SDG COVER PAGE

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

Lab Code: ACE Case No.: 51811 MA No.: 3123.0,3124.0 SDG No.: MH2D27

SOW No. : SFAM01.1

EPA Sample No.	Lab Sample Id	Analysis Method ICP-AES	ICP-MS	Mercury	Cyanide
MH2D27	P5392-01	X		X	
MH2D30	P5392-02	X		X	
MH2D33	P5392-03	X		X	
MH2D36	P5392-04	X		X	
MH2D39	P5392-05	X		X	
MH2D42	P5392-06	X		X	
MH2D45	P5392-07	X		X	
MH2D48	P5392-08	X		X	
MH2D51	P5392-09	X		X	
MH2D54	P5392-10	X		X	
MH2D57	P5392-11	X		X	
MH2D60	P5392-12	X		X	
MH2D63	P5392-13	X		X	
MH2D66	P5392-14	X		X	
MH2D69	P5392-15	X		X	
MH2D72	P5392-16	X		X	
MH2D75	P5392-17	X		X	
MH2D75D	P5392-18	X		X	
MH2D75S	P5392-19	X		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: _____

TechLaw - ESAT Scott Vanovermeiren
Lab Contact: Mohammad Ahmed
Lab Phone: 908-789-8900
CarrierName: FedEx

CHAIN OF CUSTODY RECORD
Site #: 0000
ESAT - 1 Denver Federal Center, Denver, CO 80225
Case #: 51811

No: 2024_OCT_SO_BPMD_#51811
Lab: Alliance Technical Group LLC
Lab Address: 284 Sheffield Street
Mountainside, NJ 07092

2

Lab #	CLP Sample #	Tag	Location	Collected	Sample Time	Analyses	Matrix	Container	Numb Cont	Lab QC
	MH2D26	1755	EF-SS01	10/28/2024	15:30	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	1
	MH2D27	1756	EF-SS01	10/28/2024	15:30	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	8 1
	MH2D28	1757	EF-SS01	10/28/2024	15:30	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	1
	MH2D29	1762	EF-SB01	10/28/2024	15:30	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	1
	MH2D30	1763	EF-SB01	10/28/2024	15:30	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	2 1
	MH2D31	1764	EF-SB01	10/28/2024	15:30	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	1
	MH2D32	1769	MT-SS03	10/28/2024	14:00	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	1
	MH2D33	1770	MT-SS03	10/28/2024	14:00	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	3 1
	MH2D34	1771	MT-SS03	10/28/2024	14:00	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	2
	MH2D35	1776	SL-SS05	10/28/2024	11:25	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	2
	MH2D36	1777	SL-SS05	10/28/2024	11:25	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	4 2
	MH2D37	1778	SL-SS05	10/28/2024	11:25	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	2
	MH2D38	1783	SL-SS06	10/28/2024	11:50	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	2
	MH2D39	1784	SL-SS06	10/28/2024	11:50	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	5 2
	MH2D40	1785	SL-SS06	10/28/2024	11:50	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	2
	MH2D41	1790	MT-SS02	10/28/2024	09:30	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	2
	MH2D42	1791	MT-SS02	10/28/2024	09:30	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	6 3
	MH2D43	1792	MT-SS02	10/28/2024	09:30	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	3
	MH2D44	1797	SL-SS03	10/28/2024	10:45	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	3

Special Instructions: QC to be determined by the lab	SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	ESAT R8	12/26/24 1500			
			R. Melendez	9:40 12.27.24	IR gun # 3.0, 3.2, 2.4, 2.4, 3.0, 3.1, 2.4
					Temp Blank present
					Custody Seal intact

68HERH20D0011 SDG # MH2D27

TechLaw - ESAT Scott Vanovermeiren
Lab Contact: Mohammad Ahmed
Lab Phone: 908-789-8900
CarrierName: FedEx

CHAIN OF CUSTODY RECORD
Site #: 0000
ESAT - 1 Denver Federal Center, Denver, CO 80225
Case #: 51811

No: 2024_OCT_SO_BPMD_#51811
Lab: Alliance Technical Group LLC
Lab Address: 284 Sheffield Street
Mountainside, NJ 07092

3

Lab #	CLP Sample #	Tag	Location	Collected	Sample Time	Analyses	Matrix	Container	Numb Cont	Lab QC
	MH2D45	1798	SL-SS03	10/28/2024	10:45	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	7 3
	MH2D46	1799	SL-SS03	10/28/2024	10:45	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	3
	MH2D47	1804	SL-SS04	10/28/2024	11:00	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	3
	MH2D48	1805	SL-SS04	10/28/2024	11:00	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	8 3
	MH2D49	1806	SL-SS04	10/28/2024	11:00	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	3
	MH2D50	1811	SL-SS01	10/28/2024	10:15	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	4
	MH2D51	1812	SL-SS01	10/28/2024	10:15	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	9 4
	MH2D52	1813	SL-SS01	10/28/2024	10:15	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	4
	MH2D53	1818	MT-SS05	10/28/2024	15:00	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	4
	MH2D54	1819	MT-SS05	10/28/2024	15:00	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	10 4
	MH2D55	1820	MT-SS05	10/28/2024	15:00	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	4
	MH2D56	1825	SL-SS02	10/28/2024	10:34	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	4
	MH2D57	1826	SL-SS02	10/28/2024	10:34	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	11 4
	MH2D58	1827	SL-SS02	10/28/2024	10:34	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	5
	MH2D59	1832	MT-SS01	10/28/2024	09:20	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	5
	MH2D60	1833	MT-SS01	10/28/2024	09:20	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	12 5
	MH2D61	1834	MT-SS01	10/28/2024	09:20	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	5
	MH2D62	1839	MT-SS04	10/28/2024	14:30	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	5
	MH2D63	1840	MT-SS04	10/28/2024	14:30	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	13 5

Special Instructions: QC to be determined by the lab

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	[signature] ESAT R8	12/26/24 1500			
			R. Melendez	9:40 12.27.24	IR gun #1 3.1°
					Temp Blank present
					Custody seal intact

68HERH20D0011 SDG # MH2D27

TechLaw - ESAT Scott Vanovermeiren
Lab Contact: Mohammad Ahmed
Lab Phone: 908-789-8900
CarrierName: FedEx

CHAIN OF CUSTODY RECORD
Site #: 0000
ESAT - 1 Denver Federal Center, Denver, CO 80225
Case #: 51811

No: 2024_OCT_SO_BPMD_#51811
Lab: Alliance Technical Group LLC
Lab Address: 284 Sheffield Street
Mountainside, NJ 07092

4

Lab #	CLP Sample #	Tag	Location	Collected	Sample Time	Analyses	Matrix	Container	Numb Cont	Lab QC
	MH2D64	1841	MT-SS04	10/28/2024	14:30	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	5
	MH2D65	1846	T2-SB	10/28/2024	16:40	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	5
	MH2D66	1847	T2-SB	10/28/2024	16:40	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	4 6
	MH2D67	1848	T2-SB	10/28/2024	16:40	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	6
	MH2D68	1853	T3-SB	10/28/2024	15:30	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	6
	MH2D69	1854	T3-SB	10/28/2024	15:30	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	15 6
	MH2D70	1855	T3-SB	10/28/2024	15:30	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	6
	MH2D71	1860	T1-SB	10/28/2024	11:20	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	6
	MH2D72	1861	T1-SB	10/28/2024	11:20	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	16 6
	MH2D73	1862	T1-SB	10/28/2024	11:20	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	6
	MH2D74	1867	T1-SB	10/28/2024	11:20	CLP_TAL Metals+Hg	Soil	Plastic Baggie	1	6
	MH2D75	1868	T1-SB	10/28/2024	11:20	CLP_Modified SPLP (TAL Metals)+Hg	Soil	Plastic Baggie	1	19 6
	MH2D76	1869	T1-SB	10/28/2024	11:20	CLP_Standard SPLP+Hg	Soil	Plastic Baggie	1	6

Special Instructions: QC to be determined by the lab

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	ESAT R8	12/26/24 1500			
			R Melendez	9:40 12.27.24	IR gun ID 1 3.1°
					Temp BLANK present
					Custody seal intact

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 1 of 6
Received By (Print Name) Cassanova Rene		Log-in Date **12/27/2024**
Received By (Signature)		
Case Number 51811	SDG No. MH2D27	MA No. 3123.0,3124.0

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.	771042901591 1
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	3.2 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	12/27/2024
12.Time Received	09:40

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH2D27	N/A	1756	P5392-01	Intact
2	MH2D30	N/A	1763	P5392-02	Intact
3	MH2D33	N/A	1770	P5392-03	Intact
4	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	12/30/24	Logbook Page No.	N/A

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 2 of 6
Received By (Print Name) Cassandra Perie		Log-in Date **12/27/2024**
Received By (Signature)		
Case Number 51811	SDG No. MH2D27	MA No. 3123.0,3124.0

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.	771042901606 2
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	12/27/2024
12.Time Received	09:40

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH2D36	N/A	1777	P5392-04	Intact
2	MH2D39	N/A	1784	P5392-05	Intact
3	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	12/30/24	Logbook Page No.	N/A

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 3 of 6
Received By (Print Name) Cassandra Rose		Log-in Date **12/27/2024**
Received By (Signature)		
Case Number 51811	SDG No. MH2D27	MA No. 3123.0,3124.0

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.	771042901617 3
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	2.4 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	12/27/2024
12.Time Received	09:40

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH2D42	N/A	1791	P5392-06	Intact
2	MH2D45	N/A	1798	P5392-07	Intact
3	MH2D48	N/A	1805	P5392-08	Intact
4	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	12/30/24	Logbook Page No.	N/A

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 4 of 6
Received By (Print Name) Cassiopeia Lee		Log-in Date **12/27/2024**
Received By (Signature)		
Case Number 51811	SDG No. MH2D27	MA No. 3123.0,3124.0

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.	771042901628 4
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	3.0 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	12/27/2024
12.Time Received	09:40

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH2D51	N/A	1812	P5392-09	Intact
2	MH2D54	N/A	1819	P5392-10	Intact
3	MH2D57	N/A	1826	P5392-11	Intact
4	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	12/30/24	Logbook Page No.	N/A

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 5 of 6
Received By (Print Name) Rosanna Pena		Log-in Date **12/27/2024**
Received By (Signature)		
Case Number 51811	SDG No. MH2D27	MA No. 3123.0,3124.0

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.	771042901639 5
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	12/27/2024
12.Time Received	09:40

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH2D60	N/A	1833	P5392-12	Intact
2	MH2D63	N/A	1840	P5392-13	Intact
3	N/A	N/A	N/A	N/A	N/A
4	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By	Logbook No. N/A
Date 12/30/24	Logbook Page No. N/A

FORM DC-1

SAMPLE LOG-IN SHEET

Lab Name : Alliance Technical Group, LLC		Page 6 of 6
Received By (Print Name) Casandra Rene		Log-in Date **12/27/2024**
Received By (Signature)		
Case Number 51811	SDG No. MH2D27	MA No. 3123.0,3124.0

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.	771042901640 6
6. Shipping Container Temperature Indicator Bottle	Present
7. Shipping Container Temperature	2.4 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	12/27/2024
12.Time Received	09:40

	EPA Sample #	Aqueous/ Water Sample pH	Corresponding Sample Tag #	Corresponding Assigned Lab #	Remarks: Condition of Sample Shipment, etc.
1	MH2D66	N/A	1847	P5392-14	Intact
2	MH2D69	N/A	1854	P5392-15	Intact
3	MH2D72	N/A	1861	P5392-16	Intact
4	MH2D75	N/A	1868	P5392-17	Intact
5	MH2D75D	N/A	1868	P5392-18	Intact
6	MH2D75S	N/A	1868	P5392-19	Intact
7	N/A	N/A	N/A	N/A	N/A
8	N/A	N/A	N/A	N/A	N/A
9	N/A	N/A	N/A	N/A	N/A
10	N/A	N/A	N/A	N/A	N/A
11	N/A	N/A	N/A	N/A	N/A
12	N/A	N/A	N/A	N/A	N/A
13	N/A	N/A	N/A	N/A	N/A
14	N/A	N/A	N/A	N/A	N/A
15	N/A	N/A	N/A	N/A	N/A
16	N/A	N/A	N/A	N/A	N/A
17	N/A	N/A	N/A	N/A	N/A
18	N/A	N/A	N/A	N/A	N/A
19	N/A	N/A	N/A	N/A	N/A
20	N/A	N/A	N/A	N/A	N/A
21	N/A	N/A	N/A	N/A	N/A
22	N/A	N/A	N/A	N/A	N/A
23	N/A	N/A	N/A	N/A	N/A

* Contact SMO and attach record of resolution

Reviewed By		Logbook No.	N/A
Date	12/30/24	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.	**51811**	SDG NO.	**MH2D27**
MA NO.	**3123.0,3124.0**	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	4	✓	
3 . Sample Log-In Sheet (DC-1)	5	10	✓	
4 . CSF Inventory Sheet (DC-2)	11	13	✓	
5 . SDG Narrative	14	18	✓	
6 . Communication Logs	NA	NA	✓	
7 . Percent Solids Log	NA	NA	✓	
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	19	35	✓	
9 . Instrument raw data by instrument in analysis order	36	397	✓	
Other Data				
10 . Standard and Reagent Preparation Logs	398	560	✓	
11 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	561	562	✓	
12 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	563	570	✓	
13 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
14 . Extraction Logs for TCLP and SPLP	571	574	✓	
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	575	591	✓	
27. Instrument raw data by instrument in analysis order	592	594	✓	
Other Data				
28. Standard and Reagent Preparation Logs	595	621	✓	
29. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks	622	623	✓	
30. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks	624	626	✓	
31. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions	NA	NA	✓	
32. Extraction Logs for TCLP and SPLP	627	630	✓	
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 6)	631	636	✓	
Sample Tags	NA	NA	✓	
Sample Log-In Sheet (Lab)	637	638	✓	
45. Misc. Shipping/Receiving Records (list all individual records)				
	NA	NA	✓	
46. Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
	639	639	✓	
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 # MH2D27
CASE # 51811
CONTRACT # 68HERH20D0011
SOW# SFAM01.1
LAB NAME: Alliance Technical Group, LLC
LAB CODE: ACE
LAB ORDER ID #P5392
MODIFIED ANALYSIS # 3124.0, 3123.0

A. Number of Samples and Date of Receipt

17 Soil samples were delivered to the laboratory intact on 12/27/2024.

B. Parameters

Test requested for SPLP MetalGroup3 = Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc & SPLP Mercury.

C. Cooler Temp

Indicator Bottle**: Presence/**Absence

Cooler: 3.2^{o}C, 3.1^{o}C, 2.4^{o}C, 3.0^{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 Water Sample:

$$\text{Concentration or Result } (\mu g/L) = C \times \frac{Vf}{Vi} \times DF \times 1000$$

Where,

C = Instrument value in ppm (The average of all replicate exposures)
Vf = Final digestion volume (mL)
Vi = Initial aliquot amount (mL) (Sample amount taken in prep)
DF = Dilution Factor

Example Calculation For Sample MH2D27 For Arsenic:

If C = 0.0156865 ppm
Vf = 50 ml
Vi = 50 ml
DF = 1

$$\text{Concentration or Result } (\mu g/L) = 0.0156865 \times \frac{50}{50} \times 1 \times 1000$$

$$= 15.6865 \ \mu g/L$$

$$= 16 \ \mu g/L \ \text{(Reported Result with Signification)}$$

Calculation for Hg Water Sample:

$$\text{Concentration or Result } (\mu g/L) = C \times DF$$

Where,

C = Instrument response in µg/L from the calibration curve.
DF = Dilution Factor

Example Calculation For Sample MH2D27:

If C = 0.2667 ppb
DF = 1

284 Sheffield Street
Mountainside, NJ 07092

Concentration or Result (µg/L) = 0.2667 x 1

= 0.2667 µg/L

= 0.27 µg/L (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 Antimony, Barium, Silver. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

Samples receive as soil but as per ASR process for SPLP and forms are reported with water.

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

Date: 10/04/2021	**MA:** 3123.0	**Title:** Mercury with SPLP with Reduced Ratio of Extraction Fluid to Sample
Method Source: SFAM01.1	**Method:** CVAA	
Matrix: Soil/Sediment		

Summary of Modification

The purpose of this modified analysis is to prepare modified SPLP leachates of samples and analyze them for Mercury by CVAA. Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.

I. Analyte Modifications **Not applicable** ☒

II. Calibration and QC Requirements **Not applicable** ☒

III. Preparation and Method Modifications **Not applicable** ☐

The Laboratory shall:

- Calculate the amount of extraction fluid necessary for each sample based on 4 times the percent solids x weight of sample filtered. See Equation 33 in Section 3.6 of Exhibit G and change the "20" to "4" for calculating the amount of fluid required.
- Digest the extracts using the aqueous sample preparation method for Mercury samples. Prepare the extraction blank as the Leachate Extraction Blank (LEB).
- If there is insufficient volume for the full-volume preparation of samples by all scheduled analytical methods, prepare the samples at reduced volume with adjusted reagent and spike volumes.

IV. Special Reporting Requirements **Not applicable** ☐

The Laboratory shall:

- Ensure that the SDG Narrative is updated as stated in the SOW, including any technical and administrative problems encountered and the corrective action taken. These problems may include problems encountered during analysis, dilutions, re-analyses or re-preparations performed, and problems with the analysis of samples. Also include a discussion of any SOW Modified Analysis including a copy of the approved modification with the SDG Narrative.

Date: 10/04/2021	**MA:** 3124.0	**Title:** ICP-AES with SPLP with Reduced Ratio of Extraction Fluid to Sample
Method Source: SFAM01.1	**Method:** ICP-AES	
Matrix: Soil/Sediment		

Summary of Modification

The purpose of this modified analysis is to prepare modified SPLP leachates of samples and analyze them by ICP-AES. Unless specifically modified by this modification, all analyses, Quality Control (QC), and reporting requirements specified in the SOW listed in your current EPA agreement remain unchanged and in full force and effect.

I. Analyte Modifications **Not applicable** ☒

II. Calibration and QC Requirements **Not applicable** ☒

III. Preparation and Method Modifications **Not applicable** ☐

The Laboratory shall:

- Calculate the amount of extraction fluid necessary for each sample based on 4 times the percent solids x weight of sample filtered. See Equation 33 in Section 3.6 of Exhibit G and change the "20" to "4" for calculating the amount of fluid required.
- Digest the extracts using the aqueous sample preparation method for ICP-AES samples. Prepare the extraction blank as the Leachate Extraction Blank (LEB).
- If there is insufficient volume for the full-volume preparation of samples by all scheduled analytical methods, prepare the samples at reduced volume with adjusted reagent and spike volumes. The sample final volume shall equal the sample initial volume.

IV. Special Reporting Requirements **Not applicable** ☐

The Laboratory shall:

- Ensure that the SDG Narrative is updated as stated in the SOW, including any technical and administrative problems encountered and the corrective action taken. These problems may include problems encountered during analysis, dilutions, re-analyses or re-preparations performed, and problems with the analysis of samples. Also include a discussion of any SOW Modified Analysis including a copy of the approved modification with the SDG Narrative.

EPA SAMPLE NO.

MH2D27

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-01

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	26000		01/15/2025	1644
7440-36-0	Antimony	60	U*	01/15/2025	1644
7440-38-2	Arsenic	16		01/15/2025	1644
7440-39-3	Barium	78	J*	01/15/2025	1644
7440-41-7	Beryllium	25		01/15/2025	1644
7440-43-9	Cadmium	510		01/15/2025	1644
7440-70-2	Calcium	77000		01/15/2025	1644
7440-47-3	Chromium	19		01/15/2025	1644
7440-48-4	Cobalt	30	J	01/15/2025	1644
7440-50-8	Copper	19000		01/15/2025	1644
7439-89-6	Iron	4300		01/15/2025	1644
7439-92-1	Lead	350		01/15/2025	1644
7439-95-4	Magnesium	5300		01/15/2025	1644
7439-96-5	Manganese	200000	D	01/16/2025	1318
7440-02-0	Nickel	60		01/15/2025	1644
7440-09-7	Potassium	2700	J	01/15/2025	1644
7782-49-2	Selenium	35	U	01/15/2025	1644
7440-22-4	Silver	34	*	01/15/2025	1644
7440-23-5	Sodium	4800	J	01/15/2025	1644
7440-28-0	Thallium	53		01/15/2025	1644
7440-62-2	Vanadium	50	U	01/15/2025	1644
7440-66-6	Zinc	240000	D	01/16/2025	1318

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

Comments:

EPA SAMPLE NO.

MH2D30

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-02

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	34000		01/15/2025	1648
7440-36-0	Antimony	34	J*	01/15/2025	1648
7440-38-2	Arsenic	10	U	01/15/2025	1648
7440-39-3	Barium	54	J*	01/15/2025	1648
7440-41-7	Beryllium	9.6		01/15/2025	1648
7440-43-9	Cadmium	66		01/15/2025	1648
7440-70-2	Calcium	130000		01/15/2025	1648
7440-47-3	Chromium	150		01/15/2025	1648
7440-48-4	Cobalt	26	J	01/15/2025	1648
7440-50-8	Copper	24000		01/15/2025	1648
7439-89-6	Iron	78000		01/15/2025	1648
7439-92-1	Lead	3300		01/15/2025	1648
7439-95-4	Magnesium	2800	J	01/15/2025	1648
7439-96-5	Manganese	560000	D	01/16/2025	1805
7440-02-0	Nickel	51		01/15/2025	1648
7440-09-7	Potassium	5000	U	01/15/2025	1648
7782-49-2	Selenium	170		01/15/2025	1648
7440-22-4	Silver	130	*	01/15/2025	1648
7440-23-5	Sodium	5000		01/15/2025	1648
7440-28-0	Thallium	570		01/15/2025	1648
7440-62-2	Vanadium	50	U	01/15/2025	1648
7440-66-6	Zinc	15000		01/15/2025	1648

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

Comments:

EPA SAMPLE NO.

MH2D33

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-03

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20000		01/15/2025	1652
7440-36-0	Antimony	6.7	J*	01/15/2025	1652
7440-38-2	Arsenic	23		01/15/2025	1652
7440-39-3	Barium	65	J*	01/15/2025	1652
7440-41-7	Beryllium	12		01/15/2025	1652
7440-43-9	Cadmium	96		01/15/2025	1652
7440-70-2	Calcium	42000		01/15/2025	1652
7440-47-3	Chromium	36		01/15/2025	1652
7440-48-4	Cobalt	34	J	01/15/2025	1652
7440-50-8	Copper	4500		01/15/2025	1652
7439-89-6	Iron	37000		01/15/2025	1652
7439-92-1	Lead	1600		01/15/2025	1652
7439-95-4	Magnesium	6100		01/15/2025	1652
7439-96-5	Manganese	30000		01/15/2025	1652
7440-02-0	Nickel	46		01/15/2025	1652
7440-09-7	Potassium	1800	J	01/15/2025	1652
7782-49-2	Selenium	35	U	01/15/2025	1652
7440-22-4	Silver	26	*	01/15/2025	1652
7440-23-5	Sodium	5500		01/15/2025	1652
7440-28-0	Thallium	25	U	01/15/2025	1652
7440-62-2	Vanadium	3.3	J	01/15/2025	1652
7440-66-6	Zinc	14000		01/15/2025	1652

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

Comments:

EPA SAMPLE NO.

MH2D36

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-04

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	21000		01/15/2025	1656
7440-36-0	Antimony	32	J*	01/15/2025	1656
7440-38-2	Arsenic	10	U	01/15/2025	1656
7440-39-3	Barium	21	J*	01/15/2025	1656
7440-41-7	Beryllium	23		01/15/2025	1656
7440-43-9	Cadmium	970		01/15/2025	1656
7440-70-2	Calcium	42000		01/15/2025	1656
7440-47-3	Chromium	20		01/15/2025	1656
7440-48-4	Cobalt	130		01/15/2025	1656
7440-50-8	Copper	210000	D	01/16/2025	1335
7439-89-6	Iron	41000		01/15/2025	1656
7439-92-1	Lead	4900		01/15/2025	1656
7439-95-4	Magnesium	3500	J	01/15/2025	1656
7439-96-5	Manganese	180000	D	01/16/2025	1335
7440-02-0	Nickel	49		01/15/2025	1656
7440-09-7	Potassium	3200	J	01/15/2025	1656
7782-49-2	Selenium	10	J	01/15/2025	1656
7440-22-4	Silver	140	*	01/15/2025	1656
7440-23-5	Sodium	3200	J	01/15/2025	1656
7440-28-0	Thallium	13	J	01/15/2025	1656
7440-62-2	Vanadium	50	U	01/15/2025	1656
7440-66-6	Zinc	170000	D	01/16/2025	1335

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

Comments:

EPA SAMPLE NO.

MH2D39

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-05

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	200	U	01/15/2025	1701
7440-36-0	Antimony	90	*	01/15/2025	1701
7440-38-2	Arsenic	140		01/15/2025	1701
7440-39-3	Barium	87	J*	01/15/2025	1701
7440-41-7	Beryllium	5.0	U	01/15/2025	1701
7440-43-9	Cadmium	19		01/15/2025	1701
7440-70-2	Calcium	890000	D	01/16/2025	1339
7440-47-3	Chromium	10	U	01/15/2025	1701
7440-48-4	Cobalt	2.2	J	01/15/2025	1701
7440-50-8	Copper	980		01/15/2025	1701
7439-89-6	Iron	100	U	01/15/2025	1701
7439-92-1	Lead	190		01/15/2025	1701
7439-95-4	Magnesium	5900		01/15/2025	1701
7439-96-5	Manganese	730		01/15/2025	1701
7440-02-0	Nickel	12	J	01/15/2025	1701
7440-09-7	Potassium	5000	U	01/15/2025	1701
7782-49-2	Selenium	35	U	01/15/2025	1701
7440-22-4	Silver	10	U*	01/15/2025	1701
7440-23-5	Sodium	1700	J	01/15/2025	1701
7440-28-0	Thallium	25	U	01/15/2025	1701
7440-62-2	Vanadium	50	U	01/15/2025	1701
7440-66-6	Zinc	7300		01/15/2025	1701

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

Comments:

EPA SAMPLE NO.

MH2D42

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-06

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	44000		01/15/2025	1705
7440-36-0	Antimony	7.7	J*	01/15/2025	1705
7440-38-2	Arsenic	18		01/15/2025	1705
7440-39-3	Barium	25	J*	01/15/2025	1705
7440-41-7	Beryllium	32		01/15/2025	1705
7440-43-9	Cadmium	71		01/15/2025	1705
7440-70-2	Calcium	57000		01/15/2025	1705
7440-47-3	Chromium	44		01/15/2025	1705
7440-48-4	Cobalt	50		01/15/2025	1705
7440-50-8	Copper	4900		01/15/2025	1705
7439-89-6	Iron	58000		01/15/2025	1705
7439-92-1	Lead	5500		01/15/2025	1705
7439-95-4	Magnesium	10000		01/15/2025	1705
7439-96-5	Manganese	74000	D	01/16/2025	1716
7440-02-0	Nickel	50		01/15/2025	1705
7440-09-7	Potassium	850	J	01/15/2025	1705
7782-49-2	Selenium	35	U	01/15/2025	1705
7440-22-4	Silver	120	*	01/15/2025	1705
7440-23-5	Sodium	5300		01/15/2025	1705
7440-28-0	Thallium	12	J	01/15/2025	1705
7440-62-2	Vanadium	50	U	01/15/2025	1705
7440-66-6	Zinc	11000		01/15/2025	1705

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

Comments:

EPA SAMPLE NO.

MH2D45

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-07

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	6900		01/16/2025	1233
7440-36-0	Antimony	110	*	01/16/2025	1233
7440-38-2	Arsenic	2700		01/16/2025	1233
7440-39-3	Barium	50	J*	01/16/2025	1233
7440-41-7	Beryllium	0.22	J	01/16/2025	1233
7440-43-9	Cadmium	72		01/16/2025	1233
7440-70-2	Calcium	8300		01/16/2025	1233
7440-47-3	Chromium	3.5	J	01/16/2025	1233
7440-48-4	Cobalt	9.4	J	01/16/2025	1233
7440-50-8	Copper	30000		01/16/2025	1233
7439-89-6	Iron	82000		01/16/2025	1233
7439-92-1	Lead	3300		01/16/2025	1233
7439-95-4	Magnesium	2100	J	01/16/2025	1233
7439-96-5	Manganese	4600		01/16/2025	1233
7440-02-0	Nickel	7.0	J	01/16/2025	1233
7440-09-7	Potassium	5000	U	01/16/2025	1233
7782-49-2	Selenium	12	J	01/16/2025	1233
7440-22-4	Silver	7.8	J*	01/16/2025	1233
7440-23-5	Sodium	4900	J	01/16/2025	1233
7440-28-0	Thallium	25	U	01/16/2025	1233
7440-62-2	Vanadium	80		01/16/2025	1233
7440-66-6	Zinc	14000		01/16/2025	1233

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

Comments:

EPA SAMPLE NO.

MH2D48

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-08

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	11000		01/16/2025	1237
7440-36-0	Antimony	89	*	01/16/2025	1237
7440-38-2	Arsenic	200		01/16/2025	1237
7440-39-3	Barium	35	J*	01/16/2025	1237
7440-41-7	Beryllium	4.3	J	01/16/2025	1237
7440-43-9	Cadmium	140		01/16/2025	1237
7440-70-2	Calcium	15000		01/16/2025	1237
7440-47-3	Chromium	7.9	J	01/16/2025	1237
7440-48-4	Cobalt	49	J	01/16/2025	1237
7440-50-8	Copper	10000		01/16/2025	1237
7439-89-6	Iron	89000		01/16/2025	1237
7439-92-1	Lead	3400		01/16/2025	1237
7439-95-4	Magnesium	2500	J	01/16/2025	1237
7439-96-5	Manganese	55000	D	01/16/2025	1351
7440-02-0	Nickel	18	J	01/16/2025	1237
7440-09-7	Potassium	5000	U	01/16/2025	1237
7782-49-2	Selenium	10	J	01/16/2025	1237
7440-22-4	Silver	17	*	01/16/2025	1237
7440-23-5	Sodium	4000	J	01/16/2025	1237
7440-28-0	Thallium	25	U	01/16/2025	1237
7440-62-2	Vanadium	60		01/16/2025	1237
7440-66-6	Zinc	27000		01/16/2025	1237

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

Comments:

EPA SAMPLE NO.

MH2D51

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-09

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	26000		01/16/2025	1241
7440-36-0	Antimony	16	J*	01/16/2025	1241
7440-38-2	Arsenic	37		01/16/2025	1241
7440-39-3	Barium	25	J*	01/16/2025	1241
7440-41-7	Beryllium	2.5	J	01/16/2025	1241
7440-43-9	Cadmium	20		01/16/2025	1241
7440-70-2	Calcium	41000		01/16/2025	1241
7440-47-3	Chromium	44		01/16/2025	1241
7440-48-4	Cobalt	36	J	01/16/2025	1241
7440-50-8	Copper	11000		01/16/2025	1241
7439-89-6	Iron	73000		01/16/2025	1241
7439-92-1	Lead	5500		01/16/2025	1241
7439-95-4	Magnesium	3100	J	01/16/2025	1241
7439-96-5	Manganese	12000		01/16/2025	1241
7440-02-0	Nickel	29	J	01/16/2025	1241
7440-09-7	Potassium	5000	U	01/16/2025	1241
7782-49-2	Selenium	6.4	J	01/16/2025	1241
7440-22-4	Silver	3.5	J*	01/16/2025	1241
7440-23-5	Sodium	4300	J	01/16/2025	1241
7440-28-0	Thallium	25	U	01/16/2025	1241
7440-62-2	Vanadium	14	J	01/16/2025	1241
7440-66-6	Zinc	3700		01/16/2025	1241

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

Comments:

EPA SAMPLE NO.

MH2D54

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-10

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	29000		01/16/2025	1245
7440-36-0	Antimony	8.5	J*	01/16/2025	1245
7440-38-2	Arsenic	21		01/16/2025	1245
7440-39-3	Barium	60	J*	01/16/2025	1245
7440-41-7	Beryllium	9.4		01/16/2025	1245
7440-43-9	Cadmium	110		01/16/2025	1245
7440-70-2	Calcium	76000		01/16/2025	1245
7440-47-3	Chromium	11		01/16/2025	1245
7440-48-4	Cobalt	70		01/16/2025	1245
7440-50-8	Copper	4800		01/16/2025	1245
7439-89-6	Iron	39000		01/16/2025	1245
7439-92-1	Lead	6300		01/16/2025	1245
7439-95-4	Magnesium	7700		01/16/2025	1245
7439-96-5	Manganese	26000		01/16/2025	1245
7440-02-0	Nickel	33	J	01/16/2025	1245
7440-09-7	Potassium	1800	J	01/16/2025	1245
7782-49-2	Selenium	35	U	01/16/2025	1245
7440-22-4	Silver	3.3	J*	01/16/2025	1245
7440-23-5	Sodium	4200	J	01/16/2025	1245
7440-28-0	Thallium	3.9	J	01/16/2025	1245
7440-62-2	Vanadium	14	J	01/16/2025	1245
7440-66-6	Zinc	16000		01/16/2025	1245

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

Comments:

EPA SAMPLE NO.

MH2D57

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-11

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	28000		01/16/2025	1249
7440-36-0	Antimony	88	*	01/16/2025	1249
7440-38-2	Arsenic	65		01/16/2025	1249
7440-39-3	Barium	32	J*	01/16/2025	1249
7440-41-7	Beryllium	8.9		01/16/2025	1249
7440-43-9	Cadmium	160		01/16/2025	1249
7440-70-2	Calcium	57000		01/16/2025	1249
7440-47-3	Chromium	33		01/16/2025	1249
7440-48-4	Cobalt	35	J	01/16/2025	1249
7440-50-8	Copper	100000	D	01/16/2025	1407
7439-89-6	Iron	130000		01/16/2025	1249
7439-92-1	Lead	4000		01/16/2025	1249
7439-95-4	Magnesium	2900	J	01/16/2025	1249
7439-96-5	Manganese	34000	D	01/16/2025	1403
7440-02-0	Nickel	24	J	01/16/2025	1249
7440-09-7	Potassium	5000	U	01/16/2025	1249
7782-49-2	Selenium	17	J	01/16/2025	1249
7440-22-4	Silver	130	*	01/16/2025	1249
7440-23-5	Sodium	4000	J	01/16/2025	1249
7440-28-0	Thallium	25	U	01/16/2025	1249
7440-62-2	Vanadium	50	U	01/16/2025	1249
7440-66-6	Zinc	28000		01/16/2025	1249

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

Comments:

EPA SAMPLE NO.

MH2D60

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-12

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	32000		01/16/2025	1253
7440-36-0	Antimony	60	U*	01/16/2025	1253
7440-38-2	Arsenic	23		01/16/2025	1253
7440-39-3	Barium	29	J*	01/16/2025	1253
7440-41-7	Beryllium	28		01/16/2025	1253
7440-43-9	Cadmium	50		01/16/2025	1253
7440-70-2	Calcium	55000		01/16/2025	1253
7440-47-3	Chromium	17		01/16/2025	1253
7440-48-4	Cobalt	34	J	01/16/2025	1253
7440-50-8	Copper	5200		01/16/2025	1253
7439-89-6	Iron	33000		01/16/2025	1253
7439-92-1	Lead	6100		01/16/2025	1253
7439-95-4	Magnesium	6700		01/16/2025	1253
7439-96-5	Manganese	28000		01/16/2025	1253
7440-02-0	Nickel	30	J	01/16/2025	1253
7440-09-7	Potassium	5000	U	01/16/2025	1253
7782-49-2	Selenium	35	U	01/16/2025	1253
7440-22-4	Silver	14	*	01/16/2025	1253
7440-23-5	Sodium	2900	J	01/16/2025	1253
7440-28-0	Thallium	9.1	J	01/16/2025	1253
7440-62-2	Vanadium	50	U	01/16/2025	1253
7440-66-6	Zinc	7600		01/16/2025	1253

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

Comments:

EPA SAMPLE NO.

MH2D63

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-13

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20000		01/16/2025	1257
7440-36-0	Antimony	60	U*	01/16/2025	1257
7440-38-2	Arsenic	24		01/16/2025	1257
7440-39-3	Barium	27	J*	01/16/2025	1257
7440-41-7	Beryllium	7.9		01/16/2025	1257
7440-43-9	Cadmium	13		01/16/2025	1257
7440-70-2	Calcium	65000		01/16/2025	1257
7440-47-3	Chromium	11		01/16/2025	1257
7440-48-4	Cobalt	18	J	01/16/2025	1257
7440-50-8	Copper	1400		01/16/2025	1257
7439-89-6	Iron	27000		01/16/2025	1257
7439-92-1	Lead	4800		01/16/2025	1257
7439-95-4	Magnesium	5800		01/16/2025	1257
7439-96-5	Manganese	9300		01/16/2025	1257
7440-02-0	Nickel	9.7	J	01/16/2025	1257
7440-09-7	Potassium	5000	U	01/16/2025	1257
7782-49-2	Selenium	35	U	01/16/2025	1257
7440-22-4	Silver	7.9	J*	01/16/2025	1257
7440-23-5	Sodium	3800	J	01/16/2025	1257
7440-28-0	Thallium	25	U	01/16/2025	1257
7440-62-2	Vanadium	29	J	01/16/2025	1257
7440-66-6	Zinc	3700		01/16/2025	1257

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

Comments:

EPA SAMPLE NO.

MH2D66

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-14

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	21000		01/16/2025	1301
7440-36-0	Antimony	60	U*	01/16/2025	1301
7440-38-2	Arsenic	3.2	J	01/16/2025	1301
7440-39-3	Barium	19	J*	01/16/2025	1301
7440-41-7	Beryllium	31		01/16/2025	1301
7440-43-9	Cadmium	930		01/16/2025	1301
7440-70-2	Calcium	250000		01/16/2025	1301
7440-47-3	Chromium	86		01/16/2025	1301
7440-48-4	Cobalt	180		01/16/2025	1301
7440-50-8	Copper	4800		01/16/2025	1301
7439-89-6	Iron	64000		01/16/2025	1301
7439-92-1	Lead	3900		01/16/2025	1301
7439-95-4	Magnesium	6800		01/16/2025	1301
7439-96-5	Manganese	360000	D	01/16/2025	1721
7440-02-0	Nickel	210		01/16/2025	1301
7440-09-7	Potassium	7300		01/16/2025	1301
7782-49-2	Selenium	18	J	01/16/2025	1301
7440-22-4	Silver	98	*	01/16/2025	1301
7440-23-5	Sodium	3500	J	01/16/2025	1301
7440-28-0	Thallium	120		01/16/2025	1301
7440-62-2	Vanadium	50	U	01/16/2025	1301
7440-66-6	Zinc	85000	D	01/16/2025	1416

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

Comments:

EPA SAMPLE NO.

MH2D69

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-15

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	42	J	01/16/2025	1306
7440-36-0	Antimony	60	U*	01/16/2025	1306
7440-38-2	Arsenic	10	U	01/16/2025	1306
7440-39-3	Barium	68	J*	01/16/2025	1306
7440-41-7	Beryllium	23		01/16/2025	1306
7440-43-9	Cadmium	250		01/16/2025	1306
7440-70-2	Calcium	570000		01/16/2025	1306
7440-47-3	Chromium	7.7	J	01/16/2025	1306
7440-48-4	Cobalt	440		01/16/2025	1306
7440-50-8	Copper	30		01/16/2025	1306
7439-89-6	Iron	540		01/16/2025	1306
7439-92-1	Lead	46		01/16/2025	1306
7439-95-4	Magnesium	41000		01/16/2025	1306
7439-96-5	Manganese	230000	D	01/16/2025	1420
7440-02-0	Nickel	200		01/16/2025	1306
7440-09-7	Potassium	5000	U	01/16/2025	1306
7782-49-2	Selenium	35	U	01/16/2025	1306
7440-22-4	Silver	33	*	01/16/2025	1306
7440-23-5	Sodium	3900	J	01/16/2025	1306
7440-28-0	Thallium	25	U	01/16/2025	1306
7440-62-2	Vanadium	50	U	01/16/2025	1306
7440-66-6	Zinc	98000	D	01/16/2025	1420

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

Comments:

EPA SAMPLE NO.

MH2D72

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-16

% Solids: Date Received: 12/27/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	25000		01/16/2025	1310
7440-36-0	Antimony	34	J*	01/16/2025	1310
7440-38-2	Arsenic	57		01/16/2025	1310
7440-39-3	Barium	42	J*	01/16/2025	1310
7440-41-7	Beryllium	10		01/16/2025	1310
7440-43-9	Cadmium	55		01/16/2025	1310
7440-70-2	Calcium	520000		01/16/2025	1310
7440-47-3	Chromium	110		01/16/2025	1310
7440-48-4	Cobalt	54		01/16/2025	1310
7440-50-8	Copper	3400		01/16/2025	1310
7439-89-6	Iron	260000		01/16/2025	1310
7439-92-1	Lead	2400		01/16/2025	1310
7439-95-4	Magnesium	5400		01/16/2025	1310
7439-96-5	Manganese	69000	D	01/16/2025	1424
7440-02-0	Nickel	77		01/16/2025	1310
7440-09-7	Potassium	5000	U	01/16/2025	1310
7782-49-2	Selenium	32	J	01/16/2025	1310
7440-22-4	Silver	37	*	01/16/2025	1310
7440-23-5	Sodium	2900	J	01/16/2025	1310
7440-28-0	Thallium	25	U	01/16/2025	1310
7440-62-2	Vanadium	21	J	01/16/2025	1310
7440-66-6	Zinc	12000		01/16/2025	1310

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

Comments:

EPA SAMPLE NO.

MH2D75

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3124.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-17

% Solids: Date Received: 12/27/2024

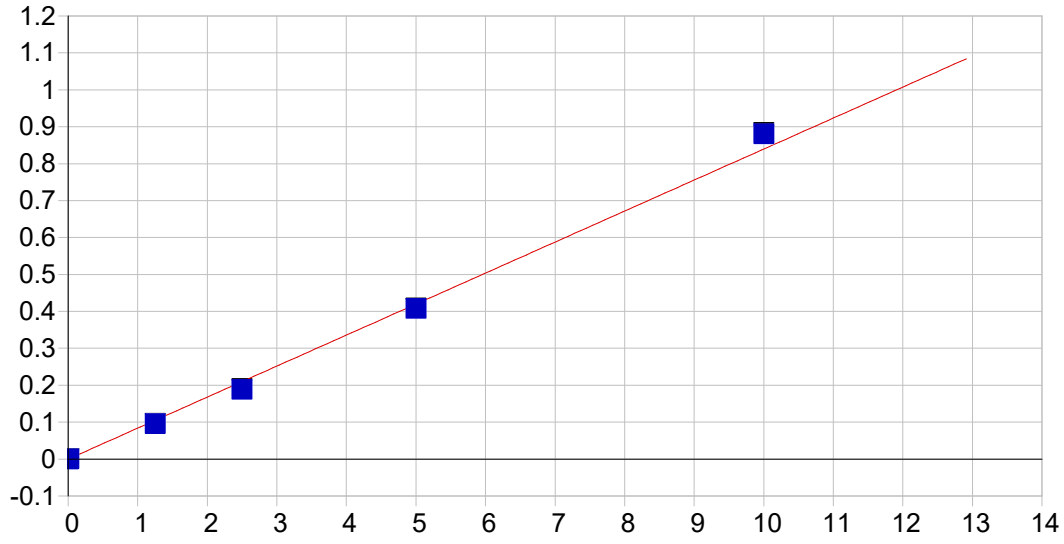
Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	26000		01/15/2025	1504
7440-36-0	Antimony	16	J*	01/15/2025	1504
7440-38-2	Arsenic	25		01/15/2025	1504
7440-39-3	Barium	32	J*	01/15/2025	1504
7440-41-7	Beryllium	23		01/15/2025	1504
7440-43-9	Cadmium	52		01/15/2025	1504
7440-70-2	Calcium	390000		01/15/2025	1504
7440-47-3	Chromium	110		01/15/2025	1504
7440-48-4	Cobalt	29	J	01/15/2025	1504
7440-50-8	Copper	6800		01/15/2025	1504
7439-89-6	Iron	130000		01/15/2025	1504
7439-92-1	Lead	3500		01/15/2025	1504
7439-95-4	Magnesium	3800	J	01/15/2025	1504
7439-96-5	Manganese	140000	D	01/16/2025	1428
7440-02-0	Nickel	67		01/15/2025	1504
7440-09-7	Potassium	2400	J	01/15/2025	1504
7782-49-2	Selenium	9.0	J	01/15/2025	1504
7440-22-4	Silver	33	*	01/15/2025	1504
7440-23-5	Sodium	2300	J	01/15/2025	1504
7440-28-0	Thallium	25	U	01/15/2025	1504
7440-62-2	Vanadium	3.8	J	01/15/2025	1504
7440-66-6	Zinc	8400		01/15/2025	1504

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

Comments:



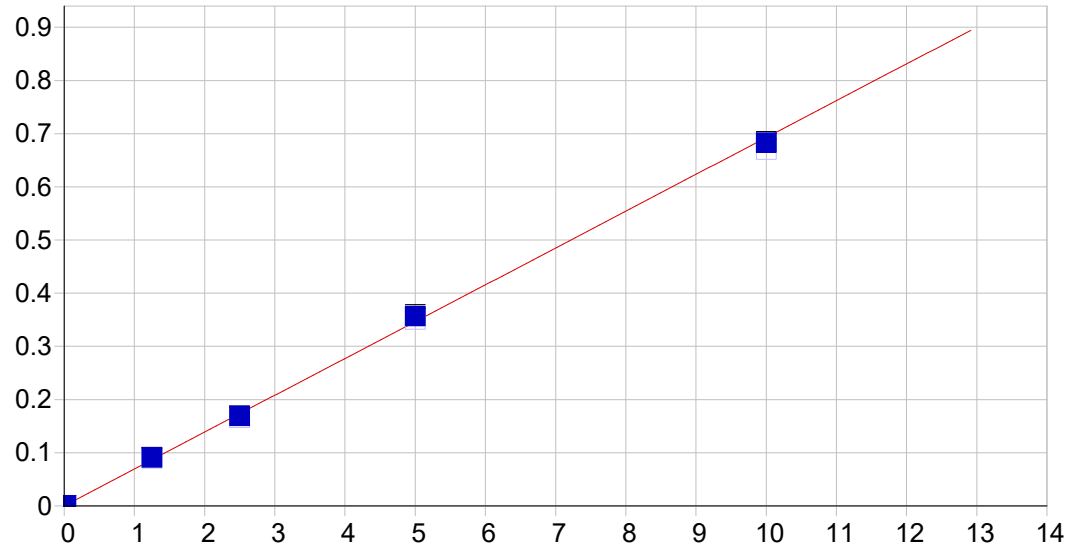
As 189.042 {479}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000110	Re-Slope:	1.000000
A1 (Gain):	0.083968	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998347	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	0.002180		
Predicted MQL:	0.007268		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00011	.000	1
S1	.01000	.00987	-.000	-1.35	.00072	.000	1
S3	2.5000	2.2503	-.250	-9.99	.18847	.001	1
S4	5.0000	4.8624	-.138	-2.75	.40743	.001	1
S5	10.000	10.493	.493	4.93	.87947	.003	1
S2	1.2500	1.1444	-.106	-8.44	.09580	.001	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



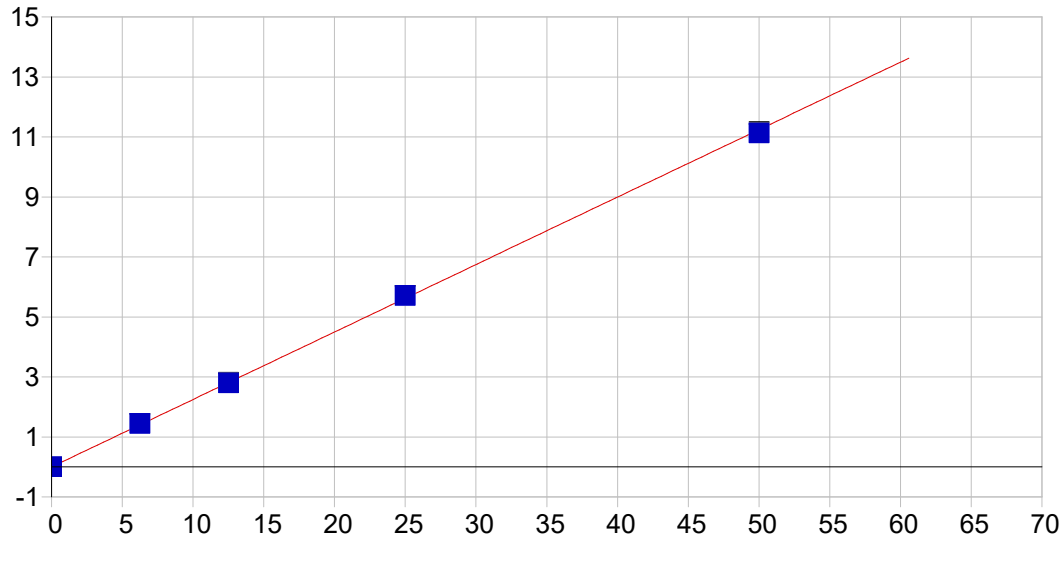
Tl 190.856 {477}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000282	Re-Slope:	1.000000
A1 (Gain):	0.069244	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999709	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.001835		
Predicted MQL:	0.006116		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00028	.000	1
S1	.02500	.02412	-.001	-3.52	.00188	.000	1
S3	2.5000	2.4343	-.066	-2.63	.16549	.000	1
S4	5.0000	5.1466	.147	2.93	.34996	.003	1
S5	10.000	9.8632	-.137	-1.37	.66986	.002	1
S2	1.2500	1.3069	.057	4.55	.08910	.001	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



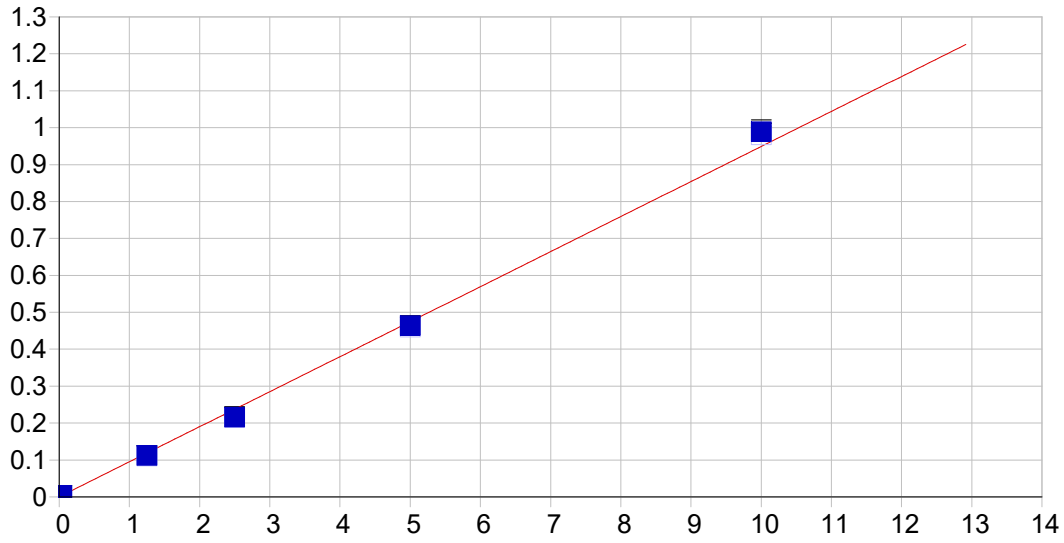
Pb 220.353 {453}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000223	Re-Slope:	1.000000
A1 (Gain):	0.224850	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000103		
Predicted MDL:	0.001391		
Predicted MQL:	0.004635		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00022	.000	1
S1	.01000	.01001	.000	.092	.00201	.000	1
S3	12.500	12.464	-.036	-.286	2.8000	.014	1
S4	25.000	25.374	.374	1.50	5.7004	.009	1
S5	50.000	49.511	-.489	-.978	11.123	.037	1
S2	6.2500	6.4009	.151	2.41	1.4378	.004	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



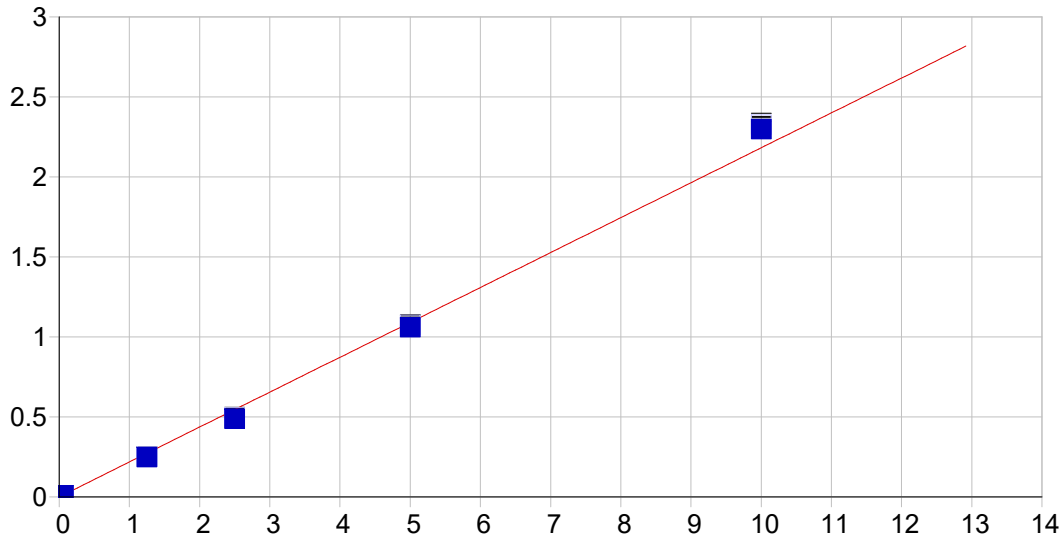
Se 196.090 {472}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000285	Re-Slope:	1.000000
A1 (Gain):	0.094867	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998749	Status:	OK.
Std Error of Est:	0.000148		
Predicted MDL:	0.002389		
Predicted MQL:	0.007965		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00029	.000	1
S1	.03500	.03438	-.001	-1.78	.00354	.000	1
S3	2.5000	2.2727	-.227	-9.09	.21370	.001	1
S4	5.0000	4.8812	-.119	-2.38	.45898	.001	1
S5	10.000	10.424	.424	4.24	.98042	.005	1
S2	1.2500	1.1728	-.077	-6.18	.11045	.000	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

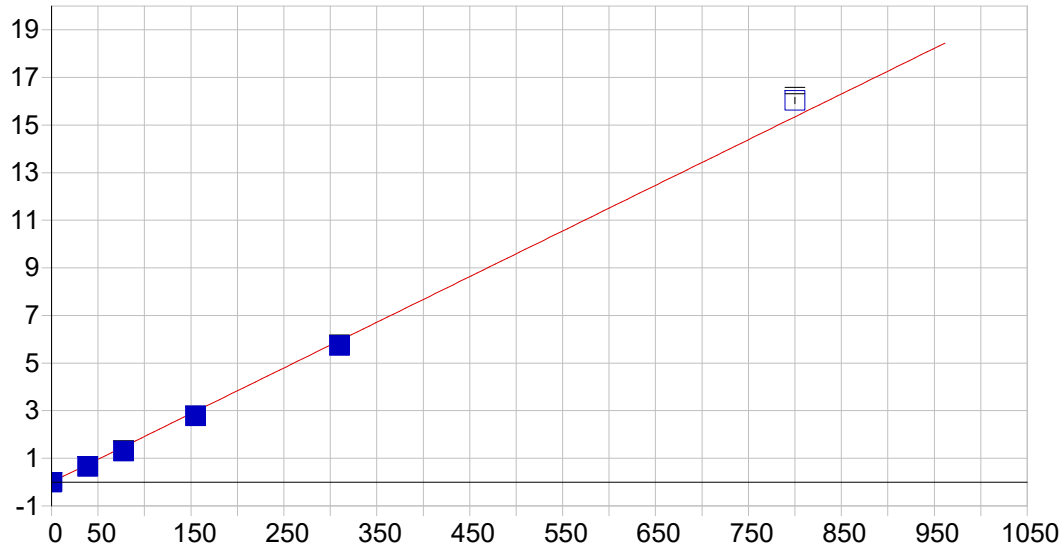


Sb 206.833 {463}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000215	Re-Slope:	1.000000
A1 (Gain):	0.218135	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998156	Status:	OK.
Std Error of Est:	0.000553		
Predicted MDL:	0.001292		
Predicted MQL:	0.004306		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00022	.000	1
S1	.06000	.05343	-.007	-10.9	.01185	.000	1
S3	2.5000	2.2362	-.264	-10.6	.49528	.004	1
S4	5.0000	4.8564	-.144	-2.87	1.0741	.003	1
S5	10.000	10.530	.530	5.30	2.3262	.010	1
S2	1.2500	1.1344	-.116	-9.25	.25129	.001	1



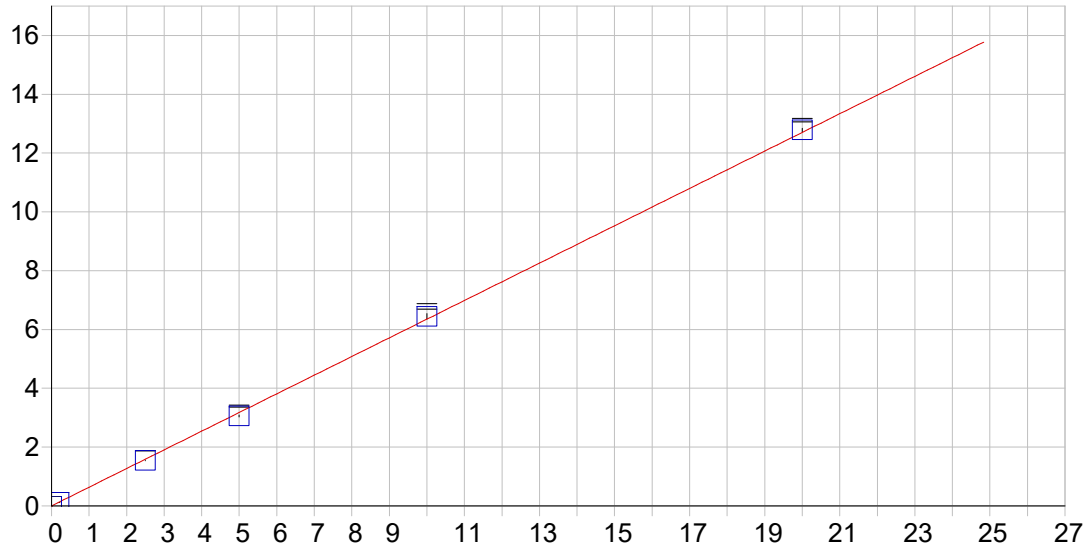
Al 396.152 { 85}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.019183	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998370	Status:	OK.
Std Error of Est:	0.000682		
Predicted MDL:	0.005988		
Predicted MQL:	0.019962		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00009	.000	.000	.00002	.000	1
S1	.20000	.17486	-.025	-12.6	.00338	.000	1
S3	77.500	67.688	-9.81	-12.7	1.3002	.022	1
S4	155.00	145.05	-9.95	-6.42	2.7860	.009	1
S5	310.00	298.78	-11.2	-3.62	5.7385	.020	1
S2	38.750	33.867	-4.88	-12.6	.65055	.002	1
S6	800.00	835.93	35.9	4.49	16.035	.130	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



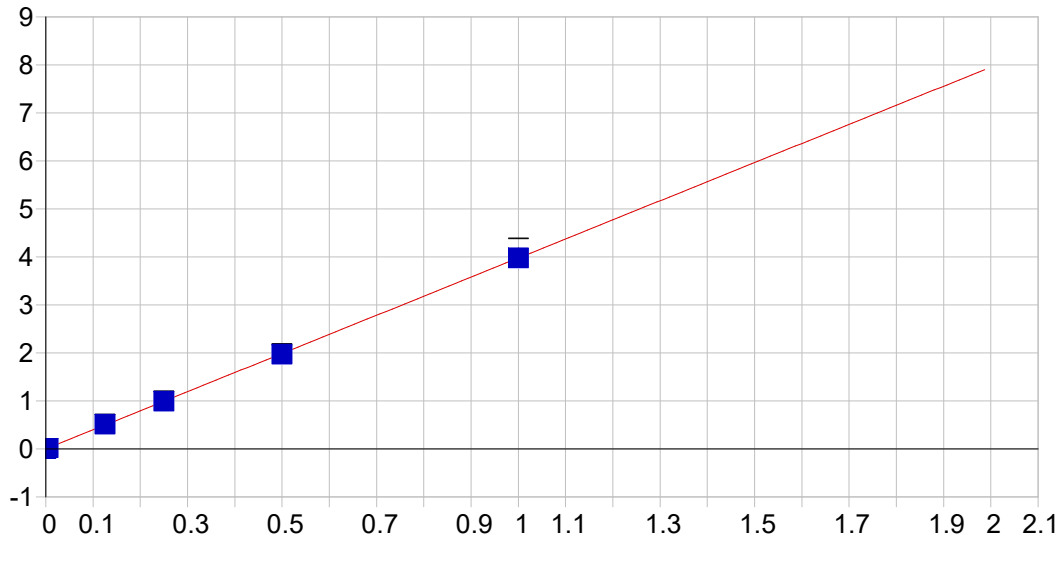
Ba 493.409 { 68}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001234	Re-Slope:	1.000000
A1 (Gain):	0.635100	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999823	Status:	OK.
Std Error of Est:	0.001269		
Predicted MDL:	0.000672		
Predicted MQL:	0.002238		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00125	.000	1
S1	.20000	.18524	-.015	-7.38	.11888	.001	1
S3	5.0000	4.8126	-.187	-3.75	3.0577	.035	1
S4	10.000	10.150	.150	1.50	6.4473	.095	1
S5	20.000	20.126	.126	.632	12.783	.062	1
S2	2.5000	2.4262	-.074	-2.95	1.5421	.007	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



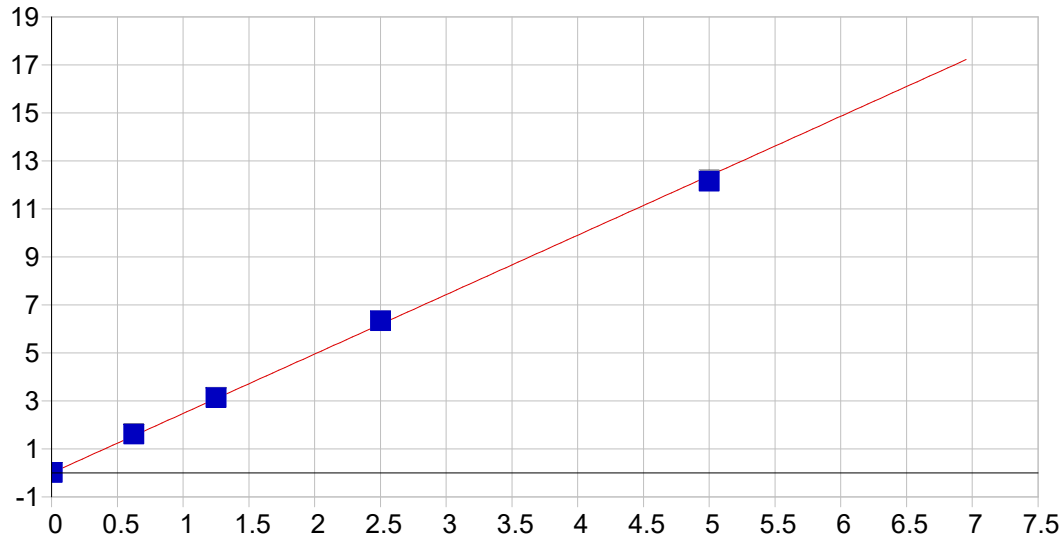
Be 234.861 {144}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000239	Re-Slope:	1.000000
A1 (Gain):	3.977115	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999954	Status:	OK.
Std Error of Est:	0.000143		
Predicted MDL:	0.000067		
Predicted MQL:	0.000222		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00024	.000	1
S1	.00500	.00505	.000	.939	.01981	.000	1
S3	.25000	.24958	-.000	-.167	.98791	.008	1
S4	.50000	.49561	-.004	-.878	1.9619	.013	1
S5	1.0000	1.0007	.001	.069	3.9617	.209	1
S2	.12500	.12907	.004	3.25	.51084	.002	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



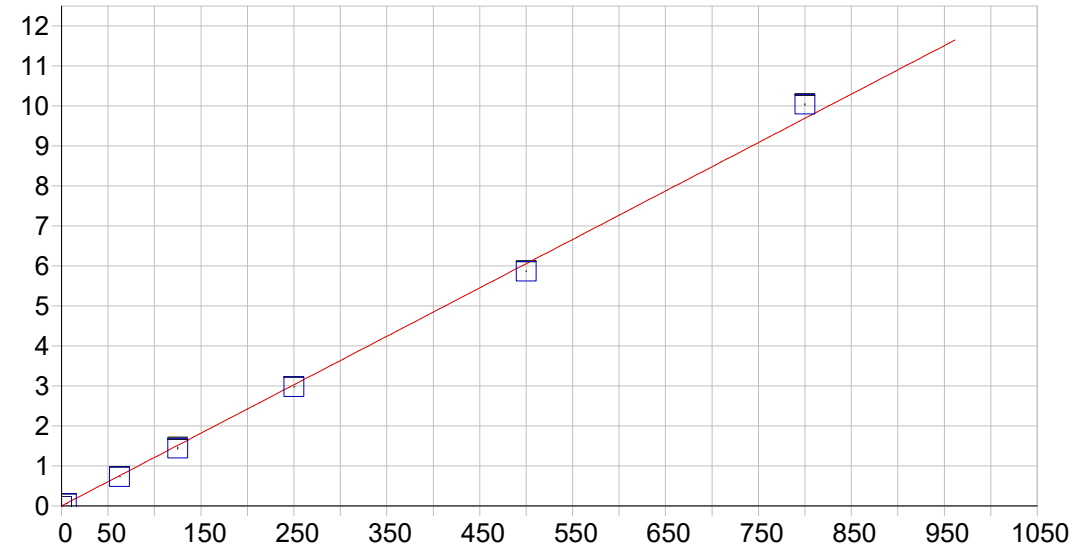
Cd 214.438 {457}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000122	Re-Slope:	1.000000
A1 (Gain):	2.476591	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999775	Status:	OK.
Std Error of Est:	0.000441		
Predicted MDL:	0.000079		
Predicted MQL:	0.000265		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00012	.000	1
S1	.00500	.00517	.000	3.43	.01269	.000	1
S3	1.2500	1.2640	.014	1.12	3.1363	.016	1
S4	2.5000	2.5557	.056	2.23	6.3416	.006	1
S5	5.0000	4.9049	-.095	-1.90	12.172	.034	1
S2	.62500	.65025	.025	4.04	1.6133	.005	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



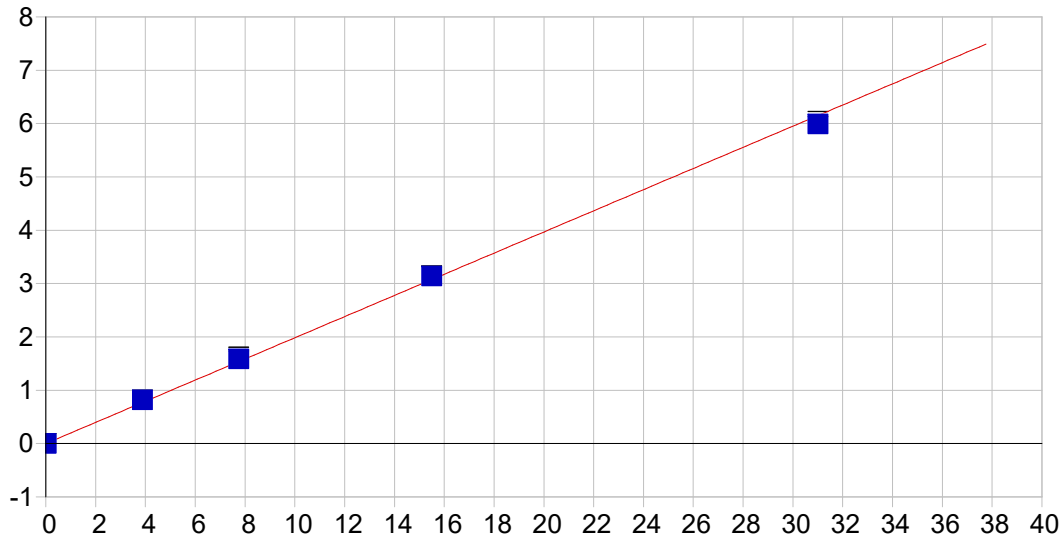
Ca 373.690 { 90}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000174	Re-Slope:	1.000000
A1 (Gain):	0.012116	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999425	Status:	OK.
Std Error of Est:	0.001434		
Predicted MDL:	0.007352		
Predicted MQL:	0.024507		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00082	.001	.000	.00018	.000	1
S2	62.500	60.001	-2.50	-4.00	.72713	.003	1
S3	125.00	119.00	-6.00	-4.80	1.4420	.028	1
S4	250.00	245.80	-4.20	-1.68	2.9782	.002	1
S5	500.00	484.29	-15.7	-3.14	5.8677	.013	1
S1	5.0000	4.6828	-.317	-6.34	.05691	.000	1
S6	800.00	828.73	28.7	3.59	10.041	.022	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



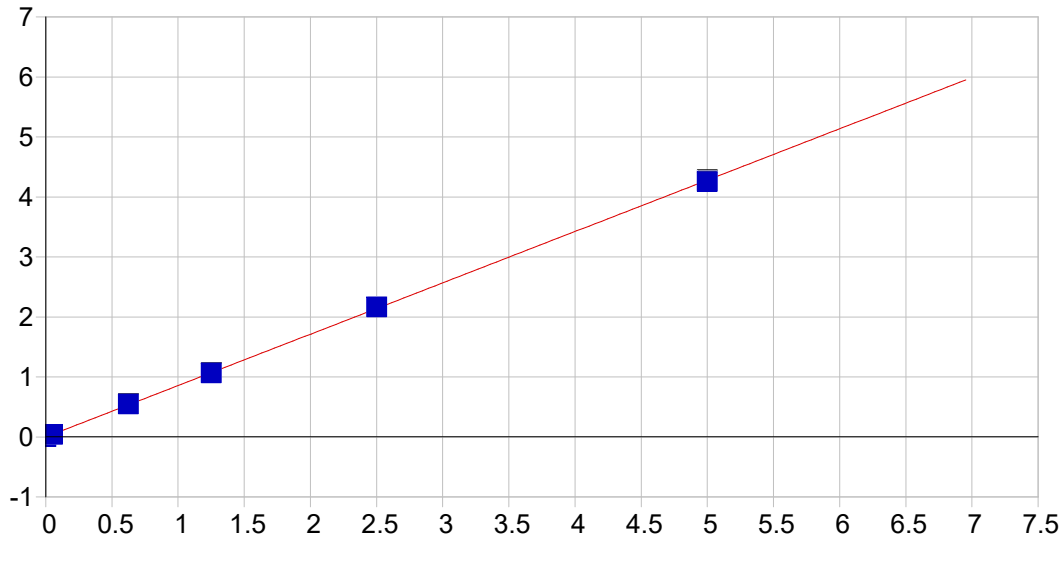
Cr 267.716 {126}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.198392	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999582	Status:	OK.
Std Error of Est:	0.000169		
Predicted MDL:	0.000384		
Predicted MQL:	0.001281		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00000	.000	1
S1	.01000	.01061	.001	6.09	.00210	.000	1
S3	7.7500	7.9896	.240	3.09	1.5855	.036	1
S4	15.500	15.820	.320	2.06	3.1392	.014	1
S5	31.000	30.205	-.795	-2.56	5.9940	.048	1
S2	3.8750	4.1101	.235	6.07	.81560	.003	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



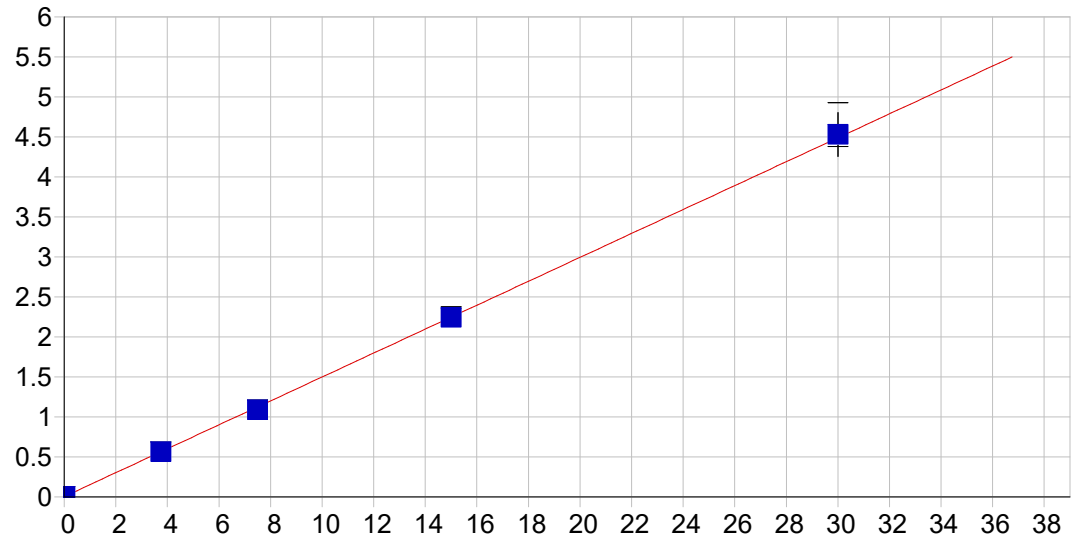
Co 228.616 {448}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000175	Re-Slope:	1.000000
A1 (Gain):	0.855880	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999956	Status:	OK.
Std Error of Est:	0.000215		
Predicted MDL:	0.000253		
Predicted MQL:	0.000843		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00018	.000	1
S1	.05000	.04967	-.000	-.657	.04250	.000	1
S3	1.2500	1.2411	-.009	-.715	1.0661	.005	1
S4	2.5000	2.5269	.027	1.08	2.1707	.003	1
S5	5.0000	4.9688	-.031	-.624	4.2688	.016	1
S2	.62500	.63855	.014	2.17	.54838	.002	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



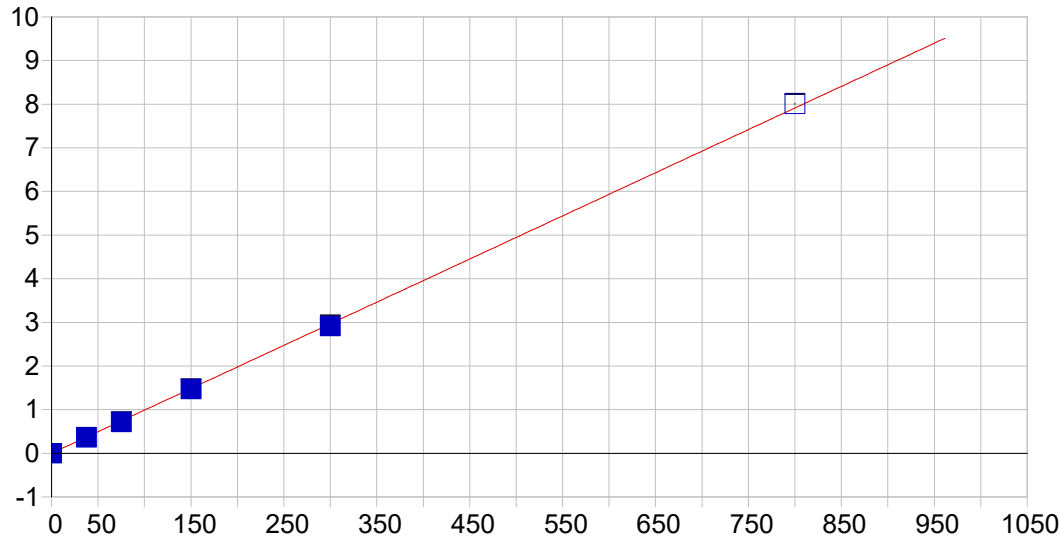
Cu 324.754 {104}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004180	Re-Slope:	1.000000
A1 (Gain):	0.149498	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000094		
Predicted MDL:	0.001856		
Predicted MQL:	0.006187		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00418	.000	1
S1	.02500	.02607	.001	4.30	.00808	.000	1
S3	7.5000	7.2569	-.243	-3.24	1.0890	.003	1
S4	15.000	14.972	-.028	-.186	2.2423	.010	1
S5	30.000	30.275	.275	.916	4.5297	.275	1
S2	3.7500	3.7452	-.005	-.129	.56402	.005	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



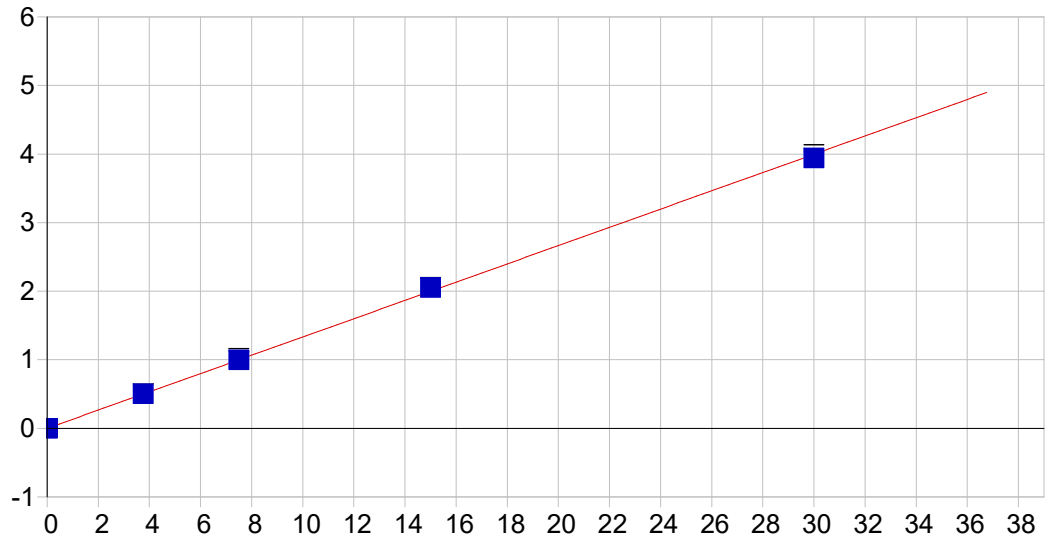
Fe 259.837 {130}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.009891	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999884	Status:	OK.
Std Error of Est:	0.000066		
Predicted MDL:	0.004059		
Predicted MQL:	0.013530		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00002	.000	1
S1	.10000	.10044	.000	.442	.00099	.000	1
S3	75.000	72.422	-2.58	-3.44	.71560	.013	1
S4	150.00	148.80	-1.20	-.800	1.4703	.000	1
S5	300.00	294.60	-5.40	-1.80	2.9109	.025	1
S2	37.500	37.087	-.413	-1.10	.36647	.001	1
S6	800.00	809.58	9.58	1.20	8.0077	.012	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



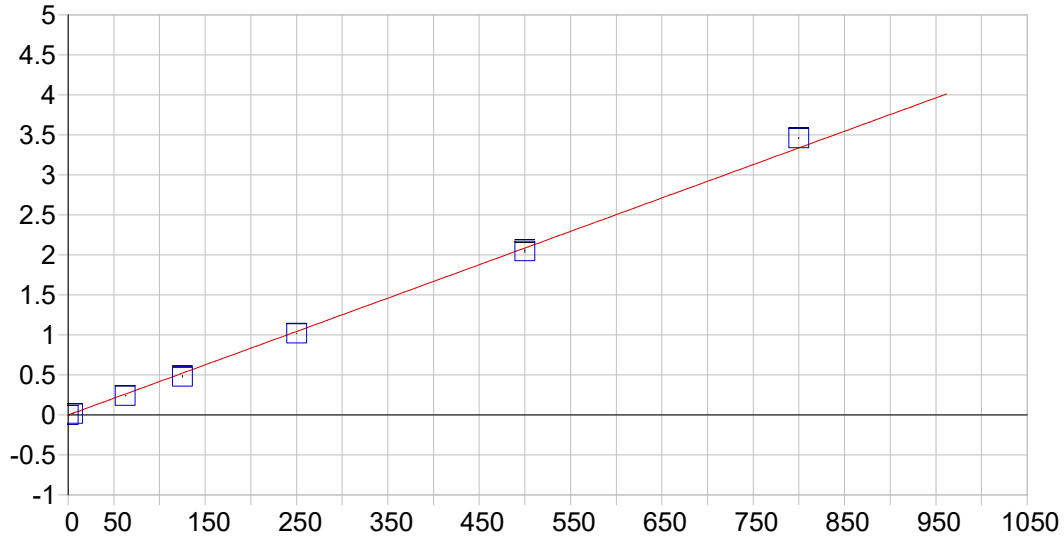
Mn 257.610 {131}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.133234	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999857	Status:	OK.
Std Error of Est:	0.000080		
Predicted MDL:	0.000274		
Predicted MQL:	0.000912		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00000	.000	1
S1	.01500	.01519	.000	1.26	.00202	.000	1
S3	7.5000	7.4989	-.001	-.014	.99842	.019	1
S4	15.000	15.387	.387	2.58	2.0488	.005	1
S5	30.000	29.583	-.417	-1.39	3.9387	.052	1
S2	3.7500	3.7809	.031	.824	.50340	.002	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



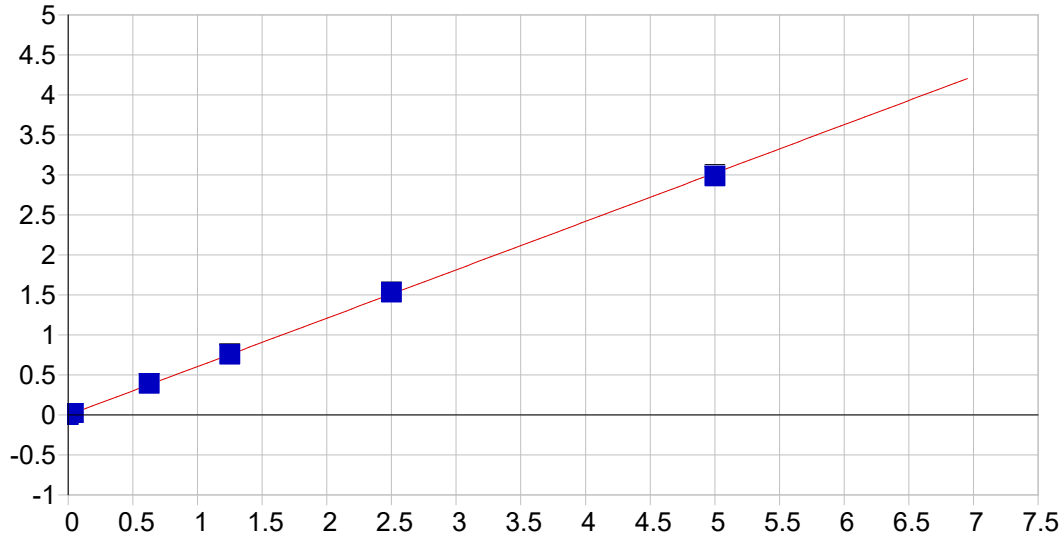
Mg 279.079 {121}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000052	Re-Slope:	1.000000
A1 (Gain):	0.004172	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999251	Status:	OK.
Std Error of Est:	0.000564		
Predicted MDL:	0.011766		
Predicted MQL:	0.039219		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00161	.002	.000	-.00005	.000	1
S2	62.500	57.737	-4.76	-7.62	.24083	.001	1
S3	125.00	115.51	-9.49	-7.59	.48184	.009	1
S4	250.00	244.05	-5.95	-2.38	1.0181	.002	1
S5	500.00	491.36	-8.64	-1.73	2.0499	.017	1
S1	5.0000	4.1731	-.827	-16.5	.01736	.000	1
S6	800.00	829.68	29.7	3.71	3.4614	.007	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



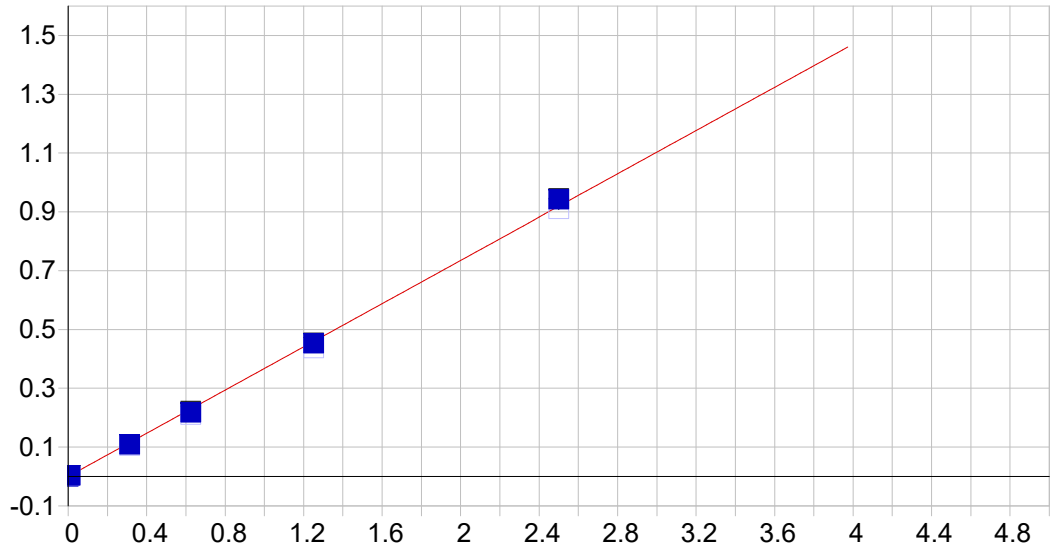
Ni 231.604 {446}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000439	Re-Slope:	1.000000
A1 (Gain):	0.604673	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999889	Status:	OK.
Std Error of Est:	0.000215		
Predicted MDL:	0.000401		
Predicted MQL:	0.001336		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00044	.000	1
S1	.04000	.04123	.001	3.06	.02452	.000	1
S3	1.2500	1.2538	.004	.302	.75946	.005	1
S4	2.5000	2.5330	.033	1.32	1.5348	.003	1
S5	5.0000	4.9387	-.061	-1.23	2.9929	.012	1
S2	.62500	.64824	.023	3.72	.39242	.001	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

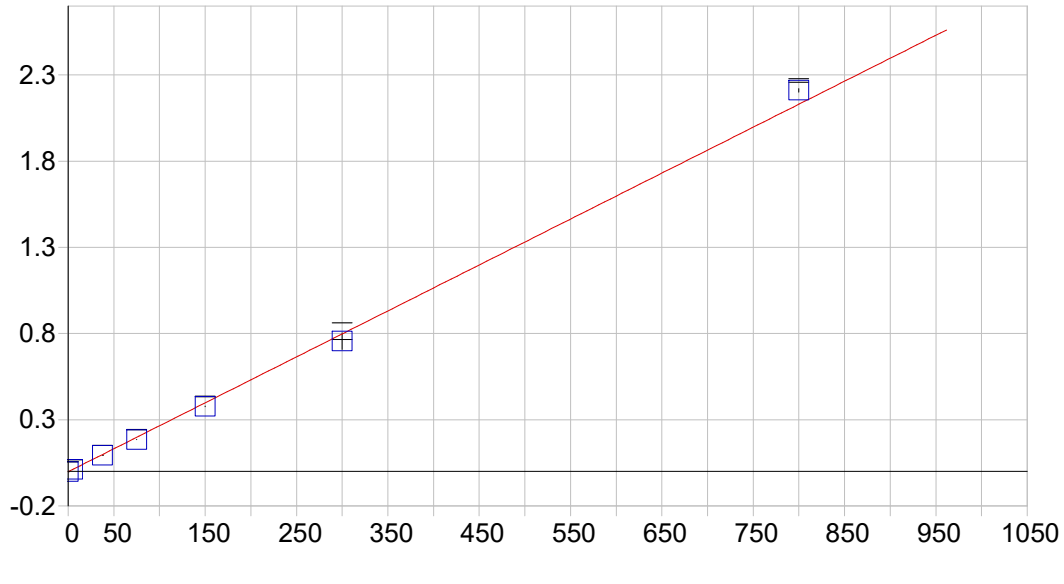


Ag 328.068 {103}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000227	Re-Slope:	1.000000
A1 (Gain):	0.367694	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999528	Status:	OK.
Std Error of Est:	0.000092		
Predicted MDL:	0.000329		
Predicted MQL:	0.001097		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00023	.000	1
S1	.01000	.00943	-.001	-5.74	.00321	.000	1
S3	.62500	.59417	-.031	-4.93	.21015	.004	1
S4	1.2500	1.2332	-.017	-1.35	.43700	.001	1
S5	2.5000	2.5635	.063	2.54	.90995	.002	1
S2	.31250	.29729	-.015	-4.87	.10503	.000	1



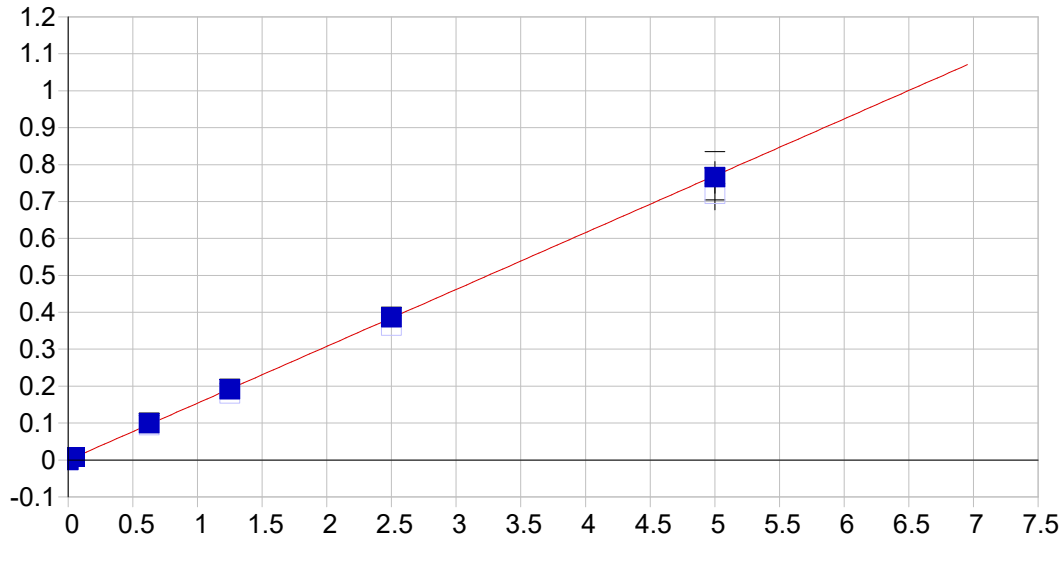
Na 818.326 { 41}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001726	Re-Slope:	1.000000
A1 (Gain):	0.002666	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998990	Status:	OK.
Std Error of Est:	0.000371		
Predicted MDL:	0.298632		
Predicted MQL:	0.995440		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00110	.001	.000	-.00172	.000	1
S2	37.500	35.802	-1.70	-4.53	.09371	.000	1
S3	75.000	70.017	-4.98	-6.64	.18491	.001	1
S4	150.00	142.44	-7.56	-5.04	.37797	.002	1
S5	300.00	284.24	-15.8	-5.25	.75593	.048	1
S1	5.0000	4.7820	-.218	-4.36	.01102	.001	1
S6	800.00	830.22	30.2	3.78	2.2113	.010	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



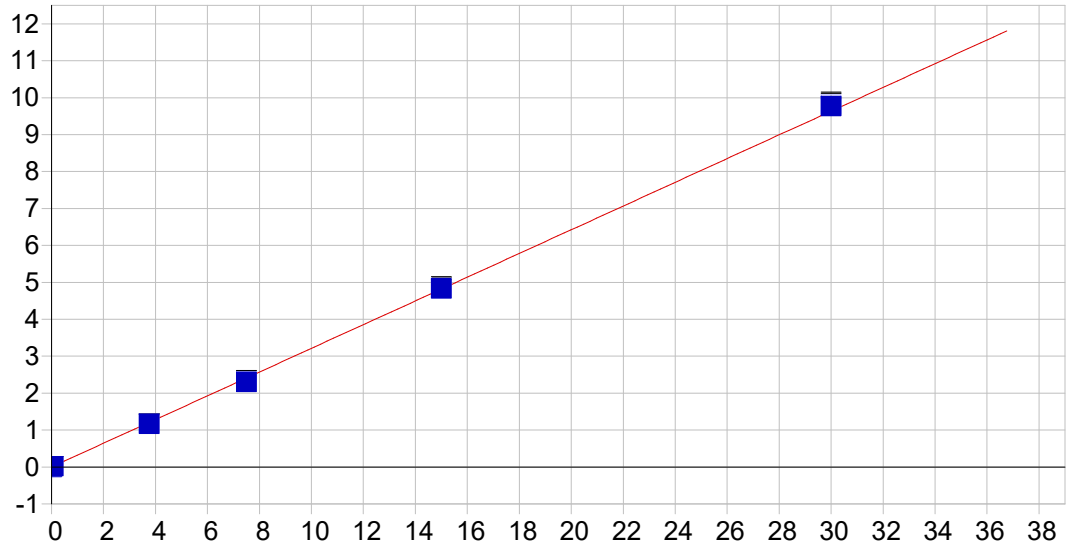
V 292.402 {115}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000086	Re-Slope:	1.000000
A1 (Gain):	0.153967	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.001563		
Predicted MQL:	0.005209		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00009	.000	1
S1	.05000	.05221	.002	4.43	.00794	.000	1
S3	1.2500	1.2446	-.005	-.431	.18029	.001	1
S4	2.5000	2.5091	.009	.364	.36372	.001	1
S5	5.0000	4.9725	-.028	-.550	.72049	.043	1
S2	.62500	.64645	.021	3.43	.09382	.000	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



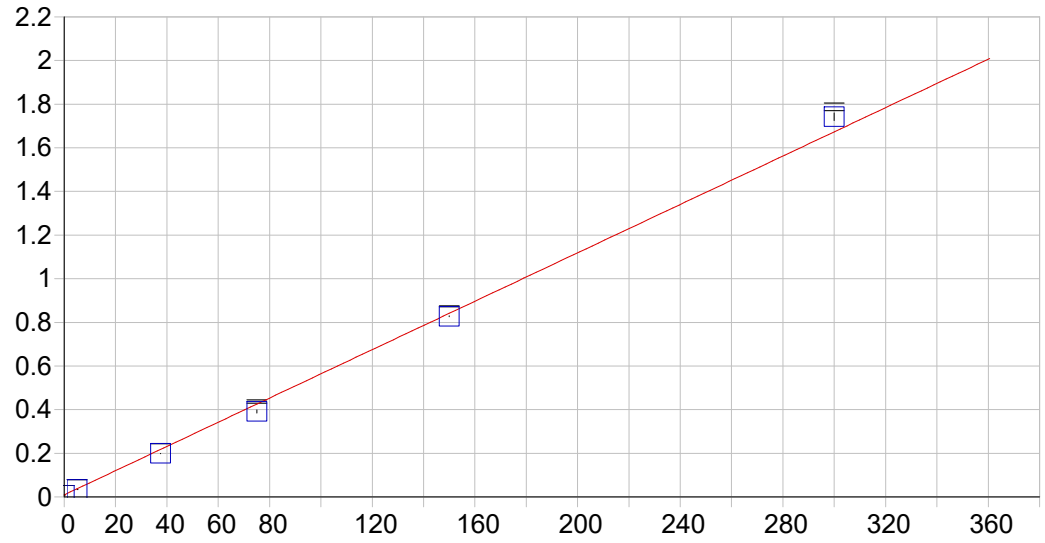
Zn 213.856 {158}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000115	Re-Slope:	1.000000
A1 (Gain):	0.321179	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999761	Status:	OK.
Std Error of Est:	0.000501		
Predicted MDL:	0.001812		
Predicted MQL:	0.006040		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00012	.000	1
S1	.06000	.05816	-.002	-3.07	.01891	.001	1
S3	7.5000	7.1528	-.347	-4.63	2.3065	.042	1
S4	15.000	15.046	.046	.304	4.8506	.030	1
S5	30.000	30.434	.434	1.45	9.8111	.070	1
S2	3.7500	3.6196	-.130	-3.48	1.1672	.011	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4



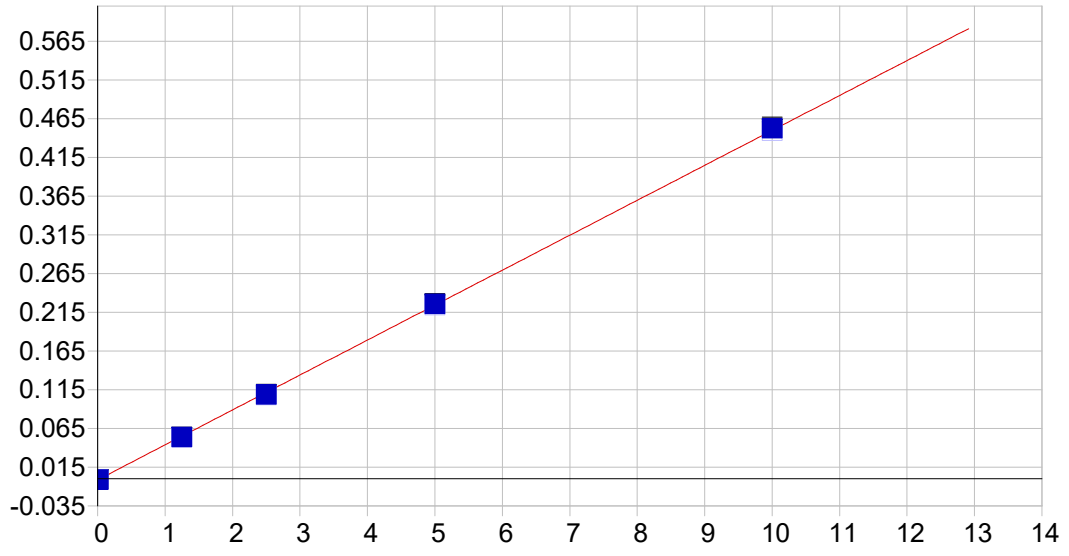
K 769.896 { 44}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.009437	Re-Slope:	1.000000
A1 (Gain):	0.005546	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998740	Status:	OK.
Std Error of Est:	0.000575		
Predicted MDL:	0.037734		
Predicted MQL:	0.125780		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00130	.001	.000	.00944	.000	1
S2	37.500	34.159	-3.34	-8.91	.19888	.001	1
S3	75.000	68.836	-6.16	-8.22	.39120	.007	1
S4	150.00	147.55	-2.45	-1.63	.82776	.002	1
S5	300.00	312.53	12.5	4.18	1.7427	.018	1
S1	5.0000	4.4281	-.572	-11.4	.03400	.000	1

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

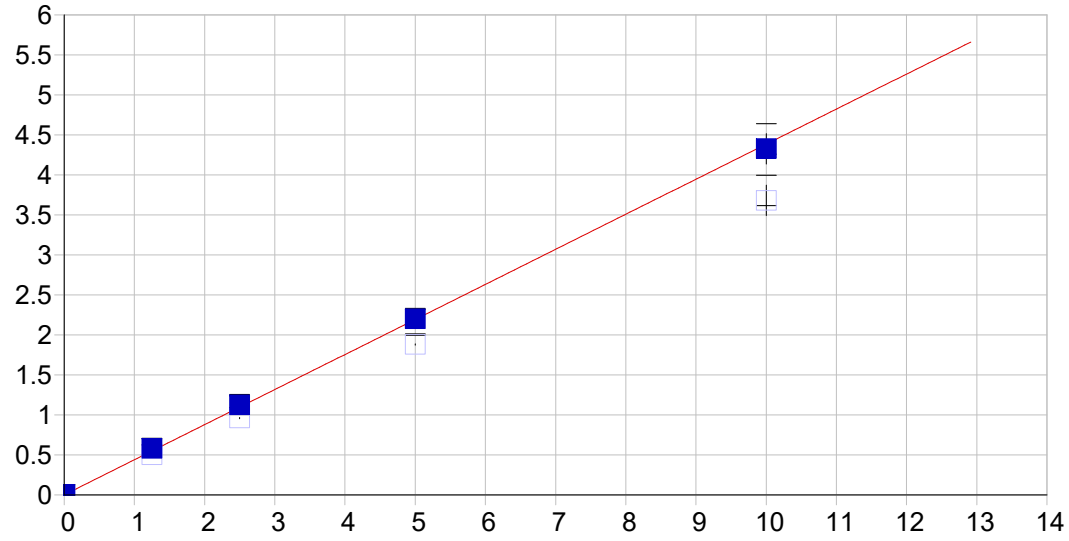


P 177.495 {490}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001326	Re-Slope:	1.000000
A1 (Gain):	0.045109	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999904	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.002283		
Predicted MQL:	0.007611		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00133	.000	1
S1	.01000	.00726	-.003	-27.4	-.00100	.000	1
S3	2.5000	2.4374	-.063	-2.50	.10782	.001	1
S4	5.0000	5.0312	.031	.624	.22402	.000	1
S5	10.000	10.063	.063	.628	.44938	.001	1
S2	1.2500	1.2213	-.029	-2.29	.05336	.000	1

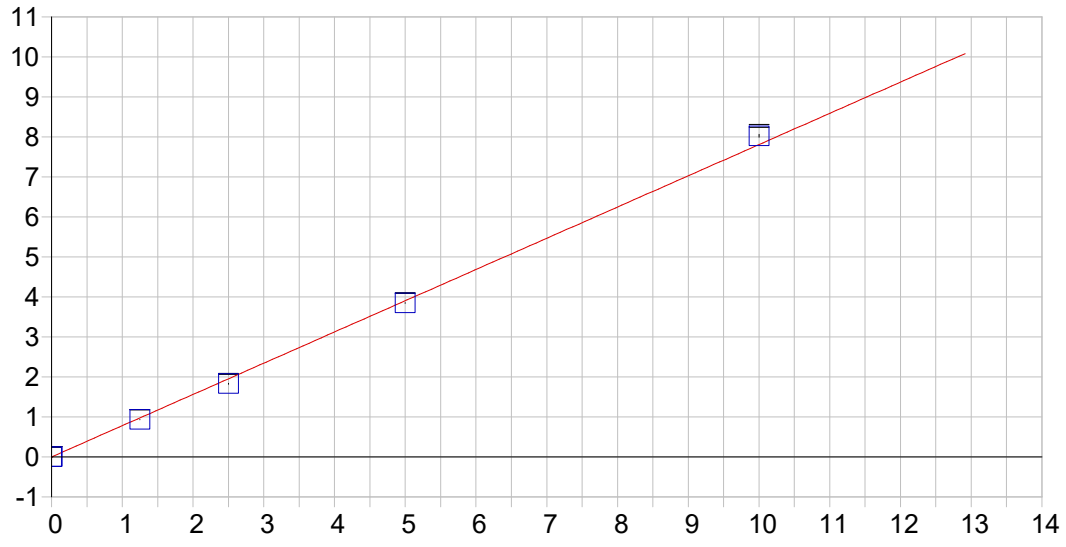


B 249.678 {135}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001948	Re-Slope:	1.000000
A1 (Gain):	0.438236	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999428	Status:	OK.
Std Error of Est:	0.000212		
Predicted MDL:	0.000629		
Predicted MQL:	0.002097		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00195	.000	1
S1	.01000	.00068	-.009	-93.2	.00202	.000	1
S3	2.5000	2.5561	.056	2.25	.96098	.008	1
S4	5.0000	5.0174	.017	.348	1.8784	.008	1
S5	10.000	9.8675	-.133	-1.33	3.6816	.190	1
S2	1.2500	1.3194	.069	5.55	.49956	.003	1

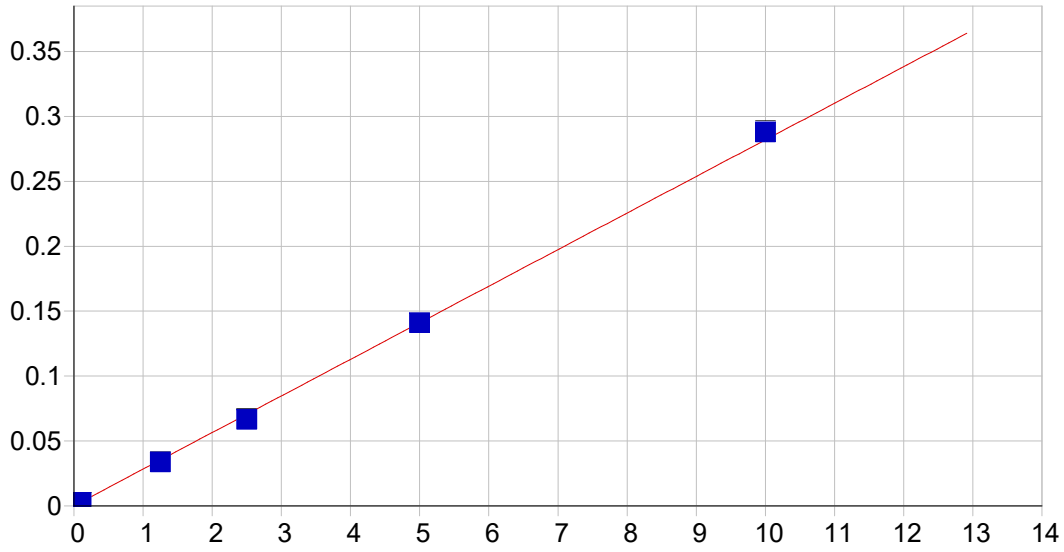


Mo 202.030 {467}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000150	Re-Slope:	1.000000
A1 (Gain):	0.780823	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999440	Status:	OK.
Std Error of Est:	0.000438		
Predicted MDL:	0.000309		
Predicted MQL:	0.001029		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00015	.000	1
S1	.01000	.00984	-.000	-1.60	.00783	.000	1
S3	2.5000	2.3413	-.159	-6.35	1.8283	.011	1
S4	5.0000	4.9309	-.069	-1.38	3.8503	.008	1
S5	10.000	10.280	.280	2.80	8.0270	.035	1
S2	1.2500	1.1980	-.052	-4.16	.93558	.004	1

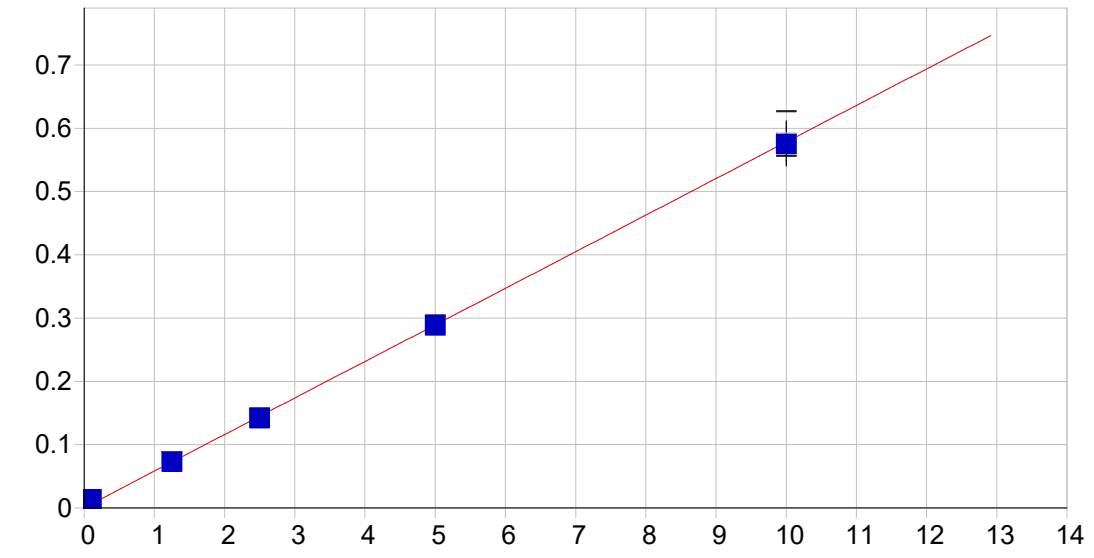


S 182.034 {485}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000171	Re-Slope:	1.000000
A1 (Gain):	0.028177	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999557	Status:	OK.
Std Error of Est:	0.000045		
Predicted MDL:	0.003719		
Predicted MQL:	0.012398		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00017	.000	1
S1	.10000	.08890	-.011	-11.1	.00268	.000	1
S3	2.5000	2.3587	-.141	-5.65	.06672	.000	1
S4	5.0000	4.9990	-.001	-.019	.14121	.000	1
S5	10.000	10.214	.214	2.14	.28833	.000	1
S2	1.2500	1.1893	-.061	-4.85	.03373	.000	1

