EPA SAMPLE NO.

MYE4F0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-01

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

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	23000	D	10/29/2024	1755
7440-36-0	Antimony	1.6	JD	10/29/2024	1755
7440-38-2	Arsenic	17	D	10/29/2024	1755
7440-39-3	Barium	59	D	10/29/2024	1755
7440-41-7	Beryllium	0.53	JD	10/29/2024	1755
7440-43-9	Cadmium	0.14	JD	10/29/2024	1755
7440-70-2	Calcium	7100	D	10/29/2024	1755
7440-47-3	Chromium	100	D*	10/29/2024	1755
7440-48-4	Cobalt	39	D	10/29/2024	1755
7440-50-8	Copper	110	D	10/29/2024	1755
7439-89-6	Iron	51000	D	10/29/2024	1755
7439-92-1	Lead	47	D	10/29/2024	1755
7439-95-4	Magnesium	19000	D	10/29/2024	1755
7439-96-5	Manganese	790	D	10/29/2024	1755
7440-02-0	Nickel	99	D	10/29/2024	1755
7440-09-7	Potassium	2300	D	10/29/2024	1755
7782-49-2	Selenium	6.7	UD	10/29/2024	1755
7440-22-4	Silver	1.9	UD	10/29/2024	1755
7440-23-5	Sodium	290	JD	10/29/2024	1755
7440-28-0	Thallium	4.8	UD	10/29/2024	1755
7440-62-2	Vanadium	110	D	10/29/2024	1755
7440-66-6	Zinc	67	D*	10/29/2024	1755

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

Comments:

EPA SAMPLE NO.

MYE4F1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-02

% Solids: 94.3 Date Received: 10/22/2024

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	10/29/2024	1800
7440-36-0	Antimony	1.1	JD	10/29/2024	1800
7440-38-2	Arsenic	22	D	10/29/2024	1800
7440-39-3	Barium	150	D	10/29/2024	1800
7440-41-7	Beryllium	0.76	JD	10/29/2024	1800
7440-43-9	Cadmium	0.28	JD	10/29/2024	1800
7440-70-2	Calcium	7100	D	10/29/2024	1800
7440-47-3	Chromium	37	D*	10/29/2024	1800
7440-48-4	Cobalt	19	D	10/29/2024	1800
7440-50-8	Copper	66	D	10/29/2024	1800
7439-89-6	Iron	34000	D	10/29/2024	1800
7439-92-1	Lead	21	D	10/29/2024	1800
7439-95-4	Magnesium	7600	D	10/29/2024	1800
7439-96-5	Manganese	710	D	10/29/2024	1800
7440-02-0	Nickel	31	D	10/29/2024	1800
7440-09-7	Potassium	3600	D	10/29/2024	1800
7782-49-2	Selenium	5.6	UD	10/29/2024	1800
7440-22-4	Silver	1.6	UD	10/29/2024	1800
7440-23-5	Sodium	250	JD	10/29/2024	1800
7440-28-0	Thallium	4.0	UD	10/29/2024	1800
7440-62-2	Vanadium	68	D	10/29/2024	1800
7440-66-6	Zinc	68	D*	10/29/2024	1800

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

Comments:

EPA SAMPLE NO.

MYE4F2

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-03

% Solids: 96.9 Date Received: 10/22/2024

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	10/29/2024	1804
7440-36-0	Antimony	1.0	JD	10/29/2024	1804
7440-38-2	Arsenic	18	D	10/29/2024	1804
7440-39-3	Barium	120	D	10/29/2024	1804
7440-41-7	Beryllium	0.65	JD	10/29/2024	1804
7440-43-9	Cadmium	0.24	JD	10/29/2024	1804
7440-70-2	Calcium	11000	D	10/29/2024	1804
7440-47-3	Chromium	46	D*	10/29/2024	1804
7440-48-4	Cobalt	22	D	10/29/2024	1804
7440-50-8	Copper	70	D	10/29/2024	1804
7439-89-6	Iron	35000	D	10/29/2024	1804
7439-92-1	Lead	17	D	10/29/2024	1804
7439-95-4	Magnesium	10000	D	10/29/2024	1804
7439-96-5	Manganese	740	D	10/29/2024	1804
7440-02-0	Nickel	45	D	10/29/2024	1804
7440-09-7	Potassium	2500	D	10/29/2024	1804
7782-49-2	Selenium	5.7	UD	10/29/2024	1804
7440-22-4	Silver	1.6	UD	10/29/2024	1804
7440-23-5	Sodium	250	JD	10/29/2024	1804
7440-28-0	Thallium	4.1	UD	10/29/2024	1804
7440-62-2	Vanadium	77	D	10/29/2024	1804
7440-66-6	Zinc	61	D*	10/29/2024	1804

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

Comments:

EPA SAMPLE NO.

MYE4F3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-04

% Solids: 98.6 Date Received: 10/22/2024

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	7200	D	10/29/2024	1809
7440-36-0	Antimony	0.71	JD	10/29/2024	1809
7440-38-2	Arsenic	10	D	10/29/2024	1809
7440-39-3	Barium	68	D	10/29/2024	1809
7440-41-7	Beryllium	0.40	JD	10/29/2024	1809
7440-43-9	Cadmium	0.12	JD	10/29/2024	1809
7440-70-2	Calcium	6700	D	10/29/2024	1809
7440-47-3	Chromium	15	D*	10/29/2024	1809
7440-48-4	Cobalt	9.3	D	10/29/2024	1809
7440-50-8	Copper	28	D	10/29/2024	1809
7439-89-6	Iron	19000	D	10/29/2024	1809
7439-92-1	Lead	11	D	10/29/2024	1809
7439-95-4	Magnesium	3700	D	10/29/2024	1809
7439-96-5	Manganese	390	D	10/29/2024	1809
7440-02-0	Nickel	14	D	10/29/2024	1809
7440-09-7	Potassium	1800	D	10/29/2024	1809
7782-49-2	Selenium	5.0	UD	10/29/2024	1809
7440-22-4	Silver	1.4	UD	10/29/2024	1809
7440-23-5	Sodium	710	UD	10/29/2024	1809
7440-28-0	Thallium	3.6	UD	10/29/2024	1809
7440-62-2	Vanadium	42	D	10/29/2024	1809
7440-66-6	Zinc	35	D*	10/29/2024	1809

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

Comments:

EPA SAMPLE NO.

MYE4F4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-05

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

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	9800	D	10/29/2024	1813
7440-36-0	Antimony	1.5	JD	10/29/2024	1813
7440-38-2	Arsenic	11	D	10/29/2024	1813
7440-39-3	Barium	75	D	10/29/2024	1813
7440-41-7	Beryllium	0.51	JD	10/29/2024	1813
7440-43-9	Cadmium	0.13	JD	10/29/2024	1813
7440-70-2	Calcium	4700	D	10/29/2024	1813
7440-47-3	Chromium	28	D*	10/29/2024	1813
7440-48-4	Cobalt	15	D	10/29/2024	1813
7440-50-8	Copper	33	D	10/29/2024	1813
7439-89-6	Iron	28000	D	10/29/2024	1813
7439-92-1	Lead	14	D	10/29/2024	1813
7439-95-4	Magnesium	5500	D	10/29/2024	1813
7439-96-5	Manganese	440	D	10/29/2024	1813
7440-02-0	Nickel	28	D	10/29/2024	1813
7440-09-7	Potassium	1500	D	10/29/2024	1813
7782-49-2	Selenium	6.2	UD	10/29/2024	1813
7440-22-4	Silver	1.8	UD	10/29/2024	1813
7440-23-5	Sodium	890	UD	10/29/2024	1813
7440-28-0	Thallium	4.4	UD	10/29/2024	1813
7440-62-2	Vanadium	68	D	10/29/2024	1813
7440-66-6	Zinc	42	D*	10/29/2024	1813

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

Comments:

EPA SAMPLE NO.

MYE4F5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-06

% Solids: 96.2 Date Received: 10/22/2024

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	10/29/2024	1818
7440-36-0	Antimony	1.1	JD	10/29/2024	1818
7440-38-2	Arsenic	29	D	10/29/2024	1818
7440-39-3	Barium	150	D	10/29/2024	1818
7440-41-7	Beryllium	0.72	JD	10/29/2024	1818
7440-43-9	Cadmium	0.60	JD	10/29/2024	1818
7440-70-2	Calcium	5900	D	10/29/2024	1818
7440-47-3	Chromium	33	D*	10/29/2024	1818
7440-48-4	Cobalt	18	D	10/29/2024	1818
7440-50-8	Copper	88	D	10/29/2024	1818
7439-89-6	Iron	32000	D	10/29/2024	1818
7439-92-1	Lead	27	D	10/29/2024	1818
7439-95-4	Magnesium	7100	D	10/29/2024	1818
7439-96-5	Manganese	800	D	10/29/2024	1818
7440-02-0	Nickel	32	D	10/29/2024	1818
7440-09-7	Potassium	4100	D	10/29/2024	1818
7782-49-2	Selenium	5.2	UD	10/29/2024	1818
7440-22-4	Silver	1.5	UD	10/29/2024	1818
7440-23-5	Sodium	280	JD	10/29/2024	1818
7440-28-0	Thallium	3.7	UD	10/29/2024	1818
7440-62-2	Vanadium	63	D	10/29/2024	1818
7440-66-6	Zinc	77	D*	10/29/2024	1818

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

Comments:

EPA SAMPLE NO.

MYE4F6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-07

% Solids: 95.2 Date Received: 10/22/2024

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	10/29/2024	1822
7440-36-0	Antimony	0.77	JD	10/29/2024	1822
7440-38-2	Arsenic	31	D	10/29/2024	1822
7440-39-3	Barium	150	D	10/29/2024	1822
7440-41-7	Beryllium	0.77	JD	10/29/2024	1822
7440-43-9	Cadmium	0.82	D	10/29/2024	1822
7440-70-2	Calcium	5400	D	10/29/2024	1822
7440-47-3	Chromium	36	D*	10/29/2024	1822
7440-48-4	Cobalt	19	D	10/29/2024	1822
7440-50-8	Copper	120	D	10/29/2024	1822
7439-89-6	Iron	34000	D	10/29/2024	1822
7439-92-1	Lead	33	D	10/29/2024	1822
7439-95-4	Magnesium	7600	D	10/29/2024	1822
7439-96-5	Manganese	820	D	10/29/2024	1822
7440-02-0	Nickel	33	D	10/29/2024	1822
7440-09-7	Potassium	5000	D	10/29/2024	1822
7782-49-2	Selenium	5.5	UD	10/29/2024	1822
7440-22-4	Silver	1.6	UD	10/29/2024	1822
7440-23-5	Sodium	250	JD	10/29/2024	1822
7440-28-0	Thallium	3.9	UD	10/29/2024	1822
7440-62-2	Vanadium	64	D	10/29/2024	1822
7440-66-6	Zinc	91	D*	10/29/2024	1822

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

Comments:

EPA SAMPLE NO.

MYE4F7

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-08

% Solids: 95.9 Date Received: 10/22/2024

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	10/29/2024	1826
7440-36-0	Antimony	1.2	JD	10/29/2024	1826
7440-38-2	Arsenic	33	D	10/29/2024	1826
7440-39-3	Barium	190	D	10/29/2024	1826
7440-41-7	Beryllium	0.80	JD	10/29/2024	1826
7440-43-9	Cadmium	0.50	JD	10/29/2024	1826
7440-70-2	Calcium	10000	D	10/29/2024	1826
7440-47-3	Chromium	40	D*	10/29/2024	1826
7440-48-4	Cobalt	20	D	10/29/2024	1826
7440-50-8	Copper	87	D	10/29/2024	1826
7439-89-6	Iron	36000	D	10/29/2024	1826
7439-92-1	Lead	27	D	10/29/2024	1826
7439-95-4	Magnesium	8100	D	10/29/2024	1826
7439-96-5	Manganese	1100	D	10/29/2024	1826
7440-02-0	Nickel	37	D	10/29/2024	1826
7440-09-7	Potassium	4400	D	10/29/2024	1826
7782-49-2	Selenium	6.1	UD	10/29/2024	1826
7440-22-4	Silver	1.8	UD	10/29/2024	1826
7440-23-5	Sodium	190	JD	10/29/2024	1826
7440-28-0	Thallium	4.4	UD	10/29/2024	1826
7440-62-2	Vanadium	67	D	10/29/2024	1826
7440-66-6	Zinc	79	D*	10/29/2024	1826

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

Comments:

EPA SAMPLE NO.

MYE4F8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-09

% Solids: 95.9 Date Received: 10/22/2024

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	10/29/2024	1831
7440-36-0	Antimony	0.80	JD	10/29/2024	1831
7440-38-2	Arsenic	13	D	10/29/2024	1831
7440-39-3	Barium	110	D	10/29/2024	1831
7440-41-7	Beryllium	0.56	JD	10/29/2024	1831
7440-43-9	Cadmium	0.23	JD	10/29/2024	1831
7440-70-2	Calcium	5900	D	10/29/2024	1831
7440-47-3	Chromium	23	D*	10/29/2024	1831
7440-48-4	Cobalt	12	D	10/29/2024	1831
7440-50-8	Copper	43	D	10/29/2024	1831
7439-89-6	Iron	22000	D	10/29/2024	1831
7439-92-1	Lead	19	D	10/29/2024	1831
7439-95-4	Magnesium	5100	D	10/29/2024	1831
7439-96-5	Manganese	570	D	10/29/2024	1831
7440-02-0	Nickel	22	D	10/29/2024	1831
7440-09-7	Potassium	3300	D	10/29/2024	1831
7782-49-2	Selenium	5.0	UD	10/29/2024	1831
7440-22-4	Silver	1.4	UD	10/29/2024	1831
7440-23-5	Sodium	140	JD	10/29/2024	1831
7440-28-0	Thallium	3.6	UD	10/29/2024	1831
7440-62-2	Vanadium	44	D	10/29/2024	1831
7440-66-6	Zinc	54	D*	10/29/2024	1831

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

Comments:

EPA SAMPLE NO.

MYE4F9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-10

% Solids: 93 Date Received: 10/22/2024

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	10/29/2024	1835
7440-36-0	Antimony	1.6	JD	10/29/2024	1835
7440-38-2	Arsenic	17	D	10/29/2024	1835
7440-39-3	Barium	140	D	10/29/2024	1835
7440-41-7	Beryllium	0.75	JD	10/29/2024	1835
7440-43-9	Cadmium	0.36	JD	10/29/2024	1835
7440-70-2	Calcium	7200	D	10/29/2024	1835
7440-47-3	Chromium	34	D*	10/29/2024	1835
7440-48-4	Cobalt	16	D	10/29/2024	1835
7440-50-8	Copper	57	D	10/29/2024	1835
7439-89-6	Iron	31000	D	10/29/2024	1835
7439-92-1	Lead	20	D	10/29/2024	1835
7439-95-4	Magnesium	7200	D	10/29/2024	1835
7439-96-5	Manganese	720	D	10/29/2024	1835
7440-02-0	Nickel	31	D	10/29/2024	1835
7440-09-7	Potassium	4500	D	10/29/2024	1835
7782-49-2	Selenium	6.2	UD	10/29/2024	1835
7440-22-4	Silver	1.8	UD	10/29/2024	1835
7440-23-5	Sodium	240	JD	10/29/2024	1835
7440-28-0	Thallium	4.4	UD	10/29/2024	1835
7440-62-2	Vanadium	63	D	10/29/2024	1835
7440-66-6	Zinc	68	D*	10/29/2024	1835

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

Comments:

EPA SAMPLE NO.

MYE4G0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-11

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

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	10/29/2024	1840
7440-36-0	Antimony	1.1	JD	10/29/2024	1840
7440-38-2	Arsenic	34	D	10/29/2024	1840
7440-39-3	Barium	160	D	10/29/2024	1840
7440-41-7	Beryllium	0.77	D	10/29/2024	1840
7440-43-9	Cadmium	0.96	D	10/29/2024	1840
7440-70-2	Calcium	6100	D	10/29/2024	1840
7440-47-3	Chromium	37	D*	10/29/2024	1840
7440-48-4	Cobalt	19	D	10/29/2024	1840
7440-50-8	Copper	130	D	10/29/2024	1840
7439-89-6	Iron	33000	D	10/29/2024	1840
7439-92-1	Lead	38	D	10/29/2024	1840
7439-95-4	Magnesium	7700	D	10/29/2024	1840
7439-96-5	Manganese	870	D	10/29/2024	1840
7440-02-0	Nickel	36	D	10/29/2024	1840
7440-09-7	Potassium	4900	D	10/29/2024	1840
7782-49-2	Selenium	5.4	UD	10/29/2024	1840
7440-22-4	Silver	1.5	UD	10/29/2024	1840
7440-23-5	Sodium	170	JD	10/29/2024	1840
7440-28-0	Thallium	3.8	UD	10/29/2024	1840
7440-62-2	Vanadium	60	D	10/29/2024	1840
7440-66-6	Zinc	96	D*	10/29/2024	1840

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

Comments:

EPA SAMPLE NO.

MYE4G1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-12

% Solids: 94.2 Date Received: 10/22/2024

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	10/29/2024	1844
7440-36-0	Antimony	1.5	JD	10/29/2024	1844
7440-38-2	Arsenic	41	D	10/29/2024	1844
7440-39-3	Barium	200	D	10/29/2024	1844
7440-41-7	Beryllium	0.97	JD	10/29/2024	1844
7440-43-9	Cadmium	1.0	D	10/29/2024	1844
7440-70-2	Calcium	7500	D	10/29/2024	1844
7440-47-3	Chromium	45	D*	10/29/2024	1844
7440-48-4	Cobalt	23	D	10/29/2024	1844
7440-50-8	Copper	160	D	10/29/2024	1844
7439-89-6	Iron	41000	D	10/29/2024	1844
7439-92-1	Lead	46	D	10/29/2024	1844
7439-95-4	Magnesium	9300	D	10/29/2024	1844
7439-96-5	Manganese	1100	D	10/29/2024	1844
7440-02-0	Nickel	43	D	10/29/2024	1844
7440-09-7	Potassium	5900	D	10/29/2024	1844
7782-49-2	Selenium	6.9	UD	10/29/2024	1844
7440-22-4	Silver	2.0	UD	10/29/2024	1844
7440-23-5	Sodium	250	JD	10/29/2024	1844
7440-28-0	Thallium	5.0	UD	10/29/2024	1844
7440-62-2	Vanadium	75	D	10/29/2024	1844
7440-66-6	Zinc	120	D*	10/29/2024	1844

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

Comments:

EPA SAMPLE NO.

MYE4G2

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-13

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

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	10/29/2024	1849
7440-36-0	Antimony	1.3	JD	10/29/2024	1849
7440-38-2	Arsenic	33	D	10/29/2024	1849
7440-39-3	Barium	170	D	10/29/2024	1849
7440-41-7	Beryllium	0.81	JD	10/29/2024	1849
7440-43-9	Cadmium	0.60	JD	10/29/2024	1849
7440-70-2	Calcium	5400	D	10/29/2024	1849
7440-47-3	Chromium	39	D*	10/29/2024	1849
7440-48-4	Cobalt	19	D	10/29/2024	1849
7440-50-8	Copper	100	D	10/29/2024	1849
7439-89-6	Iron	36000	D	10/29/2024	1849
7439-92-1	Lead	30	D	10/29/2024	1849
7439-95-4	Magnesium	7800	D	10/29/2024	1849
7439-96-5	Manganese	920	D	10/29/2024	1849
7440-02-0	Nickel	36	D	10/29/2024	1849
7440-09-7	Potassium	4700	D	10/29/2024	1849
7782-49-2	Selenium	6.4	UD	10/29/2024	1849
7440-22-4	Silver	1.8	UD	10/29/2024	1849
7440-23-5	Sodium	280	JD	10/29/2024	1849
7440-28-0	Thallium	4.6	UD	10/29/2024	1849
7440-62-2	Vanadium	68	D	10/29/2024	1849
7440-66-6	Zinc	85	D*	10/29/2024	1849

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

Comments:

EPA SAMPLE NO.

MYE4G3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-14

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

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	10/29/2024	1853
7440-36-0	Antimony	1.2	JD	10/29/2024	1853
7440-38-2	Arsenic	31	D	10/29/2024	1853
7440-39-3	Barium	150	D	10/29/2024	1853
7440-41-7	Beryllium	0.74	JD	10/29/2024	1853
7440-43-9	Cadmium	0.66	JD	10/29/2024	1853
7440-70-2	Calcium	4400	D	10/29/2024	1853
7440-47-3	Chromium	33	D*	10/29/2024	1853
7440-48-4	Cobalt	17	D	10/29/2024	1853
7440-50-8	Copper	110	D	10/29/2024	1853
7439-89-6	Iron	31000	D	10/29/2024	1853
7439-92-1	Lead	30	D	10/29/2024	1853
7439-95-4	Magnesium	6900	D	10/29/2024	1853
7439-96-5	Manganese	800	D	10/29/2024	1853
7440-02-0	Nickel	31	D	10/29/2024	1853
7440-09-7	Potassium	4700	D	10/29/2024	1853
7782-49-2	Selenium	5.5	UD	10/29/2024	1853
7440-22-4	Silver	1.6	UD	10/29/2024	1853
7440-23-5	Sodium	320	JD	10/29/2024	1853
7440-28-0	Thallium	3.9	UD	10/29/2024	1853
7440-62-2	Vanadium	59	D	10/29/2024	1853
7440-66-6	Zinc	80	D*	10/29/2024	1853

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

Comments:

EPA SAMPLE NO.

MYE4G4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-15

% Solids: 96.2 Date Received: 10/22/2024

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	10/29/2024	1857
7440-36-0	Antimony	1.4	JD	10/29/2024	1857
7440-38-2	Arsenic	27	D	10/29/2024	1857
7440-39-3	Barium	180	D	10/29/2024	1857
7440-41-7	Beryllium	0.86	D	10/29/2024	1857
7440-43-9	Cadmium	0.55	JD	10/29/2024	1857
7440-70-2	Calcium	9100	D	10/29/2024	1857
7440-47-3	Chromium	39	D*	10/29/2024	1857
7440-48-4	Cobalt	22	D	10/29/2024	1857
7440-50-8	Copper	89	D	10/29/2024	1857
7439-89-6	Iron	39000	D	10/29/2024	1857
7439-92-1	Lead	26	D	10/29/2024	1857
7439-95-4	Magnesium	8400	D	10/29/2024	1857
7439-96-5	Manganese	960	D	10/29/2024	1857
7440-02-0	Nickel	35	D	10/29/2024	1857
7440-09-7	Potassium	4500	D	10/29/2024	1857
7782-49-2	Selenium	5.9	UD	10/29/2024	1857
7440-22-4	Silver	1.7	UD	10/29/2024	1857
7440-23-5	Sodium	250	JD	10/29/2024	1857
7440-28-0	Thallium	4.2	UD	10/29/2024	1857
7440-62-2	Vanadium	74	D	10/29/2024	1857
7440-66-6	Zinc	86	D*	10/29/2024	1857

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

Comments:

EPA SAMPLE NO.

MYE4G5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-16

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

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	10/29/2024	1902
7440-36-0	Antimony	1.2	JD	10/29/2024	1902
7440-38-2	Arsenic	36	D	10/29/2024	1902
7440-39-3	Barium	160	D	10/29/2024	1902
7440-41-7	Beryllium	0.78	D	10/29/2024	1902
7440-43-9	Cadmium	0.62	JD	10/29/2024	1902
7440-70-2	Calcium	7500	D	10/29/2024	1902
7440-47-3	Chromium	40	D*	10/29/2024	1902
7440-48-4	Cobalt	20	D	10/29/2024	1902
7440-50-8	Copper	100	D	10/29/2024	1902
7439-89-6	Iron	34000	D	10/29/2024	1902
7439-92-1	Lead	30	D	10/29/2024	1902
7439-95-4	Magnesium	8600	D	10/29/2024	1902
7439-96-5	Manganese	870	D	10/29/2024	1902
7440-02-0	Nickel	40	D	10/29/2024	1902
7440-09-7	Potassium	4300	D	10/29/2024	1902
7782-49-2	Selenium	5.4	UD	10/29/2024	1902
7440-22-4	Silver	1.6	UD	10/29/2024	1902
7440-23-5	Sodium	460	JD	10/29/2024	1902
7440-28-0	Thallium	3.9	UD	10/29/2024	1902
7440-62-2	Vanadium	64	D	10/29/2024	1902
7440-66-6	Zinc	80	D*	10/29/2024	1902

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

Comments:

EPA SAMPLE NO.

MYE4G6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-17

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

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	10/29/2024	1906
7440-36-0	Antimony	1.2	JD	10/29/2024	1906
7440-38-2	Arsenic	33	D	10/29/2024	1906
7440-39-3	Barium	160	D	10/29/2024	1906
7440-41-7	Beryllium	0.82	JD	10/29/2024	1906
7440-43-9	Cadmium	0.92	JD	10/29/2024	1906
7440-70-2	Calcium	5400	D	10/29/2024	1906
7440-47-3	Chromium	38	D*	10/29/2024	1906
7440-48-4	Cobalt	19	D	10/29/2024	1906
7440-50-8	Copper	140	D	10/29/2024	1906
7439-89-6	Iron	35000	D	10/29/2024	1906
7439-92-1	Lead	39	D	10/29/2024	1906
7439-95-4	Magnesium	7700	D	10/29/2024	1906
7439-96-5	Manganese	830	D	10/29/2024	1906
7440-02-0	Nickel	34	D	10/29/2024	1906
7440-09-7	Potassium	5200	D	10/29/2024	1906
7782-49-2	Selenium	6.6	UD	10/29/2024	1906
7440-22-4	Silver	1.9	UD	10/29/2024	1906
7440-23-5	Sodium	190	JD	10/29/2024	1906
7440-28-0	Thallium	4.7	UD	10/29/2024	1906
7440-62-2	Vanadium	66	D	10/29/2024	1906
7440-66-6	Zinc	100	D*	10/29/2024	1906

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

Comments:

EPA SAMPLE NO.

MYE4G7

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-18

% Solids: 95.2 Date Received: 10/22/2024

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	10/29/2024	1911
7440-36-0	Antimony	11	UD	10/29/2024	1911
7440-38-2	Arsenic	16	D	10/29/2024	1911
7440-39-3	Barium	150	D	10/29/2024	1911
7440-41-7	Beryllium	0.79	JD	10/29/2024	1911
7440-43-9	Cadmium	0.35	JD	10/29/2024	1911
7440-70-2	Calcium	8300	D	10/29/2024	1911
7440-47-3	Chromium	31	D*	10/29/2024	1911
7440-48-4	Cobalt	17	D	10/29/2024	1911
7440-50-8	Copper	60	D	10/29/2024	1911
7439-89-6	Iron	30000	D	10/29/2024	1911
7439-92-1	Lead	22	D	10/29/2024	1911
7439-95-4	Magnesium	7000	D	10/29/2024	1911
7439-96-5	Manganese	750	D	10/29/2024	1911
7440-02-0	Nickel	30	D	10/29/2024	1911
7440-09-7	Potassium	4500	D	10/29/2024	1911
7782-49-2	Selenium	6.1	UD	10/29/2024	1911
7440-22-4	Silver	1.8	UD	10/29/2024	1911
7440-23-5	Sodium	190	JD	10/29/2024	1911
7440-28-0	Thallium	4.4	UD	10/29/2024	1911
7440-62-2	Vanadium	60	D	10/29/2024	1911
7440-66-6	Zinc	73	D*	10/29/2024	1911

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

Comments:

EPA SAMPLE NO.

MYE4G8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-19

% Solids: 96 Date Received: 10/22/2024

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	10/29/2024	1915
7440-36-0	Antimony	1.0	JD	10/29/2024	1915
7440-38-2	Arsenic	29	D	10/29/2024	1915
7440-39-3	Barium	140	D	10/29/2024	1915
7440-41-7	Beryllium	0.65	JD	10/29/2024	1915
7440-43-9	Cadmium	0.56	JD	10/29/2024	1915
7440-70-2	Calcium	4300	D	10/29/2024	1915
7440-47-3	Chromium	32	D*	10/29/2024	1915
7440-48-4	Cobalt	17	D	10/29/2024	1915
7440-50-8	Copper	87	D	10/29/2024	1915
7439-89-6	Iron	30000	D	10/29/2024	1915
7439-92-1	Lead	25	D	10/29/2024	1915
7439-95-4	Magnesium	6500	D	10/29/2024	1915
7439-96-5	Manganese	790	D	10/29/2024	1915
7440-02-0	Nickel	30	D	10/29/2024	1915
7440-09-7	Potassium	4000	D	10/29/2024	1915
7782-49-2	Selenium	5.2	UD	10/29/2024	1915
7440-22-4	Silver	1.5	UD	10/29/2024	1915
7440-23-5	Sodium	180	JD	10/29/2024	1915
7440-28-0	Thallium	3.7	UD	10/29/2024	1915
7440-62-2	Vanadium	58	D	10/29/2024	1915
7440-66-6	Zinc	72	D*	10/29/2024	1915

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

Comments:

EPA SAMPLE NO.

MYE4G9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51817 MA No. : 3226.1 SDG No.: MYE4F0

Matrix: SOIL Lab Sample ID: P4483-20

% Solids: 96.6 Date Received: 10/22/2024

Analytical Method: ICP_AES

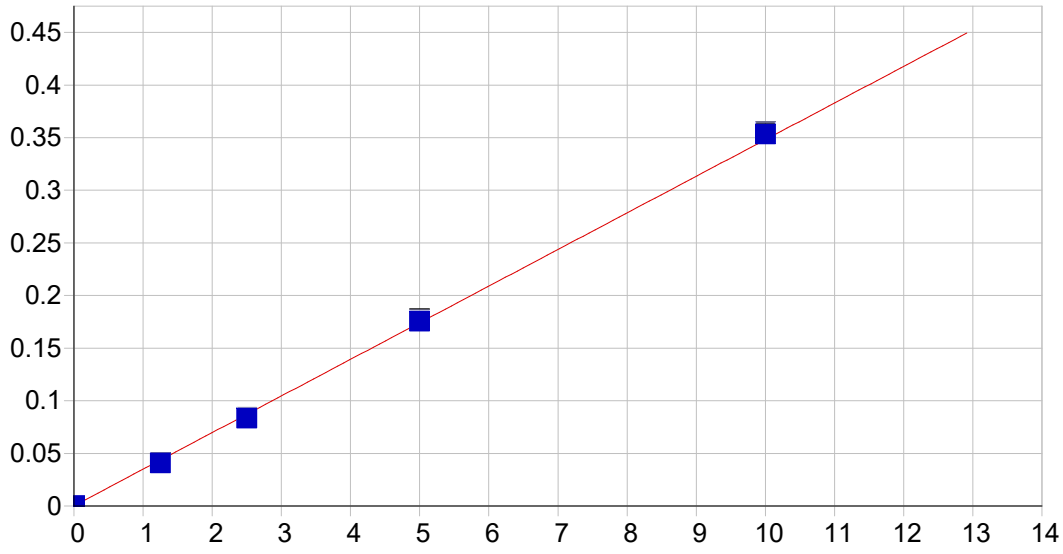
Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	17000	D	10/29/2024	1919
7440-36-0	Antimony	1.2	JD	10/29/2024	1919
7440-38-2	Arsenic	42	D	10/29/2024	1919
7440-39-3	Barium	180	D	10/29/2024	1919
7440-41-7	Beryllium	0.86	JD	10/29/2024	1919
7440-43-9	Cadmium	0.54	JD	10/29/2024	1919
7440-70-2	Calcium	7800	D	10/29/2024	1919
7440-47-3	Chromium	48	D*	10/29/2024	1919
7440-48-4	Cobalt	21	D	10/29/2024	1919
7440-50-8	Copper	85	D	10/29/2024	1919
7439-89-6	Iron	39000	D	10/29/2024	1919
7439-92-1	Lead	25	D	10/29/2024	1919
7439-95-4	Magnesium	9100	D	10/29/2024	1919
7439-96-5	Manganese	900	D	10/29/2024	1919
7440-02-0	Nickel	42	D	10/29/2024	1919
7440-09-7	Potassium	4200	D	10/29/2024	1919
7782-49-2	Selenium	6.3	UD	10/29/2024	1919
7440-22-4	Silver	1.8	UD	10/29/2024	1919
7440-23-5	Sodium	230	JD	10/29/2024	1919
7440-28-0	Thallium	4.5	UD	10/29/2024	1919
7440-62-2	Vanadium	77	D	10/29/2024	1919
7440-66-6	Zinc	83	D*	10/29/2024	1919

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

Comments:

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



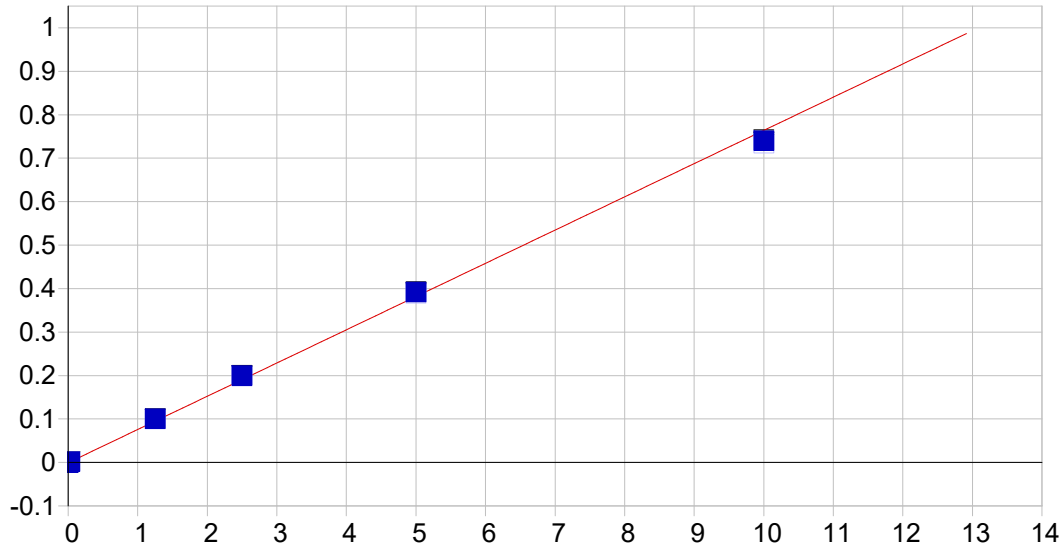
As 189.042 {479}

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

A0 (Offset):	0.000161	Re-Slope:	1.000000
A1 (Gain):	0.034797	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999668	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.005357		
Predicted MQL:	0.017856		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00016	.000	1
S1	.01000	.00845	-.002	-15.5	.00046	.000	1
S2	1.2500	1.1703	-.080	-6.38	.04114	.000	1
S3	2.5000	2.3912	-.109	-4.35	.08389	.000	1
S4	5.0000	5.0421	.042	.843	.17666	.001	1
S5	10.000	10.148	.148	1.48	.35536	.000	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



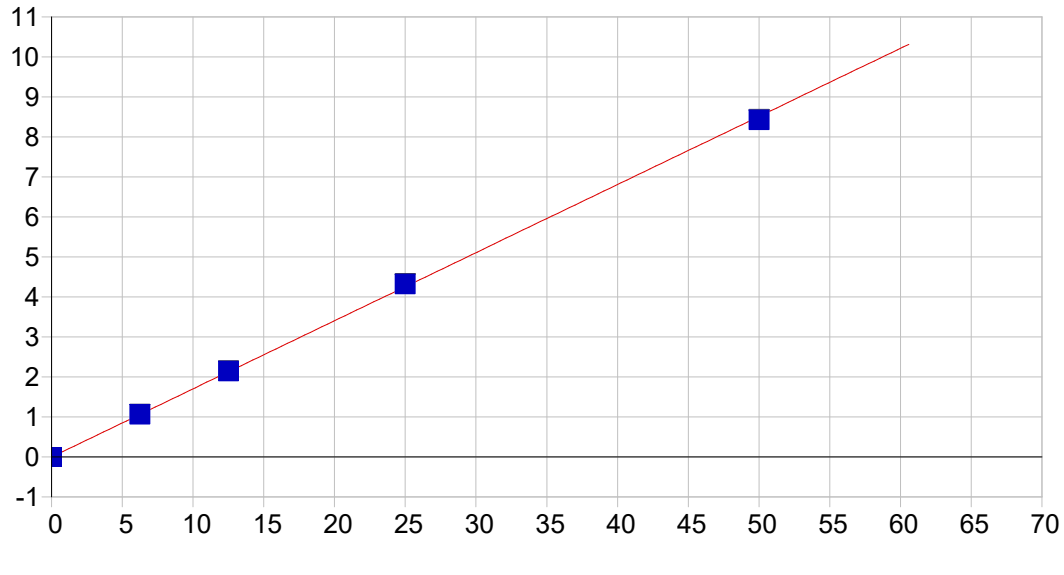
Tl 190.856 {477}

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

A0 (Offset):	-0.000514	Re-Slope:	1.000000
A1 (Gain):	0.076456	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999383	Status:	OK.
Std Error of Est:	0.000071		
Predicted MDL:	0.003286		
Predicted MQL:	0.010953		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00051	.000	1
S1	.02500	.02745	.002	9.81	.00154	.000	1
S2	1.2500	1.3139	.064	5.11	.09928	.001	1
S3	2.5000	2.6207	.121	4.83	.19854	.001	1
S4	5.0000	5.1308	.131	2.62	.38914	.001	1
S5	10.000	9.6821	-.318	-3.18	.73448	.003	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



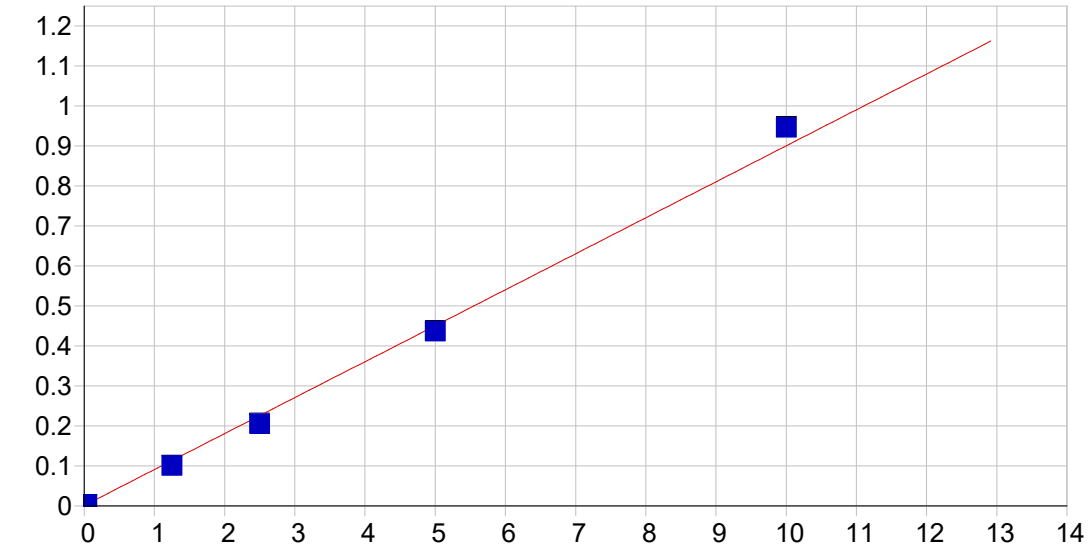
Pb 220.353 {453}

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

A0 (Offset):	-0.001144	Re-Slope:	1.000000
A1 (Gain):	0.170255	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999935	Status:	OK.
Std Error of Est:	0.000073		
Predicted MDL:	0.003304		
Predicted MQL:	0.011014		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00114	.001	1
S1	.01000	.01097	.001	9.72	.00073	.000	1
S2	6.2500	6.2457	-.004	-.069	1.0619	.002	1
S3	12.500	12.607	.107	.858	2.1448	.003	1
S4	25.000	25.392	.392	1.57	4.3210	.007	1
S5	50.000	49.504	-.496	-.993	8.4250	.010	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



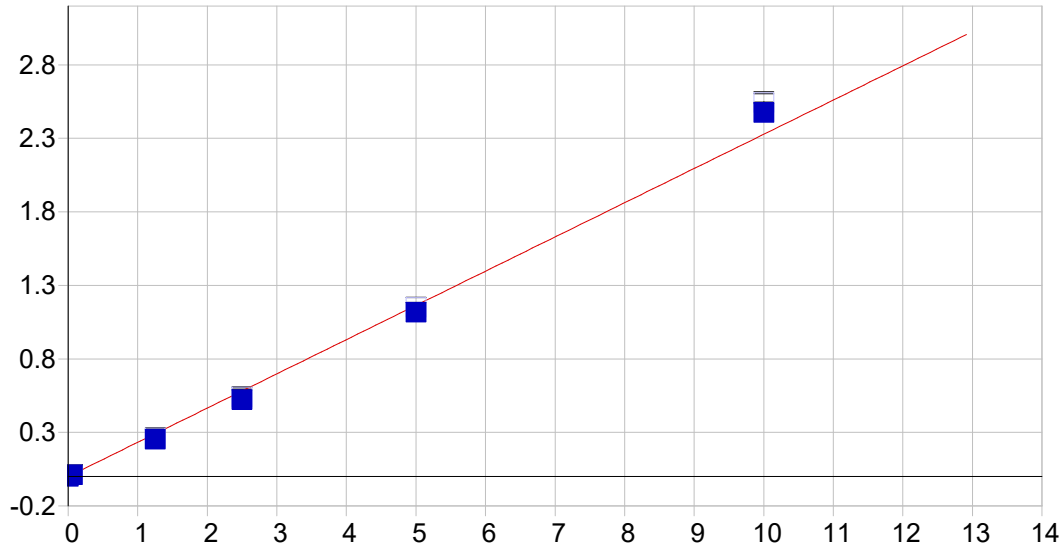
Se 196.090 {472}

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

A0 (Offset):	0.000900	Re-Slope:	1.000000
A1 (Gain):	0.089948	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998172	Status:	OK.
Std Error of Est:	0.000171		
Predicted MDL:	0.005157		
Predicted MQL:	0.017191		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00090	.001	1
S1	.03500	.02721	-.008	-22.3	.00334	.000	1
S2	1.2500	1.1082	-.142	-11.3	.10037	.001	1
S3	2.5000	2.2798	-.220	-8.81	.20554	.001	1
S4	5.0000	4.8509	-.149	-2.98	.43637	.002	1
S5	10.000	10.519	.519	5.19	.94534	.002	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



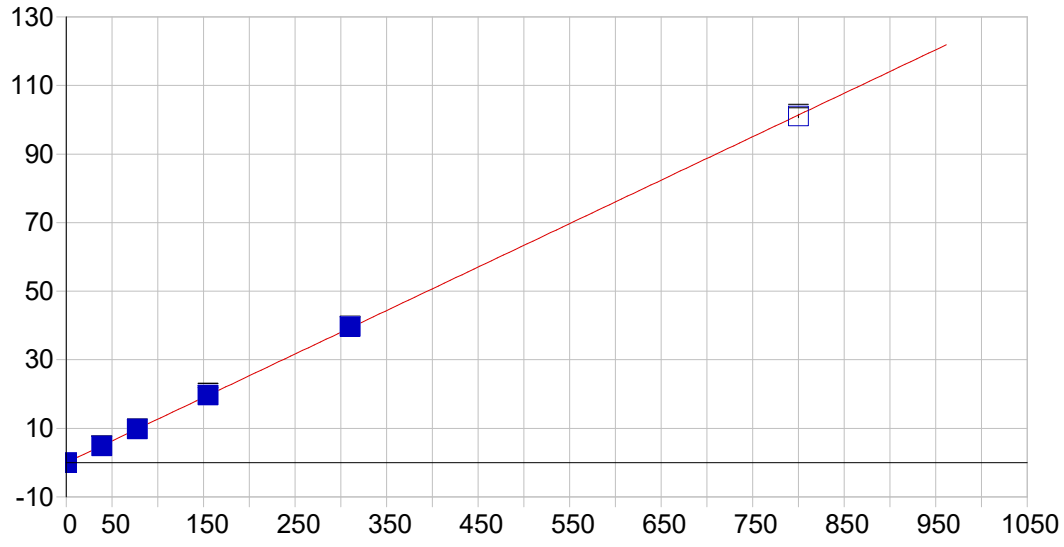
Sb 206.833 {463}

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

A0 (Offset):	-0.000061	Re-Slope:	1.000000
A1 (Gain):	0.232783	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997599	Status:	OK.
Std Error of Est:	0.000684		
Predicted MDL:	0.002436		
Predicted MQL:	0.008121		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	-.00006	.000	1
S1	.06000	.05220	-.008	-13.0	.01209	.000	1
S2	1.2500	1.0848	-.165	-13.2	.26105	.002	1
S3	2.5000	2.2496	-.250	-10.0	.54079	.002	1
S4	5.0000	4.7937	-.206	-4.13	1.1502	.002	1
S5	10.000	10.629	.629	6.29	2.5430	.006	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



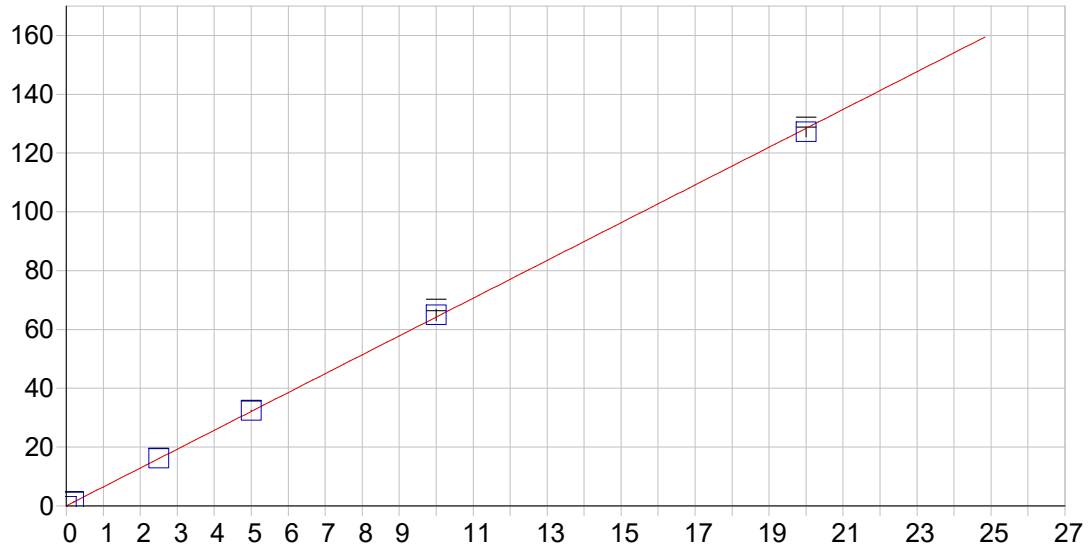
Al 396.152 { 85}

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

A0 (Offset):	-0.001515	Re-Slope:	1.000000
A1 (Gain):	0.126741	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000454		
Predicted MDL:	0.014885		
Predicted MQL:	0.049616		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	-.00151	.000	1
S1	.20000	.18512	-.015	-7.44	.02200	.002	1
S2	38.750	38.448	-.302	-.779	4.8774	.014	1
S3	77.500	77.044	-.456	-.588	9.7749	.035	1
S4	155.00	155.01	.012	.008	19.668	.606	1
S5	310.00	313.17	3.17	1.02	39.738	.087	1
S6	800.00	797.58	-2.42	-.302	101.09	.518	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



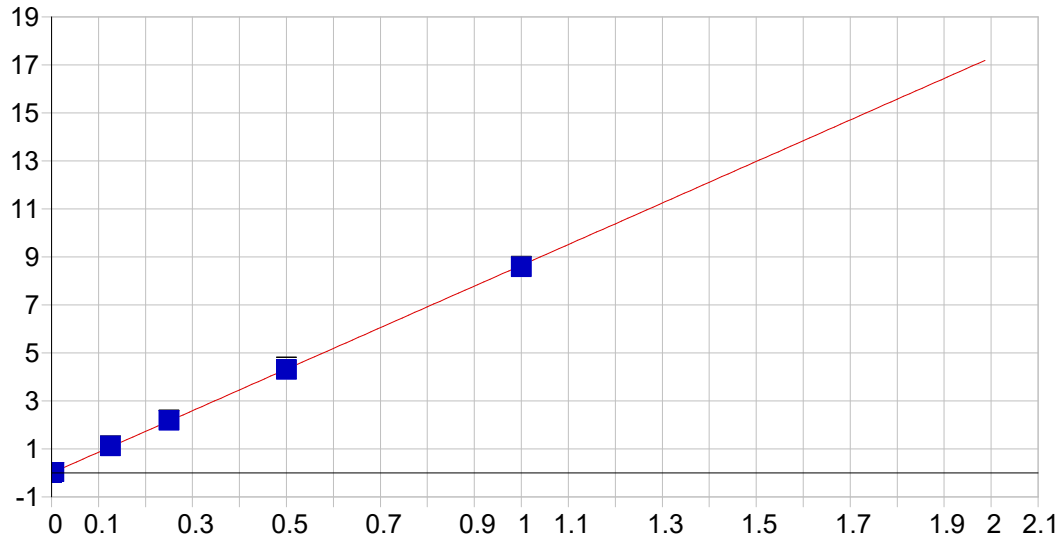
Ba 493.409 { 68}

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

A0 (Offset):	0.039482	Re-Slope:	1.000000
A1 (Gain):	6.419007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999945	Status:	OK.
Std Error of Est:	0.007177		
Predicted MDL:	0.000930		
Predicted MQL:	0.003099		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.03940	.005	1
S1	.20000	.20921	.009	4.61	1.3824	.007	1
S2	2.5000	2.5146	.015	.584	16.181	.044	1
S3	5.0000	5.0475	.047	.949	32.439	.148	1
S4	10.000	10.119	.119	1.19	64.991	1.96	1
S5	20.000	19.810	-.190	-.950	127.20	1.67	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



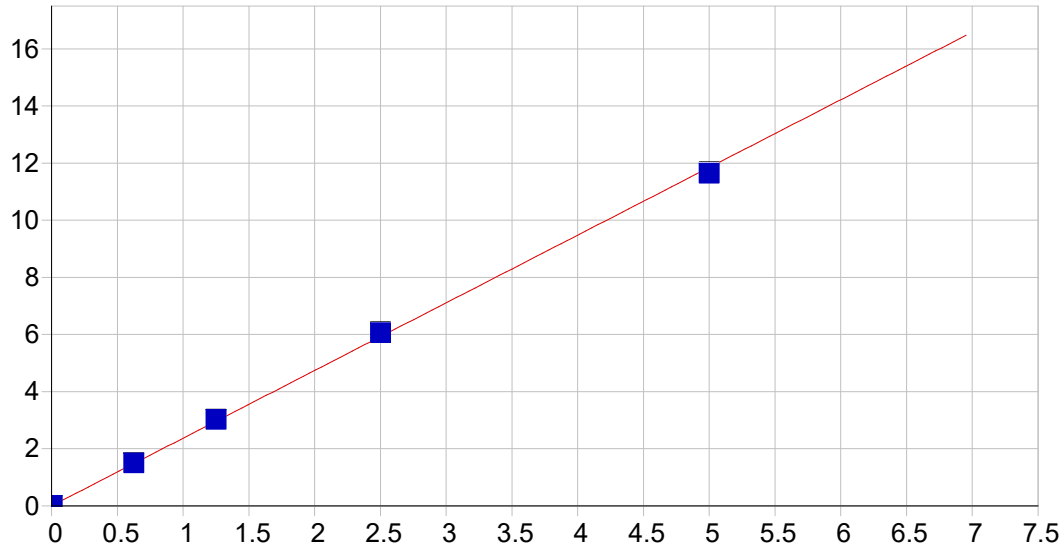
Be 234.861 {144}

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

A0 (Offset):	-0.002931	Re-Slope:	1.000000
A1 (Gain):	8.652417	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.000421		
Predicted MDL:	0.000127		
Predicted MQL:	0.000422		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00294	.001	1
S1	.00500	.00551	.001	10.2	.04473	.001	1
S2	.12500	.12949	.004	3.59	1.1157	.010	1
S3	.25000	.25346	.003	1.38	2.1866	.012	1
S4	.50000	.49873	-.001	-.254	4.3053	.098	1
S5	1.0000	.99281	-.007	-.719	8.5733	.030	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



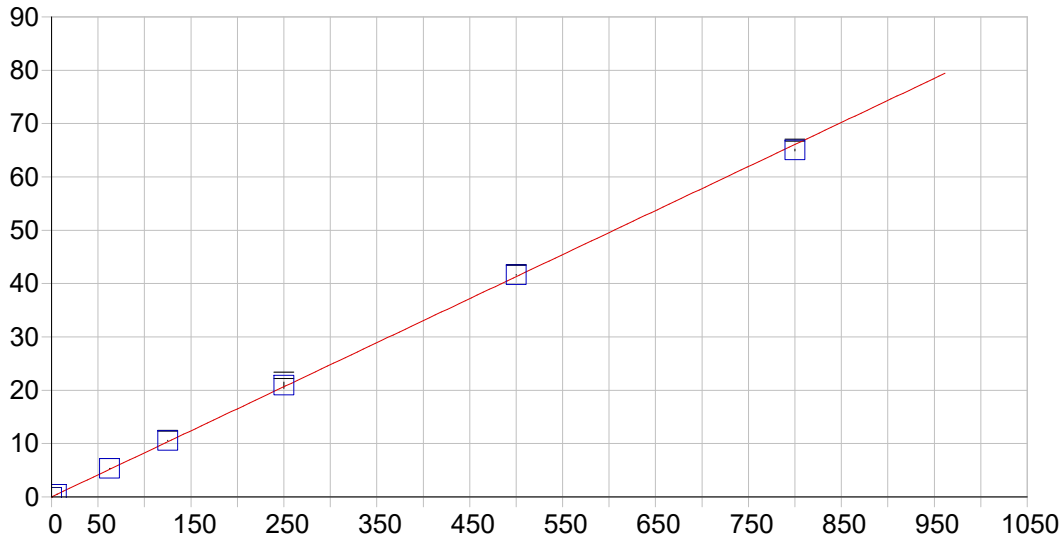
Cd 214.438 {457}

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

A0 (Offset):	0.000679	Re-Slope:	1.000000
A1 (Gain):	2.369915	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999823	Status:	OK.
Std Error of Est:	0.000374		
Predicted MDL:	0.000143		
Predicted MQL:	0.000475		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00068	.000	1
S1	.00500	.00535	.000	7.00	.01337	.000	1
S2	.62500	.63319	.008	1.31	1.5048	.003	1
S3	1.2500	1.2738	.024	1.91	3.0266	.005	1
S4	2.5000	2.5551	.055	2.20	6.0702	.019	1
S5	5.0000	4.9126	-.087	-1.75	11.671	.021	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



