434	2.1724	.0003129	.0003882	.0048560	.20499
%RSD	.6709663	3.552208	.3267559	1.030422	.6065352	10.04413	.4656945
#1	.0020190	.0012613	662.4755	.0306623	.0644355	.0534603	43.79456
#2	.0019997	.0012251	666.7533	.0304021	.0638991	.0437974	44.19659
#3	.0020258	.0011750	665.2723	.0300393	.0636812	.0477837	44.06521

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.804957	353.4758	.0538243	-.000828	.9238745	.0251931	.2590000
Stddev	.013877	1.1816	.0009372	.001622	.0219556	.0041600	.0014751
%RSD	.4947297	.3342905	1.741151	195.8841	2.376465	16.51264	.5695509
#1	2.792372	352.3520	.0527422	-.002031	.9055718	.0282370	.2595826
#2	2.819839	354.7079	.0543681	.001017	.9482181	.0268893	.2573225
#3	2.802659	353.3675	.0543628	-.001470	.9178336	.0204529	.2600948

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.878635	.9125984	-.008169	.0010382	14.73552	3.720595	.0088576
Stddev	.023876	.0046350	.001282	.0004899	.02213	.018239	.0018952
%RSD	.3030461	.5078873	15.69439	47.19164	.1501866	.4902282	21.39584
#1	7.881162	.9116064	-.009125	.0015860	14.74983	3.735316	.0097863
#2	7.853596	.9176491	-.008669	.0006420	14.74671	3.726279	.0066772
#3	7.901147	.9085398	-.006712	.0008865	14.71003	3.700191	.0101093

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-10DLX2 Acquired: 12/30/2024 20:21:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK48 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0285731	.3295543	.0411102
Stddev	.0031601	.0013356	.0020419
%RSD	11.05980	.4052687	4.966913
#1	.0249340	.3308906	.0414462
#2	.0301595	.3295530	.0389212
#3	.0306257	.3282194	.0429633

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1624.802	20526.58	2355.912	1348.661	1677.547
Stddev	2.356	118.46	10.060	6.754	1.405
%RSD	.1450070	.5770826	.4270281	.5008092	.0837770
#1	1623.557	20474.69	2349.845	1345.722	1675.937
#2	1627.520	20662.13	2350.365	1356.387	1678.173
#3	1623.330	20442.92	2367.525	1343.875	1678.530

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-11DLX2 Acquired: 12/30/2024 20:25:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0132751	.0237057	.4183176	-.047361	-.015705	11.51761
Stddev	.0069128	.0047474	.0051107	.007936	.001714	.04682
%RSD	52.07335	20.02622	1.221728	16.75684	10.91130	.4064997
#1	.0207022	.0279905	.4129686	-.047522	-.017487	11.46983
#2	.0070288	.0245243	.4231509	-.039346	-.015559	11.51959
#3	.0120943	.0186023	.4188335	-.055216	-.014070	11.56341

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0762997	.0018489	.0046122	F 980.1238	.0396173	.0651560
Stddev	.0012679	.0000684	.0001681	5.8294	.0004047	.0004667
%RSD	1.661688	3.702034	3.645842	.5947644	1.021472	.7162679
#1	.0767460	.0019275	.0047697	973.9092	.0399855	.0656627
#2	.0772841	.0018019	.0046316	980.9914	.0396823	.0650615
#3	.0748691	.0018174	.0044351	985.4708	.0391840	.0647437

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0372822	49.46481	3.400884	546.0403	.0516490	-.001937
Stddev	.0044612	.34471	.019516	3.7657	.0003041	.000922
%RSD	11.96612	.6968756	.5738424	.6896381	.5887212	47.59868
#1	.0416542	49.12683	3.385600	541.7315	.0517257	-.002913
#2	.0374556	49.45174	3.394185	547.6886	.0513140	-.001080
#3	.0327368	49.81587	3.422867	548.7008	.0519074	-.001819

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.242105	.0246641	1.053924	6.025246	.9894511	-.030828
Stddev	.008639	.0099360	.002231	.121126	.0045213	.004440
%RSD	.6954976	40.28507	.2116611	2.010313	.4569520	14.40228
#1	1.241038	.0295428	1.051366	5.885702	.9851893	-.027933
#2	1.234050	.0312176	1.054942	6.086829	.9941935	-.035939
#3	1.251228	.0132319	1.055464	6.103209	.9889706	-.028610

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-11DLX2 Acquired: 12/30/2024 20:25:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK49 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014203	23.13428	4.065107	.0118491	.0440856	.3987235
Stddev	.0004455	.05831	.022290	.0020197	.0037497	.0005899
%RSD	31.36310	.2520637	.5483309	17.04546	8.505502	.1479418
#1	.0017508	23.08523	4.086760	.0128482	.0473398	.3980432
#2	.0009137	23.19875	4.066330	.0131745	.0399850	.3990929
#3	.0015964	23.11884	4.042230	.0095245	.0449319	.3990343

Elem	Li6707
Units	ppm
Avg	.0386572
Stddev	.0035001
%RSD	9.054083
#1	.0359129
#2	.0374600
#3	.0425988

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1569.136	20072.83	2313.992	1309.722	1599.604
Stddev	3.915	89.30	3.102	4.862	6.248
%RSD	.2495198	.4448587	.1340532	.3712410	.3906086
#1	1573.647	20172.40	2310.552	1315.185	1606.676
#2	1567.148	20046.25	2314.849	1305.869	1594.831
#3	1566.615	19999.85	2316.575	1308.112	1597.305

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-12DLX2 Acquired: 12/30/2024 20:29:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK50 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0139581	.0184250	1.320186	-.030378	-.015268	7.831066
Stddev	.0068813	.0028345	.006263	.009291	.003939	.056578
%RSD	49.29929	15.38391	.4744334	30.58491	25.79714	.7224861
#1	.0110913	.0189728	1.327416	-.035122	-.011023	7.775362
#2	.0089738	.0209456	1.316731	-.036339	-.015977	7.829357
#3	.0218093	.0153566	1.316411	-.019672	-.018804	7.888480

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0827917	.0018233	.0149798	F 1186.411	.0270655	.0647188
Stddev	.0017558	.0001719	.0000864	2.317	.0007065	.0006972
%RSD	2.120712	9.427094	.5768160	.1952601	2.610241	1.077263
#1	.0809817	.0019124	.0148811	1184.916	.0265242	.0645299
#2	.0829058	.0019324	.0150421	1185.238	.0268076	.0654910
#3	.0844877	.0016251	.0150160	1189.080	.0278647	.0641356

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0287839	64.44469	4.157253	658.3639	.0480961	.0001920
Stddev	.0020681	.27404	.015962	2.1741	.0006457	.0007423
%RSD	7.185083	.4252286	.3839627	.3302249	1.342453	386.6879
#1	.0263958	64.19094	4.146466	657.2610	.0481405	-.000590
#2	.0299776	64.40783	4.149704	656.9624	.0487185	.000887
#3	.0299783	64.73529	4.175590	660.8684	.0474294	.000278

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.379398	.0242053	2.846177	4.635684	.5260061	-.074999
Stddev	.037123	.0085664	.012328	.083860	.0010464	.000998
%RSD	2.691229	35.39077	.4331429	1.809003	.1989386	1.330101
#1	1.347015	.0249107	2.853031	4.541336	.5248038	-.073928
#2	1.419912	.0323972	2.853555	4.663984	.5267114	-.075169
#3	1.371267	.0153079	2.831945	4.701733	.5265032	-.075901

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-12DLX2 Acquired: 12/30/2024 20:29:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK50 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027165	46.25797	3.479757	.0146657	.0028766	.3902675
Stddev	.0006830	.13947	.007084	.0009196	.0023667	.0009279
%RSD	25.14276	.3015130	.2035771	6.270662	82.27489	.2377526
#1	.0024866	46.36837	3.487106	.0144319	.0007099	.3906663
#2	.0034847	46.10122	3.479195	.0156796	.0054023	.3892069
#3	.0021780	46.30432	3.472971	.0138855	.0025175	.3909293

Elem	Li6707
Units	ppm
Avg	.0323806
Stddev	.0051898
%RSD	16.02741
#1	.0280897
#2	.0309032
#3	.0381488

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1579.197	19939.72	2317.757	1300.962	1608.703
Stddev	1.953	48.34	.200	6.159	5.213
%RSD	.1236641	.2424114	.0086139	.4734091	.3240273
#1	1577.107	19991.61	2317.865	1303.415	1603.872
#2	1580.976	19931.58	2317.527	1293.955	1614.228
#3	1579.507	19895.97	2317.880	1305.517	1608.011

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5032-05DLX2 Acquired: 12/30/2024 20:33:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK59 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0770724	.0033416	.7826234	.0140419	.0047378	25.27143	.4440852
Stddev	.0017154	.0032902	.0044737	.0037181	.0044356	.06604	.0019360
%RSD	2.225745	98.46227	.5716230	26.47864	93.62064	.2613083	.4359589
#1	.0752149	-.000382	.7780979	.0172540	.0002977	25.26987	.4447446
#2	.0774055	.004551	.7870433	.0099689	.0047468	25.33823	.4419056
#3	.0785969	.005856	.7827290	.0149027	.0091688	25.20619	.4456055

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032986	.0033047	500.3123	.0442720	.0852953	.1430900	120.8493
Stddev	.0001285	.0001650	1.0184	.0004290	.0001596	.0026940	.2605
%RSD	3.896336	4.993477	.2035547	.9690156	.1871070	1.882756	.2155533
#1	.0031502	.0034917	501.4792	.0446253	.0853740	.1417935	120.6355
#2	.0033700	.0031798	499.8549	.0443962	.0854002	.1461872	120.7730
#3	.0033757	.0032425	499.6027	.0437946	.0851116	.1412894	121.1394

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.84621	114.6830	.0879194	-.002805	.5255535	.1084705	.7475267
Stddev	.01516	.2248	.0004793	.000183	.0102150	.0016305	.0045001
%RSD	.1279482	.1959923	.5451420	6.530899	1.943668	1.503214	.6019943
#1	11.83278	114.4791	.0876714	-.003016	.5307921	.1079658	.7490828
#2	11.84320	114.6460	.0876149	-.002687	.5137820	.1071520	.7424551
#3	11.86265	114.9240	.0884719	-.002713	.5320866	.1102938	.7510421

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.986135	6.336467	-.257005	.0093522	.9374934	6.271100	.0444684
Stddev	.033090	.009986	.002850	.0006558	.0069375	.057718	.0010467
%RSD	.8301333	.1575959	1.108820	7.012561	.7400091	.9203868	2.353931
#1	3.949194	6.335281	-.258024	.0096959	.9295431	6.256880	.0437553
#2	3.996147	6.327126	-.253786	.0097646	.9423193	6.221820	.0439798
#3	4.013062	6.346992	-.259205	.0085959	.9406178	6.334599	.0456701

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5032-05DLX2 Acquired: 12/30/2024 20:33:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK59 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2472109	.2789600	.0341459
Stddev	.0018939	.0024150	.0024274
%RSD	.7661223	.8657037	7.108789
#1	.2492080	.2811007	.0367440
#2	.2469841	.2794373	.0337576
#3	.2454406	.2763421	.0319361

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1773.122	22228.83	2527.614	1468.094	1763.451
Stddev	3.298	105.07	16.976	5.184	4.678
%RSD	.1860158	.4726662	.6716319	.3530789	.2652730
#1	1776.053	22114.44	2530.512	1465.385	1768.750
#2	1773.763	22251.05	2542.955	1474.071	1761.712
#3	1769.551	22321.02	2509.376	1464.827	1759.892

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5032-06DLX2 Acquired: 12/30/2024 20:37:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK60 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0454914	.0092931	.1679383	.0210328	.0084297	17.85559	.3801514
Stddev	.0041856	.0049218	.0011188	.0066006	.0019761	.06434	.0002456
%RSD	9.200885	52.96243	.6661972	31.38256	23.44260	.3603509	.0645943
#1	.0406607	.0038805	.1691334	.0209610	.0079906	17.91975	.3803039
#2	.0480396	.0104984	.1669158	.0144684	.0105884	17.79107	.3798681
#3	.0477739	.0135003	.1677659	.0276691	.0067100	17.85597	.3802821

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027346	.0027336	738.7848	.0344801	.0877611	.0899887	137.1512
Stddev	.0000870	.0000986	1.1225	.0006409	.0005969	.0072776	.2225
%RSD	3.181220	3.606688	.1519347	1.858798	.6801738	8.087266	.1622510
#1	.0028316	.0028467	740.0044	.0349499	.0881241	.0982950	137.1802
#2	.0027084	.0026654	737.7950	.0337500	.0880870	.0869397	136.9156
#3	.0026636	.0026888	738.5552	.0347403	.0870722	.0847316	137.3579

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.96692	257.4808	.0799205	-.002821	.5501284	.0675911	.1689408
Stddev	.00196	.2861	.0009620	.001572	.0295603	.0091498	.0018169
%RSD	.0093349	.1111140	1.203765	55.72495	5.373344	13.53705	1.075436
#1	20.96891	257.7070	.0809241	-.004230	.5379337	.0772087	.1672516
#2	20.96687	257.1592	.0790062	-.003108	.5286163	.0665699	.1687080
#3	20.96499	257.5763	.0798312	-.001125	.5838351	.0589947	.1708629

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.704808	5.085254	-.285505	.0085040	1.013741	4.799894	.0208530
Stddev	.028134	.009515	.005393	.0009204	.005308	.051741	.0015745
%RSD	.7594003	.1871033	1.889000	10.82378	.5235637	1.077953	7.550634
#1	3.677961	5.095814	-.290367	.0087271	1.010120	4.839060	.0224419
#2	3.702390	5.082600	-.286445	.0074925	1.019834	4.819382	.0208237
#3	3.734074	5.077348	-.279704	.0092924	1.011269	4.741239	.0192933

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5032-06DLX2 Acquired: 12/30/2024 20:37:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK60 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0787777	.3343793	.0224111
Stddev	.0031238	.0012373	.0039873
%RSD	3.965382	.3700451	17.79146
#1	.0818263	.3357756	.0215035
#2	.0755837	.3339433	.0189558
#3	.0789232	.3334189	.0267739

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1736.095	22004.85	2510.868	1446.496	1675.222
Stddev	4.671	200.93	22.243	10.925	3.934
%RSD	.2690569	.9131091	.8858703	.7552747	.2348463
#1	1730.776	22080.76	2495.331	1457.304	1670.683
#2	1737.982	22156.77	2500.925	1446.728	1677.347
#3	1739.528	21777.03	2536.348	1435.457	1677.637

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5032-07DLX2 Acquired: 12/30/2024 20:41:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK61 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0225109	.0183794	.1544769	-.020227	-.004532	26.61781	.1549077
Stddev	.0027230	.0036411	.0047593	.003099	.002609	.07247	.0006017
%RSD	12.09625	19.81096	3.080933	15.31898	57.57210	.2722725	.3884293
#1	.0256351	.0142118	.1599046	-.017490	-.005565	26.62658	.1544726
#2	.0206416	.0209441	.1525091	-.019599	-.006467	26.54135	.1546560
#3	.0212560	.0199824	.1510171	-.023591	-.001565	26.68550	.1555943

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026252	.0017444	454.9794	.0394921	.0725077	.1531952	72.16054
Stddev	.0001152	.0000236	1.5380	.0005689	.0016365	.0055206	.20303
%RSD	4.388236	1.355728	.3380467	1.440639	2.257009	3.603648	.2813588
#1	.0026406	.0017635	454.6024	.0391640	.0740166	.1476189	72.19669
#2	.0025030	.0017519	453.6648	.0391632	.0727383	.1586584	71.94186
#3	.0027319	.0017180	456.6708	.0401490	.0707681	.1533082	72.34307

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.231090	77.22059	.0747605	-.001191	.5365697	.0533780	.2307199
Stddev	.022636	.40271	.0012001	.000709	.0266241	.0097242	.0015537
%RSD	.4327213	.5215110	1.605304	59.55821	4.961903	18.21761	.6733903
#1	5.242429	77.32538	.0760734	-.001481	.5654201	.0501415	.2315400
#2	5.205025	76.77584	.0744883	-.000383	.5129476	.0643078	.2289280
#3	5.245815	77.56054	.0737199	-.001710	.5313412	.0456848	.2316916

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.474017	5.052149	-.141566	.0030094	.6717474	5.744468	.0122768
Stddev	.090821	.063899	.000753	.0003273	.0114627	.014676	.0011029
%RSD	2.029974	1.264782	.5318473	10.87556	1.706400	.2554737	8.983163
#1	4.576283	5.123569	-.140929	.0028928	.6846117	5.757097	.0131126
#2	4.443002	5.032484	-.142397	.0033790	.6680127	5.747939	.0110268
#3	4.402766	5.000394	-.141373	.0027564	.6626178	5.728368	.0126911

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5032-07DLX2 Acquired: 12/30/2024 20:41:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK61 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2432369	.3379085	.0332405
Stddev	.0056709	.0024015	.0017321
%RSD	2.331429	.7106931	5.210922
#1	.2367189	.3353149	.0352274
#2	.2470400	.3383558	.0320483
#3	.2459518	.3400550	.0324459

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1778.983	22298.23	2503.955	1470.102	1799.133
Stddev	11.860	140.83	10.782	9.242	17.477
%RSD	.6666931	.6315528	.4305875	.6286880	.9714174
#1	1766.395	22177.32	2491.681	1462.385	1780.870
#2	1780.606	22452.85	2508.290	1480.345	1800.831
#3	1789.948	22264.51	2511.895	1467.576	1815.700

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-08DLX2 Acquired: 12/30/2024 20:45:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK88 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0634160	.0136663	1.959905	-.019193	-.000209	20.61737
Stddev	.0066322	.0046554	.001871	.006520	.001296	.04412
%RSD	10.45819	34.06502	.0954765	33.97145	620.2637	.2140078
#1	.0675340	.0177737	1.960570	-.014255	-.001668	20.58538
#2	.0557653	.0146159	1.957792	-.026584	.000235	20.59902
#3	.0669488	.0086093	1.961354	-.016739	.000807	20.66771

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6078060	.0026273	.0056857	F 843.6060	.0887184	.0768290
Stddev	.0014942	.0003511	.0001732	1.3564	.0007726	.0007677
%RSD	.2458344	13.36471	3.046171	.1607891	.8708318	.9992197
#1	.6093473	.0022257	.0056456	843.8503	.0878277	.0772933
#2	.6063638	.0028762	.0058754	842.1441	.0892076	.0759429
#3	.6077069	.0027800	.0055361	844.8238	.0891198	.0772508

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2850232	83.49426	5.504634	89.58710	.0798922	-.000390
Stddev	.0091863	.17901	.011707	.43554	.0007460	.000293
%RSD	3.222993	.2143977	.2126670	.4861654	.9337006	75.15432
#1	.2896272	83.44674	5.504041	89.56565	.0806165	-.000482
#2	.2744454	83.34380	5.493235	89.16268	.0799338	-.000627
#3	.2909971	83.69223	5.516625	90.03297	.0791263	-.000062

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8581375	.0627088	1.842426	2.452147	4.688598	-.166963
Stddev	.0261034	.0097875	.011573	.123907	.011505	.003088
%RSD	3.041868	15.60784	.6281568	5.052996	.2453920	1.849426
#1	.8315414	.0541821	1.829321	2.471790	4.689351	-.164544
#2	.8591524	.0605483	1.851246	2.565060	4.676734	-.170441
#3	.8837186	.0733961	1.846710	2.319592	4.699708	-.165904

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-08DLX2 Acquired: 12/30/2024 20:45:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK88 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038855	1.490180	5.274852	.1265216	.2355107	.4962138
Stddev	.0003162	.002763	.022640	.0034918	.0047611	.0005658
%RSD	8.138927	.1853969	.4292016	2.759853	2.021591	.1140262
#1	.0042422	1.486990	5.253960	.1226009	.2304300	.4968669
#2	.0036395	1.491783	5.271689	.1276676	.2398698	.4959008
#3	.0037748	1.491768	5.298907	.1292965	.2362322	.4958736

Elem	Li6707
Units	ppm
Avg	.0182313
Stddev	.0048088
%RSD	26.37646
#1	.0147637
#2	.0162093
#3	.0237209

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1679.519	21389.38	2416.140	1402.580	1700.717
Stddev	4.471	32.28	11.237	2.573	3.063
%RSD	.2662237	.1509093	.4650725	.1834792	.1801277
#1	1680.920	21420.46	2415.857	1401.039	1702.617
#2	1674.515	21356.03	2427.515	1401.150	1697.183
#3	1683.122	21391.66	2405.047	1405.551	1702.351

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-15DLX2 Acquired: 12/30/2024 20:49:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053926	.0280241	.5031683	-.048235	-.015576	14.28467
Stddev	.0046193	.0039805	.0019336	.005264	.003064	.37632
%RSD	85.65936	14.20389	.3842742	10.91286	19.67327	2.634448
#1	.0020573	.0268247	.5049732	-.044206	-.018622	14.04388
#2	.0106650	.0324663	.5011277	-.054191	-.015612	14.09180
#3	.0034554	.0247811	.5034039	-.046309	-.012494	14.71833

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1344386	.0014276	.0044984	F 816.2273	.0378147	.0584548
Stddev	.0027996	.0000944	.0001460	20.0560	.0009451	.0007025
%RSD	2.082398	6.611780	3.246169	2.457155	2.499254	1.201723
#1	.1330253	.0015366	.0045352	804.2233	.0367393	.0580360
#2	.1326274	.0013742	.0046225	805.0779	.0381920	.0592658
#3	.1376631	.0013720	.0043375	839.3807	.0385129	.0580626

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0444772	44.53398	4.484706	426.0423	.0521107	-.001059
Stddev	.0028881	1.00019	.090887	9.7870	.0008413	.001612
%RSD	6.493417	2.245902	2.026601	2.297179	1.614380	152.2564
#1	.0443547	43.94730	4.422797	420.1048	.0512099	.000392
#2	.0416522	43.96579	4.442271	420.6838	.0528760	-.002795
#3	.0474245	45.68885	4.589049	437.3384	.0522461	-.000775

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9040362	.0631643	.7896274	1.390576	1.570580	-.069388
Stddev	.0274835	.0141980	.0003363	.137071	.005195	.001358
%RSD	3.040084	22.47781	.0425925	9.857156	.3307499	1.956566
#1	.8943037	.0470049	.7898370	1.234666	1.565067	-.070945
#2	.8827434	.0688490	.7898058	1.444922	1.575383	-.068769
#3	.9350616	.0736391	.7892395	1.492142	1.571290	-.068450

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-15DLX2 Acquired: 12/30/2024 20:49:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019945	8.043955	4.990583	.0188539	.1558197	.2568009
Stddev	.0001103	.026470	.075587	.0014504	.0041502	.0065996
%RSD	5.531631	.3290730	1.514583	7.692858	2.663458	2.569926
#1	.0019002	8.031929	4.975626	.0192133	.1511173	.2529223
#2	.0019675	8.074304	4.923594	.0172576	.1573709	.2530594
#3	.0021159	8.025633	5.072530	.0200909	.1589708	.2644211

Elem	Li6707
Units	ppm
Avg	.0147990
Stddev	.0030531
%RSD	20.63069
#1	.0114527
#2	.0174330
#3	.0155114

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1560.669	20027.93	2341.868	1307.430	1615.540
Stddev	2.532	50.96	32.709	2.463	4.714
%RSD	.1622164	.2544595	1.396707	.1883934	.2918171
#1	1562.418	20084.72	2349.269	1308.117	1619.328
#2	1557.766	20012.92	2370.243	1309.477	1610.260
#3	1561.822	19986.16	2306.093	1304.697	1617.033

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-16DLX2 Acquired: 12/30/2024 20:52:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029864	.0255793	.0849543	-.044734	-.012702	21.27622	.1400296
Stddev	.0032890	.0029423	.0025299	.004127	.005681	.05809	.0014023
%RSD	110.1320	11.50285	2.978002	9.225657	44.72717	.2730293	1.001407
#1	.0022149	.0275081	.0875208	-.044404	-.018978	21.22852	.1412808
#2	.0065926	.0221927	.0848797	-.040782	-.011219	21.25923	.1402940
#3	.0001517	.0270371	.0824626	-.049016	-.007910	21.34091	.1385139

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015998	.0014411	546.9444	.0313501	.0513613	.0366131	38.28404
Stddev	.0001026	.0001294	1.9124	.0002843	.0004488	.0085183	.15091
%RSD	6.410088	8.977170	.3496536	.9069317	.8738381	23.26574	.3941888
#1	.0016164	.0013687	544.7362	.0312523	.0511343	.0269523	38.11230
#2	.0016930	.0013642	548.0640	.0316705	.0518782	.0430442	38.39549
#3	.0014899	.0015905	548.0329	.0311277	.0510713	.0398430	38.34432

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.282624	161.4135	.0436045	-.000267	.6727229	.0482201	.2448848
Stddev	.005032	1.0795	.0013277	.001376	.0196005	.0052965	.0043340
%RSD	.2204330	.6687586	3.044815	515.6868	2.913601	10.98402	1.769801
#1	2.279386	160.1931	.0446685	-.001320	.6504544	.0543354	.2495484
#2	2.280066	162.2433	.0440283	.001290	.6803552	.0452313	.2409810
#3	2.288421	161.8040	.0421166	-.000770	.6873591	.0450935	.2441248

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3993125	.9733149	-.046410	.0097707	8.695395	8.016388	.0089174
Stddev	.0243001	.0018993	.001427	.0003401	.012616	.095511	.0004181
%RSD	6.085483	.1951373	3.074020	3.480362	.1450911	1.191443	4.688864
#1	.3932328	.9742995	-.046401	.0094381	8.684867	7.955385	.0093810
#2	.3786295	.9711254	-.044988	.0097562	8.691939	8.126459	.0085689
#3	.4260751	.9745197	-.047841	.0101177	8.709379	7.967319	.0088022

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-16DLX2 Acquired: 12/30/2024 20:52:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7076012	.3179595	-.000214
Stddev	.0075973	.0020838	.004818
%RSD	1.073670	.6553703	2255.818
#1	.7028159	.3156286	-.005657
#2	.7163613	.3196422	.003504
#3	.7036263	.3186077	.001513

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1621.301	20368.22	2317.090	1340.072	1727.695
Stddev	1.598	292.72	25.114	20.025	3.967
%RSD	.0985580	1.437117	1.083864	1.494358	.2296241
#1	1620.454	20030.29	2330.700	1318.279	1732.250
#2	1620.304	20531.08	2288.108	1357.663	1725.839
#3	1623.144	20543.28	2332.461	1344.275	1724.995

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-17DLX2 Acquired: 12/30/2024 20:56:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075128	.0234952	.2616126	-.034675	-.016475	10.34350
Stddev	.0047675	.0033565	.0038328	.002862	.001391	.09691
%RSD	63.45779	14.28585	1.465071	8.252492	8.440226	.9368828
#1	.0123353	.0196332	.2577278	-.036787	-.015883	10.23455
#2	.0074010	.0257091	.2617188	-.031418	-.018063	10.42008
#3	.0028023	.0251432	.2653912	-.035820	-.015478	10.37586

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1287838	.0015244	.0036256	F 923.7737	.0304536	.0577709
Stddev	.0018038	.0002228	.0000467	5.1276	.0004648	.0009056
%RSD	1.400657	14.61291	1.289135	.5550748	1.526328	1.567548
#1	.1308564	.0012686	.0036530	918.4027	.0307274	.0567316
#2	.1279261	.0016752	.0035716	928.6172	.0307165	.0581906
#3	.1275688	.0016296	.0036521	924.3012	.0299169	.0583905

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0371568	51.87307	4.382138	484.1897	.0550607	-.001239
Stddev	.0003913	.32179	.028551	3.5968	.0011709	.000344
%RSD	1.053038	.6203349	.6515364	.7428452	2.126539	27.76803
#1	.0371051	51.57112	4.350902	481.2790	.0553616	-.001130
#2	.0367939	52.21157	4.406889	488.2107	.0537687	-.001625
#3	.0375713	51.83651	4.388625	483.0793	.0560517	-.000963

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.014865	.0397610	.6794441	1.801885	1.174292	-.076643
Stddev	.038947	.0007508	.0032089	.062267	.002563	.001680
%RSD	3.837621	1.888243	.4722851	3.455659	.2182750	2.192155
#1	1.058431	.0389059	.6758230	1.740358	1.172354	-.075093
#2	.983419	.0403124	.6805742	1.864867	1.177199	-.076409
#3	1.002745	.0400645	.6819350	1.800429	1.173324	-.078428

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-17DLX2 Acquired: 12/30/2024 20:56:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033913	18.05706	4.748546	.0138660	.0816691	.3860318
Stddev	.0004546	.03144	.023876	.0020503	.0051282	.0029790
%RSD	13.40428	.1741242	.5027997	14.78672	6.279213	.7716995
#1	.0030686	18.06534	4.721116	.0115484	.0791854	.3827620
#2	.0031942	18.02230	4.759860	.0154435	.0875662	.3867417
#3	.0039112	18.08353	4.764661	.0146062	.0782557	.3885918

Elem	Li6707
Units	ppm
Avg	.0078930
Stddev	.0010324
%RSD	13.07955
#1	.0090446
#2	.0070504
#3	.0075839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1568.252	19863.95	2288.350	1296.868	1627.618
Stddev	3.759	93.18	9.977	7.367	1.161
%RSD	.2396701	.4690732	.4359783	.5680347	.0713292
#1	1565.371	19867.88	2282.983	1290.035	1627.863
#2	1572.504	19768.87	2282.205	1295.897	1628.636
#3	1566.881	19955.10	2299.861	1304.672	1626.354

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-18DLX2 Acquired: 12/30/2024 21:00:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0291530	.0203127	.9841245	-.037964	-.010297	15.99588	.3919684
Stddev	.0018559	.0018126	.0018713	.005516	.000648	.27176	.0065168
%RSD	6.365925	8.923543	.1901524	14.52870	6.293105	1.698947	1.662576
#1	.0278657	.0182463	.9820017	-.043728	-.011035	15.98078	.3932025
#2	.0283129	.0210575	.9855357	-.037429	-.010034	15.73198	.3849229
#3	.0312803	.0216342	.9848360	-.032736	-.009822	16.27488	.3977799

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021850	.0036962	637.0969	.0391334	.0623937	.1435112	52.19191
Stddev	.0000479	.0000321	10.9056	.0008952	.0000848	.0102101	1.00650
%RSD	2.190237	.8673086	1.711770	2.287589	.1358745	7.114487	1.928466
#1	.0021411	.0036806	636.9538	.0392009	.0624386	.1529262	52.07548
#2	.0022360	.0036749	626.2635	.0382064	.0622959	.1326585	51.24868
#3	.0021777	.0037330	648.0734	.0399930	.0624465	.1449488	53.25156

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.324355	345.1545	.0600930	-.000418	.7514779	.0408389	.8246647
Stddev	.057897	5.6564	.0005642	.001434	.0204958	.0042839	.0022342
%RSD	1.741614	1.638812	.9388599	342.8604	2.727393	10.48977	.2709226
#1	3.320554	344.2341	.0607435	.001234	.7751041	.0442706	.8267059
#2	3.268451	340.0147	.0597372	-.001336	.7384706	.0360377	.8222778
#3	3.384058	351.2147	.0597983	-.001152	.7408590	.0422085	.8250105

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.314764	2.344334	-.091716	.0029708	12.28897	4.929067	.0355262
Stddev	.159795	.007968	.003075	.0003302	.04099	.053133	.0025013
%RSD	6.903289	.3398812	3.353013	11.11638	.3335181	1.077955	7.040850
#1	2.158133	2.352830	-.090500	.0032442	12.32729	4.930054	.0369344
#2	2.308612	2.343147	-.095214	.0030643	12.29385	4.875447	.0326382
#3	2.477545	2.337027	-.089435	.0026039	12.24575	4.981699	.0370060

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5038-18DLX2 Acquired: 12/30/2024 21:00:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.1578239	1.062058	.0150609
Stddev	.0068493	.017883	.0042019
%RSD	4.339854	1.683792	27.89937
#1	.1635863	1.064856	.0127696
#2	.1596342	1.042941	.0125027
#3	.1502513	1.078376	.0199104

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1647.892	20796.31	2412.015	1361.372	1685.608
Stddev	3.466	38.42	25.718	2.069	2.721
%RSD	.2103034	.1847607	1.066255	.1519667	.1614362
#1	1643.991	20753.87	2410.463	1362.762	1683.109
#2	1650.613	20828.74	2438.474	1362.360	1685.207
#3	1649.074	20806.32	2387.107	1358.995	1688.507

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5266-18DLX2 Acquired: 12/30/2024 21:04:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME2903 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1067487	-.146903	3.182111	.3141003	.1539216	30.71852
Stddev	.0020422	.001521	.002721	.0084350	.0061007	.26068
%RSD	1.913141	1.035423	.0855123	2.685442	3.963494	.8486072
#1	.1056717	-.145150	3.182226	.3100620	.1472741	30.45363
#2	.1054704	-.147870	3.184773	.3237953	.1552264	30.72715
#3	.1091040	-.147689	3.179335	.3084436	.1592643	30.97477

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5271403	.0116709	.0174185	253.9450	1.233524	.0832770
Stddev	.0056068	.0003907	.0000900	2.1148	.004621	.0005748
%RSD	1.063621	3.347550	.5167791	.8327971	.3746383	.6902734
#1	.5207029	.0120472	.0175208	251.6748	1.233461	.0828709
#2	.5297631	.0116983	.0173835	254.3008	1.228935	.0830254
#3	.5309550	.0112672	.0173513	255.8593	1.238177	.0839348

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2286944	645.9123	23.01727	49.68624	.6391422	-.018644
Stddev	.0020967	5.1688	.19228	.51910	.0016359	.000880
%RSD	.9168304	.8002308	.8353848	1.044754	.2559491	4.721160
#1	.2262781	640.1354	22.81857	49.09344	.6386027	-.017652
#2	.2297710	647.5019	23.03081	49.90579	.6378442	-.019331
#3	.2300342	650.0996	23.20242	50.05949	.6409797	-.018950

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.027365	.1564128	5.828271	4.006914	4.286381	F -1.38618
Stddev	.030315	.0062955	.007730	.008702	.003580	.01184
%RSD	2.950748	4.024899	.1326349	.2171782	.0835180	.8543948
#1	1.044563	.1623423	5.831039	4.016318	4.284439	-1.39816
#2	1.045170	.1498062	5.834236	4.005276	4.290513	-1.37448
#3	.992362	.1570899	5.819538	3.999147	4.284193	-1.38592

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5266-18DLX2 Acquired: 12/30/2024 21:04:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME2903 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0451689	5.129105	6.596744	.0825551	1.119571	-.213817
Stddev	.0002293	.006092	.018785	.0014358	.016683	.002375
%RSD	.5076783	.1187664	.2847631	1.739237	1.490119	1.110908
#1	.0453730	5.133495	6.598706	.0826143	1.101430	-.211138
#2	.0449208	5.131670	6.577055	.0839604	1.123032	-.215665
#3	.0452128	5.122151	6.614471	.0810906	1.134253	-.214649

Elem	Li6707
Units	ppm
Avg	.0128837
Stddev	.0027529
%RSD	21.36715
#1	.0098556
#2	.0135604
#3	.0152352

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1647.636	20832.60	2340.940	1366.148	1867.286
Stddev	6.005	34.65	7.178	1.367	5.771
%RSD	.3644900	.1663111	.3066464	.1000298	.3090343
#1	1649.557	20820.93	2333.456	1364.590	1865.715
#2	1652.446	20871.58	2347.767	1366.712	1873.680
#3	1640.905	20805.30	2341.598	1367.142	1862.465

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-12DLX2 Acquired: 12/30/2024 21:08:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28X6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0410487	.0020017	.1032533	-.000247	.0063167	36.75294	.2973920
Stddev	.0028402	.0029388	.0010109	.007601	.0057849	.11721	.0023945
%RSD	6.918977	146.8141	.9790802	3082.408	91.58043	.3189212	.8051606
#1	.0411140	.0006816	.1044114	-.005499	.0094959	36.80036	.3000845
#2	.0381764	.0053692	.1025469	-.003709	.0098147	36.83902	.2965900
#3	.0438556	-.000045	.1028018	.008469	-.000361	36.61945	.2955014

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039659	.0021296	447.5727	.0796295	.0919373	.0912863	116.0985
Stddev	.0001371	.0000641	2.1404	.0006643	.0008293	.0024879	.2461
%RSD	3.457012	3.010461	.4782160	.8341909	.9020600	2.725384	.2119914
#1	.0038627	.0020721	449.1511	.0803461	.0910906	.0911008	116.1258
#2	.0041215	.0021178	448.4304	.0795083	.0927480	.0938618	116.3298
#3	.0039135	.0021987	445.1365	.0790343	.0919733	.0888964	115.8398

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.980082	67.79481	.1560311	-.004544	.5093130	.0992221	.4567266
Stddev	.013773	.24945	.0004078	.000441	.0039144	.0052871	.0044755
%RSD	.4621822	.3679461	.2613652	9.704281	.7685570	5.328576	.9799054
#1	2.983134	67.91532	.1560853	-.004792	.5113899	.1022834	.4608108
#2	2.992073	67.96112	.1564092	-.004035	.5047979	.1022660	.4574267
#3	2.965038	67.50799	.1555990	-.004805	.5117513	.0931171	.4519423

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.908013	2.496334	-.237939	.0246651	2.163766	4.091548	.0166429
Stddev	.071479	.004728	.002749	.0007738	.002247	.038645	.0022882
%RSD	1.209860	.1893933	1.155471	3.137341	.1038252	.9445156	13.74884
#1	5.957779	2.497739	-.236874	.0247730	2.163193	4.110517	.0142537
#2	5.826106	2.500201	-.241062	.0238429	2.166244	4.117043	.0188146
#3	5.940154	2.491063	-.235881	.0253792	2.161862	4.047083	.0168604

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-12DLX2 Acquired: 12/30/2024 21:08:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28X6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.6752053	.4375542	.0516295
Stddev	.0043504	.0029441	.0055016
%RSD	.6443042	.6728533	10.65598
#1	.6720122	.4395370	.0482453
#2	.6734434	.4389542	.0579776
#3	.6801603	.4341713	.0486656

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1711.977	21395.01	2427.246	1411.247	1794.023
Stddev	3.932	73.79	18.289	1.879	5.082
%RSD	.2296663	.3448725	.7534783	.1331645	.2832517
#1	1715.365	21422.17	2417.978	1410.540	1798.312
#2	1707.666	21451.36	2415.446	1409.823	1788.411
#3	1712.902	21311.49	2448.313	1413.377	1795.346

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-14DLX2 Acquired: 12/30/2024 21:12:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28X8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0257297	.0158750	.0522529	-.034082	-.005358	22.28767	.5343548
Stddev	.0033492	.0041541	.0014671	.001480	.002149	.04805	.0003219
%RSD	13.01701	26.16787	2.807637	4.341663	40.10078	.2155909	.0602387
#1	.0289516	.0110783	.0511774	-.035790	-.007734	22.33781	.5342577
#2	.0259712	.0183022	.0516571	-.033284	-.004791	22.24203	.5340926
#3	.0222662	.0182443	.0539241	-.033173	-.003550	22.28315	.5347140

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021861	.0020422	636.9479	.0521352	.0726791	.0817863	69.09924
Stddev	.0000367	.0001520	.4355	.0003949	.0006473	.0056178	.16975
%RSD	1.678184	7.441190	.0683745	.7575469	.8906631	6.868920	.2456547
#1	.0021837	.0019721	637.2931	.0520292	.0733778	.0847858	68.95541
#2	.0022239	.0019380	637.0919	.0525724	.0720997	.0753053	69.05584
#3	.0021507	.0022166	636.4586	.0518041	.0725599	.0852676	69.28647

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.702514	191.7388	.0998536	-.002194	.7244717	.0752231	.2116891
Stddev	.005504	.7007	.0005088	.000961	.0246390	.0032373	.0009575
%RSD	.3232676	.3654313	.5095343	43.79126	3.400967	4.303546	.4523176
#1	1.696164	191.2284	.0995103	-.002571	.7456907	.0762630	.2118205
#2	1.705490	191.4505	.0996124	-.002910	.6974488	.0715937	.2125741
#3	1.705890	192.5377	.1004382	-.001102	.7302756	.0778126	.2106727

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.809960	1.620362	-.124446	.0221179	21.08478	3.381853	.0162210
Stddev	.115897	.002162	.001991	.0006981	.04773	.013048	.0020587
%RSD	3.041939	.1334460	1.599746	3.156453	.2263615	.3858279	12.69138
#1	3.879419	1.617866	-.126600	.0213613	21.11776	3.396485	.0175803
#2	3.874295	1.621678	-.122673	.0227371	21.03005	3.377648	.0172303
#3	3.676167	1.621541	-.124065	.0222554	21.10653	3.371425	.0138525

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-14DLX2 Acquired: 12/30/2024 21:12:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28X8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5963156	3.878261	.0383796
Stddev	.0057778	.010296	.0014563
%RSD	.9689143	.2654866	3.794389
#1	.5899144	3.885715	.0399325
#2	.5978880	3.882555	.0381619
#3	.6011445	3.866512	.0370445

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1632.959	20587.88	2339.162	1349.385	1713.719
Stddev	2.458	32.00	10.974	2.906	3.331
%RSD	.1505288	.1554437	.4691257	.2153789	.1943960
#1	1635.225	20566.72	2327.947	1346.421	1716.153
#2	1633.306	20624.70	2339.662	1349.506	1715.081
#3	1630.346	20572.24	2349.878	1352.230	1709.922

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-20DLX2 Acquired: 12/30/2024 21:16:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0345750	.0051322	.0868962	-.001157	.0077393	35.98056	.3194953
Stddev	.0050978	.0018623	.0039299	.003895	.0018177	.07376	.0011171
%RSD	14.74413	36.28542	4.522509	336.5928	23.48622	.2050029	.3496347
#1	.0389139	.0041569	.0913836	.002614	.0063741	36.00578	.3190843
#2	.0289606	.0072796	.0840682	-.000920	.0070413	35.89749	.3186419
#3	.0358504	.0039603	.0852366	-.005165	.0098025	36.03840	.3207596

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036548	.0020840	442.6321	.1009184	.0857032	.0785578	103.7381
Stddev	.0001761	.0000807	1.2965	.0001421	.0008439	.0116285	.3594
%RSD	4.818970	3.874192	.2929126	.1408388	.9846860	14.80245	.3464227
#1	.0037222	.0021745	443.5389	.1007601	.0847627	.0670240	104.0600
#2	.0034550	.0020195	441.1470	.1009600	.0859527	.0902787	103.3504
#3	.0037874	.0020579	443.2103	.1010350	.0863943	.0783707	103.8041

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.248040	91.52643	.1418867	-.003996	.6070770	.0990389	.2669450
Stddev	.005727	.21113	.0002172	.000083	.0078287	.0051073	.0011519
%RSD	.2547351	.2306732	.1530495	2.081019	1.289578	5.156838	.4315200
#1	2.254264	91.56929	.1421010	-.003906	.5984443	.0939811	.2678880
#2	2.242995	91.29716	.1416668	-.004012	.6090701	.1041943	.2656611
#3	2.246862	91.71284	.1418923	-.004070	.6137164	.0989413	.2672859

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.044354	2.080542	-.204917	.0194831	13.95171	4.680108	.0153047
Stddev	.023267	.010955	.003675	.0001246	.02239	.064276	.0008478
%RSD	.3849417	.5265619	1.793358	.6395133	.1605080	1.373396	5.539317
#1	6.040846	2.080564	-.204244	.0193400	13.97164	4.695730	.0150753
#2	6.069177	2.069576	-.201625	.0195676	13.92748	4.609460	.0145953
#3	6.023041	2.091487	-.208882	.0195417	13.95600	4.735133	.0162436

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-20DLX2 Acquired: 12/30/2024 21:16:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5744581	.4362065	.0648738
Stddev	.0061910	.0008231	.0008392
%RSD	1.077705	.1886962	1.293611
#1	.5790810	.4357432	.0654327
#2	.5674244	.4357196	.0639088
#3	.5768689	.4371569	.0652800

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1680.234	21171.59	2374.523	1398.132	1776.844
Stddev	6.495	95.53	17.441	3.123	5.233
%RSD	.3865774	.4512224	.7344987	.2233984	.2945154
#1	1687.675	21214.78	2373.345	1400.285	1781.448
#2	1677.326	21062.09	2392.523	1394.549	1777.932
#3	1675.700	21237.89	2357.701	1399.561	1771.153

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCV050 Acquired: 12/30/2024 21:20:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV050 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.930407	4.755433	24.38187	4.853586	4.817536	405.7120
Stddev	.012680	.017704	.02221	.006347	.002665	1.1653
%RSD	.2571817	.3722803	.0910836	.1307683	.0553172	.2872272
#1	4.919618	4.763208	24.40683	4.858729	4.820540	407.0282
#2	4.944374	4.735172	24.36432	4.855537	4.815454	404.8119
#3	4.927230	4.767919	24.37446	4.846493	4.816616	405.2958

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.08952	.5057314	2.458517	410.8749	15.54501	2.454927
Stddev	.03107	.0017709	.002232	.9893	.07757	.001727
%RSD	.3079492	.3501734	.0907894	.2407879	.4990315	.0703662
#1	10.12533	.5062945	2.460883	412.0156	15.58106	2.456715
#2	10.07357	.5037473	2.456449	410.3569	15.59800	2.453267
#3	10.06967	.5071523	2.458219	410.2520	15.45597	2.454799

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.11072	410.3914	15.09348	406.5694	2.478886	1.270489
Stddev	.01697	1.2363	.05527	1.8722	.004997	.007213
%RSD	.1122846	.3012546	.3661736	.4604811	.2015657	.5677577
#1	15.13001	411.5252	15.14285	408.7105	2.483938	1.274938
#2	15.09813	409.0733	15.03377	405.2403	2.473946	1.274362
#3	15.10401	410.5757	15.10381	405.7575	2.478775	1.262166

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	411.6580	2.496128	14.88302	153.0550	4.840022	F 4.342615
Stddev	2.0127	.008435	.10032	.5002	.009217	.026418
%RSD	.4889211	.3379367	.6740562	.3268316	.1904419	.6083376
#1	413.8177	2.503812	14.94422	153.5571	4.847120	4.357642
#2	409.8348	2.497470	14.93759	152.5566	4.829604	4.312111
#3	411.3214	2.487102	14.76724	153.0512	4.843341	4.358091

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCV050 Acquired: 12/30/2024 21:20:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV050 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.741539	4.896273	4.989297	4.958816	5.035435	4.817609
Stddev	.002921	.005074	.024250	.008498	.014905	.001469
%RSD	.0616049	.1036201	.4860467	.1713659	.2959975	.0304991
#1	4.744570	4.898217	5.002633	4.967723	5.052528	4.816192
#2	4.738742	4.900087	4.961305	4.957930	5.025150	4.819125
#3	4.741304	4.890515	5.003952	4.950797	5.028627	4.817510

Elem	Li6707
Units	ppm
Avg	5.098836
Stddev	.016850
%RSD	.3304710
#1	5.118282
#2	5.088553
#3	5.089674

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1450.215	18782.35	2187.450	1181.685	1623.867
Stddev	1.667	111.06	8.985	7.505	3.376
%RSD	.1149380	.5913116	.4107414	.6351358	.2079259
#1	1448.479	18726.11	2179.399	1176.276	1622.102
#2	1451.803	18710.66	2197.142	1178.525	1627.760
#3	1450.363	18910.28	2185.808	1190.253	1621.740

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCB050 Acquired: 12/30/2024 21:23:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB050 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004040	-.001370	.0019890	.0058435	.0031484	-.005453	.0003322
Stddev	.003737	.001575	.0014023	.0008808	.0025574	.014416	.0002500
%RSD	92.48369	114.9977	70.50250	15.07339	81.22782	264.3788	75.25992
#1	-.008346	-.002566	.0011955	.0054665	.0002673	-.002279	.0000851
#2	-.001650	.000415	.0011634	.0068500	.0051497	-.021191	.0005850
#3	-.002124	-.001958	.0036082	.0052139	.0040283	.007111	.0003263

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002629	.0002408	.0315557	.0015187	.0002469	.0046798	.0331732
Stddev	.0001338	.0000635	.0167619	.0003598	.0003221	.0169227	.0209174
%RSD	50.90596	26.36111	53.11856	23.69057	130.4840	361.6109	63.05512
#1	.0001087	.0001908	.0124726	.0018508	.0000356	.0241286	.0149953
#2	.0003306	.0002195	.0382974	.0015687	.0006176	-.003405	.0284886
#3	.0003493	.0003122	.0438971	.0011365	.0000874	-.006684	.0560358

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014178	.1034333	-.000251	.0011397	.0496476	-.005387	.0026383
Stddev	.0013226	.1081158	.000504	.0017556	.0414117	.015561	.0003657
%RSD	93.29096	104.5271	200.6833	154.0462	83.41121	288.8813	13.86144
#1	.0028277	.1558833	-.000222	.0030770	.0755412	.012239	.0029454
#2	.0002045	.1753195	-.000769	-.000346	.0715156	-.011174	.0027357
#3	.0012211	-.020903	.000237	.000688	.0018860	-.017225	.0022338

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0735260	-.001480	.0110022	.0003556	.0002746	.0006148	-.000521
Stddev	.0634451	.001999	.0037062	.0002370	.0064710	.0003893	.000985
%RSD	86.28931	135.0790	33.68658	66.63705	2356.769	63.31914	188.9918
#1	.0321205	-.003623	.0110308	.0005939	.0038421	.0007603	-.001512
#2	.0418889	-.001149	.0146940	.0001200	-.007195	.0009105	-.000510
#3	.1465687	.000333	.0072817	.0003529	.004177	.0001737	.000458

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCB050 Acquired: 12/30/2024 21:23:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB050 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	-.001931	.0003255	.0078899
Stddev	.003138	.0004216	.0050451
%RSD	162.5736	129.5471	63.94317
#1	.000594	.0006628	.0102695
#2	-.005444	-.000147	.0020952
#3	-.000941	.000461	.0113051

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1651.730	20850.48	2251.576	1384.177	1947.192
Stddev	6.904	94.67	5.754	5.521	7.634
%RSD	.4179809	.4540331	.2555520	.3988694	.3920541
#1	1646.487	20742.01	2246.961	1378.163	1938.630
#2	1649.150	20893.01	2249.743	1385.350	1949.655
#3	1659.552	20916.43	2258.023	1389.016	1953.290

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-21DLX2 Acquired: 12/30/2024 21:27:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0472713	-.001421	.0846425	.0136016	.0067599	40.21872	.4002722
Stddev	.0019219	.003701	.0032681	.0027167	.0017306	.14471	.0026561
%RSD	4.065731	260.5287	3.861020	19.97337	25.60110	.3597986	.6635767
#1	.0494805	-.000156	.0839746	.0158917	.0060364	40.28333	.4030257
#2	.0459840	-.005588	.0881929	.0143132	.0087348	40.31985	.4000654
#3	.0463494	.001483	.0817600	.0105999	.0055084	40.05296	.3977255

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041700	.0021671	469.1640	.0797140	.0951847	.1035088	126.6536
Stddev	.0001817	.0001565	1.9314	.0001737	.0005556	.0053117	.6402
%RSD	4.358180	7.221764	.4116775	.2179137	.5837354	5.131653	.5054864
#1	.0040613	.0023234	469.8347	.0796332	.0952900	.1093803	127.0251
#2	.0040690	.0020104	470.6707	.0795954	.0956802	.0990372	127.0214
#3	.0043799	.0021675	466.9866	.0799134	.0945840	.1021089	125.9144

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.562981	87.31283	.1637734	-.006056	.7673971	.1038018	.2965723
Stddev	.012715	.74950	.0019455	.000653	.0224742	.0112209	.0030604
%RSD	.4961020	.8584098	1.187910	10.78162	2.928624	10.80994	1.031913
#1	2.565184	87.43352	.1627333	-.006594	.7728895	.0916688	.2978745
#2	2.574451	87.99467	.1660178	-.005330	.7866160	.1138056	.2930762
#3	2.549309	86.51031	.1625690	-.006245	.7426859	.1059309	.2987661

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.727975	2.360819	-.244155	.0428434	15.36509	4.339354	.0214743
Stddev	.096861	.006641	.003741	.0010481	.01330	.034299	.0011498
%RSD	1.439681	.2813109	1.532162	2.446382	.0865398	.7904180	5.354453
#1	6.628651	2.353567	-.244365	.0428693	15.35508	4.366907	.0202856
#2	6.822169	2.366605	-.247787	.0438784	15.36001	4.350216	.0225809
#3	6.733106	2.362284	-.240314	.0417826	15.38018	4.300939	.0215563

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5259-21DLX2 Acquired: 12/30/2024 21:27:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.7330896	.5536875	.0800161
Stddev	.0033373	.0012088	.0040159
%RSD	.4552367	.2183161	5.018880
#1	.7366577	.5531788	.0794734
#2	.7325661	.5550675	.0762991
#3	.7300449	.5528163	.0842757

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1696.449	21428.75	2405.428	1414.515	1772.072
Stddev	4.408	17.18	17.436	8.209	2.121
%RSD	.2598657	.0801559	.7248772	.5803419	.1196917
#1	1699.423	21420.00	2392.753	1407.429	1774.480
#2	1691.384	21417.71	2398.217	1423.510	1770.481
#3	1698.540	21448.54	2425.313	1412.605	1771.256

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-02DLX2 Acquired: 12/30/2024 21:31:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Q7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0620528	-.004552	.0797783	.0006889	.0070645	35.99263	.2725931
Stddev	.0063219	.001033	.0018143	.0102650	.0024089	.08928	.0014902
%RSD	10.18790	22.68752	2.274132	1490.057	34.09908	.2480564	.5466817
#1	.0589162	-.003660	.0806169	.0088032	.0042832	35.93683	.2731054
#2	.0693296	-.004314	.0776965	.0041142	.0084893	35.94546	.2737596
#3	.0579125	-.005683	.0810217	-.010851	.0084211	36.09560	.2709143

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038469	.0016051	528.5826	.0633168	.0834776	.0969392	117.2804
Stddev	.0002872	.0000917	1.3788	.0000917	.0001994	.0103807	.2157
%RSD	7.464891	5.714384	.2608413	.1448077	.2388350	10.70848	.1839027
#1	.0035694	.0014993	528.1853	.0633964	.0837072	.0872978	117.4484
#2	.0038283	.0016535	527.4461	.0632165	.0833779	.1079277	117.3556
#3	.0041429	.0016625	530.1164	.0633374	.0833478	.0955922	117.0372

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.619622	77.36733	.1371995	-.004442	.6425915	.0787613	.2543927
Stddev	.003650	.18067	.0003919	.000434	.0120451	.0065343	.0016320
%RSD	.2253869	.2335160	.2856096	9.780490	1.874450	8.296288	.6415240
#1	1.617174	77.57518	.1373958	-.003944	.6458127	.0860928	.2562264
#2	1.623818	77.27888	.1374544	-.004636	.6526984	.0735516	.2530997
#3	1.617874	77.24794	.1367483	-.004745	.6292633	.0766396	.2538519

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.634520	2.480943	-.237681	.0213714	.9443148	5.289131	.0183065
Stddev	.041980	.004026	.003861	.0008050	.0033315	.033953	.0002344
%RSD	.7450564	.1622902	1.624291	3.766803	.3527962	.6419318	1.280399
#1	5.613762	2.485335	-.241502	.0215189	.9407733	5.321602	.0183423
#2	5.606963	2.480070	-.233782	.0220925	.9447848	5.291921	.0180563
#3	5.682836	2.477425	-.237758	.0205029	.9473864	5.253869	.0185210

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-02DLX2 Acquired: 12/30/2024 21:31:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Q7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8099812	.6556978	.0546099
Stddev	.0044953	.0043532	.0033777
%RSD	.5549861	.6639095	6.185173
#1	.8113769	.6532449	.0531739
#2	.8049536	.6531244	.0521874
#3	.8136130	.6607240	.0584683

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1699.797	21469.23	2386.188	1413.632	1773.067
Stddev	2.184	141.19	12.114	9.484	2.095
%RSD	.1284712	.6576617	.5076679	.6708608	.1181445
#1	1702.053	21427.84	2373.874	1405.327	1775.467
#2	1699.643	21626.50	2386.598	1423.965	1771.609
#3	1697.694	21353.36	2398.091	1411.603	1772.124

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-03DLX2 Acquired: 12/30/2024 21:35:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Q8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0152049	.0256635	.0516055	-.029314	-.007544	23.66781	.6052085
Stddev	.0062026	.0023910	.0012159	.009241	.001679	.06333	.0019913
%RSD	40.79329	9.316790	2.356227	31.52301	22.26284	.2675737	.3290344
#1	.0179780	.0239659	.0530074	-.025240	-.008693	23.59549	.6029584
#2	.0195371	.0283979	.0509710	-.022811	-.005616	23.71337	.6059238
#3	.0080996	.0246267	.0508381	-.039892	-.008322	23.69456	.6067435

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023656	.0019266	798.9207	.0523173	.0701217	.0564589	58.65355
Stddev	.0000826	.0001810	1.0124	.0007460	.0006982	.0099661	.22730
%RSD	3.493343	9.397244	.1267191	1.425871	.9957454	17.65200	.3875353
#1	.0023264	.0021355	797.8874	.0519234	.0699016	.0478826	58.52527
#2	.0024605	.0018164	798.9639	.0518509	.0709035	.0541018	58.91599
#3	.0023098	.0018278	799.9108	.0531777	.0695601	.0673923	58.51939

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.334500	328.4756	.0944756	-.002377	.8358044	.0858686	.1810534
Stddev	.005285	.4297	.0006302	.001075	.0216423	.0068611	.0004912
%RSD	.3960360	.1308241	.6670883	45.22483	2.589398	7.990280	.2713139
#1	1.340387	327.9919	.0939734	-.001258	.8460904	.0795216	.1813937
#2	1.332948	328.6219	.0942705	-.003401	.8109374	.0931484	.1812763
#3	1.330164	328.8132	.0951828	-.002471	.8503855	.0849356	.1804903

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.305930	1.420145	-.098990	.0257616	12.27692	4.688773	.0144577
Stddev	.099077	.015993	.002988	.0001837	.01267	.041019	.0031299
%RSD	2.300932	1.126174	3.018010	.7130623	.1031624	.8748280	21.64908
#1	4.418821	1.415499	-.098354	.0259317	12.28064	4.716574	.0126363
#2	4.233423	1.406988	-.096371	.0257864	12.26281	4.641663	.0180718
#3	4.265548	1.437946	-.102244	.0255668	12.28730	4.708081	.0126649

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-03DLX2 Acquired: 12/30/2024 21:35:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Q8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.6108719	7.050066	.0455273
Stddev	.0013332	.015134	.0010009
%RSD	.2182416	.2146652	2.198374
#1	.6115448	7.034001	.0444130
#2	.6117345	7.064055	.0463499
#3	.6093364	7.052143	.0458190

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1595.266	20166.36	2301.545	1319.423	1659.848
Stddev	6.329	59.95	10.373	3.552	6.286
%RSD	.3967265	.2972968	.4506925	.2692431	.3787067
#1	1594.484	20205.19	2298.680	1317.358	1661.440
#2	1601.950	20097.31	2313.049	1317.387	1665.185
#3	1589.365	20196.58	2292.906	1323.525	1652.919

