

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE490

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-01

% Solids: 93.1 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	19000	D	10/29/2024	1959
7440-36-0	Antimony	1.4	JD	10/29/2024	1959
7440-38-2	Arsenic	43	D	10/29/2024	1959
7440-39-3	Barium	210	D	10/29/2024	1959
7440-41-7	Beryllium	0.90	D	10/29/2024	1959
7440-43-9	Cadmium	0.85	D	10/29/2024	1959
7440-70-2	Calcium	12000	D	10/29/2024	1959
7440-47-3	Chromium	40	D	10/29/2024	1959
7440-48-4	Cobalt	21	D	10/29/2024	1959
7440-50-8	Copper	130	D	10/29/2024	1959
7439-89-6	Iron	39000	D	10/29/2024	1959
7439-92-1	Lead	38	D*	10/29/2024	1959
7439-95-4	Magnesium	8600	D	10/29/2024	1959
7439-96-5	Manganese	1100	D	10/29/2024	1959
7440-02-0	Nickel	40	D	10/29/2024	1959
7440-09-7	Potassium	5200	D	10/29/2024	1959
7782-49-2	Selenium	6.0	UD*	10/29/2024	1959
7440-22-4	Silver	1.7	UD	10/29/2024	1959
7440-23-5	Sodium	200	JD	10/29/2024	1959
7440-28-0	Thallium	4.3	UD	10/29/2024	1959
7440-62-2	Vanadium	72	D	10/29/2024	1959
7440-66-6	Zinc	100	D	10/29/2024	1959

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

Comments:

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MYE491

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-02

% Solids: 97 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	16000	D	10/29/2024	2004
7440-36-0	Antimony	0.76	JD	10/29/2024	2004
7440-38-2	Arsenic	17	D	10/29/2024	2004
7440-39-3	Barium	160	D	10/29/2024	2004
7440-41-7	Beryllium	0.77	JD	10/29/2024	2004
7440-43-9	Cadmium	0.25	JD	10/29/2024	2004
7440-70-2	Calcium	21000	D	10/29/2024	2004
7440-47-3	Chromium	33	D	10/29/2024	2004
7440-48-4	Cobalt	20	D	10/29/2024	2004
7440-50-8	Copper	56	D	10/29/2024	2004
7439-89-6	Iron	34000	D	10/29/2024	2004
7439-92-1	Lead	18	D*	10/29/2024	2004
7439-95-4	Magnesium	13000	D	10/29/2024	2004
7439-96-5	Manganese	740	D	10/29/2024	2004
7440-02-0	Nickel	49	D	10/29/2024	2004
7440-09-7	Potassium	2200	D	10/29/2024	2004
7782-49-2	Selenium	5.8	UD*	10/29/2024	2004
7440-22-4	Silver	1.7	UD	10/29/2024	2004
7440-23-5	Sodium	530	JD	10/29/2024	2004
7440-28-0	Thallium	4.1	UD	10/29/2024	2004
7440-62-2	Vanadium	74	D	10/29/2024	2004
7440-66-6	Zinc	59	D	10/29/2024	2004

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

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MYE492

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-03

% Solids: 92.5 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	16000	D	10/29/2024	2008
7440-36-0	Antimony	1.0	JD	10/29/2024	2008
7440-38-2	Arsenic	22	D	10/29/2024	2008
7440-39-3	Barium	110	D	10/29/2024	2008
7440-41-7	Beryllium	0.64	JD	10/29/2024	2008
7440-43-9	Cadmium	0.36	JD	10/29/2024	2008
7440-70-2	Calcium	9600	D	10/29/2024	2008
7440-47-3	Chromium	55	D	10/29/2024	2008
7440-48-4	Cobalt	22	D	10/29/2024	2008
7440-50-8	Copper	81	D	10/29/2024	2008
7439-89-6	Iron	36000	D	10/29/2024	2008
7439-92-1	Lead	20	D*	10/29/2024	2008
7439-95-4	Magnesium	11000	D	10/29/2024	2008
7439-96-5	Manganese	770	D	10/29/2024	2008
7440-02-0	Nickel	43	D	10/29/2024	2008
7440-09-7	Potassium	2800	D	10/29/2024	2008
7782-49-2	Selenium	5.4	UD*	10/29/2024	2008
7440-22-4	Silver	1.5	UD	10/29/2024	2008
7440-23-5	Sodium	260	JD	10/29/2024	2008
7440-28-0	Thallium	3.8	UD	10/29/2024	2008
7440-62-2	Vanadium	79	D	10/29/2024	2008
7440-66-6	Zinc	64	D	10/29/2024	2008

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

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MYE493

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-04

% Solids: 90.8 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	17000	D	10/29/2024	2013
7440-36-0	Antimony	1.0	JD	10/29/2024	2013
7440-38-2	Arsenic	21	D	10/29/2024	2013
7440-39-3	Barium	150	D	10/29/2024	2013
7440-41-7	Beryllium	0.81	JD	10/29/2024	2013
7440-43-9	Cadmium	0.31	JD	10/29/2024	2013
7440-70-2	Calcium	15000	D	10/29/2024	2013
7440-47-3	Chromium	37	D	10/29/2024	2013
7440-48-4	Cobalt	21	D	10/29/2024	2013
7440-50-8	Copper	65	D	10/29/2024	2013
7439-89-6	Iron	36000	D	10/29/2024	2013
7439-92-1	Lead	20	D*	10/29/2024	2013
7439-95-4	Magnesium	11000	D	10/29/2024	2013
7439-96-5	Manganese	740	D	10/29/2024	2013
7440-02-0	Nickel	51	D	10/29/2024	2013
7440-09-7	Potassium	2600	D	10/29/2024	2013
7782-49-2	Selenium	6.5	UD*	10/29/2024	2013
7440-22-4	Silver	1.9	UD	10/29/2024	2013
7440-23-5	Sodium	550	JD	10/29/2024	2013
7440-28-0	Thallium	4.7	UD	10/29/2024	2013
7440-62-2	Vanadium	78	D	10/29/2024	2013
7440-66-6	Zinc	66	D	10/29/2024	2013

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

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MYE494

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-05

% Solids: 95.1 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20000	D	10/29/2024	2017
7440-36-0	Antimony	1.5	JD	10/29/2024	2017
7440-38-2	Arsenic	38	D	10/29/2024	2017
7440-39-3	Barium	240	D	10/29/2024	2017
7440-41-7	Beryllium	0.88	D	10/29/2024	2017
7440-43-9	Cadmium	0.37	JD	10/29/2024	2017
7440-70-2	Calcium	11000	D	10/29/2024	2017
7440-47-3	Chromium	36	D	10/29/2024	2017
7440-48-4	Cobalt	20	D	10/29/2024	2017
7440-50-8	Copper	67	D	10/29/2024	2017
7439-89-6	Iron	39000	D	10/29/2024	2017
7439-92-1	Lead	23	D*	10/29/2024	2017
7439-95-4	Magnesium	8900	D	10/29/2024	2017
7439-96-5	Manganese	790	D	10/29/2024	2017
7440-02-0	Nickel	44	D	10/29/2024	2017
7440-09-7	Potassium	3700	D	10/29/2024	2017
7782-49-2	Selenium	5.7	UD*	10/29/2024	2017
7440-22-4	Silver	1.6	UD	10/29/2024	2017
7440-23-5	Sodium	280	JD	10/29/2024	2017
7440-28-0	Thallium	4.0	UD	10/29/2024	2017
7440-62-2	Vanadium	75	D	10/29/2024	2017
7440-66-6	Zinc	67	D	10/29/2024	2017

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

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MYE495

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-08

% Solids: 96.3 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15000	D	10/29/2024	2035
7440-36-0	Antimony	1.4	JD	10/29/2024	2035
7440-38-2	Arsenic	20	D	10/29/2024	2035
7440-39-3	Barium	86	D	10/29/2024	2035
7440-41-7	Beryllium	0.62	JD	10/29/2024	2035
7440-43-9	Cadmium	0.20	JD	10/29/2024	2035
7440-70-2	Calcium	10000	D	10/29/2024	2035
7440-47-3	Chromium	36	D	10/29/2024	2035
7440-48-4	Cobalt	20	D	10/29/2024	2035
7440-50-8	Copper	57	D	10/29/2024	2035
7439-89-6	Iron	38000	D	10/29/2024	2035
7439-92-1	Lead	15	D*	10/29/2024	2035
7439-95-4	Magnesium	9700	D	10/29/2024	2035
7439-96-5	Manganese	630	D	10/29/2024	2035
7440-02-0	Nickel	36	D	10/29/2024	2035
7440-09-7	Potassium	2200	D	10/29/2024	2035
7782-49-2	Selenium	6.5	UD*	10/29/2024	2035
7440-22-4	Silver	1.9	UD	10/29/2024	2035
7440-23-5	Sodium	280	JD	10/29/2024	2035
7440-28-0	Thallium	4.6	UD	10/29/2024	2035
7440-62-2	Vanadium	96	D	10/29/2024	2035
7440-66-6	Zinc	53	D	10/29/2024	2035

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

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MYE496

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-09

% Solids: 94.6 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20000	D	10/29/2024	2039
7440-36-0	Antimony	0.90	JD	10/29/2024	2039
7440-38-2	Arsenic	29	D	10/29/2024	2039
7440-39-3	Barium	220	D	10/29/2024	2039
7440-41-7	Beryllium	0.92	D	10/29/2024	2039
7440-43-9	Cadmium	0.30	JD	10/29/2024	2039
7440-70-2	Calcium	7700	D	10/29/2024	2039
7440-47-3	Chromium	41	D	10/29/2024	2039
7440-48-4	Cobalt	22	D	10/29/2024	2039
7440-50-8	Copper	58	D	10/29/2024	2039
7439-89-6	Iron	38000	D	10/29/2024	2039
7439-92-1	Lead	19	D*	10/29/2024	2039
7439-95-4	Magnesium	8100	D	10/29/2024	2039
7439-96-5	Manganese	1000	D	10/29/2024	2039
7440-02-0	Nickel	39	D	10/29/2024	2039
7440-09-7	Potassium	4200	D	10/29/2024	2039
7782-49-2	Selenium	5.9	UD*	10/29/2024	2039
7440-22-4	Silver	1.7	UD	10/29/2024	2039
7440-23-5	Sodium	200	JD	10/29/2024	2039
7440-28-0	Thallium	4.2	UD	10/29/2024	2039
7440-62-2	Vanadium	69	D	10/29/2024	2039
7440-66-6	Zinc	72	D	10/29/2024	2039

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

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MYE497

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-10

% Solids: 95.6 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	18000	D	10/29/2024	2044
7440-36-0	Antimony	1.3	JD	10/29/2024	2044
7440-38-2	Arsenic	22	D	10/29/2024	2044
7440-39-3	Barium	150	D	10/29/2024	2044
7440-41-7	Beryllium	0.79	JD	10/29/2024	2044
7440-43-9	Cadmium	0.21	JD	10/29/2024	2044
7440-70-2	Calcium	12000	D	10/29/2024	2044
7440-47-3	Chromium	36	D	10/29/2024	2044
7440-48-4	Cobalt	20	D	10/29/2024	2044
7440-50-8	Copper	59	D	10/29/2024	2044
7439-89-6	Iron	37000	D	10/29/2024	2044
7439-92-1	Lead	17	D*	10/29/2024	2044
7439-95-4	Magnesium	10000	D	10/29/2024	2044
7439-96-5	Manganese	710	D	10/29/2024	2044
7440-02-0	Nickel	51	D	10/29/2024	2044
7440-09-7	Potassium	2100	D	10/29/2024	2044
7782-49-2	Selenium	6.4	UD*	10/29/2024	2044
7440-22-4	Silver	1.8	UD	10/29/2024	2044
7440-23-5	Sodium	700	JD	10/29/2024	2044
7440-28-0	Thallium	4.6	UD	10/29/2024	2044
7440-62-2	Vanadium	78	D	10/29/2024	2044
7440-66-6	Zinc	58	D	10/29/2024	2044

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

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MYE498

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-11

% Solids: 97.9 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	13000	D	10/29/2024	2048
7440-36-0	Antimony	0.92	JD	10/29/2024	2048
7440-38-2	Arsenic	16	D	10/29/2024	2048
7440-39-3	Barium	110	D	10/29/2024	2048
7440-41-7	Beryllium	0.59	JD	10/29/2024	2048
7440-43-9	Cadmium	0.21	JD	10/29/2024	2048
7440-70-2	Calcium	20000	D	10/29/2024	2048
7440-47-3	Chromium	29	D	10/29/2024	2048
7440-48-4	Cobalt	17	D	10/29/2024	2048
7440-50-8	Copper	43	D	10/29/2024	2048
7439-89-6	Iron	31000	D	10/29/2024	2048
7439-92-1	Lead	14	D*	10/29/2024	2048
7439-95-4	Magnesium	8600	D	10/29/2024	2048
7439-96-5	Manganese	550	D	10/29/2024	2048
7440-02-0	Nickel	33	D	10/29/2024	2048
7440-09-7	Potassium	1700	D	10/29/2024	2048
7782-49-2	Selenium	5.1	UD*	10/29/2024	2048
7440-22-4	Silver	1.5	UD	10/29/2024	2048
7440-23-5	Sodium	360	JD	10/29/2024	2048
7440-28-0	Thallium	3.7	UD	10/29/2024	2048
7440-62-2	Vanadium	73	D	10/29/2024	2048
7440-66-6	Zinc	49	D	10/29/2024	2048

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

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MYE499

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-12

% Solids: 96.8 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	22000	D	10/29/2024	2052
7440-36-0	Antimony	1.8	JD	10/29/2024	2052
7440-38-2	Arsenic	43	D	10/29/2024	2052
7440-39-3	Barium	230	D	10/29/2024	2052
7440-41-7	Beryllium	1.0	D	10/29/2024	2052
7440-43-9	Cadmium	1.1	D	10/29/2024	2052
7440-70-2	Calcium	17000	D	10/29/2024	2052
7440-47-3	Chromium	44	D	10/29/2024	2052
7440-48-4	Cobalt	23	D	10/29/2024	2052
7440-50-8	Copper	170	D	10/29/2024	2052
7439-89-6	Iron	43000	D	10/29/2024	2052
7439-92-1	Lead	43	D*	10/29/2024	2052
7439-95-4	Magnesium	9900	D	10/29/2024	2052
7439-96-5	Manganese	1100	D	10/29/2024	2052
7440-02-0	Nickel	44	D	10/29/2024	2052
7440-09-7	Potassium	5700	D	10/29/2024	2052
7782-49-2	Selenium	6.6	UD*	10/29/2024	2052
7440-22-4	Silver	1.9	UD	10/29/2024	2052
7440-23-5	Sodium	280	JD	10/29/2024	2052
7440-28-0	Thallium	4.7	UD	10/29/2024	2052
7440-62-2	Vanadium	81	D	10/29/2024	2052
7440-66-6	Zinc	120	D	10/29/2024	2052

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

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MYE4A0

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-13

% Solids: 97.4 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	17000	D	10/29/2024	2057
7440-36-0	Antimony	1.4	JD	10/29/2024	2057
7440-38-2	Arsenic	40	D	10/29/2024	2057
7440-39-3	Barium	190	D	10/29/2024	2057
7440-41-7	Beryllium	0.82	JD	10/29/2024	2057
7440-43-9	Cadmium	0.72	JD	10/29/2024	2057
7440-70-2	Calcium	9600	D	10/29/2024	2057
7440-47-3	Chromium	34	D	10/29/2024	2057
7440-48-4	Cobalt	19	D	10/29/2024	2057
7440-50-8	Copper	110	D	10/29/2024	2057
7439-89-6	Iron	37000	D	10/29/2024	2057
7439-92-1	Lead	33	D*	10/29/2024	2057
7439-95-4	Magnesium	7800	D	10/29/2024	2057
7439-96-5	Manganese	980	D	10/29/2024	2057
7440-02-0	Nickel	36	D	10/29/2024	2057
7440-09-7	Potassium	5000	D	10/29/2024	2057
7782-49-2	Selenium	6.3	UD*	10/29/2024	2057
7440-22-4	Silver	1.8	UD	10/29/2024	2057
7440-23-5	Sodium	210	JD	10/29/2024	2057
7440-28-0	Thallium	4.5	UD	10/29/2024	2057
7440-62-2	Vanadium	72	D	10/29/2024	2057
7440-66-6	Zinc	89	D	10/29/2024	2057

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A1

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-14

% Solids: 95.4 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	14000	D	10/29/2024	2110
7440-36-0	Antimony	1.4	JD	10/29/2024	2110
7440-38-2	Arsenic	20	D	10/29/2024	2110
7440-39-3	Barium	140	D	10/29/2024	2110
7440-41-7	Beryllium	0.63	JD	10/29/2024	2110
7440-43-9	Cadmium	0.28	JD	10/29/2024	2110
7440-70-2	Calcium	18000	D	10/29/2024	2110
7440-47-3	Chromium	30	D	10/29/2024	2110
7440-48-4	Cobalt	17	D	10/29/2024	2110
7440-50-8	Copper	48	D	10/29/2024	2110
7439-89-6	Iron	30000	D	10/29/2024	2110
7439-92-1	Lead	15	D*	10/29/2024	2110
7439-95-4	Magnesium	9700	D	10/29/2024	2110
7439-96-5	Manganese	600	D	10/29/2024	2110
7440-02-0	Nickel	39	D	10/29/2024	2110
7440-09-7	Potassium	2200	D	10/29/2024	2110
7782-49-2	Selenium	5.4	UD*	10/29/2024	2110
7440-22-4	Silver	1.5	UD	10/29/2024	2110
7440-23-5	Sodium	370	JD	10/29/2024	2110
7440-28-0	Thallium	3.8	UD	10/29/2024	2110
7440-62-2	Vanadium	64	D	10/29/2024	2110
7440-66-6	Zinc	54	D	10/29/2024	2110

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A2

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-15

% Solids: 94.8 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	16000	D	10/29/2024	2114
7440-36-0	Antimony	1.4	JD	10/29/2024	2114
7440-38-2	Arsenic	31	D	10/29/2024	2114
7440-39-3	Barium	170	D	10/29/2024	2114
7440-41-7	Beryllium	0.78	JD	10/29/2024	2114
7440-43-9	Cadmium	0.66	JD	10/29/2024	2114
7440-70-2	Calcium	6100	D	10/29/2024	2114
7440-47-3	Chromium	33	D	10/29/2024	2114
7440-48-4	Cobalt	17	D	10/29/2024	2114
7440-50-8	Copper	110	D	10/29/2024	2114
7439-89-6	Iron	31000	D	10/29/2024	2114
7439-92-1	Lead	29	D*	10/29/2024	2114
7439-95-4	Magnesium	6800	D	10/29/2024	2114
7439-96-5	Manganese	770	D	10/29/2024	2114
7440-02-0	Nickel	32	D	10/29/2024	2114
7440-09-7	Potassium	4300	D	10/29/2024	2114
7782-49-2	Selenium	5.9	UD*	10/29/2024	2114
7440-22-4	Silver	1.7	UD	10/29/2024	2114
7440-23-5	Sodium	200	JD	10/29/2024	2114
7440-28-0	Thallium	4.2	UD	10/29/2024	2114
7440-62-2	Vanadium	59	D	10/29/2024	2114
7440-66-6	Zinc	83	D	10/29/2024	2114

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A3

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-16

% Solids: 95.5 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	11000	D	10/29/2024	2119
7440-36-0	Antimony	0.83	JD	10/29/2024	2119
7440-38-2	Arsenic	17	D	10/29/2024	2119
7440-39-3	Barium	120	D	10/29/2024	2119
7440-41-7	Beryllium	0.56	JD	10/29/2024	2119
7440-43-9	Cadmium	0.22	JD	10/29/2024	2119
7440-70-2	Calcium	20000	D	10/29/2024	2119
7440-47-3	Chromium	29	D	10/29/2024	2119
7440-48-4	Cobalt	13	D	10/29/2024	2119
7440-50-8	Copper	39	D	10/29/2024	2119
7439-89-6	Iron	27000	D	10/29/2024	2119
7439-92-1	Lead	13	D*	10/29/2024	2119
7439-95-4	Magnesium	9500	D	10/29/2024	2119
7439-96-5	Manganese	510	D	10/29/2024	2119
7440-02-0	Nickel	33	D	10/29/2024	2119
7440-09-7	Potassium	2100	D	10/29/2024	2119
7782-49-2	Selenium	6.2	UD*	10/29/2024	2119
7440-22-4	Silver	1.8	UD	10/29/2024	2119
7440-23-5	Sodium	410	JD	10/29/2024	2119
7440-28-0	Thallium	4.4	UD	10/29/2024	2119
7440-62-2	Vanadium	57	D	10/29/2024	2119
7440-66-6	Zinc	52	D	10/29/2024	2119

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A4

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-17

% Solids: 95.5 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15000	D	10/29/2024	2123
7440-36-0	Antimony	1.1	JD	10/29/2024	2123
7440-38-2	Arsenic	17	D	10/29/2024	2123
7440-39-3	Barium	170	D	10/29/2024	2123
7440-41-7	Beryllium	0.71	JD	10/29/2024	2123
7440-43-9	Cadmium	0.23	JD	10/29/2024	2123
7440-70-2	Calcium	14000	D	10/29/2024	2123
7440-47-3	Chromium	30	D	10/29/2024	2123
7440-48-4	Cobalt	19	D	10/29/2024	2123
7440-50-8	Copper	55	D	10/29/2024	2123
7439-89-6	Iron	31000	D	10/29/2024	2123
7439-92-1	Lead	14	D*	10/29/2024	2123
7439-95-4	Magnesium	10000	D	10/29/2024	2123
7439-96-5	Manganese	670	D	10/29/2024	2123
7440-02-0	Nickel	48	D	10/29/2024	2123
7440-09-7	Potassium	1800	D	10/29/2024	2123
7782-49-2	Selenium	5.1	UD*	10/29/2024	2123
7440-22-4	Silver	1.4	UD	10/29/2024	2123
7440-23-5	Sodium	580	JD	10/29/2024	2123
7440-28-0	Thallium	3.6	UD	10/29/2024	2123
7440-62-2	Vanadium	64	D	10/29/2024	2123
7440-66-6	Zinc	52	D	10/29/2024	2123

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A5

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-18

% Solids: 96.4 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	18000	D	10/29/2024	2128
7440-36-0	Antimony	0.77	JD	10/29/2024	2128
7440-38-2	Arsenic	41	D	10/29/2024	2128
7440-39-3	Barium	200	D	10/29/2024	2128
7440-41-7	Beryllium	0.90	D	10/29/2024	2128
7440-43-9	Cadmium	0.82	D	10/29/2024	2128
7440-70-2	Calcium	11000	D	10/29/2024	2128
7440-47-3	Chromium	38	D	10/29/2024	2128
7440-48-4	Cobalt	20	D	10/29/2024	2128
7440-50-8	Copper	130	D	10/29/2024	2128
7439-89-6	Iron	37000	D	10/29/2024	2128
7439-92-1	Lead	37	D*	10/29/2024	2128
7439-95-4	Magnesium	7900	D	10/29/2024	2128
7439-96-5	Manganese	960	D	10/29/2024	2128
7440-02-0	Nickel	38	D	10/29/2024	2128
7440-09-7	Potassium	4800	D	10/29/2024	2128
7782-49-2	Selenium	5.5	UD*	10/29/2024	2128
7440-22-4	Silver	1.6	UD	10/29/2024	2128
7440-23-5	Sodium	240	JD	10/29/2024	2128
7440-28-0	Thallium	3.9	UD	10/29/2024	2128
7440-62-2	Vanadium	71	D	10/29/2024	2128
7440-66-6	Zinc	97	D	10/29/2024	2128

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A6

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-19

% Solids: 96.7 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	22000	D	10/29/2024	2132
7440-36-0	Antimony	1.7	JD	10/29/2024	2132
7440-38-2	Arsenic	40	D	10/29/2024	2132
7440-39-3	Barium	230	D	10/29/2024	2132
7440-41-7	Beryllium	1.0	D	10/29/2024	2132
7440-43-9	Cadmium	0.83	JD	10/29/2024	2132
7440-70-2	Calcium	11000	D	10/29/2024	2132
7440-47-3	Chromium	44	D	10/29/2024	2132
7440-48-4	Cobalt	23	D	10/29/2024	2132
7440-50-8	Copper	120	D	10/29/2024	2132
7439-89-6	Iron	42000	D	10/29/2024	2132
7439-92-1	Lead	38	D*	10/29/2024	2132
7439-95-4	Magnesium	9300	D	10/29/2024	2132
7439-96-5	Manganese	1100	D	10/29/2024	2132
7440-02-0	Nickel	43	D	10/29/2024	2132
7440-09-7	Potassium	5200	D	10/29/2024	2132
7782-49-2	Selenium	6.8	UD*	10/29/2024	2132
7440-22-4	Silver	1.9	UD	10/29/2024	2132
7440-23-5	Sodium	250	JD	10/29/2024	2132
7440-28-0	Thallium	4.8	UD	10/29/2024	2132
7440-62-2	Vanadium	79	D	10/29/2024	2132
7440-66-6	Zinc	100	D	10/29/2024	2132

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A7

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-20

% Solids: 97.4 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	21000	D	10/29/2024	2137
7440-36-0	Antimony	1.2	JD	10/29/2024	2137
7440-38-2	Arsenic	52	D	10/29/2024	2137
7440-39-3	Barium	260	D	10/29/2024	2137
7440-41-7	Beryllium	1.0	D	10/29/2024	2137
7440-43-9	Cadmium	0.49	JD	10/29/2024	2137
7440-70-2	Calcium	11000	D	10/29/2024	2137
7440-47-3	Chromium	41	D	10/29/2024	2137
7440-48-4	Cobalt	25	D	10/29/2024	2137
7440-50-8	Copper	81	D	10/29/2024	2137
7439-89-6	Iron	46000	D	10/29/2024	2137
7439-92-1	Lead	26	D*	10/29/2024	2137
7439-95-4	Magnesium	9500	D	10/29/2024	2137
7439-96-5	Manganese	1300	D	10/29/2024	2137
7440-02-0	Nickel	45	D	10/29/2024	2137
7440-09-7	Potassium	4900	D	10/29/2024	2137
7782-49-2	Selenium	5.9	UD*	10/29/2024	2137
7440-22-4	Silver	1.7	UD	10/29/2024	2137
7440-23-5	Sodium	260	JD	10/29/2024	2137
7440-28-0	Thallium	4.2	UD	10/29/2024	2137
7440-62-2	Vanadium	86	D	10/29/2024	2137
7440-66-6	Zinc	82	D	10/29/2024	2137

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A8

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-21

% Solids: 97.9 Date Received: 10/22/2024

Analytical Method: ICP_AES

Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	18000	D	10/29/2024	2141
7440-36-0	Antimony	1.5	JD	10/29/2024	2141
7440-38-2	Arsenic	45	D	10/29/2024	2141
7440-39-3	Barium	290	D	10/29/2024	2141
7440-41-7	Beryllium	0.95	D	10/29/2024	2141
7440-43-9	Cadmium	0.66	JD	10/29/2024	2141
7440-70-2	Calcium	14000	D	10/29/2024	2141
7440-47-3	Chromium	36	D	10/29/2024	2141
7440-48-4	Cobalt	21	D	10/29/2024	2141
7440-50-8	Copper	82	D	10/29/2024	2141
7439-89-6	Iron	46000	D	10/29/2024	2141
7439-92-1	Lead	33	D*	10/29/2024	2141
7439-95-4	Magnesium	8600	D	10/29/2024	2141
7439-96-5	Manganese	1900	D	10/29/2024	2141
7440-02-0	Nickel	38	D	10/29/2024	2141
7440-09-7	Potassium	3600	D	10/29/2024	2141
7782-49-2	Selenium	5.6	UD*	10/29/2024	2141
7440-22-4	Silver	1.6	UD	10/29/2024	2141
7440-23-5	Sodium	210	JD	10/29/2024	2141
7440-28-0	Thallium	4.0	UD	10/29/2024	2141
7440-62-2	Vanadium	86	D	10/29/2024	2141
7440-66-6	Zinc	86	D	10/29/2024	2141

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

Comments:

FORM 1 - IN
INORGANIC ANALYSIS DATA SHEET

MYE4A9

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE490

Matrix: SOIL Lab Sample ID: P4480-22

% Solids: 97.5 Date Received: 10/22/2024

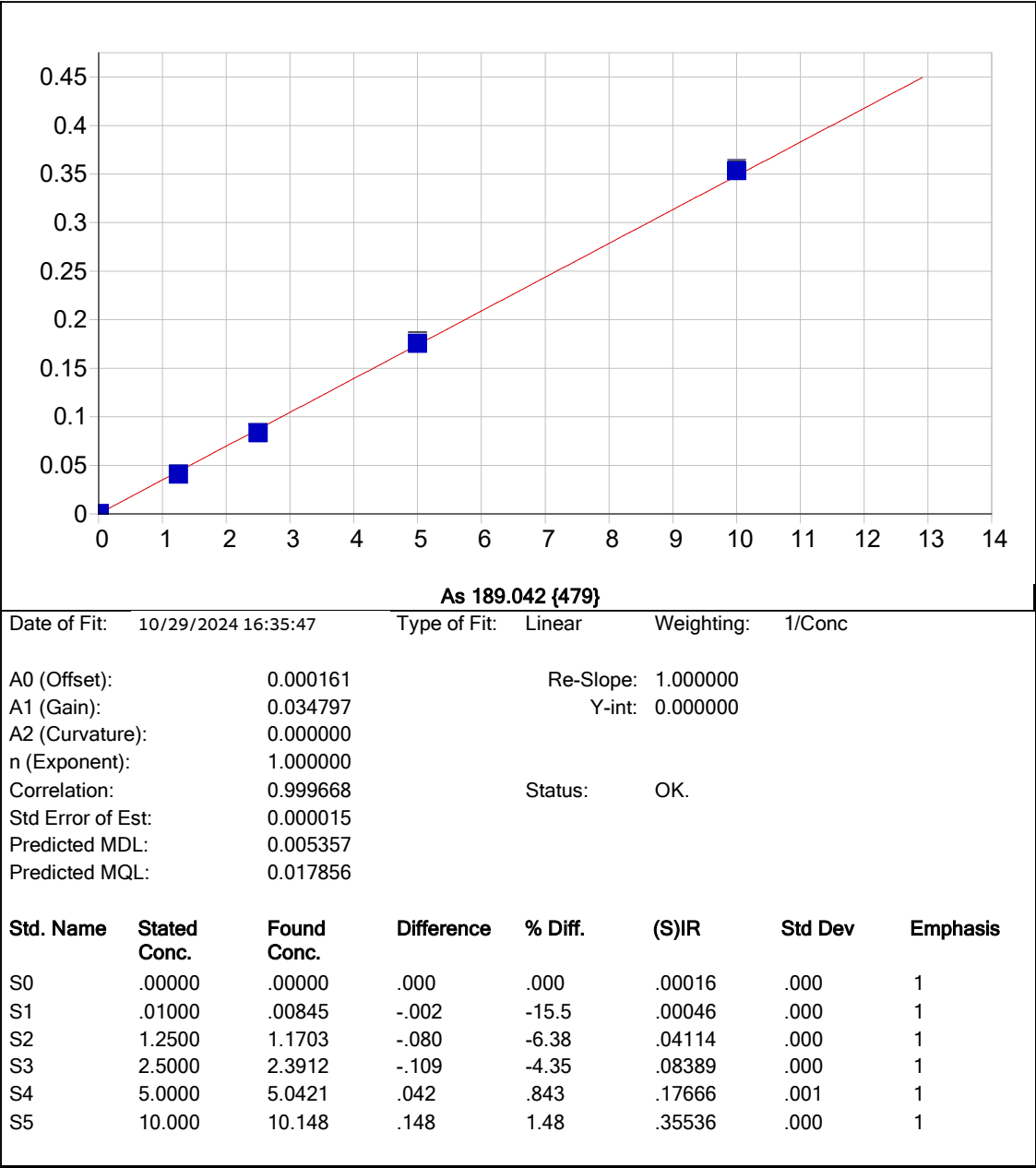
Analytical Method: ICP_AES

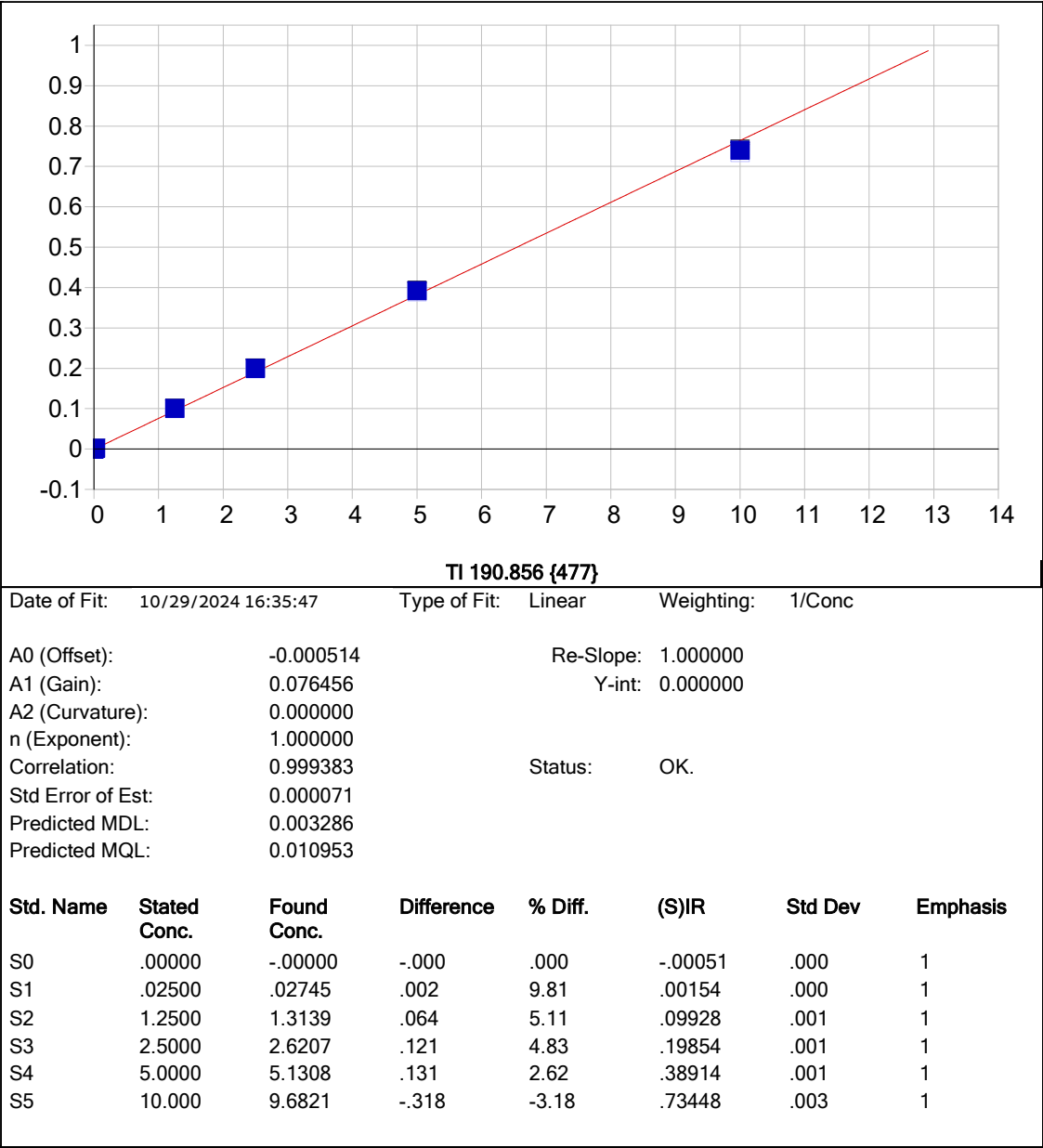
Concentration Units ($\mu\text{g/L}$, mg/L , mg/kg dry weight, μg , or $\mu\text{g/cm}^2$): mg/kg

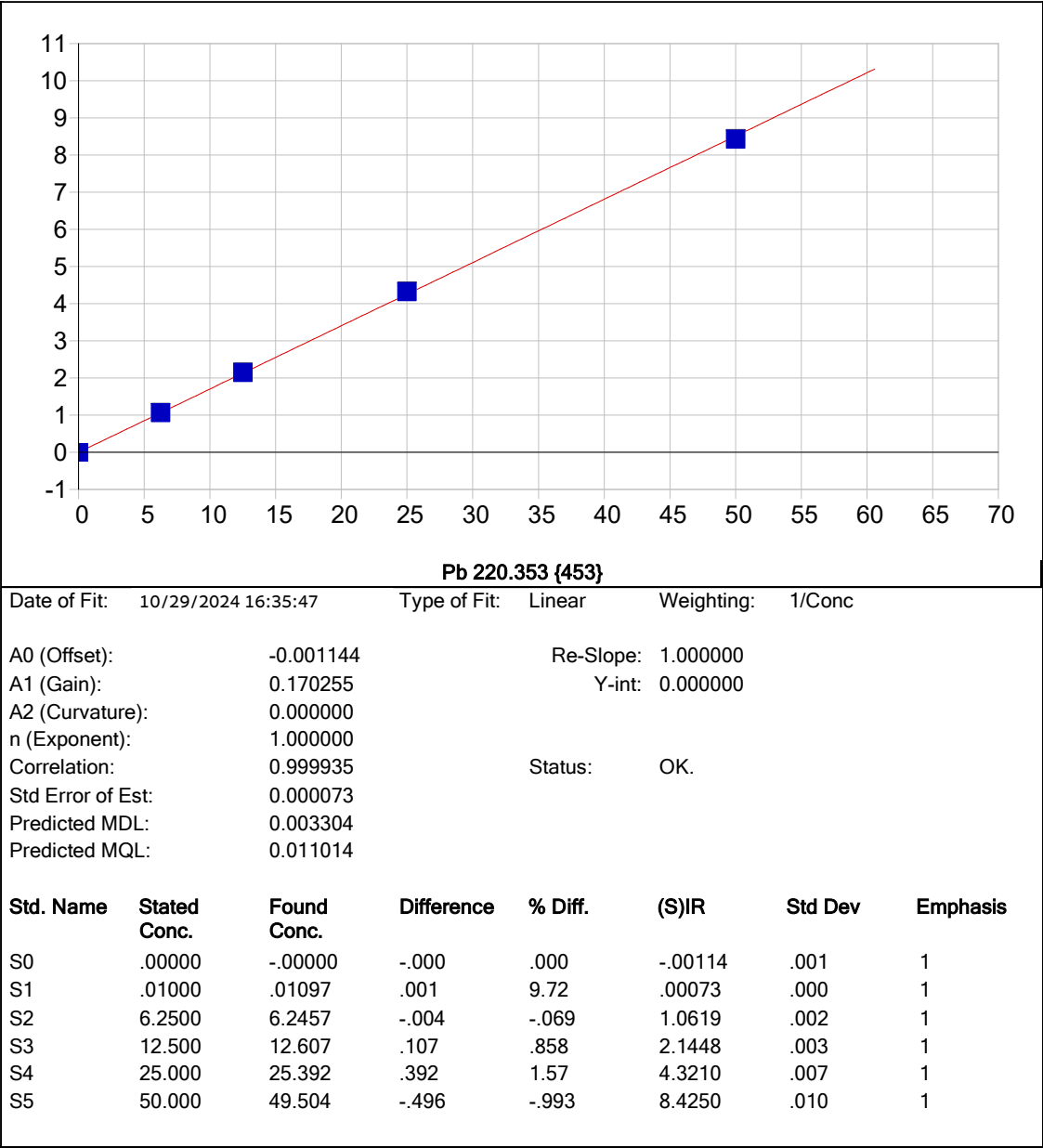
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7429-90-5	Aluminum	23000	D	10/29/2024	2145
7440-36-0	Antimony	1.5	JD	10/29/2024	2145
7440-38-2	Arsenic	78	D	10/29/2024	2145
7440-39-3	Barium	270	D	10/29/2024	2145
7440-41-7	Beryllium	1.1	D	10/29/2024	2145
7440-43-9	Cadmium	1.1	D	10/29/2024	2145
7440-70-2	Calcium	10000	D	10/29/2024	2145
7440-47-3	Chromium	49	D	10/29/2024	2145
7440-48-4	Cobalt	27	D	10/29/2024	2145
7440-50-8	Copper	150	D	10/29/2024	2145
7439-89-6	Iron	46000	D	10/29/2024	2145
7439-92-1	Lead	47	D*	10/29/2024	2145
7439-95-4	Magnesium	11000	D	10/29/2024	2145
7439-96-5	Manganese	1200	D	10/29/2024	2145
7440-02-0	Nickel	53	D	10/29/2024	2145
7440-09-7	Potassium	6100	D	10/29/2024	2145
7782-49-2	Selenium	6.2	UD*	10/29/2024	2145
7440-22-4	Silver	1.8	UD	10/29/2024	2145
7440-23-5	Sodium	250	JD	10/29/2024	2145
7440-28-0	Thallium	4.4	UD	10/29/2024	2145
7440-62-2	Vanadium	90	D	10/29/2024	2145
7440-66-6	Zinc	110	D	10/29/2024	2145

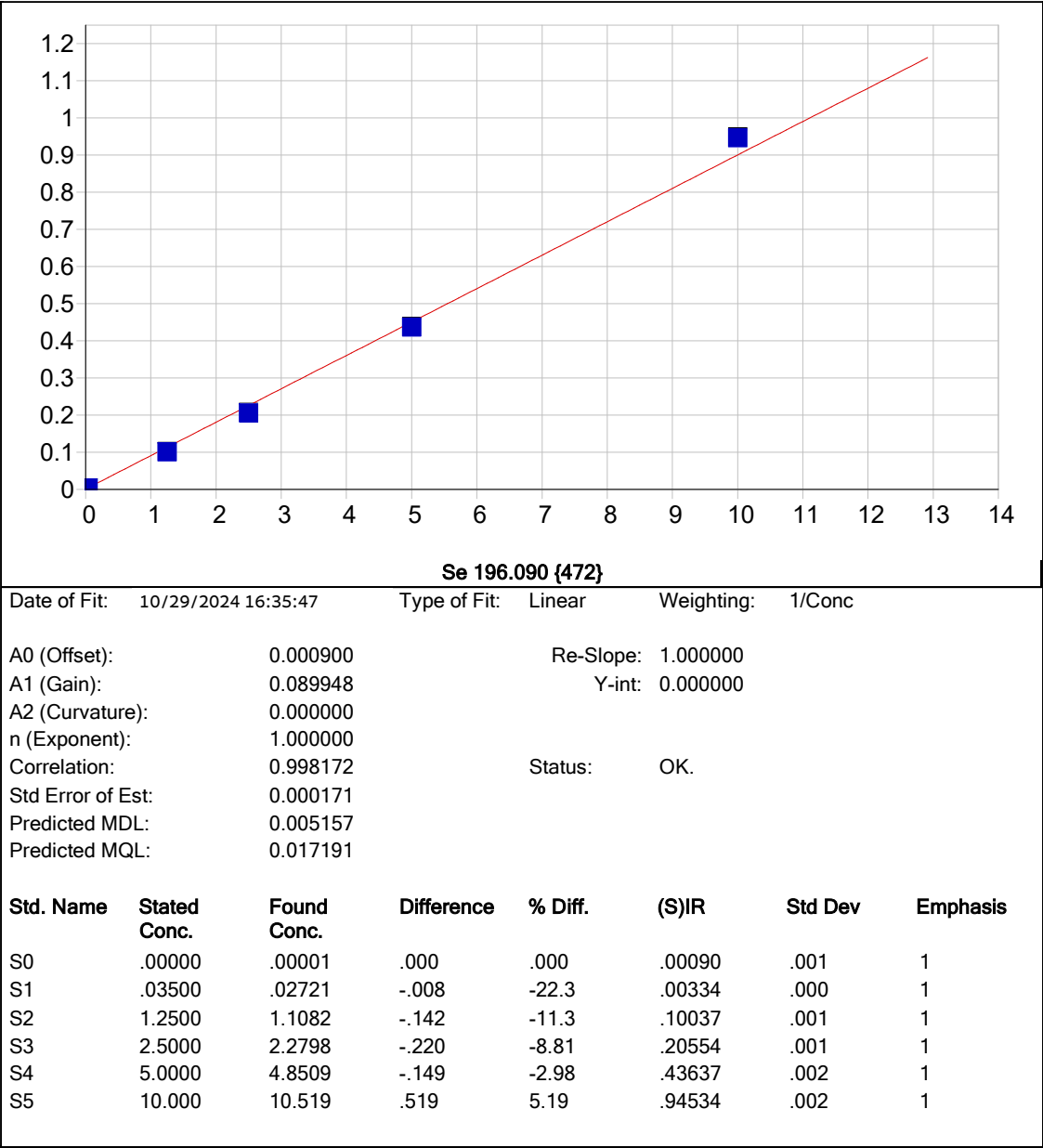
NOTE: Hardness (total) is reported in mg/L

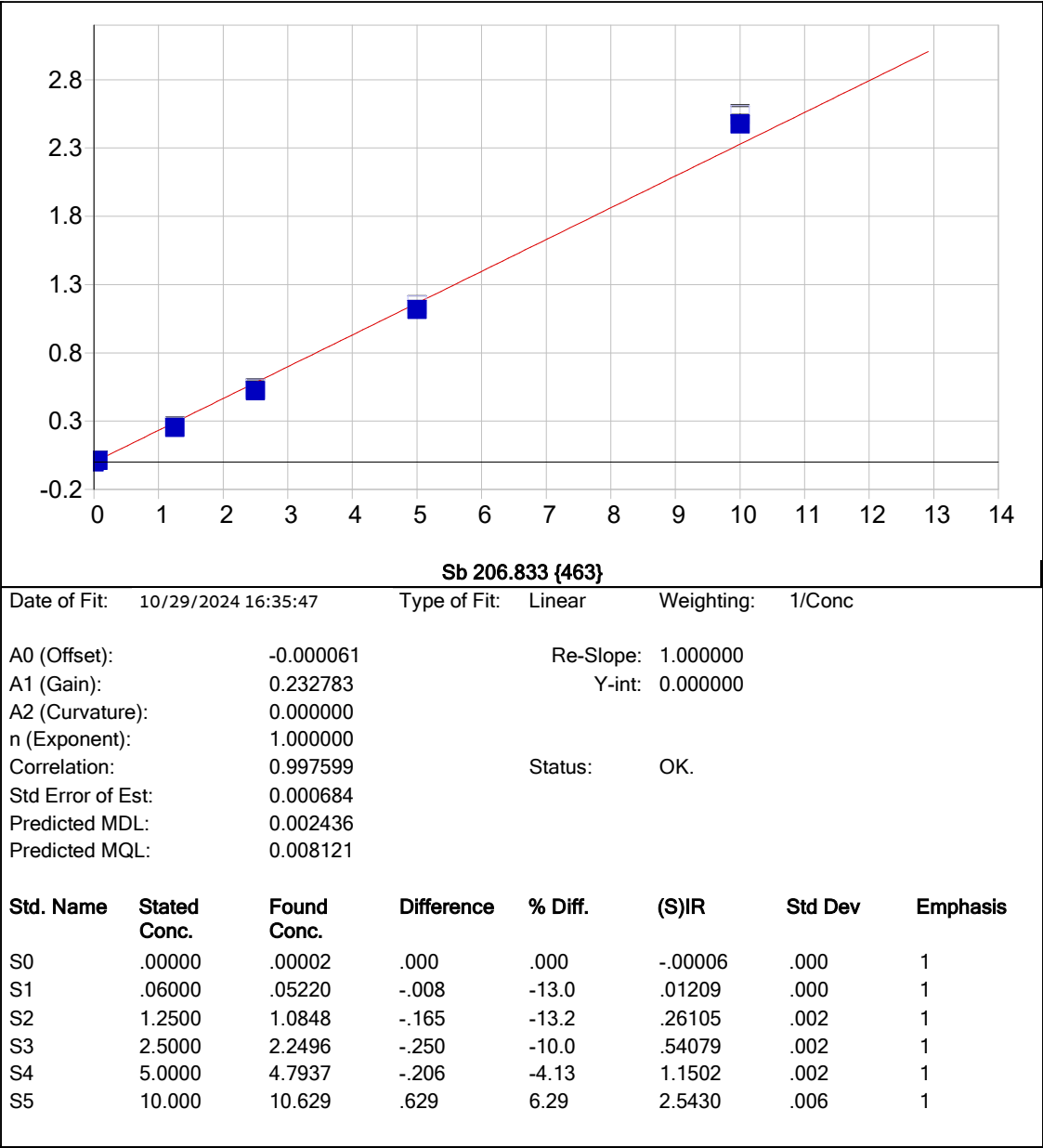
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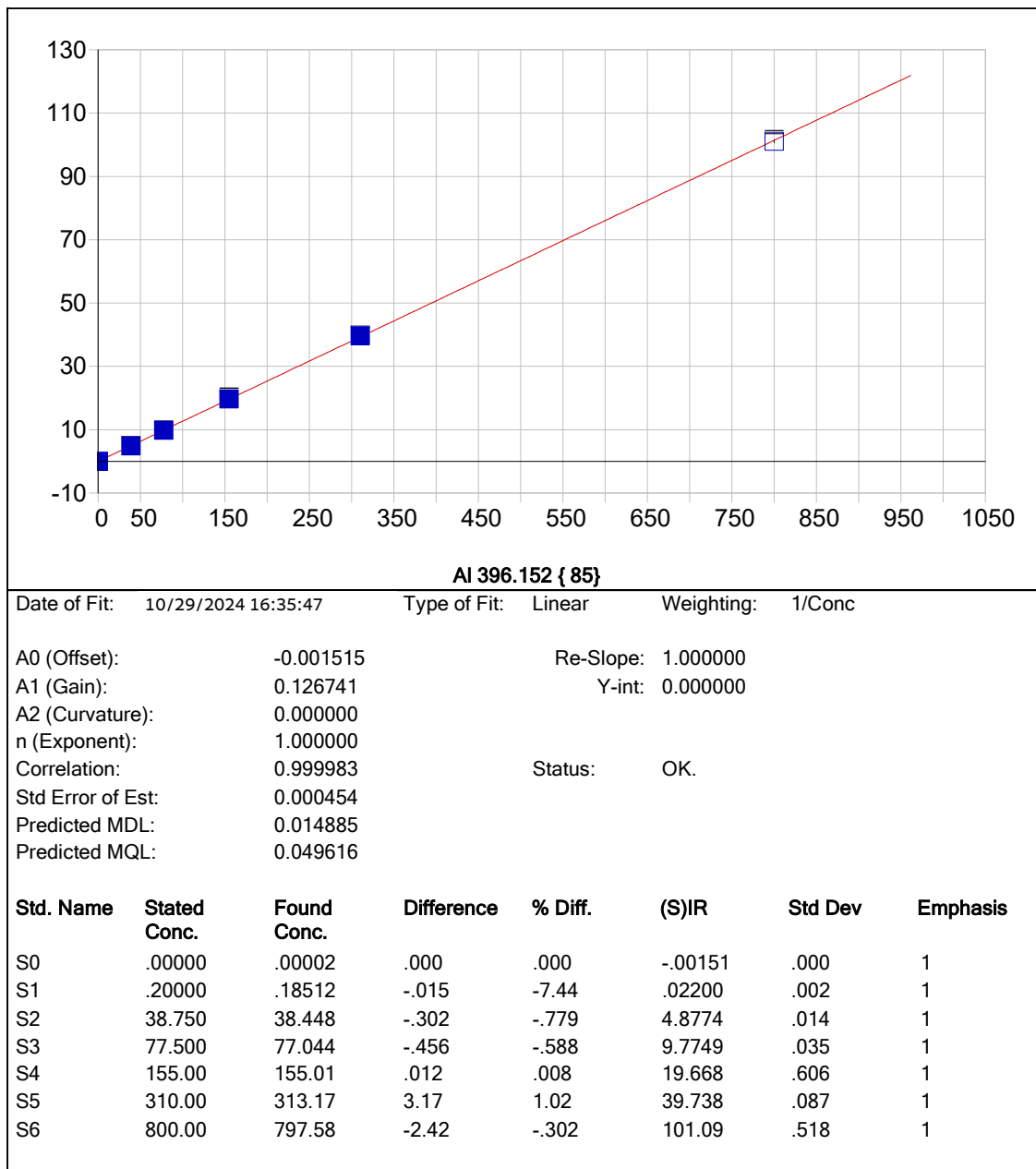