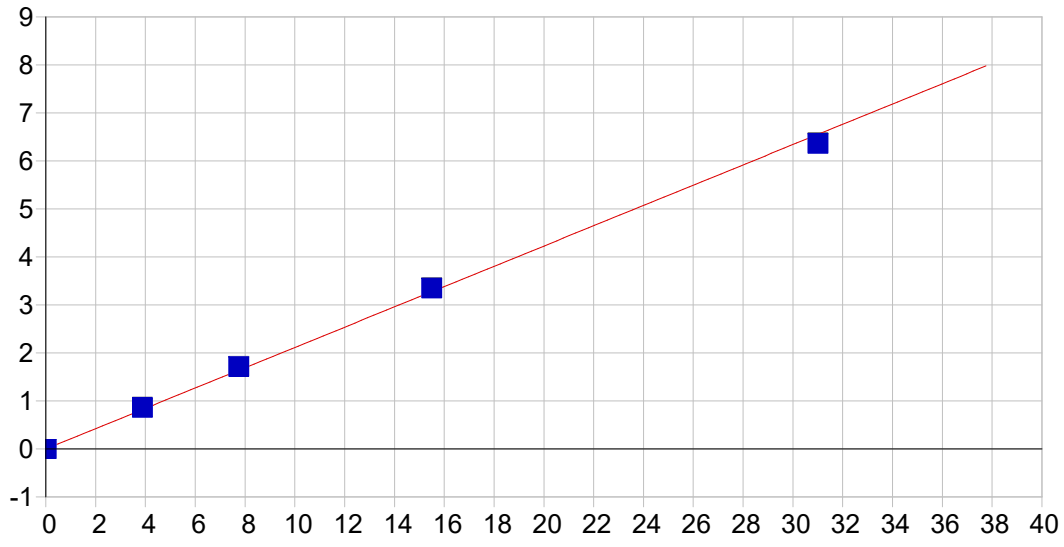
Ca 373.690 { 90}

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

A0 (Offset):	0.006763	Re-Slope:	1.000000
A1 (Gain):	0.082590	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999873	Status:	OK.
Std Error of Est:	0.004597		
Predicted MDL:	0.018283		
Predicted MQL:	0.060944		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00074	-.001	.000	.00670	.000	1
S1	5.0000	5.4393	.439	8.79	.45600	.002	1
S2	62.500	64.574	2.07	3.32	5.3399	.026	1
S3	125.00	127.67	2.67	2.13	10.551	.045	1
S4	250.00	253.52	3.52	1.41	20.945	.599	1
S5	500.00	503.91	3.91	.781	41.624	.074	1
S6	800.00	787.39	-12.6	-1.58	65.037	.194	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



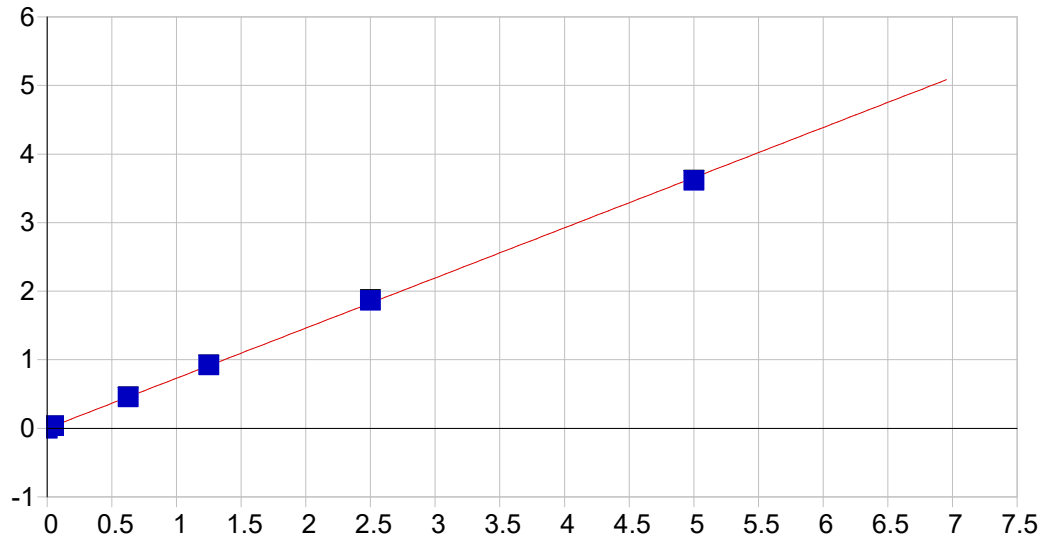
Cr 267.716 {126}

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

A0 (Offset):	-0.000183	Re-Slope:	1.000000
A1 (Gain):	0.211339	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999484	Status:	OK.
Std Error of Est:	0.000201		
Predicted MDL:	0.001015		
Predicted MQL:	0.003383		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00018	.000	1
S1	.01000	.01074	.001	7.39	.00209	.000	1
S2	3.8750	4.0835	.209	5.38	.86374	.001	1
S3	7.7500	8.0998	.350	4.51	1.7135	.004	1
S4	15.500	15.836	.336	2.17	3.3502	.006	1
S5	31.000	30.105	-.895	-2.89	6.3695	.006	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



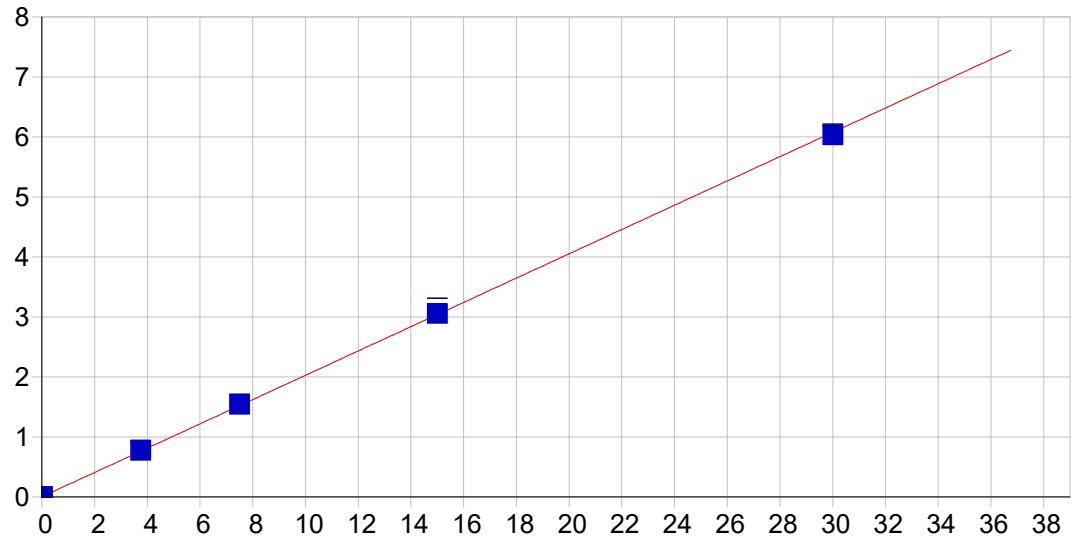
Co 228.616 {448}

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

A0 (Offset):	-0.000364	Re-Slope:	1.000000
A1 (Gain):	0.731193	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.000267		
Predicted MDL:	0.000536		
Predicted MQL:	0.001786		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00036	.000	1
S1	.05000	.04973	-.000	-.534	.03613	.000	1
S2	.62500	.62266	-.002	-.375	.45548	.001	1
S3	1.2500	1.2607	.011	.855	.92256	.001	1
S4	2.5000	2.5500	.050	2.00	1.8664	.008	1
S5	5.0000	4.9420	-.058	-1.16	3.6176	.004	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



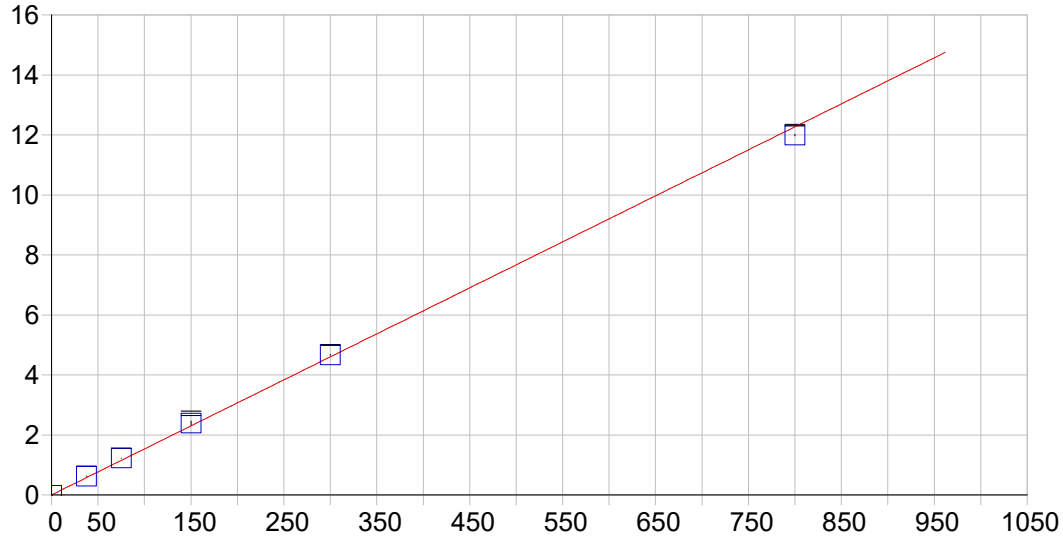
Cu 324.754 {104}

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

A0 (Offset):	0.002346	Re-Slope:	1.000000
A1 (Gain):	0.202473	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999951	Status:	OK.
Std Error of Est:	0.000092		
Predicted MDL:	0.004495		
Predicted MQL:	0.014982		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00235	.000	1
S1	.02500	.01980	-.005	-20.8	.00635	.000	1
S2	3.7500	3.8203	.070	1.87	.77536	.001	1
S3	7.5000	7.5915	.092	1.22	1.5385	.008	1
S4	15.000	15.070	.070	.468	3.0517	.092	1
S5	30.000	29.773	-.227	-.756	6.0267	.019	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



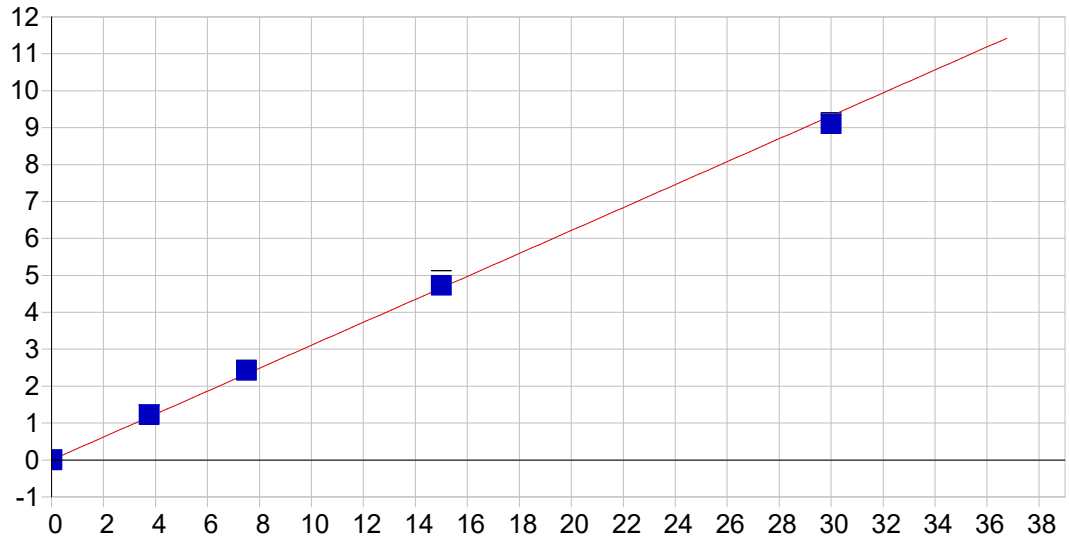
Fe 259.837 {130}

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

A0 (Offset):	0.000344	Re-Slope:	1.000000
A1 (Gain):	0.015336	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999540	Status:	OK.
Std Error of Est:	0.000203		
Predicted MDL:	0.027833		
Predicted MQL:	0.092778		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00004	-.000	.000	.00034	.000	1
S1	.10000	.12158	.022	21.6	.00221	.000	1
S2	37.500	40.574	3.07	8.20	.62259	.002	1
S3	75.000	79.797	4.80	6.40	1.2241	.008	1
S4	150.00	155.85	5.85	3.90	2.3905	.071	1
S5	300.00	304.20	4.20	1.40	4.6656	.014	1
S6	800.00	782.05	-18.0	-2.24	11.994	.031	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



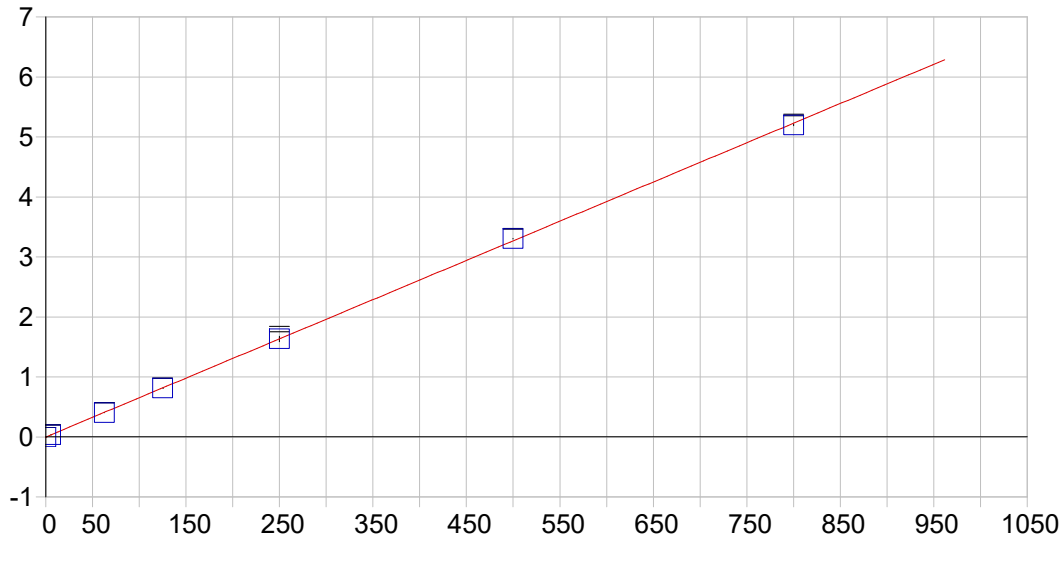
Mn 257.610 {131}

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

A0 (Offset):	-0.000278	Re-Slope:	1.000000
A1 (Gain):	0.310729	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999642	Status:	OK.
Std Error of Est:	0.000296		
Predicted MDL:	0.001447		
Predicted MQL:	0.004822		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00028	.001	1
S1	.01500	.01763	.003	17.5	.00521	.000	1
S2	3.7500	3.9395	.189	5.05	1.2240	.006	1
S3	7.5000	7.7944	.294	3.93	2.4220	.010	1
S4	15.000	15.205	.205	1.37	4.7251	.134	1
S5	30.000	29.308	-.692	-2.31	9.1081	.024	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



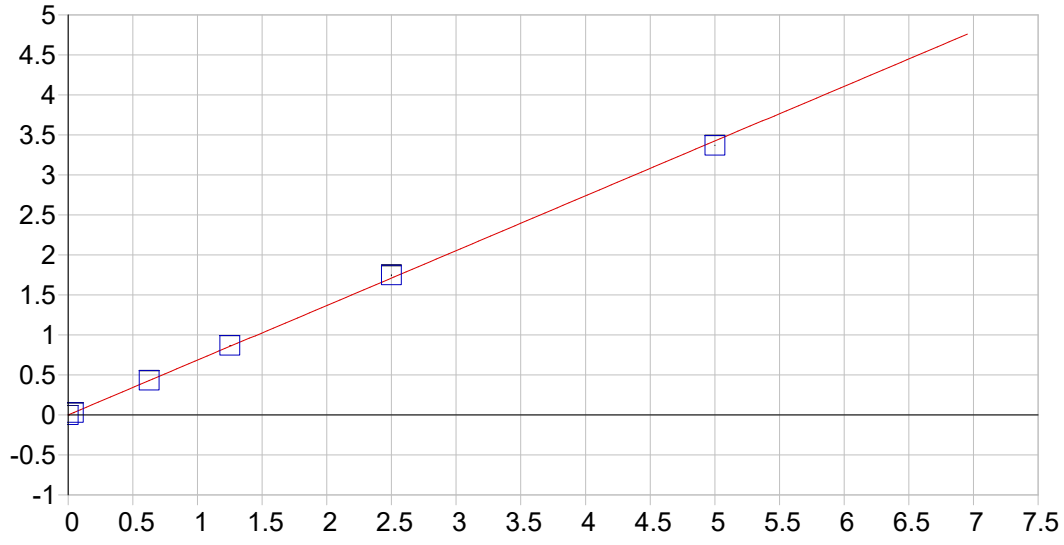
Mg 279.079 {121}

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

A0 (Offset):	-0.000476	Re-Slope:	1.000000
A1 (Gain):	0.006537	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000205		
Predicted MDL:	0.077303		
Predicted MQL:	0.257676		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00044	-.000	.000	-.00048	.000	1
S1	5.0000	5.4907	.491	9.81	.03542	.001	1
S2	62.500	61.938	-.562	-.900	.40443	.002	1
S3	125.00	124.46	-.539	-.431	.81317	.002	1
S4	250.00	249.72	-.281	-.113	1.6320	.046	1
S5	500.00	505.43	5.43	1.09	3.3037	.006	1
S6	800.00	795.46	-4.54	-.568	5.1997	.013	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



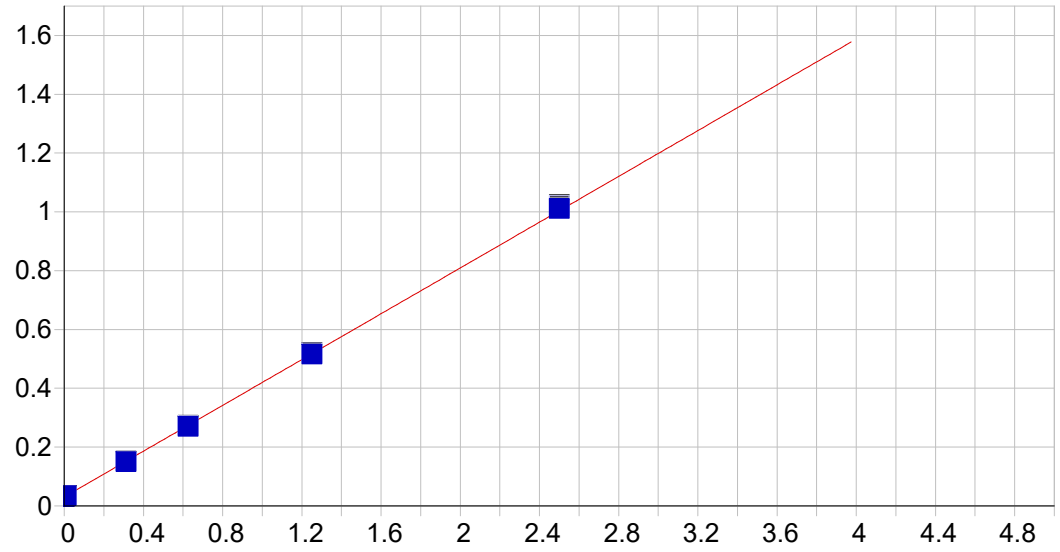
Ni 231.604 {446}

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

A0 (Offset):	-0.000547	Re-Slope:	1.000000
A1 (Gain):	0.684703	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999850	Status:	OK.
Std Error of Est:	0.000282		
Predicted MDL:	0.000610		
Predicted MQL:	0.002033		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00055	.000	1
S1	.04000	.04188	.002	4.70	.02813	.000	1
S2	.62500	.63055	.006	.888	.43119	.002	1
S3	1.2500	1.2687	.019	1.49	.86811	.001	1
S4	2.5000	2.5534	.053	2.14	1.7478	.006	1
S5	5.0000	4.9205	-.080	-1.59	3.3685	.002	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



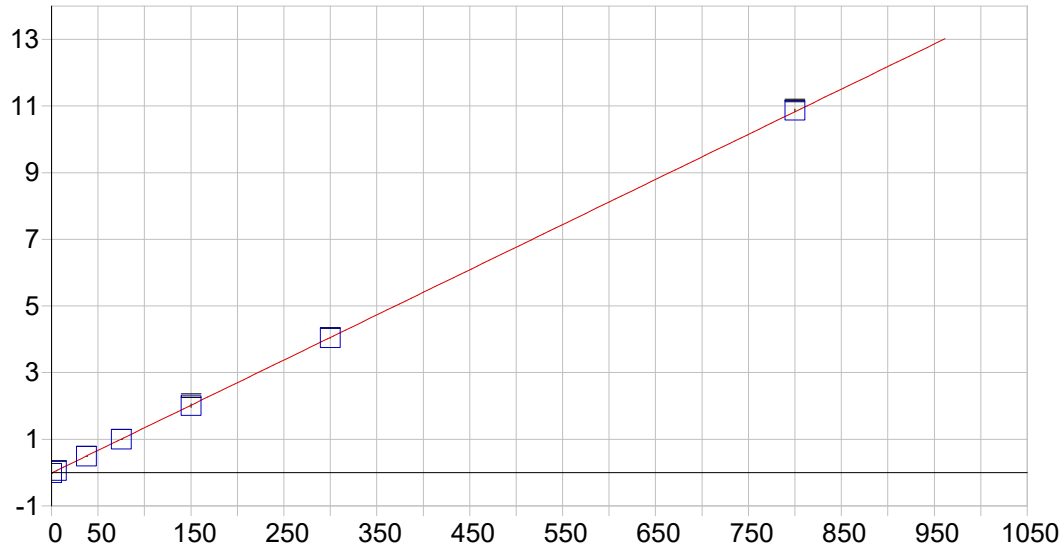
Ag 328.068 {103}

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

A0 (Offset):	0.030627	Re-Slope:	1.000000
A1 (Gain):	0.389341	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999949	Status:	OK.
Std Error of Est:	0.000033		
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	.03063	.000	1
S1	.01000	.01127	.001	12.7	.03500	.000	1
S2	.31250	.30820	-.004	-1.37	.15193	.000	1
S3	.62500	.61576	-.009	-1.48	.27299	.001	1
S4	1.2500	1.2453	-.005	-.373	.52073	.001	1
S5	2.5000	2.5169	.017	.677	1.0211	.003	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



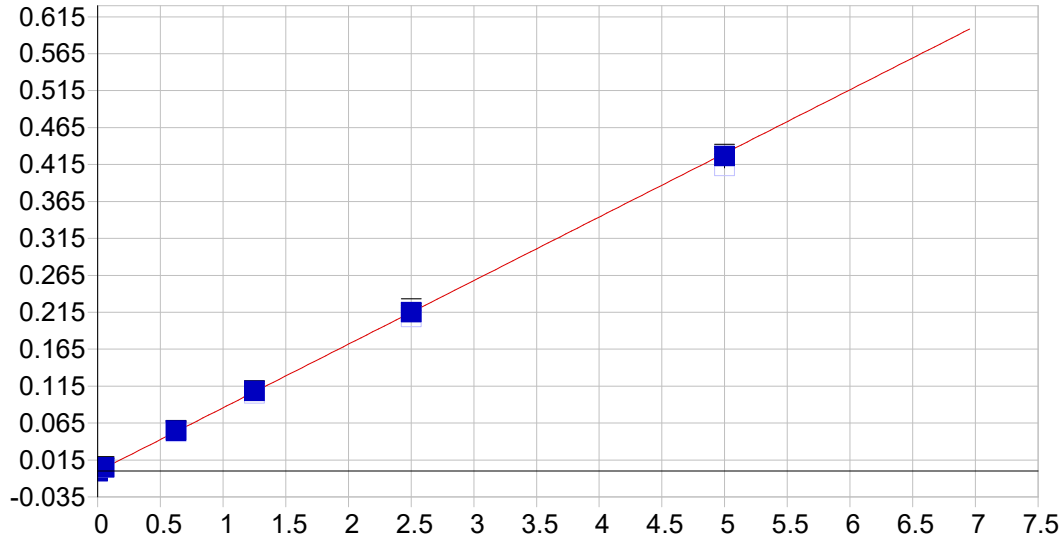
Na 818.326 { 41}

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

A0 (Offset):	-0.011451	Re-Slope:	1.000000
A1 (Gain):	0.013551	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000247		
Predicted MDL:	0.309743		
Predicted MQL:	1.032477		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00042	.000	.000	-.01145	.002	1
S1	5.0000	4.7099	-.290	-5.80	.05237	.006	1
S2	37.500	37.028	-.472	-1.26	.49031	.000	1
S3	75.000	74.393	-.607	-.810	.99663	.004	1
S4	150.00	149.18	-.817	-.544	2.0101	.057	1
S5	300.00	299.05	-.948	-.316	4.0410	.009	1
S6	800.00	803.13	3.13	.392	10.872	.037	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



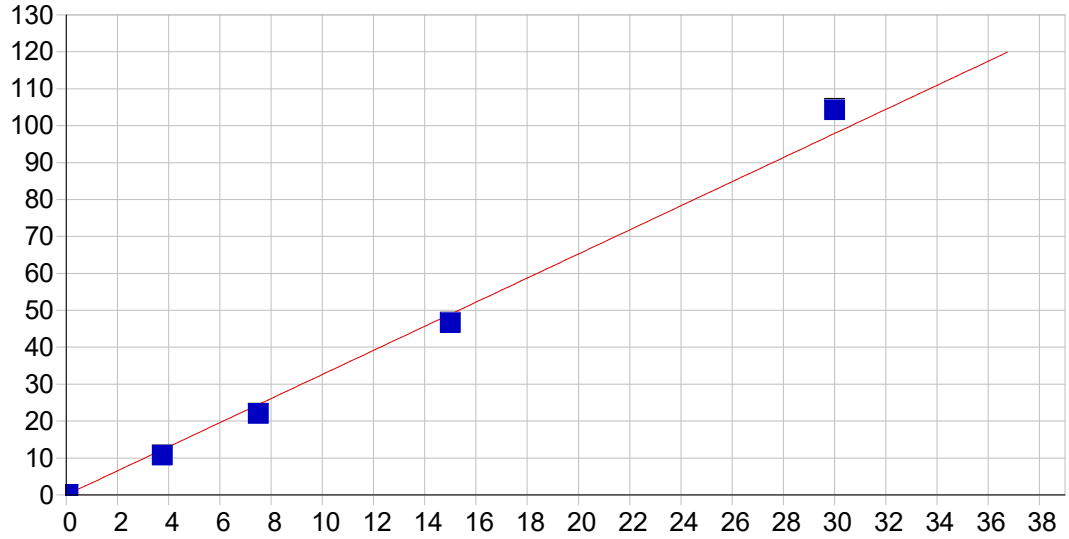
V 292.402 {115}

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

A0 (Offset):	-0.000477	Re-Slope:	1.000000
A1 (Gain):	0.086113	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999814	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.010542		
Predicted MQL:	0.035141		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00048	.001	1
S1	.05000	.06087	.011	21.7	.00476	.001	1
S2	.62500	.64004	.015	2.41	.05298	.001	1
S3	1.2500	1.2649	.015	1.19	.10514	.000	1
S4	2.5000	2.5029	.003	.116	.20844	.005	1
S5	5.0000	4.9560	-.044	-.881	.41307	.003	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



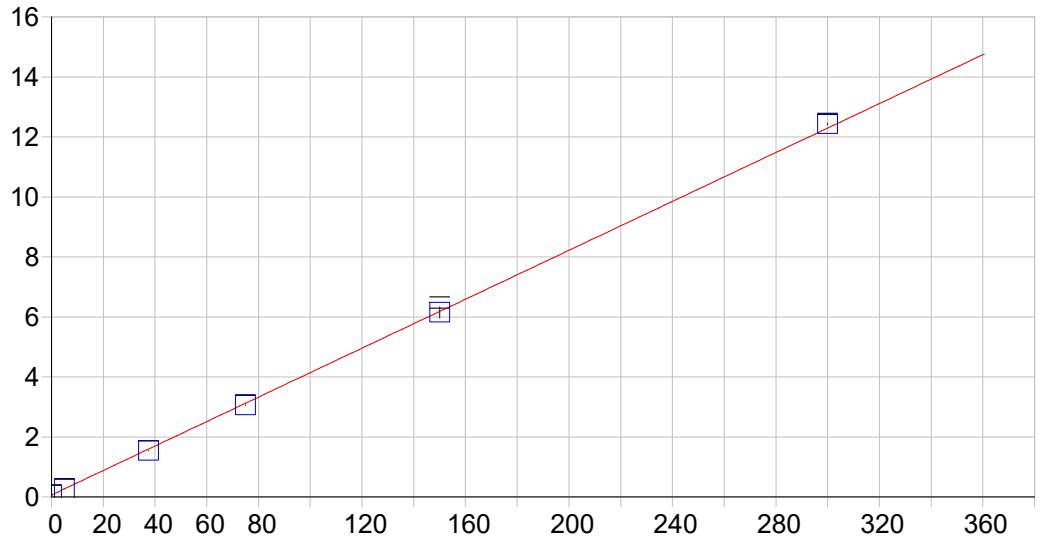
Zn 213.856 {158}

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



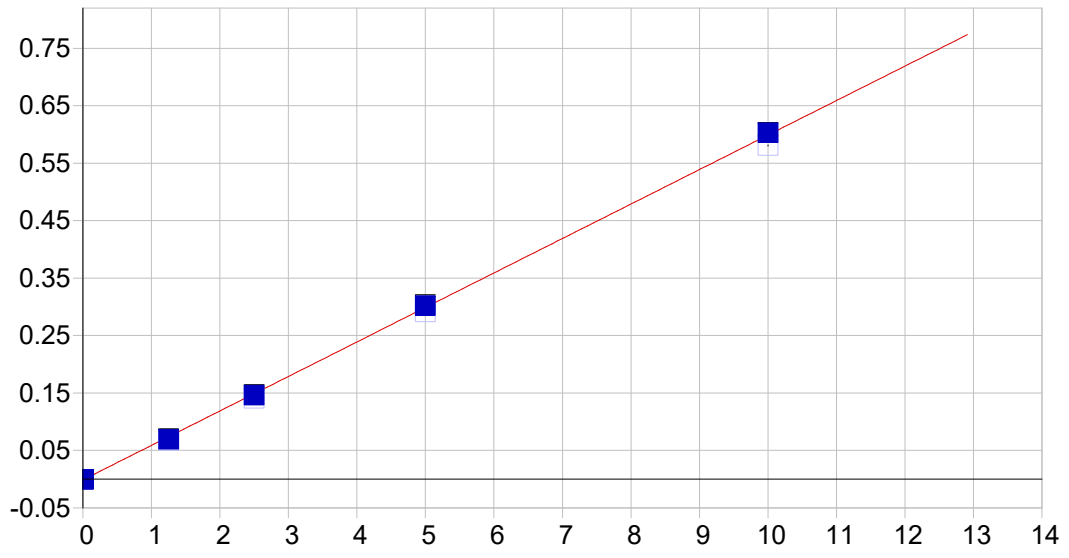
K 769.896 { 44}

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

A0 (Offset):	0.066313	Re-Slope:	1.000000
A1 (Gain):	0.040763	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999894	Status:	OK.
Std Error of Est:	0.001221		
Predicted MDL:	0.134155		
Predicted MQL:	0.447182		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00024	.000	.000	.06632	.005	1
S1	5.0000	4.9961	-.004	-.078	.26997	.002	1
S2	37.500	36.271	-1.23	-3.28	1.5449	.004	1
S3	75.000	73.386	-1.61	-2.15	3.0578	.010	1
S4	150.00	149.31	-.689	-.459	6.1527	.185	1
S5	300.00	303.53	3.53	1.18	12.439	.023	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



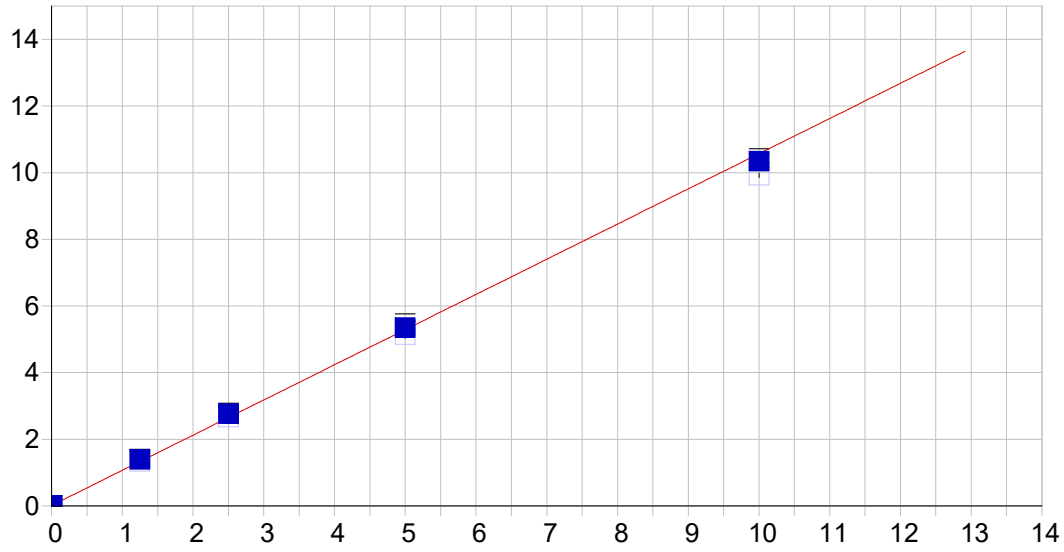
P 177.495 {490}

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

A0 (Offset):	-0.001211	Re-Slope:	1.000000
A1 (Gain):	0.060014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999827	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.003575		
Predicted MQL:	0.011918		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00121	.000	1
S1	.01000	.01027	.000	2.71	-.00061	.000	1
S2	1.2500	1.1775	-.073	-5.80	.06669	.001	1
S3	2.5000	2.4551	-.045	-1.80	.14061	.001	1
S4	5.0000	5.0546	.055	1.09	.29110	.002	1
S5	10.000	10.063	.063	.625	.58062	.001	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



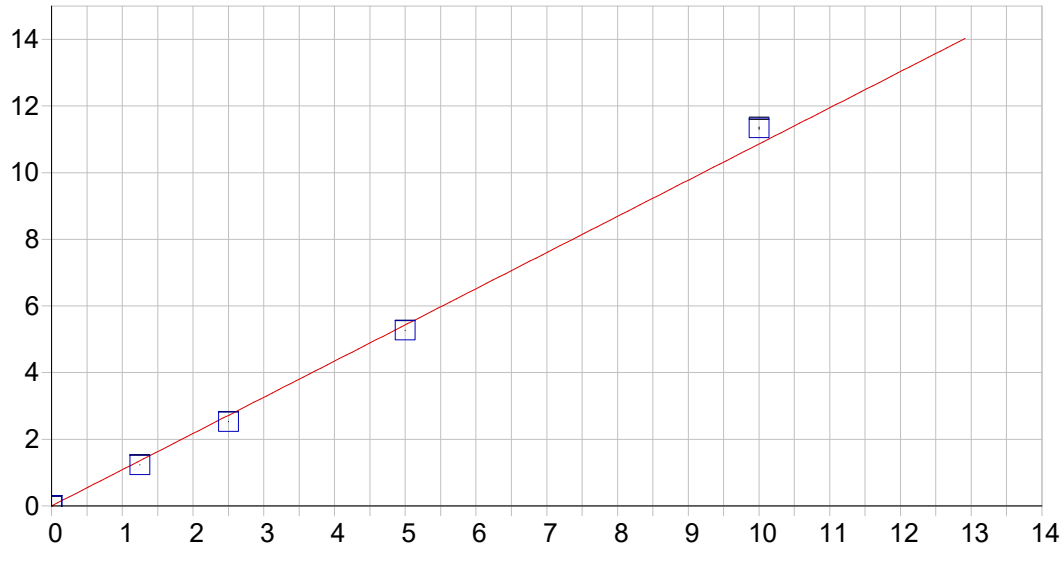
B 249.678 {135}

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

A0 (Offset):	0.011838	Re-Slope:	1.000000
A1 (Gain):	1.055828	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999358	Status:	OK.
Std Error of Est:	0.000609		
Predicted MDL:	0.001193		
Predicted MQL:	0.003977		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.01185	.001	1
S1	.01000	.00013	-.010	-98.7	.01188	.001	1
S2	1.2500	1.3068	.057	4.55	1.3384	.014	1
S3	2.5000	2.6088	.109	4.35	2.6598	.015	1
S4	5.0000	5.0565	.057	1.13	5.1376	.113	1
S5	10.000	9.7880	-.212	-2.12	9.9201	.069	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



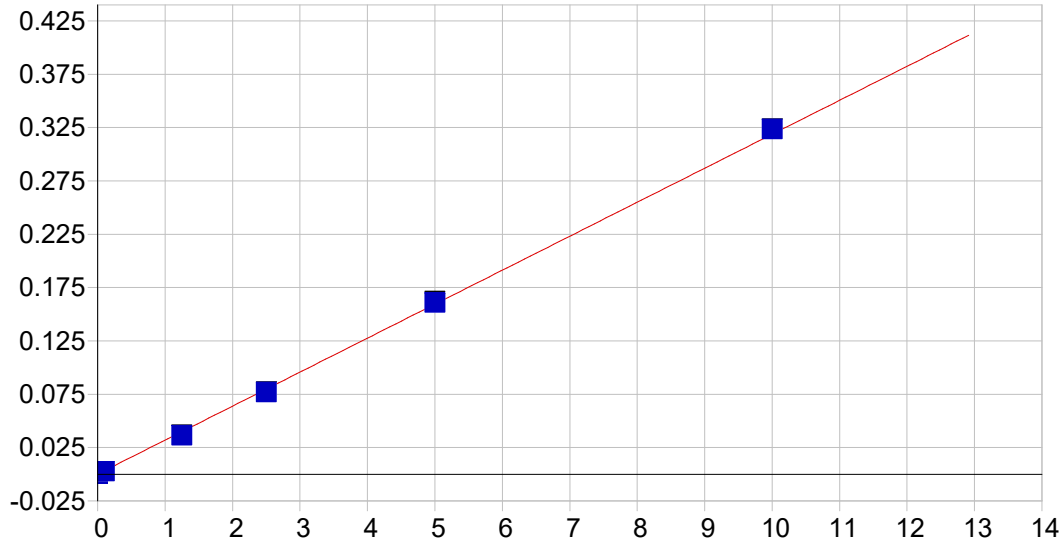
Mo 202.030 {467}

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

A0 (Offset):	0.000625	Re-Slope:	1.000000
A1 (Gain):	1.086077	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998761	Status:	OK.
Std Error of Est:	0.000907		
Predicted MDL:	0.000465		
Predicted MQL:	0.001549		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00063	.001	1
S1	.01000	.00884	-.001	-11.6	.01022	.000	1
S2	1.2500	1.1329	-.117	-9.37	1.2311	.004	1
S3	2.5000	2.3286	-.171	-6.86	2.5296	.007	1
S4	5.0000	4.8507	-.149	-2.99	5.2689	.003	1
S5	10.000	10.439	.439	4.39	11.338	.032	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



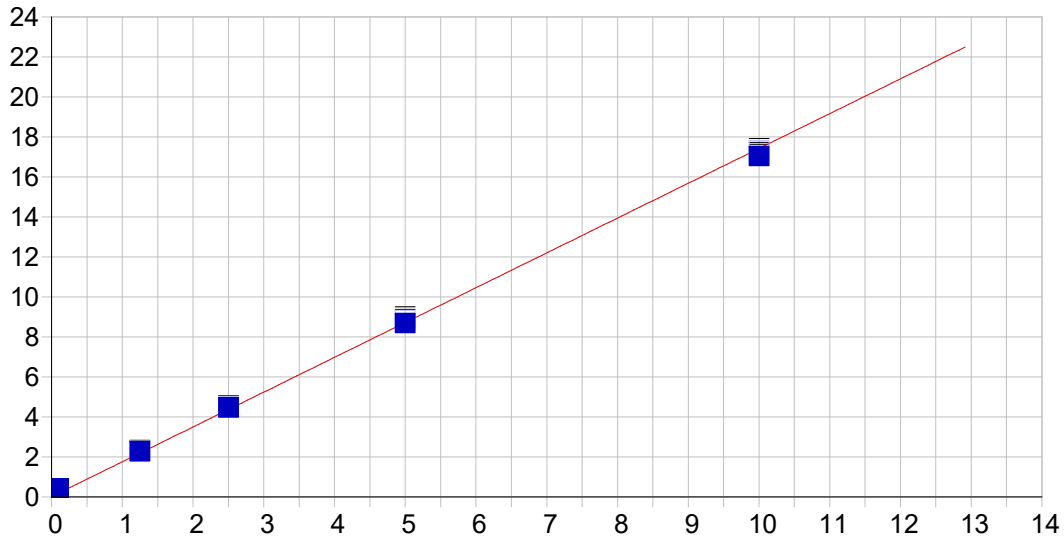
S 182.034 {485}

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

A0 (Offset):	0.000143	Re-Slope:	1.000000
A1 (Gain):	0.031858	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999555	Status:	OK.
Std Error of Est:	0.000051		
Predicted MDL:	0.006596		
Predicted MQL:	0.021986		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00014	.000	1
S1	.10000	.08695	-.013	-13.1	.00291	.000	1
S2	1.2500	1.1426	-.107	-8.59	.03655	.000	1
S3	2.5000	2.4146	-.085	-3.42	.07708	.000	1
S4	5.0000	5.0502	.050	1.00	.16105	.001	1
S5	10.000	10.156	.156	1.56	.32371	.000	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



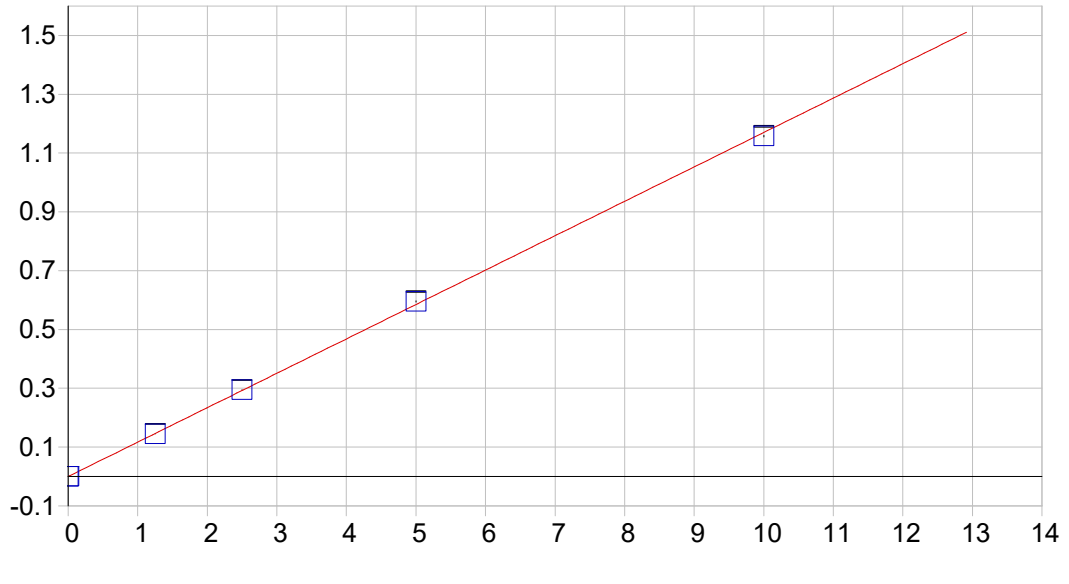
Si 251.611 {134}

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

A0 (Offset):	0.015015	Re-Slope:	1.000000
A1 (Gain):	1.740780	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995518	Status:	OK.
Std Error of Est:	0.008930		
Predicted MDL:	0.000619		
Predicted MQL:	0.002063		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	.01478	.000	1
S1	.10000	.22949	.129	129.	.41568	.001	1
S2	1.2500	1.2970	.047	3.76	2.3081	.024	1
S3	2.5000	2.5566	.057	2.26	4.5358	.021	1
S4	5.0000	4.9838	-.016	-.324	8.8315	.184	1
S5	10.000	9.7843	-.216	-2.16	17.329	.093	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



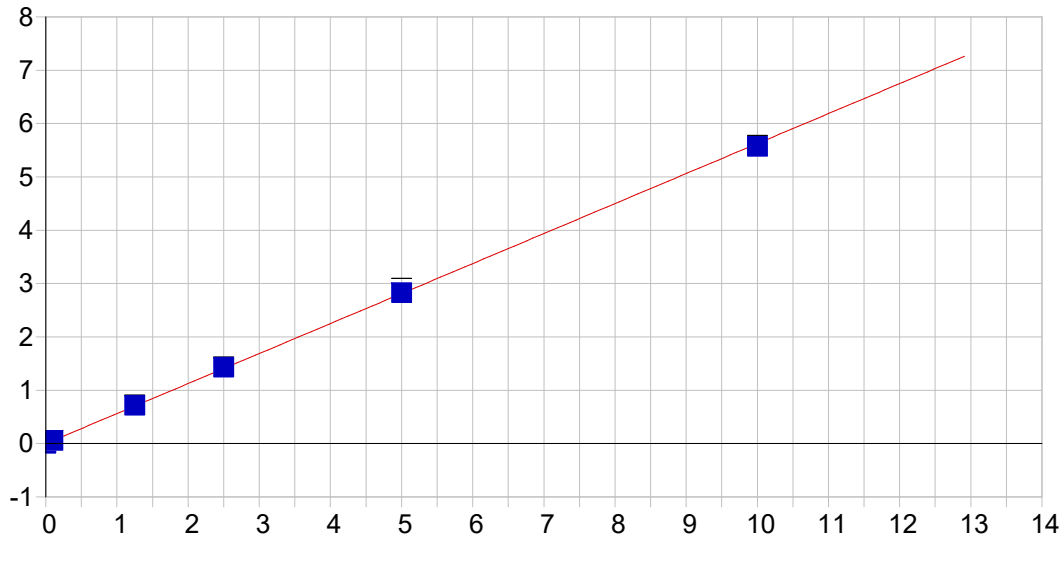
Sn 189.989 {478}

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

A0 (Offset):	0.000085	Re-Slope:	1.000000
A1 (Gain):	0.116983	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999904	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.001805		
Predicted MQL:	0.006016		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.00700	.00898	.002	28.3	.00114	.000	1
S2	1.2500	1.2394	-.011	-.846	.14508	.000	1
S3	2.5000	2.5210	.021	.840	.29500	.001	1
S4	5.0000	5.0921	.092	1.84	.59578	.002	1
S5	10.000	9.8955	-.105	-1.05	1.1577	.002	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



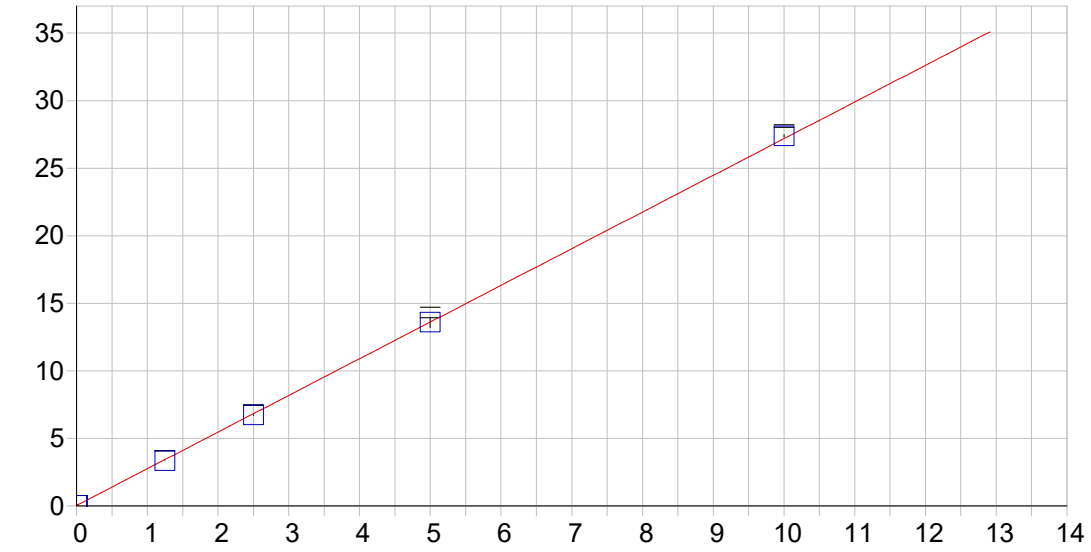
Ti 336.121 {100}

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

A0 (Offset):	-0.000027	Re-Slope:	1.000000
A1 (Gain):	0.562480	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999943	Status:	OK.
Std Error of Est:	0.000320		
Predicted MDL:	0.001896		
Predicted MQL:	0.006320		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00003	.001	1
S1	.10000	.10263	.003	2.63	.05768	.001	1
S2	1.2500	1.2736	.024	1.89	.71598	.005	1
S3	2.5000	2.5393	.039	1.57	1.4276	.009	1
S4	5.0000	5.0278	.028	.556	2.8266	.084	1
S5	10.000	9.9067	-.093	-.933	5.5695	.020	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5



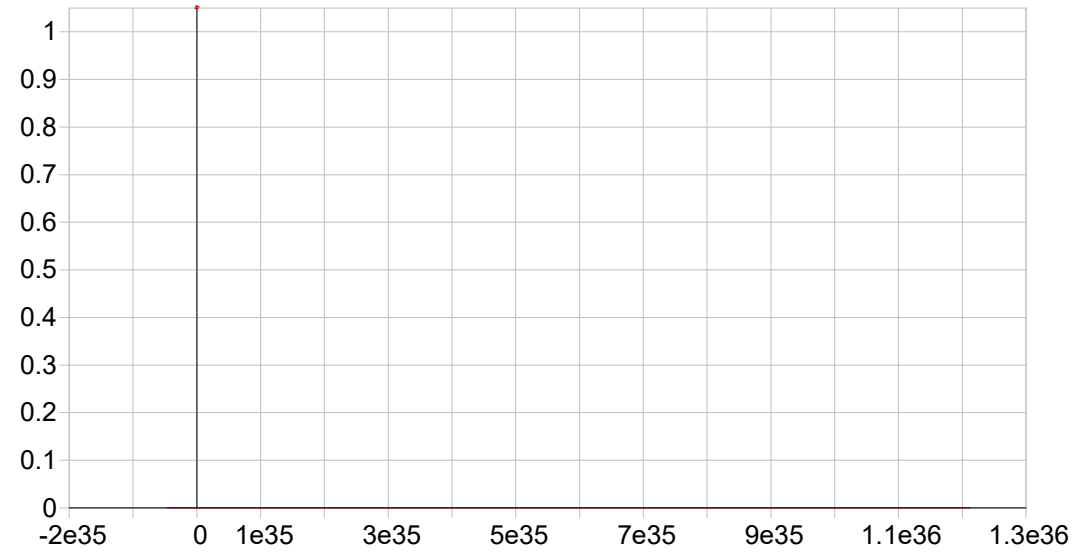
Li 670.784 { 50}

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

A0 (Offset):	0.036291	Re-Slope:	1.000000
A1 (Gain):	2.714769	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999951	Status:	OK.
Std Error of Est:	0.000554		
Predicted MDL:	0.001577		
Predicted MQL:	0.005256		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.03629	.001	1
S5	10.000	10.072	.072	.723	27.380	.088	1
S4	5.0000	4.9922	-.008	-.156	13.589	.395	1
S3	2.5000	2.4667	-.033	-1.33	6.7327	.023	1
S2	1.2500	1.2180	-.032	-2.56	3.3428	.010	1
S1	.01500	.01591	.001	6.08	.07949	.003	1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