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-08DLX2 Acquired: 12/30/2024 21:39:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0436121	-.018080	.2487736	.0388478	.0202248	44.17257	.4651570
Stddev	.0009179	.002506	.0004843	.0038496	.0027029	.03297	.0010411
%RSD	2.104765	13.86020	.1946691	9.909481	13.36410	.0746465	.2238246
#1	.0446679	-.018746	.2482194	.0401509	.0176520	44.21060	.4644300
#2	.0430030	-.020186	.2491149	.0345158	.0199810	44.15522	.4663497
#3	.0431654	-.015309	.2489867	.0418767	.0230412	44.15190	.4646912

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051728	.0035153	444.3647	.6193211	.0832892	.0946451	181.2196
Stddev	.0001534	.0001761	.3899	.0019825	.0006061	.0101688	.5515
%RSD	2.966155	5.009200	.0877422	.3201033	.7277596	10.74408	.3043263
#1	.0053019	.0033248	444.8134	.6197019	.0828037	.0947800	181.7550
#2	.0050031	.0036722	444.1729	.6210856	.0830952	.0844096	181.2505
#3	.0052133	.0035488	444.1079	.6171759	.0839686	.1047458	180.6533

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.62425	135.2717	.2621750	-.005116	.8142329	.2157034	.7485596
Stddev	.00702	.4700	.0013548	.000375	.0181501	.0038198	.0030849
%RSD	.0603882	.3474609	.5167427	7.329022	2.229104	1.770873	.4121163
#1	11.63222	135.8048	.2623907	-.005075	.8073543	.2200351	.7521199
#2	11.62158	134.9171	.2634090	-.004764	.8005276	.2142577	.7466804
#3	11.61897	135.0931	.2607253	-.005510	.8348169	.2128175	.7468784

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.725057	2.769844	-.355375	.0197220	4.149095	6.053384	.0325622
Stddev	.010478	.010644	.005571	.0003704	.001892	.050958	.0014179
%RSD	.1558068	.3842848	1.567684	1.877926	.0455889	.8418049	4.354529
#1	6.729988	2.778662	-.359787	.0195144	4.151154	6.094530	.0341238
#2	6.732161	2.758021	-.349115	.0195020	4.148696	5.996384	.0313553
#3	6.713024	2.772849	-.357222	.0201496	4.147435	6.069239	.0322076

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-08DLX2 Acquired: 12/30/2024 21:39:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.167871	.7497202	.0600868
Stddev	.011792	.0022764	.0038436
%RSD	1.009710	.3036305	6.396788
#1	1.155620	.7474179	.0587211
#2	1.168848	.7497731	.0571126
#3	1.179143	.7519697	.0644268

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1675.154	21214.72	2397.722	1395.228	1766.680
Stddev	4.487	76.88	16.762	8.426	7.511
%RSD	.2678391	.3624119	.6990760	.6039413	.4251341
#1	1680.056	21177.37	2382.237	1385.963	1774.901
#2	1674.157	21163.64	2415.520	1397.288	1764.960
#3	1671.250	21303.14	2395.408	1402.433	1760.178

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-10DLX2 Acquired: 12/30/2024 21:43:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0655687	-.103169	.4832778	.2046957	.0857918	34.69360
Stddev	.0016019	.003566	.0034799	.0059507	.0036187	.03331
%RSD	2.443093	3.456936	.7200712	2.907115	4.217947	.0960100
#1	.0639209	-.107228	.4868896	.2110749	.0883663	34.71633
#2	.0656647	-.100536	.4829970	.1992946	.0873548	34.65537
#3	.0671204	-.101742	.4799468	.2037177	.0816543	34.70911

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5667293	.0083298	.0066299	638.1728	.8336270	.0838528
Stddev	.0017236	.0000897	.0001014	1.2776	.0027488	.0006587
%RSD	.3041381	1.076980	1.530046	.2002014	.3297381	.7855615
#1	.5687019	.0084100	.0067275	639.6091	.8367271	.0842896
#2	.5655134	.0083466	.0065250	637.1629	.8314873	.0830952
#3	.5659726	.0082329	.0066372	637.7464	.8326666	.0841737

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1204210	484.1999	19.04694	245.0276	.2690713	-.013950
Stddev	.0145137	.9846	.05544	.6363	.0006859	.001595
%RSD	12.05244	.2033470	.2910910	.2597031	.2549251	11.43625
#1	.1113763	485.1892	19.08574	245.4564	.2686850	-.015444
#2	.1371618	483.2201	18.98344	244.2965	.2686656	-.012269
#3	.1127248	484.1903	19.07164	245.3300	.2698633	-.014138

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.031115	.3282792	1.781497	3.098682	2.920257	F -1.11386
Stddev	.008327	.0051153	.003343	.131242	.005439	.00345
%RSD	.8075713	1.558217	.1876273	4.235401	.1862435	.3098428
#1	1.021994	.3274353	1.785348	2.975409	2.926182	-1.11113
#2	1.038309	.3337639	1.779802	3.083983	2.915491	-1.11773
#3	1.033043	.3236383	1.779342	3.236654	2.919097	-1.11271

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-10DLX2 Acquired: 12/30/2024 21:43:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0143375	5.781396	3.760924	.0510969	1.177303	1.553200
Stddev	.0002772	.015498	.018419	.0007092	.009074	.004531
%RSD	1.933455	.2680665	.4897515	1.387923	.7707020	.2917244
#1	.0141682	5.792871	3.781246	.0502847	1.186367	1.558369
#2	.0141870	5.787550	3.745329	.0514120	1.168220	1.549914
#3	.0146575	5.763766	3.756196	.0515938	1.177323	1.551318

Elem	Li6707
Units	ppm
Avg	.0354645
Stddev	.0034974
%RSD	9.861785
#1	.0315827
#2	.0383701
#3	.0364406

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1610.925	20516.68	2311.629	1343.515	1739.902
Stddev	6.574	54.40	13.853	1.179	5.959
%RSD	.4080749	.2651723	.5992740	.0877286	.3424711
#1	1616.428	20456.31	2295.981	1343.146	1746.669
#2	1612.701	20561.90	2322.326	1344.834	1737.596
#3	1603.645	20531.84	2316.580	1342.566	1735.442

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-11DLX2 Acquired: 12/30/2024 21:47:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0298745	.0055538	.1342092	-.004738	.0036748	36.41970	.2768377
Stddev	.0036547	.0053823	.0021739	.009655	.0000663	.23575	.0036001
%RSD	12.23352	96.91181	1.619780	203.7708	1.804584	.6473266	1.300434
#1	.0340011	.0020816	.1352301	.005837	.0037189	36.38060	.2765754
#2	.0285762	.0028259	.1317127	-.013083	.0037070	36.67256	.2805617
#3	.0270461	.0117539	.1356847	-.006968	.0035985	36.20594	.2733759

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038329	.0037703	455.6713	.1548305	.0790255	.0871220	105.0463
Stddev	.0000456	.0001758	2.7886	.0004926	.0000824	.0041519	.8745
%RSD	1.188412	4.662573	.6119866	.3181575	.1043253	4.765643	.8324733
#1	.0038508	.0037956	455.4129	.1548492	.0789304	.0918168	104.8201
#2	.0038667	.0039320	458.5802	.1543287	.0790768	.0856156	106.0117
#3	.0037811	.0035832	453.0209	.1553134	.0790692	.0839335	104.3072

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.803675	160.9573	.1313899	-.003167	.6479362	.1104206	.3946864
Stddev	.028370	1.3764	.0005198	.000668	.0209918	.0108570	.0033896
%RSD	.7458487	.8551483	.3956300	21.09884	3.239794	9.832429	.8588123
#1	3.791911	160.6046	.1319693	-.002484	.6710391	.1221085	.3973552
#2	3.836034	162.4757	.1312360	-.003820	.6427365	.1085032	.3958316
#3	3.783079	159.7915	.1309645	-.003199	.6300329	.1006499	.3908726

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.333094	2.253455	-.218318	.0135274	9.090645	5.668397	.0118866
Stddev	.091496	.018776	.002582	.0004724	.051884	.032812	.0012703
%RSD	2.111554	.8332011	1.182611	3.492288	.5707380	.5788636	10.68716
#1	4.262696	2.254782	-.218088	.0131646	9.133522	5.695421	.0125143
#2	4.436517	2.271533	-.215859	.0140616	9.105444	5.677884	.0127208
#3	4.300069	2.234052	-.221007	.0133560	9.032970	5.631887	.0104246

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-11DLX2 Acquired: 12/30/2024 21:47:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.3802295	.6534186	.0525068
Stddev	.0035621	.0038711	.0023627
%RSD	.9368346	.5924442	4.499760
#1	.3839848	.6503183	.0500911
#2	.3798050	.6577575	.0526167
#3	.3768986	.6521801	.0548127

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1664.131	21106.66	2336.836	1386.828	1758.951
Stddev	8.185	121.08	22.671	11.165	7.990
%RSD	.4918657	.5736694	.9701694	.8050443	.4542533
#1	1658.649	21100.81	2331.109	1386.420	1754.589
#2	1660.205	20988.61	2317.577	1375.873	1754.090
#3	1673.540	21230.56	2361.821	1398.191	1768.172

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-12DLX2 Acquired: 12/30/2024 21:50:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0359000	-.006188	.1704069	.0353143	.0157568	35.89278	.3943828
Stddev	.0032786	.002379	.0014222	.0072221	.0029279	.03800	.0016666
%RSD	9.132663	38.44543	.8345958	20.45098	18.58158	.1058670	.4225922
#1	.0393691	-.008439	.1706041	.0330891	.0191340	35.93653	.3928787
#2	.0354783	-.003699	.1717201	.0294667	.0139326	35.86798	.3961745
#3	.0328527	-.006426	.1688963	.0433872	.0142038	35.87384	.3940953

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033945	.0023001	482.9991	.7824974	.0772708	.0997968	162.4807
Stddev	.0000308	.0001549	.7230	.0023379	.0005975	.0080647	.3571
%RSD	.9066548	6.735703	.1496883	.2987784	.7732474	8.081079	.2197921
#1	.0034258	.0021683	483.4784	.7813218	.0767933	.0938051	162.5253
#2	.0033643	.0022614	483.3515	.7851898	.0770783	.0966190	162.8134
#3	.0033934	.0024708	482.1675	.7809806	.0779408	.1089662	162.1033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.04905	177.9685	.2445837	-.004754	.6190464	.2679697	.4537720
Stddev	.03543	.2095	.0010291	.000590	.0259995	.0094868	.0024845
%RSD	.1962987	.1176935	.4207485	12.41262	4.199924	3.540266	.5475259
#1	18.07737	178.0329	.2448188	-.005242	.5945507	.2788557	.4559455
#2	18.06044	178.1381	.2434575	-.004921	.6463257	.2614678	.4543068
#3	18.00932	177.7344	.2454750	-.004098	.6162629	.2635855	.4510636

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.312877	2.660731	-.333755	.0157389	5.002442	6.198059	.0195721
Stddev	.109105	.009357	.000404	.0005271	.018361	.018130	.0024084
%RSD	3.293372	.3516659	.1209450	3.349248	.3670357	.2925115	12.30551
#1	3.279865	2.654129	-.333733	.0153009	4.987870	6.211300	.0201636
#2	3.434676	2.671439	-.334170	.0163239	4.996392	6.205482	.0216297
#3	3.224090	2.656624	-.333363	.0155920	5.023064	6.177396	.0169230

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-12DLX2 Acquired: 12/30/2024 21:50:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.9866734	.6512038	.0440762
Stddev	.0055309	.0008807	.0026529
%RSD	.5605622	.1352452	6.018976
#1	.9912820	.6519622	.0410742
#2	.9805400	.6514114	.0450491
#3	.9881981	.6502379	.0461054

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1640.869	20918.37	2337.432	1370.011	1746.729
Stddev	4.655	83.42	6.244	4.660	4.579
%RSD	.2836790	.3987947	.2671300	.3401483	.2621380
#1	1643.251	20968.62	2338.740	1370.990	1749.558
#2	1643.851	20822.07	2330.638	1364.939	1749.183
#3	1635.505	20964.42	2342.919	1374.104	1741.447

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-13DLX2 Acquired: 12/30/2024 21:54:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0809531	-.082649	2.031196	.2035347	.0852783	54.95340
Stddev	.0031166	.005230	.004702	.0096230	.0042701	.41484
%RSD	3.849867	6.327512	.2315073	4.727921	5.007206	.7548869
#1	.0845408	-.079964	2.027373	.1970053	.0810867	54.64927
#2	.0789159	-.088675	2.029768	.1990131	.0896227	54.78497
#3	.0794025	-.079307	2.036447	.2145857	.0851254	55.42596

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7389446	.0088850	.0140609	441.4162	1.505693	.0945890
Stddev	.0040573	.0001115	.0001231	2.0682	.001524	.0012731
%RSD	.5490608	1.255211	.8752537	.4685417	.1012452	1.345916
#1	.7383303	.0087611	.0140693	440.3282	1.505999	.0945256
#2	.7352296	.0089774	.0139339	440.1191	1.504038	.0933488
#3	.7432740	.0089165	.0141796	443.8013	1.507041	.0958926

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3034629	452.2030	F 31.65503	87.40918	.5606803	-.013054
Stddev	.0063102	3.1804	.18670	.53532	.0011045	.001480
%RSD	2.079394	.7033111	.5897925	.6124294	.1969946	11.34107
#1	.2961817	449.4634	31.53674	87.48640	.5604347	-.014620
#2	.3073414	451.4548	31.55809	86.83944	.5618870	-.012863
#3	.3068655	455.6908	31.87025	87.90169	.5597193	-.011678

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.343388	.4889409	4.217494	6.731705	4.946280	-.926882
Stddev	.013211	.0181783	.005370	.119754	.008968	.022281
%RSD	.9834028	3.717894	.1273244	1.778948	.1813098	2.403826
#1	1.331925	.4877981	4.223486	6.770866	4.956616	-.950078
#2	1.340404	.4713610	4.213118	6.597274	4.940570	-.905646
#3	1.357836	.5076637	4.215879	6.826975	4.941653	-.924924

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-13DLX2 Acquired: 12/30/2024 21:54:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0315703	5.990794	6.920368	.0524611	1.997491	.6173681
Stddev	.0009074	.026179	.083814	.0004456	.013478	.0012652
%RSD	2.874368	.4369843	1.211122	.8493453	.6747699	.2049337
#1	.0325051	6.014308	6.998646	.0519507	1.989120	.6187611
#2	.0306930	5.962586	6.831942	.0527728	1.990314	.6162904
#3	.0315129	5.995490	6.930515	.0526597	2.013039	.6170528

Elem	Li6707
Units	ppm
Avg	.0656923
Stddev	.0018724
%RSD	2.850325
#1	.0637139
#2	.0659261
#3	.0674368

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1671.922	21264.29	2381.973	1394.644	1806.580
Stddev	5.905	63.23	25.898	5.500	5.286
%RSD	.3532022	.2973454	1.087258	.3943990	.2926161
#1	1671.731	21194.25	2354.591	1389.005	1807.827
#2	1677.920	21317.16	2406.075	1399.995	1811.131
#3	1666.114	21281.47	2385.251	1394.932	1800.781

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-14DLX2 Acquired: 12/30/2024 21:58:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0989572	-.151520	2.083272	.3447981	.1457724	41.27661
Stddev	.0013153	.008851	.004644	.0183992	.0083482	1.39151
%RSD	1.329206	5.841683	.2229134	5.336226	5.726849	3.371177
#1	.0996554	-.152781	2.084761	.3638433	.1462542	41.96431
#2	.0974400	-.142105	2.078066	.3271213	.1371938	39.67515
#3	.0997762	-.159673	2.086988	.3434298	.1538693	42.19038

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6211474	.0111185	.0166347	408.0440	2.179901	.0778564
Stddev	.0230896	.0004327	.0004649	13.5430	.008681	.0010259
%RSD	3.717246	3.891878	2.794862	3.319004	.3982366	1.317691
#1	.6334021	.0111818	.0163096	414.6860	2.177794	.0787231
#2	.5945141	.0106576	.0171673	392.4622	2.189442	.0781225
#3	.6355260	.0115161	.0164273	416.9836	2.172468	.0767237

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1720125	704.6971	F 46.67829	73.52433	.5143280	-.025220
Stddev	.0056276	23.6323	1.56157	2.43938	.0006919	.002511
%RSD	3.271606	3.353544	3.345388	3.317790	.1345229	9.958395
#1	.1673068	716.4446	47.42436	74.63154	.5149510	-.023938
#2	.1704843	677.4930	44.88363	70.72771	.5144495	-.028113
#3	.1782463	720.1536	47.72689	75.21376	.5135834	-.023608

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.483725	.5846944	6.686058	4.125433	4.805451	F -1.55689
Stddev	.060162	.0164831	.015625	.357613	.016156	.04345
%RSD	4.054817	2.819102	.2336932	8.668495	.3362074	2.790566
#1	1.527128	.5852182	6.680695	4.093017	4.790522	-1.58103
#2	1.415049	.5679556	6.703658	3.785131	4.822604	-1.50673
#3	1.508998	.6009094	6.673821	4.498150	4.803227	-1.58291

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-14DLX2 Acquired: 12/30/2024 21:58:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0318705	4.395835	6.650357	.1043076	3.046175	.2379554
Stddev	.0001500	.012505	.216950	.0017369	.102032	.0085759
%RSD	.4706342	.2844799	3.262234	1.665147	3.349515	3.603986
#1	.0320437	4.384817	6.746970	.1032026	3.088250	.2414057
#2	.0317818	4.393260	6.401883	.1034106	2.929833	.2281917
#3	.0317861	4.409427	6.802218	.1063096	3.120441	.2442687

Elem	Li6707
Units	ppm
Avg	.0285478
Stddev	.0024739
%RSD	8.665985
#1	.0292964
#2	.0257861
#3	.0305610

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1609.552	20407.64	2346.748	1333.894	1812.440
Stddev	4.548	113.14	69.268	8.653	4.571
%RSD	.2825361	.5544162	2.951677	.6487034	.2521874
#1	1607.109	20383.81	2307.020	1331.536	1808.137
#2	1606.748	20308.30	2426.732	1326.664	1811.945
#3	1614.799	20530.79	2306.494	1343.482	1817.238

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-15DLX2 Acquired: 12/30/2024 22:02:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0801370	-.099575	1.603064	.2095568	.0958661	54.18059
Stddev	.0024845	.006529	.002218	.0066471	.0056738	2.30199
%RSD	3.100301	6.556661	.1383385	3.171964	5.918500	4.248742
#1	.0787232	-.093030	1.604893	.2030497	.0896733	51.90536
#2	.0830058	-.099609	1.603702	.2092851	.1008144	54.12797
#3	.0786821	-.106088	1.600598	.2163355	.0971105	56.50844

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5141317	.0095931	.0119745	352.1083	1.965954	.0803627
Stddev	.0224418	.0000291	.0005512	15.4188	.008605	.0004715
%RSD	4.364986	.3027971	4.603531	4.378987	.4377222	.5866621
#1	.4923915	.0095619	.0126077	336.4600	1.974156	.0798557
#2	.5127889	.0096194	.0117143	352.5780	1.956996	.0804444
#3	.5372147	.0095980	.0116016	367.2869	1.966711	.0807879

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1768318	479.6143	28.39859	63.98487	.4506056	-.016000
Stddev	.0048138	19.9297	1.22858	2.56575	.0010449	.001633
%RSD	2.722252	4.155366	4.326194	4.009936	.2318809	10.20561
#1	.1721417	460.0272	27.19320	61.37336	.4496280	-.017885
#2	.1765934	478.9457	28.35346	64.07897	.4517067	-.015057
#3	.1817604	499.8699	29.64911	66.50227	.4504819	-.015057

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.543069	.4078499	4.776826	7.009490	3.633148	F -1.02071
Stddev	.049743	.0189953	.011219	.540103	.008780	.03805
%RSD	3.223668	4.657428	.2348727	7.705319	.2416736	3.728095
#1	1.488460	.3868974	4.788651	6.518217	3.642955	-.98147
#2	1.554952	.4127077	4.766331	6.922409	3.626017	-1.02321
#3	1.585794	.4239446	4.775497	7.587842	3.630473	-1.05745

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-15DLX2 Acquired: 12/30/2024 22:02:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0332107	3.654614	5.771964	.0751159	2.243606	.4070586
Stddev	.0006769	.007177	.210810	.0031025	.096890	.0202247
%RSD	2.038195	.1963695	3.652306	4.130228	4.318476	4.968509
#1	.0327977	3.650876	5.563411	.0754851	2.149027	.3850983
#2	.0328425	3.662888	5.767521	.0718453	2.239140	.4111577
#3	.0339919	3.650078	5.984960	.0780172	2.342652	.4249198

Elem	Li6707
Units	ppm
Avg	.0555015
Stddev	.0039650
%RSD	7.143906
#1	.0521489
#2	.0544776
#3	.0598780

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1645.795	20827.53	2419.693	1362.461	1812.400
Stddev	2.677	71.44	85.629	1.653	4.601
%RSD	.1626630	.3429894	3.538828	.1213058	.2538389
#1	1642.707	20797.19	2509.065	1364.212	1807.424
#2	1647.218	20909.13	2411.636	1362.243	1813.277
#3	1647.461	20776.27	2338.377	1360.928	1816.498

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-16DLX2 Acquired: 12/30/2024 22:06:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0746995	-.080025	1.935774	.1894079	.0788561	67.49574	.6709631
Stddev	.0044319	.006231	.008160	.0098367	.0058930	.50452	.0048464
%RSD	5.932992	7.786646	.4215206	5.193371	7.473063	.7474829	.7223006
#1	.0794210	-.082599	1.936148	.1856837	.0720753	67.30788	.6722380
#2	.0706292	-.072919	1.927434	.1819771	.0817545	67.11211	.6656067
#3	.0740481	-.084557	1.943741	.2005628	.0827386	68.06724	.6750446

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0136216	.0114788	436.5258	1.478713	.0812625	.1828757	425.0692
Stddev	.0003201	.0002047	4.1576	.006333	.0002025	.0104183	3.7157
%RSD	2.349794	1.783379	.9524384	.4282775	.2492096	5.696910	.8741347
#1	.0139848	.0116108	436.0992	1.479425	.0814836	.1708998	424.8221
#2	.0133809	.0115825	432.5980	1.472054	.0810860	.1898500	421.4833
#3	.0134989	.0112430	440.8804	1.484660	.0812179	.1878774	428.9023

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.70454	106.8619	.5582515	-.011926	1.587650	.2878696	4.039165
Stddev	.18947	.8244	.0002757	.000629	.031475	.0067241	.039679
%RSD	.8729313	.7714336	.0493920	5.276151	1.982464	2.335830	.9823608
#1	21.69457	106.9869	.5585084	-.012054	1.622481	.2830425	4.081775
#2	21.52026	105.9821	.5582860	-.012481	1.561249	.2850165	4.003274
#3	21.89880	107.6165	.5579602	-.011242	1.579219	.2955499	4.032446

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.419586	3.168529	-.806927	.0448185	5.022106	6.557522	.0691507
Stddev	.117263	.004791	.004641	.0010207	.013149	.062082	.0019901
%RSD	1.826642	.1512006	.5751518	2.277474	.2618164	.9467333	2.877964
#1	6.335260	3.163631	-.811908	.0436399	5.032705	6.598127	.0711096
#2	6.553496	3.173205	-.802724	.0454156	5.007392	6.486057	.0692119
#3	6.370003	3.168752	-.806149	.0454001	5.026220	6.588382	.0671307

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-16DLX2 Acquired: 12/30/2024 22:06:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.579061	.5568599	.0673977
Stddev	.019972	.0063046	.0064160
%RSD	1.264827	1.132167	9.519658
#1	1.580248	.5550162	.0601081
#2	1.558521	.5516827	.0698975
#3	1.598413	.5638808	.0721877

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1720.003	21763.29	2455.877	1425.373	1793.207
Stddev	4.664	30.64	18.488	10.306	4.615
%RSD	.2711503	.1407721	.7528002	.7230574	.2573707
#1	1716.794	21754.17	2442.709	1413.939	1789.387
#2	1725.353	21797.46	2477.013	1433.948	1798.335
#3	1717.862	21738.26	2447.908	1428.232	1791.899

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-17DLX2 Acquired: 12/30/2024 22:09:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0691773	-.074282	1.849179	.1780454	.0755592	64.74697	.6429524
Stddev	.0036140	.004032	.008324	.0055563	.0034827	.15768	.0031946
%RSD	5.224282	5.427813	.4501473	3.120715	4.609218	.2435401	.4968605
#1	.0732973	-.070780	1.849403	.1731107	.0740210	64.67970	.6425664
#2	.0665428	-.073375	1.840746	.1840637	.0731105	64.63407	.6399684
#3	.0676917	-.078690	1.857390	.1769619	.0795462	64.92713	.6463225

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0129308	.0110097	416.7298	1.415950	.0785036	.1751125	406.6037
Stddev	.0000306	.0002434	1.0992	.000508	.0008385	.0030579	.9172
%RSD	.2366873	2.210886	.2637655	.0358935	1.068168	1.746220	.2255805
#1	.0129488	.0107820	416.6080	1.416104	.0787127	.1775510	406.0783
#2	.0128955	.0109810	415.6966	1.415382	.0775804	.1716817	406.0701
#3	.0129483	.0112662	417.8848	1.416363	.0792179	.1761047	407.6628

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.75424	102.5534	.5336907	-.013078	1.531801	.2717231	3.849011
Stddev	.03902	.0990	.0006804	.000662	.015975	.0147005	.009778
%RSD	.1880094	.0965464	.1274914	5.063232	1.042888	5.410087	.2540301
#1	20.71515	102.4835	.5343598	-.013842	1.549800	.2645106	3.859446
#2	20.75438	102.5101	.5329995	-.012694	1.526300	.2886368	3.847525
#3	20.79319	102.6667	.5337127	-.012697	1.519304	.2620219	3.840061

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.119095	3.021365	-.756311	.0430125	4.791702	6.336279	.0669855
Stddev	.097577	.005070	.016263	.0005786	.005771	.067869	.0020441
%RSD	1.594624	.1678160	2.150368	1.345161	.1204326	1.071123	3.051519
#1	6.131847	3.015684	-.773382	.0436788	4.791492	6.411058	.0687517
#2	6.209669	3.022977	-.754554	.0427216	4.797575	6.278583	.0674582
#3	6.015770	3.025433	-.740998	.0426371	4.786040	6.319196	.0647464

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-17DLX2 Acquired: 12/30/2024 22:09:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.512349	.5271318	.0611702
Stddev	.012290	.0028688	.0034037
%RSD	.8126625	.5442280	5.564289
#1	1.503457	.5259525	.0591617
#2	1.507216	.5250407	.0592488
#3	1.526373	.5304024	.0651001

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1759.234	22238.06	2526.269	1459.718	1839.899
Stddev	1.214	46.49	18.688	.813	4.111
%RSD	.0689971	.2090346	.7397357	.0556749	.2234399
#1	1759.814	22290.19	2506.128	1458.908	1844.517
#2	1757.839	22223.04	2543.046	1459.712	1836.638
#3	1760.050	22200.93	2529.633	1460.533	1838.540

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-16LDLX10 Acquired: 12/30/2024 22:13:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063505	-.001416	.4055015	.0086659	.0088358	14.87211	.1482259
Stddev	.0050919	.004340	.0016988	.0052616	.0013874	.05134	.0015253
%RSD	80.18108	306.5469	.4189249	60.71637	15.70206	.3451818	1.029036
#1	.0108501	.001009	.4035411	.0129005	.0077195	14.82816	.1467043
#2	.0073784	-.006427	.4065408	.0103217	.0103891	14.85963	.1482184
#3	.0008231	.001170	.4064225	.0027756	.0083988	14.92853	.1497549

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032009	.0022573	95.69223	.3295771	.0348715	.0448146	94.12142
Stddev	.0000947	.0000807	.32734	.0014445	.0003165	.0093729	.50505
%RSD	2.960180	3.574531	.3420707	.4382761	.9075355	20.91485	.5365992
#1	.0033010	.0023403	95.55935	.3284875	.0352122	.0408719	93.54063
#2	.0031126	.0022524	95.45224	.3290282	.0348155	.0380571	94.45761
#3	.0031892	.0021791	96.06512	.3312155	.0345867	.0555148	94.36601

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.811781	23.61650	.1130093	-.001861	.3168605	.0709366	.8802200
Stddev	.015202	.19783	.0007317	.000761	.0071779	.0050663	.0047356
%RSD	.3159355	.8376826	.6474917	40.91669	2.265303	7.141976	.5380023
#1	4.794344	23.40371	.1136508	-.002736	.3170012	.0678117	.8850102
#2	4.818747	23.65091	.1131646	-.001495	.3239670	.0767820	.8755410
#3	4.822252	23.79486	.1122123	-.001351	.3096134	.0682161	.8801088

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.196017	.6275737	-.183450	.0110185	1.004855	1.886039	.0147048
Stddev	.090951	.0013933	.005072	.0001040	.011439	.034234	.0012580
%RSD	7.604517	.2220174	2.765005	.9439813	1.138333	1.815102	8.555018
#1	1.243067	.6291551	-.177881	.0109201	1.012169	1.908817	.0135450
#2	1.091179	.6265264	-.187807	.0110080	.991673	1.846671	.0160421
#3	1.253806	.6270396	-.184661	.0111273	1.010723	1.902629	.0145273

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-16LDLX10 Acquired: 12/30/2024 22:13:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.3605445	.1182684	.0006471
Stddev	.0026214	.0011608	.0056823
%RSD	.7270533	.9814960	878.1404
#1	.3589726	.1193886	-.005530
#2	.3635706	.1170709	.001820
#3	.3590902	.1183457	.005651

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1682.148	21151.66	2329.112	1402.638	1909.937
Stddev	.835	53.08	7.060	2.015	.453
%RSD	.0496655	.2509602	.3031271	.1436505	.0237342
#1	1682.259	21187.03	2325.706	1401.903	1910.364
#2	1682.922	21090.62	2337.230	1404.917	1909.987
#3	1681.263	21177.34	2324.402	1401.094	1909.461

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-18DLX2 Acquired: 12/30/2024 22:17:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1149824	-.032801	1.918163	.2640540	.1671053	68.16601	2.556126
Stddev	.0030393	.003694	.006597	.0142767	.0004853	.15269	.005121
%RSD	2.643261	11.26099	.3439123	5.406730	.2903935	.2239950	.2003495
#1	.1152157	-.034953	1.925476	.2492051	.1673325	68.23568	2.557786
#2	.1178982	-.034915	1.912661	.2652771	.1674352	67.99091	2.550380
#3	.1118331	-.028536	1.916353	.2776797	.1665481	68.27144	2.560211

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0610758	.0610425	427.9620	1.648656	.5736895	.4021199	418.5131
Stddev	.0007270	.0001692	1.3407	.004715	.0009254	.0046638	.4019
%RSD	1.190314	.2772085	.3132761	.2860184	.1613125	1.159803	.0960357
#1	.0615498	.0610813	426.9513	1.653554	.5740845	.3991366	418.7561
#2	.0602388	.0608573	427.4518	1.648269	.5726321	.4074943	418.0492
#3	.0614388	.0611889	429.4829	1.644147	.5743519	.3997287	418.7340

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.82415	104.9287	1.053552	.0250554	1.579294	.7759416	4.395766
Stddev	.00744	.2181	.000399	.0011704	.018908	.0074017	.011121
%RSD	.0341115	.2078200	.0378379	4.671069	1.197256	.9538993	.2529960
#1	21.83000	105.1297	1.053696	.0257395	1.585380	.7843493	4.408437
#2	21.81577	104.9596	1.053102	.0237040	1.558093	.7704082	4.387626
#3	21.82668	104.6969	1.053860	.0257227	1.594411	.7730673	4.391235

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.243177	3.095040	-.789260	.0437371	4.938149	6.386249	.0673428
Stddev	.068434	.002880	.007057	.0007240	.005305	.067379	.0011539
%RSD	1.096133	.0930623	.8940985	1.655371	.1074291	1.055071	1.713452
#1	6.166467	3.098290	-.796235	.0432393	4.938714	6.427427	.0685116
#2	6.297957	3.094028	-.782124	.0445676	4.932584	6.308491	.0662045
#3	6.265109	3.092802	-.789422	.0434043	4.943149	6.422829	.0673122

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-18DLX2 Acquired: 12/30/2024 22:17:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W2S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.550473	.5388811	.0596091
Stddev	.008114	.0056888	.0021353
%RSD	.5233248	1.055676	3.582192
#1	1.546688	.5334355	.0572015
#2	1.544943	.5384224	.0603523
#3	1.559788	.5447854	.0612735

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1726.463	21771.41	2464.899	1428.424	1801.288
Stddev	6.819	168.39	18.934	10.737	5.609
%RSD	.3949776	.7734632	.7681321	.7516728	.3113747
#1	1733.674	21713.37	2443.074	1422.771	1807.012
#2	1725.598	21639.71	2476.930	1421.694	1801.051
#3	1720.119	21961.15	2474.692	1440.807	1795.802

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-21DLX2 Acquired: 12/30/2024 22:21:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2488316	-.204089	3.785960	.4100899	.1980894	28.26455
Stddev	.0058147	.003140	.008036	.0041487	.0024224	.08670
%RSD	2.336807	1.538512	.2122598	1.011667	1.222868	.3067310
#1	.2441183	-.200537	3.792479	.4066164	.1960297	28.16918
#2	.2553295	-.206495	3.776981	.4089694	.1974802	28.28587
#3	.2470472	-.205235	3.788420	.4146838	.2007582	28.33859

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.659667	.0146116	.0187958	226.5920	1.956574	.0921555
Stddev	.005577	.0001949	.0002833	.8276	.004104	.0002133
%RSD	.3360579	1.333846	1.507364	.3652279	.2097715	.2314467
#1	1.653261	.0144017	.0188657	225.6764	1.960456	.0919100
#2	1.662298	.0147869	.0184841	226.8127	1.952279	.0922954
#3	1.663442	.0146462	.0190377	227.2868	1.956988	.0922612

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.666525	F 844.2688	19.30875	37.38711	1.093237	-.026725
Stddev	.024674	2.2920	.07262	.26930	.001967	.000743
%RSD	.3218415	.2714811	.3761077	.7203023	.1799670	2.781738
#1	7.649242	841.7105	19.23700	37.26100	1.092037	-.025867
#2	7.655552	844.9611	19.30704	37.20401	1.092166	-.027171
#3	7.694783	846.1350	19.38221	37.69632	1.095508	-.027138

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.231585	.1615026	10.23224	2.891987	3.082436	F -1.92654
Stddev	.013944	.0087981	.07120	.162470	.005806	.02496
%RSD	1.132172	5.447686	.6958564	5.617921	.1883587	1.295686
#1	1.245005	.1574521	10.17653	2.761564	3.086567	-1.91008
#2	1.217171	.1715964	10.31246	2.840413	3.075797	-1.95526
#3	1.232579	.1554592	10.20773	3.073983	3.084943	-1.91428

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-21DLX2 Acquired: 12/30/2024 22:21:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2064900	10.44184	5.589936	.2658563	.9946852	-.238619
Stddev	.0004501	.02780	.038947	.0034648	.0057434	.000530
%RSD	.2179586	.2662310	.6967257	1.303264	.5774074	.2223187
#1	.2059840	10.47212	5.564720	.2646431	.9881209	-.238020
#2	.2066404	10.41747	5.634792	.2631613	.9971498	-.239031
#3	.2068456	10.43594	5.570296	.2697646	.9987850	-.238804

Elem	Li6707
Units	ppm
Avg	.0175640
Stddev	.0011801
%RSD	6.718565
#1	.0186844
#2	.0176754
#3	.0163322

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1657.032	21061.02	2368.928	1370.875	1905.059
Stddev	2.182	75.73	11.837	6.214	3.753
%RSD	.1316665	.3595733	.4996885	.4533057	.1969993
#1	1659.524	20976.17	2366.661	1371.250	1907.078
#2	1655.465	21121.78	2358.388	1364.481	1907.371
#3	1656.108	21085.10	2381.735	1376.893	1900.729

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-22DLX2 Acquired: 12/30/2024 22:25:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1772947	-.142069	2.477688	.2862318	.1356625	34.41898
Stddev	.0032452	.001283	.006171	.0057776	.0012650	.14162
%RSD	1.830403	.9027435	.2490607	2.018496	.9324578	.4114543
#1	.1758870	-.140738	2.471598	.2857867	.1343629	34.25632
#2	.1810061	-.143296	2.477530	.2806897	.1357348	34.48573
#3	.1749910	-.142172	2.483937	.2922191	.1368897	34.51489

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.749840	.0117589	.0120631	209.0280	1.405157	.0993235
Stddev	.007724	.0000733	.0001020	.6232	.001360	.0004128
%RSD	.4414067	.6229370	.8457377	.2981404	.0967914	.4155865
#1	1.741721	.0116964	.0120311	208.3316	1.406117	.0997919
#2	1.750700	.0117408	.0121773	209.2190	1.405752	.0991655
#3	1.757097	.0118395	.0119809	209.5333	1.403600	.0990130

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.847771	616.6116	14.20486	40.62340	.8360721	-.022259
Stddev	.021852	2.8771	.07819	.17497	.0017556	.000855
%RSD	.5679133	.4665945	.5504520	.4307070	.2099863	3.839808
#1	3.830115	613.3556	14.12538	40.42292	.8345864	-.022351
#2	3.840988	617.6684	14.20751	40.74533	.8356206	-.023064
#3	3.872211	618.8109	14.28169	40.70194	.8380094	-.021362

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9056905	.1660597	6.414393	4.052277	3.460842	F -1.43012
Stddev	.0204117	.0078056	.023382	.034182	.010782	.01091
%RSD	2.253719	4.700468	.3645311	.8435200	.3115405	.7629201
#1	.9243088	.1683099	6.426717	4.024674	3.451458	-1.43837
#2	.9088978	.1573762	6.429035	4.090511	3.458448	-1.43424
#3	.8838651	.1724930	6.387426	4.041645	3.472620	-1.41775

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5156-22DLX2 Acquired: 12/30/2024 22:25:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1462749	9.887408	6.041185	.1594482	.8825770	.0951648
Stddev	.0009214	.037216	.014446	.0018344	.0047931	.0017385
%RSD	.6299022	.3763948	.2391277	1.150445	.5430756	1.826855
#1	.1473387	9.875680	6.032678	.1587363	.8798489	.0971661
#2	.1457358	9.857469	6.057865	.1615318	.8797707	.0940276
#3	.1457500	9.929075	6.033011	.1580766	.8881113	.0943007

Elem	Li6707
Units	ppm
Avg	.0235481
Stddev	.0026331
%RSD	11.18185
#1	.0253584
#2	.0205274
#3	.0247584

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1680.873	21370.58	2392.006	1398.278	1886.520
Stddev	2.085	50.15	4.927	6.105	2.867
%RSD	.1240347	.2346881	.2059797	.4366192	.1519846
#1	1682.790	21331.52	2391.284	1393.637	1889.824
#2	1678.653	21353.08	2387.479	1396.004	1885.060
#3	1681.177	21427.14	2397.254	1405.194	1884.678

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: PB165326BL Acquired: 12/30/2024 22:28:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS326 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001362	-.003624	-.002616	-.000886	-.001396	.0058362
Stddev	.004300	.003767	.000686	.004463	.003031	.0114976
%RSD	315.6879	103.9432	26.20407	503.8674	217.1385	197.0060
#1	-.001670	-.000671	-.003361	.001037	.001484	.0172301
#2	-.005500	-.007866	-.002475	.002293	-.004558	.0060407
#3	.003084	-.002335	-.002012	-.005987	-.001114	-.005762

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020385	.0002357	.0000258	.0029858	.0001356	-.000374
Stddev	.0022510	.0000816	.0000666	.0557031	.0003757	.000443
%RSD	110.4215	34.61925	258.6403	1865.622	277.0920	118.4038
#1	-.000096	.0002372	.0000605	.0591049	.0001724	-.000884
#2	.001821	.0001534	-.000051	.0021441	.0004916	-.000154
#3	.004390	.0003165	.000068	-.052292	-.000257	-.000084

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109430	.0158310	.0019908	.0011576	-.000461	.0003400
Stddev	.0051393	.0122344	.0009555	.0903984	.000219	.0007250
%RSD	46.96393	77.28151	47.99710	7809.354	47.43172	213.2119
#1	.0105327	.0163468	.0010011	.0452284	-.000493	.0010684
#2	.0060212	.0277993	.0029081	.0610684	-.000228	-.000381
#3	.0162751	.0033468	.0020632	-.102824	-.000663	.000333

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.039332	-.003878	.0029053	-.417289	-.003336	-.004569
Stddev	.017951	.005247	.0007346	.082128	.002016	.002724
%RSD	45.64014	135.2970	25.28639	19.68141	60.44964	59.62588
#1	-.044899	-.003302	.0028588	-.353194	-.003709	-.006981
#2	-.019257	-.009389	.0036620	-.509867	-.001159	-.001614
#3	-.053840	.001057	.0021949	-.388805	-.005140	-.005113

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: PB165326BL Acquired: 12/30/2024 22:28:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS326 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000654	.0013822	.0005515	-.002579	-.004720	-.000231
Stddev	.0002026	.0022555	.0006624	.000593	.004025	.000096
%RSD	309.7062	163.1755	120.1104	22.99832	85.28335	41.73264
#1	-.000012	.0012962	.0011809	-.003095	-.000173	-.000161
#2	.000295	-.000829	-.000140	-.002711	-.006157	-.000341
#3	-.000087	.003680	.000613	-.001931	-.007828	-.000191

Elem	Li6707
Units	ppm
Avg	F -.022341
Stddev	.002972
%RSD	13.30348
#1	-.021106
#2	-.020186
#3	-.025732

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1654.712	20699.24	2253.207	1372.540	1948.299
Stddev	4.354	78.42	45.769	8.616	2.763
%RSD	.2631058	.3788339	2.031280	.6277429	.1418399
#1	1652.216	20750.17	2217.173	1374.303	1945.580
#2	1659.739	20608.94	2304.705	1363.178	1951.105
#3	1652.180	20738.60	2237.743	1380.138	1948.214

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: PB165326BS Acquired: 12/30/2024 22:32:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS326 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197018	.0503997	.0185482	.0600995	.1096520	.4105000
Stddev	.0018605	.0017362	.0040789	.0065169	.0029795	.0058362
%RSD	9.443475	3.444869	21.99078	10.84347	2.717243	1.421729
#1	.0213597	.0521485	.0148275	.0668098	.1124404	.4038626
#2	.0176896	.0486763	.0179075	.0537950	.1100031	.4148287
#3	.0200561	.0503744	.0229095	.0596937	.1065125	.4128086

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4090659	.0106733	.0099401	10.34428	.0214047	.1016843
Stddev	.0018470	.0002431	.0000244	.09343	.0002199	.0003688
%RSD	.4515155	2.277420	.2451098	.9031573	1.027479	.3626558
#1	.4111985	.0109053	.0099311	10.40394	.0212822	.1015167
#2	.4080151	.0104205	.0099677	10.39230	.0216586	.1021071
#3	.4079840	.0106942	.0099215	10.23661	.0212733	.1014290

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0584732	.2272363	.0320006	10.57722	.0787463	.0195321
Stddev	.0095398	.0441638	.0000239	.09815	.0007743	.0008130
%RSD	16.31481	19.43518	.0746805	.9279578	.9833283	4.162526
#1	.0543245	.2652089	.0320027	10.67285	.0781338	.0200047
#2	.0517102	.2377289	.0320233	10.58208	.0796167	.0185933
#3	.0693849	.1787712	.0319757	10.47673	.0784884	.0199983

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.349000	.1054393	.1208793	9.414014	.0172038	F -.005717
Stddev	.087998	.0096133	.0003216	.163348	.0020280	.001419
%RSD	1.197410	9.117339	.2660604	1.735156	11.78835	24.81160
#1	7.444716	.1123293	.1205249	9.596910	.0167607	-.007027
#2	7.271605	.1095315	.1209605	9.362495	.0194167	-.004210
#3	7.330679	.0944570	.1211525	9.282637	.0154339	-.005915

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: PB165326BS Acquired: 12/30/2024 22:32:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS326 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0196597	.1843814	F .5037240	.0124246	.1978090	.2098771
Stddev	.0007285	.0037522	.0055492	.0012422	.0030285	.0013407
%RSD	3.705592	2.035038	1.101640	9.997677	1.531016	.6387958
#1	.0201213	.1882336	.5099466	.0120599	.1950485	.2113948
#2	.0188199	.1841726	.4992886	.0138083	.2010484	.2088539
#3	.0200380	.1807379	.5019367	.0114056	.1973300	.2093826

Elem	Li6707
Units	ppm
Avg	F .0071362
Stddev	.0017022
%RSD	23.85336
#1	.0054099
#2	.0088132
#3	.0071854

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1694.332	21251.32	2299.802	1419.981	1994.526
Stddev	2.533	81.86	25.323	3.383	1.158
%RSD	.1495166	.3851826	1.101116	.2382212	.0580387
#1	1692.211	21299.60	2271.132	1422.253	1995.230
#2	1697.137	21156.80	2309.152	1416.094	1995.158
#3	1693.648	21297.54	2319.120	1421.598	1993.190

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-10A Acquired: 12/30/2024 22:36:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK22A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1866791	.0264389	5.216219	.1217514	-.079311	74.62675
Stddev	.0082640	.0050524	.008408	.0019343	.005297	.36386
%RSD	4.426845	19.10971	.1611929	1.588735	6.678152	.4875730
#1	.1925779	.0309633	5.212396	.1236403	-.075109	74.47334
#2	.1772338	.0209870	5.225859	.1197747	-.077564	75.04219
#3	.1902257	.0273664	5.210401	.1218393	-.085261	74.36472

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.805254	.0073835	.0118945	174.8019	.1608553	.1167191
Stddev	.015712	.0001260	.0001001	.8473	.0002834	.0002164
%RSD	.5600760	1.706433	.8419606	.4847224	.1762020	.1853916
#1	2.801478	.0073585	.0119555	174.5499	.1607241	.1169404
#2	2.822510	.0072719	.0117789	175.7466	.1611806	.1167090
#3	2.791775	.0075202	.0119491	174.1091	.1606613	.1165080

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5773142	172.7262	8.124901	62.99952	.1814349	-.000359
Stddev	.0010451	1.2032	.037333	.43168	.0009515	.000166
%RSD	.1810299	.6965968	.4594839	.6852162	.5244078	46.29330
#1	.5784754	172.1644	8.106252	62.94859	.1804499	-.000194
#2	.5770185	174.1076	8.167883	63.45441	.1815060	-.000526
#3	.5764489	171.9067	8.100567	62.59557	.1823488	-.000357

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8965970	.2174821	2.880263	7.468761	F 13.65410	-.361341
Stddev	.0185992	.0117547	.012697	.086218	.01899	.004200
%RSD	2.074425	5.404916	.4408411	1.154383	.1390866	1.162446
#1	.8929476	.2135928	2.872508	7.434211	13.64545	-.365457
#2	.9167505	.2306885	2.873365	7.405177	13.67587	-.361503
#3	.8800930	.2081649	2.894916	7.566896	13.64096	-.357061

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5027-10A Acquired: 12/30/2024 22:36:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK22A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075655	3.206377	9.454857	F 10.54572	1.279501	.1256911
Stddev	.0003084	.003521	.070233	.01715	.011997	.0003368
%RSD	4.076599	.1098067	.7428222	.1626537	.9376296	.2679385
#1	.0074803	3.206578	9.493723	10.52921	1.273811	.1259980
#2	.0073087	3.209793	9.497065	10.56345	1.293284	.1253308
#3	.0079076	3.202760	9.373782	10.54451	1.271406	.1257443

Elem	Li6707
Units	ppm
Avg	.1090156
Stddev	.0031006
%RSD	2.844216
#1	.1084309
#2	.1062490
#3	.1123670

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1979.200	24805.50	2758.975	1634.550	1836.302
Stddev	8.565	50.07	21.479	1.428	8.155
%RSD	.4327573	.2018566	.7785120	.0873727	.4440850
#1	1973.430	24775.65	2745.897	1632.903	1834.765
#2	1975.128	24777.53	2747.264	1635.450	1829.024
#3	1989.041	24863.31	2783.764	1635.296	1845.115

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-04A Acquired: 12/30/2024 22:40:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8102030	.0092744	5.131152	.1008665	.0428315	90.53762	1.296467
Stddev	.0036451	.0026681	.014628	.0019599	.0028697	.04832	.002697
%RSD	.4498963	28.76864	.2850915	1.943045	6.699908	.0533669	.2079923
#1	.8115674	.0062019	5.140935	.1012092	.0403769	90.53550	1.293353
#2	.8129691	.0106146	5.114335	.1026325	.0421311	90.58697	1.298039
#3	.8060726	.0110068	5.138186	.0987579	.0459866	90.49040	1.298008

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0088750	.0119970	88.10440	.1395805	.1622330	.5299936	225.2793
Stddev	.0000753	.0001419	.02297	.0003383	.0004675	.0038686	.1396
%RSD	.8489372	1.182374	.0260670	.2423431	.2881432	.7299400	.0619833
#1	.0087891	.0121177	88.07881	.1399583	.1625875	.5337402	225.4308
#2	.0089064	.0118407	88.11119	.1394775	.1617032	.5260135	225.1558
#3	.0089296	.0120325	88.12321	.1393058	.1624084	.5302271	225.2512

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.05148	33.43719	.2755356	-.004214	.4595282	.2280493	1.327120
Stddev	.01012	.21716	.0016416	.000591	.0336477	.0072126	.004563
%RSD	.0593260	.6494439	.5957874	14.03370	7.322236	3.162753	.3438406
#1	17.04787	33.52255	.2759970	-.004306	.4758196	.2197212	1.327301
#2	17.06290	33.59869	.2737127	-.004755	.4819294	.2322809	1.322469
#3	17.04366	33.19032	.2768972	-.003583	.4208356	.2321456	1.331590

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.394391	8.829562	-.495377	.0091072	3.362036	12.65022	.0958894
Stddev	.101513	.028736	.006246	.0000728	.002575	.03975	.0014024
%RSD	1.080570	.3254512	1.260953	.7991735	.0765986	.3142384	1.462524
#1	9.455183	8.856103	-.500802	.0090684	3.359094	12.66544	.0974754
#2	9.450789	8.799045	-.488548	.0091912	3.363130	12.60511	.0953794
#3	9.277201	8.833537	-.496782	.0090621	3.363883	12.68011	.0948133

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: P5030-04A Acquired: 12/30/2024 22:40:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK44A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.8834891	-.022660	.0692534
Stddev	.0019197	.000357	.0010948
%RSD	.2172893	1.575649	1.580897
#1	.8812803	-.022826	.0700352
#2	.8844315	-.022903	.0680021
#3	.8847555	-.022250	.0697228

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2161.800	27121.87	2981.559	1797.822	1932.466
Stddev	5.849	143.50	2.015	5.349	6.693
%RSD	.2705560	.5290928	.0675927	.2975056	.3463529
#1	2162.596	27026.01	2979.761	1794.498	1929.682
#2	2167.209	27052.76	2983.737	1794.976	1940.102
#3	2155.593	27286.85	2981.179	1803.992	1927.614

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCV051 Acquired: 12/30/2024 22:44:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV051 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.963584	4.808250	24.59269	4.877112	4.884009	403.3365
Stddev	.002968	.023034	.00928	.005381	.007553	3.1826
%RSD	.0597928	.4790453	.0377464	.1103286	.1546495	.7890643
#1	4.966914	4.825019	24.58204	4.871960	4.889856	399.7329
#2	4.961218	4.781987	24.59910	4.876681	4.875481	405.7620
#3	4.962619	4.817744	24.59693	4.882695	4.886690	404.5148

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.05596	.5035767	2.480096	408.7467	15.53174	2.470711
Stddev	.07387	.0084528	.001852	3.0474	.05621	.002399
%RSD	.7345445	1.678556	.0746610	.7455440	.3619110	.0971138
#1	9.97070	.4950859	2.480002	405.5172	15.49013	2.470243
#2	10.10086	.5119910	2.478293	411.5716	15.59569	2.468580
#3	10.09630	.5036533	2.481993	409.1514	15.50941	2.473310

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.02644	407.1909	15.00125	403.0701	2.502149	1.265768
Stddev	.14276	3.2687	.09726	3.4494	.001249	.005266
%RSD	.9500539	.8027476	.6483693	.8557763	.0499269	.4160299
#1	14.87406	403.5523	14.89015	399.0910	2.503535	1.260411
#2	15.15709	409.8791	15.07105	405.2119	2.501110	1.270938
#3	15.04819	408.1413	15.04254	404.9075	2.501802	1.265956

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	411.0752	2.466909	14.88631	152.5305	4.862851	F 4.309786
Stddev	7.3458	.006883	.08123	1.5327	.021167	.057171
%RSD	1.786968	.2790025	.5456741	1.004877	.4352796	1.326530
#1	402.8191	2.467721	14.81473	150.7616	4.877017	4.248537
#2	416.8881	2.459656	14.97459	153.3663	4.838518	4.361739
#3	413.5183	2.473349	14.86960	153.4638	4.873016	4.319082

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCV051 Acquired: 12/30/2024 22:44:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV051 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.787030	4.958011	4.945617	5.006629	5.022815	4.773429
Stddev	.010836	.015097	.069964	.002613	.052163	.033468
%RSD	.2263549	.3045031	1.414674	.0521976	1.038527	.7011369
#1	4.790969	4.942260	4.876130	5.005311	4.963270	4.738885
#2	4.774775	4.959416	5.016049	5.004937	5.044726	4.805706
#3	4.795345	4.972356	4.944672	5.009639	5.060449	4.775697

Elem	Li6707
Units	ppm
Avg	5.070041
Stddev	.041486
%RSD	.8182532
#1	5.022163
#2	5.092640
#3	5.095321

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1439.603	18742.58	2191.641	1182.392	1614.944
Stddev	1.150	12.08	24.030	3.177	1.044
%RSD	.0798821	.0644367	1.096451	.2686602	.0646521
#1	1438.292	18738.72	2216.395	1184.966	1616.024
#2	1440.442	18732.91	2168.407	1178.842	1613.940
#3	1440.076	18756.12	2190.121	1183.368	1614.868

Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCB051 Acquired: 12/30/2024 22:48:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB051 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003973	-.000394	.0046388	-.002349	.0008410	-.009922	.0007284
Stddev	.002704	.004002	.0020895	.001064	.0032919	.026807	.0009245
%RSD	68.05094	1016.797	45.04310	45.30905	391.4435	270.1816	126.9326
#1	-.000973	-.000842	.0070513	-.001656	-.001330	.020834	.0015438
#2	-.006221	-.004152	.0034023	-.001816	-.000776	-.028332	-.000276
#3	-.004726	.003814	.0034629	-.003574	.004629	-.022267	.000917

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001749	.0003514	.0298803	.0019599	.0000307	.0025495	.0256376
Stddev	.0001202	.0000865	.0209884	.0002013	.0002449	.0023815	.0365193
%RSD	68.71728	24.61819	70.24159	10.27130	798.1942	93.41177	142.4444
#1	.0002821	.0002551	.0223559	.0021888	.0003125	.0006588	.0022789
#2	.0000450	.0004226	.0535937	.0018807	-.000130	.0017655	.0069124
#3	.0001977	.0003764	.0136913	.0018102	-.000090	.0052241	.0677214

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029602	.0434325	.0000199	.0009122	.0485208	-.006243	.0041225
Stddev	.0002381	.0071387	.0005241	.0014349	.0129373	.017392	.0001602
%RSD	8.045034	16.43640	2630.520	157.2977	26.66339	278.5759	3.886250
#1	.0029795	.0511006	.0006172	.0006998	.0556685	.013082	.0041435
#2	.0031881	.0422178	-.000363	.0024416	.0335867	-.011174	.0042712
#3	.0027130	.0369790	-.000194	-.000405	.0563073	-.020638	.0039528

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.278086	.0009659	.0100678	.0010046	.0015440	-.000123	-.005124
Stddev	.050492	.0028759	.0010910	.0000849	.0026273	.000950	.000823
%RSD	18.15698	297.7364	10.83601	8.452874	170.1594	769.7124	16.06499
#1	-.238724	.0024212	.0099970	.0010965	-.001313	.000468	-.004176
#2	-.335015	.0028233	.0090140	.0009291	.003856	.000381	-.005652
#3	-.260518	-.002347	.0111925	.0009882	.002090	-.001219	-.005545

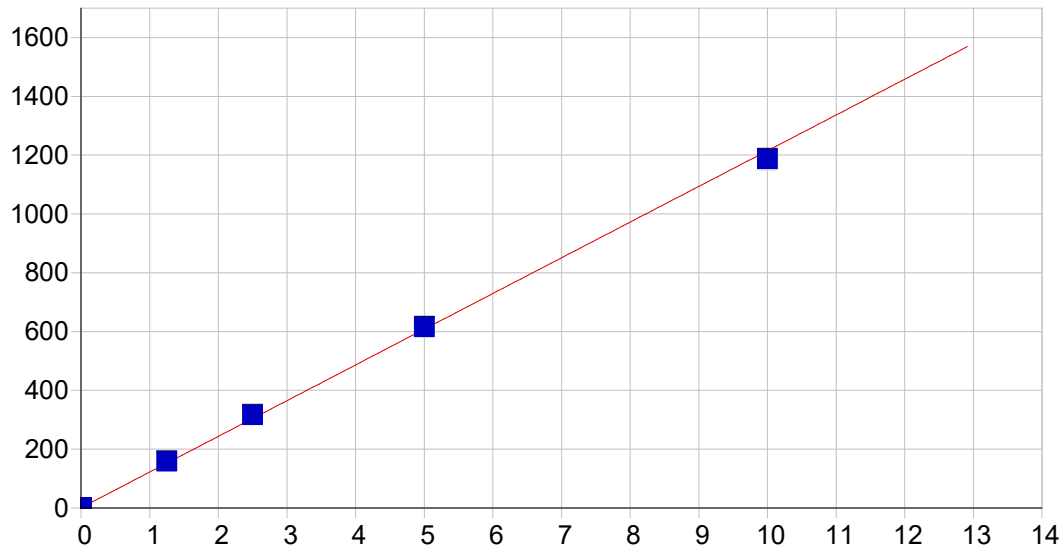
Reviewed By:mohan
On:1/2/2025 2:18:34 AM
Inst Id :P5

Sample Name: CCB051 Acquired: 12/30/2024 22:48:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v55) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB051 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	-.001272	.0000973	.0026521
Stddev	.003603	.0001484	.0036077
%RSD	283.2239	152.4256	136.0324
#1	-.005427	.0002372	.0006676
#2	.000991	.0001132	.0004723
#3	.000619	-.000058	.0068164

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1656.804	20835.85	2254.904	1383.696	1951.205
Stddev	2.226	129.97	19.214	8.415	3.158
%RSD	.1343437	.6237947	.8521071	.6081732	.1618314
#1	1658.329	20985.90	2246.427	1393.117	1949.068
#2	1654.249	20763.27	2276.899	1381.048	1949.714
#3	1657.832	20758.37	2241.387	1376.924	1954.832