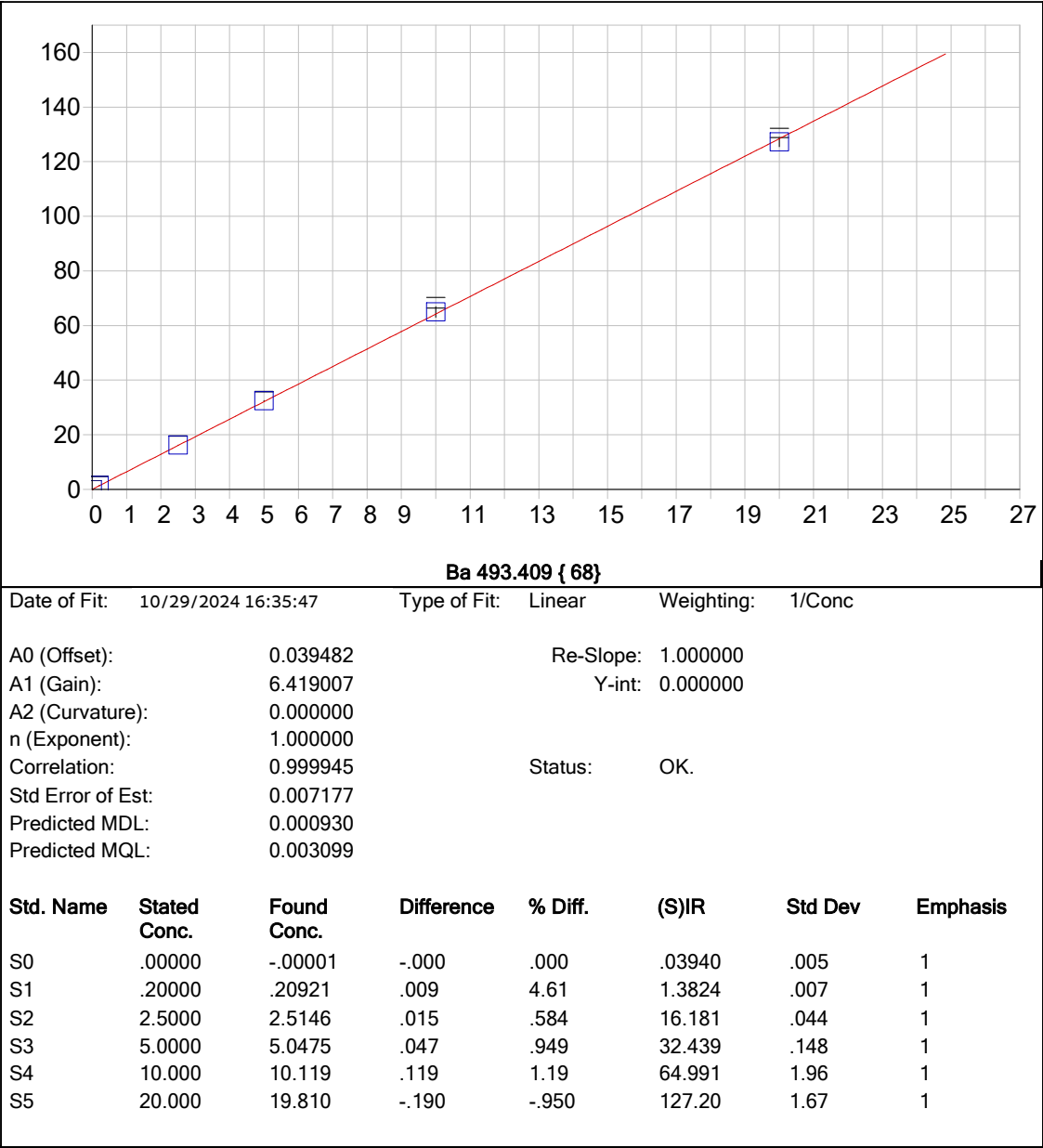


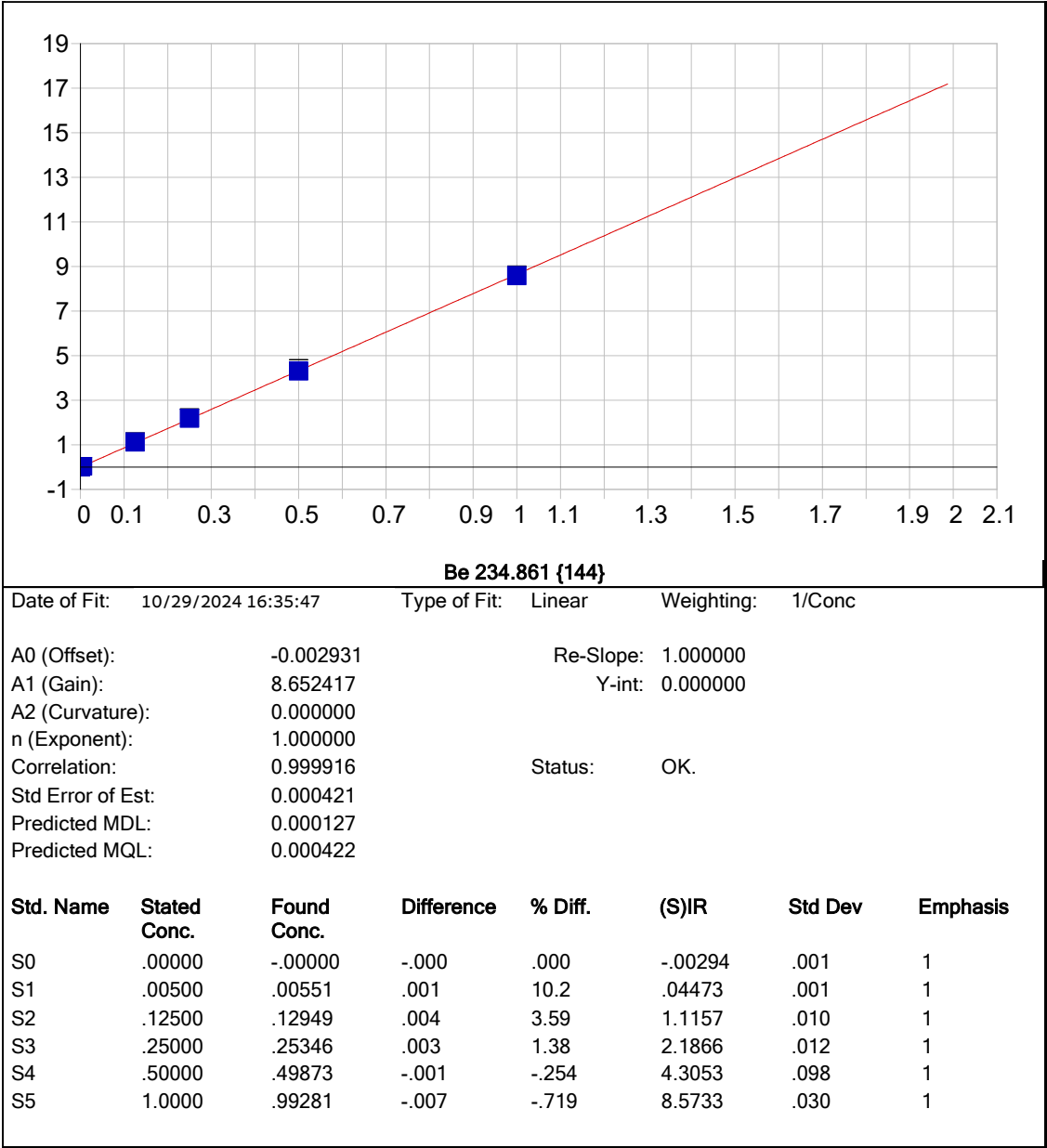


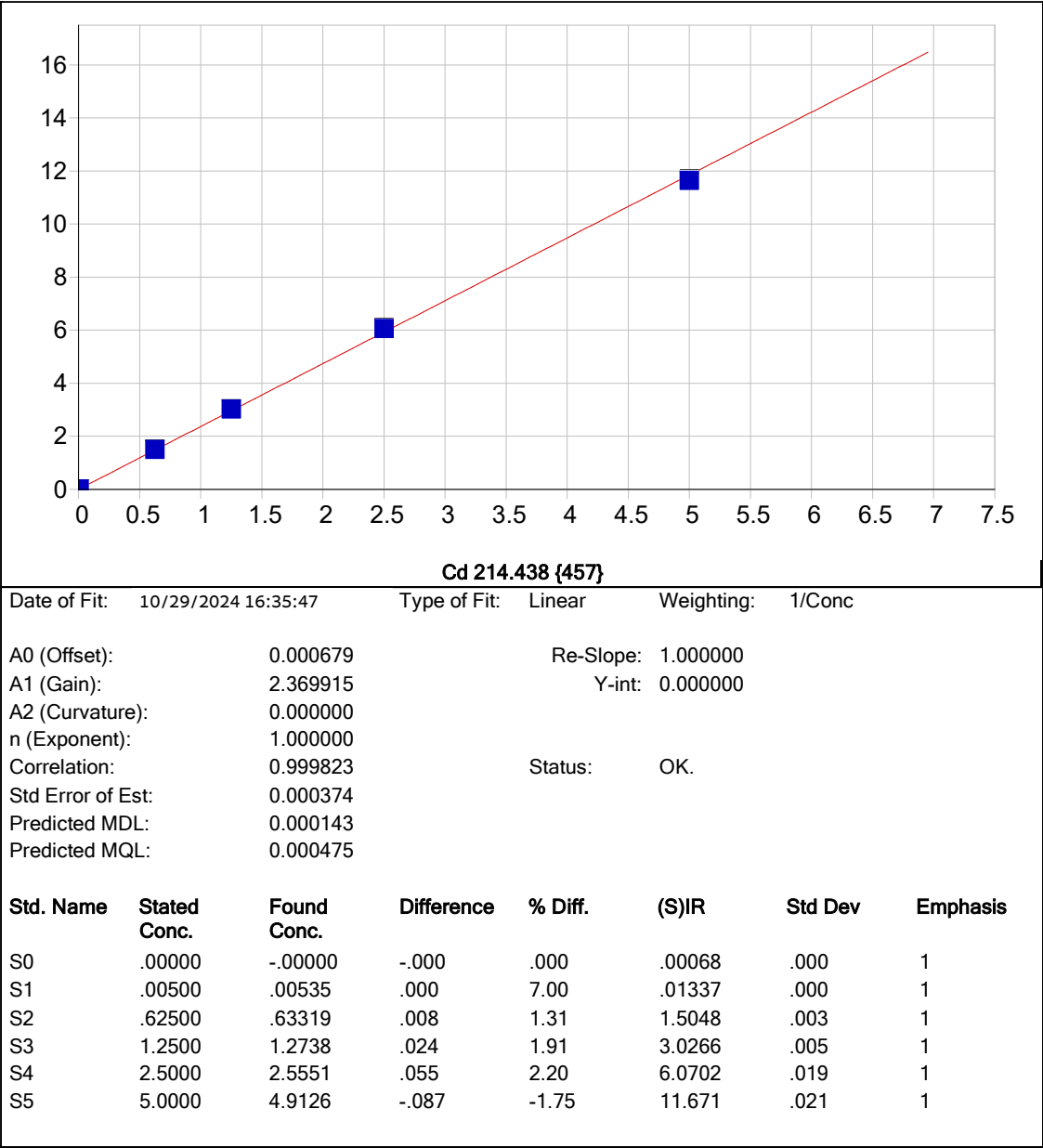


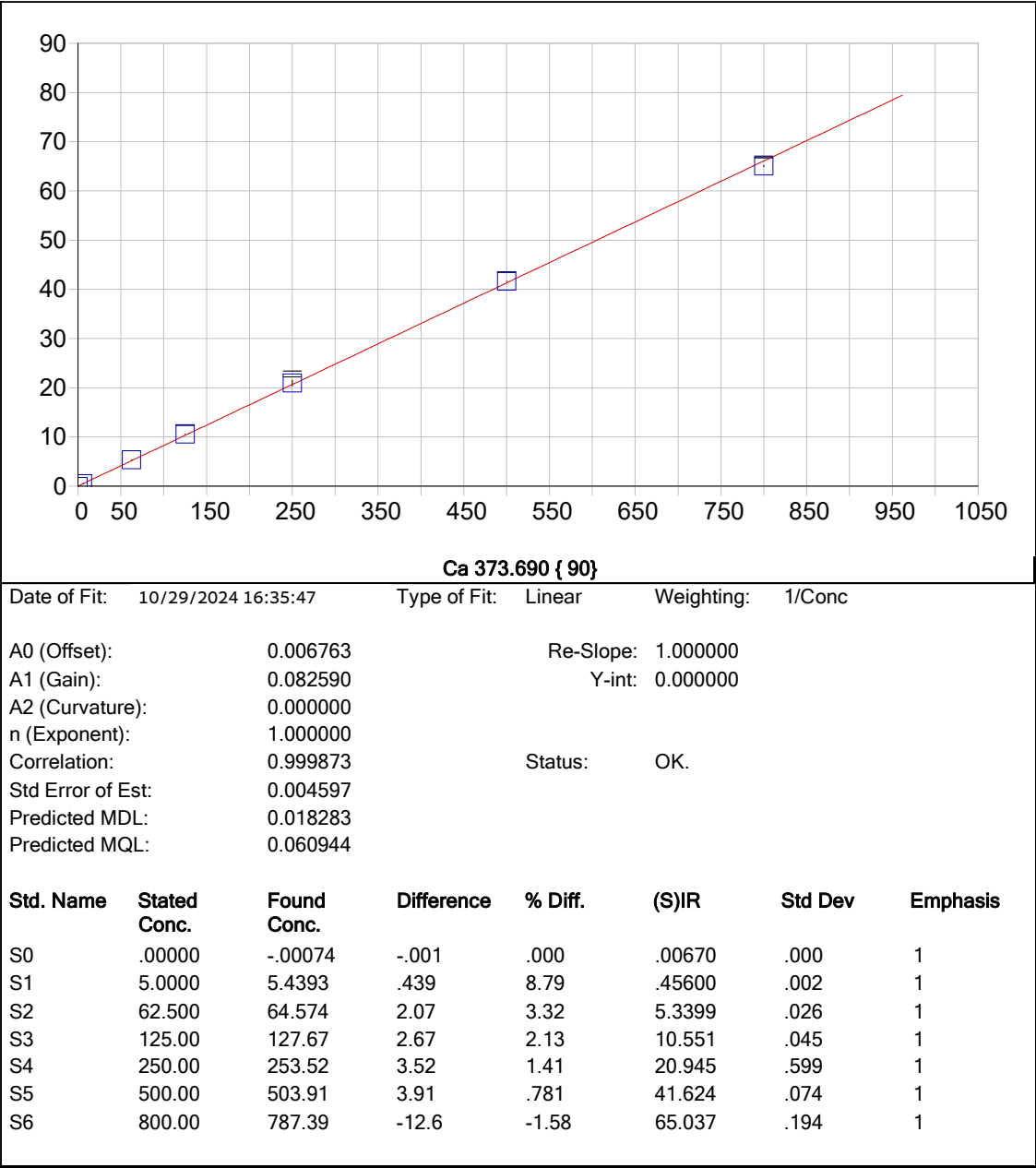


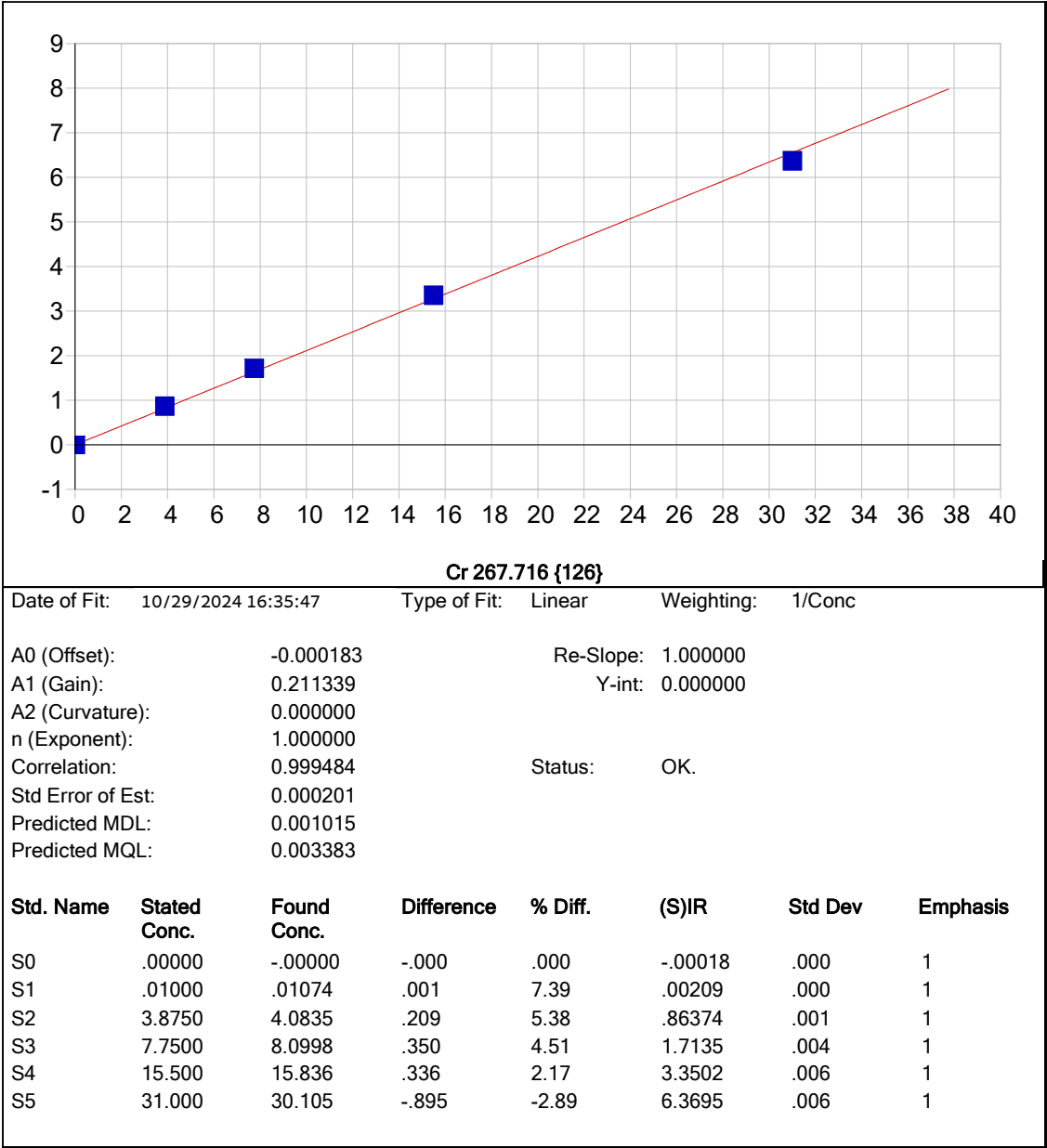


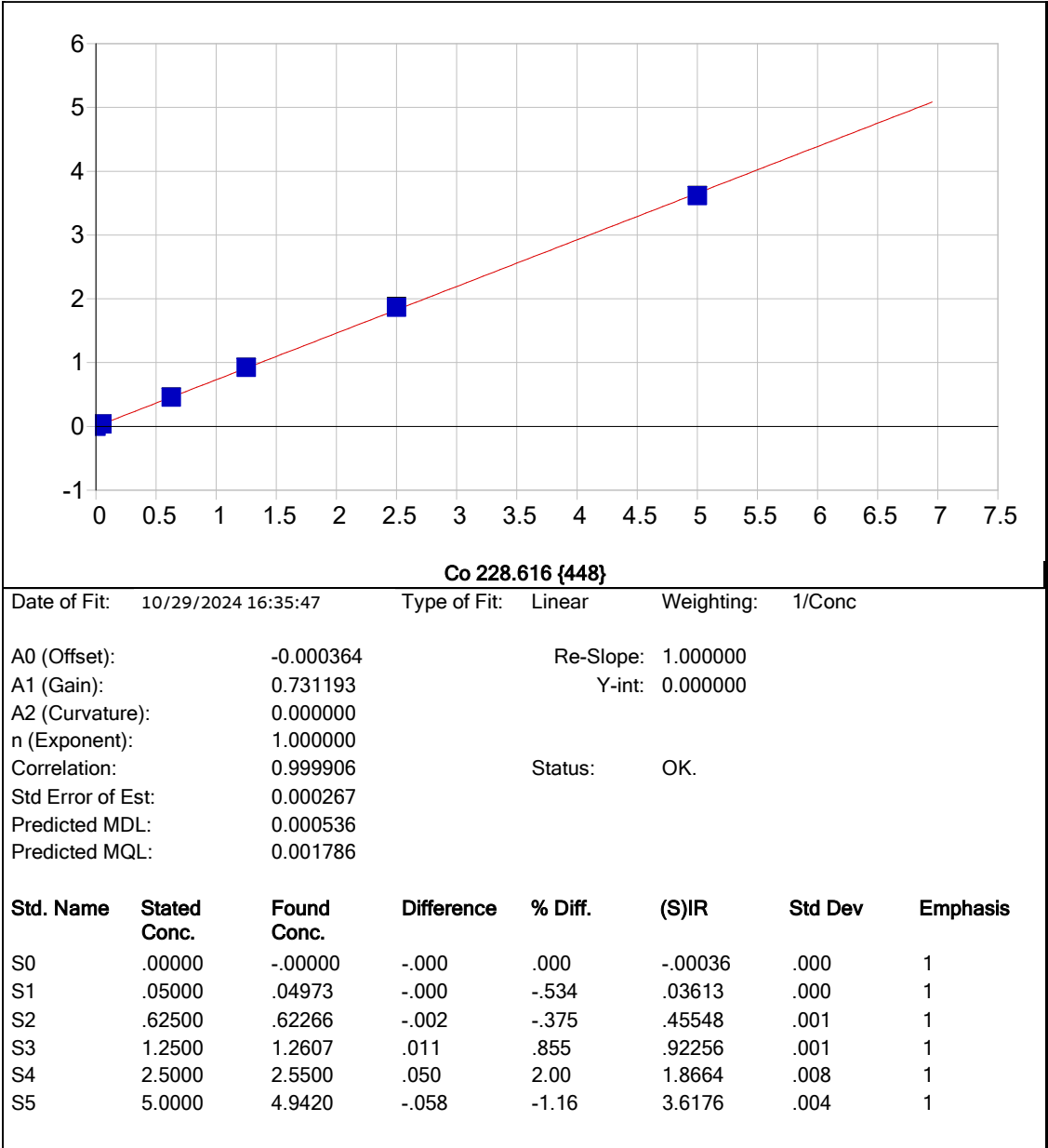


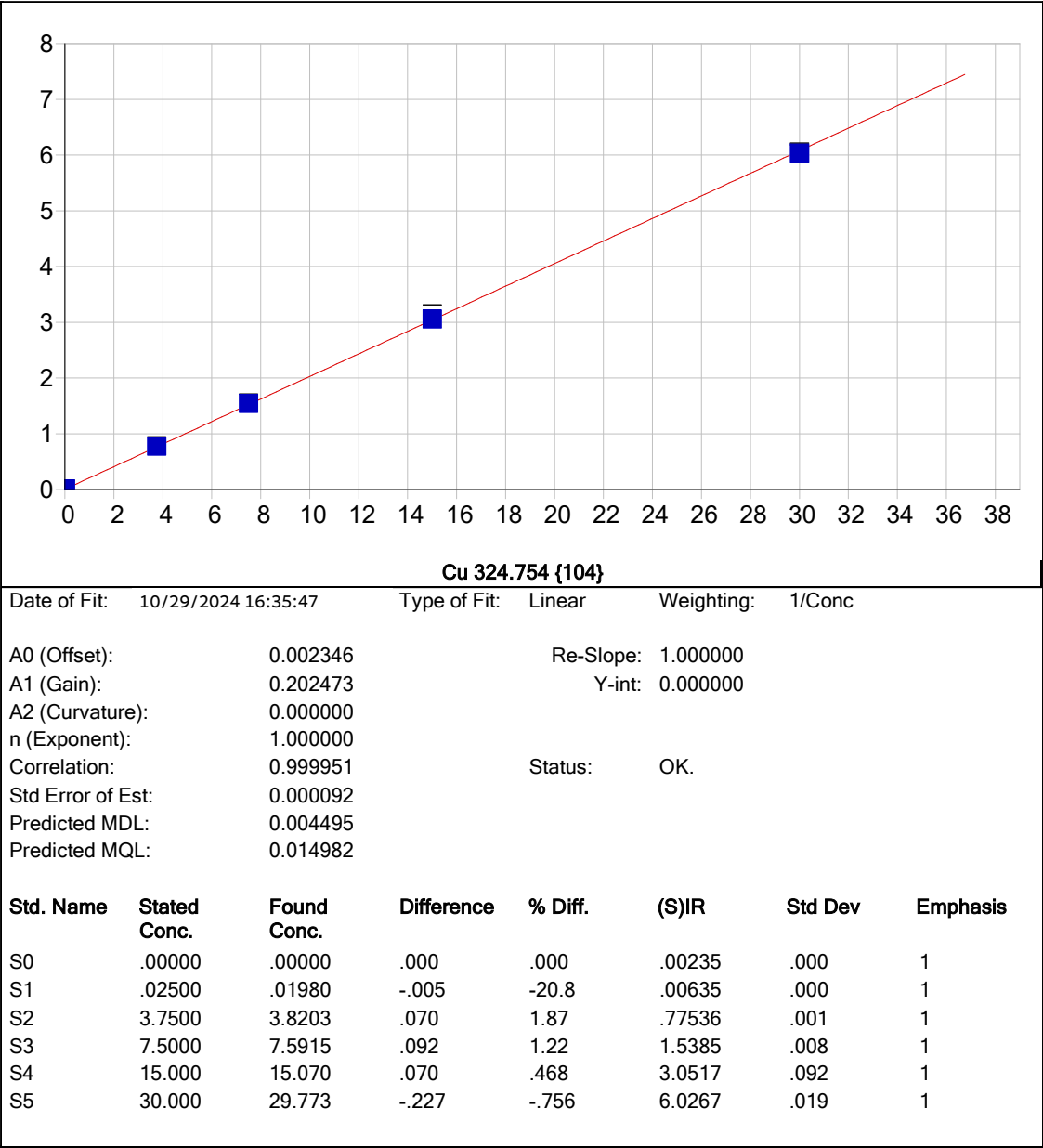


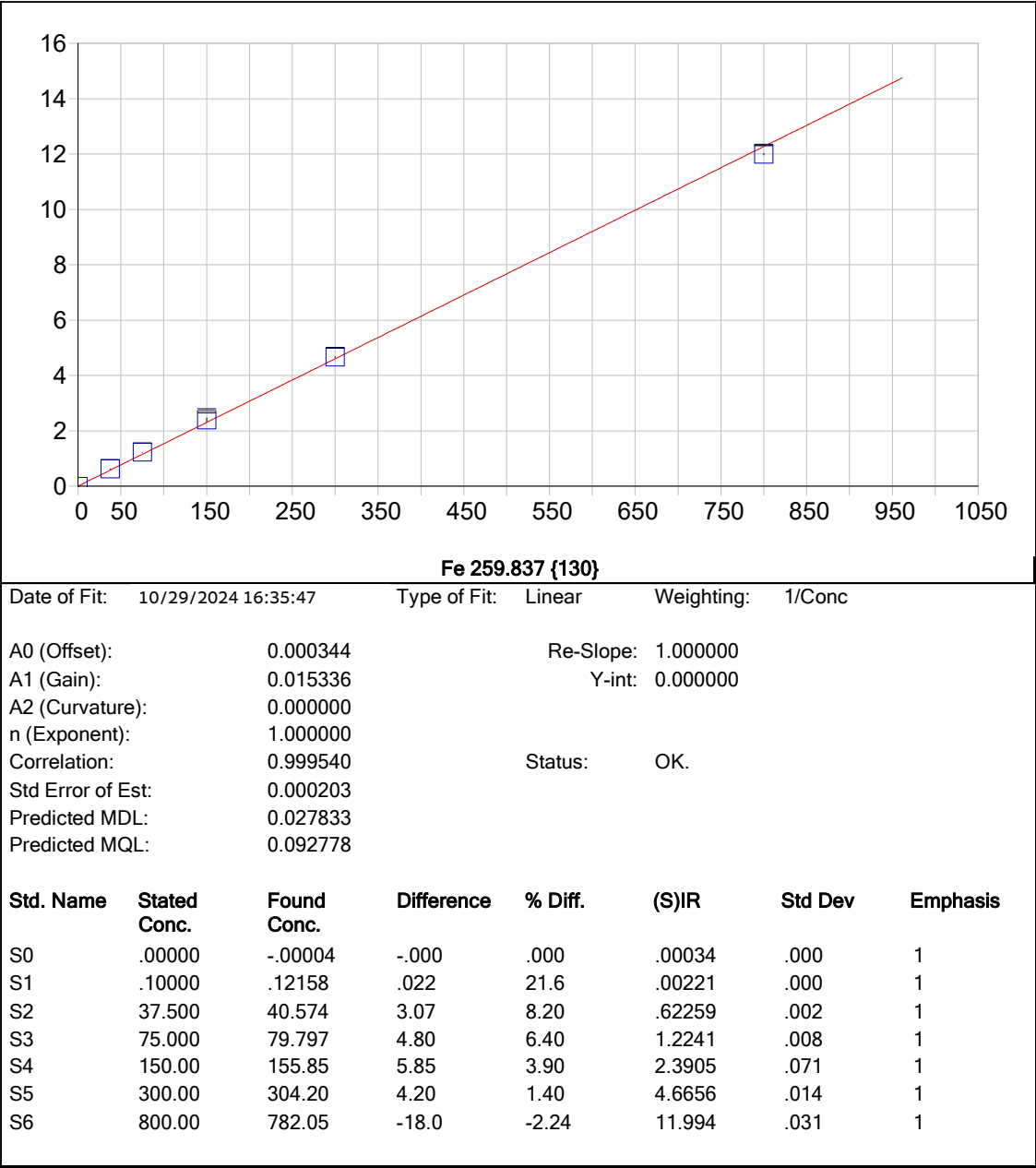


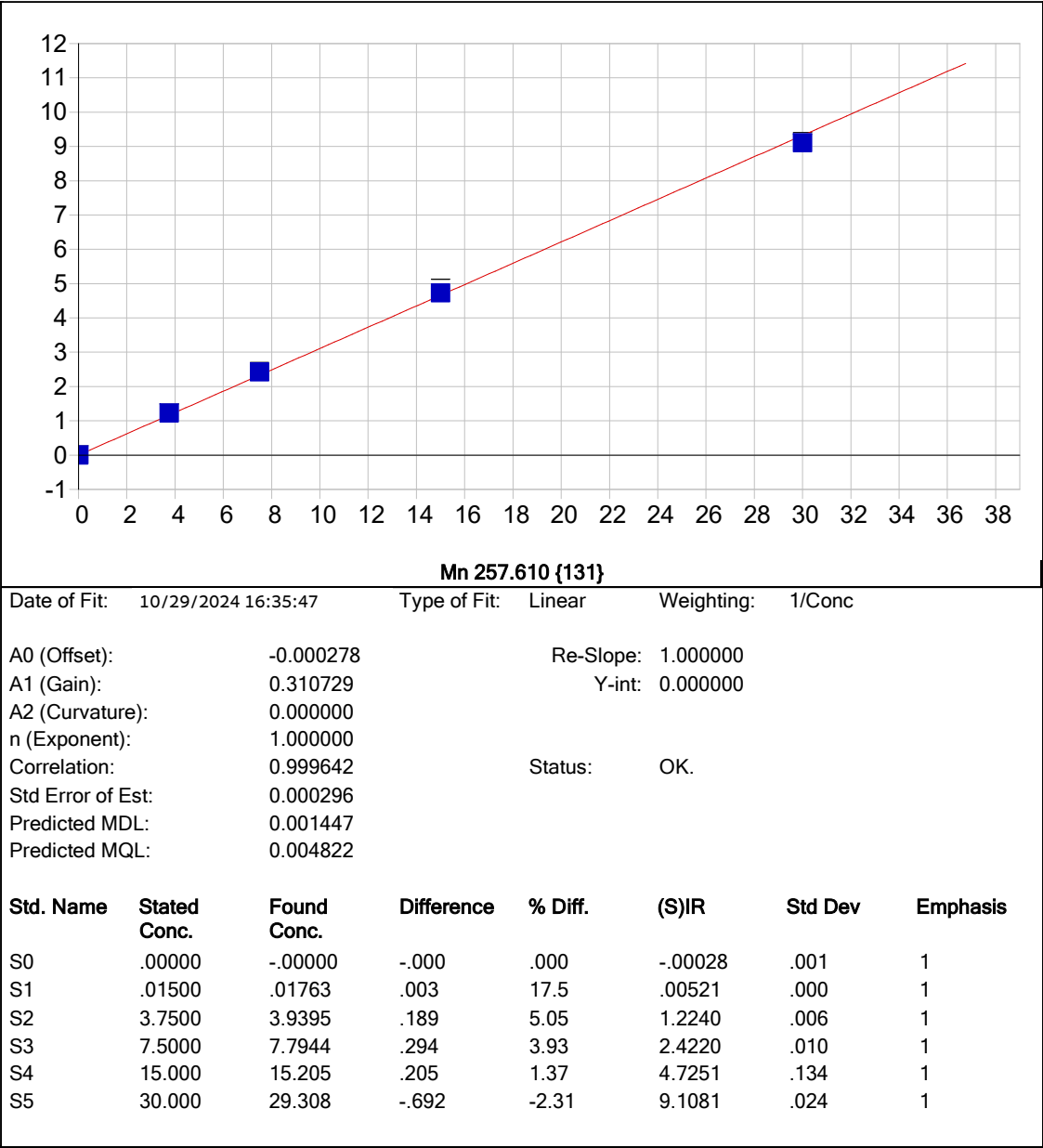


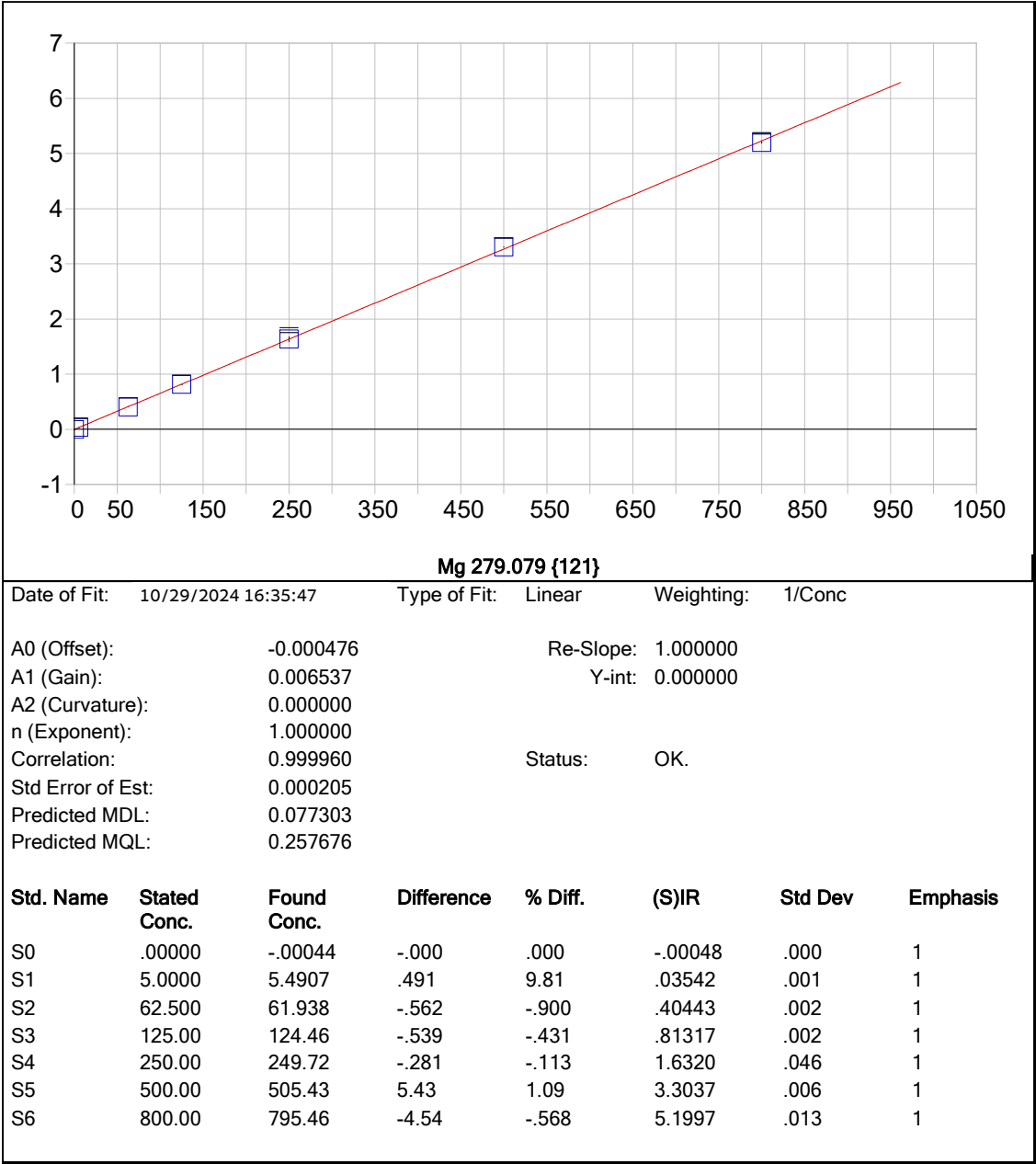


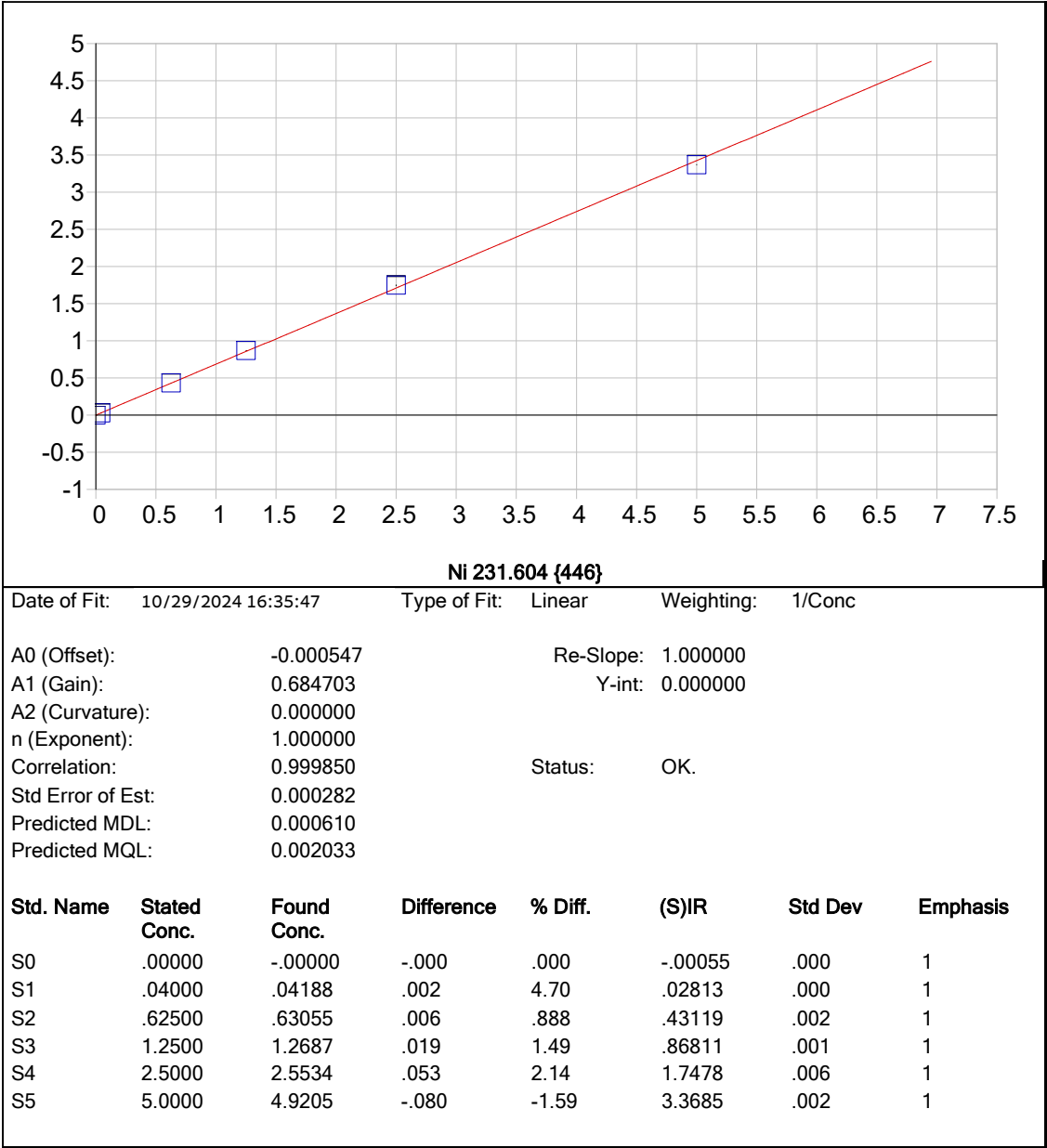


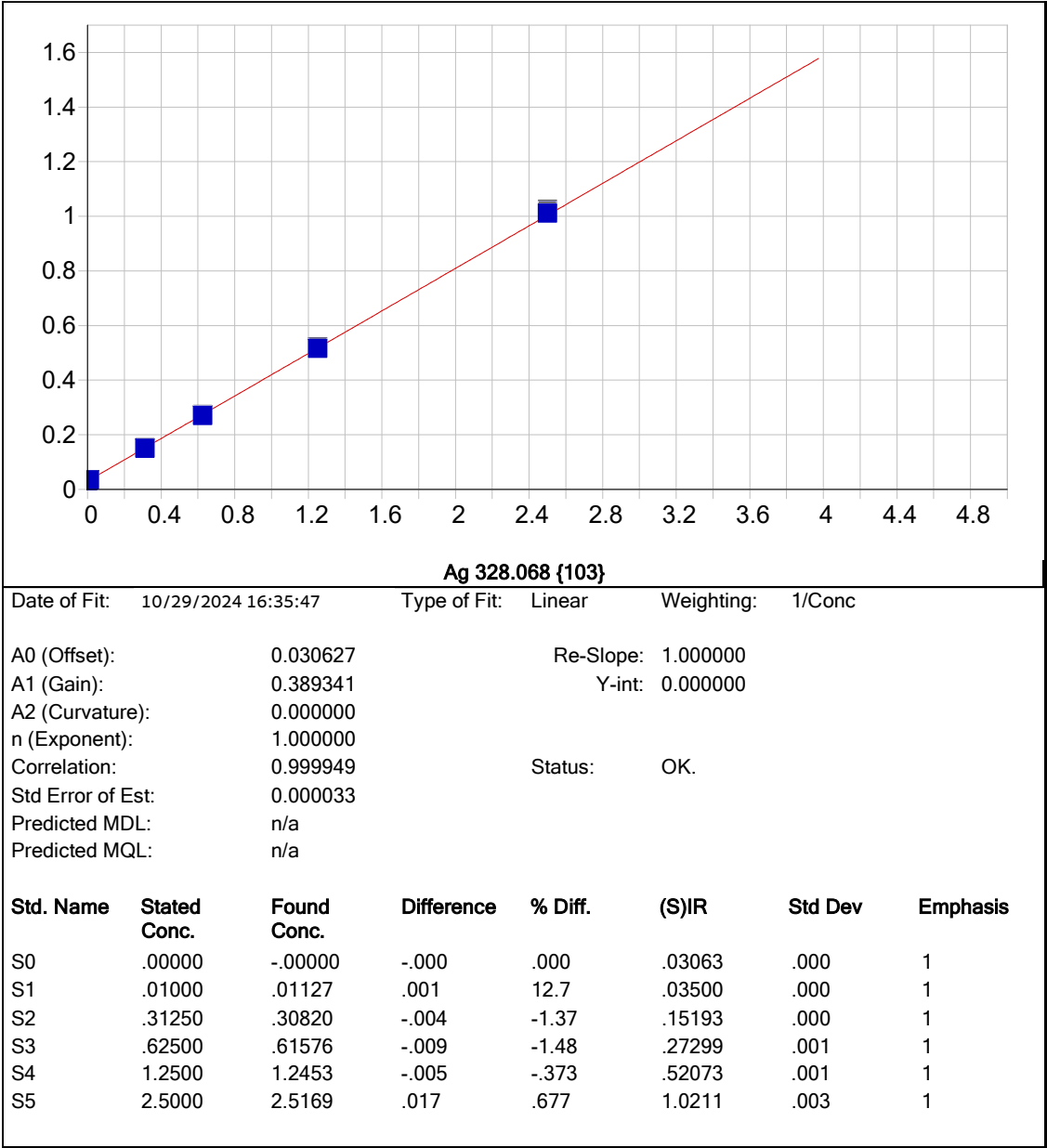


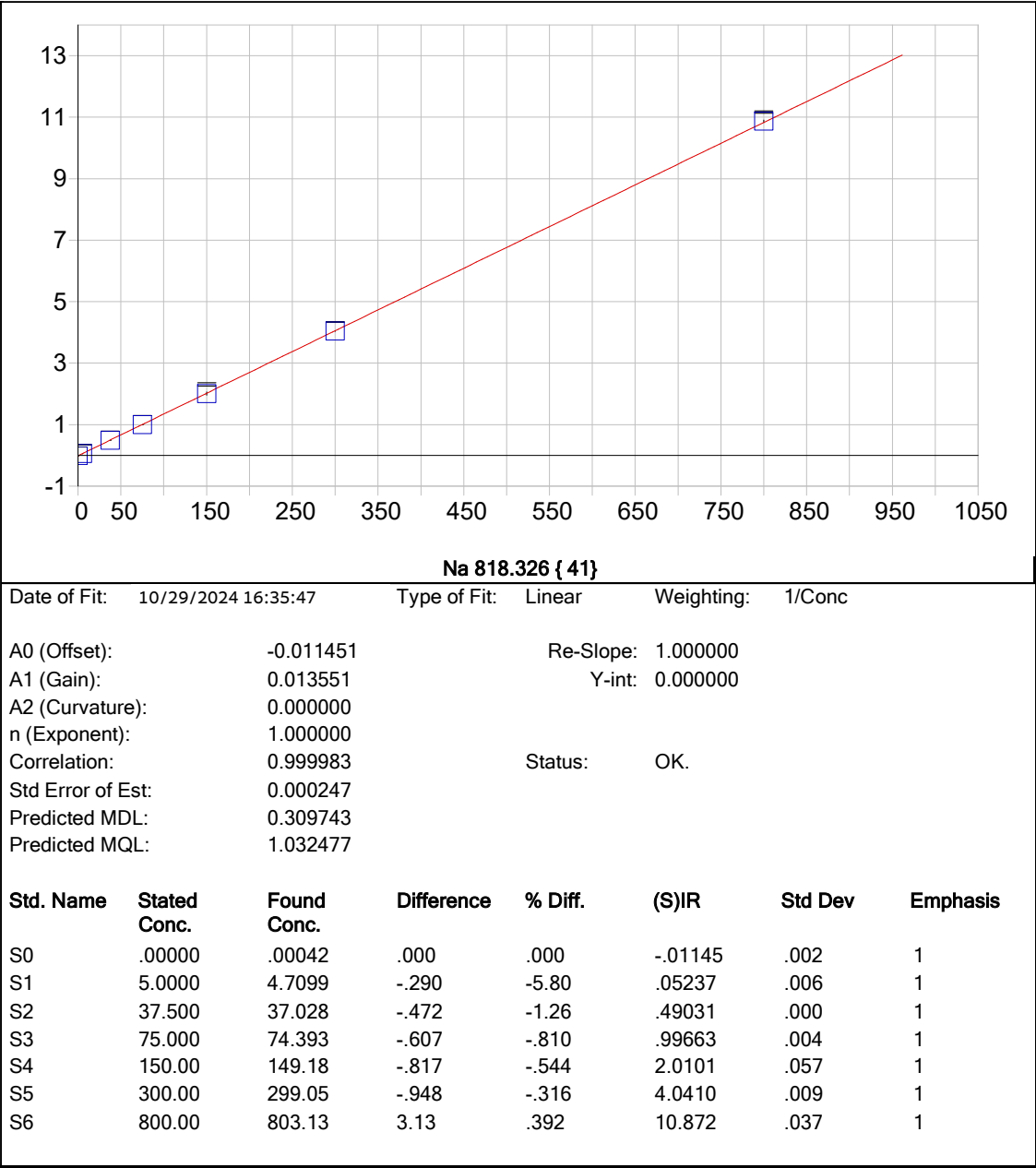


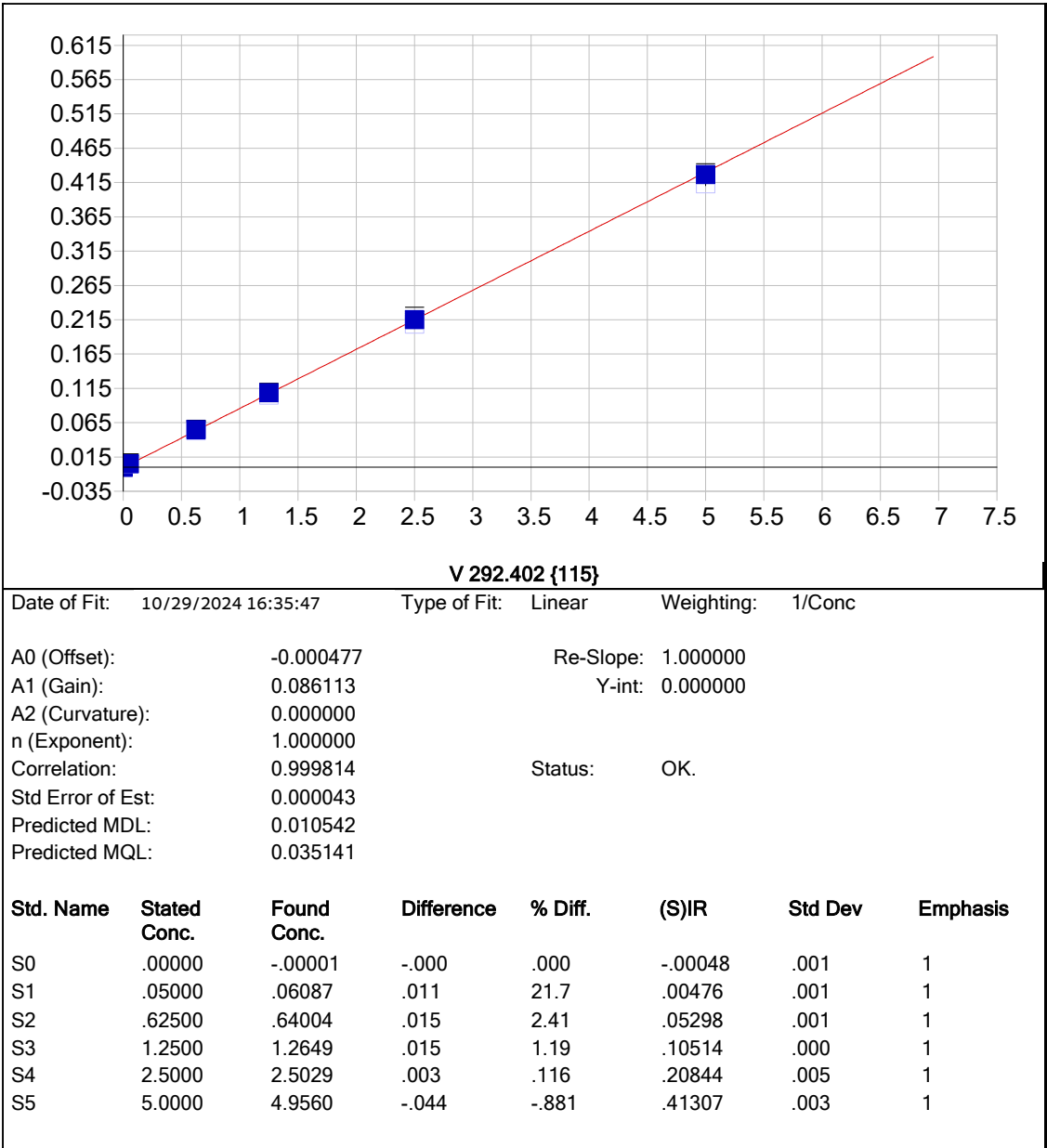


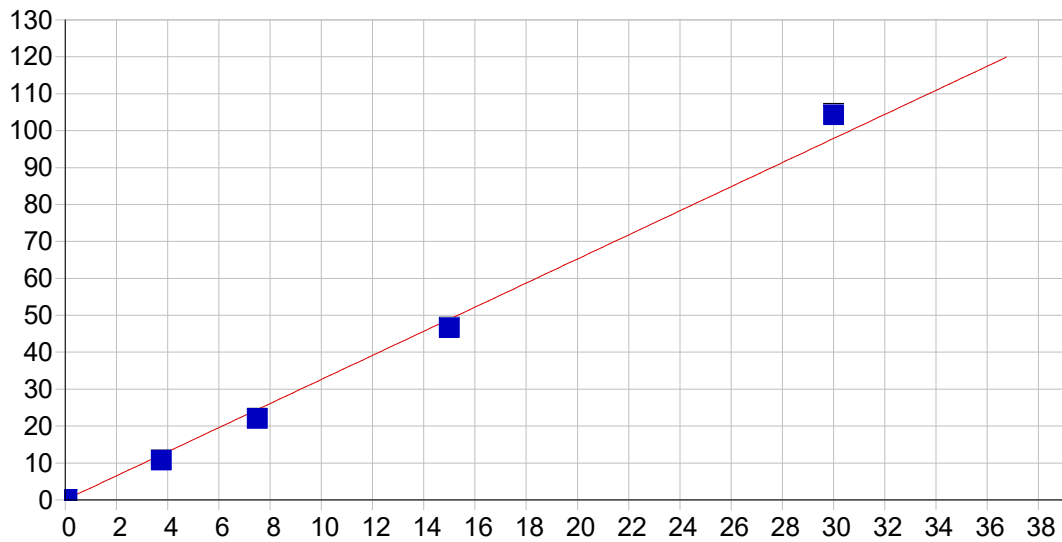










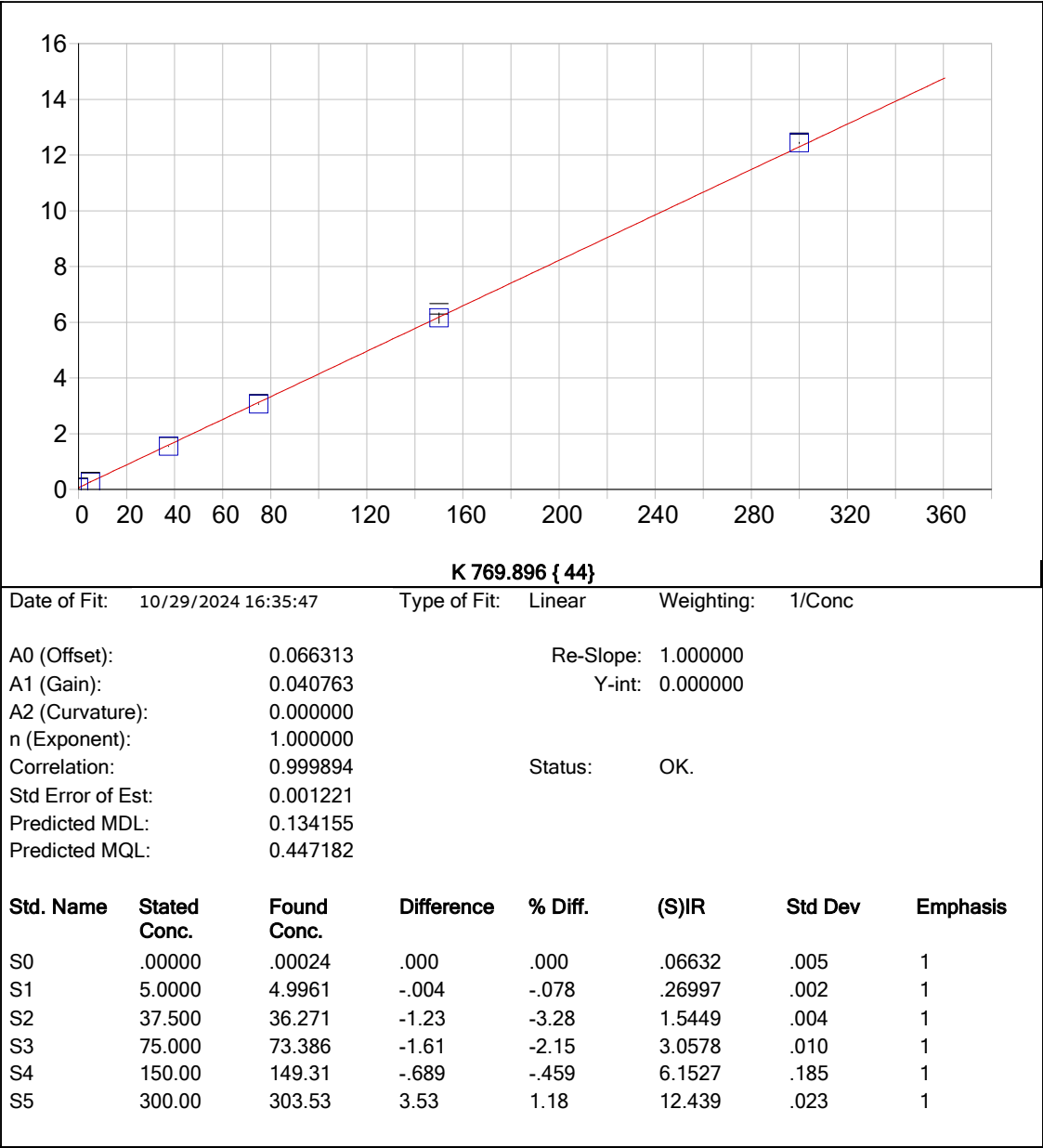


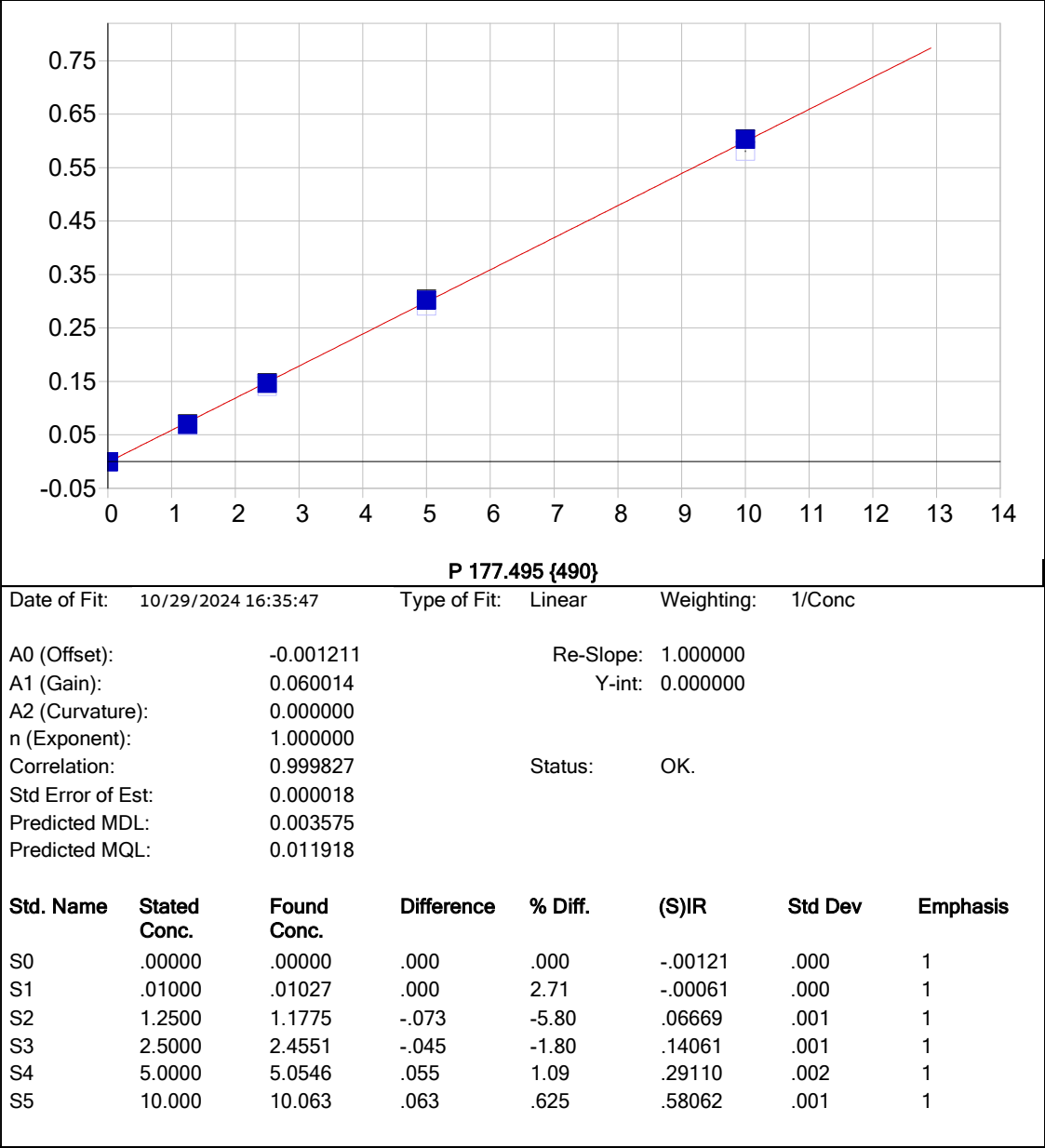
Zn 213.856 {158}

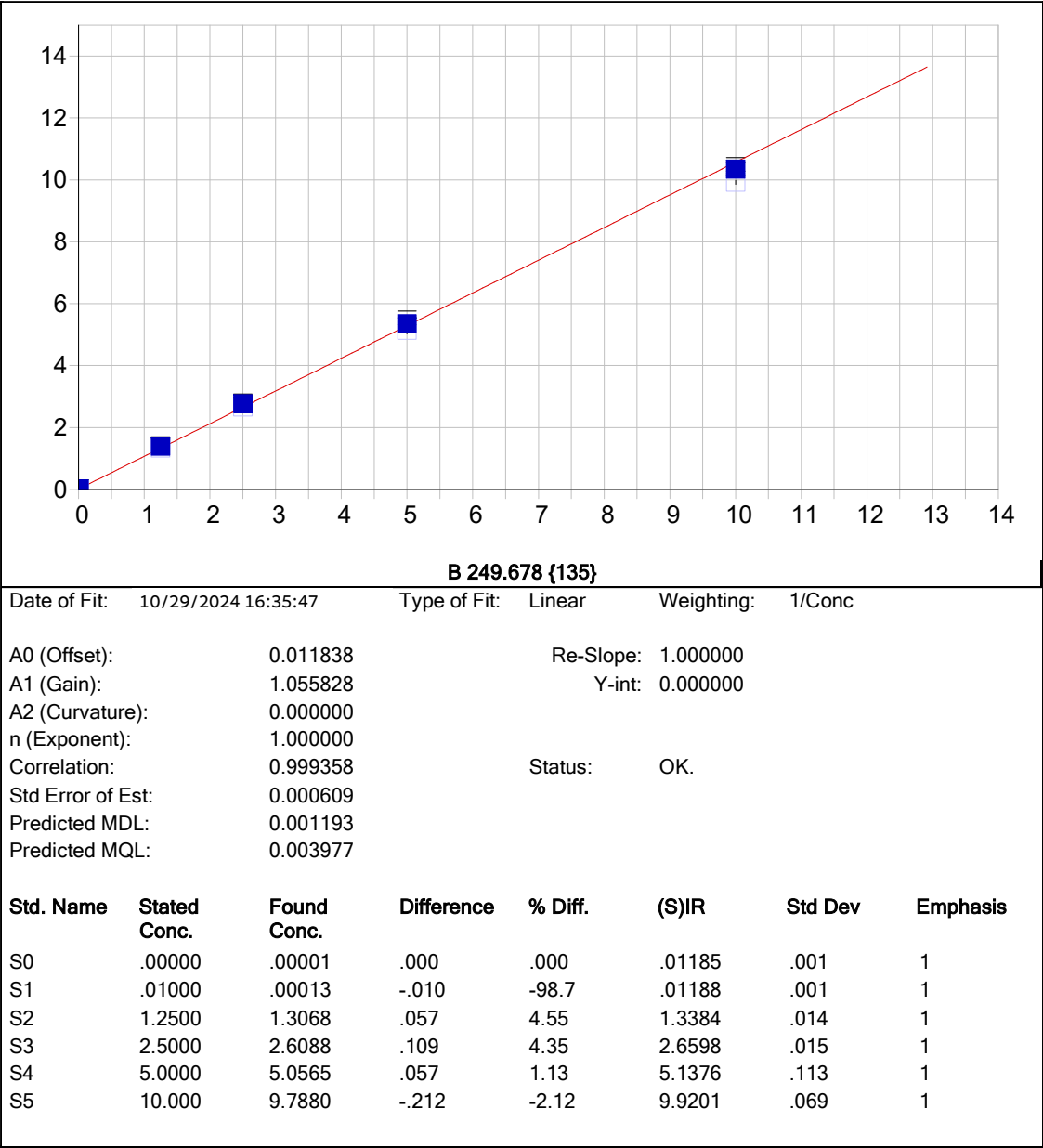
Date of Fit: 10/29/2024 16:35:47 Type of Fit: Linear Weighting: 1/Conc

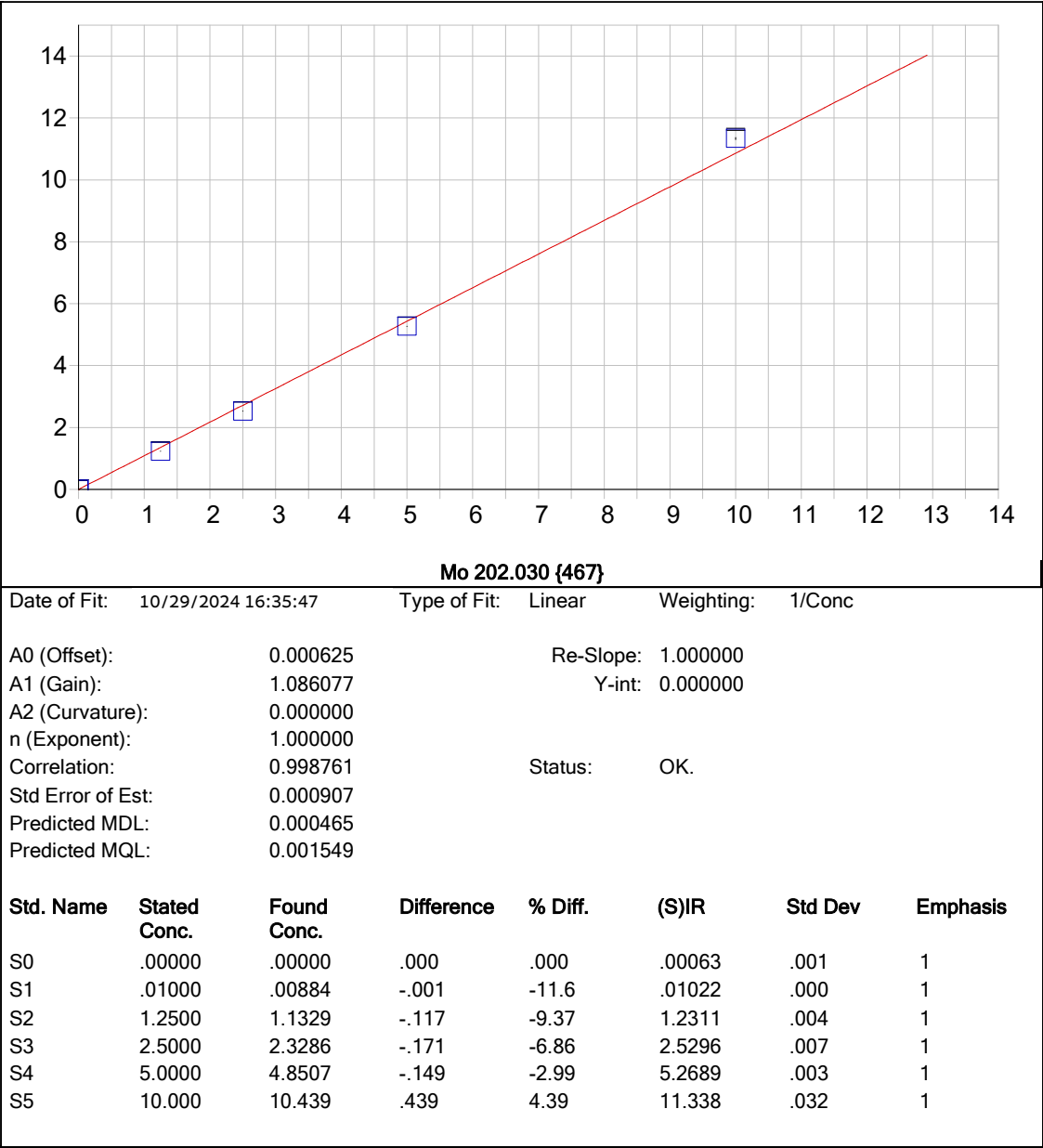
A0 (Offset):	0.002077	Re-Slope:	1.000000
A1 (Gain):	3.262475	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997390	Status:	OK.
Std Error of Est:	0.016825		
Predicted MDL:	0.000438		
Predicted MQL:	0.001459		

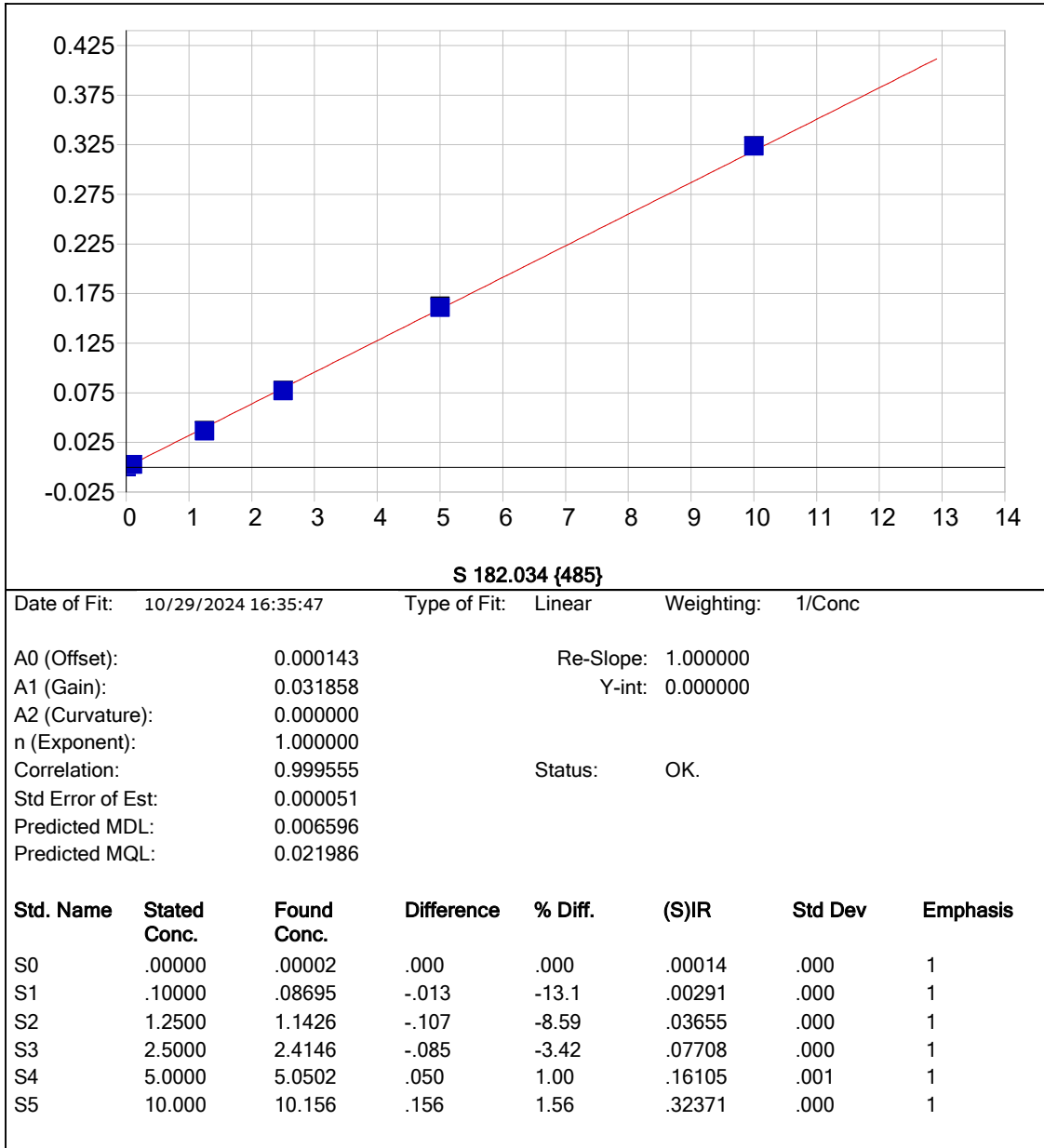
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00214	.001	1
S1	.06000	.05319	-.007	-11.3	.17657	.001	1
S2	3.7500	3.2850	-.465	-12.4	10.734	.017	1
S3	7.5000	6.7384	-.762	-10.2	22.016	.081	1
S4	15.000	14.288	-.712	-4.75	46.674	.099	1
S5	30.000	31.946	1.95	6.49	104.34	.340	1

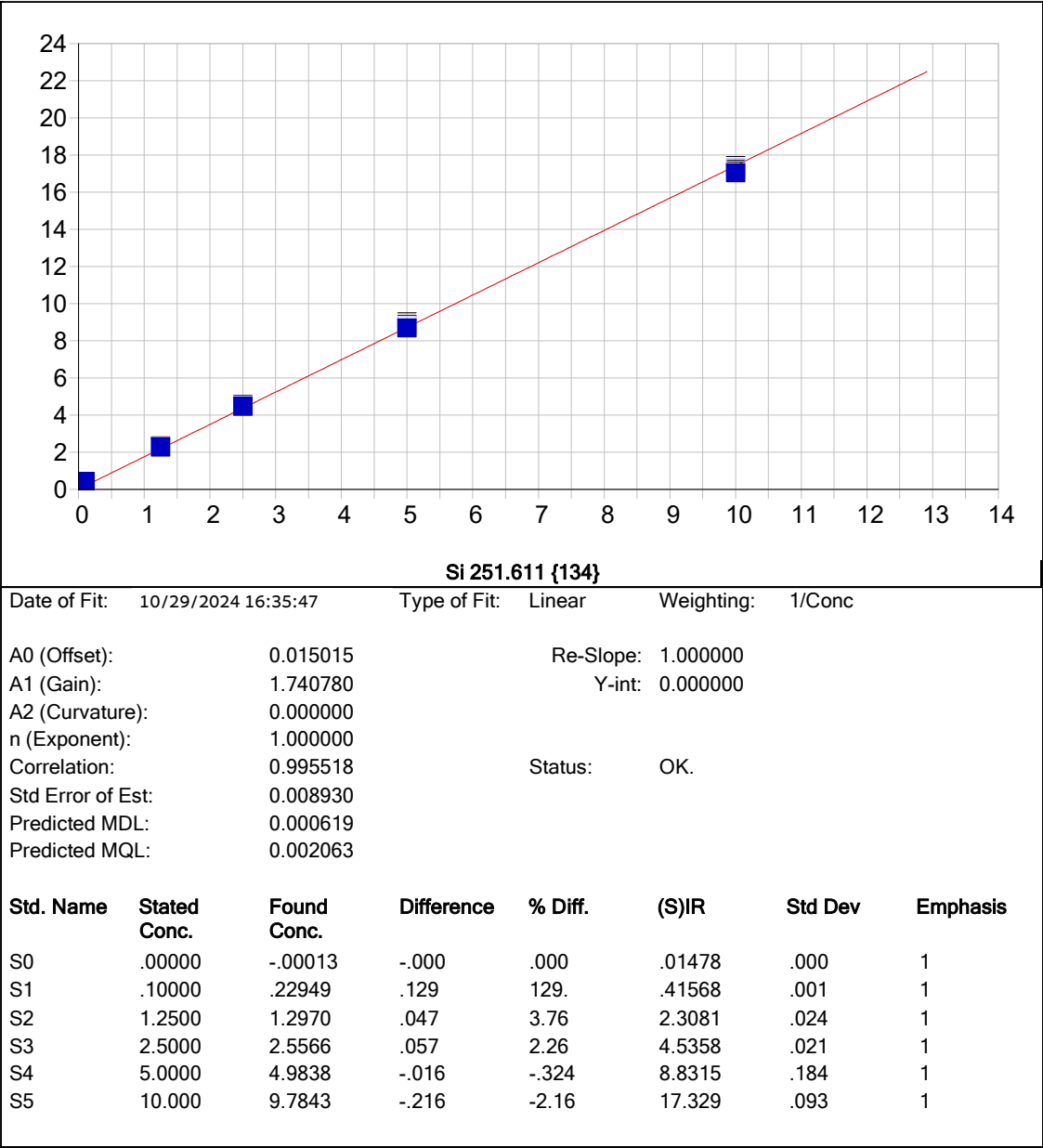


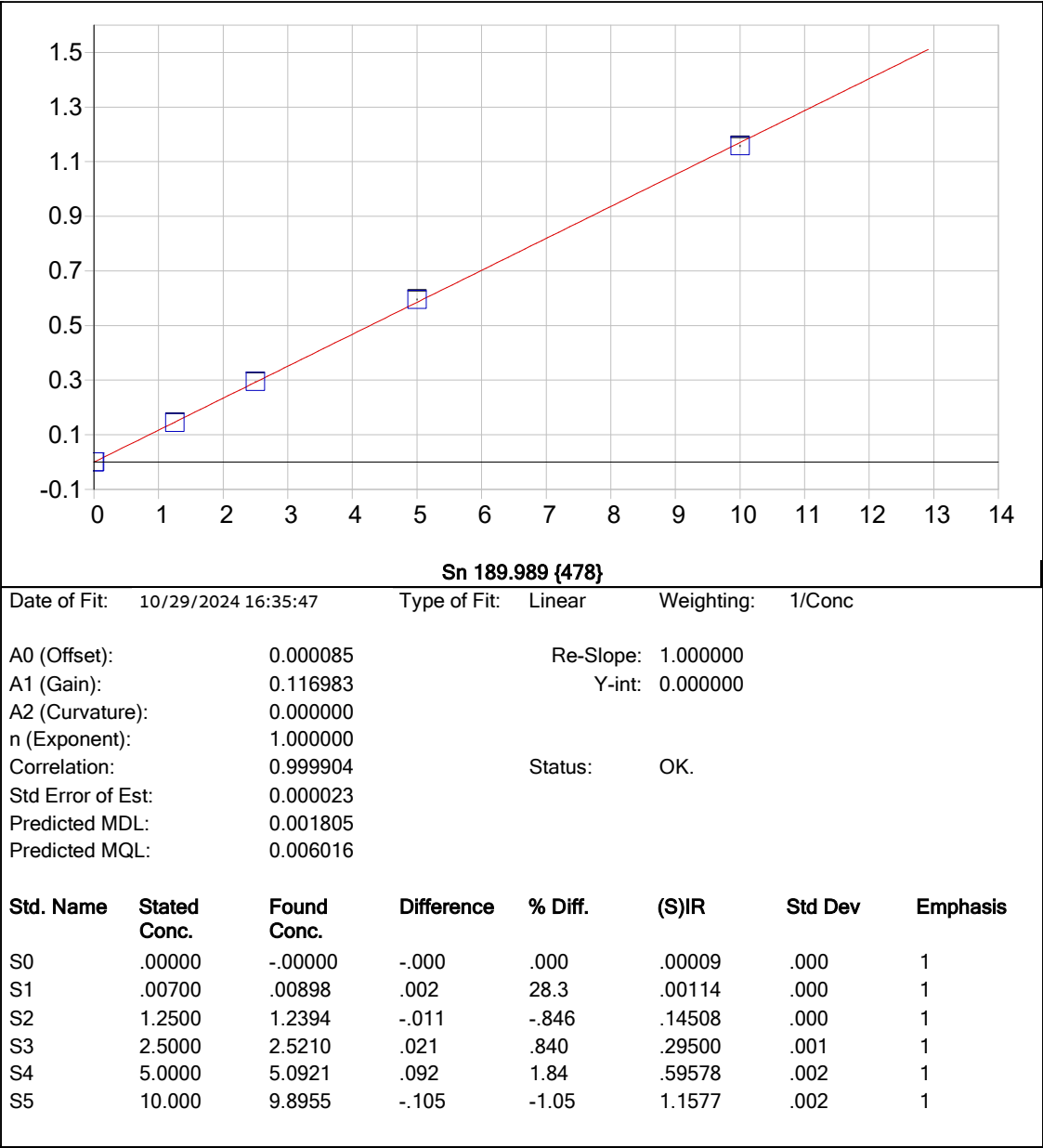


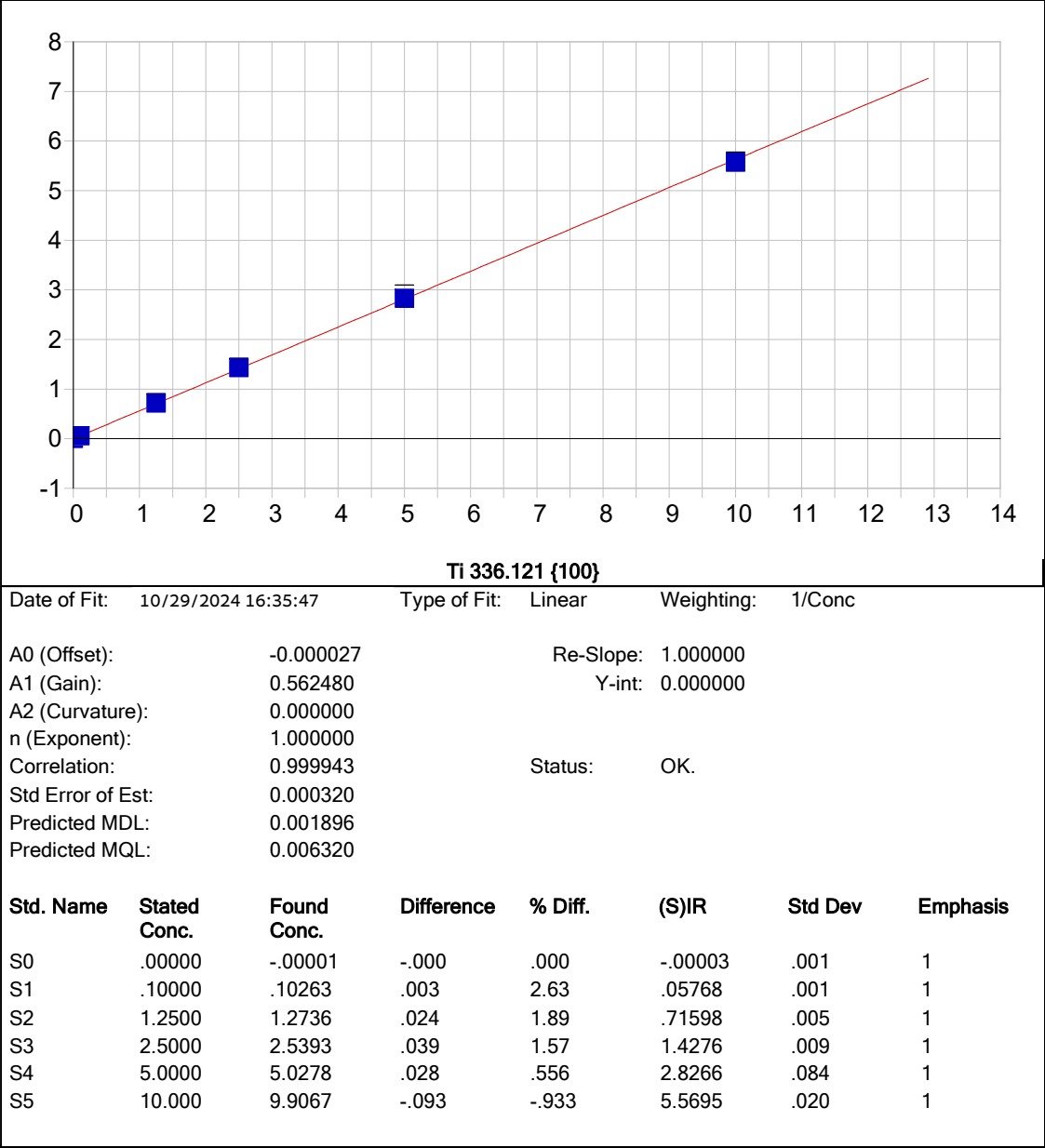


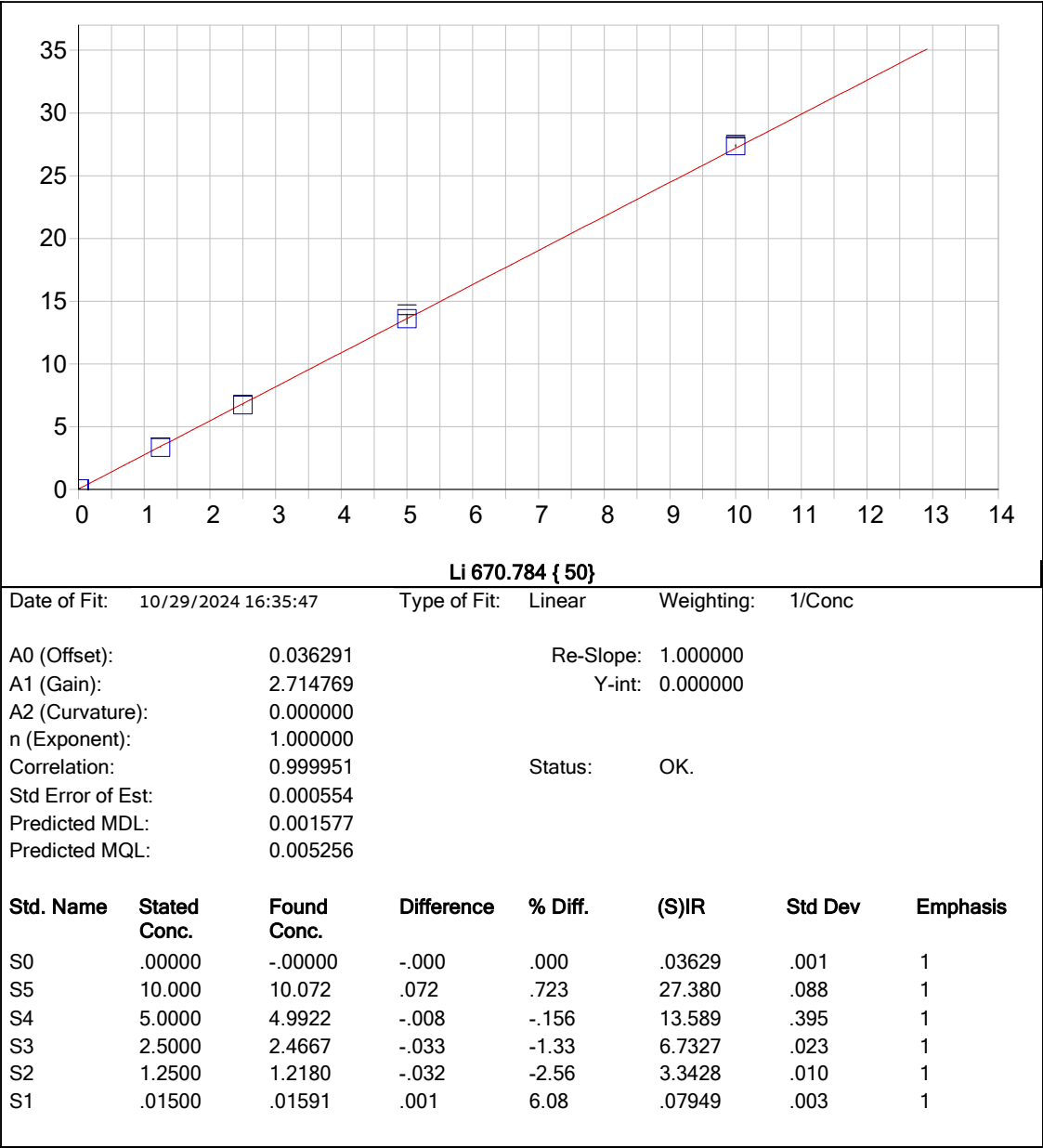


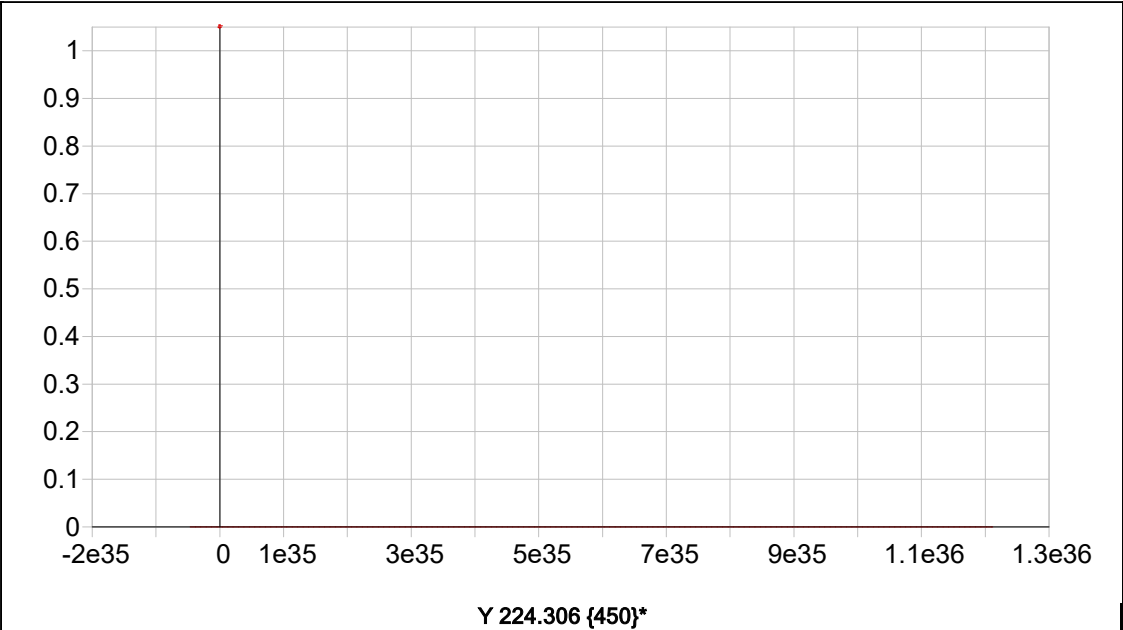






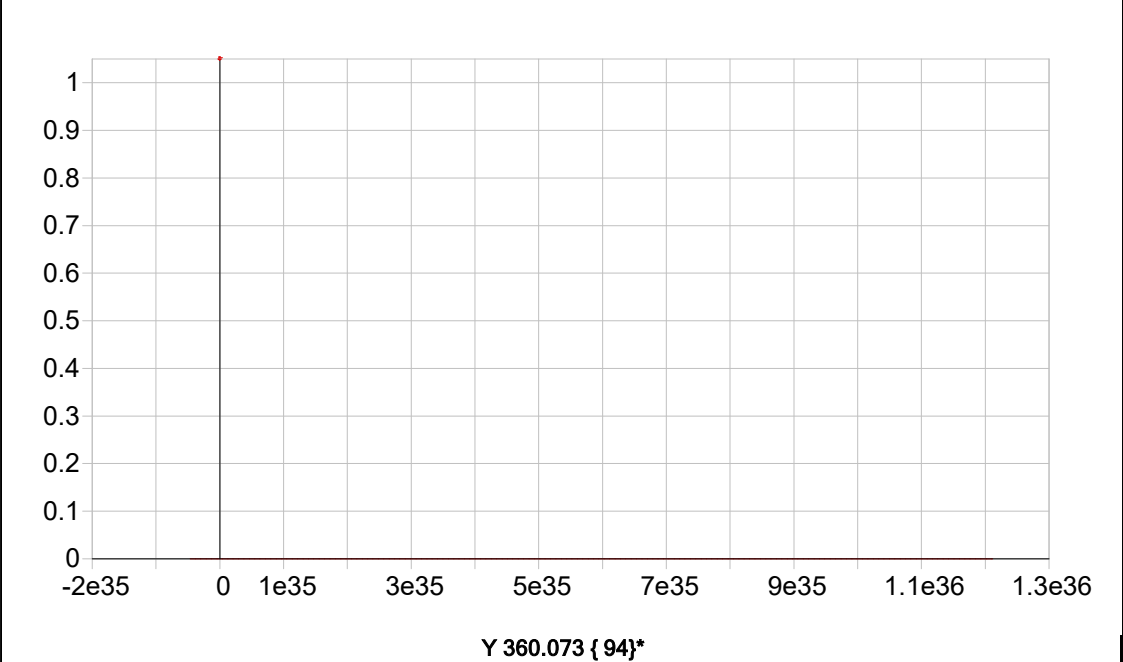




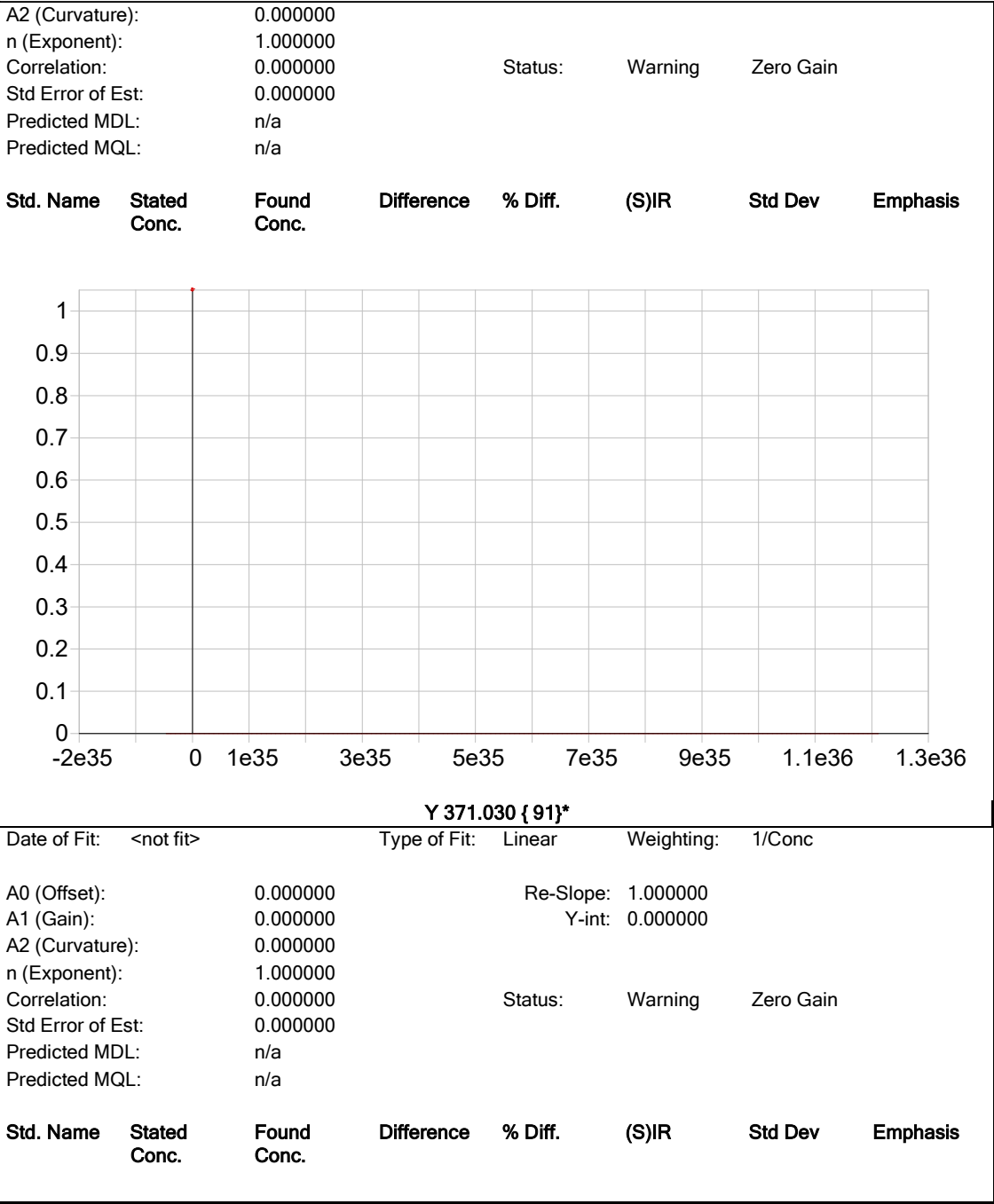


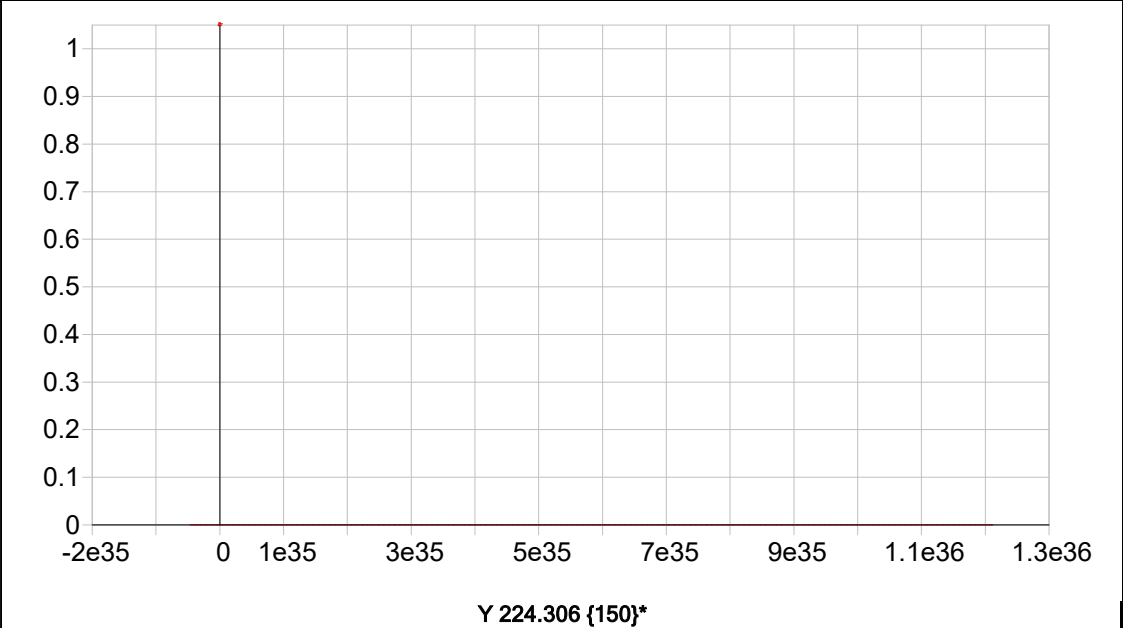
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				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

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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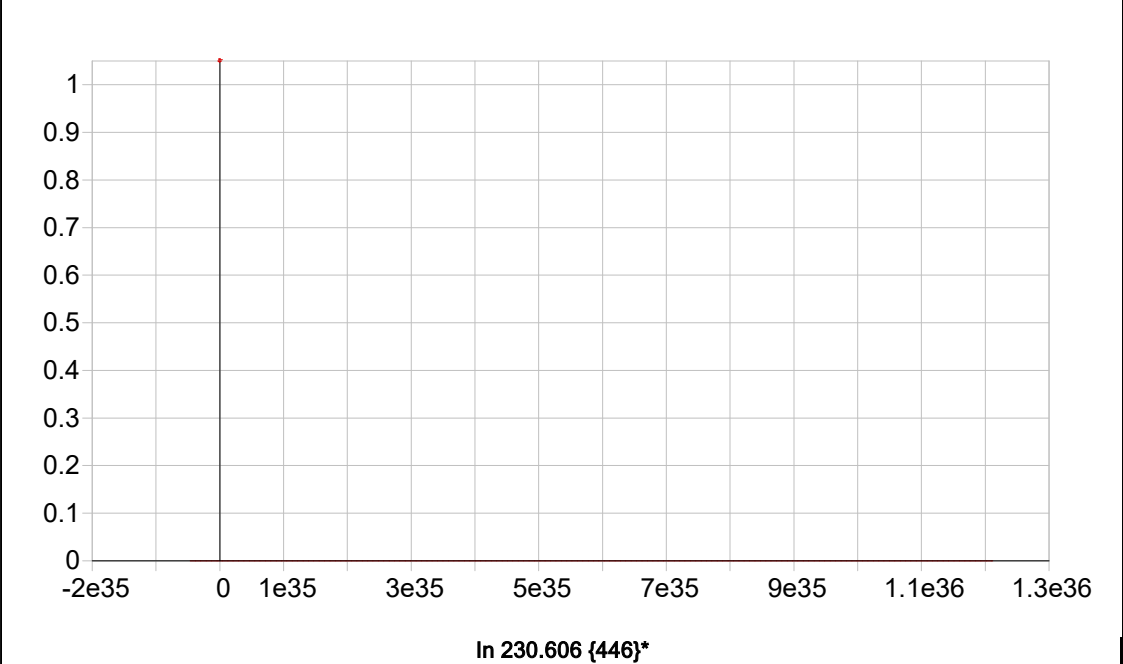
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		





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				

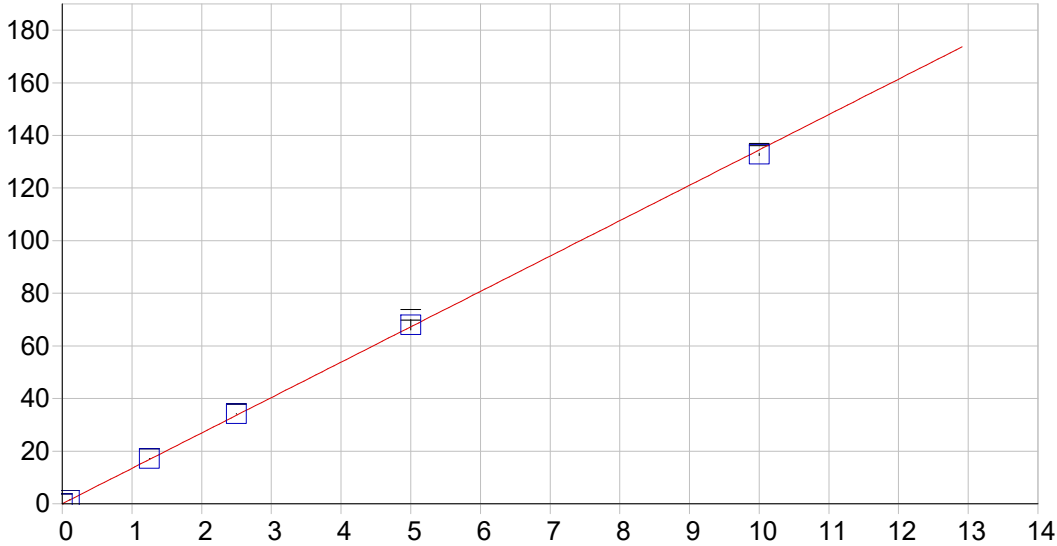
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000	Re-Slope:	1.000000		
A1 (Gain):	0.000000	Y-int:	0.000000		

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
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Sr 407.771 { 83}

Date of Fit:	10/29/2024 16:35:47	Type of Fit:	Linear	Weighting:	1/Conc		
A0 (Offset):	0.003816			Re-Slope:	1.000000		
A1 (Gain):	13.449764			Y-int:	0.000000		
A2 (Curvature):	0.000000						
n (Exponent):	1.000000						
Correlation:	0.999906		Status:	OK.			
Std Error of Est:	0.009812						
Predicted MDL:	0.000127						
Predicted MQL:	0.000423						

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00371	.001	1
S1	.10000	.10441	.004	4.41	1.4081	.006	1
S2	1.2500	1.2746	.025	1.97	17.147	.020	1
S3	2.5000	2.5385	.039	1.54	34.146	.147	1
S4	5.0000	5.0586	.059	1.17	68.040	2.03	1
S5	10.000	9.8739	-.126	-1.26	132.80	.424	1

Sample Name: S0 Acquired: 10/29/2024 16:04:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.00016	-.00051	-.00114	.00090	-.00006	-.00151	.03940	-.00294
Stddev	.00009	.00011	.00072	.00079	.00049	.00044	.00488	.00108
%RSD	54.390	20.472	63.261	87.728	860.11	29.006	12.377	36.817

#1	.00026	-.00051	-.00035	.00007	-.00056	-.00192	.04437	-.00170
#2	.00009	-.00041	-.00177	.00100	-.00003	-.00156	.03462	-.00341
#3	.00013	-.00062	-.00131	.00164	.00041	-.00105	.03921	-.00370

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	.00068	.00670	-.00018	-.00036	.00235	.00034	-.00028	-.00048
Stddev	.00024	.00038	.00018	.00010	.00016	.00018	.00055	.00020
%RSD	34.779	5.6586	100.46	26.845	6.7298	51.474	198.68	42.350

#1	.00085	.00632	-.00037	-.00046	.00241	.00015	.00019	-.00071
#2	.00078	.00708	-.00000	-.00027	.00247	.00050	-.00089	-.00032
#3	.00041	.00670	-.00017	-.00036	.00217	.00038	-.00013	-.00041

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	-.00055	.03063	-.01145	-.00048	.00214	.06632	-.00121	.01185
Stddev	.00012	.00010	.00228	.00052	.00126	.00509	.00005	.00073
%RSD	22.061	.32634	19.929	109.56	58.747	7.6761	3.9492	6.1793

#1	-.00069	.03066	-.01382	-.00093	.00324	.07220	-.00116	.01118
#2	-.00050	.03052	-.01124	.00010	.00077	.06333	-.00124	.01263
#3	-.00046	.03071	-.00928	-.00061	.00240	.06344	-.00123	.01174

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	.00063	.00014	.01478	.00009	-.00003	.03629	.00371	
Stddev	.00051	.00025	.00017	.00010	.00068	.00122	.00127	
%RSD	81.347	170.66	1.1251	115.36	2288.9	3.3492	34.311	

#1	.00121	.00006	.01496	.00013	-.00026	.03744	.00508	
#2	.00023	-.00005	.01464	.00015	.00074	.03641	.00349	
#3	.00044	.00042	.01475	-.00003	-.00057	.03502	.00256	

Sample Name: S0 Acquired: 10/29/2024 16:04:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	856.68	20596.	2299.4	763.08	1628.6
Stddev	2.41	15.	7.8	.65	4.4
%RSD	.28140	.07325	.33766	.08516	.26806
#1	854.22	20595.	2292.6	763.61	1623.6
#2	859.03	20581.	2297.8	763.28	1631.4
#3	856.79	20611.	2307.9	762.36	1630.8

Sample Name: S1 Acquired: 10/29/2024 16:09:29 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.00046	.00154	.00073	.00334	.01209	.02200	1.3824	.04473
Stddev	.00015	.00031	.00024	.00031	.00035	.00225	.0069	.00137
%RSD	31.899	19.871	33.186	9.3369	2.9029	10.248	.49541	3.0645

#1	.00049	.00167	.00062	.00361	.01248	.02452	1.3842	.04584
#2	.00058	.00119	.00100	.00300	.01179	.02020	1.3749	.04515
#3	.00030	.00177	.00056	.00342	.01201	.02126	1.3882	.04320

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	.01337	.45600	.00209	.03613	.00635	.00221	.00521	.03542
Stddev	.00010	.00173	.00009	.00029	.00026	.00011	.00008	.00095
%RSD	.74722	.37841	4.3125	.79260	4.0554	4.7846	1.4772	2.6892

#1	.01344	.45483	.00213	.03634	.00630	.00213	.00512	.03544
#2	.01341	.45518	.00199	.03624	.00664	.00233	.00527	.03446
#3	.01325	.45798	.00215	.03580	.00613	.00217	.00524	.03636

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	.02813	.03500	.05237	.00476	.17657	.26997	-.00061	.01188
Stddev	.00042	.00005	.00630	.00077	.00118	.00217	.00002	.00136
%RSD	1.4791	.14341	12.032	16.124	.66851	.80260	3.6614	11.464

#1	.02772	.03495	.04957	.00564	.17794	.27216	-.00059	.01344
#2	.02855	.03502	.04796	.00425	.17591	.26783	-.00061	.01093
#3	.02811	.03504	.05959	.00438	.17588	.26992	-.00063	.01126

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	.01022	.00291	.41568	.00114	.05768	.07949	1.4081	
Stddev	.00026	.00012	.00097	.00022	.00061	.00267	.0062	
%RSD	2.5332	4.2615	.23264	19.291	1.0647	3.3560	.43924	

#1	.01048	.00303	.41495	.00111	.05736	.08079	1.4143	
#2	.00996	.00278	.41678	.00093	.05839	.08125	1.4019	
#3	.01022	.00292	.41531	.00137	.05729	.07642	1.4081	

Sample Name: S1 Acquired: 10/29/2024 16:09:29 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	854.21	20623.	2297.6	760.25	1613.2
Stddev	.81	22.	2.2	1.59	2.0
%RSD	.09444	.10431	.09656	.20953	.12429
#1	854.16	20614.	2297.2	758.44	1613.3
#2	855.04	20609.	2300.0	761.43	1615.2
#3	853.42	20648.	2295.6	760.88	1611.2

Sample Name: S2 Acquired: 10/29/2024 16:14:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.04114	.09928	1.0619	.10037	.26105	4.8774	16.181	1.1157
Stddev	.00032	.00059	.0022	.00122	.00181	.0136	.044	.0104
%RSD	.77267	.59611	.20691	1.2135	.69427	.27852	.27405	.93023
#1	.04137	.09931	1.0615	.10118	.26170	4.8618	16.148	1.1040
#2	.04078	.09868	1.0600	.10095	.25901	4.8836	16.231	1.1194
#3	.04128	.09986	1.0643	.09897	.26245	4.8867	16.163	1.1237

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	1.5048	5.3399	.86374	.45548	.77536	.62259	1.2240	.40443
Stddev	.0028	.0260	.00123	.00095	.00071	.00248	.0056	.00221
%RSD	.18693	.48733	.14234	.20765	.09142	.39770	.45419	.54627
#1	1.5046	5.3103	.86481	.45534	.77482	.62181	1.2176	.40211
#2	1.5021	5.3500	.86240	.45461	.77510	.62537	1.2275	.40468
#3	1.5077	5.3593	.86402	.45648	.77616	.62061	1.2269	.40651

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	.43119	.15193	.49031	.05298	10.734	1.5449	.06669	1.3384
Stddev	.00169	.00026	.00029	.00056	.017	.0038	.00072	.0142
%RSD	.39263	.17240	.05910	1.0560	.15970	.24533	1.0855	1.0610
#1	.43126	.15200	.49028	.05363	10.734	1.5425	.06626	1.3220
#2	.42947	.15216	.49061	.05268	10.751	1.5492	.06630	1.3454
#3	.43285	.15165	.49003	.05265	10.717	1.5429	.06753	1.3477

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	1.2311	.03655	2.3081	.14508	.71598	3.3428	17.147	
Stddev	.0042	.00020	.0243	.00045	.00455	.0102	.020	
%RSD	.33864	.55044	1.0523	.30684	.63563	.30392	.11582	
#1	1.2314	.03644	2.2800	.14492	.71074	3.3319	17.129	
#2	1.2267	.03642	2.3220	.14473	.71899	3.3444	17.168	
#3	1.2351	.03678	2.3222	.14558	.71820	3.3520	17.145	

Sample Name: S2 Acquired: 10/29/2024 16:14:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	807.09	20127.	2275.2	705.69	1464.4
Stddev	1.26	35.	20.0	1.44	2.8
%RSD	.15562	.17263	.87938	.20459	.19220
#1	805.82	20088.	2298.2	704.86	1461.8
#2	808.33	20142.	2265.8	704.84	1467.4
#3	807.13	20153.	2261.6	707.35	1464.2

Sample Name: S3 Acquired: 10/29/2024 16:18:32 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.08389	.19854	2.1448	.20554	.54079	9.7749	32.439	2.1866
Stddev	.00026	.00054	.0026	.00096	.00234	.0349	.148	.0123
%RSD	.31355	.27185	.12253	.46642	.43313	.35714	.45507	.56425

#1	.08383	.19834	2.1418	.20527	.53939	9.7954	32.590	2.2005
#2	.08366	.19813	2.1458	.20474	.53949	9.7947	32.433	2.1827
#3	.08418	.19915	2.1467	.20660	.54350	9.7346	32.295	2.1768

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	3.0266	10.551	1.7135	.92256	1.5385	1.2241	2.4220	.81317
Stddev	.0050	.045	.0035	.00146	.0082	.0078	.0095	.00210
%RSD	.16435	.42287	.20520	.15817	.53038	.63886	.39268	.25767

#1	3.0213	10.574	1.7094	.92222	1.5476	1.2226	2.4308	.81464
#2	3.0275	10.579	1.7156	.92129	1.5358	1.2326	2.4233	.81409
#3	3.0311	10.499	1.7154	.92416	1.5319	1.2172	2.4119	.81077

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	.86811	.27299	.99663	.10514	22.016	3.0578	.14061	2.6598
Stddev	.00117	.00085	.00388	.00034	.081	.0101	.00095	.0147
%RSD	.13478	.31163	.38886	.32261	.36737	.32905	.67225	.55299

#1	.86719	.27349	.99218	.10491	22.028	3.0612	.13953	2.6544
#2	.86772	.27201	.99926	.10498	21.929	3.0657	.14102	2.6764
#3	.86943	.27347	.99846	.10553	22.090	3.0464	.14129	2.6485

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	2.5296	.07708	4.5358	.29500	1.4276	6.7327	34.146	
Stddev	.0067	.00050	.0210	.00056	.0090	.0226	.147	
%RSD	.26437	.64619	.46372	.18972	.63232	.33586	.42984	

#1	2.5235	.07688	4.5483	.29449	1.4347	6.7533	34.250	
#2	2.5286	.07670	4.5477	.29560	1.4306	6.7362	34.211	
#3	2.5367	.07764	4.5116	.29492	1.4174	6.7085	33.978	

Sample Name: S3 Acquired: 10/29/2024 16:18:32 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	771.84	19838.	2280.5	663.94	1400.5
Stddev	.79	19.	13.6	2.78	.9
%RSD	.10235	.09749	.59706	.41913	.06128
#1	772.39	19858.	2273.7	662.81	1399.6
#2	772.18	19820.	2271.7	667.11	1401.3
#3	770.93	19834.	2296.2	661.90	1400.7

Sample Name: S4 Acquired: 10/29/2024 16:22:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.17666	.38914	4.3210	.43637	1.1502	19.668	64.991	4.3053
Stddev	.00123	.00110	.0073	.00169	.0016	.606	1.963	.0979
%RSD	.69640	.28139	.16880	.38814	.14164	3.0792	3.0206	2.2731
#1	.17542	.38821	4.3126	.43459	1.1489	19.949	66.032	4.3476
#2	.17788	.38886	4.3256	.43655	1.1520	18.973	62.727	4.1935
#3	.17667	.39035	4.3248	.43797	1.1496	20.083	66.215	4.3750

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	6.0702	20.945	3.3502	1.8664	3.0517	2.3905	4.7251	1.6320
Stddev	.0191	.599	.0061	.0083	.0924	.0706	.1342	.0461
%RSD	.31532	2.8577	.18231	.44259	3.0263	2.9516	2.8399	2.8231
#1	6.0483	21.202	3.3570	1.8570	3.0979	2.4198	4.7941	1.6516
#2	6.0832	20.261	3.3484	1.8726	2.9454	2.3101	4.5705	1.5794
#3	6.0793	21.372	3.3452	1.8696	3.1119	2.4417	4.8108	1.6651

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	1.7478	.52073	2.0101	.20844	46.674	6.1527	.29110	5.1376
Stddev	.0062	.00053	.0569	.00460	.099	.1855	.00153	.1134
%RSD	.35205	.10271	2.8300	2.2081	.21220	3.0142	.52471	2.2073
#1	1.7407	.52023	2.0348	.20964	46.564	6.2417	.28940	5.2027
#2	1.7516	.52068	1.9451	.20336	46.703	5.9396	.29157	5.0067
#3	1.7511	.52129	2.0505	.21233	46.755	6.2770	.29234	5.2034

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	5.2689	.16105	8.8315	.59578	2.8266	13.589	68.040	
Stddev	.0034	.00106	.1836	.00233	.0837	.395	2.032	
%RSD	.06419	.65656	2.0787	.39105	2.9612	2.9101	2.9872	
#1	5.2654	.15987	8.9303	.59312	2.8677	13.785	69.047	
#2	5.2721	.16136	8.6197	.59744	2.7303	13.134	65.701	
#3	5.2692	.16192	8.9445	.59679	2.8818	13.848	69.373	

Sample Name: S4 Acquired: 10/29/2024 16:22:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	706.02	19308.	2276.6	583.99	1305.4
Stddev	.44	27.	51.4	1.78	4.0
%RSD	.06163	.13786	2.2563	.30537	.30344
#1	705.91	19286.	2250.1	585.19	1309.5
#2	705.65	19337.	2335.8	584.83	1301.6
#3	706.50	19299.	2243.9	581.94	1305.1

Sample Name: S5 Acquired: 10/29/2024 16:27:05 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.35536	.73448	8.4250	.94534	2.5430	39.738	127.20	8.5733
Stddev	.00041	.00251	.0100	.00233	.0059	.087	1.67	.0301
%RSD	.11592	.34238	.11836	.24603	.23290	.21937	1.3120	.35127

#1	.35521	.73225	8.4156	.94268	2.5376	39.838	128.89	8.6045
#2	.35505	.73398	8.4238	.94636	2.5420	39.699	127.15	8.5711
#3	.35583	.73721	8.4355	.94699	2.5493	39.677	125.56	8.5444

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	11.671	41.624	6.3695	3.6176	6.0267	4.6656	9.1081	3.3037
Stddev	.021	.074	.0062	.0042	.0187	.0145	.0239	.0061
%RSD	.17944	.17710	.09751	.11707	.30938	.31057	.26217	.18508

#1	11.649	41.709	6.3646	3.6127	6.0476	4.6792	9.1355	3.3108
#2	11.691	41.592	6.3765	3.6199	6.0119	4.6504	9.0919	3.3002
#3	11.674	41.572	6.3676	3.6202	6.0207	4.6672	9.0967	3.3002

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	3.3685	1.0211	4.0410	.41307	104.34	12.439	.58062	9.9201
Stddev	.0025	.0028	.0087	.00265	.34	.023	.00087	.0687
%RSD	.07343	.27455	.21594	.64170	.32541	.18850	.15067	.69201

#1	3.3658	1.0216	4.0509	.41555	104.09	12.458	.57981	9.9951
#2	3.3705	1.0236	4.0371	.41337	104.21	12.413	.58049	9.9048
#3	3.3693	1.0180	4.0348	.41028	104.73	12.447	.58155	9.8605

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	11.338	.32371	17.329	1.1577	5.5695	27.380	132.80	
Stddev	.032	.00031	.093	.0023	.0196	.088	.42	
%RSD	.28448	.09650	.53578	.19730	.35257	.31982	.31940	

#1	11.302	.32336	17.422	1.1556	5.5921	27.481	133.02	
#2	11.347	.32381	17.327	1.1601	5.5600	27.325	133.08	
#3	11.365	.32397	17.237	1.1574	5.5564	27.335	132.32	

Sample Name: S5 Acquired: 10/29/2024 16:27:05 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	603.92	18754.	2213.7	454.94	1220.7
Stddev	1.13	35.	12.2	1.03	.9
%RSD	.18649	.18667	.55260	.22588	.07497
#1	605.19	18750.	2201.4	455.66	1221.7
#2	603.52	18722.	2213.6	455.40	1220.0
#3	603.04	18792.	2225.9	453.76	1220.4

Sample Name: S6 Acquired: 10/29/2024 16:31:34 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	101.09	65.037	11.994	5.1997	10.872
Stddev	.52	.194	.031	.0132	.037
%RSD	.51276	.29855	.25935	.25382	.34176
#1	100.96	65.240	12.008	5.2143	10.911
#2	100.64	64.853	11.958	5.1887	10.837
#3	101.65	65.019	12.016	5.1961	10.867
Int. Std.	Y_3710				
Units	Cts/S				
Avg	2169.7				
Stddev	11.8				
%RSD	.54478				
#1	2157.6				
#2	2181.2				
#3	2170.2				

Sample Name: ICV004 Acquired: 10/29/2024 17:19:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	1.052217	1.034153	.9647990	1.032306	.9981979	2.311834
Stddev	.007464	.008302	.0010284	.006766	.0003215	.016303
%RSD	.7093818	.8028264	.1065945	.6554627	.0322035	.7051801
#1	1.057068	1.043695	.9651649	1.025612	.9985665	2.326494
#2	1.043622	1.030184	.9636376	1.039143	.9979755	2.294277
#3	1.055963	1.028580	.9655944	1.032163	.9980517	2.314731
Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4983675	.5172582	.4889609	9.933896	.5541242	.4852427
Stddev	.0001107	.0036908	.0010091	.024113	.0010303	.0013428
%RSD	.0222100	.7135213	.2063679	.2427369	.1859389	.2767320
#1	.4982962	.5214775	.4898668	9.961721	.5550463	.4843988
#2	.4983114	.5156676	.4878733	9.919097	.5530121	.4845382
#3	.4984950	.5146294	.4891424	9.920870	.5543142	.4867912
Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4828738	10.62330	.5252838	5.659365	.4973931	.2385281
Stddev	.0021055	.07028	.0018105	.036657	.0007889	.0011851
%RSD	.4360433	.6615599	.3446701	.6477291	.1586035	.4968285
#1	.4824129	10.70234	.5254025	5.701402	.4964822	.2392753
#2	.4851716	10.56786	.5270320	5.634054	.4978524	.2391474
#3	.4810369	10.59969	.5234169	5.642638	.4978447	.2371617
Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.540143	.5173716	.9965624	9.138633	F .0065997	F .0052795
Stddev	.306095	.0054728	.0023677	.038133	.0011810	.0004849
%RSD	3.208490	1.057803	.2375911	.4172733	17.89517	9.184582
#1	9.536921	.5231759	.9941595	9.181184	.0078260	.0051196
#2	9.847836	.5123052	.9966343	9.127167	.0054699	.0048948
#3	9.235672	.5166337	.9988934	9.107549	.0065034	.0058242

Sample Name: ICV004 Acquired: 10/29/2024 17:19:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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 -.000862	F .0059086	F .0009168	F -.000513	F .0001456	F -.005536
Stddev	.000192	.0099990	.0003545	.001220	.0013791	.001845
%RSD	22.28553	169.2281	38.66461	237.8966	947.2834	33.32685
#1	-.000972	.0131326	.0011975	-.000040	.0016146	-.006832
#2	-.000640	.0100965	.0005185	-.001899	-.001121	-.006353
#3	-.000973	-.005503	.0010345	.000400	-.000056	-.003424
Elem	Sr4077					
Units	ppm					
Avg	F .0012352					
Stddev	.0001634					
%RSD	13.23077					
#1	.0014215					
#2	.0011681					
#3	.0011161					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	854.6349	20446.72	2299.230	754.8462	1601.543	
Stddev	.6118	40.14	14.264	1.7025	2.925	
%RSD	.0715902	.1963244	.6203694	.2255461	.1826599	
#1	854.6394	20402.84	2282.895	754.0419	1599.206	
#2	855.2445	20481.58	2309.225	756.8019	1604.824	
#3	854.0209	20455.75	2305.569	753.6948	1600.599	

Sample Name: ICB004 Acquired: 10/29/2024 17:25:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0001890	.0040155	.0009146	.0007621	.0003084	-.004436	.0000126
Stddev	.0032881	.0011298	.0021862	.0044066	.0011307	.015018	.0003352
%RSD	1739.388	28.13566	239.0356	578.2476	366.6187	338.5504	2656.724
#1	.0037912	.0040127	.0007253	-.003220	-.000986	.005587	-.000358
#2	-.002651	.0051468	.0031892	.000010	.001103	.002807	.000296
#3	-.000573	.0028872	-.001171	.005496	.000808	-.021702	.000100
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000062	.0001114	-.013950	.0001524	-.000320	-.004595	-.000885
Stddev	.0000654	.0000296	.010640	.0004534	.000477	.000115	.042001
%RSD	1051.720	26.55033	76.27450	297.5294	149.1248	2.506408	4748.398
#1	.0000435	.0001428	-.016996	-.000299	-.000578	-.004612	.041533
#2	.0000445	.0000842	-.022735	.000608	.000231	-.004472	-.042455
#3	-.000069	.0001071	-.002119	.000148	-.000611	-.004701	-.001732
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000382	-.004469	-.000385	.0019769	-.472445	.0026700	-.000010
Stddev	.000880	.037403	.000781	.0005005	.503365	.0013792	.000377
%RSD	230.7219	836.9954	202.7216	25.31726	106.5446	51.65436	3867.556
#1	-.000167	-.024130	-.001144	.0023516	.103748	.0029642	.000284
#2	-.001349	.038665	.000417	.0021708	-.694380	.0038783	-.000435
#3	.000372	-.027941	-.000430	.0014085	-.826703	.0011675	.000122
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0852264	.0016531	-.004323	-.000713	-.002229	-.000371	-.000375
Stddev	.1076685	.0026494	.001099	.000456	.003821	.000629	.001735
%RSD	126.3323	160.2696	25.42287	63.93779	171.4693	169.4006	462.7112
#1	.1182057	-.000306	-.004891	-.000366	.001475	-.000728	-.000915
#2	-.035074	.000598	-.003056	-.000544	-.002004	-.000740	-.001776
#3	.172548	.004668	-.005021	-.001229	-.006158	.000355	.001566

Sample Name: ICB004 Acquired: 10/29/2024 17:25:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0003211	-.004856	-.000062
Stddev	.0003211	.001028	.000146
%RSD	100.0232	21.17202	234.0559
#1	.0003579	-.004513	-.000229
#2	.0006222	-.006011	-.000002
#3	-.000017	-.004043	.000044

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	855.7159	20249.21	2260.825	753.0304	1631.579
Stddev	1.4396	55.96	7.947	4.9386	4.185
%RSD	.1682386	.2763809	.3515270	.6558297	.2564838
#1	854.2347	20198.60	2253.229	748.7762	1635.246
#2	857.1100	20239.72	2269.082	751.8687	1632.471
#3	855.8030	20309.32	2260.164	758.4463	1627.020

Sample Name: ICSA004 Acquired: 10/29/2024 17:35:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0057106	-.019991	.0002109	-.002698	.0022916	246.0232
Stddev	.0031078	.002830	.0049626	.007683	.0016759	.6740
%RSD	54.42213	14.15504	2353.103	284.7346	73.13292	.2739601

#1	.0023725	-.017565	-.002375	-.011474	.0041688	245.5432
#2	.0085204	-.019310	.005932	.002818	.0009459	246.7938
#3	.0062388	-.023100	-.002925	.000561	.0017600	245.7328

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051737	.0009629	.0000556	255.2768	.0523713	.0006556
Stddev	.0003685	.0000546	.0000308	.5479	.0006261	.0006768
%RSD	7.122011	5.666221	55.41963	.2146458	1.195531	103.2410

#1	.0047483	.0009926	.0000899	254.7641	.0518637	.0008141
#2	.0053777	.0009961	.0000302	255.8542	.0521793	-.000086
#3	.0053950	.0008999	.0000468	255.2121	.0530709	.001239

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007326	106.6619	.0149358	262.5211	.0044516	.0044844
Stddev	.004069	.2864	.0023751	.5729	.0006795	.0003773
%RSD	55.54085	.2684843	15.90187	.2182385	15.26457	8.414508

#1	-.008557	106.7129	.0166585	261.8596	.0048855	.0041225
#2	-.010637	106.9194	.0159225	262.8595	.0048008	.0048755
#3	-.002784	106.3535	.0122264	262.8442	.0036685	.0044551

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1101988	-.008551	.0116794	.0141172	F .0204760	F .0918432
Stddev	.1927928	.000888	.0005983	.1241653	.0013246	.0009981
%RSD	174.9500	10.38561	5.122267	879.5343	6.469109	1.086759

#1	-.049525	-.008850	.0123333	.0978633	.0216408	.0907026
#2	.324356	-.009251	.0111596	.0730259	.0207521	.0922701
#3	.055765	-.007552	.0115454	-.128538	.0190351	.0925568

Sample Name: ICSA004 Acquired: 10/29/2024 17:35:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	-.001913	.0110052	-.000875	-.006167	-.000330	-.003838
Stddev	.000590	.0025171	.000631	.003012	.002552	.001284
%RSD	30.87098	22.87224	72.12281	48.84142	774.3476	33.45743
#1	-.002328	.0093803	-.000225	-.004532	-.000412	-.005185
#2	-.001237	.0139047	-.001485	-.009644	.002262	-.003703
#3	-.002173	.0097307	-.000915	-.004326	-.002839	-.002627
Elem	Sr4077					
Units	ppm					
Avg	F .1031773					
Stddev	.0003280					
%RSD	.3178750					
#1	.1027986					
#2	.1033649					
#3	.1033684					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	797.6622	19332.08	2239.855	707.4015	1369.229	
Stddev	2.9826	40.34	4.246	1.5371	3.104	
%RSD	.3739142	.2086599	.1895550	.2172860	.2266881	
#1	796.5228	19292.85	2240.752	706.2188	1368.301	
#2	801.0465	19329.95	2235.232	709.1389	1372.691	
#3	795.4173	19373.44	2243.580	706.8467	1366.694	

Sample Name: ICSAB004 Acquired: 10/29/2024 17:40:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0908548	.0874347	.0536742	.0320948	.5403511	245.1004
Stddev	.0019802	.0015773	.0039084	.0041858	.0039446	.9065
%RSD	2.179543	1.804034	7.281708	13.04183	.7300088	.3698680

#1	.0888089	.0859928	.0569136	.0299973	.5362542	244.2395
#2	.0909936	.0891194	.0547757	.0293725	.5406757	245.0150
#3	.0927620	.0871918	.0493332	.0369146	.5441233	246.0466

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5259766	.5348067	1.035516	254.6326	.6163711	.5180704
Stddev	.0015769	.0036184	.000997	1.2643	.0036352	.0022182
%RSD	.2998075	.6765866	.0962933	.4965372	.5897782	.4281583

#1	.5242700	.5382376	1.035270	254.0343	.6148341	.5171592
#2	.5273798	.5310261	1.034664	253.7784	.6205224	.5164530
#3	.5262800	.5351563	1.036613	256.0850	.6137568	.5205990

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4887104	106.4171	.5436500	262.4374	1.043239	.1947398
Stddev	.0070989	.6153	.0038174	1.5123	.000466	.0005098
%RSD	1.452581	.5782049	.7021783	.5762396	.0446981	.2618003

#1	.4846404	106.2470	.5404678	261.6173	1.042737	.1941692
#2	.4969074	105.9047	.5425997	261.5124	1.043321	.1949000
#3	.4845832	107.0996	.5478826	264.1826	1.043659	.1951504

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1152632	.5332431	.8830527	.0896741	F .0234068	F .0904320
Stddev	.2224334	.0048447	.0083661	.0828843	.0019764	.0014697
%RSD	192.9786	.9085353	.9474089	92.42843	8.443908	1.625204

#1	.2837289	.5276870	.8769805	.0244325	.0251091	.0888878
#2	-.136872	.5354562	.8795821	.1829369	.0238721	.0905946
#3	.198932	.5365860	.8925956	.0616528	.0212392	.0918136

Sample Name: ICSAB004 Acquired: 10/29/2024 17:40:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	-.001114	.0064317	-.000360	-.005272	-.001748	-.003588
Stddev	.000138	.0062225	.000388	.002776	.001343	.001014
%RSD	12.40761	96.74664	107.7528	52.66371	76.82344	28.26332
#1	-.001269	.0133391	-.000258	-.006269	-.003284	-.002644
#2	-.001003	.0046912	-.000790	-.002135	-.001165	-.004661
#3	-.001070	.0012649	-.000033	-.007412	-.000795	-.003461
Elem	Sr4077					
Units	ppm					
Avg	F .1026802					
Stddev	.0006192					
%RSD	.6030328					
#1	.1020658					
#2	.1026707					
#3	.1033041					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	796.0510	19371.88	2247.565	705.9982	1372.934	
Stddev	1.7919	47.56	5.619	9.1959	.727	
%RSD	.2250968	.2454851	.2500043	1.302543	.0529679	
#1	798.0607	19426.21	2245.742	714.9482	1373.500	
#2	794.6198	19337.78	2253.869	706.4719	1373.188	
#3	795.4726	19351.66	2243.083	696.5746	1372.114	

Sample Name: CCV023 Acquired: 10/29/2024 17:44:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV023 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.976761	4.826333	24.46208	4.636003	4.728301	411.8710	9.965492
Stddev	.101007	.086573	.41506	.103568	.095413	1.4685	.046991
%RSD	2.029566	1.793757	1.696753	2.233998	2.017922	.3565369	.4715389
#1	5.092932	4.925936	24.94081	4.754852	4.838460	412.7557	9.989460
#2	4.927648	4.783893	24.20305	4.565063	4.674801	410.1759	9.911350
#3	4.909702	4.769169	24.24238	4.588094	4.671643	412.6814	9.995667
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4945301	2.471478	403.9836	15.45720	2.491982	14.99210	412.0467
Stddev	.0022822	.042587	.6722	.00764	.043245	.05739	.7158
%RSD	.4614820	1.723132	.1664035	.0494310	1.735378	.3828256	.1737172
#1	.4923656	2.520651	404.6051	15.46402	2.541779	14.98951	412.1840
#2	.4943105	2.446498	403.2701	15.44894	2.463870	14.93605	411.2722
#3	.4969141	2.447285	404.0757	15.45865	2.470296	15.05075	412.6839
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.84701	403.6269	2.483622	1.238699	408.0736	2.484210	13.94566
Stddev	.06841	.8317	.043749	.002343	1.0139	.016707	.17308
%RSD	.4607654	.2060507	1.761494	.1891773	.2484513	.6725265	1.241100
#1	14.87657	404.2894	2.534096	1.236121	408.9155	2.468504	14.03372
#2	14.76880	402.6935	2.456585	1.239275	406.9482	2.501764	14.05699
#3	14.89568	403.8977	2.460186	1.240700	408.3571	2.482360	13.74625
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.2662	5.045809	5.283811	4.699959	4.996855	4.985546	4.952844
Stddev	.5753	.081603	.018826	.086395	.073903	.007485	.084964
%RSD	.3753736	1.617251	.3562992	1.838212	1.478994	.1501404	1.715454
#1	153.4851	5.140032	5.304631	4.799440	5.081730	4.993788	5.050811
#2	152.6136	4.999508	5.278813	4.643756	4.962091	4.983681	4.899313
#3	153.7000	4.997887	5.267988	4.656680	4.946744	4.979170	4.908408

Sample Name: CCV023 Acquired: 10/29/2024 17:44:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV023 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.962136	5.023524	4.993460
Stddev	.012126	.024146	.025886
%RSD	.2443697	.4806559	.5184024
#1	4.965230	5.036107	5.003091
#2	4.948763	4.995685	4.964138
#3	4.972416	5.038779	5.013149

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	677.3166	18553.09	2177.855	565.5652	1232.084
Stddev	11.0964	14.83	4.207	6.2805	19.204
%RSD	1.638295	.0799597	.1931893	1.110477	1.558682
#1	664.6512	18540.84	2173.122	562.6869	1209.986
#2	685.3287	18569.58	2181.170	561.2398	1244.733
#3	681.9701	18548.85	2179.273	572.7690	1241.532

Sample Name: CCB023 Acquired: 10/29/2024 17:51:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0003710	-.000406	.0030615	-.000291	.0003645	-.004783	-.000850
Stddev	.0019653	.000772	.0023282	.002673	.0038590	.009537	.000896
%RSD	529.7311	190.0939	76.04747	919.4887	1058.696	199.3847	105.4660

#1	.0016479	.000016	.0004543	-.002875	-.003352	-.003705	.000052
#2	.0013573	.000063	.0049328	.002464	.000093	.004169	-.001740
#3	-.001892	-.001297	.0037972	-.000461	.004352	-.014814	-.000860

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000944	.0000724	.0130574	.0008084	.0001351	-.002051	.0076155
Stddev	.0000869	.0000948	.0147839	.0006639	.0001952	.001258	.0142017
%RSD	92.14373	131.0084	113.2225	82.12383	144.4267	61.30603	186.4853

#1	.0001184	.0000714	.0111401	.0004571	.0003418	-.000739	-.008450
#2	.0001667	-.000022	.0287063	.0003941	.0001096	-.002169	.012799
#3	-.000002	.000168	-.000674	.0015742	-.000046	-.003246	.018497

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011731	.0293933	-.000056	.0011077	-.151377	-.000017	-.000105
Stddev	.0010555	.0466690	.000462	.0001929	.300485	.008751	.000266
%RSD	89.96979	158.7747	826.3448	17.41332	198.5011	50308.78	253.9731

#1	.0001064	-.023464	.000474	.0012797	-.384835	.005161	-.000063
#2	.0011960	.046733	-.000270	.0011442	.187645	-.010121	.000138
#3	.0022170	.064910	-.000372	.0008991	-.256942	.004908	-.000388

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1404810	-.000226	-.000821	-.000287	.0063403	-.000825	.0006306
Stddev	.0510848	.002603	.001010	.000201	.0026465	.000597	.0010660
%RSD	36.36421	1152.399	122.9133	70.05217	41.74065	72.37527	169.0512

#1	.1683398	-.001980	-.001900	-.000374	.0062022	-.000271	.0016192
#2	.1715802	-.001462	.000101	-.000429	.0090531	-.001457	.0007713
#3	.0815230	.002765	-.000666	-.000057	.0037655	-.000746	-.000499

Sample Name: CCB023 Acquired: 10/29/2024 17:51:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0005923	-.004248	.0002068
Stddev	.0007164	.001144	.0000542
%RSD	120.9654	26.93330	26.19857
#1	-.000201	-.004958	.0001443
#2	.000786	-.004858	.0002359
#3	.001192	-.002928	.0002402

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	855.8297	20276.61	2276.537	748.1270	1631.328
Stddev	.9215	47.16	5.958	5.3187	3.804
%RSD	.1076758	.2325993	.2616972	.7109297	.2331792
#1	856.8843	20297.73	2280.154	751.2737	1631.611
#2	855.1798	20309.52	2279.796	751.1212	1634.983
#3	855.4250	20222.58	2269.661	741.9862	1627.391

Sample Name: P4483-01DLX2 Acquired: 10/29/2024 17:55:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0863008	-.035720	.2463849	-.031162	.0080689	121.6202	.3049164
Stddev	.0024915	.005540	.0011910	.006672	.0039024	.0564	.0008452
%RSD	2.887032	15.50953	.4833892	21.41124	48.36322	.0463903	.2771968
#1	.0834397	-.030198	.2471047	-.038543	.0036196	121.6692	.3040723
#2	.0874697	-.041278	.2470400	-.029383	.0096763	121.6327	.3057628
#3	.0879929	-.035682	.2450102	-.025560	.0109109	121.5585	.3049140
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027637	.0007185	36.70013	.5207745	.2004917	.5493237	265.2290
Stddev	.0002042	.0000455	.13858	.0022937	.0011045	.0039932	.5731
%RSD	7.386671	6.335289	.3776122	.4404372	.5508910	.7269271	.2160927
#1	.0029009	.0007261	36.74766	.5181464	.2015152	.5455156	265.8584
#2	.0028611	.0006696	36.54404	.5218044	.2006389	.5534792	264.7370
#3	.0025291	.0007597	36.80870	.5223728	.1993210	.5489762	265.0918
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.122357	100.5437	.5145515	-.018376	1.510063	.5755071	.3490069
Stddev	.012770	.3662	.0023947	.000756	.097421	.0068527	.0029063
%RSD	.3097736	.3642528	.4653920	4.112150	6.451484	1.190721	.8327231
#1	4.129518	100.9653	.5173006	-.018991	1.407817	.5819967	.3493348
#2	4.129939	100.3050	.5129196	-.018603	1.601809	.5761831	.3459506
#3	4.107613	100.3607	.5134343	-.017532	1.520565	.5683414	.3517354
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.10972	2.984922	.2508799	.0004582	.5396417	3.401863	.0047695
Stddev	.08752	.010202	.0007716	.0005482	.0036269	.011964	.0035063
%RSD	.7227633	.3417938	.3075509	119.6464	.6720946	.3516811	73.51442
#1	12.02459	2.983853	.2515796	.0010865	.5429076	3.414915	.0057371
#2	12.10511	2.975296	.2500524	.0002106	.5402791	3.391418	.0076903
#3	12.19945	2.995617	.2510078	.0000775	.5357383	3.399256	.0008810

Sample Name: P4483-01DLX2 Acquired: 10/29/2024 17:55:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.435919	.0556454	.1196033
Stddev	.006971	.0026966	.0003918
%RSD	.2861563	4.846099	.3275515

#1	2.443858	.0573268	.1197375
#2	2.433093	.0570744	.1199103
#3	2.430805	.0525350	.1191621

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	863.2770	20976.64	2398.707	762.5494	1491.790
Stddev	2.2705	93.22	4.071	5.2314	3.297
%RSD	.2630135	.4444017	.1697070	.6860429	.2209948

#1	860.8486	21033.70	2395.260	760.7264	1488.014
#2	865.3470	21027.16	2403.198	768.4483	1494.096
#3	863.6353	20869.07	2397.662	758.4733	1493.261

Sample Name: P4483-02DLX2 Acquired: 10/29/2024 18:00:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1372451	-.034617	.1280537	-.023182	.0070008	101.8624	.9004151
Stddev	.0060463	.003811	.0031701	.005552	.0018090	.0838	.0030638
%RSD	4.405484	11.00779	2.475606	23.94878	25.83984	.0823038	.3402658
#1	.1408777	-.035785	.1317044	-.019304	.0066978	101.7662	.8988545
#2	.1302653	-.037707	.1264602	-.029542	.0053625	101.9007	.8984459
#3	.1405921	-.030359	.1259964	-.020700	.0089422	101.9202	.9039450
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047005	.0017241	43.96480	.2272316	.1181989	.4088782	213.1072
Stddev	.0000591	.0005076	.17133	.0004258	.0004888	.0058264	.4716
%RSD	1.256718	29.44356	.3896966	.1873719	.4135662	1.424960	.2212938
#1	.0046327	.0022685	44.04420	.2269437	.1176517	.4127326	213.4018
#2	.0047275	.0016401	44.08202	.2277207	.1183527	.4021757	213.3565
#3	.0047412	.0012637	43.76817	.2270305	.1185924	.4117265	212.5633
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.425555	47.17144	.1952224	-.017312	1.536594	.4256033	.4240650
Stddev	.014641	.21087	.0007852	.000526	.352925	.0110277	.0018808
%RSD	.3308386	.4470313	.4022126	3.037089	22.96800	2.591066	.4435212
#1	4.417088	47.33144	.1943343	-.016724	1.161393	.4381942	.4222585
#2	4.417115	47.25039	.1958246	-.017737	1.586447	.4209547	.4260123
#3	4.442461	46.93249	.1955084	-.017475	1.861941	.4176611	.4239243
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.18428	4.960529	.2201821	-.000494	.5626556	3.166646	.0058541
Stddev	.18166	.004274	.0019928	.000632	.0034952	.017978	.0032690
%RSD	.8188572	.0861647	.9050641	127.9978	.6211958	.5677374	55.84200
#1	22.27871	4.965363	.2221201	.000204	.5603238	3.154220	.0060334
#2	21.97485	4.957250	.2181387	-.000658	.5609687	3.187261	.0090297
#3	22.29927	4.958974	.2202875	-.001028	.5666743	3.158457	.0024990

Sample Name: P4483-02DLX2 Acquired: 10/29/2024 18:00:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.725739	.0605858	.2116021
Stddev	.002721	.0014911	.0002159
%RSD	.0998191	2.461174	.1020317
#1	2.728479	.0617754	.2117571
#2	2.723038	.0589130	.2113555
#3	2.725700	.0610690	.2116938

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	924.2611	22263.42	2526.333	817.8678	1514.615
Stddev	.5310	62.61	9.636	1.3605	.270
%RSD	.0574485	.2812425	.3814300	.1663421	.0177972
#1	924.2725	22193.25	2527.644	817.8457	1514.306
#2	924.7862	22313.59	2516.108	816.5186	1514.806
#3	923.7245	22283.43	2535.247	819.2392	1514.732

Sample Name: P4483-03DLX2 Acquired: 10/29/2024 18:04:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1096859	-.034138	.1050019	-.029638	.0062142	98.81396	.7397739
Stddev	.0051621	.005215	.0027705	.005208	.0045332	.20039	.0014779
%RSD	4.706268	15.27674	2.638531	17.57195	72.94923	.2027918	.1997720
#1	.1125028	-.031565	.1067285	-.025844	.0015868	99.04533	.7405025
#2	.1128267	-.030710	.1064710	-.035575	.0106470	98.69610	.7380732
#3	.1037281	-.040140	.1018063	-.027494	.0064089	98.70044	.7407460
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039711	.0014524	68.10599	.2837075	.1376040	.4334822	217.6269
Stddev	.0001605	.0000280	.18654	.0007475	.0009133	.0039206	.3420
%RSD	4.040701	1.925437	.2739034	.2634846	.6637491	.9044408	.1571701
#1	.0038289	.0014215	68.31382	.2828939	.1367048	.4379338	217.8829
#2	.0041451	.0014598	67.95305	.2838647	.1385308	.4319695	217.2384
#3	.0039391	.0014759	68.05111	.2843639	.1375764	.4305433	217.7592
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.553404	61.93771	.2736861	-.015046	1.558127	.4754015	.3726254
Stddev	.017738	.23121	.0010467	.000353	.278504	.0063456	.0010451
%RSD	.3895602	.3733007	.3824595	2.348323	17.87427	1.334790	.2804628
#1	4.542397	62.20399	.2731900	-.015130	1.358089	.4703993	.3715815
#2	4.543948	61.82129	.2729796	-.014659	1.440080	.4825394	.3726228
#3	4.573867	61.78784	.2748886	-.015350	1.876213	.4732657	.3736717
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.56526	5.291824	.2154695	-.001163	.7483483	3.303335	.0061935
Stddev	.10902	.014536	.0019742	.000381	.0026865	.015538	.0036761
%RSD	.7004237	.2746861	.9162573	32.78567	.3589879	.4703684	59.35308
#1	15.68565	5.277736	.2138112	-.001492	.7472683	3.319862	.0031242
#2	15.47320	5.306770	.2149438	-.001252	.7463700	3.289024	.0102674
#3	15.53691	5.290967	.2176534	-.000745	.7514068	3.301119	.0051890

Sample Name: P4483-03DLX2 Acquired: 10/29/2024 18:04:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.993394	.0550819	.6365658
Stddev	.009395	.0012786	.0014888
%RSD	.3138467	2.321226	.2338830
#1	3.003425	.0537353	.6371410
#2	2.984801	.0552310	.6348752
#3	2.991955	.0562793	.6376813

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	896.5152	21677.56	2453.314	793.4837	1504.555
Stddev	2.0613	47.32	10.794	1.2700	3.388
%RSD	.2299245	.2182881	.4399776	.1600552	.2251660
#1	898.4964	21711.95	2443.203	794.9121	1508.409
#2	896.6671	21623.59	2464.681	792.4820	1503.208
#3	894.3822	21697.13	2452.058	793.0569	1502.048

Sample Name: P4483-04DLX2 Acquired: 10/29/2024 18:09:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0701020	-.017661	.0785927	-.016761	.0049702	50.15267	.4746208
Stddev	.0038609	.001910	.0029726	.003975	.0029270	.07807	.0009327
%RSD	5.507513	10.81438	3.782336	23.71364	58.89072	.1556661	.1965161
#1	.0657353	-.016631	.0817577	-.012380	.0066506	50.06786	.4740990
#2	.0730635	-.016487	.0781610	-.020137	.0015904	50.16860	.4740658
#3	.0715072	-.019865	.0758596	-.017765	.0066695	50.22154	.4756976
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027633	.0008057	47.10323	.1041840	.0647392	.1938486	133.3816
Stddev	.0001080	.0000746	.17633	.0011900	.0004742	.0015007	.7244
%RSD	3.909967	9.262035	.3743387	1.142208	.7324455	.7741541	.5431288
#1	.0026401	.0008565	46.90393	.1037190	.0643245	.1922056	132.5473
#2	.0028077	.0008407	47.16682	.1032968	.0652562	.1941930	133.7464
#3	.0028421	.0007200	47.23894	.1055363	.0646368	.1951471	133.8511
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.725434	26.08913	.1002584	-.009303	.4865903	.2955023	.2465605
Stddev	.009979	.21410	.0015507	.000686	.2047137	.0095679	.0021324
%RSD	.3661493	.8206628	1.546729	7.369284	42.07106	3.237829	.8648485
#1	2.714301	25.86380	.1000629	-.009137	.3177704	.2883668	.2442457
#2	2.733573	26.28988	.1018976	-.010056	.4277084	.3063747	.2469909
#3	2.728429	26.11371	.0988147	-.008715	.7142922	.2917654	.2484448
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.39475	3.490824	.1304616	-.001063	.3334316	2.754400	.0041096
Stddev	.07448	.018922	.0019938	.000523	.0075062	.008582	.0005088
%RSD	.6008971	.5420379	1.528244	49.20566	2.251203	.3115702	12.38035
#1	12.33069	3.492475	.1284937	-.001302	.3291094	2.744526	.0041472
#2	12.37708	3.508866	.1304108	-.000463	.3420990	2.760066	.0045985
#3	12.47647	3.471131	.1324802	-.001424	.3290863	2.758608	.0035830