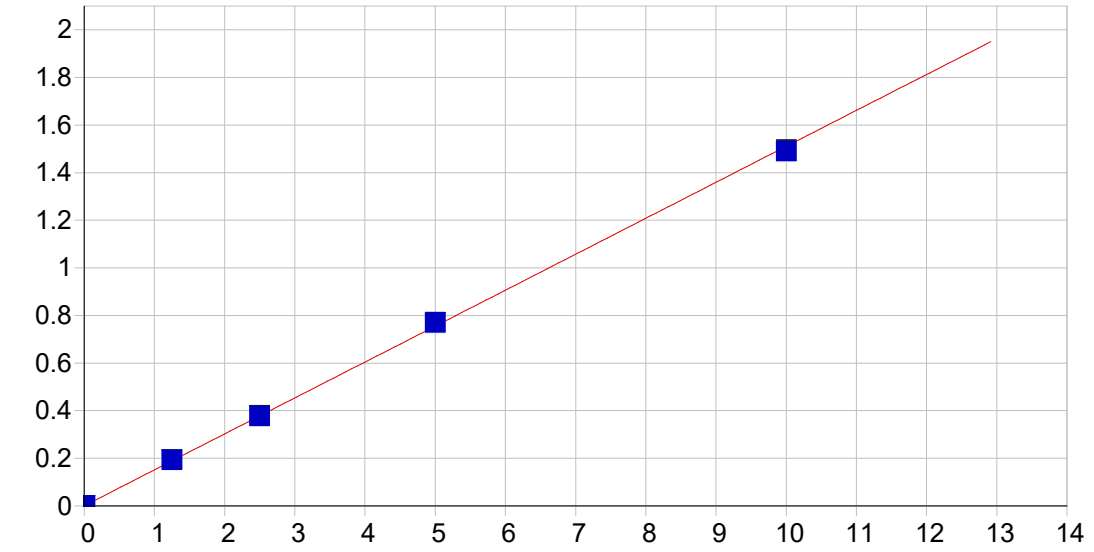


Si 251.611 {134}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000349	Re-Slope:	1.000000
A1 (Gain):	0.057788	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995684	Status:	OK.
Std Error of Est:	0.000287		
Predicted MDL:	0.002640		
Predicted MQL:	0.008800		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00012	-.000	.000	.00034	.000	1
S1	.10000	.22764	.128	128.	.01351	.000	1
S3	2.5000	2.4434	-.057	-2.27	.14198	.001	1
S4	5.0000	4.9798	-.020	-.405	.28899	.001	1
S5	10.000	9.9468	-.053	-.532	.57689	.035	1
S2	1.2500	1.2527	.003	.218	.07296	.000	1

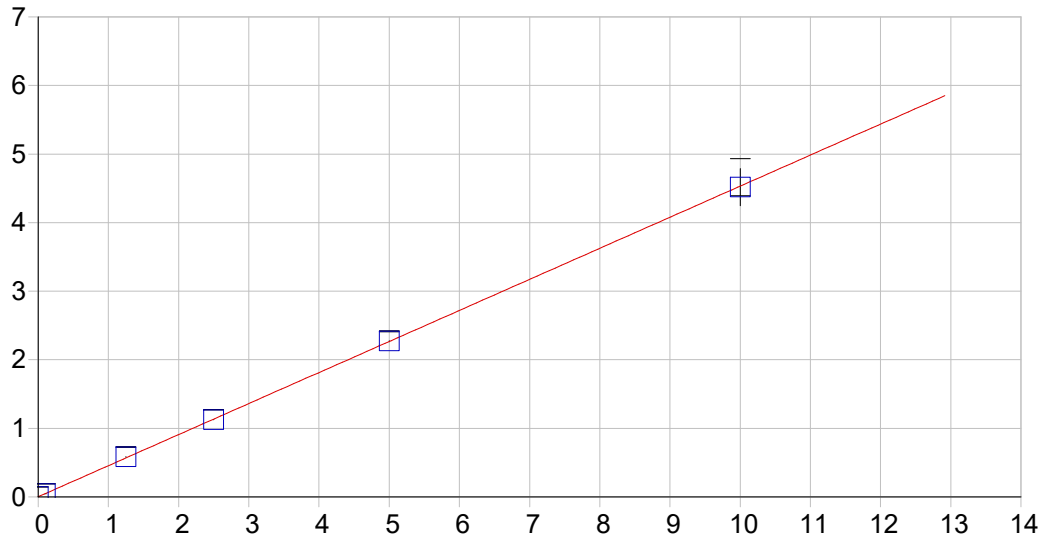


Sn 189.989 {478}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000393	Re-Slope:	1.000000
A1 (Gain):	0.151001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999880	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.000803		
Predicted MQL:	0.002676		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00039	.000	1
S1	.00700	.00571	-.001	-18.4	.00121	.000	1
S3	2.5000	2.4996	-.000	-.017	.37666	.002	1
S4	5.0000	5.1006	.101	2.01	.76825	.001	1
S5	10.000	9.8735	-.126	-1.26	1.4866	.006	1
S2	1.2500	1.2775	.028	2.20	.19272	.000	1

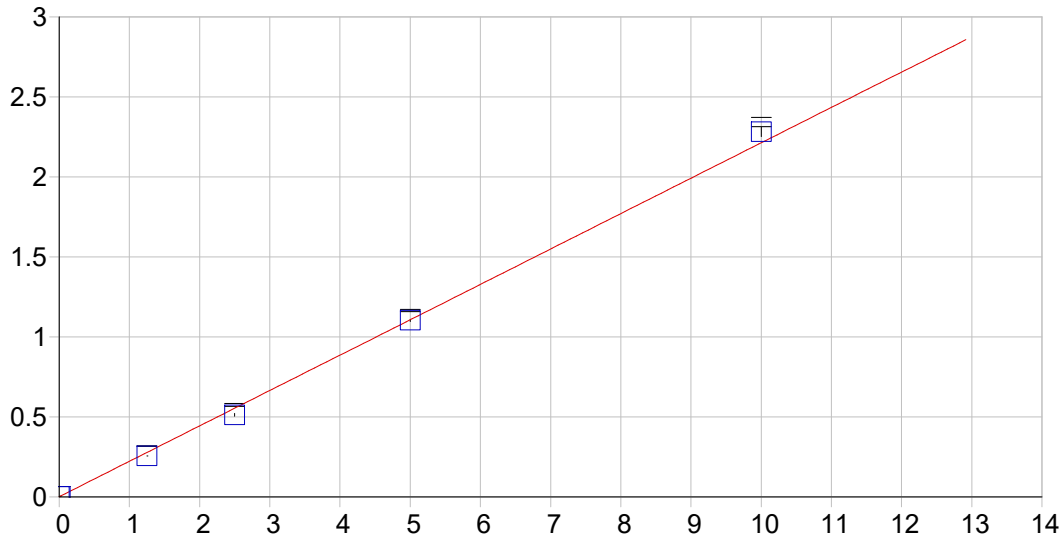


Ti 336.121 {100}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002433	Re-Slope:	1.000000
A1 (Gain):	0.452888	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999967	Status:	OK.
Std Error of Est:	0.000196		
Predicted MDL:	0.000703		
Predicted MQL:	0.002344		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00243	.000	1
S1	.10000	.10128	.001	1.28	.04830	.000	1
S3	2.5000	2.4823	-.018	-.708	1.1266	.004	1
S4	5.0000	5.0102	.010	.203	2.2715	.006	1
S5	10.000	9.9709	-.029	-.291	4.5181	.271	1
S2	1.2500	1.2854	.035	2.83	.58459	.004	1



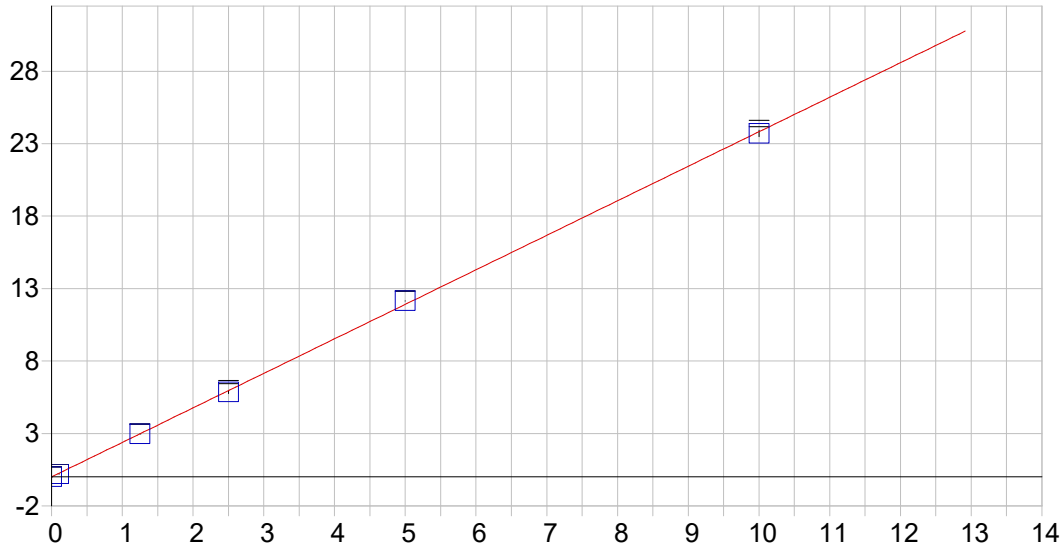
Li 670.784 { 50}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001458	Re-Slope:	1.000000
A1 (Gain):	0.221142	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999140	Status:	OK.
Std Error of Est:	0.000188		
Predicted MDL:	0.000956		
Predicted MQL:	0.003186		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00146	.000	1
S5	10.000	10.309	.309	3.09	2.2811	.030	1
S4	5.0000	4.9829	-.017	-.342	1.1034	.008	1
S3	2.5000	2.3104	-.190	-7.58	.51238	.009	1
S1	.01500	.01231	-.003	-17.9	.00418	.000	1
S2	1.2500	1.1508	-.099	-7.94	.25594	.001	1

Reviewed By:Mohan
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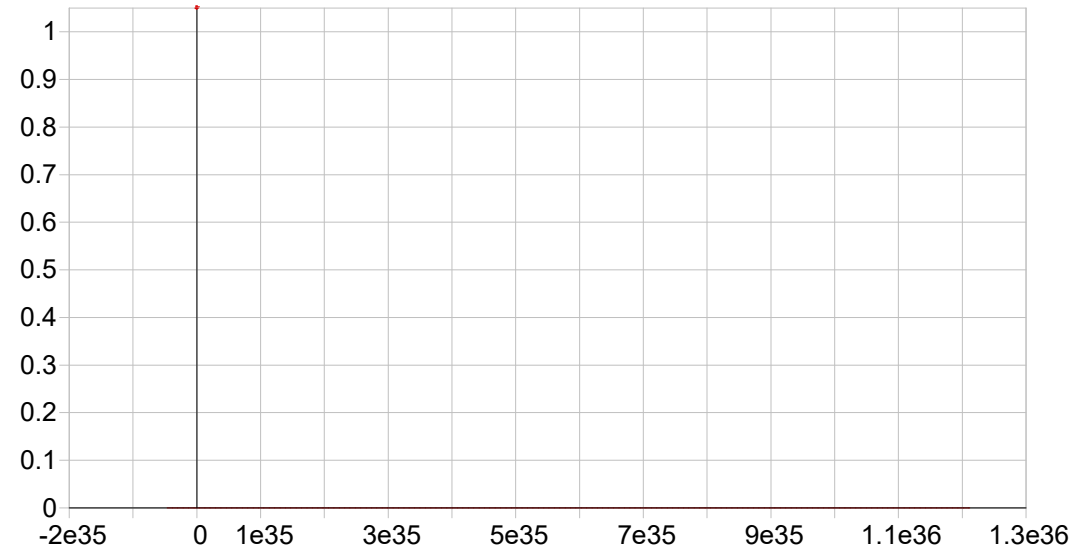


Sr 407.771 { 83}

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000055	Re-Slope:	1.000000
A1 (Gain):	2.382529	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999884	Status:	OK.
Std Error of Est:	0.001930		
Predicted MDL:	0.000048		
Predicted MQL:	0.000159		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00002	.000	1
S1	.10000	.08711	-.013	-12.9	.20750	.000	1
S3	2.5000	2.4649	-.035	-1.41	5.8726	.112	1
S4	5.0000	5.0995	.099	1.99	12.150	.007	1
S5	10.000	9.9515	-.048	-.485	23.710	.231	1
S2	1.2500	1.2470	-.003	-.239	2.9710	.008	1

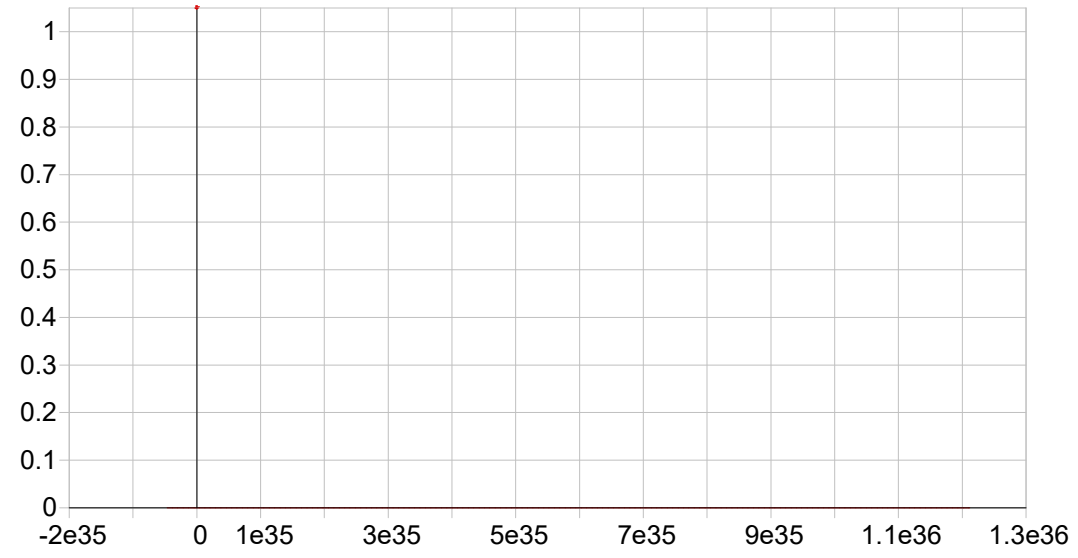


Y 224.306 {450}*

Date of Fit:	1/15/2025 17:33:27	Type of Fit:	Linear	Weighting:	1/Conc

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

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



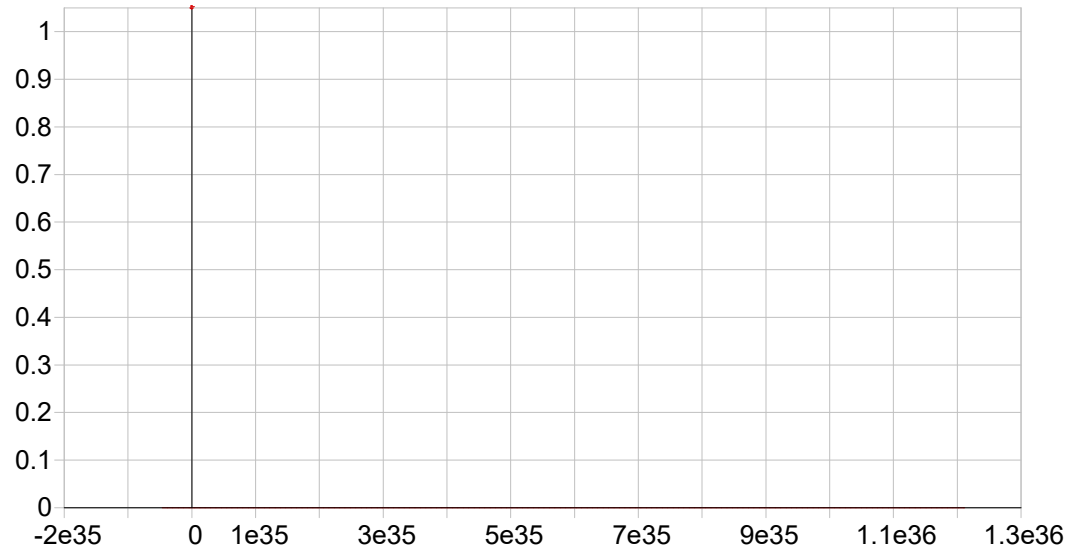
Y 360.073 { 94}*

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

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

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

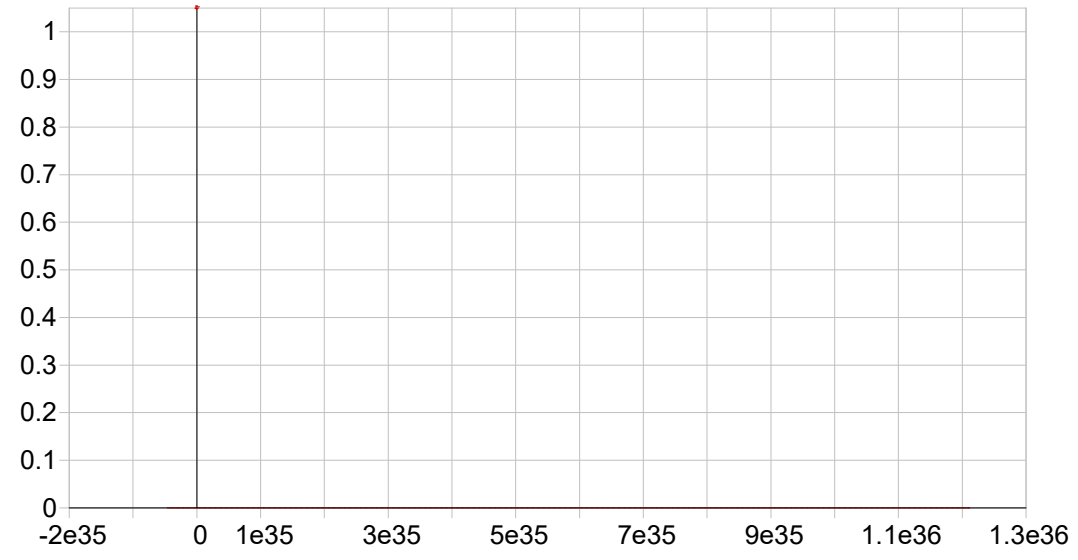
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 371.030 { 91}*

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

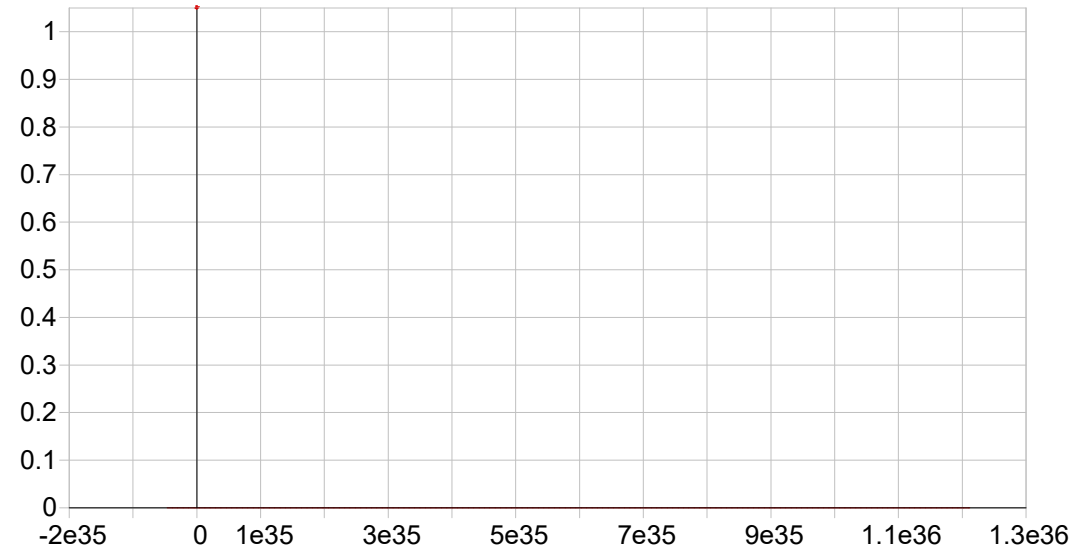
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



Y 224.306 {150}*

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

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



In 230.606 {446}*

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

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

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:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S0 Acquired: 1/15/2025 12:32:41 Type: Cal
Method: EPA SFAM01.0(v46) 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	-.00011	.00028	-.00022	.00029	.00022	.00002	.00125	-.00024
Stddev	.00012	.00002	.00016	.00007	.00002	.00006	.00041	.00023
%RSD	113.47	8.1578	73.304	23.671	10.532	369.10	32.617	94.489
#1	-.00008	.00026	-.00011	.00021	.00020	-.00005	.00085	-.00050
#2	-.00000	.00030	-.00015	.00033	.00024	.00002	.00166	-.00007
#3	-.00025	.00029	-.00041	.00032	.00021	.00008	.00124	-.00015

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	-.00012	.00018	-.00000	-.00018	.00418	.00002	-.00000	-.00005
Stddev	.00003	.00004	.00002	.00014	.00026	.00003	.00002	.00006
%RSD	26.051	23.401	975.01	77.988	6.2355	174.52	937.73	141.92
#1	-.00014	.00023	-.00000	-.00026	.00395	.00003	-.00002	.00002
#2	-.00009	.00018	-.00002	-.00025	.00413	-.00002	.00002	-.00011
#3	-.00014	.00014	.00002	-.00002	.00446	.00003	-.00001	-.00004

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	-.00044	-.00023	-.00172	-.00009	.00012	.00944	-.00133	.00195
Stddev	.00009	.00004	.00043	.00004	.00026	.00007	.00008	.00008
%RSD	20.168	17.605	24.678	45.308	222.72	.77081	5.7244	4.0239
#1	-.00054	-.00024	-.00165	-.00007	.00013	.00945	-.00141	.00186
#2	-.00036	-.00018	-.00218	-.00013	.00037	.00951	-.00128	.00202
#3	-.00042	-.00026	-.00134	-.00005	-.00015	.00937	-.00128	.00197

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00015	.00017	.00034	.00039	.00243	.00146	-.00002
Stddev	.00019	.00008	.00020	.00005	.00025	.00009	.00011
%RSD	123.34	46.081	58.891	12.451	10.443	6.4615	462.58
#1	-.00004	.00010	.00013	.00044	.00244	.00156	-.00014
#2	.00033	.00016	.00053	.00039	.00268	.00143	.00008
#3	.00016	.00026	.00037	.00035	.00217	.00138	-.00002

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S0 Acquired: 1/15/2025 12:32:41 Type: Cal
Method: EPA SFAM01.0(v46) 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	2918.4	61900.	13401.	2009.0	4569.1
Stddev	7.1	305.	97.	17.6	9.1
%RSD	.24281	.49224	.72012	.87671	.19840
#1	2911.3	61690.	13394.	1994.0	4558.7
#2	2925.5	61761.	13309.	2004.6	4573.1
#3	2918.5	62250.	13501.	2028.3	4575.4

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S1 Acquired: 1/15/2025 12:36:53 Type: Cal
Method: EPA SFAM01.0(v46) 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	**.00072**	**.00188**	**.00201**	**.00354**	**.01185**	**.00338**	**.11888**	**.01981**
Stddev	.00007	.00006	.00004	.00015	.00010	.00003	.00066	.00020
%RSD	9.0971	3.2190	2.0639	4.2199	.83262	.84158	.55895	1.0220
#1	.00064	.00188	.00200	.00371	.01173	.00338	.11925	.01994
#2	.00075	.00194	.00206	.00346	.01191	.00335	.11812	.01991
#3	.00077	.00182	.00198	.00344	.01189	.00340	.11929	.01958

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	**.01269**	**.05691**	**.00210**	**.04250**	**.00808**	**.00099**	**.00202**	**.01736**
Stddev	.00027	.00005	.00001	.00030	.00007	.00003	.00003	.00005
%RSD	2.1585	.07996	.46587	.71120	.88941	2.8205	1.4431	.30513
#1	.01285	.05692	.00211	.04277	.00804	.00102	.00205	.01732
#2	.01286	.05686	.00209	.04256	.00804	.00097	.00202	.01742
#3	.01238	.05695	.00210	.04217	.00816	.00098	.00199	.01734

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	**.02452**	**.00321**	**.01102**	**.00794**	**.01891**	**.03400**	**-.00100**	**.00202**
Stddev	.00018	.00008	.00103	.00020	.00057	.00021	.00006	.00022
%RSD	.72019	2.6097	9.3872	2.4721	3.0257	.60352	6.0530	10.920
#1	.02456	.00324	.01092	.00810	.01953	.03389	-.00105	.00209
#2	.02432	.00328	.01210	.00772	.01880	.03423	-.00103	.00177
#3	.02467	.00312	.01004	.00799	.01840	.03386	-.00093	.00220

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00783**	**.00268**	**.01351**	**.00121**	**.04830**	**.00418**	**.20750**
Stddev	.00021	.00004	.00008	.00008	.00021	.00009	.00028
%RSD	2.7007	1.3950	.61153	6.8292	.43203	2.2109	.13477
#1	.00784	.00271	.01359	.00125	.04819	.00421	.20776
#2	.00804	.00268	.01343	.00111	.04817	.00425	.20720
#3	.00762	.00263	.01350	.00126	.04854	.00408	.20753

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S1 Acquired: 1/15/2025 12:36:53 Type: Cal
Method: EPA SFAM01.0(v46) 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	2897.0	60711.	13477.	1964.8	4501.2
Stddev	10.3	103.	49.	4.0	18.0
%RSD	.35702	.17004	.36688	.20607	.39918
#1	2891.0	60624.	13429.	1963.0	4488.4
#2	2891.1	60684.	13473.	1962.0	4493.4
#3	2909.0	60825.	13528.	1969.5	4521.7

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S2 Acquired: 1/15/2025 12:41:03 Type: Cal
Method: EPA SFAM01.0(v46) 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	**.09580**	**.08910**	**1.4378**	**.11045**	**.25129**	**.65055**	**1.5421**	**.51084**
Stddev	.00076	.00062	.0042	.00030	.00125	.00166	.0066	.00220
%RSD	.79231	.69480	.28971	.27066	.49803	.25517	.42464	.43072
#1	.09544	.08911	1.4364	.11062	.25043	.65152	1.5443	.51248
#2	.09529	.08847	1.4346	.11010	.25072	.64863	1.5347	.51169
#3	.09667	.08971	1.4426	.11062	.25273	.65150	1.5473	.50834

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	**1.6133**	**.72713**	**.81560**	**.54838**	**.56402**	**.36647**	**.50340**	**.24083**
Stddev	.0052	.00277	.00348	.00168	.00480	.00071	.00238	.00110
%RSD	.32249	.38036	.42662	.30596	.85163	.19447	.47190	.45581
#1	1.6102	.72855	.81398	.54814	.56945	.36658	.50436	.24110
#2	1.6105	.72395	.81322	.54683	.56230	.36571	.50069	.23962
#3	1.6194	.72890	.81959	.55016	.56031	.36713	.50514	.24176

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	**.39242**	**.10503**	**.09371**	**.09382**	**1.1672**	**.19888**	**.05336**	**.49956**
Stddev	.00126	.00012	.00048	.00046	.0109	.00075	.00022	.00302
%RSD	.32013	.11167	.51195	.49174	.93656	.37725	.41293	.60540
#1	.39207	.10496	.09425	.09434	1.1726	.19912	.05350	.50261
#2	.39137	.10517	.09335	.09346	1.1546	.19804	.05311	.49950
#3	.39381	.10497	.09352	.09366	1.1744	.19948	.05349	.49656

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.93558**	**.03373**	**.07296**	**.19272**	**.58459**	**.25594**	**2.9710**
Stddev	.00395	.00006	.00033	.00044	.00436	.00091	.0078
%RSD	.42265	.16776	.45111	.22946	.74635	.35410	.26424
#1	.93549	.03378	.07315	.19309	.58823	.25613	2.9623
#2	.93167	.03367	.07314	.19223	.58579	.25496	2.9776
#3	.93958	.03373	.07258	.19283	.57975	.25674	2.9731

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S2 Acquired: 1/15/2025 12:41:03 Type: Cal
Method: EPA SFAM01.0(v46) 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	**2731.6**	**57417.**	**13103.**	**1882.4**	**4076.0**
Stddev	10.1	172.	68.	17.6	14.5
%RSD	.37121	.29922	.52231	.93396	.35572
#1	2725.7	57364.	13039.	1873.1	4064.9
#2	2743.3	57609.	13097.	1902.7	4092.4
#3	2725.8	57277.	13175.	1871.5	4070.6

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S3 Acquired: 1/15/2025 12:45:00 Type: Cal
Method: EPA SFAM01.0(v46) 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	.18847	.16549	2.8000	.21370	.49528	1.3002	3.0577	.98791
Stddev	.00150	.00029	.0138	.00139	.00367	.0223	.0346	.00790
%RSD	.79404	.17606	.49130	.64900	.74037	1.7184	1.1323	.79976
#1	.19015	.16550	2.8155	.21514	.49950	1.2927	3.0672	.98337
#2	.18730	.16578	2.7955	.21361	.49336	1.2826	3.0193	.98332
#3	.18795	.16520	2.7891	.21237	.49297	1.3253	3.0866	.99703

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	3.1363	1.4420	1.5855	1.0661	1.0890	.71560	.99842	.48184
Stddev	.0156	.0276	.0355	.0055	.0025	.01321	.01929	.00936
%RSD	.49665	1.9146	2.2395	.51384	.23347	1.8465	1.9323	1.9415
#1	3.1528	1.4335	1.5766	1.0723	1.0882	.71063	.99439	.47758
#2	3.1344	1.4195	1.5552	1.0639	1.0869	.70560	.98147	.47538
#3	3.1218	1.4728	1.6246	1.0620	1.0918	.73058	1.0194	.49257

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	.75946	.21015	.18491	.18029	2.3065	.39120	.10782	.96098
Stddev	.00477	.00428	.00066	.00062	.0420	.00707	.00065	.00840
%RSD	.62801	2.0350	.35496	.34339	1.8204	1.8076	.60626	.87411
#1	.76495	.20835	.18556	.17959	2.3003	.38910	.10856	.95347
#2	.75697	.20706	.18425	.18078	2.2680	.38542	.10734	.95941
#3	.75644	.21503	.18492	.18049	2.3513	.39909	.10755	.97005

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8283	.06672	.14198	.37666	1.1266	.51238	5.8726
Stddev	.0109	.00037	.00086	.00208	.0041	.00923	.1115
%RSD	.59731	.55890	.60573	.55157	.36718	1.8009	1.8987
#1	1.8409	.06712	.14109	.37903	1.1224	.51165	5.8502
#2	1.8220	.06667	.14205	.37582	1.1269	.50355	5.7739
#3	1.8219	.06638	.14280	.37513	1.1306	.52196	5.9935

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S3 Acquired: 1/15/2025 12:45:00 Type: Cal
Method: EPA SFAM01.0(v46) 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	**2635.3**	**55524.**	**12993.**	**1823.9**	**3911.2**
Stddev	17.2	982.	43.	29.1	23.0
%RSD	.65441	1.7695	.33401	1.5944	.58819
#1	2615.4	55796.	13040.	1831.2	3884.7
#2	2645.5	56341.	12985.	1848.5	3924.5
#3	2644.9	54434.	12955.	1791.8	3924.6

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S4 Acquired: 1/15/2025 12:49:03 Type: Cal
Method: EPA SFAM01.0(v46) 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	**.40743**	**.34996**	**5.7004**	**.45898**	**1.0741**	**2.7860**	**6.4473**	**1.9619**
Stddev	.00091	.00317	.0085	.00052	.0027	.0088	.0949	.0126
%RSD	.22416	.90538	.14953	.11355	.25151	.31435	1.4714	.63974
#1	.40705	.35250	5.6984	.45868	1.0726	2.7943	6.5040	1.9502
#2	.40676	.35096	5.6931	.45867	1.0725	2.7868	6.3378	1.9604
#3	.40847	.34641	5.7098	.45958	1.0772	2.7768	6.5000	1.9751

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	**6.3416**	**2.9782**	**3.1392**	**2.1707**	**2.2423**	**1.4703**	**2.0488**	**1.0181**
Stddev	.0062	.0022	.0139	.0034	.0097	.0005	.0047	.0019
%RSD	.09745	.07413	.44273	.15686	.43396	.03171	.22731	.18964
#1	6.3487	2.9766	3.1286	2.1705	2.2526	1.4699	2.0521	1.0159
#2	6.3379	2.9807	3.1342	2.1674	2.2410	1.4702	2.0507	1.0190
#3	6.3381	2.9774	3.1550	2.1742	2.2332	1.4708	2.0434	1.0194

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	**1.5348**	**.43700**	**.37797**	**.36372**	**4.8506**	**.82776**	**.22402**	**1.8784**
Stddev	.0032	.00127	.00183	.00080	.0296	.00181	.00036	.0080
%RSD	.20564	.29150	.48426	.21861	.61100	.21856	.16160	.42549
#1	1.5340	.43593	.37978	.36451	4.8793	.82977	.22443	1.8711
#2	1.5320	.43666	.37800	.36292	4.8523	.82722	.22384	1.8772
#3	1.5382	.43841	.37612	.36373	4.8201	.82628	.22378	1.8869

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.8503**	**.14121**	**.28899**	**.76825**	**2.2715**	**1.1034**	**12.150**
Stddev	.0080	.00008	.00051	.00092	.0059	.0076	.007
%RSD	.20909	.05641	.17489	.12016	.26119	.68762	.05695
#1	3.8481	.14119	.28957	.76774	2.2777	1.1113	12.142
#2	3.8436	.14114	.28872	.76769	2.2708	1.1027	12.156
#3	3.8593	.14130	.28867	.76932	2.2659	1.0962	12.150

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S4 Acquired: 1/15/2025 12:49:03 Type: Cal
Method: EPA SFAM01.0(v46) 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	2387.5	52921.	12741.	1689.5	3593.8
Stddev	8.3	103.	37.	3.4	10.3
%RSD	.34649	.19400	.28673	.19880	.28644
#1	2388.0	52967.	12766.	1685.7	3592.4
#2	2395.5	52992.	12757.	1691.9	3604.7
#3	2378.9	52803.	12699.	1691.0	3584.2

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S5 Acquired: 1/15/2025 12:53:03 Type: Cal
Method: EPA SFAM01.0(v46) 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	.87947	.66986	11.123	.98042	2.3262	5.7385	12.783	3.9617
Stddev	.00319	.00210	.037	.00457	.0103	.0198	.062	.2093
%RSD	.36268	.31350	.32918	.46652	.44460	.34485	.48852	5.2823
#1	.87596	.66763	11.095	.97593	2.3159	5.7158	12.800	3.8213
#2	.88024	.67180	11.109	.98026	2.3260	5.7522	12.836	4.2023
#3	.88220	.67015	11.164	.98507	2.3366	5.7474	12.715	3.8616

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	12.172	5.8677	5.9940	4.2688	4.5297	2.9109	3.9387	2.0499
Stddev	.034	.0134	.0483	.0158	.2754	.0247	.0520	.0169
%RSD	.27810	.22847	.80624	.36928	6.0799	.84980	1.3192	.82539
#1	12.144	5.8522	5.9669	4.2566	4.3673	2.9017	3.9658	2.0403
#2	12.162	5.8751	6.0498	4.2631	4.8477	2.9389	3.9714	2.0694
#3	12.209	5.8758	5.9653	4.2866	4.3742	2.8921	3.8787	2.0400

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	2.9929	.90995	.75593	.72049	9.8111	1.7427	.44938	3.6816
Stddev	.0116	.00208	.04771	.04280	.0703	.0180	.00146	.1897
%RSD	.38898	.22884	6.3118	5.9402	.71684	1.0322	.32410	5.1533
#1	2.9854	.90766	.72715	.69168	9.7351	1.7458	.44887	3.5454
#2	2.9871	.91172	.81100	.76967	9.8738	1.7589	.44824	3.8983
#3	3.0064	.91049	.72963	.70013	9.8246	1.7234	.45102	3.6011

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.0270	.28833	.57689	1.4866	4.5181	2.2811	23.710
Stddev	.0349	.00047	.03524	.0055	.2712	.0298	.231
%RSD	.43460	.16383	6.1089	.37231	6.0015	1.3046	.97566
#1	7.9905	.28810	.55350	1.4820	4.3506	2.2830	23.828
#2	8.0305	.28803	.61742	1.4851	4.8310	2.3099	23.858
#3	8.0600	.28888	.55975	1.4928	4.3728	2.2505	23.443

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S5 Acquired: 1/15/2025 12:53:03 Type: Cal
Method: EPA SFAM01.0(v46) 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	2061.8	49442.	11985.	1528.2	3245.4
Stddev	8.7	76.	604.	9.1	11.4
%RSD	.42232	.15275	5.0404	.59533	.35069
#1	2069.8	49500.	12412.	1534.0	3253.9
#2	2063.0	49357.	11294.	1532.9	3249.8
#3	2052.5	49470.	12248.	1517.7	3232.5

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: S6 Acquired: 1/15/2025 12:57:37 Type: Cal
Method: EPA SFAM01.0(v46) 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	**16.035**	**10.041**	**8.0077**	**3.4614**	**2.2113**
Stddev	.130	.022	.0121	.0073	.0098
%RSD	.80882	.21984	.15131	.20931	.44224
#1	16.181	10.022	7.9989	3.4570	2.2214
#2	15.932	10.036	8.0028	3.4573	2.2019
#3	15.993	10.065	8.0215	3.4697	2.2104

Int. Std.	Y_3600	Y_3710
Units	Cts/S	Cts/S
Avg	**46204.**	**11931.**
Stddev	129.	40.
%RSD	.27986	.33383
#1	46238.	11904.
#2	46313.	11977.
#3	46061.	11914.

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICV004 Acquired: 1/15/2025 13:43:21 Type: Unk
Method: EPA SFAM01.0(v46) 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	**1.028976**	**1.012882**	**1.018710**	**.9087440**	**.9802999**	**2.311227**
Stddev	.003357	.009599	.000457	.0053850	.0024009	.057609
%RSD	.3262400	.9476534	.0448907	.5925744	.2449127	2.492583
#1	1.031622	1.007585	1.019036	.9131952	.9800351	2.352339
#2	1.030108	1.007099	1.018187	.9027583	.9780424	2.335961
#3	1.025200	1.023962	1.018906	.9102786	.9828222	2.245381

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4681973**	**.5065430**	**.5086484**	**9.146480**	**.5482567**	**.5049961**
Stddev	.0091817	.0017270	.0009564	.178485	.0116378	.0006865
%RSD	1.961067	.3409456	.1880194	1.951409	2.122685	.1359511
#1	.4759334	.5068115	.5083348	9.297147	.5567529	.5055995
#2	.4706077	.5081200	.5078882	9.192931	.5530253	.5042491
#3	.4580510	.5046974	.5097222	8.949361	.5349921	.5051395

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5132473**	**9.507098**	**.4914212**	**5.655673**	**.5140103**	**.2257089**
Stddev	.0012606	.181825	.0074010	.131101	.0002629	.0054441
%RSD	.2456138	1.912521	1.506049	2.318045	.0511423	2.411994
#1	.5141832	9.657633	.4970586	5.763563	.5141098	.2292919
#2	.5137448	9.558576	.4941649	5.693692	.5137122	.2283907
#3	.5118138	9.305083	.4830401	5.509764	.5142089	.2194442

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.251111**	**.5102063**	**.9660261**	**9.087249**	F **.0009977**	F **.0379915**
Stddev	.204350	.0007591	.0215597	.218105	.0012344	.0008919
%RSD	2.208922	.1487862	2.231798	2.400125	123.7272	2.347651
#1	9.221675	.5110675	.9747990	9.269155	.0022079	.0383074
#2	9.468583	.5096344	.9818163	9.147135	.0010448	.0386825
#3	9.063076	.5099170	.9414629	8.845456	-.000260	.0369847

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICV004 Acquired: 1/15/2025 13:43:21 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000092	F .0042765	F .0010015	F -.000759	F -.001191	F -.001517
Stddev	.000145	.0025611	.0014726	.000259	.000575	.000468
%RSD	157.2008	59.88780	147.0383	34.18520	48.27790	30.83145
#1	-.000041	.0021132	.0023508	-.000470	-.000713	-.001233
#2	.000020	.0036119	.0012229	-.000973	-.001829	-.002057
#3	-.000256	.0071044	-.000569	-.000834	-.001031	-.001262

Elem	Sr4077
Units	ppm
Avg	F .0010773
Stddev	.0000374
%RSD	3.470053
#1	.0011036
#2	.0010938
#3	.0010345

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2949.008	62105.51	13478.77	2038.033	4543.462
Stddev	4.564	1349.53	26.23	49.782	7.786
%RSD	.1547604	2.172963	.1946232	2.442659	.1713665
#1	2949.357	60988.51	13448.89	2004.416	4544.005
#2	2953.387	61723.02	13489.35	2014.459	4550.962
#3	2944.279	63605.00	13498.05	2095.223	4535.418

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICB004 Acquired: 1/15/2025 13:47:17 Type: Unk
Method: EPA SFAM01.0(v46) 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	**-.000333**	**-.000210**	**.0004421**	**.0028928**	**.0001113**	**.0001838**	**.0000237**
Stddev	.001050	.001780	.0008051	.0006864	.0007264	.0040957	.0004133
%RSD	315.1348	848.5079	182.0982	23.72916	652.6301	2228.677	1744.100
#1	-.000044	-.002263	.0013499	.0025476	-.000339	-.002909	.0001160
#2	.000542	.000734	-.000186	.0036833	-.000276	.004829	.0003830
#3	-.001497	.000900	.000162	.0024475	.000949	-.001369	-.000428

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000077**	**.0000435**	**.0028205**	**-.000051**	**-.000001**	**-.001865**	**-.002038**
Stddev	.000044	.0000298	.0043320	.000172	.000221	.001340	.002099
%RSD	57.60734	68.43822	153.5893	340.2814	24698.49	71.86382	103.0187
#1	-.000074	.0000578	.0067357	.000124	-.000040	-.001858	-.004017
#2	-.000034	.0000634	-.001833	-.000056	.000237	-.000528	-.002260
#3	-.000123	.0000093	.003559	-.000221	-.000199	-.003208	.000164

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000049**	**.0085660**	**.0002052**	**-.000262**	**-.046735**	**-.000107**	**.0006573**
Stddev	.000184	.0054415	.0001414	.000151	.141133	.000944	.0004885
%RSD	372.8592	63.52461	68.92571	57.52022	301.9842	881.3501	74.31710
#1	-.000058	.0023053	.0002542	-.000157	.009658	-.000596	.0007584
#2	-.000228	.0112351	.0003157	-.000435	.057481	.000981	.0001262
#3	.000139	.0121576	.0000458	-.000194	-.207345	-.000706	.0010875

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.029182**	**-.000541**	**.0001575**	**.0002074**	**-.002010**	**-.000456**	**-.000199**
Stddev	.026372	.002663	.0001994	.0001801	.000898	.000582	.000511
%RSD	90.37120	492.2741	126.6054	86.84557	44.66647	127.5913	257.0491
#1	-.035866	.002024	-.000021	.0002865	-.003004	-.000390	.000359
#2	-.000111	-.003292	.000121	.0000013	-.001771	-.001069	-.000309
#3	-.051568	-.000355	.000373	.0003344	-.001256	.000090	-.000646

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICB004 Acquired: 1/15/2025 13:47:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB004 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000703	-.002226	.0000483
Stddev	.000495	.000625	.0000593
%RSD	70.31787	28.09112	122.6537
#1	-.000133	-.001545	.0001078
#2	-.001012	-.002773	-.000011
#3	-.000965	-.002362	.000048

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2990.246	62462.79	13188.23	2083.046	4678.256
Stddev	32.643	442.68	50.76	12.403	58.754
%RSD	1.091640	.7087152	.3849164	.5954347	1.255893
#1	3002.839	62261.66	13130.41	2079.616	4701.767
#2	3014.716	62156.38	13225.47	2072.718	4721.614
#3	2953.182	62970.33	13208.81	2096.803	4611.387

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICSA004 Acquired: 1/15/2025 13:51:27 Type: Unk
Method: EPA SFAM01.0(v46) 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	**.0006703**	**.0073072**	**.0034281**	**.0306263**	**.0085616**	**216.4384**
Stddev	.0014426	.0031266	.0006009	.0015390	.0015552	1.6644
%RSD	215.2277	42.78780	17.52782	5.024964	18.16453	.7690162
#1	.0020678	.0052742	.0027662	.0288979	.0089353	218.1084
#2	-.000813	.0057400	.0039392	.0318479	.0068536	216.4273
#3	.000756	.0109074	.0035789	.0311332	.0098959	214.7796

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068357**	**-.000650**	**.0014800**	**233.0203**	**.0601953**	**.0010152**
Stddev	.0005218	.000040	.0000989	1.0516	.0006952	.0001956
%RSD	7.633520	6.108287	6.678945	.4512867	1.154834	19.26210
#1	.0069476	-.000690	.0015799	234.1067	.0609973	.0011345
#2	.0072925	-.000649	.0013822	232.9469	.0598227	.0007895
#3	.0062671	-.000611	.0014781	232.0074	.0597659	.0011217

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.011837**	**95.86960**	**.0112813**	**229.9232**	**.0041456**	**.0006224**
Stddev	.002148	.48934	.0001782	1.0856	.0002228	.0002523
%RSD	18.14537	.5104221	1.579515	.4721377	5.373951	40.53444
#1	-.014078	96.43464	.0114542	231.1372	.0041335	.0003993
#2	-.009796	95.58920	.0110982	229.5863	.0043742	.0005717
#3	-.011636	95.58496	.0112914	229.0460	.0039291	.0008961

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.530523**	**-.004516**	**-.007637**	**.0945297**	**.0037979**	F **.3829507**
Stddev	.153583	.001114	.000898	.0252873	.0022399	.0025359
%RSD	28.94928	24.65600	11.75869	26.75067	58.97862	.6622062
#1	-.388651	-.004598	-.008547	.0755823	.0060012	.3856090
#2	-.693610	-.005587	-.006752	.0847629	.0015230	.3805581
#3	-.509309	-.003364	-.007611	.1232439	.0038695	.3826848

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICSA004 Acquired: 1/15/2025 13:51:27 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000645**	**.0233727**	**.0018772**	**-.002479**	**-.003431**	**.0032981**
Stddev	.000729	.0001067	.0006572	.001574	.000516	.0003400
%RSD	113.0188	.4562823	35.00917	63.48456	15.04657	10.30822
#1	-.001338	.0234910	.0025489	-.002197	-.002975	.0030565
#2	.000116	.0233432	.0018471	-.001065	-.003325	.0031511
#3	-.000714	.0232840	.0012355	-.004175	-.003991	.0036869

Elem	Sr4077
Units	ppm
Avg	**.0905413**
Stddev	.0003836
%RSD	.4236756
#1	.0909823
#2	.0903566
#3	.0902850

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2579.151**	**55092.53**	**12702.59**	**1789.970**	**3755.744**
Stddev	15.100	322.40	72.13	5.528	21.453
%RSD	.5854775	.5851996	.5678305	.3088214	.5712133
#1	2589.483	54750.75	12642.06	1784.143	3765.908
#2	2586.149	55135.64	12782.40	1790.627	3770.227
#3	2561.821	55391.21	12683.30	1795.140	3731.098

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICSAB004 Acquired: 1/15/2025 13:55:42 Type: Unk
Method: EPA SFAM01.0(v46) 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	**.0913701**	**.0990092**	**.0540734**	**.0751850**	**.5410469**	**222.8910**
Stddev	.0012902	.0023674	.0013071	.0003002	.0020965	2.8896
%RSD	1.412037	2.391113	2.417263	.3993284	.3874939	1.296439
#1	.0901996	.0992133	.0542253	.0749727	.5433007	225.9550
#2	.0927534	.1012679	.0526969	.0755285	.5391547	222.5031
#3	.0911573	.0965463	.0552979	.0750538	.5406853	220.2149

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4963017**	**.4781151**	**.9808256**	**235.8511**	**.5951097**	**.4951828**
Stddev	.0030495	.0123953	.0041199	1.6258	.0046712	.0028899
%RSD	.6144367	2.592545	.4200410	.6893431	.7849301	.5835985
#1	.4932187	.4638800	.9850570	234.6236	.5951244	.4982974
#2	.4993165	.4865235	.9768271	237.6950	.5997735	.4925883
#3	.4963699	.4839418	.9805928	235.2347	.5904312	.4946627

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4732514**	**97.62904**	**.5049991**	**231.8974**	**.9874444**	**.1961435**
Stddev	.0140142	.98575	.0024246	2.2024	.0049277	.0016787
%RSD	2.961266	1.009687	.4801269	.9497139	.4990315	.8558409
#1	.4570826	97.03183	.5021996	230.5892	.9925747	.1951765
#2	.4819063	98.76682	.5063645	234.4401	.9827481	.1980819
#3	.4807654	97.08848	.5064331	230.6629	.9870103	.1951721

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.619696**	**.4667619**	**.9589072**	**-.169179**	**.0064306**	F **.3964631**
Stddev	.107331	.0119538	.0118578	.027730	.0018246	.0041890
%RSD	17.31993	2.560999	1.236591	16.39118	28.37460	1.056600
#1	-.495774	.4529905	.9453276	-.140467	.0053570	.3951048
#2	-.680135	.4744566	.9672144	-.195811	.0085374	.4011627
#3	-.683180	.4728386	.9641796	-.171257	.0053973	.3931218

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: ICSAB004 Acquired: 1/15/2025 13:55:42 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000536**	**.0204790**	**.0043418**	**-.003417**	**-.005116**	**.0028428**
Stddev	.000111	.0036367	.0009237	.000718	.000392	.0014951
%RSD	20.77911	17.75838	21.27493	20.99956	7.664324	52.59084
#1	-.000411	.0214168	.0041869	-.003403	-.005391	.0023902
#2	-.000625	.0235549	.0053331	-.004142	-.005290	.0045119
#3	-.000573	.0164652	.0035053	-.002707	-.004667	.0016264

Elem	Sr4077
Units	ppm
Avg	**.0922200**
Stddev	.0003527
%RSD	.3824812
#1	.0918901
#2	.0925918
#3	.0921783

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2608.036**	**54728.33**	**13262.19**	**1756.613**	**3833.092**
Stddev	10.457	400.34	355.56	12.393	15.369
%RSD	.4009501	.7315071	2.680987	.7054868	.4009578
#1	2596.014	54720.01	13671.16	1761.432	3816.070
#2	2615.024	54332.22	13026.39	1742.535	3845.949
#3	2613.071	55132.77	13089.02	1765.872	3837.256

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCV023 Acquired: 1/15/2025 14:06:41 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV023 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.705062**	**4.784555**	**23.75399**	**4.694579**	**4.747295**	**384.0677**
Stddev	.042289	.103870	.19602	.038716	.057909	2.6199
%RSD	.8988010	2.170948	.8252298	.8246894	1.219827	.6821407
#1	4.730487	4.889584	23.89945	4.730615	4.783673	387.0169
#2	4.656245	4.782199	23.53107	4.653649	4.680516	383.1764
#3	4.728454	4.681884	23.83144	4.699473	4.777695	382.0097

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.14261**	**.4841880**	**2.406104**	**394.1057**	**15.14466**	**2.409426**
Stddev	.04212	.0032890	.018823	2.9160	.07417	.020881
%RSD	.4153015	.6792727	.7823113	.7399145	.4897449	.8666463
#1	10.18437	.4874751	2.424946	397.0749	15.22512	2.425800
#2	10.10014	.4808972	2.387299	391.2458	15.07901	2.385911
#3	10.14331	.4841918	2.406066	393.9963	15.12986	2.416566

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.89426**	**391.6210**	**15.11621**	**392.2229**	**2.405505**	**1.260362**
Stddev	.05739	.5968	.03087	.8543	.020293	.003359
%RSD	.3852978	.1523986	.2041981	.2178132	.8435868	.2664767
#1	14.89122	391.9310	15.11452	392.9562	2.418578	1.264107
#2	14.95310	391.9991	15.14788	392.4277	2.382128	1.257618
#3	14.83845	390.9330	15.08622	391.2848	2.415808	1.259360

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**389.3071**	**2.432691**	**15.15337**	**151.1262**	**4.800718**	F **5.796488**
Stddev	1.3724	.010980	.01776	.3389	.043901	.017397
%RSD	.3525169	.4513325	.1171828	.2242281	.9144777	.3001307
#1	390.1386	2.443404	15.14506	151.0726	4.838437	5.816573
#2	390.0596	2.433206	15.17376	151.4886	4.752527	5.786804
#3	387.7231	2.421463	15.14129	150.8172	4.811189	5.786089

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCV023 Acquired: 1/15/2025 14:06:41 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV023 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.679938**	**4.778559**	**4.943578**	**4.795262**	**4.891977**	**5.102424**
Stddev	.045827	.044150	.001445	.034157	.016415	.027413
%RSD	.9792248	.9239238	.0292212	.7123138	.3355416	.5372578
#1	4.711645	4.823727	4.942798	4.820157	4.904469	5.086059
#2	4.627395	4.735502	4.942690	4.756321	4.898077	5.134072
#3	4.700773	4.776448	4.945244	4.809308	4.873386	5.087142

Elem	Sr4077
Units	ppm
Avg	**5.109743**
Stddev	.011594
%RSD	.2268927
#1	5.123126
#2	5.102773
#3	5.103330

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2302.267**	**50794.70**	**12420.51**	**1599.507**	**3421.497**
Stddev	23.607	156.39	73.20	7.870	30.507
%RSD	1.025376	.3078879	.5893642	.4920147	.8916225
#1	2290.966	50627.07	12336.39	1590.659	3403.259
#2	2329.400	50820.32	12455.44	1602.137	3456.716
#3	2286.434	50936.69	12469.71	1605.726	3404.516

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCB023 Acquired: 1/15/2025 14:11:05 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB023 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006967**	**-.000302**	**.0000189**	**.0022087**	**.0002683**	**-.000289**	**.0020738**
Stddev	.0010113	.001417	.0011454	.0025465	.0017814	.005457	.0005688
%RSD	145.1400	468.6055	6077.445	115.2973	663.9780	1890.241	27.42793
#1	.0016362	-.000172	.0011293	.0014495	-.001716	-.006530	.0015591
#2	-.000374	-.001780	-.001159	.0001280	.001729	.003580	.0026844
#3	.000828	.001045	.000086	.0050485	.000793	.002084	.0019777

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000047**	**.0000520**	**.0007910**	**.0001371**	**.0001212**	**-.000820**	**.0005969**
Stddev	.000073	.0001030	.0062586	.0001154	.0000595	.000542	.0027833
%RSD	156.7754	197.8749	791.2726	84.21094	49.08586	66.16287	466.2921
#1	.000038	.0001320	.0070370	.0000152	.0000860	-.000203	-.001248
#2	-.000085	-.000064	-.005480	.0001513	.0000877	-.001035	-.000760
#3	-.000093	.000088	.000816	.0002448	.0001898	-.001221	.003798

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000609**	**.0079623**	**.0001838**	**-.000238**	**-.326526**	**.0017234**	**.0012506**
Stddev	.0001938	.0030062	.0001609	.000336	.165536	.0009435	.0018215
%RSD	317.9601	37.75533	87.50087	140.8539	50.69614	54.74586	145.6471
#1	.0001673	.0058358	.0001146	-.000238	-.310680	.0006398	-.000816
#2	.0001783	.0066494	.0000692	.000097	-.499415	.0021677	.001947
#3	-.000163	.0114016	.0003677	-.000575	-.169482	.0023628	.002621

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1059022**	**-.001241**	**.0063270**	**.0002021**	**-.001472**	**-.000750**	**-.000219**
Stddev	.0452022	.001888	.0006430	.0001040	.001436	.001587	.000339
%RSD	42.68295	152.1385	10.16274	51.45348	97.54425	211.5175	154.7149
#1	.0769303	-.002893	.0069377	.0001077	-.000391	-.000049	-.000053
#2	.0827888	.000817	.0063875	.0003136	-.003101	.000365	-.000610
#3	.1579874	-.001647	.0056559	.0001851	-.000923	-.002568	.000005

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCB023 Acquired: 1/15/2025 14:11:05 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB023 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000151	-.000263	.0000462
Stddev	.000621	.001027	.0000355
%RSD	411.7070	391.0570	76.85606
#1	-.000538	-.001412	.0000090
#2	.000566	.000057	.0000798
#3	-.000480	.000567	.0000498

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3015.801	61253.51	13330.92	2032.722	4761.527
Stddev	19.127	900.59	50.70	28.512	29.396
%RSD	.6342201	1.470272	.3803019	1.402631	.6173648
#1	3029.036	61463.03	13299.29	2040.998	4786.067
#2	3024.496	62030.87	13304.07	2056.181	4769.566
#3	2993.871	60266.62	13389.39	2000.988	4728.948

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165925BL Acquired: 1/15/2025 14:15:14 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS925 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000413**	**-.001395**	**-.000306**	**.0028347**	**-.000822**	**.0042716**	**.0019641**
Stddev	.001309	.001094	.000413	.0017669	.000497	.0030464	.0001630
%RSD	317.1075	78.38019	134.9402	62.33238	60.40819	71.31758	8.297272
#1	-.000382	-.002342	-.000604	.0028465	-.000249	.0076265	.0020582
#2	.000881	-.001646	-.000480	.0045956	-.001101	.0035100	.0017759
#3	-.001737	-.000198	.000166	.0010619	-.001117	.0016783	.0020581

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000047**	**.0000242**	**.0055910**	**-.000045**	**.0000737**	**.0000437**	**-.000528**
Stddev	.000038	.0000324	.0116779	.000152	.0001303	.0012185	.004211
%RSD	81.76692	133.8472	208.8685	340.0152	176.8165	2788.700	797.0279
#1	-.000039	-.000002	-.007833	-.000049	.0001333	-.000762	-.003747
#2	-.000089	.000060	.013407	-.000194	.0001635	.001445	.004237
#3	-.000013	.000015	.011199	.000109	-.000076	-.000552	-.002074

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000175**	**.0080276**	**.0001645**	**-.000258**	**-.215265**	**.0009041**	**.0010526**
Stddev	.0000540	.0078868	.0001512	.000144	.123503	.0009779	.0006413
%RSD	309.1939	98.24619	91.89433	55.81558	57.37232	108.1602	60.92746
#1	-.000017	.0026523	.0000798	-.000115	-.090888	.0016812	.0005541
#2	-.000010	.0043488	.0000747	-.000257	-.337875	-.000194	.0017761
#3	.000080	.0170817	.0003391	-.000403	-.217032	.001225	.0008277

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0599937**	**-.000511**	**.0027051**	**.0002631**	**-.001988**	**.0010401**	**-.000201**
Stddev	.0162833	.001559	.0005509	.0001543	.001732	.0018528	.000756
%RSD	27.14162	305.1195	20.36451	58.63603	87.13194	178.1414	375.8013
#1	.0465759	-.002215	.0023700	.0001821	-.002627	.0029942	.000663
#2	.0552958	.000843	.0033409	.0001662	-.003310	.0008174	-.000739
#3	.0781095	-.000161	.0024045	.0004410	-.000027	-.000691	-.000527

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165925BL Acquired: 1/15/2025 14:15:14 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS925 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000551	-.001589	-.000015
Stddev	.000139	.000434	.000037
%RSD	25.23058	27.32657	248.2108
#1	-.000570	-.001426	.000028
#2	-.000403	-.002081	-.000036
#3	-.000679	-.001260	-.000036

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2990.896	62113.35	13105.96	2034.299	4730.492
Stddev	6.753	324.06	461.59	5.412	16.277
%RSD	.2257926	.5217169	3.521949	.2660511	.3440969
#1	2994.569	62175.97	13328.12	2036.424	4732.430
#2	2995.017	62401.52	12575.30	2038.327	4745.713
#3	2983.102	61762.55	13414.45	2028.147	4713.332

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165925BS Acquired: 1/15/2025 14:19:23 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS925 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0180309**	**.0536737**	**.0207654**	**.0669836**	**.1082092**	**.3404489**	**.3685465**
Stddev	.0011807	.0027225	.0005487	.0023323	.0017045	.0143949	.0159906
%RSD	6.548204	5.072234	2.642412	3.481868	1.575195	4.228221	4.338835
#1	.0193939	.0522910	.0206981	.0660318	.1072149	.3239161	.3512003
#2	.0173761	.0519200	.0202535	.0652778	.1072354	.3472280	.3717394
#3	.0173226	.0568100	.0213447	.0696413	.1101774	.3502027	.3826998

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102714**	**.0106355**	**9.274188**	**.0216369**	**.1014584**	**.0536165**	**.1955227**
Stddev	.0001230	.0002805	.418227	.0015981	.0028669	.0016290	.0087577
%RSD	1.197134	2.637524	4.509582	7.386084	2.825674	3.038300	4.479112
#1	.0101956	.0105412	8.817270	.0198994	.0998191	.0534127	.1856877
#2	.0102053	.0104144	9.367244	.0219673	.0997874	.0520989	.1984028
#3	.0104133	.0109511	9.638049	.0230441	.1047688	.0553378	.2024777

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0297081**	**8.385276**	**.0830912**	**.0184440**	**9.280554**	**.1035297**	**.1145109**
Stddev	.0012521	.391986	.0021911	.0006814	.137218	.0024680	.0050097
%RSD	4.214785	4.674690	2.636937	3.694624	1.478554	2.383833	4.374904
#1	.0283352	7.945022	.0820755	.0176819	9.178542	.1033941	.1087942
#2	.0300020	8.514382	.0815923	.0189946	9.226565	.1011323	.1166033
#3	.0307871	8.696426	.0856058	.0186554	9.436555	.1060627	.1181352

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.726535**	**.0170463**	**.0020180**	**.0202490**	**.1755959**	**.4598776**	**.0144890**
Stddev	.481677	.0014675	.0002304	.0003795	.0073847	.0055411	.0007099
%RSD	5.519678	8.609094	11.41968	1.874153	4.205520	1.204900	4.899395
#1	8.198907	.0157716	.0018970	.0201313	.1708033	.4596479	.0140813
#2	8.837971	.0186506	.0018732	.0199423	.1718842	.4544550	.0140770
#3	9.142726	.0167167	.0022837	.0206734	.1841002	.4655300	.0153087

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165925BS Acquired: 1/15/2025 14:19:23 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS925 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2053201	.0250314	.1732191
Stddev	.0014775	.0015102	.0076248
%RSD	.7196154	6.033226	4.401807
#1	.2067914	.0232923	.1648580
#2	.2038365	.0260124	.1750110
#3	.2053324	.0257895	.1797883

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2864.092	61148.34	13396.81	1982.197	4430.756
Stddev	63.628	2712.03	57.58	82.641	99.356
%RSD	2.221588	4.435172	.4298257	4.169151	2.242422
#1	2895.161	64214.61	13365.14	2076.748	4486.859
#2	2906.218	60166.22	13463.27	1946.082	4489.370
#3	2790.898	59064.18	13362.01	1923.760	4316.038

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165941BL Acquired: 1/15/2025 14:23:27 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW941 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001088**	**-.000392**	**-.000457**	**.0023932**	**.0006543**	**.0013950**	**.0006702**
Stddev	.000584	.000474	.000155	.0007947	.0009959	.0030251	.0002791
%RSD	53.66518	121.0946	33.99624	33.20578	152.2193	216.8574	41.65250
#1	-.000774	-.000933	-.000460	.0016628	.0008553	.0041280	.0004571
#2	-.001762	-.000189	-.000300	.0022773	-.000427	.0019123	.0005672
#3	-.000729	-.000053	-.000611	.0032395	.001534	-.001855	.0009862

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000047**	**-.000021**	**.0031375**	**.0000730**	**-.000068**	**-.001020**	**-.000646**
Stddev	.000024	.000089	.0017134	.0002704	.000025	.000153	.000592
%RSD	50.14492	435.3799	54.61149	370.3361	36.67471	15.03982	91.61661
#1	-.000054	-.000015	.0020809	-.000029	-.000055	-.001189	-.000009
#2	-.000021	.000066	.0022171	-.000131	-.000052	-.000888	-.001180
#3	-.000066	-.000112	.0051144	.000380	-.000097	-.000984	-.000749

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001697**	**.0091412**	**.0001248**	**-.000087**	**-.087759**	**.0006078**	**.0019066**
Stddev	.0001610	.0004824	.0001545	.000108	.157177	.0009939	.0015955
%RSD	94.83588	5.277508	123.7654	124.2809	179.0997	163.5093	83.68214
#1	.0002274	.0090978	-.000025	.000032	-.119215	.0014531	.0034842
#2	.0002939	.0086819	.000284	-.000113	.082767	-.000487	.0019419
#3	-.000012	.0096438	.000116	-.000180	-.226830	.000857	.0002938

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005371**	**.0016707**	**.0001801**	**-.000049**	**-.001014**	**.0008371**	**-.000188**
Stddev	.034360	.0019898	.0004242	.000357	.002477	.0010554	.000559
%RSD	639.7924	119.1050	235.6055	723.2396	244.2183	126.0829	298.0000
#1	-.003111	-.000189	.0001853	.000012	.001702	-.000323	-.000592
#2	.027804	.003769	-.000247	.000273	-.003147	.001094	-.000421
#3	-.040805	.001432	.000602	-.000433	-.001597	.001740	.000450

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165941BL Acquired: 1/15/2025 14:23:27 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW941 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000286	-.001975	-.000006
Stddev	.000904	.001267	.000034
%RSD	316.0772	64.14051	541.3932
#1	.000143	-.001337	.000003
#2	-.001325	-.003434	.000022
#3	.000324	-.001155	-.000044

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2983.444	61856.23	13641.94	1997.670	4728.457
Stddev	8.088	673.63	49.17	18.156	13.564
%RSD	.2710926	1.089026	.3604590	.9088739	.2868654
#1	2991.803	61324.33	13586.25	1983.497	4743.941
#2	2982.871	61630.65	13679.37	1991.378	4722.757
#3	2975.657	62613.70	13660.21	2018.136	4718.673

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165941BS Acquired: 1/15/2025 14:27:37 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS941 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0189235**	**.0514398**	**.0208220**	**.0652683**	**.1039483**	**.3333559**	**.3598833**
Stddev	.0022595	.0009314	.0006648	.0004275	.0011871	.0022383	.0058415
%RSD	11.94043	1.810588	3.192884	.6549958	1.142032	.6714549	1.623170
#1	.0199417	.0512747	.0200944	.0656454	.1026828	.3339202	.3562912
#2	.0204948	.0524427	.0213979	.0648038	.1050374	.3352581	.3666237
#3	.0163340	.0506020	.0209736	.0653555	.1041246	.3308894	.3567352

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0102416**	**.0104355**	**9.158944**	**.0214136**	**.0990039**	**.0509989**	**.1910754**
Stddev	.0000864	.0000359	.121957	.0002181	.0001760	.0003064	.0048664
%RSD	.8437479	.3443958	1.331565	1.018488	.1777766	.6008022	2.546850
#1	.0103391	.0104765	9.043855	.0212118	.0990437	.0513467	.1858560
#2	.0101746	.0104207	9.286770	.0213839	.0988114	.0507687	.1918823
#3	.0102110	.0104094	9.146207	.0216450	.0991566	.0508814	.1954880

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0290620**	**8.189416**	**.0812663**	**.0183613**	**9.073374**	**.1026369**	**.1113707**
Stddev	.0003916	.101716	.0004787	.0000602	.064763	.0005316	.0017054
%RSD	1.347384	1.242038	.5891033	.3278200	.7137662	.5178987	1.531237
#1	.0287198	8.084725	.0809450	.0183437	9.111100	.1032500	.1096000
#2	.0294891	8.287870	.0810374	.0184284	9.110428	.1023049	.1130021
#3	.0289773	8.195653	.0818165	.0183119	8.998593	.1023560	.1115099

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.471789**	**.0176749**	**.0014415**	**.0196596**	**.1754014**	**.4518224**	**.0133794**
Stddev	.172926	.0015728	.0004089	.0001705	.0007865	.0023830	.0001571
%RSD	2.041199	8.898461	28.36614	.8672386	.4483832	.5274187	1.174401
#1	8.289657	.0190918	.0014823	.0196879	.1753667	.4518047	.0133036
#2	8.633737	.0179504	.0010138	.0194767	.1746328	.4542142	.0135601
#3	8.491972	.0159826	.0018285	.0198141	.1762046	.4494483	.0132746

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165941BS Acquired: 1/15/2025 14:27:37 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS941 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2009451	.0234934	.1691363
Stddev	.0005516	.0003905	.0023048
%RSD	.2745236	1.662032	1.362679
#1	.2014665	.0237333	.1673589
#2	.2010012	.0237041	.1717404
#3	.2003676	.0230428	.1683096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2932.808	61330.53	13418.89	2024.717	4503.191
Stddev	13.983	600.57	56.47	26.254	17.283
%RSD	.4767804	.9792334	.4208465	1.296689	.3837969
#1	2920.187	61893.88	13362.62	2052.700	4490.755
#2	2947.840	60698.62	13475.56	2000.626	4522.927
#3	2930.397	61399.11	13418.50	2020.826	4495.893

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165942BL Acquired: 1/15/2025 14:31:40 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW942 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002266**	**-.001433**	**.0004216**	**.0016031**	**-.000574**	**.0030349**	**.0025165**
Stddev	.001811	.001053	.0006582	.0016446	.000754	.0033351	.0005239
%RSD	79.93635	73.50476	156.1101	102.5840	131.2942	109.8919	20.81788
#1	-.003727	-.002250	.0002960	.0008756	-.000365	.0034516	.0023762
#2	-.002830	-.001804	.0011335	.0034860	.000053	.0061420	.0020771
#3	-.000239	-.000244	-.000165	.0004479	-.001411	-.000489	.0030963

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000039**	**-.000009**	**-.006139**	**.0000581**	**.0000944**	**-.001552**	**-.000442**
Stddev	.000051	.000006	.003652	.0003350	.0002261	.000730	.001555
%RSD	132.5072	69.97118	59.48896	576.4888	239.6341	47.05882	352.0575
#1	-.000093	-.000014	-.007219	.0002916	-.000149	-.001429	-.002213
#2	.000009	-.000010	-.002069	-.000326	.000133	-.002336	.000185
#3	-.000032	-.000002	-.009129	.000208	.000298	-.000891	.000702

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000021**	**.0059554**	**.0002463**	**-.000323**	**.1114402**	**.0001539**	**.0011129**
Stddev	.000114	.0047508	.0001238	.000316	.2070948	.0010348	.0015728
%RSD	544.8570	79.77328	50.25584	97.75609	185.8349	672.5581	141.3212
#1	-.000025	.0012323	.0003596	-.000527	.0097465	-.000921	.0024378
#2	.000095	.0059004	.0002652	-.000484	-.025148	.000238	-.000625
#3	-.000133	.0107336	.0001142	.000041	.349722	.001144	.001526

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.033515**	**-.001974**	**.0004883**	**.0002416**	**-.001624**	**-.000761**	**-.000472**
Stddev	.023069	.001312	.0009292	.0003231	.001355	.000847	.000192
%RSD	68.83178	66.46195	190.2915	133.7245	83.44768	111.3917	40.72837
#1	-.053889	-.003165	-.000585	.0006147	-.003188	-.001389	-.000474
#2	-.008466	-.002190	.001040	.0000536	-.000812	-.001097	-.000279
#3	-.038191	-.000568	.001010	.0000566	-.000872	.000203	-.000663

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165942BL Acquired: 1/15/2025 14:31:40 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW942 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000884	-.002402	.0000289
Stddev	.000245	.000615	.0000192
%RSD	27.67252	25.60485	66.58623
#1	-.000860	-.003099	.0000509
#2	-.001141	-.002173	.0000200
#3	-.000653	-.001935	.0000156

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2991.075	61992.24	13383.30	2044.315	4656.301
Stddev	27.395	134.45	161.26	14.647	54.502
%RSD	.9158876	.2168885	1.204898	.7164955	1.170491
#1	2960.924	61850.64	13268.60	2028.495	4596.705
#2	2997.866	62007.90	13313.62	2047.042	4668.587
#3	3014.436	62118.18	13567.68	2057.407	4703.611

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165942BS Acquired: 1/15/2025 14:35:50 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS942 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0170509	.0506912	.0192483	.0625630	.1034711	.3325300	.3607511
Stddev	.0026237	.0001051	.0005447	.0019563	.0012771	.0040276	.0026864
%RSD	15.38756	.2072604	2.829938	3.126941	1.234247	1.211203	.7446538
#1	.0142220	.0505972	.0195598	.0603047	.1020026	.3369143	.3636218
#2	.0194044	.0506718	.0186194	.0636447	.1040882	.3316814	.3582979
#3	.0175262	.0508046	.0195659	.0637396	.1043224	.3289943	.3603337

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0100912	.0101091	9.068286	.0212976	.0964481	.0494352	.1917938
Stddev	.0000995	.0000655	.054504	.0005356	.0009041	.0009274	.0027327
%RSD	.9865173	.6478615	.6010370	2.514962	.9373547	1.875970	1.424823
#1	.0101055	.0100344	9.098451	.0218350	.0958072	.0504037	.1931588
#2	.0099853	.0101360	9.005368	.0207637	.0960550	.0485552	.1886474
#3	.0101829	.0101568	9.101038	.0212941	.0974822	.0493467	.1935750

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0291830	8.114649	.0792239	.0184208	9.171653	.1025857	.1128489
Stddev	.0001669	.073154	.0001436	.0001579	.357017	.0009798	.0026929
%RSD	.5720761	.9015017	.1812986	.8572513	3.892612	.9551489	2.386325
#1	.0293660	8.094494	.0790583	.0185537	9.313266	.1028942	.1153731
#2	.0291440	8.053686	.0793149	.0182462	9.436138	.1014888	.1100141
#3	.0290391	8.195767	.0792985	.0184624	8.765555	.1033742	.1131593

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.408165	.0159133	.0015631	.0191575	.1688085	.4485877	.0139327
Stddev	.043757	.0006237	.0000697	.0000422	.0042540	.0062435	.0005587
%RSD	.5204151	3.919582	4.458578	.2200370	2.520042	1.391813	4.010233
#1	8.384075	.0165158	.0014913	.0191101	.1683165	.4556414	.0145624
#2	8.381747	.0159536	.0015675	.0191908	.1648218	.4463516	.0134963
#3	8.458674	.0152703	.0016305	.0191716	.1732871	.4437702	.0137394

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165942BS Acquired: 1/15/2025 14:35:50 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS942 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1986449	.0237767	.1687681
Stddev	.0007215	.0004104	.0007118
%RSD	.3631877	1.725947	.4217948
#1	.1988564	.0233582	.1692637
#2	.1978413	.0237936	.1679524
#3	.1992369	.0241784	.1690881

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2948.350	60904.24	13376.89	1999.230	4533.341
Stddev	20.490	424.00	68.91	23.886	25.004
%RSD	.6949521	.6961680	.5151661	1.194763	.5515631
#1	2969.406	60927.69	13353.69	2005.596	4557.018
#2	2947.166	61316.02	13454.41	2019.288	4535.812
#3	2928.479	60469.01	13322.57	1972.806	4507.193

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5388-11DLX2 Acquired: 1/15/2025 14:39:54 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D56 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.614236**	**-.001608**	F **345.4195**	**.1782604**	**1.546475**	**12.14180**
Stddev	.045525	.004538	1.6923	.0027035	.009599	.03215
%RSD	.5284813	282.1558	.4899381	1.516574	.6206844	.2647911
#1	8.650702	-.003829	346.9751	.1751433	1.553321	12.12784
#2	8.628792	-.004608	345.6662	.1799644	1.550601	12.11899
#3	8.563213	.003612	343.6174	.1796736	1.535503	12.17857

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.663088**	**-.000488**	**.0645348**	**7.848589**	**.0283589**	**.0161212**
Stddev	.005217	.000183	.0005238	.041117	.0003272	.0004274
%RSD	.1958960	37.57008	.8117156	.5238795	1.153675	2.651310
#1	2.657570	-.000365	.0650434	7.830069	.0281105	.0156483
#2	2.663753	-.000400	.0645639	7.895708	.0282366	.0164800
#3	2.667940	-.000699	.0639969	7.819988	.0287296	.0162352

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **33.22097**	**497.1407**	**5.912629**	**2.766554**	**.0261838**	**1.022978**
Stddev	.41277	7.0377	.017131	.015247	.0008179	.000557
%RSD	1.242490	1.415634	.2897356	.5511040	3.123688	.0544932
#1	33.55502	492.6246	5.894316	2.749786	.0257507	1.022472
#2	32.75952	493.5477	5.928262	2.770291	.0271271	1.022887
#3	33.34836	505.2496	5.915310	2.779584	.0256734	1.023576

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2336782**	**.0703551**	**16.10377**	**7.061112**	**2.847395**	**2.014280**
Stddev	.2150392	.0013003	.08172	.062520	.013377	.033185
%RSD	92.02365	1.848123	.5074796	.8854080	.4698019	1.647471
#1	.1409001	.0690128	16.06852	6.988973	2.854782	1.989153
#2	.4795316	.0704439	16.19720	7.099568	2.855450	2.001789
#3	.0806029	.0716087	16.04558	7.094795	2.831953	2.051897

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5388-11DLX2 Acquired: 1/15/2025 14:39:54 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D56 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.734572	F 89.89154	4.169550	.2498732	.2183026	.0105653
Stddev	.011422	.49506	.051889	.0025304	.0039716	.0003509
%RSD	.6584772	.5507251	1.244486	1.012674	1.819318	3.321407
#1	1.743635	90.34389	4.210166	.2524872	.2205235	.0101796
#2	1.738338	89.96803	4.111094	.2496967	.2137173	.0106505
#3	1.721743	89.36269	4.187390	.2474357	.2206669	.0108657

Elem	Sr4077
Units	ppm
Avg	.9942045
Stddev	.0040037
%RSD	.4027079
#1	.9899113
#2	.9948657
#3	.9978365

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2812.210	59861.51	13706.26	1855.720	4408.957
Stddev	18.789	66.41	172.81	5.627	26.878
%RSD	.6681295	.1109337	1.260826	.3032272	.6096302
#1	2802.464	59903.20	13548.47	1857.147	4396.709
#2	2800.296	59784.93	13890.94	1849.516	4390.383
#3	2833.870	59896.40	13679.36	1860.495	4439.778

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5388-12DLX4 Acquired: 1/15/2025 14:44:10 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D59 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.457095**	**-.001552**	F **190.5500**	**.0945584**	**.7864371**	**6.226004**
Stddev	.051869	.001899	1.6175	.0019442	.0091775	.083927
%RSD	1.163743	122.3415	.8488365	2.056036	1.166972	1.348012
#1	4.423175	-.002291	189.1546	.0928049	.7825190	6.204645
#2	4.516804	-.002971	192.3228	.0966491	.7969233	6.154820
#3	4.431307	.000605	190.1725	.0942212	.7798689	6.318547

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.351486**	**-.000395**	**.0335476**	**4.012843**	**.0144700**	**.0082455**
Stddev	.013333	.000146	.0003743	.033852	.0007384	.0001212
%RSD	.9865696	36.93425	1.115604	.8435914	5.103318	1.469793
#1	1.349756	-.000333	.0333153	4.003649	.0143448	.0083516
#2	1.339102	-.000291	.0339793	3.984537	.0138021	.0082715
#3	1.365600	-.000562	.0333481	4.050342	.0152630	.0081134

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.83329**	**260.7850**	**3.028955**	**1.446260**	**.0148100**	**.5257667**
Stddev	.47787	3.9060	.037348	.022907	.0004805	.0094262
%RSD	2.838867	1.497776	1.233045	1.583849	3.244220	1.792853
#1	17.10845	259.4539	3.014046	1.431584	.0148773	.5212271
#2	17.10994	257.7185	3.001363	1.434541	.0152532	.5194693
#3	16.28149	265.1825	3.071455	1.472655	.0142994	.5366038

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058872**	**.0346279**	**8.184490**	**3.589233**	**1.503887**	**1.061268**
Stddev	.0979668	.0008042	.103414	.054105	.015360	.022630
%RSD	1664.068	2.322471	1.263531	1.507434	1.021321	2.132387
#1	.0676340	.0347855	8.153806	3.557957	1.489057	1.053534
#2	-.107071	.0353416	8.099891	3.558034	1.519726	1.043519
#3	.057099	.0337565	8.299773	3.651709	1.502877	1.086751

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5388-12DLX4 Acquired: 1/15/2025 14:44:10 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D59 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8786194	F 48.87983	2.118146	.1301266	.1104967	.0033130
Stddev	.0091601	.44606	.057528	.0008127	.0018764	.0006168
%RSD	1.042551	.9125647	2.715979	.6245709	1.698168	18.61805
#1	.8727160	48.52138	2.147470	.1297530	.1112293	.0034260
#2	.8891717	49.37937	2.155104	.1310590	.1118963	.0026475
#3	.8739706	48.73873	2.051864	.1295679	.1083645	.0038654

Elem	Sr4077
Units	ppm
Avg	.5025967
Stddev	.0051450
%RSD	1.023680
#1	.5016401
#2	.4979972
#3	.5081529

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.199	59976.83	13787.29	1898.060	4385.411
Stddev	24.645	1013.12	288.39	29.946	32.026
%RSD	.8683290	1.689180	2.091740	1.577693	.7302874
#1	2850.699	60329.52	13613.23	1897.226	4406.068
#2	2809.809	60766.47	13628.47	1928.414	4348.519
#3	2854.089	58834.51	14120.19	1868.540	4401.648

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-17 Acquired: 1/15/2025 14:48:05 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0267919	-.006708	3.436312	.0024140	.0158570	24.53811
Stddev	.0010924	.001993	.018278	.0020825	.0006504	.17266
%RSD	4.077485	29.70621	.5319150	86.26807	4.101684	.7036389
#1	.0280208	-.008826	3.456632	.0046587	.0156491	24.35284
#2	.0264240	-.006428	3.421210	.0005447	.0165859	24.56694
#3	.0259308	-.004870	3.431094	.0020387	.0153359	24.69453

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0307608	.0225122	.0681994	340.4315	.0893079	.0275352
Stddev	.0003860	.0001202	.0005646	1.2178	.0006920	.0003700
%RSD	1.254732	.5337465	.8278424	.3577104	.7748180	1.343874
#1	.0311568	.0224785	.0688455	339.1332	.0885243	.0279411
#2	.0303857	.0226456	.0678011	340.6131	.0895646	.0272167
#3	.0307401	.0224125	.0679514	341.5483	.0898348	.0274479

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.603099	108.7806	F 112.3022	3.954800	.0694241	.0318825
Stddev	.036763	.7162	.2898	.010339	.0007636	.0004840
%RSD	.4835273	.6583620	.2580513	.2614225	1.099909	1.517997
#1	7.564101	108.0566	112.4939	3.945286	.0703034	.0313236
#2	7.637120	108.7964	111.9688	3.953311	.0690417	.0321658
#3	7.608078	109.4887	112.4438	3.965802	.0689273	.0321580

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.166340	.0062405	10.68084	2.553642	3.701092	.6954860
Stddev	.026934	.0001622	.04532	.010112	.029409	.0026247
%RSD	.8506215	2.598309	.4243131	.3959807	.7945936	.3773857
#1	3.194863	.0061761	10.72819	2.542219	3.735021	.6924554
#2	3.141343	.0064250	10.63786	2.557258	3.682909	.6970233
#3	3.162815	.0061205	10.67647	2.561448	3.685345	.6969792

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-17 Acquired: 1/15/2025 14:48:05 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002917	F 570.3655	F 13.57936	-.003589	.0045822	.0214211
Stddev	.000585	3.6335	.06090	.000843	.0004214	.0001050
%RSD	20.07276	.6370506	.4484603	23.47939	9.196355	.4902470
#1	-.002252	574.1097	13.53834	-.003905	.0050627	.0213346
#2	-.003141	566.8539	13.64933	-.002634	.0042755	.0213906
#3	-.003357	570.1328	13.55041	-.004229	.0044084	.0215379

Elem	Sr4077
Units	ppm
Avg	.2274997
Stddev	.0020048
%RSD	.8812139
#1	.2254595
#2	.2275727
#3	.2294670

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3241.445	69500.18	15674.67	2252.186	4019.708
Stddev	13.081	367.48	86.95	6.696	14.438
%RSD	.4035470	.5287470	.5547087	.2973230	.3591702
#1	3229.928	69906.03	15701.20	2244.471	4003.184
#2	3238.739	69404.54	15577.55	2255.592	4026.061
#3	3255.667	69189.99	15745.26	2256.494	4029.880

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-18 Acquired: 1/15/2025 14:52:15 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0245113**	**.0055703**	**3.457119**	**.0035712**	**.0155593**	**23.48417**
Stddev	.0025470	.0038401	.005121	.0018943	.0009320	.35851
%RSD	10.39128	68.93872	.1481385	53.04397	5.990212	1.526612
#1	.0237491	.0068927	3.462977	.0022729	.0147608	23.55438
#2	.0224324	.0012437	3.453492	.0057449	.0165834	23.80238
#3	.0273525	.0085744	3.454887	.0026958	.0153337	23.09574

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0310942**	**.0223148**	**.0695106**	**330.7188**	**.0894724**	**.0280726**
Stddev	.0003796	.0001090	.0002617	5.0611	.0006450	.0001203
%RSD	1.220900	.4882186	.3764347	1.530335	.7208348	.4283597
#1	.0314514	.0222206	.0697805	335.1820	.0901165	.0281964
#2	.0311358	.0222897	.0694932	331.7544	.0894739	.0280652
#3	.0306955	.0224341	.0692581	325.2199	.0888266	.0279562

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.534633**	**105.0747**	F **110.3762**	**3.870384**	**.0695962**	**.0307626**
Stddev	.023595	1.4192	1.2272	.025622	.0002227	.0005493
%RSD	.3131565	1.350692	1.111806	.6619916	.3200305	1.785537
#1	7.533103	105.4756	110.5996	3.885423	.0695485	.0301769
#2	7.511840	106.2503	111.4762	3.884929	.0698389	.0312662
#3	7.558955	103.4981	109.0526	3.840800	.0694012	.0308448

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.246325**	**.0058819**	**10.21237**	**2.374118**	**3.714097**	**.6790006**
Stddev	.144921	.0015586	.13268	.115933	.011308	.0039559
%RSD	4.464152	26.49812	1.299236	4.883201	.3044735	.5826061
#1	3.231164	.0041310	10.21593	2.413870	3.722364	.6817089
#2	3.109580	.0071180	10.34323	2.464946	3.701210	.6808321
#3	3.398230	.0063968	10.07793	2.243538	3.718717	.6744609

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-18 Acquired: 1/15/2025 14:52:15 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003147	F 567.2120	F 13.59897	-.003978	.0048311	.0200966
Stddev	.000117	1.8055	.10493	.000393	.0008808	.0004073
%RSD	3.708492	.3183056	.7715775	9.875844	18.23197	2.026680
#1	-.003272	569.2529	13.58423	-.003584	.0045753	.0199874
#2	-.003041	565.8231	13.50219	-.003980	.0058115	.0205474
#3	-.003129	566.5600	13.71049	-.004370	.0041065	.0197551

Elem	Sr4077
Units	ppm
Avg	.2186124
Stddev	.0038202
%RSD	1.747473
#1	.2194725
#2	.2219292
#3	.2144355

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3299.722	69955.81	15317.08	2318.737	4051.253
Stddev	17.330	349.64	245.58	17.365	9.185
%RSD	.5251916	.4998076	1.603282	.7488995	.2267228
#1	3308.098	69711.61	15334.75	2320.089	4057.270
#2	3311.273	69799.47	15553.35	2300.736	4055.807
#3	3279.796	70356.34	15063.15	2335.387	4040.680

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-17LX5 Acquired: 1/15/2025 14:56:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025518**	**-.009519**	**.7089805**	**.0028081**	**.0036727**	**5.239438**
Stddev	.0006821	.000362	.0057379	.0033457	.0009346	.019951
%RSD	26.73080	3.801690	.8093209	119.1445	25.44653	.3807781
#1	.0021918	-.009452	.7053200	-.000909	.0026449	5.262423
#2	.0021252	-.009194	.7060279	.003754	.0044715	5.226608
#3	.0033385	-.009909	.7155934	.005579	.0039017	5.229283

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0119648**	**.0054111**	**.0135911**	**74.99187**	**.0213542**	**.0054911**
Stddev	.0008993	.0000884	.0001268	.29669	.0004524	.0001744
%RSD	7.516080	1.632987	.9326942	.3956279	2.118497	3.175338
#1	.0117382	.0055080	.0135725	75.30389	.0213469	.0056830
#2	.0129557	.0053350	.0134746	74.95836	.0209055	.0053424
#3	.0112005	.0053904	.0137261	74.71336	.0218102	.0054479

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.736164**	**24.44659**	**27.38154**	**.9099332**	**.0141360**	**.0068559**
Stddev	.006150	.11997	.34718	.0100393	.0002503	.0001824
%RSD	.3542270	.4907300	1.267946	1.103299	1.770556	2.660357
#1	1.743062	24.58394	27.78207	.9165823	.0138839	.0069239
#2	1.731253	24.39347	27.16664	.8983849	.0141396	.0069945
#3	1.734177	24.36234	27.19589	.9148323	.0143844	.0066493

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5235744**	**.0041532**	**2.318567**	**.4826858**	**.7091554**	**.1624217**
Stddev	.2453900	.0011648	.007710	.0102145	.0037129	.0004990
%RSD	46.86823	28.04452	.3325410	2.116181	.5235728	.3072515
#1	.3244273	.0030305	2.319755	.4822668	.7049139	.1624214
#2	.7977091	.0053559	2.325615	.4931034	.7118177	.1619229
#3	.4485867	.0040732	2.310333	.4726873	.7107346	.1629210

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-17LX5 Acquired: 1/15/2025 14:56:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000647	F 121.5869	3.150455	-.003377	.0006400	.0040563
Stddev	.000118	.4295	.016668	.000243	.0003095	.0006599
%RSD	18.18243	.3532210	.5290754	7.195466	48.35667	16.26709
#1	-.000707	121.1504	3.155340	-.003099	.0009581	.0041532
#2	-.000512	121.6014	3.164135	-.003545	.0003400	.0033534
#3	-.000724	122.0090	3.131890	-.003489	.0006218	.0046624

Elem	Sr4077
Units	ppm
Avg	.0484113
Stddev	.0003558
%RSD	.7350127
#1	.0487920
#2	.0480871
#3	.0483546

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3013.939	61682.86	13024.22	2045.902	4400.109
Stddev	3.524	176.19	49.02	8.270	12.634
%RSD	.1169267	.2856419	.3763957	.4042118	.2871268
#1	3011.344	61522.52	13032.37	2046.949	4403.992
#2	3017.951	61654.57	12971.64	2037.159	4410.346
#3	3012.522	61871.48	13068.66	2053.599	4385.990

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-19 Acquired: 1/15/2025 15:00:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0534408**	**.0556305**	**3.448537**	**.0842968**	**.0885395**	**24.51391**
Stddev	.0024742	.0046628	.031817	.0019212	.0013820	.11099
%RSD	4.629832	8.381821	.9226103	2.279046	1.560889	.4527715
#1	.0562714	.0594979	3.469611	.0840818	.0879714	24.51399
#2	.0516900	.0504526	3.411938	.0824922	.0875322	24.62486
#3	.0523611	.0569409	3.464062	.0863164	.0901151	24.40287

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.500562**	**.0677456**	**.1212552**	**331.3167**	**.2807552**	**.5300782**
Stddev	.006143	.0006510	.0011107	.9138	.0013997	.0046938
%RSD	.4093819	.9610022	.9160217	.2757956	.4985546	.8854886
#1	1.504136	.0670134	.1222423	332.3578	.2791998	.5324673
#2	1.504081	.0679641	.1200525	330.9450	.2811523	.5246705
#3	1.493469	.0682592	.1214707	330.6475	.2819134	.5330967

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.513981**	**105.8623**	F **108.1055**	**3.897818**	**.5745710**	**.0624560**
Stddev	.015260	.5276	.6919	.036910	.0050116	.0003110
%RSD	.2030830	.4984286	.6400595	.9469279	.8722308	.4978643
#1	7.505030	105.7261	107.5374	3.889262	.5768545	.0622328
#2	7.505312	106.4447	108.8761	3.938255	.5688244	.0628112
#3	7.531601	105.4161	107.9029	3.865939	.5780342	.0623241

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.020295**	**.4332020**	**10.46790**	**2.334622**	**3.602818**	**.6853262**
Stddev	.210793	.0027119	.02441	.029050	.030363	.0041204
%RSD	6.979232	.6260048	.2332210	1.244317	.8427680	.6012356
#1	2.779926	.4322475	10.45079	2.320874	3.631858	.6811643
#2	3.107302	.4310965	10.49586	2.367995	3.571285	.6894038
#3	3.173658	.4362621	10.45705	2.314998	3.605310	.6854106

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-19 Acquired: 1/15/2025 15:00:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003161	F 555.5812	F 13.48796	-.003352	.0042697	.0198435
Stddev	.000196	4.2063	.05257	.001632	.0000793	.0007069
%RSD	6.212311	.7571024	.3897844	48.69296	1.857231	3.562588
#1	-.002957	558.2616	13.43355	-.002723	.0043482	.0202401
#2	-.003175	550.7332	13.49184	-.005205	.0042714	.0202631
#3	-.003349	557.7488	13.53848	-.002128	.0041896	.0190273

Elem	Sr4077
Units	ppm
Avg	.2091475
Stddev	.0008188
%RSD	.3914730
#1	.2095129
#2	.2097198
#3	.2082096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3310.791	67929.40	14601.29	2230.744	4066.065
Stddev	14.289	412.80	129.92	9.998	17.929
%RSD	.4316036	.6076867	.8897805	.4481748	.4409478
#1	3323.863	68402.26	14736.80	2240.708	4068.026
#2	3312.974	67640.97	14589.26	2220.713	4082.934
#3	3295.535	67744.96	14477.80	2230.811	4047.236

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-17 Acquired: 1/15/2025 15:04:46 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0253942**	**-.001084**	**3.447417**	**.0090321**	**.0158161**	**26.20590**
Stddev	.0014162	.005249	.044345	.0020004	.0012533	.41895
%RSD	5.576860	484.4463	1.286335	22.14802	7.924196	1.598679
#1	.0270220	.004875	3.489181	.0090799	.0152731	26.61759
#2	.0247163	-.005027	3.452193	.0070082	.0172493	26.22005
#3	.0244444	-.003098	3.400877	.0110082	.0149258	25.78005

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0321204**	**.0230792**	**.0518939**	**393.7735**	**.1129591**	**.0294097**
Stddev	.0005701	.0001823	.0007171	2.3396	.0006980	.0003912
%RSD	1.775021	.7900659	1.381955	.5941488	.6178777	1.330303
#1	.0316855	.0228992	.0526375	395.3163	.1130334	.0298533
#2	.0319098	.0232638	.0518376	394.9226	.1122270	.0292619
#3	.0327658	.0230746	.0512066	391.0815	.1136170	.0291139

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.812797**	**125.4303**	F **111.0464**	**3.809311**	**.0666502**	**.0330403**
Stddev	.037194	1.4420	1.8581	.038018	.0011214	.0002486
%RSD	.5459486	1.149616	1.673227	.9980189	1.682499	.7523841
#1	6.855225	126.7605	111.5706	3.806301	.0675077	.0332998
#2	6.785810	125.6325	112.5860	3.848744	.0670618	.0330167
#3	6.797356	123.8979	108.9825	3.772888	.0653812	.0328043

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.333994**	**.0037585**	**8.429882**	**2.358318**	**4.029799**	**.7741854**
Stddev	.282435	.0007032	.085534	.046288	.045999	.0061446
%RSD	12.10092	18.70983	1.014650	1.962766	1.141483	.7936868
#1	2.185502	.0029751	8.523931	2.409124	4.073278	.7796611
#2	2.659700	.0043351	8.408974	2.347289	4.034483	.7753551
#3	2.156781	.0039653	8.356740	2.318540	3.981637	.7675400

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-17 Acquired: 1/15/2025 15:04:46 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002237	F 617.7881	F 13.35085	-.004313	-.000622	.0222918
Stddev	.000162	8.0303	.06342	.000162	.000182	.0007416
%RSD	7.234665	1.299843	.4750313	3.745462	29.31629	3.326870
#1	-.002256	625.8149	13.33343	-.004376	-.000411	.0221088
#2	-.002066	617.7951	13.29797	-.004130	-.000731	.0231078
#3	-.002388	609.7544	13.42116	-.004434	-.000723	.0216588

Elem	Sr4077
Units	ppm
Avg	.2255969
Stddev	.0046171
%RSD	2.046626
#1	.2302260
#2	.2255730
#3	.2209918

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3226.582	65343.09	14091.38	2178.432	3972.691
Stddev	10.530	240.73	231.17	4.986	28.725
%RSD	.3263384	.3684151	1.640492	.2288650	.7230596
#1	3215.037	65391.59	14313.75	2184.154	3941.262
#2	3229.051	65081.79	14108.07	2175.024	3979.225
#3	3235.658	65555.88	13852.32	2176.117	3997.586

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-18 Acquired: 1/15/2025 15:08:57 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0256062	.0048124	3.467138	.0066135	.0162934	25.74284
Stddev	.0027971	.0022279	.031621	.0014300	.0008904	.10477
%RSD	10.92360	46.29628	.9120160	21.62273	5.464467	.4069829
#1	.0233091	.0042270	3.460097	.0050910	.0159850	25.86025
#2	.0247886	.0029356	3.439630	.0079284	.0155983	25.65889
#3	.0287211	.0072746	3.501685	.0068211	.0172970	25.70937

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0318264	.0225990	.0523503	383.3377	.1098723	.0300996
Stddev	.0003072	.0000627	.0003761	2.2177	.0009108	.0002018
%RSD	.9651325	.2774894	.7184313	.5785212	.8289760	.6705071
#1	.0321641	.0225588	.0522885	382.3600	.1088313	.0300825
#2	.0315635	.0226712	.0520089	385.8762	.1102637	.0299068
#3	.0317518	.0225668	.0527535	381.7769	.1105221	.0303094

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.780110	122.6973	F 110.2199	3.700089	.0673559	.0322151
Stddev	.029000	.2564	.2806	.017873	.0009613	.0002745
%RSD	.4277175	.2089785	.2546173	.4830432	1.427131	.8522085
#1	6.806034	122.9738	110.0989	3.680924	.0672978	.0323068
#2	6.748792	122.6507	110.0201	3.703042	.0664251	.0319064
#3	6.785503	122.4674	110.5408	3.716302	.0683450	.0324320

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.185689	.0010216	8.284336	2.250765	4.074247	.7602539
Stddev	.192025	.0013172	.068958	.040958	.053859	.0008230
%RSD	8.785537	128.9388	.8323948	1.819725	1.321942	.1082575
#1	2.236359	.0012215	8.363881	2.275836	4.056539	.7611728
#2	1.973411	-.000384	8.241446	2.203500	4.031472	.7595846
#3	2.347298	.002227	8.247681	2.272958	4.134731	.7600042

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-18 Acquired: 1/15/2025 15:08:57 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002036	F 621.6676	F 13.20233	-.004455	-.000828	.0209620
Stddev	.000188	5.8976	.02234	.000652	.000813	.0006549
%RSD	9.248910	.9486712	.1692015	14.63499	98.12191	3.124183
#1	-.002175	620.6281	13.22504	-.004683	-.001352	.0217170
#2	-.001822	616.3589	13.20157	-.003720	-.001242	.0205475
#3	-.002111	628.0159	13.18039	-.004963	.000108	.0206215

Elem	Sr4077
Units	ppm
Avg	.2239689
Stddev	.0014155
%RSD	.6320194
#1	.2253134
#2	.2224917
#3	.2241015

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3234.385	67079.77	14484.19	2243.474	3968.700
Stddev	34.128	362.11	111.59	5.228	42.947
%RSD	1.055147	.5398243	.7703921	.2330360	1.082140
#1	3249.857	67497.51	14612.94	2241.022	3987.618
#2	3258.037	66855.15	14415.49	2249.477	3998.940
#3	3195.262	66886.65	14424.13	2239.923	3919.542

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-17LX5 Acquired: 1/15/2025 15:13:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049142**	**-.008035**	**.7259805**	**.0036820**	**.0042804**	**5.479813**
Stddev	.0025238	.001324	.0102868	.0014180	.0003527	.093891
%RSD	51.35803	16.47483	1.416945	38.51314	8.238955	1.713392
#1	.0059585	-.009350	.7162201	.0031077	.0039763	5.570969
#2	.0067483	-.008053	.7249983	.0052971	.0046670	5.485064
#3	.0020358	-.006703	.7367231	.0026412	.0041978	5.383408

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0145415**	**.0053998**	**.0105832**	**83.69513**	**.0258707**	**.0061534**
Stddev	.0008151	.0000282	.0001811	1.34841	.0003613	.0002695
%RSD	5.605574	.5214749	1.710826	1.611103	1.396688	4.379155
#1	.0143738	.0054293	.0104150	85.12441	.0256444	.0058506
#2	.0138233	.0053732	.0105599	83.51535	.0256803	.0062424
#3	.0154275	.0053969	.0107748	82.44562	.0262874	.0063671

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.571540**	**27.35164**	**26.63802**	**.8371277**	**.0138375**	**.0068670**
Stddev	.049525	.41784	.41577	.0135007	.0002067	.0002309
%RSD	3.151369	1.527645	1.560807	1.612740	1.493484	3.362202
#1	1.600900	27.77576	27.11723	.8526339	.0136298	.0067540
#2	1.599359	27.33878	26.42357	.8279833	.0138396	.0071326
#3	1.514360	26.94038	26.37326	.8307658	.0140431	.0067144

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5120601**	**.0026511**	**1.819105**	**.4615712**	**.8096604**	**.1758341**
Stddev	.0565972	.0015863	.023621	.0545473	.0093147	.0030681
%RSD	11.05285	59.83516	1.298485	11.81774	1.150443	1.744896
#1	.4541503	.0030899	1.840392	.5076888	.7992414	.1788468
#2	.5147837	.0039719	1.823230	.4756646	.8125579	.1759422
#3	.5672464	.0008916	1.793694	.4013602	.8171820	.1727134

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-17LX5 Acquired: 1/15/2025 15:13:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000374	F 135.9130	3.056038	-.003367	-.000255	.0031038
Stddev	.000563	1.9882	.080351	.000164	.000297	.0001357
%RSD	150.6005	1.462845	2.629262	4.864277	116.1534	4.371273
#1	-.000991	133.9292	3.101864	-.003227	.000033	.0031931
#2	.000112	135.9043	3.102992	-.003327	-.000239	.0031707
#3	-.000243	137.9056	2.963259	-.003547	-.000560	.0029477

Elem	Sr4077
Units	ppm
Avg	.0481280
Stddev	.0008422
%RSD	1.750007
#1	.0489534
#2	.0481608
#3	.0472699

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2965.093	60534.68	12299.02	2056.170	4269.066
Stddev	26.907	366.56	204.21	9.771	40.351
%RSD	.9074723	.6055315	1.660355	.4752086	.9452015
#1	2990.361	60113.09	12200.93	2044.893	4311.137
#2	2968.118	60712.84	12162.37	2061.498	4265.372
#3	2936.802	60778.09	12533.77	2062.119	4230.689

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-19 Acquired: 1/15/2025 15:17:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0579681**	**.0531712**	**3.452870**	**.0888060**	**.0876506**	**26.74506**
Stddev	.0019803	.0042828	.029711	.0003085	.0003926	.11313
%RSD	3.416171	8.054767	.8604720	.3473600	.4479659	.4229887
#1	.0572770	.0486289	3.421068	.0884901	.0880459	26.81809
#2	.0602014	.0571359	3.479916	.0891064	.0872606	26.61475
#3	.0564261	.0537490	3.457625	.0888216	.0876453	26.80235

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.464631**	**.0661467**	**.1023098**	**377.8022**	**.2873308**	**.5160324**
Stddev	.005028	.0004739	.0008326	1.3737	.0013530	.0048898
%RSD	.3433280	.7164484	.8137532	.3636045	.4708931	.9475661
#1	1.469391	.0665670	.1014134	377.6821	.2879651	.5109299
#2	1.459371	.0662400	.1030588	376.4925	.2882501	.5206772
#3	1.465132	.0656331	.1024573	379.2320	.2857771	.5164900

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.846640**	**122.2377**	F **108.8698**	**3.690747**	**.5566305**	**.0628603**
Stddev	.041427	.5837	.5316	.010575	.0048647	.0003261
%RSD	.6050749	.4775050	.4882460	.2865197	.8739477	.5187419
#1	6.892995	122.5432	109.2206	3.687061	.5519432	.0631832
#2	6.833689	121.5647	108.2582	3.702672	.5616550	.0625311
#3	6.813235	122.6053	109.1305	3.682510	.5562932	.0628667

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.174981**	**.4133185**	**8.704898**	**2.250060**	**4.061136**	**.7578285**
Stddev	.275691	.0022295	.111477	.020027	.033384	.0039371
%RSD	12.67554	.5394080	1.280624	.8900858	.8220320	.5195215
#1	2.475160	.4157952	8.690905	2.236002	4.031338	.7616818
#2	2.116676	.4126884	8.601079	2.241186	4.097214	.7538126
#3	1.933105	.4114718	8.822712	2.272991	4.054857	.7579912

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-19 Acquired: 1/15/2025 15:17:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002718	F 618.5613	F 13.02544	-.004211	-.001688	.0209444
Stddev	.000266	5.6623	.07845	.000997	.000257	.0003954
%RSD	9.780350	.9153948	.6022506	23.67423	15.20987	1.887890
#1	-.002650	612.5597	13.11480	-.003136	-.001445	.0213564
#2	-.003012	623.8086	12.99362	-.004394	-.001661	.0205680
#3	-.002493	619.3156	12.96790	-.005104	-.001957	.0209088

Elem	Sr4077
Units	ppm
Avg	.2206946
Stddev	.0010582
%RSD	.4795101
#1	.2215847
#2	.2195245
#3	.2209745

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3200.964	66658.95	14417.67	2188.332	3956.036
Stddev	25.096	542.68	45.70	35.015	35.244
%RSD	.7840065	.8141155	.3169661	1.600084	.8908909
#1	3222.863	66888.13	14436.79	2203.640	3989.802
#2	3173.579	67049.45	14450.70	2213.086	3919.480
#3	3206.449	66039.28	14365.51	2148.269	3958.827

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165941TB Acquired: 1/15/2025 15:21:28 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB941 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000883**	**-.000727**	**-.000197**	**.0028409**	**-.000539**	**.0077603**
Stddev	.001872	.002013	.000482	.0013148	.000601	.0046683
%RSD	211.9899	276.7534	245.3004	46.28033	111.6537	60.15699
#1	-.002912	.000576	-.000734	.0031232	.000112	.0056819
#2	.000777	.000287	-.000053	.0014079	-.000655	.0131069
#3	-.000515	-.003045	.000197	.0039915	-.001073	.0044921

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0054626**	**-.000071**	**.0000212**	**.0059130**	**.0027922**	**-.000005**
Stddev	.0007322	.000014	.0000158	.0077960	.0001893	.000205
%RSD	13.40364	20.08334	74.54025	131.8455	6.780870	3992.602
#1	.0055613	-.000075	.0000097	.0082795	.0028508	-.000241
#2	.0046861	-.000055	.0000147	-.002792	.0025805	.000105
#3	.0061405	-.000083	.0000393	.012251	.0029454	.000121

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000019**	**.0160750**	**.0022008**	**.0037477**	**.0005111**	**-.000184**
Stddev	.001076	.0013056	.0002140	.0040644	.0000592	.000342
%RSD	5794.682	8.121937	9.722127	108.4485	11.58841	185.2663
#1	.001089	.0152942	.0022108	.0002669	.0004617	-.000447
#2	-.001059	.0153485	.0024096	.0082143	.0004948	.000202
#3	-.000086	.0175822	.0019820	.0027619	.0005767	-.000309

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.257289**	**.0005712**	**.0009449**	**-1.52873**	**.0017721**	**-.001165**
Stddev	.113500	.0006333	.0012127	.03879	.0007476	.000443
%RSD	44.11373	110.8704	128.3489	2.537532	42.18317	38.05056
#1	-.147391	.0012978	.0007738	-1.57163	.0026163	-.001306
#2	-.374077	.0001365	-.000173	-1.49614	.0011939	-.000669
#3	-.250400	.0002793	.002234	-1.51841	.0015063	-.001521

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165941TB Acquired: 1/15/2025 15:21:28 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB941 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001691	F 7.696197	.0012275	-.001384	.0000281	-.003373
Stddev	.0002975	.010807	.0008316	.000383	.0007713	.000047
%RSD	175.9195	.1404176	67.74710	27.70366	2741.822	1.397820
#1	.0004709	7.695596	.0006802	-.000948	.0001387	-.003376
#2	.0001605	7.685702	.0008180	-.001538	-.000792	-.003419
#3	-.000124	7.707291	.0021845	-.001667	.000738	-.003325

Elem	Sr4077
Units	ppm
Avg	.0000075
Stddev	.0000199
%RSD	266.5543
#1	.0000117
#2	-.000014
#3	.000025

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2992.496	62456.76	13227.68	2040.018	4735.941
Stddev	5.997	886.38	54.62	34.530	8.669
%RSD	.2004037	1.419183	.4129385	1.692617	.1830558
#1	2990.141	62667.13	13269.70	2052.684	4732.564
#2	2999.313	63219.03	13247.41	2066.426	4745.791
#3	2988.034	61484.13	13165.94	2000.944	4729.469

