EPA SAMPLE NO.

MYDB73

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-01

% Solids: 96.9 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	19000	D	10/20/2024	2046
7440-36-0	Antimony	1.0	JD'	10/20/2024	2046
7440-38-2	Arsenic	48	D*	10/20/2024	2046
7440-39-3	Barium	140	D	10/20/2024	2046
7440-41-7	Beryllium	1.1	D	10/20/2024	2046
7440-43-9	Cadmium	0.50	JD	10/20/2024	2046
7440-70-2	Calcium	5900	D	10/20/2024	2046
7440-47-3	Chromium	17	D	10/20/2024	2046
7440-48-4	Cobalt	17	D	10/20/2024	2046
7440-50-8	Copper	54	D	10/20/2024	2046
7439-89-6	Iron	39000	D	10/20/2024	2046
7439-92-1	Lead	46	D*	10/20/2024	2046
7439-95-4	Magnesium	6300	D	10/20/2024	2046
7439-96-5	Manganese	630	D*	10/20/2024	2046
7440-02-0	Nickel	20	D	10/20/2024	2046
7440-09-7	Potassium	2100	D	10/20/2024	2046
7782-49-2	Selenium	1.3	JD'	10/20/2024	2046
7440-22-4	Silver	1.4	UD	10/20/2024	2046
7440-23-5	Sodium	140	JD	10/20/2024	2046
7440-28-0	Thallium	3.5	UD	10/20/2024	2046
7440-62-2	Vanadium	63	D	10/20/2024	2046
7440-66-6	Zinc	140	D*	10/20/2024	2046

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

Comments:

EPA SAMPLE NO.

MYDB74

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-02

% Solids: 96.3 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15000	D	10/20/2024	2051
7440-36-0	Antimony	1.0	JD'	10/20/2024	2051
7440-38-2	Arsenic	16	D*	10/20/2024	2051
7440-39-3	Barium	180	D	10/20/2024	2051
7440-41-7	Beryllium	1.1	D	10/20/2024	2051
7440-43-9	Cadmium	0.84	UD	10/20/2024	2051
7440-70-2	Calcium	6100	D	10/20/2024	2051
7440-47-3	Chromium	17	D	10/20/2024	2051
7440-48-4	Cobalt	18	D	10/20/2024	2051
7440-50-8	Copper	34	D	10/20/2024	2051
7439-89-6	Iron	40000	D	10/20/2024	2051
7439-92-1	Lead	24	D*	10/20/2024	2051
7439-95-4	Magnesium	5700	D	10/20/2024	2051
7439-96-5	Manganese	680	D*	10/20/2024	2051
7440-02-0	Nickel	18	D	10/20/2024	2051
7440-09-7	Potassium	1300	D	10/20/2024	2051
7782-49-2	Selenium	5.9	UD'	10/20/2024	2051
7440-22-4	Silver	1.7	UD	10/20/2024	2051
7440-23-5	Sodium	170	JD	10/20/2024	2051
7440-28-0	Thallium	4.2	UD	10/20/2024	2051
7440-62-2	Vanadium	76	D	10/20/2024	2051
7440-66-6	Zinc	61	D*	10/20/2024	2051

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

Comments:

EPA SAMPLE NO.

MYDB75

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-03

% Solids: 96.4 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15000	D	10/20/2024	2055
7440-36-0	Antimony	9.7	UD'	10/20/2024	2055
7440-38-2	Arsenic	35	D*	10/20/2024	2055
7440-39-3	Barium	120	D	10/20/2024	2055
7440-41-7	Beryllium	1.0	D	10/20/2024	2055
7440-43-9	Cadmium	0.32	JD	10/20/2024	2055
7440-70-2	Calcium	5000	D	10/20/2024	2055
7440-47-3	Chromium	15	D	10/20/2024	2055
7440-48-4	Cobalt	16	D	10/20/2024	2055
7440-50-8	Copper	53	D	10/20/2024	2055
7439-89-6	Iron	36000	D	10/20/2024	2055
7439-92-1	Lead	40	D*	10/20/2024	2055
7439-95-4	Magnesium	5600	D	10/20/2024	2055
7439-96-5	Manganese	580	D*	10/20/2024	2055
7440-02-0	Nickel	18	D	10/20/2024	2055
7440-09-7	Potassium	1600	D	10/20/2024	2055
7782-49-2	Selenium	5.7	UD'	10/20/2024	2055
7440-22-4	Silver	1.6	UD	10/20/2024	2055
7440-23-5	Sodium	180	JD	10/20/2024	2055
7440-28-0	Thallium	4.1	UD	10/20/2024	2055
7440-62-2	Vanadium	68	D	10/20/2024	2055
7440-66-6	Zinc	110	D*	10/20/2024	2055

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

Comments:

EPA SAMPLE NO.

MYDB76

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-04

% Solids: 97.5 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	16000	D	10/20/2024	2059
7440-36-0	Antimony	1.0	JD'	10/20/2024	2059
7440-38-2	Arsenic	39	D*	10/20/2024	2059
7440-39-3	Barium	120	D	10/20/2024	2059
7440-41-7	Beryllium	1.0	D	10/20/2024	2059
7440-43-9	Cadmium	0.38	JD	10/20/2024	2059
7440-70-2	Calcium	4800	D	10/20/2024	2059
7440-47-3	Chromium	16	D	10/20/2024	2059
7440-48-4	Cobalt	16	D	10/20/2024	2059
7440-50-8	Copper	55	D	10/20/2024	2059
7439-89-6	Iron	37000	D	10/20/2024	2059
7439-92-1	Lead	42	D*	10/20/2024	2059
7439-95-4	Magnesium	5500	D	10/20/2024	2059
7439-96-5	Manganese	550	D*	10/20/2024	2059
7440-02-0	Nickel	19	D	10/20/2024	2059
7440-09-7	Potassium	1900	D	10/20/2024	2059
7782-49-2	Selenium	5.3	UD'	10/20/2024	2059
7440-22-4	Silver	1.5	UD	10/20/2024	2059
7440-23-5	Sodium	750	UD	10/20/2024	2059
7440-28-0	Thallium	3.8	UD	10/20/2024	2059
7440-62-2	Vanadium	68	D	10/20/2024	2059
7440-66-6	Zinc	130	D*	10/20/2024	2059

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

Comments:

EPA SAMPLE NO.

MYDB77

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-05

% Solids: 95 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20000	D	10/20/2024	2104
7440-36-0	Antimony	11	UD'	10/20/2024	2104
7440-38-2	Arsenic	31	D*	10/20/2024	2104
7440-39-3	Barium	170	D	10/20/2024	2104
7440-41-7	Beryllium	1.2	D	10/20/2024	2104
7440-43-9	Cadmium	0.22	JD	10/20/2024	2104
7440-70-2	Calcium	6900	D	10/20/2024	2104
7440-47-3	Chromium	17	D	10/20/2024	2104
7440-48-4	Cobalt	16	D	10/20/2024	2104
7440-50-8	Copper	38	D	10/20/2024	2104
7439-89-6	Iron	38000	D	10/20/2024	2104
7439-92-1	Lead	32	D*	10/20/2024	2104
7439-95-4	Magnesium	6700	D	10/20/2024	2104
7439-96-5	Manganese	610	D*	10/20/2024	2104
7440-02-0	Nickel	20	D	10/20/2024	2104
7440-09-7	Potassium	1900	D	10/20/2024	2104
7782-49-2	Selenium	6.1	UD'	10/20/2024	2104
7440-22-4	Silver	1.8	UD	10/20/2024	2104
7440-23-5	Sodium	880	UD	10/20/2024	2104
7440-28-0	Thallium	4.4	UD	10/20/2024	2104
7440-62-2	Vanadium	67	D	10/20/2024	2104
7440-66-6	Zinc	96	D*	10/20/2024	2104

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

Comments:

EPA SAMPLE NO.

MYDB78

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-06

% Solids: 98.2 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	12000	D	10/20/2024	2108
7440-36-0	Antimony	0.98	JD'	10/20/2024	2108
7440-38-2	Arsenic	14	D*	10/20/2024	2108
7440-39-3	Barium	110	D	10/20/2024	2108
7440-41-7	Beryllium	1.1	D	10/20/2024	2108
7440-43-9	Cadmium	0.72	UD	10/20/2024	2108
7440-70-2	Calcium	5300	D	10/20/2024	2108
7440-47-3	Chromium	14	D	10/20/2024	2108
7440-48-4	Cobalt	23	D	10/20/2024	2108
7440-50-8	Copper	30	D	10/20/2024	2108
7439-89-6	Iron	46000	D	10/20/2024	2108
7439-92-1	Lead	20	D*	10/20/2024	2108
7439-95-4	Magnesium	5000	D	10/20/2024	2108
7439-96-5	Manganese	580	D*	10/20/2024	2108
7440-02-0	Nickel	18	D	10/20/2024	2108
7440-09-7	Potassium	1500	D	10/20/2024	2108
7782-49-2	Selenium	5.1	UD'	10/20/2024	2108
7440-22-4	Silver	1.4	UD	10/20/2024	2108
7440-23-5	Sodium	140	JD	10/20/2024	2108
7440-28-0	Thallium	3.6	UD	10/20/2024	2108
7440-62-2	Vanadium	98	D	10/20/2024	2108
7440-66-6	Zinc	57	D*	10/20/2024	2108

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

Comments:

EPA SAMPLE NO.

MYDB79

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-07

% Solids: 96.8 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	17000	D	10/20/2024	2113
7440-36-0	Antimony	9.5	UD'	10/20/2024	2113
7440-38-2	Arsenic	11	D*	10/20/2024	2113
7440-39-3	Barium	120	D	10/20/2024	2113
7440-41-7	Beryllium	0.91	D	10/20/2024	2113
7440-43-9	Cadmium	0.80	UD	10/20/2024	2113
7440-70-2	Calcium	7100	D	10/20/2024	2113
7440-47-3	Chromium	15	D	10/20/2024	2113
7440-48-4	Cobalt	18	D	10/20/2024	2113
7440-50-8	Copper	31	D	10/20/2024	2113
7439-89-6	Iron	36000	D	10/20/2024	2113
7439-92-1	Lead	17	D*	10/20/2024	2113
7439-95-4	Magnesium	6900	D	10/20/2024	2113
7439-96-5	Manganese	810	D*	10/20/2024	2113
7440-02-0	Nickel	18	D	10/20/2024	2113
7440-09-7	Potassium	1200	D	10/20/2024	2113
7782-49-2	Selenium	5.6	UD'	10/20/2024	2113
7440-22-4	Silver	1.6	UD	10/20/2024	2113
7440-23-5	Sodium	190	JD	10/20/2024	2113
7440-28-0	Thallium	4.0	UD	10/20/2024	2113
7440-62-2	Vanadium	60	D	10/20/2024	2113
7440-66-6	Zinc	59	D*	10/20/2024	2113

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

Comments:

EPA SAMPLE NO.

MYDB80

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-08

% Solids: 98.1 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	16000	D	10/20/2024	2117
7440-36-0	Antimony	9.3	UD'	10/20/2024	2117
7440-38-2	Arsenic	51	D*	10/20/2024	2117
7440-39-3	Barium	110	D	10/20/2024	2117
7440-41-7	Beryllium	0.91	D	10/20/2024	2117
7440-43-9	Cadmium	0.56	JD	10/20/2024	2117
7440-70-2	Calcium	5800	D	10/20/2024	2117
7440-47-3	Chromium	14	D	10/20/2024	2117
7440-48-4	Cobalt	15	D	10/20/2024	2117
7440-50-8	Copper	54	D	10/20/2024	2117
7439-89-6	Iron	35000	D	10/20/2024	2117
7439-92-1	Lead	58	D*	10/20/2024	2117
7439-95-4	Magnesium	5800	D	10/20/2024	2117
7439-96-5	Manganese	640	D*	10/20/2024	2117
7440-02-0	Nickel	17	D	10/20/2024	2117
7440-09-7	Potassium	2300	D	10/20/2024	2117
7782-49-2	Selenium	5.4	UD'	10/20/2024	2117
7440-22-4	Silver	1.5	UD	10/20/2024	2117
7440-23-5	Sodium	170	JD	10/20/2024	2117
7440-28-0	Thallium	3.9	UD	10/20/2024	2117
7440-62-2	Vanadium	60	D	10/20/2024	2117
7440-66-6	Zinc	180	D*	10/20/2024	2117

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

Comments:

EPA SAMPLE NO.

MYDB81

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-09

% Solids: 98.4 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	11000	D	10/20/2024	2122
7440-36-0	Antimony	1.1	JD'	10/20/2024	2122
7440-38-2	Arsenic	76	D*	10/20/2024	2122
7440-39-3	Barium	130	D	10/20/2024	2122
7440-41-7	Beryllium	0.85	D	10/20/2024	2122
7440-43-9	Cadmium	0.76	D	10/20/2024	2122
7440-70-2	Calcium	4200	D	10/20/2024	2122
7440-47-3	Chromium	12	D	10/20/2024	2122
7440-48-4	Cobalt	13	D	10/20/2024	2122
7440-50-8	Copper	55	D	10/20/2024	2122
7439-89-6	Iron	32000	D	10/20/2024	2122
7439-92-1	Lead	82	D*	10/20/2024	2122
7439-95-4	Magnesium	4700	D	10/20/2024	2122
7439-96-5	Manganese	450	D*	10/20/2024	2122
7440-02-0	Nickel	16	D	10/20/2024	2122
7440-09-7	Potassium	2200	D	10/20/2024	2122
7782-49-2	Selenium	4.9	UD'	10/20/2024	2122
7440-22-4	Silver	1.4	UD	10/20/2024	2122
7440-23-5	Sodium	700	UD	10/20/2024	2122
7440-28-0	Thallium	3.5	UD	10/20/2024	2122
7440-62-2	Vanadium	58	D	10/20/2024	2122
7440-66-6	Zinc	220	D*	10/20/2024	2122

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

Comments:

EPA SAMPLE NO.

MYDB82

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-10

% Solids: 97.6 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	13000	D	10/20/2024	2126
7440-36-0	Antimony	1.2	JD'	10/20/2024	2126
7440-38-2	Arsenic	66	D*	10/20/2024	2126
7440-39-3	Barium	120	D	10/20/2024	2126
7440-41-7	Beryllium	0.87	D	10/20/2024	2126
7440-43-9	Cadmium	0.80	D	10/20/2024	2126
7440-70-2	Calcium	5100	D	10/20/2024	2126
7440-47-3	Chromium	11	D	10/20/2024	2126
7440-48-4	Cobalt	14	D	10/20/2024	2126
7440-50-8	Copper	51	D	10/20/2024	2126
7439-89-6	Iron	32000	D	10/20/2024	2126
7439-92-1	Lead	76	D*	10/20/2024	2126
7439-95-4	Magnesium	4700	D	10/20/2024	2126
7439-96-5	Manganese	650	D*	10/20/2024	2126
7440-02-0	Nickel	15	D	10/20/2024	2126
7440-09-7	Potassium	2500	D	10/20/2024	2126
7782-49-2	Selenium	5.0	UD'	10/20/2024	2126
7440-22-4	Silver	1.4	UD	10/20/2024	2126
7440-23-5	Sodium	710	UD	10/20/2024	2126
7440-28-0	Thallium	3.5	UD	10/20/2024	2126
7440-62-2	Vanadium	54	D	10/20/2024	2126
7440-66-6	Zinc	200	D*	10/20/2024	2126

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

Comments:

EPA SAMPLE NO.

MYDB83

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-11

% Solids: 97.1 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	18000	D	10/20/2024	2130
7440-36-0	Antimony	10	UD'	10/20/2024	2130
7440-38-2	Arsenic	25	D*	10/20/2024	2130
7440-39-3	Barium	150	D	10/20/2024	2130
7440-41-7	Beryllium	1.1	D	10/20/2024	2130
7440-43-9	Cadmium	0.073	JD	10/20/2024	2130
7440-70-2	Calcium	6500	D	10/20/2024	2130
7440-47-3	Chromium	15	D	10/20/2024	2130
7440-48-4	Cobalt	17	D	10/20/2024	2130
7440-50-8	Copper	42	D	10/20/2024	2130
7439-89-6	Iron	39000	D	10/20/2024	2130
7439-92-1	Lead	25	D*	10/20/2024	2130
7439-95-4	Magnesium	6300	D	10/20/2024	2130
7439-96-5	Manganese	610	D*	10/20/2024	2130
7440-02-0	Nickel	18	D	10/20/2024	2130
7440-09-7	Potassium	1500	D	10/20/2024	2130
7782-49-2	Selenium	5.9	UD'	10/20/2024	2130
7440-22-4	Silver	1.7	UD	10/20/2024	2130
7440-23-5	Sodium	840	UD	10/20/2024	2130
7440-28-0	Thallium	4.2	UD	10/20/2024	2130
7440-62-2	Vanadium	68	D	10/20/2024	2130
7440-66-6	Zinc	80	D*	10/20/2024	2130

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

Comments:

EPA SAMPLE NO.

MYDB84

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-12

% Solids: 97.4 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	17000	D	10/20/2024	2135
7440-36-0	Antimony	0.91	JD'	10/20/2024	2135
7440-38-2	Arsenic	33	D*	10/20/2024	2135
7440-39-3	Barium	130	D	10/20/2024	2135
7440-41-7	Beryllium	1.0	D	10/20/2024	2135
7440-43-9	Cadmium	0.28	JD	10/20/2024	2135
7440-70-2	Calcium	5800	D	10/20/2024	2135
7440-47-3	Chromium	15	D	10/20/2024	2135
7440-48-4	Cobalt	14	D	10/20/2024	2135
7440-50-8	Copper	53	D	10/20/2024	2135
7439-89-6	Iron	36000	D	10/20/2024	2135
7439-92-1	Lead	42	D*	10/20/2024	2135
7439-95-4	Magnesium	5700	D	10/20/2024	2135
7439-96-5	Manganese	600	D*	10/20/2024	2135
7440-02-0	Nickel	17	D	10/20/2024	2135
7440-09-7	Potassium	2000	D	10/20/2024	2135
7782-49-2	Selenium	7.0	UD'	10/20/2024	2135
7440-22-4	Silver	2.0	UD	10/20/2024	2135
7440-23-5	Sodium	1000	UD	10/20/2024	2135
7440-28-0	Thallium	5.0	UD	10/20/2024	2135
7440-62-2	Vanadium	63	D	10/20/2024	2135
7440-66-6	Zinc	120	D*	10/20/2024	2135

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

Comments:

EPA SAMPLE NO.

MYDB85

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-13

% Solids: 97.6 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	16000	D	10/20/2024	2139
7440-36-0	Antimony	0.90	JD'	10/20/2024	2139
7440-38-2	Arsenic	34	D*	10/20/2024	2139
7440-39-3	Barium	140	D	10/20/2024	2139
7440-41-7	Beryllium	0.98	D	10/20/2024	2139
7440-43-9	Cadmium	0.28	JD	10/20/2024	2139
7440-70-2	Calcium	5500	D	10/20/2024	2139
7440-47-3	Chromium	14	D	10/20/2024	2139
7440-48-4	Cobalt	14	D	10/20/2024	2139
7440-50-8	Copper	46	D	10/20/2024	2139
7439-89-6	Iron	33000	D	10/20/2024	2139
7439-92-1	Lead	38	D*	10/20/2024	2139
7439-95-4	Magnesium	5500	D	10/20/2024	2139
7439-96-5	Manganese	560	D*	10/20/2024	2139
7440-02-0	Nickel	16	D	10/20/2024	2139
7440-09-7	Potassium	1600	D	10/20/2024	2139
7782-49-2	Selenium	5.8	UD'	10/20/2024	2139
7440-22-4	Silver	1.7	UD	10/20/2024	2139
7440-23-5	Sodium	830	UD	10/20/2024	2139
7440-28-0	Thallium	4.1	UD	10/20/2024	2139
7440-62-2	Vanadium	57	D	10/20/2024	2139
7440-66-6	Zinc	110	D*	10/20/2024	2139

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

Comments:

EPA SAMPLE NO.

MYDB86

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-14

% Solids: 97.6 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	13000	D	10/20/2024	2144
7440-36-0	Antimony	1.2	JD'	10/20/2024	2144
7440-38-2	Arsenic	38	D*	10/20/2024	2144
7440-39-3	Barium	140	D	10/20/2024	2144
7440-41-7	Beryllium	0.81	D	10/20/2024	2144
7440-43-9	Cadmium	0.65	JD	10/20/2024	2144
7440-70-2	Calcium	8000	D	10/20/2024	2144
7440-47-3	Chromium	13	D	10/20/2024	2144
7440-48-4	Cobalt	14	D	10/20/2024	2144
7440-50-8	Copper	55	D	10/20/2024	2144
7439-89-6	Iron	30000	D	10/20/2024	2144
7439-92-1	Lead	54	D*	10/20/2024	2144
7439-95-4	Magnesium	5200	D	10/20/2024	2144
7439-96-5	Manganese	780	D*	10/20/2024	2144
7440-02-0	Nickel	18	D	10/20/2024	2144
7440-09-7	Potassium	3700	D	10/20/2024	2144
7782-49-2	Selenium	5.0	UD'	10/20/2024	2144
7440-22-4	Silver	1.4	UD	10/20/2024	2144
7440-23-5	Sodium	710	UD	10/20/2024	2144
7440-28-0	Thallium	3.6	UD	10/20/2024	2144
7440-62-2	Vanadium	47	D	10/20/2024	2144
7440-66-6	Zinc	150	D*	10/20/2024	2144

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

Comments:

EPA SAMPLE NO.

MYDB87

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-15

% Solids: 98 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	14000	D	10/20/2024	2148
7440-36-0	Antimony	1.4	JD'	10/20/2024	2148
7440-38-2	Arsenic	69	D*	10/20/2024	2148
7440-39-3	Barium	120	D	10/20/2024	2148
7440-41-7	Beryllium	0.92	D	10/20/2024	2148
7440-43-9	Cadmium	0.81	D	10/20/2024	2148
7440-70-2	Calcium	5300	D	10/20/2024	2148
7440-47-3	Chromium	13	D	10/20/2024	2148
7440-48-4	Cobalt	14	D	10/20/2024	2148
7440-50-8	Copper	51	D	10/20/2024	2148
7439-89-6	Iron	37000	D	10/20/2024	2148
7439-92-1	Lead	83	D*	10/20/2024	2148
7439-95-4	Magnesium	4900	D	10/20/2024	2148
7439-96-5	Manganese	670	D*	10/20/2024	2148
7440-02-0	Nickel	15	D	10/20/2024	2148
7440-09-7	Potassium	2600	D	10/20/2024	2148
7782-49-2	Selenium	5.2	UD'	10/20/2024	2148
7440-22-4	Silver	1.5	UD	10/20/2024	2148
7440-23-5	Sodium	740	UD	10/20/2024	2148
7440-28-0	Thallium	3.7	UD	10/20/2024	2148
7440-62-2	Vanadium	63	D	10/20/2024	2148
7440-66-6	Zinc	230	D*	10/20/2024	2148

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

Comments:

EPA SAMPLE NO.

MYDB88

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-16

% Solids: 95.4 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	20000	D	10/20/2024	2152
7440-36-0	Antimony	11	UD'	10/20/2024	2152
7440-38-2	Arsenic	13	D*	10/20/2024	2152
7440-39-3	Barium	170	D	10/20/2024	2152
7440-41-7	Beryllium	1.2	D	10/20/2024	2152
7440-43-9	Cadmium	0.94	UD	10/20/2024	2152
7440-70-2	Calcium	7200	D	10/20/2024	2152
7440-47-3	Chromium	15	D	10/20/2024	2152
7440-48-4	Cobalt	17	D	10/20/2024	2152
7440-50-8	Copper	31	D	10/20/2024	2152
7439-89-6	Iron	38000	D	10/20/2024	2152
7439-92-1	Lead	17	D*	10/20/2024	2152
7439-95-4	Magnesium	7100	D	10/20/2024	2152
7439-96-5	Manganese	630	D*	10/20/2024	2152
7440-02-0	Nickel	19	D	10/20/2024	2152
7440-09-7	Potassium	1300	D	10/20/2024	2152
7782-49-2	Selenium	6.6	UD'	10/20/2024	2152
7440-22-4	Silver	1.9	UD	10/20/2024	2152
7440-23-5	Sodium	940	UD	10/20/2024	2152
7440-28-0	Thallium	4.7	UD	10/20/2024	2152
7440-62-2	Vanadium	64	D	10/20/2024	2152
7440-66-6	Zinc	59	D*	10/20/2024	2152

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

Comments:

EPA SAMPLE NO.

MYDB89

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-19

% Solids: 97.5 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15000	D	10/20/2024	2210
7440-36-0	Antimony	2.1	JD'	10/20/2024	2210
7440-38-2	Arsenic	79	D*	10/20/2024	2210
7440-39-3	Barium	130	D	10/20/2024	2210
7440-41-7	Beryllium	0.96	D	10/20/2024	2210
7440-43-9	Cadmium	0.93	D	10/20/2024	2210
7440-70-2	Calcium	7200	D	10/20/2024	2210
7440-47-3	Chromium	14	D	10/20/2024	2210
7440-48-4	Cobalt	14	D	10/20/2024	2210
7440-50-8	Copper	66	D	10/20/2024	2210
7439-89-6	Iron	36000	D	10/20/2024	2210
7439-92-1	Lead	82	D*	10/20/2024	2210
7439-95-4	Magnesium	5600	D	10/20/2024	2210
7439-96-5	Manganese	810	D*	10/20/2024	2210
7440-02-0	Nickel	19	D	10/20/2024	2210
7440-09-7	Potassium	2800	D	10/20/2024	2210
7782-49-2	Selenium	6.0	UD'	10/20/2024	2210
7440-22-4	Silver	1.7	UD	10/20/2024	2210
7440-23-5	Sodium	860	UD	10/20/2024	2210
7440-28-0	Thallium	4.3	UD	10/20/2024	2210
7440-62-2	Vanadium	55	D	10/20/2024	2210
7440-66-6	Zinc	240	D*	10/20/2024	2210

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

Comments:

EPA SAMPLE NO.

MYDB90

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-20

% Solids: 96.3 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	18000	D	10/20/2024	2237
7440-36-0	Antimony	11	UD'	10/20/2024	2237
7440-38-2	Arsenic	19	D*	10/20/2024	2237
7440-39-3	Barium	160	D	10/20/2024	2237
7440-41-7	Beryllium	1.0	D	10/20/2024	2237
7440-43-9	Cadmium	0.90	UD	10/20/2024	2237
7440-70-2	Calcium	7400	D	10/20/2024	2237
7440-47-3	Chromium	17	D	10/20/2024	2237
7440-48-4	Cobalt	18	D	10/20/2024	2237
7440-50-8	Copper	32	D	10/20/2024	2237
7439-89-6	Iron	34000	D	10/20/2024	2237
7439-92-1	Lead	20	D*	10/20/2024	2237
7439-95-4	Magnesium	6400	D	10/20/2024	2237
7439-96-5	Manganese	750	D*	10/20/2024	2237
7440-02-0	Nickel	20	D	10/20/2024	2237
7440-09-7	Potassium	1200	D	10/20/2024	2237
7782-49-2	Selenium	6.3	UD'	10/20/2024	2237
7440-22-4	Silver	1.8	UD	10/20/2024	2237
7440-23-5	Sodium	900	UD	10/20/2024	2237
7440-28-0	Thallium	4.5	UD	10/20/2024	2237
7440-62-2	Vanadium	59	D	10/20/2024	2237
7440-66-6	Zinc	66	D*	10/20/2024	2237

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

Comments:

EPA SAMPLE NO.

MYDB91

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-21

% Solids: 97.8 Date Received: 10/04/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	15000	D	10/20/2024	2241
7440-36-0	Antimony	1.1	JD'	10/20/2024	2241
7440-38-2	Arsenic	47	D*	10/20/2024	2241
7440-39-3	Barium	110	D	10/20/2024	2241
7440-41-7	Beryllium	1.0	D	10/20/2024	2241
7440-43-9	Cadmium	0.49	JD	10/20/2024	2241
7440-70-2	Calcium	4700	D	10/20/2024	2241
7440-47-3	Chromium	17	D	10/20/2024	2241
7440-48-4	Cobalt	18	D	10/20/2024	2241
7440-50-8	Copper	56	D	10/20/2024	2241
7439-89-6	Iron	39000	D	10/20/2024	2241
7439-92-1	Lead	51	D*	10/20/2024	2241
7439-95-4	Magnesium	5300	D	10/20/2024	2241
7439-96-5	Manganese	540	D*	10/20/2024	2241
7440-02-0	Nickel	19	D	10/20/2024	2241
7440-09-7	Potassium	1900	D	10/20/2024	2241
7782-49-2	Selenium	4.8	UD'	10/20/2024	2241
7440-22-4	Silver	1.4	UD	10/20/2024	2241
7440-23-5	Sodium	160	JD	10/20/2024	2241
7440-28-0	Thallium	3.4	UD	10/20/2024	2241
7440-62-2	Vanadium	74	D	10/20/2024	2241
7440-66-6	Zinc	140	D*	10/20/2024	2241

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

Comments:

EPA SAMPLE NO.

MYDBA8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51772 MA No. : 3226.1 SDG No.: MYDB73

Matrix: SOIL Lab Sample ID: P4316-22

% Solids: 98.2 Date Received: 10/04/2024

Analytical Method: ICP_AES

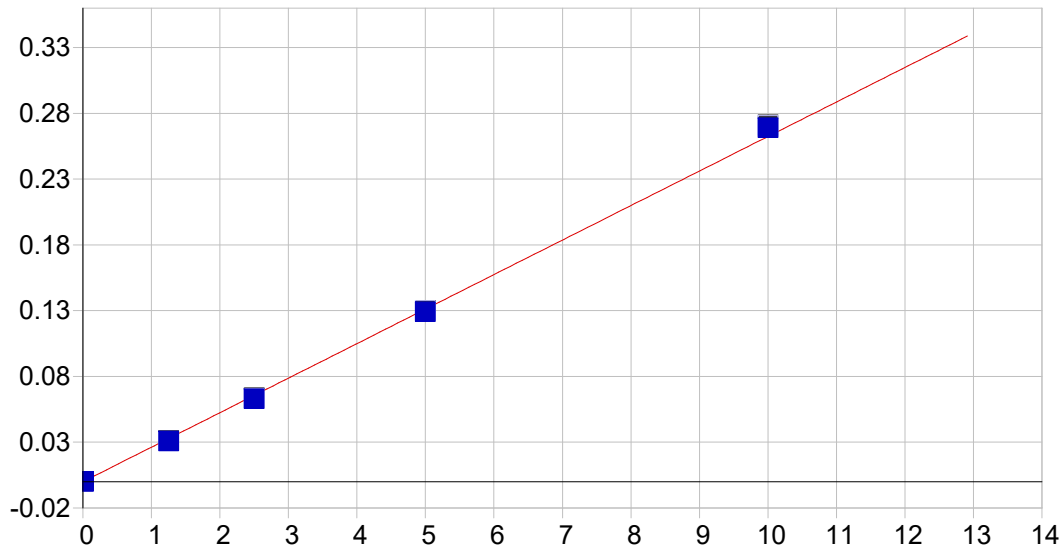
Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	19000	D	10/20/2024	2246
7440-36-0	Antimony	2.4	JD'	10/20/2024	2246
7440-38-2	Arsenic	48	D*	10/20/2024	2246
7440-39-3	Barium	240	D	10/20/2024	2246
7440-41-7	Beryllium	1.4	D	10/20/2024	2246
7440-43-9	Cadmium	2.9	D	10/20/2024	2246
7440-70-2	Calcium	5100	D	10/20/2024	2246
7440-47-3	Chromium	59	D	10/20/2024	2246
7440-48-4	Cobalt	20	D	10/20/2024	2246
7440-50-8	Copper	410	D	10/20/2024	2246
7439-89-6	Iron	35000	D	10/20/2024	2246
7439-92-1	Lead	140	D*	10/20/2024	2246
7439-95-4	Magnesium	6400	D	10/20/2024	2246
7439-96-5	Manganese	1100	D*	10/20/2024	2246
7440-02-0	Nickel	57	D	10/20/2024	2246
7440-09-7	Potassium	2800	D	10/20/2024	2246
7782-49-2	Selenium	6.1	UD'	10/20/2024	2246
7440-22-4	Silver	1.7	UD	10/20/2024	2246
7440-23-5	Sodium	220	JD	10/20/2024	2246
7440-28-0	Thallium	4.4	UD	10/20/2024	2246
7440-62-2	Vanadium	62	D	10/20/2024	2246
7440-66-6	Zinc	330	D*	10/20/2024	2246

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

Comments:

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



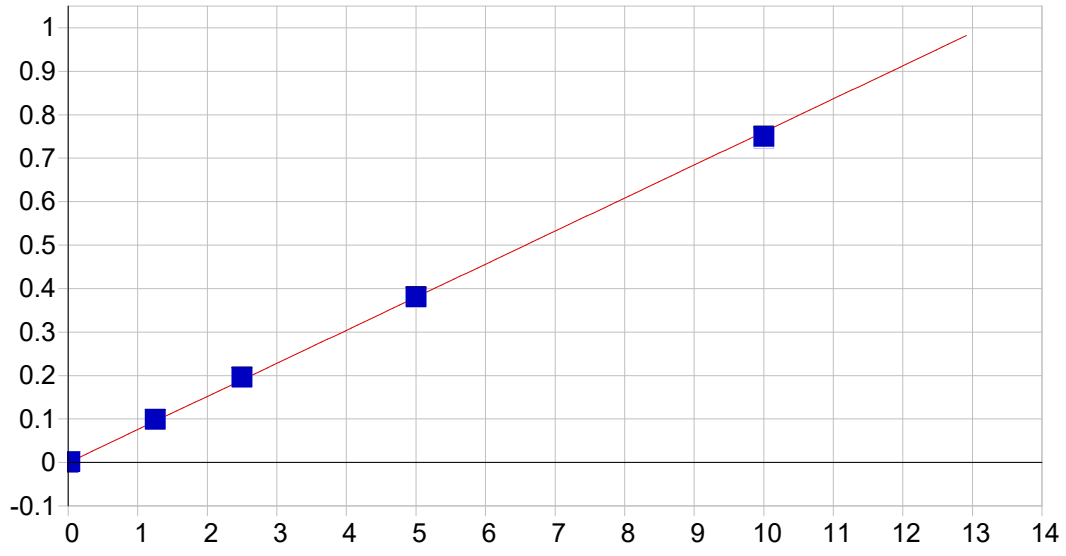
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A1 (Gain):	0.026244	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999569	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.006665		
Predicted MQL:	0.022217		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00003	.000	1
S1	.01000	.01224	.002	22.4	.00029	.000	1
S2	1.2500	1.1726	-.077	-6.19	.03096	.000	1
S3	2.5000	2.4045	-.095	-3.82	.06351	.000	1
S4	5.0000	4.9212	-.079	-1.58	.12998	.000	1
S5	10.000	10.249	.249	2.49	.27069	.000	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



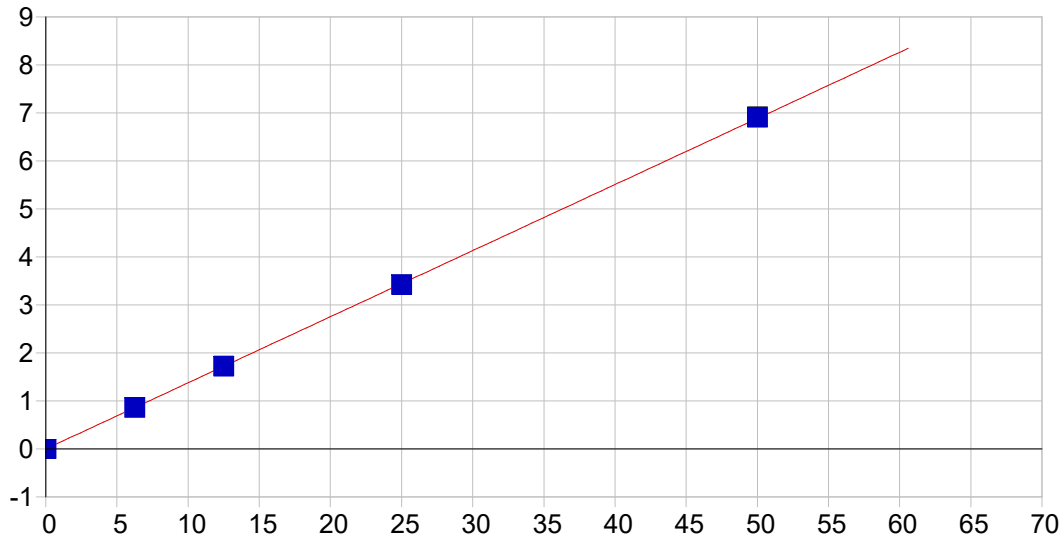
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Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000234	Re-Slope:	1.000000
A1 (Gain):	0.076063	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999817	Status:	OK.
Std Error of Est:	0.000038		
Predicted MDL:	0.002733		
Predicted MQL:	0.009109		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00023	.000	1
S1	.02500	.02428	-.001	-2.87	.00157	.000	1
S2	1.2500	1.3045	.055	4.36	.09834	.000	1
S3	2.5000	2.5763	.076	3.05	.19442	.001	1
S4	5.0000	5.0119	.012	.239	.37837	.001	1
S5	10.000	9.8579	-.142	-1.42	.74435	.002	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



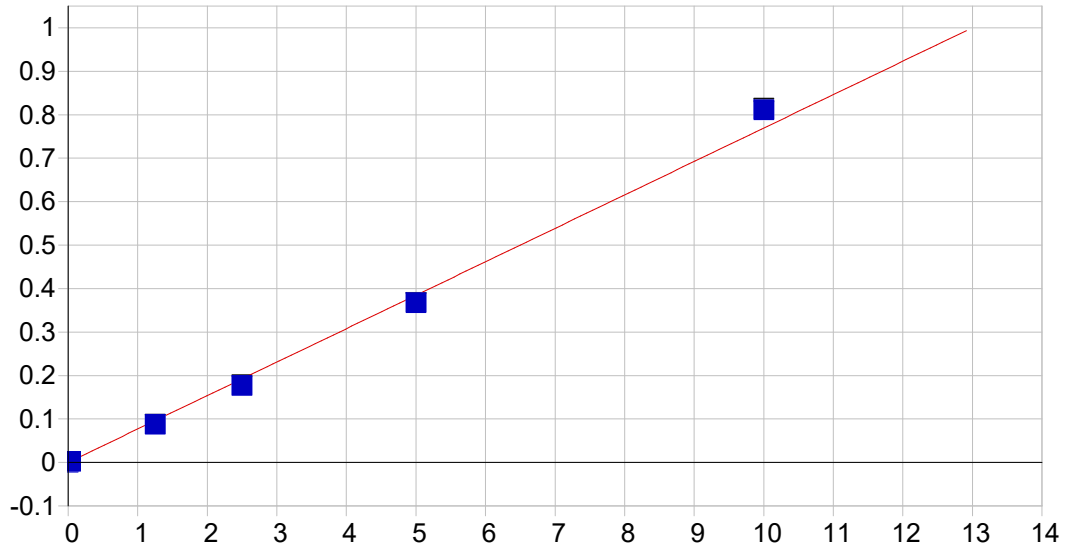
Pb 220.353 {453}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000241	Re-Slope:	1.000000
A1 (Gain):	0.137721	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999993	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	0.003272		
Predicted MQL:	0.010907		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00024	.000	1
S1	.01000	.00971	-.000	-2.93	.00110	.000	1
S2	6.2500	6.2543	.004	.069	.86089	.001	1
S3	12.500	12.490	-.010	-.077	1.7195	.001	1
S4	25.000	24.852	-.148	-.590	3.4216	.003	1
S5	50.000	50.153	.153	.306	6.9052	.009	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



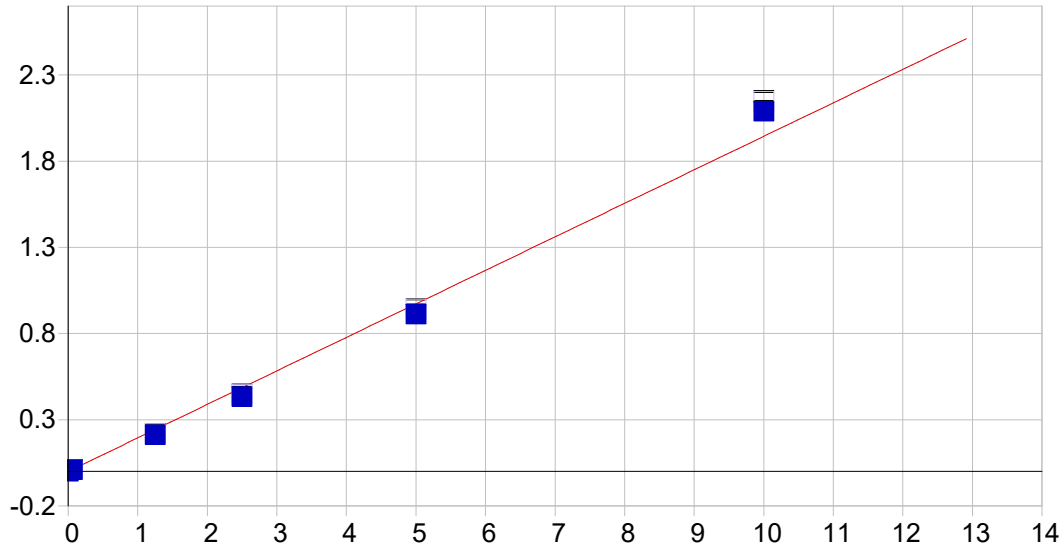
Se 196.090 {472}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000108	Re-Slope:	1.000000
A1 (Gain):	0.076920	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998148	Status:	OK.
Std Error of Est:	0.000147		
Predicted MDL:	0.004943		
Predicted MQL:	0.016478		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00011	.000	1
S1	.03500	.02735	-.008	-21.8	.00221	.000	1
S2	1.2500	1.1345	-.116	-9.24	.08719	.001	1
S3	2.5000	2.2957	-.204	-8.17	.17633	.002	1
S4	5.0000	4.7758	-.224	-4.48	.36674	.001	1
S5	10.000	10.552	.552	5.52	.81028	.003	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



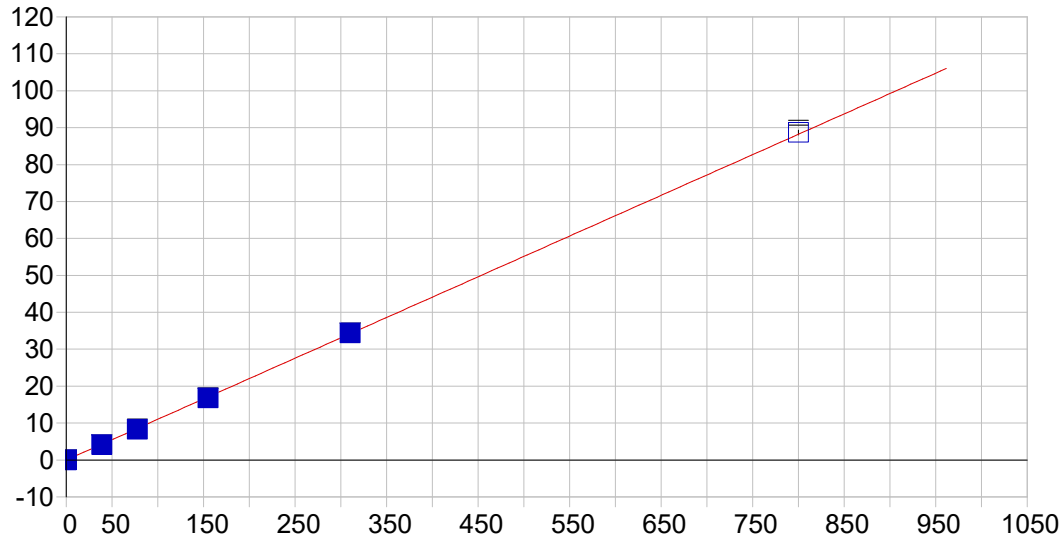
Sb 206.833 {463}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000181	Re-Slope:	1.000000
A1 (Gain):	0.194407	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996866	Status:	OK.
Std Error of Est:	0.000653		
Predicted MDL:	0.002373		
Predicted MQL:	0.007911		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00018	.000	1
S1	.06000	.05169	-.008	-13.8	.01023	.000	1
S2	1.2500	1.0922	-.158	-12.6	.21968	.000	1
S3	2.5000	2.2276	-.272	-10.9	.44758	.001	1
S4	5.0000	4.6917	-.308	-6.17	.94097	.002	1
S5	10.000	10.747	.747	7.47	2.1468	.006	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



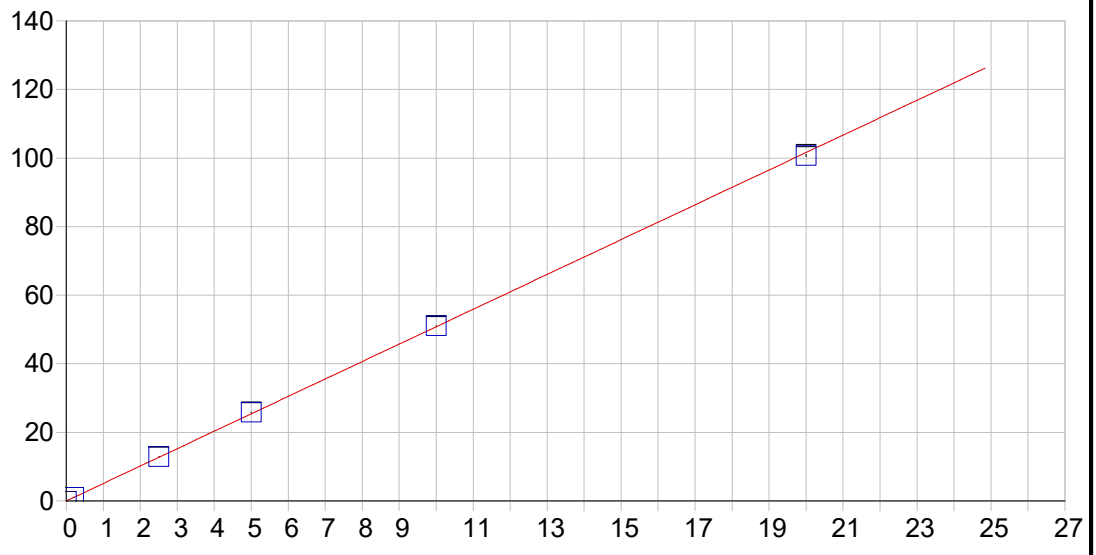
Al 396.152 { 85}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003184	Re-Slope:	1.000000
A1 (Gain):	0.110273	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000764		
Predicted MDL:	0.014528		
Predicted MQL:	0.048426		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00319	.000	1
S1	.20000	.21774	.018	8.87	.02087	.002	1
S2	38.750	37.662	-1.09	-2.81	4.1551	.003	1
S3	77.500	75.562	-1.94	-2.50	8.3395	.012	1
S4	155.00	151.99	-3.01	-1.94	16.778	.014	1
S5	310.00	311.86	1.86	.599	34.427	.037	1
S6	800.00	804.16	4.16	.521	88.675	.636	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



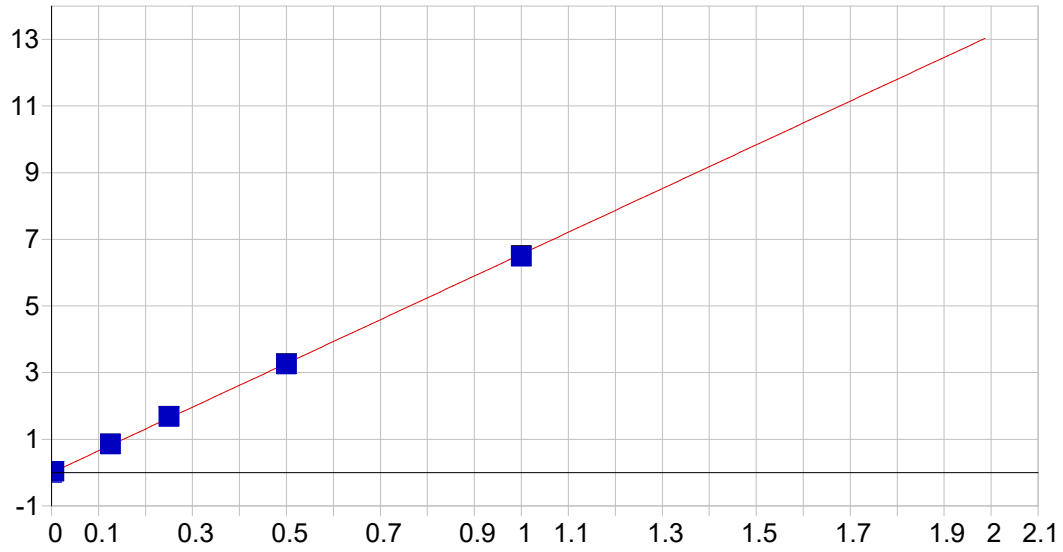
Ba 493.409 { 68}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002650	Re-Slope:	1.000000
A1 (Gain):	5.080328	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999947	Status:	OK.
Std Error of Est:	0.005548		
Predicted MDL:	0.000584		
Predicted MQL:	0.001946		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00260	.001	1
S1	.20000	.20397	.004	1.99	1.0389	.006	1
S2	2.5000	2.5368	.037	1.47	12.890	.025	1
S3	5.0000	5.0900	.090	1.80	25.861	.098	1
S4	10.000	10.045	.045	.447	51.033	.122	1
S5	20.000	19.825	-.175	-.877	100.72	.322	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



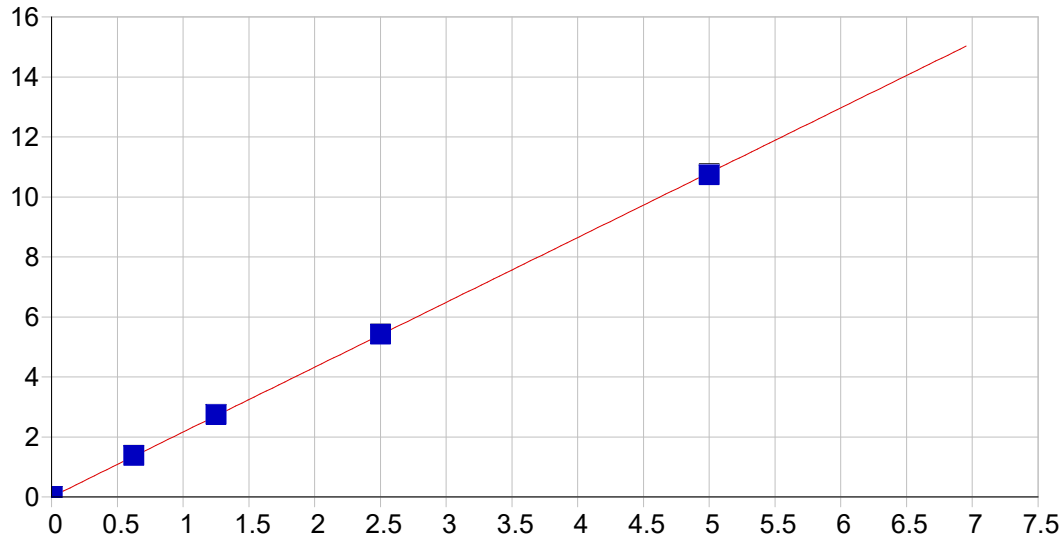
Be 234.861 {144}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.003031	Re-Slope:	1.000000
A1 (Gain):	6.558719	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999849	Status:	OK.
Std Error of Est:	0.000426		
Predicted MDL:	0.000141		
Predicted MQL:	0.000470		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00304	.001	1
S1	.00500	.00548	.000	9.54	.03287	.000	1
S2	.12500	.13045	.005	4.36	.85127	.003	1
S3	.25000	.25653	.007	2.61	1.6768	.005	1
S4	.50000	.49733	-.003	-.534	3.2535	.012	1
S5	1.0000	.99021	-.010	-.979	6.4809	.016	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



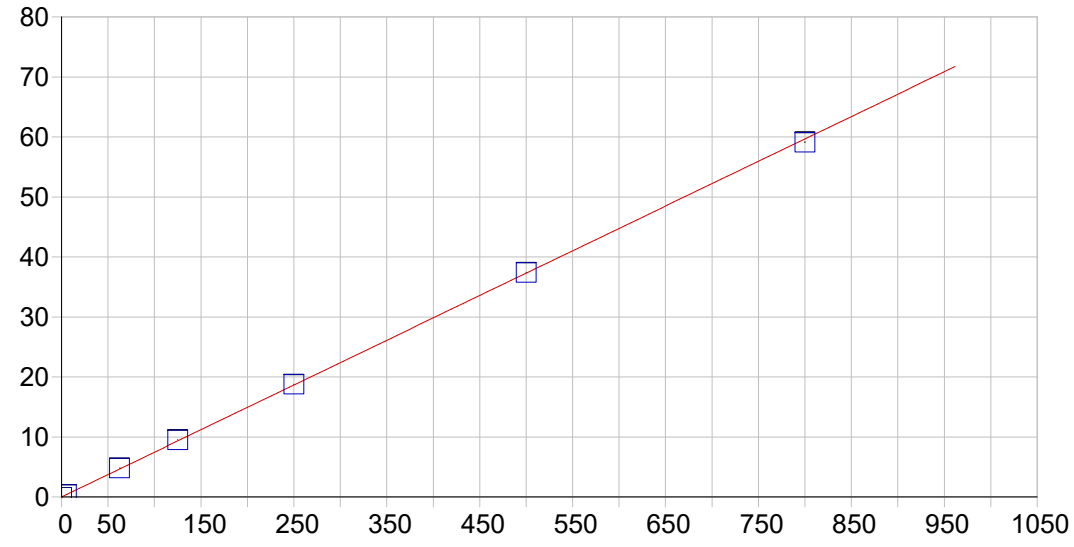
Cd 214.438 {457}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000756	Re-Slope:	1.000000
A1 (Gain):	2.161110	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999962	Status:	OK.
Std Error of Est:	0.000158		
Predicted MDL:	0.000130		
Predicted MQL:	0.000432		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00076	.000	1
S1	.00500	.00511	.000	2.25	.01181	.000	1
S2	.62500	.63588	.011	1.74	1.3782	.005	1
S3	1.2500	1.2682	.018	1.46	2.7480	.003	1
S4	2.5000	2.5057	.006	.228	5.4288	.005	1
S5	5.0000	4.9651	-.035	-.699	10.757	.013	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



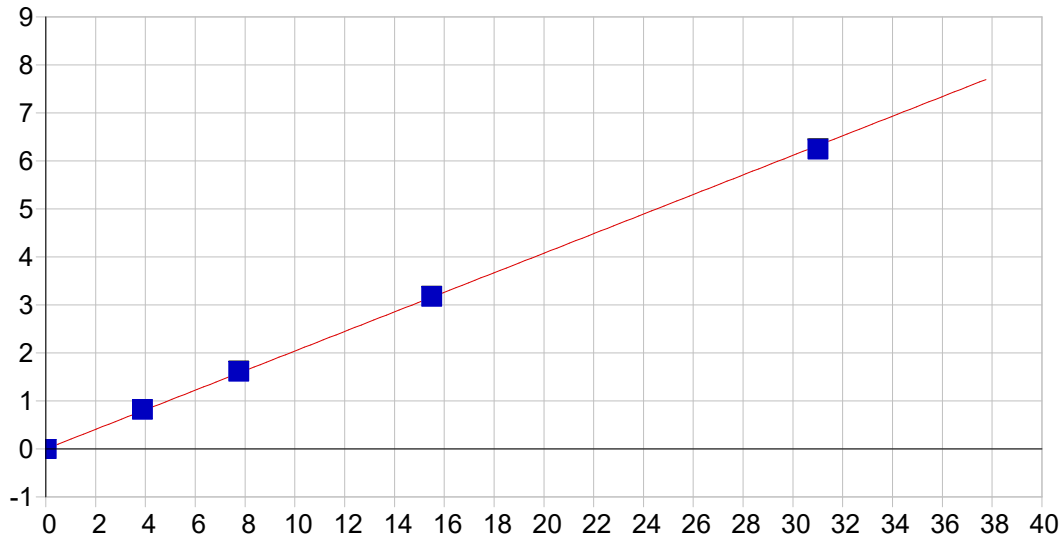
Ca 373.690 { 90}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004259	Re-Slope:	1.000000
A1 (Gain):	0.074580	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999943	Status:	OK.
Std Error of Est:	0.002775		
Predicted MDL:	0.017253		
Predicted MQL:	0.057511		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00054	-.001	.000	.00422	.000	1
S1	5.0000	5.3018	.302	6.04	.39967	.004	1
S2	62.500	64.251	1.75	2.80	4.7961	.011	1
S3	125.00	127.51	2.51	2.01	9.5140	.033	1
S4	250.00	251.47	1.47	.586	18.758	.039	1
S5	500.00	501.35	1.35	.270	37.395	.034	1
S6	800.00	792.62	-7.38	-.922	59.118	.062	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



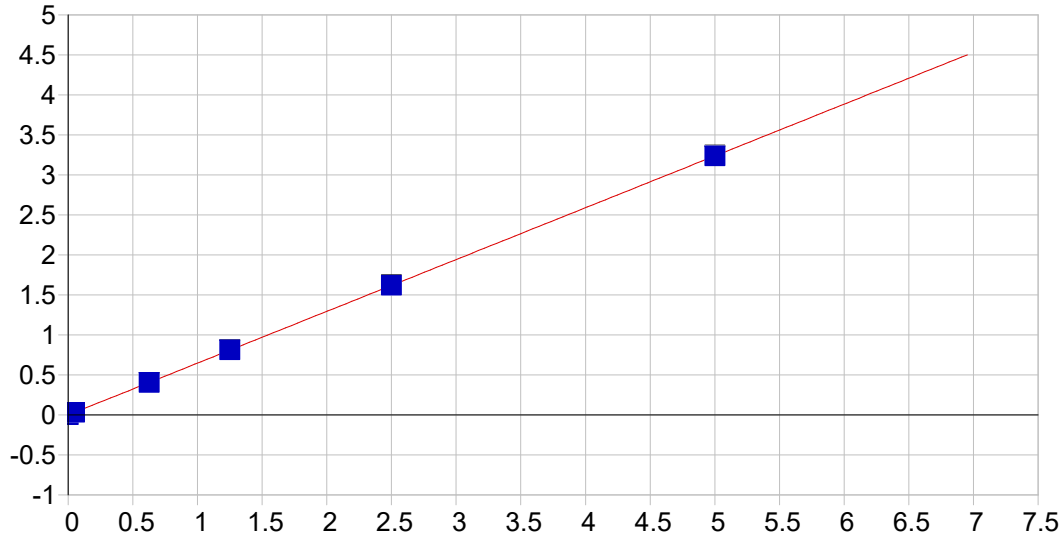
Cr 267.716 {126}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000304	Re-Slope:	1.000000
A1 (Gain):	0.203871	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999870	Status:	OK.
Std Error of Est:	0.000097		
Predicted MDL:	0.000966		
Predicted MQL:	0.003220		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00030	.000	1
S1	.01000	.01160	.002	16.0	.00206	.000	1
S2	3.8750	4.0285	.154	3.96	.82188	.000	1
S3	7.7500	7.9218	.172	2.22	1.6165	.002	1
S4	15.500	15.558	.058	.377	3.1752	.006	1
S5	31.000	30.615	-.385	-1.24	6.2482	.011	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



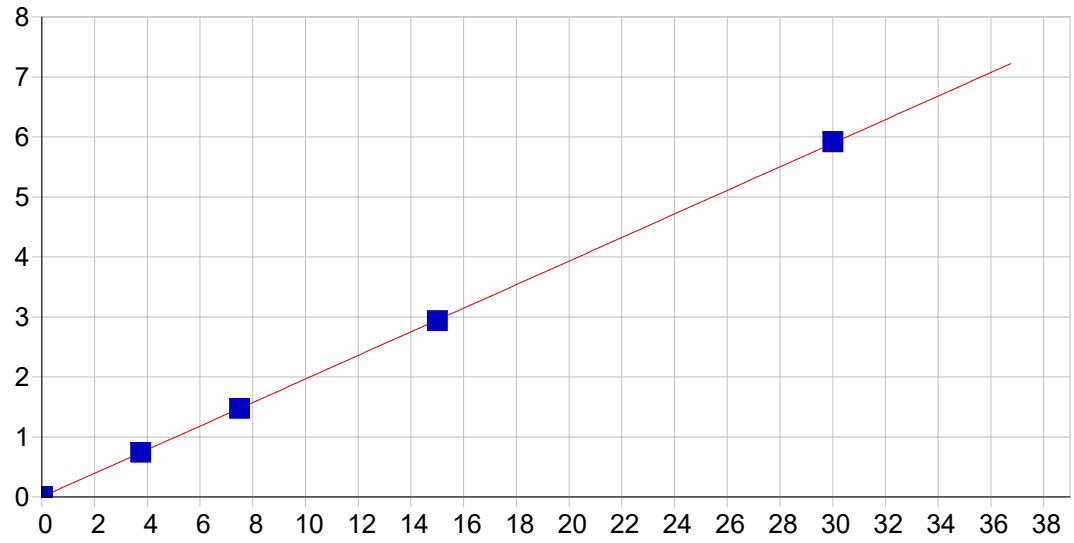
Co 228.616 {448}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000371	Re-Slope:	1.000000
A1 (Gain):	0.647470	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999998	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.000506		
Predicted MQL:	0.001687		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00037	.000	1
S1	.05000	.04895	-.001	-2.09	.03144	.000	1
S2	.62500	.62230	-.003	-.432	.40304	.001	1
S3	1.2500	1.2528	.003	.222	.81175	.001	1
S4	2.5000	2.5025	.002	.099	1.6219	.003	1
S5	5.0000	4.9985	-.001	-.030	3.2400	.006	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



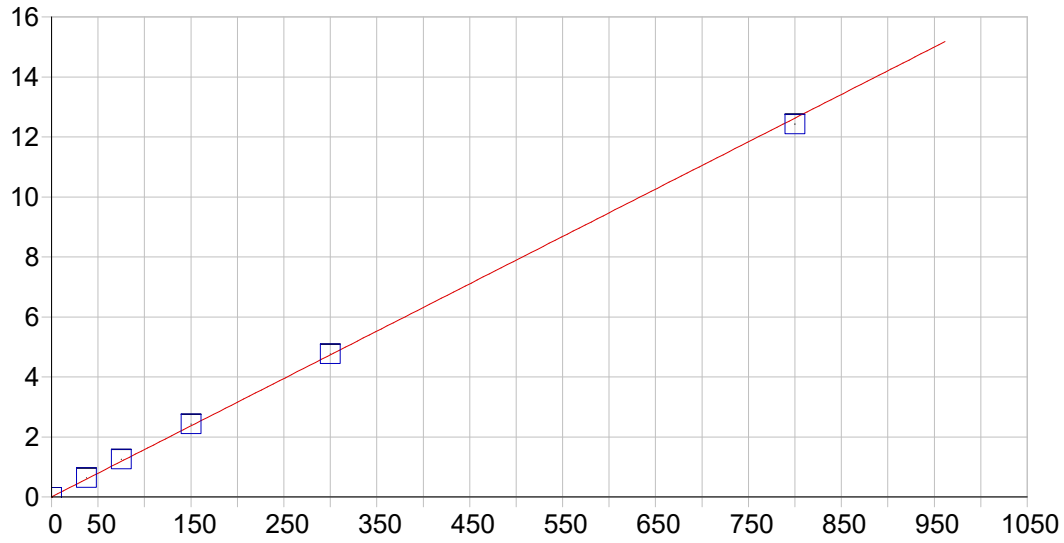
Cu 324.754 {104}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001365	Re-Slope:	1.000000
A1 (Gain):	0.196452	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.004082		
Predicted MQL:	0.013607		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00137	.001	1
S1	.02500	.02338	-.002	-6.50	.00596	.000	1
S2	3.7500	3.7572	.007	.193	.73901	.002	1
S3	7.5000	7.4746	-.025	-.338	1.4688	.003	1
S4	15.000	14.924	-.076	-.506	2.9314	.005	1
S5	30.000	30.096	.096	.319	5.9100	.006	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



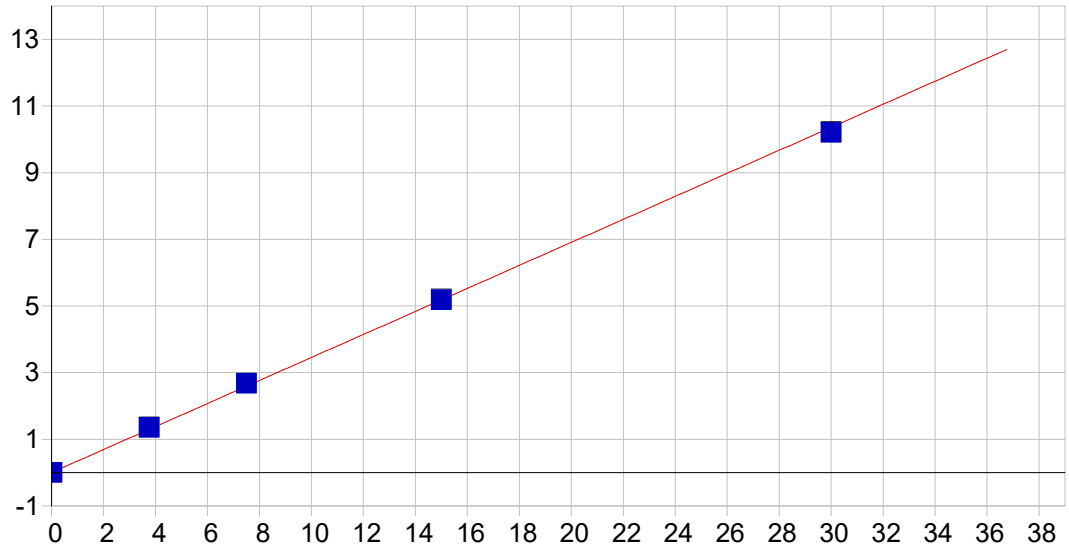
Fe 259.837 {130}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000196	Re-Slope:	1.000000
A1 (Gain):	0.015783	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999714	Status:	OK.
Std Error of Est:	0.000165		
Predicted MDL:	0.023327		
Predicted MQL:	0.077756		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00020	.000	1
S1	.10000	.10828	.008	8.28	.00191	.000	1
S2	37.500	40.219	2.72	7.25	.63496	.002	1
S3	75.000	79.412	4.41	5.88	1.2535	.004	1
S4	150.00	153.96	3.96	2.64	2.4300	.006	1
S5	300.00	301.79	1.79	.597	4.7632	.008	1
S6	800.00	787.11	-12.9	-1.61	12.423	.010	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



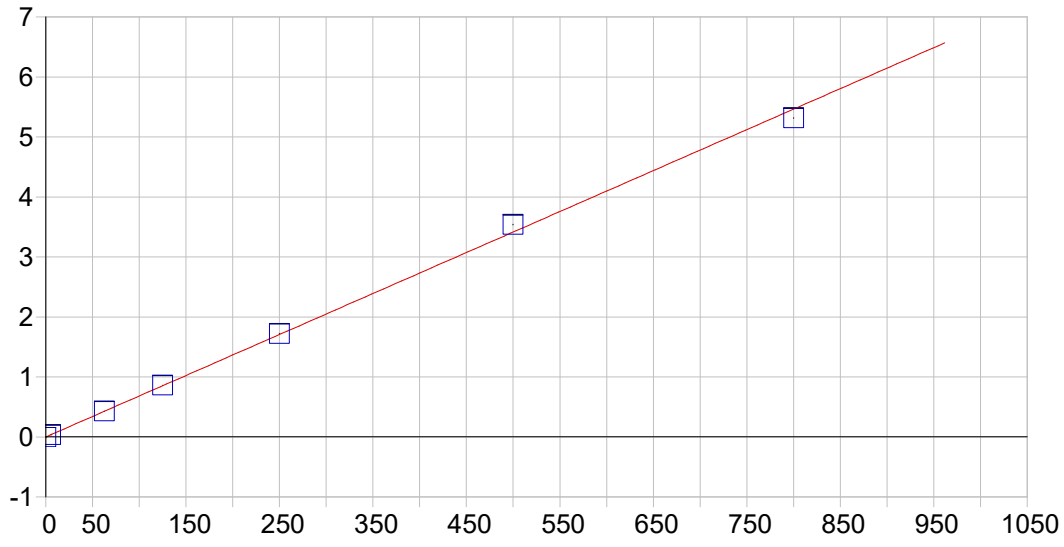
Mn 257.610 {131}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000319	Re-Slope:	1.000000
A1 (Gain):	0.345416	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999786	Status:	OK.
Std Error of Est:	0.000254		
Predicted MDL:	0.001128		
Predicted MQL:	0.003762		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00032	.000	1
S1	.01500	.01682	.002	12.2	.00550	.000	1
S2	3.7500	3.9301	.180	4.80	1.3574	.005	1
S3	7.5000	7.7508	.251	3.34	2.6773	.003	1
S4	15.000	15.021	.021	.139	5.1889	.015	1
S5	30.000	29.546	-.454	-1.51	10.207	.016	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



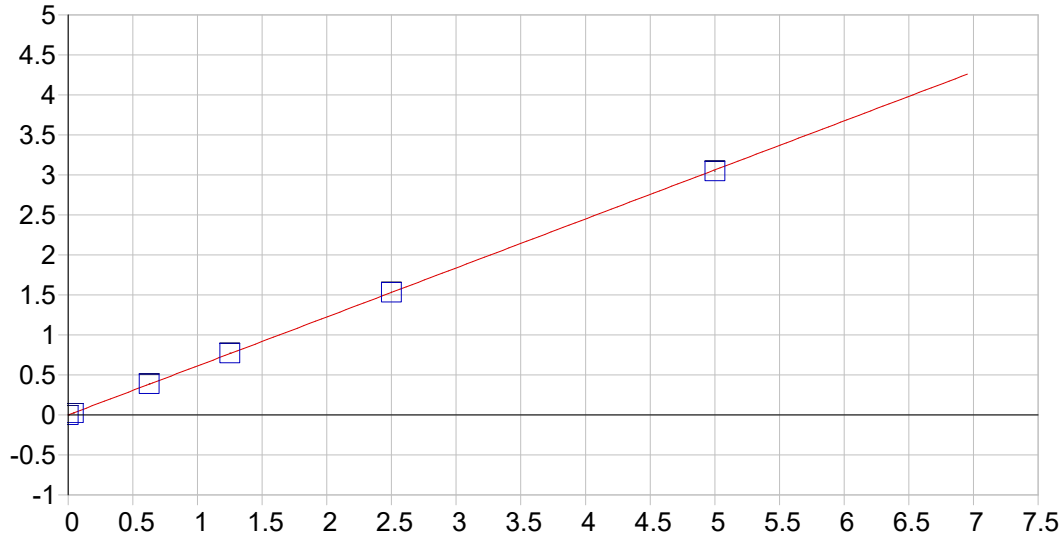
Mg 279.079 {121}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000663	Re-Slope:	1.000000
A1 (Gain):	0.006829	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999637	Status:	OK.
Std Error of Est:	0.000642		
Predicted MDL:	0.064655		
Predicted MQL:	0.215518		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00034	-.000	.000	-.00067	.000	1
S1	5.0000	5.2095	.209	4.19	.03491	.000	1
S2	62.500	62.586	.086	.137	.42676	.002	1
S3	125.00	125.89	.890	.712	.85909	.003	1
S4	250.00	252.24	2.24	.898	1.7220	.002	1
S5	500.00	518.05	18.1	3.61	3.5373	.004	1
S6	800.00	778.52	-21.5	-2.69	5.3161	.006	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



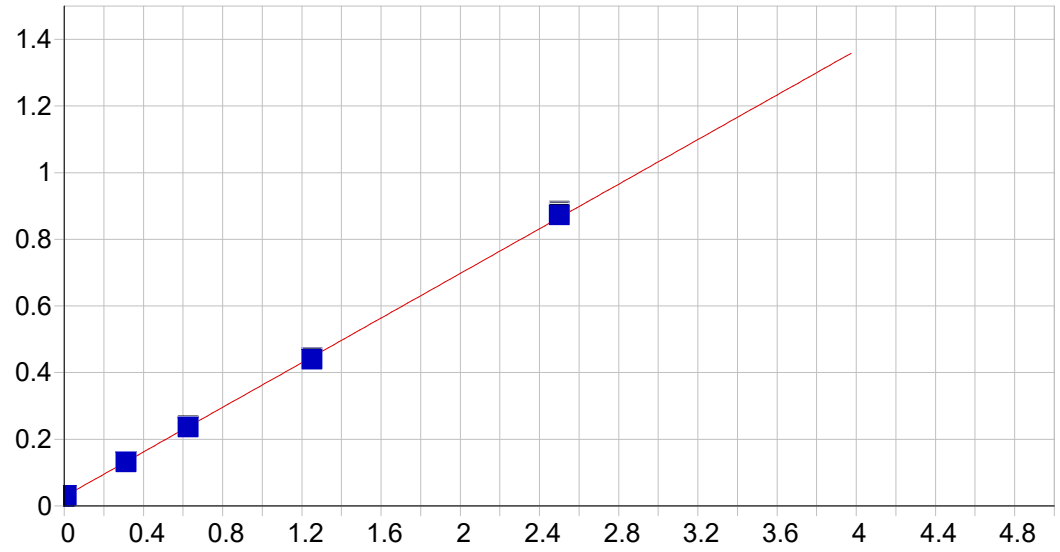
Ni 231.604 {446}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000337	Re-Slope:	1.000000
A1 (Gain):	0.612530	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999980	Status:	OK.
Std Error of Est:	0.000092		
Predicted MDL:	0.000570		
Predicted MQL:	0.001900		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00034	.000	1
S1	.04000	.04094	.001	2.35	.02474	.000	1
S2	.62500	.63257	.008	1.21	.38713	.001	1
S3	1.2500	1.2627	.013	1.02	.77312	.001	1
S4	2.5000	2.5040	.004	.160	1.5334	.001	1
S5	5.0000	4.9748	-.025	-.505	3.0469	.003	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



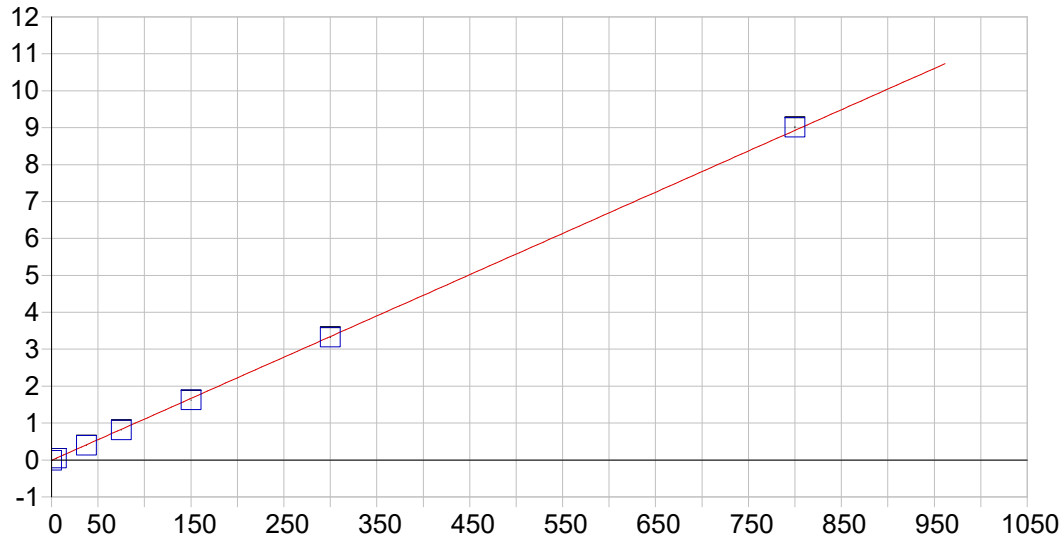
Ag 328.068 {103}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.028187	Re-Slope:	1.000000
A1 (Gain):	0.334764	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999908	Status:	OK.
Std Error of Est:	0.000038		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.02819	.000	1
S1	.01000	.01168	.002	16.8	.03208	.000	1
S2	.31250	.31019	-.002	-.740	.13315	.000	1
S3	.62500	.62133	-.004	-.587	.23844	.001	1
S4	1.2500	1.2300	-.020	-1.60	.44444	.000	1
S5	2.5000	2.5244	.024	.975	.88227	.002	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



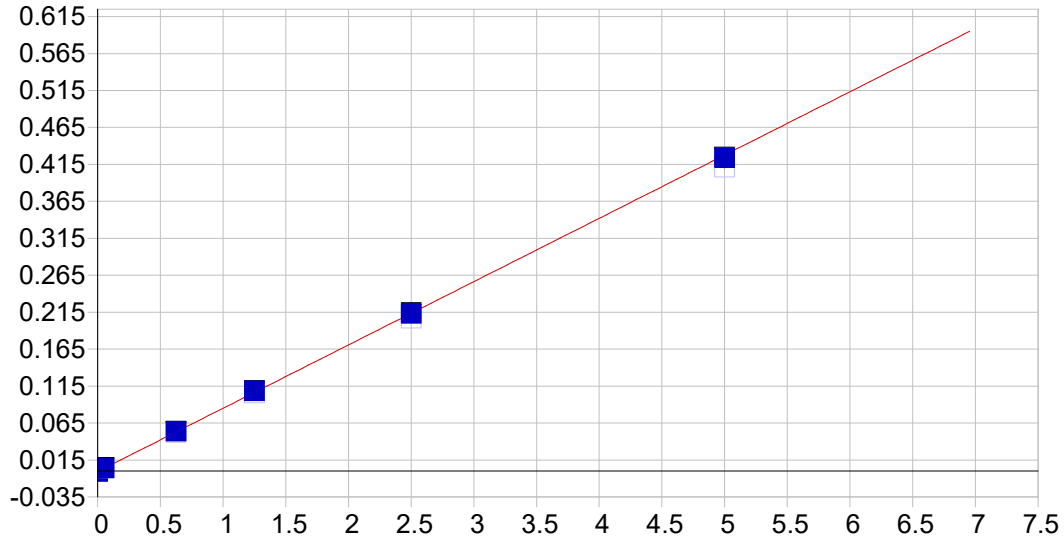
Na 818.326 { 41}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.008674	Re-Slope:	1.000000
A1 (Gain):	0.011171	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999914	Status:	OK.
Std Error of Est:	0.000452		
Predicted MDL:	0.302061		
Predicted MQL:	1.006868		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00055	.001	.000	-.00867	.003	1
S1	5.0000	4.7692	-.231	-4.62	.04460	.001	1
S2	37.500	36.551	-.949	-2.53	.39962	.001	1
S3	75.000	73.654	-1.35	-1.80	.81409	.004	1
S4	150.00	146.18	-3.82	-2.55	1.6242	.005	1
S5	300.00	298.75	-1.25	-.418	3.3285	.011	1
S6	800.00	807.60	7.60	.951	9.0128	.011	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



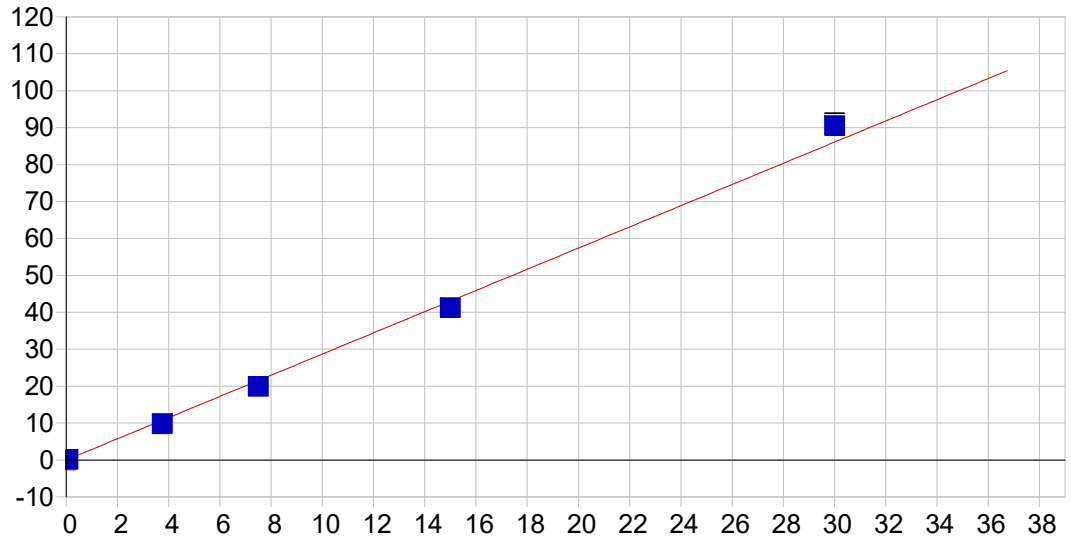
V 292.402 {115}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000730	Re-Slope:	1.000000
A1 (Gain):	0.085682	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999879	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.009260		
Predicted MQL:	0.030868		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00073	.001	1
S1	.05000	.05730	.007	14.6	.00417	.001	1
S2	.62500	.63674	.012	1.88	.05218	.000	1
S3	1.2500	1.2754	.025	2.03	.10526	.000	1
S4	2.5000	2.4968	-.003	-.127	.20662	.001	1
S5	5.0000	4.9586	-.041	-.829	.41097	.001	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



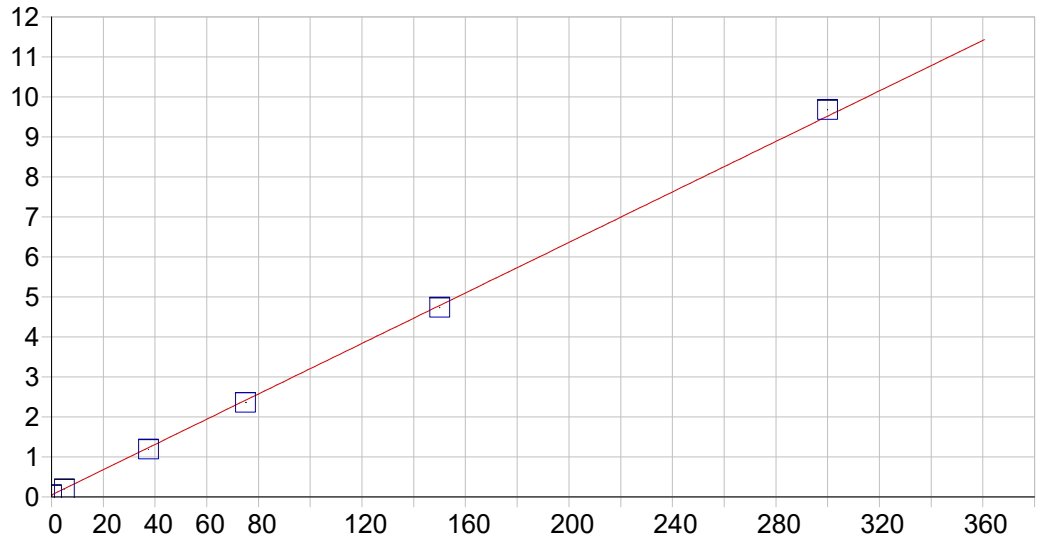
Zn 213.856 {158}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001019	Re-Slope:	1.000000
A1 (Gain):	2.869539	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998382	Status:	OK.
Std Error of Est:	0.011644		
Predicted MDL:	0.000444		
Predicted MQL:	0.001478		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00106	.001	1
S1	.06000	.05625	-.004	-6.26	.16326	.001	1
S2	3.7500	3.4024	-.348	-9.27	9.7775	.054	1
S3	7.5000	6.9333	-.567	-7.56	19.922	.019	1
S4	15.000	14.362	-.638	-4.25	41.265	.042	1
S5	30.000	31.556	1.56	5.19	90.657	.621	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



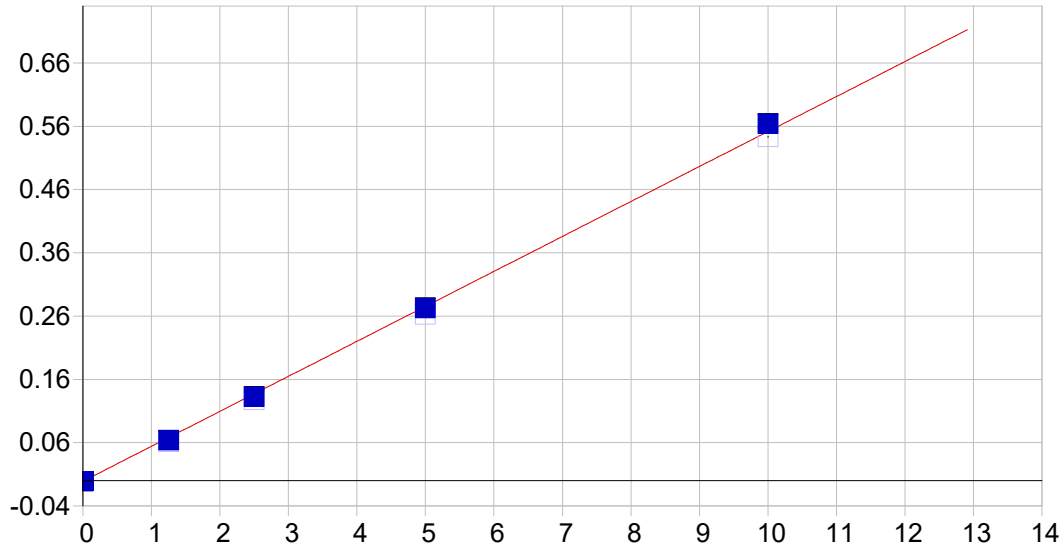
K 769.896 { 44}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.049271	Re-Slope:	1.000000
A1 (Gain):	0.031565	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999808	Status:	OK.
Std Error of Est:	0.001276		
Predicted MDL:	0.137695		
Predicted MQL:	0.458984		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00055	.001	.000	.04929	.004	1
S1	5.0000	4.7321	-.268	-5.36	.19864	.003	1
S2	37.500	36.078	-1.42	-3.79	1.1881	.003	1
S3	75.000	73.150	-1.85	-2.47	2.3583	.001	1
S4	150.00	148.42	-1.58	-1.06	4.7341	.008	1
S5	300.00	305.12	5.12	1.71	9.6806	.008	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



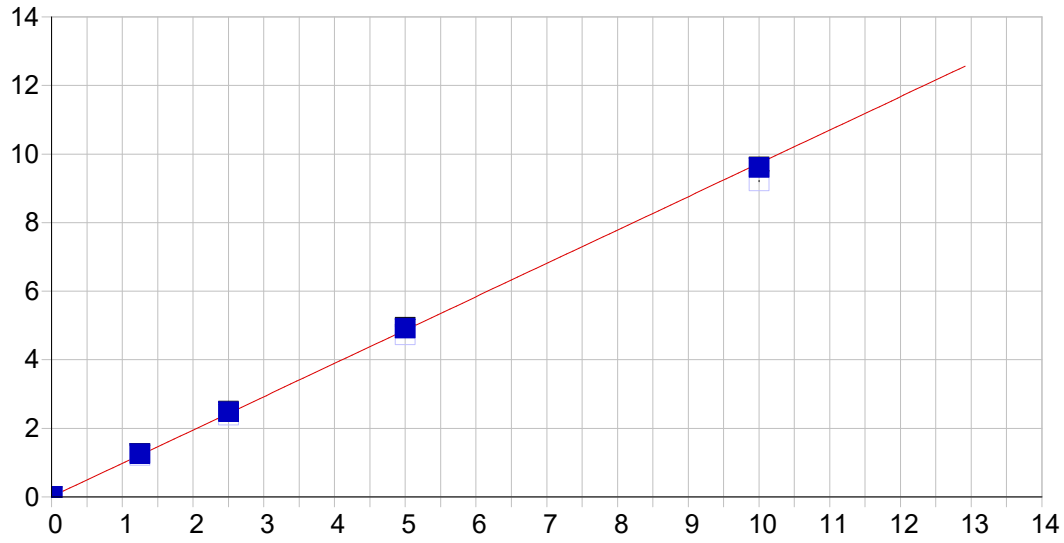
P 177.495 {490}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001060	Re-Slope:	1.000000
A1 (Gain):	0.055279	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999613	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.003176		
Predicted MQL:	0.010587		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00106	.000	1
S1	.01000	.01008	.000	.751	-.00052	.000	1
S2	1.2500	1.1684	-.082	-6.52	.06099	.000	1
S3	2.5000	2.4131	-.087	-3.48	.12725	.001	1
S4	5.0000	4.9520	-.048	-.960	.26252	.000	1
S5	10.000	10.216	.216	2.16	.54337	.001	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



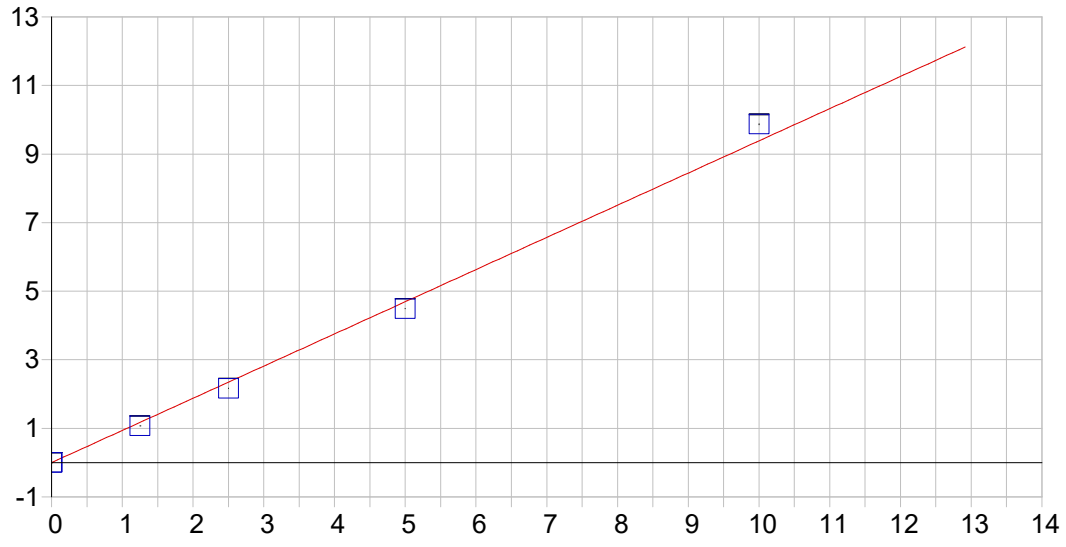
B 249.678 {135}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004448	Re-Slope:	1.000000
A1 (Gain):	0.972349	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999606	Status:	OK.
Std Error of Est:	0.000439		
Predicted MDL:	0.001066		
Predicted MQL:	0.003553		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00446	.001	1
S1	.01000	.00032	-.010	-96.8	.00467	.001	1
S2	1.2500	1.2881	.038	3.05	1.2079	.007	1
S3	2.5000	2.5459	.046	1.84	2.3819	.018	1
S4	5.0000	5.0539	.054	1.08	4.7224	.023	1
S5	10.000	9.8720	-.128	-1.28	9.2111	.019	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



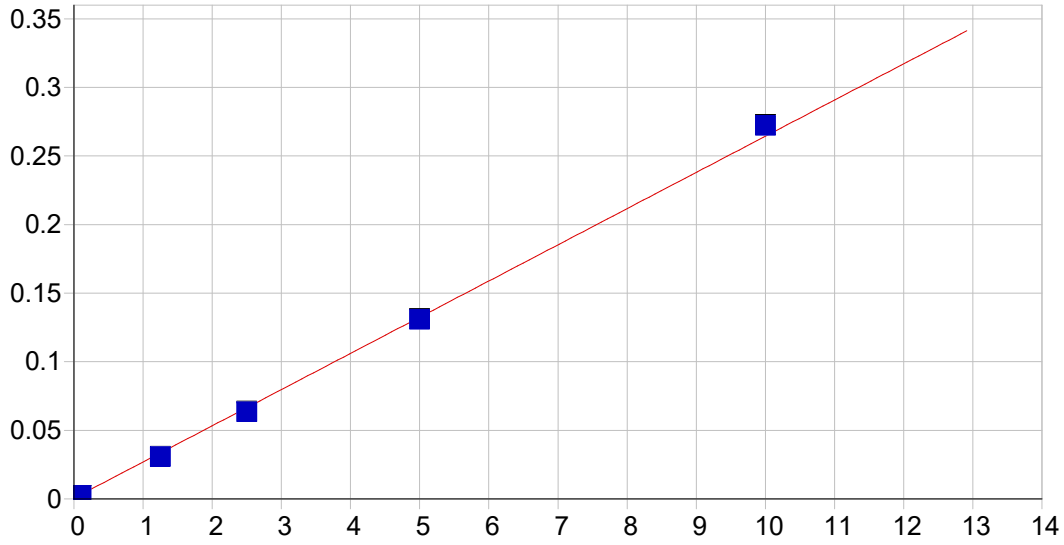
Mo 202.030 {467}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000085	Re-Slope:	1.000000
A1 (Gain):	0.938521	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998396	Status:	OK.
Std Error of Est:	0.000892		
Predicted MDL:	0.000438		
Predicted MQL:	0.001461		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.01000	.00901	-.001	-9.87	.00854	.000	1
S2	1.2500	1.1418	-.108	-8.65	1.0717	.001	1
S3	2.5000	2.3069	-.193	-7.72	2.1652	.004	1
S4	5.0000	4.7852	-.215	-4.30	4.4911	.006	1
S5	10.000	10.517	.517	5.17	9.8706	.014	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