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



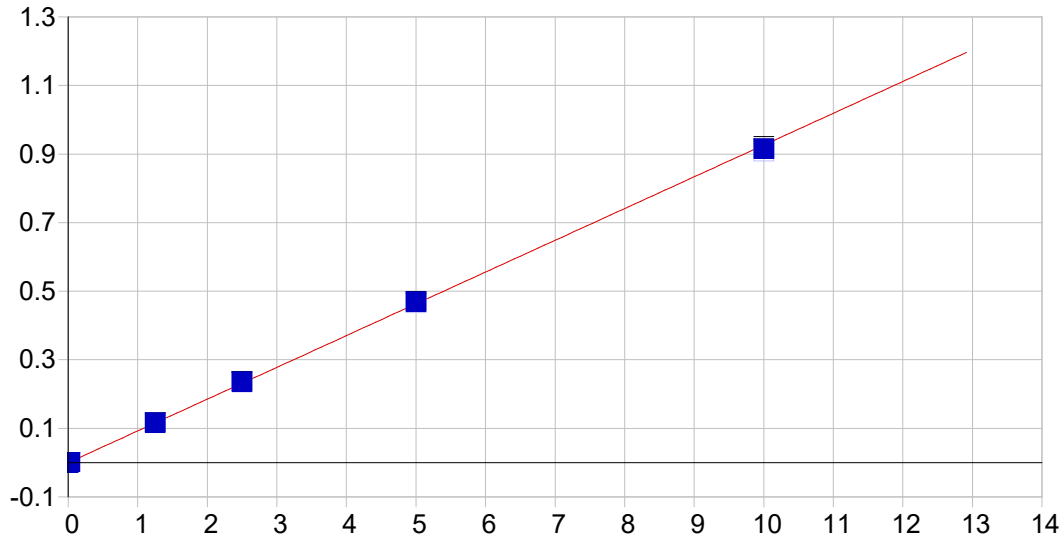
As 189.042 {478}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.701325	Re-Slope:	1.000000
A1 (Gain):	121.442660	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999659	Status:	OK.
Std Error of Est:	0.052980		
Predicted MDL:	0.006053		
Predicted MQL:	0.020176		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.70122	.351	1
S1	.01000	.01011	.000	1.14	1.9279	.620	1
S2	1.2500	1.3032	.053	4.26	158.33	.573	1
S3	2.5000	2.6058	.106	4.23	315.89	2.11	1
S4	5.0000	5.0661	.066	1.32	613.39	2.66	1
S5	10.000	9.7747	-.225	-2.25	1182.7	1.71	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



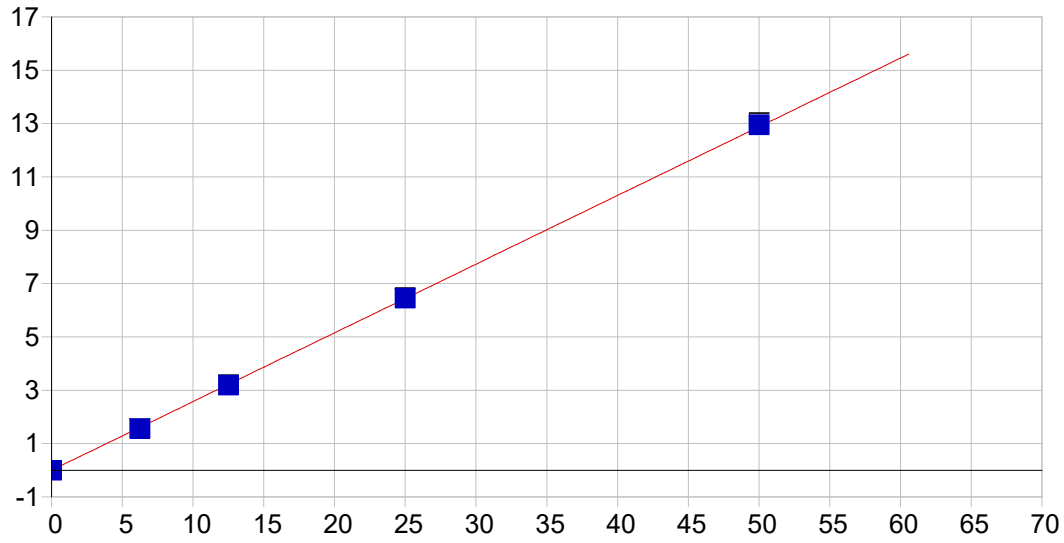
Tl 190.856 {477}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000135	Re-Slope:	1.000000
A1 (Gain):	0.092640	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999896	Status:	OK.
Std Error of Est:	0.000035		
Predicted MDL:	0.003429		
Predicted MQL:	0.011430		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00013	.000	1
S1	.02500	.02076	-.004	-17.0	.00171	.000	1
S2	1.2500	1.2550	.005	.404	.11514	.000	1
S3	2.5000	2.5477	.048	1.91	.23390	.001	1
S4	5.0000	5.0662	.066	1.32	.46522	.001	1
S5	10.000	9.8852	-.115	-1.15	.90768	.006	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



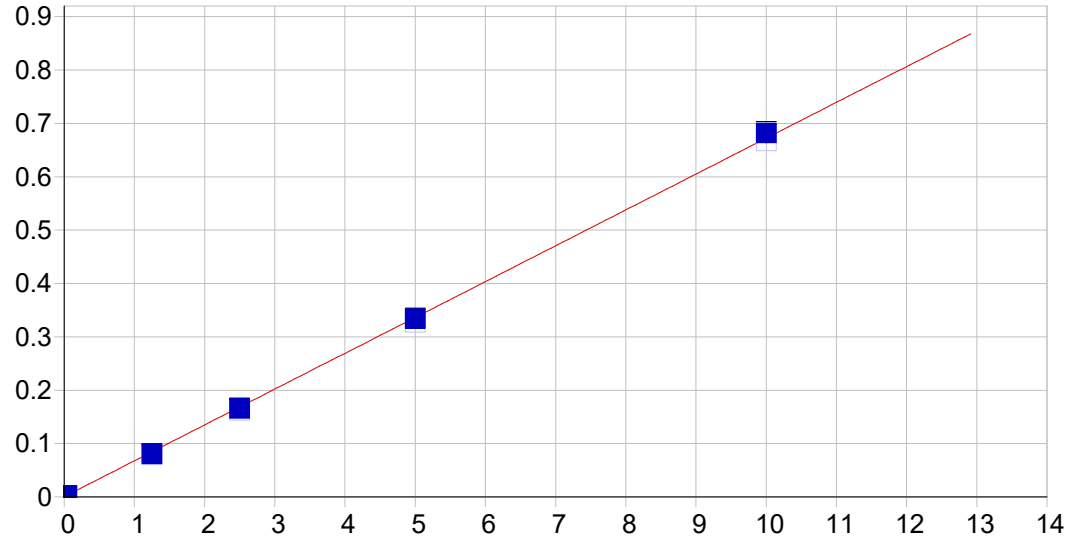
Pb 220.353 {453}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000160	Re-Slope:	1.000000
A1 (Gain):	0.257599	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.000099		
Predicted MDL:	0.003204		
Predicted MQL:	0.010679		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00016	.000	1
S1	.01000	.00885	-.001	-11.5	.00210	.001	1
S2	6.2500	6.0398	-.210	-3.36	1.5536	.004	1
S3	12.500	12.388	-.112	-.898	3.1867	.011	1
S4	25.000	25.039	.039	.157	6.4414	.008	1
S5	50.000	50.284	.284	.569	12.936	.080	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



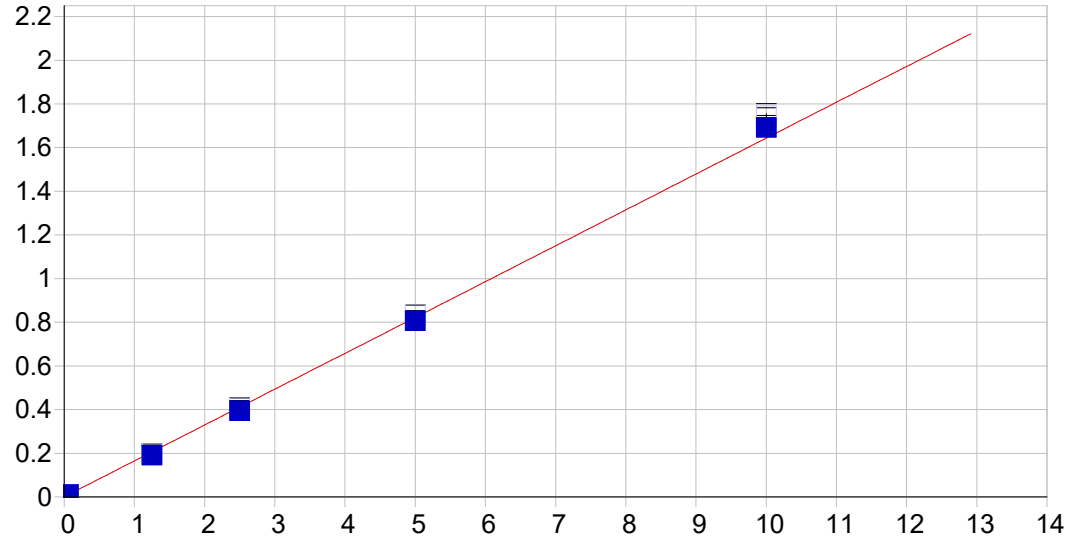
Se 196.090 {472}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000506	Re-Slope:	1.000000
A1 (Gain):	0.067168	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999755	Status:	OK.
Std Error of Est:	0.000046		
Predicted MDL:	0.006342		
Predicted MQL:	0.021138		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00051	.000	1
S1	.03500	.02447	-.011	-30.1	.00214	.000	1
S2	1.2500	1.1924	-.058	-4.61	.07871	.000	1
S3	2.5000	2.4574	-.043	-1.71	.16178	.001	1
S4	5.0000	4.9682	-.032	-.636	.32666	.001	1
S5	10.000	10.143	.143	1.43	.66666	.003	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



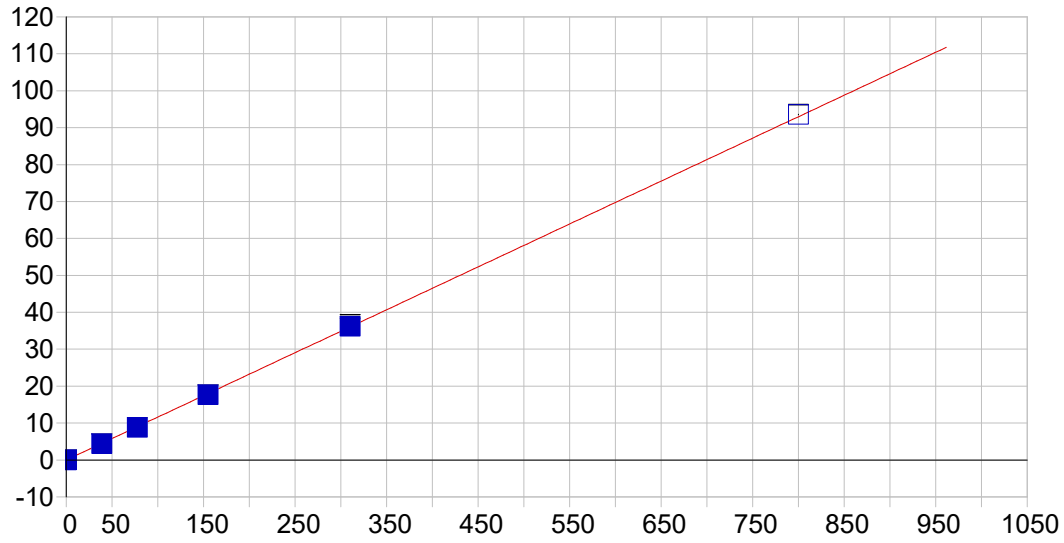
Sb 206.833 {463}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000618	Re-Slope:	1.000000
A1 (Gain):	0.164253	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999456	Status:	OK.
Std Error of Est:	0.000230		
Predicted MDL:	0.003533		
Predicted MQL:	0.011778		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00062	.000	1
S1	.06000	.05539	-.005	-7.68	.00972	.001	1
S2	1.2500	1.1582	-.092	-7.34	.19772	.001	1
S3	2.5000	2.3964	-.104	-4.14	.40797	.001	1
S4	5.0000	4.9049	-.095	-1.90	.83373	.001	1
S5	10.000	10.295	.295	2.95	1.7465	.010	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



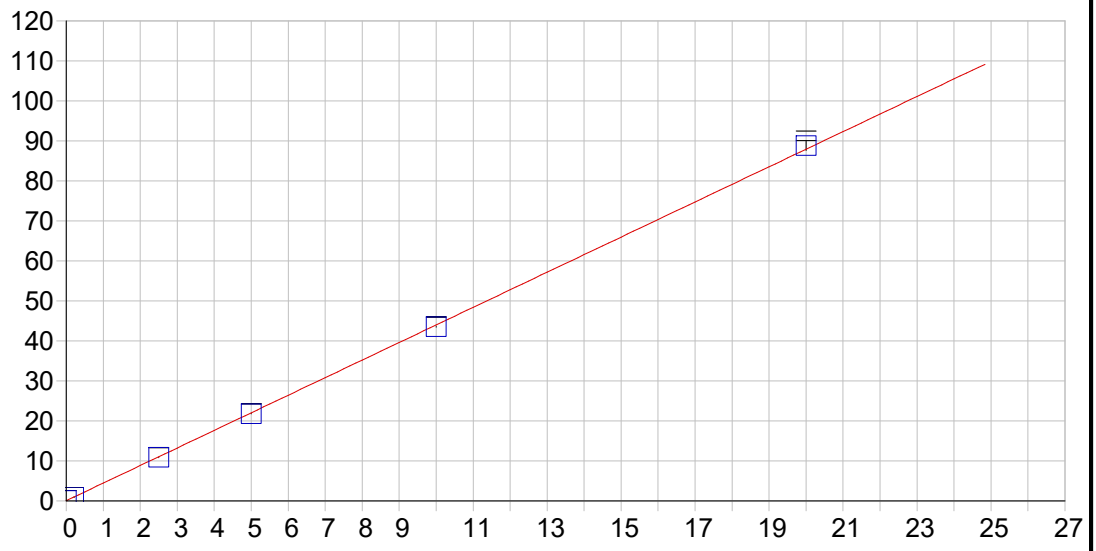
Al 396.152 { 85}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002383	Re-Slope:	1.000000
A1 (Gain):	0.116225	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000826		
Predicted MDL:	0.026230		
Predicted MQL:	0.087434		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00238	.003	1
S1	.20000	.20246	.002	1.23	.02119	.001	1
S2	38.750	37.536	-1.21	-3.13	4.3652	.002	1
S3	77.500	75.773	-1.73	-2.23	8.8141	.020	1
S4	155.00	151.75	-3.25	-2.10	17.655	.043	1
S5	310.00	311.16	1.16	.373	36.201	.478	1
S6	800.00	805.04	5.04	.629	93.563	.087	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



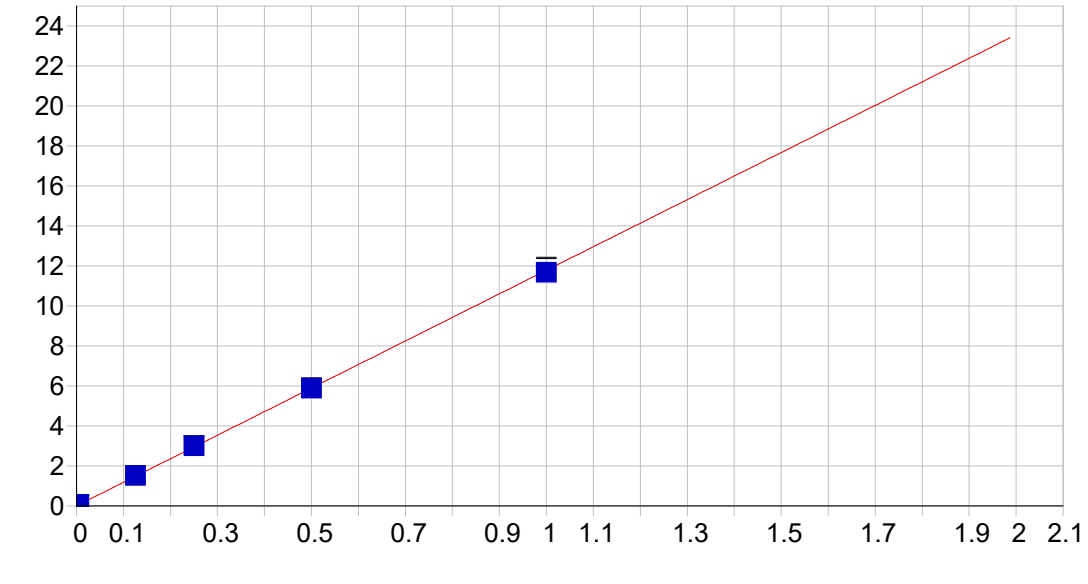
Ba 493.409 { 68}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.059957	Re-Slope:	1.000000
A1 (Gain):	4.393278	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.005236		
Predicted MDL:	0.001498		
Predicted MQL:	0.004992		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.05997	.006	1
S1	.20000	.20324	.003	1.62	.95285	.005	1
S2	2.5000	2.4538	-.046	-1.85	10.840	.023	1
S3	5.0000	4.9465	-.054	-1.07	21.791	.030	1
S4	10.000	9.8919	-.108	-1.08	43.518	.066	1
S5	20.000	20.205	.205	1.02	88.824	1.19	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



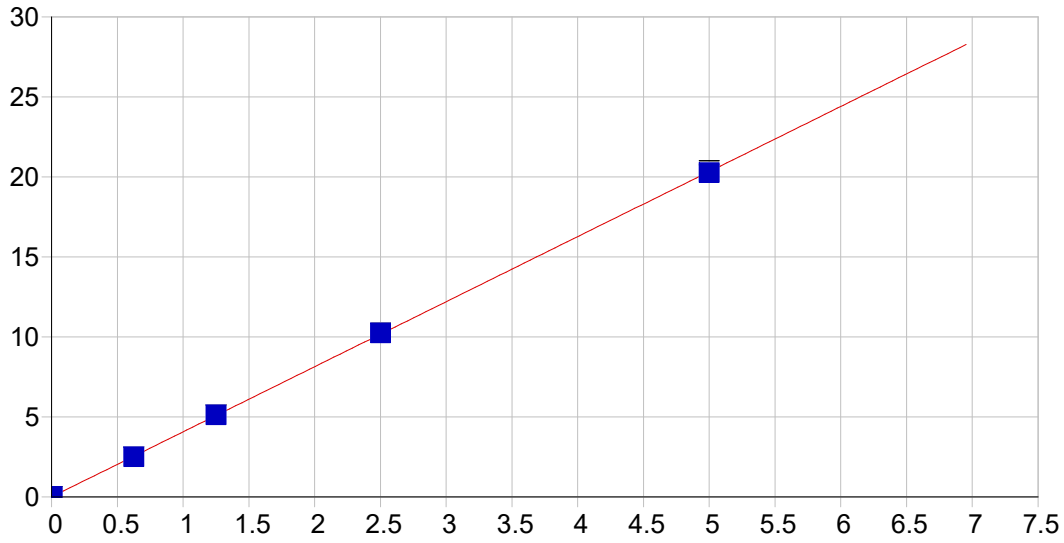
Be 234.861 {144}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003304	Re-Slope:	1.000000
A1 (Gain):	11.780982	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999923	Status:	OK.
Std Error of Est:	0.000546		
Predicted MDL:	0.000144		
Predicted MQL:	0.000482		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00330	.002	1
S1	.00500	.00532	.000	6.31	.06587	.001	1
S2	.12500	.12828	.003	2.62	1.5078	.005	1
S3	.25000	.25534	.005	2.14	2.9980	.016	1
S4	.50000	.49914	-.001	-.173	5.8566	.022	1
S5	1.0000	.99192	-.008	-.808	11.635	.248	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



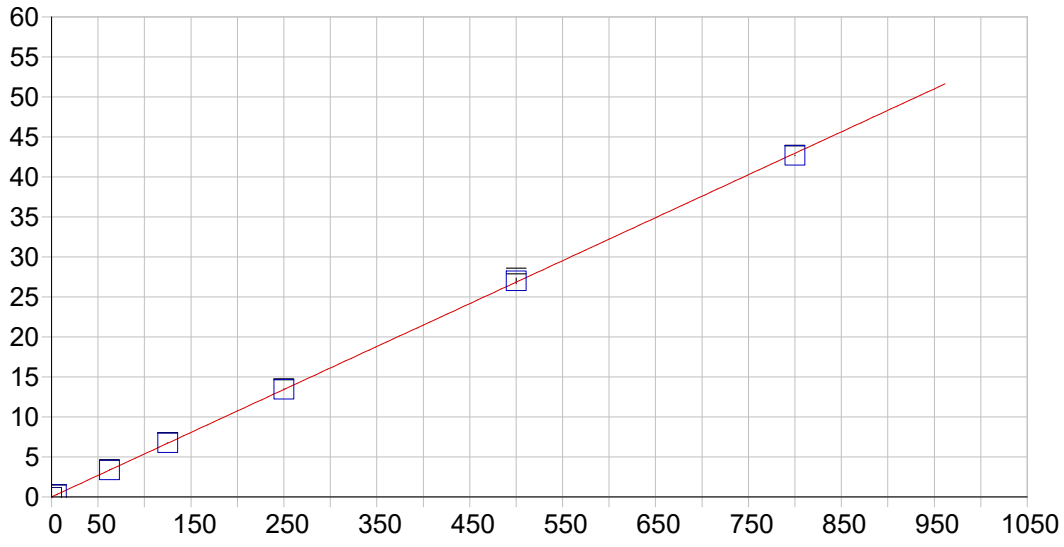
Cd 214.438 {457}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001108	Re-Slope:	1.000000
A1 (Gain):	4.066746	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000227		
Predicted MDL:	0.000111		
Predicted MQL:	0.000372		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00111	.001	1
S1	.00500	.00489	-.000	-2.12	.02109	.000	1
S2	.62500	.61675	-.008	-1.32	2.5132	.004	1
S3	1.2500	1.2607	.011	.853	5.1357	.014	1
S4	2.5000	2.5181	.018	.724	10.257	.007	1
S5	5.0000	4.9796	-.020	-.408	20.283	.124	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



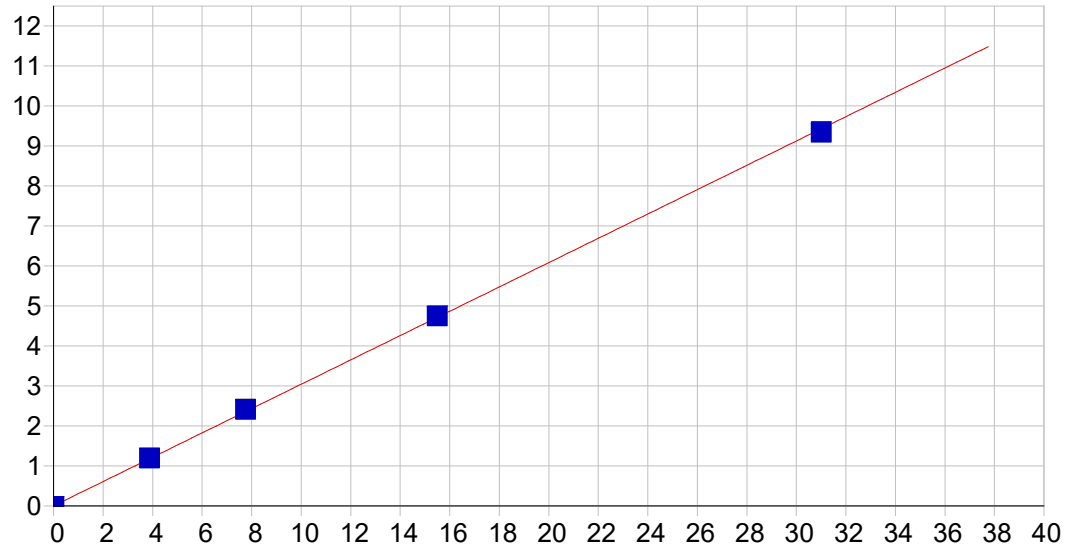
Ca 373.690 { 90}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005749	Re-Slope:	1.000000
A1 (Gain):	0.053687	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.001166		
Predicted MDL:	0.037921		
Predicted MQL:	0.126402		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00022	-.000	.000	.00574	.002	1
S1	5.0000	5.1407	.141	2.81	.28174	.003	1
S2	62.500	62.823	.323	.517	3.3785	.003	1
S3	125.00	126.16	1.16	.931	6.7791	.022	1
S4	250.00	250.61	.605	.242	13.460	.043	1
S5	500.00	502.89	2.89	.578	27.004	.349	1
S6	800.00	794.88	-5.12	-.640	42.680	.046	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



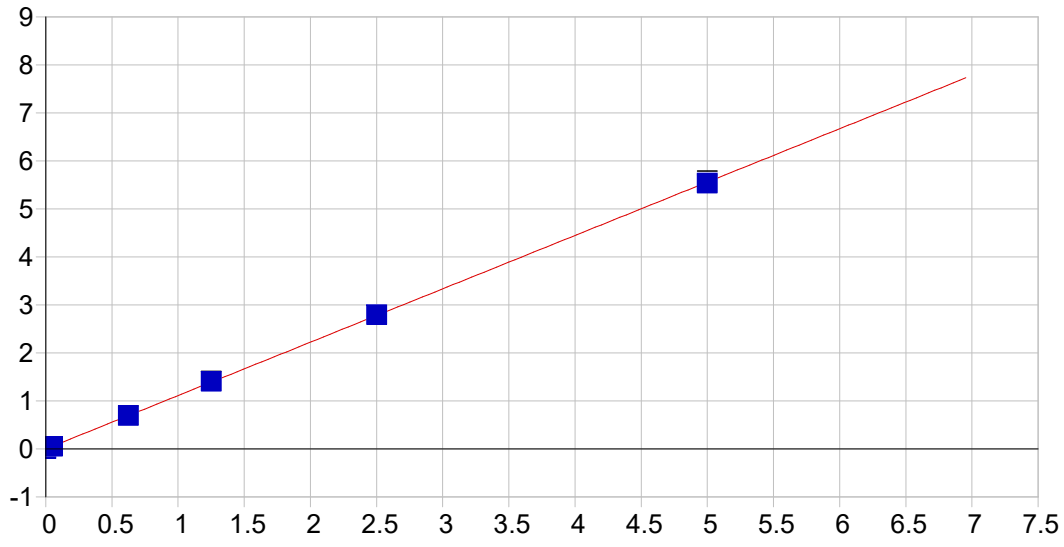
Cr 267.716 {126}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000422	Re-Slope:	1.000000
A1 (Gain):	0.304189	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000103		
Predicted MDL:	0.000839		
Predicted MQL:	0.002798		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00042	.000	1
S1	.01000	.00957	-.000	-4.32	.00334	.000	1
S2	3.8750	3.9054	.030	.785	1.1893	.001	1
S3	7.7500	7.9159	.166	2.14	2.4102	.006	1
S4	15.500	15.609	.109	.706	4.7523	.012	1
S5	31.000	30.695	-.305	-.985	9.3447	.018	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



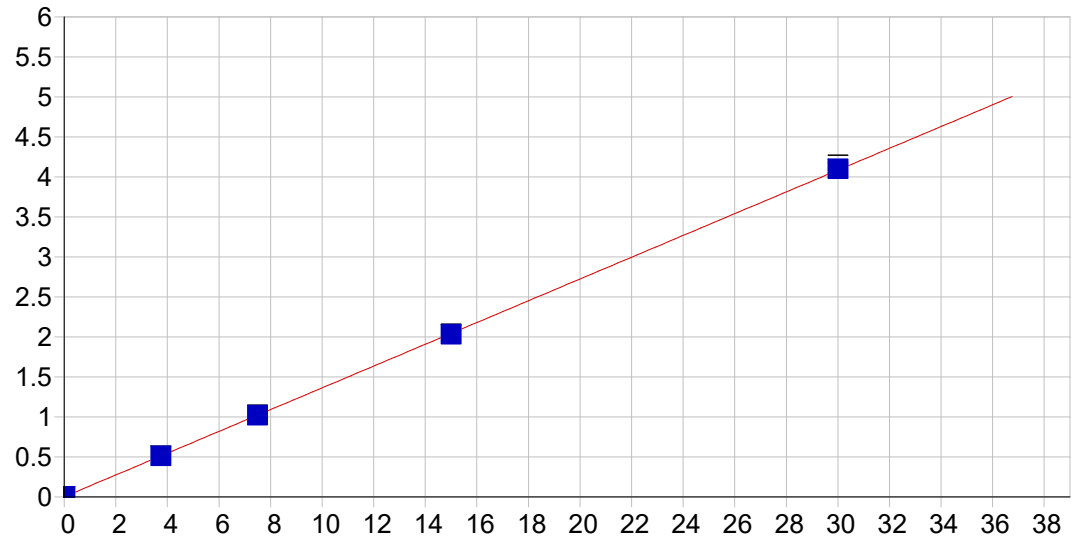
Co 228.616 {448}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000372	Re-Slope:	1.000000
A1 (Gain):	1.111775	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000167		
Predicted MDL:	0.000439		
Predicted MQL:	0.001464		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00037	.000	1
S1	.05000	.05096	.001	1.91	.05646	.000	1
S2	.62500	.62130	-.004	-.592	.69261	.001	1
S3	1.2500	1.2629	.013	1.04	1.4082	.005	1
S4	2.5000	2.5104	.010	.418	2.7996	.002	1
S5	5.0000	4.9794	-.021	-.413	5.5535	.034	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



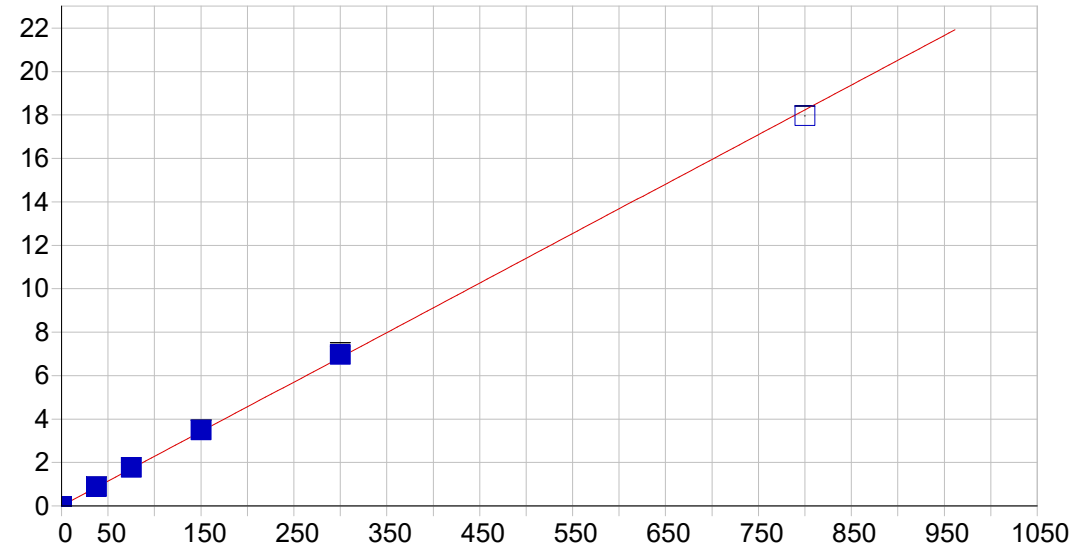
Cu 324.754 {104}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002278	Re-Slope:	1.000000
A1 (Gain):	0.136088	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000085		
Predicted MDL:	0.010581		
Predicted MQL:	0.035272		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00228	.001	1
S1	.02500	.04038	.015	61.5	.00777	.002	1
S2	3.7500	3.7430	-.007	-.186	.51160	.001	1
S3	7.5000	7.4833	-.017	-.223	1.0206	.004	1
S4	15.000	14.904	-.096	-.637	2.0304	.005	1
S5	30.000	30.104	.104	.346	4.0986	.048	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



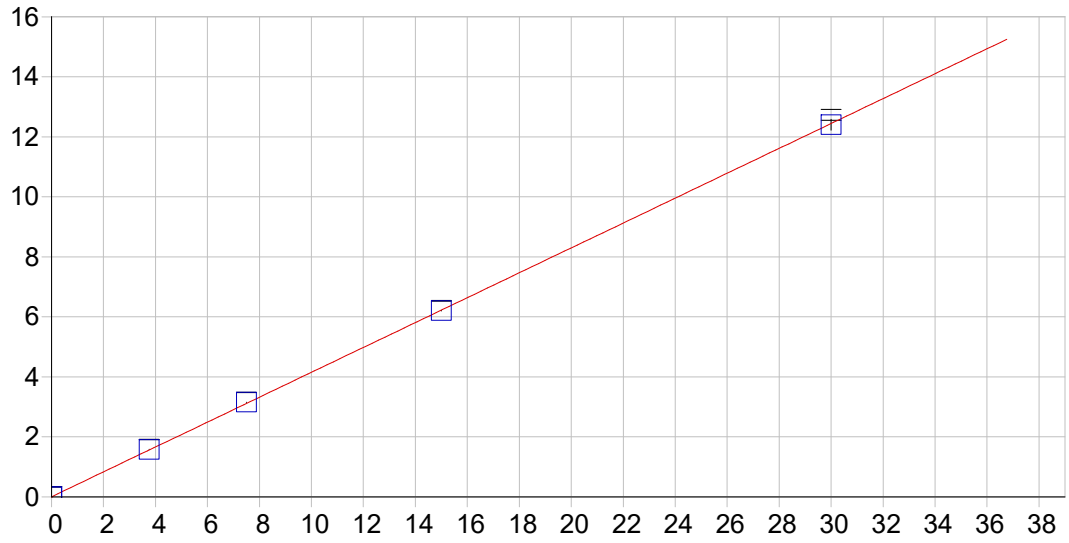
Fe 259.837 {130}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001631	Re-Slope:	1.000000
A1 (Gain):	0.022795	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999824	Status:	OK.
Std Error of Est:	0.000187		
Predicted MDL:	0.033702		
Predicted MQL:	0.112340		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00163	.001	1
S1	.10000	.08884	-.011	-11.2	.00366	.000	1
S2	37.500	38.818	1.32	3.51	.88667	.002	1
S3	75.000	77.397	2.40	3.20	1.7663	.001	1
S4	150.00	153.12	3.12	2.08	3.4928	.008	1
S5	300.00	305.49	5.49	1.83	6.9668	.087	1
S6	800.00	787.68	-12.3	-1.54	17.957	.014	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



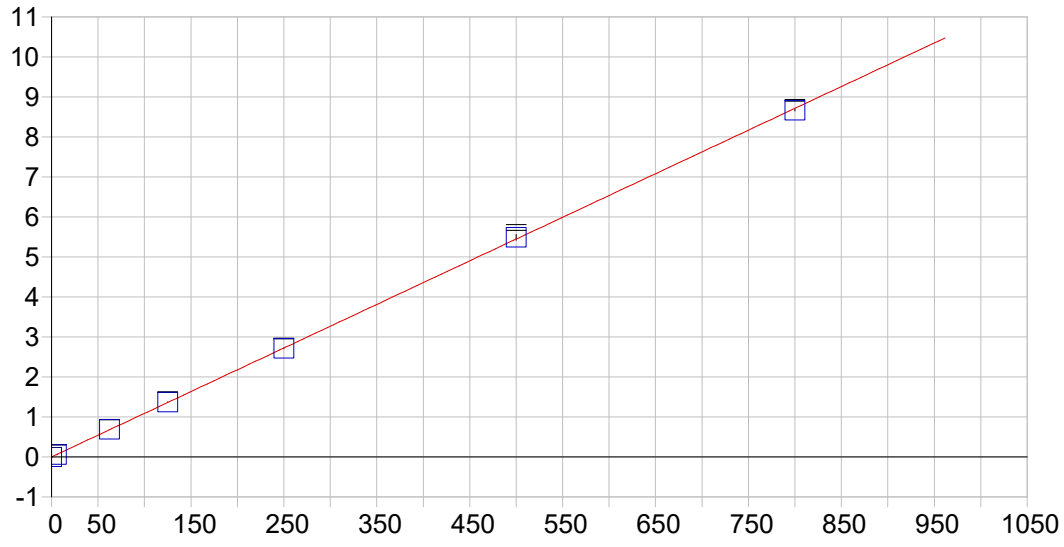
Mn 257.610 {131}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005245	Re-Slope:	1.000000
A1 (Gain):	0.414666	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.000091		
Predicted MDL:	0.001843		
Predicted MQL:	0.006145		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00524	.001	1
S1	.01500	.01590	.001	6.01	.01184	.000	1
S2	3.7500	3.7986	.049	1.30	1.5804	.006	1
S3	7.5000	7.5882	.088	1.18	3.1518	.005	1
S4	15.000	14.962	-.038	-.251	6.2096	.009	1
S5	30.000	29.900	-.100	-.334	12.404	.183	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



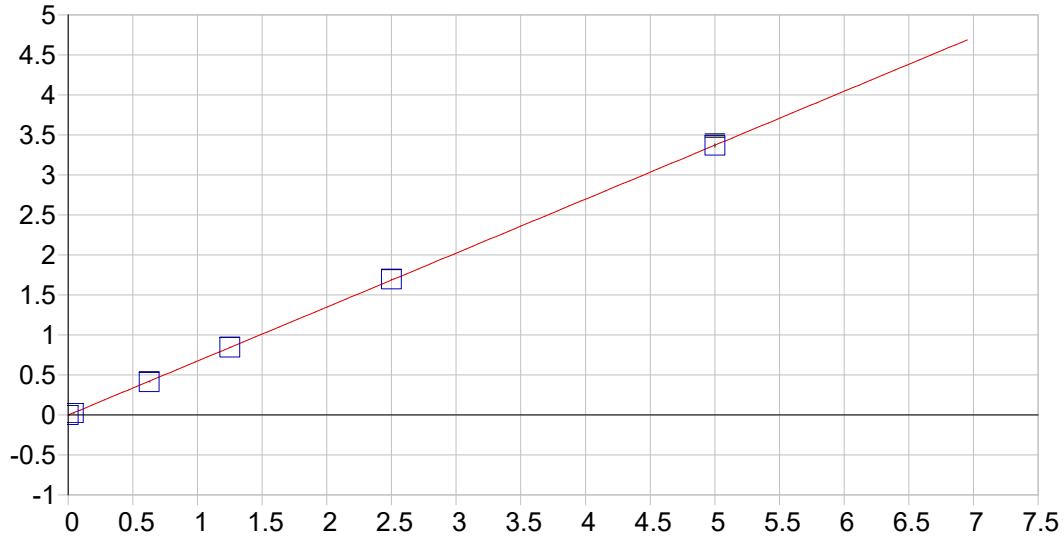
Mg 279.079 {121}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000885	Re-Slope:	1.000000
A1 (Gain):	0.010894	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.000235		
Predicted MDL:	0.088784		
Predicted MQL:	0.295946		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00012	-.000	.000	-.00089	.001	1
S1	5.0000	5.0563	.056	1.13	.05420	.001	1
S2	62.500	62.926	.426	.682	.68463	.003	1
S3	125.00	125.95	.947	.758	1.3712	.003	1
S4	250.00	249.22	-.777	-.311	2.7142	.007	1
S5	500.00	503.79	3.79	.759	5.4875	.072	1
S6	800.00	795.55	-4.45	-.556	8.6659	.019	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



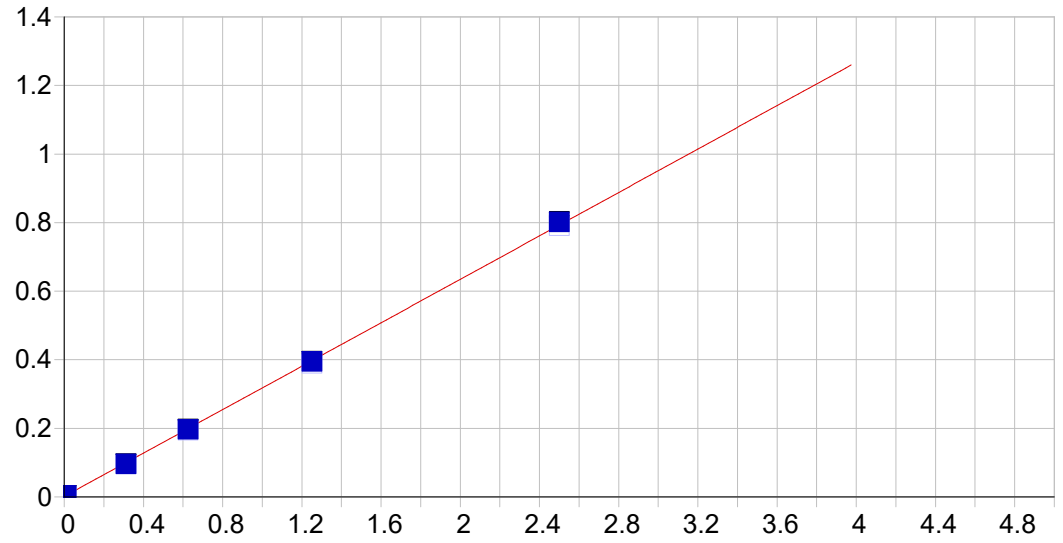
Ni 231.604 {446}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001170	Re-Slope:	1.000000
A1 (Gain):	0.674444	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000107		
Predicted MDL:	0.000919		
Predicted MQL:	0.003064		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00117	.001	1
S1	.04000	.03923	-.001	-1.92	.02529	.000	1
S2	.62500	.61146	-.014	-2.17	.41123	.001	1
S3	1.2500	1.2556	.006	.447	.84566	.000	1
S4	2.5000	2.5144	.014	.577	1.6947	.002	1
S5	5.0000	4.9943	-.006	-.114	3.3672	.020	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



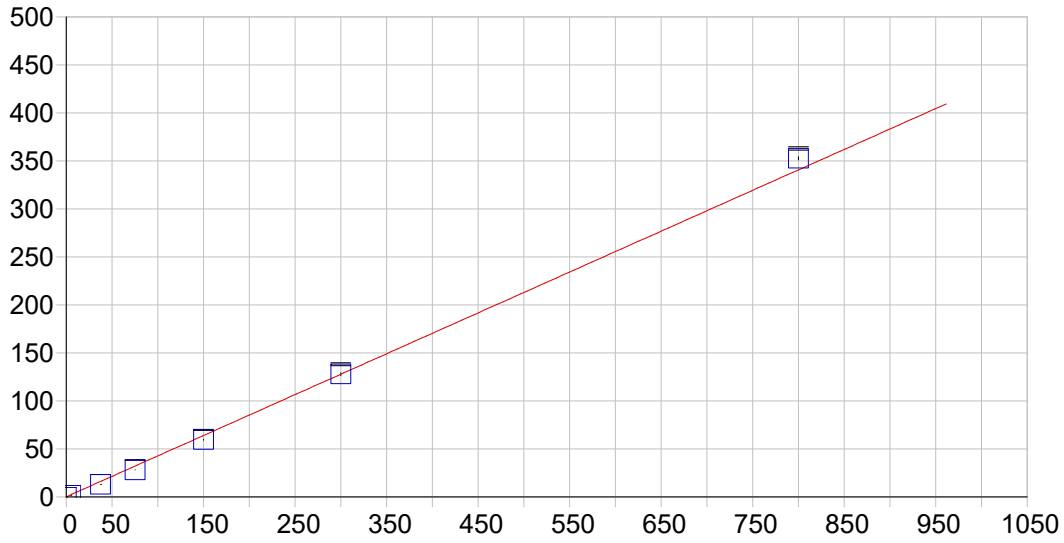
Ag 328.068 {103}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001266	Re-Slope:	1.000000
A1 (Gain):	0.316682	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999877	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.001410		
Predicted MQL:	0.004699		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00127	.000	1
S1	.01000	.00842	-.002	-15.8	.00393	.000	1
S2	.31250	.30040	-.012	-3.87	.09497	.000	1
S3	.62500	.61772	-.007	-1.16	.19404	.001	1
S4	1.2500	1.2439	-.006	-.490	.38948	.001	1
S5	2.5000	2.5271	.027	1.08	.79015	.002	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



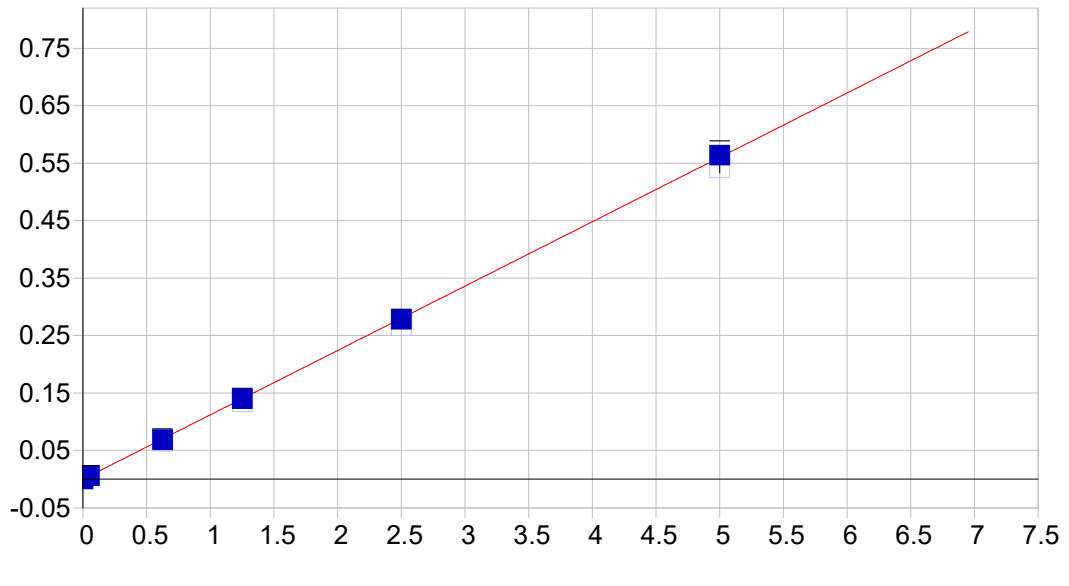
Na 818.326 { 41}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.145186	Re-Slope:	1.000000
A1 (Gain):	0.425644	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998291	Status:	OK.
Std Error of Est:	0.077045		
Predicted MDL:	0.025576		
Predicted MQL:	0.085253		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00330	.003	.000	.14659	.002	1
S1	5.0000	3.4307	-1.57	-31.4	1.6054	.018	1
S2	37.500	30.445	-7.05	-18.8	13.104	.026	1
S3	75.000	65.707	-9.29	-12.4	28.113	.153	1
S4	150.00	139.60	-10.4	-6.94	59.563	.413	1
S5	300.00	300.16	.163	.054	127.91	1.46	1
S6	800.00	828.16	28.2	3.52	352.65	1.61	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



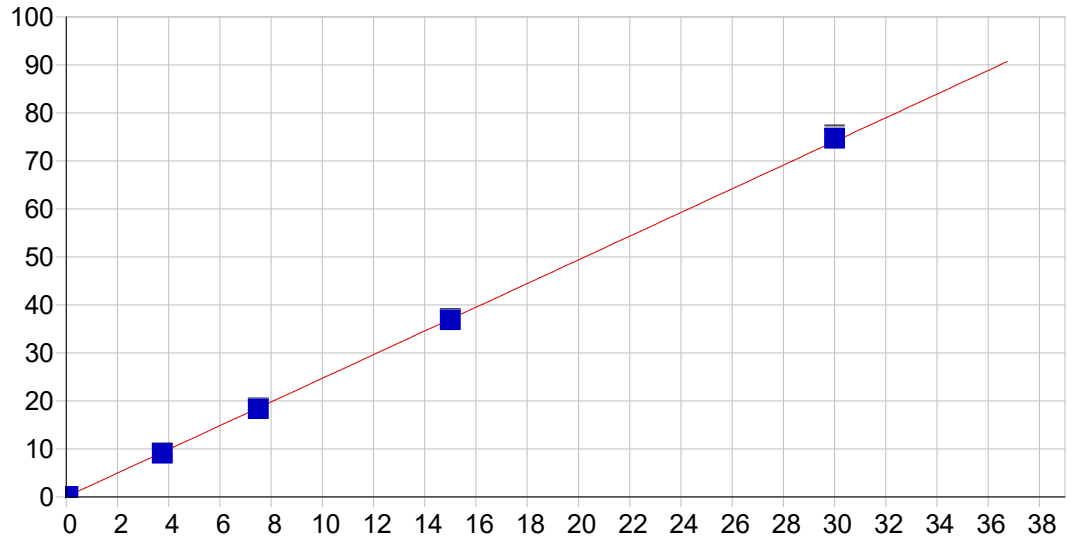
V 292.402 {115}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000038	Re-Slope:	1.000000
A1 (Gain):	0.112037	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999968	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.010512		
Predicted MQL:	0.035039		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00004	.002	1
S1	.05000	.04908	-.001	-1.85	.00544	.001	1
S2	.62500	.61438	-.011	-1.70	.06599	.002	1
S3	1.2500	1.2492	-.001	-.065	.13430	.001	1
S4	2.5000	2.4805	-.019	-.779	.26665	.001	1
S5	5.0000	5.0319	.032	.638	.54127	.008	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



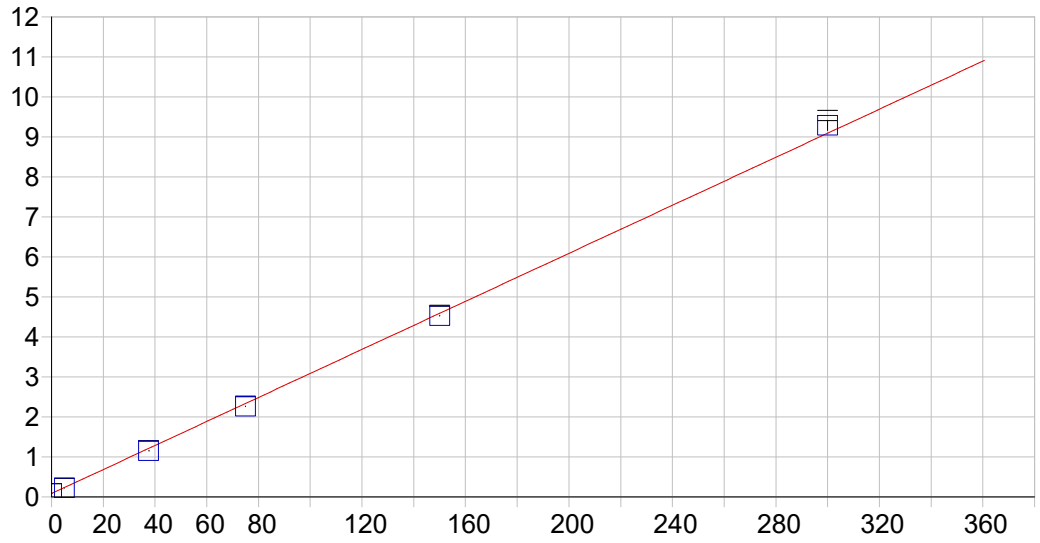
Zn 213.856 {158}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.037870	Re-Slope:	1.000000
A1 (Gain):	2.467046	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999941	Status:	OK.
Std Error of Est:	0.001918		
Predicted MDL:	0.000619		
Predicted MQL:	0.002064		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.03789	.004	1
S1	.06000	.05370	-.006	-10.5	.17081	.000	1
S2	3.7500	3.6518	-.098	-2.62	9.0923	.028	1
S3	7.5000	7.4262	-.074	-.985	18.449	.061	1
S4	15.000	14.916	-.084	-.559	37.018	.103	1
S5	30.000	30.262	.262	.874	75.058	.342	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



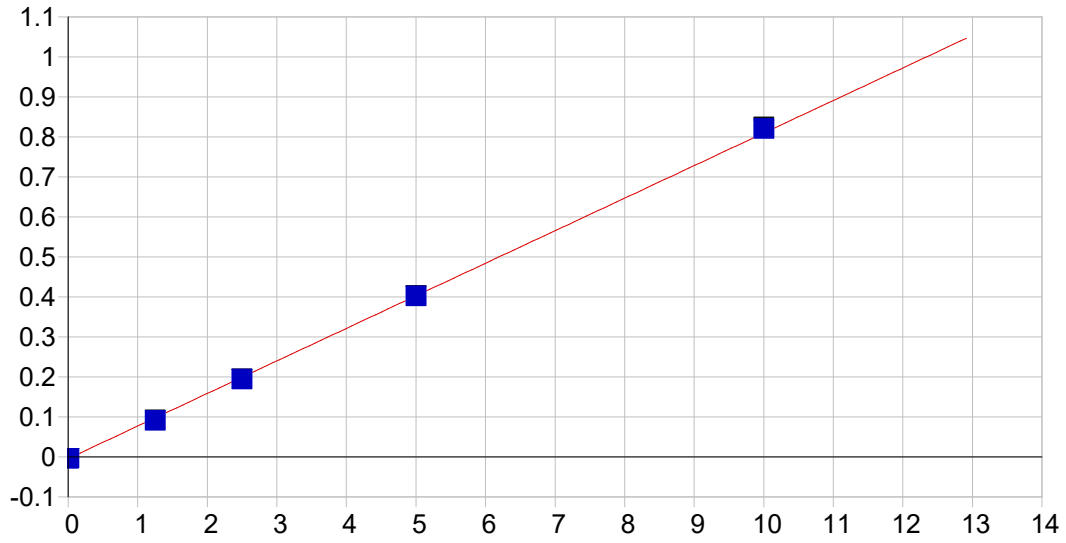
K 769.896 { 44}

Date of Fit: 12/31/2024 12:50:58 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.084576	Re-Slope:	1.000000
A1 (Gain):	0.030024	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999666	Status:	OK.
Std Error of Est:	0.001600		
Predicted MDL:	0.176191		
Predicted MQL:	0.587304		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00079	.001	.000	.08460	.006	1
S1	5.0000	4.5737	-.426	-8.53	.22190	.005	1
S2	37.500	35.563	-1.94	-5.17	1.1523	.003	1
S3	75.000	72.648	-2.35	-3.14	2.2658	.009	1
S4	150.00	148.11	-1.89	-1.26	4.5316	.013	1
S5	300.00	306.60	6.60	2.20	9.2900	.129	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



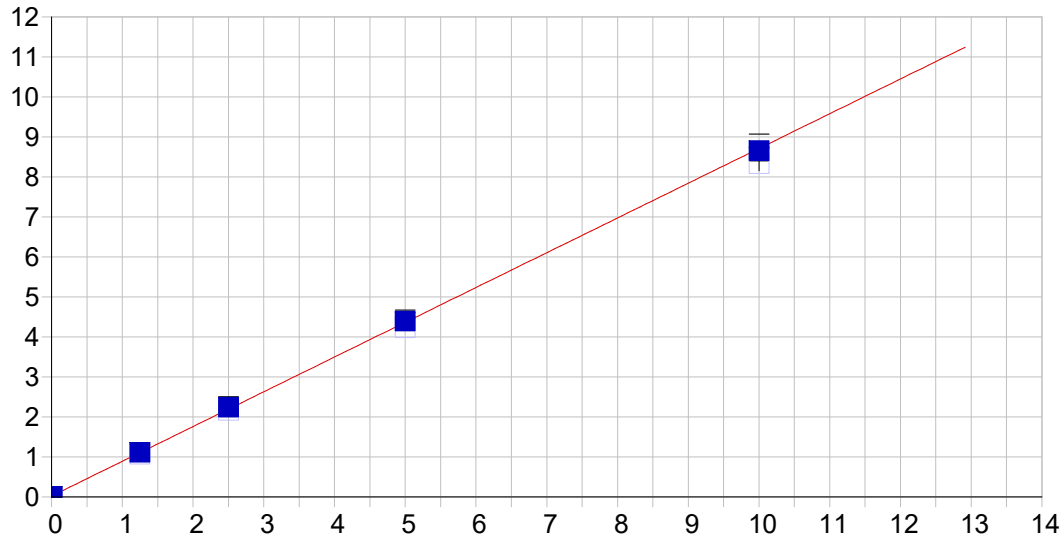
P 177.495 {490}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.004186	Re-Slope:	1.000000
A1 (Gain):	0.081379	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999778	Status:	OK.
Std Error of Est:	0.000029		
Predicted MDL:	0.003422		
Predicted MQL:	0.011405		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00419	.000	1
S1	.01000	.00831	-.002	-16.9	-.00351	.000	1
S2	1.2500	1.1736	-.076	-6.11	.09118	.001	1
S3	2.5000	2.4419	-.058	-2.32	.19424	.000	1
S4	5.0000	4.9950	-.005	-.099	.40171	.001	1
S5	10.000	10.141	.141	1.41	.81990	.004	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



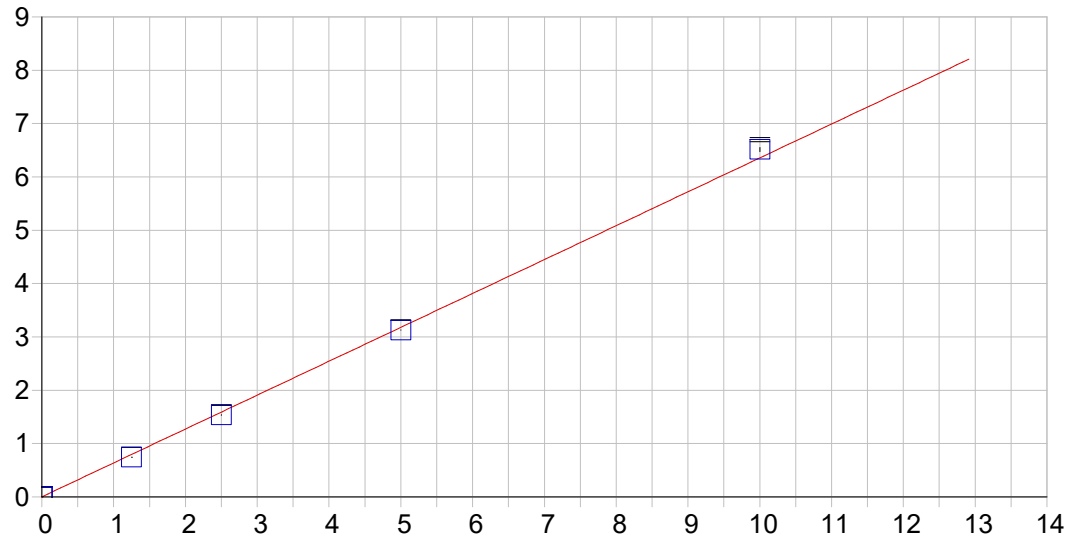
B 249.678 {135}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.021015	Re-Slope:	1.000000
A1 (Gain):	0.868994	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998268	Status:	OK.
Std Error of Est:	0.000826		
Predicted MDL:	0.002232		
Predicted MQL:	0.007439		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.02104	.002	1
S1	.01000	-.01416	-.024	-242.	.00866	.002	1
S2	1.2500	1.2513	.001	.103	1.0671	.002	1
S3	2.5000	2.5564	.056	2.26	2.1599	.010	1
S4	5.0000	5.0306	.031	.613	4.2274	.031	1
S5	10.000	9.9366	-.063	-.634	8.3254	.172	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