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165942TB Acquired: 1/15/2025 15:25:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB942 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000441**	**-.001731**	**.0003955**	**.0009040**	**-.000747**	**.0135581**
Stddev	.000902	.001088	.0015954	.0016539	.001456	.0039420
%RSD	204.5450	62.86682	403.3783	182.9508	194.9621	29.07456
#1	-.000505	-.002046	.0022366	-.001006	.000934	.0179107
#2	.000491	-.000520	-.000579	.001846	-.001552	.0125352
#3	-.001309	-.002626	-.000471	.001871	-.001623	.0102285

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046607**	**-.000054**	**.0000573**	**-.008753**	**.0028589**	**-.000132**
Stddev	.0004573	.000042	.0000543	.001764	.0001946	.000117
%RSD	9.811763	78.24170	94.67106	20.15836	6.808145	88.32505
#1	.0045159	-.000013	.0000956	-.007229	.0027214	-.000219
#2	.0051729	-.000098	-.000005	-.010686	.0027737	.000000
#3	.0042934	-.000052	.000081	-.008343	.0030816	-.000177

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000206**	**.0171039**	**.0011034**	**.0112986**	**.0003914**	**-.000234**
Stddev	.000861	.0032227	.0001258	.0023558	.0001121	.000259
%RSD	417.2896	18.84191	11.40472	20.85013	28.62768	110.6742
#1	.000014	.0133847	.0009981	.0086074	.0002778	.000011
#2	-.001157	.0190713	.0012428	.0123012	.0003946	-.000207
#3	.000523	.0188556	.0010694	.0129872	.0005018	-.000505

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.110384**	**.0001694**	**.0008978**	**-1.53746**	**-.000330**	**-.001601**
Stddev	.072779	.0003212	.0019317	.02930	.000521	.000415
%RSD	65.93199	189.6002	215.1717	1.905682	157.6514	25.91291
#1	-.194219	.0004313	-.001178	-1.50755	-.000036	-.001703
#2	-.063415	.0002661	.001230	-1.53873	-.000931	-.001954
#3	-.073519	-.000189	.002642	-1.56610	-.000023	-.001144

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: PB165942TB Acquired: 1/15/2025 15:25:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LEB942 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000995	F 7.551883	.0004874	-.001198	-.000190	-.002674
Stddev	.0000585	.038146	.0010239	.000460	.000945	.001027
%RSD	58.75447	.5051151	210.0715	38.41294	496.6144	38.39914
#1	.0001504	7.563015	-.000308	-.001413	.000591	-.003321
#2	.0000357	7.509410	.001643	-.000669	-.001241	-.001490
#3	.0001124	7.583224	.000127	-.001511	.000080	-.003211

Elem	Sr4077
Units	ppm
Avg	-.000008
Stddev	.000007
%RSD	84.16974
#1	-.000004
#2	-.000016
#3	-.000004

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3035.229	65466.39	13236.12	2082.057	4807.925
Stddev	14.670	116.53	81.82	15.176	19.528
%RSD	.4833403	.1779966	.6181748	.7288783	.4061577
#1	3035.362	65597.87	13286.38	2088.549	4806.106
#2	3049.833	65425.39	13280.28	2092.906	4828.298
#3	3020.493	65375.90	13141.71	2064.715	4789.370

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-01 Acquired: 1/15/2025 15:29:44 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D28 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0139316**	**.0260710**	**.6893714**	**-.007220**	**-.001424**	**25.77421**
Stddev	.0016785	.0024750	.0025244	.000125	.002049	.03691
%RSD	12.04810	9.493305	.3661874	1.733313	143.8844	.1432038
#1	.0122795	.0281148	.6867408	-.007273	-.003725	25.81550
#2	.0138800	.0267791	.6895993	-.007309	-.000752	25.74442
#3	.0156353	.0233191	.6917741	-.007077	.000204	25.76270

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0765973**	**.0201774**	**.3836030**	**63.06077**	**.0180714**	**.0457086**
Stddev	.0003723	.0000658	.0000935	.14956	.0001868	.0001282
%RSD	.4860479	.3259267	.0243862	.2371731	1.033491	.2804582
#1	.0770105	.0201949	.3836989	63.18569	.0179817	.0457412
#2	.0762879	.0202326	.3835981	63.10159	.0182861	.0458173
#3	.0764936	.0201047	.3835120	62.89504	.0179464	.0455672

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.11029**	**15.99669**	F **108.2356**	**6.648418**	**.0498427**	**.0441111**
Stddev	.08934	.05095	.1829	.049708	.0008782	.0002409
%RSD	.5221544	.3184811	.1689517	.7476666	1.762020	.5461871
#1	17.02440	16.05041	108.2542	6.678485	.0508538	.0443876
#2	17.10375	15.99059	108.0442	6.675727	.0492702	.0439994
#3	17.20273	15.94907	108.4085	6.591042	.0494040	.0439463

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.568002**	**-.021733**	F **116.0642**	**2.549036**	**6.454196**	**.2839709**
Stddev	.109816	.000263	.1208	.011873	.005596	.0012729
%RSD	4.276331	1.211543	.1040789	.4658013	.0867072	.4482622
#1	2.665064	-.021792	116.1443	2.559072	6.457345	.2832118
#2	2.590137	-.021961	115.9252	2.552107	6.447735	.2832604
#3	2.448804	-.021445	116.1230	2.535928	6.457508	.2854405

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-01 Acquired: 1/15/2025 15:29:44 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D28 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.015201	F 343.4411	F 13.06498	-.003616	-.001104	.0359869
Stddev	.000218	.4310	.03952	.000192	.000415	.0005563
%RSD	1.436074	.1255032	.3024801	5.308060	37.57119	1.545850
#1	-.015102	343.1457	13.01935	-.003619	-.000627	.0365819
#2	-.015051	343.2419	13.08819	-.003423	-.001305	.0358992
#3	-.015452	343.9357	13.08739	-.003807	-.001379	.0354797

Elem	Sr4077
Units	ppm
Avg	.1633411
Stddev	.0005461
%RSD	.3343085
#1	.1632695
#2	.1628343
#3	.1639194

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3726.333	77325.73	16563.56	2532.293	4381.159
Stddev	20.935	113.51	42.22	4.084	20.191
%RSD	.5618171	.1467969	.2549233	.1612714	.4608640
#1	3742.001	77220.13	16611.07	2531.523	4396.903
#2	3734.441	77311.29	16530.33	2536.706	4388.181
#3	3702.556	77445.77	16549.28	2528.648	4358.395

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-02 Acquired: 1/15/2025 15:33:57 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.001458	k .8030129	3.429359	k .2396782	k .0652779	34.61780
Stddev	.001667	.0105269	.030576	.0040128	.0010951	.37431
%RSD	114.3629	1.310931	.8915876	1.674246	1.677579	1.081275
#1	k -.002208	k .7911813	3.394838	k .2355953	k .0663126	34.21239
#2	k .000453	k .8065150	3.440209	k .2436171	k .0653899	34.95028
#3	k -.002618	k .8113424	3.453030	k .2398221	k .0641311	34.69075

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0438925	k -.004870	.0677676	148.7379	k .1790507	.0278903
Stddev	.0006150	.000052	.0007380	1.6174	.0032239	.0003022
%RSD	1.401172	1.066153	1.089092	1.087403	1.800562	1.083628
#1	.0431954	k -.004929	.0670019	146.9403	k .1753930	.0275900
#2	.0443581	k -.004829	.0678265	150.0753	k .1802801	.0278866
#3	.0441241	k -.004853	.0684745	149.1983	k .1814791	.0281944

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.69796	118.2876	^ *****	3.103582	.0529754	k .1636498
Stddev	.04558	1.1898	-----	.047492	.0010353	.0027987
%RSD	.1845667	1.005845	-----	1.530228	1.954329	1.710164
#1	24.69441	116.9801	^ -----	3.055114	.0518347	k .1604343
#2	24.74521	119.3067	^ -----	3.105598	.0532359	k .1655367
#3	24.65425	118.5761	^ -----	3.150034	.0538556	k .1649784

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.029354	k -.140826	14.57651	-.368562	k -.351496	.7407562
Stddev	.164514	.001451	.12649	.029591	.006151	.0063164
%RSD	5.430675	1.030440	.8677639	8.028641	1.750010	.8527000
#1	3.023725	k -.140354	14.44164	-.346035	k -.357224	.7335351
#2	2.867727	k -.139670	14.69250	-.357577	k -.344995	.7452551
#3	3.196611	k -.142454	14.59538	-.402074	k -.352268	.7434785

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-02 Acquired: 1/15/2025 15:33:57 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.017253**	kF **465.7383**	F **17.68803**	**-.002674**	**.0223415**	**.0140981**
Stddev	.000346	5.1457	.00676	.000431	.0003829	.0001450
%RSD	2.003889	1.104842	.0382314	16.10885	1.713612	1.028677
#1	-.017022	k 460.1883	17.68064	-.003105	.0227666	.0139370
#2	-.017650	k 466.6760	17.68952	-.002674	.0220239	.0141394
#3	-.017086	k 470.3506	17.69392	-.002243	.0222341	.0142180

Elem	Sr4077
Units	ppm
Avg	**.0509722**
Stddev	.0007234
%RSD	1.419169
#1	.0501928
#2	.0516220
#3	.0511019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3197.207**	**67748.41**	**14462.83**	**2242.273**	**4122.200**
Stddev	26.822	876.10	17.37	23.289	37.724
%RSD	.8389088	1.293164	.1200849	1.038628	.9151474
#1	3224.972	68724.56	14482.42	2266.970	4161.636
#2	3195.210	67030.33	14456.74	2220.709	4118.505
#3	3171.440	67490.34	14449.33	2239.139	4086.459

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCV024 Acquired: 1/15/2025 15:37:55 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV024 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.703126**	**4.597182**	**24.14179**	**4.674229**	**4.717754**	**364.1951**
Stddev	.023519	.085335	.09378	.017977	.021602	2.4264
%RSD	.5000703	1.856241	.3884514	.3846075	.4578928	.6662357
#1	4.676404	4.514068	24.05479	4.654433	4.694323	364.9560
#2	4.720684	4.592904	24.24113	4.689538	4.736879	366.1498
#3	4.712289	4.684576	24.12945	4.678716	4.722059	361.4794

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.574838**	**.5044178**	**2.470854**	**374.5814**	**15.29777**	**2.442217**
Stddev	.129653	.0046115	.008679	1.3292	.07387	.007926
%RSD	1.354106	.9142254	.3512466	.3548618	.4828484	.3245493
#1	9.482932	.5045827	2.461495	374.2722	15.28666	2.436068
#2	9.723139	.5089446	2.478636	376.0380	15.37656	2.451162
#3	9.518444	.4997260	2.472430	373.4340	15.23009	2.439420

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.52279**	**379.3227**	**14.48001**	**380.1689**	**2.437309**	**1.247682**
Stddev	.08823	.5215	.02050	.3969	.006117	.007246
%RSD	.6074991	.1374807	.1415776	.1044085	.2509865	.5807651
#1	14.62290	379.7211	14.50367	379.8842	2.432781	1.249575
#2	14.48908	378.7325	14.46778	380.6223	2.444268	1.253793
#3	14.45638	379.5147	14.46856	380.0002	2.434879	1.239677

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**380.3154**	**2.427015**	**14.49641**	**143.9031**	**4.851440**	F **5.844434**
Stddev	2.8407	.003633	.09303	.4943	.011378	.030287
%RSD	.7469272	.1497104	.6417535	.3435259	.2345282	.5182150
#1	383.5116	2.428638	14.51950	144.3571	4.838387	5.855174
#2	379.3560	2.429554	14.39400	143.3764	4.859264	5.867888
#3	378.0787	2.422853	14.57572	143.9757	4.856668	5.810241

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCV024 Acquired: 1/15/2025 15:37:55 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV024 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.708815**	**4.878887**	**4.911316**	**4.897504**	**4.843767**	**4.745309**
Stddev	.020702	.013728	.022526	.019529	.020618	.029436
%RSD	.4396528	.2813745	.4586544	.3987539	.4256534	.6203211
#1	4.685425	4.863683	4.926923	4.874981	4.863539	4.774222
#2	4.724786	4.890372	4.921532	4.909734	4.845365	4.715376
#3	4.716234	4.882605	4.885492	4.907796	4.822397	4.746329

Elem	Sr4077
Units	ppm
Avg	**4.795025**
Stddev	.044740
%RSD	.9330411
#1	4.779736
#2	4.845404
#3	4.759933

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2280.079**	**50499.02**	**11821.09**	**1594.133**	**3357.835**
Stddev	9.635	163.87	83.52	6.762	9.815
%RSD	.4225677	.3244973	.7065125	.4242113	.2923031
#1	2289.845	50457.68	11799.05	1589.883	3366.010
#2	2270.581	50359.78	11750.80	1601.931	3346.949
#3	2279.812	50679.60	11913.41	1590.585	3360.545

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCB024 Acquired: 1/15/2025 15:42:14 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB024 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000962**	**-.001063**	**.0008866**	**.0027344**	**.0013455**	**.0027390**	**.0045995**
Stddev	.000544	.001897	.0008962	.0030235	.0015628	.0022143	.0001858
%RSD	56.50005	178.4582	101.0849	110.5764	116.1559	80.84514	4.040015
#1	-.001588	.000388	.0008764	.0018800	.0020428	.0042215	.0046040
#2	-.000698	-.000367	.0017878	.0060932	-.000445	.0001936	.0047830
#3	-.000601	-.003209	-.000004	.0002299	.002438	.0038018	.0044115

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000048**	**.0000888**	**.0032517**	**-.000026**	**-.000005**	**.0002185**	**.0002207**
Stddev	.000030	.0000453	.0053683	.000399	.000121	.0015661	.0031797
%RSD	63.28460	51.04427	165.0920	1545.837	2489.679	716.6939	1440.455
#1	-.000076	.0001395	.0088840	.000422	-.000090	.0019720	-.003437
#2	-.000016	.0000747	-.001806	-.000156	-.000058	-.001041	.001777
#3	-.000052	.0000522	.002677	-.000343	.000134	-.000275	.002323

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002296**	**.0062441**	**.0001258**	**-.000176**	**-.145463**	**-.000082**	**.0017189**
Stddev	.0005067	.0104524	.0001347	.000173	.113284	.001123	.0007888
%RSD	220.6752	167.3977	107.0627	98.12822	77.87782	1363.997	45.89011
#1	-.000343	.0155087	.0002678	.000023	-.233486	.000640	.0012265
#2	.000414	-.005087	.0001097	-.000276	-.017653	-.001376	.0013014
#3	.000618	.008311	-.000000	-.000275	-.185251	.000489	.0026287

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0404830**	**-.001702**	**.0043866**	**.0003667**	**.0344788**	**-.000699**	**-.000201**
Stddev	.0356945	.001557	.0003554	.0001580	.0022676	.001720	.000737
%RSD	88.17158	91.47743	8.102582	43.09845	6.576653	246.1227	365.7047
#1	.0360932	.000092	.0047219	.0005489	.0361651	.001072	-.000046
#2	.0071864	-.002700	.0040140	.0002825	.0319010	-.000805	.000445
#3	.0781693	-.002496	.0044238	.0002685	.0353702	-.002364	-.001004

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCB024 Acquired: 1/15/2025 15:42:14 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB024 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0004210	-.000712	.0000575
Stddev	.0002853	.000284	.0000646
%RSD	67.76606	39.93559	112.3991
#1	.0003427	-.000396	-.000005
#2	.0001831	-.000793	.000054
#3	.0007373	-.000947	.000124

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2906.871	60147.53	12721.16	1956.819	4569.863
Stddev	17.118	186.11	47.28	4.462	30.144
%RSD	.5888938	.3094157	.3716680	.2280448	.6596267
#1	2916.357	60165.33	12697.81	1959.965	4589.088
#2	2917.146	60324.09	12775.57	1958.781	4585.379
#3	2887.110	59953.16	12690.10	1951.712	4535.121

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-03 Acquired: 1/15/2025 15:46:24 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D34 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0260500**	**-.005033**	**1.434712**	**.0056533**	**.0102151**	**22.71750**
Stddev	.0004117	.001561	.004700	.0011251	.0013779	.16961
%RSD	1.580362	31.02625	.3276144	19.90107	13.48915	.7466180
#1	.0264172	-.004099	1.440009	.0044498	.0094527	22.78198
#2	.0256049	-.006835	1.433092	.0058315	.0093868	22.52510
#3	.0261279	-.004163	1.431037	.0066787	.0118057	22.84542

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0603645**	**.0119929**	**.0905738**	**43.43392**	**.0332768**	**.0369632**
Stddev	.0010488	.0001235	.0003979	.25891	.0003081	.0004652
%RSD	1.737422	1.030103	.4392801	.5960915	.9258844	1.258561
#1	.0595757	.0119505	.0909126	43.54543	.0332221	.0374782
#2	.0599632	.0118962	.0906731	43.13794	.0329998	.0368381
#3	.0615547	.0121321	.0901357	43.61838	.0336087	.0365734

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.316557**	**61.33969**	F **31.05038**	**6.593709**	**.0416574**	**.0407966**
Stddev	.062174	.42577	.25378	.038242	.0001135	.0001843
%RSD	1.440357	.6941194	.8173176	.5799755	.2724381	.4516432
#1	4.318479	61.51024	30.98074	6.611909	.0415737	.0405892
#2	4.253445	60.85508	30.83869	6.549767	.0417865	.0409416
#3	4.377748	61.65374	31.33171	6.619453	.0416119	.0408589

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.042053**	**.0044609**	**13.33078**	**1.231172**	**5.752445**	**.5102157**
Stddev	.157726	.0007669	.01193	.036269	.042025	.0049001
%RSD	5.184840	17.19137	.0894551	2.945873	.7305637	.9604040
#1	3.157281	.0053417	13.34378	1.239462	5.780673	.5111331
#2	3.106584	.0039411	13.32035	1.191476	5.772514	.5049217
#3	2.862295	.0040999	13.32821	1.262578	5.704148	.5145924

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-03 Acquired: 1/15/2025 15:46:24 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D34 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001487	F 370.6031	6.984455	-.003579	.0326817	.0228816
Stddev	.000202	2.5815	.091491	.000243	.0006482	.0005949
%RSD	13.56452	.6965707	1.309928	6.788187	1.983473	2.599772
#1	-.001342	373.4864	6.977938	-.003456	.0327501	.0233538
#2	-.001401	369.8167	6.896397	-.003859	.0320020	.0222135
#3	-.001717	368.5062	7.079031	-.003422	.0332930	.0230776

Elem	Sr4077
Units	ppm
Avg	.1306429
Stddev	.0009576
%RSD	.7329580
#1	.1307822
#2	.1296234
#3	.1315233

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3704.277	74866.26	16437.22	2462.282	4571.858
Stddev	4.650	325.85	178.16	6.146	8.853
%RSD	.1255437	.4352363	1.083907	.2495885	.1936443
#1	3705.221	74990.71	16475.51	2469.317	4569.459
#2	3699.227	75111.54	16593.13	2457.955	4564.451
#3	3708.383	74496.53	16243.03	2459.575	4581.663

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-04 Acquired: 1/15/2025 15:50:29 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054511	.0139136	4.660984	.0149594	.0424340	23.61136
Stddev	.0026507	.0037772	.039215	.0021975	.0005356	.22612
%RSD	48.62696	27.14753	.8413459	14.68972	1.262269	.9576760
#1	.0063258	.0151536	4.648162	.0127663	.0426725	23.71004
#2	.0024736	.0169150	4.629784	.0149507	.0428088	23.35268
#3	.0075540	.0096723	4.705005	.0171613	.0418205	23.77138

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238274	.0230259	1.011839	61.61078	.0189666	.1386532
Stddev	.0002309	.0000483	.006640	.53064	.0008706	.0010902
%RSD	.9690309	.2098368	.6562796	.8612846	4.590329	.7862703
#1	.0240454	.0230093	1.012762	61.80916	.0181475	.1385050
#2	.0238513	.0229880	1.004785	61.00953	.0188714	.1376447
#3	.0235855	.0230803	1.017970	62.01366	.0198809	.1398099

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 178.8861	68.59886	F 137.8832	4.001364	.0506703	.1367149
Stddev	.6116	.55586	1.3599	.030952	.0012438	.0006878
%RSD	.3419128	.8103090	.9862930	.7735350	2.454701	.5030879
#1	178.3310	68.79340	138.8993	4.010581	.0509814	.1371306
#2	179.5418	67.97188	136.3382	3.966850	.0493005	.1359210
#3	178.7855	69.03131	138.4120	4.026660	.0517290	.1370931

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.843395	-.042517	F 119.6122	3.767900	.4888963	.5331284
Stddev	.265531	.000834	1.1819	.058109	.0014394	.0026238
%RSD	6.908752	1.961175	.9881234	1.542205	.2944265	.4921476
#1	3.539082	-.043021	120.6283	3.776827	.4873518	.5322956
#2	4.027977	-.042975	118.3151	3.705844	.4902004	.5310221
#3	3.963127	-.041555	119.8931	3.821028	.4891368	.5360675

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-04 Acquired: 1/15/2025 15:50:29 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.018453	F 337.2818	F 17.57871	.0022693	.0081891	.0135929
Stddev	.000040	1.5035	.09850	.0009925	.0001685	.0002324
%RSD	.2148534	.4457587	.5603508	43.73570	2.057393	1.709450
#1	-.018410	337.9243	17.46867	.0026550	.0083830	.0138610
#2	-.018460	335.5639	17.65865	.0030109	.0081055	.0134484
#3	-.018489	338.3573	17.60880	.0011418	.0080787	.0134695

Elem	Sr4077
Units	ppm
Avg	.0565131
Stddev	.0005920
%RSD	1.047569
#1	.0565980
#2	.0558832
#3	.0570580

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3097.670	72689.78	15609.41	2318.399	4311.966
Stddev	21.825	533.59	128.88	19.132	31.488
%RSD	.7045682	.7340642	.8256537	.8252106	.7302511
#1	3107.048	72511.56	15740.66	2303.550	4322.483
#2	3113.239	73289.67	15483.04	2339.989	4336.850
#3	3072.723	72268.11	15604.52	2311.659	4276.566

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-05 Acquired: 1/15/2025 15:54:50 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D40 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2198138**	**.0008605**	**.2035942**	**-.005106**	**.1025003**	**-.152887**
Stddev	.0029023	.0019106	.0013218	.004206	.0015660	.017829
%RSD	1.320328	222.0303	.6492530	82.36978	1.527788	11.66151
#1	.2164984	-.000453	.2023710	-.000743	.1024210	-.148916
#2	.2210487	.003052	.2049964	-.009135	.1041044	-.172367
#3	.2218945	-.000018	.2034152	-.005440	.1009755	-.137379

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1019845**	**.0001059**	**.0099034**	F **887.2347**	**.0003108**	**.0005246**
Stddev	.0017246	.0000291	.0001385	7.1679	.0000481	.0000673
%RSD	1.691071	27.44511	1.398127	.8078870	15.49170	12.82229
#1	.1039573	.0001196	.0098391	891.9665	.0003658	.0006021
#2	.1012336	.0001256	.0100623	890.7498	.0002907	.0004907
#3	.1007626	.0000725	.0098088	878.9879	.0002760	.0004811

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6524290**	**.0081019**	**.4096032**	**5.900633**	**.0074242**	**-.000718**
Stddev	.0062676	.0030737	.0084379	.044117	.0006516	.000175
%RSD	.9606522	37.93833	2.060017	.7476603	8.776149	24.37317
#1	.6523527	.0103797	.4193370	5.946212	.0077451	-.000906
#2	.6461999	.0046058	.4051069	5.897546	.0066744	-.000561
#3	.6587343	.0093203	.4043657	5.858141	.0078530	-.000686

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.427448**	**.0003873**	**4.811475**	**-.188137**	**.0062876**	**.1085062**
Stddev	.353650	.0013902	.060626	.027286	.0030087	.0043450
%RSD	24.77502	358.9194	1.260026	14.50338	47.85112	4.004421
#1	1.518448	.0019731	4.870120	-.157482	.0084630	.1035724
#2	1.037190	-.000621	4.749046	-.209769	.0075458	.1101843
#3	1.726705	-.000190	4.815258	-.197161	.0028541	.1117620

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-05 Acquired: 1/15/2025 15:54:50 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D40 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053470	F 405.1620	3.243976	-.005364	-.029699	.0178697
Stddev	.0002825	2.0322	.051649	.000672	.000795	.0008608
%RSD	5.283286	.5015875	1.592153	12.53348	2.676593	4.817213
#1	.0050469	402.8168	3.191545	-.005772	-.028990	.0169343
#2	.0053861	406.2646	3.245579	-.005732	-.029550	.0186286
#3	.0056078	406.4047	3.294805	-.004588	-.030558	.0180461

Elem	Sr4077
Units	ppm
Avg	.5045165
Stddev	.0165175
%RSD	3.273923
#1	.5234249
#2	.4928989
#3	.4972256

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2700.422	53795.17	11660.81	1847.324	3856.455
Stddev	8.473	444.16	488.46	17.921	8.023
%RSD	.3137617	.8256592	4.188873	.9700847	.2080279
#1	2704.841	54306.71	12217.13	1862.833	3864.964
#2	2705.771	53571.53	11463.14	1851.433	3855.371
#3	2690.653	53507.29	11302.17	1827.706	3849.030

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-06 Acquired: 1/15/2025 15:59:00 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D43 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0208648**	**.0093259**	**5.340708**	**.0087216**	**.0090811**	**33.20390**
Stddev	.0005008	.0023941	.083679	.0007695	.0001397	.06572
%RSD	2.400199	25.67117	1.566823	8.823123	1.538810	.1979330
#1	.0213668	.0075627	5.342733	.0078696	.0091646	33.23417
#2	.0208624	.0120514	5.423356	.0093661	.0089198	33.12850
#3	.0203653	.0083635	5.256034	.0089291	.0091590	33.24904

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0304141**	**.0302949**	**.0564153**	**72.31433**	**.0586701**	**.0367485**
Stddev	.0004207	.0002543	.0009474	.07452	.0006032	.0004529
%RSD	1.383341	.8394225	1.679411	.1030476	1.028164	1.232387
#1	.0307591	.0304259	.0562997	72.37517	.0593477	.0368694
#2	.0299454	.0300018	.0574153	72.23122	.0581916	.0371286
#3	.0305378	.0304571	.0555310	72.33660	.0584710	.0362474

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.856412**	**72.54909**	F **47.64661**	**7.489047**	**.0399060**	**.1112395**
Stddev	.019137	.14654	.43778	.026897	.0002782	.0006096
%RSD	.4962505	.2019914	.9188017	.3591533	.6971304	.5479889
#1	3.836836	72.66947	48.12822	7.481790	.0398565	.1118930
#2	3.857320	72.38591	47.53883	7.466523	.0402056	.1106862
#3	3.875079	72.59188	47.27280	7.518828	.0396558	.1111395

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.069487**	**-.006230**	**8.317932**	**.1000449**	**9.559378**	**.5484084**
Stddev	.287053	.000807	.042272	.0097021	.153975	.0023587
%RSD	9.351821	12.94729	.5082003	9.697691	1.610720	.4300930
#1	3.076024	-.005793	8.274446	.0957401	9.568718	.5501064
#2	2.779222	-.005736	8.320477	.0932402	9.708470	.5457153
#3	3.353216	-.007161	8.358874	.1111545	9.400945	.5494036

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-06 Acquired: 1/15/2025 15:59:00 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D43 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001862	F 437.3241	F 10.13319	-.003359	.0113510	.0277742
Stddev	.000303	5.8416	.05302	.000684	.0006419	.0009361
%RSD	16.27248	1.335751	.5232307	20.37367	5.655228	3.370233
#1	-.001739	436.9260	10.09043	-.002701	.0106717	.0287740
#2	-.001640	443.3546	10.11661	-.004067	.0119475	.0269187
#3	-.002207	431.6918	10.19251	-.003310	.0114339	.0276298

Elem	Sr4077
Units	ppm
Avg	.1635359
Stddev	.0003610
%RSD	.2207544
#1	.1631193
#2	.1637583
#3	.1637300

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3629.719	71835.04	14439.00	2448.046	4279.889
Stddev	36.496	248.09	96.99	13.262	56.666
%RSD	1.005470	.3453638	.6716910	.5417307	1.324013
#1	3634.032	71660.74	14443.31	2455.952	4280.679
#2	3591.258	72119.08	14533.76	2455.452	4222.833
#3	3663.866	71725.32	14339.93	2432.736	4336.157

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-07 Acquired: 1/15/2025 16:03:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D46 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9400311**	**-.000444**	**3.111651**	**.0124772**	**.3167050**	**3.215489**
Stddev	.0105439	.001559	.043033	.0004675	.0039543	.041228
%RSD	1.121652	350.9573	1.382973	3.747099	1.248593	1.282174
#1	.9281973	-.002231	3.063526	.0128893	.3122325	3.228678
#2	.9434693	.000262	3.124999	.0119691	.3181446	3.248510
#3	.9484268	.000636	3.146429	.0125732	.3197378	3.169281

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0460047**	**.0002465**	**.0331653**	**3.938999**	**.0022999**	**.0039568**
Stddev	.0009520	.0000702	.0004456	.052929	.0003788	.0003366
%RSD	2.069417	28.48689	1.343457	1.343715	16.47146	8.507971
#1	.0464883	.0003248	.0326599	3.953894	.0020707	.0036468
#2	.0466178	.0002254	.0333348	3.982884	.0027371	.0039087
#3	.0449079	.0001892	.0335013	3.880218	.0020918	.0043149

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.75394**	**61.18804**	**1.729777**	**.8651373**	**.0044087**	**.0220925**
Stddev	.03251	.83926	.025806	.0144293	.0005992	.0004735
%RSD	.2766302	1.371604	1.491854	1.667863	13.59038	2.143260
#1	11.79104	61.43309	1.736499	.8711633	.0037730	.0223932
#2	11.74032	61.87750	1.751557	.8755768	.0049630	.0215467
#3	11.73044	60.25353	1.701276	.8486717	.0044901	.0223376

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.515241**	**.0218336**	**5.331847**	**-.580561**	**.2300324**	**.5895458**
Stddev	.273294	.0003277	.072221	.032124	.0045334	.0061946
%RSD	7.774556	1.500850	1.354516	5.533218	1.970779	1.050748
#1	3.660440	.0215520	5.331364	-.572423	.2250690	.5940653
#2	3.685289	.0221932	5.404308	-.553288	.2310736	.5920875
#3	3.199994	.0217555	5.259869	-.615971	.2339547	.5824846

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-07 Acquired: 1/15/2025 16:03:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D46 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069435	F 338.0086	1.392283	-.001828	.0012323	-.000490
Stddev	.0000963	4.6022	.010448	.000943	.0005409	.000784
%RSD	1.386511	1.361560	.7504265	51.57229	43.89255	160.0126
#1	.0069709	332.9778	1.402221	-.002325	.0009293	-.001362
#2	.0068364	339.0410	1.381390	-.002419	.0009109	-.000263
#3	.0070230	342.0068	1.393237	-.000741	.0018568	.000156

Elem	Sr4077
Units	ppm
Avg	.0555646
Stddev	.0007381
%RSD	1.328435
#1	.0557528
#2	.0561905
#3	.0547506

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3046.945	60778.97	11936.97	2055.964	4711.301
Stddev	32.501	802.68	34.61	28.314	52.542
%RSD	1.066660	1.320658	.2899390	1.377181	1.115235
#1	3082.155	60572.30	11907.55	2053.976	4769.610
#2	3040.589	60099.82	11928.26	2028.696	4696.665
#3	3018.092	61664.77	11975.11	2085.219	4667.629

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-08 Acquired: 1/15/2025 16:07:03 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2265630**	**-.008315**	**3.828606**	**.0160465**	**.1012160**	**9.537613**
Stddev	.0029212	.000653	.038893	.0029271	.0006582	.096351
%RSD	1.289375	7.856448	1.015855	18.24132	.6503389	1.010217
#1	.2240591	-.007967	3.817698	.0171764	.1006390	9.510665
#2	.2297724	-.007910	3.871789	.0127228	.1019330	9.644569
#3	.2258577	-.009069	3.796332	.0182401	.1010759	9.457606

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0441641**	**.0047078**	**.1371479**	**13.82242**	**.0105277**	**.0475877**
Stddev	.0002985	.0000627	.0011736	.11485	.0007203	.0000968
%RSD	.6759118	1.332559	.8557026	.8309277	6.842228	.2033414
#1	.0439898	.0046382	.1368590	13.76485	.0103893	.0475141
#2	.0445088	.0047253	.1384390	13.95467	.0113072	.0476973
#3	.0439938	.0047600	.1361459	13.74774	.0098867	.0475517

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.843824**	**81.89511**	F **43.44557**	**2.462153**	**.0183535**	**.0193745**
Stddev	.051101	.78816	.30980	.019005	.0002936	.0001415
%RSD	.5191161	.9624030	.7130834	.7718949	1.599850	.7303987
#1	9.863475	81.68598	43.16762	2.471692	.0186602	.0192889
#2	9.785815	82.76675	43.77957	2.474499	.0183255	.0192968
#3	9.882182	81.23261	43.38952	2.440267	.0180749	.0195379

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.019475**	**.0636994**	**23.23960**	**-.147982**	**.7395979**	**.6473287**
Stddev	.201277	.0026206	.20928	.044455	.0073593	.0014595
%RSD	6.665948	4.114031	.9005128	30.04075	.9950424	.2254643
#1	3.177392	.0666849	23.23991	-.165432	.7358146	.6475298
#2	2.792838	.0617790	23.44872	-.097449	.7480793	.6486773
#3	3.088194	.0626344	23.03017	-.181064	.7348998	.6457791

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-08 Acquired: 1/15/2025 16:07:03 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D49 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024812	F 386.8332	3.563913	-.001949	.0010584	.0096248
Stddev	.0001338	4.1213	.031753	.000232	.0005510	.0000516
%RSD	5.390499	1.065395	.8909457	11.89163	52.05756	.5358784
#1	.0024492	386.6229	3.574418	-.001691	.0006998	.0095743
#2	.0023664	391.0556	3.528239	-.002139	.0016928	.0096774
#3	.0026281	382.8210	3.589082	-.002016	.0007826	.0096226

Elem	Sr4077
Units	ppm
Avg	.0541980
Stddev	.0003749
%RSD	.6917745
#1	.0540365
#2	.0546266
#3	.0539309

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3085.550	60744.02	12094.68	2067.817	4619.094
Stddev	18.758	551.29	71.65	21.803	33.345
%RSD	.6079206	.9075647	.5923709	1.054382	.7219028
#1	3087.755	61140.35	12106.03	2068.193	4626.256
#2	3065.787	60114.44	12159.97	2045.828	4582.749
#3	3103.107	60977.25	12018.03	2089.429	4648.276

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-09 Acquired: 1/15/2025 16:11:09 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D52 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0586640**	**-.003599**	**5.478101**	**.0160797**	**.0239609**	**22.39667**
Stddev	.0023882	.001504	.064736	.0018883	.0013389	.05904
%RSD	4.070965	41.77992	1.181717	11.74337	5.587785	.2636303
#1	.0607973	-.003892	5.552248	.0170990	.0249258	22.37496
#2	.0560840	-.004934	5.449231	.0172394	.0245246	22.35156
#3	.0591107	-.001970	5.432823	.0139008	.0224324	22.46350

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0340956**	**.0032929**	**.0279007**	**41.36006**	**.0568214**	**.0322714**
Stddev	.0002343	.0000934	.0004176	.07928	.0002208	.0006358
%RSD	.6872208	2.835757	1.496839	.1916915	.3886573	1.970058
#1	.0341024	.0033997	.0283616	41.33448	.0565783	.0328575
#2	.0343265	.0032264	.0277929	41.29673	.0570097	.0315955
#3	.0338580	.0032527	.0275475	41.44898	.0568762	.0323613

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.97961**	**88.24922**	**12.73930**	**3.330535**	**.0432354**	**.0018008**
Stddev	.10703	.17694	.01430	.010821	.0003452	.0001619
%RSD	.8246280	.2004990	.1122627	.3249144	.7983762	8.990594
#1	13.05958	88.07729	12.75167	3.318390	.0434723	.0016179
#2	13.02124	88.23958	12.72364	3.339152	.0428393	.0018587
#3	12.85802	88.43078	12.74258	3.334062	.0433945	.0019258

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.583302**	**.0313306**	**4.254697**	**.7608085**	**6.250465**	**.6871496**
Stddev	.061264	.0013064	.030240	.0276039	.052736	.0017754
%RSD	1.709714	4.169626	.7107379	3.628232	.8437120	.2583671
#1	3.591434	.0311866	4.286217	.7862866	6.311345	.6863226
#2	3.640093	.0301022	4.251948	.7646562	6.221158	.6891876
#3	3.518377	.0327030	4.225925	.7314825	6.218890	.6859386

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-09 Acquired: 1/15/2025 16:11:09 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D52 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033728	F 362.2046	6.784267	-.003489	.0264389	.0064880
Stddev	.0001066	3.6549	.051447	.000563	.0007110	.0008147
%RSD	3.160588	1.009070	.7583296	16.14102	2.689311	12.55766
#1	.0033804	366.4240	6.811894	-.004088	.0256201	.0064144
#2	.0032626	360.1700	6.815999	-.002971	.0267952	.0057125
#3	.0034754	360.0197	6.724909	-.003407	.0269013	.0073370

Elem	Sr4077
Units	ppm
Avg	.0756717
Stddev	.0002000
%RSD	.2642996
#1	.0757451
#2	.0754453
#3	.0758246

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3221.657	64934.73	12789.52	2217.400	4433.668
Stddev	25.744	91.83	95.84	6.704	39.957
%RSD	.7990792	.1414234	.7493777	.3023450	.9012091
#1	3192.084	65025.29	12751.82	2211.940	4387.532
#2	3239.051	64937.24	12718.26	2215.377	4456.384
#3	3233.837	64841.67	12898.48	2224.882	4457.089

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-10 Acquired: 1/15/2025 16:15:06 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D55 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0268234	.0042044	6.519724	.0029770	.0077231	23.63944
Stddev	.0022197	.0018821	.240262	.0023453	.0009431	.20119
%RSD	8.275455	44.76398	3.685156	78.78038	12.21127	.8510655
#1	.0292525	.0026675	6.421742	.0023175	.0086576	23.41611
#2	.0263172	.0063035	6.793493	.0055814	.0077399	23.69571
#3	.0249004	.0036423	6.343936	.0010321	.0067717	23.80651

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0426615	.0105610	.1156281	70.44566	.0132158	.0711369
Stddev	.0002850	.0001124	.0044817	.50578	.0003067	.0025240
%RSD	.6681404	1.064218	3.875985	.7179739	2.320690	3.548115
#1	.0426935	.0106344	.1136469	69.91362	.0135390	.0700782
#2	.0423619	.0104316	.1207590	70.50307	.0131796	.0740179
#3	.0429293	.0106169	.1124784	70.92029	.0129289	.0693147

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.638071	36.05568	21.96507	7.097560	.0351540	.0018579
Stddev	.015662	.27035	.22990	.055603	.0011857	.0001634
%RSD	.3376941	.7498228	1.046677	.7834048	3.372889	8.795951
#1	4.630147	35.76921	22.10942	7.059110	.0344939	.0017359
#2	4.627954	36.09149	21.69995	7.072256	.0365229	.0017942
#3	4.656112	36.30634	22.08584	7.161315	.0344453	.0020435

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.774534	.0191191	12.60596	2.545115	9.927617	.4340832
Stddev	.133097	.0009701	.13156	.022702	.379464	.0003870
%RSD	3.526196	5.074131	1.043625	.8919826	3.822308	.0891539
#1	3.885677	.0194206	12.48186	2.518930	9.785689	.4343922
#2	3.810887	.0199027	12.59212	2.557134	10.35759	.4336491
#3	3.627037	.0180340	12.74389	2.559281	9.63958	.4342082

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-10 Acquired: 1/15/2025 16:15:06 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D55 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002579**	F **372.5199**	**8.638649**	**-.003610**	**.0186045**	**.0198230**
Stddev	.000237	13.6162	.027726	.000500	.0001826	.0003724
%RSD	9.182021	3.655164	.3209577	13.86233	.9815054	1.878363
#1	-.002746	366.9309	8.635975	-.003607	.0184782	.0194219
#2	-.002683	388.0413	8.612357	-.003111	.0188139	.0201576
#3	-.002308	362.5875	8.667616	-.004111	.0185215	.0198896

Elem	Sr4077
Units	ppm
Avg	**.2114152**
Stddev	.0022656
%RSD	1.071648
#1	.2088703
#2	.2121622
#3	.2132129

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3516.715**	**73302.22**	**14345.36**	**2491.473**	**4252.002**
Stddev	80.690	340.87	54.15	22.390	133.542
%RSD	2.294469	.4650211	.3774997	.8986748	3.140686
#1	3550.993	73660.21	14290.63	2512.630	4309.981
#2	3424.545	73264.93	14398.92	2493.764	4099.269
#3	3574.607	72981.53	14346.55	2468.026	4346.755

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-11 Acquired: 1/15/2025 16:19:10 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D58 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0785796**	**-.007926**	**3.909311**	**.0190390**	**.1371945**	**16.03704**
Stddev	.0011709	.001500	.003625	.0026612	.0011078	.05454
%RSD	1.490128	18.91860	.0927165	13.97786	.8074392	.3400757
#1	.0785488	-.007858	3.912266	.0205482	.1359356	16.08661
#2	.0797657	-.009459	3.905266	.0159662	.1376272	16.04590
#3	.0774244	-.006462	3.910400	.0206025	.1380205	15.97862

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0404913**	**.0056269**	**.1163730**	**41.18157**	**.0270434**	**.0313324**
Stddev	.0007420	.0001096	.0003196	.17512	.0004547	.0003592
%RSD	1.832496	1.946937	.2746198	.4252431	1.681468	1.146371
#1	.0400492	.0057395	.1166894	41.35176	.0275470	.0317451
#2	.0413480	.0056206	.1163793	41.19104	.0269201	.0311623
#3	.0400768	.0055207	.1160504	41.00190	.0266630	.0310900

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **64.40427**	**104.2061**	**21.09512**	**2.390286**	**.0129791**	**.1305005**
Stddev	.47178	.3391	.16792	.012301	.0002952	.0005943
%RSD	.7325248	.3254602	.7960223	.5146333	2.274715	.4554098
#1	64.92738	104.4527	21.26581	2.398879	.0126566	.1304400
#2	64.27440	104.3462	21.08944	2.395785	.0130444	.1311227
#3	64.01103	103.8193	20.93011	2.376195	.0132361	.1299387

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.911703**	**.0019983**	**16.13325**	**.3133668**	**.4054315**	**.7415039**
Stddev	.088918	.0017457	.13255	.0481516	.0021746	.0030504
%RSD	2.273123	87.35914	.8215698	15.36588	.5363669	.4113802
#1	4.002013	.0039786	16.20212	.3685607	.4060131	.7415481
#2	3.824246	.0006823	16.21718	.2915834	.4072562	.7445320
#3	3.908849	.0013339	15.98045	.2799563	.4030253	.7384316

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-11 Acquired: 1/15/2025 16:19:10 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D58 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002190**	F **346.7314**	**9.665372**	**-.003766**	**.0107682**	**.0049934**
Stddev	.000146	.6708	.066147	.000661	.0006664	.0001929
%RSD	6.655090	.1934649	.6843684	17.56449	6.188391	3.862626
#1	-.002358	347.0492	9.734351	-.003009	.0107066	.0052149
#2	-.002106	347.1842	9.659288	-.004233	.0114632	.0048620
#3	-.002105	345.9608	9.602478	-.004056	.0101347	.0049034

Elem	Sr4077
Units	ppm
Avg	**.0792052**
Stddev	.0005349
%RSD	.6753037
#1	.0798149
#2	.0789856
#3	.0788151

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3051.061**	**62384.17**	**12480.29**	**2092.637**	**4536.590**
Stddev	8.915	165.74	31.15	17.842	9.904
%RSD	.2922071	.2656733	.2495907	.8525950	.2183103
#1	3059.921	62337.41	12459.45	2092.866	4544.567
#2	3051.169	62246.83	12465.31	2074.682	4539.699
#3	3042.092	62568.26	12516.09	2110.363	4525.505

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-12 Acquired: 1/15/2025 16:23:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D61 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0271831	.0049726	6.254384	.0049196	.0060197	25.72574
Stddev	.0018778	.0009599	.069559	.0001720	.0002364	.11940
%RSD	6.907997	19.30303	1.112166	3.496389	3.926436	.4641311
#1	.0282201	.0060727	6.331379	.0047213	.0058052	25.62894
#2	.0250155	.0045400	6.235692	.0050078	.0062731	25.85916
#3	.0283138	.0043052	6.196081	.0050295	.0059808	25.68910

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0370708	.0291540	.0475802	46.55688	.0376617	.0346418
Stddev	.0001772	.0001945	.0006747	.19796	.0002295	.0003157
%RSD	.4780494	.6671911	1.417961	.4251985	.6093748	.9114279
#1	.0368914	.0292559	.0482923	46.44480	.0374104	.0349904
#2	.0372458	.0292765	.0474975	46.78545	.0377144	.0345600
#3	.0370753	.0289297	.0469506	46.44038	.0378602	.0343750

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.223417	39.65214	22.96830	6.217760	.0384116	.0136266
Stddev	.008776	.18107	.07556	.016843	.0000716	.0001790
%RSD	.2077933	.4566447	.3289823	.2708807	.1863106	1.313729
#1	4.232851	39.52417	22.97671	6.212035	.0384749	.0135370
#2	4.215497	39.85932	23.03931	6.236719	.0384260	.0138327
#3	4.221903	39.57294	22.88889	6.204527	.0383339	.0135101

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.703908	.0073746	6.066080	.8091844	9.307177	.4049148
Stddev	.072275	.0017459	.030966	.0220309	.104311	.0011106
%RSD	2.672999	23.67486	.5104737	2.722607	1.120760	.2742922
#1	2.780794	.0079451	6.055228	.8086955	9.421896	.4036632
#2	2.637355	.0087639	6.101012	.8314557	9.281608	.4057829
#3	2.693575	.0054148	6.042002	.7874020	9.218028	.4052983

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-12 Acquired: 1/15/2025 16:23:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D61 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002478	F 374.5169	7.362601	-.003269	.0281325	.0263117
Stddev	.0000576	4.2706	.017274	.000554	.0004699	.0003272
%RSD	23.23489	1.140288	.2346174	16.96145	1.670219	1.243567
#1	.0002505	378.9721	7.381363	-.003524	.0286624	.0266298
#2	.0003039	374.1199	7.359083	-.003649	.0277665	.0259761
#3	.0001889	370.4587	7.347357	-.002632	.0279686	.0263292

Elem	Sr4077
Units	ppm
Avg	.1158148
Stddev	.0004874
%RSD	.4208079
#1	.1154759
#2	.1163733
#3	.1155951

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3869.034	76064.54	15439.37	2574.864	4451.097
Stddev	17.145	366.27	15.40	15.273	31.057
%RSD	.4431434	.4815242	.0997312	.5931398	.6977315
#1	3849.454	76429.90	15451.84	2587.618	4415.483
#2	3876.289	75697.37	15444.11	2557.940	4465.263
#3	3881.360	76066.34	15422.16	2579.035	4472.545

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-13 Acquired: 1/15/2025 16:27:22 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D64 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0241303**	**.0002064**	**5.019921**	**.0043819**	**.0029946**	**18.20567**
Stddev	.0034630	.0026749	.014481	.0007188	.0012090	.26869
%RSD	14.35131	1295.716	.2884789	16.40358	40.37235	1.475859
#1	.0270687	-.002501	5.027752	.0049740	.0042825	18.34587
#2	.0250098	.000273	5.003210	.0045896	.0018842	17.89587
#3	.0203123	.002847	5.028799	.0035822	.0028170	18.37525

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0319359**	**.0098401**	**.0166948**	**61.99096**	**.0320596**	**.0220831**
Stddev	.0003858	.0000442	.0000663	.95041	.0006878	.0003587
%RSD	1.208060	.4486471	.3973962	1.533135	2.145517	1.624083
#1	.0314928	.0098572	.0167564	62.52618	.0326902	.0224784
#2	.0321179	.0098732	.0167033	60.89364	.0313261	.0217784
#3	.0321970	.0097900	.0166245	62.55307	.0321626	.0219925

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.423360**	**28.76283**	**9.464267**	**6.073588**	**.0201825**	**.0080662**
Stddev	.005042	.45173	.158220	.086981	.0002806	.0000522
%RSD	.3542638	1.570539	1.671759	1.432120	1.390188	.6465107
#1	1.427897	29.00050	9.547987	6.128530	.0203035	.0081247
#2	1.417931	28.24188	9.281778	5.973304	.0198617	.0080496
#3	1.424252	29.04611	9.563037	6.118930	.0203823	.0080244

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.167052**	**.0378268**	**3.551329**	**.4990800**	F **14.97707**	**.4053968**
Stddev	.098355	.0007954	.057578	.0053063	.04376	.0035827
%RSD	3.105568	2.102810	1.621322	1.063217	.2921990	.8837507
#1	3.253636	.0371508	3.600689	.4985210	14.99641	.4073777
#2	3.060112	.0387033	3.488075	.4940753	14.92697	.4012611
#3	3.187410	.0376262	3.565223	.5046437	15.00783	.4075517

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-13 Acquired: 1/15/2025 16:27:22 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D64 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010366	F 379.4910	9.505818	-.003468	.0121345	.0273655
Stddev	.0000717	.6305	.019890	.001011	.0008141	.0000995
%RSD	6.914681	.1661475	.2092392	29.15185	6.709040	.3637686
#1	.0009616	379.9712	9.528691	-.004042	.0112694	.0274304
#2	.0011044	378.7770	9.492585	-.004063	.0122485	.0272509
#3	.0010439	379.7248	9.496177	-.002301	.0128857	.0274153

Elem	Sr4077
Units	ppm
Avg	.1378876
Stddev	.0022758
%RSD	1.650460
#1	.1387776
#2	.1353014
#3	.1395839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3335.870	68476.90	13622.88	2316.159	4390.646
Stddev	14.945	942.91	41.65	34.641	14.918
%RSD	.4480005	1.376978	.3057509	1.495625	.3397718
#1	3325.954	67941.55	13602.04	2290.979	4381.416
#2	3353.059	69565.63	13595.76	2355.665	4407.857
#3	3328.596	67923.53	13670.84	2301.832	4382.665

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-14 Acquired: 1/15/2025 16:31:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004534	.1404169	3.264199	.0009406	-.008022	17.13981
Stddev	.002105	.0120893	.018958	.0021995	.002914	.24126
%RSD	46.42266	8.609577	.5807797	233.8375	36.33012	1.407585
#1	-.004926	.1427313	3.272674	.0029215	-.011363	17.33030
#2	-.002261	.1273377	3.242482	-.001426	-.006005	17.22059
#3	-.006416	.1511817	3.277440	.001327	-.006698	16.86852

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0311604	.0363054	1.528593	349.5301	.0486519	.1771103
Stddev	.0002581	.0001656	.015143	6.5435	.0004480	.0011763
%RSD	.8281410	.4561303	.9906412	1.872079	.9209177	.6641746
#1	.0312594	.0364557	1.538376	357.0035	.0489324	.1780478
#2	.0308675	.0363327	1.511150	346.7570	.0488881	.1757904
#3	.0313543	.0361279	1.536252	344.8298	.0481352	.1774929

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.659050	.9948966	F 277.9554	8.213698	.3169093	.0585355
Stddev	.028626	.0175753	1.6510	.069711	.0021765	.0009717
%RSD	.5058379	1.766543	.5939680	.8487171	.6867777	1.660058
#1	5.629776	1.013672	279.3211	8.257082	.3178805	.0587253
#2	5.660394	.992181	278.4246	8.250726	.3144164	.0593982
#3	5.686980	.978837	276.1207	8.133287	.3184311	.0574828

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.619003	-.086142	F 90.66246	10.34559	-.293185	.2163991
Stddev	.325988	.001486	.22187	.20064	.001344	.0018541
%RSD	12.44704	1.725284	.2447245	1.939387	.4584459	.8567996
#1	2.981554	-.085450	90.55765	10.48458	-.294683	.2146414
#2	2.350057	-.085127	90.91732	10.43662	-.292084	.2162194
#3	2.525399	-.087847	90.51241	10.11557	-.292789	.2183365

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-14 Acquired: 1/15/2025 16:31:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.025075	F 501.1668	F 11.37447	-.003109	-.012646	.0292455
Stddev	.000288	2.6095	.07943	.000736	.000602	.0014440
%RSD	1.150500	.5206852	.6982973	23.68638	4.763518	4.937544
#1	-.025142	501.7583	11.29561	-.003957	-.012821	.0305755
#2	-.025325	498.3123	11.37333	-.002631	-.013141	.0294514
#3	-.024760	503.4297	11.45445	-.002740	-.011975	.0277095

Elem	Sr4077
Units	ppm
Avg	.3231275
Stddev	.0042338
%RSD	1.310245
#1	.3262195
#2	.3248608
#3	.3183021

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3216.260	63090.04	12811.04	2182.236	3925.732
Stddev	8.230	379.96	165.55	7.780	5.477
%RSD	.2559001	.6022460	1.292250	.3564944	.1395041
#1	3225.758	63012.76	12970.64	2190.548	3930.490
#2	3211.231	62754.66	12822.38	2175.130	3926.962
#3	3211.790	63502.70	12640.12	2181.028	3919.746

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-15 Acquired: 1/15/2025 16:35:39 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D70 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.008233**	**-.002993**	**.0964052**	**-.008204**	**-.002278**	**1.739669**
Stddev	.001449	.003577	.0014298	.005009	.000765	.040645
%RSD	17.59905	119.5173	1.483139	61.05065	33.59556	2.336347
#1	-.009005	-.006991	.0952152	-.013986	-.001978	1.696443
#2	-.009131	-.001895	.0960090	-.005406	-.003148	1.777114
#3	-.006561	-.000093	.0979913	-.005219	-.001708	1.745450

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0655772**	**.0361533**	**.5931731**	**421.8600**	**.0180089**	**.5311614**
Stddev	.0014986	.0001696	.0059282	2.7275	.0001072	.0058316
%RSD	2.285227	.4692217	.9994113	.6465366	.5952242	1.097900
#1	.0672146	.0363467	.5863544	418.8908	.0178944	.5244387
#2	.0642738	.0360834	.5960596	422.4352	.0180255	.5348566
#3	.0652432	.0360298	.5971053	424.2540	.0181069	.5341890

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1074898**	**.4693540**	F **190.2542**	**35.14706**	**.2610969**	**.0355397**
Stddev	.0003711	.0042643	.6677	.02820	.0026822	.0005687
%RSD	.3452313	.9085382	.3509389	.0802267	1.027273	1.600186
#1	.1074755	.4694433	190.9811	35.17609	.2580546	.0355841
#2	.1071261	.4650457	190.1135	35.11977	.2631203	.0360849
#3	.1078679	.4735728	189.6681	35.14533	.2621159	.0349501

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.338239**	**-.047157**	F **148.4022**	**.5212780**	**-.130912**	**.1450821**
Stddev	.088744	.001656	.9898	.0591628	.007372	.0022452
%RSD	2.658412	3.511185	.6669939	11.34958	5.631358	1.547565
#1	3.246981	-.045267	148.9684	.4573914	-.123237	.1475876
#2	3.424235	-.047850	148.9789	.5741765	-.131560	.1444064
#3	3.343500	-.048354	147.2592	.5322662	-.137939	.1432523

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-15 Acquired: 1/15/2025 16:35:39 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D70 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.025958	F 422.6085	F 10.76011	-.004004	-.016812	.0235469
Stddev	.000274	4.0430	.08049	.000585	.000597	.0003511
%RSD	1.055822	.9566712	.7480125	14.61877	3.550454	1.491160
#1	-.025659	417.9406	10.81913	-.004022	-.016243	.0234520
#2	-.026016	424.8840	10.66842	-.003410	-.016759	.0232529
#3	-.026198	425.0009	10.79277	-.004580	-.017433	.0239357

Elem	Sr4077
Units	ppm
Avg	2.566513
Stddev	.043639
%RSD	1.700322
#1	2.516447
#2	2.586604
#3	2.596488

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.175	55705.86	11331.37	1873.750	3969.374
Stddev	23.228	511.71	202.57	23.097	32.293
%RSD	.8394255	.9185841	1.787678	1.232660	.8135639
#1	2793.727	55433.10	11105.44	1856.702	4006.593
#2	2750.613	55388.33	11496.78	1864.511	3948.792
#3	2757.186	56296.17	11391.90	1900.036	3952.736

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-16 Acquired: 1/15/2025 16:40:10 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D73 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0688905**	**-.022773**	**2.817477**	**.0320041**	**.0302059**	**20.96157**
Stddev	.0018233	.004648	.027687	.0030272	.0007573	.07420
%RSD	2.646667	20.41191	.9826850	9.458792	2.507104	.3539857
#1	.0707112	-.022298	2.849220	.0354504	.0295041	20.94737
#2	.0688957	-.018380	2.798314	.0307873	.0310085	21.04185
#3	.0670646	-.027640	2.804896	.0297746	.0301050	20.89550

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0357102**	**.0114118**	**.0471736**	**379.4828**	**.1059965**	**.0460000**
Stddev	.0003896	.0001038	.0003591	5.1107	.0009838	.0009291
%RSD	1.090967	.9091886	.7611215	1.346754	.9280946	2.019826
#1	.0354648	.0113817	.0475760	375.1527	.1053659	.0470710
#2	.0355065	.0113264	.0470587	385.1202	.1054935	.0455187
#3	.0361594	.0115272	.0468861	378.1756	.1071300	.0454102

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.372367**	**216.5383**	F **55.19522**	**4.311635**	**.0642825**	**.0238142**
Stddev	.012011	.4711	.39491	.018586	.0004993	.0003797
%RSD	.3561587	.2175582	.7154716	.4310569	.7766466	1.594337
#1	3.369814	216.0323	54.79539	4.315384	.0648402	.0238976
#2	3.385449	216.9642	55.20526	4.291460	.0638773	.0233998
#3	3.361837	216.6183	55.58501	4.328059	.0641299	.0241453

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.191870**	**.0234328**	**8.537194**	**.3058495**	**5.409634**	**1.164967**
Stddev	.244061	.0006374	.033958	.0123320	.037395	.003652
%RSD	7.646326	2.720198	.3977637	4.032054	.6912737	.3134751
#1	2.930004	.0229128	8.510257	.2921419	5.449025	1.160751
#2	3.412999	.0232417	8.575339	.3093633	5.374619	1.167145
#3	3.232607	.0241440	8.525986	.3160431	5.405259	1.167005

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5393-16 Acquired: 1/15/2025 16:40:10 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D73 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003095	F 640.9789	9.572617	-.002683	.0004299	.0262242
Stddev	.0001779	4.6548	.019694	.001598	.0006556	.0007233
%RSD	57.49086	.7262070	.2057293	59.54238	152.4955	2.758011
#1	.0002110	646.2419	9.551126	-.002079	.0003009	.0262398
#2	.0002025	637.4022	9.589800	-.001476	.0011405	.0269395
#3	.0005148	639.2927	9.576925	-.004495	-.000152	.0254932

Elem	Sr4077
Units	ppm
Avg	.2227704
Stddev	.0011503
%RSD	.5163729
#1	.2229912
#2	.2237943
#3	.2215257

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3040.329	62006.49	13864.35	2019.086	4075.368
Stddev	22.588	299.68	112.42	7.055	27.826
%RSD	.7429381	.4833021	.8108608	.3494003	.6827885
#1	3014.510	62198.23	13967.92	2026.684	4043.709
#2	3056.435	62160.08	13880.33	2017.829	4095.951
#3	3050.043	61661.15	13744.79	2012.744	4086.443

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-01 Acquired: 1/15/2025 16:44:20 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D27 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0156865**	**.0533770**	**.3488876**	**-.007643**	**-.002153**	**25.71806**
Stddev	.0005056	.0024147	.0016220	.001219	.000480	.17197
%RSD	3.223291	4.523877	.4648983	15.94880	22.28843	.6686594
#1	.0162702	.0546082	.3506014	-.009026	-.002693	25.54745
#2	.0153850	.0549280	.3473765	-.006723	-.001991	25.71539
#3	.0154041	.0505949	.3486848	-.007181	-.001775	25.89135

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0775823**	**.0244769**	**.5092967**	**77.25947**	**.0184624**	**.0296768**
Stddev	.0004751	.0000621	.0019550	.29185	.0003108	.0002230
%RSD	.6123672	.2537363	.3838611	.3777563	1.683553	.7513187
#1	.0776681	.0245351	.5112475	77.29266	.0187631	.0294745
#2	.0770702	.0244841	.5093049	76.95244	.0181424	.0299159
#3	.0780087	.0244115	.5073376	77.53330	.0184818	.0296399

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**19.24066**	**4.294203**	F **124.6387**	**5.338445**	**.0597131**	**.0343720**
Stddev	.05458	.020785	.5820	.026527	.0006537	.0004724
%RSD	.2836705	.4840349	.4669445	.4969069	1.094683	1.374359
#1	19.29449	4.280744	123.9699	5.352308	.0604660	.0342809
#2	19.18536	4.283722	124.9159	5.307859	.0592907	.0339518
#3	19.24213	4.318142	125.0302	5.355169	.0593826	.0348833

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.814397**	**-.026411**	F **144.7333**	**2.743839**	**6.767383**	**.5075795**
Stddev	.158494	.000394	.9737	.012583	.008945	.0022332
%RSD	3.292080	1.491473	.6727579	.4585779	.1321838	.4399629
#1	4.869132	-.026646	143.6169	2.729543	6.775373	.5101506
#2	4.635790	-.026631	145.4072	2.748739	6.757719	.5064650
#3	4.938268	-.025956	145.1758	2.753234	6.769058	.5061230

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-01 Acquired: 1/15/2025 16:44:20 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D27 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.017353	F 339.7651	F 11.85510	-.003299	-.001451	.0307287
Stddev	.000501	.7838	.09017	.001275	.000096	.0003338
%RSD	2.885018	.2306984	.7605868	38.66012	6.637392	1.086176
#1	-.017451	340.6087	11.95737	-.004206	-.001523	.0309378
#2	-.017798	339.6273	11.78708	-.001841	-.001342	.0309045
#3	-.016811	339.0593	11.82083	-.003851	-.001489	.0303438

Elem	Sr4077
Units	ppm
Avg	.1953405
Stddev	.0014804
%RSD	.7578433
#1	.1939020
#2	.1952601
#3	.1968595

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3782.945	81035.82	17692.45	2579.175	4260.166
Stddev	5.307	328.80	72.94	24.882	7.807
%RSD	.1402908	.4057516	.4122522	.9647086	.1832540
#1	3777.136	81317.76	17608.54	2604.683	4252.515
#2	3787.539	81115.06	17728.13	2577.872	4259.862
#3	3784.160	80674.63	17740.67	2554.971	4268.121

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-02 Acquired: 1/15/2025 16:48:42 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k -.005538	k .5703372	3.279408	k .1652462	k .0340338	34.27013
Stddev	.003482	.3566666	.007172	.1127345	.0012148	.09875
%RSD	62.87291	62.53610	.2187033	68.22214	3.569435	.2881536
#1	-.004297	.1585045	3.273123	.0350716	.0327915	34.15639
#2	k -.002847	k .7737076	3.277880	k .2303986	k .0352191	34.33406
#3	k -.009470	k .7787994	3.287221	k .2302683	k .0340909	34.31993

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0536056	k .0096059	.0655815	130.8554	k .1496445	.0255518
Stddev	.0008197	.0228187	.0001909	.5595	.0493769	.0001949
%RSD	1.529186	237.5485	.2911112	.4276039	32.99612	.7629037
#1	.0526643	.0359546	.0655240	130.3773	.0926290	.0257168
#2	.0541628	k -.003642	.0654260	130.7180	k .1780811	.0256018
#3	.0539896	k -.003495	.0657946	131.4708	k .1782233	.0253366

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.48762	78.34156	^ *****	2.817370	.0506915	k .1309306
Stddev	.14879	.25891	-----	.025892	.0007821	.0003847
%RSD	.6334761	.3304930	-----	.9190308	1.542833	.2937859
#1	23.32236	78.07134	331.5652	2.798472	.0515831	.1306468
#2	23.52955	78.36587	^ -----	2.806754	.0503705	k .1307765
#3	23.61094	78.58745	^ -----	2.846883	.0501210	k .1313684

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.020699	k -.123299	14.69180	.0429805	k -.384363	.8284402
Stddev	.068467	.003950	.08475	.0109240	.125782	.0027425
%RSD	1.363691	3.203727	.5768582	25.41607	32.72467	.3310490
#1	5.010912	-.118768	14.71040	.0325426	-.239231	.8254638
#2	5.093532	k -.125117	14.59930	.0420660	k -.461771	.8289920
#3	4.957652	k -.126013	14.76571	.0543330	k -.452088	.8308650

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-02 Acquired: 1/15/2025 16:48:42 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.017661	kF 407.8317	F 15.25954	-.004259	.0147034	.0114547
Stddev	.000427	.4827	.10055	.000184	.0006485	.0010806
%RSD	2.418258	.1183507	.6589129	4.330054	4.410429	9.433704
#1	-.017348	407.4672	15.15894	-.004076	.0141058	.0106810
#2	-.017488	k 407.6488	15.25963	-.004256	.0146113	.0126894
#3	-.018148	k 408.3791	15.36003	-.004445	.0153929	.0109938

Elem	Sr4077
Units	ppm
Avg	.0411378
Stddev	.0002186
%RSD	.5314367
#1	.0409506
#2	.0410848
#3	.0413781

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3173.468	66408.98	14400.51	2175.581	4177.073
Stddev	12.968	247.70	74.92	12.453	11.003
%RSD	.4086264	.3729978	.5202267	.5724158	.2634205
#1	3171.119	66493.39	14477.49	2170.980	4182.161
#2	3187.450	66603.45	14396.17	2189.679	4184.612
#3	3161.836	66130.11	14327.85	2166.082	4164.447

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-03 Acquired: 1/15/2025 16:52:43 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D33 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0229229**	**.0004717**	**1.615458**	**.0020297**	**.0066805**	**20.27586**
Stddev	.0012117	.0009885	.008374	.0003398	.0012713	.05737
%RSD	5.285865	209.5701	.5183703	16.74376	19.02993	.2829652
#1	.0215420	.0007588	1.610771	.0021067	.0058741	20.34121
#2	.0234184	-.000629	1.610478	.0023245	.0060213	20.25262
#3	.0238083	.001285	1.625126	.0016580	.0081459	20.23375

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0647741**	**.0117018**	**.0961521**	**42.22941**	**.0357979**	**.0339110**
Stddev	.0002879	.0000805	.0005135	.07555	.0003316	.0002377
%RSD	.4444593	.6879094	.5340881	.1788948	.9264292	.7010273
#1	.0647754	.0116173	.0955945	42.28049	.0357191	.0337844
#2	.0650613	.0117776	.0962561	42.26511	.0355128	.0337634
#3	.0644855	.0117105	.0966057	42.14263	.0361619	.0341853

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.475555**	**37.34809**	**29.58478**	**6.082418**	**.0456297**	**.0264167**
Stddev	.013290	.10966	.08642	.017194	.0003873	.0000181
%RSD	.2969438	.2936265	.2921050	.2826851	.8487586	.0686715
#1	4.462235	37.47241	29.68429	6.084585	.0452911	.0264238
#2	4.488814	37.30680	29.54144	6.098427	.0460520	.0263960
#3	4.475617	37.26507	29.52861	6.064244	.0455461	.0264301

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.478033**	**.0032588**	**13.67820**	**1.836192**	**5.145373**	**.7641478**
Stddev	.241142	.0006739	.02938	.033746	.022909	.0017411
%RSD	4.401978	20.67917	.2147612	1.837801	.4452329	.2278430
#1	5.734358	.0024879	13.65912	1.816147	5.121541	.7623612
#2	5.255677	.0037360	13.66347	1.875153	5.167231	.7658395
#3	5.444064	.0035525	13.71203	1.817277	5.147347	.7642428

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-03 Acquired: 1/15/2025 16:52:43 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D33 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002476**	F **332.4518**	**5.875072**	**-.003882**	**.0216282**	**.0190445**
Stddev	.000163	1.1754	.009340	.000292	.0002833	.0003677
%RSD	6.600670	.3535699	.1589745	7.514097	1.309767	1.930507
#1	-.002330	331.1447	5.865596	-.004147	.0219053	.0193982
#2	-.002446	332.7890	5.884269	-.003928	.0216401	.0190710
#3	-.002653	333.4219	5.875351	-.003570	.0213391	.0186643

Elem	Sr4077
Units	ppm
Avg	**.1230499**
Stddev	.0001714
%RSD	.1393199
#1	.1232313
#2	.1230278
#3	.1228906

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3759.475**	**77660.00**	**16640.91**	**2573.528**	**4584.557**
Stddev	8.075	122.22	47.76	11.189	8.461
%RSD	.2147904	.1573738	.2869909	.4347594	.1845444
#1	3766.783	77528.44	16695.65	2569.511	4593.107
#2	3760.836	77770.01	16607.73	2586.171	4584.376
#3	3750.806	77681.53	16619.35	2564.903	4576.189

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-04 Acquired: 1/15/2025 16:56:48 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D36 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003211**	**.0127660**	**4.861410**	**.0103725**	**.0321702**	**21.44834**
Stddev	.0002724	.0014847	.035955	.0026906	.0018066	.14392
%RSD	84.82297	11.62994	.7395979	25.93981	5.615825	.6710182
#1	.0000067	.0117106	4.824489	.0082118	.0301542	21.30305
#2	.0004857	.0144637	4.863427	.0095195	.0327137	21.45111
#3	.0004709	.0121238	4.896314	.0133862	.0336427	21.59085

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0205568**	**.0226556**	**.9645096**	**41.55481**	**.0195425**	**.1288645**
Stddev	.0005408	.0000838	.0072217	.24748	.0002603	.0008445
%RSD	2.630507	.3698764	.7487392	.5955617	1.332077	.6553110
#1	.0204308	.0225711	.9570100	41.33190	.0193701	.1279428
#2	.0200902	.0226569	.9651020	41.51141	.0194155	.1290497
#3	.0211494	.0227387	.9714168	41.82112	.0198420	.1296010

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **175.7054**	**41.34815**	F **126.8504**	**3.446931**	**.0492588**	**.1428172**
Stddev	1.3576	.28239	.4700	.034191	.0003916	.0007174
%RSD	.7726758	.6829502	.3704759	.9919196	.7949765	.5023260
#1	177.0782	41.07918	126.3749	3.409876	.0491965	.1420659
#2	175.6746	41.32301	126.8618	3.453659	.0496778	.1428905
#3	174.3634	41.64227	127.3146	3.477257	.0489021	.1434951

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.194891**	**-.037016**	F **123.5751**	**3.170705**	**.3982680**	**.3995664**
Stddev	.175259	.001319	.8535	.052225	.0068695	.0006452
%RSD	5.485607	3.562438	.6906633	1.647095	1.724842	.1614822
#1	3.011579	-.038172	122.6291	3.141367	.4061944	.3992021
#2	3.360799	-.035580	123.8089	3.139748	.3940429	.3991858
#3	3.212293	-.037297	124.2874	3.231002	.3945666	.4003114

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-04 Acquired: 1/15/2025 16:56:48 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D36 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.020299	F 292.0280	F 16.59882	.0000925	.0046370	.0112664
Stddev	.000250	2.0050	.12028	.0006218	.0004188	.0005382
%RSD	1.232856	.6865910	.7246421	672.3699	9.032447	4.776605
#1	-.020048	289.7989	16.72273	-.000153	.0047784	.0110687
#2	-.020300	292.6007	16.48253	-.000369	.0049668	.0108550
#3	-.020549	293.6844	16.59120	.000799	.0041658	.0118754

Elem	Sr4077
Units	ppm
Avg	.0443368
Stddev	.0002405
%RSD	.5425239
#1	.0441523
#2	.0442494
#3	.0446089

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3094.405	72794.45	15512.77	2332.311	4317.950
Stddev	21.808	612.57	41.36	26.200	29.795
%RSD	.7047677	.8415049	.2666475	1.123363	.6900370
#1	3119.106	73464.41	15465.03	2362.469	4351.135
#2	3086.297	72655.97	15535.47	2319.301	4309.219
#3	3077.811	72262.98	15537.82	2315.161	4293.495

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-05 Acquired: 1/15/2025 17:01:09 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D39 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1391289**	**.0019028**	**.1902398**	**-.005028**	**.0896810**	**-.131207**
Stddev	.0016877	.0018142	.0008021	.001682	.0023311	.000697
%RSD	1.213053	95.34048	.4216452	33.45775	2.599299	.5314866
#1	.1373394	.0000469	.1894845	-.006357	.0882138	-.130506
#2	.1406919	.0036721	.1901532	-.005590	.0884602	-.131900
#3	.1393554	.0019894	.1910817	-.003137	.0923689	-.131214

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0869185**	**.0001097**	**.0185234**	F **816.1446**	**.0002519**	**.0022303**
Stddev	.0011521	.0000672	.0003326	5.5824	.0001482	.0004199
%RSD	1.325488	61.32698	1.795615	.6840010	58.82279	18.82742
#1	.0876576	.0000325	.0188941	820.3649	.0004150	.0020943
#2	.0875069	.0001560	.0184250	818.2541	.0001256	.0027013
#3	.0855911	.0001404	.0182511	809.8148	.0002151	.0018952

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9822997**	**.0088451**	**.7319109**	**5.864717**	**.0124231**	**-.000520**
Stddev	.0126749	.0013654	.0115017	.054831	.0002813	.000111
%RSD	1.290331	15.43719	1.571462	.9349299	2.264526	21.34416
#1	.9872759	.0073259	.7446887	5.926248	.0127480	-.000404
#2	.9917314	.0092395	.7286580	5.846869	.0122600	-.000625
#3	.9678918	.0099700	.7223860	5.821034	.0122614	-.000532

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.723050**	**.0005259**	**7.261933**	**.3096716**	**.0120409**	**.1187692**
Stddev	.202824	.0006507	.139356	.0557374	.0014608	.0028574
%RSD	11.77120	123.7377	1.918999	17.99888	12.13197	2.405834
#1	1.762341	-.000105	7.421855	.3734529	.0132568	.1156430
#2	1.903353	.001195	7.166513	.2852386	.0104205	.1212460
#3	1.503455	.000487	7.197433	.2703233	.0124454	.1194185

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-05 Acquired: 1/15/2025 17:01:09 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D39 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0089467	F 377.6478	3.286333	-.005254	-.027660	.0165424
Stddev	.0001774	1.3775	.035957	.000433	.001089	.0010470
%RSD	1.983174	.3647618	1.094132	8.238701	3.937030	6.329321
#1	.0089234	377.9662	3.271738	-.005473	-.028857	.0169417
#2	.0087821	376.1389	3.327293	-.004755	-.026729	.0173310
#3	.0091347	378.8382	3.259969	-.005533	-.027393	.0153545

Elem	Sr4077
Units	ppm
Avg	.6345503
Stddev	.0165922
%RSD	2.614804
#1	.6534675
#2	.6277198
#3	.6224636

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2705.376	55091.52	11719.09	1844.900	3922.951
Stddev	45.512	184.21	215.72	18.174	27.749
%RSD	1.682292	.3343662	1.840774	.9850867	.7073390
#1	2741.375	54897.07	11958.56	1826.707	3944.977
#2	2720.533	55263.40	11539.97	1863.055	3932.091
#3	2654.219	55114.09	11658.73	1844.939	3891.785

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-06 Acquired: 1/15/2025 17:05:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D42 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0174573**	**.0119725**	**5.461478**	**.0033683**	**.0076456**	**44.37488**
Stddev	.0013346	.0008267	.011413	.0009477	.0005577	.03787
%RSD	7.644645	6.905068	.2089664	28.13549	7.295035	.0853339
#1	.0187377	.0111111	5.463288	.0025728	.0081532	44.33122
#2	.0160745	.0120467	5.471877	.0044169	.0077351	44.39473
#3	.0175598	.0127595	5.449268	.0031153	.0070486	44.39870

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0247999**	**.0319556**	**.0711614**	**56.79630**	**.0440745**	**.0499740**
Stddev	.0005822	.0002981	.0001071	.12672	.0001483	.0001081
%RSD	2.347479	.9329351	.1505269	.2231121	.3364132	.2163522
#1	.0249930	.0322998	.0710855	56.92572	.0441453	.0499161
#2	.0252609	.0317790	.0712839	56.67247	.0439041	.0500987
#3	.0241457	.0317879	.0711147	56.79070	.0441741	.0499071

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.938077**	**58.01796**	F **50.10452**	**10.01481**	**.0499771**	**.1168245**
Stddev	.015013	.08541	.64038	.05260	.0000453	.0004547
%RSD	.3040273	.1472120	1.278091	.5251843	.0905355	.3892417
#1	4.932372	58.11559	50.84008	10.07542	.0499611	.1172686
#2	4.926753	57.95706	49.67116	9.98109	.0499421	.1168451
#3	4.955106	57.98122	49.80232	9.98794	.0500282	.1163598

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.337988**	**-.006913**	**10.44995**	**.8534791**	**4.122982**	**.7254311**
Stddev	.080415	.000358	.04169	.0082604	.017581	.0016012
%RSD	1.506471	5.176653	.3989113	.9678484	.4264262	.2207232
#1	5.391284	-.007294	10.49791	.8624727	4.110592	.7271872
#2	5.245489	-.006863	10.42963	.8462310	4.115250	.7250537
#3	5.377190	-.006583	10.42233	.8517336	4.143105	.7240522

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: P5392-06 Acquired: 1/15/2025 17:05:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D42 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000774	F 391.0666	9.300932	-.002692	.0129025	.0371907
Stddev	.000214	.1996	.037937	.000961	.0001193	.0001561
%RSD	27.68505	.0510476	.4078873	35.69847	.9249131	.4196484
#1	-.000880	390.8809	9.292979	-.003624	.0129457	.0371104
#2	-.000528	391.2777	9.267601	-.002749	.0127675	.0370911
#3	-.000915	391.0411	9.342215	-.001704	.0129941	.0373706

Elem	Sr4077
Units	ppm
Avg	.1220325
Stddev	.0002869
%RSD	.2351260
#1	.1217209
#2	.1222858
#3	.1220908

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4077.124	83116.75	17838.02	2721.866	4459.869
Stddev	4.417	76.83	44.39	5.494	3.447
%RSD	.1083315	.0924402	.2488552	.2018553	.0772801
#1	4074.397	83031.71	17826.97	2716.474	4461.879
#2	4082.219	83137.41	17886.90	2721.667	4455.889
#3	4074.754	83181.15	17800.20	2727.457	4461.837

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCV025 Acquired: 1/15/2025 17:25:41 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV025 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.701832**	**4.955046**	**24.72646**	**4.641222**	**4.659887**	**379.9908**
Stddev	.062329	.119811	.29591	.060309	.067684	3.4845
%RSD	1.325637	2.417967	1.196741	1.299428	1.452471	.9169967
#1	4.762473	5.046900	24.99300	4.693874	4.715581	383.9848
#2	4.705081	4.998712	24.77833	4.654367	4.679523	377.5723
#3	4.637941	4.819526	24.40804	4.575424	4.584556	378.4152

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.087468**	**.5213937**	**2.557643**	**370.8691**	**15.51735**	**2.483045**
Stddev	.041286	.0042861	.034244	3.2429	.07028	.033007
%RSD	.4543203	.8220426	1.338904	.8744176	.4529096	1.329308
#1	9.043605	.5165589	2.585644	373.7199	15.59514	2.511986
#2	9.125572	.5247272	2.567822	367.3410	15.45843	2.490053
#3	9.093228	.5228950	2.519463	371.5464	15.49848	2.447097

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.49264**	**373.6854**	**14.21638**	**380.0646**	**2.483485**	**1.234213**
Stddev	.12092	1.4674	.05580	1.4470	.030363	.004278
%RSD	.8343437	.3926707	.3925171	.3807150	1.222585	.3466006
#1	14.35887	375.1223	14.25955	381.6635	2.512410	1.239152
#2	14.52486	372.1893	14.15337	378.8451	2.486182	1.231772
#3	14.59418	373.7445	14.23623	379.6851	2.451864	1.231714

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**380.4687**	**2.458987**	**14.11967**	**138.1425**	**5.026036**	F **5.879622**
Stddev	3.5053	.022216	.09033	.7985	.054164	.029176
%RSD	.9213173	.9034623	.6397699	.5779939	1.077664	.4962160
#1	376.6576	2.433689	14.22246	138.8353	5.070080	5.846662
#2	381.1935	2.475316	14.05292	137.2693	5.042469	5.902139
#3	383.5550	2.467957	14.08362	138.3229	4.965559	5.890065

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCV025 Acquired: 1/15/2025 17:25:41 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV025 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.683379**	**4.987652**	**4.990073**	**5.022165**	**4.859868**	**4.523754**
Stddev	.059605	.066328	.063403	.066931	.039214	.027060
%RSD	1.272700	1.329837	1.270582	1.332719	.8068986	.5981792
#1	4.734133	5.041746	4.917623	5.075094	4.815252	4.537782
#2	4.698262	5.007560	5.017175	5.044472	4.875480	4.492561
#3	4.617743	4.913651	5.035420	4.946929	4.888871	4.540921

Elem	Sr4077
Units	ppm
Avg	**4.581307**
Stddev	.019821
%RSD	.4326461
#1	4.592032
#2	4.558434
#3	4.593453

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2327.166**	**50990.27**	**11554.15**	**1630.615**	**3371.013**
Stddev	24.271	294.00	67.88	15.484	36.241
%RSD	1.042960	.5765793	.5875273	.9495736	1.075074
#1	2303.724	50667.42	11632.08	1612.787	3335.380
#2	2325.584	51242.58	11507.87	1638.356	3369.825
#3	2352.189	51060.82	11522.49	1640.702	3407.833

Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCB025 Acquired: 1/15/2025 17:29:59 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB025 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000074**	**-.001948**	**.0004962**	**.0031622**	**.0008017**	**.0122238**	**.0079438**
Stddev	.001705	.001845	.0016810	.0022305	.0005939	.0028932	.0001950
%RSD	2301.828	94.73424	338.7899	70.53605	74.07523	23.66860	2.454800
#1	-.001550	-.004055	.0016414	.0056982	.0008947	.0109297	.0077485
#2	.001792	-.001165	.0012809	.0015046	.0013436	.0102036	.0079444
#3	-.000464	-.000623	-.001434	.0022838	.0001668	.0155382	.0081385

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000117**	**.0000686**	**.0121731**	**.0003507**	**.0001310**	**-.001229**	**.0104708**
Stddev	.0000853	.0000442	.0054426	.0002019	.0001095	.003129	.0014910
%RSD	730.9341	64.47379	44.70978	57.55942	83.57506	254.6945	14.23952
#1	.0001003	.0001090	.0183253	.0002972	.0000535	-.000025	.0096222
#2	.0000045	.0000214	.0079861	.0005740	.0002563	-.004781	.0095978
#3	-.000070	.0000755	.0102079	.0001810	.0000833	.001120	.0121923

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004306**	**.0093922**	**.0001910**	**-.000311**	**-.301178**	**.0002805**	**.0011595**
Stddev	.0000796	.0031603	.0003082	.000174	.285544	.0010264	.0004921
%RSD	18.49406	33.64858	161.3560	56.12259	94.80895	365.9604	42.43750
#1	.0004260	.0128824	-.000144	-.000197	-.630303	-.000887	.0010149
#2	.0005124	.0085698	.000463	-.000223	-.119502	.000688	.0007560
#3	.0003533	.0067243	.000254	-.000511	-.153730	.001040	.0017077

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0827457**	**-.001442**	**.0081878**	**.0002450**	**.0359921**	**.0017917**	**.0003354**
Stddev	.0273323	.001543	.0002664	.0001668	.0003441	.0011884	.0002272
%RSD	33.03165	107.0052	3.253454	68.08408	.9560770	66.32714	67.75545
#1	.0531536	-.002320	.0084185	.0001355	.0356901	.0008822	.0005955
#2	.1070435	.000340	.0082487	.0004369	.0359196	.0031363	.0001756
#3	.0880401	-.002346	.0078962	.0001625	.0363667	.0013566	.0002351

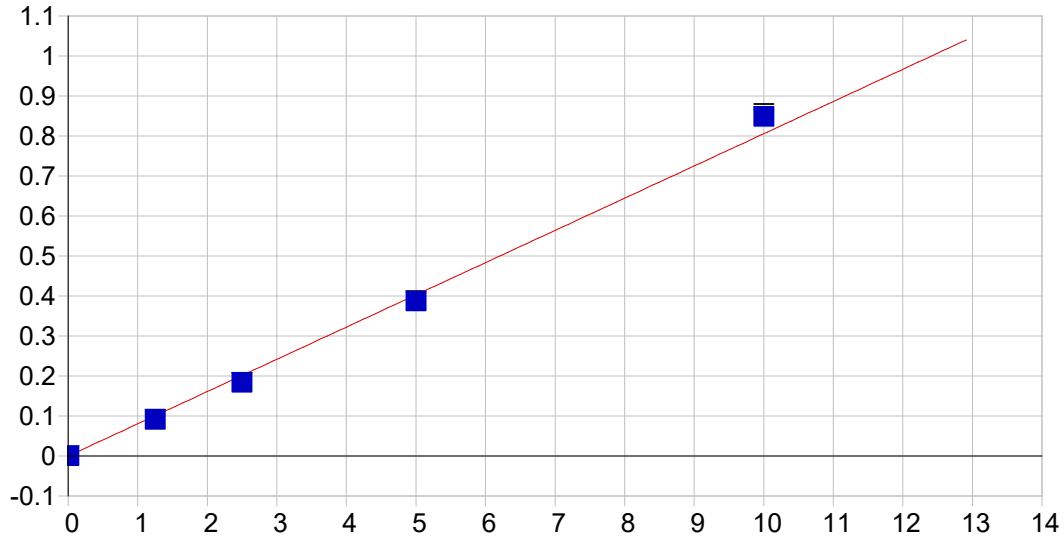
Reviewed By:Mohan
On:1/17/2025 1:13:09 AM
Inst Id :P4

Sample Name: CCB025 Acquired: 1/15/2025 17:29:59 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB025 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005300	-.000534	.0001190
Stddev	.0004844	.000652	.0000387
%RSD	91.39038	122.2122	32.56539
#1	.0002378	.000032	.0001592
#2	.0010892	-.000385	.0000818
#3	.0002631	-.001247	.0001159

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3053.165	61465.90	12055.98	2089.357	4722.665
Stddev	14.698	204.69	175.86	10.354	21.245
%RSD	.4813985	.3330074	1.458705	.4955650	.4498590
#1	3058.458	61351.39	12173.45	2087.207	4731.809
#2	3036.553	61344.11	12140.69	2080.248	4698.379
#3	3064.483	61702.22	11853.79	2100.618	4737.808

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



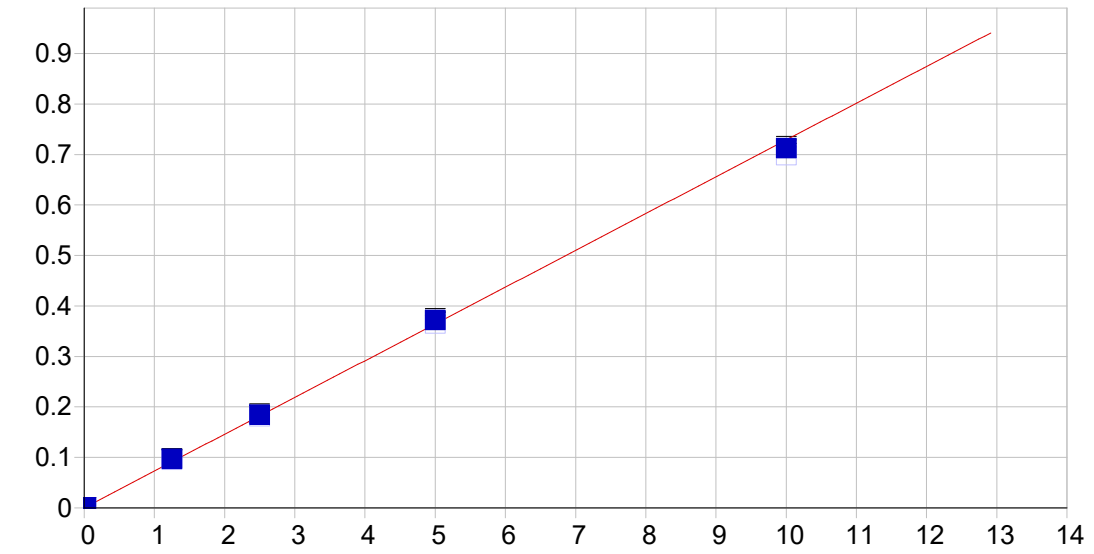
As 189.042 {479}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000058	Re-Slope:	1.000000
A1 (Gain):	0.080569	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998223	Status:	OK.
Std Error of Est:	0.000080		
Predicted MDL:	0.002549		
Predicted MQL:	0.008497		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00006	.000	1
S1	.01000	.00886	-.001	-11.4	.00066	.000	1
S3	2.5000	2.2806	-.219	-8.78	.18333	.000	1
S4	5.0000	4.8107	-.189	-3.79	.38682	.002	1
S5	10.000	10.531	.531	5.31	.84701	.008	1
S2	1.2500	1.1285	-.121	-9.72	.09069	.001	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



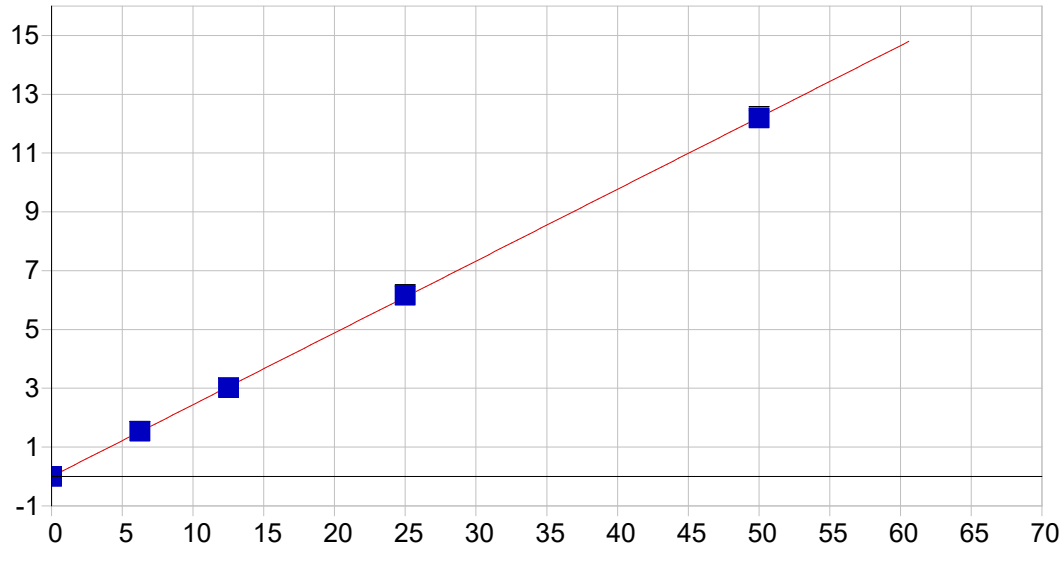
Tl 190.856 {477}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000195	Re-Slope:	1.000000
A1 (Gain):	0.072843	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999651	Status:	OK.
Std Error of Est:	0.000050		
Predicted MDL:	0.002095		
Predicted MQL:	0.006985		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00019	.000	1
S1	.02500	.02584	.001	3.35	.00200	.000	1
S3	2.5000	2.5334	.033	1.34	.18122	.002	1
S4	5.0000	5.1040	.104	2.08	.36495	.003	1
S5	10.000	9.7813	-.219	-2.19	.69861	.004	1
S2	1.2500	1.3304	.080	6.43	.09535	.001	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



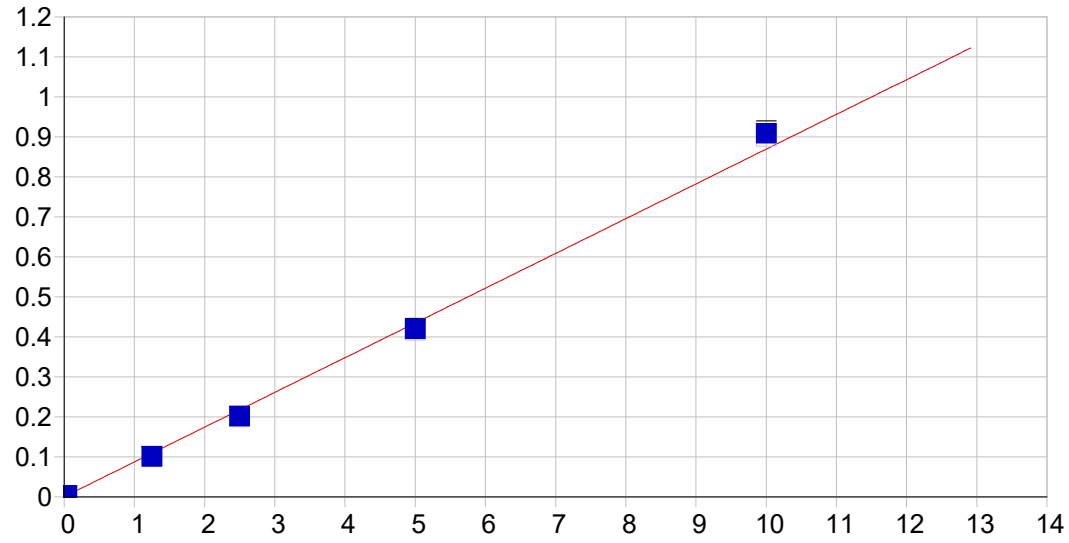
Pb 220.353 {453}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000313	Re-Slope:	1.000000
A1 (Gain):	0.244218	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000060		
Predicted MDL:	0.001564		
Predicted MQL:	0.005215		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00031	.000	1
S1	.01000	.00833	-.002	-16.7	.00233	.000	1
S3	12.500	12.361	-.139	-1.11	3.0165	.010	1
S4	25.000	25.220	.220	.880	6.1544	.028	1
S5	50.000	49.895	-.105	-.210	12.175	.057	1
S2	6.2500	6.2756	.026	.410	1.5316	.008	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



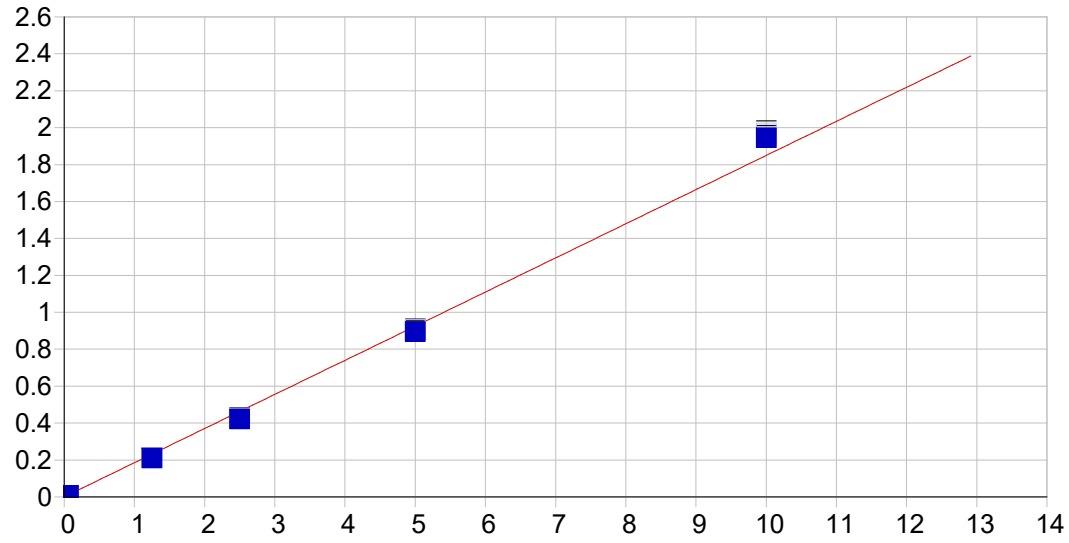
Se 196.090 {472}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000606	Re-Slope:	1.000000
A1 (Gain):	0.086868	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998704	Status:	OK.
Std Error of Est:	0.000138		
Predicted MDL:	0.002972		
Predicted MQL:	0.009907		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00061	.000	1
S1	.03500	.02773	-.007	-20.8	.00301	.000	1
S3	2.5000	2.3168	-.183	-7.33	.19986	.000	1
S4	5.0000	4.8306	-.169	-3.39	.41623	.001	1
S5	10.000	10.452	.452	4.52	.90055	.007	1
S2	1.2500	1.1579	-.092	-7.37	.10019	.000	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



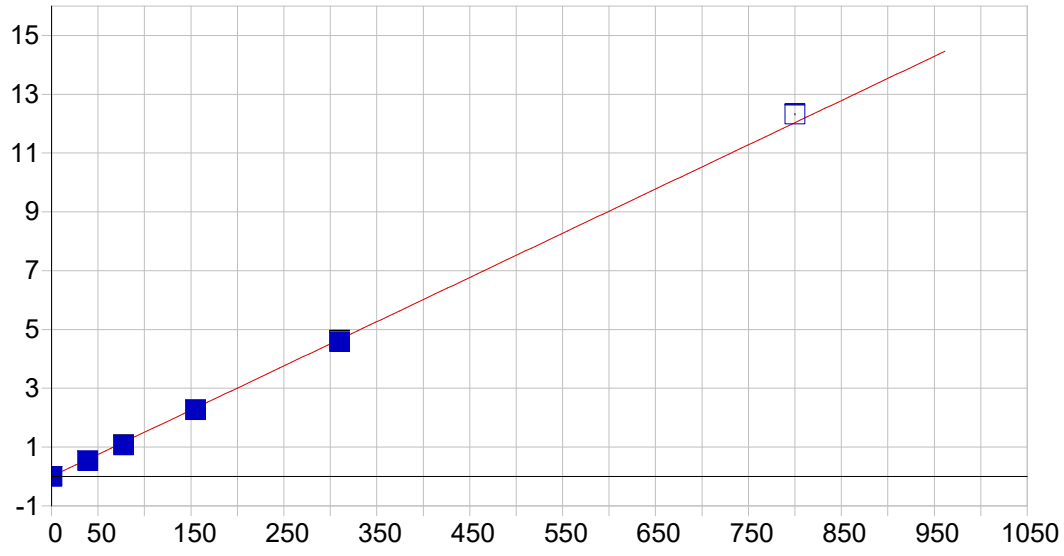
Sb 206.833 {463}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000380	Re-Slope:	1.000000
A1 (Gain):	0.184882	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998306	Status:	OK.
Std Error of Est:	0.000449		
Predicted MDL:	0.001711		
Predicted MQL:	0.005703		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00038	.000	1
S1	.06000	.05293	-.007	-11.8	.01015	.000	1
S3	2.5000	2.2728	-.227	-9.09	.42675	.001	1
S4	5.0000	4.8326	-.167	-3.35	.90618	.003	1
S5	10.000	10.521	.521	5.21	1.9702	.013	1
S2	1.2500	1.1308	-.119	-9.54	.21253	.001	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



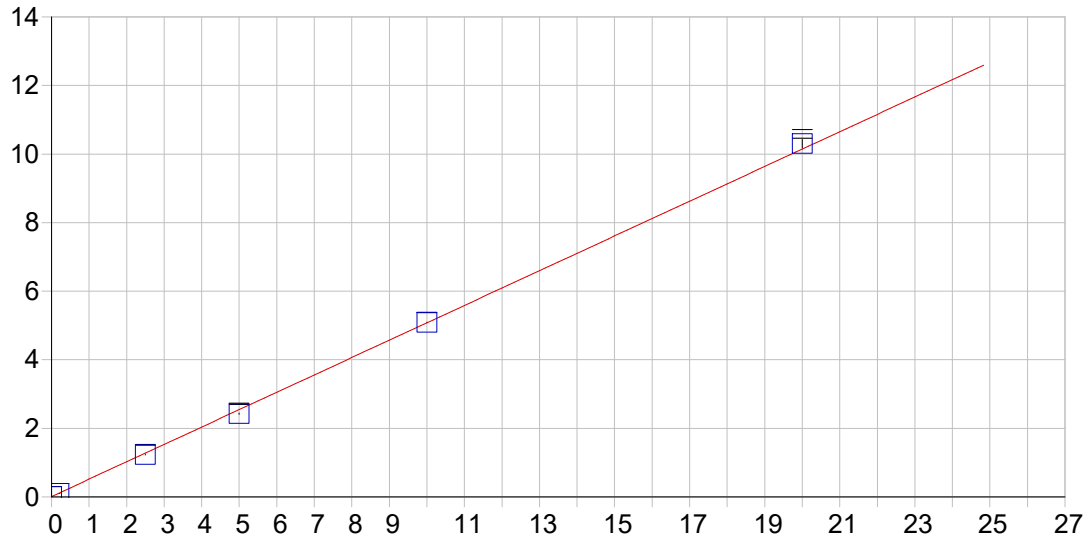
Al 396.152 { 85}

Date of Fit:	1/16/2025 11:40:47	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000018	Re-Slope:	1.000000
A1 (Gain):	0.015043	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999486	Status:	OK.
Std Error of Est:	0.000300		
Predicted MDL:	0.010099		
Predicted MQL:	0.033663		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00005	.000	.000	-.00002	.000	1
S1	.20000	.18373	-.016	-8.13	.00275	.000	1
S3	77.500	70.959	-6.54	-8.44	1.0688	.005	1
S4	155.00	150.52	-4.48	-2.89	2.2670	.004	1
S5	310.00	304.97	-5.03	-1.62	4.5930	.040	1
S2	38.750	35.896	-2.85	-7.37	.54064	.004	1
S6	800.00	818.95	18.9	2.37	12.319	.020	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



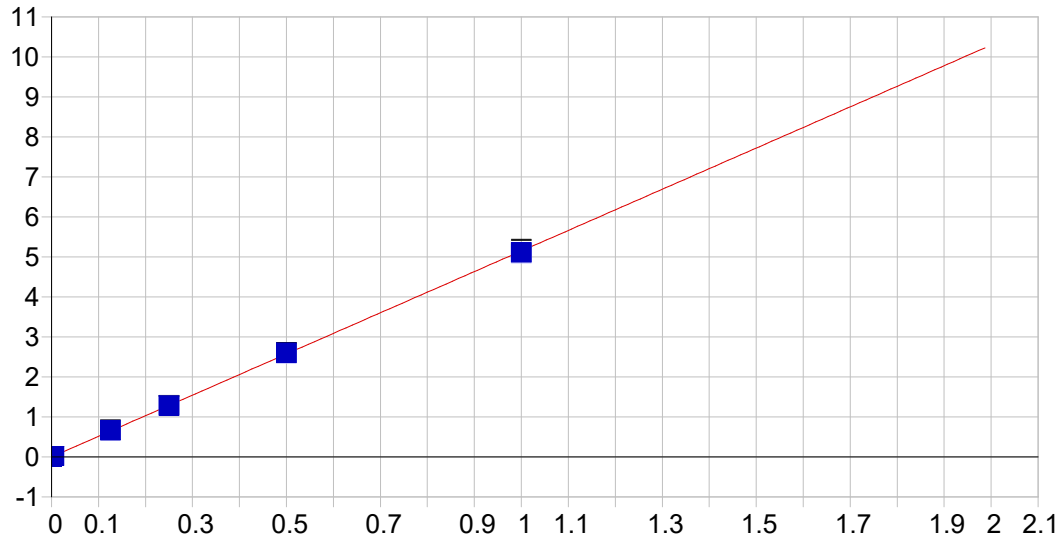
Ba 493.409 { 68}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.011619	Re-Slope:	1.000000
A1 (Gain):	0.506651	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999743	Status:	OK.
Std Error of Est:	0.001221		
Predicted MDL:	0.000952		
Predicted MQL:	0.003172		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.01163	.000	1
S1	.20000	.18677	-.013	-6.61	.10625	.000	1
S3	5.0000	4.7666	-.233	-4.67	2.4266	.018	1
S4	10.000	10.025	.025	.255	5.0910	.007	1
S5	20.000	20.306	.306	1.53	10.300	.122	1
S2	2.5000	2.4152	-.085	-3.39	1.2353	.009	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



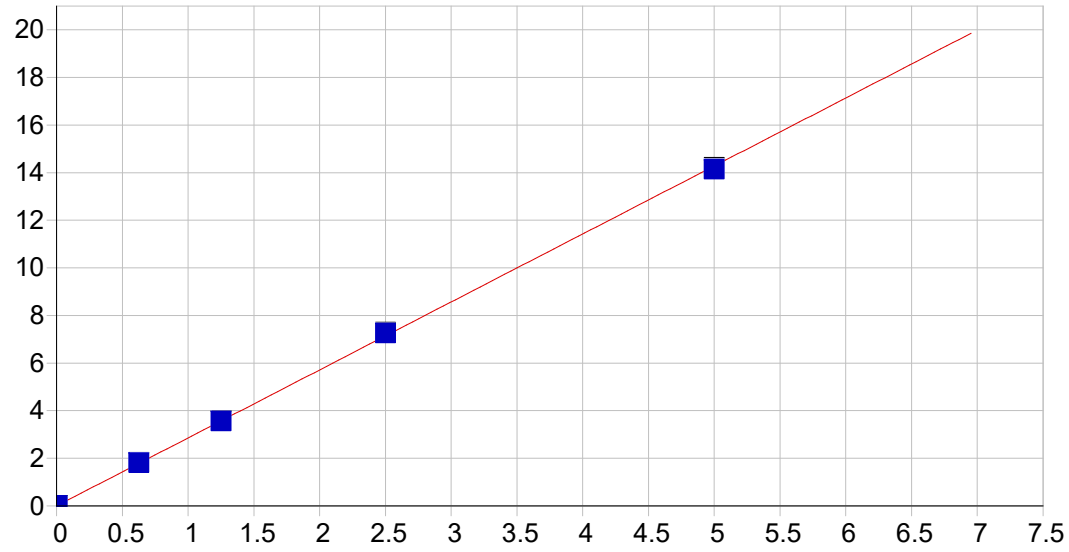
Be 234.861 {144}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000125	Re-Slope:	1.000000
A1 (Gain):	5.147214	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000236		
Predicted MDL:	0.000080		
Predicted MQL:	0.000268		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00012	.000	1
S1	.00500	.00523	.000	4.62	.02702	.000	1
S3	.25000	.24843	-.002	-.627	1.2731	.013	1
S4	.50000	.50448	.004	.896	2.5852	.012	1
S5	1.0000	.99236	-.008	-.764	5.0849	.083	1
S2	.12500	.12949	.004	3.59	.66375	.005	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



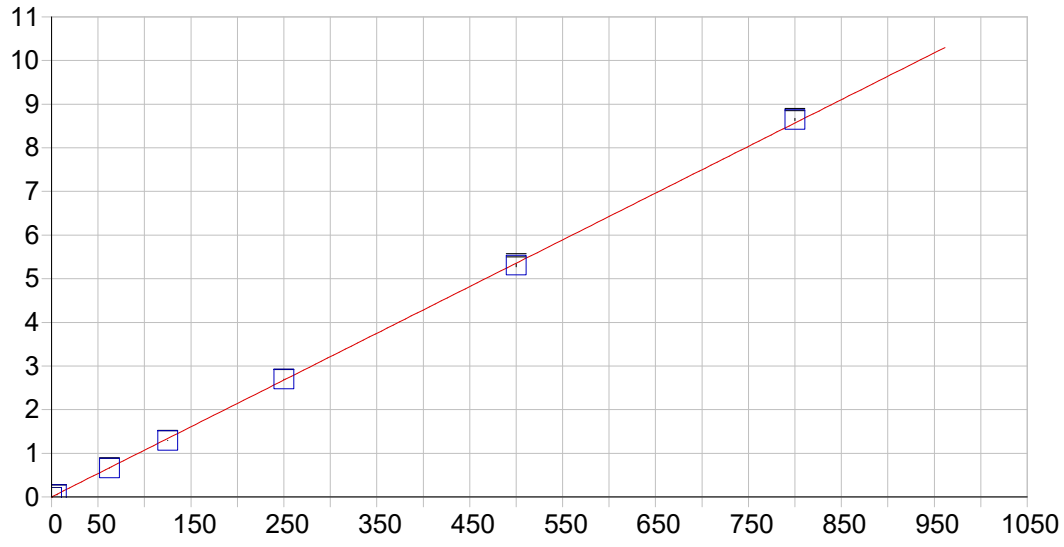
Cd 214.438 {457}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000289	Re-Slope:	1.000000
A1 (Gain):	2.856252	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000289		
Predicted MDL:	0.000084		
Predicted MQL:	0.000280		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00029	.000	1
S1	.00500	.00485	-.000	-2.94	.01416	.000	1
S3	1.2500	1.2479	-.002	-.168	3.5717	.009	1
S4	2.5000	2.5403	.040	1.61	7.2703	.025	1
S5	5.0000	4.9504	-.050	-.992	14.168	.056	1
S2	.62500	.63652	.012	1.84	1.8219	.010	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