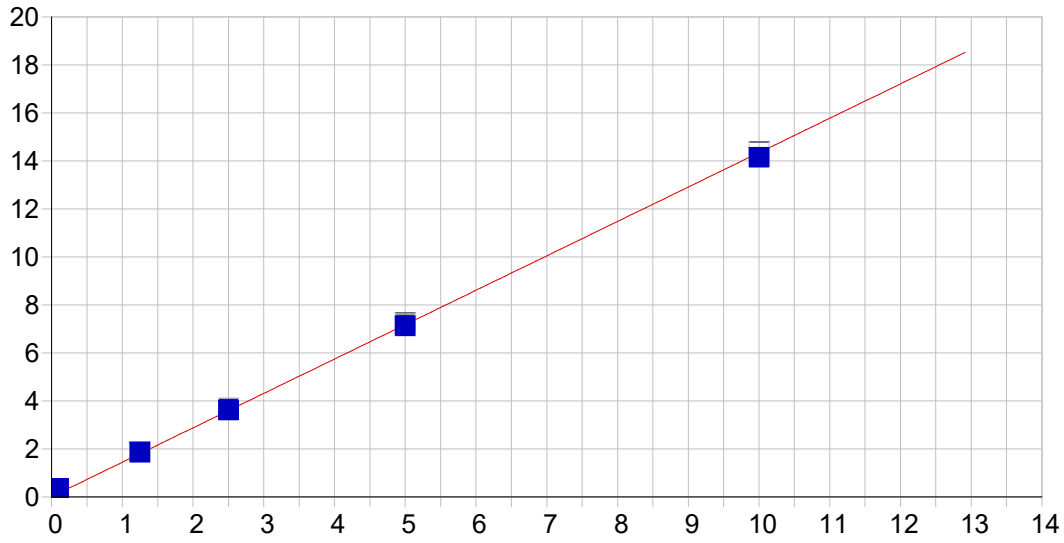
S 182.034 {485}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000535	Re-Slope:	1.000000
A1 (Gain):	0.026388	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999241	Status:	OK.
Std Error of Est:	0.000055		
Predicted MDL:	0.006445		
Predicted MQL:	0.021483		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	.00054	.000	1
S1	.10000	.07700	-.023	-23.0	.00257	.000	1
S2	1.2500	1.1501	-.100	-7.99	.03089	.000	1
S3	2.5000	2.3808	-.119	-4.77	.06337	.001	1
S4	5.0000	4.9421	-.058	-1.16	.13096	.000	1
S5	10.000	10.300	.300	3.00	.27236	.001	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



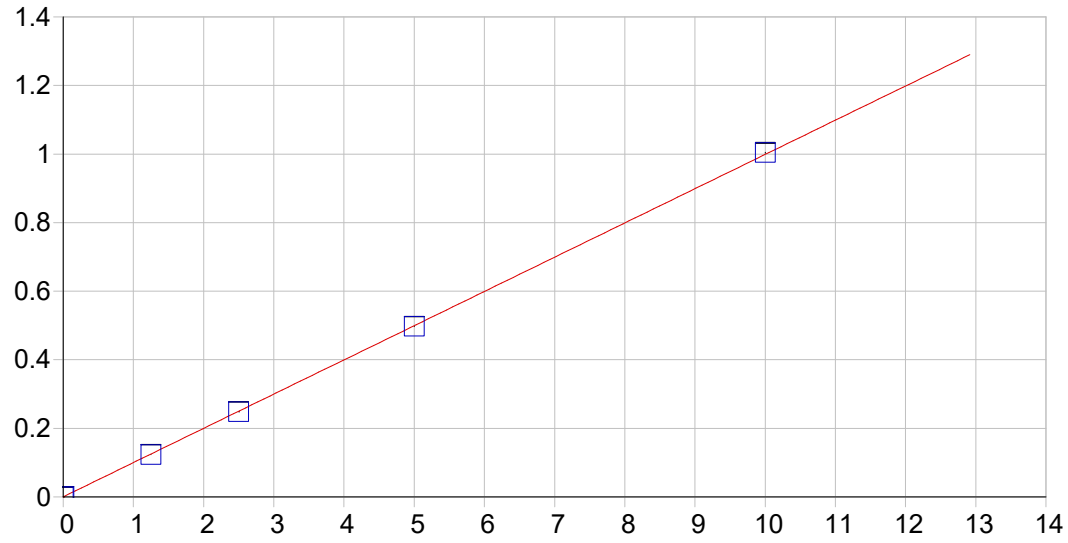
Si 251.611 {134}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.011751	Re-Slope:	1.000000
A1 (Gain):	1.433173	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995155	Status:	OK.
Std Error of Est:	0.007645		
Predicted MDL:	0.000627		
Predicted MQL:	0.002089		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00014	-.000	.000	.01155	.001	1
S1	.10000	.23655	.137	137.	.35172	.002	1
S2	1.2500	1.2826	.033	2.60	1.8788	.009	1
S3	2.5000	2.5154	.015	.615	3.6746	.021	1
S4	5.0000	4.9584	-.042	-.833	7.2338	.021	1
S5	10.000	9.8584	-.142	-1.42	14.372	.011	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



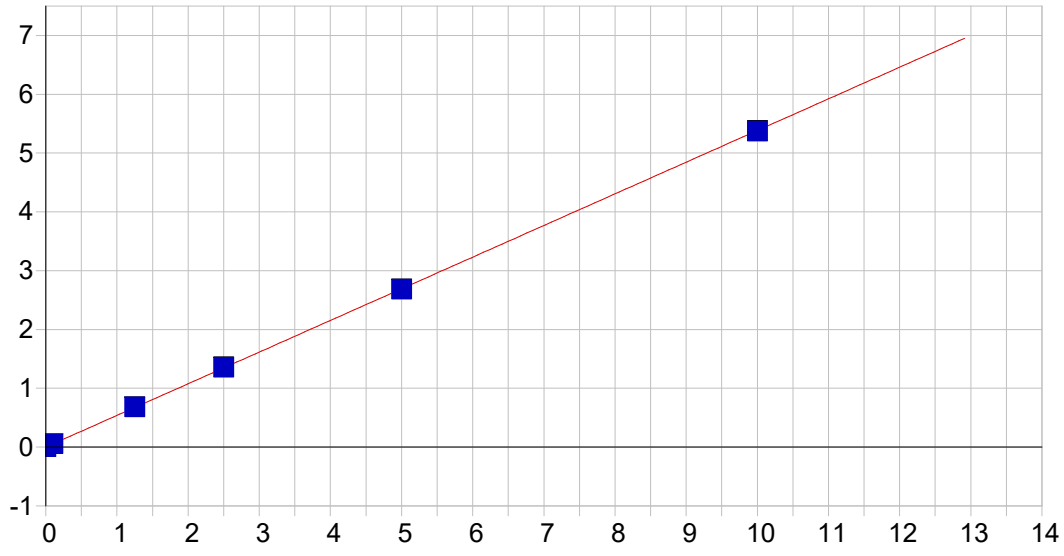
Sn 189.989 {478}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000227	Re-Slope:	1.000000
A1 (Gain):	0.099852	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999981	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.001721		
Predicted MQL:	0.005737		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00023	.000	1
S1	.00700	.00739	.000	5.59	.00097	.000	1
S2	1.2500	1.2342	-.016	-1.26	.12347	.000	1
S3	2.5000	2.4842	-.016	-.631	.24828	.000	1
S4	5.0000	4.9777	-.022	-.447	.49726	.001	1
S5	10.000	10.054	.054	.535	1.0041	.001	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



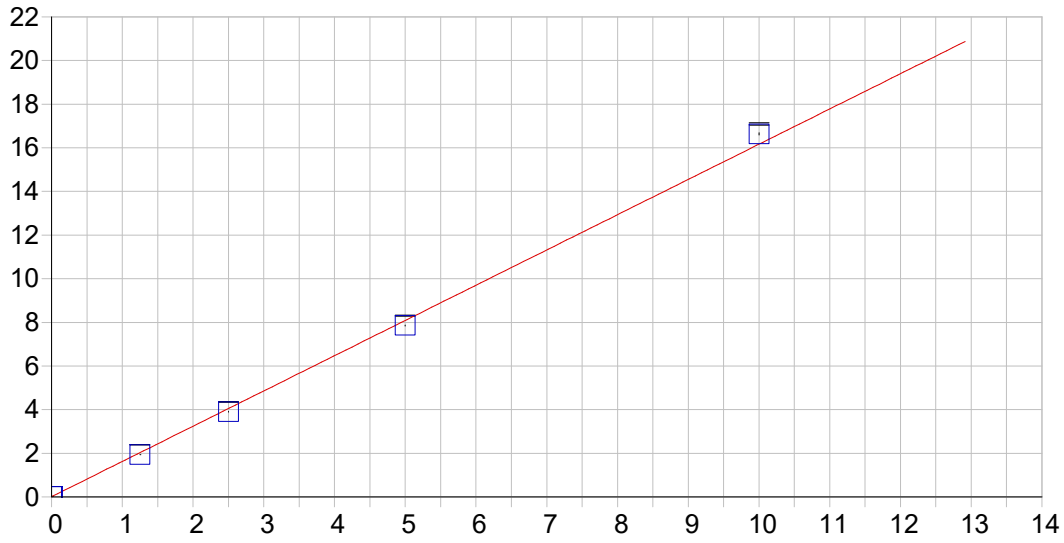
Ti 336.121 {100}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000355	Re-Slope:	1.000000
A1 (Gain):	0.538338	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.000158		
Predicted MDL:	0.001719		
Predicted MQL:	0.005732		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00035	.001	1
S1	.10000	.10055	.001	.552	.05446	.000	1
S2	1.2500	1.2684	.018	1.47	.68286	.001	1
S3	2.5000	2.5216	.022	.866	1.3572	.002	1
S4	5.0000	4.9849	-.015	-.303	2.6825	.004	1
S5	10.000	9.9745	-.025	-.255	5.3673	.012	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5



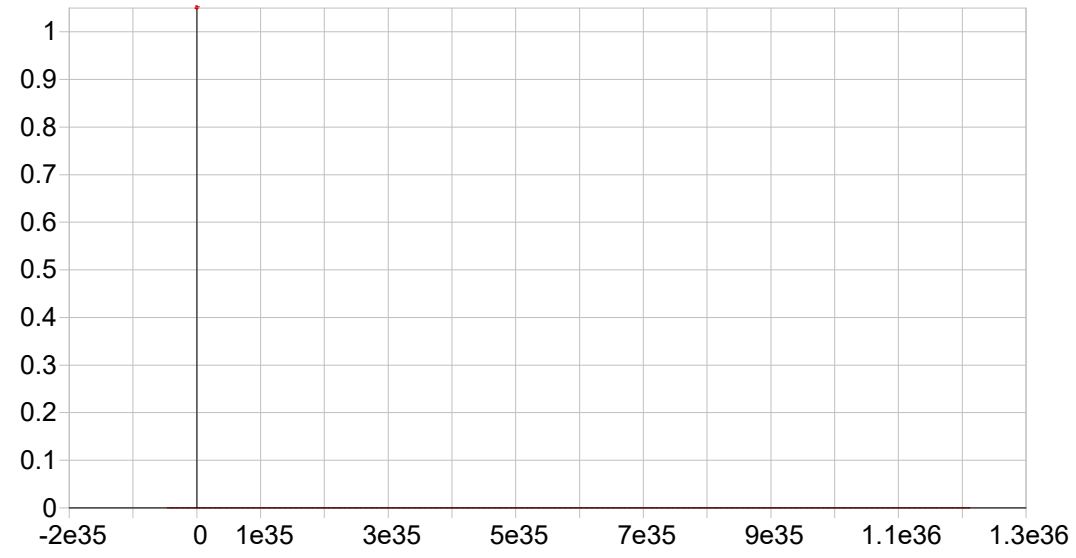
Li 670.784 { 50}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.009478	Re-Slope:	1.000000
A1 (Gain):	1.615627	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999503	Status:	OK.
Std Error of Est:	0.001047		
Predicted MDL:	0.002053		
Predicted MQL:	0.006845		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00948	.002	1
S5	10.000	10.292	.292	2.92	16.637	.048	1
S4	5.0000	4.8562	-.144	-2.88	7.8553	.020	1
S3	2.5000	2.4095	-.091	-3.62	3.9023	.019	1
S2	1.2500	1.1942	-.056	-4.46	1.9389	.003	1
S1	.01500	.01308	-.002	-12.8	.03061	.002	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

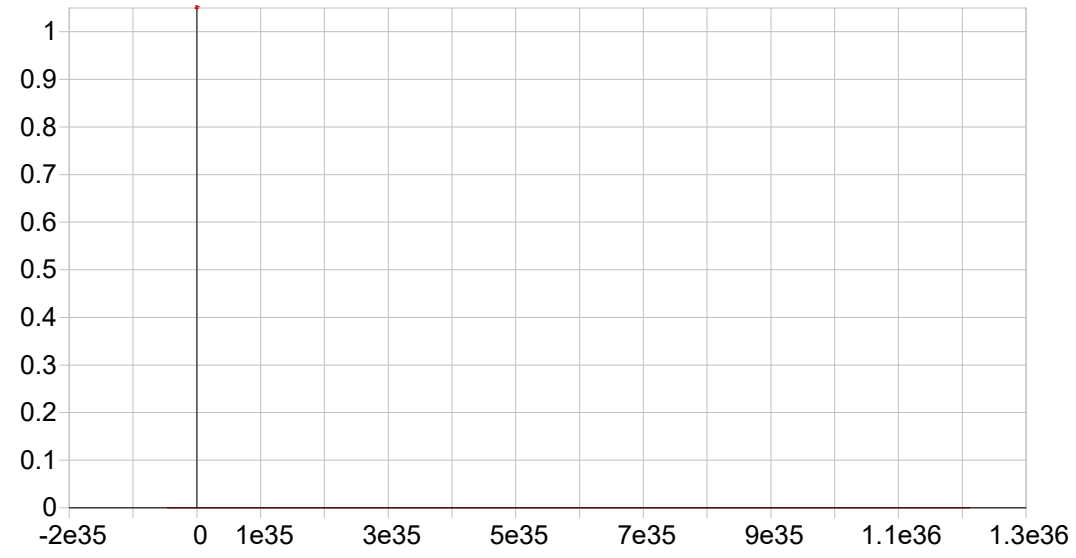


Y 224.306 {450}*

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

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

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



Y 360.073 { 94}*

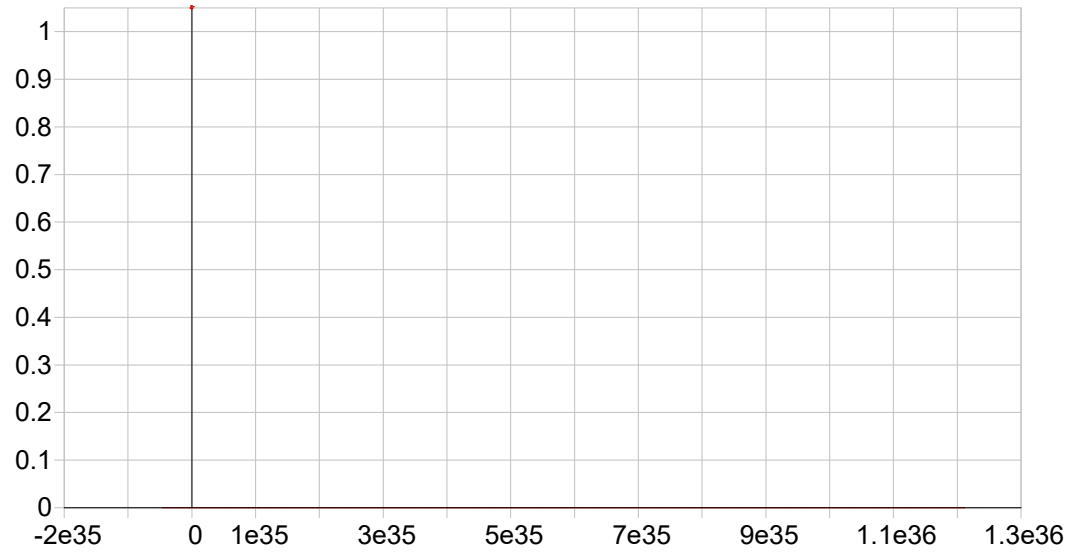
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

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

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



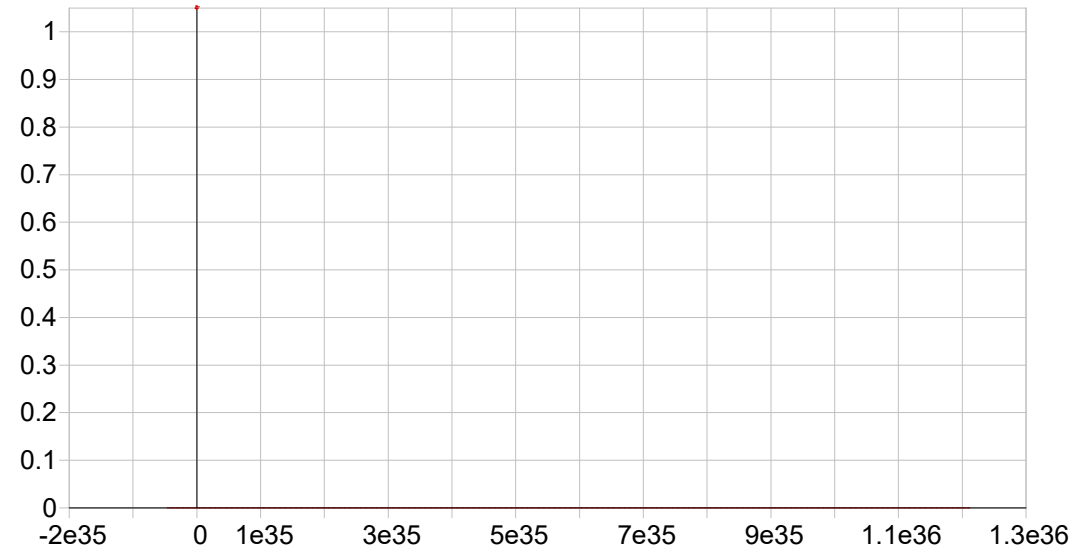
Y 371.030 { 91}*

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

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

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

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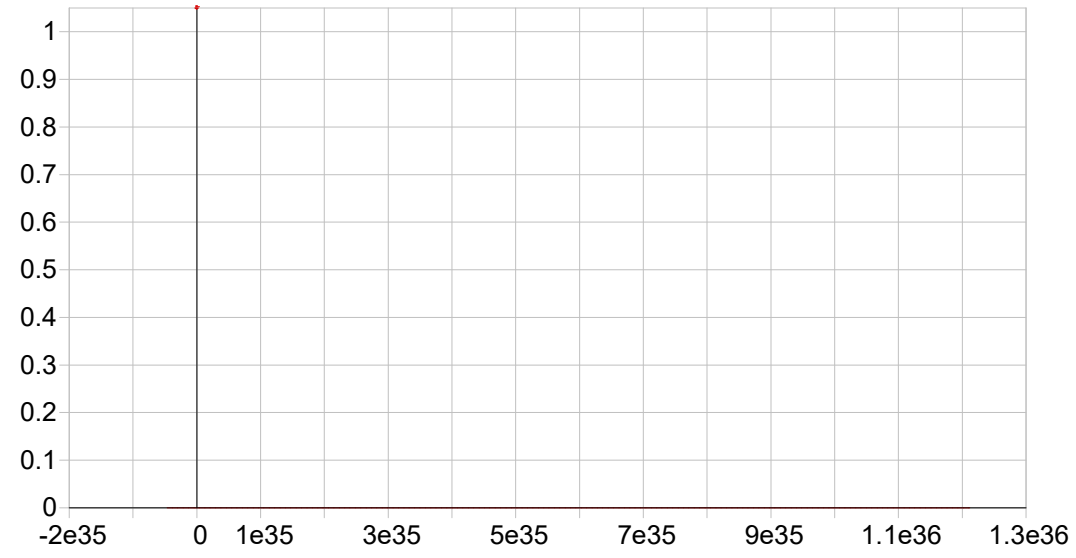


Y 224.306 {150}*

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

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

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



In 230.606 {446}*

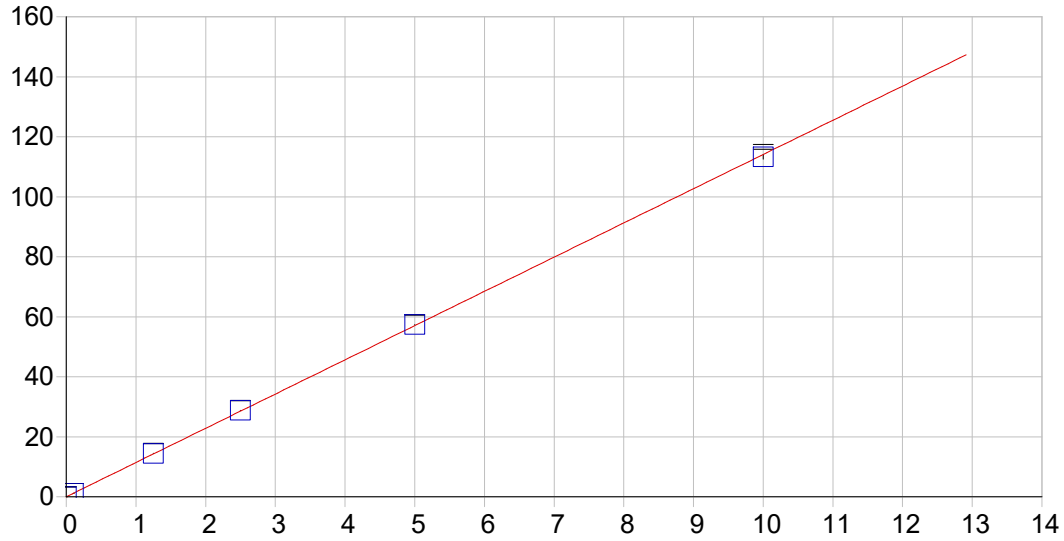
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:kareem
On:10/29/2024
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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



Sr 407.771 { 83}

Date of Fit:	10/20/2024 18:47:01	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001831	Re-Slope:	1.000000
A1 (Gain):	11.408264	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999969	Status:	OK.
Std Error of Est:	0.004766		
Predicted MDL:	0.000126		
Predicted MQL:	0.000421		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00176	.001	1
S1	.10000	.10432	.004	4.32	1.1920	.001	1
S2	1.2500	1.2650	.015	1.20	14.434	.030	1
S3	2.5000	2.5228	.023	.913	28.783	.039	1
S4	5.0000	5.0255	.026	.510	57.334	.065	1
S5	10.000	9.9323	-.068	-.677	113.31	.769	1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S0 Acquired: 10/20/2024 18:18:52 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	-.00003	-.00023	-.00024	.00011	.00018	-.00319	.00260	-.00304
Stddev	.00007	.00005	.00020	.00019	.00041	.00036	.00114	.00061
%RSD	223.60	19.958	83.320	174.99	224.02	11.254	43.950	19.976
#1	-.00006	-.00028	-.00047	.00030	-.00029	-.00356	.00392	-.00366
#2	.00005	-.00024	-.00009	-.00008	.00042	-.00316	.00195	-.00301
#3	-.00009	-.00018	-.00016	.00011	.00043	-.00284	.00193	-.00245

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	.00076	.00422	-.00030	-.00037	.00137	.00020	-.00032	-.00067
Stddev	.00011	.00022	.00012	.00014	.00103	.00013	.00013	.00005
%RSD	14.923	5.1295	38.846	37.485	75.537	68.125	39.862	7.5630
#1	.00068	.00398	-.00043	-.00022	.00165	.00009	-.00046	-.00062
#2	.00089	.00440	-.00020	-.00049	.00223	.00035	-.00028	-.00067
#3	.00070	.00428	-.00027	-.00039	.00022	.00015	-.00022	-.00072

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	-.00034	.02819	-.00867	-.00073	.00106	.04929	-.00106	.00446
Stddev	.00040	.00004	.00263	.00063	.00110	.00448	.00007	.00091
%RSD	118.14	.14240	30.299	86.657	104.07	9.0927	6.5645	20.362
#1	-.00075	.02822	-.01160	-.00066	.00210	.05133	-.00108	.00537
#2	.00005	.02814	-.00787	-.00014	-.00010	.05239	-.00098	.00445
#3	-.00031	.02819	-.00654	-.00140	.00117	.04415	-.00112	.00355

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	.00009	.00054	.01155	.00023	.00035	.00948	.00176
Stddev	.00033	.00010	.00099	.00017	.00084	.00187	.00101
%RSD	373.61	18.465	8.5826	76.680	237.80	19.728	57.140
#1	.00046	.00064	.01269	.00016	-.00034	.00738	.00142
#2	-.00008	.00052	.01107	.00010	.00012	.01012	.00289
#3	-.00012	.00045	.01089	.00042	.00129	.01095	.00097

Reviewed By:kareem
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Sample Name: S0 Acquired: 10/20/2024 18:18:52 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	1097.3	23285.	2875.3	889.20	2035.6
Stddev	3.3	28.	11.6	1.25	3.5
%RSD	.29774	.12230	.40490	.14100	.17100
#1	1095.1	23256.	2862.3	889.63	2031.6
#2	1101.0	23313.	2884.8	890.17	2038.1
#3	1095.6	23288.	2878.8	887.78	2037.1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S1 Acquired: 10/20/2024 18:23:31 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.00029	.00157	.00110	.00221	.01023	.02087	1.0389	.03287
Stddev	.00010	.00020	.00022	.00019	.00041	.00160	.0064	.00014
%RSD	33.425	12.520	20.001	8.3949	3.9674	7.6733	.61684	.41110
#1	.00023	.00166	.00131	.00233	.00986	.02191	1.0346	.03293
#2	.00040	.00134	.00111	.00230	.01017	.02167	1.0358	.03297
#3	.00023	.00170	.00088	.00200	.01067	.01902	1.0463	.03272

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	.01181	.39967	.00206	.03144	.00596	.00191	.00550	.03491
Stddev	.00038	.00358	.00020	.00012	.00030	.00010	.00022	.00023
%RSD	3.2378	.89600	9.8425	.39756	5.0833	5.3666	4.0441	.66847
#1	.01140	.39740	.00189	.03130	.00564	.00187	.00547	.03465
#2	.01215	.39781	.00201	.03153	.00625	.00183	.00530	.03502
#3	.01189	.40380	.00229	.03148	.00598	.00202	.00574	.03508

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	.02474	.03208	.04460	.00417	.16326	.19864	-.00052	.00467
Stddev	.00011	.00026	.00119	.00074	.00062	.00266	.00016	.00121
%RSD	.45373	.80879	2.6782	17.641	.37703	1.3412	31.010	26.019
#1	.02461	.03179	.04594	.00471	.16342	.20131	-.00070	.00604
#2	.02480	.03222	.04365	.00447	.16257	.19598	-.00046	.00423
#3	.02481	.03225	.04421	.00333	.16377	.19863	-.00039	.00373

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	.00854	.00257	.35172	.00097	.05446	.03061	1.1920
Stddev	.00031	.00001	.00214	.00014	.00031	.00230	.0013
%RSD	3.6096	.29201	.60985	14.186	.56576	7.5070	.11200
#1	.00829	.00257	.35299	.00091	.05481	.03240	1.1907
#2	.00889	.00257	.34925	.00086	.05422	.03141	1.1919
#3	.00845	.00256	.35293	.00112	.05437	.02802	1.1933

Reviewed By:kareem
On:10/29/2024
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Inst Id :P5

Sample Name: S1 Acquired: 10/20/2024 18:23:31 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	1091.5	23168.	2871.3	884.26	2005.2
Stddev	.8	52.	12.2	2.01	2.4
%RSD	.07368	.22454	.42495	.22694	.12215
#1	1090.6	23228.	2862.4	886.57	2002.5
#2	1092.2	23138.	2885.2	882.91	2007.1
#3	1091.6	23138.	2866.4	883.30	2006.1

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S2 Acquired: 10/20/2024 18:28:09 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.03096	.09834	.86089	.08719	.21968	4.1551	12.890	.85127
Stddev	.00021	.00025	.00137	.00057	.00035	.0030	.025	.00276
%RSD	.68356	.25508	.15940	.65777	.15936	.07117	.19476	.32365
#1	.03087	.09806	.85980	.08703	.21928	4.1521	12.884	.85009
#2	.03081	.09854	.86045	.08671	.21982	4.1551	12.869	.84929
#3	.03120	.09841	.86243	.08782	.21994	4.1580	12.918	.85441

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	1.3782	4.7961	.82188	.40304	.73901	.63496	1.3574	.42676
Stddev	.0048	.0109	.00018	.00061	.00186	.00157	.0053	.00219
%RSD	.34657	.22761	.02147	.15118	.25117	.24700	.39359	.51295
#1	1.3749	4.8028	.82207	.40314	.73754	.63660	1.3618	.42928
#2	1.3760	4.7835	.82184	.40239	.73840	.63480	1.3514	.42538
#3	1.3837	4.8019	.82173	.40359	.74110	.63348	1.3590	.42561

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	.38713	.13315	.39962	.05218	9.7775	1.1881	.06099	1.2079
Stddev	.00109	.00023	.00083	.00008	.0537	.0034	.00014	.0074
%RSD	.28253	.17046	.20816	.15540	.54963	.28937	.22786	.61331
#1	.38659	.13326	.40047	.05211	9.8395	1.1895	.06110	1.2104
#2	.38641	.13289	.39958	.05227	9.7475	1.1906	.06104	1.1995
#3	.38839	.13330	.39881	.05217	9.7454	1.1842	.06083	1.2137

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	1.0717	.03089	1.8788	.12347	.68286	1.9389	14.434
Stddev	.0014	.00022	.0091	.00044	.00130	.0030	.030
%RSD	.12600	.71334	.48513	.36001	.19025	.15549	.20515
#1	1.0711	.03101	1.8846	.12385	.68342	1.9399	14.430
#2	1.0707	.03063	1.8683	.12298	.68378	1.9355	14.465
#3	1.0733	.03102	1.8836	.12357	.68138	1.9413	14.406

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S2 Acquired: 10/20/2024 18:28:09 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	1034.9	22808.	2873.2	839.70	1817.2
Stddev	.6	23.	9.3	5.26	3.5
%RSD	.06196	.10096	.32528	.62614	.19077
#1	1035.6	22797.	2862.9	833.77	1818.5
#2	1034.7	22835.	2881.1	841.56	1819.8
#3	1034.3	22793.	2875.8	843.77	1813.3

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S3 Acquired: 10/20/2024 18:32:31 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.06351	.19442	1.7195	.17633	.44758	8.3395	25.861	1.6768
Stddev	.00023	.00070	.0007	.00174	.00142	.0125	.098	.0055
%RSD	.35774	.36027	.03918	.98711	.31699	.14935	.38065	.32619
#1	.06377	.19482	1.7202	.17823	.44916	8.3319	25.852	1.6721
#2	.06336	.19361	1.7195	.17595	.44642	8.3328	25.768	1.6828
#3	.06339	.19483	1.7188	.17481	.44714	8.3539	25.964	1.6756

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	2.7480	9.5140	1.6165	.81175	1.4688	1.2535	2.6773	.85909
Stddev	.0031	.0335	.0023	.00072	.0028	.0037	.0033	.00347
%RSD	.11315	.35200	.14009	.08854	.18996	.29539	.12376	.40371
#1	2.7504	9.4897	1.6179	.81245	1.4698	1.2506	2.6773	.85526
#2	2.7445	9.5001	1.6177	.81177	1.4657	1.2522	2.6740	.85997
#3	2.7493	9.5522	1.6139	.81102	1.4710	1.2577	2.6807	.86203

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	.77312	.23844	.81409	.10526	19.922	2.3583	.12725	2.3819
Stddev	.00078	.00143	.00449	.00033	.019	.0011	.00052	.0179
%RSD	.10071	.60002	.55118	.31005	.09352	.04790	.40787	.75278
#1	.77369	.24008	.81769	.10500	19.923	2.3570	.12719	2.3614
#2	.77344	.23746	.80906	.10514	19.903	2.3590	.12677	2.3949
#3	.77223	.23778	.81551	.10562	19.941	2.3589	.12780	2.3893

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	2.1652	.06337	3.6746	.24828	1.3572	3.9023	28.783
Stddev	.0036	.00051	.0213	.00032	.0023	.0188	.039
%RSD	.16415	.80227	.58056	.12832	.16702	.48144	.13604
#1	2.1678	.06301	3.6529	.24853	1.3547	3.8994	28.742
#2	2.1611	.06395	3.6956	.24792	1.3591	3.8851	28.820
#3	2.1666	.06314	3.6754	.24839	1.3577	3.9224	28.786

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S3 Acquired: 10/20/2024 18:32:31 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	988.78	22325.	2851.8	786.13	1728.3
Stddev	1.05	70.	15.3	1.99	.9
%RSD	.10647	.31438	.53691	.25370	.04979
#1	987.62	22247.	2867.1	783.84	1727.5
#2	989.66	22349.	2836.5	787.42	1729.2
#3	989.06	22381.	2851.9	787.15	1728.2

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S4 Acquired: 10/20/2024 18:36:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.12998	.37837	3.4216	.36674	.94097	16.778	51.033	3.2535
Stddev	.00013	.00080	.0033	.00056	.00232	.014	.122	.0123
%RSD	.09695	.21080	.09540	.15182	.24700	.08258	.23966	.37660
#1	.13012	.37751	3.4178	.36697	.93863	16.792	51.128	3.2395
#2	.12987	.37908	3.4232	.36610	.94100	16.765	51.077	3.2590
#3	.12997	.37852	3.4237	.36714	.94328	16.777	50.895	3.2621

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.4288	18.758	3.1752	1.6219	2.9314	2.4300	5.1889	1.7220
Stddev	.0055	.039	.0060	.0026	.0053	.0060	.0155	.0024
%RSD	.10123	.20924	.19041	.16308	.18073	.24904	.29773	.13762
#1	5.4243	18.768	3.1811	1.6189	2.9374	2.4298	5.1801	1.7201
#2	5.4273	18.792	3.1754	1.6238	2.9274	2.4361	5.2067	1.7212
#3	5.4349	18.715	3.1690	1.6230	2.9293	2.4240	5.1798	1.7247

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	1.5334	.44444	1.6242	.20662	41.265	4.7341	.26252	4.7224
Stddev	.0011	.00045	.0054	.00108	.042	.0085	.00041	.0235
%RSD	.07151	.10157	.33306	.52428	.10085	.17919	.15440	.49677
#1	1.5322	.44485	1.6256	.20611	41.263	4.7330	.26292	4.6968
#2	1.5337	.44396	1.6288	.20589	41.225	4.7261	.26211	4.7276
#3	1.5344	.44451	1.6183	.20787	41.308	4.7430	.26252	4.7428

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	4.4911	.13096	7.2338	.49726	2.6825	7.8553	57.334
Stddev	.0062	.00041	.0210	.00067	.0038	.0197	.065
%RSD	.13820	.31083	.29100	.13548	.14273	.25058	.11258
#1	4.4883	.13110	7.2113	.49650	2.6858	7.8693	57.406
#2	4.4868	.13050	7.2371	.49748	2.6836	7.8638	57.280
#3	4.4982	.13128	7.2530	.49779	2.6783	7.8328	57.317

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S4 Acquired: 10/20/2024 18:36:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	908.68	21725.	2799.2	704.68	1624.6
Stddev	1.31	48.	8.2	.93	1.1
%RSD	.14427	.21888	.29254	.13156	.06960
#1	907.63	21671.	2808.6	704.69	1624.5
#2	910.15	21757.	2795.1	705.60	1625.7
#3	908.26	21748.	2793.9	703.75	1623.5

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S5 Acquired: 10/20/2024 18:41:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.27069	.74435	6.9052	.81028	2.1468	34.427	100.72	6.4809
Stddev	.00043	.00185	.0089	.00323	.0058	.037	.32	.0164
%RSD	.15925	.24831	.12955	.39860	.27101	.10826	.31981	.25242
#1	.27117	.74433	6.8992	.81036	2.1511	34.390	100.63	6.4644
#2	.27056	.74251	6.9009	.80701	2.1402	34.464	101.08	6.4812
#3	.27033	.74621	6.9155	.81346	2.1491	34.428	100.45	6.4971

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10.757	37.395	6.2482	3.2400	5.9100	4.7632	10.207	3.5373
Stddev	.013	.034	.0113	.0065	.0062	.0079	.016	.0042
%RSD	.12005	.09075	.18072	.19984	.10553	.16643	.15229	.11943
#1	10.751	37.368	6.2593	3.2332	5.9155	4.7581	10.189	3.5394
#2	10.748	37.433	6.2486	3.2405	5.9032	4.7593	10.214	3.5324
#3	10.772	37.384	6.2368	3.2462	5.9112	4.7724	10.218	3.5401

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	3.0469	.88227	3.3285	.41097	90.657	9.6806	.54337	9.2111
Stddev	.0032	.00194	.0115	.00075	.621	.0078	.00087	.0186
%RSD	.10644	.21987	.34440	.18133	.68503	.08078	.16015	.20210
#1	3.0440	.88003	3.3170	.41012	91.166	9.6730	.54262	9.2306
#2	3.0463	.88335	3.3400	.41126	89.965	9.6802	.54316	9.2091
#3	3.0504	.88343	3.3285	.41152	90.840	9.6886	.54432	9.1935

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	9.8706	.27236	14.372	1.0041	5.3673	16.637	113.31
Stddev	.0144	.00057	.011	.0014	.0119	.048	.77
%RSD	.14549	.20798	.07674	.13785	.22180	.28967	.67901
#1	9.8848	.27290	14.360	1.0026	5.3548	16.588	112.96
#2	9.8561	.27177	14.375	1.0042	5.3784	16.685	112.78
#3	9.8708	.27240	14.382	1.0054	5.3688	16.639	114.19

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S5 Acquired: 10/20/2024 18:41:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	782.29	20946.	2745.9	572.08	1503.7
Stddev	2.45	10.	.2	4.24	.7
%RSD	.31261	.04710	.00666	.74156	.04958
#1	779.47	20952.	2745.7	568.55	1502.9
#2	783.85	20934.	2746.1	576.78	1503.6
#3	783.56	20951.	2745.9	570.91	1504.4

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: S6 Acquired: 10/20/2024 18:45:34 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	88.675	59.118	12.423	5.3161	9.0128
Stddev	.636	.062	.010	.0059	.0106
%RSD	.71694	.10556	.07964	.11036	.11767
#1	88.198	59.071	12.417	5.3151	9.0140
#2	88.429	59.189	12.434	5.3224	9.0227
#3	89.396	59.094	12.417	5.3108	9.0016

Int. Std.	Y_3710
Units	Cts/S
Avg	2689.6
Stddev	9.2
%RSD	.34287
#1	2679.2
#2	2696.7
#3	2692.9

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICV005 Acquired: 10/20/2024 18:50:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	1.001398	1.009826	.9750075	1.041282	1.059015	2.414698
Stddev	.008058	.003408	.0018126	.004693	.001397	.021000
%RSD	.8046647	.3374831	.1859015	.4506868	.1319487	.8696749
#1	.993405	1.010647	.9746243	1.046570	1.060017	2.436618
#2	1.001270	1.006083	.9734171	1.039666	1.057419	2.412717
#3	1.009519	1.012749	.9769810	1.037611	1.059611	2.394758

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5245336	.5409594	.4821291	10.24211	.5558585	.4959687
Stddev	.0018035	.0011222	.0008008	.03053	.0010999	.0006352
%RSD	.3438294	.2074462	.1660955	.2980593	.1978676	.1280755
#1	.5226351	.5422447	.4818445	10.20687	.5545888	.4961494
#2	.5262240	.5404595	.4830333	10.25916	.5565190	.4964940
#3	.5247417	.5401740	.4815095	10.26031	.5564676	.4952627

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4889768	10.93280	.5500287	5.792125	.5066097	.2458772
Stddev	.0053749	.04637	.0013389	.104250	.0008557	.0016395
%RSD	1.099217	.4241638	.2434253	1.799856	.1688974	.6667812
#1	.4923705	10.88603	.5486912	5.828523	.5061643	.2463209
#2	.4917801	10.97877	.5500257	5.873295	.5060686	.2472491
#3	.4827797	10.93359	.5513691	5.674556	.5075962	.2440615

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.883816	.5386498	1.047833	9.630616	F .0061820	F .0189578
Stddev	.154402	.0053838	.002871	.048754	.0020306	.0005438
%RSD	1.562165	.9995026	.2739530	.5062348	32.84646	2.868433
#1	9.830513	.5345865	1.044639	9.584367	.0038516	.0195080
#2	9.763128	.5447561	1.048662	9.681538	.0071229	.0184207
#3	10.05781	.5366069	1.050197	9.625945	.0075714	.0189446

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICV005 Acquired: 10/20/2024 18:50:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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 -.000164	F .0039247	F .0019232	F -.000648	F -.000094	F .0059372
Stddev	.000525	.0030783	.0004481	.000566	.000157	.0010387
%RSD	319.9795	78.43299	23.30013	87.43094	166.3965	17.49438
#1	.000378	.0056636	.0023996	-.000032	-.000264	.0052504
#2	-.000671	.0057401	.0015101	-.000766	-.000065	.0071322
#3	-.000199	.0003705	.0018599	-.001146	.000046	.0054292

Elem	Sr4077
Units	ppm
Avg	F .0013945
Stddev	.0000813
%RSD	5.830164
#1	.0014321
#2	.0013012
#3	.0014502

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1088.457	23245.29	2888.985	886.6492	1972.262
Stddev	1.075	68.92	9.856	3.0288	.599
%RSD	.0988052	.2964729	.3411663	.3415952	.0303788
#1	1087.273	23222.88	2886.370	889.3385	1972.950
#2	1089.373	23190.36	2880.700	883.3683	1971.851
#3	1088.725	23322.62	2899.885	887.2407	1971.986

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICB005 Acquired: 10/20/2024 18:54:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.0021898	.0009047	-.001150	-.001039	.0012246	-.005543	.0003180
Stddev	.0026470	.0017018	.001655	.002969	.0021641	.007812	.0004603
%RSD	120.8793	188.1220	143.8886	285.6830	176.7228	140.9201	144.7596
#1	.0005316	.0008873	.000137	-.003376	.0036962	.003065	.0007870
#2	.0052425	-.000788	-.003018	-.002043	-.000330	-.012180	.0003001
#3	.0007953	.002615	-.000570	.002301	.000307	-.007516	-.000133

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001677	.0000687	.0305877	.0017698	.0003073	.0000596	-.004223
Stddev	.0000325	.0001106	.0115285	.0004366	.0001034	.0037156	.018341
%RSD	19.38609	161.1219	37.68995	24.67117	33.64868	6236.349	434.3686
#1	.0001632	.0001394	.0282754	.0014487	.0003101	.0039365	-.009734
#2	.0002022	.0001254	.0430970	.0015937	.0002026	-.000287	.016243
#3	.0001377	-.000059	.0203906	.0022669	.0004093	-.003470	-.019176

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004829	.0372222	-.000087	.0014599	-.016280	.0038542	.0000299
Stddev	.0004745	.0390342	.000298	.0004177	.078390	.0040444	.0003950
%RSD	98.27002	104.8679	341.4993	28.60948	481.5076	104.9347	1322.727
#1	.0004629	.0140508	.000257	.0013391	-.098693	.0051391	-.000300
#2	.0000187	.0153269	-.000257	.0011160	.057347	.0071002	-.000078
#3	.0009671	.0822890	-.000262	.0019247	-.007494	-.000677	.000468

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1353139	-.000516	.0037885	.0002156	-.008651	.0000350	.0012817
Stddev	.0869585	.003288	.0003725	.0003124	.002542	.0009794	.0005878
%RSD	64.26424	637.5016	9.831946	144.9471	29.38805	2798.693	45.86426
#1	.1011643	.002700	.0039990	.0001936	-.006251	-.000349	.0012508
#2	.0706139	-.000374	.0040081	.0005384	-.011315	.001148	.0018844
#3	.2341637	-.003873	.0033584	-.000085	-.008385	-.000694	.0007099

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICB005 Acquired: 10/20/2024 18:54:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	-.001039	.0069061	.0002100
Stddev	.000963	.0006765	.0001236
%RSD	92.65104	9.795743	58.84966
#1	-.000647	.0061253	.0000849
#2	-.002136	.0072765	.0002131
#3	-.000334	.0073165	.0003321

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1096.087	23159.53	2854.636	891.5621	2023.687
Stddev	2.175	50.83	9.405	4.0229	.289
%RSD	.1984539	.2194564	.3294781	.4512194	.0142836
#1	1093.579	23136.45	2845.246	887.9611	2023.383
#2	1097.465	23217.80	2864.057	895.9039	2023.959
#3	1097.216	23124.34	2854.604	890.8212	2023.720

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICSA005 Acquired: 10/20/2024 18:59:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.0011901	-.017179	-.006179	-.003483	-.001118	243.1839
Stddev	.0025495	.003131	.003288	.010211	.004000	.4984
%RSD	214.2241	18.22838	53.21414	293.1318	357.7497	.2049683
#1	-.000484	-.013667	-.009593	-.014421	.000050	243.5457
#2	-.000070	-.019679	-.003033	-.001828	-.005573	243.3906
#3	.004124	-.018191	-.005911	.005799	.002168	242.6153

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070441	.0012921	-.000911	252.0256	.0519804	.0014370
Stddev	.0004207	.0000171	.000044	.9159	.0001923	.0004984
%RSD	5.971848	1.325545	4.850325	.3634070	.3698604	34.68403
#1	.0075256	.0012986	-.000876	252.3053	.0518809	.0009873
#2	.0068591	.0012726	-.000960	252.7690	.0518583	.0019729
#3	.0067477	.0013049	-.000897	251.0025	.0522020	.0013508

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000935	105.2070	.0122125	252.4509	.0036637	.0058908
Stddev	.002971	.5363	.0013100	.7609	.0004250	.0006580
%RSD	317.5844	.5097317	10.72628	.3013961	11.59988	11.16974
#1	.002220	105.6538	.0121496	252.1613	.0034331	.0066072
#2	-.003679	105.3549	.0135528	253.3140	.0034039	.0053135
#3	-.001347	104.6123	.0109352	251.8773	.0041542	.0057517

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3351350	.0033146	.0123612	.1195558	.0033303	F .1083878
Stddev	.2891293	.0179204	.0008210	.1196866	.0022020	.0014550
%RSD	86.27249	540.6535	6.642002	100.1094	66.11923	1.342360
#1	.1072800	.0226142	.0114875	-.006920	.0037400	.1100622
#2	.6603853	.0001289	.0124794	.134546	.0052987	.1076692
#3	.2377397	-.012799	.0131167	.231041	.0009523	.1074319

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICSA005 Acquired: 10/20/2024 18:59:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	-.001212	-.002967	.0003197	-.002502	-.002018	.0096373
Stddev	.000657	.006093	.0004020	.002398	.001174	.0031849
%RSD	54.23678	205.3785	125.7557	95.82770	58.15572	33.04783
#1	-.000691	-.002075	.0005677	-.003116	-.001004	.0121213
#2	-.000995	-.009457	-.000144	.000143	-.001747	.0060467
#3	-.001950	.002632	.000535	-.004533	-.003303	.0107440

Elem	Sr4077
Units	ppm
Avg	F .1038638
Stddev	.0001786
%RSD	.1719497
#1	.1037776
#2	.1040691
#3	.1037446

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1018.126	21896.16	2779.159	831.7443	1689.597
Stddev	1.196	60.02	9.667	2.7351	3.110
%RSD	.1174368	.2741341	.3478529	.3288349	.1840521
#1	1017.308	21830.07	2768.459	833.8661	1691.791
#2	1019.498	21947.30	2781.754	832.7092	1690.963
#3	1017.572	21911.11	2787.265	828.6576	1686.038

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICSAB005 Acquired: 10/20/2024 19:03:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.0890681	.0857298	.0471167	.0476776	.5312864	240.0893
Stddev	.0107045	.0026404	.0025125	.0050103	.0042920	.1934
%RSD	12.01833	3.079885	5.332537	10.50868	.8078420	.0805516
#1	.0959386	.0886248	.0498842	.0420003	.5263324	239.8727
#2	.0945315	.0851108	.0464869	.0495524	.5338851	240.1504
#3	.0767344	.0834540	.0449791	.0514801	.5336416	240.2447

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5226325	.5334918	.9660812	249.3112	.5879299	.5017021
Stddev	.0005525	.0030505	.0014877	.5168	.0019576	.0006532
%RSD	.1057084	.5717955	.1539979	.2072901	.3329688	.1301932
#1	.5224544	.5300180	.9648478	248.9384	.5897445	.5010761
#2	.5221910	.5357335	.9656624	249.0941	.5858552	.5016506
#3	.5232520	.5347239	.9677335	249.9012	.5881900	.5023794

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4759835	104.2722	.5366017	248.8601	1.007440	.2080292
Stddev	.0047249	.1674	.0010512	.1490	.001559	.0005999
%RSD	.9926691	.1605634	.1958956	.0598541	.1547899	.2883810
#1	.4783079	104.3527	.5356318	248.7126	1.008086	.2080323
#2	.4790961	104.0797	.5377187	248.8573	1.005662	.2086276
#3	.4705467	104.3841	.5364547	249.0105	1.008573	.2074278

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1463697	.5156042	.9024494	-.004022	.0096572	F .1049278
Stddev	.3951934	.0075221	.0059422	.074926	.0076352	.0005018
%RSD	269.9966	1.458895	.6584569	1862.921	79.06260	.4782269
#1	.2829470	.5109045	.9038449	.002064	.0036099	.1051782
#2	.4551592	.5242799	.8959337	-.081805	.0071248	.1052551
#3	-.298997	.5116281	.9075697	.067676	.0182368	.1043501

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: ICSAB005 Acquired: 10/20/2024 19:03:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	-.001389	.0100736	.0000628	-.006663	-.000539	.0059114
Stddev	.000979	.0077739	.0002453	.001268	.000801	.0023306
%RSD	70.48340	77.17112	390.8584	19.03377	148.7156	39.42573
#1	-.000316	.0048424	.0003057	-.007941	-.001449	.0072181
#2	-.002234	.0063718	.0000675	-.006643	.000056	.0072955
#3	-.001616	.0190067	-.000185	-.005404	-.000223	.0032206

Elem	Sr4077
Units	ppm
Avg	F .1029428
Stddev	.0003440
%RSD	.3341984
#1	.1025543
#2	.1032087
#3	.1030655

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1015.838	21937.13	2806.548	829.3252	1696.873
Stddev	1.064	97.57	2.280	5.4847	3.096
%RSD	.1047565	.4447885	.0812476	.6613447	.1824259
#1	1017.065	21825.21	2808.232	823.7660	1695.039
#2	1015.164	22004.33	2803.953	834.7322	1700.447
#3	1015.286	21981.86	2807.458	829.4775	1695.133

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV031 Acquired: 10/20/2024 19:07:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	4.856043	4.637632	23.97648	4.566382	4.593242	399.3609	10.14355
Stddev	.035636	.017044	.06233	.041896	.021010	.6394	.03184
%RSD	.7338539	.3675188	.2599730	.9174870	.4574152	.1601094	.3139136
#1	4.835267	4.627627	23.97659	4.525452	4.571134	399.8733	10.16714
#2	4.835670	4.627957	23.91409	4.564512	4.595645	398.6443	10.10733
#3	4.897191	4.657312	24.03876	4.609181	4.612948	399.5652	10.15618

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5109819	2.411731	399.1220	14.71492	2.429035	14.51050	407.4488
Stddev	.0008264	.008307	1.4648	.02115	.007283	.00924	.7234
%RSD	.1617333	.3444222	.3669953	.1437045	.2998341	.0637014	.1775499
#1	.5104862	2.408846	400.1529	14.72106	2.423890	14.50425	408.1378
#2	.5105236	2.405252	397.4453	14.69138	2.425847	14.52112	406.6953
#3	.5119360	2.421096	399.7678	14.73231	2.437369	14.50613	407.5132

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.81895	408.0026	2.411578	1.245421	398.6403	2.453420	13.81071
Stddev	.05014	.9618	.005280	.002968	.4312	.015771	.09334
%RSD	.3383712	.2357295	.2189609	.2382815	.1081731	.6428096	.6758454
#1	14.86295	408.8991	2.408077	1.242249	398.7205	2.448413	13.71879
#2	14.76436	406.9867	2.409006	1.245886	398.1746	2.471087	13.90541
#3	14.82955	408.1220	2.417652	1.248129	399.0257	2.440761	13.80793

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.1154	4.786744	5.074459	4.544989	4.907627	4.908679	4.818300
Stddev	.3270	.016904	.012405	.022312	.013404	.010400	.020969
%RSD	.2178543	.3531477	.2444583	.4909131	.2731218	.2118619	.4351955
#1	150.3842	4.787693	5.079371	4.525347	4.898436	4.909615	4.807367
#2	149.7513	4.769386	5.060350	4.540371	4.901439	4.897843	4.805058
#3	150.2106	4.803154	5.083655	4.569249	4.923007	4.918579	4.842477

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV031 Acquired: 10/20/2024 19:07:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	4.878402	5.012912	4.902812
Stddev	.007711	.015425	.006565
%RSD	.1580554	.3077106	.1339081
#1	4.886409	5.026791	4.903912
#2	4.877770	4.996305	4.895766
#3	4.871026	5.015640	4.908758

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	881.9293	21197.95	2726.892	692.5447	1536.921
Stddev	2.2503	69.70	13.241	4.7614	1.760
%RSD	.2551586	.3288051	.4855549	.6875183	.1145013
#1	884.2898	21183.77	2720.199	697.9271	1537.571
#2	881.6898	21273.65	2742.143	688.8823	1538.263
#3	879.8083	21136.43	2718.334	690.8249	1534.928

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB031 Acquired: 10/20/2024 19:59:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.0024859	-.001157	-.000013	.0026872	-.001521	.0020798	-.000756
Stddev	.0028574	.002180	.002057	.0040402	.002596	.0021502	.000526
%RSD	114.9471	188.3991	16433.52	150.3482	170.7456	103.3867	69.61190
#1	.0035334	-.000904	.000926	.0038814	.001230	-.000391	-.000615
#2	-.000748	-.003452	-.002371	-.001815	-.003929	.003102	-.000314
#3	.004672	.000885	.001408	.005996	-.001863	.003528	-.001338

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000048	.0000036	.0106731	.0000580	-.000209	-.002612	.0074635
Stddev	.000031	.0000489	.0179899	.0001620	.000278	.003669	.0068825
%RSD	63.91553	1372.636	168.5544	279.1916	132.6173	140.4353	92.21480
#1	-.000061	-.000010	.0123655	-.000119	-.000268	-.002392	.0121455
#2	-.000070	-.000037	.0277569	.000095	-.000454	.000941	-.000439
#3	-.000013	.000058	-.008103	.000198	.000093	-.006386	.010684

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000397	.0320483	.0000193	.0010708	-.015452	.0032905	-.000007
Stddev	.001249	.0997371	.0002166	.0005252	.233690	.0075006	.000436
%RSD	314.5598	311.2090	1120.777	49.04171	1512.381	227.9497	5966.102
#1	-.000083	.0537808	.0002603	.0015276	-.227072	.0009000	.000488
#2	.000665	.1191273	-.000043	.0004970	.235353	-.002724	-.000335
#3	-.001773	-.076763	-.000159	.0011878	-.054636	.011695	-.000175

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.083041	.0011903	.0009219	-.000047	-.008397	-.000161	.0006063
Stddev	.010318	.0012262	.0007376	.000198	.004747	.000751	.0008765
%RSD	12.42557	103.0149	80.00409	417.9534	56.53779	466.9689	144.5696
#1	-.089561	.0023327	.0011215	-.000272	-.012972	-.000622	.0012200
#2	-.071145	-.000105	.0001051	.000102	-.003494	.000706	-.000398
#3	-.088417	.001343	.0015391	.000027	-.008726	-.000566	.000996

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB031 Acquired: 10/20/2024 19:59:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.0001613	.0027120	.0000404
Stddev	.0009373	.0026000	.0000270
%RSD	581.2133	95.86946	66.91376
#1	-.000173	-.000289	.0000703
#2	.001220	.004127	.0000331
#3	-.000563	.004297	.0000177

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1087.263	23113.08	2837.283	891.8614	2010.657
Stddev	1.816	19.41	9.781	1.5292	1.071
%RSD	.1670641	.0839589	.3447275	.1714666	.0532713
#1	1085.220	23110.68	2835.111	890.3290	2010.291
#2	1087.875	23133.57	2828.771	893.3875	2011.864
#3	1088.695	23094.98	2847.968	891.8677	2009.817

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4243-19DLX2 Acquired: 10/20/2024 20:04:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD078 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1608020	-.028755	.2932556	.0015175	.0063082	97.68939	8.116883
Stddev	.0064494	.002529	.0025660	.0054912	.0018368	.20059	.029094
%RSD	4.010793	8.793559	.8750132	361.8481	29.11752	.2053346	.3584391
#1	.1682334	-.030918	.2961031	.0029690	.0078199	97.65017	8.122477
#2	.1566665	-.025975	.2925415	-.004554	.0042640	97.51131	8.085399
#3	.1575061	-.029371	.2911223	.006137	.0068409	97.90670	8.142775

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0071617	.0036295	18.26942	.2387526	.1516296	2.202309	265.4605
Stddev	.0002419	.0000868	.10145	.0005689	.0011885	.009207	.7806
%RSD	3.377296	2.391074	.5552830	.2382885	.7838231	.4180569	.2940382
#1	.0069173	.0036512	18.23353	.2388460	.1518401	2.210277	265.4336
#2	.0071669	.0037034	18.19079	.2392690	.1526988	2.204420	264.6937
#3	.0074010	.0035340	18.38393	.2381427	.1503499	2.192230	266.2541

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.99101	37.03303	.2390767	-.022733	.9951910	.4817169	.5374097
Stddev	.05521	.08880	.0008842	.000271	.2994131	.0045461	.0030890
%RSD	.3068721	.2397948	.3698409	1.193276	30.08600	.9437294	.5747876
#1	17.98211	36.98928	.2380748	-.022958	1.306223	.4764751	.5352136
#2	17.94080	36.97458	.2397475	-.022432	.970413	.4845820	.5360737
#3	18.05013	37.13521	.2394080	-.022807	.708937	.4840935	.5409418

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.88250	3.159019	.2784036	.0001227	.3277142	7.296388	.0106848
Stddev	.14663	.005020	.0016271	.0003805	.0048753	.015839	.0022937
%RSD	.7375055	.1589221	.5844353	310.2339	1.487680	.2170736	21.46702
#1	19.79117	3.164708	.2774692	.0000153	.3227941	7.287818	.0117305
#2	19.80468	3.157143	.2774592	-.000193	.3278049	7.286681	.0080546
#3	20.05164	3.155208	.2802824	.000545	.3325435	7.314665	.0122693

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4243-19DLX2 Acquired: 10/20/2024 20:04:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD078 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.250211	.0764095	.1617958
Stddev	.008767	.0020435	.0004035
%RSD	.2697456	2.674467	.2493652
#1	3.243809	.0766462	.1618366
#2	3.246620	.0742579	.1613735
#3	3.260204	.0783244	.1621773

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1148.087	24943.76	3098.447	948.5385	1859.409
Stddev	1.458	56.32	7.473	2.8428	2.396
%RSD	.1270309	.2257740	.2411750	.2997066	.1288810
#1	1146.532	24926.74	3106.182	949.8901	1857.148
#2	1149.424	24897.91	3097.892	950.4534	1861.921
#3	1148.304	25006.62	3091.268	945.2720	1859.157

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4244-10DLX2 Acquired: 10/20/2024 20:08:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD089 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6759766	-.037504	.1194505	.0512317	.0063109	141.1057	1.232583
Stddev	.0069173	.000900	.0033880	.0041496	.0038805	3.5801	.033112
%RSD	1.023311	2.401046	2.836285	8.099685	61.48901	2.537190	2.686351
#1	.6809359	-.038502	.1228532	.0559818	.0051484	138.7739	1.213864
#2	.6789195	-.037258	.1194209	.0483120	.0106397	145.2278	1.270814
#3	.6680745	-.036752	.1160775	.0494013	.0031444	139.3154	1.213071

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069592	-.000483	26.61508	.3916081	.1691877	.3087588	289.2874
Stddev	.0002720	.000160	.64895	.0008804	.0025561	.0056174	7.3043
%RSD	3.908563	33.18225	2.438265	.2248281	1.510833	1.819353	2.524940
#1	.0069380	-.000334	26.21910	.3916031	.1680012	.3074542	285.0594
#2	.0072413	-.000653	27.36401	.3907302	.1721215	.3149137	297.7217
#3	.0066985	-.000461	26.26214	.3924911	.1674404	.3039085	285.0811

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.511213	70.23829	.3566023	-.024945	1.163960	.5706432	.4095706
Stddev	.190112	1.81236	.0039329	.001046	.264162	.0078668	.0015035
%RSD	2.531049	2.580296	1.102890	4.192092	22.69513	1.378593	.3670885
#1	7.391881	69.30075	.3550734	-.024801	.922219	.5635917	.4098611
#2	7.730449	72.32737	.3610701	-.026056	1.445929	.5791282	.4079431
#3	7.411309	69.08675	.3536634	-.023979	1.123733	.5692097	.4109077

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.27643	4.270148	.3025505	-.001113	.3095678	8.904033	.0071055
Stddev	.72106	.045764	.0074955	.000760	.0114736	.209711	.0007882
%RSD	2.852683	1.071731	2.477424	68.24890	3.706324	2.355239	11.09282
#1	24.75975	4.252464	.2981555	-.000896	.3021656	8.764108	.0072845
#2	26.10019	4.322115	.3112052	-.001958	.3227846	9.145152	.0077887
#3	24.96935	4.235863	.2982909	-.000485	.3037532	8.802839	.0062431

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4244-10DLX2 Acquired: 10/20/2024 20:08:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD089 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.511161	.1098621	.1747961
Stddev	.075869	.0023333	.0043993
%RSD	3.021252	2.123807	2.516823
#1	2.464179	.1094316	.1718043
#2	2.598688	.1123806	.1798474
#3	2.470617	.1077741	.1727366

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1140.614	24896.54	3104.853	945.8852	1813.028
Stddev	7.650	91.23	71.150	5.1367	16.387
%RSD	.6707336	.3664194	2.291580	.5430602	.9038261
#1	1146.520	24917.58	3146.254	947.1240	1824.350
#2	1131.971	24975.40	3022.697	950.2892	1794.237
#3	1143.350	24796.63	3145.609	940.2423	1820.495

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4245-16DLX2 Acquired: 10/20/2024 20:13:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0A5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4173638	-.064159	.1594721	.0444855	.0083875	216.3045	.9429407
Stddev	.0153951	.001875	.0025125	.0062863	.0023924	1.3779	.0072841
%RSD	3.688655	2.922306	1.575487	14.13114	28.52359	.6370188	.7724887
#1	.4351271	-.065240	.1595197	.0372429	.0081359	214.7137	.9345301
#2	.4078842	-.061994	.1619604	.0485261	.0108958	217.1224	.9472220
#3	.4090801	-.065244	.1569362	.0476876	.0061308	217.0776	.9470699

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065838	-.000249	29.38796	.6365268	.2934687	.7936019	486.9361
Stddev	.0002997	.000155	.12662	.0011309	.0010531	.0061791	2.5033
%RSD	4.551811	62.22344	.4308582	.1776635	.3588403	.7786207	.5140890
#1	.0064565	-.000427	29.24222	.6370941	.2946706	.7874075	484.0582
#2	.0063687	-.000146	29.47100	.6352246	.2930274	.7936326	488.6092
#3	.0069260	-.000173	29.45065	.6372618	.2927080	.7997656	488.1409

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.487684	161.6633	.4992209	-.037124	1.684584	1.631877	.5454381
Stddev	.053712	1.0222	.0007669	.000331	.222385	.007235	.0019609
%RSD	.5661213	.6322907	.1536098	.8912693	13.20117	.4433717	.3595164
#1	9.425780	160.6998	.5000868	-.036758	1.732760	1.629175	.5452204
#2	9.521924	161.5548	.4986274	-.037403	1.878933	1.640074	.5474988
#3	9.515349	162.7355	.4989486	-.037210	1.442060	1.626381	.5435951

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.38941	1.719502	.4969768	-.003623	.7225953	8.046744	.0111198
Stddev	.11623	.011461	.0032974	.000257	.0101284	.019638	.0024351
%RSD	.8077536	.6665183	.6634832	7.092363	1.401668	.2440438	21.89856
#1	14.41188	1.730323	.4947363	-.003848	.7163157	8.063104	.0086329
#2	14.49276	1.720688	.5007631	-.003343	.7342796	8.024966	.0134995
#3	14.26358	1.707494	.4954311	-.003678	.7171905	8.052160	.0112268

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4245-16DLX2 Acquired: 10/20/2024 20:13:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0A5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.926092	.1521313	.2287081
Stddev	.021926	.0031192	.0006790
%RSD	.7493285	2.050362	.2968694
#1	2.901579	.1485409	.2281607
#2	2.943832	.1541738	.2284956
#3	2.932866	.1536793	.2294678

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1112.877	24352.65	3099.144	922.7782	1792.477
Stddev	.605	25.97	5.394	2.2708	3.606
%RSD	.0543730	.1066321	.1740426	.2460777	.2011931
#1	1112.198	24343.98	3103.236	922.8447	1789.426
#2	1113.076	24381.84	3101.166	920.4750	1791.548
#3	1113.358	24332.12	3093.032	925.0150	1796.457

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4246-19DLX2 Acquired: 10/20/2024 20:17:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0B4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1438016	-.045104	.2607816	-.006401	.0073942	101.1115	1.672936
Stddev	.0052723	.002557	.0034693	.005728	.0027976	.4146	.010041
%RSD	3.666360	5.668606	1.330359	89.49352	37.83493	.4100036	.6001806
#1	.1405698	-.046334	.2612549	-.004326	.0042664	101.5281	1.683670
#2	.1409495	-.042165	.2571000	-.012878	.0082589	101.1075	1.671364
#3	.1498856	-.046814	.2639901	-.001999	.0096574	100.6990	1.663774

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085580	.0012146	13.25374	.2774938	.2095300	1.559983	442.8075
Stddev	.0002279	.0004012	.16846	.0018292	.0007231	.004990	2.3415
%RSD	2.663037	33.03175	1.271001	.6591959	.3451182	.3198977	.5287873
#1	.0086559	.0007527	13.34571	.2784487	.2101648	1.565745	444.6955
#2	.0082975	.0014145	13.35620	.2786479	.2087428	1.557102	443.5395
#3	.0087206	.0014766	13.05932	.2753847	.2096824	1.557102	440.1874

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.20039	44.00619	.2395094	-.036867	1.487791	.7004343	1.532632
Stddev	.08521	.08788	.0017192	.000730	.127146	.0029323	.009611
%RSD	.4218110	.1997065	.7178120	1.980555	8.545972	.4186378	.6271099
#1	20.29014	44.03172	.2389706	-.036946	1.622883	.7038085	1.535985
#2	20.19044	44.07849	.2381242	-.036101	1.470033	.6985037	1.540117
#3	20.12060	43.90837	.2414335	-.037555	1.370458	.6989907	1.521793

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.16910	3.929261	.4522848	-.001649	.5530194	8.826469	.0095578
Stddev	.04121	.016652	.0022080	.000336	.0020844	.012564	.0049997
%RSD	.2268394	.4237925	.4881918	20.35736	.3769190	.1423434	52.31027
#1	18.16550	3.910431	.4542407	-.002034	.5540642	8.839075	.0147429
#2	18.21200	3.942047	.4527232	-.001499	.5506192	8.826384	.0047669
#3	18.12980	3.935305	.4498904	-.001416	.5543749	8.813948	.0091634

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4246-19DLX2 Acquired: 10/20/2024 20:17:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0B4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.720959	.0815653	.1568283
Stddev	.011916	.0006999	.0007128
%RSD	.4379332	.8580507	.4545150
#1	2.734718	.0816278	.1576431
#2	2.714110	.0822317	.1565215
#3	2.714048	.0808362	.1563202

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1132.123	24678.52	3053.630	936.8743	1873.501
Stddev	1.668	252.34	3.391	6.7868	5.109
%RSD	.1473772	1.022515	.1110373	.7244073	.2727240
#1	1130.861	24538.96	3055.087	932.1763	1872.848
#2	1134.015	24526.79	3049.754	933.7912	1878.905
#3	1131.495	24969.82	3056.048	944.6553	1868.749

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4247-02DLX2 Acquired: 10/20/2024 20:21:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD9N2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0299393	-.012916	.0659827	-.002031	.0004298	44.11289	.5451697
Stddev	.0082862	.003450	.0006119	.001403	.0012580	.36336	.0046560
%RSD	27.67677	26.71469	.9272824	69.06443	292.6604	.8237140	.8540492
#1	.0299506	-.009219	.0660404	-.001453	.0014527	44.13666	.5466259
#2	.0382199	-.013476	.0653441	-.003630	.0008117	43.73822	.5399597
#3	.0216474	-.016052	.0665637	-.001010	-.000975	44.46378	.5489236

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027086	-.000232	84.17063	.1085911	.0446408	.1230275	96.71005
Stddev	.0000189	.000092	.80063	.0007426	.0005387	.0043546	.81891
%RSD	.6978498	39.50230	.9512037	.6838701	1.206848	3.539513	.8467644
#1	.0027192	-.000279	84.23274	.1083904	.0447687	.1262036	97.06455
#2	.0026868	-.000126	83.34075	.1079694	.0451041	.1248154	95.77362
#3	.0027199	-.000290	84.93840	.1094134	.0440496	.1180636	97.29197

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.297016	29.35654	.1530649	-.004967	2.029675	.2040888	.2173289
Stddev	.046849	.30605	.0011611	.000596	.074225	.0138097	.0011000
%RSD	.7439858	1.042524	.7585426	12.00537	3.657003	6.766537	.5061347
#1	6.306707	29.14909	.1538663	-.004318	2.115269	.2199529	.2185804
#2	6.246080	29.21249	.1517334	-.005490	1.983041	.1947581	.2168912
#3	6.338262	29.70803	.1535951	-.005095	1.990717	.1975553	.2165152

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.707627	4.820215	.1099718	-.000752	.6385291	8.695562	.0007031
Stddev	.030431	.014853	.0021793	.000313	.0092009	.068829	.0013234
%RSD	.3948105	.3081376	1.981660	41.57439	1.440957	.7915457	188.2104
#1	7.739312	4.815293	.1113811	-.000436	.6348169	8.708488	.0014424
#2	7.678630	4.808448	.1074617	-.001061	.6490063	8.621186	-.000825
#3	7.704938	4.836904	.1110726	-.000760	.6317643	8.757011	.001492

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4247-02DLX2 Acquired: 10/20/2024 20:21:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD9N2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.748482	.0378739	.4525757
Stddev	.030289	.0014039	.0044734
%RSD	.8080401	3.706743	.9884361
#1	3.767231	.0382563	.4534284
#2	3.713538	.0363184	.4477373
#3	3.764677	.0390470	.4565614

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1111.746	24095.56	2987.523	915.1232	1872.658
Stddev	2.501	80.68	22.602	5.2978	4.582
%RSD	.2249280	.3348280	.7565310	.5789123	.2446867
#1	1110.003	24004.49	2992.918	909.0410	1872.909
#2	1110.623	24124.12	3006.939	917.5972	1867.955
#3	1114.611	24158.07	2962.712	918.7313	1877.109

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4248-20DLX2 Acquired: 10/20/2024 20:26:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD9S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6359989	.0090137	.5145360	.0508958	.0077734	102.5813	1.420992
Stddev	.0042147	.0024921	.0059998	.0068272	.0030963	.0775	.001878
%RSD	.6626874	27.64732	1.166060	13.41400	39.83243	.0755981	.1321678
#1	.6330241	.0067830	.5136439	.0587526	.0103808	102.5990	1.419465
#2	.6341507	.0117033	.5209319	.0464085	.0085881	102.6485	1.423089
#3	.6408220	.0085549	.5090322	.0475262	.0043511	102.4965	1.420422

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077746	.0019804	24.05297	.2882376	.1589131	.5234550	317.5302
Stddev	.0003355	.0002730	.10457	.0007803	.0002416	.0064364	.8828
%RSD	4.315424	13.78359	.4347296	.2706970	.1520405	1.229608	.2780133
#1	.0075733	.0019111	24.05575	.2881387	.1589434	.5184226	316.7732
#2	.0075886	.0017488	24.15612	.2875115	.1586578	.5212348	318.4999
#3	.0081619	.0022813	23.94705	.2890625	.1591382	.5307077	317.3175

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.034102	49.80064	.3236215	-.026815	1.136503	.5991598	.6369253
Stddev	.019295	.12091	.0008492	.000824	.169468	.0032001	.0014500
%RSD	.2743051	.2427785	.2623926	3.073684	14.91138	.5340921	.2276591
#1	7.015731	49.87880	.3238763	-.025927	1.318791	.5957016	.6379920
#2	7.054204	49.86175	.3226741	-.027555	1.106985	.6020163	.6375095
#3	7.032370	49.66138	.3243141	-.026965	.983733	.5997615	.6352743

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.01504	6.045178	.3322213	-.000249	1.415645	8.949573	.0100533
Stddev	.04764	.020490	.0015126	.000657	.023323	.022280	.0011725
%RSD	.2070041	.3389402	.4553037	263.9758	1.647511	.2489501	11.66253
#1	23.06988	6.068819	.3312323	-.000689	1.439372	8.926476	.0108476
#2	22.98389	6.032549	.3339626	.000506	1.414815	8.970935	.0087067
#3	22.99134	6.034167	.3314690	-.000563	1.392748	8.951310	.0106056

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4248-20DLX2 Acquired: 10/20/2024 20:26:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD9S0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.723625	.0924023	.2029883
Stddev	.009050	.0024223	.0003414
%RSD	.3322610	2.621489	.1682117
#1	2.715314	.0900864	.2026017
#2	2.733266	.0949186	.2032487
#3	2.722294	.0922020	.2031143

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1156.090	25072.97	3144.318	952.8263	1863.707
Stddev	1.692	57.30	12.564	4.9286	1.702
%RSD	.1463290	.2285445	.3995691	.5172594	.0913281
#1	1155.227	25016.64	3156.229	947.7105	1865.334
#2	1155.003	25131.20	3131.190	957.5434	1861.938
#3	1158.039	25071.07	3145.536	953.2250	1863.849

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV032 Acquired: 10/20/2024 20:30:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV032 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.827846	4.575077	23.90765	4.513589	4.559169	392.4693	10.06196
Stddev	.001936	.019172	.02910	.004640	.002022	.6480	.02365
%RSD	.0400982	.4190637	.1217225	.1028083	.0443496	.1651173	.2350404
#1	4.830069	4.553092	23.87614	4.514731	4.556926	392.1838	10.07241
#2	4.826526	4.583815	23.91329	4.517551	4.559731	393.2111	10.07859
#3	4.826944	4.588324	23.93351	4.508484	4.560851	392.0131	10.03489

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5210031	2.403483	396.1757	14.52410	2.419576	14.38845	398.9098
Stddev	.0024006	.004804	.5705	.02286	.003135	.04431	.9329
%RSD	.4607584	.1998898	.1440003	.1573740	.1295777	.3079248	.2338715
#1	.5191842	2.399139	396.5343	14.54717	2.417003	14.36060	398.9634
#2	.5237240	2.402667	396.4750	14.52366	2.418655	14.43954	399.8149
#3	.5201009	2.408643	395.5179	14.50147	2.423068	14.36521	397.9513

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.67720	400.3417	2.400744	1.253079	389.4421	2.439094	13.76210
Stddev	.03760	.7530	.004492	.001429	.2851	.008653	.06872
%RSD	.2562094	.1880952	.1871193	.1140145	.0732019	.3547602	.4993273
#1	14.68266	399.9064	2.398880	1.254712	389.1179	2.448875	13.77098
#2	14.71178	401.2112	2.397484	1.252061	389.6536	2.435970	13.82594
#3	14.63716	399.9075	2.405868	1.252464	389.5549	2.432437	13.68937

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	149.8769	4.719836	4.927847	4.514288	4.846461	4.832382	4.791634
Stddev	.2530	.020812	.006102	.001004	.012954	.010707	.002066
%RSD	.1688046	.4409550	.1238336	.0222498	.2672803	.2215593	.0431256
#1	149.5848	4.697640	4.920970	4.513441	4.837367	4.824973	4.793239
#2	150.0184	4.738913	4.932614	4.514024	4.840724	4.844658	4.792361
#3	150.0276	4.722955	4.929957	4.515398	4.861293	4.827516	4.789302

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV032 Acquired: 10/20/2024 20:30:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV032 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.827312	4.965853	4.879621
Stddev	.006894	.016521	.005828
%RSD	.1428049	.3327004	.1194320
#1	4.819628	4.973694	4.876930
#2	4.832954	4.976993	4.886308
#3	4.829353	4.946871	4.875624

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	884.2913	21405.13	2766.831	695.7435	1539.042
Stddev	1.1813	52.23	6.600	2.0283	1.722
%RSD	.1335840	.2439880	.2385522	.2915281	.1119117
#1	883.0432	21392.78	2773.666	695.0539	1538.424
#2	884.4389	21462.42	2766.336	694.1500	1540.989
#3	885.3919	21360.19	2760.493	698.0267	1537.715

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB032 Acquired: 10/20/2024 20:42:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB032 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019476	-.002218	-.003758	.0000798	-.002830	-.001651	-.000176
Stddev	.0008393	.001138	.001616	.0071401	.003050	.008319	.000383
%RSD	43.09565	51.30171	43.00331	8951.777	107.7632	503.9891	217.7981
#1	.0009798	-.001924	-.005527	-.002328	-.001582	-.011060	.000261
#2	.0023871	-.003475	-.002359	-.005545	-.006306	.001378	-.000450
#3	.0024760	-.001256	-.003388	.008113	-.000602	.004730	-.000338

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001451	-.000048	.0150251	.0002902	-.000039	.0033811	.0115543
Stddev	.0000904	.000055	.0163738	.0006692	.000227	.0035365	.0181391
%RSD	62.29857	115.1650	108.9761	230.5855	580.4442	104.5958	156.9897
#1	.0002269	-.000081	.0048364	-.000477	.000216	.0062542	-.008423
#2	.0000481	.000016	.0063267	.000594	-.000114	-.000569	.026993
#3	.0001602	-.000078	.0339124	.000753	-.000219	.004457	.016094

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000408	.0143315	-.000302	.0005219	-.127948	.0025901	-.000108
Stddev	.001171	.0165324	.000316	.0008360	.171856	.0070905	.000420
%RSD	286.6589	115.3569	104.6908	160.1838	134.3166	273.7486	388.1442
#1	.000487	.0074404	-.000187	.0014851	-.251434	.0081106	.000261
#2	-.001733	.0023594	-.000659	.0000958	.068323	.0050662	-.000565
#3	.000021	.0331946	-.000060	-.000015	-.200733	-.005406	-.000020

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0318023	-.001504	.0023528	-.000013	-.010800	.0015570	.0009235
Stddev	.0264074	.002716	.0008982	.000427	.007187	.0008301	.0014938
%RSD	83.03628	180.5968	38.17598	3242.376	66.54363	53.31526	161.7567
#1	.0161385	.000932	.0024926	-.000077	-.016483	.0014234	.0012341
#2	.0622912	-.001011	.0031729	.000442	-.013196	.0008019	.0022376
#3	.0169772	-.004433	.0013929	-.000405	-.002722	.0024459	-.000701

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB032 Acquired: 10/20/2024 20:42:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB032 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000679	.0039145	.0001143
Stddev	.000876	.0012816	.0000490
%RSD	129.1017	32.73949	42.85361
#1	-.001651	.0031229	.0001706
#2	-.000438	.0053931	.0000902
#3	.000052	.0032274	.0000820

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1091.876	23390.71	2871.712	899.4104	2010.536
Stddev	4.317	111.77	2.625	3.7426	7.397
%RSD	.3954055	.4778446	.0914055	.4161181	.3678871
#1	1091.782	23277.30	2874.600	896.3360	2013.136
#2	1087.607	23394.05	2869.471	898.3174	2002.190
#3	1096.240	23500.77	2871.064	903.5778	2016.281

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-01DLX2 Acquired: 10/20/2024 20:46:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB73 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3464189	-.036307	.3327378	.0094345	.0073529	134.7203	.9767725
Stddev	.0198444	.002167	.0072530	.0056408	.0059800	.2793	.0030519
%RSD	5.728450	5.968897	2.179782	59.78893	81.32937	.2073185	.3124444
#1	.3249300	-.038691	.3405661	.0155636	.0068222	134.9888	.9799962
#2	.3640533	-.034456	.3314010	.0044611	.0135805	134.7409	.9763933
#3	.3502735	-.035774	.3262462	.0082788	.0016558	134.4313	.9739279

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078011	.0035939	42.40976	.1217351	.1214781	.3899711	281.1094
Stddev	.0003089	.0002335	.14020	.0003021	.0008399	.0080451	.7678
%RSD	3.959354	6.496815	.3305742	.2481878	.6914116	2.062998	.2731395
#1	.0080665	.0033953	42.54487	.1216828	.1211588	.3867246	281.7695
#2	.0074621	.0035354	42.41943	.1220599	.1208446	.3991322	281.2917
#3	.0078748	.0038511	42.26498	.1214625	.1224308	.3840566	280.2668

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.538107	45.18351	.1445084	-.026064	1.014796	.4512750	1.012949
Stddev	.012948	.11503	.0004680	.000335	.262288	.0055722	.004352
%RSD	.2853275	.2545733	.3238566	1.286073	25.84637	1.234779	.4295938
#1	4.552963	45.20869	.1439849	-.026439	1.197518	.4574730	1.016407
#2	4.532140	45.28386	.1446541	-.025963	1.132610	.4466799	1.008063
#3	4.529218	45.05798	.1448862	-.025791	.714259	.4496720	1.014377

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.85093	6.013870	.2843574	-.000233	1.495668	3.827140	.0076025
Stddev	.11084	.018705	.0004593	.000929	.011781	.004493	.0014279
%RSD	.7463350	.3110242	.1615371	399.5510	.7876575	.1174010	18.78258
#1	14.83970	5.992637	.2843707	.000648	1.506512	3.823432	.0079522
#2	14.96696	6.021056	.2848100	-.001204	1.497360	3.825851	.0088231
#3	14.74613	6.027915	.2838916	-.000142	1.483133	3.832136	.0060322

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-01DLX2 Acquired: 10/20/2024 20:46:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB73 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.068918	.0729367	.2297615
Stddev	.002532	.0023487	.0005353
%RSD	.1223821	3.220213	.2329823
#1	2.068967	.0754792	.2296127
#2	2.071425	.0724831	.2303554
#3	2.066362	.0708479	.2293162

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1205.744	26169.53	3287.869	999.8559	1846.568
Stddev	1.509	16.96	7.491	5.7892	2.356
%RSD	.1251501	.0648263	.2278230	.5789996	.1275826
#1	1207.466	26187.01	3279.447	998.0570	1845.117
#2	1205.114	26153.13	3290.377	1006.331	1849.286
#3	1204.653	26168.45	3293.784	995.180	1845.299

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-02DLX2 Acquired: 10/20/2024 20:51:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB74 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0939616	-.027828	.1399026	-.002082	.0059632	90.99080	1.037637
Stddev	.0039699	.002698	.0031328	.005297	.0004667	.56730	.005241
%RSD	4.225006	9.696398	2.239251	254.3907	7.825746	.6234705	.5050575
#1	.0898380	-.027151	.1425478	-.000212	.0061298	91.36310	1.041107
#2	.0977575	-.025532	.1364431	-.008061	.0063237	90.33788	1.031608
#3	.0942893	-.030800	.1407171	.002026	.0054361	91.27142	1.040196

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062464	-.000056	36.14344	.1030689	.1044953	.2013429	233.9764
Stddev	.0001190	.000243	.14342	.0009159	.0001659	.0023633	1.4027
%RSD	1.905333	435.9466	.3968187	.8886077	.1587907	1.173760	.5995175
#1	.0062919	.000131	36.09329	.1037019	.1046829	.2017730	234.9467
#2	.0061113	-.000331	36.03183	.1034861	.1044349	.1987941	232.3680
#3	.0063359	.000032	36.30521	.1020187	.1043680	.2034616	234.6144

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.002249	33.56930	.1045949	-.021809	.9790257	.4503487	.3581502
Stddev	.015042	.18690	.0005773	.000685	.2510696	.0017739	.0026048
%RSD	.3758273	.5567604	.5519176	3.143009	25.64484	.3938993	.7272984
#1	4.012768	33.57472	.1052580	-.022042	1.075732	.4520739	.3573233
#2	3.985021	33.37975	.1043225	-.021037	1.167362	.4485298	.3610680
#3	4.008960	33.75343	.1042043	-.022347	.693983	.4504424	.3560591

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.713512	4.631520	.2394358	.0004351	.2750061	2.745066	.0081907
Stddev	.118372	.029013	.0016970	.0001923	.0040621	.018374	.0010126
%RSD	1.534609	.6264320	.7087269	44.19395	1.477107	.6693544	12.36341
#1	7.848118	4.663333	.2400960	.0003150	.2729199	2.762327	.0091001
#2	7.666774	4.624708	.2375079	.0003335	.2724110	2.725751	.0083726
#3	7.625644	4.606518	.2407034	.0006569	.2796874	2.747120	.0070995

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-02DLX2 Acquired: 10/20/2024 20:51:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB74 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.222247	.0447063	.1932624
Stddev	.017425	.0003839	.0015378
%RSD	.7841364	.8586713	.7956972
#1	2.227624	.0446993	.1941160
#2	2.202767	.0450937	.1914872
#3	2.236351	.0443260	.1941841

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1190.179	25672.50	3193.798	978.8658	1888.703
Stddev	5.832	87.56	16.489	6.1795	8.895
%RSD	.4900316	.3410517	.5162708	.6312953	.4709678
#1	1183.459	25672.07	3191.002	979.3827	1878.582
#2	1193.921	25585.16	3211.505	972.4441	1895.279
#3	1193.157	25760.27	3178.885	984.7707	1892.250

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-03DLX2 Acquired: 10/20/2024 20:55:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB75 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2179217	-.027866	.2464461	.0015632	.0035046	94.35614	.7659514
Stddev	.0030619	.004693	.0038287	.0057428	.0022252	.40775	.0021975
%RSD	1.405045	16.84022	1.553564	367.3681	63.49408	.4321396	.2868987
#1	.2213235	-.028954	.2432761	-.004802	.0032855	94.21516	.7656476
#2	.2170549	-.031919	.2453624	.006357	.0013970	94.03759	.7639216
#3	.2153866	-.022725	.2506999	.003134	.0058312	94.81567	.7682850

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061508	.0019684	30.77909	.0950592	.0985671	.3246384	221.2068
Stddev	.0000779	.0002809	.09709	.0003833	.0003398	.0017142	1.2767
%RSD	1.265982	14.27140	.3154429	.4032444	.3447920	.5280409	.5771385
#1	.0060757	.0022260	30.80199	.0950016	.0982427	.3239626	220.3242
#2	.0061455	.0020103	30.67259	.0954681	.0989206	.3233650	220.6256
#3	.0062312	.0016689	30.86267	.0947080	.0985380	.3265875	222.6707

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.576416	34.33983	.1095264	-.020027	1.089692	.4164656	.6718182
Stddev	.016447	.40347	.0006761	.000435	.112024	.0065075	.0036380
%RSD	.4598771	1.174939	.6173266	2.174241	10.28035	1.562547	.5415088
#1	3.582275	34.16775	.1101879	-.019527	1.207780	.4175919	.6743926
#2	3.557842	34.05093	.1088366	-.020320	1.076373	.4094685	.6734057
#3	3.589131	34.80081	.1095546	-.020235	.984923	.4223364	.6676562

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.12453	4.735292	.2239316	-.000387	.4088546	3.289848	.0088950
Stddev	.08516	.011961	.0009780	.000410	.0067565	.013816	.0013708
%RSD	.8411708	.2525970	.4367393	105.9204	1.652546	.4199564	15.41065
#1	10.08461	4.723590	.2228026	.000081	.4022711	3.289050	.0094515
#2	10.22232	4.747497	.2244743	-.000681	.4157718	3.276448	.0073335
#3	10.06666	4.734791	.2245179	-.000561	.4085208	3.304046	.0098999

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-03DLX2 Acquired: 10/20/2024 20:55:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB75 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.144638	.0512663	.1689225
Stddev	.009984	.0020803	.0006323
%RSD	.4655346	4.057879	.3743244
#1	2.146909	.0495509	.1688181
#2	2.133713	.0506677	.1683489
#3	2.153290	.0535803	.1696005

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1188.231	25742.23	3201.542	979.0291	1890.677
Stddev	3.681	47.07	9.342	4.9244	3.371
%RSD	.3097655	.1828650	.2918108	.5029872	.1783158
#1	1191.464	25704.18	3205.375	976.9868	1894.389
#2	1184.225	25727.63	3208.358	975.4544	1889.834
#3	1189.005	25794.87	3190.893	984.6461	1887.806

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-04DLX2 Acquired: 10/20/2024 20:59:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB76 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2578171	-.031316	.2759694	.0008755	.0066449	103.1483	.7985309
Stddev	.0050971	.001444	.0025713	.0023160	.0020581	.2111	.0017590
%RSD	1.977030	4.612135	.9317176	264.5437	30.97218	.2046576	.2202837
#1	.2602933	-.030414	.2770091	-.001761	.0055047	102.9277	.7968307
#2	.2612031	-.030552	.2778579	.002581	.0054094	103.1687	.8003434
#3	.2519550	-.032982	.2730410	.001807	.0090208	103.3484	.7984187

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0068361	.0024946	31.93185	.1043526	.1071690	.3625250	247.8885
Stddev	.0002845	.0001112	.08038	.0006433	.0006239	.0033968	.4369
%RSD	4.161367	4.457355	.2517349	.6164868	.5821135	.9369904	.1762433
#1	.0065092	.0024181	31.83948	.1036408	.1064798	.3595710	247.3996
#2	.0070273	.0026221	31.98597	.1045246	.1073323	.3617673	248.2405
#3	.0069719	.0024435	31.97009	.1048924	.1076950	.3662367	248.0254

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.652929	36.70383	.1228289	-.021915	.8721640	.4488166	.8360604
Stddev	.011097	.12722	.0003369	.000311	.0627399	.0029933	.0027958
%RSD	.3037793	.3466031	.2743256	1.418966	7.193590	.6669348	.3344081
#1	3.641323	36.56493	.1226915	-.021635	.8349945	.4514083	.8335233
#2	3.663435	36.73189	.1232128	-.021860	.9446014	.4455403	.8390579
#3	3.654028	36.81468	.1225823	-.022250	.8368960	.4495013	.8356000

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.75434	5.531887	.2523051	-.000278	.7609333	2.603976	.0079609
Stddev	.07930	.011345	.0009556	.000330	.0041602	.010136	.0017615
%RSD	.6217807	.2050781	.3787611	118.8035	.5467199	.3892459	22.12732
#1	12.83903	5.518968	.2514666	-.000657	.7620855	2.602023	.0068542
#2	12.74216	5.536467	.2533456	-.000122	.7643959	2.594959	.0099922
#3	12.68183	5.540226	.2521030	-.000054	.7563184	2.614946	.0070363

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-04DLX2 Acquired: 10/20/2024 20:59:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB76 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.886775	.0530632	.1734762
Stddev	.005042	.0023531	.0005866
%RSD	.2672281	4.434462	.3381200
#1	1.880954	.0506200	.1729636
#2	1.889735	.0553143	.1733490
#3	1.889637	.0532553	.1741159