Sample Name: P4483-04DLX2 Acquired: 10/29/2024 18:09:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.004877	.0272188	.1303965
Stddev	.005877	.0008865	.0001054
%RSD	.2931459	3.257131	.0808210
#1	1.999785	.0268503	.1302820
#2	2.011308	.0265758	.1304893
#3	2.003538	.0282301	.1304183

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	890.6235	21430.37	2415.817	788.3297	1546.893
Stddev	6.3126	48.17	3.866	4.0942	10.212
%RSD	.7087821	.2247573	.1600367	.5193484	.6601691
#1	895.9372	21409.55	2419.874	792.0579	1552.531
#2	883.6455	21485.45	2415.403	788.9831	1535.105
#3	892.2877	21396.12	2412.175	783.9482	1553.043

Sample Name: P4483-05DLX2 Acquired: 10/29/2024 18:13:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0643946	-.020730	.0789737	-.028926	.0085604	55.29297	.4219312
Stddev	.0049956	.004885	.0008936	.002325	.0007832	.12536	.0018845
%RSD	7.757804	23.56310	1.131583	8.037365	9.149199	.2267163	.4466394
#1	.0606483	-.015090	.0779422	-.027374	.0079866	55.15357	.4197635
#2	.0700665	-.023492	.0794643	-.027806	.0094526	55.32891	.4231800
#3	.0624692	-.023607	.0795145	-.031599	.0082418	55.39643	.4228500
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028548	.0007103	26.66358	.1546497	.0854250	.1826603	154.7247
Stddev	.0001281	.0001497	.16571	.0007445	.0007500	.0066681	.5808
%RSD	4.487106	21.07408	.6214666	.4814021	.8779227	3.650538	.3753448
#1	.0027970	.0008635	26.48082	.1554557	.0846479	.1824376	154.0733
#2	.0030016	.0007032	26.70589	.1545055	.0854828	.1761064	154.9125
#3	.0027658	.0005644	26.80402	.1539878	.0861445	.1894370	155.1883
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.476645	31.04956	.1560154	-.011736	.8182961	.3811389	.2359142
Stddev	.005930	.18649	.0010711	.000288	.1695009	.0028717	.0021296
%RSD	.2394532	.6006357	.6865611	2.450437	20.71388	.7534419	.9026832
#1	2.474480	30.83486	.1557700	-.011812	.8397293	.3826425	.2343951
#2	2.483354	31.17136	.1550883	-.011418	.9760610	.3829466	.2349992
#3	2.472101	31.14247	.1571880	-.011977	.6390980	.3778277	.2383484
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.675396	3.067700	.1508579	-.001010	.2239145	2.457068	.0075582
Stddev	.081419	.013462	.0028697	.000508	.0066833	.012390	.0028116
%RSD	.9385094	.4388186	1.902282	50.25809	2.984767	.5042425	37.19934
#1	8.714485	3.060045	.1476459	-.000700	.2194068	2.442763	.0046099
#2	8.729900	3.059810	.1517584	-.001596	.2207437	2.464088	.0102095
#3	8.581803	3.083243	.1531694	-.000733	.2315931	2.464353	.0078552

Sample Name: P4483-05DLX2 Acquired: 10/29/2024 18:13:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.077224	.0252519	.1205684
Stddev	.013156	.0020671	.0002041
%RSD	.6333272	8.185913	.1692473
#1	2.062281	.0229084	.1205844
#2	2.087064	.0268157	.1203568
#3	2.082326	.0260317	.1207640

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	893.7765	21516.46	2422.834	794.0102	1553.499
Stddev	1.1123	28.93	12.932	3.3827	3.491
%RSD	.1244533	.1344402	.5337674	.4260255	.2247284
#1	894.7145	21531.59	2436.760	796.9281	1555.195
#2	894.0675	21534.68	2411.203	794.8000	1555.817
#3	892.5477	21483.10	2420.537	790.3025	1549.483

Sample Name: P4483-06DLX2 Acquired: 10/29/2024 18:18:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1936160	-.026803	.1818657	-.028302	.0072871	101.4237	1.030636
Stddev	.0050219	.003349	.0038038	.003603	.0015028	.0817	.003154
%RSD	2.593742	12.49647	2.091566	12.73087	20.62212	.0805070	.3059841
#1	.1932815	-.023571	.1797409	-.024143	.0075455	101.4957	1.033567
#2	.1987967	-.030258	.1795989	-.030307	.0056719	101.4405	1.031042
#3	.1887697	-.026579	.1862572	-.030457	.0086438	101.3350	1.027299
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048227	.0040444	39.59407	.2185601	.1216242	.5938302	215.2280
Stddev	.0001064	.0000456	.05903	.0009993	.0006422	.0029544	.2416
%RSD	2.207139	1.126778	.1490993	.4572073	.5279962	.4975178	.1122583
#1	.0048928	.0039982	39.60398	.2191397	.1212744	.5951643	215.4942
#2	.0048750	.0040893	39.53071	.2174062	.1212328	.5958822	215.1674
#3	.0047002	.0040457	39.64753	.2191343	.1223653	.5904440	215.0225
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.395487	48.08502	.2156282	-.017780	1.897662	.4221601	.5148202
Stddev	.010838	.29838	.0007017	.000324	.308677	.0126029	.0020380
%RSD	.2008689	.6205170	.3254111	1.820237	16.26619	2.985324	.3958660
#1	5.387650	48.27396	.2150346	-.017810	2.252584	.4294812	.5143464
#2	5.407855	48.24007	.2154475	-.018088	1.748569	.4293914	.5170533
#3	5.390955	47.74105	.2164026	-.017443	1.691834	.4076076	.5130608
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.83177	5.774271	.2229095	-.000617	.8867349	2.514069	.0069117
Stddev	.05092	.021133	.0013187	.000087	.0094189	.006615	.0022819
%RSD	.1829507	.3659917	.5915644	14.02863	1.062199	.2631060	33.01502
#1	27.80612	5.767553	.2244216	-.000554	.8822921	2.517155	.0058882
#2	27.79878	5.757313	.2223085	-.000716	.8975535	2.518576	.0053207
#3	27.89042	5.797946	.2219985	-.000582	.8803591	2.506475	.0095262

Sample Name: P4483-06DLX2 Acquired: 10/29/2024 18:18:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.578233	.0657784	.2388554
Stddev	.009378	.0011457	.0003434
%RSD	.3637222	1.741715	.1437489

#1	2.581124	.0666131	.2391357
#2	2.585826	.0644722	.2389581
#3	2.567751	.0662499	.2384724

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	918.8180	22231.49	2551.555	816.8695	1510.395
Stddev	1.1087	27.99	4.438	1.1183	2.626
%RSD	.1206631	.1258843	.1739167	.1369004	.1738757

#1	918.2042	22216.59	2550.781	818.0456	1508.166
#2	920.0978	22263.78	2547.555	815.8197	1513.290
#3	918.1519	22214.12	2556.328	816.7432	1509.730

Sample Name: P4483-07DLX2 Acquired: 10/29/2024 18:22:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1951508	-.029284	.2089613	-.025895	.0049157	104.9433	.9754034
Stddev	.0085504	.001824	.0044724	.004140	.0013590	.2608	.0003818
%RSD	4.381436	6.229836	2.140304	15.98796	27.64579	.2485614	.0391479
#1	.2026667	-.027645	.2057805	-.028562	.0062566	104.6567	.9751026
#2	.1858482	-.028958	.2140751	-.021126	.0049510	105.1668	.9752745
#3	.1969375	-.031250	.2070282	-.027999	.0035394	105.0063	.9758330
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049335	.0052009	34.65154	.2286162	.1186246	.7527517	214.1960
Stddev	.0000692	.0001795	.18264	.0006553	.0005273	.0038303	.6198
%RSD	1.402079	3.450548	.5270807	.2866522	.4445244	.5088377	.2893628
#1	.0048616	.0053458	34.45866	.2291287	.1180198	.7571485	213.6397
#2	.0049996	.0050002	34.82185	.2278778	.1188658	.7501386	214.8641
#3	.0049393	.0052568	34.67409	.2288421	.1189881	.7509679	214.0842
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.205244	48.39757	.2130207	-.016940	1.622161	.4092312	.5806137
Stddev	.011216	.31508	.0002307	.000163	.075003	.0142452	.0004190
%RSD	.2154686	.6510143	.1082810	.9651378	4.623676	3.480955	.0721661
#1	5.192478	48.05921	.2129706	-.017128	1.643491	.3936985	.5808063
#2	5.209740	48.68254	.2128192	-.016845	1.538804	.4216853	.5809017
#3	5.213515	48.45094	.2132723	-.016846	1.684190	.4123097	.5801330
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.98136	5.859474	.2217480	-.000463	.9747450	2.546009	.0083392
Stddev	.04993	.010504	.0003481	.000591	.0052584	.007943	.0006238
%RSD	.1561155	.1792611	.1569815	127.6617	.5394656	.3119725	7.480409
#1	31.92700	5.847440	.2217719	.000219	.9686760	2.538983	.0086586
#2	31.99192	5.864183	.2220836	-.000836	.9779426	2.544416	.0087387
#3	32.02516	5.866800	.2213886	-.000772	.9776163	2.554627	.0076204

Sample Name: P4483-07DLX2 Acquired: 10/29/2024 18:22:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.446092	.0664034	.1945442
Stddev	.005183	.0012454	.0002291
%RSD	.2118842	1.875424	.1177731

#1	2.441199	.0665736	.1943090
#2	2.445555	.0675549	.1947667
#3	2.451523	.0650817	.1945569

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	922.2567	22225.34	2534.428	817.3632	1515.554
Stddev	.5540	47.86	7.606	3.2694	2.415
%RSD	.0600675	.2153353	.3001084	.3999945	.1593584

#1	922.8117	22280.39	2542.710	817.6209	1514.574
#2	921.7038	22202.05	2532.819	813.9726	1513.784
#3	922.2546	22193.58	2527.755	820.4962	1518.305

Sample Name: P4483-08DLX2 Acquired: 10/29/2024 18:26:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1887383	-.023437	.1565610	-.025344	.0070937	97.13511	1.069041
Stddev	.0091771	.001900	.0038099	.006093	.0042375	.23747	.002443
%RSD	4.862359	8.106920	2.433463	24.03976	59.73667	.2444742	.2284790
#1	.1782555	-.022809	.1608081	-.027048	.0093577	96.87385	1.066369
#2	.1926368	-.025571	.1534440	-.030404	.0022050	97.33784	1.071158
#3	.1953225	-.021930	.1554310	-.018581	.0097182	97.19363	1.069595
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045764	.0028639	58.42359	.2261237	.1129678	.4945975	205.1087
Stddev	.0002167	.0001759	.06781	.0007569	.0011930	.0016439	.7095
%RSD	4.734533	6.142190	.1160647	.3347110	1.056067	.3323603	.3459382
#1	.0043502	.0030490	58.37831	.2260920	.1142806	.4927141	204.2984
#2	.0047821	.0028440	58.50155	.2253832	.1119500	.4953351	205.4092
#3	.0045969	.0026989	58.39092	.2268959	.1126728	.4957434	205.6186
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.999900	46.42630	.2099088	-.015637	1.067510	.3828734	.4517490
Stddev	.020193	.28224	.0006742	.000554	.188211	.0046397	.0027930
%RSD	.3365625	.6079398	.3211880	3.540576	17.63081	1.211804	.6182561
#1	5.976968	46.12479	.2098007	-.015791	.934234	.3882279	.4489369
#2	6.015022	46.68420	.2092951	-.015022	.985483	.3800436	.4545225
#3	6.007711	46.46991	.2106305	-.016096	1.282814	.3803486	.4517875
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.31801	5.153189	.2091442	-.001072	.6660978	2.191828	.0079205
Stddev	.13810	.014931	.0008913	.000829	.0051194	.009781	.0014307
%RSD	.5454609	.2897354	.4261641	77.29588	.7685648	.4462376	18.06349
#1	25.31019	5.161890	.2081330	-.000229	.6624703	2.191206	.0062694
#2	25.45986	5.135949	.2098160	-.001886	.6719537	2.201904	.0087946
#3	25.18399	5.161729	.2094835	-.001101	.6638694	2.182372	.0086975

Sample Name: P4483-08DLX2 Acquired: 10/29/2024 18:26:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.177837	.0653412	.2093126
Stddev	.009616	.0007159	.0003249
%RSD	.4415405	1.095676	.1552215
#1	2.166737	.0645490	.2089531
#2	2.183156	.0659418	.2093997
#3	2.183618	.0655329	.2095851

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	914.6742	22062.41	2497.747	811.0966	1510.921
Stddev	.3176	66.96	5.479	2.4408	1.336
%RSD	.0347198	.3035183	.2193562	.3009289	.0884484
#1	915.0013	21990.17	2498.214	812.7244	1512.099
#2	914.6542	22074.67	2492.050	808.2902	1509.469
#3	914.3671	22122.40	2502.979	812.2754	1511.196

Sample Name: P4483-09DLX2 Acquired: 10/29/2024 18:31:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0932675	-.019571	.1300370	-.016045	.0055994	73.94868	.7867726
Stddev	.0037428	.000530	.0027144	.004816	.0020498	.06887	.0004336
%RSD	4.013002	2.705761	2.087384	30.01510	36.60664	.0931299	.0551134
#1	.0967386	-.020154	.1331612	-.010493	.0046459	74.02612	.7872609
#2	.0893020	-.019120	.1286924	-.018547	.0079523	73.89430	.7866246
#3	.0937619	-.019438	.1282573	-.019095	.0042002	73.92563	.7864324
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039551	.0016247	41.33491	.1610389	.0852027	.3035399	156.6911
Stddev	.0001185	.0003051	.03168	.0007514	.0003326	.0024652	.5289
%RSD	2.997056	18.77651	.0766518	.4666272	.3904098	.8121323	.3375281
#1	.0040231	.0014192	41.33584	.1615889	.0849640	.3022814	156.0919
#2	.0040240	.0019752	41.30277	.1601827	.0850615	.3019580	156.8885
#3	.0038182	.0014797	41.36612	.1613453	.0855827	.3063803	157.0928
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.010649	35.32741	.1539309	-.012598	1.006039	.3082040	.3805034
Stddev	.005674	.07924	.0009724	.000146	.096295	.0122370	.0017677
%RSD	.1414814	.2242910	.6317244	1.159567	9.571736	3.970435	.4645586
#1	4.012198	35.32134	.1549002	-.012641	.945748	.2972918	.3811357
#2	4.004361	35.40951	.1529554	-.012435	1.117095	.3214343	.3785066
#3	4.015387	35.25139	.1539371	-.012718	.955274	.3058859	.3818680
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.07263	5.647011	.1694994	-.000127	1.278731	3.481842	.0049908
Stddev	.08832	.040291	.0009705	.000268	.009981	.013161	.0006618
%RSD	.3827942	.7134979	.5725712	210.6210	.7805546	.3779948	13.26049
#1	23.17185	5.693402	.1683791	.000075	1.284581	3.469043	.0053698
#2	23.04348	5.620766	.1700360	-.000026	1.284406	3.495337	.0053759
#3	23.00257	5.626864	.1700832	-.000431	1.267206	3.481144	.0042266

Sample Name: P4483-09DLX2 Acquired: 10/29/2024 18:31:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.221757	.0438158	.1812119
Stddev	.002746	.0005782	.0003072
%RSD	.1235752	1.319536	.1695481
#1	2.218810	.0444747	.1812130
#2	2.224243	.0433932	.1815186
#3	2.222217	.0435796	.1809041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	914.7382	21959.97	2475.163	804.8831	1539.945
Stddev	1.4883	34.34	8.377	2.6122	3.083
%RSD	.1627015	.1563961	.3384605	.3245460	.2001841
#1	916.4464	21985.98	2483.839	805.4836	1542.036
#2	913.7210	21921.04	2467.120	807.1429	1541.394
#3	914.0472	21972.88	2474.531	802.0230	1536.405

Sample Name: P4483-10DLX2 Acquired: 10/29/2024 18:35:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0929493	-.021793	.1100846	-.019428	.0089227	82.44762	.7908283
Stddev	.0022935	.004140	.0026167	.002567	.0028277	.05906	.0023842
%RSD	2.467457	18.99908	2.376981	13.21181	31.69065	.0716277	.3014770

#1	.0954081	-.026293	.1072791	-.022388	.0098063	82.50443	.7919316
#2	.0925719	-.018144	.1105157	-.017804	.0057587	82.38655	.7880924
#3	.0908680	-.020942	.1124589	-.018094	.0112030	82.45188	.7924611

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042402	.0019969	40.52038	.1927922	.0882818	.3220908	173.3451
Stddev	.0000356	.0001329	.16026	.0005557	.0008879	.0025175	.1619
%RSD	.8387706	6.654240	.3954958	.2882161	1.005706	.7816055	.0934260

#1	.0042125	.0018693	40.65348	.1926979	.0875584	.3193386	173.1758
#2	.0042278	.0019870	40.34250	.1933889	.0892727	.3226566	173.4985
#3	.0042803	.0021345	40.56517	.1922897	.0880144	.3242772	173.3610

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.048066	40.22658	.1728702	-.014734	1.361819	.3515861	.3822168
Stddev	.006570	.21893	.0009027	.000309	.263387	.0020066	.0032726
%RSD	.1623048	.5442419	.5221762	2.097056	19.34085	.5707164	.8562151

#1	4.044515	40.46270	.1720796	-.015032	1.580818	.3496041	.3857610
#2	4.044036	40.18673	.1738538	-.014755	1.435084	.3536163	.3815797
#3	4.055648	40.03032	.1726773	-.014415	1.069556	.3515380	.3793096

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.36411	5.638274	.1845392	-.000857	1.368333	2.925885	.0059099
Stddev	.06244	.020423	.0010349	.000234	.011404	.005691	.0003825
%RSD	.2461703	.3622187	.5607939	27.27454	.8334503	.1944980	6.471895

#1	25.41650	5.623728	.1833874	-.001060	1.373383	2.931954	.0062772
#2	25.38081	5.629473	.1853909	-.000910	1.376341	2.925032	.0059384
#3	25.29502	5.661622	.1848393	-.000601	1.355276	2.920668	.0055139

Sample Name: P4483-10DLX2 Acquired: 10/29/2024 18:35:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4F9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.281891	.0503194	.1949736
Stddev	.001818	.0010083	.0001768
%RSD	.0796729	2.003885	.0907010

#1	2.279979	.0501289	.1951196
#2	2.283598	.0494199	.1947770
#3	2.282096	.0514094	.1950242

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	911.2642	22032.34	2499.712	808.1280	1525.178
Stddev	1.7509	18.20	6.306	3.9012	4.048
%RSD	.1921390	.0826237	.2522878	.4827409	.2654311

#1	912.7640	22053.33	2493.013	803.6248	1529.765
#2	911.6884	22022.75	2500.587	810.4823	1523.666
#3	909.3402	22020.93	2505.535	810.2768	1522.103

Sample Name: P4483-11DLX2 Acquired: 10/29/2024 18:40:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2231373	-.030547	.2504754	-.026475	.0073604	106.3811	1.070910
Stddev	.0028776	.002878	.0018043	.002350	.0036975	.2555	.002087
%RSD	1.289611	9.420257	.7203526	8.876822	50.23496	.2401628	.1949218
#1	.2198684	-.027922	.2524948	-.029176	.0110467	106.1930	1.069538
#2	.2242554	-.030096	.2490219	-.024897	.0036518	106.2782	1.069879
#3	.2252880	-.033624	.2499096	-.025352	.0073826	106.6720	1.073312
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050273	.0062842	39.87095	.2385431	.1232652	.8665665	215.0729
Stddev	.0001359	.0000939	.06796	.0012626	.0006449	.0030300	.5140
%RSD	2.703735	1.494983	.1704592	.5293104	.5231780	.3496593	.2389871
#1	.0050719	.0063869	39.79410	.2399785	.1229729	.8634012	214.7512
#2	.0048747	.0062027	39.89560	.2380468	.1228181	.8668580	214.8018
#3	.0051353	.0062629	39.92314	.2376040	.1240045	.8694402	215.6657
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.646208	49.90895	.2332189	-.016780	1.125026	.3928611	.6266995
Stddev	.010812	.29052	.0008371	.000288	.132802	.0096510	.0020958
%RSD	.1914972	.5821001	.3589340	1.715735	11.80436	2.456581	.3344226
#1	5.652040	49.96835	.2327193	-.017066	1.226844	.4037449	.6291195
#2	5.633732	49.59333	.2327522	-.016783	1.173420	.3853461	.6254738
#3	5.652853	50.16518	.2341853	-.016490	.974813	.3894923	.6255053
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.68112	6.279892	.2281366	.0001168	1.315685	3.046578	.0090230
Stddev	.14454	.011042	.0011414	.0004149	.011587	.004966	.0017431
%RSD	.4562203	.1758385	.5003226	355.3678	.8807190	.1630107	19.31803
#1	31.82645	6.284571	.2291765	-.000284	1.328784	3.048446	.0079494
#2	31.53739	6.287826	.2283181	.000090	1.306772	3.040949	.0110342
#3	31.67954	6.267281	.2269154	.000544	1.311498	3.050339	.0080853

Sample Name: P4483-11DLX2 Acquired: 10/29/2024 18:40:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.327571	.0722161	.2134663
Stddev	.005650	.0012549	.0005332
%RSD	.2427214	1.737776	.2497671

#1	2.321099	.0712744	.2130055
#2	2.330095	.0717331	.2133431
#3	2.331518	.0736408	.2140502

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	919.0551	22261.89	2543.094	818.6073	1506.555
Stddev	2.7431	63.02	8.049	3.8732	1.932
%RSD	.2984686	.2830710	.3164880	.4731422	.1282381

#1	918.1819	22324.62	2544.248	816.2365	1506.389
#2	922.1285	22262.47	2550.504	823.0769	1508.566
#3	916.8549	22198.59	2534.531	816.5085	1504.712

Sample Name: P4483-12DLX2 Acquired: 10/29/2024 18:44:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2073493	-.026313	.2327718	-.028636	.0074837	101.7347	1.001029
Stddev	.0087869	.006406	.0034716	.004444	.0006363	.3317	.001387
%RSD	4.237704	24.34546	1.491435	15.51863	8.502735	.3260197	.1385579
#1	.2172496	-.033129	.2335401	-.023841	.0075895	101.5600	1.001449
#2	.2043218	-.020416	.2357950	-.029452	.0068011	102.1172	1.002158
#3	.2004765	-.025394	.2289804	-.032616	.0080605	101.5269	.999481
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048703	.0051339	37.95127	.2267570	.1138965	.8024242	205.8269
Stddev	.0002070	.0000767	.13107	.0014027	.0005868	.0027597	.7244
%RSD	4.250675	1.494711	.3453755	.6185868	.5152293	.3439140	.3519499
#1	.0050273	.0052147	37.94567	.2267100	.1138277	.8019419	205.8828
#2	.0049479	.0051250	38.08505	.2253785	.1133471	.8053932	206.5217
#3	.0046357	.0050620	37.82308	.2281827	.1145147	.7999375	205.0762
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.272853	46.85795	.2144400	-.013728	1.232656	.3800114	.5907465
Stddev	.001767	.22283	.0013366	.000077	.348987	.0106027	.0050894
%RSD	.0335046	.4755510	.6233154	.5591153	28.31179	2.790097	.8615160
#1	5.270832	46.91114	.2144968	-.013687	.833246	.3851459	.5856971
#2	5.273627	47.04937	.2130758	-.013680	1.386040	.3870693	.5958750
#3	5.274101	46.61333	.2157473	-.013817	1.478682	.3678189	.5906673
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.78761	5.848234	.2196561	-.000617	1.220570	3.266932	.0074125
Stddev	.04684	.012578	.0013254	.000266	.018653	.002006	.0017239
%RSD	.1572494	.2150749	.6033940	43.13656	1.528251	.0613905	23.25680
#1	29.74762	5.838001	.2181258	-.000924	1.241861	3.266342	.0088106
#2	29.83914	5.844425	.2204022	-.000450	1.207105	3.265288	.0079407
#3	29.77606	5.862277	.2204402	-.000478	1.212742	3.269167	.0054863

Sample Name: P4483-12DLX2 Acquired: 10/29/2024 18:44:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.290529	.0667235	.1984766
Stddev	.013147	.0021445	.0001623
%RSD	.5739843	3.214084	.0817519

#1	2.288129	.0649006	.1985113
#2	2.304711	.0661835	.1986187
#3	2.278747	.0690864	.1982998

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	919.0373	22120.47	2503.917	815.1796	1517.960
Stddev	.2293	32.34	.546	4.2946	2.046
%RSD	.0249475	.1461858	.0218020	.5268278	.1347855

#1	918.8099	22088.45	2504.202	818.7950	1518.313
#2	919.2684	22119.84	2503.288	810.4324	1519.807
#3	919.0337	22153.11	2504.262	816.3113	1515.761

Sample Name: P4483-13DLX2 Acquired: 10/29/2024 18:49:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1791639	-.027233	.1639981	-.023197	.0068437	90.97407	.9061935
Stddev	.0038006	.003370	.0033386	.005713	.0040808	.31439	.0014654
%RSD	2.121269	12.37383	2.035735	24.62806	59.62860	.3455864	.1617055
#1	.1770025	-.024105	.1601626	-.017233	.0109289	90.61104	.9046419
#2	.1835523	-.026792	.1655799	-.023738	.0068349	91.15752	.9063849
#3	.1769371	-.030801	.1662517	-.028621	.0027673	91.15363	.9075538
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044197	.0032788	29.21430	.2103710	.1057070	.5447104	195.2095
Stddev	.0001323	.0002245	.12338	.0018112	.0008694	.0018452	.6159
%RSD	2.993709	6.846480	.4223441	.8609659	.8224360	.3387484	.3155321
#1	.0044485	.0030614	29.07363	.2086355	.1055824	.5450615	194.5264
#2	.0045352	.0035097	29.30419	.2122495	.1049066	.5463549	195.7226
#3	.0042754	.0032652	29.26507	.2102279	.1066319	.5427149	195.3795
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.004563	42.39042	.1976786	-.015236	1.498522	.3701162	.4616197
Stddev	.028488	.34903	.0005281	.000136	.240977	.0134379	.0024069
%RSD	.5692442	.8233625	.2671490	.8903719	16.08098	3.630728	.5214126
#1	4.973410	42.09193	.1977022	-.015194	1.238404	.3639383	.4629685
#2	5.029287	42.30514	.1971391	-.015388	1.714161	.3855320	.4630498
#3	5.010992	42.77418	.1981945	-.015127	1.543001	.3608782	.4588408
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.72171	5.262231	.2000911	-.000265	.7151907	3.247175	.0088135
Stddev	.13011	.011025	.0016655	.000176	.0151694	.023792	.0016737
%RSD	.5058189	.2095145	.8323582	66.41674	2.121030	.7327134	18.99016
#1	25.57641	5.274453	.2011497	-.000334	.7247933	3.220313	.0075020
#2	25.76126	5.253035	.2009522	-.000065	.7230762	3.265597	.0106986
#3	25.82744	5.259205	.1981713	-.000397	.6977026	3.255615	.0082400

Sample Name: P4483-13DLX2 Acquired: 10/29/2024 18:49:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.257305	.0585915	.1698104
Stddev	.002579	.0010887	.0004106
%RSD	.1142609	1.858044	.2417727
#1	2.254767	.0576101	.1693871
#2	2.257224	.0584021	.1698371
#3	2.259924	.0597625	.1702069

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	917.0549	22086.02	2494.614	813.7558	1526.843
Stddev	1.1785	39.82	15.799	2.8106	2.628
%RSD	.1285099	.1803163	.6333162	.3453913	.1721084
#1	918.1076	22122.37	2512.410	810.6015	1529.602
#2	915.7817	22092.24	2489.193	815.9944	1524.369
#3	917.2753	22043.45	2482.239	814.6715	1526.557

Sample Name: P4483-14DLX2 Acquired: 10/29/2024 18:53:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1985109	-.027228	.1870679	-.020748	.0077354	90.67809	.9311092
Stddev	.0036667	.003059	.0043413	.007761	.0013086	.38711	.0038967
%RSD	1.847122	11.23382	2.320720	37.40720	16.91647	.4269113	.4184952
#1	.1956750	-.030727	.1858292	-.024912	.0081666	91.11926	.9355681
#2	.1972062	-.025901	.1834806	-.011793	.0062657	90.39520	.9283578
#3	.2026516	-.025057	.1918940	-.025537	.0087740	90.51980	.9294017
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046618	.0041608	27.77544	.2081841	.1105909	.6779292	197.9605
Stddev	.0002683	.0001160	.08315	.0003149	.0005259	.0047185	.9225
%RSD	5.754532	2.788229	.2993666	.1512827	.4755678	.6960133	.4660104
#1	.0047849	.0040857	27.85817	.2082203	.1099889	.6819699	198.9342
#2	.0048464	.0042944	27.77629	.2078526	.1109611	.6727436	197.8477
#3	.0043540	.0041023	27.69187	.2084793	.1108227	.6790740	197.0996
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.070835	43.64060	.1934248	-.016082	2.044816	.3746846	.5075857
Stddev	.025846	.28509	.0014185	.000621	.147500	.0101158	.0026588
%RSD	.5096923	.6532613	.7333583	3.862173	7.213343	2.699828	.5238207
#1	5.100151	43.92344	.1947601	-.016726	1.975199	.3780667	.5103741
#2	5.051338	43.64505	.1919357	-.015486	2.214239	.3633110	.5073041
#3	5.061016	43.35332	.1935785	-.016033	1.945009	.3826760	.5050789
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.59516	5.228143	.2033826	.0001328	.6958351	2.521381	.0091190
Stddev	.12712	.035297	.0015736	.0005240	.0064347	.011823	.0007361
%RSD	.4295198	.6751383	.7737048	394.7131	.9247386	.4689207	8.072385
#1	29.50960	5.189705	.2036309	-.000328	.7012794	2.534811	.0083316
#2	29.53466	5.235627	.2048173	.000023	.6887341	2.512542	.0092353
#3	29.74123	5.259099	.2016996	.000703	.6974918	2.516790	.0097900

Sample Name: P4483-14DLX2 Acquired: 10/29/2024 18:53:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.252651	.0573849	.1582271
Stddev	.015928	.0006942	.0011412
%RSD	.7070602	1.209808	.7212735
#1	2.270896	.0572258	.1595396
#2	2.245538	.0567840	.1574688
#3	2.241520	.0581449	.1576727

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	919.5863	22178.41	2491.798	815.9649	1526.212
Stddev	1.9531	49.64	15.504	2.9893	3.428
%RSD	.2123930	.2238394	.6222101	.3663514	.2245786
#1	921.3900	22220.72	2473.976	812.9986	1529.094
#2	919.8569	22123.76	2502.175	815.9195	1527.120
#3	917.5119	22190.74	2499.245	818.9767	1522.422

Sample Name: P4483-15DLX2 Acquired: 10/29/2024 18:57:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1588352	-.034004	.1542976	-.031773	.0080529	111.3080	1.055931
Stddev	.0085010	.001851	.0067217	.002442	.0027231	.0502	.002395
%RSD	5.352059	5.442033	4.356298	7.685430	33.81522	.0450557	.2268136
#1	.1668411	-.034743	.1484136	-.033123	.0108856	111.2526	1.053179
#2	.1499133	-.031898	.1616230	-.033243	.0078189	111.3504	1.057544
#3	.1597511	-.035371	.1528561	-.028954	.0054544	111.3211	1.057070
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051369	.0032917	54.01862	.2301787	.1311959	.5293671	231.6871
Stddev	.0001668	.0001209	.14242	.0015117	.0009032	.0013625	.3362
%RSD	3.246732	3.673794	.2636577	.6567451	.6884340	.2573858	.1451213
#1	.0050285	.0033640	54.05520	.2316286	.1301786	.5301504	231.3262
#2	.0053290	.0031521	53.86148	.2302954	.1315056	.5301572	231.9915
#3	.0050533	.0033590	54.13919	.2286120	.1319035	.5277938	231.7435
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.740605	50.32723	.2069182	-.019810	1.505538	.4423459	.5107834
Stddev	.002828	.06858	.0006386	.000175	.279344	.0069452	.0008947
%RSD	.0492708	.1362774	.3086291	.8854820	18.55446	1.570079	.1751549
#1	5.743232	50.34681	.2062791	-.019656	1.818563	.4366051	.5109222
#2	5.737611	50.38390	.2069193	-.020001	1.416438	.4403668	.5098274
#3	5.740970	50.25099	.2075563	-.019774	1.281611	.4500659	.5116005
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.94743	5.704707	.2378103	-.000505	1.083638	1.953561	.0071093
Stddev	.02200	.012022	.0007909	.000321	.003306	.006160	.0019910
%RSD	.0816401	.2107421	.3325835	63.53981	.3050518	.3153436	28.00561
#1	26.94315	5.698942	.2372069	-.000453	1.087128	1.956417	.0049132
#2	26.97126	5.696653	.2375184	-.000213	1.083234	1.946490	.0076182
#3	26.92789	5.718526	.2387057	-.000849	1.080554	1.957774	.0087963

Sample Name: P4483-15DLX2 Acquired: 10/29/2024 18:57:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.232549	.0661767	.2422058
Stddev	.003591	.0011508	.0002837
%RSD	.1608499	1.739010	.1171479

#1	2.234749	.0650780	.2425247
#2	2.234493	.0673734	.2421113
#3	2.228405	.0660785	.2419813

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	927.7400	22461.83	2551.024	824.2934	1501.291
Stddev	2.5515	18.57	5.990	3.6808	1.411
%RSD	.2750255	.0826641	.2348258	.4465397	.0940033

#1	928.0348	22440.93	2553.832	823.5191	1500.454
#2	930.1312	22476.43	2555.095	828.2997	1500.499
#3	925.0538	22468.13	2544.145	821.0613	1502.921

Sample Name: P4483-16DLX2 Acquired: 10/29/2024 19:02:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2304917	-.027956	.1914107	-.028338	.0076296	108.8332	1.005178
Stddev	.0101656	.003508	.0072917	.003290	.0019661	.3207	.001999
%RSD	4.410407	12.54908	3.809435	11.60857	25.76964	.2946738	.1989184
#1	.2410508	-.031353	.1833848	-.025152	.0056409	108.4925	1.002909
#2	.2296526	-.024346	.1932200	-.028141	.0076756	109.1293	1.006682
#3	.2207716	-.028169	.1976274	-.031722	.0095724	108.8779	1.005944
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050272	.0040242	48.37368	.2580115	.1291885	.6688568	216.3887
Stddev	.0001146	.0001388	.25040	.0005158	.0003645	.0009977	.8799
%RSD	2.280667	3.449388	.5176345	.1999044	.2821169	.1491726	.4066208
#1	.0051159	.0039782	48.10473	.2585459	.1288960	.6686833	215.5592
#2	.0050679	.0041802	48.60007	.2575166	.1295968	.6699300	217.3115
#3	.0048977	.0039142	48.41622	.2579719	.1290728	.6679572	216.2954
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.586541	55.48405	.2594936	-.016085	2.976061	.4146477	.5123019
Stddev	.015766	.50521	.0008511	.000493	.406315	.0067830	.0031732
%RSD	.2822196	.9105456	.3279932	3.063657	13.65279	1.635845	.6193989
#1	5.582823	55.04253	.2588491	-.016645	2.656156	.4077840	.5120400
#2	5.603834	56.03501	.2591733	-.015894	3.433230	.4148123	.5092677
#3	5.572966	55.37461	.2604584	-.015716	2.838796	.4213470	.5155979
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.94244	5.766102	.2239099	-.001054	.8123465	2.359748	.0084803
Stddev	.07857	.013423	.0029582	.000309	.0017647	.007794	.0025118
%RSD	.2811825	.2327929	1.321148	29.33114	.2172347	.3303099	29.61878
#1	27.85339	5.779783	.2222060	-.001004	.8121683	2.360491	.0092659
#2	27.97192	5.752953	.2273257	-.000773	.8141935	2.367144	.0056696
#3	28.00200	5.765572	.2221980	-.001385	.8106776	2.351609	.0105054

Sample Name: P4483-16DLX2 Acquired: 10/29/2024 19:02:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.279514	.0706240	.2689191
Stddev	.005021	.0008529	.0009123
%RSD	.2202675	1.207630	.3392597
#1	2.278842	.0698117	.2679772
#2	2.284836	.0705479	.2697986
#3	2.274862	.0715124	.2689814

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	917.5642	22118.66	2532.071	808.7003	1499.138
Stddev	.4472	49.91	11.477	2.3111	1.497
%RSD	.0487420	.2256321	.4532633	.2857756	.0998647
#1	917.4182	22160.27	2543.229	809.6829	1499.639
#2	917.2082	22132.39	2520.300	810.3577	1500.319
#3	918.0662	22063.33	2532.684	806.0603	1497.454

Sample Name: P4483-17DLX2 Acquired: 10/29/2024 19:06:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1747432	-.026371	.2085760	-.019848	.0063178	88.96086	.8519233
Stddev	.0075748	.001217	.0048919	.007443	.0024637	.21705	.0023426
%RSD	4.334826	4.616190	2.345387	37.49990	38.99614	.2439810	.2749842
#1	.1669314	-.027113	.2033400	-.016238	.0034751	88.89196	.8498963
#2	.1820564	-.024966	.2093583	-.014898	.0076448	88.78662	.8513855
#3	.1752418	-.027034	.2130296	-.028408	.0078336	89.20399	.8544881
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043538	.0048816	28.44118	.1997633	.1019629	.7656078	184.1700
Stddev	.0001465	.0001026	.13479	.0012084	.0006353	.0020664	.3369
%RSD	3.365800	2.102418	.4739331	.6049099	.6230767	.2699019	.1829199
#1	.0044913	.0049993	28.59358	.2004544	.1012347	.7634557	184.2582
#2	.0041996	.0048339	28.33762	.2004674	.1022500	.7675762	183.7978
#3	.0043704	.0048114	28.39232	.1983679	.1024040	.7657914	184.4540
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.421118	40.92812	.1803865	-.013683	1.006451	.3518242	.5520426
Stddev	.022193	.11777	.0002685	.000567	.326870	.0072663	.0011268
%RSD	.5019672	.2877565	.1488676	4.141906	32.47749	2.065324	.2041152
#1	4.400099	40.79324	.1805764	-.013497	1.139530	.3600557	.5533431
#2	4.418933	40.98057	.1805037	-.014320	.634033	.3491162	.5514259
#3	4.444322	41.01056	.1800792	-.013233	1.245790	.3463008	.5513587
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.46352	4.975802	.1922157	-.000202	.9672967	2.685303	.0081623
Stddev	.08121	.015084	.0028074	.000572	.0090250	.006087	.0043689
%RSD	.2956836	.3031376	1.460563	282.5953	.9330100	.2266907	53.52494
#1	27.40682	4.958726	.1898199	.000427	.9596855	2.681786	.0038067
#2	27.42719	4.981367	.1915225	-.000345	.9772669	2.681791	.0081360
#3	27.55655	4.987312	.1953049	-.000689	.9649377	2.692332	.0125443

Sample Name: P4483-17DLX2 Acquired: 10/29/2024 19:06:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.150583	.0558715	.1591367
Stddev	.008071	.0013958	.0003137
%RSD	.3752939	2.498222	.1971016
#1	2.142085	.0545705	.1592923
#2	2.151518	.0556980	.1587756
#3	2.158146	.0573459	.1593421

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	913.3452	21960.29	2486.395	807.5647	1524.276
Stddev	1.5480	42.62	.692	5.7862	2.356
%RSD	.1694912	.1940764	.0278486	.7164946	.1545591
#1	911.6470	21911.71	2485.941	801.0072	1521.925
#2	914.6776	21977.74	2487.192	809.7349	1524.268
#3	913.7110	21991.41	2486.053	811.9520	1526.636

Sample Name: P4483-18DLX2 Acquired: 10/29/2024 19:11:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0917180	-.027597	.1232016	-.019523	.0039514	84.36607	.8562354
Stddev	.0072650	.004498	.0014952	.002505	.0006846	.26279	.0036589
%RSD	7.921051	16.29964	1.213597	12.83041	17.32467	.3114931	.4273272
#1	.0834872	-.023953	.1220187	-.020076	.0045647	84.07708	.8523348
#2	.0972374	-.026214	.1248821	-.016788	.0040766	84.43044	.8595916
#3	.0944294	-.032625	.1227041	-.021706	.0032129	84.59071	.8567797
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044918	.0019935	47.35467	.1761291	.0939628	.3432800	172.2129
Stddev	.0001919	.0001177	.03271	.0002861	.0008222	.0018207	.0615
%RSD	4.272158	5.902725	.0690705	.1624478	.8750342	.5303698	.0357167
#1	.0046965	.0018863	47.36836	.1760979	.0935353	.3451936	172.1511
#2	.0043160	.0021194	47.31734	.1758598	.0949107	.3415693	172.2741
#3	.0044628	.0019749	47.37831	.1764295	.0934425	.3430770	172.2136
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.253469	39.73308	.1730488	-.013091	1.079787	.3416068	.4178084
Stddev	.012495	.09376	.0008034	.000609	.138921	.0090114	.0047568
%RSD	.2937644	.2359721	.4642600	4.650395	12.86563	2.637946	1.138523
#1	4.239070	39.83812	.1721355	-.013615	1.229654	.3518026	.4165598
#2	4.259870	39.65786	.1736463	-.012423	.955316	.3383088	.4138004
#3	4.261467	39.70325	.1733646	-.013234	1.054389	.3347090	.4230650
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.52387	5.933506	.1847942	-.000279	1.372293	3.334558	.0064780
Stddev	.11087	.011607	.0003368	.000425	.007284	.014599	.0011398
%RSD	.4343791	.1956256	.1822799	152.4109	.5308260	.4378069	17.59457
#1	25.56383	5.920276	.1845738	-.000547	1.364317	3.348431	.0052969
#2	25.39856	5.938257	.1851820	-.000501	1.373967	3.335914	.0075714
#3	25.60923	5.941983	.1846269	.000211	1.378594	3.319328	.0065657

Sample Name: P4483-18DLX2 Acquired: 10/29/2024 19:11:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.531654	.0517499	.2055960
Stddev	.011782	.0009322	.0004619
%RSD	.4653709	1.801325	.2246805
#1	2.523292	.0515808	.2050823
#2	2.526543	.0509139	.2057284
#3	2.545129	.0527551	.2059773

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	914.8039	21995.61	2479.655	812.4769	1523.127
Stddev	2.6681	71.35	12.490	2.7692	.951
%RSD	.2916619	.3243655	.5036931	.3408378	.0624527
#1	912.3555	22052.14	2467.620	812.3754	1523.773
#2	917.6477	21915.44	2478.789	815.2955	1522.035
#3	914.4086	22019.23	2492.555	809.7599	1523.574

Sample Name: P4483-19DLX2 Acquired: 10/29/2024 19:15:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1925519	-.029327	.1695055	-.025269	.0070349	91.86570	.9438419
Stddev	.0048984	.000266	.0031758	.003308	.0014701	.15823	.0019632
%RSD	2.543944	.9065153	1.873536	13.09223	20.89791	.1722367	.2080038
#1	.1868958	-.029021	.1659170	-.022010	.0053571	92.04730	.9423808
#2	.1953533	-.029466	.1719534	-.025173	.0080976	91.75755	.9430714
#3	.1954065	-.029496	.1706462	-.028625	.0076500	91.79224	.9460735
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043935	.0037623	29.01963	.2162019	.1157582	.5902848	201.9980
Stddev	.0001104	.0001725	.09954	.0006406	.0007840	.0019067	.8313
%RSD	2.512728	4.585025	.3430141	.2963047	.6772556	.3230095	.4115440
#1	.0042761	.0038967	29.13457	.2156473	.1148664	.5924835	202.8960
#2	.0044953	.0035678	28.96293	.2169031	.1163386	.5892847	201.2553
#3	.0044091	.0038225	28.96140	.2160551	.1160697	.5890864	201.8426
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.368115	44.16682	.2059279	-.016033	1.244495	.3939404	.4844690
Stddev	.007133	.15765	.0014206	.000526	.112065	.0045185	.0009329
%RSD	.1328718	.3569386	.6898361	3.283262	9.004843	1.146988	.1925706
#1	5.373822	44.10024	.2043035	-.016617	1.364900	.3971782	.4839360
#2	5.360119	44.34684	.2069376	-.015595	1.143237	.3958647	.4855462
#3	5.370405	44.05339	.2065426	-.015887	1.225349	.3887783	.4839247
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.30984	5.475163	.2072880	.0002465	.8509588	2.944919	.0060649
Stddev	.08048	.014793	.0009153	.0003615	.0063204	.004272	.0026755
%RSD	.2946996	.2701785	.4415510	146.6710	.7427351	.1450540	44.11506
#1	27.38831	5.470997	.2082661	-.000163	.8551166	2.949389	.0051941
#2	27.31373	5.462900	.2071457	.000382	.8540742	2.940878	.0090674
#3	27.22748	5.491592	.2064522	.000521	.8436855	2.944491	.0039333

Sample Name: P4483-19DLX2 Acquired: 10/29/2024 19:15:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.205961	.0601913	.1696439
Stddev	.005747	.0005556	.0003220
%RSD	.2605380	.9230305	.1898064
#1	2.212359	.0600843	.1700083
#2	2.201237	.0596970	.1695255
#3	2.204286	.0607926	.1693978

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	916.8762	22007.83	2508.304	809.0961	1522.199
Stddev	1.4082	24.88	5.427	3.4337	2.773
%RSD	.1535847	.1130474	.2163646	.4243861	.1821819
#1	915.6084	21982.27	2503.116	808.6031	1523.663
#2	918.3918	22009.25	2507.854	805.9355	1523.934
#3	916.6283	22031.97	2513.942	812.7496	1519.001

Sample Name: P4483-20DLX2 Acquired: 10/29/2024 19:19:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2354631	-.028800	.1403447	-.030680	.0067644	96.96931	1.032010
Stddev	.0060136	.002334	.0020040	.002572	.0035831	.14070	.001627
%RSD	2.553934	8.103482	1.427950	8.383138	52.96956	.1451005	.1576617
#1	.2371756	-.026277	.1418071	-.029110	.0108991	97.11862	1.031659
#2	.2404346	-.029242	.1411667	-.033648	.0045667	96.83918	1.030588
#3	.2287790	-.030881	.1380603	-.029281	.0048275	96.95013	1.033785
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048137	.0029985	43.42819	.2709542	.1176219	.4731863	220.1320
Stddev	.0002800	.0003592	.04230	.0008972	.0006140	.0040058	.2831
%RSD	5.815710	11.98041	.0974113	.3311338	.5220531	.8465675	.1286225
#1	.0051364	.0025996	43.46267	.2711819	.1180556	.4769553	220.3780
#2	.0046681	.0030991	43.38099	.2699650	.1178908	.4689795	220.1954
#3	.0046365	.0032966	43.44092	.2717156	.1169193	.4736242	219.8225
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.041446	51.12361	.2346404	-.017784	1.273545	.4335449	.4629070
Stddev	.009986	.03028	.0003559	.000239	.200893	.0080494	.0047214
%RSD	.1980690	.0592299	.1516757	1.345881	15.77433	1.856652	1.019953
#1	5.052538	51.10900	.2348872	-.017558	1.114310	.4265391	.4604765
#2	5.033171	51.10340	.2348016	-.018035	1.499249	.4317580	.4598960
#3	5.038630	51.15842	.2342325	-.017760	1.207075	.4423377	.4683485
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.41921	5.839223	.2187106	-.000861	.8424604	2.520356	.0067730
Stddev	.08130	.016694	.0013000	.000180	.0039771	.002249	.0025533
%RSD	.3471507	.2859008	.5943835	20.94009	.4720779	.0892366	37.69755
#1	23.40323	5.848845	.2172389	-.001042	.8385693	2.522331	.0050570
#2	23.34709	5.819946	.2197025	-.000681	.8422938	2.520829	.0055549
#3	23.50732	5.848878	.2191904	-.000861	.8465181	2.517908	.0097072

Sample Name: P4483-20DLX2 Acquired: 10/29/2024 19:19:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.157169	.0648418	.2386264
Stddev	.004181	.0006312	.0008389
%RSD	.1938334	.9735186	.3515355
#1	2.159933	.0643895	.2394201
#2	2.152359	.0645730	.2377487
#3	2.159215	.0655630	.2387104

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	906.7648	22025.06	2514.185	807.2742	1504.562
Stddev	2.4156	38.68	8.815	4.3832	1.522
%RSD	.2664010	.1756001	.3506108	.5429611	.1011901
#1	906.7643	21991.13	2505.456	809.3837	1506.312
#2	904.3494	22067.17	2514.014	810.2037	1503.547
#3	909.1807	22016.86	2523.084	802.2351	1503.825

Sample Name: CCV024 Acquired: 10/29/2024 19:24:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV024 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.970626	4.788771	24.47061	4.664419	4.750907	417.2778	10.05392
Stddev	.021734	.022485	.03971	.013167	.006170	1.4232	.05524
%RSD	.4372469	.4695394	.1622602	.2822853	.1298795	.3410785	.5494187
#1	4.947478	4.806849	24.45937	4.679586	4.753043	417.4415	10.03646
#2	4.973805	4.795870	24.43773	4.657743	4.743952	418.6122	10.11578
#3	4.990595	4.763593	24.51472	4.655927	4.755725	415.7798	10.00953
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5119979	2.481286	412.3703	15.51056	2.495171	15.07838	418.6165
Stddev	.0012115	.002305	1.5012	.03743	.002789	.06378	1.5246
%RSD	.2366190	.0928894	.3640428	.2412927	.1117634	.4229932	.3641977
#1	.5114543	2.478756	413.4011	15.47663	2.492413	15.10607	419.5627
#2	.5133860	2.481835	413.0618	15.55070	2.497989	15.12363	419.4290
#3	.5111535	2.483267	410.6480	15.50433	2.495110	15.00544	416.8577
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.83372	409.8269	2.484019	1.270019	414.7540	2.516860	14.09227
Stddev	.07423	1.2066	.001642	.005265	2.0358	.018704	.07810
%RSD	.5004315	.2944133	.0661066	.4145763	.4908428	.7431364	.5541816
#1	14.81509	410.8575	2.482720	1.267990	414.7630	2.520633	14.16682
#2	14.91550	410.1235	2.483472	1.275997	416.7853	2.533389	14.01105
#3	14.77059	408.4996	2.485865	1.266070	412.7137	2.496557	14.09893
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	155.7132	5.022982	5.309980	4.715215	5.001709	5.059562	4.941674
Stddev	.6401	.014398	.021058	.010510	.011993	.015012	.011973
%RSD	.4110939	.2866385	.3965816	.2228898	.2397833	.2966966	.2422779
#1	155.9376	5.007081	5.303033	4.718563	4.997052	5.063070	4.941988
#2	156.2109	5.035135	5.333635	4.703439	5.015332	5.072508	4.929548
#3	154.9911	5.026731	5.293274	4.723643	4.992742	5.043107	4.953487

Sample Name: CCV024 Acquired: 10/29/2024 19:24:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV024 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.012378	5.055121	5.046848
Stddev	.017911	.023761	.020257
%RSD	.3573401	.4700312	.4013782

#1	5.020559	5.044924	5.052380
#2	5.024739	5.082279	5.063765
#3	4.991838	5.038162	5.024400

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	677.3734	18488.74	2158.964	562.0711	1236.608
Stddev	1.4369	32.12	3.875	3.6704	.314
%RSD	.2121219	.1737183	.1795025	.6530175	.0254258

#1	676.2998	18508.04	2159.331	558.5914	1236.849
#2	679.0057	18451.66	2154.918	565.9064	1236.724
#3	676.8147	18506.52	2162.642	561.7155	1236.253

Sample Name: CCB024 Acquired: 10/29/2024 19:28:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0063591	.0028792	.0049130	-.003143	.0003839	.0216404	.0011702
Stddev	.0042384	.0013092	.0006435	.003091	.0014080	.0197932	.0008190
%RSD	66.65057	45.46839	13.09708	98.33935	366.7155	91.46403	69.99106
#1	.0109203	.0014934	.0056226	.000420	.0019520	.0030199	.0019976
#2	.0025421	.0030492	.0047490	-.004753	-.000028	.0424279	.0003598
#3	.0056150	.0040951	.0043675	-.005097	-.000772	.0194734	.0011531
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001439	.0004281	.0418760	.0013992	.0003282	-.006038	.0437293
Stddev	.0000497	.0000568	.0053338	.0002203	.0004877	.004412	.0162207
%RSD	34.50095	13.27690	12.73707	15.74669	148.5907	73.07066	37.09337
#1	.0001492	.0003944	.0365420	.0012211	.0007250	-.011118	.0282631
#2	.0000918	.0004937	.0472095	.0013309	-.000216	-.003844	.0423132
#3	.0001907	.0003963	.0418765	.0016456	.000476	-.003153	.0606116
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024374	.0413946	.0004337	.0024889	-.055646	-.006310	.0012463
Stddev	.0005755	.0586536	.0002173	.0003836	.321810	.006787	.0002480
%RSD	23.61258	141.6939	50.09621	15.41056	578.3169	107.5540	19.89566
#1	.0028499	.0210093	.0005334	.0021073	.195159	-.014147	.0009822
#2	.0026823	.1075209	.0005833	.0024850	.056406	-.002382	.0014742
#3	.0017799	-.004346	.0001845	.0028743	-.418502	-.002402	.0012824
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1028246	.0027512	.0016047	-.000050	.0053371	.0017923	.0002495
Stddev	.0861164	.0013455	.0009924	.000543	.0018354	.0001344	.0013086
%RSD	83.75083	48.90632	61.84454	1079.604	34.38839	7.496597	524.4385
#1	.2021907	.0013152	.0021714	.000268	.0032222	.0018086	.0014303
#2	.0564300	.0039828	.0004588	.000258	.0062775	.0019178	.0004757
#3	.0498530	.0029557	.0021838	-.000677	.0065117	.0016506	-.001157

Sample Name: CCB024 Acquired: 10/29/2024 19:28:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0009965	-.003867	.0003609
Stddev	.0014968	.000312	.0001043
%RSD	150.1967	8.069156	28.88703
#1	-.000253	-.003529	.0002785
#2	.002656	-.004144	.0004781
#3	.000587	-.003930	.0003261

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	852.9598	20252.66	2251.144	753.5426	1624.601
Stddev	4.0982	62.81	20.341	1.4255	5.670
%RSD	.4804734	.3101219	.9035806	.1891705	.3490188
#1	857.6885	20319.59	2255.054	751.9480	1631.130
#2	850.7532	20195.01	2269.246	754.6934	1621.765
#3	850.4376	20243.36	2229.132	753.9864	1620.908

Sample Name: P4483-21DLX2 Acquired: 10/29/2024 19:33:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1777286	-.020922	.1124507	-.026644	.0049246	81.72926	.8698759
Stddev	.0059110	.003188	.0041196	.001712	.0015748	.08842	.0031733
%RSD	3.325859	15.23803	3.663443	6.426392	31.97836	.1081898	.3648034
#1	.1732749	-.024507	.1094768	-.024753	.0031119	81.62786	.8665786
#2	.1844347	-.019855	.1171529	-.027092	.0059561	81.79034	.8701405
#3	.1754763	-.018404	.1107224	-.028088	.0057059	81.76957	.8729087
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038838	.0020683	44.39856	.1861395	.0951083	.3879075	172.0378
Stddev	.0001046	.0002059	.13204	.0014158	.0002205	.0047405	.4931
%RSD	2.692796	9.956527	.2973900	.7606045	.2318505	1.222082	.2865952
#1	.0040036	.0023061	44.54773	.1862298	.0949875	.3898762	171.9677
#2	.0038378	.0019474	44.35124	.1875080	.0949746	.3913464	172.5622
#3	.0038102	.0019513	44.29670	.1846807	.0953628	.3824998	171.5836
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.150331	42.00706	.1829803	-.012683	1.245571	.3387509	.3688066
Stddev	.018159	.18431	.0010807	.000837	.166990	.0004282	.0018276
%RSD	.4375201	.4387483	.5906071	6.602274	13.40671	.1264012	.4955434
#1	4.138100	41.79860	.1821627	-.011848	1.394854	.3391034	.3667850
#2	4.171195	42.14838	.1825727	-.013523	1.276626	.3382744	.3692930
#3	4.141698	42.07421	.1842055	-.012677	1.065233	.3388748	.3703418
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.62586	4.674958	.1783543	-.000840	.7612757	2.460758	.0085940
Stddev	.10711	.016318	.0012957	.000409	.0126646	.012473	.0010822
%RSD	.5457793	.3490470	.7264948	48.68933	1.663597	.5068672	12.59232
#1	19.52428	4.658081	.1784945	-.001156	.7686971	2.462153	.0087606
#2	19.61554	4.676141	.1795743	-.000378	.7684775	2.472474	.0074382
#3	19.73776	4.690652	.1769942	-.000987	.7466524	2.447646	.0095832

Sample Name: P4483-21DLX2 Acquired: 10/29/2024 19:33:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.061331	.0534651	.2172592
Stddev	.007391	.0010276	.0006711
%RSD	.3585573	1.921961	.3088868
#1	2.052930	.0525140	.2166751
#2	2.066831	.0533261	.2171103
#3	2.064234	.0545550	.2179922

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	905.0607	21747.25	2453.052	796.2630	1524.978
Stddev	.7667	80.27	11.483	2.3405	2.288
%RSD	.0847093	.3691252	.4681268	.2939408	.1500609
#1	905.9135	21682.64	2448.032	796.1039	1527.457
#2	904.8403	21837.11	2444.934	798.6790	1522.945
#3	904.4285	21721.99	2466.191	794.0060	1524.533

Sample Name: P4483-22DLX2 Acquired: 10/29/2024 19:37:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2997577	.0630515	.1718404	.1278435	.1646749	98.82836	4.761109
Stddev	.0059963	.0024820	.0012022	.0036635	.0015269	.14521	.003645
%RSD	2.000370	3.936414	.6995910	2.865621	.9271994	.1469338	.0765539

#1	.3061038	.0615131	.1726386	.1279677	.1647903	98.77811	4.763377
#2	.2941866	.0659148	.1704577	.1241194	.1661408	98.71496	4.756905
#3	.2989828	.0617267	.1724248	.1314432	.1630936	98.99203	4.763044

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0982330	.1010635	42.57554	.6703096	1.097352	.8980367	218.0755
Stddev	.0005454	.0002740	.16098	.0024059	.001836	.0006306	.2696
%RSD	.5552325	.2711033	.3780990	.3589270	.1672915	.0702229	.1236165

#1	.0980449	.1012746	42.57829	.6712598	1.095638	.8984028	218.2659
#2	.0978066	.1007539	42.41320	.6720953	1.097129	.8973085	217.7670
#3	.0988476	.1011620	42.73512	.6675736	1.099289	.8983988	218.1936

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.905233	50.25897	1.219044	.0737985	1.183650	1.393074	1.203091
Stddev	.004172	.15150	.003365	.0008582	.147090	.014922	.006810
%RSD	.0706478	.3014345	.2760545	1.162861	12.42681	1.071162	.5660517

#1	5.910020	50.32430	1.216616	.0729955	1.090753	1.377406	1.202584
#2	5.902371	50.08577	1.217630	.0747028	1.353237	1.394700	1.196549
#3	5.903309	50.36684	1.222885	.0736972	1.106960	1.407117	1.210141

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.01632	5.743222	.2180929	-.000950	.8274130	2.485090	.0099181
Stddev	.01802	.018517	.0011649	.000783	.0024601	.010229	.0015891
%RSD	.0782978	.3224120	.5341280	82.44277	.2973231	.4116287	16.02175

#1	22.99617	5.754518	.2168416	-.001840	.8285477	2.492036	.0095518
#2	23.02191	5.753295	.2191460	-.000368	.8291010	2.473344	.0085442
#3	23.03089	5.721852	.2182911	-.000642	.8245904	2.489892	.0116584

Sample Name: P4483-22DLX2 Acquired: 10/29/2024 19:37:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.117231	.0652835	.2345929
Stddev	.008652	.0014134	.0004716
%RSD	.4086380	2.165062	.2010166
#1	2.124653	.0663269	.2344353
#2	2.107728	.0658487	.2351231
#3	2.119311	.0636749	.2342203

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	902.3627	21903.24	2492.988	804.2098	1503.614
Stddev	1.8871	69.95	4.349	3.3694	2.002
%RSD	.2091317	.3193480	.1744400	.4189720	.1331388
#1	901.9535	21980.22	2495.598	804.4923	1503.333
#2	904.4208	21843.57	2495.399	807.4291	1505.742
#3	900.7137	21885.95	2487.968	800.7080	1501.768

Sample Name: P4483-20LDLX10 Acquired: 10/29/2024 19:41:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0537029	-.002705	.0297090	-.006355	.0025051	20.29882	.2166950
Stddev	.0011028	.004009	.0008804	.001758	.0011285	.05781	.0009189
%RSD	2.053526	148.1990	2.963277	27.66888	45.05017	.2847745	.4240524

#1	.0535910	-.000795	.0292337	-.004512	.0017044	20.23318	.2169763
#2	.0526603	-.000008	.0291684	-.008014	.0037958	20.34211	.2156683
#3	.0548573	-.007311	.0307248	-.006537	.0020150	20.32117	.2174403

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011911	.0004537	9.183854	.0582401	.0221715	.0936618	47.24728
Stddev	.0001677	.0000768	.005053	.0005018	.0002570	.0005217	.20115
%RSD	14.07621	16.92511	.0550201	.8616443	1.159111	.5570340	.4257357

#1	.0011506	.0005402	9.179559	.0588185	.0218824	.0931765	47.03314
#2	.0010474	.0004274	9.189422	.0579208	.0222579	.0942136	47.43225
#3	.0013753	.0003936	9.182583	.0579811	.0223741	.0935953	47.27645

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.072813	10.77372	.0465037	-.002447	.1912001	.0928924	.0979957
Stddev	.003246	.12376	.0005973	.000662	.1834596	.0061182	.0003793
%RSD	.3025678	1.148701	1.284443	27.07169	95.95160	6.586300	.3871072

#1	1.069065	10.80865	.0459005	-.002779	.0473642	.0977582	.0981019
#2	1.074715	10.63625	.0465157	-.001684	.1284301	.0948952	.0983106
#3	1.074660	10.87625	.0470949	-.002877	.3978060	.0860238	.0975745

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.866062	1.134707	.0434001	-.001100	.1656220	.5387202	.0012436
Stddev	.078535	.010907	.0013871	.000252	.0019445	.0040180	.0020563
%RSD	1.613926	.9612339	3.196158	22.87011	1.174057	.7458430	165.3576

#1	4.818921	1.132015	.0438616	-.001097	.1656256	.5342162	.0033432
#2	4.822542	1.125399	.0444976	-.000850	.1636757	.5419363	-.000766
#3	4.956722	1.146709	.0418410	-.001353	.1675647	.5400082	.001154

Sample Name: P4483-20LDLX10 Acquired: 10/29/2024 19:41:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4536727	.0081849	.0501898
Stddev	.0049678	.0004565	.0002329
%RSD	1.095025	5.577020	.4640810
#1	.4560186	.0077273	.0499224
#2	.4570331	.0086402	.0502991
#3	.4479663	.0081873	.0503481

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	872.3283	20817.93	2320.542	772.5036	1590.347
Stddev	2.0396	56.84	16.695	5.2845	3.049
%RSD	.2338094	.2730111	.7194305	.6840789	.1916952
#1	870.6372	20769.98	2339.125	767.7823	1588.507
#2	871.7542	20803.09	2306.811	778.2121	1588.668
#3	874.5934	20880.71	2315.689	771.5164	1593.866

Sample Name: PB164443BL Acquired: 10/29/2024 19:46:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS443 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003323	-.000257	.0004412	-.000170	-.001019	-.000883	.0004743
Stddev	.003560	.002690	.0021178	.001135	.000320	.004521	.0003178
%RSD	107.1121	1046.771	480.0497	666.9869	31.43028	511.9306	66.99930
#1	-.002627	.000889	.0017977	.001137	-.001128	-.001817	.0003372
#2	-.000163	-.003331	.0015250	-.000909	-.001270	-.004865	.0002481
#3	-.007180	.001670	-.001999	-.000738	-.000658	.004032	.0008376
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001100	.0000979	-.017248	-.000146	-.000174	-.006187	.0165509
Stddev	.0001400	.0001145	.011659	.000654	.000359	.003895	.0024657
%RSD	127.3160	116.8773	67.59435	447.0255	206.6018	62.94771	14.89786
#1	.0002353	-.000034	-.016454	-.000901	.000176	-.007276	.0182586
#2	.0001357	.000157	-.006007	.000234	-.000541	-.001864	.0176701
#3	-.000041	.000171	-.029283	.000229	-.000155	-.009422	.0137241
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001100	-.023599	.0000748	.0026084	-.127003	-.001066	-.000335
Stddev	.0011702	.049851	.0007602	.0002607	.354325	.011551	.000447
%RSD	1063.921	211.2450	1016.295	9.993406	278.9897	1083.884	133.4902
#1	-.001073	-.079769	-.000112	.0028854	.282057	-.013928	.000131
#2	.000135	-.006414	.000911	.0025720	-.324542	.002306	-.000376
#3	.001267	.015387	-.000574	.0023678	-.338524	.008425	-.000761
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0772807	.0023601	-.006307	-.000730	.0065696	.0004987	-.000488
Stddev	.1626705	.0006927	.000223	.000302	.0008756	.0001953	.001404
%RSD	210.4930	29.34883	3.539772	41.31123	13.32735	39.16207	287.5199
#1	-.085032	.0017606	-.006559	-.000636	.0055596	.0004041	.000481
#2	.240306	.0031184	-.006228	-.001067	.0071146	.0003687	.000152
#3	.076568	.0022015	-.006134	-.000486	.0070345	.0007233	-.002099

Sample Name: PB164443BL Acquired: 10/29/2024 19:46:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS443 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000936	-.007189	-.000104
Stddev	.0012070	.000687	.000100
%RSD	1288.923	9.551757	96.42860

#1	-.001122	-.007981	-.000188
#2	.001292	-.006821	.000007
#3	.000112	-.006765	-.000131

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	848.4520	20158.01	2233.013	747.2257	1619.617
Stddev	1.1775	59.02	16.277	3.6658	.698
%RSD	.1387781	.2927662	.7289359	.4905850	.0430697

#1	847.5741	20113.24	2237.193	746.8345	1619.123
#2	847.9917	20135.91	2246.793	743.7712	1619.313
#3	849.7900	20224.89	2215.054	751.0714	1620.415

Sample Name: PB164443BS Acquired: 10/29/2024 19:50:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS443 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0201858	.0538257	.0208295	.0584207	.1083324	.3907452
Stddev	.0033165	.0018923	.0025016	.0013030	.0021083	.0112724
%RSD	16.42969	3.515671	12.00972	2.230429	1.946169	2.884834
#1	.0193711	.0548848	.0237092	.0570498	.1075923	.3802567
#2	.0173526	.0516410	.0191939	.0585691	.1107110	.3893142
#3	.0238337	.0549514	.0195854	.0596432	.1066939	.4026647

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4221261	.0109770	.0108075	10.99890	.0232998	.1014658
Stddev	.0016467	.0000606	.0001145	.05396	.0013978	.0001305
%RSD	.3901053	.5518996	1.059812	.4906195	5.999275	.1286100
#1	.4218706	.0110257	.0108980	10.93883	.0223385	.1014581
#2	.4238857	.0109962	.0106787	11.04327	.0226576	.1016000
#3	.4206221	.0109091	.0108458	11.01460	.0249033	.1013393

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0442707	.2101034	.0342219	10.95839	.0850900	.0237919
Stddev	.0046839	.0438988	.0009310	.05283	.0003246	.0003339
%RSD	10.58009	20.89391	2.720342	.4820818	.3815038	1.403560
#1	.0454015	.1594162	.0352073	10.89924	.0852168	.0241721
#2	.0482856	.2359077	.0341012	11.00088	.0847212	.0236577
#3	.0391249	.2349863	.0333571	10.97505	.0853322	.0235460

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.60947	.1122178	.1072377	10.13117	.0198862	F -.004144
Stddev	.13758	.0116820	.0006429	.10901	.0026572	.000352
%RSD	1.296809	10.41014	.5995443	1.075958	13.36181	8.505646
#1	10.61716	.1216041	.1077105	10.07605	.0225978	-.004043
#2	10.74305	.1159147	.1065056	10.25673	.0172870	-.004536
#3	10.46820	.0991346	.1074971	10.06073	.0197738	-.003853

Sample Name: PB164443BS Acquired: 10/29/2024 19:50:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS443 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0180448	.1878785	F .4707346	.0142397	.2104633	.0233752
Stddev	.0005053	.0101610	.0036577	.0003729	.0018731	.0008971
%RSD	2.800119	5.408288	.7770280	2.618619	.8900096	3.837861
#1	.0174809	.1763302	.4698546	.0143937	.2083901	.0236198
#2	.0181969	.1954481	.4747521	.0138145	.2120337	.0223811
#3	.0184566	.1918572	.4675972	.0145110	.2109660	.0241245
Elem	Sr4077					
Units	ppm					
Avg	.2107844					
Stddev	.0008617					
%RSD	.4088055					
#1	.2101811					
#2	.2117713					
#3	.2104008					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	846.2754	20210.40	2253.761	748.0865	1585.644	
Stddev	.6281	14.30	12.778	1.5865	2.174	
%RSD	.0742184	.0707656	.5669514	.2120772	.1371130	
#1	846.4857	20222.57	2259.709	747.8573	1587.188	
#2	846.7714	20213.99	2239.094	749.7751	1586.586	
#3	845.5692	20194.65	2262.481	746.6270	1583.158	

Sample Name: PB164443BSD Acquired: 10/29/2024 19:55:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD443 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116172	.0253080	.0136264	.0322562	.0553786	.1865994	.2157036
Stddev	.0038856	.0007428	.0008721	.0047217	.0012723	.0038185	.0012040
%RSD	33.44664	2.934853	6.399954	14.63803	2.297533	2.046373	.5581703
#1	.0084410	.0248447	.0135817	.0271896	.0565133	.1880215	.2162573
#2	.0104608	.0261647	.0127775	.0365335	.0540030	.1822738	.2143224
#3	.0159496	.0249145	.0145200	.0330455	.0556195	.1895027	.2165312
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057625	.0055298	5.624166	.0112141	.0507907	.0211745	.1455605
Stddev	.0001442	.0002322	.037313	.0008688	.0014205	.0034530	.0445181
%RSD	2.502717	4.199004	.6634469	7.747619	2.796788	16.30749	30.58390
#1	.0056163	.0055679	5.662717	.0102122	.0514032	.0251499	.0970348
#2	.0057664	.0052809	5.621554	.0116691	.0491666	.0194524	.1845136
#3	.0059047	.0057406	5.588228	.0117608	.0518021	.0189212	.1551330
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0177146	5.756197	.0430715	.0127648	5.348208	.0623142	.0543358
Stddev	.0005910	.038781	.0011285	.0004755	.392512	.0128815	.0004285
%RSD	3.336419	.6737289	2.620112	3.725180	7.339134	20.67192	.7886739
#1	.0181365	5.733561	.0433764	.0124216	5.574064	.0474405	.0539753
#2	.0179681	5.734052	.0418218	.0125651	4.894975	.0696327	.0542226
#3	.0170391	5.800976	.0440162	.0133076	5.575585	.0698693	.0548096
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.131690	.0147404	-.003689	.0090794	.0940309	.2391102	.0074089
Stddev	.056859	.0023924	.001160	.0002031	.0025069	.0015455	.0007215
%RSD	1.108007	16.22990	31.44863	2.236752	2.666033	.6463645	9.738807
#1	5.066154	.0165421	-.005028	.0088471	.0939335	.2401771	.0082186
#2	5.161027	.0120261	-.003043	.0091676	.0915742	.2398157	.0068341
#3	5.167888	.0156530	-.002995	.0092234	.0965851	.2373378	.0071740

Sample Name: PB164443BSD Acquired: 10/29/2024 19:55:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD443 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1084896	.0067554	.1075207
Stddev	.0007668	.0010671	.0003012
%RSD	.7068066	15.79679	.2801363

#1	.1082755	.0055236	.1077959
#2	.1078526	.0073440	.1075672
#3	.1093407	.0073986	.1071989

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	853.1928	20276.14	2252.938	755.4870	1607.859
Stddev	8.2045	23.38	10.895	2.9860	16.613
%RSD	.9616180	.1152899	.4835743	.3952477	1.033235

#1	849.6672	20301.17	2243.464	757.3529	1601.780
#2	862.5707	20272.39	2250.507	757.0651	1626.655
#3	847.3403	20254.87	2264.843	752.0430	1595.142

Sample Name: P4480-01DLX2 Acquired: 10/29/2024 19:59:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE490 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2494227	-.035971	.2249624	-.029644	.0082052	110.7591	1.217633
Stddev	.0089420	.002400	.0043803	.003117	.0020694	.1328	.002175
%RSD	3.585092	6.671983	1.947142	10.51462	25.22065	.1198882	.1786210
#1	.2581169	-.033423	.2277877	-.032955	.0086344	110.8683	1.220143
#2	.2498993	-.038188	.2199165	-.026766	.0100264	110.7977	1.216328
#3	.2402519	-.036302	.2271831	-.029211	.0059549	110.6113	1.216426
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052695	.0050054	71.00502	.2358458	.1224637	.7333641	226.3802
Stddev	.0000735	.0001471	.07352	.0010175	.0007874	.0029624	.3535
%RSD	1.395453	2.939226	.1035383	.4314191	.6429905	.4039513	.1561522
#1	.0052293	.0051178	71.08940	.2347781	.1233515	.7367829	226.5665
#2	.0053544	.0048389	70.95479	.2359551	.1218496	.7317532	226.6016
#3	.0052249	.0050596	70.97087	.2368042	.1221901	.7315561	225.9725
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.431943	50.21390	.2340266	-.016553	1.197641	.4234011	.6001393
Stddev	.020048	.06901	.0009854	.000253	.131716	.0050169	.0008985
%RSD	.3116970	.1374413	.4210604	1.530558	10.99796	1.184906	.1497081
#1	6.450138	50.23457	.2348907	-.016778	1.077126	.4276418	.5993771
#2	6.410451	50.13691	.2329535	-.016602	1.177548	.4246987	.6011299
#3	6.435241	50.27022	.2342356	-.016279	1.338250	.4178629	.5999110
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.21949	6.813463	.2457978	.0015468	1.816533	4.192439	.0053499
Stddev	.06655	.011947	.0018696	.0002226	.010205	.012346	.0011247
%RSD	.2202133	.1753423	.7606344	14.39365	.5618099	.2944803	21.02313
#1	30.15129	6.800886	.2469181	.0017258	1.828317	4.179846	.0041365
#2	30.28425	6.824660	.2468359	.0016170	1.810681	4.192947	.0063575
#3	30.22294	6.814841	.2436395	.0012975	1.810601	4.204523	.0055557

Sample Name: P4480-01DLX2 Acquired: 10/29/2024 19:59:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE490 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.696155	.0831241	.3528929
Stddev	.002275	.0013997	.0004917
%RSD	.0843611	1.683830	.1393356
#1	2.696773	.0831433	.3532602
#2	2.693635	.0817150	.3523343
#3	2.698056	.0845141	.3530842

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	913.7331	22113.31	2526.085	806.8825	1489.420
Stddev	.7648	22.64	1.742	2.0549	2.335
%RSD	.0836987	.1023769	.0689570	.2546681	.1568015
#1	913.2844	22118.19	2527.873	804.8464	1486.787
#2	913.2987	22088.63	2524.393	808.9557	1490.232
#3	914.6161	22133.11	2525.991	806.8454	1491.242

Sample Name: P4480-02DLX2 Acquired: 10/29/2024 20:04:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE491 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1053840	-.027113	.1076219	-.037974	.0045825	96.90985	.9852155
Stddev	.0127804	.002680	.0042644	.005952	.0012682	.17648	.0049083
%RSD	12.12750	9.882718	3.962373	15.67297	27.67521	.1821076	.4981982
#1	.0912093	-.025150	.1028208	-.032356	.0039497	96.95580	.9905778
#2	.1160278	-.026024	.1090752	-.044211	.0037552	96.71495	.9809451
#3	.1089148	-.030166	.1109697	-.037354	.0060426	97.05882	.9841237
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046398	.0015307	128.2123	.1996023	.1184985	.3382557	205.1958
Stddev	.0000486	.0001124	.1703	.0011026	.0008055	.0056656	.2389
%RSD	1.047222	7.345102	.1328624	.5524190	.6797395	1.674931	.1164176
#1	.0046018	.0016521	128.1170	.2002244	.1177424	.3349742	204.9203
#2	.0046945	.0015097	128.4090	.2002533	.1184077	.3447977	205.3226
#3	.0046230	.0014302	128.1109	.1983292	.1193456	.3349952	205.3446
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.509788	78.32719	.2961311	-.011561	3.232091	.4485515	.3586146
Stddev	.011736	.30581	.0011958	.000617	.207538	.0038701	.0023184
%RSD	.2602308	.3904213	.4038005	5.337319	6.421171	.8628060	.6464900
#1	4.521271	77.99751	.2948030	-.012167	3.390323	.4519516	.3600418
#2	4.510279	78.38250	.2964682	-.010933	2.997110	.4493629	.3598626
#3	4.497815	78.60157	.2971222	-.011584	3.308840	.4443400	.3559396
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.59221	6.467661	.2054149	-.001599	.7078223	3.287158	.0029030
Stddev	.03905	.009109	.0012555	.000038	.0066139	.024215	.0029072
%RSD	.2873320	.1408418	.6112230	2.374114	.9343986	.7366663	100.1448
#1	13.55586	6.458004	.2064322	-.001635	.7015319	3.266506	.0040669
#2	13.58727	6.468881	.2040117	-.001603	.7072170	3.313809	.0050479
#3	13.63350	6.476099	.2058008	-.001559	.7147180	3.281160	-.000406

Sample Name: P4480-02DLX2 Acquired: 10/29/2024 20:04:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE491 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.903730	.0567651	1.305104
Stddev	.009122	.0008974	.001379
%RSD	.1860125	1.580824	.1056999
#1	4.914193	.0570170	1.306662
#2	4.897450	.0575096	1.304039
#3	4.899547	.0557687	1.304609

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	883.5736	21521.65	2440.810	786.3397	1463.108
Stddev	.6537	13.47	11.996	2.6644	2.056
%RSD	.0739879	.0625948	.4914875	.3388379	.1405515
#1	883.1308	21517.13	2450.057	783.8661	1465.359
#2	884.3245	21536.81	2427.255	785.9920	1462.638
#3	883.2656	21511.03	2445.119	789.1608	1461.328

Sample Name: P4480-03DLX2 Acquired: 10/29/2024 20:08:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE492 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1455304	-.028456	.1284040	-.030818	.0067107	106.7724	.6894155
Stddev	.0012094	.006312	.0015583	.001341	.0007570	.2017	.0024675
%RSD	.8309973	22.18192	1.213550	4.351088	11.28071	.1889449	.3579087
#1	.1460752	-.034995	.1293137	-.032023	.0073113	106.5409	.6865668
#2	.1441445	-.022399	.1292936	-.029373	.0058603	106.8659	.6908865
#3	.1463715	-.027974	.1266048	-.031056	.0069604	106.9105	.6907932
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041516	.0023759	62.47007	.3615079	.1426786	.5247803	232.1423
Stddev	.0003300	.0002581	.19950	.0003786	.0006888	.0011909	.4204
%RSD	7.948626	10.86117	.3193527	.1047189	.4827407	.2269395	.1810832
#1	.0041055	.0025830	62.28951	.3610874	.1422920	.5236687	231.7723
#2	.0038471	.0020868	62.68424	.3618216	.1434738	.5260372	232.5994
#3	.0045022	.0024578	62.43647	.3616147	.1422701	.5246349	232.0552
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.032928	69.61884	.2811705	-.016509	1.711884	.5137993	.4157707
Stddev	.035905	.25416	.0016132	.000392	.267078	.0067208	.0039175
%RSD	.7134069	.3650714	.5737546	2.374707	15.60141	1.308050	.9422392
#1	5.009441	69.47066	.2798651	-.016061	1.410514	.5061072	.4113205
#2	5.015084	69.91232	.2829740	-.016793	1.805888	.5167554	.4186985
#3	5.074260	69.47356	.2806723	-.016671	1.919251	.5185354	.4172933
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.27425	5.055255	.2391765	-.001419	1.162420	3.835978	.0049779
Stddev	.07951	.009358	.0016006	.000662	.006432	.011858	.0026651
%RSD	.4351165	.1851056	.6692234	46.66529	.5533196	.3091376	53.53788
#1	18.24781	5.065736	.2376355	-.001205	1.159034	3.822319	.0019904
#2	18.36361	5.047739	.2408308	-.000891	1.158388	3.843652	.0071109
#3	18.21132	5.052290	.2390633	-.002162	1.169837	3.841962	.0058324

Sample Name: P4480-03DLX2 Acquired: 10/29/2024 20:08:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE492 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.313455	.0661810	.2368628
Stddev	.003807	.0018752	.0008242
%RSD	.1645673	2.833435	.3479548
#1	2.311743	.0668437	.2359918
#2	2.310805	.0640644	.2376304
#3	2.317818	.0676348	.2369662

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	891.4665	21592.67	2452.503	791.8805	1493.335
Stddev	1.7928	16.27	7.706	.4045	1.239
%RSD	.2011064	.0753602	.3142008	.0510756	.0829654
#1	893.2366	21578.77	2461.398	791.5836	1494.739
#2	891.5111	21610.57	2448.275	792.3411	1492.392
#3	889.6519	21588.67	2447.837	791.7166	1492.875

Sample Name: P4480-04DLX2 Acquired: 10/29/2024 20:13:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE493 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1103147	-.028814	.1051062	-.022754	.0055245	90.27185	.7929708
Stddev	.0052977	.006309	.0008636	.003774	.0046343	.23847	.0016032
%RSD	4.802348	21.89524	.8215944	16.58637	83.88565	.2641682	.2021738
#1	.1043178	-.029539	.1047998	-.018918	.0098335	90.45907	.7943301
#2	.1122677	-.034729	.1060811	-.026462	.0061180	90.35312	.7933794
#3	.1143588	-.022174	.1044376	-.022881	.0006221	90.00337	.7912028
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043219	.0016455	81.62899	.1958428	.1108742	.3487095	193.6498
Stddev	.0001639	.0002620	.16557	.0005833	.0003917	.0024470	.6629
%RSD	3.792054	15.92433	.2028284	.2978595	.3532412	.7017176	.3423141
#1	.0045100	.0013515	81.76952	.1965035	.1107386	.3508302	194.2654
#2	.0042465	.0017304	81.67098	.1953989	.1105683	.3460322	193.7358
#3	.0042093	.0018545	81.44647	.1956259	.1113156	.3492661	192.9481
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.955330	58.86953	.2743838	-.012591	2.921731	.4165187	.3522301
Stddev	.021560	.24177	.0000627	.000302	.107830	.0116187	.0004554
%RSD	.5450903	.4106823	.0228320	2.399572	3.690627	2.789468	.1292994
#1	3.963683	59.13845	.2744263	-.012938	2.903892	.4269477	.3525783
#2	3.971464	58.79999	.2744133	-.012387	2.823932	.4039953	.3523973
#3	3.930843	58.67017	.2743119	-.012447	3.037368	.4186132	.3517147
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.64776	7.114581	.1960849	-.001369	.8179483	3.716390	.0029974
Stddev	.14977	.022300	.0011599	.000375	.0072287	.020858	.0007263
%RSD	1.097369	.3134362	.5915093	27.37181	.8837615	.5612483	24.22979
#1	13.81982	7.103165	.1949633	-.001118	.8100221	3.739598	.0036985
#2	13.54674	7.140277	.1972796	-.001191	.8196449	3.710365	.0022484
#3	13.57670	7.100300	.1960118	-.001800	.8241777	3.699208	.0030454

Sample Name: P4480-04DLX2 Acquired: 10/29/2024 20:13:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE493 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.332971	.0467487	1.033957
Stddev	.011720	.0015747	.003676
%RSD	.2704845	3.368524	.3555320
#1	4.343658	.0450294	1.037714
#2	4.334817	.0481210	1.033790
#3	4.320437	.0470957	1.030368

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	889.1287	21554.87	2455.165	785.1997	1487.417
Stddev	.7154	45.84	16.317	.8617	.681
%RSD	.0804573	.2126743	.6646152	.1097365	.0457579
#1	889.9528	21531.60	2436.572	784.3407	1486.779
#2	888.6667	21525.32	2461.816	785.1944	1487.338
#3	888.7667	21607.68	2467.106	786.0639	1488.134

Sample Name: P4480-05DLX2 Acquired: 10/29/2024 20:17:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2373527	-.036101	.1411450	-.033979	.0093055	124.2309	1.498148
Stddev	.0118403	.003420	.0011183	.004934	.0016843	.3287	.001721
%RSD	4.988468	9.472534	.7922689	14.52031	18.09968	.2646238	.1148866
#1	.2311984	-.039074	.1400785	-.034580	.0078375	124.6014	1.500130
#2	.2510027	-.036865	.1410477	-.028772	.0111443	124.1175	1.497027
#3	.2298570	-.032364	.1423087	-.038585	.0089347	123.9739	1.497287
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054282	.0022566	67.87224	.2237089	.1224649	.4119736	239.6517
Stddev	.0001287	.0002569	.25912	.0005142	.0008340	.0006233	1.5545
%RSD	2.370079	11.38506	.3817731	.2298492	.6810241	.1512895	.6486610
#1	.0055708	.0024033	68.16952	.2242757	.1232060	.4113950	241.1672
#2	.0053928	.0024065	67.69423	.2235788	.1226270	.4126335	239.7269
#3	.0053209	.0019599	67.75298	.2232723	.1215617	.4118922	238.0609
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.883707	54.87599	.2740546	-.018104	1.727668	.4609415	.4157507
Stddev	.019932	.37792	.0004049	.000251	.192559	.0030026	.0030276
%RSD	.4081235	.6886806	.1477289	1.389009	11.14558	.6514122	.7282320
#1	4.878522	55.29945	.2741738	-.018108	1.887305	.4591856	.4188234
#2	4.905719	54.75555	.2743865	-.017850	1.781887	.4644086	.4156584
#3	4.866881	54.57297	.2736035	-.018353	1.513813	.4592304	.4127703
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.08002	6.225505	.2436194	-.001658	.8060403	3.653564	.0063304
Stddev	.08463	.003875	.0017173	.000639	.0040715	.014000	.0005918
%RSD	.3666902	.0622388	.7049191	38.55056	.5051235	.3831812	9.349265
#1	23.16727	6.229743	.2454385	-.000946	.8102821	3.669523	.0069939
#2	23.07451	6.222144	.2433933	-.001845	.8056751	3.647820	.0058569
#3	22.99827	6.224629	.2420262	-.002182	.8021637	3.643351	.0061404

Sample Name: P4480-05DLX2 Acquired: 10/29/2024 20:17:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.818601	.0849308	.5627527
Stddev	.007041	.0014608	.0008523
%RSD	.2498141	1.719981	.1514450

#1	2.825187	.0833084	.5634714
#2	2.819439	.0853422	.5629756
#3	2.811179	.0861417	.5618112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	905.6973	21944.62	2511.217	801.7801	1482.731
Stddev	.8334	21.46	9.844	3.8935	1.895
%RSD	.0920178	.0977878	.3920183	.4856022	.1277979

#1	904.8156	21919.90	2500.504	798.6361	1480.556
#2	905.8045	21955.43	2519.865	800.5691	1484.024
#3	906.4720	21958.51	2513.282	806.1352	1483.613

Sample Name: P4480-06DLX2 Acquired: 10/29/2024 20:22:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2689366	-.036802	.1481114	-.037208	.0079033	136.7912	1.616118
Stddev	.0060244	.004450	.0041137	.003041	.0008144	.1132	.001912
%RSD	2.240074	12.09134	2.777455	8.171632	10.30417	.0827795	.1182795
#1	.2741089	-.041668	.1439209	-.040058	.0077237	136.8299	1.614919
#2	.2703790	-.035799	.1482695	-.034008	.0087924	136.8800	1.618322
#3	.2623220	-.032940	.1521438	-.037559	.0071936	136.6637	1.615112
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059565	.0024394	70.03376	.2459707	.1346617	.4510141	256.8553
Stddev	.0000580	.0001817	.20684	.0011025	.0004921	.0013841	.7783
%RSD	.9735958	7.447602	.2953395	.4482173	.3654654	.3068936	.3030271
#1	.0060149	.0026475	69.88806	.2472410	.1341173	.4494264	256.1373
#2	.0059557	.0023582	70.27050	.2452636	.1350751	.4516489	257.6825
#3	.0058990	.0023126	69.94272	.2454073	.1347927	.4519668	256.7462
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.132623	60.07073	.3010084	-.019032	1.144348	.5073216	.4439760
Stddev	.007962	.11630	.0008486	.000640	.083764	.0059165	.0020134
%RSD	.1551230	.1936087	.2819151	3.362505	7.319798	1.166217	.4534875
#1	5.128019	60.16452	.3018534	-.018382	1.081368	.5008588	.4462851
#2	5.141817	60.10708	.3001563	-.019662	1.112264	.5086349	.4425871
#3	5.128034	59.94060	.3010157	-.019053	1.239411	.5124711	.4430559
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.27927	6.689984	.2594999	-.000824	.8681082	3.350150	.0072743
Stddev	.10061	.010249	.0015141	.000653	.0089090	.017599	.0016765
%RSD	.3979764	.1532036	.5834586	79.21875	1.026255	.5253065	23.04693
#1	25.21036	6.699453	.2578294	-.000189	.8775877	3.330758	.0089563
#2	25.23274	6.679101	.2598883	-.001493	.8599080	3.354586	.0072634
#3	25.39472	6.691397	.2607819	-.000790	.8668287	3.365106	.0056033

Sample Name: P4480-06DLX2 Acquired: 10/29/2024 20:22:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.099506	.0963382	.6157349
Stddev	.011282	.0005559	.0006644
%RSD	.3639882	.5770275	.1079032
#1	3.093043	.0968164	.6153631
#2	3.112533	.0957283	.6165019
#3	3.092942	.0964700	.6153396

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	916.4705	22104.01	2503.708	812.6646	1486.531
Stddev	1.1113	65.21	7.434	5.8598	.784
%RSD	.1212543	.2950111	.2969224	.7210541	.0527354
#1	917.6362	22045.87	2512.070	806.6797	1487.065
#2	916.3521	22174.52	2497.846	818.3906	1485.631
#3	915.4232	22091.63	2501.209	812.9235	1486.897

Sample Name: P4480-07DLX2 Acquired: 10/29/2024 20:26:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3006300	.0545853	.1798525	.1200901	.1644054	128.1575	5.255672
Stddev	.0103257	.0031886	.0030250	.0020835	.0022772	.1540	.013188
%RSD	3.434683	5.841586	1.681929	1.734978	1.385101	.1201473	.2509265
#1	.2888853	.0545501	.1774598	.1179678	.1622533	128.2213	5.268429
#2	.3082820	.0514144	.1832527	.1201701	.1667898	127.9819	5.242092
#3	.3047225	.0577914	.1788451	.1221325	.1641729	128.2694	5.256496
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0992293	.0997872	67.85796	.6304480	1.106360	.8543305	241.9442
Stddev	.0001525	.0001931	.07788	.0008299	.004227	.0025576	.4480
%RSD	.1537113	.1935493	.1147702	.1316313	.3820396	.2993753	.1851731
#1	.0990881	.0996359	67.78388	.6312536	1.102812	.8518282	241.5493
#2	.0993910	.0997211	67.85085	.6304947	1.105233	.8569401	241.8524
#3	.0992087	.1000047	67.93915	.6295958	1.111036	.8542232	242.4311
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.820372	55.08137	1.260530	.0737408	1.764077	1.432288	1.179785
Stddev	.013953	.10509	.005216	.0004505	.276915	.011037	.006079
%RSD	.2397294	.1907840	.4137863	.6109914	15.69742	.7705618	.5152978
#1	5.826519	55.13985	1.255392	.0742302	1.782456	1.432891	1.180164
#2	5.804401	54.96005	1.260378	.0736491	1.478431	1.420962	1.185665
#3	5.830196	55.14420	1.265820	.0733432	2.031345	1.443011	1.173524
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.15253	6.226533	.2450130	-.001724	.8088890	3.778662	.0071783
Stddev	.06010	.047773	.0003973	.000326	.0145694	.013311	.0007515
%RSD	.2596005	.7672451	.1621554	18.92724	1.801161	.3522588	10.46945
#1	23.19142	6.171768	.2448495	-.002064	.7995806	3.764162	.0063343
#2	23.08330	6.259646	.2447235	-.001413	.8014072	3.790327	.0077752
#3	23.18286	6.248186	.2454659	-.001697	.8256792	3.781495	.0074255

Sample Name: P4480-07DLX2 Acquired: 10/29/2024 20:26:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.841742	.0847554	.5635736
Stddev	.004842	.0014878	.0008355
%RSD	.1703749	1.755361	.1482556
#1	2.842094	.0831058	.5645165
#2	2.836733	.0851649	.5629253
#3	2.846397	.0859955	.5632790

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	902.6076	21834.70	2483.018	792.3475	1494.613
Stddev	.5958	66.16	3.484	3.9244	2.350
%RSD	.0660109	.3030098	.1402953	.4952859	.1572382
#1	903.0263	21759.57	2482.310	791.0757	1496.653
#2	902.8710	21860.26	2479.943	789.2167	1495.142
#3	901.9255	21884.26	2486.802	796.7500	1492.043

Sample Name: P4480-05LDLX10 Acquired: 10/29/2024 20:30:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0491183	-.006628	.0299319	-.009913	.0027355	26.97083	.3284890
Stddev	.0018797	.003699	.0011554	.001876	.0004975	.06505	.0015918
%RSD	3.826854	55.80559	3.860088	18.92745	18.18708	.2411936	.4845661
#1	.0480775	-.007965	.0312613	-.009904	.0023488	27.00660	.3278635
#2	.0512882	-.002447	.0293646	-.011794	.0032968	26.89574	.3273049
#3	.0479893	-.009472	.0291698	-.008041	.0025609	27.01014	.3302984
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012852	.0002425	14.89845	.0503803	.0244965	.0875715	53.43804
Stddev	.0000277	.0000956	.06278	.0011480	.0003932	.0021454	.23024
%RSD	2.155513	39.41424	.4213561	2.278713	1.605336	2.449886	.4308488
#1	.0013043	.0002030	14.96409	.0506716	.0248431	.0888734	53.50518
#2	.0012534	.0003515	14.83899	.0513545	.0240692	.0887457	53.18170
#3	.0012979	.0001731	14.89227	.0491146	.0245772	.0850953	53.62725
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.087370	11.86846	.0559988	-.002893	.2273975	.1058062	.0922914
Stddev	.001622	.01747	.0006063	.000349	.3627719	.0104342	.0006626
%RSD	.1491893	.1472272	1.082718	12.06058	159.5321	9.861615	.7179290
#1	1.088796	11.85288	.0566981	-.003040	-.160858	.0995182	.0930565
#2	1.087708	11.88735	.0556209	-.002494	.285340	.1178507	.0919153
#3	1.085605	11.86515	.0556773	-.003144	.557711	.1000498	.0919025
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.914319	1.253505	.0501478	-.001391	.1659501	.8157823	.0007258
Stddev	.043102	.003954	.0008129	.000108	.0066890	.0040615	.0020542
%RSD	.8770732	.3154373	1.620993	7.783452	4.030741	.4978631	283.0438
#1	4.948447	1.257704	.0494466	-.001270	.1592899	.8186429	-.000202
#2	4.865882	1.249853	.0510388	-.001480	.1658927	.8111335	.003080
#3	4.928627	1.252959	.0499580	-.001421	.1726676	.8175705	-.000701

Sample Name: P4480-05LDLX10 Acquired: 10/29/2024 20:30:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6217012	.0125314	.1230210
Stddev	.0046702	.0004811	.0002020
%RSD	.7511969	3.839087	.1642255
#1	.6201930	.0125492	.1231525
#2	.6179714	.0130034	.1227884
#3	.6269391	.0120417	.1231222

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	867.6265	20816.68	2329.129	768.5907	1574.371
Stddev	.5513	50.45	5.822	4.4637	.069
%RSD	.0635444	.2423579	.2499751	.5807702	.0043718
#1	867.4758	20821.21	2322.614	763.8445	1574.368
#2	867.1663	20764.12	2333.825	769.2231	1574.304
#3	868.2376	20864.72	2330.946	772.7046	1574.441

Sample Name: P4480-08DLX2 Acquired: 10/29/2024 20:35:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE495 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1051362	-.029116	.0790348	-.028343	.0077065	82.57348	.4612017
Stddev	.0080169	.002000	.0021790	.009379	.0009731	.15274	.0016759
%RSD	7.625288	6.867307	2.757038	33.09054	12.62733	.1849687	.3633829
#1	.1133123	-.031403	.0769105	-.025983	.0087753	82.71909	.4622650
#2	.0972886	-.028249	.0812647	-.020369	.0068717	82.58685	.4592698
#3	.1048077	-.027697	.0789291	-.038676	.0074726	82.41450	.4620704
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033360	.0010877	53.99700	.1944902	.1101900	.3057647	202.9533
Stddev	.0001432	.0004814	.21713	.0016023	.0001802	.0027663	.4759
%RSD	4.291485	44.26202	.4021150	.8238410	.1635227	.9047008	.2344907
#1	.0034929	.0007428	54.05209	.1932578	.1102211	.3087150	203.2563
#2	.0033026	.0008825	54.18128	.1939112	.1099963	.3053497	203.1988
#3	.0032125	.0016377	53.75763	.1963015	.1103526	.3032294	202.4048
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.403136	52.43329	.1965422	-.014423	1.504181	.5154294	.2837912
Stddev	.011326	.27967	.0014102	.000081	.170568	.0042242	.0012081
%RSD	.3328065	.5333800	.7174890	.5634543	11.33960	.8195595	.4257158
#1	3.411334	52.12770	.1980622	-.014330	1.697300	.5126822	.2838586
#2	3.390213	52.67650	.1952764	-.014481	1.374123	.5133125	.2849642
#3	3.407862	52.49566	.1962882	-.014457	1.441119	.5202936	.2825508
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.78202	3.662357	.1959197	-.001707	.6039562	2.907535	.0053596
Stddev	.15037	.002310	.0027266	.000373	.0178139	.010377	.0017935
%RSD	1.276252	.0630813	1.391712	21.83097	2.949543	.3568895	33.46216
#1	11.94767	3.663328	.1960238	-.002085	.5835030	2.915690	.0053000
#2	11.74428	3.659720	.1985928	-.001340	.6122889	2.911060	.0035968
#3	11.65412	3.664024	.1931425	-.001696	.6160766	2.895855	.0071822

Sample Name: P4480-08DLX2 Acquired: 10/29/2024 20:35:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE495 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.925482	.0459324	.2275092
Stddev	.007099	.0010732	.0006267
%RSD	.2426644	2.336514	.2754661

#1	2.930464	.0447144	.2281164
#2	2.928627	.0463434	.2268647
#3	2.917353	.0467393	.2275466

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	880.4624	21421.68	2426.633	785.7748	1493.979
Stddev	2.0685	6.70	7.062	3.7734	2.418
%RSD	.2349335	.0312657	.2910193	.4802136	.1618417

#1	878.7919	21428.01	2425.105	784.1725	1493.303
#2	882.7761	21422.37	2420.460	783.0669	1496.664
#3	879.8194	21414.67	2434.333	790.0849	1491.972

Sample Name: P4480-09DLX2 Acquired: 10/29/2024 20:39:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE496 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1754669	-.033616	.1132822	-.026033	.0053716	120.4162	1.325695
Stddev	.0046134	.002881	.0021807	.006148	.0016269	.4877	.004849
%RSD	2.629208	8.569190	1.925000	23.61513	30.28675	.4049756	.3657692
#1	.1792392	-.036885	.1146113	-.027912	.0038772	120.4231	1.327217
#2	.1768381	-.031451	.1144697	-.019165	.0071046	119.9252	1.320267
#3	.1703234	-.032511	.1107655	-.031022	.0051331	120.9004	1.329600
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055059	.0018092	45.84821	.2443674	.1292908	.3459230	225.9461
Stddev	.0001399	.0002448	.25465	.0008939	.0004243	.0023312	1.0391
%RSD	2.540697	13.53073	.5554102	.3657971	.3282071	.6738924	.4598759
#1	.0055486	.0015562	45.77044	.2438061	.1297685	.3478822	225.8087
#2	.0053497	.0018264	45.64152	.2453982	.1289575	.3433448	224.9826
#3	.0056195	.0020449	46.13267	.2438978	.1291463	.3465419	227.0471
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.131880	48.34307	.2301863	-.019024	1.164541	.4104977	.4313154
Stddev	.031727	.11754	.0014706	.000724	.074714	.0133860	.0006249
%RSD	.5174067	.2431280	.6388821	3.805849	6.415724	3.260929	.1448729
#1	6.130444	48.22516	.2296135	-.019124	1.150736	.4137009	.4315270
#2	6.100895	48.34383	.2318572	-.018256	1.097692	.4219916	.4318070
#3	6.164300	48.46023	.2290883	-.019694	1.245195	.3958007	.4306122
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.89877	5.271714	.2342537	.0007037	.7293620	3.644224	.0082637
Stddev	.13164	.017922	.0005440	.0003549	.0047448	.028731	.0013094
%RSD	.5287037	.3399708	.2322374	50.42989	.6505369	.7883885	15.84476
#1	24.90885	5.273709	.2348803	.0006356	.7325314	3.628127	.0075194
#2	24.76238	5.252878	.2339022	.0010878	.7239070	3.627151	.0097756
#3	25.02508	5.288555	.2339785	.0003879	.7316476	3.677395	.0074961