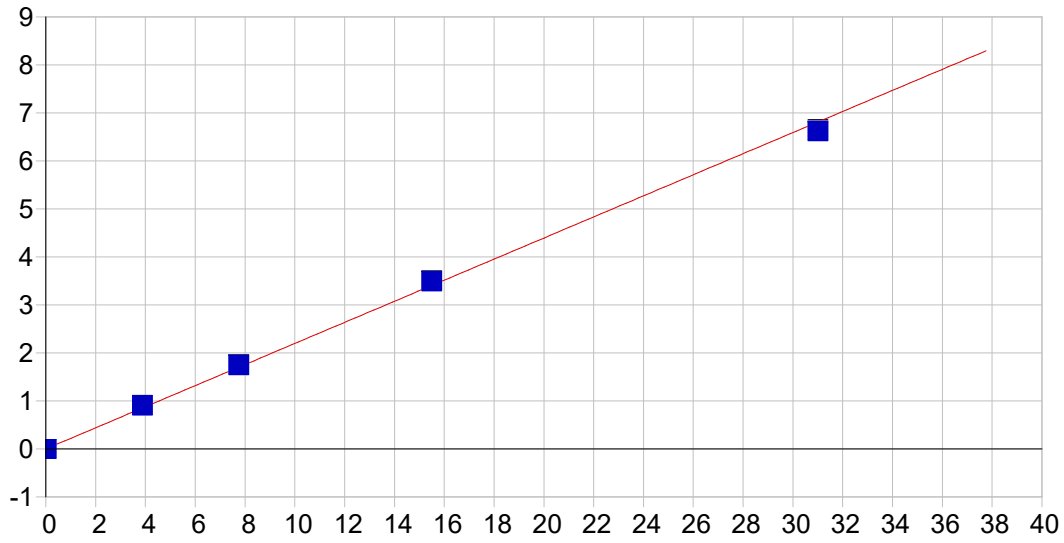
Ca 373.690 { 90}

Date of Fit:	1/16/2025 11:40:47	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000100	Re-Slope:	1.000000
A1 (Gain):	0.010711	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000458		
Predicted MDL:	0.011098		
Predicted MQL:	0.036995		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00034	.000	.000	.00010	.000	1
S2	62.500	61.924	-.576	-.921	.66337	.004	1
S3	125.00	120.81	-4.19	-3.35	1.2941	.006	1
S4	250.00	251.67	1.67	.668	2.6957	.004	1
S5	500.00	495.96	-4.04	-.809	5.3122	.036	1
S1	5.0000	4.8333	-.167	-3.33	.05187	.000	1
S6	800.00	807.30	7.30	.913	8.6470	.025	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



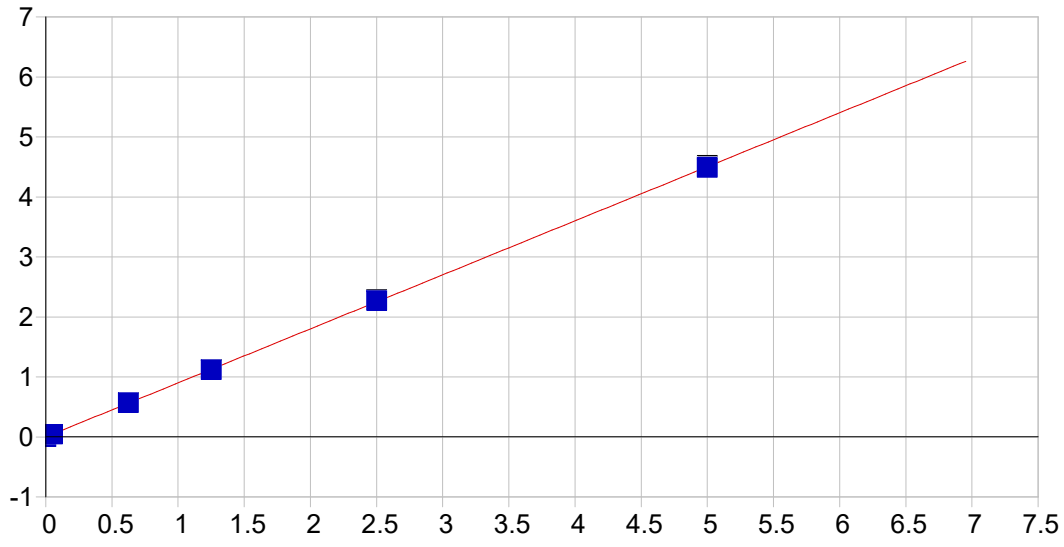
Cr 267.716 {126}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000015	Re-Slope:	1.000000
A1 (Gain):	0.219675	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999524	Status:	OK.
Std Error of Est:	0.000200		
Predicted MDL:	0.000459		
Predicted MQL:	0.001531		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.000	1
S1	.01000	.01038	.000	3.77	.00230	.000	1
S3	7.7500	7.9609	.211	2.72	1.7492	.003	1
S4	15.500	15.894	.394	2.54	3.4923	.009	1
S5	31.000	30.145	-.855	-2.76	6.6239	.024	1
S2	3.8750	4.1247	.250	6.44	.90632	.002	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



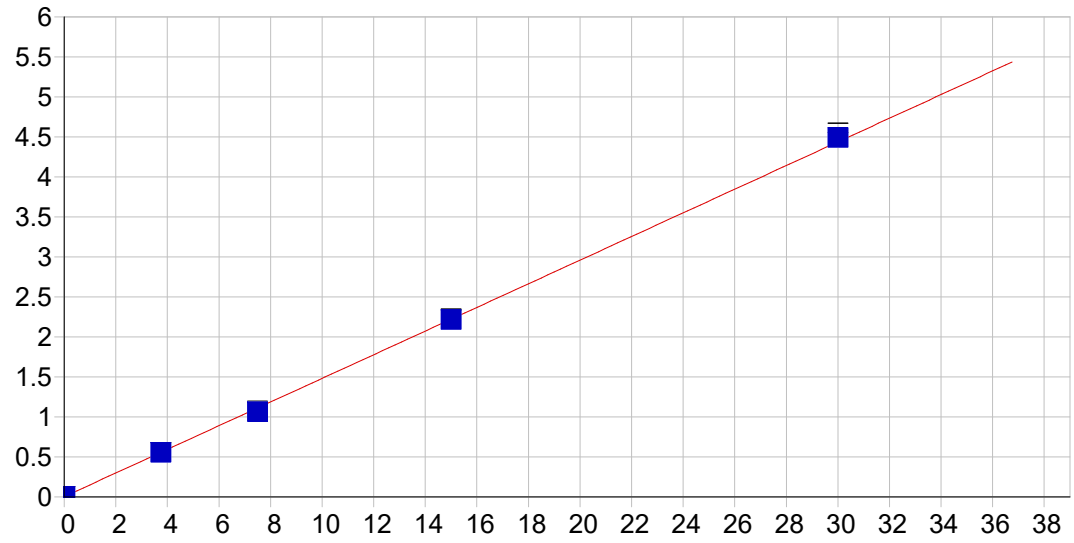
Co 228.616 {448}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000074	Re-Slope:	1.000000
A1 (Gain):	0.900437	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.000158		
Predicted MDL:	0.000295		
Predicted MQL:	0.000982		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00007	.000	1
S1	.05000	.04881	-.001	-2.38	.04405	.000	1
S3	1.2500	1.2397	-.010	-.828	1.1204	.003	1
S4	2.5000	2.5206	.021	.825	2.2782	.010	1
S5	5.0000	4.9841	-.016	-.318	4.5049	.021	1
S2	.62500	.63181	.007	1.09	.57097	.002	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



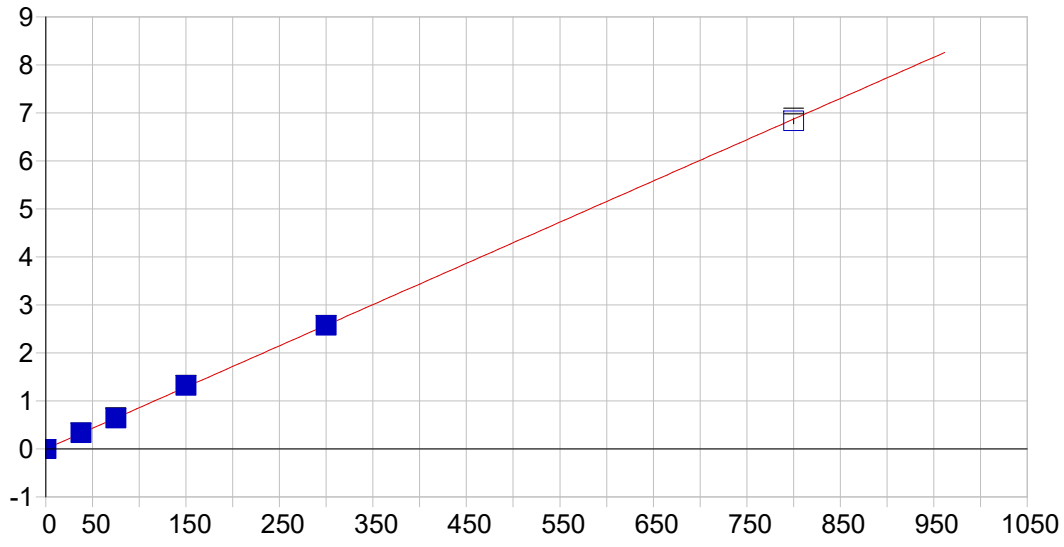
Cu 324.754 {104}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003298	Re-Slope:	1.000000
A1 (Gain):	0.147813	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999839	Status:	OK.
Std Error of Est:	0.000122		
Predicted MDL:	0.003003		
Predicted MQL:	0.010011		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00330	.000	1
S1	.02500	.02868	.004	14.7	.00754	.000	1
S3	7.5000	7.1846	-.315	-4.21	1.0652	.006	1
S4	15.000	14.977	-.023	-.150	2.2170	.005	1
S5	30.000	30.355	.355	1.18	4.4897	.057	1
S2	3.7500	3.7296	-.020	-.544	.55453	.001	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



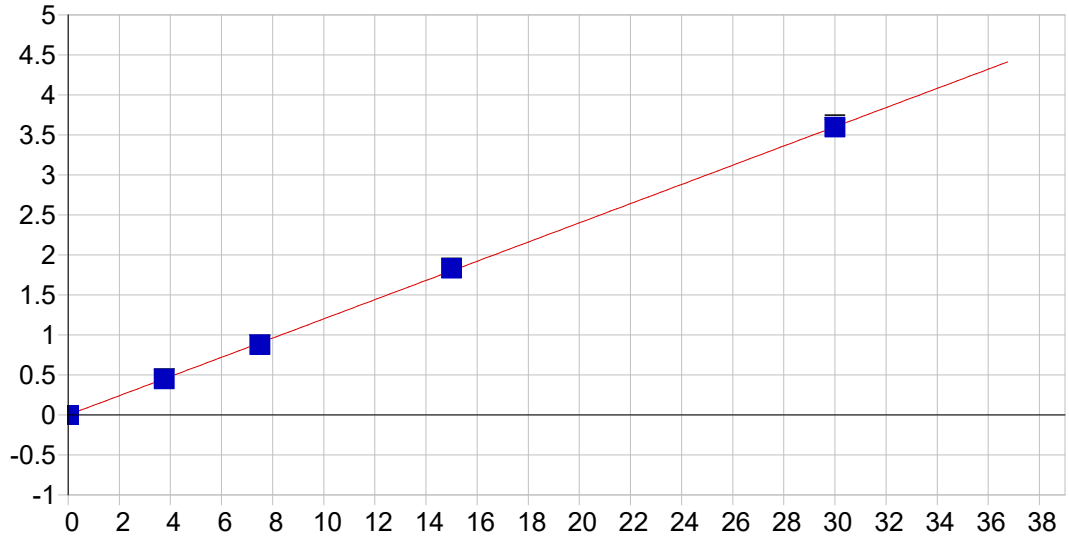
Fe 259.837 {130}

Date of Fit:	1/16/2025 11:40:47	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000048	Re-Slope:	1.000000
A1 (Gain):	0.008589	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000041		
Predicted MDL:	0.006041		
Predicted MQL:	0.020136		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00005	.000	1
S1	.10000	.10161	.002	1.61	.00090	.000	1
S3	75.000	74.885	-.115	-.154	.64257	.002	1
S4	150.00	153.89	3.89	2.60	1.3205	.002	1
S5	300.00	299.56	-.436	-.145	2.5704	.001	1
S2	37.500	38.673	1.17	3.13	.33188	.002	1
S6	800.00	795.49	-4.51	-.564	6.8324	.060	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



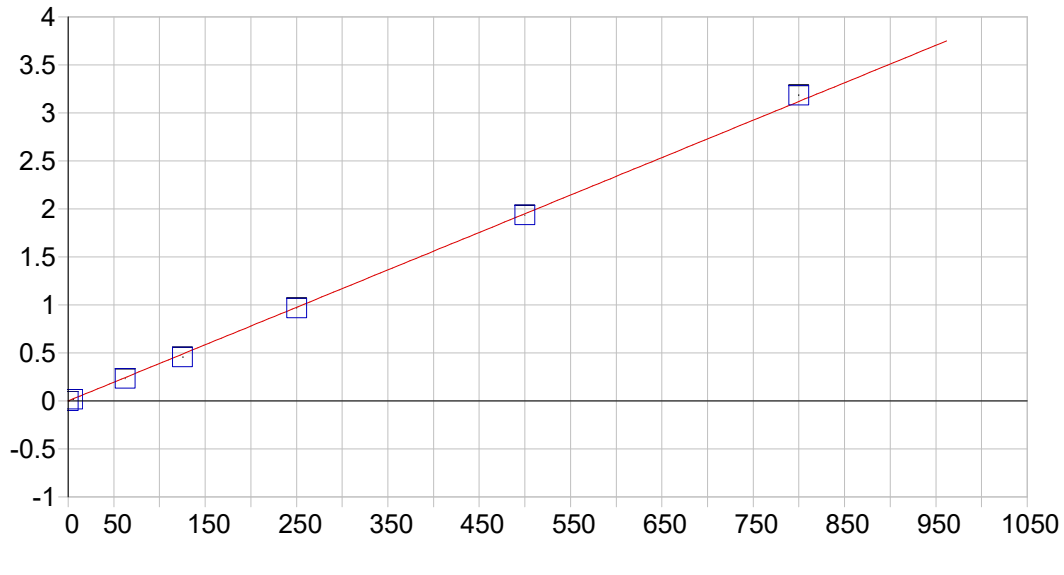
Mn 257.610 {131}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000018	Re-Slope:	1.000000
A1 (Gain):	0.120046	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000058		
Predicted MDL:	0.000400		
Predicted MQL:	0.001333		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00002	.000	1
S1	.01500	.01516	.000	1.08	.00180	.000	1
S3	7.5000	7.2864	-.214	-2.85	.87407	.004	1
S4	15.000	15.256	.256	1.70	1.8301	.003	1
S5	30.000	29.964	-.036	-.120	3.5946	.028	1
S2	3.7500	3.7436	-.006	-.170	.44908	.003	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



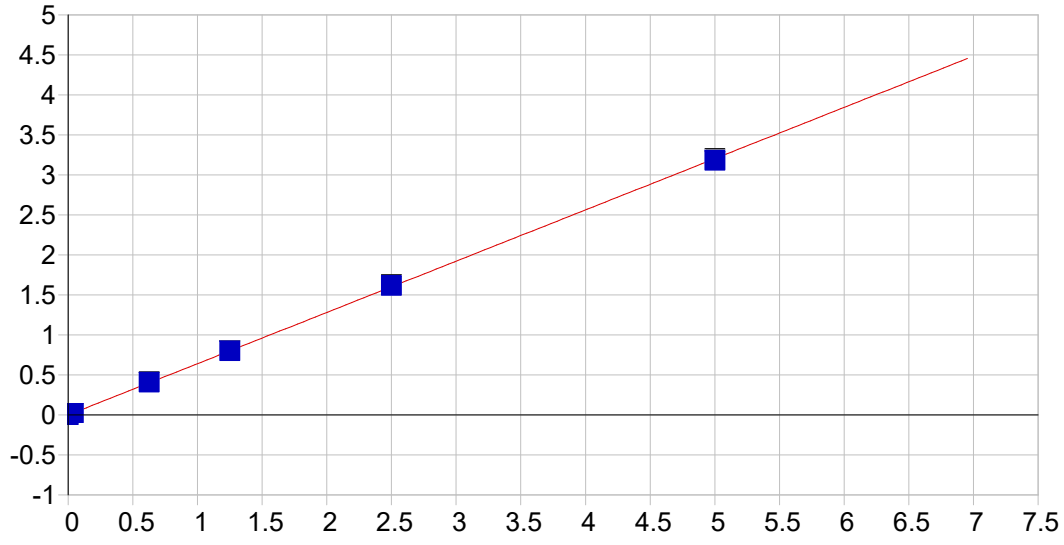
Mg 279.079 {121}

Date of Fit:	1/16/2025 11:40:47	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000035	Re-Slope:	1.000000
A1 (Gain):	0.003899	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999687	Status:	OK.
Std Error of Est:	0.000341		
Predicted MDL:	0.016484		
Predicted MQL:	0.054947		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00115	.001	.000	-.00003	.000	1
S2	62.500	59.652	-2.85	-4.56	.23255	.001	1
S3	125.00	117.16	-7.84	-6.27	.45678	.001	1
S4	250.00	248.27	-1.73	-.693	.96797	.001	1
S5	500.00	496.35	-3.65	-.731	1.9352	.001	1
S1	5.0000	4.3543	-.646	-12.9	.01694	.000	1
S6	800.00	816.72	16.7	2.09	3.1844	.004	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



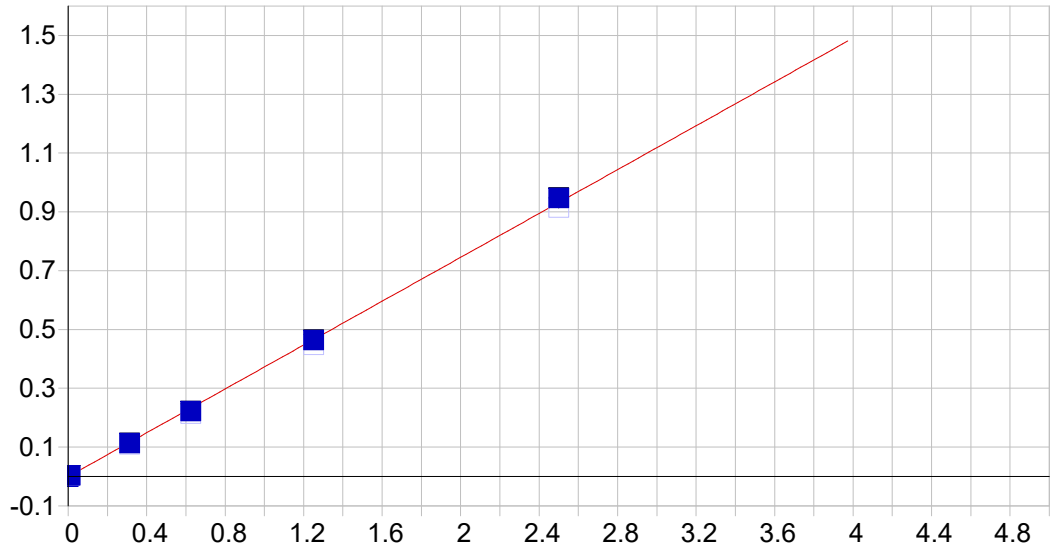
Ni 231.604 {446}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000242	Re-Slope:	1.000000
A1 (Gain):	0.640677	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000136		
Predicted MDL:	0.000462		
Predicted MQL:	0.001540		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00024	.000	1
S1	.04000	.03952	-.000	-1.19	.02511	.000	1
S3	1.2500	1.2492	-.001	-.067	.80194	.002	1
S4	2.5000	2.5243	.024	.971	1.6207	.006	1
S5	5.0000	4.9644	-.036	-.712	3.1878	.014	1
S2	.62500	.63765	.013	2.02	.40923	.002	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



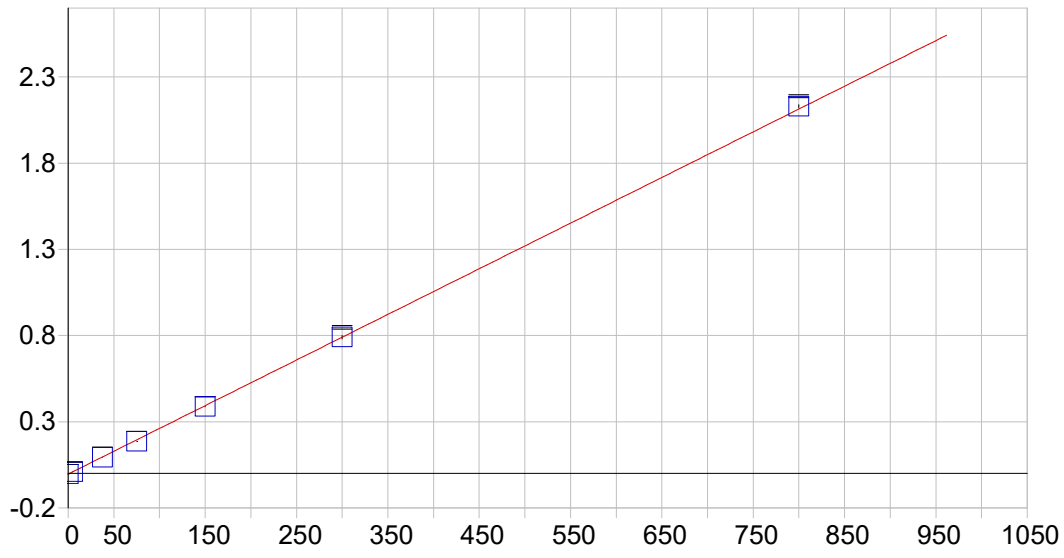
Ag 328.068 {103}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000427	Re-Slope:	1.000000
A1 (Gain):	0.372903	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999742	Status:	OK.
Std Error of Est:	0.000069		
Predicted MDL:	0.000441		
Predicted MQL:	0.001471		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00043	.000	1
S1	.01000	.00997	-.000	-.265	.00327	.000	1
S3	.62500	.59591	-.029	-4.65	.21358	.000	1
S4	1.2500	1.2458	-.004	-.333	.44772	.001	1
S5	2.5000	2.5413	.041	1.65	.91437	.001	1
S2	.31250	.30450	-.008	-2.56	.10902	.000	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



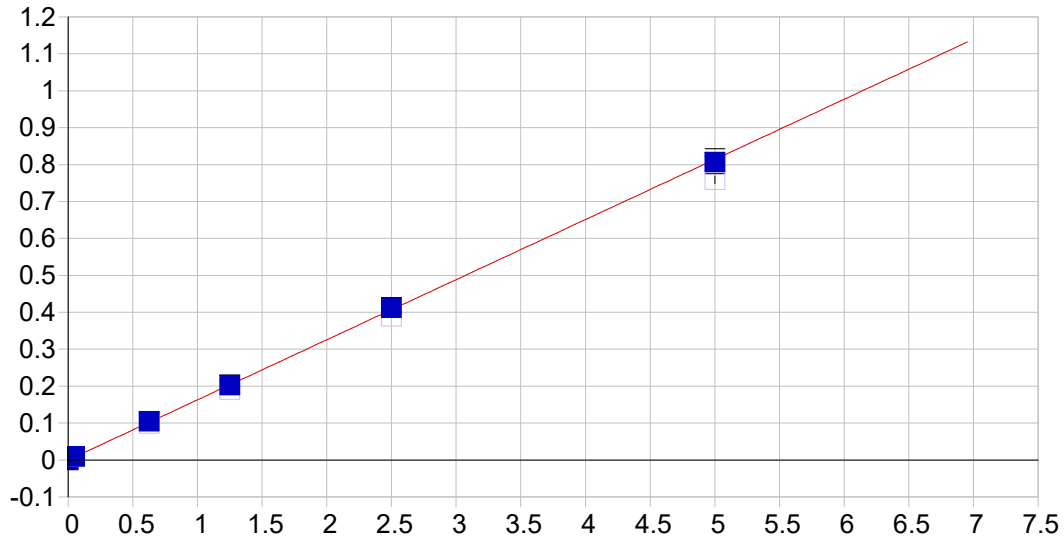
Na 818.326 { 41}

Date of Fit:	1/16/2025 11:40:47	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003601	Re-Slope:	1.000000
A1 (Gain):	0.002647	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000111		
Predicted MDL:	0.487939		
Predicted MQL:	1.626464		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00045	.000	.000	-.00360	.001	1
S2	37.500	36.766	-.734	-1.96	.09373	.001	1
S3	75.000	71.603	-3.40	-4.53	.18594	.000	1
S4	150.00	147.82	-2.18	-1.45	.38770	.001	1
S5	300.00	300.07	.074	.025	.79074	.010	1
S1	5.0000	4.9053	-.095	-1.89	.00938	.001	1
S6	800.00	806.33	6.33	.792	2.1309	.009	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



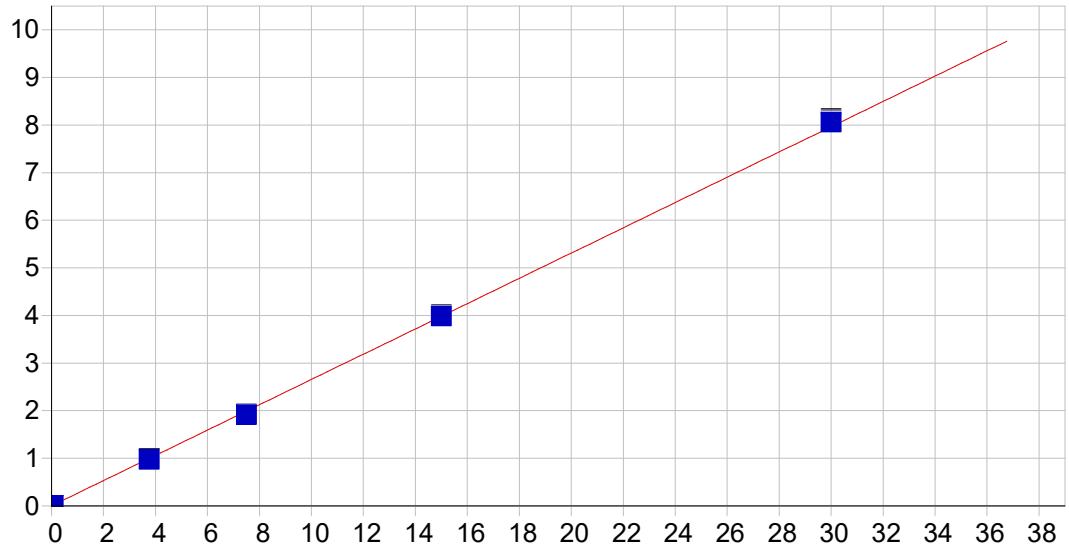
V 292.402 {115}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000036	Re-Slope:	1.000000
A1 (Gain):	0.162803	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000058		
Predicted MDL:	0.002339		
Predicted MQL:	0.007798		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00004	.000	1
S1	.05000	.05429	.004	8.58	.00886	.000	1
S3	1.2500	1.2426	-.007	-.590	.19044	.001	1
S4	2.5000	2.5343	.034	1.37	.38882	.001	1
S5	5.0000	4.9533	-.047	-.933	.75885	.010	1
S2	.62500	.64021	.015	2.43	.09831	.001	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



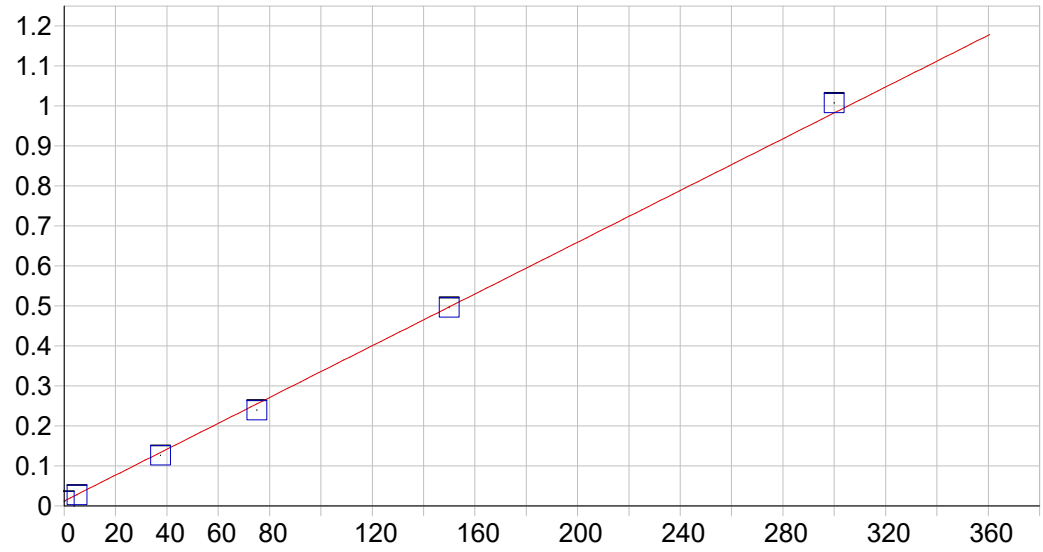
Zn 213.856 {158}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000403	Re-Slope:	1.000000
A1 (Gain):	0.265519	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999859	Status:	OK.
Std Error of Est:	0.000319		
Predicted MDL:	0.002349		
Predicted MQL:	0.007829		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00040	.000	1
S1	.06000	.06096	.001	1.60	.01668	.000	1
S3	7.5000	7.2235	-.276	-3.69	1.9259	.004	1
S4	15.000	15.000	.000	.000	3.9982	.012	1
S5	30.000	30.354	.354	1.18	8.0900	.045	1
S2	3.7500	3.6713	-.079	-2.10	.97896	.013	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



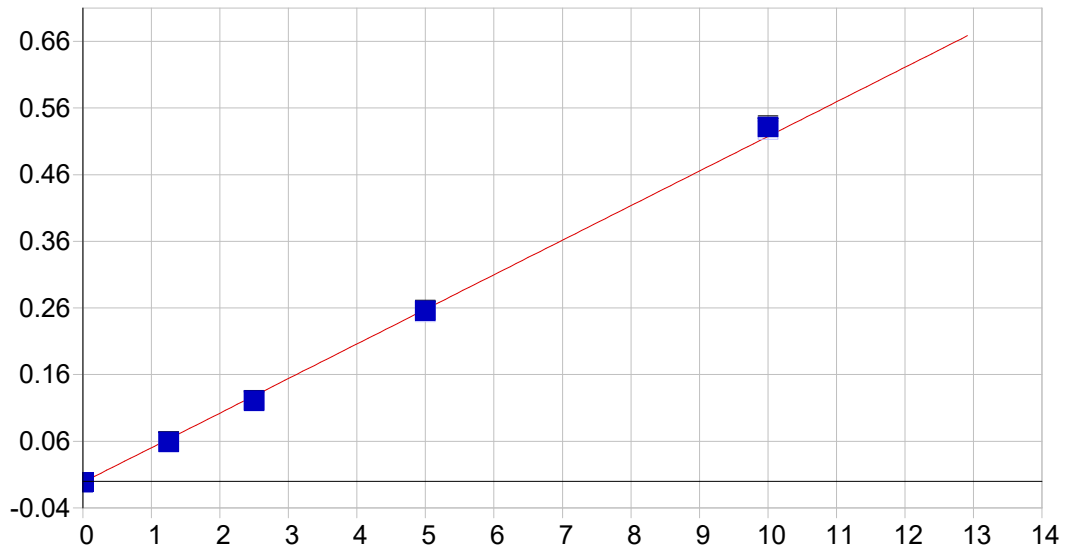
K 769.896 { 44}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.012312	Re-Slope:	1.000000
A1 (Gain):	0.003235	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999421	Status:	OK.
Std Error of Est:	0.000227		
Predicted MDL:	0.086602		
Predicted MQL:	0.288675		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00087	.001	.000	.01231	.000	1
S2	37.500	35.304	-2.20	-5.85	.12653	.001	1
S3	75.000	70.252	-4.75	-6.33	.23959	.001	1
S4	150.00	149.60	-.400	-.267	.49630	.001	1
S5	300.00	307.72	7.72	2.57	1.0079	.001	1
S1	5.0000	4.6214	-.379	-7.57	.02726	.000	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



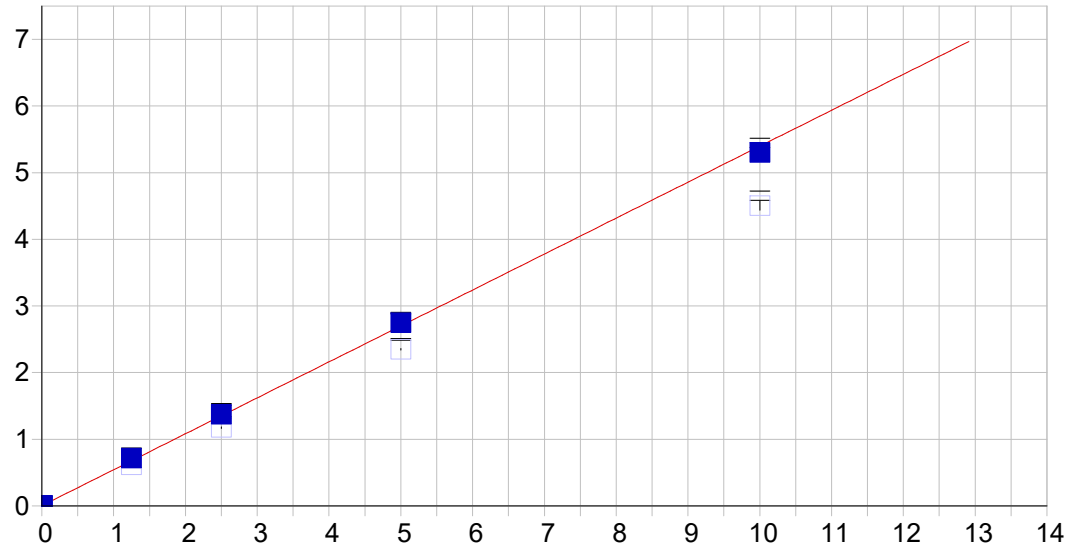
P 177.495 {490}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001558	Re-Slope:	1.000000
A1 (Gain):	0.051892	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999420	Status:	OK.
Std Error of Est:	0.000029		
Predicted MDL:	0.002363		
Predicted MQL:	0.007875		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00156	.000	1
S1	.01000	.00935	-.001	-6.52	-.00108	.000	1
S3	2.5000	2.3550	-.145	-5.80	.11972	.001	1
S4	5.0000	4.9591	-.041	-.818	.25393	.001	1
S5	10.000	10.269	.269	2.69	.52762	.002	1
S2	1.2500	1.1675	-.083	-6.60	.05856	.001	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

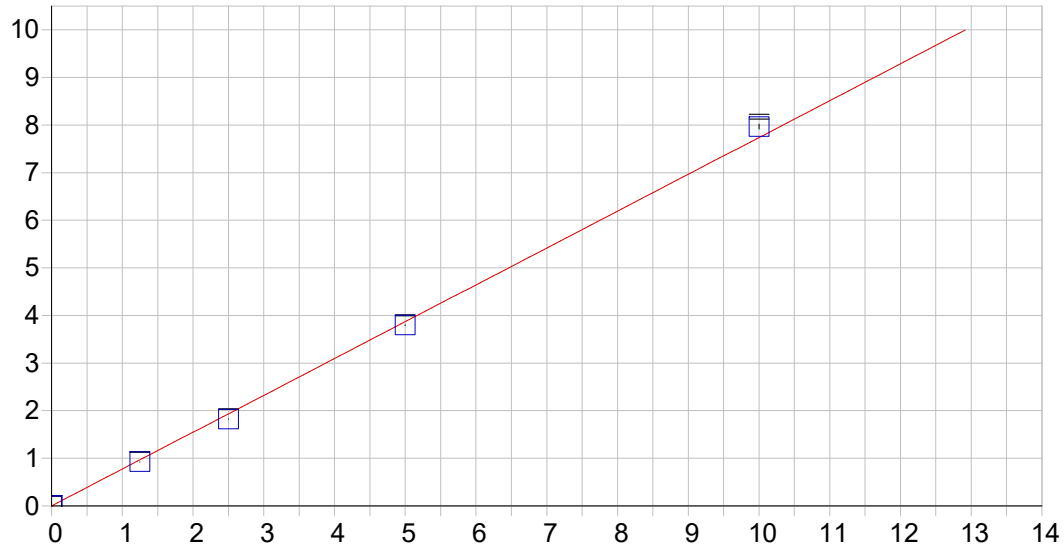


B 249.678 {135}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002962	Re-Slope:	1.000000
A1 (Gain):	0.539431	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999295	Status:	OK.
Std Error of Est:	0.000290		
Predicted MDL:	0.000817		
Predicted MQL:	0.002724		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00297	.001	1
S1	.01000	-.00015	-.010	-101.	.00261	.000	1
S3	2.5000	2.5428	.043	1.71	1.1762	.012	1
S4	5.0000	5.0837	.084	1.67	2.3485	.012	1
S5	10.000	9.8184	-.182	-1.82	4.5058	.071	1
S2	1.2500	1.3165	.066	5.32	.61393	.005	1



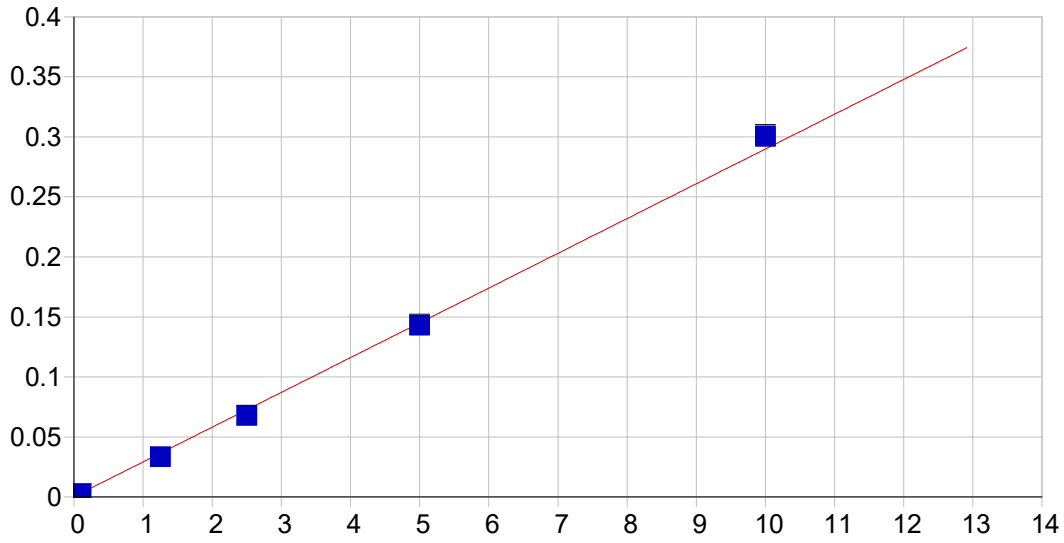
Mo 202.030 {467}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000179	Re-Slope:	1.000000
A1 (Gain):	0.773875	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999430	Status:	OK.
Std Error of Est:	0.000438		
Predicted MDL:	0.000358		
Predicted MQL:	0.001193		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00018	.000	1
S1	.01000	.00953	-.000	-4.73	.00755	.000	1
S3	2.5000	2.3549	-.145	-5.80	1.8226	.004	1
S4	5.0000	4.9036	-.096	-1.93	3.7949	.010	1
S5	10.000	10.296	.296	2.96	7.9680	.050	1
S2	1.2500	1.1960	-.054	-4.32	.92570	.005	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



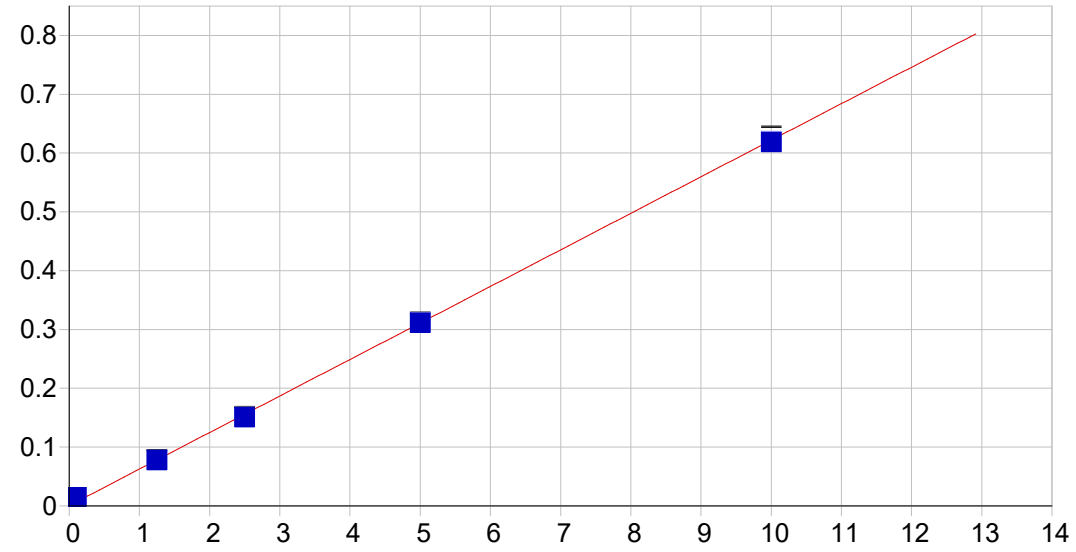
S 182.034 {485}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000229	Re-Slope:	1.000000
A1 (Gain):	0.028969	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999032	Status:	OK.
Std Error of Est:	0.000068		
Predicted MDL:	0.004261		
Predicted MQL:	0.014204		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00023	.000	1
S1	.10000	.08439	-.016	-15.6	.00267	.000	1
S3	2.5000	2.3294	-.171	-6.82	.06780	.000	1
S4	5.0000	4.9281	-.072	-1.44	.14318	.001	1
S5	10.000	10.361	.361	3.61	.30075	.001	1
S2	1.2500	1.1471	-.103	-8.23	.03350	.000	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

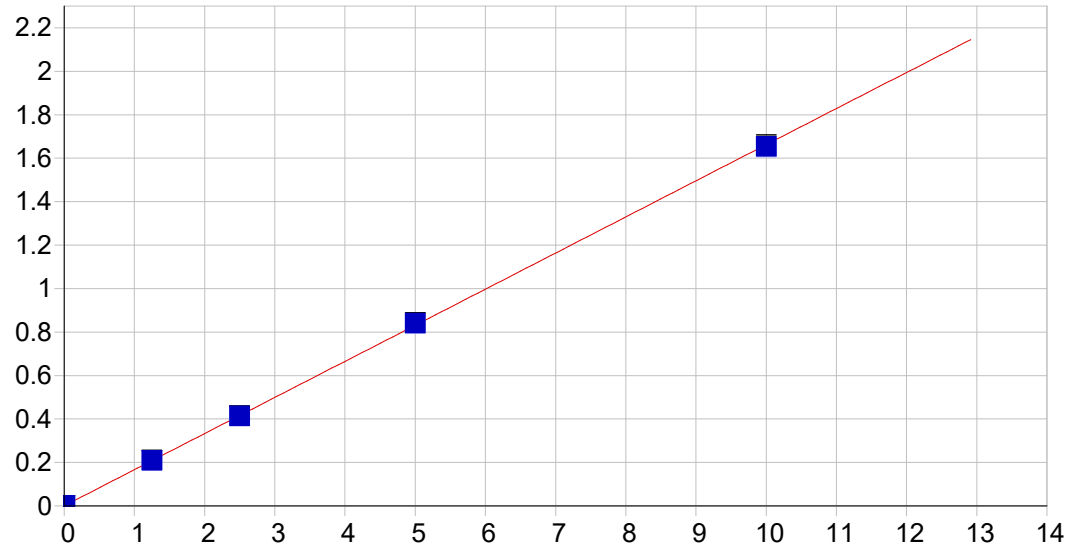


Si 251.611 {134}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000455	Re-Slope:	1.000000
A1 (Gain):	0.062134	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995097	Status:	OK.
Std Error of Est:	0.000329		
Predicted MDL:	0.003828		
Predicted MQL:	0.012761		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	.00045	.000	1
S1	.10000	.23574	.136	136.	.01511	.000	1
S3	2.5000	2.4196	-.080	-3.22	.15126	.001	1
S4	5.0000	5.0008	.001	.016	.31211	.001	1
S5	10.000	9.9490	-.051	-.510	.62049	.008	1
S2	1.2500	1.2452	-.005	-.383	.07806	.001	1

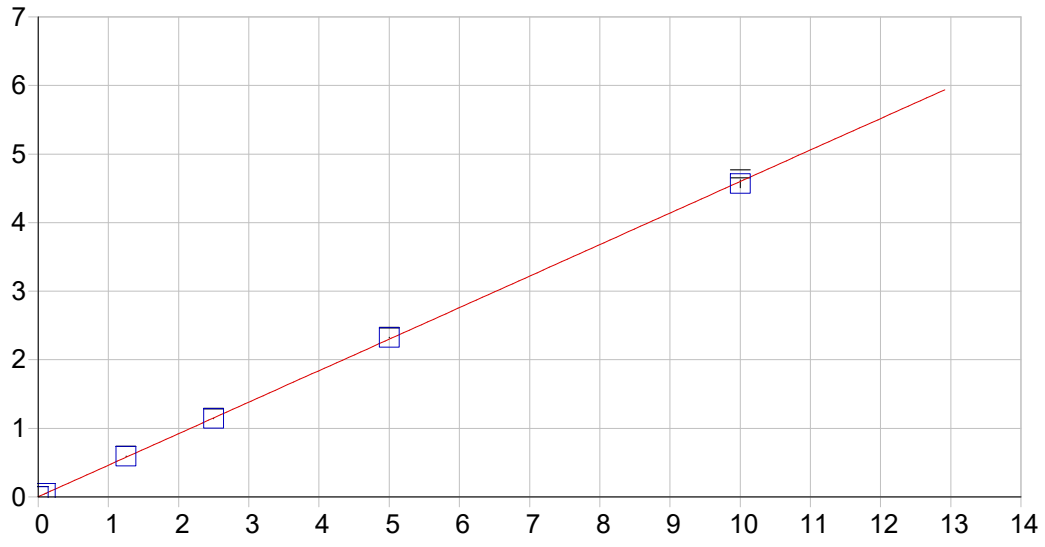


Sn 189.989 {478}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000441	Re-Slope:	1.000000
A1 (Gain):	0.166159	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.000862		
Predicted MQL:	0.002872		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00044	.000	1
S1	.00700	.00531	-.002	-24.1	.00127	.000	1
S3	2.5000	2.4858	-.014	-.568	.41219	.001	1
S4	5.0000	5.0593	.059	1.19	.83852	.003	1
S5	10.000	9.9498	-.050	-.502	1.6485	.009	1
S2	1.2500	1.2567	.007	.533	.20860	.001	1



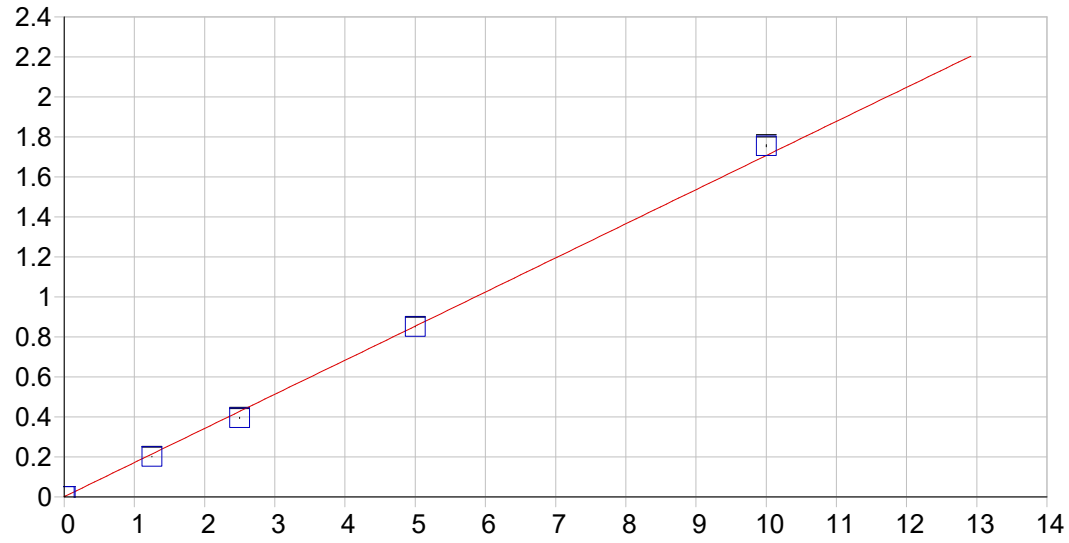
Ti 336.121 {100}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002658	Re-Slope:	1.000000
A1 (Gain):	0.459614	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000267		
Predicted MDL:	0.001108		
Predicted MQL:	0.003694		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00265	.000	1
S1	.10000	.10451	.005	4.51	.05069	.000	1
S3	2.5000	2.4806	-.019	-.777	1.1428	.005	1
S4	5.0000	5.0469	.047	.937	2.3223	.005	1
S5	10.000	9.9325	-.068	-.675	4.5678	.058	1
S2	1.2500	1.2855	.036	2.84	.59351	.001	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



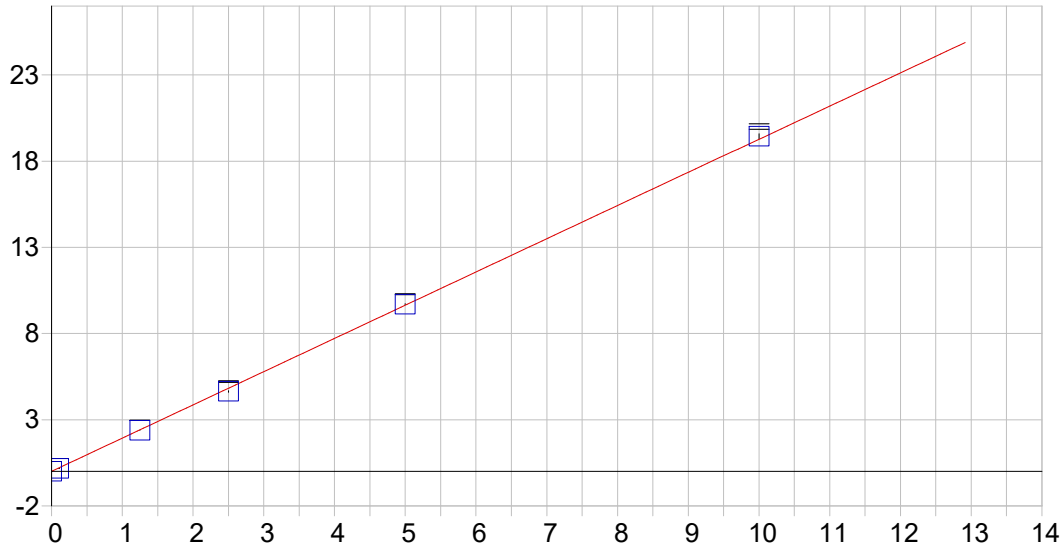
Li 670.784 { 50}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001154	Re-Slope:	1.000000
A1 (Gain):	0.170552	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999265	Status:	OK.
Std Error of Est:	0.000134		
Predicted MDL:	0.001639		
Predicted MQL:	0.005464		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00115	.000	1
S5	10.000	10.286	.286	2.86	1.7554	.006	1
S4	5.0000	4.9820	-.018	-.360	.85085	.002	1
S3	2.5000	2.3100	-.190	-7.60	.39514	.004	1
S1	.01500	.01558	.001	3.86	.00381	.000	1
S2	1.2500	1.1716	-.078	-6.27	.20097	.002	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



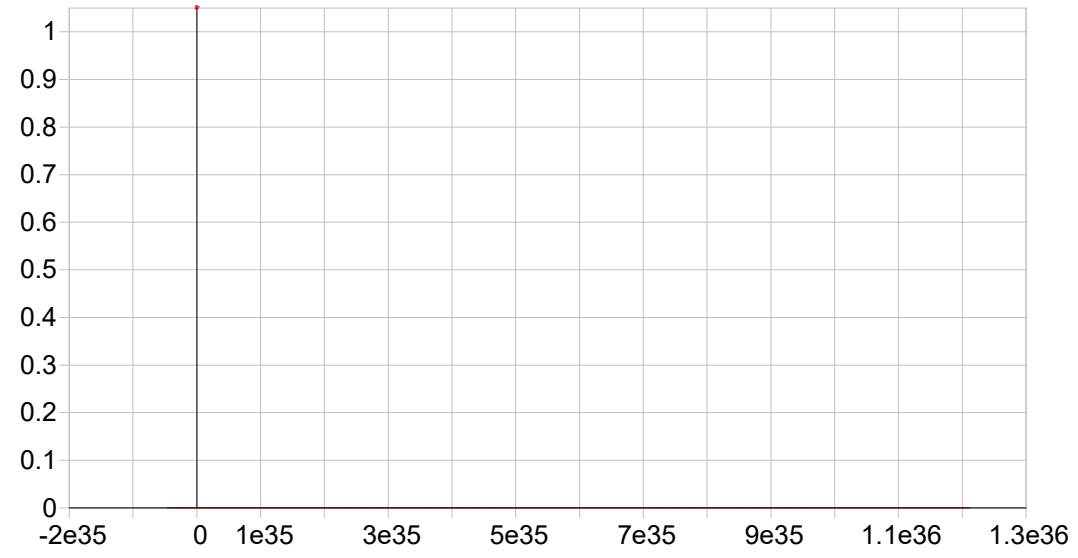
Sr 407.771 { 83}

Date of Fit:	1/16/2025 11:36:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	1.927569	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999829	Status:	OK.
Std Error of Est:	0.001896		
Predicted MDL:	0.000079		
Predicted MQL:	0.000264		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00003	.000	1
S1	.10000	.08597	-.014	-14.0	.16571	.001	1
S3	2.5000	2.4067	-.093	-3.73	4.6392	.052	1
S4	5.0000	5.0319	.032	.638	9.6994	.030	1
S5	10.000	10.085	.085	.853	19.440	.157	1
S2	1.2500	1.2401	-.010	-.793	2.3903	.017	1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

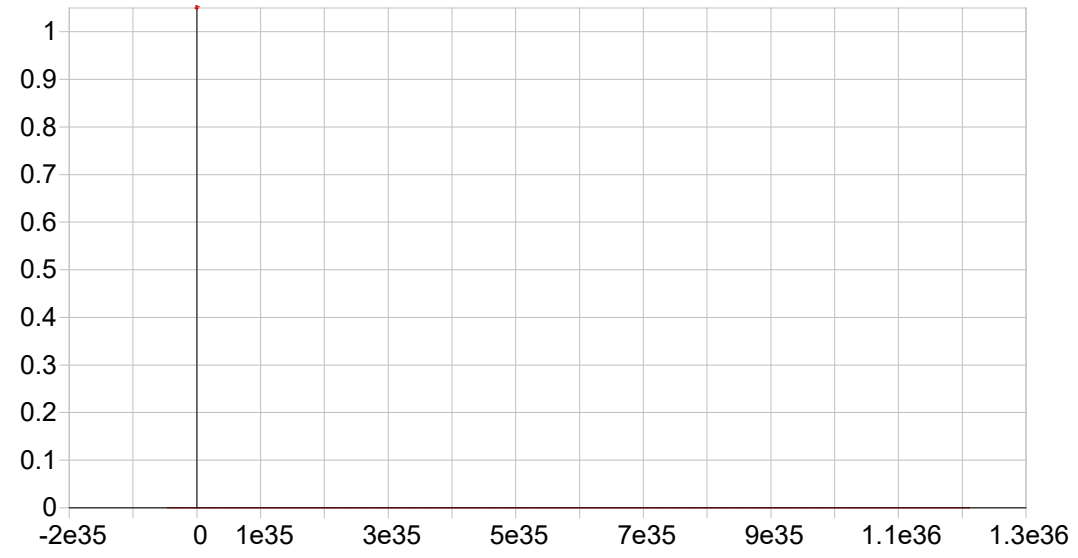


Y 224.306 {450}*

Date of Fit:	1/15/2025 12:23:48	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

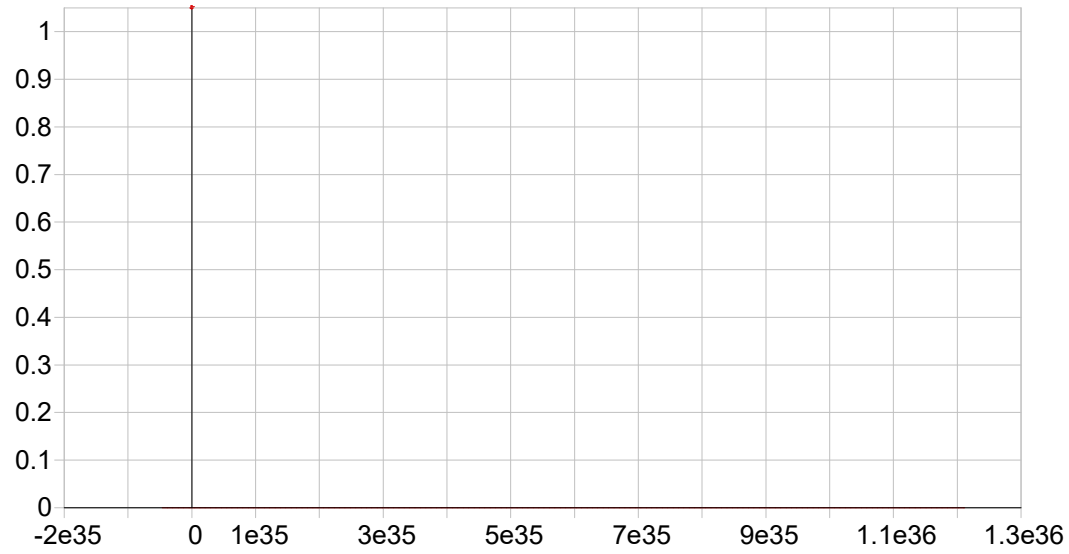
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

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

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



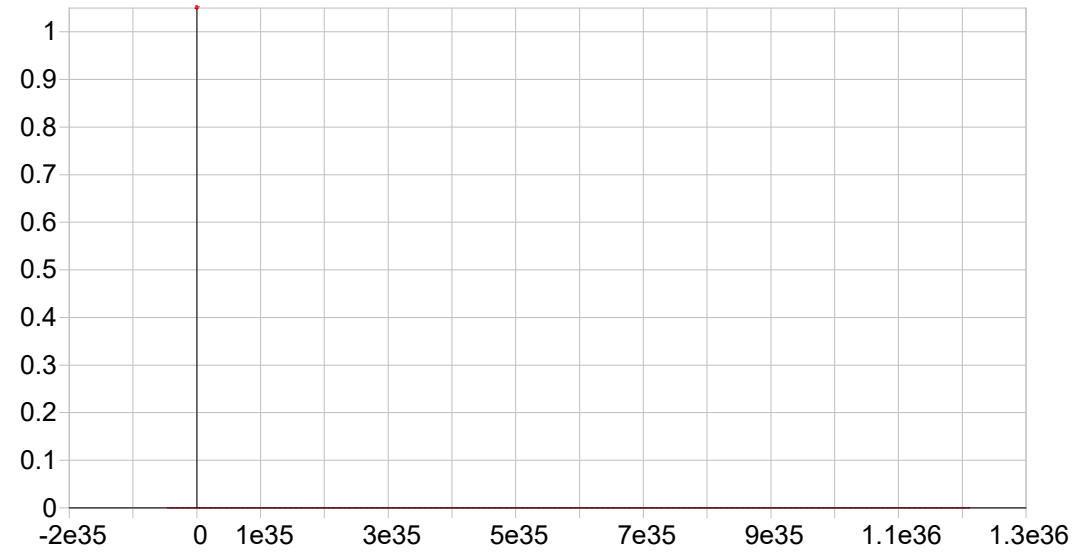
Y 371.030 { 91}*

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

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

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

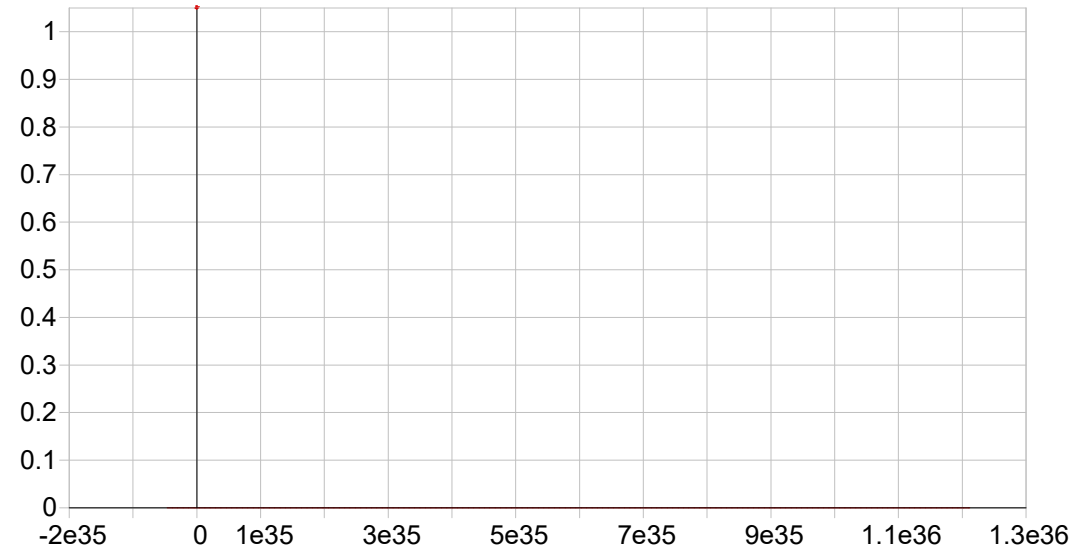
Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4



Y 224.306 {150}*

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

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



In 230.606 {446}*

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

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

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

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S0 Acquired: 1/16/2025 11:11:30 Type: Cal
Method: EPA SFAM01.0(v46) 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	**-.00006**	**.00019**	**.00031**	**.00061**	**.00038**	**-.00002**	**.01163**	**.00012**
Stddev	.00014	.00003	.00035	.00019	.00020	.00001	.00001	.00023
%RSD	250.38	16.335	112.56	30.755	52.029	45.832	.07255	189.11
#1	.00007	.00018	.00003	.00040	.00049	-.00003	.01164	.00014
#2	-.00021	.00023	.00020	.00064	.00051	-.00001	.01163	-.00012
#3	-.00003	.00017	.00071	.00077	.00015	-.00002	.01163	.00034

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	**.00029**	**.00010**	**.00001**	**-.00007**	**.00330**	**.00005**	**-.00002**	**-.00003**
Stddev	.00017	.00004	.00003	.00011	.00022	.00006	.00001	.00003
%RSD	60.238	42.490	174.77	150.24	6.7074	118.55	77.477	82.141
#1	.00043	.00013	.00003	.00005	.00305	.00011	-.00001	-.00002
#2	.00009	.00013	.00003	-.00012	.00346	.00000	-.00001	-.00006
#3	.00034	.00005	-.00001	-.00015	.00339	.00003	-.00003	-.00001

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	**-.00024**	**-.00043**	**-.00360**	**.00004**	**.00040**	**.01231**	**-.00156**	**.00297**
Stddev	.00021	.00011	.00092	.00033	.00033	.00022	.00006	.00052
%RSD	84.592	24.833	25.586	924.20	81.736	1.7542	3.8363	17.631
#1	-.00020	-.00052	-.00464	.00011	.00003	.01214	-.00149	.00247
#2	-.00006	-.00046	-.00289	-.00032	.00052	.01256	-.00158	.00351
#3	-.00047	-.00031	-.00327	.00032	.00066	.01224	-.00160	.00291

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00018**	**.00023**	**.00045**	**.00044**	**.00265**	**.00115**	**.00003**
Stddev	.00017	.00009	.00013	.00007	.00009	.00015	.00013
%RSD	95.056	38.801	29.638	16.432	3.4237	12.824	426.48
#1	.00024	.00026	.00029	.00037	.00267	.00128	-.00005
#2	.00031	.00013	.00054	.00045	.00274	.00099	.00018
#3	-.00001	.00030	.00051	.00051	.00256	.00119	-.00004

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S0 Acquired: 1/16/2025 11:11:30 Type: Cal
Method: EPA SFAM01.0(v46) 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	2739.8	52782.	9198.8	1944.2	4096.7
Stddev	4.3	138.	33.4	4.4	10.2
%RSD	.15523	.26112	.36267	.22492	.24990
#1	2744.5	52940.	9201.8	1946.2	4108.2
#2	2738.8	52687.	9230.6	1939.2	4093.2
#3	2736.1	52719.	9164.0	1947.2	4088.6

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S1 Acquired: 1/16/2025 11:15:46 Type: Cal
Method: EPA SFAM01.0(v46) 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	**.00066**	**.00200**	**.00233**	**.00301**	**.01015**	**.00275**	**.10625**	**.02702**
Stddev	.00016	.00002	.00026	.00016	.00011	.00008	.00039	.00049
%RSD	24.695	.79028	11.341	5.4281	1.0357	2.9202	.36908	1.8005
#1	.00078	.00199	.00213	.00318	.01018	.00280	.10638	.02650
#2	.00047	.00199	.00223	.00299	.01003	.00280	.10581	.02708
#3	.00072	.00202	.00263	.00286	.01023	.00266	.10656	.02747

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	**.01416**	**.05187**	**.00230**	**.04405**	**.00754**	**.00090**	**.00180**	**.01694**
Stddev	.00018	.00003	.00002	.00013	.00027	.00001	.00003	.00008
%RSD	1.2492	.06345	.92230	.29799	3.5522	.86786	1.4727	.49531
#1	.01396	.05189	.00229	.04401	.00778	.00091	.00179	.01704
#2	.01423	.05183	.00228	.04419	.00725	.00090	.00178	.01692
#3	.01429	.05189	.00232	.04394	.00758	.00091	.00183	.01687

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	**.02511**	**.00327**	**.00938**	**.00886**	**.01668**	**.02726**	**-.00108**	**.00261**
Stddev	.00017	.00005	.00101	.00035	.00046	.00035	.00005	.00036
%RSD	.67434	1.5779	10.754	3.9671	2.7869	1.2935	4.6036	13.676
#1	.02492	.00324	.00997	.00847	.01704	.02720	-.00111	.00252
#2	.02524	.00323	.00822	.00916	.01616	.02695	-.00110	.00300
#3	.02517	.00333	.00997	.00894	.01685	.02764	-.00102	.00231

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00755**	**.00267**	**.01511**	**.00127**	**.05069**	**.00381**	**.16571**
Stddev	.00019	.00006	.00010	.00004	.00040	.00022	.00063
%RSD	2.4905	2.2021	.67369	3.0888	.79172	5.6489	.38166
#1	.00767	.00274	.01513	.00124	.05106	.00362	.16634
#2	.00734	.00264	.01499	.00132	.05026	.00405	.16571
#3	.00765	.00264	.01519	.00126	.05075	.00377	.16507

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S1 Acquired: 1/16/2025 11:15:46 Type: Cal
Method: EPA SFAM01.0(v46) 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	2798.7	52049.	9374.8	1883.0	4202.4
Stddev	8.4	124.	50.0	3.7	5.4
%RSD	.30085	.23829	.53282	.19522	.12783
#1	2799.3	52050.	9424.6	1880.6	4201.9
#2	2806.8	52172.	9375.1	1887.2	4208.0
#3	2790.0	51924.	9324.7	1881.2	4197.3

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S2 Acquired: 1/16/2025 11:20:00 Type: Cal
Method: EPA SFAM01.0(v46) 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	**.09069**	**.09535**	**1.5316**	**.10019**	**.21253**	**.54064**	**1.2353**	**.66375**
Stddev	.00075	.00069	.0078	.00029	.00129	.00363	.0088	.00461
%RSD	.82778	.72605	.50832	.29030	.60469	.67213	.71598	.69485
#1	.08999	.09492	1.5261	.09986	.21167	.54450	1.2453	.65861
#2	.09058	.09498	1.5283	.10042	.21190	.54015	1.2319	.66511
#3	.09148	.09614	1.5405	.10029	.21400	.53728	1.2287	.66753

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	**1.8219**	**.66337**	**.90632**	**.57097**	**.55453**	**.33188**	**.44908**	**.23255**
Stddev	.0102	.00438	.00211	.00205	.00080	.00247	.00283	.00149
%RSD	.56223	.66006	.23287	.35964	.14409	.74349	.62950	.64062
#1	1.8154	.66840	.90824	.56962	.55364	.33467	.45229	.23427
#2	1.8166	.66121	.90666	.56995	.55518	.33099	.44698	.23174
#3	1.8337	.66049	.90406	.57333	.55477	.32999	.44797	.23163

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	**.40923**	**.10902**	**.09373**	**.09831**	**.97896**	**.12653**	**.05856**	**.61393**
Stddev	.00235	.00018	.00101	.00059	.01305	.00090	.00054	.00478
%RSD	.57382	.16365	1.0792	.59837	1.3334	.70767	.92054	.77871
#1	.40802	.10920	.09403	.09772	.98980	.12738	.05810	.60844
#2	.40772	.10900	.09260	.09890	.96447	.12662	.05843	.61622
#3	.41193	.10884	.09455	.09832	.98262	.12559	.05915	.61714

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.92570**	**.03350**	**.07806**	**.20860**	**.59351**	**.20097**	**2.3903**
Stddev	.00488	.00006	.00051	.00148	.00075	.00165	.0172
%RSD	.52718	.18357	.65038	.70861	.12609	.82033	.71858
#1	.92204	.03350	.07833	.20774	.59369	.20287	2.4101
#2	.92381	.03344	.07747	.20777	.59269	.20011	2.3822
#3	.93124	.03357	.07837	.21031	.59416	.19992	2.3787

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S2 Acquired: 1/16/2025 11:20:00 Type: Cal
Method: EPA SFAM01.0(v46) 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	2622.9	49584.	9394.1	1783.4	3758.7
Stddev	8.6	173.	38.6	10.3	13.4
%RSD	.32693	.34898	.41101	.57924	.35621
#1	2631.5	49399.	9438.7	1772.9	3769.4
#2	2622.7	49610.	9369.8	1793.6	3763.1
#3	2614.4	49742.	9374.0	1783.9	3743.7

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S3 Acquired: 1/16/2025 11:23:53 Type: Cal
Method: EPA SFAM01.0(v46) 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	.18333	.18122	3.0165	.19986	.42675	1.0688	2.4266	1.2731
Stddev	.00042	.00188	.0099	.00010	.00053	.0045	.0183	.0128
%RSD	.23034	1.0387	.32673	.04756	.12399	.42494	.75408	1.0021
#1	.18295	.17957	3.0112	.19975	.42665	1.0715	2.4392	1.2592
#2	.18326	.18327	3.0104	.19989	.42627	1.0635	2.4056	1.2843
#3	.18378	.18080	3.0279	.19993	.42732	1.0713	2.4351	1.2757

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	3.5717	1.2941	1.7492	1.1204	1.0652	.64257	.87407	.45678
Stddev	.0089	.0062	.0025	.0027	.0058	.00204	.00383	.00077
%RSD	.24858	.47988	.14333	.23686	.54231	.31825	.43833	.16848
#1	3.5616	1.2985	1.7476	1.1185	1.0588	.64417	.87597	.45727
#2	3.5749	1.2870	1.7521	1.1194	1.0667	.64027	.86966	.45590
#3	3.5785	1.2968	1.7480	1.1235	1.0700	.64328	.87658	.45719

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	.80194	.21358	.18594	.19044	1.9259	.23959	.11972	1.1762
Stddev	.00203	.00036	.00035	.00069	.0040	.00129	.00056	.0121
%RSD	.25277	.17057	.19040	.36197	.20838	.53760	.47074	1.0287
#1	.80015	.21333	.18633	.18975	1.9280	.24077	.11955	1.1636
#2	.80153	.21399	.18564	.19113	1.9213	.23822	.11926	1.1878
#3	.80414	.21341	.18585	.19044	1.9284	.23979	.12035	1.1773

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.8226	.06780	.15126	.41219	1.1428	.39514	4.6392
Stddev	.0036	.00022	.00102	.00112	.0045	.00364	.0523
%RSD	.19582	.33033	.67749	.27225	.39596	.92050	1.1265
#1	1.8185	.06757	.15008	.41090	1.1375	.39773	4.6992
#2	1.8247	.06781	.15178	.41276	1.1452	.39098	4.6035
#3	1.8246	.06802	.15192	.41292	1.1456	.39670	4.6149

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S3 Acquired: 1/16/2025 11:23:53 Type: Cal
Method: EPA SFAM01.0(v46) 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	**2484.8**	**48758.**	**9334.9**	**1738.2**	**3548.6**
Stddev	1.6	96.	49.7	4.1	4.8
%RSD	.06285	.19755	.53198	.23368	.13658
#1	2485.9	48647.	9385.2	1733.6	3549.2
#2	2483.0	48822.	9285.9	1741.4	3553.1
#3	2485.5	48804.	9333.5	1739.6	3543.5

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S4 Acquired: 1/16/2025 11:27:49 Type: Cal
Method: EPA SFAM01.0(v46) 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	.38682	.36495	6.1544	.41623	.90618	2.2670	5.0910	2.5852
Stddev	.00163	.00291	.0278	.00098	.00317	.0035	.0074	.0118
%RSD	.42068	.79733	.45128	.23655	.34956	.15492	.14608	.45585
#1	.38695	.36799	6.1428	.41723	.90545	2.2707	5.0841	2.5743
#2	.38512	.36466	6.1343	.41526	.90344	2.2638	5.0989	2.5836
#3	.38837	.36219	6.1861	.41620	.90965	2.2664	5.0902	2.5977

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	7.2703	2.6957	3.4923	2.2782	2.2170	1.3205	1.8301	.96797
Stddev	.0252	.0039	.0090	.0104	.0053	.0019	.0033	.00145
%RSD	.34718	.14498	.25652	.45638	.23922	.14760	.18107	.14975
#1	7.2644	2.6976	3.4833	2.2729	2.2128	1.3222	1.8316	.96923
#2	7.2485	2.6912	3.4925	2.2715	2.2152	1.3184	1.8263	.96638
#3	7.2980	2.6984	3.5012	2.2901	2.2229	1.3210	1.8325	.96828

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	1.6207	.44772	.38770	.38882	3.9982	.49630	.25393	2.3485
Stddev	.0060	.00100	.00057	.00062	.0117	.00128	.00110	.0121
%RSD	.36869	.22296	.14605	.15827	.29308	.25749	.43436	.51553
#1	1.6174	.44720	.38718	.38851	3.9847	.49592	.25288	2.3360
#2	1.6172	.44709	.38830	.38953	4.0061	.49526	.25383	2.3494
#3	1.6276	.44888	.38761	.38843	4.0038	.49773	.25507	2.3602

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.7949	.14318	.31211	.83852	2.3223	.85085	9.6994
Stddev	.0105	.00074	.00063	.00309	.0049	.00157	.0300
%RSD	.27563	.51990	.20034	.36794	.20948	.18420	.30934
#1	3.7935	.14274	.31154	.83729	2.3171	.85200	9.6921
#2	3.7852	.14275	.31201	.83624	2.3229	.84906	9.6736
#3	3.8060	.14404	.31277	.84203	2.3268	.85148	9.7323

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S4 Acquired: 1/16/2025 11:27:49 Type: Cal
Method: EPA SFAM01.0(v46) 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	**2294.8**	**46264.**	**9095.4**	**1661.2**	**3308.9**
Stddev	7.9	63.	32.6	9.0	12.4
%RSD	.34289	.13710	.35852	.54266	.37473
#1	2299.8	46305.	9132.2	1671.2	3317.2
#2	2298.8	46297.	9084.1	1653.7	3314.8
#3	2285.7	46191.	9070.0	1658.8	3294.6

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S5 Acquired: 1/16/2025 11:31:51 Type: Cal
Method: EPA SFAM01.0(v46) 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	.84701	.69861	12.175	.90055	1.9702	4.5930	10.300	5.0849
Stddev	.00760	.00354	.057	.00677	.0135	.0396	.122	.0827
%RSD	.89749	.50636	.46438	.75167	.68325	.86261	1.1819	1.6258
#1	.84501	.69523	12.146	.89804	1.9682	4.6164	10.240	5.0451
#2	.84060	.69831	12.140	.89539	1.9578	4.6154	10.440	5.1799
#3	.85541	.70229	12.241	.90821	1.9845	4.5473	10.219	5.0296

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	14.168	5.3122	6.6239	4.5049	4.4897	2.5704	3.5946	1.9352
Stddev	.056	.0361	.0243	.0210	.0568	.0013	.0282	.0012
%RSD	.39212	.68029	.36709	.46646	1.2639	.05018	.78309	.06281
#1	14.141	5.2705	6.5963	4.4951	4.4573	2.5717	3.5727	1.9339
#2	14.132	5.3324	6.6422	4.4906	4.5552	2.5702	3.5847	1.9363
#3	14.232	5.3338	6.6333	4.5290	4.4566	2.5691	3.6263	1.9354

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	3.1878	.91437	.79074	.75885	8.0900	1.0079	.52762	4.5058
Stddev	.0143	.00064	.00986	.01000	.0449	.0010	.00187	.0706
%RSD	.44895	.06963	1.2468	1.3180	.55467	.09983	.35406	1.5661
#1	3.1805	.91467	.78531	.75265	8.0679	1.0073	.52737	4.4668
#2	3.1787	.91479	.80213	.77039	8.0605	1.0073	.52588	4.5872
#3	3.2043	.91364	.78480	.75352	8.1416	1.0090	.52959	4.4633

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7.9680	.30075	.62049	1.6485	4.5678	1.7554	19.440
Stddev	.0499	.00115	.00850	.0086	.0575	.0058	.157
%RSD	.62586	.38289	1.3698	.52408	1.2593	.33047	.80620
#1	7.9505	.30000	.61597	1.6447	4.5381	1.7574	19.585
#2	7.9293	.30017	.63030	1.6425	4.6341	1.7489	19.462
#3	8.0243	.30207	.61522	1.6584	4.5312	1.7600	19.274

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S5 Acquired: 1/16/2025 11:31:51 Type: Cal
Method: EPA SFAM01.0(v46) 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	**1967.5**	**44048.**	**8781.0**	**1562.6**	**2993.7**
Stddev	10.4	20.	121.6	3.6	12.0
%RSD	.52992	.04487	1.3843	.22796	.39927
#1	1971.0	44040.	8844.7	1564.5	3001.0
#2	1975.8	44070.	8640.9	1564.8	3000.3
#3	1955.8	44033.	8857.5	1558.5	2979.9

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: S6 Acquired: 1/16/2025 11:36:24 Type: Cal
Method: EPA SFAM01.0(v46) 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	12.319	8.6470	6.8324	3.1844	2.1309
Stddev	.020	.0249	.0598	.0043	.0092
%RSD	.16445	.28791	.87459	.13401	.43233
#1	12.313	8.6493	6.8038	3.1865	2.1410
#2	12.303	8.6707	6.7924	3.1872	2.1230
#3	12.342	8.6211	6.9011	3.1794	2.1287

Int. Std.	Y_3600	Y_3710
Units	Cts/S	Cts/S
Avg	41632.	8680.6
Stddev	46.	33.8
%RSD	.10953	.38911
#1	41683.	8694.5
#2	41618.	8705.2
#3	41596.	8642.1

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICV005 Acquired: 1/16/2025 12:02:33 Type: Unk
Method: EPA SFAM01.0(v46) 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	**1.015570**	**1.070770**	**.9905781**	**1.044093**	**.9892454**	**2.572163**
Stddev	.006103	.014427	.0019094	.007639	.0053911	.014876
%RSD	.6009401	1.347390	.1927557	.7316560	.5449674	.5783495
#1	1.012014	1.069830	.9887435	1.037186	.9869454	2.557438
#2	1.012079	1.056836	.9904365	1.042794	.9853859	2.571866
#3	1.022617	1.085645	.9925544	1.052298	.9954051	2.587186

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5295329**	**.4973172**	**.4908602**	**9.721993**	**.5613436**	**.4965201**
Stddev	.0004600	.0014602	.0014054	.026477	.0014381	.0014137
%RSD	.0868742	.2936084	.2863111	.2723439	.2561869	.2847144
#1	.5299103	.4967509	.4908961	9.731579	.5628560	.4959090
#2	.5290205	.4989757	.4894372	9.692058	.5599936	.4955148
#3	.5296680	.4962250	.4922473	9.742343	.5611811	.4981365

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4990457**	**10.28275**	**.4961569**	**6.073911**	**.5042045**	**.2371298**
Stddev	.0044813	.05982	.0032951	.041998	.0001936	.0010655
%RSD	.8979796	.5817595	.6641216	.6914491	.0384028	.4493138
#1	.4939669	10.26440	.4957885	6.095860	.5040491	.2367024
#2	.5007269	10.23426	.4930615	6.025486	.5041429	.2383426
#3	.5024433	10.34960	.4996207	6.100385	.5044214	.2363443

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.471347**	**.5038593**	**.9940950**	**9.936693**	F **.0047236**	F **.0440810**
Stddev	.010699	.0006712	.0037076	.057138	.0010596	.0008765
%RSD	.1129592	.1332154	.3729618	.5750171	22.43254	1.988299
#1	9.472948	.5039838	.9952237	9.984281	.0051175	.0434308
#2	9.481155	.5031345	.9899542	9.873323	.0055298	.0437343
#3	9.459938	.5044595	.9971070	9.952476	.0035234	.0450777

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICV005 Acquired: 1/16/2025 12:02:33 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000200	F .0029767	F .0040936	F -.000983	F -.000546	F .0007240
Stddev	.000195	.0013227	.0014379	.000801	.000685	.0009214
%RSD	97.25923	44.43630	35.12553	81.54240	125.4002	127.2644
#1	-.000035	.0018586	.0042829	-.001763	-.000016	.0001201
#2	-.000415	.0044369	.0054275	-.001024	-.000303	.0002674
#3	-.000151	.0026347	.0025705	-.000161	-.001319	.0017845

Elem	Sr4077
Units	ppm
Avg	F .0010792
Stddev	.0000649
%RSD	6.014313
#1	.0010137
#2	.0010804
#3	.0011435

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2758.603	51740.39	9825.183	1831.737	4126.875
Stddev	2.502	65.92	21.746	4.307	1.462
%RSD	.0906901	.1273963	.2213245	.2351221	.0354234
#1	2761.471	51724.01	9830.967	1826.974	4127.502
#2	2757.472	51812.95	9801.129	1835.359	4125.204
#3	2756.867	51684.21	9843.451	1832.876	4127.918

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICB005 Acquired: 1/16/2025 12:06:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB005 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001458**	**.0015275**	**-.002040**	**-.001364**	**.0001083**	**.0034553**	**-.001010**
Stddev	.001751	.0014556	.000389	.003720	.0013778	.0082002	.000437
%RSD	120.1384	95.29453	19.07904	272.7397	1272.219	237.3211	43.24286
#1	-.002090	.0025950	-.001959	.000972	.0015816	.0098538	-.001255
#2	-.002805	-.000131	-.001698	.000590	-.001148	.0063007	-.000506
#3	.000522	.002118	-.002463	-.005654	-.000108	-.005789	-.001269

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000061**	**-.000125**	**.0016944**	**-.000006**	**-.000154**	**.0012632**	**-.002530**
Stddev	.000020	.000057	.0086873	.000316	.000258	.0001241	.003284
%RSD	33.57294	45.41632	512.7014	5153.851	167.6033	9.824943	129.7806
#1	-.000048	-.000063	-.005632	-.000178	.000081	.0011806	-.002072
#2	-.000084	-.000139	.011292	.000359	-.000113	.0014060	-.006020
#3	-.000050	-.000174	-.000576	-.000200	-.000429	.0012031	.000500

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000668**	**-.006685**	**.0000882**	**-.000128**	**.2171644**	**-.000236**	**.0010497**
Stddev	.0000946	.012743	.0005593	.000183	.1543850	.002356	.0007455
%RSD	141.4918	190.6172	634.4491	143.5573	71.09133	999.5995	71.01773
#1	-.000042	-.009387	-.000185	-.000220	.2019940	-.002677	.0019038
#2	.000122	-.017861	.000732	-.000246	.0709245	-.000054	.0007156
#3	.000121	.007192	-.000282	.000083	.3785745	.002024	.0005297

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.255180**	**.0001494**	**.0002079**	**.0001379**	**-.001174**	**-.000682**	**-.000632**
Stddev	.051529	.0021483	.0009052	.0002178	.005015	.002535	.000603
%RSD	20.19320	1438.309	435.3874	157.8969	427.2794	371.8486	95.49148
#1	-.313835	.0012319	-.000785	.0002857	.000659	.002016	-.000117
#2	-.234509	-.002325	.000988	.0002402	-.006847	-.003015	-.000483
#3	-.217196	.001541	.000420	-.000112	.002667	-.001046	-.001295

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICB005 Acquired: 1/16/2025 12:06:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB005 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000115	.0015889	-.000006
Stddev	.000195	.0008088	.000003
%RSD	169.1515	50.90246	55.07333
#1	-.000187	.0006575	-.000009
#2	-.000264	.0019956	-.000003
#3	.000105	.0021136	-.000007

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2728.628	53176.42	9672.799	1878.814	4095.944
Stddev	11.916	109.36	70.215	7.342	14.363
%RSD	.4366855	.2056544	.7259007	.3907729	.3506719
#1	2731.532	53296.05	9607.900	1870.707	4092.157
#2	2738.822	53151.63	9663.164	1880.721	4111.822
#3	2715.528	53081.59	9747.335	1885.014	4083.854

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICSA005 Acquired: 1/16/2025 12:10:39 Type: Unk
Method: EPA SFAM01.0(v46) 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	**.0042193**	**.0051431**	**.0030760**	**.0193394**	**.0076023**	**230.9774**
Stddev	.0030454	.0014782	.0010829	.0028707	.0017747	1.0906
%RSD	72.17876	28.74239	35.20571	14.84369	23.34450	.4721493
#1	.0072821	.0042064	.0038271	.0162507	.0056209	231.5105
#2	.0041841	.0068472	.0018346	.0219258	.0081399	231.6989
#3	.0011916	.0043757	.0035662	.0198418	.0090460	229.7228

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071528**	**-.000707**	**.0003980**	**239.8178**	**.0604903**	**.0007513**
Stddev	.0005364	.000055	.0000391	1.1458	.0004593	.0001595
%RSD	7.498683	7.837504	9.822516	.4777599	.7593673	21.23349
#1	.0076844	-.000726	.0004124	240.0502	.0607263	.0006462
#2	.0066117	-.000751	.0004279	240.8295	.0599609	.0009348
#3	.0071621	-.000645	.0003538	238.5737	.0607836	.0006728

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006462**	**100.6076**	**.0129804**	**232.8144**	**.0043327**	**-.000073**
Stddev	.001019	.4674	.0003667	.9383	.0004584	.000766
%RSD	15.77156	.4645447	2.824970	.4030222	10.58087	1051.946
#1	-.005499	100.6890	.0127175	233.0391	.0043418	.000488
#2	-.007529	101.0290	.0133993	233.6199	.0047865	.000240
#3	-.006356	100.1049	.0128243	231.7841	.0038697	-.000946

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3297391**	**-.006589**	**-.001743**	**-.445865**	**.0073003**	F **.4199184**
Stddev	.1182630	.001108	.001293	.052499	.0032303	.0018908
%RSD	35.86563	16.81042	74.17502	11.77468	44.24855	.4502768
#1	.2001783	-.006181	-.000916	-.394973	.0062639	.4205885
#2	.4318912	-.005743	-.001080	-.442787	.0109216	.4213828
#3	.3571479	-.007842	-.003232	-.499836	.0047155	.4177838

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICSA005 Acquired: 1/16/2025 12:10:39 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000293	.0314757	.0038597	-.003601	-.003279	.0062134
Stddev	.000422	.0043529	.0050806	.000943	.000585	.0018801
%RSD	144.3118	13.82931	131.6331	26.19837	17.82664	30.25947
#1	-.000044	.0289514	.0011039	-.002696	-.003126	.0053179
#2	-.000054	.0365019	.0007523	-.003528	-.002786	.0083739
#3	-.000780	.0289737	.0097227	-.004579	-.003925	.0049484

Elem	Sr4077
Units	ppm
Avg	.0892910
Stddev	.0004275
%RSD	.4787257
#1	.0894357
#2	.0896275
#3	.0888101

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2476.679	47039.08	9367.720	1691.545	3435.613
Stddev	8.610	173.92	48.409	6.773	14.502
%RSD	.3476540	.3697251	.5167610	.4004122	.4221140
#1	2484.875	46838.91	9369.914	1683.783	3450.427
#2	2477.455	47125.27	9414.995	1694.597	3434.969
#3	2467.707	47153.07	9318.252	1696.256	3421.444

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICSAB005 Acquired: 1/16/2025 12:14:45 Type: Unk
Method: EPA SFAM01.0(v46) 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	**.0937288**	**.1099986**	**.0513107**	**.0635819**	**.5345726**	**230.9600**
Stddev	.0031566	.0028129	.0006693	.0028627	.0022018	1.5805
%RSD	3.367776	2.557257	1.304339	4.502339	.4118738	.6843086
#1	.0969326	.1102528	.0511670	.0629434	.5364703	229.3435
#2	.0906217	.1126758	.0520402	.0610925	.5321586	232.5018
#3	.0936321	.1070672	.0507250	.0667100	.5350888	231.0348

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4993078**	**.4965709**	**.9845112**	**241.3865**	**.5978111**	**.4957988**
Stddev	.0044524	.0027989	.0008850	1.0583	.0010159	.0008282
%RSD	.8917101	.5636478	.0898873	.4384240	.1699359	.1670337
#1	.4942274	.4991886	.9844056	240.2221	.5966386	.4960806
#2	.5025304	.4936205	.9836837	242.2898	.5984269	.4948665
#3	.5011655	.4969034	.9854441	241.6478	.5983679	.4964493

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4802014**	**100.5184**	**.5023126**	**233.6337**	**.9901337**	**.2011857**
Stddev	.0041615	.5594	.0028571	.8352	.0011441	.0006157
%RSD	.8666116	.5565598	.5687870	.3574637	.1155463	.3060398
#1	.4822340	99.9501	.4994389	232.7861	.9911197	.2018918
#2	.4829560	101.0686	.5051528	234.4559	.9888793	.2007608
#3	.4754143	100.5366	.5023460	233.6590	.9904021	.2009046

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.085078**	**.4761814**	**.9540262**	**-.748919**	**.0067790**	F **.4212729**
Stddev	.517229	.0022347	.0098262	.089830	.0022560	.0035313
%RSD	607.9466	.4692867	1.029973	11.99462	33.27923	.8382415
#1	.371167	.4736028	.9427055	-.645294	.0082812	.4172416
#2	-.646977	.4773887	.9590261	-.796763	.0078710	.4238188
#3	.020576	.4775528	.9603470	-.804702	.0041848	.4227584

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: ICSAB005 Acquired: 1/16/2025 12:14:45 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB005 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000554**	**.0216494**	**.0045211**	**-.003604**	**-.004775**	**.0057035**
Stddev	.000065	.0080322	.0035731	.000193	.000726	.0010586
%RSD	11.69549	37.10119	79.03066	5.347663	15.21231	18.56064
#1	-.000562	.0297830	.0065255	-.003821	-.003937	.0067747
#2	-.000486	.0137226	.0066420	-.003452	-.005224	.0056777
#3	-.000614	.0214427	.0003958	-.003539	-.005165	.0046580

Elem	Sr4077
Units	ppm
Avg	**.0909378**
Stddev	.0008289
%RSD	.9115615
#1	.0899940
#2	.0915480
#3	.0912713

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2528.247**	**47479.76**	**9397.207**	**1727.568**	**3523.723**
Stddev	12.320	58.50	54.826	4.476	8.331
%RSD	.4872998	.1232162	.5834240	.2590948	.2364152
#1	2533.339	47504.90	9338.847	1722.722	3522.397
#2	2537.206	47412.89	9447.635	1728.435	3532.637
#3	2514.198	47521.49	9405.138	1731.548	3516.135

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV026 Acquired: 1/16/2025 12:24:58 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV026 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.848278**	**4.864876**	**24.15346**	**4.870686**	**4.867645**	**404.2084**
Stddev	.008035	.007035	.06032	.004963	.017082	3.8221
%RSD	.1657252	.1446010	.2497201	.1018975	.3509382	.9455683
#1	4.839782	4.867053	24.16527	4.866987	4.854744	405.1700
#2	4.849297	4.857010	24.08811	4.868746	4.861174	407.4579
#3	4.855754	4.870565	24.20699	4.876327	4.887018	399.9974

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.15266**	**.4868101**	**2.432337**	**402.0131**	**15.42214**	**2.446891**
Stddev	.07611	.0051946	.004367	1.7894	.10864	.006056
%RSD	.7496934	1.067071	.1795442	.4451191	.7044588	.2475075
#1	10.20507	.4820371	2.435873	402.8074	15.54082	2.445939
#2	10.06536	.4860506	2.427456	403.2680	15.39800	2.441367
#3	10.18755	.4923427	2.433682	399.9641	15.32760	2.453366

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.28290**	**407.9006**	**14.91186**	**397.9497**	**2.447368**	**1.278375**
Stddev	.05231	5.5554	.24040	4.8279	.004895	.008050
%RSD	.3662393	1.361946	1.612111	1.213182	.2000119	.6296747
#1	14.33417	413.9695	15.17525	403.3046	2.448515	1.286336
#2	14.22961	406.6660	14.85608	396.6150	2.442001	1.278549
#3	14.28493	403.0665	14.70426	393.9297	2.451587	1.270239

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**381.4817**	**2.397834**	**15.19081**	**157.5033**	**4.945844**	F **5.916721**
Stddev	1.2470	.008121	.14706	2.5382	.023473	.017031
%RSD	.3268711	.3386954	.9680860	1.611534	.4746065	.2878379
#1	382.9108	2.392397	15.35958	160.2634	4.958216	5.905278
#2	380.9197	2.393936	15.12271	156.9771	4.918773	5.908594
#3	380.6147	2.407170	15.09014	155.2695	4.960543	5.936293

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV026 Acquired: 1/16/2025 12:24:58 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV026 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.788989**	**4.985948**	**4.777648**	**4.905551**	**4.817408**	**5.080811**
Stddev	.006406	.017661	.013353	.010023	.011598	.091394
%RSD	.1337732	.3542118	.2794977	.2043218	.2407582	1.798810
#1	4.785006	4.992671	4.770203	4.907346	4.813626	5.178004
#2	4.785583	4.965914	4.769676	4.894751	4.808172	5.067822
#3	4.796379	4.999261	4.793064	4.914555	4.830425	4.996606

Elem	Sr4077
Units	ppm
Avg	**5.089553**
Stddev	.115170
%RSD	2.262878
#1	5.222240
#2	5.015482
#3	5.030936

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2177.502**	**44289.03**	**9078.729**	**1555.838**	**3120.918**
Stddev	4.934	352.11	81.764	7.649	9.444
%RSD	.2265798	.7950262	.9006073	.4916296	.3025931
#1	2181.662	43897.97	9150.819	1547.086	3123.990
#2	2178.792	44388.19	9095.481	1561.245	3128.443
#3	2172.051	44580.93	8989.886	1559.182	3110.321

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB026 Acquired: 1/16/2025 12:29:16 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB026 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000826**	**.0021063**	**-.001389**	**-.001167**	**.0000707**	**.0236450**	**-.000012**
Stddev	.000777	.0003957	.001058	.001832	.0012714	.0084853	.001763
%RSD	94.11662	18.78460	76.20573	156.9935	1798.711	35.88652	15102.86
#1	-.000090	.0019375	-.002526	-.000765	.0000230	.0334365	.002023
#2	-.001639	.0025584	-.001206	.000431	.0013653	.0184411	-.001083
#3	-.000749	.0018231	-.000434	-.003167	-.001176	.0190572	-.000976

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000068**	**-.000156**	**.0132913**	**-.000358**	**.0001536**	**.0017573**	**.0075092**
Stddev	.000018	.000039	.0153102	.000215	.0001781	.0014752	.0096156
%RSD	27.08205	25.30955	115.1892	60.21921	115.9980	83.94946	128.0501
#1	-.000082	-.000126	.0308160	-.000534	-.000002	.0005233	.0171606
#2	-.000074	-.000140	.0025126	-.000118	.000115	.0013573	-.002070
#3	-.000047	-.000200	.0065454	-.000421	.000348	.0033913	.007437

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007225**	**.0088522**	**.0001062**	**-.000195**	**.7036735**	**-.000956**	**-.000764**
Stddev	.0003862	.0094622	.0001401	.000233	.1141500	.001408	.000990
%RSD	53.45043	106.8914	131.9431	119.6380	16.22202	147.2535	129.5487
#1	.0009917	.0186298	.0001902	-.000229	.8194128	.000373	.000379
#2	.0008959	-.000259	-.000056	-.000409	.5911820	-.000811	-.001350
#3	.0002800	.008186	.000184	.000054	.7004257	-.002431	-.001321

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.044371**	**.0019698**	**.0085921**	**.0002527**	**-.001228**	**.0004397**	**-.000283**
Stddev	.051722	.0016275	.0000805	.0001123	.001410	.0027899	.000837
%RSD	116.5687	82.62364	.9370587	44.42570	114.8474	634.5430	295.2236
#1	.009698	.0038414	.0085122	.0001887	-.001998	-.002460	.000681
#2	-.049437	.0011801	.0085910	.0001871	-.002085	.003105	-.000821
#3	-.093374	.0008878	.0086732	.0003824	.000400	.000674	-.000710

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB026 Acquired: 1/16/2025 12:29:16 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB026 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0004478	.0014878	.0001685
Stddev	.0007828	.0005771	.0001151
%RSD	174.7891	38.78619	68.35168
#1	.0002708	.0012960	.0002970
#2	.0013040	.0010311	.0000748
#3	-.000231	.0021364	.0001336

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2808.943	52293.78	9642.828	1873.219	4295.523
Stddev	3.354	130.44	65.577	4.805	7.240
%RSD	.1194200	.2494333	.6800573	.2565107	.1685565
#1	2811.076	52175.12	9618.252	1874.585	4297.925
#2	2810.675	52433.45	9593.090	1877.194	4301.258
#3	2805.076	52272.76	9717.143	1867.879	4287.387

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-07 Acquired: 1/16/2025 12:33:25 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D45 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.723357**	**.0019886**	**3.314853**	**.0116092**	**.1126624**	**6.927132**
Stddev	.005236	.0010135	.012263	.0055635	.0009811	.068705
%RSD	.1922637	50.96351	.3699348	47.92294	.8708210	.9918231
#1	2.721334	.0020376	3.312117	.0094489	.1124504	6.873743
#2	2.719434	.0009516	3.304189	.0179289	.1137322	7.004646
#3	2.729302	.0029767	3.328252	.0074499	.1118046	6.903008

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0502876**	**.0002179**	**.0722938**	**8.307151**	**.0034702**	**.0093968**
Stddev	.0004389	.0001383	.0002817	.064093	.0002844	.0004917
%RSD	.8728551	63.46793	.3896032	.7715354	8.194055	5.232805
#1	.0505547	.0002425	.0723703	8.256769	.0033439	.0099606
#2	.0505271	.0003423	.0719817	8.379290	.0037959	.0091729
#3	.0497810	.0000690	.0725292	8.285395	.0032710	.0090568

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**29.77038**	**82.20742**	**4.551988**	**2.066485**	**.0069685**	**.0078342**
Stddev	.08203	.59013	.022484	.014490	.0004495	.0000947
%RSD	.2755393	.7178537	.4939328	.7011709	6.449975	1.208986
#1	29.84663	81.88557	4.538559	2.066336	.0064976	.0079036
#2	29.68359	82.88850	4.577944	2.081048	.0073930	.0078728
#3	29.78093	81.84819	4.539459	2.052070	.0070148	.0077263

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.922989**	**.0796538**	**13.75489**	**-2.01890**	**.5175249**	**.6930980**
Stddev	.208699	.0035898	.04263	.02511	.0033382	.0009759
%RSD	4.239266	4.506698	.3099304	1.243985	.6450319	.1407955
#1	5.133127	.0837541	13.79964	-2.04069	.5210519	.6919761
#2	4.920079	.0781299	13.71476	-1.99143	.5171084	.6935678
#3	4.715760	.0770773	13.75026	-2.02458	.5144146	.6937501

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-07 Acquired: 1/16/2025 12:33:25 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D45 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044893	F 386.3770	2.249036	-.002766	-.000038	.0048500
Stddev	.0001637	1.3320	.004955	.000484	.000163	.0015514
%RSD	3.647174	.3447393	.2203181	17.51783	430.5418	31.98670
#1	.0045950	385.8756	2.247413	-.003192	-.000116	.0048231
#2	.0043007	385.3685	2.245095	-.002239	.000149	.0033123
#3	.0045723	387.8869	2.254598	-.002865	-.000146	.0064147

Elem	Sr4077
Units	ppm
Avg	.2205641
Stddev	.0017569
%RSD	.7965413
#1	.2197474
#2	.2225807
#3	.2193643

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2770.182	53354.61	10042.67	1916.358	4242.472
Stddev	8.037	294.47	55.44	1.709	9.950
%RSD	.2901392	.5519155	.5520938	.0892022	.2345366
#1	2768.400	53671.96	10043.58	1917.532	4240.419
#2	2778.961	53090.20	10097.65	1917.146	4253.289
#3	2763.185	53301.67	9986.78	1914.397	4233.709

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-08 Acquired: 1/16/2025 12:37:23 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D48 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2016918**	**-.001136**	**3.362825**	**.0099833**	**.0892241**	**11.25670**
Stddev	.0017776	.000966	.015266	.0011549	.0006991	.06266
%RSD	.8813579	85.05583	.4539606	11.56868	.7835298	.5566411
#1	.1999846	-.000923	3.368089	.0088067	.0899826	11.31918
#2	.2015584	-.002191	3.345624	.0100280	.0890842	11.19386
#3	.2035324	-.000294	3.374763	.0111152	.0886056	11.25708

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0353563**	**.0042978**	**.1358589**	**15.24182**	**.0079207**	**.0489709**
Stddev	.0004232	.0000921	.0004757	.10769	.0007127	.0001438
%RSD	1.196982	2.142749	.3501241	.7065406	8.997311	.2936664
#1	.0355359	.0043880	.1357683	15.36617	.0072185	.0490811
#2	.0348729	.0042039	.1354351	15.17909	.0086434	.0490235
#3	.0356601	.0043016	.1363734	15.18020	.0079001	.0488082

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.15340**	**88.51730**	F **48.31741**	**2.529436**	**.0179687**	**.0173739**
Stddev	.03619	.49248	.73900	.010822	.0003337	.0002931
%RSD	.3563992	.5563652	1.529473	.4278428	1.856844	1.687108
#1	10.17011	89.08496	49.16002	2.531921	.0183387	.0176875
#2	10.17822	88.26267	48.01282	2.517588	.0176905	.0173272
#3	10.11188	88.20426	47.77938	2.538800	.0178770	.0171069

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.956191**	**.0594970**	**26.95261**	**-2.01546**	**.6421893**	**.6827131**
Stddev	.453035	.0019137	.30189	.08632	.0017446	.0028258
%RSD	11.45130	3.216509	1.120059	4.282836	.2716711	.4139038
#1	3.670715	.0609474	27.29496	-1.92604	.6414752	.6856606
#2	4.478558	.0573280	26.83828	-2.02203	.6409150	.6824516
#3	3.719299	.0602156	26.72460	-2.09830	.6441777	.6800272

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-08 Acquired: 1/16/2025 12:37:23 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D48 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009675	F 369.6633	3.638195	-.001403	.0029669	.0126820
Stddev	.0001100	.7319	.020867	.001032	.0003472	.0004338
%RSD	11.36957	.1980016	.5735424	73.59236	11.70336	3.420672
#1	.0010841	369.8829	3.640631	-.002593	.0025905	.0131503
#2	.0009528	368.8467	3.657737	-.000755	.0032747	.0126016
#3	.0008656	370.2602	3.616218	-.000860	.0030357	.0122939

Elem	Sr4077
Units	ppm
Avg	.0681710
Stddev	.0004088
%RSD	.5996631
#1	.0686214
#2	.0680682
#3	.0678235

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2858.616	54686.65	9732.659	1974.584	4201.581
Stddev	11.531	155.42	52.087	14.197	18.474
%RSD	.4033935	.2841925	.5351746	.7189739	.4396835
#1	2865.711	54552.85	9751.574	1960.258	4207.878
#2	2864.827	54649.98	9673.758	1974.846	4216.082
#3	2845.311	54857.12	9772.646	1988.648	4180.782

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-09 Acquired: 1/16/2025 12:41:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D51 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0372647**	**.0005293**	**5.508598**	**.0064013**	**.0156402**	**25.78061**
Stddev	.0013049	.0007250	.009562	.0023555	.0010487	.15453
%RSD	3.501797	136.9898	.1735881	36.79778	6.705167	.5994206
#1	.0383605	.0002631	5.506422	.0061803	.0162562	25.63564
#2	.0358211	-.000025	5.500310	.0088596	.0144294	25.94320
#3	.0376126	.001350	5.519060	.0041641	.0162352	25.76299

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0245999**	**.0025315**	**.0197290**	**40.55328**	**.0444468**	**.0354531**
Stddev	.0006923	.0000790	.0001009	.25097	.0000896	.0001008
%RSD	2.814362	3.119303	.5114299	.6188593	.2016814	.2843828
#1	.0252028	.0026108	.0196164	40.39083	.0443844	.0355572
#2	.0238438	.0024529	.0197593	40.84233	.0444065	.0353559
#3	.0247531	.0025307	.0198113	40.42669	.0445495	.0354461

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.08539**	**72.73151**	**11.57026**	**3.045412**	**.0284894**	**.0034554**
Stddev	.04833	.46300	.07671	.008134	.0004711	.0002553
%RSD	.4359715	.6365837	.6630202	.2670859	1.653461	7.387417
#1	11.13008	72.36330	11.53919	3.045886	.0284478	.0036064
#2	11.09199	73.25130	11.65763	3.053298	.0289798	.0035991
#3	11.03410	72.57993	11.51396	3.037051	.0280405	.0031607

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.298039**	**.0144010**	**3.684320**	**-.142656**	**3.739902**	**.6187938**
Stddev	.121654	.0009580	.036821	.052081	.006119	.0015017
%RSD	2.830461	6.652046	.9994099	36.50823	.1636012	.2426800
#1	4.171067	.0154546	3.661630	-.119081	3.740804	.6204947
#2	4.413567	.0135824	3.726805	-.106530	3.745520	.6176515
#3	4.309484	.0141660	3.664526	-.202355	3.733383	.6182351

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-09 Acquired: 1/16/2025 12:41:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D51 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015705	F 299.3398	6.008660	-.003952	.0223187	.0123211
Stddev	.0005239	.1035	.025254	.000557	.0005877	.0001870
%RSD	33.35600	.0345701	.4202913	14.09057	2.633049	1.517974
#1	.0018571	299.4396	6.037250	-.003549	.0229616	.0125100
#2	.0009659	299.2330	5.999339	-.004587	.0221854	.0121360
#3	.0018885	299.3469	5.989392	-.003720	.0218091	.0123175

Elem	Sr4077
Units	ppm
Avg	.0804203
Stddev	.0006264
%RSD	.7789454
#1	.0799910
#2	.0811391
#3	.0801306

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2989.086	56843.74	10676.33	2035.817	4145.451
Stddev	5.711	45.33	82.53	8.477	3.854
%RSD	.1910757	.0797376	.7730626	.4163777	.0929612
#1	2995.429	56885.93	10606.67	2045.550	4146.311
#2	2987.477	56849.45	10767.48	2031.845	4148.801
#3	2984.352	56795.82	10654.83	2030.055	4141.240

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-10 Acquired: 1/16/2025 12:45:29 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D54 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0214180**	**.0039112**	**6.296780**	**.0006667**	**.0084639**	**28.45475**
Stddev	.0004696	.0026540	.009171	.0019192	.0004464	.05109
%RSD	2.192638	67.85602	.1456431	287.8628	5.274762	.1795397
#1	.0208757	.0064564	6.287511	.0021362	.0084424	28.42717
#2	.0216891	.0041166	6.296979	.0013685	.0080286	28.51370
#3	.0216891	.0011604	6.305849	-.001505	.0089207	28.42338

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0600341**	**.0093544**	**.1090579**	**75.84418**	**.0109053**	**.0704168**
Stddev	.0005495	.0000787	.0001523	.15715	.0002025	.0003961
%RSD	.9153133	.8411161	.1396381	.2072074	1.856509	.5625600
#1	.0597588	.0093860	.1088829	75.76460	.0110537	.0708086
#2	.0596768	.0092649	.1091302	76.02521	.0109876	.0700164
#3	.0606669	.0094124	.1091606	75.74273	.0106746	.0704253

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.751724**	**38.58495**	**26.12301**	**7.661220**	**.0330837**	**.0033348**
Stddev	.022140	.11661	.26161	.030903	.0003725	.0004194
%RSD	.4659317	.3022077	1.001437	.4033700	1.125908	12.57595
#1	4.776929	38.53028	26.16325	7.665897	.0332644	.0033899
#2	4.735421	38.71885	25.84361	7.689518	.0326553	.0028906
#3	4.742823	38.50572	26.36216	7.628245	.0333314	.0037239