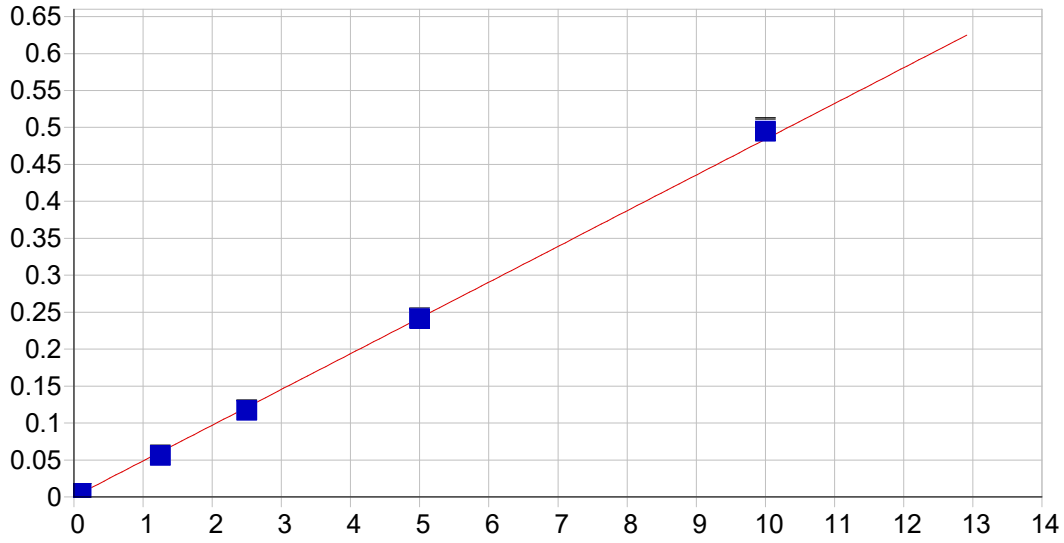
Mo 202.030 {467}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001919	Re-Slope:	1.000000
A1 (Gain):	0.635437	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999580	Status:	OK.
Std Error of Est:	0.000309		
Predicted MDL:	0.000741		
Predicted MQL:	0.002472		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00192	.000	1
S1	.01000	.00917	-.001	-8.32	.00774	.000	1
S2	1.2500	1.1691	-.081	-6.47	.74479	.001	1
S3	2.5000	2.4154	-.085	-3.39	1.5367	.004	1
S4	5.0000	4.9171	-.083	-1.66	3.1264	.003	1
S5	10.000	10.249	.249	2.49	6.5147	.040	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



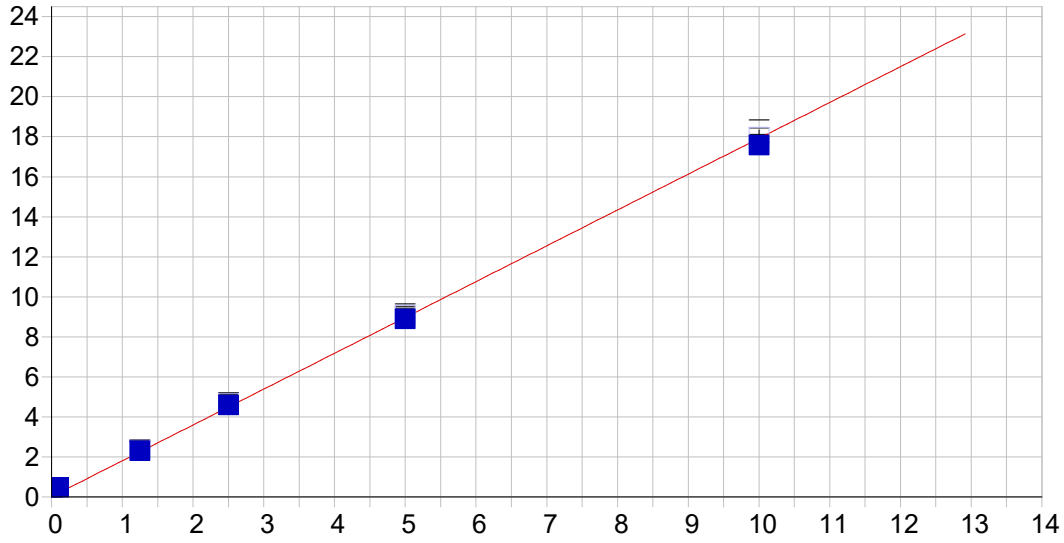
S 182.034 {485}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000327	Re-Slope:	1.000000
A1 (Gain):	0.048368	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999573	Status:	OK.
Std Error of Est:	0.000075		
Predicted MDL:	0.005066		
Predicted MQL:	0.016888		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00033	.000	1
S1	.10000	.09161	-.008	-8.39	.00476	.000	1
S2	1.2500	1.1525	-.098	-7.80	.05626	.000	1
S3	2.5000	2.4102	-.090	-3.59	.11729	.001	1
S4	5.0000	4.9815	-.018	-.369	.24205	.000	1
S5	10.000	10.214	.214	2.14	.49592	.004	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



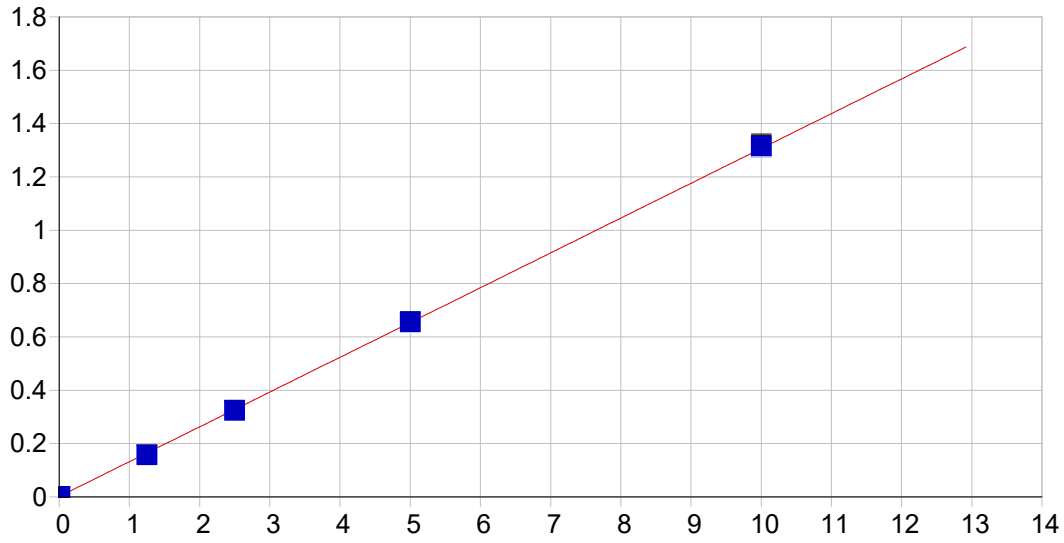
Si 251.611 {134}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.013886	Re-Slope:	1.000000
A1 (Gain):	1.790648	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.993739	Status:	OK.
Std Error of Est:	0.010941		
Predicted MDL:	0.001120		
Predicted MQL:	0.003733		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00016	-.000	.000	.01360	.003	1
S1	.10000	.25586	.156	156.	.47457	.006	1
S2	1.2500	1.2799	.030	2.40	2.3566	.014	1
S3	2.5000	2.5534	.053	2.14	4.6878	.025	1
S4	5.0000	4.9552	-.045	-.896	9.0901	.056	1
S5	10.000	9.8069	-.193	-1.93	17.981	.361	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



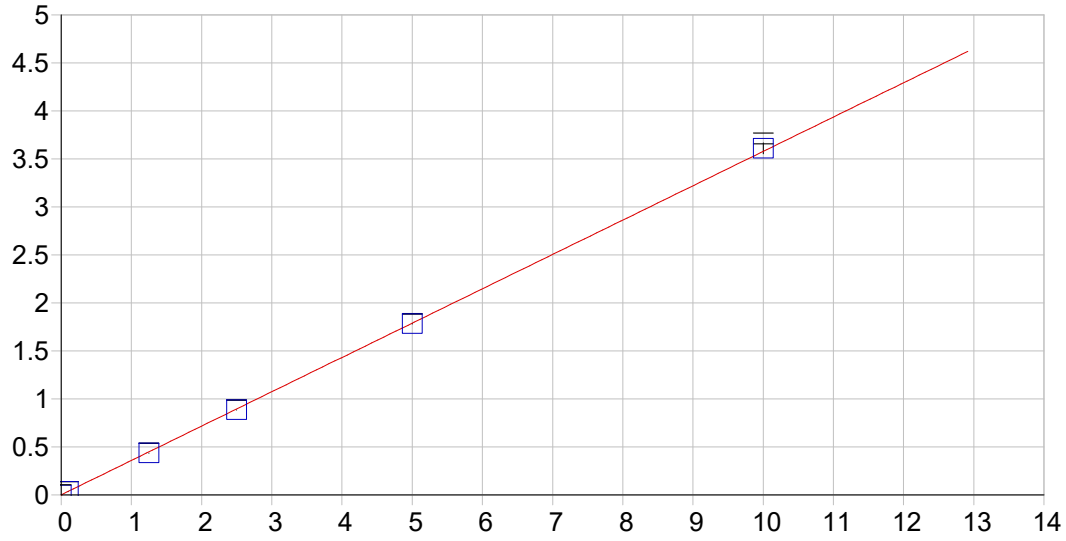
Sn 189.989 {478}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001564	Re-Slope:	1.000000
A1 (Gain):	0.130498	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999843	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.001688		
Predicted MQL:	0.005626		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00156	.000	1
S1	.00700	.00278	-.004	-60.3	.00189	.000	1
S2	1.2500	1.1943	-.056	-4.45	.15660	.000	1
S3	2.5000	2.4739	-.026	-1.04	.32277	.001	1
S4	5.0000	5.0162	.016	.324	.65290	.001	1
S5	10.000	10.070	.070	.696	1.3091	.008	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



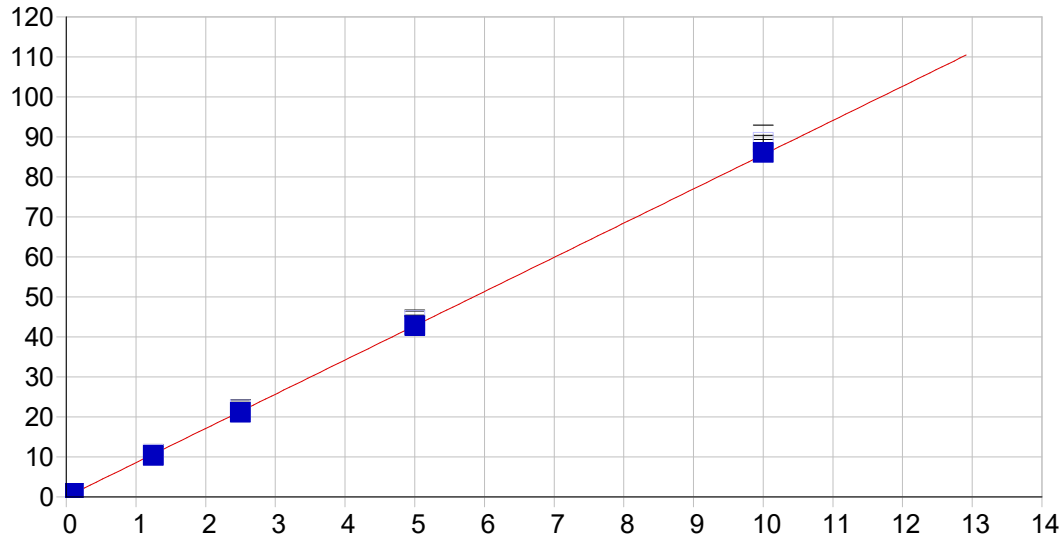
Ti 336.121 {100}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001301	Re-Slope:	1.000000
A1 (Gain):	0.357653	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999937	Status:	OK.
Std Error of Est:	0.000213		
Predicted MDL:	0.004534		
Predicted MQL:	0.015113		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00130	.001	1
S1	.10000	.09675	-.003	-3.25	.03590	.002	1
S2	1.2500	1.2131	-.037	-2.95	.43516	.001	1
S3	2.5000	2.4716	-.028	-1.14	.88528	.003	1
S4	5.0000	4.9811	-.019	-.379	1.7828	.003	1
S5	10.000	10.088	.088	.875	3.6091	.057	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



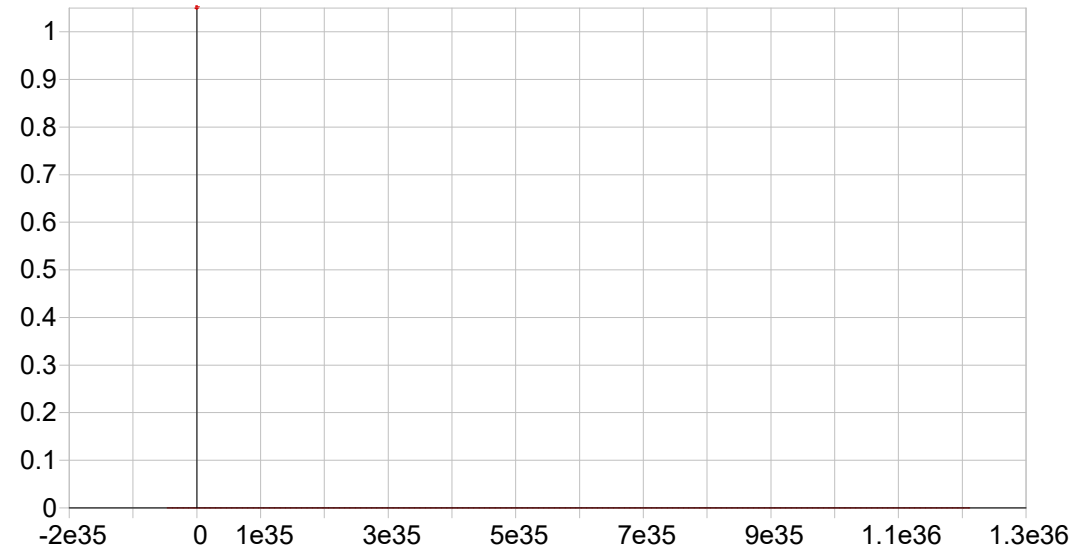
Sr 407.771 { 83}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002994	Re-Slope:	1.000000
A1 (Gain):	8.554425	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.005345		
Predicted MDL:	0.000272		
Predicted MQL:	0.000906		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00300	.002	1
S1	.10000	.10320	.003	3.20	.88669	.004	1
S2	1.2500	1.2032	-.047	-3.74	10.616	.018	1
S3	2.5000	2.4720	-.028	-1.12	21.791	.063	1
S4	5.0000	5.0061	.006	.122	44.110	.147	1
S5	10.000	10.066	.066	.656	88.674	1.81	1

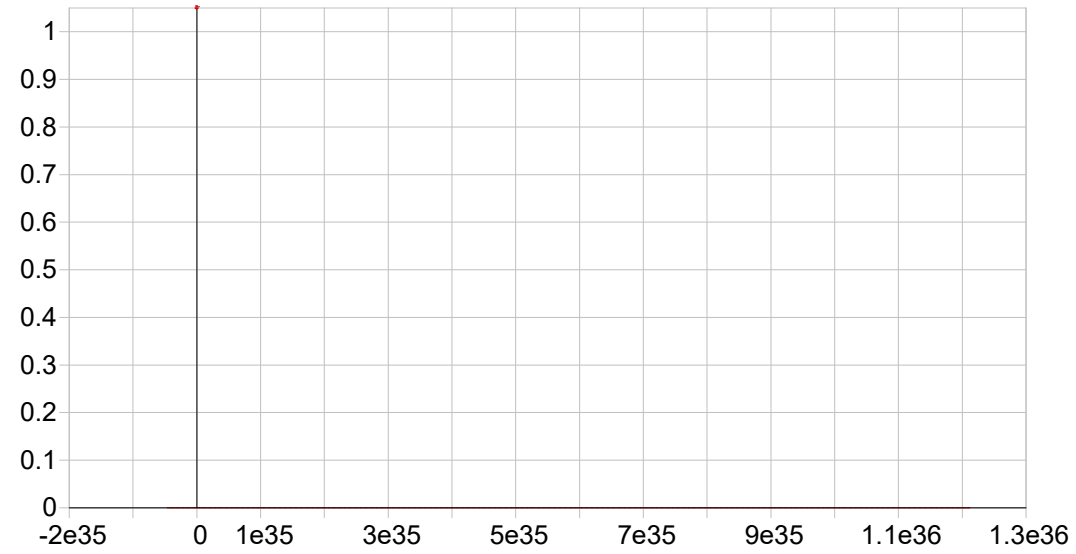
Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



Y 224.306 {450}*

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

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



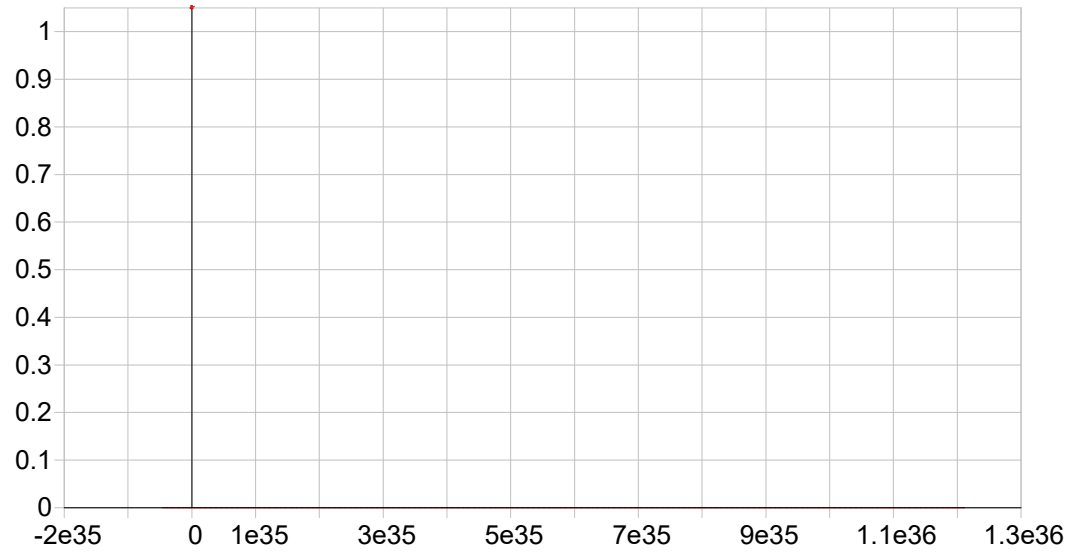
Y 360.073 { 94}*

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

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

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

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

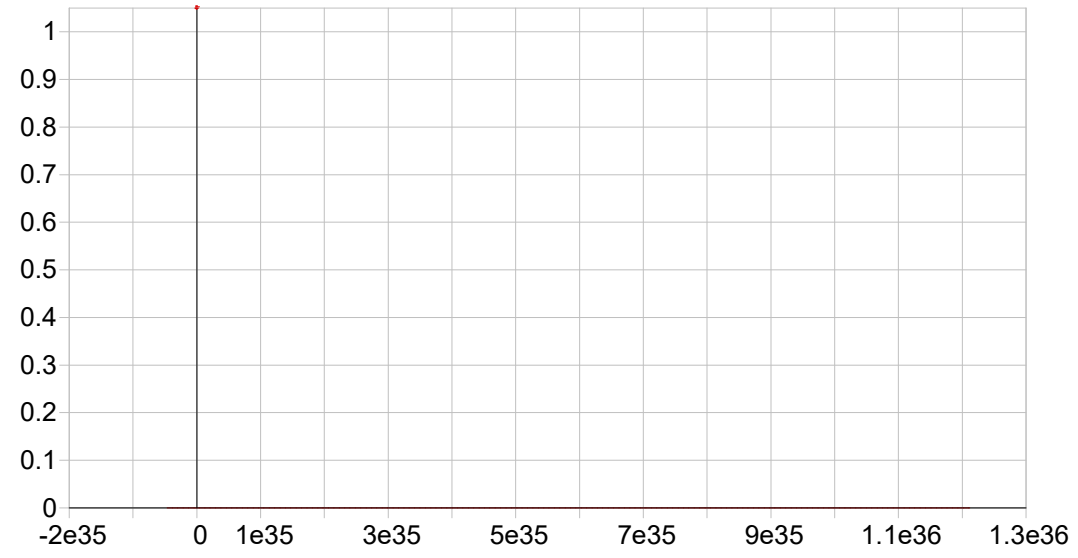


Y 371.030 { 91}*

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

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

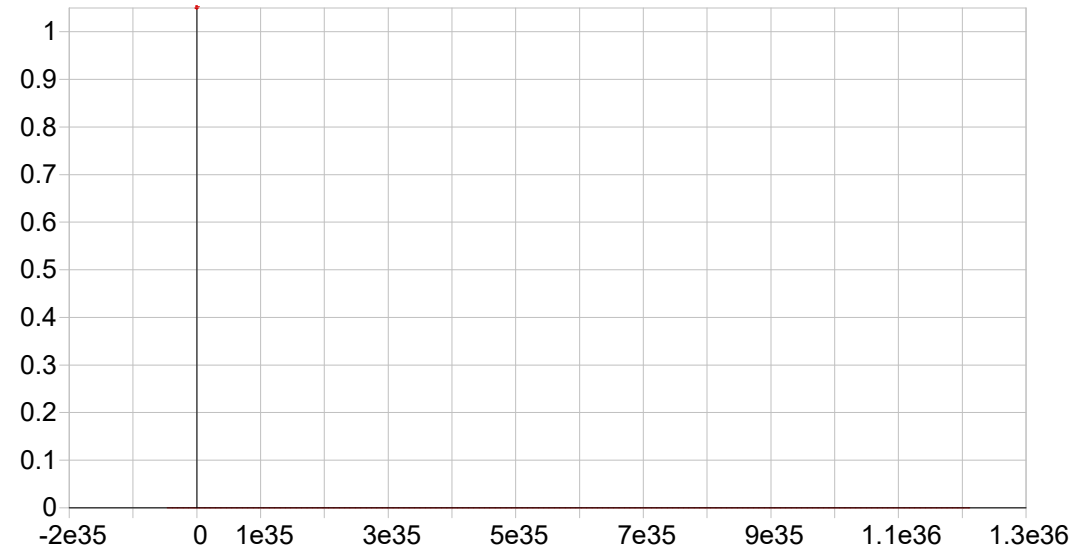
Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5



Y 224.306 {150}*

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

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



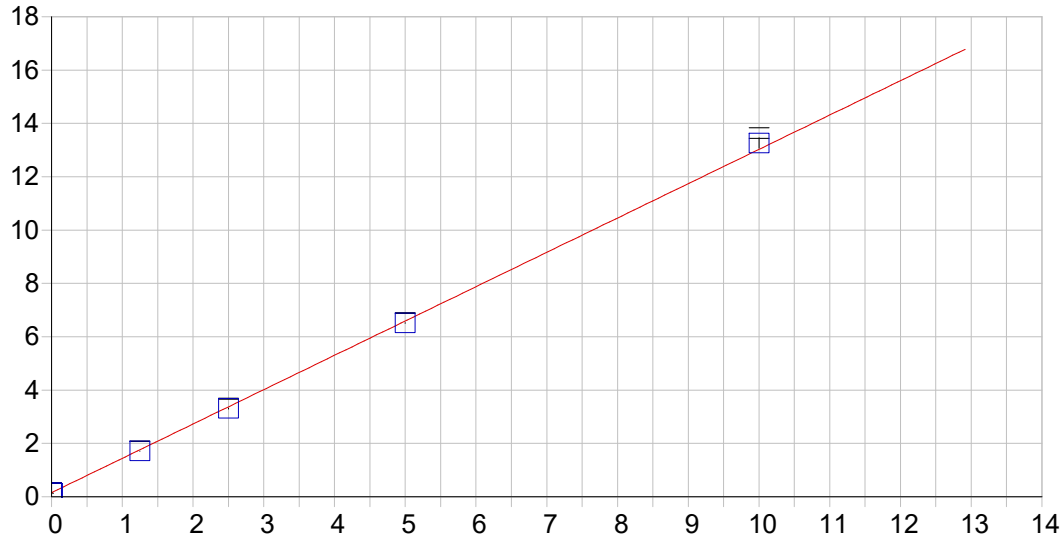
In 230.606 {446}*

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

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

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

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



Li 670.784 { 50}

Date of Fit:	12/31/2024 12:50:58	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.153812	Re-Slope:	1.000000
A1 (Gain):	1.287354	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997962	Status:	OK.
Std Error of Est:	0.001690		
Predicted MDL:	0.003860		
Predicted MQL:	0.012866		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.15386	.004	1
S5	10.000	10.183	.183	1.83	13.263	.195	1
S4	5.0000	4.9387	-.061	-1.23	6.5116	.012	1
S3	2.5000	2.4517	-.048	-1.93	3.3100	.016	1
S2	1.2500	1.2089	-.041	-3.29	1.7101	.010	1
S1	.01500	-.01746	-.032	-216.	.13134	.005	1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S0 Acquired: 12/31/2024 12:16:41 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.70122	-.00013	-.00016	.00051	.00062	-.00238	.05997	.00330
Stddev	.35094	.00016	.00029	.00016	.00010	.00318	.00567	.00206
%RSD	50.048	119.13	181.83	32.352	16.486	133.31	9.4554	62.493
#1	1.0423	-.00008	-.00049	.00034	.00067	-.00536	.06183	.00117
#2	.72021	-.00031	-.00002	.00066	.00050	.00096	.06448	.00528
#3	.34117	-.00001	.00003	.00052	.00069	-.00275	.05360	.00345

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00111	.00574	.00042	-.00037	.00228	.00163	.00524	-.00089
Stddev	.00055	.00192	.00011	.00029	.00065	.00054	.00079	.00101
%RSD	49.477	33.497	26.524	77.387	28.667	33.136	15.012	114.40
#1	.00062	.00788	.00033	-.00027	.00182	.00129	.00436	.00028
#2	.00170	.00516	.00039	-.00070	.00302	.00135	.00585	-.00159
#3	.00100	.00417	.00055	-.00015	.00199	.00225	.00552	-.00134

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00117	.00127	.14659	-.00004	.03789	.08460	-.00419	.02104
Stddev	.00065	.00009	.00248	.00155	.00412	.00641	.00027	.00171
%RSD	55.953	6.7247	1.6891	4091.8	10.881	7.5794	6.3351	8.1221
#1	-.00046	.00135	.14523	-.00182	.04265	.08209	-.00414	.02081
#2	-.00129	.00118	.14509	.00103	.03544	.09189	-.00395	.02285
#3	-.00175	.00126	.14945	.00067	.03558	.07982	-.00447	.01945

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00192	.00033	.01360	.00156	.00130	.00300	.15386
Stddev	.00040	.00018	.00273	.00021	.00126	.00210	.00363
%RSD	20.873	53.536	20.046	13.144	96.735	69.817	2.3565
#1	.00167	.00021	.01675	.00138	.00232	.00540	.15059
#2	.00238	.00024	.01191	.00179	.00170	.00156	.15776
#3	.00171	.00053	.01216	.00153	-.00011	.00204	.15321

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S0 Acquired: 12/31/2024 12:16:41 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1646.4	20195.	1991.1	1362.2	1925.0
Stddev	2.8	45.	6.8	6.0	1.8
%RSD	.16929	.22523	.34041	.43782	.09273
#1	1649.6	20150.	1992.6	1355.3	1923.9
#2	1644.8	20194.	1983.7	1365.4	1927.1
#3	1644.8	20241.	1997.0	1365.9	1924.1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S1 Acquired: 12/31/2024 12:20:45 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.9279	.00171	.00210	.00214	.00972	.02119	.95285	.06587
Stddev	.6195	.00009	.00071	.00022	.00073	.00072	.00524	.00140
%RSD	32.134	5.2245	33.978	10.319	7.5021	3.4125	.54969	2.1193
#1	2.0358	.00169	.00254	.00190	.00947	.02048	.95580	.06735
#2	1.2615	.00180	.00249	.00221	.01054	.02193	.95595	.06458
#3	2.4863	.00162	.00128	.00232	.00915	.02115	.94680	.06568

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02109	.28174	.00334	.05646	.00777	.00366	.01184	.05420
Stddev	.00036	.00261	.00015	.00046	.00219	.00019	.00032	.00101
%RSD	1.7294	.92559	4.3601	.81550	28.201	5.0747	2.6713	1.8690
#1	.02150	.28172	.00343	.05612	.01020	.00363	.01216	.05303
#2	.02096	.28436	.00317	.05698	.00715	.00385	.01153	.05485
#3	.02080	.27914	.00340	.05627	.00595	.00349	.01182	.05472

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02529	.00393	1.6054	.00544	.17081	.22190	-.00351	.00866
Stddev	.00016	.00020	.0185	.00104	.00020	.00548	.00017	.00245
%RSD	.64062	5.0299	1.1508	19.037	.11872	2.4693	4.8401	28.241
#1	.02516	.00414	1.6248	.00592	.17104	.22189	-.00338	.01016
#2	.02524	.00390	1.5880	.00615	.17067	.21642	-.00370	.00584
#3	.02547	.00375	1.6035	.00426	.17072	.22738	-.00344	.00999

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00774	.00476	.47457	.00189	.03590	.88669	.13134
Stddev	.00041	.00009	.00589	.00010	.00226	.00379	.00461
%RSD	5.2579	1.8221	1.2421	5.4586	6.2884	.42714	3.5127
#1	.00753	.00484	.47604	.00200	.03851	.88371	.13539
#2	.00749	.00467	.46808	.00181	.03456	.89095	.12632
#3	.00821	.00477	.47959	.00185	.03464	.88542	.13230

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S1 Acquired: 12/31/2024 12:20:45 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1645.2	20288.	1994.0	1361.5	1936.1
Stddev	2.1	117.	8.9	8.5	2.8
%RSD	.12586	.57851	.44725	.62119	.14460
#1	1643.5	20228.	1991.1	1352.9	1933.5
#2	1644.6	20212.	2004.0	1361.7	1935.6
#3	1647.5	20423.	1986.8	1369.8	1939.1

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S2 Acquired: 12/31/2024 12:24:50 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	158.33	.11514	1.5536	.07871	.19772	4.3652	10.840	1.5078
Stddev	.57	.00008	.0039	.00042	.00052	.0020	.023	.0045
%RSD	.36180	.07188	.25151	.53494	.26080	.04655	.21404	.30143
#1	157.85	.11506	1.5513	.07916	.19714	4.3630	10.856	1.5127
#2	158.18	.11513	1.5581	.07833	.19793	4.3670	10.851	1.5069
#3	158.97	.11523	1.5513	.07863	.19811	4.3656	10.814	1.5038

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.5132	3.3785	1.1893	.69261	.51160	.88667	1.5804	.68463
Stddev	.0035	.0028	.0008	.00128	.00139	.00216	.0063	.00298
%RSD	.14097	.08346	.06292	.18458	.27132	.24361	.40203	.43591
#1	2.5100	3.3800	1.1885	.69302	.51157	.88687	1.5848	.68675
#2	2.5170	3.3753	1.1894	.69363	.51023	.88872	1.5832	.68122
#3	2.5125	3.3803	1.1900	.69118	.51301	.88441	1.5731	.68593

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.41123	.09497	13.104	.06599	9.0923	1.1523	.09118	1.0671
Stddev	.00078	.00015	.026	.00176	.0279	.0027	.00057	.0019
%RSD	.18953	.15428	.19497	2.6601	.30636	.23329	.62823	.17836
#1	.41047	.09486	13.133	.06491	9.0843	1.1515	.09052	1.0673
#2	.41203	.09491	13.090	.06504	9.0693	1.1501	.09142	1.0651
#3	.41119	.09514	13.089	.06801	9.1232	1.1553	.09158	1.0688

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.74479	.05626	2.3566	.15660	.43516	10.616	1.7101
Stddev	.00076	.00031	.0140	.00020	.00136	.018	.0096
%RSD	.10240	.54558	.59494	.12722	.31250	.17041	.56195
#1	.74438	.05610	2.3726	.15661	.43401	10.613	1.7012
#2	.74432	.05608	2.3506	.15680	.43666	10.600	1.7203
#3	.74567	.05662	2.3466	.15640	.43480	10.636	1.7088

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S2 Acquired: 12/31/2024 12:24:50 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1623.2	20114.	2017.4	1341.4	1847.4
Stddev	1.9	31.	8.5	5.0	3.6
%RSD	.11411	.15435	.42124	.37547	.19636
#1	1624.6	20103.	2007.6	1341.3	1847.8
#2	1621.1	20150.	2022.4	1346.5	1843.5
#3	1623.9	20091.	2022.2	1336.4	1850.7

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S3 Acquired: 12/31/2024 12:28:40 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	315.89	.23390	3.1867	.16178	.40797	8.8141	21.791	2.9980
Stddev	2.11	.00073	.0107	.00102	.00120	.0204	.030	.0156
%RSD	.66689	.31315	.33409	.63094	.29326	.23105	.13649	.51939
#1	313.48	.23321	3.1768	.16141	.40751	8.7993	21.796	3.0089
#2	316.79	.23383	3.1853	.16101	.40707	8.8057	21.759	2.9802
#3	317.39	.23467	3.1979	.16294	.40933	8.8373	21.818	3.0049

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.1357	6.7791	2.4102	1.4082	1.0206	1.7663	3.1518	1.3712
Stddev	.0135	.0224	.0057	.0051	.0043	.0010	.0050	.0034
%RSD	.26347	.33101	.23591	.36077	.42044	.05607	.15789	.24532
#1	5.1256	6.7731	2.4036	1.4030	1.0206	1.7658	3.1461	1.3746
#2	5.1305	6.7603	2.4131	1.4085	1.0163	1.7674	3.1542	1.3679
#3	5.1511	6.8039	2.4138	1.4132	1.0248	1.7656	3.1552	1.3711

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.84566	.19404	28.113	.13430	18.449	2.2658	.19424	2.1599
Stddev	.00039	.00109	.153	.00096	.061	.0095	.00016	.0101
%RSD	.04611	.56043	.54434	.71723	.32851	.41855	.08319	.46710
#1	.84530	.19281	28.196	.13407	18.514	2.2642	.19406	2.1646
#2	.84560	.19487	27.936	.13348	18.439	2.2572	.19439	2.1483
#3	.84607	.19444	28.206	.13536	18.394	2.2760	.19426	2.1668

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.5367	.11729	4.6878	.32277	.88528	21.791	3.3100
Stddev	.0044	.00059	.0249	.00079	.00292	.063	.0161
%RSD	.28565	.49955	.53111	.24462	.32950	.29133	.48724
#1	1.5344	.11662	4.6948	.32194	.88202	21.784	3.3090
#2	1.5340	.11754	4.6601	.32285	.88765	21.732	3.2944
#3	1.5418	.11771	4.7084	.32351	.88616	21.858	3.3266

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S3 Acquired: 12/31/2024 12:28:40 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1562.6	19633.	2014.2	1286.9	1766.8
Stddev	6.8	94.	4.9	4.4	6.0
%RSD	.43412	.47668	.24572	.33985	.33781
#1	1557.1	19736.	2013.5	1289.4	1762.8
#2	1570.2	19553.	2019.5	1281.9	1773.6
#3	1560.7	19609.	2009.7	1289.4	1763.8

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S4 Acquired: 12/31/2024 12:32:18 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	613.39	.46522	6.4414	.32666	.83373	17.655	43.518	5.8566
Stddev	2.66	.00084	.0083	.00101	.00096	.043	.066	.0219
%RSD	.43444	.17962	.12857	.30864	.11549	.24123	.15153	.37401
#1	610.32	.46442	6.4454	.32583	.83478	17.648	43.524	5.8639
#2	614.99	.46516	6.4319	.32636	.83290	17.700	43.580	5.8739
#3	614.88	.46609	6.4469	.32778	.83349	17.615	43.449	5.8319

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10.257	13.460	4.7523	2.7996	2.0304	3.4928	6.2096	2.7142
Stddev	.007	.043	.0124	.0017	.0049	.0085	.0089	.0067
%RSD	.07075	.32065	.26158	.06202	.24123	.24213	.14265	.24530
#1	10.254	13.482	4.7385	2.7993	2.0357	3.4959	6.1996	2.7132
#2	10.252	13.487	4.7626	2.7981	2.0293	3.4993	6.2164	2.7213
#3	10.265	13.410	4.7559	2.8015	2.0261	3.4832	6.2128	2.7081

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.6947	.38948	59.563	.26665	37.018	4.5316	.40171	4.2274
Stddev	.0017	.00091	.413	.00092	.103	.0126	.00109	.0311
%RSD	.09780	.23388	.69298	.34344	.27922	.27743	.27074	.73592
#1	1.6937	.38846	59.677	.26749	37.015	4.5256	.40102	4.2091
#2	1.6937	.38976	59.907	.26678	37.122	4.5461	.40297	4.2633
#3	1.6966	.39022	59.105	.26567	36.916	4.5232	.40116	4.2098

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.1264	.24205	9.0901	.65290	1.7828	44.110	6.5116
Stddev	.0034	.00025	.0562	.00075	.0031	.147	.0118
%RSD	.10917	.10528	.61797	.11487	.17450	.33409	.18130
#1	3.1303	.24231	9.0519	.65279	1.7839	44.148	6.5194
#2	3.1238	.24204	9.1546	.65221	1.7852	44.235	6.5174
#3	3.1252	.24180	9.0638	.65370	1.7793	43.948	6.4980

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S4 Acquired: 12/31/2024 12:32:18 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1479.7	19121.	2012.6	1222.2	1675.7
Stddev	4.7	50.	14.3	6.4	4.4
%RSD	.32065	.25990	.70839	.52653	.25975
#1	1474.3	19080.	2004.3	1218.5	1671.2
#2	1483.3	19106.	2004.4	1218.4	1679.9
#3	1481.5	19176.	2029.0	1229.6	1676.0

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S5 Acquired: 12/31/2024 12:35:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1182.7	.90768	12.936	.66666	1.7465	36.201	88.824	11.635
Stddev	1.7	.00649	.080	.00317	.0098	.478	1.191	.248
%RSD	.14488	.71480	.61529	.47561	.56216	1.3209	1.3408	2.1354
#1	1181.6	.90047	12.847	.66318	1.7360	35.906	88.170	11.541
#2	1181.7	.90953	12.963	.66742	1.7479	35.944	88.104	11.447
#3	1184.6	.91304	12.999	.66939	1.7555	36.752	90.199	11.917

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	20.283	27.004	9.3447	5.5535	4.0986	6.9668	12.404	5.4875
Stddev	.124	.349	.0179	.0338	.0482	.0871	.184	.0723
%RSD	.61239	1.2938	.19104	.60807	1.1767	1.2495	1.4794	1.3170
#1	20.146	26.821	9.3651	5.5162	4.0725	6.9133	12.307	5.4432
#2	20.316	26.785	9.3369	5.5621	4.0690	6.9199	12.289	5.4484
#3	20.388	27.407	9.3321	5.5821	4.1543	7.0672	12.615	5.5709

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.3672	.79015	127.91	.54127	75.058	9.2900	.81990	8.3254
Stddev	.0198	.00199	1.46	.00793	.342	.1295	.00367	.1719
%RSD	.58838	.25155	1.1396	1.4656	.45601	1.3936	.44717	2.0645
#1	3.3453	.79208	128.32	.53589	74.958	9.2100	.81625	8.2570
#2	3.3726	.79026	126.29	.53754	74.777	9.2207	.81988	8.1983
#3	3.3838	.78811	129.11	.55038	75.440	9.4394	.82358	8.5210

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6.5147	.49592	17.981	1.3091	3.6091	88.674	13.263
Stddev	.0399	.00385	.361	.0082	.0570	1.814	.195
%RSD	.61303	.77636	2.0061	.62887	1.5805	2.0451	1.4701
#1	6.4689	.49159	17.873	1.2998	3.5730	87.389	13.145
#2	6.5327	.49721	17.687	1.3119	3.5796	87.885	13.156
#3	6.5425	.49896	18.383	1.3155	3.6749	90.749	13.488

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S5 Acquired: 12/31/2024 12:35:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1362.1	18443.	1966.2	1113.1	1587.3
Stddev	6.7	116.	29.3	2.8	7.8
%RSD	.49450	.63028	1.4892	.24913	.49064
#1	1369.7	18430.	1982.6	1113.3	1596.3
#2	1357.0	18335.	1983.6	1110.2	1583.2
#3	1359.6	18566.	1932.4	1115.7	1582.4

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: S6 Acquired: 12/31/2024 12:39:52 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93.563	42.680	17.957	8.6659	352.65
Stddev	.087	.046	.014	.0189	1.61
%RSD	.09258	.10856	.07931	.21809	.45691
#1	93.463	42.718	17.969	8.6689	354.48
#2	93.607	42.695	17.960	8.6832	351.98
#3	93.619	42.628	17.941	8.6457	351.47

Int. Std.	Y_3710
Units	Cts/S
Avg	1925.0
Stddev	8.2
%RSD	.42826
#1	1915.5
#2	1930.8
#3	1928.6

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICV006 Acquired: 12/31/2024 13:00:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.089046	1.030706	1.008777	.9997228	.9456896	2.474549
Stddev	.006995	.002053	.002243	.0067332	.0015387	.035710
%RSD	.6423464	.1991945	.2223017	.6735021	.1627098	1.443110
#1	1.092876	1.029139	1.009781	1.006521	.9474482	2.504249
#2	1.080972	1.029949	1.006208	.999591	.9450298	2.484471
#3	1.093290	1.033030	1.010343	.993056	.9445908	2.434927

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5320317	.5447920	.5239655	10.56470	.5657880	.5207834
Stddev	.0009374	.0038034	.0004907	.02469	.0006716	.0008964
%RSD	.1761901	.6981375	.0936528	.2337276	.1186924	.1721178
#1	.5310792	.5438503	.5241242	10.53970	.5656272	.5214423
#2	.5329532	.5489778	.5234151	10.58907	.5652114	.5197627
#3	.5320626	.5415479	.5243573	10.56533	.5665253	.5211453

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5215411	10.73883	.5357825	6.283708	.5306575	.2509477
Stddev	.0065030	.05556	.0077105	.144116	.0009307	.0010369
%RSD	1.246884	.5174174	1.439104	2.293488	.1753861	.4131890
#1	.5289771	10.69997	.5333970	6.324209	.5296787	.2503013
#2	.5187279	10.80248	.5444039	6.403239	.5307625	.2521437
#3	.5169183	10.71404	.5295468	6.123674	.5315312	.2503981

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.271686	.5331944	1.011492	9.813354	F -.001235	F -.045952
Stddev	.051277	.0111586	.004156	.167863	.000371	.002540
%RSD	.5530526	2.092774	.4108796	1.710554	30.04807	5.527346
#1	9.254016	.5322366	1.015683	9.909058	-.001009	-.044944
#2	9.329461	.5448010	1.011421	9.619528	-.001033	-.048841
#3	9.231580	.5225457	1.007372	9.911476	-.001664	-.044071

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICV006 Acquired: 12/31/2024 13:00:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000297	F .0099096	F .0006762	F -.006855	F -.006255	F -.010071
Stddev	.000607	.0057819	.0014066	.001649	.003890	.000396
%RSD	204.3301	58.34626	208.0249	24.04870	62.19215	3.929916
#1	.000321	.0158665	-.000351	-.005793	-.010605	-.010438
#2	-.000892	.0043203	.000100	-.006018	-.003109	-.009652
#3	-.000319	.0095420	.002279	-.008754	-.005051	-.010122

Elem	Li6707
Units	ppm
Avg	F -.051132
Stddev	.003225
%RSD	6.307484
#1	-.053939
#2	-.051849
#3	-.047609

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1667.157	20438.47	2037.555	1372.724	1950.275
Stddev	5.306	12.82	14.688	5.149	4.893
%RSD	.3182902	.0627193	.7208683	.3751032	.2508832
#1	1661.346	20441.63	2041.737	1368.445	1944.679
#2	1668.378	20424.37	2021.229	1371.288	1952.397
#3	1671.746	20449.42	2049.698	1378.438	1953.748

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICB006 Acquired: 12/31/2024 13:04:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001819	-.001218	-.000785	-.011283	.0011402	.0151240
Stddev	.003745	.002731	.002772	.001425	.0019947	.0123717
%RSD	205.8805	224.1592	352.9684	12.62884	174.9425	81.80172
#1	.000690	.001161	.002374	-.012786	.0025231	.0091541
#2	-.000023	-.000616	-.001924	-.009951	-.001146	.0068693
#3	-.006124	-.004201	-.002807	-.011113	.002044	.0293486

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002732	-.000093	-.000115	.0310353	-.001025	-.000301
Stddev	.001729	.000033	.000081	.0374691	.000353	.000290
%RSD	63.27969	35.37168	70.58130	120.7306	34.41764	96.26138
#1	-.000745	-.000130	-.000075	.0741059	-.001064	-.000046
#2	-.003554	-.000069	-.000062	.0130526	-.000654	-.000241
#3	-.003896	-.000079	-.000208	.0059473	-.001356	-.000616

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000597	-.037756	-.009242	-.003645	-.000497	-.001428
Stddev	.009337	.021233	.000891	.093540	.000410	.000671
%RSD	1563.763	56.23655	9.641684	2566.441	82.57699	46.96258
#1	-.009326	-.055183	-.008708	.094150	-.000033	-.000709
#2	.009247	-.014108	-.008748	-.092251	-.000647	-.001539
#3	-.001712	-.043977	-.010271	-.012834	-.000810	-.002036

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.214856	-.008022	-.009948	-1.06299	.0002226	-.017557
Stddev	.021391	.003239	.000795	.09566	.0031200	.001886
%RSD	9.955918	40.36993	7.987051	8.998702	1401.370	10.74092
#1	-.230739	-.004859	-.009031	-1.14229	-.003360	-.019080
#2	-.190533	-.007877	-.010383	-1.08993	.002344	-.018144
#3	-.223297	-.011331	-.010431	-.95676	.001684	-.015448

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICB006 Acquired: 12/31/2024 13:04:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000879	-.001402	-.000133	F -.009394	-.001789	-.000313
Stddev	.000444	.005611	.001263	.001991	.006144	.000139
%RSD	50.58701	400.2257	947.5960	21.18916	343.3696	44.39530
#1	-.000549	.002282	-.001478	-.007297	.004321	-.000196
#2	-.001384	-.007860	.001027	-.009628	-.007967	-.000277
#3	-.000702	.001371	.000051	-.011257	-.001723	-.000467

Elem	Li6707
Units	ppm
Avg	F -.055338
Stddev	.002418
%RSD	4.368897
#1	-.053733
#2	-.058119
#3	-.054162

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1661.225	20361.03	2020.683	1373.358	1940.579
Stddev	6.251	121.68	6.867	8.838	7.209
%RSD	.3763164	.5975953	.3398249	.6435241	.3714619
#1	1654.110	20478.61	2027.010	1377.070	1932.589
#2	1663.731	20235.63	2021.659	1363.270	1942.553
#3	1665.835	20368.84	2013.381	1379.735	1946.595

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICSA006 Acquired: 12/31/2024 13:08:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070538	.0019532	-.009138	.0094582	.0134073	239.5197
Stddev	.0020733	.0030061	.001566	.0034547	.0059690	.7444
%RSD	29.39209	153.9039	17.14131	36.52569	44.52025	.3107720
#1	.0080391	.0021250	-.008232	.0133685	.0195118	239.7026
#2	.0084507	-.001135	-.010947	.0068193	.0075837	240.1556
#3	.0046716	.004870	-.008236	.0081870	.0131265	238.7010

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050243	.0012617	.0006473	247.5765	.0505345	.0352820
Stddev	.0014991	.0001429	.0001721	1.2754	.0006320	.0005699
%RSD	29.83717	11.32271	26.59221	.5151571	1.250645	1.615248
#1	.0065344	.0012250	.0008454	248.1014	.0500239	.0346346
#2	.0035364	.0011407	.0005353	248.5057	.0512414	.0357076
#3	.0050020	.0014193	.0005610	246.1224	.0503382	.0355039

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005230	101.0433	-.005332	257.5876	.0028720	-.005195
Stddev	.012617	.2839	.001937	.8456	.0003974	.000673
%RSD	241.2408	.2809217	36.32427	.3282723	13.83701	12.95027
#1	-.002090	101.1309	-.003704	257.8306	.0029744	-.004720
#2	-.019120	101.2730	-.007473	258.2851	.0024334	-.004901
#3	.005521	100.7260	-.004818	256.6472	.0032081	-.005965

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.173822	.0011820	-.044469	-1.46908	.0075606	F -.274589
Stddev	.015300	.0064069	.000858	.24032	.0029725	.003338
%RSD	8.802022	542.0196	1.929313	16.35832	39.31572	1.215690
#1	-.176133	-.003658	-.045324	-1.69874	.0051200	-.276783
#2	-.187834	-.001243	-.044474	-1.21937	.0108710	-.276237
#3	-.157498	.008447	-.043608	-1.48912	.0066908	-.270748

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICSA006 Acquired: 12/31/2024 13:08:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049187	.0145219	-.002508	.0023657	-.006865	.0039620
Stddev	.0011975	.0078259	.000946	.0002458	.004851	.0003023
%RSD	24.34659	53.89018	37.72209	10.39068	70.65791	7.628763
#1	.0038728	.0077197	-.001569	.0024888	-.010937	.0040453
#2	.0046583	.0230749	-.002494	.0025256	-.001498	.0042139
#3	.0062250	.0127711	-.003461	.0020827	-.008162	.0036269

Elem	Li6707
Units	ppm
Avg	F -.050169
Stddev	.004391
%RSD	8.751734
#1	-.055219
#2	-.047254
#3	-.048035

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1587.916	19455.58	2023.007	1312.804	1752.576
Stddev	5.967	60.63	12.344	4.776	7.447
%RSD	.3758065	.3116287	.6101934	.3638285	.4249010
#1	1591.431	19390.47	2013.570	1311.664	1757.658
#2	1581.026	19510.42	2036.977	1308.701	1744.028
#3	1591.291	19465.84	2018.474	1318.048	1756.042

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICSAB006 Acquired: 12/31/2024 13:27:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1028563	.1039387	.0455731	.0554643	.6083243	229.7453
Stddev	.0071214	.0003218	.0039942	.0092364	.0057364	.6324
%RSD	6.923609	.3095630	8.764362	16.65278	.9429915	.2752492
#1	.1045222	.1035916	.0478506	.0544356	.6076247	230.4730
#2	.1089971	.1042270	.0479076	.0651720	.6029697	229.3290
#3	.0950497	.1039975	.0409612	.0467854	.6143784	229.4340

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5412480	.5392485	1.066583	238.1908	.6109691	F .5543858
Stddev	.0034587	.0042281	.002920	.7467	.0036767	.0031954
%RSD	.6390220	.7840795	.2737866	.3134684	.6017787	.5763897
#1	.5446681	.5435293	1.064098	239.0472	.6125760	.5513914
#2	.5377520	.5350751	1.065852	237.8484	.6067626	.5540159
#3	.5413239	.5391411	1.069799	237.6766	.6135689	.5577501

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4811764	97.87285	.5291075	248.0745	1.057374	.2038909
Stddev	.0015251	.29796	.0047987	1.0182	.003094	.0015465
%RSD	.3169513	.3044407	.9069416	.4104340	.2926081	.7584747
#1	.4798275	98.03920	.5346371	249.2501	1.054938	.2040715
#2	.4828313	98.05050	.5266512	247.4994	1.056329	.2022621
#3	.4808705	97.52885	.5260342	247.4740	1.060855	.2053392

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.172990	.5259482	.9899038	-1.46931	.0063633	F -.256630
Stddev	.002257	.0063322	.0103828	.21629	.0035470	.002856
%RSD	1.304695	1.203966	1.048866	14.72069	55.74146	1.112912
#1	-.175566	.5323522	.9925705	-1.23129	.0028216	-.259717
#2	-.172039	.5196902	.9784477	-1.65384	.0063527	-.254081
#3	-.171363	.5258023	.9986931	-1.52281	.0099156	-.256092

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: ICSAB006 Acquired: 12/31/2024 13:27:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046991	.0226592	-.000200	.0012391	-.008923	.0034989
Stddev	.0001119	.0051669	.001628	.0014510	.004188	.0002028
%RSD	2.382252	22.80265	813.4583	117.1029	46.93368	5.796530
#1	.0047272	.0251860	-.000021	.0028134	-.006420	.0035131
#2	.0045758	.0260764	-.001911	-.000045	-.006590	.0032893
#3	.0047943	.0167152	.001331	.000949	-.013757	.0036942

Elem	Li6707
Units	ppm
Avg	F -.073183
Stddev	.004641
%RSD	6.341697
#1	-.078500
#2	-.069944
#3	-.071104

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1598.990	19506.61	2062.421	1319.740	1760.943
Stddev	8.572	101.13	6.730	9.889	8.477
%RSD	.5360633	.5184325	.3263003	.7493114	.4813991
#1	1597.956	19541.43	2054.766	1321.753	1761.023
#2	1608.031	19585.72	2067.404	1328.468	1769.380
#3	1590.982	19392.67	2065.094	1308.999	1752.426

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCV053 Acquired: 12/31/2024 13:32:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV053 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.881025	4.796540	24.43456	4.901896	4.886203	398.3969
Stddev	.030100	.012203	.02286	.006642	.008892	.8595
%RSD	.6166713	.2544159	.0935646	.1354935	.1819729	.2157478
#1	4.884540	4.800576	24.44125	4.894237	4.892925	397.9274
#2	4.909214	4.806214	24.45334	4.906072	4.889563	397.8743
#3	4.849322	4.782830	24.40911	4.905379	4.876121	399.3889

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.04313	.5066432	2.456092	403.5243	15.37062	2.484175
Stddev	.03814	.0025471	.005017	.0807	.04077	.005402
%RSD	.3797775	.5027354	.2042769	.0199875	.2652435	.2174539
#1	10.02030	.5088436	2.459450	403.4864	15.36202	2.485432
#2	10.02193	.5072331	2.458501	403.6169	15.41500	2.488838
#3	10.08716	.5038529	2.450325	403.4697	15.33484	2.478256

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.84459	406.6335	14.89803	402.8383	2.484295	1.250666
Stddev	.00193	1.4339	.04980	.8958	.004206	.001477
%RSD	.0130184	.3526220	.3342952	.2223777	.1693002	.1180634
#1	14.84477	406.7621	14.88776	402.4191	2.487599	1.251057
#2	14.84643	405.1396	14.85416	402.2289	2.485724	1.251907
#3	14.84258	407.9987	14.95217	403.8668	2.479560	1.249033

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	414.0266	2.485467	14.92695	151.6724	4.908805	F 4.308525
Stddev	.9293	.008362	.02451	.6795	.011402	.036620
%RSD	.2244539	.3364518	.1641712	.4480056	.2322863	.8499486
#1	415.0454	2.494205	14.92245	151.1793	4.910832	4.330902
#2	413.8088	2.477539	14.90501	151.3904	4.919058	4.328409
#3	413.2255	2.484657	14.95340	152.4475	4.896525	4.266264

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCV053 Acquired: 12/31/2024 13:32:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV053 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.833996	4.922661	4.976926	4.971301	4.889105	4.730855
Stddev	.003139	.015048	.034369	.011921	.024991	.006389
%RSD	.0649305	.3056961	.6905601	.2397882	.5111646	.1350509
#1	4.831390	4.908848	5.007573	4.983553	4.915564	4.733021
#2	4.837480	4.938697	4.983438	4.970607	4.885850	4.735880
#3	4.833118	4.920437	4.939768	4.959742	4.865901	4.723665

Elem	Li6707
Units	ppm
Avg	5.004156
Stddev	.018886
%RSD	.3773997
#1	4.991258
#2	4.995377
#3	5.025833

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1441.063	18444.52	1954.426	1176.366	1622.454
Stddev	2.405	63.39	2.661	7.190	1.070
%RSD	.1669073	.3436863	.1361307	.6112445	.0659514
#1	1443.048	18506.87	1951.618	1180.073	1623.189
#2	1441.752	18446.58	1956.910	1180.947	1622.946
#3	1438.388	18380.13	1954.749	1168.079	1621.227

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCB053 Acquired: 12/31/2024 13:36:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB053 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004078	-.002526	.0007140	-.001742	-.000123	.0795269
Stddev	.001481	.003234	.0012002	.003707	.005240	.0034545
%RSD	36.31843	128.0496	168.0931	212.8590	4274.527	4.343755
#1	-.005391	-.002314	.0019258	.001037	-.001450	.0812487
#2	-.002473	.000598	.0006903	-.000310	-.004571	.0755499
#3	-.004371	-.005860	-.000474	-.005951	.005653	.0817821

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000830	-.000063	.0000487	.0257046	-.000985	-.000024
Stddev	.001093	.000140	.0000385	.0514801	.000419	.000167
%RSD	131.6768	221.8492	79.15387	200.2757	42.53835	697.5533
#1	-.000346	-.000042	.0000930	-.009817	-.000560	.000164
#2	-.002081	.000065	.0000295	.002187	-.000997	-.000155
#3	-.000062	-.000213	.0000235	.084743	-.001399	-.000080

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021942	.0090784	-.006004	.0361114	-.000348	-.001215
Stddev	.0034226	.0367746	.000315	.0935890	.000439	.001775
%RSD	155.9848	405.0789	5.244396	259.1672	126.0592	146.0438
#1	.0061102	.0288202	-.005643	.0674972	-.000190	.000834
#2	-.000225	.0317660	-.006146	.1099735	-.000844	-.002274
#3	.000697	-.033351	-.006222	-.069136	-.000010	-.002206

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.140026	.0005662	-.001450	-.971571	.0012164	-.005594
Stddev	.037380	.0092889	.000789	.115605	.0012868	.000751
%RSD	26.69476	1640.574	54.44720	11.89876	105.7878	13.42026
#1	-.100625	.0046723	-.000547	-.884832	.0000552	-.005980
#2	-.144464	-.010068	-.002013	-.927066	.0009941	-.004729
#3	-.174988	.007094	-.001789	-1.10281	.0025998	-.006074

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCB053 Acquired: 12/31/2024 13:36:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB053 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000996	-.005542	.0002223	F -.009201	-.003482	-.000306
Stddev	.000620	.006517	.0010156	.000820	.002995	.000189
%RSD	62.23858	117.5841	456.8530	8.911339	86.02583	61.60976
#1	-.000596	-.012384	.0010407	-.009689	-.005206	-.000432
#2	-.000682	.000591	.0005404	-.008254	-.000023	-.000398
#3	-.001711	-.004834	-.000914	-.009660	-.005217	-.000089

Elem	Li6707
Units	ppm
Avg	F -.043545
Stddev	.003351
%RSD	7.695341
#1	-.046959
#2	-.040261
#3	-.043415

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1636.860	20107.71	1990.915	1357.963	1914.044
Stddev	2.596	111.51	7.732	11.427	4.963
%RSD	.1586167	.5545632	.3883824	.8414974	.2592932
#1	1638.072	20085.92	1981.998	1357.766	1914.605
#2	1638.628	20008.70	1994.994	1346.636	1918.703
#3	1633.879	20228.50	1995.754	1369.488	1908.825

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5027-17DLX4 Acquired: 12/31/2024 13:40:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK27 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003800	.0324690	.0191170	-.054347	-.008354	1.978990	.0124115
Stddev	.007098	.0042427	.0014133	.006456	.001499	.024128	.0016396
%RSD	186.7681	13.06703	7.392861	11.87842	17.94499	1.219232	13.20991
#1	-.011993	.0281485	.0200019	-.061714	-.006847	2.001253	.0139070
#2	.000493	.0326291	.0198620	-.049676	-.008371	1.982365	.0106584
#3	.000099	.0366295	.0174871	-.051652	-.009845	1.953351	.0126691

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003264	.0002212	660.1017	.0126323	.0430820	.0141696	10.65215
Stddev	.0001395	.0001171	7.1529	.0012713	.0006082	.0094962	.12400
%RSD	42.73362	52.93115	1.083603	10.06351	1.411738	67.01763	1.164083
#1	.0004127	.0002177	663.2009	.0134797	.0424040	.0250077	10.57170
#2	.0004011	.0001059	665.1823	.0111706	.0435794	.0073089	10.79495
#3	.0001655	.0003399	651.9219	.0132467	.0432627	.0101923	10.58980