Sample Name: P4480-09DLX2 Acquired: 10/29/2024 20:39:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE496 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.612735	.0796989	.2462215
Stddev	.011899	.0010822	.0010385
%RSD	.4554215	1.357861	.4217758

#1	2.615529	.0801120	.2463155
#2	2.599687	.0784710	.2451392
#3	2.622988	.0805137	.2472099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	921.4314	22166.81	2531.646	811.7851	1492.919
Stddev	1.4875	49.87	19.477	1.2731	.555
%RSD	.1614317	.2249751	.7693539	.1568304	.0371994

#1	920.2987	22188.59	2543.518	813.2479	1492.814
#2	923.1160	22109.75	2542.252	811.1798	1493.519
#3	920.8796	22202.08	2509.167	810.9275	1492.423

Sample Name: P4480-10DLX2 Acquired: 10/29/2024 20:44:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE497 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1177296	-.029760	.0944438	-.022837	.0069824	96.82047	.8055955
Stddev	.0060415	.003639	.0007504	.011000	.0023199	.17281	.0009310
%RSD	5.131638	12.22791	.7945777	48.16907	33.22483	.1784888	.1155702
#1	.1189652	-.026587	.0944637	-.035527	.0051349	96.82671	.8066592
#2	.1230577	-.028961	.0951840	-.016010	.0095860	96.64463	.8051983
#3	.1111658	-.033733	.0936836	-.016974	.0062263	96.99008	.8049289
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043013	.0011615	65.48235	.1985350	.1093532	.3218515	201.9739
Stddev	.0002364	.0002054	.16643	.0003224	.0004120	.0038402	.5800
%RSD	5.496820	17.68521	.2541635	.1623945	.3767223	1.193162	.2871469
#1	.0043432	.0013541	65.47970	.1982595	.1098031	.3174417	201.4620
#2	.0040467	.0009453	65.31725	.1988896	.1092622	.3244597	201.8559
#3	.0045140	.0011849	65.65009	.1984558	.1089944	.3236530	202.6037
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.845538	56.67512	.2782957	-.013658	3.819445	.4247746	.3165334
Stddev	.018374	.26079	.0008213	.000436	.305986	.0072183	.0005631
%RSD	.4778057	.4601564	.2951067	3.190102	8.011279	1.699331	.1778885
#1	3.829683	56.39021	.2782612	-.013906	3.466809	.4260146	.3171816
#2	3.841255	56.73312	.2791337	-.013913	4.014828	.4170166	.3161659
#3	3.865675	56.90203	.2774922	-.013155	3.976698	.4312927	.3162527
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.41761	5.976030	.1989050	-.001030	.5349705	3.283133	.0046561
Stddev	.10182	.020813	.0001467	.000238	.0050573	.005473	.0025170
%RSD	.8917918	.3482811	.0737316	23.15028	.9453337	.1666982	54.05824
#1	11.53294	5.952274	.1988509	-.000816	.5300474	3.281191	.0048948
#2	11.34013	5.984754	.1990711	-.000986	.5401520	3.278896	.0020283
#3	11.37978	5.991062	.1987932	-.001287	.5347120	3.289312	.0070454

Sample Name: P4480-10DLX2 Acquired: 10/29/2024 20:44:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE497 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.278530	.0502087	1.018490
Stddev	.006293	.0022126	.001752
%RSD	.1470828	4.406889	.1719731
#1	4.283879	.0479253	1.020512
#2	4.271596	.0523430	1.017507
#3	4.280115	.0503578	1.017452

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	893.6010	21701.45	2437.046	793.7147	1496.277
Stddev	1.3823	32.78	6.988	.8724	.876
%RSD	.1546866	.1510678	.2867322	.1099152	.0585391
#1	892.3691	21703.93	2441.977	794.5912	1495.717
#2	895.0959	21732.92	2440.111	792.8465	1495.828
#3	893.3380	21667.50	2429.049	793.7063	1497.286

Sample Name: P4480-11DLX2 Acquired: 10/29/2024 20:48:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE498 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1076465	-.036574	.0951091	-.029126	.0063319	85.55493	.7773500
Stddev	.0088926	.006110	.0051641	.006111	.0028611	.42588	.0021474
%RSD	8.260969	16.70600	5.429661	20.98167	45.18627	.4977859	.2762418

#1	.0985730	-.032177	.0940345	-.032296	.0032765	86.01008	.7788045
#2	.1080199	-.043551	.1007259	-.033000	.0067712	85.16610	.7748836
#3	.1163466	-.033995	.0905668	-.022081	.0089480	85.48861	.7783619

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040313	.0014597	133.3565	.1991310	.1131651	.2934320	210.7993
Stddev	.0002645	.0002604	.7102	.0008498	.0003875	.0025386	.4941
%RSD	6.560386	17.84158	.5325689	.4267682	.3423884	.8651366	.2343976

#1	.0043158	.0011605	134.1337	.1998890	.1130342	.2951013	211.2713
#2	.0039849	.0015830	132.7413	.1982123	.1128600	.2905106	210.2857
#3	.0037930	.0016355	133.1943	.1992918	.1136010	.2946842	210.8409

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.747238	59.12870	.2246909	-.012579	2.468488	.5008848	.3344560
Stddev	.009935	.51468	.0017084	.000068	.422638	.0100113	.0015548
%RSD	.2651258	.8704320	.7603234	.5384677	17.12131	1.998723	.4648737

#1	3.758709	59.71065	.2231545	-.012509	2.881542	.4946646	.3362011
#2	3.741589	58.94209	.2243876	-.012583	2.036878	.4955564	.3339487
#3	3.741415	58.73337	.2265306	-.012644	2.487044	.5124334	.3332182

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.33665	4.790699	.2041904	-.001215	.4935178	3.508239	.0026038
Stddev	.01596	.005425	.0013480	.000224	.0072199	.017971	.0012754
%RSD	.1408050	.1132499	.6601524	18.41722	1.462944	.5122540	48.98241

#1	11.33518	4.784697	.2057056	-.001039	.4891949	3.524388	.0024590
#2	11.35330	4.795256	.2031244	-.001139	.4895058	3.488879	.0014070
#3	11.32148	4.792144	.2037412	-.001467	.5018526	3.511450	.0039454

Sample Name: P4480-11DLX2 Acquired: 10/29/2024 20:48:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE498 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.838625	.0487390	.4484105
Stddev	.007379	.0015060	.0011347
%RSD	.1922323	3.089897	.2530582
#1	3.837217	.0504780	.4496596
#2	3.832052	.0478825	.4474432
#3	3.846607	.0478567	.4481288

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	878.8084	21425.07	2432.140	782.6585	1465.050
Stddev	.8960	25.45	14.104	1.3690	1.021
%RSD	.1019554	.1187972	.5798825	.1749181	.0697171
#1	878.6586	21420.58	2417.632	781.9872	1463.983
#2	879.7698	21402.17	2445.800	784.2336	1466.018
#3	877.9967	21452.47	2432.988	781.7547	1465.150

Sample Name: P4480-12DLX2 Acquired: 10/29/2024 20:52:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE499 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2258443	-.032801	.2290132	-.030375	.0096048	118.4049	1.187682
Stddev	.0033040	.005686	.0043481	.006556	.0008322	.6479	.008860
%RSD	1.462943	17.33406	1.898616	21.58206	8.663863	.5471704	.7459510
#1	.2280950	-.029117	.2240138	-.026714	.0095812	119.1188	1.197869
#2	.2220511	-.039350	.2319127	-.026467	.0104485	118.2416	1.183404
#3	.2273866	-.029938	.2311132	-.037943	.0087847	117.8543	1.181773
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054677	.0057625	87.03932	.2318096	.1232671	.8683926	225.0308
Stddev	.0001264	.0002948	.31174	.0010313	.0014281	.0075073	1.1778
%RSD	2.310773	5.115363	.3581586	.4448688	1.158539	.8645096	.5233775
#1	.0054862	.0054699	87.36093	.2328095	.1217164	.8770211	226.3393
#2	.0053331	.0057582	87.01852	.2307496	.1245282	.8648004	224.6973
#3	.0055837	.0060593	86.73850	.2318697	.1235569	.8633562	224.0557
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.538657	52.01594	.2316462	-.016916	1.488034	.4265006	.6312574
Stddev	.034817	.36951	.0003653	.000757	.187518	.0035758	.0008024
%RSD	.6286127	.7103696	.1577052	4.472294	12.60171	.8383967	.1271169
#1	5.578174	52.43801	.2319971	-.016819	1.652138	.4239041	.6315695
#2	5.525304	51.85902	.2312680	-.017717	1.283649	.4305791	.6318568
#3	5.512494	51.75080	.2316735	-.016213	1.528314	.4250187	.6303458
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.09401	6.786743	.2354032	-.000017	1.174130	3.462515	.0048834
Stddev	.20618	.018191	.0017886	.000498	.011292	.009665	.0029980
%RSD	.6851034	.2680396	.7597829	2979.529	.9617442	.2791302	61.39214
#1	30.32496	6.791866	.2364802	.000148	1.186398	3.471703	.0067583
#2	30.02857	6.766539	.2333386	-.000576	1.164170	3.463407	.0014257
#3	29.92850	6.801823	.2363908	.000378	1.171823	3.452435	.0064662

Sample Name: P4480-12DLX2 Acquired: 10/29/2024 20:52:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE499 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.667334	.0794081	.3296931
Stddev	.016765	.0001763	.0017752
%RSD	.6285352	.2219700	.5384368
#1	2.681034	.0793966	.3316338
#2	2.672329	.0795898	.3292943
#3	2.648639	.0792378	.3281512

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	913.0108	22211.43	2532.270	812.7195	1471.735
Stddev	1.6263	75.11	11.981	1.4874	.965
%RSD	.1781249	.3381669	.4731324	.1830102	.0655683
#1	911.4785	22209.06	2518.481	811.1261	1472.796
#2	914.7171	22287.70	2538.195	814.0712	1470.910
#3	912.8369	22137.53	2540.134	812.9611	1471.499

Sample Name: P4480-13DLX2 Acquired: 10/29/2024 20:57:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2203929	-.027001	.1823390	-.024239	.0078181	94.10104	1.032967
Stddev	.0062222	.001885	.0051034	.003370	.0036056	.17935	.000685
%RSD	2.823210	6.982289	2.798855	13.90419	46.11871	.1905928	.0663224
#1	.2135154	-.024918	.1856855	-.027798	.0053478	94.15827	1.032233
#2	.2220318	-.028589	.1848665	-.021096	.0119556	93.90006	1.033077
#3	.2256316	-.027497	.1764651	-.023824	.0061508	94.24480	1.033590
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045421	.0039824	53.31051	.1903772	.1069153	.6132639	205.1021
Stddev	.0000963	.0002164	.15629	.0007037	.0008013	.0007801	.2259
%RSD	2.120248	5.433834	.2931696	.3696374	.7495011	.1272043	.1101223
#1	.0046239	.0039907	53.41676	.1904109	.1059957	.6130156	205.3627
#2	.0045664	.0037619	53.13105	.1896573	.1074638	.6126383	204.9813
#3	.0044360	.0041945	53.38371	.1910635	.1072864	.6141380	204.9623
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.458526	43.05420	.1997218	-.014941	1.183909	.3968831	.4932027
Stddev	.007952	.11269	.0009257	.000201	.295064	.0026535	.0025571
%RSD	.1456814	.2617290	.4634936	1.346233	24.92290	.6685758	.5184642
#1	5.467175	43.01231	.2001232	-.015104	.990986	.3980508	.4930393
#2	5.456871	43.18183	.2003791	-.014716	1.523575	.3987525	.4958375
#3	5.451532	42.96845	.1986632	-.015002	1.037165	.3938461	.4907312
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.65109	5.609314	.2118602	-.000570	1.065220	3.219101	.0091035
Stddev	.03709	.012181	.0020323	.000206	.003155	.015791	.0009858
%RSD	.1341358	.2171481	.9592640	36.14311	.2962228	.4905554	10.82874
#1	27.63853	5.613784	.2103575	-.000343	1.066095	3.218345	.0095714
#2	27.62191	5.595530	.2141725	-.000746	1.067845	3.203701	.0079708
#3	27.69283	5.618629	.2110506	-.000622	1.061719	3.235257	.0097681

Sample Name: P4480-13DLX2 Acquired: 10/29/2024 20:57:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.443481	.0631286	.2573012
Stddev	.008886	.0010646	.0004471
%RSD	.3636581	1.686384	.1737723

#1	2.443851	.0621703	.2573101
#2	2.434416	.0629409	.2568497
#3	2.452176	.0642746	.2577438

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	902.4054	21758.51	2473.273	799.5624	1492.940
Stddev	1.1279	129.20	3.951	4.4284	3.072
%RSD	.1249849	.5938108	.1597559	.5538521	.2057718

#1	903.7043	21732.32	2470.107	798.2898	1493.622
#2	901.8383	21644.42	2477.701	795.9097	1489.584
#3	901.6736	21898.81	2472.010	804.4878	1495.614

Sample Name: CCV025 Acquired: 10/29/2024 21:01:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV025 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.976787	4.800909	24.45257	4.658750	4.732374	415.8313	10.14997
Stddev	.008099	.016931	.03830	.007510	.025206	2.4517	.04677
%RSD	.1627445	.3526698	.1566159	.1611929	.5326201	.5895999	.4607549
#1	4.985676	4.801937	24.46483	4.650088	4.715041	414.1408	10.12256
#2	4.969825	4.817303	24.48324	4.662744	4.720791	414.7099	10.12339
#3	4.974860	4.783487	24.40965	4.663419	4.761289	418.6432	10.20397
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5083896	2.468594	407.1784	15.47412	2.488425	15.04096	412.8167
Stddev	.0017441	.004987	2.7023	.01428	.002351	.03454	2.3410
%RSD	.3430715	.2020213	.6636748	.0922766	.0944879	.2296247	.5670908
#1	.5074766	2.472247	405.3285	15.46878	2.490743	15.02526	411.1365
#2	.5072915	2.470623	405.9272	15.49029	2.488491	15.01706	411.8229
#3	.5104007	2.462912	410.2796	15.46327	2.486042	15.08056	415.4907
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.84822	404.2520	2.481012	1.257645	413.0942	2.489312	14.11022
Stddev	.07749	3.3027	.004095	.003571	2.0108	.030071	.01762
%RSD	.5218707	.8169889	.1650709	.2839503	.4867551	1.208007	.1248857
#1	14.79584	401.4521	2.484870	1.254872	411.7205	2.456957	14.12817
#2	14.81158	403.4096	2.476714	1.261675	412.1599	2.494577	14.10955
#3	14.93723	407.8943	2.481453	1.256389	415.4021	2.516403	14.09294
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	155.5319	5.040084	5.262537	4.702811	5.005936	5.022198	4.941513
Stddev	.6569	.010549	.042625	.017295	.015446	.030639	.015338
%RSD	.4223728	.2093023	.8099714	.3677658	.3085510	.6100785	.3103999
#1	155.2468	5.030209	5.220387	4.692666	5.019069	4.993436	4.948464
#2	155.0657	5.051198	5.261603	4.692986	4.988919	5.018737	4.952145
#3	156.2832	5.038845	5.305621	4.722781	5.009820	5.054421	4.923929

Sample Name: CCV025 Acquired: 10/29/2024 21:01:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV025 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.994269	5.096601	5.052596
Stddev	.029908	.031291	.023894
%RSD	.5988497	.6139558	.4729045
#1	4.975502	5.073990	5.036893
#2	4.978546	5.083500	5.040802
#3	5.028759	5.132313	5.080094

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	676.4408	18502.29	2165.320	559.3940	1234.085
Stddev	2.8902	11.87	13.177	.2437	1.250
%RSD	.4272723	.0641644	.6085458	.0435736	.1012724
#1	678.7732	18496.00	2174.907	559.2000	1233.362
#2	677.3419	18494.90	2170.759	559.3144	1233.365
#3	673.2074	18515.99	2150.295	559.6676	1235.528

Sample Name: CCB025 Acquired: 10/29/2024 21:05:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0014968	.0018435	.0020905	-.003400	.0000044	.0047476	.0007630
Stddev	.0021941	.0016204	.0035873	.002689	.0021573	.0052384	.0009719
%RSD	146.5884	87.89992	171.6007	79.07929	49408.48	110.3389	127.3864
#1	.0018629	.0001094	.0026942	-.002052	-.002188	.0073816	-.000359
#2	-.000857	.0033192	-.001760	-.006496	.002124	-.001285	.001289
#3	.003485	.0021018	.005338	-.001652	.000077	.008146	.001359
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000014	.0000845	.0077552	.0003375	.0001573	-.001790	-.008294
Stddev	.000034	.0000663	.0109651	.0005836	.0005351	.004287	.032319
%RSD	239.6172	78.43814	141.3903	172.9270	340.2600	239.4981	389.6914
#1	.000013	.0001544	-.004531	.0009030	-.000288	-.006066	-.043349
#2	-.000004	.0000226	.016547	.0003721	.000009	.002509	-.001850
#3	-.000052	.0000765	.011250	-.000263	.000751	-.001813	.020319
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021983	-.014214	.0002716	.0020288	-.084619	-.002438	.0004934
Stddev	.0004139	.119018	.0004191	.0000077	.059805	.006342	.0000883
%RSD	18.82740	837.3063	154.3190	.3796071	70.67549	260.1398	17.89798
#1	.0017229	.059791	-.000014	.0020341	-.042221	-.009653	.0005412
#2	.0023942	.049071	.000076	.0020200	-.153025	.002254	.0003915
#3	.0024780	-.151505	.000753	.0020324	-.058612	.000085	.0005474
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1461872	.0026097	.0015264	-.000227	.0093221	.0007640	.0014413
Stddev	.0323121	.0009788	.0006847	.000549	.0042262	.0003660	.0014190
%RSD	22.10322	37.50533	44.85863	242.0466	45.33512	47.90958	98.45040
#1	.1746978	.0023211	.0007385	-.000848	.0105567	.0010223	.0024856
#2	.1110889	.0037003	.0018633	-.000023	.0127934	.0003451	-.000174
#3	.1527751	.0018077	.0019775	.000192	.0046161	.0009246	.002013

Sample Name: CCB025 Acquired: 10/29/2024 21:05:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) 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	.0009218	-.006303	.0000985
Stddev	.0006188	.000950	.0001664
%RSD	67.13163	15.07957	168.9273
#1	.0015138	-.005762	-.000084
#2	.0009725	-.007401	.000137
#3	.0002792	-.005746	.000242

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	845.2838	20093.33	2218.264	743.2497	1611.507
Stddev	2.8951	55.58	13.877	3.3182	2.776
%RSD	.3424949	.2765928	.6255944	.4464452	.1722747
#1	842.1939	20139.33	2216.614	739.6603	1608.833
#2	847.9336	20031.58	2205.286	743.8836	1614.375
#3	845.7239	20109.09	2232.893	746.2053	1611.313

Sample Name: P4480-14DLX2 Acquired: 10/29/2024 21:10:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1274050	-.033194	.0959261	-.026534	.0091994	92.65138	.9408876
Stddev	.0085641	.005153	.0026388	.003617	.0013893	.19506	.0035099
%RSD	6.721934	15.52493	2.750825	13.63315	15.10214	.2105271	.3730391
#1	.1348300	-.029649	.0985257	-.024602	.0076749	92.66469	.9418635
#2	.1180361	-.030827	.0932498	-.030707	.0103941	92.45002	.9369931
#3	.1293491	-.039105	.0960027	-.024293	.0095295	92.83945	.9438064
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041168	.0018087	116.6505	.1928045	.1079257	.3123696	195.6234
Stddev	.0001979	.0001970	.1665	.0007543	.0004121	.0052551	.2870
%RSD	4.808099	10.89473	.1427597	.3912208	.3818386	1.682343	.1466887
#1	.0043417	.0016072	116.8389	.1935421	.1075799	.3174730	195.8345
#2	.0039691	.0018179	116.5893	.1928368	.1078154	.3126609	195.2967
#3	.0040396	.0020010	116.5231	.1920346	.1083817	.3069749	195.7390
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.934211	63.22574	.2571207	-.012704	2.398596	.4161564	.3547086
Stddev	.012275	.09102	.0007119	.000334	.332338	.0126103	.0027126
%RSD	.3119954	.1439551	.2768790	2.632151	13.85550	3.030187	.7647257
#1	3.922055	63.25064	.2569764	-.013058	2.714926	.4086002	.3566657
#2	3.933978	63.30172	.2578937	-.012661	2.428580	.4091550	.3558478
#3	3.946601	63.12487	.2564920	-.012394	2.052283	.4307140	.3516122
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.60043	6.713265	.2000899	-.001396	1.059109	3.566917	.0010380
Stddev	.06639	.013070	.0011938	.000507	.006042	.006164	.0008309
%RSD	.4547042	.1946831	.5966394	36.32501	.5704519	.1728015	80.04453
#1	14.63717	6.724033	.2012955	-.000948	1.057364	3.573814	.0010429
#2	14.52379	6.698724	.2000658	-.001294	1.054132	3.561946	.0002047
#3	14.64032	6.717038	.1989082	-.001947	1.065831	3.564993	.0018664

Sample Name: P4480-14DLX2 Acquired: 10/29/2024 21:10:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.779228	.0548173	.7315353
Stddev	.005493	.0012527	.0019970
%RSD	.1453403	2.285238	.2729880
#1	3.780744	.0562637	.7310856
#2	3.773136	.0540790	.7298015
#3	3.783803	.0541092	.7337188

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	879.2407	21433.58	2455.626	784.7863	1463.131
Stddev	.7482	57.47	1.470	3.5707	1.968
%RSD	.0850961	.2681466	.0598772	.4549933	.1345161
#1	879.9698	21485.82	2455.259	780.8076	1460.953
#2	879.2775	21442.92	2457.246	785.8392	1464.781
#3	878.4748	21372.01	2454.375	787.7123	1463.659

Sample Name: P4480-15DLX2 Acquired: 10/29/2024 21:14:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1864706	-.024100	.1745288	-.026601	.0084148	97.39143	.9886844
Stddev	.0077928	.004149	.0013623	.004298	.0026461	1.45433	.0160022
%RSD	4.179094	17.21583	.7805388	16.15768	31.44561	1.493287	1.618536
#1	.1887375	-.019366	.1747350	-.023909	.0113597	98.24995	.9957008
#2	.1777958	-.027104	.1730751	-.024336	.0062371	98.21209	.9999799
#3	.1928787	-.025830	.1757762	-.031558	.0076475	95.71225	.9703726
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046832	.0039278	36.40292	.1997637	.1036527	.6371243	186.9409
Stddev	.0000511	.0001677	.63401	.0032761	.0005821	.0100632	3.2121
%RSD	1.091533	4.269466	1.741637	1.639979	.5615566	1.579464	1.718253
#1	.0047275	.0039651	36.75991	.2035041	.1043231	.6400382	189.3014
#2	.0046273	.0037446	36.77794	.1974036	.1032758	.6454089	188.2383
#3	.0046949	.0040737	35.67091	.1983835	.1033592	.6259257	183.2830
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.594587	40.42076	.1881515	-.014471	1.180685	.3496619	.4937330
Stddev	.072846	.53740	.0008325	.000662	.208897	.0135937	.0085510
%RSD	1.585476	1.329518	.4424525	4.572234	17.69287	3.887666	1.731919
#1	4.630407	40.82427	.1890434	-.013755	1.159139	.3638873	.5033230
#2	4.642589	40.62727	.1873950	-.014600	1.399520	.3482954	.4909737
#3	4.510766	39.81073	.1880161	-.015060	.983396	.3368031	.4869023
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.90550	4.828377	.1978592	.0001660	.8710378	3.583601	.0060927
Stddev	.45668	.020053	.0037742	.0004333	.0039532	.048434	.0008413
%RSD	1.762861	.4153234	1.907492	261.0306	.4538525	1.351551	13.80854
#1	26.21743	4.847543	.2010015	.0004684	.8717106	3.622496	.0059396
#2	26.11773	4.807541	.1989032	-.000330	.8746114	3.598958	.0053384
#3	25.38132	4.830048	.1936730	.000360	.8667913	3.529350	.0070000

Sample Name: P4480-15DLX2 Acquired: 10/29/2024 21:14:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.465736	.0610870	.2000123
Stddev	.040934	.0015875	.0029095
%RSD	1.660105	2.598690	1.454688

#1	2.482180	.0626499	.2021296
#2	2.495891	.0611351	.2012125
#3	2.419137	.0594761	.1966946

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	910.5323	21871.96	2523.705	803.5186	1512.541
Stddev	.9002	201.82	28.066	10.8241	2.591
%RSD	.0988704	.9227309	1.112086	1.347084	.1713163

#1	909.7597	21639.85	2507.837	791.5836	1509.561
#2	910.3162	21970.00	2507.167	806.2724	1514.260
#3	911.5208	22006.03	2556.110	812.6997	1513.802

Sample Name: P4480-16DLX2 Acquired: 10/29/2024 21:19:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0945477	-.022595	.0751547	-.020964	.0046789	63.15487	.6927324
Stddev	.0019434	.002027	.0008448	.004331	.0026542	.22007	.0032859
%RSD	2.055480	8.970644	1.124129	20.66083	56.72856	.3484655	.4743407
#1	.0924005	-.020854	.0753066	-.016481	.0019652	63.40868	.6965030
#2	.0961861	-.022109	.0759132	-.025126	.0048021	63.01711	.6904809
#3	.0950565	-.024820	.0742441	-.021285	.0072694	63.03882	.6912132
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031264	.0012132	110.3940	.1644964	.0731616	.2186140	149.7714
Stddev	.0001424	.0001100	.4769	.0002015	.0008234	.0024038	.4019
%RSD	4.555143	9.063774	.4319901	.1224955	1.125505	1.099560	.2683124
#1	.0029879	.0010960	110.8640	.1645562	.0736309	.2212059	150.2288
#2	.0031190	.0012294	109.9105	.1646611	.0736432	.2181782	149.6104
#3	.0032724	.0013142	110.4074	.1642717	.0722108	.2164579	149.4751
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.863091	53.30790	.1856223	-.008579	2.316649	.3183005	.2902779
Stddev	.005891	.24427	.0006553	.000489	.388746	.0080636	.0015902
%RSD	.2057693	.4582229	.3530265	5.704780	16.78052	2.533337	.5478111
#1	2.867413	53.58686	.1849655	-.008333	2.471726	.3093468	.2902397
#2	2.865479	53.20451	.1856254	-.009143	2.603921	.3205648	.2887072
#3	2.856380	53.13233	.1862760	-.008262	1.874300	.3249900	.2918868
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.55424	4.976914	.1520162	-.001156	.9489670	3.360336	.0024127
Stddev	.08239	.022294	.0022429	.000401	.0032202	.007714	.0038109
%RSD	.7130297	.4479456	1.475444	34.72016	.3393325	.2295591	157.9508
#1	11.57481	4.996566	.1494464	-.001190	.9499819	3.361172	.0008116
#2	11.46351	4.952688	.1535796	-.000739	.9453617	3.367598	.0067629
#3	11.62438	4.981487	.1530228	-.001539	.9515575	3.352239	-.000336

Sample Name: P4480-16DLX2 Acquired: 10/29/2024 21:19:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.047576	.0393765	.3973161
Stddev	.006776	.0013334	.0021132
%RSD	.2223352	3.386340	.5318677
#1	3.055238	.0409032	.3994438
#2	3.045121	.0384403	.3952178
#3	3.042371	.0387859	.3972867

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	870.8150	21148.11	2404.089	770.4389	1481.034
Stddev	.9174	21.09	6.584	2.7760	1.815
%RSD	.1053484	.0997182	.2738696	.3603190	.1225711
#1	870.5553	21124.72	2397.085	768.1568	1483.036
#2	871.8342	21153.91	2405.030	773.5294	1480.571
#3	870.0554	21165.69	2410.152	769.6304	1479.496

Sample Name: P4480-17DLX2 Acquired: 10/29/2024 21:23:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1178461	-.033983	.0995795	-.027248	.0075448	106.4913	1.169777
Stddev	.0054397	.004355	.0017347	.002586	.0044350	.1695	.001501
%RSD	4.615911	12.81635	1.741985	9.491518	58.78195	.1591556	.1283109
#1	.1224655	-.036316	.0984884	-.030209	.0026058	106.6272	1.170179
#2	.1118505	-.028959	.0986703	-.026104	.0111865	106.5454	1.171037
#3	.1192223	-.036676	.1015797	-.025431	.0088421	106.3014	1.168116
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048931	.0015656	96.97294	.2083963	.1278980	.3791180	211.7722
Stddev	.0002297	.0002880	.29165	.0001693	.0007177	.0048893	.6617
%RSD	4.694077	18.39804	.3007549	.0812243	.5611488	1.289651	.3124565
#1	.0048419	.0017584	96.96199	.2084825	.1281719	.3847539	211.7711
#2	.0046934	.0017040	97.26992	.2085050	.1284384	.3760119	212.4344
#3	.0051441	.0012345	96.68693	.2082012	.1270836	.3765882	211.1110
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.641837	69.68559	.3299860	-.012154	4.032091	.4401992	.3614805
Stddev	.012578	.05108	.0006581	.000492	.118880	.0058586	.0026376
%RSD	.2709731	.0732976	.1994234	4.049873	2.948347	1.330899	.7296736
#1	4.653530	69.71723	.3300108	-.012446	4.153840	.4378084	.3645191
#2	4.643451	69.71288	.3293159	-.012431	3.916304	.4359141	.3597815
#3	4.628529	69.62667	.3306314	-.011586	4.026131	.4468752	.3601409
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.42668	6.900849	.2109977	-.001188	.4686815	3.064124	.0023103
Stddev	.12015	.018891	.0003132	.000281	.0028375	.009210	.0018912
%RSD	.9668708	.2737510	.1484565	23.64947	.6054124	.3005909	81.86217
#1	12.55765	6.922477	.2113511	-.001111	.4710181	3.059874	.0010306
#2	12.32155	6.892493	.2107541	-.001500	.4655241	3.074692	.0044826
#3	12.40084	6.887577	.2108880	-.000954	.4695024	3.057806	.0014176

Sample Name: P4480-17DLX2 Acquired: 10/29/2024 21:23:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.182176	.0568000	1.665419
Stddev	.010445	.0012130	.003367
%RSD	.2015571	2.135481	.2021413
#1	5.192929	.0576861	1.668130
#2	5.181531	.0572963	1.666478
#3	5.172068	.0554176	1.661651

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	887.5970	21496.01	2438.542	785.2778	1469.940
Stddev	2.7925	65.03	10.386	4.9757	1.684
%RSD	.3146170	.3025261	.4259265	.6336240	.1145912
#1	887.7997	21421.37	2437.730	779.5364	1468.100
#2	890.2827	21540.42	2428.586	787.9620	1470.311
#3	884.7087	21526.25	2449.311	788.3350	1471.407

Sample Name: P4480-18DLX2 Acquired: 10/29/2024 21:28:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2603907	-.035697	.2340470	-.036925	.0048873	112.9915	1.282507
Stddev	.0071009	.003332	.0068718	.004507	.0061107	.4895	.004127
%RSD	2.727028	9.334722	2.936072	12.20494	125.0308	.4331755	.3217703
#1	.2533923	-.039531	.2268577	-.037770	-.001939	113.2794	1.280473
#2	.2601898	-.033500	.2347336	-.032055	.009846	113.2687	1.287256
#3	.2675899	-.034060	.2405497	-.040949	.006756	112.4264	1.279792
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056963	.0052261	70.43504	.2397838	.1297888	.8044487	234.6817
Stddev	.0001555	.0000383	.40280	.0005071	.0004532	.0048005	1.5148
%RSD	2.729520	.7336650	.5718690	.2114774	.3492125	.5967406	.6454549
#1	.0058394	.0051987	70.73158	.2403692	.1294211	.8082810	235.2616
#2	.0055309	.0052699	70.59707	.2394821	.1302952	.8060010	235.8208
#3	.0057187	.0052097	69.97646	.2394999	.1296500	.7990642	232.9626
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.072932	50.17218	.2411295	-.017682	1.504161	.4515546	.6163014
Stddev	.007300	.28979	.0011693	.000263	.449519	.0030527	.0012310
%RSD	.1202086	.5775977	.4849213	1.487783	29.88503	.6760302	.1997338
#1	6.078718	50.33251	.2402450	-.017516	1.861873	.4502186	.6165046
#2	6.075349	50.34639	.2424552	-.017544	.999577	.4493977	.6174180
#3	6.064730	49.83765	.2406884	-.017985	1.651033	.4550475	.6149814
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.20051	7.423662	.2476504	-.000298	1.355384	3.914190	.0069972
Stddev	.22058	.017288	.0026280	.000216	.006859	.013889	.0019577
%RSD	.7303922	.2328756	1.061164	72.69228	.5060537	.3548395	27.97826
#1	30.42542	7.442960	.2495136	-.000383	1.353778	3.919493	.0067072
#2	30.19157	7.409590	.2487931	-.000458	1.362904	3.924646	.0090837
#3	29.98453	7.418437	.2446445	-.000052	1.349471	3.898431	.0052007

Sample Name: P4480-18DLX2 Acquired: 10/29/2024 21:28:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.609817	.0796324	.2850819
Stddev	.010462	.0014733	.0010130
%RSD	.4008561	1.850072	.3553476
#1	2.614661	.0795863	.2854937
#2	2.616980	.0811281	.2858242
#3	2.597812	.0781827	.2839278

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	913.7539	22095.97	2519.929	811.1640	1480.108
Stddev	3.3299	62.52	13.132	1.7913	3.738
%RSD	.3644222	.2829400	.5211385	.2208297	.2525646
#1	917.5553	22023.79	2510.244	809.2276	1483.651
#2	912.3536	22131.07	2514.668	811.5024	1480.471
#3	911.3528	22133.06	2534.877	812.7619	1476.201

Sample Name: P4480-19DLX2 Acquired: 10/29/2024 21:32:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2060738	-.033691	.1937933	-.028546	.0088371	114.3512	1.168925
Stddev	.0022867	.002742	.0013622	.002711	.0019829	.1763	.002750
%RSD	1.109634	8.137612	.7028910	9.495329	22.43862	.1542079	.2352615
#1	.2082110	-.030933	.1923224	-.025417	.0067446	114.1645	1.166259
#2	.2036624	-.033726	.1940462	-.030054	.0090783	114.3742	1.171752
#3	.2063479	-.036416	.1950113	-.030167	.0106884	114.5150	1.168765
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052761	.0042840	57.58350	.2265325	.1177021	.6327885	215.2376
Stddev	.0000611	.0001055	.12917	.0005326	.0011175	.0033118	.3704
%RSD	1.158876	2.463597	.2243199	.2351025	.9494248	.5233598	.1720870
#1	.0052714	.0043007	57.65515	.2271408	.1168404	.6363211	215.2198
#2	.0053394	.0043802	57.43439	.2263066	.1173011	.6322902	214.8764
#3	.0052174	.0041711	57.66097	.2261502	.1189647	.6297541	215.6166
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.556326	48.11341	.2215817	-.017174	1.294446	.4088656	.5275893
Stddev	.008815	.09178	.0012291	.000445	.330381	.0089461	.0024368
%RSD	.1586540	.1907528	.5546952	2.591477	25.52297	2.188020	.4618667
#1	5.562432	48.04400	.2224962	-.017182	1.670489	.4106231	.5249484
#2	5.560327	48.07876	.2201845	-.016725	1.050789	.3991712	.5280689
#3	5.546220	48.21747	.2220643	-.017615	1.162060	.4168025	.5297506
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.62183	5.679231	.2277559	-.000646	1.103862	3.798154	.0072575
Stddev	.21554	.014548	.0018070	.000296	.007975	.020714	.0016727
%RSD	.8096193	.2561657	.7933896	45.78465	.7224671	.5453691	23.04744
#1	26.38805	5.694956	.2274327	-.000363	1.112454	3.807732	.0053323
#2	26.81265	5.676487	.2261324	-.000952	1.102432	3.774384	.0080860
#3	26.66480	5.666250	.2297027	-.000622	1.096698	3.812345	.0083543

Sample Name: P4480-19DLX2 Acquired: 10/29/2024 21:32:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.778468	.0770539	.2736953
Stddev	.002837	.0012414	.0008609
%RSD	.1021016	1.611032	.3145314
#1	2.777186	.0784627	.2727268
#2	2.776499	.0761204	.2743734
#3	2.781720	.0765787	.2739857

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	910.9343	22097.76	2533.883	807.4601	1486.375
Stddev	1.4730	42.87	5.614	3.7072	.992
%RSD	.1616987	.1939935	.2215429	.4591185	.0667528
#1	910.5857	22084.37	2530.150	807.5389	1487.124
#2	909.6668	22063.18	2540.339	803.7141	1486.752
#3	912.5502	22145.72	2531.161	811.1272	1485.250

Sample Name: P4480-20DLX2 Acquired: 10/29/2024 21:37:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3090434	-.037481	.1520350	-.042429	.0071947	125.1234	1.516695
Stddev	.0081596	.001528	.0017540	.005192	.0014894	.2145	.004335
%RSD	2.640280	4.077232	1.153706	12.23764	20.70170	.1713970	.2858464
#1	.3017550	-.037592	.1532401	-.036862	.0085327	125.3692	1.521445
#2	.3178586	-.035900	.1528421	-.047141	.0074614	125.0270	1.512951
#3	.3075168	-.038950	.1500227	-.043284	.0055899	124.9741	1.515689
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059686	.0029216	67.71876	.2441140	.1494946	.4821475	274.2958
Stddev	.0002584	.0001916	.15715	.0142461	.0009008	.0044652	.2444
%RSD	4.329216	6.556895	.2320629	5.835844	.6025602	.9260964	.0890963
#1	.0056741	.0028998	67.80774	.2280540	.1499002	.4869475	274.4988
#2	.0061575	.0027418	67.81122	.2552277	.1484623	.4781174	274.3640
#3	.0060741	.0031231	67.53731	.2490603	.1501213	.4813776	274.0245
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.652349	56.57829	.2693320	-.022981	1.533931	.5125977	.4880274
Stddev	.030975	.06604	.0002016	.003321	.249925	.0060588	.0252334
%RSD	.4047771	.1167183	.0748539	14.45318	16.29313	1.181974	5.170482
#1	7.687726	56.59275	.2695435	-.026788	1.284516	.5067907	.4593434
#2	7.630098	56.50622	.2691421	-.020675	1.784363	.5121220	.5068014
#3	7.639223	56.63590	.2693104	-.021479	1.532913	.5188802	.4979375
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.01189	6.365189	.2767457	.0007345	.9061594	3.655695	.0072672
Stddev	.10575	.018695	.0017560	.0006121	.0060917	.038971	.0025905
%RSD	.3645129	.2937143	.6345308	83.33000	.6722566	1.066034	35.64711
#1	29.09519	6.386742	.2772753	.0004948	.9131670	3.612275	.0075195
#2	29.04756	6.353350	.2781760	.0002786	.9021270	3.687640	.0045597
#3	28.89291	6.355476	.2747858	.0014302	.9031842	3.667171	.0097223

Sample Name: P4480-20DLX2 Acquired: 10/29/2024 21:37:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.587134	.0934341	.2743875
Stddev	.005214	.0020261	.0006061
%RSD	.2015398	2.168444	.2208749

#1	2.584443	.0951328	.2750644
#2	2.583816	.0911916	.2742028
#3	2.593144	.0939778	.2738953

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	911.5727	22554.00	2517.774	825.1445	1471.776
Stddev	.7688	967.40	8.231	38.6329	1.764
%RSD	.0843408	4.289272	.3269051	4.681954	.1198598

#1	911.9284	23645.56	2511.419	868.9170	1469.770
#2	910.6905	21802.67	2514.831	795.8101	1472.470
#3	912.0993	22213.78	2527.071	810.7065	1473.087

Sample Name: P4480-21DLX2 Acquired: 10/29/2024 21:41:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2768104	-.039209	.2075276	-.041249	.0094566	108.9287	1.802282
Stddev	.0038312	.001418	.0014704	.005966	.0022818	.0943	.001709
%RSD	1.384066	3.616683	.7085087	14.46338	24.12872	.0866062	.0948035

#1	.2774090	-.038436	.2087408	-.034360	.0119146	108.8724	1.801978
#2	.2803070	-.040845	.2079495	-.044646	.0074059	108.8761	1.800746
#3	.2727150	-.038345	.2058924	-.044741	.0090494	109.0376	1.804123

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059305	.0040757	88.99465	.2239306	.1292582	.5107967	288.0102
Stddev	.0000265	.0002571	.17160	.0019890	.0008842	.0063317	.2983
%RSD	.4473111	6.308186	.1928230	.8882343	.6840470	1.239578	.1035727

#1	.0059501	.0040880	89.16822	.2230084	.1288435	.5097818	288.2232
#2	.0059411	.0043265	88.82509	.2262133	.1302735	.5050337	287.6693
#3	.0059004	.0038127	88.99065	.2225700	.1286576	.5175746	288.1382

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.95737	53.67810	.2329423	-.021937	1.331437	.5330194	.5357715
Stddev	.01291	.15176	.0003507	.000687	.249926	.0071238	.0001648
%RSD	.1079872	.2827285	.1505370	3.129916	18.77114	1.336507	.0307663

#1	11.94916	53.69022	.2325601	-.021833	1.180449	.5409890	.5356112
#2	11.95070	53.52063	.2332492	-.022669	1.619922	.5272702	.5357629
#3	11.97225	53.82343	.2330175	-.021308	1.193941	.5307990	.5359406

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.27594	5.261342	.2899270	-.001179	.9746627	3.847188	.0040044
Stddev	.07224	.012672	.0009803	.000310	.0070317	.005581	.0019564
%RSD	.3242814	.2408562	.3381189	26.28397	.7214531	.1450737	48.85608

#1	22.35561	5.275578	.2907371	-.001142	.9731053	3.844689	.0026223
#2	22.21472	5.251292	.2902065	-.001506	.9685402	3.843294	.0062430
#3	22.25750	5.257157	.2888373	-.000890	.9823426	3.853582	.0031480

Sample Name: P4480-21DLX2 Acquired: 10/29/2024 21:41:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.160140	.0928883	.2392392
Stddev	.007057	.0019839	.0005985
%RSD	.3266954	2.135827	.2501651
#1	2.162325	.0908006	.2385525
#2	2.152249	.0931153	.2396503
#3	2.165846	.0947489	.2395147

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	896.9590	21802.77	2482.103	797.2670	1471.623
Stddev	1.1244	41.63	6.185	2.5998	1.151
%RSD	.1253599	.1909254	.2491687	.3260894	.0782124
#1	895.8496	21763.87	2481.594	795.7718	1471.970
#2	898.0979	21846.67	2488.527	795.7603	1470.339
#3	896.9295	21797.78	2476.189	800.2690	1472.561

Sample Name: P4480-22DLX2 Acquired: 10/29/2024 21:45:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4430670	-.033356	.2665252	-.035432	.0084746	131.6656	1.503104
Stddev	.0056980	.000637	.0065403	.001515	.0018739	.4270	.004599
%RSD	1.286047	1.909187	2.453910	4.275554	22.11180	.3242844	.3059780
#1	.4384971	-.033081	.2594542	-.036360	.0106248	131.8788	1.500698
#2	.4494513	-.034084	.2723576	-.033684	.0076090	131.1740	1.500207
#3	.4412527	-.032903	.2677637	-.036253	.0071900	131.9440	1.508407
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061110	.0060497	58.13202	.2783430	.1509945	.8399264	259.6581
Stddev	.0003542	.0001771	.28947	.0020571	.0011126	.0092083	1.1877
%RSD	5.796790	2.927700	.4979467	.7390430	.7368753	1.096318	.4574220
#1	.0057497	.0059926	58.40674	.2800372	.1522660	.8361928	260.3142
#2	.0061257	.0059081	57.82977	.2789378	.1501991	.8331714	258.2871
#3	.0064577	.0062483	58.15956	.2760541	.1505184	.8504152	260.3730
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.835920	59.30853	.3019661	-.020085	1.416043	.5083335	.6223545
Stddev	.032244	.23329	.0009586	.000326	.366453	.0066631	.0059084
%RSD	.4716783	.3933465	.3174426	1.625499	25.87867	1.310781	.9493689
#1	6.837862	59.53729	.3030668	-.019793	.999034	.5013555	.6224906
#2	6.802750	59.07096	.3015173	-.020025	1.562377	.5090157	.6281938
#3	6.867149	59.31734	.3013143	-.020438	1.686719	.5146292	.6163792
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	34.25493	6.705437	.2708070	-.000249	1.073999	4.536950	.0091074
Stddev	.03157	.026182	.0015596	.000060	.013785	.028490	.0023790
%RSD	.0921543	.3904600	.5758905	24.25880	1.283490	.6279564	26.12129
#1	34.21864	6.722046	.2722778	-.000246	1.088716	4.559002	.0089865
#2	34.27011	6.675256	.2691718	-.000310	1.061389	4.504782	.0067912
#3	34.27604	6.719010	.2709716	-.000190	1.071893	4.547065	.0115445

Sample Name: P4480-22DLX2 Acquired: 10/29/2024 21:45:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4A9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.907312	.0952034	.3297872
Stddev	.012536	.0014240	.0009057
%RSD	.4311784	1.495761	.2746375
#1	2.916910	.0941670	.3293814
#2	2.893130	.0968272	.3291554
#3	2.911897	.0946161	.3308249

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	915.5884	22249.94	2529.136	810.9379	1471.668
Stddev	2.1760	85.52	13.248	6.5028	2.985
%RSD	.2376587	.3843585	.5237985	.8018869	.2028591
#1	913.9862	22248.68	2521.436	811.6025	1470.716
#2	918.0657	22165.06	2544.433	804.1284	1475.013
#3	914.7133	22336.08	2521.539	817.0829	1469.275

Sample Name: PB164428BL Acquired: 10/29/2024 21:50:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS428 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000915	.0008560	.0039459	.0006358	-.000875	.0052097	.0006136
Stddev	.002229	.0028560	.0011029	.0054958	.002514	.0130993	.0005146
%RSD	243.5216	333.6588	27.94946	864.4578	287.2192	251.4393	83.85388
#1	-.003265	-.001991	.0031255	.0040065	.002024	-.000430	.0009915
#2	.001168	.000838	.0035125	.0036068	-.002447	-.004125	.0008218
#3	-.000648	.003721	.0051996	-.005706	-.002204	.020184	.0000276
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000356	.0000696	.0012718	-.000229	.0000059	-.006304	.0172990
Stddev	.0000995	.0001996	.0096429	.000571	.0002738	.004238	.0167118
%RSD	279.4743	286.8954	758.2026	249.2150	4608.125	67.22663	96.60507
#1	.0000019	-.000061	-.009463	-.000110	-.000010	-.007608	.0363334
#2	-.000043	.000299	.004078	.000273	-.000260	-.009737	.0050337
#3	.000148	-.000030	.009200	-.000851	.000287	-.001567	.0105300
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025355	.0367645	.0003559	.0016565	.1951557	-.001849	-.000500
Stddev	.0007784	.0995631	.0008273	.0000941	.2975224	.018626	.000224
%RSD	30.69833	270.8134	232.4955	5.678371	152.4538	1007.531	44.74422
#1	.0029061	.1217324	-.000576	.0015732	.1185134	.012265	-.000294
#2	.0030593	-.072788	.001003	.0016377	.5235011	-.022961	-.000467
#3	.0016411	.061349	.000641	.0017585	-.056547	.005150	-.000738
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.019922	.0006044	-.005998	-.000333	.0066780	.0016440	.0006116
Stddev	.163377	.0009758	.001315	.000364	.0024400	.0003349	.0019784
%RSD	820.0790	161.4590	21.92323	109.3613	36.53752	20.36954	323.4609
#1	-.165977	-.000491	-.004495	.000038	.0049654	.0014642	-.000030
#2	.156513	.000922	-.006567	-.000689	.0094718	.0014375	-.000966
#3	-.050303	.001382	-.006934	-.000347	.0055969	.0020304	.002831

Sample Name: PB164428BL Acquired: 10/29/2024 21:50:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS428 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0008895	-.008167	.0000606
Stddev	.0003023	.001589	.0001565
%RSD	33.98181	19.46262	258.3352

#1	.0009548	-.009045	-.000117
#2	.0011538	-.006332	.000119
#3	.0005599	-.009124	.000179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	842.3020	20110.91	2233.019	743.4078	1600.410
Stddev	.5249	34.20	12.987	1.4875	.506
%RSD	.0623118	.1700694	.5815686	.2000974	.0316326

#1	842.1996	20073.64	2246.543	742.0829	1599.862
#2	842.8705	20118.21	2220.646	743.1234	1600.861
#3	841.8359	20140.87	2231.868	745.0169	1600.506

Sample Name: PB164428BS Acquired: 10/29/2024 21:54:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS428 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0218015	.0546448	.0200084	.0639100	.1086240	.3917802
Stddev	.0013203	.0019856	.0034031	.0014833	.0014739	.0151544
%RSD	6.055785	3.633627	17.00839	2.320960	1.356924	3.868077

#1	.0225070	.0563652	.0175426	.0655316	.1071238	.4087612
#2	.0226191	.0550972	.0185915	.0626216	.1100702	.3869489
#3	.0202783	.0524720	.0238910	.0635769	.1086780	.3796305

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4326635	.0113229	.0110362	11.25697	.0231441	.1033942
Stddev	.0003513	.0001775	.0001340	.09105	.0003227	.0000748
%RSD	.0811869	1.567286	1.214143	.8088220	1.394151	.0723329

#1	.4329106	.0114116	.0110473	11.34321	.0232466	.1033860
#2	.4328184	.0114386	.0108970	11.26592	.0227827	.1033239
#3	.4322614	.0111186	.0111643	11.16178	.0234032	.1034728

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0453967	.2416087	.0346596	11.33728	.0873386	.0244647
Stddev	.0022647	.0036874	.0027016	.08885	.0001943	.0002279
%RSD	4.988721	1.526197	7.794708	.7837299	.2224575	.9314872

#1	.0444054	.2416744	.0377762	11.39317	.0872637	.0242192
#2	.0437966	.2452629	.0329827	11.23482	.0875592	.0246695
#3	.0479880	.2378889	.0332200	11.38385	.0871929	.0245055

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.93932	.1141969	.1087922	10.34869	.0216167	F -.005624
Stddev	.35470	.0109782	.0009119	.18249	.0029861	.000288
%RSD	3.242434	9.613383	.8382190	1.763414	13.81398	5.112724

#1	10.59168	.1231381	.1098277	10.50873	.0247577	-.005910
#2	10.92560	.1175085	.1081091	10.14995	.0188143	-.005335
#3	11.30068	.1019442	.1084397	10.38738	.0212780	-.005628

Sample Name: PB164428BS Acquired: 10/29/2024 21:54:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS428 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0181830	.1859096	F .4776689	.0149561	.2137084	.0237592
Stddev	.0004240	.0032953	.0014357	.0011980	.0007587	.0001813
%RSD	2.331925	1.772547	.3005663	8.010114	.3550360	.7632630
#1	.0179257	.1838128	.4783650	.0150523	.2142519	.0239298
#2	.0179509	.1842081	.4786238	.0137129	.2140317	.0237789
#3	.0186724	.1897079	.4760178	.0161031	.2128415	.0235688
Elem	Sr4077					
Units	ppm					
Avg	.2154026					
Stddev	.0006684					
%RSD	.3103191					
#1	.2161544					
#2	.2151779					
#3	.2148754					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	838.8028	20150.80	2244.190	746.3111	1567.094	
Stddev	.9726	20.52	1.985	1.9829	1.579	
%RSD	.1159566	.1018210	.0884584	.2656975	.1007290	
#1	839.8195	20173.85	2242.207	744.2695	1568.744	
#2	838.7077	20144.01	2244.185	746.4343	1566.939	
#3	837.8811	20134.54	2246.177	748.2296	1565.598	

Sample Name: PB164428BSD Acquired: 10/29/2024 21:59:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD428 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106109	.0295113	.0110429	.0326429	.0570058	.1931339	.2228461
Stddev	.0044032	.0020173	.0032582	.0020900	.0011007	.0152766	.0012559
%RSD	41.49718	6.835866	29.50507	6.402583	1.930896	7.909853	.5635483
#1	.0075293	.0273122	.0089893	.0344892	.0573008	.1888075	.2215987
#2	.0156540	.0299455	.0093398	.0330658	.0579290	.2101072	.2228296
#3	.0086493	.0312762	.0147998	.0303739	.0557877	.1804871	.2241102
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057596	.0055325	5.745749	.0121505	.0526925	.0197478	.1297923
Stddev	.0000790	.0000904	.057202	.0009279	.0003396	.0005512	.0071051
%RSD	1.372210	1.634303	.9955514	7.636279	.6445715	2.791075	5.474180
#1	.0057374	.0054415	5.749588	.0116420	.0529692	.0191124	.1218092
#2	.0056941	.0056223	5.800935	.0132215	.0523135	.0200333	.1321456
#3	.0058474	.0055338	5.686725	.0115882	.0527949	.0200976	.1354222
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0162889	5.827039	.0447171	.0143789	5.187076	.0598654	.0561574
Stddev	.0015897	.071876	.0002779	.0004753	.183318	.0051398	.0007209
%RSD	9.759168	1.233497	.6214670	3.305336	3.534134	8.585622	1.283748
#1	.0177618	5.830338	.0447527	.0146711	5.386748	.0547281	.0559750
#2	.0146038	5.753570	.0449754	.0138305	5.026380	.0650078	.0569520
#3	.0165011	5.897209	.0444230	.0146352	5.148102	.0598602	.0555452
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.065416	.0089324	-.004751	.0090123	.1006447	.2453367	.0088606
Stddev	.106606	.0028595	.001049	.0001055	.0055786	.0015609	.0008216
%RSD	2.104577	32.01308	22.07779	1.170152	5.542885	.6362429	9.272131
#1	5.176759	.0067811	-.005786	.0091197	.1070376	.2453739	.0097800
#2	4.964282	.0121773	-.004777	.0090084	.0981333	.2468788	.0086036
#3	5.055209	.0078387	-.003689	.0089089	.0967633	.2437576	.0081983

Sample Name: PB164428BSD Acquired: 10/29/2024 21:59:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD428 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1098401	.0089544	.1104109
Stddev	.0023865	.0016759	.0003908
%RSD	2.172734	18.71532	.3539387
#1	.1112957	.0108055	.1105704
#2	.1111388	.0075404	.1106968
#3	.1070859	.0085173	.1099656

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	841.3350	20096.97	2239.918	743.8496	1587.825
Stddev	1.3891	53.69	3.910	.8956	2.129
%RSD	.1651109	.2671691	.1745480	.1204002	.1340651
#1	840.2480	20080.49	2235.929	744.5305	1589.971
#2	840.8569	20156.98	2240.082	742.8350	1585.714
#3	842.9000	20053.46	2243.743	744.1831	1587.790

Sample Name: P4482-01DLX2 Acquired: 10/29/2024 22:03:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1244797	-.022655	.0993858	-.023651	.0050761	73.54620	.7550669
Stddev	.0087312	.007468	.0051841	.002831	.0037184	.11893	.0023580
%RSD	7.014131	32.96459	5.216178	11.96933	73.25218	.1617131	.3122858
#1	.1182281	-.014043	.1009377	-.026712	.0008689	73.64851	.7545980
#2	.1344554	-.026572	.0936030	-.023113	.0079219	73.41570	.7529786
#3	.1207557	-.027349	.1036167	-.021127	.0064375	73.57438	.7576241
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037444	.0016395	40.32218	.1569236	.0812925	.3038720	162.5745
Stddev	.0002018	.0001482	.13008	.0014980	.0011249	.0016782	.3089
%RSD	5.389943	9.036215	.3225897	.9546246	1.383789	.5522825	.1900233
#1	.0039755	.0014773	40.43983	.1581015	.0814731	.3042654	162.7180
#2	.0036547	.0016734	40.18250	.1552376	.0800882	.3020320	162.2199
#3	.0036029	.0017677	40.34422	.1574317	.0823161	.3053186	162.7855
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.435210	32.75289	.1330802	-.012174	1.196963	.3340813	.3512913
Stddev	.015844	.18135	.0011064	.000383	.221845	.0097513	.0008851
%RSD	.4612258	.5536951	.8314188	3.144309	18.53398	2.918847	.2519611
#1	3.444375	32.77778	.1322395	-.012380	1.171607	.3392192	.3518773
#2	3.416915	32.92051	.1326674	-.012411	.988886	.3228354	.3517234
#3	3.444341	32.56038	.1343337	-.011733	1.430397	.3401894	.3502731
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.74792	5.161805	.1705663	.0000378	.8726938	2.499226	.0057219
Stddev	.18053	.020176	.0011114	.0002889	.0028634	.014717	.0016813
%RSD	.8301038	.3908687	.6515666	763.4658	.3281071	.5888775	29.38289
#1	21.93500	5.144842	.1718477	-.000266	.8707222	2.515819	.0061504
#2	21.73401	5.156458	.1698666	.000070	.8759782	2.494106	.0071474
#3	21.57474	5.184116	.1699845	.000309	.8713810	2.487752	.0038679

Sample Name: P4482-01DLX2 Acquired: 10/29/2024 22:03:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.092264	.0462664	.2397032
Stddev	.005048	.0018305	.0004638
%RSD	.2412563	3.956522	.1934876
#1	2.094062	.0443730	.2401130
#2	2.086564	.0480268	.2391997
#3	2.096167	.0463995	.2397968

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	892.5412	21515.47	2420.593	788.6181	1521.174
Stddev	1.8241	41.93	14.147	1.4154	5.490
%RSD	.2043749	.1948869	.5844381	.1794760	.3609331
#1	892.0906	21553.41	2405.527	788.8861	1520.893
#2	894.5484	21522.53	2433.594	789.8804	1526.800
#3	890.9845	21470.45	2422.657	787.0879	1515.829

Sample Name: P4482-02DLX2 Acquired: 10/29/2024 22:08:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1308089	-.024747	.1410813	-.025148	.0068559	75.61399	.7407304
Stddev	.0025113	.006789	.0031080	.001833	.0019362	.31802	.0021932
%RSD	1.919816	27.43193	2.202992	7.287935	28.24087	.4205855	.2960807
#1	.1294790	-.031921	.1445996	-.027112	.0088062	75.91183	.7428284
#2	.1292422	-.023894	.1399354	-.023483	.0068274	75.65110	.7409096
#3	.1337054	-.018425	.1387090	-.024849	.0049341	75.27904	.7384531
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037236	.0025143	29.73056	.1822178	.0915438	.4117745	179.1554
Stddev	.0002236	.0001696	.10243	.0001536	.0001838	.0040329	.7732
%RSD	6.003617	6.743862	.3445323	.0843039	.2007508	.9793902	.4315874
#1	.0034666	.0026327	29.76465	.1820897	.0914284	.4090682	179.8522
#2	.0038733	.0025902	29.81160	.1821755	.0917557	.4164096	179.2904
#3	.0038308	.0023201	29.61543	.1823881	.0914472	.4098459	178.3236
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.798660	35.93232	.1521469	-.014809	1.096519	.3662237	.4377403
Stddev	.020271	.10466	.0003772	.000509	.188999	.0049859	.0009360
%RSD	.5336342	.2912607	.2478974	3.435744	17.23629	1.361440	.2138180
#1	3.811798	36.04249	.1518924	-.015190	1.126520	.3615220	.4388148
#2	3.808867	35.83422	.1525803	-.014231	1.268722	.3714520	.4373030
#3	3.775314	35.92025	.1519682	-.015006	.894313	.3656972	.4371030
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.33939	6.059136	.1916561	-.000068	1.058951	3.103307	.0055817
Stddev	.14118	.019552	.0041471	.000622	.010560	.011262	.0031386
%RSD	.5571614	.3226866	2.163824	910.4209	.9972440	.3629159	56.23041
#1	25.33240	6.039365	.1942229	.000451	1.052425	3.111671	.0053430
#2	25.48394	6.059582	.1938737	.000102	1.053294	3.107751	.0088328
#3	25.20184	6.078462	.1868717	-.000758	1.071135	3.090501	.0025692

Sample Name: P4482-02DLX2 Acquired: 10/29/2024 22:08:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.229396	.0491230	.2086156
Stddev	.008489	.0006558	.0010265
%RSD	.3807961	1.335103	.4920455
#1	2.239161	.0484056	.2095528
#2	2.225264	.0496919	.2087753
#3	2.223764	.0492714	.2075186

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	895.0134	21687.22	2448.168	793.2413	1515.115
Stddev	1.1117	20.58	13.451	1.6692	2.342
%RSD	.1242159	.0948942	.5494235	.2104216	.1545483
#1	896.0943	21672.29	2437.534	791.4419	1515.788
#2	893.8732	21678.67	2443.681	794.7389	1512.511
#3	895.0726	21710.70	2463.288	793.5432	1517.046

Sample Name: P4482-03DLX2 Acquired: 10/29/2024 22:12:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1405837	-.025257	.1264551	-.021333	.0056063	76.10785	.8180951
Stddev	.0090749	.001955	.0053240	.005353	.0021812	.26083	.0006237
%RSD	6.455168	7.739341	4.210200	25.09374	38.90715	.3427160	.0762331
#1	.1310085	-.023746	.1301579	-.016340	.0080859	76.40642	.8175697
#2	.1490579	-.027464	.1203537	-.020673	.0039839	75.92428	.8179313
#3	.1416845	-.024561	.1288535	-.026985	.0047490	75.99285	.8187843
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037690	.0028051	39.73969	.1734935	.0905497	.4213339	176.3741
Stddev	.0001514	.0002248	.20866	.0013970	.0010388	.0020968	1.0469
%RSD	4.017048	8.012336	.5250609	.8052335	1.147194	.4976590	.5935688
#1	.0036141	.0025997	39.94705	.1720882	.0911343	.4189133	177.5536
#2	.0039166	.0027704	39.74227	.1748821	.0893503	.4224976	176.0134
#3	.0037763	.0030452	39.52976	.1735102	.0911644	.4225908	175.5552
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.080693	35.42572	.1510423	-.013551	1.436216	.3367920	.4349501
Stddev	.013303	.14905	.0003478	.000199	.401308	.0031664	.0009419
%RSD	.3259975	.4207366	.2302787	1.467389	27.94206	.9401671	.2165499
#1	4.095307	35.57403	.1508763	-.013571	1.766569	.3379644	.4346982
#2	4.069288	35.42719	.1514421	-.013739	.989617	.3332066	.4341598
#3	4.077484	35.27594	.1508086	-.013343	1.552460	.3392050	.4359924
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.83593	6.263890	.1971206	.0013764	1.238887	2.946861	.0066877
Stddev	.09299	.030628	.0023927	.0004621	.012824	.030290	.0031486
%RSD	.3599186	.4889586	1.213801	33.57457	1.035161	1.027862	47.08074
#1	25.85211	6.291075	.1998616	.0017113	1.249746	2.981779	.0102110
#2	25.91977	6.230707	.1954499	.0015688	1.224738	2.927662	.0057032
#3	25.73591	6.269889	.1960504	.0008492	1.242176	2.931143	.0041490

Sample Name: P4482-03DLX2 Acquired: 10/29/2024 22:12:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.097900	.0486799	.2711746
Stddev	.007843	.0005478	.0009693
%RSD	.3738604	1.125390	.3574457
#1	2.106906	.0483335	.2722765
#2	2.094229	.0493115	.2707938
#3	2.092566	.0483947	.2704536

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	897.2619	21666.68	2463.221	795.2635	1510.982
Stddev	2.7217	10.70	12.764	1.1270	3.806
%RSD	.3033389	.0493951	.5181984	.1417143	.2518972
#1	896.3348	21664.60	2448.527	796.1381	1507.992
#2	900.3262	21678.27	2471.570	795.6606	1515.266
#3	895.1249	21657.18	2469.565	793.9916	1509.687

Sample Name: P4482-04DLX2 Acquired: 10/29/2024 22:17:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0763633	-.023409	.0911420	-.023166	.0069403	78.27171	.6950616
Stddev	.0035614	.002215	.0007732	.004096	.0015844	.09944	.0013659
%RSD	4.663748	9.462974	.8483435	17.67934	22.82949	.1270438	.1965206
#1	.0797211	-.021324	.0902780	-.018609	.0080070	78.16322	.6934846
#2	.0767406	-.025734	.0913789	-.024349	.0076943	78.35853	.6958723
#3	.0726283	-.023169	.0917690	-.026539	.0051197	78.29339	.6958280
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037320	.0013181	47.28595	.1623143	.0876062	.2538550	174.4999
Stddev	.0000895	.0001256	.09123	.0003998	.0010618	.0034852	.1924
%RSD	2.397489	9.526915	.1929407	.2462975	1.212011	1.372917	.1102830
#1	.0038037	.0012574	47.18219	.1621532	.0876717	.2565353	174.3914
#2	.0036317	.0014625	47.35364	.1620201	.0886338	.2551146	174.7221
#3	.0037607	.0012344	47.32200	.1627695	.0865132	.2499151	174.3861
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.207753	36.22471	.1318180	-.013277	1.501942	.3434916	.3417905
Stddev	.003159	.06651	.0008055	.000425	.374397	.0023682	.0008893
%RSD	.0750841	.1836117	.6110464	3.204727	24.92756	.6894575	.2601821
#1	4.208065	36.21511	.1322398	-.013158	1.069945	.3414470	.3410236
#2	4.204450	36.29550	.1323250	-.013749	1.703528	.3460866	.3415826
#3	4.210745	36.16352	.1308893	-.012923	1.732352	.3429413	.3427653
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.21939	5.251087	.1783030	-.001595	.8969824	2.252988	.0038637
Stddev	.02785	.010043	.0018291	.000468	.0063806	.005484	.0017119
%RSD	.1199599	.1912507	1.025859	29.33680	.7113368	.2434010	44.30673
#1	23.18852	5.260206	.1765714	-.002018	.8916369	2.259315	.0048202
#2	23.24265	5.252731	.1802162	-.001673	.8952640	2.250058	.0018873
#3	23.22701	5.240323	.1781214	-.001093	.9040461	2.249592	.0048835

Sample Name: P4482-04DLX2 Acquired: 10/29/2024 22:17:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.498897	.0435290	.2005570
Stddev	.006673	.0007998	.0006673
%RSD	.2670574	1.837424	.3327381

#1	2.499521	.0429018	.2013219
#2	2.491933	.0432557	.2000942
#3	2.505236	.0444297	.2002548

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	898.3993	21722.14	2457.300	795.3279	1507.784
Stddev	1.4881	39.53	4.613	4.8140	.708
%RSD	.1656363	.1819683	.1877180	.6052851	.0469702

#1	896.9418	21744.81	2452.069	799.9003	1507.000
#2	898.3397	21745.11	2459.049	795.7792	1507.976
#3	899.9162	21676.50	2460.783	790.3041	1508.376

Sample Name: P4482-05DLX2 Acquired: 10/29/2024 22:21:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1151995	-.022341	.1050792	-.024666	.0072169	79.44240	.7502108
Stddev	.0063234	.003810	.0042844	.003635	.0021050	.12277	.0022610
%RSD	5.489100	17.05213	4.077257	14.73723	29.16672	.1545389	.3013802
#1	.1220848	-.026483	.1092976	-.026789	.0052249	79.31122	.7482293
#2	.1096520	-.021555	.1007318	-.020469	.0070068	79.46145	.7526738
#3	.1138618	-.018986	.1052081	-.026741	.0094191	79.55453	.7497294
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038148	.0018679	34.58146	.1686591	.0895141	.3530071	172.3625
Stddev	.0000377	.0001588	.20160	.0010745	.0008626	.0043022	.8029
%RSD	.9879401	8.499428	.5829772	.6370672	.9635866	1.218716	.4658460
#1	.0037858	.0020321	34.43418	.1686194	.0885703	.3526135	171.4875
#2	.0038574	.0017152	34.49898	.1676051	.0897103	.3574926	172.5345
#3	.0038012	.0018565	34.81122	.1697529	.0902616	.3489153	173.0654
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.935338	35.00394	.1448055	-.013904	1.185481	.3270448	.3902825
Stddev	.006927	.03576	.0004739	.000141	.271341	.0033321	.0006463
%RSD	.1760273	.1021569	.3272930	1.016067	22.88869	1.018848	.1656106
#1	3.927721	34.97815	.1450720	-.013873	.929724	.3246436	.3899805
#2	3.941261	35.04476	.1442583	-.014058	1.156619	.3308489	.3898425
#3	3.937032	34.98891	.1450862	-.013781	1.470099	.3256417	.3910246
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.20695	5.288267	.1882993	.0004701	1.052299	2.278430	.0068576
Stddev	.09693	.030010	.0008288	.0003911	.003319	.008171	.0030416
%RSD	.3698766	.5674776	.4401703	83.19519	.3154344	.3586147	44.35303
#1	26.10927	5.272647	.1873691	.0008018	1.048903	2.270627	.0086180
#2	26.30312	5.269290	.1885693	.0005697	1.052458	2.286925	.0033455
#3	26.20844	5.322865	.1889595	.0000388	1.055536	2.277738	.0086094

Sample Name: P4482-05DLX2 Acquired: 10/29/2024 22:21:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.119832	.0457671	.1890476
Stddev	.009999	.0011838	.0003215
%RSD	.4717054	2.586503	.1700594
#1	2.108802	.0461474	.1887173
#2	2.122390	.0444399	.1893595
#3	2.128304	.0467140	.1890661

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	899.4359	21680.63	2447.857	793.4016	1519.942
Stddev	4.3328	42.21	2.301	1.0803	3.265
%RSD	.4817247	.1946982	.0939902	.1361658	.2148417
#1	897.9360	21639.82	2448.549	793.4316	1517.667
#2	904.3194	21724.12	2445.290	794.4666	1523.684
#3	896.0524	21677.97	2449.733	792.3065	1518.476

Sample Name: P4482-06DLX2 Acquired: 10/29/2024 22:25:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0899118	-.049177	.1018129	-.048168	.0066515	58.81435	.5668621
Stddev	.0089470	.002927	.0027715	.009394	.0024661	.10695	.0017012
%RSD	9.950842	5.951621	2.722133	19.50273	37.07620	.1818516	.3001023
#1	.0892504	-.051158	.1046961	-.057816	.0084457	58.85731	.5672830
#2	.0813138	-.045815	.1015739	-.039050	.0038394	58.69259	.5649900
#3	.0991711	-.050558	.0991686	-.047637	.0076695	58.89315	.5683133
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046673	.0010870	40.24386	.2182995	.1297817	.1805821	314.2523
Stddev	.0000659	.0000220	.06468	.0015308	.0003728	.0017071	.6391
%RSD	1.412615	2.023166	.1607202	.7012577	.2872452	.9453355	.2033757
#1	.0046206	.0010788	40.31423	.2188046	.1300332	.1801055	314.9898
#2	.0047427	.0011120	40.18701	.2165799	.1299584	.1791639	313.9051
#3	.0046385	.0010704	40.23034	.2195140	.1293534	.1824768	313.8618
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.057132	30.25878	.1556412	-.024152	1.746064	1.228560	.2818681
Stddev	.006789	.22344	.0010343	.000626	.461963	.010162	.0019766
%RSD	.2220793	.7384200	.6645075	2.590099	26.45740	.8271474	.7012351
#1	3.063989	30.01549	.1550390	-.023629	2.279052	1.239132	.2838356
#2	3.050412	30.30606	.1550492	-.024845	1.498354	1.218865	.2818860
#3	3.056995	30.45479	.1568354	-.023981	1.460786	1.227681	.2798826
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.87447	4.735157	.2937447	-.001772	.5288821	1.709220	.0043556
Stddev	.09167	.020875	.0018781	.000392	.0025533	.006271	.0007250
%RSD	.6607380	.4408481	.6393466	22.12181	.4827782	.3668809	16.64576
#1	13.94020	4.721978	.2959095	-.001914	.5260866	1.708185	.0045770
#2	13.91347	4.724267	.2927728	-.001329	.5310913	1.715944	.0049441
#3	13.76975	4.759224	.2925517	-.002073	.5294683	1.703531	.0035457

Sample Name: P4482-06DLX2 Acquired: 10/29/2024 22:25:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.556429	.0326227	.1591036
Stddev	.009972	.0006837	.0004448
%RSD	.2803859	2.095658	.2795924
#1	3.567040	.0333983	.1592971
#2	3.547252	.0321075	.1585948
#3	3.554995	.0323623	.1594190

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	889.3114	21642.97	2439.495	788.5596	1517.066
Stddev	.4796	99.66	7.024	6.1647	2.038
%RSD	.0539335	.4604842	.2879331	.7817669	.1343372
#1	889.8647	21535.45	2432.055	781.5118	1514.717
#2	889.0129	21732.25	2440.418	792.9492	1518.115
#3	889.0567	21661.23	2446.012	791.2178	1518.366

Sample Name: P4482-07DLX2 Acquired: 10/29/2024 22:30:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1005699	-.021505	.1233234	-.023723	.0073874	68.24548	.6675787
Stddev	.0081532	.002897	.0032397	.003350	.0013170	.10591	.0006343
%RSD	8.107007	13.46958	2.627000	14.12326	17.82730	.1551839	.0950100
#1	.1045989	-.018224	.1269130	-.020148	.0081852	68.31945	.6668547
#2	.0911865	-.022585	.1206165	-.026791	.0081096	68.12416	.6680364
#3	.1059242	-.023707	.1224407	-.024229	.0058673	68.29284	.6678450
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033805	.0017417	47.84106	.1539916	.0839851	.2919417	166.3327
Stddev	.0003716	.0002226	.05508	.0004491	.0001123	.0054470	.1464
%RSD	10.99117	12.77799	.1151303	.2916675	.1336761	1.865795	.0880406
#1	.0037942	.0014954	47.86238	.1536333	.0840818	.2962476	166.3130
#2	.0030752	.0018013	47.77850	.1538459	.0838619	.2858183	166.1971
#3	.0032720	.0019284	47.88229	.1544955	.0840115	.2937593	166.4880
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.340197	35.13378	.1437556	-.012592	1.455722	.3475296	.3947927
Stddev	.004596	.10080	.0002715	.000995	.205757	.0029041	.0012246
%RSD	.1375839	.2869053	.1888876	7.900581	14.13434	.8356283	.3101943
#1	3.335414	35.15880	.1440305	-.012979	1.273098	.3472661	.3938140
#2	3.344579	35.02283	.1434876	-.011462	1.678647	.3447663	.3943982
#3	3.340597	35.21972	.1437485	-.013336	1.415419	.3505565	.3961660
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.13105	5.393881	.1705620	-.000192	1.126968	2.069769	.0038999
Stddev	.14686	.001138	.0010242	.000828	.012732	.006216	.0007961
%RSD	.8099866	.0210948	.6004653	431.8558	1.129797	.3003011	20.41239
#1	18.18560	5.392972	.1717402	.000172	1.118062	2.076180	.0045631
#2	17.96472	5.393514	.1700609	.000392	1.121290	2.063769	.0041195
#3	18.24282	5.395157	.1698849	-.001139	1.141552	2.069358	.0030171

Sample Name: P4482-07DLX2 Acquired: 10/29/2024 22:30:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.208839	.0403231	.2311476
Stddev	.008389	.0020944	.0007142
%RSD	.3797870	5.194167	.3089820
#1	2.217885	.0382838	.2318572
#2	2.207315	.0402168	.2304289
#3	2.201316	.0424687	.2311565

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	887.1360	21490.09	2455.485	787.2983	1508.767
Stddev	1.3677	131.98	4.217	1.9455	.700
%RSD	.1541687	.6141659	.1717559	.2471136	.0464012
#1	887.7673	21554.72	2458.442	786.3137	1509.464
#2	888.0740	21338.25	2450.656	786.0419	1508.775
#3	885.5667	21577.31	2457.358	789.5393	1508.064

Sample Name: P4482-08DLX2 Acquired: 10/29/2024 22:34:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1050297	-.027884	.1112624	-.032650	.0053081	79.37598	.8151305
Stddev	.0065567	.004629	.0019062	.005734	.0010843	.06157	.0013289
%RSD	6.242700	16.60190	1.713208	17.56278	20.42762	.0775655	.1630312
#1	.1125845	-.022716	.1090890	-.031306	.0040571	79.40288	.8154069
#2	.1016808	-.031651	.1126503	-.038937	.0059776	79.30554	.8136851
#3	.1008237	-.029286	.1120478	-.027707	.0058897	79.41953	.8162995
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042228	.0012798	47.44813	.1962410	.1001796	.2259527	206.8560
Stddev	.0001217	.0000623	.05060	.0009586	.0005013	.0076254	.5321
%RSD	2.880843	4.872192	.1066368	.4884687	.5003823	3.374774	.2572190
#1	.0042514	.0012196	47.47381	.1971530	.1004044	.2296489	207.3518
#2	.0040894	.0012758	47.38984	.1952418	.1005292	.2171836	206.2939
#3	.0043276	.0013441	47.48074	.1963283	.0996053	.2310256	206.9222
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.075802	38.45283	.1670508	-.016679	1.617926	.4818488	.3547355
Stddev	.003706	.09468	.0008745	.000611	.186331	.0105253	.0008457
%RSD	.0909246	.2462155	.5235156	3.661380	11.51666	2.184350	.2384005
#1	4.071663	38.56102	.1662860	-.017366	1.594525	.4890045	.3548354
#2	4.078812	38.41232	.1668620	-.016475	1.444400	.4867785	.3555268
#3	4.076931	38.38515	.1680043	-.016197	1.814852	.4697634	.3538443
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.10999	5.647247	.2040840	-.000434	.8944232	1.665125	.0041383
Stddev	.05846	.019136	.0007132	.000870	.0068072	.004982	.0008391
%RSD	.3059298	.3388522	.3494747	200.3126	.7610726	.2991838	20.27722
#1	19.15029	5.665709	.2042116	-.001227	.8954492	1.662904	.0050032
#2	19.13675	5.627502	.2033155	.000496	.9006592	1.661640	.0040841
#3	19.04294	5.648529	.2047247	-.000571	.8871613	1.670831	.0033275

Sample Name: P4482-08DLX2 Acquired: 10/29/2024 22:34:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4D7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.866898	.0466527	.1927543
Stddev	.009171	.0004669	.0006152
%RSD	.3199031	1.000836	.3191835
#1	2.865016	.0470996	.1921812
#2	2.858813	.0466904	.1926774
#3	2.876864	.0461681	.1934044

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	906.6502	21937.66	2492.661	800.8985	1511.438
Stddev	2.5604	20.94	4.378	.4720	2.858
%RSD	.2823982	.0954619	.1756503	.0589328	.1891089
#1	903.8333	21922.57	2494.894	800.5845	1508.138
#2	908.8360	21961.57	2495.472	801.4412	1513.125
#3	907.2814	21928.83	2487.616	800.6696	1513.051

Sample Name: CCV026 Acquired: 10/29/2024 22:39:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV026 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.992487	4.829102	24.44294	4.681527	4.762013	416.8641	10.15417
Stddev	.023941	.025959	.08470	.024827	.026222	.4731	.01727
%RSD	.4795501	.5375469	.3465334	.5303101	.5506450	.1134806	.1700651
#1	4.965211	4.801926	24.34721	4.686725	4.739691	416.6275	10.16524
#2	5.010023	4.831736	24.47346	4.654512	4.755458	417.4088	10.16300
#3	5.002228	4.853643	24.50816	4.703342	4.790891	416.5560	10.13427
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5052685	2.467808	408.6685	15.54570	2.490734	15.08256	413.1392
Stddev	.0020565	.011456	.4192	.02507	.008999	.03757	.8146
%RSD	.4070027	.4642008	.1025856	.1612653	.3612812	.2491062	.1971657
#1	.5053252	2.456049	408.2163	15.51821	2.481791	15.07697	412.6083
#2	.5072960	2.468439	409.0443	15.55158	2.490623	15.12261	414.0771
#3	.5031842	2.478934	408.7448	15.56731	2.499787	15.04809	412.7324
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.81977	404.9241	2.481483	1.263494	415.2238	2.489520	14.13527
Stddev	.04214	1.2287	.015273	.001494	.6847	.018584	.08121
%RSD	.2843607	.3034389	.6154820	.1182281	.1648924	.7464724	.5745353
#1	14.86843	403.8914	2.465760	1.264297	415.1297	2.508368	14.13254
#2	14.79564	406.2830	2.482426	1.264415	414.5910	2.488978	14.21781
#3	14.79523	404.5978	2.496262	1.261771	415.9506	2.471213	14.05545
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	156.1007	5.058521	5.294357	4.722888	5.028858	5.041455	4.949322
Stddev	.1656	.014879	.006604	.020546	.031769	.022986	.015897
%RSD	.1060816	.2941343	.1247437	.4350198	.6317377	.4559403	.3211998
#1	156.2643	5.056397	5.293241	4.711925	4.992252	5.040503	4.931073
#2	155.9332	5.044818	5.301448	4.710148	5.049222	5.064902	4.956728
#3	156.1046	5.074348	5.288382	4.746589	5.045101	5.018959	4.960165

Sample Name: CCV026 Acquired: 10/29/2024 22:39:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV026 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.001353	5.111707	5.065713
Stddev	.010750	.008031	.003603
%RSD	.2149419	.1571196	.0711158
#1	4.989354	5.113780	5.066611
#2	5.010105	5.118500	5.068781
#3	5.004602	5.102843	5.061746

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	673.0365	18370.09	2153.749	557.5991	1230.312
Stddev	1.4783	39.02	5.186	2.1043	3.905
%RSD	.2196518	.2124135	.2407697	.3773900	.3173872
#1	674.2575	18351.33	2148.919	556.7682	1234.738
#2	673.4591	18414.95	2153.099	556.0371	1228.844
#3	671.3929	18343.99	2159.229	559.9920	1227.354

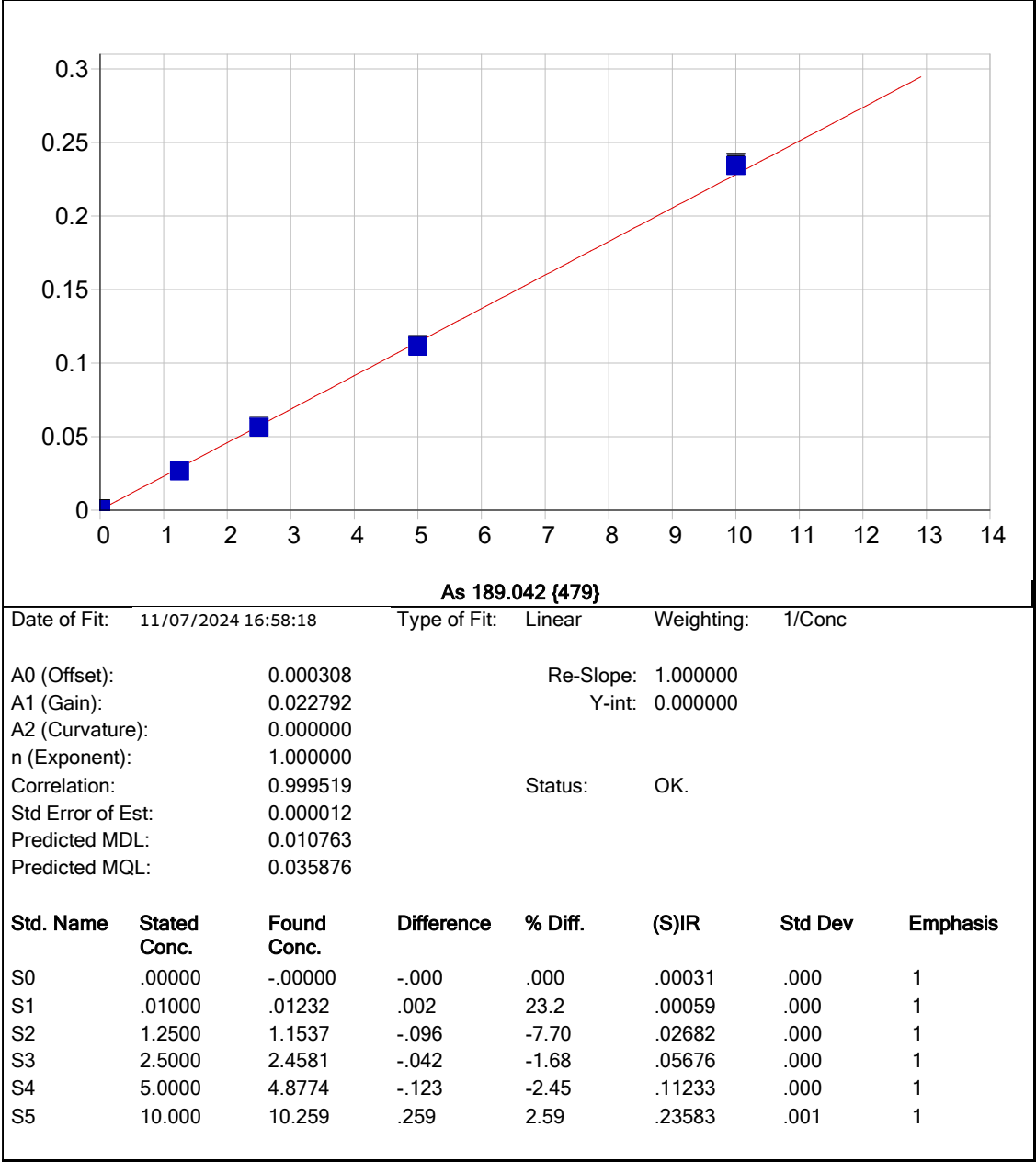
Sample Name: CCB026 Acquired: 10/29/2024 22:43:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB026 Custom ID2: Custom ID3:
Comment:

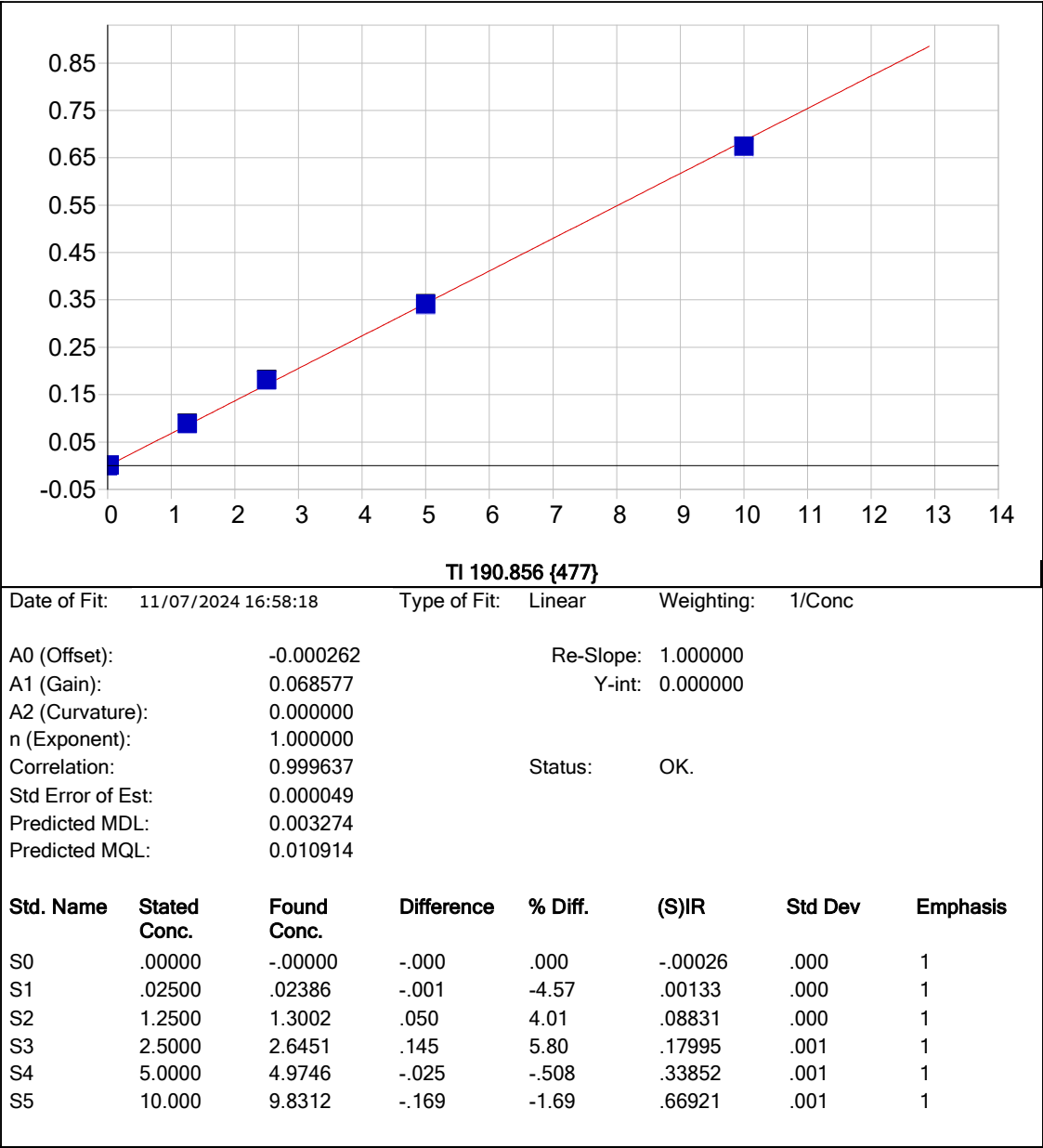
Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029290	.0032363	.0057743	-.003800	-.001512	.0102338	.0008349
Stddev	.0053584	.0004066	.0028829	.003434	.003208	.0210048	.0013697
%RSD	182.9452	12.56524	49.92558	90.35798	212.1959	205.2489	164.0575
#1	.0005270	.0027889	.0038232	-.000737	.001157	.0033680	-.000737
#2	.0090682	.0033364	.0044141	-.007512	-.005071	.0338123	.001469
#3	-.000808	.0035834	.0090856	-.003152	-.000621	-.006479	.001772
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000908	.0003096	.0152842	.0011644	-.000011	-.001936	.0204542
Stddev	.0000517	.0000971	.0128454	.0005083	.000251	.003368	.0316157
%RSD	56.91898	31.35386	84.04359	43.65499	2386.794	173.9697	154.5681
#1	.0000423	.0004216	.0143520	.0010820	.000267	.000858	.0389565
#2	.0000849	.0002509	.0029303	.0007023	-.000221	-.000990	-.016051
#3	.0001452	.0002563	.0285703	.0017089	-.000078	-.005676	.038457
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012918	.0127809	.0004140	.0012536	-.082102	.0057229	.0007364
Stddev	.0015690	.0600670	.0002440	.0025468	.133539	.0046423	.0002966
%RSD	121.4580	469.9755	58.92924	203.1631	162.6497	81.11857	40.27033
#1	.0026168	-.036526	.0001768	-.001654	-.043694	.0016289	.0010294
#2	.0016993	-.004811	.0006643	.003090	-.230636	.0107666	.0007435
#3	-.000441	.079680	.0004010	.002324	.028024	.0047732	.0004364
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0172585	.0012892	.0018179	-.000078	.0098977	.0013832	-.000655
Stddev	.0698146	.0017425	.0005968	.000361	.0036073	.0008629	.002309
%RSD	404.5230	135.1527	32.83059	461.7027	36.44561	62.37978	352.5168
#1	.0953211	.0026368	.0011330	.000022	.0065007	.0003929	-.002554
#2	-.039201	.0019094	.0022267	-.000478	.0095086	.0019732	.001915
#3	-.004344	-.000678	.0020938	.000222	.0136838	.0017836	-.001326

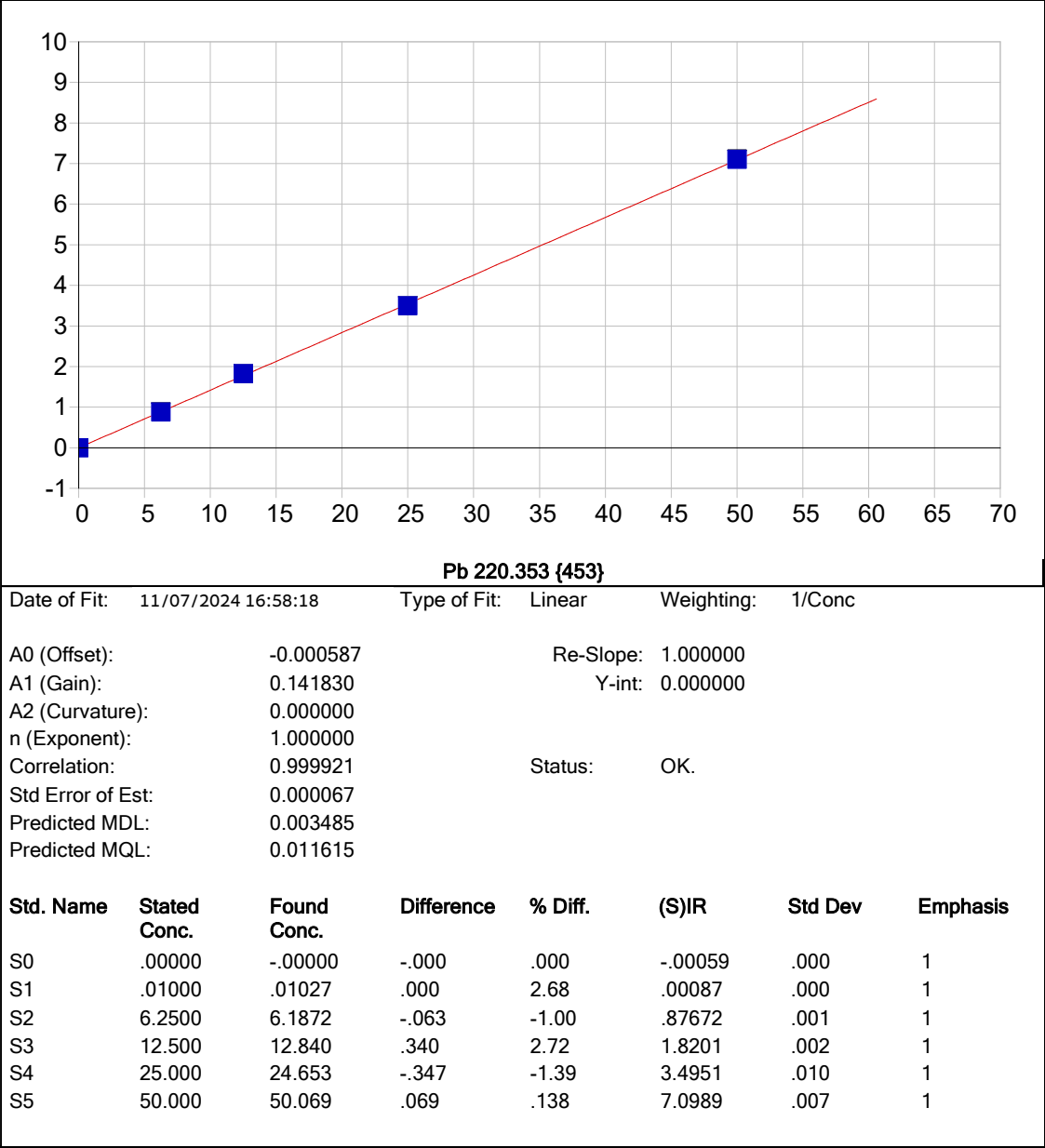
Sample Name: CCB026 Acquired: 10/29/2024 22:43:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB026 Custom ID2: Custom ID3:
Comment:

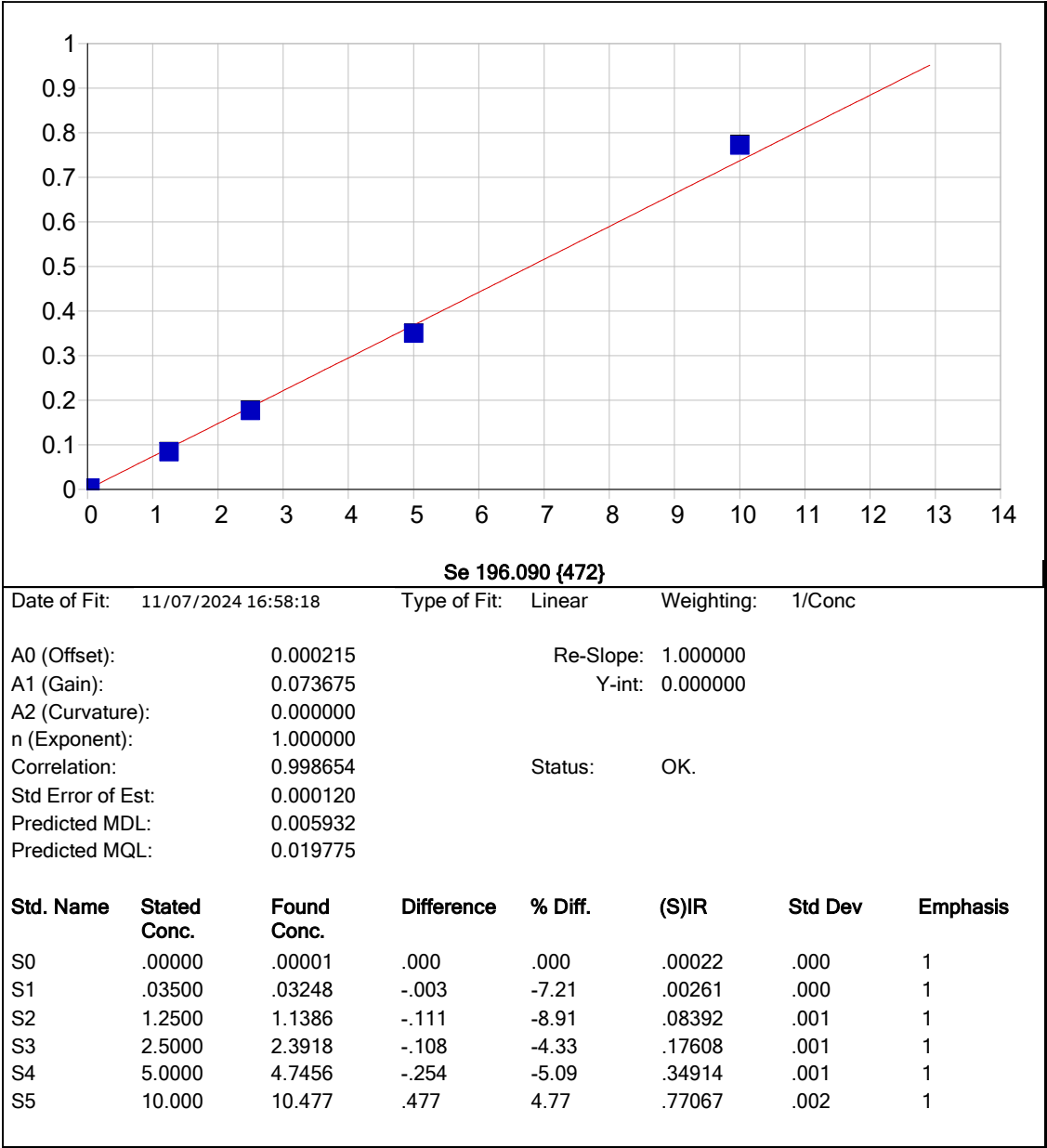
Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0019763	-.006777	.0002771
Stddev	.0005675	.001656	.0000758
%RSD	28.71426	24.43945	27.35627
#1	.0019861	-.008610	.0003076
#2	.0025387	-.006332	.0003329
#3	.0014039	-.005389	.0001908