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1184.798	25589.59	3197.837	974.2156	1881.610
Stddev	1.715	78.69	6.805	2.1823	6.201
%RSD	.1447401	.3075139	.2128062	.2240093	.3295727
#1	1185.944	25528.79	3197.595	976.7088	1887.369
#2	1185.623	25561.51	3204.761	973.2855	1882.415
#3	1182.826	25678.47	3191.157	972.6524	1875.045

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-05DLX2 Acquired: 10/20/2024 21:04:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB77 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1742227	-.027297	.1828233	.0037620	.0032462	114.4625	.9639982
Stddev	.0040786	.001163	.0024331	.0076755	.0009466	.3401	.0016775
%RSD	2.341051	4.261695	1.330869	204.0249	29.16069	.2971230	.1740112
#1	.1699250	-.026121	.1816767	.0045003	.0041732	114.1369	.9626017
#2	.1780397	-.028447	.1856179	.0110417	.0022811	114.4353	.9635340
#3	.1747034	-.027324	.1811754	-.004256	.0032842	114.8154	.9658589

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066716	.0012404	39.11223	.0957531	.0907095	.2190975	217.6889
Stddev	.0001628	.0001247	.11268	.0011234	.0003692	.0003609	.6602
%RSD	2.439814	10.05161	.2881000	1.173173	.4070452	.1647024	.3032824
#1	.0068589	.0013835	39.00864	.0967075	.0903356	.2191714	217.0152
#2	.0065915	.0011553	39.09583	.0960365	.0910739	.2194156	217.7166
#3	.0065644	.0011825	39.23221	.0945151	.0907189	.2187054	218.3347

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.456729	38.12841	.1159026	-.021252	.8423299	.3789376	.5467063
Stddev	.008025	.22918	.0008028	.000365	.2146283	.0104021	.0037646
%RSD	.2321518	.6010702	.6926428	1.716886	25.48031	2.745074	.6886024
#1	3.455481	37.91005	.1161547	-.020842	.5948315	.3670402	.5493115
#2	3.449402	38.10811	.1165490	-.021542	.9772028	.3834568	.5423900
#3	3.465305	38.36706	.1150040	-.021372	.9549553	.3863158	.5484172

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.81496	4.344147	.2257210	-.000864	1.176280	4.109565	.0066091
Stddev	.06354	.005623	.0007306	.000076	.005728	.015847	.0016671
%RSD	.5875241	.1294365	.3236650	8.789872	.4869892	.3856100	25.22483
#1	10.74966	4.338542	.2263343	-.000928	1.178765	4.093446	.0084715
#2	10.81866	4.344111	.2259159	-.000884	1.180347	4.110126	.0060995
#3	10.87658	4.349788	.2249127	-.000780	1.169729	4.125125	.0052562

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-05DLX2 Acquired: 10/20/2024 21:04:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB77 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.778061	.0589100	.1944688
Stddev	.004084	.0006608	.0006983
%RSD	.2297060	1.121660	.3590615
#1	1.774078	.0582018	.1937390
#2	1.777865	.0590183	.1945368
#3	1.782239	.0595100	.1951306

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1198.471	25931.88	3261.245	991.4486	1864.247
Stddev	.915	70.19	10.388	4.3985	3.037
%RSD	.0763667	.2706528	.3185339	.4436467	.1629168
#1	1199.439	25850.84	3272.689	986.6857	1861.862
#2	1198.354	25973.00	3258.635	995.3574	1867.666
#3	1197.619	25971.80	3252.411	992.3027	1863.213

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-06DLX2 Acquired: 10/20/2024 21:08:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB78 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0970604	-.043536	.1372179	-.004073	.0068136	82.39433	.7591634
Stddev	.0058784	.005629	.0059347	.004195	.0011751	.27560	.0021054
%RSD	6.056428	12.93078	4.325023	103.0080	17.24683	.3344885	.2773320
#1	.0937667	-.040692	.1369335	-.001123	.0055042	82.19227	.7578007
#2	.1038472	-.050020	.1314304	-.008876	.0077766	82.28244	.7581012
#3	.0935674	-.039895	.1432896	-.002220	.0071601	82.70828	.7615883

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072704	-.000026	36.40662	.0941906	.1557179	.2074001	318.3778
Stddev	.0000795	.000245	.09263	.0008494	.0008113	.0038951	.6648
%RSD	1.093118	934.9450	.2544341	.9017825	.5209843	1.878072	.2088092
#1	.0073601	-.000129	36.34349	.0951014	.1549512	.2117407	318.4268
#2	.0072425	-.000203	36.36340	.0940503	.1556351	.2042094	317.6899
#3	.0072086	.000254	36.51296	.0934201	.1565674	.2062501	319.0168

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.981578	34.39566	.1254177	-.027322	.9816717	.6774838	.3954903
Stddev	.010203	.17499	.0018290	.000808	.2734209	.0087855	.0014993
%RSD	.2562507	.5087611	1.458314	2.957341	27.85258	1.296780	.3790998
#1	3.978300	34.37794	.1263774	-.026438	.7291378	.6794074	.3964328
#2	3.973416	34.23019	.1233086	-.028022	1.272039	.6851481	.3937614
#3	3.993017	34.57883	.1265671	-.027507	.943838	.6678960	.3962766

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.55149	5.633774	.3218108	.0007267	.1534179	5.029666	.0079878
Stddev	.08321	.018808	.0030059	.0004099	.0125674	.031245	.0017455
%RSD	.7886107	.3338406	.9340611	56.40151	8.191599	.6212213	21.85192
#1	10.45700	5.647010	.3203306	.0011956	.1412982	5.064741	.0070545
#2	10.58363	5.612245	.3198320	.0005472	.1663897	5.004808	.0069074
#3	10.61384	5.642068	.3252698	.0004371	.1525659	5.019450	.0100015

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-06DLX2 Acquired: 10/20/2024 21:08:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB78 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.156824	.0463206	.2016213
Stddev	.017887	.0002646	.0011808
%RSD	.4303077	.5713109	.5856331
#1	4.136689	.0465940	.2002840
#2	4.162909	.0460657	.2020595
#3	4.170875	.0463022	.2025203

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1161.494	25407.23	3159.941	967.4332	1860.028
Stddev	.733	55.36	13.229	3.6616	1.742
%RSD	.0631391	.2179010	.4186495	.3784811	.0936475
#1	1161.977	25348.43	3144.768	968.0506	1858.440
#2	1161.855	25458.35	3169.063	970.7468	1861.891
#3	1160.650	25414.91	3165.990	963.5022	1859.755

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-07DLX2 Acquired: 10/20/2024 21:13:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB79 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0671310	-.027819	.1060886	.0001882	.0026357	107.4619	.7506090
Stddev	.0066208	.003194	.0008396	.0052969	.0006622	.7464	.0054413
%RSD	9.862544	11.48075	.7914480	2814.612	25.12349	.6945478	.7249238
#1	.0594863	-.026217	.1069302	.0063000	.0020692	107.1759	.7494521
#2	.0710168	-.031497	.1052509	-.003070	.0033637	108.3089	.7565357
#3	.0708899	-.025744	.1060847	-.002665	.0024741	106.9007	.7458390

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057054	-.000205	44.44566	.0928903	.1126324	.1927897	224.3291
Stddev	.0000955	.000229	.32098	.0005841	.0008229	.0007146	1.6467
%RSD	1.672935	112.0214	.7221898	.6288291	.7306124	.3706826	.7340576
#1	.0057196	-.000462	44.27795	.0933823	.1121741	.1926540	223.7656
#2	.0056037	-.000129	44.81576	.0930438	.1135824	.1935624	226.1836
#3	.0057930	-.000023	44.24328	.0922447	.1121406	.1921526	223.0382

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.118322	43.13774	.1113439	-.020637	1.172023	.3799604	.3729191
Stddev	.042510	.33251	.0005499	.000391	.070558	.0025013	.0023904
%RSD	.8305500	.7708150	.4938512	1.897012	6.020199	.6583161	.6409907
#1	5.108326	43.07559	.1113967	-.021075	1.154879	.3807241	.3756689
#2	5.164940	43.49694	.1118655	-.020515	1.249573	.3819909	.3717509
#3	5.081701	42.84069	.1107695	-.020321	1.111616	.3771662	.3713375

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.683156	5.289716	.2313784	-.001027	.2505583	4.739559	.0050388
Stddev	.160282	.009138	.0001296	.000793	.0085340	.024706	.0018499
%RSD	2.086149	.1727487	.0560302	77.17973	3.406005	.5212701	36.71379
#1	7.753531	5.288152	.2314100	-.001488	.2409311	4.736069	.0057746
#2	7.796212	5.299536	.2312358	-.000112	.2535505	4.765825	.0029342
#3	7.499726	5.281462	.2314893	-.001481	.2571933	4.716785	.0064077

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-07DLX2 Acquired: 10/20/2024 21:13:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB79 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.958036	.0605994	.2194530
Stddev	.017521	.0024732	.0011866
%RSD	.5923123	4.081240	.5406980
#1	2.952083	.0607748	.2196291
#2	2.977757	.0629802	.2205416
#3	2.944267	.0580431	.2181881

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1196.486	25827.18	3203.995	984.5221	1863.261
Stddev	1.443	63.76	25.402	1.5784	2.146
%RSD	.1206295	.2468552	.7928240	.1603172	.1151782
#1	1196.994	25899.16	3214.574	982.8979	1860.894
#2	1197.606	25777.82	3175.014	986.0502	1863.811
#3	1194.857	25804.56	3222.398	984.6181	1865.079

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-08DLX2 Acquired: 10/20/2024 21:17:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB80 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3305664	-.030735	.3761559	.0047009	.0036152	100.0883	.7047186
Stddev	.0067032	.004106	.0015040	.0024804	.0014130	.5482	.0045795
%RSD	2.027794	13.35775	.3998439	52.76441	39.08665	.5477215	.6498413
#1	.3364001	-.030945	.3769882	.0034025	.0052382	99.6287	.7009557
#2	.3232440	-.034732	.3744197	.0031392	.0029488	100.6950	.7098176
#3	.3320550	-.026529	.3770598	.0075610	.0026585	99.9411	.7033826

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059034	.0036385	37.79197	.0876675	.0982648	.3519068	227.6442
Stddev	.0003173	.0000262	.26123	.0001533	.0003580	.0038420	1.4282
%RSD	5.374840	.7209521	.6912298	.1748873	.3643376	1.091778	.6273627
#1	.0057685	.0036344	37.68104	.0876355	.0982459	.3494484	226.7385
#2	.0056759	.0036665	38.09036	.0875328	.0979167	.3563342	229.2906
#3	.0062659	.0036145	37.60451	.0878344	.0986319	.3499379	226.9036

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.169941	37.28026	.1098854	-.019914	1.105865	.3902438	1.146813
Stddev	.022043	.24963	.0001836	.000735	.150469	.0114212	.001618
%RSD	.5286131	.6696007	.1670897	3.689044	13.60642	2.926690	.1411202
#1	4.149843	37.10092	.1098046	-.019304	1.271125	.3832964	1.144952
#2	4.193515	37.56536	.1100955	-.020730	.976785	.4034255	1.147602
#3	4.166464	37.17450	.1097560	-.019709	1.069685	.3840094	1.147886

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.85915	6.110230	.2381233	.0004790	1.695097	5.182832	.0091988
Stddev	.03936	.014268	.0024714	.0006390	.006277	.006841	.0012730
%RSD	.2649126	.2335176	1.037873	133.4161	.3703171	.1319908	13.83855
#1	14.81377	6.122840	.2356245	-.000223	1.695383	5.184055	.0087922
#2	14.87963	6.094742	.2405664	.000632	1.688682	5.188979	.0106254
#3	14.88405	6.113107	.2381788	.001028	1.701226	5.175462	.0081788

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-08DLX2 Acquired: 10/20/2024 21:17:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB80 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.034939	.0533394	.1971729
Stddev	.025050	.0015423	.0012951
%RSD	.8253860	2.891402	.6568232
#1	3.017041	.0519506	.1965072
#2	3.063567	.0530684	.1986654
#3	3.024209	.0549992	.1963460

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1178.257	25575.32	3166.525	975.1898	1872.568
Stddev	1.950	38.85	4.110	.0650	.293
%RSD	.1654808	.1519218	.1297868	.0066604	.0156503
#1	1180.253	25532.09	3166.755	975.1148	1872.246
#2	1178.163	25607.32	3162.305	975.2250	1872.818
#3	1176.356	25586.55	3170.515	975.2295	1872.642

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-09DLX2 Acquired: 10/20/2024 21:22:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB81 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5439956	-.031819	.5819165	-.001185	.0078910	80.36730	.9165673
Stddev	.0122154	.002295	.0045318	.004852	.0005747	.17540	.0019349
%RSD	2.245493	7.214128	.7787714	409.3498	7.283547	.2182461	.2111038
#1	.5384030	-.030675	.5864663	-.001861	.0085016	80.17476	.9145724
#2	.5355777	-.030320	.5818801	-.005664	.0078111	80.40918	.9166934
#3	.5580061	-.034461	.5774029	.003969	.0073605	80.51797	.9184360

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060652	.0053831	30.12116	.0862001	.0956229	.3954520	230.9577
Stddev	.0000826	.0001906	.06247	.0006234	.0003155	.0039029	.3180
%RSD	1.361108	3.541030	.2073966	.7232461	.3299607	.9869571	.1376774
#1	.0060294	.0053459	30.07288	.0860136	.0959838	.3992383	230.8319
#2	.0060065	.0052138	30.19172	.0868956	.0953990	.3956756	231.3194
#3	.0061596	.0055895	30.09889	.0856912	.0954860	.3914420	230.7219

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.172677	33.50725	.1113643	-.019418	.7496717	.4111245	1.534473
Stddev	.002093	.06059	.0006891	.000304	.4255104	.0026729	.008955
%RSD	.0659703	.1808182	.6187602	1.563564	56.75957	.6501418	.5835935
#1	3.172817	33.43813	.1121490	-.019184	1.137951	.4117235	1.537728
#2	3.174696	33.55118	.1108577	-.019310	.816279	.4134471	1.524346
#3	3.170517	33.53243	.1110863	-.019761	.294786	.4082029	1.541346

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.96132	6.837538	.2378533	.0002102	2.203705	4.454623	.0078686
Stddev	.04302	.006664	.0010469	.0004518	.008149	.013025	.0009195
%RSD	.2695241	.0974567	.4401590	214.8876	.3697826	.2923847	11.68541
#1	15.91165	6.843739	.2389211	-.000173	2.197693	4.463175	.0087165
#2	15.98636	6.830492	.2378102	.000708	2.200442	4.461062	.0068913
#3	15.98595	6.838383	.2368286	.000096	2.212980	4.439633	.0079980

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-09DLX2 Acquired: 10/20/2024 21:22:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB81 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.188128	.0498435	.1560886
Stddev	.002314	.0016088	.0003465
%RSD	.1057711	3.227672	.2219651
#1	2.186013	.0511448	.1557533
#2	2.187771	.0503409	.1560672
#3	2.190600	.0480447	.1564452

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1172.676	25438.23	3171.291	974.4488	1875.032
Stddev	1.558	61.54	7.803	2.8803	3.136
%RSD	.1328812	.2419094	.2460433	.2955787	.1672698
#1	1171.010	25490.86	3167.527	974.0302	1875.885
#2	1174.098	25370.57	3166.083	977.5155	1877.654
#3	1172.920	25453.25	3180.262	971.8008	1871.557

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-10DLX2 Acquired: 10/20/2024 21:26:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB82 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4667191	-.030369	.5348503	.0056893	.0084105	89.53181	.8152002
Stddev	.0027572	.002764	.0023655	.0023647	.0016026	.21332	.0043497
%RSD	.5907531	9.101473	.4422678	41.56390	19.05427	.2382645	.5335748
#1	.4637515	-.027371	.5327552	.0081525	.0078562	89.65030	.8155418
#2	.4692013	-.032816	.5374155	.0054782	.0102167	89.65960	.8193690
#3	.4672044	-.030918	.5343802	.0034373	.0071588	89.28555	.8106898

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061655	.0056358	36.13885	.0792131	.1007017	.3622245	228.5287
Stddev	.0003365	.0002033	.04605	.0009630	.0013302	.0065127	.3940
%RSD	5.456956	3.607025	.1274207	1.215759	1.320884	1.797961	.1723887
#1	.0061433	.0055691	36.13436	.0797871	.1001836	.3648453	228.9104
#2	.0058406	.0058641	36.18699	.0781013	.0997085	.3670184	228.5522
#3	.0065124	.0054743	36.09522	.0797510	.1022129	.3548097	228.1235

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.566807	33.02509	.1066093	-.020963	.8812759	.3849939	1.445634
Stddev	.005135	.15062	.0012418	.000504	.1964828	.0036952	.017325
%RSD	.1124339	.4560677	1.164765	2.401971	22.29527	.9598013	1.198421
#1	4.567792	33.16171	.1065002	-.020434	.9617481	.3842183	1.453231
#2	4.571377	33.04999	.1079020	-.021436	.6573317	.3890153	1.425808
#3	4.561251	32.86358	.1054257	-.021017	1.024748	.3817480	1.457861

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.33447	6.251968	.2351337	.0007286	2.184380	4.536371	.0087155
Stddev	.03991	.026092	.0001386	.0003532	.009316	.005455	.0015206
%RSD	.2302620	.4173394	.0589449	48.48233	.4264676	.1202483	17.44662
#1	17.34538	6.273800	.2352063	.0008048	2.193809	4.540942	.0094970
#2	17.36780	6.223071	.2349739	.0010375	2.175182	4.530333	.0096864
#3	17.29024	6.259032	.2352209	.0003435	2.184149	4.537840	.0069631

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-10DLX2 Acquired: 10/20/2024 21:26:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB82 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.001462	.0470426	.1824311
Stddev	.007632	.0016281	.0004198
%RSD	.3813357	3.460869	.2301162
#1	2.003347	.0466777	.1826779
#2	2.007975	.0488221	.1826691
#3	1.993064	.0456278	.1819464

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1177.339	25772.59	3216.087	983.3650	1865.980
Stddev	.626	160.67	6.017	8.1316	2.919
%RSD	.0531987	.6234227	.1871043	.8269139	.1564215
#1	1176.694	25670.67	3209.838	978.5043	1866.007
#2	1177.944	25957.81	3221.842	992.7525	1868.885
#3	1177.378	25689.30	3216.581	978.8381	1863.048

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-11DLX2 Acquired: 10/20/2024 21:30:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB83 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1462430	-.028704	.1465566	.0017783	.0042004	108.8414	.8675133
Stddev	.0067644	.001328	.0030188	.0043050	.0017819	.2211	.0021685
%RSD	4.625444	4.627572	2.059842	242.0850	42.42137	.2031101	.2499644
#1	.1521481	-.029882	.1434176	.0010275	.0060692	108.6318	.8660963
#2	.1477180	-.027264	.1468133	-.002102	.0025205	108.8200	.8664340
#3	.1388628	-.028967	.1494389	.006409	.0040116	109.0724	.8700097

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062927	.0004357	38.97697	.0920595	.1009167	.2521387	232.0287
Stddev	.0001153	.0000764	.03006	.0001268	.0007555	.0023900	.1590
%RSD	1.831538	17.54168	.0771206	.1377663	.7486590	.9478935	.0685181
#1	.0064244	.0003488	39.01053	.0922053	.1015898	.2540545	232.2116
#2	.0062105	.0004923	38.95253	.0919745	.1010608	.2494605	231.9497
#3	.0062431	.0004661	38.96784	.0919987	.1000995	.2529012	231.9246

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.624050	37.80461	.1083141	-.021457	.8017546	.4047016	.4748252
Stddev	.005334	.02114	.0008430	.000230	.2855938	.0027229	.0021141
%RSD	.1471804	.0559123	.7782856	1.070322	35.62110	.6728196	.4452460
#1	3.617916	37.80533	.1080526	-.021670	.5462167	.4056328	.4762696
#2	3.627595	37.82537	.1092568	-.021487	.7489989	.4016352	.4758075
#3	3.626639	37.78312	.1076328	-.021214	1.110048	.4068367	.4723987

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.840407	5.033385	.2371778	-.000091	.5554155	3.254737	.0089603
Stddev	.190270	.009257	.0007383	.000224	.0067937	.005918	.0013471
%RSD	2.152277	.1839135	.3112821	244.7422	1.223169	.1818212	15.03378
#1	8.970369	5.043186	.2375741	.000031	.5479637	3.256935	.0091285
#2	8.622014	5.024790	.2376334	-.000350	.5612643	3.259241	.0102154
#3	8.928837	5.032177	.2363260	.000045	.5570187	3.248034	.0075371

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-11DLX2 Acquired: 10/20/2024 21:30:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB83 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.158978	.0524212	.2159665
Stddev	.008977	.0025099	.0004299
%RSD	.4157881	4.787878	.1990496
#1	2.161728	.0544726	.2157832
#2	2.148948	.0531683	.2156586
#3	2.166258	.0496226	.2164576

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1197.150	25891.29	3223.263	993.3005	1869.610
Stddev	1.116	37.66	9.978	.8100	1.336
%RSD	.0932336	.1454715	.3095647	.0815473	.0714807
#1	1198.362	25934.77	3216.165	992.8807	1869.999
#2	1196.925	25869.13	3218.952	994.2342	1868.123
#3	1196.164	25869.96	3234.672	992.7865	1870.709

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-12DLX2 Acquired: 10/20/2024 21:35:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB84 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1644268	-.024066	.2095496	.0026332	.0045588	85.05184	.6657388
Stddev	.0047913	.002422	.0030074	.0090345	.0013621	.19076	.0022287
%RSD	2.913943	10.06587	1.435193	343.0997	29.87893	.2242918	.3347716
#1	.1608499	-.026855	.2077846	.0101359	.0036598	85.26984	.6683087
#2	.1698705	-.022486	.2130222	-.007395	.0061260	84.97017	.6645710
#3	.1625600	-.022857	.2078421	.005159	.0038907	84.91551	.6643366

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051372	.0013790	28.85288	.0732411	.0699256	.2640206	181.1597
Stddev	.0000073	.0001561	.07414	.0002422	.0001755	.0008943	.7170
%RSD	.1413388	11.31993	.2569649	.3306860	.2509711	.3387385	.3957623
#1	.0051328	.0014674	28.92129	.0731796	.0697261	.2630110	181.7681
#2	.0051331	.0014709	28.86326	.0730357	.0700561	.2643375	181.3416
#3	.0051456	.0011988	28.77410	.0735082	.0699945	.2647134	180.3692

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.011014	28.73183	.0846834	-.016247	.7608835	.3177362	.5884842
Stddev	.011207	.11805	.0009451	.000380	.2535754	.0077413	.0034434
%RSD	.3721884	.4108794	1.116087	2.341606	33.32644	2.436382	.5851363
#1	3.023184	28.80472	.0857743	-.016221	.7872172	.3250170	.5924320
#2	3.008737	28.59563	.0841653	-.015880	.4951688	.3096047	.5860996
#3	3.001120	28.79515	.0841107	-.016640	1.000264	.3185870	.5869211

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.10007	3.487043	.1892756	-.001067	.8206729	3.854060	.0063025
Stddev	.10005	.005238	.0006195	.000290	.0115198	.015219	.0007020
%RSD	.9905920	.1502122	.3273239	27.15054	1.403700	.3948915	11.13794
#1	10.21559	3.492792	.1897464	-.000735	.8251890	3.869374	.0071080
#2	10.04288	3.482541	.1895067	-.001195	.8292504	3.853869	.0058214
#3	10.04173	3.485795	.1885737	-.001270	.8075793	3.838937	.0059781

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-12DLX2 Acquired: 10/20/2024 21:35:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB84 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.095271	.0402717	.1566008
Stddev	.005280	.0015983	.0002139
%RSD	.2519966	3.968927	.1365771
#1	2.101158	.0409858	.1567800
#2	2.090953	.0384407	.1566582
#3	2.093702	.0413884	.1563640

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1172.354	25263.71	3136.656	967.7502	1896.637
Stddev	1.491	32.54	8.823	3.3682	1.937
%RSD	.1271979	.1287867	.2812954	.3480477	.1021110
#1	1170.656	25285.93	3126.632	963.9039	1895.944
#2	1172.957	25278.83	3140.091	970.1727	1898.825
#3	1173.450	25226.36	3143.245	969.1740	1895.143

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-13DLX2 Acquired: 10/20/2024 21:39:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB85 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2078674	-.026777	.2283065	-.001390	.0054213	96.85517	.8214711
Stddev	.0049815	.001032	.0044316	.003270	.0028022	.19865	.0029033
%RSD	2.396458	3.854923	1.941058	235.2491	51.68958	.2051039	.3534323
#1	.2025336	-.025671	.2260685	.002091	.0031818	96.84162	.8210616
#2	.2123992	-.027714	.2254403	-.004398	.0045184	97.06025	.8245575
#3	.2086694	-.026946	.2334108	-.001863	.0085637	96.66363	.8187943

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059067	.0017142	32.95368	.0845455	.0863590	.2791770	199.3298
Stddev	.0001170	.0001604	.09918	.0014823	.0007911	.0049064	.3642
%RSD	1.981462	9.355295	.3009630	1.753253	.9161044	1.757458	.1827297
#1	.0057724	.0016197	32.96606	.0856644	.0860768	.2796031	199.3705
#2	.0059606	.0018994	33.04609	.0851077	.0857476	.2838565	199.6720
#3	.0059870	.0016236	32.84890	.0828643	.0872525	.2740715	198.9469

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.397833	33.25548	.0956837	-.018058	.7623434	.3473736	.6718865
Stddev	.011689	.19249	.0004831	.001068	.3330023	.0096718	.0048862
%RSD	.3440063	.5788294	.5048729	5.915915	43.68141	2.784275	.7272314
#1	3.401183	33.16228	.0962301	-.018460	1.097668	.3554112	.6663842
#2	3.407481	33.47683	.0955081	-.016847	.431713	.3366397	.6757184
#3	3.384835	33.12733	.0953131	-.018867	.757650	.3500698	.6735568

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.557462	4.290496	.2042871	-.001286	.6714022	5.692241	.0087482
Stddev	.027388	.011384	.0005171	.000274	.0039156	.008681	.0022602
%RSD	.2865613	.2653396	.2531023	21.34137	.5831990	.1524970	25.83586
#1	9.573251	4.277390	.2048386	-.000974	.6757904	5.693429	.0064589
#2	9.573298	4.296167	.2038133	-.001492	.6682648	5.700266	.0109781
#3	9.525837	4.297932	.2042095	-.001391	.6701514	5.683027	.0088076

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-13DLX2 Acquired: 10/20/2024 21:39:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB85 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.340486	.0472611	.1817869
Stddev	.006121	.0014985	.0003139
%RSD	.2615325	3.170637	.1726840
#1	2.346864	.0487131	.1819648
#2	2.339936	.0473502	.1819714
#3	2.334659	.0457201	.1814244

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1174.309	25380.55	3147.540	966.4983	1874.655
Stddev	.589	162.60	8.221	5.3236	2.678
%RSD	.0501776	.6406522	.2611800	.5508148	.1428552
#1	1173.935	25469.82	3144.913	971.7702	1873.782
#2	1174.003	25192.86	3140.954	961.1244	1877.661
#3	1174.988	25478.95	3156.753	966.6002	1872.523

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-14DLX2 Acquired: 10/20/2024 21:44:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB86 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2680256	-.028422	.3781972	.0052900	.0084308	88.28156	.9637045
Stddev	.0056651	.002058	.0041009	.0033279	.0013444	.43213	.0059348
%RSD	2.113639	7.240275	1.084331	62.91014	15.94586	.4894850	.6158274
#1	.2632559	-.028407	.3734684	.0029670	.0091805	88.43496	.9644946
#2	.2665335	-.030486	.3803468	.0038004	.0092331	88.61606	.9692046
#3	.2742874	-.026371	.3807764	.0091025	.0068787	87.79367	.9574143

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057035	.0045361	55.91443	.0929050	.0999171	.3864781	209.6125
Stddev	.0002972	.0001123	.29245	.0011009	.0002587	.0033250	1.1573
%RSD	5.211569	2.476787	.5230284	1.184963	.2589312	.8603420	.5521153
#1	.0058491	.0044103	55.98334	.0941451	.0998634	.3876147	209.9853
#2	.0058999	.0046264	56.16627	.0920430	.1001985	.3890858	210.5374
#3	.0053616	.0045717	55.59368	.0925269	.0996895	.3827338	208.3147

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.478761	36.61515	.1235665	-.019245	.9399368	.3334163	1.017445
Stddev	.034312	.23060	.0006256	.001155	.2035916	.0041656	.005053
%RSD	.6262796	.6297869	.5063122	6.002029	21.66014	1.249374	.4966053
#1	5.490291	36.77960	.1241493	-.019065	.7691414	.3380007	1.021549
#2	5.505823	36.71429	.1229054	-.020480	1.165232	.3323849	1.011802
#3	5.440169	36.35156	.1236448	-.018191	.885437	.3298632	1.018984

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.14218	7.932992	.2465449	-.000361	7.204939	2.835512	.0050410
Stddev	.14851	.017522	.0025681	.000304	.015514	.020808	.0028708
%RSD	.5680678	.2208740	1.041637	84.10825	.2153256	.7338495	56.94923
#1	26.18198	7.941898	.2488591	-.000011	7.222567	2.836175	.0080999
#2	26.26673	7.944271	.2469937	-.000528	7.198883	2.855981	.0046180
#3	25.97783	7.912806	.2437820	-.000546	7.193365	2.814380	.0024052

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-14DLX2 Acquired: 10/20/2024 21:44:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB86 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.091888	.0553627	.2375642
Stddev	.010443	.0014029	.0010414
%RSD	.4992369	2.534016	.4383558
#1	2.090165	.0564102	.2382322
#2	2.103085	.0559091	.2380960
#3	2.082413	.0537688	.2363643

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1186.929	25952.61	3247.098	990.2996	1857.468
Stddev	1.731	190.35	15.548	7.8993	3.304
%RSD	.1458425	.7334383	.4788255	.7976706	.1778969
#1	1188.007	25830.19	3237.561	983.5841	1856.246
#2	1184.932	26171.91	3238.694	999.0030	1854.948
#3	1187.847	25855.74	3265.039	988.3117	1861.209

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-15DLX2 Acquired: 10/20/2024 21:48:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB87 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4643138	-.029277	.5638809	.0012664	.0095997	95.39804	.8392883
Stddev	.0021616	.002870	.0042454	.0070199	.0014219	.15251	.0026134
%RSD	.4655513	9.802751	.7528860	554.3051	14.81193	.1598720	.3113790
#1	.4628128	-.027395	.5687376	-.006828	.0101323	95.55359	.8422683
#2	.4633373	-.032581	.5608759	.005688	.0079884	95.24875	.8382097
#3	.4667914	-.027857	.5620293	.004939	.0106785	95.39179	.8373869

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061921	.0054774	35.86228	.0864150	.0947749	.3431962	249.4168
Stddev	.0000568	.0001218	.12967	.0005950	.0001781	.0063616	.7159
%RSD	.9180343	2.223463	.3615872	.6885637	.1879294	1.853631	.2870151
#1	.0062573	.0055651	35.99679	.0862153	.0948892	.3493929	250.1138
#2	.0061659	.0055289	35.85200	.0870842	.0945697	.3435142	248.6835
#3	.0061530	.0053384	35.73805	.0859456	.0948659	.3366816	249.4532

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.502620	33.33673	.1037307	-.021738	.9220837	.4276208	1.542418
Stddev	.015789	.11868	.0005795	.000628	.0837568	.0102738	.006713
%RSD	.3506545	.3560166	.5586126	2.890222	9.083423	2.402539	.4352161
#1	4.520307	33.47160	.1037781	-.021775	.8417432	.4325737	1.534750
#2	4.497602	33.24822	.1042851	-.021092	1.008883	.4344799	1.545269
#3	4.489949	33.29038	.1031291	-.022347	.915625	.4158089	1.547235

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.55463	6.066627	.2568592	.0000343	2.451558	2.084250	.0074699
Stddev	.06516	.007612	.0014663	.0004577	.006409	.011123	.0024731
%RSD	.3711767	.1254661	.5708568	1334.441	.2614286	.5336716	33.10691
#1	17.62985	6.066367	.2570136	-.000454	2.446477	2.092823	.0058158
#2	17.51559	6.059149	.2553218	.000454	2.458759	2.071681	.0103129
#3	17.51845	6.074365	.2582421	.000103	2.449440	2.088246	.0062810

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-15DLX2 Acquired: 10/20/2024 21:48:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB87 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.220514	.0485226	.1883100
Stddev	.002861	.0018826	.0004988
%RSD	.1288253	3.879734	.2648714
#1	2.220943	.0490757	.1887392
#2	2.217464	.0464254	.1877628
#3	2.223136	.0500666	.1884281

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1186.038	25750.13	3221.090	984.6139	1878.815
Stddev	1.314	97.28	12.356	4.5393	.948
%RSD	.1107725	.3777998	.3836023	.4610184	.0504344
#1	1184.883	25791.66	3209.456	989.7271	1879.712
#2	1187.467	25638.97	3234.060	983.0555	1878.908
#3	1185.764	25819.75	3219.754	981.0591	1877.824

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-16DLX2 Acquired: 10/20/2024 21:52:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0696897	-.026001	.0910461	-.002275	.0034885	103.9938	.8930510
Stddev	.0130728	.000917	.0024312	.005078	.0025155	.1922	.0025693
%RSD	18.75857	3.526054	2.670322	223.1682	72.10893	.1848503	.2877033
#1	.0774117	-.026745	.0901199	-.007940	.0037862	103.7839	.8901119
#2	.0545959	-.026281	.0938043	.001869	.0008374	104.0363	.8948710
#3	.0770615	-.024977	.0892142	-.000756	.0058419	104.1612	.8941701

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060914	-.000280	37.94380	.0810307	.0902012	.1626734	201.9614
Stddev	.0001940	.000117	.11865	.0009448	.0005906	.0038016	.8531
%RSD	3.184774	41.70563	.3127018	1.165925	.6548132	2.336975	.4224031
#1	.0062695	-.000285	37.82668	.0815716	.0900030	.1653500	201.1771
#2	.0058847	-.000160	37.94081	.0799398	.0908654	.1643483	201.8373
#3	.0061200	-.000394	38.06392	.0815808	.0897351	.1583219	202.8697

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.351992	37.46403	.1009644	-.019076	.9103084	.3384381	.3125240
Stddev	.004149	.23969	.0005047	.000174	.2965810	.0084172	.0023334
%RSD	.1237904	.6397998	.4998282	.9111877	32.58028	2.487088	.7466363
#1	3.350792	37.25547	.1010299	-.018902	1.126692	.3299046	.3143973
#2	3.348574	37.41074	.1014330	-.019077	1.031994	.3467341	.3099102
#3	3.356609	37.72588	.1004302	-.019250	.572239	.3386756	.3132645

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.703221	4.003739	.2051292	-.000855	.2020763	2.312947	.0074561
Stddev	.122756	.001454	.0006935	.000124	.0063286	.010837	.0032666
%RSD	1.831298	.0363070	.3380884	14.50017	3.131808	.4685290	43.81104
#1	6.569207	4.004518	.2046740	-.000934	.2086004	2.301637	.0111732
#2	6.810218	4.004637	.2047862	-.000918	.1959631	2.313965	.0050427
#3	6.730239	4.002062	.2059273	-.000712	.2016655	2.323239	.0061524

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-16DLX2 Acquired: 10/20/2024 21:52:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.815384	.0523521	.2012310
Stddev	.002899	.0034331	.0004881
%RSD	.1597136	6.557663	.2425699
#1	1.812871	.0556695	.2012437
#2	1.814725	.0525729	.2007367
#3	1.818556	.0488140	.2017127

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1199.027	25901.74	3205.232	986.8832	1871.591
Stddev	3.607	39.58	11.495	7.1783	2.573
%RSD	.3008667	.1527939	.3586395	.7273757	.1374934
#1	1202.114	25883.43	3214.549	984.5405	1874.062
#2	1195.062	25947.15	3208.762	994.9402	1868.926
#3	1199.907	25874.64	3192.386	981.1688	1871.784

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-17DLX2 Acquired: 10/20/2024 21:57:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0713252	-.021267	.0855535	.0016393	.0044966	106.1528	.8736565
Stddev	.0070593	.005184	.0068308	.0066853	.0030800	.2517	.0007003
%RSD	9.897382	24.37716	7.984256	407.8082	68.49576	.2371384	.0801600
#1	.0632344	-.017127	.0923299	-.002838	.0069518	105.8771	.8740131
#2	.0745108	-.019592	.0856609	.009324	.0054973	106.2110	.8728496
#3	.0762303	-.027081	.0786696	-.001568	.0010407	106.3704	.8741067

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061123	-.000300	36.62349	.0896766	.0873771	.1667888	199.0945
Stddev	.0000517	.000127	.12611	.0005318	.0009742	.0020901	.5526
%RSD	.8450186	42.31326	.3443401	.5930685	1.114906	1.253152	.2775762
#1	.0061242	-.000371	36.59467	.0892314	.0862725	.1681459	198.7278
#2	.0061570	-.000375	36.51428	.0895328	.0881134	.1643819	198.8257
#3	.0060558	-.000153	36.76151	.0902656	.0877455	.1678386	199.7302

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.383896	36.58310	.1054306	-.019876	1.010852	.3220129	.3152028
Stddev	.011621	.01701	.0010654	.000119	.379335	.0021594	.0026564
%RSD	.3434221	.0465033	1.010572	.5983405	37.52625	.6706112	.8427572
#1	3.389079	36.58945	.1044710	-.019768	1.176940	.3232094	.3181854
#2	3.370586	36.59602	.1052436	-.020003	1.278816	.3233093	.3130912
#3	3.392024	36.56382	.1065771	-.019858	.576801	.3195200	.3143319

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.601000	3.479255	.2044806	-.000596	.2000000	1.971190	.0057443
Stddev	.160496	.013409	.0014384	.000387	.0070444	.011031	.0020583
%RSD	2.431389	.3854026	.7034394	64.81701	3.522182	.5596165	35.83221
#1	6.672481	3.466411	.2028230	-.000478	.2040198	1.958478	.0062937
#2	6.713337	3.478187	.2054003	-.000283	.2041142	1.978247	.0074722
#3	6.417183	3.493165	.2052186	-.001028	.1918661	1.976845	.0034670

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-17DLX2 Acquired: 10/20/2024 21:57:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.955331	.0537032	.2022633
Stddev	.009231	.0009718	.0008011
%RSD	.4721164	1.809549	.3960832
#1	1.944827	.0547586	.2015142
#2	1.962156	.0528455	.2021678
#3	1.959009	.0535055	.2031079

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1205.918	26043.64	3232.230	992.7331	1876.708
Stddev	1.421	41.84	5.495	6.8846	.652
%RSD	.1178543	.1606501	.1699938	.6934976	.0347406
#1	1207.422	25999.74	3238.440	985.2398	1877.262
#2	1204.598	26083.06	3230.249	998.7787	1875.989
#3	1205.733	26048.11	3228.001	994.1808	1876.872

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-18DLX2 Acquired: 10/20/2024 22:01:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2058801	.0586735	.1358308	.1274297	.1049173	117.8781	4.526389
Stddev	.0024601	.0014766	.0026107	.0006875	.0010240	.5619	.027618
%RSD	1.194933	2.516671	1.922049	.5395166	.9759987	.4766620	.6101526
#1	.2032202	.0569693	.1349293	.1270052	.1044435	118.4921	4.557751
#2	.2063464	.0594785	.1387728	.1270610	.1060923	117.7525	4.515719
#3	.2080737	.0595726	.1337902	.1282229	.1042159	117.3896	4.505698

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0988693	.0911029	41.15808	.4688219	1.041781	.5864648	213.2647
Stddev	.0005198	.0003716	.23675	.0009427	.002455	.0022175	.7803
%RSD	.5257437	.4078332	.5752307	.2010742	.2356425	.3781171	.3658822
#1	.0994475	.0906740	41.42146	.4677779	1.038971	.5866774	214.1283
#2	.0987198	.0913238	41.08985	.4690770	1.043509	.5885683	213.0554
#3	.0984407	.0913110	40.96294	.4696108	1.042862	.5841486	212.6104

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.533250	40.20506	1.069121	.0645336	.7788556	1.241149	1.052315
Stddev	.033177	.16921	.000487	.0003062	.2874042	.012683	.001660
%RSD	.7318588	.4208763	.0455639	.4745172	36.90083	1.021867	.1577198
#1	4.571436	40.35931	1.068735	.0644085	.9967633	1.254089	1.054199
#2	4.516814	40.23180	1.069668	.0648825	.8866697	1.240619	1.051067
#3	4.511499	40.02407	1.068959	.0643097	.4531338	1.228740	1.051680

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.676596	3.997217	.2165756	-.001004	.2205549	1.745318	.0059266
Stddev	.066279	.014343	.0010684	.000137	.0157655	.005267	.0015761
%RSD	.9927135	.3588252	.4932945	13.63048	7.148107	.3017981	26.59333
#1	6.738454	4.013022	.2174621	-.000889	.2202653	1.751262	.0042863
#2	6.684695	3.993600	.2168753	-.000968	.2049363	1.743462	.0060640
#3	6.606639	3.985029	.2153894	-.001155	.2364633	1.741229	.0074294

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-18DLX2 Acquired: 10/20/2024 22:01:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.932709	.0554264	.2214804
Stddev	.005828	.0020843	.0014064
%RSD	.3015318	3.760473	.6349763
#1	1.938434	.0555570	.2230907
#2	1.932908	.0532799	.2208570
#3	1.926784	.0574424	.2204934

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1208.172	26254.09	3261.149	1001.663	1859.738
Stddev	2.431	90.01	28.548	1.278	4.107
%RSD	.2012187	.3428393	.8753951	.1275726	.2208256
#1	1210.920	26202.63	3230.183	1000.324	1864.417
#2	1207.292	26201.62	3266.844	1002.869	1858.068
#3	1206.303	26358.02	3286.421	1001.796	1856.729

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-16LDLX10 Acquired: 10/20/2024 22:06:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0211991	-.003350	.0166210	.0015811	-.000535	23.23797	.2021872
Stddev	.0036800	.002354	.0041667	.0046455	.001929	.02464	.0007960
%RSD	17.35926	70.26852	25.06870	293.8092	360.1993	.1060427	.3937040
#1	.0173905	-.003981	.0212348	.0036299	-.002703	23.22858	.2016799
#2	.0247353	-.005324	.0131327	.0048501	.000104	23.26592	.2031046
#3	.0214716	-.000745	.0154956	-.003737	.000992	23.21940	.2017770

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015868	-.000261	8.612680	.0176875	.0181878	.0371841	46.18811
Stddev	.0000350	.000184	.030330	.0005645	.0003502	.0015323	.28814
%RSD	2.202793	70.48238	.3521570	3.191337	1.925231	4.120894	.6238510
#1	.0015544	-.000383	8.580325	.0183365	.0179417	.0368733	46.00024
#2	.0015820	-.000049	8.640467	.0174145	.0180330	.0358311	46.51986
#3	.0016238	-.000351	8.617249	.0173113	.0185887	.0388481	46.04423

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7620882	8.410540	.0210415	-.005938	-.062551	.0692273	.0703820
Stddev	.0058883	.096534	.0003925	.001933	.219652	.0048372	.0022408
%RSD	.7726526	1.147771	1.865204	32.55447	351.1584	6.987366	3.183741
#1	.7561128	8.321721	.0208432	-.004663	.034972	.0733283	.0711503
#2	.7678854	8.396620	.0207878	-.004989	-.314078	.0704607	.0721376
#3	.7622664	8.513278	.0214936	-.008162	.091454	.0638928	.0678581

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.414233	.8150410	.0471060	-.000989	.0286980	.5096171	.0035184
Stddev	.087328	.0037618	.0014032	.000081	.0050630	.0050483	.0009966
%RSD	6.174972	.4615439	2.978868	8.205160	17.64235	.9906075	28.32534
#1	1.416552	.8121666	.0467252	-.001061	.0268436	.5090600	.0025967
#2	1.500379	.8192985	.0486603	-.001004	.0248237	.5149208	.0045759
#3	1.325768	.8136578	.0459324	-.000901	.0344268	.5048704	.0033825

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-16LDLX10 Acquired: 10/20/2024 22:06:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4074578	.0139866	.0450257
Stddev	.0016511	.0018003	.0001230
%RSD	.4052192	12.87145	.2732701
#1	.4055515	.0121137	.0449637
#2	.4083867	.0141420	.0451674
#3	.4084353	.0157042	.0449459

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1121.846	24469.68	2958.644	944.0354	1959.561
Stddev	1.575	720.57	13.693	24.5442	2.018
%RSD	.1403776	2.944759	.4628187	2.599919	.1029836
#1	1123.209	23989.23	2972.807	927.9479	1960.314
#2	1120.122	24121.60	2945.475	931.8725	1957.275
#3	1122.206	25298.21	2957.650	972.2859	1961.095

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-19DLX2 Acquired: 10/20/2024 22:10:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB89 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4589369	-.027523	.4803223	.0038663	.0120891	84.96553	.7528919
Stddev	.0050080	.003199	.0027003	.0015078	.0021609	.26760	.0028397
%RSD	1.091218	11.62338	.5621944	38.99873	17.87482	.3149480	.3771766
#1	.4646328	-.026401	.4783378	.0024346	.0105315	85.08544	.7544226
#2	.4569537	-.031132	.4792318	.0037241	.0111798	84.65895	.7496152
#3	.4552242	-.025036	.4833974	.0054402	.0145561	85.15220	.7546379

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0056330	.0054202	42.07688	.0817239	.0818748	.3838245	209.7242
Stddev	.0001760	.0001426	.13756	.0005478	.0004563	.0052246	.7309
%RSD	3.123736	2.631279	.3269160	.6702944	.5573051	1.361202	.3485273
#1	.0058106	.0054572	42.20585	.0815078	.0823972	.3795805	210.2043
#2	.0056296	.0055407	41.93210	.0813171	.0816729	.3896597	208.8830
#3	.0054587	.0052628	42.09269	.0823468	.0815542	.3822332	210.0853

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.717335	32.52121	.1087419	-.017220	.8058506	.3203324	1.396396
Stddev	.026659	.11669	.0007314	.000439	.1219949	.0047520	.003353
%RSD	.5651178	.3588017	.6725646	2.548098	15.13865	1.483467	.2401297
#1	4.737609	32.50778	.1079358	-.017625	.7599755	.3192302	1.393216
#2	4.687138	32.41182	.1089268	-.016754	.9441328	.3162284	1.396071
#3	4.727258	32.64403	.1093630	-.017282	.7134437	.3255387	1.399899

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.42870	5.163590	.2228042	.0000698	6.855443	2.031013	.0064189
Stddev	.04103	.010745	.0012582	.0006749	.017650	.005407	.0022566
%RSD	.2497291	.2080971	.5646908	966.6478	.2574539	.2662315	35.15487
#1	16.46826	5.174866	.2241659	.0004102	6.871421	2.032103	.0084448
#2	16.43150	5.153468	.2216848	.0005068	6.836498	2.025143	.0039869
#3	16.38634	5.162435	.2225618	-.000707	6.858410	2.035791	.0068250

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-19DLX2 Acquired: 10/20/2024 22:10:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB89 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.555962	.0507385	.2070341
Stddev	.008182	.0025272	.0006065
%RSD	.5258710	4.980918	.2929474
#1	1.565409	.0498063	.2069742
#2	1.551320	.0488098	.2064597
#3	1.551156	.0535994	.2076683

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1166.544	25296.78	3152.006	964.1878	1878.764
Stddev	1.535	74.78	6.264	3.7306	1.482
%RSD	.1315541	.2956260	.1987183	.3869191	.0788698
#1	1166.496	25325.86	3155.214	967.8814	1877.765
#2	1168.101	25211.83	3156.016	960.4212	1880.467
#3	1165.033	25352.67	3144.788	964.2608	1878.062

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-20DLREX2 Acquired: 10/20/2024 22:23:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB90 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.015900	.0028539	.0134743	.0071820	-.000697	45.91759	.4151479
Stddev	.020913	.0014985	.0128874	.0085692	.000814	49.64546	.4506586
%RSD	131.5301	52.50568	95.64405	119.3145	116.8354	108.1186	108.5538
#1	-.038499	.0042255	.0271814	.0157867	.000243	99.02760	.8976841
#2	-.011969	.0030815	.0116379	.0071104	-.001181	38.04858	.3425873
#3	.002769	.0012547	.0016037	-.001351	-.001152	.67659	.0051722

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000524	-.003780	19.66405	-.007448	.0000692	.0804756	89.61738
Stddev	.000867	.003863	21.17452	.009355	.0011790	.0908153	96.58681
%RSD	165.4221	102.1747	107.6813	125.6152	1703.143	112.8482	107.7769
#1	-.001457	-.007914	42.24175	-.017164	-.001286	.1776698	192.7498
#2	-.000374	-.003164	16.50206	-.006678	.000635	.0659721	74.8178
#3	.000258	-.000263	.24835	.001499	.000858	-.002215	1.2845

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.974633	17.09282	.0014394	-.067637	.6624216	.1605067	.0018238
Stddev	2.127480	18.20991	.0004422	.008309	.2008874	.1690715	.0024857
%RSD	107.7406	106.5354	30.72509	12.28509	30.32622	105.3361	136.2932
#1	4.246237	36.44846	.0015461	-.076208	.8929415	.3415151	.0046912
#2	1.648789	14.52979	.0018185	-.067087	.5695482	.1333440	.0002792
#3	.028872	.30022	.0009535	-.059617	.5247749	.0066610	.0005010

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.385960	.0337089	.1198680	-.000166	-.018335	.0609263	-.002091
Stddev	3.913683	.0171246	.1317838	.000161	.006177	.0830625	.000294
%RSD	164.0297	50.80138	109.9408	96.72669	33.69021	136.3328	14.06705
#1	6.554713	.0394991	.2601302	-.000085	-.025352	.1565406	-.001773
#2	1.812555	.0471878	.1008432	-.000351	-.015937	.0196612	-.002147
#3	-1.20939	.0144399	-.001369	-.000062	-.013717	.0065770	-.002354

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-20DLREX2 Acquired: 10/20/2024 22:23:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB90 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7093093	.0220977	.1061773
Stddev	.7651798	.0291959	.1152349
%RSD	107.8767	132.1220	108.5306
#1	1.526882	.0531097	.2295339
#2	.590664	.0180410	.0877013
#3	.010382	-.004858	.0012967

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4796.604	104026.9	6549.927	4205.903	9098.756
Stddev	99.032	3320.5	4214.312	126.533	202.049
%RSD	2.064631	3.191994	64.34136	3.008468	2.220624
#1	4902.931	100546.6	3195.834	4072.586	9273.359
#2	4706.995	107160.5	5173.620	4324.335	8877.443
#3	4779.885	104373.7	11280.33	4220.789	9145.467

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV033 Acquired: 10/20/2024 22:28:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV033 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.875049	4.601857	24.19665	4.573454	4.624908	395.4859	10.16953
Stddev	.027173	.002720	.01695	.009384	.007506	.6153	.01235
%RSD	.5573906	.0591175	.0700406	.2051879	.1622843	.1555730	.1214360
#1	4.848041	4.601302	24.17887	4.584153	4.631468	395.5489	10.18376
#2	4.902385	4.604812	24.19845	4.566616	4.616723	394.8416	10.16311
#3	4.874722	4.599456	24.21262	4.569593	4.626534	396.0673	10.16170

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5313383	2.433896	398.7484	14.56297	2.447365	14.44478	400.3320
Stddev	.0014069	.001456	.6800	.01881	.004465	.04213	.3937
%RSD	.2647769	.0598016	.1705309	.1291392	.1824250	.2916486	.0983499
#1	.5314020	2.432657	399.0862	14.54821	2.446469	14.41691	400.4960
#2	.5299006	2.433532	397.9656	14.55654	2.443416	14.42418	399.8828
#3	.5327121	2.435499	399.1933	14.58414	2.452209	14.49324	400.6172

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.70387	401.4414	2.428945	1.270766	393.8244	2.446634	13.89008
Stddev	.01832	.7350	.003801	.004881	1.2192	.008774	.01877
%RSD	.1245656	.1830894	.1564950	.3841213	.3095794	.3586147	.1351434
#1	14.72421	401.0205	2.428964	1.265446	394.1305	2.445164	13.91122
#2	14.68869	401.0137	2.425134	1.275039	392.4813	2.456050	13.87536
#3	14.69870	402.2901	2.432736	1.271812	394.8613	2.438688	13.88367

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	151.8457	4.763905	4.956709	4.554119	4.901919	4.898024	4.851662
Stddev	.0609	.002241	.036242	.016917	.006773	.021936	.013950
%RSD	.0400741	.0470383	.7311742	.3714763	.1381609	.4478632	.2875280
#1	151.8183	4.761405	4.946254	4.553298	4.908352	4.897616	4.841332
#2	151.8034	4.764577	4.926844	4.537627	4.894851	4.876295	4.846123
#3	151.9154	4.765732	4.997030	4.571432	4.902554	4.920162	4.867531

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV033 Acquired: 10/20/2024 22:28:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV033 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.850662	5.013905	4.922344
Stddev	.009839	.008810	.013333
%RSD	.2028305	.1757056	.2708704
#1	4.860030	5.023737	4.918503
#2	4.840412	5.011249	4.911353
#3	4.851543	5.006728	4.937176

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	877.0174	21276.42	2736.526	689.4635	1523.581
Stddev	1.6262	2.93	11.940	2.1431	.722
%RSD	.1854241	.0137607	.4363090	.3108394	.0473697
#1	877.3930	21276.79	2732.429	686.9890	1523.598
#2	878.4229	21273.32	2749.975	690.6750	1524.294
#3	875.2362	21279.14	2727.175	690.7265	1522.851

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB033 Acquired: 10/20/2024 22:32:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB033 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002249	.0007886	.0004257	.0031179	-.001803	.0642296	.0010317
Stddev	.004767	.0034381	.0020643	.0032957	.002496	.0053590	.0002448
%RSD	212.0195	435.9886	484.9479	105.7032	138.4308	8.343534	23.73128
#1	-.005318	.0014987	-.001843	.0061105	.001062	.0699461	.0007654
#2	-.004672	-.002949	.002194	.0036576	-.003505	.0634231	.0010827
#3	.003244	.003816	.000926	-.000414	-.002965	.0593195	.0012471

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001897	.0001545	.0609796	.0016898	.0000144	.0034773	.0779044
Stddev	.0001383	.0000698	.0110436	.0010236	.0005432	.0015096	.0039899
%RSD	72.91740	45.19755	18.11027	60.57728	3779.003	43.41170	5.121545
#1	.0000659	.0000902	.0508395	.0007173	.0006411	.0032453	.0825087
#2	.0001642	.0001444	.0727462	.0027578	-.000320	.0020972	.0757427
#3	.0003389	.0002288	.0593531	.0015943	-.000278	.0050895	.0754618

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017825	.0883415	.0000271	.0008481	.0509735	.0015348	.0011112
Stddev	.0006553	.0590609	.0006252	.0005005	.1331894	.0088983	.0002644
%RSD	36.76447	66.85521	2303.339	59.01584	261.2915	579.7889	23.79313
#1	.0016356	.0712048	.0004815	.0004259	-.016447	.0024264	.0008522
#2	.0024988	.1540758	-.000686	.0007175	.204393	-.007776	.0013807
#3	.0012131	.0397440	.000286	.0014010	-.035025	.009954	.0011006

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2732164	.0019209	.0065669	.0001378	-.009179	.0023860	.0009437
Stddev	.0357627	.0049744	.0005819	.0001487	.007394	.0004308	.0004452
%RSD	13.08951	258.9581	8.861687	107.9093	80.55705	18.05629	47.18149
#1	.3005667	-.003230	.0071688	.0002189	-.005764	.0028770	.0014014
#2	.2863357	.002295	.0065248	.0002284	-.017663	.0022099	.0009176
#3	.2327468	.006698	.0060072	-.000034	-.004109	.0020712	.0005121

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB033 Acquired: 10/20/2024 22:32:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB033 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0022680	.0061179	.0005370
Stddev	.0014952	.0013944	.0002187
%RSD	65.92328	22.79222	40.72090
#1	.0014801	.0046182	.0003635
#2	.0039924	.0063601	.0004649
#3	.0013316	.0073753	.0007826

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1092.392	23300.01	2828.898	896.5629	2013.160
Stddev	2.510	65.87	21.601	.6044	3.990
%RSD	.2297694	.2826996	.7635812	.0674093	.1981784
#1	1091.593	23248.23	2824.254	896.7846	2009.698
#2	1095.204	23374.15	2809.996	897.0251	2017.523
#3	1090.379	23277.65	2852.443	895.8790	2012.257

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-20DLX2 Acquired: 10/20/2024 22:37:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB90 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1066823	-.022983	.1116157	.0072134	.0028809	97.84695	.8811812
Stddev	.0051045	.000877	.0023179	.0008161	.0010297	.42694	.0079432
%RSD	4.784790	3.816828	2.076700	11.31323	35.74245	.4363351	.9014235
#1	.1089187	-.021994	.1137750	.0070832	.0037305	98.25801	.8855641
#2	.1102869	-.023667	.1119055	.0064702	.0031765	97.87710	.8859674
#3	.1008412	-.023288	.1091664	.0080867	.0017357	97.40573	.8720122

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055688	.0001687	41.25776	.0930746	.0993231	.1767402	189.4967
Stddev	.0000951	.0002280	.32605	.0008444	.0007177	.0017693	1.2555
%RSD	1.706961	135.1983	.7902838	.9071943	.7225865	1.001059	.6625540
#1	.0055687	.0001473	41.53940	.0929158	.0994486	.1776090	190.6639
#2	.0056639	-.000048	41.33333	.0939870	.0999698	.1779071	189.6578
#3	.0054738	.000407	40.90056	.0923208	.0985510	.1747045	188.1684

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.174556	35.80824	.1103629	-.018944	.7686603	.3294850	.3704552
Stddev	.034473	.24027	.0004190	.001007	.3354037	.0073870	.0005507
%RSD	.8257926	.6709825	.3796741	5.317085	43.63483	2.241993	.1486535
#1	4.203850	36.03279	.1098846	-.019914	.3879898	.3327953	.3698326
#2	4.183248	35.83708	.1105388	-.017904	.8972456	.3346379	.3708787
#3	4.136568	35.55486	.1106653	-.019014	1.020746	.3210218	.3706542

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.575556	3.858330	.1978947	-.000183	.4275822	2.742502	.0080771
Stddev	.126096	.018434	.0004908	.000476	.0125272	.020824	.0003805
%RSD	1.917643	.4777697	.2480065	259.5164	2.929786	.7593019	4.711057
#1	6.575170	3.879293	.1983581	.000015	.4344260	2.762901	.0085042
#2	6.701844	3.844649	.1973805	-.000727	.4131238	2.743327	.0079525
#3	6.449654	3.851050	.1979455	.000161	.4351968	2.721278	.0077744

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-20DLX2 Acquired: 10/20/2024 22:37:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB90 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.514232	.0540312	.2270428
Stddev	.006606	.0002180	.0007746
%RSD	.4362813	.4034506	.3411661
#1	1.521735	.0540428	.2279206
#2	1.511674	.0538077	.2267526
#3	1.509288	.0542432	.2264552

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1192.758	25728.40	3190.643	985.3178	1892.153
Stddev	4.540	62.22	21.938	3.4353	3.755
%RSD	.3805915	.2418521	.6875716	.3486478	.1984450
#1	1192.420	25769.95	3168.872	989.2800	1888.650
#2	1188.396	25656.86	3190.312	983.5014	1891.692
#3	1197.457	25758.39	3212.744	983.1721	1896.117

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-21DLX2 Acquired: 10/20/2024 22:41:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB91 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3439680	-.036547	.3684061	.0040752	.0078709	109.3913	.7732928
Stddev	.0096439	.004935	.0053468	.0072725	.0020413	.1960	.0020498
%RSD	2.803722	13.50186	1.451326	178.4592	25.93400	.1791593	.2650759
#1	.3390854	-.041246	.3649426	.0113362	.0055233	109.4538	.7755798
#2	.3550768	-.031406	.3745640	.0040981	.0092271	109.5484	.7726774
#3	.3377418	-.036989	.3657116	-.003209	.0088624	109.1717	.7716212

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072676	.0035625	34.28102	.1219492	.1289063	.4040715	286.8920
Stddev	.0001634	.0001229	.03740	.0006996	.0010450	.0036074	.3398
%RSD	2.247762	3.449268	.1090900	.5737130	.8106435	.8927621	.1184285
#1	.0071399	.0034252	34.26355	.1212097	.1277018	.4005653	287.1916
#2	.0074517	.0036620	34.25557	.1220373	.1295702	.4077722	286.9617
#3	.0072112	.0036004	34.32396	.1226007	.1294469	.4038771	286.5229

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.918221	38.39347	.1345201	-.025497	1.133969	.5387699	1.042869
Stddev	.005815	.18235	.0015853	.000124	.257332	.0137937	.006562
%RSD	.1483972	.4749571	1.178446	.4876887	22.69305	2.560226	.6292088
#1	3.924339	38.60397	.1330168	-.025402	1.234610	.5245340	1.044467
#2	3.912767	38.29270	.1343674	-.025638	.841526	.5520743	1.048485
#3	3.917559	38.28374	.1361762	-.025451	1.325772	.5397015	1.035656

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.74939	6.163211	.2922251	.0003929	1.079037	2.596969	.0093607
Stddev	.07538	.014558	.0004006	.0003669	.002025	.015131	.0030588
%RSD	.5482111	.2362153	.1370838	93.36412	.1876744	.5826378	32.67760
#1	13.73545	6.153901	.2926041	.0002865	1.078792	2.579507	.0095348
#2	13.68196	6.179988	.2918060	.0008013	1.077146	2.606193	.0123287
#3	13.83076	6.155745	.2922651	.0000911	1.081174	2.605208	.0062185

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-21DLX2 Acquired: 10/20/2024 22:41:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB91 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.569218	.0573862	.2016139
Stddev	.003007	.0010749	.0002493
%RSD	.1170403	1.873032	.1236623
#1	2.567849	.0583736	.2013891
#2	2.572665	.0562412	.2018821
#3	2.567138	.0575437	.2015704

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1188.561	25822.83	3219.589	984.0579	1862.799
Stddev	1.212	34.77	11.005	5.2484	5.565
%RSD	.1019469	.1346316	.3418003	.5333423	.2987456
#1	1188.524	25782.69	3230.630	980.4952	1869.187
#2	1187.369	25843.07	3219.514	981.5934	1858.996
#3	1189.791	25842.74	3208.622	990.0849	1860.215

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-22DLX2 Acquired: 10/20/2024 22:46:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDBA8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2735896	-.027914	.7964359	.0047136	.0136984	107.1761	1.367856
Stddev	.0030698	.002085	.0084342	.0020746	.0031155	.3197	.005476
%RSD	1.122042	7.469918	1.058991	44.01191	22.74327	.2983299	.4003550
#1	.2714180	-.025561	.7982964	.0040260	.0171513	107.1303	1.370600
#2	.2771016	-.029533	.7872268	.0030702	.0128466	107.5163	1.371418
#3	.2722490	-.028649	.8037845	.0070447	.0110975	106.8817	1.361550

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077534	.0164683	29.30938	.3401282	.1149547	2.350916	202.9740
Stddev	.0002299	.0000363	.13782	.0006422	.0011514	.012436	1.0625
%RSD	2.964692	.2205933	.4702176	.1888107	1.001620	.5289817	.5234475
#1	.0078029	.0164274	29.45427	.3404574	.1138825	2.362926	203.7996
#2	.0075028	.0164966	29.29394	.3393882	.1148100	2.351727	203.3471
#3	.0079545	.0164811	29.17994	.3405391	.1161717	2.338094	201.7753

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.074116	36.90186	.3294761	-.013086	1.266137	.3584883	1.914068
Stddev	.032414	.06045	.0013419	.000341	.250252	.0057273	.004268
%RSD	.5336457	.1638173	.4072864	2.609218	19.76502	1.597621	.2229860
#1	6.103235	36.96303	.3298526	-.013407	1.028060	.3585606	1.915060
#2	6.079921	36.84215	.3279861	-.012727	1.527006	.3527252	1.909391
#3	6.039191	36.90039	.3305895	-.013125	1.243346	.3641791	1.917752

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.00850	7.736168	.2268416	.0033589	2.073548	2.540444	.0303631
Stddev	.02630	.023142	.0022634	.0002327	.008522	.008943	.0024904
%RSD	.1642907	.2991393	.9978082	6.928477	.4110078	.3520125	8.201916
#1	15.99552	7.756820	.2269795	.0031623	2.082794	2.549392	.0277210
#2	16.03877	7.711157	.2290329	.0032985	2.066008	2.531507	.0326673
#3	15.99122	7.740527	.2245123	.0036158	2.071841	2.540432	.0307010

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4316-22DLX2 Acquired: 10/20/2024 22:46:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDBA8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.197202	.0630923	.3874686
Stddev	.014723	.0006180	.0008873
%RSD	.3507748	.9795449	.2290036
#1	4.197489	.0633432	.3869883
#2	4.211779	.0623883	.3884925
#3	4.182338	.0635454	.3869249

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1164.073	25252.90	3157.643	966.4407	1871.310
Stddev	1.581	66.27	7.426	.2757	4.616
%RSD	.1357990	.2624105	.2351623	.0285254	.2466917
#1	1163.353	25286.06	3149.073	966.2627	1870.929
#2	1165.886	25176.60	3161.673	966.7582	1876.106
#3	1162.981	25296.03	3162.182	966.3011	1866.897

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-01DLX2 Acquired: 10/20/2024 22:50:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1720952	-.025421	.1162851	-.001210	.0056679	74.65164	.8992377
Stddev	.0091032	.003733	.0024687	.001285	.0030244	.07157	.0029184
%RSD	5.289645	14.68554	2.122961	106.2200	53.36051	.0958702	.3245435
#1	.1823559	-.026049	.1187976	-.002694	.0028903	74.72585	.9020993
#2	.1649882	-.028800	.1138626	-.000450	.0088899	74.58305	.8993481
#3	.1689416	-.021413	.1161952	-.000486	.0052235	74.64600	.8962656

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050953	.0154280	48.14301	.1066231	.0932317	.1894831	202.4454
Stddev	.0004129	.0003294	.05029	.0004232	.0003056	.0045788	.4488
%RSD	8.103514	2.135174	.1044507	.3969002	.3277677	2.416484	.2216810
#1	.0051112	.0150600	48.16486	.1068572	.0933899	.1946309	202.9448
#2	.0055000	.0156954	48.17867	.1068775	.0928795	.1879540	202.3156
#3	.0046746	.0155285	48.08550	.1061345	.0934257	.1858646	202.0759

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.044400	35.84512	.1136380	-.017776	1.046995	.3847113	.4263910
Stddev	.024622	.08119	.0001346	.000504	.174524	.0081857	.0030341
%RSD	.3060781	.2264940	.1184513	2.833522	16.66903	2.127761	.7115788
#1	8.069142	35.81000	.1135123	-.018323	1.246461	.3806897	.4246713
#2	8.044158	35.78740	.1137800	-.017332	.972134	.3941299	.4246074
#3	8.019899	35.93795	.1136218	-.017671	.922391	.3793142	.4298943

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.37591	4.339952	.2080615	.0002457	1.208655	3.413323	.0046669
Stddev	.09446	.009526	.0005361	.0004421	.003318	.019707	.0025133
%RSD	.7632441	.2195066	.2576525	179.9040	.2745280	.5773607	53.85414
#1	12.45644	4.329066	.2085106	-.000094	1.208558	3.436053	.0022886
#2	12.39934	4.346763	.2082058	.000086	1.205386	3.401006	.0044156
#3	12.27194	4.344028	.2074680	.000745	1.212020	3.402911	.0072964

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-01DLX2 Acquired: 10/20/2024 22:50:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.422506	.0470663	.1873715
Stddev	.004684	.0008788	.0004035
%RSD	.1933338	1.867208	.2153437
#1	2.426185	.0468491	.1877914
#2	2.424101	.0463165	.1869867
#3	2.417234	.0480334	.1873365

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1151.736	25101.57	3109.565	959.3754	1860.263
Stddev	1.399	80.13	9.058	5.7733	1.332
%RSD	.1214776	.3192120	.2912988	.6017790	.0716161
#1	1153.137	25189.00	3099.163	965.8955	1861.376
#2	1150.339	25031.65	3113.816	957.3183	1858.787
#3	1151.734	25084.05	3115.715	954.9123	1860.626

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-02DLX2 Acquired: 10/20/2024 22:54:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1556981	-.028108	.1272474	-.002897	.0030345	107.1953	1.073456
Stddev	.0071389	.004334	.0009832	.009591	.0021630	.4845	.009026
%RSD	4.585074	15.41811	.7726637	331.1075	71.27898	.4520064	.8408229
#1	.1603606	-.032869	.1276301	.003097	.0054864	107.6771	1.080810
#2	.1474797	-.027065	.1279816	.002172	.0022204	106.7081	1.063383
#3	.1592541	-.024392	.1261304	-.013959	.0013967	107.2005	1.076175

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059924	.0002741	39.15733	.1086073	.1064497	.2015519	233.8440
Stddev	.0000767	.0002341	.37081	.0013910	.0007300	.0041362	1.6655
%RSD	1.280230	85.41315	.9469698	1.280762	.6857365	2.052186	.7122395
#1	.0059415	.0000215	39.51090	.1101976	.1072369	.2042734	235.4014
#2	.0060807	.0003168	38.77140	.1080075	.1063171	.1967921	232.0881
#3	.0059551	.0004838	39.18968	.1076168	.1057952	.2035902	234.0423

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.600325	42.42522	.1247940	-.022628	.8072033	.4107502	.4658701
Stddev	.047337	.41971	.0007751	.000277	.4555654	.0035272	.0020038
%RSD	.8452581	.9892921	.6211217	1.223301	56.43750	.8587115	.4301173
#1	5.644507	42.74758	.1256890	-.022946	.2938544	.4077522	.4636817
#2	5.550363	41.95064	.1243411	-.022447	.9644067	.4098618	.4676150
#3	5.606104	42.57745	.1243518	-.022489	1.163349	.4146366	.4663138

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.932006	5.154285	.2359038	-.000555	1.357143	2.606048	.0041460
Stddev	.025910	.045743	.0033202	.000373	.007848	.013786	.0017825
%RSD	.2608758	.8874724	1.407453	67.28683	.5782692	.5289995	42.99330
#1	9.906451	5.199653	.2394174	-.000818	1.362720	2.619007	.0039841
#2	9.958257	5.155026	.2328185	-.000720	1.360539	2.591562	.0024499
#3	9.931309	5.108176	.2354756	-.000127	1.348168	2.607575	.0060038

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-02DLX2 Acquired: 10/20/2024 22:54:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.066385	.0530863	.2151709
Stddev	.013949	.0008560	.0011707
%RSD	.6750289	1.612456	.5441005
#1	2.080199	.0525400	.2164654
#2	2.052305	.0540728	.2141863
#3	2.066652	.0526460	.2148610

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1196.654	26009.19	3235.848	993.2280	1862.849
Stddev	3.351	42.93	12.005	2.4154	7.990
%RSD	.2800338	.1650525	.3709880	.2431848	.4289328
#1	1193.313	26017.79	3227.775	994.9041	1855.892
#2	1196.632	25962.60	3249.643	994.3205	1861.079
#3	1200.015	26047.16	3230.126	990.4593	1871.576

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-03DLX2 Acquired: 10/20/2024 22:59:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1024275	-.028056	.1146788	.0028806	.0061611	103.3366	.9024959
Stddev	.0160015	.000570	.0020208	.0022988	.0011584	.2613	.0032162
%RSD	15.62224	2.030169	1.762182	79.80244	18.80151	.2528164	.3563613
#1	.0937780	-.028701	.1128380	.0054855	.0066565	103.3182	.9022325
#2	.0926123	-.027624	.1143572	.0011358	.0069894	103.6066	.9058356
#3	.1208921	-.027842	.1168411	.0020207	.0048374	103.0851	.8994195

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060912	-.000217	47.71128	.0960071	.1054884	.2040473	225.2909
Stddev	.0000802	.000275	.20527	.0003526	.0002652	.0011941	.9103
%RSD	1.316444	126.4036	.4302300	.3673120	.2513546	.5852281	.4040431
#1	.0060172	-.000423	47.59913	.0956281	.1052054	.2027655	224.8241
#2	.0061764	.000095	47.94819	.0963256	.1055288	.2051284	226.3399
#3	.0060798	-.000324	47.58651	.0960676	.1057311	.2042478	224.7088

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.912779	41.33528	.1130493	-.020566	.9117051	.4084772	.4200414
Stddev	.027546	.07350	.0004911	.000177	.1732433	.0019139	.0035801
%RSD	.5607038	.1778135	.4343819	.8627507	19.00212	.4685554	.8523278
#1	4.909450	41.31695	.1129337	-.020510	1.106783	.4091031	.4178537
#2	4.941838	41.41621	.1135878	-.020424	.852529	.4099999	.4241729
#3	4.887049	41.27268	.1126263	-.020765	.775803	.4063287	.4180975

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.028932	5.686152	.2292760	-.000705	.5988450	3.193493	.0049495
Stddev	.133682	.021308	.0026452	.000166	.0031252	.015855	.0019726
%RSD	1.480594	.3747403	1.153717	23.49668	.5218640	.4964697	39.85403
#1	9.133504	5.661557	.2270838	-.000873	.5954891	3.175404	.0067108
#2	9.074979	5.699042	.2322141	-.000699	.6016719	3.204982	.0028181
#3	8.878313	5.697858	.2285301	-.000542	.5993739	3.200092	.0053197

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-03DLX2 Acquired: 10/20/2024 22:59:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.060595	.0579232	.2111705
Stddev	.007409	.0004299	.0006069
%RSD	.3595623	.7422606	.2873839
#1	2.060714	.0581927	.2115005
#2	2.067943	.0574273	.2115409
#3	2.053127	.0581495	.2104702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1191.152	25747.57	3181.091	982.4710	1871.341
Stddev	2.311	87.50	12.603	3.7514	6.510
%RSD	.1939925	.3398274	.3961902	.3818281	.3478968
#1	1193.654	25649.66	3192.648	982.6639	1875.745
#2	1189.098	25774.93	3167.653	978.6269	1863.863
#3	1190.705	25818.12	3182.972	986.1222	1874.415

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-04DLX2 Acquired: 10/20/2024 23:03:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0548608	-.023454	.0742030	.0056115	.0043812	75.41974	.6088859
Stddev	.0009940	.003084	.0020261	.0024828	.0010082	.18479	.0034303
%RSD	1.811923	13.15082	2.730456	44.24503	23.01212	.2450097	.5633740
#1	.0556748	-.019910	.0764389	.0058992	.0055050	75.61800	.6124216
#2	.0551547	-.025527	.0724888	.0079380	.0040824	75.25230	.6055717
#3	.0537530	-.024926	.0736813	.0029974	.0035561	75.38891	.6086643

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046746	-.000391	30.57874	.1018531	.0804433	.1573646	167.3885
Stddev	.0001984	.000142	.21309	.0014427	.0001722	.0012998	.6906
%RSD	4.245072	36.25211	.6968466	1.416463	.2140597	.8259702	.4125654
#1	.0045632	-.000235	30.82169	.1031940	.0803073	.1588469	168.0836
#2	.0045569	-.000512	30.42355	.1020386	.0806369	.1568276	166.7025
#3	.0049037	-.000425	30.49098	.1003266	.0803858	.1564194	167.3794

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.130640	33.55785	.1161091	-.016018	1.069573	.2963721	.2911002
Stddev	.023983	.25157	.0014761	.000286	.188326	.0081813	.0010756
%RSD	.7660828	.7496568	1.271285	1.787321	17.60761	2.760468	.3695065
#1	3.158161	33.80335	.1169531	-.016090	1.005378	.2999535	.2900705
#2	3.114205	33.30063	.1169696	-.015702	1.281603	.3021520	.2910135
#3	3.119555	33.56959	.1144047	-.016261	.921737	.2870109	.2922165

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.807166	3.732503	.1713940	-.000692	.2068754	2.840280	.0055350
Stddev	.157092	.021922	.0014047	.000339	.0021917	.017670	.0007032
%RSD	2.307741	.5873349	.8195541	48.91870	1.059436	.6221105	12.70368
#1	6.802106	3.745592	.1706989	-.000312	.2046915	2.860603	.0062230
#2	6.966727	3.744723	.1704723	-.000803	.2068598	2.828557	.0048176
#3	6.652666	3.707194	.1730107	-.000962	.2090748	2.831679	.0055645

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-04DLX2 Acquired: 10/20/2024 23:03:40 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.071387	.0511045	.1845763
Stddev	.007231	.0029575	.0002292
%RSD	.3490745	5.787113	.1241996
#1	2.079401	.0529955	.1845109
#2	2.065352	.0526217	.1843869
#3	2.069407	.0476964	.1848311

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1172.162	25271.42	3139.432	964.0859	1892.507
Stddev	3.310	167.89	14.420	3.1311	9.533
%RSD	.2823968	.6643491	.4593325	.3247693	.5037287
#1	1169.844	25080.44	3122.854	960.5145	1886.158
#2	1170.690	25338.10	3149.073	965.3846	1887.893
#3	1175.953	25395.73	3146.370	966.3586	1903.469

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-05DLX2 Acquired: 10/20/2024 23:08:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1092828	-.031451	.1263014	.0036136	.0068219	102.4413	.8218112
Stddev	.0035743	.004013	.0031111	.0069710	.0013389	.4755	.0047083
%RSD	3.270662	12.75818	2.463252	192.9109	19.62700	.4641221	.5729182
#1	.1118662	-.030521	.1297397	.0116599	.0052790	102.4387	.8191774
#2	.1107786	-.027985	.1254836	-.000216	.0075081	102.9181	.8272470
#3	.1052037	-.035847	.1236809	-.000603	.0076786	101.9672	.8190092

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063943	.0003802	35.33314	.0915802	.0949494	.1986296	213.4550
Stddev	.0002119	.0000947	.18510	.0022007	.0010764	.0020069	1.3151
%RSD	3.313507	24.92124	.5238601	2.403050	1.133603	1.010367	.6161205
#1	.0061672	.0004889	35.21146	.0903114	.0961707	.1963971	212.8572
#2	.0064288	.0003151	35.54615	.0903078	.0945385	.1992080	214.9628
#3	.0065867	.0003365	35.24180	.0941213	.0941390	.2002838	212.5449

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.600786	37.90989	.1115120	-.020465	.8487831	.3751051	.4183962
Stddev	.025798	.14712	.0004336	.001666	.3109776	.0021911	.0092019
%RSD	.7164683	.3880871	.3888522	8.141513	36.63806	.5841301	2.199330
#1	3.591584	37.78441	.1119514	-.022128	.8719047	.3737129	.4106294
#2	3.629923	38.07181	.1110844	-.020470	1.147555	.3776307	.4160002
#3	3.580849	37.87346	.1115001	-.018796	.526890	.3739715	.4285592

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.26683	4.561387	.2163457	-.000816	.5951262	2.721309	.0043292
Stddev	.10967	.013740	.0013630	.000407	.0046410	.006280	.0018915
%RSD	1.068160	.3012221	.6300066	49.86755	.7798323	.2307804	43.69152
#1	10.14023	4.574198	.2148068	-.001284	.5901226	2.716039	.0022137
#2	10.33251	4.563087	.2174010	-.000548	.5992899	2.728258	.0058572
#3	10.32776	4.546877	.2168291	-.000616	.5959662	2.719631	.0049166

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-05DLX2 Acquired: 10/20/2024 23:08:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.342793	.0532122	.1956405
Stddev	.009688	.0007479	.0005583
%RSD	.4135207	1.405549	.2853764
#1	2.343946	.0540617	.1961772
#2	2.351853	.0526525	.1956814
#3	2.332580	.0529225	.1950629

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1184.324	25641.38	3193.018	979.7475	1864.128
Stddev	3.660	436.23	15.600	20.0408	10.408
%RSD	.3090757	1.701274	.4885536	2.045511	.5583132
#1	1180.308	26041.51	3194.485	998.5291	1852.801
#2	1187.473	25706.31	3176.737	982.0646	1873.269
#3	1185.191	25176.33	3207.832	958.6489	1866.315

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-06DLX2 Acquired: 10/20/2024 23:12:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4012186	-.024113	.4908355	.0029892	.0074623	73.55550	.6364856
Stddev	.0021001	.001988	.0025337	.0046066	.0040195	.13966	.0008674
%RSD	.5234332	8.242914	.5162095	154.1080	53.86430	.1898714	.1362732
#1	.3995074	-.022704	.4933298	-.000272	.0117057	73.40909	.6359813
#2	.4035622	-.026387	.4882641	.008259	.0069690	73.68725	.6374872
#3	.4005861	-.023250	.4909126	.000981	.0037122	73.57016	.6359884

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049050	.0059530	31.31525	.0749240	.0862907	.3466745	184.9292
Stddev	.0000848	.0002164	.09500	.0005684	.0006798	.0060488	.5843
%RSD	1.729406	3.634758	.3033787	.7586412	.7877805	1.744805	.3159484
#1	.0049795	.0057227	31.30844	.0754304	.0856060	.3504392	184.2552
#2	.0049229	.0061520	31.41348	.0750325	.0863007	.3498871	185.2408
#3	.0048127	.0059844	31.22384	.0743092	.0869654	.3396972	185.2917

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.661378	29.06028	.1017178	-.016771	.6876261	.2817528	1.376745
Stddev	.012121	.16345	.0001675	.000264	.1679782	.0104931	.001593
%RSD	.2600281	.5624574	.1646911	1.571240	24.42871	3.724230	.1157277
#1	4.660560	29.04057	.1016268	-.016846	.7198250	.2824998	1.374951
#2	4.673887	29.23270	.1016155	-.016478	.5058791	.2709061	1.377995
#3	4.649687	28.90758	.1019112	-.016989	.8371741	.2918524	1.377288

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.20540	5.431491	.1885923	-.000158	1.769422	3.464436	.0068835
Stddev	.17160	.010542	.0010813	.000427	.006496	.012057	.0013921
%RSD	1.128538	.1940827	.5733395	270.0141	.3671490	.3480089	20.22351
#1	15.05753	5.419330	.1881171	-.000330	1.762038	3.457246	.0084484
#2	15.16512	5.438031	.1878301	.000328	1.771970	3.478355	.0057830
#3	15.39356	5.437112	.1898298	-.000472	1.774259	3.457706	.0064190

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-06DLX2 Acquired: 10/20/2024 23:12:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.387100	.0435633	.1661483
Stddev	.005248	.0008782	.0007492
%RSD	.2198335	2.015965	.4509408
#1	2.381699	.0431614	.1653993
#2	2.392180	.0429580	.1668978
#3	2.387422	.0445706	.1661478

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1165.880	25388.98	3161.346	970.2881	1883.079
Stddev	2.145	29.70	12.317	.8240	2.583
%RSD	.1839990	.1169919	.3896060	.0849250	.1371594
#1	1166.932	25423.27	3174.901	971.2308	1883.656
#2	1163.412	25372.49	3150.840	969.7045	1880.257
#3	1167.297	25371.18	3158.298	969.9291	1885.325

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-07DLX2 Acquired: 10/20/2024 23:16:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2904155	-.021041	.3517598	.0020069	.0055483	78.01251	.5614056
Stddev	.0055127	.012120	.0029242	.0018703	.0028861	.06562	.0013938
%RSD	1.898219	57.60297	.8313119	93.19450	52.01883	.0841167	.2482765
#1	.2946008	-.030279	.3491467	-.000029	.0030998	77.94632	.5603450
#2	.2841692	-.025527	.3512145	.003649	.0087305	78.01368	.5608876
#3	.2924765	-.007317	.3549183	.002401	.0048145	78.07754	.5629843

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053372	.0033986	32.07330	.0835791	.0861465	.2552702	211.8790
Stddev	.0001331	.0001440	.14280	.0009677	.0005828	.0060364	.8541
%RSD	2.493126	4.237912	.4452343	1.157809	.6765693	2.364716	.4031018
#1	.0054364	.0032856	32.17499	.0844154	.0859415	.2620200	211.4869
#2	.0051860	.0033494	31.91004	.0825192	.0856940	.2503892	211.2913
#3	.0053891	.0035607	32.13488	.0838026	.0868042	.2534013	212.8587

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.534178	30.79374	.1015776	-.018344	.6285718	.3711495	1.060255
Stddev	.012355	.16493	.0006897	.000521	.3787057	.0087450	.005649
%RSD	.3495828	.5355859	.6789973	2.842410	60.24861	2.356196	.5328041
#1	3.527174	30.61646	.1014565	-.018147	.3931524	.3711260	1.060102
#2	3.526917	30.82213	.1023199	-.017949	.4271399	.3624163	1.065979
#3	3.548444	30.94263	.1009565	-.018935	1.065423	.3799063	1.054684

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.55177	6.585005	.2142751	-.000939	1.144105	3.208243	.0071748
Stddev	.06889	.008622	.0015915	.000184	.011442	.001859	.0010775
%RSD	.4733938	.1309367	.7427170	19.57204	1.000122	.0579493	15.01825
#1	14.50558	6.594597	.2124388	-.000764	1.133500	3.209705	.0076664
#2	14.51878	6.577900	.2151324	-.000922	1.142582	3.206150	.0079188
#3	14.63095	6.582518	.2152540	-.001130	1.156232	3.208873	.0059391

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-07DLX2 Acquired: 10/20/2024 23:16:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.451311	.0474870	.1541207
Stddev	.002420	.0013439	.0000827
%RSD	.0987272	2.829984	.0536575
#1	2.450131	.0483305	.1541442
#2	2.449708	.0459372	.1541891
#3	2.454095	.0481931	.1540288

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1170.291	25385.67	3150.963	965.7346	1882.787
Stddev	1.366	21.81	5.032	3.2185	1.100
%RSD	.1167294	.0859214	.1596977	.3332718	.0584331
#1	1168.743	25367.20	3145.469	965.8978	1881.535
#2	1170.804	25409.73	3155.347	962.4376	1883.600
#3	1171.327	25380.08	3152.073	968.8684	1883.226

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-08DLX2 Acquired: 10/20/2024 23:21:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0989777	-.026730	.1159952	.0069409	.0037154	95.89161	.9237391
Stddev	.0054516	.001036	.0026046	.0043692	.0024203	.17356	.0040486
%RSD	5.507947	3.875065	2.245443	62.94864	65.14239	.1809944	.4382867
#1	.1040675	-.025597	.1129978	.0086846	.0056133	95.74669	.9266780
#2	.0932249	-.026964	.1177075	.0101689	.0045429	96.08395	.9254183
#3	.0996408	-.027629	.1172803	.0019691	.0009899	95.84420	.9191211

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063636	-.000041	35.81647	.0872535	.0966867	.1806403	212.4750
Stddev	.0000480	.000118	.06012	.0001973	.0008750	.0029313	.4532
%RSD	.7547114	284.8238	.1678678	.2260995	.9050079	1.622730	.2132930
#1	.0063112	-.000162	35.88436	.0873525	.0976080	.1782735	212.6020
#2	.0063741	.000073	35.79510	.0873816	.0958668	.1839192	212.8512
#3	.0064055	-.000034	35.76995	.0870263	.0965853	.1797282	211.9719

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.140445	40.95732	.1112612	-.020867	.9433820	.3722353	.4339087
Stddev	.005543	.12513	.0005536	.000151	.0723551	.0093229	.0032153
%RSD	.1338815	.3055107	.4975829	.7216412	7.669761	2.504562	.7410001
#1	4.144514	40.87677	.1110152	-.020722	.8767025	.3648824	.4360135
#2	4.142690	41.10148	.1118951	-.020855	1.020318	.3827211	.4302076
#3	4.134131	40.89371	.1108731	-.021023	.933125	.3691025	.4355048

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.45032	5.497555	.2165672	.0000850	.7202428	4.246576	.0037654
Stddev	.17002	.015587	.0000431	.0002577	.0080549	.006756	.0010331
%RSD	1.365577	.2835257	.0198881	303.1995	1.118357	.1591023	27.43532
#1	12.25476	5.480066	.2165175	-.000194	.7134873	4.239741	.0025817
#2	12.53322	5.502619	.2165896	.000313	.7180840	4.246737	.0042292
#3	12.56300	5.509981	.2165944	.000136	.7291571	4.253251	.0044853

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-08DLX2 Acquired: 10/20/2024 23:21:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAZ9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.348859	.0525178	.1927093
Stddev	.004741	.0006343	.0006588
%RSD	.2018429	1.207727	.3418687
#1	2.345459	.0528994	.1919904
#2	2.354275	.0528685	.1928531
#3	2.346844	.0517857	.1932842

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1192.762	25896.92	3180.315	987.8945	1866.424
Stddev	1.663	54.51	3.381	5.3093	1.563
%RSD	.1394055	.2104773	.1063180	.5374404	.0837608
#1	1194.682	25854.89	3183.890	982.1393	1868.164
#2	1191.819	25877.36	3177.169	988.9427	1865.139
#3	1191.784	25958.51	3179.885	992.6016	1865.968

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-09DLX2 Acquired: 10/20/2024 23:25:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB00 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1430092	-.030914	.2042552	.0086194	.0043930	106.3943	.9358630
Stddev	.0083685	.002955	.0029206	.0044648	.0012553	.0748	.0012019
%RSD	5.851717	9.558965	1.429901	51.79975	28.57414	.0703070	.1284282
#1	.1341899	-.030741	.2075031	.0123644	.0032030	106.4367	.9348230
#2	.1439989	-.033952	.2018449	.0098154	.0042714	106.4382	.9371789
#3	.1508389	-.028049	.2034175	.0036784	.0057047	106.3079	.9355872

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067637	.0016753	34.00704	.0886743	.1006837	.3155860	215.1943
Stddev	.0000710	.0001302	.12071	.0004828	.0006364	.0060475	.4199
%RSD	1.049076	7.771767	.3549417	.5444404	.6321069	1.916283	.1951108
#1	.0067168	.0016798	33.90403	.0881300	.1013865	.3119120	215.4725
#2	.0067289	.0015430	33.97724	.0888420	.1001464	.3122802	214.7114
#3	.0068453	.0018032	34.13986	.0890509	.1005182	.3225659	215.3991

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.143962	34.32825	.1090823	-.019899	.6601720	.3784623	.5677100
Stddev	.003985	.06962	.0006101	.000222	.1763286	.0040962	.0017906
%RSD	.0961521	.2027934	.5593004	1.113498	26.70949	1.082318	.3154091
#1	4.147940	34.35276	.1085242	-.020152	.7288270	.3823135	.5664385
#2	4.143974	34.38230	.1097337	-.019738	.4598426	.3789147	.5669338
#3	4.139971	34.24970	.1089889	-.019808	.7918464	.3741587	.5697578

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.51691	4.580946	.2269999	-.000651	1.409232	2.956908	.0054113
Stddev	.10981	.002833	.0013223	.000358	.002927	.016080	.0031215
%RSD	.5930283	.0618391	.5825050	54.95590	.2077364	.5438190	57.68521
#1	18.44543	4.578355	.2281340	-.000735	1.406441	2.975387	.0019012
#2	18.46196	4.580511	.2255476	-.000258	1.412279	2.949241	.0064567
#3	18.64335	4.583970	.2273182	-.000958	1.408977	2.946096	.0078758

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-09DLX2 Acquired: 10/20/2024 23:25:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB00 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.540239	.0547045	.2004746
Stddev	.005462	.0013803	.0005741
%RSD	.2150145	2.523139	.2863657
#1	2.534351	.0542913	.2011375
#2	2.541228	.0562442	.2001401
#3	2.545139	.0535781	.2001462

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1187.053	25630.05	3203.938	976.1182	1866.863
Stddev	1.932	19.51	14.413	5.1949	3.191
%RSD	.1627683	.0761349	.4498628	.5321971	.1709393
#1	1184.887	25615.40	3188.028	976.6437	1863.539
#2	1187.673	25652.20	3216.124	981.0304	1869.902
#3	1188.600	25622.55	3207.661	970.6805	1867.147

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-10DLX2 Acquired: 10/20/2024 23:30:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1840032	-.039332	.1917330	-.002917	.0045699	136.8879	1.099003
Stddev	.0022813	.001678	.0041486	.009860	.0017058	1.0282	.009904
%RSD	1.239800	4.267122	2.163759	338.0002	37.32736	.7511408	.9011773
#1	.1830565	-.038747	.1957308	-.013561	.0026064	137.7235	1.107986
#2	.1866054	-.041225	.1874484	.005907	.0056866	135.7396	1.088382
#3	.1823476	-.038025	.1920198	-.001098	.0054168	137.2006	1.100643