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.234168**	**.0139693**	**16.41158**	**1.764645**	**7.415847**	**.4181087**
Stddev	.305586	.0009836	.01438	.055069	.022505	.0016917
%RSD	7.217147	7.040885	.0876396	3.120659	.3034722	.4045967
#1	3.920249	.0139323	16.39884	1.796801	7.390982	.4164092
#2	4.530677	.0130047	16.40874	1.796075	7.434819	.4181246
#3	4.251578	.0149708	16.42718	1.701059	7.421741	.4197924

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-10 Acquired: 1/16/2025 12:45:29 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D54 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003481	F 341.8447	8.009257	-.003726	.0158703	.0266933
Stddev	.000208	1.2819	.011368	.000694	.0002051	.0007143
%RSD	5.964973	.3750074	.1419381	18.62190	1.292043	2.676071
#1	-.003657	340.4625	8.021460	-.002925	.0158880	.0274437
#2	-.003534	342.0773	7.998965	-.004096	.0156570	.0260216
#3	-.003252	342.9945	8.007348	-.004156	.0160660	.0266146

Elem	Sr4077
Units	ppm
Avg	.2426148
Stddev	.0005076
%RSD	.2092285
#1	.2427757
#2	.2430224
#3	.2420462

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3230.972	62307.90	12030.10	2206.886	3946.742
Stddev	9.819	96.42	58.91	10.696	9.093
%RSD	.3038926	.1547421	.4897120	.4846574	.2303882
#1	3239.351	62345.47	12024.76	2204.287	3954.462
#2	3233.398	62379.87	12091.50	2218.642	3949.045
#3	3220.168	62198.35	11974.04	2197.729	3936.719

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-11 Acquired: 1/16/2025 12:49:34 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D57 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0649184**	**-.000594**	**3.955118**	**.0168693**	**.0880012**	**28.10226**
Stddev	.0021925	.001176	.006474	.0010095	.0021493	.02505
%RSD	3.377312	197.9736	.1636896	5.984524	2.442351	.0891258
#1	.0653306	.000713	3.951640	.0169195	.0871471	28.11963
#2	.0668755	-.000928	3.951126	.0178528	.0864103	28.07355
#3	.0625490	-.001567	3.962588	.0158356	.0904463	28.11359

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0315842**	**.0089193**	**.1558129**	**56.46262**	**.0326217**	**.0344681**
Stddev	.0009007	.0001428	.0005826	.14769	.0003825	.0000706
%RSD	2.851677	1.600810	.3738841	.2615727	1.172554	.2049494
#1	.0325874	.0087569	.1553283	56.49481	.0324366	.0344952
#2	.0308451	.0089759	.1556512	56.30148	.0323669	.0345212
#3	.0313200	.0090250	.1564592	56.59155	.0330615	.0343880

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **95.47178**	**127.6455**	F **32.75157**	**2.903913**	**.0242966**	**.1335669**
Stddev	.52028	.1818	.28565	.018293	.0007175	.0009603
%RSD	.5449531	.1424341	.8721853	.6299422	2.953305	.7189553
#1	94.99855	127.6358	32.44225	2.883533	.0239831	.1336645
#2	95.38787	127.4687	32.80703	2.918909	.0237891	.1325616
#3	96.02891	127.8319	33.00543	2.909299	.0251175	.1344747

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.972479**	**-.012201**	**28.40662**	**-1.28049**	**.5028712**	**.7940669**
Stddev	.525212	.000305	.04436	.04361	.0046804	.0009537
%RSD	13.22127	2.500524	.1561500	3.406053	.9307386	.1201062
#1	3.437784	-.012529	28.36198	-1.23673	.4990285	.7938682
#2	3.991988	-.012149	28.40717	-1.32396	.5015015	.7932281
#3	4.487665	-.011926	28.45069	-1.28079	.5080837	.7951043

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-11 Acquired: 1/16/2025 12:49:34 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D57 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006814	F 332.1823	F 12.28330	-.002502	.0064972	.0124337
Stddev	.000343	1.6692	.07154	.000465	.0002094	.0006380
%RSD	5.040288	.5025070	.5824545	18.57083	3.223481	5.131488
#1	-.006510	330.5926	12.23634	-.002129	.0062575	.0117331
#2	-.006745	332.0334	12.24791	-.002354	.0065894	.0125864
#3	-.007186	333.9211	12.36564	-.003022	.0066448	.0129815

Elem	Sr4077
Units	ppm
Avg	.1033960
Stddev	.0000809
%RSD	.0782194
#1	.1033328
#2	.1033681
#3	.1034872

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2734.421	56878.71	10937.57	1986.902	3954.381
Stddev	9.825	148.52	33.95	5.962	11.737
%RSD	.3593109	.2611159	.3104182	.3000664	.2968009
#1	2740.413	56953.35	10957.54	1993.758	3964.101
#2	2739.768	56975.11	10956.79	1982.940	3957.700
#3	2723.082	56707.68	10898.37	1984.007	3941.343

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-12 Acquired: 1/16/2025 12:53:50 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D60 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0227162**	**.0090485**	**6.135855**	**-.001033**	**.0039453**	**32.27153**
Stddev	.0016776	.0029670	.005892	.000759	.0001861	.03657
%RSD	7.384819	32.79021	.0960302	73.43996	4.717682	.1133199
#1	.0208059	.0057875	6.138787	-.001909	.0040169	32.31123
#2	.0233934	.0097695	6.129071	-.000569	.0040850	32.26415
#3	.0239493	.0115887	6.139706	-.000622	.0037340	32.23922

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0290847**	**.0284027**	**.0503304**	**54.77055**	**.0172314**	**.0342737**
Stddev	.0009458	.0001040	.0000353	.09348	.0003644	.0001098
%RSD	3.251817	.3662943	.0702223	.1706841	2.114951	.3204471
#1	.0280005	.0285219	.0503683	54.78536	.0172328	.0343068
#2	.0297404	.0283302	.0502983	54.67055	.0168663	.0343632
#3	.0295131	.0283560	.0503246	54.85575	.0175952	.0341512

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.147921**	**33.15961**	**27.52480**	**6.698604**	**.0303264**	**.0139971**
Stddev	.013203	.01996	.27168	.024549	.0005351	.0003083
%RSD	.2564777	.0601833	.9870481	.3664760	1.764402	2.202631
#1	5.158836	33.13934	27.73127	6.670886	.0307084	.0139293
#2	5.133245	33.16027	27.21702	6.707325	.0297149	.0143337
#3	5.151680	33.17923	27.62611	6.717602	.0305560	.0137284

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.866879**	**.0024711**	**7.569628**	**-.781542**	**8.304916**	**.3294915**
Stddev	.159257	.0007003	.028924	.003466	.018712	.0000924
%RSD	5.555052	28.33841	.3821031	.4434883	.2253175	.0280418
#1	3.048097	.0018905	7.560051	-.780914	8.294760	.3293872
#2	2.749202	.0022740	7.546706	-.785279	8.293477	.3295631
#3	2.803338	.0032488	7.602125	-.778433	8.326510	.3295242

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-12 Acquired: 1/16/2025 12:53:50 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D60 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000790	F 348.5299	6.939292	-.003362	.0190382	.0355550
Stddev	.000175	1.1893	.025668	.000655	.0005289	.0008596
%RSD	22.19469	.3412298	.3698923	19.47756	2.777953	2.417788
#1	-.000982	349.7770	6.916686	-.003936	.0189218	.0345669
#2	-.000638	347.4084	6.933996	-.002649	.0196156	.0361319
#3	-.000750	348.4042	6.967195	-.003500	.0185772	.0359660

Elem	Sr4077
Units	ppm
Avg	.1431796
Stddev	.0002349
%RSD	.1640672
#1	.1434406
#2	.1429851
#3	.1431131

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3750.191	71303.40	13472.99	2552.566	4081.446
Stddev	6.073	211.10	51.10	8.530	6.147
%RSD	.1619431	.2960608	.3792419	.3341732	.1506084
#1	3753.731	71311.13	13517.82	2556.354	4079.881
#2	3753.665	71510.53	13483.81	2558.546	4088.224
#3	3743.179	71088.54	13417.36	2542.798	4076.233

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-13 Acquired: 1/16/2025 12:57:53 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D63 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238151	.0017813	4.748983	-.000100	.0025747	19.70680
Stddev	.0014738	.0029485	.005332	.000629	.0011105	.06520
%RSD	6.188366	165.5268	.1122782	631.4200	43.13223	.3308557
#1	.0233708	-.001622	4.748421	.000605	.0026384	19.78207
#2	.0226145	.003549	4.743954	-.000603	.0014337	19.67083
#3	.0254598	.003418	4.754573	-.000300	.0036521	19.66752

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0272553	.0078880	.0127168	64.67136	.0111366	.0179863
Stddev	.0011562	.0000156	.0001834	.31094	.0002026	.0003367
%RSD	4.242012	.1976745	1.442460	.4807960	1.819150	1.872062
#1	.0283140	.0078923	.0125432	65.01732	.0110044	.0177088
#2	.0274303	.0079010	.0126984	64.58152	.0110355	.0183609
#3	.0260216	.0078707	.0129087	64.41523	.0113698	.0178892

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.401503	27.35298	9.340623	5.753763	.0096626	.0079201
Stddev	.004148	.08271	.027278	.023556	.0003112	.0002195
%RSD	.2959407	.3023779	.2920412	.4094080	3.220766	2.771961
#1	1.397407	27.44309	9.371122	5.775063	.0095800	.0081277
#2	1.401400	27.33532	9.332192	5.728463	.0100068	.0076903
#3	1.405701	27.28052	9.318556	5.757763	.0094010	.0079422

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.821821	.0292840	3.727390	-1.21745	F 13.27292	.3861055
Stddev	.233542	.0016706	.006488	.02227	.03544	.0013353
%RSD	6.110763	5.704670	.1740504	1.829342	.2669818	.3458521
#1	4.014173	.0296013	3.733915	-1.19690	13.28210	.3850373
#2	3.561960	.0307731	3.727316	-1.21434	13.23379	.3876026
#3	3.889330	.0274775	3.720940	-1.24112	13.30286	.3856765

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-13 Acquired: 1/16/2025 12:57:53 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D63 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009251	F 349.7321	8.430660	-.004406	.0099037	.0325088
Stddev	.0001794	.8429	.003934	.000725	.0003479	.0009937
%RSD	19.39535	.2410201	.0466633	16.45904	3.512682	3.056698
#1	.0009306	349.9918	8.427011	-.005150	.0102938	.0315717
#2	.0007430	348.7899	8.430142	-.003701	.0097916	.0335507
#3	.0011017	350.4146	8.434828	-.004368	.0096257	.0324038

Elem	Sr4077
Units	ppm
Avg	.1516038
Stddev	.0005115
%RSD	.3373983
#1	.1521150
#2	.1510920
#3	.1516043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3080.138	58755.09	10948.80	2139.861	4046.371
Stddev	6.586	49.48	51.56	7.407	6.990
%RSD	.2138342	.0842206	.4708802	.3461571	.1727395
#1	3084.179	58751.77	11008.32	2148.410	4049.261
#2	3083.697	58806.14	10919.69	2135.801	4051.453
#3	3072.538	58707.34	10918.38	2135.371	4038.400

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14 Acquired: 1/16/2025 13:01:52 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031707	.1205990	3.904578	.0182346	.0036435	20.98625
Stddev	.0016839	.0097845	.011874	.0054086	.0010347	.09547
%RSD	53.10684	8.113246	.3040997	29.66129	28.39810	.4549314
#1	.0029895	.1112743	3.901253	.0140579	.0032835	21.03654
#2	.0015848	.1197365	3.894722	.0163019	.0048101	20.87615
#3	.0049378	.1307862	3.917761	.0243441	.0028370	21.04607

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192858	.0310142	.9257202	248.0851	.0856702	.1843111
Stddev	.0004278	.0005271	.0030751	.8755	.0015902	.0003279
%RSD	2.218042	1.699699	.3321803	.3529185	1.856179	.1779187
#1	.0187923	.0313664	.9228500	248.7970	.0845273	.1839375
#2	.0195147	.0312681	.9253450	247.1075	.0849971	.1844446
#3	.0195505	.0304082	.9289657	248.3509	.0874863	.1845512

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.770968	64.33066	F 263.8007	6.750479	.2113200	.0982319
Stddev	.006690	.22921	4.5276	.025774	.0003142	.0001704
%RSD	.1402202	.3563049	1.716296	.3818157	.1486832	.1734819
#1	4.777431	64.51648	266.7930	6.755140	.2114257	.0983206
#2	4.771399	64.07453	266.0171	6.722693	.2109665	.0983397
#3	4.764073	64.40097	258.5919	6.773605	.2115677	.0980354

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.483915	-.071729	F 74.02059	7.305084	.4636253	.5227558
Stddev	.254944	.001297	.48126	.123661	.0048051	.0007960
%RSD	7.317741	1.808451	.6501740	1.692814	1.036422	.1522776
#1	3.479869	-.071861	74.44554	7.320916	.4619335	.5224949
#2	3.231018	-.072956	73.49799	7.174269	.4690475	.5221230
#3	3.740857	-.070371	74.11823	7.420067	.4598950	.5236496

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14 Acquired: 1/16/2025 13:01:52 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.015035	F 451.2881	9.300739	-.004658	-.003448	.0270874
Stddev	.000207	1.6139	.030513	.001663	.000901	.0012944
%RSD	1.377470	.3576214	.3280680	35.69789	26.12534	4.778502
#1	-.014946	449.7668	9.330971	-.006291	-.002722	.0264056
#2	-.014887	451.1167	9.301292	-.004717	-.003166	.0285801
#3	-.015271	452.9809	9.269953	-.002967	-.004456	.0262764

Elem	Sr4077
Units	ppm
Avg	.2752280
Stddev	.0016774
%RSD	.6094716
#1	.2760346
#2	.2732996
#3	.2763497

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2972.590	56519.91	10663.22	2044.370	3663.178
Stddev	15.467	124.19	75.18	.958	18.246
%RSD	.5203042	.2197354	.7050691	.0468522	.4981027
#1	2977.649	56520.27	10677.89	2044.379	3673.022
#2	2984.894	56395.54	10581.79	2045.323	3674.388
#3	2955.228	56643.93	10729.99	2043.407	3642.124

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-15 Acquired: 1/16/2025 13:06:03 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D69 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.011710**	**-.015129**	**.0462712**	**-.012834**	**-.002145**	**.0417741**
Stddev	.001536	.005092	.0023524	.001553	.003711	.0137259
%RSD	13.11635	33.65633	5.083947	12.10196	172.9664	32.85752
#1	-.010247	-.018203	.0435549	-.014238	-.006358	.0262174
#2	-.013310	-.017933	.0476201	-.011166	-.000715	.0469270
#3	-.011574	-.009252	.0476387	-.013097	.000637	.0521778

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0681816**	**.0232630**	**.2536860**	**565.6791**	**.0077392**	**.4402627**
Stddev	.0004152	.0000980	.0008451	3.1115	.0009196	.0018209
%RSD	.6089643	.4211962	.3331284	.5500463	11.88207	.4135862
#1	.0686606	.0233710	.2535315	562.8552	.0066796	.4396037
#2	.0679594	.0232382	.2529287	569.0147	.0083283	.4388631
#3	.0679248	.0231798	.2545976	565.1673	.0082098	.4423213

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0298978**	**.5364543**	F **214.1396**	**41.15396**	**.2019546**	**.0332366**
Stddev	.0001629	.0041043	1.0830	.26697	.0009724	.0003318
%RSD	.5448309	.7650709	.5057616	.6487128	.4815107	.9983825
#1	.0298417	.5317156	215.3583	41.46010	.2022826	.0334743
#2	.0300813	.5388873	213.2873	41.03224	.2008606	.0328575
#3	.0297704	.5387599	213.7733	40.96955	.2027206	.0333780

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.912370**	**-.045648**	F **99.18302**	**-.460282**	**-.091777**	**.1285302**
Stddev	.068189	.001789	.95815	.038997	.002937	.0012902
%RSD	1.742897	3.918840	.9660442	8.472443	3.200187	1.003834
#1	3.981370	-.044201	100.0122	-.449556	-.091603	.1276011
#2	3.910716	-.045095	99.4027	-.503520	-.088931	.1279861
#3	3.845023	-.047648	98.1341	-.427770	-.094798	.1300034

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-15 Acquired: 1/16/2025 13:06:03 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D69 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.022956	F 436.2505	7.580448	-.004247	-.019026	.0382499
Stddev	.000218	1.6120	.026673	.001227	.001608	.0004821
%RSD	.9501991	.3695204	.3518676	28.89130	8.450246	1.260503
#1	-.022719	435.7697	7.589874	-.005065	-.020856	.0378483
#2	-.023002	434.9337	7.601128	-.002836	-.018382	.0381168
#3	-.023147	438.0483	7.550342	-.004840	-.017840	.0387846

Elem	Sr4077
Units	ppm
Avg	3.991348
Stddev	.029647
%RSD	.7427896
#1	4.022845
#2	3.963985
#3	3.987213

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2540.154	47906.71	9276.588	1721.185	3564.499
Stddev	12.050	121.10	32.787	7.826	15.034
%RSD	.4743931	.2527792	.3534328	.4547057	.4217790
#1	2551.912	47785.13	9307.235	1712.268	3577.330
#2	2540.719	48027.32	9280.514	1724.373	3568.211
#3	2527.831	47907.68	9242.016	1726.914	3547.957

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-16 Acquired: 1/16/2025 13:10:35 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D72 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0567642	-.012028	2.350836	.0319336	.0337072	24.58561
Stddev	.0015618	.002184	.013172	.0027123	.0020167	.03209
%RSD	2.751341	18.15962	.5603053	8.493450	5.982953	.1305195
#1	.0564893	-.011742	2.341641	.0348407	.0314606	24.55810
#2	.0553581	-.014341	2.344941	.0314889	.0353614	24.57786
#3	.0584452	-.010001	2.365926	.0294712	.0342995	24.62086

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0423809	.0100687	.0551166	521.7131	.1084897	.0539651
Stddev	.0005889	.0000241	.0001793	1.7288	.0006055	.0003287
%RSD	1.389650	.2396628	.3253683	.3313653	.5580697	.6091007
#1	.0422295	.0100909	.0551339	520.7302	.1090503	.0539805
#2	.0430308	.0100430	.0549292	520.6997	.1085711	.0536290
#3	.0418825	.0100723	.0552866	523.7092	.1078476	.0542859

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.384451	263.5105	F 64.89328	5.389527	.0773368	.0365868
Stddev	.011178	.2975	.18506	.017826	.0007363	.0001652
%RSD	.3302676	.1129173	.2851804	.3307606	.9520382	.4514573
#1	3.388984	263.1951	64.94630	5.369165	.0775951	.0363964
#2	3.392651	263.5504	65.04605	5.397091	.0765061	.0366928
#3	3.371719	263.7862	64.68750	5.402324	.0779090	.0366710

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.923662	.0213315	11.82568	-1.49699	4.166255	1.381368
Stddev	.203785	.0008614	.04929	.02447	.026909	.000388
%RSD	6.970209	4.038307	.4167892	1.634501	.6458898	.0280546
#1	2.710366	.0221337	11.81122	-1.51432	4.177461	1.381012
#2	3.116374	.0214398	11.88058	-1.50765	4.135554	1.381310
#3	2.944247	.0204211	11.78523	-1.46900	4.185751	1.381781

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-16 Acquired: 1/16/2025 13:10:35 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D72 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001595	F 742.3780	F 11.39754	-.003360	-.005085	.0369901
Stddev	.000231	3.7652	.03839	.000575	.000145	.0021350
%RSD	14.49149	.5071851	.3367833	17.09675	2.859124	5.771721
#1	-.001473	745.3229	11.41692	-.003555	-.005233	.0361281
#2	-.001862	738.1356	11.35333	-.003813	-.005080	.0394214
#3	-.001451	743.6755	11.42236	-.002714	-.004943	.0354210

Elem	Sr4077
Units	ppm
Avg	.3055956
Stddev	.0008989
%RSD	.2941521
#1	.3048824
#2	.3066053
#3	.3052991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2842.557	53488.39	10409.81	1916.262	3677.855
Stddev	8.487	72.98	32.50	2.279	3.843
%RSD	.2985580	.1364316	.3122378	.1189428	.1044971
#1	2839.569	53544.03	10403.06	1918.892	3674.240
#2	2835.968	53515.36	10445.16	1915.036	3677.434
#3	2852.133	53405.76	10381.21	1914.859	3681.892

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-01DLX10 Acquired: 1/16/2025 13:14:45 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D27 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005163**	**-.002726**	**.0311137**	**-.004467**	**.0030103**	**3.514976**
Stddev	.001407	.000963	.0009781	.004122	.0011186	.007572
%RSD	27.25497	35.33530	3.143482	92.27539	37.15773	.2154253
#1	-.006787	-.003438	.0322333	-.009068	.0040826	3.521097
#2	-.004336	-.003110	.0304255	-.003216	.0018506	3.517323
#3	-.004364	-.001630	.0306824	-.001115	.0030977	3.506508

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0095814**	**.0031832**	**.0486039**	**10.48693**	**.0018347**	**.0029992**
Stddev	.0002898	.0000683	.0000867	.08761	.0001869	.0001360
%RSD	3.024055	2.145827	.1782792	.8354187	10.18911	4.534189
#1	.0098773	.0032372	.0486026	10.58610	.0016718	.0028476
#2	.0095687	.0031064	.0485179	10.45468	.0020388	.0031104
#3	.0092982	.0032060	.0486911	10.42002	.0017934	.0030396

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.536480**	**.6043678**	**19.11938**	**.7285613**	**.0053438**	**.0040627**
Stddev	.010409	.0028859	.09412	.0109614	.0003397	.0002287
%RSD	.4103538	.4775113	.4922722	1.504521	6.357550	5.629422
#1	2.546605	.6011134	19.22804	.7406660	.0056664	.0039016
#2	2.525810	.6066156	19.06360	.7193061	.0053758	.0039621
#3	2.537024	.6053743	19.06649	.7257117	.0049892	.0043245

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9096778**	**-.003230**	**22.67359**	**.0835127**	**.6607210**	**.0669488**
Stddev	.2841060	.001155	.18362	.0187456	.0042945	.0002427
%RSD	31.23150	35.76919	.8098551	22.44636	.6499698	.3625537
#1	.9461600	-.002762	22.88091	.1051571	.6613936	.0668300
#2	.6090930	-.002382	22.53144	.0724938	.6561299	.0672280
#3	1.173781	-.004546	22.60843	.0728873	.6646395	.0667883

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-01DLX10 Acquired: 1/16/2025 13:14:45 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D27 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006464	F 33.67056	1.539630	-.001155	-.000379	.0047300
Stddev	.000124	.07797	.007042	.000610	.001128	.0012566
%RSD	1.915535	.2315801	.4573758	52.78787	297.3366	26.56716
#1	-.006569	33.69821	1.542159	-.001835	-.001169	.0044141
#2	-.006327	33.58253	1.545058	-.000973	.000912	.0061144
#3	-.006495	33.73094	1.531673	-.000657	-.000881	.0036615

Elem	Sr4077
Units	ppm
Avg	.0258105
Stddev	.0000792
%RSD	.3069607
#1	.0259020
#2	.0257649
#3	.0257645

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2852.300	54648.83	9827.310	1984.142	4129.587
Stddev	.572	196.81	9.460	11.859	4.083
%RSD	.0200658	.3601375	.0962585	.5976831	.0988803
#1	2851.714	54451.60	9822.039	1970.782	4125.107
#2	2852.328	54649.69	9821.661	1988.223	4133.101
#3	2852.858	54845.22	9838.231	1993.422	4130.552

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-01DL2X8 Acquired: 1/16/2025 13:18:47 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D27 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003864**	**-.002152**	**.0476251**	**-.003186**	**-.000388**	**4.517485**
Stddev	.001272	.000588	.0021198	.000925	.000492	.018161
%RSD	32.90686	27.35011	4.451088	29.04885	126.6333	.4020068
#1	-.005161	-.001974	.0452924	-.004243	-.000403	4.503707
#2	-.002619	-.001672	.0481490	-.002790	.000111	4.510683
#3	-.003812	-.002808	.0494338	-.002524	-.000872	4.538064

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0114882**	**.0040883**	**.0633164**	**13.44445**	**.0014315**	**.0037072**
Stddev	.0009941	.0000621	.0002003	.05010	.0002253	.0001861
%RSD	8.652861	1.518434	.3163490	.3726668	15.73750	5.020992
#1	.0121355	.0041180	.0631783	13.43229	.0016511	.0038366
#2	.0103436	.0041300	.0632249	13.40155	.0014425	.0037912
#3	.0119854	.0040170	.0635462	13.49951	.0012010	.0034939

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.625500**	**.8770931**	**24.72010**	**.9317523**	**.0073249**	**.0057499**
Stddev	.020069	.0041442	.03265	.0067236	.0002765	.0001517
%RSD	.5535403	.4724968	.1320755	.7216105	3.774533	2.638006
#1	3.646600	.8729472	24.74686	.9302436	.0073042	.0055768
#2	3.623247	.8770964	24.68372	.9259112	.0076111	.0058137
#3	3.606653	.8812357	24.72972	.9391021	.0070593	.0058593

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8505586**	**-.002571**	**29.38359**	**.4530371**	**.8496084**	**.0855612**
Stddev	.1965236	.000720	.16257	.0382866	.0044928	.0011674
%RSD	23.10524	27.99205	.5532570	8.451092	.5288100	1.364383
#1	.6609173	-.002842	29.56784	.4518065	.8507942	.0862160
#2	1.053308	-.001755	29.26039	.4919242	.8446416	.0842134
#3	.837450	-.003116	29.32253	.4153807	.8533894	.0862543

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-01DL2X8 Acquired: 1/16/2025 13:18:47 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D27 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008637	F 43.14341	2.023820	-.001271	-.000890	.0065809
Stddev	.000165	.11567	.004085	.000432	.001053	.0000837
%RSD	1.908332	.2680951	.2018548	33.97782	118.2942	1.272274
#1	-.008785	43.02753	2.025495	-.001001	-.001690	.0065561
#2	-.008665	43.14384	2.019164	-.001769	.000303	.0066742
#3	-.008459	43.25886	2.026803	-.001043	-.001283	.0065123

Elem	Sr4077
Units	ppm
Avg	.0332101
Stddev	.0000923
%RSD	.2779367
#1	.0332544
#2	.0331040
#3	.0332719

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2868.147	54382.62	9842.573	1991.446	4103.320
Stddev	1.601	318.64	52.556	15.752	6.610
%RSD	.0558193	.5859207	.5339617	.7910022	.1610977
#1	2869.975	54347.42	9818.528	1979.714	4109.648
#2	2867.467	54717.40	9902.850	2009.350	4103.851
#3	2866.997	54083.04	9806.341	1985.274	4096.460

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-02DL2X2 Acquired: 1/16/2025 13:22:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.010967**	**.0145154**	**1.672851**	**.0084604**	**.0163170**	**19.84286**
Stddev	.000865	.0048003	.003656	.0029112	.0012529	.07962
%RSD	7.884036	33.07050	.2185718	34.40970	7.678391	.4012733
#1	-.011955	.0145700	1.671889	.0094025	.0171729	19.91159
#2	-.010599	.0096880	1.669772	.0051948	.0148790	19.75561
#3	-.010348	.0192881	1.676893	.0107838	.0168992	19.86139

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0279144**	**.0224999**	**.0318255**	**73.75440**	**.0345261**	**.0129985**
Stddev	.0002312	.0002019	.0002389	.15901	.0007395	.0001705
%RSD	.8281015	.8974374	.7506915	.2155907	2.141776	1.312015
#1	.0276540	.0226999	.0318664	73.93711	.0338306	.0129963
#2	.0280951	.0222961	.0315688	73.64736	.0353029	.0131701
#3	.0279942	.0225038	.0320414	73.67873	.0344450	.0128290

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.94923**	**44.44385**	F **232.5967**	**1.732598**	**.0237920**	**.0661850**
Stddev	.01203	.09847	.6934	.007428	.0001965	.0001436
%RSD	.0928841	.2215663	.2981311	.4287298	.8260629	.2169881
#1	12.95061	44.53636	233.3115	1.737822	.0239573	.0662665
#2	12.96052	44.34034	232.5520	1.735877	.0238441	.0660192
#3	12.93658	44.45485	231.9267	1.724094	.0235747	.0662693

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.441060**	**-.065773**	**8.290855**	**-.796087**	**-.072451**	**.4628983**
Stddev	.199191	.003413	.023294	.042420	.001719	.0011369
%RSD	5.788659	5.189083	.2809593	5.328620	2.372667	.2456118
#1	3.225992	-.064683	8.290681	-.800661	-.073644	.4627704
#2	3.477980	-.069597	8.314236	-.751565	-.070481	.4618307
#3	3.619209	-.063037	8.267649	-.836035	-.073229	.4640937

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-02DL2X2 Acquired: 1/16/2025 13:22:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009367	F 219.5764	8.412443	-.003103	.0081858	.0085359
Stddev	.000310	1.1548	.015924	.000869	.0007722	.0002382
%RSD	3.311240	.5259372	.1892869	27.99846	9.433022	2.790893
#1	-.009704	219.9025	8.415918	-.002225	.0089173	.0087857
#2	-.009301	218.2936	8.426343	-.003962	.0082616	.0085109
#3	-.009095	220.5332	8.395069	-.003124	.0073786	.0083112

Elem	Sr4077
Units	ppm
Avg	.0232952
Stddev	.0000300
%RSD	.1285896
#1	.0232879
#2	.0232695
#3	.0233281

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2837.194	54456.27	9941.210	1992.758	3818.905
Stddev	1.897	54.82	50.294	7.368	1.699
%RSD	.0668504	.1006767	.5059169	.3697387	.0444803
#1	2838.604	54513.88	9991.055	2000.450	3816.970
#2	2837.941	54404.73	9890.479	1985.764	3820.147
#3	2835.038	54450.20	9942.096	1992.059	3819.600

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-03DLX2 Acquired: 1/16/2025 13:27:02 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D33 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096864	.0027104	.7974913	-.000101	.0030389	12.47124
Stddev	.0026061	.0015868	.0037417	.001608	.0002755	.03723
%RSD	26.90448	58.54698	.4691906	1593.157	9.066369	.2985297
#1	.0090433	.0009175	.7936983	.001461	.0032358	12.42825
#2	.0125537	.0039343	.8011797	-.000012	.0027240	12.49274
#3	.0074620	.0032794	.7975960	-.001752	.0031568	12.49273

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0330105	.0062290	.0460844	24.82830	.0193416	.0168991
Stddev	.0002294	.0000109	.0002329	.08082	.0004137	.0001496
%RSD	.6949992	.1749554	.5054071	.3255102	2.139105	.8850910
#1	.0327950	.0062172	.0459447	24.82027	.0193153	.0170089
#2	.0329849	.0062387	.0463533	24.75179	.0197679	.0167287
#3	.0332517	.0062311	.0459553	24.91283	.0189417	.0169597

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.583738	22.17120	17.16314	3.560780	.0225040	.0145361
Stddev	.008011	.08105	.08143	.006802	.0001174	.0002149
%RSD	.3100411	.3655628	.4744193	.1910244	.5215463	1.478513
#1	2.582301	22.08704	17.12859	3.554596	.0226326	.0143864
#2	2.576544	22.17785	17.10469	3.559678	.0224768	.0147824
#3	2.592370	22.24873	17.25615	3.568065	.0224026	.0144395

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.446467	-.000116	8.161601	.0647261	2.524828	.4321216
Stddev	.485736	.001962	.051667	.0092545	.008770	.0001743
%RSD	14.09372	1689.919	.6330488	14.29789	.3473421	.0403312
#1	3.990715	-.002169	8.146105	.0694616	2.515924	.4321863
#2	3.056937	.000078	8.119456	.0540622	2.533457	.4322542
#3	3.291747	.001742	8.219243	.0706546	2.525105	.4319242

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-03DLX2 Acquired: 1/16/2025 13:27:02 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D33 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002108	F 172.7754	3.282468	-.003159	.0126998	.0140548
Stddev	.000299	.3895	.009532	.000519	.0002224	.0003857
%RSD	14.17710	.2254566	.2903830	16.42996	1.751098	2.743927
#1	-.002015	172.3905	3.279873	-.002612	.0129233	.0143047
#2	-.002442	173.1694	3.274502	-.003220	.0124786	.0136106
#3	-.001866	172.7663	3.293028	-.003645	.0126976	.0142490

Elem	Sr4077
Units	ppm
Avg	.0713218
Stddev	.0004566
%RSD	.6401876
#1	.0711763
#2	.0709556
#3	.0718333

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3134.623	60259.38	10913.16	2167.568	4138.400
Stddev	7.948	187.43	38.78	5.159	9.848
%RSD	.2535425	.3110403	.3553958	.2379978	.2379585
#1	3142.880	60471.36	10945.19	2172.501	4148.626
#2	3133.964	60115.58	10870.04	2162.210	4128.980
#3	3127.025	60191.21	10924.24	2167.994	4137.593

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-04DLX5 Acquired: 1/16/2025 13:30:59 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D36 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003973	-.005759	.9744827	-.004667	.0048970	5.674765
Stddev	.001353	.002164	.0017183	.003021	.0004254	.030897
%RSD	34.04832	37.57642	.1763317	64.73117	8.687102	.5444588
#1	-.004496	-.005071	.9725594	-.006309	.0044220	5.658109
#2	-.004986	-.004022	.9758668	-.006513	.0052429	5.710416
#3	-.002437	-.008183	.9750217	-.001181	.0050263	5.655772

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056476	.0053611	.1898471	10.64533	.0025094	.0255608
Stddev	.0005333	.0000910	.0005292	.01884	.0001144	.0002384
%RSD	9.442306	1.696947	.2787323	.1769321	4.557979	.9325754
#1	.0062540	.0054641	.1902404	10.62497	.0025590	.0258355
#2	.0052518	.0052918	.1892455	10.66213	.0025907	.0254081
#3	.0054371	.0053273	.1900553	10.64889	.0023786	.0254388

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 42.17925	10.69655	F 35.13025	.8802091	.0092432	.0340625
Stddev	.09043	.03868	.41704	.0154472	.0005012	.0003821
%RSD	.2143853	.3616417	1.187120	1.754948	5.422470	1.121923
#1	42.27751	10.65932	35.57744	.8767273	.0086701	.0339784
#2	42.09954	10.73654	34.75194	.8667999	.0095995	.0337294
#3	42.16070	10.69378	35.06137	.8971000	.0094599	.0344797

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.549022	-.006905	F 33.85592	.5310133	.1416390	.0978649
Stddev	.152474	.000839	.08839	.0554424	.0024230	.0004399
%RSD	9.843211	12.14959	.2610642	10.44087	1.710649	.4495305
#1	1.686694	-.007857	33.75875	.4701677	.1440015	.0974179
#2	1.385144	-.006583	33.93154	.5786761	.1417557	.0978794
#3	1.575228	-.006275	33.87746	.5441963	.1391598	.0982974

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-04DLX5 Acquired: 1/16/2025 13:30:59 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D36 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010005	F 59.76493	3.850367	-.001608	.0005957	.0045232
Stddev	.000528	.14972	.013770	.000525	.0008193	.0011100
%RSD	5.277806	.2505131	.3576321	32.63247	137.5298	24.53917
#1	-.009575	59.85474	3.866257	-.001067	-.000099	.0034082
#2	-.009845	59.59209	3.841916	-.002115	.001499	.0045334
#3	-.010594	59.84796	3.842930	-.001640	.000387	.0056280

Elem	Sr4077
Units	ppm
Avg	.0111751
Stddev	.0000794
%RSD	.7103575
#1	.0110932
#2	.0111804
#3	.0112517

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2813.214	53844.43	10024.87	1941.139	4117.680
Stddev	7.149	81.91	50.94	4.921	3.005
%RSD	.2541266	.1521163	.5081628	.2535091	.0729853
#1	2818.888	53784.93	9977.57	1944.536	4116.855
#2	2815.570	53810.52	10078.81	1943.386	4121.012
#3	2805.185	53937.85	10018.24	1935.496	4115.174

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-04DL2X8 Acquired: 1/16/2025 13:35:05 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D36 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005093**	**-.002428**	**.6169275**	**-.004198**	**.0103077**	**3.579949**
Stddev	.001735	.000217	.0035026	.003366	.0012563	.026765
%RSD	34.06589	8.949058	.5677500	80.17301	12.18815	.7476352
#1	-.003090	-.002678	.6132044	-.000381	.0090007	3.549044
#2	-.006110	-.002318	.6174209	-.005475	.0104161	3.595538
#3	-.006080	-.002288	.6201573	-.006739	.0115063	3.595266

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044643**	**.0033146**	**.1205406**	**6.735082**	**.0015864**	**.0161140**
Stddev	.0008271	.0000528	.0004157	.039856	.0002640	.0001756
%RSD	18.52663	1.594575	.3448905	.5917672	16.64394	1.089665
#1	.0043567	.0033671	.1208483	6.692387	.0013081	.0160191
#2	.0036962	.0033153	.1207059	6.771308	.0018335	.0160063
#3	.0053399	.0032614	.1200677	6.741550	.0016175	.0163166

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.42400**	**6.777797**	**22.09844**	**.5493567**	**.0055241**	**.0218931**
Stddev	.08622	.059008	.13437	.0105204	.0004021	.0002500
%RSD	.3262910	.8706018	.6080601	1.915042	7.278304	1.141728
#1	26.52348	6.712382	21.94358	.5445017	.0059737	.0217428
#2	26.37083	6.793998	22.16741	.5614279	.0053993	.0221816
#3	26.37769	6.827013	22.18432	.5421405	.0051991	.0217548

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6968361**	**-.004428**	**21.35471**	**.4401726**	**.0905273**	**.0609800**
Stddev	.3461034	.001327	.17125	.0256736	.0025325	.0002725
%RSD	49.66783	29.98001	.8019300	5.832627	2.797461	.4468230
#1	.5385354	-.004935	21.21411	.4105634	.0910294	.0611244
#2	1.093781	-.005427	21.30460	.4562450	.0927712	.0611499
#3	.458192	-.002921	21.54543	.4537094	.0877814	.0606657

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-04DL2X8 Acquired: 1/16/2025 13:35:05 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D36 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006838	F 38.94175	2.417904	-.001042	.0014309	.0037152
Stddev	.000171	.19134	.010677	.000767	.0000277	.0003767
%RSD	2.507053	.4913454	.4415612	73.66409	1.933166	10.13973
#1	-.007027	38.81974	2.425500	-.001159	.0014451	.0041494
#2	-.006694	38.84324	2.405697	-.001744	.0014486	.0034758
#3	-.006792	39.16227	2.422515	-.000223	.0013990	.0035203

Elem	Sr4077
Units	ppm
Avg	.0071168
Stddev	.0000612
%RSD	.8595683
#1	.0070689
#2	.0070958
#3	.0071857

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2754.333	53416.30	9916.224	1929.282	4044.575
Stddev	14.532	248.47	46.423	15.388	9.085
%RSD	.5276021	.4651586	.4681566	.7976181	.2246285
#1	2770.228	53685.08	9872.551	1941.619	4052.690
#2	2751.042	53368.82	9964.980	1934.188	4034.760
#3	2741.728	53194.99	9911.142	1912.039	4046.275

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-05DLX2 Acquired: 1/16/2025 13:39:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D39 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0679894**	**.0009029**	**.0912965**	**-.006624**	**.0472265**	**-.180884**
Stddev	.0025775	.0014890	.0022603	.001002	.0006148	.016890
%RSD	3.791062	164.9110	2.475752	15.12316	1.301787	9.337759
#1	.0704433	-.000332	.0930591	-.007001	.0471687	-.166254
#2	.0682208	.002556	.0887482	-.005488	.0466426	-.177029
#3	.0653039	.000485	.0920822	-.007382	.0478681	-.199368

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0483776**	**-.000039**	**.0086917**	**445.7794**	**-.000349**	**.0010034**
Stddev	.0010223	.000107	.0000568	2.8828	.000111	.0001393
%RSD	2.113227	274.9525	.6531730	.6466802	31.70056	13.88524
#1	.0494020	-.000049	.0086794	442.4524	-.000236	.0008534
#2	.0473573	.000073	.0087536	447.5375	-.000354	.0011288
#3	.0483735	-.000141	.0086421	447.3482	-.000457	.0010279

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5175472**	**.0073051**	**.4002390**	**3.145076**	**.0062283**	**-.000059**
Stddev	.0029558	.0105729	.0009099	.013997	.0003130	.000351
%RSD	.5711212	144.7339	.2273519	.4450338	5.025503	596.8166
#1	.5208323	-.003960	.4010543	3.133639	.0059432	-.000213
#2	.5151029	.017013	.4004054	3.140904	.0065632	.000343
#3	.5167063	.008863	.3992574	3.160684	.0061784	-.000307

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.307500**	**.0011274**	**4.057624**	**-.508195**	**.0072069**	**.0555275**
Stddev	.093463	.0018296	.024584	.095351	.0019726	.0006646
%RSD	7.148226	162.2852	.6058648	18.76261	27.37043	1.196839
#1	1.218974	.0001146	4.082363	-.457251	.0072910	.0547805
#2	1.298306	.0032395	4.057312	-.449138	.0091360	.0560530
#3	1.405221	.0000282	4.033199	-.618197	.0051936	.0557491

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-05DLX2 Acquired: 1/16/2025 13:39:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D39 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040840	F 195.9670	1.593485	-.003910	-.012618	.0120652
Stddev	.0005970	.3115	.005709	.000559	.001523	.0019009
%RSD	14.61704	.1589322	.3582631	14.30203	12.06732	15.75541
#1	.0035176	196.0322	1.599938	-.003997	-.011146	.0138507
#2	.0047074	195.6281	1.591427	-.004420	-.014187	.0122780
#3	.0040269	196.2407	1.589091	-.003312	-.012520	.0100668

Elem	Sr4077
Units	ppm
Avg	.3618187
Stddev	.0017109
%RSD	.4728573
#1	.3637668
#2	.3611285
#3	.3605606

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2590.275	49504.19	9600.208	1760.641	3711.140
Stddev	1.270	173.42	59.789	7.311	4.157
%RSD	.0490244	.3503038	.6227888	.4152196	.1120044
#1	2590.602	49644.94	9664.044	1758.441	3712.717
#2	2591.350	49310.47	9545.520	1754.682	3714.278
#3	2588.874	49557.17	9591.059	1768.798	3706.426

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-06DLX2 Acquired: 1/16/2025 13:43:14 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D42 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073176**	**.0065202**	**2.755649**	**.0007057**	**.0029214**	**29.30218**
Stddev	.0008448	.0015643	.001754	.0008114	.0010528	.05532
%RSD	11.54544	23.99140	.0636525	114.9790	36.03980	.1887785
#1	.0081082	.0052165	2.757099	.0014817	.0041357	29.33106
#2	.0074173	.0060895	2.753699	-.000137	.0023646	29.33707
#3	.0064273	.0082548	2.756147	.000773	.0022638	29.23840

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0130356**	**.0177510**	**.0341250**	**36.07999**	**.0237153**	**.0251562**
Stddev	.0000878	.0001486	.0001404	.03475	.0002373	.0001254
%RSD	.6735586	.8373776	.4113610	.0963018	1.000595	.4984886
#1	.0130920	.0176005	.0341207	36.04155	.0235017	.0252959
#2	.0130803	.0178977	.0342675	36.10916	.0239707	.0251193
#3	.0129344	.0177548	.0339869	36.08926	.0236733	.0250534

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.071384**	**37.15183**	F **32.35305**	**6.274908**	**.0248888**	**.0694922**
Stddev	.009047	.06191	.06860	.002100	.0005636	.0002310
%RSD	.2945476	.1666503	.2120202	.0334739	2.264276	.3324584
#1	3.069838	37.19871	32.29108	6.275285	.0250997	.0696161
#2	3.063210	37.17512	32.34131	6.272645	.0253165	.0696349
#3	3.081104	37.08164	32.42676	6.276795	.0242502	.0692257

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.868450**	**-.004664**	**6.627119**	**-.516323**	**2.131173**	**.4384550**
Stddev	.258949	.001425	.031766	.030998	.003551	.0016350
%RSD	6.693874	30.54087	.4793260	6.003665	.1666048	.3729005
#1	3.809045	-.004581	6.660938	-.549243	2.132294	.4369715
#2	3.644365	-.006129	6.597911	-.487693	2.127197	.4381855
#3	4.151939	-.003283	6.622508	-.512033	2.134027	.4402080

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-06DLX2 Acquired: 1/16/2025 13:43:14 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D42 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000929	F 212.0764	5.517785	-.002317	.0069965	.0255638
Stddev	.000238	.1794	.015326	.000999	.0004778	.0004164
%RSD	25.59133	.0845780	.2777539	43.10541	6.829031	1.628984
#1	-.001062	211.8854	5.506071	-.003441	.0067066	.0252907
#2	-.001071	212.2412	5.512153	-.001531	.0075479	.0253576
#3	-.000655	212.1025	5.535130	-.001979	.0067348	.0260431

Elem	Sr4077
Units	ppm
Avg	.0780956
Stddev	.0000872
%RSD	.1116243
#1	.0780351
#2	.0780563
#3	.0781955

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3303.114	62384.88	11736.74	2281.683	4067.641
Stddev	4.437	216.58	39.54	1.297	1.500
%RSD	.1343251	.3471709	.3368808	.0568370	.0368796
#1	3307.821	62627.82	11782.25	2280.259	4068.280
#2	3302.513	62212.01	11717.16	2281.994	4068.716
#3	3299.008	62314.79	11710.81	2282.796	4065.927

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-07DLX2 Acquired: 1/16/2025 13:47:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D45 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.316383**	**.0020562**	**1.661654**	**.0030081**	**.0555796**	**3.406204**
Stddev	.001049	.0002888	.006736	.0015921	.0023201	.015925
%RSD	.0796874	14.04265	.4054046	52.92657	4.174366	.4675311
#1	1.315213	.0021682	1.654726	.0027133	.0542572	3.388619
#2	1.317239	.0017283	1.662056	.0047271	.0542231	3.410339
#3	1.316698	.0022722	1.668181	.0015841	.0582586	3.419654

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0266526**	**.0000882**	**.0358077**	**4.077131**	**.0015006**	**.0044867**
Stddev	.0012842	.0001278	.0001350	.023217	.0004201	.0000997
%RSD	4.818426	144.9332	.3770631	.5694545	27.99330	2.222270
#1	.0257554	.0001336	.0356518	4.050323	.0011091	.0044543
#2	.0281237	.0001870	.0358842	4.090261	.0019443	.0044072
#3	.0260787	-.000056	.0358870	4.090807	.0014483	.0045986

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.66290**	**40.47154**	**2.247252**	**1.006139**	**.0031860**	**.0036725**
Stddev	.00474	.23939	.013464	.006524	.0002488	.0000773
%RSD	.0323037	.5915056	.5991106	.6483803	7.808373	2.106193
#1	14.66836	40.19703	2.231933	1.013549	.0032098	.0035832
#2	14.65993	40.58070	2.252617	1.003611	.0034220	.0037172
#3	14.66040	40.63690	2.257206	1.001259	.0029261	.0037171

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.361410**	**.0398001**	**6.887799**	**-.992428**	**.2573810**	**.3479338**
Stddev	.141858	.0022842	.032840	.093458	.0025617	.0008663
%RSD	6.007331	5.739290	.4767847	9.417135	.9952765	.2489728
#1	2.402867	.0385631	6.863112	-1.00920	.2580039	.3471697
#2	2.203442	.0384013	6.875214	-1.07636	.2545653	.3477567
#3	2.477920	.0424361	6.925070	-.89172	.2595737	.3488749

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-07DLX2 Acquired: 1/16/2025 13:47:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D45 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019859	F 197.4923	1.120761	-.002619	.0003936	.0029882
Stddev	.0001878	.3030	.006028	.000895	.0007655	.0010434
%RSD	9.457695	.1534206	.5378440	34.15945	194.5017	34.91665
#1	.0018703	197.2513	1.127553	-.003470	.0008228	.0033338
#2	.0018848	197.3931	1.116046	-.001686	-.000490	.0018158
#3	.0022026	197.8324	1.118684	-.002702	.000848	.0038149

Elem	Sr4077
Units	ppm
Avg	.1088820
Stddev	.0003077
%RSD	.2825611
#1	.1085582
#2	.1089172
#3	.1091705

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2792.300	52630.96	9819.567	1899.242	4261.445
Stddev	6.317	123.69	16.193	7.822	9.150
%RSD	.2262256	.2350213	.1649014	.4118735	.2147058
#1	2799.594	52773.68	9810.494	1906.067	4271.589
#2	2788.691	52554.63	9809.945	1900.953	4258.932
#3	2788.614	52564.58	9838.262	1890.706	4253.815

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-08DLX2 Acquired: 1/16/2025 13:51:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D48 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1015553**	**-.005479**	**1.731857**	**.0031533**	**.0483217**	**6.213900**
Stddev	.0014500	.002617	.017524	.0009038	.0005192	.031973
%RSD	1.427767	47.76968	1.011848	28.66146	1.074354	.5145329
#1	.1010192	-.006612	1.721777	.0030024	.0477891	6.180054
#2	.1031970	-.007338	1.721702	.0041230	.0483499	6.243593
#3	.1004497	-.002486	1.752091	.0023344	.0488262	6.218053

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0233103**	**.0023201**	**.0684788**	**8.329854**	**.0032146**	**.0249444**
Stddev	.0004839	.0000444	.0005695	.043244	.0002724	.0003395
%RSD	2.075833	1.914855	.8316069	.5191492	8.474443	1.360984
#1	.0229099	.0023099	.0681110	8.280230	.0029661	.0246741
#2	.0238480	.0023688	.0681905	8.359478	.0035059	.0248337
#3	.0231730	.0022817	.0691347	8.349853	.0031717	.0253254

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.479334**	**49.14946**	**27.60432**	**1.403277**	**.0087507**	**.0094363**
Stddev	.008743	.16438	.24093	.006617	.0005412	.0003680
%RSD	.1595616	.3344573	.8727863	.4715630	6.184646	3.899323
#1	5.488880	48.96583	27.85405	1.405864	.0081296	.0092508
#2	5.471716	49.28290	27.37328	1.408211	.0090016	.0098601
#3	5.477407	49.19964	27.58563	1.395758	.0091209	.0091980

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014520**	**.0294612**	**14.85953**	**-.806752**	**.3246654**	**.3644841**
Stddev	.170244	.0013049	.14606	.115036	.0046523	.0020767
%RSD	8.450825	4.429165	.9829524	14.25921	1.432951	.5697608
#1	2.164292	.0301092	14.69564	-.934032	.3221281	.3621298
#2	1.829365	.0279591	14.97596	-.710199	.3218335	.3652665
#3	2.049902	.0303152	14.90697	-.776025	.3300348	.3660559

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-08DLX2 Acquired: 1/16/2025 13:51:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D48 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001912	F 192.4281	1.926678	-.001934	.0015687	.0077908
Stddev	.0002460	1.6570	.011308	.000527	.0009870	.0004603
%RSD	128.6642	.8611062	.5869306	27.24916	62.91801	5.907979
#1	.0003949	191.1892	1.939572	-.001799	.0024124	.0082100
#2	-.000082	191.7847	1.918448	-.002516	.0004833	.0078642
#3	.000261	194.3103	1.922014	-.001488	.0018104	.0072983

Elem	Sr4077
Units	ppm
Avg	.0384479
Stddev	.0001786
%RSD	.4645193
#1	.0383076
#2	.0386490
#3	.0383872

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2823.520	52616.77	9893.810	1896.805	4222.077
Stddev	18.602	24.89	51.923	11.169	30.173
%RSD	.6588228	.0473006	.5248028	.5888352	.7146410
#1	2834.899	52619.90	9860.191	1909.652	4235.329
#2	2833.608	52639.95	9953.612	1891.362	4243.357
#3	2802.053	52590.47	9867.628	1889.401	4187.547

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV027 Acquired: 1/16/2025 13:55:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV027 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.857123**	**4.775281**	**24.22539**	**4.871306**	**4.875844**	**418.3598**
Stddev	.011706	.026558	.05743	.011926	.010185	1.0908
%RSD	.2410007	.5561493	.2370833	.2448119	.2088923	.2607400
#1	4.845187	4.754121	24.16878	4.866831	4.877870	417.1185
#2	4.857597	4.766639	24.22377	4.862265	4.864798	419.1658
#3	4.868584	4.805083	24.28361	4.884821	4.884864	418.7951

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.55506**	**.4775022**	**2.433335**	**418.1944**	**15.46473**	**2.456645**
Stddev	.07732	.0022610	.007395	3.0174	.02109	.005317
%RSD	.7325108	.4734971	.3038866	.7215399	.1363812	.2164397
#1	10.46579	.4793736	2.425720	416.2957	15.45043	2.452467
#2	10.60021	.4781430	2.433797	416.6138	15.48895	2.454837
#3	10.59919	.4749900	2.440488	421.6738	15.45482	2.462630

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.65690**	**425.1330**	**15.37572**	**417.3803**	**2.457306**	**1.284402**
Stddev	.08059	1.2624	.09240	1.6607	.003601	.000816
%RSD	.5498397	.2969441	.6009478	.3978868	.1465309	.0635402
#1	14.69442	424.3948	15.35194	416.2543	2.453850	1.285339
#2	14.56439	424.4136	15.29754	416.5991	2.457032	1.284017
#3	14.71189	426.5907	15.47769	419.2876	2.461036	1.283849

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**398.6752**	**2.436232**	**15.59445**	**164.0696**	**4.865997**	F **5.929190**
Stddev	3.5947	.005477	.07411	.8542	.017479	.002238
%RSD	.9016556	.2248295	.4752629	.5206504	.3592161	.0377455
#1	401.7845	2.438217	15.55817	163.6194	4.851464	5.931473
#2	394.7392	2.430038	15.54546	163.5346	4.861134	5.927000
#3	399.5020	2.440440	15.67971	165.0548	4.885393	5.929096

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV027 Acquired: 1/16/2025 13:55:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV027 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.810872**	**5.022432**	**4.852340**	**4.939820**	**4.889040**	**5.290429**
Stddev	.012543	.009212	.016912	.014615	.017561	.033791
%RSD	.2607310	.1834190	.3485264	.2958562	.3592013	.6387124
#1	4.800086	5.017769	4.845696	4.925167	4.902180	5.298126
#2	4.807893	5.016484	4.839760	4.939895	4.869094	5.253454
#3	4.824637	5.033044	4.871565	4.954397	4.895845	5.319708

Elem	Sr4077
Units	ppm
Avg	**5.265539**
Stddev	.033706
%RSD	.6401309
#1	5.278560
#2	5.227264
#3	5.290792

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2164.032**	**44056.30**	**9206.178**	**1547.052**	**3100.101**
Stddev	4.305	118.13	12.923	1.869	5.596
%RSD	.1989437	.2681424	.1403741	.1208317	.1804955
#1	2169.002	44186.25	9199.955	1548.650	3106.523
#2	2161.641	44027.25	9197.543	1547.510	3097.510
#3	2161.454	43955.40	9221.035	1544.996	3096.271

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB027 Acquired: 1/16/2025 13:59:44 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB027 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000288**	**.0015789**	**-.000267**	**-.001132**	**.0008103**	**.0319765**	**.0026820**
Stddev	.000797	.0009762	.000913	.000695	.0012075	.0031093	.0002472
%RSD	276.4827	61.82958	341.3816	61.43018	149.0242	9.723663	9.218556
#1	-.000175	.0022972	-.001241	-.001350	.0021601	.0355200	.0028878
#2	.000446	.0019721	.000569	-.001692	-.000167	.0307056	.0024077
#3	-.001135	.0004674	-.000130	-.000354	.000438	.0297040	.0027504

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000066**	**-.000038**	**.0348336**	**.0012268**	**.0000294**	**.0021553**	**.0371814**
Stddev	.000034	.000095	.0108902	.0004181	.0001445	.0009534	.0061759
%RSD	51.44425	251.4806	31.26351	34.08157	491.1995	44.23597	16.61008
#1	-.000056	-.000028	.0473515	.0014266	.0001891	.0021085	.0399256
#2	-.000104	.000052	.0296106	.0007463	-.000092	.0012262	.0415097
#3	-.000038	-.000137	.0275388	.0015076	-.000008	.0031313	.0301091

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027253**	**.0307073**	**.0001424**	**.0000999**	**-.019523**	**.0003265**	**.0012713**
Stddev	.0002372	.0161614	.0000511	.0002289	.620174	.0005593	.0018221
%RSD	8.704477	52.63057	35.89233	229.2657	3176.650	171.2853	143.3183
#1	.0027871	.0478829	.0001882	.0002026	-.100541	-.000227	-.000778
#2	.0029255	.0284393	.0001517	-.000162	.637178	.000316	.001882
#3	.0024633	.0157996	.0000873	.000259	-.595206	.000891	.002710

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1040457**	**.0034607**	**.0056657**	**.0007734**	**.0221822**	**-.001115**	**.0002899**
Stddev	.0377830	.0013805	.0002458	.0002237	.0009782	.000444	.0007060
%RSD	36.31387	39.89222	4.339166	28.92107	4.410064	39.84171	243.5551
#1	.1270966	.0050419	.0058844	.0009992	.0210638	-.000813	.0004147
#2	.1245991	.0024947	.0057129	.0005519	.0228790	-.001625	-.000470
#3	.0604415	.0028454	.0053996	.0007690	.0226037	-.000907	.000925

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB027 Acquired: 1/16/2025 13:59:44 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB027 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000431	.0019085	.0004983
Stddev	.000511	.0000396	.0000618
%RSD	118.4196	2.075174	12.41311
#1	.000137	.0018892	.0004855
#2	-.000580	.0018823	.0005656
#3	-.000852	.0019541	.0004439

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2757.811	52529.87	9738.293	1880.730	4156.454
Stddev	5.076	75.67	22.421	6.123	.406
%RSD	.1840650	.1440496	.2302352	.3255775	.0097783
#1	2754.995	52465.23	9713.772	1873.718	4156.696
#2	2763.671	52613.10	9743.361	1885.023	4156.680
#3	2754.766	52511.28	9757.747	1883.450	4155.985

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-11DLX2 Acquired: 1/16/2025 14:03:54 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D57 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0282320**	**.0006942**	**1.997695**	**.0056284**	**.0423724**	**13.84667**
Stddev	.0028513	.0012565	.003007	.0015986	.0008019	.06374
%RSD	10.09961	181.0058	.1505181	28.40134	1.892592	.4603356
#1	.0307282	.0020096	2.000831	.0049167	.0414568	13.84510
#2	.0251247	.0005667	1.994837	.0074592	.0429503	13.78372
#3	.0288430	-.000494	1.997418	.0045094	.0427100	13.91118

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0169469**	**.0047631**	**.0808250**	**28.13537**	**.0167779**	**.0172159**
Stddev	.0001539	.0000578	.0002685	.10783	.0002286	.0001688
%RSD	.9082172	1.212527	.3322002	.3832660	1.362510	.9803899
#1	.0170176	.0047773	.0811063	28.17870	.0165706	.0174015
#2	.0167703	.0046996	.0805715	28.01262	.0170230	.0170717
#3	.0170527	.0048124	.0807972	28.21480	.0167400	.0171745

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **50.41413**	**63.57373**	**17.07590**	**1.460045**	**.0118339**	**.0976789**
Stddev	.15017	.32373	.06882	.011724	.0001284	.0004101
%RSD	.2978767	.5092149	.4030182	.8030089	1.084862	.4198143
#1	50.58752	63.67556	17.09948	1.472629	.0116981	.0981173
#2	50.32918	63.21134	16.99839	1.449429	.0119533	.0973048
#3	50.32569	63.83431	17.12983	1.458077	.0118503	.0976147

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.333142**	**-.005886**	**14.55945**	**-.733608**	**.2800909**	**.4094538**
Stddev	.236881	.002746	.05013	.030457	.0024600	.0013708
%RSD	10.15289	46.65607	.3443113	4.151693	.8782839	.3347766
#1	2.527727	-.007646	14.61189	-.749833	.2823710	.4093910
#2	2.069371	-.007292	14.51201	-.752517	.2804181	.4081155
#3	2.402329	-.002722	14.55444	-.698473	.2774837	.4108549

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-11DLX2 Acquired: 1/16/2025 14:03:54 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D57 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004078	F 169.0361	6.417127	-.002379	.0035130	.0053390
Stddev	.000309	.3384	.015492	.000727	.0007044	.0011697
%RSD	7.586790	.2002123	.2414186	30.54346	20.05142	21.90810
#1	-.003976	169.3630	6.427771	-.001541	.0027820	.0041303
#2	-.004425	168.6872	6.399353	-.002843	.0041874	.0054215
#3	-.003833	169.0582	6.424255	-.002752	.0035697	.0064653

Elem	Sr4077
Units	ppm
Avg	.0516218
Stddev	.0002783
%RSD	.5391427
#1	.0517439
#2	.0513033
#3	.0518181

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2754.522	55578.82	10205.47	1973.919	4019.679
Stddev	5.779	200.22	9.68	6.932	3.321
%RSD	.2097900	.3602462	.0948892	.3511643	.0826123
#1	2759.646	55534.13	10196.39	1967.472	4021.929
#2	2755.662	55797.60	10204.35	1981.251	4021.243
#3	2748.258	55404.71	10215.66	1973.035	4015.865

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-11DL2X5 Acquired: 1/16/2025 14:07:52 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D57 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0083208**	**.0004955**	**.7835597**	**.0024537**	**.0180575**	**5.706302**
Stddev	.0009507	.0012642	.0020065	.0028423	.0021596	.048128
%RSD	11.42585	255.1247	.2560710	115.8361	11.95954	.8434260
#1	.0092876	.0017369	.7816657	-.000202	.0163029	5.653226
#2	.0082878	.0005401	.7833512	.002112	.0174001	5.718573
#3	.0073870	-.000790	.7856623	.005452	.0204693	5.747107

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0069207**	**.0019037**	**.0302002**	**11.60588**	**.0067833**	**.0068649**
Stddev	.0000912	.0000679	.0001352	.08767	.0001752	.0003480
%RSD	1.317586	3.569284	.4475157	.7553855	2.582784	5.069885
#1	.0068703	.0019248	.0300445	11.50712	.0067242	.0072666
#2	.0068658	.0018278	.0302696	11.63602	.0066454	.0066545
#3	.0070259	.0019587	.0302867	11.67451	.0069805	.0066736

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.52008**	**26.37774**	**6.845578**	**.6006726**	**.0040115**	**.0400696**
Stddev	.04189	.18972	.037702	.0021647	.0004430	.0004175
%RSD	.2041367	.7192325	.5507504	.3603781	11.04409	1.041995
#1	20.53935	26.16339	6.802325	.6028977	.0044491	.0396656
#2	20.47202	26.44576	6.871483	.6005462	.0040221	.0404995
#3	20.54887	26.52407	6.862927	.5985739	.0035632	.0400435

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7737218**	**-.000544**	**5.833506**	**-.210522**	**.1138806**	**.1706582**
Stddev	.7122661	.002042	.027222	.039958	.0021272	.0011197
%RSD	92.05713	375.6249	.4666457	18.98020	1.867922	.6561214
#1	-.045563	.001687	5.803141	-.254730	.1118959	.1694763
#2	1.245831	-.000998	5.841652	-.176978	.1161262	.1717032
#3	1.120897	-.002320	5.855724	-.199860	.1136196	.1707951

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-11DL2X5 Acquired: 1/16/2025 14:07:52 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D57 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001799	F 64.25161	2.636394	-.002453	.0013371	.0028023
Stddev	.000394	.08288	.009714	.000284	.0000565	.0007173
%RSD	21.92018	.1289864	.3684423	11.57598	4.225549	25.59727
#1	-.001555	64.15796	2.628331	-.002291	.0012826	.0026941
#2	-.001588	64.28138	2.633674	-.002287	.0013333	.0021452
#3	-.002254	64.31548	2.647178	-.002781	.0013954	.0035676

Elem	Sr4077
Units	ppm
Avg	.0215390
Stddev	.0000339
%RSD	.1573440
#1	.0215106
#2	.0215298
#3	.0215765

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2842.599	53805.76	9869.157	1947.918	4243.231
Stddev	5.537	165.30	26.047	5.282	5.139
%RSD	.1947943	.3072070	.2639202	.2711854	.1211111
#1	2839.162	53975.28	9846.962	1948.259	4245.328
#2	2848.987	53796.96	9897.832	1953.021	4246.990
#3	2839.649	53645.04	9862.677	1942.473	4237.375

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14DL3X10 Acquired: 1/16/2025 14:11:51 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005332**	**-.004817**	**.3957270**	**-.003552**	**.0013332**	**2.320949**
Stddev	.002382	.003218	.0006690	.000927	.0023733	.006720
%RSD	44.66591	66.80688	.1690631	26.10048	178.0144	.2895386
#1	-.007950	-.007740	.3958626	-.004176	-.001315	2.313707
#2	-.004752	-.001368	.3963179	-.002487	.002046	2.322158
#3	-.003294	-.005343	.3950006	-.003994	.003269	2.326983

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044113**	**.0038627**	**.0932049**	**28.07153**	**.0076677**	**.0184425**
Stddev	.0004553	.0000559	.0002280	.15095	.0003531	.0001794
%RSD	10.32161	1.448243	.2445926	.5377367	4.605502	.9728341
#1	.0041700	.0038172	.0929429	27.93227	.0072719	.0183792
#2	.0041274	.0039251	.0933585	28.05039	.0077805	.0183033
#3	.0049365	.0038457	.0933132	28.23194	.0079506	.0186450

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5538587**	**7.528635**	F **35.78941**	**.7889268**	**.0210306**	**.0105125**
Stddev	.0017216	.035477	.39233	.0066159	.0003919	.0001270
%RSD	.3108455	.4712242	1.096212	.8385896	1.863251	1.207832
#1	.5539643	7.488740	36.22568	.7855704	.0210772	.0104557
#2	.5555250	7.540529	35.46558	.7846619	.0206175	.0104239
#3	.5520866	7.556636	35.67697	.7965481	.0213971	.0106580

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6860549**	**-.005940**	**8.646967**	**.9123962**	**.0540016**	**.0610349**
Stddev	.5802827	.000804	.062411	.0623197	.0026045	.0006517
%RSD	84.58255	13.53728	.7217671	6.830331	4.823023	1.067826
#1	.1964588	-.005660	8.583563	.8404444	.0568866	.0605261
#2	1.327022	-.006847	8.649003	.9493446	.0518236	.0617695
#3	.534684	-.005314	8.708335	.9473997	.0532946	.0608091

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14DL3X10 Acquired: 1/16/2025 14:11:51 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002320	F 44.56145	1.049384	-.001587	-.001175	.0036357
Stddev	.000161	.13810	.003627	.000640	.000309	.0009653
%RSD	6.930846	.3099152	.3455996	40.31118	26.31354	26.55029
#1	-.002501	44.45659	1.046913	-.001150	-.001504	.0033577
#2	-.002193	44.50983	1.047693	-.002322	-.000890	.0028399
#3	-.002266	44.71792	1.053548	-.001291	-.001132	.0047095

Elem	Sr4077
Units	ppm
Avg	.0312835
Stddev	.0002598
%RSD	.8304638
#1	.0310854
#2	.0311874
#3	.0315776

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2792.226	53308.50	9890.831	1908.078	4108.242
Stddev	2.793	214.72	44.260	9.480	6.454
%RSD	.1000456	.4027871	.4474847	.4968251	.1570943
#1	2790.826	53351.15	9851.953	1912.049	4110.026
#2	2795.442	53498.70	9938.998	1914.927	4113.616
#3	2790.409	53075.66	9881.542	1897.259	4101.083

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14DL2X5 Acquired: 1/16/2025 14:16:01 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003681**	**-.007182**	**.7888515**	**-.002953**	**.0028086**	**4.656368**
Stddev	.001228	.000347	.0014429	.001715	.0010908	.068370
%RSD	33.37444	4.836862	.1829067	58.06532	38.83827	1.468318
#1	-.003891	-.006972	.7889352	-.002392	.0015993	4.638380
#2	-.002361	-.007583	.7873686	-.004878	.0031083	4.598791
#3	-.004790	-.006991	.7902506	-.001589	.0037182	4.731934

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0065300**	**.0076508**	**.1858514**	**55.88132**	**.0156211**	**.0367709**
Stddev	.0005058	.0000605	.0002066	.63975	.0002829	.0002362
%RSD	7.746008	.7907277	.1111727	1.144843	1.811049	.6423845
#1	.0066074	.0075837	.1856216	55.55564	.0158306	.0367994
#2	.0069927	.0076675	.1860218	55.46993	.0152993	.0369915
#3	.0059900	.0077012	.1859108	56.61838	.0157334	.0365217

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.076448**	**14.96571**	F **69.69027**	**1.569013**	**.0418210**	**.0209090**
Stddev	.002223	.18734	.72905	.030393	.0003378	.0003703
%RSD	.2065325	1.251792	1.046127	1.937058	.8077078	1.770915
#1	1.075632	14.89593	68.91587	1.557965	.0414321	.0206752
#2	1.074749	14.82328	70.36337	1.545689	.0420413	.0207159
#3	1.078964	15.17793	69.79157	1.603384	.0419895	.0213359

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8210798**	**-.014719**	**17.01838**	**1.720485**	**.1031347**	**.1212939**
Stddev	.2111150	.001520	.14715	.059597	.0008223	.0003170
%RSD	25.71187	10.32540	.8646282	3.463981	.7972842	.2613931
#1	.9512416	-.014361	16.99543	1.701360	.1023232	.1211534
#2	.9345008	-.016385	16.88406	1.672799	.1031136	.1210714
#3	.5774969	-.013410	17.17565	1.787298	.1039674	.1216570

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14DL2X5 Acquired: 1/16/2025 14:16:01 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004447	F 88.39877	2.065361	-.002182	-.001076	.0051419
Stddev	.000457	.26249	.005875	.000222	.000335	.0005247
%RSD	10.28589	.2969345	.2844709	10.16009	31.11384	10.20531
#1	-.004928	88.21105	2.061989	-.002385	-.000838	.0045769
#2	-.004017	88.28654	2.072145	-.002216	-.000932	.0052346
#3	-.004397	88.69871	2.061948	-.001946	-.001459	.0056141

Elem	Sr4077
Units	ppm
Avg	.0616756
Stddev	.0009063
%RSD	1.469432
#1	.0612751
#2	.0610385
#3	.0627131

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2855.370	53377.14	10058.86	1912.798	4107.382
Stddev	.634	310.06	69.10	6.911	3.326
%RSD	.0221957	.5808885	.6869813	.3613152	.0809883
#1	2854.776	53672.13	10080.34	1919.266	4104.277
#2	2855.298	53405.35	9981.56	1913.612	4106.975
#3	2856.037	53053.93	10114.66	1905.516	4110.893

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-15DLX10 Acquired: 1/16/2025 14:20:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D69 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007005**	**-.003110**	**.0021793**	**-.002684**	**.0011558**	**-.015504**
Stddev	.001127	.003012	.0011431	.001004	.0007398	.003377
%RSD	16.09184	96.85726	52.45082	37.42622	64.00634	21.78381
#1	-.008025	-.001565	.0008875	-.003353	.0007040	-.019369
#2	-.005795	-.001183	.0030596	-.003169	.0007539	-.013115
#3	-.007196	-.006580	.0025908	-.001529	.0020096	-.014030

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075790**	**.0022139**	**.0251902**	**54.31674**	**-.000472**	**.0438003**
Stddev	.0005070	.0000499	.0001139	.13172	.000081	.0001889
%RSD	6.690122	2.255209	.4519823	.2424950	17.25071	.4313714
#1	.0075909	.0021595	.0251701	54.46555	-.000404	.0438847
#2	.0080799	.0022246	.0250878	54.21515	-.000562	.0439323
#3	.0070660	.0022576	.0253128	54.26951	-.000450	.0435839

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063162**	**.0506569**	**22.70278**	**3.976873**	**.0200911**	**.0025846**
Stddev	.0036481	.0013780	.08402	.004403	.0004713	.0002497
%RSD	57.75770	2.720289	.3700926	.1107089	2.345654	9.659707
#1	.0028484	.0521112	22.79590	3.973763	.0205463	.0025600
#2	.0059789	.0493706	22.63264	3.981911	.0196053	.0028457
#3	.0101211	.0504889	22.67981	3.974945	.0201216	.0023482

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8735076**	**-.003666**	**9.843748**	**-.201430**	**-.003331**	**.0119200**
Stddev	.1662454	.001480	.035193	.069754	.001608	.0005350
%RSD	19.03194	40.38288	.3575206	34.62931	48.26616	4.488084
#1	.8234292	-.005077	9.857036	-.121397	-.002909	.0117633
#2	.7380581	-.002125	9.803845	-.249295	-.001976	.0114809
#3	1.059036	-.003795	9.870362	-.233598	-.005108	.0125159

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-15DLX10 Acquired: 1/16/2025 14:20:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D69 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003385	F 42.75182	.7152593	-.002454	-.001715	.0029190
Stddev	.000171	.22473	.0016861	.000867	.000492	.0005525
%RSD	5.062618	.5256674	.2357372	35.32049	28.69703	18.92764
#1	-.003580	42.68831	.7133867	-.003323	-.002202	.0027595
#2	-.003316	42.56567	.7166571	-.001589	-.001218	.0035337
#3	-.003258	43.00147	.7157342	-.002449	-.001725	.0024638

Elem	Sr4077
Units	ppm
Avg	.3812569
Stddev	.0020297
%RSD	.5323839
#1	.3835168
#2	.3795888
#3	.3806650

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2712.326	51795.60	9718.167	1844.154	4030.908
Stddev	16.494	101.54	76.542	5.397	13.106
%RSD	.6081068	.1960390	.7876138	.2926729	.3251437
#1	2726.006	51912.04	9806.139	1848.713	4039.806
#2	2694.010	51749.30	9681.555	1845.555	4015.858
#3	2716.961	51725.47	9666.808	1838.194	4037.061

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-16DLX4 Acquired: 1/16/2025 14:24:11 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D72 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0133409**	**-.002064**	**.6006445**	**.0079339**	**.0079048**	**6.348789**
Stddev	.0017441	.002093	.0025844	.0011239	.0004466	.014204
%RSD	13.07291	101.3826	.4302742	14.16512	5.649306	.2237289
#1	.0145646	.000339	.6018056	.0086960	.0079945	6.352631
#2	.0141142	-.003486	.5976831	.0066432	.0074202	6.360676
#3	.0113439	-.003046	.6024447	.0084625	.0082997	6.333059

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0147785**	**.0025074**	**.0135490**	**135.3100**	**.0290620**	**.0136635**
Stddev	.0005805	.0000439	.0000937	.3689	.0002273	.0001194
%RSD	3.927631	1.750614	.6916549	.2726448	.7819916	.8739228
#1	.0149609	.0025573	.0136549	135.6704	.0293157	.0137471
#2	.0141288	.0024906	.0134768	135.3264	.0288771	.0137167
#3	.0152459	.0024744	.0135153	134.9331	.0289932	.0135268

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9224759**	**70.86007**	**17.19133**	**1.424561**	**.0197624**	**.0084758**
Stddev	.0024678	.11030	.03738	.010834	.0000293	.0002245
%RSD	.2675223	.1556544	.2174333	.7605161	.1484211	2.648681
#1	.9218384	70.97902	17.22712	1.416952	.0197800	.0083818
#2	.9203894	70.84003	17.19433	1.419765	.0197285	.0087320
#3	.9252000	70.76117	17.15254	1.436965	.0197786	.0083136

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4615247**	**.0060010**	**3.127366**	**-.288766**	**1.023152**	**.3762146**
Stddev	.4698054	.0013603	.012909	.016325	.007192	.0017206
%RSD	101.7942	22.66846	.4127803	5.653471	.7029444	.4573452
#1	.2171314	.0074008	3.134584	-.273940	1.018513	.3773641
#2	1.003151	.0046840	3.135052	-.306262	1.019508	.3770432
#3	.164292	.0059182	3.112462	-.286095	1.031437	.3742365

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-16DLX4 Acquired: 1/16/2025 14:24:11 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D72 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000607	F 202.7834	2.926530	-.003662	-.000676	.0092651
Stddev	.000225	.6588	.004140	.000197	.000836	.0014411
%RSD	36.98774	.3248571	.1414670	5.377578	123.7398	15.55438
#1	-.000533	202.9321	2.929476	-.003804	-.001443	.0091846
#2	-.000430	202.0630	2.928318	-.003744	-.000801	.0107448
#3	-.000860	203.3551	2.921796	-.003437	.000216	.0078659

Elem	Sr4077
Units	ppm
Avg	.0778544
Stddev	.0002479
%RSD	.3184384
#1	.0780893
#2	.0778787
#3	.0775953

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2773.326	52475.52	10035.45	1853.312	3966.294
Stddev	8.372	151.21	7.89	5.254	10.841
%RSD	.3018917	.2881483	.0786425	.2834827	.2733389
#1	2780.494	52301.59	10043.85	1852.261	3971.132
#2	2775.360	52549.31	10034.31	1848.662	3973.874
#3	2764.124	52575.67	10028.19	1859.011	3953.876

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17DLX5 Acquired: 1/16/2025 14:28:12 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004608**	**-.001781**	**.6693899**	**-.001246**	**.0031184**	**6.458166**
Stddev	.0022143	.000445	.0015044	.002461	.0013176	.033649
%RSD	480.5437	25.01553	.2247394	197.5072	42.25237	.5210293
#1	.0015243	-.002035	.6689901	.001520	.0016110	6.432774
#2	.0019427	-.001266	.6681258	-.002066	.0036934	6.445393
#3	-.002085	-.002041	.6710538	-.003193	.0040508	6.496331

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081950**	**.0047621**	**.0088504**	**91.02938**	**.0227291**	**.0056153**
Stddev	.0008175	.0000882	.0000500	.13831	.0001029	.0000784
%RSD	9.975306	1.852880	.5648869	.1519400	.4528834	1.396230
#1	.0089459	.0046679	.0088865	90.87064	.0228099	.0056108
#2	.0083150	.0048428	.0088714	91.12392	.0226132	.0056959
#3	.0073242	.0047756	.0087933	91.09359	.0227641	.0055393

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.565486**	**30.39373**	**27.83404**	**.8922370**	**.0125563**	**.0068473**
Stddev	.004223	.06719	.38093	.0117603	.0004927	.0001039
%RSD	.2697846	.2210805	1.368560	1.318069	3.923754	1.516686
#1	1.568621	30.31745	27.51097	.9015209	.0122659	.0068811
#2	1.560684	30.44414	28.25408	.8790124	.0131252	.0067308
#3	1.567154	30.41961	27.73708	.8961778	.0122778	.0069301

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6210758**	**.0009176**	**2.011658**	**.2271064**	**.7671718**	**.1867408**
Stddev	.3562553	.0011067	.015068	.0258037	.0010696	.0004542
%RSD	57.36099	120.6182	.7490366	11.36193	.1394209	.2432384
#1	.6119351	.0003176	2.027212	.2203542	.7683981	.1864557
#2	.2694789	.0021947	2.010636	.2556149	.7666860	.1872646
#3	.9818136	.0002403	1.997128	.2053502	.7664313	.1865021

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17DLX5 Acquired: 1/16/2025 14:28:12 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000238	F 130.2290	2.899480	-.002782	-.000155	.0067925
Stddev	.000231	.3881	.009347	.000564	.000188	.0013597
%RSD	97.03436	.2980150	.3223838	20.26492	121.3026	20.01810
#1	-.000422	130.4041	2.909820	-.002359	-.000372	.0082474
#2	-.000314	129.7842	2.891630	-.003422	-.000060	.0065760
#3	.000021	130.4987	2.896990	-.002566	-.000033	.0055540

Elem	Sr4077
Units	ppm
Avg	.0536259
Stddev	.0002356
%RSD	.4392478
#1	.0534285
#2	.0535627
#3	.0538867

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.250	53709.10	10062.54	1923.791	4033.400
Stddev	6.436	110.45	23.83	9.259	8.981
%RSD	.2267689	.2056464	.2368352	.4812880	.2226543
#1	2838.473	53831.55	10042.26	1924.310	4033.139
#2	2844.571	53616.98	10056.57	1914.283	4042.508
#3	2831.705	53678.78	10088.79	1932.779	4024.552

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-18DLX5 Acquired: 1/16/2025 14:32:22 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019506**	**-.001268**	**.6903687**	**.0006535**	**.0037078**	**6.577939**
Stddev	.0017557	.002781	.0033601	.0013996	.0021520	.021262
%RSD	90.00773	219.3115	.4867159	214.1770	58.03907	.3232271
#1	.0012905	.001941	.6867820	.0013373	.0028819	6.584670
#2	.0006207	-.002973	.6934435	.0015796	.0020912	6.554127
#3	.0039407	-.002772	.6908804	-.000957	.0061505	6.595021

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0085362**	**.0047962**	**.0091426**	**92.54694**	**.0229169**	**.0060642**
Stddev	.0011226	.0000355	.0000397	.52672	.0001938	.0001413
%RSD	13.15136	.7407114	.4343698	.5691335	.8456579	2.329540
#1	.0084387	.0047703	.0091322	92.16895	.0230293	.0059372
#2	.0074655	.0047816	.0091091	92.32330	.0226931	.0062163
#3	.0097044	.0048367	.0091865	93.14858	.0230284	.0060392

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.602715**	**30.87293**	**28.26744**	**.8973559**	**.0126592**	**.0067690**
Stddev	.001097	.16807	.14379	.0066162	.0003571	.0001045
%RSD	.0684645	.5443917	.5086894	.7372984	2.820744	1.543960
#1	1.601499	30.76929	28.10204	.8900785	.0122588	.0067882
#2	1.603016	30.78264	28.36281	.9030079	.0129446	.0068625
#3	1.603631	31.06684	28.33746	.8989814	.0127742	.0066562

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.202417**	**.0014625**	**2.065331**	**.3227374**	**.7961583**	**.1897998**
Stddev	.279864	.0016958	.020547	.0537919	.0030209	.0014940
%RSD	23.27509	115.9560	.9948582	16.66740	.3794396	.7871661
#1	1.030461	-.000464	2.061629	.3121879	.7987824	.1887245
#2	1.525349	.002120	2.046887	.2750018	.7928559	.1915058
#3	1.051442	.002731	2.087478	.3810226	.7968366	.1891691

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-18DLX5 Acquired: 1/16/2025 14:32:22 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000542**	F **136.3930**	**2.960304**	**-.003235**	**.0002005**	**.0074186**
Stddev	.000242	.2634	.005258	.001085	.0011140	.0011381
%RSD	44.67679	.1931050	.1776048	33.55524	555.6374	15.34056
#1	-.000597	136.2171	2.962143	-.003172	.0006620	.0087269
#2	-.000277	136.2660	2.954374	-.004350	.0010096	.0066575
#3	-.000752	136.6958	2.964395	-.002182	-.001070	.0068713

Elem	Sr4077
Units	ppm
Avg	**.0548243**
Stddev	.0004070
%RSD	.7423224
#1	.0545746
#2	.0546044
#3	.0552939

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2802.163**	**54104.68**	**10128.65**	**1918.139**	**3977.260**
Stddev	9.958	101.21	39.28	5.940	12.709
%RSD	.3553787	.1870694	.3877685	.3096926	.3195326
#1	2812.703	54136.98	10107.30	1920.151	3990.862
#2	2800.873	54185.80	10104.67	1922.812	3975.229
#3	2792.912	53991.26	10173.98	1911.454	3965.690

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17LDLX25 Acquired: 1/16/2025 14:36:32 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000862**	**.0000467**	**.1343940**	**-.001250**	**.0009386**	**1.266028**
Stddev	.001040	.0018665	.0013420	.002066	.0015811	.006255
%RSD	120.6698	3992.393	.9985829	165.2999	168.4484	.4940295
#1	.000334	.0018179	.1346089	.001128	-.000808	1.271360
#2	-.001550	-.001902	.1329575	-.002600	.002271	1.267580
#3	-.001370	.000225	.1356156	-.002277	.001353	1.259143

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000448**	**.0009773**	**.0017248**	**17.79090**	**.0043104**	**.0010701**
Stddev	.0001408	.0001112	.0000612	.02401	.0004590	.0000668
%RSD	314.0244	11.38350	3.550832	.1349379	10.64958	6.243827
#1	.0000873	.0008492	.0016551	17.81453	.0045645	.0010121
#2	-.000112	.0010493	.0017698	17.79162	.0045862	.0010549
#3	.000160	.0010335	.0017496	17.76654	.0037805	.0011431

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3085849**	**6.072413**	**5.395084**	**.1784692**	**.0025930**	**.0014720**
Stddev	.0021231	.014843	.013996	.0162673	.0003581	.0005565
%RSD	.6880006	.2444296	.2594251	9.114884	13.81131	37.80517
#1	.3098749	6.077181	5.411245	.1606037	.0030040	.0018392
#2	.3061346	6.084287	5.387075	.1924260	.0023477	.0017450
#3	.3097453	6.055772	5.386932	.1823780	.0024273	.0008317

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8298956**	**.0011628**	**.3940398**	**-.566653**	**.1507646**	**.0355658**
Stddev	.5031523	.0013373	.0008348	.081894	.0005416	.0005256
%RSD	60.62838	115.0030	.2118461	14.45215	.3592084	1.477947
#1	1.345706	.0000458	.3949432	-.487924	.1513900	.0354784
#2	.340437	.0007981	.3932970	-.560654	.1504564	.0350893
#3	.803544	.0026446	.3938791	-.651381	.1504476	.0361296

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17LDLX25 Acquired: 1/16/2025 14:36:32 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000075	F 26.26441	.5703541	-.001608	.0003213	.0003213
Stddev	.000265	.09814	.0002769	.000337	.0005516	.0006591
%RSD	354.1820	.3736695	.0485506	20.96089	171.6785	205.1505
#1	.000230	26.16743	.5706555	-.001822	.0007236	.0010080
#2	-.000205	26.26211	.5702958	-.001782	-.000307	.0002619
#3	-.000250	26.36368	.5701110	-.001219	.000548	-.000306

Elem	Sr4077
Units	ppm
Avg	.0104352
Stddev	.0000503
%RSD	.4822899
#1	.0104585
#2	.0103775
#3	.0104697

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2776.004	53042.15	9614.856	1882.739	4148.897
Stddev	7.485	123.14	20.452	4.871	10.316
%RSD	.2696424	.2321476	.2127132	.2587074	.2486372
#1	2783.016	52932.06	9615.402	1877.388	4160.291
#2	2776.874	53019.28	9635.030	1883.915	4146.208
#3	2768.121	53175.13	9594.137	1886.915	4140.192

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-19DLX5 Acquired: 1/16/2025 14:40:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0082423**	**.0077012**	**.6806650**	**.0179336**	**.0184293**	**6.899733**
Stddev	.0036738	.0004836	.0020574	.0018058	.0008678	.021545
%RSD	44.57293	6.279624	.3022633	10.06961	4.708875	.3122599
#1	.0111255	.0080988	.6788764	.0166679	.0174274	6.888942
#2	.0094956	.0078420	.6802051	.0171312	.0189174	6.885716
#3	.0041058	.0071628	.6829134	.0200016	.0189433	6.924541

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3576609**	**.0141539**	**.0184963**	**91.99948**	**.0640881**	**.1008638**
Stddev	.0016911	.0000298	.0001015	.13378	.0002564	.0006236
%RSD	.4728178	.2104184	.5485821	.1454160	.4000183	.6182723
#1	.3557655	.0141838	.0186108	91.86765	.0638636	.1010290
#2	.3582021	.0141242	.0184605	91.99565	.0640332	.1001742
#3	.3590152	.0141538	.0184176	92.13513	.0643675	.1013882

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.594414**	**31.02288**	**27.98405**	**.8981768**	**.1085770**	**.0139672**
Stddev	.004370	.06029	.23259	.0120926	.0003165	.0001790
%RSD	.2740765	.1943374	.8311422	1.346346	.2915218	1.281338
#1	1.591956	31.00073	28.22148	.9121361	.1089268	.0139843
#2	1.599459	30.97680	27.75662	.8909070	.1084938	.0137803
#3	1.591826	31.09111	27.97404	.8914873	.1083103	.0141370

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9253240**	**.0955028**	**2.136333**	**.1938343**	**.7676464**	**.1886870**
Stddev	.2339909	.0000348	.011828	.1574618	.0028782	.0008067
%RSD	25.28746	.0364732	.5536704	81.23528	.3749347	.4275569
#1	.9739901	.0954713	2.146558	.1280454	.7671302	.1879120
#2	1.131155	.0954969	2.139062	.3735214	.7650612	.1886269
#3	.670827	.0955402	2.123379	.0799360	.7707477	.1895221

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-19DLX5 Acquired: 1/16/2025 14:40:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000461	F 132.7843	2.882663	-.002887	.0005942	.0063261
Stddev	.000105	.4345	.004551	.000803	.0005464	.0003804
%RSD	22.78992	.3271959	.1578663	27.82152	91.94830	6.013214
#1	-.000342	132.3970	2.877492	-.003619	.0007485	.0067314
#2	-.000500	132.7018	2.886059	-.003013	.0010468	.0062702
#3	-.000542	133.2541	2.884438	-.002028	-.000013	.0059768

Elem	Sr4077
Units	ppm
Avg	.0541494
Stddev	.0000960
%RSD	.1773129
#1	.0540392
#2	.0542151
#3	.0541939

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2814.850	53778.58	10191.51	1897.523	4011.220
Stddev	3.425	182.20	16.33	4.307	2.843
%RSD	.1216822	.3388005	.1602478	.2269809	.0708801
#1	2816.914	53760.26	10201.89	1892.607	4012.414
#2	2816.740	53969.26	10199.95	1899.328	4013.271
#3	2810.896	53606.24	10172.68	1900.634	4007.974

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-01DLX5 Acquired: 1/16/2025 14:44:43 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D28 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000536**	**-.001312**	**.1333581**	**-.002745**	**-.001799**	**6.906278**
Stddev	.000897	.001050	.0012373	.002793	.000440	.023126
%RSD	167.4593	80.04526	.9277717	101.7675	24.45948	.3348604
#1	.000500	-.001310	.1346209	-.001091	-.002236	6.927797
#2	-.001074	-.002362	.1333052	-.005970	-.001805	6.881824
#3	-.001033	-.000262	.1321481	-.001174	-.001356	6.909213

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0181193**	**.0046424**	**.0745089**	**16.20704**	**.0026750**	**.0088309**
Stddev	.0005673	.0000729	.0003679	.02607	.0001674	.0002004
%RSD	3.130902	1.570157	.4937743	.1608557	6.258088	2.268800
#1	.0174866	.0047053	.0742708	16.23358	.0025530	.0085997
#2	.0185826	.0045625	.0743232	16.20607	.0026063	.0089412
#3	.0182887	.0046594	.0749327	16.18147	.0028659	.0089520

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.062601**	**4.146171**	**29.74804**	**1.700175**	**.0096954**	**.0099294**
Stddev	.004118	.024247	.16653	.016298	.0005559	.0003373
%RSD	.1013677	.5848011	.5598066	.9585864	5.734082	3.397260
#1	4.058676	4.170202	29.84891	1.715683	.0093548	.0102412
#2	4.066888	4.146597	29.55582	1.683188	.0093943	.0095713
#3	4.062240	4.121714	29.83938	1.701654	.0103369	.0099756

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8827711**	**-.003415**	F **32.74107**	**.1227411**	**1.323700**	**.0679178**
Stddev	.2746895	.001239	.08073	.0944434	.011629	.0004113
%RSD	31.11673	36.29367	.2465739	76.94523	.8784870	.6056193
#1	.9665255	-.004770	32.82013	.1674308	1.317373	.0682995
#2	1.105834	-.003138	32.65877	.0142471	1.316607	.0674822
#3	.575954	-.002338	32.74431	.1865455	1.337120	.0679716

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-01DLX5 Acquired: 1/16/2025 14:44:43 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D28 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009274	F 72.86281	3.072564	-.001331	-.000673	.0096811
Stddev	.000199	.21579	.007885	.000367	.000223	.0010412
%RSD	2.147463	.2961609	.2566267	27.53178	33.14378	10.75518
#1	-.009109	72.69419	3.065815	-.001331	-.000607	.0098855
#2	-.009218	72.78824	3.081231	-.001698	-.000922	.0106049
#3	-.009496	73.10600	3.070646	-.000965	-.000491	.0085528

Elem	Sr4077
Units	ppm
Avg	.0413431
Stddev	.0000651
%RSD	.1575223
#1	.0413974
#2	.0413611
#3	.0412709

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2910.161	55482.69	10264.18	2003.815	4101.656
Stddev	12.093	104.68	22.39	4.802	11.206
%RSD	.4155314	.1886638	.2181665	.2396277	.2732167
#1	2912.622	55380.05	10289.86	1999.664	4109.130
#2	2920.834	55589.29	10253.91	2009.074	4107.068
#3	2897.028	55478.73	10248.75	2002.708	4088.771

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-02DL2X2 Acquired: 1/16/2025 14:48:52 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006837**	**.0525793**	**1.719347**	**.0160121**	**.0324521**	**20.41143**
Stddev	.001405	.0042928	.006188	.0027941	.0026632	.03852
%RSD	20.55652	8.164496	.3599057	17.44998	8.206719	.1887394
#1	-.006117	.0486229	1.716321	.0131684	.0315938	20.42789
#2	-.005937	.0519712	1.715254	.0161139	.0354387	20.36740
#3	-.008456	.0571438	1.726466	.0187538	.0303238	20.43898

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0241658**	**.0212343**	**.0316048**	**85.35994**	**.0315503**	**.0136230**
Stddev	.0003590	.0002985	.0001533	.29185	.0010650	.0002052
%RSD	1.485431	1.405880	.4849204	.3419017	3.375483	1.506065
#1	.0237935	.0215264	.0314330	85.56589	.0303378	.0137538
#2	.0245098	.0209297	.0317276	85.02596	.0319789	.0133866
#3	.0241942	.0212468	.0316538	85.48798	.0323342	.0137288

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.04351**	**68.83445**	F **236.3451**	**1.930808**	**.0231483**	**.0831328**
Stddev	.03593	.13355	1.6086	.009045	.0003372	.0001224
%RSD	.2754432	.1940205	.6806321	.4684654	1.456552	.1471994
#1	13.02186	68.87955	238.1791	1.926040	.0232375	.0832153
#2	13.02368	68.68419	235.1734	1.941240	.0234319	.0829923
#3	13.08498	68.93962	235.6827	1.925144	.0227755	.0831910

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.340080**	**-.074225**	**8.325504**	**-1.07099**	**.0089850**	**.4276201**
Stddev	.474278	.000961	.012348	.01172	.0022060	.0018712
%RSD	20.26760	1.294258	.1483146	1.093951	24.55188	.4375917
#1	1.955341	-.073327	8.338285	-1.06707	.0113834	.4284880
#2	2.194927	-.075238	8.324586	-1.08417	.0085288	.4254725
#3	2.869972	-.074109	8.313640	-1.06175	.0070428	.4288998

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-02DL2X2 Acquired: 1/16/2025 14:48:52 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008877	F 249.5552	9.350160	-.002802	.0112439	.0095132
Stddev	.000443	.7828	.027163	.000333	.0002976	.0005471
%RSD	4.989109	.3136827	.2905079	11.89202	2.646437	5.750512
#1	-.008982	248.8247	9.363025	-.002596	.0109548	.0100371
#2	-.009258	249.4593	9.318954	-.002624	.0115493	.0095569
#3	-.008391	250.3815	9.368500	-.003186	.0112276	.0089456

Elem	Sr4077
Units	ppm
Avg	.0290854
Stddev	.0000810
%RSD	.2786237
#1	.0291276
#2	.0289919
#3	.0291366

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2931.435	55304.73	10309.64	2018.718	3922.962
Stddev	9.672	119.94	47.71	7.512	14.170
%RSD	.3299443	.2168635	.4628010	.3721174	.3611995
#1	2941.052	55432.14	10347.25	2014.493	3934.517
#2	2931.546	55194.01	10255.97	2014.270	3927.218
#3	2921.708	55288.05	10325.70	2027.391	3907.153

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-03DLX2 Acquired: 1/16/2025 14:52:58 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D34 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0123276	.0010266	.7031093	.0009988	.0043296	13.68001
Stddev	.0020892	.0010206	.0017238	.0042581	.0004774	.03192
%RSD	16.94760	99.41295	.2451613	426.3197	11.02672	.2333435
#1	.0147390	.0021808	.7028392	.0059099	.0038326	13.71629
#2	.0110603	.0002438	.7015366	-.001252	.0047846	13.65625
#3	.0111836	.0006551	.7049522	-.001662	.0043717	13.66748

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0332192	.0061580	.0427936	25.05831	.0171023	.0183689
Stddev	.0010348	.0000879	.0001046	.04074	.0001093	.0002045
%RSD	3.115222	1.428271	.2445344	.1625644	.6390740	1.113059
#1	.0343265	.0061822	.0427930	25.10312	.0171710	.0185789
#2	.0322766	.0060605	.0428985	25.04831	.0169763	.0181704
#3	.0330546	.0062313	.0426892	25.02351	.0171597	.0183576

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.475661	35.64761	17.73794	3.779613	.0204043	.0220074
Stddev	.010430	.02455	.04967	.015121	.0001107	.0003521
%RSD	.4212865	.0688655	.2800182	.4000693	.5424887	1.599710
#1	2.474931	35.67132	17.77519	3.779716	.0204182	.0223771
#2	2.486436	35.62230	17.75709	3.764440	.0202874	.0216762
#3	2.465615	35.64919	17.68155	3.794682	.0205074	.0219687

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.991443	.0006772	7.835484	-.208043	2.905521	.2898714
Stddev	.258166	.0011574	.030454	.036368	.007552	.0008543
%RSD	12.96375	170.9175	.3886615	17.48123	.2599181	.2947046
#1	1.697551	.0002385	7.869340	-.189154	2.912065	.2889195
#2	2.095146	.0019898	7.810326	-.185006	2.897258	.2901235
#3	2.181633	-.000197	7.826786	-.249969	2.907241	.2905713

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-03DLX2 Acquired: 1/16/2025 14:52:58 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D34 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001731	F 196.1354	3.862699	-.002387	.0181417	.0132299
Stddev	.000117	.2752	.013564	.000345	.0009670	.0027889
%RSD	6.787985	.1403002	.3511601	14.46529	5.330097	21.08012
#1	-.001653	196.4256	3.859674	-.001989	.0172301	.0129836
#2	-.001673	195.8783	3.877521	-.002614	.0180390	.0105723
#3	-.001866	196.1023	3.850903	-.002557	.0191559	.0161337

Elem	Sr4077
Units	ppm
Avg	.0752870
Stddev	.0001375
%RSD	.1826437
#1	.0753497
#2	.0753820
#3	.0751293

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3175.193	59484.75	11096.74	2143.790	4239.073
Stddev	5.016	194.39	45.85	8.675	7.035
%RSD	.1579700	.3267853	.4132000	.4046786	.1659603
#1	3169.501	59369.94	11100.00	2134.509	4230.950
#2	3177.111	59375.12	11049.35	2145.166	4243.173
#3	3178.967	59709.19	11140.88	2151.696	4243.096

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-04DL2X5 Acquired: 1/16/2025 14:56:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001712**	**-.004398**	**.9563613**	**-.002226**	**.0066213**	**6.302530**
Stddev	.000556	.001630	.0026531	.003894	.0010094	.016453
%RSD	32.44813	37.06926	.2774157	174.9814	15.24449	.2610614
#1	-.001542	-.005793	.9556189	-.004880	.0060553	6.295973
#2	-.002333	-.002606	.9541584	-.004043	.0060219	6.321251
#3	-.001262	-.004796	.9593065	.002245	.0077867	6.290366

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0056868**	**.0054392**	**.2039503**	**15.82142**	**.0025484**	**.0280947**
Stddev	.0012655	.0001675	.0006870	.03877	.0005432	.0004076
%RSD	22.25354	3.080154	.3368574	.2450229	21.31642	1.450640
#1	.0043437	.0052960	.2038240	15.85725	.0024762	.0282482
#2	.0058597	.0056234	.2033351	15.82674	.0031242	.0276327
#3	.0068569	.0053982	.2046917	15.78026	.0020450	.0284033

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **42.91998**	**17.95157**	F **38.32136**	**1.051690**	**.0097996**	**.0329767**
Stddev	.09713	.00622	.08397	.011962	.0002190	.0003021
%RSD	.2263088	.0346286	.2191120	1.137381	2.234994	.9161141
#1	43.02998	17.95845	38.34136	1.039330	.0100482	.0333220
#2	42.88395	17.94635	38.39352	1.052530	.0097157	.0328470
#3	42.84601	17.94993	38.22920	1.063209	.0096350	.0327611

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.168129**	**-.008313**	F **32.66763**	**.5675318**	**.1656980**	**.1337075**
Stddev	.192660	.002662	.14203	.1246893	.0017771	.0010802
%RSD	16.49304	32.02535	.4347638	21.97044	1.072497	.8078751
#1	1.228198	-.006420	32.66965	.5903691	.1652503	.1349177
#2	.952590	-.007161	32.80863	.6792239	.1641876	.1328410
#3	1.323598	-.011357	32.52460	.4330024	.1676562	.1333638

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-04DL2X5 Acquired: 1/16/2025 14:56:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009237	F 72.58193	4.069861	-.001474	.0016457	.0052234
Stddev	.000134	.34063	.017916	.000216	.0003332	.0005759
%RSD	1.455940	.4693076	.4402229	14.67000	20.24872	11.02562
#1	-.009328	72.59385	4.090360	-.001721	.0013925	.0058836
#2	-.009301	72.23550	4.062029	-.001319	.0020232	.0048239
#3	-.009083	72.91645	4.057194	-.001381	.0015214	.0049627

Elem	Sr4077
Units	ppm
Avg	.0143965
Stddev	.0000539
%RSD	.3740526
#1	.0144524
#2	.0143923
#3	.0143449

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.333	54409.18	10253.63	1944.471	4123.621
Stddev	2.685	74.30	17.02	5.198	5.939
%RSD	.0952775	.1365509	.1660109	.2673353	.1440130
#1	2820.691	54367.50	10242.79	1943.263	4126.048
#2	2818.896	54365.09	10273.25	1939.982	4127.962
#3	2815.410	54494.96	10244.86	1950.166	4116.854

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-05DLX2 Acquired: 1/16/2025 15:01:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D40 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1085227**	**.0007266**	**.0969723**	**-.006249**	**.0540416**	**-.156606**
Stddev	.0043281	.0008324	.0006666	.003822	.0004381	.015012
%RSD	3.988206	114.5654	.6874627	61.15517	.8107517	9.586131
#1	.1128822	.0009604	.0972254	-.005998	.0542910	-.142670
#2	.1084592	-.000198	.0962162	-.010190	.0535357	-.172502
#3	.1042267	.001417	.0974754	-.002559	.0542982	-.154644

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0512389**	**-.000027**	**.0044077**	**462.6705**	**-.000144**	**.0003308**
Stddev	.0006592	.000037	.0000609	1.5184	.000130	.0001335
%RSD	1.286596	136.2298	1.380586	.3281872	90.46493	40.36186
#1	.0517177	.000013	.0044290	464.3604	-.000182	.0002191
#2	.0515119	-.000034	.0043390	462.2303	.000001	.0002946
#3	.0504870	-.000061	.0044550	461.4208	-.000250	.0004787

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3279616**	**.0075819**	**.2122929**	**3.020939**	**.0034125**	**-.000156**
Stddev	.0021815	.0019506	.0011544	.005782	.0001952	.000462
%RSD	.6651708	25.72660	.5437649	.1914124	5.721339	296.8899
#1	.3299108	.0060964	.2127423	3.015890	.0034332	.000344
#2	.3283689	.0097909	.2131550	3.027247	.0032078	-.000568
#3	.3256052	.0068586	.2109814	3.019679	.0035966	-.000244

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.145436**	**.0005778**	**2.596776**	**-.974165**	**.0057824**	**.0482630**
Stddev	.128694	.0010762	.009435	.067470	.0020682	.0001663
%RSD	11.23534	186.2578	.3633271	6.925982	35.76727	.3445499
#1	1.264053	.0001306	2.587912	-1.02458	.0080700	.0484256
#2	1.008607	.0018054	2.606694	-.89752	.0052325	.0482703
#3	1.163649	-.000203	2.595722	-1.00040	.0040447	.0480932

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-05DLX2 Acquired: 1/16/2025 15:01:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D40 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029891	F 207.5968	1.504703	-.004520	-.013396	.0102410
Stddev	.0004032	.2256	.006149	.000317	.001037	.0019183
%RSD	13.48900	.1086701	.4086836	7.015898	7.742801	18.73116
#1	.0025254	207.3577	1.498078	-.004819	-.013006	.0121047
#2	.0031856	207.8058	1.510229	-.004188	-.014571	.0082725
#3	.0032565	207.6269	1.505802	-.004553	-.012609	.0103458

Elem	Sr4077
Units	ppm
Avg	.2697233
Stddev	.0008850
%RSD	.3281126
#1	.2692165
#2	.2707452
#3	.2692081

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2577.084	49766.40	9626.946	1750.587	3697.080
Stddev	3.446	253.54	43.198	12.751	5.845
%RSD	.1337120	.5094513	.4487243	.7283658	.1580921
#1	2579.365	49878.64	9603.543	1761.071	3703.174
#2	2573.120	49476.12	9600.499	1736.393	3691.522
#3	2578.768	49944.44	9676.796	1754.297	3696.545

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-06DLX2 Acquired: 1/16/2025 15:05:16 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D43 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0085959**	**.0015280**	**2.519398**	**.0027105**	**.0041925**	**21.88599**
Stddev	.0016825	.0009038	.003890	.0030172	.0013838	.10879
%RSD	19.57362	59.14860	.1543840	111.3121	33.00532	.4970762
#1	.0068653	.0005122	2.516726	.0057295	.0057236	21.85618
#2	.0102259	.0022431	2.517608	.0027070	.0030312	21.79522
#3	.0086967	.0018287	2.523861	-.000305	.0038228	22.00658

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0125113**	**.0145244**	**.0245781**	**44.17003**	**.0282745**	**.0176157**
Stddev	.0003372	.0000891	.0000972	.21306	.0001622	.0000601
%RSD	2.695504	.6134870	.3953755	.4823663	.5734703	.3409409
#1	.0122655	.0145569	.0244931	44.14235	.0280954	.0175617
#2	.0123727	.0145926	.0246841	43.97217	.0284114	.0176052
#3	.0128958	.0144236	.0245572	44.39559	.0283166	.0176804

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.200688**	**45.17373**	**29.26799**	**4.343791**	**.0182086**	**.0624544**
Stddev	.010206	.24289	.07566	.016967	.0004116	.0002892
%RSD	.4637714	.5376773	.2585000	.3905957	2.260380	.4629921
#1	2.197213	45.20222	29.19774	4.337955	.0181047	.0622685
#2	2.212178	44.91786	29.25814	4.330513	.0178589	.0627876
#3	2.192673	45.40113	29.34809	4.362906	.0186621	.0623072

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.961072**	**-.003462**	**5.209166**	**-.816032**	**4.577351**	**.3178359**
Stddev	.203317	.001449	.021139	.041487	.015299	.0009013
%RSD	10.36766	41.84943	.4058114	5.083988	.3342370	.2835637
#1	1.903636	-.005132	5.211252	-.774399	4.574197	.3178924
#2	2.186929	-.002717	5.187061	-.857371	4.563874	.3169078
#3	1.792651	-.002538	5.229185	-.816324	4.593981	.3187077

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-06DLX2 Acquired: 1/16/2025 15:05:16 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D43 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001129**	F **223.1384**	**5.344747**	**-.002575**	**.0059573**	**.0179881**
Stddev	.000063	.3145	.017881	.000637	.0005925	.0003360
%RSD	5.539081	.1409302	.3345610	24.73962	9.944944	1.867776
#1	-.001144	222.9453	5.353749	-.002891	.0054194	.0177002
#2	-.001182	222.9685	5.356340	-.002993	.0058603	.0183572
#3	-.001060	223.5012	5.324154	-.001842	.0065923	.0179068

Elem	Sr4077
Units	ppm
Avg	**.1064040**
Stddev	.0005463
%RSD	.5134098
#1	.1059484
#2	.1062540
#3	.1070096

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3183.756**	**59855.80**	**11355.82**	**2173.127**	**4174.701**
Stddev	4.135	206.39	41.20	13.535	10.077
%RSD	.1298720	.3448172	.3628299	.6228391	.2413825
#1	3183.277	59948.92	11348.16	2167.481	4173.853
#2	3188.110	59999.23	11318.98	2188.571	4185.176
#3	3179.882	59619.26	11400.32	2163.330	4165.075

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-08DLX2 Acquired: 1/16/2025 15:09:23 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1111608**	**-.002879**	**1.833280**	**.0027085**	**.0524653**	**5.813770**
Stddev	.0027879	.001067	.005783	.0036540	.0014021	.038951
%RSD	2.507945	37.07600	.3154259	134.9114	2.672473	.6699722
#1	.1079418	-.001732	1.833278	.0051183	.0536740	5.854322
#2	.1127451	-.003843	1.827498	-.001496	.0527938	5.776647
#3	.1127955	-.003062	1.839063	.004503	.0509281	5.810340

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0218374**	**.0022383**	**.0622412**	**7.661211**	**.0031528**	**.0229672**
Stddev	.0007658	.0000262	.0002356	.037818	.0005501	.0003221
%RSD	3.506711	1.171720	.3785403	.4936242	17.44660	1.402429
#1	.0222077	.0022663	.0620663	7.692697	.0028288	.0232612
#2	.0209568	.0022343	.0621481	7.619264	.0028417	.0230176
#3	.0223476	.0022143	.0625091	7.671671	.0037880	.0226229