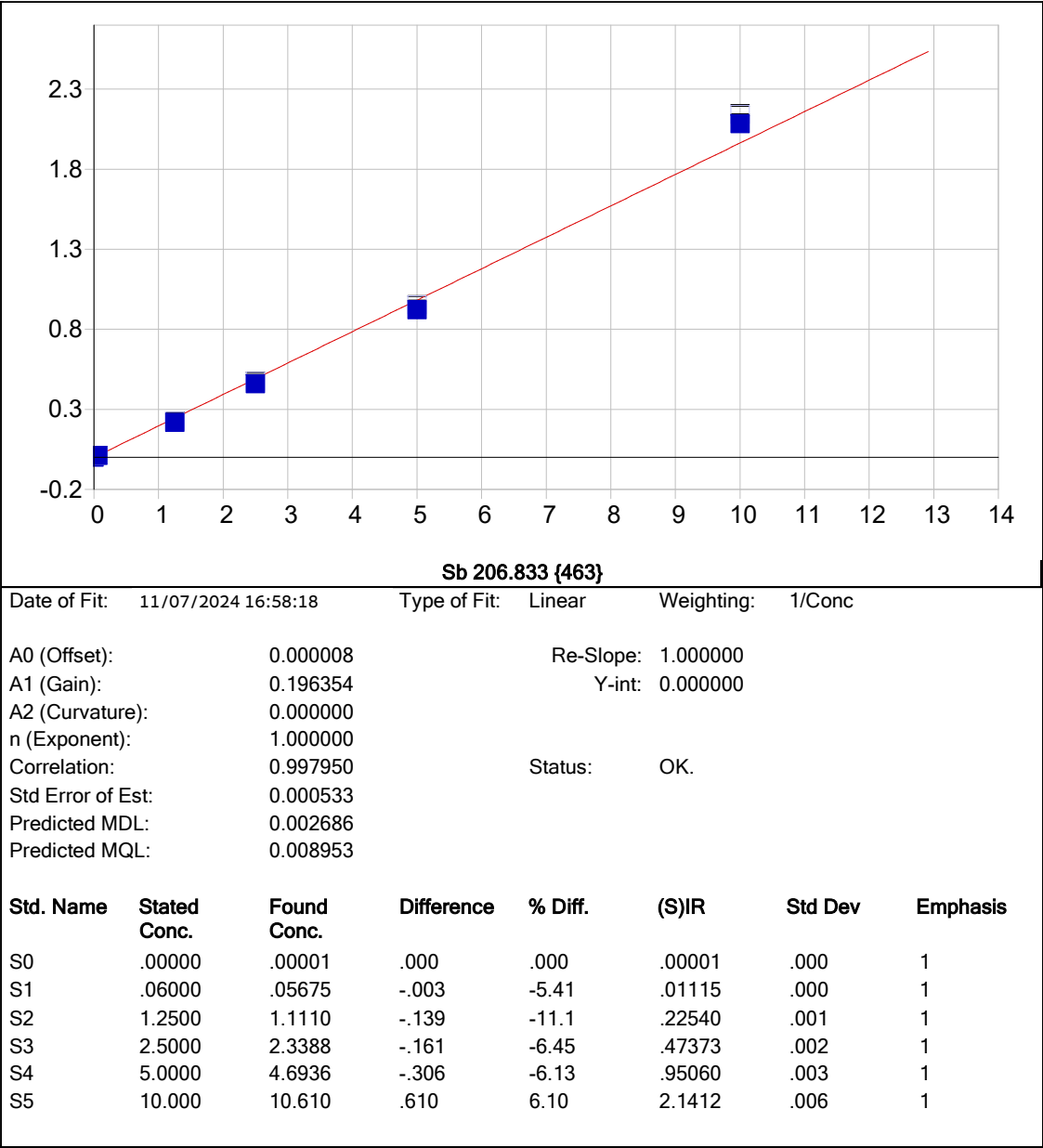
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	840.8179	20215.09	2228.768	751.9234	1598.931
Stddev	.9886	594.44	10.461	16.2463	.470
%RSD	.1175758	2.940596	.4693547	2.160633	.0294234
#1	839.9623	20896.69	2222.629	770.4296	1599.473
#2	841.9001	19804.10	2222.829	740.0090	1598.683
#3	840.5913	19944.47	2240.846	745.3315	1598.636

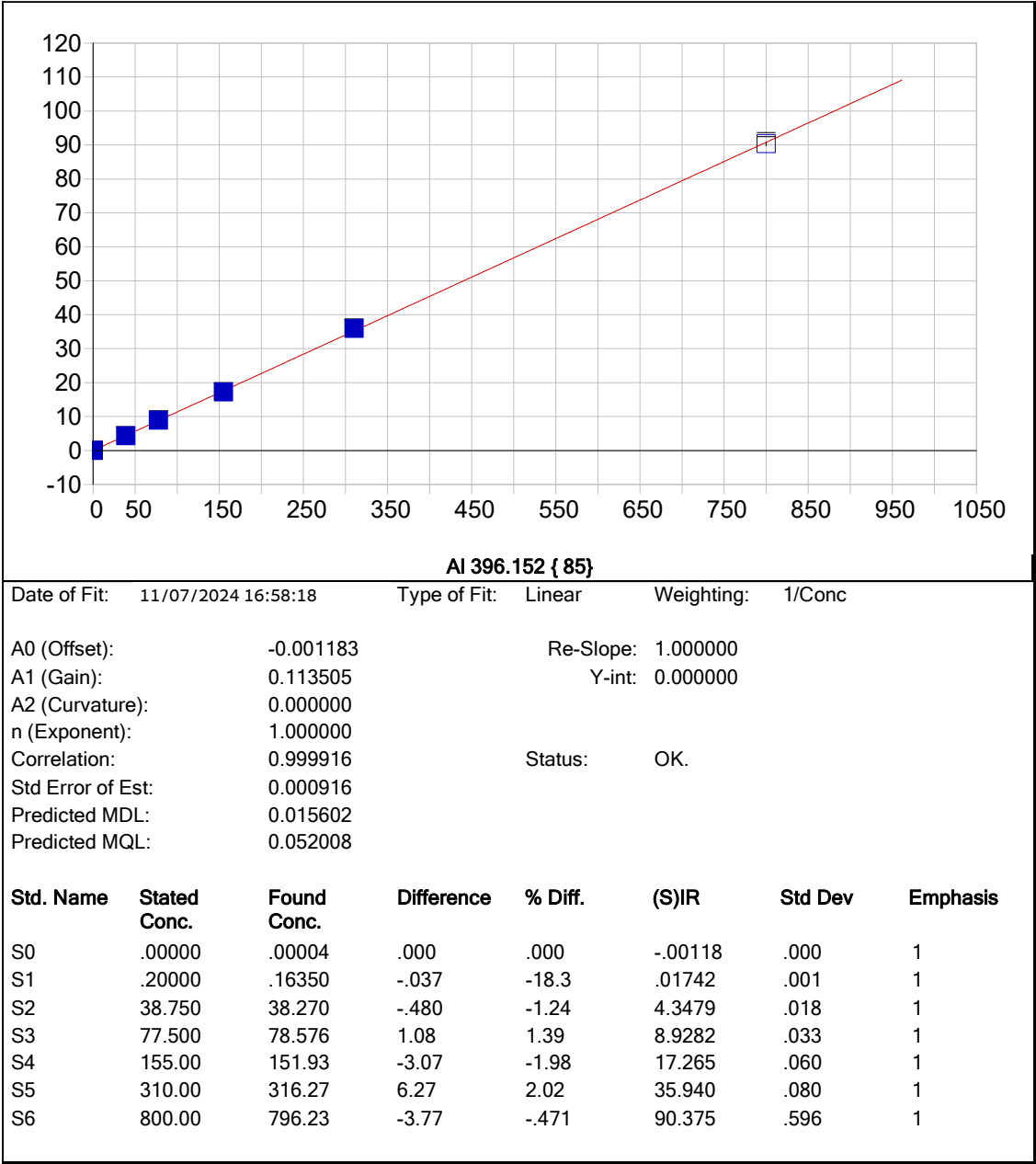


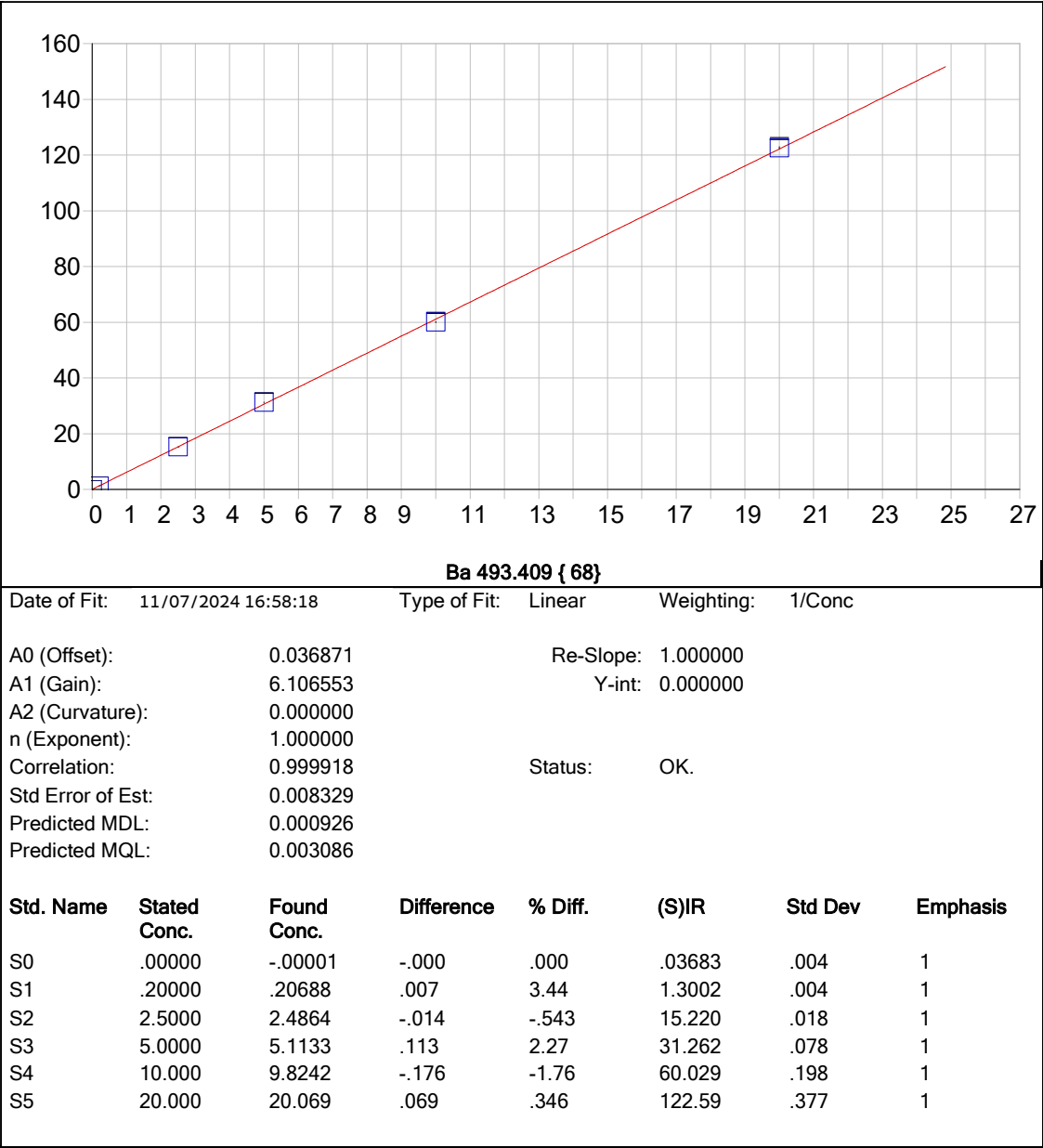


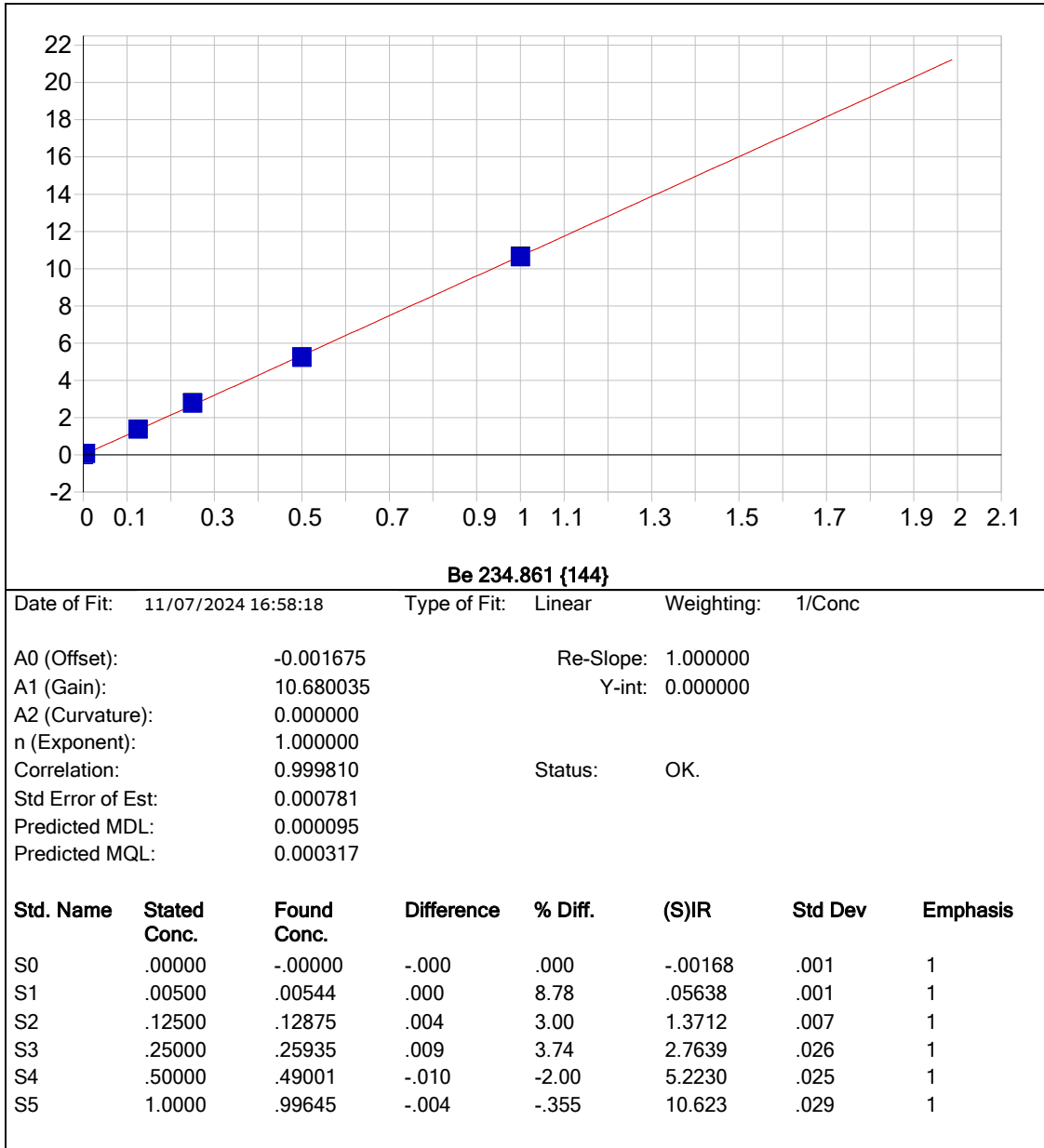


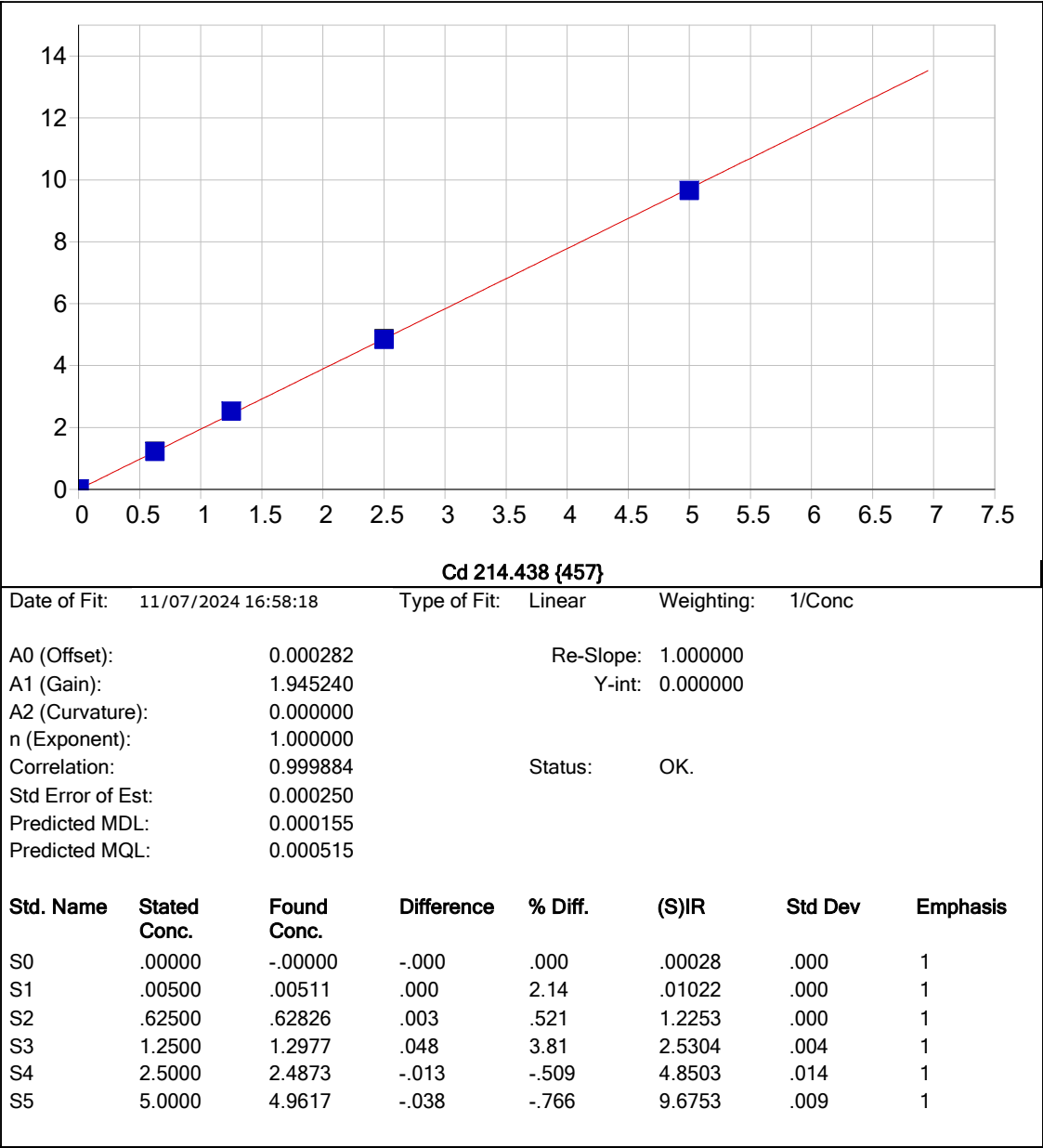


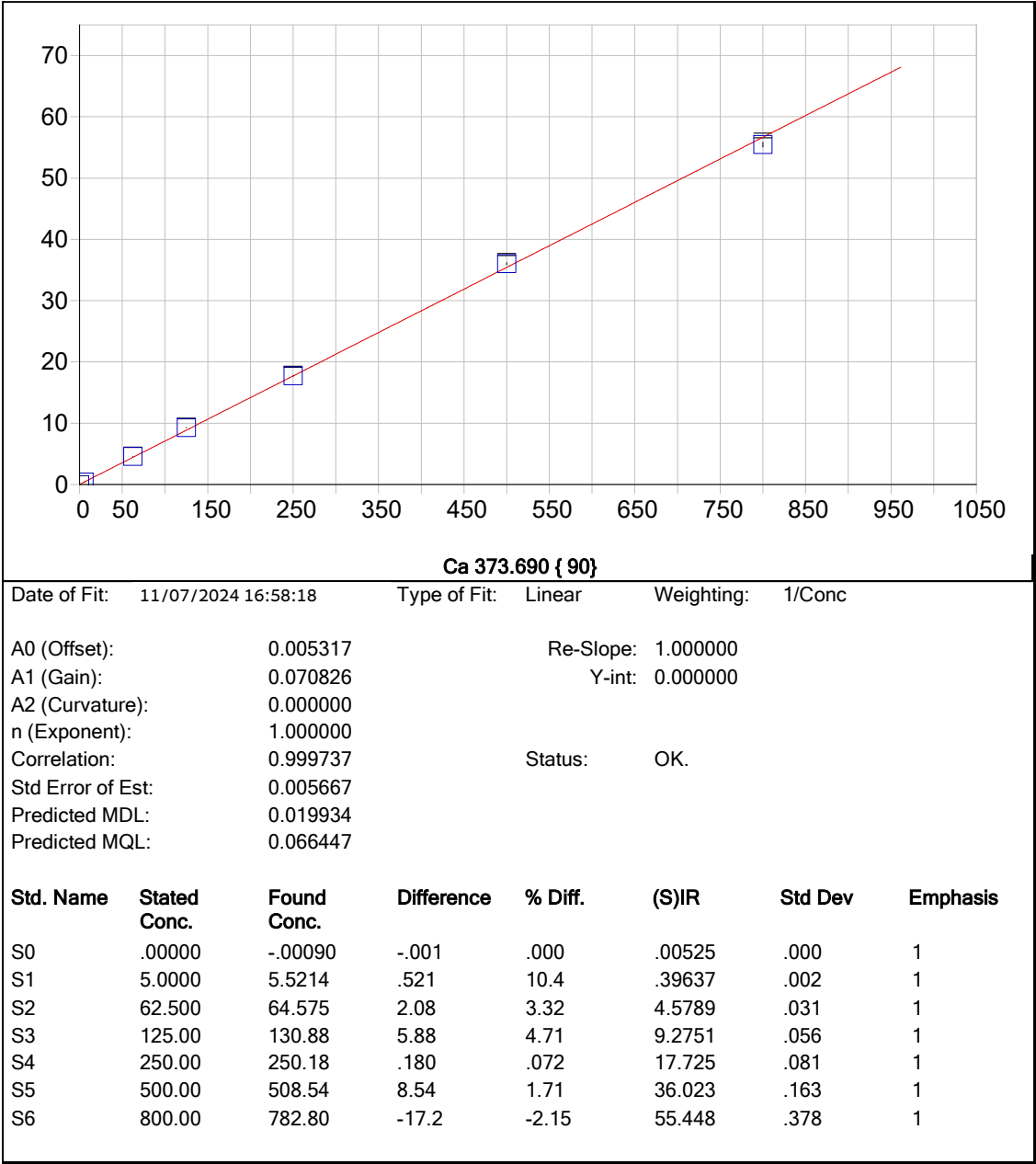


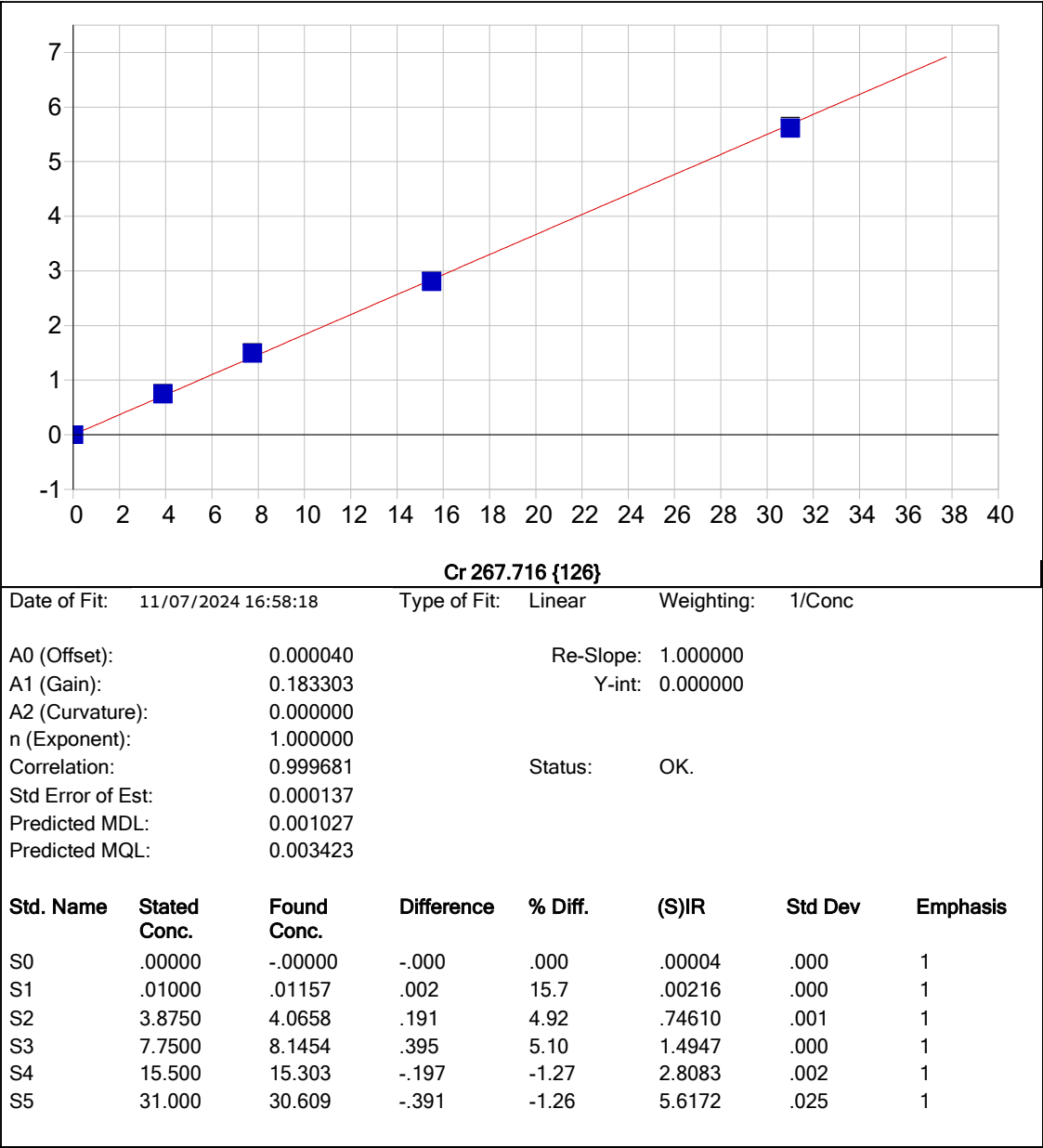


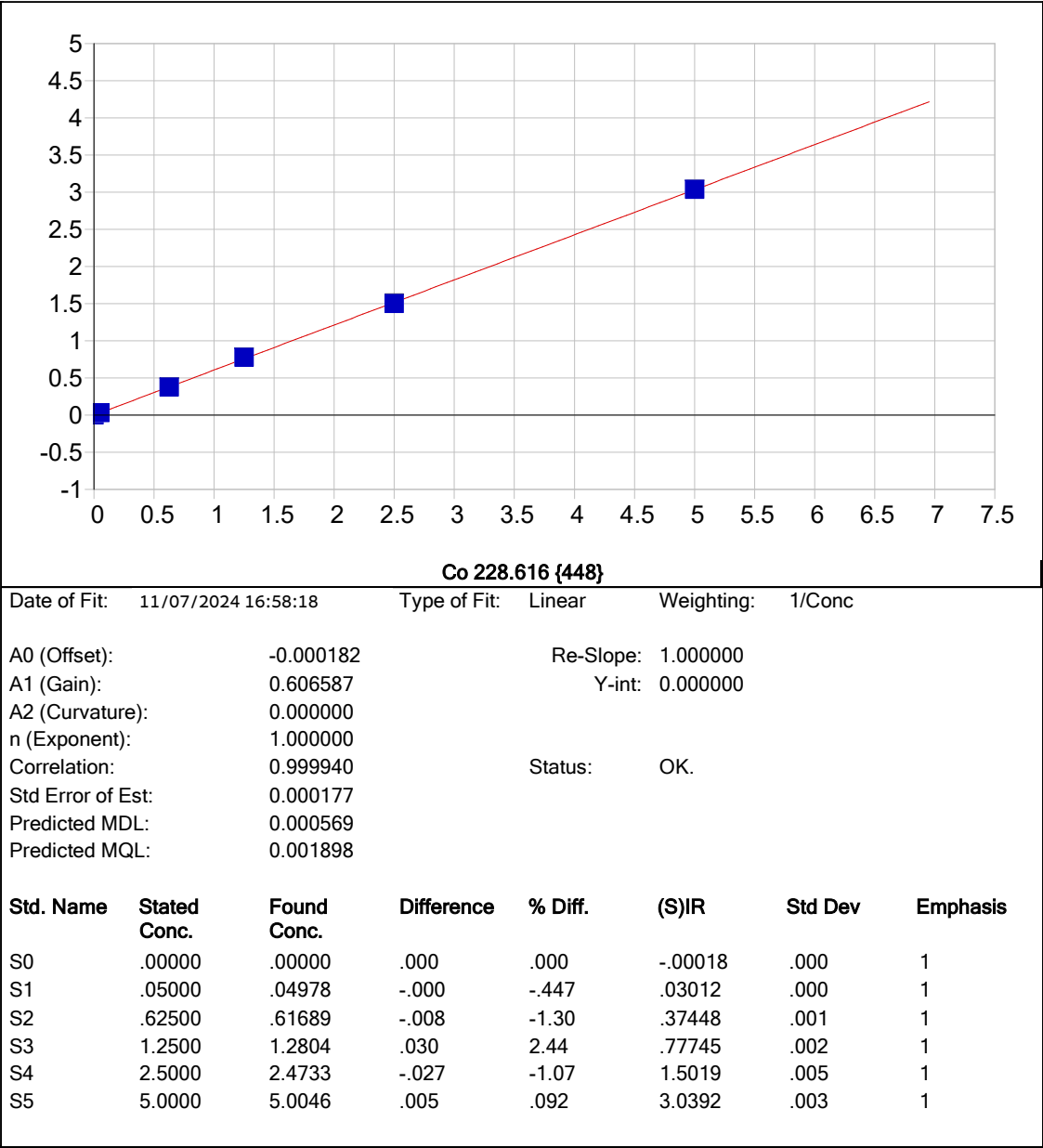


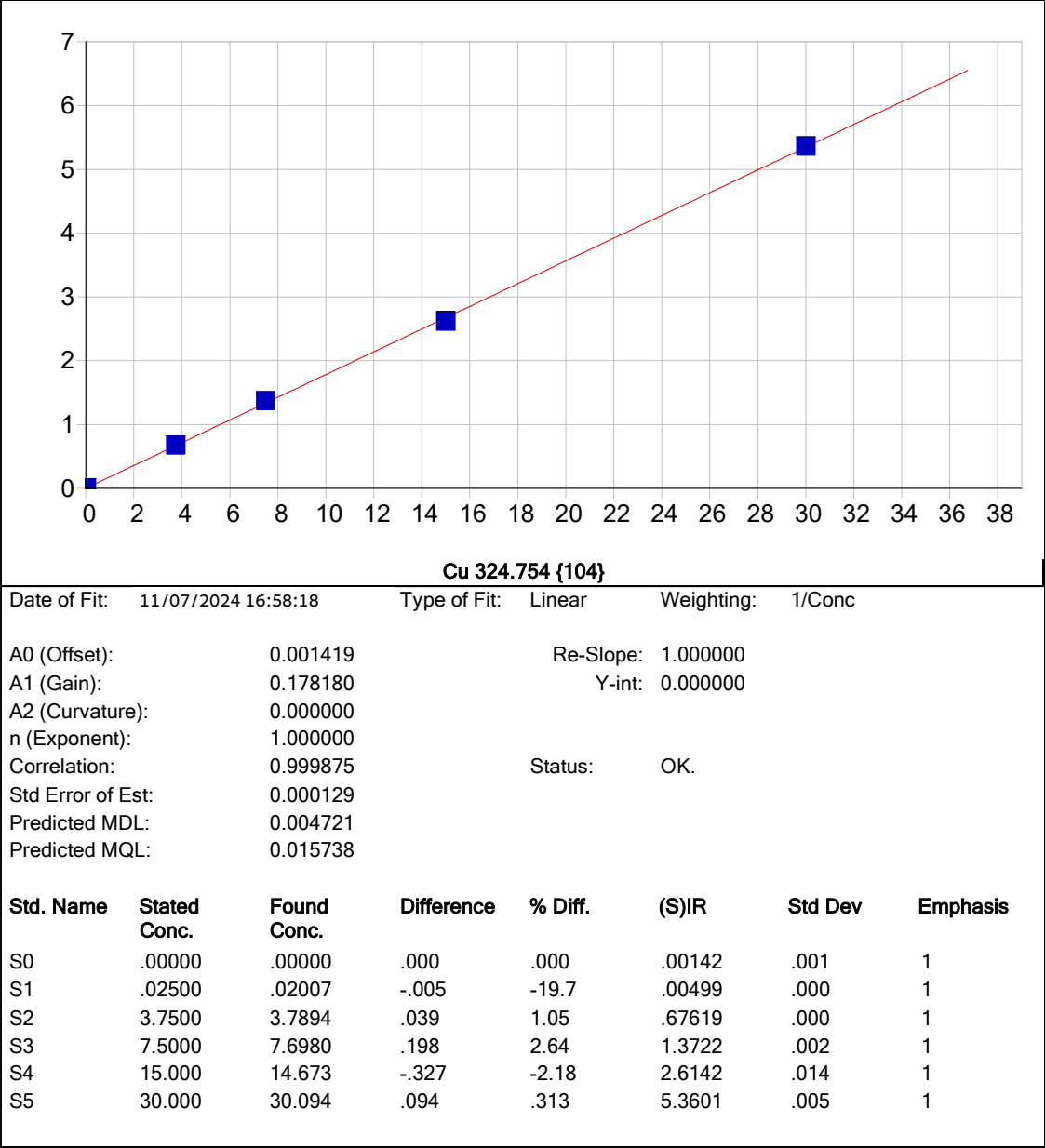


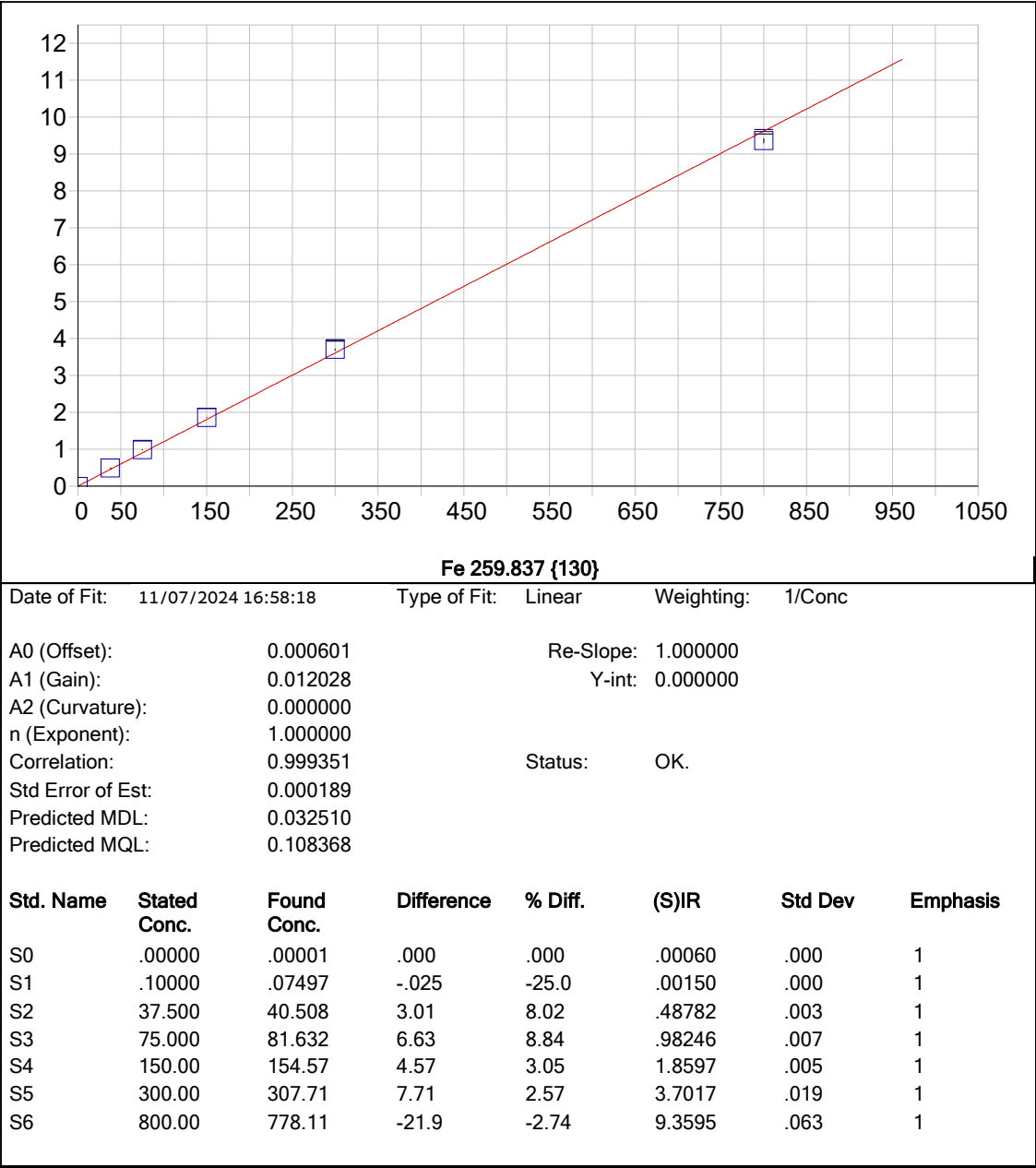


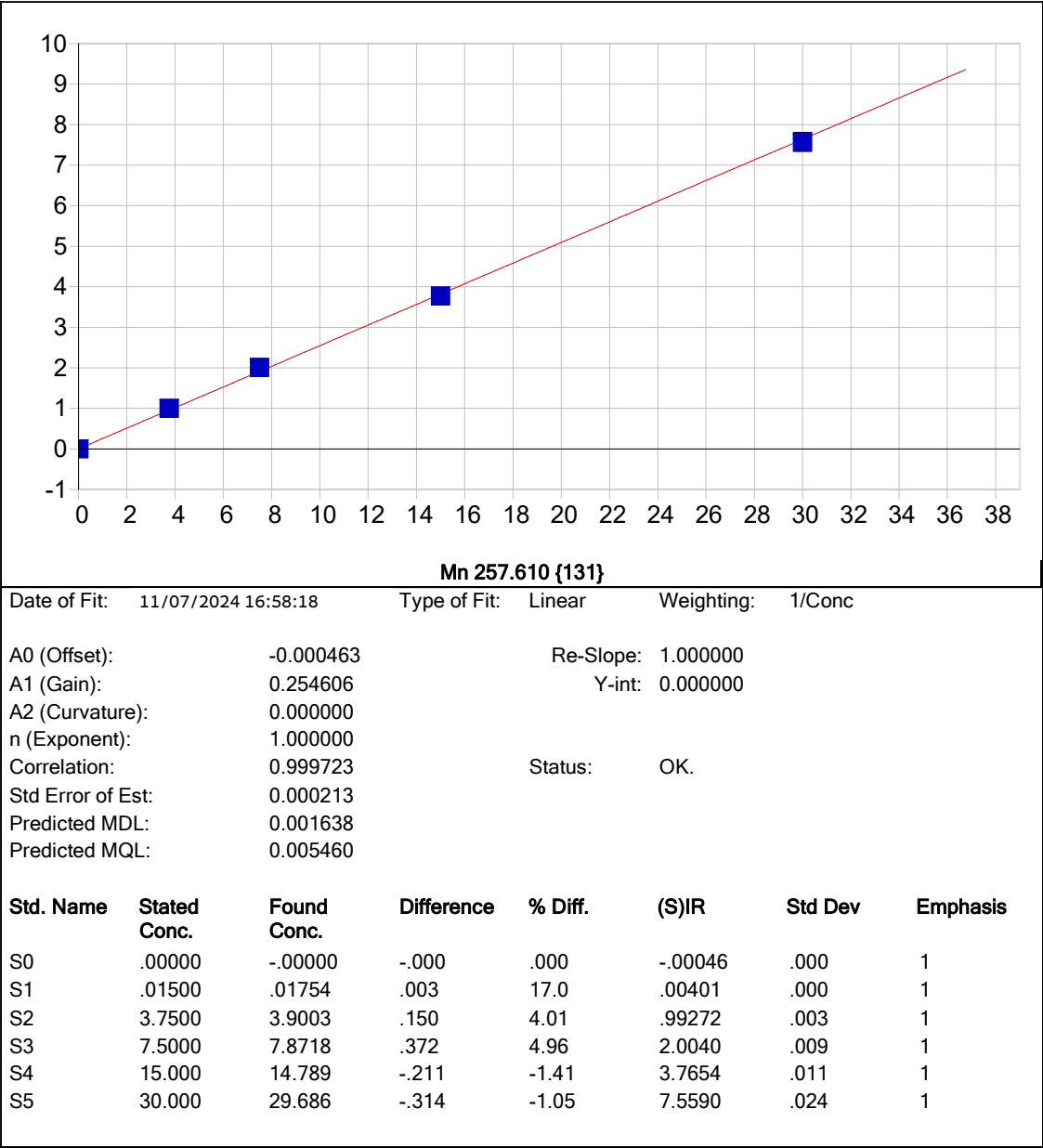


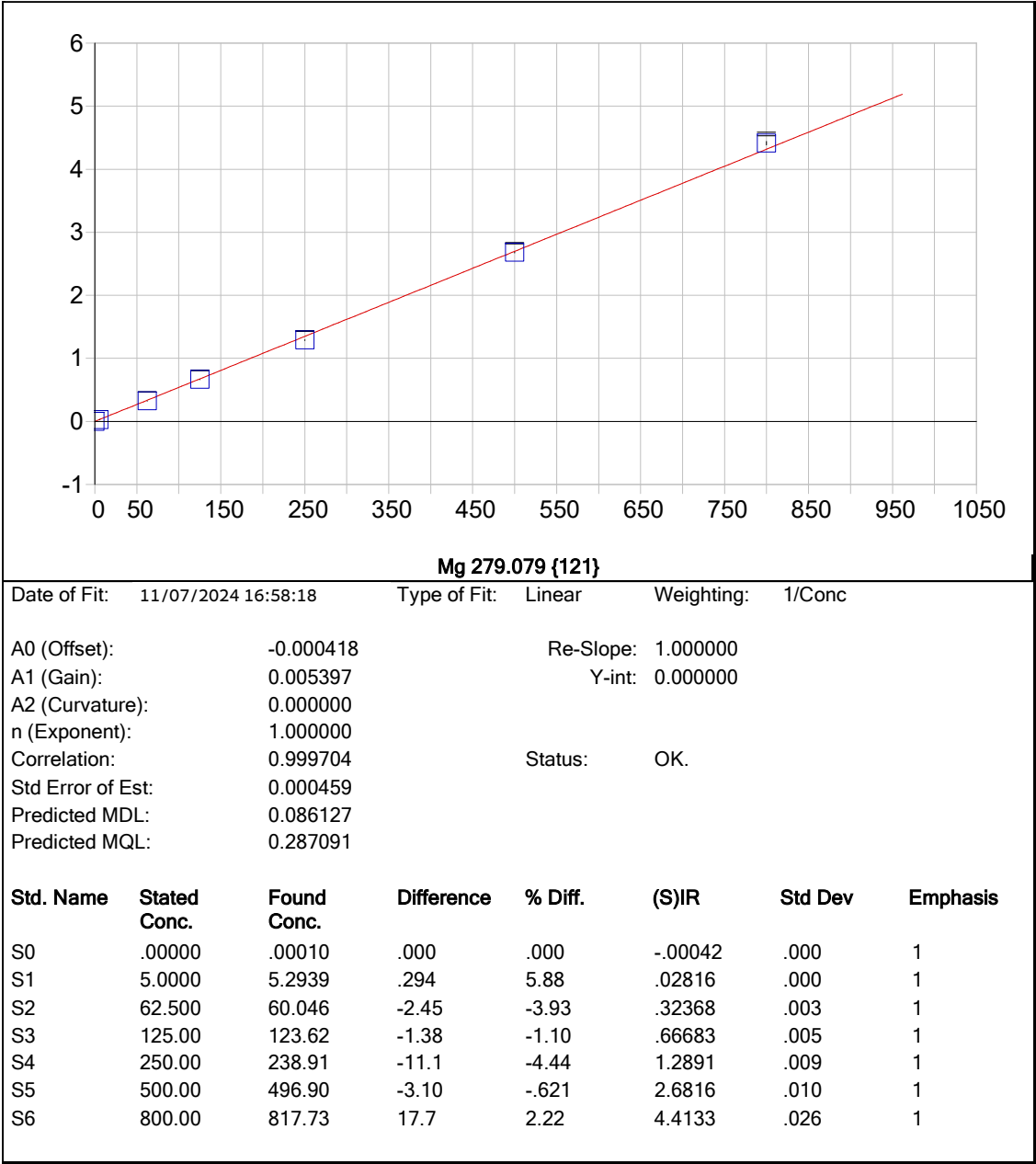


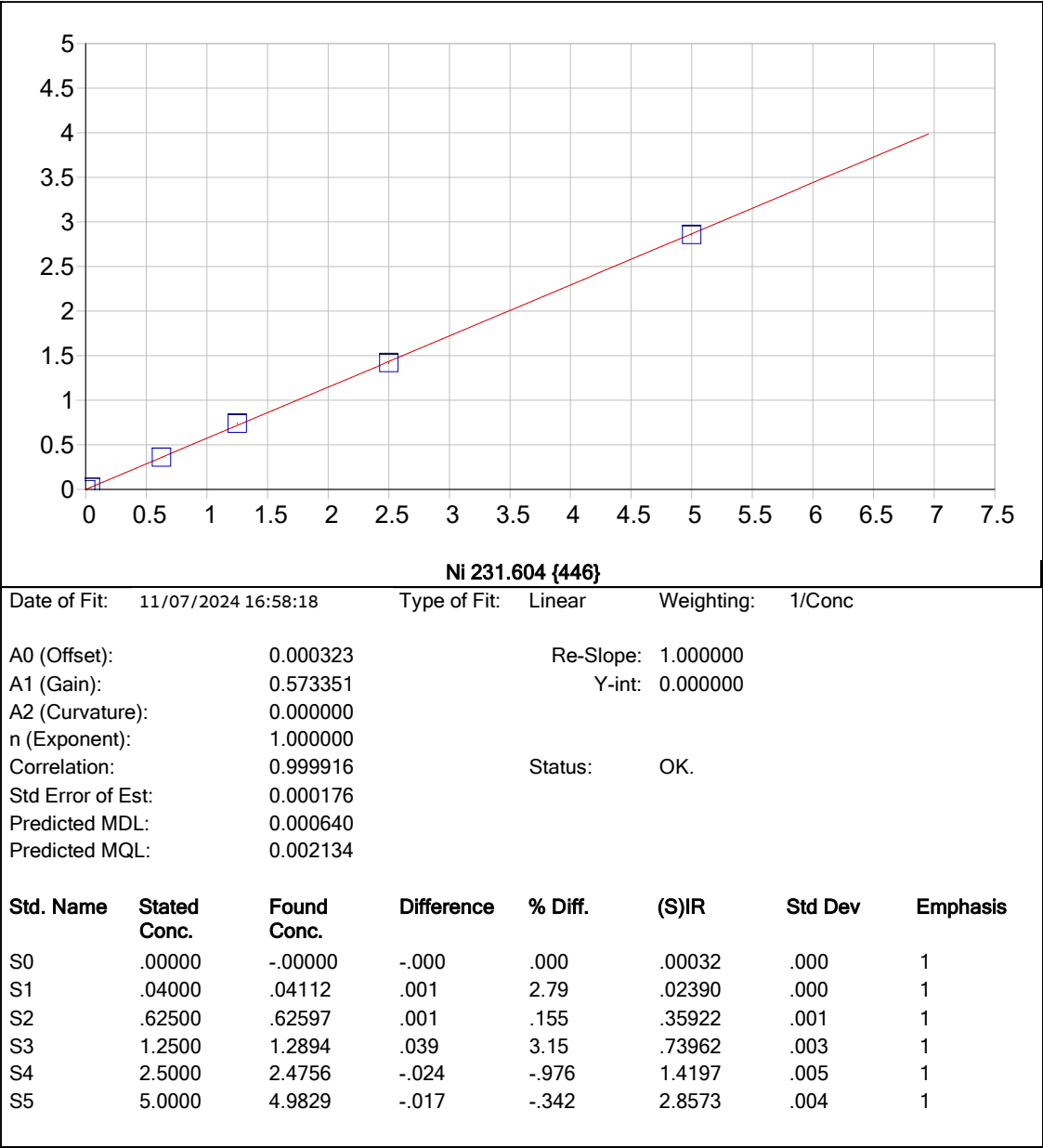


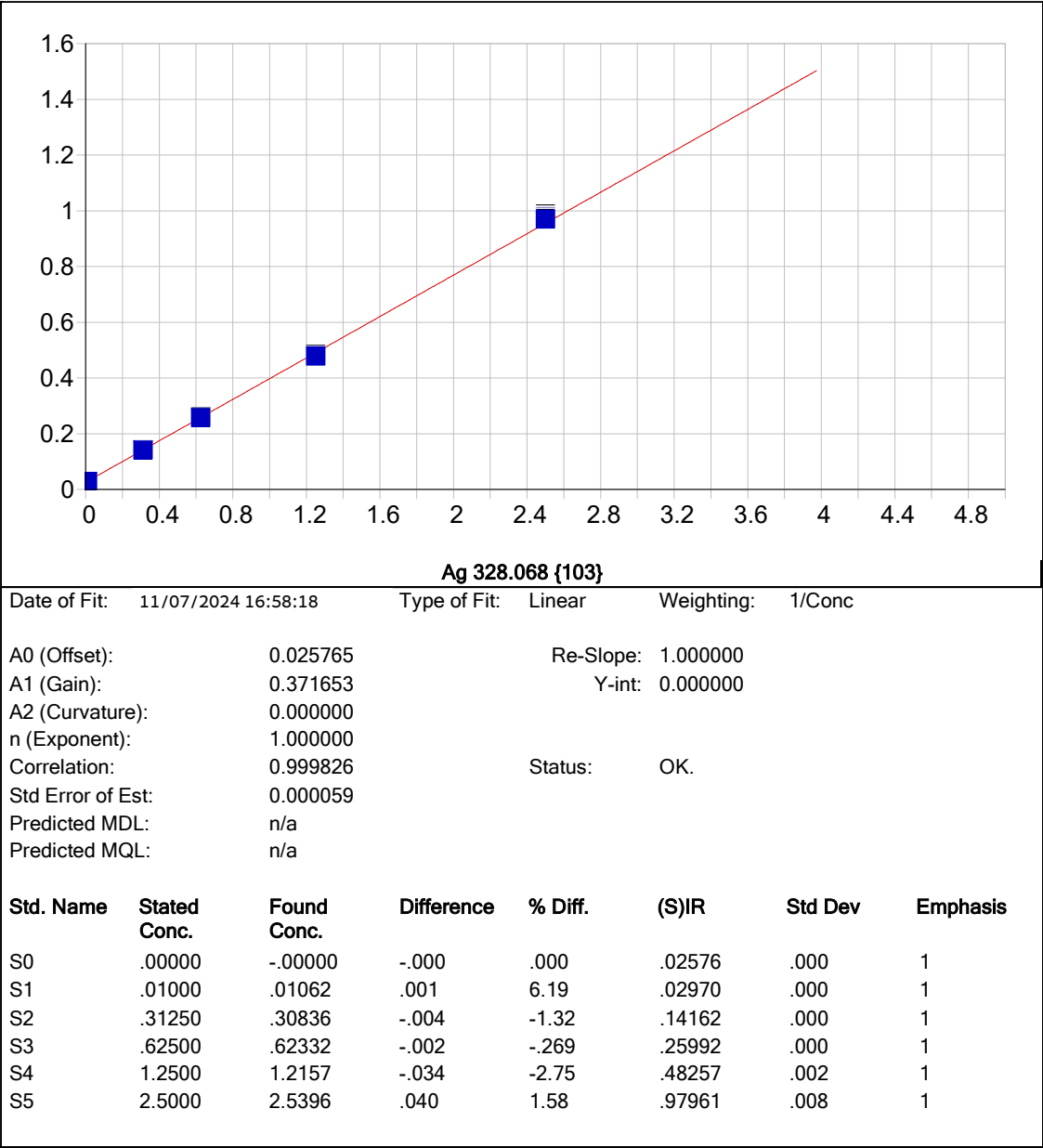


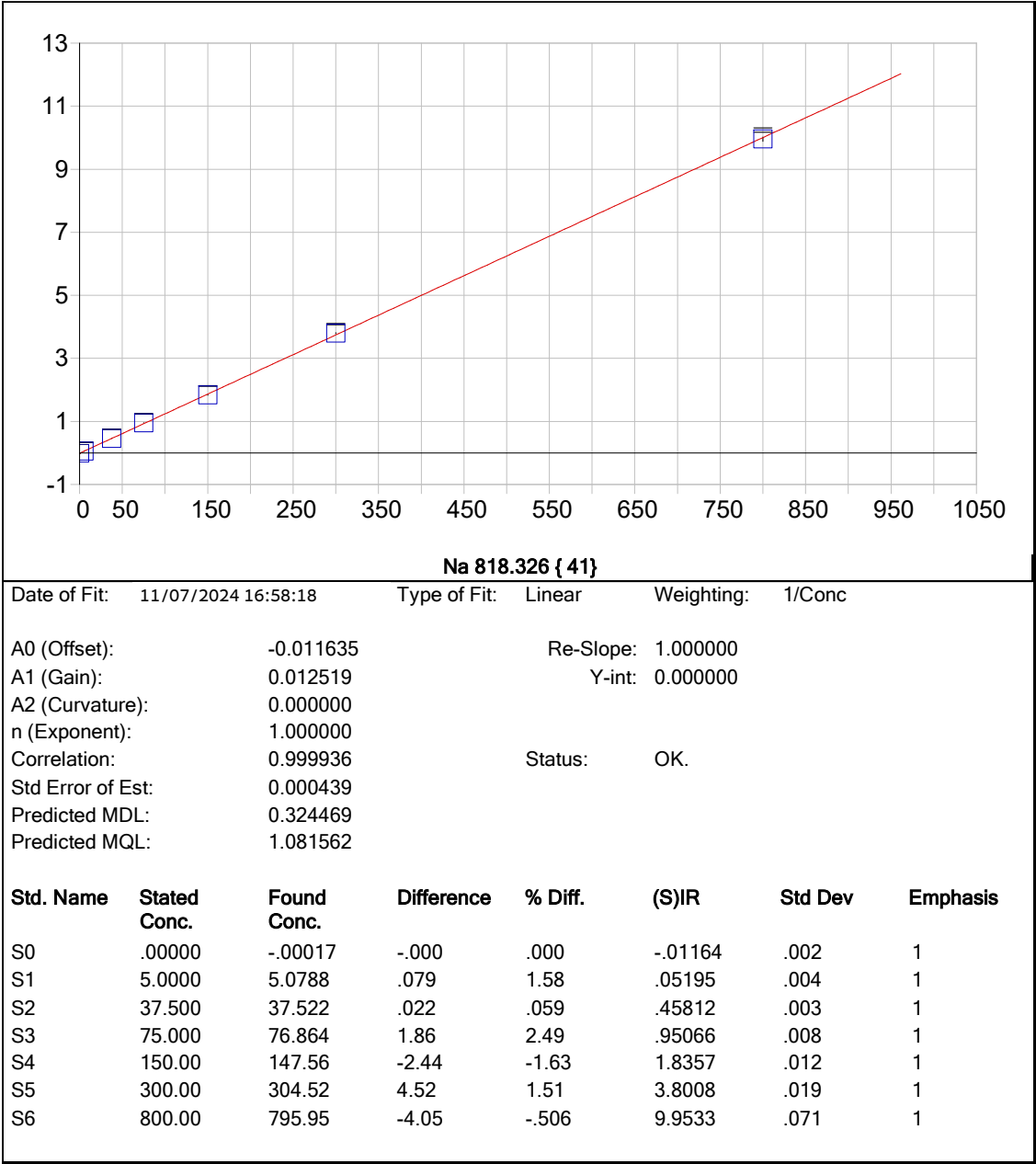


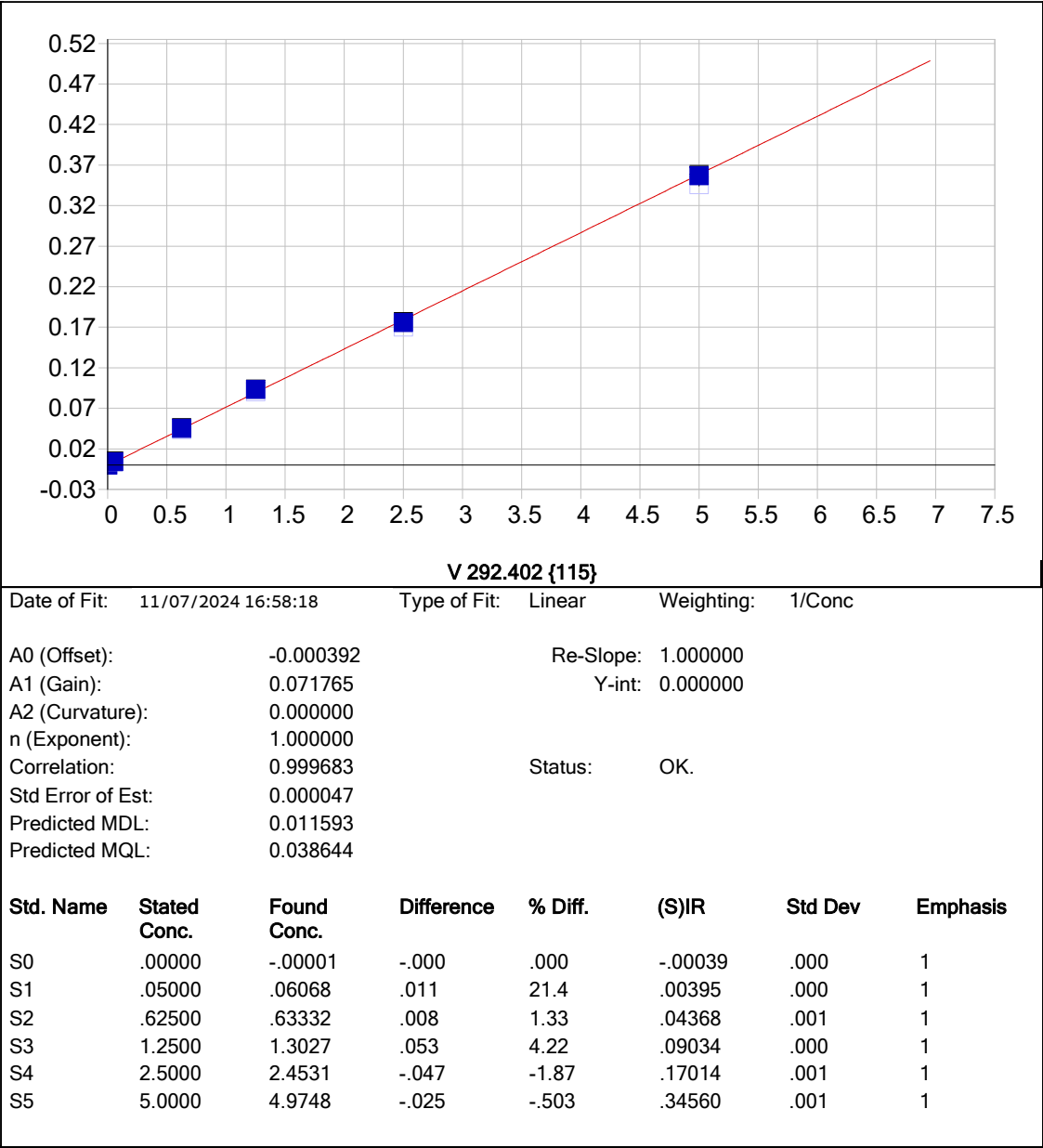


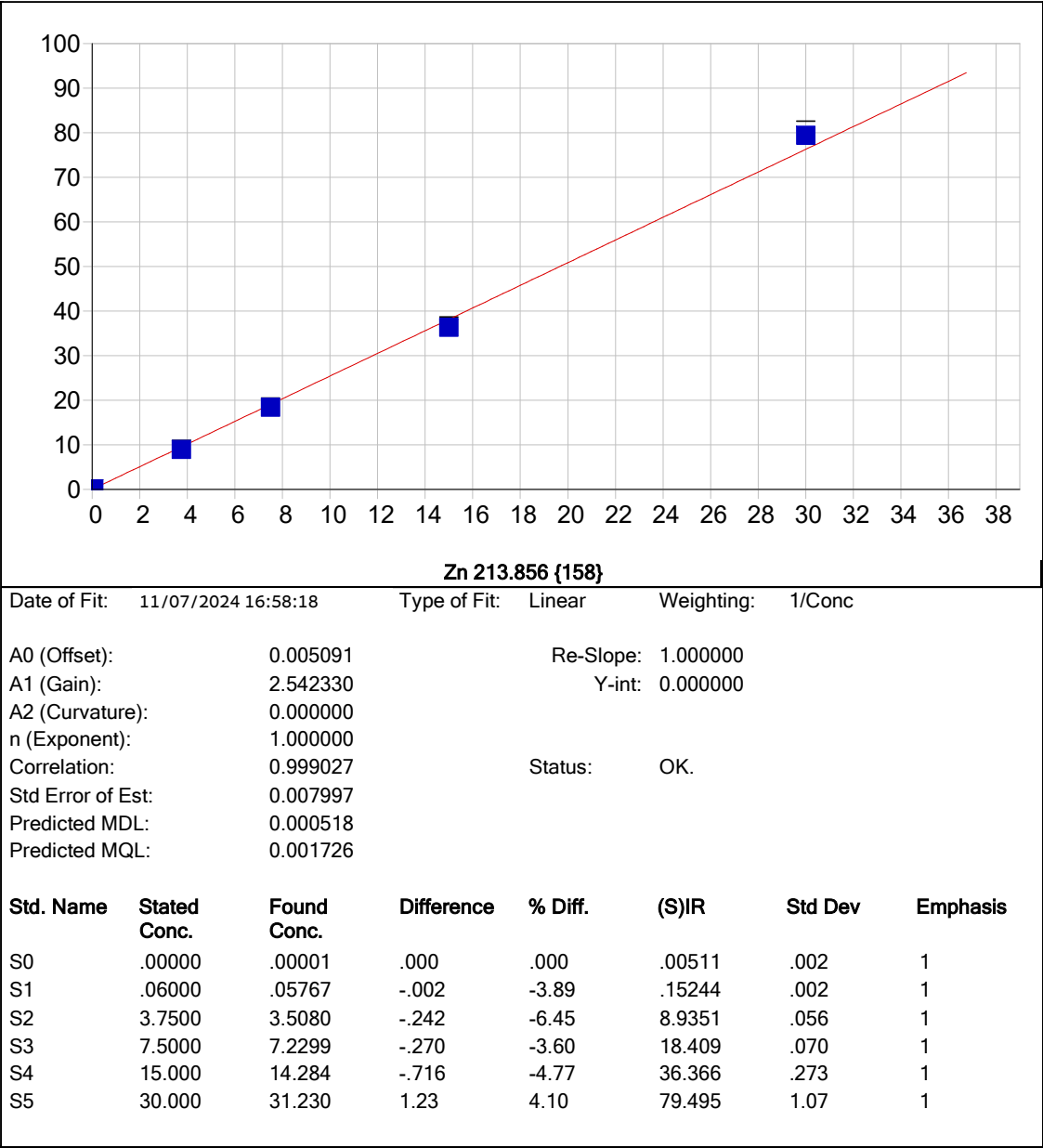


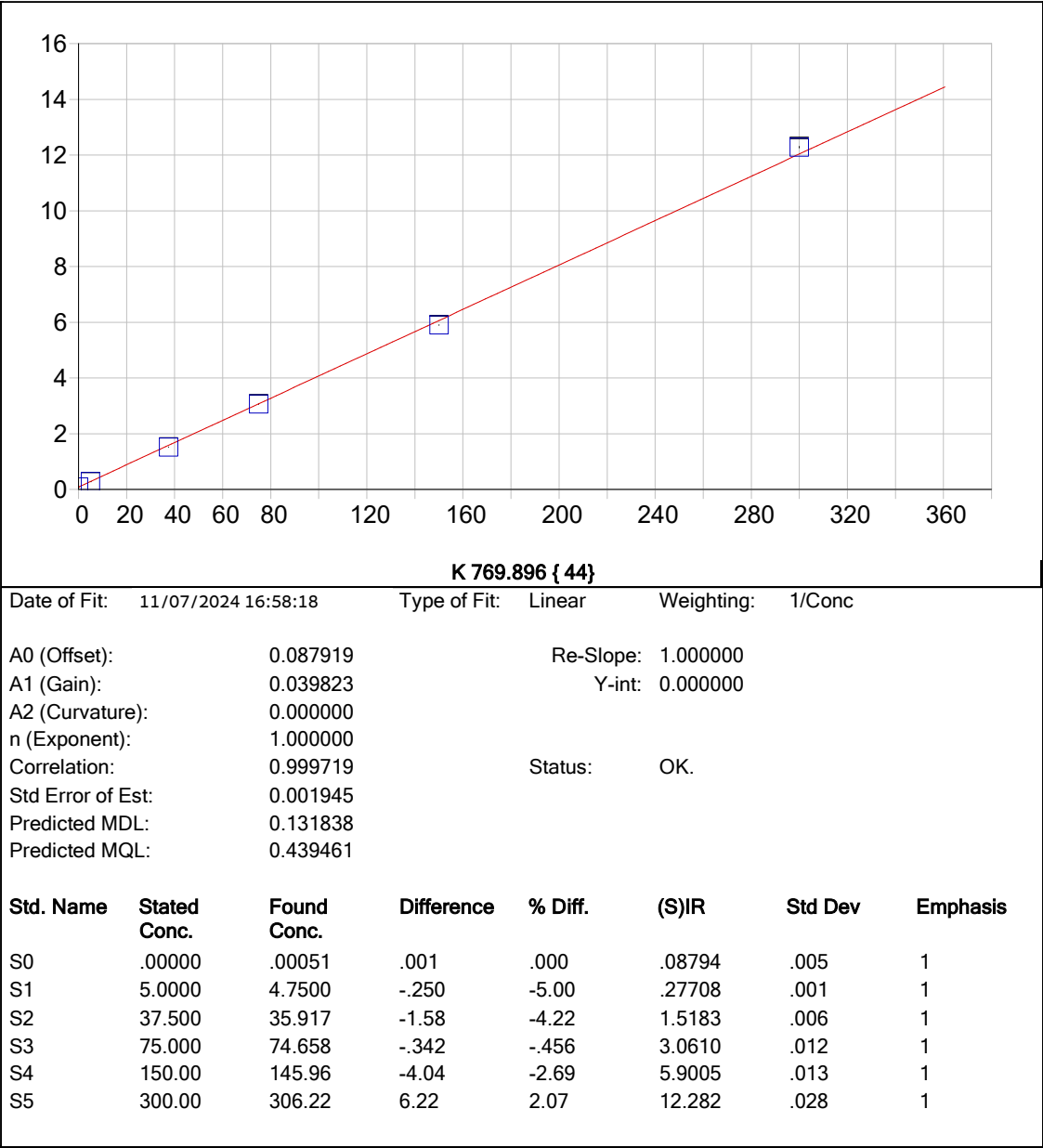


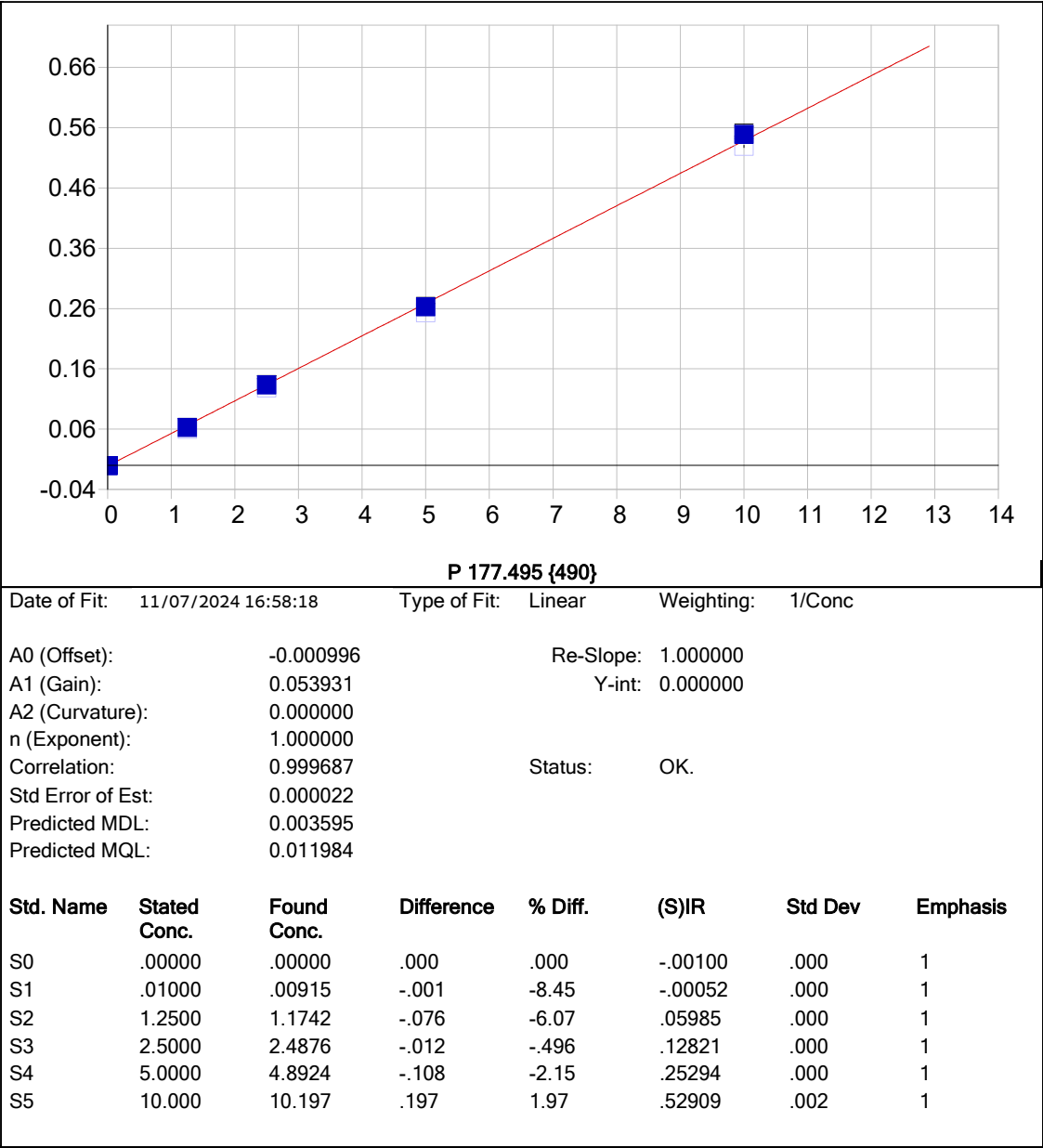


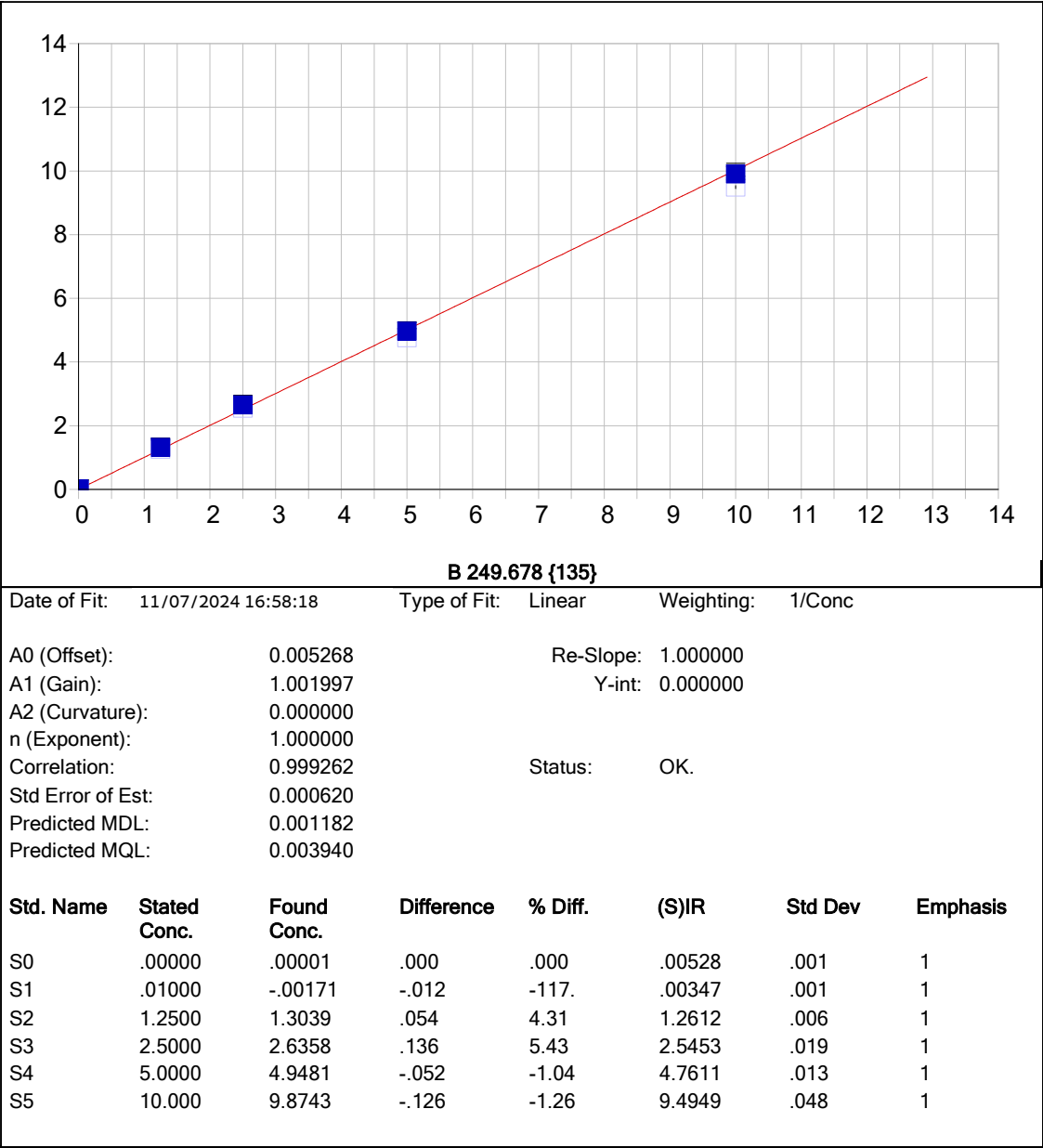


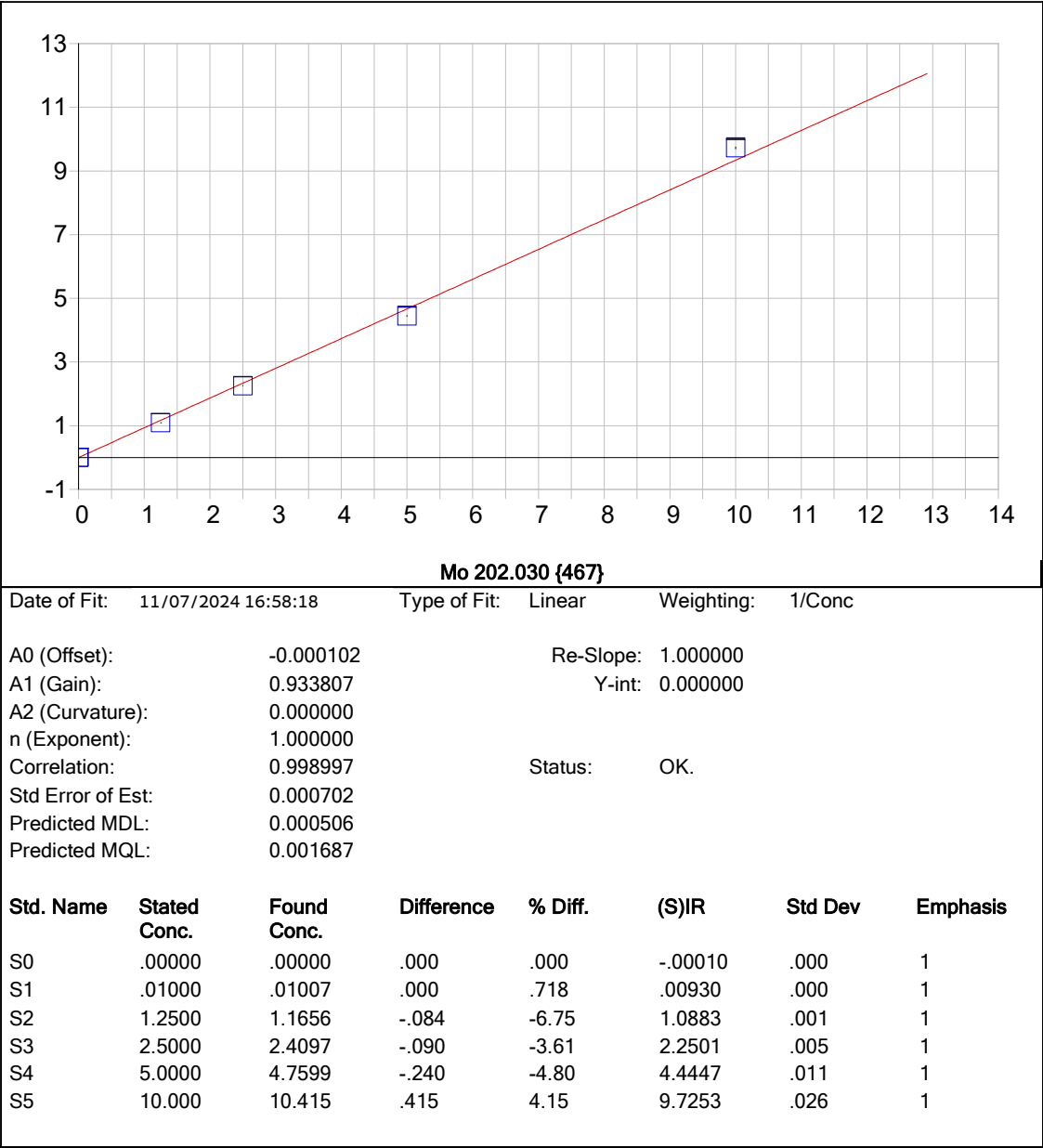


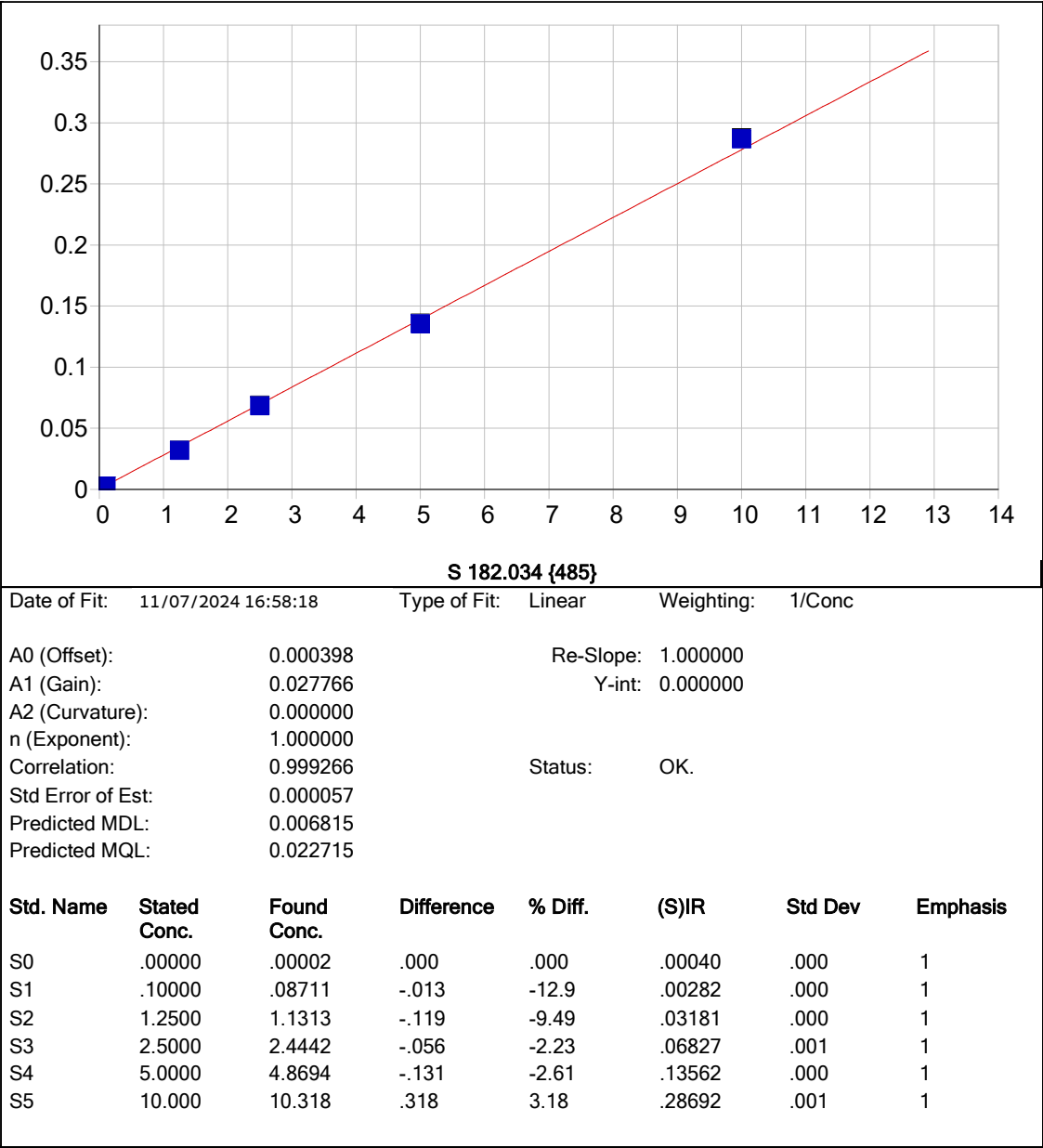


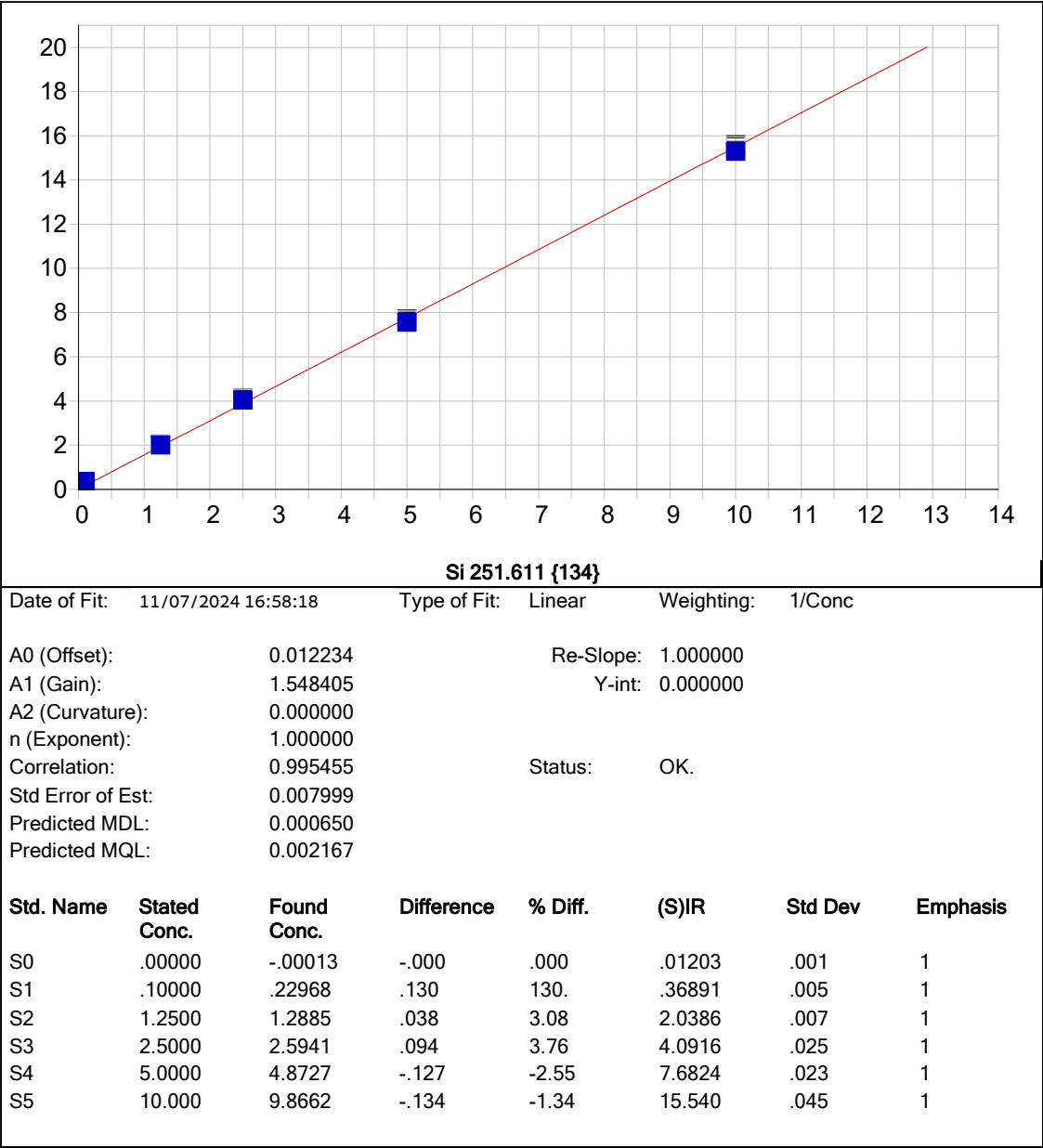


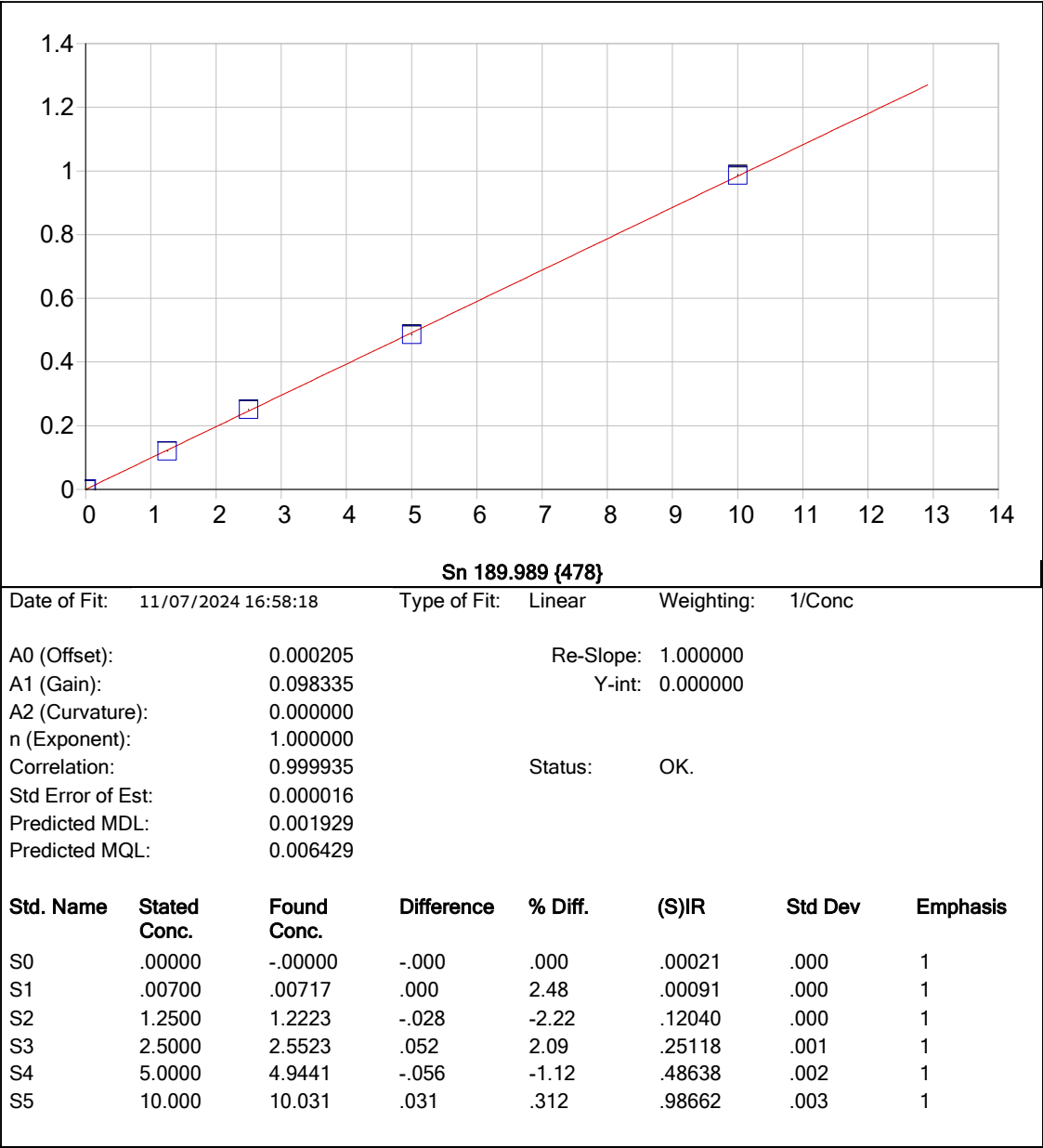


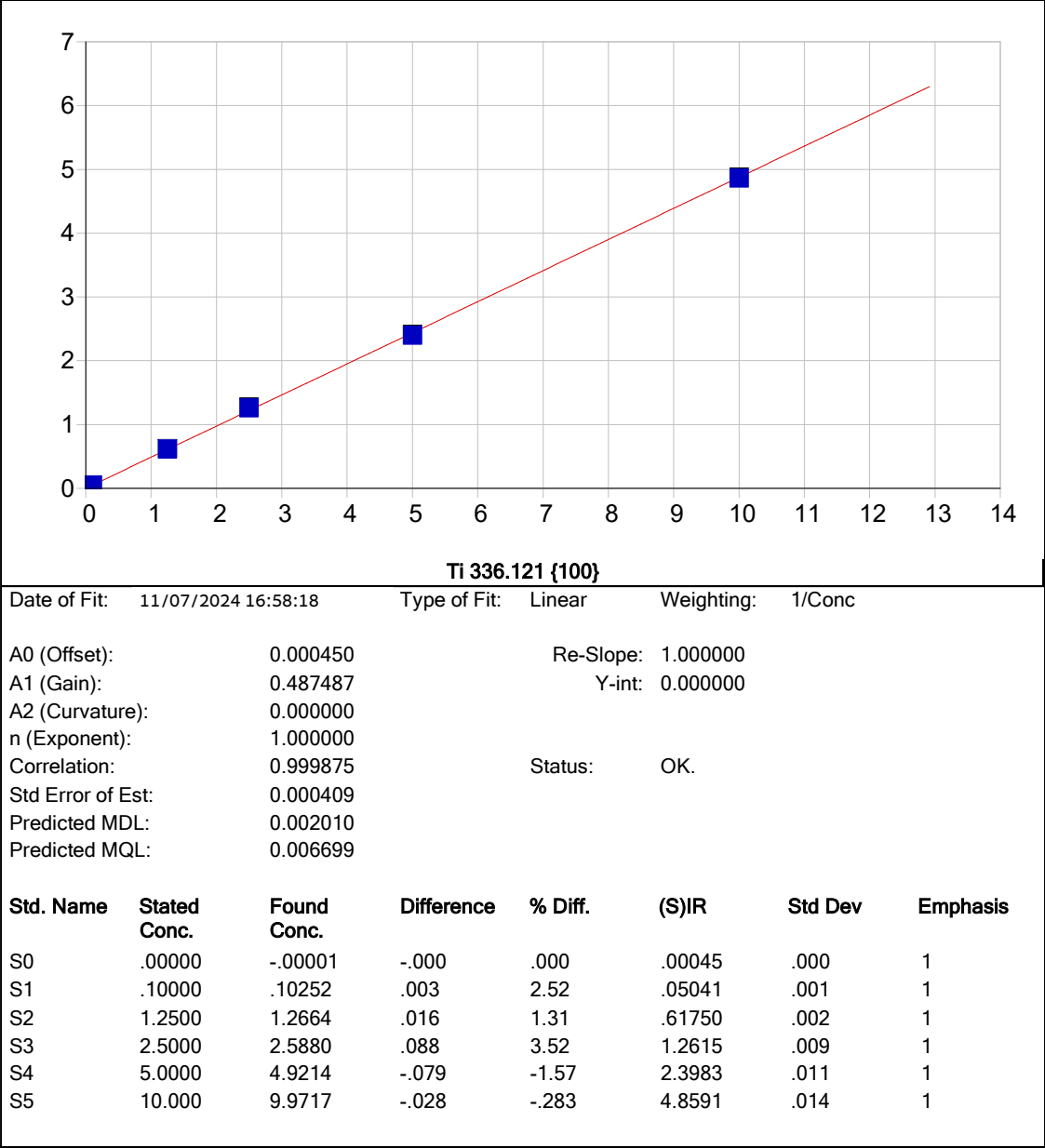


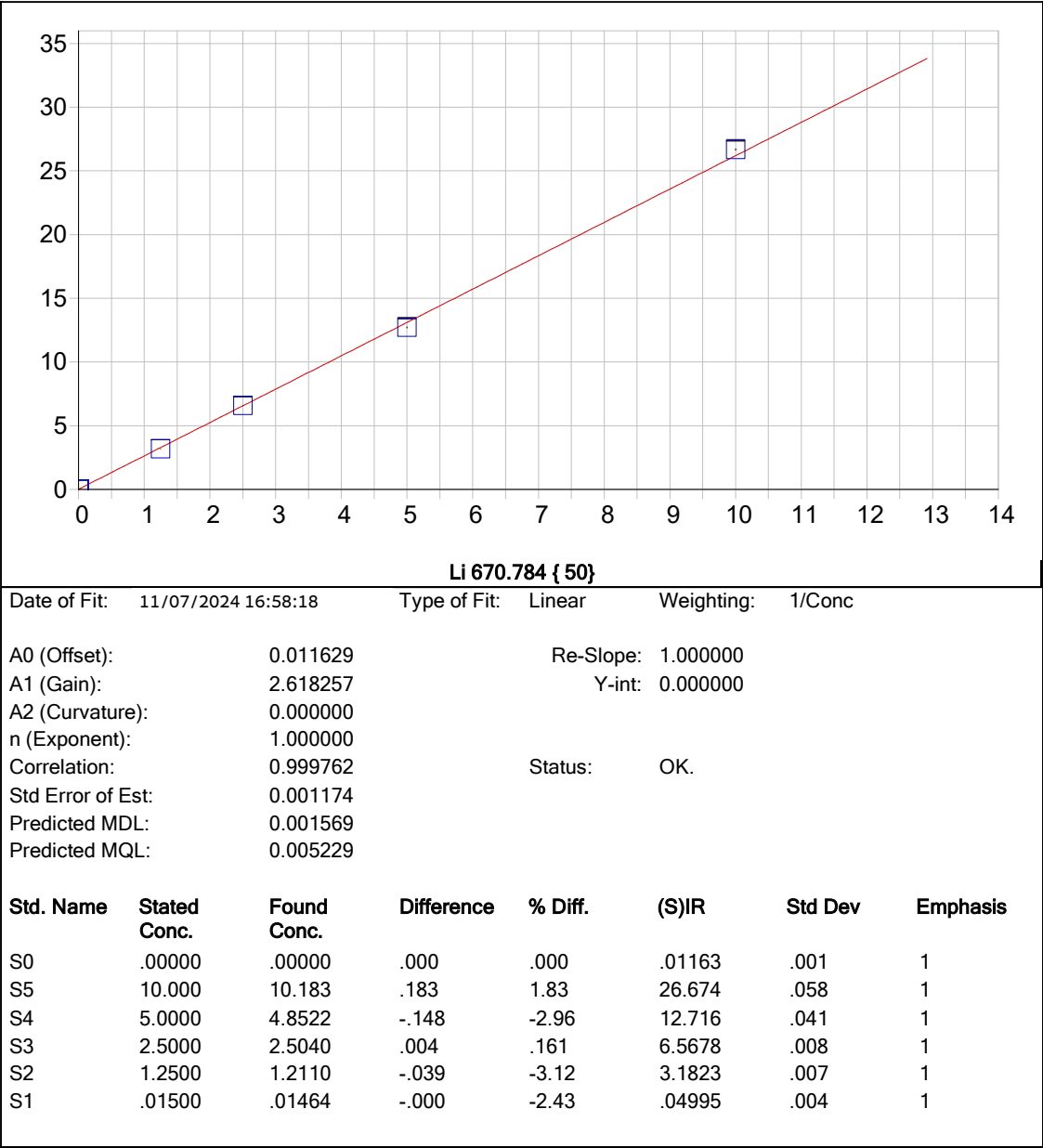


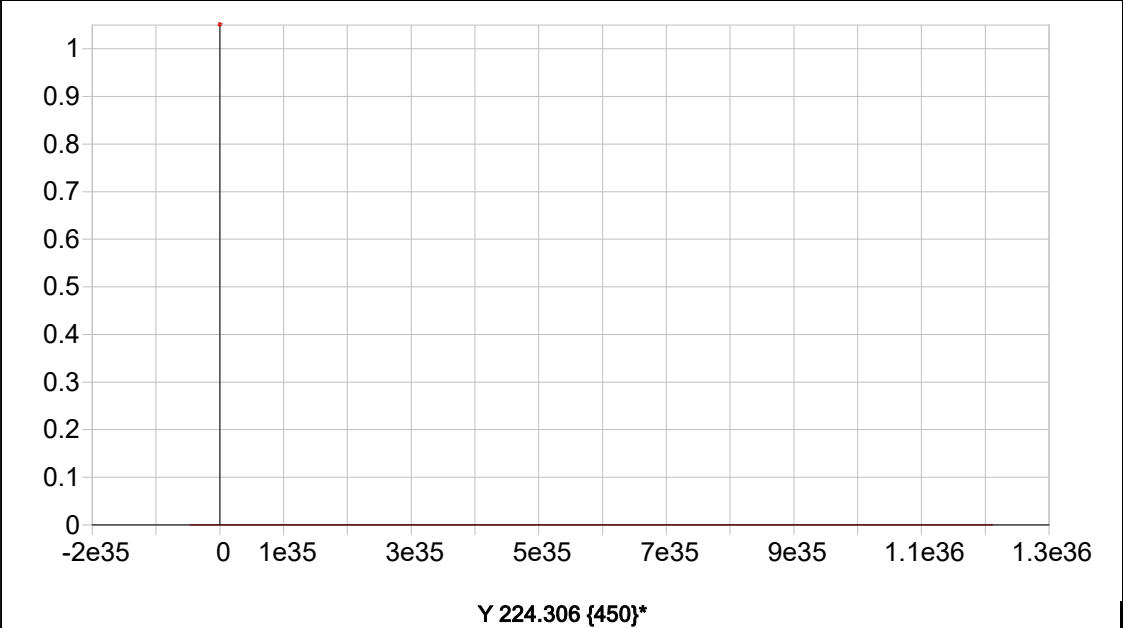






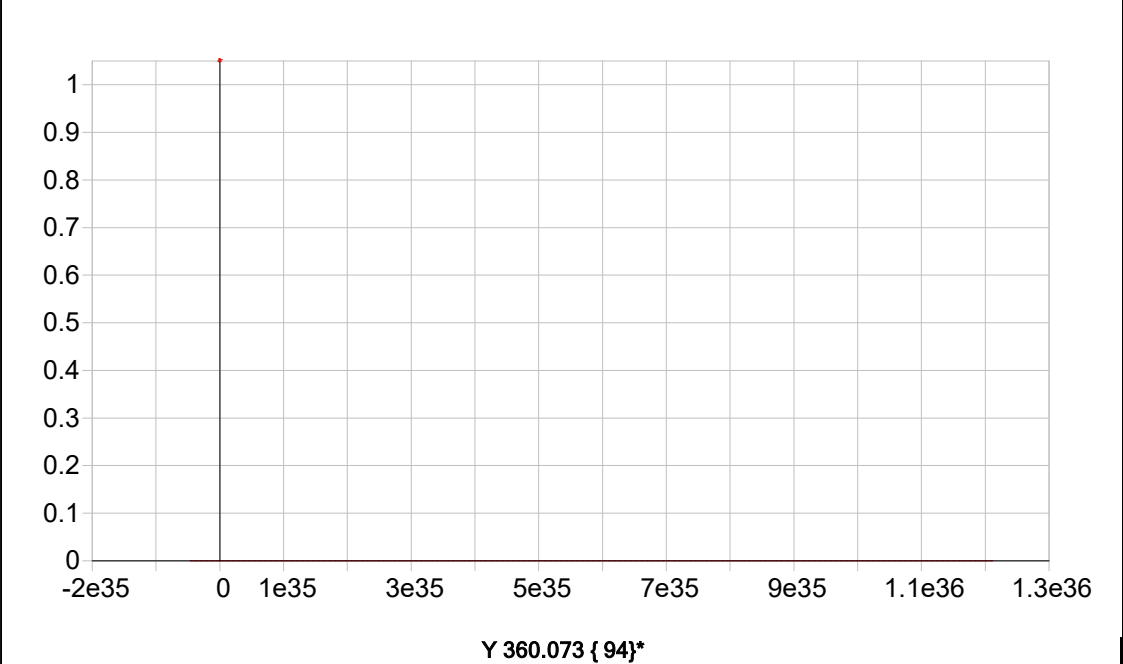




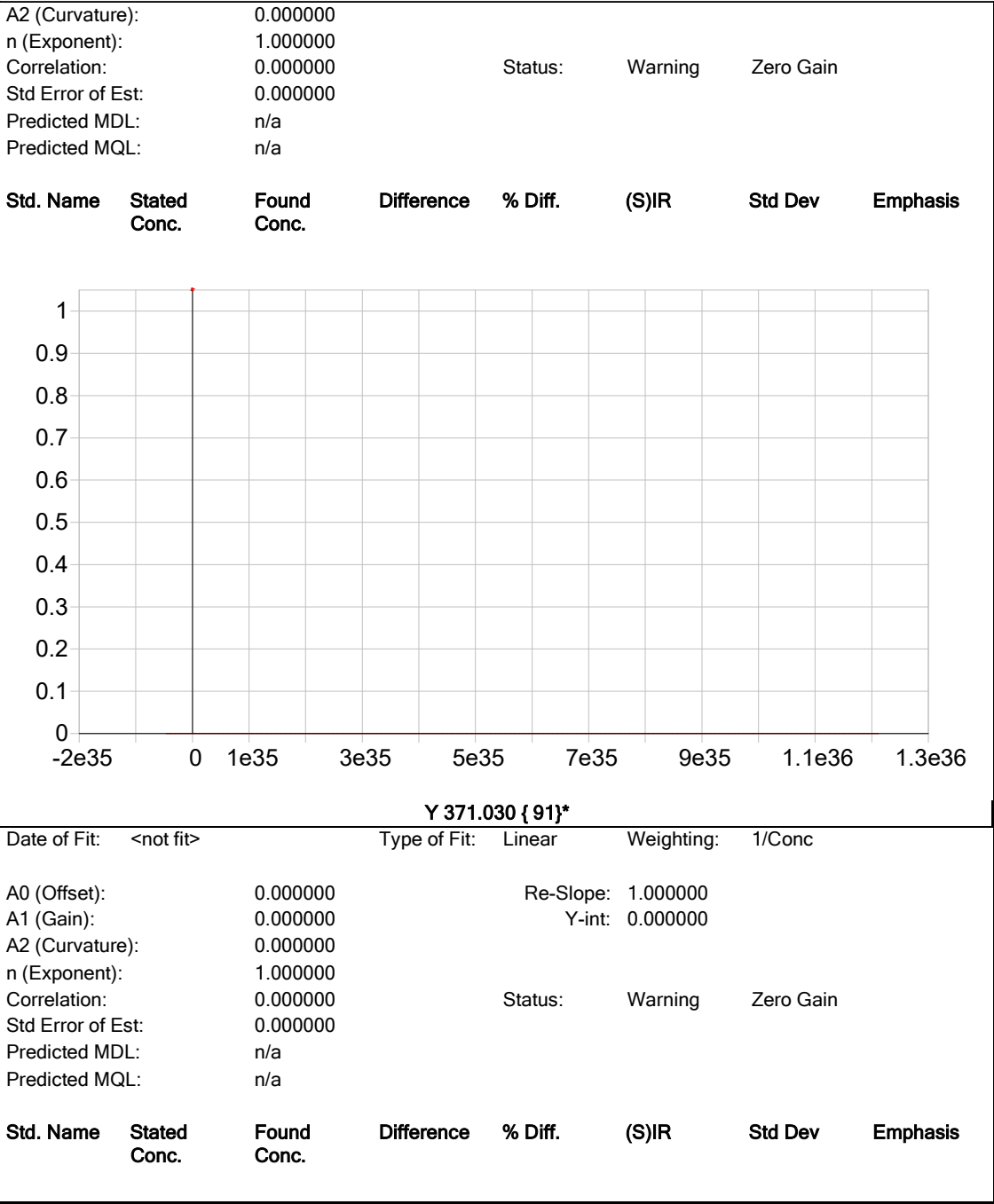


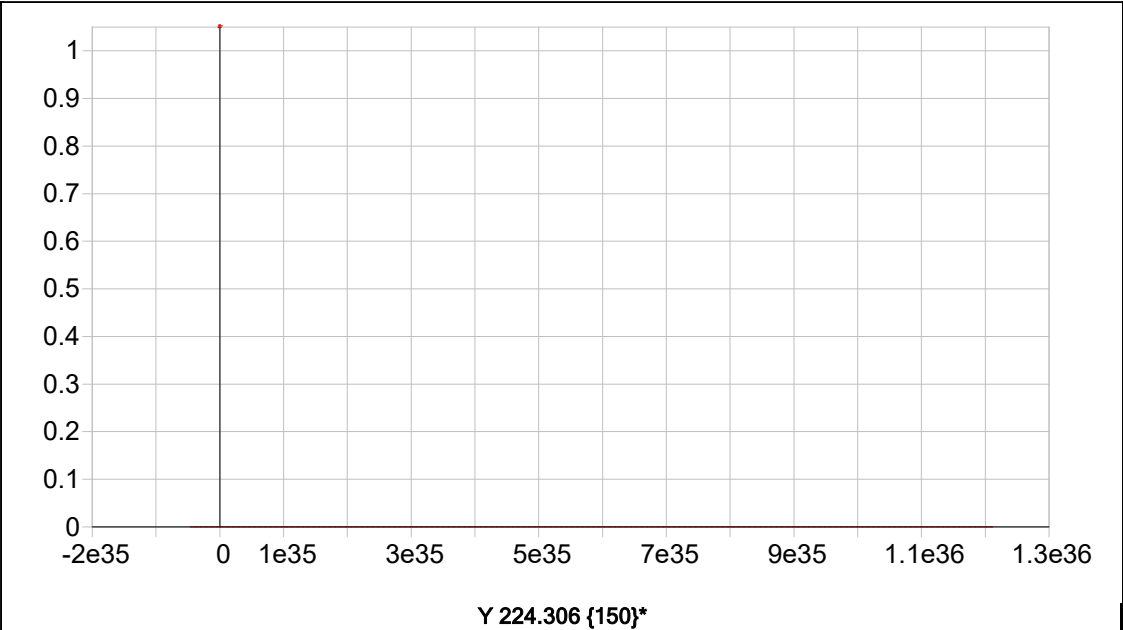
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A0 (Offset):	0.000000		Re-Slope:	1.000000		
A1 (Gain):	0.000000		Y-int:	0.000000		
A2 (Curvature):	0.000000					
n (Exponent):	1.000000					
Correlation:	0.000000		Status:	Warning	Zero Gain	
Std Error of Est:	0.000000					
Predicted MDL:	n/a					
Predicted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