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078447	.0020461	44.49924	.1038136	.1287357	.3234239	281.6849
Stddev	.0004789	.0001784	.38913	.0009213	.0006148	.0015763	2.5881
%RSD	6.104885	8.716573	.8744558	.8874666	.4775358	.4873753	.9187778
#1	.0076494	.0020185	44.84997	.1028521	.1293169	.3247036	283.7489
#2	.0074943	.0022366	44.08064	.1039000	.1287981	.3216631	278.7813
#3	.0083904	.0018831	44.56710	.1046886	.1280922	.3239049	282.5244

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.268417	48.06087	.1387992	-.026536	1.454506	.4868765	.6754556
Stddev	.052060	.46617	.0009380	.000497	.155220	.0135437	.0023560
%RSD	.9881446	.9699572	.6758048	1.872897	10.67164	2.781746	.3488028
#1	5.301514	48.38404	.1382401	-.026948	1.483902	.4943509	.6727605
#2	5.208410	47.52648	.1382753	-.025984	1.592927	.4950360	.6764822
#3	5.295328	48.27209	.1398821	-.026676	1.286691	.4712426	.6771242

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.08354	5.742099	.2832164	-.001027	.7144774	2.953547	.0072783
Stddev	.11757	.002520	.0028534	.000512	.0052401	.017969	.0024626
%RSD	.7310217	.0438822	1.007487	49.87926	.7334163	.6083975	33.83443
#1	16.14364	5.742418	.2851398	-.000641	.7104747	2.959316	.0086607
#2	15.94807	5.739435	.2799380	-.001608	.7204084	2.933401	.0044351
#3	16.15892	5.744444	.2845714	-.000831	.7125489	2.967923	.0087390

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-10DLX2 Acquired: 10/20/2024 23:30:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB01 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.734717	.0700573	.2335301
Stddev	.026059	.0006515	.0018231
%RSD	.9529066	.9300261	.7806627
#1	2.753815	.0701834	.2342712
#2	2.705030	.0706365	.2314532
#3	2.745307	.0693518	.2348660

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1207.360	26255.98	3282.165	1000.020	1834.941
Stddev	3.506	69.54	13.228	6.234	2.513
%RSD	.2903639	.2648703	.4030266	.6233397	.1369499
#1	1208.286	26281.51	3272.389	1007.139	1837.202
#2	1210.309	26177.28	3297.217	995.538	1835.385
#3	1203.484	26309.14	3276.889	997.383	1832.235

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-11DLX2 Acquired: 10/20/2024 23:34:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0906854	-.018785	.1332188	.0004594	.0037197	83.95058	.8404230
Stddev	.0086047	.001115	.0052923	.0072560	.0017307	.05816	.0012159
%RSD	9.488512	5.936683	3.972631	1579.396	46.52923	.0692805	.1446713
#1	.0982924	-.020056	.1332826	.0088302	.0034073	84.01702	.8417897
#2	.0924173	-.017970	.1278949	-.003415	.0021664	83.90891	.8400180
#3	.0813465	-.018329	.1384789	-.004037	.0055853	83.92580	.8394614

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053338	.0010011	30.42741	.0808671	.0849192	.2239433	169.3418
Stddev	.0000710	.0000372	.11140	.0009465	.0002280	.0048880	.1765
%RSD	1.331940	3.715906	.3661240	1.170420	.2684385	2.182700	.1042187
#1	.0053725	.0009722	30.49796	.0819040	.0847155	.2291080	169.4268
#2	.0053772	.0009879	30.29898	.0800495	.0851654	.2193893	169.1389
#3	.0052518	.0010430	30.48530	.0806478	.0848766	.2233327	169.4597

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.992139	32.48100	.1042608	-.017444	.6518913	.2587788	.4137444
Stddev	.007704	.21969	.0006962	.000524	.2956432	.0019003	.0025825
%RSD	.1929814	.6763707	.6677094	3.005821	45.35160	.7343351	.6241827
#1	3.999962	32.41004	.1050260	-.017986	.9723737	.2583190	.4164353
#2	3.984560	32.30556	.1036649	-.016939	.5934991	.2571506	.4112860
#3	3.991897	32.72741	.1040915	-.017408	.3898013	.2608668	.4135119

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.01045	4.766738	.1750070	-.000413	.4787007	3.640531	.0051182
Stddev	.16375	.002754	.0006724	.000267	.0085889	.013708	.0017920
%RSD	.9092214	.0577728	.3842100	64.78984	1.794213	.3765412	35.01213
#1	17.96034	4.769657	.1753627	-.000188	.4886183	3.651547	.0038108
#2	17.87760	4.766370	.1742315	-.000708	.4737498	3.625179	.0071608
#3	18.19340	4.764186	.1754269	-.000342	.4737339	3.644867	.0043828

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-11DLX2 Acquired: 10/20/2024 23:34:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB02 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.000827	.0475981	.1610678
Stddev	.002249	.0017168	.0004864
%RSD	.1123908	3.606937	.3019858
#1	2.003164	.0495764	.1611728
#2	1.998678	.0467200	.1605374
#3	2.000637	.0464979	.1614931

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1185.030	25737.75	3174.283	982.2919	1875.798
Stddev	1.518	55.24	7.880	1.6194	2.690
%RSD	.1280878	.2146082	.2482447	.1648605	.1434227
#1	1185.218	25742.12	3165.681	980.6043	1873.221
#2	1186.445	25680.46	3176.017	983.8332	1878.589
#3	1183.427	25790.67	3181.152	982.4382	1875.583

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-12DLX2 Acquired: 10/20/2024 23:39:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2964085	-.026647	.3610552	-.001026	.0060473	86.07445	.6937047
Stddev	.0076621	.003443	.0053224	.006629	.0025191	.44329	.0042752
%RSD	2.584989	12.92174	1.474111	646.3630	41.65659	.5150116	.6162908
#1	.2947166	-.026663	.3669590	-.008679	.0067539	86.56944	.6986410
#2	.2897337	-.030082	.3566247	.002947	.0032503	85.93986	.6911917
#3	.3047752	-.023196	.3595817	.002655	.0081375	85.71404	.6912813

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057011	.0037682	32.51964	.0855007	.1008921	.3453889	209.6945
Stddev	.0001168	.0000859	.15273	.0004098	.0001070	.0045061	.7575
%RSD	2.048513	2.280413	.4696506	.4792367	.1060361	1.304642	.3612397
#1	.0056110	.0038408	32.69276	.0851878	.1007737	.3499951	210.3822
#2	.0058331	.0036733	32.46221	.0853498	.1009207	.3409901	209.8188
#3	.0056593	.0037905	32.40395	.0859645	.1009818	.3451814	208.8826

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.282429	32.86332	.1135731	-.018762	1.194714	.3582411	1.029962
Stddev	.009785	.16319	.0005935	.000344	.029947	.0069952	.001810
%RSD	.2284972	.4965819	.5225434	1.833871	2.506590	1.952636	.1757582
#1	4.288502	33.05105	.1142115	-.018841	1.214908	.3547571	1.032003
#2	4.287643	32.75532	.1130381	-.019060	1.208926	.3536722	1.028551
#3	4.271140	32.78359	.1134699	-.018386	1.160308	.3662941	1.029332

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.70707	6.162187	.2118588	-.000551	1.189581	3.769800	.0051341
Stddev	.10975	.031717	.0015192	.000238	.002277	.020685	.0013627
%RSD	.7462462	.5147018	.7170701	43.12010	.1914157	.5487028	26.54202
#1	14.66444	6.191855	.2133348	-.000782	1.192147	3.781576	.0066971
#2	14.83173	6.165950	.2119417	-.000307	1.188792	3.781908	.0045099
#3	14.62502	6.128756	.2102999	-.000564	1.187803	3.745915	.0041953

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-12DLX2 Acquired: 10/20/2024 23:39:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB03 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.497397	.0510164	.1600723
Stddev	.011591	.0024983	.0006326
%RSD	.4641391	4.897006	.3951991
#1	2.507496	.0524814	.1605261
#2	2.499955	.0524362	.1603411
#3	2.484740	.0481318	.1593496

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1182.548	25633.16	3176.432	977.6004	1879.689
Stddev	2.095	16.50	13.887	3.9813	5.337
%RSD	.1771378	.0643536	.4371990	.4072496	.2839364
#1	1182.538	25616.01	3170.220	973.2179	1873.642
#2	1184.648	25648.91	3166.736	978.5892	1881.679
#3	1180.459	25634.58	3192.341	980.9940	1883.745

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-13DLX2 Acquired: 10/20/2024 23:43:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6798043	-.018667	.5778750	.0055082	.0064160	73.70747	.9881978
Stddev	.0140775	.003454	.0013800	.0068248	.0010148	.13743	.0038293
%RSD	2.070820	18.50070	.2387979	123.9015	15.81731	.1864557	.3875056
#1	.6674842	-.021918	.5791298	.0110004	.0072634	73.60433	.9841107
#2	.6767807	-.019042	.5763971	-.002132	.0066932	73.65460	.9917027
#3	.6951479	-.015042	.5780983	.007657	.0052913	73.86349	.9887801

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045644	.0073841	46.86355	.0740851	.0776778	.4458999	169.0152
Stddev	.0001919	.0001301	.14937	.0005630	.0004543	.0016698	.5002
%RSD	4.204451	1.761410	.3187271	.7598869	.5848860	.3744682	.2959509
#1	.0047839	.0072788	46.70305	.0734380	.0781928	.4444912	168.4627
#2	.0044807	.0075295	46.99849	.0743547	.0773339	.4454640	169.4373
#3	.0044284	.0073440	46.88909	.0744625	.0775067	.4477443	169.1455

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.078914	29.52573	.1023880	-.012350	.6385308	.2477035	1.609269
Stddev	.009637	.04987	.0006229	.000572	.0430138	.0164235	.009996
%RSD	.1585391	.1688983	.6083559	4.627795	6.736366	6.630312	.6211555
#1	6.067810	29.53769	.1016833	-.011750	.6092506	.2664374	1.607994
#2	6.085106	29.56853	.1026159	-.012413	.6184262	.2408889	1.599971
#3	6.083826	29.47097	.1028649	-.012888	.6879155	.2357844	1.619841

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.98514	5.559617	.1922347	.0003589	13.38682	4.018601	.0057316
Stddev	.11645	.020032	.0015734	.0006027	.00845	.014084	.0010776
%RSD	.6133834	.3603063	.8184833	167.9026	.0631356	.3504777	18.80032
#1	18.87789	5.538591	.1911630	.0008119	13.39341	4.002536	.0044879
#2	19.10901	5.561781	.1914999	-.000325	13.37729	4.024440	.0063842
#3	18.96853	5.578479	.1940410	.000590	13.38976	4.028827	.0063228

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-13DLX2 Acquired: 10/20/2024 23:43:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB04 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.931884	.0447772	.2068932
Stddev	.006465	.0006211	.0006919
%RSD	.3346671	1.387019	.3344069
#1	1.924458	.0440609	.2061456
#2	1.936266	.0451653	.2070230
#3	1.934927	.0451055	.2075109

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1155.446	25054.84	3112.855	953.8194	1880.051
Stddev	2.989	37.54	8.698	3.6836	2.831
%RSD	.2586843	.1498185	.2794233	.3861991	.1505589
#1	1158.423	25014.35	3122.895	953.2344	1882.174
#2	1152.445	25061.68	3108.057	957.7605	1881.142
#3	1155.470	25088.49	3107.613	950.4632	1876.837

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-14DLX2 Acquired: 10/20/2024 23:47:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4740946	-.032858	.5243037	.0019025	.0034498	99.72877	1.060812
Stddev	.0076336	.002918	.0028463	.0018691	.0018507	.35353	.002436
%RSD	1.610149	8.880700	.5428751	98.24563	53.64615	.3544942	.2296774
#1	.4734875	-.034271	.5245714	.0029997	.0054912	99.32429	1.058038
#2	.4820137	-.034801	.5213330	.0029635	.0029765	99.88324	1.061792
#3	.4667827	-.029503	.5270068	-.000256	.0018818	99.97877	1.062605

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062917	.0060544	54.54574	.0960185	.1059711	.4284841	219.4019
Stddev	.0002906	.0003331	.21731	.0007962	.0008051	.0064247	.8377
%RSD	4.619556	5.501716	.3983956	.8292663	.7597103	1.499404	.3817939
#1	.0059992	.0056771	54.43602	.0954166	.1069004	.4354647	218.4519
#2	.0065804	.0061784	54.40517	.0969214	.1054855	.4271687	219.7195
#3	.0062956	.0063077	54.79603	.0957177	.1055274	.4228189	220.0343

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.781681	38.29776	.1337359	-.017409	.7817417	.3417708	1.484150
Stddev	.011496	.01312	.0013281	.000294	.2563534	.0023155	.005651
%RSD	.1988380	.0342665	.9930697	1.689473	32.79260	.6774869	.3807651
#1	5.772168	38.28678	.1343057	-.017484	.6412037	.3404994	1.490675
#2	5.778418	38.31230	.1322181	-.017085	1.077630	.3444434	1.480930
#3	5.794455	38.29420	.1346841	-.017659	.626392	.3403695	1.480844

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.19700	6.809098	.2397269	.0000794	12.05598	4.337928	.0048839
Stddev	.07259	.024310	.0014566	.0002132	.02784	.027493	.0016151
%RSD	.3270269	.3570150	.6075978	268.6270	.2309427	.6337863	33.06853
#1	22.15406	6.820888	.2380471	.0000632	12.06841	4.329065	.0031840
#2	22.28081	6.825265	.2406397	-.000125	12.02409	4.315960	.0063979
#3	22.15612	6.781142	.2404939	.000300	12.07545	4.368760	.0050700

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-14DLX2 Acquired: 10/20/2024 23:47:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB05 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.875363	.0580593	.2560386
Stddev	.015859	.0031787	.0005764
%RSD	.5515448	5.474857	.2251255
#1	2.857052	.0544433	.2553730
#2	2.884338	.0604124	.2563676
#3	2.884699	.0593222	.2563752

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1180.760	25654.51	3191.857	972.8112	1849.296
Stddev	1.197	46.10	18.606	3.1858	2.766
%RSD	.1013458	.1796854	.5829108	.3274825	.1495879
#1	1181.462	25627.23	3202.898	969.1928	1851.912
#2	1179.379	25628.57	3202.298	974.0467	1849.575
#3	1181.441	25707.73	3170.376	975.1943	1846.400

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-15DLX2 Acquired: 10/20/2024 23:52:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1243493	-.024001	.1007180	.0029242	.0017370	89.46311	.8089274
Stddev	.0071227	.002647	.0033826	.0087976	.0016292	.31076	.0040242
%RSD	5.727953	11.02799	3.358442	300.8561	93.79629	.3473600	.4974694
#1	.1166403	-.022100	.0992204	.0098805	.0016856	89.24676	.8061996
#2	.1257218	-.027024	.1045908	.0058573	.0033913	89.32335	.8070335
#3	.1306859	-.022880	.0983428	-.006965	.0001341	89.81921	.8135491

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046232	-.000032	47.99503	.1970328	.1100603	.2265693	196.5898
Stddev	.0000614	.000212	.27694	.0006161	.0009533	.0009778	.7691
%RSD	1.327720	658.9735	.5770161	.3127028	.8661187	.4315564	.3912277
#1	.0045963	-.000117	47.76247	.1967171	.1111243	.2275964	196.0373
#2	.0046935	-.000188	47.92122	.1966384	.1092841	.2256498	196.2638
#3	.0045799	.000209	48.30139	.1977427	.1097725	.2264616	197.4682

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.916326	44.39427	.1725173	-.017988	1.129629	.3856284	.3443407
Stddev	.027831	.21608	.0017218	.000616	.243891	.0032716	.0004830
%RSD	.4704034	.4867284	.9980298	3.422576	21.59039	.8483884	.1402691
#1	5.893668	44.32366	.1716470	-.018697	1.410154	.3871435	.3440139
#2	5.907918	44.22233	.1745005	-.017596	1.010867	.3878679	.3448955
#3	5.947391	44.63682	.1714044	-.017670	.967866	.3818739	.3441126

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.592867	4.551381	.2018393	-.000910	.6323038	3.817449	.0045718
Stddev	.045949	.012998	.0013377	.000418	.0085160	.009062	.0011126
%RSD	.6969492	.2855942	.6627557	45.97408	1.346826	.2373837	24.33645
#1	6.560348	4.559632	.2018458	-.000613	.6329046	3.823085	.0057675
#2	6.645434	4.558115	.2004983	-.000728	.6405035	3.806996	.0035671
#3	6.572820	4.536397	.2031737	-.001388	.6235032	3.822266	.0043807

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-15DLX2 Acquired: 10/20/2024 23:52:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB07 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.454811	.0504243	.2001173
Stddev	.006037	.0008042	.0006616
%RSD	.2459054	1.594920	.3305790
#1	2.451300	.0513486	.1997957
#2	2.451351	.0498840	.1996779
#3	2.461781	.0500404	.2008781

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1166.679	25315.97	3148.816	963.6421	1862.560
Stddev	5.480	19.61	10.232	1.5583	8.467
%RSD	.4696859	.0774789	.3249401	.1617045	.4546003
#1	1164.846	25293.33	3145.702	962.0879	1861.748
#2	1162.351	25327.77	3160.243	965.2044	1854.528
#3	1172.840	25326.81	3140.503	963.6341	1871.404

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-16DLX2 Acquired: 10/20/2024 23:56:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0361874	-.026276	.0839265	.0011541	.0032843	78.91559	.8327004
Stddev	.0081686	.001434	.0027525	.0009713	.0012365	.20068	.0029729
%RSD	22.57296	5.457872	3.279634	84.15768	37.64855	.2543021	.3570237
#1	.0369743	-.027738	.0815286	.0016806	.0032649	78.79619	.8326149
#2	.0439340	-.026218	.0869320	.0017485	.0045303	79.14728	.8357151
#3	.0276538	-.024871	.0833189	.0000333	.0020576	78.80329	.8297711

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054479	-.000218	29.49584	.0706097	.0885229	.1462716	178.0802
Stddev	.0001262	.000304	.02928	.0009237	.0002135	.0012406	.4007
%RSD	2.315737	139.6283	.0992758	1.308128	.2411336	.8481133	.2250371
#1	.0053228	-.000359	29.50064	.0713581	.0883001	.1454766	177.8845
#2	.0054457	.000131	29.52242	.0708936	.0885429	.1456372	178.5412
#3	.0055751	-.000427	29.46445	.0695774	.0887257	.1477010	177.8150

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.384746	33.40527	.1076525	-.017419	.5314172	.2820628	.3286993
Stddev	.004148	.12498	.0004532	.000445	.2419020	.0078422	.0020561
%RSD	.0945968	.3741208	.4209702	2.551735	45.52017	2.780316	.6255283
#1	4.385531	33.26256	.1072546	-.016925	.5891425	.2908745	.3272841
#2	4.388446	33.45801	.1075571	-.017547	.7392346	.2794642	.3310578
#3	4.380262	33.49522	.1081458	-.017786	.2658745	.2758497	.3277560

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.34439	4.834136	.1826591	-.000506	.2686302	3.117482	.0048238
Stddev	.03008	.018760	.0018931	.000261	.0060022	.018944	.0006251
%RSD	.1555109	.3880815	1.036412	51.54509	2.234355	.6076611	12.95804
#1	19.36265	4.830613	.1825078	-.000207	.2647766	3.095694	.0049064
#2	19.36084	4.817387	.1846233	-.000628	.2755458	3.126696	.0054036
#3	19.30967	4.854409	.1808462	-.000684	.2655681	3.130056	.0041616

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-16DLX2 Acquired: 10/20/2024 23:56:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB08 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.131470	.0457914	.1614072
Stddev	.008595	.0029574	.0007774
%RSD	.4032596	6.458370	.4816623
#1	2.128532	.0472292	.1606364
#2	2.141149	.0423901	.1621911
#3	2.124729	.0477550	.1613939

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1168.080	25355.05	3164.098	968.9056	1870.635
Stddev	1.892	111.02	3.632	5.0702	7.551
%RSD	.1620056	.4378464	.1147974	.5232900	.4036701
#1	1168.653	25298.05	3167.797	968.5315	1876.068
#2	1169.620	25284.11	3160.536	964.0329	1873.825
#3	1165.968	25482.98	3163.962	974.1525	1862.012

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-17DLX2 Acquired: 10/21/2024 0:01:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1727929	-.024140	.2068095	-.002383	.0023927	85.37262	.8103976
Stddev	.0020160	.001680	.0041597	.005197	.0031295	.36744	.0042095
%RSD	1.166709	6.960559	2.011348	218.0591	130.7921	.4304013	.5194353
#1	.1721080	-.025286	.2112990	-.000056	.0045668	85.03287	.8061145
#2	.1750621	-.024922	.2030863	-.008338	.0038053	85.76259	.8145294
#3	.1712085	-.022211	.2060430	.001243	-.001194	85.32241	.8105489

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050119	.0000908	36.59544	.1453118	.0936255	.1901204	190.4908
Stddev	.0000951	.0002321	.25677	.0016126	.0001196	.0044040	.8837
%RSD	1.897888	255.5477	.7016360	1.109777	.1277531	2.316434	.4639284
#1	.0050595	-.000083	36.34496	.1471295	.0935498	.1873109	189.4735
#2	.0050738	.000354	36.85807	.1447530	.0935634	.1951960	191.0688
#3	.0049024	.000002	36.58330	.1440528	.0937634	.1878543	190.9302

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.652675	38.55128	.1282268	-.018131	.9786435	.3595717	.4500168
Stddev	.029398	.28037	.0009317	.000397	.2711938	.0052072	.0010641
%RSD	.5200656	.7272684	.7266039	2.189096	27.71120	1.448179	.2364494
#1	5.622431	38.23104	.1285680	-.018305	.6743393	.3554338	.4506709
#2	5.681146	38.75253	.1271726	-.017677	1.066801	.3654187	.4487890
#3	5.654447	38.67027	.1289399	-.018411	1.194790	.3578625	.4505904

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.890097	4.341549	.1962723	-.000888	1.704093	3.819218	.0046471
Stddev	.282588	.012824	.0022929	.000332	.008234	.012232	.0030023
%RSD	3.178680	.2953768	1.168222	37.39880	.4831694	.3202734	64.60538
#1	8.581525	4.354953	.1949405	-.000581	1.705418	3.805124	.0079004
#2	9.136271	4.329397	.1949564	-.001240	1.711583	3.825463	.0040578
#3	8.952494	4.340296	.1989199	-.000842	1.695277	3.827066	.0019832

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: P4312-17DLX2 Acquired: 10/21/2024 0:01:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB09 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.361875	.0475916	.1851400
Stddev	.011730	.0010600	.0005931
%RSD	.4966536	2.227170	.3203245
#1	2.351192	.0480498	.1844556
#2	2.374428	.0463796	.1854614
#3	2.360004	.0483453	.1855030

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1163.106	25312.33	3138.684	963.3289	1877.314
Stddev	1.808	70.58	12.555	2.2520	4.838
%RSD	.1554133	.2788362	.4000042	.2337753	.2576884
#1	1163.632	25336.99	3153.125	960.9312	1872.016
#2	1164.592	25232.74	3130.357	965.3996	1881.497
#3	1161.093	25367.28	3132.570	963.6558	1878.428

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV034 Acquired: 10/21/2024 0:14:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV034 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.859788	4.597996	23.97866	4.528126	4.593806	393.9466	10.06892
Stddev	.013010	.019693	.05257	.029548	.009529	.7240	.01398
%RSD	.2677085	.4282999	.2192215	.6525526	.2074338	.1837814	.1388229
#1	4.852001	4.590305	23.93157	4.509150	4.591186	393.1520	10.05290
#2	4.852555	4.583310	23.96903	4.513057	4.585862	394.1190	10.07862
#3	4.874807	4.620374	24.03537	4.562171	4.604371	394.5688	10.07525

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5235036	2.411303	394.0105	14.48937	2.427643	14.29891	397.5204
Stddev	.0027355	.003208	.8977	.02810	.002503	.01309	.7276
%RSD	.5225340	.1330442	.2278432	.1939318	.1031023	.0915429	.1830235
#1	.5206892	2.410821	392.9761	14.50397	2.425176	14.31098	396.6839
#2	.5236690	2.408363	394.4684	14.50715	2.427573	14.28500	397.8711
#3	.5261527	2.414725	394.5868	14.45697	2.430181	14.30074	398.0062

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.52940	398.3345	2.409878	1.260535	392.2370	2.426178	13.73563
Stddev	.01913	1.0459	.004329	.003441	1.4849	.009595	.05795
%RSD	.1316390	.2625594	.1796206	.2729539	.3785643	.3954735	.4218712
#1	14.51093	397.1706	2.409483	1.263655	390.5826	2.416048	13.76534
#2	14.54912	398.6377	2.405761	1.261105	393.4542	2.435129	13.77270
#3	14.52813	399.1953	2.414391	1.256845	392.6743	2.427356	13.66886

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.7218	4.736333	4.956490	4.540243	4.891543	4.868577	4.807044
Stddev	.3033	.015128	.022137	.018969	.026566	.029478	.010929
%RSD	.2012212	.3193994	.4466199	.4178060	.5431090	.6054750	.2273631
#1	150.6386	4.731792	4.937315	4.544401	4.895287	4.844377	4.794466
#2	150.4688	4.723996	4.951439	4.519539	4.863304	4.859948	4.812442
#3	151.0580	4.753211	4.980716	4.556788	4.916039	4.901407	4.814225

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCV034 Acquired: 10/21/2024 0:14:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV034 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.798577	4.993105	4.873902
Stddev	.003613	.001688	.009130
%RSD	.0752922	.0338076	.1873220
#1	4.797485	4.992154	4.865928
#2	4.802610	4.992106	4.871917
#3	4.795637	4.995054	4.883861

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	882.3715	21408.39	2748.585	697.5729	1535.538
Stddev	2.1850	57.71	11.675	4.0168	1.091
%RSD	.2476286	.2695801	.4247571	.5758237	.0710322
#1	882.2375	21366.28	2759.629	695.2250	1536.551
#2	884.6205	21384.72	2749.758	695.2828	1535.679
#3	880.2566	21474.17	2736.368	702.2110	1534.383

Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB034 Acquired: 10/21/2024 0:18:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB034 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022752	-.001689	.0000488	-.001353	.0006137	.0241929	.0000811
Stddev	.0014099	.002570	.0021352	.001416	.0011375	.0136276	.0003706
%RSD	61.96782	152.1648	4379.457	104.6371	185.3594	56.32877	457.1479
#1	.0006509	-.000728	.0005040	-.002917	-.000448	.0278193	.0002919
#2	.0031823	-.004601	-.002277	-.000156	.001814	.0356404	.0002982
#3	.0029925	.000262	.001920	-.000987	.000475	.0091189	-.000347

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001926	.0001233	.0366910	.0010957	-.000288	-.001046	.0267897
Stddev	.0000182	.0001318	.0094932	.0003769	.000308	.001259	.0242572
%RSD	9.467987	106.8726	25.87335	34.39660	107.0771	120.3500	90.54688
#1	.0001758	.0001081	.0311262	.0007270	-.000618	-.000719	.0508706
#2	.0002120	.0002621	.0476524	.0010797	-.000238	.000017	.0023599
#3	.0001899	-.000000	.0312945	.0014803	-.000008	-.002437	.0271385

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010004	.0250309	.0001887	-.000248	-.152889	.0006381	.0008377
Stddev	.0011051	.0662211	.0006448	.000168	.297158	.0087005	.0002179
%RSD	110.4670	264.5575	341.7707	67.77687	194.3623	1363.487	26.01257
#1	.0000893	.0748880	.0007881	-.000415	-.174476	.0097505	.0009913
#2	.0022296	.0503113	.0002715	-.000078	-.438663	-.000255	.0009335
#3	.0006822	-.050107	-.000494	-.000252	.154474	-.007582	.0005883

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1985705	.0001787	.0082250	-.000012	-.009558	.0020190	.0016415
Stddev	.1343155	.0023336	.0013346	.000019	.002410	.0007085	.0014720
%RSD	67.64121	1305.603	16.22589	166.6479	25.21028	35.08994	89.67432
#1	.2796131	-.002516	.0084311	-.000006	-.009483	.0017487	.0030319
#2	.0435297	.001528	.0067994	-.000033	-.007187	.0014854	.0017928
#3	.2725687	.001524	.0094446	.000004	-.012005	.0028228	.0000997

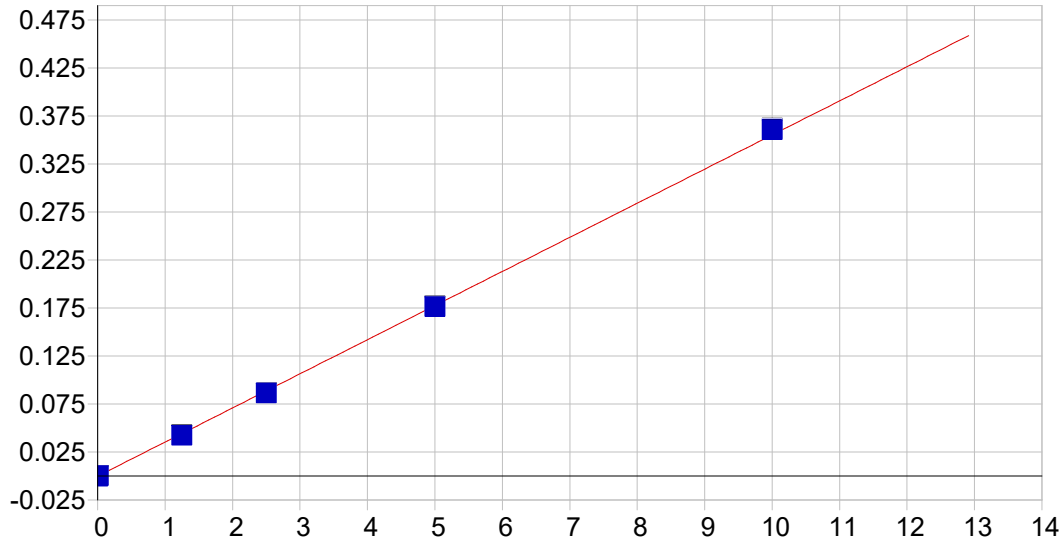
Reviewed By:kareem
On:10/29/2024
10:08:31 AM
Inst Id :P5

Sample Name: CCB034 Acquired: 10/21/2024 0:18:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB034 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0004799	.0033130	.0002260
Stddev	.0008514	.0002521	.0000796
%RSD	177.3940	7.608652	35.22683
#1	.0012688	.0034315	.0002433
#2	.0005935	.0034840	.0002955
#3	-.000423	.0030235	.0001391

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1094.271	23480.74	2795.480	903.9394	2012.977
Stddev	1.899	34.16	98.853	6.8056	2.940
%RSD	.1735471	.1454818	3.536181	.7528812	.1460718
#1	1094.192	23443.85	2845.218	902.0189	2011.592
#2	1096.209	23511.28	2859.586	911.4989	2016.354
#3	1092.413	23487.08	2681.636	898.3004	2010.985

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



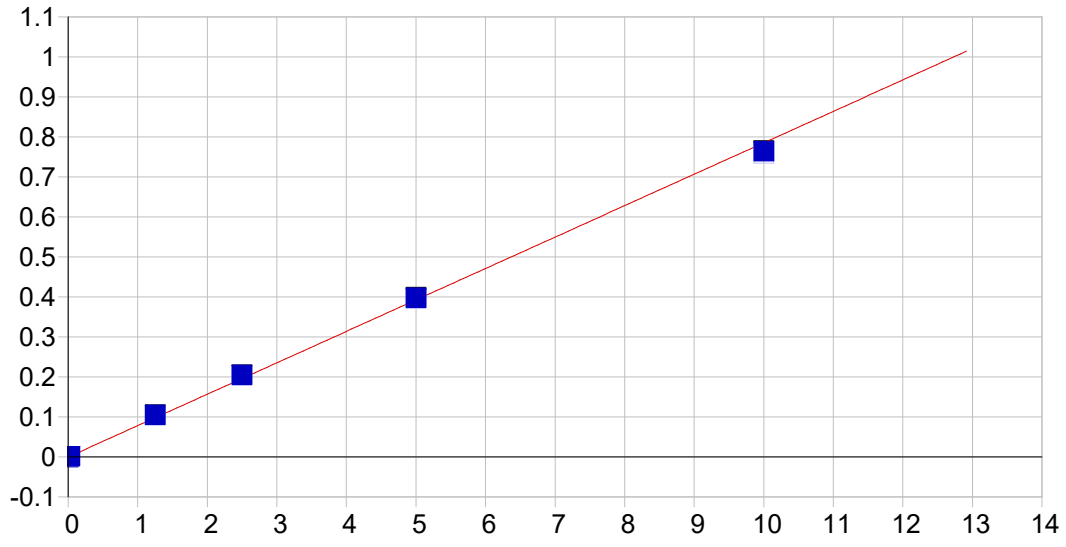
As 189.042 {479}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000211	Re-Slope:	1.000000
A1 (Gain):	0.035542	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999796	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.005423		
Predicted MQL:	0.018076		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00021	.000	1
S1	.01000	.01296	.003	29.6	.00025	.000	1
S2	1.2500	1.1942	-.056	-4.46	.04239	.000	1
S3	2.5000	2.4322	-.068	-2.71	.08655	.000	1
S4	5.0000	4.9682	-.032	-.636	.17701	.000	1
S5	10.000	10.152	.152	1.52	.36190	.001	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



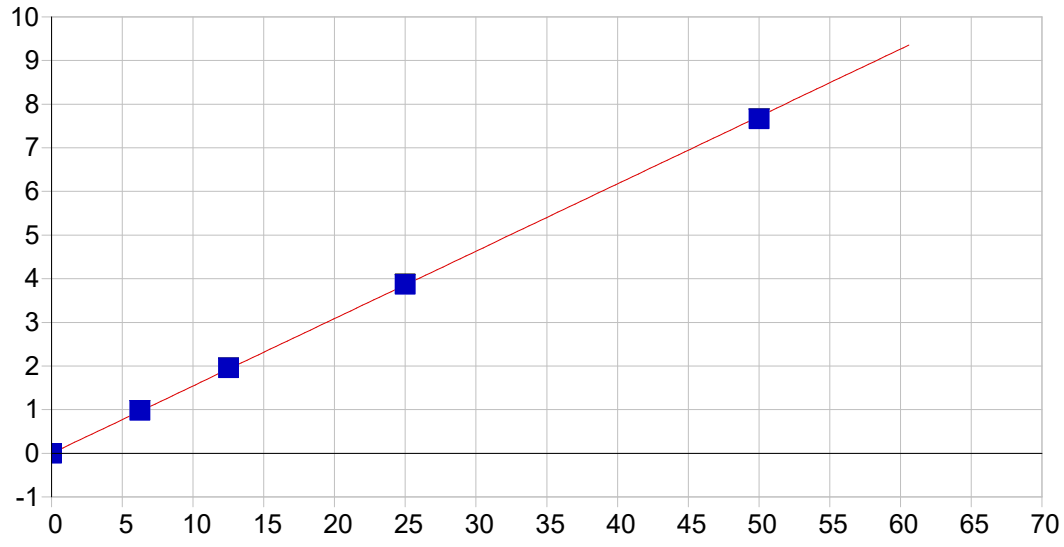
Tl 190.856 {477}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000432	Re-Slope:	1.000000
A1 (Gain):	0.078570	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999479	Status:	OK.
Std Error of Est:	0.000067		
Predicted MDL:	0.002727		
Predicted MQL:	0.009090		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00043	.000	1
S1	.02500	.02606	.001	4.23	.00157	.000	1
S2	1.2500	1.3373	.087	6.99	.10396	.000	1
S3	2.5000	2.6107	.111	4.43	.20334	.000	1
S4	5.0000	5.0703	.070	1.41	.39524	.001	1
S5	10.000	9.7306	-.269	-2.69	.75869	.002	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



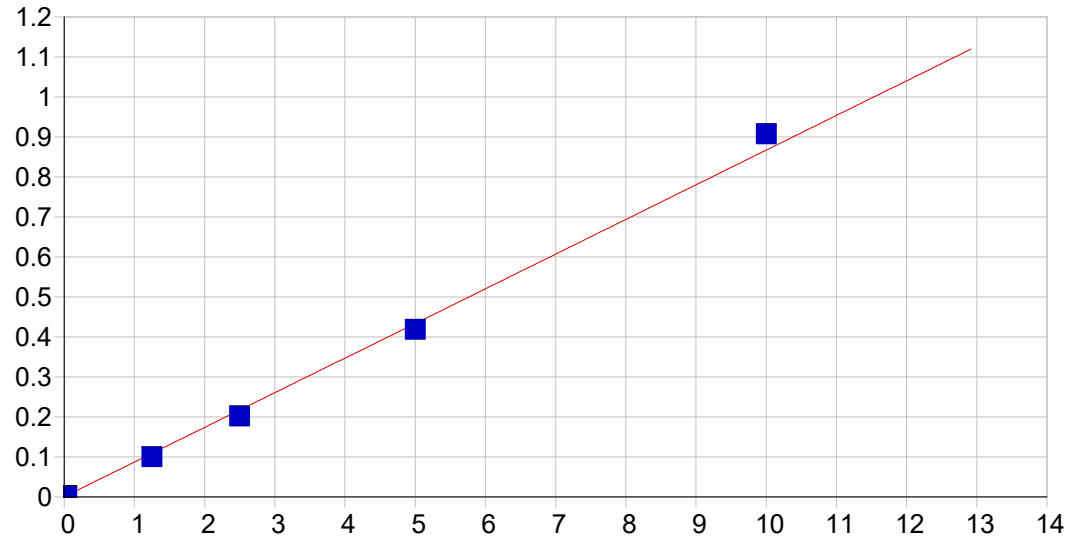
Pb 220.353 {453}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000731	Re-Slope:	1.000000
A1 (Gain):	0.154371	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	0.003071		
Predicted MQL:	0.010236		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00073	.001	1
S1	.01000	.01127	.001	12.7	.00101	.000	1
S2	6.2500	6.3523	.102	1.64	.97964	.003	1
S3	12.500	12.669	.169	1.35	1.9545	.001	1
S4	25.000	25.075	.075	.302	3.8692	.010	1
S5	50.000	49.652	-.348	-.697	7.6621	.006	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



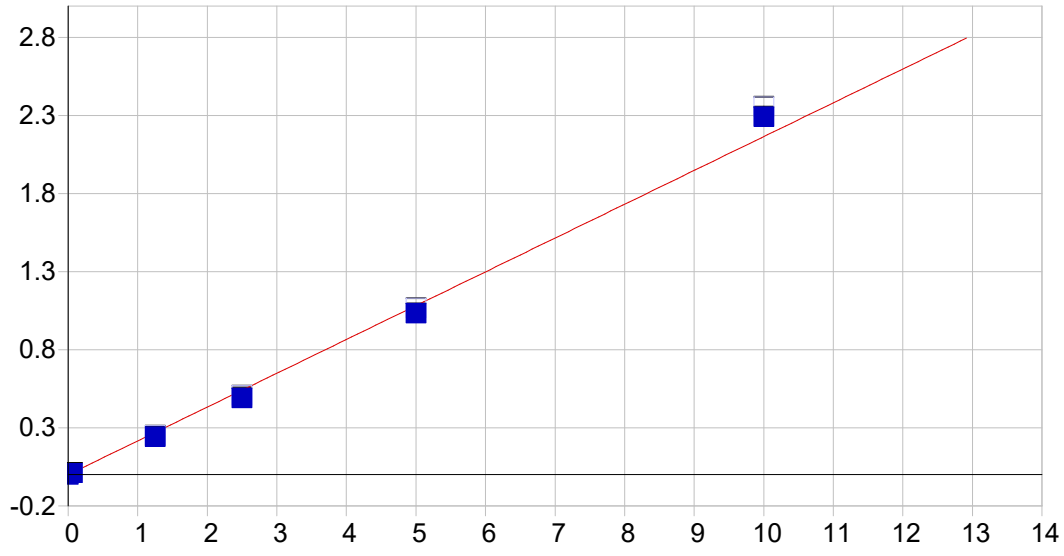
Se 196.090 {472}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000458	Re-Slope:	1.000000
A1 (Gain):	0.086639	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998646	Status:	OK.
Std Error of Est:	0.000141		
Predicted MDL:	0.004749		
Predicted MQL:	0.015832		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00046	.000	1
S1	.03500	.02647	-.009	-24.4	.00275	.000	1
S2	1.2500	1.1454	-.105	-8.37	.09948	.000	1
S3	2.5000	2.3258	-.174	-6.97	.20155	.001	1
S4	5.0000	4.8233	-.177	-3.53	.41752	.001	1
S5	10.000	10.464	.464	4.64	.90541	.001	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



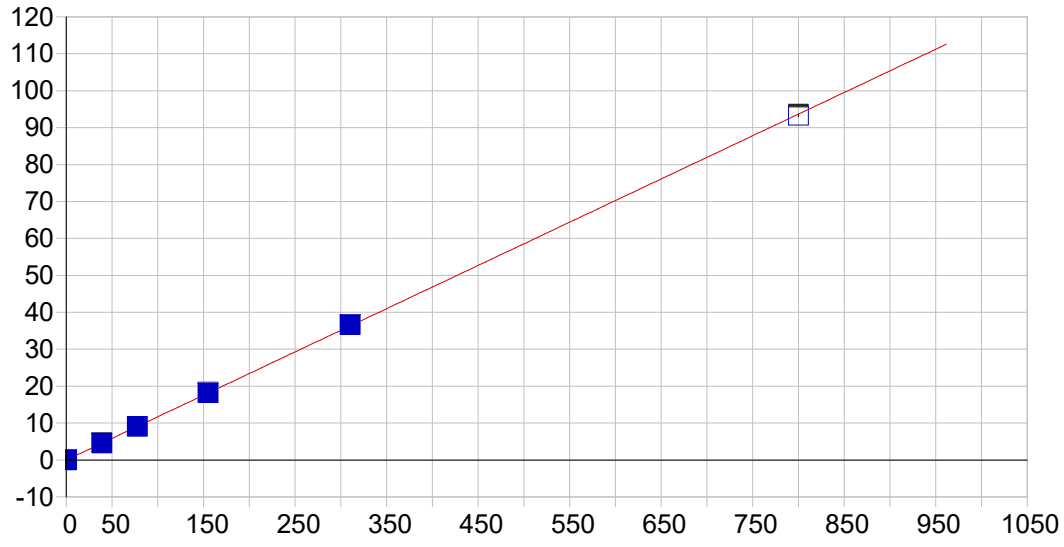
Sb 206.833 {463}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000109	Re-Slope:	1.000000
A1 (Gain):	0.216420	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997995	Status:	OK.
Std Error of Est:	0.000581		
Predicted MDL:	0.002299		
Predicted MQL:	0.007665		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	-.00011	.000	1
S1	.06000	.05521	-.005	-7.98	.01184	.000	1
S2	1.2500	1.1194	-.131	-10.4	.25014	.002	1
S3	2.5000	2.2683	-.232	-9.27	.50678	.001	1
S4	5.0000	4.7774	-.223	-4.45	1.0658	.002	1
S5	10.000	10.589	.589	5.89	2.3555	.003	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



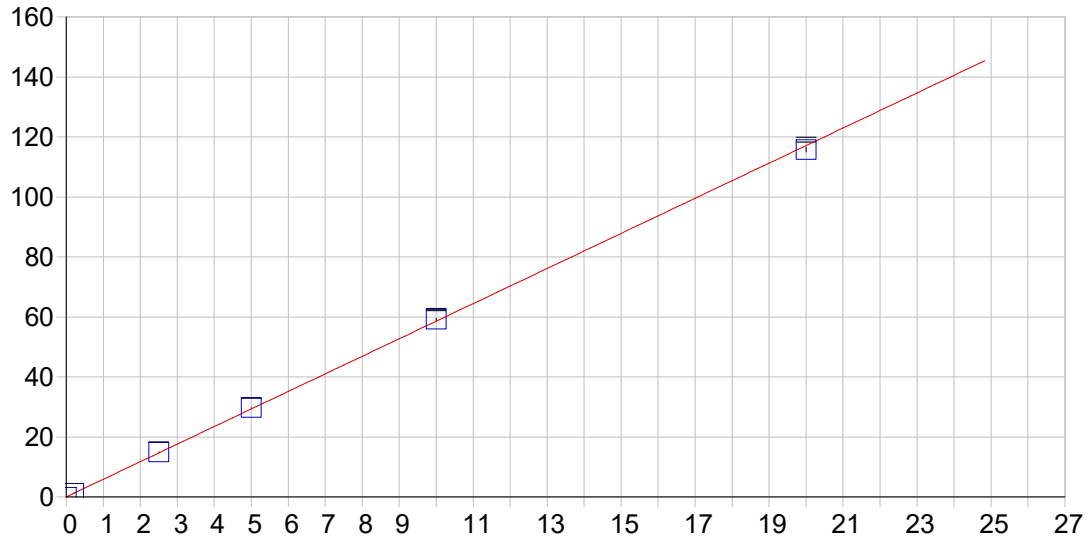
Al 396.152 { 85}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.004383	Re-Slope:	1.000000
A1 (Gain):	0.117102	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000408		
Predicted MDL:	0.013492		
Predicted MQL:	0.044974		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00438	.001	1
S1	.20000	.21217	.012	6.09	.02051	.002	1
S2	38.750	39.088	.338	.872	4.5783	.016	1
S3	77.500	77.156	-.344	-.444	9.0417	.027	1
S4	155.00	155.37	.370	.239	18.212	.140	1
S5	310.00	312.78	2.78	.896	36.666	.044	1
S6	800.00	796.84	-3.16	-.395	93.308	.348	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



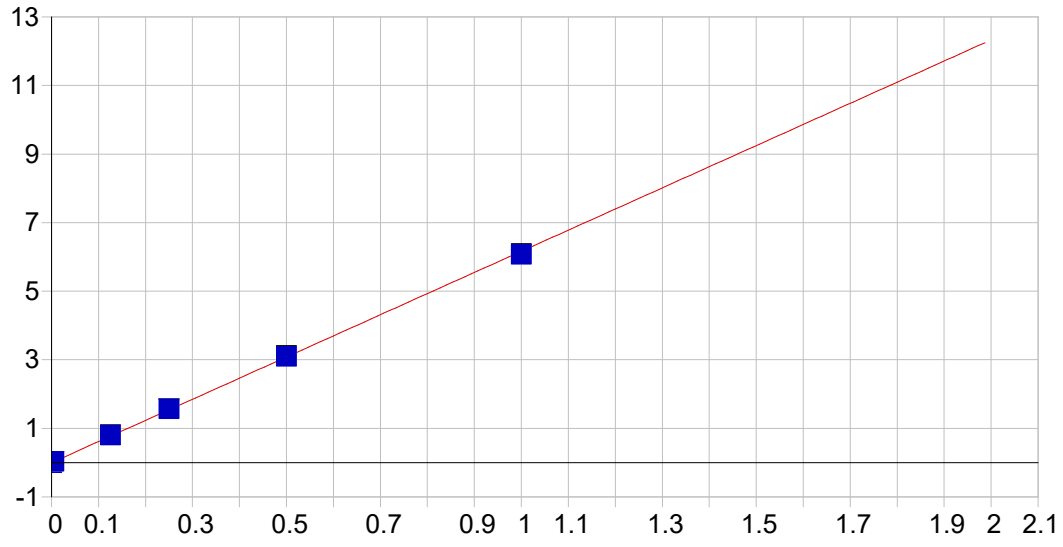
Ba 493.409 { 68}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.031335	Re-Slope:	1.000000
A1 (Gain):	5.853687	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999915	Status:	OK.
Std Error of Est:	0.008089		
Predicted MDL:	0.000836		
Predicted MQL:	0.002787		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.03122	.002	1
S1	.20000	.21304	.013	6.52	1.2784	.001	1
S2	2.5000	2.5457	.046	1.83	14.933	.051	1
S3	5.0000	5.0696	.070	1.39	29.707	.034	1
S4	10.000	10.103	.103	1.03	59.169	.359	1
S5	20.000	19.769	-.231	-1.15	115.75	.785	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



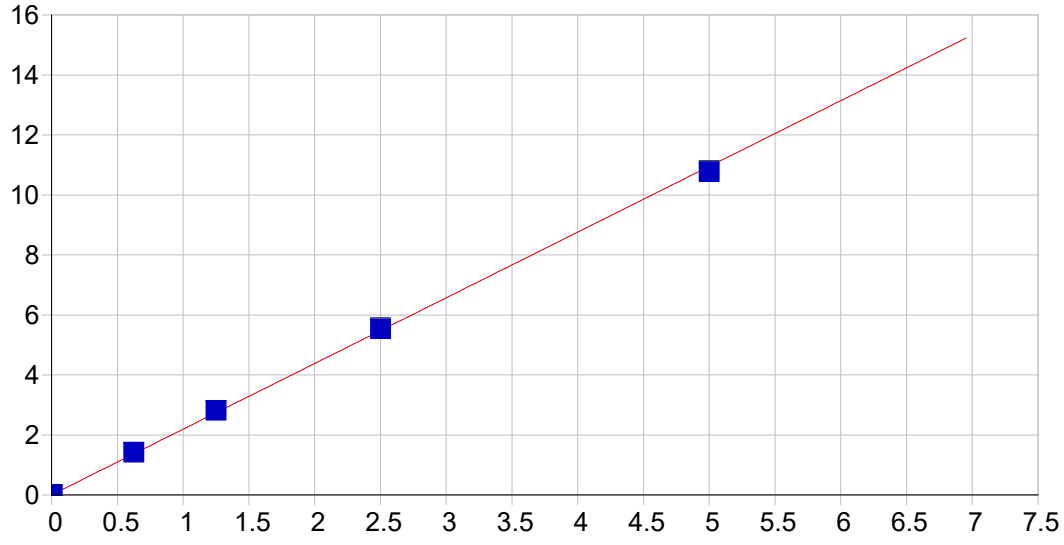
Be 234.861 {144}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002784	Re-Slope:	1.000000
A1 (Gain):	6.166224	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999823	Status:	OK.
Std Error of Est:	0.000435		
Predicted MDL:	0.000146		
Predicted MQL:	0.000486		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00279	.001	1
S1	.00500	.00566	.001	13.2	.03209	.001	1
S2	.12500	.13104	.006	4.83	.80402	.001	1
S3	.25000	.25425	.004	1.70	1.5625	.011	1
S4	.50000	.50299	.003	.598	3.0938	.021	1
S5	1.0000	.98606	-.014	-1.39	6.0675	.019	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



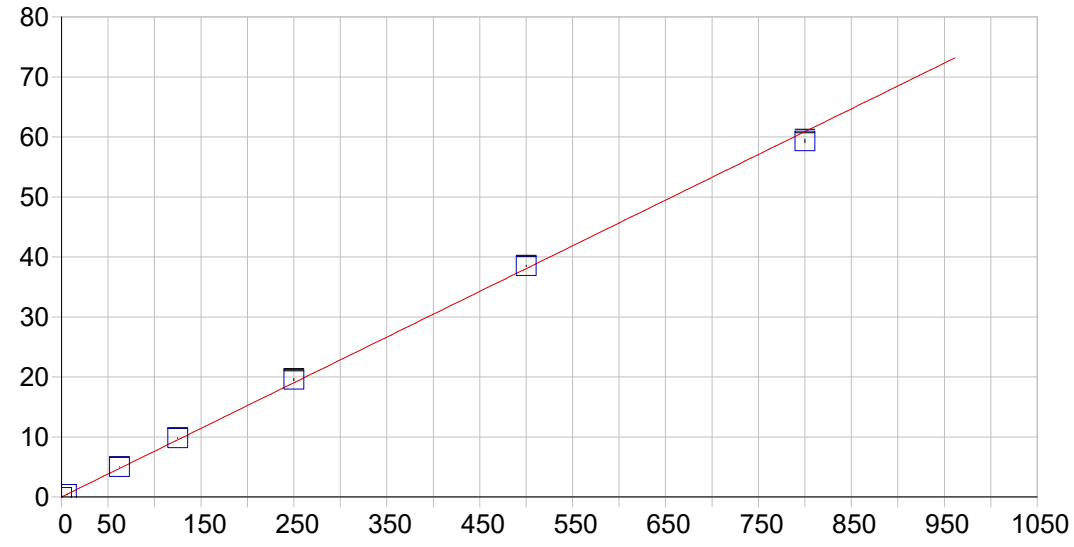
Cd 214.438 {457}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000381	Re-Slope:	1.000000
A1 (Gain):	2.190312	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000345		
Predicted MDL:	0.000131		
Predicted MQL:	0.000436		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00038	.000	1
S1	.00500	.00516	.000	3.29	.01170	.000	1
S2	.62500	.64613	.021	3.38	1.4189	.004	1
S3	1.2500	1.2832	.033	2.65	2.8175	.003	1
S4	2.5000	2.5285	.029	1.14	5.5518	.011	1
S5	5.0000	4.9170	-.083	-1.66	10.796	.016	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



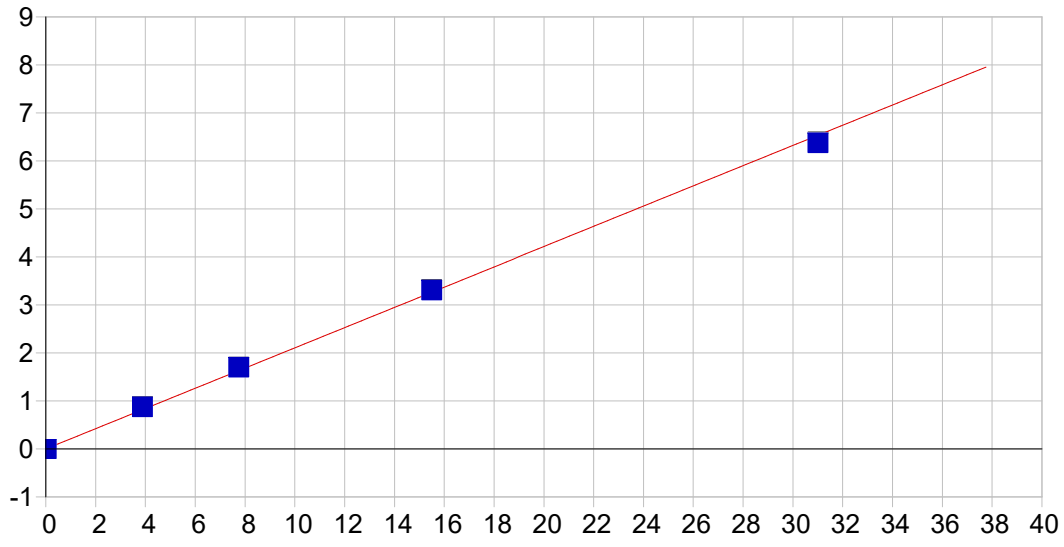
Ca 373.690 { 90}

Date of Fit: 10/23/2024 16:11:07 Type of Fit: Linear Weighting: 1/Conc

A0 (Offset):	0.004191	Re-Slope:	1.000000
A1 (Gain):	0.076093	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999678	Status:	OK.
Std Error of Est:	0.006742		
Predicted MDL:	0.016604		
Predicted MQL:	0.055347		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00108	-.001	.000	.00411	.002	1
S1	5.0000	5.6121	.612	12.2	.43123	.004	1
S2	62.500	65.529	3.03	4.85	4.9904	.021	1
S3	125.00	128.97	3.97	3.17	9.8176	.048	1
S4	250.00	256.95	6.95	2.78	19.557	.181	1
S5	500.00	505.74	5.74	1.15	38.488	.108	1
S6	800.00	779.69	-20.3	-2.54	59.333	.288	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



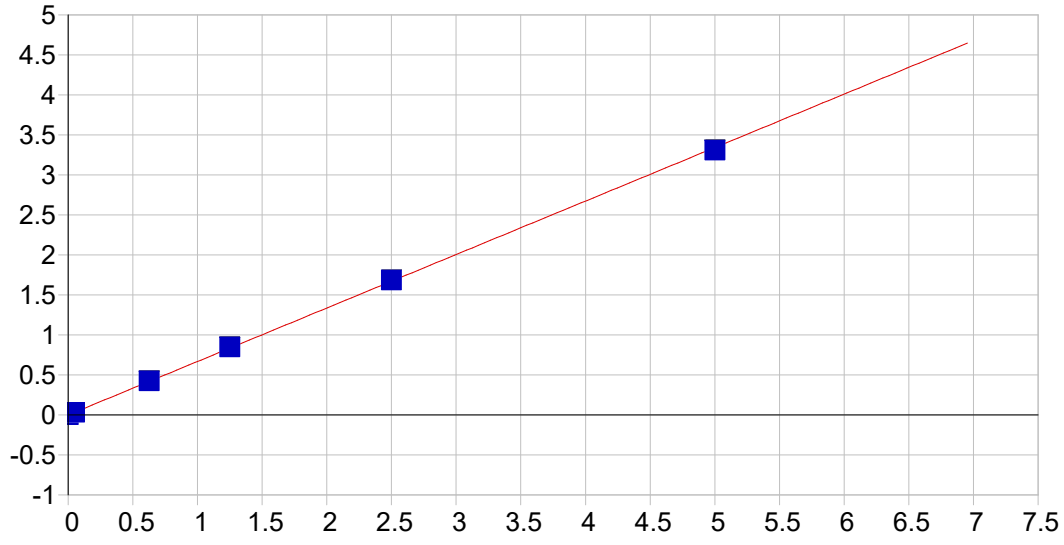
Cr 267.716 {126}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000236	Re-Slope:	1.000000
A1 (Gain):	0.210716	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999569	Status:	OK.
Std Error of Est:	0.000183		
Predicted MDL:	0.000929		
Predicted MQL:	0.003097		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00024	.000	1
S1	.01000	.01157	.002	15.7	.00221	.000	1
S2	3.8750	4.1390	.264	6.81	.87283	.003	1
S3	7.7500	8.0531	.303	3.91	1.6985	.003	1
S4	15.500	15.680	.180	1.16	3.3074	.005	1
S5	31.000	30.252	-.748	-2.41	6.3816	.012	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



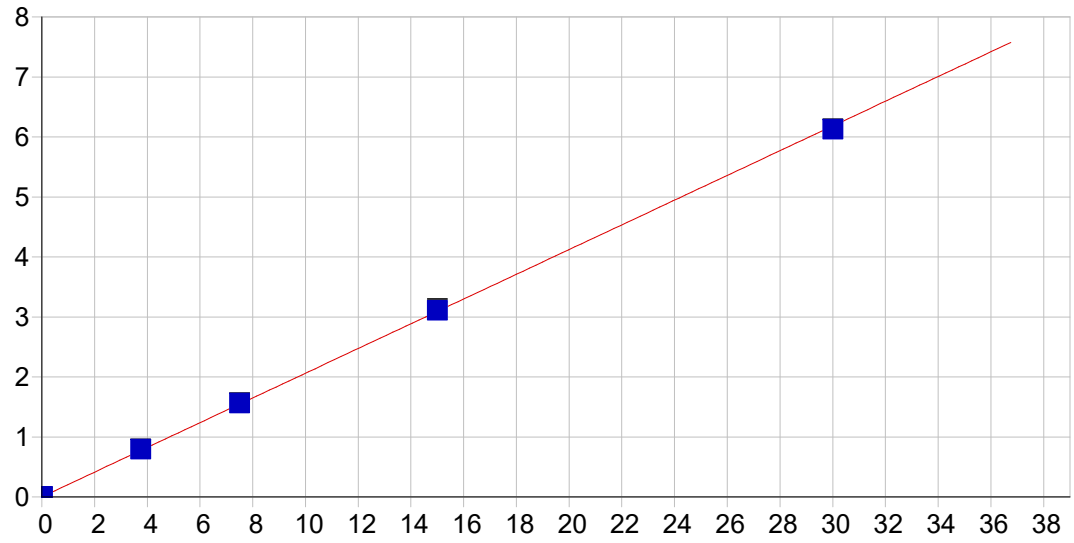
Co 228.616 {448}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000412	Re-Slope:	1.000000
A1 (Gain):	0.668366	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000187		
Predicted MDL:	0.000497		
Predicted MQL:	0.001656		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00041	.000	1
S1	.05000	.05041	.000	.822	.03340	.000	1
S2	.62500	.63366	.009	1.39	.42361	.000	1
S3	1.2500	1.2684	.018	1.47	.84835	.001	1
S4	2.5000	2.5212	.021	.849	1.6867	.003	1
S5	5.0000	4.9513	-.049	-.974	3.3130	.004	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



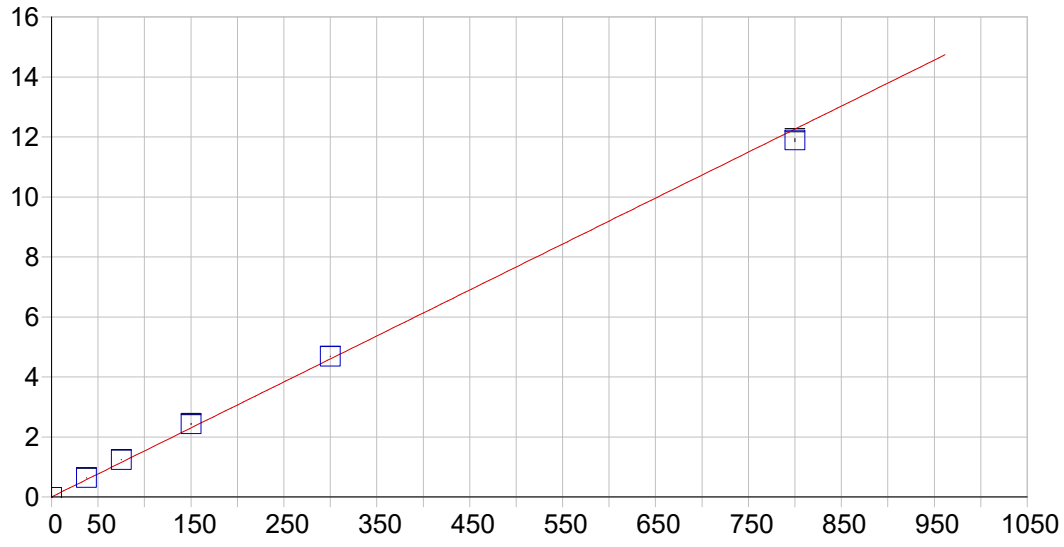
Cu 324.754 {104}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001411	Re-Slope:	1.000000
A1 (Gain):	0.206040	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000099		
Predicted MDL:	0.003780		
Predicted MQL:	0.012599		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00141	.000	1
S1	.02500	.02442	-.001	-2.30	.00644	.000	1
S2	3.7500	3.8467	.097	2.58	.79348	.001	1
S3	7.5000	7.5808	.081	1.08	1.5624	.004	1
S4	15.000	15.087	.087	.581	3.1080	.024	1
S5	30.000	29.736	-.264	-.880	6.1243	.006	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



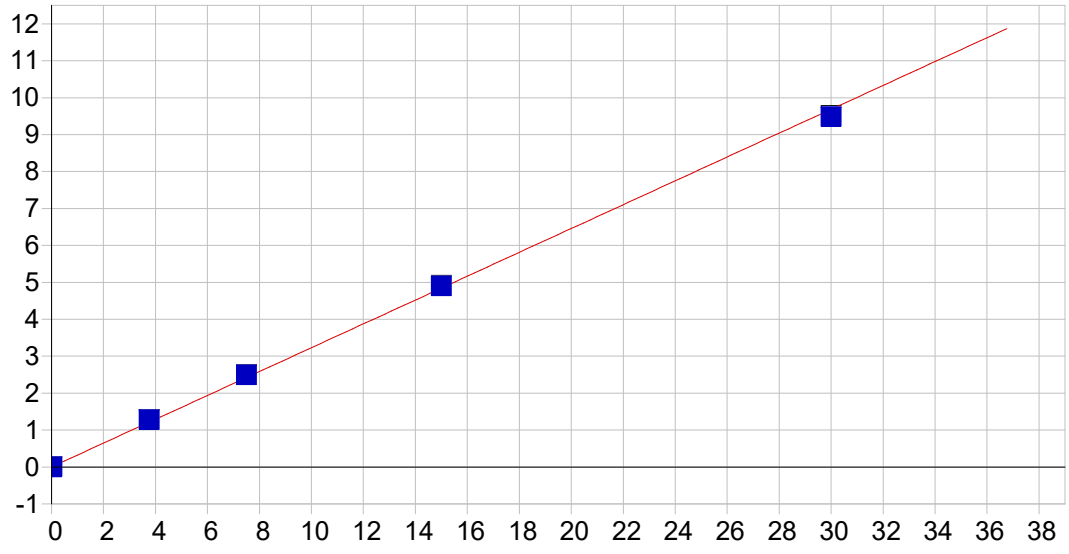
Fe 259.837 {130}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000295	Re-Slope:	1.000000
A1 (Gain):	0.015325	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999193	Status:	OK.
Std Error of Est:	0.000269		
Predicted MDL:	0.023436		
Predicted MQL:	0.078119		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00004	-.000	.000	.00029	.000	1
S1	.10000	.11974	.020	19.7	.00213	.000	1
S2	37.500	41.415	3.91	10.4	.63499	.004	1
S3	75.000	80.833	5.83	7.78	1.2391	.006	1
S4	150.00	158.62	8.62	5.75	2.4312	.025	1
S5	300.00	305.77	5.77	1.92	4.6863	.008	1
S6	800.00	775.85	-24.2	-3.02	11.890	.053	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



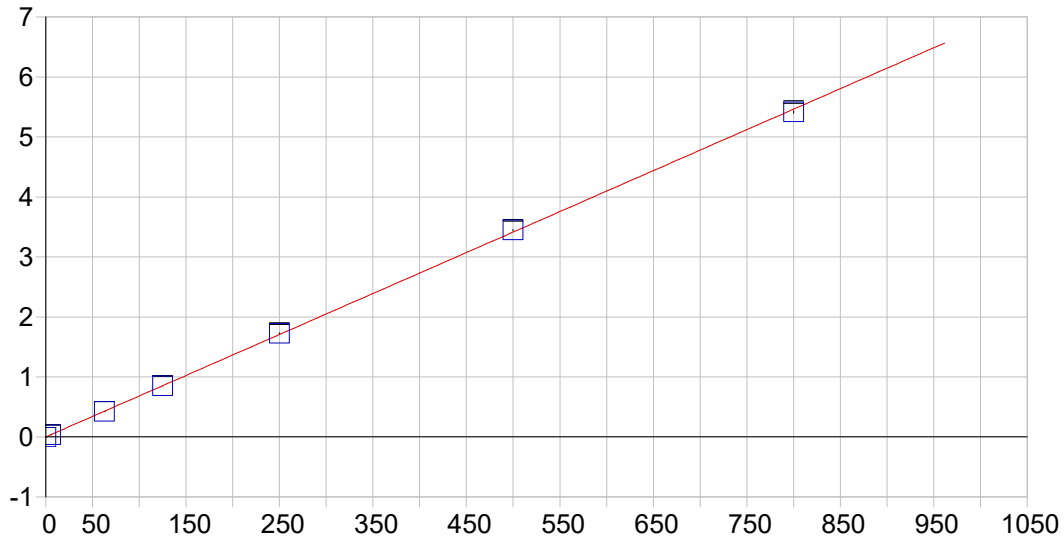
Mn 257.610 {131}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000055	Re-Slope:	1.000000
A1 (Gain):	0.322849	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999704	Status:	OK.
Std Error of Est:	0.000279		
Predicted MDL:	0.001163		
Predicted MQL:	0.003878		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00005	.000	1
S1	.01500	.01540	.000	2.66	.00504	.000	1
S2	3.7500	3.9634	.213	5.69	1.2798	.005	1
S3	7.5000	7.7274	.227	3.03	2.4952	.009	1
S4	15.000	15.168	.168	1.12	4.8978	.024	1
S5	30.000	29.391	-.609	-2.03	9.4903	.024	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



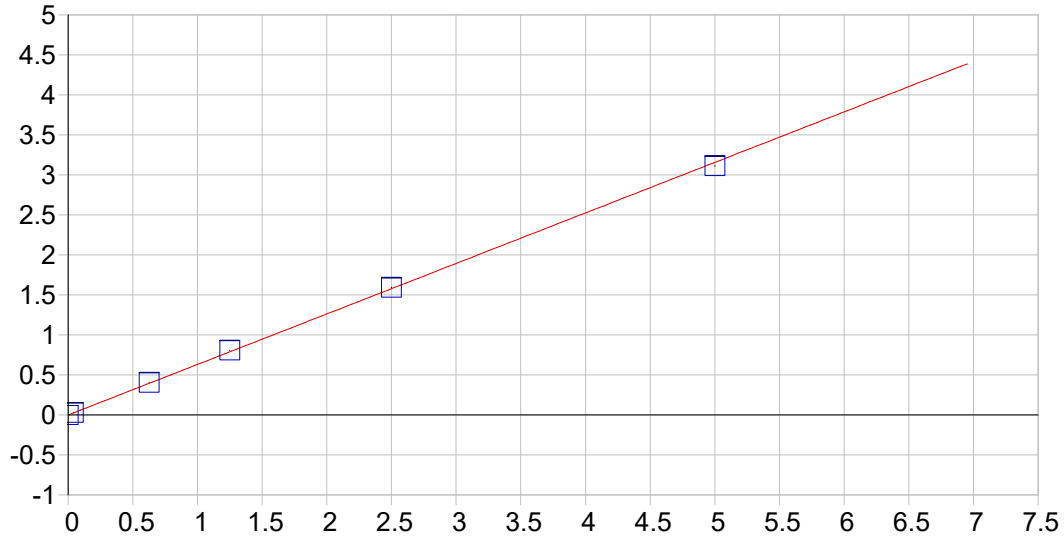
Mg 279.079 {121}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000175	Re-Slope:	1.000000
A1 (Gain):	0.006828	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999961	Status:	OK.
Std Error of Est:	0.000211		
Predicted MDL:	0.062461		
Predicted MQL:	0.208203		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00028	-.000	.000	-.00018	.000	1
S1	5.0000	5.2679	.268	5.36	.03579	.001	1
S2	62.500	62.227	-.273	-.437	.42470	.002	1
S3	125.00	124.62	-.379	-.303	.85071	.004	1
S4	250.00	252.33	2.33	.932	1.7227	.013	1
S5	500.00	504.67	4.67	.934	3.4456	.013	1
S6	800.00	793.38	-6.62	-.827	5.4169	.022	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



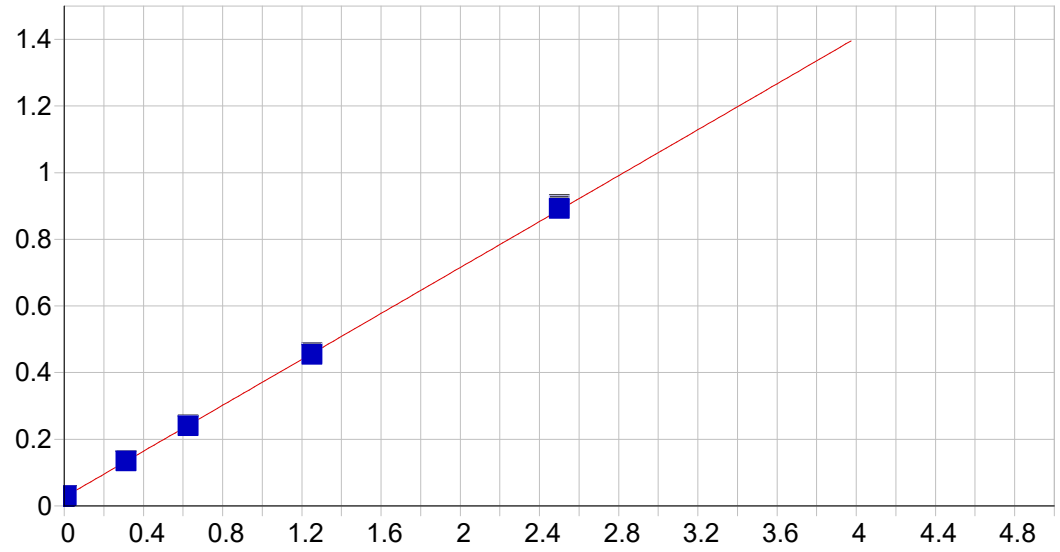
Ni 231.604 {446}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000442	Re-Slope:	1.000000
A1 (Gain):	0.631384	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999864	Status:	OK.
Std Error of Est:	0.000248		
Predicted MDL:	0.000560		
Predicted MQL:	0.001866		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00045	.000	1
S1	.04000	.04253	.003	6.34	.02641	.000	1
S2	.62500	.64294	.018	2.87	.40550	.002	1
S3	1.2500	1.2781	.028	2.24	.80650	.002	1
S4	2.5000	2.5236	.024	.942	1.5929	.003	1
S5	5.0000	4.9279	-.072	-1.44	3.1110	.003	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



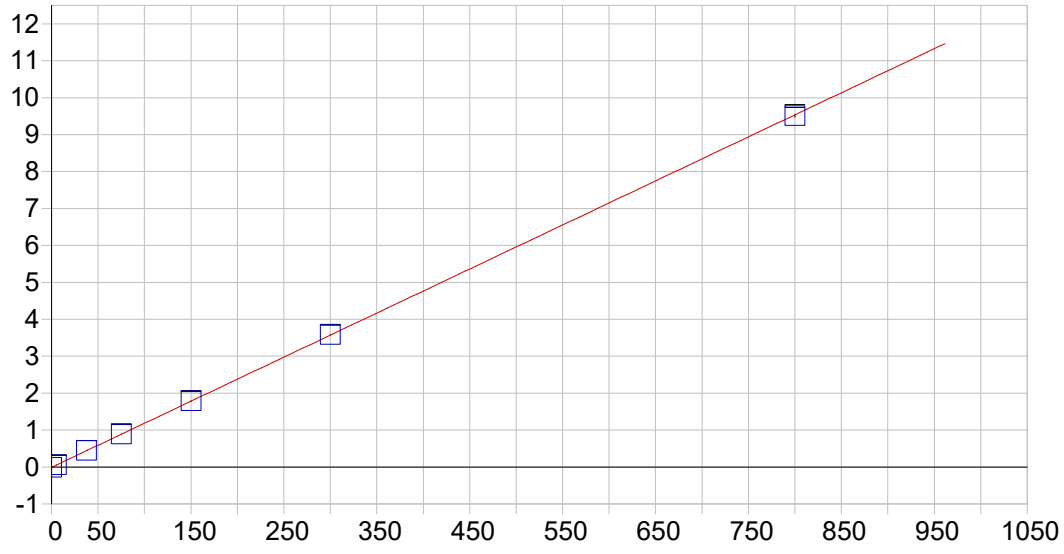
Ag 328.068 {103}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.026407	Re-Slope:	1.000000
A1 (Gain):	0.344548	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	n/a		
Predicted MQL:	n/a		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.02641	.000	1
S1	.01000	.01188	.002	18.8	.03049	.000	1
S2	.31250	.31299	.000	.156	.13541	.000	1
S3	.62500	.61878	-.006	-.995	.24193	.001	1
S4	1.2500	1.2418	-.008	-.658	.45890	.001	1
S5	2.5000	2.5121	.012	.484	.90123	.002	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



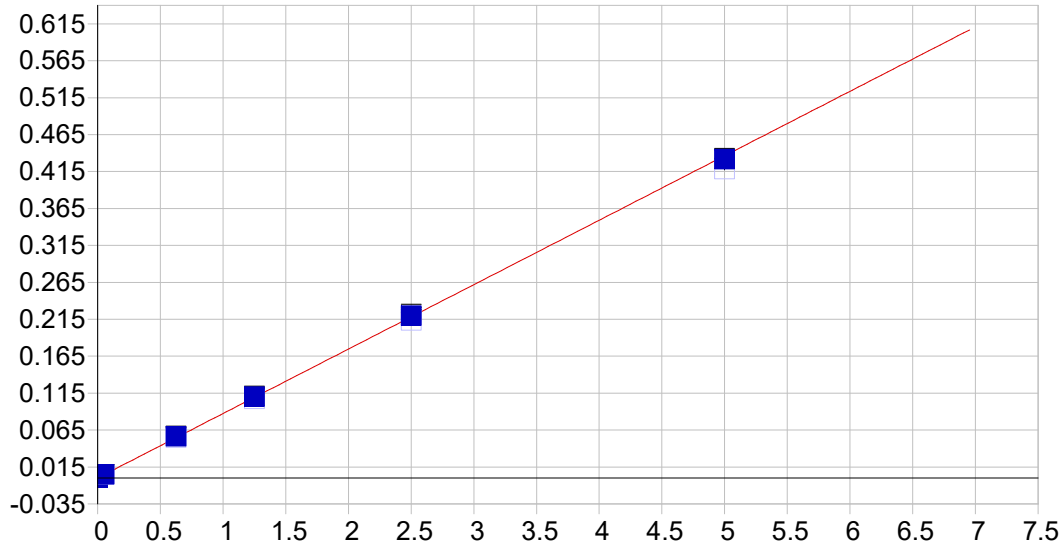
Na 818.326 { 41}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.008731	Re-Slope:	1.000000
A1 (Gain):	0.011931	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999989	Status:	OK.
Std Error of Est:	0.000171		
Predicted MDL:	0.281078		
Predicted MQL:	0.936927		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00029	-.000	.000	-.00873	.006	1
S1	5.0000	5.1735	.173	3.47	.05300	.003	1
S2	37.500	38.136	.636	1.70	.44628	.002	1
S3	75.000	75.249	.249	.331	.88908	.008	1
S4	150.00	150.52	.524	.349	1.7872	.011	1
S5	300.00	300.86	.865	.288	3.5810	.010	1
S6	800.00	797.55	-2.45	-.306	9.5071	.036	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



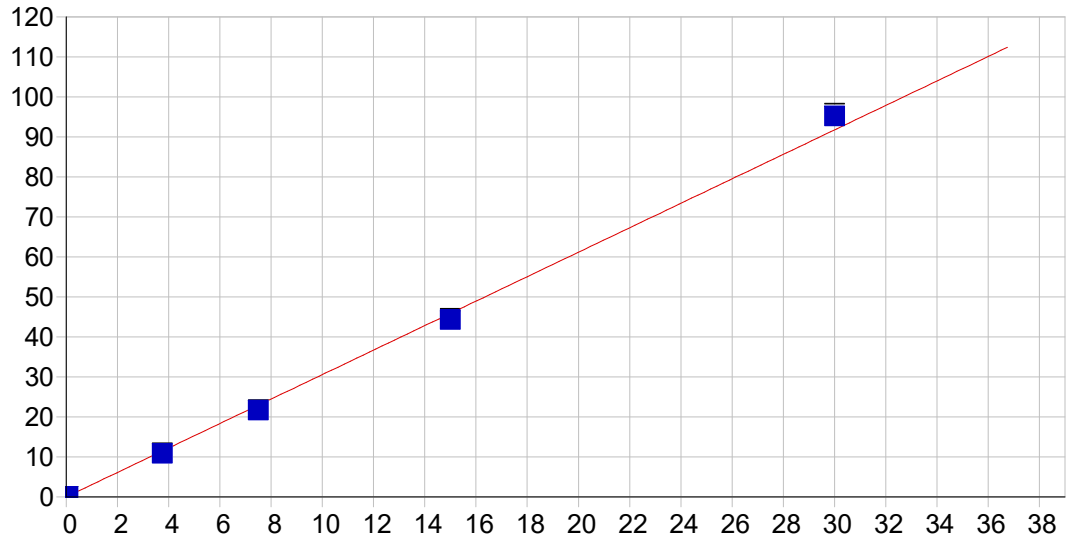
V 292.402 {115}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000076	Re-Slope:	1.000000
A1 (Gain):	0.087259	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999910	Status:	OK.
Std Error of Est:	0.000030		
Predicted MDL:	0.008764		
Predicted MQL:	0.029212		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00008	.000	1
S1	.05000	.05297	.003	5.95	.00469	.000	1
S2	.62500	.64361	.019	2.98	.05456	.001	1
S3	1.2500	1.2638	.014	1.10	.10700	.001	1
S4	2.5000	2.5183	.018	.730	.21311	.002	1
S5	5.0000	4.9463	-.054	-1.07	.41828	.001	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



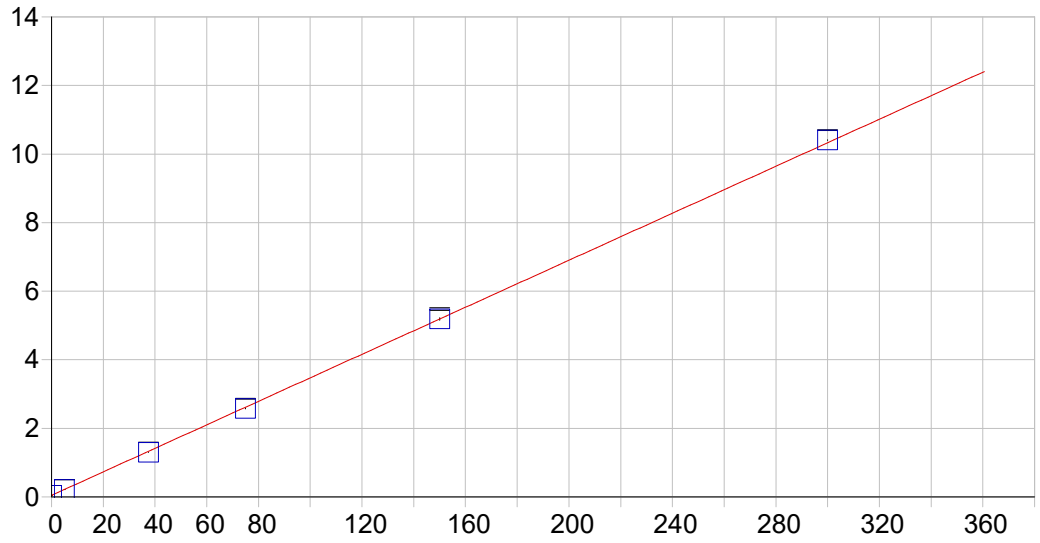
Zn 213.856 {158}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001681	Re-Slope:	1.000000
A1 (Gain):	3.058256	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999168	Status:	OK.
Std Error of Est:	0.008894		
Predicted MDL:	0.000436		
Predicted MQL:	0.001453		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00171	.002	1
S1	.06000	.05744	-.003	-4.27	.17823	.001	1
S2	3.7500	3.5566	-.193	-5.16	10.892	.048	1
S3	7.5000	7.0829	-.417	-5.56	21.691	.089	1
S4	15.000	14.480	-.520	-3.47	44.342	.287	1
S5	30.000	31.133	1.13	3.78	95.325	.584	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



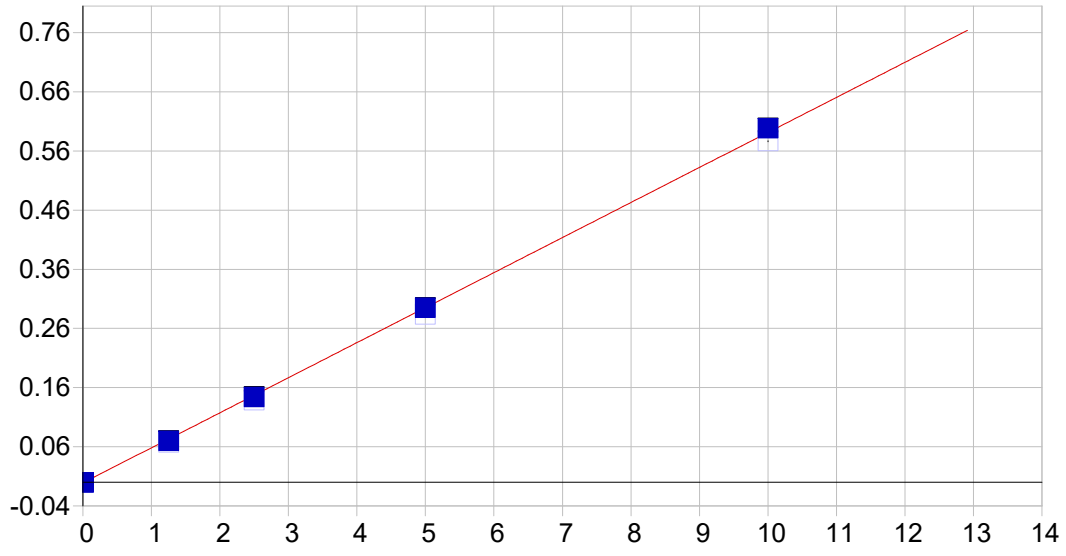
K 769.896 { 44}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.046025	Re-Slope:	1.000000
A1 (Gain):	0.034280	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999946	Status:	OK.
Std Error of Est:	0.000736		
Predicted MDL:	0.126779		
Predicted MQL:	0.422596		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00020	.000	.000	.04603	.001	1
S1	5.0000	4.9734	-.027	-.531	.21652	.001	1
S2	37.500	36.571	-.929	-2.48	1.2997	.003	1
S3	75.000	73.746	-1.25	-1.67	2.5741	.011	1
S4	150.00	149.93	-.075	-.050	5.1855	.037	1
S5	300.00	302.28	2.28	.761	10.408	.010	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



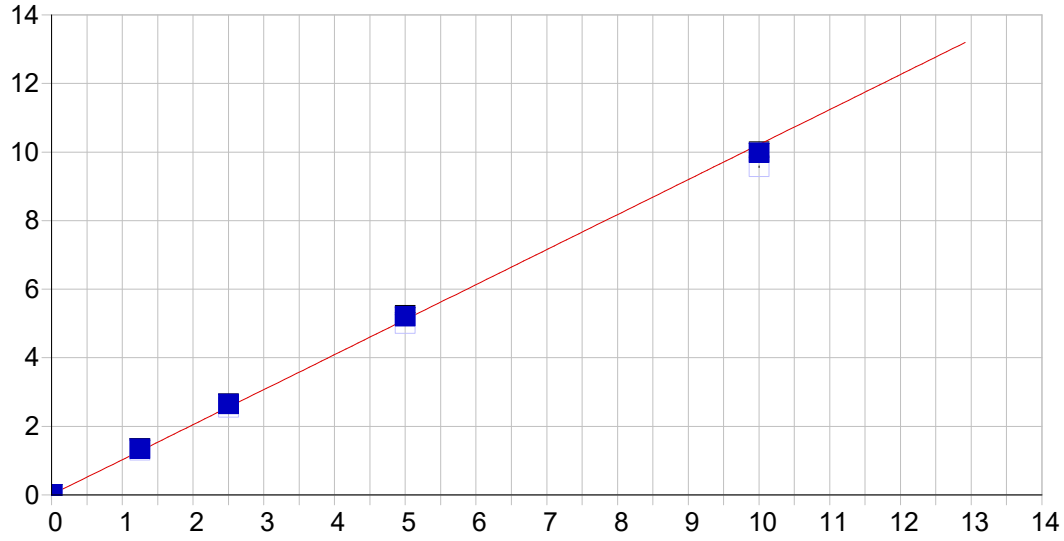
P 177.495 {490}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000999	Re-Slope:	1.000000
A1 (Gain):	0.059235	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999840	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.003085		
Predicted MQL:	0.010282		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00100	.000	1
S1	.01000	.00686	-.003	-31.4	-.00061	.000	1
S2	1.2500	1.1995	-.050	-4.04	.06733	.001	1
S3	2.5000	2.4461	-.054	-2.15	.13845	.001	1
S4	5.0000	4.9901	-.010	-.197	.28370	.001	1
S5	10.000	10.117	.117	1.17	.57653	.001	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



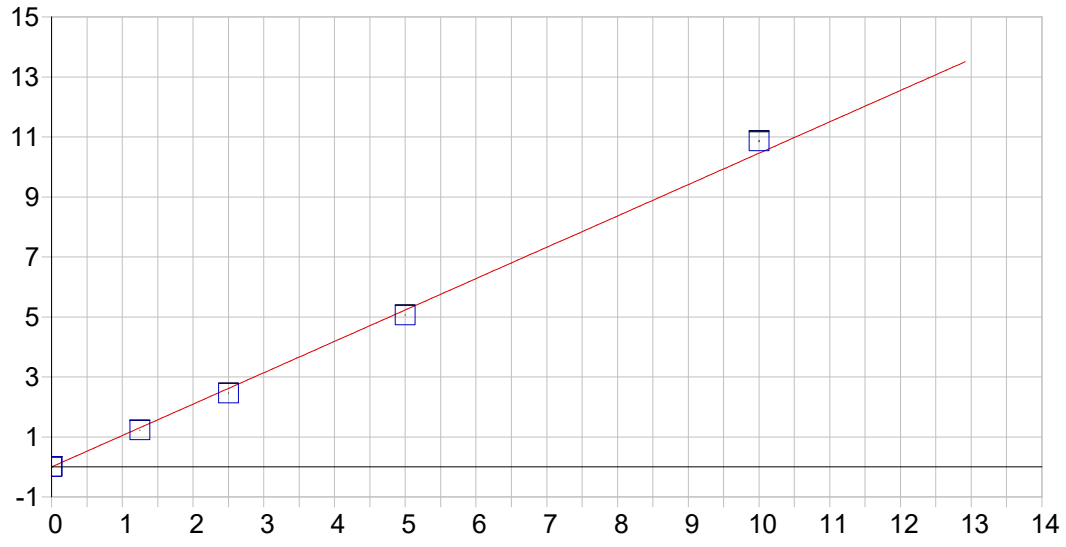
B 249.678 {135}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005887	Re-Slope:	1.000000
A1 (Gain):	1.021182	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999346	Status:	OK.
Std Error of Est:	0.000595		
Predicted MDL:	0.000995		
Predicted MQL:	0.003318		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00590	.000	1
S1	.01000	.00033	-.010	-96.7	.00613	.000	1
S2	1.2500	1.3131	.063	5.05	1.2953	.001	1
S3	2.5000	2.5881	.088	3.53	2.5458	.003	1
S4	5.0000	5.0902	.090	1.80	4.9978	.036	1
S5	10.000	9.7686	-.231	-2.31	9.5692	.021	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



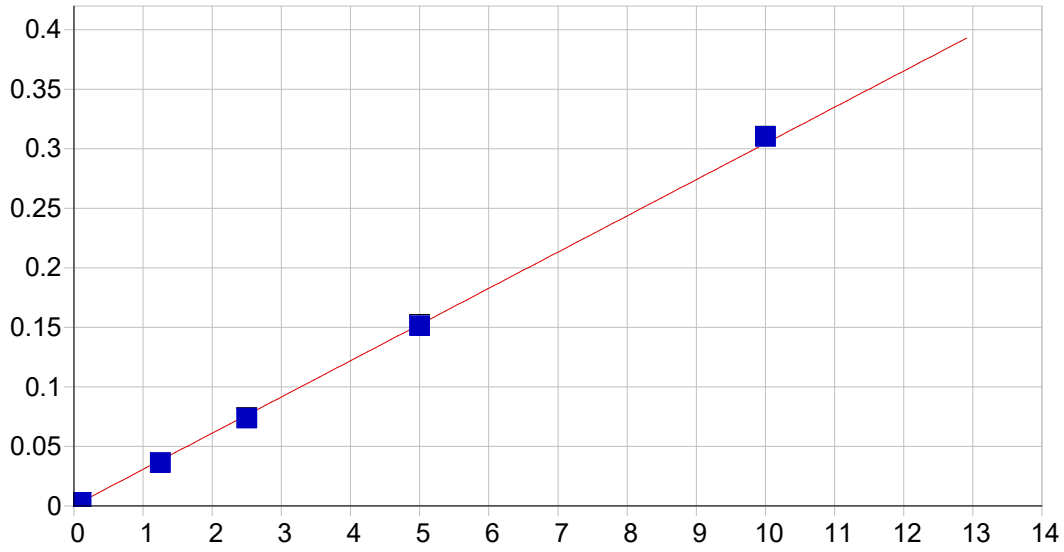
Mo 202.030 {467}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000039	Re-Slope:	1.000000
A1 (Gain):	1.045786	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999108	Status:	OK.
Std Error of Est:	0.000741		
Predicted MDL:	0.000426		
Predicted MQL:	0.001420		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00004	.000	1
S1	.01000	.00956	-.000	-4.41	.00996	.000	1
S2	1.2500	1.1723	-.078	-6.22	1.2259	.003	1
S3	2.5000	2.3530	-.147	-5.88	2.4607	.006	1
S4	5.0000	4.8397	-.160	-3.21	5.0613	.006	1
S5	10.000	10.385	.385	3.85	10.861	.025	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