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3414058	30.74151	.0143074	-.001909	.2067475	.0016823	.0466965
Stddev	.0016254	.45969	.0001028	.000133	.0098993	.0081648	.0008397
%RSD	.4760937	1.495335	.7188023	6.989317	4.788120	485.3212	1.798108
#1	.3432061	31.10008	.0142438	-.001870	.2157192	-.001647	.0474831
#2	.3409650	30.90118	.0144261	-.002057	.2083957	.010986	.0467941
#3	.3400462	30.22328	.0142524	-.001799	.1961275	-.004291	.0458123

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1440025	.3327827	-.025286	.0038138	7.161828	1.617223	-.000340
Stddev	.0585857	.0044315	.002379	.0006014	.018346	.013433	.002051
%RSD	40.68383	1.331640	9.406699	15.76841	.2561655	.8306214	604.1369
#1	.1304928	.3280687	-.024382	.0037471	7.140813	1.617865	.001774
#2	.0933517	.3334158	-.023492	.0044457	7.174647	1.630325	-.002323
#3	.2081629	.3368635	-.027985	.0032485	7.170025	1.603482	-.000470

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5027-17DLX4 Acquired: 12/31/2024 13:40:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK27 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	-.005669	.4351944	-.043662
Stddev	.004677	.0048337	.005897
%RSD	82.50784	1.110706	13.50503
#1	-.010893	.4378487	-.050444
#2	-.001870	.4381195	-.040790
#3	-.004243	.4296151	-.039752

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1640.949	20292.33	2076.806	1353.876	1778.182
Stddev	1.362	7.33	18.200	8.665	1.066
%RSD	.0829992	.0361406	.8763299	.6399889	.0599529
#1	1642.488	20296.74	2071.670	1347.039	1779.093
#2	1639.898	20283.86	2061.726	1350.968	1777.009
#3	1640.461	20296.39	2097.021	1363.621	1778.443

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5030-11DLX4 Acquired: 12/31/2024 13:44:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000433	.0294349	.2239496	-.045288	-.003542	6.002304	.0397708
Stddev	.005963	.0045020	.0043825	.002722	.003006	.024848	.0018414
%RSD	1376.776	15.29461	1.956893	6.010294	84.87925	.4139784	4.630029
#1	-.006079	.0345665	.2283248	-.042989	-.004944	5.990952	.0412116
#2	-.001024	.0275886	.2239640	-.044581	-.000091	5.985159	.0404045
#3	.005804	.0261497	.2195600	-.048293	-.005591	6.030801	.0376962

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008836	.0021634	513.7030	.0199313	.0501240	.0280812	26.42671
Stddev	.0000701	.0001158	2.0982	.0003892	.0004903	.0063227	.09986
%RSD	7.937759	5.351641	.4084449	1.952640	.9780837	22.51565	.3778748
#1	.0008165	.0021776	511.4837	.0202628	.0499876	.0279754	26.38215
#2	.0009565	.0022714	513.9710	.0195028	.0506680	.0344561	26.35688
#3	.0008779	.0020412	515.6543	.0200283	.0497163	.0218121	26.54109

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.799217	288.9608	.0231469	-.001989	.3852054	.0083630	.5457908
Stddev	.007334	1.3472	.0009736	.001462	.0067028	.0036725	.0075137
%RSD	.4076280	.4662228	4.206022	73.50087	1.740062	43.91375	1.376670
#1	1.795668	287.4146	.0232586	-.003499	.3881562	.0111935	.5448657
#2	1.794332	289.5867	.0221223	-.001888	.3899265	.0042131	.5387824
#3	1.807650	289.8813	.0240598	-.000580	.3775334	.0096823	.5537242

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.085237	.5126596	-.032264	.0035070	11.60372	2.195296	-.002355
Stddev	.151714	.0009566	.003437	.0011412	.03580	.024222	.001891
%RSD	7.275626	.1865935	10.65290	32.54022	.3084945	1.103344	80.29890
#1	1.921970	.5121508	-.028602	.0047689	11.59596	2.181918	-.003653
#2	2.221871	.5120649	-.032769	.0025474	11.57243	2.180714	-.003228
#3	2.111870	.5137631	-.035420	.0032048	11.64275	2.223256	-.000185

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5030-11DLX4 Acquired: 12/31/2024 13:44:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK49 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0227289	.2080877	-.043319
Stddev	.0028878	.0010984	.007057
%RSD	12.70539	.5278497	16.29047
#1	.0194267	.2068295	-.051355
#2	.0239788	.2085785	-.040468
#3	.0247812	.2088552	-.038133

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1590.393	19756.29	2067.903	1313.204	1686.991
Stddev	3.985	70.01	17.269	12.058	1.993
%RSD	.2505467	.3543801	.8351210	.9182490	.1181418
#1	1594.994	19717.68	2078.388	1307.842	1688.711
#2	1588.158	19837.11	2077.350	1327.013	1687.457
#3	1588.028	19714.08	2047.971	1304.756	1684.807

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5266-04 Acquired: 12/31/2024 13:48:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098832	.0054448	.0877611	-.009601	.0070269	11.88336	.1846593
Stddev	.0068932	.0013429	.0020245	.003186	.0029359	.06568	.0006605
%RSD	69.74660	24.66480	2.306826	33.18142	41.78037	.5526735	.3577055
#1	.0098596	.0043369	.0858208	-.009638	.0093849	11.82153	.1848598
#2	.0167882	.0069384	.0876020	-.006396	.0037386	11.87624	.1839218
#3	.0030019	.0050591	.0898604	-.012767	.0079572	11.95231	.1851964

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012407	.0010691	70.06305	.0425080	.0416687	.0386128	42.28636
Stddev	.0001311	.0001093	.08333	.0004289	.0000699	.0069861	.23177
%RSD	10.56814	10.22249	.1189400	1.009095	.1677743	18.09270	.5480907
#1	.0013120	.0011650	69.97071	.0428061	.0416684	.0399464	42.01948
#2	.0010894	.0009501	70.13265	.0420164	.0417387	.0310560	42.43711
#3	.0013208	.0010921	70.08581	.0427014	.0415989	.0448359	42.40248

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.590159	33.43669	.0525114	-.003556	-.101865	.0350008	.1709466
Stddev	.010562	.14753	.0002561	.001404	.003448	.0042004	.0003003
%RSD	.6642248	.4412308	.4877326	39.49088	3.384870	12.00094	.1756824
#1	1.584229	33.38482	.0525461	-.002333	-.098540	.0311008	.1707968
#2	1.583895	33.32211	.0522397	-.003246	-.101630	.0394480	.1712924
#3	1.602354	33.60316	.0527484	-.005090	-.105424	.0344534	.1707507

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9079919	.8874031	-.103600	.0048430	1.054259	3.406308	.0001905
Stddev	.0341324	.0042596	.005449	.0006611	.006440	.010190	.0006161
%RSD	3.759111	.4800062	5.259662	13.64963	.6108995	.2991638	323.4587
#1	.9378310	.8859624	-.107371	.0041114	1.047818	3.417492	.0003182
#2	.8707734	.8921962	-.106076	.0050201	1.060699	3.403885	.0007327
#3	.9153713	.8840507	-.097353	.0053974	1.054260	3.397548	-.000479

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5266-04 Acquired: 12/31/2024 13:48:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.2041877	.0336330	-.041908
Stddev	.0020905	.0008132	.006128
%RSD	1.023812	2.417725	14.62273
#1	.2027619	.0338714	-.048981
#2	.2032138	.0343003	-.038190
#3	.2065875	.0327273	-.038553

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1709.428	20941.26	2134.245	1413.334	1917.960
Stddev	2.185	76.12	12.440	3.486	1.694
%RSD	.1278038	.3635122	.5828617	.2466856	.0883278
#1	1707.082	20976.34	2120.602	1412.590	1916.111
#2	1711.405	20993.51	2144.959	1417.132	1919.437
#3	1709.795	20853.92	2137.175	1410.279	1918.333

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5030-12DLX4 Acquired: 12/31/2024 13:52:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK50 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000628	.0255780	.6940298	-.041632	-.004838	4.081580	.0416302
Stddev	.006284	.0030916	.0019621	.000848	.002404	.041409	.0015819
%RSD	1001.215	12.08686	.2827109	2.037253	49.69854	1.014544	3.799803
#1	.006625	.0247122	.6954767	-.041754	-.007612	4.125254	.0406796
#2	-.004044	.0230115	.6948162	-.042413	-.003351	4.042886	.0434562
#3	-.004464	.0290101	.6917965	-.040730	-.003551	4.076600	.0407547

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009810	.0075818	623.3021	.0131735	.0500936	.0139665	34.31310
Stddev	.0000861	.0000455	2.5335	.0008816	.0004542	.0136692	.06693
%RSD	8.782375	.5999699	.4064571	6.692281	.9066507	97.87171	.1950462
#1	.0009330	.0075349	624.5000	.0137547	.0505015	.0072517	34.27219
#2	.0010804	.0076257	620.3918	.0136068	.0501752	.0296945	34.27677
#3	.0009295	.0075850	625.0145	.0121591	.0496042	.0049533	34.39033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.189468	347.3603	.0215010	-.002740	.4607727	.0111031	1.501990
Stddev	.014951	1.2751	.0002280	.001111	.0339484	.0104471	.006801
%RSD	.6828654	.3670898	1.060557	40.53093	7.367701	94.09197	.4528320
#1	2.178509	347.0426	.0214066	-.003502	.4985111	.0032968	1.498789
#2	2.183396	346.2740	.0217610	-.003252	.4510878	.0229711	1.509801
#3	2.206500	348.7642	.0213352	-.001466	.4327192	.0070415	1.497380

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.262165	.2739190	-.058351	.0041121	23.72229	1.880849	.0010863
Stddev	.167063	.0015422	.001589	.0009434	.04545	.007040	.0019978
%RSD	13.23621	.5630211	2.722429	22.94106	.1916045	.3742780	183.9100
#1	1.455068	.2754954	-.058043	.0050189	23.67203	1.882946	-.000076
#2	1.166838	.2724134	-.060071	.0031360	23.76052	1.872999	-.000058
#3	1.164589	.2738482	-.056940	.0041812	23.73433	1.886602	.003393

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5030-12DLX4 Acquired: 12/31/2024 13:52:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK50 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	-.002447	.2038388	-.055925
Stddev	.005358	.0007502	.001090
%RSD	219.0074	.3680140	1.948944
#1	.003696	.2040794	-.054730
#2	-.004877	.2029979	-.056864
#3	-.006159	.2044392	-.056182

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1576.537	19482.63	2054.956	1293.955	1668.975
Stddev	2.590	95.47	14.210	2.116	2.670
%RSD	.1642626	.4900048	.6914768	.1635562	.1599562
#1	1573.581	19436.81	2052.928	1292.516	1666.098
#2	1578.406	19592.37	2070.070	1296.385	1669.455
#3	1577.625	19418.71	2041.869	1292.965	1671.371

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5038-08DLX4 Acquired: 12/31/2024 13:56:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK88 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0264742	.0245734	1.067590	-.040247	.0026816	10.94717	.3241727
Stddev	.0004164	.0026734	.004167	.007970	.0017518	.26309	.0092168
%RSD	1.573013	10.87938	.3902847	19.80137	65.32459	2.403259	2.843175
#1	.0266154	.0224163	1.072390	-.048641	.0044316	10.77874	.3185009
#2	.0260055	.0275644	1.065467	-.032784	.0009281	10.81243	.3192097
#3	.0268016	.0237395	1.064912	-.039318	.0026852	11.25034	.3348075

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014857	.0029060	455.4437	.0495965	.0567201	.1502859	45.33175
Stddev	.0002417	.0000283	11.8302	.0008493	.0004512	.0030968	1.09563
%RSD	16.26583	.9732321	2.597511	1.712496	.7954388	2.060575	2.416910
#1	.0014325	.0029180	447.9509	.0486380	.0571176	.1499074	44.60922
#2	.0012751	.0028738	449.2984	.0502557	.0562297	.1535545	44.79365
#3	.0017496	.0029264	469.0819	.0498957	.0568129	.1473958	46.59238

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.952169	48.19181	.0384208	-.001191	.1731869	.0152063	1.030317
Stddev	.078361	1.32089	.0003844	.000849	.0192493	.0062439	.001466
%RSD	2.654365	2.740894	1.000509	71.25898	11.11473	41.06140	.1422460
#1	2.894166	47.49030	.0380783	-.000217	.1631882	.0082203	1.028891
#2	2.921028	47.36968	.0388366	-.001775	.1609946	.0171554	1.030242
#3	3.041315	49.71545	.0383476	-.001581	.1953779	.0202432	1.031819

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1033982	2.522004	-.115339	.0042851	.8165599	3.009158	.0610297
Stddev	.0200615	.015929	.003917	.0005019	.0070877	.089815	.0024677
%RSD	19.40212	.6315987	3.396220	11.71242	.8679984	2.984729	4.043433
#1	.0838796	2.539665	-.114791	.0044063	.8233960	2.980487	.0638777
#2	.1239617	2.508726	-.111725	.0047152	.8170388	2.937178	.0595270
#3	.1023534	2.517620	-.119501	.0037337	.8092449	3.109808	.0596844

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5038-08DLX4 Acquired: 12/31/2024 13:56:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHK88 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.1225312	.2738025	-.065630
Stddev	.0056006	.0071532	.001670
%RSD	4.570787	2.612532	2.544447
#1	.1273751	.2690850	-.067146
#2	.1163985	.2702895	-.065905
#3	.1238199	.2820329	-.063840

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1637.462	20105.54	2126.837	1349.678	1745.057
Stddev	3.686	33.78	62.995	4.364	4.612
%RSD	.2251196	.1680265	2.961891	.3233556	.2642931
#1	1633.762	20143.10	2146.861	1349.685	1740.225
#2	1641.134	20095.86	2177.385	1354.038	1745.536
#3	1637.488	20077.65	2056.264	1345.309	1749.411

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5038-15DLX4 Acquired: 12/31/2024 14:00:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002636	.0303729	.2519694	-.040020	-.005691	7.291642	.0666394
Stddev	.004403	.0013996	.0011912	.007538	.004927	.043243	.0002333
%RSD	167.0332	4.608217	.4727620	18.83607	86.57636	.5930442	.3501514
#1	.000231	.0291852	.2522688	-.036944	-.007203	7.328061	.0669089
#2	-.000434	.0300176	.2529824	-.048610	-.000185	7.303016	.0665034
#3	-.007705	.0319160	.2506571	-.034507	-.009683	7.243849	.0665060

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005818	.0019674	419.4810	.0182363	.0447758	.0180939	23.06495
Stddev	.0001775	.0001125	3.0808	.0004670	.0008908	.0063345	.13566
%RSD	30.50807	5.720104	.7344314	2.560731	1.989442	35.00912	.5881765
#1	.0007296	.0020968	419.3856	.0187312	.0455425	.0140589	23.00568
#2	.0006310	.0019121	422.6083	.0181744	.0449864	.0148279	23.22017
#3	.0003849	.0018932	416.4489	.0178034	.0437987	.0253948	22.96902

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.319808	219.2315	.0221542	-.003101	.1793148	.0306607	.3877055
Stddev	.010123	.9494	.0002294	.000791	.0242645	.0065781	.0016690
%RSD	.4363848	.4330412	1.035515	25.51980	13.53177	21.45445	.4304877
#1	2.314114	218.4832	.0220773	-.002838	.1755755	.0358293	.3895042
#2	2.331497	220.2994	.0219731	-.003991	.2052319	.0232561	.3862068
#3	2.313815	218.9119	.0224122	-.002475	.1571371	.0328968	.3874055

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.595990	.7697766	-.055349	.0048587	3.870765	2.698446	.0020901
Stddev	.118778	.0051946	.003962	.0009893	.040372	.027962	.0008898
%RSD	19.92948	.6748132	7.158001	20.36086	1.043007	1.036239	42.57152
#1	-.464329	.7757554	-.053628	.0054154	3.915702	2.683494	.0023471
#2	-.695096	.7663699	-.059880	.0037165	3.837553	2.730706	.0011001
#3	-.628545	.7672047	-.052538	.0054443	3.859039	2.681139	.0028232

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5038-15DLX4 Acquired: 12/31/2024 14:00:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0792748	.1324022	-.067275
Stddev	.0042128	.0007921	.004392
%RSD	5.314241	.5982526	6.528793
#1	.0768648	.1323285	-.071987
#2	.0768202	.1332285	-.066541
#3	.0841393	.1316495	-.063295

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1614.619	19883.04	2034.944	1319.113	1736.333
Stddev	8.885	61.56	17.908	3.642	11.801
%RSD	.5502855	.3096215	.8800077	.2760780	.6796389
#1	1604.463	19815.89	2038.445	1315.212	1722.857
#2	1618.441	19936.81	2015.545	1322.424	1741.321
#3	1620.954	19896.41	2050.843	1319.702	1744.821

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5038-17DLX4 Acquired: 12/31/2024 14:03:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006904	.0288132	.1291879	-.040550	-.005424	5.227399	.0600920
Stddev	.001918	.0047051	.0041331	.005282	.000756	.043723	.0005643
%RSD	27.78265	16.32954	3.199307	13.02641	13.93746	.8364258	.9390743
#1	-.008628	.0341530	.1275558	-.035416	-.005084	5.202345	.0596464
#2	-.007246	.0252759	.1261201	-.040265	-.004898	5.201966	.0607265
#3	-.004838	.0270107	.1338879	-.045969	-.006291	5.277886	.0599031

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006726	.0016121	457.6930	.0139451	.0455523	.0231454	26.35929
Stddev	.0001755	.0001406	.6053	.0006957	.0002349	.0062048	.11621
%RSD	26.09838	8.723054	.1322566	4.988511	.5157251	26.80786	.4408528
#1	.0005988	.0015235	457.5146	.0147257	.0457007	.0188356	26.30804
#2	.0008729	.0017742	457.1969	.0133906	.0452814	.0203436	26.27752
#3	.0005460	.0015385	458.3675	.0137190	.0456746	.0302570	26.49231

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.203204	244.4404	.0233515	-.002568	.2507822	.0161737	.3328478
Stddev	.003048	.4860	.0009486	.001551	.0291086	.0016320	.0025377
%RSD	.1383464	.1988201	4.062485	60.39221	11.60714	10.09053	.7624114
#1	2.205334	243.9763	.0242790	-.004338	.2255078	.0142971	.3302152
#2	2.204566	244.3993	.0233924	-.001922	.2826084	.0169630	.3352784
#3	2.199713	244.9457	.0223831	-.001445	.2442304	.0172609	.3330500

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.193722	.5888737	-.057366	.0051002	8.766186	2.583124	-.001139
Stddev	.222251	.0047981	.001620	.0009038	.012859	.005192	.001575
%RSD	114.7270	.8147974	2.823821	17.72047	.1466863	.2010044	138.2794
#1	-.070014	.5863970	-.056824	.0060807	8.769991	2.586517	-.002824
#2	-.450301	.5858201	-.059188	.0049195	8.751854	2.585709	-.000890
#3	-.060851	.5944041	-.056088	.0043005	8.776712	2.577147	.000296

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5038-17DLX4 Acquired: 12/31/2024 14:03:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKA8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0456703	.1889456	-.071139
Stddev	.0008884	.0004638	.001841
%RSD	1.945252	.2454607	2.588257
#1	.0459088	.1892805	-.072256
#2	.0464151	.1884162	-.072148
#3	.0446870	.1891400	-.069014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1590.659	19778.11	2030.457	1313.764	1710.694
Stddev	7.070	58.38	14.137	2.513	5.565
%RSD	.4444753	.2951568	.6962236	.1912786	.3253274
#1	1598.240	19721.28	2017.343	1313.337	1717.047
#2	1589.491	19775.11	2045.432	1311.491	1708.352
#3	1584.245	19837.92	2028.596	1316.462	1706.682

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5156-13DLX4 Acquired: 12/31/2024 14:07:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0315667	-.036662	1.058968	.0918198	.0498617	28.35091	.3846743
Stddev	.0058256	.004491	.021922	.0079974	.0062805	.12102	.0020824
%RSD	18.45483	12.24905	2.070162	8.709916	12.59587	.4268599	.5413426
#1	.0377917	-.041300	1.081639	.0923654	.0568687	28.29612	.3823760
#2	.0306620	-.032335	1.037881	.0835636	.0447390	28.26697	.3852109
#3	.0262464	-.036350	1.057383	.0995305	.0479775	28.48963	.3864358

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045393	.0065383	228.1203	.7935076	.0624256	.1551291	239.7627
Stddev	.0001649	.0002784	.8628	.0013871	.0009327	.0079988	1.1896
%RSD	3.632392	4.258504	.3782165	.1748026	1.494022	5.156219	.4961512
#1	.0047271	.0068595	227.6543	.7926107	.0634944	.1583656	238.6886
#2	.0044186	.0063895	227.5908	.7928069	.0620059	.1460192	239.5583
#3	.0044721	.0063658	229.1159	.7951052	.0617766	.1610024	241.0413

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.68159	45.92620	.2832807	-.009297	.3728112	.2490998	2.243067
Stddev	.09230	.35761	.0064484	.000221	.0048841	.0038307	.002215
%RSD	.5533177	.7786720	2.276345	2.378131	1.310063	1.537822	.0987682
#1	16.62337	45.59949	.2907175	-.009269	.3727956	.2452841	2.242618
#2	16.63340	45.87085	.2798835	-.009091	.3679349	.2490701	2.245473
#3	16.78802	46.30826	.2792411	-.009531	.3777030	.2529453	2.241111

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.589449	2.586668	-.496022	.0208101	3.051924	3.850413	.0209344
Stddev	.112423	.051323	.005031	.0011432	.053502	.008425	.0009635
%RSD	4.341595	1.984135	1.014273	5.493494	1.753067	.2188010	4.602337
#1	2.474780	2.645295	-.495702	.0212192	3.113634	3.850772	.0210102
#2	2.594082	2.549857	-.491159	.0216924	3.018539	3.841815	.0218577
#3	2.699483	2.564852	-.501206	.0195186	3.023599	3.858653	.0199353

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5156-13DLX4 Acquired: 12/31/2024 14:07:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28T9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.051006	.3108103	-.050560
Stddev	.004109	.0019875	.001868
%RSD	.3909322	.6394412	3.695612
#1	1.054740	.3090870	-.051580
#2	1.046604	.3103595	-.051696
#3	1.051672	.3129844	-.048403

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1680.158	20562.40	2104.312	1379.685	1865.410
Stddev	25.656	64.33	7.518	6.066	29.770
%RSD	1.526983	.3128637	.3572733	.4396366	1.595901
#1	1650.550	20523.42	2099.203	1377.300	1831.219
#2	1695.826	20636.66	2112.945	1386.581	1885.592
#3	1694.098	20527.13	2100.787	1375.175	1879.417

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5156-14DLX4 Acquired: 12/31/2024 14:11:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0457595	-.073048	1.109881	.1659278	.0799146	21.09860	.3207138
Stddev	.0006400	.001609	.004058	.0006302	.0029800	.03433	.0027176
%RSD	1.398594	2.202501	.3656676	.3797969	3.728999	.1627067	.8473532
#1	.0450619	-.072001	1.105626	.1666520	.0797056	21.06981	.3218358
#2	.0458969	-.072242	1.113710	.1656267	.0770445	21.13659	.3226908
#3	.0463196	-.074900	1.110308	.1655046	.0829935	21.08939	.3176149

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055911	.0081632	209.8331	1.121035	.0538253	.0891267	368.7790
Stddev	.0002371	.0001100	.7817	.017815	.0007143	.0091226	1.0391
%RSD	4.240596	1.348035	.3725456	1.589184	1.327080	10.23557	.2817548
#1	.0057553	.0080447	210.6897	1.100563	.0537062	.0934453	369.9787
#2	.0056987	.0081829	209.6513	1.133023	.0545917	.0786467	368.1710
#3	.0053193	.0082621	209.1582	1.129518	.0531781	.0952882	368.1871

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.38333	38.17744	.2592607	-.011472	.4561941	.2942578	3.459605
Stddev	.04543	.15696	.0009507	.001166	.0190893	.0087388	.057237
%RSD	.1863302	.4111324	.3666876	10.16487	4.184475	2.969790	1.654433
#1	24.42662	38.31855	.2595727	-.010142	.4515548	.3037290	3.395850
#2	24.38737	38.00838	.2581933	-.012320	.4398520	.2925370	3.506565
#3	24.33602	38.20538	.2600163	-.011954	.4771754	.2865074	3.476402

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9467570	2.535539	-.838350	.0214311	2.281156	3.543816	.0473739
Stddev	.2553235	.012541	.003803	.0010262	.024446	.014382	.0039285
%RSD	26.96822	.4946035	.4536744	4.788277	1.071642	.4058317	8.292619
#1	.9264258	2.524671	-.834171	.0216812	2.254216	3.527230	.0480207
#2	1.211638	2.532686	-.839272	.0203030	2.287325	3.552831	.0431622
#3	.702207	2.549261	-.841608	.0223090	2.301926	3.551386	.0509390

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5156-14DLX4 Acquired: 12/31/2024 14:11:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	1.578001	.1144416	-.065126
Stddev	.001418	.0020296	.002629
%RSD	.0898796	1.773483	4.037259
#1	1.577563	.1165127	-.068128
#2	1.579587	.1143560	-.064017
#3	1.576854	.1124562	-.063233

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1647.516	20437.91	2107.165	1368.151	1868.737
Stddev	5.324	243.55	6.422	14.741	6.040
%RSD	.3231456	1.191653	.3047870	1.077414	.3231995
#1	1647.521	20715.92	2100.124	1385.088	1871.782
#2	1642.189	20262.16	2112.701	1358.220	1861.781
#3	1652.837	20335.65	2108.670	1361.144	1872.648

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5156-21DLX4 Acquired: 12/31/2024 14:15:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1300433	-.099967	2.059814	.2206012	.1112122	14.87154
Stddev	.0027509	.002771	.024394	.0067652	.0005865	.03232
%RSD	2.115360	2.771819	1.184275	3.066729	.5273790	.2173530
#1	.1298514	-.102125	2.069890	.2132298	.1118535	14.85583
#2	.1328851	-.100933	2.077555	.2220475	.1107031	14.90871
#3	.1273934	-.096842	2.031996	.2265264	.1110800	14.85007

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8850536	.0075910	.0097080	120.3605	1.048874	.0596842
Stddev	.0024544	.0001294	.0000455	.2483	.007360	.0004741
%RSD	.2773173	1.704934	.4681863	.2063231	.7016630	.7943067
#1	.8843947	.0076549	.0097398	120.2498	1.057291	.0598559
#2	.8829958	.0074421	.0097282	120.1868	1.043648	.0600484
#3	.8877702	.0076761	.0096559	120.6449	1.045684	.0591481

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.121089	454.2923	10.34166	19.99993	.5838892	-.014658
Stddev	.004966	.2651	.01266	.10702	.0061293	.001081
%RSD	.1205107	.0583520	.1223862	.5351114	1.049731	7.376947
#1	4.116118	454.3290	10.32709	19.90672	.5871481	-.013545
#2	4.121097	454.0107	10.34798	19.97627	.5877005	-.014726
#3	4.126051	454.5371	10.34991	20.11680	.5768189	-.015704

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3183445	.0883595	5.562530	.4395154	1.687409	F -1.07870
Stddev	.0183022	.0146055	.025374	.1805256	.014088	.01011
%RSD	5.749194	16.52966	.4561653	41.07378	.8349182	.9369848
#1	.3390403	.1026252	5.588491	.2329529	1.698114	-1.06703
#2	.3117025	.0734363	5.561313	.5185387	1.692665	-1.08457
#3	.3042906	.0890171	5.537787	.5670545	1.671448	-1.08450

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5156-21DLX4 Acquired: 12/31/2024 14:15:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28W5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1147841	5.642023	3.125200	.1341814	.5204155	-.131391
Stddev	.0014926	.075023	.017379	.0021492	.0050705	.001238
%RSD	1.300319	1.329724	.5560941	1.601722	.9743238	.9422556
#1	.1155299	5.687600	3.105134	.1334611	.5262703	-.132498
#2	.1157568	5.683035	3.135032	.1365982	.5175270	-.131620
#3	.1130657	5.555434	3.135434	.1324848	.5174492	-.130054

Elem	Li6707
Units	ppm
Avg	-.069078
Stddev	.001209
%RSD	1.750528
#1	-.070367
#2	-.067969
#3	-.068896

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1636.001	20204.06	2069.248	1352.583	1880.832
Stddev	16.529	183.85	5.617	9.288	18.485
%RSD	1.010325	.9099639	.2714643	.6866834	.9828205
#1	1625.243	20028.24	2075.667	1342.429	1868.388
#2	1627.727	20395.00	2065.230	1360.650	1872.035
#3	1655.033	20188.94	2066.848	1354.670	1902.072

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5035-05DLX4 Acquired: 12/31/2024 14:19:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKM6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005948	.0263871	.0847880	-.052036	-.004754	4.978162	.0373164
Stddev	.004900	.0013674	.0030916	.005889	.003165	.014908	.0018599
%RSD	82.37164	5.182228	3.646259	11.31674	66.58423	.2994692	4.984124
#1	-.004857	.0256528	.0817412	-.045504	-.008180	4.961207	.0359833
#2	-.001687	.0279648	.0847003	-.056938	-.001938	4.989218	.0365248
#3	-.011302	.0255436	.0879225	-.053667	-.004143	4.984060	.0394412

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007277	.0004975	479.0560	.0117676	.0457551	.0201660	18.32048
Stddev	.0000805	.0000730	1.3922	.0003925	.0005397	.0115188	.06322
%RSD	11.05968	14.66503	.2906174	3.335813	1.179511	57.11990	.3450871
#1	.0006352	.0004214	479.9943	.0113173	.0451733	.0182779	18.25612
#2	.0007657	.0005043	479.7174	.0120378	.0462394	.0097079	18.32284
#3	.0007821	.0005669	477.4564	.0119477	.0458526	.0325122	18.38249

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7835978	74.96872	.0193682	-.002884	.1731935	.0137889	.0764980
Stddev	.0057162	.23846	.0007759	.000916	.0080607	.0035753	.0006671
%RSD	.7294781	.3180831	4.006207	31.77448	4.654139	25.92911	.8720859
#1	.7892745	75.14841	.0195889	-.001846	.1668033	.0157582	.0765014
#2	.7836760	75.05956	.0185059	-.003583	.1822494	.0159467	.0771634
#3	.7778429	74.69819	.0200099	-.003223	.1705279	.0096619	.0758292

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0147006	.6514461	-.042791	.0028000	6.899106	1.812889	-.000798
Stddev	.1283716	.0058785	.001172	.0001593	.005314	.012303	.001207
%RSD	873.2383	.9023686	2.738559	5.690259	.0770268	.6786489	151.2586
#1	-.124593	.6483788	-.044018	.0026323	6.905011	1.819628	.000578
#2	.040448	.6477357	-.041683	.0029495	6.897600	1.820350	-.001675
#3	.128247	.6582238	-.042674	.0028181	6.894708	1.798688	-.001297

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5035-05DLX4 Acquired: 12/31/2024 14:19:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKM6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0385139	.2904714	-.078942
Stddev	.0062326	.0015276	.003497
%RSD	16.18282	.5258904	4.429309
#1	.0313616	.2902724	-.080471
#2	.0413975	.2920887	-.081413
#3	.0427826	.2890531	-.074941

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1613.363	19827.91	2052.263	1331.711	1745.346
Stddev	4.625	104.09	4.540	6.606	4.190
%RSD	.2866632	.5249670	.2212057	.4960419	.2400673
#1	1608.062	19746.81	2050.568	1334.288	1741.007
#2	1616.578	19945.28	2048.815	1324.206	1749.369
#3	1615.448	19791.63	2057.407	1336.640	1745.661

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5035-20DLX4 Acquired: 12/31/2024 14:23:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKN9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084673	.0260002	.1720645	-.029362	-.001609	13.80186	.4726193
Stddev	.0057406	.0032777	.0068529	.004664	.002495	.04791	.0011704
%RSD	67.79805	12.60634	3.982734	15.88401	155.0432	.3471607	.2476387
#1	.0117929	.0258942	.1690545	-.032763	-.003719	13.75230	.4713323
#2	.0117704	.0293295	.1672318	-.024046	.001145	13.80535	.4736198
#3	.0018386	.0227768	.1799073	-.031278	-.002254	13.84794	.4729059

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013684	.0012128	711.2622	.0232965	.0573391	.0869314	38.06416
Stddev	.0000739	.0001019	3.7295	.0007137	.0005328	.0117021	.11691
%RSD	5.400450	8.402736	.5243555	3.063509	.9292039	13.46125	.3071287
#1	.0014313	.0013233	707.4153	.0237923	.0567879	.0882971	37.95714
#2	.0012870	.0011926	711.5091	.0236186	.0573780	.0746064	38.18892
#3	.0013868	.0011225	714.8621	.0224785	.0578513	.0978907	38.04642

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.127546	18.96818	.0401025	-.001919	.1258170	.0198297	.1328963
Stddev	.012505	.10821	.0006059	.000938	.0083133	.0086666	.0018368
%RSD	.2040839	.5704567	1.510870	48.89529	6.607437	43.70499	1.382165
#1	6.113107	18.89875	.0396207	-.002189	.1195291	.0290214	.1339522
#2	6.134658	19.09286	.0399041	-.002693	.1352424	.0118070	.1339615
#3	6.134874	18.91293	.0407827	-.000875	.1226794	.0186607	.1307753

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1778068	2.193340	-.096687	.0021647	1.031138	2.958849	.0120152
Stddev	.1537237	.029475	.002436	.0012638	.011913	.017088	.0016126
%RSD	86.45547	1.343819	2.519208	58.38273	1.155305	.5775119	13.42104
#1	.3017529	2.161073	-.094756	.0007358	1.022971	2.972099	.0107267
#2	.2258746	2.200098	-.095881	.0031360	1.025636	2.964886	.0138236
#3	.0057929	2.218849	-.099423	.0026222	1.044807	2.939562	.0114953

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5035-20DLX4 Acquired: 12/31/2024 14:23:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHKN9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.0581649	.5852816	-.071911
Stddev	.0027909	.0022428	.000767
%RSD	4.798231	.3831927	1.066707
#1	.0607526	.5830829	-.072787
#2	.0552076	.5851960	-.071361
#3	.0585346	.5875660	-.071584

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1737.839	21006.25	2138.847	1405.864	1801.079
Stddev	13.369	145.72	4.644	11.454	16.044
%RSD	.7692748	.6937168	.2171261	.8147398	.8908105
#1	1750.500	20945.32	2135.133	1398.516	1818.160
#2	1739.158	20900.89	2137.353	1400.015	1798.751
#3	1723.860	21172.56	2144.054	1419.062	1786.325

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5266-19DLX2 Acquired: 12/31/2024 14:27:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y9D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0945857	-.124394	2.276943	.2771759	.1455144	21.97759
Stddev	.0015131	.006237	.002560	.0028408	.0039209	.07929
%RSD	1.599697	5.013736	.1124276	1.024906	2.694497	.3607615
#1	.0960094	-.121150	2.273988	.2740285	.1417589	21.88764
#2	.0929968	-.120447	2.278374	.2779492	.1495820	22.03733
#3	.0947510	-.131584	2.278469	.2795499	.1452024	22.00779

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5552448	.0090763	.0142989	205.7816	1.412705	.0767081
Stddev	.0017450	.0002246	.0001906	.7668	.005576	.0000358
%RSD	.3142705	2.474681	1.333079	.3726460	.3947160	.0466177
#1	.5536064	.0090893	.0145106	204.9237	1.418923	.0767428
#2	.5550483	.0092940	.0141410	206.4004	1.408147	.0766713
#3	.5570797	.0088454	.0142450	206.0207	1.411047	.0767101

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1571730	569.7218	21.66007	39.15932	.6649587	-.019756
Stddev	.0068527	2.6403	.06790	.06839	.0015768	.001704
%RSD	4.359949	.4634358	.3134770	.1746555	.2371282	8.623056
#1	.1611492	567.0802	21.58404	39.09516	.6659787	-.018381
#2	.1611095	572.3608	21.71467	39.23128	.6631425	-.021662
#3	.1492602	569.7242	21.68151	39.15152	.6657548	-.019225

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5822262	.1517358	4.904724	1.937559	3.240904	F -1.25901
Stddev	.0094978	.0223037	.018882	.074136	.008528	.01002
%RSD	1.631298	14.69906	.3849770	3.826270	.2631234	.7956053
#1	.5749398	.1529346	4.887660	2.009643	3.250672	-1.26960
#2	.5929680	.1734159	4.925009	1.941506	3.234941	-1.25776
#3	.5787708	.1288568	4.901501	1.861529	3.237100	-1.24968

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5266-19DLX2 Acquired: 12/31/2024 14:27:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y9D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0462203	4.237703	4.773594	.0639728	1.063310	-.235953
Stddev	.0009356	.015755	.030562	.0016232	.004300	.001088
%RSD	2.024219	.3717829	.6402395	2.537316	.4043575	.4611057
#1	.0463480	4.251278	4.759929	.0656752	1.066651	-.234770
#2	.0470855	4.241405	4.808605	.0624425	1.058459	-.236910
#3	.0452274	4.220427	4.752248	.0638008	1.064819	-.236178

Elem	Li6707
Units	ppm
Avg	-.070224
Stddev	.003149
%RSD	4.484182
#1	-.073808
#2	-.067902
#3	-.068962

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1689.865	21192.71	2162.722	1407.989	1924.793
Stddev	1.340	108.38	13.655	1.222	2.219
%RSD	.0792906	.5114191	.6313878	.0868101	.1152859
#1	1688.867	21072.60	2163.317	1408.013	1922.320
#2	1689.340	21283.23	2148.779	1406.756	1926.609
#3	1691.388	21222.29	2176.070	1409.200	1925.451

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5266-19DL2X4 Acquired: 12/31/2024 14:31:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y9D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0459531	-.064376	1.213278	.1391438	.0780658	11.65628	.2950265
Stddev	.0045583	.000725	.007294	.0060985	.0050184	.11053	.0020261
%RSD	9.919560	1.126457	.6011577	4.382883	6.428417	.9482278	.6867433
#1	.0426829	-.063870	1.213958	.1460930	.0838211	11.57838	.2929292
#2	.0511600	-.065207	1.220207	.1346824	.0757726	11.78278	.2969730
#3	.0440164	-.064052	1.205668	.1366560	.0746037	11.60769	.2951772

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048821	.0073548	110.6288	.7586649	.0512265	.0965097	306.0011
Stddev	.0002131	.0000209	.3959	.0032369	.0005367	.0090928	1.6558
%RSD	4.365857	.2847103	.3579011	.4266586	1.047755	9.421634	.5411178
#1	.0046685	.0073582	110.1806	.7575560	.0512730	.0869969	304.8145
#2	.0048829	.0073738	110.9308	.7623105	.0506681	.1051143	307.8928
#3	.0050948	.0073323	110.7750	.7561282	.0517385	.0974179	305.2961

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.66046	20.90623	.3489515	-.008988	.1273030	.0777234	2.625407
Stddev	.06177	.14380	.0012533	.000139	.0103024	.0078822	.000509
%RSD	.5297740	.6878536	.3591516	1.543336	8.092834	10.14132	.0193859
#1	11.62252	20.81770	.3485018	-.009146	.1154083	.0699587	2.625840
#2	11.73174	21.07216	.3479852	-.008933	.1334156	.0857180	2.624847
#3	11.62713	20.82884	.3503676	-.008885	.1330851	.0774935	2.625535

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5645247	1.704253	-.699168	.0257740	2.243612	2.593286	.0275590
Stddev	.1562814	.003943	.015949	.0006438	.009234	.023355	.0002043
%RSD	27.68371	.2313698	2.281152	2.497712	.4115828	.9006011	.7413242
#1	.6717675	1.702358	-.682574	.0253317	2.243994	2.566762	.0276479
#2	.3852128	1.701615	-.714383	.0265125	2.252649	2.610770	.0277039
#3	.6365939	1.708786	-.700547	.0254778	2.234192	2.602326	.0273253

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: P5266-19DL2X4 Acquired: 12/31/2024 14:31:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ME28Y9D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Sr4077	Li6707
Units	ppm	ppm	ppm
Avg	.5646556	-.128630	-.077189
Stddev	.0055691	.001123	.001850
%RSD	.9862863	.8731020	2.396888
#1	.5584293	-.128851	-.077691
#2	.5663758	-.129625	-.078737
#3	.5691616	-.127412	-.075140

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1682.580	20739.81	2095.506	1389.905	1928.665
Stddev	7.618	138.74	11.202	10.472	8.209
%RSD	.4527290	.6689708	.5345961	.7534404	.4256268
#1	1683.919	20636.15	2101.620	1380.503	1929.709
#2	1674.382	20685.85	2082.577	1388.020	1919.984
#3	1689.440	20897.43	2102.322	1401.191	1936.302

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: PB165641TB Acquired: 12/31/2024 14:34:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB641 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002626	-.005215	-.002787	-.008627	-.005237	.0003317
Stddev	.001343	.003099	.000954	.004121	.002400	.0239813
%RSD	51.12321	59.43305	34.22525	47.77246	45.82990	7230.244
#1	-.003478	-.008388	-.002174	-.007133	-.003516	-.002189
#2	-.001078	-.002195	-.003886	-.013286	-.007978	-.022290
#3	-.003322	-.005061	-.002300	-.005460	-.004216	.025474

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000252	-.000068	-.000249	.0104940	-.001288	-.000218
Stddev	.000470	.000067	.000024	.0426095	.001196	.000139
%RSD	186.7488	97.73968	9.454933	406.0365	92.86800	63.64867
#1	.000192	-.000006	-.000272	.0572591	-.000495	-.000139
#2	-.000202	-.000139	-.000225	-.026130	-.002664	-.000137
#3	-.000745	-.000059	-.000250	.000353	-.000705	-.000379

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001172	.0138942	-.013480	-.007719	.0003252	-.003419
Stddev	.003350	.0252427	.001058	.060444	.0009988	.000532
%RSD	285.9862	181.6784	7.851926	783.0039	307.1577	15.55764
#1	-.003299	.0072801	-.014696	-.075978	.0013618	-.003292
#2	-.002906	-.007383	-.012769	.039020	.0002446	-.002963
#3	.002691	.041785	-.012975	.013800	-.000631	-.004003

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 125.6561	-.000039	-.014795	-3.42174	.0007467	-.021520
Stddev	1.4045	.005135	.000103	.13090	.0028322	.000802
%RSD	1.117711	13321.11	.6953011	3.825518	379.2730	3.727624
#1	127.1030	.005795	-.014716	-3.56844	-.002442	-.022156
#2	125.5671	-.002036	-.014758	-3.37995	.001711	-.020619
#3	124.2983	-.003874	-.014911	-3.31685	.002971	-.021785

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: PB165641TB Acquired: 12/31/2024 14:34:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB641 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002335	.0044224	-.001017	F -.012185	-.001329	-.000911
Stddev	.000563	.0013578	.000247	.002663	.000919	.000280
%RSD	24.12562	30.70336	24.26994	21.85478	69.12167	30.72767
#1	-.002979	.0036082	-.001252	-.014969	-.002374	-.001176
#2	-.002094	.0059898	-.000760	-.011922	-.000649	-.000618
#3	-.001932	.0036690	-.001039	-.009663	-.000964	-.000940

Elem	Li6707
Units	ppm
Avg	F -.135333
Stddev	.003251
%RSD	2.402138
#1	-.138938
#2	-.132625
#3	-.134437

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1747.226	21198.10	2129.632	1440.558	2008.167
Stddev	4.344	122.02	16.405	8.606	5.926
%RSD	.2486173	.5756059	.7703106	.5973912	.2950726
#1	1751.990	21332.65	2119.436	1450.429	2014.571
#2	1746.204	21094.63	2120.905	1436.613	2007.051
#3	1743.484	21167.02	2148.556	1434.631	2002.879

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCV054 Acquired: 12/31/2024 14:38:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV054 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.925860	4.862763	24.81602	4.959981	4.955038	400.7819
Stddev	.030183	.008654	.09062	.014906	.012443	.3535
%RSD	.6127446	.1779656	.3651815	.3005286	.2511209	.0882058
#1	4.891046	4.853990	24.71845	4.949320	4.940683	400.6615
#2	4.941856	4.863008	24.83206	4.953608	4.962758	400.5043
#3	4.944679	4.871293	24.89756	4.977014	4.961672	401.1799

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.10964	.5090965	2.494837	406.3816	15.58085	2.519728
Stddev	.01272	.0020176	.008706	.3634	.00870	.005870
%RSD	.1257778	.3963071	.3489795	.0894150	.0558474	.2329772
#1	10.12326	.5099092	2.485828	405.9767	15.58301	2.513783
#2	10.09808	.5105811	2.495479	406.6794	15.58826	2.519882
#3	10.10758	.5067994	2.503205	406.4888	15.57127	2.525520

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.98732	407.7238	14.87931	401.2043	2.518931	1.263819
Stddev	.02277	.9231	.02475	.3844	.004735	.001372
%RSD	.1519162	.2263937	.1663506	.0958065	.1879781	.1085378
#1	14.98409	408.2358	14.85279	400.9700	2.515719	1.264562
#2	14.96635	408.2775	14.90181	401.6479	2.516704	1.264659
#3	15.01154	406.6582	14.88332	400.9950	2.524369	1.262236

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	410.5884	2.476493	15.02436	152.7336	4.989324	F 4.360410
Stddev	.5616	.012921	.10563	.2097	.003509	.024943
%RSD	.1367863	.5217308	.7030718	.1373167	.0703277	.5720332
#1	409.9491	2.488373	15.14201	152.4950	4.989488	4.364847
#2	410.8135	2.478368	14.99343	152.8887	4.985736	4.382837
#3	411.0026	2.462737	14.93765	152.8170	4.992748	4.333546

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCV054 Acquired: 12/31/2024 14:38:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV054 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.901850	5.045769	5.027893	5.035179	4.980724	4.818841
Stddev	.023539	.005138	.022321	.018786	.003409	.000811
%RSD	.4802118	.1018357	.4439391	.3731002	.0684386	.0168282
#1	4.876443	5.040286	5.035560	5.021819	4.981762	4.819197
#2	4.906188	5.046547	5.045369	5.027058	4.983493	4.819413
#3	4.922919	5.050474	5.002749	5.056659	4.976916	4.817913

Elem	Li6707
Units	ppm
Avg	5.116431
Stddev	.017295
%RSD	.3380282
#1	5.096896
#2	5.122606
#3	5.129792

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1431.690	18282.00	1952.154	1168.175	1610.351
Stddev	1.567	57.51	6.137	3.200	1.973
%RSD	.1094242	.3145868	.3143564	.2739366	.1225360
#1	1430.714	18344.90	1957.251	1164.491	1608.927
#2	1433.497	18269.01	1945.342	1169.773	1612.603
#3	1430.858	18232.10	1953.868	1170.262	1609.523

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCB054 Acquired: 12/31/2024 14:42:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB054 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005127	-.002325	-.001849	-.006353	-.001893	.0177330
Stddev	.002439	.002321	.002403	.003164	.003173	.0239922
%RSD	47.56325	99.83897	129.9111	49.79678	167.6053	135.2969
#1	-.007706	.000000	-.004249	-.009901	-.000585	.0219219
#2	-.002857	-.002333	-.001855	-.005335	.000416	-.008078
#3	-.004820	-.004642	.000556	-.003824	-.005511	.039355

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001030	-.000051	-.000008	.0644016	-.001148	-.000290
Stddev	.000384	.000150	.000082	.0190060	.000721	.000305
%RSD	37.29436	292.4517	1043.846	29.51164	62.79831	105.2146
#1	-.000963	-.000221	-.000102	.0767135	-.001671	-.000364
#2	-.001443	-.000000	.000025	.0739790	-.001446	-.000550
#3	-.000683	.000067	.000053	.0425123	-.000326	.000045

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043702	.0072050	-.003768	-.038241	-.000548	-.001826
Stddev	.0083907	.0380346	.001705	.101384	.000957	.001388
%RSD	191.9985	527.8927	45.23938	265.1155	174.6995	75.99849
#1	.0005305	.0295268	-.004676	.024379	-.001385	-.000688
#2	.0139937	-.036712	-.004828	.016109	-.000755	-.001418
#3	-.001414	.028800	-.001802	-.155212	.000496	-.003372

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.165922	-.000839	.0019417	-.249597	-.000764	-.005279
Stddev	.017958	.006916	.0019580	.086368	.002965	.003056
%RSD	10.82304	823.9209	100.8386	34.60289	388.1573	57.90035
#1	-.148831	-.006010	.0039240	-.263596	-.002593	-.002152
#2	-.184637	-.003525	.0018922	-.328111	.002658	-.008259
#3	-.164297	.007017	.0000089	-.157085	-.002357	-.005426

Reviewed By:mohan
On:1/2/2025 2:18:27 AM
Inst Id :P5

Sample Name: CCB054 Acquired: 12/31/2024 14:42:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL-2(v58) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB054 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000882	-.000622	.0002733	-.005485	-.001294	-.000170
Stddev	.000255	.002400	.0008811	.000794	.001924	.000207
%RSD	28.95481	385.7138	322.3994	14.47261	148.6699	121.6795
#1	-.000830	.000579	.0003308	-.006054	.000906	-.000311
#2	-.001160	.000940	-.000635	-.004578	-.002658	-.000267
#3	-.000657	-.003385	.001124	-.005823	-.002130	.000068

Elem	Li6707
Units	ppm
Avg	F -.017085
Stddev	.003252
%RSD	19.03256
#1	-.017877
#2	-.013511
#3	-.019869

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1642.644	20010.31	2019.176	1351.380	1922.084
Stddev	1.410	23.51	7.786	2.806	4.035
%RSD	.0858589	.1174932	.3855792	.2076560	.2099071
#1	1641.948	19983.89	2010.196	1354.080	1918.240
#2	1644.267	20018.13	2024.023	1351.583	1921.728
#3	1641.718	20028.92	2023.311	1348.478	1926.285

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Prep Standard - Chemical Standard Summary

Order ID : P5030

Test : Metals CLP Full

Prepbatch ID : PB165360,

Sequence ID/Qc Batch ID: LB134116,LB134132,LB134139,

Standard ID :
MP83122,MP83134,MP83141,MP83147,MP83500,MP83501,MP83502,MP83503,MP83504,MP83505,MP83506,MP835
07,MP83508,MP83509,MP83510,MP83511,MP83513,MP83514,MP83836,

Chemical ID :
M5130,M5218,M5223,M5289,M5295,M5296,M5390,M5393,M5429,M5473,M5476,M5496,M5497,M5498,M5513,M5515
,M5519,M5658,M5697,M5698,M5751,M5768,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5816,M581
7,M5818,M5819,M5820,M5875,M5959,M5960,M5962,M5970,M5976,M5978,M5982,M5985,M5990,M5999,M6021,M60
23,M6025,M6028,M6030,M6033,M6111,M6116,M6117,M6121,M6125,M6126,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP83122	11/07/2024	12/06/2024	Janvi Patel	None	None	Sarabjit Jaswal 11/07/2024

FROM 1000.00000ml of M6116 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83134	10/30/2024	12/06/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 125.00000ml of M6111 + 2350.00000ml of W3112 + 25.00000ml of M6117 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP83141	10/30/2024	12/06/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5476 + 0.20000ml of M5515 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M5698 + 0.40000ml of M6033 + 0.50000ml of M5751 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5960 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5498 + 10.00000ml of M5519 + 10.00000ml of M5768 + 10.00000ml of M5806 + 10.00000ml of M5818 + 2.00000ml of M5978 + 4.00000ml of M5390 + 34.24000ml of MP83134 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
921	ICPAES SPIKE SOL#6	MP83147	10/30/2024	12/06/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 2.50000ml of M5962 + 50.00000ml of M5990 + 50.00000ml of M5999 + 147.50000ml of MP83134 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83500	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2480	ICP AES STD 6 ISM01.3	MP83501	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 4.00000ml of M5289 + 4.00000ml of M5498 + 4.00000ml of M5515 + 4.00000ml of M5768 + 4.00000ml of M5806 + 30.00000ml of MP83500 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1004	ICPAES ISM01.2 (S5)	MP83502	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.25000ml of M5798 + 0.50000ml of M5429 + 0.50000ml of M5473 + 0.50000ml of M5815 + 0.50000ml of M5817 + 12.50000ml of M5519 + 12.50000ml of M5698 + 12.50000ml of M5806 + 12.50000ml of M5819 + 13.75000ml of M5697 + 14.50000ml of M5496 + 14.50000ml of M5515 + 14.50000ml of M5658 + 2.00000ml of M5513 + 22.50000ml of M5497 + 22.50000ml of M5768 + 5.00000ml of M5296 + 5.00000ml of M5393 + 5.00000ml of M5802 + 5.00000ml of M5818 + 5.00000ml of M5875 + 303.50000ml of MP83500 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1005	ICPAES ISM01.2(S4)	MP83503	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 250.00000ml of MP83500 + 250.00000ml of MP83502 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1007	ICPAES ISM01.2(S3)	MP83504	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 25.00000ml of MP83502 + 75.00000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1008	ICPAES ISM01.2(S2)	MP83505	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 12.50000ml of MP83502 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP83506	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5473 + 0.20000ml of M5515 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M5698 + 0.40000ml of M5496 + 0.50000ml of M5697 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5960 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5498 + 10.00000ml of M5519 + 10.00000ml of M5769 + 10.00000ml of M5806 + 10.00000ml of M5818 + 2.00000ml of M5978 + 4.00000ml of M5390 + 34.24000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1003	ICPAES ISM01.2 S1	MP83507	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.50000ml of MP83506 + 99.50000ml of MP83500 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2054	ICV-ICPAES	MP83508	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.50000ml of M5218 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 0.50000ml of M5982 + 10.00000ml of M5295 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP83509	12/09/2024	01/06/2025	Kareem Khairalla	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 12/09/2024

FROM 10.00000ml of M5130 + 90.00000ml of MP83500 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
905	ICP AES ICSAB SOLN	MP83510	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 10.00000ml of M5130 + 10.00000ml of M5223 + 80.00000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1119	ICPAES ISM01.2(CCV)	MP83511	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 0.75000ml of M5497 + 0.75000ml of M5769 + 1.22500ml of M5496 + 1.25000ml of M5515 + 1.25000ml of M5806 + 19.77500ml of MP83500 + 25.00000ml of MP83502 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP83513	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6126 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
513	RINSE SOLN	MP83514	12/09/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 200.00000ml of M6126 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3816	TL-10PPM	MP83836	11/25/2024	01/06/2025	Sarabjit Jaswal	None	None	Mohan Bera 01/02/2025

FROM 0.10000ml of M6023 + 9.90000ml of MP83500 = Final Quantity: 10.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	12/28/2024	05/20/2024 / jaswal	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	12/28/2024	05/20/2024 / jaswal	04/20/2021 / bin	M5223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	10/12/2022 / bin	09/19/2022 / bin	M5393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	03/16/2023 / jaswal	03/16/2023 / jaswal	M5473

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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.	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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/03/2024 / kareem	06/11/2024 / kareem	M5960

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

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

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	031524	03/15/2027	07/01/2024 / Jaswal	06/11/2024 / Jaswal	M5982

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-5 / CLP Spike Standard 5	V2-MEB742037	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5990

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 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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)	22F0762009	05/09/2027	11/04/2024 / Eman	09/29/2024 / Janvi	M6111

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)	24B1362001	05/03/2025	11/04/2024 / Janvi	09/29/2024 / Eman	M6116

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24B1362001	05/06/2025	11/06/2024 / Janvi	09/29/2024 / Eman	M6117

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

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

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

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

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R: 02/22/24 M5986 M5987, M5988, M5989-M5990

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-5
Lot Number:	V2-MEB742037
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Selenium, Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead

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	49.99 ± 0.22 µg/mL	Lead, Pb	19.99 ± 0.09 µg/mL
Selenium, Se	50.00 ± 0.23 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.025 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, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6028

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

R 8/5/24

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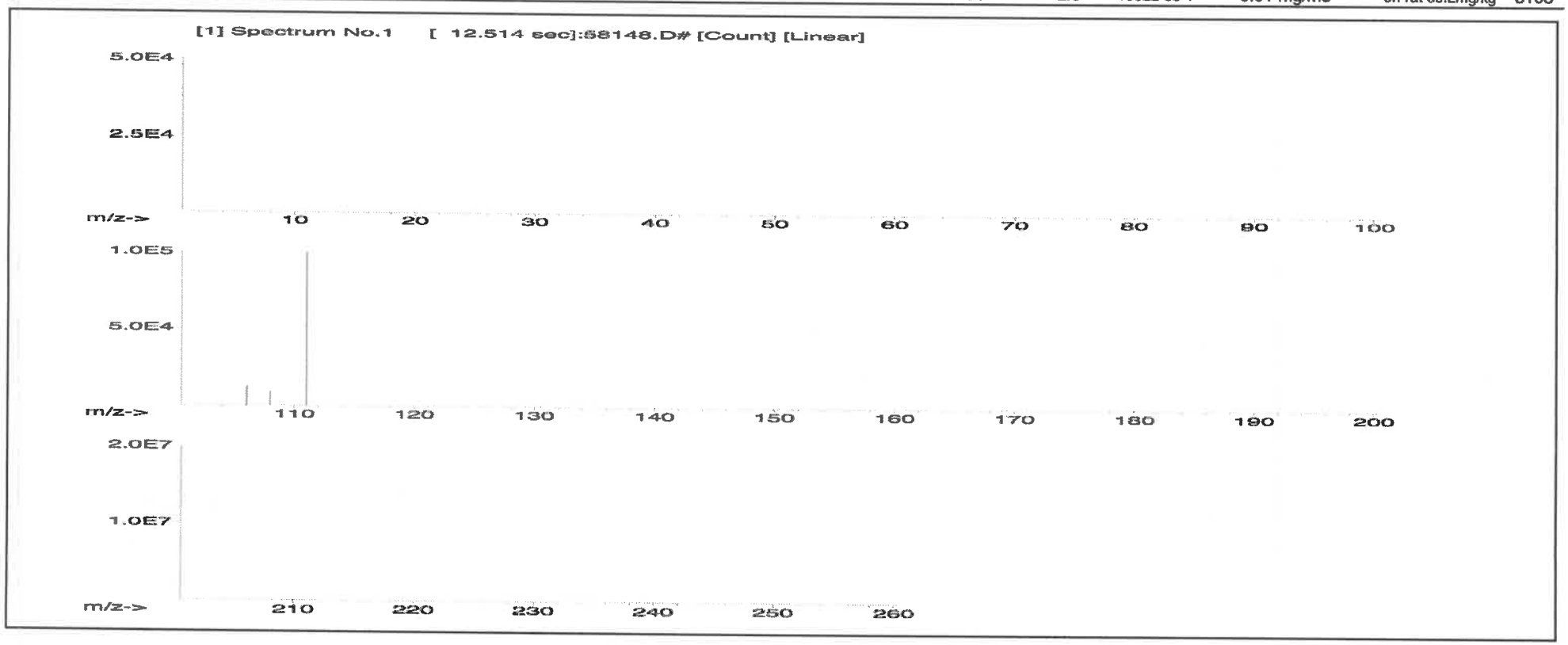
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



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

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

Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5296 OP: 09/19/2022 BH

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
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P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

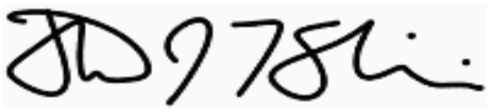
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

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- 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.