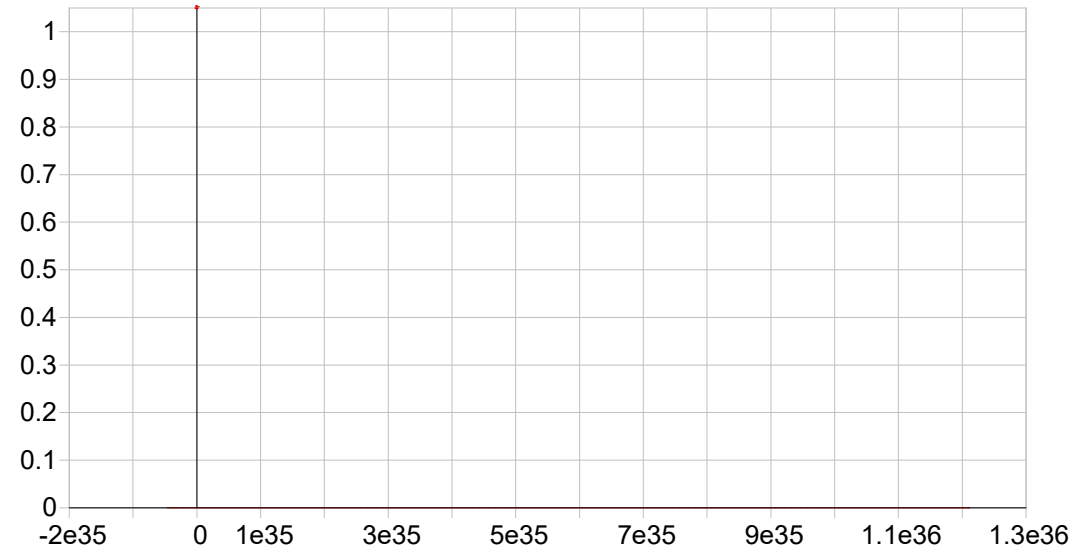


Y 224.306 {450}*

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

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

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



Y 360.073 { 94}*

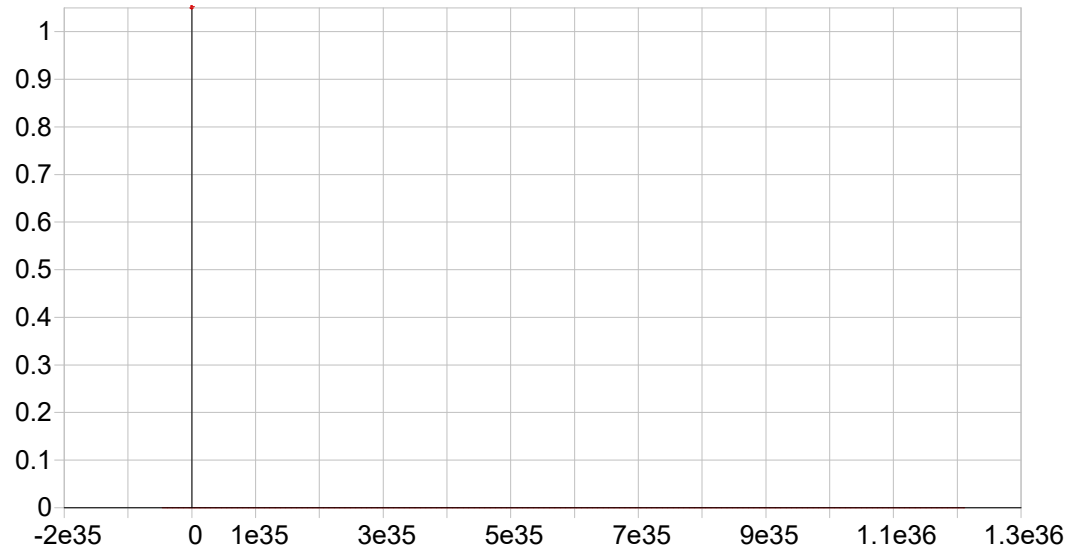
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 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

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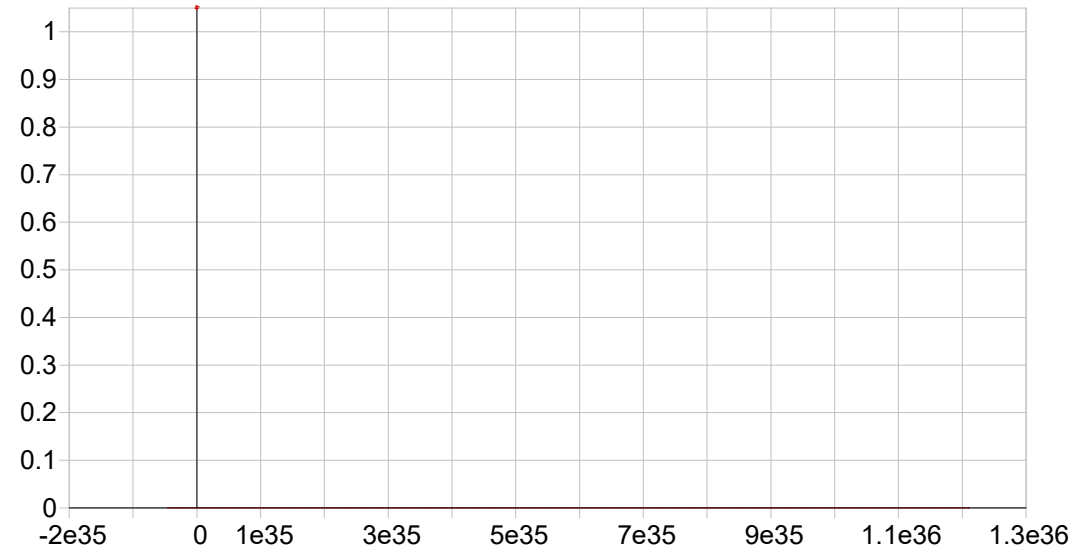
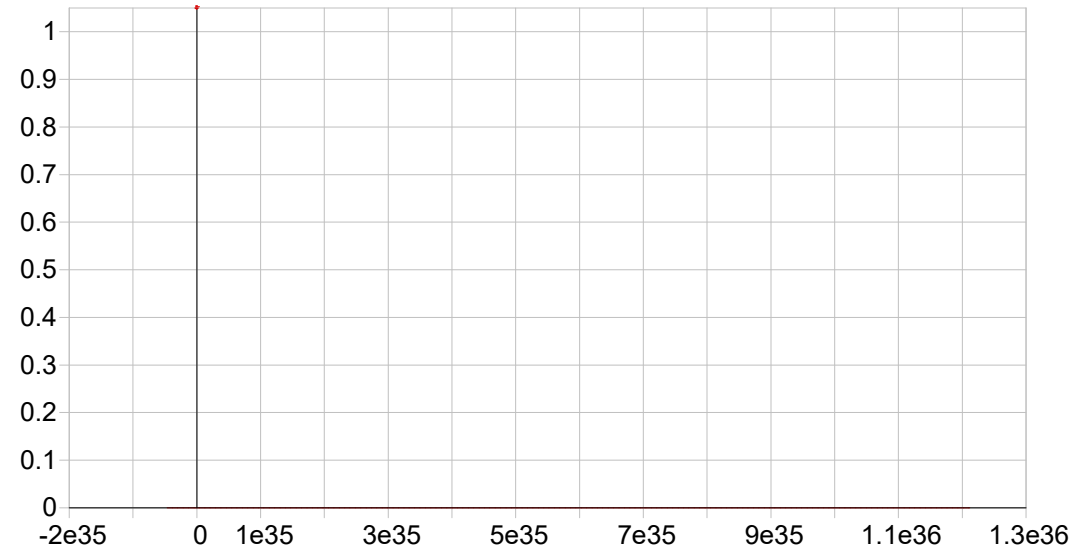


Y 224.306 {150}*

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	

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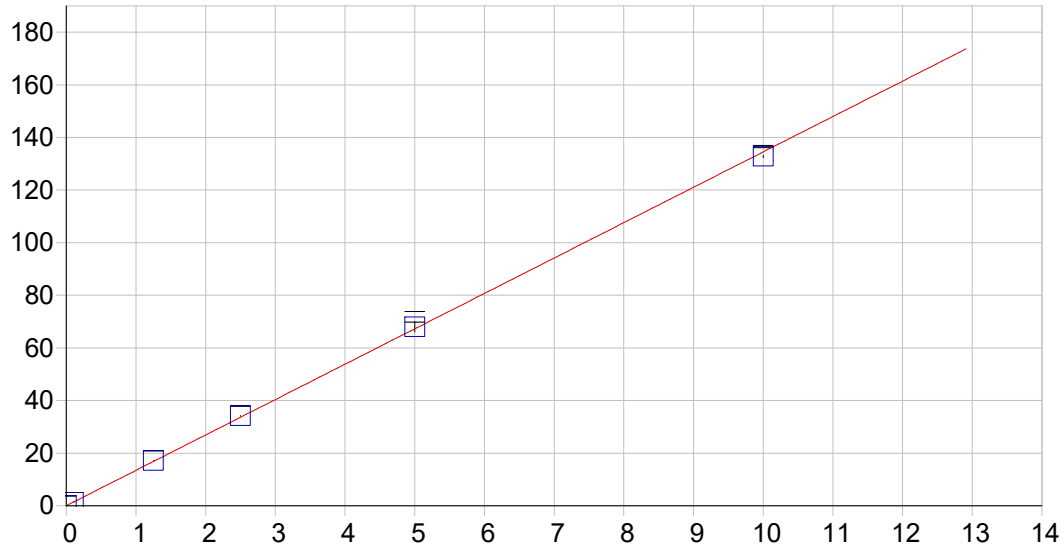
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000	Status:	Warning	Zero Gain	
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

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



Sr 407.771 { 83}

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

A0 (Offset):	0.003816	Re-Slope:	1.000000
A1 (Gain):	13.449764	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.009812		
Predicted MDL:	0.000127		
Predicted MQL:	0.000423		

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S0 Acquired: 10/29/2024 16:04:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00016	-.00051	-.00114	.00090	-.00006	-.00151	.03940	-.00294
Stddev	.00009	.00011	.00072	.00079	.00049	.00044	.00488	.00108
%RSD	54.390	20.472	63.261	87.728	860.11	29.006	12.377	36.817
#1	.00026	-.00051	-.00035	.00007	-.00056	-.00192	.04437	-.00170
#2	.00009	-.00041	-.00177	.00100	-.00003	-.00156	.03462	-.00341
#3	.00013	-.00062	-.00131	.00164	.00041	-.00105	.03921	-.00370

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00068	.00670	-.00018	-.00036	.00235	.00034	-.00028	-.00048
Stddev	.00024	.00038	.00018	.00010	.00016	.00018	.00055	.00020
%RSD	34.779	5.6586	100.46	26.845	6.7298	51.474	198.68	42.350
#1	.00085	.00632	-.00037	-.00046	.00241	.00015	.00019	-.00071
#2	.00078	.00708	-.00000	-.00027	.00247	.00050	-.00089	-.00032
#3	.00041	.00670	-.00017	-.00036	.00217	.00038	-.00013	-.00041

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00055	.03063	-.01145	-.00048	.00214	.06632	-.00121	.01185
Stddev	.00012	.00010	.00228	.00052	.00126	.00509	.00005	.00073
%RSD	22.061	.32634	19.929	109.56	58.747	7.6761	3.9492	6.1793
#1	-.00069	.03066	-.01382	-.00093	.00324	.07220	-.00116	.01118
#2	-.00050	.03052	-.01124	.00010	.00077	.06333	-.00124	.01263
#3	-.00046	.03071	-.00928	-.00061	.00240	.06344	-.00123	.01174

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00063	.00014	.01478	.00009	-.00003	.03629	.00371
Stddev	.00051	.00025	.00017	.00010	.00068	.00122	.00127
%RSD	81.347	170.66	1.1251	115.36	2288.9	3.3492	34.311
#1	.00121	.00006	.01496	.00013	-.00026	.03744	.00508
#2	.00023	-.00005	.01464	.00015	.00074	.03641	.00349
#3	.00044	.00042	.01475	-.00003	-.00057	.03502	.00256

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S0 Acquired: 10/29/2024 16:04:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	856.68	20596.	2299.4	763.08	1628.6
Stddev	2.41	15.	7.8	.65	4.4
%RSD	.28140	.07325	.33766	.08516	.26806
#1	854.22	20595.	2292.6	763.61	1623.6
#2	859.03	20581.	2297.8	763.28	1631.4
#3	856.79	20611.	2307.9	762.36	1630.8

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S1 Acquired: 10/29/2024 16:09:29 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00046	.00154	.00073	.00334	.01209	.02200	1.3824	.04473
Stddev	.00015	.00031	.00024	.00031	.00035	.00225	.0069	.00137
%RSD	31.899	19.871	33.186	9.3369	2.9029	10.248	.49541	3.0645
#1	.00049	.00167	.00062	.00361	.01248	.02452	1.3842	.04584
#2	.00058	.00119	.00100	.00300	.01179	.02020	1.3749	.04515
#3	.00030	.00177	.00056	.00342	.01201	.02126	1.3882	.04320

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01337	.45600	.00209	.03613	.00635	.00221	.00521	.03542
Stddev	.00010	.00173	.00009	.00029	.00026	.00011	.00008	.00095
%RSD	.74722	.37841	4.3125	.79260	4.0554	4.7846	1.4772	2.6892
#1	.01344	.45483	.00213	.03634	.00630	.00213	.00512	.03544
#2	.01341	.45518	.00199	.03624	.00664	.00233	.00527	.03446
#3	.01325	.45798	.00215	.03580	.00613	.00217	.00524	.03636

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02813	.03500	.05237	.00476	.17657	.26997	-.00061	.01188
Stddev	.00042	.00005	.00630	.00077	.00118	.00217	.00002	.00136
%RSD	1.4791	.14341	12.032	16.124	.66851	.80260	3.6614	11.464
#1	.02772	.03495	.04957	.00564	.17794	.27216	-.00059	.01344
#2	.02855	.03502	.04796	.00425	.17591	.26783	-.00061	.01093
#3	.02811	.03504	.05959	.00438	.17588	.26992	-.00063	.01126

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.01022	.00291	.41568	.00114	.05768	.07949	1.4081
Stddev	.00026	.00012	.00097	.00022	.00061	.00267	.0062
%RSD	2.5332	4.2615	.23264	19.291	1.0647	3.3560	.43924
#1	.01048	.00303	.41495	.00111	.05736	.08079	1.4143
#2	.00996	.00278	.41678	.00093	.05839	.08125	1.4019
#3	.01022	.00292	.41531	.00137	.05729	.07642	1.4081

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S1 Acquired: 10/29/2024 16:09:29 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	854.21	20623.	2297.6	760.25	1613.2
Stddev	.81	22.	2.2	1.59	2.0
%RSD	.09444	.10431	.09656	.20953	.12429
#1	854.16	20614.	2297.2	758.44	1613.3
#2	855.04	20609.	2300.0	761.43	1615.2
#3	853.42	20648.	2295.6	760.88	1611.2

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S2 Acquired: 10/29/2024 16:14:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.04114	.09928	1.0619	.10037	.26105	4.8774	16.181	1.1157
Stddev	.00032	.00059	.0022	.00122	.00181	.0136	.044	.0104
%RSD	.77267	.59611	.20691	1.2135	.69427	.27852	.27405	.93023
#1	.04137	.09931	1.0615	.10118	.26170	4.8618	16.148	1.1040
#2	.04078	.09868	1.0600	.10095	.25901	4.8836	16.231	1.1194
#3	.04128	.09986	1.0643	.09897	.26245	4.8867	16.163	1.1237

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.5048	5.3399	.86374	.45548	.77536	.62259	1.2240	.40443
Stddev	.0028	.0260	.00123	.00095	.00071	.00248	.0056	.00221
%RSD	.18693	.48733	.14234	.20765	.09142	.39770	.45419	.54627
#1	1.5046	5.3103	.86481	.45534	.77482	.62181	1.2176	.40211
#2	1.5021	5.3500	.86240	.45461	.77510	.62537	1.2275	.40468
#3	1.5077	5.3593	.86402	.45648	.77616	.62061	1.2269	.40651

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.43119	.15193	.49031	.05298	10.734	1.5449	.06669	1.3384
Stddev	.00169	.00026	.00029	.00056	.017	.0038	.00072	.0142
%RSD	.39263	.17240	.05910	1.0560	.15970	.24533	1.0855	1.0610
#1	.43126	.15200	.49028	.05363	10.734	1.5425	.06626	1.3220
#2	.42947	.15216	.49061	.05268	10.751	1.5492	.06630	1.3454
#3	.43285	.15165	.49003	.05265	10.717	1.5429	.06753	1.3477

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.2311	.03655	2.3081	.14508	.71598	3.3428	17.147
Stddev	.0042	.00020	.0243	.00045	.00455	.0102	.020
%RSD	.33864	.55044	1.0523	.30684	.63563	.30392	.11582
#1	1.2314	.03644	2.2800	.14492	.71074	3.3319	17.129
#2	1.2267	.03642	2.3220	.14473	.71899	3.3444	17.168
#3	1.2351	.03678	2.3222	.14558	.71820	3.3520	17.145

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S2 Acquired: 10/29/2024 16:14:07 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	807.09	20127.	2275.2	705.69	1464.4
Stddev	1.26	35.	20.0	1.44	2.8
%RSD	.15562	.17263	.87938	.20459	.19220
#1	805.82	20088.	2298.2	704.86	1461.8
#2	808.33	20142.	2265.8	704.84	1467.4
#3	807.13	20153.	2261.6	707.35	1464.2

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S3 Acquired: 10/29/2024 16:18:32 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.08389	.19854	2.1448	.20554	.54079	9.7749	32.439	2.1866
Stddev	.00026	.00054	.0026	.00096	.00234	.0349	.148	.0123
%RSD	.31355	.27185	.12253	.46642	.43313	.35714	.45507	.56425
#1	.08383	.19834	2.1418	.20527	.53939	9.7954	32.590	2.2005
#2	.08366	.19813	2.1458	.20474	.53949	9.7947	32.433	2.1827
#3	.08418	.19915	2.1467	.20660	.54350	9.7346	32.295	2.1768

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.0266	10.551	1.7135	.92256	1.5385	1.2241	2.4220	.81317
Stddev	.0050	.045	.0035	.00146	.0082	.0078	.0095	.00210
%RSD	.16435	.42287	.20520	.15817	.53038	.63886	.39268	.25767
#1	3.0213	10.574	1.7094	.92222	1.5476	1.2226	2.4308	.81464
#2	3.0275	10.579	1.7156	.92129	1.5358	1.2326	2.4233	.81409
#3	3.0311	10.499	1.7154	.92416	1.5319	1.2172	2.4119	.81077

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.86811	.27299	.99663	.10514	22.016	3.0578	.14061	2.6598
Stddev	.00117	.00085	.00388	.00034	.081	.0101	.00095	.0147
%RSD	.13478	.31163	.38886	.32261	.36737	.32905	.67225	.55299
#1	.86719	.27349	.99218	.10491	22.028	3.0612	.13953	2.6544
#2	.86772	.27201	.99926	.10498	21.929	3.0657	.14102	2.6764
#3	.86943	.27347	.99846	.10553	22.090	3.0464	.14129	2.6485

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.5296	.07708	4.5358	.29500	1.4276	6.7327	34.146
Stddev	.0067	.00050	.0210	.00056	.0090	.0226	.147
%RSD	.26437	.64619	.46372	.18972	.63232	.33586	.42984
#1	2.5235	.07688	4.5483	.29449	1.4347	6.7533	34.250
#2	2.5286	.07670	4.5477	.29560	1.4306	6.7362	34.211
#3	2.5367	.07764	4.5116	.29492	1.4174	6.7085	33.978

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S3 Acquired: 10/29/2024 16:18:32 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	771.84	19838.	2280.5	663.94	1400.5
Stddev	.79	19.	13.6	2.78	.9
%RSD	.10235	.09749	.59706	.41913	.06128
#1	772.39	19858.	2273.7	662.81	1399.6
#2	772.18	19820.	2271.7	667.11	1401.3
#3	770.93	19834.	2296.2	661.90	1400.7

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S4 Acquired: 10/29/2024 16:22:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.17666	.38914	4.3210	.43637	1.1502	19.668	64.991	4.3053
Stddev	.00123	.00110	.0073	.00169	.0016	.606	1.963	.0979
%RSD	.69640	.28139	.16880	.38814	.14164	3.0792	3.0206	2.2731
#1	.17542	.38821	4.3126	.43459	1.1489	19.949	66.032	4.3476
#2	.17788	.38886	4.3256	.43655	1.1520	18.973	62.727	4.1935
#3	.17667	.39035	4.3248	.43797	1.1496	20.083	66.215	4.3750

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6.0702	20.945	3.3502	1.8664	3.0517	2.3905	4.7251	1.6320
Stddev	.0191	.599	.0061	.0083	.0924	.0706	.1342	.0461
%RSD	.31532	2.8577	.18231	.44259	3.0263	2.9516	2.8399	2.8231
#1	6.0483	21.202	3.3570	1.8570	3.0979	2.4198	4.7941	1.6516
#2	6.0832	20.261	3.3484	1.8726	2.9454	2.3101	4.5705	1.5794
#3	6.0793	21.372	3.3452	1.8696	3.1119	2.4417	4.8108	1.6651

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.7478	.52073	2.0101	.20844	46.674	6.1527	.29110	5.1376
Stddev	.0062	.00053	.0569	.00460	.099	.1855	.00153	.1134
%RSD	.35205	.10271	2.8300	2.2081	.21220	3.0142	.52471	2.2073
#1	1.7407	.52023	2.0348	.20964	46.564	6.2417	.28940	5.2027
#2	1.7516	.52068	1.9451	.20336	46.703	5.9396	.29157	5.0067
#3	1.7511	.52129	2.0505	.21233	46.755	6.2770	.29234	5.2034

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.2689	.16105	8.8315	.59578	2.8266	13.589	68.040
Stddev	.0034	.00106	.1836	.00233	.0837	.395	2.032
%RSD	.06419	.65656	2.0787	.39105	2.9612	2.9101	2.9872
#1	5.2654	.15987	8.9303	.59312	2.8677	13.785	69.047
#2	5.2721	.16136	8.6197	.59744	2.7303	13.134	65.701
#3	5.2692	.16192	8.9445	.59679	2.8818	13.848	69.373

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S4 Acquired: 10/29/2024 16:22:51 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	706.02	19308.	2276.6	583.99	1305.4
Stddev	.44	27.	51.4	1.78	4.0
%RSD	.06163	.13786	2.2563	.30537	.30344
#1	705.91	19286.	2250.1	585.19	1309.5
#2	705.65	19337.	2335.8	584.83	1301.6
#3	706.50	19299.	2243.9	581.94	1305.1

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S5 Acquired: 10/29/2024 16:27:05 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.35536	.73448	8.4250	.94534	2.5430	39.738	127.20	8.5733
Stddev	.00041	.00251	.0100	.00233	.0059	.087	1.67	.0301
%RSD	.11592	.34238	.11836	.24603	.23290	.21937	1.3120	.35127
#1	.35521	.73225	8.4156	.94268	2.5376	39.838	128.89	8.6045
#2	.35505	.73398	8.4238	.94636	2.5420	39.699	127.15	8.5711
#3	.35583	.73721	8.4355	.94699	2.5493	39.677	125.56	8.5444

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	11.671	41.624	6.3695	3.6176	6.0267	4.6656	9.1081	3.3037
Stddev	.021	.074	.0062	.0042	.0187	.0145	.0239	.0061
%RSD	.17944	.17710	.09751	.11707	.30938	.31057	.26217	.18508
#1	11.649	41.709	6.3646	3.6127	6.0476	4.6792	9.1355	3.3108
#2	11.691	41.592	6.3765	3.6199	6.0119	4.6504	9.0919	3.3002
#3	11.674	41.572	6.3676	3.6202	6.0207	4.6672	9.0967	3.3002

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.3685	1.0211	4.0410	.41307	104.34	12.439	.58062	9.9201
Stddev	.0025	.0028	.0087	.00265	.34	.023	.00087	.0687
%RSD	.07343	.27455	.21594	.64170	.32541	.18850	.15067	.69201
#1	3.3658	1.0216	4.0509	.41555	104.09	12.458	.57981	9.9951
#2	3.3705	1.0236	4.0371	.41337	104.21	12.413	.58049	9.9048
#3	3.3693	1.0180	4.0348	.41028	104.73	12.447	.58155	9.8605

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	11.338	.32371	17.329	1.1577	5.5695	27.380	132.80
Stddev	.032	.00031	.093	.0023	.0196	.088	.42
%RSD	.28448	.09650	.53578	.19730	.35257	.31982	.31940
#1	11.302	.32336	17.422	1.1556	5.5921	27.481	133.02
#2	11.347	.32381	17.327	1.1601	5.5600	27.325	133.08
#3	11.365	.32397	17.237	1.1574	5.5564	27.335	132.32

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S5 Acquired: 10/29/2024 16:27:05 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	603.92	18754.	2213.7	454.94	1220.7
Stddev	1.13	35.	12.2	1.03	.9
%RSD	.18649	.18667	.55260	.22588	.07497
#1	605.19	18750.	2201.4	455.66	1221.7
#2	603.52	18722.	2213.6	455.40	1220.0
#3	603.04	18792.	2225.9	453.76	1220.4

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: S6 Acquired: 10/29/2024 16:31:34 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	101.09	65.037	11.994	5.1997	10.872
Stddev	.52	.194	.031	.0132	.037
%RSD	.51276	.29855	.25935	.25382	.34176
#1	100.96	65.240	12.008	5.2143	10.911
#2	100.64	64.853	11.958	5.1887	10.837
#3	101.65	65.019	12.016	5.1961	10.867

Int. Std.	Y_3710
Units	Cts/S
Avg	2169.7
Stddev	11.8
%RSD	.54478
#1	2157.6
#2	2181.2
#3	2170.2

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICV004 Acquired: 10/29/2024 17:19:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.052217	1.034153	.9647990	1.032306	.9981979	2.311834
Stddev	.007464	.008302	.0010284	.006766	.0003215	.016303
%RSD	.7093818	.8028264	.1065945	.6554627	.0322035	.7051801
#1	1.057068	1.043695	.9651649	1.025612	.9985665	2.326494
#2	1.043622	1.030184	.9636376	1.039143	.9979755	2.294277
#3	1.055963	1.028580	.9655944	1.032163	.9980517	2.314731

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4983675	.5172582	.4889609	9.933896	.5541242	.4852427
Stddev	.0001107	.0036908	.0010091	.024113	.0010303	.0013428
%RSD	.0222100	.7135213	.2063679	.2427369	.1859389	.2767320
#1	.4982962	.5214775	.4898668	9.961721	.5550463	.4843988
#2	.4983114	.5156676	.4878733	9.919097	.5530121	.4845382
#3	.4984950	.5146294	.4891424	9.920870	.5543142	.4867912

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4828738	10.62330	.5252838	5.659365	.4973931	.2385281
Stddev	.0021055	.07028	.0018105	.036657	.0007889	.0011851
%RSD	.4360433	.6615599	.3446701	.6477291	.1586035	.4968285
#1	.4824129	10.70234	.5254025	5.701402	.4964822	.2392753
#2	.4851716	10.56786	.5270320	5.634054	.4978524	.2391474
#3	.4810369	10.59969	.5234169	5.642638	.4978447	.2371617

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.540143	.5173716	.9965624	9.138633	F .0065997	F .0052795
Stddev	.306095	.0054728	.0023677	.038133	.0011810	.0004849
%RSD	3.208490	1.057803	.2375911	.4172733	17.89517	9.184582
#1	9.536921	.5231759	.9941595	9.181184	.0078260	.0051196
#2	9.847836	.5123052	.9966343	9.127167	.0054699	.0048948
#3	9.235672	.5166337	.9988934	9.107549	.0065034	.0058242

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICV004 Acquired: 10/29/2024 17:19:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000862	F .0059086	F .0009168	F -.000513	F .0001456	F -.005536
Stddev	.000192	.0099990	.0003545	.001220	.0013791	.001845
%RSD	22.28553	169.2281	38.66461	237.8966	947.2834	33.32685
#1	-.000972	.0131326	.0011975	-.000040	.0016146	-.006832
#2	-.000640	.0100965	.0005185	-.001899	-.001121	-.006353
#3	-.000973	-.005503	.0010345	.000400	-.000056	-.003424

Elem	Sr4077
Units	ppm
Avg	F .0012352
Stddev	.0001634
%RSD	13.23077
#1	.0014215
#2	.0011681
#3	.0011161

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	854.6349	20446.72	2299.230	754.8462	1601.543
Stddev	.6118	40.14	14.264	1.7025	2.925
%RSD	.0715902	.1963244	.6203694	.2255461	.1826599
#1	854.6394	20402.84	2282.895	754.0419	1599.206
#2	855.2445	20481.58	2309.225	756.8019	1604.824
#3	854.0209	20455.75	2305.569	753.6948	1600.599

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICB004 Acquired: 10/29/2024 17:25:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001890	.0040155	.0009146	.0007621	.0003084	-.004436	.0000126
Stddev	.0032881	.0011298	.0021862	.0044066	.0011307	.015018	.0003352
%RSD	1739.388	28.13566	239.0356	578.2476	366.6187	338.5504	2656.724
#1	.0037912	.0040127	.0007253	-.003220	-.000986	.005587	-.000358
#2	-.002651	.0051468	.0031892	.000010	.001103	.002807	.000296
#3	-.000573	.0028872	-.001171	.005496	.000808	-.021702	.000100

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000062	.0001114	-.013950	.0001524	-.000320	-.004595	-.000885
Stddev	.0000654	.0000296	.010640	.0004534	.000477	.000115	.042001
%RSD	1051.720	26.55033	76.27450	297.5294	149.1248	2.506408	4748.398
#1	.0000435	.0001428	-.016996	-.000299	-.000578	-.004612	.041533
#2	.0000445	.0000842	-.022735	.000608	.000231	-.004472	-.042455
#3	-.000069	.0001071	-.002119	.000148	-.000611	-.004701	-.001732

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000382	-.004469	-.000385	.0019769	-.472445	.0026700	-.000010
Stddev	.000880	.037403	.000781	.0005005	.503365	.0013792	.000377
%RSD	230.7219	836.9954	202.7216	25.31726	106.5446	51.65436	3867.556
#1	-.000167	-.024130	-.001144	.0023516	.103748	.0029642	.000284
#2	-.001349	.038665	.000417	.0021708	-.694380	.0038783	-.000435
#3	.000372	-.027941	-.000430	.0014085	-.826703	.0011675	.000122

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0852264	.0016531	-.004323	-.000713	-.002229	-.000371	-.000375
Stddev	.1076685	.0026494	.001099	.000456	.003821	.000629	.001735
%RSD	126.3323	160.2696	25.42287	63.93779	171.4693	169.4006	462.7112
#1	.1182057	-.000306	-.004891	-.000366	.001475	-.000728	-.000915
#2	-.035074	.000598	-.003056	-.000544	-.002004	-.000740	-.001776
#3	.172548	.004668	-.005021	-.001229	-.006158	.000355	.001566

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICB004 Acquired: 10/29/2024 17:25:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB004 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0003211	-.004856	-.000062
Stddev	.0003211	.001028	.000146
%RSD	100.0232	21.17202	234.0559
#1	.0003579	-.004513	-.000229
#2	.0006222	-.006011	-.000002
#3	-.000017	-.004043	.000044

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICSA004 Acquired: 10/29/2024 17:35:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057106	-.019991	.0002109	-.002698	.0022916	246.0232
Stddev	.0031078	.002830	.0049626	.007683	.0016759	.6740
%RSD	54.42213	14.15504	2353.103	284.7346	73.13292	.2739601
#1	.0023725	-.017565	-.002375	-.011474	.0041688	245.5432
#2	.0085204	-.019310	.005932	.002818	.0009459	246.7938
#3	.0062388	-.023100	-.002925	.000561	.0017600	245.7328

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051737	.0009629	.0000556	255.2768	.0523713	.0006556
Stddev	.0003685	.0000546	.0000308	.5479	.0006261	.0006768
%RSD	7.122011	5.666221	55.41963	.2146458	1.195531	103.2410
#1	.0047483	.0009926	.0000899	254.7641	.0518637	.0008141
#2	.0053777	.0009961	.0000302	255.8542	.0521793	-.000086
#3	.0053950	.0008999	.0000468	255.2121	.0530709	.001239

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007326	106.6619	.0149358	262.5211	.0044516	.0044844
Stddev	.004069	.2864	.0023751	.5729	.0006795	.0003773
%RSD	55.54085	.2684843	15.90187	.2182385	15.26457	8.414508
#1	-.008557	106.7129	.0166585	261.8596	.0048855	.0041225
#2	-.010637	106.9194	.0159225	262.8595	.0048008	.0048755
#3	-.002784	106.3535	.0122264	262.8442	.0036685	.0044551

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1101988	-.008551	.0116794	.0141172	F .0204760	F .0918432
Stddev	.1927928	.000888	.0005983	.1241653	.0013246	.0009981
%RSD	174.9500	10.38561	5.122267	879.5343	6.469109	1.086759
#1	-.049525	-.008850	.0123333	.0978633	.0216408	.0907026
#2	.324356	-.009251	.0111596	.0730259	.0207521	.0922701
#3	.055765	-.007552	.0115454	-.128538	.0190351	.0925568

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICSA004 Acquired: 10/29/2024 17:35:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001913	.0110052	-.000875	-.006167	-.000330	-.003838
Stddev	.000590	.0025171	.000631	.003012	.002552	.001284
%RSD	30.87098	22.87224	72.12281	48.84142	774.3476	33.45743
#1	-.002328	.0093803	-.000225	-.004532	-.000412	-.005185
#2	-.001237	.0139047	-.001485	-.009644	.002262	-.003703
#3	-.002173	.0097307	-.000915	-.004326	-.002839	-.002627

Elem	Sr4077
Units	ppm
Avg	F .1031773
Stddev	.0003280
%RSD	.3178750
#1	.1027986
#2	.1033649
#3	.1033684

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	797.6622	19332.08	2239.855	707.4015	1369.229
Stddev	2.9826	40.34	4.246	1.5371	3.104
%RSD	.3739142	.2086599	.1895550	.2172860	.2266881
#1	796.5228	19292.85	2240.752	706.2188	1368.301
#2	801.0465	19329.95	2235.232	709.1389	1372.691
#3	795.4173	19373.44	2243.580	706.8467	1366.694

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICSAB004 Acquired: 10/29/2024 17:40:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB004 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0908548	.0874347	.0536742	.0320948	.5403511	245.1004
Stddev	.0019802	.0015773	.0039084	.0041858	.0039446	.9065
%RSD	2.179543	1.804034	7.281708	13.04183	.7300088	.3698680
#1	.0888089	.0859928	.0569136	.0299973	.5362542	244.2395
#2	.0909936	.0891194	.0547757	.0293725	.5406757	245.0150
#3	.0927620	.0871918	.0493332	.0369146	.5441233	246.0466

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5259766	.5348067	1.035516	254.6326	.6163711	.5180704
Stddev	.0015769	.0036184	.000997	1.2643	.0036352	.0022182
%RSD	.2998075	.6765866	.0962933	.4965372	.5897782	.4281583
#1	.5242700	.5382376	1.035270	254.0343	.6148341	.5171592
#2	.5273798	.5310261	1.034664	253.7784	.6205224	.5164530
#3	.5262800	.5351563	1.036613	256.0850	.6137568	.5205990

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4887104	106.4171	.5436500	262.4374	1.043239	.1947398
Stddev	.0070989	.6153	.0038174	1.5123	.000466	.0005098
%RSD	1.452581	.5782049	.7021783	.5762396	.0446981	.2618003
#1	.4846404	106.2470	.5404678	261.6173	1.042737	.1941692
#2	.4969074	105.9047	.5425997	261.5124	1.043321	.1949000
#3	.4845832	107.0996	.5478826	264.1826	1.043659	.1951504

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1152632	.5332431	.8830527	.0896741	F .0234068	F .0904320
Stddev	.2224334	.0048447	.0083661	.0828843	.0019764	.0014697
%RSD	192.9786	.9085353	.9474089	92.42843	8.443908	1.625204
#1	.2837289	.5276870	.8769805	.0244325	.0251091	.0888878
#2	-.136872	.5354562	.8795821	.1829369	.0238721	.0905946
#3	.198932	.5365860	.8925956	.0616528	.0212392	.0918136

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: ICSAB004 Acquired: 10/29/2024 17:40:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB004 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001114	.0064317	-.000360	-.005272	-.001748	-.003588
Stddev	.000138	.0062225	.000388	.002776	.001343	.001014
%RSD	12.40761	96.74664	107.7528	52.66371	76.82344	28.26332
#1	-.001269	.0133391	-.000258	-.006269	-.003284	-.002644
#2	-.001003	.0046912	-.000790	-.002135	-.001165	-.004661
#3	-.001070	.0012649	-.000033	-.007412	-.000795	-.003461

Elem	Sr4077
Units	ppm
Avg	F .1026802
Stddev	.0006192
%RSD	.6030328
#1	.1020658
#2	.1026707
#3	.1033041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	796.0510	19371.88	2247.565	705.9982	1372.934
Stddev	1.7919	47.56	5.619	9.1959	.727
%RSD	.2250968	.2454851	.2500043	1.302543	.0529679
#1	798.0607	19426.21	2245.742	714.9482	1373.500
#2	794.6198	19337.78	2253.869	706.4719	1373.188
#3	795.4726	19351.66	2243.083	696.5746	1372.114

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.976761	4.826333	24.46208	4.636003	4.728301	411.8710	9.965492
Stddev	.101007	.086573	.41506	.103568	.095413	1.4685	.046991
%RSD	2.029566	1.793757	1.696753	2.233998	2.017922	.3565369	.4715389
#1	5.092932	4.925936	24.94081	4.754852	4.838460	412.7557	9.989460
#2	4.927648	4.783893	24.20305	4.565063	4.674801	410.1759	9.911350
#3	4.909702	4.769169	24.24238	4.588094	4.671643	412.6814	9.995667

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4945301	2.471478	403.9836	15.45720	2.491982	14.99210	412.0467
Stddev	.0022822	.042587	.6722	.00764	.043245	.05739	.7158
%RSD	.4614820	1.723132	.1664035	.0494310	1.735378	.3828256	.1737172
#1	.4923656	2.520651	404.6051	15.46402	2.541779	14.98951	412.1840
#2	.4943105	2.446498	403.2701	15.44894	2.463870	14.93605	411.2722
#3	.4969141	2.447285	404.0757	15.45865	2.470296	15.05075	412.6839

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.84701	403.6269	2.483622	1.238699	408.0736	2.484210	13.94566
Stddev	.06841	.8317	.043749	.002343	1.0139	.016707	.17308
%RSD	.4607654	.2060507	1.761494	.1891773	.2484513	.6725265	1.241100
#1	14.87657	404.2894	2.534096	1.236121	408.9155	2.468504	14.03372
#2	14.76880	402.6935	2.456585	1.239275	406.9482	2.501764	14.05699
#3	14.89568	403.8977	2.460186	1.240700	408.3571	2.482360	13.74625

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	153.2662	5.045809	5.283811	4.699959	4.996855	4.985546	4.952844
Stddev	.5753	.081603	.018826	.086395	.073903	.007485	.084964
%RSD	.3753736	1.617251	.3562992	1.838212	1.478994	.1501404	1.715454
#1	153.4851	5.140032	5.304631	4.799440	5.081730	4.993788	5.050811
#2	152.6136	4.999508	5.278813	4.643756	4.962091	4.983681	4.899313
#3	153.7000	4.997887	5.267988	4.656680	4.946744	4.979170	4.908408

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: CCB023 Acquired: 10/29/2024 17:51:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB023 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003710	-.000406	.0030615	-.000291	.0003645	-.004783	-.000850
Stddev	.0019653	.000772	.0023282	.002673	.0038590	.009537	.000896
%RSD	529.7311	190.0939	76.04747	919.4887	1058.696	199.3847	105.4660
#1	.0016479	.000016	.0004543	-.002875	-.003352	-.003705	.000052
#2	.0013573	.000063	.0049328	.002464	.000093	.004169	-.001740
#3	-.001892	-.001297	.0037972	-.000461	.004352	-.014814	-.000860

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000944	.0000724	.0130574	.0008084	.0001351	-.002051	.0076155
Stddev	.0000869	.0000948	.0147839	.0006639	.0001952	.001258	.0142017
%RSD	92.14373	131.0084	113.2225	82.12383	144.4267	61.30603	186.4853
#1	.0001184	.0000714	.0111401	.0004571	.0003418	-.000739	-.008450
#2	.0001667	-.000022	.0287063	.0003941	.0001096	-.002169	.012799
#3	-.000002	.000168	-.000674	.0015742	-.000046	-.003246	.018497

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011731	.0293933	-.000056	.0011077	-.151377	-.000017	-.000105
Stddev	.0010555	.0466690	.000462	.0001929	.300485	.008751	.000266
%RSD	89.96979	158.7747	826.3448	17.41332	198.5011	50308.78	253.9731
#1	.0001064	-.023464	.000474	.0012797	-.384835	.005161	-.000063
#2	.0011960	.046733	-.000270	.0011442	.187645	-.010121	.000138
#3	.0022170	.064910	-.000372	.0008991	-.256942	.004908	-.000388

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1404810	-.000226	-.000821	-.000287	.0063403	-.000825	.0006306
Stddev	.0510848	.002603	.001010	.000201	.0026465	.000597	.0010660
%RSD	36.36421	1152.399	122.9133	70.05217	41.74065	72.37527	169.0512
#1	.1683398	-.001980	-.001900	-.000374	.0062022	-.000271	.0016192
#2	.1715802	-.001462	.000101	-.000429	.0090531	-.001457	.0007713
#3	.0815230	.002765	-.000666	-.000057	.0037655	-.000746	-.000499

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: CCB023 Acquired: 10/29/2024 17:51:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB023 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005923	-.004248	.0002068
Stddev	.0007164	.001144	.0000542
%RSD	120.9654	26.93330	26.19857
#1	-.000201	-.004958	.0001443
#2	.000786	-.004858	.0002359
#3	.001192	-.002928	.0002402

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0863008	-.035720	.2463849	-.031162	.0080689	121.6202	.3049164
Stddev	.0024915	.005540	.0011910	.006672	.0039024	.0564	.0008452
%RSD	2.887032	15.50953	.4833892	21.41124	48.36322	.0463903	.2771968
#1	.0834397	-.030198	.2471047	-.038543	.0036196	121.6692	.3040723
#2	.0874697	-.041278	.2470400	-.029383	.0096763	121.6327	.3057628
#3	.0879929	-.035682	.2450102	-.025560	.0109109	121.5585	.3049140

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027637	.0007185	36.70013	.5207745	.2004917	.5493237	265.2290
Stddev	.0002042	.0000455	.13858	.0022937	.0011045	.0039932	.5731
%RSD	7.386671	6.335289	.3776122	.4404372	.5508910	.7269271	.2160927
#1	.0029009	.0007261	36.74766	.5181464	.2015152	.5455156	265.8584
#2	.0028611	.0006696	36.54404	.5218044	.2006389	.5534792	264.7370
#3	.0025291	.0007597	36.80870	.5223728	.1993210	.5489762	265.0918

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.122357	100.5437	.5145515	-.018376	1.510063	.5755071	.3490069
Stddev	.012770	.3662	.0023947	.000756	.097421	.0068527	.0029063
%RSD	.3097736	.3642528	.4653920	4.112150	6.451484	1.190721	.8327231
#1	4.129518	100.9653	.5173006	-.018991	1.407817	.5819967	.3493348
#2	4.129939	100.3050	.5129196	-.018603	1.601809	.5761831	.3459506
#3	4.107613	100.3607	.5134343	-.017532	1.520565	.5683414	.3517354

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.10972	2.984922	.2508799	.0004582	.5396417	3.401863	.0047695
Stddev	.08752	.010202	.0007716	.0005482	.0036269	.011964	.0035063
%RSD	.7227633	.3417938	.3075509	119.6464	.6720946	.3516811	73.51442
#1	12.02459	2.983853	.2515796	.0010865	.5429076	3.414915	.0057371
#2	12.10511	2.975296	.2500524	.0002106	.5402791	3.391418	.0076903
#3	12.19945	2.995617	.2510078	.0000775	.5357383	3.399256	.0008810

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.435919	.0556454	.1196033
Stddev	.006971	.0026966	.0003918
%RSD	.2861563	4.846099	.3275515
#1	2.443858	.0573268	.1197375
#2	2.433093	.0570744	.1199103
#3	2.430805	.0525350	.1191621

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	863.2770	20976.64	2398.707	762.5494	1491.790
Stddev	2.2705	93.22	4.071	5.2314	3.297
%RSD	.2630135	.4444017	.1697070	.6860429	.2209948
#1	860.8486	21033.70	2395.260	760.7264	1488.014
#2	865.3470	21027.16	2403.198	768.4483	1494.096
#3	863.6353	20869.07	2397.662	758.4733	1493.261

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1372451	-.034617	.1280537	-.023182	.0070008	101.8624	.9004151
Stddev	.0060463	.003811	.0031701	.005552	.0018090	.0838	.0030638
%RSD	4.405484	11.00779	2.475606	23.94878	25.83984	.0823038	.3402658
#1	.1408777	-.035785	.1317044	-.019304	.0066978	101.7662	.8988545
#2	.1302653	-.037707	.1264602	-.029542	.0053625	101.9007	.8984459
#3	.1405921	-.030359	.1259964	-.020700	.0089422	101.9202	.9039450

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047005	.0017241	43.96480	.2272316	.1181989	.4088782	213.1072
Stddev	.0000591	.0005076	.17133	.0004258	.0004888	.0058264	.4716
%RSD	1.256718	29.44356	.3896966	.1873719	.4135662	1.424960	.2212938
#1	.0046327	.0022685	44.04420	.2269437	.1176517	.4127326	213.4018
#2	.0047275	.0016401	44.08202	.2277207	.1183527	.4021757	213.3565
#3	.0047412	.0012637	43.76817	.2270305	.1185924	.4117265	212.5633

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.425555	47.17144	.1952224	-.017312	1.536594	.4256033	.4240650
Stddev	.014641	.21087	.0007852	.000526	.352925	.0110277	.0018808
%RSD	.3308386	.4470313	.4022126	3.037089	22.96800	2.591066	.4435212
#1	4.417088	47.33144	.1943343	-.016724	1.161393	.4381942	.4222585
#2	4.417115	47.25039	.1958246	-.017737	1.586447	.4209547	.4260123
#3	4.442461	46.93249	.1955084	-.017475	1.861941	.4176611	.4239243

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.18428	4.960529	.2201821	-.000494	.5626556	3.166646	.0058541
Stddev	.18166	.004274	.0019928	.000632	.0034952	.017978	.0032690
%RSD	.8188572	.0861647	.9050641	127.9978	.6211958	.5677374	55.84200
#1	22.27871	4.965363	.2221201	.000204	.5603238	3.154220	.0060334
#2	21.97485	4.957250	.2181387	-.000658	.5609687	3.187261	.0090297
#3	22.29927	4.958974	.2202875	-.001028	.5666743	3.158457	.0024990

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1096859	-.034138	.1050019	-.029638	.0062142	98.81396	.7397739
Stddev	.0051621	.005215	.0027705	.005208	.0045332	.20039	.0014779
%RSD	4.706268	15.27674	2.638531	17.57195	72.94923	.2027918	.1997720
#1	.1125028	-.031565	.1067285	-.025844	.0015868	99.04533	.7405025
#2	.1128267	-.030710	.1064710	-.035575	.0106470	98.69610	.7380732
#3	.1037281	-.040140	.1018063	-.027494	.0064089	98.70044	.7407460

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039711	.0014524	68.10599	.2837075	.1376040	.4334822	217.6269
Stddev	.0001605	.0000280	.18654	.0007475	.0009133	.0039206	.3420
%RSD	4.040701	1.925437	.2739034	.2634846	.6637491	.9044408	.1571701
#1	.0038289	.0014215	68.31382	.2828939	.1367048	.4379338	217.8829
#2	.0041451	.0014598	67.95305	.2838647	.1385308	.4319695	217.2384
#3	.0039391	.0014759	68.05111	.2843639	.1375764	.4305433	217.7592

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.553404	61.93771	.2736861	-.015046	1.558127	.4754015	.3726254
Stddev	.017738	.23121	.0010467	.000353	.278504	.0063456	.0010451
%RSD	.3895602	.3733007	.3824595	2.348323	17.87427	1.334790	.2804628
#1	4.542397	62.20399	.2731900	-.015130	1.358089	.4703993	.3715815
#2	4.543948	61.82129	.2729796	-.014659	1.440080	.4825394	.3726228
#3	4.573867	61.78784	.2748886	-.015350	1.876213	.4732657	.3736717

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.56526	5.291824	.2154695	-.001163	.7483483	3.303335	.0061935
Stddev	.10902	.014536	.0019742	.000381	.0026865	.015538	.0036761
%RSD	.7004237	.2746861	.9162573	32.78567	.3589879	.4703684	59.35308
#1	15.68565	5.277736	.2138112	-.001492	.7472683	3.319862	.0031242
#2	15.47320	5.306770	.2149438	-.001252	.7463700	3.289024	.0102674
#3	15.53691	5.290967	.2176534	-.000745	.7514068	3.301119	.0051890

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0701020	-.017661	.0785927	-.016761	.0049702	50.15267	.4746208
Stddev	.0038609	.001910	.0029726	.003975	.0029270	.07807	.0009327
%RSD	5.507513	10.81438	3.782336	23.71364	58.89072	.1556661	.1965161
#1	.0657353	-.016631	.0817577	-.012380	.0066506	50.06786	.4740990
#2	.0730635	-.016487	.0781610	-.020137	.0015904	50.16860	.4740658
#3	.0715072	-.019865	.0758596	-.017765	.0066695	50.22154	.4756976

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027633	.0008057	47.10323	.1041840	.0647392	.1938486	133.3816
Stddev	.0001080	.0000746	.17633	.0011900	.0004742	.0015007	.7244
%RSD	3.909967	9.262035	.3743387	1.142208	.7324455	.7741541	.5431288
#1	.0026401	.0008565	46.90393	.1037190	.0643245	.1922056	132.5473
#2	.0028077	.0008407	47.16682	.1032968	.0652562	.1941930	133.7464
#3	.0028421	.0007200	47.23894	.1055363	.0646368	.1951471	133.8511

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.725434	26.08913	.1002584	-.009303	.4865903	.2955023	.2465605
Stddev	.009979	.21410	.0015507	.000686	.2047137	.0095679	.0021324
%RSD	.3661493	.8206628	1.546729	7.369284	42.07106	3.237829	.8648485
#1	2.714301	25.86380	.1000629	-.009137	.3177704	.2883668	.2442457
#2	2.733573	26.28988	.1018976	-.010056	.4277084	.3063747	.2469909
#3	2.728429	26.11371	.0988147	-.008715	.7142922	.2917654	.2484448

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.39475	3.490824	.1304616	-.001063	.3334316	2.754400	.0041096
Stddev	.07448	.018922	.0019938	.000523	.0075062	.008582	.0005088
%RSD	.6008971	.5420379	1.528244	49.20566	2.251203	.3115702	12.38035
#1	12.33069	3.492475	.1284937	-.001302	.3291094	2.744526	.0041472
#2	12.37708	3.508866	.1304108	-.000463	.3420990	2.760066	.0045985
#3	12.47647	3.471131	.1324802	-.001424	.3290863	2.758608	.0035830

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0643946	-.020730	.0789737	-.028926	.0085604	55.29297	.4219312
Stddev	.0049956	.004885	.0008936	.002325	.0007832	.12536	.0018845
%RSD	7.757804	23.56310	1.131583	8.037365	9.149199	.2267163	.4466394
#1	.0606483	-.015090	.0779422	-.027374	.0079866	55.15357	.4197635
#2	.0700665	-.023492	.0794643	-.027806	.0094526	55.32891	.4231800
#3	.0624692	-.023607	.0795145	-.031599	.0082418	55.39643	.4228500

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028548	.0007103	26.66358	.1546497	.0854250	.1826603	154.7247
Stddev	.0001281	.0001497	.16571	.0007445	.0007500	.0066681	.5808
%RSD	4.487106	21.07408	.6214666	.4814021	.8779227	3.650538	.3753448
#1	.0027970	.0008635	26.48082	.1554557	.0846479	.1824376	154.0733
#2	.0030016	.0007032	26.70589	.1545055	.0854828	.1761064	154.9125
#3	.0027658	.0005644	26.80402	.1539878	.0861445	.1894370	155.1883

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.476645	31.04956	.1560154	-.011736	.8182961	.3811389	.2359142
Stddev	.005930	.18649	.0010711	.000288	.1695009	.0028717	.0021296
%RSD	.2394532	.6006357	.6865611	2.450437	20.71388	.7534419	.9026832
#1	2.474480	30.83486	.1557700	-.011812	.8397293	.3826425	.2343951
#2	2.483354	31.17136	.1550883	-.011418	.9760610	.3829466	.2349992
#3	2.472101	31.14247	.1571880	-.011977	.6390980	.3778277	.2383484

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.675396	3.067700	.1508579	-.001010	.2239145	2.457068	.0075582
Stddev	.081419	.013462	.0028697	.000508	.0066833	.012390	.0028116
%RSD	.9385094	.4388186	1.902282	50.25809	2.984767	.5042425	37.19934
#1	8.714485	3.060045	.1476459	-.000700	.2194068	2.442763	.0046099
#2	8.729900	3.059810	.1517584	-.001596	.2207437	2.464088	.0102095
#3	8.581803	3.083243	.1531694	-.000733	.2315931	2.464353	.0078552

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1936160	-.026803	.1818657	-.028302	.0072871	101.4237	1.030636
Stddev	.0050219	.003349	.0038038	.003603	.0015028	.0817	.003154
%RSD	2.593742	12.49647	2.091566	12.73087	20.62212	.0805070	.3059841
#1	.1932815	-.023571	.1797409	-.024143	.0075455	101.4957	1.033567
#2	.1987967	-.030258	.1795989	-.030307	.0056719	101.4405	1.031042
#3	.1887697	-.026579	.1862572	-.030457	.0086438	101.3350	1.027299