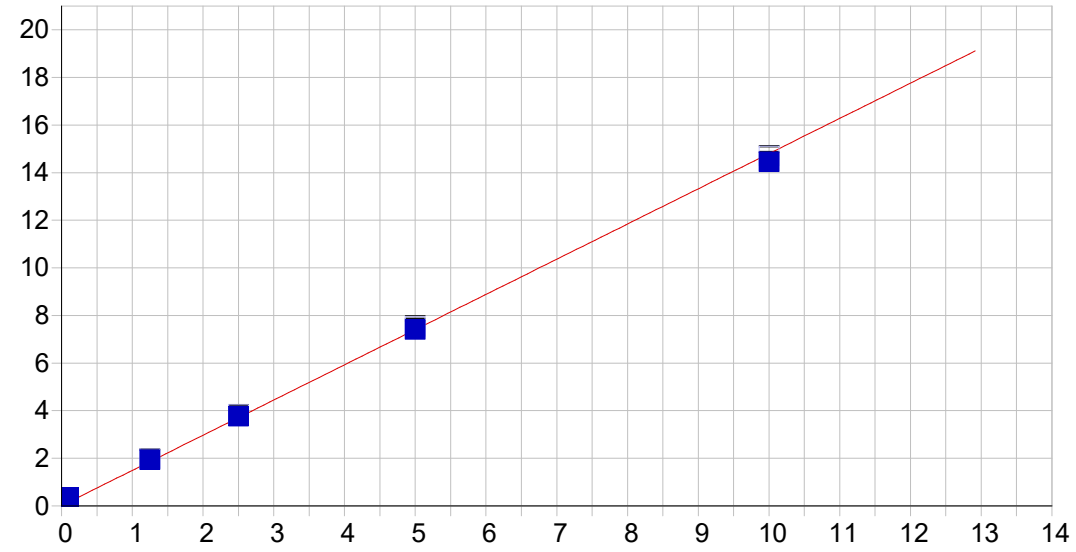
S 182.034 {485}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000275	Re-Slope:	1.000000
A1 (Gain):	0.030427	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999712	Status:	OK.
Std Error of Est:	0.000039		
Predicted MDL:	0.005874		
Predicted MQL:	0.019580		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00028	.000	1
S1	.10000	.08892	-.011	-11.1	.00298	.000	1
S2	1.2500	1.1875	-.063	-5.00	.03641	.000	1
S3	2.5000	2.4160	-.084	-3.36	.07379	.000	1
S4	5.0000	4.9703	-.030	-.595	.15152	.001	1
S5	10.000	10.187	.187	1.87	.31027	.000	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



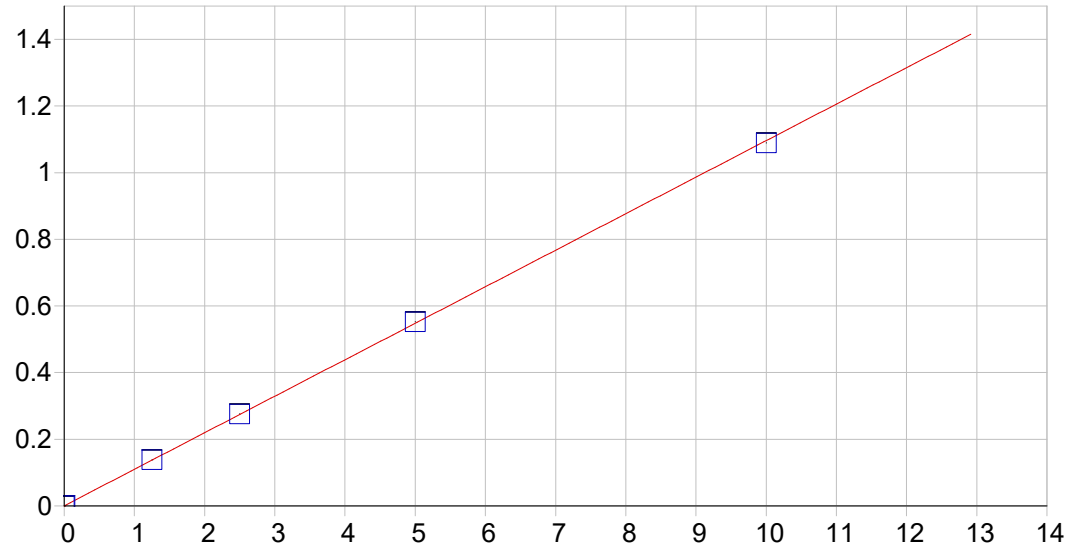
Si 251.611 {134}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.011298	Re-Slope:	1.000000
A1 (Gain):	1.479083	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994627	Status:	OK.
Std Error of Est:	0.008312		
Predicted MDL:	0.000592		
Predicted MQL:	0.001973		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00015	-.000	.000	.01108	.001	1
S1	.10000	.24216	.142	142.	.37046	.003	1
S2	1.2500	1.3054	.055	4.43	1.9720	.011	1
S3	2.5000	2.5394	.039	1.57	3.8270	.020	1
S4	5.0000	4.9973	-.003	-.054	7.5223	.052	1
S5	10.000	9.7671	-.233	-2.33	14.697	.028	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



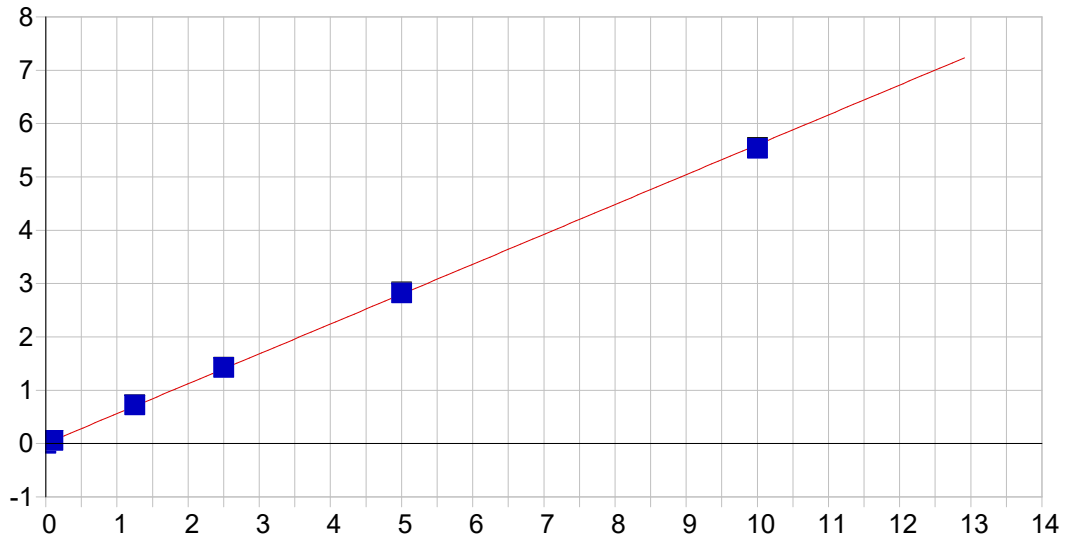
Sn 189.989 {478}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000265	Re-Slope:	1.000000
A1 (Gain):	0.109578	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999962	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.001632		
Predicted MQL:	0.005440		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00027	.000	1
S1	.00700	.00494	-.002	-29.4	.00081	.000	1
S2	1.2500	1.2581	.008	.651	.13813	.000	1
S3	2.5000	2.5165	.017	.660	.27602	.000	1
S4	5.0000	5.0383	.038	.766	.55235	.001	1
S5	10.000	9.9391	-.061	-.609	1.0894	.001	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



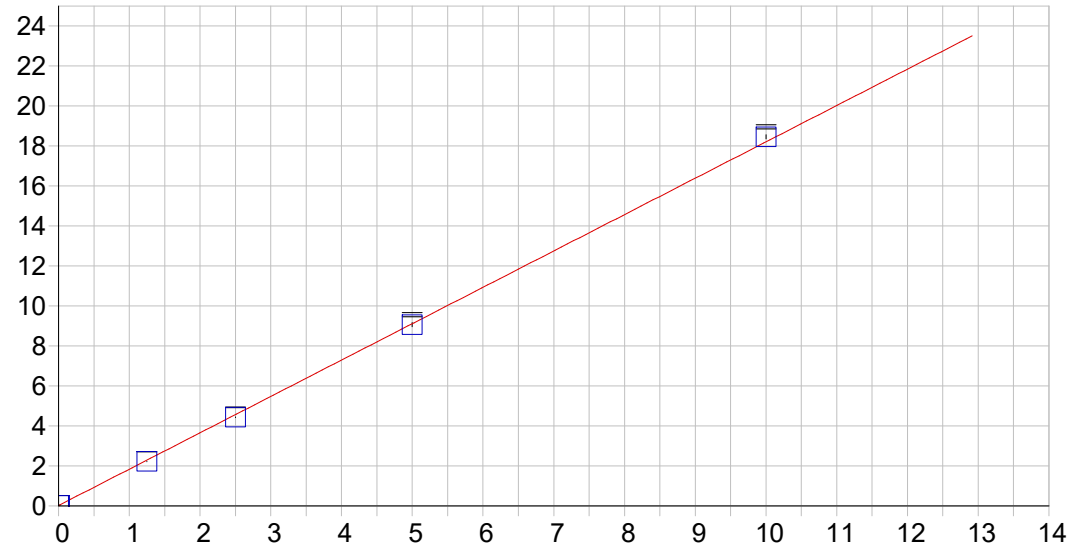
Ti 336.121 {100}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000817	Re-Slope:	1.000000
A1 (Gain):	0.560144	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999904	Status:	OK.
Std Error of Est:	0.000412		
Predicted MDL:	0.001615		
Predicted MQL:	0.005382		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00081	.001	1
S1	.10000	.10335	.003	3.35	.05869	.000	1
S2	1.2500	1.2874	.037	2.99	.72162	.002	1
S3	2.5000	2.5426	.043	1.70	1.4243	.006	1
S4	5.0000	5.0349	.035	.699	2.8197	.018	1
S5	10.000	9.8817	-.118	-1.18	5.5332	.010	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



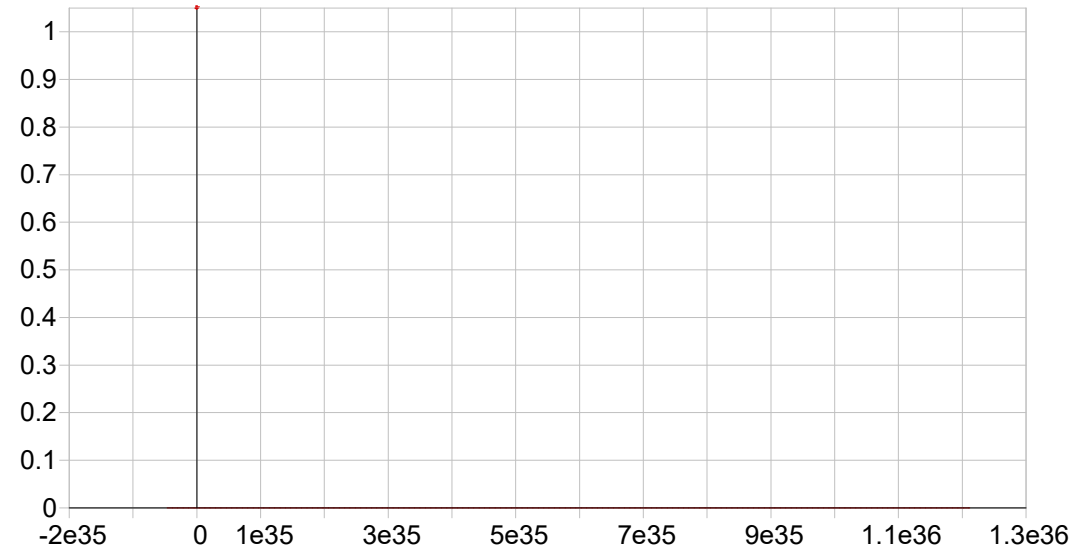
Li 670.784 { 50}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.018018	Re-Slope:	1.000000
A1 (Gain):	1.819000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999860	Status:	OK.
Std Error of Est:	0.000624		
Predicted MDL:	0.001826		
Predicted MQL:	0.006086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01802	.004	1
S5	10.000	10.136	.136	1.36	18.455	.104	1
S4	5.0000	4.9742	-.026	-.516	9.0661	.101	1
S3	2.5000	2.4286	-.071	-2.86	4.4356	.014	1
S2	1.2500	1.2110	-.039	-3.12	2.2208	.009	1
S1	.01500	.01534	.000	2.24	.04592	.001	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

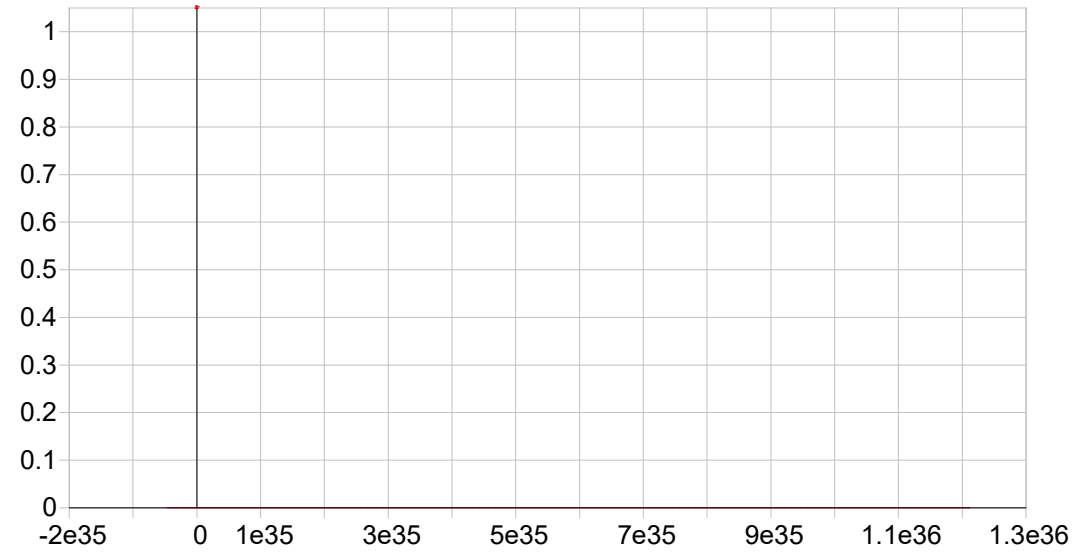


Y 224.306 {450}*

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

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

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



Y 360.073 { 94}*

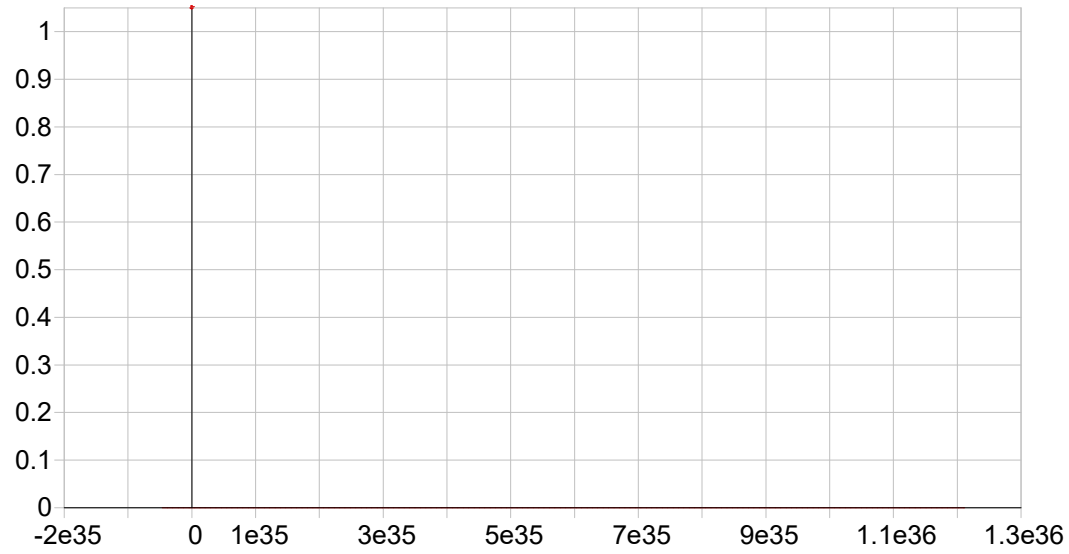
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

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

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



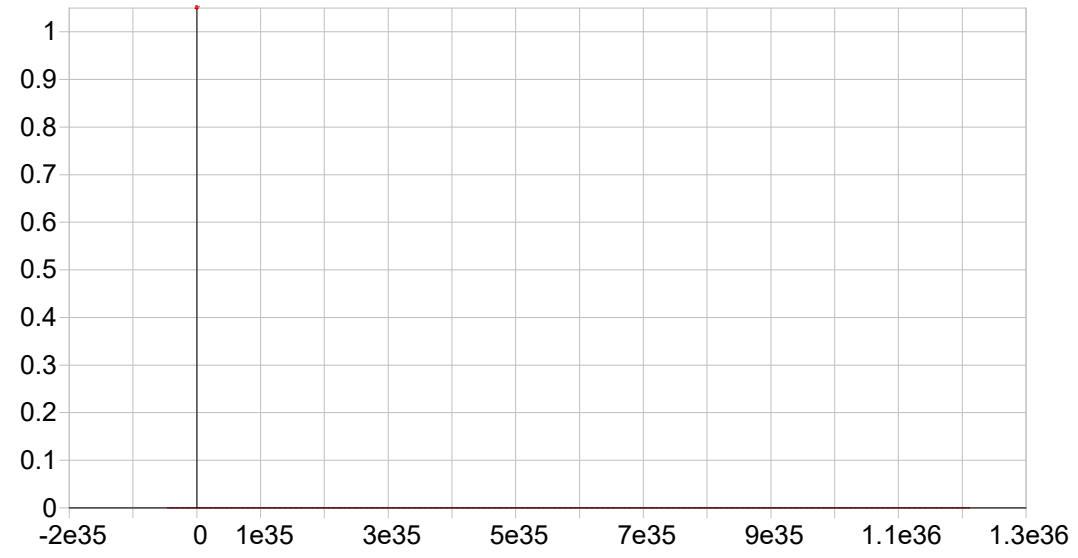
Y 371.030 { 91}*

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

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

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

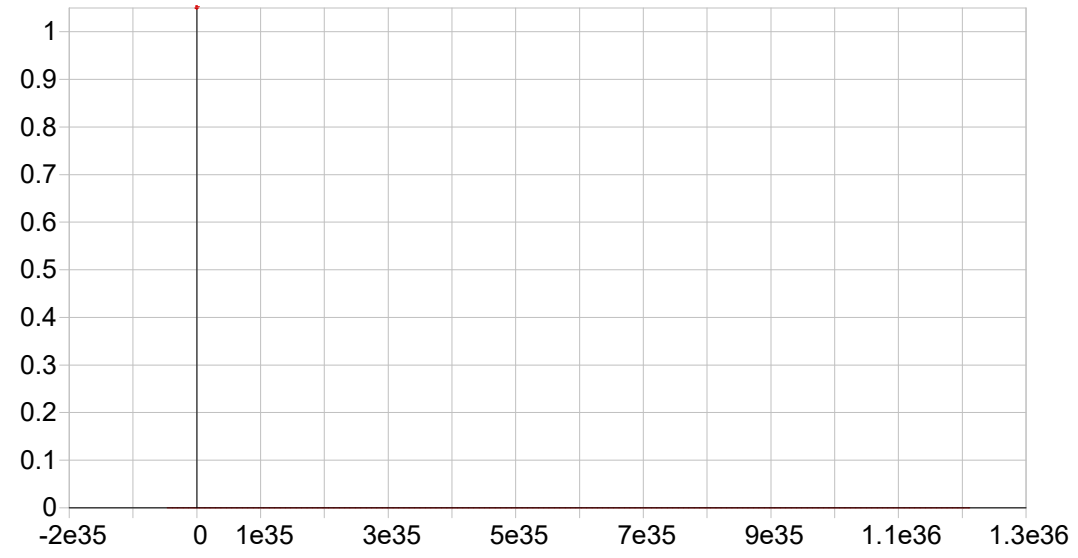
Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5



Y 224.306 {150}*

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

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



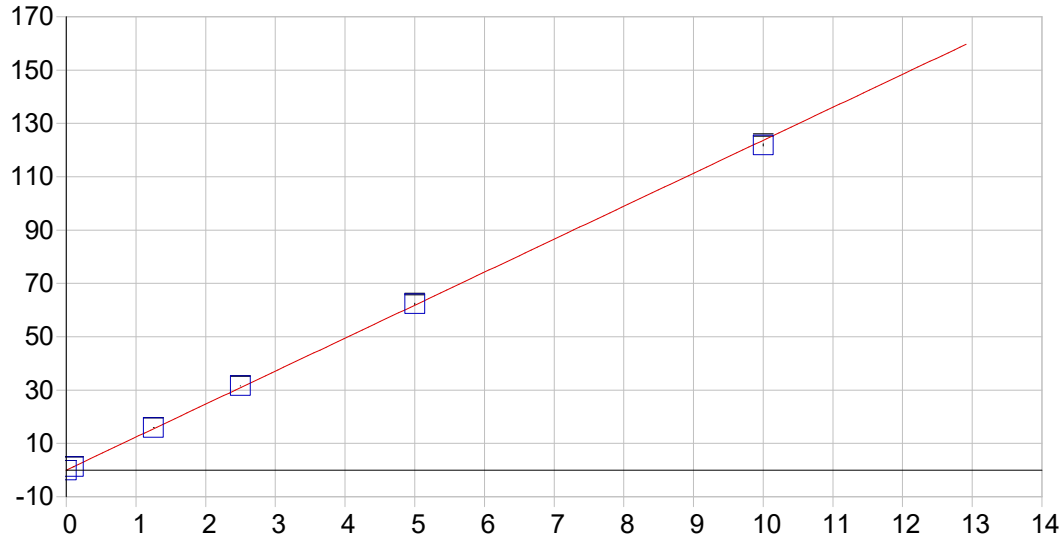
In 230.606 {446}*

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

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

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

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



Sr 407.771 { 83}

Date of Fit:	10/23/2024 16:11:07	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000095	Re-Slope:	1.000000
A1 (Gain):	12.366566	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999854	Status:	OK.
Std Error of Est:	0.011227		
Predicted MDL:	0.000116		
Predicted MQL:	0.000386		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00025	.001	1
S1	.10000	.10794	.008	7.94	1.3348	.003	1
S2	1.2500	1.2900	.040	3.20	15.953	.021	1
S3	2.5000	2.5553	.055	2.21	31.601	.088	1
S4	5.0000	5.0398	.040	.796	62.325	.275	1
S5	10.000	9.8569	-.143	-1.43	121.90	.415	1

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S0 Acquired: 10/23/2024 14:17:41 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	-.00021	-.00043	-.00073	.00046	-.00011	-.00438	.03122	-.00279
Stddev	.00012	.00012	.00058	.00023	.00039	.00131	.00247	.00088
%RSD	54.600	26.856	79.211	50.325	367.36	29.838	7.9219	31.390
#1	-.00032	-.00050	-.00017	.00061	.00026	-.00514	.02875	-.00196
#2	-.00022	-.00049	-.00069	.00057	-.00007	-.00287	.03121	-.00371
#3	-.00009	-.00030	-.00133	.00019	-.00051	-.00514	.03370	-.00270

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	.00038	.00411	-.00024	-.00041	.00141	.00029	.00005	-.00018
Stddev	.00027	.00153	.00005	.00026	.00049	.00012	.00012	.00012
%RSD	70.929	37.214	19.093	63.151	34.673	41.509	220.35	65.709
#1	.00027	.00280	-.00020	-.00037	.00191	.00023	.00017	-.00020
#2	.00019	.00373	-.00029	-.00069	.00093	.00044	-.00007	-.00005
#3	.00069	.00579	-.00022	-.00018	.00139	.00022	.00007	-.00028

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	-.00045	.02641	-.00873	.00008	.00171	.04603	-.00100	.00590
Stddev	.00006	.00017	.00558	.00036	.00151	.00065	.00010	.00026
%RSD	13.250	.63872	63.928	473.67	88.678	1.4110	10.313	4.4586
#1	-.00042	.02621	-.00258	-.00021	.00085	.04678	-.00112	.00567
#2	-.00040	.02650	-.01348	-.00004	.00346	.04563	-.00094	.00583
#3	-.00051	.02651	-.01013	.00048	.00082	.04569	-.00094	.00619

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	-.00004	.00028	.01108	.00027	.00081	.01802	-.00025
Stddev	.00017	.00002	.00122	.00015	.00090	.00377	.00074
%RSD	451.17	7.0290	11.010	57.970	110.56	20.907	292.57
#1	.00015	.00029	.00998	.00018	-.00017	.02222	-.00047
#2	-.00009	.00025	.01239	.00044	.00160	.01690	.00057
#3	-.00017	.00028	.01088	.00017	.00101	.01494	-.00086

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S0 Acquired: 10/23/2024 14:17:41 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	973.47	22169.	2819.4	813.16	1909.7
Stddev	1.16	46.	17.5	3.82	.5
%RSD	.11885	.20672	.62131	.46977	.02637
#1	972.62	22117.	2799.2	811.89	1910.0
#2	973.01	22200.	2828.5	810.14	1909.2
#3	974.79	22192.	2830.6	817.46	1910.0

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S1 Acquired: 10/23/2024 14:22:20 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.00025	.00157	.00101	.00275	.01184	.02051	1.2784	.03209
Stddev	.00015	.00011	.00026	.00020	.00029	.00154	.0012	.00098
%RSD	60.064	7.2305	25.857	7.1639	2.4317	7.5110	.09002	3.0399
#1	.00037	.00148	.00097	.00294	.01163	.02202	1.2796	.03186
#2	.00008	.00170	.00077	.00255	.01217	.02055	1.2773	.03126
#3	.00030	.00154	.00129	.00276	.01172	.01894	1.2783	.03317

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	.01170	.43123	.00221	.03340	.00644	.00213	.00504	.03579
Stddev	.00014	.00408	.00005	.00032	.00045	.00007	.00027	.00064
%RSD	1.2172	.94571	2.0659	.95735	6.9656	3.1027	5.4311	1.7754
#1	.01158	.42677	.00215	.03342	.00683	.00216	.00474	.03564
#2	.01166	.43218	.00223	.03371	.00595	.00206	.00510	.03525
#3	.01186	.43476	.00223	.03307	.00654	.00218	.00528	.03649

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	.02641	.03049	.05300	.00469	.17823	.21652	-.00061	.00613
Stddev	.00014	.00021	.00322	.00047	.00148	.00080	.00008	.00044
%RSD	.54851	.68623	6.0814	10.001	.82934	.37089	12.458	7.2198
#1	.02651	.03041	.05578	.00460	.17955	.21733	-.00062	.00604
#2	.02649	.03073	.04946	.00520	.17850	.21572	-.00053	.00661
#3	.02625	.03033	.05375	.00427	.17663	.21650	-.00067	.00574

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	.00996	.00298	.37046	.00081	.05869	.04592	1.3348
Stddev	.00027	.00014	.00333	.00010	.00014	.00058	.0032
%RSD	2.7207	4.5681	.89921	12.775	.24361	1.2725	.23881
#1	.01000	.00298	.36676	.00088	.05859	.04562	1.3313
#2	.01021	.00284	.37141	.00069	.05862	.04554	1.3353
#3	.00967	.00312	.37321	.00086	.05885	.04659	1.3376

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S1 Acquired: 10/23/2024 14:22:20 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	970.72	22191.	2811.5	814.93	1888.8
Stddev	.21	86.	12.7	3.23	2.8
%RSD	.02168	.38770	.45272	.39630	.14973
#1	970.58	22183.	2826.1	812.76	1890.4
#2	970.62	22109.	2804.8	813.39	1885.6
#3	970.96	22280.	2803.5	818.64	1890.6

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S2 Acquired: 10/23/2024 14:26:58 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.04239	.10396	.97964	.09948	.25014	4.5783	14.933	.80402
Stddev	.00028	.00045	.00301	.00016	.00171	.0158	.051	.00125
%RSD	.65024	.43154	.30724	.16091	.68364	.34605	.34333	.15494
#1	.04270	.10363	.97815	.09965	.24819	4.5605	14.878	.80544
#2	.04232	.10379	.97766	.09947	.25134	4.5906	14.980	.80315
#3	.04216	.10447	.98310	.09933	.25091	4.5839	14.940	.80345

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	1.4189	4.9904	.87283	.42361	.79348	.63499	1.2798	.42470
Stddev	.0038	.0211	.00267	.00019	.00145	.00371	.0053	.00172
%RSD	.26915	.42205	.30603	.04486	.18285	.58501	.41585	.40443
#1	1.4177	4.9706	.87055	.42357	.79264	.63171	1.2782	.42325
#2	1.4158	5.0125	.87218	.42345	.79516	.63902	1.2858	.42660
#3	1.4232	4.9881	.87577	.42382	.79265	.63425	1.2755	.42425

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	.40550	.13541	.44628	.05456	10.892	1.2997	.06733	1.2953
Stddev	.00153	.00047	.00183	.00052	.048	.0031	.00054	.0006
%RSD	.37827	.34618	.40957	.94878	.44222	.23764	.80229	.04306
#1	.40461	.13487	.44638	.05500	10.941	1.2962	.06692	1.2957
#2	.40461	.13571	.44441	.05399	10.892	1.3018	.06713	1.2955
#3	.40727	.13564	.44806	.05470	10.845	1.3011	.06794	1.2947

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	1.2259	.03641	1.9720	.13813	.72162	2.2208	15.953
Stddev	.0026	.00023	.0109	.00022	.00216	.0088	.021
%RSD	.21415	.62455	.54997	.15674	.29879	.39448	.13124
#1	1.2231	.03621	1.9835	.13789	.71989	2.2160	15.937
#2	1.2263	.03666	1.9706	.13819	.72403	2.2309	15.976
#3	1.2283	.03636	1.9619	.13831	.72092	2.2155	15.944

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S2 Acquired: 10/23/2024 14:26:58 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	916.17	21643.	2795.6	758.25	1712.4
Stddev	1.28	99.	1.7	1.85	.9
%RSD	.13920	.45869	.05967	.24409	.05293
#1	917.50	21745.	2797.5	756.22	1712.8
#2	916.05	21637.	2794.3	758.67	1713.1
#3	914.96	21547.	2795.0	759.85	1711.4

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S3 Acquired: 10/23/2024 14:31:22 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.08655	.20334	1.9545	.20155	.50678	9.0417	29.707	1.5625
Stddev	.00023	.00049	.0015	.00054	.00114	.0267	.034	.0109
%RSD	.27148	.23992	.07498	.26612	.22493	.29519	.11492	.69524
#1	.08678	.20321	1.9555	.20169	.50548	9.0407	29.709	1.5705
#2	.08631	.20388	1.9529	.20095	.50722	9.0155	29.672	1.5501
#3	.08657	.20293	1.9552	.20199	.50763	9.0688	29.740	1.5668

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	2.8175	9.8176	1.6985	.84835	1.5624	1.2391	2.4952	.85071
Stddev	.0030	.0484	.0031	.00131	.0045	.0059	.0089	.00360
%RSD	.10770	.49274	.18361	.15437	.28752	.47324	.35580	.42366
#1	2.8146	9.8122	1.6949	.84806	1.5637	1.2433	2.4932	.85082
#2	2.8172	9.7722	1.7001	.84720	1.5574	1.2324	2.4875	.84706
#3	2.8206	9.8685	1.7005	.84977	1.5661	1.2416	2.5049	.85426

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	.80650	.24193	.88908	.10700	21.691	2.5741	.13845	2.5458
Stddev	.00247	.00107	.00814	.00084	.089	.0107	.00085	.0028
%RSD	.30575	.44384	.91502	.78343	.40815	.41754	.61364	.11127
#1	.80818	.24191	.88975	.10796	21.682	2.5845	.13903	2.5445
#2	.80367	.24086	.88063	.10665	21.784	2.5630	.13748	2.5439
#3	.80765	.24301	.89686	.10640	21.607	2.5747	.13886	2.5491

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	2.4607	.07379	3.8270	.27602	1.4243	4.4356	31.601
Stddev	.0064	.00041	.0203	.00035	.0064	.0143	.088
%RSD	.25997	.56205	.53154	.12524	.44650	.32245	.27934
#1	2.4542	.07423	3.8204	.27602	1.4267	4.4348	31.679
#2	2.4608	.07374	3.8108	.27636	1.4171	4.4218	31.505
#3	2.4670	.07341	3.8498	.27567	1.4292	4.4503	31.618

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S3 Acquired: 10/23/2024 14:31:22 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	877.02	21304.	2783.8	718.20	1627.7
Stddev	1.11	56.	9.0	3.40	1.1
%RSD	.12684	.26471	.32480	.47392	.06979
#1	878.30	21368.	2785.6	718.58	1626.9
#2	876.33	21277.	2791.8	714.63	1629.0
#3	876.42	21265.	2774.0	721.41	1627.2

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S4 Acquired: 10/23/2024 14:35:44 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.17701	.39524	3.8692	.41752	1.0658	18.212	59.169	3.0938
Stddev	.00002	.00124	.0097	.00107	.0024	.140	.359	.0207
%RSD	.01186	.31314	.25080	.25631	.22023	.77045	.60647	.66867
#1	.17700	.39398	3.8608	.41711	1.0680	18.373	59.582	3.1114
#2	.17699	.39645	3.8670	.41873	1.0660	18.116	58.982	3.0710
#3	.17703	.39528	3.8798	.41671	1.0633	18.146	58.942	3.0991

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.5518	19.557	3.3074	1.6867	3.1080	2.4312	4.8978	1.7227
Stddev	.0112	.181	.0045	.0030	.0239	.0254	.0236	.0132
%RSD	.20230	.92683	.13731	.17589	.76832	1.0460	.48182	.76529
#1	5.5462	19.757	3.3126	1.6834	3.1355	2.4601	4.9249	1.7379
#2	5.5445	19.405	3.3055	1.6876	3.0928	2.4122	4.8861	1.7145
#3	5.5648	19.508	3.3042	1.6892	3.0956	2.4215	4.8823	1.7157

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	1.5929	.45890	1.7872	.21311	44.342	5.1855	.28370	4.9978
Stddev	.0034	.00131	.0107	.00202	.287	.0372	.00072	.0362
%RSD	.21215	.28652	.59902	.94746	.64679	.71824	.25312	.72522
#1	1.5901	.45828	1.7994	.21545	44.296	5.2285	.28314	5.0338
#2	1.5919	.45801	1.7828	.21197	44.080	5.1636	.28451	4.9613
#3	1.5966	.46041	1.7794	.21192	44.648	5.1645	.28346	4.9983

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	5.0613	.15152	7.5223	.55235	2.8197	9.0661	62.325
Stddev	.0064	.00081	.0518	.00055	.0177	.1006	.275
%RSD	.12569	.53611	.68840	.10023	.62933	1.1093	.44061
#1	5.0622	.15061	7.5738	.55174	2.8402	9.1818	62.613
#2	5.0671	.15219	7.4702	.55248	2.8084	8.9998	62.067
#3	5.0545	.15176	7.5229	.55282	2.8106	9.0167	62.295

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S4 Acquired: 10/23/2024 14:35:44 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	807.11	20714.	2731.3	646.37	1530.3
Stddev	1.49	24.	19.5	4.20	3.5
%RSD	.18436	.11703	.71556	.64993	.22876
#1	806.96	20686.	2709.9	646.68	1533.9
#2	805.71	20727.	2748.2	650.40	1530.1
#3	808.67	20728.	2735.8	642.02	1526.9

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S5 Acquired: 10/23/2024 14:40:12 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	.36190	.75869	7.6621	.90541	2.3555	36.666	115.75	6.0675
Stddev	.00052	.00189	.0058	.00121	.0029	.044	.79	.0194
%RSD	.14491	.24974	.07528	.13388	.12138	.11888	.67845	.31921
#1	.36182	.76064	7.6603	.90518	2.3549	36.644	115.33	6.0865
#2	.36143	.75685	7.6575	.90433	2.3531	36.638	116.66	6.0478
#3	.36246	.75857	7.6686	.90672	2.3587	36.717	115.27	6.0683

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	10.796	38.488	6.3816	3.3130	6.1243	4.6863	9.4903	3.4456
Stddev	.016	.108	.0117	.0036	.0061	.0081	.0240	.0126
%RSD	.14929	.28160	.18261	.10834	.10003	.17356	.25249	.36676
#1	10.794	38.460	6.3777	3.3129	6.1230	4.6852	9.5104	3.4454
#2	10.782	38.396	6.3947	3.3094	6.1189	4.6787	9.4966	3.4331
#3	10.814	38.607	6.3724	3.3166	6.1310	4.6949	9.4638	3.4583

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	3.1110	.90123	3.5810	.41828	95.325	10.408	.57653	9.5692
Stddev	.0031	.00219	.0096	.00101	.584	.010	.00072	.0210
%RSD	.10017	.24299	.26749	.24136	.61267	.09162	.12429	.21913
#1	3.1135	.90235	3.5786	.41938	95.026	10.408	.57702	9.5857
#2	3.1075	.90263	3.5728	.41805	94.951	10.418	.57570	9.5763
#3	3.1119	.89870	3.5915	.41740	95.998	10.399	.57686	9.5456

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	10.861	.31027	14.697	1.0894	5.5332	18.455	121.90
Stddev	.025	.00041	.028	.0009	.0101	.104	.41
%RSD	.23472	.13242	.19286	.07886	.18270	.56191	.34031
#1	10.851	.31067	14.729	1.0892	5.5288	18.388	122.37
#2	10.842	.30985	14.684	1.0903	5.5260	18.403	121.72
#3	10.890	.31030	14.677	1.0886	5.5448	18.575	121.60

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S5 Acquired: 10/23/2024 14:40:12 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) 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	696.99	19982.	2684.4	522.14	1420.3
Stddev	1.43	42.	5.8	3.22	.9
%RSD	.20463	.20901	.21684	.61583	.06066
#1	697.86	19969.	2677.9	523.35	1420.4
#2	697.76	19949.	2686.2	524.58	1421.0
#3	695.34	20029.	2689.1	518.50	1419.3

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: S6 Acquired: 10/23/2024 14:44:46 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93.308	59.333	11.890	5.4169	9.5071
Stddev	.348	.288	.053	.0217	.0356
%RSD	.37347	.48596	.44193	.40080	.37477
#1	93.617	59.332	11.896	5.4181	9.5121
#2	92.930	59.622	11.940	5.4380	9.5399
#3	93.377	59.046	11.835	5.3946	9.4692

Int. Std.	Y_3710
Units	Cts/S
Avg	2633.6
Stddev	4.7
%RSD	.17806
#1	2632.3
#2	2638.9
#3	2629.8

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICV009 Acquired: 10/23/2024 15:14:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV009 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9725421	1.024718	.9771916	.9776390	1.001264	2.404644
Stddev	.0017823	.003139	.0009017	.0023934	.000919	.021956
%RSD	.1832579	.3063288	.0922732	.2448140	.0917621	.9130821
#1	.9740293	1.024253	.9761644	.9803703	1.001747	2.427488
#2	.9705666	1.028063	.9775579	.9759082	1.000204	2.383698
#3	.9730303	1.021837	.9778525	.9766386	1.001840	2.402747

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5149722	.5228920	.4814397	10.11852	.5656802	.4951865
Stddev	.0019054	.0031697	.0008049	.08553	.0001330	.0006960
%RSD	.3699914	.6061801	.1671802	.8452384	.0235148	.1405546
#1	.5149805	.5198193	.4807946	10.03591	.5656594	.4943838
#2	.5168734	.5261505	.4811829	10.20669	.5658224	.4955548
#3	.5130627	.5227061	.4823417	10.11298	.5655588	.4956210

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4913278	10.92789	.5370688	5.955289	.5074567	.2393690
Stddev	.0014140	.05591	.0036595	.068118	.0005242	.0009979
%RSD	.2877934	.5115874	.6813917	1.143816	.1032890	.4168798
#1	.4914291	10.86358	.5402236	5.889477	.5075157	.2391659
#2	.4898658	10.95518	.5379262	5.950890	.5079489	.2404528
#3	.4926884	10.96491	.5330567	6.025499	.5069056	.2384883

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.830675	.5184790	1.076100	10.44438	F .0075315	F .0102846
Stddev	.033159	.0128255	.002961	.05723	.0027012	.0004441
%RSD	.3373049	2.473674	.2751610	.5479029	35.86533	4.317988
#1	9.845050	.5036876	1.075399	10.39456	.0045298	.0100964
#2	9.792754	.5265096	1.073552	10.43169	.0082984	.0107917
#3	9.854222	.5252399	1.079348	10.50688	.0097664	.0099655

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICV009 Acquired: 10/23/2024 15:14:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV009 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000352	F -.000393	F .0012845	F -.001268	F -.000594	F .0001458
Stddev	.000295	.003616	.0003430	.000296	.000247	.0024796
%RSD	83.88468	919.2927	26.70004	23.36832	41.51800	1700.282
#1	-.000340	.003747	.0009102	-.001599	-.000826	.0029549
#2	-.000652	-.001997	.0013597	-.001179	-.000335	-.001738
#3	-.000063	-.002930	.0015837	-.001027	-.000621	-.000779

Elem	Sr4077
Units	ppm
Avg	F .0014299
Stddev	.0000528
%RSD	3.695478
#1	.0014099
#2	.0014899
#3	.0013900

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	970.3156	22222.68	2837.285	808.6349	1877.529
Stddev	1.9008	53.48	9.988	2.6147	3.212
%RSD	.1958943	.2406356	.3520428	.3233464	.1710925
#1	968.2399	22162.10	2840.532	805.8935	1876.444
#2	971.9714	22242.66	2826.077	811.1011	1881.143
#3	970.7353	22263.30	2845.245	808.9101	1875.000

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICB009 Acquired: 10/23/2024 15:19:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB009 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018007	.0015832	-.000154	-.003203	-.001104	.0170974	-.000231
Stddev	.0036005	.0018861	.003323	.005806	.001243	.0093862	.000439
%RSD	199.9493	119.1337	2154.825	181.2801	112.6353	54.89844	190.2041
#1	.0013566	-.000483	-.002286	.003491	-.000922	.0074478	-.000049
#2	.0056026	.002019	-.001851	-.006221	-.002428	.0261960	-.000732
#3	-.001557	.003213	.003674	-.006878	.000038	.0176485	.000088

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000905	-.000016	.0153169	-.000603	.0000456	.0002588	-.004796
Stddev	.0000541	.000102	.0139871	.000470	.0004940	.0031894	.023019
%RSD	59.85075	618.9974	91.31796	78.00408	1082.892	1232.199	479.9229
#1	.0000282	.000100	.0128340	-.000277	.0001868	.0039376	-.014328
#2	.0001172	-.000091	.0303792	-.000390	-.000504	-.001730	.021457
#3	.0001260	-.000058	.0027375	-.001141	.000454	-.001431	-.021519

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001052	-.046314	-.000069	.0014140	-.227007	-.007314	.0005379
Stddev	.000939	.018488	.000370	.0002255	.353560	.007167	.0004869
%RSD	89.24977	39.91928	533.7130	15.95045	155.7485	97.98060	90.51715
#1	-.001450	-.054918	-.000474	.0015927	-.137891	-.015467	.0010986
#2	.000020	-.025092	.000014	.0014888	.073469	-.004470	.0002219
#3	-.001727	-.058932	.000252	.0011606	-.616600	-.002006	.0002932

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006890	.0026240	-.000592	.0000850	.0007496	-.000094	-.000045
Stddev	.079093	.0005753	.000740	.0000248	.0022574	.000245	.000664
%RSD	1147.895	21.92513	124.9493	29.19715	301.1511	261.7580	1477.706
#1	-.076432	.0025958	-.000855	.0000677	.0025022	-.000232	.000129
#2	-.023390	.0032130	.000243	.0001135	-.001798	.000189	.000515
#3	.079151	.0020634	-.001165	.0000739	.001544	-.000238	-.000779

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICB009 Acquired: 10/23/2024 15:19:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB009 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002023	.0019809	.0000487
Stddev	.000799	.0020962	.0000933
%RSD	39.51546	105.8200	191.7547
#1	-.001331	.0036231	.0001561
#2	-.002898	.0026997	-.000012
#3	-.001840	-.000380	.000002

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	964.9312	21917.97	2786.774	807.8217	1900.927
Stddev	1.2284	10.50	1.296	.2345	2.766
%RSD	.1273025	.0479059	.0465196	.0290255	.1454923
#1	963.7225	21906.17	2787.721	807.6022	1897.762
#2	966.1783	21921.45	2787.304	808.0687	1902.878
#3	964.8928	21926.28	2785.296	807.7941	1902.142

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICSA009 Acquired: 10/23/2024 15:23:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA009 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0094877	-.018102	.0003969	.0074145	-.000833	240.0143
Stddev	.0134277	.002623	.0040574	.0047986	.001864	.5262
%RSD	141.5274	14.49147	1022.344	64.71887	223.8387	.2192211
#1	.0231698	-.018647	-.003315	.0080028	.000267	240.4732
#2	.0089634	-.020410	.004728	.0118919	.000220	239.4400
#3	-.003670	-.015249	-.000222	.0023489	-.002984	240.1297

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051507	.0014594	.0008760	248.8626	.0513433	.0021446
Stddev	.0005976	.0001844	.0001800	.7426	.0008823	.0007076
%RSD	11.60187	12.63553	20.54466	.2983945	1.718421	32.99429
#1	.0047916	.0012486	.0010433	249.1008	.0503306	.0021436
#2	.0048201	.0015909	.0008991	248.0301	.0519458	.0028527
#3	.0058406	.0015387	.0006856	249.4569	.0517535	.0014375

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003781	104.5786	.0098258	243.0086	.0041587	.0055737
Stddev	.002832	.2657	.0006482	.4580	.0007562	.0002091
%RSD	74.91924	.2541077	6.597031	.1884545	18.18431	3.751183
#1	-.004950	104.8742	.0105720	243.5261	.0048924	.0053505
#2	-.005841	104.3594	.0094025	242.6555	.0042019	.0056058
#3	-.000551	104.5022	.0095028	242.8443	.0033818	.0057649

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2719381	-.009380	.0122122	.0387729	.0070567	F .1063632
Stddev	.2042892	.003313	.0007669	.0170346	.0040295	.0010093
%RSD	75.12342	35.31651	6.279832	43.93426	57.10220	.9489270
#1	.0860368	-.006298	.0128905	.0552238	.0035266	.1065327
#2	.2391325	-.012884	.0113800	.0212092	.0061968	.1072771
#3	.4906449	-.008959	.0123660	.0398856	.0114468	.1052799

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICSA009 Acquired: 10/23/2024 15:23:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA009 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001075	.0109104	.0002034	-.006374	-.002204	.0027133
Stddev	.000225	.0027465	.0009403	.002380	.002035	.0010527
%RSD	20.93099	25.17275	462.3319	37.34344	92.34383	38.79918
#1	-.000952	.0087806	.0004904	-.008681	-.000866	.0037033
#2	-.000938	.0140102	.0009667	-.003927	-.004546	.0028290
#3	-.001334	.0099404	-.000847	-.006513	-.001200	.0016075

Elem	Sr4077
Units	ppm
Avg	F .1020095
Stddev	.0002686
%RSD	.2632565
#1	.1023076
#2	.1019345
#3	.1017865

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	899.4423	20790.52	2753.600	752.3600	1598.646
Stddev	3.3354	35.91	10.339	2.0494	4.539
%RSD	.3708250	.1727112	.3754673	.2724016	.2838992
#1	897.0771	20777.59	2741.981	750.5484	1595.340
#2	903.2572	20831.10	2761.785	754.5844	1603.820
#3	897.9926	20762.87	2757.033	751.9473	1596.777

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICSAB009 Acquired: 10/23/2024 15:28:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB009 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0981114	.0872075	.0492892	.0394631	.5475532	249.1255
Stddev	.0048583	.0023076	.0040711	.0057138	.0028914	.3122
%RSD	4.951774	2.646054	8.259610	14.47896	.5280608	.1253200
#1	.0971967	.0853930	.0527984	.0451112	.5478184	249.4790
#2	.0937755	.0898046	.0502435	.0336857	.5445383	249.0099
#3	.1033620	.0864251	.0448257	.0395922	.5503029	248.8875

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5264045	.5245300	.9896588	257.7410	.6123883	.5143205
Stddev	.0017678	.0025199	.0012373	.6402	.0018472	.0010647
%RSD	.3358293	.4804124	.1250207	.2483787	.3016315	.2070198
#1	.5282877	.5240327	.9904750	258.3179	.6138962	.5151206
#2	.5261451	.5272615	.9902661	257.8529	.6103280	.5147289
#3	.5247807	.5222958	.9882352	257.0523	.6129408	.5131121

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4896617	108.2232	.5403989	252.2192	1.034303	.1907078
Stddev	.0038021	.3520	.0019644	.6610	.002271	.0021887
%RSD	.7764837	.3252718	.3635107	.2620568	.2195714	1.147651
#1	.4867901	108.2556	.5424388	252.5612	1.035918	.1932256
#2	.4882214	108.5578	.5385199	252.6391	1.035286	.1892604
#3	.4939735	107.8561	.5402378	251.4573	1.031707	.1896372

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2943655	.5258588	.9435311	-.088266	F .0108328	F .1094284
Stddev	.2424530	.0057410	.0035773	.163433	.0020433	.0018220
%RSD	82.36463	1.091740	.3791347	185.1591	18.86191	1.665042
#1	.1084105	.5318962	.9469100	-.012891	.0131893	.1074635
#2	.5685859	.5252108	.9438993	-.275785	.0095548	.1097595
#3	.2061000	.5204692	.9397840	.023877	.0097541	.1110622

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: ICSAB009 Acquired: 10/23/2024 15:28:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB009 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001026	-.002013	.0003973	F -.007504	-.003019	.0014943
Stddev	.000089	.003564	.0008411	.000571	.000184	.0013607
%RSD	8.690756	177.0622	211.6772	7.610687	6.107055	91.05861
#1	-.000941	.001466	.0008320	-.008048	-.003216	.0030409
#2	-.001118	-.001849	-.000572	-.007556	-.002850	.0004816
#3	-.001018	-.005655	.000932	-.006909	-.002993	.0009604

Elem	Sr4077
Units	ppm
Avg	F .1059126
Stddev	.0001419
%RSD	.1339972
#1	.1060251
#2	.1057531
#3	.1059595

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	894.0710	20757.24	2755.660	748.3097	1590.235
Stddev	2.3041	67.24	8.858	2.7938	2.208
%RSD	.2577097	.3239120	.3214355	.3733456	.1388691
#1	896.6574	20683.22	2750.455	745.1039	1591.190
#2	893.3179	20773.97	2750.637	749.6003	1587.710
#3	892.2376	20814.54	2765.887	750.2248	1591.806

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV055 Acquired: 10/23/2024 15:32:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV055 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.965243	4.771011	24.28581	4.731845	4.746562	404.7464	10.03394
Stddev	.025591	.033228	.05071	.004654	.018287	1.1286	.00968
%RSD	.5153941	.6964550	.2087999	.0983519	.3852708	.2788414	.0965076
#1	4.965294	4.763042	24.24138	4.727067	4.740250	404.8144	10.02676
#2	4.939627	4.742491	24.27500	4.732104	4.732267	403.5854	10.03012
#3	4.990808	4.807498	24.34105	4.736364	4.767169	405.8395	10.04496

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4993224	2.461038	401.6540	15.28217	2.470208	14.92817	408.5927
Stddev	.0013529	.003973	1.6072	.02166	.003949	.02132	1.5707
%RSD	.2709576	.1614158	.4001425	.1417356	.1598651	.1428474	.3844166
#1	.5005398	2.456626	401.6939	15.26565	2.466144	14.93176	408.8099
#2	.4978658	2.462157	400.0272	15.27417	2.470450	14.90527	406.9246
#3	.4995615	2.464331	403.2409	15.30669	2.474031	14.94747	410.0434

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.74091	392.5636	2.463496	1.246476	402.3501	2.481778	14.42434
Stddev	.01271	1.4312	.006874	.004315	1.2435	.005371	.09457
%RSD	.0861962	.3645778	.2790481	.3461888	.3090527	.2164052	.6556138
#1	14.72660	392.5720	2.455980	1.245588	403.0019	2.487974	14.42772
#2	14.75089	391.1283	2.465041	1.242673	400.9162	2.478452	14.32813
#3	14.74522	393.9907	2.469466	1.251166	403.1321	2.478908	14.51717

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	151.4073	4.962301	5.225597	4.725141	4.975117	4.978676	4.913002
Stddev	.2028	.026252	.006241	.006751	.027380	.008032	.016816
%RSD	.1339334	.5290322	.1194340	.1428646	.5503307	.1613292	.3422842
#1	151.5429	4.934373	5.223258	4.721789	4.943503	4.981540	4.894608
#2	151.1742	4.986472	5.220863	4.720722	4.990677	4.969604	4.916809
#3	151.5048	4.966058	5.232670	4.732912	4.991170	4.984883	4.927588

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV055 Acquired: 10/23/2024 15:32:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV055 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.947595	5.015981	5.028882
Stddev	.015668	.022676	.002733
%RSD	.3166801	.4520679	.0543446
#1	4.953085	5.019675	5.031437
#2	4.929921	4.991685	5.026000
#3	4.959779	5.036583	5.029208

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	777.8696	20102.27	2682.867	624.1050	1454.311
Stddev	1.1838	56.78	4.166	4.0821	2.983
%RSD	.1521840	.2824420	.1552906	.6540710	.2050869
#1	778.9096	20158.48	2684.120	624.3755	1457.709
#2	778.1177	20103.38	2686.263	628.0451	1453.099
#3	776.5813	20044.94	2678.218	619.8944	1452.126

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB055 Acquired: 10/23/2024 15:36:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB055 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061046	.0026988	.0029725	-.003406	-.000430	.0355803	.0008841
Stddev	.0032665	.0019133	.0030005	.002776	.002644	.0103503	.0005892
%RSD	53.50789	70.89507	100.9396	81.52107	615.0778	29.09012	66.64176
#1	.0056033	.0040797	.0063541	-.005324	-.003227	.0236359	.0002159
#2	.0031179	.0005148	.0006286	-.004670	-.000092	.0419103	.0011075
#3	.0095928	.0035019	.0019350	-.000222	.002029	.0411946	.0013288

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001098	.0001297	.0313058	.0004295	.0002282	-.000512	.0238765
Stddev	.0001235	.0001544	.0316246	.0004098	.0000738	.001260	.0106683
%RSD	112.5149	118.9937	101.0184	95.41876	32.34231	246.0806	44.68124
#1	.0002522	.0000901	.0036384	.0002277	.0001431	-.000059	.0361248
#2	.0000449	-.000001	.0244997	.0009011	.0002671	.000458	.0188915
#3	.0000322	.000300	.0657792	.0001597	.0002745	-.001935	.0166132

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000104	.0479683	.0000488	.0005466	-.033389	-.012925	.0009792
Stddev	.001130	.0742363	.0006129	.0003944	.205226	.007687	.0002845
%RSD	1087.820	154.7610	1255.362	72.16366	614.6533	59.47788	29.05303
#1	.000944	-.002380	-.000170	.0003114	.189964	-.010157	.0007010
#2	-.001301	.133224	-.000425	.0010019	-.213642	-.021613	.0012696
#3	.000045	.013060	.000741	.0003264	-.076489	-.007005	.0009669

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0857243	.0012362	.0056491	.0005782	-.002415	.0006410	-.000460
Stddev	.0649892	.0023200	.0010205	.0003325	.003074	.0002757	.000777
%RSD	75.81184	187.6730	18.06413	57.50895	127.2666	43.00529	168.7290
#1	.1099790	.0010790	.0063464	.0005977	-.001087	.0005912	-.000978
#2	.1350980	-.001001	.0061230	.0002364	-.000229	.0003937	.000433
#3	.0120959	.003631	.0044778	.0009006	-.005930	.0009383	-.000836

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB055 Acquired: 10/23/2024 15:36:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB055 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001101	.0019050	.0003449
Stddev	.000562	.0024178	.0000136
%RSD	51.03325	126.9149	3.941107
#1	-.000886	.0033464	.0003323
#2	-.001738	.0032550	.0003593
#3	-.000678	-.000886	.0003431

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	974.3580	22045.65	2803.373	805.6939	1913.379
Stddev	1.6607	101.97	3.328	1.9931	3.090
%RSD	.1704449	.4625212	.1187050	.2473782	.1615029
#1	976.2755	22091.78	2806.514	807.7672	1916.814
#2	973.4193	21928.77	2803.718	803.7921	1910.823
#3	973.3793	22116.40	2799.886	805.5223	1912.502

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163989BL Acquired: 10/23/2024 15:48:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS989 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053231	.0002352	-.000088	-.004804	.0003626	.0253396	.0002820
Stddev	.0062692	.0020173	.002019	.003452	.0020207	.0134296	.0001461
%RSD	117.7723	857.7963	2301.551	71.86205	557.2176	52.99848	51.81816
#1	.0094461	.0024235	-.000169	-.000818	.0026728	.0407858	.0001343
#2	.0084145	-.001550	-.002064	-.006779	-.000508	.0164260	.0004264
#3	-.001891	-.000167	.001971	-.006815	-.001076	.0188071	.0002851

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000594	-.000046	.0257265	.0003430	.0000698	-.002738	.0296778
Stddev	.0001241	.000145	.0045843	.0010856	.0004390	.001951	.0074303
%RSD	208.9353	312.8620	17.81920	316.4578	629.2049	71.25176	25.03647
#1	-.000027	-.000198	.0310052	-.000496	-.000326	-.003522	.0241680
#2	.000004	.000091	.0234302	.001569	.000542	-.000517	.0381283
#3	.000202	-.000033	.0227443	-.000044	-.000006	-.004175	.0267370

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004760	-.050673	.0000656	.0013990	.2053175	-.009506	.0005982
Stddev	.0010067	.071832	.0000157	.0007504	.1788070	.001720	.0003586
%RSD	211.4974	141.7563	23.90508	53.64130	87.08801	18.09246	59.95144
#1	-.000255	-.122051	.0000648	.0011391	-.001114	-.007787	.0003066
#2	.000059	.021605	.0000504	.0008130	.305159	-.011227	.0009986
#3	.001624	-.051573	.0000817	.0022448	.311907	-.009504	.0004894

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0131636	-.002571	.0042527	.0005724	.0009744	.0008848	-.001330
Stddev	.0951341	.000968	.0011087	.0001931	.0062242	.0002220	.002516
%RSD	722.7068	37.63980	26.07003	33.73586	638.7523	25.09521	189.1586
#1	.1207980	-.002501	.0049282	.0007167	.0075842	.0008390	.001357
#2	-.021637	-.003571	.0048568	.0003530	-.004774	.0011262	-.003630
#3	-.059670	-.001639	.0029732	.0006475	.000114	.0006892	-.001717

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163989BL Acquired: 10/23/2024 15:48:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS989 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000905	.0020219	.0001932
Stddev	.001031	.0005235	.0000740
%RSD	113.9278	25.89100	38.28673
#1	-.001805	.0025260	.0001078
#2	.000220	.0014809	.0002364
#3	-.001129	.0020587	.0002354

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	960.2899	21760.55	2775.411	795.2997	1885.952
Stddev	1.4165	99.46	10.622	5.7614	.737
%RSD	.1475032	.4570829	.3827158	.7244255	.0391038
#1	958.9040	21763.25	2774.304	789.1858	1885.120
#2	961.7351	21858.63	2765.386	800.6279	1886.525
#3	960.2305	21659.76	2786.543	796.0855	1886.212

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163989BS Acquired: 10/23/2024 15:53:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS989 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198349	.0530967	.0198663	.0612381	.1115565	.4131725
Stddev	.0042855	.0047320	.0025478	.0026134	.0027265	.0063899
%RSD	21.60606	8.912034	12.82483	4.267675	2.444085	1.546549
#1	.0232611	.0583820	.0170409	.0614203	.1113936	.4064705
#2	.0212139	.0492539	.0205692	.0585383	.1143608	.4138510
#3	.0150296	.0516540	.0219890	.0637556	.1089150	.4191962

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4289199	.0110244	.0104360	11.12988	.0234534	.1027480
Stddev	.0017588	.0000447	.0000822	.03370	.0004874	.0007350
%RSD	.4100479	.4058185	.7877069	.3027837	2.077965	.7153807
#1	.4303041	.0110485	.0104505	11.15570	.0237392	.1030495
#2	.4295148	.0110520	.0103476	11.14218	.0237303	.1019101
#3	.4269409	.0109728	.0105101	11.09175	.0228907	.1032843

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0484604	.2192464	.0336559	10.54203	.0861060	.0227482
Stddev	.0022405	.0208489	.0012882	.10971	.0008007	.0000929
%RSD	4.623276	9.509357	3.827463	1.040680	.9298512	.4082550
#1	.0508919	.2082560	.0324061	10.66653	.0861535	.0226476
#2	.0480099	.2061921	.0335823	10.50007	.0852827	.0227662
#3	.0464795	.2432912	.0349793	10.45950	.0868819	.0228307

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.32543	.1008869	.1182779	10.17416	.0175231	F .0023161
Stddev	.12553	.0080094	.0010144	.15959	.0032232	.0009865
%RSD	1.215778	7.938963	.8576249	1.568535	18.39371	42.59300
#1	10.46757	.1100604	.1192426	10.07784	.0138329	.0012800
#2	10.22976	.0973179	.1172202	10.35836	.0189489	.0024242
#3	10.27895	.0952825	.1183710	10.08626	.0197874	.0032441

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163989BS Acquired: 10/23/2024 15:53:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS989 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0190193	.1787849	F .4812625	.0127088	.2076147	.0325768
Stddev	.0006685	.0041803	.0035939	.0023979	.0014914	.0016097
%RSD	3.514989	2.338174	.7467670	18.86839	.7183390	4.941170
#1	.0197323	.1783981	.4771301	.0100424	.2059821	.0316815
#2	.0184065	.1831451	.4836581	.0133957	.2089055	.0316139
#3	.0189192	.1748114	.4829993	.0146884	.2079564	.0344351

Elem	Sr4077
Units	ppm
Avg	.2171383
Stddev	.0002046
%RSD	.0942098
#1	.2169043
#2	.2172833
#3	.2172272

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	966.3308	22044.02	2822.935	803.5671	1863.065
Stddev	1.3771	37.20	11.921	4.2907	3.862
%RSD	.1425037	.1687465	.4222758	.5339538	.2072920
#1	964.7423	22031.53	2835.661	800.8880	1859.011
#2	967.1863	22014.67	2812.030	808.5159	1866.701
#3	967.0639	22085.86	2821.115	801.2974	1863.481

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163989BSD Acquired: 10/23/2024 15:57:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD989 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0125018	.0284633	.0111272	.0298268	.0559566	.1973768	.2162431
Stddev	.0060206	.0005337	.0016557	.0038126	.0013783	.0198596	.0016306
%RSD	48.15773	1.875126	14.87979	12.78263	2.463198	10.06175	.7540786
#1	.0179180	.0278965	.0129450	.0259753	.0566237	.2060942	.2181158
#2	.0060193	.0289563	.0107311	.0299057	.0543716	.1746494	.2154771
#3	.0135679	.0285371	.0097054	.0335994	.0568744	.2113867	.2151366

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055760	.0051070	5.648302	.0118433	.0511617	.0242503	.1114778
Stddev	.0000721	.0000688	.026876	.0003355	.0005972	.0040170	.0062099
%RSD	1.292531	1.347314	.4758265	2.832483	1.167313	16.56458	5.570510
#1	.0056587	.0050598	5.676114	.0119381	.0518441	.0235670	.1117134
#2	.0055264	.0050752	5.622471	.0121211	.0509071	.0206188	.1175666
#3	.0055430	.0051859	5.646321	.0114706	.0507341	.0285651	.1051535

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0174237	5.293923	.0435985	.0119729	5.327674	.0505381	.0582638
Stddev	.0004001	.023911	.0003489	.0002013	.234355	.0045946	.0004289
%RSD	2.296477	.4516771	.8001896	1.680951	4.398826	9.091365	.7361404
#1	.0170346	5.271906	.0433653	.0120648	5.097138	.0464591	.0580693
#2	.0178340	5.319360	.0434307	.0117420	5.565670	.0555156	.0587555
#3	.0174025	5.290504	.0439996	.0121117	5.320215	.0496395	.0579666

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.107008	.0098408	.0003909	.0098874	.0881184	.2428506	.0056777
Stddev	.021021	.0004784	.0005844	.0003057	.0050059	.0006933	.0009539
%RSD	.4116089	4.861474	149.4935	3.091376	5.680821	.2854723	16.80041
#1	5.084964	.0093547	.0005340	.0100229	.0870991	.2428974	.0045774
#2	5.109231	.0098567	-.000252	.0101019	.0935555	.2435192	.0062706
#3	5.126830	.0103111	.000890	.0095374	.0837007	.2421350	.0061852

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163989BSD Acquired: 10/23/2024 15:57:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD989 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1047715	.0174108	.1099874
Stddev	.0016461	.0014935	.0005696
%RSD	1.571148	8.578121	.5178984
#1	.1048311	.0191347	.1106449
#2	.1063870	.0165929	.1096721
#3	.1030964	.0165050	.1096450

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	966.0207	21979.36	2804.858	804.0327	1880.872
Stddev	.7095	56.19	9.443	5.2300	.450
%RSD	.0734424	.2556669	.3366650	.6504772	.0239185
#1	965.2618	21924.85	2797.050	800.2248	1881.049
#2	966.1331	22037.10	2815.354	809.9960	1881.206
#3	966.6673	21976.13	2802.171	801.8774	1880.361

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4291-01DLX2 Acquired: 10/23/2024 16:02:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0B5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1980030	-.027561	.2481361	-.005273	.0049784	173.5651	.8247336
Stddev	.0057808	.001077	.0019091	.006616	.0005232	.1238	.0009252
%RSD	2.919577	3.909355	.7693818	125.4698	10.50987	.0713151	.1121751
#1	.1978222	-.027621	.2499493	-.011130	.0049856	173.6218	.8246161
#2	.1923147	-.028608	.2483153	-.006591	.0044516	173.6503	.8238728
#3	.2038721	-.026455	.2461437	.001903	.0054980	173.4231	.8257118

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0117509	.0073392	36.41692	.2859284	.1158965	.4837107	256.5796
Stddev	.0003771	.0002850	.18232	.0009564	.0009039	.0024925	.5095
%RSD	3.209122	3.883410	.5006386	.3344788	.7799242	.5152944	.1985882
#1	.0117051	.0076353	36.55245	.2870311	.1149684	.4859163	257.0510
#2	.0113987	.0070667	36.48866	.2854280	.1159469	.4842092	256.6488
#3	.0121487	.0073158	36.20964	.2853260	.1167741	.4810066	256.0390

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.942248	55.92331	.2192277	-.019576	1.040877	.4542174	.4867624
Stddev	.008886	.05029	.0008144	.000334	.051191	.0133648	.0015099
%RSD	.1118814	.0899179	.3714772	1.708392	4.918041	2.942373	.3101929
#1	7.932032	55.86683	.2184243	-.019342	.985289	.4534200	.4867413
#2	7.948182	55.96321	.2192063	-.019959	1.051265	.4412691	.4852632
#3	7.946530	55.93989	.2200526	-.019428	1.086076	.4679629	.4882827

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.81606	2.648349	.2994369	-.001034	.8716519	7.381505	.0086882
Stddev	.06469	.008902	.0005125	.000340	.0128305	.026796	.0011806
%RSD	.4366414	.3361209	.1711627	32.83163	1.471969	.3630138	13.58818
#1	14.77839	2.651037	.2989410	-.001424	.8692849	7.411568	.0087777
#2	14.89076	2.638413	.2999646	-.000876	.8601697	7.372815	.0098215
#3	14.77903	2.655597	.2994052	-.000803	.8855010	7.360133	.0074654

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4291-01DLX2 Acquired: 10/23/2024 16:02:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0B5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.289504	.1051219	.1976779
Stddev	.004273	.0018145	.0001150
%RSD	.1866470	1.726079	.0581759
#1	2.289760	.1071120	.1976515
#2	2.293644	.1035593	.1975784
#3	2.285109	.1046944	.1978038

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1030.673	23588.86	3112.388	856.7994	1742.246
Stddev	.733	87.46	17.286	3.6220	2.602
%RSD	.0711059	.3707563	.5553793	.4227377	.1493674
#1	1029.885	23538.88	3092.837	857.1001	1742.987
#2	1031.333	23689.85	3118.683	860.2618	1744.397
#3	1030.801	23537.86	3125.643	853.0365	1739.353

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163991BL Acquired: 10/23/2024 16:06:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS991 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029082	-.000311	-.002042	-.002447	-.000118	.0219748	.0003452
Stddev	.0033443	.000761	.000676	.002218	.001089	.0156890	.0007660
%RSD	114.9938	244.9075	33.09288	90.65809	920.1253	71.39557	221.9299
#1	.0049857	-.000348	-.001575	-.004355	-.000766	.0392208	-.000022
#2	.0046885	-.001052	-.002816	-.002971	.001139	.0085478	-.000168
#3	-.000950	.000468	-.001733	-.000013	-.000728	.0181559	.001226

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000453	-.000123	.0059437	-.000239	-.000252	.0013137	.0012395
Stddev	.0001200	.000119	.0230181	.000205	.000262	.0013615	.0051709
%RSD	264.9129	96.95533	387.2678	85.71022	103.7919	103.6341	417.1766
#1	-.000089	-.000124	-.019603	-.000287	.000029	.0002960	-.004686
#2	.000082	-.000003	.012366	-.000014	-.000489	.0028602	.003563
#3	.000142	-.000242	.025069	-.000415	-.000297	.0007849	.004841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001542	-.021484	-.000089	.0006073	-.202871	-.016820	-.000186
Stddev	.0006582	.060734	.000432	.0005659	.449885	.008010	.000650
%RSD	426.8235	282.6909	486.5317	93.18248	221.7590	47.62280	349.2006
#1	-.000497	.010249	.000179	.0012164	-.421415	-.008349	.000077
#2	.000819	-.091512	.000142	.0000978	-.501736	-.017837	.000291
#3	.000141	.016810	-.000587	.0005078	.314537	-.024272	-.000926

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0523111	-.000662	-.000670	-.000318	-.002000	.0016406	-.002007
Stddev	.0876247	.000727	.000633	.000349	.004754	.0003527	.001463
%RSD	167.5069	109.6788	94.41491	109.9645	237.6550	21.49761	72.91218
#1	.1424217	-.000542	-.001379	-.000181	-.006240	.0015136	-.003305
#2	.0471076	-.000004	-.000469	-.000715	-.002899	.0013690	-.002293
#3	-.032596	-.001442	-.000163	-.000057	.003139	.0020392	-.000422

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163991BL Acquired: 10/23/2024 16:06:34 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS991 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000324	.0001483	.0000592
Stddev	.000472	.0005479	.0000684
%RSD	145.8634	369.3902	115.4590
#1	-.000098	.0006678	.0000214
#2	-.000867	-.000424	.0001382
#3	-.000007	.000201	.0000182

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	969.8234	22026.85	2796.648	803.8944	1909.008
Stddev	1.9254	41.95	8.370	3.9045	1.940
%RSD	.1985301	.1904668	.2992742	.4856968	.1016403
#1	971.7338	21978.86	2798.239	806.5055	1911.170
#2	969.8531	22045.13	2787.596	799.4058	1908.437
#3	967.8833	22056.56	2804.107	805.7719	1907.417

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163991BS Acquired: 10/23/2024 16:11:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS991 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0224474	.0537329	.0223904	.0550239	.1102836	.4165969
Stddev	.0058527	.0016233	.0020678	.0035755	.0013430	.0083189
%RSD	26.07298	3.021132	9.235151	6.498167	1.217727	1.996878
#1	.0268674	.0555317	.0204589	.0525907	.1107978	.4098361
#2	.0246648	.0532901	.0245718	.0533520	.1112934	.4140676
#3	.0158100	.0523769	.0221405	.0591291	.1087595	.4258869

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4245466	.0108076	.0101133	11.05173	.0231548	.1008926
Stddev	.0020764	.0002042	.0000670	.11598	.0009452	.0001638
%RSD	.4890844	1.889376	.6626580	1.049396	4.082036	.1623703
#1	.4241099	.0107945	.0100361	10.94219	.0222366	.1008364
#2	.4268066	.0110180	.0101470	11.17322	.0231030	.1010771
#3	.4227232	.0106103	.0101567	11.03979	.0241248	.1007642

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0490086	.2269604	.0335331	10.43285	.0845271	.0229978
Stddev	.0028164	.0143099	.0014518	.16682	.0007092	.0000469
%RSD	5.746764	6.305005	4.329460	1.598949	.8390278	.2039508
#1	.0521366	.2117845	.0341167	10.28289	.0852342	.0229966
#2	.0466738	.2402088	.0318804	10.61253	.0838158	.0229514
#3	.0482155	.2288879	.0346024	10.40313	.0845314	.0230452

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.52419	.1029242	.1138596	9.927883	.0206861	F -.000267
Stddev	.18000	.0115316	.0011597	.158188	.0024201	.000510
%RSD	1.710299	11.20401	1.018538	1.593368	11.69896	191.1422
#1	10.33889	.1046120	.1126406	9.945597	.0207413	.000256
#2	10.53532	.0906416	.1139889	10.07647	.0182389	-.000293
#3	10.69837	.1135189	.1149492	9.76158	.0230780	-.000762

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163991BS Acquired: 10/23/2024 16:11:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS991 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0189951	.1739938	F .4770341	.0124401	.2045697	.0312720
Stddev	.0001931	.0031202	.0036618	.0011209	.0035881	.0008333
%RSD	1.016402	1.793301	.7676107	9.009968	1.753956	2.664834
#1	.0188854	.1705428	.4739851	.0111791	.2031286	.0303174
#2	.0188819	.1766158	.4810956	.0133230	.2086543	.0318540
#3	.0192181	.1748227	.4760217	.0128183	.2019262	.0316448

Elem	Sr4077
Units	ppm
Avg	.2152991
Stddev	.0015992
%RSD	.7427772
#1	.2144803
#2	.2171419
#3	.2142751

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	965.7268	21910.62	2802.362	801.2314	1861.959
Stddev	.2797	37.91	17.140	4.5704	2.372
%RSD	.0289579	.1730195	.6116392	.5704218	.1273914
#1	965.4132	21953.29	2815.407	806.4887	1864.229
#2	965.8169	21880.81	2782.949	799.0020	1859.497
#3	965.9502	21897.77	2808.731	798.2036	1862.153

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163991BSD Acquired: 10/23/2024 16:15:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD991 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0142579	.0275179	.0104971	.0297453	.0547868	.2274781	.2150678
Stddev	.0046917	.0020192	.0029802	.0006634	.0006830	.0087201	.0006673
%RSD	32.90559	7.337865	28.39084	2.230380	1.246569	3.833377	.3102575
#1	.0106234	.0254070	.0129461	.0301594	.0553888	.2178127	.2152072
#2	.0125962	.0277157	.0113661	.0289801	.0540447	.2347552	.2156543
#3	.0195543	.0294309	.0071789	.0300963	.0549270	.2298665	.2143418

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054795	.0050987	5.576098	.0113309	.0511207	.0281309	.1292294
Stddev	.0000812	.0000435	.033297	.0004697	.0003566	.0033505	.0283326
%RSD	1.482588	.8529004	.5971304	4.145066	.6975694	11.91024	21.92425
#1	.0053969	.0051489	5.614496	.0117109	.0513856	.0314950	.1189454
#2	.0055593	.0050742	5.555208	.0108058	.0512613	.0281035	.1612677
#3	.0054822	.0050729	5.558591	.0114760	.0507153	.0247943	.1074750

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0161223	5.231229	.0427558	.0122500	5.103427	.0433785	.0582993
Stddev	.0015749	.057489	.0004855	.0009982	.283168	.0042539	.0006417
%RSD	9.768488	1.098957	1.135462	8.148267	5.548590	9.806497	1.100656
#1	.0178324	5.258687	.0433162	.0133980	5.195271	.0404892	.0589285
#2	.0147314	5.269840	.0424658	.0115878	5.329274	.0482633	.0583236
#3	.0158031	5.165159	.0424853	.0117640	4.785738	.0413830	.0576458

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.004253	.0084173	-.000816	.0100299	.0852120	.2419255	.0051727
Stddev	.059804	.0026850	.000690	.0001973	.0038698	.0021482	.0009437
%RSD	1.195067	31.89843	84.59693	1.967313	4.541343	.8879724	18.24412
#1	5.073205	.0114591	-.000641	.0098283	.0854652	.2438577	.0060925
#2	4.973058	.0063772	-.000230	.0100387	.0889489	.2423066	.0052188
#3	4.966496	.0074155	-.001577	.0102226	.0812218	.2396122	.0042068

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB163991BSD Acquired: 10/23/2024 16:15:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD991 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1053272	.0140260	.1089380
Stddev	.0013264	.0001053	.0002154
%RSD	1.259319	.7504166	.1976833
#1	.1039175	.0141407	.1091549
#2	.1055134	.0139339	.1087242
#3	.1065506	.0140033	.1089351

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	970.9731	21933.78	2816.863	804.5213	1888.798
Stddev	1.3761	171.64	11.129	8.6224	1.410
%RSD	.1417200	.7825588	.3951001	1.071747	.0746661
#1	969.5712	21737.16	2805.814	794.9051	1887.226
#2	971.0262	22053.70	2816.704	811.5638	1889.952
#3	972.3218	22010.48	2828.071	807.0951	1889.215

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4292-19DLX4 Acquired: 10/23/2024 16:20:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0W4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1326476	-.016081	.1120457	-.000172	.0026386	53.84988	1.855057
Stddev	.0041154	.002812	.0035250	.003128	.0006779	.05537	.004741
%RSD	3.102478	17.48582	3.146057	1818.179	25.69020	.1028197	.2555629
#1	.1367550	-.016776	.1107855	.002117	.0020443	53.91379	1.850757
#2	.1285244	-.018481	.1160276	-.003736	.0024946	53.81941	1.860141
#3	.1326633	-.012987	.1093239	.001104	.0033768	53.81645	1.854274

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036371	.0045027	9.081786	.1569598	.0953572	.2950988	189.2651
Stddev	.0000392	.0002544	.074701	.0009030	.0008057	.0057314	.3799
%RSD	1.078948	5.650852	.8225383	.5753196	.8448916	1.942214	.2007407
#1	.0036436	.0043462	9.164388	.1560254	.0951595	.2896720	189.2469
#2	.0036728	.0043656	9.062000	.1578277	.0946687	.2945318	188.8946
#3	.0035951	.0047963	9.018970	.1570263	.0962433	.3010927	189.6539

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.65615	22.10485	.1766614	-.016499	.9301355	.3395559	.3302873
Stddev	.03043	.03795	.0015103	.000304	.5166198	.0045457	.0016703
%RSD	.1723342	.1717040	.8549105	1.843645	55.54242	1.338719	.5057158
#1	17.62133	22.13545	.1779348	-.016215	1.345131	.3413712	.3301930
#2	17.67763	22.06238	.1770568	-.016462	.351518	.3429134	.3286662
#3	17.66949	22.11671	.1749928	-.016820	1.093758	.3343830	.3320028

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.999322	1.964087	.2049376	-.001195	.2089255	3.953179	.0024383
Stddev	.015869	.012268	.0014205	.000363	.0025141	.015349	.0001778
%RSD	.2645063	.6246010	.6931198	30.40576	1.203342	.3882675	7.291965
#1	5.998954	1.954690	.2051494	-.001383	.2116641	3.953151	.0022491
#2	5.983641	1.959606	.2034231	-.000776	.2067220	3.937844	.0026019
#3	6.015371	1.977965	.2062402	-.001426	.2083905	3.968542	.0024638

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4292-19DLX4 Acquired: 10/23/2024 16:20:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0W4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.588248	.0454161	.1572782
Stddev	.005920	.0010574	.0001775
%RSD	.3727401	2.328344	.1128349
#1	1.594757	.0449700	.1570875
#2	1.583184	.0466235	.1574385
#3	1.586803	.0446548	.1573085

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1007.725	23072.67	2954.362	839.4825	1817.605
Stddev	.894	61.42	8.465	2.5555	5.087
%RSD	.0887577	.2662002	.2865163	.3044097	.2798857
#1	1007.020	23078.07	2947.700	836.9381	1817.685
#2	1008.731	23008.73	2963.887	842.0489	1822.651
#3	1007.425	23131.22	2951.501	839.4605	1812.478

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4292-15ADLX2 Acquired: 10/23/2024 16:24:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0W2A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7911970	-.042029	.1525211	-.003479	.0061313	140.7531	1.266715
Stddev	.0057392	.002907	.0054917	.004710	.0038406	.3380	.002237
%RSD	.7253813	6.917798	3.600605	135.3942	62.64041	.2401636	.1766043
#1	.7851417	-.043505	.1480065	-.003679	.0042761	140.6026	1.269199
#2	.7965567	-.038680	.1586349	-.008085	.0035704	140.5165	1.264859
#3	.7918925	-.043902	.1509218	.001328	.0105473	141.1403	1.266087

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081752	.0083300	31.59993	.3907799	.1980458	.4815787	358.1494
Stddev	.0001731	.0001830	.16244	.0004385	.0013738	.0022799	1.7907
%RSD	2.117245	2.196969	.5140436	.1122199	.6936966	.4734163	.4999967
#1	.0080123	.0081228	31.50675	.3905639	.1974974	.4828415	357.3702
#2	.0083570	.0084696	31.50555	.3912846	.1970308	.4789468	356.8804
#3	.0081562	.0083976	31.78750	.3904913	.1996091	.4829477	360.1978

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.09642	73.26983	.3210725	-.029024	1.694199	.7242319	.5322107
Stddev	.03122	.16511	.0007735	.000413	.165863	.0097228	.0022906
%RSD	.2383981	.2253489	.2409187	1.423143	9.790073	1.342502	.4303877
#1	13.07264	73.07940	.3210268	-.028749	1.884628	.7204265	.5331436
#2	13.08485	73.35706	.3203228	-.028823	1.616687	.7169873	.5338877
#3	13.13178	73.37304	.3218678	-.029499	1.581282	.7352818	.5296009

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.91875	3.663091	.3875523	-.000972	.3109208	8.050268	.0102153
Stddev	.05321	.022542	.0005843	.000311	.0054596	.021148	.0047648
%RSD	.3145204	.6153912	.1507530	32.00804	1.755934	.2626957	46.64357
#1	16.85858	3.639086	.3874064	-.000654	.3096026	8.025878	.0150560
#2	16.93805	3.666376	.3870548	-.000984	.3169187	8.063488	.0100598
#3	16.95963	3.683810	.3881957	-.001276	.3062410	8.061439	.0055302

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4292-15ADLX2 Acquired: 10/23/2024 16:24:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYD0W2A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.855119	.1112684	.2099938
Stddev	.010582	.0014042	.0007061
%RSD	.3706491	1.262000	.3362581
#1	2.843688	.1128598	.2097584
#2	2.864574	.1102035	.2094354
#3	2.857096	.1107420	.2107875

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1020.790	23639.34	3076.118	849.7462	1735.697
Stddev	4.545	15.53	20.327	4.1985	8.204
%RSD	.4452417	.0656778	.6607908	.4940889	.4726608
#1	1023.261	23622.67	3093.331	844.9522	1740.057
#2	1023.565	23641.96	3081.329	852.7678	1740.801
#3	1015.545	23653.39	3053.693	851.5188	1726.234

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4297-08DLX4 Acquired: 10/23/2024 16:34:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDA60 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2149906	-.027315	.1191867	-.007988	.0068253	64.84574	1.149130
Stddev	.0078663	.005523	.0009499	.003799	.0008552	.08193	.002322
%RSD	3.658896	20.21981	.7969981	47.56034	12.52919	.1263505	.2020815
#1	.2228388	-.022990	.1202832	-.011620	.0078007	64.77088	1.146943
#2	.2150268	-.033536	.1186648	-.004042	.0062043	64.83306	1.148879
#3	.2071063	-.025418	.1186122	-.008302	.0064708	64.93327	1.151567

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049897	.0065163	5.972492	.2518256	.1632713	.2754482	325.6171
Stddev	.0001940	.0001028	.030264	.0005744	.0007936	.0033186	.8457
%RSD	3.887661	1.577784	.5067172	.2281107	.4860384	1.204816	.2597221
#1	.0047661	.0065773	5.992508	.2524571	.1623612	.2758790	325.6970
#2	.0051134	.0063976	5.937676	.2513342	.1636340	.2785304	326.4200
#3	.0050895	.0065741	5.987290	.2516853	.1638187	.2719352	324.7343

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.91617	38.27748	.1829718	-.026898	1.151677	.5498150	.4124604
Stddev	.06831	.05517	.0006841	.000319	.127778	.0031541	.0017192
%RSD	.3429767	.1441313	.3738975	1.184876	11.09497	.5736683	.4168153
#1	19.84630	38.24536	.1827328	-.027187	1.268513	.5532687	.4144197
#2	19.91942	38.34119	.1824392	-.026556	1.171293	.5490896	.4117572
#3	19.98280	38.24590	.1837434	-.026950	1.015225	.5470868	.4112042

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.78570	2.439578	.3412286	-.000884	.2781665	2.295191	.0064891
Stddev	.11527	.005491	.0005804	.000597	.0037240	.010910	.0007144
%RSD	.9015327	.2251004	.1700948	67.47567	1.338775	.4753258	11.00969
#1	12.76917	2.434120	.3416334	-.001049	.2814339	2.296723	.0065147
#2	12.67959	2.445103	.3414889	-.001381	.2789539	2.305254	.0071904
#3	12.90834	2.439510	.3405637	-.000223	.2741118	2.283596	.0057623

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4297-08DLX4 Acquired: 10/23/2024 16:34:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDA60 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.364670	.0539726	.1431616
Stddev	.003201	.0007246	.0003606
%RSD	.2345384	1.342477	.2518924
#1	1.368228	.0543579	.1428562
#2	1.362026	.0531367	.1430691
#3	1.363755	.0544231	.1435594

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	984.0639	22623.61	2928.691	815.1393	1790.427
Stddev	2.4072	29.15	7.641	2.3943	4.130
%RSD	.2446233	.1288679	.2608939	.2937326	.2306524
#1	981.2849	22590.18	2927.125	812.5874	1787.642
#2	985.5057	22643.75	2921.954	815.4940	1795.172
#3	985.4010	22636.91	2936.993	817.3365	1788.468

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4297-14ADLX2 Acquired: 10/23/2024 16:38:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDA66A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7008911	-.050402	.1567022	.0582337	.0066175	116.6900	1.511817
Stddev	.0090903	.001096	.0054016	.0059531	.0026138	.2865	.002710
%RSD	1.296962	2.175330	3.447046	10.22276	39.49893	.2454844	.1792672
#1	.6928265	-.049141	.1519883	.0565699	.0089494	116.9900	1.513604
#2	.6991049	-.050938	.1555219	.0532895	.0037921	116.4193	1.508698
#3	.7107419	-.051128	.1625963	.0648417	.0071108	116.6608	1.513148

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091804	.0108915	17.74415	.4246561	.2204506	.4391375	444.6811
Stddev	.0001502	.0002668	.13982	.0008910	.0006519	.0030040	1.2675
%RSD	1.636461	2.449132	.7879627	.2098151	.2957254	.6840575	.2850427
#1	.0090424	.0108225	17.76378	.4252610	.2197464	.4425765	445.9880
#2	.0091584	.0111860	17.59555	.4236329	.2205724	.4378105	443.4570
#3	.0093405	.0106661	17.87311	.4250743	.2210331	.4370256	444.5982

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.50428	58.25723	.3660392	-.036470	1.532245	.8709727	.5659598
Stddev	.02594	.10168	.0018818	.000291	.160745	.0071692	.0050183
%RSD	.1788415	.1745304	.5140840	.7982003	10.49082	.8231229	.8866923
#1	14.53418	58.34185	.3645090	-.036798	1.715242	.8769154	.5676565
#2	14.48781	58.14444	.3654685	-.036369	1.467634	.8630103	.5603131
#3	14.49084	58.28540	.3681403	-.036242	1.413858	.8729923	.5699098

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.69745	5.687819	.4852078	.0001639	.6738055	5.919509	.0088858
Stddev	.10171	.020896	.0024805	.0002117	.0203960	.031621	.0009218
%RSD	.3110782	.3673876	.5112190	129.1757	3.026994	.5341777	10.37401
#1	32.60987	5.665219	.4848969	.0003636	.6808135	5.948416	.0078561
#2	32.67347	5.706440	.4828974	.0001860	.6508293	5.924375	.0096340
#3	32.80902	5.691799	.4878290	-.000058	.6897737	5.885738	.0091673

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4297-14ADLX2 Acquired: 10/23/2024 16:38:46 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDA66A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.505471	.0833995	.2248713
Stddev	.005932	.0007902	.0004264
%RSD	.2367788	.9474906	.1896156
#1	2.502392	.0832402	.2253594
#2	2.501710	.0842572	.2245714
#3	2.512310	.0827011	.2246831

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1028.208	23802.72	3096.028	855.9586	1763.657
Stddev	3.506	30.74	8.830	9.1723	5.248
%RSD	.3409388	.1291579	.2852094	1.071577	.2975886
#1	1030.884	23807.16	3085.855	853.9463	1769.651
#2	1029.499	23831.00	3100.514	865.9699	1761.432
#3	1024.240	23769.99	3101.714	847.9595	1759.887

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164125BL Acquired: 10/23/2024 16:43:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS125 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0076762	.0016975	-.000582	-.006533	-.000813	.0375229	.0004713
Stddev	.0042384	.0019592	.000614	.002325	.001537	.0089655	.0006276
%RSD	55.21460	115.4134	105.4872	35.58453	188.9898	23.89348	133.1530
#1	.0125205	-.000104	-.000469	-.003937	-.001987	.0310990	.0009860
#2	.0046514	.001414	-.000033	-.007239	.000927	.0477655	-.000228
#3	.0058567	.003783	-.001245	-.008422	-.001381	.0337041	.000656

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002256	-.000171	.0135640	.0001266	.0003183	-.001373	.0727097
Stddev	.0001149	.000078	.0064097	.0005391	.0002435	.000335	.0218225
%RSD	50.94234	45.25978	47.25547	425.7463	76.50371	24.39246	30.01326
#1	.0000971	-.000248	.0205786	.0005581	.0005759	-.001139	.0574361
#2	.0003186	-.000172	.0121015	.0002995	.0002870	-.001224	.0629895
#3	.0002610	-.000093	.0080119	-.000478	.0000919	-.001757	.0977033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010871	.0648949	-.000375	.0009546	-.114082	-.009731	-.000283
Stddev	.0022073	.0269091	.000934	.0004349	.127470	.004840	.000546
%RSD	203.0419	41.46565	249.1774	45.55754	111.7357	49.73313	192.9065
#1	.0004268	.0959592	-.000015	.0014565	-.246238	-.010841	-.000698
#2	-.000715	.0499565	-.001436	.0006897	.008119	-.013919	.000335
#3	.003549	.0487689	.000326	.0007177	-.104127	-.004433	-.000485

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1198332	-.000945	-.000892	-.000128	.0019994	.0016658	-.000869
Stddev	.0527778	.004546	.000733	.000163	.0053639	.0002525	.001106
%RSD	44.04271	480.9977	82.10704	127.0790	268.2685	15.15745	127.2266
#1	.1772315	-.006183	-.001706	-.000178	.0080743	.0018775	-.000657
#2	.1088703	.001372	-.000686	.000054	-.002083	.0013864	-.002066
#3	.0733978	.001976	-.000285	-.000260	.000007	.0017336	.000115

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164125BL Acquired: 10/23/2024 16:43:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS125 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0001712	-.008526	.0001229
Stddev	.0018765	.000629	.0001703
%RSD	1095.810	7.377417	138.6030
#1	-.000363	-.007897	.0000427
#2	.002257	-.008526	.0000074
#3	-.001380	-.009154	.0003184

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	969.7107	21924.38	2815.542	803.3731	1910.288
Stddev	1.5943	15.05	4.415	2.4876	3.946
%RSD	.1644103	.0686457	.1568244	.3096422	.2065576
#1	967.8757	21941.69	2816.682	802.7223	1905.733
#2	970.5001	21917.13	2810.668	801.2757	1912.491
#3	970.7563	21914.33	2819.275	806.1214	1912.640

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164125BSD Acquired: 10/23/2024 16:52:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD125 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0092674	.0267641	.0087445	.0280567	.0545991	.2077192	.2098644
Stddev	.0056076	.0021424	.0039213	.0003523	.0019403	.0052509	.0028406
%RSD	60.50958	8.004705	44.84345	1.255758	3.553801	2.527888	1.353530
#1	.0039342	.0268595	.0087276	.0278840	.0567846	.2128489	.2067186
#2	.0151142	.0245756	.0126742	.0284620	.0539336	.2079539	.2122416
#3	.0087538	.0288572	.0048316	.0278240	.0530791	.2023549	.2106330