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- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

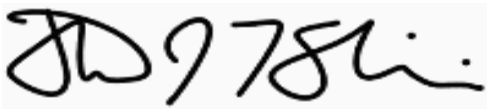
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/5/24 M6025

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

458

CERTIFIED WEIGHT REPORT:

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

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

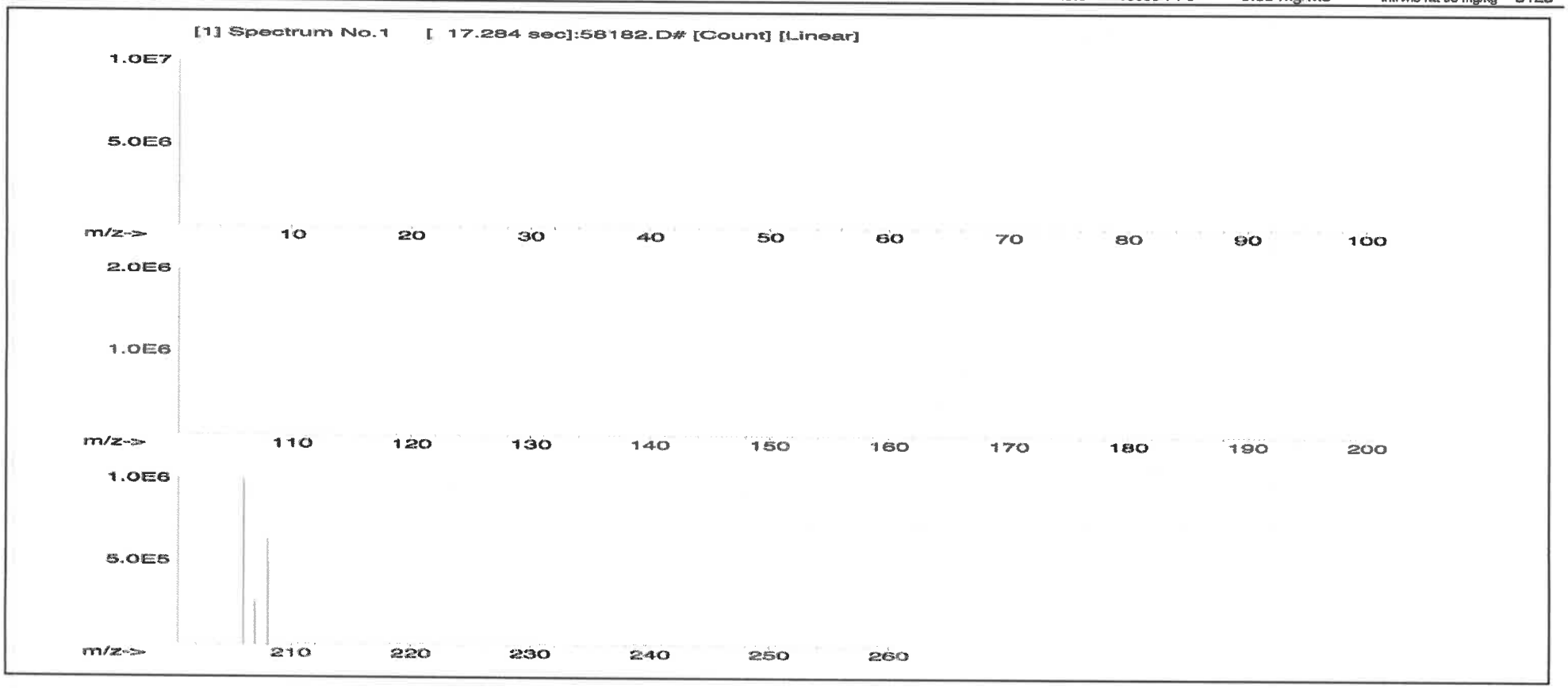
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546		Nitric Acid
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA
M5126
M5127
M5128
M5129
M5130

ICSB
M5219
M5220
M5221
M5222
M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 7 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M5289 R: 07/12/22 (BH)

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT:

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

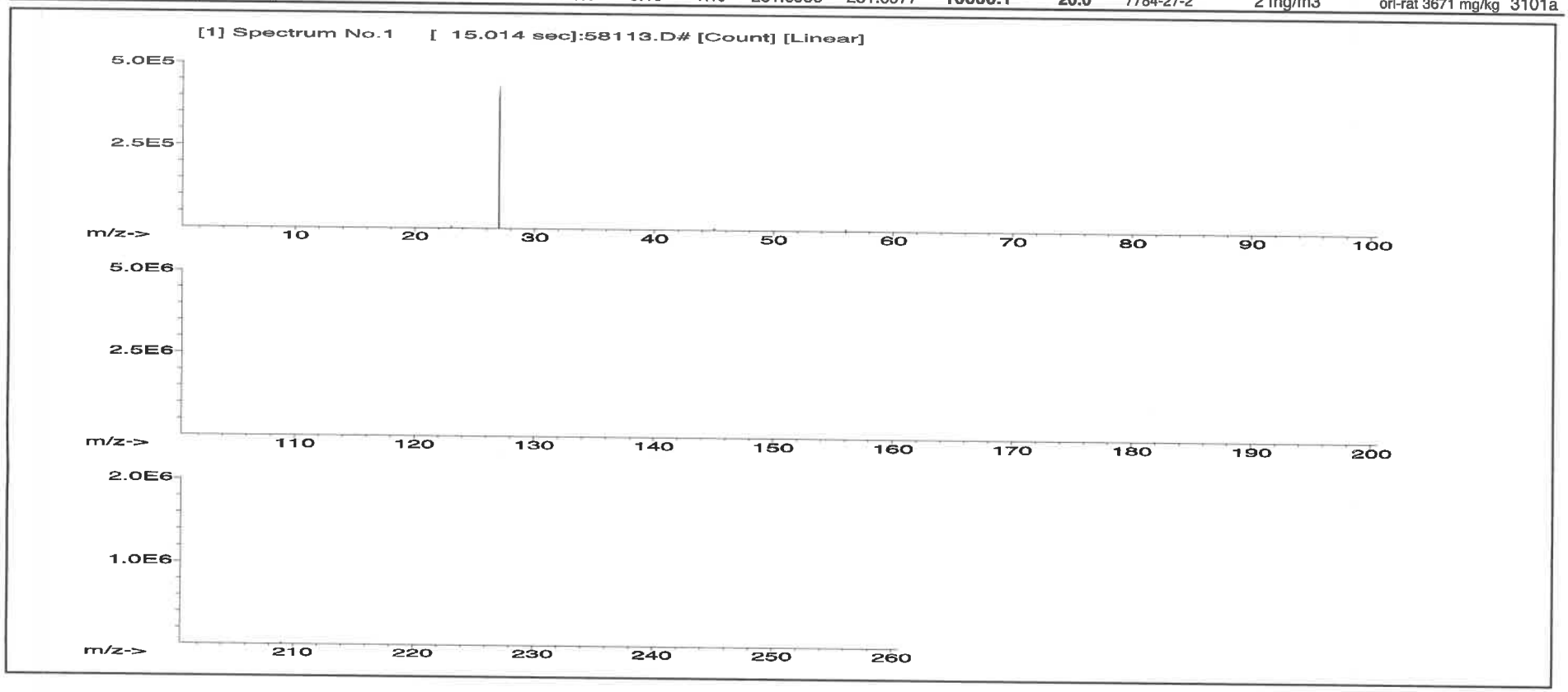
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	20370011		Nitric Acid
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. 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	orl-rat 3671 mg/kg	3101a



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	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

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

(B) *BREAKAGE OR MISSING ITEMS*

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

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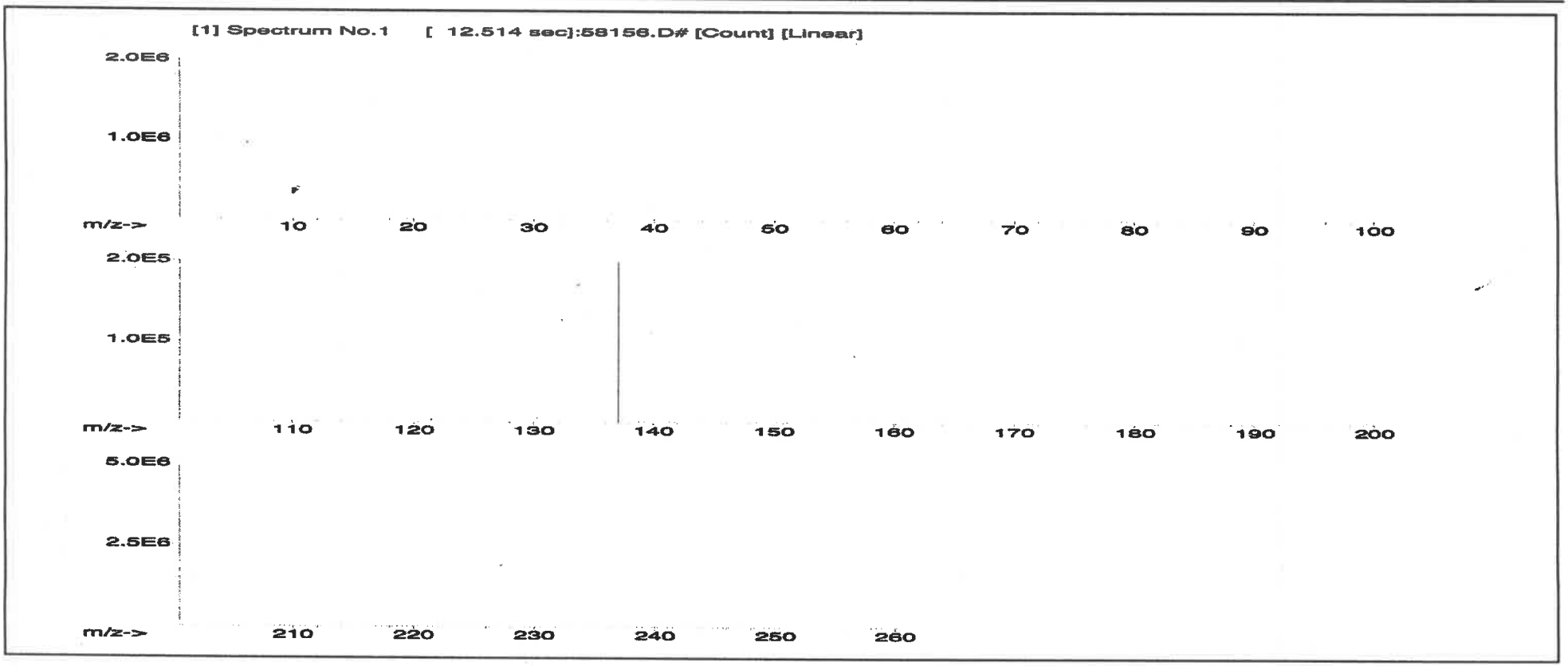
CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57056**	**Solvent:**	20510011	Nitric Acid
Lot Number:	**072122**			
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	072125			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

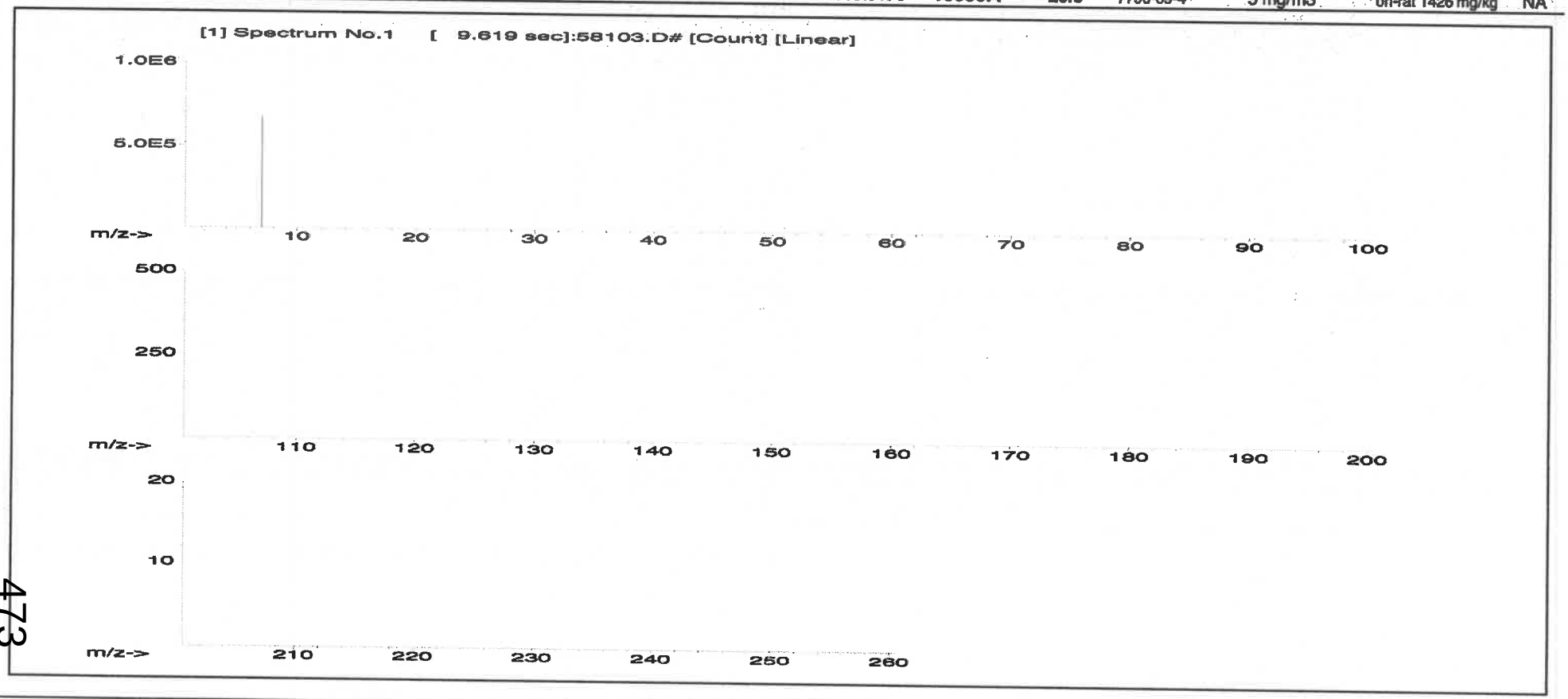
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #			
Solvent:	20510011	Nitric Acid		
2%	20.0 (mL)	Nitric Acid		

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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IN5497 - IN5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

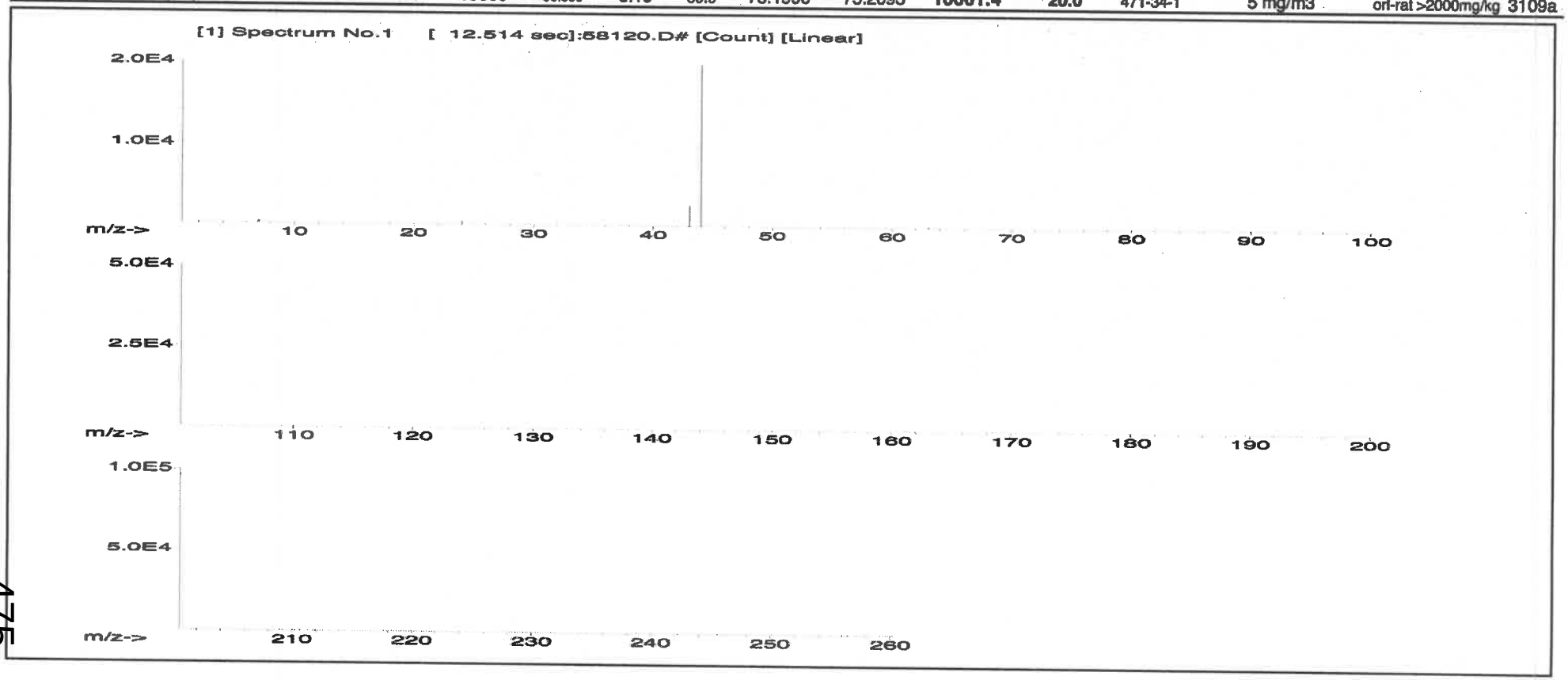
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



475

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

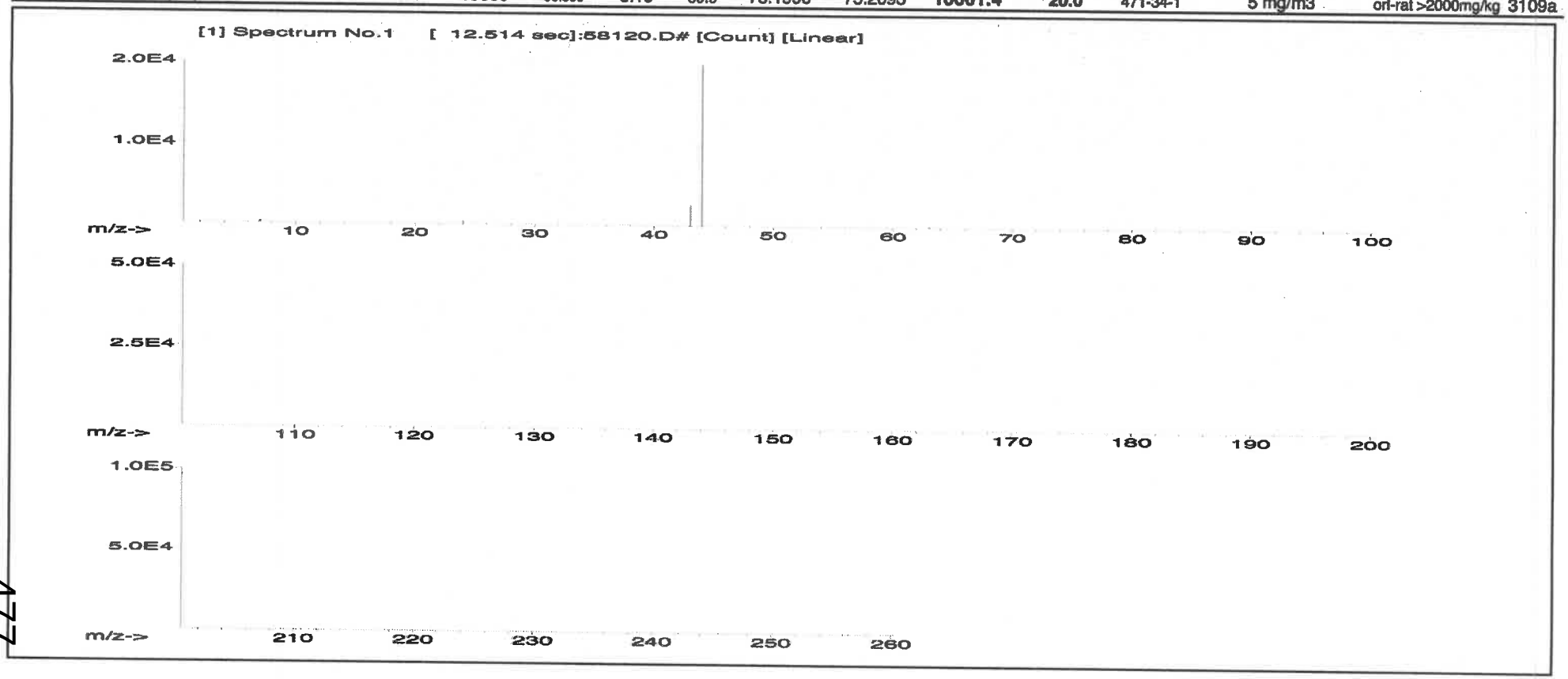
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



477

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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MS513 R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

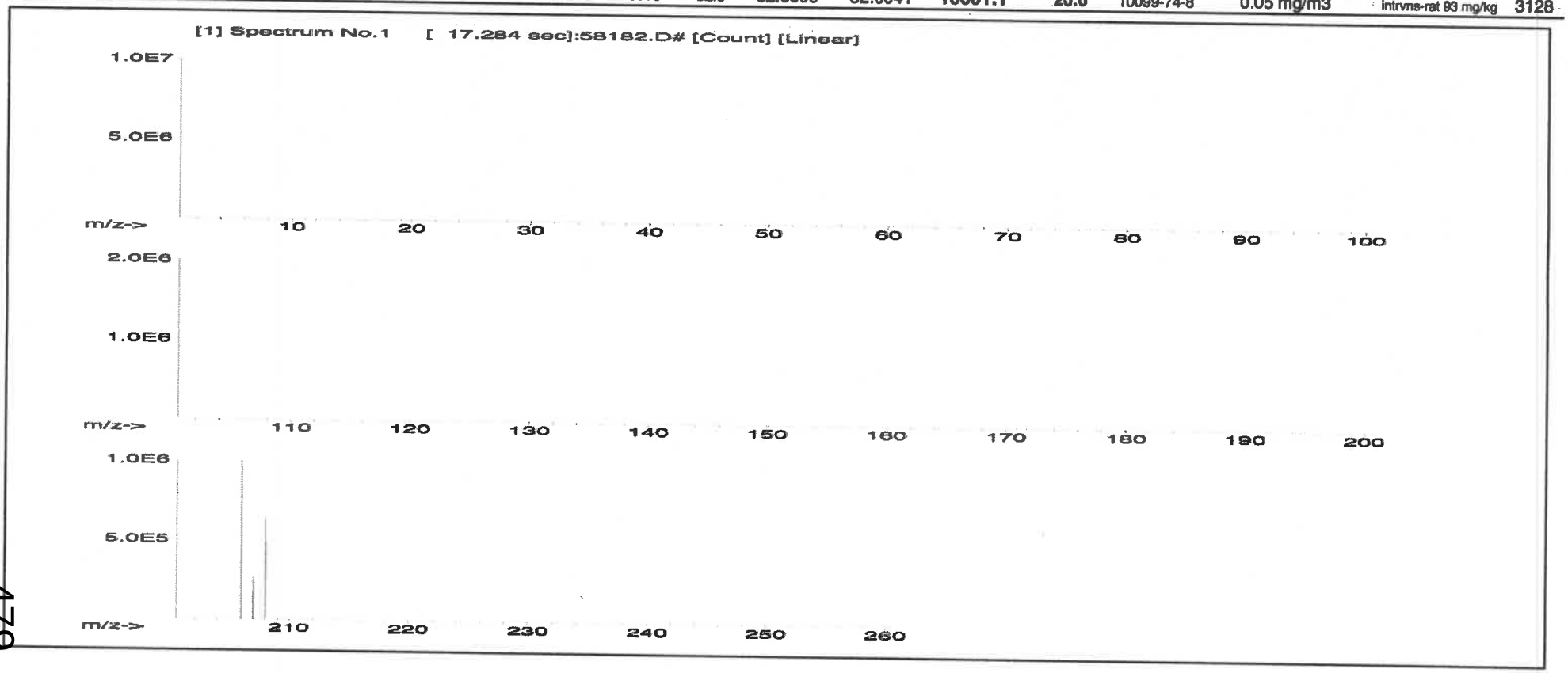
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	061522
Reviewed By:	Pedro L. Rentas	061522

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



479

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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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M5514 , M5515 R: 03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number:	**58126**		**Lot #**		
Lot Number:	**092122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Iron (Fe)**	7.0%	350.0 (mL)	Nitric Acid	
Expiration Date:	092125				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty		

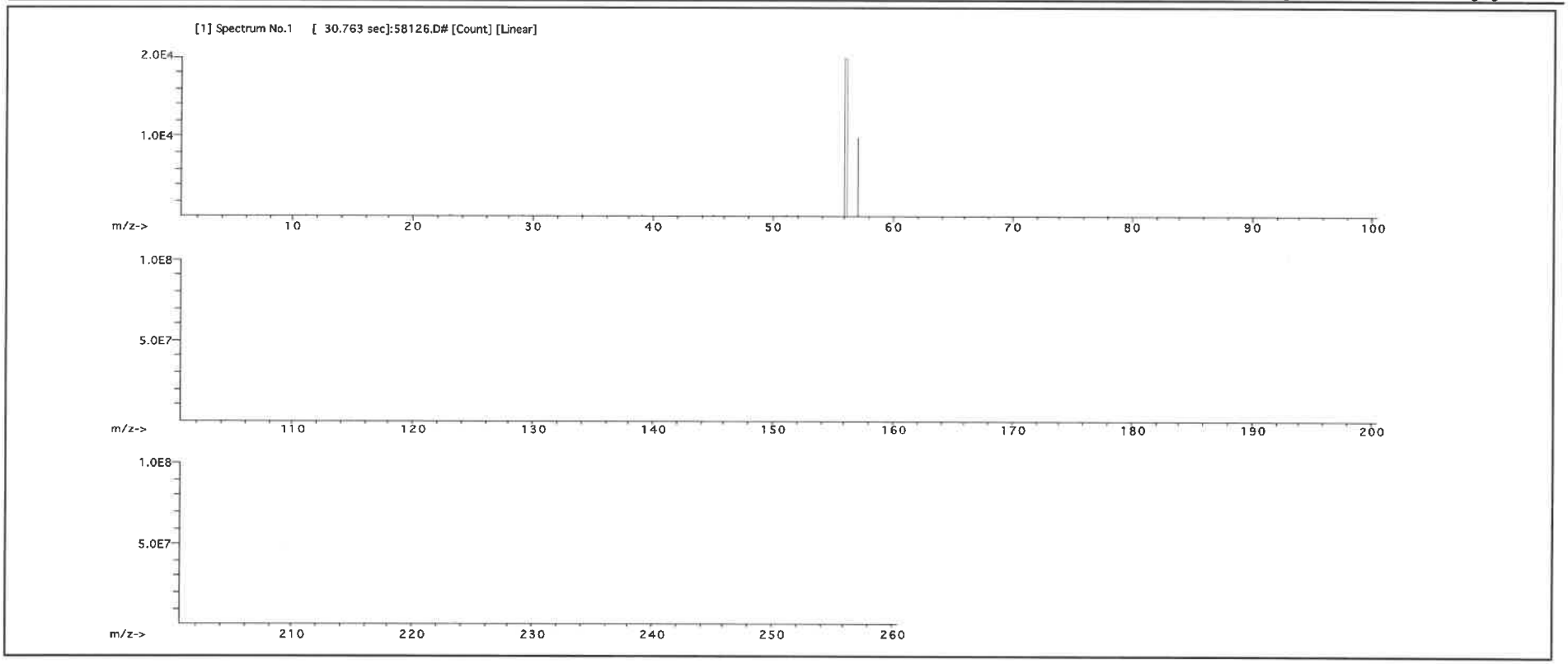
Giovanni Esposito

Formulated By:	Giovanni Esposito	092122

Pedro Rentas

Reviewed By:	Pedro L. Rentas	092122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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483

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

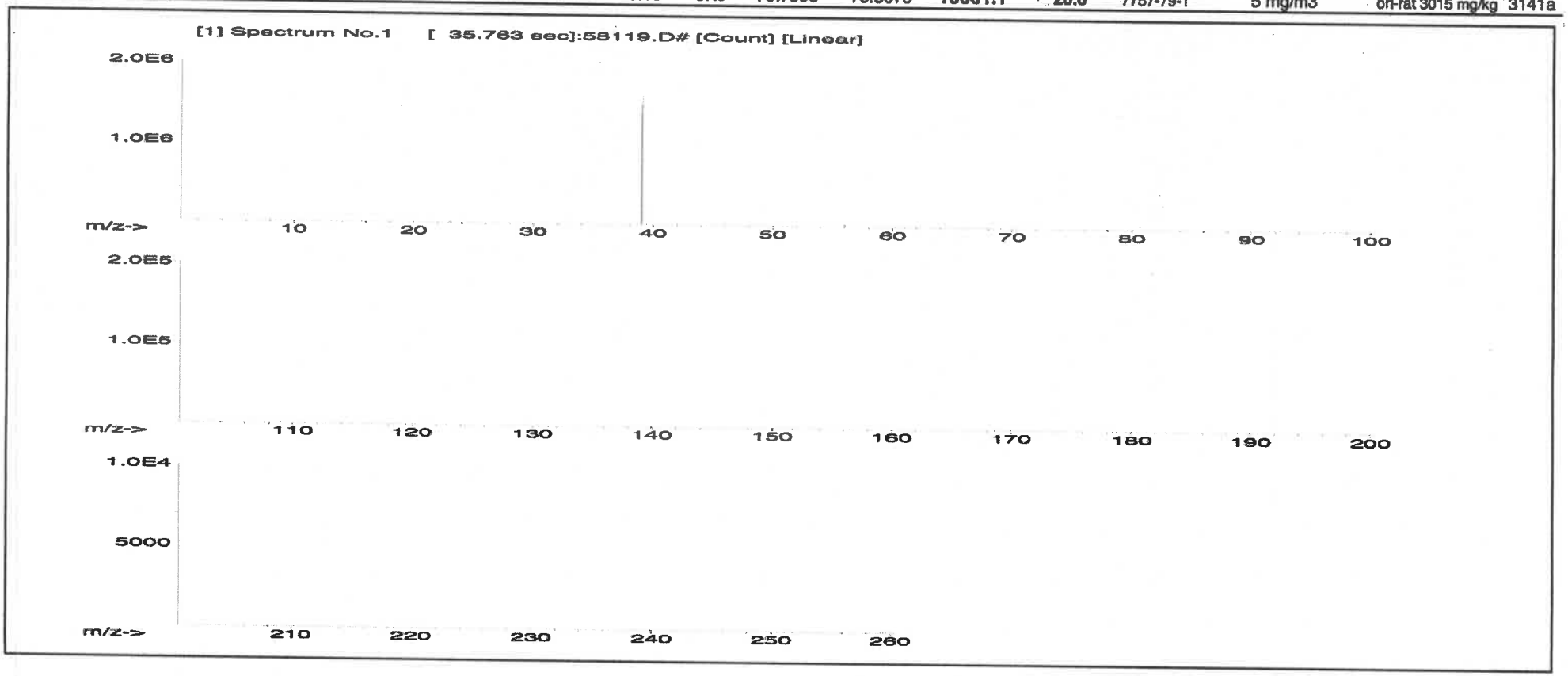
		Lot #	
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



484

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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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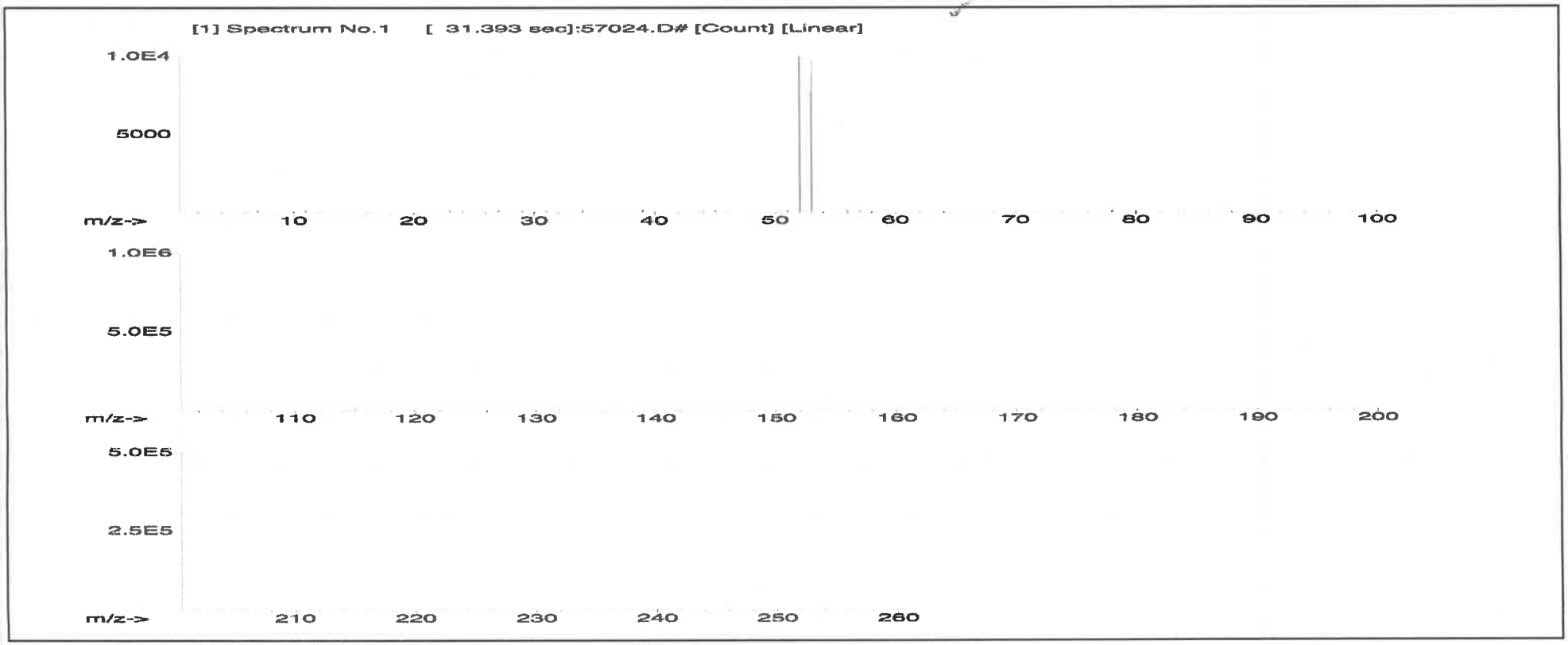
485

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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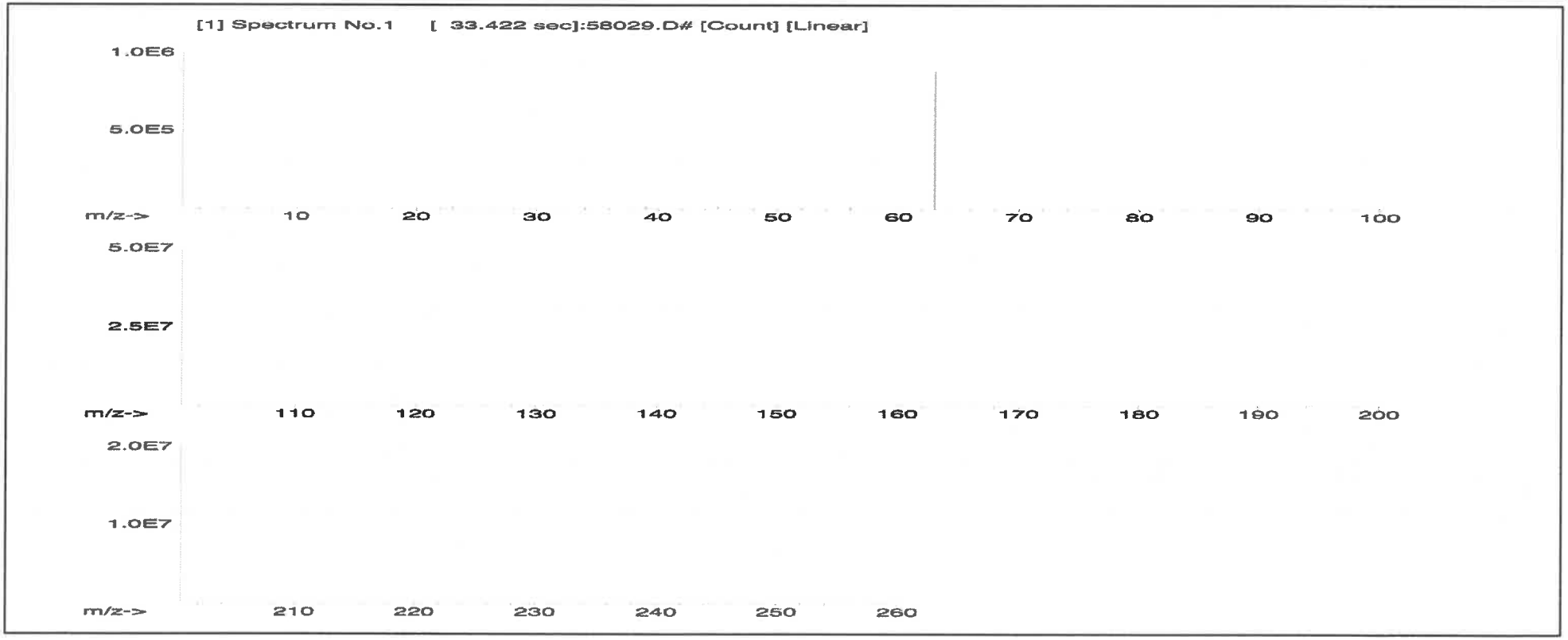
487

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**58029**	24002546	Nitric Acid		
Lot Number:	**102523**				
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	102526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



488

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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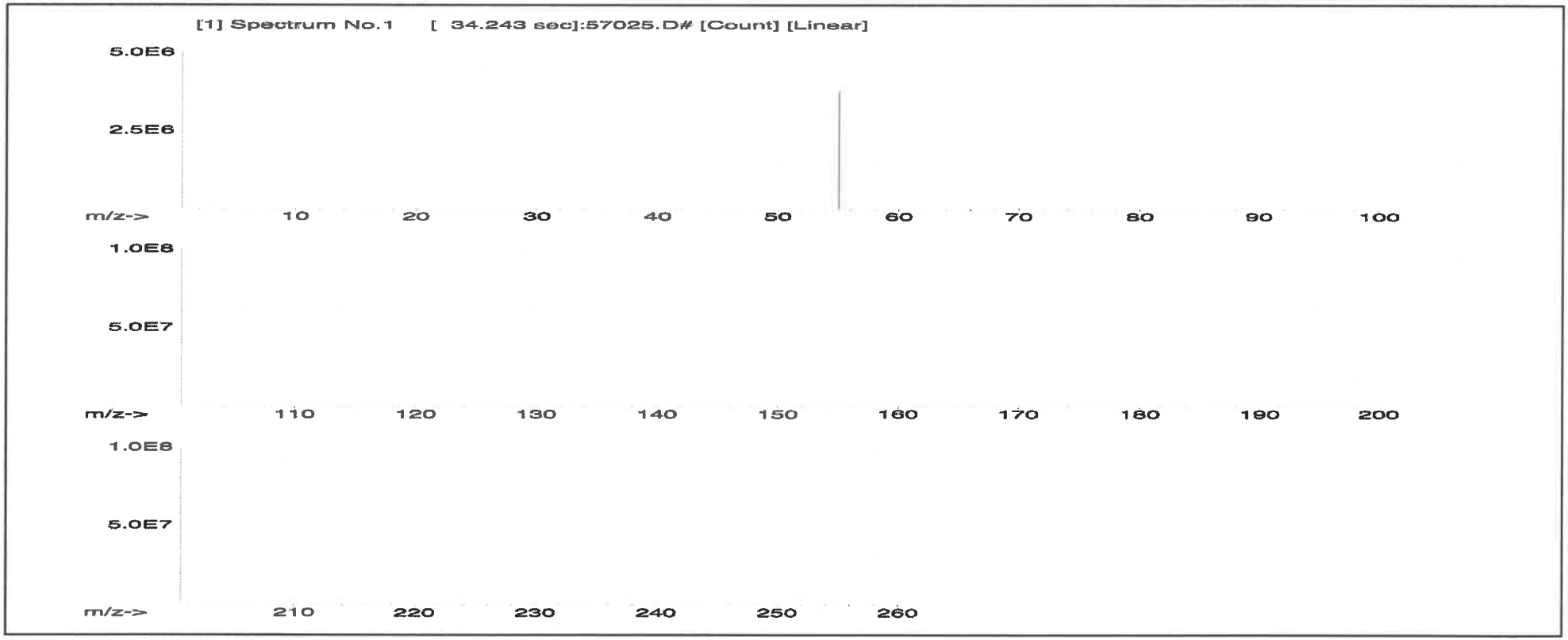
489

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58025**	24002546	Nitric Acid	
Lot Number:	**102623**			
Description:	**Manganese (Mn)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	102626			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Rentas	102623

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	**1000.0**	**2.1**	20694-39-7	5 mg/m3	orl-rat >300mg/kg	3132



490

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the balances that are calibrated with weights traceable to NIST (see above).
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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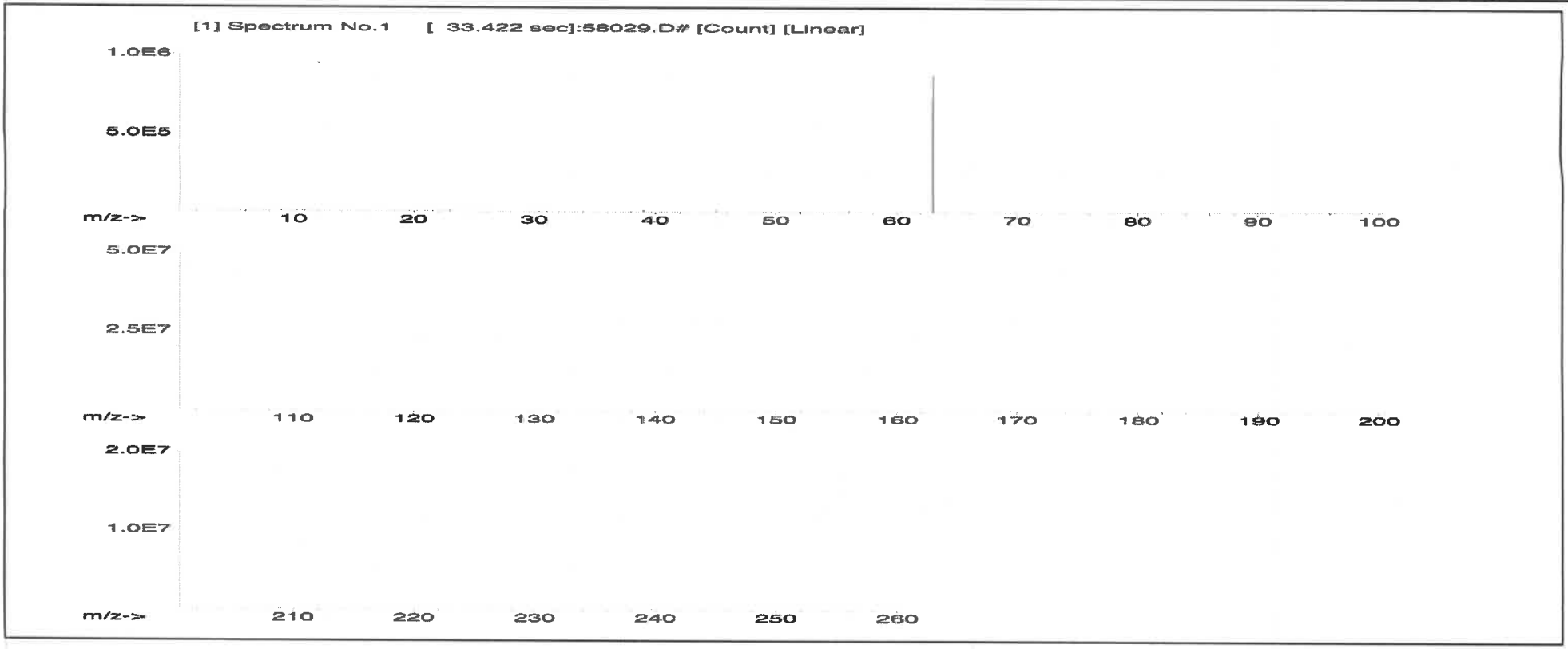
491

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



492

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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493

CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid

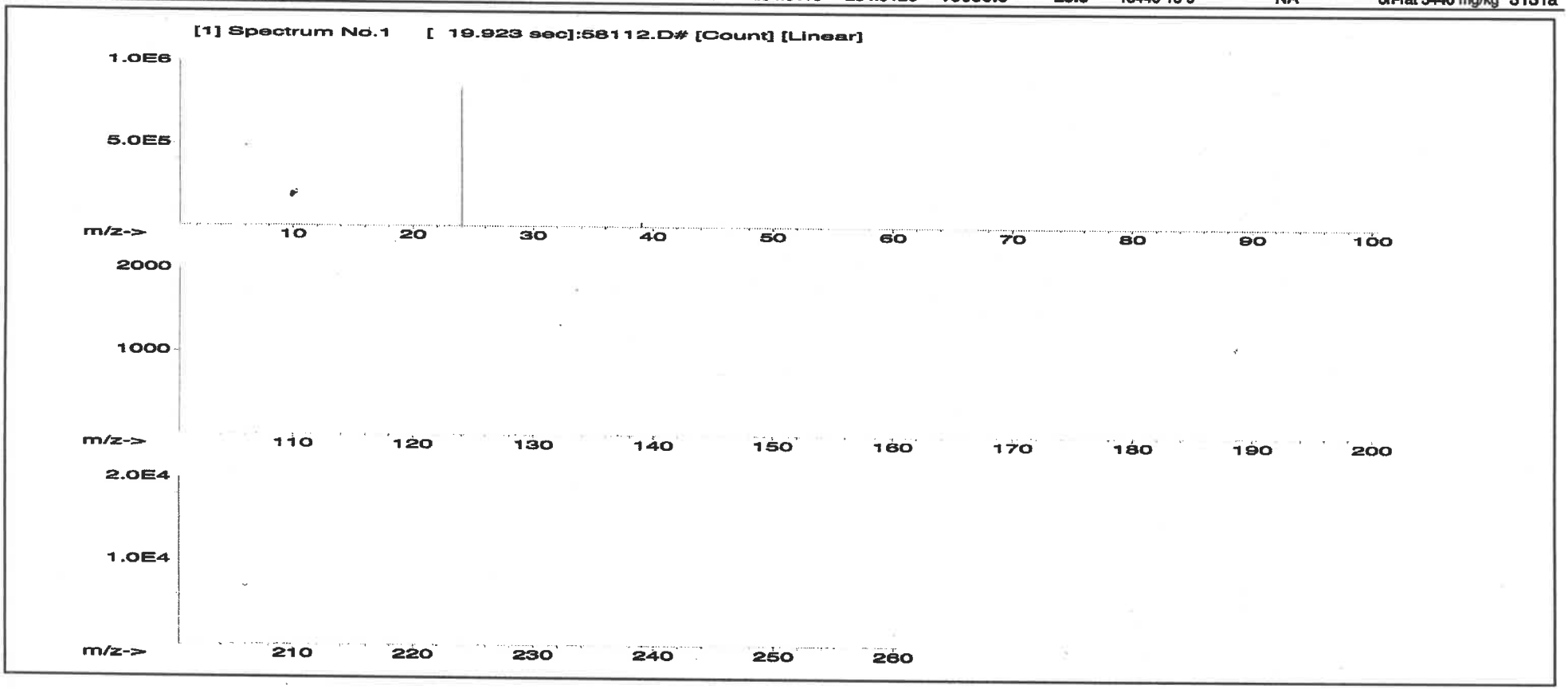
5E-05 Balance Uncertainty

M5768, M5769 (BP) R: 1/3/24

Formulated By: Lawrence Barry 091823

Reviewed By: Pedro L. Rentas 091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



494

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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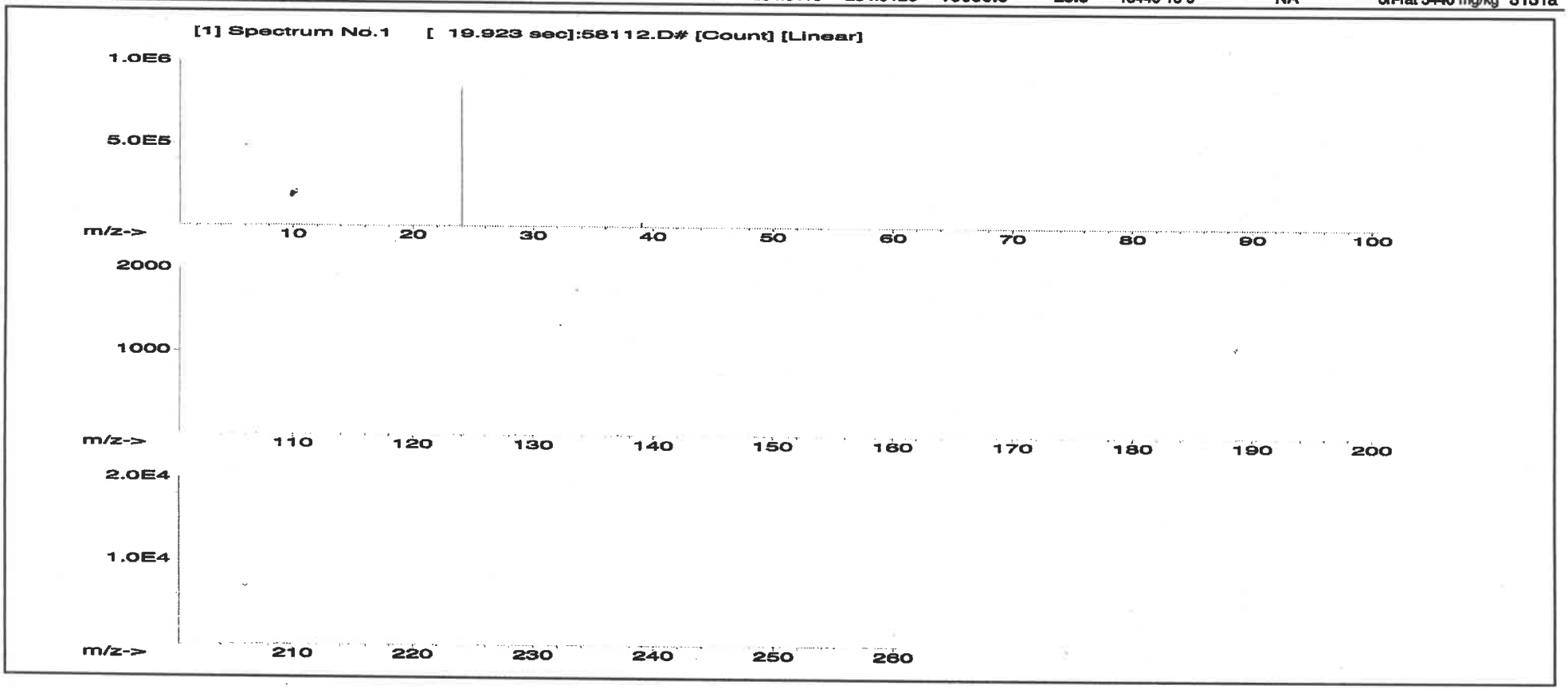
495

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**58112**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**091823**			
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	091826			
Recommended Storage:	Ambient (20 °C)	M5768, M5769 (BP) R: 1/3/24		
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05 Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058 Flask Uncertainty		

Formulated By:	Lawrence Barry 091823
Reviewed By:	Pedro L. Rentas 091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



496

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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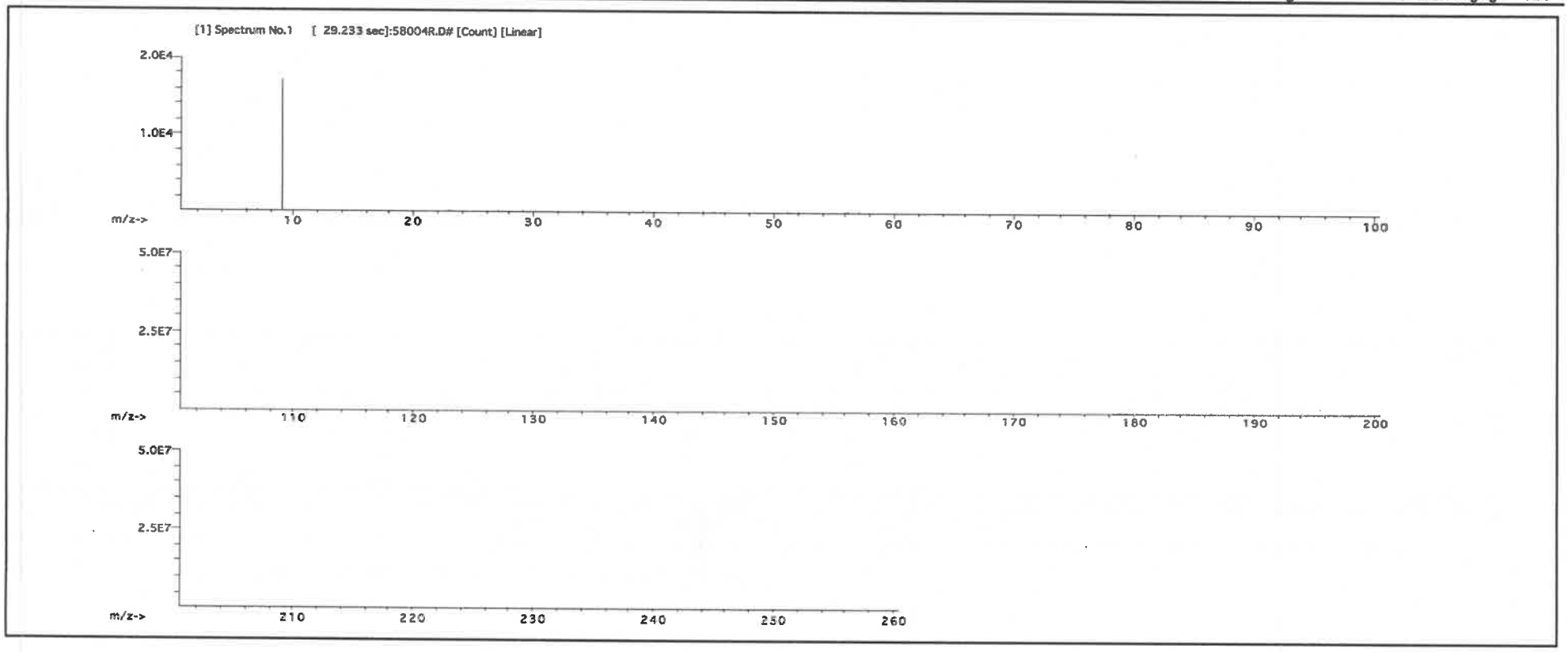
497

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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499

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

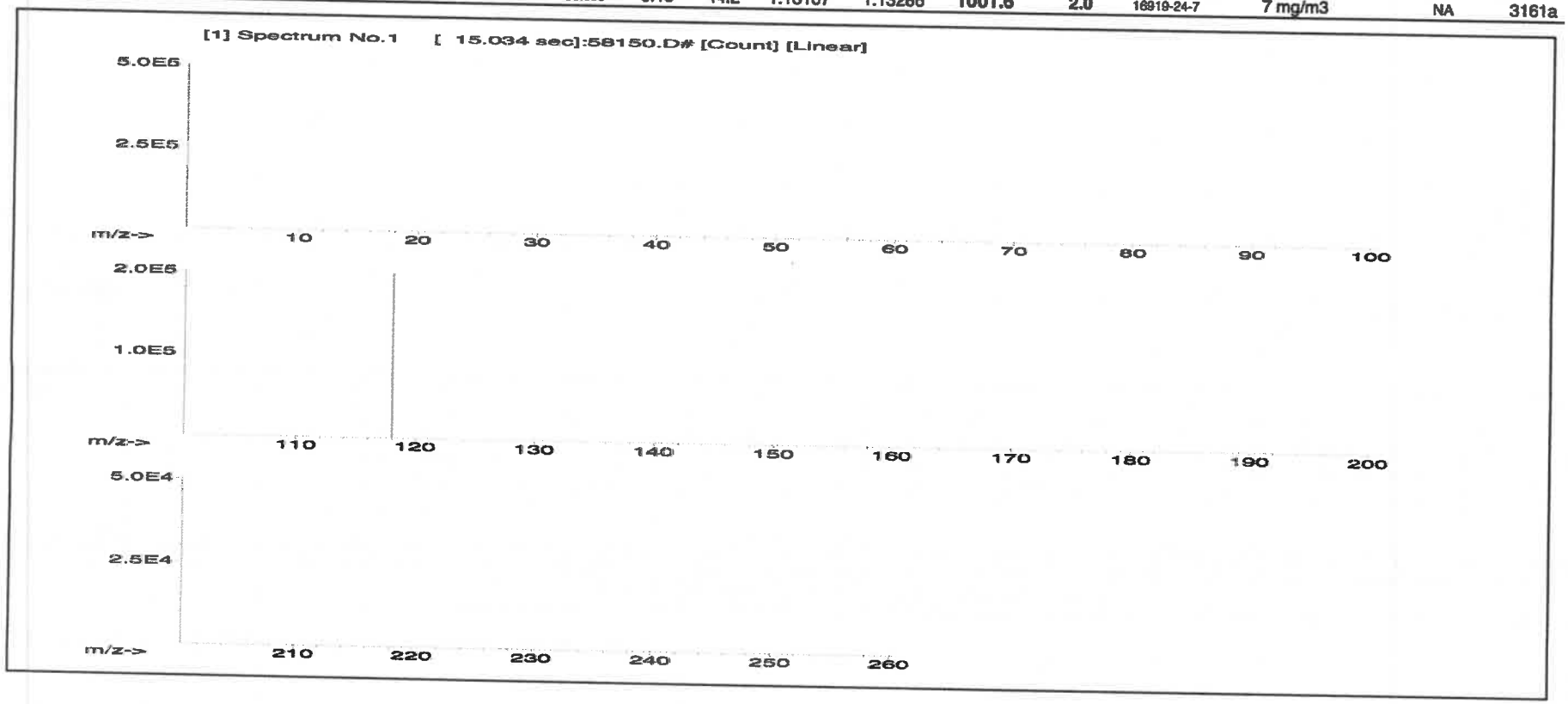
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