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048227	.0040444	39.59407	.2185601	.1216242	.5938302	215.2280
Stddev	.0001064	.0000456	.05903	.0009993	.0006422	.0029544	.2416
%RSD	2.207139	1.126778	.1490993	.4572073	.5279962	.4975178	.1122583
#1	.0048928	.0039982	39.60398	.2191397	.1212744	.5951643	215.4942
#2	.0048750	.0040893	39.53071	.2174062	.1212328	.5958822	215.1674
#3	.0047002	.0040457	39.64753	.2191343	.1223653	.5904440	215.0225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.395487	48.08502	.2156282	-.017780	1.897662	.4221601	.5148202
Stddev	.010838	.29838	.0007017	.000324	.308677	.0126029	.0020380
%RSD	.2008689	.6205170	.3254111	1.820237	16.26619	2.985324	.3958660
#1	5.387650	48.27396	.2150346	-.017810	2.252584	.4294812	.5143464
#2	5.407855	48.24007	.2154475	-.018088	1.748569	.4293914	.5170533
#3	5.390955	47.74105	.2164026	-.017443	1.691834	.4076076	.5130608

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.83177	5.774271	.2229095	-.000617	.8867349	2.514069	.0069117
Stddev	.05092	.021133	.0013187	.000087	.0094189	.006615	.0022819
%RSD	.1829507	.3659917	.5915644	14.02863	1.062199	.2631060	33.01502
#1	27.80612	5.767553	.2244216	-.000554	.8822921	2.517155	.0058882
#2	27.79878	5.757313	.2223085	-.000716	.8975535	2.518576	.0053207
#3	27.89042	5.797946	.2219985	-.000582	.8803591	2.506475	.0095262

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.578233	.0657784	.2388554
Stddev	.009378	.0011457	.0003434
%RSD	.3637222	1.741715	.1437489
#1	2.581124	.0666131	.2391357
#2	2.585826	.0644722	.2389581
#3	2.567751	.0662499	.2384724

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	918.8180	22231.49	2551.555	816.8695	1510.395
Stddev	1.1087	27.99	4.438	1.1183	2.626
%RSD	.1206631	.1258843	.1739167	.1369004	.1738757
#1	918.2042	22216.59	2550.781	818.0456	1508.166
#2	920.0978	22263.78	2547.555	815.8197	1513.290
#3	918.1519	22214.12	2556.328	816.7432	1509.730

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1951508	-.029284	.2089613	-.025895	.0049157	104.9433	.9754034
Stddev	.0085504	.001824	.0044724	.004140	.0013590	.2608	.0003818
%RSD	4.381436	6.229836	2.140304	15.98796	27.64579	.2485614	.0391479
#1	.2026667	-.027645	.2057805	-.028562	.0062566	104.6567	.9751026
#2	.1858482	-.028958	.2140751	-.021126	.0049510	105.1668	.9752745
#3	.1969375	-.031250	.2070282	-.027999	.0035394	105.0063	.9758330

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049335	.0052009	34.65154	.2286162	.1186246	.7527517	214.1960
Stddev	.0000692	.0001795	.18264	.0006553	.0005273	.0038303	.6198
%RSD	1.402079	3.450548	.5270807	.2866522	.4445244	.5088377	.2893628
#1	.0048616	.0053458	34.45866	.2291287	.1180198	.7571485	213.6397
#2	.0049996	.0050002	34.82185	.2278778	.1188658	.7501386	214.8641
#3	.0049393	.0052568	34.67409	.2288421	.1189881	.7509679	214.0842

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.205244	48.39757	.2130207	-.016940	1.622161	.4092312	.5806137
Stddev	.011216	.31508	.0002307	.000163	.075003	.0142452	.0004190
%RSD	.2154686	.6510143	.1082810	.9651378	4.623676	3.480955	.0721661
#1	5.192478	48.05921	.2129706	-.017128	1.643491	.3936985	.5808063
#2	5.209740	48.68254	.2128192	-.016845	1.538804	.4216853	.5809017
#3	5.213515	48.45094	.2132723	-.016846	1.684190	.4123097	.5801330

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.98136	5.859474	.2217480	-.000463	.9747450	2.546009	.0083392
Stddev	.04993	.010504	.0003481	.000591	.0052584	.007943	.0006238
%RSD	.1561155	.1792611	.1569815	127.6617	.5394656	.3119725	7.480409
#1	31.92700	5.847440	.2217719	.000219	.9686760	2.538983	.0086586
#2	31.99192	5.864183	.2220836	-.000836	.9779426	2.544416	.0087387
#3	32.02516	5.866800	.2213886	-.000772	.9776163	2.554627	.0076204

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.446092	.0664034	.1945442
Stddev	.005183	.0012454	.0002291
%RSD	.2118842	1.875424	.1177731
#1	2.441199	.0665736	.1943090
#2	2.445555	.0675549	.1947667
#3	2.451523	.0650817	.1945569

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	922.2567	22225.34	2534.428	817.3632	1515.554
Stddev	.5540	47.86	7.606	3.2694	2.415
%RSD	.0600675	.2153353	.3001084	.3999945	.1593584
#1	922.8117	22280.39	2542.710	817.6209	1514.574
#2	921.7038	22202.05	2532.819	813.9726	1513.784
#3	922.2546	22193.58	2527.755	820.4962	1518.305

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1887383	-.023437	.1565610	-.025344	.0070937	97.13511	1.069041
Stddev	.0091771	.001900	.0038099	.006093	.0042375	.23747	.002443
%RSD	4.862359	8.106920	2.433463	24.03976	59.73667	.2444742	.2284790
#1	.1782555	-.022809	.1608081	-.027048	.0093577	96.87385	1.066369
#2	.1926368	-.025571	.1534440	-.030404	.0022050	97.33784	1.071158
#3	.1953225	-.021930	.1554310	-.018581	.0097182	97.19363	1.069595

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045764	.0028639	58.42359	.2261237	.1129678	.4945975	205.1087
Stddev	.0002167	.0001759	.06781	.0007569	.0011930	.0016439	.7095
%RSD	4.734533	6.142190	.1160647	.3347110	1.056067	.3323603	.3459382
#1	.0043502	.0030490	58.37831	.2260920	.1142806	.4927141	204.2984
#2	.0047821	.0028440	58.50155	.2253832	.1119500	.4953351	205.4092
#3	.0045969	.0026989	58.39092	.2268959	.1126728	.4957434	205.6186

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.999900	46.42630	.2099088	-.015637	1.067510	.3828734	.4517490
Stddev	.020193	.28224	.0006742	.000554	.188211	.0046397	.0027930
%RSD	.3365625	.6079398	.3211880	3.540576	17.63081	1.211804	.6182561
#1	5.976968	46.12479	.2098007	-.015791	.934234	.3882279	.4489369
#2	6.015022	46.68420	.2092951	-.015022	.985483	.3800436	.4545225
#3	6.007711	46.46991	.2106305	-.016096	1.282814	.3803486	.4517875

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.31801	5.153189	.2091442	-.001072	.6660978	2.191828	.0079205
Stddev	.13810	.014931	.0008913	.000829	.0051194	.009781	.0014307
%RSD	.5454609	.2897354	.4261641	77.29588	.7685648	.4462376	18.06349
#1	25.31019	5.161890	.2081330	-.000229	.6624703	2.191206	.0062694
#2	25.45986	5.135949	.2098160	-.001886	.6719537	2.201904	.0087946
#3	25.18399	5.161729	.2094835	-.001101	.6638694	2.182372	.0086975

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0932675	-.019571	.1300370	-.016045	.0055994	73.94868	.7867726
Stddev	.0037428	.000530	.0027144	.004816	.0020498	.06887	.0004336
%RSD	4.013002	2.705761	2.087384	30.01510	36.60664	.0931299	.0551134
#1	.0967386	-.020154	.1331612	-.010493	.0046459	74.02612	.7872609
#2	.0893020	-.019120	.1286924	-.018547	.0079523	73.89430	.7866246
#3	.0937619	-.019438	.1282573	-.019095	.0042002	73.92563	.7864324

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039551	.0016247	41.33491	.1610389	.0852027	.3035399	156.6911
Stddev	.0001185	.0003051	.03168	.0007514	.0003326	.0024652	.5289
%RSD	2.997056	18.77651	.0766518	.4666272	.3904098	.8121323	.3375281
#1	.0040231	.0014192	41.33584	.1615889	.0849640	.3022814	156.0919
#2	.0040240	.0019752	41.30277	.1601827	.0850615	.3019580	156.8885
#3	.0038182	.0014797	41.36612	.1613453	.0855827	.3063803	157.0928

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.010649	35.32741	.1539309	-.012598	1.006039	.3082040	.3805034
Stddev	.005674	.07924	.0009724	.000146	.096295	.0122370	.0017677
%RSD	.1414814	.2242910	.6317244	1.159567	9.571736	3.970435	.4645586
#1	4.012198	35.32134	.1549002	-.012641	.945748	.2972918	.3811357
#2	4.004361	35.40951	.1529554	-.012435	1.117095	.3214343	.3785066
#3	4.015387	35.25139	.1539371	-.012718	.955274	.3058859	.3818680

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.07263	5.647011	.1694994	-.000127	1.278731	3.481842	.0049908
Stddev	.08832	.040291	.0009705	.000268	.009981	.013161	.0006618
%RSD	.3827942	.7134979	.5725712	210.6210	.7805546	.3779948	13.26049
#1	23.17185	5.693402	.1683791	.000075	1.284581	3.469043	.0053698
#2	23.04348	5.620766	.1700360	-.000026	1.284406	3.495337	.0053759
#3	23.00257	5.626864	.1700832	-.000431	1.267206	3.481144	.0042266

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0929493	-.021793	.1100846	-.019428	.0089227	82.44762	.7908283
Stddev	.0022935	.004140	.0026167	.002567	.0028277	.05906	.0023842
%RSD	2.467457	18.99908	2.376981	13.21181	31.69065	.0716277	.3014770
#1	.0954081	-.026293	.1072791	-.022388	.0098063	82.50443	.7919316
#2	.0925719	-.018144	.1105157	-.017804	.0057587	82.38655	.7880924
#3	.0908680	-.020942	.1124589	-.018094	.0112030	82.45188	.7924611

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042402	.0019969	40.52038	.1927922	.0882818	.3220908	173.3451
Stddev	.0000356	.0001329	.16026	.0005557	.0008879	.0025175	.1619
%RSD	.8387706	6.654240	.3954958	.2882161	1.005706	.7816055	.0934260
#1	.0042125	.0018693	40.65348	.1926979	.0875584	.3193386	173.1758
#2	.0042278	.0019870	40.34250	.1933889	.0892727	.3226566	173.4985
#3	.0042803	.0021345	40.56517	.1922897	.0880144	.3242772	173.3610

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.048066	40.22658	.1728702	-.014734	1.361819	.3515861	.3822168
Stddev	.006570	.21893	.0009027	.000309	.263387	.0020066	.0032726
%RSD	.1623048	.5442419	.5221762	2.097056	19.34085	.5707164	.8562151
#1	4.044515	40.46270	.1720796	-.015032	1.580818	.3496041	.3857610
#2	4.044036	40.18673	.1738538	-.014755	1.435084	.3536163	.3815797
#3	4.055648	40.03032	.1726773	-.014415	1.069556	.3515380	.3793096

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.36411	5.638274	.1845392	-.000857	1.368333	2.925885	.0059099
Stddev	.06244	.020423	.0010349	.000234	.011404	.005691	.0003825
%RSD	.2461703	.3622187	.5607939	27.27454	.8334503	.1944980	6.471895
#1	25.41650	5.623728	.1833874	-.001060	1.373383	2.931954	.0062772
#2	25.38081	5.629473	.1853909	-.000910	1.376341	2.925032	.0059384
#3	25.29502	5.661622	.1848393	-.000601	1.355276	2.920668	.0055139

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.281891	.0503194	.1949736
Stddev	.001818	.0010083	.0001768
%RSD	.0796729	2.003885	.0907010
#1	2.279979	.0501289	.1951196
#2	2.283598	.0494199	.1947770
#3	2.282096	.0514094	.1950242

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	911.2642	22032.34	2499.712	808.1280	1525.178
Stddev	1.7509	18.20	6.306	3.9012	4.048
%RSD	.1921390	.0826237	.2522878	.4827409	.2654311
#1	912.7640	22053.33	2493.013	803.6248	1529.765
#2	911.6884	22022.75	2500.587	810.4823	1523.666
#3	909.3402	22020.93	2505.535	810.2768	1522.103

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2231373	-.030547	.2504754	-.026475	.0073604	106.3811	1.070910
Stddev	.0028776	.002878	.0018043	.002350	.0036975	.2555	.002087
%RSD	1.289611	9.420257	.7203526	8.876822	50.23496	.2401628	.1949218
#1	.2198684	-.027922	.2524948	-.029176	.0110467	106.1930	1.069538
#2	.2242554	-.030096	.2490219	-.024897	.0036518	106.2782	1.069879
#3	.2252880	-.033624	.2499096	-.025352	.0073826	106.6720	1.073312

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050273	.0062842	39.87095	.2385431	.1232652	.8665665	215.0729
Stddev	.0001359	.0000939	.06796	.0012626	.0006449	.0030300	.5140
%RSD	2.703735	1.494983	.1704592	.5293104	.5231780	.3496593	.2389871
#1	.0050719	.0063869	39.79410	.2399785	.1229729	.8634012	214.7512
#2	.0048747	.0062027	39.89560	.2380468	.1228181	.8668580	214.8018
#3	.0051353	.0062629	39.92314	.2376040	.1240045	.8694402	215.6657

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.646208	49.90895	.2332189	-.016780	1.125026	.3928611	.6266995
Stddev	.010812	.29052	.0008371	.000288	.132802	.0096510	.0020958
%RSD	.1914972	.5821001	.3589340	1.715735	11.80436	2.456581	.3344226
#1	5.652040	49.96835	.2327193	-.017066	1.226844	.4037449	.6291195
#2	5.633732	49.59333	.2327522	-.016783	1.173420	.3853461	.6254738
#3	5.652853	50.16518	.2341853	-.016490	.974813	.3894923	.6255053

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.68112	6.279892	.2281366	.0001168	1.315685	3.046578	.0090230
Stddev	.14454	.011042	.0011414	.0004149	.011587	.004966	.0017431
%RSD	.4562203	.1758385	.5003226	355.3678	.8807190	.1630107	19.31803
#1	31.82645	6.284571	.2291765	-.000284	1.328784	3.048446	.0079494
#2	31.53739	6.287826	.2283181	.000090	1.306772	3.040949	.0110342
#3	31.67954	6.267281	.2269154	.000544	1.311498	3.050339	.0080853

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.327571	.0722161	.2134663
Stddev	.005650	.0012549	.0005332
%RSD	.2427214	1.737776	.2497671
#1	2.321099	.0712744	.2130055
#2	2.330095	.0717331	.2133431
#3	2.331518	.0736408	.2140502

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	919.0551	22261.89	2543.094	818.6073	1506.555
Stddev	2.7431	63.02	8.049	3.8732	1.932
%RSD	.2984686	.2830710	.3164880	.4731422	.1282381
#1	918.1819	22324.62	2544.248	816.2365	1506.389
#2	922.1285	22262.47	2550.504	823.0769	1508.566
#3	916.8549	22198.59	2534.531	816.5085	1504.712

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2073493	-.026313	.2327718	-.028636	.0074837	101.7347	1.001029
Stddev	.0087869	.006406	.0034716	.004444	.0006363	.3317	.001387
%RSD	4.237704	24.34546	1.491435	15.51863	8.502735	.3260197	.1385579
#1	.2172496	-.033129	.2335401	-.023841	.0075895	101.5600	1.001449
#2	.2043218	-.020416	.2357950	-.029452	.0068011	102.1172	1.002158
#3	.2004765	-.025394	.2289804	-.032616	.0080605	101.5269	.999481

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048703	.0051339	37.95127	.2267570	.1138965	.8024242	205.8269
Stddev	.0002070	.0000767	.13107	.0014027	.0005868	.0027597	.7244
%RSD	4.250675	1.494711	.3453755	.6185868	.5152293	.3439140	.3519499
#1	.0050273	.0052147	37.94567	.2267100	.1138277	.8019419	205.8828
#2	.0049479	.0051250	38.08505	.2253785	.1133471	.8053932	206.5217
#3	.0046357	.0050620	37.82308	.2281827	.1145147	.7999375	205.0762

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.272853	46.85795	.2144400	-.013728	1.232656	.3800114	.5907465
Stddev	.001767	.22283	.0013366	.000077	.348987	.0106027	.0050894
%RSD	.0335046	.4755510	.6233154	.5591153	28.31179	2.790097	.8615160
#1	5.270832	46.91114	.2144968	-.013687	.833246	.3851459	.5856971
#2	5.273627	47.04937	.2130758	-.013680	1.386040	.3870693	.5958750
#3	5.274101	46.61333	.2157473	-.013817	1.478682	.3678189	.5906673

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.78761	5.848234	.2196561	-.000617	1.220570	3.266932	.0074125
Stddev	.04684	.012578	.0013254	.000266	.018653	.002006	.0017239
%RSD	.1572494	.2150749	.6033940	43.13656	1.528251	.0613905	23.25680
#1	29.74762	5.838001	.2181258	-.000924	1.241861	3.266342	.0088106
#2	29.83914	5.844425	.2204022	-.000450	1.207105	3.265288	.0079407
#3	29.77606	5.862277	.2204402	-.000478	1.212742	3.269167	.0054863

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.290529	.0667235	.1984766
Stddev	.013147	.0021445	.0001623
%RSD	.5739843	3.214084	.0817519
#1	2.288129	.0649006	.1985113
#2	2.304711	.0661835	.1986187
#3	2.278747	.0690864	.1982998

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	919.0373	22120.47	2503.917	815.1796	1517.960
Stddev	.2293	32.34	.546	4.2946	2.046
%RSD	.0249475	.1461858	.0218020	.5268278	.1347855
#1	918.8099	22088.45	2504.202	818.7950	1518.313
#2	919.2684	22119.84	2503.288	810.4324	1519.807
#3	919.0337	22153.11	2504.262	816.3113	1515.761

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1791639	-.027233	.1639981	-.023197	.0068437	90.97407	.9061935
Stddev	.0038006	.003370	.0033386	.005713	.0040808	.31439	.0014654
%RSD	2.121269	12.37383	2.035735	24.62806	59.62860	.3455864	.1617055
#1	.1770025	-.024105	.1601626	-.017233	.0109289	90.61104	.9046419
#2	.1835523	-.026792	.1655799	-.023738	.0068349	91.15752	.9063849
#3	.1769371	-.030801	.1662517	-.028621	.0027673	91.15363	.9075538

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044197	.0032788	29.21430	.2103710	.1057070	.5447104	195.2095
Stddev	.0001323	.0002245	.12338	.0018112	.0008694	.0018452	.6159
%RSD	2.993709	6.846480	.4223441	.8609659	.8224360	.3387484	.3155321
#1	.0044485	.0030614	29.07363	.2086355	.1055824	.5450615	194.5264
#2	.0045352	.0035097	29.30419	.2122495	.1049066	.5463549	195.7226
#3	.0042754	.0032652	29.26507	.2102279	.1066319	.5427149	195.3795

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.004563	42.39042	.1976786	-.015236	1.498522	.3701162	.4616197
Stddev	.028488	.34903	.0005281	.000136	.240977	.0134379	.0024069
%RSD	.5692442	.8233625	.2671490	.8903719	16.08098	3.630728	.5214126
#1	4.973410	42.09193	.1977022	-.015194	1.238404	.3639383	.4629685
#2	5.029287	42.30514	.1971391	-.015388	1.714161	.3855320	.4630498
#3	5.010992	42.77418	.1981945	-.015127	1.543001	.3608782	.4588408

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.72171	5.262231	.2000911	-.000265	.7151907	3.247175	.0088135
Stddev	.13011	.011025	.0016655	.000176	.0151694	.023792	.0016737
%RSD	.5058189	.2095145	.8323582	66.41674	2.121030	.7327134	18.99016
#1	25.57641	5.274453	.2011497	-.000334	.7247933	3.220313	.0075020
#2	25.76126	5.253035	.2009522	-.000065	.7230762	3.265597	.0106986
#3	25.82744	5.259205	.1981713	-.000397	.6977026	3.255615	.0082400

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1985109	-.027228	.1870679	-.020748	.0077354	90.67809	.9311092
Stddev	.0036667	.003059	.0043413	.007761	.0013086	.38711	.0038967
%RSD	1.847122	11.23382	2.320720	37.40720	16.91647	.4269113	.4184952
#1	.1956750	-.030727	.1858292	-.024912	.0081666	91.11926	.9355681
#2	.1972062	-.025901	.1834806	-.011793	.0062657	90.39520	.9283578
#3	.2026516	-.025057	.1918940	-.025537	.0087740	90.51980	.9294017

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046618	.0041608	27.77544	.2081841	.1105909	.6779292	197.9605
Stddev	.0002683	.0001160	.08315	.0003149	.0005259	.0047185	.9225
%RSD	5.754532	2.788229	.2993666	.1512827	.4755678	.6960133	.4660104
#1	.0047849	.0040857	27.85817	.2082203	.1099889	.6819699	198.9342
#2	.0048464	.0042944	27.77629	.2078526	.1109611	.6727436	197.8477
#3	.0043540	.0041023	27.69187	.2084793	.1108227	.6790740	197.0996

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.070835	43.64060	.1934248	-.016082	2.044816	.3746846	.5075857
Stddev	.025846	.28509	.0014185	.000621	.147500	.0101158	.0026588
%RSD	.5096923	.6532613	.7333583	3.862173	7.213343	2.699828	.5238207
#1	5.100151	43.92344	.1947601	-.016726	1.975199	.3780667	.5103741
#2	5.051338	43.64505	.1919357	-.015486	2.214239	.3633110	.5073041
#3	5.061016	43.35332	.1935785	-.016033	1.945009	.3826760	.5050789

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.59516	5.228143	.2033826	.0001328	.6958351	2.521381	.0091190
Stddev	.12712	.035297	.0015736	.0005240	.0064347	.011823	.0007361
%RSD	.4295198	.6751383	.7737048	394.7131	.9247386	.4689207	8.072385
#1	29.50960	5.189705	.2036309	-.000328	.7012794	2.534811	.0083316
#2	29.53466	5.235627	.2048173	.000023	.6887341	2.512542	.0092353
#3	29.74123	5.259099	.2016996	.000703	.6974918	2.516790	.0097900

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1588352	-.034004	.1542976	-.031773	.0080529	111.3080	1.055931
Stddev	.0085010	.001851	.0067217	.002442	.0027231	.0502	.002395
%RSD	5.352059	5.442033	4.356298	7.685430	33.81522	.0450557	.2268136
#1	.1668411	-.034743	.1484136	-.033123	.0108856	111.2526	1.053179
#2	.1499133	-.031898	.1616230	-.033243	.0078189	111.3504	1.057544
#3	.1597511	-.035371	.1528561	-.028954	.0054544	111.3211	1.057070

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051369	.0032917	54.01862	.2301787	.1311959	.5293671	231.6871
Stddev	.0001668	.0001209	.14242	.0015117	.0009032	.0013625	.3362
%RSD	3.246732	3.673794	.2636577	.6567451	.6884340	.2573858	.1451213
#1	.0050285	.0033640	54.05520	.2316286	.1301786	.5301504	231.3262
#2	.0053290	.0031521	53.86148	.2302954	.1315056	.5301572	231.9915
#3	.0050533	.0033590	54.13919	.2286120	.1319035	.5277938	231.7435

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.740605	50.32723	.2069182	-.019810	1.505538	.4423459	.5107834
Stddev	.002828	.06858	.0006386	.000175	.279344	.0069452	.0008947
%RSD	.0492708	.1362774	.3086291	.8854820	18.55446	1.570079	.1751549
#1	5.743232	50.34681	.2062791	-.019656	1.818563	.4366051	.5109222
#2	5.737611	50.38390	.2069193	-.020001	1.416438	.4403668	.5098274
#3	5.740970	50.25099	.2075563	-.019774	1.281611	.4500659	.5116005

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.94743	5.704707	.2378103	-.000505	1.083638	1.953561	.0071093
Stddev	.02200	.012022	.0007909	.000321	.003306	.006160	.0019910
%RSD	.0816401	.2107421	.3325835	63.53981	.3050518	.3153436	28.00561
#1	26.94315	5.698942	.2372069	-.000453	1.087128	1.956417	.0049132
#2	26.97126	5.696653	.2375184	-.000213	1.083234	1.946490	.0076182
#3	26.92789	5.718526	.2387057	-.000849	1.080554	1.957774	.0087963

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.232549	.0661767	.2422058
Stddev	.003591	.0011508	.0002837
%RSD	.1608499	1.739010	.1171479
#1	2.234749	.0650780	.2425247
#2	2.234493	.0673734	.2421113
#3	2.228405	.0660785	.2419813

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	927.7400	22461.83	2551.024	824.2934	1501.291
Stddev	2.5515	18.57	5.990	3.6808	1.411
%RSD	.2750255	.0826641	.2348258	.4465397	.0940033
#1	928.0348	22440.93	2553.832	823.5191	1500.454
#2	930.1312	22476.43	2555.095	828.2997	1500.499
#3	925.0538	22468.13	2544.145	821.0613	1502.921

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2304917	-.027956	.1914107	-.028338	.0076296	108.8332	1.005178
Stddev	.0101656	.003508	.0072917	.003290	.0019661	.3207	.001999
%RSD	4.410407	12.54908	3.809435	11.60857	25.76964	.2946738	.1989184
#1	.2410508	-.031353	.1833848	-.025152	.0056409	108.4925	1.002909
#2	.2296526	-.024346	.1932200	-.028141	.0076756	109.1293	1.006682
#3	.2207716	-.028169	.1976274	-.031722	.0095724	108.8779	1.005944

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050272	.0040242	48.37368	.2580115	.1291885	.6688568	216.3887
Stddev	.0001146	.0001388	.25040	.0005158	.0003645	.0009977	.8799
%RSD	2.280667	3.449388	.5176345	.1999044	.2821169	.1491726	.4066208
#1	.0051159	.0039782	48.10473	.2585459	.1288960	.6686833	215.5592
#2	.0050679	.0041802	48.60007	.2575166	.1295968	.6699300	217.3115
#3	.0048977	.0039142	48.41622	.2579719	.1290728	.6679572	216.2954

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.586541	55.48405	.2594936	-.016085	2.976061	.4146477	.5123019
Stddev	.015766	.50521	.0008511	.000493	.406315	.0067830	.0031732
%RSD	.2822196	.9105456	.3279932	3.063657	13.65279	1.635845	.6193989
#1	5.582823	55.04253	.2588491	-.016645	2.656156	.4077840	.5120400
#2	5.603834	56.03501	.2591733	-.015894	3.433230	.4148123	.5092677
#3	5.572966	55.37461	.2604584	-.015716	2.838796	.4213470	.5155979

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.94244	5.766102	.2239099	-.001054	.8123465	2.359748	.0084803
Stddev	.07857	.013423	.0029582	.000309	.0017647	.007794	.0025118
%RSD	.2811825	.2327929	1.321148	29.33114	.2172347	.3303099	29.61878
#1	27.85339	5.779783	.2222060	-.001004	.8121683	2.360491	.0092659
#2	27.97192	5.752953	.2273257	-.000773	.8141935	2.367144	.0056696
#3	28.00200	5.765572	.2221980	-.001385	.8106776	2.351609	.0105054

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1747432	-.026371	.2085760	-.019848	.0063178	88.96086	.8519233
Stddev	.0075748	.001217	.0048919	.007443	.0024637	.21705	.0023426
%RSD	4.334826	4.616190	2.345387	37.49990	38.99614	.2439810	.2749842
#1	.1669314	-.027113	.2033400	-.016238	.0034751	88.89196	.8498963
#2	.1820564	-.024966	.2093583	-.014898	.0076448	88.78662	.8513855
#3	.1752418	-.027034	.2130296	-.028408	.0078336	89.20399	.8544881

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043538	.0048816	28.44118	.1997633	.1019629	.7656078	184.1700
Stddev	.0001465	.0001026	.13479	.0012084	.0006353	.0020664	.3369
%RSD	3.365800	2.102418	.4739331	.6049099	.6230767	.2699019	.1829199
#1	.0044913	.0049993	28.59358	.2004544	.1012347	.7634557	184.2582
#2	.0041996	.0048339	28.33762	.2004674	.1022500	.7675762	183.7978
#3	.0043704	.0048114	28.39232	.1983679	.1024040	.7657914	184.4540

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.421118	40.92812	.1803865	-.013683	1.006451	.3518242	.5520426
Stddev	.022193	.11777	.0002685	.000567	.326870	.0072663	.0011268
%RSD	.5019672	.2877565	.1488676	4.141906	32.47749	2.065324	.2041152
#1	4.400099	40.79324	.1805764	-.013497	1.139530	.3600557	.5533431
#2	4.418933	40.98057	.1805037	-.014320	.634033	.3491162	.5514259
#3	4.444322	41.01056	.1800792	-.013233	1.245790	.3463008	.5513587

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.46352	4.975802	.1922157	-.000202	.9672967	2.685303	.0081623
Stddev	.08121	.015084	.0028074	.000572	.0090250	.006087	.0043689
%RSD	.2956836	.3031376	1.460563	282.5953	.9330100	.2266907	53.52494
#1	27.40682	4.958726	.1898199	.000427	.9596855	2.681786	.0038067
#2	27.42719	4.981367	.1915225	-.000345	.9772669	2.681791	.0081360
#3	27.55655	4.987312	.1953049	-.000689	.9649377	2.692332	.0125443

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0917180	-.027597	.1232016	-.019523	.0039514	84.36607	.8562354
Stddev	.0072650	.004498	.0014952	.002505	.0006846	.26279	.0036589
%RSD	7.921051	16.29964	1.213597	12.83041	17.32467	.3114931	.4273272
#1	.0834872	-.023953	.1220187	-.020076	.0045647	84.07708	.8523348
#2	.0972374	-.026214	.1248821	-.016788	.0040766	84.43044	.8595916
#3	.0944294	-.032625	.1227041	-.021706	.0032129	84.59071	.8567797

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044918	.0019935	47.35467	.1761291	.0939628	.3432800	172.2129
Stddev	.0001919	.0001177	.03271	.0002861	.0008222	.0018207	.0615
%RSD	4.272158	5.902725	.0690705	.1624478	.8750342	.5303698	.0357167
#1	.0046965	.0018863	47.36836	.1760979	.0935353	.3451936	172.1511
#2	.0043160	.0021194	47.31734	.1758598	.0949107	.3415693	172.2741
#3	.0044628	.0019749	47.37831	.1764295	.0934425	.3430770	172.2136

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.253469	39.73308	.1730488	-.013091	1.079787	.3416068	.4178084
Stddev	.012495	.09376	.0008034	.000609	.138921	.0090114	.0047568
%RSD	.2937644	.2359721	.4642600	4.650395	12.86563	2.637946	1.138523
#1	4.239070	39.83812	.1721355	-.013615	1.229654	.3518026	.4165598
#2	4.259870	39.65786	.1736463	-.012423	.955316	.3383088	.4138004
#3	4.261467	39.70325	.1733646	-.013234	1.054389	.3347090	.4230650

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.52387	5.933506	.1847942	-.000279	1.372293	3.334558	.0064780
Stddev	.11087	.011607	.0003368	.000425	.007284	.014599	.0011398
%RSD	.4343791	.1956256	.1822799	152.4109	.5308260	.4378069	17.59457
#1	25.56383	5.920276	.1845738	-.000547	1.364317	3.348431	.0052969
#2	25.39856	5.938257	.1851820	-.000501	1.373967	3.335914	.0075714
#3	25.60923	5.941983	.1846269	.000211	1.378594	3.319328	.0065657

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1925519	-.029327	.1695055	-.025269	.0070349	91.86570	.9438419
Stddev	.0048984	.000266	.0031758	.003308	.0014701	.15823	.0019632
%RSD	2.543944	.9065153	1.873536	13.09223	20.89791	.1722367	.2080038
#1	.1868958	-.029021	.1659170	-.022010	.0053571	92.04730	.9423808
#2	.1953533	-.029466	.1719534	-.025173	.0080976	91.75755	.9430714
#3	.1954065	-.029496	.1706462	-.028625	.0076500	91.79224	.9460735

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043935	.0037623	29.01963	.2162019	.1157582	.5902848	201.9980
Stddev	.0001104	.0001725	.09954	.0006406	.0007840	.0019067	.8313
%RSD	2.512728	4.585025	.3430141	.2963047	.6772556	.3230095	.4115440
#1	.0042761	.0038967	29.13457	.2156473	.1148664	.5924835	202.8960
#2	.0044953	.0035678	28.96293	.2169031	.1163386	.5892847	201.2553
#3	.0044091	.0038225	28.96140	.2160551	.1160697	.5890864	201.8426

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.368115	44.16682	.2059279	-.016033	1.244495	.3939404	.4844690
Stddev	.007133	.15765	.0014206	.000526	.112065	.0045185	.0009329
%RSD	.1328718	.3569386	.6898361	3.283262	9.004843	1.146988	.1925706
#1	5.373822	44.10024	.2043035	-.016617	1.364900	.3971782	.4839360
#2	5.360119	44.34684	.2069376	-.015595	1.143237	.3958647	.4855462
#3	5.370405	44.05339	.2065426	-.015887	1.225349	.3887783	.4839247

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.30984	5.475163	.2072880	.0002465	.8509588	2.944919	.0060649
Stddev	.08048	.014793	.0009153	.0003615	.0063204	.004272	.0026755
%RSD	.2946996	.2701785	.4415510	146.6710	.7427351	.1450540	44.11506
#1	27.38831	5.470997	.2082661	-.000163	.8551166	2.949389	.0051941
#2	27.31373	5.462900	.2071457	.000382	.8540742	2.940878	.0090674
#3	27.22748	5.491592	.2064522	.000521	.8436855	2.944491	.0039333

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2354631	-.028800	.1403447	-.030680	.0067644	96.96931	1.032010
Stddev	.0060136	.002334	.0020040	.002572	.0035831	.14070	.001627
%RSD	2.553934	8.103482	1.427950	8.383138	52.96956	.1451005	.1576617
#1	.2371756	-.026277	.1418071	-.029110	.0108991	97.11862	1.031659
#2	.2404346	-.029242	.1411667	-.033648	.0045667	96.83918	1.030588
#3	.2287790	-.030881	.1380603	-.029281	.0048275	96.95013	1.033785

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048137	.0029985	43.42819	.2709542	.1176219	.4731863	220.1320
Stddev	.0002800	.0003592	.04230	.0008972	.0006140	.0040058	.2831
%RSD	5.815710	11.98041	.0974113	.3311338	.5220531	.8465675	.1286225
#1	.0051364	.0025996	43.46267	.2711819	.1180556	.4769553	220.3780
#2	.0046681	.0030991	43.38099	.2699650	.1178908	.4689795	220.1954
#3	.0046365	.0032966	43.44092	.2717156	.1169193	.4736242	219.8225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.041446	51.12361	.2346404	-.017784	1.273545	.4335449	.4629070
Stddev	.009986	.03028	.0003559	.000239	.200893	.0080494	.0047214
%RSD	.1980690	.0592299	.1516757	1.345881	15.77433	1.856652	1.019953
#1	5.052538	51.10900	.2348872	-.017558	1.114310	.4265391	.4604765
#2	5.033171	51.10340	.2348016	-.018035	1.499249	.4317580	.4598960
#3	5.038630	51.15842	.2342325	-.017760	1.207075	.4423377	.4683485

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.41921	5.839223	.2187106	-.000861	.8424604	2.520356	.0067730
Stddev	.08130	.016694	.0013000	.000180	.0039771	.002249	.0025533
%RSD	.3471507	.2859008	.5943835	20.94009	.4720779	.0892366	37.69755
#1	23.40323	5.848845	.2172389	-.001042	.8385693	2.522331	.0050570
#2	23.34709	5.819946	.2197025	-.000681	.8422938	2.520829	.0055549
#3	23.50732	5.848878	.2191904	-.000861	.8465181	2.517908	.0097072

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.970626	4.788771	24.47061	4.664419	4.750907	417.2778	10.05392
Stddev	.021734	.022485	.03971	.013167	.006170	1.4232	.05524
%RSD	.4372469	.4695394	.1622602	.2822853	.1298795	.3410785	.5494187
#1	4.947478	4.806849	24.45937	4.679586	4.753043	417.4415	10.03646
#2	4.973805	4.795870	24.43773	4.657743	4.743952	418.6122	10.11578
#3	4.990595	4.763593	24.51472	4.655927	4.755725	415.7798	10.00953

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5119979	2.481286	412.3703	15.51056	2.495171	15.07838	418.6165
Stddev	.0012115	.002305	1.5012	.03743	.002789	.06378	1.5246
%RSD	.2366190	.0928894	.3640428	.2412927	.1117634	.4229932	.3641977
#1	.5114543	2.478756	413.4011	15.47663	2.492413	15.10607	419.5627
#2	.5133860	2.481835	413.0618	15.55070	2.497989	15.12363	419.4290
#3	.5111535	2.483267	410.6480	15.50433	2.495110	15.00544	416.8577

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.83372	409.8269	2.484019	1.270019	414.7540	2.516860	14.09227
Stddev	.07423	1.2066	.001642	.005265	2.0358	.018704	.07810
%RSD	.5004315	.2944133	.0661066	.4145763	.4908428	.7431364	.5541816
#1	14.81509	410.8575	2.482720	1.267990	414.7630	2.520633	14.16682
#2	14.91550	410.1235	2.483472	1.275997	416.7853	2.533389	14.01105
#3	14.77059	408.4996	2.485865	1.266070	412.7137	2.496557	14.09893

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	155.7132	5.022982	5.309980	4.715215	5.001709	5.059562	4.941674
Stddev	.6401	.014398	.021058	.010510	.011993	.015012	.011973
%RSD	.4110939	.2866385	.3965816	.2228898	.2397833	.2966966	.2422779
#1	155.9376	5.007081	5.303033	4.718563	4.997052	5.063070	4.941988
#2	156.2109	5.035135	5.333635	4.703439	5.015332	5.072508	4.929548
#3	154.9911	5.026731	5.293274	4.723643	4.992742	5.043107	4.953487

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.012378	5.055121	5.046848
Stddev	.017911	.023761	.020257
%RSD	.3573401	.4700312	.4013782
#1	5.020559	5.044924	5.052380
#2	5.024739	5.082279	5.063765
#3	4.991838	5.038162	5.024400

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	677.3734	18488.74	2158.964	562.0711	1236.608
Stddev	1.4369	32.12	3.875	3.6704	.314
%RSD	.2121219	.1737183	.1795025	.6530175	.0254258
#1	676.2998	18508.04	2159.331	558.5914	1236.849
#2	679.0057	18451.66	2154.918	565.9064	1236.724
#3	676.8147	18506.52	2162.642	561.7155	1236.253

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: CCB024 Acquired: 10/29/2024 19:28:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB024 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063591	.0028792	.0049130	-.003143	.0003839	.0216404	.0011702
Stddev	.0042384	.0013092	.0006435	.003091	.0014080	.0197932	.0008190
%RSD	66.65057	45.46839	13.09708	98.33935	366.7155	91.46403	69.99106
#1	.0109203	.0014934	.0056226	.000420	.0019520	.0030199	.0019976
#2	.0025421	.0030492	.0047490	-.004753	-.000028	.0424279	.0003598
#3	.0056150	.0040951	.0043675	-.005097	-.000772	.0194734	.0011531

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001439	.0004281	.0418760	.0013992	.0003282	-.006038	.0437293
Stddev	.0000497	.0000568	.0053338	.0002203	.0004877	.004412	.0162207
%RSD	34.50095	13.27690	12.73707	15.74669	148.5907	73.07066	37.09337
#1	.0001492	.0003944	.0365420	.0012211	.0007250	-.011118	.0282631
#2	.0000918	.0004937	.0472095	.0013309	-.000216	-.003844	.0423132
#3	.0001907	.0003963	.0418765	.0016456	.000476	-.003153	.0606116

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024374	.0413946	.0004337	.0024889	-.055646	-.006310	.0012463
Stddev	.0005755	.0586536	.0002173	.0003836	.321810	.006787	.0002480
%RSD	23.61258	141.6939	50.09621	15.41056	578.3169	107.5540	19.89566
#1	.0028499	.0210093	.0005334	.0021073	.195159	-.014147	.0009822
#2	.0026823	.1075209	.0005833	.0024850	.056406	-.002382	.0014742
#3	.0017799	-.004346	.0001845	.0028743	-.418502	-.002402	.0012824

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1028246	.0027512	.0016047	-.000050	.0053371	.0017923	.0002495
Stddev	.0861164	.0013455	.0009924	.000543	.0018354	.0001344	.0013086
%RSD	83.75083	48.90632	61.84454	1079.604	34.38839	7.496597	524.4385
#1	.2021907	.0013152	.0021714	.000268	.0032222	.0018086	.0014303
#2	.0564300	.0039828	.0004588	.000258	.0062775	.0019178	.0004757
#3	.0498530	.0029557	.0021838	-.000677	.0065117	.0016506	-.001157

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: CCB024 Acquired: 10/29/2024 19:28:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB024 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009965	-.003867	.0003609
Stddev	.0014968	.000312	.0001043
%RSD	150.1967	8.069156	28.88703
#1	-.000253	-.003529	.0002785
#2	.002656	-.004144	.0004781
#3	.000587	-.003930	.0003261

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1777286	-.020922	.1124507	-.026644	.0049246	81.72926	.8698759
Stddev	.0059110	.003188	.0041196	.001712	.0015748	.08842	.0031733
%RSD	3.325859	15.23803	3.663443	6.426392	31.97836	.1081898	.3648034
#1	.1732749	-.024507	.1094768	-.024753	.0031119	81.62786	.8665786
#2	.1844347	-.019855	.1171529	-.027092	.0059561	81.79034	.8701405
#3	.1754763	-.018404	.1107224	-.028088	.0057059	81.76957	.8729087

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038838	.0020683	44.39856	.1861395	.0951083	.3879075	172.0378
Stddev	.0001046	.0002059	.13204	.0014158	.0002205	.0047405	.4931
%RSD	2.692796	9.956527	.2973900	.7606045	.2318505	1.222082	.2865952
#1	.0040036	.0023061	44.54773	.1862298	.0949875	.3898762	171.9677
#2	.0038378	.0019474	44.35124	.1875080	.0949746	.3913464	172.5622
#3	.0038102	.0019513	44.29670	.1846807	.0953628	.3824998	171.5836

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.150331	42.00706	.1829803	-.012683	1.245571	.3387509	.3688066
Stddev	.018159	.18431	.0010807	.000837	.166990	.0004282	.0018276
%RSD	.4375201	.4387483	.5906071	6.602274	13.40671	.1264012	.4955434
#1	4.138100	41.79860	.1821627	-.011848	1.394854	.3391034	.3667850
#2	4.171195	42.14838	.1825727	-.013523	1.276626	.3382744	.3692930
#3	4.141698	42.07421	.1842055	-.012677	1.065233	.3388748	.3703418

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.62586	4.674958	.1783543	-.000840	.7612757	2.460758	.0085940
Stddev	.10711	.016318	.0012957	.000409	.0126646	.012473	.0010822
%RSD	.5457793	.3490470	.7264948	48.68933	1.663597	.5068672	12.59232
#1	19.52428	4.658081	.1784945	-.001156	.7686971	2.462153	.0087606
#2	19.61554	4.676141	.1795743	-.000378	.7684775	2.472474	.0074382
#3	19.73776	4.690652	.1769942	-.000987	.7466524	2.447646	.0095832

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2997577	.0630515	.1718404	.1278435	.1646749	98.82836	4.761109
Stddev	.0059963	.0024820	.0012022	.0036635	.0015269	.14521	.003645
%RSD	2.000370	3.936414	.6995910	2.865621	.9271994	.1469338	.0765539
#1	.3061038	.0615131	.1726386	.1279677	.1647903	98.77811	4.763377
#2	.2941866	.0659148	.1704577	.1241194	.1661408	98.71496	4.756905
#3	.2989828	.0617267	.1724248	.1314432	.1630936	98.99203	4.763044

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0982330	.1010635	42.57554	.6703096	1.097352	.8980367	218.0755
Stddev	.0005454	.0002740	.16098	.0024059	.001836	.0006306	.2696
%RSD	.5552325	.2711033	.3780990	.3589270	.1672915	.0702229	.1236165
#1	.0980449	.1012746	42.57829	.6712598	1.095638	.8984028	218.2659
#2	.0978066	.1007539	42.41320	.6720953	1.097129	.8973085	217.7670
#3	.0988476	.1011620	42.73512	.6675736	1.099289	.8983988	218.1936

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.905233	50.25897	1.219044	.0737985	1.183650	1.393074	1.203091
Stddev	.004172	.15150	.003365	.0008582	.147090	.014922	.006810
%RSD	.0706478	.3014345	.2760545	1.162861	12.42681	1.071162	.5660517
#1	5.910020	50.32430	1.216616	.0729955	1.090753	1.377406	1.202584
#2	5.902371	50.08577	1.217630	.0747028	1.353237	1.394700	1.196549
#3	5.903309	50.36684	1.222885	.0736972	1.106960	1.407117	1.210141

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.01632	5.743222	.2180929	-.000950	.8274130	2.485090	.0099181
Stddev	.01802	.018517	.0011649	.000783	.0024601	.010229	.0015891
%RSD	.0782978	.3224120	.5341280	82.44277	.2973231	.4116287	16.02175
#1	22.99617	5.754518	.2168416	-.001840	.8285477	2.492036	.0095518
#2	23.02191	5.753295	.2191460	-.000368	.8291010	2.473344	.0085442
#3	23.03089	5.721852	.2182911	-.000642	.8245904	2.489892	.0116584

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0537029	-.002705	.0297090	-.006355	.0025051	20.29882	.2166950
Stddev	.0011028	.004009	.0008804	.001758	.0011285	.05781	.0009189
%RSD	2.053526	148.1990	2.963277	27.66888	45.05017	.2847745	.4240524
#1	.0535910	-.000795	.0292337	-.004512	.0017044	20.23318	.2169763
#2	.0526603	-.000008	.0291684	-.008014	.0037958	20.34211	.2156683
#3	.0548573	-.007311	.0307248	-.006537	.0020150	20.32117	.2174403

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011911	.0004537	9.183854	.0582401	.0221715	.0936618	47.24728
Stddev	.0001677	.0000768	.005053	.0005018	.0002570	.0005217	.20115
%RSD	14.07621	16.92511	.0550201	.8616443	1.159111	.5570340	.4257357
#1	.0011506	.0005402	9.179559	.0588185	.0218824	.0931765	47.03314
#2	.0010474	.0004274	9.189422	.0579208	.0222579	.0942136	47.43225
#3	.0013753	.0003936	9.182583	.0579811	.0223741	.0935953	47.27645

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.072813	10.77372	.0465037	-.002447	.1912001	.0928924	.0979957
Stddev	.003246	.12376	.0005973	.000662	.1834596	.0061182	.0003793
%RSD	.3025678	1.148701	1.284443	27.07169	95.95160	6.586300	.3871072
#1	1.069065	10.80865	.0459005	-.002779	.0473642	.0977582	.0981019
#2	1.074715	10.63625	.0465157	-.001684	.1284301	.0948952	.0983106
#3	1.074660	10.87625	.0470949	-.002877	.3978060	.0860238	.0975745

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.866062	1.134707	.0434001	-.001100	.1656220	.5387202	.0012436
Stddev	.078535	.010907	.0013871	.000252	.0019445	.0040180	.0020563
%RSD	1.613926	.9612339	3.196158	22.87011	1.174057	.7458430	165.3576
#1	4.818921	1.132015	.0438616	-.001097	.1656256	.5342162	.0033432
#2	4.822542	1.125399	.0444976	-.000850	.1636757	.5419363	-.000766
#3	4.956722	1.146709	.0418410	-.001353	.1675647	.5400082	.001154

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003323	-.000257	.0004412	-.000170	-.001019	-.000883	.0004743
Stddev	.003560	.002690	.0021178	.001135	.000320	.004521	.0003178
%RSD	107.1121	1046.771	480.0497	666.9869	31.43028	511.9306	66.99930
#1	-.002627	.000889	.0017977	.001137	-.001128	-.001817	.0003372
#2	-.000163	-.003331	.0015250	-.000909	-.001270	-.004865	.0002481
#3	-.007180	.001670	-.001999	-.000738	-.000658	.004032	.0008376

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001100	.0000979	-.017248	-.000146	-.000174	-.006187	.0165509
Stddev	.0001400	.0001145	.011659	.000654	.000359	.003895	.0024657
%RSD	127.3160	116.8773	67.59435	447.0255	206.6018	62.94771	14.89786
#1	.0002353	-.000034	-.016454	-.000901	.000176	-.007276	.0182586
#2	.0001357	.000157	-.006007	.000234	-.000541	-.001864	.0176701
#3	-.000041	.000171	-.029283	.000229	-.000155	-.009422	.0137241

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001100	-.023599	.0000748	.0026084	-.127003	-.001066	-.000335
Stddev	.0011702	.049851	.0007602	.0002607	.354325	.011551	.000447
%RSD	1063.921	211.2450	1016.295	9.993406	278.9897	1083.884	133.4902
#1	-.001073	-.079769	-.000112	.0028854	.282057	-.013928	.000131
#2	.000135	-.006414	.000911	.0025720	-.324542	.002306	-.000376
#3	.001267	.015387	-.000574	.0023678	-.338524	.008425	-.000761

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0772807	.0023601	-.006307	-.000730	.0065696	.0004987	-.000488
Stddev	.1626705	.0006927	.000223	.000302	.0008756	.0001953	.001404
%RSD	210.4930	29.34883	3.539772	41.31123	13.32735	39.16207	287.5199
#1	-.085032	.0017606	-.006559	-.000636	.0055596	.0004041	.000481
#2	.240306	.0031184	-.006228	-.001067	.0071146	.0003687	.000152
#3	.076568	.0022015	-.006134	-.000486	.0070345	.0007233	-.002099

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000936	-.007189	-.000104
Stddev	.0012070	.000687	.000100
%RSD	1288.923	9.551757	96.42860
#1	-.001122	-.007981	-.000188
#2	.001292	-.006821	.000007
#3	.000112	-.006765	-.000131

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	848.4520	20158.01	2233.013	747.2257	1619.617
Stddev	1.1775	59.02	16.277	3.6658	.698
%RSD	.1387781	.2927662	.7289359	.4905850	.0430697
#1	847.5741	20113.24	2237.193	746.8345	1619.123
#2	847.9917	20135.91	2246.793	743.7712	1619.313
#3	849.7900	20224.89	2215.054	751.0714	1620.415

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0180448	.1878785	F .4707346	.0142397	.2104633	.0233752
Stddev	.0005053	.0101610	.0036577	.0003729	.0018731	.0008971
%RSD	2.800119	5.408288	.7770280	2.618619	.8900096	3.837861
#1	.0174809	.1763302	.4698546	.0143937	.2083901	.0236198
#2	.0181969	.1954481	.4747521	.0138145	.2120337	.0223811
#3	.0184566	.1918572	.4675972	.0145110	.2109660	.0241245

Elem	Sr4077
Units	ppm
Avg	.2107844
Stddev	.0008617
%RSD	.4088055
#1	.2101811
#2	.2117713
#3	.2104008

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	846.2754	20210.40	2253.761	748.0865	1585.644
Stddev	.6281	14.30	12.778	1.5865	2.174
%RSD	.0742184	.0707656	.5669514	.2120772	.1371130
#1	846.4857	20222.57	2259.709	747.8573	1587.188
#2	846.7714	20213.99	2239.094	749.7751	1586.586
#3	845.5692	20194.65	2262.481	746.6270	1583.158

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116172	.0253080	.0136264	.0322562	.0553786	.1865994	.2157036
Stddev	.0038856	.0007428	.0008721	.0047217	.0012723	.0038185	.0012040
%RSD	33.44664	2.934853	6.399954	14.63803	2.297533	2.046373	.5581703
#1	.0084410	.0248447	.0135817	.0271896	.0565133	.1880215	.2162573
#2	.0104608	.0261647	.0127775	.0365335	.0540030	.1822738	.2143224
#3	.0159496	.0249145	.0145200	.0330455	.0556195	.1895027	.2165312

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057625	.0055298	5.624166	.0112141	.0507907	.0211745	.1455605
Stddev	.0001442	.0002322	.037313	.0008688	.0014205	.0034530	.0445181
%RSD	2.502717	4.199004	.6634469	7.747619	2.796788	16.30749	30.58390
#1	.0056163	.0055679	5.662717	.0102122	.0514032	.0251499	.0970348
#2	.0057664	.0052809	5.621554	.0116691	.0491666	.0194524	.1845136
#3	.0059047	.0057406	5.588228	.0117608	.0518021	.0189212	.1551330

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0177146	5.756197	.0430715	.0127648	5.348208	.0623142	.0543358
Stddev	.0005910	.038781	.0011285	.0004755	.392512	.0128815	.0004285
%RSD	3.336419	.6737289	2.620112	3.725180	7.339134	20.67192	.7886739
#1	.0181365	5.733561	.0433764	.0124216	5.574064	.0474405	.0539753
#2	.0179681	5.734052	.0418218	.0125651	4.894975	.0696327	.0542226
#3	.0170391	5.800976	.0440162	.0133076	5.575585	.0698693	.0548096