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054634	.0050555	5.526260	.0115597	.0509254	.0257296	.1243074
Stddev	.0001602	.0000359	.046256	.0002743	.0002915	.0015996	.0109836
%RSD	2.933100	.7108064	.8370208	2.372474	.5724607	6.216909	8.835843
#1	.0052866	.0050358	5.473010	.0114803	.0509944	.0271839	.1205851
#2	.0055043	.0050336	5.549290	.0118649	.0511762	.0259886	.1156687
#3	.0055991	.0050969	5.556480	.0113339	.0506055	.0240164	.1366685

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0165967	5.135144	.0425788	.0123667	4.851886	.0446775	.0581584
Stddev	.0008680	.028629	.0002062	.0008191	.254364	.0055549	.0006012
%RSD	5.229851	.5575079	.4843789	6.623483	5.242584	12.43331	1.033754
#1	.0156526	5.160464	.0426802	.0128579	4.673596	.0410790	.0587424
#2	.0173602	5.104078	.0423415	.0114211	4.738890	.0418784	.0581914
#3	.0167772	5.140891	.0427148	.0128211	5.143171	.0510751	.0575413

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.215702	.0121150	-.000317	.0097910	.0870335	.2381642	.0060027
Stddev	.063318	.0014320	.000373	.0002318	.0041155	.0008014	.0007210
%RSD	1.213979	11.82029	117.9365	2.367753	4.728641	.3364818	12.01180
#1	5.151251	.0134737	-.000275	.0099229	.0917492	.2375627	.0066094
#2	5.277822	.0122518	.000034	.0095233	.0851842	.2378560	.0052055
#3	5.218033	.0106195	-.000709	.0099268	.0841670	.2390740	.0061931

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164125BSD Acquired: 10/23/2024 16:52:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD125 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1026084	.0066480	.1076176
Stddev	.0017325	.0004889	.0005079
%RSD	1.688409	7.353619	.4719788
#1	.1006258	.0070321	.1070370
#2	.1033684	.0068142	.1079802
#3	.1038310	.0060977	.1078354

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	970.4358	21863.45	2818.305	802.7056	1894.014
Stddev	3.4626	86.93	9.798	4.8017	3.951
%RSD	.3568090	.3976202	.3476705	.5981880	.2085998
#1	966.7416	21763.77	2827.907	797.7772	1889.545
#2	973.6073	21903.08	2808.321	802.9699	1897.041
#3	970.9586	21923.51	2818.686	807.3697	1895.456

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4298-16ADLX2 Acquired: 10/23/2024 16:56:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDA88A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5667533	-.051157	.2303085	.0631917	.1245538	178.3619	.7364825
Stddev	.0040851	.002139	.0022498	.0061227	.0026686	.3964	.0020209
%RSD	.7207894	4.181254	.9768775	9.689070	2.142541	.2222214	.2744031
#1	.5712627	-.049150	.2317453	.0601159	.1262281	178.8187	.7382658
#2	.5656973	-.050913	.2314646	.0592167	.1259570	178.1084	.7342874
#3	.5632998	-.053408	.2277157	.0702425	.1214763	178.1588	.7368944

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081170	.0120414	19.33030	.6085508	.3082594	.9343165	460.2961
Stddev	.0003643	.0001972	.16874	.0025230	.0005989	.0045925	.3354
%RSD	4.488649	1.637742	.8729095	.4145944	.1942768	.4915333	.0728610
#1	.0080433	.0122692	19.37040	.6065919	.3076416	.9387220	460.3334
#2	.0085126	.0119265	19.47538	.6113978	.3088374	.9295575	460.6113
#3	.0077951	.0119287	19.14513	.6076626	.3082992	.9346698	459.9437

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.785896	110.7750	.4302639	-.033145	1.596900	1.108778	.7560248
Stddev	.037421	.2877	.0010113	.000673	.290808	.011422	.0019849
%RSD	.3824008	.2596826	.2350384	2.031872	18.21080	1.030178	.2625449
#1	9.805422	111.1051	.4313737	-.033921	1.892349	1.101571	.7571699
#2	9.742750	110.5776	.4300238	-.032712	1.587387	1.102816	.7571716
#3	9.809515	110.6424	.4293943	-.032802	1.310966	1.121948	.7537328

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.10161	4.738416	.4908515	-.001643	.7977517	5.670071	.0093364
Stddev	.13792	.014136	.0019991	.000945	.0008825	.006425	.0018887
%RSD	.6240287	.2983218	.4072642	57.53354	.1106269	.1133201	20.22920
#1	22.18120	4.741739	.4926802	-.001002	.7985875	5.675520	.0104385
#2	22.18129	4.722916	.4911571	-.002729	.7978387	5.671708	.0104152
#3	21.94236	4.750595	.4887173	-.001199	.7968289	5.662986	.0071556

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4298-16ADLX2 Acquired: 10/23/2024 16:56:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDA88A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.774354	.0916360	.1523828
Stddev	.008565	.0009764	.0007344
%RSD	.2269283	1.065474	.4819352
#1	3.783254	.0905132	.1529278
#2	3.773638	.0922854	.1515477
#3	3.766169	.0921094	.1526730

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	991.2524	22913.29	3012.432	819.9973	1734.152
Stddev	1.3309	49.42	3.891	2.9526	3.221
%RSD	.1342600	.2156936	.1291597	.3600796	.1857470
#1	990.9569	22964.80	3008.375	819.0060	1733.224
#2	992.7062	22866.26	3016.132	817.6679	1737.735
#3	990.0942	22908.80	3012.791	823.3180	1731.496

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV056 Acquired: 10/23/2024 17:01:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV056 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.950598	4.789297	24.27277	4.767049	4.745220	401.4972	9.934059
Stddev	.014178	.024371	.02766	.017837	.006683	.8097	.005484
%RSD	.2863868	.5088571	.1139723	.3741722	.1408434	.2016716	.0552044
#1	4.934822	4.761604	24.26429	4.780408	4.752050	401.6735	9.938565
#2	4.962275	4.807472	24.25035	4.746793	4.738694	402.2042	9.927953
#3	4.954697	4.798816	24.30369	4.773945	4.744915	400.6138	9.935658

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4897760	2.459272	399.4246	15.45812	2.471362	14.86229	403.8364
Stddev	.0040156	.002366	1.5858	.03004	.003443	.01716	1.4850
%RSD	.8198948	.0961884	.3970100	.1943174	.1393126	.1154319	.3677243
#1	.4894097	2.456698	399.7033	15.48360	2.471280	14.87795	404.2611
#2	.4939623	2.459764	400.8524	15.42500	2.467960	14.84395	405.0628
#3	.4859561	2.461352	397.7179	15.46576	2.474845	14.86497	402.1853

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.71982	389.1286	2.459584	1.238800	402.5950	2.471757	14.48789
Stddev	.01212	1.2674	.006955	.000579	1.0773	.013120	.07156
%RSD	.0823075	.3256913	.2827784	.0467425	.2675999	.5307862	.4939073
#1	14.70666	389.3564	2.453025	1.238167	403.0293	2.480372	14.49292
#2	14.73050	390.2666	2.458850	1.238929	403.3875	2.478242	14.41396
#3	14.72229	387.7628	2.466877	1.239303	401.3683	2.456658	14.55681

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	152.1701	4.989038	5.227780	4.712406	4.997215	4.921297	4.907057
Stddev	.1640	.014754	.018048	.011857	.007927	.020923	.015931
%RSD	.1077531	.2957291	.3452366	.2516164	.1586355	.4251526	.3246462
#1	152.3398	4.993061	5.237652	4.706131	4.995859	4.920094	4.888696
#2	152.0126	5.001364	5.238739	4.705006	4.990054	4.942796	4.915264
#3	152.1578	4.972690	5.206949	4.726082	5.005733	4.901002	4.917210

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV056 Acquired: 10/23/2024 17:01:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV056 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.928820	4.968818	5.006046
Stddev	.003774	.022585	.002986
%RSD	.0765799	.4545252	.0596417
#1	4.927898	4.984307	5.006807
#2	4.932970	4.979244	5.008578
#3	4.925592	4.942904	5.002754

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	782.1245	20006.23	2698.363	619.0993	1462.687
Stddev	1.7040	64.38	8.180	4.7909	2.753
%RSD	.2178725	.3217835	.3031469	.7738471	.1881931
#1	783.6824	20020.91	2703.559	619.4555	1465.852
#2	782.3864	20062.00	2688.934	623.7021	1460.852
#3	780.3047	19935.78	2702.595	614.1402	1461.357

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB056 Acquired: 10/23/2024 17:05:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB056 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070457	.0028965	.0039812	-.004585	.0011429	.0839623	.0009328
Stddev	.0017299	.0004844	.0010347	.004692	.0019083	.0128130	.0006468
%RSD	24.55209	16.72454	25.98891	102.3254	166.9667	15.26041	69.33482
#1	.0055287	.0031749	.0050506	-.009393	.0026426	.0951389	.0016415
#2	.0089296	.0031775	.0039079	-.004344	-.001005	.0699784	.0007826
#3	.0066789	.0023372	.0029852	-.000019	.001791	.0867696	.0003744

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001392	.0001731	.0664286	.0014858	-.000020	.0026525	.0863964
Stddev	.0002156	.0000670	.0021420	.0002137	.000151	.0024070	.0192086
%RSD	154.9009	38.69916	3.224578	14.38479	739.4472	90.74584	22.23313
#1	-.000108	.0000958	.0643971	.0016656	-.000184	.0053430	.0938558
#2	.000291	.0002113	.0686663	.0015422	.000112	.0019110	.1007565
#3	.000234	.0002124	.0662223	.0012495	.000011	.0007035	.0645769

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021868	.0171930	.0004052	.0012763	-.355218	-.009889	.0014120
Stddev	.0008678	.0388409	.0008895	.0002061	.161186	.008792	.0005167
%RSD	39.68532	225.9107	219.5356	16.14643	45.37663	88.90572	36.59593
#1	.0031739	-.013096	.0012823	.0015126	-.541262	.000261	.0011185
#2	.0018429	.060983	-.000496	.0011824	-.257560	-.015130	.0011089
#3	.0015437	.003692	.000429	.0011339	-.266832	-.014797	.0020086

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2493911	.0001648	.0046873	.0005339	.0013319	.0005216	-.002198
Stddev	.0995847	.0021364	.0021007	.0002940	.0016010	.0001014	.000693
%RSD	39.93114	1296.116	44.81665	55.06621	120.2069	19.44411	31.54484
#1	.2429189	.0013289	.0068616	.0005583	.0007748	.0005922	-.002101
#2	.1532003	-.002301	.0026689	.0002285	.0000838	.0004054	-.002935
#3	.3520540	.001466	.0045316	.0008149	.0031370	.0005673	-.001559

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB056 Acquired: 10/23/2024 17:05:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB056 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001027	-.004811	.0007508
Stddev	.001200	.001843	.0001700
%RSD	116.8976	38.30817	22.64061
#1	-.002384	-.002732	.0007216
#2	-.000595	-.006243	.0009334
#3	-.000102	-.005459	.0005973

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	968.9422	21828.54	2796.126	796.2502	1908.962
Stddev	2.5292	23.36	3.798	6.8318	3.715
%RSD	.2610314	.1070177	.1358472	.8579940	.1945889
#1	966.2650	21848.56	2799.800	799.3257	1904.872
#2	969.2703	21834.18	2792.214	801.0036	1912.125
#3	971.2914	21802.87	2796.364	788.4212	1909.890

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4299-19ADLX2 Acquired: 10/23/2024 17:09:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAB1A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7938684	-.014378	.1022749	.0587652	.0044611	58.20895	5.162397
Stddev	.0085005	.002270	.0044584	.0082465	.0026258	.06630	.003196
%RSD	1.070772	15.78725	4.359235	14.03293	58.86073	.1138977	.0619091
#1	.7948459	-.014691	.0988295	.0651860	.0050394	58.20275	5.161886
#2	.7849214	-.016474	.1006848	.0616444	.0015943	58.14596	5.159486
#3	.8018379	-.011967	.1073103	.0494651	.0067495	58.27813	5.165817

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035542	.0033617	14.16740	.1460691	.1171860	.2535372	170.0439
Stddev	.0000625	.0001495	.03888	.0010887	.0001217	.0045133	.5350
%RSD	1.759450	4.447025	.2744258	.7453468	.1038400	1.780116	.3146422
#1	.0035671	.0033705	14.21225	.1450506	.1171115	.2583429	170.4419
#2	.0036093	.0035067	14.14677	.1472166	.1171201	.2528805	169.4357
#3	.0034863	.0032081	14.14320	.1459402	.1173264	.2493883	170.2542

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.51776	28.59581	.1208200	-.014905	.6893511	.3761918	.3070340
Stddev	.01089	.29632	.0003940	.000339	.1676650	.0018222	.0006508
%RSD	.0869905	1.036230	.3261119	2.275078	24.32214	.4843798	.2119735
#1	12.53033	28.77881	.1204959	-.014545	.5792200	.3740953	.3076118
#2	12.51130	28.25393	.1212586	-.014953	.8823111	.3773950	.3071613
#3	12.51164	28.75468	.1207054	-.015218	.6065221	.3770850	.3063289

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.66617	2.924898	.1838352	.0021313	.2477662	5.222551	.0058425
Stddev	.07836	.009490	.0021097	.0003439	.0060568	.016152	.0021978
%RSD	.7346837	.3244430	1.147621	16.13672	2.444550	.3092831	37.61781
#1	10.70954	2.932058	.1860649	.0019977	.2508928	5.226040	.0036766
#2	10.57571	2.914135	.1835702	.0018743	.2516206	5.236673	.0080709
#3	10.71326	2.928503	.1818704	.0025220	.2407850	5.204939	.0057801

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4299-19ADLX2 Acquired: 10/23/2024 17:09:49 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAB1A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.207347	.0411687	.2120114
Stddev	.004438	.0019139	.0004045
%RSD	.2010344	4.648891	.1907731
#1	2.211417	.0389772	.2117021
#2	2.202616	.0420178	.2118629
#3	2.208009	.0425112	.2124691

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1009.159	23046.21	2987.538	831.3061	1816.558
Stddev	.727	56.20	9.438	1.6176	4.278
%RSD	.0720402	.2438520	.3159223	.1945908	.2355079
#1	1009.557	23002.30	2977.310	829.9601	1816.853
#2	1009.600	23109.54	2995.911	833.1007	1820.681
#3	1008.320	23026.78	2989.394	830.8574	1812.140

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4301-09ADLX2 Acquired: 10/23/2024 17:14:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAC1A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3941465	-.042875	.4248764	.0641291	.0101644	162.7066	.5305340
Stddev	.0056869	.003664	.0052375	.0036201	.0025538	.3130	.0004695
%RSD	1.442841	8.546565	1.232715	5.645004	25.12494	.1923937	.0884913
#1	.3926405	-.038727	.4299107	.0662839	.0072599	162.9102	.5304460
#2	.3893642	-.045670	.4194569	.0599497	.0120581	162.8634	.5310412
#3	.4004348	-.044228	.4252615	.0661537	.0111753	162.3461	.5301147

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0072920	.0143886	21.92759	.5256832	.3382454	1.974252	392.9032
Stddev	.0000935	.0002465	.18898	.0019373	.0006209	.005957	.3736
%RSD	1.282667	1.713381	.8618472	.3685381	.1835561	.3017348	.0950937
#1	.0071869	.0141976	21.86766	.5277454	.3376187	1.975408	392.9008
#2	.0073662	.0146669	22.13927	.5254029	.3382572	1.979547	393.2780
#3	.0073229	.0143012	21.77584	.5239013	.3388602	1.967802	392.5308

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.994403	93.19876	.4106414	-.026968	1.500847	.8860114	5.305989
Stddev	.028896	.41328	.0009211	.000281	.139980	.0017409	.025225
%RSD	.3614524	.4434422	.2243141	1.041646	9.326713	.1964851	.4754095
#1	8.016874	92.84468	.4096096	-.026764	1.517827	.8876879	5.330738
#2	8.004528	93.65288	.4113810	-.027288	1.631561	.8861339	5.280313
#3	7.961807	93.09873	.4109335	-.026852	1.353151	.8842126	5.306916

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.09515	4.014307	.4217838	-.001237	.9968971	4.519416	.0090947
Stddev	.08568	.012168	.0020775	.000642	.0038503	.014958	.0017738
%RSD	.5675843	.3031135	.4925388	51.86820	.3862327	.3309650	19.50354
#1	15.06404	4.007765	.4241826	-.001422	.9957309	4.513954	.0091542
#2	15.02938	4.006810	.4205754	-.001765	.9937648	4.536337	.0072919
#3	15.19204	4.028347	.4205933	-.000523	1.001196	4.507956	.0108380

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4301-09ADLX2 Acquired: 10/23/2024 17:14:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAC1A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.101663	.0674175	.1552068
Stddev	.003797	.0028004	.0001755
%RSD	.0744175	4.153866	.1130561
#1	5.098920	.0657782	.1553796
#2	5.105996	.0706511	.1552120
#3	5.100073	.0658233	.1550288

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1000.819	23052.36	3052.716	832.1535	1745.344
Stddev	.307	55.44	17.200	4.8023	2.182
%RSD	.0307152	.2405084	.5634325	.5770885	.1250096
#1	1000.466	22990.34	3046.234	827.1250	1746.928
#2	1000.961	23097.12	3039.700	836.6919	1746.250
#3	1001.030	23069.63	3072.216	832.6436	1742.856

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164140BL Acquired: 10/23/2024 17:18:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS140 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077668	.0033064	.0018327	-.004710	.0008668	.0394249	-.000119
Stddev	.0006992	.0017881	.0021300	.000667	.0023258	.0072937	.000400
%RSD	9.001932	54.07993	116.2204	14.16135	268.3314	18.50022	336.9849
#1	.0085706	.0014978	.0003645	-.005445	-.000200	.0355985	-.000579
#2	.0072992	.0033481	.0008580	-.004544	.003535	.0478355	.000090
#3	.0074307	.0050733	.0042757	-.004142	-.000734	.0348405	.000134

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000408	-.000040	.0285833	.0007916	.0002249	.0022282	.0524971
Stddev	.0000800	.000132	.0160057	.0000484	.0004789	.0030855	.0181570
%RSD	196.0861	332.0401	55.99683	6.111403	212.9756	138.4796	34.58674
#1	.0000149	.000084	.0102943	.0008107	.0001317	.0032194	.0429036
#2	-.000023	-.000179	.0400340	.0007366	.0007435	-.001231	.0734385
#3	.000130	-.000025	.0354215	.0008275	-.000201	.004696	.0411491

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015235	-.007952	-.000132	.0008330	-.193097	-.003511	.0011081
Stddev	.0003719	.032882	.000029	.0003788	.075445	.000407	.0003606
%RSD	24.41154	413.5113	21.64232	45.47983	39.07122	11.58697	32.54442
#1	.0019182	-.021057	-.000143	.0012697	-.219234	-.003527	.0014448
#2	.0011795	-.032260	-.000154	.0005932	-.251999	-.003096	.0011520
#3	.0014730	.029462	-.000100	.0006360	-.108059	-.003909	.0007275

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2316968	.0015165	-.000198	.0001673	.0013408	.0012430	-.001914
Stddev	.0185039	.0008155	.000542	.0001267	.0034470	.0003127	.001393
%RSD	7.986243	53.77710	273.3957	75.69771	257.0835	25.16002	72.79011
#1	.2311108	.0006257	-.000013	.0000225	.0014210	.0016024	-.002532
#2	.2134929	.0022264	.000227	.0002573	-.002146	.0010327	-.000319
#3	.2504867	.0016973	-.000809	.0002221	.004747	.0010939	-.002892

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164140BL Acquired: 10/23/2024 17:18:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS140 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000674	-.008626	.0002912
Stddev	.000843	.002211	.0000910
%RSD	125.0176	25.63429	31.26058
#1	-.000337	-.010987	.0002094
#2	-.001633	-.006604	.0003893
#3	-.000052	-.008287	.0002750

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	972.8911	21943.62	2820.848	799.0823	1914.009
Stddev	1.1904	86.02	14.561	5.7576	3.089
%RSD	.1223554	.3920242	.5161785	.7205317	.1614036
#1	974.0887	21891.01	2804.125	796.3537	1916.674
#2	971.7081	21896.97	2830.718	795.1963	1910.623
#3	972.8765	22042.90	2827.700	805.6970	1914.731

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164140BSD Acquired: 10/23/2024 17:27:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD140 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0126209	.0275859	.0070715	.0281162	.0546057	.2140485	.2076996
Stddev	.0028021	.0052385	.0023912	.0032950	.0043495	.0068656	.0057450
%RSD	22.20181	18.98976	33.81422	11.71930	7.965298	3.207505	2.766020
#1	.0157958	.0323695	.0043424	.0293710	.0497290	.2065052	.2092170
#2	.0115735	.0219879	.0080733	.0305996	.0580840	.2157081	.2125335
#3	.0104933	.0284002	.0087989	.0243782	.0560042	.2199322	.2013482

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055304	.0050411	5.477336	.0114342	.0512997	.0258148	.1308907
Stddev	.0002129	.0000775	.130454	.0009415	.0001561	.0031638	.0132448
%RSD	3.849900	1.537395	2.381705	8.233849	.3043331	12.25581	10.11897
#1	.0057733	.0049573	5.544779	.0123200	.0514740	.0247188	.1225310
#2	.0054423	.0051103	5.560263	.0115369	.0511727	.0293809	.1461616
#3	.0053758	.0050556	5.326966	.0104455	.0512523	.0233447	.1239796

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0157446	5.179227	.0429632	.0129156	5.069850	.0390416	.0587141
Stddev	.0012617	.139592	.0002209	.0000080	.192023	.0052344	.0006303
%RSD	8.013208	2.695227	.5140951	.0617590	3.787546	13.40736	1.073447
#1	.0168163	5.285526	.0429665	.0129197	4.850174	.0389620	.0586742
#2	.0160634	5.231013	.0427406	.0129064	5.205754	.0443154	.0593634
#3	.0143542	5.021143	.0431823	.0129207	5.153624	.0338474	.0581048

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.989350	.0097602	-.000397	.0096566	.0891678	.2375877	.0056522
Stddev	.174981	.0013757	.000589	.0003568	.0029847	.0046258	.0003244
%RSD	3.507096	14.09475	148.4052	3.694718	3.347312	1.946968	5.739788
#1	5.157434	.0111967	-.000953	.0092855	.0872127	.2397458	.0052866
#2	5.002411	.0084547	.000220	.0096875	.0876874	.2407400	.0057640
#3	4.808204	.0096293	-.000457	.0099970	.0926034	.2322773	.0059058

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164140BSD Acquired: 10/23/2024 17:27:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD140 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1003023	.0058444	.1063526
Stddev	.0020135	.0014891	.0028193
%RSD	2.007478	25.47825	2.650858
#1	.1003227	.0041972	.1074628
#2	.1023057	.0070951	.1084478
#3	.0982787	.0062408	.1031473

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	972.3121	21969.09	2852.644	804.7850	1899.726
Stddev	.7203	63.29	60.685	3.4976	.898
%RSD	.0740785	.2880964	2.127322	.4345944	.0472828
#1	973.0517	21907.36	2826.900	803.6142	1898.891
#2	972.2718	21966.09	2809.075	802.0231	1900.676
#3	971.6128	22033.84	2921.957	808.7178	1899.612

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4302-14DLX2 Acquired: 10/23/2024 17:32:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1603494	-.027281	.1481302	-.000252	.0033711	100.9009	.7683243
Stddev	.0061518	.002627	.0031811	.004951	.0018463	.2478	.0011424
%RSD	3.836499	9.630561	2.147513	1962.867	54.76627	.2456267	.1486942
#1	.1621253	-.024999	.1497013	-.002578	.0013137	100.6204	.7693922
#2	.1654179	-.030153	.1444692	-.003612	.0048835	101.0902	.7684613
#3	.1535050	-.026691	.1502202	.005434	.0039162	100.9921	.7671196

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063395	.0048229	29.31220	.1026698	.0931927	.1840334	216.2376
Stddev	.0000677	.0001707	.14763	.0006796	.0009278	.0025626	.7615
%RSD	1.068430	3.538329	.5036393	.6618769	.9955844	1.392445	.3521494
#1	.0062682	.0049372	29.14320	.1029647	.0933623	.1819332	215.5448
#2	.0063474	.0046268	29.41600	.1031520	.0921917	.1832782	217.0529
#3	.0064030	.0049048	29.37741	.1018926	.0940239	.1868886	216.1151

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.455070	33.79272	.1066064	-.017334	1.005755	.3711719	.5388478
Stddev	.018426	.06430	.0003333	.000231	.180814	.0040255	.0015852
%RSD	.5332954	.1902766	.3126168	1.330033	17.97792	1.084538	.2941798
#1	3.463918	33.75305	.1065026	-.017487	.839611	.3703581	.5406699
#2	3.467403	33.75821	.1069793	-.017068	1.198329	.3755421	.5380879
#3	3.433889	33.86691	.1063374	-.017445	.979324	.3676155	.5377856

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.17484	5.098889	.2386085	-.000967	.7893505	6.072584	.0029657
Stddev	.09689	.012325	.0018518	.000373	.0067727	.010109	.0011881
%RSD	.5990261	.2417194	.7760939	38.56192	.8580081	.1664718	40.06177
#1	16.14825	5.101964	.2364728	-.001175	.7820874	6.078487	.0040944
#2	16.28225	5.085318	.2397669	-.000536	.7904712	6.060911	.0017260
#3	16.09402	5.109386	.2395859	-.001189	.7954930	6.078353	.0030766

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4302-14DLX2 Acquired: 10/23/2024 17:32:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.327998	.0454627	.1871458
Stddev	.012918	.0021715	.0002845
%RSD	.3881662	4.776375	.1520321
#1	3.315851	.0429901	.1868895
#2	3.341569	.0470593	.1874520
#3	3.326574	.0463387	.1870958

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1046.259	23898.28	3117.317	864.7717	1787.193
Stddev	1.215	17.17	1.780	3.2558	3.746
%RSD	.1161153	.0718656	.0570913	.3764900	.2096085
#1	1047.325	23887.29	3117.520	861.7371	1783.892
#2	1046.516	23918.07	3118.987	864.3670	1791.265
#3	1044.936	23889.48	3115.445	868.2109	1786.424

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4302-15DLX2 Acquired: 10/23/2024 17:36:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5236877	-.023980	.4180210	-.002359	.0097831	64.98045	.3943064
Stddev	.0036768	.003306	.0027852	.004446	.0043103	.14883	.0017959
%RSD	.7020999	13.78605	.6662828	188.4840	44.05861	.2290329	.4554470
#1	.5194432	-.020483	.4169782	.002528	.0130964	64.98884	.3926851
#2	.5258936	-.024404	.4159076	-.006165	.0049100	64.82761	.3939974
#3	.5257264	-.027054	.4211771	-.003440	.0113429	65.12491	.3962367

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0058036	.0073860	14.56737	.0867104	.0792088	.2342533	218.6588
Stddev	.0001950	.0000814	.04073	.0012126	.0004318	.0035647	.5555
%RSD	3.360358	1.102396	.2796252	1.398456	.5451461	1.521729	.2540371
#1	.0056325	.0073586	14.61241	.0877317	.0790166	.2318101	218.8403
#2	.0060159	.0074776	14.53312	.0853702	.0789065	.2326061	218.0353
#3	.0057624	.0073219	14.55657	.0870293	.0797033	.2383438	219.1008

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.495928	19.96302	.0767010	-.015701	.7022505	.4263969	1.041034
Stddev	.015227	.10125	.0002545	.000283	.1443177	.0050514	.004556
%RSD	.6100799	.5072055	.3317762	1.801805	20.55074	1.184667	.4375954
#1	2.495122	20.00553	.0764641	-.015628	.5652590	.4282450	1.035968
#2	2.481119	20.03610	.0769700	-.015461	.8529204	.4302640	1.044793
#3	2.511541	19.84745	.0766690	-.016013	.6885720	.4206817	1.042341

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.39379	4.941644	.2352831	.0002549	.9020792	5.461191	.0028687
Stddev	.05535	.009768	.0009888	.0000749	.0032469	.023083	.0018756
%RSD	.3845533	.1976696	.4202515	29.40068	.3599329	.4226814	65.38197
#1	14.41050	4.938237	.2356357	.0002298	.9008301	5.459694	.0034633
#2	14.43887	4.952659	.2360473	.0003392	.8996423	5.438892	.0043749
#3	14.33201	4.934035	.2341664	.0001957	.9057651	5.484986	.0007679

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4302-15DLX2 Acquired: 10/23/2024 17:36:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.287306	.0223130	.1238141
Stddev	.010191	.0009720	.0002340
%RSD	.2377107	4.356233	.1890060
#1	4.287047	.0217304	.1237494
#2	4.277247	.0217735	.1240736
#3	4.297625	.0234351	.1236192

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1029.454	23512.63	3045.898	851.1031	1823.468
Stddev	2.285	51.10	7.149	2.2276	3.282
%RSD	.2219439	.2173147	.2347089	.2617336	.1800110
#1	1028.632	23517.40	3048.702	853.6592	1820.680
#2	1032.036	23459.31	3051.221	850.0748	1827.086
#3	1027.693	23561.17	3037.773	849.5754	1822.638

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4302-09ADLX2 Acquired: 10/23/2024 17:41:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE1A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6039016	-.028495	.2408500	.0576981	.0091860	97.28303	.9165422
Stddev	.0068603	.000683	.0038225	.0072277	.0016698	.56804	.0054644
%RSD	1.135994	2.398238	1.587101	12.52676	18.17746	.5839037	.5961937
#1	.6007957	-.029283	.2423967	.0588836	.0075927	96.70207	.9112113
#2	.5991435	-.028063	.2364965	.0642597	.0109230	97.83720	.9221309
#3	.6117655	-.028139	.2436568	.0499509	.0090422	97.30982	.9162845

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0068757	.0067118	28.39037	.1113481	.1129205	.2277087	252.3459
Stddev	.0003319	.0002063	.11632	.0025924	.0001785	.0034014	1.3276
%RSD	4.827309	3.074295	.4097067	2.328202	.1580959	1.493756	.5261125
#1	.0065399	.0069417	28.29052	.1087151	.1130922	.2239897	250.8627
#2	.0072036	.0066509	28.51809	.1114313	.1129335	.2306620	253.4232
#3	.0068836	.0065427	28.36249	.1138979	.1127358	.2284746	252.7518

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.577632	32.31000	.1165425	-.020506	.8505004	.4643882	.7331355
Stddev	.029777	.18119	.0001658	.000507	.1056208	.0019394	.0115799
%RSD	.6504972	.5607792	.1422714	2.472015	12.41866	.4176356	1.579500
#1	4.544179	32.10472	.1164597	-.021083	.7414568	.4622018	.7199671
#2	4.601242	32.37768	.1167335	-.020304	.9523283	.4650615	.7417293
#3	4.587474	32.44762	.1164345	-.020132	.8577162	.4659012	.7377101

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.40364	5.990218	.2751812	-.000146	1.037038	4.729518	.0062895
Stddev	.17968	.021521	.0008286	.000161	.009075	.062387	.0005394
%RSD	.9260280	.3592737	.3011195	110.7109	.8750995	1.319106	8.575496
#1	19.21902	6.012863	.2748165	-.000271	1.026581	4.668882	.0057628
#2	19.57795	5.970032	.2745975	.000036	1.041673	4.793521	.0062650
#3	19.41395	5.987759	.2761297	-.000202	1.042859	4.726151	.0068407

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4302-09ADLX2 Acquired: 10/23/2024 17:41:04 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE1A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.643614	.0442612	.1952585
Stddev	.021434	.0012261	.0007994
%RSD	.5882492	2.770236	.4094152
#1	3.625232	.0432950	.1946684
#2	3.667156	.0438481	.1961683
#3	3.638453	.0456406	.1949388

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1051.464	24142.06	3128.557	872.6466	1782.348
Stddev	.957	355.61	26.545	11.0353	1.579
%RSD	.0909949	1.473001	.8484605	1.264574	.0885938
#1	1050.369	24550.27	3154.328	885.1883	1780.550
#2	1052.140	23899.42	3101.301	864.4250	1782.986
#3	1051.883	23976.49	3130.044	868.3263	1783.508

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164143BL Acquired: 10/23/2024 17:45:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS143 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032014	.0011013	.0013201	-.005294	-.000535	.0356947	-.000183
Stddev	.0019397	.0016419	.0038749	.001415	.001500	.0162088	.000540
%RSD	60.59017	149.0851	293.5368	26.72177	280.1469	45.40946	294.9184
#1	.0009635	-.000794	-.002856	-.006925	-.001742	.0536119	.000385
#2	.0042400	.002026	.004799	-.004406	.001144	.0314221	-.000690
#3	.0044007	.002073	.002018	-.004550	-.001009	.0220503	-.000244

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000003	-.000046	.0206094	.0000301	.0004104	.0005199	.0215624
Stddev	.000017	.000078	.0200809	.0001902	.0002914	.0013223	.0107508
%RSD	616.7785	169.2595	97.43561	631.7350	71.00774	254.3483	49.85880
#1	.000017	-.000025	.0075150	.0002486	.0001379	.0020468	.0291097
#2	-.000015	-.000133	.0105842	-.000099	.0007177	-.000244	.0263245
#3	-.000011	.000019	.0437290	-.000059	.0003757	-.000243	.0092531

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000920	-.049197	-.000126	.0012695	-.231760	-.010992	.0000754
Stddev	.001007	.070946	.000436	.0002539	.186115	.009936	.0003323
%RSD	109.4975	144.2081	346.2812	20.00344	80.30527	90.39088	440.8441
#1	-.001062	-.131117	-.000600	.0010498	-.017384	-.022456	-.000006
#2	-.001849	-.008652	.000258	.0012111	-.352030	-.005663	-.000208
#3	.000151	-.007822	-.000036	.0015475	-.325865	-.004858	.000441

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2309522	-.001414	-.002122	.0000879	.0023263	.0019439	-.001471
Stddev	.0749353	.001586	.001365	.0001999	.0047959	.0004177	.001004
%RSD	32.44624	112.2129	64.32397	227.4953	206.1654	21.49085	68.27468
#1	.3071320	-.003182	-.000571	.0002752	.0074917	.0017077	-.002629
#2	.1573267	-.000115	-.002653	-.000123	.0014725	.0024262	-.000947
#3	.2283981	-.000944	-.003141	.000111	-.001985	.0016977	-.000837

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164143BL Acquired: 10/23/2024 17:45:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS143 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000526	-.010665	.0000186
Stddev	.001327	.000631	.0001161
%RSD	252.2523	5.919131	622.4668
#1	-.001749	-.009937	.0001177
#2	-.000715	-.010997	-.000109
#3	.000885	-.011061	.000047

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	972.1423	21891.75	2791.942	800.7001	1918.000
Stddev	2.0179	26.83	27.405	6.1084	4.816
%RSD	.2075744	.1225730	.9815715	.7628778	.2510692
#1	970.4073	21867.84	2760.668	794.0060	1913.201
#2	974.3568	21920.77	2811.761	802.1228	1922.832
#3	971.6628	21886.65	2803.396	805.9716	1917.966

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164143BS Acquired: 10/23/2024 17:50:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS143 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0226589	.0532701	.0210884	.0607052	.1077642	.4221008
Stddev	.0033345	.0015667	.0031778	.0033798	.0022318	.0098073
%RSD	14.71591	2.940971	15.06870	5.567571	2.071027	2.323443
#1	.0210858	.0514807	.0175210	.0570085	.1102078	.4277120
#2	.0264889	.0539347	.0221282	.0636370	.1058335	.4278139
#3	.0204019	.0543950	.0236160	.0614702	.1072512	.4107765

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4204435	.0108965	.0102222	11.23845	.0229091	.1003361
Stddev	.0109511	.0003891	.0001702	.33085	.0004482	.0009557
%RSD	2.604655	3.570777	1.665297	2.943886	1.956593	.9524891
#1	.4330311	.0113213	.0104066	11.61682	.0225013	.1005170
#2	.4151943	.0108108	.0100711	11.00358	.0228370	.1011884
#3	.4131051	.0105574	.0101889	11.09495	.0233890	.0993028

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0506519	.2470978	.0343781	10.50140	.0842997	.0232007
Stddev	.0024554	.0167093	.0013929	.36801	.0004062	.0005290
%RSD	4.847641	6.762220	4.051618	3.504406	.4819046	2.280056
#1	.0483078	.2651502	.0354589	10.92612	.0847677	.0230657
#2	.0532052	.2321739	.0328062	10.30090	.0840928	.0237841
#3	.0504427	.2439694	.0348693	10.27717	.0840385	.0227523

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.59122	.1063196	.1135584	10.30686	.0190420	F .0007187
Stddev	.43611	.0042118	.0006856	.43893	.0041149	.0015894
%RSD	4.117687	3.961450	.6037321	4.258599	21.60977	221.1394
#1	11.09395	.1111698	.1128164	10.76048	.0159623	.0024184
#2	10.31443	.1042042	.1141683	9.88427	.0174484	.0004685
#3	10.36530	.1035849	.1136904	10.27584	.0237154	-.000731

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164143BS Acquired: 10/23/2024 17:50:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS143 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0196271	.1731583	F .4852347	.0130665	.2079603	.0225218
Stddev	.0009617	.0065512	.0154268	.0017785	.0078304	.0010719
%RSD	4.899864	3.783348	3.179237	13.61102	3.765342	4.759519
#1	.0205566	.1757140	.5030055	.0150928	.2168187	.0232609
#2	.0186362	.1780464	.4752837	.0123427	.2050998	.0212924
#3	.0196884	.1657145	.4774151	.0117641	.2019622	.0230122

Elem	Sr4077
Units	ppm
Avg	.2163150
Stddev	.0058254
%RSD	2.693034
#1	.2230404
#2	.2130624
#3	.2128421

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	967.4223	21945.72	2766.701	804.5252	1871.209
Stddev	2.4328	12.94	78.177	1.7852	5.961
%RSD	.2514754	.0589786	2.825638	.2218927	.3185493
#1	964.8856	21930.78	2676.758	805.6913	1865.112
#2	967.6453	21953.11	2818.330	802.4701	1877.024
#3	969.7359	21953.28	2805.014	805.4142	1871.491

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164143BSD Acquired: 10/23/2024 17:54:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD143 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0147046	.0290252	.0089827	.0257083	.0560819	.2133182	.2124832
Stddev	.0024083	.0015844	.0009618	.0049765	.0029267	.0022781	.0002238
%RSD	16.37783	5.458581	10.70773	19.35760	5.218593	1.067953	.1053116
#1	.0164318	.0279851	.0087543	.0205387	.0546243	.2115846	.2127300
#2	.0157284	.0282418	.0081557	.0304662	.0594511	.2158984	.2124262
#3	.0119535	.0308486	.0100382	.0261199	.0541702	.2124715	.2122935

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055270	.0050591	5.639604	.0119631	.0511679	.0256310	.1039420
Stddev	.0003305	.0000942	.053162	.0007095	.0003368	.0034244	.0181993
%RSD	5.980169	1.861711	.9426469	5.930567	.6582545	13.36018	17.50906
#1	.0053593	.0051661	5.643561	.0126762	.0515125	.0294676	.1077499
#2	.0053139	.0050224	5.584575	.0112573	.0508395	.0228841	.1199361
#3	.0059077	.0049887	5.690677	.0119559	.0511518	.0245414	.0841401

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0158580	5.236114	.0427010	.0129076	5.096856	.0484125	.0585473
Stddev	.0011213	.073250	.0006313	.0002991	.169722	.0041249	.0006401
%RSD	7.070705	1.398941	1.478506	2.317268	3.329944	8.520429	1.093334
#1	.0155540	5.312325	.0427129	.0130393	5.151997	.0512519	.0578108
#2	.0171000	5.166236	.0433262	.0131181	5.232151	.0436809	.0588609
#3	.0149201	5.229782	.0420637	.0125652	4.906420	.0503047	.0589701

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.220890	.0093168	-.001266	.0094521	.0866750	.2447602	.0050526
Stddev	.077694	.0015480	.000442	.0003093	.0055505	.0007923	.0012691
%RSD	1.488128	16.61559	34.89011	3.272701	6.403758	.3237223	25.11726
#1	5.131366	.0104806	-.000757	.0095772	.0927639	.2438657	.0065144
#2	5.270693	.0075599	-.001547	.0096793	.0853629	.2450411	.0042328
#3	5.260610	.0099098	-.001494	.0090998	.0818981	.2453739	.0044106

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164143BSD Acquired: 10/23/2024 17:54:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD143 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1048987	.0065798	.1087083
Stddev	.0009914	.0015875	.0001200
%RSD	.9451305	24.12677	.1104057
#1	.1039447	.0054168	.1086433
#2	.1059237	.0083883	.1088468
#3	.1048277	.0059342	.1086348

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	972.0832	21944.56	2801.952	801.6250	1897.945
Stddev	1.5884	69.11	6.249	.8226	1.119
%RSD	.1634064	.3149447	.2230237	.1026202	.0589730
#1	970.7153	21879.60	2809.107	802.1728	1897.311
#2	971.7090	21936.90	2797.564	800.6790	1899.237
#3	973.8254	22017.19	2799.186	802.0231	1897.287

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4303-01ADLX2 Acquired: 10/23/2024 17:59:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE7A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3709036	-.025717	.4394414	.0650848	.1212075	57.57437	.5328386
Stddev	.0055028	.001574	.0004199	.0070568	.0023218	.16113	.0019051
%RSD	1.483609	6.119126	.0955435	10.84247	1.915517	.2798633	.3575373
#1	.3645925	-.025853	.4398803	.0569430	.1216111	57.53911	.5321655
#2	.3746979	-.024080	.4390435	.0688691	.1233009	57.75021	.5349889
#3	.3734204	-.027218	.4394005	.0694422	.1187104	57.43379	.5313614

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062053	.0087683	15.21175	.0663684	.0878044	.2415996	236.3653
Stddev	.0003689	.0000895	.02779	.0009822	.0012412	.0030358	.7516
%RSD	5.945467	1.020465	.1826750	1.479960	1.413566	1.256548	.3179932
#1	.0059160	.0086844	15.24327	.0653283	.0883897	.2438163	236.6802
#2	.0066208	.0088624	15.20117	.0664967	.0863788	.2428431	236.9081
#3	.0060791	.0087580	15.19080	.0672801	.0886446	.2381395	235.5074

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.998220	20.78729	.0781855	-.017194	.8763920	.3392228	1.191782
Stddev	.013661	.05102	.0010769	.000145	.1174700	.0104133	.005120
%RSD	.4556432	.2454341	1.377367	.8451810	13.40382	3.069756	.4295817
#1	3.001206	20.83360	.0774481	-.017345	.8489014	.3476886	1.189791
#2	3.010141	20.73260	.0776870	-.017055	1.005169	.3275950	1.187957
#3	2.983312	20.79566	.0794213	-.017182	.775105	.3423848	1.197598

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.66723	5.508960	.2556008	-.000265	1.403461	7.346289	.0062863
Stddev	.19124	.006076	.0012761	.000650	.011001	.039494	.0028156
%RSD	1.303855	.1102884	.4992598	245.3746	.7838230	.5376091	44.78883
#1	14.45222	5.513354	.2541278	-.000252	1.393534	7.335809	.0085914
#2	14.81832	5.502026	.2563051	.000379	1.415288	7.389966	.0071194
#3	14.73116	5.511500	.2563696	-.000922	1.401561	7.313091	.0031482

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4303-01ADLX2 Acquired: 10/23/2024 17:59:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAE7A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.953917	.0184905	.1220086
Stddev	.005850	.0006051	.0004742
%RSD	.1980266	3.272658	.3886293
#1	2.958898	.0182599	.1220861
#2	2.955378	.0191770	.1224392
#3	2.947476	.0180345	.1215004

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1023.222	23388.66	3021.901	848.5505	1825.282
Stddev	3.676	26.28	12.513	2.8616	2.508
%RSD	.3592343	.1123536	.4140769	.3372337	.1373819
#1	1019.087	23410.57	3021.270	848.9417	1823.014
#2	1026.119	23395.88	3009.715	851.1964	1827.975
#3	1024.459	23359.53	3034.717	845.5135	1824.858

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4304-08ADLX2 Acquired: 10/23/2024 18:03:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAP2A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5969055	-.030415	.5588375	.0674987	.0095092	78.89342	.8350968
Stddev	.0013556	.003653	.0020121	.0045505	.0008217	.05744	.0006635
%RSD	.2270970	12.00895	.3600455	6.741578	8.640503	.0728024	.0794487
#1	.5955180	-.031448	.5595798	.0650413	.0096062	78.92488	.8357827
#2	.5969718	-.026358	.5603730	.0647053	.0086434	78.82712	.8344583
#3	.5982267	-.033440	.5565598	.0727496	.0102781	78.92825	.8350495

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063357	.0105442	30.61236	.0858649	.0919879	.3150693	247.4371
Stddev	.0001510	.0000986	.06063	.0003730	.0003119	.0023862	.3175
%RSD	2.382682	.9354846	.1980681	.4343680	.3390178	.7573703	.1283037
#1	.0063366	.0105009	30.54261	.0856158	.0916298	.3151176	247.7933
#2	.0064862	.0104746	30.64197	.0856851	.0921337	.3174311	247.3338
#3	.0061842	.0106571	30.65249	.0862937	.0922002	.3126593	247.1841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.948696	27.75647	.1002840	-.018004	1.121951	.3890167	1.666836
Stddev	.004407	.05333	.0015729	.000578	.029097	.0081101	.009571
%RSD	.0890609	.1921335	1.568450	3.212318	2.593450	2.084758	.5741826
#1	4.950644	27.81794	.1019817	-.018011	1.101507	.3916157	1.656643
#2	4.943650	27.72894	.0988762	-.018579	1.109082	.3799257	1.675629
#3	4.951794	27.72254	.0999941	-.017422	1.155264	.3955086	1.668237

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.61736	5.523973	.2746404	.0004170	7.990370	5.728308	.0026935
Stddev	.00463	.009966	.0022119	.0005238	.042165	.022825	.0017805
%RSD	.0235947	.1804160	.8053663	125.5955	.5277003	.3984518	66.10405
#1	19.61769	5.520806	.2752861	.0002005	7.949445	5.751833	.0025892
#2	19.61257	5.515976	.2721775	.0000362	7.987992	5.726835	.0045239
#3	19.62181	5.535138	.2764575	.0010144	8.033675	5.706256	.0009675

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4304-08ADLX2 Acquired: 10/23/2024 18:03:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAP2A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.887124	.0356589	.1843054
Stddev	.006986	.0017065	.0002591
%RSD	.2419735	4.785517	.1405599
#1	2.894144	.0341153	.1844044
#2	2.887055	.0374914	.1845003
#3	2.880173	.0353701	.1840114

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1037.373	23725.86	3085.721	856.4473	1798.499
Stddev	2.443	61.77	6.045	5.4389	2.548
%RSD	.2354774	.2603667	.1959045	.6350541	.1416612
#1	1038.412	23759.20	3079.002	862.7270	1799.508
#2	1039.124	23763.79	3087.444	853.2327	1800.388
#3	1034.583	23654.57	3090.718	853.3821	1795.601

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4305-01ADLX2 Acquired: 10/23/2024 18:07:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAJ5A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1775058	-.022279	.1132784	.0629292	.0056382	46.96891	.4546063
Stddev	.0005528	.002021	.0029117	.0066412	.0014538	.09641	.0006389
%RSD	.3114360	9.069167	2.570408	10.55348	25.78451	.2052678	.1405399
#1	.1778486	-.020028	.1110656	.0572626	.0067971	46.86828	.4539426
#2	.1778008	-.023936	.1165770	.0702372	.0061106	46.97800	.4552171
#3	.1768681	-.022872	.1121926	.0612877	.0040070	47.06046	.4546593

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044887	.0042248	19.07489	.0612275	.0789536	.1196771	195.1908
Stddev	.0001477	.0001411	.07276	.0008104	.0005497	.0029846	.3728
%RSD	3.290240	3.340185	.3814611	1.323595	.6962672	2.493858	.1909817
#1	.0043763	.0041341	19.00050	.0619171	.0783208	.1215036	194.9750
#2	.0046559	.0041530	19.07827	.0603349	.0793133	.1212948	194.9762
#3	.0044337	.0043874	19.14591	.0614304	.0792266	.1162329	195.6213

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.778282	17.92749	.0613388	-.015209	.8117335	.4001942	.3520468
Stddev	.001923	.09481	.0011096	.000420	.2276202	.0033469	.0031774
%RSD	.0692065	.5288529	1.808962	2.763911	28.04124	.8363165	.9025436
#1	2.778270	17.94120	.0606165	-.015658	.7236482	.4039964	.3524569
#2	2.780211	18.01471	.0607835	-.015144	.6413194	.3988921	.3549992
#3	2.776365	17.82658	.0626164	-.014825	1.070233	.3976939	.3486843

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.20729	4.488000	.2092859	-.000053	.4058975	4.257631	.0012646
Stddev	.21074	.019053	.0006885	.000232	.0052324	.011912	.0017718
%RSD	1.595641	.4245335	.3289845	436.3790	1.289104	.2797796	140.1053
#1	12.98811	4.482214	.2087754	-.000316	.4054723	4.247521	.0023374
#2	13.40843	4.472510	.2090134	.000122	.4113296	4.254610	.0022368
#3	13.22533	4.509275	.2100690	.000034	.4008907	4.270763	-.000780

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4305-01ADLX2 Acquired: 10/23/2024 18:07:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDAJ5A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.200193	.0140798	.1143424
Stddev	.014797	.0007520	.0001934
%RSD	.4623914	5.341268	.1691706
#1	3.183731	.0133630	.1141891
#2	3.204461	.0148627	.1142784
#3	3.212388	.0140138	.1145597

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1018.797	23288.26	3010.050	840.4779	1833.408
Stddev	2.446	33.83	8.503	5.5808	5.997
%RSD	.2400392	.1452486	.2824808	.6639995	.3271106
#1	1019.948	23321.05	3017.904	840.3347	1836.312
#2	1020.454	23253.49	3001.020	834.9701	1837.401
#3	1015.988	23290.23	3011.225	846.1289	1826.511

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164254BL Acquired: 10/23/2024 18:12:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS254 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066028	.0036310	.0012833	-.005082	-.000283	.0302128	.0003560
Stddev	.0045839	.0011847	.0015570	.001860	.002027	.0171226	.0008583
%RSD	69.42274	32.62655	121.3321	36.59461	715.8988	56.67328	241.1029
#1	.0116360	.0036976	.0017672	-.003646	.001713	.0419588	.0012560
#2	.0026678	.0047810	-.000458	-.004417	-.000223	.0105664	.0002655
#3	.0055047	.0024145	.002541	-.007182	-.002339	.0381131	-.000454

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001493	-.000171	.0168435	.0000056	-.000117	-.002088	.0577295
Stddev	.0000534	.000082	.0096034	.0004935	.000371	.003502	.0079561
%RSD	35.73455	48.10861	57.01573	8746.262	316.5180	167.7317	13.78178
#1	.0002035	-.000131	.0257589	-.000346	.000299	-.006128	.0590050
#2	.0000969	-.000116	.0066751	-.000207	-.000239	-.000206	.0649707
#3	.0001475	-.000266	.0180964	.000570	-.000412	.000071	.0492126

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006950	-.087718	.0002154	.0021798	-.246908	-.013688	.0002702
Stddev	.0009336	.033439	.0003097	.0000540	.226175	.005481	.0001700
%RSD	134.3192	38.12051	143.7792	2.477279	91.60311	40.04543	62.90372
#1	-.000313	-.118153	.0001320	.0021564	-.046970	-.013222	.0002058
#2	.001529	-.093078	-.000044	.0021415	-.492389	-.019387	.0004629
#3	.000869	-.051923	.000558	.0022416	-.201364	-.008454	.0001419

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0524400	.0007743	-.001836	.0001057	-.001262	.0017529	-.001263
Stddev	.1022885	.0018328	.000377	.0004987	.001651	.0004973	.000554
%RSD	195.0582	236.7026	20.54830	471.7334	130.7887	28.37067	43.87389
#1	.1704281	.0011876	-.002131	.0000808	-.003113	.0017492	-.001111
#2	-.001859	-.001230	-.001411	-.000380	.000059	.0022520	-.001877
#3	-.011249	.002365	-.001965	.000616	-.000733	.0012574	-.000800

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164254BL Acquired: 10/23/2024 18:12:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS254 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000356	-.008176	.0001070
Stddev	.002094	.000722	.0000371
%RSD	588.8867	8.833926	34.69499
#1	-.002772	-.007376	.0000675
#2	.000763	-.008780	.0001411
#3	.000942	-.008371	.0001122

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	973.5505	21838.04	2788.100	800.6104	1925.842
Stddev	5.2923	76.96	5.381	.6322	10.669
%RSD	.5436107	.3524220	.1930087	.0789608	.5539970
#1	979.6108	21882.36	2784.039	800.9740	1938.108
#2	971.2010	21882.59	2786.057	799.8804	1918.716
#3	969.8397	21749.17	2794.204	800.9767	1920.702

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164254BS Acquired: 10/23/2024 18:16:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS254 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0234974	.0518004	.0197635	.0609987	.1115801	.4094314
Stddev	.0041089	.0009184	.0006735	.0037033	.0009570	.0075170
%RSD	17.48657	1.772952	3.407595	6.071067	.8577270	1.835962
#1	.0243480	.0512266	.0190638	.0652746	.1115712	.4079301
#2	.0190298	.0513150	.0204073	.0588143	.1125416	.4027784
#3	.0271144	.0528596	.0198193	.0589074	.1106275	.4175858

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4119441	.0106631	.0101348	11.01336	.0226215	.1013660
Stddev	.0008691	.0001432	.0001005	.03100	.0006182	.0012386
%RSD	.2109848	1.342700	.9911262	.2814478	2.732814	1.221918
#1	.4110223	.0105717	.0102375	10.97798	.0228435	.1027321
#2	.4127487	.0105894	.0101301	11.03576	.0219229	.1010499
#3	.4120614	.0108281	.0100367	11.02633	.0230980	.1003162

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0498636	.2374198	.0325227	10.27521	.0853009	.0235156
Stddev	.0020302	.0178434	.0010823	.10171	.0012653	.0004703
%RSD	4.071589	7.515533	3.327732	.9898515	1.483348	2.000122
#1	.0521967	.2172434	.0313211	10.17707	.0867550	.0231055
#2	.0484985	.2438924	.0334209	10.26840	.0846967	.0234122
#3	.0488957	.2511234	.0328260	10.38015	.0844509	.0240290

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.26920	.1041167	.1149380	10.03724	.0193929	F -.000658
Stddev	.20385	.0036131	.0004430	.05410	.0008440	.000495
%RSD	1.985073	3.470254	.3854461	.5390109	4.352103	75.18824
#1	10.50081	.1010936	.1144620	10.01869	.0203488	-.000802
#2	10.11703	.1031383	.1153383	9.99484	.0190794	-.001064
#3	10.18975	.1081183	.1150137	10.09817	.0187505	-.000107

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164254BS Acquired: 10/23/2024 18:16:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS254 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0191683	.1788461	F .4735961	.0115156	.2045864	.0223043
Stddev	.0009250	.0042860	.0019471	.0013551	.0006934	.0020300
%RSD	4.825761	2.396492	.4111315	11.76716	.3389347	9.101306
#1	.0199672	.1837715	.4734620	.0113013	.2043978	.0201311
#2	.0181549	.1768022	.4717195	.0102805	.2053546	.0226300
#3	.0193827	.1759647	.4756068	.0129650	.2040068	.0241517

Elem	Sr4077
Units	ppm
Avg	.2110967
Stddev	.0003888
%RSD	.1841843
#1	.2112531
#2	.2113830
#3	.2106541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	963.2062	21865.51	2819.087	801.4355	1865.132
Stddev	7.1019	22.37	4.018	2.1521	18.114
%RSD	.7373149	.1023140	.1425388	.2685290	.9711770
#1	955.0427	21885.81	2823.727	798.9673	1844.251
#2	966.6140	21869.21	2816.755	802.4202	1876.624
#3	967.9619	21841.52	2816.779	802.9192	1874.520

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164254BSD Acquired: 10/23/2024 18:21:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD254 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0128689	.0251309	.0065238	.0281719	.0553618	.2180482	.2099946
Stddev	.0051961	.0017155	.0019048	.0063030	.0016203	.0017119	.0005935
%RSD	40.37700	6.826324	29.19782	22.37333	2.926750	.7851076	.2826450
#1	.0071328	.0268287	.0073436	.0335376	.0565180	.2187923	.2106799
#2	.0172609	.0251657	.0043463	.0212306	.0535098	.2160902	.2096605
#3	.0142130	.0233982	.0078814	.0297474	.0560575	.2192622	.2096435

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053426	.0050584	5.628449	.0118159	.0498235	.0228334	.1117099
Stddev	.0000417	.0000906	.022884	.0008524	.0006962	.0014625	.0086699
%RSD	.7804072	1.790660	.4065765	7.213908	1.397410	6.405111	7.761056
#1	.0053622	.0049607	5.615183	.0118332	.0503140	.0211662	.1205501
#2	.0053709	.0051395	5.615291	.0109550	.0490266	.0234341	.1032210
#3	.0052947	.0050750	5.654873	.0126595	.0501299	.0238999	.1113584

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156329	5.266384	.0421311	.0124768	5.068789	.0455634	.0573121
Stddev	.0006180	.016874	.0002453	.0002921	.123203	.0078496	.0007204
%RSD	3.953252	.3204027	.5822245	2.341052	2.430622	17.22793	1.256910
#1	.0149197	5.257774	.0423523	.0127161	5.031398	.0495626	.0577723
#2	.0160120	5.285826	.0421736	.0121513	5.206357	.0365195	.0564819
#3	.0159669	5.255553	.0418673	.0125629	4.968614	.0506081	.0576821

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.112926	.0089544	-.002095	.0096107	.0905778	.2419939	.0051169
Stddev	.062679	.0027906	.000882	.0002857	.0063392	.0004390	.0012363
%RSD	1.225886	31.16406	42.10037	2.972380	6.998670	.1813923	24.16157
#1	5.041853	.0119075	-.002911	.0092935	.0892641	.2417322	.0064613
#2	5.160300	.0063612	-.001159	.0098477	.0849984	.2425007	.0040287
#3	5.136625	.0085947	-.002214	.0096907	.0974710	.2417488	.0048608

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164254BSD Acquired: 10/23/2024 18:21:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD254 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1039543	.0066511	.1073729
Stddev	.0021661	.0008695	.0003251
%RSD	2.083665	13.07369	.3027755
#1	.1022799	.0065610	.1075003
#2	.1064006	.0075622	.1070034
#3	.1031825	.0058301	.1076150

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	976.8983	22011.44	2784.632	807.5157	1916.152
Stddev	5.4925	24.36	3.562	3.3321	16.422
%RSD	.5622389	.1106726	.1279020	.4126330	.8570193
#1	974.5025	21991.03	2783.611	803.8883	1906.061
#2	983.1818	22004.88	2781.693	810.4404	1935.101
#3	973.0107	22038.40	2788.593	808.2185	1907.294

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV057 Acquired: 10/23/2024 18:25:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV057 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.933233	4.767447	24.18892	4.764150	4.740274	404.1041	9.904464
Stddev	.019652	.012916	.05144	.003969	.011130	.7684	.012199
%RSD	.3983663	.2709129	.2126410	.0833068	.2348040	.1901511	.1231693
#1	4.910826	4.752817	24.13244	4.764989	4.727942	404.6314	9.918407
#2	4.947545	4.772255	24.20127	4.759829	4.749574	403.2225	9.899228
#3	4.941328	4.777269	24.23306	4.767633	4.743306	404.4585	9.895756

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4955503	2.454527	404.2935	15.45690	2.468153	14.87910	407.6662
Stddev	.0048209	.003708	1.4999	.01981	.004923	.00781	1.0754
%RSD	.9728428	.1510653	.3709884	.1281928	.1994593	.0525122	.2637911
#1	.4906830	2.450595	404.8431	15.47824	2.462917	14.88807	408.4467
#2	.4956445	2.455023	402.5963	15.45338	2.468852	14.87380	406.4396
#3	.5003235	2.457961	405.4410	15.43908	2.472688	14.87543	408.1124

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.66170	393.9984	2.457114	1.243868	406.6108	2.483219	14.42231
Stddev	.02816	1.8790	.005297	.001833	.8186	.012468	.07982
%RSD	.1920655	.4768958	.2155776	.1473836	.2013188	.5020768	.5534716
#1	14.68521	393.5120	2.451022	1.243000	407.4252	2.497318	14.33250
#2	14.63049	392.4105	2.459694	1.245974	405.7881	2.473650	14.44927
#3	14.66940	396.0728	2.460627	1.242630	406.6189	2.478688	14.48517

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	152.6133	4.986914	5.322741	4.718677	4.975119	5.002399	4.894979
Stddev	.5883	.016960	.025439	.009454	.027049	.027136	.013284
%RSD	.3854653	.3400911	.4779263	.2003615	.5436809	.5424658	.2713771
#1	152.9192	4.974543	5.293642	4.707855	4.970472	4.974252	4.880374
#2	151.9351	5.006247	5.333816	4.725336	4.950695	5.004549	4.906340
#3	152.9855	4.979951	5.340765	4.722839	5.004190	5.028396	4.898224

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV057 Acquired: 10/23/2024 18:25:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV057 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.951855	5.046009	5.008678
Stddev	.004441	.031198	.008935
%RSD	.0896886	.6182723	.1783886
#1	4.955518	5.079922	5.018797
#2	4.946915	5.018529	5.001874
#3	4.953132	5.039577	5.005363

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	783.0070	20029.26	2665.188	623.1861	1467.219
Stddev	1.6638	38.09	16.005	2.8098	3.434
%RSD	.2124838	.1901779	.6005077	.4508828	.2340443
#1	784.9195	19985.33	2679.157	625.9500	1470.875
#2	782.2078	20053.06	2668.682	623.2757	1466.719
#3	781.8935	20049.40	2647.725	620.3325	1464.062

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB057 Acquired: 10/23/2024 18:31:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB057 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019764	-.000970	.0008004	-.004002	.0007583	.0516385	.0011503
Stddev	.0007925	.002982	.0038321	.004136	.0002897	.0098261	.0004892
%RSD	40.09783	307.4390	478.7418	103.3419	38.20615	19.02872	42.53156
#1	.0024970	.000486	-.003184	-.004494	.0010857	.0627735	.0005896
#2	.0023678	-.004400	.004459	.000358	.0006537	.0479582	.0013713
#3	.0010643	.001005	.001126	-.007870	.0005354	.0441838	.0014901

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001592	-.000069	.0352760	.0008204	-.000104	.0026013	.0328381
Stddev	.0000536	.000101	.0064159	.0010252	.000322	.0029118	.0180385
%RSD	33.68809	146.1842	18.18769	124.9724	309.1453	111.9384	54.93179
#1	.0001097	-.000009	.0422535	.0014841	.000170	.0028262	.0355760
#2	.0001517	-.000186	.0296309	.0013374	-.000459	-.000416	.0493511
#3	.0002162	-.000013	.0339437	-.000360	-.000024	.005394	.0135871

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010756	.0159185	-.000055	.0021915	-.179303	-.011186	.0008141
Stddev	.0009388	.0587191	.000185	.0003266	.190103	.002079	.0001184
%RSD	87.28344	368.8746	338.5723	14.90481	106.0230	18.58998	14.53774
#1	.0009761	-.042740	.000101	.0022475	-.039181	-.010427	.0008727
#2	.0020602	.074698	-.000259	.0018405	-.395697	-.009592	.0006778
#3	.0001904	.015797	-.000006	.0024865	-.103031	-.013538	.0008917

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1932126	.0002398	.0035519	.0004660	.0043812	.0004251	-.001119
Stddev	.1458119	.0020637	.0006014	.0003689	.0035315	.0004966	.000579
%RSD	75.46707	860.5525	16.93190	79.16416	80.60579	116.8168	51.75197
#1	.0268720	-.002029	.0029092	.0000900	.0004114	.0006193	-.000451
#2	.2989484	.002005	.0041010	.0004806	.0055587	.0007953	-.001479
#3	.2538175	.000744	.0036454	.0008275	.0071734	-.000139	-.001427

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB057 Acquired: 10/23/2024 18:31:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB057 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000070	-.006347	.0004437
Stddev	.0022102	.001695	.0000847
%RSD	31435.97	26.69672	19.09513
#1	.0007650	-.007626	.0004962
#2	-.002482	-.004425	.0004890
#3	.001739	-.006991	.0003460

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	969.2638	21796.07	2785.580	794.4591	1913.335
Stddev	.9441	41.31	30.052	.5458	.906
%RSD	.0974070	.1895495	1.078843	.0687052	.0473381
#1	969.8412	21778.06	2817.604	794.8654	1912.336
#2	969.7759	21843.33	2757.993	793.8386	1914.102
#3	968.1742	21766.81	2781.143	794.6731	1913.569

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4312-20ADLX2 Acquired: 10/23/2024 18:35:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB17A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3962752	-.023655	.3303076	.0524205	.0076339	69.54657	.5529962
Stddev	.0050503	.001550	.0046532	.0019928	.0029399	.06054	.0004955
%RSD	1.274451	6.551914	1.408758	3.801476	38.51066	.0870465	.0896115
#1	.3926932	-.023942	.3324252	.0503908	.0084472	69.61562	.5533355
#2	.3940808	-.025042	.3249722	.0543742	.0043730	69.50266	.5524275
#3	.4020515	-.021982	.3335254	.0524964	.0100815	69.52141	.5532255

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052689	.0072542	23.70940	.0789278	.0864828	.3683438	195.9251
Stddev	.0000484	.0002094	.07078	.0008211	.0004707	.0075131	.4614
%RSD	.9192155	2.886534	.2985165	1.040316	.5442777	2.039712	.2354813
#1	.0053248	.0074951	23.73971	.0793288	.0865384	.3714283	196.2316
#2	.0052401	.0071156	23.62851	.0794712	.0869232	.3597792	195.3945
#3	.0052417	.0071520	23.75997	.0779832	.0859867	.3738237	196.1491

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.187905	28.42279	.0936025	-.015206	.7571355	.3347734	1.253469
Stddev	.008642	.12458	.0006318	.000615	.2395483	.0135285	.003439
%RSD	.2711004	.4383058	.6750275	4.043689	31.63876	4.041105	.2743706
#1	3.197536	28.28077	.0934620	-.014626	.5017196	.3434772	1.249892
#2	3.180828	28.47398	.0942927	-.015142	.7928904	.3416555	1.256751
#3	3.185350	28.51361	.0930527	-.015850	.9767967	.3191874	1.253763

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.14248	5.997201	.2132126	.0001527	.8189389	4.564288	.0054690
Stddev	.06319	.023072	.0006959	.0005424	.0042841	.023153	.0015340
%RSD	.4172720	.3847059	.3263801	355.3190	.5231295	.5072634	28.04966
#1	15.17795	6.014583	.2140131	-.000087	.8200009	4.550599	.0055873
#2	15.17997	5.971025	.2127523	-.000229	.8142236	4.551245	.0038793
#3	15.06953	6.005993	.2128723	.000774	.8225920	4.591020	.0069405

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4312-20ADLX2 Acquired: 10/23/2024 18:35:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB17A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.300354	.0284741	.1340557
Stddev	.004955	.0006199	.0002355
%RSD	.2154232	2.176992	.1756883
#1	2.305116	.0284581	.1343267
#2	2.295225	.0291018	.1339002
#3	2.300721	.0278624	.1339402

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1037.995	23711.36	3081.084	859.4897	1808.713
Stddev	1.685	98.98	12.044	1.8767	1.856
%RSD	.1623015	.4174355	.3909022	.2183451	.1025944
#1	1038.963	23602.17	3069.714	857.6126	1806.574
#2	1036.050	23736.72	3093.705	859.4905	1809.886
#3	1038.971	23795.19	3079.832	861.3659	1809.680

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164270BL Acquired: 10/23/2024 18:40:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS270 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046055	-.000356	-.000269	-.003130	-.001043	.0263772	-.000128
Stddev	.0031579	.000915	.001807	.002778	.001012	.0094689	.000249
%RSD	68.56756	257.1267	672.9077	88.75643	97.07138	35.89819	194.7518
#1	.0080208	-.000692	.001729	.000070	-.000576	.0215842	.000157
#2	.0017916	-.001055	-.000746	-.004924	-.000348	.0372843	-.000302
#3	.0040041	.000679	-.001789	-.004537	-.002205	.0202630	-.000238

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000143	-.000059	.0073489	.0000475	-.000019	-.000258	.0296805
Stddev	.0000789	.000099	.0092010	.0004524	.000234	.001640	.0332005
%RSD	551.9512	167.6047	125.2026	951.7333	1243.386	634.5124	111.8598
#1	-.000077	.000038	.0174013	-.000290	.000230	-.001619	-.005046
#2	.000065	-.000056	.0053010	.000562	-.000234	-.000718	.032980
#3	.000055	-.000159	-.000656	-.000129	-.000053	.001562	.061108

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000964	-.065671	.0004040	.0022744	-.339734	-.007142	-.000011
Stddev	.000341	.081166	.0004234	.0002308	.385733	.005711	.000472
%RSD	35.33806	123.5952	104.7918	10.14786	113.5396	79.96886	4139.429
#1	-.001315	-.049743	.0007950	.0021667	-.138627	-.012246	-.000359
#2	-.000635	-.153619	.0004627	.0021171	-.096113	-.000973	-.000201
#3	-.000941	.006351	-.000046	.0025394	-.784463	-.008207	.000526

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1452508	.0008890	.0005848	-.000008	.0002009	.0012917	-.000223
Stddev	.0596648	.0033838	.0000485	.000341	.0032034	.0005472	.000526
%RSD	41.07711	380.6148	8.286842	4137.914	1594.751	42.36630	236.5175
#1	.1146885	.0047026	.0005518	.000104	-.003482	.0014612	-.000626
#2	.1070590	-.001755	.0006404	.000262	.002344	.0006798	.000373
#3	.2140048	-.000281	.0005621	-.000391	.001740	.0017341	-.000415

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164270BL Acquired: 10/23/2024 18:40:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS270 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000821	-.006675	-.000005
Stddev	.001564	.001166	.000104
%RSD	190.5711	17.47571	1986.586
#1	.000619	-.006025	.000049
#2	-.000596	-.005978	-.000125
#3	-.002485	-.008022	.000060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	969.8064	21899.98	2769.083	804.5135	1918.298
Stddev	.9863	54.58	6.991	4.4521	.621
%RSD	.1017032	.2492166	.2524586	.5533860	.0323495
#1	969.2417	21939.34	2770.921	804.0628	1917.586
#2	969.2322	21922.94	2761.357	809.1738	1918.580
#3	970.9453	21837.68	2774.971	800.3040	1918.727

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164270BS Acquired: 10/23/2024 18:44:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS270 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0220440	.0503357	.0204239	.0603538	.1089498	.4030282
Stddev	.0026251	.0014256	.0010790	.0039886	.0009623	.0092932
%RSD	11.90854	2.832190	5.283227	6.608618	.8832693	2.305846
#1	.0190130	.0488844	.0214488	.0559193	.1099993	.3974537
#2	.0235257	.0503888	.0205251	.0636482	.1081089	.3978747
#3	.0235933	.0517341	.0192978	.0614939	.1087412	.4137564

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4098997	.0105624	.0099468	10.94989	.0228518	.0997029
Stddev	.0007910	.0001387	.0000690	.06161	.0010107	.0001605
%RSD	.1929665	1.313388	.6934405	.5626111	4.422648	.1609761
#1	.4097977	.0104606	.0098881	10.93066	.0236930	.0998837
#2	.4091647	.0107204	.0099296	10.90020	.0231317	.0996479
#3	.4107368	.0105062	.0100228	11.01882	.0217307	.0995771

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0527760	.2278127	.0322690	10.27981	.0840445	.0241409
Stddev	.0005617	.0088362	.0000758	.08344	.0004714	.0003595
%RSD	1.064403	3.878698	.2348833	.8117156	.5609067	1.489218
#1	.0521643	.2298149	.0323473	10.26082	.0835021	.0244433
#2	.0528949	.2181473	.0321959	10.37111	.0842759	.0242360
#3	.0532688	.2354760	.0322639	10.20750	.0843555	.0237434

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.11778	.0980961	.1132388	10.00069	.0202672	F -.000619
Stddev	.17447	.0033878	.0011441	.14080	.0020404	.000953
%RSD	1.724362	3.453519	1.010355	1.407883	10.06737	153.8267
#1	10.08785	.0946330	.1137929	9.88268	.0225751	.000421
#2	9.96021	.0982521	.1119231	9.96285	.0187031	-.000830
#3	10.30527	.1014032	.1140004	10.15654	.0195233	-.001449

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164270BS Acquired: 10/23/2024 18:44:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS270 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0190437	.1774916	F .4721177	.0102003	.2019808	.0214473
Stddev	.0001491	.0056492	.0021314	.0018312	.0017646	.0010010
%RSD	.7832226	3.182769	.4514447	17.95279	.8736628	4.667241
#1	.0192111	.1839812	.4744430	.0122358	.2000889	.0221174
#2	.0189951	.1736751	.4702569	.0096785	.2022714	.0202966
#3	.0189249	.1748185	.4716532	.0086866	.2035821	.0219278

Elem	Sr4077
Units	ppm
Avg	.2105413
Stddev	.0006875
%RSD	.3265531
#1	.2097736
#2	.2111003
#3	.2107499

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	966.7833	21837.16	2802.720	799.0153	1876.120
Stddev	2.2670	38.16	17.009	4.9422	1.417
%RSD	.2344867	.1747413	.6068704	.6185313	.0755457
#1	964.1786	21795.15	2801.625	796.7721	1874.495
#2	968.3109	21846.66	2820.249	804.6813	1877.099
#3	967.8605	21869.67	2786.284	795.5926	1876.766

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164270BSD Acquired: 10/23/2024 18:49:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD270 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0151557	.0281422	.0100163	.0287568	.0530866	.2138426	.2018777
Stddev	.0040712	.0009572	.0030709	.0040779	.0018365	.0087434	.0004883
%RSD	26.86274	3.401421	30.65871	14.18052	3.459522	4.088695	.2418832
#1	.0114988	.0289932	.0086447	.0312347	.0551990	.2182620	.2021041
#2	.0144258	.0283275	.0078703	.0240502	.0521927	.2037717	.2013173
#3	.0195425	.0271058	.0135339	.0309853	.0518682	.2194940	.2022117

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0053495	.0048236	5.398834	.0110064	.0484949	.0247153	.0956710
Stddev	.0001719	.0001295	.019855	.0007353	.0003128	.0028613	.0226472
%RSD	3.214138	2.684611	.3677674	6.680288	.6449847	11.57696	23.67192
#1	.0054435	.0048145	5.408577	.0115131	.0482629	.0219487	.0899839
#2	.0054540	.0049574	5.375990	.0113431	.0488506	.0245345	.0764094
#3	.0051511	.0046989	5.411936	.0101631	.0483712	.0276627	.1206196

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0161967	5.038027	.0409790	.0122908	4.871534	.0420578	.0559887
Stddev	.0004687	.122650	.0002553	.0001685	.134705	.0031095	.0002069
%RSD	2.893528	2.434479	.6230121	1.370962	2.765154	7.393499	.3695311
#1	.0156560	5.054229	.0412225	.0121931	4.717931	.0453408	.0562090
#2	.0164475	4.908082	.0407133	.0121938	4.927123	.0391570	.0559586
#3	.0164865	5.151771	.0410011	.0124853	4.969549	.0416757	.0557985

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.939669	.0060593	-.000395	.0092826	.0802207	.2345692	.0060324
Stddev	.164219	.0028330	.001261	.0004535	.0067028	.0011106	.0005056
%RSD	3.324502	46.75498	319.2125	4.884999	8.355445	.4734650	8.381092
#1	5.097914	.0086011	-.000242	.0095998	.0792719	.2344258	.0054948
#2	4.770065	.0065720	-.001725	.0094849	.0740428	.2335373	.0064984
#3	4.951027	.0030050	.000782	.0087632	.0873473	.2357445	.0061040

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: PB164270BSD Acquired: 10/23/2024 18:49:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCSD270 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0985240	.0073918	.1034874
Stddev	.0010919	.0006155	.0002078
%RSD	1.108293	8.326675	.2007645
#1	.0990271	.0069826	.1037266
#2	.0992736	.0080996	.1033840
#3	.0972712	.0070932	.1033516

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	969.9926	21904.21	2785.311	801.0860	1905.020
Stddev	2.1667	43.64	5.632	3.2378	.883
%RSD	.2233697	.1992126	.2021956	.4041717	.0463340
#1	968.8104	21870.44	2783.839	798.6042	1906.031
#2	972.4932	21888.70	2791.532	799.9053	1904.629
#3	968.6742	21953.48	2780.561	804.7483	1904.401

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4316-16ADLX2 Acquired: 10/23/2024 18:58:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4383272	-.019187	.1129854	.0508840	.0051643	103.2850	.8595518
Stddev	.0064081	.003228	.0034481	.0046501	.0006652	.3771	.0029421
%RSD	1.461936	16.82327	3.051802	9.138708	12.88045	.3651162	.3422841
#1	.4314271	-.015559	.1097472	.0559084	.0046352	102.8599	.8561707
#2	.4394633	-.020261	.1125983	.0500120	.0059111	103.5792	.8609554
#3	.4440913	-.021741	.1166107	.0467316	.0049468	103.4160	.8615292

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057323	.0040221	35.94606	.0862996	.0923382	.1591926	201.1721
Stddev	.0002383	.0001314	.17259	.0008746	.0006614	.0022876	.6571
%RSD	4.157695	3.266750	.4801338	1.013494	.7162958	1.437019	.3266307
#1	.0055545	.0039426	35.74677	.0857746	.0915770	.1571737	200.7422
#2	.0060031	.0041737	36.04499	.0858148	.0926653	.1587269	201.9285
#3	.0056392	.0039498	36.04642	.0873092	.0927723	.1616773	200.8457

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.34302	36.12729	.1027656	-.019337	1.182818	.3210912	1.946116
Stddev	.03947	.19638	.0007142	.000369	.053279	.0131504	.003845
%RSD	.3479830	.5435708	.6949459	1.906103	4.504423	4.095549	.1975829
#1	11.29823	36.15926	.1030358	-.018920	1.242657	.3337766	1.944167
#2	11.37275	36.30571	.1033053	-.019474	1.140523	.3219767	1.950546
#3	11.35807	35.91688	.1019558	-.019618	1.165275	.3075204	1.943636

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.588570	4.192307	.2170349	-.000841	.2097083	2.543684	.0068696
Stddev	.069933	.006576	.0014293	.000427	.0056705	.009732	.0003226
%RSD	1.061423	.1568480	.6585532	50.78787	2.703990	.3825921	4.695279
#1	6.666926	4.186682	.2170733	-.000535	.2083705	2.536126	.0069091
#2	6.532487	4.190704	.2184446	-.001328	.2048262	2.554665	.0065291
#3	6.566296	4.199536	.2155868	-.000659	.2159280	2.540261	.0071706

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: P4316-16ADLX2 Acquired: 10/23/2024 18:58:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYDB88A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.807571	.0421136	.2003237
Stddev	.006661	.0009137	.0010722
%RSD	.3684958	2.169724	.5352419
#1	1.800283	.0430439	.1990862
#2	1.813344	.0420794	.2009757
#3	1.809085	.0412174	.2009092

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1073.358	24558.29	3204.025	893.7561	1788.974
Stddev	1.213	50.47	9.913	2.8871	.300
%RSD	.1129921	.2055150	.3093964	.3230349	.0167719
#1	1072.497	24505.11	3199.642	895.1058	1789.058
#2	1074.745	24564.26	3197.059	890.4413	1788.641
#3	1072.833	24605.52	3215.374	895.7213	1789.224

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV058 Acquired: 10/23/2024 19:08:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV058 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.654923	4.647015	24.43322	4.628108	4.770512	397.0749	9.999401
Stddev	.022366	.019374	.03140	.021933	.018361	.4777	.012061
%RSD	.4804900	.4169116	.1285181	.4739024	.3848947	.1203036	.1206157
#1	4.654188	4.624653	24.41457	4.630939	4.787388	397.6185	9.998504
#2	4.677648	4.657639	24.46947	4.648488	4.773190	396.7220	10.01188
#3	4.632933	4.658752	24.41561	4.604897	4.750959	396.8842	9.98781

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4933389	2.390626	399.8724	15.63058	2.489854	15.02685	400.0319
Stddev	.0013060	.003207	1.0378	.01373	.002036	.02066	.5563
%RSD	.2647275	.1341565	.2595385	.0878227	.0817875	.1375115	.1390749
#1	.4920829	2.388725	401.0301	15.64030	2.488719	15.05069	400.4232
#2	.4946897	2.394329	399.0254	15.61488	2.492205	15.01573	400.2774
#3	.4932440	2.388824	399.5617	15.63657	2.488638	15.01412	399.3950

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.85228	377.2242	2.478482	1.243973	398.3870	2.487561	14.49609
Stddev	.02255	.7273	.001866	.002560	1.3600	.012745	.07233
%RSD	.1518295	.1928161	.0752826	.2058146	.3413760	.5123400	.4989474
#1	14.86525	377.9528	2.480587	1.246668	399.8480	2.472901	14.57939
#2	14.86535	376.4981	2.477829	1.243679	397.1578	2.493780	14.45975
#3	14.82624	377.2217	2.477031	1.241572	398.1551	2.496003	14.44915

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.6742	5.095578	5.273511	4.737316	5.058510	5.166433	4.906726
Stddev	.2597	.011322	.029420	.016374	.011363	.023824	.014248
%RSD	.1689847	.2221887	.5578871	.3456439	.2246404	.4611378	.2903810
#1	153.8218	5.106065	5.279355	4.739605	5.051878	5.178754	4.907493
#2	153.8264	5.083574	5.299570	4.752425	5.071631	5.181574	4.920575
#3	153.3743	5.097096	5.241607	4.719918	5.052020	5.138971	4.892110

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCV058 Acquired: 10/23/2024 19:08:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV058 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.939011	5.191633	5.135379
Stddev	.007395	.018867	.003966
%RSD	.1497355	.3634070	.0772281
#1	4.947508	5.207894	5.139230
#2	4.934024	5.170947	5.135601
#3	4.935500	5.196059	5.131307

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	777.4877	19921.37	2683.016	620.4042	1454.985
Stddev	2.7611	68.37	2.959	3.4957	3.255
%RSD	.3551358	.3431985	.1102992	.5634516	.2237123
#1	775.6421	19898.64	2681.993	616.7566	1451.744
#2	776.1590	19998.21	2680.704	623.7250	1454.958
#3	780.6620	19867.26	2686.351	620.7310	1458.254

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB058 Acquired: 10/23/2024 19:29:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB058 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033921	.0011936	.0004921	-.002443	.0033354	.0144108	-.000882
Stddev	.0022279	.0009508	.0031861	.004835	.0009856	.0089923	.000769
%RSD	65.67925	79.65735	647.4230	197.9517	29.54886	62.39968	87.16934
#1	.0055720	.0022862	-.001816	.003064	.0029416	.0244576	-.001516
#2	.0034853	.0005548	-.000835	-.004399	.0026076	.0116582	-.001104
#3	.0011191	.0007397	.004127	-.005992	.0044570	.0071165	-.000027

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000416	-.000078	-.005754	.0002600	.0001241	-.001078	-.000535
Stddev	.0000168	.000104	.032876	.0003391	.0004391	.002514	.026342
%RSD	40.30052	133.7532	571.3244	130.4029	353.7197	233.2441	4920.610
#1	.0000478	.000015	-.043716	-.000100	.0004995	-.003904	.018877
#2	.0000226	-.000058	.013206	.000573	-.000359	.000909	-.030521
#3	.0000544	-.000191	.013248	.000307	.000232	-.000239	.010039

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001341	.0046372	.0001179	.0009328	-.277773	-.008976	.0001284
Stddev	.000683	.0361257	.0003278	.0009313	.058392	.002778	.0003396
%RSD	50.95057	779.0347	278.1276	99.83659	21.02137	30.94733	264.5094
#1	-.001222	.0460910	.0003804	.0000495	-.214765	-.005774	.0004353
#2	-.002076	-.012058	.0002226	.0019057	-.330063	-.010411	-.000236
#3	-.000725	-.020122	-.000249	.0008433	-.288490	-.010744	.000186

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2302130	-.000530	-.000435	-.000056	.0018539	-.000255	-.002917
Stddev	.0549318	.001439	.000275	.000228	.0050647	.000922	.000852
%RSD	23.86130	271.2920	63.15012	403.9877	273.1976	361.4776	29.20498
#1	.2606212	-.001628	-.000140	.000207	.0025438	-.000299	-.003871
#2	.1668009	.001098	-.000684	-.000186	-.003520	.000688	-.002232
#3	.2632169	-.001061	-.000482	-.000189	.006538	-.001154	-.002648

Reviewed By:Jaswal
On:10/25/2024 1:47:35 AM
Inst Id :P5

Sample Name: CCB058 Acquired: 10/23/2024 19:29:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v707) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB058 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001242	-.007395	-.000005
Stddev	.001445	.001188	.000053
%RSD	116.3848	16.06358	1112.185
#1	-.000616	-.008394	.000056
#2	-.002895	-.007709	-.000045
#3	-.000215	-.006082	-.000025

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	968.4215	22020.57	2804.726	802.9438	1911.302
Stddev	.1978	142.41	11.050	6.3622	1.856
%RSD	.0204201	.6467057	.3939888	.7923605	.0971317
#1	968.6032	22162.39	2804.821	810.1446	1912.657
#2	968.2109	21877.58	2793.629	798.0827	1912.063
#3	968.4504	22021.75	2815.729	800.6042	1909.185

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

Prep Standard - Chemical Standard Summary

Order ID : P4316

Test : Metals CLP Full

Prepbatch ID : PB164270,

Sequence ID/Qc Batch ID: LB133025,LB133105,

Standard ID :
MP81119,MP82127,MP82441,MP82442,MP82443,MP82444,MP82445,MP82446,MP82450,MP82451,MP82452,MP82453,MP82455,MP82456,MP82568,MP82589,MP82590,MP82631,MP82632,MP82711,MP82731,

Chemical ID :
M4960,M5130,M5192,M5218,M5223,M5288,M5289,M5295,M5296,M5390,M5394,M5429,M5467,M5473,M5498,M5513,M5515,M5519,M5634,M5658,M5697,M5698,M5747,M5748,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5814,M5815,M5816,M5817,M5818,M5819,M5820,M5875,M5935,M5961,M5962,M5970,M5976,M5978,M5982,M5984,M5990,M5999,M6021,M6023,M6025,M6026,M6028,M6030,M6033,M6037,M6040,M6088,W2606,W3112,

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP81119	06/21/2024	04/24/2025	Al-Terek Isaac	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 06/21/2024

FROM 1250.00000ml of M5935 + 1250.00000ml of W2606 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP82127	09/03/2024	02/08/2025	Janvi Patel	None	None	Sarabjit Jaswal 09/03/2024

FROM 1250.00000ml of M6040 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1007	ICPAES ISM01.2(S3)	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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2054	ICV-ICPAES	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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP82568	09/28/2024	10/31/2024	Sarabjit Jaswal	None	None	Mohan Bera 09/30/2024

FROM 25.00000ml of M6040 + 4925.00000ml of W3112 + 50.00000ml of M6037 = Final Quantity: 5000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3747	SB 10PPM	MP82589	09/28/2024	10/31/2024	Sarabjit Jaswal	None	None	Mohan Bera 09/30/2024

FROM 0.10000ml of M5802 + 9.90000ml of MP82568 = Final Quantity: 10.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1883	SE 10PPM	MP82590	09/28/2024	10/31/2024	Sarabjit Jaswal	None	None	Mohan Bera 09/30/2024

FROM 0.10000ml of M5962 + 9.90000ml of MP82568 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1003	ICPAES ISM01.2 S1	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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP82711	10/07/2024	10/30/2024	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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
921	ICPAES SPIKE SOL#6	MP82731	10/04/2024	10/23/2024	Sarabjit Jaswal	None	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

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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

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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 #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

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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.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5498

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	061522	06/15/2025	03/19/2023 / bin	03/17/2023 / bin	M5513

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

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

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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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

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

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

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

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	07/02/2024 / 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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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	CLPP-SPK-5 / CLP Spike Standard 5	V2-MEB742037	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5990

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

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 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	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.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6026

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/07/2024 / Jaswal	01/03/2024 / Jaswal	M6033

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-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-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	10/15/2024 / Janvi	09/10/2024 / Janvi	M6088

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

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CHEMICAL RECEIPT LOG BOOK

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

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R: 02/22/24 M5986 M5987, M5988, M5989-M5990

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-5
Lot Number:	V2-MEB742037
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Selenium, Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.7 µg/mL	Arsenic, As	40.00 ± 0.26 µg/mL
Cadmium, Cd	49.99 ± 0.22 µg/mL	Lead, Pb	19.99 ± 0.09 µg/mL
Selenium, Se	50.00 ± 0.23 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

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

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/5/24

M6028

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

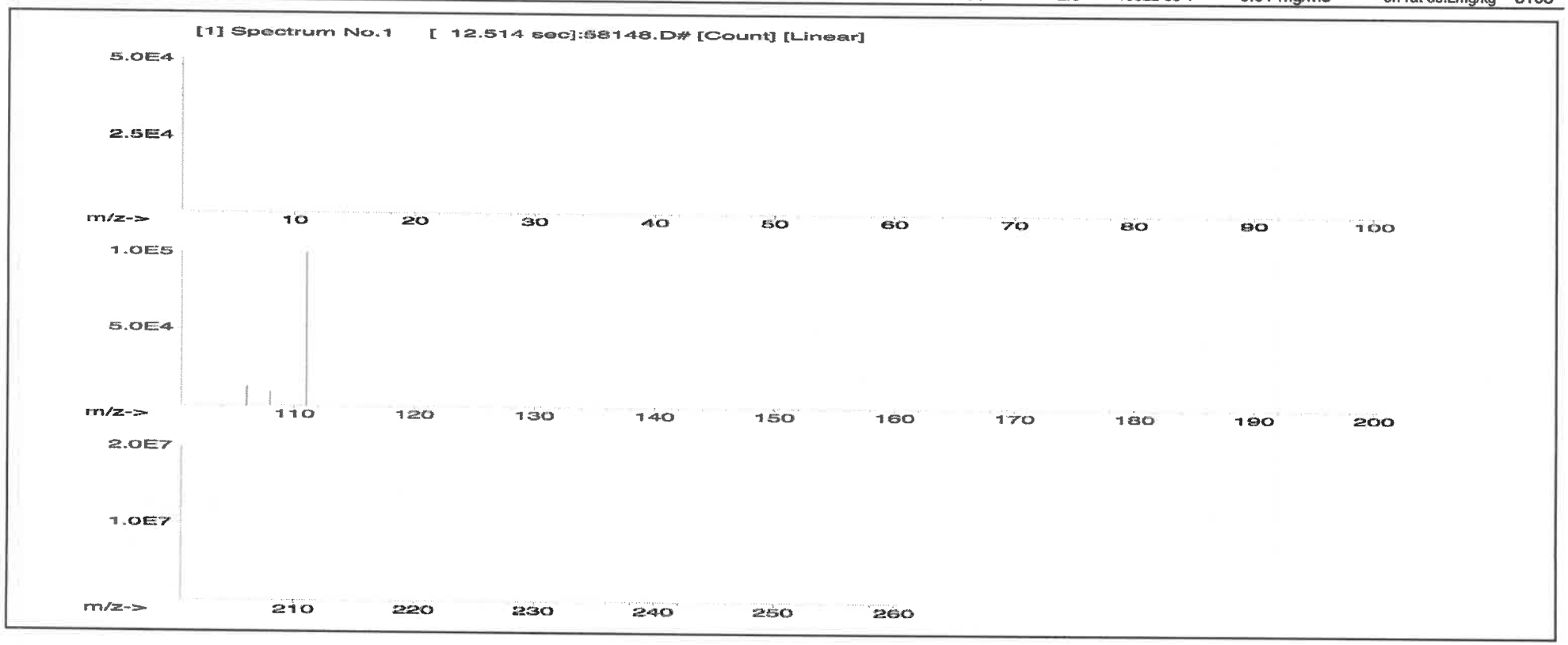
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5296 OP: 09/19/2022 BH

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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

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

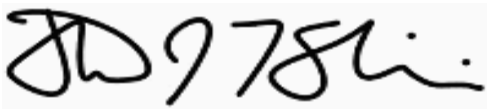
- Sealed TCT Bag Open Date: _____

- 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



INORGANIC VENTURES™
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Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

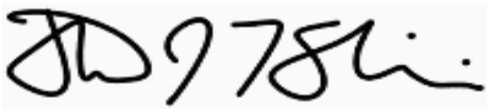
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

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

R: 8/5/24

CERTIFIED WEIGHT REPORT:

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

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

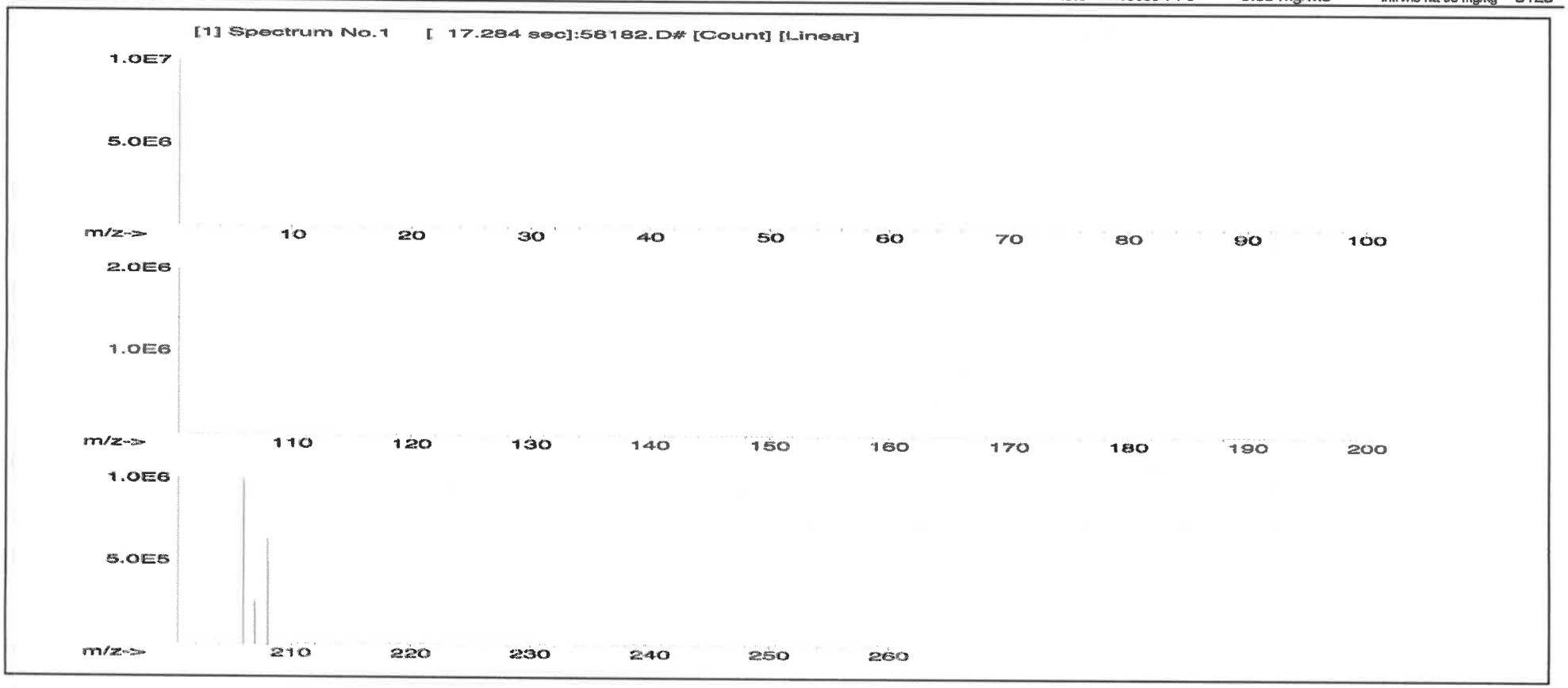
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546		Nitric Acid
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 8/5/24

M6026

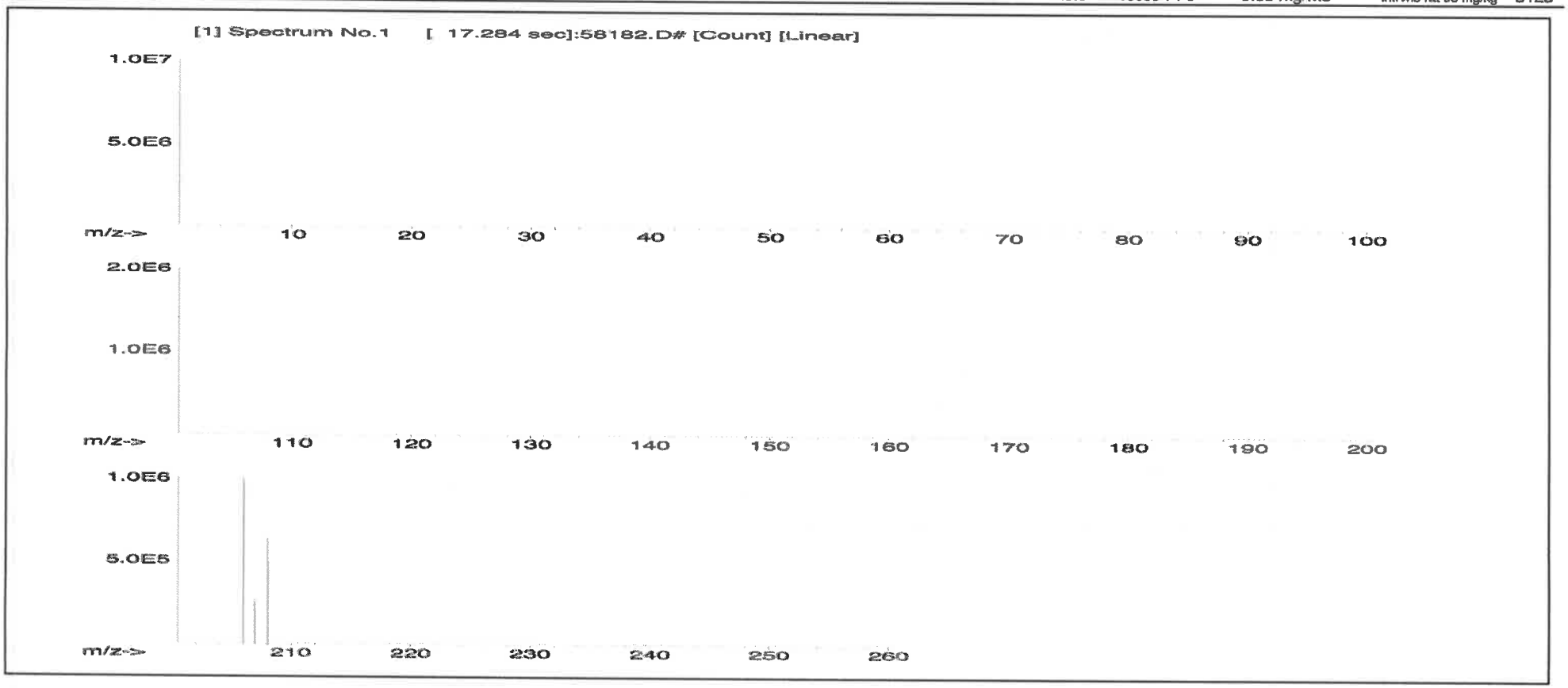
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57182**			**Lot #**	
Lot Number:	**110923**	**Solvent:**	24002546	Nitric Acid	
Description:	**Lead (Pb)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	110926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M4960 R: 10/08/21 BH

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

CERTIFIED WEIGHT REPORT:

Part Number: 58149
Lot Number: 100721
Description: Indium (In)

Expiration Date: 100724
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

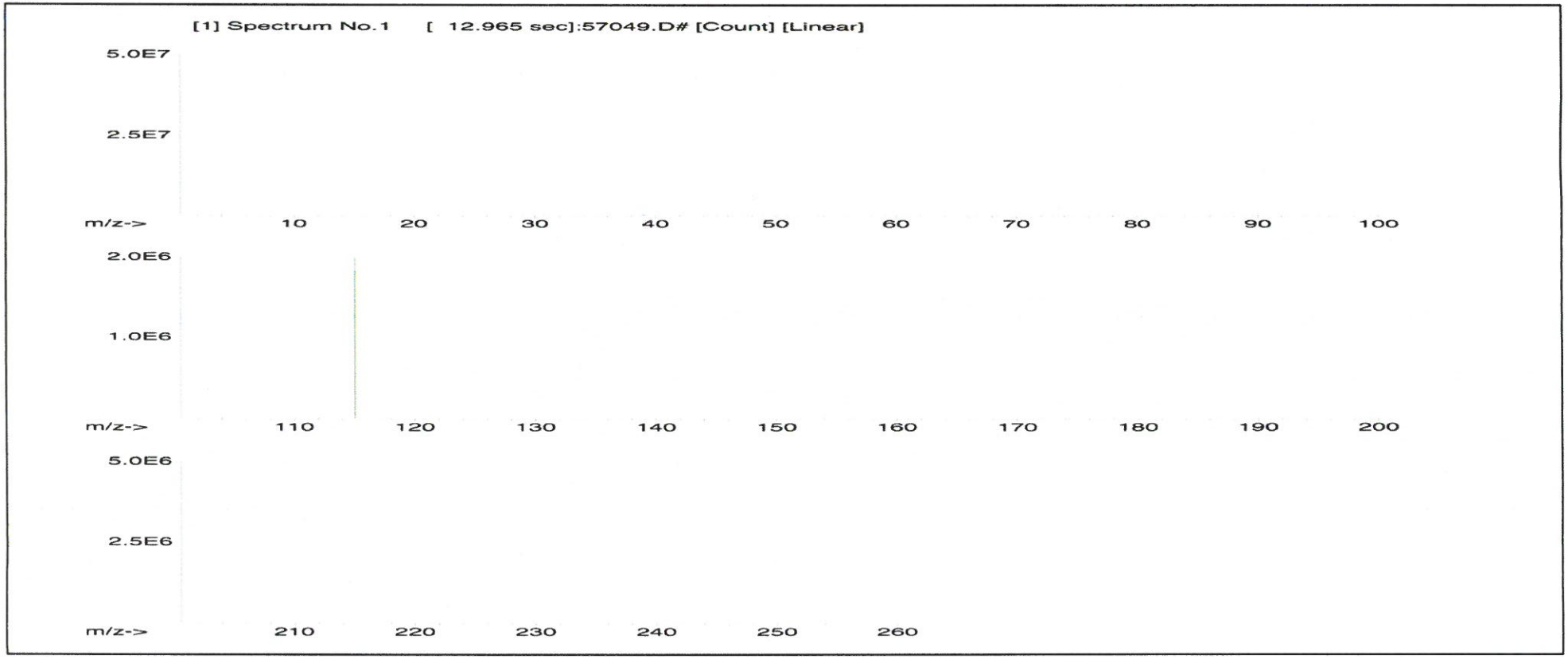
Weight shown below was diluted to (mL): 500.06 0.058 Flask Uncertainty

	Lot #		
Solvent:	20370011	Nitric Acid	
5%	25.0 (mL)	Nitric Acid	
		5E-05	Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	100721
Reviewed By:	Pedro L. Rentas	100721

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. 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	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	T	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

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,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5192 R: 06/17/22

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

CERTIFIED WEIGHT REPORT:

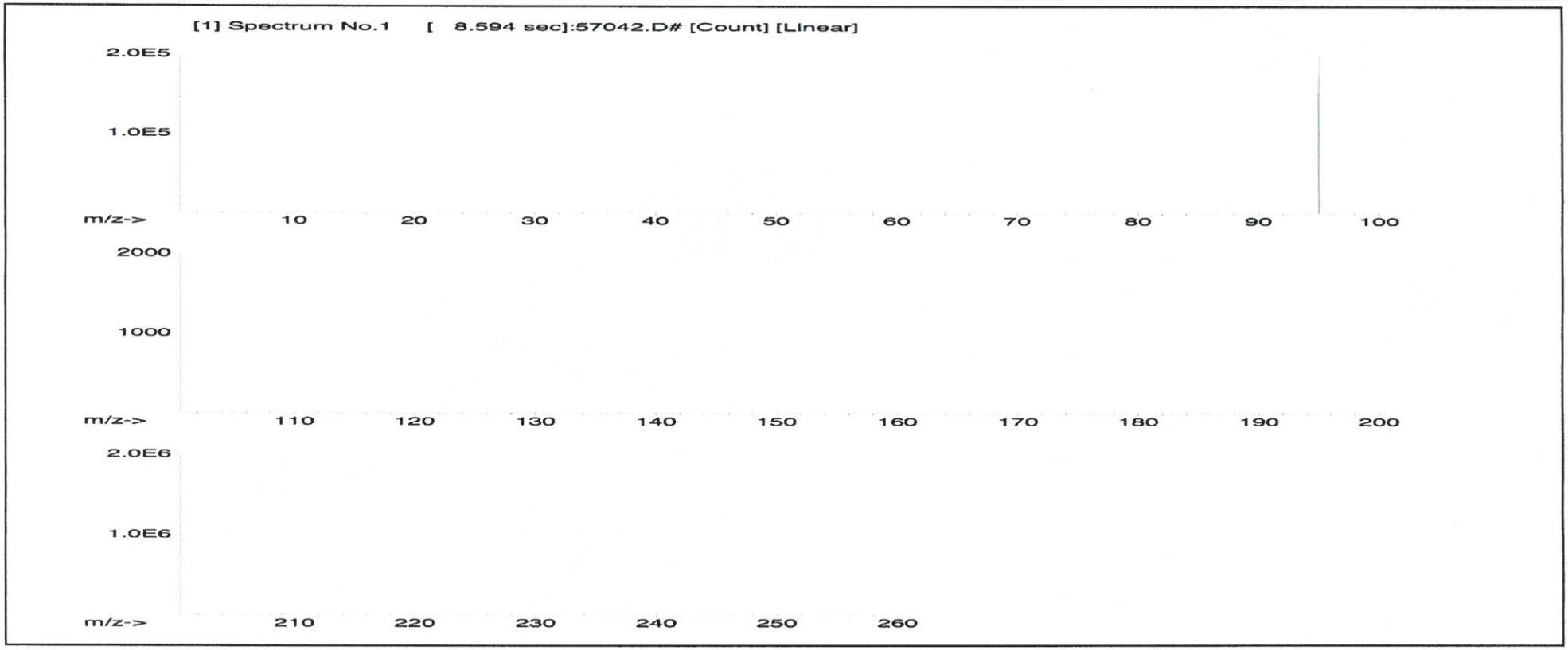
Part Number: 57042
Lot Number: 051722
Description: Molybdenum (Mo)

	Lot #	Solvent:	
	MKBQ8597V	Ammonium hydroxide	
	0.5%	15.0 (mL)	Ammonium hydroxide

Expiration Date: 051725
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Volume shown below was diluted to (mL): 3000.41 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	051722
Reviewed By:	Pedro L. Rentas	051722

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	022222	0.1000	300.0	0.084	1000	10001.0	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 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	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	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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 7 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

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,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

V15200 R: 04/24/22 (BP)

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CERTIFIED WEIGHT REPORT:

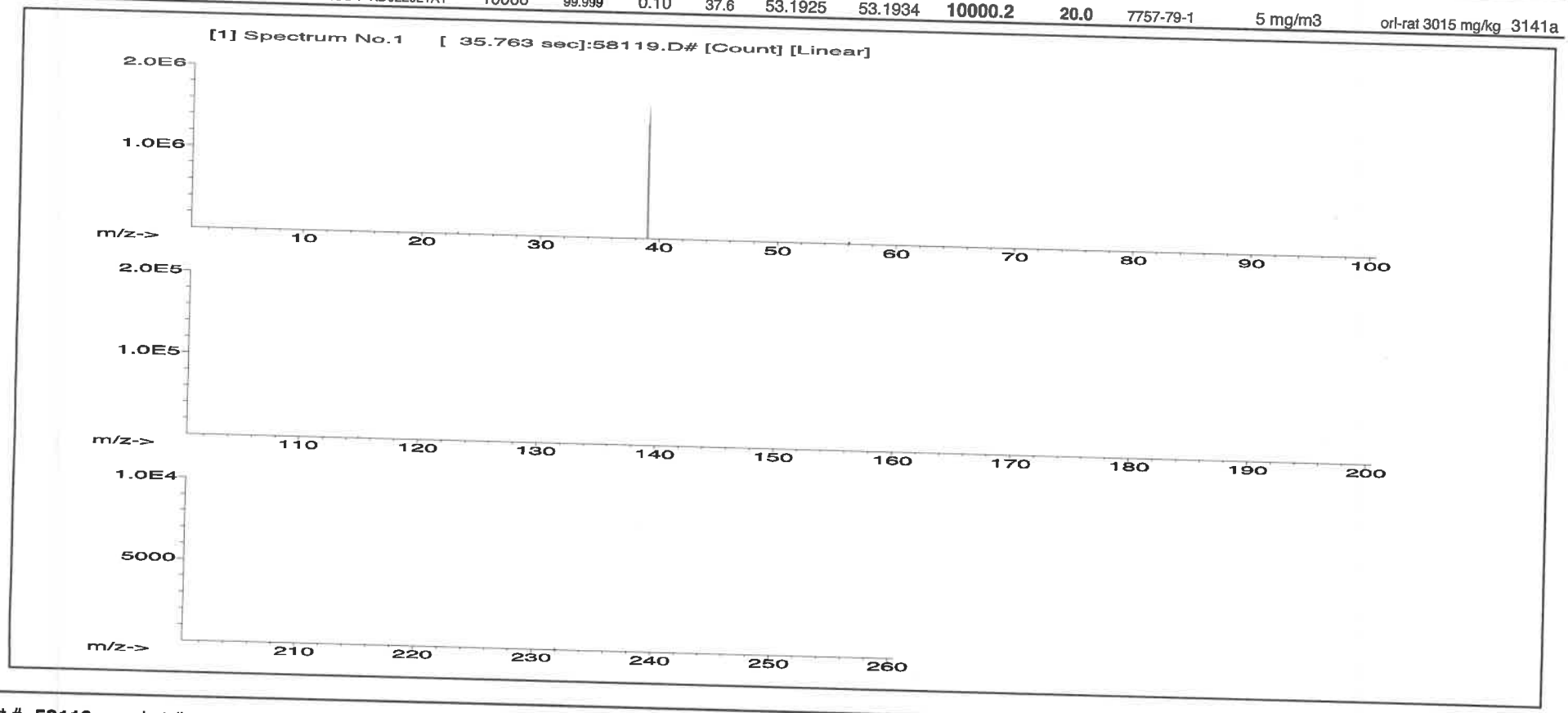
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

		Lot #	
Solvent:	20510011		Nitric Acid
2%	40.0 (mL)		Nitric Acid
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

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

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5289 R: 07/12/22 (BH)

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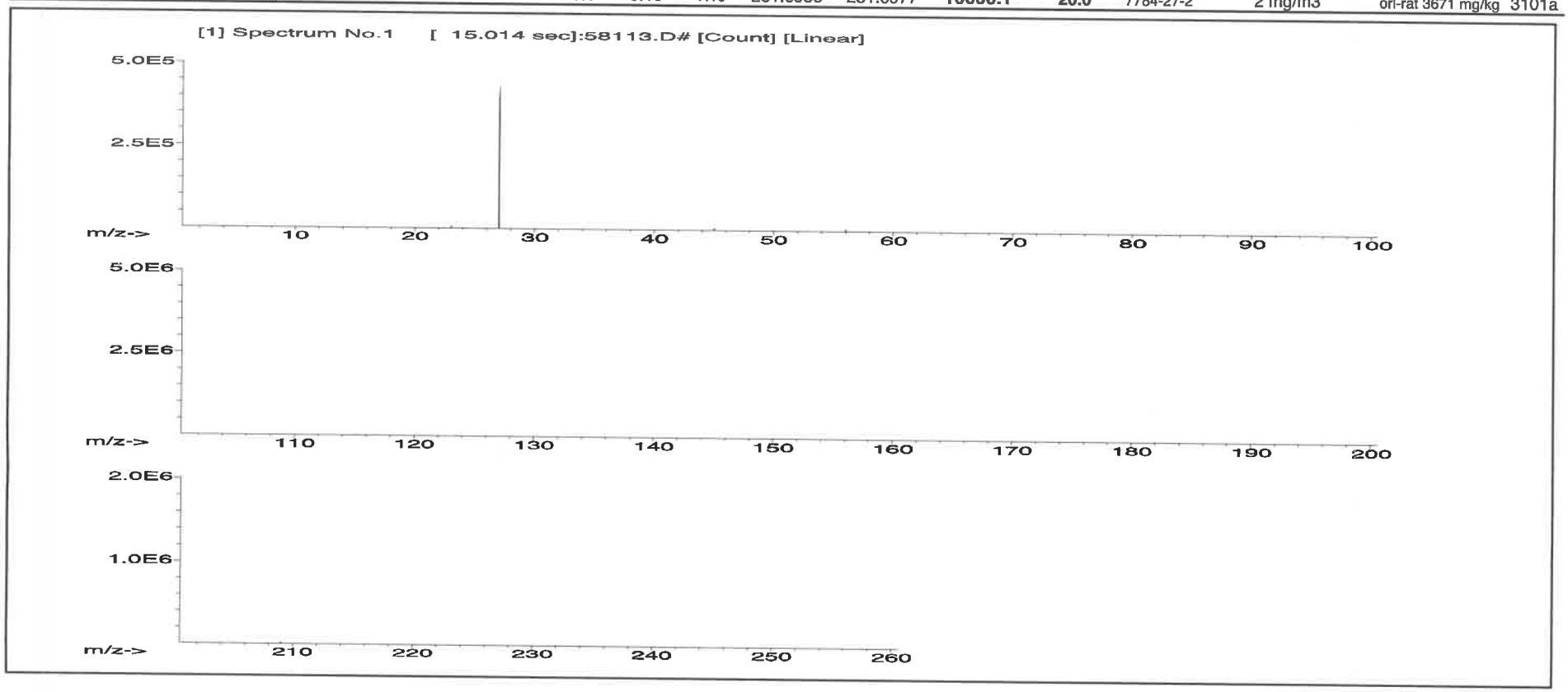
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CERTIFIED WEIGHT REPORT:

Part Number:	**58113**			**Lot #**	
Lot Number:	**070622**		**Solvent:**	20370011	Nitric Acid
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	070625				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALD012021A1	10000	99.999	0.10	7.10	281.6956	281.6977	**10000.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	T	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

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

(B) *BREAKAGE OR MISSING ITEMS*

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

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R: 09/08/22 (BH)

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M5387 . M5389 . M5390 . M5391 . M5392

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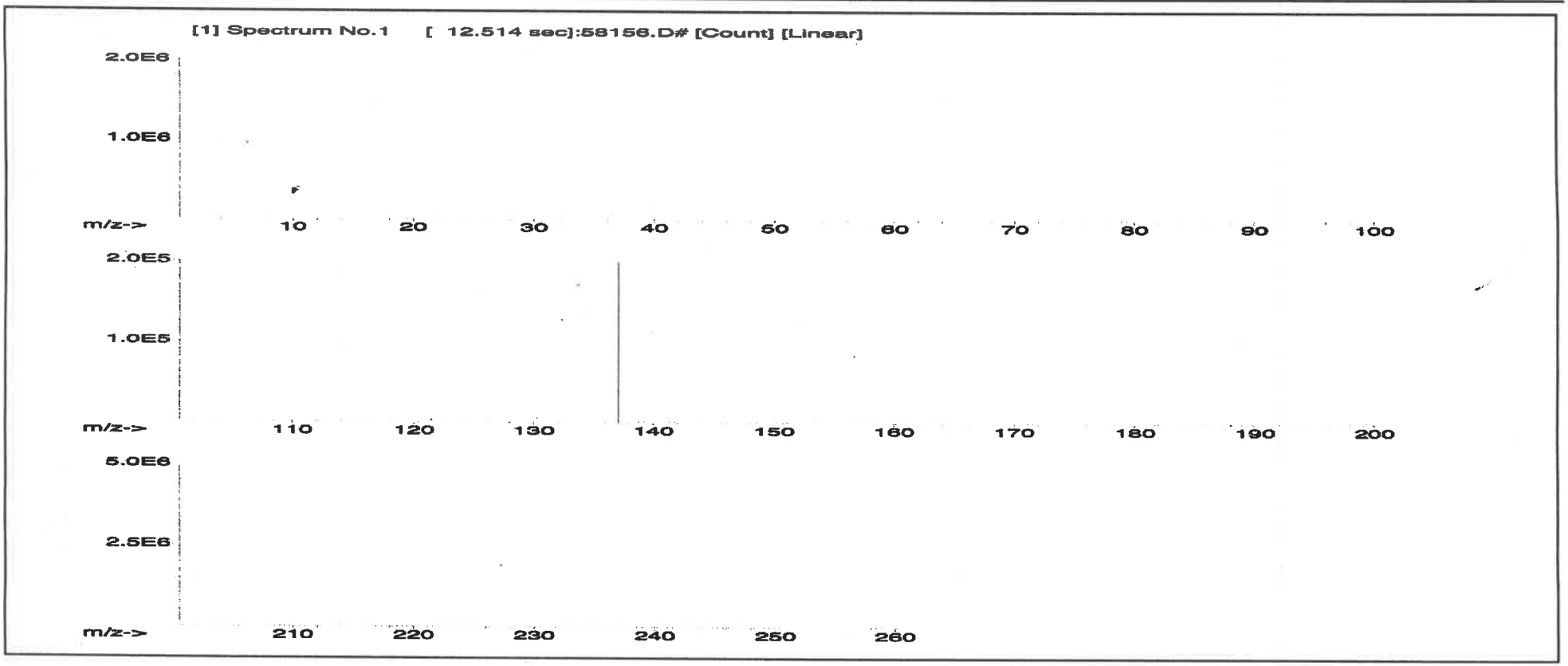
CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57056**	**Solvent:**	20510011	Nitric Acid
Lot Number:	**072122**			
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	072125			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

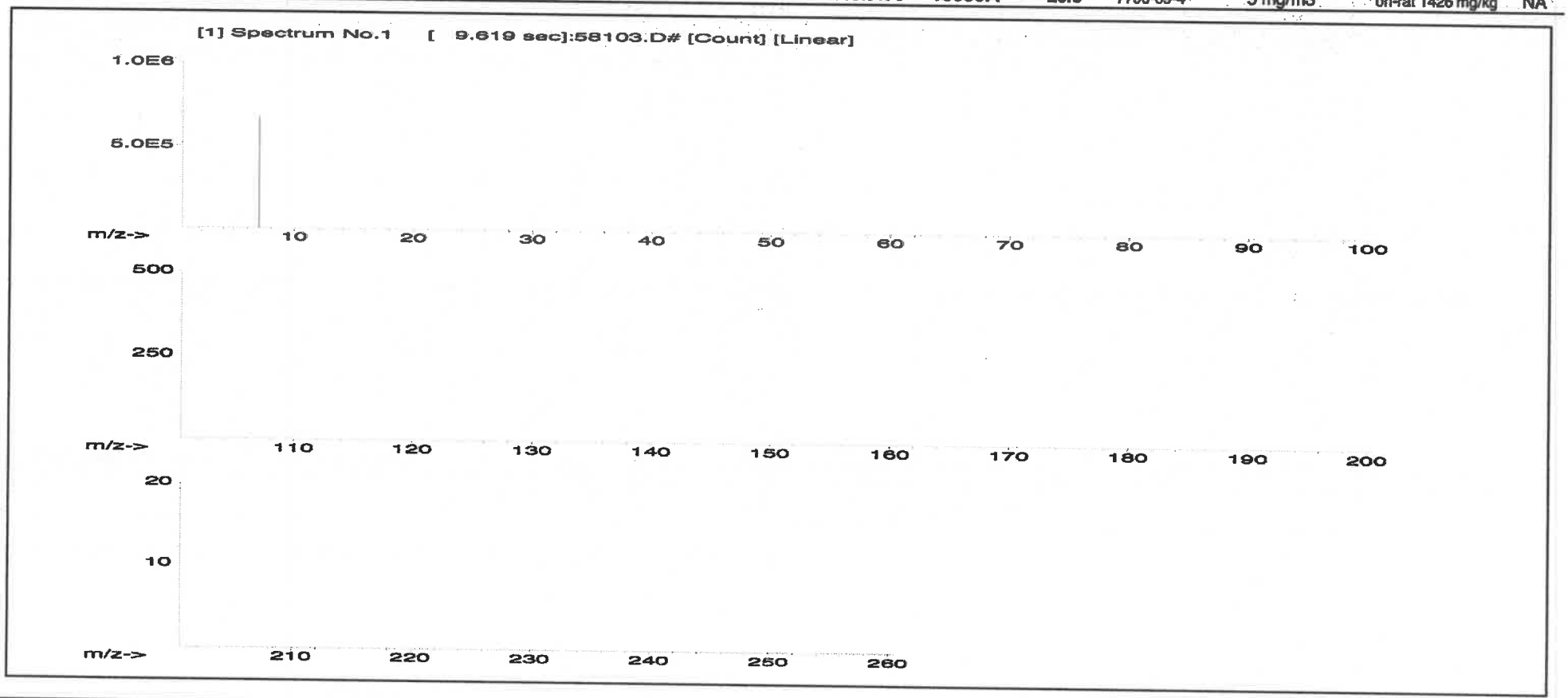
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5467 R: 03/01/23 (LA)

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CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

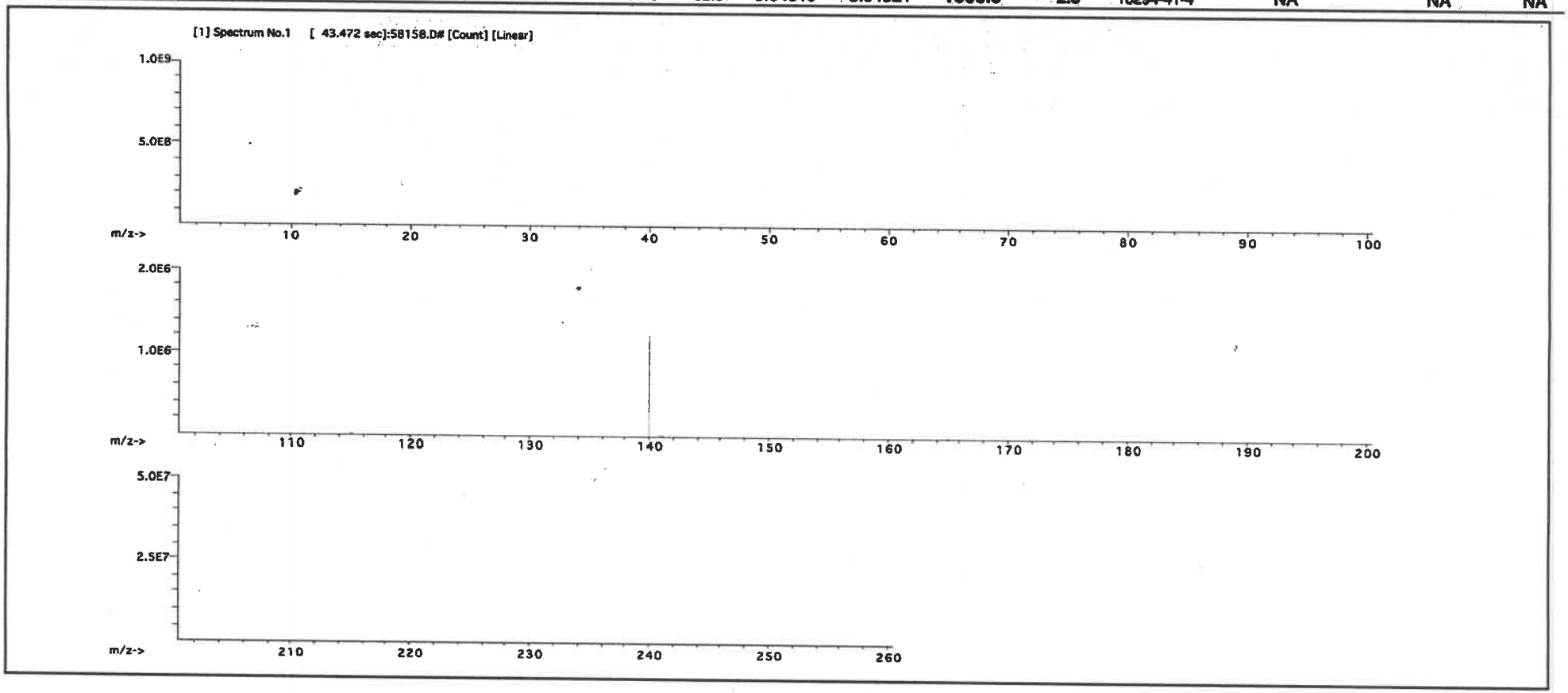
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. 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	NA



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	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	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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IN5497 - IN5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

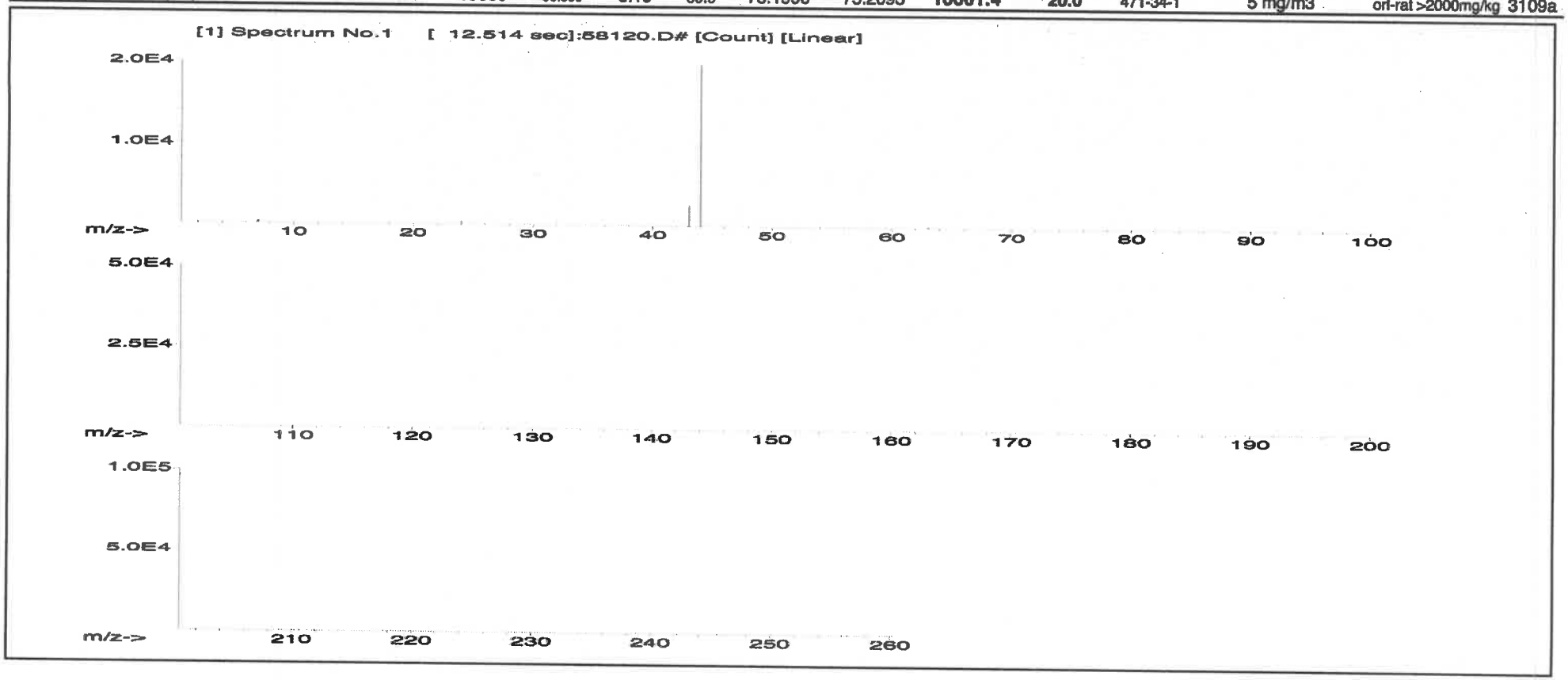
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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MS513 R:03/17/23 BE

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

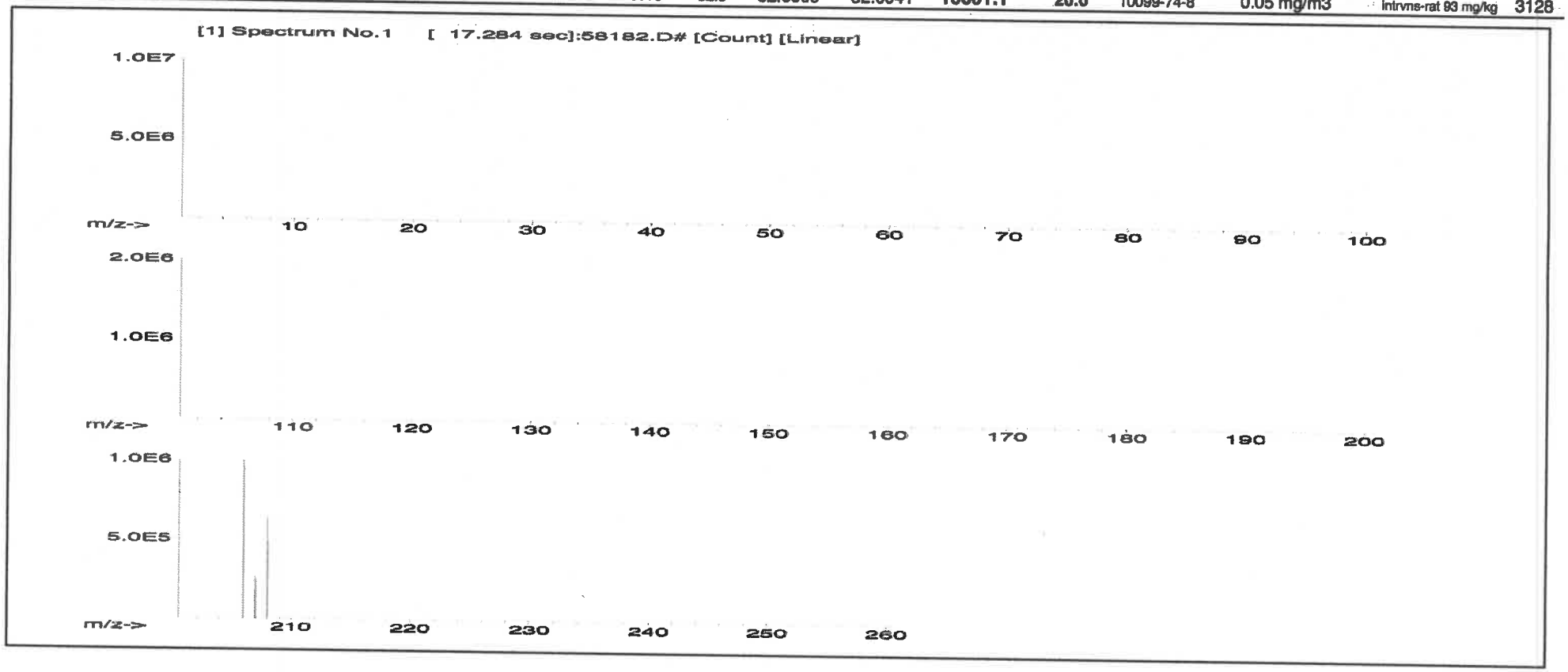
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	061522
Reviewed By:	Pedro L. Rentas	061522

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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Certified Reference Material CRM

M5514 - M5515 R: 03/17/22

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CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 092122
Description: Iron (Fe)

Expiration Date: 092125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1 ± 0.12 Flask Uncertainty

	Lot #		
Solvent:	20510011	Nitric Acid	
7.0%	350.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

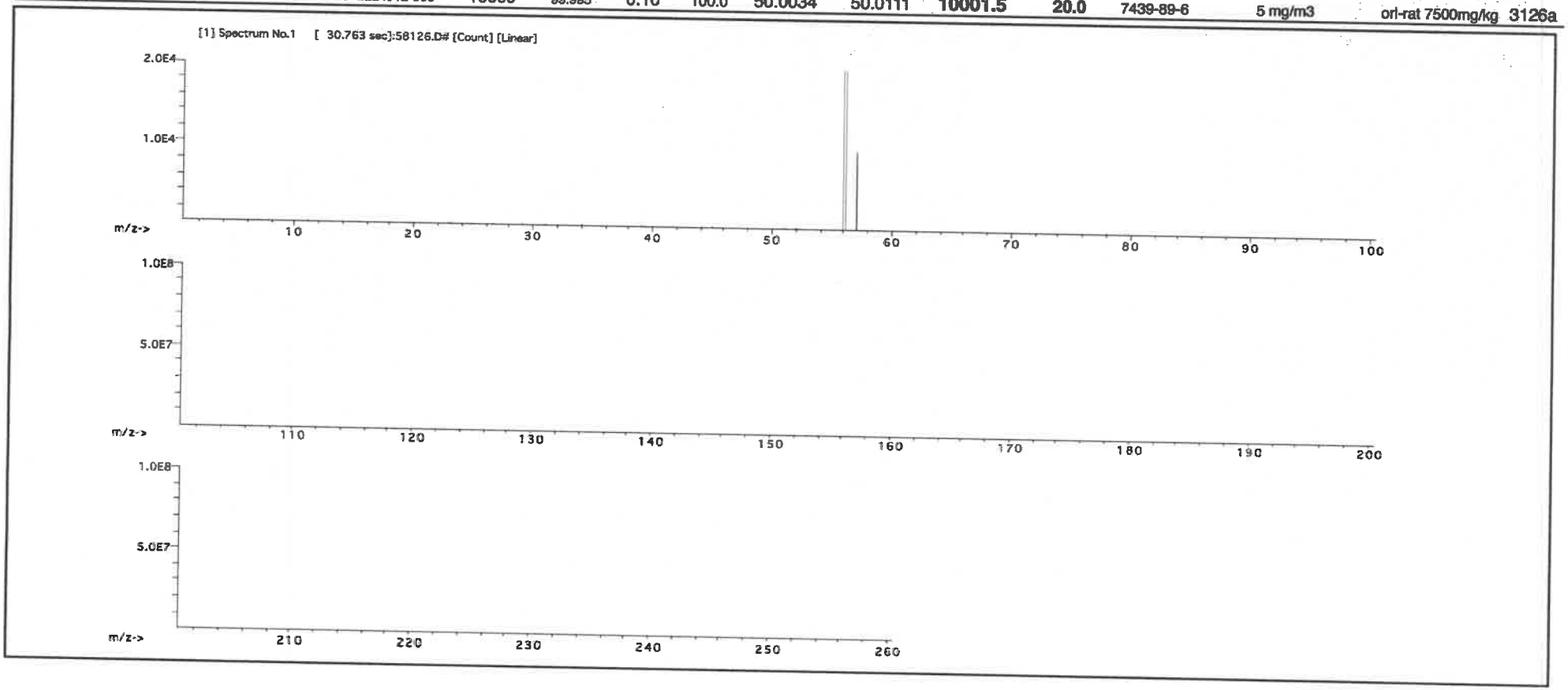
Giovanni Esposito

Formulated By: Giovanni Esposito 092122

Pedro Rentas

Reviewed By: Pedro L. Rentas 092122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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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M519. M520 (BH) R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

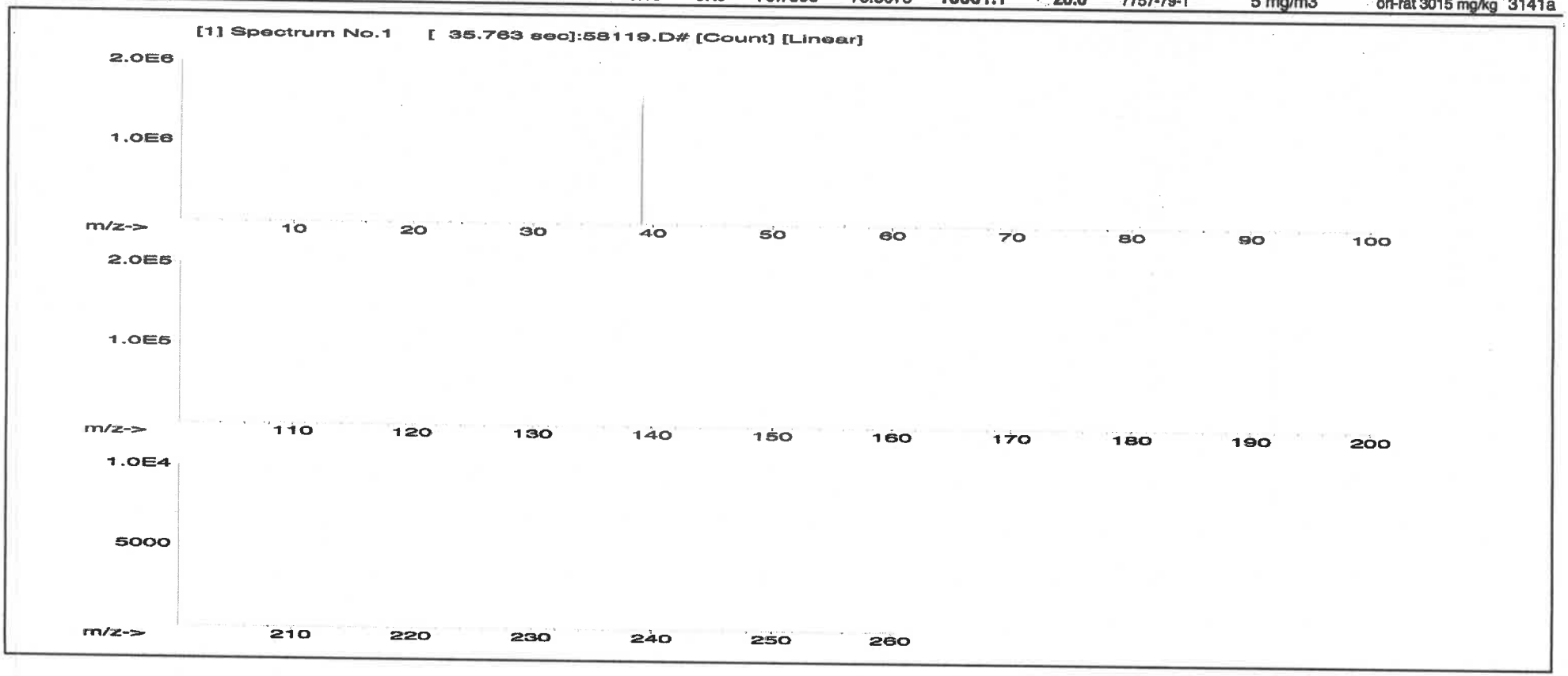
Lot #		
Solvent: 20510011		Nitric Acid
2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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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

TEST	MAXIMUM LIMITS	RESULT
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%
Titratable 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

CORCO CHEMICAL CORPORATION. 299 CEDAR LANE. FAIRLESS HILLS, PA 19030. 215-295-5006. FAX 215-295-0781

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M5658 R ! 8/25/23

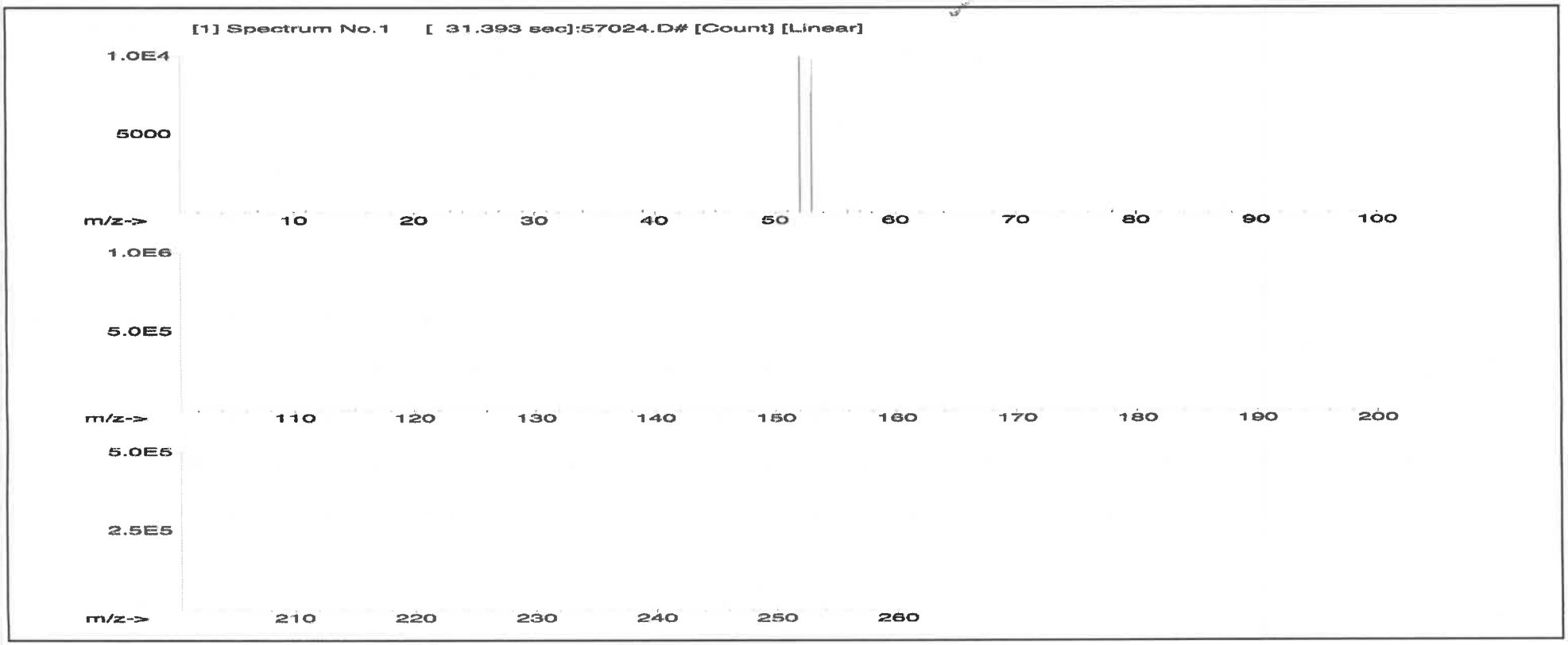
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https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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M5697 R: 10/27/23

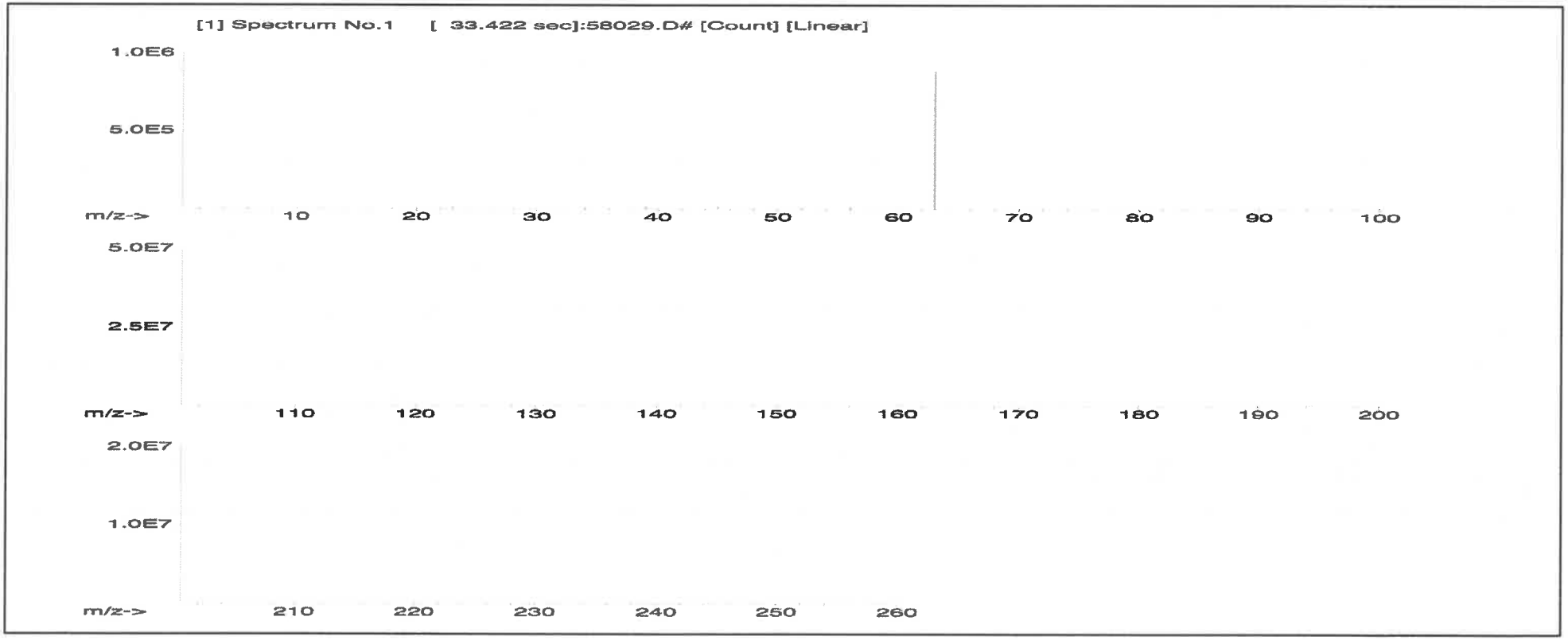
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5648 R: 10/27/23

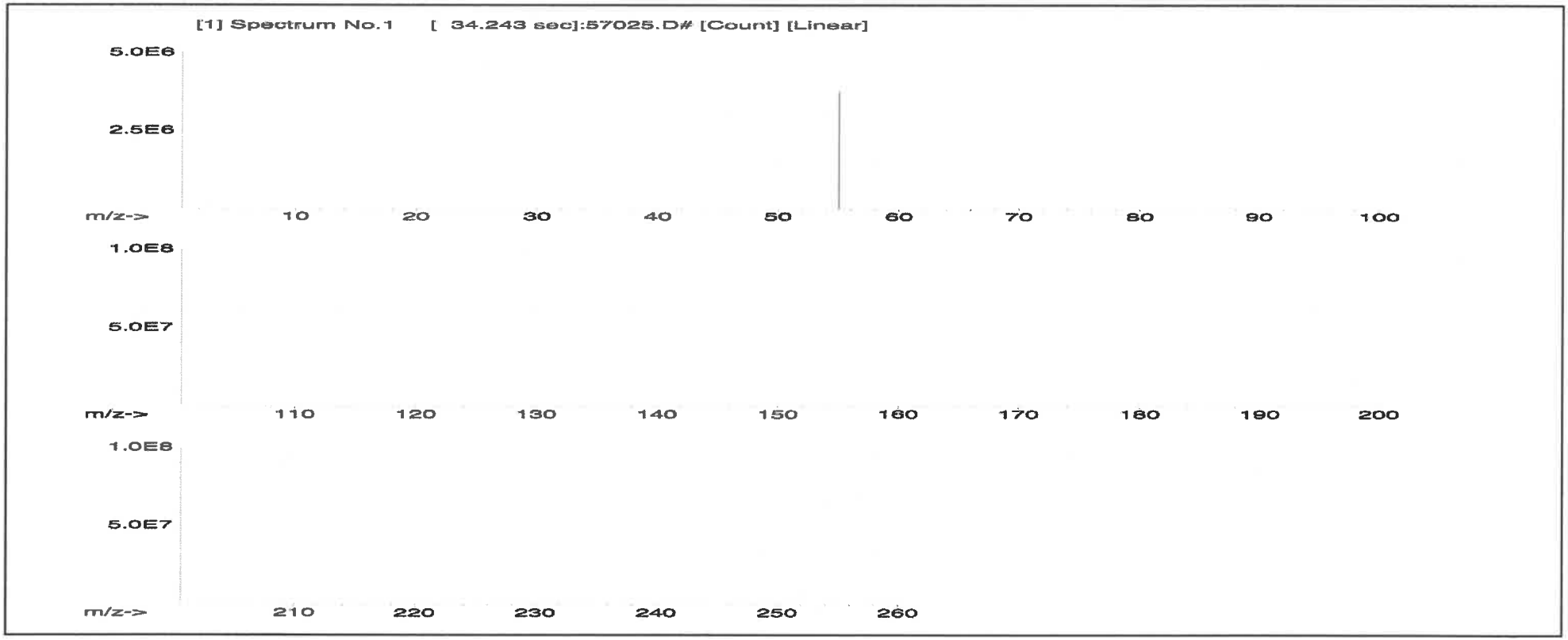
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58025**	24002546	Nitric Acid	
Lot Number:	**102623**			
Description:	**Manganese (Mn)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	102626			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Rentas	102623

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	**1000.0**	**2.1**	20694-39-7	5 mg/m3	orl-rat >300mg/kg	3132



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 12/20/23 M5747

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CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

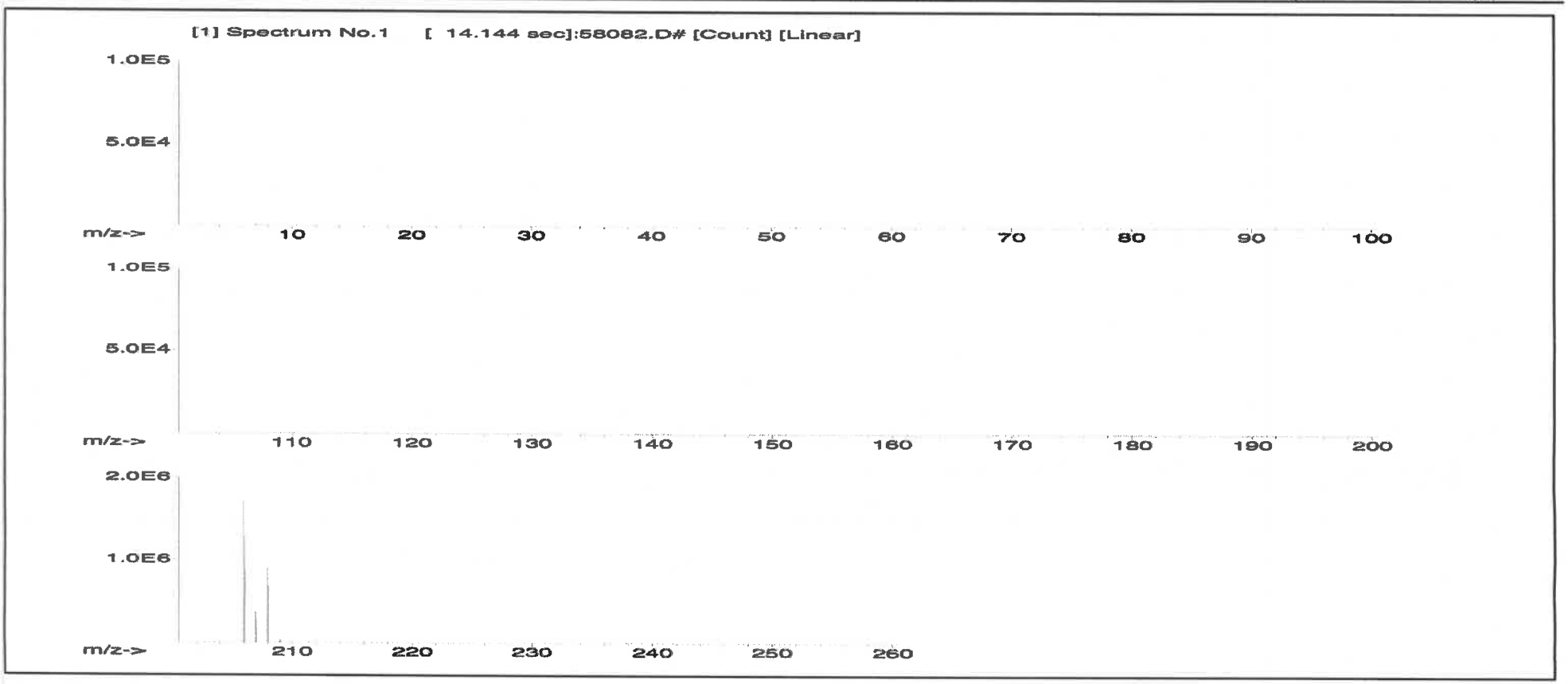
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 12/20/23 M5748

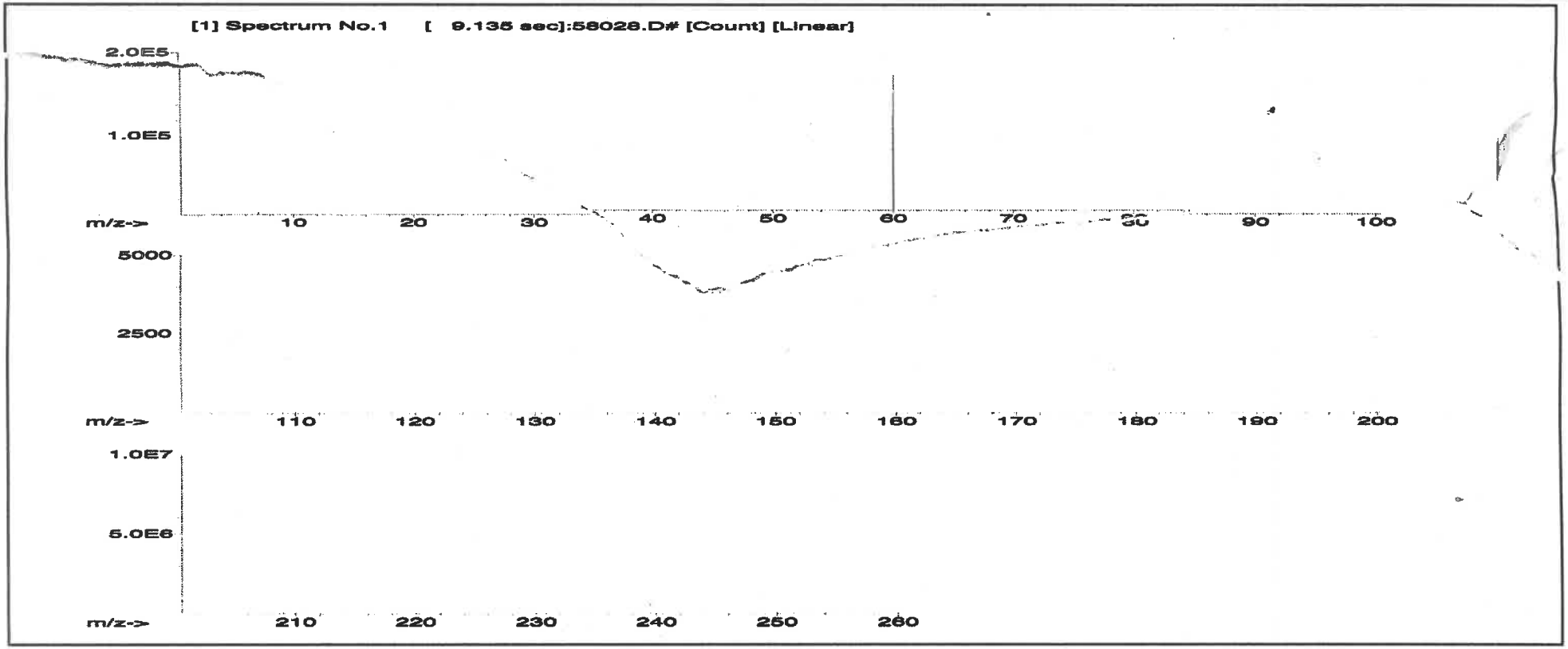
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Rentas	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. 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	orl-rat 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	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

M5768, M5769 (BP) R: 1/3/24

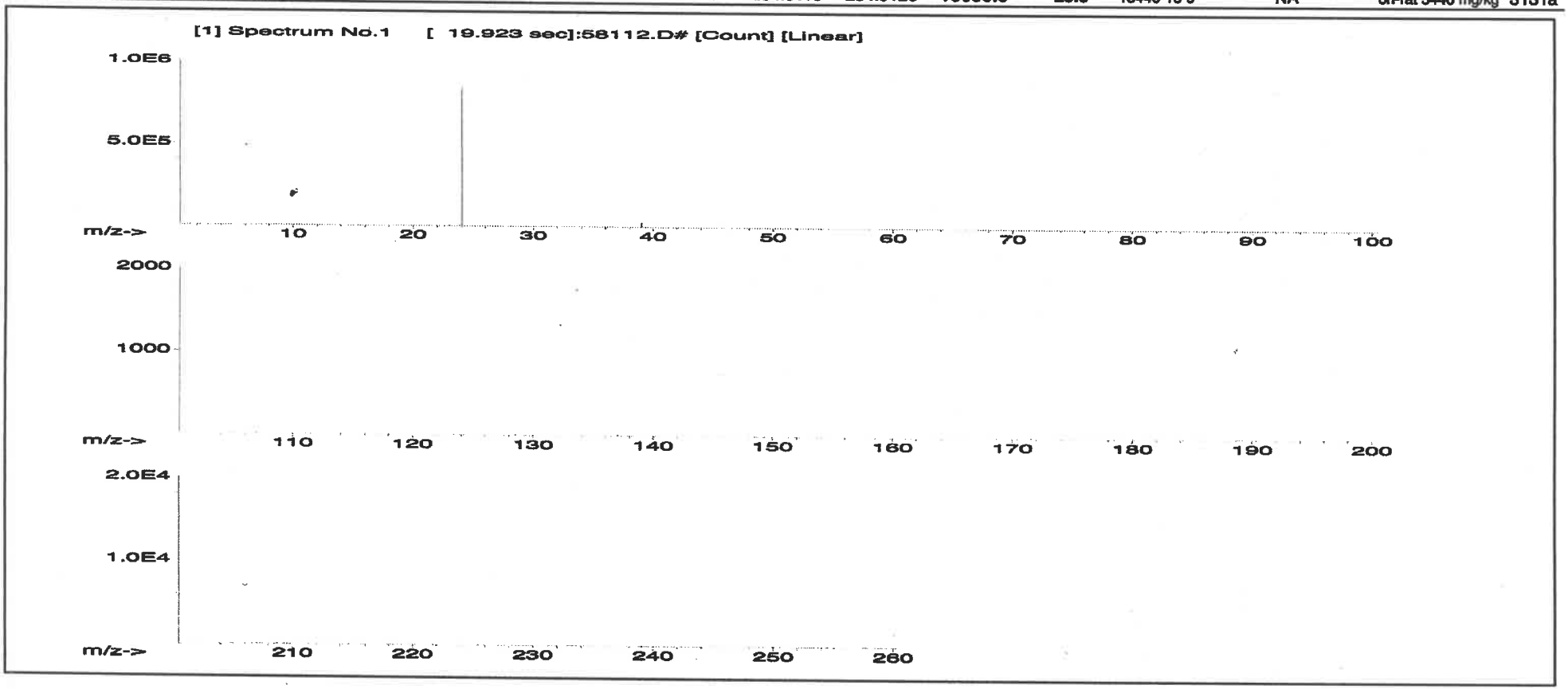
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Formulated By: Lawrence Barry 091823

Reviewed By: Pedro L. Rentas 091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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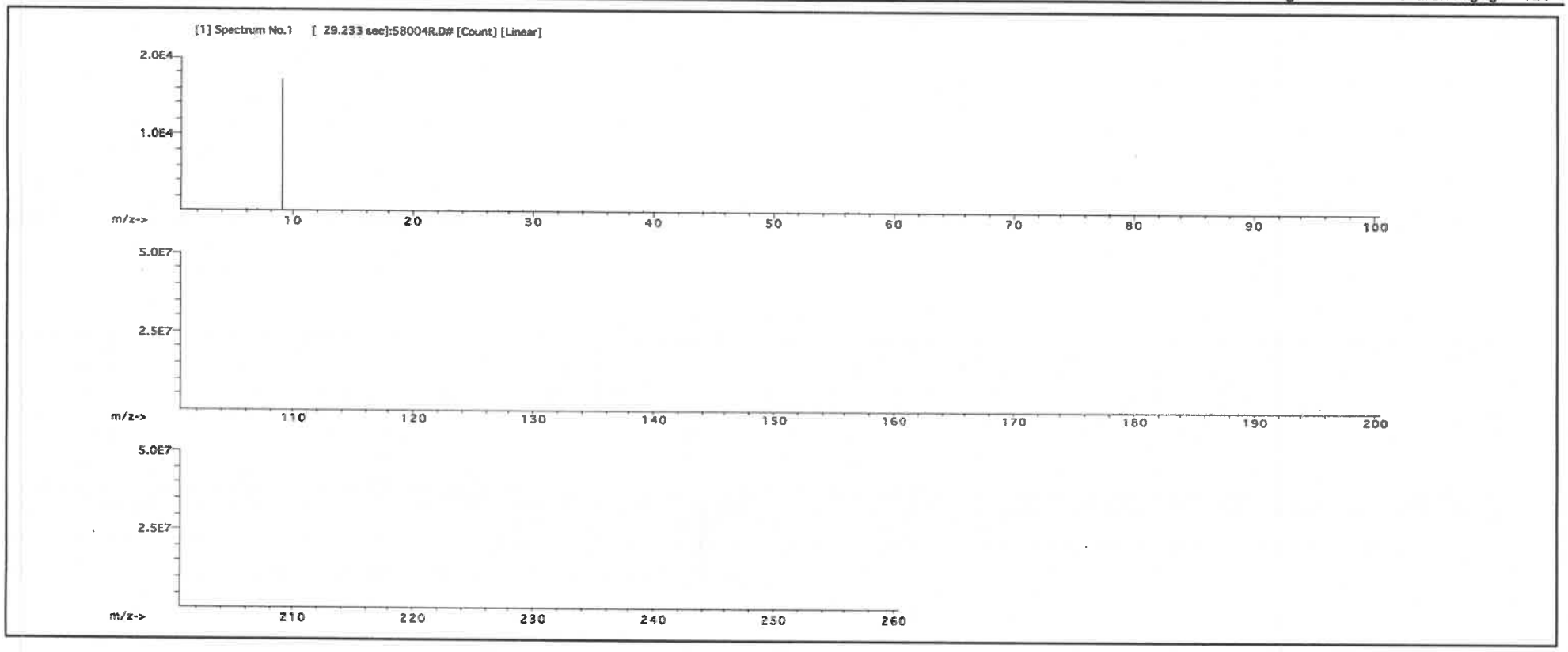
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R? 02/09/24 IV15799

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

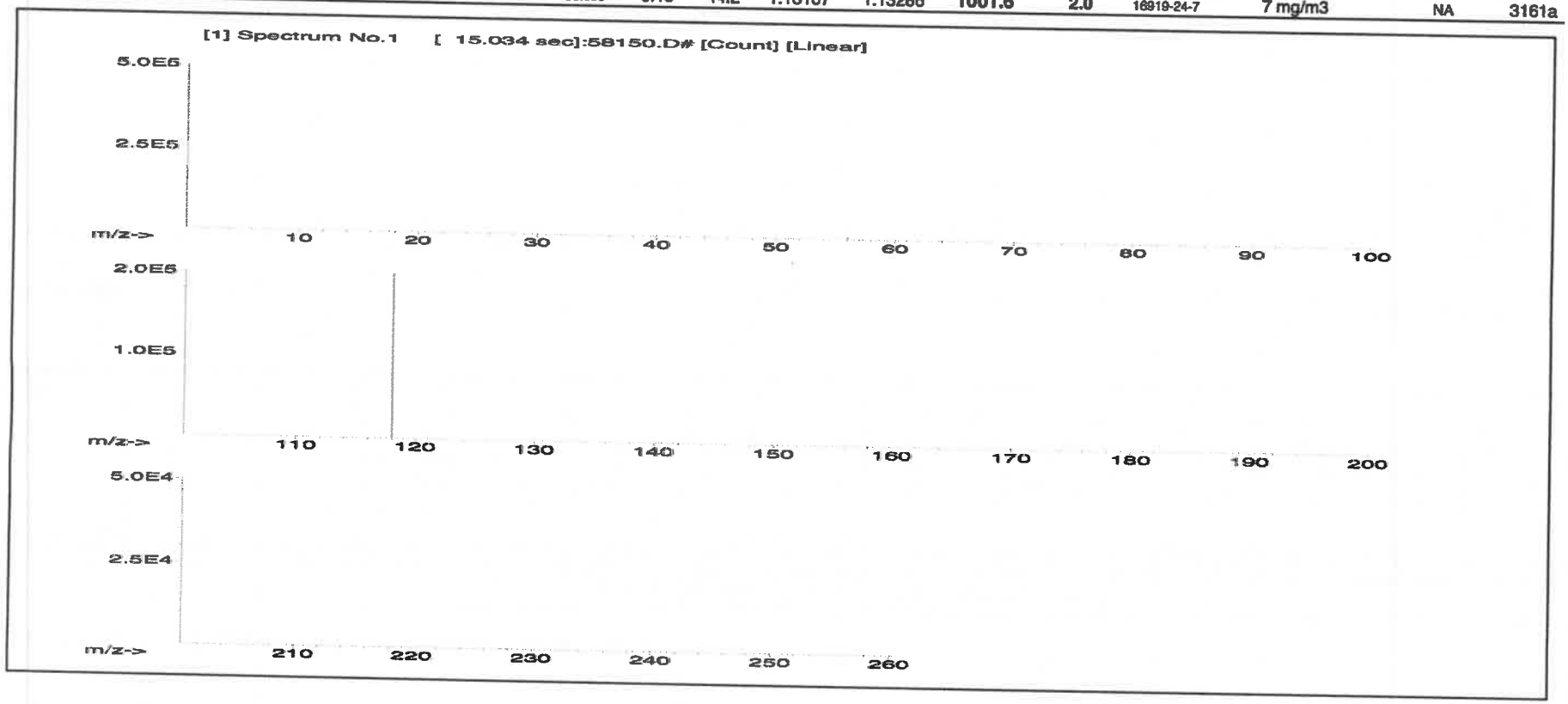
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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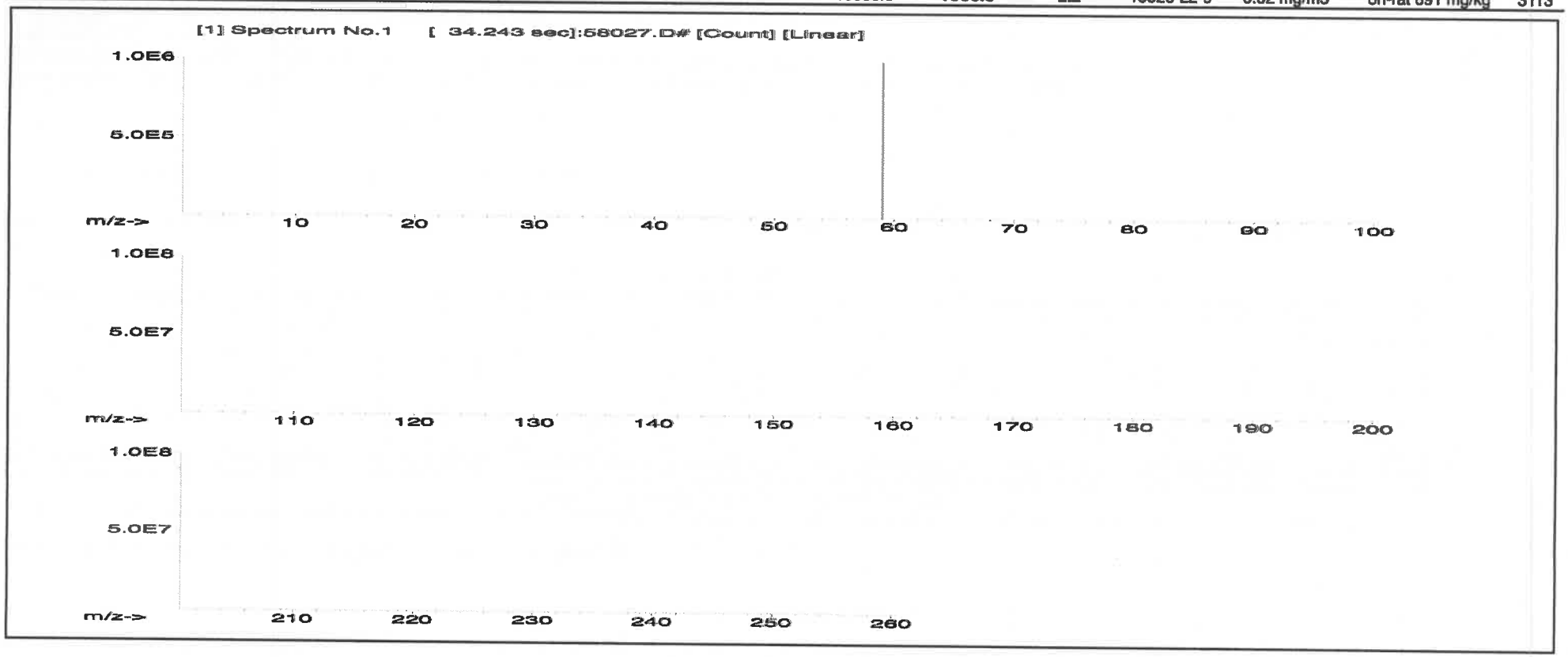
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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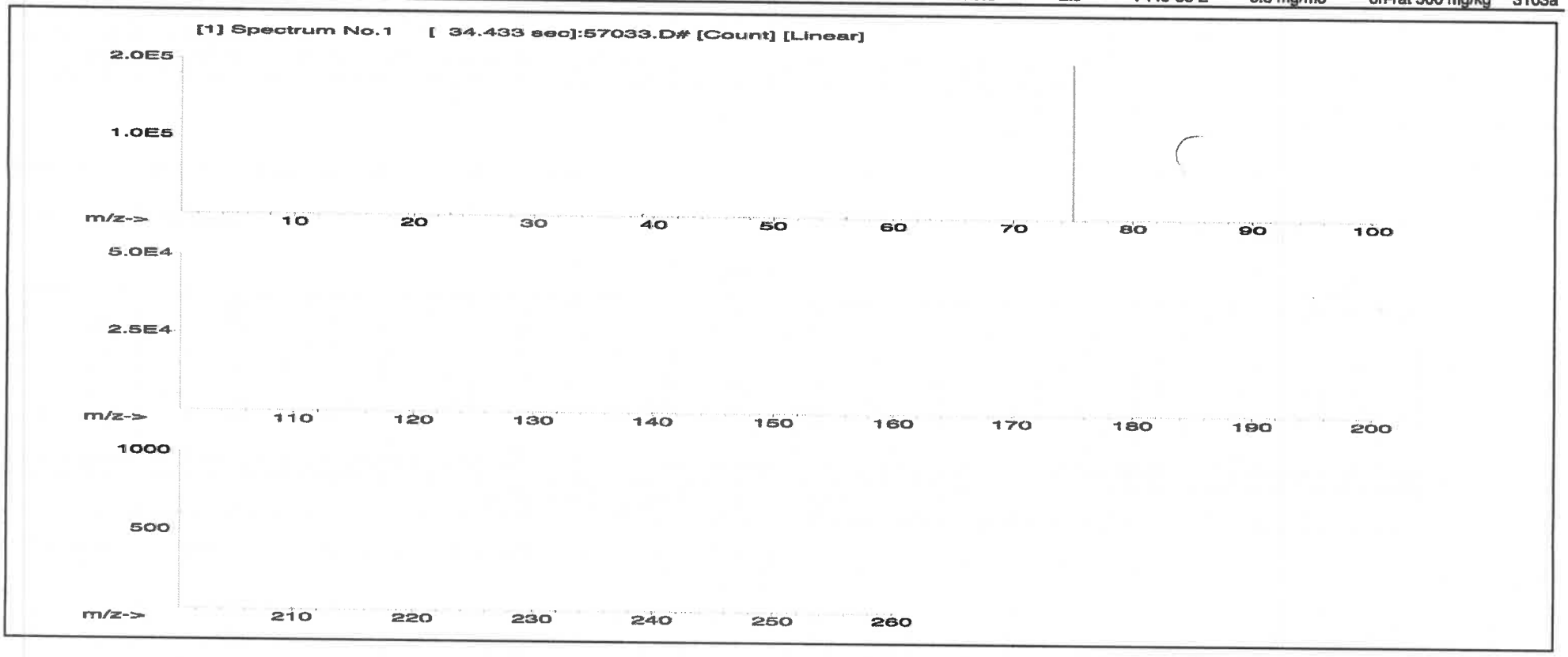
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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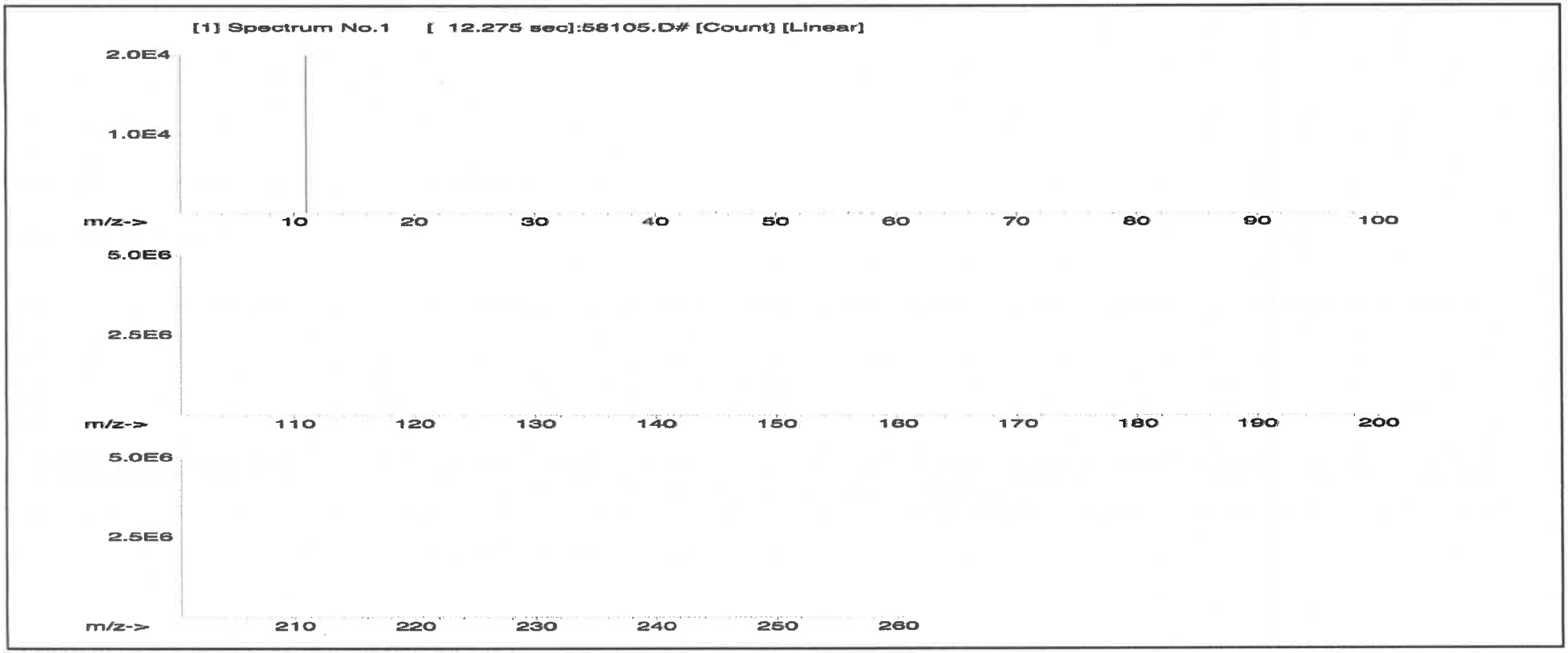
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CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
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		

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 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	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	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:

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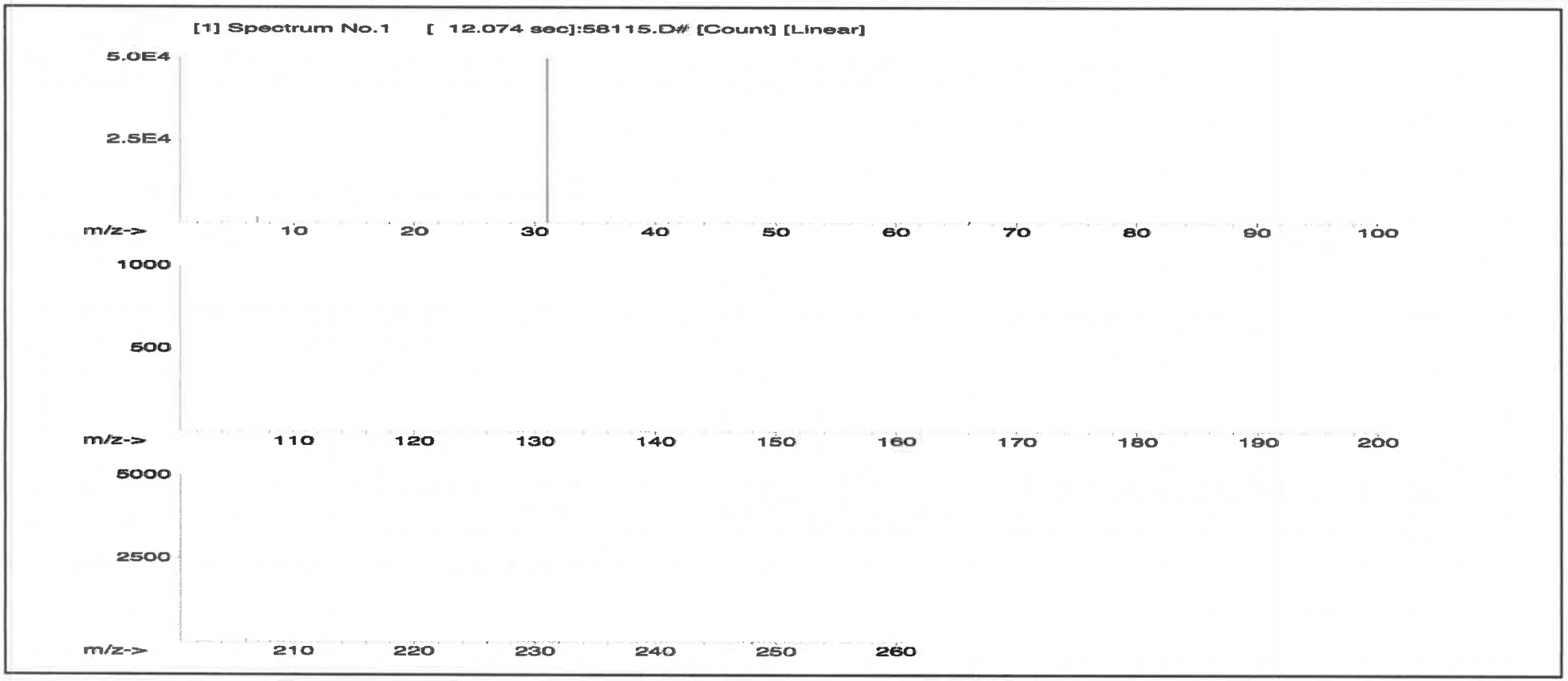
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CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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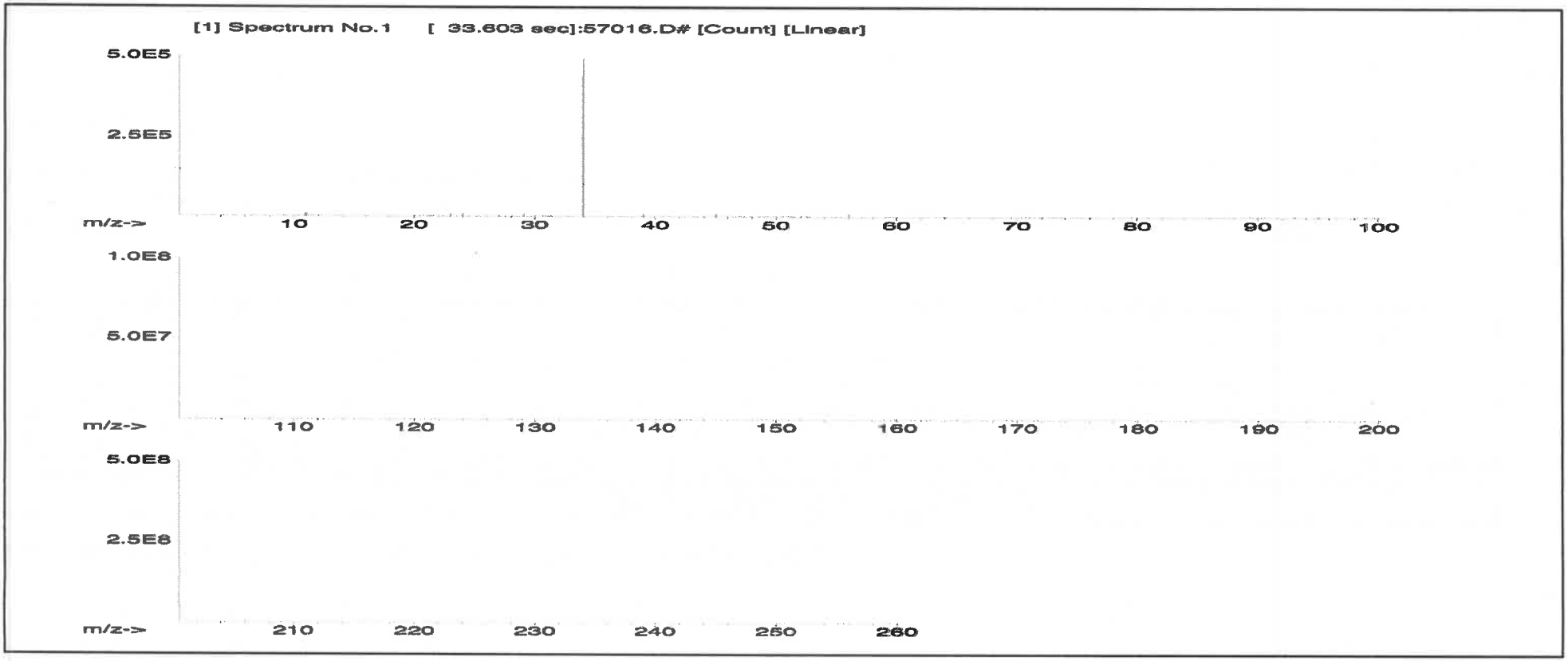
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CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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CERTIFIED WEIGHT REPORT:

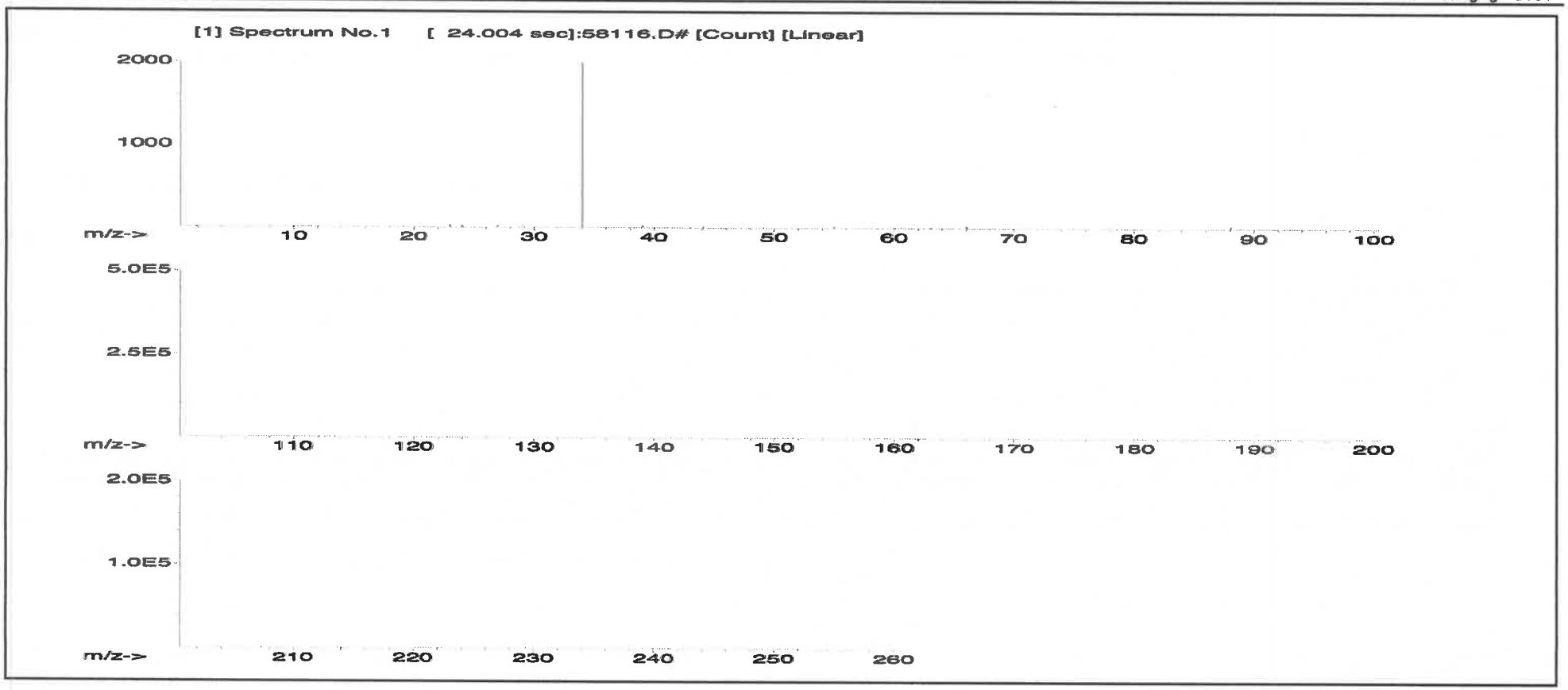
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 57014
Lot Number: 122023
Description: Silicon (Si)