500

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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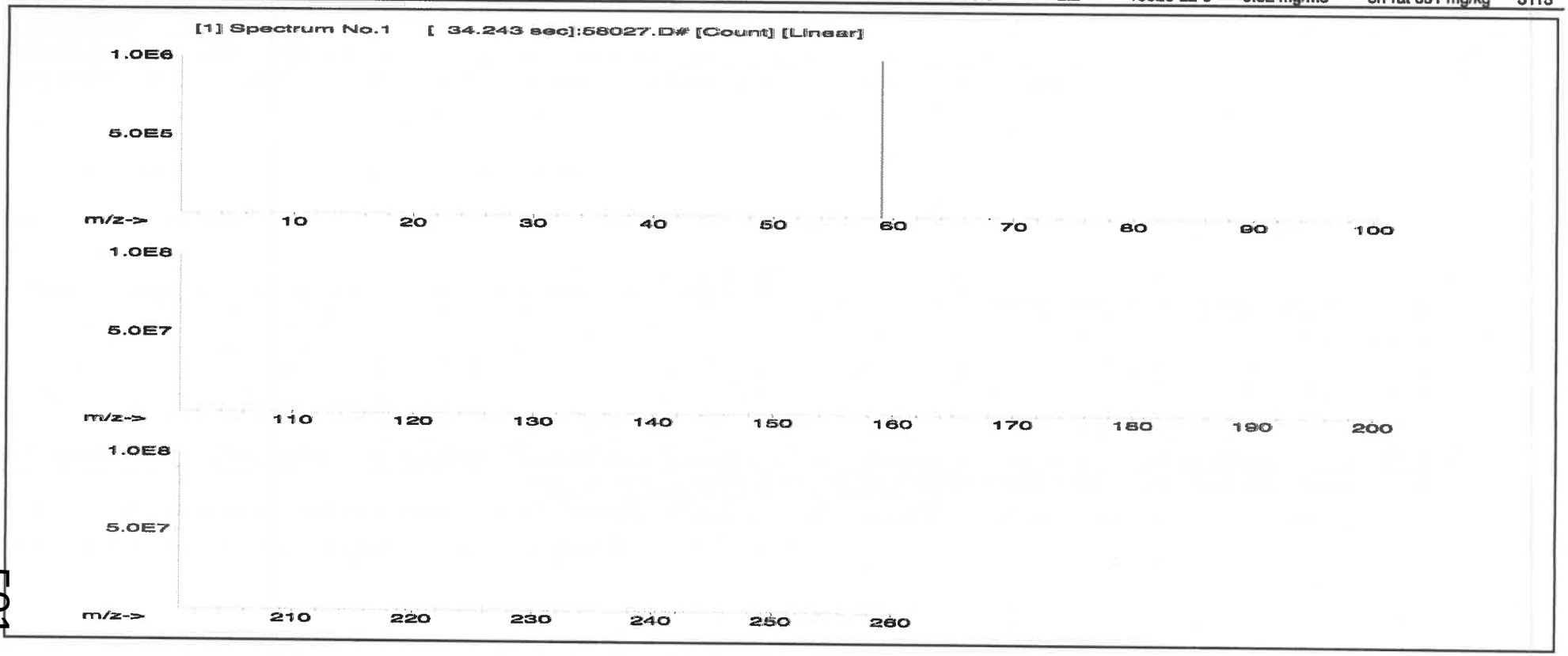
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



501

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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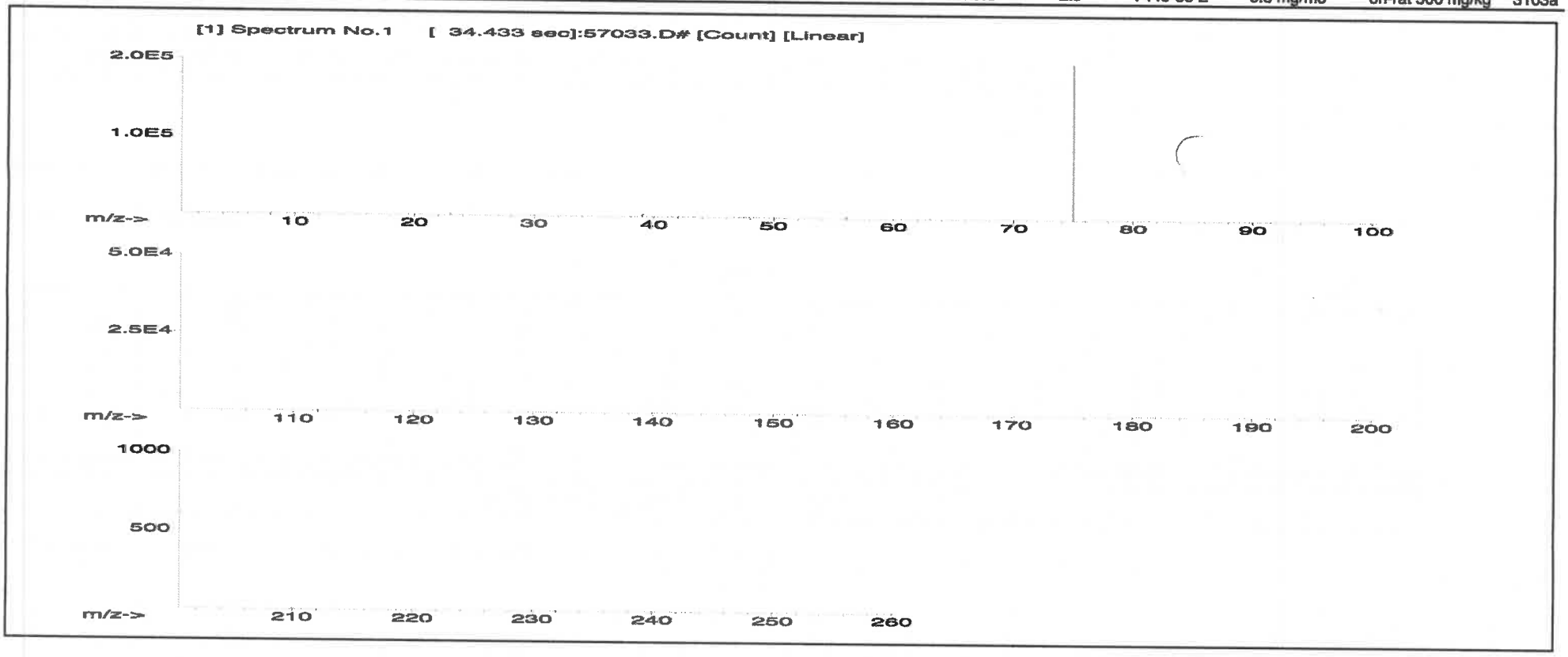
503

CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**				
Lot Number:	**111323**	24002546	Nitric Acid		
Description:	**Arsenic (As)**				
		2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



504

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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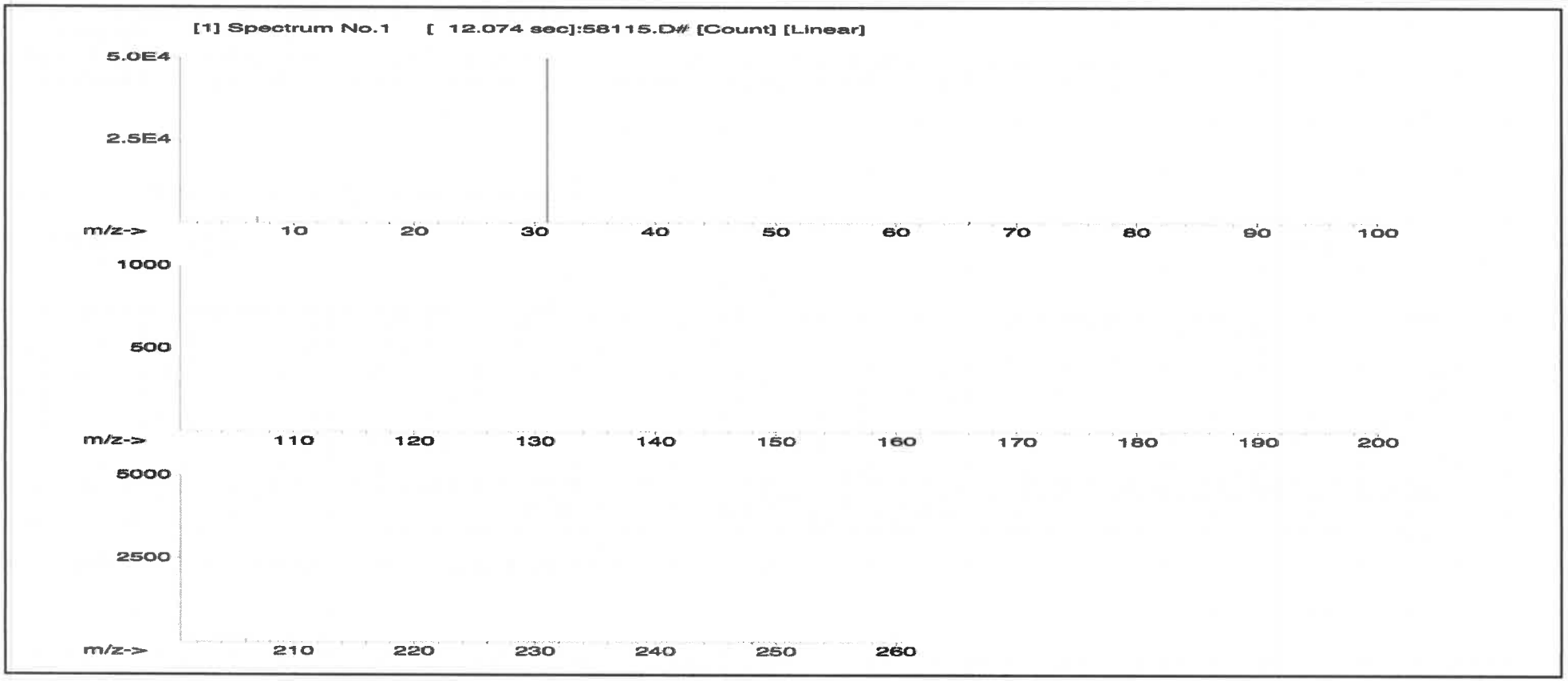
505

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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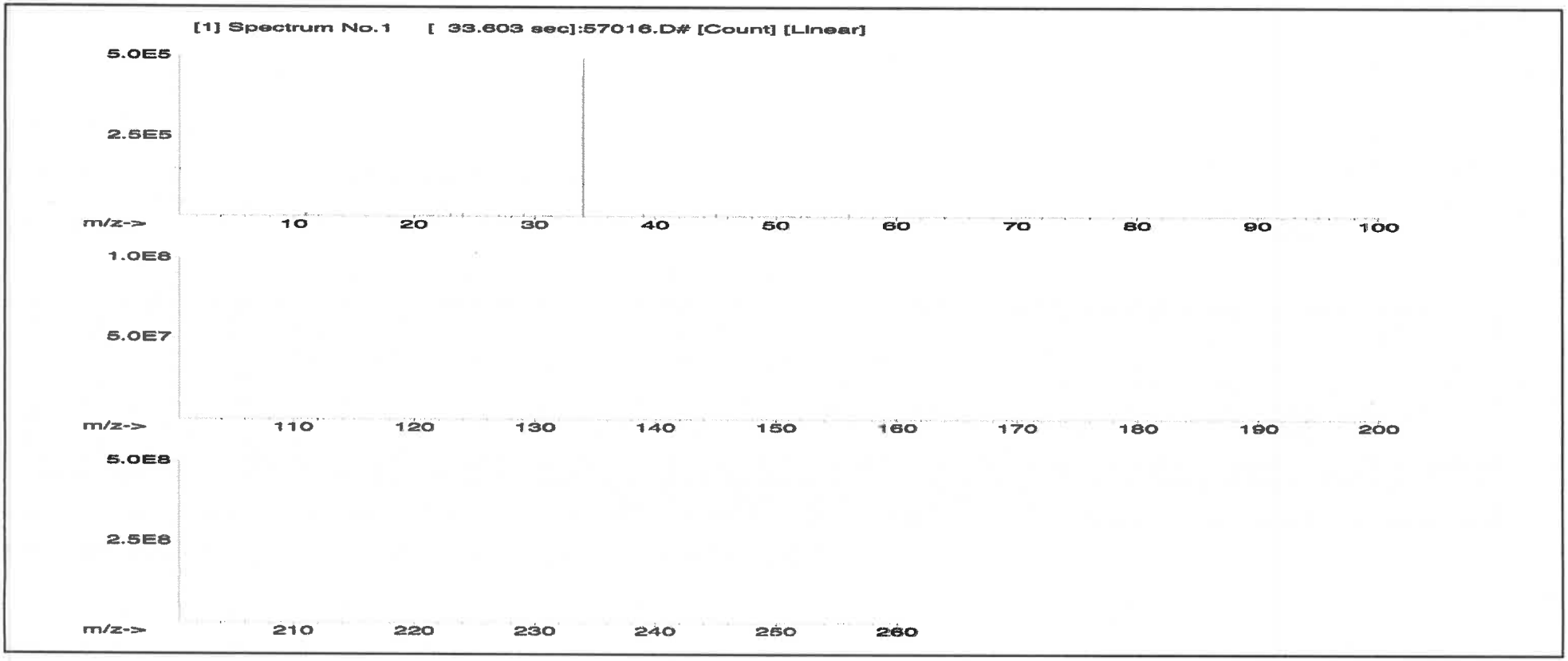
507

CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



508

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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509

CERTIFIED WEIGHT REPORT:

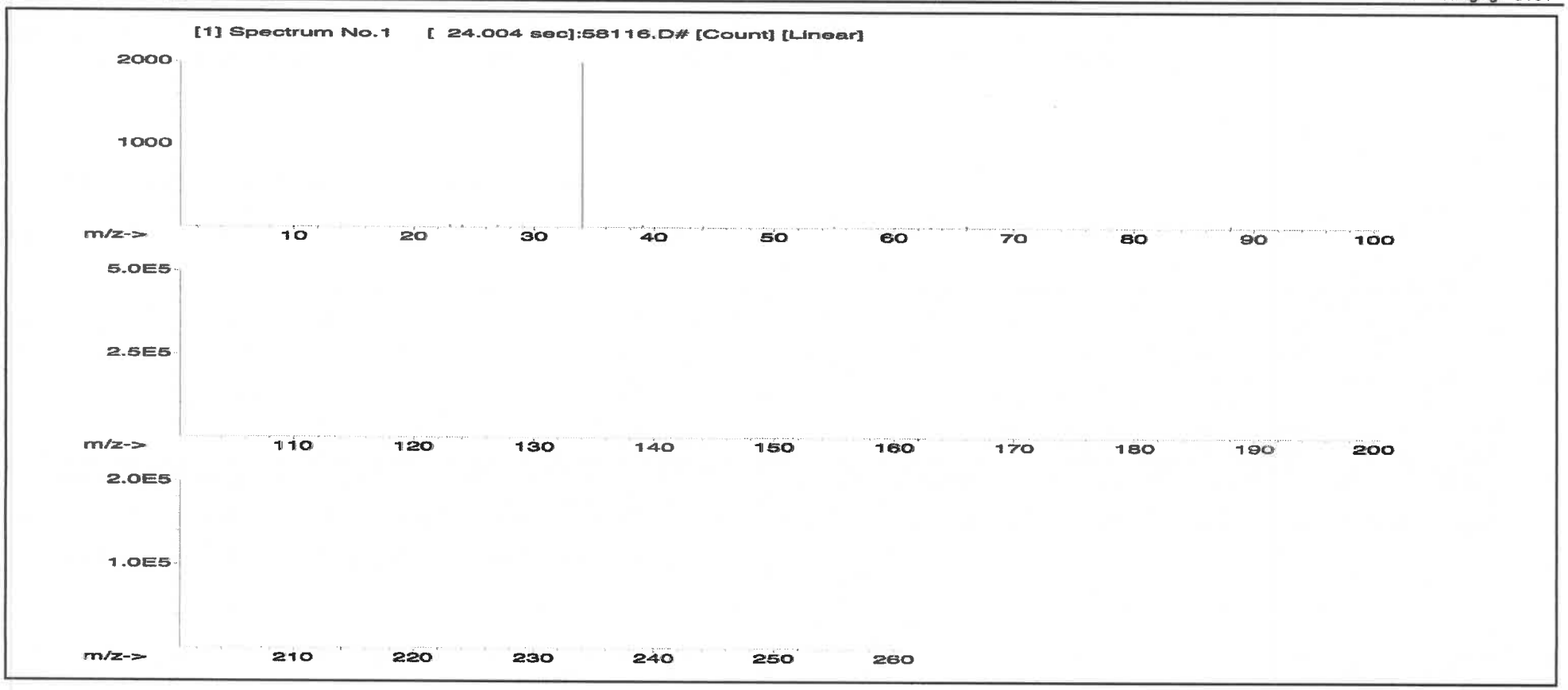
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	ori-rat 4250mg/kg	3181



510

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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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511

CERTIFIED WEIGHT REPORT:

Part Number: 57014
Lot Number: 122023
Description: Silicon (Si)

Expiration Date: 122026
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1999.48 ± 0.058 Flask Uncertainty

Solvent: 24002546 Nitric Acid

2% 40.0 (mL) Nitric Acid

5E-05 Balance Uncertainty

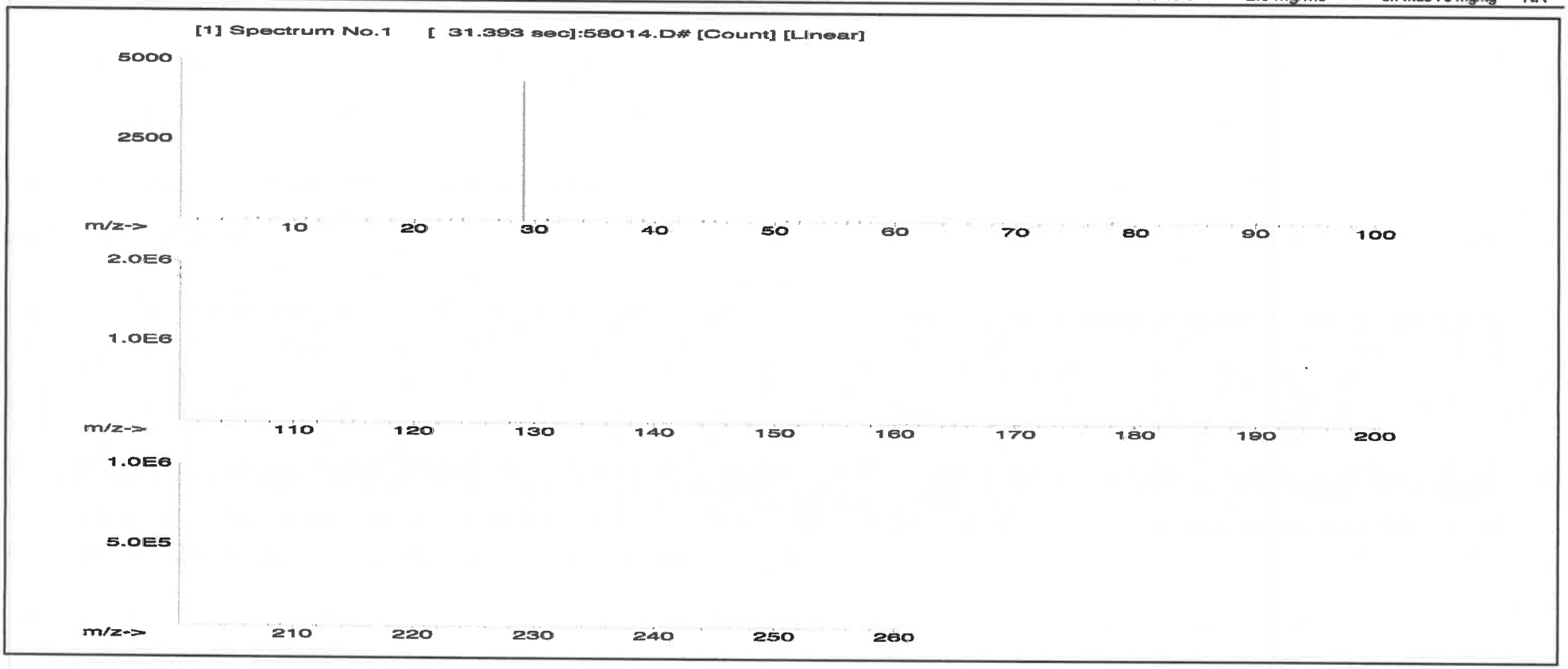
Aleah O'Brady

Formulated By: Aleah O'Brady 122023

Pedro Rentas

Reviewed By: Pedro L. Rentas 122023

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorosilicate (Si)	IN009	SID082022A1	1000	99.999	0.10	14.4	13.8854	13.8855	**1000.0**	**2.0**	16919-19-0	2.5 mg/m3	orl-mus 70 mg/kg	NA



512

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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513

CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

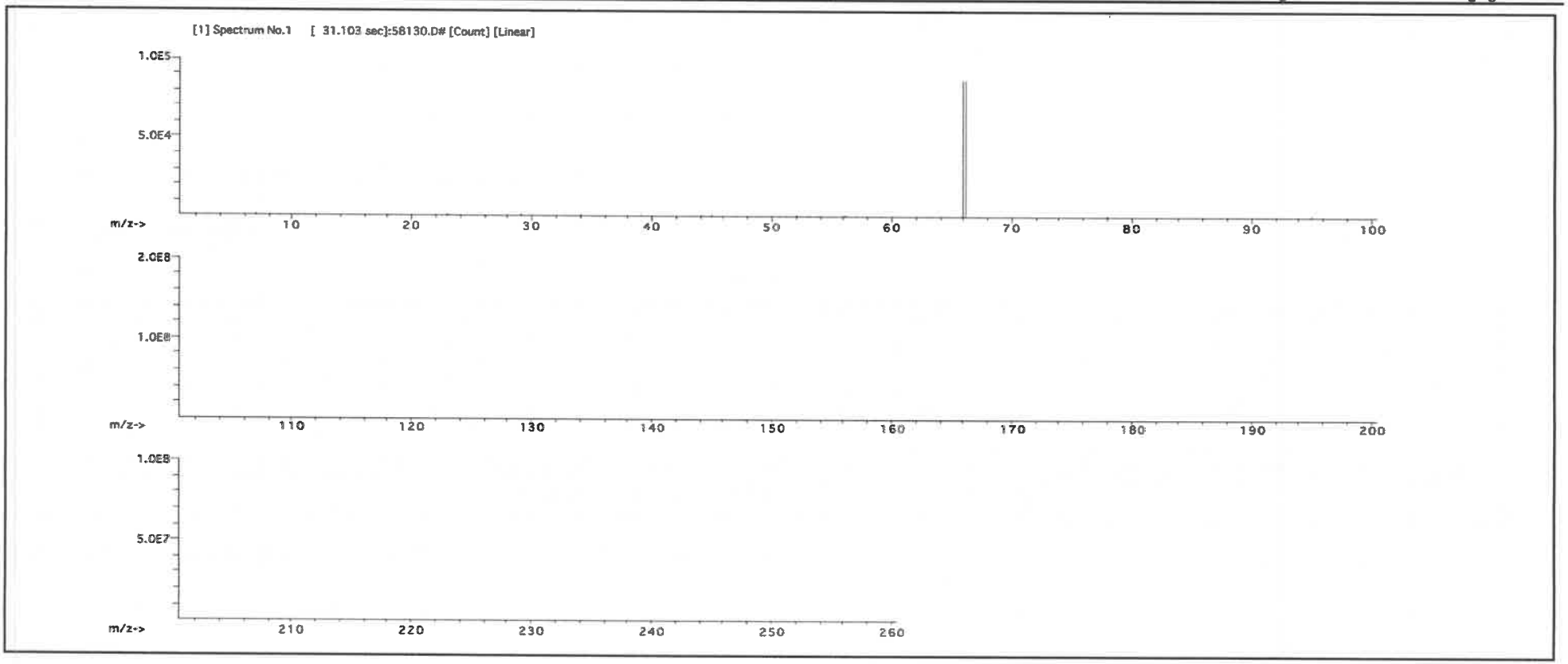
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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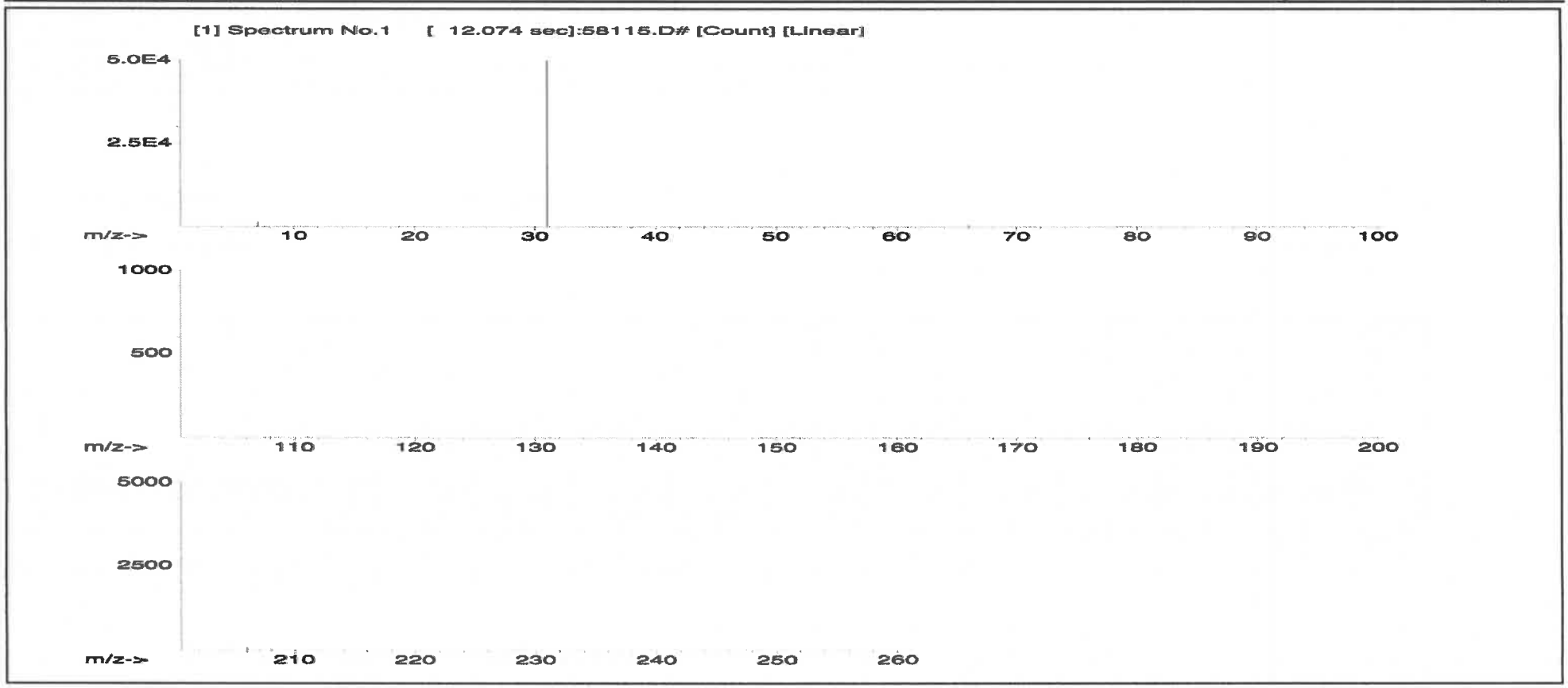
515

CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



516

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5959 R: 6/14/24.

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F: 540-585-3012
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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M5960 KK R. 6/11/24

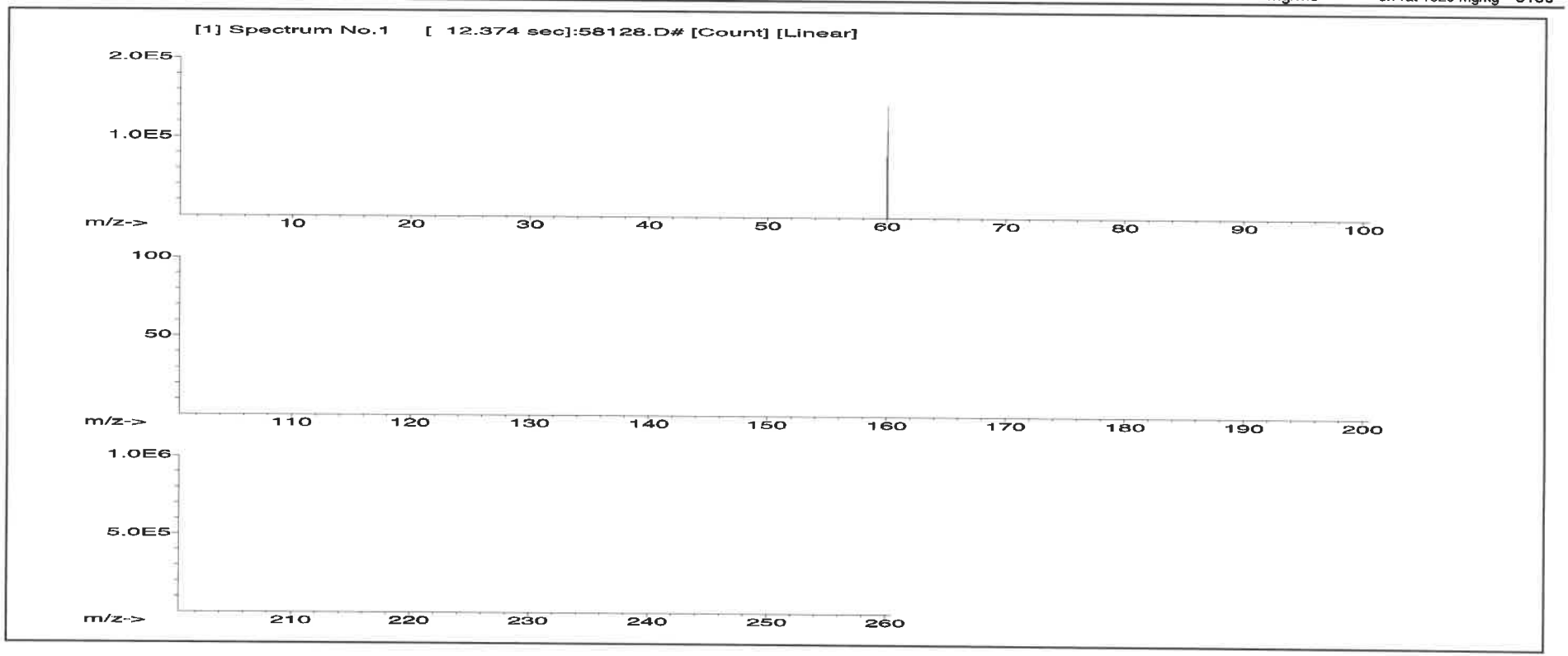
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CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57028**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**041124**			
Description:	**Nickel (Ni)**			
		2%	5.0 (mL)	Nitric Acid
Expiration Date:	041127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	249.85	0.002	Flask Uncertainty	

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



521

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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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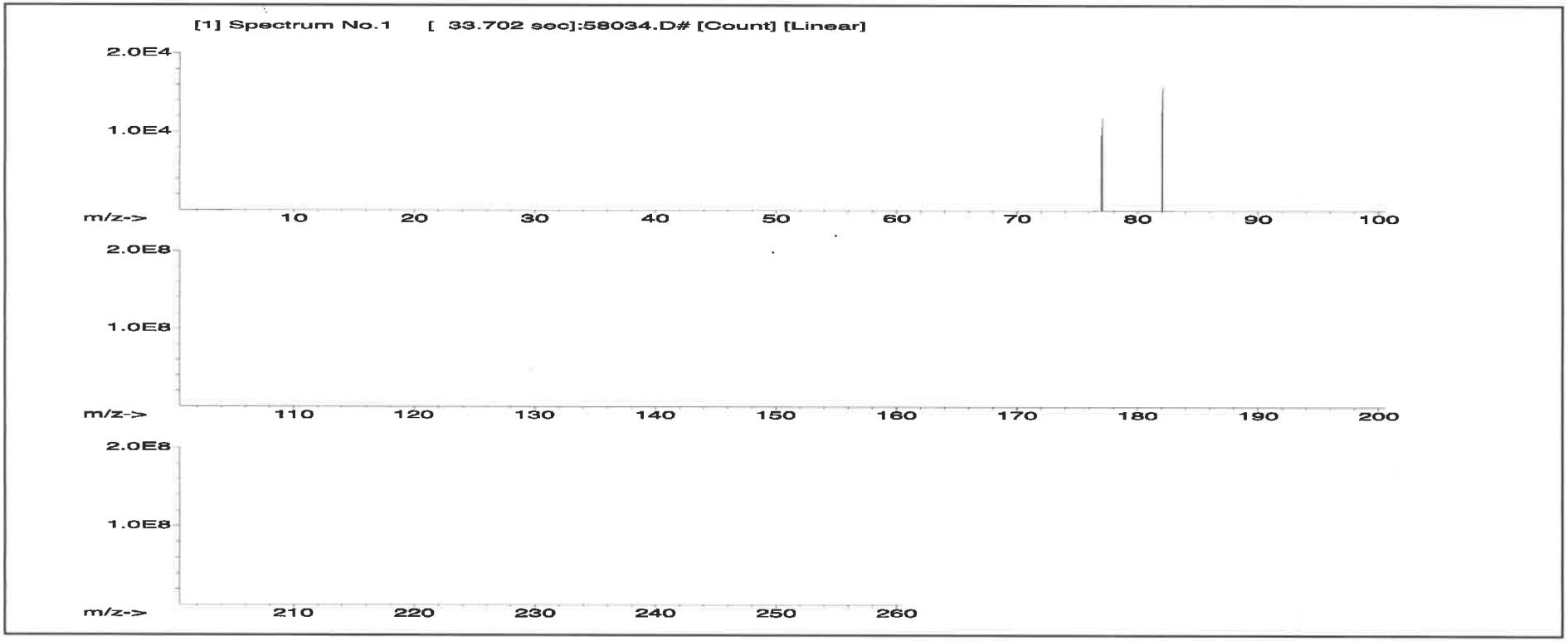
523

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



524

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

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5970, M5971 R: 7/01/24

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CERTIFIED WEIGHT REPORT:

Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 062127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11

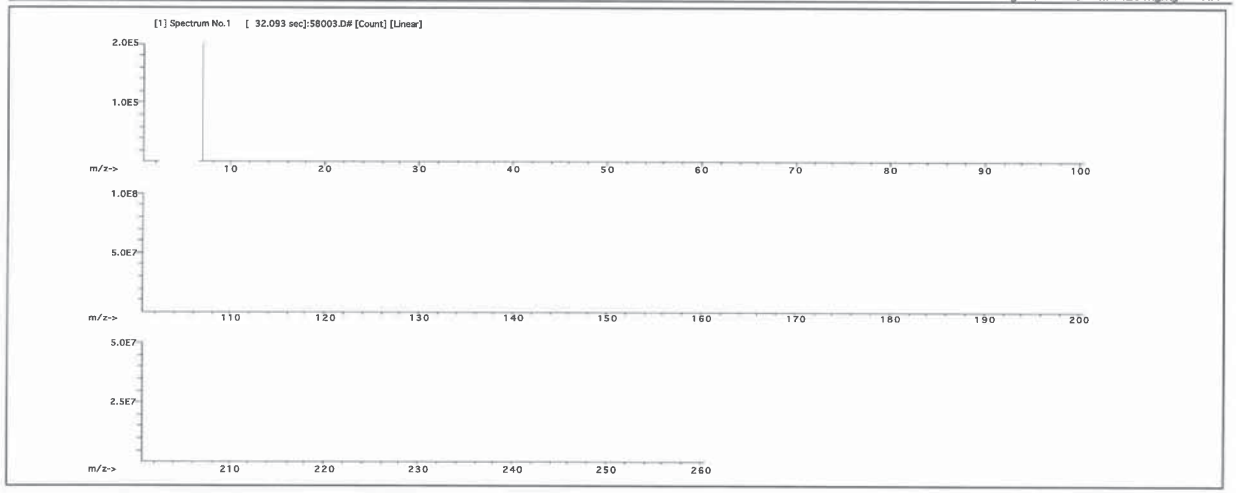
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.016 Flask Uncertainty

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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Certified Reference Material CRM

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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

M5976, M5977
R: 02/22/24

300 Technology Drive
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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



531

M5978, M5979

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
w_i = the weighting factors for each method calculated using the inverse square of the variance

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = (\Sigma(w_i)^2\ (u_{char\ i})^2)^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with
$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

45982 R: 6/11/24

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

CERTIFIED WEIGHT REPORT:

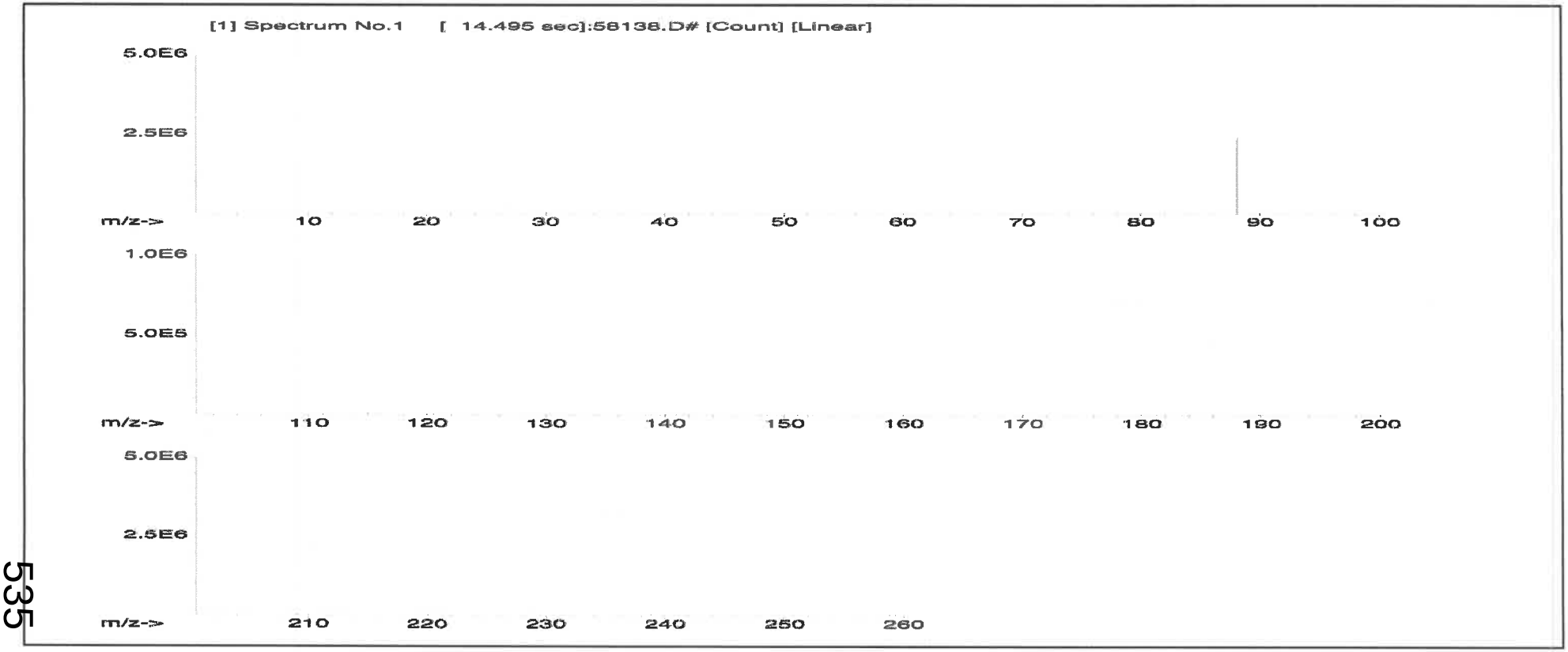
Part Number: 57038
Lot Number: 031524
Description: Strontium (Sr)

Expiration Date: 031527
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85502	**1000.1**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-1
Lot Number:	T2-MEB721963
Matrix:	7% (v/v) HNO3
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, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)\,(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 01/03/24 M6033

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

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CERTIFIED WEIGHT REPORT:

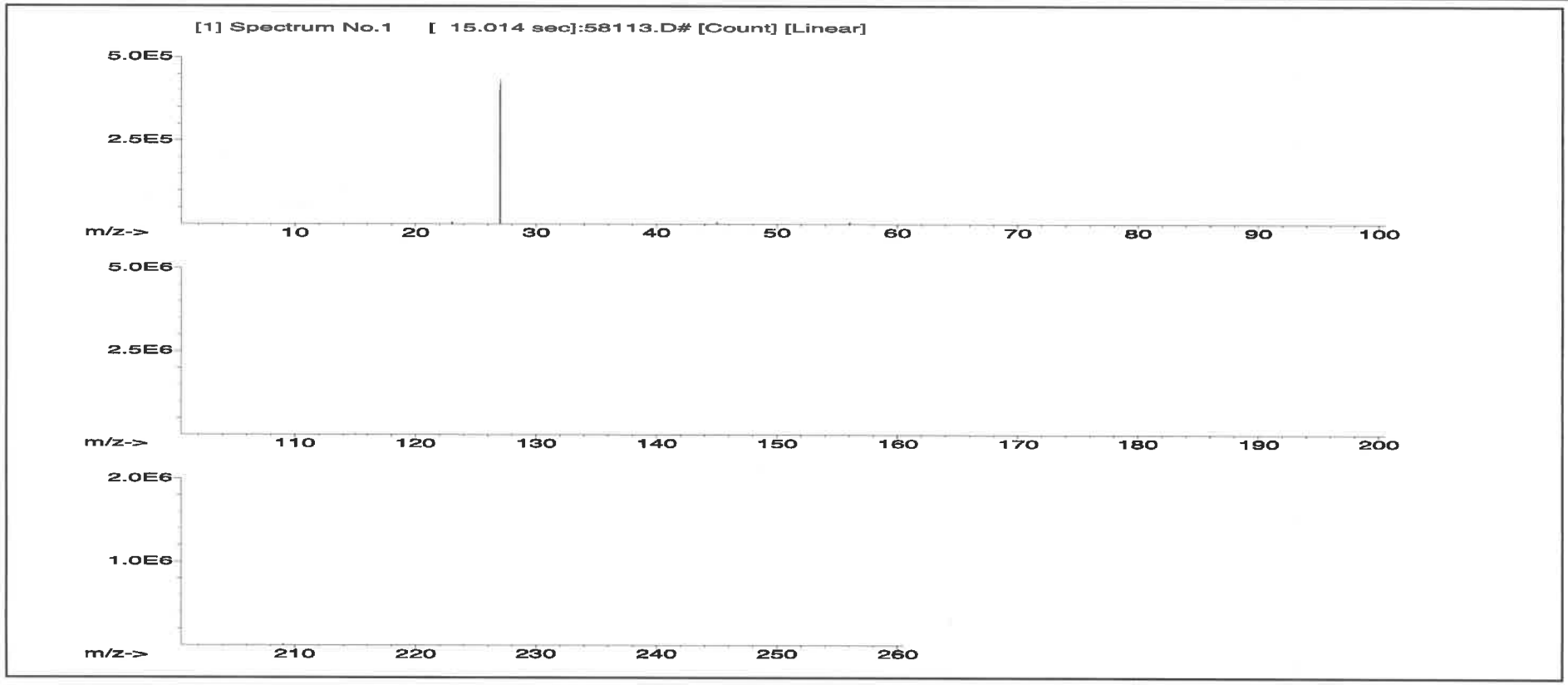
Part Number:	**58113**		**Solvent:**	20510011	Nitric Acid
Lot Number:	**011623**				
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Lot #

Giovanni Esposito

Formulated By:	Giovanni Esposito	011623
Reviewed By:	Pedro L. Rentas	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6109
M6110
M6111

Received date 9/29/24 Met dig.

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22F0762009
Manufactured Date: 2022-05-10
Retest Date: 2027-05-09
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	0.8 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	14.9 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	0.8 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	1.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	0.7 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	< 0.8 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	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

M6112
M6113
M6114
M6115
M6116
M6117

Receive:
9/29/24
Met dig

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.6 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	< 0.2 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	< 50 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

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Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

Nitric Acid 69%
CMOS

M6112
M6113
M6114
M6115
M6116
M6117

Receive:
9/29/24
Met dig

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.6 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	< 0.2 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	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

Certificate of Analysis

Test	Specification	Result
ACS - Assay (as HCl) (by acid-base titrn)	36.5 - 38.0 %	37.6
ACS - Color (APHA)	<= 10	5
ACS - Residue after Ignition	<= 3 ppm	1
ACS - Specific Gravity at 60°/60°F	1.185 - 1.192	1.190
ACS - Bromide (Br)	<= 0.005 %	< 0.005
ACS - Extractable Organic Substances	<= 5 ppm	1
ACS - Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities - Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities - Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities - Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities - Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities - Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities - Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities - Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities - Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities - Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities - Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities - Gallium (Ga)	<= 1.0 ppb	< 0.2

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

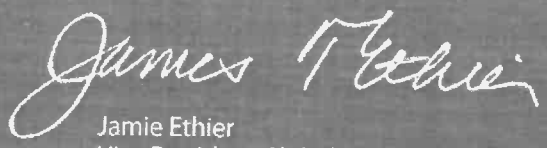
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Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

556

M6125 Receive -> 11/22/24

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

Office and Plant
299 Cedar Lane
Fairless Hills, PA 19030

Phone: 215-295-5006
Fax: 215-295-0781

Hydrogen Peroxide 30%, ACS

Reagent Grade

SPECIFICATION	MAXIMUM LIMITS
Appearance	Colorless and free from suspended matter or sediment
Assay	29-32%
Color (APHA)	10
Residue after Evaporation	0.002%
Titratable Acid	0.0006 meq/g
Chloride (Cl)	3 ppm
Nitrate (NO_3)	2 ppm
Phosphate	2 ppm
Sulfate (SO_4)	5 ppm
Ammonium (NH_4)	5 ppm
Heavy Metals (as Pb)	1 ppm
Iron (Fe)	0.5 ppm

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 01/03/24 M5806, M5807

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

561

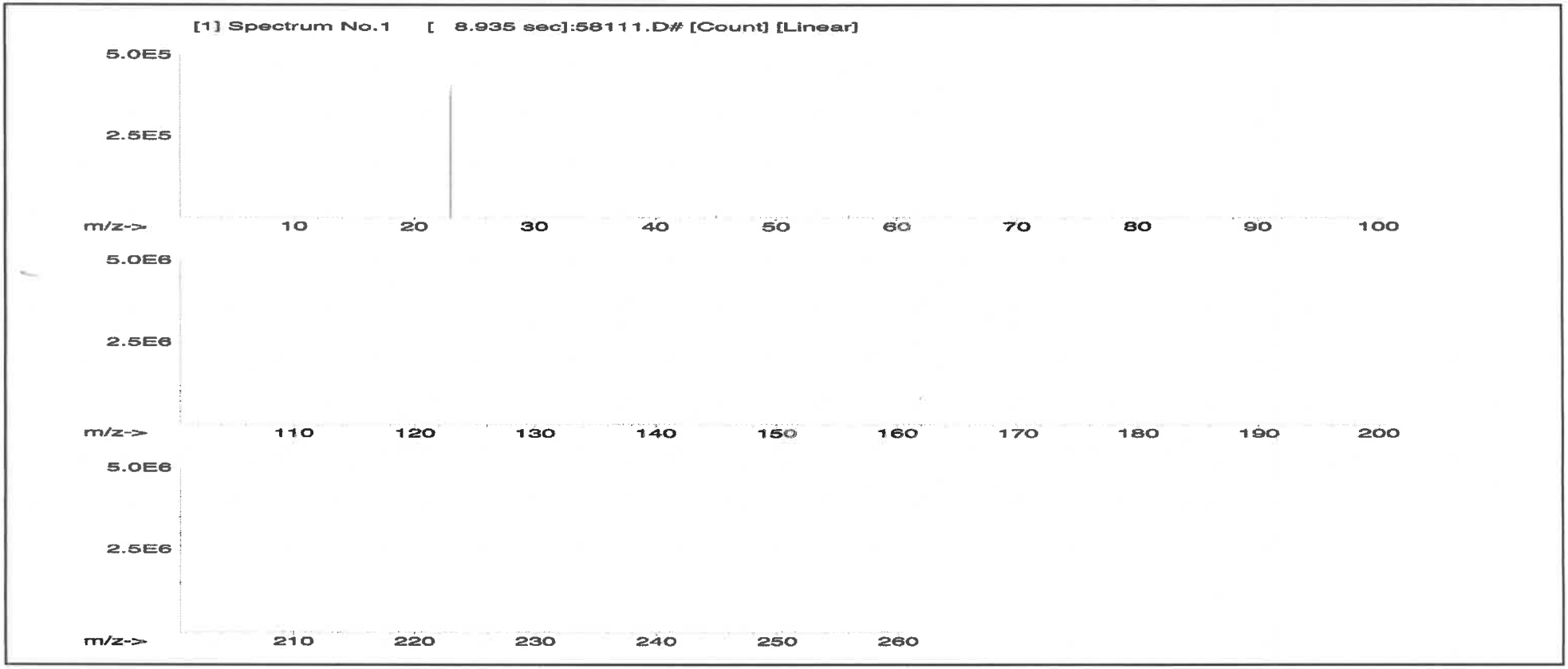
CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**58111**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**122223**			
Description:	**Sodium (Na)**	2%	60.0 (mL)	Nitric Acid
Expiration Date:	122226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	3000.4	0.06	Flask Uncertainty	

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

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

R: 01/03/24 M5802, M5803

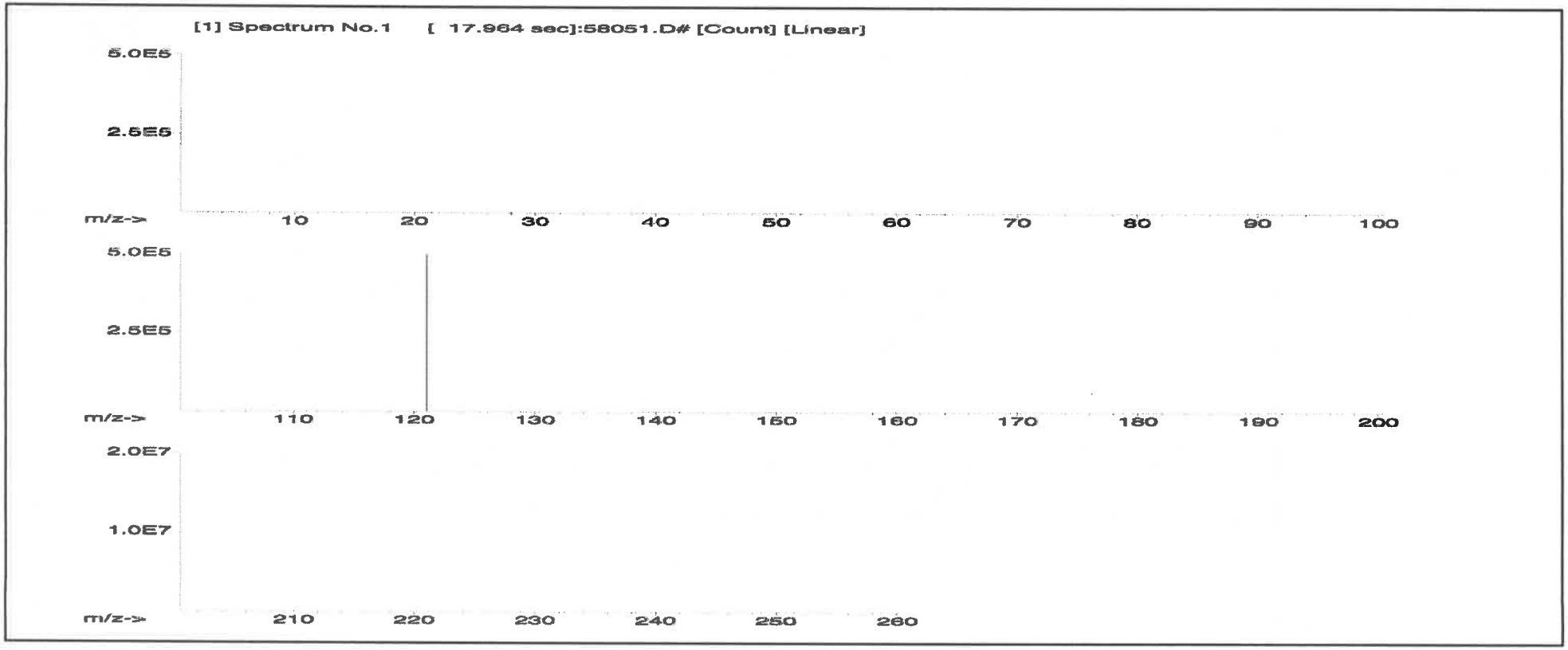
563

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57051**	24002546	Nitric Acid		
Lot Number:	**120523**				
Description:	**Antimony (Sb)**				
		2.0%	60.0 (mL)	Nitric Acid	
Expiration Date:	120526				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



564

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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565

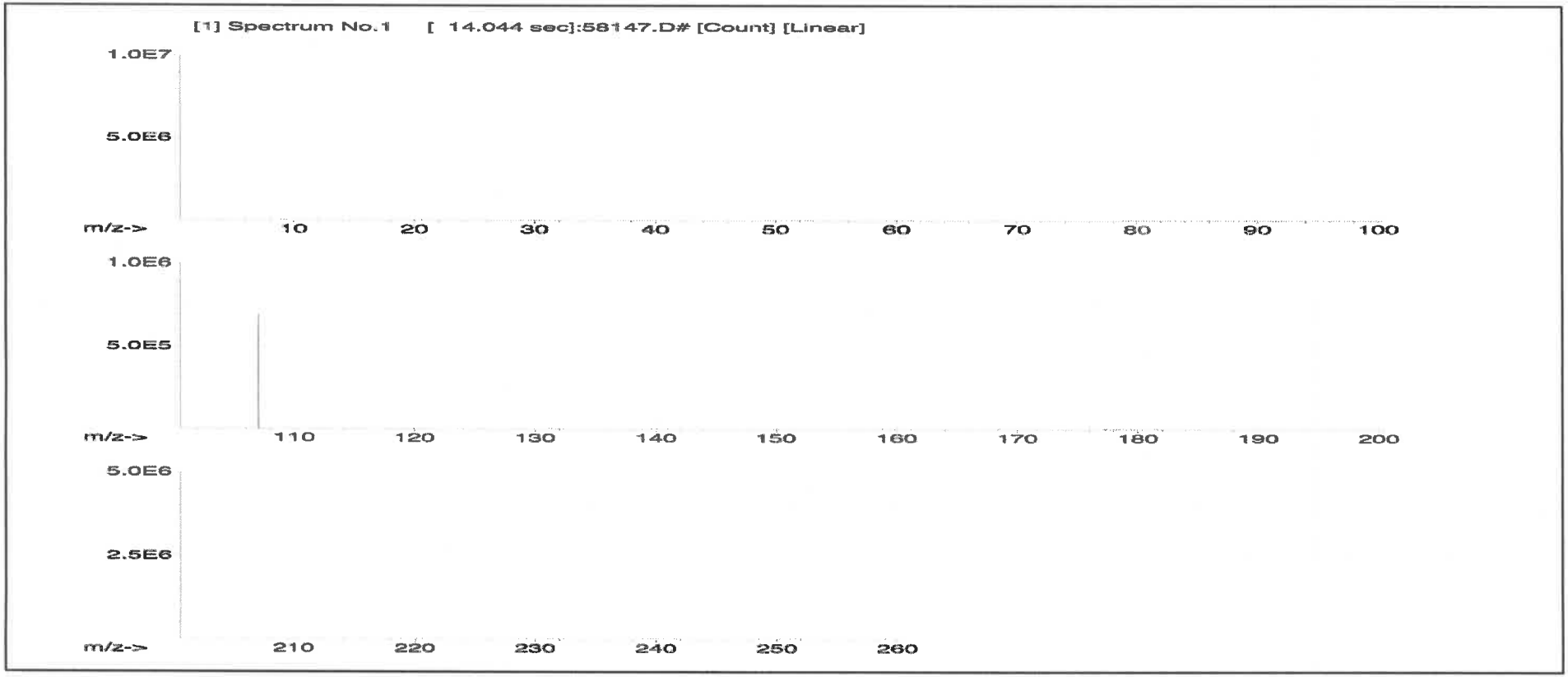
CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Solvent:**	24002546	Nitric Acid
Lot Number:	**122823**				
Description:	**Silver (Ag)**		2%	80.0 (mL)	Nitric Acid
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Lot #

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



566

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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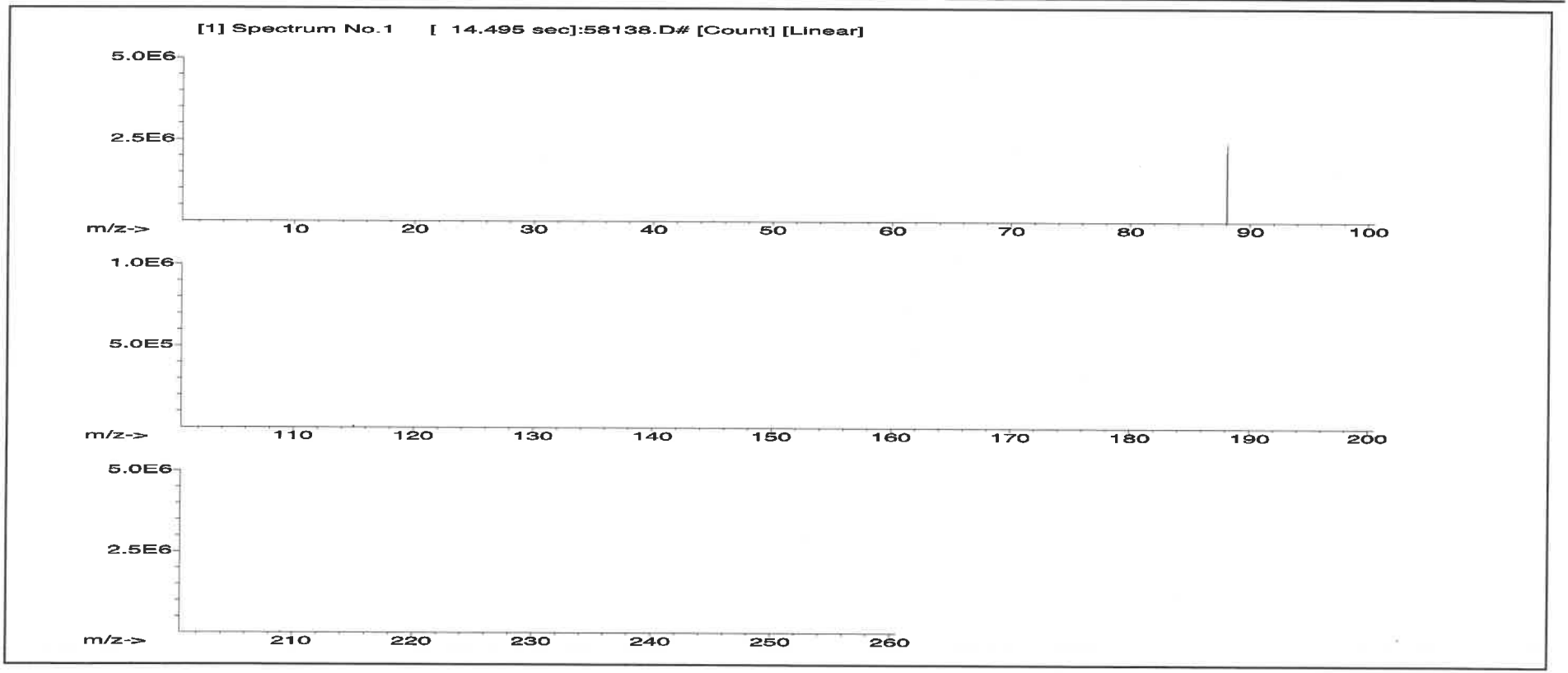
567

CERTIFIED WEIGHT REPORT:

Part Number:	**56138**		**Lot #**		
Lot Number:	**082922**	**Solvent:**	20510011	Nitric Acid	
Description:	**Strontium (Sr)**	2%	20.0 (mL)	Nitric Acid	
Expiration Date:	082925				
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):	1000.12	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