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.131690	.0147404	-.003689	.0090794	.0940309	.2391102	.0074089
Stddev	.056859	.0023924	.001160	.0002031	.0025069	.0015455	.0007215
%RSD	1.108007	16.22990	31.44863	2.236752	2.666033	.6463645	9.738807
#1	5.066154	.0165421	-.005028	.0088471	.0939335	.2401771	.0082186
#2	5.161027	.0120261	-.003043	.0091676	.0915742	.2398157	.0068341
#3	5.167888	.0156530	-.002995	.0092234	.0965851	.2373378	.0071740

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1084896	.0067554	.1075207
Stddev	.0007668	.0010671	.0003012
%RSD	.7068066	15.79679	.2801363
#1	.1082755	.0055236	.1077959
#2	.1078526	.0073440	.1075672
#3	.1093407	.0073986	.1071989

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	853.1928	20276.14	2252.938	755.4870	1607.859
Stddev	8.2045	23.38	10.895	2.9860	16.613
%RSD	.9616180	.1152899	.4835743	.3952477	1.033235
#1	849.6672	20301.17	2243.464	757.3529	1601.780
#2	862.5707	20272.39	2250.507	757.0651	1626.655
#3	847.3403	20254.87	2264.843	752.0430	1595.142

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2494227	-.035971	.2249624	-.029644	.0082052	110.7591	1.217633
Stddev	.0089420	.002400	.0043803	.003117	.0020694	.1328	.002175
%RSD	3.585092	6.671983	1.947142	10.51462	25.22065	.1198882	.1786210
#1	.2581169	-.033423	.2277877	-.032955	.0086344	110.8683	1.220143
#2	.2498993	-.038188	.2199165	-.026766	.0100264	110.7977	1.216328
#3	.2402519	-.036302	.2271831	-.029211	.0059549	110.6113	1.216426

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052695	.0050054	71.00502	.2358458	.1224637	.7333641	226.3802
Stddev	.0000735	.0001471	.07352	.0010175	.0007874	.0029624	.3535
%RSD	1.395453	2.939226	.1035383	.4314191	.6429905	.4039513	.1561522
#1	.0052293	.0051178	71.08940	.2347781	.1233515	.7367829	226.5665
#2	.0053544	.0048389	70.95479	.2359551	.1218496	.7317532	226.6016
#3	.0052249	.0050596	70.97087	.2368042	.1221901	.7315561	225.9725

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.431943	50.21390	.2340266	-.016553	1.197641	.4234011	.6001393
Stddev	.020048	.06901	.0009854	.000253	.131716	.0050169	.0008985
%RSD	.3116970	.1374413	.4210604	1.530558	10.99796	1.184906	.1497081
#1	6.450138	50.23457	.2348907	-.016778	1.077126	.4276418	.5993771
#2	6.410451	50.13691	.2329535	-.016602	1.177548	.4246987	.6011299
#3	6.435241	50.27022	.2342356	-.016279	1.338250	.4178629	.5999110

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.21949	6.813463	.2457978	.0015468	1.816533	4.192439	.0053499
Stddev	.06655	.011947	.0018696	.0002226	.010205	.012346	.0011247
%RSD	.2202133	.1753423	.7606344	14.39365	.5618099	.2944803	21.02313
#1	30.15129	6.800886	.2469181	.0017258	1.828317	4.179846	.0041365
#2	30.28425	6.824660	.2468359	.0016170	1.810681	4.192947	.0063575
#3	30.22294	6.814841	.2436395	.0012975	1.810601	4.204523	.0055557

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1053840	-.027113	.1076219	-.037974	.0045825	96.90985	.9852155
Stddev	.0127804	.002680	.0042644	.005952	.0012682	.17648	.0049083
%RSD	12.12750	9.882718	3.962373	15.67297	27.67521	.1821076	.4981982
#1	.0912093	-.025150	.1028208	-.032356	.0039497	96.95580	.9905778
#2	.1160278	-.026024	.1090752	-.044211	.0037552	96.71495	.9809451
#3	.1089148	-.030166	.1109697	-.037354	.0060426	97.05882	.9841237

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046398	.0015307	128.2123	.1996023	.1184985	.3382557	205.1958
Stddev	.0000486	.0001124	.1703	.0011026	.0008055	.0056656	.2389
%RSD	1.047222	7.345102	.1328624	.5524190	.6797395	1.674931	.1164176
#1	.0046018	.0016521	128.1170	.2002244	.1177424	.3349742	204.9203
#2	.0046945	.0015097	128.4090	.2002533	.1184077	.3447977	205.3226
#3	.0046230	.0014302	128.1109	.1983292	.1193456	.3349952	205.3446

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.509788	78.32719	.2961311	-.011561	3.232091	.4485515	.3586146
Stddev	.011736	.30581	.0011958	.000617	.207538	.0038701	.0023184
%RSD	.2602308	.3904213	.4038005	5.337319	6.421171	.8628060	.6464900
#1	4.521271	77.99751	.2948030	-.012167	3.390323	.4519516	.3600418
#2	4.510279	78.38250	.2964682	-.010933	2.997110	.4493629	.3598626
#3	4.497815	78.60157	.2971222	-.011584	3.308840	.4443400	.3559396

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.59221	6.467661	.2054149	-.001599	.7078223	3.287158	.0029030
Stddev	.03905	.009109	.0012555	.000038	.0066139	.024215	.0029072
%RSD	.2873320	.1408418	.6112230	2.374114	.9343986	.7366663	100.1448
#1	13.55586	6.458004	.2064322	-.001635	.7015319	3.266506	.0040669
#2	13.58727	6.468881	.2040117	-.001603	.7072170	3.313809	.0050479
#3	13.63350	6.476099	.2058008	-.001559	.7147180	3.281160	-.000406

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1455304	-.028456	.1284040	-.030818	.0067107	106.7724	.6894155
Stddev	.0012094	.006312	.0015583	.001341	.0007570	.2017	.0024675
%RSD	.8309973	22.18192	1.213550	4.351088	11.28071	.1889449	.3579087
#1	.1460752	-.034995	.1293137	-.032023	.0073113	106.5409	.6865668
#2	.1441445	-.022399	.1292936	-.029373	.0058603	106.8659	.6908865
#3	.1463715	-.027974	.1266048	-.031056	.0069604	106.9105	.6907932

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041516	.0023759	62.47007	.3615079	.1426786	.5247803	232.1423
Stddev	.0003300	.0002581	.19950	.0003786	.0006888	.0011909	.4204
%RSD	7.948626	10.86117	.3193527	.1047189	.4827407	.2269395	.1810832
#1	.0041055	.0025830	62.28951	.3610874	.1422920	.5236687	231.7723
#2	.0038471	.0020868	62.68424	.3618216	.1434738	.5260372	232.5994
#3	.0045022	.0024578	62.43647	.3616147	.1422701	.5246349	232.0552

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.032928	69.61884	.2811705	-.016509	1.711884	.5137993	.4157707
Stddev	.035905	.25416	.0016132	.000392	.267078	.0067208	.0039175
%RSD	.7134069	.3650714	.5737546	2.374707	15.60141	1.308050	.9422392
#1	5.009441	69.47066	.2798651	-.016061	1.410514	.5061072	.4113205
#2	5.015084	69.91232	.2829740	-.016793	1.805888	.5167554	.4186985
#3	5.074260	69.47356	.2806723	-.016671	1.919251	.5185354	.4172933

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.27425	5.055255	.2391765	-.001419	1.162420	3.835978	.0049779
Stddev	.07951	.009358	.0016006	.000662	.006432	.011858	.0026651
%RSD	.4351165	.1851056	.6692234	46.66529	.5533196	.3091376	53.53788
#1	18.24781	5.065736	.2376355	-.001205	1.159034	3.822319	.0019904
#2	18.36361	5.047739	.2408308	-.000891	1.158388	3.843652	.0071109
#3	18.21132	5.052290	.2390633	-.002162	1.169837	3.841962	.0058324

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1103147	-.028814	.1051062	-.022754	.0055245	90.27185	.7929708
Stddev	.0052977	.006309	.0008636	.003774	.0046343	.23847	.0016032
%RSD	4.802348	21.89524	.8215944	16.58637	83.88565	.2641682	.2021738
#1	.1043178	-.029539	.1047998	-.018918	.0098335	90.45907	.7943301
#2	.1122677	-.034729	.1060811	-.026462	.0061180	90.35312	.7933794
#3	.1143588	-.022174	.1044376	-.022881	.0006221	90.00337	.7912028

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043219	.0016455	81.62899	.1958428	.1108742	.3487095	193.6498
Stddev	.0001639	.0002620	.16557	.0005833	.0003917	.0024470	.6629
%RSD	3.792054	15.92433	.2028284	.2978595	.3532412	.7017176	.3423141
#1	.0045100	.0013515	81.76952	.1965035	.1107386	.3508302	194.2654
#2	.0042465	.0017304	81.67098	.1953989	.1105683	.3460322	193.7358
#3	.0042093	.0018545	81.44647	.1956259	.1113156	.3492661	192.9481

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.955330	58.86953	.2743838	-.012591	2.921731	.4165187	.3522301
Stddev	.021560	.24177	.0000627	.000302	.107830	.0116187	.0004554
%RSD	.5450903	.4106823	.0228320	2.399572	3.690627	2.789468	.1292994
#1	3.963683	59.13845	.2744263	-.012938	2.903892	.4269477	.3525783
#2	3.971464	58.79999	.2744133	-.012387	2.823932	.4039953	.3523973
#3	3.930843	58.67017	.2743119	-.012447	3.037368	.4186132	.3517147

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.64776	7.114581	.1960849	-.001369	.8179483	3.716390	.0029974
Stddev	.14977	.022300	.0011599	.000375	.0072287	.020858	.0007263
%RSD	1.097369	.3134362	.5915093	27.37181	.8837615	.5612483	24.22979
#1	13.81982	7.103165	.1949633	-.001118	.8100221	3.739598	.0036985
#2	13.54674	7.140277	.1972796	-.001191	.8196449	3.710365	.0022484
#3	13.57670	7.100300	.1960118	-.001800	.8241777	3.699208	.0030454

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2373527	-.036101	.1411450	-.033979	.0093055	124.2309	1.498148
Stddev	.0118403	.003420	.0011183	.004934	.0016843	.3287	.001721
%RSD	4.988468	9.472534	.7922689	14.52031	18.09968	.2646238	.1148866
#1	.2311984	-.039074	.1400785	-.034580	.0078375	124.6014	1.500130
#2	.2510027	-.036865	.1410477	-.028772	.0111443	124.1175	1.497027
#3	.2298570	-.032364	.1423087	-.038585	.0089347	123.9739	1.497287

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054282	.0022566	67.87224	.2237089	.1224649	.4119736	239.6517
Stddev	.0001287	.0002569	.25912	.0005142	.0008340	.0006233	1.5545
%RSD	2.370079	11.38506	.3817731	.2298492	.6810241	.1512895	.6486610
#1	.0055708	.0024033	68.16952	.2242757	.1232060	.4113950	241.1672
#2	.0053928	.0024065	67.69423	.2235788	.1226270	.4126335	239.7269
#3	.0053209	.0019599	67.75298	.2232723	.1215617	.4118922	238.0609

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.883707	54.87599	.2740546	-.018104	1.727668	.4609415	.4157507
Stddev	.019932	.37792	.0004049	.000251	.192559	.0030026	.0030276
%RSD	.4081235	.6886806	.1477289	1.389009	11.14558	.6514122	.7282320
#1	4.878522	55.29945	.2741738	-.018108	1.887305	.4591856	.4188234
#2	4.905719	54.75555	.2743865	-.017850	1.781887	.4644086	.4156584
#3	4.866881	54.57297	.2736035	-.018353	1.513813	.4592304	.4127703

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.08002	6.225505	.2436194	-.001658	.8060403	3.653564	.0063304
Stddev	.08463	.003875	.0017173	.000639	.0040715	.014000	.0005918
%RSD	.3666902	.0622388	.7049191	38.55056	.5051235	.3831812	9.349265
#1	23.16727	6.229743	.2454385	-.000946	.8102821	3.669523	.0069939
#2	23.07451	6.222144	.2433933	-.001845	.8056751	3.647820	.0058569
#3	22.99827	6.224629	.2420262	-.002182	.8021637	3.643351	.0061404

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.818601	.0849308	.5627527
Stddev	.007041	.0014608	.0008523
%RSD	.2498141	1.719981	.1514450
#1	2.825187	.0833084	.5634714
#2	2.819439	.0853422	.5629756
#3	2.811179	.0861417	.5618112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	905.6973	21944.62	2511.217	801.7801	1482.731
Stddev	.8334	21.46	9.844	3.8935	1.895
%RSD	.0920178	.0977878	.3920183	.4856022	.1277979
#1	904.8156	21919.90	2500.504	798.6361	1480.556
#2	905.8045	21955.43	2519.865	800.5691	1484.024
#3	906.4720	21958.51	2513.282	806.1352	1483.613

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2689366	-.036802	.1481114	-.037208	.0079033	136.7912	1.616118
Stddev	.0060244	.004450	.0041137	.003041	.0008144	.1132	.001912
%RSD	2.240074	12.09134	2.777455	8.171632	10.30417	.0827795	.1182795
#1	.2741089	-.041668	.1439209	-.040058	.0077237	136.8299	1.614919
#2	.2703790	-.035799	.1482695	-.034008	.0087924	136.8800	1.618322
#3	.2623220	-.032940	.1521438	-.037559	.0071936	136.6637	1.615112

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059565	.0024394	70.03376	.2459707	.1346617	.4510141	256.8553
Stddev	.0000580	.0001817	.20684	.0011025	.0004921	.0013841	.7783
%RSD	.9735958	7.447602	.2953395	.4482173	.3654654	.3068936	.3030271
#1	.0060149	.0026475	69.88806	.2472410	.1341173	.4494264	256.1373
#2	.0059557	.0023582	70.27050	.2452636	.1350751	.4516489	257.6825
#3	.0058990	.0023126	69.94272	.2454073	.1347927	.4519668	256.7462

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.132623	60.07073	.3010084	-.019032	1.144348	.5073216	.4439760
Stddev	.007962	.11630	.0008486	.000640	.083764	.0059165	.0020134
%RSD	.1551230	.1936087	.2819151	3.362505	7.319798	1.166217	.4534875
#1	5.128019	60.16452	.3018534	-.018382	1.081368	.5008588	.4462851
#2	5.141817	60.10708	.3001563	-.019662	1.112264	.5086349	.4425871
#3	5.128034	59.94060	.3010157	-.019053	1.239411	.5124711	.4430559

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.27927	6.689984	.2594999	-.000824	.8681082	3.350150	.0072743
Stddev	.10061	.010249	.0015141	.000653	.0089090	.017599	.0016765
%RSD	.3979764	.1532036	.5834586	79.21875	1.026255	.5253065	23.04693
#1	25.21036	6.699453	.2578294	-.000189	.8775877	3.330758	.0089563
#2	25.23274	6.679101	.2598883	-.001493	.8599080	3.354586	.0072634
#3	25.39472	6.691397	.2607819	-.000790	.8668287	3.365106	.0056033

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3006300	.0545853	.1798525	.1200901	.1644054	128.1575	5.255672
Stddev	.0103257	.0031886	.0030250	.0020835	.0022772	.1540	.013188
%RSD	3.434683	5.841586	1.681929	1.734978	1.385101	.1201473	.2509265
#1	.2888853	.0545501	.1774598	.1179678	.1622533	128.2213	5.268429
#2	.3082820	.0514144	.1832527	.1201701	.1667898	127.9819	5.242092
#3	.3047225	.0577914	.1788451	.1221325	.1641729	128.2694	5.256496

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0992293	.0997872	67.85796	.6304480	1.106360	.8543305	241.9442
Stddev	.0001525	.0001931	.07788	.0008299	.004227	.0025576	.4480
%RSD	.1537113	.1935493	.1147702	.1316313	.3820396	.2993753	.1851731
#1	.0990881	.0996359	67.78388	.6312536	1.102812	.8518282	241.5493
#2	.0993910	.0997211	67.85085	.6304947	1.105233	.8569401	241.8524
#3	.0992087	.1000047	67.93915	.6295958	1.111036	.8542232	242.4311

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.820372	55.08137	1.260530	.0737408	1.764077	1.432288	1.179785
Stddev	.013953	.10509	.005216	.0004505	.276915	.011037	.006079
%RSD	.2397294	.1907840	.4137863	.6109914	15.69742	.7705618	.5152978
#1	5.826519	55.13985	1.255392	.0742302	1.782456	1.432891	1.180164
#2	5.804401	54.96005	1.260378	.0736491	1.478431	1.420962	1.185665
#3	5.830196	55.14420	1.265820	.0733432	2.031345	1.443011	1.173524

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.15253	6.226533	.2450130	-.001724	.8088890	3.778662	.0071783
Stddev	.06010	.047773	.0003973	.000326	.0145694	.013311	.0007515
%RSD	.2596005	.7672451	.1621554	18.92724	1.801161	.3522588	10.46945
#1	23.19142	6.171768	.2448495	-.002064	.7995806	3.764162	.0063343
#2	23.08330	6.259646	.2447235	-.001413	.8014072	3.790327	.0077752
#3	23.18286	6.248186	.2454659	-.001697	.8256792	3.781495	.0074255

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0491183	-.006628	.0299319	-.009913	.0027355	26.97083	.3284890
Stddev	.0018797	.003699	.0011554	.001876	.0004975	.06505	.0015918
%RSD	3.826854	55.80559	3.860088	18.92745	18.18708	.2411936	.4845661
#1	.0480775	-.007965	.0312613	-.009904	.0023488	27.00660	.3278635
#2	.0512882	-.002447	.0293646	-.011794	.0032968	26.89574	.3273049
#3	.0479893	-.009472	.0291698	-.008041	.0025609	27.01014	.3302984

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012852	.0002425	14.89845	.0503803	.0244965	.0875715	53.43804
Stddev	.0000277	.0000956	.06278	.0011480	.0003932	.0021454	.23024
%RSD	2.155513	39.41424	.4213561	2.278713	1.605336	2.449886	.4308488
#1	.0013043	.0002030	14.96409	.0506716	.0248431	.0888734	53.50518
#2	.0012534	.0003515	14.83899	.0513545	.0240692	.0887457	53.18170
#3	.0012979	.0001731	14.89227	.0491146	.0245772	.0850953	53.62725

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.087370	11.86846	.0559988	-.002893	.2273975	.1058062	.0922914
Stddev	.001622	.01747	.0006063	.000349	.3627719	.0104342	.0006626
%RSD	.1491893	.1472272	1.082718	12.06058	159.5321	9.861615	.7179290
#1	1.088796	11.85288	.0566981	-.003040	-.160858	.0995182	.0930565
#2	1.087708	11.88735	.0556209	-.002494	.285340	.1178507	.0919153
#3	1.085605	11.86515	.0556773	-.003144	.557711	.1000498	.0919025

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.914319	1.253505	.0501478	-.001391	.1659501	.8157823	.0007258
Stddev	.043102	.003954	.0008129	.000108	.0066890	.0040615	.0020542
%RSD	.8770732	.3154373	1.620993	7.783452	4.030741	.4978631	283.0438
#1	4.948447	1.257704	.0494466	-.001270	.1592899	.8186429	-.000202
#2	4.865882	1.249853	.0510388	-.001480	.1658927	.8111335	.003080
#3	4.928627	1.252959	.0499580	-.001421	.1726676	.8175705	-.000701

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1051362	-.029116	.0790348	-.028343	.0077065	82.57348	.4612017
Stddev	.0080169	.002000	.0021790	.009379	.0009731	.15274	.0016759
%RSD	7.625288	6.867307	2.757038	33.09054	12.62733	.1849687	.3633829
#1	.1133123	-.031403	.0769105	-.025983	.0087753	82.71909	.4622650
#2	.0972886	-.028249	.0812647	-.020369	.0068717	82.58685	.4592698
#3	.1048077	-.027697	.0789291	-.038676	.0074726	82.41450	.4620704

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033360	.0010877	53.99700	.1944902	.1101900	.3057647	202.9533
Stddev	.0001432	.0004814	.21713	.0016023	.0001802	.0027663	.4759
%RSD	4.291485	44.26202	.4021150	.8238410	.1635227	.9047008	.2344907
#1	.0034929	.0007428	54.05209	.1932578	.1102211	.3087150	203.2563
#2	.0033026	.0008825	54.18128	.1939112	.1099963	.3053497	203.1988
#3	.0032125	.0016377	53.75763	.1963015	.1103526	.3032294	202.4048

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.403136	52.43329	.1965422	-.014423	1.504181	.5154294	.2837912
Stddev	.011326	.27967	.0014102	.000081	.170568	.0042242	.0012081
%RSD	.3328065	.5333800	.7174890	.5634543	11.33960	.8195595	.4257158
#1	3.411334	52.12770	.1980622	-.014330	1.697300	.5126822	.2838586
#2	3.390213	52.67650	.1952764	-.014481	1.374123	.5133125	.2849642
#3	3.407862	52.49566	.1962882	-.014457	1.441119	.5202936	.2825508

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.78202	3.662357	.1959197	-.001707	.6039562	2.907535	.0053596
Stddev	.15037	.002310	.0027266	.000373	.0178139	.010377	.0017935
%RSD	1.276252	.0630813	1.391712	21.83097	2.949543	.3568895	33.46216
#1	11.94767	3.663328	.1960238	-.002085	.5835030	2.915690	.0053000
#2	11.74428	3.659720	.1985928	-.001340	.6122889	2.911060	.0035968
#3	11.65412	3.664024	.1931425	-.001696	.6160766	2.895855	.0071822

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.925482	.0459324	.2275092
Stddev	.007099	.0010732	.0006267
%RSD	.2426644	2.336514	.2754661
#1	2.930464	.0447144	.2281164
#2	2.928627	.0463434	.2268647
#3	2.917353	.0467393	.2275466

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	880.4624	21421.68	2426.633	785.7748	1493.979
Stddev	2.0685	6.70	7.062	3.7734	2.418
%RSD	.2349335	.0312657	.2910193	.4802136	.1618417
#1	878.7919	21428.01	2425.105	784.1725	1493.303
#2	882.7761	21422.37	2420.460	783.0669	1496.664
#3	879.8194	21414.67	2434.333	790.0849	1491.972

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1754669	-.033616	.1132822	-.026033	.0053716	120.4162	1.325695
Stddev	.0046134	.002881	.0021807	.006148	.0016269	.4877	.004849
%RSD	2.629208	8.569190	1.925000	23.61513	30.28675	.4049756	.3657692
#1	.1792392	-.036885	.1146113	-.027912	.0038772	120.4231	1.327217
#2	.1768381	-.031451	.1144697	-.019165	.0071046	119.9252	1.320267
#3	.1703234	-.032511	.1107655	-.031022	.0051331	120.9004	1.329600

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055059	.0018092	45.84821	.2443674	.1292908	.3459230	225.9461
Stddev	.0001399	.0002448	.25465	.0008939	.0004243	.0023312	1.0391
%RSD	2.540697	13.53073	.5554102	.3657971	.3282071	.6738924	.4598759
#1	.0055486	.0015562	45.77044	.2438061	.1297685	.3478822	225.8087
#2	.0053497	.0018264	45.64152	.2453982	.1289575	.3433448	224.9826
#3	.0056195	.0020449	46.13267	.2438978	.1291463	.3465419	227.0471

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.131880	48.34307	.2301863	-.019024	1.164541	.4104977	.4313154
Stddev	.031727	.11754	.0014706	.000724	.074714	.0133860	.0006249
%RSD	.5174067	.2431280	.6388821	3.805849	6.415724	3.260929	.1448729
#1	6.130444	48.22516	.2296135	-.019124	1.150736	.4137009	.4315270
#2	6.100895	48.34383	.2318572	-.018256	1.097692	.4219916	.4318070
#3	6.164300	48.46023	.2290883	-.019694	1.245195	.3958007	.4306122

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.89877	5.271714	.2342537	.0007037	.7293620	3.644224	.0082637
Stddev	.13164	.017922	.0005440	.0003549	.0047448	.028731	.0013094
%RSD	.5287037	.3399708	.2322374	50.42989	.6505369	.7883885	15.84476
#1	24.90885	5.273709	.2348803	.0006356	.7325314	3.628127	.0075194
#2	24.76238	5.252878	.2339022	.0010878	.7239070	3.627151	.0097756
#3	25.02508	5.288555	.2339785	.0003879	.7316476	3.677395	.0074961

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.612735	.0796989	.2462215
Stddev	.011899	.0010822	.0010385
%RSD	.4554215	1.357861	.4217758
#1	2.615529	.0801120	.2463155
#2	2.599687	.0784710	.2451392
#3	2.622988	.0805137	.2472099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	921.4314	22166.81	2531.646	811.7851	1492.919
Stddev	1.4875	49.87	19.477	1.2731	.555
%RSD	.1614317	.2249751	.7693539	.1568304	.0371994
#1	920.2987	22188.59	2543.518	813.2479	1492.814
#2	923.1160	22109.75	2542.252	811.1798	1493.519
#3	920.8796	22202.08	2509.167	810.9275	1492.423

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1177296	-.029760	.0944438	-.022837	.0069824	96.82047	.8055955
Stddev	.0060415	.003639	.0007504	.011000	.0023199	.17281	.0009310
%RSD	5.131638	12.22791	.7945777	48.16907	33.22483	.1784888	.1155702
#1	.1189652	-.026587	.0944637	-.035527	.0051349	96.82671	.8066592
#2	.1230577	-.028961	.0951840	-.016010	.0095860	96.64463	.8051983
#3	.1111658	-.033733	.0936836	-.016974	.0062263	96.99008	.8049289

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043013	.0011615	65.48235	.1985350	.1093532	.3218515	201.9739
Stddev	.0002364	.0002054	.16643	.0003224	.0004120	.0038402	.5800
%RSD	5.496820	17.68521	.2541635	.1623945	.3767223	1.193162	.2871469
#1	.0043432	.0013541	65.47970	.1982595	.1098031	.3174417	201.4620
#2	.0040467	.0009453	65.31725	.1988896	.1092622	.3244597	201.8559
#3	.0045140	.0011849	65.65009	.1984558	.1089944	.3236530	202.6037

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.845538	56.67512	.2782957	-.013658	3.819445	.4247746	.3165334
Stddev	.018374	.26079	.0008213	.000436	.305986	.0072183	.0005631
%RSD	.4778057	.4601564	.2951067	3.190102	8.011279	1.699331	.1778885
#1	3.829683	56.39021	.2782612	-.013906	3.466809	.4260146	.3171816
#2	3.841255	56.73312	.2791337	-.013913	4.014828	.4170166	.3161659
#3	3.865675	56.90203	.2774922	-.013155	3.976698	.4312927	.3162527

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.41761	5.976030	.1989050	-.001030	.5349705	3.283133	.0046561
Stddev	.10182	.020813	.0001467	.000238	.0050573	.005473	.0025170
%RSD	.8917918	.3482811	.0737316	23.15028	.9453337	.1666982	54.05824
#1	11.53294	5.952274	.1988509	-.000816	.5300474	3.281191	.0048948
#2	11.34013	5.984754	.1990711	-.000986	.5401520	3.278896	.0020283
#3	11.37978	5.991062	.1987932	-.001287	.5347120	3.289312	.0070454

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1076465	-.036574	.0951091	-.029126	.0063319	85.55493	.7773500
Stddev	.0088926	.006110	.0051641	.006111	.0028611	.42588	.0021474
%RSD	8.260969	16.70600	5.429661	20.98167	45.18627	.4977859	.2762418
#1	.0985730	-.032177	.0940345	-.032296	.0032765	86.01008	.7788045
#2	.1080199	-.043551	.1007259	-.033000	.0067712	85.16610	.7748836
#3	.1163466	-.033995	.0905668	-.022081	.0089480	85.48861	.7783619

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040313	.0014597	133.3565	.1991310	.1131651	.2934320	210.7993
Stddev	.0002645	.0002604	.7102	.0008498	.0003875	.0025386	.4941
%RSD	6.560386	17.84158	.5325689	.4267682	.3423884	.8651366	.2343976
#1	.0043158	.0011605	134.1337	.1998890	.1130342	.2951013	211.2713
#2	.0039849	.0015830	132.7413	.1982123	.1128600	.2905106	210.2857
#3	.0037930	.0016355	133.1943	.1992918	.1136010	.2946842	210.8409

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.747238	59.12870	.2246909	-.012579	2.468488	.5008848	.3344560
Stddev	.009935	.51468	.0017084	.000068	.422638	.0100113	.0015548
%RSD	.2651258	.8704320	.7603234	.5384677	17.12131	1.998723	.4648737
#1	3.758709	59.71065	.2231545	-.012509	2.881542	.4946646	.3362011
#2	3.741589	58.94209	.2243876	-.012583	2.036878	.4955564	.3339487
#3	3.741415	58.73337	.2265306	-.012644	2.487044	.5124334	.3332182

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.33665	4.790699	.2041904	-.001215	.4935178	3.508239	.0026038
Stddev	.01596	.005425	.0013480	.000224	.0072199	.017971	.0012754
%RSD	.1408050	.1132499	.6601524	18.41722	1.462944	.5122540	48.98241
#1	11.33518	4.784697	.2057056	-.001039	.4891949	3.524388	.0024590
#2	11.35330	4.795256	.2031244	-.001139	.4895058	3.488879	.0014070
#3	11.32148	4.792144	.2037412	-.001467	.5018526	3.511450	.0039454

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2258443	-.032801	.2290132	-.030375	.0096048	118.4049	1.187682
Stddev	.0033040	.005686	.0043481	.006556	.0008322	.6479	.008860
%RSD	1.462943	17.33406	1.898616	21.58206	8.663863	.5471704	.7459510
#1	.2280950	-.029117	.2240138	-.026714	.0095812	119.1188	1.197869
#2	.2220511	-.039350	.2319127	-.026467	.0104485	118.2416	1.183404
#3	.2273866	-.029938	.2311132	-.037943	.0087847	117.8543	1.181773

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054677	.0057625	87.03932	.2318096	.1232671	.8683926	225.0308
Stddev	.0001264	.0002948	.31174	.0010313	.0014281	.0075073	1.1778
%RSD	2.310773	5.115363	.3581586	.4448688	1.158539	.8645096	.5233775
#1	.0054862	.0054699	87.36093	.2328095	.1217164	.8770211	226.3393
#2	.0053331	.0057582	87.01852	.2307496	.1245282	.8648004	224.6973
#3	.0055837	.0060593	86.73850	.2318697	.1235569	.8633562	224.0557

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.538657	52.01594	.2316462	-.016916	1.488034	.4265006	.6312574
Stddev	.034817	.36951	.0003653	.000757	.187518	.0035758	.0008024
%RSD	.6286127	.7103696	.1577052	4.472294	12.60171	.8383967	.1271169
#1	5.578174	52.43801	.2319971	-.016819	1.652138	.4239041	.6315695
#2	5.525304	51.85902	.2312680	-.017717	1.283649	.4305791	.6318568
#3	5.512494	51.75080	.2316735	-.016213	1.528314	.4250187	.6303458

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.09401	6.786743	.2354032	-.000017	1.174130	3.462515	.0048834
Stddev	.20618	.018191	.0017886	.000498	.011292	.009665	.0029980
%RSD	.6851034	.2680396	.7597829	2979.529	.9617442	.2791302	61.39214
#1	30.32496	6.791866	.2364802	.000148	1.186398	3.471703	.0067583
#2	30.02857	6.766539	.2333386	-.000576	1.164170	3.463407	.0014257
#3	29.92850	6.801823	.2363908	.000378	1.171823	3.452435	.0064662

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2203929	-.027001	.1823390	-.024239	.0078181	94.10104	1.032967
Stddev	.0062222	.001885	.0051034	.003370	.0036056	.17935	.000685
%RSD	2.823210	6.982289	2.798855	13.90419	46.11871	.1905928	.0663224
#1	.2135154	-.024918	.1856855	-.027798	.0053478	94.15827	1.032233
#2	.2220318	-.028589	.1848665	-.021096	.0119556	93.90006	1.033077
#3	.2256316	-.027497	.1764651	-.023824	.0061508	94.24480	1.033590

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045421	.0039824	53.31051	.1903772	.1069153	.6132639	205.1021
Stddev	.0000963	.0002164	.15629	.0007037	.0008013	.0007801	.2259
%RSD	2.120248	5.433834	.2931696	.3696374	.7495011	.1272043	.1101223
#1	.0046239	.0039907	53.41676	.1904109	.1059957	.6130156	205.3627
#2	.0045664	.0037619	53.13105	.1896573	.1074638	.6126383	204.9813
#3	.0044360	.0041945	53.38371	.1910635	.1072864	.6141380	204.9623

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.458526	43.05420	.1997218	-.014941	1.183909	.3968831	.4932027
Stddev	.007952	.11269	.0009257	.000201	.295064	.0026535	.0025571
%RSD	.1456814	.2617290	.4634936	1.346233	24.92290	.6685758	.5184642
#1	5.467175	43.01231	.2001232	-.015104	.990986	.3980508	.4930393
#2	5.456871	43.18183	.2003791	-.014716	1.523575	.3987525	.4958375
#3	5.451532	42.96845	.1986632	-.015002	1.037165	.3938461	.4907312

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.65109	5.609314	.2118602	-.000570	1.065220	3.219101	.0091035
Stddev	.03709	.012181	.0020323	.000206	.003155	.015791	.0009858
%RSD	.1341358	.2171481	.9592640	36.14311	.2962228	.4905554	10.82874
#1	27.63853	5.613784	.2103575	-.000343	1.066095	3.218345	.0095714
#2	27.62191	5.595530	.2141725	-.000746	1.067845	3.203701	.0079708
#3	27.69283	5.618629	.2110506	-.000622	1.061719	3.235257	.0097681

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.443481	.0631286	.2573012
Stddev	.008886	.0010646	.0004471
%RSD	.3636581	1.686384	.1737723
#1	2.443851	.0621703	.2573101
#2	2.434416	.0629409	.2568497
#3	2.452176	.0642746	.2577438

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	902.4054	21758.51	2473.273	799.5624	1492.940
Stddev	1.1279	129.20	3.951	4.4284	3.072
%RSD	.1249849	.5938108	.1597559	.5538521	.2057718
#1	903.7043	21732.32	2470.107	798.2898	1493.622
#2	901.8383	21644.42	2477.701	795.9097	1489.584
#3	901.6736	21898.81	2472.010	804.4878	1495.614

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.976787	4.800909	24.45257	4.658750	4.732374	415.8313	10.14997
Stddev	.008099	.016931	.03830	.007510	.025206	2.4517	.04677
%RSD	.1627445	.3526698	.1566159	.1611929	.5326201	.5895999	.4607549
#1	4.985676	4.801937	24.46483	4.650088	4.715041	414.1408	10.12256
#2	4.969825	4.817303	24.48324	4.662744	4.720791	414.7099	10.12339
#3	4.974860	4.783487	24.40965	4.663419	4.761289	418.6432	10.20397

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5083896	2.468594	407.1784	15.47412	2.488425	15.04096	412.8167
Stddev	.0017441	.004987	2.7023	.01428	.002351	.03454	2.3410
%RSD	.3430715	.2020213	.6636748	.0922766	.0944879	.2296247	.5670908
#1	.5074766	2.472247	405.3285	15.46878	2.490743	15.02526	411.1365
#2	.5072915	2.470623	405.9272	15.49029	2.488491	15.01706	411.8229
#3	.5104007	2.462912	410.2796	15.46327	2.486042	15.08056	415.4907

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.84822	404.2520	2.481012	1.257645	413.0942	2.489312	14.11022
Stddev	.07749	3.3027	.004095	.003571	2.0108	.030071	.01762
%RSD	.5218707	.8169889	.1650709	.2839503	.4867551	1.208007	.1248857
#1	14.79584	401.4521	2.484870	1.254872	411.7205	2.456957	14.12817
#2	14.81158	403.4096	2.476714	1.261675	412.1599	2.494577	14.10955
#3	14.93723	407.8943	2.481453	1.256389	415.4021	2.516403	14.09294

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	155.5319	5.040084	5.262537	4.702811	5.005936	5.022198	4.941513
Stddev	.6569	.010549	.042625	.017295	.015446	.030639	.015338
%RSD	.4223728	.2093023	.8099714	.3677658	.3085510	.6100785	.3103999
#1	155.2468	5.030209	5.220387	4.692666	5.019069	4.993436	4.948464
#2	155.0657	5.051198	5.261603	4.692986	4.988919	5.018737	4.952145
#3	156.2832	5.038845	5.305621	4.722781	5.009820	5.054421	4.923929

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

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

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

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

Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: CCB025 Acquired: 10/29/2024 21:05:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB025 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014968	.0018435	.0020905	-.003400	.0000044	.0047476	.0007630
Stddev	.0021941	.0016204	.0035873	.002689	.0021573	.0052384	.0009719
%RSD	146.5884	87.89992	171.6007	79.07929	49408.48	110.3389	127.3864
#1	.0018629	.0001094	.0026942	-.002052	-.002188	.0073816	-.000359
#2	-.000857	.0033192	-.001760	-.006496	.002124	-.001285	.001289
#3	.003485	.0021018	.005338	-.001652	.000077	.008146	.001359

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000014	.0000845	.0077552	.0003375	.0001573	-.001790	-.008294
Stddev	.000034	.0000663	.0109651	.0005836	.0005351	.004287	.032319
%RSD	239.6172	78.43814	141.3903	172.9270	340.2600	239.4981	389.6914
#1	.000013	.0001544	-.004531	.0009030	-.000288	-.006066	-.043349
#2	-.000004	.0000226	.016547	.0003721	.000009	.002509	-.001850
#3	-.000052	.0000765	.011250	-.000263	.000751	-.001813	.020319

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021983	-.014214	.0002716	.0020288	-.084619	-.002438	.0004934
Stddev	.0004139	.119018	.0004191	.0000077	.059805	.006342	.0000883
%RSD	18.82740	837.3063	154.3190	.3796071	70.67549	260.1398	17.89798
#1	.0017229	.059791	-.000014	.0020341	-.042221	-.009653	.0005412
#2	.0023942	.049071	.000076	.0020200	-.153025	.002254	.0003915
#3	.0024780	-.151505	.000753	.0020324	-.058612	.000085	.0005474

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1461872	.0026097	.0015264	-.000227	.0093221	.0007640	.0014413
Stddev	.0323121	.0009788	.0006847	.000549	.0042262	.0003660	.0014190
%RSD	22.10322	37.50533	44.85863	242.0466	45.33512	47.90958	98.45040
#1	.1746978	.0023211	.0007385	-.000848	.0105567	.0010223	.0024856
#2	.1110889	.0037003	.0018633	-.000023	.0127934	.0003451	-.000174
#3	.1527751	.0018077	.0019775	.000192	.0046161	.0009246	.002013

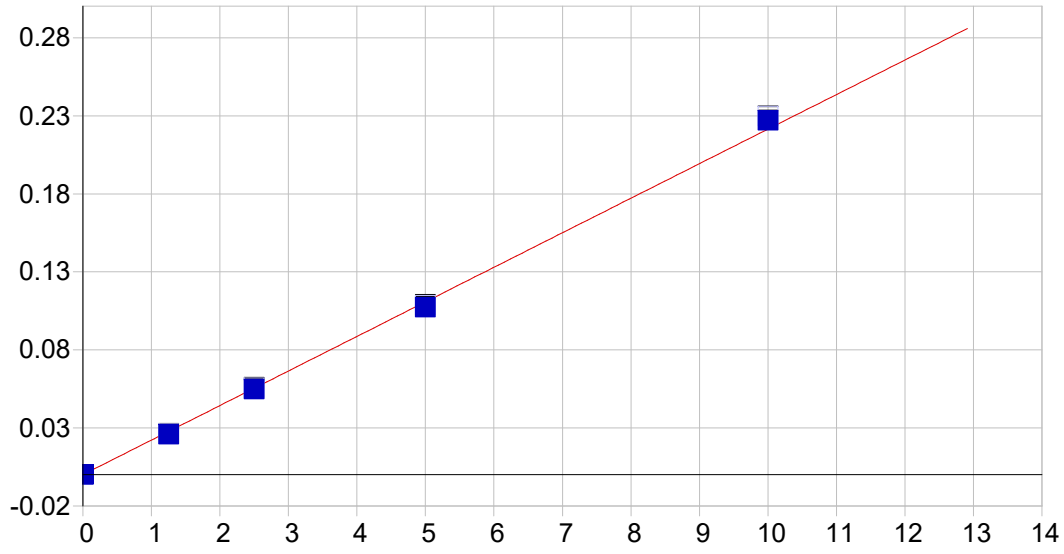
Reviewed By:Mohan
On:11/7/2024 4:26:00 AM
Inst Id :P5

Sample Name: CCB025 Acquired: 10/29/2024 21:05:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v711) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB025 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009218	-.006303	.0000985
Stddev	.0006188	.000950	.0001664
%RSD	67.13163	15.07957	168.9273
#1	.0015138	-.005762	-.000084
#2	.0009725	-.007401	.000137
#3	.0002792	-.005746	.000242

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

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



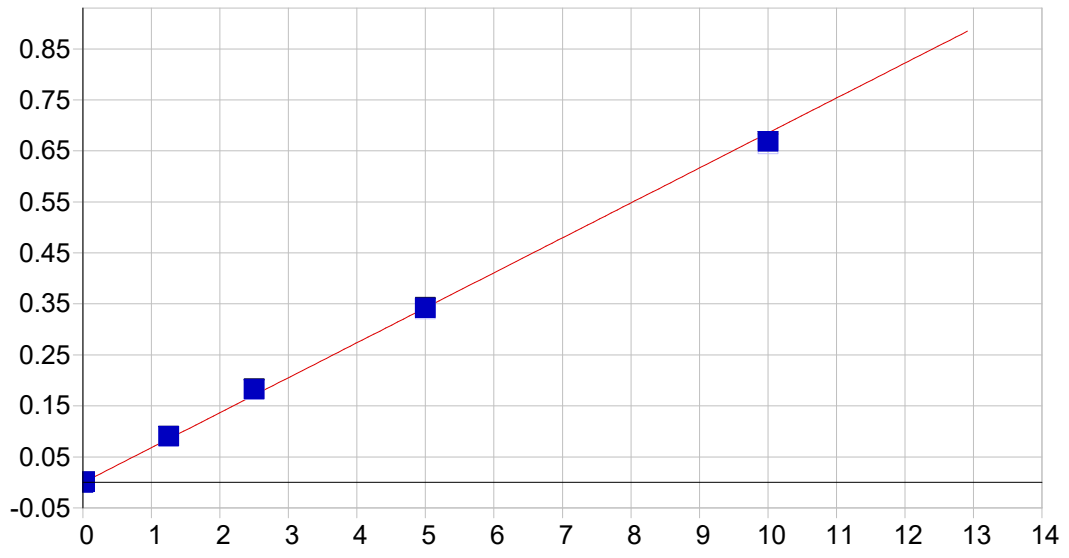
As 189.042 {479}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000089	Re-Slope:	1.000000
A1 (Gain):	0.022138	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999560	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.010389		
Predicted MQL:	0.034631		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.01000	.01202	.002	20.2	.00036	.000	1
S2	1.2500	1.1714	-.079	-6.29	.02634	.000	1
S3	2.5000	2.4772	-.023	-.911	.05556	.000	1
S4	5.0000	4.8444	-.156	-3.11	.10860	.001	1
S5	10.000	10.255	.255	2.55	.22964	.000	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



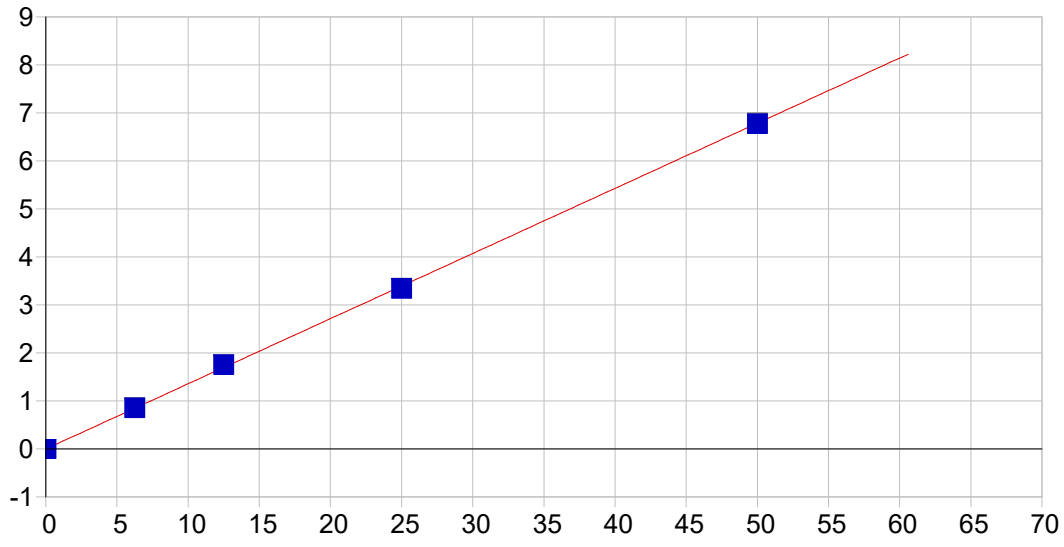
Tl 190.856 {477}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000407	Re-Slope:	1.000000
A1 (Gain):	0.068545	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999390	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.003071		
Predicted MQL:	0.010238		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00041	.000	1
S1	.02500	.02662	.002	6.49	.00138	.000	1
S2	1.2500	1.3231	.073	5.85	.08970	.000	1
S3	2.5000	2.6750	.175	7.00	.18177	.001	1
S4	5.0000	4.9947	-.005	-.106	.33959	.001	1
S5	10.000	9.7556	-.244	-2.44	.66357	.000	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



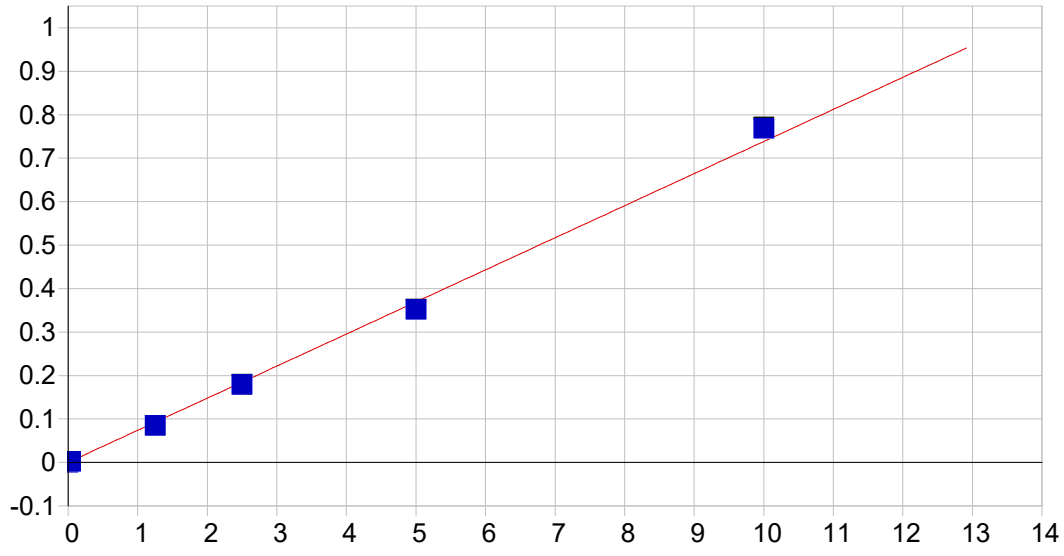
Pb 220.353 {453}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001223	Re-Slope:	1.000000
A1 (Gain):	0.135729	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999881	Status:	OK.
Std Error of Est:	0.000078		
Predicted MDL:	0.003392		
Predicted MQL:	0.011305		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00122	.001	1
S1	.01000	.00778	-.002	-22.2	-.00016	.001	1
S2	6.2500	6.2763	.026	.421	.85044	.003	1
S3	12.500	12.939	.439	3.52	1.7546	.002	1
S4	25.000	24.608	-.392	-1.57	3.3379	.005	1
S5	50.000	49.929	-.071	-.142	6.7739	.009	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



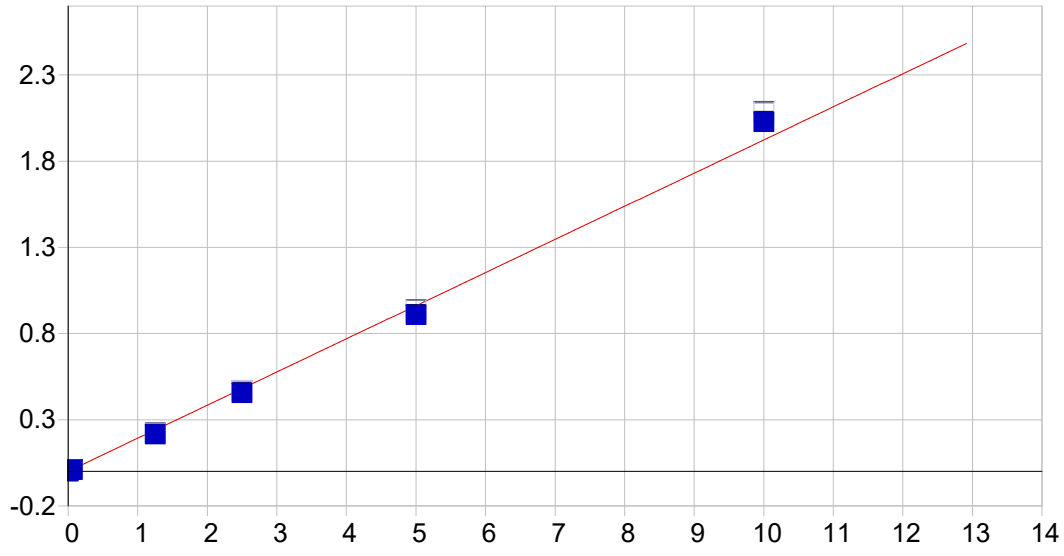
Se 196.090 {472}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000201	Re-Slope:	1.000000
A1 (Gain):	0.073814	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998955	Status:	OK.
Std Error of Est:	0.000106		
Predicted MDL:	0.005525		
Predicted MQL:	0.018416		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00020	.001	1
S1	.03500	.03233	-.003	-7.63	.00258	.000	1
S2	1.2500	1.1494	-.101	-8.05	.08487	.000	1
S3	2.5000	2.4241	-.076	-3.04	.17878	.001	1
S4	5.0000	4.7630	-.237	-4.74	.35107	.001	1
S5	10.000	10.416	.416	4.16	.76766	.003	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



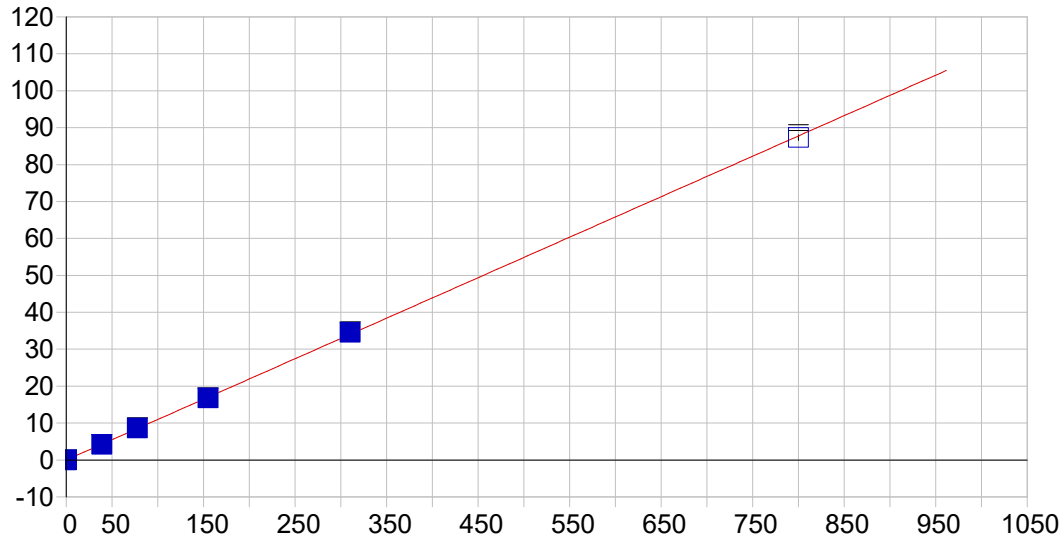
Sb 206.833 {463}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000127	Re-Slope:	1.000000
A1 (Gain):	0.192281	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998319	Status:	OK.
Std Error of Est:	0.000473		
Predicted MDL:	0.002540		
Predicted MQL:	0.008468		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00013	.000	1
S1	.06000	.05435	-.006	-9.41	.01058	.001	1
S2	1.2500	1.1179	-.132	-10.6	.22217	.001	1
S3	2.5000	2.3681	-.132	-5.28	.46965	.001	1
S4	5.0000	4.7207	-.279	-5.59	.93621	.002	1
S5	10.000	10.549	.549	5.49	2.0852	.004	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