Expiration Date: 122026
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48 ± 0.058 Flask Uncertainty

Solvent: 24002546 Nitric Acid

2% 40.0 (mL) Nitric Acid

5E-05 Balance Uncertainty

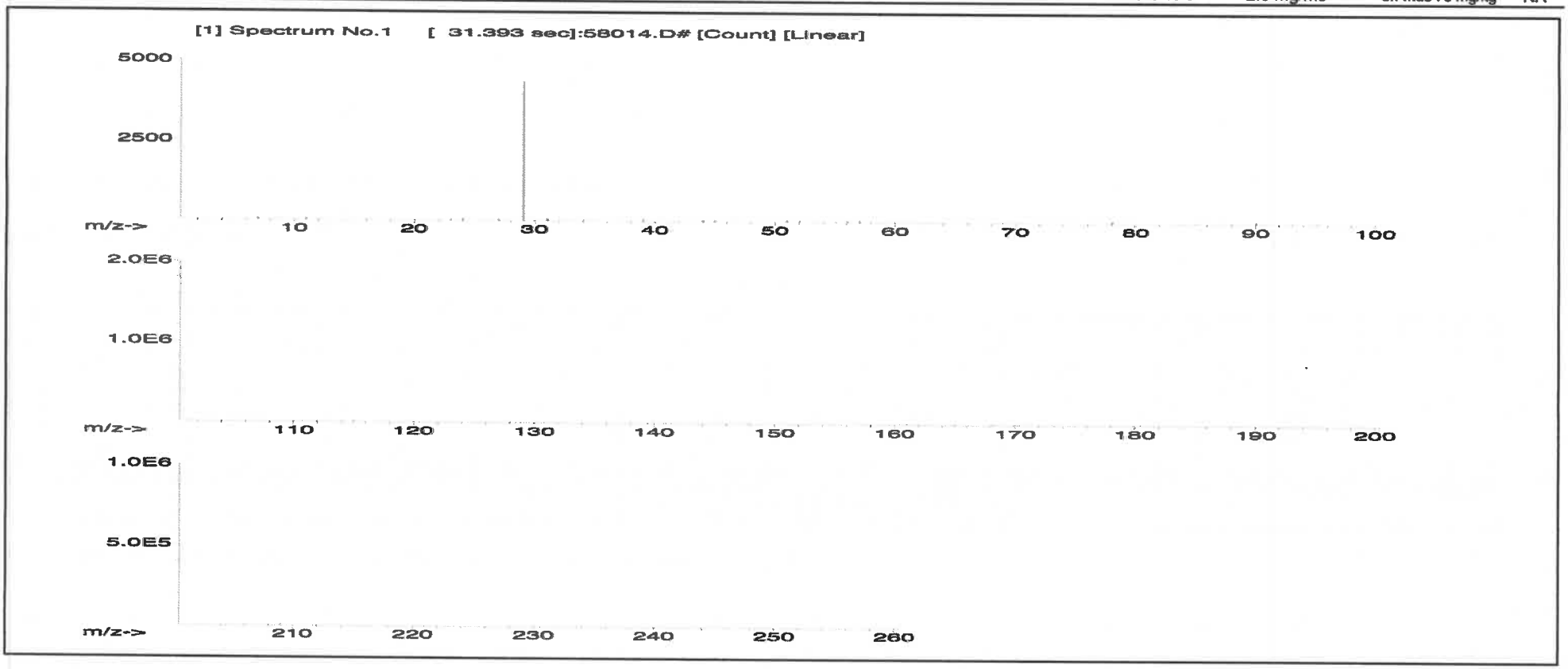
Aleah O'Brady

Formulated By: Aleah O'Brady 122023

Pedro Rentas

Reviewed By: Pedro L. Rentas 122023

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorosilicate (Si)	IN009	SID082022A1	1000	99.999	0.10	14.4	13.8854	13.8855	**1000.0**	**2.0**	16919-19-0	2.5 mg/m3	orl-mus 70 mg/kg	NA



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	T	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

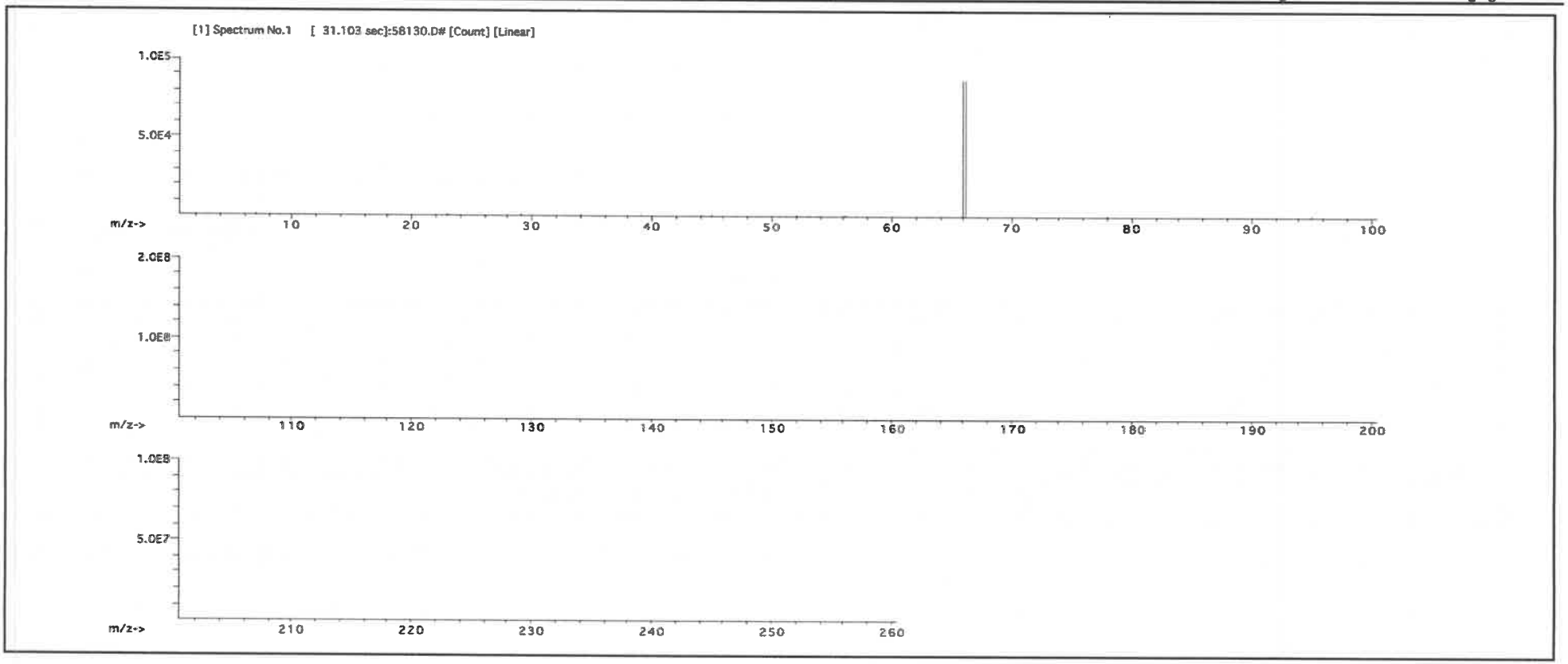
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

		Lot #		
Solvent:	24002546	Nitric Acid		
	2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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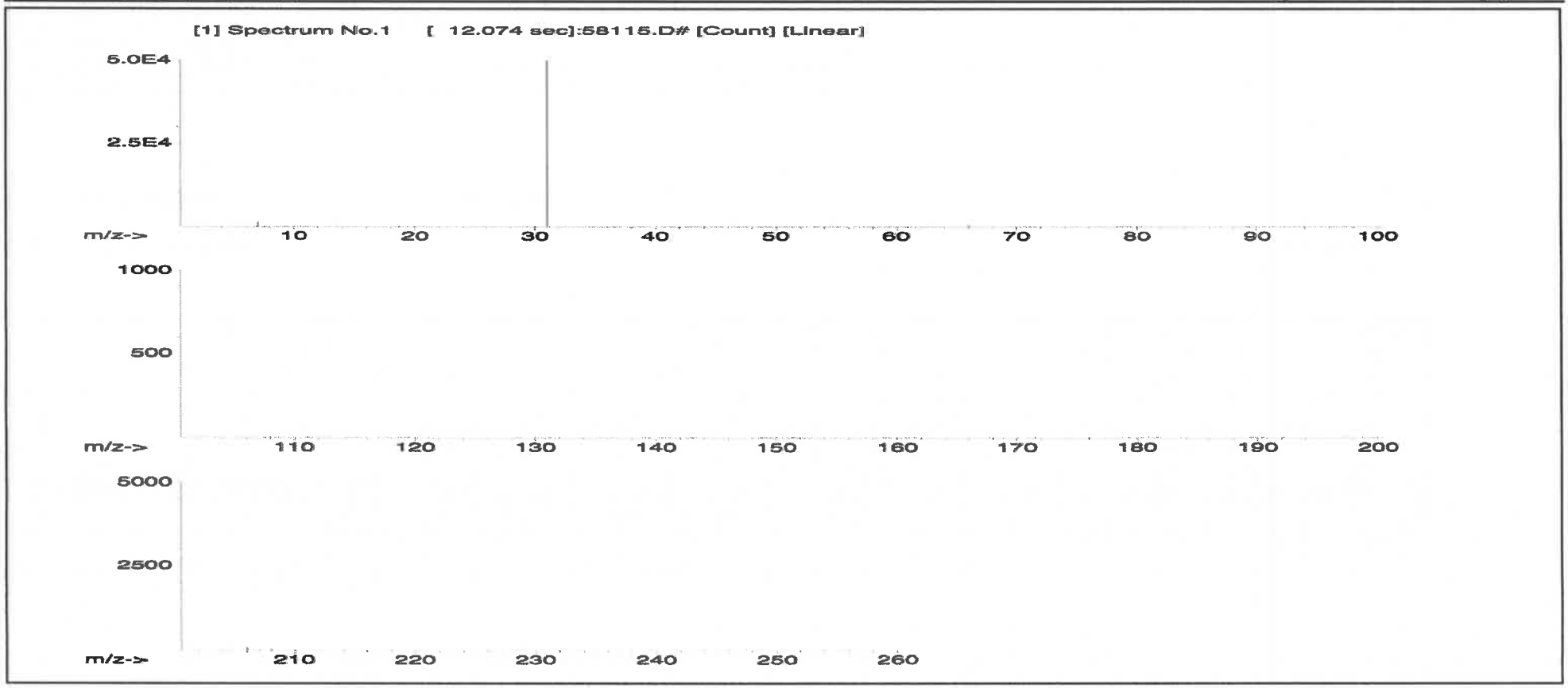
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CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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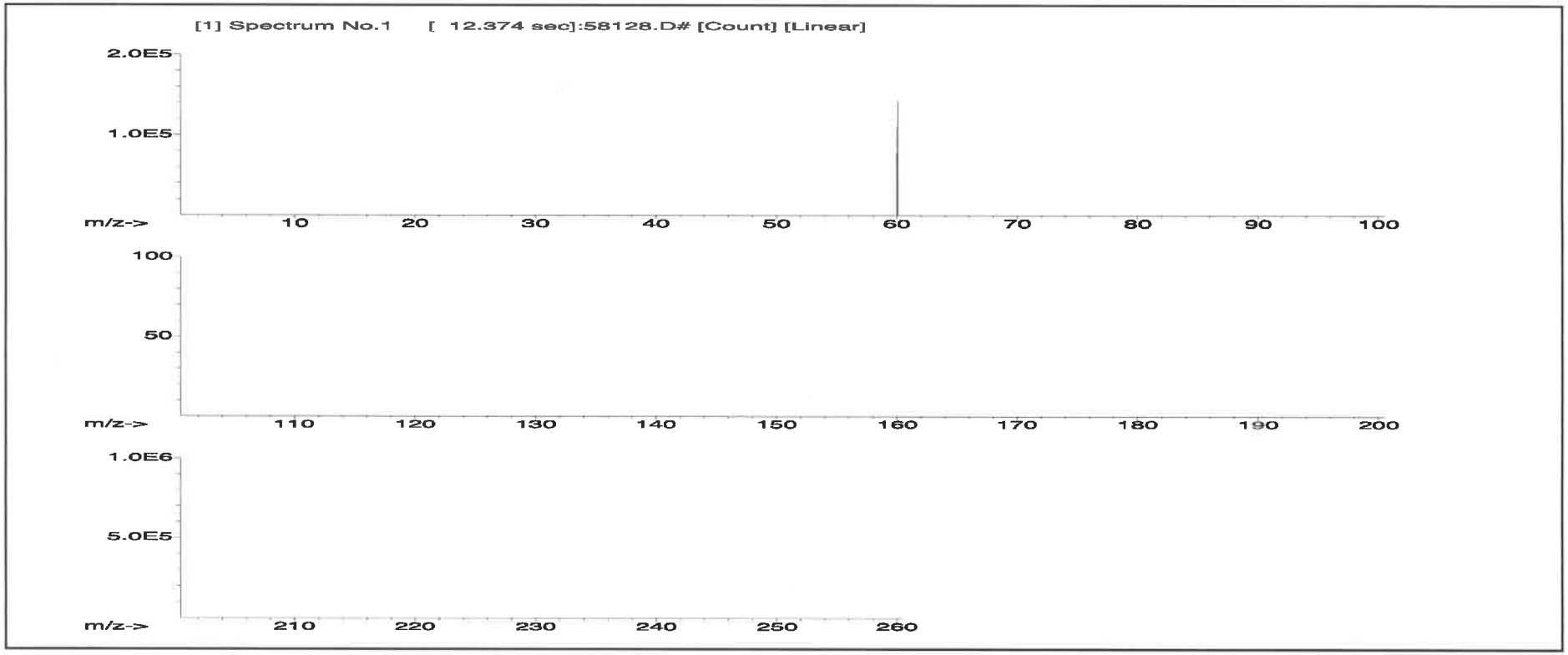
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CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57028**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**041124**			
Description:	**Nickel (Ni)**			
		2%	5.0 (mL)	Nitric Acid
Expiration Date:	041127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	249.85	0.002	Flask Uncertainty	

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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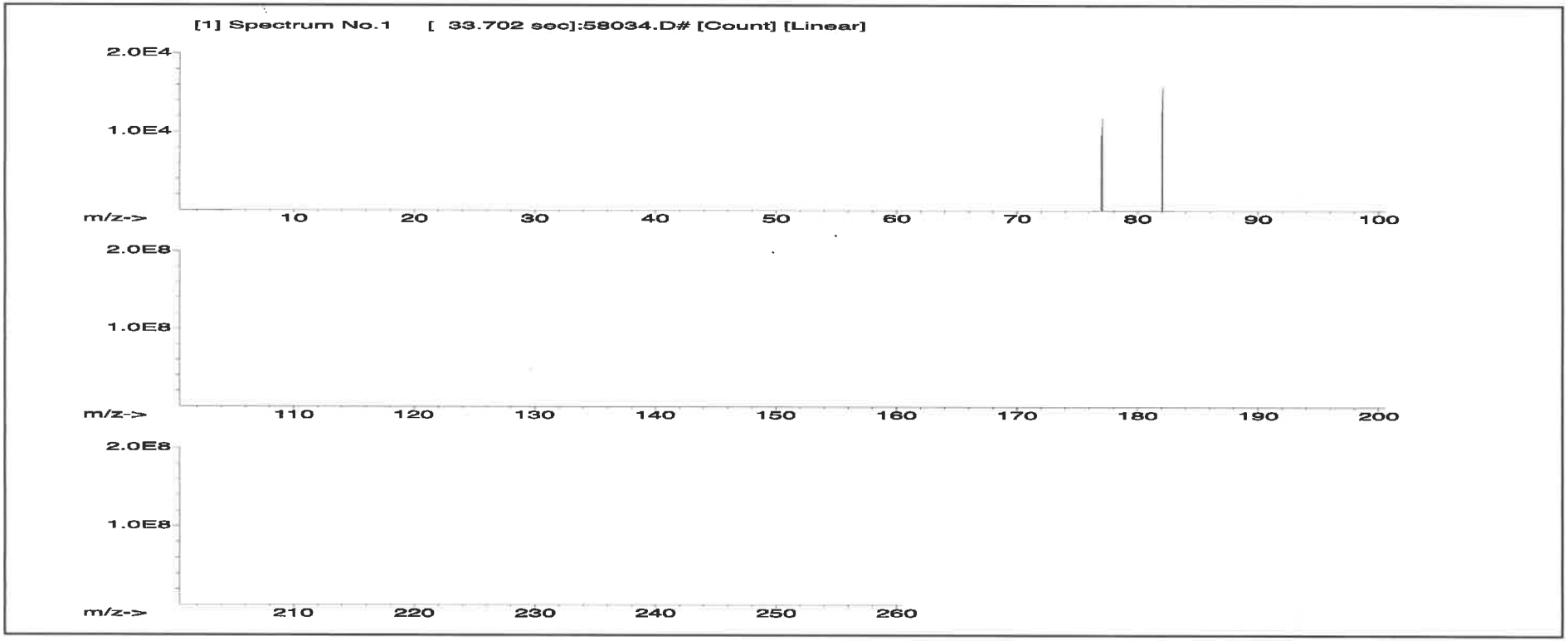
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

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

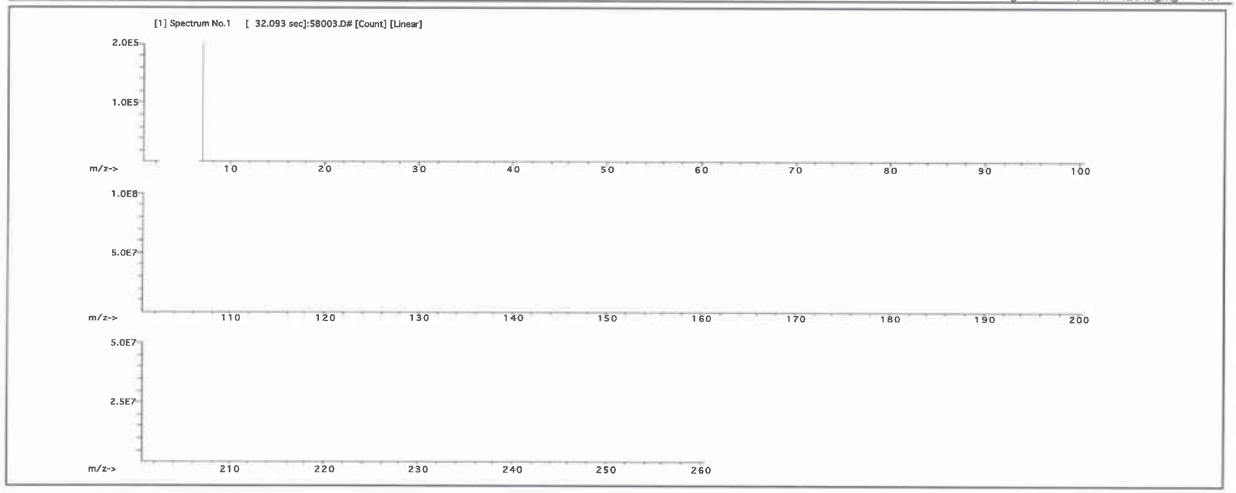
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
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):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5976, M5977
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M5978, M5979

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO_3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma(w_i)^2\ (u_{char\ i})^2]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

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

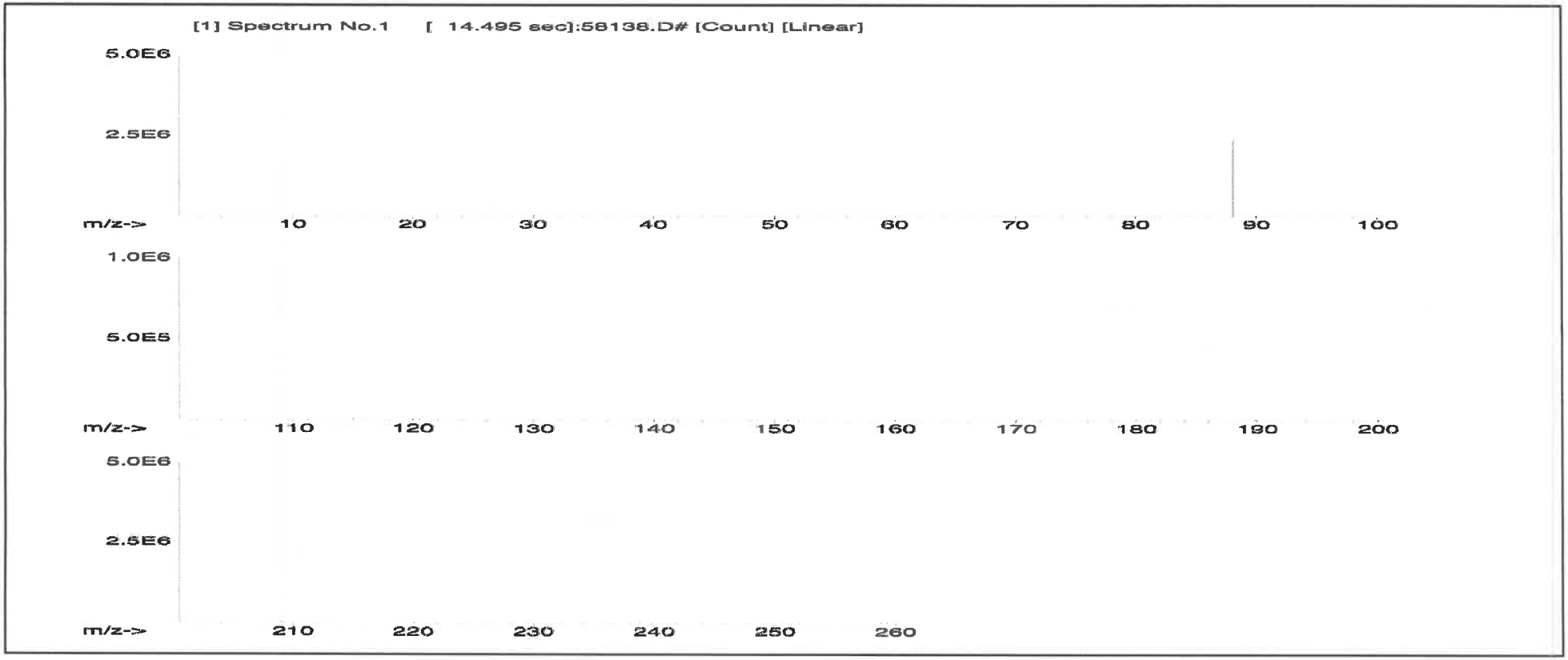
45982 R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:	**57038**		**Lot #**		
Lot Number:	**031524**	**Solvent:**	24002546	Nitric Acid	
Description:	**Strontium (Sr)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	031527				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85502	**1000.1**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-1
Lot Number:	T2-MEB721963
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Manganese, Nickel, Vanadium, Zinc, Cobalt, 250 µg/mL ea: Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium, Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Chromium, Cr	200.0 ± 1.1 µg/mL
Cobalt, Co	500.0 ± 2.4 µg/mL	Copper, Cu	250.0 ± 1.0 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Silver, Ag	50.00 ± 0.22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.070 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)\,(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certified Reference Material CRM

R: 01/03/24 M6033

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

CERTIFIED WEIGHT REPORT:

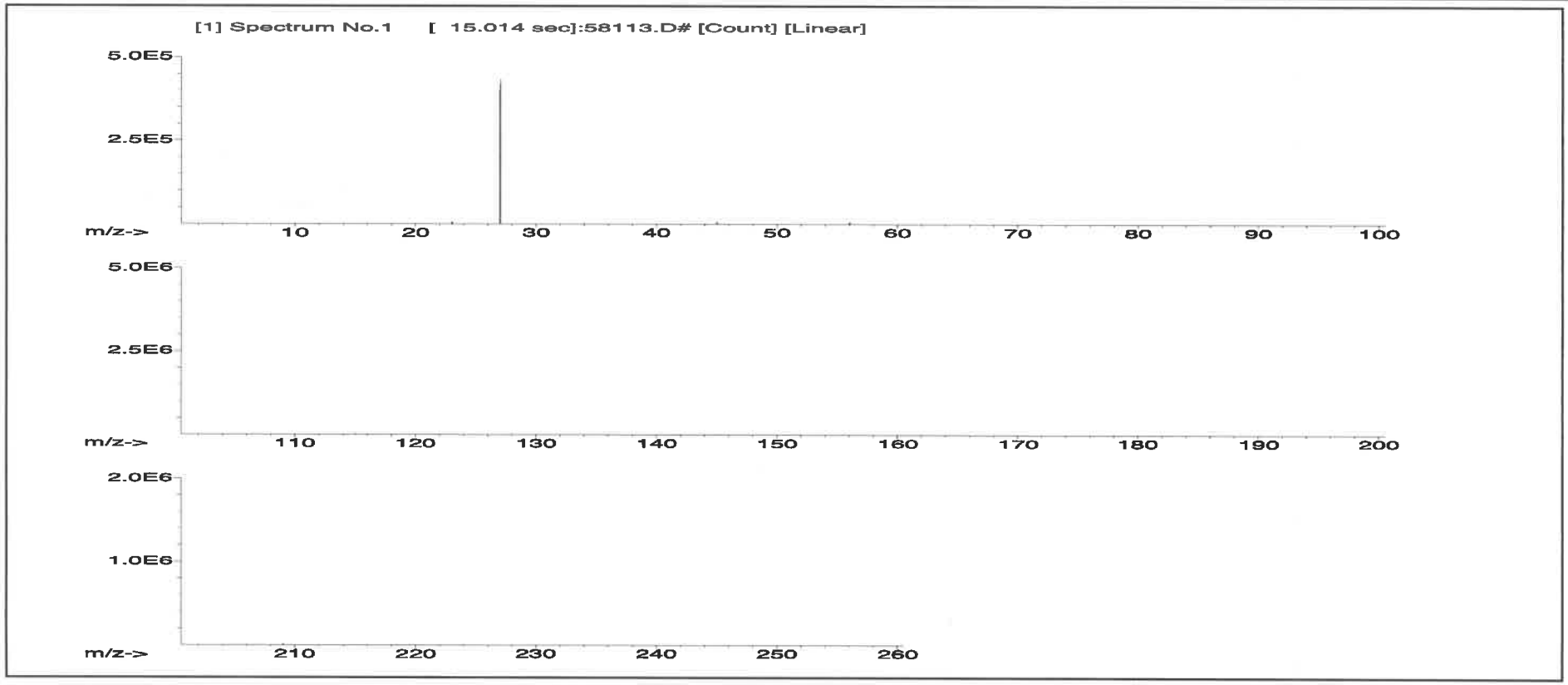
Part Number:	**58113**		**Solvent:**	20510011	Nitric Acid
Lot Number:	**011623**				
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Lot #

Giovanni Esposito

Formulated By:	Giovanni Esposito	011623
Reviewed By:	Pedro L. Rentas	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Nitric Acid 69%
CMOS

Recv date: 1. 1. – 08/01/2023

M6034, M6037
M6035, M6038,
M6036,

avantor™ | J.T.Baker®

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

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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

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Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

J Croak

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Received — 08/01/2024
paper
M6039
M6040

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

avantor™ | J.T.Baker®

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™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R: 9/10/24

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

M6088, M6089, M6090, M6091, M6092, M6093

Test	Specification	Result
Assay (HNO_3)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
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™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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Certified Reference Material CRM

R: 01/03/24 M5806, M5807

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 122223
Description: Sodium (Na)

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

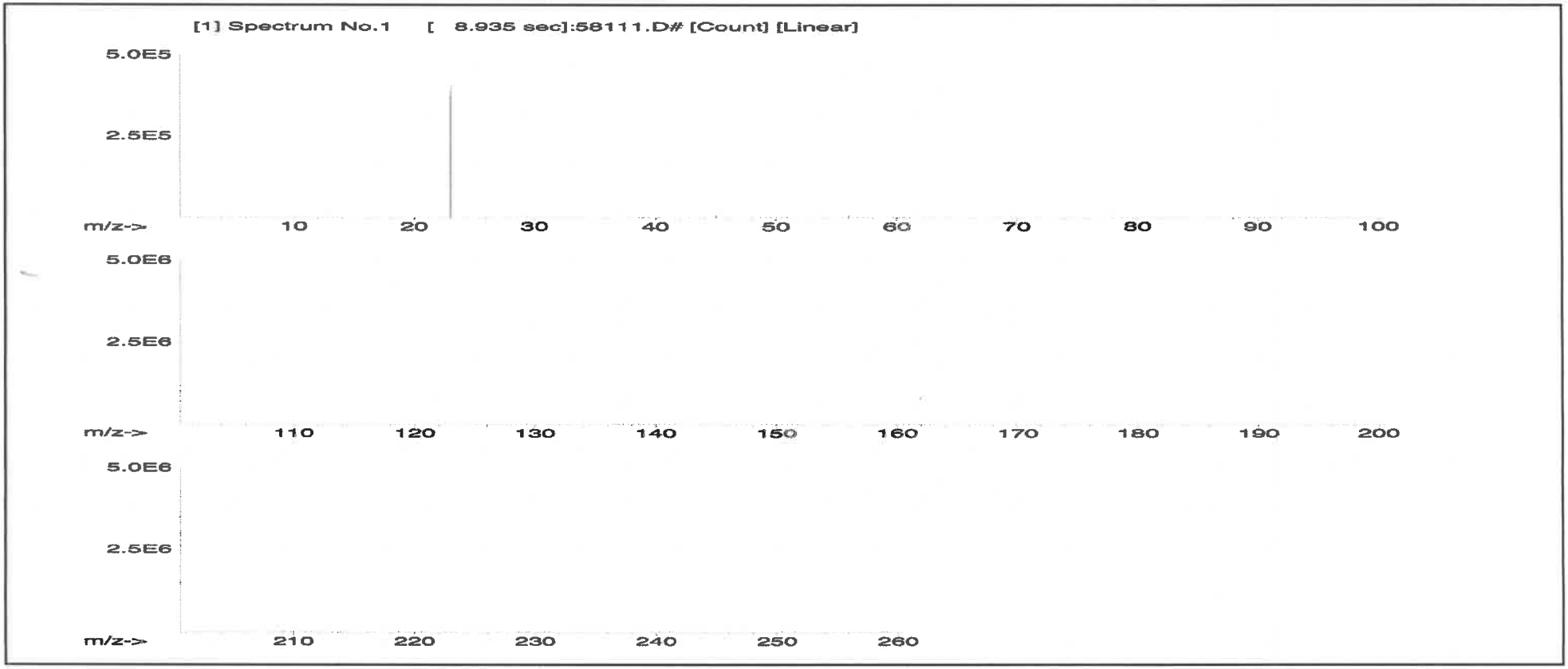
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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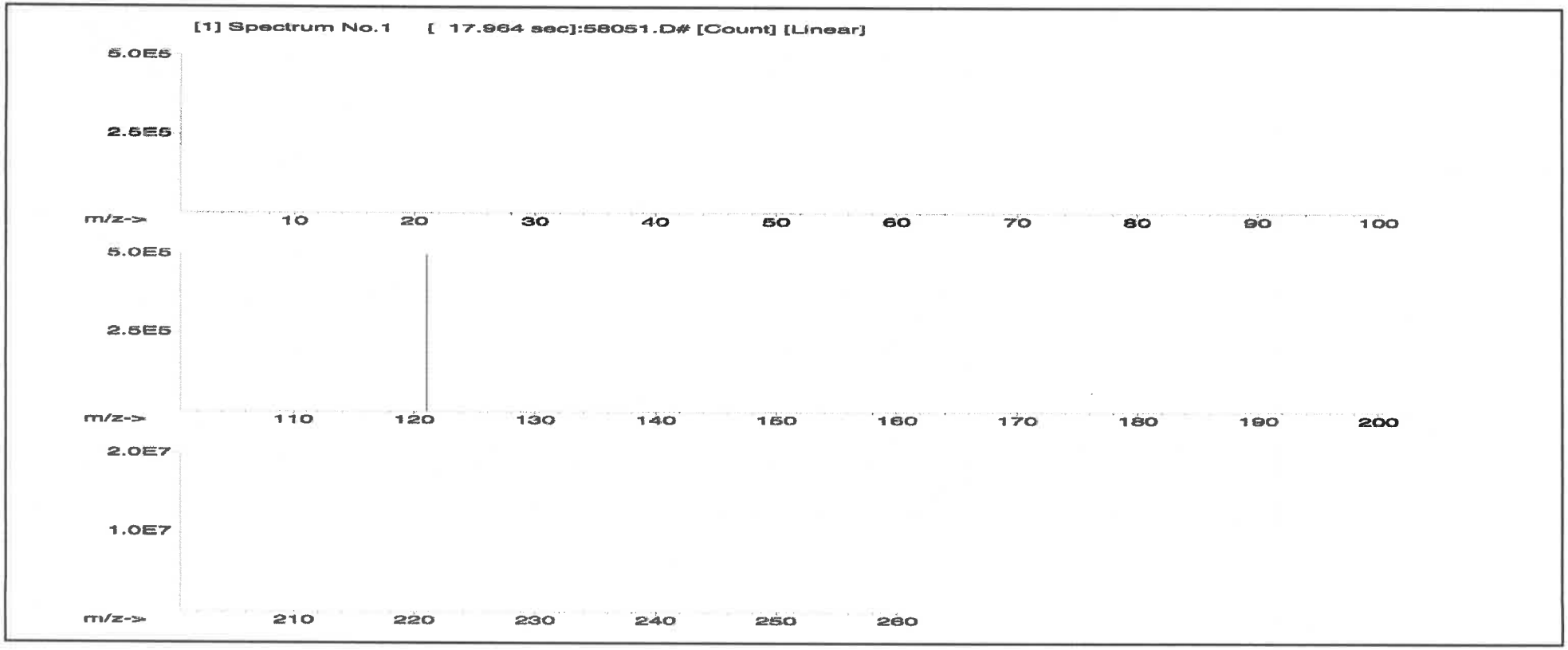
R: 01/03/24 M5802, M5803

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**120523**			
Description:	**Antimony (Sb)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	120526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

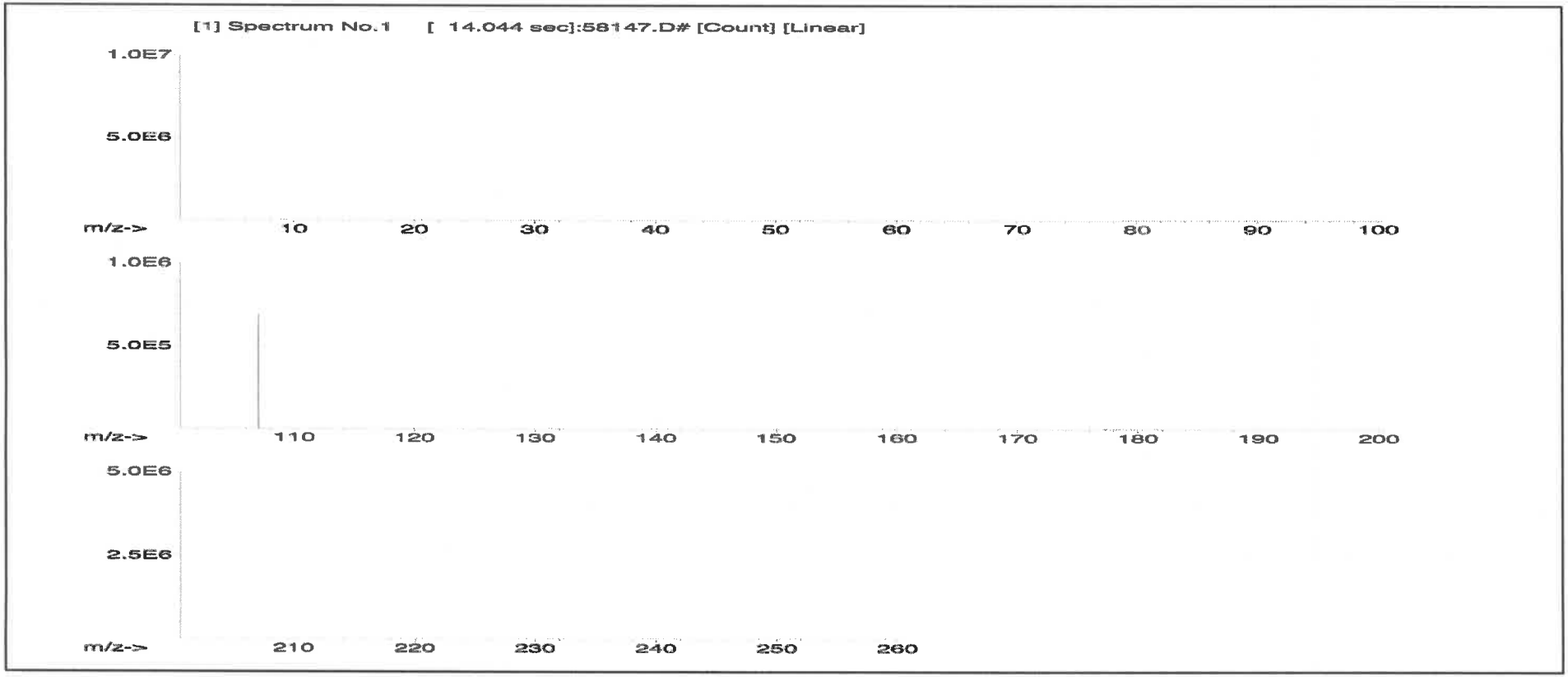
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 03/16/23 M5473, M5474, M5475, M5476

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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 56138
Lot Number: 082922
Description: Strontium (Sr)

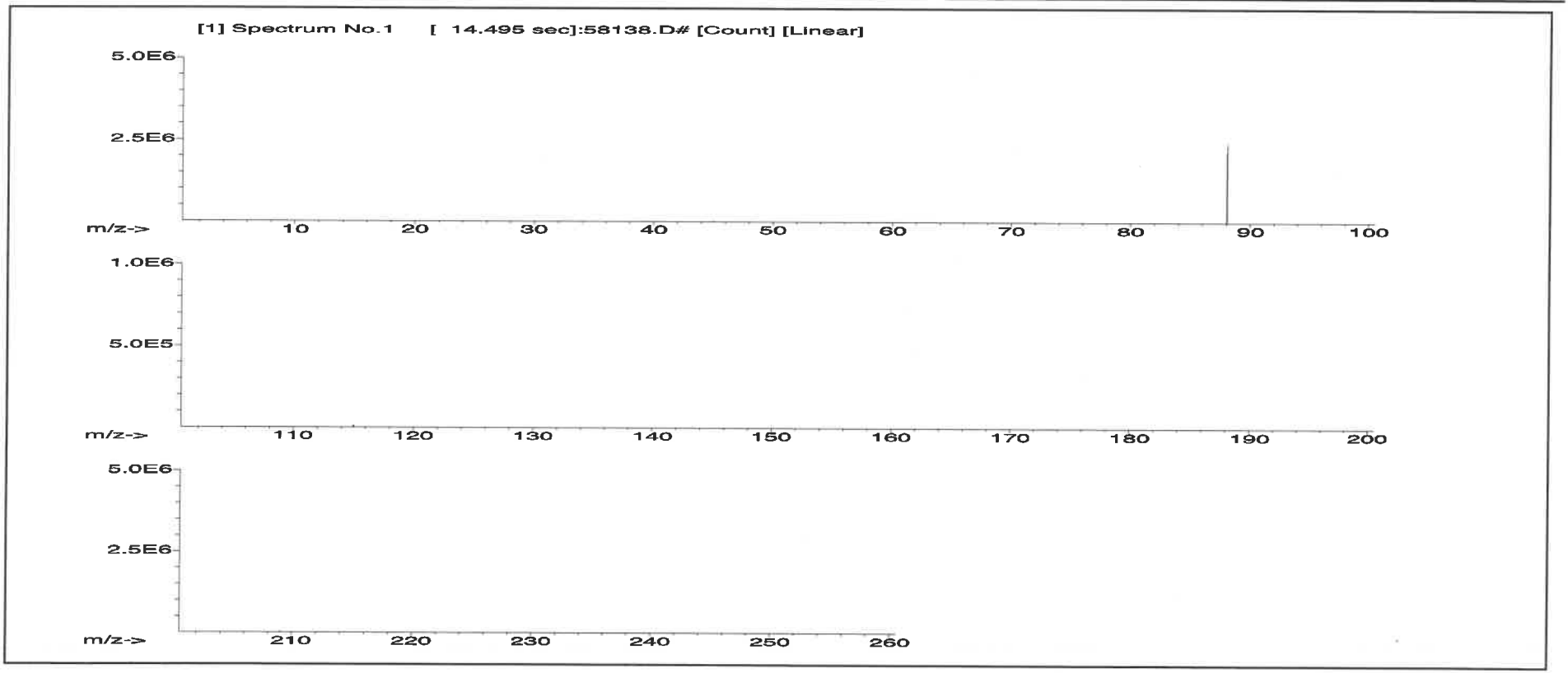
Expiration Date: 082925
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R ! 8/5/24

M6023

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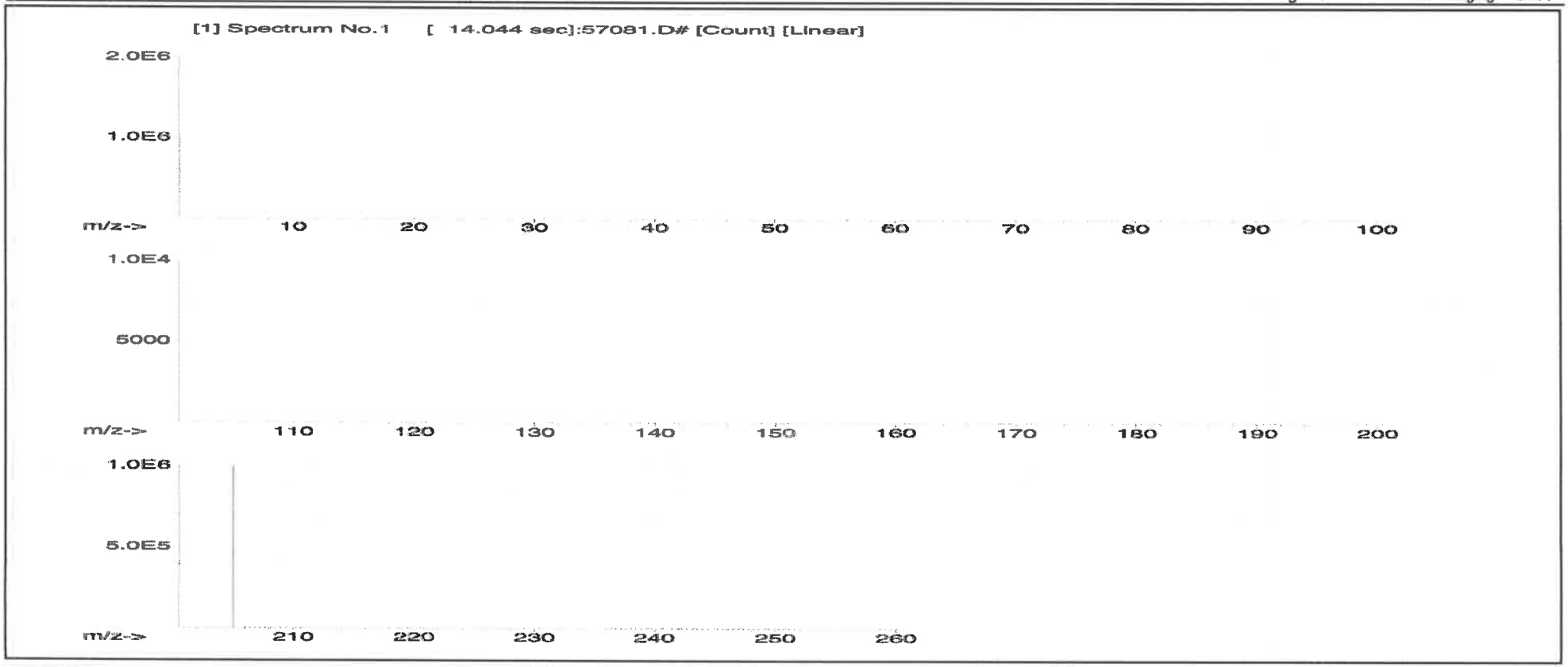
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

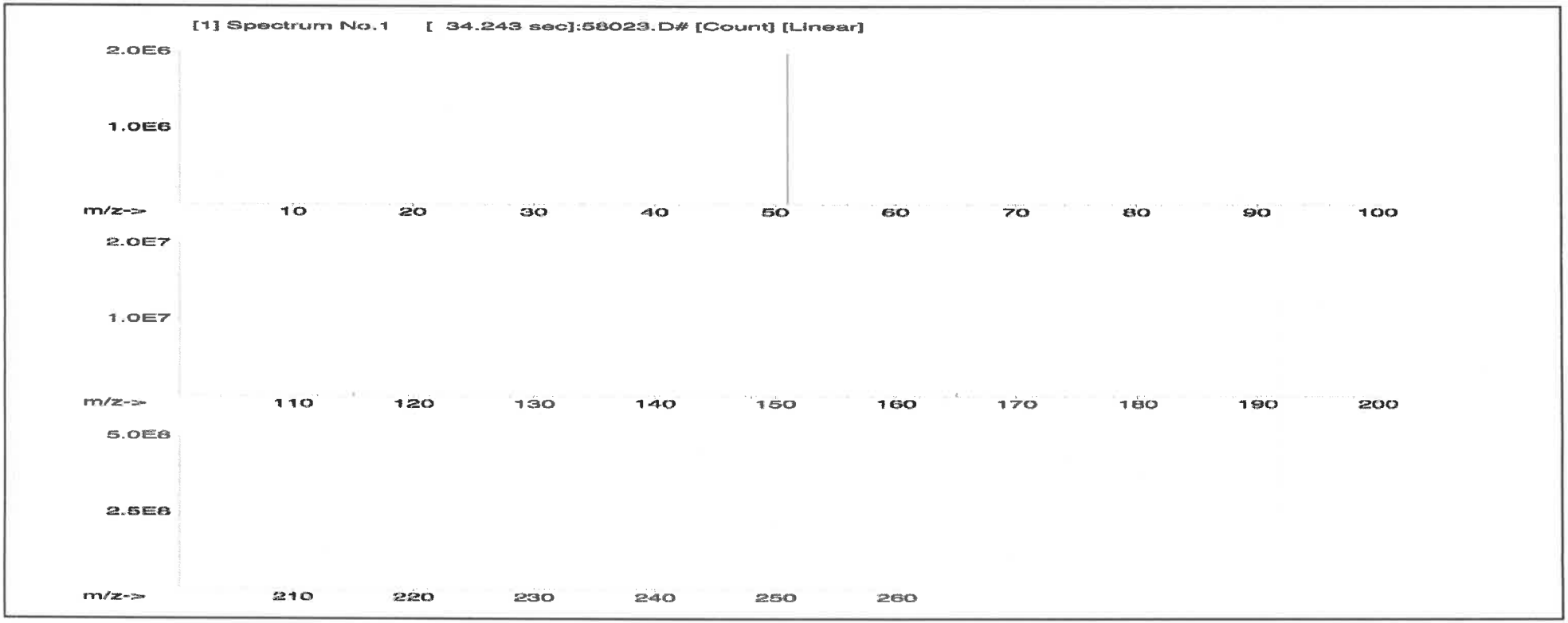
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB164270

SOP ID : M3050B-Digestion-20, MSFAM01.1-Trace Metals-2

SDG No : MYDB73

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #2 2. N/A

Start Digest Date: 10/19/2024 **Time :** 10:00 **Temp :** 97 °C

End Digest Date: 10/19/2024 **Time :** 13:00 **Temp :** 97 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #2

Dig Technician Signature: jepp

Supervisor Signature:

Temp : 1. 97°C 2. N/A

Standared 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	M6088
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

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #2 Cell #34 Temp.: 97 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/19/24 13:40	jepp | Met dig	
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB164270

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P4316-01	MYDB73	N/A	1.49	100	Brown	Yellow	Medium	N/A	N/A	1
P4316-02	MYDB74	N/A	1.23	100	Brown	Yellow	Medium	N/A	N/A	2
P4316-03	MYDB75	N/A	1.28	100	Brown	Yellow	Medium	N/A	N/A	3
P4316-04	MYDB76	N/A	1.36	100	Brown	Yellow	Medium	N/A	N/A	4
P4316-05	MYDB77	N/A	1.20	100	Brown	Yellow	Medium	N/A	N/A	5
P4316-06	MYDB78	N/A	1.41	100	Brown	Yellow	Medium	N/A	N/A	6
P4316-07	MYDB79	N/A	1.30	100	Brown	Yellow	Medium	N/A	N/A	7
P4316-08	MYDB80	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	8
P4316-09	MYDB81	N/A	1.45	100	Brown	Yellow	Medium	N/A	N/A	9
P4316-10	MYDB82	N/A	1.45	100	Brown	Yellow	Medium	N/A	N/A	10
P4316-11	MYDB83	N/A	1.23	100	Brown	Yellow	Medium	N/A	N/A	11
P4316-12	MYDB84	N/A	1.03	100	Brown	Yellow	Medium	N/A	N/A	12
P4316-13	MYDB85	N/A	1.24	100	Brown	Yellow	Medium	N/A	N/A	13
P4316-14	MYDB86	N/A	1.44	100	Brown	Yellow	Medium	N/A	N/A	14
P4316-15	MYDB87	N/A	1.38	100	Brown	Yellow	Medium	N/A	N/A	15
P4316-16	MYDB88	N/A	1.11	100	Brown	Yellow	Medium	N/A	N/A	16
P4316-17	MYDB88D	N/A	1.16	100	Brown	Yellow	Medium	N/A	N/A	18
P4316-18	MYDB88S	N/A	1.31	100	Brown	Yellow	Medium	N/A	MP82731	27
P4316-19	MYDB89	N/A	1.20	100	Brown	Yellow	Medium	N/A	N/A	20
P4316-20	MYDB90	N/A	1.16	100	Brown	Yellow	Medium	N/A	N/A	21
P4316-21	MYDB91	N/A	1.49	100	Brown	Yellow	Medium	N/A	N/A	22
P4316-22	MYDBA8	N/A	1.17	100	Brown	Yellow	Medium	N/A	N/A	23
PB164270BL	PBS270	N/A	1.00	100	Colorless	Colorless	Fine	N/A	N/A	24
PB164270BS	LCS270	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP82711	28
PB164270BSD	LCSD270	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP82711	29

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133025

Review By	Sarabjit Jaswal	Review On	10/25/2024 8:15:06 AM
Supervise By	Kareem Khairalla	Supervise On	10/29/2024 10:08:31 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	10/20/24 18:18		Kareem	OK
2	S1	S01	CAL2	10/20/24 18:23		Kareem	OK
3	S2	S02	CAL3	10/20/24 18:28		Kareem	OK
4	S3	S03	CAL4	10/20/24 18:32		Kareem	OK
5	S4	S04	CAL5	10/20/24 18:36		Kareem	OK
6	S5	S05	CAL6	10/20/24 18:41		Kareem	OK
7	S6	S06	CAL7	10/20/24 18:45		Kareem	OK
8	ICV005	ICV005	ICV	10/20/24 18:50		Kareem	OK
9	ICB005	ICB005	ICB	10/20/24 18:54		Kareem	OK
10	ICSA005	ICSA005	ICSA	10/20/24 18:59		Kareem	OK
11	ICSAB005	ICSAB005	ICSAB	10/20/24 19:03		Kareem	OK
12	CCV031	CCV031	CCV	10/20/24 19:07		Kareem	OK
13	CCB031	CCB031	CCB	10/20/24 19:59	Inst. paused for review	Kareem	OK
14	P4243-19DL	MYD078	SAM	10/20/24 20:04	Not use	Kareem	Not Ok
15	P4244-10DL	MYD089	SAM	10/20/24 20:08	Not use	Kareem	Not Ok
16	P4245-16DL	MYD0A5	SAM	10/20/24 20:13	Not use	Kareem	Not Ok
17	P4246-19DL	MYD0B4	SAM	10/20/24 20:17	Not use	Kareem	Not Ok
18	P4247-02DL	MYD9N2	SAM	10/20/24 20:21	Not use	Kareem	Not Ok

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

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133025

Review By	Sarabjit Jaswal	Review On	10/25/2024 8:15:06 AM
Supervise By	Kareem Khairalla	Supervise On	10/29/2024 10:08:31 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	P4248-20DL	MYD9S0	SAM	10/20/24 20:26	Not use	Kareem	Not Ok
20	CCV032	CCV032	CCV	10/20/24 20:30		Kareem	OK
21	CCB032	CCB032	CCB	10/20/24 20:42	Inst. paused for review	Kareem	OK
22	P4316-01DL	MYDB73	SAM	10/20/24 20:46		Kareem	OK
23	P4316-02DL	MYDB74	SAM	10/20/24 20:51		Kareem	OK
24	P4316-03DL	MYDB75	SAM	10/20/24 20:55		Kareem	OK
25	P4316-04DL	MYDB76	SAM	10/20/24 20:59		Kareem	OK
26	P4316-05DL	MYDB77	SAM	10/20/24 21:04		Kareem	OK
27	P4316-06DL	MYDB78	SAM	10/20/24 21:08		Kareem	OK
28	P4316-07DL	MYDB79	SAM	10/20/24 21:13		Kareem	OK
29	P4316-08DL	MYDB80	SAM	10/20/24 21:17		Kareem	OK
30	P4316-09DL	MYDB81	SAM	10/20/24 21:22		Kareem	OK
31	P4316-10DL	MYDB82	SAM	10/20/24 21:26		Kareem	OK
32	P4316-11DL	MYDB83	SAM	10/20/24 21:30		Kareem	OK
33	P4316-12DL	MYDB84	SAM	10/20/24 21:35		Kareem	OK
34	P4316-13DL	MYDB85	SAM	10/20/24 21:39		Kareem	OK
35	P4316-14DL	MYDB86	SAM	10/20/24 21:44		Kareem	OK
36	P4316-15DL	MYDB87	SAM	10/20/24 21:48		Kareem	OK
37	P4316-16DL	MYDB88	SAM	10/20/24 21:52		Kareem	OK
38	P4316-17DL	MYDB88D	DUP	10/20/24 21:57		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133025

Review By	Sarabjit Jaswal	Review On	10/25/2024 8:15:06 AM
Supervise By	Kareem Khairalla	Supervise On	10/29/2024 10:08:31 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	P4316-18DL	MYDB88S	MS	10/20/24 22:01	MS Fail for As(205.8801ppb),Pb(135 8308ppb),Mn(4533.25ppb), Se(Below RL),Zn(1052.315ppb)	Kareem	OK
40	P4316-16LDL	MYDB88L	SD	10/20/24 22:06		Kareem	OK
41	P4316-19DL	MYDB89	SAM	10/20/24 22:10		Kareem	OK
42	P4316-20DLRE	MYDB90	SAM	10/20/24 22:23	Not use	Kareem	Not Ok
43	CCV033	CCV033	CCV	10/20/24 22:28		Kareem	OK
44	CCB033	CCB033	CCB	10/20/24 22:32		Kareem	OK
45	P4316-20DL	MYDB90	SAM	10/20/24 22:37		Kareem	OK
46	P4316-21DL	MYDB91	SAM	10/20/24 22:41		Kareem	OK
47	P4316-22DL	MYDBA8	SAM	10/20/24 22:46		Kareem	OK
48	P4312-01DL	MYDAZ2	SAM	10/20/24 22:50		Kareem	OK
49	P4312-02DL	MYDAZ3	SAM	10/20/24 22:54		Kareem	OK
50	P4312-03DL	MYDAZ4	SAM	10/20/24 22:59		Kareem	OK
51	P4312-04DL	MYDAZ5	SAM	10/20/24 23:03		Kareem	OK
52	P4312-05DL	MYDAZ6	SAM	10/20/24 23:08		Kareem	OK
53	P4312-06DL	MYDAZ7	SAM	10/20/24 23:12		Kareem	OK
54	P4312-07DL	MYDAZ8	SAM	10/20/24 23:16		Kareem	OK
55	P4312-08DL	MYDAZ9	SAM	10/20/24 23:21		Kareem	OK
56	P4312-09DL	MYDB00	SAM	10/20/24 23:25		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133025

Review By	Sarabjit Jaswal	Review On	10/25/2024 8:15:06 AM
Supervise By	Kareem Khairalla	Supervise On	10/29/2024 10:08:31 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

57	P4312-10DL	MYDB01	SAM	10/20/24 23:30		Kareem	OK
58	P4312-11DL	MYDB02	SAM	10/20/24 23:34		Kareem	OK
59	P4312-12DL	MYDB03	SAM	10/20/24 23:39		Kareem	OK
60	P4312-13DL	MYDB04	SAM	10/20/24 23:43		Kareem	OK
61	P4312-14DL	MYDB05	SAM	10/20/24 23:47		Kareem	OK
62	P4312-15DL	MYDB07	SAM	10/20/24 23:52		Kareem	OK
63	P4312-16DL	MYDB08	SAM	10/20/24 23:56		Kareem	OK
64	P4312-17DL	MYDB09	SAM	10/21/24 00:01		Kareem	OK
65	CCV034	CCV034	CCV	10/21/24 00:14		Kareem	OK
66	CCB034	CCB034	CCB	10/21/24 00:18		Kareem	OK
67	P4312-18DL	MYDB10	SAM	10/21/24 00:23		Kareem	OK
68	P4312-19DL	MYDB11	SAM	10/21/24 00:32		Kareem	OK
69	P4312-20DL	MYDB17	SAM	10/21/24 00:37		Kareem	OK
70	P4312-21DL	MYDB17D	DUP	10/21/24 00:41		Kareem	OK
71	CCV035	CCV035	CCV	10/21/24 01:04		Kareem	OK
72	CCB035	CCB035	CCB	10/21/24 01:08		Kareem	OK
73	P4312-22DL	MYDB17S	MS	10/21/24 01:13	MS Fail for As(57.6765ppb),Se(Below RL),Zn(199.1399ppb)	Kareem	OK
74	P4312-20LDL	MYDB17L	SD	10/21/24 01:17		Kareem	OK
75	P4302-01DL	MYDAD3	SAM	10/21/24 01:22		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133025

Review By	Sarabjit Jaswal	Review On	10/25/2024 8:15:06 AM
Supervise By	Kareem Khairalla	Supervise On	10/29/2024 10:08:31 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

76	P4302-02DL	MYDAD4	SAM	10/21/24 01:26		Kareem	OK
77	P4302-03DL	MYDAD5	SAM	10/21/24 01:30		Kareem	OK
78	P4302-04DL	MYDAD6	SAM	10/21/24 01:35		Kareem	OK
79	P4302-05DL	MYDAD7	SAM	10/21/24 01:39		Kareem	OK
80	P4302-06DL	MYDAD8	SAM	10/21/24 01:44		Kareem	OK
81	P4302-07DL	MYDAD9	SAM	10/21/24 01:48		Kareem	OK
82	P4302-08DL	MYDAE0	SAM	10/21/24 01:53		Kareem	OK
83	P4302-09DL	MYDAE1	SAM	10/21/24 01:57		Kareem	OK
84	P4302-10DL	MYDAE1D	DUP	10/21/24 02:01		Kareem	OK
85	P4302-11DL	MYDAE1S	MS	10/21/24 02:06	MS Fail for As(221.3934ppb),Se(Below RL)	Kareem	OK
86	P4302-09LDL	MYDAE1L	SD	10/21/24 02:10		Kareem	OK
87	P4302-12DL	MYDAE2	SAM	10/21/24 02:15		Kareem	OK
88	P4302-13DL	MYDAE3	SAM	10/21/24 02:19		Kareem	OK
89	CCV036	CCV036	CCV	10/21/24 02:23		Kareem	OK
90	CCB036	CCB036	CCB	10/21/24 02:28		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/23/24 14:17		Kareem	OK
2	S1	S01	CAL2	10/23/24 14:22		Kareem	OK
3	S2	S02	CAL3	10/23/24 14:26		Kareem	OK
4	S3	S03	CAL4	10/23/24 14:31		Kareem	OK
5	S4	S04	CAL5	10/23/24 14:35		Kareem	OK
6	S5	S05	CAL6	10/23/24 14:40		Kareem	OK
7	S6	S06	CAL7	10/23/24 14:44		Kareem	OK
8	ICV009	ICV009	ICV	10/23/24 15:14	Inst. paused for calibration review	Kareem	OK
9	ICB009	ICB009	ICB	10/23/24 15:19		Kareem	OK
10	ICSA009	ICSA009	ICSA	10/23/24 15:23		Kareem	OK
11	ICSAB009	ICSAB009	ICSAB	10/23/24 15:28		Kareem	OK
12	CCV055	CCV055	CCV	10/23/24 15:32		Kareem	OK
13	CCB055	CCB055	CCB	10/23/24 15:36		Kareem	OK
14	PB163989BL	PBS989	MB	10/23/24 15:48		Kareem	OK
15	PB163989BS	LCS989	LCS	10/23/24 15:53		Kareem	OK
16	PB163989BSD	LCSD989	LCSD	10/23/24 15:57		Kareem	OK
17	P4291-01DL	MYD0B5	SAM	10/23/24 16:02		Kareem	OK
18	PB163991BL	PBS991	MB	10/23/24 16:06		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

19	PB163991BS	LCS991	LCS	10/23/24 16:11		Kareem	OK
20	PB163991BSD	LCSD991	LCSD	10/23/24 16:15		Kareem	OK
21	P4292-19DL	MYD0W4	SAM	10/23/24 16:20	4x for Mn	Kareem	Confirms
22	P4292-15ADL	MYD0W2A	PS	10/23/24 16:24	PS For AS - 0.0057 - M5801(1000ppm) - 10ml sample	Kareem	OK
23	P4297-08DL	MYDA60	SAM	10/23/24 16:34	4x for Mn	Kareem	Confirms
24	P4297-14ADL	MYDA66A	PS	10/23/24 16:38	PS for Sb-0.12(MP82589), As - 0.0055(M5801), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
25	PB164125BL	PBS125	MB	10/23/24 16:43		Kareem	OK
26	PB164125BSD	LCSD125	LCSD	10/23/24 16:52		Kareem	OK
27	P4298-16ADL	MYDA88A	PS	10/23/24 16:56	PS for Sb-0.12(MP82589), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
28	CCV056	CCV056	CCV	10/23/24 17:01		Kareem	OK
29	CCB056	CCB056	CCB	10/23/24 17:05		Kareem	OK
30	P4299-19ADL	MYDAB1A	PS	10/23/24 17:09	PS for Sb-0.12(MP82589), As - 0.0056(M5801), Ba-0.036(M5390), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
31	P4301-09ADL	MYDAC1A	PS	10/23/24 17:14	PS for Sb-0.12(MP82589), Cu-0.029(M5751), Se-0.07(MP82590), Zn-0.019(M5819)-10 ml Sample	Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

32	PB164140BL	PBS140	MB	10/23/24 17:18		Kareem	OK
33	PB164140BSD	LCSD140	LCSD	10/23/24 17:27		Kareem	OK
34	P4302-14DL	MYDAE4	SAM	10/23/24 17:32		Kareem	OK
35	P4302-15DL	MYDAE5	SAM	10/23/24 17:36		Kareem	OK
36	P4302-09ADL	MYDAE1A	PS	10/23/24 17:41	PS for Sb-0.12(MP82589), As - 0.0044(M5801), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
37	PB164143BL	PBS143	MB	10/23/24 17:45		Kareem	OK
38	PB164143BS	LCS143	LCS	10/23/24 17:50		Kareem	OK
39	PB164143BSD	LCSD143	LCSD	10/23/24 17:54		Kareem	OK
40	P4303-01ADL	MYDAE7A	PS	10/23/24 17:59	PS for Sb-0.12(MP82589), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
41	P4304-08ADL	MYDAP2A	PS	10/23/24 18:03	PS for Sb-0.12(MP82589), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
42	P4305-01ADL	MYDAJ5A	PS	10/23/24 18:07	PS for Sb-0.12(MP82589), As - 0.002(M5801), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
43	PB164254BL	PBS254	MB	10/23/24 18:12		Kareem	OK
44	PB164254BS	LCS254	LCS	10/23/24 18:16		Kareem	OK
45	PB164254BSD	LCSD254	LCSD	10/23/24 18:21		Kareem	OK
46	CCV057	CCV057	CCV	10/23/24 18:25		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

47	CCB057	CCB057	CCB	10/23/24 18:31	Inst. paused for review	Kareem	OK
48	P4312-20ADL	MYDB17A	PS	10/23/24 18:35	PS for Sb-0.12(MP82589), As - 0.0051(M5801), Se-0.07(MP82590), Zn-0.018(M5819)-10 ml Sample	Kareem	OK
49	PB164270BL	PBS270	MB	10/23/24 18:40		Kareem	OK
50	PB164270BS	LCS270	LCS	10/23/24 18:44		Kareem	OK
51	PB164270BSD	LCSD270	LCSD	10/23/24 18:49		Kareem	OK
52	P4316-16ADL	MYDB88A	PS	10/23/24 18:58	PS for Sb(0.12 ml MP82589),As(0.004 ml M5801),Pb(0.0027 ml M6026),Mn(0.091 ml M5698),Se(0.07 ml MP82590),Zn(0.021 ml M5819)	Kareem	OK
53	CCV058	CCV058	CCV	10/23/24 19:08		Kareem	OK
54	CCB058	CCB058	CCB	10/23/24 19:29	Inst. paused for review	Kareem	OK
55	PB164025BL	PBS025	MB	10/23/24 19:34		Kareem	OK
56	PB164025BS	LCS025	LCS	10/23/24 19:39		Kareem	OK
57	PB164025BSD	LCSD025	LCSD	10/23/24 19:43		Kareem	OK
58	P4293-01DL	MYD9Z9	SAM	10/23/24 19:48		Kareem	OK
59	P4293-02DL	MYDA00	SAM	10/23/24 19:52		Kareem	OK
60	P4293-03DL	MYDA01	SAM	10/23/24 19:56		Kareem	OK
61	P4293-04DL	MYDA02	SAM	10/23/24 20:01		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

62	P4293-05DL	MYDA03	SAM	10/23/24 20:05		Kareem	OK
63	P4293-06DL	MYDA04	SAM	10/23/24 20:09		Kareem	OK
64	P4293-07DL	MYDA05	SAM	10/23/24 20:14		Kareem	OK
65	P4293-08DL	MYDA05D	DUP	10/23/24 20:18		Kareem	OK
66	P4293-07LDL	MYDA05L	SD	10/23/24 20:23		Kareem	OK
67	P4293-09DL	MYDA05S	MS	10/23/24 20:27	MS fail for Sb,As,Pb,Se,Tl	Kareem	OK
68	P4293-10DL	MYDA06	SAM	10/23/24 20:31		Kareem	OK
69	P4293-11DL	MYDA07	SAM	10/23/24 20:36		Kareem	OK
70	P4293-12DL	MYDA08	SAM	10/23/24 20:40		Kareem	OK
71	P4293-13DL	MYDA09	SAM	10/23/24 20:45		Kareem	OK
72	P4293-14DL	MYDA10	SAM	10/23/24 20:49		Kareem	OK
73	P4293-15DL	MYDA11	SAM	10/23/24 20:53		Kareem	OK
74	CCV059	CCV059	CCV	10/23/24 20:58		Kareem	OK
75	CCB059	CCB059	CCB	10/23/24 21:03		Kareem	OK
76	P4293-16DL	MYDA12	SAM	10/23/24 21:08		Kareem	OK
77	P4293-17DL	MYDA13	SAM	10/23/24 21:12		Kareem	OK
78	P4293-18DL	MYDA14	SAM	10/23/24 21:17		Kareem	OK
79	P4293-19DL	MYDA15	SAM	10/23/24 21:21		Kareem	OK
80	P4293-20DL	MYDA16	SAM	10/23/24 21:25		Kareem	OK
81	P4293-21DL	MYDA17	SAM	10/23/24 21:30		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

82	P4293-22DL	MYDA18	SAM	10/23/24 21:34		Kareem	OK
83	P4295-01DL	MYD0Z2	SAM	10/23/24 21:39		Kareem	OK
84	P4295-02DL	MYD0Z3	SAM	10/23/24 21:43		Kareem	OK
85	P4295-03DL	MYD0Z4	SAM	10/23/24 21:48		Kareem	OK
86	P4295-04DL	MYD0Z5	SAM	10/23/24 21:52		Kareem	OK
87	P4295-05DL	MYD0Z6	SAM	10/23/24 21:56		Kareem	OK
88	P4295-06DL	MYD0Z7	SAM	10/23/24 22:01		Kareem	OK
89	P4295-07DL	MYD0Z7D	DUP	10/23/24 22:05		Kareem	OK
90	P4295-08DL	MYD0Z7S	MS	10/23/24 22:09	MS Fail for Sb,Se	Kareem	OK
91	P4295-06LDL	MYD0Z7L	SD	10/23/24 22:14		Kareem	OK
92	P4295-09DL	MYD0Z8	SAM	10/23/24 22:18		Kareem	OK
93	P4295-10DL	MYD0Z9	SAM	10/23/24 22:23		Kareem	OK
94	P4295-11DL	MYD100	SAM	10/23/24 22:27		Kareem	OK
95	P4295-12DL	MYD101	SAM	10/23/24 22:32		Kareem	OK
96	P4295-13DL	MYD102	SAM	10/23/24 22:36		Kareem	OK
97	CCV060	CCV060	CCV	10/23/24 22:40		Kareem	OK
98	CCB060	CCB060	CCB	10/23/24 22:45		Kareem	OK
99	P4295-14DL	MYD103	SAM	10/23/24 22:49		Kareem	OK
100	P4295-15DL	MYD104	SAM	10/23/24 22:54		Kareem	OK
101	P4295-16DL	MYD105	SAM	10/23/24 22:58		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

102	P4295-17DL	MYDA38	SAM	10/23/24 23:02		Kareem	OK
103	P4295-18DL	MYDA39	SAM	10/23/24 23:07		Kareem	OK
104	P4295-19DL	MYDA40	SAM	10/23/24 23:11		Kareem	OK
105	P4295-20DL	MYDA41	SAM	10/23/24 23:16		Kareem	OK
106	P4295-21DL	MYDBB3	SAM	10/23/24 23:20		Kareem	OK
107	PB164083BL	PBS083	MB	10/23/24 23:24		Kareem	OK
108	PB164083BS	LCS083	LCS	10/23/24 23:29		Kareem	OK
109	PB164083BSD	LCSD083	LCSD	10/23/24 23:33		Kareem	OK
110	P4310-01DL	MYDAT3	SAM	10/23/24 23:38		Kareem	OK
111	P4310-02DL	MYDAT4	SAM	10/23/24 23:42		Kareem	OK
112	P4310-03DL	MYDAT5	SAM	10/23/24 23:47		Kareem	OK
113	P4310-04DL	MYDAT5D	DUP	10/23/24 23:51		Kareem	OK
114	P4310-03LDL	MYDAT5L	SD	10/23/24 23:56		Kareem	OK
115	P4310-05DL	MYDAT5S	MS	10/24/24	MS fail for Sb,As,Pb,Se,Zn	Kareem	OK
116	P4310-06DL	MYDAT6	SAM	10/24/24 00:04		Kareem	OK
117	P4310-07DL	MYDAT7	SAM	10/24/24 00:09		Kareem	OK
118	P4310-08DL	MYDAT8	SAM	10/24/24 00:13		Kareem	OK
119	CCV061	CCV061	CCV	10/24/24 00:23		Kareem	OK
120	CCB061	CCB061	CCB	10/24/24 00:28		Kareem	OK
121	P4310-09DL	MYDAT9	SAM	10/24/24 00:32		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

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Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

122	P4310-10DL	MYDAW0	SAM	10/24/24 00:37		Kareem	OK
123	P4310-11DL	MYDAW1	SAM	10/24/24 00:41		Kareem	OK
124	P4310-12DL	MYDAW2	SAM	10/24/24 00:46		Kareem	OK
125	P4310-13DL	MYDAW3	SAM	10/24/24 00:50		Kareem	OK
126	P4310-14DL	MYDAW4	SAM	10/24/24 00:54		Kareem	OK
127	P4310-15DL	MYDAW5	SAM	10/24/24 00:59		Kareem	OK
128	P4310-16DL	MYDAW6	SAM	10/24/24 01:03		Kareem	OK
129	P4310-17DL	MYDAW7	SAM	10/24/24 01:08		Kareem	OK
130	P4310-18DL	MYDAW8	SAM	10/24/24 01:12		Kareem	OK
131	P4310-19DL	MYDAW9	SAM	10/24/24 01:16		Kareem	OK
132	P4310-20DL	MYDAX0	SAM	10/24/24 01:21		Kareem	OK
133	P4310-21DL	MYDAX1	SAM	10/24/24 01:25		Kareem	OK
134	P4310-22DL	MYDAX2	SAM	10/24/24 01:30		Kareem	OK
135	PB164199BL	PBS199	MB	10/24/24 01:34		Kareem	OK
136	PB164199BS	LCS199	LCS	10/24/24 01:39		Kareem	OK
137	PB164199BSD	LCSD199	LCSD	10/24/24 01:43		Kareem	OK
138	P4318-01DL	MYDB12	SAM	10/24/24 01:48		Kareem	OK
139	P4318-02DL	MYDB13	SAM	10/24/24 01:52		Kareem	OK
140	P4318-03DL	MYDB14	SAM	10/24/24 01:57		Kareem	OK
141	CCV062	CCV062	CCV	10/24/24 02:01		Kareem	OK

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Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

142	CCB062	CCB062	CCB	10/24/24 02:05		Kareem	OK
143	P4318-04DL	MYDB15	SAM	10/24/24 02:10		Kareem	OK
144	P4318-05DL	MYDB16	SAM	10/24/24 02:14		Kareem	OK
145	P4318-06DL	MYDB18	SAM	10/24/24 02:19		Kareem	OK
146	P4318-07DL	MYDB19	SAM	10/24/24 02:23		Kareem	OK
147	P4318-08DL	MYDB20	SAM	10/24/24 02:27		Kareem	OK
148	P4318-09DL	MYDB21	SAM	10/24/24 02:32		Kareem	OK
149	P4318-10DL	MYDB22	SAM	10/24/24 02:36	NOT USE	Kareem	Not Ok
150	P4318-11DL	MYDB63	SAM	10/24/24 02:41		Kareem	OK
151	P4318-12DL	MYDB64	SAM	10/24/24 02:45		Kareem	OK
152	P4318-13DL	MYDB65	SAM	10/24/24 02:50		Kareem	OK
153	P4318-14DL	MYDB66	SAM	10/24/24 02:54		Kareem	OK
154	P4318-15DL	MYDB67	SAM	10/24/24 02:58		Kareem	OK
155	P4318-16DL	MYDB68	SAM	10/24/24 03:03		Kareem	OK
156	P4318-17DL	MYDB69	SAM	10/24/24 03:07		Kareem	OK
157	P4318-18DL	MYDB70	SAM	10/24/24 03:12		Kareem	OK
158	P4318-19DL	MYDB71	SAM	10/24/24 03:16		Kareem	OK
159	P4318-20DL	MYDB72	SAM	10/24/24 03:21		Kareem	OK
160	P4318-21DL	MYDB72D	DUP	10/24/24 03:25		Kareem	OK
161	P4318-22DL	MYDB72S	MS	10/24/24 03:29	MS fail for Sb,Mn,Se	Kareem	OK

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Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

162	P4318-20LDL	MYDB72L	SD	10/24/24 03:34		Kareem	OK
163	CCV063	CCV063	CCV	10/24/24 03:38		Kareem	OK
164	CCB063	CCB063	CCB	10/24/24 03:42		Kareem	OK
165	PB164274BL	PBS274	MB	10/24/24 03:47	NOT USE	Kareem	Not Ok
166	PB164274BS	LCS274	LCS	10/24/24 03:52	NOT USE	Kareem	Not Ok
167	PB164274BSD	LCSD274	LCSD	10/24/24 03:56	NOT USE	Kareem	Not Ok
168	P4306-01DL	MYDAL9	SAM	10/24/24 04:01		Kareem	OK
169	P4306-02DL	MYDAM0	SAM	10/24/24 04:05		Kareem	OK
170	P4306-03DL	MYDAM1	SAM	10/24/24 04:09		Kareem	OK
171	P4306-04DL	MYDAM2	SAM	10/24/24 04:14		Kareem	OK
172	P4306-05DL	MYDAM3	SAM	10/24/24 04:18		Kareem	OK
173	P4306-06DL	MYDAM4	SAM	10/24/24 04:23		Kareem	OK
174	P4306-07DL	MYDAM5	SAM	10/24/24 04:27		Kareem	OK
175	P4306-08DL	MYDAM6	SAM	10/24/24 04:32		Kareem	OK
176	P4306-09DL	MYDAM7	SAM	10/24/24 04:36		Kareem	OK
177	P4306-10DL	MYDAM8	SAM	10/24/24 04:40		Kareem	OK
178	P4306-11DL	MYDAM9	SAM	10/24/24 04:45		Kareem	OK
179	P4306-12DL	MYDAM9D	DUP	10/24/24 04:49		Kareem	OK
180	P4306-11LDL	MYDAM9L	SD	10/24/24 04:54		Kareem	OK
181	P4306-13DL	MYDAM9S	MS	10/24/24 04:58	MS fail for Sb,As,Se	Kareem	OK

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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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

182	P4306-14DL	MYDAN0	SAM	10/24/24 05:02		Kareem	OK
183	P4306-15DL	MYDAN2	SAM	10/24/24 05:07		Kareem	OK
184	P4306-16DL	MYDAN3	SAM	10/24/24 05:11		Kareem	OK
185	CCV064	CCV064	CCV	10/24/24 05:16		Kareem	OK
186	CCB064	CCB064	CCB	10/24/24 05:20		Kareem	OK
187	P4306-17DL	MYDAN4	SAM	10/24/24 05:25		Kareem	OK
188	P4306-18DL	MYDAN5	SAM	10/24/24 05:29		Kareem	OK
189	P4306-19DL	MYDAN6	SAM	10/24/24 05:33		Kareem	OK
190	P4306-20DL	MYDAN7	SAM	10/24/24 05:38		Kareem	OK
191	P4306-21DL	MYDAN8	SAM	10/24/24 05:42		Kareem	OK
192	P4306-22DL	MYDAN9	SAM	10/24/24 05:47		Kareem	OK
193	PB164168BL	PBS168	MB	10/24/24 05:51		Kareem	OK
194	PB164168BS	LCS168	LCS	10/24/24 05:56		Kareem	OK
195	PB164168BSD	LCSD168	LCSD	10/24/24 06:00		Kareem	OK
196	P4296-01DL	MYD0W8	SAM	10/24/24 06:05		Kareem	OK
197	P4296-02DL	MYD0W9	SAM	10/24/24 06:09		Kareem	OK
198	P4296-03DL	MYD0X0	SAM	10/24/24 06:14		Kareem	OK
199	P4296-04DL	MYD0Y2	SAM	10/24/24 06:18		Kareem	OK
200	P4296-05DL	MYD0Y3	SAM	10/24/24 06:22		Kareem	OK
201	P4296-06DL	MYD0Y4	SAM	10/24/24 06:27		Kareem	OK

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Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

202	P4296-07DL	MYD0Y5	SAM	10/24/24 06:31		Kareem	OK
203	P4296-08DL	MYD0Y5D	DUP	10/24/24 06:36		Kareem	OK
204	P4296-09DL	MYD0Y5S	MS	10/24/24 06:40	MS fail for Sb,Cr,Cu,Pb,Se,V,Zn	Kareem	OK
205	P4296-07LDL	MYD0Y5L	SD	10/24/24 06:44		Kareem	OK
206	P4296-10DL	MYD0Y9	SAM	10/24/24 06:49		Kareem	OK
207	CCV065	CCV065	CCV	10/24/24 06:53		Kareem	OK
208	CCB065	CCB065	CCB	10/24/24 06:57		Kareem	OK
209	P4296-11DL	MYD0Z0	SAM	10/24/24 07:02		Kareem	OK
210	P4296-12DL	MYD0Z1	SAM	10/24/24 07:06		Kareem	OK
211	P4296-13DL	MYDA43	SAM	10/24/24 07:11		Kareem	OK
212	P4296-14DL	MYDA44	SAM	10/24/24 07:15		Kareem	OK
213	P4296-15DL	MYDA45	SAM	10/24/24 07:20		Kareem	OK
214	P4296-16DL	MYDA46	SAM	10/24/24 07:24		Kareem	OK
215	P4296-17DL	MYDA47	SAM	10/24/24 07:28		Kareem	OK
216	P4296-18DL	MYDA48	SAM	10/24/24 07:33		Kareem	OK
217	P4296-19DL	MYDA49	SAM	10/24/24 07:37		Kareem	OK
218	P4296-20DL	MYDA50	SAM	10/24/24 07:41		Kareem	OK
219	P4296-21DL	MYDA51	SAM	10/24/24 07:46		Kareem	OK
220	P4296-22DL	MYDA52	SAM	10/24/24 07:50		Kareem	OK

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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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

221	PB164086BS	LCS086	LCS	10/24/24 07:59		Kareem	OK
222	PB164086BSD	LCSD086	LCSD	10/24/24 08:04		Kareem	OK
223	P4294-01DL	MYDA19	SAM	10/24/24 08:08		Kareem	OK
224	P4294-02DL	MYDA20	SAM	10/24/24 08:13		Kareem	OK
225	P4294-03DL	MYDA21	SAM	10/24/24 08:17		Kareem	OK
226	P4294-04DL	MYDA22	SAM	10/24/24 08:21		Kareem	OK
227	CCV066	CCV066	CCV	10/24/24 08:26		Kareem	OK
228	CCB066	CCB066	CCB	10/24/24 08:30		Kareem	OK
229	P4294-05DL	MYDA23	SAM	10/24/24 08:35		Kareem	OK
230	P4294-06DL	MYDA24	SAM	10/24/24 08:39		Kareem	OK
231	P4294-07DL	MYDA25	SAM	10/24/24 08:44		Kareem	OK
232	P4294-08DL	MYDA26	SAM	10/24/24 08:48		Kareem	OK
233	P4294-09DL	MYDA27	SAM	10/24/24 08:52		Kareem	OK
234	P4294-10DL	MYDA28	SAM	10/24/24 08:57		Kareem	OK
235	P4294-11DL	MYDA29	SAM	10/24/24 09:01		Kareem	OK
236	P4294-12DL	MYDA30	SAM	10/24/24 09:06		Kareem	OK
237	P4294-13DL	MYDA31	SAM	10/24/24 09:10		Kareem	OK
238	P4294-14DL	MYDA32	SAM	10/24/24 09:14		Kareem	OK
239	P4294-15DL	MYDA33	SAM	10/24/24 09:19		Kareem	OK
240	P4294-16DL	MYDA34	SAM	10/24/24 09:23		Kareem	OK

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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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

241	P4294-17DL	MYDA35	SAM	10/24/24 09:28		Kareem	OK
242	CCV067	CCV067	CCV	10/24/24 09:32		Kareem	OK
243	CCB067	CCB067	CCB	10/24/24 09:36		Kareem	OK
244	P4294-18DL	MYDA36	SAM	10/24/24 09:41		Kareem	OK
245	P4294-19DL	MYDA37	SAM	10/24/24 09:45		Kareem	OK
246	P4294-20DL	MYDA42	SAM	10/24/24 09:50		Kareem	OK
247	P4294-21DL	MYDA42D	DUP	10/24/24 09:54		Kareem	OK
248	P4294-22DL	MYDA42S	MS	10/24/24 09:58	MS fail for Sb,As,Cu,Se,zn	Kareem	OK
249	P4294-20LDL	MYDA42L	SD	10/24/24 10:03		Kareem	OK
250	PB164031BL	PBS031	MB	10/24/24 10:07		Kareem	OK
251	PB164031BS	LCS031	LCS	10/24/24 10:12		Kareem	OK
252	PB164031BSD	LCSD031	LCSD	10/24/24 10:16		Kareem	OK
253	P4314-01DL	MYDB42	SAM	10/24/24 10:21		Kareem	OK
254	P4314-02DL	MYDB43	SAM	10/24/24 10:25		Kareem	OK
255	P4314-03DL	MYDB44	SAM	10/24/24 10:30		Kareem	OK
256	P4314-04DL	MYDB45	SAM	10/24/24 10:34		Kareem	OK
257	P4314-05DL	MYDB46	SAM	10/24/24 10:38		Kareem	OK
258	P4314-06DL	MYDB47	SAM	10/24/24 10:43		Kareem	OK
259	P4314-07DL	MYDB48	SAM	10/24/24 10:47		Kareem	OK
260	P4314-08DL	MYDB49	SAM	10/24/24 10:52		Kareem	OK

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Instrument ID: P5

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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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

261	P4314-09DL	MYDB50	SAM	10/24/24 10:56		Kareem	OK
262	P4314-10DL	MYDB51	SAM	10/24/24 11:01		Kareem	OK
263	CCV068	CCV068	CCV	10/24/24 11:05		Kareem	OK
264	CCB068	CCB068	CCB	10/24/24 11:09		Kareem	OK
265	P4314-11DL	MYDB51D	DUP	10/24/24 11:14		Kareem	OK
266	P4314-12DL	MYDB51S	MS	10/24/24 11:18	MS fail for Sb,Se	Kareem	OK
267	P4314-10LDL	MYDB51L	SD	10/24/24 11:22		Kareem	OK
268	P4314-13DL	MYDB52	SAM	10/24/24 11:27		Kareem	OK
269	P4314-14DL	MYDB53	SAM	10/24/24 11:31		Kareem	OK
270	P4314-15DL	MYDB54	SAM	10/24/24 11:36		Kareem	OK
271	P4314-16DL	MYDB55	SAM	10/24/24 11:40		Kareem	OK
272	P4314-17DL	MYDB56	SAM	10/24/24 11:45		Kareem	OK
273	P4314-18DL	MYDB57	SAM	10/24/24 11:49		Kareem	OK
274	P4314-19DL	MYDB58	SAM	10/24/24 11:53		Kareem	OK
275	P4314-20DL	MYDB59	SAM	10/24/24 11:58		Kareem	OK
276	P4314-21DL	MYDB60	SAM	10/24/24 12:02		Kareem	OK
277	P4314-22DL	MYDB62	SAM	10/24/24 12:07		Kareem	OK
278	PB164272BS	LCS272	LCS	10/24/24 12:16		Kareem	OK
279	PB164272BSD	LCSD272	LCSD	10/24/24 12:20		Kareem	OK
280	P4317-01DL	MYDB92	SAM	10/24/24 12:25		Kareem	OK

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Daily Analysis Runlog For Sequence/QCBatch ID # LB133105

Review By	Mohan Bera	Review On	10/24/2024 11:56:30 PM
Supervise By	Sarabjit Jaswal	Supervise On	10/25/2024 1:47:35 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	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

281	P4317-02DL	MYDB93	SAM	10/24/24 12:29		Kareem	OK
282	P4317-03DL	MYDB94	SAM	10/24/24 12:34		Kareem	OK
283	CCV069	CCV069	CCV	10/24/24 12:38		Kareem	OK
284	CCB069	CCB069	CCB	10/24/24 12:42		Kareem	OK
285	P4317-04DL	MYDB95	SAM	10/24/24 12:47		Kareem	OK
286	P4317-05DL	MYDB96	SAM	10/24/24 12:51		Kareem	OK
287	P4317-06DL	MYDB97	SAM	10/24/24 12:55		Kareem	OK
288	P4317-07DL	MYDB98	SAM	10/24/24 13:00		Kareem	OK
289	P4317-08DL	MYDB99	SAM	10/24/24 13:04		Kareem	OK
290	P4317-09DL	MYDBA0	SAM	10/24/24 13:09		Kareem	OK
291	P4317-10DL	MYDBA0D	DUP	10/24/24 13:13		Kareem	OK
292	P4317-11DL	MYDBA0S	MS	10/24/24 13:18	MS fail for Sb,As,Se	Kareem	OK
293	P4317-09LDL	MYDBA0L	SD	10/24/24 13:22		Kareem	OK
294	P4317-12DL	MYDBA1	SAM	10/24/24 13:26		Kareem	OK
295	P4317-13DL	MYDBA2	SAM	10/24/24 13:31		Kareem	OK
296	P4317-14DL	MYDBA3	SAM	10/24/24 13:35		Kareem	OK
297	P4317-15DL	MYDBA4	SAM	10/24/24 13:40		Kareem	OK
298	P4317-16DL	MYDBA5	SAM	10/24/24 13:44		Kareem	OK
299	P4317-17DL	MYDBA6	SAM	10/24/24 13:49		Kareem	OK
300	P4317-18DL	MYDBA7	SAM	10/24/24 13:53		Kareem	OK

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

Instrument ID: P5

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LCS Standard	MP82711
Chk Standard	MP82455,MP82456

301	P4317-19DL	MYDBA9	SAM	10/24/24 13:57		Kareem	OK
302	P4317-20DL	MYDBB0	SAM	10/24/24 14:02		Kareem	OK
303	P4317-21DL	MYDBB1	SAM	10/24/24 14:06		Kareem	OK
304	P4317-22DL	MYDBB2	SAM	10/24/24 14:10		Kareem	OK
305	CCV070	CCV070	CCV	10/24/24 14:15		Kareem	OK
306	CCB070	CCB070	CCB	10/24/24 14:19		Kareem	OK
307	PB164268BL	PBS268	MB	10/24/24 14:24		Kareem	OK
308	PB164268BS	LCS268	LCS	10/24/24 14:28		Kareem	OK
309	PB164268BSD	LCSD268	LCSD	10/24/24 14:33		Kareem	OK
310	PB164272BL	PBS272	MB	10/24/24 14:54		Kareem	OK
311	P4293-07ADL	MYDA05A	PS	10/24/24 15:04	PS For Sb-0.12(MP82589),As - 0.0051(M5801),Pb-0.0034(M6026),Se-0.07-MP82590, Tl-0.05-MP82907-10 ml Sample	Kareem	OK
312	P4294-20ADL	MYDA42A	PS	10/24/24 15:09	PS For Sb-0.12(MP82589),As - 0.0037-M5801,Cu-0.0077- M5697,Se-0.07(MP82590), Zn-0.0085(M5819)-10 ml Sample	Kareem	OK
313	P4310-03ADL	MYDAT5A	PS	10/24/24 15:13	PS For Sb-0.12(MP82589),As-0.00 33-M5801,Pb-0.0032-M602 6,Se-0.07-MP82590,Zn-0.0 11-M5819 - 10 ml Sample	Kareem	OK

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CRI Standard	MP82589,MP82590,M5801,M5819,M5698,M6026
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

314	P4295-06ADL	MYD0Z7A	PS	10/24/24 15:17	PS for Se - 0.07 - MP82590,PS For Sb-0.12(MP82589) - 10 ml Sample	Kareem	OK
315	P4314-10ADL	MYDB51A	PS	10/24/24 15:22	PS For Sb-0.12(MP82589) , Se - 0.07 - MP82590 - 10 ml Sample	Kareem	OK
316	P4318-20ADL	MYDB72A	PS	10/24/24 15:26	PS For Sb-0.12(MP82589) , Se-0.07-MP82590 , Mn - 0.067 - M5698 - 10 ml Sample	Kareem	OK
317	P4306-11ADL	MYDAM9A	PS	10/24/24 15:31	PS for Sb-0.12(MP82589), As - 0.0021(M5801), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
318	P4317-09ADL	MYDBA0A	PS	10/24/24 15:35	PS for Sb-0.12(MP82589), As - 0.003(M5801), Se-0.07(MP82590)-10 ml Sample	Kareem	OK
319	P4296-07ADL	MYD0Y5A	PS	10/24/24 15:40	PS For Sb-0.12(MP82589),Cr-0.012-M5658,Cu-0.016-M5751, Pb-0.018-M6026 , Se - 0.07-MP82590 , V-0.021-M6021,Zn-0.01-M5819 - 10 ml Sample	Kareem	OK
320	PB164086BL	PBS086	MB	10/24/24 15:44		Kareem	OK
321	PB164140BS	LCS140	LCS	10/24/24 15:48		Kareem	OK
322	PB164125BS	LCS125	LCS	10/24/24 15:53		Kareem	OK
323	CCV071	CCV071	CCV	10/24/24 15:58		Kareem	OK
324	CCB071	CCB071	CCB	10/24/24 16:02		Kareem	OK