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





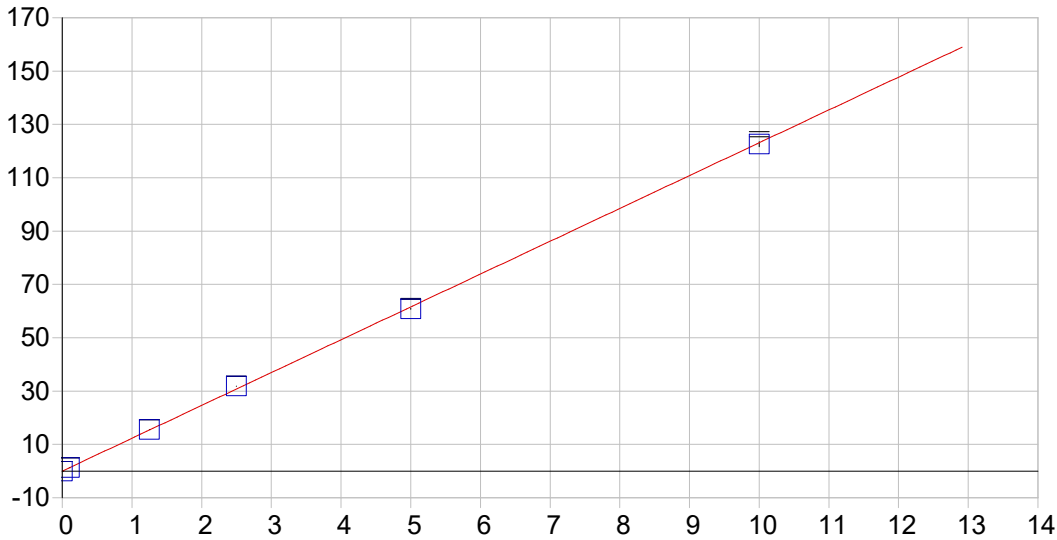
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				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

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
							
ln 230.606 {446}*							

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

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

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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Sr 407.771 { 83}

Date of Fit:	11/07/2024 16:58:18	Type of Fit:	Linear	Weighting:	1/Conc		
A0 (Offset):	-0.000391			Re-Slope:	1.000000		
A1 (Gain):	12.311857			Y-int:	0.000000		
A2 (Curvature):	0.000000						
n (Exponent):	1.000000						
Correlation:	0.999891		Status:	OK.			
Std Error of Est:	0.009666						
Predicted MDL:	0.000132						
Predicted MQL:	0.000440						

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00048	.001	1
S1	.10000	.10415	.004	4.15	1.2819	.005	1
S2	1.2500	1.2642	.014	1.14	15.564	.009	1
S3	2.5000	2.5848	.085	3.39	31.823	.108	1
S4	5.0000	4.9402	-.060	-1.20	60.823	.199	1
S5	10.000	9.9566	-.043	-.434	122.58	.958	1

Sample Name: S0 Acquired: 11/07/2024 16:24:32 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.00031	-.00026	-.00059	.00022	.00001	-.00118	.03683	-.00168
Stddev	.00005	.00008	.00036	.00016	.00018	.00029	.00357	.00099
%RSD	16.966	31.810	61.548	76.003	1777.1	24.259	9.6856	58.718

#1	.00029	-.00017	-.00046	.00019	-.00018	-.00085	.03311	-.00102
#2	.00026	-.00029	-.00099	.00007	.00019	-.00129	.04022	-.00121
#3	.00037	-.00033	-.00030	.00039	.00002	-.00139	.03716	-.00282

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	.00028	.00525	.00004	-.00018	.00142	.00060	-.00046	-.00042
Stddev	.00011	.00038	.00016	.00036	.00083	.00018	.00048	.00041
%RSD	39.305	7.2985	408.23	196.48	58.452	29.884	103.22	98.584

#1	.00016	.00515	-.00001	-.00028	.00129	.00072	-.00070	-.00018
#2	.00031	.00493	-.00009	.00021	.00231	.00069	.00009	-.00089
#3	.00037	.00568	.00022	-.00048	.00066	.00039	-.00078	-.00018

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	.00032	.02576	-.01164	-.00039	.00511	.08794	-.00100	.00528
Stddev	.00005	.00010	.00165	.00036	.00183	.00450	.00012	.00086
%RSD	14.123	.37608	14.167	91.316	35.719	5.1175	11.791	16.307

#1	.00037	.02568	-.01126	-.00079	.00705	.09251	-.00107	.00610
#2	.00033	.02587	-.01021	-.00010	.00486	.08351	-.00106	.00438
#3	.00028	.02575	-.01344	-.00028	.00343	.08780	-.00086	.00536

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	-.00010	.00040	.01203	.00021	.00045	.01163	-.00048	
Stddev	.00039	.00009	.00142	.00007	.00009	.00142	.00064	
%RSD	390.91	21.922	11.790	34.205	20.448	12.249	133.21	

#1	.00028	.00049	.01359	.00013	.00046	.01031	-.00121	
#2	-.00050	.00031	.01083	.00021	.00053	.01144	-.00018	
#3	-.00008	.00040	.01167	.00027	.00035	.01314	-.00005	

Sample Name: S0 Acquired: 11/07/2024 16:24:32 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	895.84	22687.	2400.9	812.74	1782.7
Stddev	1.39	38.	9.2	3.31	4.3
%RSD	.15542	.16634	.38274	.40716	.23886
#1	894.76	22645.	2391.1	809.39	1779.0
#2	895.35	22717.	2402.3	816.01	1781.7
#3	897.41	22700.	2409.3	812.81	1787.3

Sample Name: S1 Acquired: 11/07/2024 16:29:11 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.00059	.00133	.00087	.00261	.01115	.01742	1.3002	.05638
Stddev	.00013	.00019	.00035	.00034	.00034	.00125	.0038	.00096
%RSD	22.804	14.248	39.612	13.167	3.0749	7.1683	.29319	1.7037

#1	.00070	.00119	.00089	.00292	.01078	.01855	1.3034	.05624
#2	.00062	.00155	.00052	.00224	.01145	.01608	1.3012	.05741
#3	.00044	.00127	.00121	.00265	.01123	.01763	1.2960	.05550

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	.01022	.39637	.00216	.03012	.00499	.00150	.00401	.02816
Stddev	.00026	.00232	.00007	.00025	.00017	.00022	.00016	.00042
%RSD	2.5421	.58451	3.0290	.83956	3.4658	14.334	3.9546	1.4788

#1	.01033	.39717	.00218	.02998	.00479	.00148	.00390	.02857
#2	.01041	.39819	.00222	.02996	.00509	.00173	.00420	.02774
#3	.00993	.39376	.00209	.03041	.00510	.00130	.00394	.02815

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	.02390	.02970	.05195	.00395	.15244	.27708	-.00052	.00347
Stddev	.00031	.00013	.00403	.00048	.00210	.00103	.00013	.00121
%RSD	1.2785	.44418	7.7654	12.251	1.3771	.37036	24.317	34.895

#1	.02422	.02959	.05631	.00450	.15019	.27779	-.00066	.00478
#2	.02386	.02967	.04836	.00377	.15279	.27755	-.00048	.00320
#3	.02361	.02984	.05118	.00359	.15435	.27591	-.00041	.00241

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	.00930	.00282	.36891	.00091	.05041	.04995	1.2819	
Stddev	.00030	.00009	.00547	.00026	.00055	.00356	.0049	
%RSD	3.1965	3.3173	1.4829	29.081	1.0980	7.1334	.38239	

#1	.00913	.00271	.37219	.00119	.05004	.05067	1.2873	
#2	.00965	.00289	.37195	.00066	.05104	.04608	1.2777	
#3	.00914	.00285	.36260	.00088	.05014	.05310	1.2806	

Sample Name: S1 Acquired: 11/07/2024 16:29:11 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	893.52	22686.	2412.0	815.01	1762.5
Stddev	1.16	21.	22.9	2.52	4.7
%RSD	.12989	.09171	.95020	.30909	.26539
#1	892.34	22678.	2397.9	817.73	1763.4
#2	894.66	22710.	2399.6	814.53	1766.7
#3	893.55	22670.	2438.4	812.76	1757.5

Sample Name: S2 Acquired: 11/07/2024 16:33:50 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.02682	.08831	.87672	.08392	.22540	4.3479	15.220	1.3712
Stddev	.00031	.00043	.00142	.00064	.00067	.0177	.018	.0066
%RSD	1.1529	.48546	.16207	.76706	.29621	.40643	.11598	.47953

#1	.02647	.08781	.87573	.08323	.22579	4.3345	15.204	1.3638
#2	.02708	.08855	.87608	.08450	.22463	4.3413	15.239	1.3762
#3	.02690	.08856	.87834	.08405	.22578	4.3680	15.218	1.3736

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	1.2253	4.5789	.74610	.37448	.67619	.48782	.99272	.32368
Stddev	.0002	.0312	.00070	.00078	.00038	.00322	.00257	.00266
%RSD	.01613	.68173	.09345	.20719	.05583	.66084	.25938	.82146

#1	1.2254	4.5534	.74676	.37360	.67620	.48466	.98976	.32091
#2	1.2254	4.5696	.74537	.37477	.67581	.48771	.99395	.32392
#3	1.2251	4.6137	.74617	.37506	.67656	.49110	.99445	.32621

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	.35922	.14162	.45812	.04368	8.9351	1.5183	.05985	1.2612
Stddev	.00088	.00039	.00272	.00080	.0560	.0061	.00021	.0061
%RSD	.24401	.27801	.59404	1.8337	.62635	.39957	.34838	.48445

#1	.35822	.14167	.45498	.04310	8.8706	1.5146	.05968	1.2545
#2	.35980	.14120	.45967	.04459	8.9707	1.5150	.06008	1.2624
#3	.35965	.14199	.45971	.04335	8.9640	1.5253	.05978	1.2666

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	1.0883	.03181	2.0386	.12040	.61750	3.1823	15.564	
Stddev	.0010	.00015	.0074	.00027	.00179	.0067	.009	
%RSD	.09521	.48181	.36394	.22721	.28995	.21000	.05759	

#1	1.0876	.03181	2.0301	.12031	.61654	3.1750	15.567	
#2	1.0895	.03166	2.0438	.12019	.61639	3.1839	15.554	
#3	1.0879	.03197	2.0419	.12071	.61956	3.1881	15.572	

Sample Name: S2 Acquired: 11/07/2024 16:33:50 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	850.32	22209.	2399.3	767.37	1607.7
Stddev	1.51	69.	3.4	4.37	1.4
%RSD	.17777	.31050	.13991	.56947	.08959
#1	849.74	22153.	2402.1	771.35	1607.6
#2	849.18	22286.	2400.2	768.06	1606.2
#3	852.03	22188.	2395.5	762.69	1609.1

Sample Name: S3 Acquired: 11/07/2024 16:38:16 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.05676	.17995	1.8201	.17608	.47373	8.9282	31.262	2.7639
Stddev	.00027	.00101	.0017	.00098	.00168	.0328	.078	.0257
%RSD	.47979	.56129	.09327	.55872	.35397	.36689	.25042	.92831
#1	.05646	.17883	1.8186	.17534	.47196	8.8992	31.171	2.7444
#2	.05700	.18080	1.8219	.17571	.47395	8.9217	31.302	2.7544
#3	.05682	.18021	1.8197	.17720	.47529	8.9637	31.312	2.7930
Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.5304	9.2751	1.4947	.77745	1.3722	.98246	2.0040	.66683
Stddev	.0043	.0562	.0004	.00157	.0019	.00678	.0094	.00498
%RSD	.16976	.60548	.02656	.20167	.13719	.69009	.46874	.74618
#1	2.5256	9.2463	1.4947	.77569	1.3703	.97877	1.9950	.66283
#2	2.5338	9.2392	1.4944	.77792	1.3723	.97833	2.0033	.66526
#3	2.5318	9.3398	1.4951	.77872	1.3740	.99028	2.0138	.67240
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	.73962	.25992	.95066	.09034	18.409	3.0610	.12821	2.5453
Stddev	.00313	.00049	.00848	.00029	.070	.0122	.00022	.0189
%RSD	.42378	.18675	.89178	.32184	.37955	.39818	.17061	.74323
#1	.73648	.26048	.94232	.09001	18.329	3.0479	.12813	2.5374
#2	.73963	.25957	.95040	.09053	18.457	3.0634	.12845	2.5315
#3	.74275	.25972	.95927	.09049	18.441	3.0719	.12803	2.5668
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	2.2501	.06827	4.0916	.25118	1.2615	6.5678	31.823	
Stddev	.0047	.00056	.0247	.00084	.0087	.0077	.108	
%RSD	.20717	.81798	.60407	.33531	.68718	.11761	.33900	
#1	2.2457	.06867	4.0724	.25029	1.2601	6.5595	31.710	
#2	2.2496	.06851	4.0828	.25130	1.2536	6.5748	31.835	
#3	2.2550	.06763	4.1195	.25196	1.2707	6.5692	31.925	

Sample Name: S3 Acquired: 11/07/2024 16:38:16 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	812.99	21872.	2389.2	730.26	1518.8
Stddev	2.46	31.	15.6	1.74	2.0
%RSD	.30270	.14225	.65296	.23776	.13492
#1	813.81	21838.	2397.7	732.22	1521.2
#2	814.93	21877.	2398.8	728.92	1517.7
#3	810.22	21900.	2371.2	729.63	1517.6

Sample Name: S4 Acquired: 11/07/2024 16:42:39 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.11233	.33852	3.4951	.34914	.95060	17.265	60.029	5.2230
Stddev	.00033	.00105	.0098	.00056	.00262	.060	.198	.0246
%RSD	.29520	.31095	.27912	.16014	.27569	.34718	.33033	.47160

#1	.11246	.33972	3.4949	.34976	.94919	17.253	59.953	5.2085
#2	.11195	.33777	3.4855	.34868	.94898	17.330	60.254	5.2515
#3	.11257	.33807	3.5050	.34898	.95362	17.212	59.879	5.2091

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.8503	17.725	2.8083	1.5019	2.6142	1.8597	3.7654	1.2891
Stddev	.0138	.081	.0016	.0050	.0135	.0052	.0113	.0088
%RSD	.28471	.45748	.05580	.32970	.51648	.27709	.30104	.68291

#1	4.8439	17.728	2.8087	1.5009	2.6030	1.8619	3.7602	1.2912
#2	4.8409	17.804	2.8066	1.4976	2.6292	1.8634	3.7785	1.2967
#3	4.8662	17.642	2.8097	1.5073	2.6105	1.8538	3.7577	1.2794

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	1.4197	.48257	1.8357	.17014	36.366	5.9005	.25294	4.7611
Stddev	.0052	.00192	.0120	.00096	.273	.0131	.00048	.0125
%RSD	.36869	.39702	.65178	.56563	.75111	.22166	.19005	.26328

#1	1.4153	.48209	1.8300	.16910	36.439	5.8900	.25255	4.7539
#2	1.4184	.48094	1.8494	.17099	36.064	5.9151	.25280	4.7755
#3	1.4255	.48468	1.8277	.17034	36.596	5.8963	.25348	4.7538

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	4.4447	.13562	7.6824	.48638	2.3983	12.716	60.823	
Stddev	.0112	.00026	.0233	.00190	.0115	.041	.199	
%RSD	.25168	.18856	.30310	.39113	.47739	.32578	.32680	

#1	4.4463	.13534	7.6770	.48502	2.3948	12.701	60.685	
#2	4.4328	.13566	7.7079	.48556	2.4111	12.763	61.051	
#3	4.4550	.13585	7.6622	.48855	2.3891	12.684	60.733	

Sample Name: S4 Acquired: 11/07/2024 16:42:39 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	757.34	21358.	2388.8	667.95	1432.7
Stddev	1.24	65.	11.3	6.40	2.9
%RSD	.16337	.30641	.47212	.95865	.19974
#1	756.55	21287.	2382.2	664.59	1432.7
#2	758.76	21415.	2382.3	675.33	1435.5
#3	756.70	21373.	2401.8	663.92	1429.8

Sample Name: S5 Acquired: 11/07/2024 16:46:58 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.23583	.66921	7.0989	.77067	2.1412	35.940	122.59	10.623
Stddev	.00066	.00100	.0070	.00218	.0057	.081	.38	.029
%RSD	.28107	.14871	.09847	.28276	.26710	.22398	.30792	.27562

#1	.23565	.66817	7.1000	.77249	2.1444	36.032	123.01	10.652
#2	.23527	.66931	7.0914	.76826	2.1346	35.882	122.28	10.624
#3	.23656	.67015	7.1053	.77128	2.1447	35.905	122.48	10.594

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.6753	36.023	5.6172	3.0392	5.3601	3.7017	7.5590	2.6816
Stddev	.0094	.163	.0245	.0031	.0049	.0194	.0240	.0097
%RSD	.09722	.45153	.43646	.10336	.09114	.52511	.31797	.36317

#1	9.6717	36.176	5.6452	3.0383	5.3632	3.7203	7.5441	2.6893
#2	9.6682	36.041	5.6064	3.0366	5.3545	3.7032	7.5463	2.6847
#3	9.6859	35.852	5.5998	3.0427	5.3627	3.6816	7.5867	2.6706

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	2.8573	.97961	3.8008	.34560	79.495	12.282	.52909	9.4949
Stddev	.0037	.00830	.0186	.00147	1.074	.028	.00175	.0483
%RSD	.12987	.84704	.48973	.42443	1.3512	.22972	.33095	.50877

#1	2.8549	.98905	3.8162	.34729	80.707	12.295	.53016	9.5469
#2	2.8553	.97348	3.8061	.34465	78.660	12.250	.52707	9.4864
#3	2.8615	.97629	3.7801	.34486	79.118	12.302	.53004	9.4514

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	9.7253	.28692	15.540	.98662	4.8591	26.674	122.58	
Stddev	.0257	.00072	.045	.00251	.0141	.058	.96	
%RSD	.26424	.25127	.29048	.25464	.28934	.21882	.78161	

#1	9.7268	.28698	15.592	.98629	4.8732	26.736	123.28	
#2	9.6988	.28761	15.517	.98430	4.8591	26.621	121.49	
#3	9.7501	.28617	15.511	.98929	4.8450	26.663	122.98	

Sample Name: S5 Acquired: 11/07/2024 16:46:58 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	659.96	20513.	2322.9	550.72	1327.7
Stddev	1.43	103.	4.3	8.04	1.2
%RSD	.21720	.50319	.18376	1.4600	.08798
#1	660.60	20397.	2319.3	541.89	1329.0
#2	660.96	20595.	2327.6	557.62	1327.3
#3	658.32	20547.	2322.0	552.65	1326.7

Sample Name: S6 Acquired: 11/07/2024 16:51:27 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	90.375	55.448	9.3595	4.4133	9.9533
Stddev	.596	.378	.0627	.0264	.0712
%RSD	.65923	.68186	.66953	.59767	.71576

#1	90.972	55.821	9.4222	4.4427	10.022
#2	89.780	55.065	9.2969	4.3919	9.8801
#3	90.373	55.458	9.3595	4.4052	9.9572

Int. Std.	Y_3710
Units	Cts/S
Avg	2273.8
Stddev	12.1
%RSD	.53225

#1	2260.4
#2	2284.0
#3	2277.0

Sample Name: ICV005 Acquired: 11/07/2024 17:13:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	1.023055	1.026292	.9551224	.9300119	.9001448	2.323992
Stddev	.005827	.005900	.0000786	.0143347	.0048044	.011085
%RSD	.5695514	.5748374	.0082271	1.541350	.5337372	.4769975
#1	1.024613	1.027355	.9550596	.9313882	.8988712	2.332381
#2	1.016607	1.019933	.9550971	.9150386	.8961055	2.311425
#3	1.027944	1.031587	.9552105	.9436088	.9054577	2.328171
Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5049022	.5221115	.4870422	10.00083	.5517431	.4858959
Stddev	.0020610	.0015688	.0010403	.05950	.0022687	.0019753
%RSD	.4082004	.3004758	.2135890	.5949962	.4111829	.4065196
#1	.5028294	.5237557	.4859844	9.98383	.5533193	.4836153
#2	.5049261	.5206308	.4870782	9.95167	.5491429	.4870044
#3	.5069512	.5219480	.4880640	10.06698	.5527670	.4870679
Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4824115	10.61856	.5202243	5.960331	.4971365	.2385664
Stddev	.0057077	.02017	.0029566	.083120	.0026597	.0002717
%RSD	1.183167	.1899555	.5683311	1.394560	.5350123	.1138864
#1	.4759051	10.60045	.5186872	5.902225	.4949628	.2383628
#2	.4847546	10.61494	.5183529	6.055541	.4963444	.2384615
#3	.4865748	10.64030	.5236328	5.923227	.5001024	.2388749
Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.590459	.5174630	.9263806	9.532967	F .0071834	F .0080783
Stddev	.130353	.0096991	.0035564	.070064	.0020982	.0009968
%RSD	1.359198	1.874360	.3839067	.7349632	29.20988	12.33906
#1	9.654548	.5253811	.9265950	9.602332	.0074610	.0074683
#2	9.676362	.5066446	.9227219	9.534345	.0091290	.0075380
#3	9.440468	.5203633	.9298251	9.462225	.0049601	.0092286

Sample Name: ICV005 Acquired: 11/07/2024 17:13:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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 -.000237	F .0018257	F .0022081	F .0020626	F -.000522	F .0061826
Stddev	.000160	.0072349	.0006773	.0003324	.001306	.0002850
%RSD	67.49005	396.2702	30.67447	16.11627	250.0540	4.609554
#1	-.000052	.0097646	.0024772	.0016794	-.000016	.0058918
#2	-.000334	-.004396	.0014376	.0022727	.000455	.0064614
#3	-.000324	.000109	.0027095	.0022358	-.002005	.0061946
Elem	Sr4077					
Units	ppm					
Avg	F .0012792					
Stddev	.0001257					
%RSD	9.826811					
#1	.0011381					
#2	.0013203					
#3	.0013792					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	898.5207	22754.54	2422.280	818.6110	1754.226	
Stddev	2.0328	55.65	7.887	3.8344	1.497	
%RSD	.2262356	.2445852	.3256096	.4684023	.0853339	
#1	897.6993	22691.48	2413.202	815.8315	1754.459	
#2	900.8356	22775.31	2427.443	822.9854	1755.593	
#3	897.0271	22796.82	2426.197	817.0160	1752.626	

Sample Name: ICB005 Acquired: 11/07/2024 17:19:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	-.004290	-.002764	-.000552	-.006441	-.002988	-.013335	.0000290
Stddev	.009219	.001452	.002957	.006805	.002302	.015620	.0001422
%RSD	214.9232	52.55241	535.9877	105.6648	77.02179	117.1327	490.9210
#1	.006183	-.001896	-.000158	.001077	-.005425	-.013535	.0000770
#2	-.011181	-.001955	-.003685	-.012182	-.000850	.002384	-.000131
#3	-.007871	-.004440	.002188	-.008216	-.002690	-.028854	.000141
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000425	.0000730	.0485813	.0004460	.0003935	-.003253	-.027143
Stddev	.0001280	.0000600	.0177908	.0008275	.0005208	.002786	.045943
%RSD	301.3618	82.20167	36.62064	185.5414	132.3589	85.62129	169.2599
#1	.0001839	.0001382	.0661784	.0012942	.0009928	-.005793	.025393
#2	.0000092	.0000606	.0306029	.0004029	.0001371	-.000274	-.059791
#3	-.000066	.0000201	.0489627	-.000359	.0000505	-.003694	-.047032
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021402	.0054510	-.000811	.0007232	.4926763	-.012456	.0005869
Stddev	.0008708	.0451085	.000119	.0003386	.1591881	.004533	.0002949
%RSD	40.68625	827.5194	14.62967	46.81367	32.31089	36.39086	50.25145
#1	.0028514	-.040158	-.000906	.0011089	.5305009	-.010169	.0004250
#2	.0011691	.006470	-.000678	.0005859	.6295454	-.009523	.0009273
#3	.0024002	.050041	-.000850	.0004749	.3179827	-.017677	.0004083
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.270847	.0011227	-.000262	.0001777	-.006197	.0009367	.0030661
Stddev	.106712	.0023763	.000549	.0004075	.000171	.0006797	.0006244
%RSD	39.39952	211.6625	209.5261	229.2831	2.762011	72.56139	20.36396
#1	-.161126	-.000639	.000368	-.000291	-.006390	.0004460	.0026352
#2	-.277142	.003825	-.000511	.000448	-.006134	.0006517	.0027809
#3	-.374272	.000182	-.000643	.000376	-.006066	.0017125	.0037821

Sample Name: ICB005 Acquired: 11/07/2024 17:19:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	-.000052	.0065061	-.000051
Stddev	.002029	.0015551	.000102
%RSD	3877.734	23.90231	198.9407

#1	.002184	.0071416	-.000069
#2	-.001773	.0047339	-.000143
#3	-.000568	.0076428	.000059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	893.2473	22458.00	2402.900	811.2470	1769.313
Stddev	.9245	65.44	8.108	2.9856	2.885
%RSD	.1035010	.2913683	.3374241	.3680277	.1630388

#1	894.1394	22415.86	2406.675	808.3167	1767.091
#2	892.2934	22424.77	2393.593	811.1394	1772.573
#3	893.3090	22533.39	2408.432	814.2850	1768.273

Sample Name: ICSA005 Acquired: 11/07/2024 17:24:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.0097431	-.016528	.0004553	-.000693	.0015673	245.2835
Stddev	.0234524	.003000	.0047147	.006903	.0013220	.8645
%RSD	240.7079	18.15193	1035.506	996.4237	84.34569	.3524407

#1	.0136895	-.019593	.0041736	.003024	.0021126	246.1587
#2	.0309718	-.016394	.0020398	-.008658	.0025294	244.4302
#3	-.015432	-.013597	-.004848	.003555	.0000599	245.2615

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060460	-.000095	.0014339	256.4521	.0519222	-.001576
Stddev	.0007646	.000175	.0002895	.4290	.0005469	.000508
%RSD	12.64664	184.3363	20.19123	.1672950	1.053271	32.22755

#1	.0069266	.000031	.0011651	256.8914	.0513580	-.002064
#2	.0056612	-.000021	.0013961	256.4307	.0519585	-.001615
#3	.0055502	-.000294	.0017405	256.0342	.0524500	-.001050

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002074	107.4409	.0118276	255.3218	.0042232	.0030204
Stddev	.005027	.0421	.0023497	.7540	.0009123	.0000662
%RSD	242.4265	.0391547	19.86596	.2953055	21.60200	2.192513

#1	-.003037	107.4480	.0092527	255.3713	.0044275	.0030320
#2	.003365	107.3957	.0123743	256.0497	.0050161	.0029492
#3	-.006549	107.4789	.0138557	254.5442	.0032261	.0030801

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2090397	.0073252	.0137685	-.406183	.0030383	F .0847366
Stddev	.1870250	.0103105	.0003278	.038769	.0034716	.0019774
%RSD	89.46865	140.7539	2.381070	9.544620	114.2609	2.333526

#1	.3879693	-.002519	.0134952	-.446992	-.000948	.0824615
#2	.0148539	.018046	.0136782	-.369843	.004663	.0860416
#3	.2242959	.006448	.0141320	-.401713	.005400	.0857066

Sample Name: ICSA005 Acquired: 11/07/2024 17:24:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	-.001015	.0070532	.0005923	-.001852	-.000243	.0094467
Stddev	.000351	.0138690	.0003764	.003692	.001221	.0003436
%RSD	34.52863	196.6347	63.55324	199.3003	502.0195	3.637195
#1	-.000623	.0011865	.0008565	.000766	.000017	.0093714
#2	-.001297	-.002918	.0007592	-.006074	.000827	.0091470
#3	-.001127	.022891	.0001613	-.000248	-.001573	.0098217
Elem	Sr4077					
Units	ppm					
Avg	F .1032204					
Stddev	.0003822					
%RSD	.3702536					
#1	.1036615					
#2	.1029885					
#3	.1030113					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	836.5381	21377.44	2369.776	765.8691	1484.432	
Stddev	1.5715	14.79	7.637	.3476	2.964	
%RSD	.1878617	.0691993	.3222756	.0453798	.1996840	
#1	838.2378	21381.07	2361.998	765.9091	1487.810	
#2	836.2390	21390.08	2370.067	766.1949	1482.268	
#3	835.1377	21361.17	2377.264	765.5033	1483.217	

Sample Name: ICSAB005 Acquired: 11/07/2024 17:28:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.1158849	.0926160	.0476916	.0468288	.5451829	243.0360
Stddev	.0194540	.0049555	.0061220	.0046246	.0015329	.2259
%RSD	16.78738	5.350602	12.83670	9.875449	.2811738	.0929400

#1	.1360035	.0871943	.0535592	.0414889	.5445748	242.8070
#2	.0971716	.0969114	.0413434	.0494813	.5469266	243.2586
#3	.1144795	.0937423	.0481721	.0495163	.5440474	243.0424

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5278243	.5341449	1.029480	252.7554	.6071772	.5166093
Stddev	.0009761	.0024148	.004964	.1220	.0021870	.0010063
%RSD	.1849218	.4520952	.4822004	.0482749	.3601962	.1947978

#1	.5267116	.5367513	1.025102	252.8489	.6066637	.5156688
#2	.5285360	.5336998	1.028464	252.7999	.6052926	.5164886
#3	.5282253	.5319835	1.034873	252.6174	.6095752	.5176706

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4808637	105.8459	.5370009	251.7915	1.037910	.1919147
Stddev	.0081573	.1970	.0078584	.1058	.005953	.0001178
%RSD	1.696392	.1861320	1.463383	.0420129	.5735594	.0613838

#1	.4865661	105.9557	.5283877	251.9024	1.032971	.1919419
#2	.4845052	105.9635	.5388349	251.7806	1.036240	.1917857
#3	.4715199	105.6184	.5437801	251.6916	1.044520	.1920166

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8680386	.5212761	.9536000	-.477026	F .0111235	F .0850681
Stddev	.0487452	.0078628	.0034662	.203038	.0077064	.0007233
%RSD	5.615552	1.508383	.3634875	42.56323	69.28006	.8502395

#1	.8786001	.5122256	.9572135	-.711470	.0194809	.0852222
#2	.8148785	.5264258	.9503027	-.360945	.0042984	.0842802
#3	.9106372	.5251769	.9532838	-.358663	.0095912	.0857019

Sample Name: ICSAB005 Acquired: 11/07/2024 17:28:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	-.001146	.0133083	.0011597	-.003139	-.002101	.0081540
Stddev	.000719	.0085318	.0003925	.003567	.000751	.0007044
%RSD	62.68872	64.10906	33.84204	113.6290	35.74360	8.639029
#1	-.000920	.0099578	.0015737	-.006506	-.002416	.0074056
#2	-.001951	.0230067	.0011123	-.003510	-.001244	.0088042
#3	-.000568	.0069603	.0007931	.000599	-.002642	.0082522
Elem	Sr4077					
Units	ppm					
Avg	F .1026387					
Stddev	.0001578					
%RSD	.1536958					
#1	.1025031					
#2	.1028118					
#3	.1026010					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	836.2975	21397.71	2381.092	761.8759	1488.426	
Stddev	1.4038	40.28	5.337	3.7053	4.690	
%RSD	.1678601	.1882344	.2241362	.4863427	.3151273	
#1	837.6180	21444.20	2375.139	758.1522	1492.505	
#2	836.4514	21373.33	2382.687	761.9131	1489.472	
#3	834.8230	21375.58	2385.449	765.5625	1483.301	

Sample Name: CCV029 Acquired: 11/07/2024 17:32:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV029 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.916081	4.784351	24.25121	4.688305	4.737588	399.8860	10.02437
Stddev	.012534	.026500	.05261	.021148	.011027	1.0333	.05145
%RSD	.2549533	.5538894	.2169236	.4510743	.2327588	.2583988	.5132813
#1	4.906573	4.790013	24.27165	4.678952	4.734824	399.8563	10.05773
#2	4.930285	4.755478	24.19145	4.712516	4.728206	398.8678	9.96512
#3	4.911386	4.807563	24.29052	4.673446	4.749735	400.9338	10.05028
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5016044	2.453070	398.8849	15.30864	2.467146	14.80465	408.6802
Stddev	.0017938	.005941	.6838	.02505	.002715	.01777	.6445
%RSD	.3576036	.2421777	.1714335	.1636453	.1100461	.1200097	.1577139
#1	.5021176	2.455660	398.6053	15.32195	2.468229	14.80639	408.3207
#2	.4996100	2.446274	398.3851	15.32424	2.464056	14.78607	408.2956
#3	.5030857	2.457276	399.6642	15.27975	2.469152	14.82148	409.4243
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.71207	387.2769	2.465526	1.242273	402.3306	2.454649	14.33885
Stddev	.05663	.9953	.004574	.004968	1.0392	.028854	.08326
%RSD	.3849293	.2570076	.1855078	.3999096	.2582966	1.175486	.5806592
#1	14.74757	386.4118	2.463238	1.247901	402.7637	2.445012	14.27972
#2	14.64677	387.0541	2.462548	1.238498	401.1449	2.431848	14.43406
#3	14.74189	388.3647	2.470792	1.240420	403.0832	2.487089	14.30276
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.3417	4.973483	5.133022	4.701374	4.980491	4.950324	4.903657
Stddev	.1875	.017676	.011884	.002057	.011475	.013087	.018260
%RSD	.1247137	.3554043	.2315136	.0437638	.2303891	.2643719	.3723711
#1	150.3709	4.978944	5.137726	4.703261	4.993714	4.955873	4.902646
#2	150.1413	4.953721	5.119507	4.699180	4.973158	4.935376	4.885923
#3	150.5129	4.987784	5.141834	4.701680	4.974601	4.959722	4.922401

Sample Name: CCV029 Acquired: 11/07/2024 17:32:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV029 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.914731	5.046973	4.982213
Stddev	.015880	.021827	.010335
%RSD	.3231006	.4324681	.2074384
#1	4.909823	5.056587	4.985364
#2	4.901886	5.021990	4.970668
#3	4.932486	5.062342	4.990604

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	726.6007	20461.15	2295.960	643.7868	1351.775
Stddev	.2202	73.99	3.531	3.6461	2.294
%RSD	.0303007	.3616249	.1537745	.5663525	.1697246
#1	726.4146	20378.21	2294.084	645.0589	1349.623
#2	726.5438	20484.85	2300.033	639.6751	1354.189
#3	726.8438	20520.38	2293.764	646.6265	1351.513

Sample Name: CCB029 Acquired: 11/07/2024 17:37:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	-.004034	.0005462	-.000671	-.001085	-.000491	.0035214	.0007119
Stddev	.004044	.0001616	.003220	.003152	.001268	.0070194	.0002338
%RSD	100.2535	29.58817	479.9047	290.4718	257.9097	199.3350	32.84503

#1	.000379	.0007315	-.004369	.002552	-.001947	.0089256	.0004427
#2	-.007563	.0004343	.001510	-.002769	.000368	.0060507	.0008639
#3	-.004918	.0004728	.000846	-.003038	.000105	-.004412	.0008291

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000125	.0000255	.0690094	.0005208	.0006356	-.001753	-.000416
Stddev	.0001708	.0002024	.0123717	.0005477	.0002256	.003318	.029748
%RSD	1363.018	793.5095	17.92761	105.1825	35.49718	189.2290	7159.462

#1	-.000169	.0001811	.0670074	-.000094	.0006163	-.004772	-.033323
#2	.000035	.0000987	.0822600	.000700	.0004202	.001799	.024570
#3	.000171	-.000203	.0577607	.000956	.0008702	-.002287	.007506

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027523	-.025879	-.000587	.0016542	.5223294	-.003053	.0013454
Stddev	.0031432	.057240	.000497	.0002514	.0646730	.001987	.0003250
%RSD	114.2022	221.1851	84.59648	15.19463	12.38165	65.10748	24.15884

#1	.0054998	.006323	-.000147	.0017697	.4863183	-.002087	.0012969
#2	.0034326	-.091966	-.000489	.0013659	.5969918	-.005338	.0016920
#3	-.000675	.008008	-.001126	.0018271	.4836781	-.001732	.0010474

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.181728	.0005101	.0062303	.0004856	.0025648	.0004800	.0005648
Stddev	.039998	.0061281	.0005379	.0000843	.0069967	.0004230	.0017827
%RSD	22.00995	1201.268	8.633608	17.36725	272.8014	88.12213	315.6184

#1	-.196632	.0008176	.0067350	.0005795	-.005372	.0009677	.0003802
#2	-.212135	-.005766	.0062915	.0004162	.005227	.0002141	-.001118
#3	-.136418	.006479	.0056644	.0004612	.007840	.0002581	.002433

Sample Name: CCB029 Acquired: 11/07/2024 17:37:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	-.000070	.0106707	.0001617
Stddev	.002088	.0009361	.0000247
%RSD	2969.422	8.772744	15.28054
#1	-.002482	.0097646	.0001873
#2	.001139	.0106132	.0001380
#3	.001131	.0116342	.0001596

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	894.7112	22407.34	2369.102	813.3784	1770.290
Stddev	.8743	47.33	17.035	2.4095	.325
%RSD	.0977194	.2112450	.7190365	.2962278	.0183579
#1	894.4355	22401.62	2351.461	816.0839	1770.375
#2	894.0079	22457.28	2385.457	811.4640	1769.931
#3	895.6901	22363.13	2370.389	812.5872	1770.564

Sample Name: P4480-05A Acquired: 11/07/2024 18:17:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4355632	-.067093	.5566268	.0482972	.0122308	240.5173
Stddev	.0138160	.005096	.0038527	.0074426	.0015664	.3579
%RSD	3.171984	7.595341	.6921497	15.41004	12.80729	.1487837

#1	.4464416	-.072954	.5585216	.0567905	.0140327	240.9289
#2	.4402298	-.064614	.5591651	.0451861	.0111933	240.2801
#3	.4200182	-.063711	.5521936	.0429149	.0114663	240.3428

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.869900	.0061777	.0173974	123.5401	.4145590	.2395134
Stddev	.006284	.0002956	.0003671	.4059	.0010300	.0011858
%RSD	.2189643	4.785584	2.109924	.3285829	.2484559	.4950853

#1	2.876846	.0064706	.0175768	123.9505	.4142267	.2393448
#2	2.868246	.0061831	.0169751	123.1388	.4157141	.2407745
#3	2.864609	.0058794	.0176403	123.5310	.4137362	.2384210

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7603938	442.4990	8.971123	101.0801	.5381509	-.033085
Stddev	.0038604	.7491	.000705	.4137	.0007610	.000279
%RSD	.5076829	.1692943	.0078570	.4092869	.1414048	.8433170

#1	.7648138	443.3173	8.971571	101.1874	.5382396	-.033166
#2	.7576837	441.8469	8.970311	100.6233	.5388637	-.032775
#3	.7586839	442.3329	8.971487	101.4295	.5373495	-.033315

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.943425	.8512841	.8446544	43.05801	F 12.26951	.4061804
Stddev	.059821	.0088798	.0018064	.14902	.00663	.0007412
%RSD	1.516976	1.043107	.2138609	.3460867	.0540458	.1824859

#1	3.894310	.8607929	.8461178	43.22805	12.27102	.4065475
#2	3.925919	.8432073	.8426355	42.95016	12.26225	.4066664
#3	4.010046	.8498522	.8452098	42.99582	12.27525	.4053272

Sample Name: P4480-05A Acquired: 11/07/2024 18:17:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-0.000913	1.627793	13.63829	.0100655	6.025305	.1830070
Stddev	.000661	.008480	.06083	.0023846	.020258	.0010146
%RSD	72.41309	.5209367	.4460277	23.69054	.3362081	.5543879
#1	-0.000626	1.634342	13.68625	.0110043	6.047686	.1834344
#2	-.001669	1.630823	13.56987	.0073544	6.008224	.1837380
#3	-.000444	1.618215	13.65875	.0118378	6.020004	.1818487
Elem	Sr4077					
Units	ppm					
Avg	1.086599					
Stddev	.001037					
%RSD	.0954187					
#1	1.087795					
#2	1.086051					
#3	1.085952					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	980.5888	25351.35	2810.332	899.1685	1546.705	
Stddev	1.2764	94.64	6.800	.7012	1.873	
%RSD	.1301680	.3733292	.2419811	.0779817	.1210934	
#1	979.1152	25433.65	2802.859	898.9952	1548.708	
#2	981.3496	25247.93	2816.157	899.9401	1544.997	
#3	981.3015	25372.49	2811.979	898.5703	1546.411	

Sample Name: P4481-12A Acquired: 11/07/2024 18:21:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4C1A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6777465	-.053147	.3357543	.0009822	.0066041	178.9457
Stddev	.0108985	.001720	.0018251	.0082980	.0018996	.2390
%RSD	1.608043	3.236543	.5435706	844.8174	28.76418	.1335424

#1	.6795073	-.052094	.3342649	-.007078	.0051907	178.6867
#2	.6876573	-.055132	.3377902	.000526	.0058582	179.1577
#3	.6660748	-.052215	.3352080	.009499	.0087635	178.9926

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.836637	.0052589	.0169458	54.51140	.4075833	.2224339
Stddev	.001823	.0000532	.0001151	.16385	.0008180	.0007261
%RSD	.0992552	1.011337	.6793593	.3005731	.2006948	.3264311

#1	1.835263	.0052903	.0168143	54.32223	.4083809	.2226171
#2	1.838705	.0051975	.0170282	54.60325	.4076225	.2216338
#3	1.835942	.0052889	.0169950	54.60873	.4067463	.2230509

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.041554	368.3848	9.994578	82.95883	.4200045	-.028331
Stddev	.010012	1.4937	.015570	.43342	.0015725	.000110
%RSD	.4904256	.4054806	.1557801	.5224509	.3744066	.3891297

#1	2.036000	366.6757	9.979297	82.60209	.4183918	-.028447
#2	2.035549	369.0379	9.994018	82.83323	.4200881	-.028319
#3	2.053112	369.4407	10.01042	83.44118	.4215335	-.028228

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.486020	.7100548	1.723527	49.68160	F 10.11523	.3436610
Stddev	.238953	.0121788	.010426	.06722	.06125	.0009733
%RSD	9.611861	1.715184	.6049387	.1353068	.6055256	.2832032

#1	2.753951	.7033415	1.723396	49.75917	10.06828	.3425979
#2	2.294975	.7027100	1.734018	49.64518	10.09291	.3438770
#3	2.409134	.7241129	1.713166	49.64044	10.18451	.3445081

Sample Name: P4481-12A Acquired: 11/07/2024 18:21:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4C1A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009797	1.523687	13.64681	.0133570	4.747355	.1335789
Stddev	.0007128	.006270	.03952	.0027741	.012152	.0004706
%RSD	72.75572	.4114800	.2895586	20.76916	.2559821	.3523238
#1	.0016323	1.517904	13.60163	.0125610	4.733381	.1332243
#2	.0002190	1.522807	13.67493	.0164421	4.753239	.1341128
#3	.0010878	1.530350	13.66387	.0110678	4.755446	.1333996
Elem	Sr4077					
Units	ppm					
Avg	.3189701					
Stddev	.0003023					
%RSD	.0947738					
#1	.3188010					
#2	.3187902					
#3	.3193191					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	993.1015	25526.61	2787.169	912.6737	1597.910	
Stddev	1.3546	75.26	4.958	3.8541	2.388	
%RSD	.1364029	.2948378	.1778992	.4222900	.1494229	
#1	993.0128	25447.21	2790.794	910.5037	1598.757	
#2	994.4983	25535.71	2781.518	910.3938	1599.759	
#3	991.7935	25596.90	2789.194	917.1236	1595.215	

Sample Name: P4482-14A Acquired: 11/07/2024 18:26:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4E3A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1565531	-.053642	.2562654	-.002601	.0102057	155.1585
Stddev	.0041088	.001366	.0083166	.007729	.0021456	.6871
%RSD	2.624505	2.546734	3.245322	297.1950	21.02339	.4428157

#1	.1519075	-.052292	.2520760	-.011236	.0117187	155.6924
#2	.1580423	-.053609	.2508765	.003669	.0111483	155.3998
#3	.1597097	-.055024	.2658436	-.000236	.0077502	154.3833

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.431668	.0046841	.0127267	84.69763	.3334190	.1893534
Stddev	.008174	.0000596	.0001760	.47567	.0003730	.0005963
%RSD	.5709326	1.273165	1.382966	.5616132	.1118579	.3149372

#1	1.438251	.0046153	.0125274	85.06626	.3336373	.1888414
#2	1.434233	.0047155	.0127916	84.86594	.3336312	.1900082
#3	1.422519	.0047215	.0128610	84.16068	.3329883	.1892107

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4577523	360.0770	7.225586	67.68703	.3181122	-.028849
Stddev	.0055145	1.9298	.045796	.36987	.0014186	.000187
%RSD	1.204684	.5359409	.6338072	.5464472	.4459303	.6483042

#1	.4629165	361.5113	7.257993	68.02515	.3177578	-.028973
#2	.4583964	360.8367	7.245572	67.74392	.3169045	-.028940
#3	.4519441	357.8829	7.173194	67.29200	.3196744	-.028634

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.869082	.8393524	1.442282	40.14215	F 11.42620	.3425080
Stddev	.399539	.0215239	.009863	.12861	.04141	.0043930
%RSD	13.92567	2.564348	.6838298	.3203928	.3624396	1.282611

#1	3.260152	.8437606	1.453584	40.08048	11.37858	.3434832
#2	2.461582	.8583309	1.435417	40.28998	11.45375	.3463314
#3	2.885513	.8159656	1.437845	40.05598	11.44628	.3377093

Sample Name: P4482-14A Acquired: 11/07/2024 18:26:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4E3A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004350	2.854944	13.14791	.0071458	5.644116	.1107576
Stddev	.0002318	.016125	.08678	.0015599	.030940	.0004869
%RSD	53.28639	.5647933	.6599917	21.82996	.5481799	.4396105
#1	.0002400	2.871346	13.23413	.0055478	5.666847	.1111628
#2	.0003738	2.854375	13.14901	.0072251	5.656621	.1102174
#3	.0006913	2.839112	13.06059	.0086646	5.608881	.1108924
Elem	Sr4077					
Units	ppm					
Avg	.3671742					
Stddev	.0013540					
%RSD	.3687734					
#1	.3677230					
#2	.3681676					
#3	.3656319					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	993.5780	25507.26	2825.268	912.0952	1608.077	
Stddev	2.5844	47.58	21.706	4.2849	2.047	
%RSD	.2601130	.1865157	.7682787	.4697870	.1272948	
#1	996.2462	25509.28	2809.906	907.2661	1610.427	
#2	993.4014	25458.71	2815.798	913.5769	1606.681	
#3	991.0864	25553.79	2850.100	915.4427	1607.122	

Sample Name: P4483-20A Acquired: 11/07/2024 18:30:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4164970	-.059953	.2613143	-.009937	.0087298	186.2637
Stddev	.0110998	.002046	.0048113	.006120	.0010543	.4839
%RSD	2.665026	3.412861	1.841206	61.58775	12.07664	.2598096

#1	.4049006	-.061093	.2664004	-.011756	.0075136	186.6894
#2	.4175678	-.057591	.2568353	-.003114	.0092930	186.3643
#3	.4270225	-.061175	.2607071	-.014941	.0093830	185.7374

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.936743	.0051304	.0169671	77.01034	.5031142	.2233257
Stddev	.002551	.0000275	.0002104	.34516	.0014433	.0006045
%RSD	.1316973	.5366746	1.240134	.4482046	.2868724	.2706784

#1	1.939490	.0050990	.0170717	77.18122	.5028252	.2233502
#2	1.936287	.0051504	.0167249	77.23672	.5046801	.2227094
#3	1.934451	.0051417	.0171048	76.61307	.5018372	.2239176

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8571109	404.6663	9.121220	93.54830	.4538254	-.031218
Stddev	.0008222	1.6492	.029123	.63792	.0005650	.000298
%RSD	.0959301	.4075495	.3192920	.6819133	.1244897	.9538478

#1	.8561768	405.4081	9.125973	93.13352	.4538366	-.031360
#2	.8574306	405.8144	9.147675	94.28286	.4532549	-.031419
#3	.8577252	402.7765	9.090013	93.22851	.4543847	-.030876

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.107636	.7899131	1.747441	43.23790	F 11.14251	.3676241
Stddev	.179952	.0058021	.001876	.18019	.01733	.0021104
%RSD	5.790639	.7345181	.1073415	.4167297	.1555664	.5740678

#1	3.314520	.7884165	1.746923	43.41952	11.14641	.3672127
#2	3.020981	.7963169	1.745878	43.23500	11.12356	.3699099
#3	2.987406	.7850060	1.749521	43.05918	11.15757	.3657496

Sample Name: P4483-20A Acquired: 11/07/2024 18:30:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000742	1.629818	12.64272	.0116685	4.693618	.1432175
Stddev	.000605	.016848	.09351	.0052526	.014851	.0006653
%RSD	81.50926	1.033734	.7396384	45.01522	.3164043	.4645076
#1	-.000738	1.634152	12.67984	.0101106	4.699202	.1439372
#2	-.000139	1.611227	12.71197	.0175238	4.704868	.1426251
#3	-.001348	1.644076	12.53635	.0073711	4.676785	.1430902
Elem	Sr4077					
Units	ppm					
Avg	.4507782					
Stddev	.0016159					
%RSD	.3584681					
#1	.4526432					
#2	.4497967					
#3	.4498947					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	984.3216	25288.03	2801.844	902.7046	1587.916	
Stddev	1.5792	64.68	23.892	1.6034	1.228	
%RSD	.1604354	.2557636	.8527071	.1776221	.0773569	
#1	983.5474	25218.20	2786.775	902.8360	1586.500	
#2	986.1385	25300.00	2789.366	904.2383	1588.550	
#3	983.2789	25345.88	2829.391	901.0396	1588.697	

Sample Name: P4484-03A Acquired: 11/07/2024 18:35:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4H2A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.852437	-.116467	.1875799	-.030592	.0137262	260.0441	2.643073
Stddev	.035503	.007665	.0021171	.011603	.0021108	.3578	.005013
%RSD	1.916551	6.580836	1.128659	37.92815	15.37775	.1376008	.1896768
#1	1.869707	-.110963	.1869421	-.040844	.0155083	260.1314	2.648862
#2	1.811603	-.125221	.1899426	-.032937	.0142752	260.3503	2.640213
#3	1.876001	-.113218	.1858550	-.017996	.0113952	259.6508	2.640145
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054197	.0302263	389.6158	5.341727	.6039666	1.011963	750.8174
Stddev	.0001407	.0004416	1.5375	.006854	.0017762	.005576	2.7496
%RSD	2.596615	1.460810	.3946261	.1283141	.2940885	.5509603	.3662128
#1	.0055305	.0307181	389.8565	5.336607	.6046962	1.010883	751.6341
#2	.0052613	.0298639	391.0188	5.339061	.6019418	1.007007	753.0660
#3	.0054672	.0300970	387.9721	5.349514	.6052618	1.018000	747.7519
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.08699	196.4119	2.087115	-.053255	3.484319	1.762596	.9880158
Stddev	.02023	.6479	.003191	.000391	.067373	.010768	.0062568
%RSD	.0806297	.3298803	.1528844	.7336645	1.933596	.6109216	.6332714
#1	25.09782	196.5401	2.085386	-.053262	3.447160	1.772248	.9898191
#2	25.09949	196.9862	2.085161	-.053641	3.562089	1.764558	.9931729
#3	25.06365	195.7095	2.090797	-.052860	3.443709	1.750982	.9810554
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.23935	7.902389	.6220145	.0009407	.8608308	12.55967	.0058067
Stddev	.06537	.012250	.0012658	.0003043	.0120864	.09904	.0022108
%RSD	.4025145	.1550210	.2034976	32.34984	1.404044	.7885616	38.07355
#1	16.31080	7.905771	.6234719	.0006536	.8695219	12.57510	.0039664
#2	16.22469	7.912594	.6213810	.0009087	.8659420	12.65009	.0051946
#3	16.18256	7.888803	.6211905	.0012597	.8470285	12.45382	.0082591

Sample Name: P4484-03A Acquired: 11/07/2024 18:35:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4H2A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.136218	.2845354	.5621864
Stddev	.037061	.0002308	.0003618
%RSD	.4555088	.0811042	.0643607
#1	8.137547	.2844661	.5624548
#2	8.172596	.2847929	.5623296
#3	8.098510	.2843473	.5617749

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	932.4955	25080.60	2812.827	848.4538	1469.145
Stddev	1.8622	82.20	14.182	1.4503	3.908
%RSD	.1997014	.3277443	.5041940	.1709370	.2660129
#1	931.1887	25072.16	2806.850	846.9948	1464.766
#2	931.6701	25166.69	2802.612	848.4712	1470.390
#3	934.6278	25002.94	2829.019	849.8953	1472.279

Sample Name: P4496-07A Acquired: 11/07/2024 18:39:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MGHZC8A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047612	-.023116	.2705150	.0421666	.1011393	175.3470
Stddev	.0127384	.008492	.0092728	.0016495	.0052936	4.6208
%RSD	267.5482	36.73495	3.427850	3.911857	5.233935	2.635224
#1	-.009373	-.025530	.2604512	.0439037	.0950957	171.8808
#2	.015355	-.030140	.2723808	.0406216	.1049534	180.5930
#3	.008301	-.013679	.2787132	.0419744	.1033689	173.5672
Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4871012	.0041622	.0149965	F 961.4822	1.579795	.2690367
Stddev	.0132409	.0001313	.0006951	25.2027	.002755	.0010421
%RSD	2.718296	3.153571	4.635200	2.621230	.1743749	.3873636
#1	.4766804	.0042552	.0156679	943.3261	1.581804	.2702335
#2	.5020005	.0042195	.0142799	990.2565	1.576654	.2683295
#3	.4826228	.0040121	.0150416	950.8640	1.580926	.2685471
Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3713356	410.3240	4.793550	152.5201	4.951813	.0001901
Stddev	.0064753	11.4181	.117350	4.3311	.007502	.0008591
%RSD	1.743785	2.782693	2.448091	2.839668	.1514931	451.8039
#1	.3671209	402.4512	4.706128	149.5284	4.943223	.0007733
#2	.3787915	423.4194	4.926923	157.4866	4.957079	-.000796
#3	.3680945	405.1014	4.747601	150.5453	4.955136	.000594
Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.368209	1.168049	.5491845	15.59442	6.516126	.3996171
Stddev	.222021	.027839	.0023115	.48183	.016124	.0114464
%RSD	6.591653	2.383350	.4208984	3.089766	.2474495	2.864347
#1	3.163533	1.142676	.5482951	15.17631	6.498101	.3903946
#2	3.336854	1.197828	.5518086	16.12136	6.529176	.4124277
#3	3.604241	1.163643	.5474498	15.48559	6.521102	.3960291

Sample Name: P4496-07A Acquired: 11/07/2024 18:39:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MGHZC8A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025058	21.59706	12.14918	.0096558	4.772057	.1962984
Stddev	.0006656	.04891	.32136	.0002917	.131624	.0046992
%RSD	26.56192	.2264539	2.645101	3.021188	2.758224	2.393919
#1	.0019561	21.56804	11.92907	.0093542	4.672804	.1931653
#2	.0032458	21.65352	12.51795	.0099365	4.921366	.2017016
#3	.0023155	21.56961	12.00051	.0096767	4.722003	.1940282
Elem	Sr4077					
Units	ppm					
Avg	1.170804					
Stddev	.029864					
%RSD	2.550741					
#1	1.149309					
#2	1.204904					
#3	1.158199					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	878.5646	23226.45	2550.224	804.8941	1377.547	
Stddev	1.0137	60.41	61.886	5.9724	1.100	
%RSD	.1153800	.2600958	2.426706	.7420116	.0798255	
#1	877.4815	23160.22	2587.248	800.0450	1378.201	
#2	878.7217	23278.53	2478.779	803.0719	1376.277	
#3	879.4905	23240.61	2584.644	811.5653	1378.163	

Sample Name: P4497-20A Acquired: 11/07/2024 18:43:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHDD0A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0369866	-.007702	.1828449	.0482168	.0080601	119.8693
Stddev	.0194529	.004517	.0087669	.0060022	.0034957	.6805
%RSD	52.59445	58.65430	4.794716	12.44843	43.37068	.5676651
#1	.0576318	-.010735	.1729267	.0427723	.0112715	120.6193
#2	.0343287	-.002510	.1895592	.0546532	.0043365	119.6969
#3	.0189993	-.009860	.1860487	.0472249	.0085722	119.2916

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7960571	.0024428	.0124727	F 1249.079	2.382359	.2514611
Stddev	.0060307	.0002071	.0005240	16.572	.029514	.0015473
%RSD	.7575772	8.476915	4.201415	1.326777	1.238866	.6153181
#1	.8024496	.0023040	.0125327	1267.158	2.388871	.2502134
#2	.7952528	.0023435	.0119213	1234.606	2.350133	.2509774
#3	.7904688	.0026808	.0129642	1245.474	2.408074	.2531924

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2845782	297.4815	5.158535	271.0501	F 7.742212	-.002209
Stddev	.0015866	1.5617	.045009	1.5306	.032934	.000971
%RSD	.5575323	.5249883	.8725205	.5646785	.4253872	43.94708
#1	.2855704	299.1333	5.207659	272.5011	7.709396	-.002144
#2	.2827483	297.2821	5.148668	271.1983	7.741977	-.003210
#3	.2854158	296.0290	5.119278	269.4508	7.775263	-.001272

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.853785	.8297842	1.763925	9.748696	6.853388	.3244420
Stddev	.708243	.0201185	.018186	.069374	.054140	.0010549
%RSD	7.999323	2.424550	1.030993	.7116240	.7899723	.3251315
#1	9.481718	.8515805	1.770082	9.800672	6.805451	.3241558
#2	8.086075	.8119257	1.743460	9.775496	6.842604	.3235597
#3	8.993562	.8258466	1.778234	9.669919	6.912107	.3256104

Sample Name: P4497-20A Acquired: 11/07/2024 18:43:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHDD0A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024244	30.07818	7.371984	.0118591	6.496789	.1411589
Stddev	.0008629	.17681	.045422	.0029081	.032300	.0011034
%RSD	35.59284	.5878463	.6161389	24.52187	.4971721	.7817021
#1	.0019883	29.94827	7.422146	.0144431	6.533445	.1414485
#2	.0034183	30.00674	7.333637	.0124244	6.484422	.1420886
#3	.0018665	30.27954	7.360169	.0087099	6.472499	.1399395
Elem	Sr4077					
Units	ppm					
Avg	2.149267					
Stddev	.018500					
%RSD	.8607582					
#1	2.170064					
#2	2.143096					
#3	2.134641					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	816.0893	21983.67	2469.984	751.2600	1325.459	
Stddev	.8332	159.60	14.391	5.7652	2.587	
%RSD	.1020935	.7259706	.5826343	.7674069	.1951762	
#1	816.6253	21883.96	2453.462	748.0574	1327.933	
#2	815.1294	22167.74	2476.706	757.9155	1325.673	
#3	816.5133	21899.32	2479.783	747.8070	1322.772	

Sample Name: P4498-10A Acquired: 11/07/2024 18:48:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHDF0A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008984	-.034969	.3609550	.0446993	.0066379	187.4321
Stddev	.017716	.007508	.0017019	.0028216	.0048684	3.2456
%RSD	197.1907	21.47145	.4714961	6.312408	73.34195	1.731592

#1	-.015179	-.032719	.3601620	.0471409	.0077699	191.1770
#2	-.022770	-.028843	.3629087	.0453466	.0013033	185.6839
#3	.010997	-.043345	.3597944	.0416102	.0108406	185.4354

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.410541	.0042821	.0154461	249.1868	4.376569	.5238851
Stddev	.028842	.0001480	.0004074	4.2528	.009127	.0014010
%RSD	2.044725	3.456226	2.637620	1.706682	.2085335	.2674252

#1	1.443800	.0041567	.0149781	253.9896	4.376167	.5251910
#2	1.395406	.0044454	.0157213	247.6719	4.385891	.5240590
#3	1.392417	.0042444	.0156389	245.8988	4.367651	.5224053

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4876181	467.0122	8.960876	474.0458	F 6.478323	-.025287
Stddev	.0155099	7.8714	.149902	7.3884	.003365	.000389
%RSD	3.180754	1.685486	1.672856	1.558582	.0519478	1.536654

#1	.5054616	475.9380	9.133192	482.4677	6.475909	-.025730
#2	.4800245	464.0345	8.888899	471.0144	6.482167	-.025125
#3	.4773681	461.0639	8.860537	468.6552	6.476893	-.025005

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.175564	1.199920	.5804660	13.22420	5.125269	.4369509
Stddev	.161593	.022061	.0021777	.15415	.009657	.0106063
%RSD	2.616648	1.838526	.3751682	1.165671	.1884176	2.427349

#1	5.989091	1.224541	.5829798	13.36554	5.114131	.4491643
#2	6.274549	1.193270	.5792646	13.24722	5.131306	.4316304
#3	6.263051	1.181950	.5791536	13.05983	5.130370	.4300580

Sample Name: P4498-10A Acquired: 11/07/2024 18:48:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHDF0A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036670	2.111776	8.353274	.0213085	12.71741	.1236058
Stddev	.0011294	.016586	.097254	.0017126	.22680	.0022222
%RSD	30.79982	.7854212	1.164258	8.037234	1.783375	1.797829
#1	.0044328	2.130313	8.458261	.0232335	12.97915	.1261520
#2	.0041985	2.106676	8.335299	.0199539	12.57883	.1220572
#3	.0023699	2.098338	8.266262	.0207380	12.59427	.1226082
Elem	Sr4077					
Units	ppm					
Avg	.9134975					
Stddev	.0177740					
%RSD	1.945703					
#1	.9339888					
#2	.9042489					
#3	.9022549					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	869.8860	23373.20	2554.676	792.3280	1423.058	
Stddev	2.6055	75.97	35.257	3.2718	3.722	
%RSD	.2995270	.3250219	1.380084	.4129394	.2615222	
#1	866.8813	23302.22	2516.882	788.5919	1419.333	
#2	871.2553	23364.05	2560.467	793.7101	1423.064	
#3	871.5214	23453.33	2586.678	794.6820	1426.776	

Sample Name: P4499-20A Acquired: 11/07/2024 18:52:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCN0A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0609697	-.005821	.1873371	-.005457	.0060653	128.7366
Stddev	.0201684	.006319	.0077734	.001451	.0046787	.1599
%RSD	33.07931	108.5547	4.149401	26.58973	77.13826	.1242314

#1	.0719241	-.012847	.1783649	-.006894	.0032617	128.8204
#2	.0732903	-.000604	.1916004	-.003992	.0034677	128.8371
#3	.0376946	-.004011	.1920460	-.005485	.0114665	128.5521

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.629300	.0042315	.0141860	F 1134.543	2.705097	1.104615
Stddev	.004590	.0000946	.0005191	5.431	.101189	.018583
%RSD	.2817331	2.234781	3.658999	.4787193	3.740675	1.682267

#1	1.627822	.0042875	.0135872	1134.520	2.766344	1.083459
#2	1.634447	.0042847	.0145076	1129.123	2.760646	1.112093
#3	1.625630	.0041223	.0144631	1139.986	2.588300	1.118294

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.335881	293.2385	5.899249	412.8294	4.976038	-.009316
Stddev	.004343	.3286	.010985	.6981	.082560	.003004
%RSD	.3251191	.1120473	.1862072	.1690910	1.659152	32.24542

#1	1.331043	292.8840	5.891339	412.1082	4.884931	-.008149
#2	1.339444	293.2987	5.911791	412.8784	4.997287	-.007071
#3	1.337155	293.5328	5.894617	413.5017	5.045897	-.012729

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.28233	.7605976	.9150821	15.24311	F 13.13056	.3192751
Stddev	.28103	.0082103	.0405358	.08221	.24962	.0007059
%RSD	2.115813	1.079452	4.429741	.5393479	1.901083	.2210924

#1	12.95962	.7584946	.9416762	15.17365	12.85495	.3186953
#2	13.47322	.7696549	.9351424	15.33388	13.19529	.3190689
#3	13.41415	.7536434	.8684277	15.22180	13.34144	.3200611

Sample Name: P4499-20A Acquired: 11/07/2024 18:52:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCN0A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039301	11.31999	6.882955	.0256484	1.782514	.1004767
Stddev	.0004240	.19157	.050157	.0014059	.004194	.0003393
%RSD	10.78946	1.692289	.7287147	5.481533	.2352943	.3376921
#1	.0043046	11.10728	6.919935	.0240574	1.781586	.1002856
#2	.0034697	11.37382	6.903066	.0267235	1.787094	.1002760
#3	.0040159	11.47889	6.825863	.0261642	1.778861	.1008684
Elem	Sr4077					
Units	ppm					
Avg	2.391393					
Stddev	.002113					
%RSD	.0883392					
#1	2.390193					
#2	2.393833					
#3	2.390154					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	852.0222	23438.28	2597.912	800.0060	1300.931	
Stddev	8.8928	816.85	3.831	28.3901	18.775	
%RSD	1.043734	3.485098	.1474499	3.548738	1.443163	
#1	861.4428	22978.08	2593.755	781.7991	1321.516	
#2	850.8505	22955.36	2598.682	785.5006	1296.525	
#3	843.7733	24381.41	2601.300	832.7184	1284.751	

Sample Name: P4500-10A Acquired: 11/07/2024 18:57:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCP0A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.028215	-.021283	.1329442	-.003196	.0062573	173.3198
Stddev	.018180	.004125	.0018425	.003547	.0040780	.5321
%RSD	64.43575	19.38376	1.385937	110.9796	65.17181	.3069800

#1	-.019490	-.023862	.1327830	-.000543	.0103277	172.8329
#2	-.049113	-.016525	.1348621	-.007226	.0021717	173.2388
#3	-.016041	-.023461	.1311876	-.001820	.0062726	173.8877

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.094904	.0039133	.0148671	478.8023	3.578080	.4547080
Stddev	.004385	.0001815	.0001098	1.5051	.010418	.0007510
%RSD	.4005178	4.636911	.7387373	.3143481	.2911553	.1651638

#1	1.093559	.0038061	.0149135	477.1322	3.572341	.4555726
#2	1.091350	.0038110	.0149461	479.2207	3.571795	.4542177
#3	1.099805	.0041228	.0147417	480.0539	3.590106	.4543336

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4203570	412.0867	8.185180	383.5576	F 5.343237	-.019200
Stddev	.0061246	1.3393	.016166	1.0781	.007151	.000089
%RSD	1.456998	.3249985	.1974993	.2810753	.1338417	.4618741

#1	.4175602	410.6094	8.179660	382.4197	5.344847	-.019115
#2	.4161301	412.4293	8.172498	383.6895	5.349446	-.019292
#3	.4273807	413.2214	8.203383	384.5637	5.335418	-.019194

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.969424	1.135677	.5521912	11.26968	6.087045	.4027512
Stddev	.055577	.007056	.0038470	.10532	.021550	.0025292
%RSD	.7974446	.6212636	.6966703	.9345709	.3540330	.6279732

#1	7.024725	1.129580	.5480648	11.15021	6.080353	.3998632
#2	6.969975	1.134047	.5528299	11.34914	6.111147	.4038194
#3	6.913574	1.143405	.5556788	11.30968	6.069634	.4045710

Sample Name: P4500-10A Acquired: 11/07/2024 18:57:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCP0A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001470	4.747557	9.157915	.0082198	10.70558	.1305841
Stddev	.0003116	.009264	.053774	.0017469	.03745	.0013889
%RSD	211.9742	.1951229	.5871846	21.25289	.3498020	1.063593
#1	-.000206	4.758212	9.095929	.0083715	10.66707	.1293318
#2	.000383	4.741413	9.185751	.0098859	10.70778	.1303425
#3	.000264	4.743046	9.192064	.0064019	10.74187	.1320779
Elem	Sr4077					
Units	ppm					
Avg	1.003373					
Stddev	.003613					
%RSD	.3600841					
#1	1.001702					
#2	1.000898					
#3	1.007519					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	868.5590	23150.27	2581.244	789.8473	1396.605	
Stddev	2.1261	64.36	7.364	3.7771	2.095	
%RSD	.2447822	.2780095	.2852888	.4782074	.1500272	
#1	866.8372	23159.67	2587.421	792.9906	1394.438	
#2	867.9043	23209.41	2583.218	790.8941	1396.757	
#3	870.9354	23081.72	2573.095	785.6572	1398.620	

Sample Name: P4501-13A Acquired: 11/07/2024 19:01:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCW0A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0119724	-.013116	.4655920	.0387251	.0991032	147.1007
Stddev	.0194794	.004745	.0081061	.0030031	.0015406	.2344
%RSD	162.7019	36.17682	1.741042	7.754814	1.554504	.1593520

#1	-.004333	-.009673	.4729506	.0378104	.1001198	147.3395
#2	.006707	-.011148	.4669226	.0420791	.0973307	147.0916
#3	.033543	-.018529	.4569029	.0362857	.0998590	146.8710

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6260008	.0035633	.0156094	F 1026.997	1.863933	.2896268
Stddev	.0020613	.0002478	.0002974	2.266	.003720	.0015192
%RSD	.3292789	6.954697	1.905564	.2206008	.1995878	.5245461

#1	.6283369	.0032825	.0157779	1028.486	1.862318	.2885960
#2	.6244380	.0037516	.0152659	1028.115	1.868187	.2889130
#3	.6252275	.0036556	.0157843	1024.390	1.861292	.2913715

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3751557	376.6565	4.477495	189.7823	F 6.755886	.0044712
Stddev	.0077605	.6161	.020610	.5507	.020468	.0003470
%RSD	2.068598	.1635764	.4603116	.2901536	.3029662	7.761049

#1	.3841002	377.3671	4.500810	190.3256	6.751666	.0041305
#2	.3702135	376.3315	4.469973	189.7970	6.737857	.0048242
#3	.3711533	376.2709	4.461703	189.2245	6.778135	.0044588

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.245229	1.043015	3.685882	18.07579	7.147942	.3797341
Stddev	.392999	.007404	.018719	.12546	.044586	.0015812
%RSD	5.424250	.7098877	.5078499	.6940687	.6237608	.4163940

#1	7.661977	1.051515	3.689894	18.03853	7.124242	.3814728
#2	6.881327	1.039562	3.665483	18.21566	7.120211	.3793472
#3	7.192381	1.037968	3.702270	17.97319	7.199373	.3783823

Sample Name: P4501-13A Acquired: 11/07/2024 19:01:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCW0A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012544	83.73250	11.56993	.0340230	4.585073	.1622335
Stddev	.0007471	.21521	.02289	.0016901	.015603	.0006449
%RSD	59.55852	.2570234	.1978546	4.967424	.3402914	.3975232
#1	.0004684	83.62141	11.55137	.0350890	4.603087	.1625061
#2	.0013393	83.59553	11.59551	.0320744	4.576304	.1614970
#3	.0019553	83.98055	11.56290	.0349057	4.575827	.1626972
Elem	Sr4077					
Units	ppm					
Avg	1.538083					
Stddev	.002556					
%RSD	.1662128					
#1	1.540995					
#2	1.536208					
#3	1.537047					
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306	
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	
Avg	873.2284	23023.44	2585.357	795.3717	1377.575	
Stddev	1.3107	45.26	2.647	4.2224	4.446	
%RSD	.1500941	.1965967	.1023834	.5308683	.3227164	
#1	871.7375	22971.70	2582.317	793.7737	1377.159	
#2	874.1994	23055.72	2587.150	800.1599	1382.214	
#3	873.7482	23042.89	2586.604	792.1816	1373.352	

Sample Name: P4519-03ADLX2 Acquired: 11/07/2024 19:05:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4K2A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0800860	-.024161	.3176737	.0062918	.0060318	77.55919	.7930471
Stddev	.0094383	.002624	.0065661	.0036454	.0003812	.18935	.0014529
%RSD	11.78522	10.86050	2.066920	57.93916	6.319990	.2441344	.1832097
#1	.0855524	-.026809	.3103164	.0033059	.0060068	77.37349	.7932037
#2	.0691876	-.024113	.3197660	.0103543	.0056637	77.55210	.7915222
#3	.0855180	-.021562	.3229386	.0052153	.0064249	77.75199	.7944154
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022829	.0050680	59.59879	.1541987	.0962369	.2691162	168.0015
Stddev	.0000939	.0001625	.24829	.0013124	.0010277	.0018361	.5448
%RSD	4.110762	3.205895	.4165972	.8510795	1.067908	.6822677	.3242651
#1	.0023205	.0050358	59.37132	.1543637	.0957892	.2696343	167.3942
#2	.0021761	.0052441	59.56139	.1554207	.0974126	.2706375	168.1630
#3	.0023522	.0049240	59.86365	.1528116	.0955090	.2670767	168.4471
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.963196	38.50428	.1432358	-.012347	1.817042	.3330244	.3783419
Stddev	.011257	.13940	.0012106	.000236	.174591	.0062871	.0019458
%RSD	.2268062	.3620392	.8451789	1.910343	9.608549	1.887868	.5143003
#1	4.950228	38.36518	.1446327	-.012467	1.688111	.3402777	.3799257
#2	4.970446	38.50367	.1424910	-.012076	1.747289	.3296603	.3789301
#3	4.968914	38.64398	.1425838	-.012500	2.015727	.3291352	.3761698
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.35456	5.319466	.1622567	-.000047	.8085177	8.347425	.0029255
Stddev	.03321	.024591	.0005891	.000385	.0111244	.021277	.0023465
%RSD	.1421999	.4622902	.3630559	820.9317	1.375898	.2548877	80.20629
#1	23.38509	5.301788	.1618849	-.000305	.7973108	8.342067	.0023890
#2	23.35938	5.309061	.1629359	-.000231	.8195577	8.370868	.0054938
#3	23.31920	5.347550	.1619492	.000396	.8086845	8.329339	.0008938

Sample Name: P4519-03ADLX2 Acquired: 11/07/2024 19:05:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4K2A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.557564	.0578688	.2489409
Stddev	.006809	.0005681	.0003681
%RSD	.2662467	.9816538	.1478758
#1	2.549863	.0573808	.2486200
#2	2.562790	.0577331	.2488600
#3	2.560038	.0584924	.2493428

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	941.6794	24020.23	2592.246	857.0763	1630.940
Stddev	2.2635	40.53	4.601	1.8068	2.198
%RSD	.2403737	.1687474	.1774892	.2108051	.1347919
#1	943.9632	24052.29	2596.000	855.2094	1633.474
#2	941.6383	23974.67	2587.113	858.8162	1629.554
#3	939.4366	24033.74	2593.624	857.2034	1629.790

Sample Name: CCV030 Acquired: 11/07/2024 19:10:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV030 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.975025	4.777453	24.53277	4.738561	4.806099	398.1931	9.916441
Stddev	.017638	.008084	.02529	.013799	.011112	12.1073	.302033
%RSD	.3545337	.1692086	.1030743	.2911985	.2312117	3.040571	3.045780
#1	4.965950	4.783652	24.51367	4.725276	4.813113	404.3685	10.04855
#2	4.963772	4.768310	24.52319	4.737585	4.793287	384.2432	9.57086
#3	4.995353	4.780398	24.56144	4.752821	4.811897	405.9674	10.12991
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5017085	2.485571	399.3235	15.06854	2.495687	14.58865	406.6296
Stddev	.0110371	.002500	11.9002	.39249	.002518	.44601	11.9131
%RSD	2.199893	.1005910	2.980079	2.604723	.1009051	3.057217	2.929728
#1	.5043485	2.482927	405.8939	14.62531	2.492846	14.79403	413.0002
#2	.4895908	2.485890	385.5867	15.37207	2.497643	14.07696	392.8857
#3	.5111861	2.487896	406.4899	15.20823	2.496572	14.89497	414.0029
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.45875	385.0547	2.486810	1.236950	402.6593	2.441559	14.30289
Stddev	.44090	11.4140	.002367	.035561	12.0784	.064677	.50289
%RSD	3.049332	2.964253	.0951943	2.874890	2.999649	2.649014	3.516002
#1	14.64188	390.2743	2.484355	1.197852	409.6915	2.475956	13.74922
#2	13.95580	371.9642	2.486997	1.267365	388.7126	2.366952	14.73134
#3	14.77857	392.9257	2.489078	1.245633	409.5739	2.481770	14.42810
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.5661	4.977297	5.066995	4.746722	5.026217	4.960119	4.947551
Stddev	4.5360	.008736	.114807	.013048	.021487	.099587	.003653
%RSD	3.012642	.1755149	2.265778	.2748846	.4274983	2.007757	.0738379
#1	152.6381	4.971514	5.103498	4.750402	5.036976	4.991141	4.944582
#2	145.3641	4.987346	4.938375	4.732229	5.001476	4.848713	4.946441
#3	153.6961	4.973030	5.159113	4.757535	5.040199	5.040503	4.951631

Sample Name: CCV030 Acquired: 11/07/2024 19:10:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV030 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.877011	5.014489	4.943990
Stddev	.132490	.149638	.149914
%RSD	2.716628	2.984107	3.032256

#1	4.943392	5.088009	5.009751
#2	4.724452	4.842313	4.772434
#3	4.963188	5.113146	5.049786

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	722.2230	20697.30	2305.310	648.3627	1341.471
Stddev	1.3808	419.81	57.701	18.7512	.975
%RSD	.1911890	2.028325	2.502971	2.892087	.0727148

#1	721.2053	21165.16	2273.596	669.0018	1340.632
#2	723.7948	20353.51	2371.913	632.3749	1342.542
#3	721.6689	20573.22	2270.422	643.7114	1341.239

Sample Name: CCB030 Acquired: 11/07/2024 19:14:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	-.003036	-.002285	-.000680	.0031004	.0013151	.0080318	.0002699
Stddev	.005707	.000425	.002357	.0030273	.0007762	.0073078	.0002505
%RSD	187.9609	18.61973	346.3561	97.64371	59.02150	90.98597	92.81224

#1	-.009429	-.002739	-.002382	.0065711	.0005135	.0031278	.0001348
#2	-.001226	-.001896	-.001669	.0017254	.0020632	.0164307	.0005589
#3	.001546	-.002220	.002009	.0010045	.0013686	.0045368	.0001159

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000015	.0000292	.0794768	.0009433	.0004864	.0005407	-.009021
Stddev	.000038	.0001389	.0058609	.0012319	.0003539	.0059356	.045487
%RSD	252.6055	475.3444	7.374401	130.5984	72.76958	1097.676	504.2518

#1	-.000058	-.000117	.0842956	-.000473	.0006938	.0050939	.028085
#2	.000004	.000045	.0729522	.001765	.0000777	.0027007	.004620
#3	.000010	.000160	.0811825	.001538	.0006876	-.006172	-.059768

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012259	-.063775	-.000667	.0009438	.4233176	.0034455	.0013699
Stddev	.0016832	.020157	.000392	.0002191	.2329843	.0065854	.0003409
%RSD	137.2980	31.60621	58.80267	23.21312	55.03771	191.1317	24.88450

#1	.0031652	-.041543	-.000582	.0006919	.2160470	.0105967	.0010115
#2	.0001445	-.080857	-.000325	.0010502	.3784239	.0021088	.0016901
#3	.0003681	-.068924	-.001095	.0010895	.6754818	-.002369	.0014080

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.156431	.0009211	.0042614	.0002888	.0005759	.0015342	.0031630
Stddev	.097688	.0028746	.0001670	.0005897	.0048049	.0003529	.0006333
%RSD	62.44775	312.0911	3.919478	204.1812	834.2873	23.00365	20.02244

#1	-.259436	.0040671	.0040831	-.000386	.0004920	.0013040	.0038938
#2	-.144745	-.001569	.0042870	.000707	-.004186	.0019405	.0028204
#3	-.065112	.000265	.0044142	.000544	.005422	.0013580	.0027747

Sample Name: CCB030 Acquired: 11/07/2024 19:14:30 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) 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	.0024868	.0078479	.0003519
Stddev	.0004962	.0019529	.0001559
%RSD	19.95333	24.88435	44.30747
#1	.0022327	.0100769	.0004868
#2	.0030586	.0070287	.0001812
#3	.0021692	.0064380	.0003878

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	892.8702	22409.60	2384.644	809.7736	1759.040
Stddev	2.0061	16.74	13.382	5.8367	3.903
%RSD	.2246839	.0747057	.5611746	.7207801	.2218979
#1	892.1825	22393.92	2373.129	804.2208	1754.685
#2	895.1297	22427.23	2381.479	815.8578	1762.224
#3	891.2983	22407.64	2399.325	809.2421	1760.211

Sample Name: P4480-05ADLX2 Acquired: 11/07/2024 19:25:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2202440	-.033329	.4323970	.0546753	.0076161	128.4010	1.547627
Stddev	.0125963	.003782	.0055944	.0061765	.0043084	.2942	.002397
%RSD	5.719260	11.34742	1.293820	11.29671	56.57006	.2291094	.1548629
#1	.2070568	-.032411	.4283018	.0618073	.0071424	128.6027	1.546477
#2	.2321518	-.037485	.4301179	.0510848	.0121419	128.0634	1.546022
#3	.2215233	-.030090	.4387712	.0511338	.0035641	128.5368	1.550382
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033794	.0078790	67.06582	.2262471	.1208096	.4154411	242.7991
Stddev	.0001098	.0002606	.28020	.0008701	.0011980	.0001819	.7189
%RSD	3.247557	3.307098	.4177987	.3845940	.9916608	.0437879	.2961069
#1	.0034108	.0078544	67.32298	.2265286	.1215184	.4156102	243.1332
#2	.0032574	.0076316	66.76720	.2269416	.1194264	.4154645	241.9739
#3	.0034700	.0081510	67.10730	.2252711	.1214840	.4152486	243.2902
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.918383	53.74768	.2761294	-.017356	2.204351	.4659622	.4583823
Stddev	.012087	.39518	.0004353	.000134	.061689	.0074220	.0030072
%RSD	.2457542	.7352595	.1576317	.7695351	2.798527	1.592825	.6560473
#1	4.914434	53.66141	.2761729	-.017445	2.205290	.4737936	.4617219
#2	4.908764	53.40276	.2765413	-.017202	2.265566	.4650611	.4575362
#3	4.931951	54.17887	.2756740	-.017420	2.142198	.4590320	.4558888
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.75682	6.243411	.2238177	-.000423	.8110951	7.559147	.0069879
Stddev	.01462	.008882	.0016192	.000736	.0053366	.030753	.0013355
%RSD	.0642399	.1422687	.7234642	173.9689	.6579478	.4068318	19.11170
#1	22.77250	6.242869	.2232542	-.000882	.8111834	7.590555	.0054735
#2	22.75440	6.252552	.2225554	.000426	.8057149	7.529093	.0074928
#3	22.74356	6.234812	.2256433	-.000813	.8163870	7.557794	.0079973

Sample Name: P4480-05ADLX2 Acquired: 11/07/2024 19:25:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE494A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.263029	.1013824	.5901278
Stddev	.007798	.0008409	.0010637
%RSD	.2389955	.8294495	.1802509

#1	3.269212	.1013263	.5903801
#2	3.254268	.1022499	.5889606
#3	3.265608	.1005709	.5910426

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	938.6287	23899.39	2600.906	853.7152	1600.062
Stddev	2.2942	35.93	13.555	6.6644	2.472
%RSD	.2444243	.1503488	.5211459	.7806333	.1544945

#1	935.9838	23924.65	2591.187	846.2787	1597.208
#2	939.8209	23915.27	2616.390	855.7193	1601.538
#3	940.0813	23858.25	2595.142	859.1476	1601.439

Sample Name: P4481-12ADLX2 Acquired: 11/07/2024 19:29:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4C1A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5763213	-.032885	.1703628	.0013800	.0023828	95.92898	.9937755
Stddev	.0062479	.006786	.0032041	.0070286	.0033781	.08638	.0019307
%RSD	1.084092	20.63697	1.880733	509.3270	141.7731	.0900479	.1942757

#1	.5801914	-.036211	.1681091	.0079412	.0044268	95.83649	.9938333
#2	.5691135	-.037367	.1740307	-.006038	-.001516	96.00756	.9918166
#3	.5796591	-.025077	.1689487	.002236	.004238	95.94291	.9956767

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028617	.0079596	29.80452	.2210791	.1120257	1.723647	201.5867
Stddev	.0000742	.0002000	.09925	.0020888	.0009971	.003330	.5375
%RSD	2.592663	2.512177	.3329974	.9448009	.8900892	.1931750	.2666152

#1	.0028086	.0079830	29.71652	.2230866	.1121964	1.720767	200.9973
#2	.0029465	.0081469	29.91210	.2189176	.1109543	1.727293	201.7132
#3	.0028299	.0077490	29.78495	.2212330	.1129265	1.722879	202.0497

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.482444	44.33033	.2151760	-.015109	1.554557	.3874348	1.436002
Stddev	.013115	.04685	.0002529	.000488	.247317	.0077169	.002389
%RSD	.2392182	.1056900	.1175351	3.228659	15.90915	1.991787	.1663315

#1	5.487406	44.37144	.2154384	-.015280	1.471085	.3798228	1.434302
#2	5.492354	44.34024	.2151559	-.015488	1.359776	.3952524	1.438733
#3	5.467572	44.27932	.2149338	-.014558	1.832809	.3872291	1.434971

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.22571	5.181080	.1854100	-.000097	.7645429	7.583590	.0090192
Stddev	.21494	.025353	.0030477	.000463	.0087283	.019077	.0002201
%RSD	.8195904	.4893386	1.643759	474.8552	1.141637	.2515528	2.440278

#1	26.04885	5.201977	.1818927	-.000530	.7641862	7.605614	.0088414
#2	26.16335	5.152876	.1872676	.000391	.7734441	7.572191	.0089509
#3	26.46495	5.188388	.1870696	-.000153	.7559984	7.572966	.0092654

Sample Name: P4481-12ADLX2 Acquired: 11/07/2024 19:29:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4C1A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.554243	.0753744	.1728266
Stddev	.002396	.0003924	.0003241
%RSD	.0938150	.5205464	.1875379
#1	2.556188	.0750628	.1724584
#2	2.554975	.0752454	.1730688
#3	2.551566	.0758150	.1729527

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	946.1808	24148.15	2588.941	865.7660	1636.393
Stddev	.5932	92.93	2.116	1.9487	3.452
%RSD	.0626980	.3848512	.0817340	.2250889	.2109693
#1	945.5001	24187.63	2586.497	867.8614	1632.518
#2	946.5876	24214.83	2590.135	864.0080	1639.142
#3	946.4548	24041.99	2590.190	865.4287	1637.518

Sample Name: P4482-14ADLX2 Acquired: 11/07/2024 19:34:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4E3A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0887787	-.030119	.1303621	.0009860	.0050162	81.44415	.7586521
Stddev	.0112542	.004560	.0002789	.0103883	.0015575	2.22044	.0186631
%RSD	12.67669	15.13873	.2139428	1053.585	31.04864	2.726336	2.460029
#1	.1015574	-.026410	.1306307	.0115100	.0062592	82.45405	.7678978
#2	.0803437	-.035210	.1303818	-.009261	.0055204	82.98014	.7708873
#3	.0844349	-.028737	.1300739	.000709	.0032691	78.89826	.7371711
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025782	.0057048	45.23383	.1816071	.0941386	.2435661	193.5538
Stddev	.0001357	.0003607	1.17583	.0026619	.0009710	.0087384	5.3102
%RSD	5.263795	6.322134	2.599443	1.465724	1.031408	3.587703	2.743502
#1	.0027290	.0053087	45.69808	.1845342	.0938222	.2464040	195.3583
#2	.0025398	.0057915	46.10666	.1793313	.0933653	.2505328	197.7265
#3	.0024659	.0060142	43.89675	.1809559	.0952283	.2337615	187.5765
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.853498	35.67812	.1613929	-.014928	1.703043	.4433592	1.175572
Stddev	.082536	.96946	.0000705	.000637	.031111	.0101150	.004144
%RSD	2.141856	2.717235	.0436540	4.269132	1.826800	2.281452	.3524893
#1	3.890789	35.88123	.1614420	-.015327	1.730993	.4414986	1.180173
#2	3.910809	36.52993	.1614245	-.015264	1.669523	.4542754	1.174411
#3	3.758897	34.62320	.1613122	-.014193	1.708614	.4343037	1.172133
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.79265	5.812102	.1827168	-.000168	1.430673	7.268153	.0031343
Stddev	.62476	.007326	.0066220	.000201	.008533	.173575	.0016647
%RSD	3.004717	.1260420	3.624170	120.1621	.5964627	2.388161	53.11283
#1	21.09655	5.806983	.1848493	.000043	1.437172	7.354995	.0045595
#2	21.20732	5.808829	.1880098	-.000359	1.433837	7.381167	.0013046
#3	20.07408	5.820493	.1752914	-.000187	1.421009	7.068296	.0035388

Sample Name: P4482-14ADLX2 Acquired: 11/07/2024 19:34:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4E3A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.994155	.0605822	.1945949
Stddev	.080540	.0025717	.0049802
%RSD	2.689896	4.245062	2.559247
#1	3.033344	.0606713	.1966609
#2	3.047600	.0631082	.1982097
#3	2.901520	.0579670	.1889143

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	946.9607	24128.48	2635.488	866.5025	1649.977
Stddev	2.6896	83.34	66.503	4.4517	1.855
%RSD	.2840266	.3454040	2.523360	.5137590	.1124297
#1	943.9703	24036.31	2600.317	861.3718	1647.859
#2	947.7298	24150.59	2593.955	869.3420	1651.312
#3	949.1820	24198.54	2712.191	868.7936	1650.761

Sample Name: P4483-20ADLX2 Acquired: 11/07/2024 19:38:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2295464	-.032888	.1407815	-.001376	.0045678	101.4080	1.064587
Stddev	.0092714	.004029	.0060432	.008652	.0018934	.1418	.000882
%RSD	4.039020	12.25107	4.292581	628.8222	41.45100	.1398126	.0828515
#1	.2367466	-.035483	.1437748	.008370	.0062505	101.4639	1.064977
#2	.2190851	-.028247	.1447438	-.004346	.0049355	101.2468	1.063577
#3	.2328076	-.034936	.1338259	-.008152	.0025175	101.5134	1.065207
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030662	.0080226	42.46607	3.325403	.1158559	.4770397	225.8828
Stddev	.0000430	.0002220	.18387	.009548	.0010790	.0051852	.8155
%RSD	1.401547	2.767047	.4329715	.2871318	.9313200	1.086952	.3610146
#1	.0030169	.0081983	42.55436	3.315254	.1165811	.4800982	226.3400
#2	.0030956	.0080963	42.25471	3.326746	.1163706	.4799681	224.9413
#3	.0030862	.0077731	42.58914	3.334208	.1146159	.4710528	226.3670
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.071767	51.07624	.2413253	-.017098	1.846429	.4361792	.5292342
Stddev	.013761	.10305	.0004025	.000381	.181882	.0009214	.0012682
%RSD	.2713221	.2017487	.1667664	2.227423	9.850472	.2112400	.2396297
#1	5.082783	51.09822	.2409235	-.016957	1.952330	.4372237	.5306926
#2	5.056342	50.96397	.2413240	-.016808	1.636412	.4354816	.5283896
#3	5.076176	51.16652	.2417284	-.017529	1.950544	.4358323	.5286206
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.12878	5.843140	.2061924	-.000539	.8392468	7.287073	.0059539
Stddev	.18393	.010504	.0009330	.000361	.0086659	.022934	.0020900
%RSD	.7952476	.1797587	.4524882	66.92051	1.032584	.3147266	35.10315
#1	23.20351	5.833814	.2072364	-.000164	.8342846	7.278846	.0058783
#2	22.91924	5.854518	.2054400	-.000569	.8342026	7.269388	.0039027
#3	23.26358	5.841087	.2059010	-.000883	.8492533	7.312987	.0080807

Sample Name: P4483-20ADLX2 Acquired: 11/07/2024 19:38:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.586089	.0818014	.2487530
Stddev	.003167	.0019769	.0001249
%RSD	.1224817	2.416698	.0501977
#1	2.585171	.0823428	.2486162
#2	2.589614	.0796102	.2487822
#3	2.583482	.0834512	.2488608

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	924.8265	24040.15	2616.879	834.6332	1623.936
Stddev	2.5439	65.89	7.118	4.3225	1.097
%RSD	.2750642	.2740748	.2720062	.5178916	.0675499
#1	923.3488	23979.58	2609.268	832.3694	1624.644
#2	927.7639	24030.58	2623.372	831.9129	1622.673
#3	923.3669	24110.30	2617.997	839.6175	1624.493

Sample Name: P4496-07ADLX2 Acquired: 11/07/2024 19:43:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MGHZC8A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0246004	-.011486	.1401012	.0231866	.0561185	90.05418	.2536512
Stddev	.0263938	.005951	.0020656	.0030741	.0026990	1.42346	.0036419
%RSD	107.2901	51.81121	1.474371	13.25794	4.809407	1.580675	1.435793

#1	.0308292	-.015435	.1413202	.0234387	.0574606	88.41220	.2495406
#2	-.004351	-.004641	.1377163	.0261269	.0578832	90.93982	.2564751
#3	.047323	-.014381	.1412672	.0199943	.0530115	90.81052	.2549378

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020616	.0067745	505.9142	.8607010	.1342105	.1925225	219.6180
Stddev	.0001242	.0002397	8.4998	.0028801	.0006417	.0064211	3.9254
%RSD	6.022525	3.538236	1.680096	.3346257	.4780958	3.335270	1.787397

#1	.0021674	.0069489	496.1061	.8630123	.1334983	.1854252	215.1506
#2	.0019249	.0065012	511.1316	.8616163	.1343895	.1979291	222.5155
#3	.0020926	.0068735	510.5049	.8574745	.1347436	.1942132	221.1880

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.554938	79.17565	2.552993	.0026601	1.889313	.6078475	.2950358
Stddev	.038132	1.54780	.002258	.0008198	.397042	.0154189	.0029569
%RSD	1.492473	1.954898	.0884511	30.81914	21.01517	2.536636	1.002210

#1	2.511831	77.38923	2.554674	.0032411	1.430866	.5939154	.2945589
#2	2.584260	80.02165	2.553879	.0017224	2.122071	.6244138	.2982022
#3	2.568723	80.11607	2.550426	.0030169	2.115003	.6052134	.2923464

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.803262	3.261796	.2139739	.0002393	10.74409	6.467864	.0023901
Stddev	.223764	.010974	.0048830	.0002053	.01710	.090302	.0040951
%RSD	2.867567	.3364463	2.282036	85.77553	.1591892	1.396158	171.3357

#1	7.547280	3.260499	.2084897	.0003509	10.76090	6.365525	.0025944
#2	7.961668	3.273361	.2178500	.0003645	10.72671	6.536338	-.001803
#3	7.900839	3.251528	.2155819	.0000024	10.74467	6.501729	.006379

Sample Name: P4496-07ADLX2 Acquired: 11/07/2024 19:43:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MGHZC8A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.505314	.1030996	.6126021
Stddev	.042833	.0011346	.0093142
%RSD	1.709669	1.100474	1.520435

#1	2.456231	.1019572	.6018746
#2	2.535125	.1031153	.6186333
#3	2.524586	.1042262	.6172983

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	871.6309	22677.28	2495.516	797.5421	1469.062
Stddev	3.0149	34.82	34.601	2.8215	2.628
%RSD	.3458950	.1535291	1.386513	.3537751	.1788724

#1	868.2590	22659.04	2534.900	798.7653	1467.933
#2	872.5670	22717.42	2470.004	794.3155	1467.186
#3	874.0668	22655.37	2481.644	799.5457	1472.065