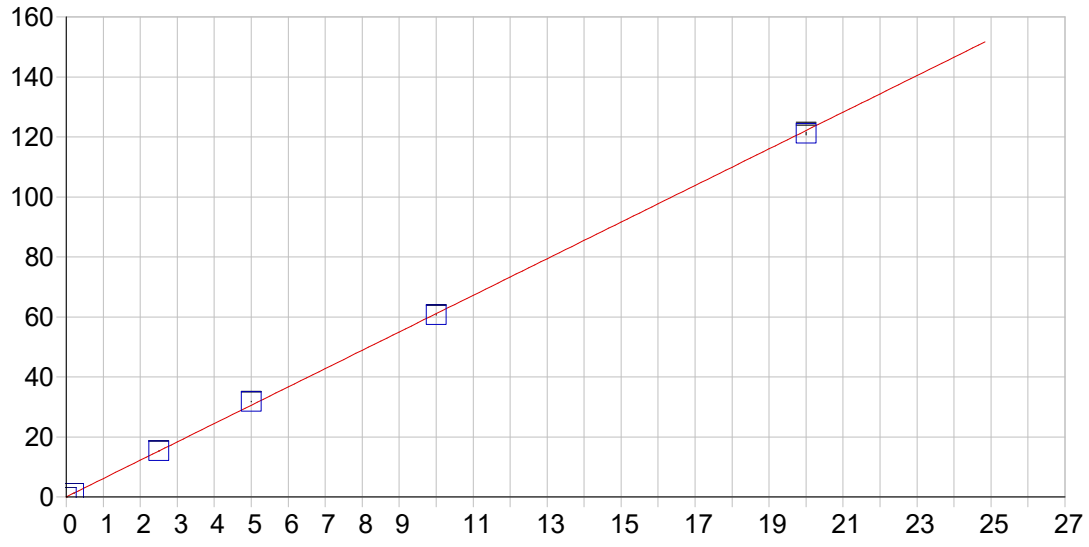
Al 396.152 { 85}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001441	Re-Slope:	1.000000
A1 (Gain):	0.109710	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999942	Status:	OK.
Std Error of Est:	0.000733		
Predicted MDL:	0.014104		
Predicted MQL:	0.047012		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00144	.001	1
S1	.20000	.18839	-.012	-5.81	.01927	.001	1
S2	38.750	38.294	-.456	-1.18	4.2049	.013	1
S3	77.500	78.839	1.34	1.73	8.6582	.038	1
S4	155.00	153.01	-1.99	-1.28	16.806	.022	1
S5	310.00	315.12	5.12	1.65	34.612	.132	1
S6	800.00	795.99	-4.01	-.501	87.327	.788	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



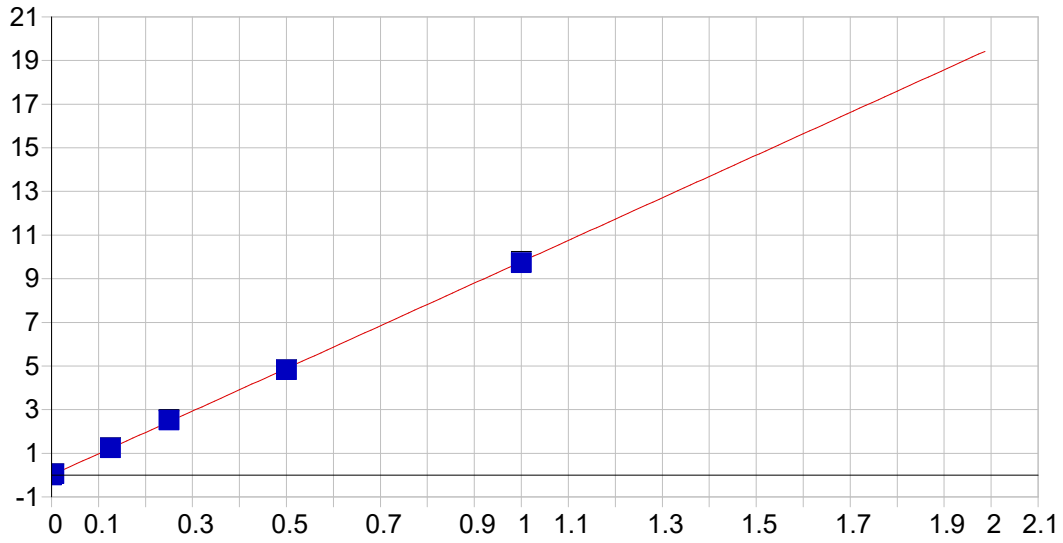
Ba 493.409 { 68}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.022896	Re-Slope:	1.000000
A1 (Gain):	6.105327	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999865	Status:	OK.
Std Error of Est:	0.010675		
Predicted MDL:	0.000822		
Predicted MQL:	0.002740		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.02279	.001	1
S1	.20000	.21156	.012	5.78	1.3146	.005	1
S2	2.5000	2.5170	.017	.680	15.390	.019	1
S3	5.0000	5.1963	.196	3.93	31.748	.107	1
S4	10.000	9.9373	-.063	-.627	60.693	.067	1
S5	20.000	19.838	-.162	-.811	121.14	.460	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



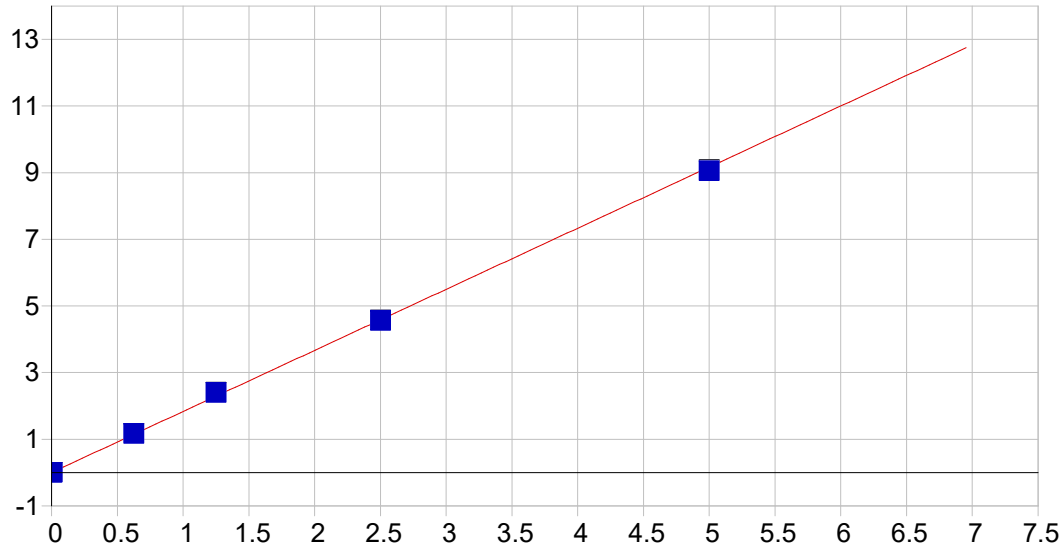
Be 234.861 {144}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001382	Re-Slope:	1.000000
A1 (Gain):	9.777438	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999893	Status:	OK.
Std Error of Est:	0.000536		
Predicted MDL:	0.000091		
Predicted MQL:	0.000302		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00139	.001	1
S1	.00500	.00536	.000	7.19	.05099	.001	1
S2	.12500	.12796	.003	2.36	1.2477	.007	1
S3	.25000	.25731	.007	2.92	2.5105	.020	1
S4	.50000	.49409	-.006	-1.18	4.8217	.003	1
S5	1.0000	.99528	-.005	-.472	9.7142	.059	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



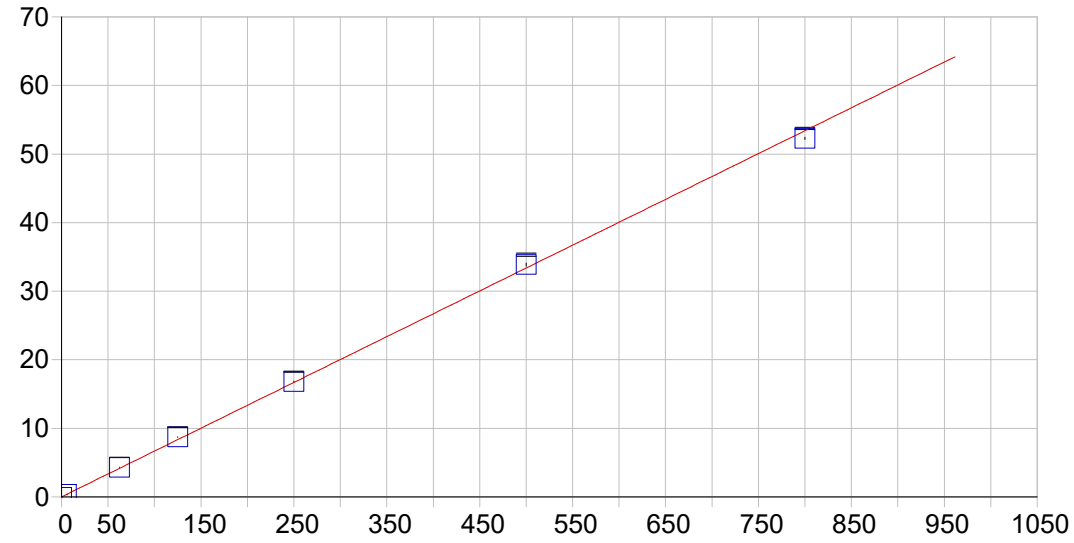
Cd 214.438 {457}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000095	Re-Slope:	1.000000
A1 (Gain):	1.833481	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999795	Status:	OK.
Std Error of Est:	0.000312		
Predicted MDL:	0.000151		
Predicted MQL:	0.000504		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.00500	.00531	.000	6.28	.00985	.000	1
S2	.62500	.63671	.012	1.87	1.1702	.003	1
S3	1.2500	1.3095	.059	4.76	2.4065	.001	1
S4	2.5000	2.4896	-.010	-.417	4.5757	.003	1
S5	5.0000	4.9389	-.061	-1.22	9.0775	.015	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



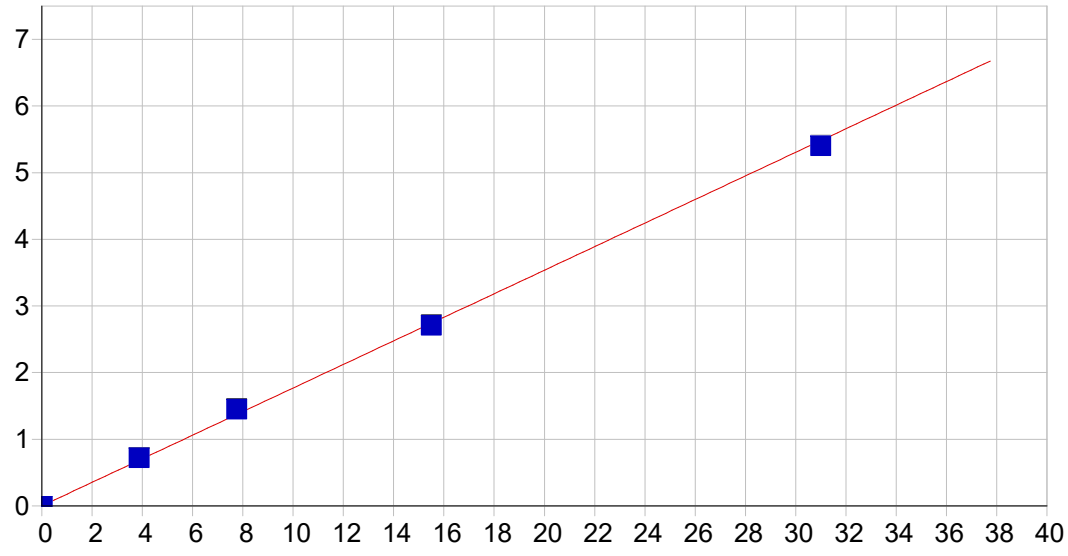
Ca 373.690 { 90}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006616	Re-Slope:	1.000000
A1 (Gain):	0.066747	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999772	Status:	OK.
Std Error of Est:	0.004980		
Predicted MDL:	0.018275		
Predicted MQL:	0.060918		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00079	-.001	.000	.00656	.001	1
S1	5.0000	5.4197	.420	8.39	.36837	.001	1
S2	62.500	64.338	1.84	2.94	4.3010	.016	1
S3	125.00	130.48	5.48	4.38	8.7158	.051	1
S4	250.00	251.76	1.76	.706	16.811	.080	1
S5	500.00	507.22	7.22	1.44	33.862	.233	1
S6	800.00	783.27	-16.7	-2.09	52.288	.151	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



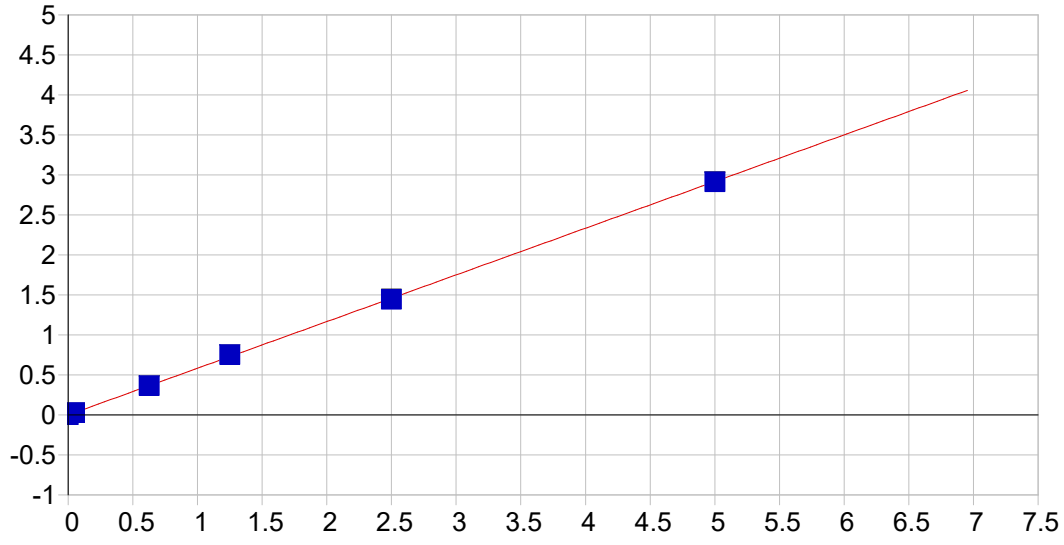
Cr 267.716 {126}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000100	Re-Slope:	1.000000
A1 (Gain):	0.176845	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999617	Status:	OK.
Std Error of Est:	0.000145		
Predicted MDL:	0.000976		
Predicted MQL:	0.003254		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00010	.000	1
S1	.01000	.01067	.001	6.72	.00199	.000	1
S2	3.8750	4.0686	.194	5.00	.72038	.001	1
S3	7.7500	8.1987	.449	5.79	1.4515	.003	1
S4	15.500	15.319	-.181	-1.17	2.7123	.003	1
S5	31.000	30.538	-.462	-1.49	5.4067	.004	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



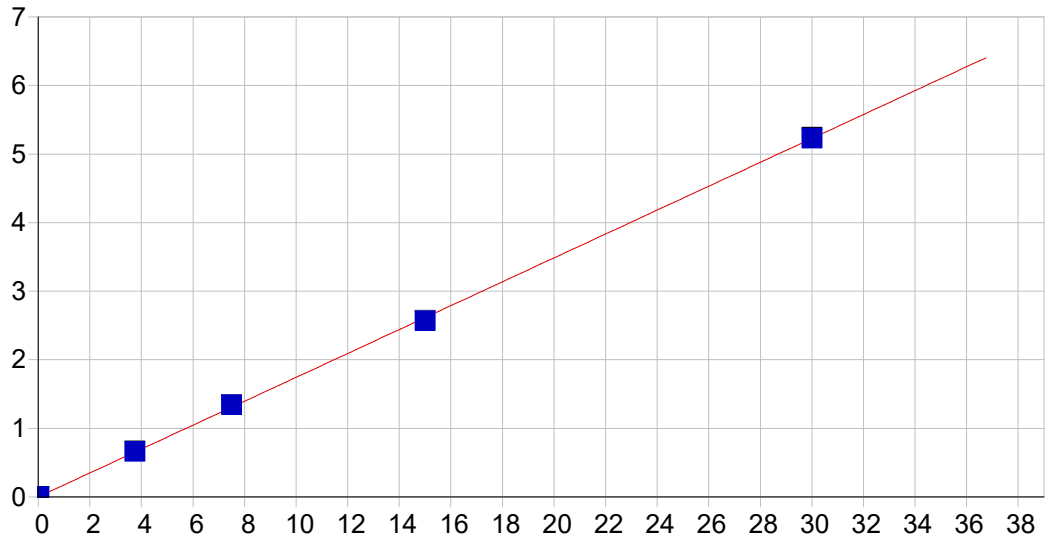
Co 228.616 {448}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000092	Re-Slope:	1.000000
A1 (Gain):	0.583404	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999912	Status:	OK.
Std Error of Est:	0.000206		
Predicted MDL:	0.000545		
Predicted MQL:	0.001815		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00009	.000	1
S1	.05000	.04983	-.000	-.347	.02908	.000	1
S2	.62500	.62284	-.002	-.345	.36372	.002	1
S3	1.2500	1.2908	.041	3.27	.75387	.000	1
S4	2.5000	2.4731	-.027	-1.08	1.4445	.002	1
S5	5.0000	4.9884	-.012	-.232	2.9137	.003	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



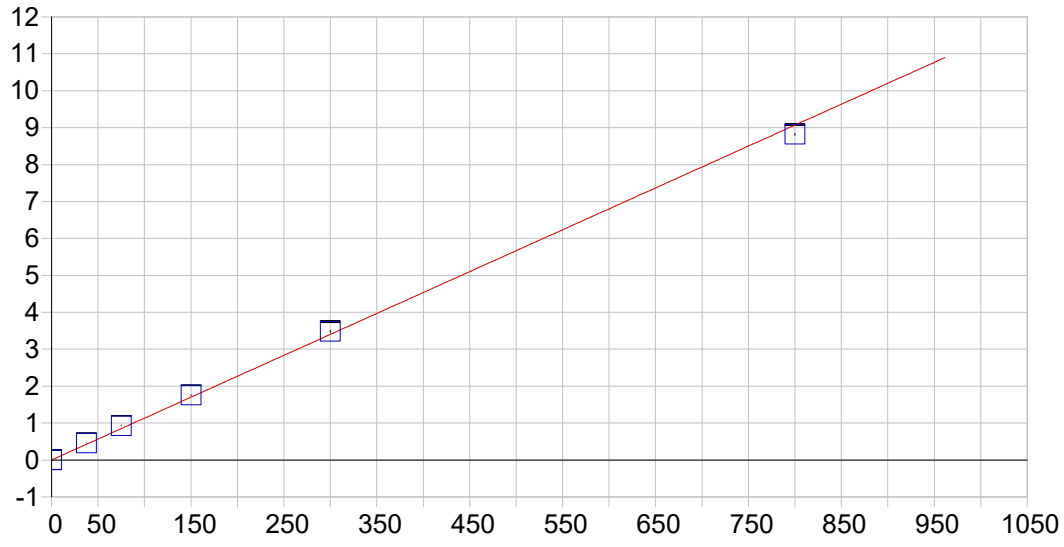
Cu 324.754 {104}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000778	Re-Slope:	1.000000
A1 (Gain):	0.174243	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999894	Status:	OK.
Std Error of Est:	0.000116		
Predicted MDL:	0.004240		
Predicted MQL:	0.014134		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00078	.000	1
S1	.02500	.02865	.004	14.6	.00577	.000	1
S2	3.7500	3.7948	.045	1.20	.66158	.005	1
S3	7.5000	7.7085	.208	2.78	1.3431	.006	1
S4	15.000	14.726	-.274	-1.83	2.5649	.007	1
S5	30.000	30.018	.018	.058	5.2278	.013	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



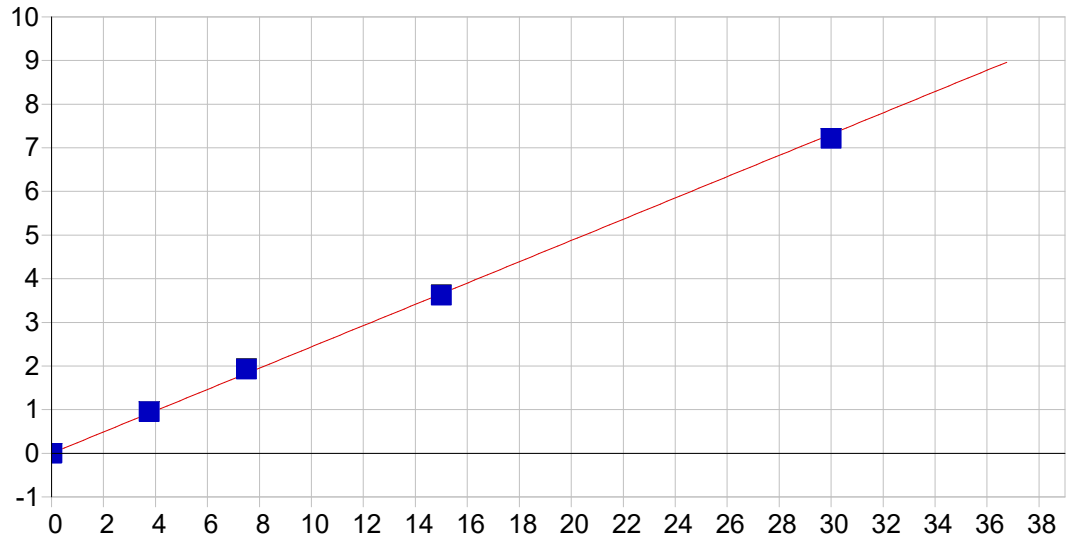
Fe 259.837 {130}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000088	Re-Slope:	1.000000
A1 (Gain):	0.011336	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999338	Status:	OK.
Std Error of Est:	0.000180		
Predicted MDL:	0.030869		
Predicted MQL:	0.102897		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00005	-.000	.000	.00009	.000	1
S1	.10000	.12589	.026	25.9	.00152	.000	1
S2	37.500	40.497	3.00	7.99	.45916	.002	1
S3	75.000	81.819	6.82	9.09	.92759	.005	1
S4	150.00	155.06	5.06	3.38	1.7579	.007	1
S5	300.00	307.06	7.06	2.35	3.4809	.026	1
S6	800.00	778.04	-22.0	-2.75	8.8200	.024	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



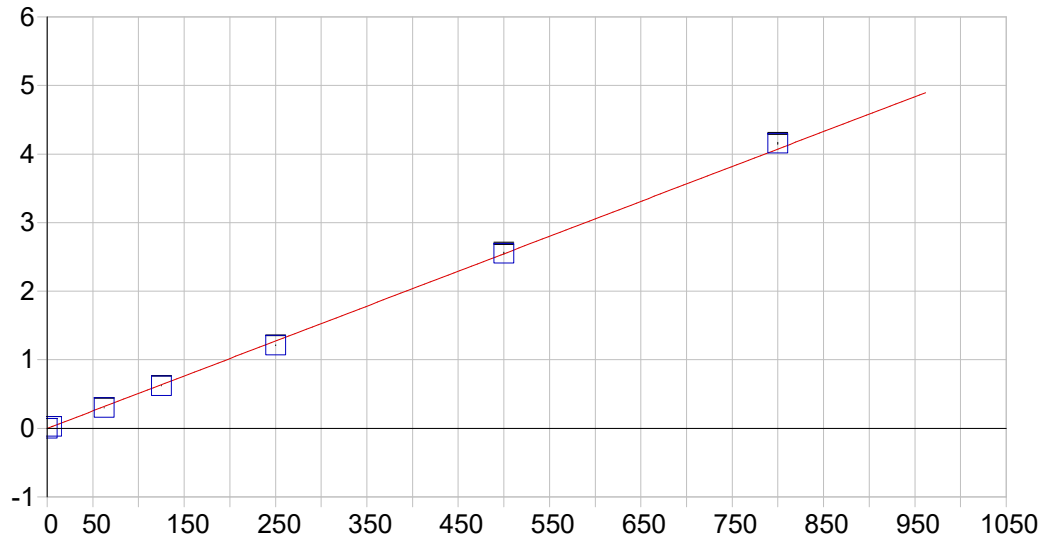
Mn 257.610 {131}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000297	Re-Slope:	1.000000
A1 (Gain):	0.243781	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999661	Status:	OK.
Std Error of Est:	0.000226		
Predicted MDL:	0.001512		
Predicted MQL:	0.005039		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00030	.000	1
S1	.01500	.01885	.004	25.6	.00431	.000	1
S2	3.7500	3.9129	.163	4.34	.95373	.003	1
S3	7.5000	7.9112	.411	5.48	1.9286	.006	1
S4	15.000	14.846	-.154	-1.03	3.6194	.005	1
S5	30.000	29.576	-.424	-1.41	7.2109	.005	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



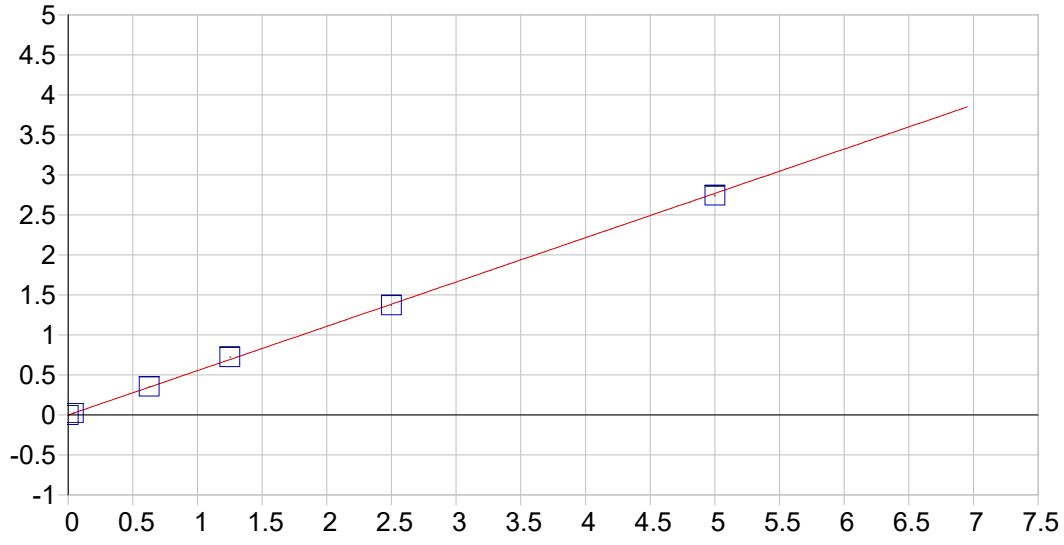
Mg 279.079 {121}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000487	Re-Slope:	1.000000
A1 (Gain):	0.005092	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999667	Status:	OK.
Std Error of Est:	0.000459		
Predicted MDL:	0.079499		
Predicted MQL:	0.264997		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00023	.000	.000	-.00049	.000	1
S1	5.0000	5.2690	.269	5.38	.02635	.001	1
S2	62.500	59.274	-3.23	-5.16	.30136	.002	1
S3	125.00	122.14	-2.86	-2.29	.62150	.003	1
S4	250.00	238.00	-12.0	-4.80	1.2115	.006	1
S5	500.00	501.43	1.43	.286	2.5530	.017	1
S6	800.00	816.38	16.4	2.05	4.1568	.014	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



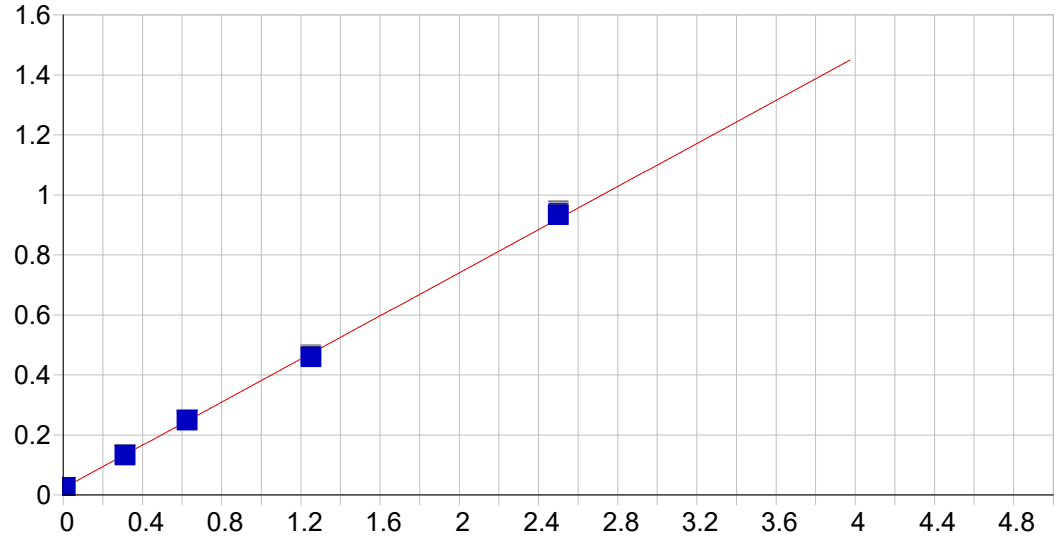
Ni 231.604 {446}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000199	Re-Slope:	1.000000
A1 (Gain):	0.553850	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999812	Status:	OK.
Std Error of Est:	0.000255		
Predicted MDL:	0.000612		
Predicted MQL:	0.002040		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00020	.000	1
S1	.04000	.04199	.002	4.98	.02306	.000	1
S2	.62500	.64024	.015	2.44	.35440	.001	1
S3	1.2500	1.3045	.055	4.36	.72232	.000	1
S4	2.5000	2.4761	-.024	-.956	1.3712	.002	1
S5	5.0000	4.9521	-.048	-.957	2.7425	.005	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



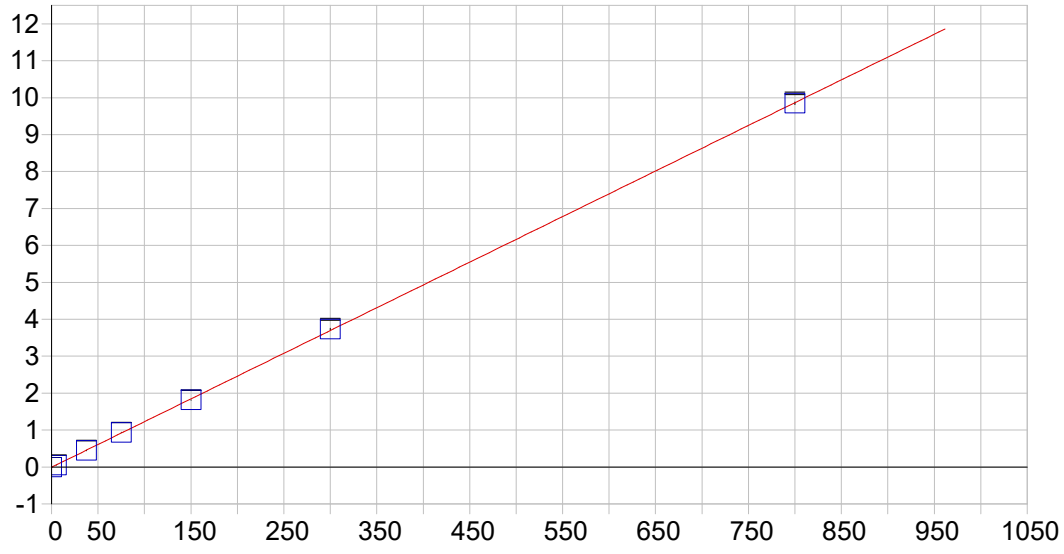
Ag 328.068 {103}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.022211	Re-Slope:	1.000000
A1 (Gain):	0.359158	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999838	Status:	OK.
Std Error of Est:	0.000055		
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	.02221	.000	1
S1	.01000	.00984	-.000	-1.60	.02573	.000	1
S2	.31250	.30516	-.007	-2.35	.13302	.000	1
S3	.62500	.62883	.004	.614	.25048	.001	1
S4	1.2500	1.2177	-.032	-2.59	.46439	.002	1
S5	2.5000	2.5360	.036	1.44	.94270	.003	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



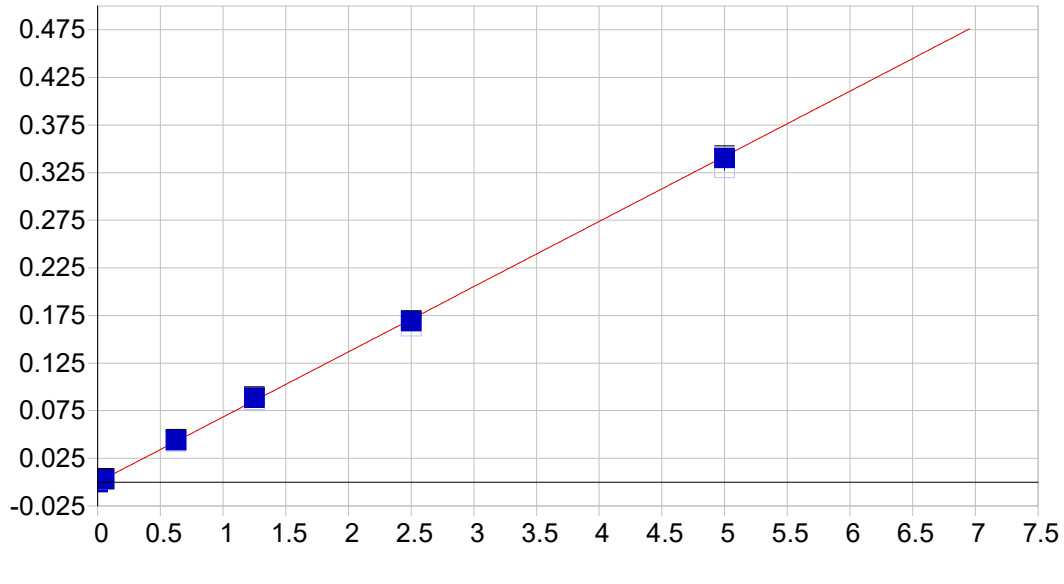
Na 818.326 { 41}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.007598	Re-Slope:	1.000000
A1 (Gain):	0.012341	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000324		
Predicted MDL:	0.288242		
Predicted MQL:	0.960805		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00014	.000	.000	-.00760	.002	1
S1	5.0000	4.8659	-.134	-2.68	.05245	.004	1
S2	37.500	37.104	-.396	-1.06	.45030	.009	1
S3	75.000	76.325	1.32	1.77	.93433	.003	1
S4	150.00	147.63	-2.37	-1.58	1.8143	.004	1
S5	300.00	302.90	2.90	.966	3.7305	.025	1
S6	800.00	798.67	-1.33	-.166	9.8488	.037	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



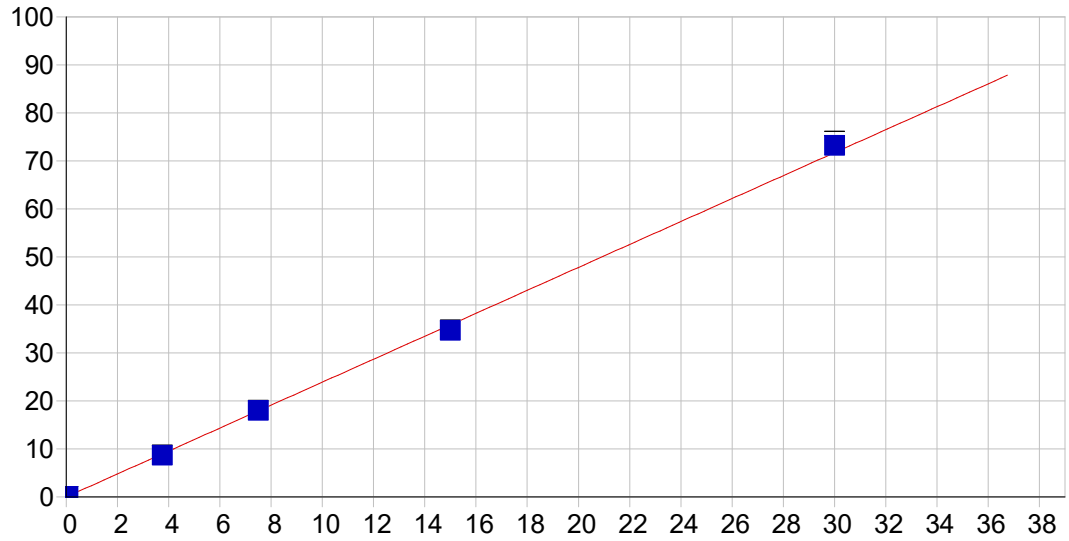
V 292.402 {115}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000085	Re-Slope:	1.000000
A1 (Gain):	0.068467	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999820	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.010534		
Predicted MQL:	0.035112		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00008	.001	1
S1	.05000	.04539	-.005	-9.23	.00302	.001	1
S2	.62500	.64159	.017	2.65	.04253	.001	1
S3	1.2500	1.2971	.047	3.77	.08609	.001	1
S4	2.5000	2.4678	-.032	-1.29	.16362	.001	1
S5	5.0000	4.9732	-.027	-.535	.32990	.002	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



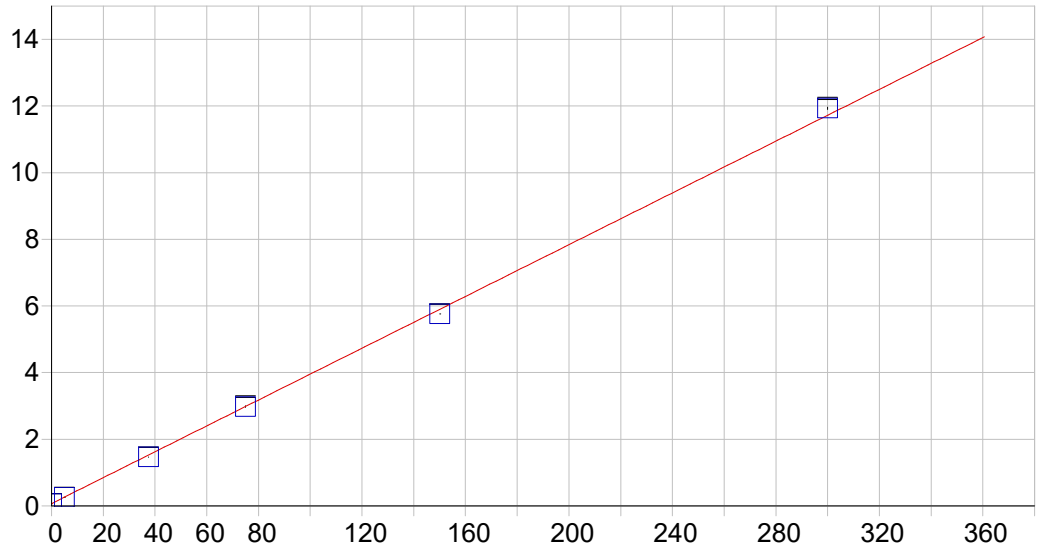
Zn 213.856 {158}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005273	Re-Slope:	1.000000
A1 (Gain):	2.390318	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999698	Status:	OK.
Std Error of Est:	0.004185		
Predicted MDL:	0.000519		
Predicted MQL:	0.001731		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00528	.000	1
S1	.06000	.06095	.001	1.58	.15166	.001	1
S2	3.7500	3.6198	-.130	-3.47	8.6687	.032	1
S3	7.5000	7.5170	.017	.226	17.995	.050	1
S4	15.000	14.497	-.503	-3.36	34.700	.069	1
S5	30.000	30.616	.616	2.05	73.273	.853	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



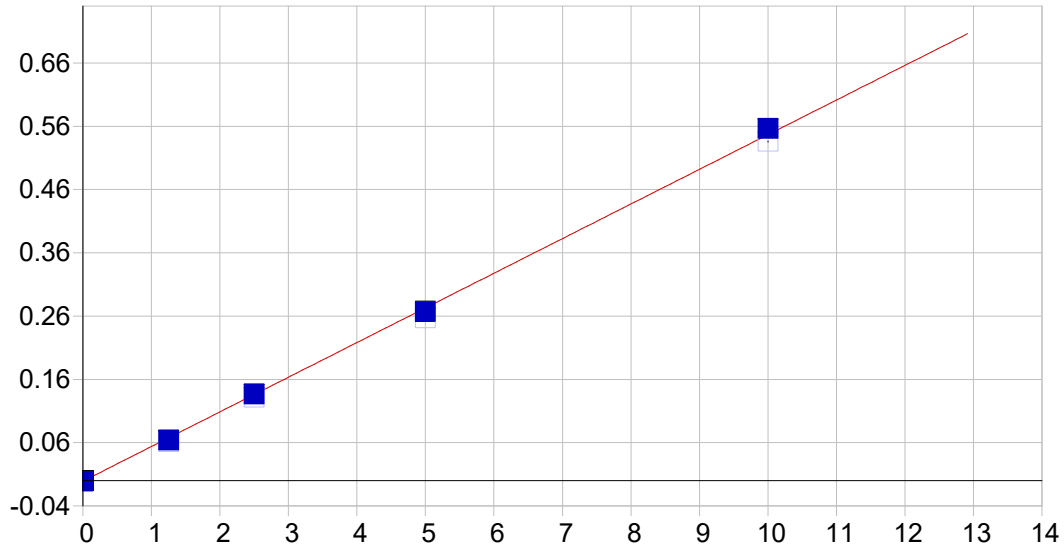
K 769.896 { 44}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.071377	Re-Slope:	1.000000
A1 (Gain):	0.038840	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999776	Status:	OK.
Std Error of Est:	0.001694		
Predicted MDL:	0.118770		
Predicted MQL:	0.395900		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00040	.000	.000	.07139	.003	1
S1	5.0000	4.8568	-.143	-2.86	.26002	.003	1
S2	37.500	35.871	-1.63	-4.34	1.4646	.002	1
S3	75.000	74.868	-.132	-.177	2.9793	.024	1
S4	150.00	146.50	-3.50	-2.33	5.7616	.002	1
S5	300.00	305.40	5.40	1.80	11.933	.034	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



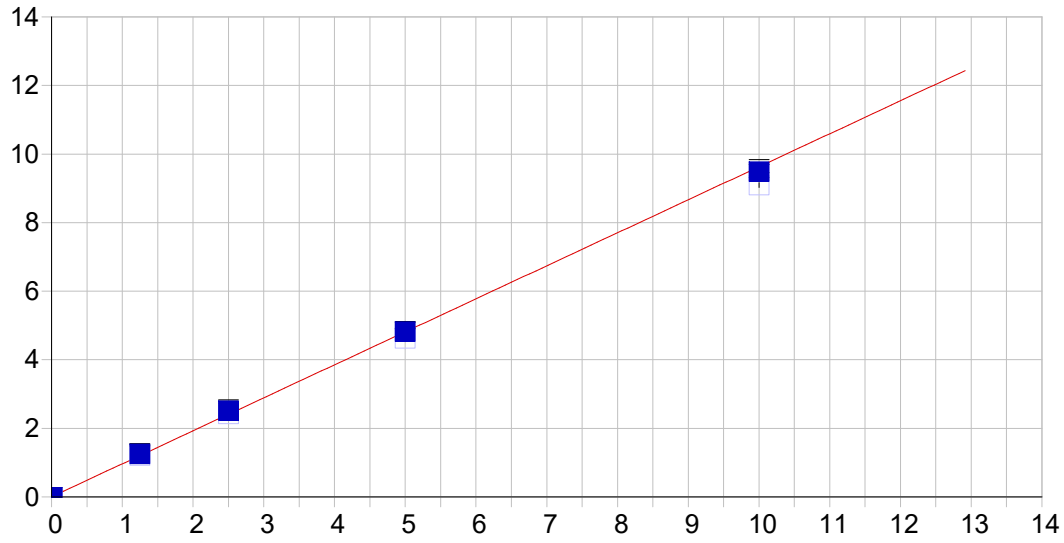
P 177.495 {490}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000901	Re-Slope:	1.000000
A1 (Gain):	0.054764	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999728	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.003308		
Predicted MQL:	0.011027		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00090	.000	1
S1	.01000	.01045	.000	4.47	-.00034	.000	1
S2	1.2500	1.1770	-.073	-5.84	.06104	.000	1
S3	2.5000	2.5063	.006	.253	.13132	.000	1
S4	5.0000	4.8947	-.105	-2.11	.25708	.001	1
S5	10.000	10.172	.172	1.72	.53600	.001	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



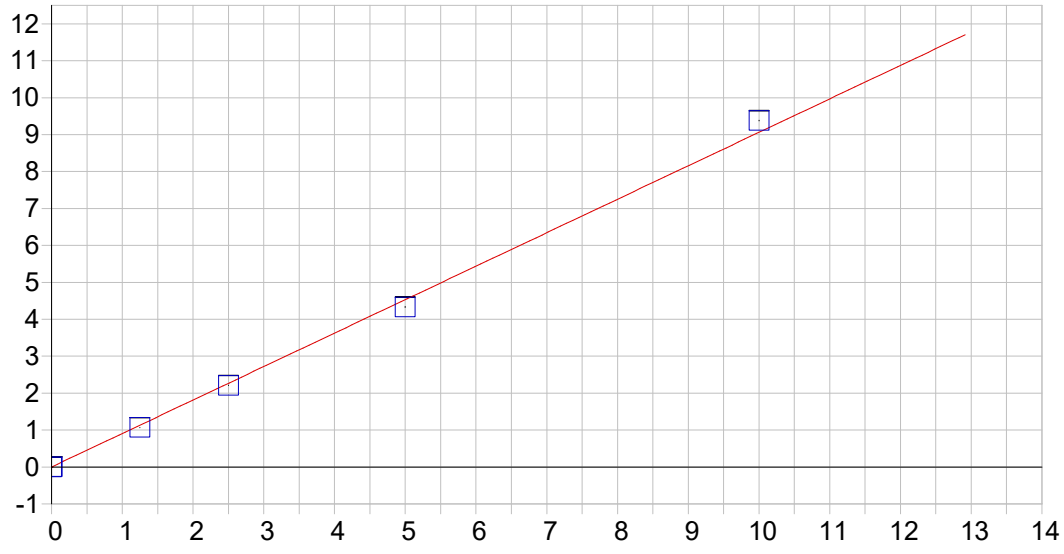
B 249.678 {135}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001580	Re-Slope:	1.000000
A1 (Gain):	0.962706	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999492	Status:	OK.
Std Error of Est:	0.000494		
Predicted MDL:	0.001069		
Predicted MQL:	0.003564		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00159	.000	1
S1	.01000	.00087	-.009	-91.3	.00233	.001	1
S2	1.2500	1.2999	.050	3.99	1.2045	.006	1
S3	2.5000	2.6103	.110	4.41	2.4174	.024	1
S4	5.0000	5.0030	.003	.060	4.6237	.009	1
S5	10.000	9.8462	-.154	-1.54	9.0920	.071	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



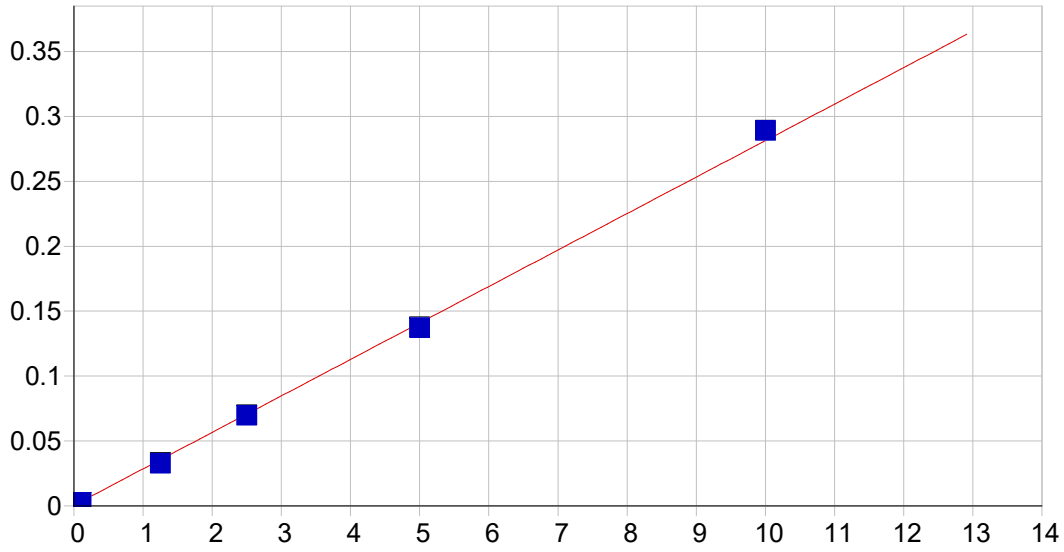
Mo 202.030 {467}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000078	Re-Slope:	1.000000
A1 (Gain):	0.906160	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999255	Status:	OK.
Std Error of Est:	0.000587		
Predicted MDL:	0.000484		
Predicted MQL:	0.001613		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00008	.000	1
S1	.01000	.00981	-.000	-1.94	.00896	.000	1
S2	1.2500	1.1780	-.072	-5.76	1.0675	.004	1
S3	2.5000	2.4372	-.063	-2.51	2.2086	.003	1
S4	5.0000	4.7801	-.220	-4.40	4.3316	.011	1
S5	10.000	10.355	.355	3.55	9.3832	.010	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



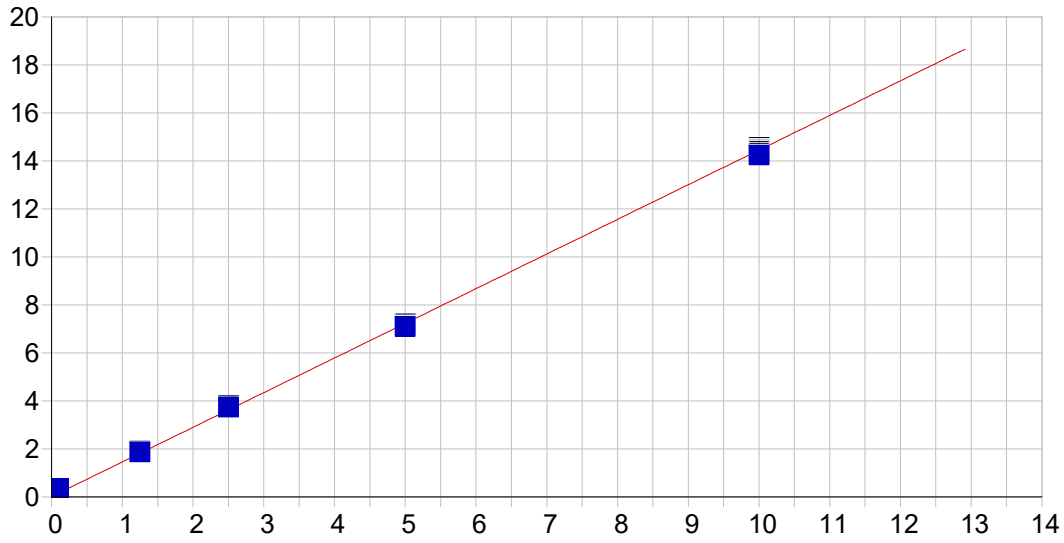
S 182.034 {485}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000474	Re-Slope:	1.000000
A1 (Gain):	0.028089	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999446	Status:	OK.
Std Error of Est:	0.000050		
Predicted MDL:	0.006305		
Predicted MQL:	0.021018		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00047	.000	1
S1	.10000	.08580	-.014	-14.2	.00288	.000	1
S2	1.2500	1.1524	-.098	-7.81	.03285	.000	1
S3	2.5000	2.4677	-.032	-1.29	.06979	.000	1
S4	5.0000	4.8707	-.129	-2.59	.13730	.000	1
S5	10.000	10.273	.273	2.73	.28907	.000	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



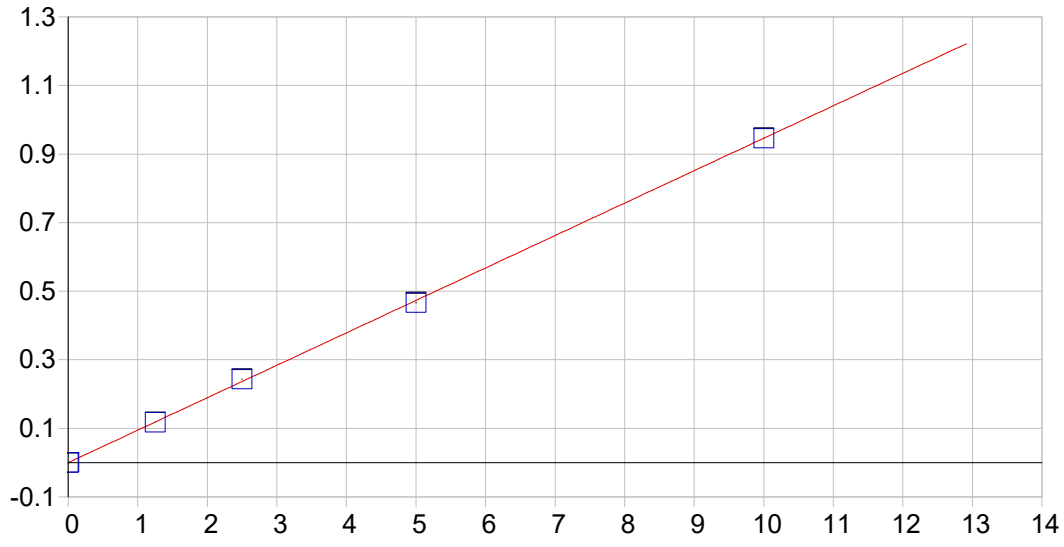
Si 251.611 {134}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.013287	Re-Slope:	1.000000
A1 (Gain):	1.443793	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995662	Status:	OK.
Std Error of Est:	0.007286		
Predicted MDL:	0.000604		
Predicted MQL:	0.002012		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	.01310	.000	1
S1	.10000	.22756	.128	128.	.34281	.002	1
S2	1.2500	1.2872	.037	2.97	1.9009	.010	1
S3	2.5000	2.5733	.073	2.93	3.7870	.031	1
S4	5.0000	4.9063	-.094	-1.87	7.2137	.012	1
S5	10.000	9.8568	-.143	-1.43	14.478	.082	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