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.360166**	**46.32181**	**24.78430**	**1.321121**	**.0087754**	**.0101276**
Stddev	.014140	.22508	.14235	.007989	.0003756	.0003007
%RSD	.2638040	.4858993	.5743672	.6047179	4.279908	2.969285
#1	5.375415	46.52868	24.94191	1.328771	.0087872	.0099439
#2	5.357597	46.08213	24.66506	1.321760	.0083941	.0104746
#3	5.347487	46.35462	24.74594	1.312831	.0091450	.0099642

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.759646**	**.0302460**	**13.68247**	**-.901466**	**.3783902**	**.3445851**
Stddev	.491768	.0007182	.06577	.004830	.0040719	.0006143
%RSD	27.94698	2.374672	.4806576	.5358488	1.076100	.1782629
#1	1.684294	.0294224	13.75714	-.901443	.3754002	.3442636
#2	1.309903	.0307425	13.63314	-.896646	.3767428	.3441983
#3	2.284740	.0305730	13.65714	-.906307	.3830277	.3452934

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-08DLX2 Acquired: 1/16/2025 15:09:23 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D49 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003569	F 204.2200	1.776014	-.001245	-.000064	.0071205
Stddev	.0002461	.7037	.016306	.000318	.001197	.0010310
%RSD	68.95453	.3445724	.9181166	25.54566	1866.997	14.47855
#1	.0004342	203.5757	1.767376	-.001202	-.001415	.0082291
#2	.0000815	204.1133	1.765844	-.000951	.000866	.0069421
#3	.0005552	204.9709	1.794821	-.001582	.000357	.0061905

Elem	Sr4077
Units	ppm
Avg	.0330477
Stddev	.0002847
%RSD	.8614501
#1	.0333490
#2	.0327832
#3	.0330110

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2862.603	54138.13	10016.68	1955.026	4273.443
Stddev	9.040	202.68	23.25	6.946	11.077
%RSD	.3158034	.3743793	.2321263	.3553021	.2591984
#1	2868.461	54023.41	10042.47	1947.145	4277.014
#2	2867.157	54372.15	9997.34	1960.259	4282.294
#3	2852.191	54018.83	10010.22	1957.674	4261.021

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-11DLX2 Acquired: 1/16/2025 15:13:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D58 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0393301**	**-.001239**	**1.924946**	**.0053845**	**.0743160**	**9.636388**
Stddev	.0008751	.001191	.008648	.0020496	.0006846	.086683
%RSD	2.225076	96.14714	.4492850	38.06406	.9212104	.8995402
#1	.0401564	-.000011	1.914980	.0076599	.0748109	9.651753
#2	.0384132	-.001315	1.930470	.0036831	.0746023	9.543050
#3	.0394206	-.002391	1.929390	.0048106	.0735347	9.714362

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0196333**	**.0023973**	**.0539854**	**22.76979**	**.0120363**	**.0153241**
Stddev	.0003016	.0001662	.0001171	.11836	.0000720	.0001646
%RSD	1.536191	6.931810	.2169853	.5198192	.5977544	1.074153
#1	.0199142	.0023974	.0538525	22.81874	.0120967	.0153834
#2	.0196711	.0025634	.0540737	22.63480	.0119567	.0154510
#3	.0193146	.0022311	.0540300	22.85582	.0120555	.0151381

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **33.12642**	**58.98036**	**11.63992**	**1.278034**	**.0067436**	**.1131371**
Stddev	.05951	.25461	.06337	.020779	.0004296	.0004779
%RSD	.1796470	.4316798	.5444179	1.625832	6.370334	.4223886
#1	33.17030	59.08579	11.67269	1.299215	.0068775	.1132021
#2	33.05868	58.68998	11.56687	1.277206	.0062631	.1126300
#3	33.15028	59.16532	11.68019	1.257682	.0070904	.1135791

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.436809**	**-.000684**	**9.348973**	**-.729640**	**.2468011**	**.4002062**
Stddev	.349346	.000227	.075843	.010246	.0017863	.0016778
%RSD	14.33621	33.15518	.8112451	1.404252	.7237861	.4192394
#1	2.816184	-.000882	9.418969	-.737459	.2460032	.4009295
#2	2.365859	-.000735	9.268394	-.718041	.2455528	.3982881
#3	2.128384	-.000436	9.359556	-.733420	.2488473	.4014011

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-11DLX2 Acquired: 1/16/2025 15:13:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D58 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001778	F 191.9580	4.702058	-.003443	.0051582	.0031786
Stddev	.000449	1.0299	.009846	.000530	.0003326	.0014849
%RSD	25.23099	.5365300	.2093955	15.37983	6.447937	46.71535
#1	-.001318	190.7845	4.713043	-.003381	.0047837	.0048785
#2	-.001800	192.3781	4.694029	-.002947	.0052719	.0021345
#3	-.002215	192.7115	4.699101	-.004001	.0054191	.0025227

Elem	Sr4077
Units	ppm
Avg	.0467129
Stddev	.0002176
%RSD	.4658067
#1	.0468905
#2	.0464702
#3	.0467780

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2779.667	55759.27	10363.07	1961.909	4097.553
Stddev	5.951	207.36	24.45	14.693	7.079
%RSD	.2140769	.3718766	.2359111	.7489001	.1727692
#1	2786.328	55536.58	10344.49	1945.703	4105.353
#2	2777.798	55946.78	10353.95	1974.359	4095.769
#3	2774.875	55794.46	10390.76	1965.665	4091.536

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-14DLX15 Acquired: 1/16/2025 15:17:24 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006505**	**-.004512**	**.2145809**	**-.002158**	**.0011278**	**1.520259**
Stddev	.003416	.001393	.0027973	.002276	.0014841	.009980
%RSD	52.51494	30.86222	1.303620	105.4629	131.5954	.6564381
#1	-.008854	-.005456	.2145340	-.003719	.0005373	1.511045
#2	-.002586	-.005169	.2118074	-.003208	.0028163	1.518873
#3	-.008076	-.002913	.2174014	.000453	.0000298	1.530859

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010191**	**.0031142**	**.0954789**	**28.80971**	**.0003496**	**.0115637**
Stddev	.0007868	.0001219	.0002311	.13984	.0004166	.0001120
%RSD	77.20111	3.913107	.2419964	.4853997	119.1458	.9688733
#1	.0001557	.0030507	.0952631	28.80441	.0002991	.0114350
#2	.0016956	.0030373	.0954510	28.67260	-.000039	.0116399
#3	.0012059	.0032547	.0957226	28.95213	.000789	.0116160

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4909834**	**.2036952**	**28.73539**	**.6623420**	**.0206506**	**.0042328**
Stddev	.0027695	.0041897	.06762	.0167785	.0002564	.0002359
%RSD	.5640754	2.056869	.2353049	2.533207	1.241710	5.573405
#1	.4916613	.2083556	28.78474	.6603485	.0205022	.0044916
#2	.4879378	.2002404	28.65832	.6466494	.0205029	.0041772
#3	.4933510	.2024897	28.76311	.6800282	.0209467	.0040297

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4311866**	**-.005124**	**8.245386**	**.7015217**	**-.007796**	**.0137116**
Stddev	.5965058	.001125	.072646	.0014921	.001955	.0002214
%RSD	138.3405	21.94813	.8810453	.2126982	25.08255	1.615046
#1	.4970184	-.004848	8.178049	.7029254	-.005846	.0137553
#2	-.195504	-.004163	8.235733	.7016851	-.007784	.0134716
#3	.992046	-.006361	8.322375	.6999546	-.009757	.0139080

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-14DLX15 Acquired: 1/16/2025 15:17:24 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003059	F 34.49842	.7999889	-.001605	-.001585	.0029664
Stddev	.000192	.07684	.0007675	.000914	.000730	.0008333
%RSD	6.263571	.2227425	.0959326	56.94661	46.06452	28.09099
#1	-.003027	34.47842	.7994795	-.002649	-.002090	.0038337
#2	-.003264	34.43355	.7996156	-.001219	-.000748	.0021719
#3	-.002885	34.58329	.8008716	-.000948	-.001918	.0028936

Elem	Sr4077
Units	ppm
Avg	.0281020
Stddev	.0000979
%RSD	.3482208
#1	.0281378
#2	.0279913
#3	.0281770

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2796.501	53240.34	10028.37	1895.330	4140.758
Stddev	13.098	76.07	25.19	5.573	21.237
%RSD	.4683624	.1428752	.2511449	.2940402	.5128690
#1	2803.098	53156.62	9999.30	1901.732	4148.856
#2	2804.990	53305.23	10043.72	1892.689	4156.753
#3	2781.417	53259.15	10042.08	1891.568	4116.663

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-14DL2X5 Acquired: 1/16/2025 15:21:34 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006494**	**.0021844**	**.6335571**	**-.004925**	**.0032517**	**4.236032**
Stddev	.001083	.0022595	.0041403	.003580	.0011095	.022064
%RSD	16.67020	103.4383	.6535015	72.69538	34.12242	.5208535
#1	-.007211	.0001662	.6301419	-.008967	.0020833	4.261497
#2	-.005249	.0046254	.6323674	-.002150	.0033806	4.223960
#3	-.007023	.0017616	.6381620	-.003659	.0042911	4.222639

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024952**	**.0086856**	**.2840710**	**80.03069**	**.0035584**	**.0345476**
Stddev	.0010591	.0000845	.0008256	.28005	.0002580	.0003447
%RSD	42.44486	.9729007	.2906242	.3499307	7.249944	.9977336
#1	.0026124	.0086058	.2833969	80.29374	.0035096	.0346892
#2	.0034908	.0087741	.2838243	80.06204	.0038372	.0341547
#3	.0013824	.0086769	.2849918	79.73628	.0033282	.0347991

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.203539**	**.2452027**	F **77.82625**	**1.834303**	**.0609501**	**.0118379**
Stddev	.006981	.0028464	.53494	.007840	.0003082	.0002202
%RSD	.5800294	1.160855	.6873506	.4273978	.5056728	1.860470
#1	1.209483	.2432359	78.28609	1.826360	.0612500	.0120631
#2	1.205282	.2484667	77.95349	1.842035	.0606342	.0116230
#3	1.195851	.2439056	77.23916	1.834516	.0609661	.0118274

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.371109**	**-.014562**	**22.67407**	**1.612084**	**-.027098**	**.0439619**
Stddev	.510111	.001149	.11735	.029177	.002378	.0004211
%RSD	37.20428	7.890302	.5175531	1.809872	8.774013	.9578837
#1	1.833291	-.014679	22.80256	1.605666	-.026734	.0437103
#2	.823783	-.015648	22.57255	1.643935	-.024923	.0444480
#3	1.456252	-.013359	22.64711	1.586650	-.029636	.0437273

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-14DL2X5 Acquired: 1/16/2025 15:21:34 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008297	F 103.5749	2.283346	-.001226	-.002594	.0066603
Stddev	.000151	.2307	.005849	.000420	.000394	.0002359
%RSD	1.825089	.2227769	.2561402	34.27325	15.18338	3.542076
#1	-.008310	103.3195	2.277802	-.000963	-.002212	.0063943
#2	-.008441	103.6367	2.289458	-.001711	-.002571	.0068443
#3	-.008139	103.7684	2.282777	-.001005	-.002999	.0067424

Elem	Sr4077
Units	ppm
Avg	.0761842
Stddev	.0002994
%RSD	.3930272
#1	.0763216
#2	.0763903
#3	.0758407

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2836.238	53702.42	9818.223	1917.577	4025.655
Stddev	8.274	236.54	20.732	9.931	16.268
%RSD	.2917108	.4404701	.2111629	.5179102	.4041123
#1	2839.081	53560.53	9794.283	1906.854	4037.141
#2	2842.715	53571.24	9830.209	1919.417	4032.786
#3	2826.917	53975.48	9830.177	1926.460	4007.040

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV028 Acquired: 1/16/2025 15:30:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV028 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.774076**	**4.820574**	**23.80847**	**4.815922**	**4.831404**	**396.9248**
Stddev	.023848	.024637	.07855	.015293	.006250	4.0669
%RSD	.4995380	.5110717	.3299320	.3175491	.1293716	1.024601
#1	4.747989	4.806358	23.77092	4.798547	4.824757	392.3114
#2	4.779482	4.806343	23.75574	4.827341	4.832291	399.9909
#3	4.794758	4.849022	23.89875	4.821877	4.837163	398.4722

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.42109**	**.4741053**	**2.393122**	**403.2988**	**15.02194**	**2.415871**
Stddev	.04275	.0004018	.007943	1.1488	.03434	.007918
%RSD	.4102434	.0847587	.3319125	.2848467	.2286070	.3277481
#1	10.37243	.4738998	2.389726	403.8100	14.98422	2.412412
#2	10.45261	.4738479	2.387442	401.9832	15.05140	2.410271
#3	10.43823	.4745684	2.402199	404.1033	15.03019	2.424930

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.86933**	**404.6964**	**15.24000**	**395.9254**	**2.415076**	**1.260646**
Stddev	.05364	.0105	.04080	.3271	.008709	.001490
%RSD	.3607284	.0025989	.2677407	.0826139	.3605902	.1181653
#1	14.92170	404.6968	15.28381	395.5562	2.408408	1.262334
#2	14.81451	404.7068	15.23310	396.1790	2.411891	1.259515
#3	14.87178	404.6857	15.20308	396.0411	2.424929	1.260088

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**404.9312**	**2.419421**	**15.43980**	**157.7622**	**4.975909**	F **5.825098**
Stddev	2.7993	.005488	.06375	.1886	.015418	.008335
%RSD	.6913116	.2268317	.4129207	.1195421	.3098454	.1430926
#1	408.1635	2.424992	15.51104	157.8168	4.963046	5.822005
#2	403.3269	2.414020	15.42026	157.9174	4.971681	5.818752
#3	403.3031	2.419251	15.38810	157.5523	4.992999	5.834538

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV028 Acquired: 1/16/2025 15:30:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV028 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.747173**	**4.980732**	**4.899514**	**4.854570**	**4.897197**	**5.241467**
Stddev	.013085	.004425	.008664	.015560	.008321	.019083
%RSD	.2756478	.0888413	.1768269	.3205145	.1699077	.3640753
#1	4.733966	4.983602	4.909052	4.850569	4.903501	5.262728
#2	4.747418	4.975636	4.892132	4.841401	4.887766	5.225825
#3	4.760134	4.982958	4.897358	4.871739	4.900325	5.235847

Elem	Sr4077
Units	ppm
Avg	**5.207769**
Stddev	.031192
%RSD	.5989480
#1	5.192169
#2	5.187456
#3	5.243684

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2203.793**	**45463.42**	**9320.323**	**1601.170**	**3156.585**
Stddev	5.867	110.38	20.430	.718	9.087
%RSD	.2662426	.2427945	.2191992	.0448189	.2878854
#1	2210.131	45575.56	9343.326	1601.833	3164.360
#2	2202.696	45354.89	9313.349	1601.268	3158.799
#3	2198.551	45459.82	9304.292	1600.408	3146.595

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB028 Acquired: 1/16/2025 15:34:27 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB028 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001981	.0010135	.0001591	-.001410	.0003672	.0495476
Stddev	.0010307	.0014551	.0003592	.003611	.0006370	.0097219
%RSD	520.3303	143.5620	225.7104	256.0924	173.4876	19.62125
#1	-.000878	-.000248	.0004602	.002554	-.000245	.0445106
#2	.000296	.000684	.0002558	-.004512	.001027	.0607543
#3	.001176	.002605	-.000239	-.002272	.000319	.0433778

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010593	-.000040	.0001922	.0629159	.0019291	.0002973
Stddev	.0010160	.000080	.0000611	.0064192	.0003832	.0002117
%RSD	95.91082	199.6141	31.81550	10.20288	19.86333	71.22122
#1	.0019767	.000044	.0002556	.0688653	.0023260	.0005408
#2	.0012338	-.000048	.0001336	.0637700	.0015614	.0001937
#3	-.000033	-.000116	.0001874	.0561123	.0018998	.0001572

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044912	F .0559228	.0042138	.0465136	.0000839	-.000014
Stddev	.0010040	.0032072	.0000746	.0031109	.0002951	.000080
%RSD	22.35523	5.734994	1.769578	6.688139	351.5576	556.1193
#1	.0054841	.0588238	.0042363	.0479747	.0002566	.000077
#2	.0034764	.0524788	.0041306	.0486251	.0002520	-.000073
#3	.0045133	.0564657	.0042745	.0429412	-.000257	-.000047

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .4429343	.0005082	.0031987	F .1355609	.0029528	.0083709
Stddev	.2514020	.0014052	.0009334	.0720300	.0001993	.0005509
%RSD	56.75829	276.4840	29.17891	53.13479	6.749728	6.581361
#1	.6614498	-.000235	.0025877	.0544768	.0028137	.0081676
#2	.4991796	.002129	.0042731	.1921450	.0031812	.0089945
#3	.1681737	-.000369	.0027354	.1600609	.0028636	.0079505

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB028 Acquired: 1/16/2025 15:34:27 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB028 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008777	F .0132950	-.002957	.0001645	.0010613	.0023526
Stddev	.0002135	.0017272	.003769	.0006448	.0004237	.0005561
%RSD	24.32785	12.99143	127.4539	391.8548	39.92626	23.63812
#1	.0010232	.0129905	-.002946	.0008913	.0006941	.0028195
#2	.0006326	.0117404	.000806	-.000059	.0009648	.0017373
#3	.0009773	.0151543	-.006731	-.000339	.0015249	.0025008

Elem	Sr4077
Units	ppm
Avg	.0006980
Stddev	.0000498
%RSD	7.133370
#1	.0006912
#2	.0007508
#3	.0006519

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2816.734	53851.81	9902.667	1920.443	4287.998
Stddev	2.549	24.51	37.565	3.149	3.481
%RSD	.0904837	.0455125	.3793376	.1639469	.0811900
#1	2816.780	53875.13	9861.926	1916.912	4288.686
#2	2819.260	53854.06	9910.144	1921.457	4284.224
#3	2814.163	53826.26	9935.931	1922.959	4291.084

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-15DLX10 Acquired: 1/16/2025 15:38:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D70 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007119**	**-.004173**	**.0086449**	**.0000715**	**.0024717**	**.2045919**
Stddev	.001446	.001089	.0008771	.0021893	.0006042	.0027384
%RSD	20.31754	26.10839	10.14614	3062.453	24.44528	1.338475
#1	-.008552	-.002926	.0096201	-.002456	.0029095	.2069522
#2	-.005659	-.004940	.0083943	.001284	.0017824	.2052341
#3	-.007146	-.004652	.0079204	.001386	.0027232	.2015895

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043767**	**.0034989**	**.0544805**	**44.65341**	**.0005337**	**.0508159**
Stddev	.0009373	.0000746	.0001277	.14321	.0003558	.0004625
%RSD	21.41565	2.131666	.2343821	.3207099	66.67835	.9102542
#1	.0045322	.0035808	.0543746	44.72226	.0004916	.0502956
#2	.0033714	.0034810	.0544446	44.74918	.0002007	.0509713
#3	.0052266	.0034349	.0546222	44.48878	.0009087	.0511807

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0129331**	**.0727380**	**22.70938**	**3.566252**	**.0252883**	**.0033531**
Stddev	.0017967	.0020056	.10112	.003135	.0004698	.0003111
%RSD	13.89243	2.757321	.4452728	.0879167	1.857858	9.277594
#1	.0143106	.0707021	22.75980	3.566499	.0250528	.0036546
#2	.0109008	.0747119	22.77537	3.569257	.0258293	.0033713
#3	.0135880	.0728002	22.59296	3.563001	.0249828	.0030333

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9068016**	**-.002626**	**17.57492**	**-.414196**	**-.004125**	**.0176993**
Stddev	.1111007	.000706	.07512	.017888	.001608	.0008075
%RSD	12.25193	26.89202	.4274455	4.318761	38.98374	4.562128
#1	.8575582	-.001898	17.49222	-.427479	-.004041	.0175081
#2	.8288334	-.002673	17.63894	-.393856	-.002561	.0170047
#3	1.034013	-.003308	17.59359	-.421254	-.005773	.0185853

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-15DLX10 Acquired: 1/16/2025 15:38:36 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D70 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005209	F 41.99038	.9713778	-.001570	-.001935	.0040839
Stddev	.000085	.20896	.0052691	.000027	.000474	.0017379
%RSD	1.627565	.4976451	.5424369	1.738087	24.50684	42.55399
#1	-.005194	41.85524	.9760728	-.001600	-.002482	.0035125
#2	-.005300	41.88483	.9656790	-.001548	-.001697	.0027037
#3	-.005133	42.23107	.9723814	-.001561	-.001628	.0060355

Elem	Sr4077
Units	ppm
Avg	.2791420
Stddev	.0018304
%RSD	.6557235
#1	.2801458
#2	.2802508
#3	.2770293

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2809.120	53764.09	9894.819	1905.016	4194.732
Stddev	5.319	26.03	53.357	8.815	8.195
%RSD	.1893399	.0484213	.5392411	.4627511	.1953758
#1	2815.192	53775.85	9913.590	1915.163	4204.145
#2	2806.882	53734.26	9936.253	1899.245	4190.875
#3	2805.286	53782.18	9834.613	1900.639	4189.177

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-16DLX4 Acquired: 1/16/2025 15:42:39 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D73 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0162879**	**-.000494**	**.6988144**	**.0068174**	**.0085621**	**6.060239**
Stddev	.0008527	.002018	.0018957	.0026160	.0003804	.013125
%RSD	5.235446	408.2789	.2712674	38.37167	4.442596	.2165801
#1	.0163105	.000806	.6980926	.0092847	.0090011	6.064100
#2	.0154241	-.002819	.6973857	.0070928	.0083302	6.045616
#3	.0171292	.000530	.7009650	.0040746	.0083550	6.071001

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103795**	**.0026602**	**.0100877**	**105.3839**	**.0272534**	**.0112266**
Stddev	.0005860	.0000292	.0001747	.1184	.0008242	.0000936
%RSD	5.645819	1.099532	1.732304	.1123912	3.024068	.8334648
#1	.0109798	.0026714	.0099974	105.5090	.0277335	.0112292
#2	.0098089	.0026271	.0099767	105.3691	.0277250	.0113188
#3	.0103498	.0026823	.0102892	105.2735	.0263018	.0111317

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9235684**	**61.93420**	**15.71884**	**1.207410**	**.0163199**	**.0062519**
Stddev	.0054867	.03989	.01619	.002832	.0007954	.0001978
%RSD	.5940805	.0644002	.1029959	.2345200	4.873608	3.163166
#1	.9173368	61.96294	15.71528	1.210476	.0165382	.0060431
#2	.9256947	61.88866	15.70473	1.206861	.0154382	.0064363
#3	.9276738	61.95099	15.73651	1.204894	.0169834	.0062764

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.142561**	**.0052875**	**2.390431**	**-.302842**	**1.315363**	**.3410758**
Stddev	.158800	.0006810	.010736	.007459	.000831	.0004296
%RSD	13.89865	12.87944	.4491149	2.462982	.0631712	.1259475
#1	1.303414	.0056903	2.387902	-.297199	1.314951	.3406779
#2	.985896	.0056711	2.381185	-.311298	1.316319	.3410183
#3	1.138371	.0045013	2.402205	-.300028	1.314818	.3415313

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-16DLX4 Acquired: 1/16/2025 15:42:39 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D73 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001171	F 184.8597	2.496281	-.002562	.0002401	.0084880
Stddev	.0001787	.2322	.016497	.000409	.0009192	.0012499
%RSD	152.5016	.1255841	.6608558	15.95540	382.7876	14.72526
#1	.0000556	184.7946	2.485777	-.002090	.0011190	.0070462
#2	-.000023	184.6671	2.487771	-.002794	.0003162	.0092644
#3	.000318	185.1175	2.515295	-.002802	-.000715	.0091535

Elem	Sr4077
Units	ppm
Avg	.0619748
Stddev	.0001921
%RSD	.3099399
#1	.0617721
#2	.0619983
#3	.0621541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2780.719	53861.04	10274.90	1921.145	3983.518
Stddev	9.000	123.18	12.83	6.686	10.022
%RSD	.3236454	.2287046	.1248988	.3480109	.2515862
#1	2778.171	53719.67	10268.21	1917.205	3987.000
#2	2790.718	53918.14	10289.69	1928.864	3991.334
#3	2773.268	53945.32	10266.78	1917.365	3972.219

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17DLX5 Acquired: 1/16/2025 15:46:41 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028308**	**-.003313**	**.6715143**	**-.002177**	**.0037082**	**5.784413**
Stddev	.0020935	.001547	.0006174	.001012	.0007146	.040376
%RSD	73.95540	46.68120	.0919345	46.48159	19.27156	.6980070
#1	.0006512	-.002106	.6716161	-.001348	.0041972	5.743659
#2	.0030152	-.002777	.6708524	-.003304	.0028880	5.824400
#3	.0048261	-.005057	.6720745	-.001879	.0040392	5.785180

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046251**	**.0047078**	**.0123456**	**88.34215**	**.0200421**	**.0052239**
Stddev	.0003189	.0000594	.0001068	.42200	.0000092	.0003334
%RSD	6.894033	1.261340	.8647065	.4776831	.0457908	6.381640
#1	.0046005	.0047178	.0124684	87.90126	.0200426	.0049847
#2	.0049556	.0046440	.0122943	88.74229	.0200326	.0050824
#3	.0043193	.0047614	.0122742	88.38289	.0200510	.0056047

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.693564**	**27.08200**	**27.78942**	**.9333250**	**.0132766**	**.0065381**
Stddev	.006538	.10388	.01741	.0207542	.0005161	.0002388
%RSD	.3860513	.3835925	.0626397	2.223680	3.887452	3.651966
#1	1.693709	27.01553	27.77253	.9247308	.0127526	.0068048
#2	1.686955	27.20171	27.78844	.9569958	.0132926	.0063443
#3	1.700029	27.02875	27.80730	.9182484	.0137845	.0064651

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8872447**	**.0032038**	**2.518482**	**.2869605**	**.7305237**	**.1781116**
Stddev	.2802134	.0013256	.021074	.0273432	.0013631	.0001444
%RSD	31.58243	41.37629	.8367830	9.528563	.1865936	.0811028
#1	.6709981	.0046489	2.494280	.3015001	.7317890	.1782419
#2	.7869272	.0020443	2.528393	.2554193	.7290803	.1779562
#3	1.203809	.0029181	2.532774	.3039622	.7307019	.1781365

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17DLX5 Acquired: 1/16/2025 15:46:41 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000506	F 131.6399	3.103308	.0028477	.0005725	.0044883
Stddev	.000257	.1858	.011505	.0001325	.0005355	.0009020
%RSD	50.71436	.1411700	.3707235	4.653854	93.54871	20.09661
#1	-.000778	131.7605	3.106974	.0030000	.0011880	.0055290
#2	-.000474	131.4259	3.090417	.0027842	.0003157	.0040029
#3	-.000267	131.7334	3.112533	.0027589	.0002137	.0039329

Elem	Sr4077
Units	ppm
Avg	.0569153
Stddev	.0002095
%RSD	.3680433
#1	.0567469
#2	.0571499
#3	.0568491

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.087	55299.56	10336.67	1969.204	4018.169
Stddev	2.339	95.00	55.17	9.575	3.583
%RSD	.0824284	.1717985	.5337448	.4862381	.0891809
#1	2839.153	55409.21	10280.38	1978.656	4015.013
#2	2835.405	55241.77	10390.65	1959.511	4017.429
#3	2839.705	55247.70	10338.98	1969.444	4022.065

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-18DLX5 Acquired: 1/16/2025 15:50:51 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023671**	**-.001632**	**.6786141**	**.0005321**	**.0028897**	**5.922840**
Stddev	.0005679	.001715	.0022686	.0018820	.0001123	.031749
%RSD	23.99102	105.0676	.3343009	353.6867	3.884520	.5360475
#1	.0017148	-.003080	.6773078	.0026797	.0027707	5.958211
#2	.0026353	-.002080	.6773008	-.000830	.0029936	5.896806
#3	.0027513	.000262	.6812337	-.000254	.0029050	5.913504

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046908**	**.0048842**	**.0123563**	**83.51151**	**.0201738**	**.0054722**
Stddev	.0002872	.0000480	.0001461	.21891	.0002793	.0005163
%RSD	6.122084	.9832358	1.182307	.2621319	1.384737	9.435326
#1	.0044754	.0049331	.0122684	83.63996	.0198526	.0058854
#2	.0050169	.0048372	.0122756	83.25874	.0203092	.0048934
#3	.0045803	.0048822	.0125249	83.63582	.0203597	.0056379

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.698189**	**26.07962**	**27.64790**	**.9770740**	**.0141065**	**.0066185**
Stddev	.006581	.08066	.11698	.0014805	.0003753	.0002483
%RSD	.3875035	.3092855	.4231043	.1515240	2.660567	3.751443
#1	1.690692	26.15873	27.64544	.9785641	.0144519	.0068221
#2	1.703009	25.99749	27.53217	.9770547	.0141604	.0063419
#3	1.700866	26.08264	27.76609	.9756033	.0137071	.0066916

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.034158**	**.0019398**	**2.473074**	**.0535041**	**.7078407**	**.1683443**
Stddev	.530264	.0000493	.006482	.0667884	.0018905	.0013290
%RSD	51.27498	2.543197	.2621072	124.8286	.2670791	.7894536
#1	.559934	.0018841	2.478637	-.022319	.7057298	.1682858
#2	1.606700	.0019779	2.474630	.079215	.7093779	.1670455
#3	.935839	.0019575	2.465956	.103616	.7084144	.1697016

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-18DLX5 Acquired: 1/16/2025 15:50:51 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000391	F 121.9974	2.986542	-.001723	.0014944	.0055785
Stddev	.000203	.6274	.005484	.000747	.0005516	.0009287
%RSD	52.06357	.5142474	.1836233	43.35703	36.90752	16.64696
#1	-.000172	121.5055	2.980414	-.001728	.0014049	.0058562
#2	-.000425	121.7827	2.990989	-.000974	.0020852	.0045427
#3	-.000575	122.7039	2.988223	-.002469	.0009931	.0063367

Elem	Sr4077
Units	ppm
Avg	.0555816
Stddev	.0002502
%RSD	.4501418
#1	.0557783
#2	.0553000
#3	.0556666

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2863.852	55119.33	10383.09	1953.146	4074.421
Stddev	8.966	77.18	14.85	4.829	15.160
%RSD	.3130895	.1400184	.1429810	.2472340	.3720764
#1	2870.387	55046.03	10398.22	1948.766	4083.434
#2	2867.538	55199.88	10368.55	1952.347	4082.911
#3	2853.630	55112.08	10382.50	1958.324	4056.919

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17LDLX25 Acquired: 1/16/2025 15:55:01 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002059**	**-.000669**	**.1306595**	**-.001410**	**.0007751**	**1.220359**
Stddev	.000504	.000884	.0009020	.001301	.0010722	.000373
%RSD	24.46670	132.1411	.6903741	92.29088	138.3368	.0305505
#1	-.001627	-.000381	.1307003	-.000911	.0019023	1.220777
#2	-.002612	-.001660	.1297378	-.000432	-.000232	1.220061
#3	-.001937	.000035	.1315404	-.002887	.000655	1.220241

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008627**	**.0009356**	**.0022857**	**16.19226**	**.0038837**	**.0008376**
Stddev	.0007173	.0000794	.0000612	.10448	.0001398	.0002925
%RSD	83.14071	8.481081	2.678209	.6452743	3.599884	34.92408
#1	.0007406	.0010201	.0023041	16.07161	.0040343	.0007946
#2	.0002143	.0009242	.0022174	16.25219	.0037580	.0011492
#3	.0016332	.0008626	.0023356	16.25298	.0038588	.0005689

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3468547**	**5.416271**	**5.736675**	**.1841917**	**.0023654**	**.0017514**
Stddev	.0016685	.033456	.024231	.0110213	.0006088	.0000539
%RSD	.4810272	.6176956	.4223801	5.983626	25.73821	3.076366
#1	.3462053	5.383340	5.708944	.1968139	.0020220	.0018134
#2	.3487502	5.415244	5.753758	.1792878	.0020059	.0017156
#3	.3456085	5.450228	5.747324	.1764735	.0030684	.0017253

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5197446**	**.0020321**	**.5020323**	**.1009079**	**.1355094**	**.0343041**
Stddev	.4248270	.0014232	.0084092	.0166302	.0040056	.0004218
%RSD	81.73764	70.03508	1.675031	16.48053	2.955952	1.229721
#1	.6634331	.0036373	.5016616	.1201079	.1385270	.0340223
#2	.8540938	.0009243	.4938146	.0915950	.1309649	.0341009
#3	.0417068	.0015349	.5106207	.0910208	.1370362	.0347891

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17LDLX25 Acquired: 1/16/2025 15:55:01 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001719	F 23.53524	.5940561	-.001254	.0003368	.0018674
Stddev	.0001134	.09305	.0020343	.000547	.0011010	.0008339
%RSD	65.94403	.3953756	.3424486	43.60977	326.9238	44.65922
#1	.0000693	23.64195	.5963890	-.001393	.0006374	.0011514
#2	.0002936	23.47100	.5931283	-.000651	.0012563	.0027830
#3	.0001528	23.49278	.5926511	-.001718	-.000883	.0016677

Elem	Sr4077
Units	ppm
Avg	.0105746
Stddev	.0001581
%RSD	1.494760
#1	.0104514
#2	.0107528
#3	.0105195

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2801.461	53883.51	10239.66	1921.061	4197.447
Stddev	8.064	134.17	69.96	11.186	9.558
%RSD	.2878409	.2490044	.6832056	.5822806	.2277002
#1	2807.846	54038.41	10159.10	1920.380	4208.208
#2	2804.137	53808.36	10285.10	1932.573	4194.191
#3	2792.399	53803.74	10274.78	1910.232	4189.944

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-19DLX5 Acquired: 1/16/2025 15:59:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0082978**	**.0072207**	**.6865570**	**.0191058**	**.0191357**	**6.440535**
Stddev	.0000788	.0009815	.0033030	.0014977	.0009633	.029979
%RSD	.9500956	13.59326	.4810978	7.838984	5.034251	.4654796
#1	.0083858	.0083494	.6886771	.0176700	.0194961	6.415714
#2	.0082738	.0065671	.6882427	.0206585	.0198668	6.473843
#3	.0082337	.0067457	.6827513	.0189890	.0180441	6.432048

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3729699**	**.0144985**	**.0222825**	**81.16552**	**.0624078**	**.1041308**
Stddev	.0027632	.0000544	.0000801	.37222	.0002047	.0001226
%RSD	.7408537	.3750658	.3595437	.4585918	.3280065	.1177426
#1	.3717182	.0144869	.0223699	80.81089	.0624300	.1041950
#2	.3761374	.0144508	.0222126	81.55313	.0621929	.1042080
#3	.3710541	.0145577	.0222651	81.13256	.0626005	.1039895

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.746563**	**27.24871**	**28.57548**	**.9679897**	**.1131048**	**.0143271**
Stddev	.006287	.13658	.49801	.0212328	.0003440	.0000854
%RSD	.3599919	.5012433	1.742780	2.193489	.3041896	.5963378
#1	1.753633	27.16440	28.14580	.9852386	.1134077	.0144051
#2	1.741598	27.40630	29.12129	.9744545	.1131759	.0143405
#3	1.744459	27.17544	28.45935	.9442760	.1127307	.0142358

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.407012**	**.1000669**	**2.618711**	**.2005442**	**.7122990**	**.1714474**
Stddev	.313680	.0005296	.015526	.0552529	.0007862	.0010586
%RSD	22.29406	.5292087	.5928762	27.55150	.1103767	.6174376
#1	1.289453	.1005944	2.629594	.2621811	.7123974	.1704009
#2	1.762490	.1000710	2.625608	.1554585	.7130313	.1725176
#3	1.169092	.0995352	2.600932	.1839931	.7114682	.1714238

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-19DLX5 Acquired: 1/16/2025 15:59:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000540	F 123.2852	2.974338	-.003405	.0004324	.0062703
Stddev	.000180	.4336	.010190	.000679	.0005381	.0004800
%RSD	33.39753	.3516851	.3425977	19.94348	124.4542	7.655907
#1	-.000716	123.4294	2.977742	-.002749	.0008807	.0067379
#2	-.000356	123.6284	2.962881	-.004104	.0005809	.0062944
#3	-.000549	122.7979	2.982390	-.003361	-.000164	.0057787

Elem	Sr4077
Units	ppm
Avg	.0525858
Stddev	.0002715
%RSD	.5162274
#1	.0525604
#2	.0528690
#3	.0523279

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.851	54475.82	10562.32	1923.421	4038.786
Stddev	7.495	98.65	71.47	7.888	6.745
%RSD	.2640161	.1810966	.6766438	.4100811	.1670079
#1	2837.413	54589.64	10546.11	1920.160	4038.958
#2	2832.179	54414.82	10640.50	1917.686	4031.956
#3	2846.961	54423.01	10500.35	1932.416	4045.443

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-04DL3X8 Acquired: 1/16/2025 16:03:12 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005272	-.006170	1.148857	-.001681	.0071037	7.656202
Stddev	.001904	.003754	.003536	.000937	.0004291	.028125
%RSD	36.12130	60.84249	.3078053	55.73095	6.040809	.3673485
#1	-.004836	-.009097	1.144782	-.001204	.0075729	7.682082
#2	-.003624	-.007475	1.150672	-.001078	.0070072	7.660252
#3	-.007357	-.001938	1.151117	-.002760	.0067311	7.626271

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064299	.0066131	.2436485	19.08800	.0036897	.0337014
Stddev	.0003670	.0000590	.0007617	.08164	.0002357	.0000395
%RSD	5.707405	.8925562	.3126310	.4277165	6.386486	.1170968
#1	.0068449	.0065490	.2432090	19.16749	.0039606	.0337090
#2	.0061482	.0066252	.2432084	19.09216	.0035318	.0337365
#3	.0062967	.0066651	.2445281	19.00437	.0035768	.0336587

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 52.44912	21.64116	F 45.88678	1.246703	.0117875	.0399030
Stddev	.29231	.00474	.46908	.008393	.0002064	.0002547
%RSD	.5573189	.0218906	1.022248	.6732383	1.751281	.6381857
#1	52.77890	21.64662	45.36280	1.251381	.0115601	.0398149
#2	52.34655	21.63825	46.26759	1.251715	.0119631	.0397041
#3	52.22193	21.63859	46.02996	1.237013	.0118393	.0401900

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.903083	-.010834	F 39.63293	.6886416	.1935466	.1617771
Stddev	.042848	.000470	.11276	.0294917	.0021331	.0001771
%RSD	2.251521	4.338835	.2845037	4.282587	1.102093	.1094965
#1	1.862936	-.010293	39.50822	.6987682	.1956168	.1617803
#2	1.948199	-.011062	39.72767	.7117359	.1913558	.1615984
#3	1.898113	-.011147	39.66290	.6554208	.1936673	.1619526

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-04DL3X8 Acquired: 1/16/2025 16:03:12 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010669	F 86.83432	4.942634	-.001308	.0026660	.0049694
Stddev	.000429	.22757	.019749	.000315	.0009251	.0006558
%RSD	4.020751	.2620685	.3995647	24.04216	34.70113	13.19605
#1	-.010397	86.75761	4.962858	-.001671	.0032386	.0044518
#2	-.011163	86.65502	4.923397	-.001108	.0031608	.0057068
#3	-.010446	87.09032	4.941646	-.001147	.0015987	.0047495

Elem	Sr4077
Units	ppm
Avg	.0174560
Stddev	.0001124
%RSD	.6439080
#1	.0175116
#2	.0175298
#3	.0173267

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2898.633	56377.81	10681.01	2008.442	4228.965
Stddev	3.017	131.81	61.75	6.296	3.718
%RSD	.1040764	.2338032	.5781255	.3134979	.0879222
#1	2899.567	56265.31	10646.57	2008.820	4232.440
#2	2901.073	56522.84	10752.29	2014.541	4229.411
#3	2895.260	56345.27	10644.15	2001.965	4225.044

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-04DLX10 Acquired: 1/16/2025 16:07:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004180**	**-.005984**	**.4555098**	**-.003772**	**.0095520**	**3.067711**
Stddev	.001355	.000565	.0020917	.004397	.0008450	.008845
%RSD	32.42181	9.437857	.4591985	116.5721	8.845714	.2883403
#1	-.005162	-.005514	.4552939	-.001386	.0104708	3.076855
#2	-.002634	-.006611	.4535345	-.008847	.0093770	3.067082
#3	-.004745	-.005827	.4577011	-.001084	.0088083	3.059198

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014503**	**.0026989**	**.0968672**	**7.727652**	**.0010413**	**.0136666**
Stddev	.0004272	.0000682	.0002104	.031890	.0004055	.0000539
%RSD	29.45554	2.528531	.2172518	.4126779	38.94374	.3940998
#1	.0015795	.0027028	.0966267	7.749951	.0013348	.0136252
#2	.0017979	.0027651	.0969575	7.741880	.0012105	.0136472
#3	.0009734	.0026288	.0970175	7.691124	.0005786	.0137275

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.32231**	**8.821065**	**19.08314**	**.5099659**	**.0045793**	**.0163662**
Stddev	.07896	.043964	.08600	.0127852	.0003947	.0003693
%RSD	.3703241	.4983928	.4506440	2.507063	8.619911	2.256488
#1	21.41235	8.869317	19.15995	.4973208	.0049263	.0160458
#2	21.26486	8.810599	19.09924	.5228866	.0046618	.0162826
#3	21.28973	8.783279	18.99023	.5096904	.0041499	.0167701

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8540448**	**-.004215**	**15.99160**	**.3090135**	**.0813342**	**.0652278**
Stddev	.1534350	.002287	.06153	.0297009	.0016123	.0003789
%RSD	17.96569	54.25035	.3847493	9.611530	1.982276	.5808204
#1	.6925671	-.004218	15.96935	.2989104	.0809008	.0648375
#2	.8716485	-.001927	15.94428	.2856820	.0831189	.0652518
#3	.9979186	-.006501	16.06115	.3424479	.0799829	.0655941

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-04DLX10 Acquired: 1/16/2025 16:07:19 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D37 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004878**	F **34.46410**	**2.018637**	**-.001877**	**.0000998**	**.0007215**
Stddev	.000245	.14493	.010735	.000320	.0001839	.0011713
%RSD	5.028413	.4205140	.5317912	17.06448	184.2635	162.3471
#1	-.004701	34.29740	2.031030	-.001691	.0002422	-.000244
#2	-.004775	34.53467	2.012218	-.001693	.0001650	.000385
#3	-.005158	34.56022	2.012664	-.002247	-.000108	.002024

Elem	Sr4077
Units	ppm
Avg	**.0070962**
Stddev	.0000458
%RSD	.6452901
#1	.0071387
#2	.0071021
#3	.0070477

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2881.385**	**55140.11**	**10227.08**	**1990.102**	**4296.228**
Stddev	4.585	54.07	46.24	5.718	3.359
%RSD	.1591133	.0980630	.4521240	.2873380	.0781748
#1	2876.991	55084.81	10214.81	1993.127	4298.355
#2	2886.139	55192.86	10278.22	1993.672	4297.972
#3	2881.025	55142.67	10188.22	1983.507	4292.356

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-06DL2X5 Acquired: 1/16/2025 16:11:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D43 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024685**	**-.002118**	**.9885853**	**-.000844**	**.0014587**	**9.291888**
Stddev	.0017898	.002101	.0034162	.000678	.0006678	.057436
%RSD	72.50323	99.20077	.3455627	80.34807	45.77846	.6181350
#1	.0043940	-.003053	.9861774	-.001617	.0009788	9.236867
#2	.0008556	.000288	.9870833	-.000572	.0011760	9.351468
#3	.0021560	-.003589	.9924951	-.000345	.0022213	9.287330

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045483**	**.0061430**	**.0093781**	**18.66012**	**.0119443**	**.0067859**
Stddev	.0006369	.0001443	.0000478	.09012	.0005842	.0001259
%RSD	14.00343	2.349699	.5101623	.4829708	4.891013	1.854774
#1	.0050027	.0062120	.0093340	18.57765	.0116565	.0067774
#2	.0038203	.0059771	.0093712	18.75632	.0115599	.0069157
#3	.0048218	.0062398	.0094290	18.64639	.0126166	.0066644

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9251239**	**19.27246**	**12.61843**	**1.841839**	**.0072546**	**.0264362**
Stddev	.0077885	.07704	.05898	.016983	.0005229	.0003079
%RSD	.8418851	.3997222	.4673948	.9220883	7.207978	1.164881
#1	.9335798	19.18554	12.55931	1.822594	.0069228	.0261855
#2	.9235481	19.33232	12.67727	1.854724	.0078574	.0263431
#3	.9182438	19.29951	12.61870	1.848200	.0069836	.0267799

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.092170**	**-.002140**	**2.206941**	**-.312089**	**1.734047**	**.1342392**
Stddev	.333626	.000909	.013619	.033296	.005494	.0000975
%RSD	30.54703	42.48142	.6171173	10.66868	.3168043	.0726290
#1	.751217	-.001121	2.195182	-.350093	1.727704	.1341657
#2	1.107343	-.002431	2.221864	-.288051	1.737264	.1343498
#3	1.417950	-.002867	2.203778	-.298122	1.737173	.1342021

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-06DL2X5 Acquired: 1/16/2025 16:11:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D43 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000581**	F **86.81364**	**2.235336**	**-.002606**	**.0019459**	**.0085967**
Stddev	.000089	.40039	.008504	.000530	.0003879	.0001595
%RSD	15.28199	.4612111	.3804167	20.35115	19.93452	1.855172
#1	-.000684	86.45737	2.241660	-.003123	.0016107	.0087725
#2	-.000533	86.73658	2.225669	-.002063	.0018561	.0085565
#3	-.000527	87.24696	2.238678	-.002632	.0023708	.0084612

Elem	Sr4077
Units	ppm
Avg	**.0451134**
Stddev	.0002233
%RSD	.4949047
#1	.0448942
#2	.0453405
#3	.0451055

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3012.874**	**56702.26**	**10780.32**	**2028.943**	**4338.704**
Stddev	6.200	155.41	68.70	7.365	8.935
%RSD	.2057730	.2740865	.6372680	.3629822	.2059480
#1	3012.682	56880.50	10712.25	2037.160	4340.225
#2	3019.167	56631.20	10849.64	2026.733	4346.781
#3	3006.772	56595.07	10779.06	2022.936	4329.106

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-08DL2X5 Acquired: 1/16/2025 16:15:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D49 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0446415**	**.0000572**	**.7457613**	**-.000619**	**.0212135**	**2.373385**
Stddev	.0008643	.0003866	.0026461	.001419	.0020944	.009639
%RSD	1.935971	675.9895	.3548256	229.2262	9.872833	.4061236
#1	.0436604	.0002688	.7461497	-.001121	.0194628	2.367312
#2	.0449739	.0002917	.7429425	.000983	.0235338	2.368343
#3	.0452902	-.000389	.7481918	-.001718	.0206439	2.384498

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0067532**	**.0008684**	**.0250860**	**3.102172**	**.0012265**	**.0093056**
Stddev	.0003160	.0000149	.0001135	.015654	.0003620	.0000977
%RSD	4.679609	1.717772	.4526007	.5046218	29.51594	1.049935
#1	.0066770	.0008669	.0249549	3.103510	.0016446	.0092581
#2	.0064823	.0008841	.0251522	3.085891	.0010186	.0094180
#3	.0071004	.0008543	.0251510	3.117114	.0010165	.0092407

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.060830**	**18.99231**	**9.846005**	**.5284992**	**.0035697**	**.0041756**
Stddev	.009497	.04389	.055816	.0049539	.0006251	.0001826
%RSD	.4608390	.2311076	.5668923	.9373463	17.51103	4.373616
#1	2.050587	18.99682	9.805943	.5299514	.0037576	.0040049
#2	2.062559	18.94633	9.822312	.5229815	.0040792	.0043682
#3	2.069343	19.03377	9.909759	.5325646	.0028722	.0041538

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7435331**	**.0118746**	**5.509571**	**-.616865**	**.1503618**	**.1383536**
Stddev	.0588810	.0032133	.058017	.094287	.0014131	.0007305
%RSD	7.919082	27.05998	1.053028	15.28486	.9397721	.5280160
#1	.8114827	.0087565	5.446929	-.725121	.1504221	.1390496
#2	.7115851	.0151753	5.520324	-.552715	.1489196	.1384183
#3	.7075315	.0116921	5.561459	-.572758	.1517438	.1375929

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-08DL2X5 Acquired: 1/16/2025 16:15:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D49 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000315	F 86.20530	.6792700	-.001663	.0007367	.0015304
Stddev	.0002263	.24647	.0028201	.000372	.0007178	.0004459
%RSD	718.5347	.2859071	.4151628	22.36341	97.43322	29.13706
#1	-.000171	86.19395	.6763156	-.002093	.0012737	.0020274
#2	-.000010	85.96471	.6795614	-.001462	-.000079	.0011653
#3	.000276	86.45726	.6819331	-.001436	.001015	.0013985

Elem	Sr4077
Units	ppm
Avg	.0132580
Stddev	.0000981
%RSD	.7402103
#1	.0131493
#2	.0133400
#3	.0132848

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2815.617	54036.37	10245.01	1927.623	4236.859
Stddev	6.249	151.92	22.01	8.739	11.598
%RSD	.2219343	.2811502	.2148337	.4533615	.2737410
#1	2812.208	53867.17	10237.78	1936.513	4233.249
#2	2822.829	54161.08	10227.53	1927.311	4249.833
#3	2811.814	54080.86	10269.73	1919.044	4227.496

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-11DL2X5 Acquired: 1/16/2025 16:19:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D58 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0137723**	**.0000354**	**.7629829**	**.0001967**	**.0289332**	**4.103915**
Stddev	.0006059	.0015290	.0006077	.0020154	.0007166	.017825
%RSD	4.399470	4322.797	.0796531	1024.421	2.476645	.4343403
#1	.0141495	.0010583	.7623121	.0020862	.0291317	4.107227
#2	.0130734	.0007701	.7634969	-.001925	.0295296	4.119852
#3	.0140940	-.001722	.7631397	.000429	.0281383	4.084667

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091570**	**.0009410**	**.0211227**	**9.717177**	**.0050425**	**.0062085**
Stddev	.0003353	.0000520	.0000381	.035787	.0000998	.0001936
%RSD	3.661871	5.522713	.1804243	.3682812	1.979567	3.118467
#1	.0088580	.0009817	.0210788	9.685629	.0051360	.0064190
#2	.0090935	.0008825	.0211425	9.756064	.0050541	.0061683
#3	.0095196	.0009587	.0211470	9.709838	.0049374	.0060381

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.42342**	**25.16861**	**4.887219**	**.5312467**	**.0021084**	**.0385707**
Stddev	.02968	.11254	.024155	.0112557	.0003228	.0001463
%RSD	.2210718	.4471299	.4942484	2.118733	15.31189	.3792042
#1	13.44844	25.09533	4.868534	.5347516	.0024567	.0387390
#2	13.43120	25.29819	4.914495	.5403328	.0020491	.0384992
#3	13.39064	25.11233	4.878627	.5186555	.0018193	.0384740

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.036634**	**.0001445**	**3.881278**	**-.271015**	**.0983819**	**.1677587**
Stddev	.082385	.0012468	.010762	.030183	.0002194	.0008094
%RSD	7.947328	862.9200	.2772886	11.13690	.2230400	.4824729
#1	.992852	-.001275	3.881672	-.304716	.0984065	.1668549
#2	.985383	.000644	3.870324	-.246473	.0981512	.1684166
#3	1.131666	.001064	3.891838	-.261856	.0985880	.1680047

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-11DL2X5 Acquired: 1/16/2025 16:19:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D58 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000645**	F **74.88565**	**1.917831**	**-.002595**	**.0018627**	**.0014850**
Stddev	.000193	.10959	.005047	.000485	.0007482	.0011688
%RSD	29.95934	.1463426	.2631558	18.67592	40.17040	78.70721
#1	-.000847	74.95439	1.912100	-.002210	.0012907	.0001354
#2	-.000461	74.94330	1.921614	-.003139	.0027094	.0021648
#3	-.000627	74.75927	1.919778	-.002435	.0015878	.0021547

Elem	Sr4077
Units	ppm
Avg	**.0198784**
Stddev	.0000858
%RSD	.4317661
#1	.0198101
#2	.0199747
#3	.0198504

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2878.186**	**54213.38**	**10379.51**	**1936.915**	**4332.799**
Stddev	3.054	93.47	48.68	4.146	13.494
%RSD	.1060920	.1724055	.4689710	.2140539	.3114445
#1	2875.627	54191.73	10324.10	1934.192	4329.182
#2	2877.365	54132.64	10415.40	1941.687	4321.481
#3	2881.566	54315.77	10399.02	1934.867	4347.733

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-14DL3X20 Acquired: 1/16/2025 16:23:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006187**	**-.004104**	**.1551917**	**-.003808**	**.0006799**	**1.104060**
Stddev	.002043	.000590	.0009565	.001079	.0006849	.004506
%RSD	33.01794	14.37912	.6163455	28.34512	100.7321	.4081024
#1	-.007282	-.004501	.1555809	-.002573	.0012540	1.109139
#2	-.003830	-.004386	.1541019	-.004570	-.000078	1.100542
#3	-.007449	-.003426	.1558922	-.004281	.000864	1.102500

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015837**	**.0023366**	**.0703089**	**21.24992**	**.0000314**	**.0084691**
Stddev	.0008324	.0000537	.0002294	.09570	.0001777	.0001204
%RSD	52.55905	2.297278	.3263048	.4503452	566.5129	1.421089
#1	.0011314	.0023806	.0701811	21.33074	.0002236	.0085157
#2	.0025443	.0023525	.0701718	21.27477	-.000127	.0085592
#3	.0010754	.0022768	.0705738	21.14425	-.000003	.0083325

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3275604**	**.0691822**	**21.76426**	**.4903283**	**.0152717**	**.0029832**
Stddev	.0048644	.0026076	.08130	.0095172	.0002184	.0002118
%RSD	1.485041	3.769223	.3735477	1.940993	1.430074	7.099738
#1	.3274479	.0666260	21.85127	.4989964	.0154544	.0027563
#2	.3227532	.0718383	21.75129	.4918445	.0150298	.0031757
#3	.3324800	.0690823	21.69023	.4801440	.0153309	.0030175

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5809740**	**-.002967**	**6.102410**	**.6531014**	**-.005856**	**.0093603**
Stddev	.1125838	.001643	.019120	.0331184	.002409	.0009648
%RSD	19.37846	55.36781	.3133249	5.070937	41.14128	10.30698
#1	.4811693	-.003099	6.091800	.6748307	-.008477	.0082835
#2	.7030177	-.004541	6.090946	.6149841	-.005355	.0101461
#3	.5587349	-.001263	6.124483	.6694893	-.003737	.0096513

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-14DL3X20 Acquired: 1/16/2025 16:23:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D67 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002113	F 25.35415	.6000267	-.001590	-.000734	.0006344
Stddev	.000092	.10025	.0053854	.000455	.000514	.0015912
%RSD	4.369700	.3953813	.8975311	28.64204	70.08927	250.8152
#1	-.002101	25.28890	.6005138	-.001194	-.000437	.0024041
#2	-.002028	25.30399	.5944143	-.001488	-.000436	.0001774
#3	-.002211	25.46958	.6051521	-.002087	-.001327	-.000678

Elem	Sr4077
Units	ppm
Avg	.0207317
Stddev	.0001002
%RSD	.4832320
#1	.0208428
#2	.0207038
#3	.0206484

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2809.519	54509.57	10097.79	1949.403	4170.109
Stddev	5.784	185.00	20.98	.455	11.259
%RSD	.2058784	.3393962	.2077336	.0233485	.2699885
#1	2804.047	54351.74	10104.98	1948.877	4163.167
#2	2815.571	54463.82	10114.23	1949.682	4183.099
#3	2808.938	54713.16	10074.17	1949.649	4164.061

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17DL2X10 Acquired: 1/16/2025 16:27:21 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019194**	**-.002284**	**.3394482**	**-.000548**	**.0020370**	**2.909494**
Stddev	.0012338	.001212	.0004700	.001103	.0000730	.025354
%RSD	64.28107	53.07217	.1384495	201.2068	3.584671	.8714234
#1	.0033425	-.003526	.3394478	-.000090	.0020918	2.896505
#2	.0011508	-.001104	.3399183	.000252	.0020651	2.893267
#3	.0012647	-.002223	.3389784	-.001806	.0019541	2.938711

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014038**	**.0024555**	**.0061773**	**39.60503**	**.0098984**	**.0027492**
Stddev	.0005308	.0000763	.0000440	.28500	.0001505	.0001482
%RSD	37.81320	3.108947	.7121693	.7196174	1.520884	5.391778
#1	.0020082	.0023827	.0062060	39.54239	.0097532	.0028138
#2	.0010129	.0025350	.0061267	39.35655	.0098881	.0028540
#3	.0011904	.0024486	.0061993	39.91614	.0100537	.0025796

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8812637**	**13.13237**	**14.21350**	**.4592325**	**.0064962**	**.0034595**
Stddev	.0060598	.12755	.11699	.0144810	.0005056	.0000539
%RSD	.6876297	.9712912	.8230911	3.153314	7.782380	1.558793
#1	.8837211	13.07518	14.18385	.4685624	.0059454	.0034666
#2	.8743612	13.04342	14.11419	.4425502	.0066041	.0035095
#3	.8857089	13.27851	14.34246	.4665847	.0069391	.0034023

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7104852**	**.0011767**	**1.230849**	**-.062265**	**.3609646**	**.0830581**
Stddev	.5282653	.0015012	.019810	.033455	.0005518	.0003140
%RSD	74.35275	127.5734	1.609450	53.73015	.1528542	.3780244
#1	.2291857	-.000468	1.226062	-.063585	.3606662	.0831823
#2	.6265932	.002474	1.213872	-.028169	.3616012	.0832910
#3	1.275677	.001524	1.252615	-.095040	.3606262	.0827010

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17DL2X10 Acquired: 1/16/2025 16:27:21 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000144	F 61.50942	1.527521	-.002948	.0007969	.0011925
Stddev	.000371	.24833	.001987	.000166	.0008915	.0015050
%RSD	258.1205	.4037233	.1300508	5.624787	111.8704	126.2105
#1	-.000542	61.22415	1.529224	-.002821	.0004839	.0029264
#2	-.000079	61.62689	1.528001	-.003136	.0018027	.0002251
#3	.000190	61.67721	1.525338	-.002887	.0001041	.0004259

Elem	Sr4077
Units	ppm
Avg	.0260250
Stddev	.0003060
%RSD	1.175953
#1	.0259582
#2	.0257579
#3	.0263589

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.183	54483.77	9979.000	1961.239	4084.606
Stddev	6.740	217.99	54.525	10.596	.456
%RSD	.2411241	.4001096	.5463948	.5402949	.0111668
#1	2794.725	54621.63	9975.713	1967.978	4084.777
#2	2802.140	54597.23	9926.193	1966.715	4084.089
#3	2788.683	54232.44	10035.09	1949.026	4084.952

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-18DL2X10 Acquired: 1/16/2025 16:31:21 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025213**	**-.001634**	**.3434477**	**-.003334**	**.0011107**	**2.929715**
Stddev	.0011714	.000796	.0011745	.001517	.0005130	.025852
%RSD	46.46057	48.68886	.3419621	45.49616	46.18653	.8823993
#1	.0028480	-.001599	.3441615	-.004620	.0006790	2.914246
#2	.0034946	-.002447	.3420922	-.001661	.0016778	2.959560
#3	.0012212	-.000857	.3440894	-.003721	.0009752	2.915340

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001143**	**.0025561**	**.0061442**	**39.25863**	**.0098226**	**.0028110**
Stddev	.000426	.0000405	.0000495	.15612	.0002816	.0000427
%RSD	37.23091	1.585731	.8058334	.3976674	2.867139	1.517457
#1	-.001630	.0025126	.0061107	39.28651	.0098382	.0028593
#2	-.000842	.0025928	.0061209	39.39893	.0095335	.0027784
#3	-.000957	.0025629	.0062011	39.09045	.0100961	.0027954

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8531108**	**13.13833**	**14.03208**	**.4690017**	**.0066910**	**.0035768**
Stddev	.0043072	.05444	.06435	.0077374	.0003160	.0002086
%RSD	.5048812	.4143906	.4586246	1.649753	4.722012	5.832146
#1	.8577503	13.09488	14.03488	.4605470	.0069679	.0036467
#2	.8523428	13.19940	14.09499	.4757301	.0067583	.0037414
#3	.8492393	13.12071	13.96637	.4707280	.0063468	.0033422

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8432546**	**.0022863**	**1.234994**	**-.384686**	**.3597356**	**.0828439**
Stddev	.2755577	.0007367	.014461	.060097	.0008362	.0006332
%RSD	32.67788	32.22075	1.170968	15.62237	.2324438	.7643290
#1	.8157392	.0022949	1.223126	-.452290	.3606957	.0821152
#2	.5824868	.0015454	1.251101	-.337324	.3593443	.0832607
#3	1.131538	.0030186	1.230755	-.364443	.3591668	.0831556

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-18DL2X10 Acquired: 1/16/2025 16:31:21 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000264	F 62.09637	1.494169	-.001726	.0003501	.0007101
Stddev	.000057	.15146	.010764	.000428	.0005187	.0015258
%RSD	21.56957	.2439107	.7204120	24.77509	148.1460	214.8625
#1	-.000225	61.93966	1.503204	-.002097	.0000311	-.000199
#2	-.000329	62.10747	1.497044	-.001822	.0009486	-.000143
#3	-.000237	62.24197	1.482260	-.001258	.0000706	.002472

Elem	Sr4077
Units	ppm
Avg	.0258206
Stddev	.0001982
%RSD	.7677477
#1	.0258370
#2	.0260101
#3	.0256147

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2810.099	54809.28	10127.70	1944.786	4115.646
Stddev	3.764	143.48	35.80	11.276	3.114
%RSD	.1339556	.2617726	.3534890	.5798204	.0756579
#1	2811.349	54766.89	10087.89	1946.189	4119.136
#2	2813.079	54691.78	10157.25	1932.873	4114.649
#3	2805.868	54969.18	10137.97	1955.294	4113.153

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17LDL2X50 Acquired: 1/16/2025 16:35:22 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000563**	**-.000114**	**.0660368**	**.0011486**	**-.001013**	**.6163713**
Stddev	.001732	.000444	.0003015	.0045398	.001480	.0115653
%RSD	307.8062	389.0563	.4565842	395.2329	146.1080	1.876351
#1	-.001861	-.000235	.0658976	.0042859	.000119	.6126513
#2	-.001231	.000378	.0658301	.0032169	-.000470	.6071237
#3	.001404	-.000486	.0663828	-.004057	-.002687	.6293388

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000719**	**.0004581**	**.0011724**	**8.330382**	**.0014074**	**.0006212**
Stddev	.000626	.0000318	.0000186	.063367	.0002423	.0002227
%RSD	87.09011	6.941363	1.586449	.7606708	17.21862	35.84302
#1	.000003	.0004522	.0011937	8.366493	.0011328	.0005648
#2	-.001115	.0004924	.0011643	8.257215	.0015914	.0004322
#3	-.001045	.0004296	.0011593	8.367440	.0014979	.0008667

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1816070**	**2.773684**	**2.929855**	**.0858456**	**.0011000**	**.0008762**
Stddev	.0025045	.018999	.026320	.0092703	.0004779	.0001604
%RSD	1.379096	.6849668	.8983536	10.79884	43.44583	18.30370
#1	.1839865	2.770593	2.935573	.0952240	.0005515	.0006918
#2	.1789938	2.756420	2.901146	.0766873	.0014264	.0009833
#3	.1818409	2.794038	2.952847	.0856255	.0013222	.0009535

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6189784**	**-.000107**	**.2591102**	**-.025158**	**.0700419**	**.0143559**
Stddev	.0852916	.001584	.0034135	.024620	.0016436	.0004726
%RSD	13.77941	1483.111	1.317373	97.86359	2.346620	3.291849
#1	.5515662	-.001936	.2580889	.003270	.0716241	.0145258
#2	.5905045	.000768	.2563239	-.039638	.0701586	.0138219
#3	.7148644	.000847	.2629177	-.039104	.0683431	.0147201

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17LDL2X50 Acquired: 1/16/2025 16:35:22 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001538	F 12.29930	.3062315	-.001069	.0003130	.0007185
Stddev	.0006301	.02932	.0029188	.000090	.0003209	.0003374
%RSD	409.7070	.2383653	.9531322	8.430528	102.5268	46.95886
#1	.0001785	12.26790	.3050791	-.000966	.0006677	.0006537
#2	.0007711	12.30405	.3040649	-.001134	.0002283	.0004181
#3	-.000488	12.32595	.3095506	-.001106	.0000429	.0010835

Elem	Sr4077
Units	ppm
Avg	.0053604
Stddev	.0001128
%RSD	2.104268
#1	.0053497
#2	.0052534
#3	.0054782

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.275	54878.98	10371.72	1934.207	4216.795
Stddev	3.032	111.81	78.96	8.689	8.032
%RSD	.1084787	.2037413	.7612581	.4492444	.1904737
#1	2797.791	54749.90	10369.75	1944.024	4225.355
#2	2796.126	54946.00	10293.77	1927.501	4215.607
#3	2791.908	54941.02	10451.64	1931.098	4209.424

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-19DL2X10 Acquired: 1/16/2025 16:39:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024401**	**.0025767**	**.3367468**	**.0100123**	**.0108190**	**3.179187**
Stddev	.0006442	.0010383	.0026279	.0008805	.0006094	.024129
%RSD	26.39907	40.29497	.7803800	8.794481	5.632400	.7589724
#1	.0018532	.0015831	.3344917	.0107994	.0106030	3.158994
#2	.0023378	.0036545	.3361160	.0090613	.0115070	3.205909
#3	.0031293	.0024924	.3396327	.0101762	.0103471	3.172660

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1876890**	**.0072035**	**.0108191**	**40.31350**	**.0305133**	**.0508192**
Stddev	.0012424	.0000804	.0001173	.24485	.0003253	.0000665
%RSD	.6619644	1.115476	1.084040	.6073553	1.066032	.1308306
#1	.1875423	.0071121	.0107318	40.22701	.0302987	.0508680
#2	.1889984	.0072632	.0107730	40.58985	.0308875	.0508462
#3	.1865265	.0072352	.0109524	40.12364	.0303536	.0507435

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8980148**	**13.58032**	**14.55234**	**.4741576**	**.0557300**	**.0073439**
Stddev	.0026622	.06221	.09063	.0010076	.0001917	.0003105
%RSD	.2964581	.4580537	.6227639	.2125013	.3439946	4.227480
#1	.8962874	13.55902	14.50179	.4751929	.0555128	.0069974
#2	.8966763	13.65038	14.65696	.4731803	.0558013	.0075967
#3	.9010807	13.53157	14.49825	.4740995	.0558758	.0074376

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.117194**	**.0512944**	**1.302889**	**.1667482**	**.3491470**	**.0838803**
Stddev	.453514	.0006280	.006470	.0638085	.0007709	.0008781
%RSD	40.59405	1.224238	.4965984	38.26638	.2207823	1.046821
#1	.985337	.0511846	1.296544	.2069455	.3500266	.0838128
#2	1.622026	.0507285	1.309477	.0931738	.3485891	.0847901
#3	.744220	.0519700	1.302647	.2001254	.3488254	.0830378

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-19DL2X10 Acquired: 1/16/2025 16:39:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000359	F 59.47270	1.506034	-.002319	.0002056	.0029098
Stddev	.000095	.24298	.006185	.000340	.0003499	.0008962
%RSD	26.47279	.4085491	.4106779	14.64046	170.2150	30.79895
#1	-.000366	59.44690	1.511603	-.001928	.0002601	.0035054
#2	-.000261	59.24365	1.507122	-.002542	.0005250	.0018792
#3	-.000451	59.72754	1.499377	-.002486	-.000168	.0033451

Elem	Sr4077
Units	ppm
Avg	.0266499
Stddev	.0002703
%RSD	1.014253
#1	.0265552
#2	.0269548
#3	.0264397

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.861	55190.03	10477.08	1961.441	4167.447
Stddev	7.281	132.24	54.11	10.225	11.579
%RSD	.2559341	.2396069	.5164839	.5213132	.2778394
#1	2846.618	55286.44	10426.84	1964.376	4171.926
#2	2851.103	55039.28	10534.38	1950.069	4176.118
#3	2836.863	55244.37	10470.04	1969.878	4154.298

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17DL2X10 Acquired: 1/16/2025 16:43:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000029**	**-.001886**	**.3321198**	**-.001092**	**.0019711**	**3.206895**
Stddev	.000648	.002065	.0020309	.001393	.0011020	.015844
%RSD	2224.492	109.4933	.6114874	127.5353	55.90643	.4940462
#1	.000694	-.000462	.3312123	-.000431	.0008136	3.202768
#2	-.000227	-.004254	.3307009	-.002692	.0020921	3.224394
#3	-.000554	-.000941	.3344462	-.000152	.0030075	3.193524

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000505**	**.0023765**	**.0043765**	**44.97901**	**.0113280**	**.0028212**
Stddev	.0009556	.0000457	.0000579	.07408	.0002654	.0002323
%RSD	1891.846	1.924177	1.323999	.1647038	2.343268	8.235372
#1	.0009264	.0023344	.0044326	44.98970	.0110943	.0027124
#2	-.000969	.0024252	.0043800	45.04718	.0112732	.0026632
#3	.000194	.0023700	.0043169	44.90017	.0116166	.0030879

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7739187**	**15.17311**	**13.96561**	**.4295486**	**.0060080**	**.0034764**
Stddev	.0031176	.03408	.02436	.0057074	.0003885	.0001491
%RSD	.4028377	.2245980	.1743946	1.328689	6.465850	4.288824
#1	.7713897	15.19451	13.93788	.4284113	.0064327	.0036082
#2	.7774019	15.19100	13.98355	.4357390	.0056707	.0035065
#3	.7729645	15.13381	13.97539	.4244955	.0059204	.0033145

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4540841**	**.0021734**	**.9943342**	**-.108050**	**.3805300**	**.0908648**
Stddev	.2563283	.0001615	.0072402	.018566	.0023782	.0004667
%RSD	56.44951	7.429896	.7281421	17.18235	.6249743	.5135975
#1	.4513921	.0021336	.9860734	-.127695	.3779068	.0913499
#2	.7117478	.0023510	.9973508	-.105662	.3825452	.0908254
#3	.1991125	.0020355	.9995782	-.090795	.3811379	.0904191

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17DL2X10 Acquired: 1/16/2025 16:43:26 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000048	F 66.28436	1.429830	-.002108	.0003017	.0024870
Stddev	.000125	.22805	.007208	.000432	.0007360	.0010189
%RSD	258.6696	.3440420	.5041501	20.50500	243.9750	40.96897
#1	-.000084	66.07373	1.423983	-.002292	.0002508	.0033942
#2	.000091	66.25283	1.427624	-.001614	.0010618	.0013846
#3	-.000151	66.52654	1.437884	-.002417	-.000408	.0026822

Elem	Sr4077
Units	ppm
Avg	.0272105
Stddev	.0001573
%RSD	.5780771
#1	.0272529
#2	.0273422
#3	.0270364

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2810.400	54911.16	10230.72	1961.937	4109.763
Stddev	3.685	114.51	17.16	13.876	5.383
%RSD	.1311066	.2085359	.1677275	.7072834	.1309900
#1	2812.197	54968.31	10244.45	1976.107	4108.100
#2	2812.841	54779.33	10236.22	1948.374	4115.782
#3	2806.161	54985.85	10211.48	1961.330	4105.407

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-18DL2X10 Acquired: 1/16/2025 16:47:28 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006094**	**-.002260**	**.3326002**	**.0014770**	**.0012200**	**3.190171**
Stddev	.0012977	.000739	.0007938	.0023470	.0017465	.008935
%RSD	212.9234	32.70065	.2386582	158.8989	143.1594	.2800691
#1	-.000250	-.002694	.3333798	.0028754	.0032290	3.187065
#2	-.000024	-.001407	.3326278	-.001233	.0003667	3.200244
#3	.002102	-.002679	.3317930	.002788	.0000642	3.183203

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000871**	**.0023763**	**.0042820**	**44.78144**	**.0114563**	**.0027524**
Stddev	.000716	.0000195	.0000325	.08956	.0003008	.0000682
%RSD	82.13982	.8187808	.7601770	.1999964	2.625628	2.479314
#1	-.001695	.0023937	.0042460	44.76936	.0111666	.0027468
#2	-.000402	.0023553	.0042905	44.69852	.0117671	.0026872
#3	-.000517	.0023801	.0043094	44.87642	.0114352	.0028233

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7847272**	**15.05554**	**13.91663**	**.4303106**	**.0060673**	**.0036879**
Stddev	.0030390	.04639	.01106	.0112057	.0004801	.0002636
%RSD	.3872643	.3081224	.0794865	2.604090	7.912605	7.147924
#1	.7812693	15.04424	13.91137	.4352748	.0057743	.0033860
#2	.7869731	15.01584	13.90919	.4174803	.0058062	.0038724
#3	.7859394	15.10653	13.92934	.4381766	.0066213	.0038053

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7449172**	**.0021126**	**.9936712**	**-.107552**	**.3814194**	**.0901314**
Stddev	.3738414	.0008827	.0020246	.025360	.0012884	.0003701
%RSD	50.18563	41.78065	.2037522	23.57913	.3378002	.4106354
#1	.6056789	.0015047	.9917576	-.124931	.3799367	.0903654
#2	.4606764	.0031250	.9957911	-.119275	.3822671	.0897047
#3	1.168396	.0017081	.9934648	-.078452	.3820544	.0903241

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-18DL2X10 Acquired: 1/16/2025 16:47:28 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000222	F 65.68365	1.437447	-.002521	.0000505	.0015741
Stddev	.000406	.10433	.003461	.000958	.0007038	.0014029
%RSD	183.1235	.1588374	.2407883	38.00672	1394.760	89.12351
#1	.000090	65.56494	1.434760	-.003500	.0004795	.0009102
#2	-.000075	65.72524	1.436228	-.001585	.0004336	.0031856
#3	-.000681	65.76077	1.441353	-.002477	-.000762	.0006264

Elem	Sr4077
Units	ppm
Avg	.0271759
Stddev	.0000810
%RSD	.2981061
#1	.0271146
#2	.0271453
#3	.0272677

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2813.664	55141.80	10182.81	1966.474	4121.182
Stddev	3.498	52.00	26.36	3.321	2.546
%RSD	.1243042	.0943066	.2588706	.1689031	.0617755
#1	2811.078	55201.84	10213.15	1966.934	4122.233
#2	2812.269	55112.43	10165.54	1962.946	4118.279
#3	2817.643	55111.13	10169.75	1969.540	4123.034

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17LDL2X50 Acquired: 1/16/2025 16:51:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012686**	**-.000349**	**.0668305**	**-.000808**	**-.000316**	**.6810780**
Stddev	.0017616	.000337	.0014550	.001826	.001348	.0114078
%RSD	138.8598	96.80143	2.177147	226.0179	426.6115	1.674968
#1	.0017283	-.000107	.0678606	-.000188	.000916	.6930451
#2	.0027549	-.000734	.0651660	-.002863	-.000108	.6703269
#3	-.000677	-.000205	.0674649	.000627	-.001756	.6798619

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003577**	**.0004417**	**.0008475**	**9.535299**	**.0023470**	**.0006903**
Stddev	.000216	.0000678	.0000388	.023865	.0003927	.0000657
%RSD	6.044474	15.35884	4.572268	.2502816	16.73255	9.512576
#1	-.003327	.0004065	.0008385	9.553531	.0019144	.0007580
#2	-.003701	.0005199	.0008899	9.544079	.0024454	.0006860
#3	-.003703	.0003987	.0008140	9.508288	.0026811	.0006268

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1655352**	**3.215096**	**2.918748**	**.0972218**	**.0011531**	**.0008766**
Stddev	.0015727	.009250	.015713	.0142882	.0002211	.0002293
%RSD	.9500785	.2877023	.5383471	14.69652	19.17431	26.16064
#1	.1642332	3.212803	2.934688	.1106565	.0012507	.0009271
#2	.1672826	3.225277	2.918283	.0822108	.0009000	.0010765
#3	.1650898	3.207208	2.903272	.0987983	.0013085	.0006262

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0388793**	**.0010521**	**.2108860**	**-.182029**	**.0742789**	**.0170638**
Stddev	.3693385	.0005244	.0011666	.008544	.0016307	.0003738
%RSD	949.9616	49.83890	.5532003	4.693603	2.195413	2.190740
#1	.0950959	.0015665	.2097101	-.187015	.0761358	.0173006
#2	.3768867	.0010715	.2120431	-.172164	.0736211	.0172579
#3	-.355345	.0005183	.2109049	-.186909	.0730798	.0166328

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17LDL2X50 Acquired: 1/16/2025 16:51:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75L Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001605	F 13.22417	.2937776	-.001261	-.000108	.0001808
Stddev	.0000895	.00543	.0018195	.000290	.000201	.0012206
%RSD	55.80323	.0410668	.6193601	22.99827	185.5295	674.9806
#1	.0002571	13.21890	.2944194	-.001232	.000072	.0008839
#2	.0000803	13.22385	.2951894	-.001565	-.000072	.0008873
#3	.0001440	13.22975	.2917242	-.000987	-.000325	-.001229

Elem	Sr4077
Units	ppm
Avg	.0057607
Stddev	.0000575
%RSD	.9975402
#1	.0057057
#2	.0058204
#3	.0057561

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2843.351	54549.73	10241.24	1945.374	4306.769
Stddev	6.846	233.56	62.91	6.952	13.137
%RSD	.2407849	.4281514	.6143235	.3573776	.3050424
#1	2847.929	54284.55	10184.79	1941.803	4319.508
#2	2846.645	54724.85	10309.07	1953.387	4307.532
#3	2835.481	54639.77	10229.85	1940.934	4293.267

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-19DL2X10 Acquired: 1/16/2025 16:55:34 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031929**	**.0008840**	**.3395970**	**.0090762**	**.0099093**	**3.525487**
Stddev	.0001695	.0013211	.0033781	.0023354	.0010312	.017010
%RSD	5.309136	149.4411	.9947216	25.73092	10.40622	.4824898
#1	.0031836	.0019352	.3376303	.0108587	.0090230	3.517638
#2	.0030282	-.000599	.3376631	.0099373	.0096638	3.545004
#3	.0033668	.001316	.3434976	.0064325	.0110410	3.513818

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1813763**	**.0071284**	**.0091053**	**46.87660**	**.0320565**	**.0502327**
Stddev	.0008924	.0000695	.0000475	.07377	.0004594	.0003202
%RSD	.4920338	.9750459	.5220486	.1573732	1.433089	.6374935
#1	.1823992	.0071392	.0091592	46.96151	.0324446	.0498675
#2	.1809727	.0070541	.0090693	46.82824	.0321757	.0503653
#3	.1807570	.0071919	.0090874	46.84006	.0315493	.0504654

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8118950**	**15.94858**	**14.58499**	**.4528681**	**.0543743**	**.0077045**
Stddev	.0007323	.03803	.00494	.0192762	.0003826	.0003725
%RSD	.0902020	.2384372	.0338767	4.256464	.7036873	4.834785
#1	.8110499	15.95292	14.57932	.4751206	.0540233	.0081310
#2	.8123430	15.98425	14.58724	.4421788	.0543174	.0074433
#3	.8122922	15.90856	14.58840	.4413049	.0547822	.0075392

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5939037**	**.0486701**	**1.083282**	**.0516741**	**.3801332**	**.0949313**
Stddev	.6661937	.0017599	.004166	.0743520	.0024678	.0002348
%RSD	112.1720	3.616037	.3845540	143.8864	.6492033	.2473455
#1	.9690295	.0498518	1.082536	.1375250	.3829538	.0951319
#2	.9879544	.0466475	1.087771	.0094066	.3783716	.0946730
#3	-.175273	.0495112	1.079540	.0080907	.3790743	.0949890

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-19DL2X10 Acquired: 1/16/2025 16:55:34 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000179	F 67.45224	1.443425	-.002868	-.000272	.0036699
Stddev	.000192	.34349	.010815	.000806	.000861	.0002466
%RSD	107.4471	.5092366	.7492351	28.10446	316.9617	6.718693
#1	-.000373	67.21052	1.455800	-.003701	-.001143	.0037241
#2	-.000174	67.30076	1.435787	-.002092	.000578	.0038848
#3	.000011	67.84543	1.438689	-.002813	-.000250	.0034007

Elem	Sr4077
Units	ppm
Avg	.0284803
Stddev	.0000702
%RSD	.2463379
#1	.0284122
#2	.0285524
#3	.0284762

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2804.254	54610.72	10486.10	1936.343	4104.928
Stddev	10.874	177.87	30.86	7.682	12.212
%RSD	.3877709	.3257063	.2943232	.3967380	.2974853
#1	2816.183	54500.77	10454.63	1929.963	4118.196
#2	2801.686	54515.46	10487.34	1934.197	4102.429
#3	2794.894	54815.94	10516.32	1944.871	4094.160

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV029 Acquired: 1/16/2025 16:59:37 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV029 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.896391**	**4.763280**	**24.05408**	**4.959662**	**4.931721**	**422.7843**
Stddev	.003911	.056952	.03201	.005285	.004859	.8985
%RSD	.0798848	1.195648	.1330883	.1065643	.0985302	.2125243
#1	4.899248	4.785577	24.02942	4.963122	4.927882	423.5577
#2	4.891933	4.805710	24.04255	4.962286	4.937184	421.7987
#3	4.897992	4.698553	24.09026	4.953578	4.930095	422.9966

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.73911**	**.4612119**	**2.399152**	**413.7526**	**15.05983**	**2.434354**
Stddev	.13043	.0013329	.003554	3.1873	.02521	.002713
%RSD	1.214546	.2890089	.1481417	.7703340	.1674063	.1114296
#1	10.59164	.4622401	2.397467	410.4844	15.07612	2.432204
#2	10.83933	.4597059	2.403235	413.9212	15.07259	2.433457
#3	10.78637	.4616898	2.396754	416.8522	15.03079	2.437402

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.67946**	**419.8904**	**15.50063**	**407.7332**	**2.435597**	**1.273523**
Stddev	.05575	1.4406	.10284	1.2381	.002015	.001081
%RSD	.3797756	.3430818	.6634860	.3036488	.0827361	.0849184
#1	14.61510	418.2675	15.38836	406.3054	2.433270	1.273016
#2	14.71269	421.0179	15.59028	408.5085	2.436725	1.274765
#3	14.71059	420.3858	15.52326	408.3858	2.436795	1.272788

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**394.3549**	**2.406056**	**15.71369**	**161.9324**	**4.964306**	F **5.798723**
Stddev	1.0517	.008174	.10273	.7333	.004912	.007927
%RSD	.2667001	.3397345	.6537865	.4528207	.0989466	.1367093
#1	393.1410	2.397108	15.59558	161.1359	4.959203	5.806385
#2	394.9928	2.407930	15.76318	162.0818	4.969002	5.790554
#3	394.9310	2.413130	15.78232	162.5794	4.964714	5.799230

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV029 Acquired: 1/16/2025 16:59:37 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV029 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.771064**	**5.076422**	**4.803907**	**4.883532**	**4.871424**	**5.408878**
Stddev	.000879	.006809	.012885	.004300	.010607	.039570
%RSD	.0184296	.1341283	.2682272	.0880464	.2177289	.7315808
#1	4.771405	5.079456	4.792514	4.878567	4.860618	5.366786
#2	4.771721	5.068624	4.801317	4.886032	4.871835	5.445319
#3	4.770065	5.081187	4.817891	4.885997	4.881819	5.414527

Elem	Sr4077
Units	ppm
Avg	**5.383848**
Stddev	.055001
%RSD	1.021599
#1	5.429557
#2	5.322808
#3	5.399180

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2191.854**	**45610.37**	**9686.306**	**1589.203**	**3144.651**
Stddev	3.952	104.44	23.880	6.474	6.621
%RSD	.1803241	.2289867	.2465343	.4074004	.2105602
#1	2191.852	45726.72	9676.318	1592.419	3143.746
#2	2195.808	45524.71	9713.558	1593.440	3151.679
#3	2187.903	45579.70	9669.041	1581.751	3138.530

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB029 Acquired: 1/16/2025 17:03:55 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB029 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001744	.0003500	-.000177	-.001106	.0001534	.0353546	-.001340
Stddev	.0019372	.0016881	.000184	.001998	.0002076	.0056064	.000844
%RSD	1110.919	482.3590	103.9895	180.7343	135.3691	15.85765	62.97182
#1	.0004596	-.001554	-.000199	-.003379	.0001777	.0418095	-.001045
#2	.0019532	.001663	.000017	-.000310	.0003477	.0316990	-.002291
#3	-.001890	.000941	-.000350	.000372	-.000065	.0325554	-.000683

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000012	.0001205	.0329479	.0007920	.0002452	.0013692	.0343077
Stddev	.000112	.0000299	.0104186	.0004886	.0002124	.0012895	.0043419
%RSD	964.5286	24.82752	31.62142	61.70043	86.61107	94.18209	12.65574
#1	.000066	.0001551	.0283396	.0008828	.0001656	-.000119	.0330106
#2	.000040	.0001026	.0448760	.0002643	.0004859	.002080	.0391504
#3	-.000140	.0001039	.0256281	.0012289	.0000841	.002147	.0307623

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021378	.0239435	.0003432	.0003450	.4449388	.0000485	.0027493
Stddev	.0002127	.0052451	.0002750	.0003605	.1409640	.0022796	.0009735
%RSD	9.947944	21.90603	80.14134	104.5100	31.68167	4704.094	35.40952
#1	.0023740	.0263903	.0002909	-.000046	.5553878	.0024257	.0030348
#2	.0020781	.0179221	.0000980	.000416	.2861690	-.002119	.0035481
#3	.0019614	.0275181	.0006406	.000665	.4932596	-.000161	.0016649

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160908	.0037394	.0040023	.0006445	.0072077	.0020684	.0001957
Stddev	.0546422	.0013345	.0007575	.0001062	.0026641	.0029808	.0001378
%RSD	339.5869	35.68678	18.92625	16.47395	36.96208	144.1153	70.43947
#1	.0401968	.0029842	.0048355	.0006310	.0041366	.0006234	.0001495
#2	.0545348	.0029538	.0038164	.0007568	.0085891	.0054963	.0000869
#3	-.046459	.0052802	.0033551	.0005457	.0088974	.0000854	.0003507

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB029 Acquired: 1/16/2025 17:03:55 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB029 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0003260	-.000245	.0005026
Stddev	.0007930	.000462	.0000166
%RSD	243.2318	188.9092	3.303752
#1	.0012237	.000268	.0005156
#2	-.000280	-.000372	.0005084
#3	.000034	-.000630	.0004839

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2911.055	54602.92	10040.09	1954.497	4502.990
Stddev	3.923	128.32	44.39	8.978	5.423
%RSD	.1347496	.2350011	.4421730	.4593302	.1204415
#1	2910.583	54664.21	10085.28	1961.957	4502.669
#2	2915.192	54455.45	10038.46	1944.533	4508.566
#3	2907.390	54689.10	9996.53	1957.000	4497.734

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-06DL2X5 Acquired: 1/16/2025 17:16:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D42 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029476**	**-.000590**	**1.090506**	**-.000472**	**.0015803**	**13.38620**
Stddev	.0015356	.001711	.000350	.001762	.0008881	.11167
%RSD	52.09594	290.1120	.0320519	373.4283	56.19727	.8342255
#1	.0045972	-.001186	1.090275	-.001651	.0021389	13.49197
#2	.0026858	.001340	1.090908	-.001318	.0005562	13.39720
#3	.0015597	-.001923	1.090334	.001554	.0020457	13.26944

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049027**	**.0075607**	**.0131472**	**16.35564**	**.0100904**	**.0099182**
Stddev	.0011647	.0000519	.0000436	.16073	.0001958	.0001054
%RSD	23.75718	.6858708	.3312983	.9826999	1.940041	1.062694
#1	.0057735	.0075069	.0131719	16.52358	.0099104	.0100188
#2	.0053550	.0075648	.0131728	16.34007	.0102988	.0099273
#3	.0035797	.0076104	.0130969	16.20326	.0100619	.0098086

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.350884**	**16.95295**	**14.72077**	**2.793850**	**.0095657**	**.0309942**
Stddev	.003071	.14995	.13204	.036154	.0002249	.0002570
%RSD	.2273510	.8845142	.8969478	1.294073	2.350672	.8291634
#1	1.354127	17.10109	14.86730	2.835582	.0097703	.0306983
#2	1.348019	16.95650	14.68398	2.773970	.0093250	.0311613
#3	1.350506	16.80125	14.61103	2.771998	.0096020	.0311230

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.885454**	**-.002701**	**3.020845**	**-.181624**	**.8421095**	**.1913822**
Stddev	.313540	.002106	.033322	.024184	.0015101	.0000994
%RSD	16.62944	77.96663	1.103075	13.31563	.1793201	.0519398
#1	1.604998	-.003210	3.057157	-.168309	.8422477	.1914899
#2	2.223964	-.000387	2.991669	-.167023	.8405351	.1912939
#3	1.827400	-.004506	3.013710	-.209540	.8435457	.1913629

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-06DL2X5 Acquired: 1/16/2025 17:16:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D42 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000212	F 85.22337	2.388547	-.001723	.0052868	.0112018
Stddev	.000103	.10987	.007028	.000228	.0011385	.0006441
%RSD	48.43473	.1289176	.2942324	13.21287	21.53418	5.749965
#1	-.000325	85.09697	2.395521	-.001751	.0048370	.0106338
#2	-.000124	85.29595	2.381466	-.001935	.0065814	.0110702
#3	-.000187	85.27719	2.388653	-.001483	.0044419	.0119016

Elem	Sr4077
Units	ppm
Avg	.0361619
Stddev	.0003654
%RSD	1.010541
#1	.0365380
#2	.0361394
#3	.0358082

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3025.261	57727.64	11274.77	2057.508	4215.248
Stddev	1.980	297.33	29.74	9.446	4.131
%RSD	.0654602	.5150482	.2637451	.4591166	.0980074
#1	3025.370	57428.59	11292.77	2049.800	4218.529
#2	3023.229	57731.11	11291.09	2068.046	4216.605
#3	3027.185	58023.21	11240.45	2054.678	4210.608

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14DLX20 Acquired: 1/16/2025 17:21:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003623**	**-.004132**	**.1932561**	**-.003470**	**-.001327**	**1.153019**
Stddev	.001296	.001141	.0007919	.001005	.000282	.010953
%RSD	35.77629	27.61783	.4097575	28.97694	21.27296	.9499396
#1	-.005042	-.003368	.1927818	-.004361	-.001231	1.164263
#2	-.002501	-.005444	.1941703	-.003668	-.001105	1.152411
#3	-.003326	-.003585	.1928164	-.002380	-.001644	1.142383

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000310**	**.0019770**	**.0451361**	**14.02658**	**.0039651**	**.0087241**
Stddev	.001049	.0000435	.0001079	.10349	.0001614	.0004817
%RSD	338.3383	2.202342	.2390301	.7377910	4.070123	5.521494
#1	.000577	.0020010	.0450196	14.14232	.0041127	.0086789
#2	-.001469	.0019267	.0451561	13.99445	.0037928	.0082665
#3	-.000039	.0020033	.0452326	13.94297	.0039898	.0092268

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2725858**	**3.719049**	**18.02585**	**.3816227**	**.0105046**	**.0052960**
Stddev	.0011993	.030149	.07274	.0125066	.0004632	.0002763
%RSD	.4399759	.8106709	.4035568	3.277223	4.409464	5.216950
#1	.2713126	3.752933	18.10581	.3932143	.0106552	.0050380
#2	.2736942	3.709027	18.00815	.3683676	.0099848	.0055875
#3	.2727507	3.695187	17.96358	.3832862	.0108737	.0052624

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5615618**	**-.003281**	**4.287137**	**.2924353**	**.0252661**	**.0300711**
Stddev	.1940996	.001248	.014955	.0334955	.0007832	.0001384
%RSD	34.56424	38.03609	.3488341	11.45399	3.099896	.4601030
#1	.7505725	-.002779	4.302550	.3310607	.0253016	.0299978
#2	.5713679	-.004702	4.272687	.2748576	.0260309	.0299848
#3	.3627451	-.002363	4.286175	.2713877	.0244657	.0302307

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-14DLX20 Acquired: 1/16/2025 17:21:04 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D66 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001035**	F **21.59746**	**.5152240**	**-.000758**	**-.000471**	**.0010753**
Stddev	.000061	.12148	.0033174	.000467	.000991	.0017593
%RSD	5.918056	.5624771	.6438798	61.65006	210.5488	163.6206
#1	-.000977	21.45838	.5189898	-.001039	-.000226	.0026629
#2	-.001029	21.65119	.5139487	-.001016	-.001561	-.000816
#3	-.001099	21.68281	.5127335	-.000219	.000375	.001379

Elem	Sr4077
Units	ppm
Avg	**.0157204**
Stddev	.0000740
%RSD	.4708323
#1	.0158058
#2	.0156772
#3	.0156780

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2891.191**	**54922.85**	**10217.66**	**1965.924**	**4364.331**
Stddev	3.425	190.99	39.31	4.215	6.736
%RSD	.1184684	.3477472	.3847442	.2143942	.1543376
#1	2888.323	54720.75	10262.98	1961.171	4361.617
#2	2894.984	54947.44	10197.19	1967.395	4372.001
#3	2890.267	55100.35	10192.81	1969.207	4359.376

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17A Acquired: 1/16/2025 17:42:45 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0264716**	**.0076593**	**3.279479**	**.0101453**	**.1106954**	**26.81926**
Stddev	.0015511	.0030531	.007722	.0027074	.0012416	.17433
%RSD	5.859581	39.86080	.2354507	26.68576	1.121599	.6500085
#1	.0276368	.0107229	3.278902	.0130971	.1095498	26.85508
#2	.0247110	.0076382	3.272062	.0077778	.1120147	26.97290
#3	.0270669	.0046169	3.287472	.0095610	.1105218	26.62981

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3654694**	**.0190792**	**.0494531**	**429.1289**	**.0973657**	**.0308049**
Stddev	.0022184	.0001358	.0001264	2.2748	.0006223	.0000860
%RSD	.6070010	.7115553	.2555392	.5301005	.6391266	.2791120
#1	.3641950	.0189718	.0495176	430.1487	.0978015	.0308318
#2	.3680310	.0190340	.0493075	426.5227	.0976426	.0307087
#3	.3641822	.0192318	.0495342	430.7154	.0966530	.0308743

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.420713**	**138.8168**	F **114.0412**	**3.816792**	**.0649972**	**.0334784**
Stddev	.039991	.7332	.7408	.017515	.0001637	.0003390
%RSD	.6228481	.5281872	.6496292	.4588949	.2518083	1.012494
#1	6.442441	139.1302	113.7877	3.831657	.0650920	.0336722
#2	6.445136	139.3413	113.4604	3.821237	.0648082	.0336760
#3	6.374561	137.9790	114.8755	3.797483	.0650915	.0330870

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.252682**	**.0009798**	**9.669135**	**.9007644**	**4.143640**	**.8508473**
Stddev	.231128	.0019249	.039165	.1056699	.007695	.0041041
%RSD	7.105761	196.4594	.4050470	11.73114	.1857092	.4823500
#1	3.056815	.0001828	9.711358	.8611170	4.148492	.8543770
#2	3.193621	.0031752	9.662052	1.020524	4.134767	.8518209
#3	3.507609	-.000419	9.633996	.820652	4.147661	.8463440

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-17A Acquired: 1/16/2025 17:42:45 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D75A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002238	F 655.4559	F 13.33005	-.002572	-.000857	.0259465
Stddev	.000118	2.0292	.09683	.000280	.000916	.0008547
%RSD	5.257786	.3095888	.7264409	10.89132	106.8336	3.293942
#1	-.002258	656.7360	13.40432	-.002331	-.000593	.0268124
#2	-.002112	653.1162	13.36529	-.002504	-.001877	.0251035
#3	-.002345	656.5154	13.22053	-.002879	-.000103	.0259237

Elem	Sr4077
Units	ppm
Avg	.2704228
Stddev	.0018942
%RSD	.7004620
#1	.2701078
#2	.2724548
#3	.2687058

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3030.139	60205.65	11836.97	2145.409	3693.788
Stddev	10.846	308.84	96.75	12.000	11.659
%RSD	.3579322	.5129679	.8173902	.5593544	.3156437
#1	3039.431	59850.23	11728.66	2133.264	3699.753
#2	3032.764	60408.57	11914.86	2157.260	3701.259
#3	3018.222	60358.16	11867.39	2145.702	3680.354

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17A Acquired: 1/16/2025 17:46:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0655506**	**.0138447**	**3.281508**	**.0048340**	**.1056340**	**26.62382**
Stddev	.0004959	.0021258	.013746	.0014302	.0014681	.06838
%RSD	.7565024	15.35478	.4189071	29.58545	1.389828	.2568293
#1	.0649855	.0151220	3.284576	.0037478	.1039472	26.67541
#2	.0659131	.0113907	3.266487	.0042999	.1066235	26.64978
#3	.0657532	.0150215	3.293462	.0064544	.1063314	26.54626

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3611481**	**.0210132**	**.0620219**	**355.2491**	**.0812476**	**.0268271**
Stddev	.0019542	.0000298	.0002994	2.9512	.0011744	.0002364
%RSD	.5411137	.1416391	.4827304	.8307374	1.445489	.8811134
#1	.3624180	.0210126	.0622074	351.9622	.0824559	.0269445
#2	.3588977	.0209838	.0616765	357.6713	.0811766	.0269819
#3	.3621285	.0210433	.0621818	356.1140	.0801102	.0265551

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.740758**	**113.0357**	F **117.8981**	**4.096589**	**.0661962**	**.0304490**
Stddev	.042527	.2884	.3431	.020138	.0005764	.0002932
%RSD	.5493867	.2551139	.2909929	.4915833	.8707050	.9629731
#1	7.774590	113.2852	117.8171	4.104118	.0659719	.0307384
#2	7.693018	113.1019	117.6028	4.111878	.0657658	.0301521
#3	7.754665	112.7200	118.2744	4.073771	.0668511	.0304564

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.735551**	**-.000040**	**11.19040**	**.8538988**	**3.676724**	**.7167787**
Stddev	.307254	.001326	.07061	.0339544	.010335	.0017997
%RSD	8.225132	3311.760	.6309902	3.976395	.2810811	.2510889
#1	3.721472	-.001379	11.26412	.8899157	3.685998	.7174892
#2	4.049602	.001273	11.18370	.8493065	3.665583	.7181147
#3	3.435578	-.000014	11.12337	.8224743	3.678591	.7147321

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-17A Acquired: 1/16/2025 17:46:56 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D76A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003406	F 583.3335	F 13.41634	-.003948	.0042889	.0242888
Stddev	.000323	3.2225	.05597	.000591	.0002672	.0003098
%RSD	9.494280	.5524265	.4171443	14.97026	6.229149	1.275315
#1	-.003553	584.8838	13.46092	-.003271	.0039820	.0239481
#2	-.003036	579.6289	13.35353	-.004360	.0044155	.0245535
#3	-.003631	585.4878	13.43458	-.004212	.0044693	.0243648

Elem	Sr4077
Units	ppm
Avg	.2377203
Stddev	.0012568
%RSD	.5286663
#1	.2390927
#2	.2366257
#3	.2374425

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3132.764	62060.68	12048.35	2210.168	3760.772
Stddev	10.790	15.05	15.41	7.579	10.607
%RSD	.3444402	.0242469	.1279140	.3429006	.2820397
#1	3140.960	62057.15	12058.91	2205.840	3763.293
#2	3136.793	62047.71	12055.48	2205.744	3769.892
#3	3120.539	62077.18	12030.66	2218.918	3749.132

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-01DL2X10 Acquired: 1/16/2025 17:51:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D28 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004237**	**-.003674**	**.0647264**	**-.003179**	**.0043252**	**3.623902**
Stddev	.003390	.001390	.0007259	.000528	.0011237	.006889
%RSD	80.00538	37.84719	1.121535	16.62557	25.97949	.1900996
#1	-.005954	-.004324	.0648393	-.002577	.0030279	3.616022
#2	-.006425	-.004620	.0639506	-.003394	.0049943	3.628785
#3	-.000332	-.002077	.0653893	-.003565	.0049533	3.626899

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0071874**	**.0024237**	**.0359086**	**8.522077**	**.0011028**	**.0043876**
Stddev	.0004685	.0000645	.0002231	.048106	.0003700	.0001646
%RSD	6.519097	2.661202	.6213530	.5644811	33.55280	3.752416
#1	.0075735	.0024117	.0357909	8.496222	.0015153	.0043568
#2	.0066661	.0024934	.0357689	8.577581	.0009928	.0045655
#3	.0073225	.0023661	.0361659	8.492427	.0008002	.0042406

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.129512**	**2.195425**	**15.60422**	**.8660430**	**.0047218**	**.0051570**
Stddev	.011004	.013303	.06545	.0125448	.0002939	.0003232
%RSD	.5167303	.6059366	.4194654	1.448521	6.224116	6.266865
#1	2.126366	2.190846	15.54500	.8576078	.0050168	.0053552
#2	2.120423	2.210413	15.67450	.8600622	.0047196	.0053318
#3	2.141746	2.185016	15.59317	.8804590	.0044290	.0047841

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8488748**	**-.001513**	**17.28688**	**-.071987**	**.6282338**	**.0328949**
Stddev	.0859110	.000369	.15335	.076321	.0008107	.0001640
%RSD	10.12057	24.35201	.8871161	106.0206	.1290363	.4985811
#1	.7565060	-.001621	17.16036	-.045418	.6275667	.0330033
#2	.8637270	-.001103	17.45743	-.012502	.6279987	.0329750
#3	.9263914	-.001816	17.24284	-.158042	.6291360	.0327062

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-01DL2X10 Acquired: 1/16/2025 17:51:08 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D28 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004989	F 35.42732	1.566219	-.000836	-.000299	.0054761
Stddev	.000338	.22984	.000340	.000408	.000379	.0011058
%RSD	6.773672	.6487661	.0217118	48.81165	127.1168	20.19289
#1	-.004731	35.32612	1.566057	-.001037	-.000675	.0046993
#2	-.004864	35.26544	1.565990	-.001106	-.000305	.0049869
#3	-.005372	35.69039	1.566609	-.000367	.000084	.0067422

Elem	Sr4077
Units	ppm
Avg	.0222619
Stddev	.0000916
%RSD	.4115531
#1	.0221652
#2	.0222730
#3	.0223475

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.247	55581.68	10500.04	1981.773	4315.827
Stddev	4.736	37.06	60.85	7.451	14.376
%RSD	.1623340	.0666744	.5794742	.3759911	.3330928
#1	2917.934	55539.99	10460.08	1988.462	4312.174
#2	2921.601	55594.21	10570.07	1973.742	4331.677
#3	2912.205	55610.86	10469.98	1983.116	4303.631

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-02DL3X10 Acquired: 1/16/2025 17:55:09 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005001**	**-.011600**	**.3569509**	**-.002479**	**.0070713**	**4.470015**
Stddev	.001769	.000888	.0023637	.002058	.0019029	.042236
%RSD	35.37134	7.651450	.6621838	82.99937	26.90975	.9448843
#1	-.007035	-.011726	.3553436	-.001612	.0051319	4.481117
#2	-.004142	-.012418	.3558443	-.004829	.0071467	4.423336
#3	-.003826	-.010656	.3596649	-.000997	.0089354	4.505591

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026758**	**.0057577**	**.0063695**	**18.60071**	**.0066066**	**.0026400**
Stddev	.0006767	.0001254	.0000418	.11017	.0003604	.0000827
%RSD	25.28879	2.177798	.6559343	.5922770	5.454918	3.133118
#1	.0023265	.0057033	.0063266	18.67300	.0063300	.0027018
#2	.0034557	.0056688	.0063718	18.47391	.0064757	.0026722
#3	.0022451	.0059012	.0064100	18.65521	.0070142	.0025460

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.708559**	**15.42498**	F **58.00582**	**.4081068**	**.0048294**	**.0189339**
Stddev	.010977	.09143	.36296	.0074857	.0003969	.0001129
%RSD	.4052630	.5927129	.6257350	1.834254	8.217571	.5963342
#1	2.720906	15.48003	58.26240	.4016278	.0049623	.0188177
#2	2.704868	15.31945	57.59053	.4063912	.0043831	.0190432
#3	2.699904	15.47547	58.16452	.4163014	.0051427	.0189407

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9122801**	**-.011873**	**1.815394**	**-.471852**	**.0069355**	**.0934507**
Stddev	.1773729	.001590	.007345	.036619	.0027608	.0006819
%RSD	19.44281	13.38861	.4046141	7.760625	39.80754	.7296989
#1	.8418270	-.010218	1.820598	-.469486	.0095864	.0938458
#2	.7809582	-.013388	1.806992	-.509596	.0071436	.0926633
#3	1.114055	-.012013	1.818593	-.436474	.0040765	.0938431

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-02DL3X10 Acquired: 1/16/2025 17:55:09 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002026	F 51.18512	1.952650	-.001830	.0023968	.0020325
Stddev	.000125	.16528	.009866	.000925	.0005921	.0002334
%RSD	6.169365	.3229106	.5052612	50.54331	24.70515	11.48424
#1	-.002140	51.15939	1.961259	-.000852	.0021352	.0017780
#2	-.001892	51.03422	1.954806	-.002690	.0030747	.0020830
#3	-.002044	51.36177	1.941884	-.001949	.0019806	.0022366

Elem	Sr4077
Units	ppm
Avg	.0063292
Stddev	.0000670
%RSD	1.059228
#1	.0063714
#2	.0062519
#3	.0063644

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2851.771	54132.25	10271.20	1918.798	4220.733
Stddev	13.727	277.84	45.01	9.007	13.628
%RSD	.4813348	.5132543	.4381676	.4694215	.3228908
#1	2857.014	54157.73	10319.25	1922.553	4227.575
#2	2862.103	54396.47	10230.03	1925.320	4229.586
#3	2836.195	53842.56	10264.33	1908.521	4205.039

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-02DL3X10 Acquired: 1/16/2025 17:59:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002397**	**-.010570**	**.3264055**	**-.005893**	**.0016092**	**4.208113**
Stddev	.001557	.001894	.0011251	.002933	.0009011	.018508
%RSD	64.97481	17.91935	.3446871	49.76691	55.99895	.4398165
#1	-.003848	-.012099	.3260838	-.006779	.0005858	4.191704
#2	-.002592	-.011160	.3254763	-.002619	.0019582	4.204459
#3	-.000751	-.008451	.3276564	-.008280	.0022836	4.228175

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0050577**	**.0053249**	**.0060745**	**15.62891**	**.0051240**	**.0025590**
Stddev	.0003874	.0000517	.0001275	.05593	.0001877	.0003170
%RSD	7.659600	.9712978	2.099067	.3578796	3.663148	12.38621
#1	.0054957	.0053749	.0061988	15.56522	.0049072	.0026098
#2	.0049178	.0052716	.0060808	15.67003	.0052318	.0028475
#3	.0047598	.0053281	.0059440	15.65147	.0052329	.0022197

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.562444**	**9.616954**	F **54.14252**	**.3589616**	**.0047421**	**.0135774**
Stddev	.002471	.040917	.56389	.0095181	.0002369	.0001693
%RSD	.0964309	.4254705	1.041484	2.651552	4.994746	1.246956
#1	2.562942	9.570373	54.77992	.3596671	.0046210	.0133822
#2	2.559762	9.647094	53.70869	.3491103	.0050151	.0136651
#3	2.564629	9.633394	53.93893	.3681072	.0045903	.0136848

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7591575**	**-.009740**	**1.747707**	**-.256788**	**-.002606**	**.0932709**
Stddev	.2469625	.001042	.009341	.043853	.001753	.0004116
%RSD	32.53113	10.69596	.5344812	17.07759	67.27601	.4413131
#1	.8319064	-.008690	1.746935	-.206401	-.002245	.0928862
#2	.4839920	-.010773	1.757410	-.286340	-.001062	.0932216
#3	.9615740	-.009756	1.738775	-.277622	-.004512	.0937050

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-02DL3X10 Acquired: 1/16/2025 17:59:17 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001803	F 43.17646	1.642865	-.001927	.0017219	.0017231
Stddev	.000264	.12202	.005944	.000567	.0003697	.0011774
%RSD	14.64681	.2826130	.3618056	29.44733	21.46793	68.32899
#1	-.001564	43.09373	1.645365	-.001665	.0013263	.0012129
#2	-.001759	43.11905	1.636079	-.002578	.0017809	.0030695
#3	-.002087	43.31660	1.647150	-.001538	.0020585	.0008869

Elem	Sr4077
Units	ppm
Avg	.0049211
Stddev	.0000389
%RSD	.7910028
#1	.0048931
#2	.0049656
#3	.0049046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2811.410	54356.95	10366.05	1928.921	4150.776
Stddev	3.623	106.14	13.24	7.979	8.636
%RSD	.1288660	.1952608	.1276892	.4136759	.2080642
#1	2807.329	54468.20	10351.99	1932.871	4144.087
#2	2814.248	54256.80	10378.27	1919.737	4160.526
#3	2812.652	54345.84	10367.88	1934.155	4147.715