Sample Name: P4501-13ADLX2 Acquired: 11/07/2024 19:47:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCW0A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0131149	-.006482	.2414655	.0232311	.0493799	77.14602	.3346889
Stddev	.0136359	.002586	.0026334	.0046593	.0012528	.14003	.0010905
%RSD	103.9726	39.90078	1.090579	20.05647	2.536954	.1815083	.3258125
#1	-.002627	-.003505	.2412986	.0195034	.0493599	77.07275	.3336135
#2	.021269	-.007759	.2389195	.0217354	.0506426	77.30748	.3357938
#3	.020703	-.008181	.2441783	.0284547	.0481373	77.05783	.3346594
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020073	.0066735	549.5190	1.004157	.1441349	.2042638	205.0520
Stddev	.0001779	.0004369	1.7308	.003336	.0007300	.0025426	1.4019
%RSD	8.863293	6.546976	.3149734	.3322580	.5064420	1.244758	.6836931
#1	.0020212	.0069065	549.0357	1.000385	.1446970	.2013413	205.1388
#2	.0021778	.0061694	551.4401	1.005365	.1433099	.2059678	206.4085
#3	.0018228	.0069444	548.0811	1.006721	.1443978	.2054823	203.6087
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.428832	99.99909	3.459360	.0047302	3.650289	.5563512	1.972828
Stddev	.007252	.37846	.006653	.0004141	.219574	.0146265	.003228
%RSD	.2985773	.3784628	.1923081	8.754274	6.015244	2.629001	.1636191
#1	2.425056	99.88319	3.454786	.0043268	3.884433	.5731847	1.969955
#2	2.424246	100.4220	3.456303	.0047095	3.617449	.5467473	1.972207
#3	2.437192	99.6921	3.466992	.0051542	3.448985	.5491216	1.976321
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.324784	3.535412	.2061995	-.000482	41.05379	6.251125	.0130202
Stddev	.098363	.006412	.0013098	.000240	.04060	.030850	.0028535
%RSD	1.054859	.1813686	.6352137	49.75705	.0988950	.4935178	21.91623
#1	9.304013	3.538337	.2076425	-.000750	41.07538	6.223264	.0097839
#2	9.238465	3.528059	.2058700	-.000287	41.00696	6.284280	.0151747
#3	9.431874	3.539840	.2050858	-.000410	41.07904	6.245833	.0141019

Sample Name: P4501-13ADLX2 Acquired: 11/07/2024 19:47:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHCW0A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.448863	.0890999	.8204285
Stddev	.010775	.0006512	.0013744
%RSD	.4400120	.7308852	.1675233
#1	2.449755	.0893240	.8212588
#2	2.459164	.0883663	.8211846
#3	2.437669	.0896095	.8188421

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	864.4251	22426.88	2463.097	787.0246	1462.101
Stddev	1.1528	49.82	6.430	1.9641	1.082
%RSD	.1333660	.2221438	.2610387	.2495563	.0739738
#1	863.8334	22404.90	2466.646	784.7568	1463.171
#2	863.6882	22483.91	2455.675	788.1834	1461.008
#3	865.7536	22391.83	2466.969	788.1335	1462.125

Sample Name: CCV031 Acquired: 11/07/2024 19:51:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV031 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.993653	4.764532	24.44765	4.687170	4.772936	403.7607	10.10314
Stddev	.030611	.021155	.01706	.010553	.021468	.9018	.01120
%RSD	.6129915	.4440183	.0697640	.2251438	.4497868	.2233613	.1108507
#1	5.020226	4.784492	24.45826	4.676906	4.752325	403.1069	10.09067
#2	5.000551	4.766747	24.42797	4.697989	4.771315	403.3857	10.11234
#3	4.960182	4.742356	24.45671	4.686615	4.795169	404.7896	10.10640
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5079414	2.473095	403.7584	15.21430	2.485853	14.83077	411.1003
Stddev	.0024272	.004089	1.1746	.02872	.004977	.03596	1.2216
%RSD	.4778444	.1653273	.2909243	.1887616	.2002230	.2424502	.2971493
#1	.5055004	2.477816	403.5758	15.18142	2.490818	14.80126	410.7444
#2	.5079694	2.470731	402.6858	15.23449	2.480864	14.82024	410.0961
#3	.5103545	2.470739	405.0137	15.22699	2.485879	14.87082	412.4602
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.65981	388.4022	2.479524	1.247429	407.8031	2.466866	14.44430
Stddev	.03230	1.9726	.002824	.002645	1.1310	.025823	.05397
%RSD	.2203409	.5078815	.1139084	.2120604	.2773362	1.046807	.3736761
#1	14.65042	389.5160	2.482777	1.245466	407.8990	2.462577	14.46389
#2	14.69577	386.1246	2.477700	1.250437	406.6272	2.494566	14.48574
#3	14.63325	389.5660	2.478095	1.246385	408.8831	2.443456	14.38326
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	152.7687	4.981244	5.138018	4.732036	5.030684	5.015233	4.937872
Stddev	.1753	.007067	.023079	.012316	.008790	.012376	.006164
%RSD	.1147624	.1418763	.4491816	.2602724	.1747289	.2467671	.1248294
#1	152.5945	4.980197	5.117084	4.720472	5.025482	5.006122	4.943834
#2	152.9452	4.988776	5.134203	4.730649	5.025738	5.010254	4.931524
#3	152.7665	4.974758	5.162767	4.744987	5.040833	5.029323	4.938258

Sample Name: CCV031 Acquired: 11/07/2024 19:51:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV031 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.930291	5.105068	5.023681
Stddev	.006337	.009091	.001661
%RSD	.1285288	.1780820	.0330712

#1	4.924044	5.094582	5.025452
#2	4.930114	5.110734	5.023435
#3	4.936714	5.109889	5.022157

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	724.6727	20580.54	2282.071	642.9836	1346.008
Stddev	.2981	40.41	4.324	3.3269	4.522
%RSD	.0411360	.1963555	.1894650	.5174169	.3359357

#1	724.6007	20557.57	2281.093	640.5564	1340.787
#2	725.0002	20556.85	2286.800	641.6185	1348.587
#3	724.4172	20627.20	2278.320	646.7760	1348.650

Sample Name: CCB031 Acquired: 11/07/2024 19:56:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB031 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001637	-.002184	.0004913	.0070972	.0004058	.0125169	.0008201
Stddev	.003939	.000796	.0021635	.0026832	.0015957	.0041537	.0003610
%RSD	240.5811	36.43421	440.3911	37.80662	393.2787	33.18473	44.01394
#1	.001884	-.002864	.0009292	.0049019	.0019517	.0159511	.0008262
#2	-.000905	-.001309	.0024023	.0063015	.0005010	.0136993	.0004561
#3	-.005892	-.002380	-.001858	.0100883	-.001235	.0079002	.0011780
Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000057	.0002184	.0843770	.0017964	.0006617	-.002515	.0125392
Stddev	.000077	.0000438	.0092664	.0004367	.0006473	.002471	.0386793
%RSD	134.4221	20.04934	10.98209	24.30841	97.82285	98.26636	308.4678
#1	.000012	.0002377	.0736917	.0013283	.0007309	-.003203	.0113171
#2	-.000044	.0001683	.0902031	.0021927	-.000017	-.004568	.0518150
#3	-.000140	.0002492	.0892361	.0018682	.001272	.000228	-.025515
Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025922	-.026840	-.000175	.0010611	.5901408	-.003737	.0015949
Stddev	.0007732	.088597	.000252	.0006612	.1256769	.016137	.0003231
%RSD	29.82866	330.0987	144.4997	62.31195	21.29609	431.8800	20.25976
#1	.0029373	-.117857	.000114	.0011282	.5433202	-.001338	.0018412
#2	.0031329	.059121	-.000354	.0003689	.7325073	-.020939	.0017145
#3	.0017066	-.021782	-.000284	.0016861	.4945951	.011067	.0012290
Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.198085	-.000836	.0053783	.0004792	.0026725	.0020924	.0029531
Stddev	.132543	.001762	.0011419	.0000587	.0018905	.0004858	.0015069
%RSD	66.91229	210.7960	21.23123	12.25270	70.73964	23.21719	51.02841
#1	-.295463	.001149	.0061632	.0004154	.0022430	.0022407	.0024651
#2	-.047142	-.001441	.0059032	.0005310	.0047408	.0024867	.0017506
#3	-.251649	-.002216	.0040683	.0004911	.0010337	.0015497	.0046435

Sample Name: CCB031 Acquired: 11/07/2024 19:56:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB031 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0011118	.0079503	.0001767
Stddev	.0023671	.0011334	.0001482
%RSD	212.9031	14.25623	83.85169
#1	-.001164	.0091691	.0002347
#2	.000940	.0077536	.0002872
#3	.003560	.0069280	.0000083

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	886.8783	22329.33	2364.523	806.5538	1749.211
Stddev	1.4425	72.41	10.202	1.2777	1.233
%RSD	.1626472	.3242979	.4314720	.1584101	.0704961
#1	885.2158	22249.89	2353.821	806.3559	1748.016
#2	887.6207	22391.63	2374.139	807.9189	1750.479
#3	887.7983	22346.49	2365.607	805.3867	1749.138

Prep Standard - Chemical Standard Summary

Order ID : P4480

Test : Metals CLP Full

Prepbatch ID : PB164428,

Sequence ID/Qc Batch ID: LB133197, LB133346,

Standard ID :

MP81119, MP82127, MP82441, MP82442, MP82443, MP82444, MP82445, MP82446, MP82450, MP82451, MP82452, MP82453, MP82455, MP82456, MP82631, MP82632, MP82711, MP82731, MP83014, MP83134, MP83136, MP83137, MP83138, MP83139, MP83140, MP83141, MP83142, MP83143, MP83144, MP83145, MP83146, MP83148, MP83149, MP83152,

Chemical ID :

M4960, M5130, M5192, M5218, M5223, M5288, M5289, M5295, M5296, M5390, M5394, M5395, M5429, M5467, M5473, M5476, M5498, M5513, M5515, M5519, M5634, M5658, M5697, M5698, M5747, M5748, M5751, M5768, M5769, M5798, M5799, M5800, M5801, M5802, M5806, M5814, M5815, M5816, M5817, M5818, M5819, M5820, M5875, M5935, M5960, M5961, M5962, M5970, M5976, M5978, M5982, M5984, M5985, M5990, M5999, M6021, M6023, M6025, M6028, M6030, M6033, M6037, M6040, M6095, M6097, M6111, M6115, M6117, W2606, W3112,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
169	1:1HNO3	MP81119	06/21/2024	04/24/2025	Al-Terek Isaac	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_1 (ICP)	Sarabjit Jaswal 06/21/2024
FROM 1250.00000ml of M5935 + 1250.00000ml of W2606 = Final Quantity: 2500.000 ml 								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
170	1:1HCL	MP82127	09/03/2024	02/08/2025	Janvi Patel	None	None	Sarabjit Jaswal
09/03/2024								

<u>FROM</u>	1250.00000ml of M6040 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml
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Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
902	ICP AES CAL BLK (SO/ICB/CCB)	MP82441	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM 125.00000ml of M6040 + 2350.00000ml of W3112 + 25.00000ml of M6037 = Final Quantity: 2500.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2480	ICP AES STD 6 ISM01.3	MP82442	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM 4.00000ml of M5289 + 4.00000ml of M5498 + 4.00000ml of M5515 + 4.00000ml of M5769 + 4.00000ml of M5806 + 30.00000ml of MP82441 = Final Quantity: 50.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1004	ICPAES ISM01.2 (S5)	MP82443	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								09/24/2024

FROM 0.25000ml of M5798 + 0.50000ml of M5429 + 0.50000ml of M5473 + 0.50000ml of M5815 + 0.50000ml of M5817 + 12.50000ml of M5519 + 12.50000ml of M5698 + 12.50000ml of M5806 + 12.50000ml of M5819 + 13.75000ml of M5697 + 14.50000ml of M5515 + 14.50000ml of M5658 + 14.50000ml of M6033 + 2.00000ml of M5513 + 22.50000ml of M5498 + 22.50000ml of M5769 + 5.00000ml of M5296 + 5.00000ml of M5394 + 5.00000ml of M5802 + 5.00000ml of M5818 + 5.00000ml of M5875 + 303.50000ml of MP82441 = Final Quantity: 500.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1005	ICPAES ISM01.2(S4)	MP82444	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								09/24/2024

FROM 250.00000ml of MP82441 + 250.00000ml of MP82443 = Final Quantity: 500.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1007	ICPAES ISM01.2(S3)	MP82445	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								09/24/2024

FROM 25.00000ml of MP82443 + 75.00000ml of MP82441 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1008	ICPAES ISM01.2(S2)	MP82446	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								09/24/2024

FROM 12.50000ml of MP82443 + 87.50000ml of MP82441 = Final Quantity: 100.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2054	ICV-ICPAES	MP82450	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM	0.50000ml of M5218 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 0.50000ml of M5982 + 10.00000ml of M5295 + 87.50000ml of MP82441 = Final Quantity: 100.000 ml
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<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
904	ICP AES ICSA SOLN	MP82451	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM	25.00000ml of M5130 + 225.00000ml of MP82441 = Final Quantity: 250.000 ml
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Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
905	ICP AES ICSAB SOLN	MP82452	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM 25.00000ml of M5130 + 25.00000ml of M5223 + 200.00000ml of MP82441 = Final Quantity: 250.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1119	ICPAES ISM01.2(CCV)	MP82453	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM 0.75000ml of M5498 + 0.75000ml of M5769 + 1.22500ml of M6033 + 1.25000ml of M5515 + 1.25000ml of M5806 + 19.77500ml of MP82441 + 25.00000ml of MP82443 = Final Quantity: 50.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
919	ICP AES INTERNAL STD	MP82455	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM 1.00000ml of M5984 + 10.00000ml of M4960 + 1969.00000ml of W3112 + 20.00000ml of M6037 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
903	ICP AES RINSE SOLN	MP82456	09/23/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 09/24/2024

FROM 200.00000ml of M6037 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
994	ICPAES ISM01.2 S1 (CONC.)	MP82631	10/02/2024	10/23/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 10/02/2024

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 M6033 + 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 M5498 + 10.00000ml of M5519 + 10.00000ml of M5769 + 10.00000ml of M5806 + 10.00000ml of M5818 + 2.00000ml of M5978 + 4.00000ml of M5390 + 34.24000ml of MP82441 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1003	ICPAES ISM01.2 S1	MP82632	10/02/2024	10/30/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 10/02/2024

FROM 0.50000ml of MP82631 + 87.50000ml of MP82441 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2950	ICP AES S1/CRI STOCK STD	MP82711	10/07/2024	10/31/2024	Kareem Khairalla	None	None	Sarabjit Jaswal
								10/07/2024

FROM 0.00300ml of M6028 + 0.03000ml of M5798 + 0.05000ml of M5515 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6033 + 0.06000ml of M5747 + 0.10000ml of M5697 + 0.10000ml of M5698 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M5982 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5819 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5467 + 0.25000ml of M5802 + 0.50000ml of M5390 + 0.50000ml of M5814 + 1.00000ml of M5192 + 1.00000ml of M5288 + 1.00000ml of M5498 + 1.00000ml of M5769 + 1.00000ml of M5806 + 1.00000ml of M5978 + 2.00000ml of M5816 + 2.00000ml of M5818 + 77.68000ml of MP82441 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
921	ICPAES SPIKE SOL#6	MP82731	10/04/2024	10/31/2024	Sarabjit Jaswal	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_3 (A)	Mohan Bera
								10/08/2024

FROM 2.50000ml of M5962 + 50.00000ml of M5990 + 50.00000ml of M5999 + 147.50000ml of MP82441 = Final Quantity: 250.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP83014	11/02/2024	11/25/2024	Sarabjit Jaswal	None	None	Mohan Bera 11/04/2024

FROM 25.00000ml of M6095 + 4925.00000ml of W3112 + 50.00000ml of M6115 = Final Quantity: 5000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83134	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 125.00000ml of M6111 + 2350.00000ml of W3112 + 25.00000ml of M6117 = Final Quantity: 2500.000 ml

[illegible]

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1004	ICPAES ISM01.2 (S5)	MP83137	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024
<u>FROM</u> 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 M5698 + 12.50000ml of M5806 + 12.50000ml of M5819 + 13.75000ml of M5751 + 14.50000ml of M5515 + 14.50000ml of M5658 + 14.50000ml of M6033 + 2.00000ml of M5513 + 22.50000ml of M5498 + 22.50000ml of M5768 + 5.00000ml of M5296 + 5.00000ml of M5395 + 5.00000ml of M5802 + 5.00000ml of M5818 + 5.00000ml of M5875 + 303.50000ml of MP83134 = Final Quantity: 500.000 ml								

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1005	ICPAES ISM01.2(S4)	MP83138	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 250.00000ml of MP83134 + 250.00000ml of MP83137 = Final Quantity: 500.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1007	ICPAES ISM01.2(S3)	MP83139	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 25.00000ml of MP83137 + 75.00000ml of MP83134 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1008	ICPAES ISM01.2(S2)	MP83140	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 12.50000ml of MP83137 + 87.50000ml of MP83134 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
994	ICPAES ISM01.2 S1 (CONC.)	MP83141	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5476 + 0.20000ml of M5515 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M5698 + 0.40000ml of M6033 + 0.50000ml of M5751 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5960 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5498 + 10.00000ml of M5519 + 10.00000ml of M5768 + 10.00000ml of M5806 + 10.00000ml of M5818 + 2.00000ml of M5978 + 4.00000ml of M5390 + 34.24000ml of MP83134 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1003	ICPAES ISM01.2 S1	MP83142	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 0.50000ml of MP83141 + 99.50000ml of MP83134 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2054	ICV-ICPAES	MP83143	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 0.50000ml of M5218 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 0.50000ml of M5982 + 10.00000ml of M5295 + 87.50000ml of MP83134 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
904	ICP AES ICSA SOLN	MP83144	10/30/2024	11/19/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 25.00000ml of M5130 + 225.00000ml of MP83134 = Final Quantity: 250.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
905	ICP AES ICSAB SOLN	MP83145	10/30/2024	11/19/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 25.00000ml of M5130 + 25.00000ml of M5223 + 200.00000ml of MP83134 = Final Quantity: 250.000 ml

[illegible]

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
919	ICP AES INTERNAL STD	MP83148	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024
<u>FROM</u>	1.00000ml of M5984 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6117 = Final Quantity: 2000.000 ml							

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
903	ICP AES RINSE SOLN	MP83149	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera
								11/08/2024

FROM 200.00000ml of M6117 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1883	SE 10PPM	MP83152	11/07/2024	11/25/2024	Sarabjit Jaswal	None	None	Mohan Bera
								11/08/2024

FROM 0.10000ml of M5962 + 9.90000ml of MP83014 = Final Quantity: 10.000 ml

CHEMICAL RECEIPT LOG BOOK

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	100721	10/07/2024	10/09/2021 / jaswal	10/08/2021 / jaswal	M4960

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	11/19/2024	05/20/2024 / jaswal	04/20/2021 / bin	M5130

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	051722	05/17/2025	07/01/2022 / bin	06/17/2022 / jaswal	M5192

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	11/19/2024	05/20/2024 / jaswal	04/20/2021 / bin	M5223

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

CHEMICAL RECEIPT LOG BOOK

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	02/20/2020 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

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

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	11/28/2022 / bin	09/19/2022 / bin	M5394

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	01/30/2024 / bin	09/19/2022 / bin	M5395

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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	08/09/2025	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.	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

CHEMICAL RECEIPT LOG BOOK

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	02/03/2025	04/18/2024 / jaswal	08/03/2022 / Al-Terek	M5634

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

CHEMICAL RECEIPT LOG BOOK

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

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

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

CHEMICAL RECEIPT LOG BOOK

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	12/08/2024	06/21/2024 / Al-Terek	06/07/2024 / Al-Terek	M5935

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

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

CHEMICAL RECEIPT LOG BOOK

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	CGT11-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	031524	03/15/2027	07/01/2024 / Jaswal	06/11/2024 / Jaswal	M5982

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	08/05/2024 / kareem	06/14/2024 / Jaswal	M5984

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

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / TI, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	06/12/2027	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	01/25/2019 / 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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/07/2024 / Jaswal	01/03/2024 / Jaswal	M6033

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	02/02/2025	08/24/2024 / Janvi	08/01/2024 / Janvi	M6037

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

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)		03/17/2029	10/26/2024 / Janvi	10/21/2024 / Janvi	M6095

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	10/24/2024 / Janvi	09/21/2024 / Janvi	M6097

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22F0762009	05/09/2027	11/04/2024 / Eman	09/29/2024 / Janvi	M6111

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24B1362001	05/04/2025	11/02/2024 / Janvi	09/29/2024 / Eman	M6115

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24B1362001	05/06/2025	11/06/2024 / Janvi	09/29/2024 / Eman	M6117

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

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

Certificate of Analysis

R: 02/22/24 M5986, M5987, M5988, M5989, M5990

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



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, Thallium,
 Cadmium,
 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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{\text{char}} = (\sum ((w_i)^2 (u_{\text{char } i})^2))^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ In the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. 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





CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57048
070124
Cadmium (Cd)

Solvent: 24002546 Nitric Acid

R: 815/24

Lot #

2% 40.0 Nitric Acid (mL)

Expiration Date: 070127

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

SE-05 Balance Uncertainty

Weight shown below was diluted to (mL): 2000.07 0.100 Flask Uncertainty

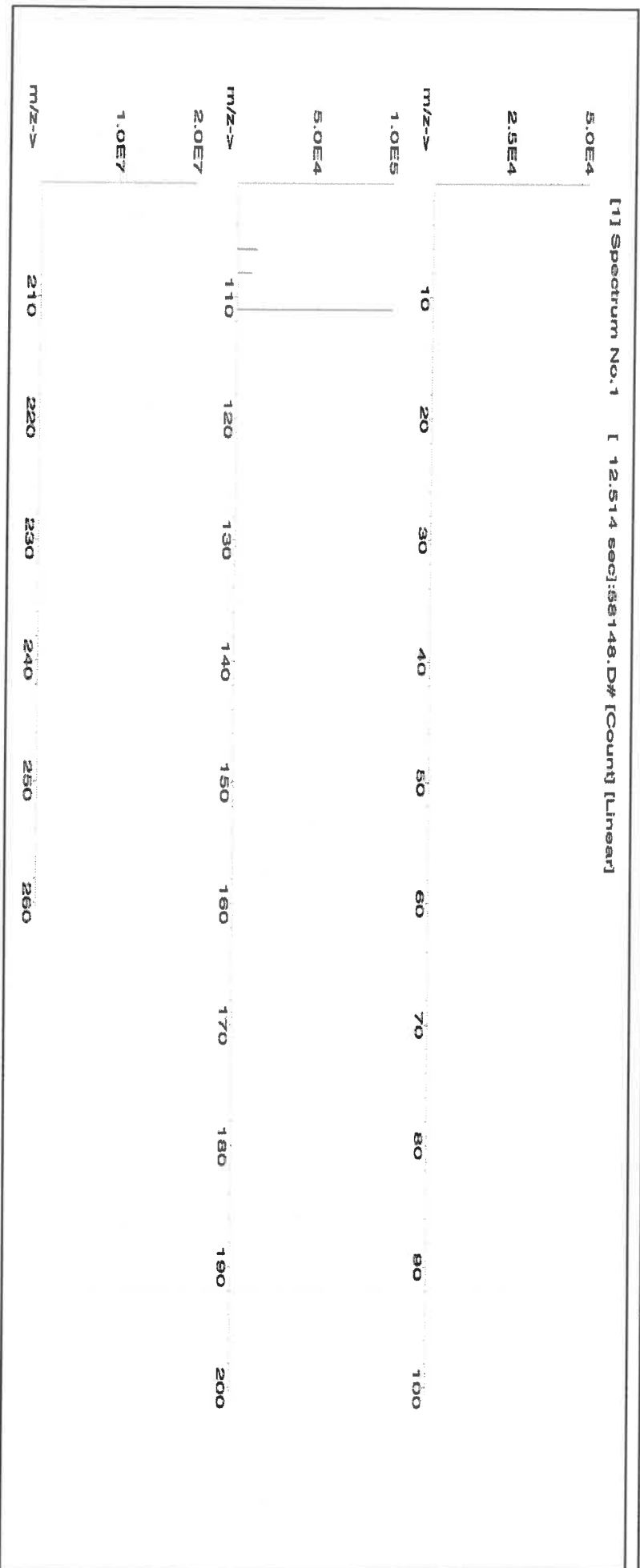
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	070124
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	070124

Compound

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

1. Cadmium nitrate tetrahydrate (Cd) IN024 CDM09221A1 1000 99.999 0.10 36.5 5.4797 5.4804 1000.1 2.0 10022-68-1 0.01 mg/m3 or-rat 60.2mg/kg 3108

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





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

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

Al	<0.02	Cd	<0.2	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Cd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pr	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



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Certificate of Analysis

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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 °C)

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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

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





Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution	
Catalog Number:	CLPP-CAL-1	
Lot Number:	T2-MEB714417	
Matrix:	5% (v/v) HNO ₃	
Value / Analyte(s):	5 000 µg/mL ea:	Potassium, Sodium,
	Calcium, Magnesium,	
	2 000 µg/mL ea:	Barium,
	Aluminum,	
	1 000 µg/mL ea:	
	Iron,	
	500 µg/mL ea:	Vanadium, Cobalt,
	Nickel,	
	Zinc,	
	Manganese,	
	250 µg/mL ea:	Copper,
	Silver,	
	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 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
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inorganicventures.com

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: 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 °C)

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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

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- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

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Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





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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
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Density: 1.043 g/mL (measured at 20 ± 4 °C)

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X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

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- 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

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8.0 HAZARDOUS INFORMATION

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9.0 HOMOGENEITY

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10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

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- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

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12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

Part Number: 57182 Lot #
Lot Number: 110923 Solvent: 24002546 Nitric Acid
Description: Lead (Pb)

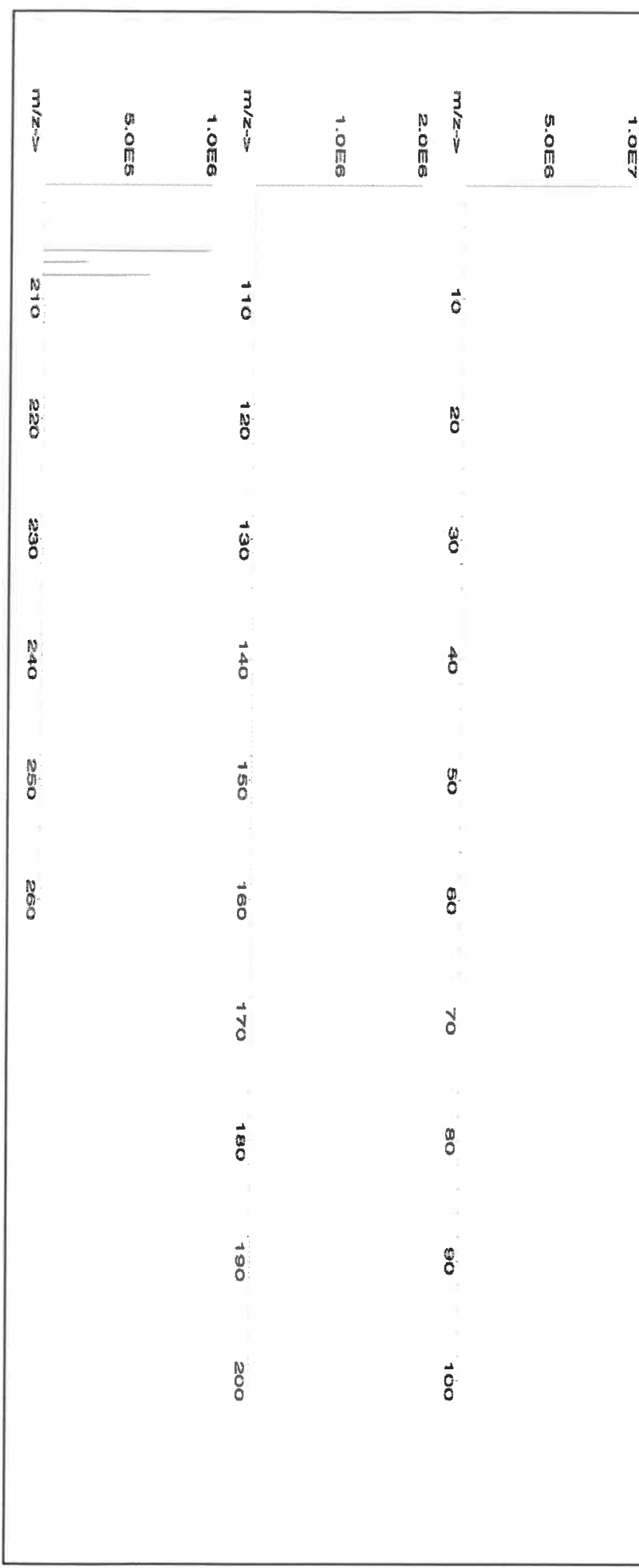
Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas
110923	

Compound	SDS Information									
	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)

1. Lead(II) nitrate (Pb) IN029 PED122016A1 10000 99.999 0.10 62.5 32.0006 32.0040 10001.1 20.0 10099-74-8 0.05 mg/m3 Inverse rat 83 mg/kg 3128

[1] Spectrum No.1 [17.284 sec]:58182.D# [Count] [Linear]





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

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

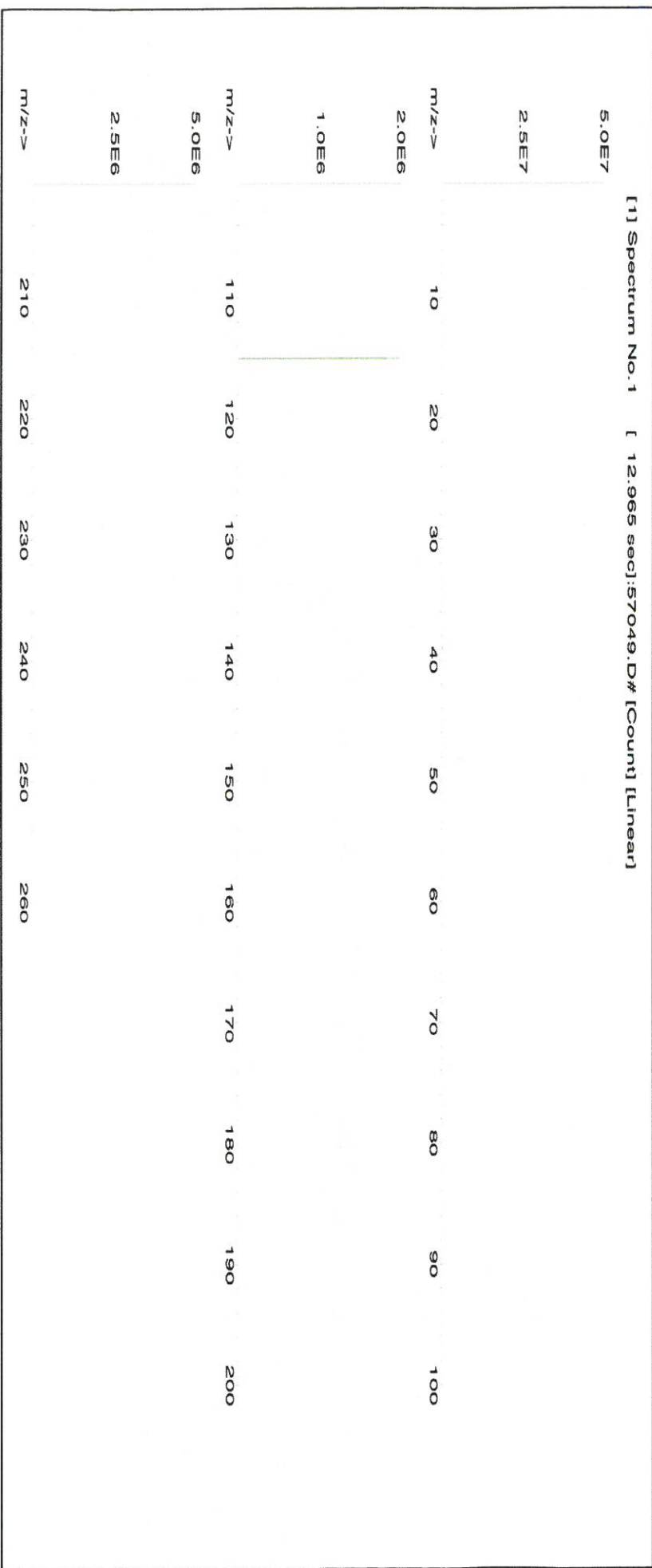
Part Number: 58149
Lot Number: 100721
Description: Indium (In)
Solvent: 20370011 Nitric Acid
Lot #

Expiration Date: 100724
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 500.06
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

<i>Giovanni Caporaso</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Rentas</i>
	100721

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty		CAS#	SDS Information		NIST SRM
										+/- (µg/mL)	(µg/mL)		(Solvent Safety Info. On Attached pg.)	LD50	

1. Indium Oxide (In) IN086 W1096A 10000 99.999 0.10 82.6 6.05408 6.05441 10000.6 20.1 1312-43-2 NA NA 3124a





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<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

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Homogeneity: No heterogeneity was observed in the preparation of this standard.

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- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Instructions for QATS Reference Material: *ICP-AES ICS*

**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,



Instructions for QATS Reference Material: ICP-AES ICS

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 HNO₃. 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 HNO₃. 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.

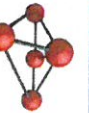
Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

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

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.

ICSA
M5126
M5127
M5128
M5129
M5130

ICSB
M5219
M5220
M5221
M5222
M5223



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57042
051722
Molybdenum (Mo)

Lot #
Solvent:

MKB08597V Ammonium hydroxide

0.5%

15.0 (mL)

Ammonium hydroxide

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):

051725
Ambient (20 °C)
1000

Volume shown below was diluted to (mL):

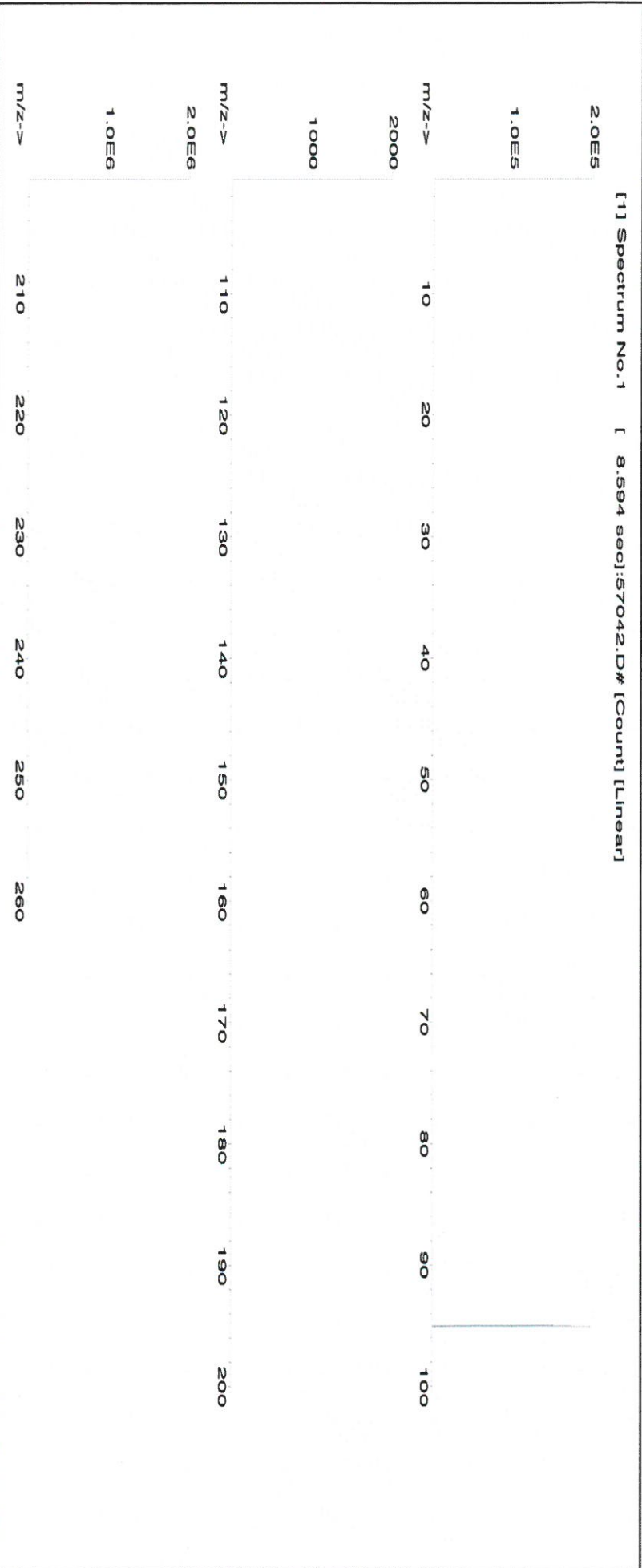
3000.41
Balance Uncertainty
0.058
Flask Uncertainty

Formulated By:	Lawrence Barry
	051722
Reviewed By:	Pedro L. Rendas
	051722

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM
----------	-------------	------------	-----------------	-------------------	--------------------------	-----------------------	-----------------------	---------------------	----------------------------------	------	----------------	------	-----

1. Ammonium molybdate (Mo) 58142 022222 0.1000 300.0 0.084 1000 10001.0 1000.0 2.1 13106-76-8 5 mg(Mo)/m3 or-trat 333 mg/kg 3134





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

300 Technology Drive
 Christiansburg, VA 24073 USA
 inorganicventures.com

P: 800-669-6799/540-585-3030
 F: 540-585-3012
 info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
 Catalog Number: 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 °C)

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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

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





Instructions for QATS Reference Material: ICP-AES ICS

**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,





Instructions for QATS Reference Material: ICP-AES ICS

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 HNO₃. 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 HNO₃. 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

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.

ICSA
M5126
M5127
M5128
M5129
M5130

ICSB
M5219
M5220
M5221
M5222
M5223



15 V5 L00

PC 0714122 (BP)



ANAB ISO 17034 Accredited

AR-1539 Certificate Number

https://AbsoluteStandards.com

Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58119
071122
Potassium (K)

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

071125
Ambient (20 °C)
10000
6UTB

2%
40.0 (mL)
Nitric Acid

Weight shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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

Compound

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

1. Potassium nitrate (K)

IN034 KD022021A1

10000

99.999

0.10

37.6

53.1925

53.1934

10000.2

20.0

7757-79-1

5 mg/m3

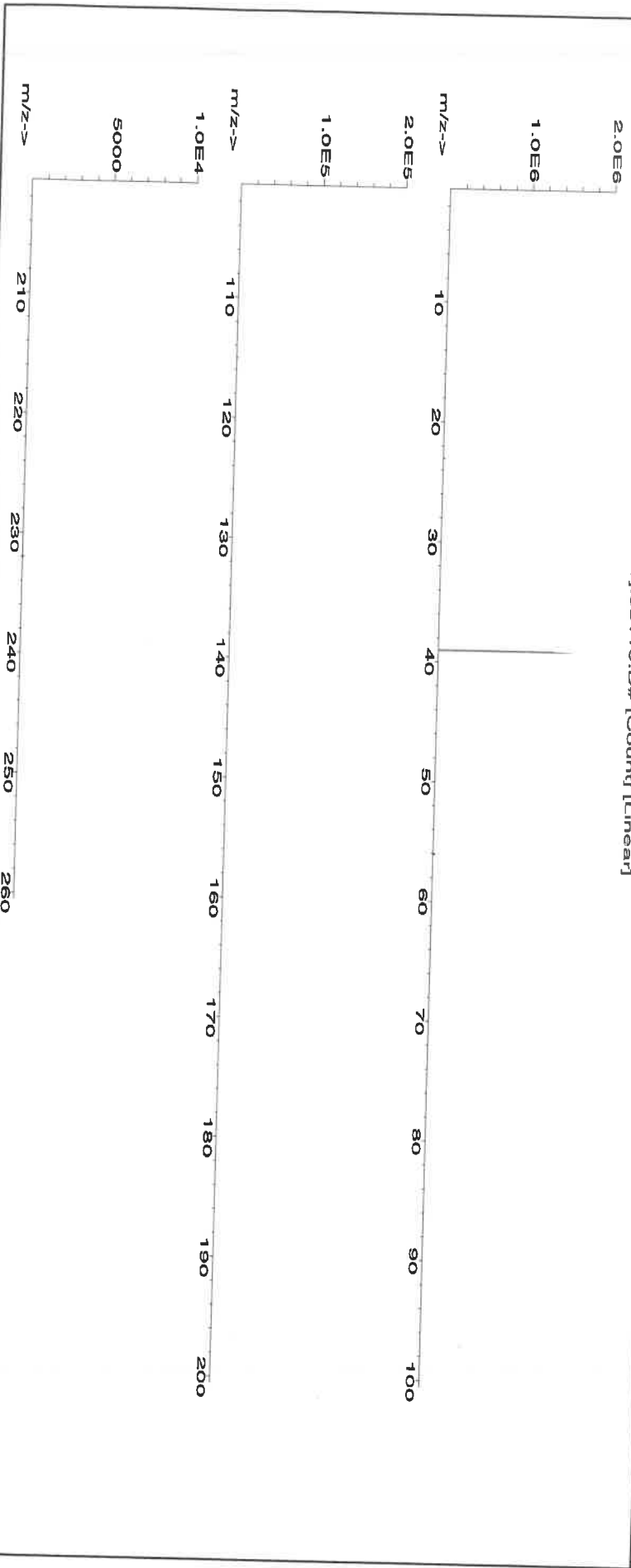
or-rat 3015 mg/kg

3141a

SDS Information

(Solvent Safety Info. On Attached pg.)
NIST SRM

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





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.02	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



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

34



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

CERTIFIED WEIGHT REPORT:

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

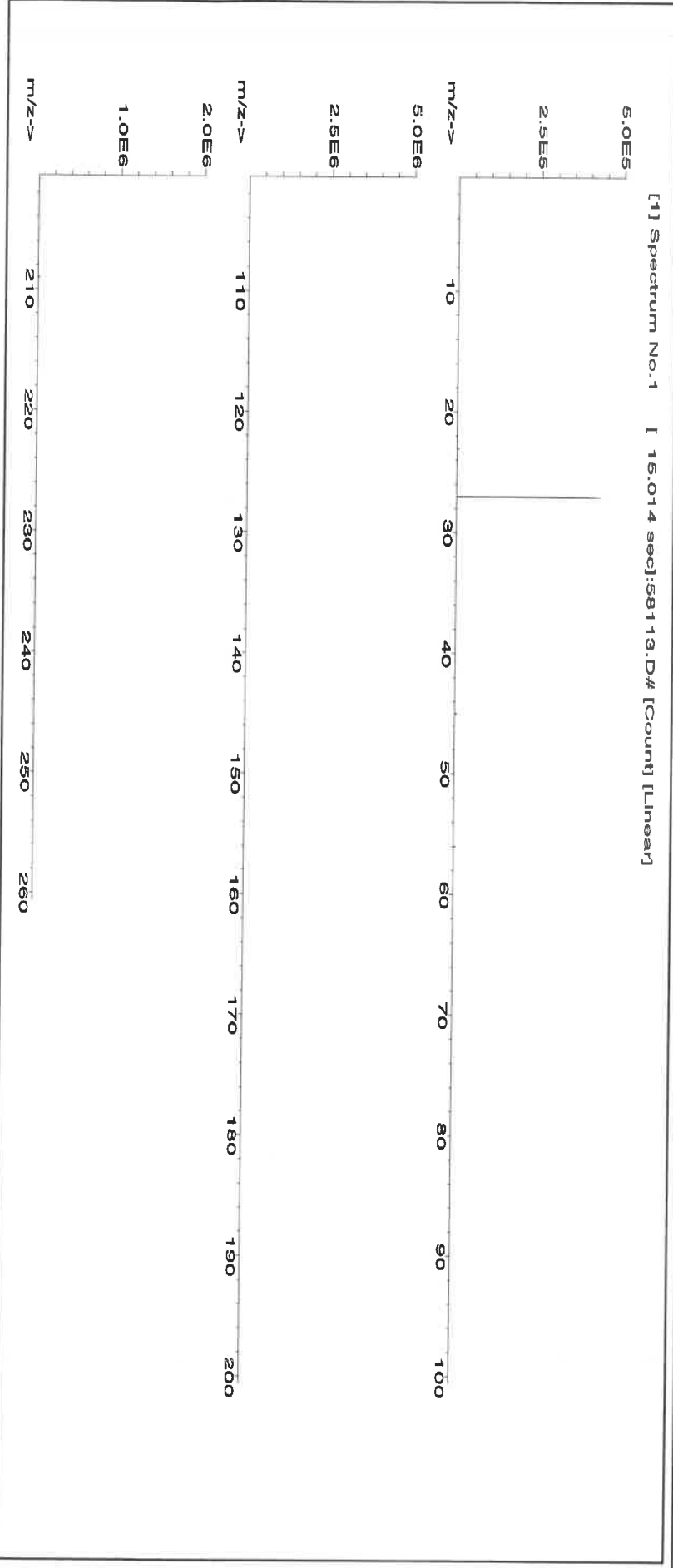
Lot #
Solvent: 20370011 Nitric Acid

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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

SDS Information																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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	Lot		Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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1. Aluminum nitrate nonahydrate (Al) IN022 ALD012021A1 10000 99.999 0.10 7.10 281.6956 281.6977 10000.1 20.0 7784-27-2 2 mg/m3 or-tal 3671 mg/kg 3101a





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

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

Al	T	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ti	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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R: 4/20/21

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

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

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or
Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M5291
M15292
M15293
M15294
M15295

(A) SAMPLE DESCRIPTION

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

(B) BREAKAGE OR MISSING ITEMS

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) ANALYSIS OF SAMPLES

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.





QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

- ICV1-1014** For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.
- ICV5-0415** For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ 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



R-09/18/22 **(B1)**

Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

Part Number: 57056
Lot Number: 072122
Description: Barium (Ba)

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date: 072125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

2% 40.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Renteria</i>
	072122

SDS Information									
Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
1. Barium nitrate (Ba)	IN023 BA022019A1	1000	99.899	0.10	52.3	3.82417	3.82426	1000.0	2.0
									10022-31-8
									0.5 mg/m3
									or:at 355 mg/kg 31046

[1] Spectrum No. 1 [12.514 sec]:58156.D# [Count] [Linear]





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

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.02	Er	<0.2	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Cd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.2	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.2	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

Ben. P. R.

- * 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).



Certified Reference Material CRM

M5429 R1 0126/23 (B)

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57103
070622
Lithium (Li)

Solvent: 20510011 Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

070625
Ambient (20 °C)
10000
6UTB

2% 20.0 (mL)

Weight shown below was diluted to (mL): 1000.12
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

<i>Lawrence Barry</i>	
Formulated By:	Lawrence Barry
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
070622	

SDS Information

Expanded Uncertainty: (Solvent Safety Info. On Attached pg.)
+/- (µg/mL) CAS# OSHA PEL (TWA) LD50

NIST SRM

Actual Conc. (µg/mL)

Actual Weight (g)

Target Weight (g)

Assay (%)

Purity (%)

Nominal Conc. (µg/mL)

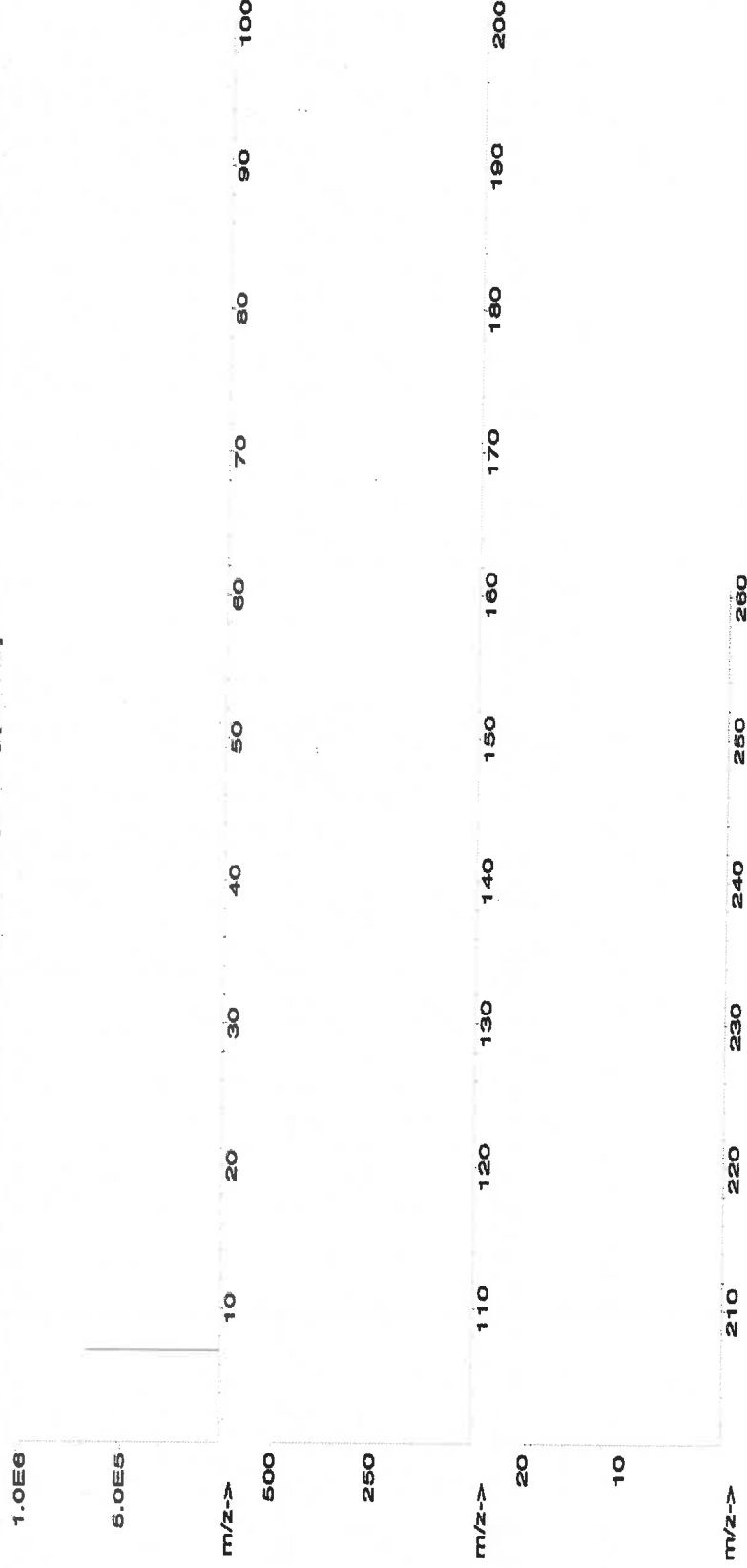
Lot Number

RM#

Compound

1. Lithium nitrate (Li)	IN019	L2042019A1	10000	99.999	0.10	10.0	100.0134	100.0173	10000.4	20.0	7790-69-4	5 mg/m3	of-rat 1426 mg/kg	NA
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[1] Spectrum No.1 [9.619 sec]:58103.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.02	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.2	Ho	<0.02	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.02	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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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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CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57058
020623
Cerium (Ce)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

020626
Ambient (20 °C)
1000
6UTB

Weight shown below was diluted to (mL):

1000.12 **0.058** **Balance Uncertainty**
Flask Uncertainty

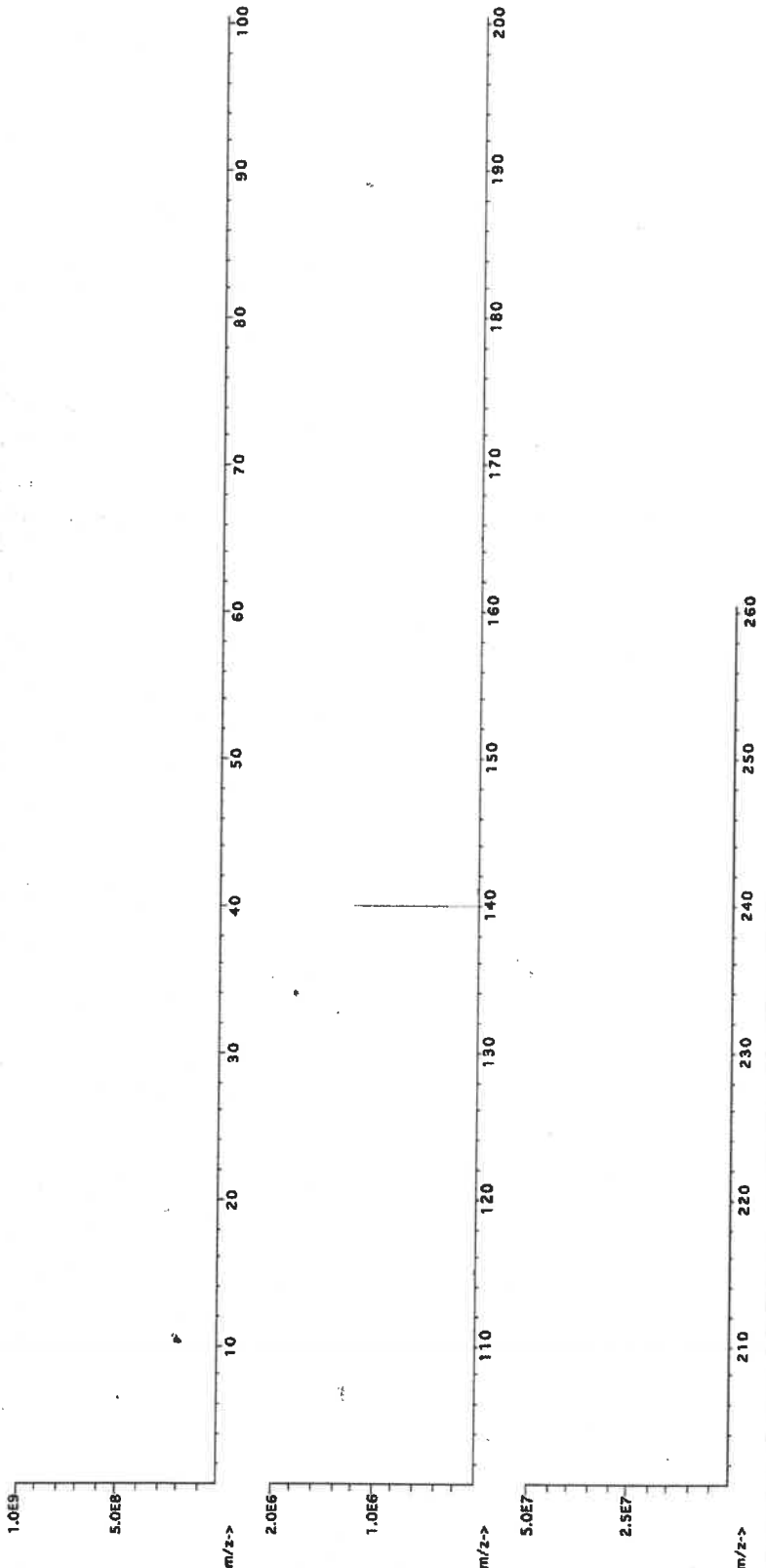
Lot #
Solvent: **21110221** **Nitric Acid**

2% **20.0** **Nitric Acid**
(mL)

Lawrence Barry
Formulated By: **Lawrence Barry** **020623**
Pedro L. Rentas
Reviewed By: **Pedro L. Rentas** **020623**

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information			
										(Solvent Safety Info. On Attached pg.)	LD50	SRM	NA
Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	1000.0	2.0	10294-41-4	NA	NA

[1] Spectrum No.1 [43.472 sec] 58158.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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Certified by:

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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.2	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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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).

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57182
061522
Lead (Pb)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

061525
Ambient (20 °C)
10000
6UTB

Weight shown below was diluted to (mL):

2000.02

5E-05 Balance Uncertainty

0.058 Flask Uncertainty

Lot #

Solvent: 20510011 Nitric Acid

2% 40.0 Nitric Acid
(mL)

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito 061522
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas 061522

Expanded Uncertainty

SDS Information

Actual Weight (g) **Actual Conc. (µg/mL)** **+/- (µg/mL)**

Target Weight (g) **Assay (%)** **Purity (%)**

NIST SRM **OSHA PEL (TWA)** **LD50**

(Solvent Safety Info. On Attached pg.)

10001.1 **32.0041** **20.0** **10098-74-8** **0.05 mg/m3** **intrins- rat 88 mg/kg** **3128**

10000 **99.999** **0.10** **82.5** **32.0006**

IN029 **PBD12201641** **10000** **99.999** **0.10** **82.5** **32.0006** **10001.1** **32.0041** **20.0** **10098-74-8** **0.05 mg/m3** **intrins- rat 88 mg/kg** **3128**

[1] Spectrum No. 1 [17.284 sec]:58182.D# [Count] [Linear]

1. Lead(II) nitrate (Pb)

1.0E7

5.0E6

2.0E6

1.0E6

5.0E5

210

220

230

240

250

260

110

120

130

140

150

160

170

180

190

200



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.02	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	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	Pr	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

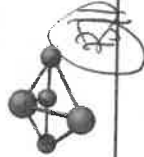
Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM



MS54-MS55 R:03/17/22

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58126
092122
Iron (Fe)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

092125
Ambient (20 °C)
10000
6UTB

Weight shown below was diluted to (mL):

5000.1

Solvent: 20510011 Nitric Acid

7.0% 350.0 Nitric Acid
(mL)

5E-05 Balance Uncertainty
0.12 Flask Uncertainty

Formulated By:	Giovanni Esposito	092122
Reviewed By:	Pedro L. Rentas	092122

SDS Information

Expanded
Uncertainty
(Solvent Safety Info. On Attached pg.)
LD50
SRM

Actual
Conc. (µg/mL)
CAS#

Actual
Weight (g)
Conc. (µg/mL)

Target
Weight (g)

Assay
(%)

Purity
(%)

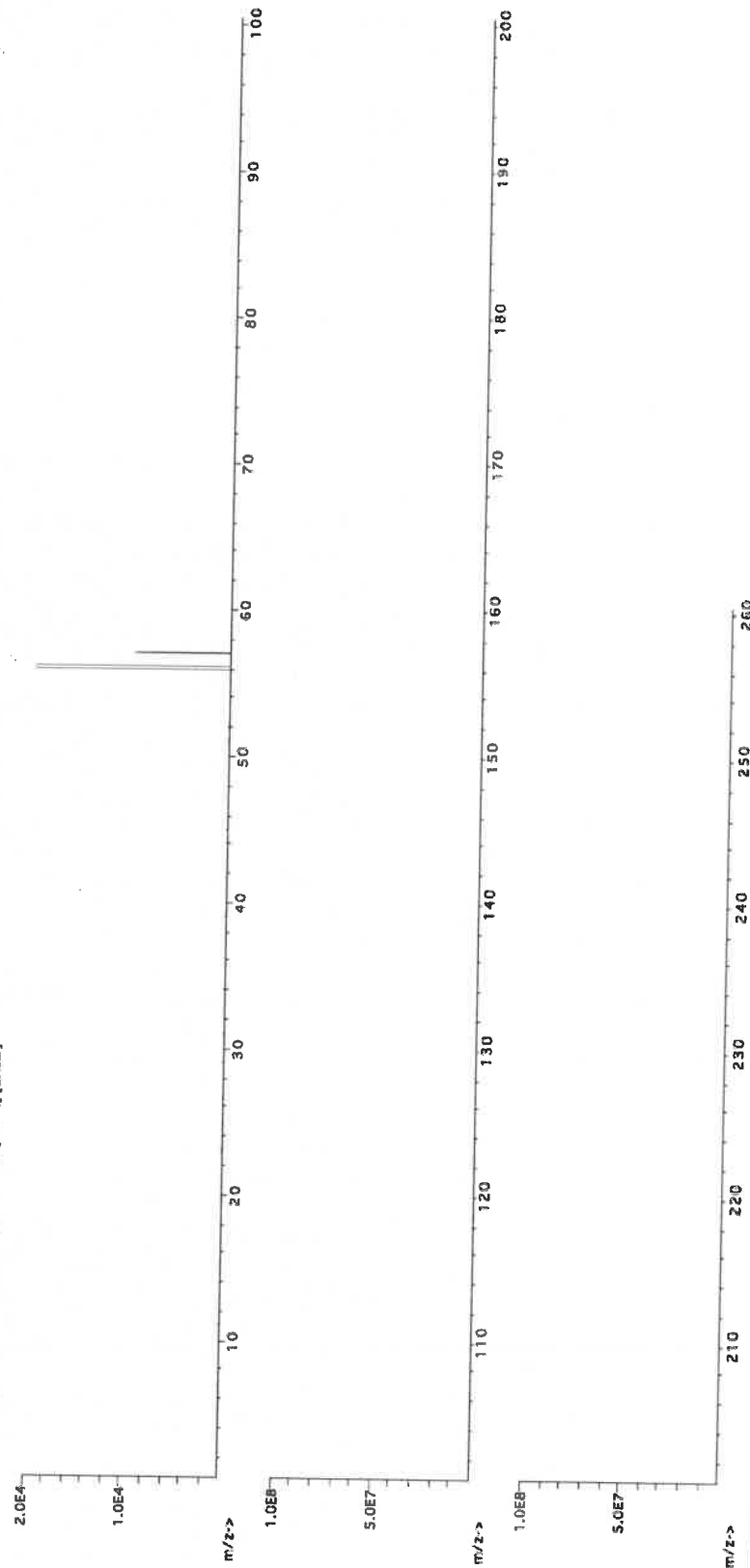
Nominal
Conc. (µg/mL)

Lot
Number

RM#

Compound	1. Iron (Fe)	IN346	2224912-500	10000	99.985	0.10	100.0	50.0034	50.0111	10001.5	20.0	7439-88-6	5 mg/m3	orl-rat 7500mg/kg 3126a
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[1] Spectrum No.1 [30.763 sec]:58126.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

Ben P. Galt

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

Part Number: **58119**
Lot Number: **120822**
Description: **Potassium (K)**

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

2% 60.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 3000.4

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

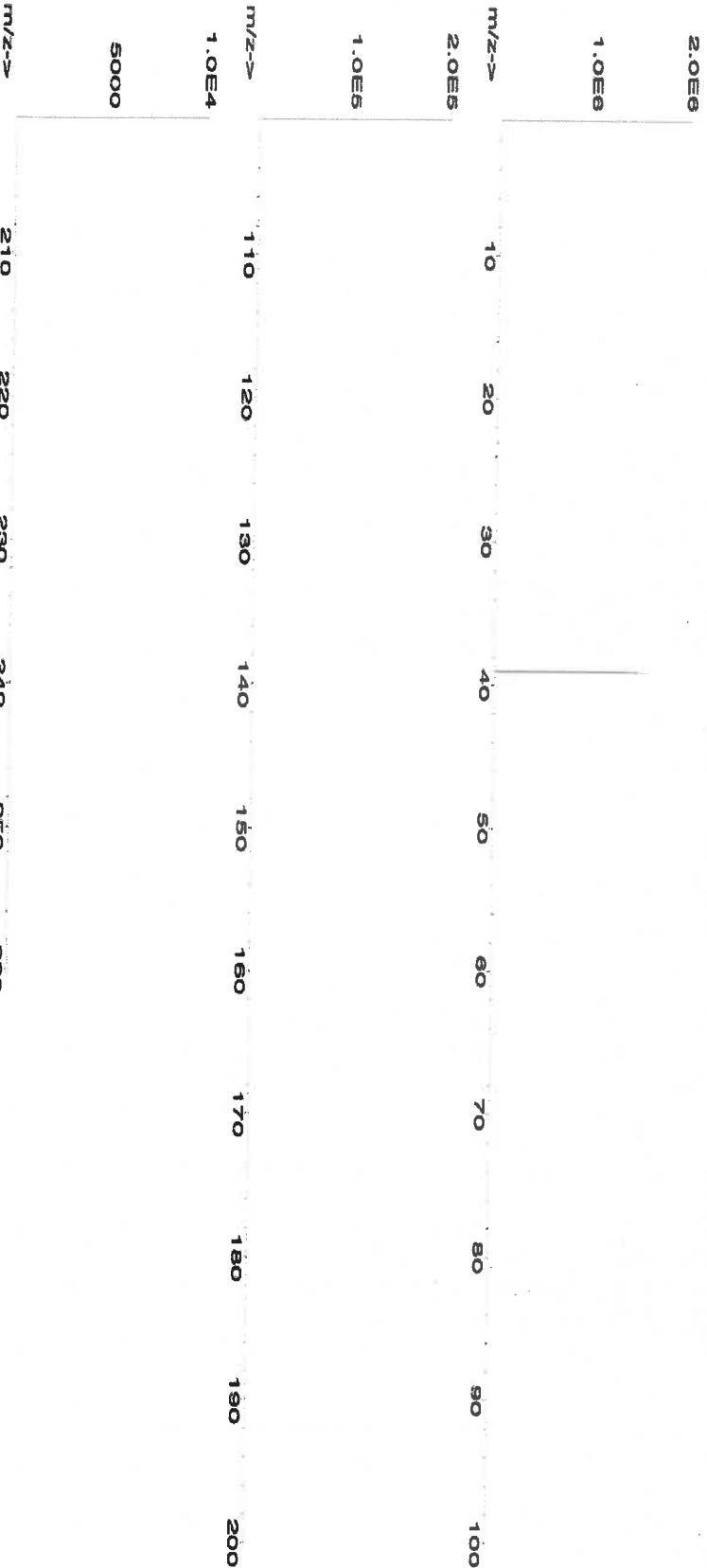
<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Renteria</i>
	120822

Compound

Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded	SDS Information	NIST
Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)	SRM

1. Potassium nitrate (K) IN034 KD022021A1 10000 99.989 0.10 37.6 79.7990 79.8075 10001.1 20.0 7757-79-1 5 mg/m3 crtat 3015 mg/kg 3141a

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





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.02	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

CERTIFICATE OF ANALYSIS

Date: 8/3/2022

MS631 MS632 MS633 MS634

Lot No 820803

Hydrogen Peroxide, ACS
Reagent Grade

<u>TEST</u>	<u>MAXIMUM LIMITS</u>	<u>RESULT</u>
Appearance	Colorless and free from suspended matter or sediment	Pass
Assay	29-32%	31.4%
Color (APHA)	10	5
Residue after Evaporation	0.002%	.0001%
Titrateable Acid	0.0006 meq/g	< .0006 meq/g
Chloride (Cl)	2 ppm	< 1 ppm
Nitrate (NO ₃)	2 ppm	< 1 ppm
Phosphate	2 ppm	< 1 ppm
Sulfate (SO ₄)	5 ppm	< .5 ppm
Ammonium (NH ₄)	5 ppm	< 1 ppm
Heavy Metals (as Pb)	1 ppm	< .1 ppm
Iron (Fe)	0.5 ppm	< .1 ppm
Sodium Stannate	200 – 300 ppb	Pass

***Our Hydrogen Peroxide is considered un-stabilized because it is very slightly stabilized with Sodium Stannate, 500 ppb maximum, just for safety purposes.

Date of MFG: 8/2022

Retest date: 8/2024

Gina M. Rambo
Office Manager



CERTIFIED WEIGHT REPORT:

Part Number: 58024
Lot Number: 060523
Description: Chromium (Cr)

Lot # 21110221 **Solvent:** Nitric Acid

Formulated By:	Lawrence Barry
	060523
Reviewed By:	Pedro L. Ruelas
	060523

Expiration Date: 060526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

2.0% 40.0 (mL) Nitric Acid

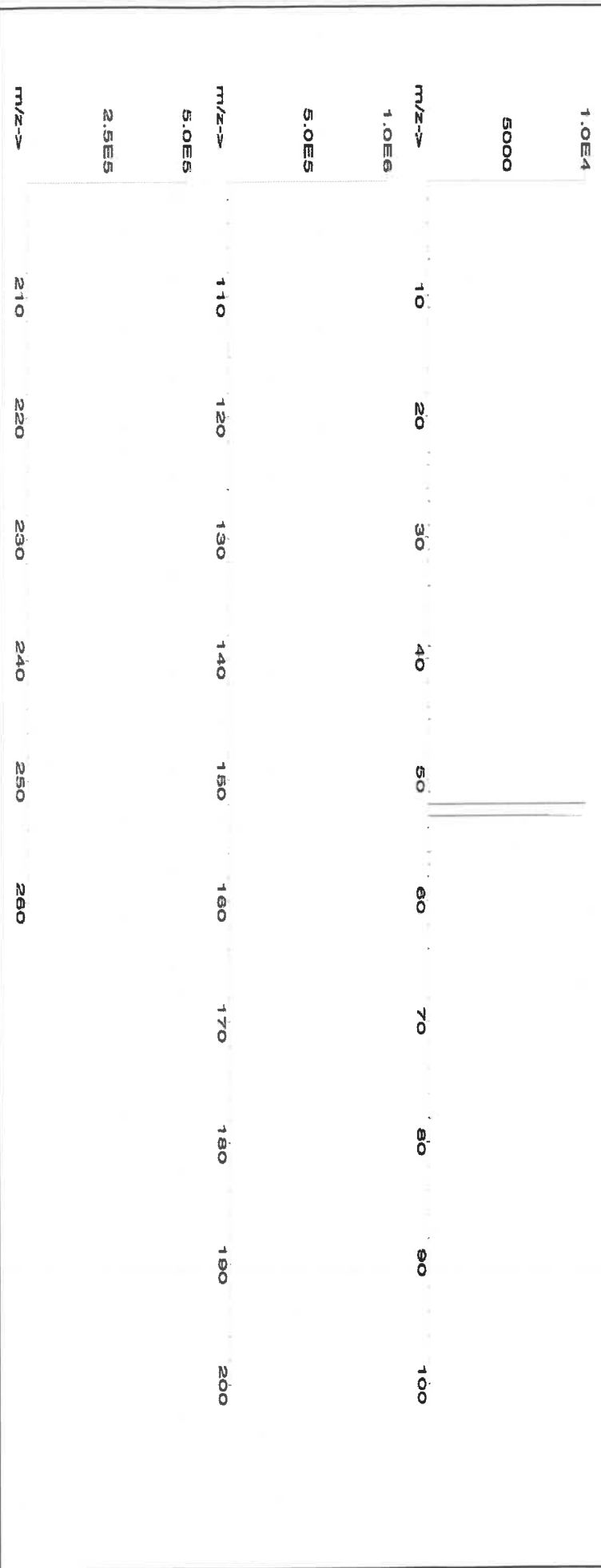
Volume shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty Flask Uncertainty

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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SDS Information

1. Chromium(III) nitrate nonahydrate (Cr) 58124 071122 0.1000 200.0 0.084 1000 10000.1 1000.0 2.2 7789-02-8 0.5 mg(Cr)/m3 or rat 3250 mg/kg 3112a

[1] Spectrum No.1 [31.393 sec]:57024.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
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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).



CERTIFIED WEIGHT REPORT:

Part Number: 58029
Lot Number: 102523
Description: Copper (Cu)

Lot # 24002546
Solvent: Nitric Acid

Expiration Date: 102526

2.0%

40.0 (mL)

Nitric Acid

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

5E-05 Balance Uncertainty

Volume shown below was diluted to (mL): 2000.02

0.058 Flask Uncertainty

Formulated By: *[Signature]*
Benson Chan 102523

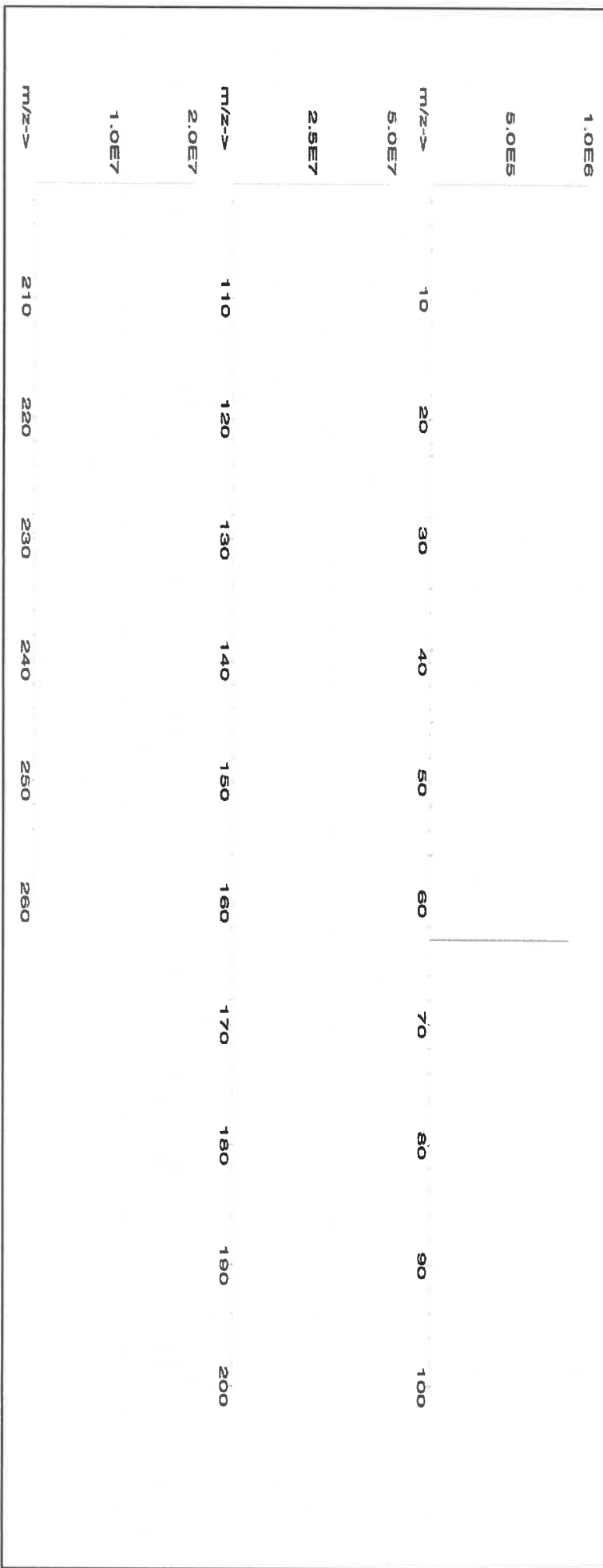
Reviewed By: *[Signature]*
Pedro L. Rentas 102523

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. 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 or-rat 794 mg/kg 3114

[1] Spectrum No. 1 [33.422 sec]:58029.D# [Count] [Linear]





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

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



M5648 R:10123123



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58025
102623
Manganese (Mn)

Lot #
Solvent:

24002546
Nitric Acid

Expiration Date:

102626

2.0%

60.0
(mL)

Nitric Acid

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

3000.41

5E-05

Balance Uncertainty

0.058

Flask Uncertainty

Formulated By:

Benson Chan

102623

Reviewed By:

Pedro L. Ruelas

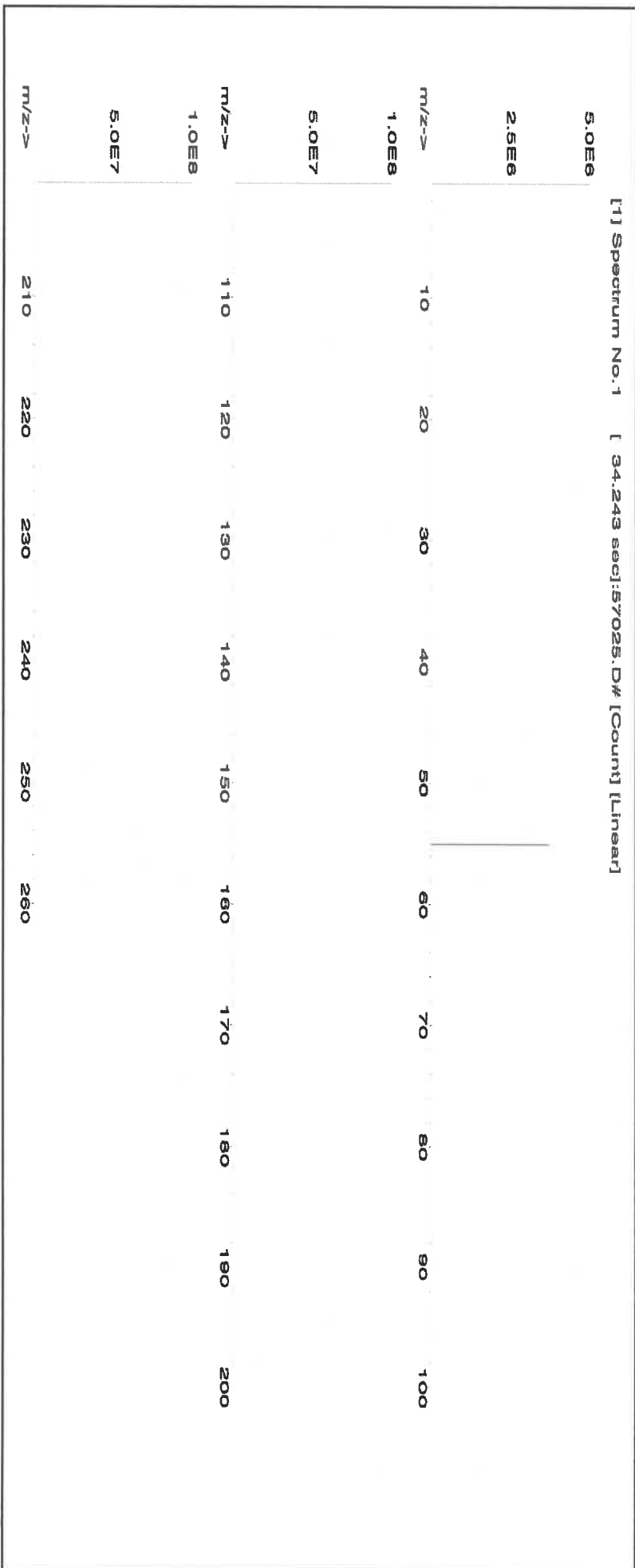
102623

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
----------	-------------	------------	-----------------	-------------------	--------------------------	-----------------------	-----------------------	---------------------	----------------------------------	------	----------------	------	----------

1. 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 or-rel >300mg/kg 3132

[1] Spectrum No.1 [34.243 sec]:57025.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	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).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Solvent: 24002546 Nitric Acid

Lot #

R: 12/20/23 MS747

Formulated By:	Lawrence Barry
	100923
Reviewed By:	Pedro L. Rentas
	100923

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

2% 60.0 (mL) Nitric Acid

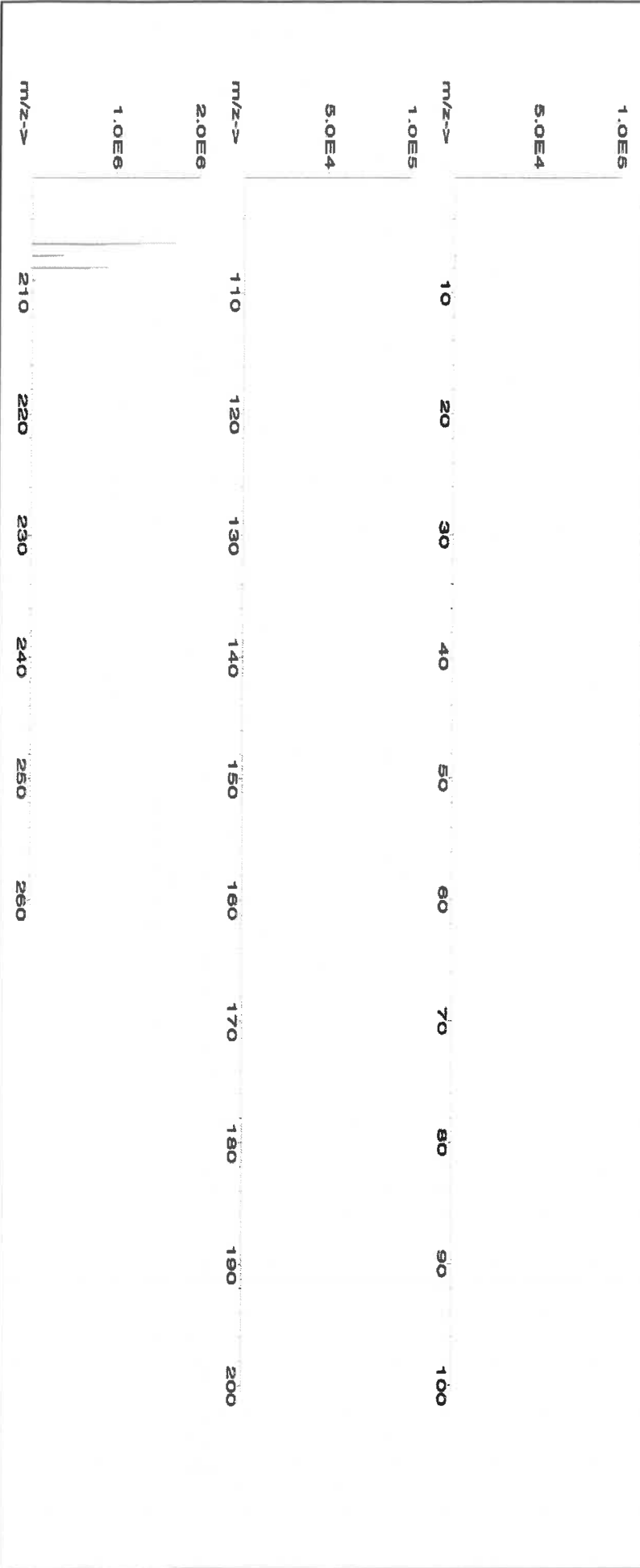
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded		SDS information			NIST				
									Weight (g)	Weight (g)	Conc. (µg/mL)	Conc. (µg/mL)	+/- (µg/mL)		CAS#	OSHA PEL (TWA)	LD50	SRM
RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	Conc. (µg/mL)	+/- (µg/mL)	(Solvent Safety info. On Attached pg.)							

SDS Information

1. Lead(II) nitrate (Pb) IN029 PBD122016A1 1000 99.999 0.10 62.5 4.80071 4.80077 1000.0 2.0 10099-74-8 0.05 mg/m3 Intyms-ret 89 mg/kg 3128

[1] Spectrum No. 1 [14.144 sec]:58082.D# [Count] [Linear]





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

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

Physical Characterization:

(T) = Target analyte

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: **57028**
Lot Number: **091223**
Description: **Nickel (NI)**

Lot # **24002546**
Solvent: **Nitric Acid**

Expiration Date: **091226**

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6U7B**

Volume shown below was diluted to (mL): **2000.02**

Balance Uncertainty: **5E-05**

Flask Uncertainty: **0.056**

2.0%

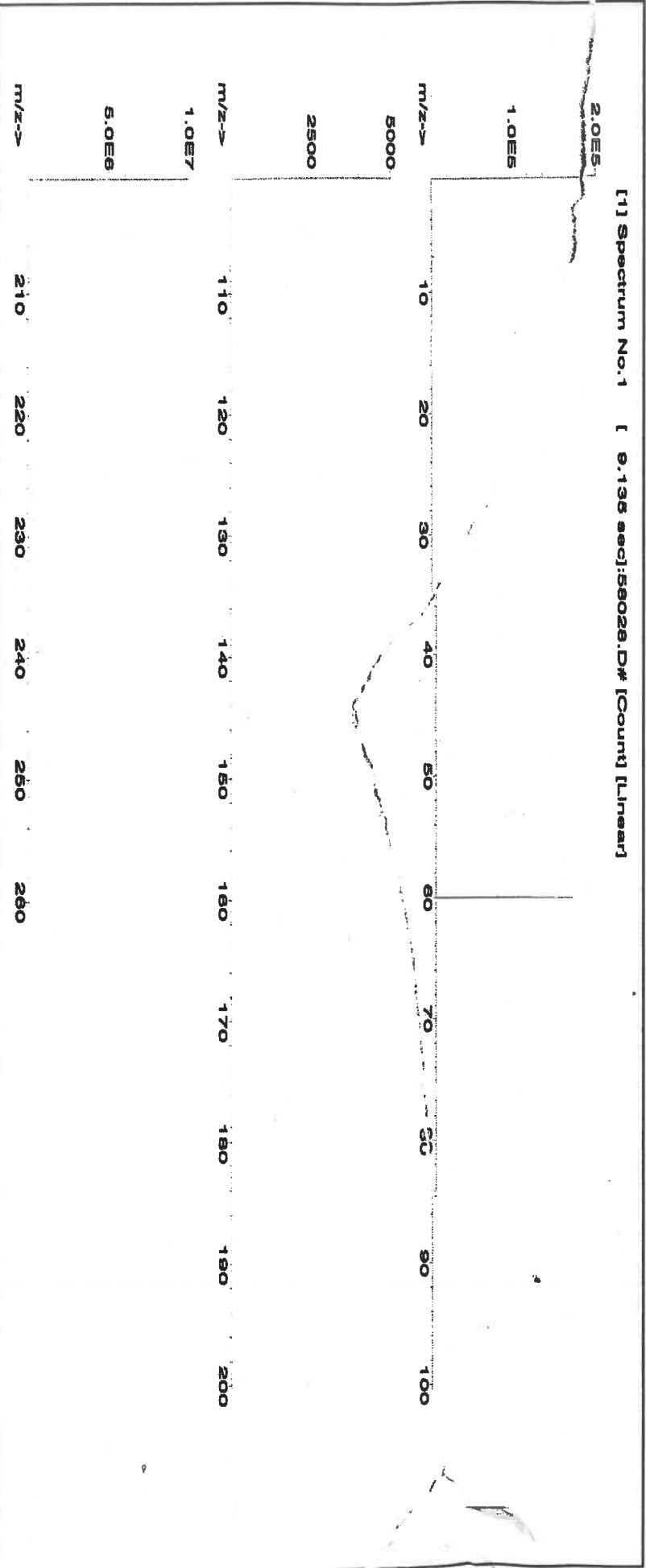
40.0 (mL)

Nitric Acid

Formulated By:	<i>Lawrence Barry</i>	091223
Reviewed By:	<i>Pedro L. Renteria</i>	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Nickel(II) nitrate hexahydrate (NI) 58128 062023 0.1000 200.0 0.084 1000 10000.4 1000.0 2.2 13478-00-7 1 mg/m3 or-rel 1620 mg/kg 3136





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Tb	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: **58029**
Lot Number: **071723**
Description: **Copper (Cu)**

Lot #: **2110221**
Solvent: **Nitric Acid**

2.0%

40.0 (mL)
Nitric Acid

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Ruelas	071723

Expiration Date: **071726**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6L7B**

Volume shown below was diluted to (mL): **2000.02**
Balance Uncertainty: **5E-05**
Flask Uncertainty: **0.058**

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Copper(II) nitrate trihydrate (Cu) 58129 022723 0.1000 200.0 0.084 1000 10000.5 1000.0 2.2 10031-43-3 1 mg/m3 or-rat 794 mg/kg 3114

[1] Spectrum No.1 [33.422 sec]:58029.D# [Count] [Linear]

1.0E6	m/z-->	10	20	30	40	50	60	70	80	90	100
5.0E5	m/z-->	110	120	130	140	150	160	170	180	190	200
2.5E7	m/z-->	210	220	230	240	250	260				



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Bu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	La	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	Pb	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02			Nd	<0.02	K	<0.2	Sc	<0.02			Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Printed: 12/29/2023. 2:56:15 PM



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
Bc	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	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.
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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).