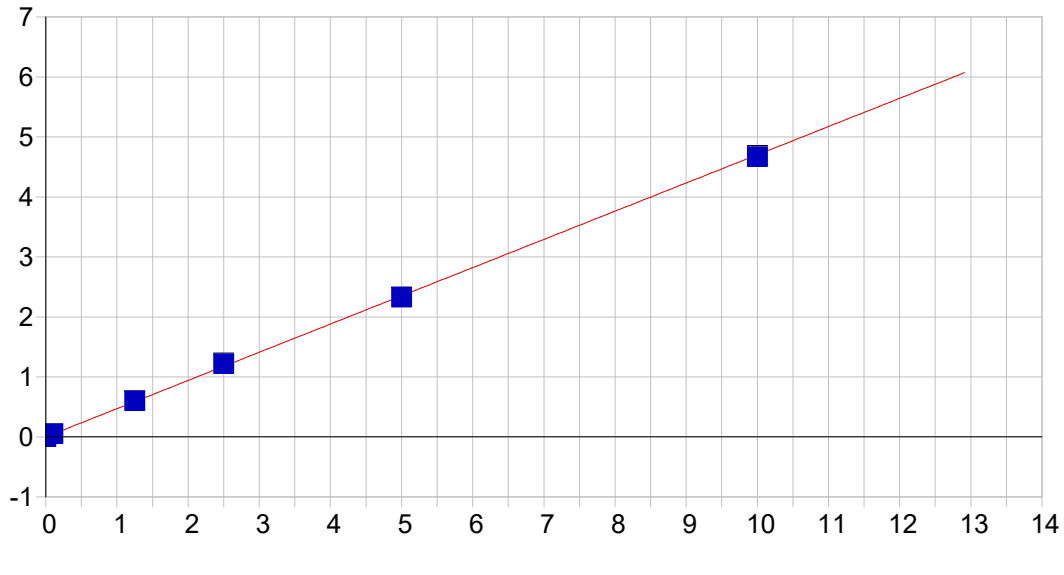
Sn 189.989 {478}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000063	Re-Slope:	1.000000
A1 (Gain):	0.094607	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.001875		
Predicted MQL:	0.006252		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00006	.000	1
S1	.00700	.00776	.001	10.9	.00080	.000	1
S2	1.2500	1.2453	-.005	-.375	.11788	.000	1
S3	2.5000	2.5703	.070	2.81	.24324	.001	1
S4	5.0000	4.9317	-.068	-1.37	.46663	.001	1
S5	10.000	10.002	.002	.019	.94632	.001	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



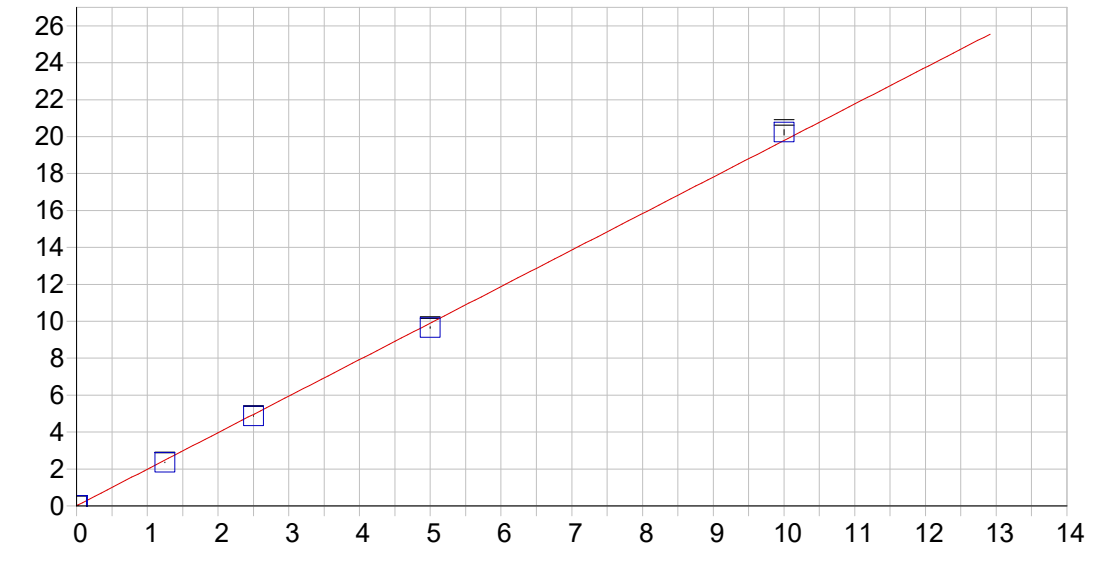
Ti 336.121 {100}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000192	Re-Slope:	1.000000
A1 (Gain):	0.470218	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999861	Status:	OK.
Std Error of Est:	0.000417		
Predicted MDL:	0.001825		
Predicted MQL:	0.006085		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00019	.001	1
S1	.10000	.10334	.003	3.34	.04877	.000	1
S2	1.2500	1.2750	.025	2.00	.59944	.001	1
S3	2.5000	2.5945	.095	3.78	1.2196	.007	1
S4	5.0000	4.9463	-.054	-1.07	2.3249	.004	1
S5	10.000	9.9308	-.069	-.692	4.6675	.020	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



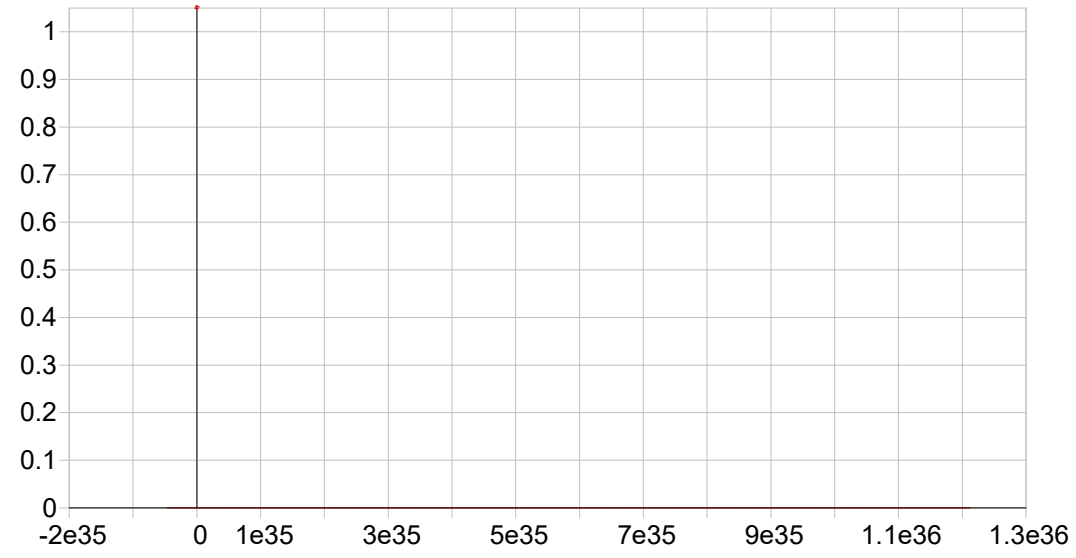
Li 670.784 { 50}

Date of Fit:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.010157	Re-Slope:	1.000000
A1 (Gain):	1.977791	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999688	Status:	OK.
Std Error of Est:	0.001015		
Predicted MDL:	0.001770		
Predicted MQL:	0.005899		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01016	.002	1
S5	10.000	10.225	.225	2.25	20.233	.156	1
S4	5.0000	4.8784	-.122	-2.43	9.6587	.044	1
S3	2.5000	2.4584	-.042	-1.66	4.8724	.022	1
S2	1.2500	1.1894	-.061	-4.85	2.3626	.017	1
S1	.01500	.01392	-.001	-7.22	.03768	.000	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

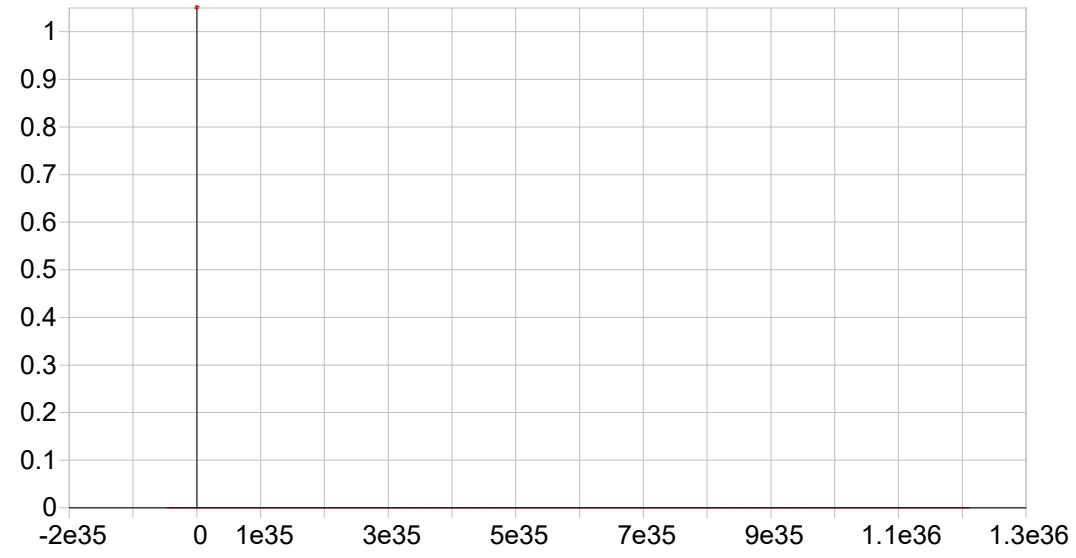


Y 224.306 {450}*

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}*

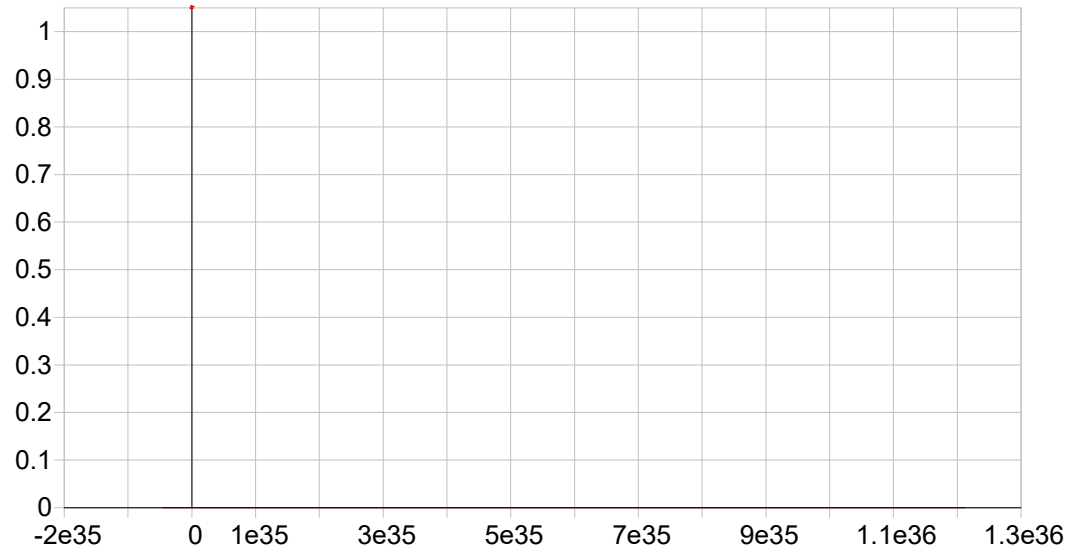
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:jaswal
On:11/12/2024 3:09:59 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



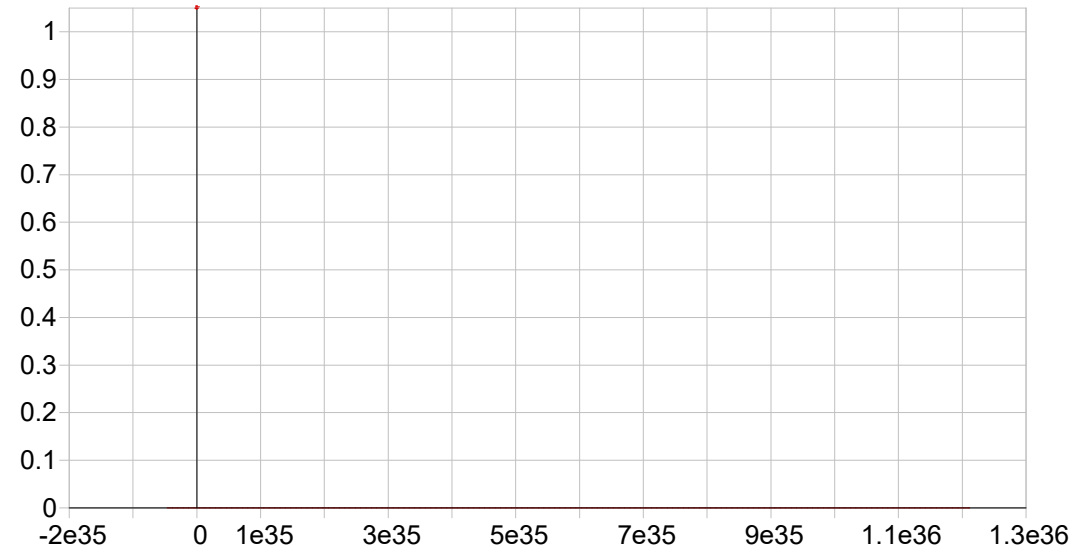
Y 371.030 { 91}*

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

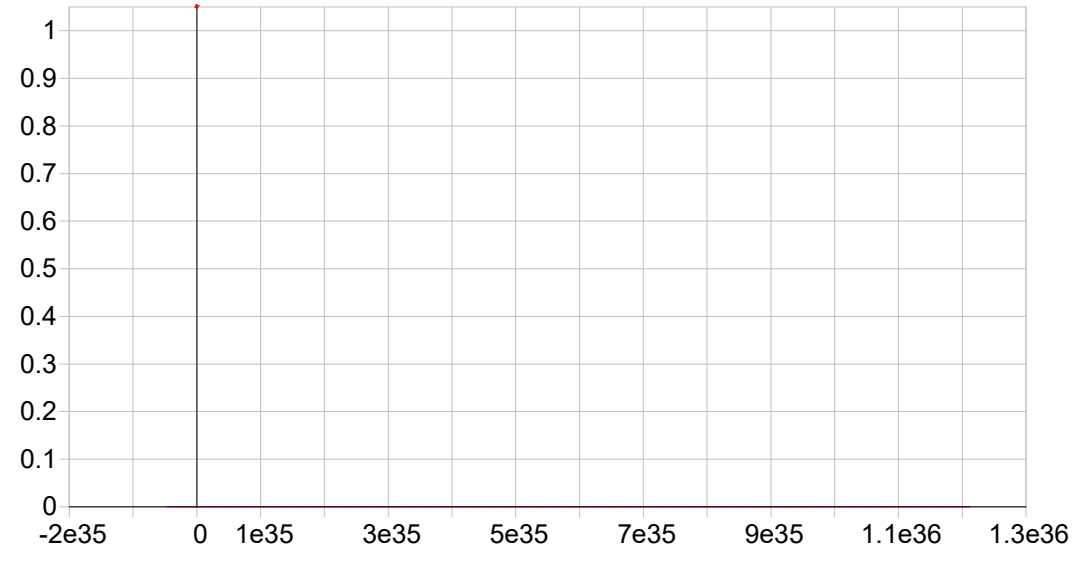
Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5



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



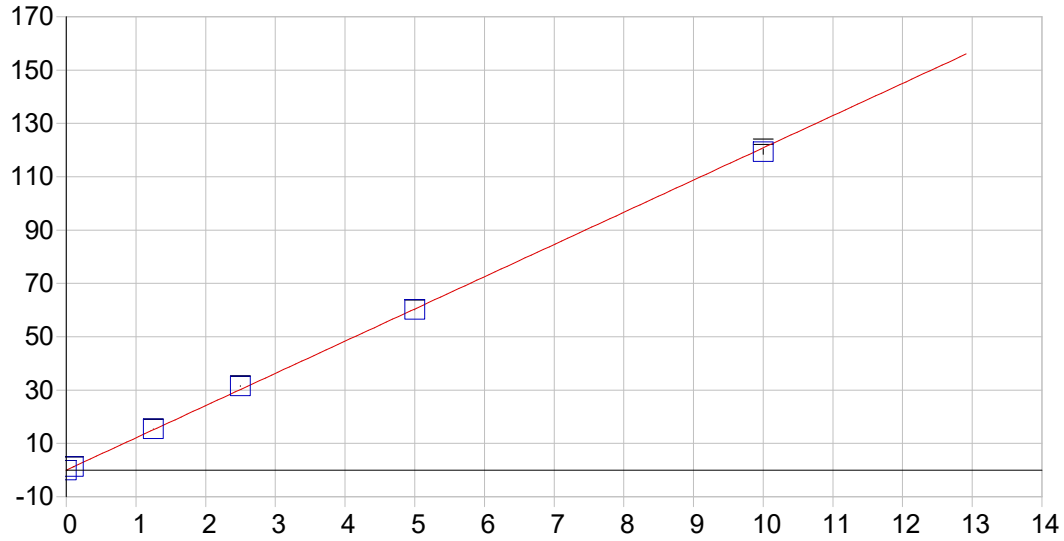
In 230.606 {446}*

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:11/12/2024 3:09:59 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:	11/08/2024 16:00:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000371	Re-Slope:	1.000000
A1 (Gain):	12.083401	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999818	Status:	OK.
Std Error of Est:	0.012266		
Predicted MDL:	0.000118		
Predicted MQL:	0.000392		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00025	.001	1
S1	.10000	.10500	.005	5.00	1.2691	.002	1
S2	1.2500	1.2730	.023	1.84	15.382	.038	1
S3	2.5000	2.6090	.109	4.36	31.526	.133	1
S4	5.0000	4.9804	-.020	-.392	60.181	.077	1
S5	10.000	9.8826	-.117	-1.17	119.42	1.03	1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S0 Acquired: 11/08/2024 15:31:47 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00009	-.00041	-.00122	.00020	.00013	-.00144	.02279	-.00139
Stddev	.00016	.00021	.00056	.00062	.00030	.00111	.00088	.00056
%RSD	175.35	51.631	45.814	307.91	230.03	77.017	3.8537	40.269
#1	-.00009	-.00019	-.00077	-.00041	.00047	-.00112	.02246	-.00085
#2	.00017	-.00043	-.00185	.00018	-.00002	-.00053	.02378	-.00135
#3	.00019	-.00061	-.00105	.00083	-.00007	-.00267	.02212	-.00197

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	.00009	.00656	.00010	-.00009	.00078	.00009	-.00030	-.00049
Stddev	.00035	.00062	.00009	.00018	.00027	.00037	.00031	.00025
%RSD	366.34	9.4121	85.448	191.51	35.138	419.74	103.32	51.183
#1	-.00003	.00704	.00010	-.00029	.00099	.00051	.00005	-.00077
#2	.00049	.00587	.00018	.00004	.00087	-.00011	-.00051	-.00036
#3	-.00017	.00679	.00001	-.00002	.00047	-.00014	-.00044	-.00032

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	-.00020	.02221	-.00760	-.00008	.00528	.07139	-.00090	.00159
Stddev	.00019	.00008	.00240	.00057	.00006	.00288	.00007	.00008
%RSD	95.432	.35187	31.657	674.76	1.1225	4.0321	8.2900	5.3300
#1	-.00029	.02230	-.00524	.00058	.00522	.07165	-.00092	.00160
#2	.00002	.02214	-.01005	-.00038	.00534	.06840	-.00082	.00167
#3	-.00033	.02220	-.00749	-.00045	.00528	.07414	-.00097	.00150

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	.00008	.00047	.01310	.00006	.00019	.01016	.00025
Stddev	.00029	.00014	.00026	.00010	.00067	.00196	.00117
%RSD	366.36	28.766	1.9619	165.88	352.44	19.335	461.39
#1	-.00002	.00056	.01337	.00018	.00006	.00859	.00036
#2	.00041	.00055	.01285	.00001	-.00040	.01237	-.00097
#3	-.00015	.00032	.01308	-.00001	.00091	.00952	.00137

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S0 Acquired: 11/08/2024 15:31:47 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S0 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	947.45	24020.	2705.9	846.03	1887.4
Stddev	1.67	120.	11.4	.72	4.5
%RSD	.17642	.50095	.42297	.08538	.24023
#1	945.62	23881.	2695.2	845.39	1882.6
#2	948.90	24085.	2704.5	845.90	1888.0
#3	947.84	24093.	2718.0	846.81	1891.6

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S1 Acquired: 11/08/2024 15:36:25 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00036	.00138	-.00016	.00258	.01058	.01927	1.3146	.05099
Stddev	.00008	.00021	.00060	.00037	.00077	.00061	.0050	.00080
%RSD	23.506	15.340	368.95	14.321	7.3170	3.1511	.37867	1.5665
#1	.00045	.00154	.00033	.00301	.01147	.01880	1.3180	.05164
#2	.00033	.00114	-.00084	.00239	.01006	.01995	1.3089	.05124
#3	.00029	.00145	.00002	.00235	.01020	.01906	1.3168	.05010

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	.00985	.36837	.00199	.02908	.00577	.00152	.00431	.02635
Stddev	.00027	.00054	.00003	.00020	.00042	.00034	.00033	.00063
%RSD	2.7558	.14624	1.4856	.69178	7.2965	22.673	7.5768	2.3848
#1	.01009	.36889	.00201	.02928	.00549	.00113	.00445	.02621
#2	.00956	.36839	.00196	.02907	.00625	.00165	.00453	.02579
#3	.00989	.36782	.00201	.02888	.00556	.00177	.00393	.02703

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	.02306	.02573	.05245	.00302	.15166	.26002	-.00034	.00233
Stddev	.00022	.00020	.00401	.00073	.00089	.00339	.00007	.00053
%RSD	.94820	.76407	7.6510	24.308	.58776	1.3023	20.265	22.572
#1	.02305	.02595	.04859	.00326	.15224	.26259	-.00027	.00278
#2	.02284	.02557	.05660	.00359	.15211	.25618	-.00040	.00175
#3	.02328	.02568	.05218	.00219	.15063	.26128	-.00035	.00246

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	.00896	.00288	.34281	.00080	.04877	.03768	1.2691
Stddev	.00042	.00015	.00222	.00011	.00039	.00028	.0022
%RSD	4.6824	5.1368	.64706	13.966	.80285	.74282	.17304
#1	.00890	.00275	.34132	.00070	.04832	.03787	1.2704
#2	.00941	.00286	.34174	.00092	.04891	.03736	1.2665
#3	.00858	.00304	.34536	.00077	.04906	.03782	1.2703

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S1 Acquired: 11/08/2024 15:36:25 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	950.58	24372.	2727.8	857.63	1874.8
Stddev	1.10	68.	8.9	2.96	1.3
%RSD	.11575	.27834	.32601	.34562	.07052
#1	951.84	24297.	2718.6	858.10	1873.5
#2	949.85	24390.	2736.3	854.45	1874.7
#3	950.04	24429.	2728.4	860.32	1876.1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S2 Acquired: 11/08/2024 15:41:03 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.02634	.08970	.85044	.08487	.22217	4.2049	15.390	1.2477
Stddev	.00022	.00031	.00315	.00006	.00133	.0126	.019	.0068
%RSD	.84904	.34530	.37055	.06741	.59890	.29836	.12658	.54354
#1	.02612	.08990	.84757	.08493	.22135	4.2194	15.412	1.2514
#2	.02633	.08934	.84993	.08482	.22145	4.1967	15.382	1.2399
#3	.02656	.08985	.85381	.08486	.22370	4.1988	15.375	1.2519

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	1.1702	4.3010	.72038	.36372	.66158	.45916	.95373	.30136
Stddev	.0034	.0161	.00058	.00153	.00474	.00176	.00253	.00173
%RSD	.28816	.37338	.08038	.42025	.71586	.38312	.26550	.57256
#1	1.1670	4.3160	.72088	.36231	.66602	.46118	.95294	.30262
#2	1.1700	4.2840	.71975	.36351	.65660	.45801	.95169	.29939
#3	1.1737	4.3029	.72052	.36535	.66214	.45829	.95656	.30206

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	.35440	.13302	.45030	.04253	8.6687	1.4646	.06104	1.2045
Stddev	.00104	.00019	.00851	.00121	.0321	.0025	.00048	.0065
%RSD	.29239	.14645	1.8900	2.8425	.37016	.17005	.78643	.53824
#1	.35372	.13314	.45702	.04358	8.6317	1.4620	.06113	1.2025
#2	.35389	.13313	.45315	.04121	8.6859	1.4670	.06052	1.1992
#3	.35559	.13280	.44073	.04279	8.6885	1.4649	.06147	1.2117

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	1.0675	.03285	1.9009	.11788	.59944	2.3626	15.382
Stddev	.0041	.00036	.0100	.00030	.00069	.0171	.038
%RSD	.38224	1.0999	.52500	.25315	.11570	.72508	.24639
#1	1.0635	.03250	1.9060	.11763	.59930	2.3823	15.418
#2	1.0675	.03282	1.8894	.11780	.60019	2.3544	15.342
#3	1.0717	.03322	1.9073	.11821	.59883	2.3511	15.387

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S2 Acquired: 11/08/2024 15:41:03 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S02 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	900.97	23843.	2688.7	812.52	1701.3
Stddev	1.78	57.	12.2	1.66	2.4
%RSD	.19714	.23713	.45309	.20461	.14064
#1	901.77	23809.	2675.0	812.76	1703.0
#2	902.20	23811.	2698.3	810.75	1702.4
#3	898.93	23908.	2692.8	814.05	1698.6

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S3 Acquired: 11/08/2024 15:45:24 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.05556	.18177	1.7546	.17878	.46965	8.6582	31.748	2.5105
Stddev	.00049	.00068	.0017	.00090	.00141	.0380	.107	.0200
%RSD	.87972	.37151	.09487	.50434	.29996	.43940	.33788	.79681
#1	.05576	.18158	1.7565	.17775	.46802	8.6223	31.650	2.4897
#2	.05591	.18252	1.7532	.17919	.47044	8.6541	31.731	2.5122
#3	.05500	.18121	1.7542	.17940	.47049	8.6981	31.863	2.5296

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	2.4065	8.7158	1.4515	.75387	1.3431	.92759	1.9286	.62150
Stddev	.0012	.0509	.0033	.00030	.0059	.00502	.0059	.00298
%RSD	.04904	.58427	.22465	.03964	.43566	.54134	.30791	.47879
#1	2.4064	8.6676	1.4490	.75354	1.3368	.92283	1.9236	.61840
#2	2.4054	8.7106	1.4503	.75412	1.3440	.92710	1.9270	.62433
#3	2.4077	8.7691	1.4552	.75395	1.3484	.93284	1.9351	.62177

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	.72232	.25048	.93433	.08609	17.995	2.9793	.13132	2.4174
Stddev	.00024	.00120	.00283	.00080	.050	.0243	.00044	.0235
%RSD	.03253	.47790	.30335	.92439	.27645	.81487	.33693	.97330
#1	.72254	.24911	.93157	.08675	18.040	2.9549	.13087	2.3907
#2	.72207	.25100	.93418	.08632	17.941	2.9793	.13176	2.4263
#3	.72234	.25133	.93724	.08521	18.004	3.0035	.13133	2.4351

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	2.2086	.06979	3.7870	.24324	1.2196	4.8724	31.526
Stddev	.0034	.00020	.0314	.00083	.0075	.0221	.133
%RSD	.15247	.28414	.83044	.34184	.61284	.45407	.42067
#1	2.2080	.06957	3.7531	.24228	1.2153	4.8527	31.405
#2	2.2056	.06990	3.7924	.24369	1.2153	4.8683	31.505
#3	2.2122	.06991	3.8153	.24374	1.2282	4.8964	31.668

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S3 Acquired: 11/08/2024 15:45:24 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S03 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	853.99	23281.	2690.1	762.45	1604.1
Stddev	1.04	52.	14.7	2.20	2.2
%RSD	.12157	.22328	.54630	.28793	.13652
#1	854.84	23341.	2706.1	759.98	1601.6
#2	854.28	23252.	2686.8	763.21	1604.8
#3	852.83	23249.	2677.3	764.16	1605.9

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S4 Acquired: 11/08/2024 15:49:43 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.10860	.33959	3.3379	.35107	.93621	16.806	60.693	4.8217
Stddev	.00050	.00150	.0047	.00104	.00233	.022	.067	.0026
%RSD	.46158	.44036	.14042	.29679	.24881	.13274	.11107	.05463
#1	.10876	.33894	3.3325	.35136	.93416	16.817	60.721	4.8225
#2	.10899	.33854	3.3397	.34992	.93874	16.820	60.743	4.8238
#3	.10803	.34131	3.3414	.35194	.93572	16.780	60.616	4.8187

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.5757	16.811	2.7123	1.4445	2.5649	1.7579	3.6194	1.2115
Stddev	.0025	.080	.0031	.0022	.0074	.0072	.0051	.0057
%RSD	.05541	.47456	.11521	.15229	.28781	.40655	.14196	.47096
#1	4.5756	16.867	2.7156	1.4441	2.5696	1.7592	3.6156	1.2154
#2	4.5732	16.847	2.7094	1.4425	2.5688	1.7643	3.6252	1.2141
#3	4.5783	16.720	2.7120	1.4469	2.5564	1.7502	3.6173	1.2049

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	1.3712	.46439	1.8143	.16362	34.700	5.7616	.25708	4.6237
Stddev	.0018	.00165	.0044	.00089	.069	.0020	.00097	.0094
%RSD	.13183	.35552	.24384	.54221	.19750	.03397	.37874	.20404
#1	1.3695	.46557	1.8187	.16393	34.628	5.7637	.25596	4.6275
#2	1.3710	.46509	1.8144	.16431	34.710	5.7611	.25757	4.6307
#3	1.3731	.46250	1.8099	.16262	34.763	5.7599	.25771	4.6130

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	4.3316	.13730	7.2137	.46663	2.3249	9.6587	60.181
Stddev	.0111	.00045	.0116	.00132	.0041	.0443	.077
%RSD	.25571	.32953	.16085	.28251	.17539	.45842	.12753
#1	4.3193	.13759	7.2269	.46815	2.3265	9.6918	60.200
#2	4.3347	.13678	7.2090	.46590	2.3279	9.6758	60.246
#3	4.3408	.13753	7.2052	.46584	2.3202	9.6084	60.096

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S4 Acquired: 11/08/2024 15:49:43 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S04 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	797.88	22803.	2634.5	708.49	1518.8
Stddev	.56	84.	10.6	1.23	2.1
%RSD	.07002	.36836	.40219	.17410	.13781
#1	798.06	22728.	2624.7	708.54	1516.5
#2	798.32	22786.	2633.0	707.24	1520.7
#3	797.25	22894.	2645.7	709.70	1519.1

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S5 Acquired: 11/08/2024 15:53:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.22964	.66357	6.7739	.76766	2.0852	34.612	121.14	9.7142
Stddev	.00020	.00033	.0094	.00291	.0037	.132	.46	.0585
%RSD	.08749	.04963	.13889	.37882	.17583	.38254	.37953	.60260
#1	.22986	.66369	6.7835	.76499	2.0818	34.581	120.71	9.7017
#2	.22956	.66382	6.7734	.76722	2.0891	34.498	121.09	9.6630
#3	.22948	.66320	6.7647	.77076	2.0847	34.757	121.62	9.7780

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.0775	33.862	5.4067	2.9137	5.2278	3.4809	7.2109	2.5530
Stddev	.0146	.233	.0036	.0029	.0132	.0263	.0050	.0173
%RSD	.16033	.68843	.06705	.09965	.25273	.75687	.07010	.67629
#1	9.0937	33.819	5.4026	2.9158	5.2275	3.4827	7.2135	2.5501
#2	9.0731	33.654	5.4096	2.9150	5.2148	3.4537	7.2142	2.5374
#3	9.0656	34.114	5.4079	2.9104	5.2412	3.5063	7.2051	2.5715

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.7425	.94270	3.7305	.32990	73.273	11.933	.53600	9.0920
Stddev	.0053	.00300	.0250	.00234	.853	.034	.00073	.0706
%RSD	.19313	.31830	.66908	.71022	1.1637	.28101	.13674	.77699
#1	2.7486	.94105	3.7211	.32990	72.353	11.939	.53655	9.0687
#2	2.7404	.94617	3.7116	.32755	74.036	11.897	.53627	9.0360
#3	2.7387	.94090	3.7588	.33224	73.430	11.963	.53516	9.1714

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	9.3832	.28907	14.478	.94632	4.6675	20.233	119.42
Stddev	.0103	.00019	.082	.00105	.0201	.156	1.03
%RSD	.10993	.06721	.56493	.11101	.43075	.77087	.85878
#1	9.3718	.28905	14.466	.94692	4.6685	20.197	118.78
#2	9.3919	.28889	14.403	.94510	4.6469	20.098	118.87
#3	9.3860	.28928	14.565	.94693	4.6871	20.403	120.60

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S5 Acquired: 11/08/2024 15:53:57 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S05 Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	697.81	21926.	2582.4	599.38	1403.3
Stddev	.65	50.	13.4	7.09	1.8
%RSD	.09335	.22705	.51903	1.1832	.12990
#1	698.05	21934.	2581.5	606.70	1401.3
#2	697.07	21873.	2596.2	592.55	1403.7
#3	698.30	21971.	2569.5	598.88	1404.9

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: S6 Acquired: 11/08/2024 15:58:26 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S06 Custom ID2: Custom ID3:
Comment:

Elem	Al3961	Ca3736	Fe2598	Mg2790	Na8183
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	87.327	52.288	8.8200	4.1568	9.8488
Stddev	.788	.151	.0235	.0136	.0369
%RSD	.90270	.28868	.26677	.32789	.37485
#1	86.817	52.231	8.8086	4.1488	9.8426
#2	88.235	52.459	8.8470	4.1726	9.8885
#3	86.929	52.174	8.8043	4.1491	9.8155

Int. Std.	Y_3710
Units	Cts/S
Avg	2517.3
Stddev	6.4
%RSD	.25405
#1	2515.4
#2	2512.1
#3	2524.5

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICV006 Acquired: 11/08/2024 16:09:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9198951	1.054107	.9724010	.9688488	.9260419	2.402319
Stddev	.0078192	.005152	.0031960	.0074179	.0058128	.020257
%RSD	.8500096	.4887171	.3286670	.7656448	.6277060	.8432306
#1	.9182958	1.059412	.9758958	.9750441	.9246743	2.403717
#2	.9283903	1.053783	.9716802	.9708735	.9210348	2.421842
#3	.9129992	1.049125	.9696270	.9606287	.9324166	2.381400

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5124678	.5150470	.4956844	9.997275	.5577756	.4915496
Stddev	.0008026	.0020890	.0020996	.072930	.0019929	.0017666
%RSD	.1566209	.4055931	.4235790	.7295001	.3572954	.3593946
#1	.5133115	.5132630	.4977034	9.954396	.5576282	.4909678
#2	.5123782	.5173450	.4958372	10.08148	.5558605	.4935337
#3	.5117138	.5145329	.4935125	9.95595	.5598382	.4901472

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4899520	10.93768	.5296578	5.592580	.5011169	.2378114
Stddev	.0018865	.04708	.0018284	.020980	.0025888	.0011338
%RSD	.3850330	.4304834	.3451940	.3751342	.5166090	.4767567
#1	.4878916	10.92966	.5275523	5.599631	.5040644	.2374229
#2	.4915944	10.98826	.5305768	5.609127	.5000749	.2390884
#3	.4903702	10.89512	.5308445	5.568984	.4992115	.2369230

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.604985	.5235933	1.002658	8.952445	F .0036129	F .0153808
Stddev	.257449	.0061363	.000679	.102476	.0010650	.0008275
%RSD	2.680370	1.171952	.0677445	1.144665	29.47828	5.380090
#1	9.308672	.5266208	1.002580	8.842005	.0036554	.0162266
#2	9.732430	.5165316	1.002021	8.970873	.0025273	.0145729
#3	9.773854	.5276274	1.003373	9.044456	.0046561	.0153431

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICV006 Acquired: 11/08/2024 16:09:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000663	F .0002909	F .0024026	F .0021813	F -.000716	F .0043982
Stddev	.000254	.0063595	.0005450	.0021222	.001008	.0015081
%RSD	38.25550	2186.294	22.68322	97.29447	140.8381	34.28923
#1	-.000377	-.002170	.0027463	.0024903	.000154	.0028016
#2	-.000751	.007513	.0017742	.0041320	-.001821	.0057986
#3	-.000861	-.004470	.0026872	-.000079	-.000481	.0045943

Elem	Sr4077
Units	ppm
Avg	F .0012327
Stddev	.0000612
%RSD	4.961232
#1	.0012017
#2	.0013032
#3	.0011933

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	948.0420	24379.77	2733.908	855.6124	1865.041
Stddev	2.7296	71.18	12.679	1.0025	7.434
%RSD	.2879200	.2919648	.4637847	.1171682	.3985800
#1	944.9226	24425.19	2739.893	855.4407	1858.061
#2	949.2111	24297.74	2719.344	854.7068	1864.204
#3	949.9924	24416.39	2742.488	856.6896	1872.857

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICB006 Acquired: 11/08/2024 18:04:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039750	.0040371	.0015637	.0024644	.0000299	-.000480	-.000079
Stddev	.0067113	.0013283	.0010935	.0003717	.0034953	.014528	.000632
%RSD	168.8371	32.90243	69.93161	15.08395	11692.66	3025.210	805.4879
#1	.0046979	.0055708	.0027375	.0028700	.0018916	.016292	.000051
#2	.0102956	.0032573	.0005737	.0023830	-.004002	-.009141	.000479
#3	-.003068	.0032832	.0013799	.0021401	.002200	-.008591	-.000766

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000024	.0000495	.0223417	-.000002	-.000021	.0013338	.0070158
Stddev	.000040	.0000404	.0032221	.001560	.000424	.0020762	.0416276
%RSD	166.6197	81.67256	14.42171	64196.72	2057.808	155.6554	593.3361
#1	.000013	.0000916	.0242500	-.001800	-.000353	.0028388	.0119538
#2	-.000019	.0000110	.0186216	.000795	.000456	-.001035	-.036860
#3	-.000067	.0000458	.0241534	.000999	-.000165	.002197	.045954

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003004	.0040368	.0000500	.0000450	-.194742	-.003978	.0009464
Stddev	.0011967	.1104362	.0003366	.0002496	.194580	.003809	.0003318
%RSD	398.3692	2735.726	673.2351	554.0530	99.91691	95.75479	35.06449
#1	-.000387	.0256899	-.000336	-.000135	.003319	-.005227	.0011927
#2	-.000394	-.115622	.000281	-.000060	-.385644	-.007006	.0005690
#3	.001682	.102043	.000205	.000330	-.201900	.000299	.0010773

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.013478	-.001785	.0001433	.0000680	-.006668	-.000482	.0023352
Stddev	.056975	.001680	.0005124	.0000923	.002101	.000225	.0009097
%RSD	422.7350	94.10258	357.6155	135.6582	31.51507	46.73459	38.95751
#1	-.061164	-.001001	.0006509	.0001395	-.005228	-.000372	.0033350
#2	.049616	-.003714	.0001527	-.000036	-.005697	-.000741	.0015562
#3	-.028884	-.000641	-.000374	.000101	-.009079	-.000333	.0021143

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICB006 Acquired: 11/08/2024 18:04:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB006 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0011221	.0015518	-.000091
Stddev	.0010214	.0007042	.000032
%RSD	91.02630	45.38125	35.02679
#1	.0007753	.0007431	-.000090
#2	.0003192	.0020297	-.000123
#3	.0022717	.0018827	-.000059

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	946.9650	24197.13	2704.023	855.6952	1886.451
Stddev	.9183	98.02	5.615	4.5094	1.237
%RSD	.0969775	.4050847	.2076697	.5269867	.0655532
#1	946.0153	24254.54	2710.446	856.5803	1885.024
#2	947.8484	24252.89	2700.046	859.6964	1887.117
#3	947.0314	24083.95	2701.575	850.8089	1887.212

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICSA006 Acquired: 11/08/2024 18:51:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046738	-.014709	-.008748	.0083926	.0028657	250.2203
Stddev	.0175678	.008874	.003502	.0130140	.0020461	1.3735
%RSD	375.8785	60.33396	40.03376	155.0662	71.39793	.5489248
#1	-.013252	-.006858	-.006653	-.003911	.0043878	251.7566
#2	.021860	-.012931	-.006801	.022016	.0005398	249.7932
#3	.005414	-.024337	-.012792	.007072	.0036695	249.1111

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057682	-.000257	.0015956	263.3595	.0523166	-.001470
Stddev	.0008467	.000195	.0002173	1.6829	.0008689	.000252
%RSD	14.67835	75.81597	13.61697	.6389953	1.660952	17.15847
#1	.0049692	-.000464	.0013487	265.2730	.0522731	-.001219
#2	.0066556	-.000077	.0017576	262.6957	.0532064	-.001723
#3	.0056796	-.000229	.0016804	262.1098	.0514701	-.001468

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021939	109.6710	.0110166	259.3126	.0051250	.0042751
Stddev	.0020456	.6653	.0015170	1.9486	.0011728	.0001351
%RSD	93.23869	.6066434	13.77013	.7514461	22.88302	3.158982
#1	.0030496	110.4351	.0106987	261.5557	.0040043	.0044188
#2	-.000141	109.3587	.0096837	258.3448	.0050270	.0041508
#3	.003673	109.2193	.0126674	258.0375	.0063437	.0042557

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2822814	-.006563	.0135719	-.168796	.0055327	F .0918456
Stddev	.3451027	.004735	.0006168	.114452	.0043536	.0005480
%RSD	122.2549	72.15039	4.544622	67.80459	78.68816	.5966297
#1	.1699829	-.001915	.0136753	-.104183	.0008167	.0921281
#2	.0073149	-.006393	.0129100	-.101263	.0093985	.0921946
#3	.6695464	-.011381	.0141305	-.300943	.0063830	.0912140

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICSA006 Acquired: 11/08/2024 18:51:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000990	.0055036	.0001751	-.003186	-.001163	.0048581
Stddev	.001408	.0083844	.0006896	.003019	.001273	.0010755
%RSD	142.2027	152.3428	393.8001	94.75020	109.4660	22.13727
#1	-.002596	.0022358	.0008476	-.000544	-.001977	.0058157
#2	.000031	.0150299	.0002082	-.002537	-.001815	.0050640
#3	-.000405	-.000755	-.000530	-.006476	.000304	.0036946

Elem	Sr4077
Units	ppm
Avg	F .1050064
Stddev	.0000980
%RSD	.0933252
#1	.1049999
#2	.1051075
#3	.1049119

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	866.5242	22504.88	2589.617	787.7353	1554.283
Stddev	1.7452	91.48	14.536	3.5308	1.683
%RSD	.2014009	.4064684	.5613186	.4482241	.1082893
#1	864.5119	22409.49	2576.448	786.0639	1552.566
#2	867.6238	22513.29	2587.188	785.3505	1555.930
#3	867.4367	22591.86	2605.214	791.7915	1554.352

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICSAB006 Acquired: 11/08/2024 18:55:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB006 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1047667	.0931505	.0423013	.0478704	.5529049	246.2471
Stddev	.0226825	.0080919	.0042501	.0034038	.0028510	.6893
%RSD	21.65044	8.686927	10.04717	7.110413	.5156305	.2799174
#1	.0874098	.0948050	.0470480	.0469429	.5509614	245.9783
#2	.1304318	.0843592	.0410075	.0450265	.5561777	247.0303
#3	.0964586	.1002873	.0388485	.0516418	.5515755	245.7328

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5216781	.5348147	1.036170	258.0634	.6036736	.5134563
Stddev	.0031093	.0035184	.001609	1.1307	.0017678	.0015058
%RSD	.5960117	.6578650	.1552585	.4381610	.2928475	.2932719
#1	.5189778	.5371732	1.037069	258.7597	.6052886	.5123995
#2	.5250773	.5365003	1.037128	258.6717	.6039473	.5151805
#3	.5209790	.5307707	1.034313	256.7587	.6017849	.5127889

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4889126	107.4863	.5370595	255.9359	1.032038	.1918771
Stddev	.0050711	.6216	.0033661	1.7013	.002323	.0004443
%RSD	1.037220	.5782656	.6267660	.6647538	.2250446	.2315773
#1	.4912152	107.6841	.5335808	256.8285	1.032549	.1921525
#2	.4924239	107.9850	.5403004	257.0052	1.034063	.1921142
#3	.4830987	106.7900	.5372973	253.9740	1.029503	.1913645

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4883363	.5188170	.9846584	-.312279	.0072705	F .0895347
Stddev	.2279189	.0107828	.0062056	.056624	.0023025	.0023262
%RSD	46.67253	2.078336	.6302289	18.13237	31.66952	2.598049
#1	.2873863	.5298682	.9868873	-.368149	.0081305	.0911312
#2	.4416334	.5083243	.9894418	-.254931	.0090193	.0906070
#3	.7359892	.5182586	.9776462	-.313758	.0046618	.0868658

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: ICSAB006 Acquired: 11/08/2024 18:55:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB006 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000847	.0052384	.0000342	-.003926	-.000002	.0046853
Stddev	.000484	.0030543	.0006356	.002946	.001646	.0012445
%RSD	57.16285	58.30602	1860.862	75.02874	66376.71	26.56157
#1	-.000849	.0056989	.0006004	-.006498	.000759	.0035705
#2	-.001331	.0080363	.0001554	-.000712	-.001892	.0044573
#3	-.000362	.0019800	-.000653	-.004568	.001125	.0060280

Elem	Sr4077
Units	ppm
Avg	F .1033424
Stddev	.0004871
%RSD	.4713064
#1	.1033149
#2	.1038426
#3	.1028697

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	874.3844	22789.53	2622.910	792.8716	1571.567
Stddev	1.7793	43.37	16.944	2.3965	2.247
%RSD	.2034923	.1902901	.6459909	.3022502	.1429858
#1	873.0027	22745.31	2611.702	791.7581	1571.046
#2	873.7583	22791.29	2614.626	791.2345	1569.627
#3	876.3921	22831.99	2642.402	795.6223	1574.029

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCV035 Acquired: 11/08/2024 19:00:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV035 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.016991	4.736931	24.38476	4.641343	4.776012	406.5352	9.950201
Stddev	.011695	.015171	.05507	.010807	.007719	.9321	.033422
%RSD	.2331034	.3202609	.2258474	.2328368	.1616275	.2292683	.3358934
#1	5.015643	4.751466	24.40048	4.637732	4.777374	406.4362	9.947311
#2	5.029302	4.738132	24.43027	4.653492	4.767702	405.6566	9.918318
#3	5.006029	4.721196	24.32354	4.632803	4.782959	407.5128	9.984975

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5099108	2.453384	407.3059	15.34291	2.466982	14.96530	415.1815
Stddev	.0032322	.003845	.1556	.00955	.007533	.03342	.5788
%RSD	.6338851	.1567146	.0382138	.0622640	.3053490	.2233104	.1394105
#1	.5128693	2.455560	407.4272	15.35345	2.468948	14.98069	415.1175
#2	.5064611	2.455647	407.1304	15.33482	2.473336	14.92696	414.6374
#3	.5104021	2.448945	407.3601	15.34047	2.458661	14.98825	415.7897

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.85849	416.7578	2.457581	1.247766	404.8005	2.481714	14.79014
Stddev	.04163	.3561	.004347	.000303	.5269	.003909	.03502
%RSD	.2801467	.0854506	.1768831	.0243106	.1301729	.1575319	.2367947
#1	14.87385	416.9230	2.457757	1.247421	404.6113	2.481332	14.79026
#2	14.81136	416.3491	2.461838	1.247992	404.3943	2.485801	14.82510
#3	14.89025	417.0013	2.453149	1.247884	405.3960	2.478010	14.75505

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	152.6546	4.898205	5.123499	4.730574	4.947711	5.076185	4.935345
Stddev	.4626	.009156	.029040	.004290	.013904	.024128	.013215
%RSD	.3030345	.1869317	.5667920	.0906810	.2810286	.4753201	.2677648
#1	152.5473	4.894775	5.148694	4.727612	4.962684	5.098268	4.935213
#2	152.2550	4.908582	5.091739	4.728616	4.945241	5.050432	4.948625
#3	153.1614	4.891260	5.130065	4.735493	4.935206	5.079855	4.922196

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCV035 Acquired: 11/08/2024 19:00:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV035 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.975500	5.058674	4.970076
Stddev	.007098	.009046	.016600
%RSD	.1426604	.1788199	.3340010
#1	4.973502	5.048231	4.971285
#2	4.969615	5.064071	4.952904
#3	4.983383	5.063720	4.986038

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	765.8094	21897.84	2530.222	680.6099	1424.633
Stddev	.8976	13.50	14.403	2.0260	2.870
%RSD	.1172103	.0616285	.5692459	.2976762	.2014614
#1	764.8798	21885.15	2515.690	679.5813	1422.678
#2	766.6711	21896.35	2544.493	679.3045	1423.293
#3	765.8775	21912.02	2530.484	682.9439	1427.928

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCB035 Acquired: 11/08/2024 19:15:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB035 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070862	.0033160	.0021361	-.002245	.0008398	.0432224	.0015608
Stddev	.0061722	.0006897	.0021349	.004398	.0023092	.0112826	.0007670
%RSD	87.10182	20.79904	99.94456	195.9093	274.9786	26.10364	49.14149
#1	.0086629	.0027308	.0040865	.001096	.0027107	.0554760	.0021009
#2	.0123170	.0031409	-.000145	-.000604	-.001741	.0409276	.0018987
#3	.0002786	.0040764	.002467	-.007227	.001550	.0332636	.0006829

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000124	.0000391	.0248244	.0001332	.0003457	-.000867	.0851711
Stddev	.0000747	.0001067	.0101336	.0004360	.0003480	.002185	.0111893
%RSD	602.4668	272.7445	40.82107	327.3402	100.6550	252.1318	13.13739
#1	.0000631	-.000079	.0240425	.0006104	.0006224	.000928	.0909288
#2	-.000073	.000129	.0151045	.0000336	-.000045	-.003301	.0923091
#3	.000047	.000066	.0353263	-.000244	.000460	-.000227	.0722755

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006098	.0601297	.0005064	.0021187	.1191258	-.000470	.0000190
Stddev	.0013467	.0537330	.0001729	.0004802	.1030473	.006768	.0000961
%RSD	220.8446	89.36182	34.14514	22.66389	86.50292	1439.832	504.7828
#1	.0017529	.0644198	.0004628	.0024094	.0251411	-.004295	.0000829
#2	-.000875	.0043803	.0006969	.0015645	.1029208	.007344	-.000091
#3	.000951	.1115890	.0003594	.0023822	.2293155	-.004459	.000066

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022138	-.001652	.0023854	.0001232	-.000592	.0011138	.0021854
Stddev	.1756943	.000218	.0015676	.0006291	.000394	.0001537	.0011163
%RSD	7936.458	13.16938	65.71522	510.5048	66.53222	13.79773	51.07983
#1	-.168757	-.001801	.0041645	.0003843	-.000560	.0009364	.0015085
#2	-.006881	-.001752	.0012068	-.000594	-.001002	.0012049	.0015740
#3	.182279	-.001402	.0017850	.000580	-.000216	.0012002	.0034739

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCB035 Acquired: 11/08/2024 19:15:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB035 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0017890	.0066114	.0001268
Stddev	.0012641	.0011883	.0000653
%RSD	70.66193	17.97382	51.47932
#1	.0026579	.0058141	.0000514
#2	.0003388	.0060430	.0001645
#3	.0023703	.0079772	.0001644

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	945.6893	23981.90	2630.163	854.5592	1878.741
Stddev	1.9360	71.18	5.827	1.5937	6.002
%RSD	.2047187	.2968126	.2215371	.1864931	.3194791
#1	943.5961	23951.47	2635.654	854.1209	1873.038
#2	946.0562	24063.24	2630.786	856.3261	1878.180
#3	947.4156	23931.00	2624.050	853.2305	1885.004

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4482-14DLX2A Acquired: 11/08/2024 19:25:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4E3A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1034761	-.023882	.3852330	.0048045	.0014892	82.83543	.7660545
Stddev	.0107509	.000451	.0054141	.0010932	.0030912	.25019	.0034850
%RSD	10.38974	1.889532	1.405420	22.75426	207.5712	.3020275	.4549297
#1	.0972180	-.024401	.3857255	.0037629	-.000329	82.56790	.7620680
#2	.1158900	-.023589	.3903840	.0059430	-.000262	83.06360	.7675720
#3	.0973202	-.023655	.3795894	.0047077	.005058	82.87478	.7685235

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027534	.0056433	45.02445	.1827143	.0944362	.2576090	198.3348
Stddev	.0000916	.0003614	.21616	.0007378	.0006209	.0054465	.5150
%RSD	3.325082	6.403428	.4800964	.4038137	.6575096	2.114232	.2596572
#1	.0028378	.0054333	44.77850	.1822876	.0951336	.2602999	197.7768
#2	.0026561	.0054360	45.18427	.1835663	.0939435	.2611862	198.4359
#3	.0027665	.0060605	45.11059	.1822891	.0942315	.2513408	198.7918