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-02DLX20 Acquired: 1/16/2025 18:05:43 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.003164**	**-.005559**	**.1646450**	**-.001726**	**.0030239**	**2.106848**
Stddev	.001955	.001153	.0015647	.002912	.0008359	.019887
%RSD	61.78869	20.74465	.9503596	168.7316	27.64291	.9439202
#1	-.004738	-.004966	.1664066	-.002128	.0021622	2.125677
#2	-.003779	-.006889	.1634164	-.004415	.0030781	2.086049
#3	-.000976	-.004824	.1641121	.001366	.0038313	2.108817

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009459**	**.0026444**	**.0030389**	**7.952410**	**.0023751**	**.0012895**
Stddev	.0006128	.0000435	.0000587	.055841	.0005875	.0001893
%RSD	64.78154	1.643328	1.931377	.7021905	24.73733	14.67919
#1	.0015699	.0026006	.0029728	7.989561	.0026950	.0015066
#2	.0003449	.0026875	.0030588	7.888194	.0016970	.0011589
#3	.0009230	.0026451	.0030850	7.979475	.0027333	.0012031

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.359423**	**4.844178**	**28.07914**	**.1659039**	**.0021312**	**.0068946**
Stddev	.032237	.037711	.19346	.0047261	.0005142	.0002731
%RSD	2.371358	.7784866	.6889863	2.848681	24.12917	3.960823
#1	1.394154	4.881977	28.28910	.1660529	.0024216	.0071944
#2	1.330458	4.806555	27.90808	.1705537	.0024346	.0068291
#3	1.353657	4.844002	28.04025	.1611050	.0015375	.0066601

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6463259**	**-.004622**	**.8819765**	**-.064487**	**-.000760**	**.0461435**
Stddev	.1789539	.001818	.0074757	.059201	.000578	.0008158
%RSD	27.68788	39.32886	.8476114	91.80242	76.04845	1.767982
#1	.7532740	-.003078	.8809501	-.094713	-.000340	.0468631
#2	.7459729	-.004162	.8750669	-.102473	-.000520	.0452572
#3	.4397307	-.006626	.8899124	.003725	-.001419	.0463101

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5392-02DLX20 Acquired: 1/16/2025 18:05:43 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D30 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001074**	F **21.86675**	**.8588767**	**-.000722**	**.0010468**	**-.000360**
Stddev	.000042	.04764	.0178499	.000285	.0006181	.001636
%RSD	3.925744	.2178862	2.078281	39.46652	59.04732	454.0673
#1	-.001032	21.91932	.8788382	-.000396	.0015844	.000624
#2	-.001117	21.85451	.8444494	-.000923	.0011846	-.002249
#3	-.001073	21.82642	.8533426	-.000847	.0003714	.000544

Elem	Sr4077
Units	ppm
Avg	**.0025085**
Stddev	.0000525
%RSD	2.094935
#1	.0025678
#2	.0024900
#3	.0024677

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2812.162**	**54301.85**	**10051.36**	**1954.975**	**4185.891**
Stddev	3.298	118.60	200.74	6.581	8.475
%RSD	.1172827	.2184081	1.997119	.3366042	.2024550
#1	2810.495	54248.16	9819.72	1958.249	4183.338
#2	2810.030	54437.80	10160.04	1959.277	4178.986
#3	2815.961	54219.59	10174.33	1947.400	4195.348

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-02DLX20 Acquired: 1/16/2025 18:11:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002601**	**-.006772**	**.1747567**	**-.001527**	**.0034199**	**2.179970**
Stddev	.001769	.001563	.0017855	.001777	.0003060	.009623
%RSD	67.99149	23.07595	1.021689	116.3761	8.947718	.4414198
#1	-.001259	-.005266	.1746807	.000281	.0037337	2.169238
#2	-.004606	-.006664	.1730104	-.001591	.0034038	2.182840
#3	-.001940	-.008385	.1765789	-.003272	.0031224	2.187831

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000932**	**.0028116**	**.0031270**	**9.145799**	**.0029331**	**.0013154**
Stddev	.000174	.0000407	.0000404	.026580	.0003719	.0001526
%RSD	18.67406	1.447094	1.291143	.2906296	12.67801	11.60092
#1	-.000877	.0027707	.0030971	9.160286	.0025039	.0013003
#2	-.000792	.0028120	.0031110	9.115122	.0031370	.0014749
#3	-.001127	.0028521	.0031730	9.161988	.0031585	.0011709

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.364576**	**7.505949**	**29.01589**	**.2006773**	**.0024466**	**.0093528**
Stddev	.008943	.051599	.28752	.0107699	.0001656	.0001020
%RSD	.6553971	.6874479	.9908916	5.366772	6.768264	1.090631
#1	1.369284	7.460001	28.76417	.2105776	.0026259	.0093950
#2	1.370182	7.496073	28.95429	.2022447	.0024144	.0092365
#3	1.354262	7.561773	29.32921	.1892096	.0022995	.0094270

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7092923**	**-.004672**	**.8823737**	**-.349846**	**.0018114**	**.0434131**
Stddev	.3058827	.001899	.0041401	.073516	.0020804	.0003167
%RSD	43.12506	40.64375	.4691977	21.01395	114.8544	.7296151
#1	.9837473	-.005614	.8857669	-.315157	-.000583	.0431984
#2	.3795289	-.002487	.8777608	-.300092	.003175	.0432640
#3	.7646008	-.005917	.8835935	-.434289	.002843	.0437769

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: P5393-02DLX20 Acquired: 1/16/2025 18:11:18 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MH2D31 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000954	F 25.91806	.9817097	-.000897	.0016283	.0001985
Stddev	.000298	.06174	.0028448	.000518	.0001405	.0006242
%RSD	31.28034	.2382260	.2897788	57.70504	8.628346	314.4668
#1	-.001276	25.94130	.9796496	-.001339	.0017874	.0009183
#2	-.000687	25.84806	.9849556	-.001024	.0015212	-.000193
#3	-.000898	25.96481	.9805241	-.000328	.0015762	-.000130

Elem	Sr4077
Units	ppm
Avg	.0030497
Stddev	.0000595
%RSD	1.952585
#1	.0029994
#2	.0030341
#3	.0031155

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2806.330	54570.53	10175.83	1951.852	4175.174
Stddev	4.956	92.89	40.55	5.743	9.437
%RSD	.1765837	.1702223	.3984757	.2942482	.2260257
#1	2801.033	54617.97	10169.81	1950.297	4164.298
#2	2810.853	54630.11	10138.63	1958.212	4180.022
#3	2807.104	54463.50	10219.06	1947.046	4181.201

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV030 Acquired: 1/16/2025 18:15:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV030 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.823135**	**4.805018**	**23.93015**	**4.877108**	**4.929784**	**413.9205**
Stddev	.011409	.023391	.05159	.009510	.012402	1.5093
%RSD	.2365507	.4868020	.2155836	.1949912	.2515653	.3646437
#1	4.824810	4.830225	23.91661	4.878748	4.929404	414.5173
#2	4.810981	4.784013	23.88669	4.866884	4.917576	415.0401
#3	4.833615	4.800816	23.98716	4.885691	4.942370	412.2039

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.37577**	**.4714789**	**2.394882**	**410.8986**	**15.16872**	**2.438203**
Stddev	.09415	.0029635	.003847	2.8772	.04470	.006128
%RSD	.9073708	.6285509	.1606530	.7002298	.2946755	.2513315
#1	10.45390	.4718307	2.394497	409.7532	15.20118	2.436862
#2	10.40218	.4742508	2.391241	414.1722	15.18724	2.432857
#3	10.27124	.4683552	2.398907	408.7705	15.11774	2.444891

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.23734**	**414.0458**	**15.00522**	**402.8463**	**2.429219**	**1.280701**
Stddev	.02044	1.2626	.06093	1.2544	.005123	.003353
%RSD	.1435670	.3049423	.4060619	.3113758	.2108981	.2618114
#1	14.23898	415.0910	15.05417	403.9563	2.425913	1.284455
#2	14.25691	412.6429	14.93698	401.4855	2.426624	1.279645
#3	14.21613	414.4034	15.02451	403.0971	2.435121	1.278004

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**384.0364**	**2.368062**	**15.41379**	**159.2542**	**4.883207**	F **5.840192**
Stddev	.5262	.000620	.06403	.9303	.008679	.018052
%RSD	.1370256	.0261683	.4154323	.5841754	.1777226	.3091038
#1	383.5367	2.367577	15.39054	159.4975	4.883264	5.843109
#2	384.5856	2.368761	15.48620	158.2264	4.874500	5.856608
#3	383.9869	2.367850	15.36462	160.0387	4.891856	5.820859

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCV030 Acquired: 1/16/2025 18:15:30 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV030 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.813702**	**4.979589**	**4.717775**	**4.851451**	**4.780089**	**5.244805**
Stddev	.014937	.019591	.015873	.012481	.008434	.021161
%RSD	.3102978	.3934175	.3364413	.2572546	.1764502	.4034636
#1	4.805756	4.992937	4.715424	4.844778	4.783384	5.250793
#2	4.804419	4.957098	4.734692	4.843725	4.786378	5.221295
#3	4.830933	4.988731	4.703210	4.865849	4.770504	5.262326

Elem	Sr4077
Units	ppm
Avg	**5.194462**
Stddev	.054427
%RSD	1.047798
#1	5.210001
#2	5.239430
#3	5.133955

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2207.225**	**45335.19**	**9487.192**	**1569.868**	**3170.554**
Stddev	5.875	153.08	67.388	12.152	7.972
%RSD	.2661935	.3376559	.7103040	.7740875	.2514382
#1	2209.092	45199.52	9473.061	1564.855	3170.020
#2	2211.940	45304.92	9427.990	1561.025	3178.779
#3	2200.643	45501.15	9560.525	1583.725	3162.862

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB030 Acquired: 1/16/2025 18:19:48 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB030 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000813**	**.0018007**	**.0000476**	**.0013805**	**-.000932**	**.0389596**	**-.001453**
Stddev	.001522	.0018652	.0013582	.0018663	.001336	.0054830	.000231
%RSD	187.1987	103.5803	2853.408	135.1958	143.3032	14.07356	15.91182
#1	-.000867	.0036241	.0008816	-.000735	-.002472	.0437076	-.001425
#2	.000735	.0018819	-.001520	.002795	-.000084	.0329585	-.001237
#3	-.002307	-.000104	.000781	.002081	-.000240	.0402127	-.001697

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000038**	**-.000007**	**.0355145**	**.0009493**	**.0002446**	**.0030923**	**.0335968**
Stddev	.000004	.000093	.0105161	.0001637	.0001455	.0014351	.0023478
%RSD	9.348831	1394.567	29.61080	17.24053	59.47992	46.40766	6.988157
#1	-.000034	.000050	.0247071	.0010377	.0003506	.0022122	.0309230
#2	-.000041	-.000114	.0361234	.0007605	.0000787	.0023164	.0353212
#3	-.000039	.000044	.0457129	.0010498	.0003044	.0047483	.0345462

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031360**	**.0259702**	**.0001508**	**-.000146**	**.5495733**	**.0014348**	**.0012123**
Stddev	.0000929	.0023204	.0002162	.000328	.2221601	.0017089	.0011865
%RSD	2.962120	8.935011	143.3828	224.1530	40.42410	119.1038	97.87195
#1	.0032060	.0258163	.0001914	-.000256	.7447022	.0032197	.0024612
#2	.0031714	.0283637	-.000083	.000223	.3077915	-.000186	.0010754
#3	.0030306	.0237304	.000344	-.000406	.5962262	.001271	.0001001

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0971955**	**.0010636**	**.0033611**	**.0005600**	**.0102228**	**.0000687**	**-.000416**
Stddev	.0420909	.0007590	.0003025	.0001709	.0032420	.0010936	.000408
%RSD	43.30540	71.36241	8.998608	30.50768	31.71358	1591.203	98.27265
#1	.1109176	.0018099	.0036814	.0006779	.0069030	-.001169	.000053
#2	.1307129	.0010883	.0033217	.0003641	.0103844	.000903	-.000695
#3	.0499560	.0002925	.0030803	.0006381	.0133811	.000472	-.000605

Reviewed By:Jaswal
On:1/17/2025 5:24:47 AM
Inst Id :P4

Sample Name: CCB030 Acquired: 1/16/2025 18:19:48 Type: Unk
Method: EPA SFAM01.0(v46) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB030 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0008577	.0010180	.0004764
Stddev	.0006133	.0004541	.0000442
%RSD	71.50955	44.60341	9.274118
#1	.0004504	.0008676	.0005274
#2	.0015630	.0006582	.0004490
#3	.0005596	.0015281	.0004528

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2824.569	55798.66	10244.04	1959.819	4300.012
Stddev	8.774	88.48	5.00	1.533	18.667
%RSD	.3106163	.1585713	.0487730	.0782045	.4341189
#1	2823.994	55746.18	10243.80	1961.500	4308.378
#2	2833.616	55748.98	10249.15	1959.457	4313.033
#3	2816.097	55900.81	10239.17	1958.500	4278.625

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Prep Standard - Chemical Standard Summary

Order ID : P5392

Test : SPLP MetalGroup3

Prepbatch ID : PB165941,

Sequence ID/Qc Batch ID: LB134297,LB134314,

Standard ID :
MP83498,MP83499,MP83500,MP83506,MP83512,MP83935,MP84058,MP84059,MP84060,MP84061,MP84062,MP840
63,MP84064,MP84065,MP84066,MP84067,MP84068,MP84071,MP84072,WP110804,WP110806,

Chemical ID :
M5130,M5173,M5218,M5223,M5289,M5295,M5296,M5298,M5390,M5393,M5429,M5472,M5473,M5476,M5496,M5497
,M5498,M5513,M5515,M5516,M5519,M5658,M5697,M5698,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M581
5,M5816,M5817,M5818,M5819,M5820,M5875,M5942,M5959,M5960,M5961,M5962,M5970,M5976,M5978,M5985,M59
90,M5999,M6021,M6023,M6025,M6028,M6030,M6032,M6120,M6121,M6126,M6127,M6128,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	MP83498	12/09/2024	01/16/2025	Janvi Patel	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP83499	12/09/2024	01/17/2025	Eman Mughal	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6121 + 1250.00000ml of W3112 = 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
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83500	12/06/2024	01/24/2025	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
994	ICPAES ISM01.2 S1 (CONC.)	MP83506	12/09/2024	01/13/2025	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 + 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
921	ICPAES SPIKE SOL#6	MP83512	12/09/2024	01/13/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 2.50000ml of M5962 + 50.00000ml of M5990 + 50.00000ml of M5999 + 147.50000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
514	CAL BLK (S0/ICB/CCB)	MP83935	01/07/2025	02/07/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/09/2025

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2480	ICP AES STD 6 ISM01.3	MP84058	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 4.00000ml of M5289 + 4.00000ml of M5298 + 4.00000ml of M5497 + 4.00000ml of M5806 + 4.00000ml of M6127 + 30.00000ml of MP83500 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1004	ICPAES ISM01.2 (S5)	MP84059	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.25000ml of M5798 + 0.50000ml of M5429 + 0.50000ml of M5476 + 0.50000ml of M5815 + 0.50000ml of M5817 + 12.50000ml of M5519 + 12.50000ml of M5806 + 12.50000ml of M5819 + 12.50000ml of M6128 + 13.75000ml of M5697 + 14.50000ml of M5298 + 14.50000ml of M5496 + 14.50000ml of M5658 + 2.00000ml of M5513 + 22.50000ml of M5497 + 22.50000ml of M6127 + 5.00000ml of M5296 + 5.00000ml of M5393 + 5.00000ml of M5802 + 5.00000ml of M5875 + 303.50000ml of MP83500 = 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
1005	ICPAES ISM01.2(S4)	MP84060	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 250.00000ml of MP83500 + 250.00000ml of MP84059 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1007	ICPAES ISM01.2(S3)	MP84061	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of MP84059 + 75.00000ml 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
1008	ICPAES ISM01.2(S2)	MP84062	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 12.50000ml of MP84059 + 87.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP84063	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5298 + 0.20000ml of M5476 + 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 M6128 + 0.40000ml of M5496 + 0.50000ml of M5697 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5961 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5497 + 10.00000ml of M5519 + 10.00000ml of M5806 + 10.00000ml of M6127 + 2.00000ml of M5942 + 4.00000ml of M6032 + 34.24000ml 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
1003	ICPAES ISM01.2 S1	MP84064	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.50000ml of MP84063 + 99.50000ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2054	ICV-ICPAES	MP84065	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.50000ml of M5218 + 0.50000ml of M5472 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 10.00000ml of M5295 + 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
904	ICP AES ICSA SOLN	MP84066	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of M5130 + 225.00000ml of MP83500 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
905	ICP AES ICSAB SOLN	MP84067	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 25.00000ml of M5130 + 25.00000ml of M5223 + 200.00000ml 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
1119	ICPAES ISM01.2(CCV)	MP84068	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 0.75000ml of M5497 + 0.75000ml of M6127 + 1.22500ml of M5496 + 1.25000ml of M5298 + 1.25000ml of M5516 + 19.77500ml of MP83500 + 25.00000ml of MP84059 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP84071	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6126 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP84072	01/14/2025	02/14/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 01/16/2025

FROM 200.00000ml of M6126 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1788	HNO3 for TCLP, 1N	WP110804	11/21/2024	05/13/2025	Jignesh Parikh	None	None	Iwona Zarych 11/21/2024

FROM 64.00000ml of M6120 + 936.00000ml of W3112 = Final Quantity: 1000.000 ml

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Wet Chemistry STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
291	SPLP FLUID#1	WP110806	11/21/2024	05/13/2025	Jignesh Parikh	WETCHEM_SCALE_8 (WCSC-7)	None	Iwona Zarych 11/21/2024

FROM 0.80000gram of M6120 + 1.20000gram of M5173 + 20.00000L of W3112 = Final Quantity: 20.000 L

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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	01/31/2025	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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	0000281827	06/02/2025	06/01/2022 / jaswal	04/05/2022 / william	M5173

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	01/31/2025	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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	020422	02/04/2025	05/02/2023 / jaswal	06/15/2022 / jaswal	M5298

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.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

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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

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

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	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

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

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

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

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

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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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

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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

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

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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

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	23I0662003	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6120

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 #
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 #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

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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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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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 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

M6032

R: 8/5/24

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

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CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

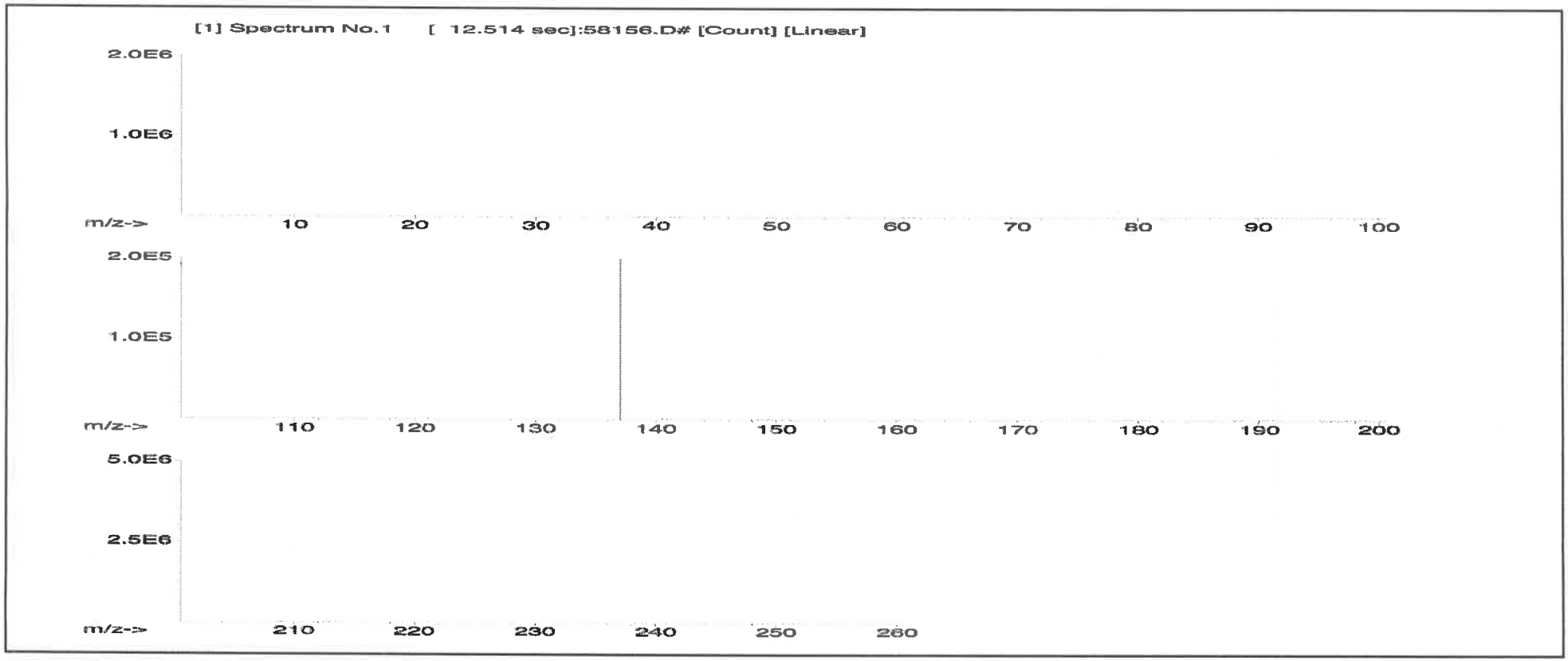
Giovanni Esposito

Formulated By:	Giovanni Esposito	010924

Pedro Rentas

Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



426

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/15/24

M6028

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

427

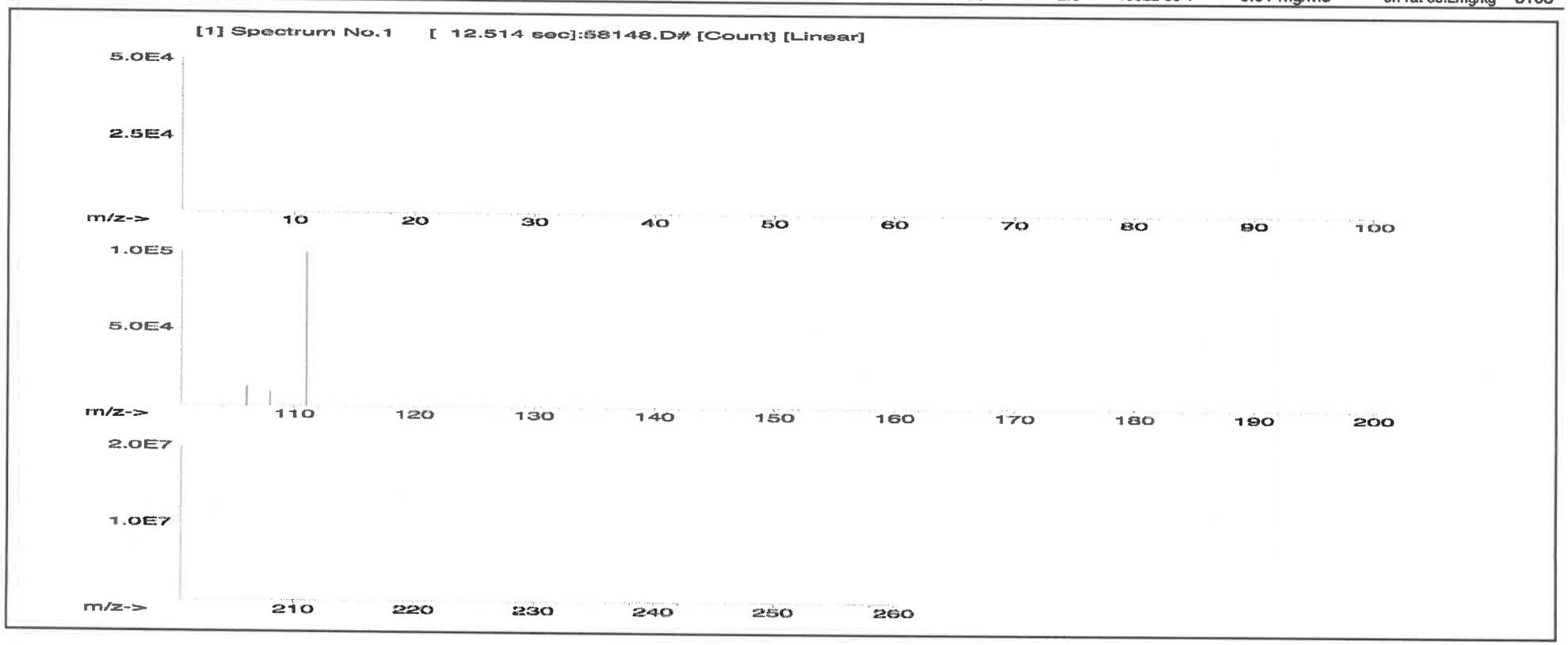
CERTIFIED WEIGHT REPORT:

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



428

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.
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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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Certificate of Analysis

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Christiansburg, VA 24073 USA
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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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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Christiansburg, VA 24073 USA
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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

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10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

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

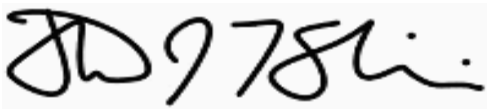
- Sealed TCT Bag Open Date: _____

- 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 (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 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

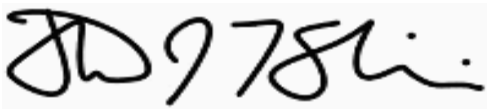
- Sealed TCT Bag Open Date: _____

- 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

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CERTIFIED WEIGHT REPORT:

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

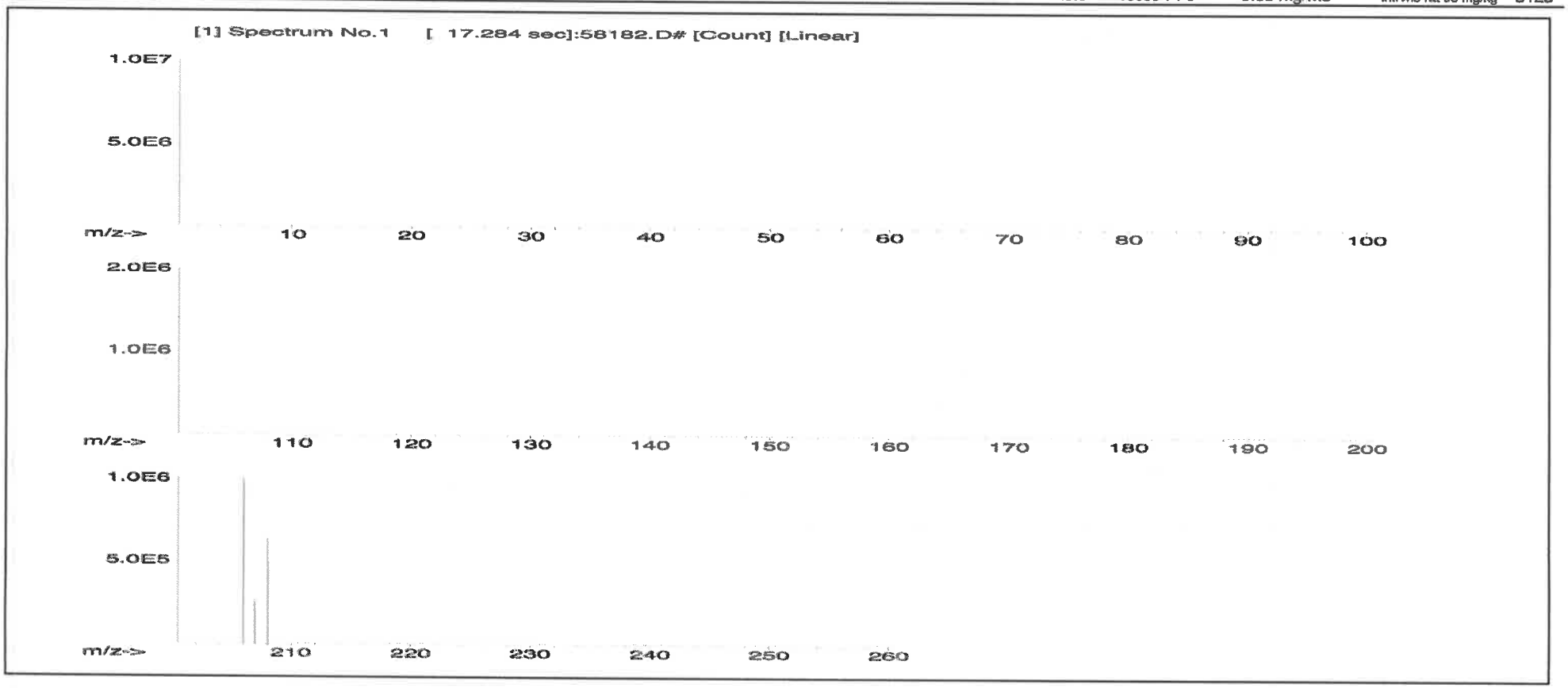
Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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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.

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

Material No.: 9530-33
Batch No.: 0000281827
Manufactured Date: 2021/03/30
Retest Date: 2026/03/29
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	1.189
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	0.5
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	15.0
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.: 0000281827

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	3.0
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	1.0
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	0.2
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	18.0
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	0.4
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



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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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.

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M5289 R: 07/12/22 BH

Certified Reference Material CRM

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AR-1539 Certificate Number
https://Absolutestandards.com

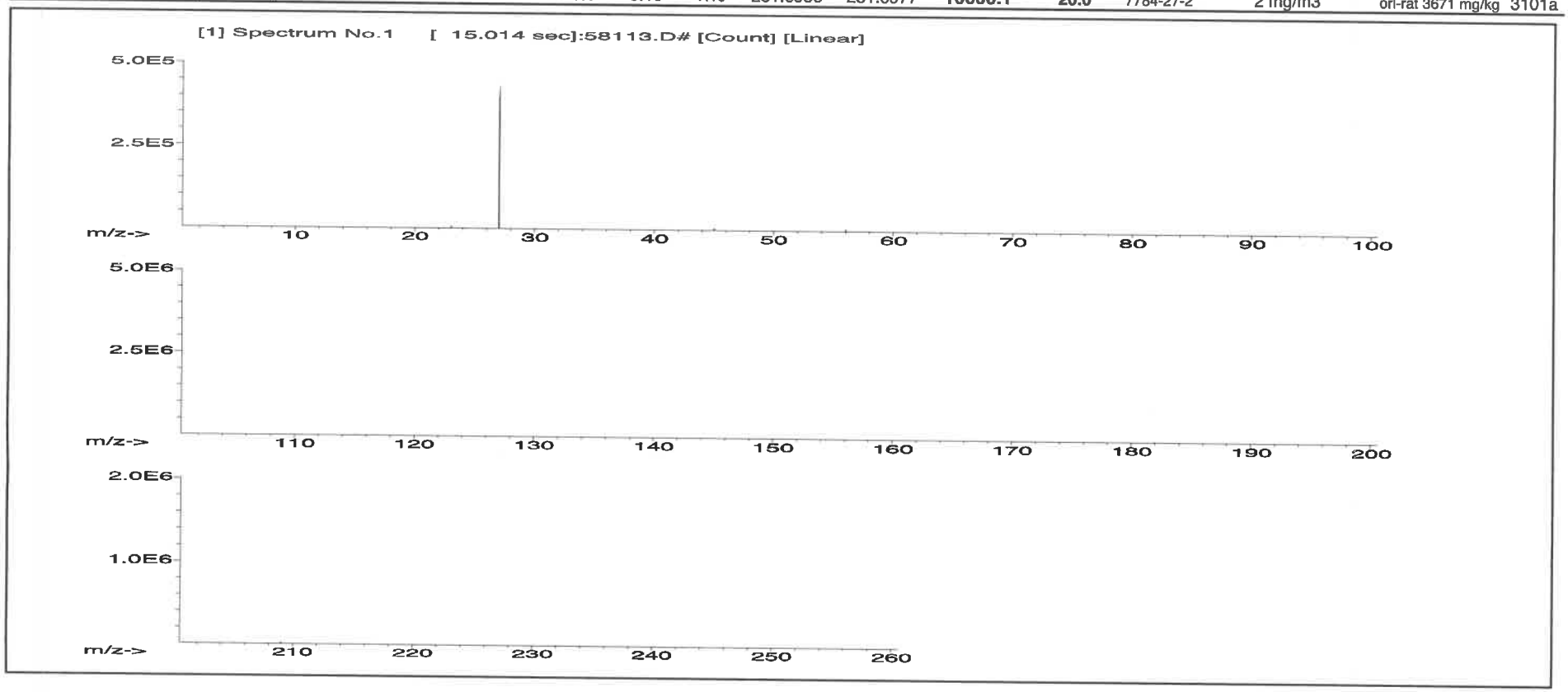
450

CERTIFIED WEIGHT REPORT:

			Lot #		
Part Number:	**58113**	**Solvent:**	20370011	Nitric Acid	
Lot Number:	**070622**				
Description:	**Aluminum (Al)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070625				
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	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

SJ 6/15/22

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CERTIFIED WEIGHT REPORT:

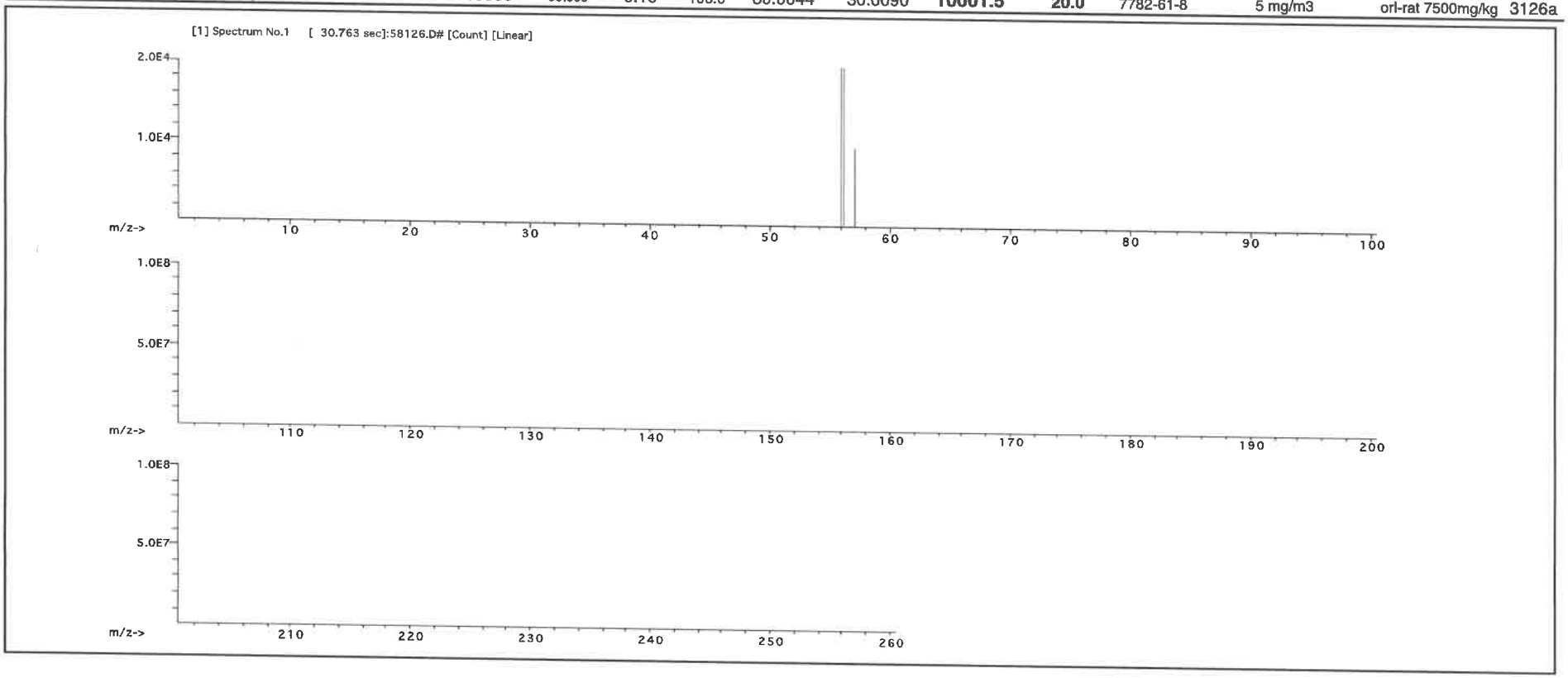
M5298

Part Number:	**58126**		**Lot #**		
Lot Number:	**020422**	**Solvent:**	20370011	Nitric Acid	
Description:	**Iron (Fe)**	5.0%	150.0 (mL)	Nitric Acid	
Expiration Date:	020425				
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):	3000.41	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	020422
Reviewed By:	Pedro L. Rentas	020422

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron(III) nitrate nonahydrate (Fe)	IN346	221035107	10000	99.999	0.10	100.0	30.0044	30.0090	**10001.5**	**20.0**	7782-61-8	5 mg/m3	orl-rat 7500mg/kg	3126a



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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	<0.10	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	<0.5	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	<0.02
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* 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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R: 09/08/22 (BH)

Certified Reference Material CRM

M5387 . M5389 . M5390 . M5391 . M5392

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456

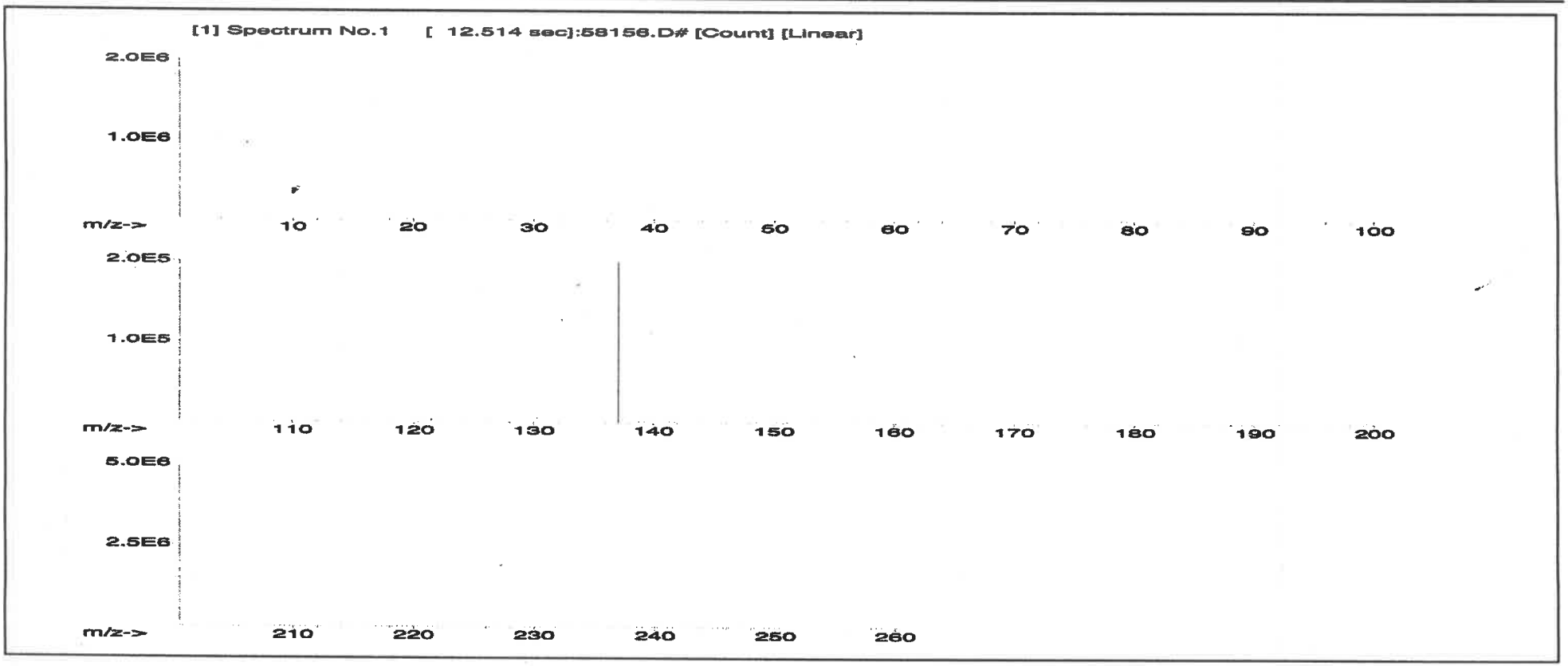
CERTIFIED WEIGHT REPORT:

			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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Certified Reference Material CRM

M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

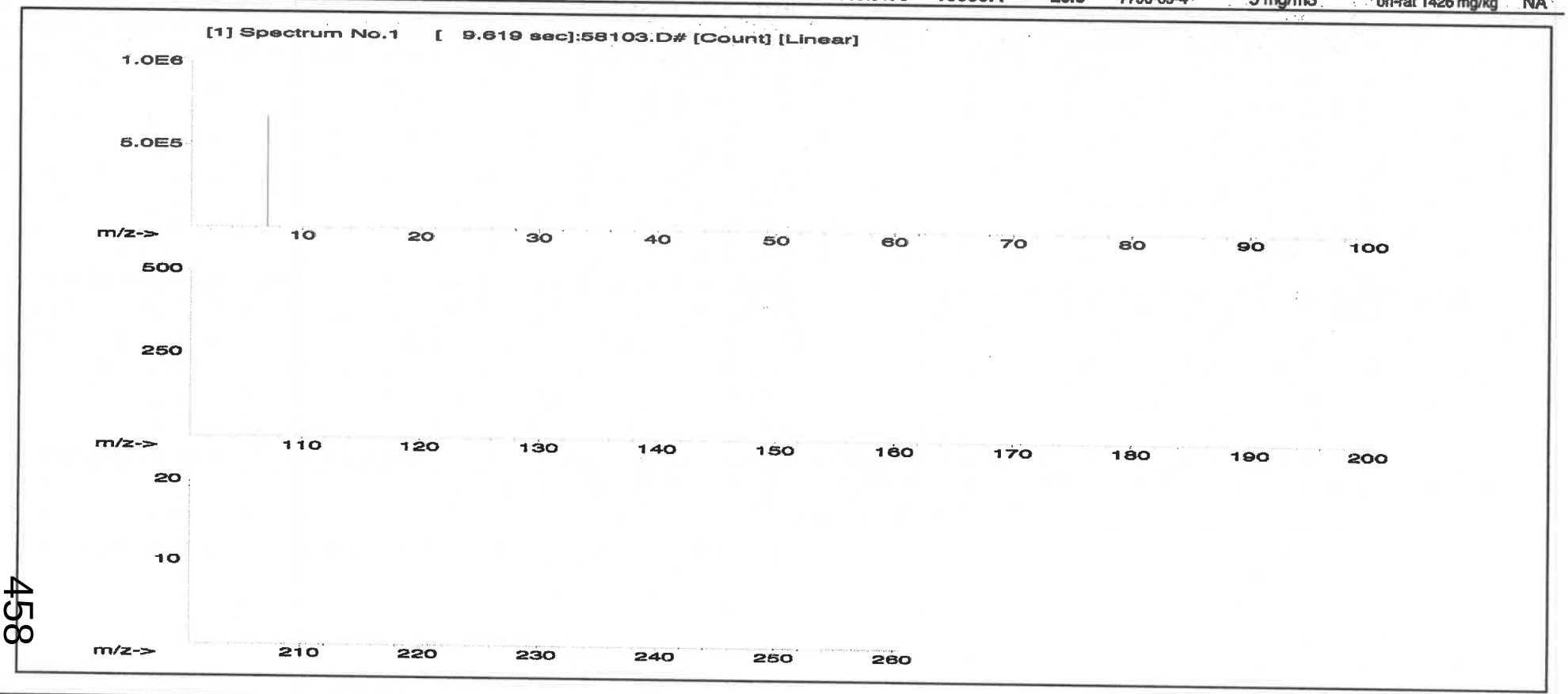
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	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



458

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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* 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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M5497 - M5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

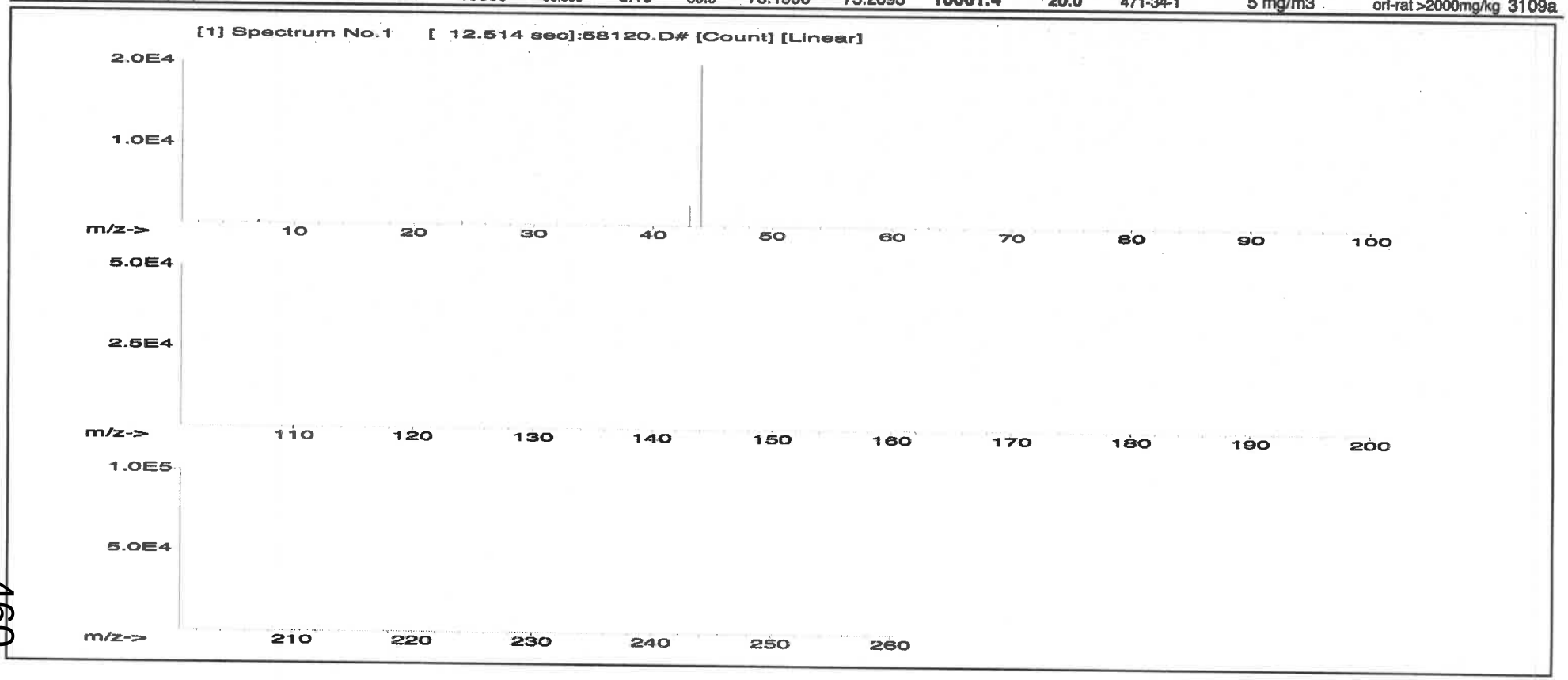
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	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
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



460

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.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

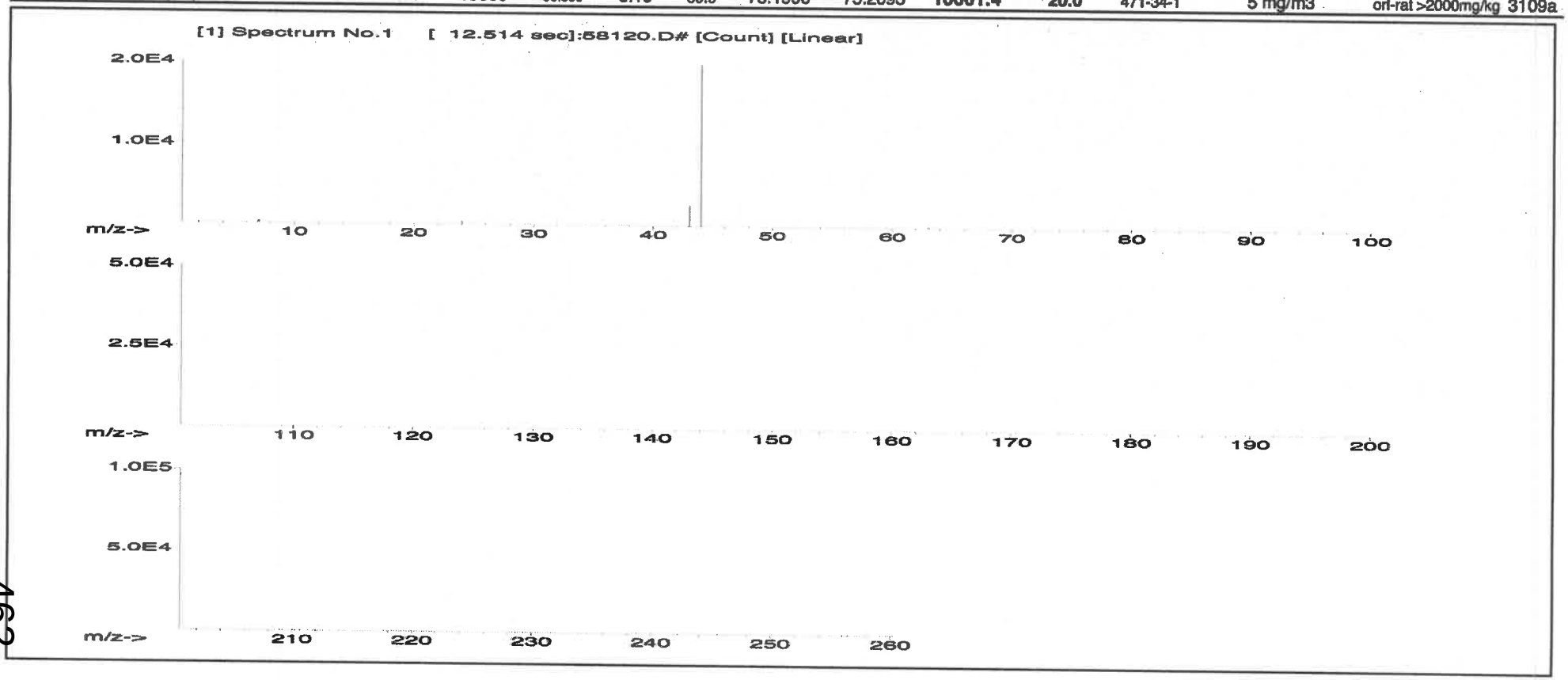
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

		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



462

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 BE

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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

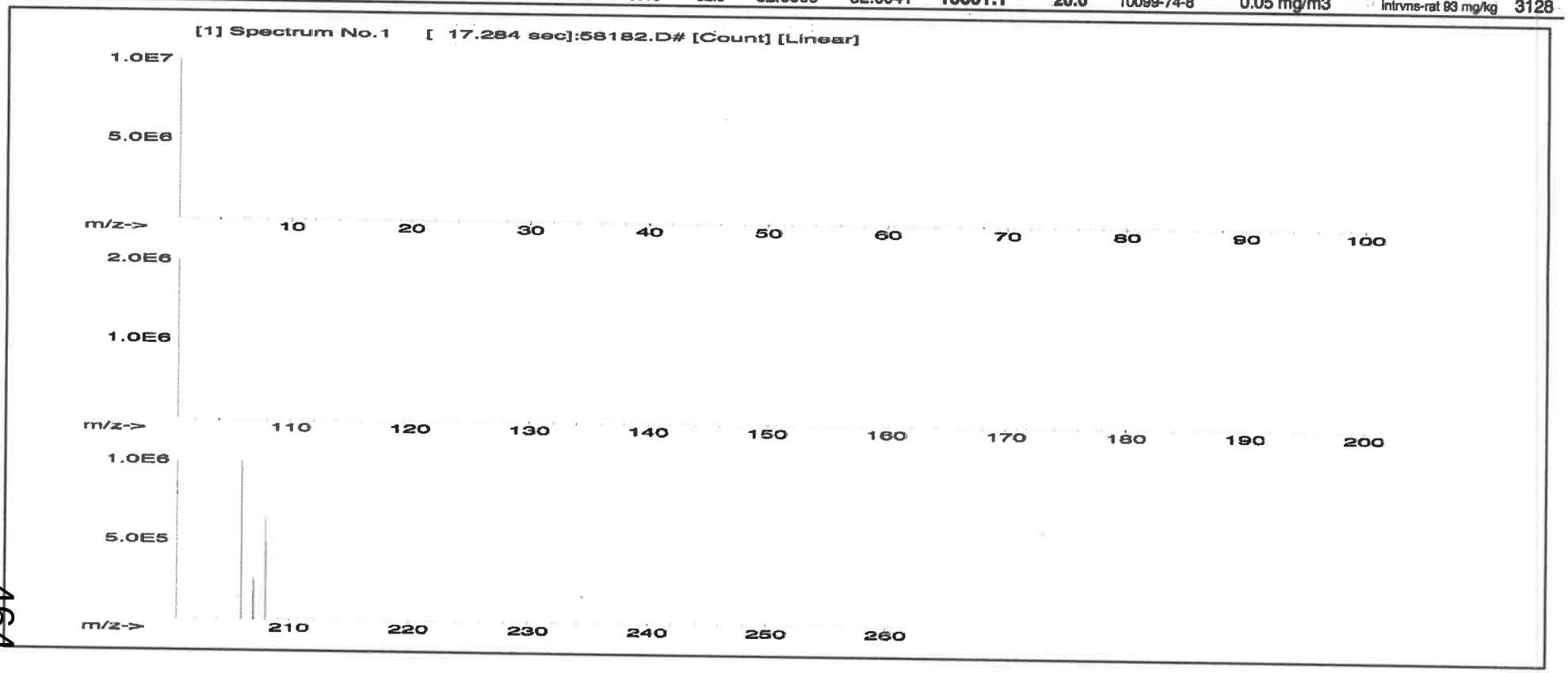
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

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



464

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 Number: 092122
Description: Iron (Fe)

Expiration Date: 092125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1

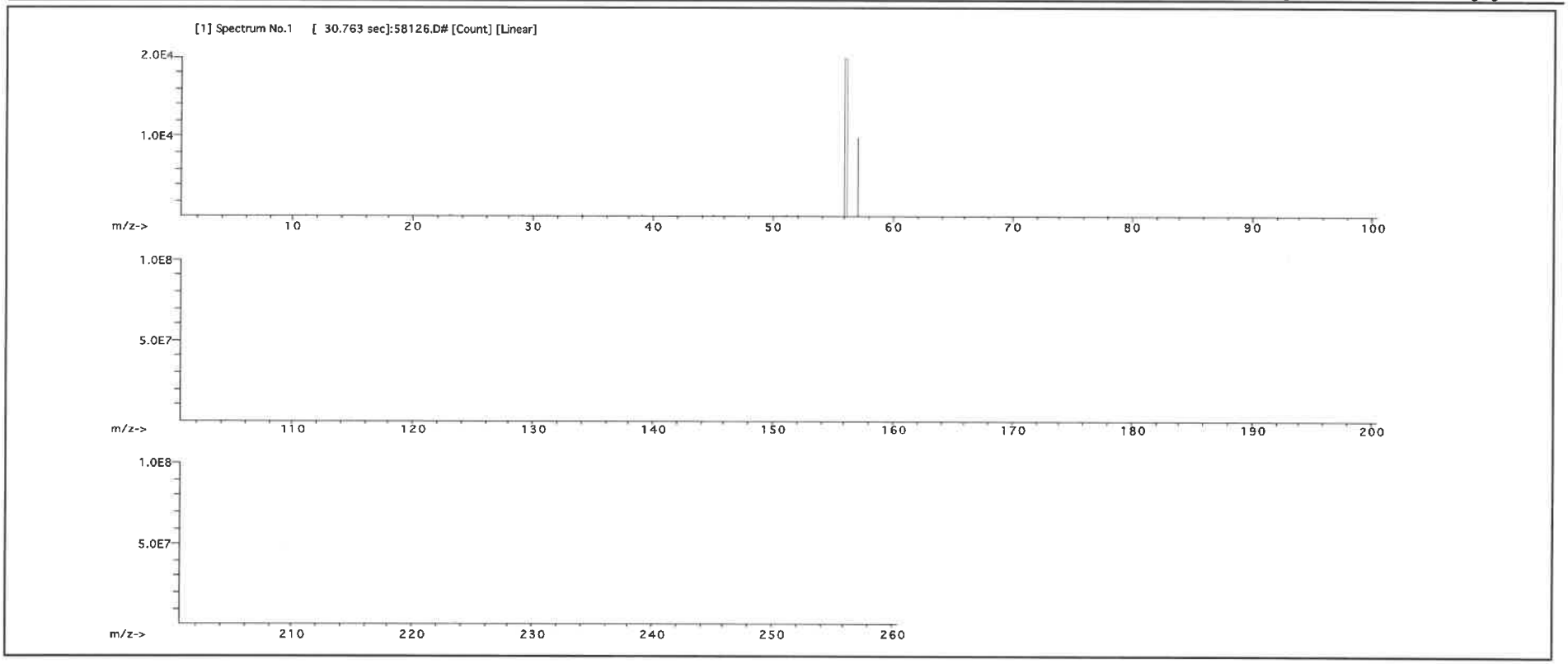
	Lot #		
Solvent:	20510011	Nitric Acid	
7.0%	350.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.12 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	092122
Reviewed By:	Pedro L. Rentas	092122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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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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M516 M517 R: 03/17/22 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 022123
Description: Sodium (Na)

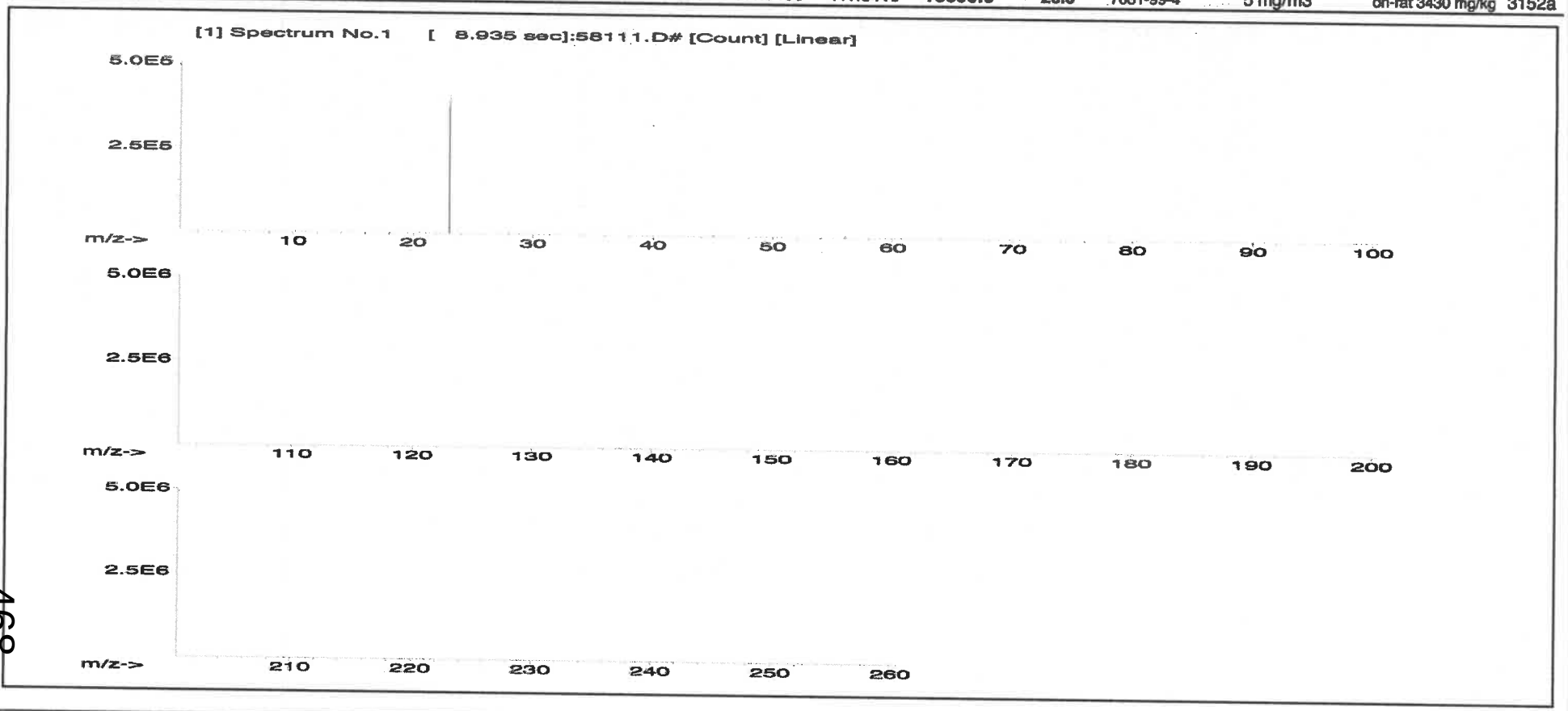
Expiration Date: 022126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	022123
Reviewed By:	Pedro L. Rentas	022123

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	111.5410	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



468

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:

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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M5519. M5520 (BH) R:03/17/23

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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

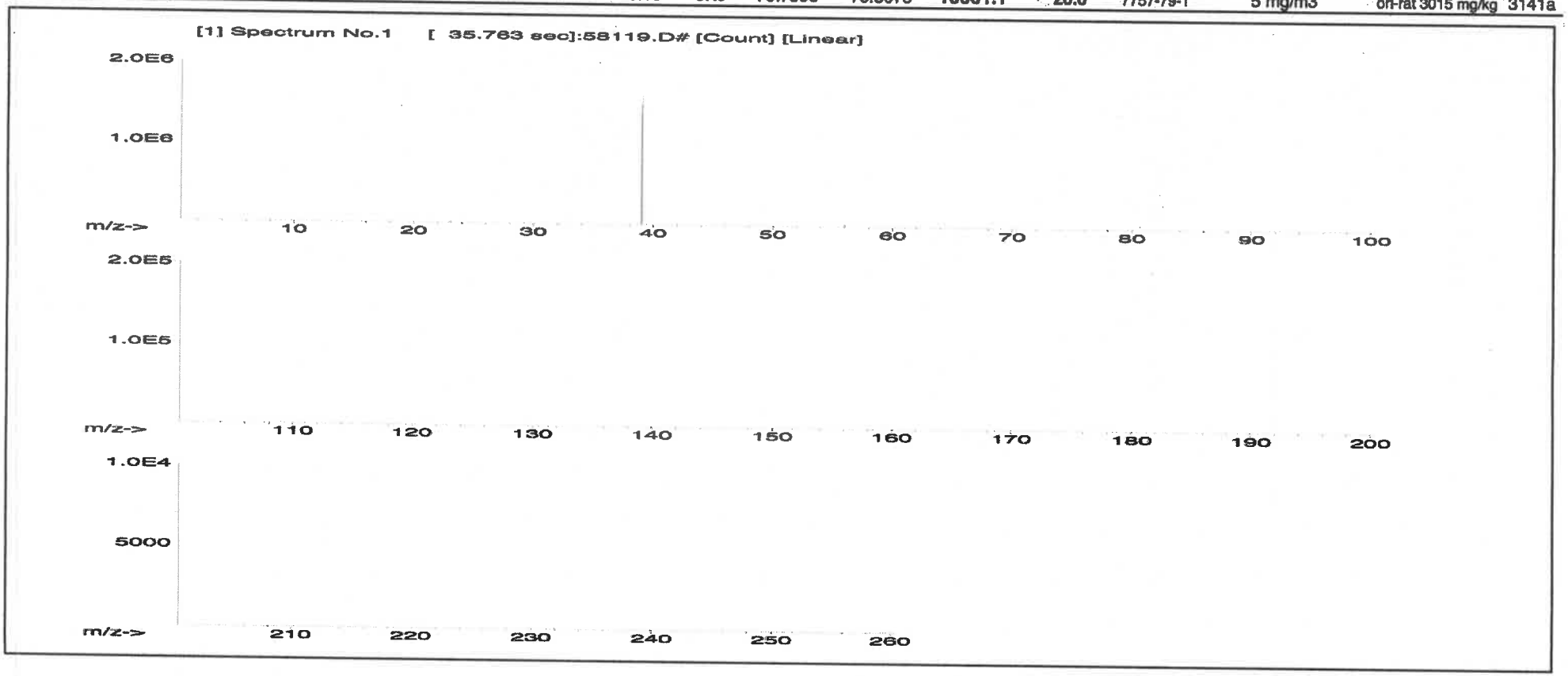
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

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



471

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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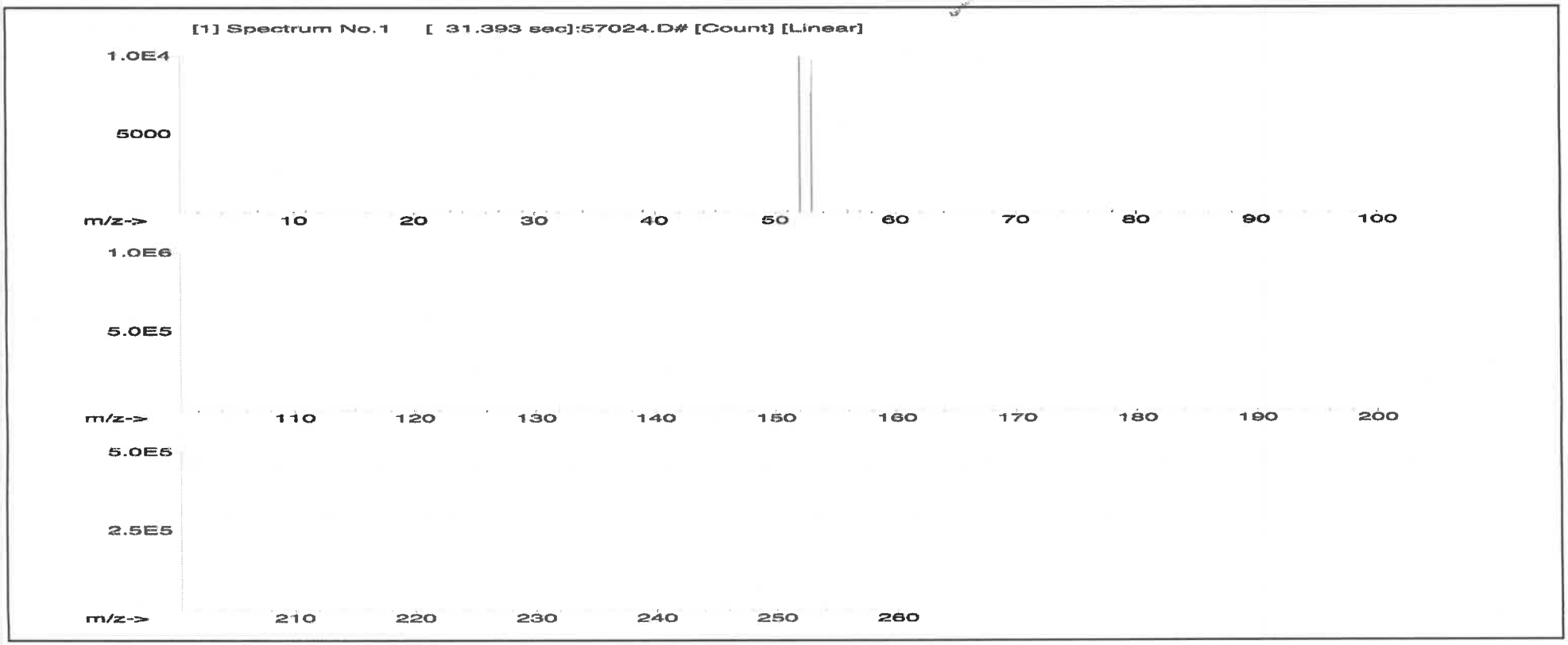
472

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



473

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.

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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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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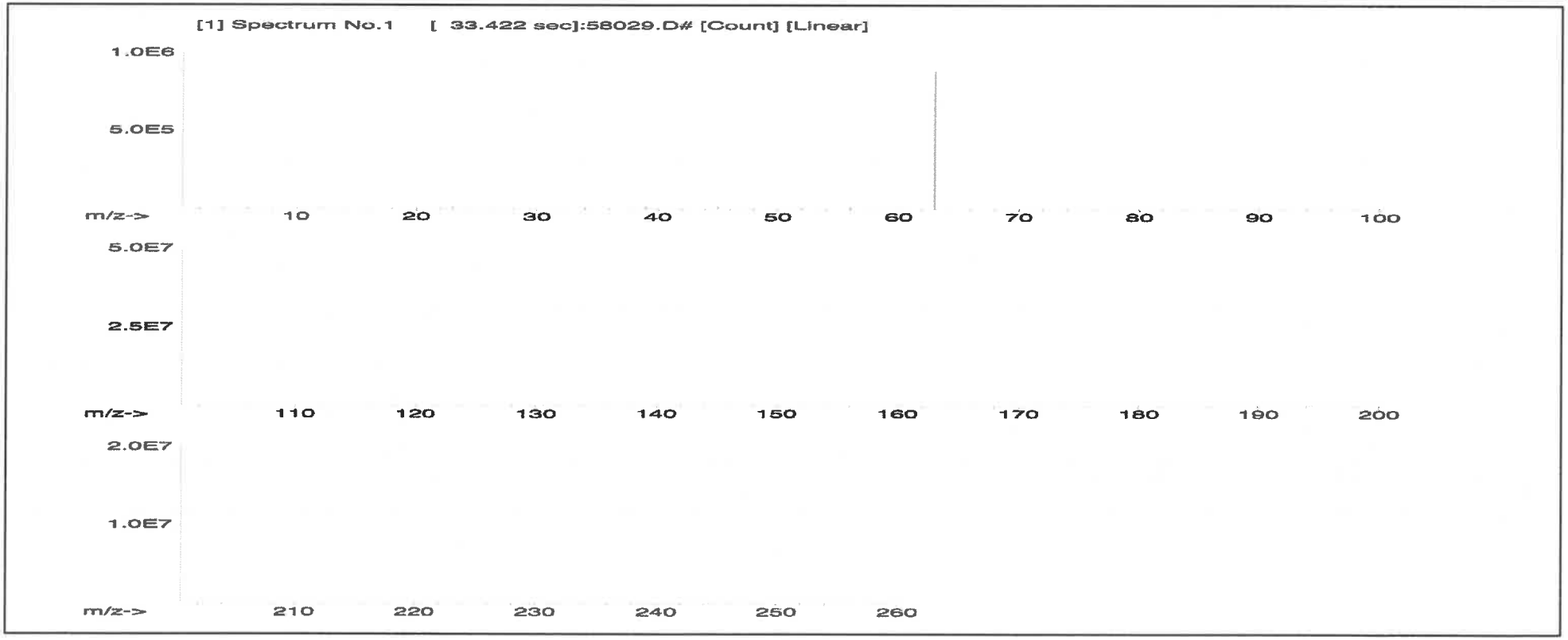
474

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



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	<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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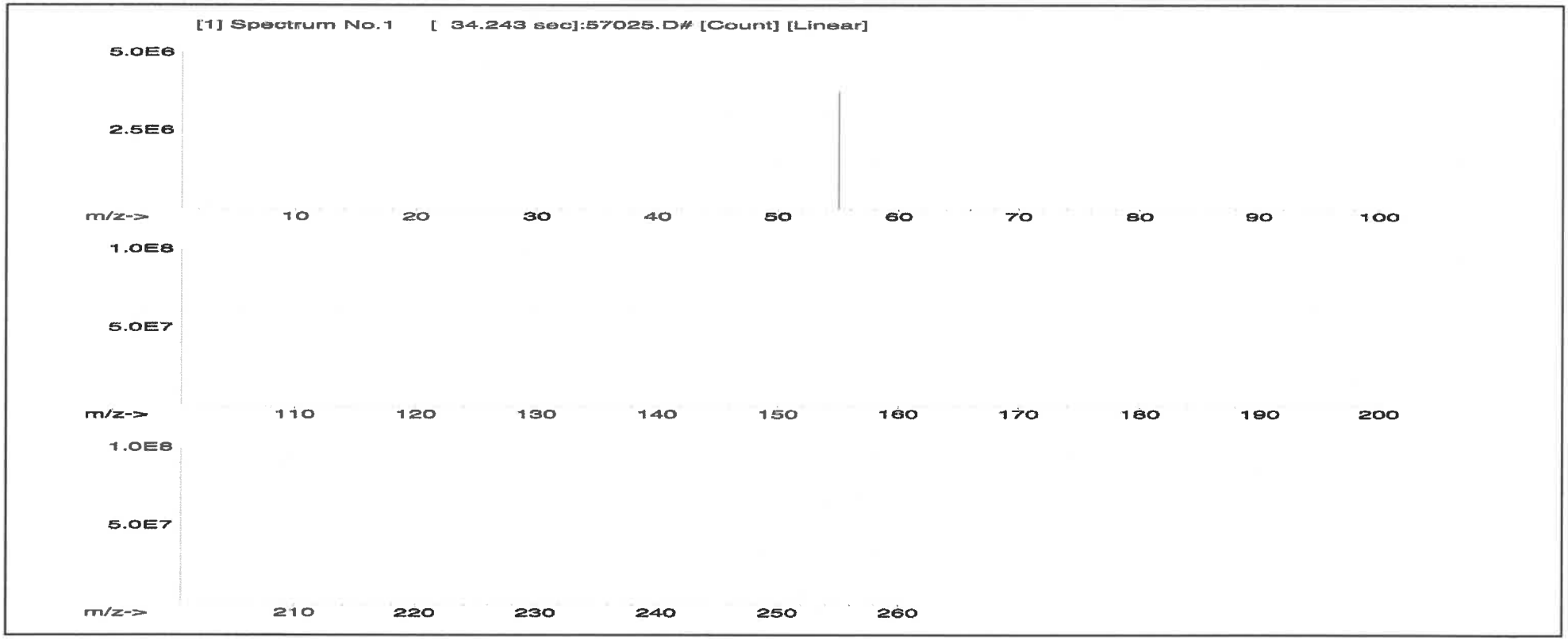
476

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



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	<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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M5768 M5769 (BP) R:1/3/24

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478

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

M5768, M5769 (BP) R: 1/3/24

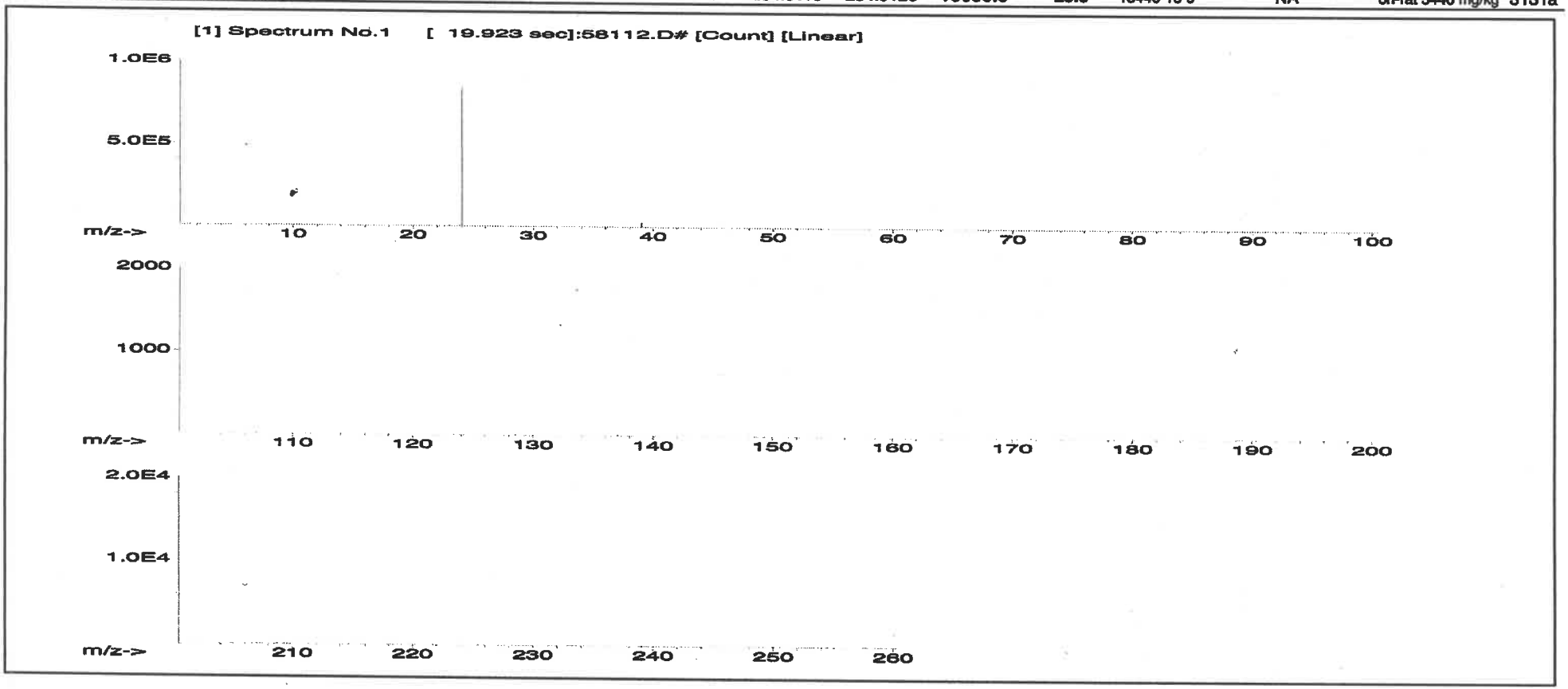
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #		
Solvent:	24002546	Nitric Acid		
	2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	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



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	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:

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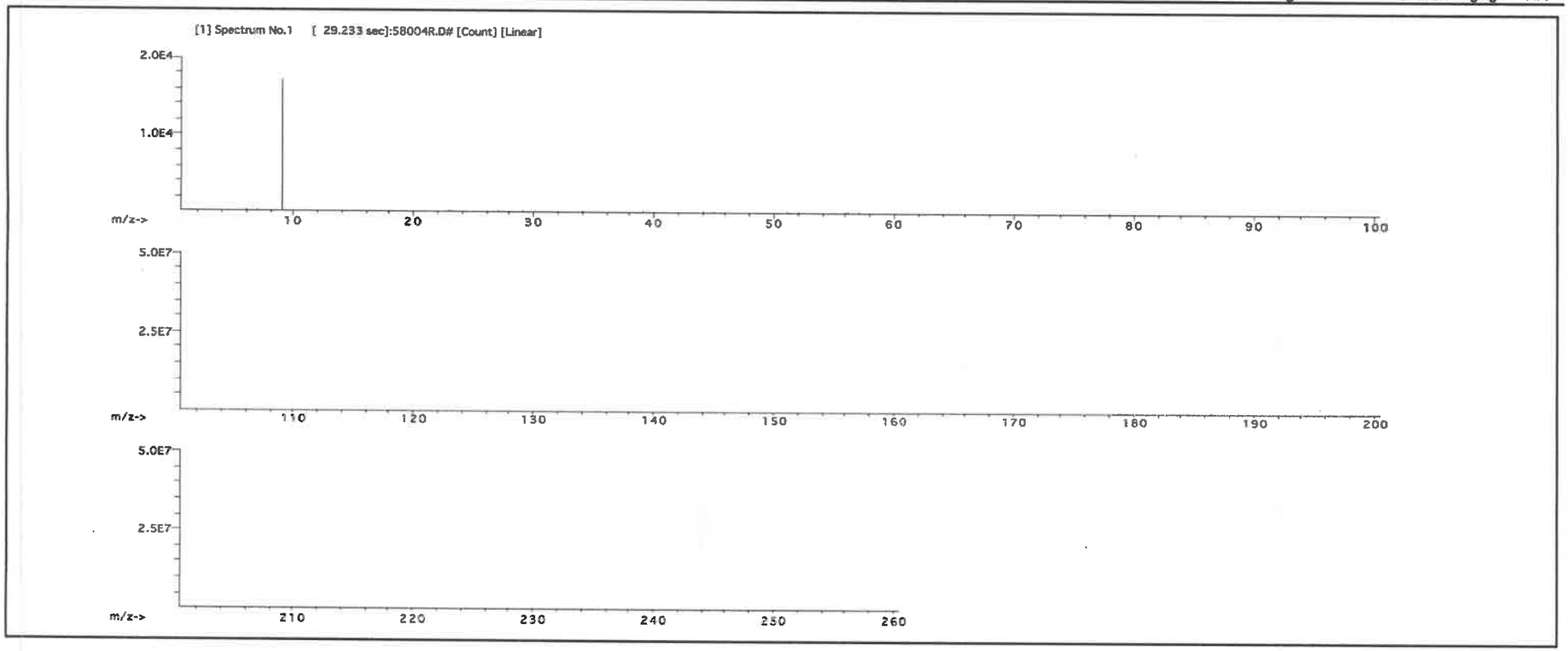
480

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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* 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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482

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

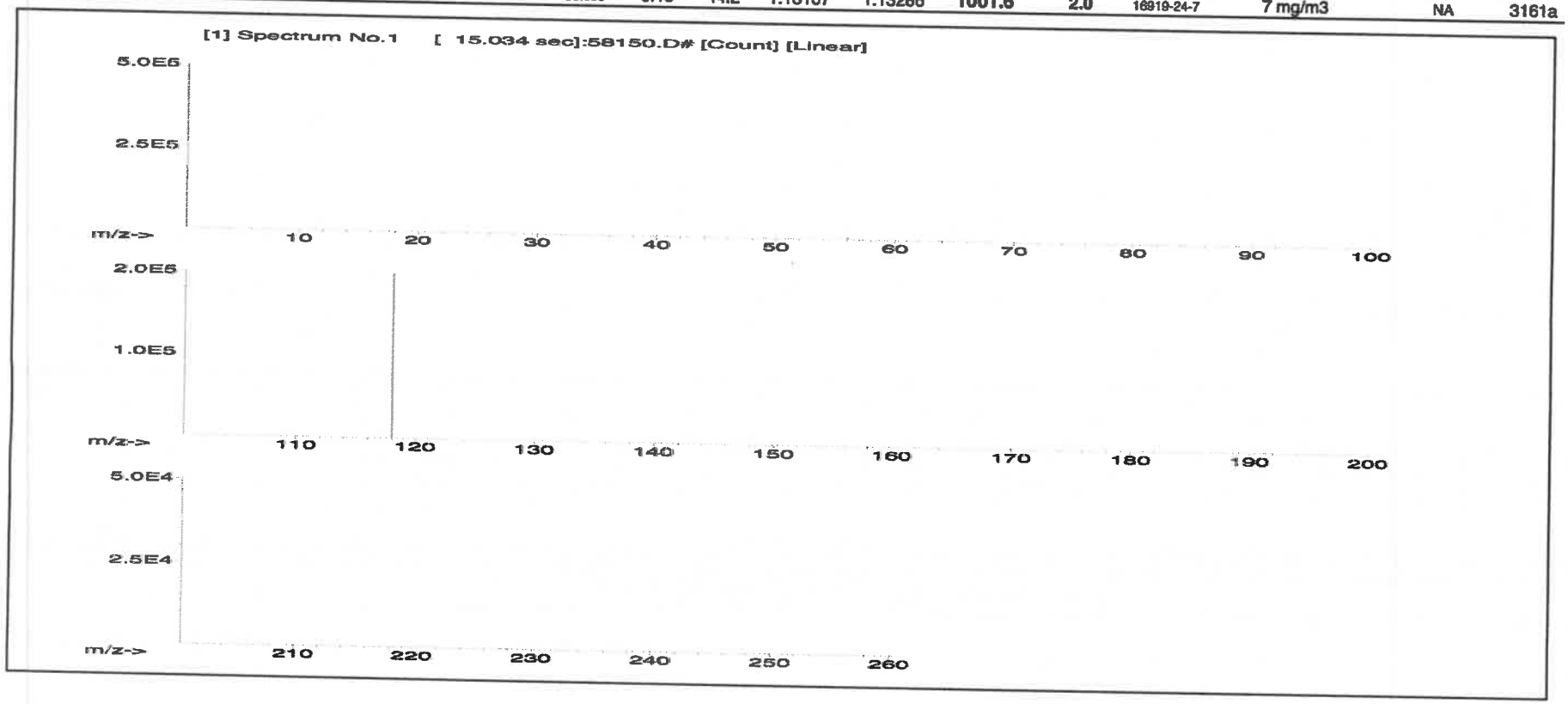
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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



483

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:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* 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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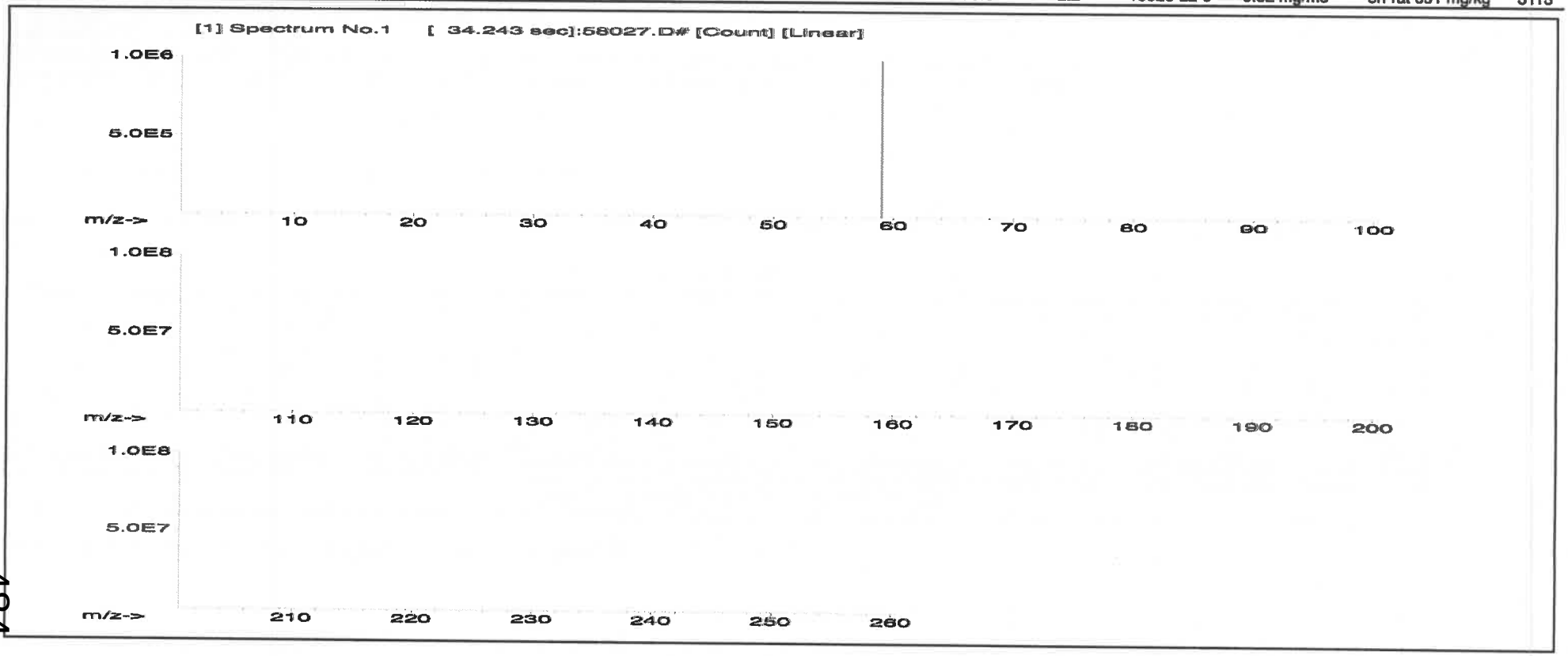
CERTIFIED WEIGHT REPORT:

		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



484

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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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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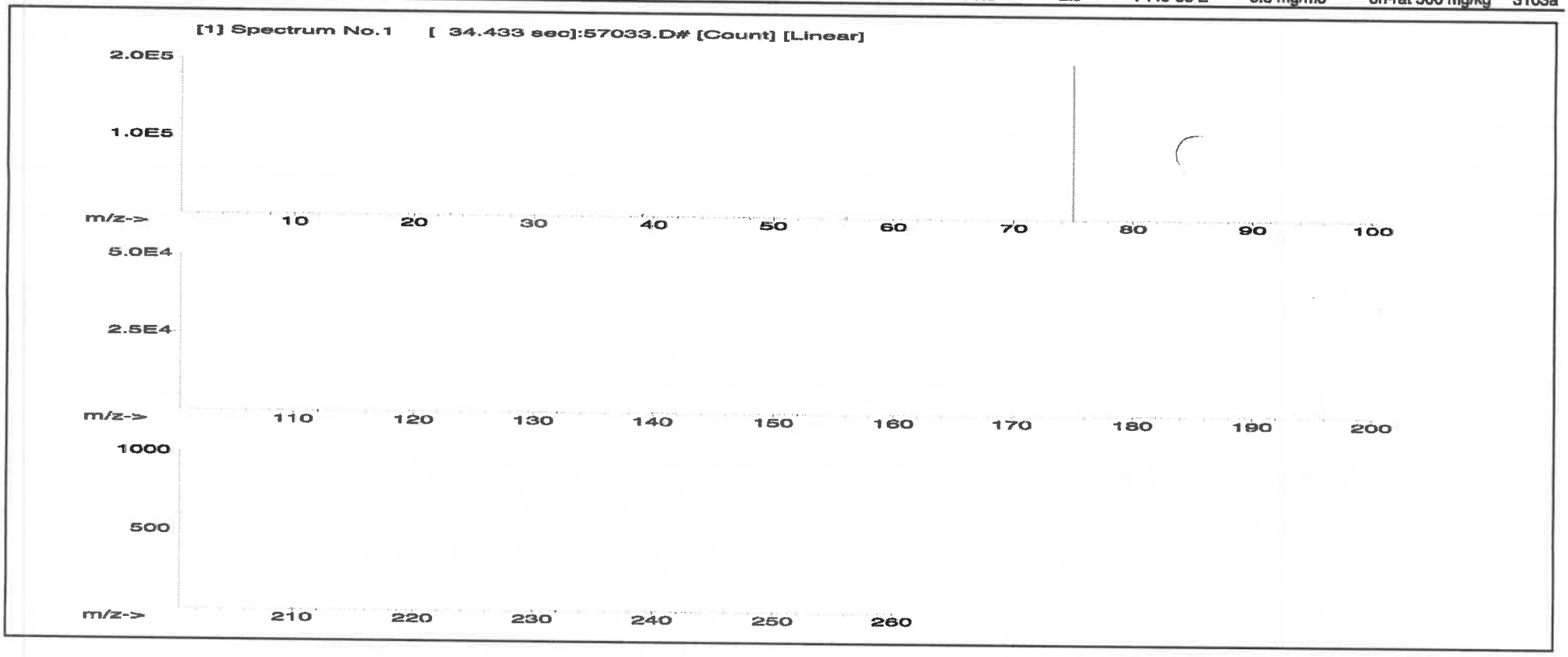
CERTIFIED **WEIGHT** REPORT:

		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

486

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



487

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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* 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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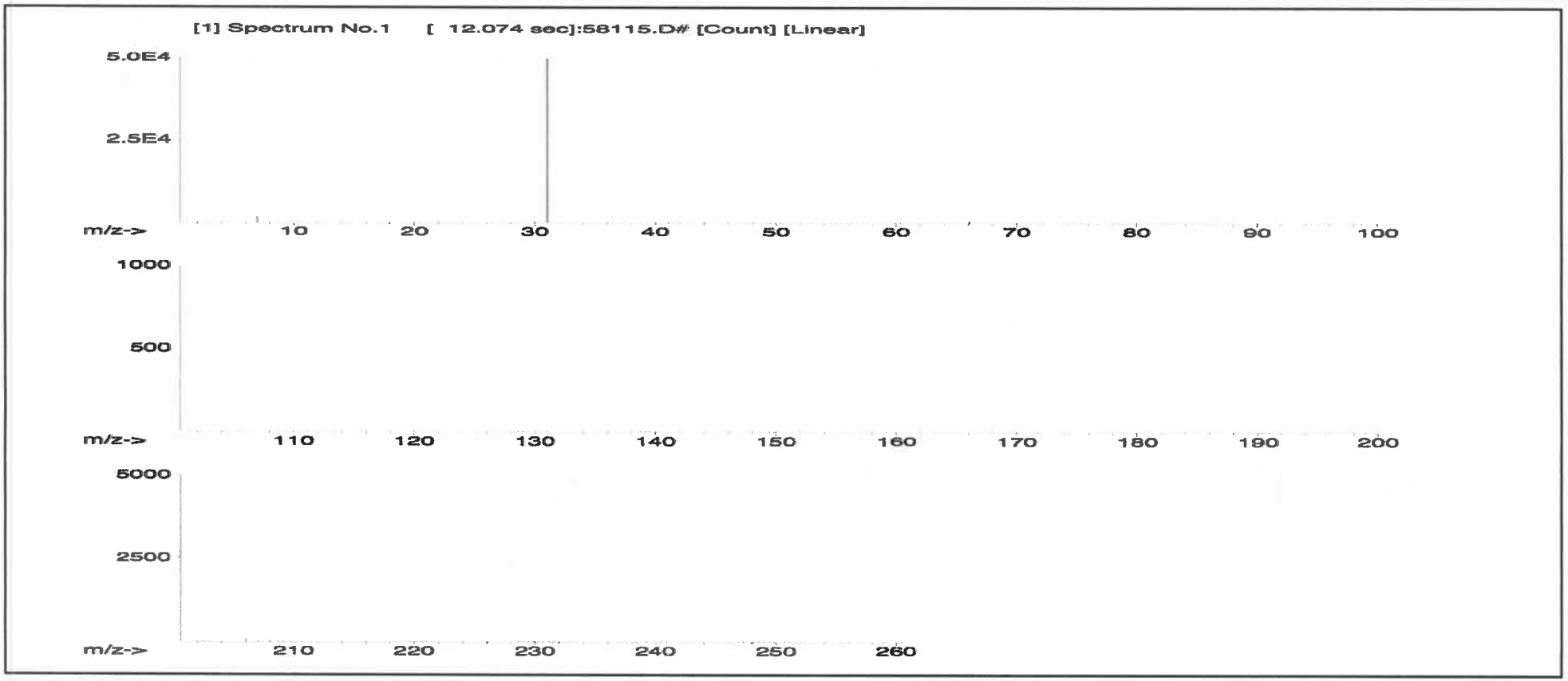
488

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.

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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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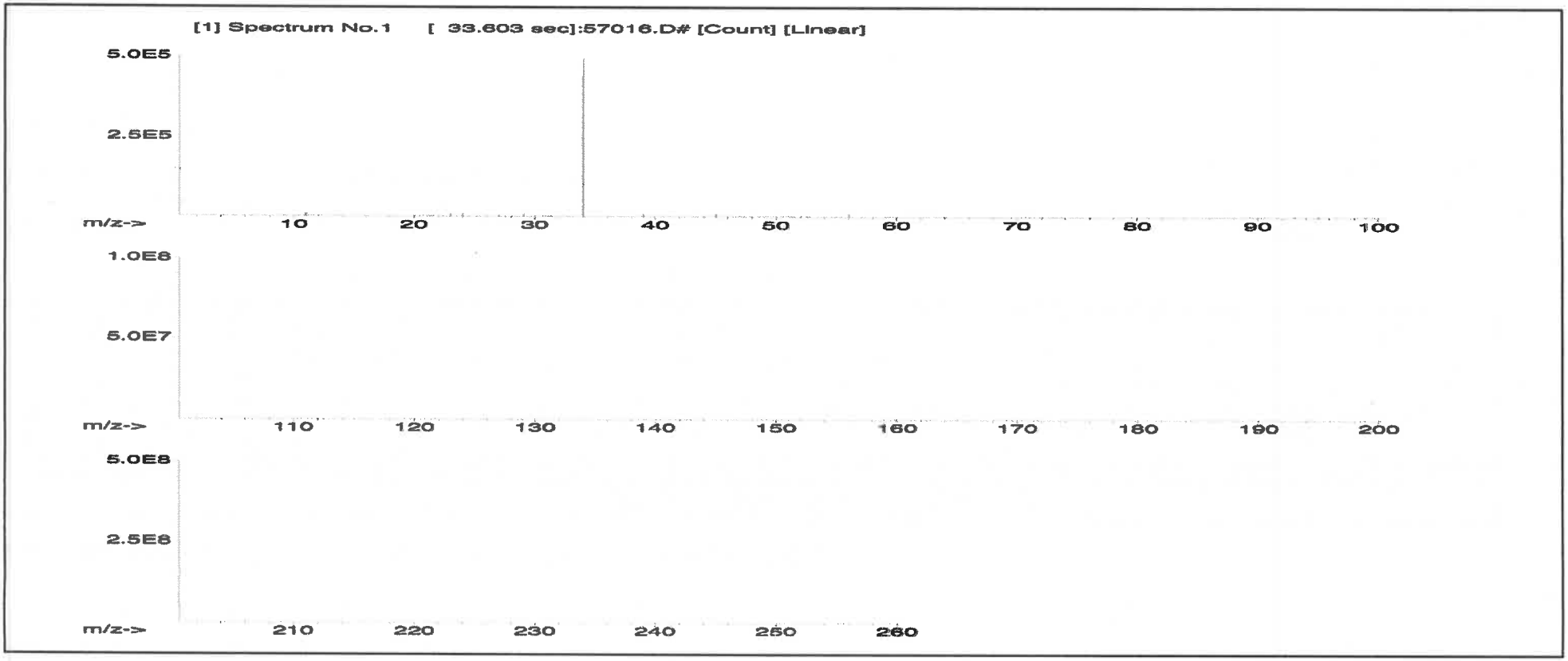
490

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



491

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.
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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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492

CERTIFIED WEIGHT REPORT:

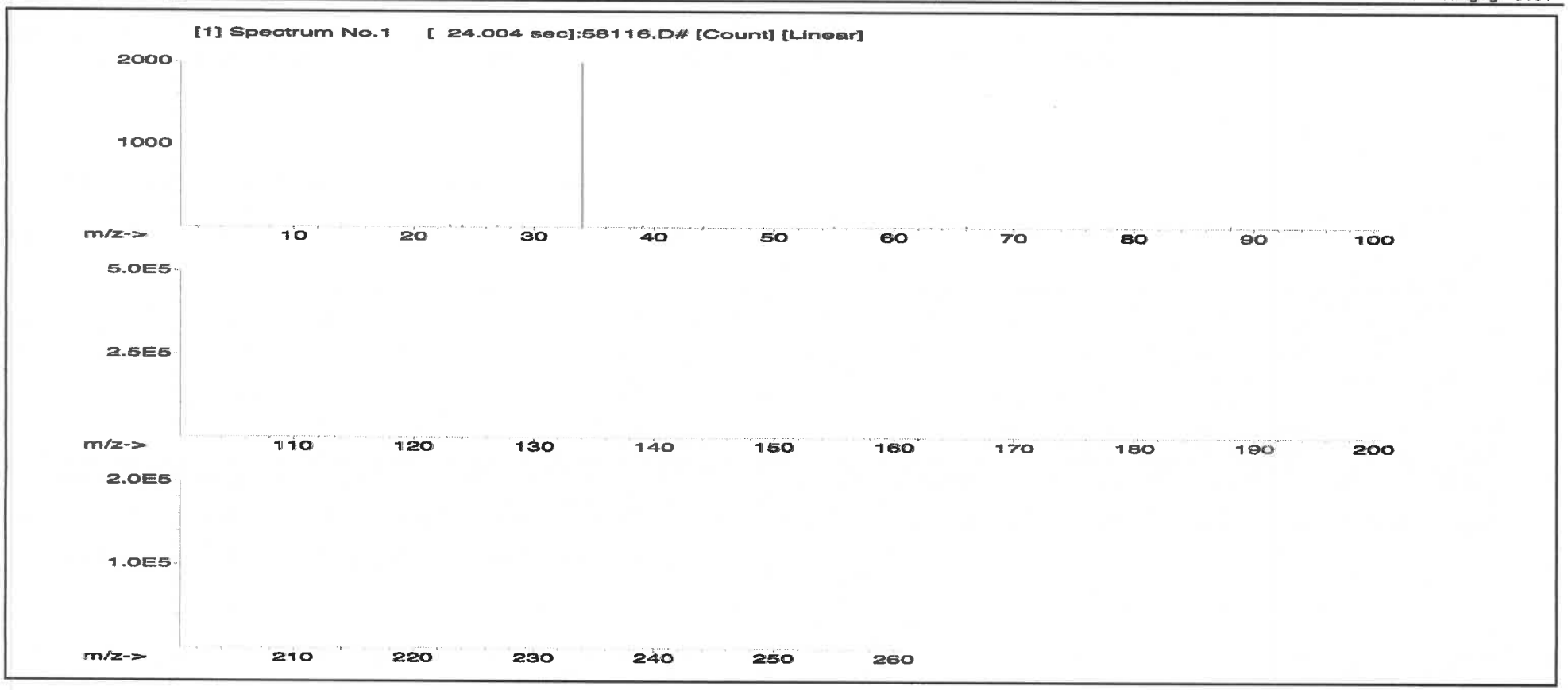
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M.5818

Lot #

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

494

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

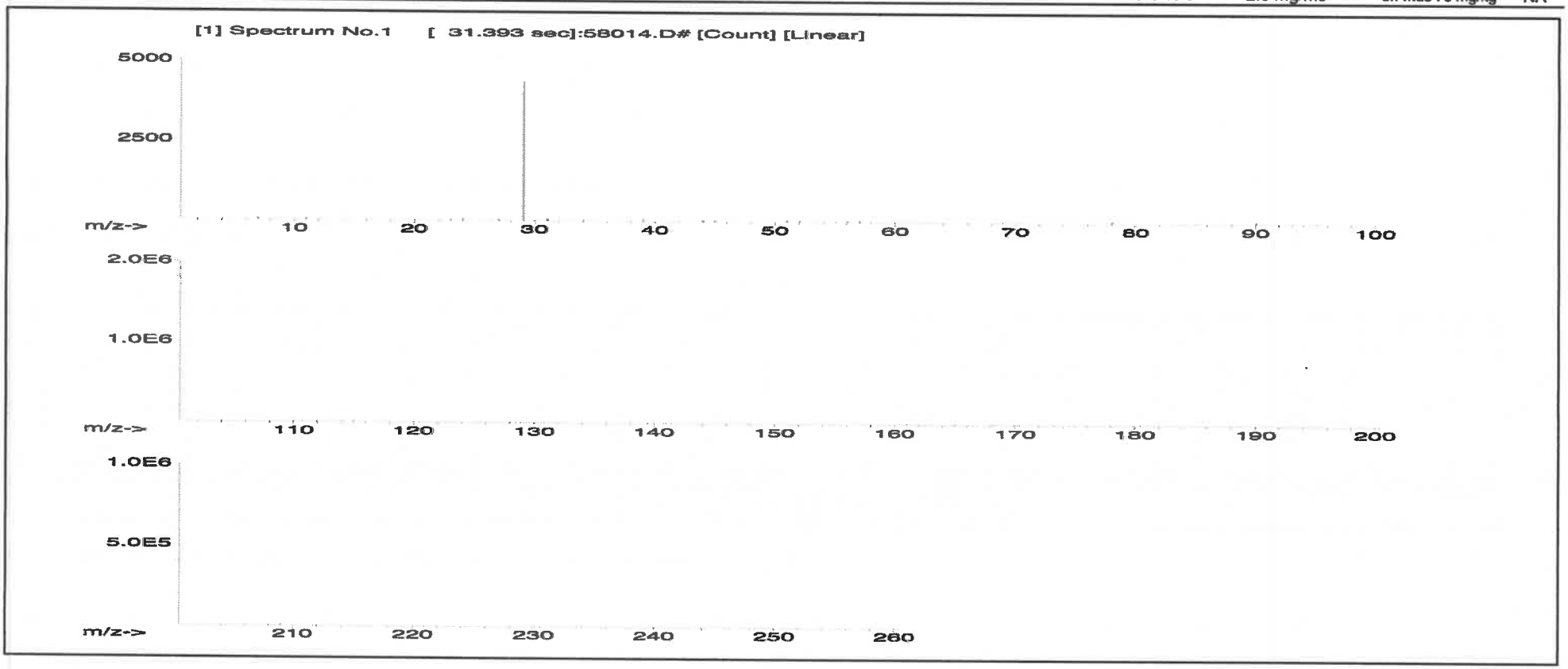
Aleah O'Brady

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



495

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:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5819

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AR-1539 Certificate Number
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496

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

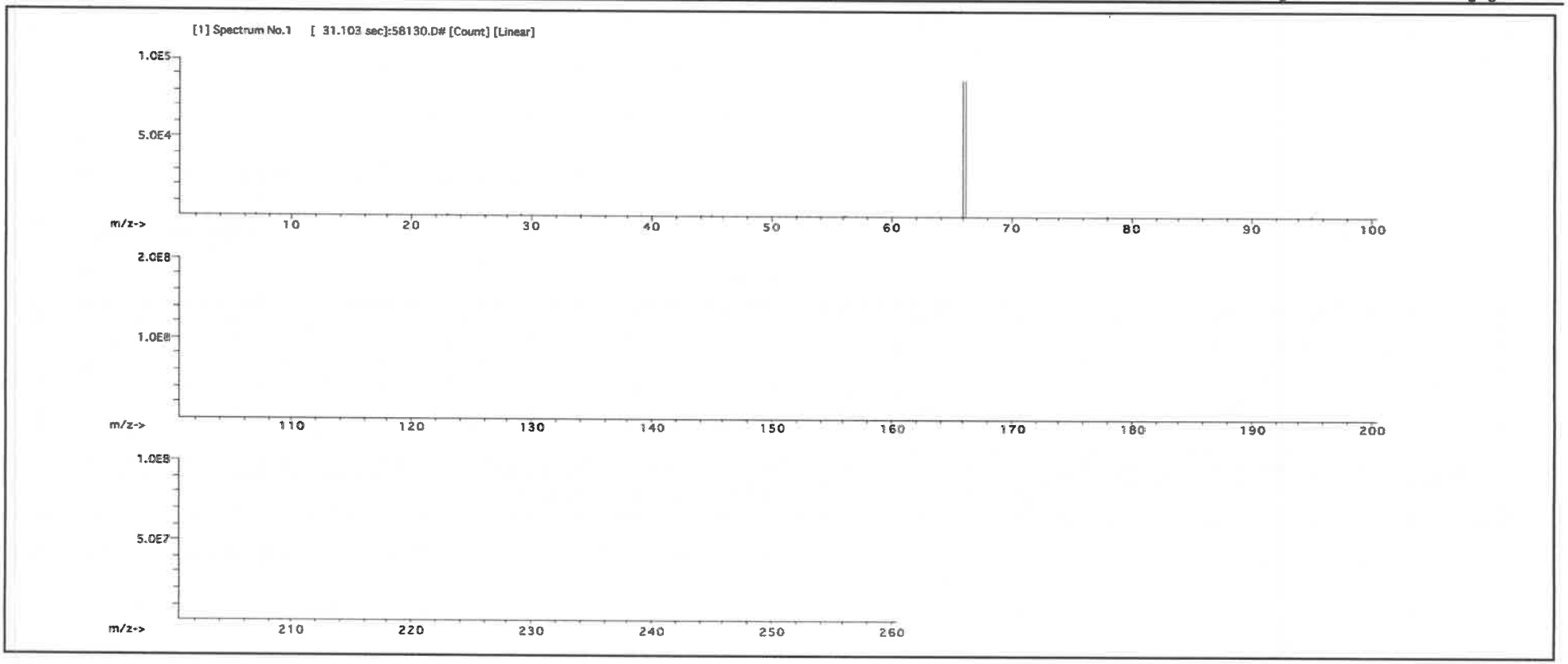
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

	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:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5820

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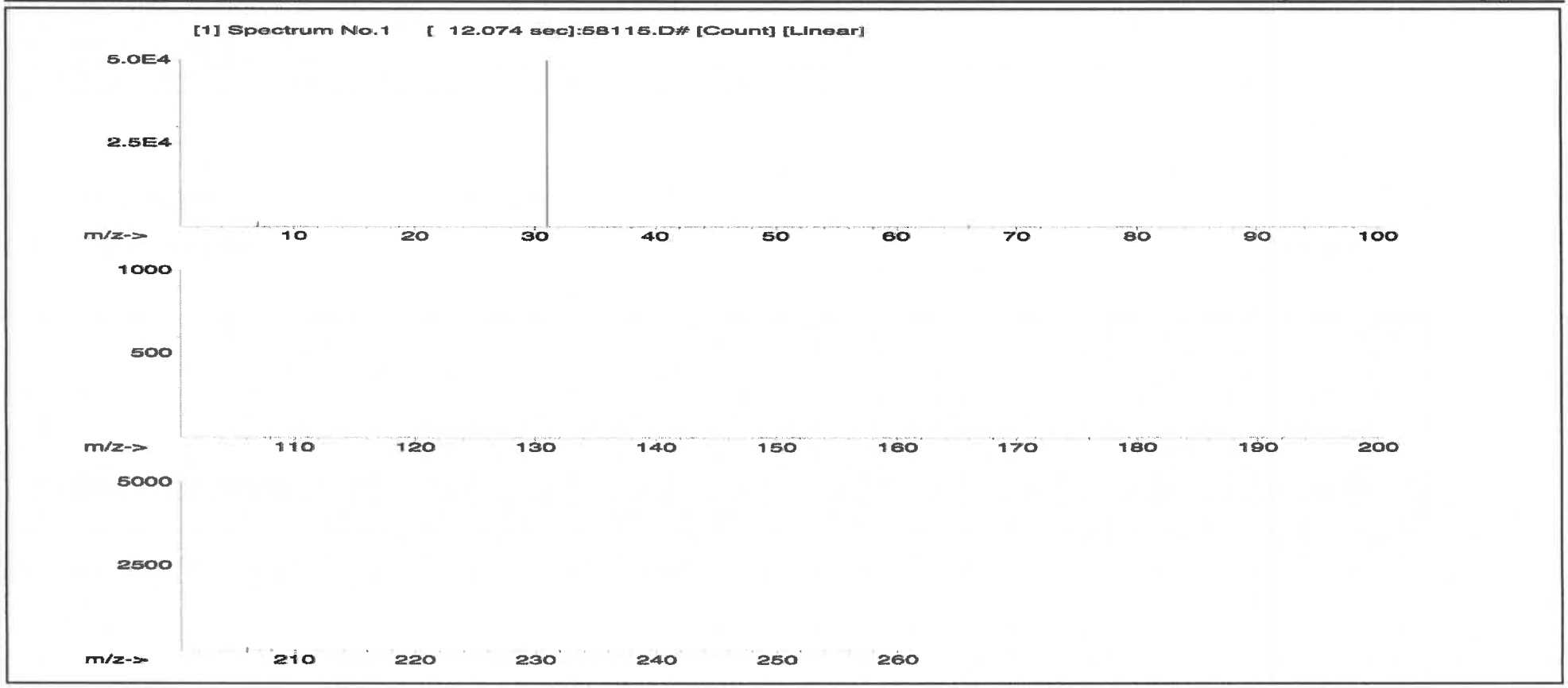
498

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



499

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.
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Certificate of Analysis

R: 02/22/24 M5942

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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:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO_3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

500

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



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Certificate of Analysis

M5959 R: 6/14/24.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 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.