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57004
Lot Number: 102523
Description: Beryllium (Be)

Lot # 24002546
Solvent: Nitric Acid

Expiration Date:

102526

2.0%

40.0 (mL)

Nitric Acid

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

5E-05

Balance Uncertainty

0.058

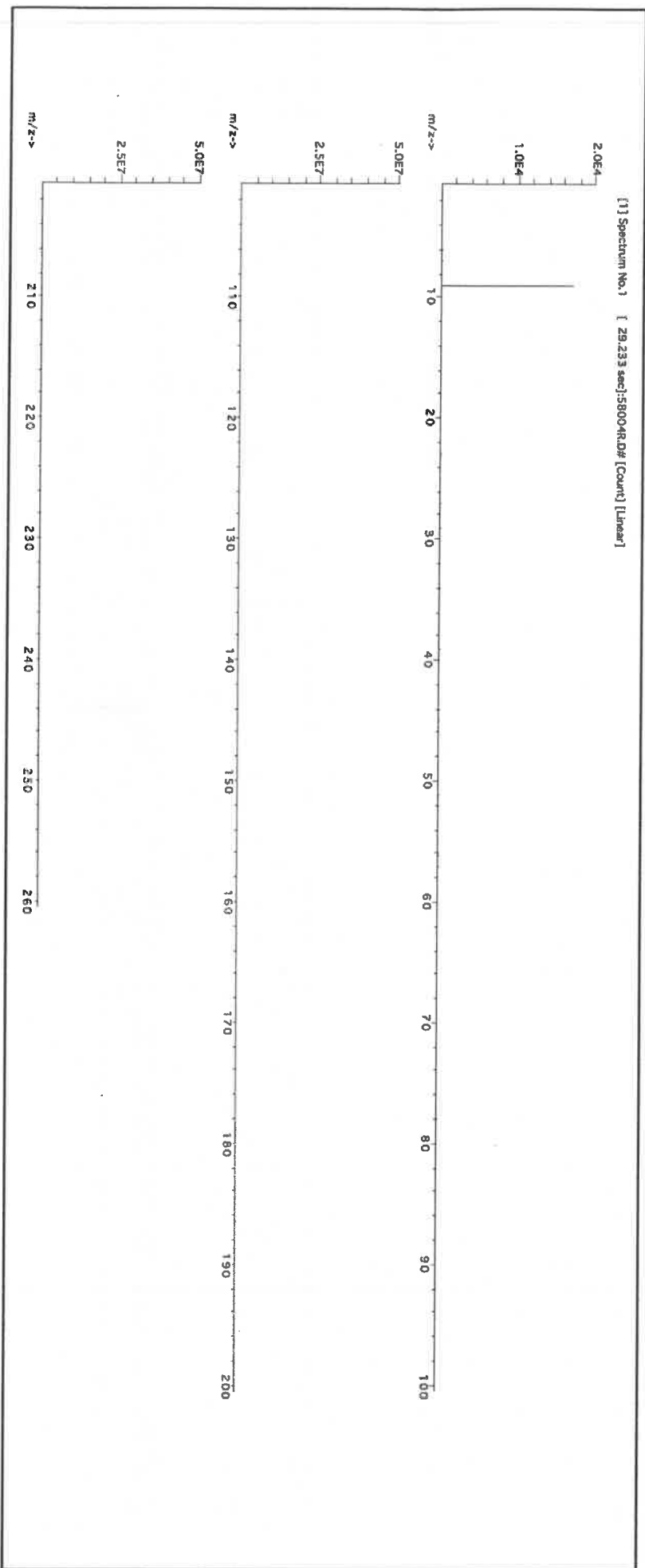
Flask Uncertainty

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

SDS Information

Compound	Part Number	Lot	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Beryllium nitrate (Be) 58104 091423 0.1000 200.0 0.084 1000 10001.5 1000.0 2.2 13597-99-4 0.2µg/m3 Inj/mg-rat 3.16mg/kg NA





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

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.02	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ta	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.02	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

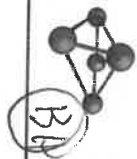
Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

Solvents: 21110221 Nitric Acid
22D0562008 Hydrochloric acid

Lot #

R-02509124

M599



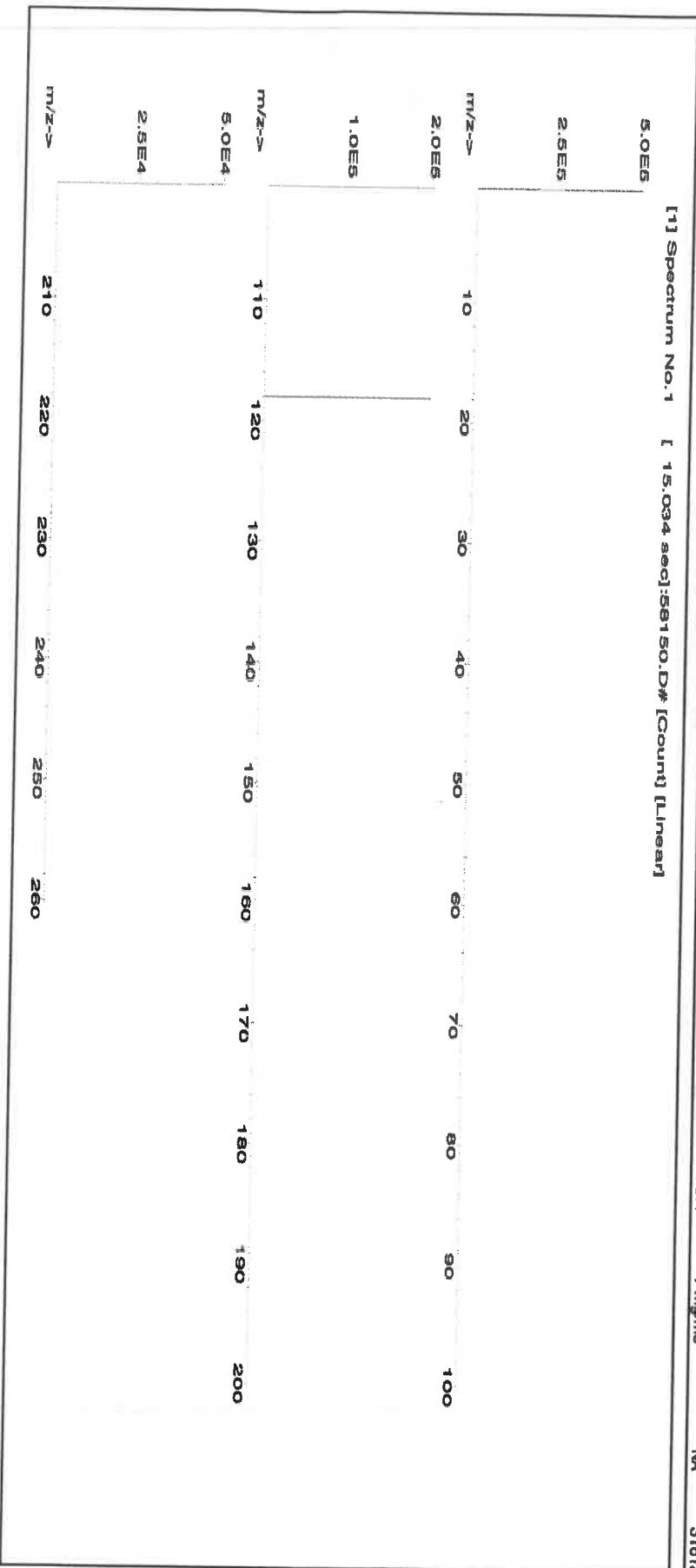
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Benson Chan		071123
Reviewed By: Pedro L. Rientas		071123

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

1. Ammonium hexafluoroantimonate(V) (Sn) IN010 SMD042023A1 1000 99.999 0.10 44.2 1.13107 1.13286 1001.6 2.0 16919-24-7 7 mg/m3 NA 3161a

[1] Spectrum No. 1 [15.034 sec]:56150.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ta	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



R: 02/09/24 115800 (54)

CERTIFIED WEIGHT REPORT:

Part Number: 57027
Lot Number: 091923
Description: Cobalt (Co)

Expiration Date: 091926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Lot # 24002546
Solvent: Nitric Acid

2.0% Nitric Acid
40.0 (mL)

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

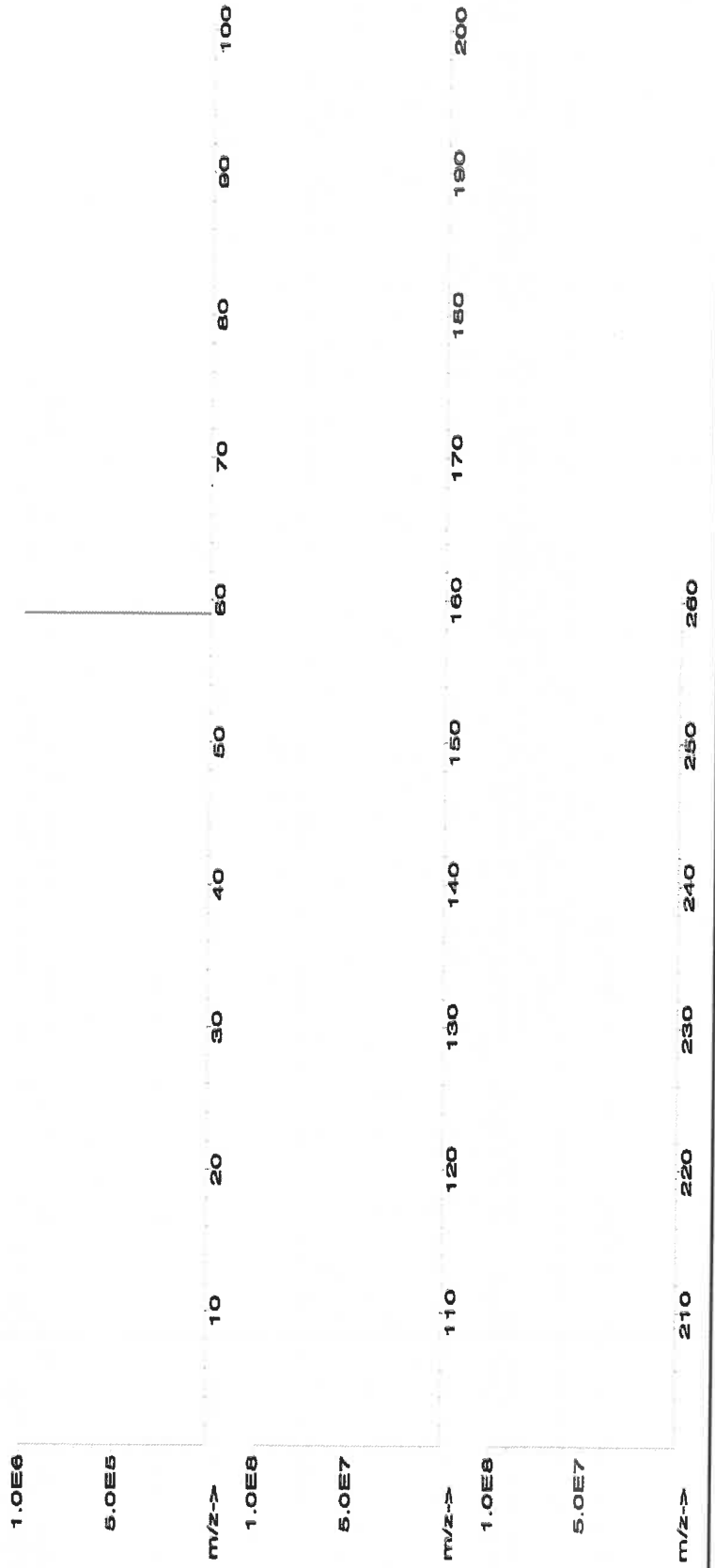
SDS Information

Expanded Uncertainty +/- (µg/mL)
Final Conc. (µg/mL)
Initial Conc. (µg/mL)
Nominal Conc. (µg/mL)
Pipette (mL)
Dilution Factor
Part Number
Lot Number

(Solvent Safety Info. On Attached pg.)
CAS#
OSHA PEL (TWA)
LD50
NIST
SRM

1. Cobalt(II) nitrate hexahydrate (Co) 58127 050923 0.1000 200.0 0.084 1000 10000.0 1000.0 2.2 10026-22-9 0.02 mg/m3 orl-rat 691 mg/kg 3113

[1] Spectrum No.1 [34.243 sec]:58027.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.2	Na	<0.02	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57033
111323
Arsenic (As)

Lot #
Solvent:

24002546
Nitric Acid

Expiration Date:

111326

2.0%
80.0 (mL)

Nitric Acid

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

4000.0

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

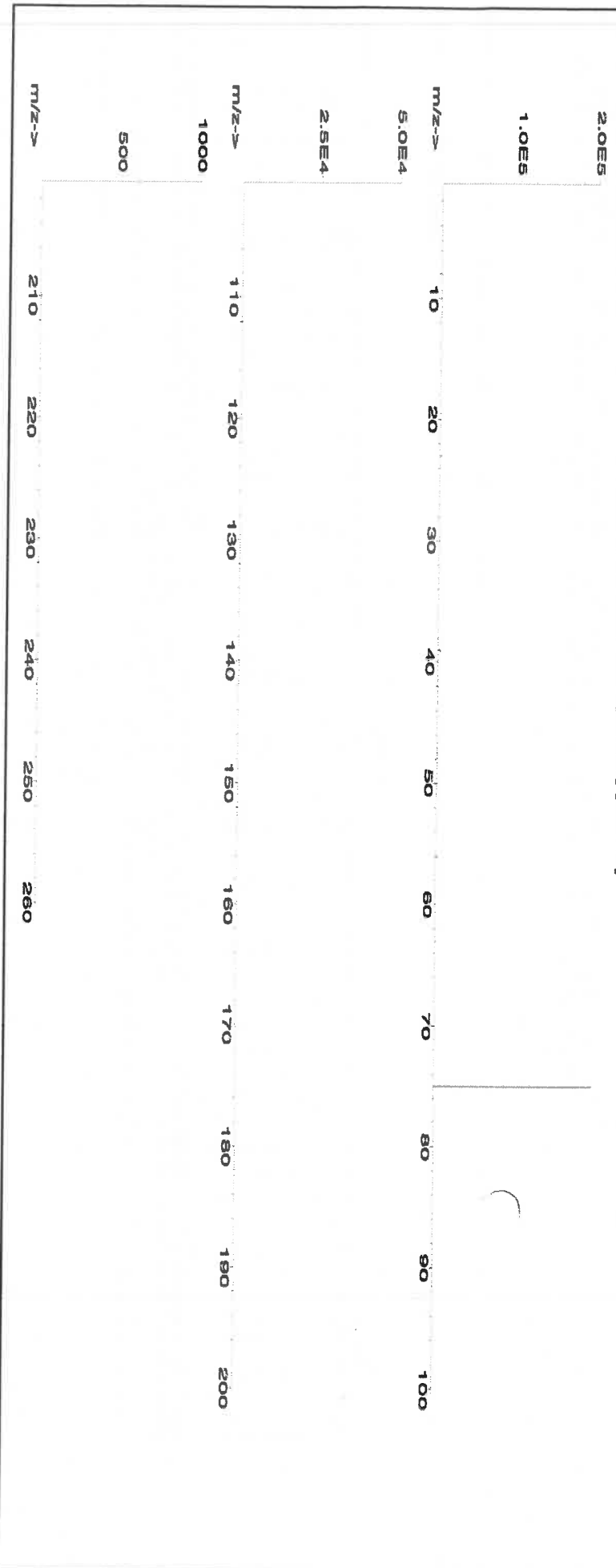
Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rendas
	111323

Compound

Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	1000.0	2.0	7440-38-2	0.5 mg/m3	or-rat 500 mg/kg	3103a
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[1] Spectrum No. 1 [34.433 sec]:57033.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Tl _h	<0.02	Yb	<0.02
Bc	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge [*]	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sa	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: **57005**
Lot Number: **071123**
Description: **Boron (B)**

Solvent: MKB0857V Ammonium hydroxide

Lot #

AI: 021009124 M5814

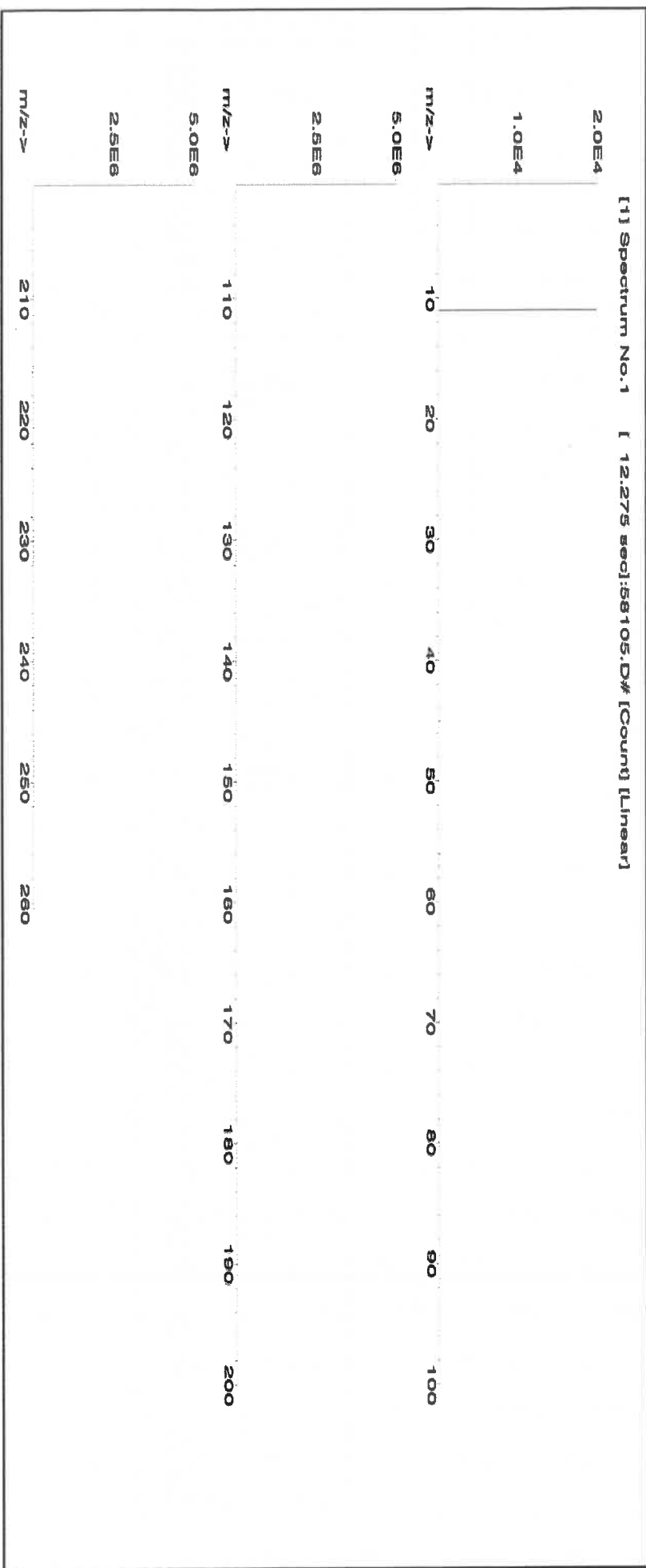
Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rientas
	071123

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48 0.058 Balance Uncertainty
2.0% 40.0 Ammonium hydroxide (mL)

SDS Information

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Boric acid (B) IN018 BV082018A1 1000 99.999 0.10 17.3 11.55772 11.56201 1000.4 2.0 10043-35-3 2 mg/m3 or-nat 2660 mg/kg 3107





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Solvent: 21110221 Nitric Acid

Lot #

R102109124 M5815

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

2% 40.0 (mL) Nitric Acid

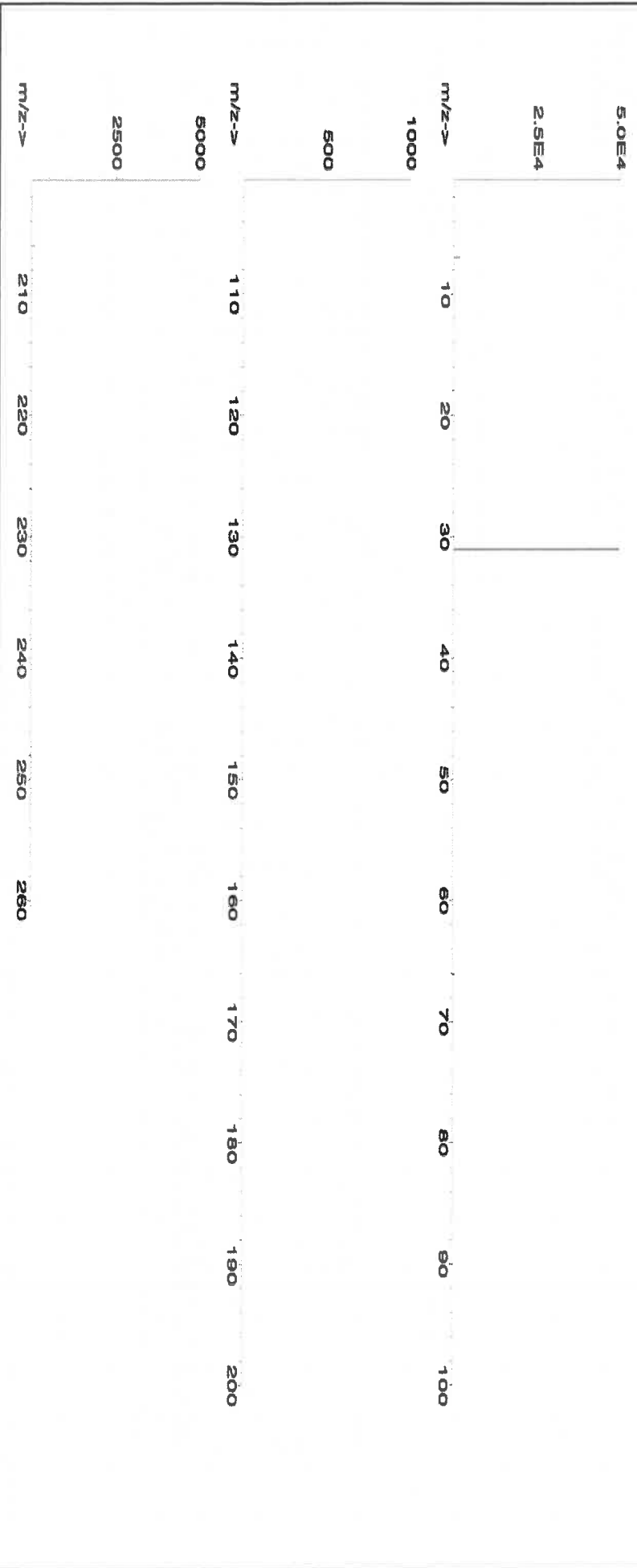
Weight shown below was diluted to (mL): 2000.02 0.056 Balance Uncertainty Flask Uncertainty

Formulated By: Lawrence Barry	041723
Reviewed By: Pedro L. Rentas	041723

Compound									
RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)

1. Ammonium dihydrogen phosphate (P) IN008 PVR2019A1 10000 99.999 0.10 27.5 72.7287 72.7289 10000.0 20.0 7722-76-1 5 mg/m3 or-hal->2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57016
122923
Sulfur (S)

Lot #

ASTM Type 1 Water

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rentas
122923	

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

122926
Ambient (20 °C)
1000
6L7B

Weight shown below was diluted to (mL):

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Compound

RM#
Lot
Number

Nominal
Conc. (µg/mL)

Purity
(%)

Uncertainty
Assay (%)

Target
Weight (g)

Actual
Weight (g)

Actual
Conc. (µg/mL)

Expanded
Uncertainty
± (µg/mL)

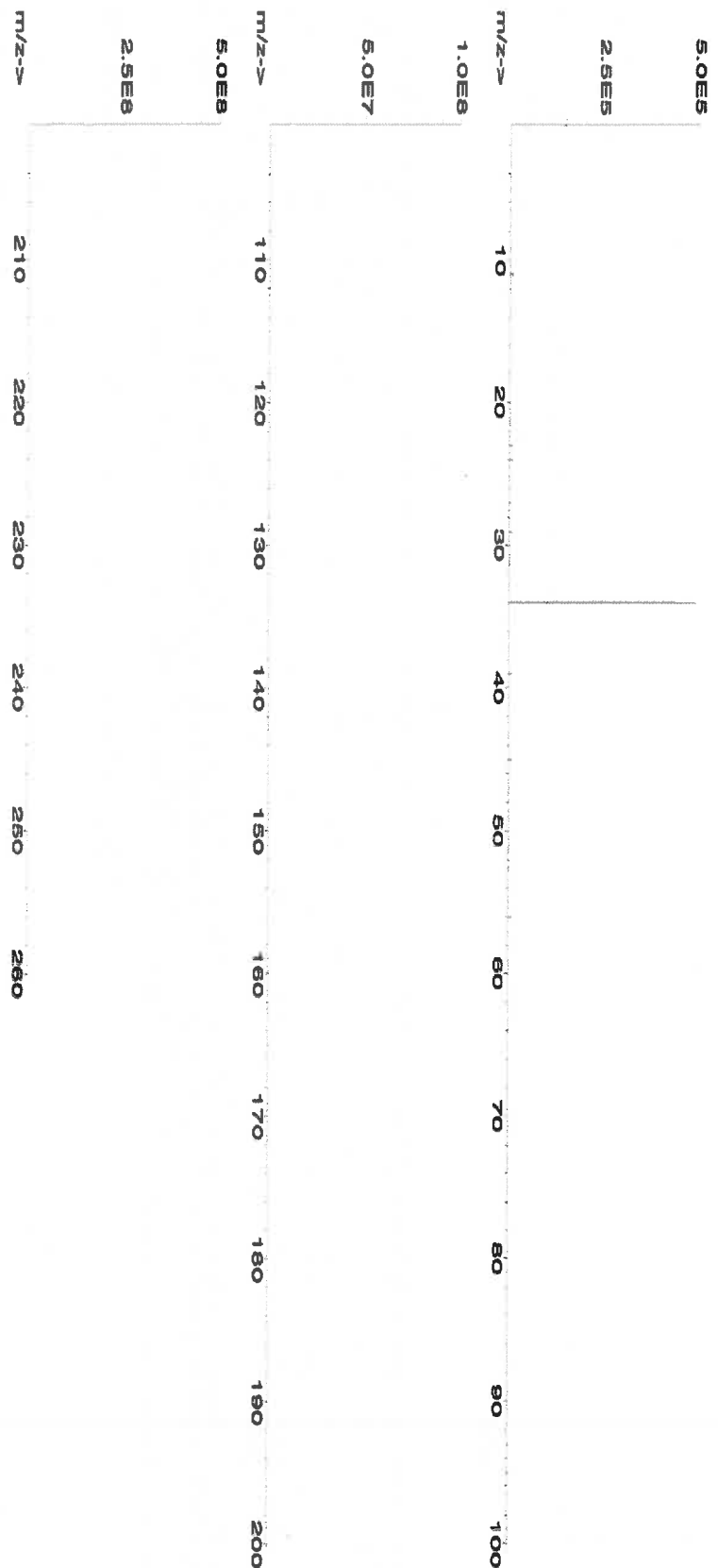
CAS#
OSHA PEL (TWA)

LD50
SRM

SDS Information

1. Ammonium sulfate (S) IN117 SLBR725V 1000 99.9 0.10 24.3 16.4979 16.4980 1000.0 2.0 7783-20-2 NA 3181

[1] Spectrum No. 1 [33.603 sec]:57016.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	La	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	S	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: **57116**
Lot Number: **071123**
Description: **Sulfur (S)**

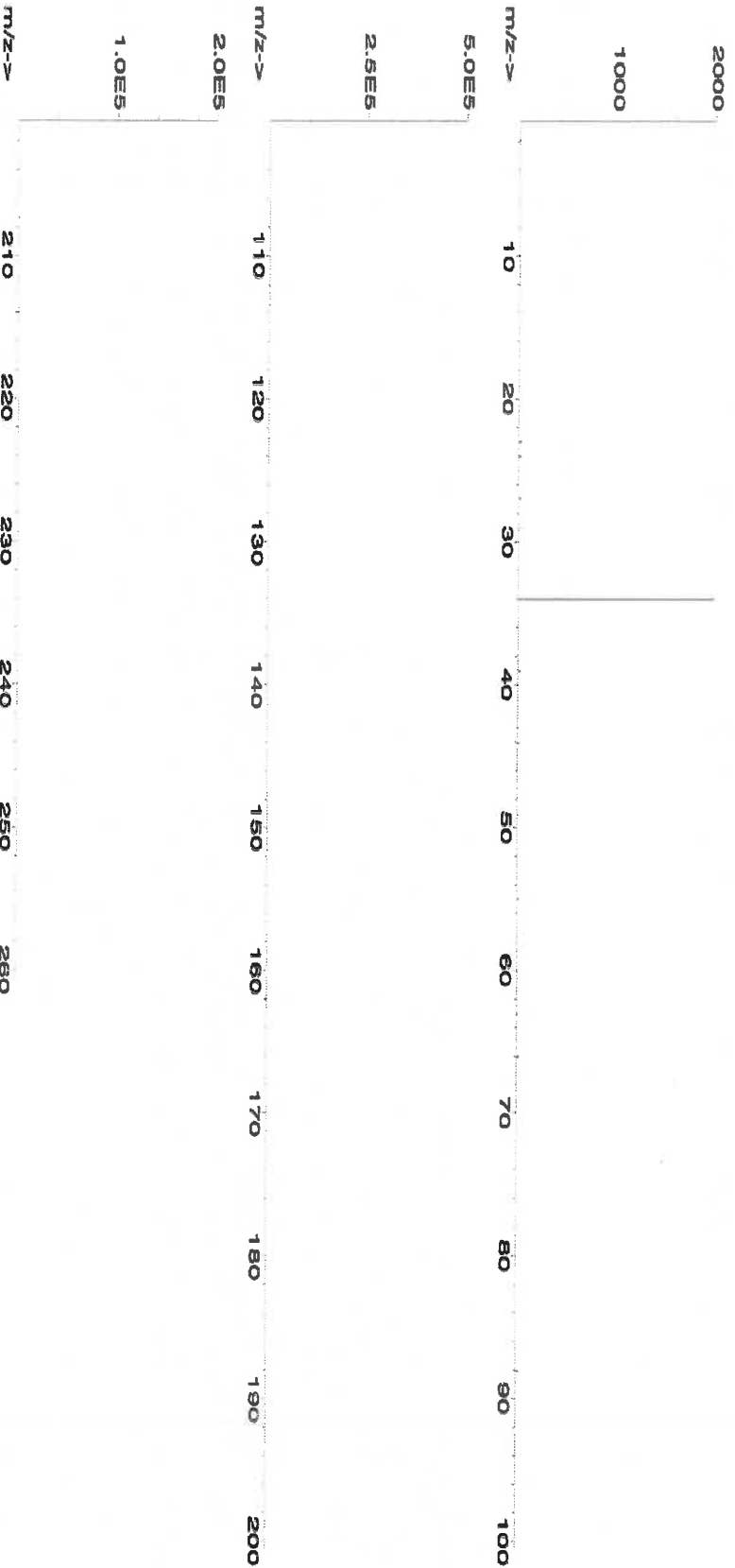
Lot #
Solvent: 071123
ASTM Type 1 Water

Formulated By:	Lawrence Barry
Reviewed By:	
Pedro L. Rentas	
071123	

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

SDS Information									
Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
Ammonium sulfate (S)	IN117 SLBR725V	10000	99.9	0.10	24.3	82.4675	82.4692	10000.1	20.0
						7763-20-2	NA	oralal 4250mg/kg	3181

[1] Spectrum No. 1 [24.004 sec]:58116.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Ti	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

Physical Characterization:

(T)= Target analyte

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: **57014**
Lot Number: **122023**
Description: **Silicon (Si)**

Solvent: **24002546 Nitric Acid**

Lot #

R: 02/09/24 M5818

Expiration Date: **122026**

2% 40.0 (mL) Nitric Acid

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6UTB**

5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): **1999.48 0.058 Flask Uncertainty**

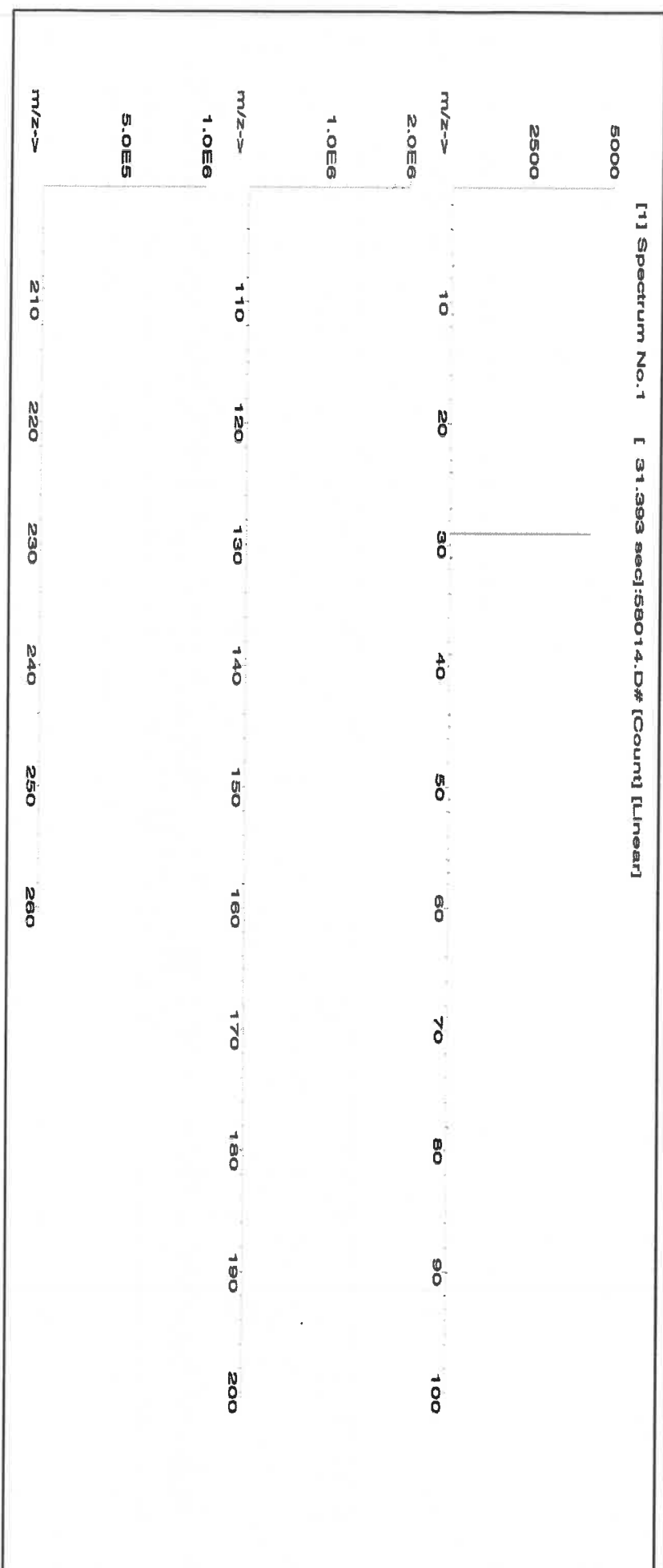
<i>Aleah O Brady</i>	
Formulated By:	Aleah O Brady
	122023
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	122023

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Ammonium hexafluorosilicate (Si) IN009 S1D08022A1 1000 99.999 0.10 14.4 13.8854 13.8855 1000.0 2.0 18919-19-0 2.5 mg/m3 off-mus 70 mg/kg NA

[1] Spectrum No. 1 [31.393 sec; 158014.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Bu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Ru	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Solvent: 24002546 Nitric Acid

Lot # R: 02109124 MS819

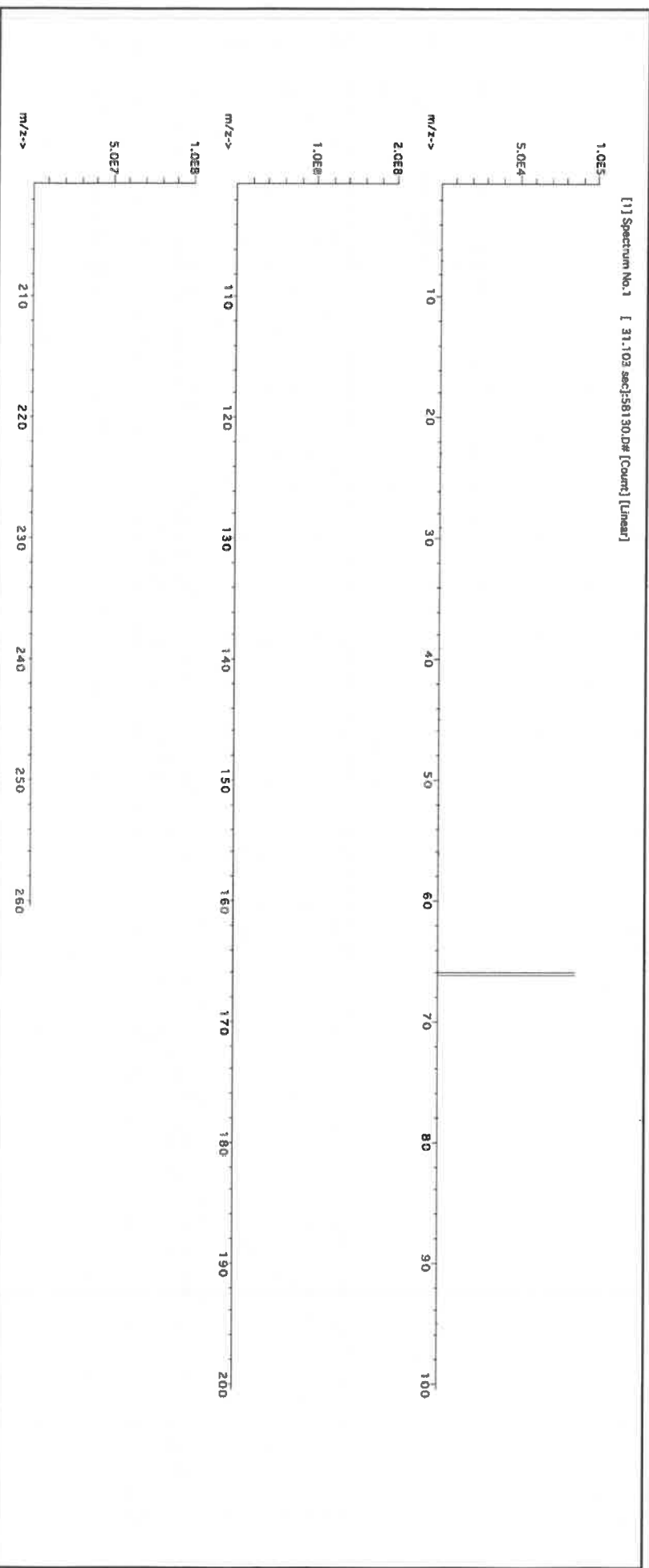
Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

2% 60.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 3000.4 0.06 Balance Uncertainty
Flask Uncertainty

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Reintas
111623	

SDS Information									
Expanded					(Solvent Safety Info. On Attached pg.)				
Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE03021A1	1000	99.999	0.10	24.3	12.3475	12.3502	1000.2
									2.0
									10196-16-6
									1 mg/mL
									on-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	Bu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02
(T) = Target analyte																			

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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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).



CERTIFIED WEIGHT REPORT:

Part Number: 57015
Lot Number: 091123
Description: Phosphorous (P)

Solvent: 24002546 Nitric Acid

Lot #

R: 02109124 M5820

Formulated By: Lawrence Barry 091123

Reviewed By: Pedro L. Rentas 091123

2% 40.0 (mL) Nitric Acid

Expiration Date: 091126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6LJB

Weight shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty Flask Uncertainty

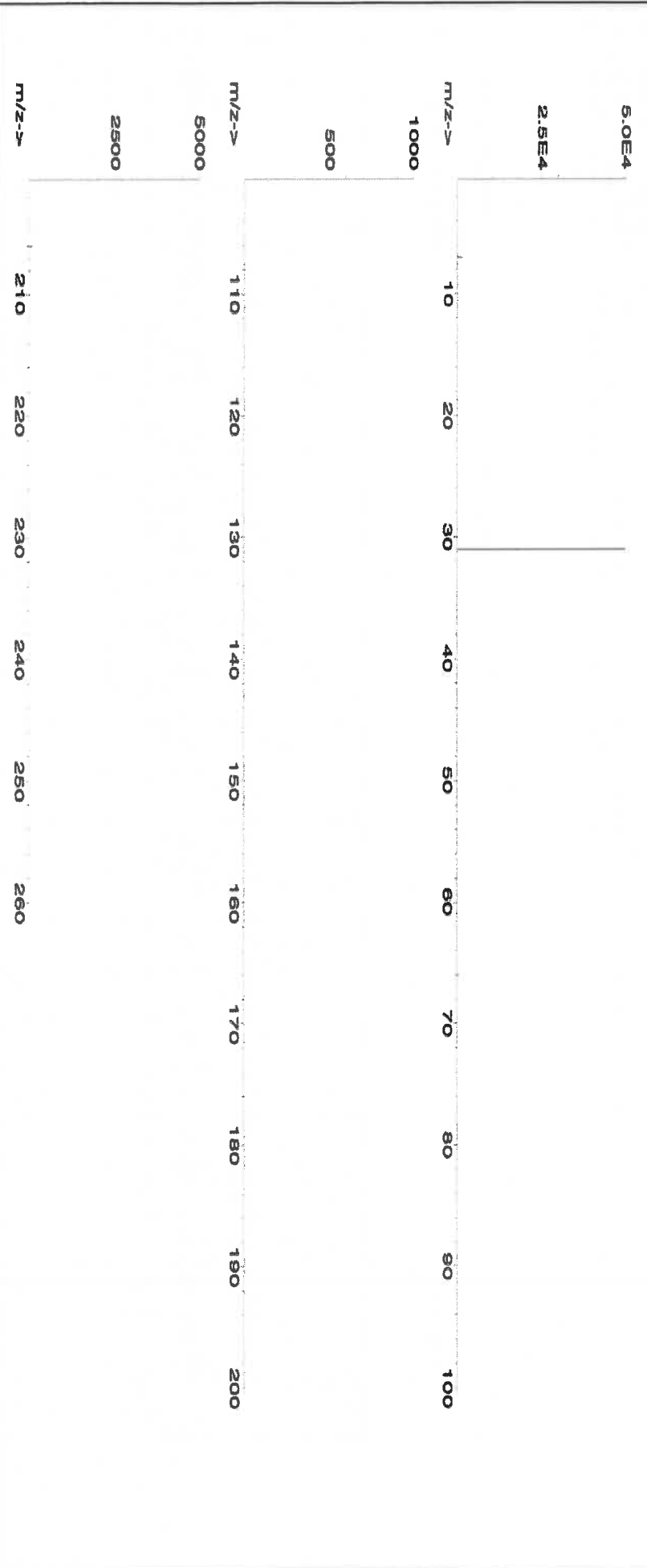
Compound

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

1. Ammonium dihydrogen phosphate (P) IN008 PVO62019A1 1000 99.999 0.10 27.5 7.2729 7.2730 1000.0 2.0 7722-76-1 5 mg/m3 xH-rat >2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sa	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

MS961 R-1 6/11/24

Lot #

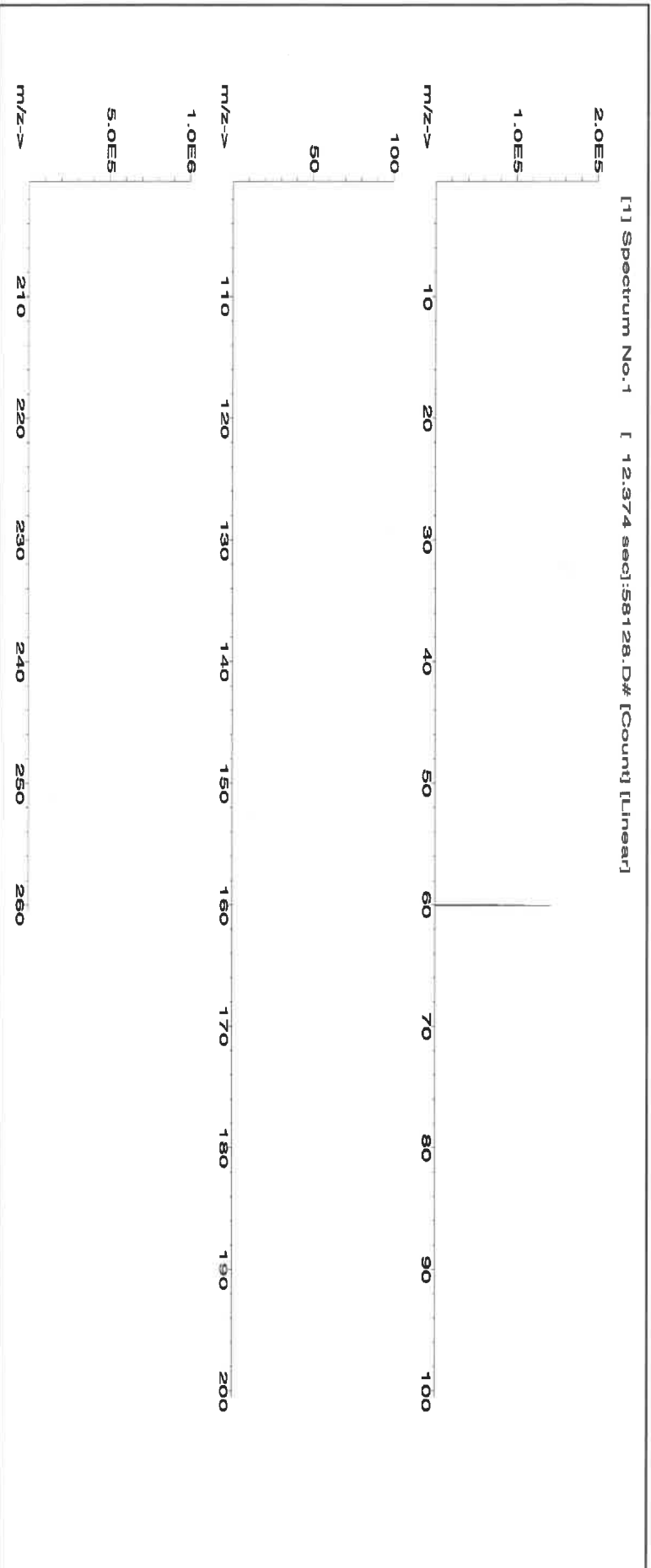
Part Number: 57028
Lot Number: 041124
Description: Nickel (NI)
Solvent: 24002546 Nitric Acid
Expiration Date: 041127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 249.85
5E-05 Balance Uncertainty
0.002 Flask Uncertainty
2% 5.0 (mL) Nitric Acid

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM
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1. Nickel(II) nitrate hexahydrate (NI) IN033 NIM052023A1 1000 99.999 0.10 20.2 1.2369 1.2369 1000.0 2.0 13478-00-7 1 mg/m3 or-rat 1620 mg/kg 3136





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	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Bc	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

MS962 **R10614124**

Lot # **24002546** Solvent: **Nitric Acid**

Part Number: **57034**
Lot Number: **060624**
Description: **Selenium (Se)**

2.0% 40.0 (mL) Nitric Acid

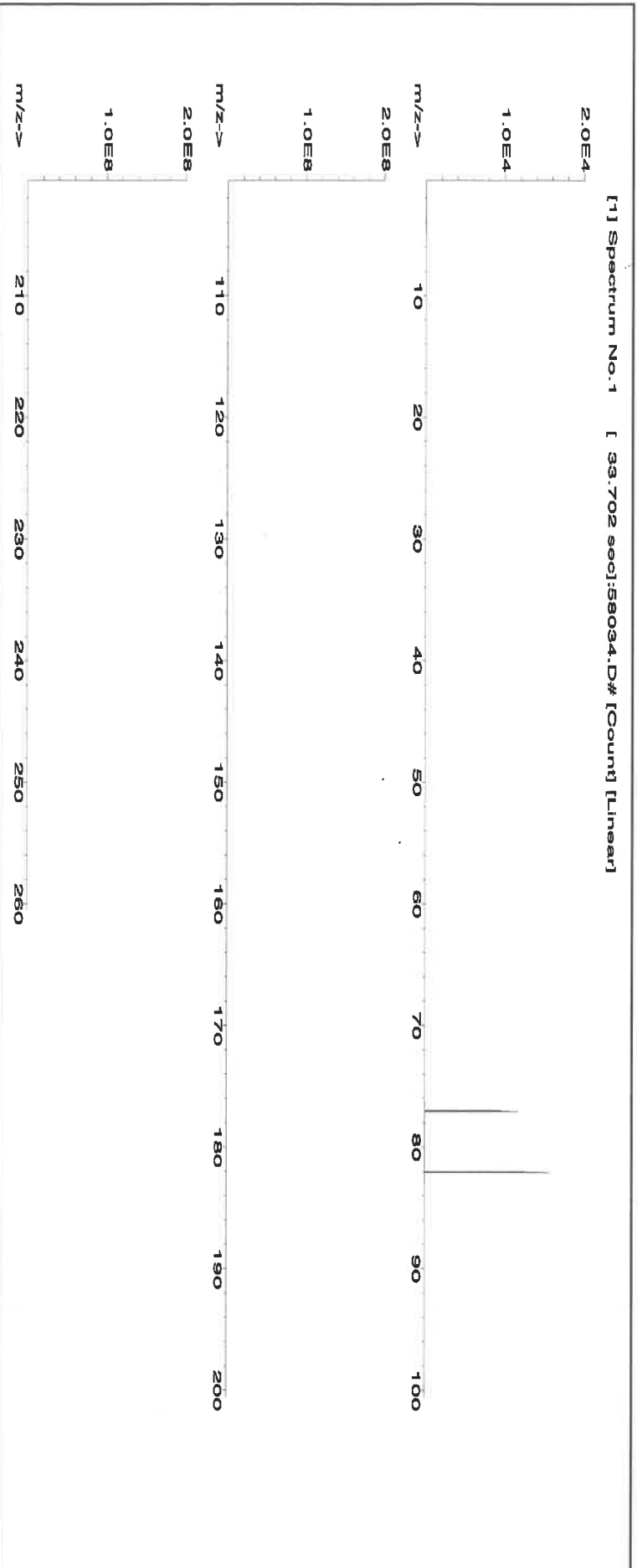
Expiration Date: **060627**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**
Volume shown below was diluted to (mL): **2000.07**
SE-05 Balance Uncertainty **0.100** Flask Uncertainty

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rantas	060624

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LDSO	NIST SRM
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1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	1000.0	2.2	7782-49-2	0.2 mg/m3	or-tral 6700 mg/kg	3149
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.02	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02			Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com



Certified Reference Material CRM

M5970 M5971

R. J. 10/12/24

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

CERTIFIED WEIGHT REPORT:

Part Number: **57003**
Lot Number: **062124**
Description: **Lithium (Li)**
Expiration Date: **06/127**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**
Volume shown below was diluted to (mL): **250.11**
SE-05 Balance Uncertainty
0.016 Flask Uncertainty

Lot # **24002546**
Solvent: **Nitric Acid**

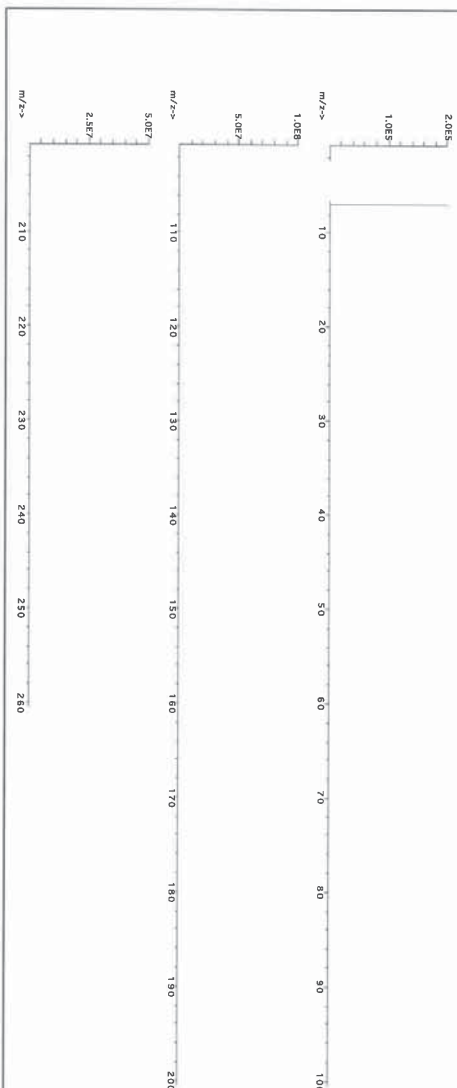
2.0% 5.0 (mL) Nitric Acid

Microscopic Exports	
Formulated By:	Giovanni Esposito
	062124
Reviewed By:	Pedro L. Parias
	062124

Compound		Part		Lot		Dilution		Initial		Uncertainty		Nominal		Initial		Final		Expanded		SDS Information		NIST	
Number	Factor	Number	Factor	Number	Factor	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Vol. (mL)	Pipette (mL)	Conc. (µg/mL)	Conc. (µg/mL)	Uncertainty	± (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SM

1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	1000.0	2.0	7790-68-4	5 mg/m3	Oral: 1428 mg/kg	NA
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[1] Spectrum No. 1 [32.093 sec; 15000.0Hz Count [Lines]



Certificate of Analysis

M5976, M5977

R: 02/22/24

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGMO1
Lot Number: T2-MO720876
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 1 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL
Density: 1.000 g/mL (measured at 20 ± 4 °C)
Assay Information:

Assay Method #1 998 ± 4 µg/mL
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

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

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

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.569.6799; 540.585.3030, Fax: 540.585.3012; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

MS978, MS979



Refine your results. Redefine your industry.

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F: 540-585-3012
info@inorganicventures.com



INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories".
Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

1.0 ACCREDITATION / REGISTRATION

2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution

Catalog Number: CGT1

Lot Number: T2-T1719972

Matrix: 2% (v/v) HNO₃

Value / Analyte(s): tr. HF

Starting Material: 1 000 µg/mL ea.

Starting Material: Titanium

Starting Material Lot#: T1 Metal

Starting Material Purity: 2094

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Method #1

1002 ± 4 µg/mL

ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods
Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = (X_p) / (U_{p,ave})$

X_p = mean of Assay Method A with

$U_{p,ave}$ = the standard uncertainty of characterization Method A

$U_p = (U_{CRM/RM})^2 / (U_{CRM/RM})^2$

$U_{CRM/RM} = (U_{CRM/RM})^2 / (U_{CRM/RM})^2$

$U_{CRM/RM} = (U_{CRM/RM})^2 / (U_{CRM/RM})^2$

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$U_{CRM/RM} = (U_{CRM/RM})^2 / (U_{CRM/RM})^2$

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an UHPA-filtered Clean Room. An UHPA-filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag	<	0.000536	M Eu	<	0.000268	O Na	<	0.032670	M Se	<	0.001204	O Zn	<	0.003267
M Al	<	0.000872	O Fe	<	0.003225	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	<	0.000986			
O B	<	0.008929	M Ge	<	0.002146	M Os	<	0.000269	O Sr	<	0.000986			
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 Th	<	0.001341			
O Ca	<	0.000676	M In	<	0.002683	M Pr	<	0.000268	M Tl	<	0.053663			
M Cd	<	0.000268	M Ir	<	0.000269	M Pt	<	0.000536	S Tl	<				
M Co	<	0.000268	M K	<	0.001172	M Rb	<	0.000268	M Ti	<	0.000268			
M Cr	<	0.000752	O Li	<	0.000268	M Re	<	0.000268	M Tm	<	0.000268			
M Cs	<	0.000268	M Lu	<	0.000268	M Rh	<	0.000268	M U	<	0.000268			
O Cu	<	0.010890	O Mg	<	0.005445	I S	<	0.006976	M Y	<	0.002146			
M Dy	<	0.000268	O Mn	<	0.003267	M Sb	<	0.004900	M Yb	<	0.000536			
M Er	<	0.000268	M Mo	<	0.000774	O Sc	<							

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 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); K₂SiO₇ - no KF if silica not present); Organic Matrices (Dry ash at 450EC in P10 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 crystaline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	14 ppt
ICP-MS 48 amu		

HAZARDOUS INFORMATION

HF Note: This standard should not be prepared or stored in glass.

ICP-OES 323.452 nm	ICP-OES 334.941 nm	ICP-OES 336.121 nm
0.0054 / 0.00092 µg/mL	0.0038 / 0.00028 µg/mL	0.0053 / 0.00034 µg/mL

1 W, Mo, Co
1 Nb, Ta, Cr, U
1 Ce, Ar, Ni
Ru
(where X = Zr, Mo,
14N17N2, 36Ar12C,
48Ca, 196X=2
14N16O18O,
32S16O, 32S14N,
N/A

8.0 HOMOGENEITY

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

10.0 QUALITY STANDARD DOCUMENTATION

- 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.

10.1 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 Kozlikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Paul Gaines

80978



Certified Reference Material CRM



45982

R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57038
031524
Strontium (Sr)

Solvent: 24002546 Nitric Acid

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

031527
Ambient (20 °C)
1000
6UTB
5E-05 Balance Uncertainty
0.100 Flask Uncertainty

Weight shown below was diluted to (mL): 2000.07

Lot #

2% 40.0 Nitric Acid
(mL)

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

SDS Information

Expanded

Uncertainty

(Solvent Safety Info. On Attached pg.)

NIST

LD50

OSHA PEL (TWA)

CAS#

+/- (µg/mL)

Actual

Weight (g)

Target

Assay

Purity (%)

Purity (%)

Nominal

Conc. (µg/mL)

Lot

Number

RM#

Compound

1. Strontium nitrate (Sr)

IN017

SR2022018A1

1000

89.997

0.10

41.2

4.85470

4.85502

1000.1

2.0

10042-76-9

NA

orl-rat >2000mg/kg

3153a

[1] Spectrum No.1 [14.495 sec]:58136.D# [Count] [Linear]

5.0E6

2.5E6

m/z-->

1.0E6

5.0E5

m/z-->

5.0E6

2.5E6

m/z-->



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

Trace Metals Verification by ICP-MS (µg/mL)																			
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

[Signature]

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

2024 JUN 7 3:58 PM

Certificate of Analysis

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F: 540-585-3012

info@inorganicventures.com

M5984
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).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGY10
Lot Number: V2-Y740548
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Yttrium
Starting Material: Yttrium Oxide
Starting Material Lot#: 2661 and 06230520YL
Starting Material Purity: 99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL
Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10011 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	9997 ± 50 µg/mL ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	9984 ± 31 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

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 PtO 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

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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



Certificate of Analysis

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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).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGIN10
Lot Number: U2-IN729349
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Indium
Starting Material: Indium Metal
Starting Material Lot#: 2511
Starting Material Purity: 99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL
Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	10021 ± 56 µg/mL ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	10035 ± 25 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	10001 ± 33 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	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 PtO 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

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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

300 Technology Drive
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M5999

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: 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, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

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

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{tts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

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

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{tts} = 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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.
- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM
R: 01/03/24 M6033



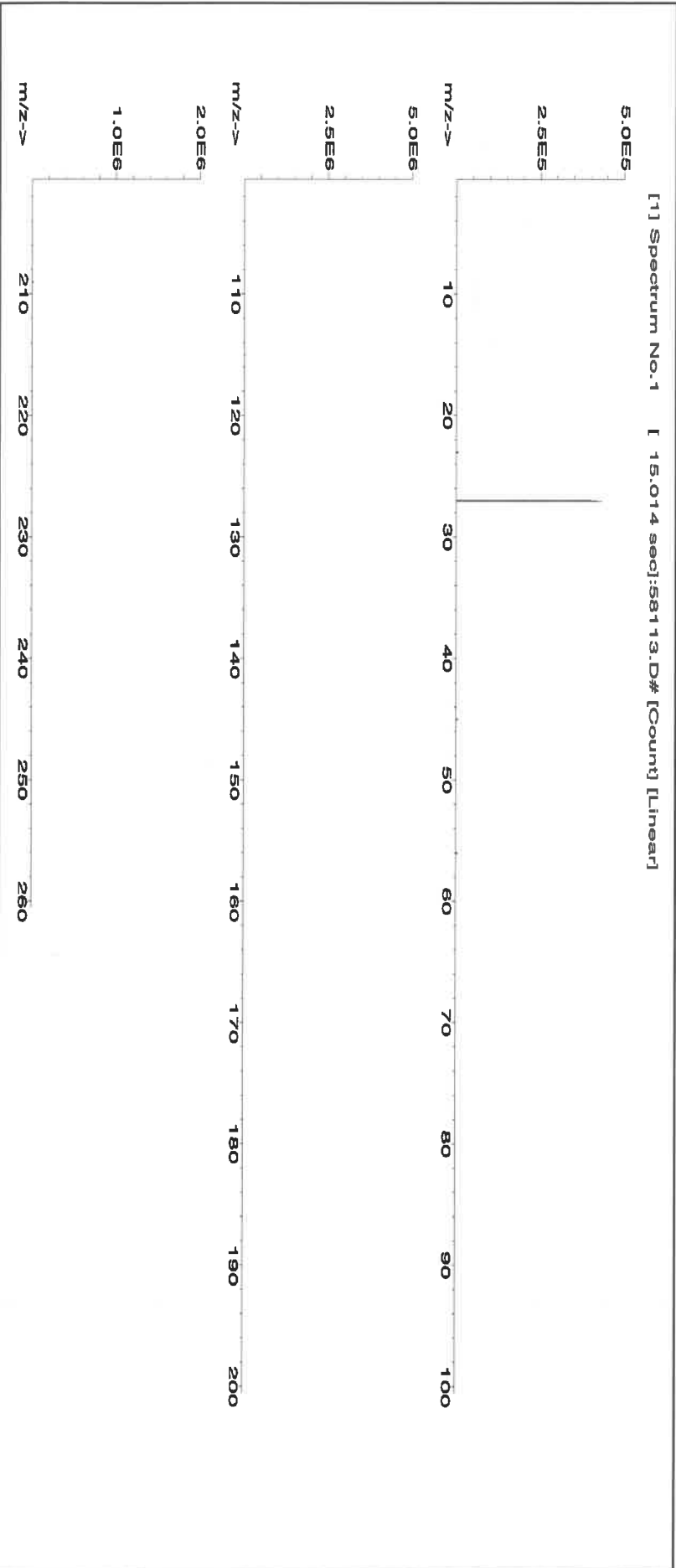
CERTIFIED WEIGHT REPORT:

Part Number: 58113
Lot Number: 011623
Description: Aluminum (Al)
Expiration Date: 011626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6LUTB
Weight shown below was diluted to (mL): 2000.02
Solvent: 20510011 Nitric Acid
Lot #
2% 40.0 (mL) Nitric Acid
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	<i>Pedro L. Rentas</i>
	Pedro L. Rentas
	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Aluminum nitrate nonahydrate (Al) IN022 ALUM12021A1 10000 99.999 0.10 7.30 273.9779 274.0078 10001.1 20.0 7784-27-2 2 mg/m3 or rat 3671 mg/kg 3101a



Nitric Acid 69%
CMOS

avantor™



Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Draw
date: 1. - 08/01/2023

M6034, M6037
M6035, M6038,
M6036, 1

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

 **avantorsTM**



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA

Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantor™**



Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Received! — 08/01/2024
pater
m6039
m6040

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantorsm**



Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantorsm**



Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
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For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%

BAKER INSTRA-ANALYZED® Reagent

For Trace Metal Analysis

 **avantor™**



M6094
M6095

metdig
10/21/24

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis



Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantor™**



Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
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For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

Nitric Acid 69%
CMOS

avantor™



M6096
M6097
M6098
M6099
M6100

Mutdig
9/21/24

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



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
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For Microelectronic Use
Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

Receive date
9/29/24
Met diag.

 avantor™



Material No.: 9530-33
Batch No.: 22F0762009
Manufactured Date: 2022-05-10
Retest Date: 2027-05-09
Revision No.: 0

M6109
M6110
M6111

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	0.8 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	14.9 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis



Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	1.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	0.7 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantor™**

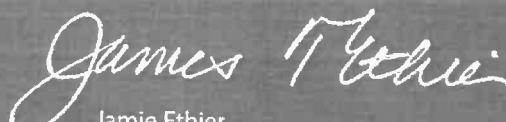


Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result
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For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

 **avantor™**



Receive:
9/29/24
met dig

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.6 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	< 0.2 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**

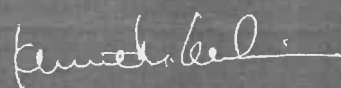


Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Ken Koehnlein
Sr. Manager, Quality Assurance

Nitric Acid 69%
CMOS

 **avantor™**



Receive:
9/29/24
met dig

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.6 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	< 0.2 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**

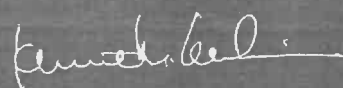


Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Ken Koehnlein
Sr. Manager, Quality Assurance



CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

Solvent: 24002546 Nitric Acid

Lot #

Expiration Date: 122226

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

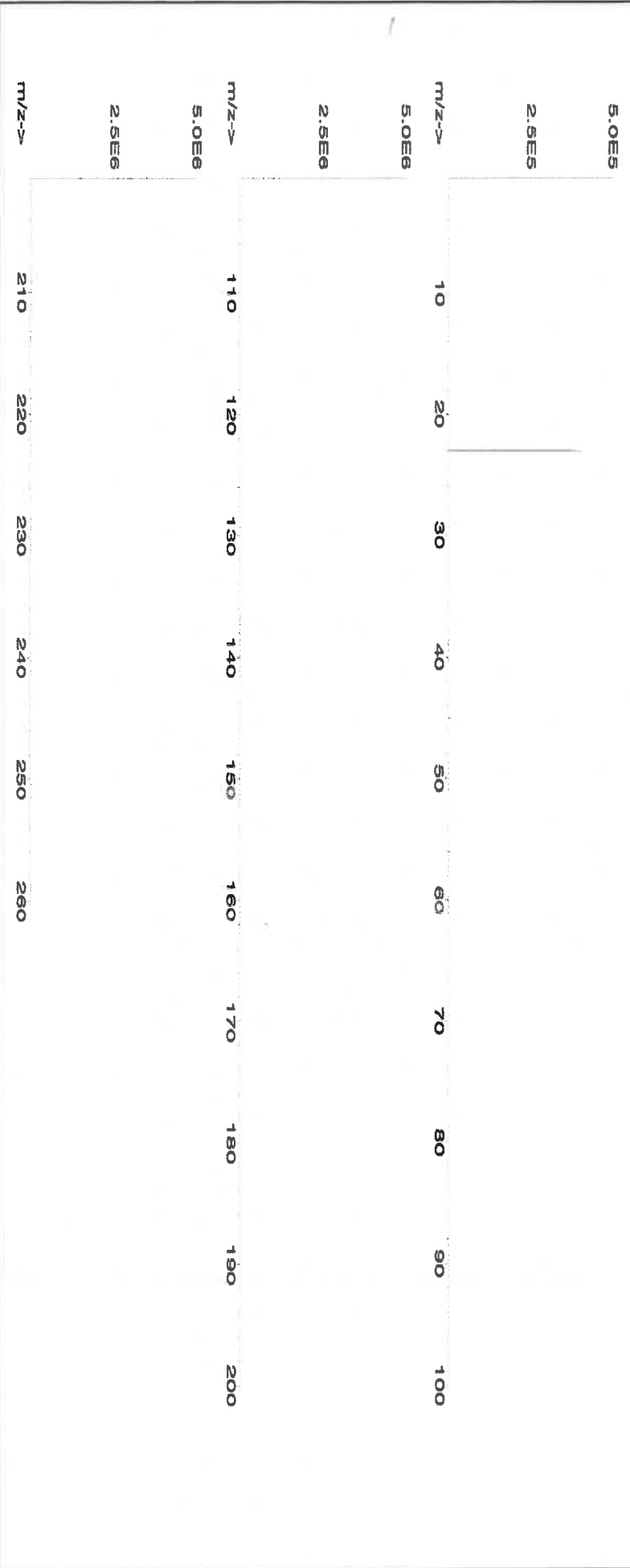
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

<i>Aleah O Brady</i>	
Formulated By:	Aleah O Brady
Reviewed By:	Pedro L. Rentas
	122223

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

1. Sodium nitrate (Na) IN036 NAV01201511 10000 99.999 0.10 26.9 111.5406 111.5479 10000.7 20.0 7631-99-4 5 mg/m3 or-trat 3430 mg/kg 3152a

[1] Spectrum No.1 [8.935 sec]:58111.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.02	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57051
120523
Antimony (Sb)

Lot #
Solvent:

24002546
Nitric Acid

2.0%
60.0
Nitric Acid
(mL)

Expiration Date:

120526

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6LJTB

Volume shown below was diluted to (mL):

3000.41

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rientas	120523

Compound

Part
Number

Lot
Number

Dilution
Factor

Initial
Vol. (mL)

Uncertainty
Pipette (mL)

Nominal
Conc. (µg/mL)

Initial
Conc. (µg/mL)

Final
Conc. (µg/mL)

Expanded
Uncertainty
+/- (µg/mL)

CAS#

OSHA PEL (TWA)

LD50

NIST
SRM

1. Antimony (Sb)

58151

100923

0.1000

300.0

0.084

1000

10001.4

1000.0

2.1

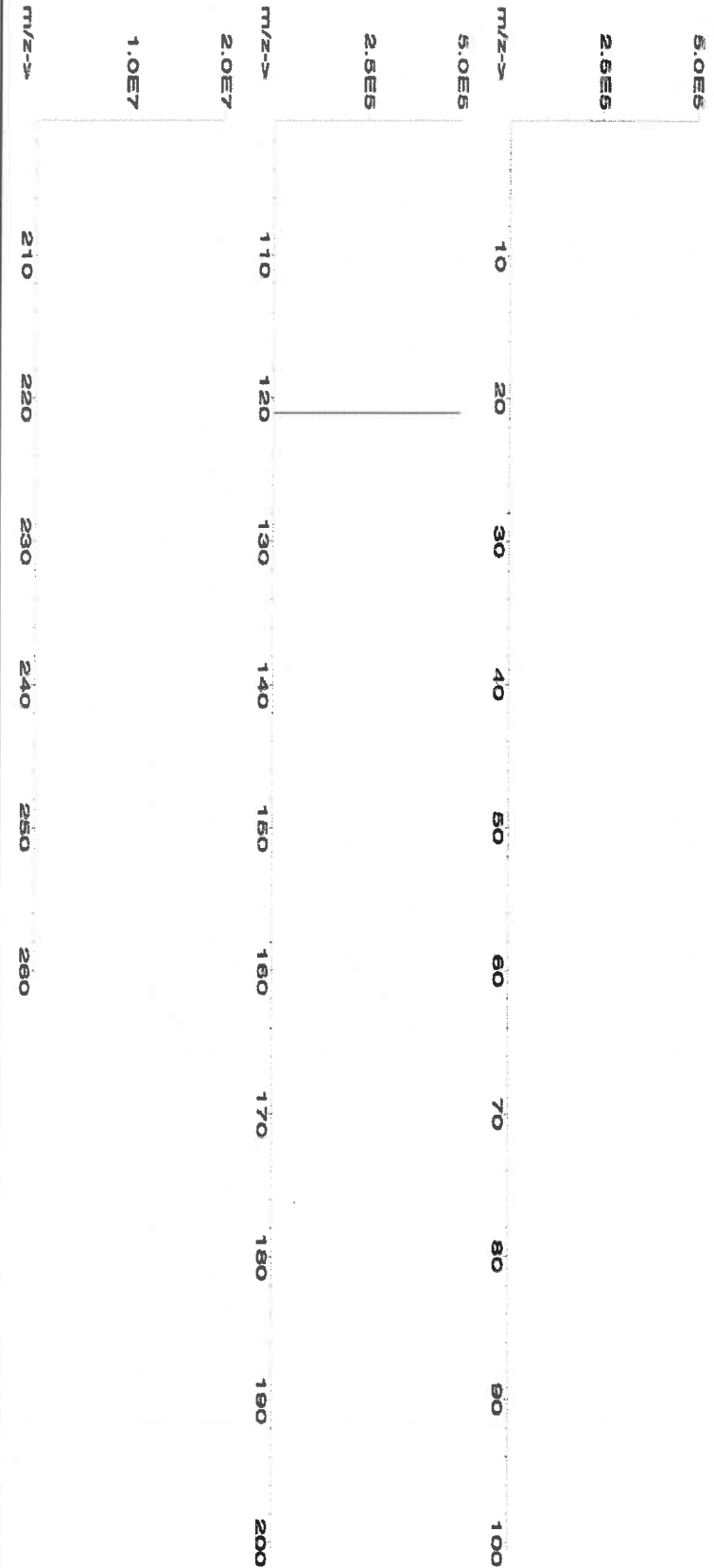
7440-36-0

0.5 mg/m3

or-rel 7000 mg/kg

3102a

[1] Spectrum No.1 [17.964 sec]:58051.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM

M6030



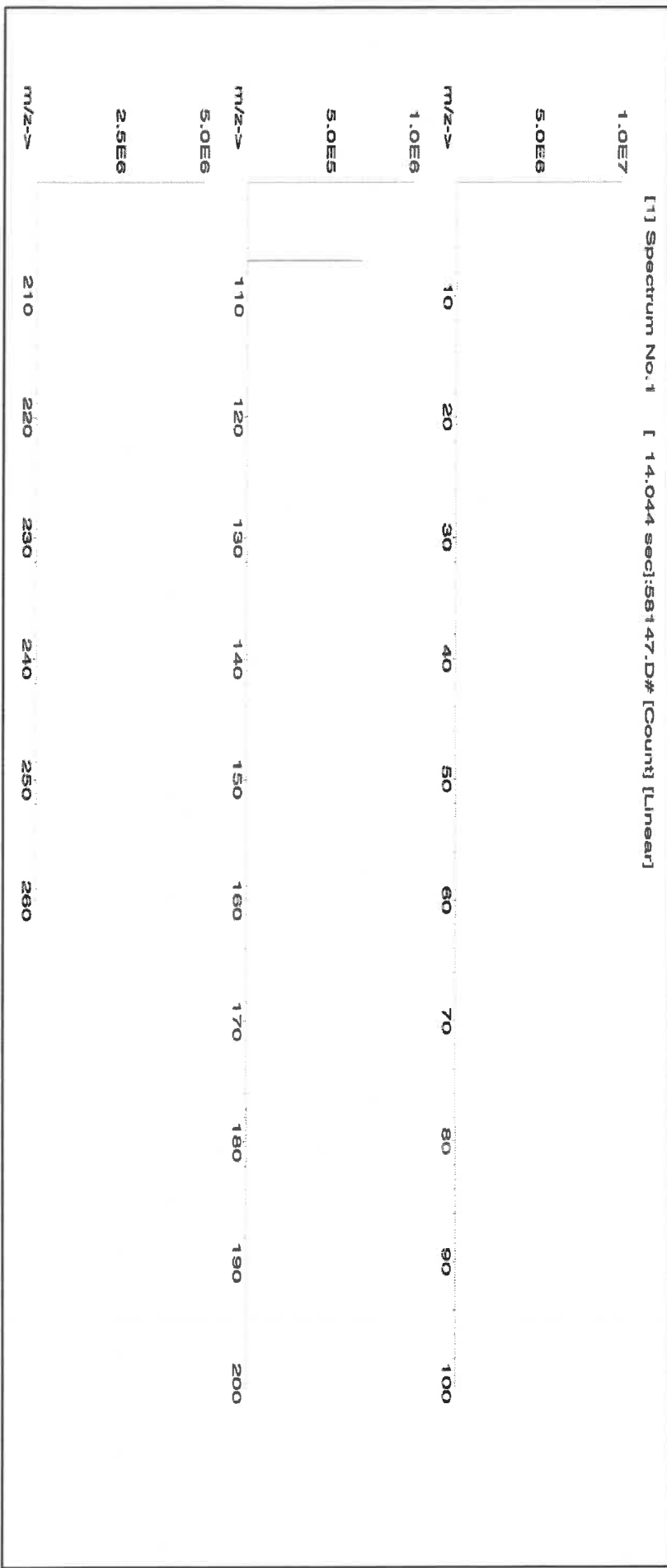
CERTIFIED WEIGHT REPORT:

Part Number: **57047**
Lot Number: **122823**
Description: **Silver (Ag)**
Solvent: 24002546 Nitric Acid

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.30
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rentas
	122823

SDS Information									
Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9996	0.10	63.7	6.27992	6.27998	1000.0
							2.0	7761-88-8	10 µg/mL
									NA
									3151





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 meghm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

R: 03/16/23 MS473 MS474 MS475 MS476

Lot #

Part Number:

Solvent:

Lot Number:

Nitric Acid

Description:

2% Nitric Acid

Expiration Date:

20.0 (mL)

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

10000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL):

1000.12 0.058 Balance Uncertainty

Formulated By:	Lawrence Barry
Reviewed By:	
Pedro L. Renteria	082922

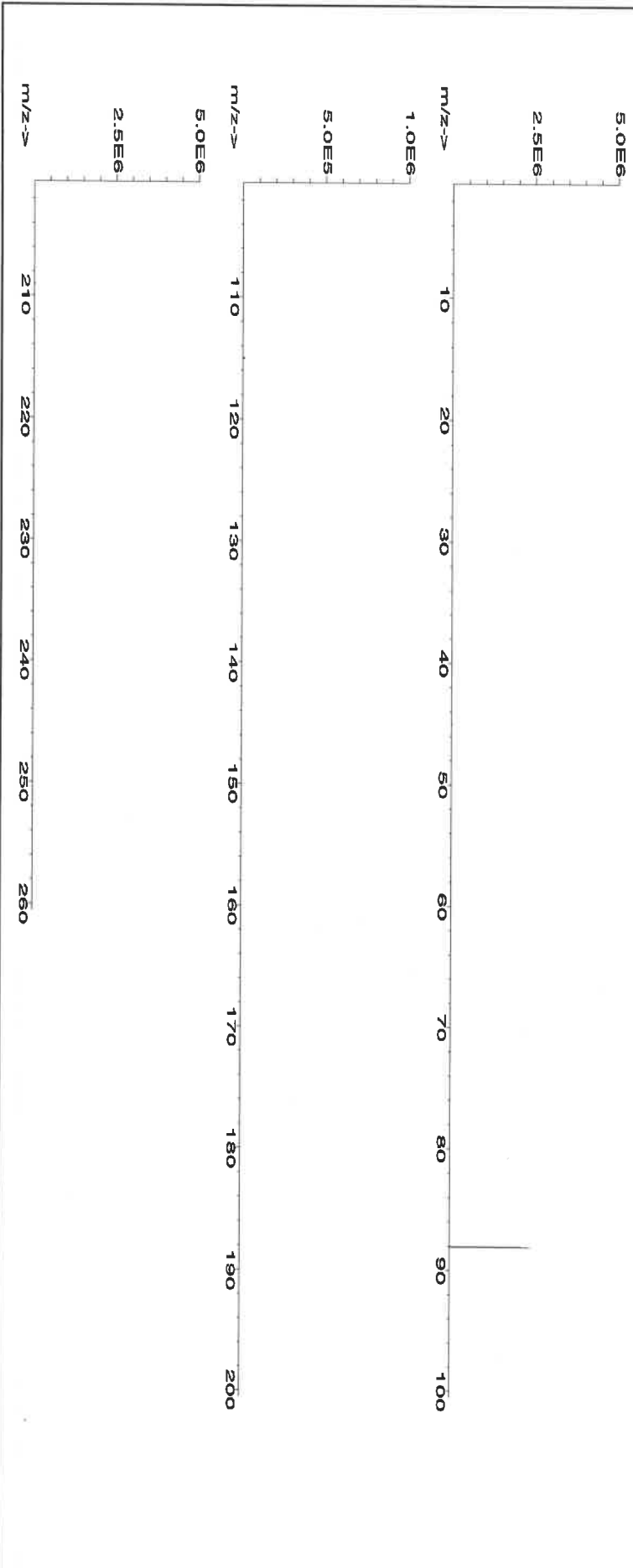
SDS Information

Compound

IN017 SR2022018A1 10000 99.997 0.10 41.2 24.2756 24.2758 10000.1 20.0 10042-76-9 NA or-rat >2000mg/kg 3153a

1. Strontium nitrate (Sr)

[1] Spectrum No. 1 [14.495 sec]: 58138.D# [Count] [Linear]





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

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

R: 03/16/23 MS473 MS474 MS475 MS476

Lot #

Part Number:

56138

Solvent: 20510011

Nitric Acid

Lot Number:

082922

Description:

Strontium (Sr)

2% 20.0

Nitric Acid

Expiration Date:

082925

(mL)

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

10000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL):

1000.12

0.058 Balance Uncertainty
Flask Uncertainty

Formulated By:	Lawrence Barry
	082922
Reviewed By:	Pedro L. Renteria
	082922

SDS Information

Compound

RM#

Lot

Number

Nominal

Purity

Uncertainty

Assay

Target

Actual

Actual

Conc. (µg/mL)

Expanded

Uncertainty

CAS#

OSHA PEL (TWA)

LD50

NIST

SRM

or-rat >2000mg/kg

3153a

20.0

10042-76-9

NA

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

or-rat >2000mg/kg

3153a

1. Strontium nitrate (Sr)

IN017 SR2022018A1

10000

99.997

0.10

41.2

24.2756

24.2758

10000.1

20.0

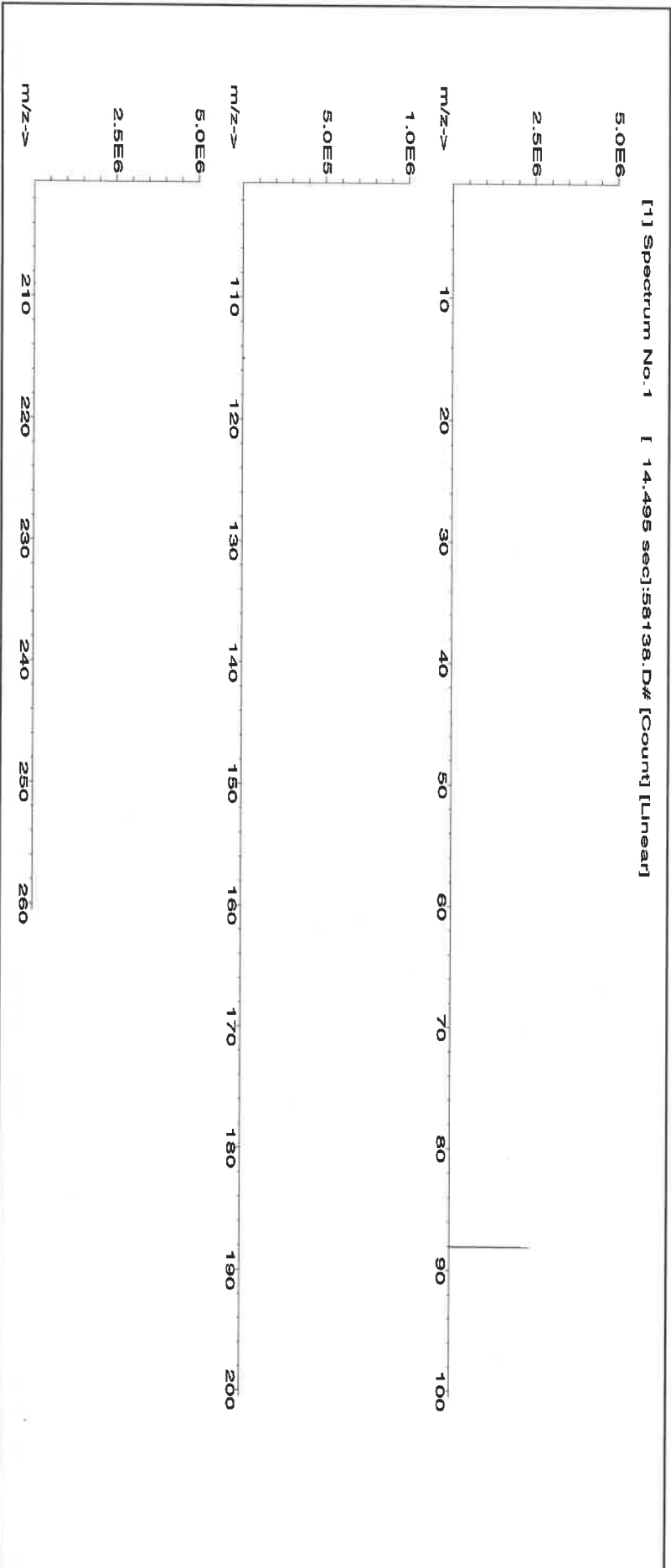
10042-76-9

NA

or-rat >2000mg/kg

3153a

[1] Spectrum No. 1 [14.495 sec]: 56138.D# [Count] [Linear]





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

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57081
Lot Number: 062724
Description: Thallium (TI)

Lot #

Solvent: 24002546 Nitric Acid

2% 40.0 Nitric Acid (mL)

Expiration Date:

062727

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL): 2000.1

5E-05 Balance Uncertainty
0.10 Flask Uncertainty

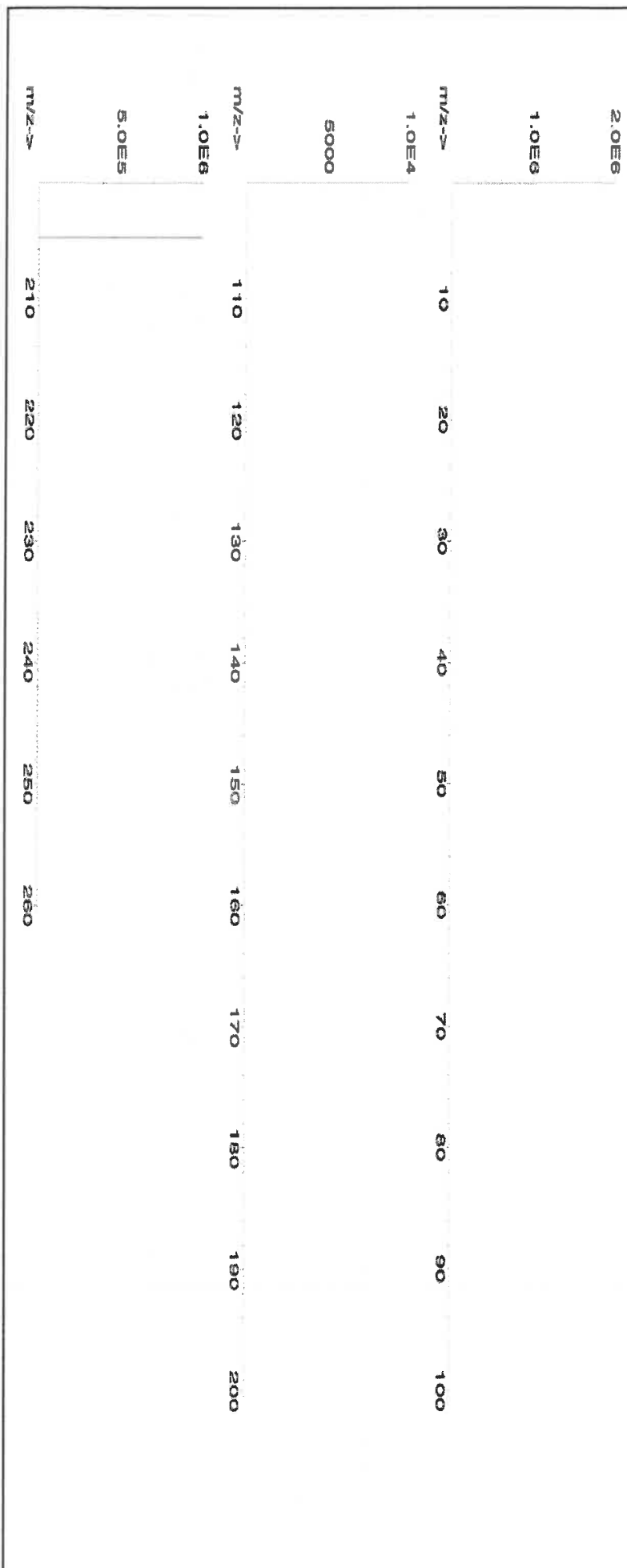
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	062724
Reviewed By:	<i>Pedro L. Renias</i>
	Pedro L. Renias
	062724

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Thallium nitrate (TI) IN037 BCCF4399 1000 99.999 0.10 77.0 2.5975 2.5977 1000.1 2.0 10102-45-1 0.1 mg/m3 orl-mus 15mg/kg 3158

[1] Spectrum No.1 [14.044 sec]:57081.D# [Count] [Linear]





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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Tm	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Sn	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Se	<0.02	Ta	<0.02			Zr	<0.02

(T) = Target analyte

Physical Characterization:

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.
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- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
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- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM

M6021



CERTIFIED WEIGHT REPORT:

Part Number: **57023**
Lot Number: **062424**
Description: **Vanadium (V)**

Lot # **24002546**
Solvent: **Nitric Acid**

Aleah O'Brady	
Formulated By:	Aleah O'Brady
	062424
Reviewed By:	Pedro L. Rantas
	062424

Expiration Date: **062427**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**

Volume shown below was diluted to (mL): **2000.3**
5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Volume shown below was diluted to (mL):

Compound		Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)		58123	021224	0.1000	200.0	0.084	1000	10000.3	1000.0	2.2	7803-55-6	0.05 mg/m3	or-at 58.1mg/kg	3165

[1] Spectrum No.1 [34.243 sec]:58023.D# [Count] [Linear]

m/z-->	10	20	30	40	50	60	70	80	90	100
2.0E6										
1.0E6										
2.0E7										
1.0E7										
m/z-->	110	120	130	140	150	160	170	180	190	200
5.0E6										
2.5E6										
m/z-->	210	220	230	240	250	260				



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

Trace Metals Verification by ICP-MS (µg/mL)															
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<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
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pr	<0.02	Sm	<0.02	Ta	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ti	<0.02
														Tb	<0.02
														Te	<0.02
														Tl	<0.02
														Th	<0.02
														Tm	<0.02
														Sn	<0.02
														Ti	<0.02
														W	<0.02
														U	<0.02
														V	T
														Yb	<0.02
														Y	<0.02
														Zn	<0.02
														Zr	<0.02

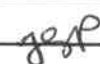
(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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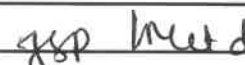
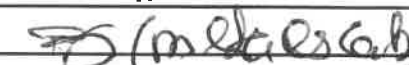
SOP ID : M3050B-Digestion-20, MSFAM01.1-Trace Metals-2
SDG No : MYE490 **Start Digest Date:** 10/26/2024 **Time :** 11:00 **Temp :** 95 °C
Matrix : SOIL **End Digest Date:** 10/26/2024 **Time :** 14:00 **Temp :** 95 °C
Pipette ID: ICP A **Digestion tube ID:** M6054
Balance ID : M SC-2 **Block thermometer ID:** MET-DIG. #5
Filter paper ID : N/A **Dig Technician Signature:** 
pH Strip ID : N/A **Supervisor Signature:** 
Hood ID : #3 **Temp :** 1. 95°C 2. N/A
Block ID: 1. HOT BLOCK #5 2. N/A

Standardized Name	MLS USED	STD REF. # FROM LOG
LCSS	1.00	MP82711
LCSSD	0.50	MP82711
Spike Sol 6	2.00	MP82731
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
1:1 HNO3	10.00	MP81119
1:1 HCL	5.00	MP82127
Conc. HNO3	5.00	M6097
30% H2O2	3.00	M5634
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 #5 CELL #34 : 95C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/26/24 11:30	 Preparation Group	 Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P4480-01	MYE490	N/A	1.26	100	Brown	Yellow	Medium	N/A	N/A	1
P4480-02	MYE491	N/A	1.25	100	Brown	Yellow	Medium	N/A	N/A	2
P4480-03	MYE492	N/A	1.41	100	Brown	Yellow	Medium	N/A	N/A	3
P4480-04	MYE493	N/A	1.18	100	Brown	Yellow	Medium	N/A	N/A	4
P4480-05	MYE494	N/A	1.30	100	Brown	Yellow	Medium	N/A	N/A	5
P4480-06	MYE494D	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	7
P4480-07	MYE494S	N/A	1.10	100	Brown	Yellow	Medium	N/A	MP82731	29
P4480-08	MYE495	N/A	1.12	100	Brown	Yellow	Medium	N/A	N/A	9
P4480-09	MYE496	N/A	1.26	100	Brown	Yellow	Medium	N/A	N/A	10
P4480-10	MYE497	N/A	1.14	100	Brown	Yellow	Medium	N/A	N/A	11
P4480-11	MYE498	N/A	1.40	100	Brown	Yellow	Medium	N/A	N/A	12
P4480-12	MYE499	N/A	1.09	100	Brown	Yellow	Medium	N/A	N/A	13
P4480-13	MYE4A0	N/A	1.14	100	Brown	Yellow	Medium	N/A	N/A	14
P4480-14	MYE4A1	N/A	1.37	100	Brown	Yellow	Medium	N/A	N/A	15
P4480-15	MYE4A2	N/A	1.26	100	Brown	Yellow	Medium	N/A	N/A	16
P4480-16	MYE4A3	N/A	1.18	100	Brown	Yellow	Medium	N/A	N/A	17
P4480-17	MYE4A4	N/A	1.45	100	Brown	Yellow	Medium	N/A	N/A	18
P4480-18	MYE4A5	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	19
P4480-19	MYE4A6	N/A	1.07	100	Brown	Yellow	Medium	N/A	N/A	20
P4480-20	MYE4A7	N/A	1.22	100	Brown	Yellow	Medium	N/A	N/A	21
P4480-21	MYE4A8	N/A	1.27	100	Brown	Yellow	Medium	N/A	N/A	22
P4480-22	MYE4A9	N/A	1.16	100	Brown	Yellow	Medium	N/A	N/A	23
PB164428BL	PBS428	N/A	1.00	100	Colorless	Colorless	Fine	N/A	N/A	24
PB164428BS	LCS428	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP82711	27
PB164428BSD	LCSD428	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP82711	28

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/29/24 16:04		Kareem	OK
2	S1	S01	CAL2	10/29/24 16:09		Kareem	OK
3	S2	S02	CAL3	10/29/24 16:14		Kareem	OK
4	S3	S03	CAL4	10/29/24 16:18		Kareem	OK
5	S4	S04	CAL5	10/29/24 16:22		Kareem	OK
6	S5	S05	CAL6	10/29/24 16:27		Kareem	OK
7	S6	S06	CAL7	10/29/24 16:31		Kareem	OK
8	ICV004	ICV004	ICV	10/29/24 17:19	Inst. paused for calibration review	Kareem	OK
9	ICB004	ICB004	ICB	10/29/24 17:25	Inst. paused for review	Kareem	OK
10	ICSA004	ICSA004	ICSA	10/29/24 17:35	Inst. paused for review	Kareem	OK
11	ICSAB004	ICSAB004	ICSAB	10/29/24 17:40		Kareem	OK
12	CCV023	CCV023	CCV	10/29/24 17:44		Kareem	OK
13	CCB023	CCB023	CCB	10/29/24 17:51	Inst. paused for review	Kareem	OK
14	P4483-01DL	MYE4F0	SAM	10/29/24 17:55		Kareem	OK
15	P4483-02DL	MYE4F1	SAM	10/29/24 18:00		Kareem	OK
16	P4483-03DL	MYE4F2	SAM	10/29/24 18:04		Kareem	OK
17	P4483-04DL	MYE4F3	SAM	10/29/24 18:09		Kareem	OK
18	P4483-05DL	MYE4F4	SAM	10/29/24 18:13		Kareem	OK

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

19	P4483-06DL	MYE4F5	SAM	10/29/24 18:18		Kareem	OK
20	P4483-07DL	MYE4F6	SAM	10/29/24 18:22		Kareem	OK
21	P4483-08DL	MYE4F7	SAM	10/29/24 18:26		Kareem	OK
22	P4483-09DL	MYE4F8	SAM	10/29/24 18:31		Kareem	OK
23	P4483-10DL	MYE4F9	SAM	10/29/24 18:35		Kareem	OK
24	P4483-11DL	MYE4G0	SAM	10/29/24 18:40		Kareem	OK
25	P4483-12DL	MYE4G1	SAM	10/29/24 18:44		Kareem	OK
26	P4483-13DL	MYE4G2	SAM	10/29/24 18:49		Kareem	OK
27	P4483-14DL	MYE4G3	SAM	10/29/24 18:53		Kareem	OK
28	P4483-15DL	MYE4G4	SAM	10/29/24 18:57		Kareem	OK
29	P4483-16DL	MYE4G5	SAM	10/29/24 19:02		Kareem	OK
30	P4483-17DL	MYE4G6	SAM	10/29/24 19:06		Kareem	OK
31	P4483-18DL	MYE4G7	SAM	10/29/24 19:11		Kareem	OK
32	P4483-19DL	MYE4G8	SAM	10/29/24 19:15		Kareem	OK
33	P4483-20DL	MYE4G9	SAM	10/29/24 19:19		Kareem	OK
34	CCV024	CCV024	CCV	10/29/24 19:24		Kareem	OK
35	CCB024	CCB024	CCB	10/29/24 19:28		Kareem	OK
36	P4483-21DL	MYE4G9D	DUP	10/29/24 19:33		Kareem	OK
37	P4483-22DL	MYE4G9S	MS	10/29/24 19:37	MS fail for Zn (462.90 ppb)	Kareem	OK
38	P4483-20LDL	MYE4G9L	SD	10/29/24 19:41		Kareem	OK

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442		
ICV Standard	MP82450		
CCV Standard	MP82453		
ICSA Standard	MP82451,MP82452		
CRI Standard			
LCS Standard	MP82711		
Chk Standard	MP82455,MP82456		

39	PB164443BL	PBS443	MB	10/29/24 19:46		Kareem	OK
40	PB164443BS	LCS443	LCS	10/29/24 19:50		Kareem	OK
41	PB164443BSD	LCSD443	LCSD	10/29/24 19:55		Kareem	OK
42	P4480-01DL	MYE490	SAM	10/29/24 19:59		Kareem	OK
43	P4480-02DL	MYE491	SAM	10/29/24 20:04		Kareem	OK
44	P4480-03DL	MYE492	SAM	10/29/24 20:08		Kareem	OK
45	P4480-04DL	MYE493	SAM	10/29/24 20:13		Kareem	OK
46	P4480-05DL	MYE494	SAM	10/29/24 20:17		Kareem	OK
47	P4480-06DL	MYE494D	DUP	10/29/24 20:22		Kareem	OK
48	P4480-07DL	MYE494S	MS	10/29/24 20:26	MS fail for Pb (141.14 ppb), Se(Below RL)	Kareem	OK
49	P4480-05LDL	MYE494L	SD	10/29/24 20:30		Kareem	OK
50	P4480-08DL	MYE495	SAM	10/29/24 20:35		Kareem	OK
51	P4480-09DL	MYE496	SAM	10/29/24 20:39		Kareem	OK
52	P4480-10DL	MYE497	SAM	10/29/24 20:44		Kareem	OK
53	P4480-11DL	MYE498	SAM	10/29/24 20:48		Kareem	OK
54	P4480-12DL	MYE499	SAM	10/29/24 20:52		Kareem	OK
55	P4480-13DL	MYE4A0	SAM	10/29/24 20:57		Kareem	OK
56	CCV025	CCV025	CCV	10/29/24 21:01		Kareem	OK
57	CCB025	CCB025	CCB	10/29/24 21:05		Kareem	OK

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442		
ICV Standard	MP82450		
CCV Standard	MP82453		
ICSA Standard	MP82451,MP82452		
CRI Standard			
LCS Standard	MP82711		
Chk Standard	MP82455,MP82456		

58	P4480-14DL	MYE4A1	SAM	10/29/24 21:10		Kareem	OK
59	P4480-15DL	MYE4A2	SAM	10/29/24 21:14		Kareem	OK
60	P4480-16DL	MYE4A3	SAM	10/29/24 21:19		Kareem	OK
61	P4480-17DL	MYE4A4	SAM	10/29/24 21:23		Kareem	OK
62	P4480-18DL	MYE4A5	SAM	10/29/24 21:28		Kareem	OK
63	P4480-19DL	MYE4A6	SAM	10/29/24 21:32		Kareem	OK
64	P4480-20DL	MYE4A7	SAM	10/29/24 21:37		Kareem	OK
65	P4480-21DL	MYE4A8	SAM	10/29/24 21:41		Kareem	OK
66	P4480-22DL	MYE4A9	SAM	10/29/24 21:45		Kareem	OK
67	PB164428BL	PBS428	MB	10/29/24 21:50		Kareem	OK
68	PB164428BS	LCS428	LCS	10/29/24 21:54		Kareem	OK
69	PB164428BSD	LCSD428	LCSD	10/29/24 21:59		Kareem	OK
70	P4482-01DL	MYE4D0	SAM	10/29/24 22:03		Kareem	OK
71	P4482-02DL	MYE4D1	SAM	10/29/24 22:08		Kareem	OK
72	P4482-03DL	MYE4D2	SAM	10/29/24 22:12		Kareem	OK
73	P4482-04DL	MYE4D3	SAM	10/29/24 22:17		Kareem	OK
74	P4482-05DL	MYE4D4	SAM	10/29/24 22:21		Kareem	OK
75	P4482-06DL	MYE4D5	SAM	10/29/24 22:25		Kareem	OK
76	P4482-07DL	MYE4D6	SAM	10/29/24 22:30		Kareem	OK
77	P4482-08DL	MYE4D7	SAM	10/29/24 22:34		Kareem	OK

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM
STD. NAME	STD REF.#		
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442		
ICV Standard	MP82450		
CCV Standard	MP82453		
ICSA Standard	MP82451,MP82452		
CRI Standard			
LCS Standard	MP82711		
Chk Standard	MP82455,MP82456		

78	CCV026	CCV026	CCV	10/29/24 22:39		Kareem	OK
79	CCB026	CCB026	CCB	10/29/24 22:43		Kareem	OK
80	P4482-09DL	MYE4D8	SAM	10/29/24 22:48		Kareem	OK
81	P4482-10DL	MYE4D9	SAM	10/29/24 22:52		Kareem	OK
82	P4482-11DL	MYE4E0	SAM	10/29/24 22:56		Kareem	OK
83	P4482-12DL	MYE4E1	SAM	10/29/24 23:01		Kareem	OK
84	P4482-13DL	MYE4E2	SAM	10/29/24 23:05		Kareem	OK
85	P4482-14DL	MYE4E3	SAM	10/29/24 23:10		Kareem	OK
86	P4482-15DL	MYE4E3D	DUP	10/29/24 23:14		Kareem	OK
87	P4482-16DL	MYE4E3S	MS	10/29/24 23:19	MS fail for Pb (131.58 ppb), Mn (3949.42 ppb)	Kareem	OK
88	P4482-14LDL	MYE4E3L	SD	10/29/24 23:23		Kareem	OK
89	P4482-17DL	MYE4E4	SAM	10/29/24 23:27		Kareem	OK
90	P4482-18DL	MYE4E5	SAM	10/29/24 23:32		Kareem	OK
91	P4482-19DL	MYE4E6	SAM	10/29/24 23:36		Kareem	OK
92	P4482-20DL	MYE4E7	SAM	10/29/24 23:41		Kareem	OK
93	P4482-21DL	MYE4E8	SAM	10/29/24 23:45		Kareem	OK
94	P4482-22DL	MYE4E9	SAM	10/29/24 23:50		Kareem	OK
95	PB164441BL	PBS441	MB	10/29/24 23:54		Kareem	OK
96	PB164441BS	LCS441	LCS	10/29/24 23:59		Kareem	OK

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

97	PB164441BSD	LCSD441	LCSD	10/30/24 00:03		Kareem	OK
98	P4496-04	MBHDO5	SAM	10/30/24 00:08	Ca high	Kareem	Dilution
99	P4496-05	MBHDO6	SAM	10/30/24 00:12	Ca high	Kareem	Dilution
100	CCV027	CCV027	CCV	10/30/24 00:17		Kareem	OK
101	CCB027	CCB027	CCB	10/30/24 00:21		Kareem	OK
102	P4496-06	MBHJC7	SAM	10/30/24 00:25	Ca high	Kareem	Dilution
103	P4496-07	MBHJC8	SAM	10/30/24 00:30	Ca high	Kareem	Dilution
104	P4496-08	MBHJC8D	DUP	10/30/24 00:34	Ca high	Kareem	Dilution
105	P4496-09	MBHJC8S	MS	10/30/24 00:38	Ca high, MS fail for Pb (91.85 ppb), Ni (1725.64 ppb), Sb,Se,Ag,Tl (Below RL)	Kareem	Dilution
106	P4496-07L	MBHJC8L	SD	10/30/24 00:43	Ca high	Kareem	Dilution
107	PB164450BL	PBS450	MB	10/30/24 00:47		Kareem	OK
108	PB164450BS	LCS450	LCS	10/30/24 00:52		Kareem	OK
109	CCV028	CCV028	CCV	10/30/24 00:56		Kareem	OK
110	CCB028	CCB028	CCB	10/30/24 01:01		Kareem	OK

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133346

Review By	Sarabjit Jaswal	Review On	11/8/2024 8:02:58 AM
Supervise By	Mohan Bera	Supervise On	11/8/2024 8:03:53 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	11/07/24 16:24		Kareem	OK
2	S1	S01	CAL2	11/07/24 16:29		Kareem	OK
3	S2	S02	CAL3	11/07/24 16:33		Kareem	OK
4	S3	S03	CAL4	11/07/24 16:38		Kareem	OK
5	S4	S04	CAL5	11/07/24 16:42		Kareem	OK
6	S5	S05	CAL6	11/07/24 16:46		Kareem	OK
7	S6	S06	CAL7	11/07/24 16:51		Kareem	OK
8	ICV005	ICV005	ICV	11/07/24 17:13	Inst. paused for calibration review	Kareem	OK
9	ICB005	ICB005	ICB	11/07/24 17:19	Inst. paused for review	Kareem	OK
10	ICSA005	ICSA005	ICSA	11/07/24 17:24		Kareem	OK
11	ICSAB005	ICSAB005	ICSAB	11/07/24 17:28		Kareem	OK
12	CCV029	CCV029	CCV	11/07/24 17:32		Kareem	OK
13	CCB029	CCB029	CCB	11/07/24 17:37		Kareem	OK
14	P4480-05A	MYE494A	PS	11/07/24 18:17	NOT USE	Kareem	Not Ok
15	P4481-12A	MYE4C1A	PS	11/07/24 18:21	NOT USE	Kareem	Not Ok
16	P4482-14A	MYE4E3A	PS	11/07/24 18:26	NOT USE	Kareem	Not Ok
17	P4483-20A	MYE4G9A	PS	11/07/24 18:30	NOT USE	Kareem	Not Ok
18	P4484-03ADL	MYE4H2A	PS	11/07/24 18:35	PS for Cr-0.031ml of M5658 - 10ml sample	Kareem	OK

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133346

Review By	Sarabjit Jaswal	Review On	11/8/2024 8:02:58 AM
Supervise By	Mohan Bera	Supervise On	11/8/2024 8:03:53 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

19	P4496-07A	MBHZC8A	PS	11/07/24 18:39	PS For Pb-0.018ml of MP83156, Ni-0.035ml of M5961, Se-0.07ml of MP83152, TI-0.05ml of MP83153	Kareem	OK
20	P4497-20A	MBHDD0A	PS	11/07/24 18:43	NOT USE	Kareem	Not Ok
21	P4498-10A	MBHDF0A	PS	11/07/24 18:48	PS For As-0.02ml MP83154, Pb-0.025ml of MP83156, Se-0.07ml of MP83152, TI-0.05ml-MP83153	Kareem	OK
22	P4499-20A	MBHCN0A	PS	11/07/24 18:52	NOT USE	Kareem	Not Ok
23	P4500-10A	MBHCP0A	PS	11/07/24 18:57	PS For As-0.02ml MP83154, Pb-0.019ml of MP83156, TI-0.05ml of MP83153	Kareem	OK
24	P4501-13A	MBHCW0A	PS	11/07/24 19:01	NOT USE	Kareem	Not Ok
25	P4519-03ADL	MYE4K2A	PS	11/07/24 19:05	PS for Pb-0.021ml of MP83156	Kareem	OK
26	CCV030	CCV030	CCV	11/07/24 19:10		Kareem	OK
27	CCB030	CCB030	CCB	11/07/24 19:14		Kareem	OK
28	P4480-05ADL	MYE494A	PS	11/07/24 19:25	PS for Pb-0.0028ml of M6025,Se-0.07ml of MP83152 - 10 ml sample	Kareem	OK
29	P4481-12ADL	MYE4C1A	PS	11/07/24 19:29	PS for As-0.0036ml of M5801,Cu-0.012ml of M5751,Zn-0.011ml of M5819 - 10ml sample	Kareem	OK
30	P4482-14ADL	MYE4E3A	PS	11/07/24 19:34	NOT USE	Kareem	Not Ok

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133346

Review By	Sarabjit Jaswal	Review On	11/8/2024 8:02:58 AM
Supervise By	Mohan Bera	Supervise On	11/8/2024 8:03:53 AM
STD. NAME	STD REF.#		
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136		
ICV Standard	MP83143		
CCV Standard	MP83146		
ICSA Standard	MP83144,MP83145		
CRI Standard			
LCS Standard			
Chk Standard	MP83148,MP83149		

31	P4483-20ADL	MYE4G9A	PS	11/07/24 19:38	NOT USE	Kareem	Not Ok
32	P4496-07ADL	MBHZC8A	PS	11/07/24 19:43	NOT USE	Kareem	Not Ok
33	P4501-13ADL	MBHCW0A	PS	11/07/24 19:47	NOT USE	Kareem	Not Ok
34	CCV031	CCV031	CCV	11/07/24 19:51		Kareem	OK
35	CCB031	CCB031	CCB	11/07/24 19:56		Kareem	OK
36	P4497-11DL	MBHDB6	SAM	11/07/24 21:23	5X for Ca	Kareem	Confirms
37	P4497-13DL	MBHDB8	SAM	11/07/24 21:27	5X for Ni	Kareem	Confirms
38	P4499-19DL	MBHCM9	SAM	11/07/24 21:32	5X for Ca	Kareem	Confirms
39	CCV032	CCV032	CCV	11/07/24 21:36		Kareem	OK
40	CCB032	CCB032	CCB	11/07/24 21:40		Kareem	OK
41	P4499-20DL	MBHCN0	SAM	11/07/24 21:45	3X for Ca,Mg,Ni	Kareem	Confirms
42	P4499-21DL	MBHCN0D	DUP	11/07/24 21:49	3X for Ca,Mg,Ni	Kareem	Confirms
43	P4499-20LDL	MBHCN0L	SD	11/07/24 21:54	15X for Ca,Mg,Ni	Kareem	Confirms
44	P4499-22DL	MBHCN0S	MS	11/07/24 21:58	3X for Ca,Mg,Ni	Kareem	Confirms
45	P4496-04DL	MBHDO5	SAM	11/07/24 22:03	5X for Ca	Kareem	Confirms
46	P4496-05DL	MBHDO6	SAM	11/07/24 22:07	4X for Ca	Kareem	Confirms
47	P4496-06DL	MBHZC7	SAM	11/07/24 22:12	2X for Ca	Kareem	Confirms
48	P4496-07DL	MBHZC8	SAM	11/07/24 22:16	2X for Ca	Kareem	Confirms
49	P4496-08DL	MBHZC8D	DUP	11/07/24 22:20	2X for Ca	Kareem	Confirms
50	P4496-07LDL	MBHZC8L	SD	11/07/24 22:25	10X for Ca	Kareem	Confirms

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133346

Review By	Sarabjit Jaswal	Review On	11/8/2024 8:02:58 AM
Supervise By	Mohan Bera	Supervise On	11/8/2024 8:03:53 AM
STD. NAME	STD REF.#		
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136		
ICV Standard	MP83143		
CCV Standard	MP83146		
ICSA Standard	MP83144,MP83145		
CRI Standard			
LCS Standard			
Chk Standard	MP83148,MP83149		

51	P4496-09DL	MBHZC8S	MS	11/07/24 22:29	2X for Ca	Kareem	Confirms
52	P4498-02DL	MBHDD2	SAM	11/07/24 22:39	5X for Ca	Kareem	Confirms
53	P4498-03DL	MBHDD8	SAM	11/07/24 22:44	2X For Ca,Mg,Ni High, Still Mg,Ni High	Kareem	Dilution
54	P4498-03DL2	MBHDD8	SAM	11/07/24 22:48	5X for Mg,Ni	Kareem	Confirms
55	P4498-04DL	MBHDD9	SAM	11/07/24 22:53	2X for Ca,Ni	Kareem	Confirms
56	P4498-05DL	MBHDE0	SAM	11/07/24 22:57	2X for Ca	Kareem	Confirms
57	P4498-06DL	MBHDE1	SAM	11/07/24 23:01	2X for Ni	Kareem	Confirms
58	P4498-07DL	MBHDE2	SAM	11/07/24 23:06	2X for Ni	Kareem	Confirms
59	P4498-08DL	MBHDE8	SAM	11/07/24 23:10	5X for Ca	Kareem	Confirms
60	P4498-09DL	MBHDE9	SAM	11/07/24 23:15	5X for Ca	Kareem	Confirms
61	CCV033	CCV033	CCV	11/07/24 23:19		Kareem	OK
62	CCB033	CCB033	CCB	11/07/24 23:23		Kareem	OK
63	P4498-10DL	MBHDF0	SAM	11/07/24 23:28	2x for Ni	Kareem	Confirms
64	P4498-11DL	MBHDF0D	DUP	11/07/24 23:32	2x for Ni	Kareem	Confirms
65	P4498-10LDL	MBHDF0L	SD	11/07/24 23:37	10x for Ni	Kareem	Confirms
66	P4498-12DL	MBHDF0S	MS	11/07/24 23:41	2x for Ni	Kareem	Confirms
67	P4498-13DL	MBHDF1	SAM	11/07/24 23:45	5x for Ca	Kareem	Confirms
68	P4498-14DL	MBHDF2	SAM	11/07/24 23:50	10x for Ca	Kareem	Confirms
69	P4498-15DL	MBHCH8	SAM	11/07/24 23:54	2X For Ca,Ni	Kareem	Confirms

Instrument ID: P5

Daily Analysis Runlog For Sequence/QC Batch ID # LB133346

Review By	Sarabjit Jaswal	Review On	11/8/2024 8:02:58 AM
Supervise By	Mohan Bera	Supervise On	11/8/2024 8:03:53 AM
STD. NAME	STD REF.#		
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136		
ICV Standard	MP83143		
CCV Standard	MP83146		
ICSA Standard	MP83144,MP83145		
CRI Standard			
LCS Standard			
Chk Standard	MP83148,MP83149		

70	P4498-16DL	MBHCH9	SAM	11/07/24 23:59	3X For Ni	Kareem	Confirms
71	P4498-20DL	MBHCJ3	SAM	11/08/24 00:03	3X For Ca,Ni	Kareem	Confirms
72	P4498-21DL	MBHCJ5	SAM	11/08/24 00:08	5X For Ca	Kareem	Confirms
73	P4498-22DL	MBHCJ6	SAM	11/08/24 00:12	2X For Ca	Kareem	Confirms
74	CCV034	CCV034	CCV	11/08/24 00:16		Kareem	OK
75	CCB034	CCB034	CCB	11/08/24 00:21		Kareem	OK