568

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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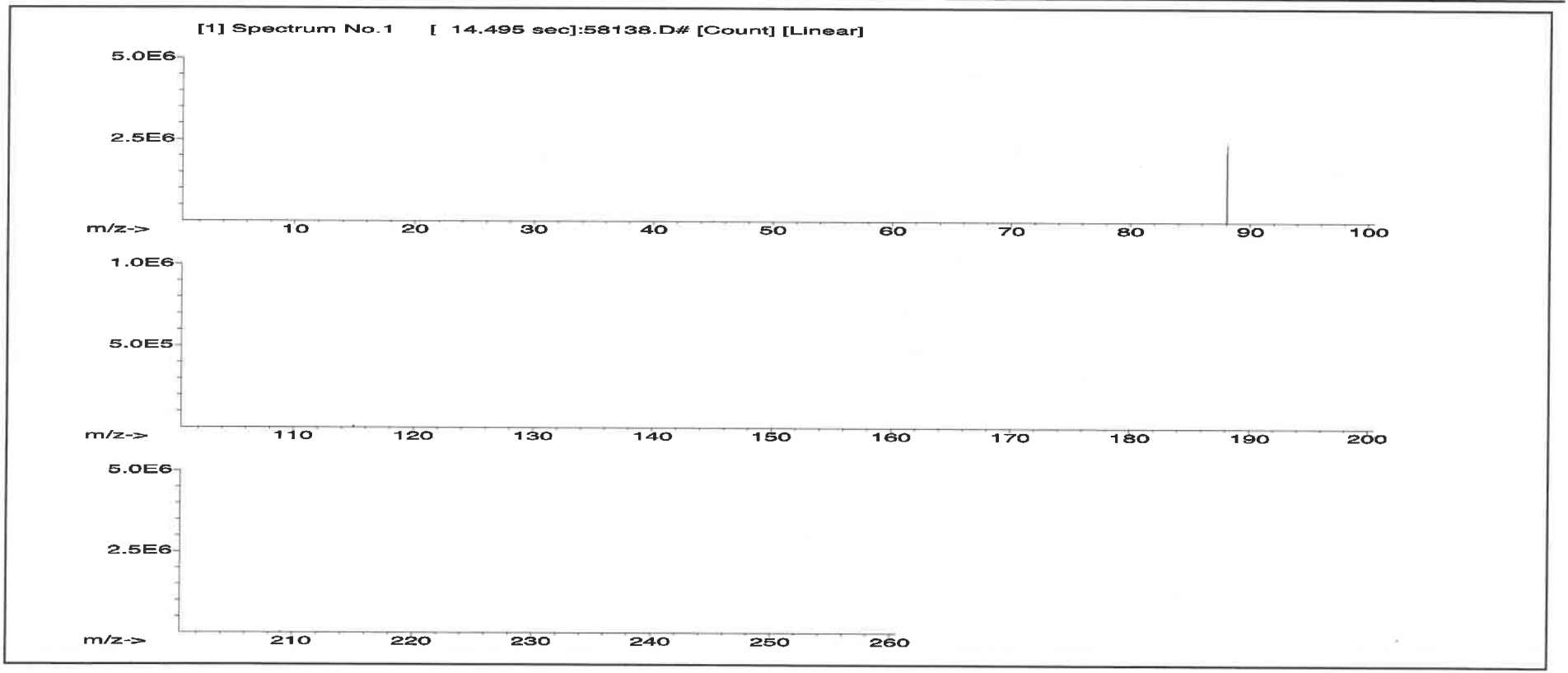
569

CERTIFIED WEIGHT REPORT:

Part Number:	**56138**		**Lot #**		
Lot Number:	**082922**	**Solvent:**	20510011	Nitric Acid	
Description:	**Strontium (Sr)**	2%	20.0 (mL)	Nitric Acid	
Expiration Date:	082925				
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):	1000.12	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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571

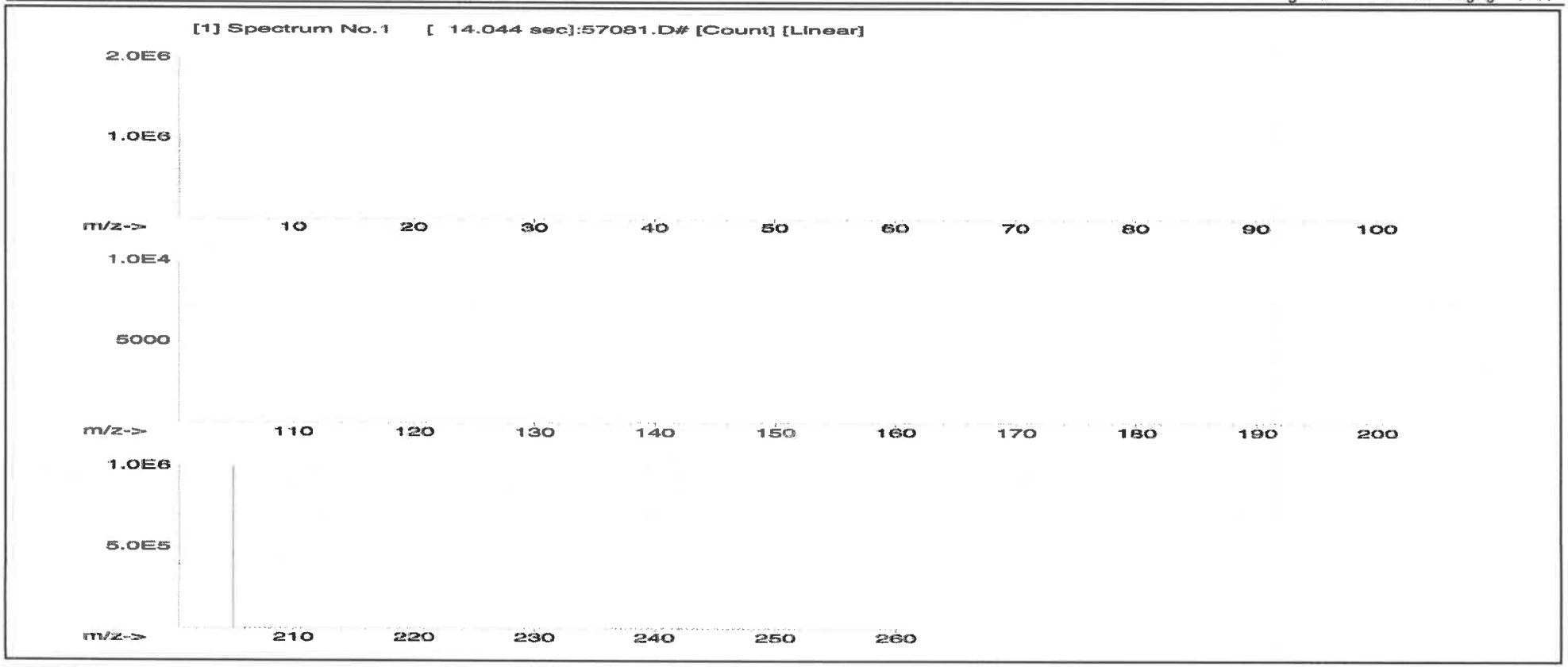
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



572

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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573

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**			
Description:	**Vanadium (V)**	24002546	Nitric Acid	
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

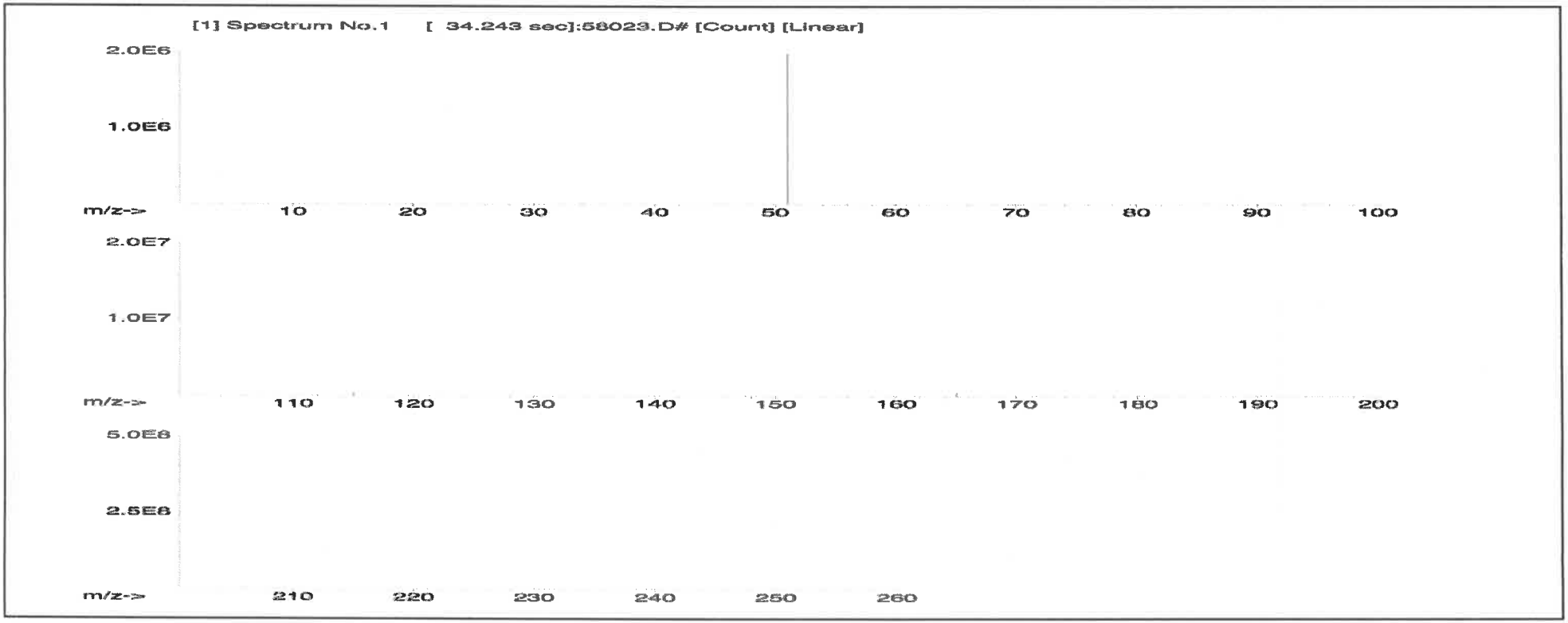
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



574

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
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Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* 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).

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165360

SOP ID : M3050B-Digestion-20, MSFAM01.1-Trace Metals-2

SDG No : MBHK41

Matrix : SOLID

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 12/04/2024 **Time :** 09:30 **Temp :** 96 °C

End Digest Date: 12/04/2024 **Time :** 11:40 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. # 3

Dig Technician Signature: jgp

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSS	1.00	MP83141
Spike Sol 6	1.00	MP83147
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
1:1 HNO3	10.00	MP83122
Conc. HNO3	5.00	M6126
30% H2O2	3.00	M6125
Conc. HCL	10.00	M6121
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 #3 CELL #34 : 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/4/24 12:00	jgp / Met dig.	Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165360

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P5030-01	MBHK41	N/A	1.26	100	Brown	Yellow	Medium	N/A	N/A	1
P5030-02	MBHK42	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	2
P5030-03	MBHK43	N/A	1.34	100	Brown	Yellow	Medium	N/A	N/A	3
P5030-04	MBHK44	N/A	1.43	100	Brown	Yellow	Medium	N/A	N/A	4
P5030-05	MBHK44D	N/A	1.39	100	Brown	Yellow	Medium	N/A	N/A	5
P5030-06	MBHK44S	N/A	1.28	100	Brown	Yellow	Medium	N/A	MP83147	6
P5030-07	MBHK45	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	7
P5030-08	MBHK46	N/A	1.18	100	Brown	Yellow	Medium	N/A	N/A	8
P5030-09	MBHK47	N/A	1.21	100	Brown	Yellow	Medium	N/A	N/A	9
P5030-10	MBHK48	N/A	1.02	100	Brown	Yellow	Medium	N/A	N/A	10
P5030-11	MBHK49	N/A	1.27	100	Gray	Yellow	Medium	N/A	N/A	11
P5030-12	MBHK50	N/A	1.32	100	Gray	Yellow	Medium	N/A	N/A	12
P5030-13	MBHKC4	N/A	1.13	100	Brown	Yellow	Medium	N/A	N/A	13
P5030-14	MBHKC5	N/A	1.22	100	Black	Yellow	Medium	N/A	N/A	14
P5030-15	MBHKC6	N/A	1.29	100	Black	Yellow	Medium	N/A	N/A	15
P5030-16	MBHKC7	N/A	1.31	100	Brown	Yellow	Medium	N/A	N/A	16
P5030-17	MBHKC8	N/A	1.45	100	Brown	Yellow	Medium	N/A	N/A	17
P5030-18	MBHKC9	N/A	1.38	100	Brown	Yellow	Medium	N/A	N/A	18
P5030-19	MBHKD0	N/A	1.29	100	Brown	Yellow	Medium	N/A	N/A	19
P5030-20	MBHKD1	N/A	1.37	100	Brown	Yellow	Medium	N/A	N/A	20
P5030-21	MBHKG4	N/A	1.25	100	Brown	Yellow	Medium	N/A	N/A	21
P5030-22	MBHKG5	N/A	1.28	100	Brown	Yellow	Medium	N/A	N/A	22
PB165360BL	PBS360	N/A	1.00	100	Colorless	Colorless	Fine	N/A	N/A	23
PB165360BS	LCS360	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP83141	24

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/29/24 01:11		Kareem	OK
2	S1	S01	CAL2	12/29/24 01:16		Kareem	OK
3	S2	S02	CAL3	12/29/24 01:20		Kareem	OK
4	S3	S03	CAL4	12/29/24 01:23		Kareem	OK
5	S4	S04	CAL5	12/29/24 01:27		Kareem	OK
6	S5	S05	CAL6	12/29/24 01:31		Kareem	OK
7	S6	S06	CAL7	12/29/24 01:35		Kareem	OK
8	ICV004	ICV004	ICV	12/29/24 01:54	Inst. paused for calibration review	Kareem	OK
9	ICB004	ICB004	ICB	12/29/24 01:58		Kareem	OK
10	ICSA004	ICSA004	ICSA	12/29/24 02:02		Kareem	OK
11	ICSAB004	ICSAB004	ICSAB	12/29/24 02:06		Kareem	OK
12	CCV033	CCV033	CCV	12/29/24 02:10		Kareem	OK
13	CCB033	CCB033	CCB	12/29/24 02:14		Kareem	OK
14	PB165360BL	PBS360	MB	12/29/24 02:18		Kareem	OK
15	PB165360BS	LCS360	LCS	12/29/24 02:22		Kareem	OK
16	PB165369BL	PBS369	MB	12/29/24 02:26		Kareem	OK
17	PB165369BS	LCS369	LCS	12/29/24 02:30		Kareem	OK
18	PB165395BL	PBS395	MB	12/29/24 02:34		Kareem	OK

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Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

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ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

19	PB165395BS	LCS395	LCS	12/29/24 02:38		Kareem	OK
20	PB165396BL	PBS396	MB	12/29/24 02:42		Kareem	OK
21	PB165396BS	LCS396	LCS	12/29/24 02:46		Kareem	OK
22	PB165434BL	PBS434	MB	12/29/24 02:51		Kareem	OK
23	PB165434BS	LCS434	LCS	12/29/24 02:55		Kareem	OK
24	PB165465BL	PBS465	MB	12/29/24 02:59		Kareem	OK
25	PB165465BS	LCS465	LCS	12/29/24 03:03		Kareem	OK
26	PB165488BL	PBS488	MB	12/29/24 03:07		Kareem	OK
27	PB165488BS	LCS488	LCS	12/29/24 03:11		Kareem	OK
28	P5030-01	MBHK41	SAM	12/29/24 03:15		Kareem	OK
29	P5030-02	MBHK42	SAM	12/29/24 03:19		Kareem	OK
30	P5030-03	MBHK43	SAM	12/29/24 03:23		Kareem	OK
31	P5030-04	MBHK44	SAM	12/29/24 03:27		Kareem	OK
32	P5030-05	MBHK44D	DUP	12/29/24 03:31		Kareem	OK
33	P5030-04L	MBHK44L	SD	12/29/24 03:35		Kareem	OK
34	CCV034	CCV034	CCV	12/29/24 03:39		Kareem	OK
35	CCB034	CCB034	CCB	12/29/24 03:42		Kareem	OK
36	P5030-06	MBHK44S	MS	12/29/24 03:46	MS fail for As (267.34 ppb) & Ag,Tl (Below RL)	Kareem	OK
37	P5030-07	MBHK45	SAM	12/29/24 03:50		Kareem	OK

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ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

38	P5030-08	MBHK46	SAM	12/29/24 03:54		Kareem	OK
39	P5030-09	MBHK47	SAM	12/29/24 03:58		Kareem	OK
40	P5030-10	MBHK48	SAM	12/29/24 04:02	Ca high	Kareem	Dilution
41	P5030-11	MBHK49	SAM	12/29/24 04:06	Ca,Mg high	Kareem	Dilution
42	P5030-12	MBHK50	SAM	12/29/24 04:10	Ca,Mg high	Kareem	Dilution
43	P5030-13	MBHKC4	SAM	12/29/24 04:14		Kareem	OK
44	P5030-14	MBHKC5	SAM	12/29/24 04:18		Kareem	OK
45	P5030-15	MBHKC6	SAM	12/29/24 04:22		Kareem	OK
46	P5030-16	MBHKC7	SAM	12/29/24 04:26		Kareem	OK
47	P5030-17	MBHKC8	SAM	12/29/24 04:30		Kareem	OK
48	P5030-18	MBHKC9	SAM	12/29/24 04:34		Kareem	OK
49	P5030-19	MBHKD0	SAM	12/29/24 04:38		Kareem	OK
50	P5030-20	MBHKD1	SAM	12/29/24 04:42		Kareem	OK
51	P5030-21	MBHKG4	SAM	12/29/24 04:45		Kareem	OK
52	P5030-22	MBHKG5	SAM	12/29/24 04:49		Kareem	OK
53	P5032-01	MBHK55	SAM	12/29/24 04:53		Kareem	OK
54	P5032-02	MBHK56	SAM	12/29/24 04:57		Kareem	OK
55	P5032-03	MBHK57	SAM	12/29/24 05:01		Kareem	OK
56	CCV035	CCV035	CCV	12/29/24 05:05		Kareem	OK
57	CCB035	CCB035	CCB	12/29/24 05:09		Kareem	OK

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Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

58	P5032-04	MBHK58	SAM	12/29/24 05:13		Kareem	OK
59	P5032-05	MBHK59	SAM	12/29/24 05:17	Ca high	Kareem	Dilution
60	P5032-06	MBHK60	SAM	12/29/24 05:20	Ca,Mn high	Kareem	Dilution
61	P5032-07	MBHK61	SAM	12/29/24 05:24	Ca high	Kareem	Dilution
62	P5032-08	MBHK62	SAM	12/29/24 05:28		Kareem	OK
63	P5032-09	MBHK63	SAM	12/29/24 05:32		Kareem	OK
64	P5032-10	MBHK64	SAM	12/29/24 05:36		Kareem	OK
65	P5032-11	MBHK65	SAM	12/29/24 05:40		Kareem	OK
66	P5032-12	MBHK66	SAM	12/29/24 05:44		Kareem	OK
67	P5032-13	MBHK67	SAM	12/29/24 05:48		Kareem	OK
68	P5032-14	MBHK68	SAM	12/29/24 05:51		Kareem	OK
69	P5032-15	MBHK69	SAM	12/29/24 05:55		Kareem	OK
70	P5032-16	MBHK70	SAM	12/29/24 05:59		Kareem	OK
71	P5032-17	MBHK71	SAM	12/29/24 06:03		Kareem	OK
72	P5032-18	MBHK72	SAM	12/29/24 06:07		Kareem	OK
73	P5032-19	MBHK72D	DUP	12/29/24 06:11		Kareem	OK
74	P5032-18L	MBHK72L	SD	12/29/24 06:15		Kareem	OK
75	P5032-20	MBHK72S	MS	12/29/24 06:19	MS fail for Cu (193.67 ppb), Se (95.29 ppb) & Ag,Tl (Below RL)	Kareem	OK
76	P5032-21	MBHK73	SAM	12/29/24 06:22		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

77	P5032-22	MBHK74	SAM	12/29/24 06:26		Kareem	OK
78	CCV036	CCV036	CCV	12/29/24 06:30		Kareem	OK
79	CCB036	CCB036	CCB	12/29/24 06:34		Kareem	OK
80	P5035-01	MBHKK8	SAM	12/29/24 06:38		Kareem	OK
81	P5035-02	MBHKK9	SAM	12/29/24 06:42		Kareem	OK
82	P5035-03	MBHKL0	SAM	12/29/24 06:46		Kareem	OK
83	P5035-04	MBHKL1	SAM	12/29/24 06:50		Kareem	OK
84	P5035-05	MBHKM6	SAM	12/29/24 06:53	Ca high	Kareem	Dilution
85	P5035-06	MBHKM7	SAM	12/29/24 06:57	Ca high	Kareem	Dilution
86	P5035-07	MBHKM8	SAM	12/29/24 07:01	Ca high	Kareem	Dilution
87	P5035-08	MBHKM9	SAM	12/29/24 07:05		Kareem	OK
88	P5035-09	MBHKM9D	DUP	12/29/24 07:09		Kareem	OK
89	P5035-08L	MBHKM9L	SD	12/29/24 07:13		Kareem	OK
90	P5035-10	MBHKM9S	MS	12/29/24 07:17	MS fail for Ag,Tl (Below RL)	Kareem	OK
91	P5035-11	MBHKN0	SAM	12/29/24 07:21		Kareem	OK
92	P5035-12	MBHKN1	SAM	12/29/24 07:24		Kareem	OK
93	P5035-13	MBHKN2	SAM	12/29/24 07:28		Kareem	OK
94	P5035-14	MBHKN3	SAM	12/29/24 07:32		Kareem	OK
95	P5035-15	MBHKN4	SAM	12/29/24 07:36		Kareem	OK
96	P5035-16	MBHKN5	SAM	12/29/24 07:40		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

97	P5035-17	MBHKN6	SAM	12/29/24 07:44		Kareem	OK
98	P5035-18	MBHKN7	SAM	12/29/24 07:48		Kareem	OK
99	P5035-19	MBHKN8	SAM	12/29/24 07:51		Kareem	OK
100	CCV037	CCV037	CCV	12/29/24 07:55		Kareem	OK
101	CCB037	CCB037	CCB	12/29/24 07:59		Kareem	OK
102	P5035-20	MBHKN9	SAM	12/29/24 08:03	Ca high	Kareem	Dilution
103	P5035-21	MBHKQ0	SAM	12/29/24 08:07		Kareem	OK
104	P5035-22	MBHKQ1	SAM	12/29/24 08:11		Kareem	OK
105	P5036-01	MBHK33	SAM	12/29/24 08:15		Kareem	OK
106	P5036-02	MBHKF3	SAM	12/29/24 08:19		Kareem	OK
107	P5036-03	MBHKF4	SAM	12/29/24 08:22		Kareem	OK
108	P5036-04	MBHKF5	SAM	12/29/24 08:26		Kareem	OK
109	P5036-05	MBHKF6	SAM	12/29/24 08:30		Kareem	OK
110	P5036-06	MBHKF7	SAM	12/29/24 08:34		Kareem	OK
111	P5036-07	MBHKF8	SAM	12/29/24 08:38		Kareem	OK
112	P5036-08	MBHKF8D	DUP	12/29/24 08:42		Kareem	OK
113	P5036-07L	MBHKF8L	SD	12/29/24 08:46		Kareem	OK
114	P5036-09	MBHKF8S	MS	12/29/24 08:50	MS fail for Pb (115.58 ppb) & Ag,Tl (Below RL)	Kareem	OK
115	P5036-10	MBHKF9	SAM	12/29/24 08:54		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

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Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

116	P5036-11	MBHKG0	SAM	12/29/24 08:57		Kareem	OK
117	P5036-12	MBHKG1	SAM	12/29/24 09:01		Kareem	OK
118	P5036-13	MBHKD5	SAM	12/29/24 09:05		Kareem	OK
119	P5036-14	MBHKD7	SAM	12/29/24 09:09		Kareem	OK
120	P5036-15	MBHKD8	SAM	12/29/24 09:13		Kareem	OK
121	P5036-16	MBHKD9	SAM	12/29/24 09:17		Kareem	OK
122	CCV038	CCV038	CCV	12/29/24 09:21		Kareem	OK
123	CCB038	CCB038	CCB	12/29/24 09:24		Kareem	OK
124	P5036-17	MBHKE0	SAM	12/29/24 09:29		Kareem	OK
125	P5036-18	MBHKE1	SAM	12/29/24 09:32		Kareem	OK
126	P5036-19	MBHKE2	SAM	12/29/24 09:36		Kareem	OK
127	P5036-20	MBHKE3	SAM	12/29/24 09:40		Kareem	OK
128	P5036-21	MBHKE4	SAM	12/29/24 09:44		Kareem	OK
129	P5036-22	MBHK51	SAM	12/29/24 09:48		Kareem	OK
130	P5038-01	MBHK83	SAM	12/29/24 09:52		Kareem	OK
131	P5038-02	MBHK84	SAM	12/29/24 09:56		Kareem	OK
132	P5038-03	MBHK84D	DUP	12/29/24 09:59		Kareem	OK
133	P5038-02L	MBHK84L	SD	12/29/24 10:03		Kareem	OK
134	P5038-04	MBHK84S	MS	12/29/24 10:07	MS fail for Ag,Tl (Below RL)	Kareem	OK
135	P5038-05	MBHK85	SAM	12/29/24 10:11		Kareem	OK

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Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

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Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

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ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

136	P5038-06	MBHK86	SAM	12/29/24 10:15		Kareem	OK
137	P5038-07	MBHK87	SAM	12/29/24 10:19		Kareem	OK
138	P5038-08	MBHK88	SAM	12/29/24 10:23	Ca high	Kareem	Dilution
139	P5038-09	MBHK89	SAM	12/29/24 10:27		Kareem	OK
140	P5038-10	MBHK90	SAM	12/29/24 10:30		Kareem	OK
141	P5038-11	MBHK91	SAM	12/29/24 10:34		Kareem	OK
142	P5038-12	MBHK92	SAM	12/29/24 10:38		Kareem	OK
143	P5038-13	MBHKA4	SAM	12/29/24 10:42		Kareem	OK
144	CCV039	CCV039	CCV	12/29/24 10:46		Kareem	OK
145	CCB039	CCB039	CCB	12/29/24 10:50		Kareem	OK
146	P5038-14	MBHKA5	SAM	12/29/24 10:54		Kareem	OK
147	P5038-15	MBHKA6	SAM	12/29/24 10:58	Ca,Mg high	Kareem	Dilution
148	P5038-16	MBHKA7	SAM	12/29/24 11:02	Ca high	Kareem	Dilution
149	P5038-17	MBHKA8	SAM	12/29/24 11:05	Ca,Mg high	Kareem	Dilution
150	P5038-18	MBHKA9	SAM	12/29/24 11:09	Ca high	Kareem	Dilution
151	P5038-19	MBHKB1	SAM	12/29/24 11:13		Kareem	OK
152	P5038-20	MBHKB2	SAM	12/29/24 11:17		Kareem	OK
153	P5038-21	MBHKB3	SAM	12/29/24 11:21		Kareem	OK
154	P5054-01	MBHKR0	SAM	12/29/24 11:25		Kareem	OK
155	P5054-02	MBHKR1	SAM	12/29/24 11:29		Kareem	OK

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Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

156	P5054-03	MBHKR2	SAM	12/29/24 11:33		Kareem	OK
157	P5054-04	MBHKR2D	DUP	12/29/24 11:36		Kareem	OK
158	P5054-03L	MBHKR2L	SD	12/29/24 11:40		Kareem	OK
159	P5054-05	MBHKR2S	MS	12/29/24 11:44	MS fail for Cu (373.96 ppb), Zn (1590.07 ppb) & Ag,Tl (Below RL)	Kareem	OK
160	P5054-06	MBHKR3	SAM	12/29/24 11:48		Kareem	OK
161	P5054-07	MBHKR4	SAM	12/29/24 11:52		Kareem	OK
162	P5054-08	MBHKR5	SAM	12/29/24 11:56		Kareem	OK
163	P5054-09	MBHKR6	SAM	12/29/24 12:00		Kareem	OK
164	P5054-10	MBHKR7	SAM	12/29/24 12:04		Kareem	OK
165	P5054-11	MBHKR9	SAM	12/29/24 12:07		Kareem	OK
166	CCV040	CCV040	CCV	12/29/24 12:20		Kareem	OK
167	CCB040	CCB040	CCB	12/29/24 12:24		Kareem	OK
168	P5054-12	MBHKS0	SAM	12/29/24 12:28		Kareem	OK
169	P5054-13	MBHKS1	SAM	12/29/24 12:32		Kareem	OK
170	P5054-14	MBHKS2	SAM	12/29/24 12:36		Kareem	OK
171	P5054-15	MBHKS3	SAM	12/29/24 12:39		Kareem	OK
172	P5054-16	MBHKT8	SAM	12/29/24 12:43		Kareem	OK
173	P5054-17	MBHKT9	SAM	12/29/24 12:47		Kareem	OK
174	P5054-18	MBHKW0	SAM	12/29/24 12:51		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

175	P5054-19	MBHKW1	SAM	12/29/24 12:55		Kareem	OK
176	P5054-20	MBHKW2	SAM	12/29/24 12:58	Ca high	Kareem	Dilution
177	P5054-21	MBHKW3	SAM	12/29/24 13:02	Ca high	Kareem	Dilution
178	P5056-01	MBHKX9	SAM	12/29/24 13:06		Kareem	OK
179	P5056-02	MBHKY0	SAM	12/29/24 13:10		Kareem	OK
180	P5056-03	MBHKY1	SAM	12/29/24 13:14		Kareem	OK
181	P5056-04	MBHKY2	SAM	12/29/24 13:18		Kareem	OK
182	P5056-05	MBHKY3	SAM	12/29/24 13:22		Kareem	OK
183	P5056-06	MBHKY4	SAM	12/29/24 13:26		Kareem	OK
184	P5056-07	MBHKY5	SAM	12/29/24 13:29	Ca high	Kareem	Dilution
185	P5056-08	MBHL35	SAM	12/29/24 13:33		Kareem	OK
186	P5056-09	MBHL36	SAM	12/29/24 13:37		Kareem	OK
187	P5056-10	MBHL37	SAM	12/29/24 13:41		Kareem	OK
188	CCV041	CCV041	CCV	12/29/24 13:45		Kareem	OK
189	CCB041	CCB041	CCB	12/29/24 13:49		Kareem	OK
190	P5056-11	MBHL38	SAM	12/29/24 13:53		Kareem	OK
191	P5056-12	MBHL39	SAM	12/29/24 13:57	Ca high	Kareem	Dilution
192	P5056-13	MBHL40	SAM	12/29/24 14:01	Ca high	Kareem	Dilution
193	P5056-14	MBHL41	SAM	12/29/24 14:05	Ca high	Kareem	Dilution
194	P5056-15	MBHL42	SAM	12/29/24 14:08		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

195	P5056-16	MBHL43	SAM	12/29/24 14:12		Kareem	OK
196	P5056-17	MBHL44	SAM	12/29/24 14:16		Kareem	OK
197	P5056-18	MBHL45	SAM	12/29/24 14:20		Kareem	OK
198	P5056-19	MBHL46	SAM	12/29/24 14:24		Kareem	OK
199	P5056-20	MBHL47	SAM	12/29/24 14:28	DUP fail for many parameter	Kareem	Not Ok
200	P5056-21	MBHL47D	DUP	12/29/24 14:31	DUP fail for many parameter	Kareem	Not Ok
201	P5056-20L	MBHL47L	SD	12/29/24 14:35	DUP fail for many parameter	Kareem	Not Ok
202	P5056-22	MBHL47S	MS	12/29/24 14:39	DUP fail for many parameter	Kareem	Not Ok
203	P5090-12A	MBHM25A	PS	12/29/24 14:43		Kareem	OK
204	P5063-07A	MBHL34A	PS	12/29/24 14:47		Kareem	OK
205	P5084-13A	MBHLX7A	PS	12/29/24 14:51		Kareem	OK
206	P5091-07A	MBHLS0A	PS	12/29/24 14:55		Kareem	OK
207	P5086-07A	MBHLN2A	PS	12/29/24 14:58		Kareem	OK
208	P5089-01A	MBHLZ4A	PS	12/29/24 15:02		Kareem	OK
209	P5083-03A	MBHLK0A	PS	12/29/24 15:06		Kareem	OK
210	CCV042	CCV042	CCV	12/29/24 15:10		Kareem	OK
211	CCB042	CCB042	CCB	12/29/24 15:13		Kareem	OK
212	PB165759BL	PBS759	MB	12/29/24 15:18		Kareem	OK
213	PB165759BS	LCS759	LCS	12/29/24 15:22		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

214	PB165820BL	PBS820	MB	12/29/24 15:26		Kareem	OK
215	PB165820BS	LCS820	LCS	12/29/24 15:30		Kareem	OK
216	P5156-01	ME28Q6	SAM	12/29/24 15:34		Kareem	OK
217	P5156-02	ME28Q7	SAM	12/29/24 15:37	Ca high	Kareem	Dilution
218	P5156-03	ME28Q8	SAM	12/29/24 15:41	Ca high	Kareem	Dilution
219	P5156-04	ME28Q9	SAM	12/29/24 15:45		Kareem	OK
220	P5156-05	ME28R0	SAM	12/29/24 15:49		Kareem	OK
221	P5156-06	ME28R1	SAM	12/29/24 15:53		Kareem	OK
222	P5156-07	ME28R2	SAM	12/29/24 15:57		Kareem	OK
223	P5156-08	ME28T4	SAM	12/29/24 16:00	Ca high	Kareem	Dilution
224	P5156-09	ME28T5	SAM	12/29/24 16:04		Kareem	OK
225	P5156-10	ME28T6	SAM	12/29/24 16:08	Ca high	Kareem	Dilution
226	P5156-11	ME28T7	SAM	12/29/24 16:12	Ca high	Kareem	Dilution
227	P5156-12	ME28T8	SAM	12/29/24 16:16	Ca high	Kareem	Dilution
228	P5156-13	ME28T9	SAM	12/29/24 16:19	Ca,Fe high	Kareem	Dilution
229	P5156-14	ME28W0	SAM	12/29/24 16:23	Fe high	Kareem	Dilution
230	P5156-15	ME28W1	SAM	12/29/24 16:27	Fe high	Kareem	Dilution
231	P5156-16	ME28W2	SAM	12/29/24 16:31	Fe high	Kareem	Dilution
232	CCV043	CCV043	CCV	12/29/24 16:34		Kareem	OK
233	CCB043	CCB043	CCB	12/29/24 16:38		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

234	P5156-17	ME28W2D	DUP	12/29/24 16:42	Fe high	Kareem	Dilution
235	P5156-16L	ME28W2L	SD	12/29/24 16:46	Fe high	Kareem	Dilution
236	P5156-18	ME28W2S	MS	12/29/24 16:50	Fe high	Kareem	Dilution
237	P5156-19	ME28W3	SAM	12/29/24 16:54		Kareem	OK
238	P5156-20	ME28W4	SAM	12/29/24 16:57		Kareem	OK
239	P5156-21	ME28W5	SAM	12/29/24 17:01	Fe high	Kareem	Dilution
240	P5156-22	ME28W6	SAM	12/29/24 17:05	Fe high	Kareem	Dilution
241	P5259-01	ME28W7	SAM	12/29/24 17:09		Kareem	OK
242	P5259-02	ME28W8	SAM	12/29/24 17:13		Kareem	OK
243	P5259-03	ME28W9	SAM	12/29/24 17:16		Kareem	OK
244	P5259-04	ME28X0	SAM	12/29/24 17:20		Kareem	OK
245	P5259-05	ME28X0D	DUP	12/29/24 17:24		Kareem	OK
246	P5259-04L	ME28X0L	SD	12/29/24 17:28		Kareem	OK
247	P5259-06	ME28X0S	MS	12/29/24 17:32		Kareem	OK
248	P5259-07	ME28X1	SAM	12/29/24 17:35		Kareem	OK
249	P5259-08	ME28X2	SAM	12/29/24 17:39		Kareem	OK
250	P5259-09	ME28X3	SAM	12/29/24 17:43		Kareem	OK
251	P5259-10	ME28X4	SAM	12/29/24 17:47		Kareem	OK
252	P5259-11	ME28X5	SAM	12/29/24 17:51		Kareem	OK
253	P5259-12	ME28X6	SAM	12/29/24 17:54	Ca high	Kareem	Dilution

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

254	CCV044	CCV044	CCV	12/29/24 17:58		Kareem	OK
255	CCB044	CCB044	CCB	12/29/24 18:02		Kareem	OK
256	P5259-13	ME28X7	SAM	12/29/24 18:06		Kareem	OK
257	P5259-14	ME28X8	SAM	12/29/24 18:10	Ca high	Kareem	Dilution
258	P5259-15	ME28X9	SAM	12/29/24 18:14		Kareem	OK
259	P5259-16	ME28Y0	SAM	12/29/24 18:18		Kareem	OK
260	P5259-17	ME28Y1	SAM	12/29/24 18:21		Kareem	OK
261	P5259-18	ME28Y2	SAM	12/29/24 18:25		Kareem	OK
262	P5259-19	ME28Y3	SAM	12/29/24 18:29		Kareem	OK
263	P5259-20	ME28Y4	SAM	12/29/24 18:33	Ca high	Kareem	Dilution
264	P5259-21	ME28Y5	SAM	12/29/24 18:37	Ca high	Kareem	Dilution
265	PB165851BL	PBS851	MB	12/29/24 18:40		Kareem	OK
266	PB165851BS	LCS851	LCS	12/29/24 18:44		Kareem	OK
267	P5125-01	MBHM90	SAM	12/29/24 18:48		Kareem	OK
268	P5125-02	MBHM91	SAM	12/29/24 18:52		Kareem	OK
269	P5125-03	MBHM92	SAM	12/29/24 18:56		Kareem	OK
270	P5125-04	MBHM93	SAM	12/29/24 19:00		Kareem	OK
271	P5125-05	MBHM94	SAM	12/29/24 19:04		Kareem	OK
272	P5125-06	MBHM94D	DUP	12/29/24 19:07		Kareem	OK
273	P5125-05L	MBHM94L	SD	12/29/24 19:11		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

274	P5125-07	MBHM94S	MS	12/29/24 19:15	MS fail for Cu (596.26 ppb), Se (105.64 ppb), Zn (3225.59 ppb) & Ag,Tl (Below RL)	Kareem	OK
275	P5125-08	MBHM95	SAM	12/29/24 19:19		Kareem	OK
276	CCV045	CCV045	CCV	12/29/24 19:23		Kareem	OK
277	CCB045	CCB045	CCB	12/29/24 19:27		Kareem	OK
278	P5125-09	MBHM96	SAM	12/29/24 19:31		Kareem	OK
279	P5125-10	MBHM97	SAM	12/29/24 19:34		Kareem	OK
280	P5125-11	MBHMB2	SAM	12/29/24 19:38		Kareem	OK
281	P5125-12	MBHMB3	SAM	12/29/24 19:42		Kareem	OK
282	P5125-13	MBHMB4	SAM	12/29/24 19:46		Kareem	OK
283	P5125-14	MBHMB5	SAM	12/29/24 19:50		Kareem	OK
284	P5125-15	MBHMB6	SAM	12/29/24 19:54		Kareem	OK
285	P5125-16	MBHMB7	SAM	12/29/24 19:57		Kareem	OK
286	P5125-17	MBHMB8	SAM	12/29/24 20:01		Kareem	OK
287	P5125-18	MBHMD5	SAM	12/29/24 20:05		Kareem	OK
288	P5125-19	MBHMD6	SAM	12/29/24 20:09		Kareem	OK
289	PB165881BL	PBS881	MB	12/29/24 20:13		Kareem	OK
290	PB165881BS	LCS881	LCS	12/29/24 20:17		Kareem	OK
291	P5130-01	MBHMF4	SAM	12/29/24 20:21		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

292	P5130-02	MBHMF5	SAM	12/29/24 20:24		Kareem	OK
293	P5130-03	MBHMF6	SAM	12/29/24 20:28		Kareem	OK
294	P5130-04	MBHMF7	SAM	12/29/24 20:32		Kareem	OK
295	P5130-05	MBHMF8	SAM	12/29/24 20:36		Kareem	OK
296	P5130-06	MBHMF9	SAM	12/29/24 20:40		Kareem	OK
297	P5130-07	MBHMG3	SAM	12/29/24 20:44		Kareem	OK
298	CCV046	CCV046	CCV	12/29/24 20:47		Kareem	OK
299	CCB046	CCB046	CCB	12/29/24 20:51		Kareem	OK
300	P5130-08	MBHMG4	SAM	12/29/24 20:55		Kareem	OK
301	P5130-09	MBHMG5	SAM	12/29/24 20:59		Kareem	OK
302	P5130-10	MBHMG6	SAM	12/29/24 21:03		Kareem	OK
303	P5130-11	MBHMG7	SAM	12/29/24 21:07		Kareem	OK
304	P5130-12	MBHMH2	SAM	12/29/24 21:11		Kareem	OK
305	P5130-13	MBHMH3	SAM	12/29/24 21:14		Kareem	OK
306	P5130-14	MBHMH4	SAM	12/29/24 21:18		Kareem	OK
307	P5130-15	MBHMH5	SAM	12/29/24 21:22	MS,SD fail for many parameter	Kareem	Not Ok
308	P5130-16	MBHMH5D	DUP	12/29/24 21:26	MS,SD fail for many parameter	Kareem	Not Ok
309	P5130-15L	MBHMH5L	SD	12/29/24 21:30	MS,SD fail for many parameter	Kareem	Not Ok
310	P5130-17	MBHMH5S	MS	12/29/24 21:34	MS,SD fail for many parameter	Kareem	Not Ok

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134116

Review By	Kareem Khairalla	Review On	12/31/2024 7:49:56 PM
Supervise By	Mohan Bera	Supervise On	12/31/2024 11:25:59 PM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	MP83141
Chk Standard	MP83513,MP83514

311	P5130-18	MBHML5	SAM	12/29/24 21:37		Kareem	OK
312	P5130-19	MBHML6	SAM	12/29/24 21:41		Kareem	OK
313	P5130-20	MBHML7	SAM	12/29/24 21:45		Kareem	OK
314	P5130-21	MBHML8	SAM	12/29/24 21:49		Kareem	OK
315	P5130-22	MBHML9	SAM	12/29/24 21:53		Kareem	OK
316	CCV047	CCV047	CCV	12/29/24 21:56		Kareem	OK
317	CCB047	CCB047	CCB	12/29/24 22:00		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134132

Review By	Sarabjit Jaswal	Review On	1/2/2025 2:17:00 AM
Supervise By	Mohan Bera	Supervise On	1/2/2025 2:18:34 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	
Chk Standard	MP83513,MP83514

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/30/24 18:31		Kareem	OK
2	S1	S01	CAL2	12/30/24 18:36		Kareem	OK
3	S2	S02	CAL3	12/30/24 18:40		Kareem	OK
4	S3	S03	CAL4	12/30/24 18:44		Kareem	OK
5	S4	S04	CAL5	12/30/24 18:47		Kareem	OK
6	S5	S05	CAL6	12/30/24 18:51		Kareem	OK
7	S6	S06	CAL7	12/30/24 18:55		Kareem	OK
8	ICV005	ICV005	ICV	12/30/24 19:07	Inst. paused for calibration review	Kareem	OK
9	ICB005	ICB005	ICB	12/30/24 19:11		Kareem	OK
10	ICSA005	ICSA005	ICSA	12/30/24 19:15		Kareem	OK
11	ICSAB005	ICSAB005	ICSAB	12/30/24 19:50	Inst. paused for review	Kareem	OK
12	CCV049	CCV049	CCV	12/30/24 19:54		Kareem	OK
13	CCB049	CCB049	CCB	12/30/24 19:58		Kareem	OK
14	P5027-07DL	MBHK19	SAM	12/30/24 20:02	2x for Ca	Kareem	Confirms
15	P5027-13DL	MBHK23	SAM	12/30/24 20:06	2x for Ca	Kareem	Confirms
16	P5027-14DL	MBHK24	SAM	12/30/24 20:10	2x for Ca	Kareem	Confirms
17	P5027-15DL	MBHK25	SAM	12/30/24 20:14	2x for Ca	Kareem	Confirms
18	P5027-17DL	MBHK27	SAM	12/30/24 20:17	2x for Ca, Still Ca high	Kareem	Dilution

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134132

Review By	Sarabjit Jaswal	Review On	1/2/2025 2:17:00 AM
Supervise By	Mohan Bera	Supervise On	1/2/2025 2:18:34 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	
Chk Standard	MP83513,MP83514

19	P5030-10DL	MBHK48	SAM	12/30/24 20:21	2x for Ca	Kareem	Confirms
20	P5030-11DL	MBHK49	SAM	12/30/24 20:25	2x for Ca,Mg, Still Ca high	Kareem	Dilution
21	P5030-12DL	MBHK50	SAM	12/30/24 20:29	2x for Ca,Mg, Still Ca high	Kareem	Dilution
22	P5032-05DL	MBHK59	SAM	12/30/24 20:33	2x for Ca	Kareem	Confirms
23	P5032-06DL	MBHK60	SAM	12/30/24 20:37	2x for Ca,Mn	Kareem	Confirms
24	P5032-07DL	MBHK61	SAM	12/30/24 20:41	2x for Ca	Kareem	Confirms
25	P5038-08DL	MBHK88	SAM	12/30/24 20:45	Not Use	Kareem	Not Ok
26	P5038-15DL	MBHKA6	SAM	12/30/24 20:49	2x for Ca,Mg, Still Ca high	Kareem	Dilution
27	P5038-16DL	MBHKA7	SAM	12/30/24 20:52	2x for Ca	Kareem	Confirms
28	P5038-17DL	MBHKA8	SAM	12/30/24 20:56	2x for Ca,Mg, Still Ca high	Kareem	Dilution
29	P5038-18DL	MBHKA9	SAM	12/30/24 21:00	2x for Ca	Kareem	Confirms
30	P5266-18DL	ME2903	SAM	12/30/24 21:04	2x for Fe	Kareem	Confirms
31	P5259-12DL	ME28X6	SAM	12/30/24 21:08	2x for Ca	Kareem	Confirms
32	P5259-14DL	ME28X8	SAM	12/30/24 21:12	2x for Ca	Kareem	Confirms
33	P5259-20DL	ME28Y4	SAM	12/30/24 21:16	2x for Ca	Kareem	Confirms
34	CCV050	CCV050	CCV	12/30/24 21:20		Kareem	OK
35	CCB050	CCB050	CCB	12/30/24 21:23		Kareem	OK
36	P5259-21DL	ME28Y5	SAM	12/30/24 21:27	2x for Ca	Kareem	Confirms
37	P5156-02DL	ME28Q7	SAM	12/30/24 21:31	2x for Ca	Kareem	Confirms
38	P5156-03DL	ME28Q8	SAM	12/30/24 21:35	2x for Ca	Kareem	Confirms

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Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134132

Review By	Sarabjit Jaswal	Review On	1/2/2025 2:17:00 AM
Supervise By	Mohan Bera	Supervise On	1/2/2025 2:18:34 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	
Chk Standard	MP83513,MP83514

39	P5156-08DL	ME28T4	SAM	12/30/24 21:39	2x for Ca	Kareem	Confirms
40	P5156-10DL	ME28T6	SAM	12/30/24 21:43	2x for Ca	Kareem	Confirms
41	P5156-11DL	ME28T7	SAM	12/30/24 21:47	2x for Ca	Kareem	Confirms
42	P5156-12DL	ME28T8	SAM	12/30/24 21:50	2x for Ca	Kareem	Confirms
43	P5156-13DL	ME28T9	SAM	12/30/24 21:54	2x for Ca,Fe	Kareem	Confirms
44	P5156-14DL	ME28W0	SAM	12/30/24 21:58	2x for Fe	Kareem	Confirms
45	P5156-15DL	ME28W1	SAM	12/30/24 22:02	2x for Fe	Kareem	Confirms
46	P5156-16DL	ME28W2	SAM	12/30/24 22:06	2x for Fe	Kareem	Confirms
47	P5156-17DL	ME28W2D	DUP	12/30/24 22:09	2x for Fe	Kareem	Confirms
48	P5156-16LDL	ME28W2L	SD	12/30/24 22:13	10x for Fe	Kareem	Confirms
49	P5156-18DL	ME28W2S	MS	12/30/24 22:17	2x for Fe	Kareem	Confirms
50	P5156-21DL	ME28W5	SAM	12/30/24 22:21	Not Use	Kareem	Not Ok
51	P5156-22DL	ME28W6	SAM	12/30/24 22:25	2x for Fe	Kareem	Confirms
52	PB165326BL	PBS326	MB	12/30/24 22:28	Not Use	Kareem	Not Ok
53	PB165326BS	LCS326	LCS	12/30/24 22:32	Not Use	Kareem	Not Ok
54	P5027-10A	MBHK22A	PS	12/30/24 22:36	PS for Se,Tl,Zn	Kareem	OK
55	P5030-04A	MBHK44A	PS	12/30/24 22:40	PS For As,Tl-(As-0.0054ml m5801,Tl-0.05 ml mp83836-10 ml Sample)-10ml Sample	Kareem	OK
56	CCV051	CCV051	CCV	12/30/24 22:44		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134132

Review By	Sarabjit Jaswal	Review On	1/2/2025 2:17:00 AM
Supervise By	Mohan Bera	Supervise On	1/2/2025 2:18:34 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	
Chk Standard	MP83513,MP83514

57	CCB051	CCB051	CCB	12/30/24 22:48		Kareem	OK
58	P5032-18A	MBHK72A	PS	12/30/24 22:52	PS For Cu,Se,Tl - (0.0038ml m5751,0.019ml mp83726,0.05 ml mp83836 - 10ml Sample)	Kareem	OK
59	P5036-07A	MBHKF8A	PS	12/30/24 22:56	PS For Pb,Tl-(0.0023ml m6025,0.05ml mp83836-10 ml Sample)	Kareem	OK
60	P5038-02A	MBHK84A	PS	12/30/24 22:59	PS For Tl-0.05ml mp83836 - 10ml Sample	Kareem	OK
61	P5169-04	MJNLH4	SAM	12/30/24 23:03		Kareem	OK
62	P5169-05	MJNLH4D	DUP	12/30/24 23:07		Kareem	OK
63	P5169-04L	MJNLH4L	SD	12/30/24 23:11		Kareem	OK
64	P5169-06	MJNLH4S	MS	12/30/24 23:15	MS fail for Ba (714.33 ppb) & Ag,Se,Cd,Cr (Below RL)	Kareem	OK
65	PB165673BL	PBW673	MB	12/30/24 23:23		Kareem	OK
66	PB165673BS	LCS673	LCS	12/30/24 23:27		Kareem	OK
67	P5035-05DL	MBHKM6	SAM	12/30/24 23:31	Not Use	Kareem	Not Ok
68	P5035-06DL	MBHKM7	SAM	12/30/24 23:35	2X For Ca	Kareem	Confirms
69	P5035-07DL	MBHKM8	SAM	12/30/24 23:39	2X For Ca	Kareem	Confirms
70	P5035-20DL	MBHKN9	SAM	12/30/24 23:43	Not Use	Kareem	Not Ok
71	P5035-08A	MBHKM9A	PS	12/30/24 23:47	PS For Tl - 0.05ml mp83836-10ml Sample	Kareem	OK
72	P5266-19	ME28Y9D	DUP	12/30/24 23:51	NOT USE	Kareem	Not Ok
73	CCV052	CCV052	CCV	12/30/24 23:54		Kareem	OK

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Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134132

Review By	Sarabjit Jaswal	Review On	1/2/2025 2:17:00 AM
Supervise By	Mohan Bera	Supervise On	1/2/2025 2:18:34 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	
Chk Standard	MP83513,MP83514

74	CCB052	CCB052	CCB	12/30/24 23:58		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134139

Review By	Sarabjit Jaswal	Review On	1/2/2025 2:17:07 AM
Supervise By	Mohan Bera	Supervise On	1/2/2025 2:18:27 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	
Chk Standard	MP83513,MP83514

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/31/24 12:16		Kareem	OK
2	S1	S01	CAL2	12/31/24 12:20		Kareem	OK
3	S2	S02	CAL3	12/31/24 12:24		Kareem	OK
4	S3	S03	CAL4	12/31/24 12:28		Kareem	OK
5	S4	S04	CAL5	12/31/24 12:32		Kareem	OK
6	S5	S05	CAL6	12/31/24 12:35		Kareem	OK
7	S6	S06	CAL7	12/31/24 12:39		Kareem	OK
8	ICV006	ICV006	ICV	12/31/24 13:00	Inst. paused for calibration review	Kareem	OK
9	ICB006	ICB006	ICB	12/31/24 13:04		Kareem	OK
10	ICSA006	ICSA006	ICSA	12/31/24 13:08		Kareem	OK
11	ICSAB006	ICSAB006	ICSAB	12/31/24 13:27	Inst. paused for review	Kareem	OK
12	CCV053	CCV053	CCV	12/31/24 13:32		Kareem	OK
13	CCB053	CCB053	CCB	12/31/24 13:36		Kareem	OK
14	P5027-17DL	MBHK27	SAM	12/31/24 13:40	4X For Ca	Kareem	Confirms
15	P5030-11DL	MBHK49	SAM	12/31/24 13:44	4X For Ca	Kareem	Confirms
16	P5266-04	ME28Y9	SAM	12/31/24 13:48	Not Use	Kareem	Not Ok
17	P5030-12DL	MBHK50	SAM	12/31/24 13:52	4X For Ca	Kareem	Confirms
18	P5038-08DL	MBHK88	SAM	12/31/24 13:56	4X For Ca	Kareem	Confirms

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Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB134139

Review By	Sarabjit Jaswal	Review On	1/2/2025 2:17:07 AM
Supervise By	Mohan Bera	Supervise On	1/2/2025 2:18:27 AM

STD. NAME	STD REF.#
ICAL Standard	MP83500,MP83507,MP83505,MP83504,MP83503,MP83502,MP83501
ICV Standard	MP83508
CCV Standard	MP83511
ICSA Standard	MP83509,MP83510
CRI Standard	
LCS Standard	
Chk Standard	MP83513,MP83514

19	P5038-15DL	MBHKA6	SAM	12/31/24 14:00	4X For Ca	Kareem	Confirms
20	P5038-17DL	MBHKA8	SAM	12/31/24 14:03	4X For Ca	Kareem	Confirms
21	P5156-13DL	ME28T9	SAM	12/31/24 14:07	Not Use	Kareem	Not Ok
22	P5156-14DL	ME28W0	SAM	12/31/24 14:11	Not Use	Kareem	Not Ok
23	P5156-21DL	ME28W5	SAM	12/31/24 14:15	4X for Fe	Kareem	Confirms
24	P5035-05DL	MBHKM6	SAM	12/31/24 14:19	4X For Ca	Kareem	Confirms
25	P5035-20DL	MBHKN9	SAM	12/31/24 14:23	4X For Ca	Kareem	Confirms
26	P5266-19DL	ME28Y9D	DUP	12/31/24 14:27	Not Use	Kareem	Not Ok
27	P5266-19DL2	ME28Y9D	DUP	12/31/24 14:31	Not Use	Kareem	Not Ok
28	PB165641TB	LEB641	MB	12/31/24 14:34	Not Use	Kareem	Not Ok
29	CCV054	CCV054	CCV	12/31/24 14:38		Kareem	OK
30	CCB054	CCB054	CCB	12/31/24 14:42		Kareem	OK

ORIGIN ID: BUFA (716) 853-1220
EMMANUEL GARCIA VILLAR
WSP USA INC.
50 LAKEFRONT BLVD

BUFFALO, NY 14202
UNITED STATES US

SHIP DATE: 26NOV24
ACTWGT: 40.00 LB
CAD: 108450087/INET4760
DIMS: 19x14x12 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL GROUP LLC
284 SHEFFIELD STREET

MOUNTAINSIDE NJ 07092

(908) 789-8900
INV: 03.02.02.EXP
PO: 3180192.009A

REF: US0000650

DEPT: EMMANUEL GARCIA

FedEx Express

58CJ8/39D3/C6C4

FedEx
MPS# 0263 7702 6139 3237

WED - 27 NOV AA
PRIORITY OVERNIGHT

NF KBCA

07092
NJ - US EWR

EXP 10/25

#5372226 11/26 58CJ8/39D3/C6C4

3-10
11/27/24
RM
Locks

Alliance TECHNICAL GROUP 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Login Summary Report

Order ID :	P5030	Order Date :	11/27/2024 10:05:00 AM	Project Mgr :	Deepak
Client :	USEPA CLP SMO	Project :	51879	Report Type :	USEPA CLP
Contact :	Anita Kapadia	Receive Date :	11/27/2024 10:05:00 AM	EDD Type :	EPA CLP
Date Sign Off :	11/27/2024 1:21:19 PM				

Sample ID	Client ID	Matrix	Sampling Date	Test	Test Group	Method	TAT Days	Fax Due Date	HC Due Date
P5030-01	MBHK41	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-02	MBHK42	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-03	MBHK43	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-04	MBHK44	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-05	MBHK44D	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-06	MBHK44S	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-07	MBHK45	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-08	MBHK46	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-09	MBHK47	Solid	11/20/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-10	MBHK48	Solid	11/21/2024						
				Metals CLP Full		SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids		Chemtech -SOP	15	01/01/2025	01/01/2025

P5030-11	MBHK49	Solid	11/21/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-12	MBHK50	Solid	11/21/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-13	MBHKC4	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-14	MBHKC5	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-15	MBHKC6	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-16	MBHKC7	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-17	MBHKC8	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-18	MBHKC9	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-19	MBHKD0	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-20	MBHKD1	Solid	11/20/2024					
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-21	MBHKG4	Solid	11/20/2024		FD			
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025
P5030-22	MBHKG5	Solid	11/21/2024		FD			
				Metals CLP Full	SFAM_AES	15	01/01/2025	01/01/2025
				Percent Solids	Chemtech -SOP	15	01/01/2025	01/01/2025

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB165360 **WorkList ID :** 185948 **Department :** Digestion **Date :** 12-04-2024 08:39:35

604

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5030-01	MBHK41	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-02	MBHK42	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-03	MBHK43	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-04	MBHK44	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-05	MBHK44D	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-06	MBHK44S	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-07	MBHK45	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-08	MBHK46	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-09	MBHK47	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-10	MBHK48	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-11	MBHK49	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/21/2024	SFAM_AES
P5030-12	MBHK50	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/21/2024	SFAM_AES
P5030-13	MBHKC4	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/21/2024	SFAM_AES
P5030-14	MBHKC5	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-15	MBHKC6	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-16	MBHKC7	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-17	MBHKC8	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-18	MBHKC9	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-19	MBHKD0	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-20	MBHKD1	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES
P5030-21	MBHKG4	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/20/2024	SFAM_AES

Date/Time 12/04/24 09:00

Raw Sample Received by: JSP (Metdig)

Raw Sample Relinquished by:

Date/Time 12/04/24 10:00

Raw Sample Received by:

Raw Sample Relinquished by: JSP (Metdig)

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB165360 **WorkList ID :** 185948 **Department :** Digestion **Date :** 12-04-2024 08:39:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5030-22	MBHKG5	Solid	Metals CLP Full	Cool 4 deg C	USEP01	C13	11/21/2024	SFAM_AES

605

Date/Time 12/04/24 09:00

Raw Sample Received by: JSP Met dig

Raw Sample Relinquished by: QF

Date/Time 12/04/24 10:00

Raw Sample Received by: QF

Raw Sample Relinquished by: JSP Met dig