504

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:

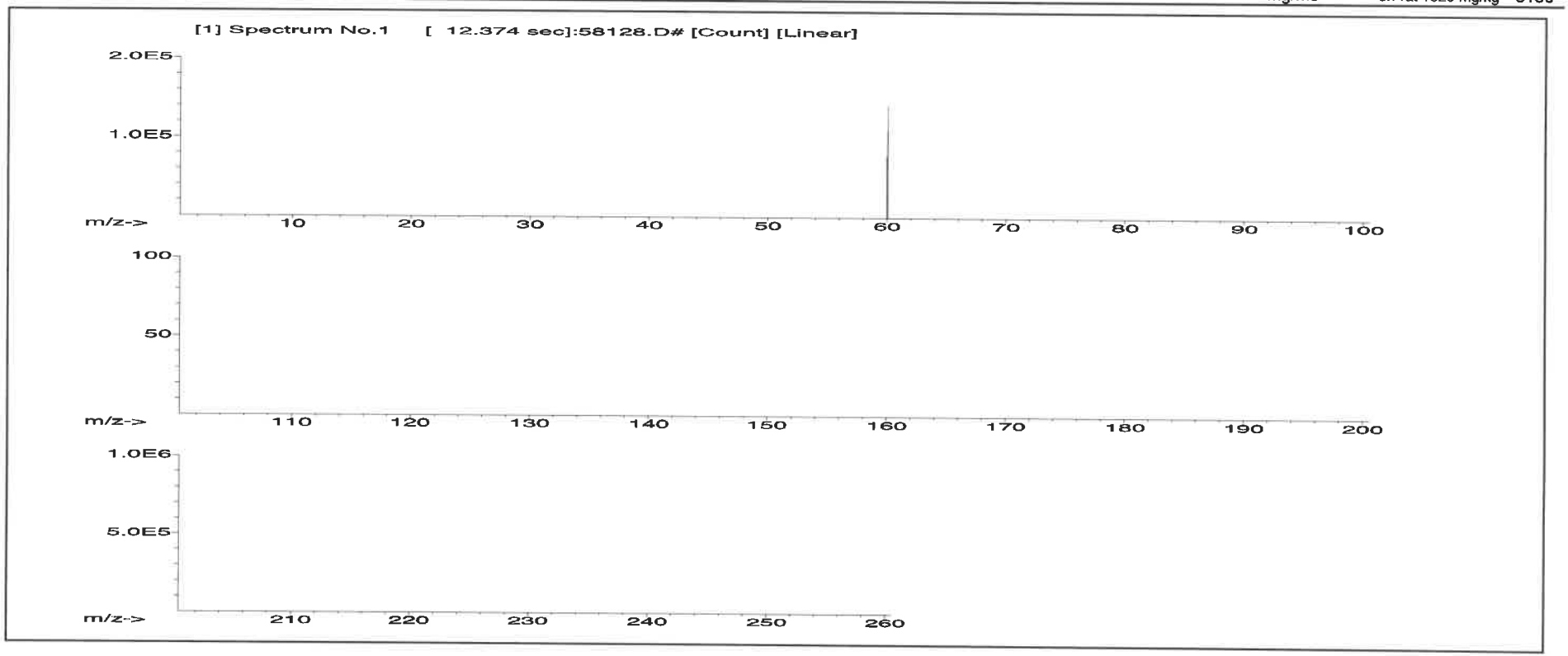
Part Number: 57028
Lot Number: 041124
Description: Nickel (Ni)
Expiration Date: 041127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 249.85 ± 0.002 Flask Uncertainty

	Lot #		±
Solvent:	24002546	Nitric Acid	5E-05 Balance Uncertainty
2%	5.0 (mL)	Nitric Acid	

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



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	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).

509

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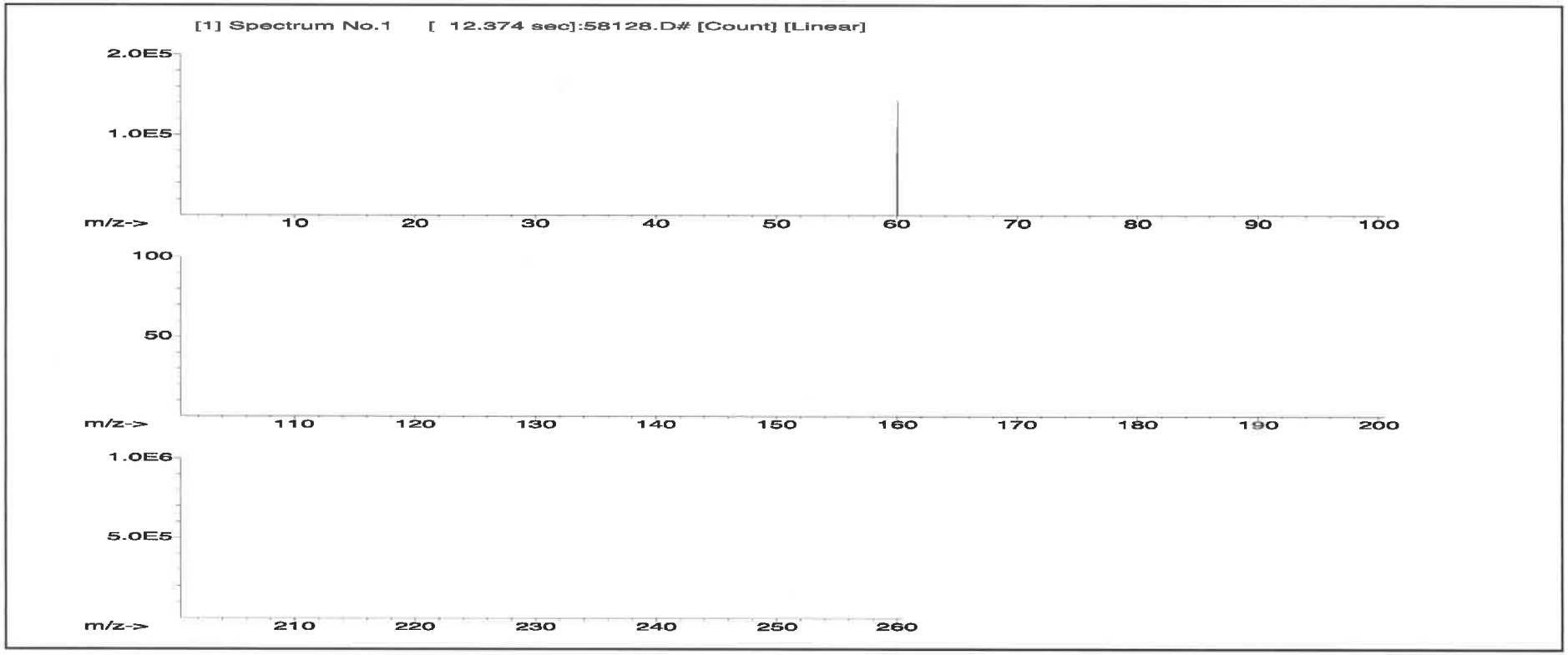
510

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



511

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5962 R! 06/14/24.

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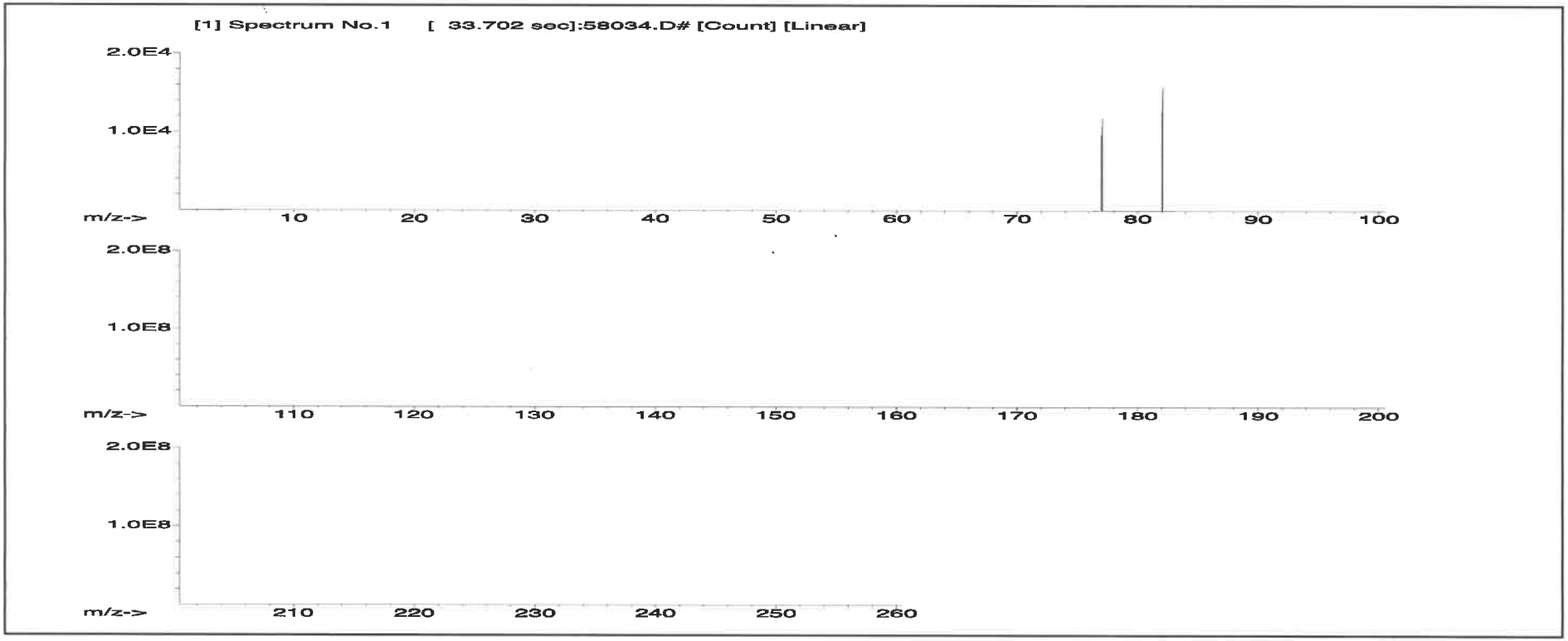
512

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



513

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

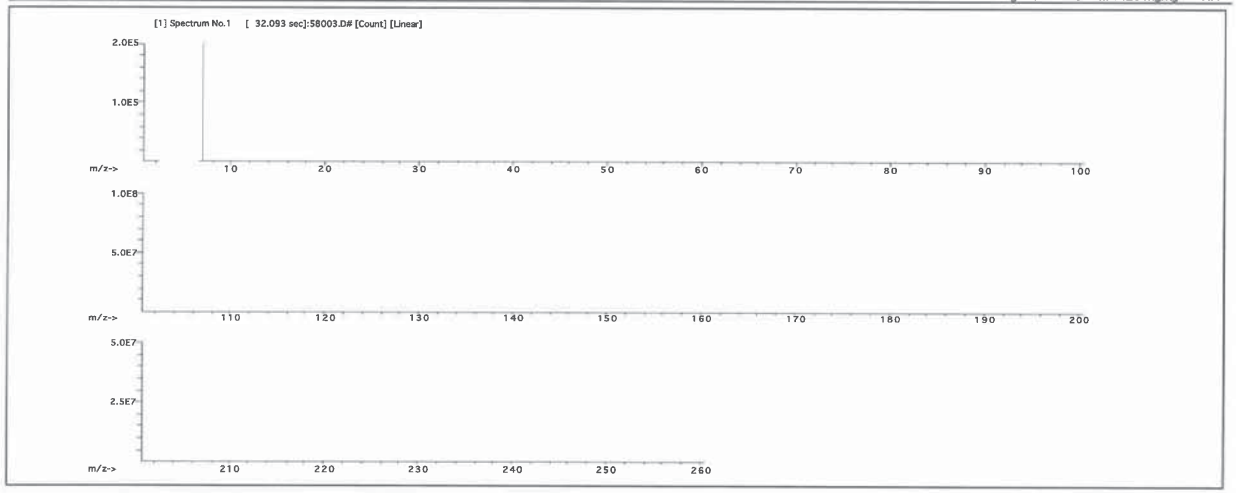
Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	5.0 (mL)	Nitric Acid	

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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www.absolutestandards.com

Certified Reference Material CRM

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

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	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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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



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M5978, M5979

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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:	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 (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma(w_i)^2\ (u_{char\ i})^2]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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

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.

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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



Certificate of Analysis

Refine your results. Redefine your industry.

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R: 2/22/2024
M5999

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



Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R ->10/13/24
Metal g

M 6120

Material No.: 9606-03
Batch No.: 2310662003
Manufactured Date: 2023-08-21
Retest Date: 2028-08-19
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.5 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	10
Residue after Ignition	≤ 2 ppm	< 2 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.08 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.10 ppm
Sulfate (SO_4)	≤ 0.2 ppm	0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 40.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 5.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 50 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	< 50.0 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	30.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 20 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 20 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 40.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 20 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 20.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 2310662003

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 50.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 50 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 50 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 150.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 30.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 10.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	60 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	10 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 2310662003

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

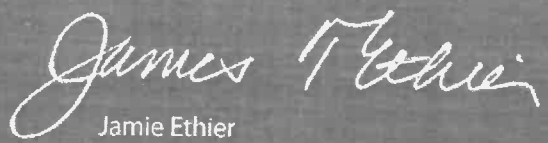
535

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

536

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

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CERTIFIED WEIGHT REPORT:

R -> 1/13/25

M 6127

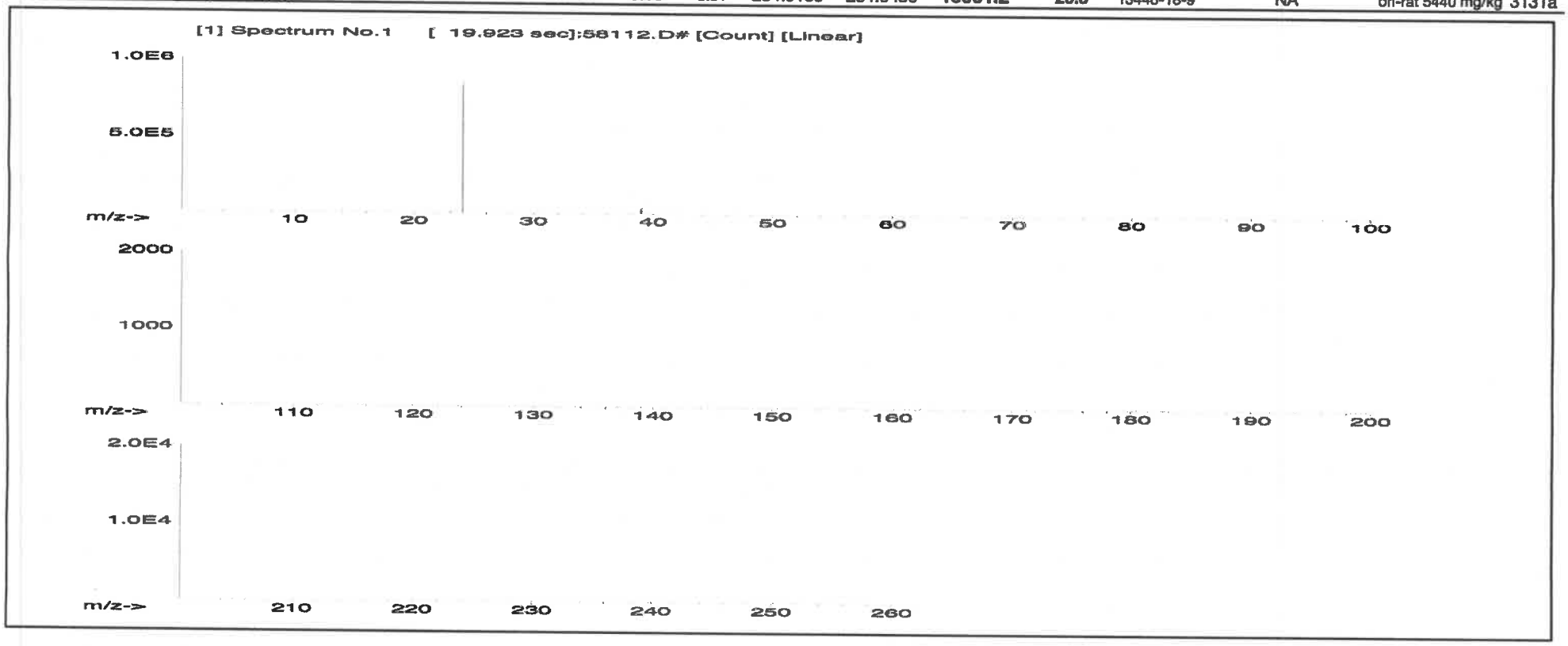
Part Number:	**58112**		**Lot #**	
Lot Number:	**112124**	**Solvent:**	24012496	Nitric Acid
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

539

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9459	**10001.2**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



540

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:



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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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541

CERTIFIED WEIGHT REPORT:

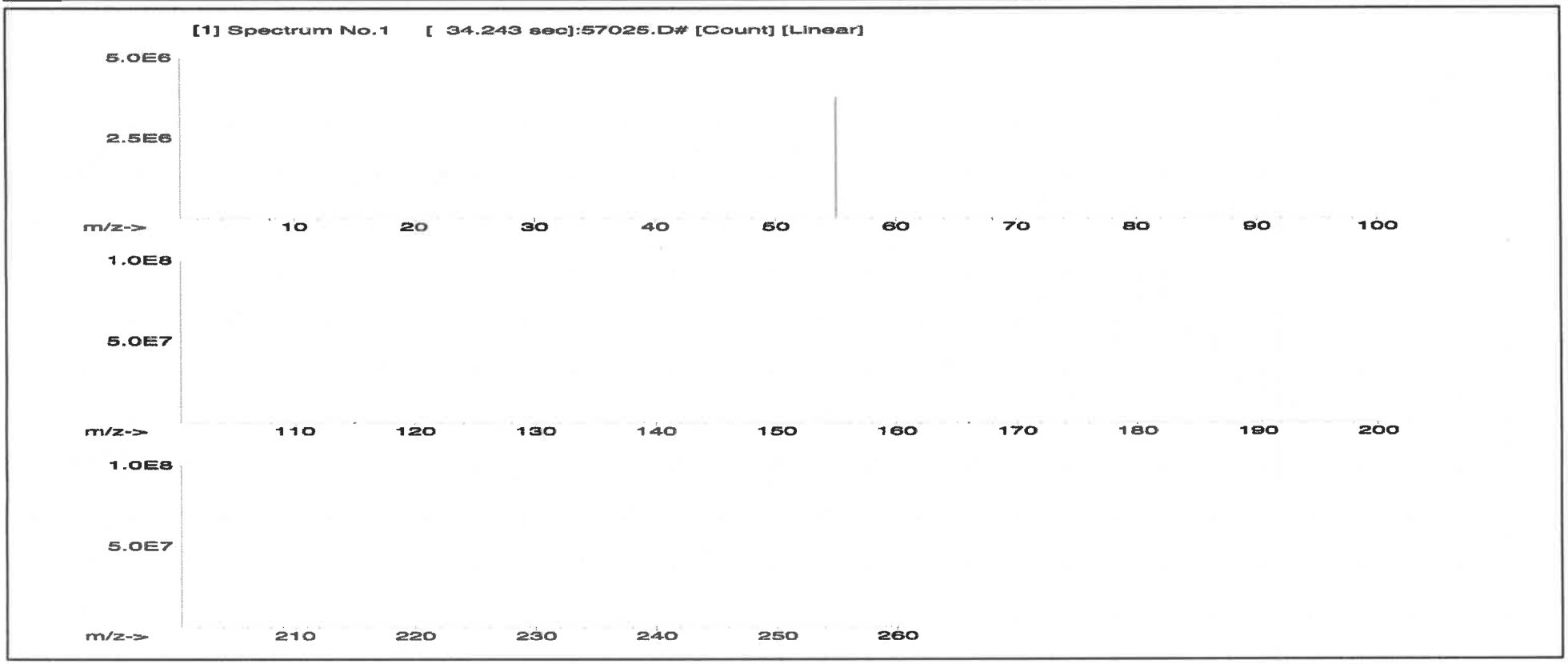
R->1/13/28
M6928

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	101124
Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



542

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 01/03/24 M5806, M5807

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543

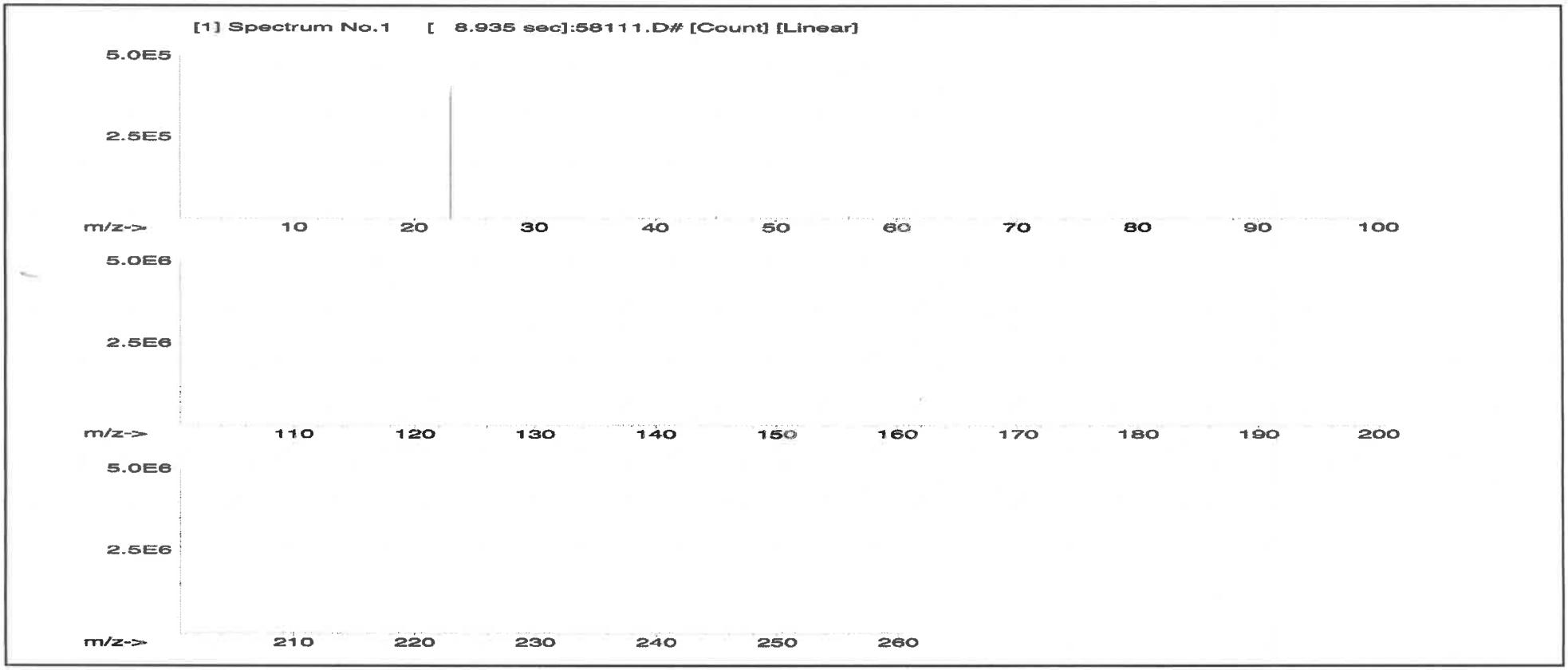
CERTIFIED WEIGHT REPORT:

Part Number:	**58111**		**Lot #**		
Lot Number:	**122223**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		2%	60.0 (mL)	Nitric Acid	
Expiration Date:	122226				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	3000.4	0.06	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



544

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.
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R: 01/03/24 M5802, M5803

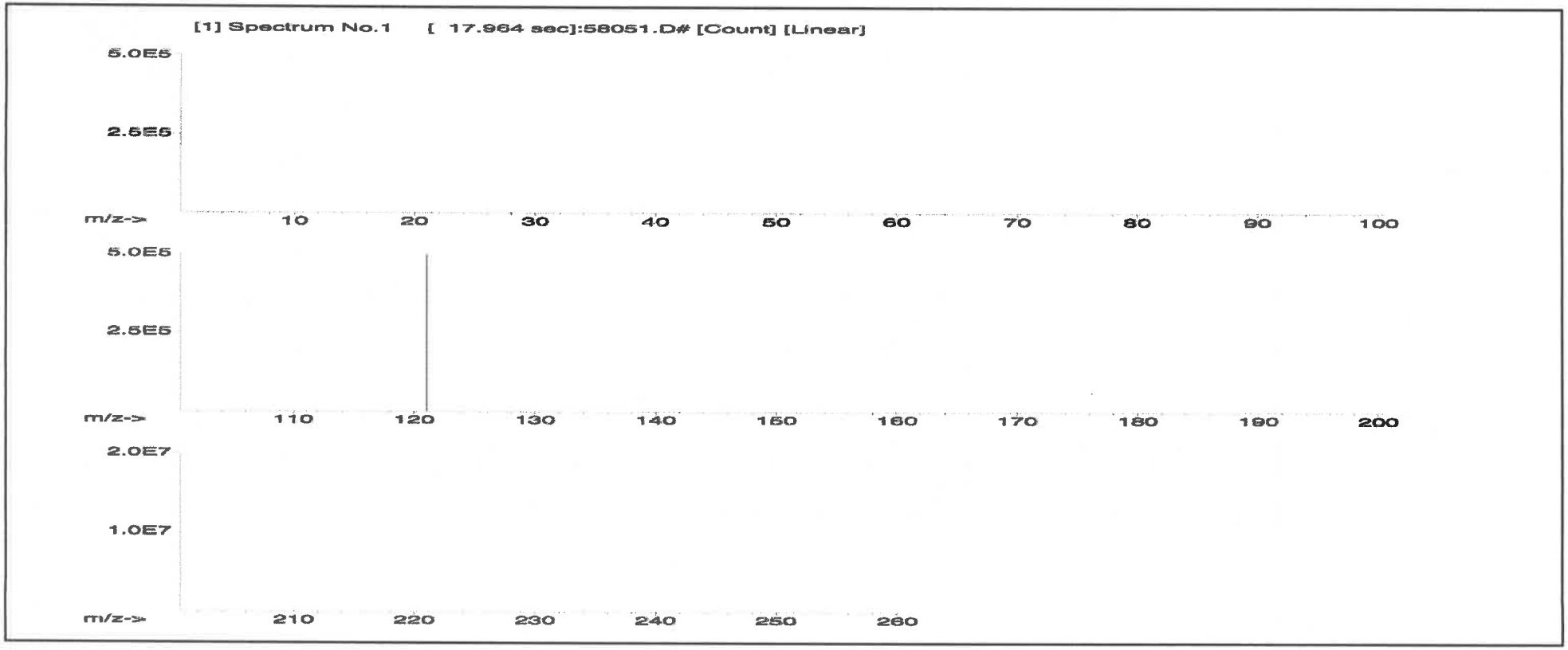
545

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



546

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:

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M6030

R: 8/5/24

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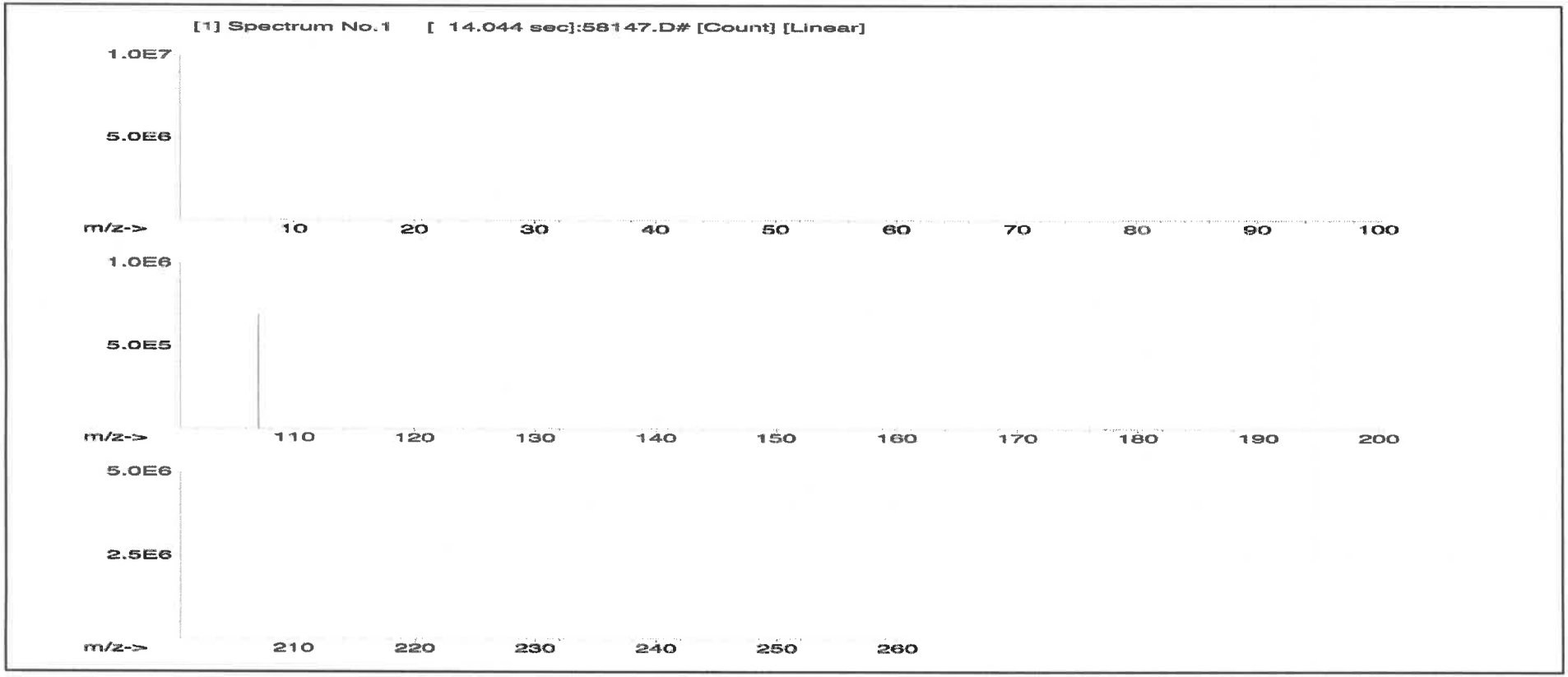
547

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**				
		2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



548

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 8/5/24 M6019

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 888.01 ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

549

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	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

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AR-1539 Certificate Number
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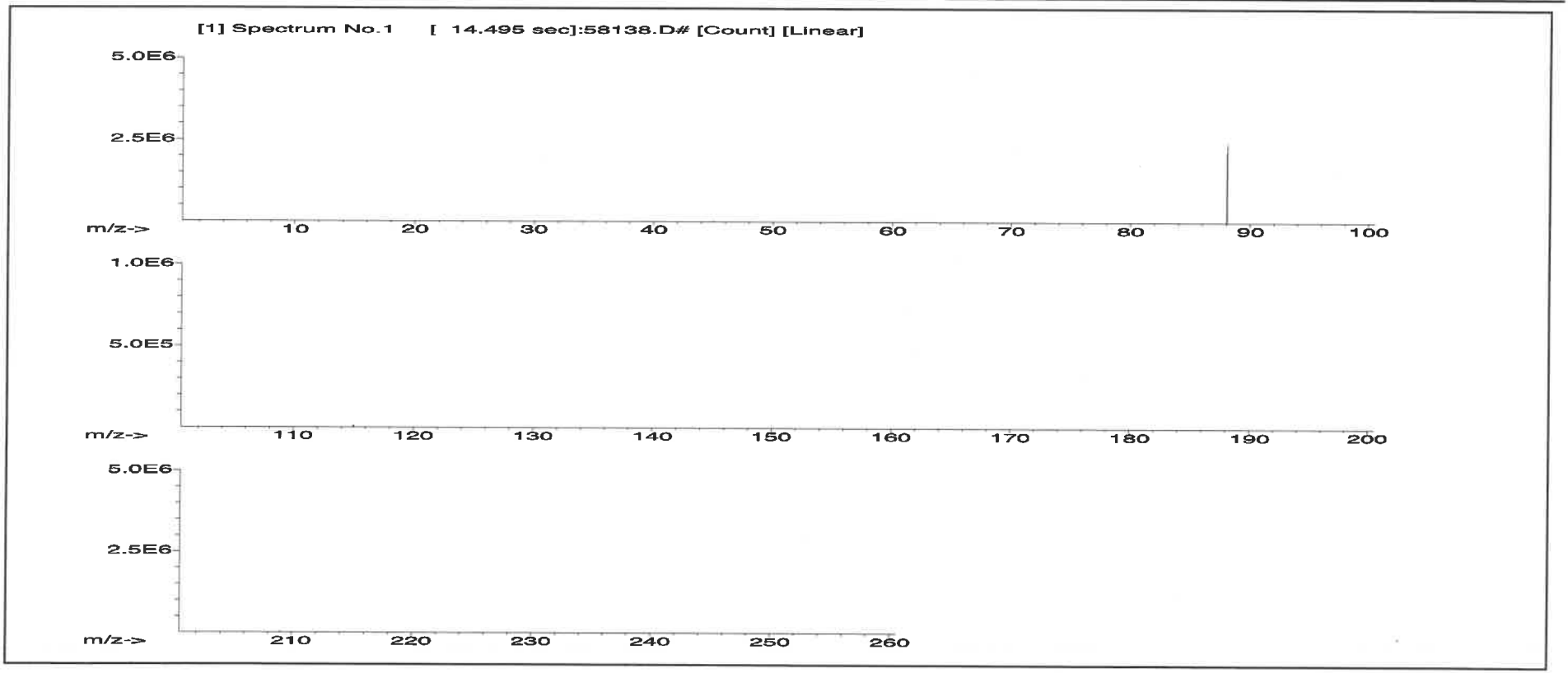
553

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



554

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.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

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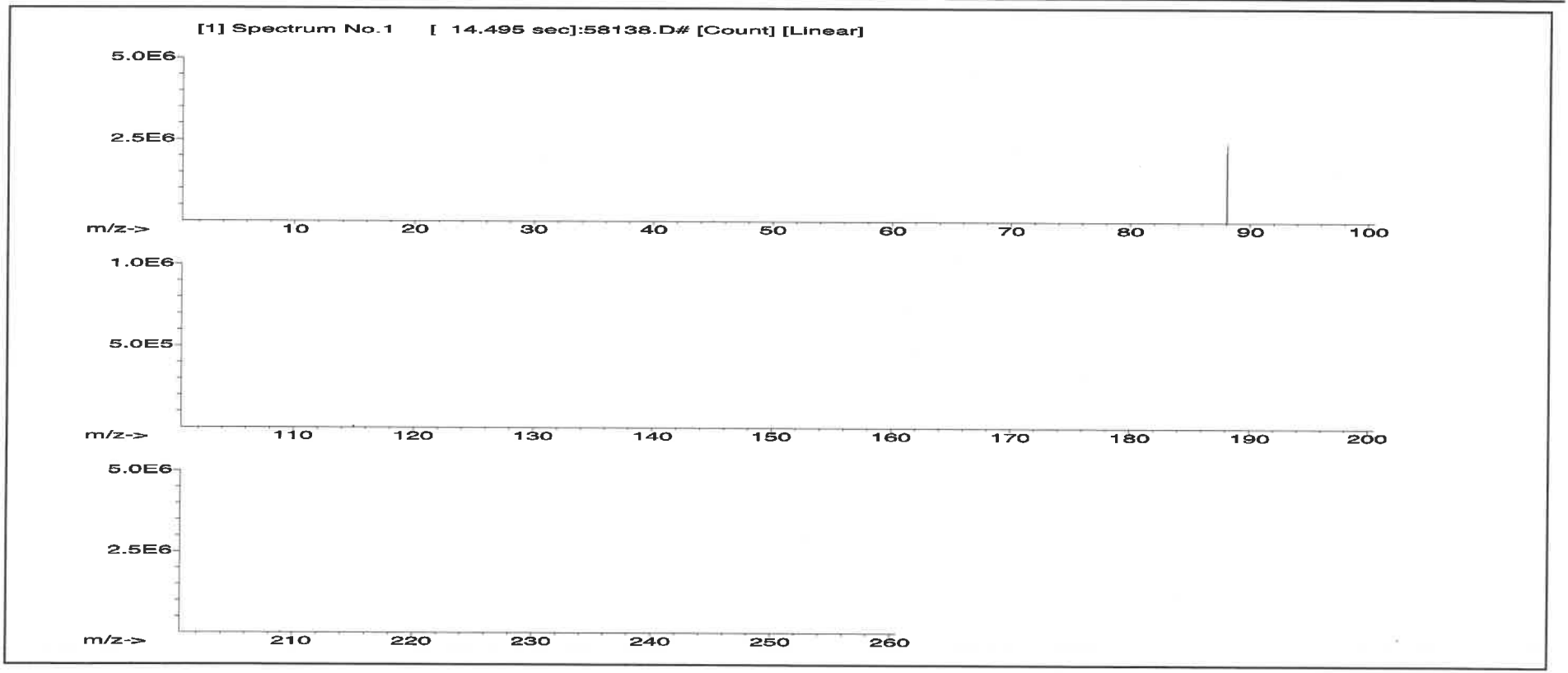
555

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



5569

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.

* 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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557

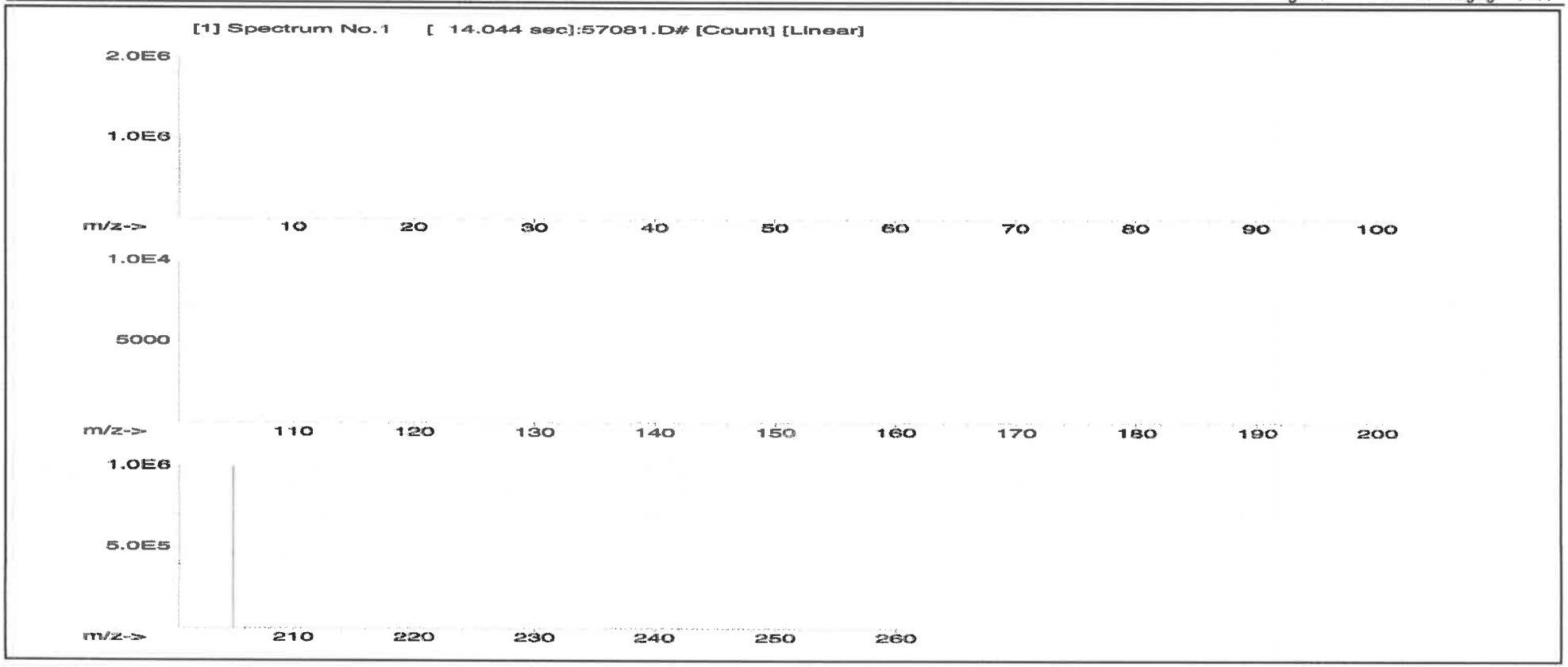
CERTIFIED WEIGHT REPORT:

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



558

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

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

Rc. 8/5/24

559

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

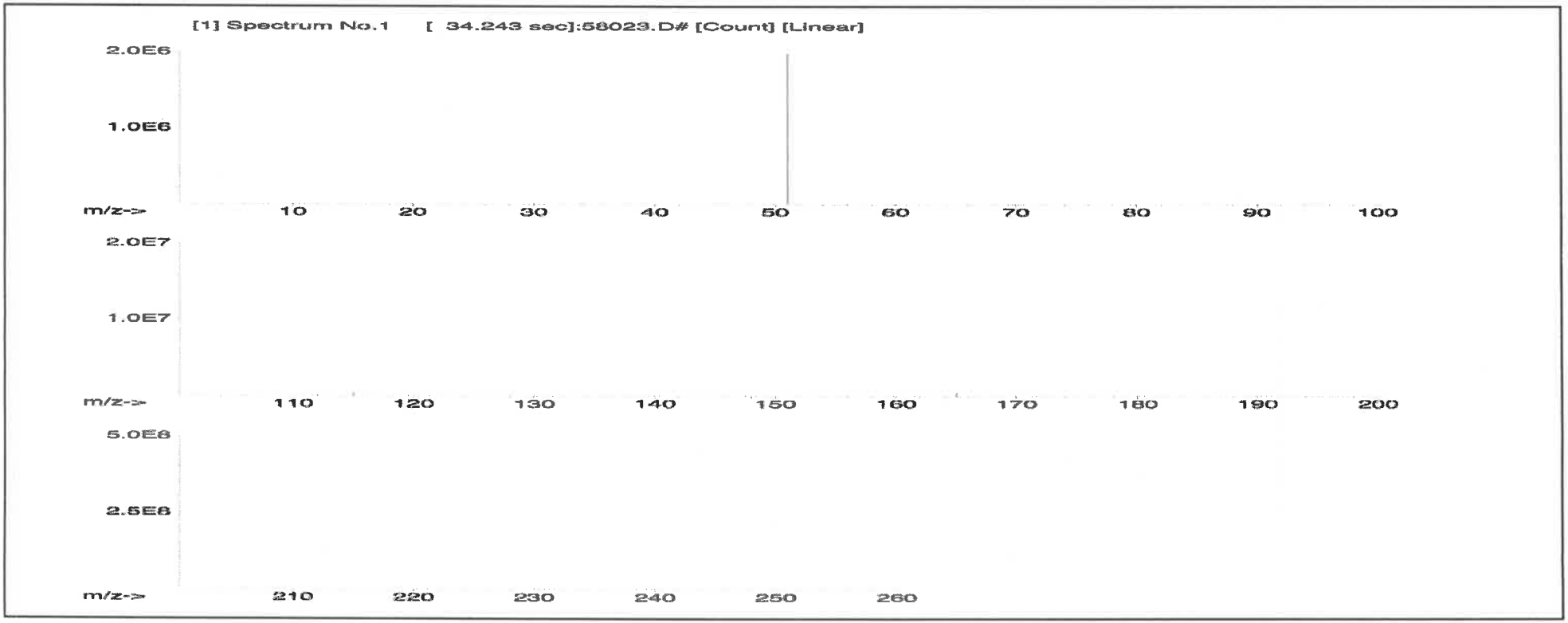
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



560

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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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).

SJ 01/03/2025

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB165941

M200.7 -Trace Elements-22

SOP ID : ~~M3050B-Digestion-20~~, MSFAM01.1-Trace Metals-2

SDG No : MH2D27

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 01/02/2025 **Time :** 11:30 **Temp :** 96 °C

End Digest Date: 01/02/2025 **Time :** 13:35 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SJ29.

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSS	1.00	MP83506
Spike Sol 6	1.00	MP83512
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	1.00	MP83498
1:1 HCL	0.50	MP83499
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #1 CELL #55 : 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/02/25 14:35	SJ29. mcb digestion	metals GD
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
P5392-01	MH2D27	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	1
P5392-02	MH2D30	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	2
P5392-03	MH2D33	<2	50	50	light Brown	Colorless	Clear	Clear	N/A	3
P5392-04	MH2D36	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	4
P5392-05	MH2D39	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	5
P5392-06	MH2D42	<2	50	50	light Brown	Colorless	Clear	Clear	N/A	6
P5392-07	MH2D45	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	7
P5392-08	MH2D48	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	8
P5392-09	MH2D51	<2	50	50	Light Brown	Colorless	Clear	Clear	N/A	9
P5392-10	MH2D54	<2	50	50	Light Brown	Colorless	Clear	Clear	N/A	10
P5392-11	MH2D57	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	11
P5392-12	MH2D60	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	12
P5392-13	MH2D63	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	13
P5392-14	MH2D66	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	14
P5392-15	MH2D69	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	15
P5392-16	MH2D72	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	16
P5392-17	MH2D75	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	17
P5392-18	MH2D75D	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	18
P5392-19	MH2D75S	<2	50	50	Colorless	Colorless	Clear	Clear	MP83512	19
PB165941BL	PBW941	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	20
PB165941BS	LCS941	<2	50	50	Colorless	Colorless	Clear	Clear	MP83506	21
PB165941TB	LEB941	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	22

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134297

Review By	Sarabjit Jaswal	Review On	1/16/2025 1:15:01 PM
Supervise By	Mohan Bera	Supervise On	1/17/2025 1:13:09 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP84071,MP84072

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/15/25 12:32		Kareem	OK
2	S1	S01	CAL2	01/15/25 12:36		Kareem	OK
3	S2	S02	CAL3	01/15/25 12:41		Kareem	OK
4	S3	S03	CAL4	01/15/25 12:45		Kareem	OK
5	S4	S04	CAL5	01/15/25 12:49		Kareem	OK
6	S5	S05	CAL6	01/15/25 12:53		Kareem	OK
7	S6	S06	CAL7	01/15/25 12:57		Kareem	OK
8	ICV004	ICV004	ICV	01/15/25 13:43	Inst. paused for calibration review	Kareem	OK
9	ICB004	ICB004	ICB	01/15/25 13:47		Kareem	OK
10	ICSA004	ICSA004	ICSA	01/15/25 13:51		Kareem	OK
11	ICSAB004	ICSAB004	ICSAB	01/15/25 13:55		Kareem	OK
12	CCV023	CCV023	CCV	01/15/25 14:06	Inst. paused for review	Kareem	OK
13	CCB023	CCB023	CCB	01/15/25 14:11		Kareem	OK
14	PB165925BL	PBS925	MB	01/15/25 14:15		Kareem	OK
15	PB165925BS	LCS925	LCS	01/15/25 14:19		Kareem	OK
16	PB165941BL	PBW941	MB	01/15/25 14:23		Kareem	OK
17	PB165941BS	LCS941	LCS	01/15/25 14:27		Kareem	OK
18	PB165942BL	PBW942	MB	01/15/25 14:31		Kareem	OK

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134297

Review By	Sarabjit Jaswal	Review On	1/16/2025 1:15:01 PM
Supervise By	Mohan Bera	Supervise On	1/17/2025 1:13:09 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP84071,MP84072

19	PB165942BS	LCS942	LCS	01/15/25 14:35		Kareem	OK
20	P5388-11DL	MH2D56	SAM	01/15/25 14:39	2x for Fe	Kareem	Confirms
21	P5388-12DL	MH2D59	SAM	01/15/25 14:44	Not Use	Kareem	Not Ok
22	P5393-17	MH2D76	SAM	01/15/25 14:48	Mn High	Kareem	Dilution
23	P5393-18	MH2D76D	DUP	01/15/25 14:52	Mn High	Kareem	Dilution
24	P5393-17L	MH2D76L	SD	01/15/25 14:56	Mn High	Kareem	Dilution
25	P5393-19	MH2D76S	MS	01/15/25 15:00	Mn high, MS fail for As (26.79 ppb)Ba (Below RL).	Kareem	Dilution
26	P5392-17	MH2D75	SAM	01/15/25 15:04	Mn High	Kareem	Dilution
27	P5392-18	MH2D75D	DUP	01/15/25 15:08	Mn High	Kareem	Dilution
28	P5392-17L	MH2D75L	SD	01/15/25 15:13	Mn High	Kareem	Dilution
29	P5392-19	MH2D75S	MS	01/15/25 15:17	Mn high, MS fail for Ba (Below RL).	Kareem	Dilution
30	PB165941TB	LEB941	MB	01/15/25 15:21		Kareem	OK
31	PB165942TB	LEB942	MB	01/15/25 15:25		Kareem	OK
32	P5393-01	MH2D28	SAM	01/15/25 15:29	Mn,Zn High	Kareem	Dilution
33	P5393-02	MH2D31	SAM	01/15/25 15:33	Mn (oversaturated)	Kareem	Dilution
34	CCV024	CCV024	CCV	01/15/25 15:37		Kareem	OK
35	CCB024	CCB024	CCB	01/15/25 15:42		Kareem	OK
36	P5393-03	MH2D34	SAM	01/15/25 15:46	Mn High	Kareem	Dilution
37	P5393-04	MH2D37	SAM	01/15/25 15:50	Cu,Mn,Zn High	Kareem	Dilution

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134297

Review By	Sarabjit Jaswal	Review On	1/16/2025 1:15:01 PM
Supervise By	Mohan Bera	Supervise On	1/17/2025 1:13:09 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	
LCS Standard	MP83506
Chk Standard	MP84071,MP84072

38	P5393-05	MH2D40	SAM	01/15/25 15:54	Ca High	Kareem	Dilution
39	P5393-06	MH2D43	SAM	01/15/25 15:59	Mn High	Kareem	Dilution
40	P5393-07	MH2D46	SAM	01/15/25 16:03		Kareem	OK
41	P5393-08	MH2D49	SAM	01/15/25 16:07	Mn High	Kareem	Dilution
42	P5393-09	MH2D52	SAM	01/15/25 16:11		Kareem	OK
43	P5393-10	MH2D55	SAM	01/15/25 16:15		Kareem	OK
44	P5393-11	MH2D58	SAM	01/15/25 16:19	Cu High	Kareem	Dilution
45	P5393-12	MH2D61	SAM	01/15/25 16:23		Kareem	OK
46	P5393-13	MH2D64	SAM	01/15/25 16:27		Kareem	OK
47	P5393-14	MH2D67	SAM	01/15/25 16:31	Mn,Zn High	Kareem	Dilution
48	P5393-15	MH2D70	SAM	01/15/25 16:35	Mn,Zn High	Kareem	Dilution
49	P5393-16	MH2D73	SAM	01/15/25 16:40	Mn High	Kareem	Dilution
50	P5392-01	MH2D27	SAM	01/15/25 16:44	Mn,Zn High	Kareem	Dilution
51	P5392-02	MH2D30	SAM	01/15/25 16:48	Mn (oversaturated)	Kareem	Dilution
52	P5392-03	MH2D33	SAM	01/15/25 16:52		Kareem	OK
53	P5392-04	MH2D36	SAM	01/15/25 16:56	Cu,Mn,Zn High	Kareem	Dilution
54	P5392-05	MH2D39	SAM	01/15/25 17:01	Ca High	Kareem	Dilution
55	P5392-06	MH2D42	SAM	01/15/25 17:05	Mn High	Kareem	Dilution
56	CCV025	CCV025	CCV	01/15/25 17:25		Kareem	OK
57	CCB025	CCB025	CCB	01/15/25 17:29		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134314

Review By	Mohan Bera	Review On	1/17/2025 5:23:50 AM
Supervise By	Sarabjit Jaswal	Supervise On	1/17/2025 5:24:47 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	WP110806,WP110804,MP84098
LCS Standard	
Chk Standard	MP84071,MP84072

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/16/25 11:11		Kareem	OK
2	S1	S01	CAL2	01/16/25 11:15		Kareem	OK
3	S2	S02	CAL3	01/16/25 11:20		Kareem	OK
4	S3	S03	CAL4	01/16/25 11:23		Kareem	OK
5	S4	S04	CAL5	01/16/25 11:27		Kareem	OK
6	S5	S05	CAL6	01/16/25 11:31		Kareem	OK
7	S6	S06	CAL7	01/16/25 11:36		Kareem	OK
8	ICV005	ICV005	ICV	01/16/25 12:02	Inst. paused for calibration review	Kareem	OK
9	ICB005	ICB005	ICB	01/16/25 12:06		Kareem	OK
10	ICSA005	ICSA005	ICSA	01/16/25 12:10		Kareem	OK
11	ICSAB005	ICSAB005	ICSAB	01/16/25 12:14		Kareem	OK
12	CCV026	CCV026	CCV	01/16/25 12:24	Inst. paused for review	Kareem	OK
13	CCB026	CCB026	CCB	01/16/25 12:29		Kareem	OK
14	P5392-07	MH2D45	SAM	01/16/25 12:33		Kareem	OK
15	P5392-08	MH2D48	SAM	01/16/25 12:37	Mn high	Kareem	Dilution
16	P5392-09	MH2D51	SAM	01/16/25 12:41		Kareem	OK
17	P5392-10	MH2D54	SAM	01/16/25 12:45		Kareem	OK
18	P5392-11	MH2D57	SAM	01/16/25 12:49	Cu,Mn high	Kareem	Dilution

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134314

Review By	Mohan Bera	Review On	1/17/2025 5:23:50 AM
Supervise By	Sarabjit Jaswal	Supervise On	1/17/2025 5:24:47 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	WP110806,WP110804,MP84098
LCS Standard	
Chk Standard	MP84071,MP84072

19	P5392-12	MH2D60	SAM	01/16/25 12:53		Kareem	OK
20	P5392-13	MH2D63	SAM	01/16/25 12:57		Kareem	OK
21	P5392-14	MH2D66	SAM	01/16/25 13:01	Mn,Zn high	Kareem	Dilution
22	P5392-15	MH2D69	SAM	01/16/25 13:06	Mn,Zn high	Kareem	Dilution
23	P5392-16	MH2D72	SAM	01/16/25 13:10	Mn high	Kareem	Dilution
24	P5392-01DL	MH2D27	SAM	01/16/25 13:14	NOT USE	Kareem	Not Ok
25	P5392-01DL2	MH2D27	SAM	01/16/25 13:18	8x for Mn,Zn	Kareem	Confirms
26	P5392-02DL2	MH2D30	SAM	01/16/25 13:22	NOT USE	Kareem	Not Ok
27	P5392-03DL	MH2D33	SAM	01/16/25 13:27	NOT USE	Kareem	Not Ok
28	P5392-04DL	MH2D36	SAM	01/16/25 13:30	NOT USE	Kareem	Not Ok
29	P5392-04DL2	MH2D36	SAM	01/16/25 13:35	8x for Cu,Mn,Zn	Kareem	Confirms
30	P5392-05DL	MH2D39	SAM	01/16/25 13:39	2x for Ca	Kareem	Confirms
31	P5392-06DL	MH2D42	SAM	01/16/25 13:43	NOT USE	Kareem	Not Ok
32	P5392-07DL	MH2D45	SAM	01/16/25 13:47	NOT USE	Kareem	Not Ok
33	P5392-08DL	MH2D48	SAM	01/16/25 13:51	2x for Mn	Kareem	Confirms
34	CCV027	CCV027	CCV	01/16/25 13:55		Kareem	OK
35	CCB027	CCB027	CCB	01/16/25 13:59		Kareem	OK
36	P5392-11DL	MH2D57	SAM	01/16/25 14:03	2x for Cu,Mn, Still Cu high	Kareem	Dilution
37	P5392-11DL2	MH2D57	SAM	01/16/25 14:07	5x for Cu	Kareem	Confirms
38	P5392-14DL3	MH2D66	SAM	01/16/25 14:11	NOT USE	Kareem	Not Ok

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134314

Review By	Mohan Bera	Review On	1/17/2025 5:23:50 AM
Supervise By	Sarabjit Jaswal	Supervise On	1/17/2025 5:24:47 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	WP110806,WP110804,MP84098
LCS Standard	
Chk Standard	MP84071,MP84072

39	P5392-14DL2	MH2D66	SAM	01/16/25 14:16	5x for Mn,Zn, Still Mn high	Kareem	Dilution
40	P5392-15DL	MH2D69	SAM	01/16/25 14:20	10x for Mn,Zn	Kareem	Confirms
41	P5392-16DL	MH2D72	SAM	01/16/25 14:24	4x for Mn	Kareem	Confirms
42	P5392-17DL	MH2D75	SAM	01/16/25 14:28	5x for Mn	Kareem	Confirms
43	P5392-18DL	MH2D75D	DUP	01/16/25 14:32	5x for Mn	Kareem	Confirms
44	P5392-17LDL	MH2D75L	SD	01/16/25 14:36	25x for Mn	Kareem	Confirms
45	P5392-19DL	MH2D75S	MS	01/16/25 14:40	5x for Mn	Kareem	Confirms
46	P5393-01DL	MH2D28	SAM	01/16/25 14:44	5x for Mn,Zn, Still Zn high	Kareem	Dilution
47	P5393-02DL2	MH2D31	SAM	01/16/25 14:48	NOT USE	Kareem	Not Ok
48	P5393-03DL	MH2D34	SAM	01/16/25 14:52	2x for Mn	Kareem	Confirms
49	P5393-04DL2	MH2D37	SAM	01/16/25 14:56	NOT USE	Kareem	Not Ok
50	P5393-05DL	MH2D40	SAM	01/16/25 15:01	2x for Ca	Kareem	Confirms
51	P5393-06DL	MH2D43	SAM	01/16/25 15:05	2x for Mn	Kareem	Confirms
52	P5393-08DL	MH2D49	SAM	01/16/25 15:09	2x for Mn	Kareem	Confirms
53	P5393-11DL	MH2D58	SAM	01/16/25 15:13	NOT USE	Kareem	Not Ok
54	P5393-14DL	MH2D67	SAM	01/16/25 15:17	15x for Mn	Kareem	Confirms
55	P5393-14DL2	MH2D67	SAM	01/16/25 15:21	5x for Mn,Zn, Still Mn high	Kareem	Dilution
56	CCV028	CCV028	CCV	01/16/25 15:30		Kareem	OK
57	CCB028	CCB028	CCB	01/16/25 15:34		Kareem	OK
58	P5393-15DL	MH2D70	SAM	01/16/25 15:38	10x for Mn,Zn	Kareem	Confirms

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134314

Review By	Mohan Bera	Review On	1/17/2025 5:23:50 AM
Supervise By	Sarabjit Jaswal	Supervise On	1/17/2025 5:24:47 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	WP110806,WP110804,MP84098
LCS Standard	
Chk Standard	MP84071,MP84072

59	P5393-16DL	MH2D73	SAM	01/16/25 15:42	4x for Mn	Kareem	Confirms
60	P5393-17DL	MH2D76	SAM	01/16/25 15:46	5x for Mn	Kareem	Confirms
61	P5393-18DL	MH2D76D	DUP	01/16/25 15:50	5x for Mn	Kareem	Confirms
62	P5393-17LDL	MH2D76L	SD	01/16/25 15:55	25x for Mn	Kareem	Confirms
63	P5393-19DL	MH2D76S	MS	01/16/25 15:59	5x for Mn	Kareem	Confirms
64	P5393-04DL3	MH2D37	SAM	01/16/25 16:03	NOT USE	Kareem	Not Ok
65	P5393-04DL	MH2D37	SAM	01/16/25 16:07	10x for Cu,Mn,Zn	Kareem	Confirms
66	P5393-06DL2	MH2D43	SAM	01/16/25 16:11	NOT USE	Kareem	Not Ok
67	P5393-08DL2	MH2D49	SAM	01/16/25 16:15	NOT USE	Kareem	Not Ok
68	P5393-11DL2	MH2D58	SAM	01/16/25 16:19	5x for Cu	Kareem	Confirms
69	P5393-14DL3	MH2D67	SAM	01/16/25 16:23	NO USE	Kareem	Not Ok
70	P5393-17DL2	MH2D76	SAM	01/16/25 16:27	NO USE	Kareem	Not Ok
71	P5393-18DL2	MH2D76D	DUP	01/16/25 16:31	NO USE	Kareem	Not Ok
72	P5393-17LDL2	MH2D76L	SD	01/16/25 16:35	NO USE	Kareem	Not Ok
73	P5393-19DL2	MH2D76S	MS	01/16/25 16:39	NO USE	Kareem	Not Ok
74	P5392-17DL2	MH2D75	SAM	01/16/25 16:43	NOT USE	Kareem	Not Ok
75	P5392-18DL2	MH2D75D	DUP	01/16/25 16:47	NOT USE	Kareem	Not Ok
76	P5392-17LDL2	MH2D75L	SD	01/16/25 16:51	NOT USE	Kareem	Not Ok
77	P5392-19DL2	MH2D75S	MS	01/16/25 16:55	NOT USE	Kareem	Not Ok
78	CCV029	CCV029	CCV	01/16/25 16:59		Kareem	OK

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Fax : 908 789 8922

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134314

Review By	Mohan Bera	Review On	1/17/2025 5:23:50 AM
Supervise By	Sarabjit Jaswal	Supervise On	1/17/2025 5:24:47 AM

STD. NAME	STD REF.#
ICAL Standard	MP83935,MP84064,MP84062,MP84061,MP84060,MP84059,MP84058
ICV Standard	MP84065
CCV Standard	MP84068
ICSA Standard	MP84066,MP84067
CRI Standard	WP110806,WP110804,MP84098
LCS Standard	
Chk Standard	MP84071,MP84072

79	CCB029	CCB029	CCB	01/16/25 17:03		Kareem	OK
80	P5392-06DL2	MH2D42	SAM	01/16/25 17:16	5x for Mn	Kareem	Confirms
81	P5392-14DL	MH2D66	SAM	01/16/25 17:21	20x for Mn	Kareem	Confirms
82	P5392-17A	MH2D75A	PS	01/16/25 17:42	PS For Ba -0.004ml OF M5390-10ml Sample	Kareem	OK
83	P5393-17A	MH2D76A	PS	01/16/25 17:46	PS For As-0.0054ml of MP84098,Ba-0.004ml of M5390	Kareem	OK
84	P5393-01DL2	MH2D28	SAM	01/16/25 17:51	10x for Zn	Kareem	Confirms
85	P5393-02DL3	MH2D31	SAM	01/16/25 17:55	NOT USE	Kareem	Not Ok
86	P5392-02DL3	MH2D30	SAM	01/16/25 17:59	NOT USE	Kareem	Not Ok
87	P5392-02DL	MH2D30	SAM	01/16/25 18:05	20x for Mn	Kareem	Confirms
88	P5393-02DL	MH2D31	SAM	01/16/25 18:11	20x for Mn	Kareem	Confirms
89	CCV030	CCV030	CCV	01/16/25 18:15		Kareem	OK
90	CCB030	CCB030	CCB	01/16/25 18:19		Kareem	OK

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB165908

SOP ID : M1312-SPLP-10

SDG No : MH2D27

Weigh By : RM

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : RM

Filter By : RM

Pippete ID : WC

Tumbler ID : T-1/T-2

TCLP Filter ID : 114771

Start Prep Date : 12/30/2024 **Time :** 15:00

End Prep Date : 12/31/2024 **Time :** 08:30

Combination Ratio : 20

ZHE Cleaning Batch : N/A

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : RM

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
SPLP FLUID	N/A	WP110806
N/A	N/A	N/A
HNO3-TCLP,1N	N/A	WP110804
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
120ml Plastic bottle	N/A	405130101
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

TUBLER T-1/T-2 checked,30 rpm.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/31/24 10:40	RM TclPRoom	SRG. / DEF DIG
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB165908

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
P5392-01	MH2D27	1	100.03	329	N/A	N/A	N/A	2.16	1.08	T-1
P5392-02	MH2D30	2	100.01	344	N/A	N/A	N/A	2.37	1.36	T-1
P5392-03	MH2D33	3	100.03	355	N/A	N/A	N/A	1.93	N/A	T-1
P5392-04	MH2D36	4	100.03	330	N/A	N/A	N/A	2.61	1.36	T-1
P5392-05	MH2D39	5	100.02	329	N/A	N/A	N/A	6.35	1.44	T-1
P5392-06	MH2D42	6	100.02	294	N/A	N/A	N/A	1.97	N/A	T-1
P5392-07	MH2D45	7	100.03	337	N/A	N/A	N/A	1.87	N/A	T-1
P5392-08	MH2D48	8	100.02	353	N/A	N/A	N/A	1.86	N/A	T-1
P5392-09	MH2D51	9	100.04	360	N/A	N/A	N/A	1.93	N/A	T-1
P5392-10	MH2D54	10	100.02	372	N/A	N/A	N/A	1.94	N/A	T-1
P5392-11	MH2D57	11	100.04	295	N/A	N/A	N/A	1.94	N/A	T-2
P5392-12	MH2D60	12	100.04	342	N/A	N/A	N/A	1.92	N/A	T-2
P5392-13	MH2D63	13	100.03	369	N/A	N/A	N/A	1.89	N/A	T-2
P5392-14	MH2D66	14	100.02	357	N/A	N/A	N/A	3.94	1.18	T-2
P5392-15	MH2D69	15	100.03	250	N/A	N/A	N/A	5.64	1.22	T-2
P5392-16	MH2D72	16	100.03	359	N/A	N/A	N/A	1.99	N/A	T-2
P5392-17	MH2D75	17	100.02	360	N/A	N/A	N/A	2.12	1.09	T-2
P5392-18	MH2D75D	17	100.02	360	N/A	N/A	N/A	2.12	1.09	T-2
P5392-19	MH2D75S	17	100.02	360	N/A	N/A	N/A	2.12	1.09	T-2
PB165908TB	LEB908	18	N/A	2000	N/A	N/A	N/A	4.23	1.03	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
P5392-01	MH2D27	N/A	N/A	N/A	N/A	100	N/A
P5392-02	MH2D30	N/A	N/A	N/A	N/A	100	N/A
P5392-03	MH2D33	N/A	N/A	N/A	N/A	100	N/A
P5392-04	MH2D36	N/A	N/A	N/A	N/A	100	N/A
P5392-05	MH2D39	N/A	N/A	N/A	N/A	100	N/A
P5392-06	MH2D42	N/A	N/A	N/A	N/A	100	N/A
P5392-07	MH2D45	N/A	N/A	N/A	N/A	100	N/A
P5392-08	MH2D48	N/A	N/A	N/A	N/A	100	N/A
P5392-09	MH2D51	N/A	N/A	N/A	N/A	100	N/A
P5392-10	MH2D54	N/A	N/A	N/A	N/A	100	N/A
P5392-11	MH2D57	N/A	N/A	N/A	N/A	100	N/A
P5392-12	MH2D60	N/A	N/A	N/A	N/A	100	N/A
P5392-13	MH2D63	N/A	N/A	N/A	N/A	100	N/A
P5392-14	MH2D66	N/A	N/A	N/A	N/A	100	N/A
P5392-15	MH2D69	N/A	N/A	N/A	N/A	100	N/A
P5392-16	MH2D72	N/A	N/A	N/A	N/A	100	N/A
P5392-17	MH2D75	N/A	N/A	N/A	N/A	100	N/A
P5392-18	MH2D75D	N/A	N/A	N/A	N/A	100	N/A
P5392-19	MH2D75S	N/A	N/A	N/A	N/A	100	N/A
PB165908TB	LEB908	N/A	N/A	N/A	N/A	N/A	N/A

Alliance TECHNICAL GROUP

SPLP Fluid Determination

PB165908

Hot Block ID : WC S-1 /WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
P5392-01	MH2D27	N/A	N/A	N/A	N/A	#1	4.23
P5392-02	MH2D30	N/A	N/A	N/A	N/A	#1	4.23
P5392-03	MH2D33	N/A	N/A	N/A	N/A	#1	4.23
P5392-04	MH2D36	N/A	N/A	N/A	N/A	#1	4.23
P5392-05	MH2D39	N/A	N/A	N/A	N/A	#1	4.23
P5392-06	MH2D42	N/A	N/A	N/A	N/A	#1	4.23
P5392-07	MH2D45	N/A	N/A	N/A	N/A	#1	4.23
P5392-08	MH2D48	N/A	N/A	N/A	N/A	#1	4.23
P5392-09	MH2D51	N/A	N/A	N/A	N/A	#1	4.23
P5392-10	MH2D54	N/A	N/A	N/A	N/A	#1	4.23
P5392-11	MH2D57	N/A	N/A	N/A	N/A	#1	4.23
P5392-12	MH2D60	N/A	N/A	N/A	N/A	#1	4.23
P5392-13	MH2D63	N/A	N/A	N/A	N/A	#1	4.23
P5392-14	MH2D66	N/A	N/A	N/A	N/A	#1	4.23
P5392-15	MH2D69	N/A	N/A	N/A	N/A	#1	4.23
P5392-16	MH2D72	N/A	N/A	N/A	N/A	#1	4.23
P5392-17	MH2D75	N/A	N/A	N/A	N/A	#1	4.23
P5392-18	MH2D75D	N/A	N/A	N/A	N/A	#1	4.23
P5392-19	MH2D75S	N/A	N/A	N/A	N/A	#1	4.23
PB165908TB	LEB908	N/A	N/A	N/A	N/A	#1	4.23

EPA SAMPLE NO.

MH2D27

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-01

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.27		01/03/2025	1110

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

Comments:

EPA SAMPLE NO.

MH2D30

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-02

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.82		01/03/2025	1112

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

Comments:

EPA SAMPLE NO.

MH2D33

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-03

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.079	J	01/03/2025	1114

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

Comments:

EPA SAMPLE NO.

MH2D36

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-04

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.25		01/03/2025	1117

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

Comments:

EPA SAMPLE NO.

MH2D39

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-05

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	01/03/2025	1119

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

Comments:

EPA SAMPLE NO.

MH2D42

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-06

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.25		01/03/2025	1121

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

Comments:

EPA SAMPLE NO.

MH2D45

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-07

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.046	J	01/03/2025	1124

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

Comments:

EPA SAMPLE NO.

MH2D48

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-08

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.085	J	01/03/2025	1126

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

Comments:

EPA SAMPLE NO.

MH2D51

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-09

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.14	J	01/03/2025	1128

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

Comments:

EPA SAMPLE NO.

MH2D54

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-10

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	01/03/2025	1130

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

Comments:

EPA SAMPLE NO.

MH2D57

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-11

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.22		01/03/2025	1133

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

Comments:

EPA SAMPLE NO.

MH2D60

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-12

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	01/03/2025	1135

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

Comments:

EPA SAMPLE NO.

MH2D63

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-13

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	01/03/2025	1137

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

Comments:

EPA SAMPLE NO.

MH2D66

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-14

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	01/03/2025	1142

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

Comments:

EPA SAMPLE NO.

MH2D69

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-15

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	01/03/2025	1144

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

Comments:

EPA SAMPLE NO.

MH2D72

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-16

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.035	J	01/03/2025	1146

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

Comments:

EPA SAMPLE NO.

MH2D75

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51811 MA No. : 3123.0 SDG No.: MH2D27

Matrix: Water Lab Sample ID: P5392-17

% Solids: Date Received: 12/27/2024

Analytical Method: Hg

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7439-97-6	Mercury	0.20	U	01/03/2025	1148

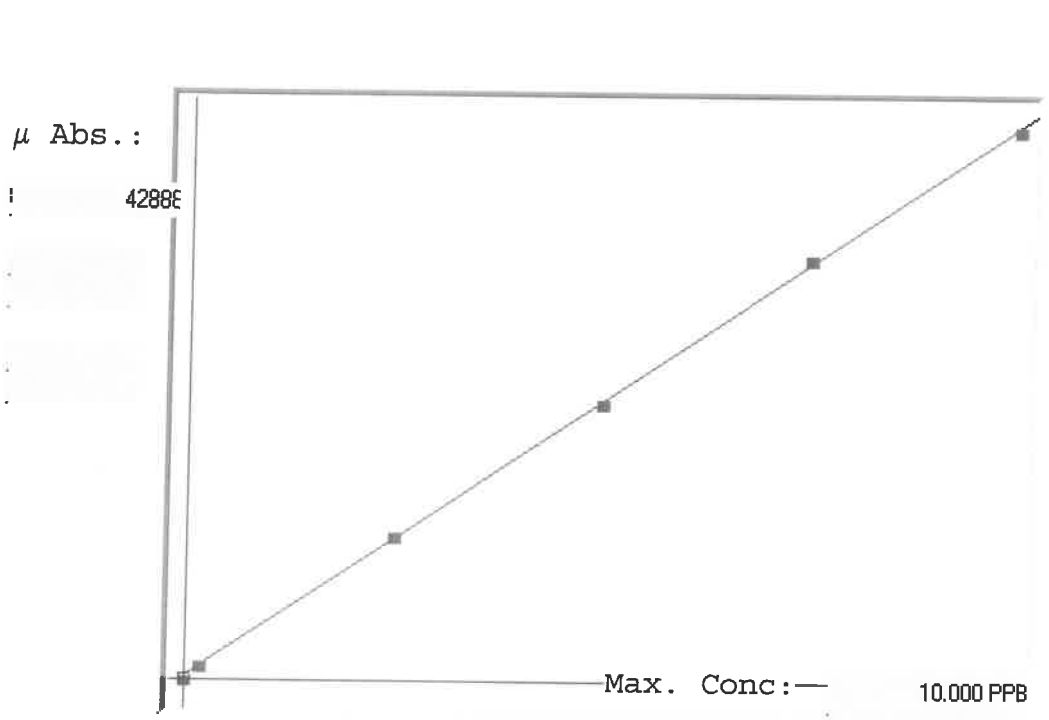
NOTE: Hardness (total) is reported in mg/L

Comments:

Reviewed By:mohan
On:1/3/2025 9:53:44 PM
Inst Id :CV1

LB134154

SFAM01.1 INSTRUMENT ID: CV1



A= 0.0000e+000

B= 2.3315e-004 slope

C= -6.8597e-002 y=mx+c

Rho= 0.9998685

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	%
0.00	0.000	-0.035	-0.035	145	0.000	145	0				=
0.05	0.050					442	0				2
0.20	0.200	0.203	0.003	1164	0.0 %	1164					2
2.50	2.500	2.542	0.042	11195	0.0 %	11195					1
5.00	5.000	4.953	-0.047	21536	0.0 %	21536					1
7.50	7.500	7.607	0.107	32922	0.0 %	32922					1
10.0	10.000	9.931	-0.069	42888	0.0 %	42888					

Reviewed By:mohan
On:1/3/2025 9:53:44 PM
Inst Id :CV1

LBN134154

INSTRUMENT ID : CV1

Sample ID	Extended ID	µ Abs.	Conc.		Stnd Conc	Method	Units	Date	Type
0	S0	145	-		0	SFAM01.1	PPB	1/3/2025 10:39	Std
0.2	S01	1164	-		0.2	SFAM01.1	PPB	1/3/2025 10:41	Std
2.5	S02	11195	-		2.5	SFAM01.1	PPB	1/3/2025 10:43	Std
5	S03	21536	-		5	SFAM01.1	PPB	1/3/2025 10:46	Std
7.5	S04	32922	-		7.5	SFAM01.1	PPB	1/3/2025 10:51	Std
10	S05	42888	-		10	SFAM01.1	PPB	1/3/2025 10:56	Std
ICV041	ICV041	17183	3.9376	-		SFAM01.1	PPB	1/3/2025 10:59	SMPL
ICB041	ICB041	56	-0.0555	-		SFAM01.1	PPB	1/3/2025 11:01	SMPL
CCV096	CCV096	21829	5.0208	-		SFAM01.1	PPB	1/3/2025 11:03	SMPL
CCB096	CCB096	66	-0.0532	-		SFAM01.1	PPB	1/3/2025 11:05	SMPL
PB165948BL	PBW948	158	-0.0318	-		SFAM01.1	PPB	1/3/2025 11:08	SMPL
P5392-01	MH2D27	1438	0.2667	-		SFAM01.1	PPB	1/3/2025 11:10	SMPL
P5392-02	MH2D30	3826	0.8234	-		SFAM01.1	PPB	1/3/2025 11:12	SMPL
P5392-03	MH2D33	634	0.0792	-		SFAM01.1	PPB	1/3/2025 11:14	SMPL
P5392-04	MH2D36	1380	0.2532	-		SFAM01.1	PPB	1/3/2025 11:17	SMPL
P5392-05	MH2D39	236	-0.0136	-		SFAM01.1	PPB	1/3/2025 11:19	SMPL
P5392-06	MH2D42	1374	0.2518	-		SFAM01.1	PPB	1/3/2025 11:21	SMPL
P5392-07	MH2D45	491	0.0459	-		SFAM01.1	PPB	1/3/2025 11:24	SMPL
P5392-08	MH2D48	659	0.085	-		SFAM01.1	PPB	1/3/2025 11:26	SMPL
P5392-09	MH2D51	911	0.1438	-		SFAM01.1	PPB	1/3/2025 11:28	SMPL
P5392-10	MH2D54	186	-0.0252	-		SFAM01.1	PPB	1/3/2025 11:30	SMPL
P5392-11	MH2D57	1237	0.2198	-		SFAM01.1	PPB	1/3/2025 11:33	SMPL
P5392-12	MH2D60	151	-0.0334	-		SFAM01.1	PPB	1/3/2025 11:35	SMPL
P5392-13	MH2D63	186	-0.0252	-		SFAM01.1	PPB	1/3/2025 11:37	SMPL
P5392-14	MH2D66	274	-0.0047	-		SFAM01.1	PPB	1/3/2025 11:42	SMPL
P5392-15	MH2D69	112	-0.0425	-		SFAM01.1	PPB	1/3/2025 11:44	SMPL
P5392-16	MH2D72	442	0.0345	-		SFAM01.1	PPB	1/3/2025 11:46	SMPL
P5392-17	MH2D75	184	-0.0257	-		SFAM01.1	PPB	1/3/2025 11:48	SMPL
P5392-18	MH2D75D	224	-0.0164	-		SFAM01.1	PPB	1/3/2025 11:51	SMPL
P5392-19	MH2D75S	5039	1.1062	-		SFAM01.1	PPB	1/3/2025 11:53	SMPL
CCV097	CCV097	22369	5.1467	-		SFAM01.1	PPB	1/3/2025 11:55	SMPL
CCB097	CCB097	170	-0.029	-		SFAM01.1	PPB	1/3/2025 11:58	SMPL
PB165949BL	PBW949	180	-0.0266	-		SFAM01.1	PPB	1/3/2025 12:00	SMPL
P5393-01	MH2D28	461	0.0389	-		SFAM01.1	PPB	1/3/2025 12:02	SMPL
P5393-02	MH2D31	602	0.0718	-		SFAM01.1	PPB	1/3/2025 12:04	SMPL
P5393-03	MH2D34	387	0.0216	-		SFAM01.1	PPB	1/3/2025 12:07	SMPL
P5393-04	MH2D37	490	0.0456	-		SFAM01.1	PPB	1/3/2025 12:09	SMPL
P5393-05	MH2D40	276	-0.0042	-		SFAM01.1	PPB	1/3/2025 12:11	SMPL
P5393-06	MH2D43	404	0.0256	-		SFAM01.1	PPB	1/3/2025 12:13	SMPL
P5393-07	MH2D46	290	-0.001	-		SFAM01.1	PPB	1/3/2025 12:16	SMPL
P5393-08	MH2D49	384	0.0209	-		SFAM01.1	PPB	1/3/2025 12:18	SMPL
P5393-09	MH2D52	1144	0.1981	-		SFAM01.1	PPB	1/3/2025 12:20	SMPL
P5393-10	MH2D55	165	-0.0301	-		SFAM01.1	PPB	1/3/2025 12:23	SMPL
P5393-11	MH2D58	810	0.1203	-		SFAM01.1	PPB	1/3/2025 12:25	SMPL
P5393-12	MH2D61	169	-0.0292	-		SFAM01.1	PPB	1/3/2025 12:27	SMPL
P5393-13	MH2D64	134	-0.0374	-		SFAM01.1	PPB	1/3/2025 12:29	SMPL

Reviewed By:mohan
On:1/3/2025 9:53:44 PM
Inst Id :CV1

LBN134154

INSTRUMENT ID : CV1

P5393-14	MH2D67	172	-0.0285	-	SFAM01.1	PPB	1/3/2025 12:32 SMPL
P5393-15	MH2D70	130	-0.0383	-	SFAM01.1	PPB	1/3/2025 12:34 SMPL
P5393-16	MH2D73	262	-0.0075	-	SFAM01.1	PPB	1/3/2025 12:36 SMPL
P5393-17	MH2D76	208	-0.0201	-	SFAM01.1	PPB	1/3/2025 12:38 SMPL
P5393-18	MH2D76D	173	-0.0283	-	SFAM01.1	PPB	1/3/2025 12:41 SMPL
P5393-19	MH2D76S	5423	1.1958	-	SFAM01.1	PPB	1/3/2025 12:43 SMPL
CCV098	CCV098	22453	5.1663	-	SFAM01.1	PPB	1/3/2025 12:45 SMPL
CCB098	CCB098	163	-0.0306	-	SFAM01.1	PPB	1/3/2025 12:47 SMPL
PB165948TB	LEB948	151	-0.0334	-	SFAM01.1	PPB	1/3/2025 12:50 SMPL
PB165949TB	LEB949	166	-0.0299	-	SFAM01.1	PPB	1/3/2025 12:52 SMPL
CCV099	CCV099	22341	5.1402	-	SFAM01.1	PPB	1/3/2025 12:54 SMPL
CCB099	CCB099	176	-0.0276	-	SFAM01.1	PPB	1/3/2025 12:56 SMPL

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Prep Standard - Chemical Standard Summary

Order ID : P5392

Test : SPLP Mercury

Prepbatch ID : PB165948,

Sequence ID/Qc Batch ID: LB134154,

Standard ID :
MP83691,MP83692,MP83693,MP83694,MP83854,MP83855,MP83856,MP83857,MP83858,MP83859,MP83860,MP83861,MP83862,MP83863,MP83864,MP83868,

Chemical ID :
M4371,M4465,M4916,M5062,M5532,M5882,M5884,M6041,M6121,M6126,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP83691	12/18/2024	06/03/2025	Mohan Bera	None	None	Sarabjit Jaswal 12/18/2024

FROM 1600.00000ml of M6041 + 800.00000ml of M6126 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP83692	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP83693	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

FROM 100.00000ml of M4465 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP83694	12/18/2024	06/18/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP83854	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 1.00000ml of M6126 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP83855	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M6126 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP83856	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP83854 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP83857	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M6126 + 245.00000ml of W3112 + 2.50000ml of MP83854 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP83858	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M6126 + 242.50000ml of W3112 + 5.00000ml of MP83854 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP83859	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M6126 + 240.00000ml of W3112 + 7.50000ml of MP83854 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP83860	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M6126 + 237.50000ml of W3112 + 10.00000ml of MP83854 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP83861	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6126 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP83862	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 2.50000ml of M6126 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP83863	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 01/03/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6126 + 10.00000ml of MP83854 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP83864	01/03/2025	01/04/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 01/03/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6126 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP83868	01/03/2025	01/04/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 01/03/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6121 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 / jaswal	07/25/2019 / manojkumar	M4465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	02/28/2025	01/02/2025 / jaswal	03/30/2023 / mohan	M5532

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

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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-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

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 #
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

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

607

Certificate of Analysis

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

609

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO_3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

MSS28-37
MB

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

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

(B) *BREAKAGE OR MISSING ITEMS*

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

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

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 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 – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

For questions on this Certificate of Analysis please contact Technical Services at 855 282 6867 or +1 610 386 1700

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

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

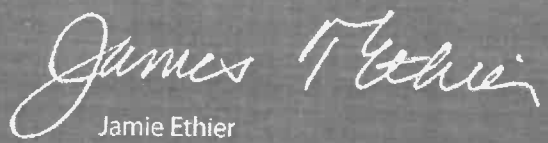
618

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

619

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

M6126

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

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB165948

SOP ID : M7470A-Mercury-19, MSFAM01.1-Mercury in Water-2

SDG No : MH2D27

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#1 2. N/A

Start Digest Date: 01/03/2025 **Time :** 07:20 **Temp :** 93 °C

End Digest Date: 01/03/2025 **Time :** 09:20 **Temp :** 94 °C

Digestion tube ID: M6054

Block thermometer ID: HG-DIG#1

Dig Technician Signature: MB

Supervisor Signature: JZ

Temp : 1. 93°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	100mL	MP83861
CCV	100mL	MP83863
Matrix Spike	0.40mL	MP83854
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	7.5mL	MP83691
KMnO4 (5%)	15.0mL	MP83692
K2S2O8 (5%)	8.0mL	MP83693
Hydroxylamine HCL (12%)	6.0mL	MP83694
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	100mL	MP83855
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	100mL	MP83856
2.5 ppb	S2.5	100mL	MP83857
5.0 ppb	S5.0	100mL	MP83858
7.5 ppb	S7.5	100mL	MP83859
10.0 ppb	S10.0	100mL	MP83860
ICV	ICV	100mL	MP83861
ICB	ICB	100mL	MP83862
CCV	CCV	100mL	MP83863
CCB	CCB	100mL	MP83864
CRI	CRI	N/A	N/A
CHK STD	CHK STD	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
1/3/25 @ 9:50	MB - Dig. Lab	MB - Metal Lab
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB165948

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
P5392-01	MH2D27	100	100	<2	N/A	1-1
P5392-02	MH2D30	100	100	<2	N/A	2
P5392-03	MH2D33	100	100	<2	N/A	3
P5392-04	MH2D36	100	100	<2	N/A	4
P5392-05	MH2D39	100	100	<2	N/A	5
P5392-06	MH2D42	100	100	<2	N/A	6
P5392-07	MH2D45	100	100	<2	N/A	7
P5392-08	MH2D48	100	100	<2	N/A	8
P5392-09	MH2D51	100	100	<2	N/A	9
P5392-10	MH2D54	100	100	<2	N/A	10
P5392-11	MH2D57	100	100	<2	N/A	11
P5392-12	MH2D60	100	100	<2	N/A	12
P5392-13	MH2D63	100	100	<2	N/A	13
P5392-14	MH2D66	100	100	<2	N/A	14
P5392-15	MH2D69	100	100	<2	N/A	15
P5392-16	MH2D72	100	100	<2	N/A	16
P5392-17	MH2D75	100	100	<2	N/A	17
P5392-18	MH2D75D	100	100	<2	N/A	18
P5392-19	MH2D75S	100	100	<2	MP83854	19
PB165948BL	PBW948	100	100	<2	N/A	20
PB165948TB	LEB948	100	100	<2	N/A	21

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134154

Review By	Sarabjit Jaswal	Review On	1/3/2025 9:52:12 PM
Supervise By	Mohan Bera	Supervise On	1/3/2025 9:53:44 PM

STD. NAME	STD REF.#
ICAL Standard	MP83855,MP83856,MP83857,MP83858,MP83859,MP83860
ICV Standard	MP83861
CCV Standard	MP83863
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	MP83862,MP83864,MP83868

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	01/03/25 10:39		Mohan	OK
2	S0.2	S01	CAL2	01/03/25 10:41		Mohan	OK
3	S2.5	S02	CAL3	01/03/25 10:43		Mohan	OK
4	S5	S03	CAL4	01/03/25 10:46		Mohan	OK
5	S7.5	S04	CAL5	01/03/25 10:51		Mohan	OK
6	S10	S05	CAL6	01/03/25 10:56		Mohan	OK
7	ICV041	ICV041	ICV	01/03/25 10:59		Mohan	OK
8	ICB041	ICB041	ICB	01/03/25 11:01		Mohan	OK
9	CCV096	CCV096	CCV	01/03/25 11:03		Mohan	OK
10	CCB096	CCB096	CCB	01/03/25 11:05		Mohan	OK
11	PB165948BL	PBW948	MB	01/03/25 11:08		Mohan	OK
12	P5392-01	MH2D27	SAM	01/03/25 11:10		Mohan	OK
13	P5392-02	MH2D30	SAM	01/03/25 11:12		Mohan	OK
14	P5392-03	MH2D33	SAM	01/03/25 11:14		Mohan	OK
15	P5392-04	MH2D36	SAM	01/03/25 11:17		Mohan	OK
16	P5392-05	MH2D39	SAM	01/03/25 11:19		Mohan	OK
17	P5392-06	MH2D42	SAM	01/03/25 11:21		Mohan	OK
18	P5392-07	MH2D45	SAM	01/03/25 11:24		Mohan	OK

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Daily Analysis Runlog For Sequence/QCBatch ID # LB134154

Review By	Sarabjit Jaswal	Review On	1/3/2025 9:52:12 PM
Supervise By	Mohan Bera	Supervise On	1/3/2025 9:53:44 PM

STD. NAME	STD REF.#
ICAL Standard	MP83855,MP83856,MP83857,MP83858,MP83859,MP83860
ICV Standard	MP83861
CCV Standard	MP83863
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	MP83862,MP83864,MP83868

19	P5392-08	MH2D48	SAM	01/03/25 11:26		Mohan	OK
20	P5392-09	MH2D51	SAM	01/03/25 11:28		Mohan	OK
21	P5392-10	MH2D54	SAM	01/03/25 11:30		Mohan	OK
22	P5392-11	MH2D57	SAM	01/03/25 11:33		Mohan	OK
23	P5392-12	MH2D60	SAM	01/03/25 11:35		Mohan	OK
24	P5392-13	MH2D63	SAM	01/03/25 11:37		Mohan	OK
25	P5392-14	MH2D66	SAM	01/03/25 11:42		Mohan	OK
26	P5392-15	MH2D69	SAM	01/03/25 11:44		Mohan	OK
27	P5392-16	MH2D72	SAM	01/03/25 11:46		Mohan	OK
28	P5392-17	MH2D75	SAM	01/03/25 11:48		Mohan	OK
29	P5392-18	MH2D75D	DUP	01/03/25 11:51		Mohan	OK
30	P5392-19	MH2D75S	MS	01/03/25 11:53		Mohan	OK
31	CCV097	CCV097	CCV	01/03/25 11:55		Mohan	OK
32	CCB097	CCB097	CCB	01/03/25 11:58		Mohan	OK
33	PB165949BL	PBW949	MB	01/03/25 12:00		Mohan	OK
34	P5393-01	MH2D28	SAM	01/03/25 12:02		Mohan	OK
35	P5393-02	MH2D31	SAM	01/03/25 12:04		Mohan	OK
36	P5393-03	MH2D34	SAM	01/03/25 12:07		Mohan	OK
37	P5393-04	MH2D37	SAM	01/03/25 12:09		Mohan	OK
38	P5393-05	MH2D40	SAM	01/03/25 12:11		Mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB134154

Review By	Sarabjit Jaswal	Review On	1/3/2025 9:52:12 PM
Supervise By	Mohan Bera	Supervise On	1/3/2025 9:53:44 PM

STD. NAME	STD REF.#
ICAL Standard	MP83855,MP83856,MP83857,MP83858,MP83859,MP83860
ICV Standard	MP83861
CCV Standard	MP83863
ICSA Standard	
CRI Standard	
LCS Standard	
Chk Standard	MP83862,MP83864,MP83868

39	P5393-06	MH2D43	SAM	01/03/25 12:13		Mohan	OK
40	P5393-07	MH2D46	SAM	01/03/25 12:16		Mohan	OK
41	P5393-08	MH2D49	SAM	01/03/25 12:18		Mohan	OK
42	P5393-09	MH2D52	SAM	01/03/25 12:20		Mohan	OK
43	P5393-10	MH2D55	SAM	01/03/25 12:23		Mohan	OK
44	P5393-11	MH2D58	SAM	01/03/25 12:25		Mohan	OK
45	P5393-12	MH2D61	SAM	01/03/25 12:27		Mohan	OK
46	P5393-13	MH2D64	SAM	01/03/25 12:29		Mohan	OK
47	P5393-14	MH2D67	SAM	01/03/25 12:32		Mohan	OK
48	P5393-15	MH2D70	SAM	01/03/25 12:34		Mohan	OK
49	P5393-16	MH2D73	SAM	01/03/25 12:36		Mohan	OK
50	P5393-17	MH2D76	SAM	01/03/25 12:38		Mohan	OK
51	P5393-18	MH2D76D	DUP	01/03/25 12:41		Mohan	OK
52	P5393-19	MH2D76S	MS	01/03/25 12:43		Mohan	OK
53	CCV098	CCV098	CCV	01/03/25 12:45		Mohan	OK
54	CCB098	CCB098	CCB	01/03/25 12:47		Mohan	OK
55	PB165948TB	LEB948	MB	01/03/25 12:50		Mohan	OK
56	PB165949TB	LEB949	MB	01/03/25 12:52		Mohan	OK
57	CCV099	CCV099	CCV	01/03/25 12:54		Mohan	OK
58	CCB099	CCB099	CCB	01/03/25 12:56		Mohan	OK

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB165908

SOP ID : M1312-SPLP-10

SDG No : MH2D27

Weigh By : RM

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : RM

Filter By : RM

Pippete ID : WC

Tumbler ID : T-1/T-2

TCLP Filter ID : 114771

Start Prep Date : 12/30/2024 **Time :** 15:00

End Prep Date : 12/31/2024 **Time :** 08:30

Combination Ratio : 20

ZHE Cleaning Batch : N/A

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : RM

Supervisor By : 12

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
SPLP FLUID	N/A	WP110806
N/A	N/A	N/A
HNO3-TCLP,1N	N/A	WP110804
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
120ml Plastic bottle	N/A	405130101
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

TUBLER T-1/T-2 checked,30 rpm.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/31/24 10:40	RM TclPRoom	SRG. / DEF DIG
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB165908

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
P5392-01	MH2D27	1	100.03	329	N/A	N/A	N/A	2.16	1.08	T-1
P5392-02	MH2D30	2	100.01	344	N/A	N/A	N/A	2.37	1.36	T-1
P5392-03	MH2D33	3	100.03	355	N/A	N/A	N/A	1.93	N/A	T-1
P5392-04	MH2D36	4	100.03	330	N/A	N/A	N/A	2.61	1.36	T-1
P5392-05	MH2D39	5	100.02	329	N/A	N/A	N/A	6.35	1.44	T-1
P5392-06	MH2D42	6	100.02	294	N/A	N/A	N/A	1.97	N/A	T-1
P5392-07	MH2D45	7	100.03	337	N/A	N/A	N/A	1.87	N/A	T-1
P5392-08	MH2D48	8	100.02	353	N/A	N/A	N/A	1.86	N/A	T-1
P5392-09	MH2D51	9	100.04	360	N/A	N/A	N/A	1.93	N/A	T-1
P5392-10	MH2D54	10	100.02	372	N/A	N/A	N/A	1.94	N/A	T-1
P5392-11	MH2D57	11	100.04	295	N/A	N/A	N/A	1.94	N/A	T-2
P5392-12	MH2D60	12	100.04	342	N/A	N/A	N/A	1.92	N/A	T-2
P5392-13	MH2D63	13	100.03	369	N/A	N/A	N/A	1.89	N/A	T-2
P5392-14	MH2D66	14	100.02	357	N/A	N/A	N/A	3.94	1.18	T-2
P5392-15	MH2D69	15	100.03	250	N/A	N/A	N/A	5.64	1.22	T-2
P5392-16	MH2D72	16	100.03	359	N/A	N/A	N/A	1.99	N/A	T-2
P5392-17	MH2D75	17	100.02	360	N/A	N/A	N/A	2.12	1.09	T-2
P5392-18	MH2D75D	17	100.02	360	N/A	N/A	N/A	2.12	1.09	T-2
P5392-19	MH2D75S	17	100.02	360	N/A	N/A	N/A	2.12	1.09	T-2
PB165908TB	LEB908	18	N/A	2000	N/A	N/A	N/A	4.23	1.03	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
P5392-01	MH2D27	N/A	N/A	N/A	N/A	100	N/A
P5392-02	MH2D30	N/A	N/A	N/A	N/A	100	N/A
P5392-03	MH2D33	N/A	N/A	N/A	N/A	100	N/A
P5392-04	MH2D36	N/A	N/A	N/A	N/A	100	N/A
P5392-05	MH2D39	N/A	N/A	N/A	N/A	100	N/A
P5392-06	MH2D42	N/A	N/A	N/A	N/A	100	N/A
P5392-07	MH2D45	N/A	N/A	N/A	N/A	100	N/A
P5392-08	MH2D48	N/A	N/A	N/A	N/A	100	N/A
P5392-09	MH2D51	N/A	N/A	N/A	N/A	100	N/A
P5392-10	MH2D54	N/A	N/A	N/A	N/A	100	N/A
P5392-11	MH2D57	N/A	N/A	N/A	N/A	100	N/A
P5392-12	MH2D60	N/A	N/A	N/A	N/A	100	N/A
P5392-13	MH2D63	N/A	N/A	N/A	N/A	100	N/A
P5392-14	MH2D66	N/A	N/A	N/A	N/A	100	N/A
P5392-15	MH2D69	N/A	N/A	N/A	N/A	100	N/A
P5392-16	MH2D72	N/A	N/A	N/A	N/A	100	N/A
P5392-17	MH2D75	N/A	N/A	N/A	N/A	100	N/A
P5392-18	MH2D75D	N/A	N/A	N/A	N/A	100	N/A
P5392-19	MH2D75S	N/A	N/A	N/A	N/A	100	N/A
PB165908TB	LEB908	N/A	N/A	N/A	N/A	N/A	N/A

Alliance TECHNICAL GROUP

SPLP Fluid Determination

PB165908

Hot Block ID : WC S-1 /WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
P5392-01	MH2D27	N/A	N/A	N/A	N/A	#1	4.23
P5392-02	MH2D30	N/A	N/A	N/A	N/A	#1	4.23
P5392-03	MH2D33	N/A	N/A	N/A	N/A	#1	4.23
P5392-04	MH2D36	N/A	N/A	N/A	N/A	#1	4.23
P5392-05	MH2D39	N/A	N/A	N/A	N/A	#1	4.23
P5392-06	MH2D42	N/A	N/A	N/A	N/A	#1	4.23
P5392-07	MH2D45	N/A	N/A	N/A	N/A	#1	4.23
P5392-08	MH2D48	N/A	N/A	N/A	N/A	#1	4.23
P5392-09	MH2D51	N/A	N/A	N/A	N/A	#1	4.23
P5392-10	MH2D54	N/A	N/A	N/A	N/A	#1	4.23
P5392-11	MH2D57	N/A	N/A	N/A	N/A	#1	4.23
P5392-12	MH2D60	N/A	N/A	N/A	N/A	#1	4.23
P5392-13	MH2D63	N/A	N/A	N/A	N/A	#1	4.23
P5392-14	MH2D66	N/A	N/A	N/A	N/A	#1	4.23
P5392-15	MH2D69	N/A	N/A	N/A	N/A	#1	4.23
P5392-16	MH2D72	N/A	N/A	N/A	N/A	#1	4.23
P5392-17	MH2D75	N/A	N/A	N/A	N/A	#1	4.23
P5392-18	MH2D75D	N/A	N/A	N/A	N/A	#1	4.23
P5392-19	MH2D75S	N/A	N/A	N/A	N/A	#1	4.23
PB165908TB	LEB908	N/A	N/A	N/A	N/A	#1	4.23

ORIGIN ID:BJCA (303) 462-9503
JANELLE LOHMAN
TECHLAW CONSULTANTS, INC.
1 DENVER FEDERAL CENTER
BUILDING 25, DOOR E-3
DENVER FEDERAL CENTE, CO 80225
UNITED STATES US

SHIP DATE: 26DEC24
ACTWGT: 30.00 LB
CAD: 110556869/INET4535
DIMS: 26x14x14 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL GROUP LLC
284 SHEFFIELD ST
MOUNTAINSIDE NJ 07092
(908) 789-8900
INV:
PO:
REF: 8314544448 1FA8M500A096
DEPT:

58CJ5/49B9/C6C4

J244024091001uv

FedEx Express

1 of 6

TRK# 0201 **7710 4290 1591**
MASTER

FRI - 27 DEC 5:00P
STANDARD OVERNIGHT

NF KBCA

07092
NJ-US EWR

12/27/24
R.M
9:40
3.20

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JANELLE LOHMAN
TECHLAW CONSULTANTS, INC.
1 DENVER FEDERAL CENTER
BUILDING 25, DOOR E-3
DENVER FEDERAL CENTE, CO 80225
UNITED STATES US

SHIP DATE: 26DEC24
ACTWGT: 32.00 LB
CAD: 110555859/INET4535
DIMS: 26x14x15 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL GROUP LLC
284 SHEFFIELD ST

MOUNTAINSIDE NJ 07092
(908) 789-8900 REF: 8314544444B1FA8M500A096
INV:
PO: DEPT:

58CJ5/49B9/C6C4

FedEx Express

J244024081001uv

2 of 6
MPS# 0263 7710 4290 1606
Mstr# 7710 4290 1591

FRI - 27 DEC 5:00P
STANDARD OVERNIGHT

0201

07092
EWR

NF KBCA

NJ-US

R.M 9:40

12/27/24 3.1°

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632

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JANELLE LOHMAN
TECHLAW CONSULTANTS, INC.
1 DENVER FEDERAL CENTER
BUILDING 25, DOOR E-3
DENVER FEDERAL CENTE, CO 80225
UNITED STATES US

SHIP DATE: 26DEC24
ACTWGT: 35.00 LB
CAD: 110555859/INET4535
DIMS: 25x14x15 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL GROUP LLC
284 SHEFFIELD ST

MOUNTAINSIDE NJ 07092
(908) 789-8900 REF: 8314544444B1FA8M500A096
INV:
PO: DEPT:

58CJ5/49B9/C6C4

FedEx Express

J244024091001uv

3 of 6
MPS# 0263 7710 4290 1617
Mstr# 7710 4290 1591

FRI - 27 DEC 5:00P
STANDARD OVERNIGHT

0201

07092
NJ-US EWR

NF KBCA

R.M 2.4°

12/27/24 9:40

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633

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JANELLE LOHMAN
TECHLAW CONSULTANTS, INC.
1 DENVER FEDERAL CENTER
BUILDING 25, DOOR E-3
DENVER FEDERAL CENTE, CO 80225
UNITED STATES US

SHIP DATE: 26DEC24
ACTWGT: 20.00 LB
CAD: 110555859/INET4535
DIMS: 11x18x15 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL GROUP LLC
284 SHEFFIELD ST

MOUNTAINSIDE NJ 07092
(908) 789-8900 REF: 8314544444B1FA8M500A096
INV:
PO: DEPT:

58CJ5/49B9/C8C4

FedEx Express

J244624091091uv

4 of 6
MPS# 0263 7710 4290 1628
Mstr# 7710 4290 1591

FRI - 27 DEC 5:00P
STANDARD OVERNIGHT

0201

07092
NJ-US EWR

NF KBCA

R.M 9:40

12/27/24 3.0°

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634

ORIGIN ID:BJCA (303) 462-9503
JANELLE LOHMAN
TECHLAW CONSULTANTS, INC.
1 DENVER FEDERAL CENTER
BUILDING 25, DOOR E-3
DENVER FEDERAL CENTE, CO 80225
UNITED STATES US

SHIP DATE: 26DEC24
ACTWGT: 35.00 LB
CAD: 110555859/INET4535
DIMS: 25x14x15 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL GROUP LLC
284 SHEFFIELD ST

MOUNTAINSIDE NJ 07092
(908) 789-8900 REF: 8314544444B1FA8M500A096
INV:
PO: DEPT:

58CJ5/49B9/C6C4

FedEx Express

J24402409101uv

5 of 6
MPS# 0263 7710 4290 1639
Mstr# 7710 4290 1591

FRI - 27 DEC 5:00P
STANDARD OVERNIGHT

0201

07092
NJ-US EWR

NF KBCA

R.M 3.10

12/27/24

9:40

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635

ORIGIN ID:BJCA (303) 462-9503
JANELLE LOHMAN
TECHLAW CONSULTANTS, INC.
1 DENVER FEDERAL CENTER
BUILDING 25, DOOR E-3
DENVER FEDERAL CENTE, CO 80225
UNITED STATES US

SHIP DATE: 26DEC24
ACTWGT: 20.00 LB
CAD: 110555859/INET4535
DIMS: 11x18x15 IN

BILL SENDER

TO **MOHAMMAD AHMED**
ALLIANCE TECHNICAL GROUP LLC
284 SHEFFIELD ST

MOUNTAINSIDE NJ 07092
(908) 789-8900
INV:
PO:
REF: 8314544444B1FA8M500A096
DEPT:

58CJ5/49B9/C6C4

FedEx Express

J244028091001uv

6 of 6
MPS# 0263 7710 4290 1640
Mstr# 7710 4290 1591

FRI - 27 DEC 5:00P
STANDARD OVERNIGHT

0201

NF KBCA

07092
NJ-US EWR

R.M 9:40 2.4°

12/27/24

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Alliance TECHNICAL GROUP 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Login Summary Report

Order ID :	P5392	Order Date :	12/27/2024 9:40:00 AM	Project Mgr :	Deepak
Client :	USEPA CLP SMO	Project :	51811	Report Type :	USEPA CLP
Contact :	Anita Kapadia	Receive Date :	12/27/2024 9:40:00 AM	EDD Type :	EPA CLP
Date Sign Off :	12/30/2024 9:11:10 AM				

Sample ID	Client ID	Matrix	Sampling Date	Test	Test Group	Method	TAT Days	Fax Due Date	HC Due Date
P5392-01	MH2D27	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-02	MH2D30	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-03	MH2D33	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-04	MH2D36	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-05	MH2D39	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-06	MH2D42	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-07	MH2D45	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-08	MH2D48	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-09	MH2D51	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025
P5392-10	MH2D54	Solid	10/28/2024						
				SPLP Mercury		SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3		SFAM_AES	15	01/17/2025	01/17/2025

P5392-11	MH2D57	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-12	MH2D60	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-13	MH2D63	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-14	MH2D66	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-15	MH2D69	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-16	MH2D72	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-17	MH2D75	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-18	MH2D75D	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025
P5392-19	MH2D75S	Solid	10/28/2024					
				SPLP Mercury	SFAM_HG	15	01/17/2025	01/17/2025
				SPLP MetalGroup3	SFAM_AES	15	01/17/2025	01/17/2025

WORKLIST(Hardcopy Internal Chain)

WorkList Name : splp-12-30 **WorkList ID :** 186704 **Department :** TCLP Extraction **Date :** 12-30-2024 13:01:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5392-01	MH2D27	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-02	MH2D30	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-03	MH2D33	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-04	MH2D36	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-05	MH2D39	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-06	MH2D42	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-07	MH2D45	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-08	MH2D48	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-09	MH2D51	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-10	MH2D54	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-11	MH2D57	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-12	MH2D60	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-13	MH2D63	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-14	MH2D66	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-15	MH2D69	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-16	MH2D72	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-17	MH2D75	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-18	MH2D75D	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312
P5392-19	MH2D75S	Solid	SPLP Extraction	Cool 4 deg C	USEP01	C31	10/28/2024	1312

639

Date/Time 12/30/24 13:10

Raw Sample Received by: RM (WC)

Raw Sample Relinquished by:

Date/Time 12/30/24 16:30

Raw Sample Received by:

Raw Sample Relinquished by: RM (WC)