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.734277	36.13526	.1632249	-.013706	1.067783	.4433965	.4171612
Stddev	.006499	.13183	.0003264	.000349	.071382	.0025197	.0023628
%RSD	.1372816	.3648286	.1999856	2.546792	6.685080	.5682635	.5664028
#1	4.727049	36.00684	.1632367	-.013770	1.107616	.4406699	.4151755
#2	4.736143	36.27026	.1635453	-.013330	1.110359	.4456389	.4165338
#3	4.739640	36.12868	.1628928	-.014019	.985373	.4438807	.4197745

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.22247	5.788407	.2013423	-.000110	1.413546	7.635435	.0057194
Stddev	.20579	.011776	.0011545	.000358	.016539	.014546	.0013407
%RSD	.9696683	.2034408	.5733859	324.2698	1.170022	.1905027	23.44038
#1	20.98992	5.775122	.2000252	-.000284	1.419960	7.618660	.0069874
#2	21.29643	5.797563	.2018230	-.000349	1.425917	7.643106	.0058546
#3	21.38105	5.792535	.2021788	.000301	1.394761	7.644540	.0043163

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4482-14DLX2A Acquired: 11/08/2024 19:25:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4E3A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.086276	.0584876	.1983001
Stddev	.008929	.0011581	.0006124
%RSD	.2893247	1.980053	.3088098
#1	3.076587	.0589356	.1976384
#2	3.088069	.0593548	.1988469
#3	3.094173	.0571725	.1984149

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	996.8077	25732.50	2901.862	907.9112	1749.792
Stddev	1.8502	40.04	4.024	1.0879	1.241
%RSD	.1856133	.1556115	.1386621	.1198193	.0709256
#1	995.2121	25716.80	2906.494	908.8485	1750.047
#2	996.3753	25702.69	2899.234	908.1668	1748.444
#3	998.8359	25778.01	2899.858	906.7183	1750.887

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4483-20DLX2A Acquired: 11/08/2024 19:29:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2306711	-.026738	.1382912	-.000585	.0007324	102.2582	1.055743
Stddev	.0205246	.000559	.0032311	.005430	.0049759	.1498	.002625
%RSD	8.897797	2.089652	2.336459	928.8771	679.3848	.1464758	.2485962
#1	.2106214	-.026205	.1392144	-.006035	.0021269	102.1509	1.052753
#2	.2516398	-.026690	.1409603	-.000544	.0048623	102.1945	1.056808
#3	.2297521	-.027320	.1346990	.004826	-.004792	102.4294	1.057667

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029403	.0076075	41.96186	.2773769	.1166160	.4835060	229.7977
Stddev	.0001869	.0000681	.06084	.0009437	.0002618	.0021004	.2622
%RSD	6.355390	.8952380	.1449844	.3402142	.2244596	.4344156	.1140804
#1	.0028657	.0076276	42.03101	.2765417	.1168548	.4858723	229.5255
#2	.0031529	.0076632	41.93805	.2784006	.1163362	.4827838	229.8191
#3	.0028022	.0075316	41.91654	.2771884	.1166570	.4818620	230.0485

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.129542	51.62151	.2411006	-.016258	1.360341	.4249233	1.345832
Stddev	.009506	.10598	.0005549	.000424	.052208	.0100712	.004307
%RSD	.1853209	.2052924	.2301495	2.610064	3.837833	2.370130	.3200255
#1	5.129920	51.54882	.2406186	-.015901	1.300146	.4265264	1.350288
#2	5.119852	51.74310	.2417072	-.016146	1.393271	.4141467	1.341691
#3	5.138853	51.57261	.2409760	-.016727	1.387606	.4340968	1.345517

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.41954	5.798979	.2232206	-.000863	.8303228	7.712023	.0083401
Stddev	.10981	.013822	.0019406	.000195	.0053541	.026666	.0025327
%RSD	.4688967	.2383536	.8693457	22.59037	.6448154	.3457678	30.36734
#1	23.46249	5.784253	.2216942	-.001057	.8273364	7.736693	.0080779
#2	23.29475	5.811672	.2254045	-.000864	.8271281	7.715643	.0109938
#3	23.50140	5.801013	.2225632	-.000667	.8365040	7.683732	.0059488

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4483-20DLX2A Acquired: 11/08/2024 19:29:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.655492	.0784632	.2509346
Stddev	.007347	.0005180	.0002602
%RSD	.2766813	.6601799	.1037097
#1	2.651031	.0779045	.2507394
#2	2.663972	.0785576	.2508343
#3	2.651473	.0789275	.2512300

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	991.8082	25743.39	2908.532	903.8378	1732.675
Stddev	.3848	13.56	12.330	2.5433	1.346
%RSD	.0387943	.0526931	.4239280	.2813935	.0776689
#1	991.6725	25727.89	2902.316	901.8533	1731.325
#2	992.2425	25749.21	2900.547	906.7049	1734.017
#3	991.5097	25753.08	2922.733	902.9553	1732.683

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4484-03DLX2A Acquired: 11/08/2024 19:34:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9140172	-.049839	.0955583	-.002439	.0051467	139.3543	1.407358
Stddev	.0066649	.001969	.0011389	.008985	.0054907	.5541	.002690
%RSD	.7291905	3.949766	1.191815	368.3494	106.6836	.3975993	.1911060
#1	.9150217	-.051491	.0963741	.003495	-.001174	139.9515	1.409768
#2	.9069070	-.050364	.0942572	.001964	.007878	139.2545	1.407848
#3	.9201228	-.047661	.0960438	-.012777	.008736	138.8569	1.404457

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030826	.0118999	213.5966	4.504281	.3049213	.5491792	426.1980
Stddev	.0000868	.0001583	1.7924	.003588	.0004227	.0035797	2.3425
%RSD	2.815667	1.330593	.8391488	.0796585	.1386325	.6518350	.5496230
#1	.0031828	.0117722	215.5109	4.508307	.3044332	.5510860	428.8840
#2	.0030333	.0118504	213.3209	4.503115	.3051665	.5514020	425.1310
#3	.0030316	.0120770	211.9581	4.501421	.3051643	.5450497	424.5789

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.00163	106.4061	1.070618	-.027891	1.870345	.9910418	.5547084
Stddev	.04162	.4383	.002179	.000596	.269609	.0135795	.0025126
%RSD	.2972630	.4119299	.2035016	2.137223	14.41492	1.370229	.4529543
#1	14.01983	106.8957	1.069948	-.028488	1.867112	.9880328	.5537530
#2	14.03105	106.2721	1.068853	-.027888	1.602367	1.005873	.5528137
#3	13.95400	106.0504	1.073053	-.027296	2.141555	.979219	.5575585

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.668330	3.966921	.3809524	-.000300	.4240248	7.506991	.0032084
Stddev	.043477	.012468	.0032361	.000330	.0018880	.017155	.0016153
%RSD	.5015601	.3143066	.8494795	109.9454	.4452470	.2285228	50.34553
#1	8.632982	3.954611	.3814291	-.000389	.4222303	7.526623	.0025431
#2	8.716877	3.966609	.3839237	.000065	.4238501	7.494886	.0050500
#3	8.655132	3.979542	.3775043	-.000577	.4259941	7.499463	.0020320

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4484-03DLX2A Acquired: 11/08/2024 19:34:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4G9A Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.583553	.1472017	.3061421
Stddev	.019579	.0027884	.0007807
%RSD	.4271533	1.894244	.2550060
#1	4.606136	.1501251	.3068123
#2	4.573181	.1469085	.3063290
#3	4.571343	.1445716	.3052849

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	947.4054	25419.09	2890.173	855.6307	1637.279
Stddev	1.0963	25.61	16.983	3.3384	2.917
%RSD	.1157192	.1007340	.5875949	.3901660	.1781815
#1	948.5802	25390.23	2870.603	853.2674	1637.467
#2	947.2266	25439.10	2901.026	859.4498	1640.098
#3	946.4095	25427.95	2898.893	854.1750	1634.272

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4500-10DLX2A Acquired: 11/08/2024 19:38:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4H2A Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0088814	-.014304	.1187924	-.004287	.0050898	173.0188
Stddev	.0201795	.006470	.0053039	.004289	.0027359	.4364
%RSD	227.2114	45.23195	4.464836	100.0503	53.75205	.2522254
#1	.0182932	-.007117	.1245829	-.008589	.0067298	173.3279
#2	-.014285	-.019665	.1141698	-.004262	.0066080	173.2089
#3	.022636	-.016129	.1176245	-.000010	.0019314	172.5196

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.080043	.0038367	.0138839	475.2788	3.546744	.4475849
Stddev	.001761	.0001428	.0001940	1.7166	.002587	.0010195
%RSD	.1630440	3.723085	1.397237	.3611692	.0729463	.2277690
#1	1.082028	.0038921	.0137370	476.8375	3.546236	.4485571
#2	1.078669	.0036745	.0138107	475.5598	3.544449	.4465240
#3	1.079432	.0039436	.0141038	473.4391	3.549548	.4476736

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4165534	410.6894	8.193085	381.4067	F 5.229715	-.018096
Stddev	.0015503	1.8178	.011777	1.7986	.002373	.000572
%RSD	.3721794	.4426200	.1437482	.4715643	.0453818	3.162385
#1	.4164485	412.5261	8.194724	382.9457	5.232181	-.018403
#2	.4150581	410.6511	8.203957	381.8449	5.229515	-.018448
#3	.4181535	408.8911	8.180574	379.4295	5.227447	-.017435

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.633929	1.135832	.5746422	11.39196	5.932075	.4231957
Stddev	.346751	.014877	.0035181	.03521	.003235	.0023717
%RSD	5.226926	1.309782	.6122306	.3090606	.0545256	.5604367
#1	7.008568	1.152976	.5775118	11.42966	5.930841	.4259342
#2	6.568961	1.126315	.5756978	11.38632	5.929639	.4218530
#3	6.324257	1.128206	.5707172	11.35992	5.935745	.4218000

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4500-10DLX2A Acquired: 11/08/2024 19:38:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MYE4H2A Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000336	4.599661	9.400785	.0105444	10.74190	.1238427
Stddev	.000443	.015328	.055179	.0034454	.02801	.0029545
%RSD	131.6551	.3332448	.5869577	32.67502	.2607760	2.385691
#1	.000129	4.589312	9.410739	.0088582	10.77271	.1232035
#2	-.000751	4.617270	9.450309	.0145081	10.73500	.1212601
#3	-.000386	4.592400	9.341307	.0082669	10.71798	.1270644

Elem	Sr4077
Units	ppm
Avg	.9949309
Stddev	.0021328
%RSD	.2143684
#1	.9960926
#2	.9962306
#3	.9924694

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	914.8709	24878.27	2858.661	830.6325	1494.641
Stddev	.1481	105.33	9.802	4.0687	2.714
%RSD	.0161918	.4233715	.3428987	.4898319	.1816095
#1	915.0409	24836.30	2852.420	825.9374	1491.560
#2	914.7695	24998.11	2853.604	832.8349	1495.680
#3	914.8023	24800.40	2869.959	833.1253	1496.682

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4496-06 Acquired: 11/08/2024 19:43:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHZC7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0479854	-.047045	.1138933	-.005697	.0009990	137.5085
Stddev	.0093793	.002400	.0076102	.009359	.0026512	.5599
%RSD	19.54614	5.101782	6.681875	164.3001	265.3953	.4071732
#1	.0476567	-.044364	.1121212	.005005	-.002060	137.9869
#2	.0575248	-.047774	.1073254	-.012354	.002639	136.8927
#3	.0387748	-.048996	.1222332	-.009741	.002418	137.6458

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8441787	.0031400	.0113724	F 984.9289	1.507500	.2187674
Stddev	.0035625	.0002605	.0003454	4.9836	.001692	.0013193
%RSD	.4220036	8.296369	3.037238	.5059903	.1122712	.6030673
#1	.8482069	.0034133	.0113189	989.8063	1.509073	.2172540
#2	.8428868	.0031121	.0117414	979.8454	1.507719	.2196752
#3	.8414424	.0028946	.0110568	985.1351	1.505709	.2193728

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3321826	321.6264	4.109506	156.2198	1.709918	-.008466
Stddev	.0072213	1.9692	.035809	1.0876	.003562	.000079
%RSD	2.173907	.6122787	.8713750	.6961894	.2082958	.9333430
#1	.3404947	323.3402	4.150434	156.6812	1.710659	-.008396
#2	.3274532	319.4752	4.083946	154.9776	1.706043	-.008552
#3	.3285998	322.0639	4.094138	157.0007	1.713050	-.008449

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.261438	.9531343	.5337397	14.48427	5.800378	.3336621
Stddev	.098685	.0043507	.0015641	.12093	.004080	.0029189
%RSD	4.363805	.4564648	.2930418	.8349123	.0703476	.8748013
#1	2.166527	.9485608	.5351521	14.62378	5.805049	.3357684
#2	2.363507	.9536207	.5320587	14.40920	5.797507	.3303302
#3	2.254279	.9572214	.5340084	14.41984	5.798579	.3348876

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4496-06 Acquired: 11/08/2024 19:43:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHZC7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038859	43.15681	13.17892	.0127587	4.164825	.1281392
Stddev	.0005224	.05561	.04117	.0026008	.017236	.0014767
%RSD	13.44280	.1288441	.3123650	20.38444	.4138440	1.152388
#1	.0038147	43.09851	13.22585	.0139126	4.184717	.1287328
#2	.0044402	43.16265	13.14891	.0097806	4.155426	.1264581
#3	.0034028	43.20926	13.16199	.0145829	4.154331	.1292267

Elem	Sr4077
Units	ppm
Avg	1.701676
Stddev	.008157
%RSD	.4793694
#1	1.709153
#2	1.692977
#3	1.702899

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	918.7294	24567.35	2821.290	835.5324	1487.740
Stddev	1.0575	38.25	13.471	2.2128	2.249
%RSD	.1151018	.1556743	.4774901	.2648345	.1511734
#1	918.0447	24556.98	2806.095	836.1261	1486.328
#2	919.9473	24609.71	2831.771	837.3878	1490.334
#3	918.1961	24535.36	2826.004	833.0834	1486.559

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: PB164450BL Acquired: 11/08/2024 19:47:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS450 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077605	.0022116	.0037647	-.006429	-.001122	.0087395	.0009080
Stddev	.0065463	.0019899	.0015437	.008921	.001304	.0038413	.0009318
%RSD	84.35437	89.97185	41.00537	138.7701	116.2459	43.95407	102.6282
#1	.0053148	.0028065	.0049204	-.001744	-.001953	.0049921	.0017986
#2	.0027892	.0038362	.0020115	-.000825	.000381	.0126684	.0009855
#3	.0151776	-.000008	.0043621	-.016716	-.001792	.0085579	-.000060

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000025	-.000005	.0631570	-.000257	.0004484	.0018504	.0613800
Stddev	.000073	.000099	.0076986	.000229	.0004352	.0005640	.0197995
%RSD	286.6321	1939.007	12.18961	89.12615	97.06149	30.48159	32.25720
#1	.000008	-.000108	.0608907	-.000391	.0008681	.0014071	.0841162
#2	.000024	.000089	.0717343	-.000388	-.000001	.0016588	.0520906
#3	-.000109	.000004	.0568459	.000007	.000478	.0024853	.0479333

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000087	.0757114	.0007539	.0009841	-.379490	.0017826	.0007246
Stddev	.002075	.0383719	.0002939	.0002621	.258187	.0070049	.0003876
%RSD	2398.146	50.68176	38.97782	26.63108	68.03529	392.9599	53.49102
#1	.001841	.1131886	.0004186	.0011982	-.658186	-.004164	.0003061
#2	-.002283	.0774422	.0009667	.0010622	-.148451	.000007	.0007965
#3	.000183	.0365035	.0008764	.0006918	-.331834	.009504	.0010711

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0157297	-.001337	.0009947	-.000261	-.005160	.0047773	.0037542
Stddev	.0457567	.000912	.0003201	.000324	.007550	.0003748	.0014771
%RSD	290.8941	68.19059	32.17924	124.0095	146.3114	7.844768	39.34580
#1	-.026103	-.002367	.0009148	-.000425	-.013879	.0051855	.0020744
#2	.064596	-.000634	.0007222	-.000471	-.000801	.0044488	.0048502
#3	.008697	-.001010	.0013472	.000112	-.000802	.0046977	.0043380

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: PB164450BL Acquired: 11/08/2024 19:47:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS450 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0012824	.0014118	.0001034
Stddev	.0008592	.0017020	.0000615
%RSD	66.99932	120.5527	59.46149
#1	.0011009	.0033584	.0000854
#2	.0005284	.0002039	.0000530
#3	.0022177	.0006733	.0001719

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	956.7797	24363.04	2690.762	862.5493	1898.826
Stddev	1.2999	57.08	16.729	4.1952	1.256
%RSD	.1358580	.2343007	.6217245	.4863741	.0661350
#1	957.8099	24367.58	2704.179	864.8056	1897.564
#2	955.3193	24417.72	2672.018	865.1336	1898.839
#3	957.2100	24303.83	2696.089	857.7088	1900.075

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: PB164450BS Acquired: 11/08/2024 19:52:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS450 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0292440	.0552585	.0186937	.0632251	.1101744	.3971336
Stddev	.0039783	.0036375	.0016535	.0020621	.0018652	.0047037
%RSD	13.60397	6.582753	8.845356	3.261511	1.692903	1.184418
#1	.0255504	.0559293	.0177017	.0610687	.1123066	.3998180
#2	.0287253	.0513322	.0177768	.0634289	.1088452	.3917023
#3	.0334562	.0585139	.0206025	.0651777	.1093714	.3998804

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4206354	.0109690	.0109229	11.23719	.0225961	.1015494
Stddev	.0013688	.0002345	.0000760	.11400	.0005653	.0005472
%RSD	.3254191	2.137833	.6960684	1.014501	2.501659	.5388728
#1	.4206008	.0108889	.0108745	11.21888	.0226093	.1020869
#2	.4192842	.0107851	.0108837	11.13345	.0231546	.1009929
#3	.4220212	.0112331	.0110105	11.35923	.0220243	.1015683

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0494335	F .2671888	.0349535	10.80801	.0856973	.0226338
Stddev	.0047771	.0322465	.0025027	.15836	.0009146	.0003323
%RSD	9.663647	12.06880	7.159979	1.465177	1.067253	1.467943
#1	.0520787	.2413788	.0321429	10.69635	.0865887	.0223319
#2	.0523029	.3033364	.0369407	10.73845	.0857421	.0225797
#3	.0439189	.2568513	.0357770	10.98924	.0847611	.0229897

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.41584	.1072937	.1213333	9.913112	.0150857	F .0020734
Stddev	.21657	.0044101	.0010770	.125706	.0025797	.0008496
%RSD	2.079191	4.110302	.8876251	1.268079	17.10011	40.97766
#1	10.56828	.1123835	.1223346	9.910112	.0147684	.0028506
#2	10.51131	.1048878	.1214714	9.788933	.0126793	.0022034
#3	10.16795	.1046098	.1201940	10.04029	.0178093	.0011663

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: PB164450BS Acquired: 11/08/2024 19:52:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS450 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0194402	.1727156	F .4699170	.0169382	.2104808	.0305565
Stddev	.0004778	.0051072	.0059445	.0012047	.0009579	.0008230
%RSD	2.457659	2.956994	1.265020	7.112407	.4551083	2.693202
#1	.0199144	.1668840	.4716384	.0181418	.2113550	.0302722
#2	.0189589	.1748715	.4633017	.0169403	.2106306	.0314839
#3	.0194474	.1763913	.4748108	.0157324	.2094568	.0299135

Elem	Sr4077
Units	ppm
Avg	.2111679
Stddev	.0004846
%RSD	.2295015
#1	.2107980
#2	.2109893
#3	.2117166

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	947.8439	24295.36	2696.303	863.7133	1847.856
Stddev	3.8847	167.02	24.689	2.8371	4.092
%RSD	.4098426	.6874680	.9156509	.3284800	.2214226
#1	943.3618	24454.65	2693.403	864.5605	1844.182
#2	949.9310	24309.86	2722.313	866.0304	1852.266
#3	950.2390	24121.56	2673.191	860.5491	1847.121

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-01 Acquired: 11/08/2024 19:56:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0411259	.0012947	.0038925	.0025215	-.003253	14.85760
Stddev	.0088184	.0044935	.0033367	.0089598	.002766	.02787
%RSD	21.44230	347.0795	85.72316	355.3362	85.03351	.1875586
#1	.0313219	-.002294	.0018030	-.002097	-.003969	14.83136
#2	.0484099	.006334	.0077407	.012848	-.005591	14.88685
#3	.0436460	-.000156	.0021338	-.003186	-.000199	14.85460

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0948300	.0090928	.0010297	183.2194	.0177132	.0229034
Stddev	.0008219	.0000378	.0002141	.5088	.0004189	.0006868
%RSD	.8667485	.4157037	20.79223	.2777251	2.364975	2.998649
#1	.0951229	.0091315	.0012663	183.4822	.0177493	.0234762
#2	.0954653	.0090910	.0008494	183.5431	.0181129	.0230920
#3	.0939017	.0090559	.0009735	182.6329	.0172774	.0221420

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.010993	23.18394	5.410964	23.08955	.0414306	-.004658
Stddev	.016282	.06940	.002573	.16436	.0012355	.000215
%RSD	.4059462	.2993564	.0475442	.7118170	2.982177	4.616951
#1	3.997560	23.12850	5.408003	23.00848	.0428467	-.004678
#2	4.029102	23.16154	5.412654	22.98147	.0408733	-.004433
#3	4.006318	23.26177	5.412234	23.27869	.0405719	-.004862

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.253474	.1246455	.5071135	4.504042	F 13.80024	.7358367
Stddev	.126343	.0021447	.0028996	.112873	.03056	.0032886
%RSD	1.741824	1.720615	.5717910	2.506048	.2214549	.4469165
#1	7.133687	.1221905	.5103215	4.396366	13.82660	.7332393
#2	7.385484	.1261548	.5063396	4.621479	13.80739	.7395343
#3	7.241249	.1255911	.5046793	4.494280	13.76674	.7347364

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-01 Acquired: 11/08/2024 19:56:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001004	F 339.5973	7.666787	-.004333	.0050167	.0259879
Stddev	.000287	.8720	.010888	.001136	.0004319	.0003305
%RSD	28.55888	.2567650	.1420169	26.22980	8.609407	1.271656
#1	-.001121	340.4023	7.668010	-.003307	.0052790	.0261891
#2	-.001214	339.7186	7.655339	-.004136	.0052529	.0256065
#3	-.000678	338.6710	7.677012	-.005555	.0045182	.0261681

Elem	Sr4077
Units	ppm
Avg	.5838810
Stddev	.0013425
%RSD	.2299207
#1	.5831269
#2	.5854310
#3	.5830852

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1087.349	28372.68	3164.449	991.7129	1781.173
Stddev	1.262	78.86	3.152	1.6666	2.012
%RSD	.1160933	.2779516	.0996113	.1680513	.1129605
#1	1085.990	28356.53	3160.886	989.8635	1780.099
#2	1087.570	28303.15	3165.588	992.1766	1779.925
#3	1088.486	28458.37	3166.873	993.0985	1783.494

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-02 Acquired: 11/08/2024 20:01:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0501059	-.000785	.0044910	.0010924	-.000623	15.75445
Stddev	.0103213	.001251	.0048623	.0015007	.002822	.04644
%RSD	20.59898	159.3530	108.2672	137.3790	452.7838	.2947732
#1	.0482477	.000448	.0022156	.0009210	.000832	15.76197
#2	.0612300	-.000750	.0100738	.0026714	.001174	15.70471
#3	.0408399	-.002053	.0011836	-.000315	-.003876	15.79667

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0853001	.0108775	.0007751	177.4572	.0176586	.0235808
Stddev	.0007883	.0000252	.0001037	.4397	.0009830	.0001720
%RSD	.9240970	.2317318	13.37134	.2477786	5.566805	.7292863
#1	.0860413	.0108484	.0007785	177.7753	.0186948	.0236082
#2	.0844720	.0108935	.0006699	176.9554	.0175416	.0233968
#3	.0853870	.0108905	.0008771	177.6408	.0167393	.0237374

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.951099	23.21907	4.658024	23.98638	.0443412	-.005166
Stddev	.012682	.06140	.016731	.04432	.0007125	.000338
%RSD	.6499881	.2644589	.3591773	.1847627	1.606887	6.547078
#1	1.940254	23.27975	4.655008	24.03403	.0441474	-.005471
#2	1.948001	23.15697	4.643006	23.94638	.0451306	-.005224
#3	1.965043	23.22050	4.676057	23.97875	.0437456	-.004802

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.129281	.1427647	.5076152	5.045409	F 15.55645	.7677331
Stddev	.097844	.0074191	.0019461	.094846	.04085	.0073599
%RSD	1.203602	5.196711	.3833735	1.879840	.2626065	.9586569
#1	8.241653	.1406507	.5053720	5.095905	15.58908	.7755249
#2	8.062955	.1366320	.5088521	4.935998	15.51063	.7608988
#3	8.083233	.1510113	.5086214	5.104322	15.56964	.7667756

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-02 Acquired: 11/08/2024 20:01:18 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001125	F 356.8437	8.499849	-.004885	.0067789	.0336259
Stddev	.000267	.3742	.051075	.000470	.0010180	.0006753
%RSD	23.72182	.1048763	.6008891	9.613545	15.01775	2.008176
#1	-.001322	356.7357	8.537200	-.004715	.0079143	.0342146
#2	-.001232	356.5353	8.441647	-.004524	.0064748	.0337744
#3	-.000821	357.2601	8.520699	-.005416	.0059475	.0328888

Elem	Sr4077
Units	ppm
Avg	.6557111
Stddev	.0014323
%RSD	.2184411
#1	.6552497
#2	.6545664
#3	.6573173

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1093.792	28613.54	3181.651	1003.180	1780.135
Stddev	1.950	68.36	15.088	4.726	1.936
%RSD	.1782641	.2388928	.4742212	.4711321	.1087623
#1	1094.199	28660.19	3177.879	1008.518	1778.948
#2	1095.506	28645.36	3198.268	1001.497	1782.370
#3	1091.671	28535.08	3168.807	999.526	1779.089

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-03 Acquired: 11/08/2024 20:05:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0552357	-.000405	.0069717	-.001502	-.001316	16.20637
Stddev	.0078660	.002191	.0023817	.005583	.003007	.02500
%RSD	14.24086	541.0703	34.16226	371.7151	228.5305	.1542491
#1	.0642171	.002053	.0042879	-.006057	.000212	16.20887
#2	.0519176	-.002153	.0088337	-.003176	.000620	16.23003
#3	.0495723	-.001114	.0077935	.004727	-.004781	16.18022

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0837377	.0096306	.0011883	248.3254	.0196447	.0267232
Stddev	.0007333	.0000111	.0002466	.1576	.0009283	.0005232
%RSD	.8756654	.1151248	20.75542	.0634657	4.725277	1.957787
#1	.0845627	.0096369	.0014680	248.3264	.0205791	.0271523
#2	.0834898	.0096372	.0010954	248.4825	.0196322	.0261404
#3	.0831605	.0096179	.0010017	248.1673	.0187227	.0268768

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.567165	26.23880	6.687258	25.44960	.0480194	-.004782
Stddev	.002221	.17777	.013679	.07176	.0003477	.000331
%RSD	.0622555	.6775091	.2045573	.2819610	.7241496	6.912805
#1	3.565485	26.05403	6.701257	25.51129	.0477506	-.005030
#2	3.569683	26.40862	6.686593	25.46666	.0478954	-.004908
#3	3.566328	26.25376	6.673923	25.37085	.0484121	-.004407

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.021376	.1282424	.5230493	4.880640	F 16.62889	.7903697
Stddev	.170488	.0060168	.0026091	.073671	.03432	.0024323
%RSD	2.125417	4.691728	.4988293	1.509457	.2064089	.3077479
#1	7.856865	.1341429	.5220738	4.964949	16.59360	.7888120
#2	8.009994	.1284687	.5210684	4.828661	16.66216	.7931725
#3	8.197269	.1221157	.5260056	4.848311	16.63090	.7891245

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-03 Acquired: 11/08/2024 20:05:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001531	F 356.3923	7.921995	-.006743	.0031018	.0289182
Stddev	.000023	.7969	.035302	.000727	.0007106	.0006595
%RSD	1.486992	.2236003	.4456214	10.78623	22.91005	2.280635
#1	-.001555	355.5033	7.906180	-.005906	.0029282	.0290277
#2	-.001528	356.6311	7.962439	-.007103	.0024940	.0295161
#3	-.001510	357.0425	7.897366	-.007220	.0038831	.0282108

Elem	Sr4077
Units	ppm
Avg	.6805474
Stddev	.0006624
%RSD	.0973338
#1	.6812106
#2	.6798858
#3	.6805458

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1095.674	28828.04	3218.075	1004.346	1740.170
Stddev	1.488	49.50	8.642	7.106	2.923
%RSD	.1357704	.1717054	.2685348	.7075622	.1679627
#1	1096.137	28846.60	3219.711	1008.079	1743.342
#2	1096.875	28865.57	3208.732	1008.807	1739.581
#3	1094.010	28771.94	3225.781	996.151	1737.586

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-04 Acquired: 11/08/2024 20:10:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0474022	-.001141	.0089411	.0001937	-.000360	17.25879
Stddev	.0017121	.004791	.0026346	.0039925	.001643	.03982
%RSD	3.611834	419.9940	29.46648	2061.377	456.6186	.2307085
#1	.0472062	.002887	.0059291	-.002828	-.001953	17.30220
#2	.0492039	-.006439	.0100772	.004720	.001329	17.22396
#3	.0457966	.000130	.0108172	-.001311	-.000456	17.25023

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0806953	.0101536	.0011804	195.2175	.0196877	.0275898
Stddev	.0008167	.0001900	.0000544	.8152	.0007176	.0006859
%RSD	1.012114	1.871019	4.608835	.4175928	3.645065	2.486152
#1	.0804213	.0100775	.0011840	195.9717	.0203247	.0268143
#2	.0816138	.0103698	.0012329	194.3526	.0198281	.0281171
#3	.0800508	.0100134	.0011243	195.3282	.0189102	.0278380

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.144033	26.76099	5.337386	26.75429	.0489027	-.006145
Stddev	.009319	.10545	.017079	.22972	.0006727	.000188
%RSD	.2963995	.3940268	.3199857	.8586324	1.375494	3.064339
#1	3.151710	26.87947	5.344405	26.99228	.0485070	-.006252
#2	3.133665	26.67745	5.317916	26.53385	.0485217	-.005927
#3	3.146724	26.72605	5.349837	26.73673	.0496794	-.006255

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.417462	.1356457	.5510120	5.179533	F 17.21318	.7993712
Stddev	.135270	.0072791	.0022276	.015949	.08709	.0007905
%RSD	1.607011	5.366277	.4042708	.3079311	.5059605	.0988910
#1	8.456727	.1307769	.5535435	5.162943	17.11302	.7995098
#2	8.266904	.1440137	.5501407	5.194753	17.25539	.7985206
#3	8.528755	.1321466	.5493516	5.180901	17.27112	.8000833

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-04 Acquired: 11/08/2024 20:10:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001207	F 387.4709	8.627913	-.004194	.0058561	.0322762
Stddev	.000128	1.7261	.027503	.000996	.0026193	.0008963
%RSD	10.57706	.4454738	.3187704	23.74376	44.72744	2.776933
#1	-.001292	385.4814	8.656411	-.003764	.0048037	.0333100
#2	-.001060	388.3619	8.625800	-.003485	.0039266	.0317159
#3	-.001269	388.5694	8.601527	-.005332	.0088378	.0318029

Elem	Sr4077
Units	ppm
Avg	.6381259
Stddev	.0007366
%RSD	.1154251
#1	.6382696
#2	.6373280
#3	.6387800

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1120.603	29379.69	3290.361	1031.180	1769.119
Stddev	1.448	27.67	9.600	4.605	3.354
%RSD	.1291984	.0941836	.2917730	.4465779	.1896141
#1	1122.012	29359.67	3280.909	1026.207	1772.943
#2	1120.677	29368.13	3290.069	1035.297	1767.741
#3	1119.119	29411.26	3300.104	1032.036	1766.673

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-05 Acquired: 11/08/2024 20:14:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0514320	-.002542	.0066948	-.000197	-.003454	19.01326
Stddev	.0177781	.003491	.0024971	.008919	.001909	.01083
%RSD	34.56631	137.2955	37.29893	4528.544	55.27665	.0569659
#1	.0519937	.001018	.0045288	.009904	-.003325	19.00516
#2	.0689226	-.002687	.0094260	-.006985	-.001613	19.02557
#3	.0333796	-.005958	.0061295	-.003510	-.005425	19.00907

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0727451	.0095421	.0014647	197.1734	.0281043	.0329523
Stddev	.0005096	.0000710	.0001322	.3387	.0005849	.0006593
%RSD	.7005031	.7440335	9.023688	.1717969	2.081234	2.000621
#1	.0722175	.0094669	.0016097	196.9150	.0284251	.0321939
#2	.0732345	.0096079	.0013509	197.5569	.0274291	.0333884
#3	.0727832	.0095515	.0014335	197.0484	.0284585	.0332746

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.081133	31.25441	5.597586	28.72023	.0570968	-.006649
Stddev	.007633	.13868	.009320	.07237	.0014228	.000322
%RSD	.3667812	.4436985	.1664933	.2519834	2.491954	4.842250
#1	2.089568	31.13489	5.608086	28.73174	.0585586	-.006946
#2	2.079127	31.40646	5.594377	28.64279	.0557165	-.006693
#3	2.074703	31.22189	5.590295	28.78616	.0570152	-.006307

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.709248	.1589263	.5013254	4.968647	F 15.37591	.7958810
Stddev	.180763	.0050056	.0014225	.125706	.16887	.0032576
%RSD	2.075532	3.149630	.2837496	2.529990	1.098251	.4093083
#1	8.623853	.1537682	.5019098	4.828255	15.52328	.7922358
#2	8.916888	.1637640	.5023627	5.006912	15.19165	.7985076
#3	8.587003	.1592469	.4997038	5.070775	15.41278	.7968995

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-05 Acquired: 11/08/2024 20:14:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001734	F 376.1499	9.620346	-.007957	.0067158	.0373297
Stddev	.000263	3.5747	.022358	.001949	.0009453	.0004717
%RSD	15.17244	.9503267	.2324035	24.48988	14.07580	1.263703
#1	-.002006	379.0117	9.597842	-.006099	.0056668	.0378563
#2	-.001714	372.1430	9.642555	-.007787	.0069788	.0371872
#3	-.001481	377.2950	9.620642	-.009985	.0075017	.0369457

Elem	Sr4077
Units	ppm
Avg	.6145972
Stddev	.0010846
%RSD	.1764734
#1	.6157083
#2	.6135412
#3	.6145422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1104.551	29051.88	3292.544	1017.445	1748.626
Stddev	5.051	46.46	15.834	.478	13.765
%RSD	.4572950	.1599159	.4809047	.0469600	.7872071
#1	1102.856	29102.89	3310.425	1017.056	1744.247
#2	1110.231	29040.73	3280.298	1017.978	1764.048
#3	1100.565	29012.01	3286.910	1017.301	1737.583

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-06 Acquired: 11/08/2024 20:18:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0626041	-.000347	.0056856	-.001252	.0004371	17.64989
Stddev	.0070333	.004026	.0036842	.006070	.0006889	.12388
%RSD	11.23462	1159.599	64.79805	485.0065	157.5900	.7018701
#1	.0561807	-.002955	.0028433	.001130	.0010521	17.50730
#2	.0615120	.004289	.0098480	.003267	.0005665	17.73100
#3	.0701196	-.002376	.0043656	-.008152	-.000307	17.71138

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0743492	.0100075	.0013358	227.7765	.0262329	.0309629
Stddev	.0003264	.0001781	.0001256	1.7400	.0005556	.0004690
%RSD	.4390689	1.779894	9.400699	.7639018	2.118148	1.514612
#1	.0739804	.0098061	.0012949	226.3030	.0268251	.0314073
#2	.0746011	.0100722	.0014767	229.6961	.0257229	.0310088
#3	.0744661	.0101443	.0012358	227.3305	.0261508	.0304727

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.915375	29.00576	6.685534	27.97137	.0553696	-.006204
Stddev	.018098	.34048	.051947	.23235	.0004676	.000099
%RSD	.6207646	1.173830	.7770058	.8306555	.8444829	1.588668
#1	2.897500	28.63246	6.625586	27.70598	.0557029	-.006291
#2	2.933687	29.29923	6.713728	28.13814	.0555707	-.006224
#3	2.914937	29.08559	6.717288	28.06998	.0548351	-.006097

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.853031	.1487970	.5024701	5.015188	F 16.78398	.8162615
Stddev	.237984	.0051823	.0006989	.098177	.03758	.0049975
%RSD	3.030472	3.482765	.1390901	1.957594	.2239112	.6122400
#1	7.583508	.1428169	.5029806	4.912792	16.79588	.8126954
#2	7.941375	.1519709	.5016736	5.108517	16.81417	.8219735
#3	8.034209	.1516034	.5027563	5.024253	16.74189	.8141156

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-06 Acquired: 11/08/2024 20:18:51 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6M6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001646	F 364.2355	9.003825	-.005326	.0036256	.0349014
Stddev	.000523	.3625	.082298	.001514	.0021684	.0005806
%RSD	31.76516	.0995134	.9140335	28.42718	59.80665	1.663506
#1	-.001557	364.5696	8.946885	-.007054	.0060148	.0349208
#2	-.002207	364.2869	9.098183	-.004694	.0030795	.0343114
#3	-.001173	363.8501	8.966406	-.004230	.0017825	.0354721

Elem	Sr4077
Units	ppm
Avg	.6640896
Stddev	.0051354
%RSD	.7732972
#1	.6581689
#2	.6673359
#3	.6667639

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1109.641	29168.79	3297.024	1018.926	1741.945
Stddev	.691	94.92	26.509	2.573	3.801
%RSD	.0622924	.3254254	.8040304	.2525550	.2182031
#1	1108.846	29156.43	3321.386	1020.338	1737.657
#2	1109.972	29269.28	3268.793	1020.484	1743.278
#3	1110.103	29080.65	3300.892	1015.955	1744.900

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-07 Acquired: 11/08/2024 20:23:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0496542	.0009300	.0078777	-.007566	-.000470	17.31812
Stddev	.0065910	.0025069	.0016110	.002811	.001407	.24379
%RSD	13.27376	269.5483	20.45007	37.15180	299.4995	1.407711
#1	.0540852	.0035267	.0075095	-.004365	.000457	17.05587
#2	.0420800	.0007397	.0096410	-.008701	-.002088	17.53785
#3	.0527974	-.001476	.0064827	-.009633	.000222	17.36063

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0783233	.0096814	.0013229	246.8647	.0226454	.0286381
Stddev	.0009025	.0001463	.0000060	3.6430	.0005257	.0005912
%RSD	1.152327	1.510766	.4501914	1.475702	2.321292	2.064394
#1	.0772911	.0095381	.0013161	243.1661	.0227276	.0292399
#2	.0787155	.0096756	.0013252	250.4494	.0220835	.0286165
#3	.0789635	.0098304	.0013274	246.9787	.0231251	.0280580

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.350234	27.03417	7.736369	26.30471	.0521054	-.005500
Stddev	.041832	.40668	.096145	.36098	.0007714	.000234
%RSD	1.248622	1.504321	1.242762	1.372310	1.480455	4.248568
#1	3.301931	26.61110	7.625456	25.93155	.0513289	-.005419
#2	3.374207	27.42219	7.796017	26.65214	.0528716	-.005318
#3	3.374563	27.06923	7.787634	26.33043	.0521156	-.005763

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.469828	.1324055	.4909719	4.742060	F 15.82305	.8136808
Stddev	.136888	.0061646	.0007540	.167146	.06859	.0099939
%RSD	1.832547	4.655868	.1535782	3.524744	.4334975	1.228238
#1	7.512051	.1344079	.4908587	4.553063	15.86500	.8036561
#2	7.316803	.1373200	.4902808	4.802684	15.74390	.8236437
#3	7.580631	.1254886	.4917761	4.870435	15.86026	.8137424

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-07 Acquired: 11/08/2024 20:23:13 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001351	F 394.4162	8.717222	-.006004	.0050771	.0343243
Stddev	.000519	1.3676	.111711	.001013	.0014456	.0008948
%RSD	38.43406	.3467299	1.281500	16.86964	28.47260	2.606999
#1	-.001597	394.1934	8.593602	-.006327	.0049415	.0332911
#2	-.000754	393.1737	8.810936	-.004869	.0037041	.0348330
#3	-.001702	395.8814	8.747130	-.006815	.0065857	.0348489

Elem	Sr4077
Units	ppm
Avg	.6274954
Stddev	.0078032
%RSD	1.243544
#1	.6185378
#2	.6328172
#3	.6311312

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1116.921	29257.17	3281.658	1023.408	1743.513
Stddev	1.564	37.77	49.906	1.561	2.313
%RSD	.1400123	.1291069	1.520745	.1524987	.1326385
#1	1116.697	29258.43	3336.685	1024.236	1742.678
#2	1115.481	29218.79	3239.326	1021.608	1746.127
#3	1118.584	29294.30	3268.962	1024.381	1741.734

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-08 Acquired: 11/08/2024 20:27:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0491106	.0020069	.0076719	.0013534	-.000457	17.32616
Stddev	.0099064	.0017850	.0043118	.0043503	.002559	.01245
%RSD	20.17154	88.94220	56.20273	321.4397	560.4500	.0718592
#1	.0379304	.0007715	.0050879	.0031570	-.000571	17.31272
#2	.0526054	.0040534	.0052782	.0045118	.002157	17.32847
#3	.0567958	.0011958	.0126495	-.003609	-.002956	17.33729

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0885167	.0095088	.0012808	206.6477	.0246308	.0306652
Stddev	.0004188	.0000939	.0001684	.2031	.0012172	.0011204
%RSD	.4731451	.9879295	13.14543	.0982659	4.941910	3.653609
#1	.0884226	.0096054	.0012531	206.6402	.0232807	.0316083
#2	.0889746	.0094177	.0011280	206.4485	.0249673	.0294267
#3	.0881530	.0095034	.0014613	206.8544	.0256443	.0309605

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.409559	30.44591	6.175770	27.37431	.0542514	-.006617
Stddev	.004288	.14488	.015084	.06227	.0005467	.000978
%RSD	.1779453	.4758456	.2442422	.2274793	1.007775	14.77616
#1	2.410872	30.36633	6.186675	27.36370	.0544136	-.007733
#2	2.413037	30.61313	6.158556	27.31803	.0536419	-.005912
#3	2.404769	30.35827	6.182079	27.44121	.0546986	-.006206

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.097844	.1507615	.5584058	4.833732	F 15.74900	.8076960
Stddev	.025473	.0043645	.0119717	.034386	.01188	.0018028
%RSD	.3145700	2.894972	2.143904	.7113705	.0754429	.2232010
#1	8.071045	.1556297	.5445934	4.800637	15.73601	.8061910
#2	8.121744	.1471985	.5648282	4.869277	15.75167	.8072030
#3	8.100741	.1494563	.5657959	4.831282	15.75931	.8096940

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-08 Acquired: 11/08/2024 20:27:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001357	F 385.2246	8.425115	-.007393	.0049705	.0294709
Stddev	.000620	.2424	.009500	.001847	.0016965	.0002294
%RSD	45.70909	.0629189	.1127623	24.98876	34.13047	.7782490
#1	-.002045	384.9829	8.420750	-.008364	.0030567	.0292072
#2	-.001186	385.2233	8.418582	-.008552	.0055657	.0295815
#3	-.000840	385.4676	8.436014	-.005263	.0062893	.0296241

Elem	Sr4077
Units	ppm
Avg	.6241208
Stddev	.0009332
%RSD	.1495159
#1	.6240035
#2	.6232518
#3	.6251070

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1103.294	29195.43	3242.139	1023.680	1754.896
Stddev	1.631	489.13	4.256	16.318	2.568
%RSD	.1477935	1.675357	.1312864	1.594045	.1463146
#1	1104.875	29755.38	3237.640	1042.425	1757.839
#2	1101.618	28851.50	3246.101	1012.650	1753.112
#3	1103.389	28979.41	3242.677	1015.965	1753.737

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-09 Acquired: 11/08/2024 20:31:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0470113	.0004056	.0097930	.0001864	-.002429	16.10674
Stddev	.0023795	.0016114	.0060422	.0064779	.000752	.03104
%RSD	5.061660	397.3208	61.69855	3475.935	30.94342	.1927434
#1	.0455032	.0005973	.0099640	.0067134	-.002806	16.08298
#2	.0497544	.0019124	.0036672	.0000870	-.002918	16.09537
#3	.0457762	-.001293	.0157479	-.006241	-.001564	16.14187

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0770465	.0100421	.0009286	188.4221	.0175144	.0242872
Stddev	.0007195	.0000755	.0001581	.3028	.0003807	.0000954
%RSD	.9338477	.7516512	17.02254	.1606767	2.173421	.3928871
#1	.0772858	.0099900	.0008090	188.3777	.0176311	.0242060
#2	.0776158	.0101286	.0008689	188.1440	.0178230	.0242634
#3	.0762378	.0100076	.0011078	188.7446	.0170890	.0243923

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.244885	24.15278	5.060772	24.55108	.0437756	-.006029
Stddev	.003985	.04414	.010570	.09669	.0006103	.000523
%RSD	.1228138	.1827704	.2088684	.3938152	1.394279	8.679350
#1	3.240446	24.10188	5.070203	24.62368	.0434750	-.005670
#2	3.246053	24.17587	5.062766	24.44133	.0433739	-.006629
#3	3.248155	24.18058	5.049347	24.58823	.0444780	-.005787

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.882330	.1185555	.5450085	5.114239	F 16.38164	.8031012
Stddev	.148356	.0047419	.0008237	.055775	.01826	.0031189
%RSD	1.882133	3.999726	.1511418	1.090579	.1114931	.3883530
#1	7.736124	.1240273	.5453575	5.169203	16.37112	.8022468
#2	7.878119	.1156465	.5440677	5.115828	16.37107	.8004985
#3	8.032747	.1159926	.5456003	5.057687	16.40273	.8065581

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-09 Acquired: 11/08/2024 20:31:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N4 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000961	F 377.9562	8.381147	-.004959	.0061464	.0300736
Stddev	.000636	.4687	.002161	.000858	.0012423	.0016660
%RSD	66.13939	.1240047	.0257822	17.29443	20.21216	5.539629
#1	-.001684	377.5364	8.383429	-.005253	.0075749	.0305642
#2	-.000490	377.8703	8.380877	-.005631	.0055451	.0282174
#3	-.000709	378.4619	8.379133	-.003993	.0053191	.0314392

Elem	Sr4077
Units	ppm
Avg	.6776070
Stddev	.0014083
%RSD	.2078396
#1	.6761380
#2	.6789456
#3	.6777373

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1098.006	28869.72	3243.865	1013.615	1756.405
Stddev	1.267	47.42	1.786	2.682	3.443
%RSD	.1153938	.1642573	.0550540	.2645672	.1960079
#1	1099.312	28916.03	3245.853	1012.093	1759.228
#2	1097.922	28871.88	3242.396	1016.712	1757.418
#3	1096.782	28821.26	3243.346	1012.041	1752.570

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-10 Acquired: 11/08/2024 20:36:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0544035	.0033364	.0065058	-.000104	-.001584	17.06851
Stddev	.0198699	.0013880	.0030989	.000458	.002421	.11097
%RSD	36.52322	41.60140	47.63343	439.8649	152.8575	.6501230
#1	.0595822	.0048757	.0098530	.000188	-.004319	16.99089
#2	.0711713	.0029532	.0059278	-.000632	-.000715	17.19561
#3	.0324570	.0021803	.0037365	.000131	.000283	17.01903

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0766493	.0097848	.0012214	254.2105	.0173886	.0271811
Stddev	.0010930	.0001294	.0000768	2.3675	.0008148	.0002313
%RSD	1.425923	1.322007	6.285389	.9313213	4.685521	.8508318
#1	.0758231	.0096355	.0012605	252.6638	.0175420	.0269416
#2	.0778886	.0098542	.0011329	256.9360	.0165080	.0274032
#3	.0762361	.0098646	.0012707	253.0317	.0181157	.0271984

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.351961	27.47993	6.677530	26.06643	.0480106	-.005453
Stddev	.025890	.28263	.037085	.37992	.0007975	.000393
%RSD	.4837528	1.028505	.5553718	1.457521	1.661072	7.213102
#1	5.326394	27.24588	6.650015	25.89129	.0473026	-.005118
#2	5.378163	27.79392	6.719704	26.50234	.0478546	-.005886
#3	5.351326	27.39997	6.662870	25.80567	.0488745	-.005355

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.029815	.1302465	.5218659	5.004383	F 16.10454	.8458030
Stddev	.314937	.0044347	.0006254	.090165	.02550	.0082868
%RSD	3.922095	3.404827	.1198414	1.801717	.1583371	.9797490
#1	8.372770	.1264676	.5223842	4.924618	16.11996	.8367833
#2	7.753592	.1291432	.5211713	5.102212	16.11855	.8530794
#3	7.963083	.1351287	.5220423	4.986318	16.07510	.8475464

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-10 Acquired: 11/08/2024 20:36:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001395	F 374.9593	8.148272	-.004985	.0033515	.0297677
Stddev	.000306	.2366	.071176	.002686	.0017254	.0017303
%RSD	21.91626	.0630982	.8735128	53.88399	51.48336	5.812707
#1	-.001689	375.1543	8.074321	-.001929	.0026865	.0300763
#2	-.001079	375.0274	8.216304	-.006055	.0053104	.0313230
#3	-.001418	374.6961	8.154189	-.006971	.0020575	.0279039

Elem	Sr4077
Units	ppm
Avg	.6621456
Stddev	.0051650
%RSD	.7800366
#1	.6587659
#2	.6680911
#3	.6595798

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1103.009	29156.58	3274.790	1016.175	1729.692
Stddev	2.988	32.50	26.517	2.996	1.955
%RSD	.2708768	.1114700	.8097177	.2948274	.1130214
#1	1105.650	29119.14	3302.785	1015.166	1730.345
#2	1103.610	29173.10	3250.054	1013.814	1731.236
#3	1099.766	29177.50	3271.531	1019.545	1727.494

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-11 Acquired: 11/08/2024 20:40:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0411265	-.001118	.0051271	-.002451	.0004649	13.09617
Stddev	.0080273	.004090	.0036051	.003584	.0026562	.02903
%RSD	19.51863	365.7633	70.31411	146.2305	571.3010	.2216828
#1	.0449777	.003601	.0092089	.000034	-.001193	13.07130
#2	.0465025	-.003322	.0023786	-.000827	-.000941	13.08915
#3	.0318992	-.003634	.0037938	-.006559	.003529	13.12807

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0778569	.0077569	.0015111	234.9496	.0167969	.0195455
Stddev	.0002023	.0001623	.0001508	.2311	.0004486	.0007252
%RSD	.2598863	2.092585	9.977359	.0983647	2.670602	3.710208
#1	.0779358	.0076815	.0015878	234.6844	.0165724	.0189224
#2	.0776270	.0079431	.0016082	235.0565	.0173134	.0193727
#3	.0780080	.0076459	.0013374	235.1078	.0165050	.0203415

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.155704	21.27802	6.637540	19.96774	.0377290	-.003402
Stddev	.008689	.03878	.021960	.14315	.0003483	.000294
%RSD	.4030928	.1822487	.3308432	.7169115	.9231789	8.651446
#1	2.145903	21.29719	6.614569	19.88028	.0375702	-.003687
#2	2.162467	21.30348	6.658325	20.13294	.0374884	-.003099
#3	2.158740	21.23339	6.639724	19.89000	.0381284	-.003419

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.848149	.1028689	.4977743	3.994247	F 12.23178	.6748304
Stddev	.246868	.0068825	.0012894	.084452	.02564	.0036375
%RSD	3.604883	6.690597	.2590266	2.114342	.2095822	.5390171
#1	7.122670	.0957790	.4977058	3.963812	12.21265	.6748363
#2	6.777390	.1095234	.4990966	3.929231	12.26091	.6711900
#3	6.644387	.1033042	.4965206	4.089698	12.22178	.6784649

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-11 Acquired: 11/08/2024 20:40:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001262	F 314.6559	6.144173	-.005705	.0019981	.0220943
Stddev	.000398	.4915	.016291	.001327	.0014824	.0008693
%RSD	31.52104	.1561927	.2651416	23.26728	74.18889	3.934278
#1	-.000855	314.1131	6.155224	-.005544	.0021242	.0223487
#2	-.001649	315.0707	6.125465	-.004466	.0004567	.0211263
#3	-.001280	314.7840	6.151831	-.007106	.0034134	.0228081

Elem	Sr4077
Units	ppm
Avg	.5682934
Stddev	.0019509
%RSD	.3432969
#1	.5660430
#2	.5695078
#3	.5693293

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1060.534	27781.37	3133.236	969.6804	1746.099
Stddev	.950	72.87	3.687	4.1736	1.400
%RSD	.0895971	.2623014	.1176820	.4304147	.0801790
#1	1059.845	27795.10	3132.358	968.1074	1747.715
#2	1061.618	27702.61	3137.283	966.5219	1745.347
#3	1060.139	27846.40	3130.066	974.4120	1745.237

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-12 Acquired: 11/08/2024 20:45:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N6D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0370287	.0001960	.0050054	-.000976	-.001055	13.08193
Stddev	.0052295	.0011481	.0019129	.006114	.004982	.02003
%RSD	14.12281	585.6043	38.21616	626.5127	472.2165	.1530819
#1	.0347423	.0000318	.0067805	-.006898	-.000022	13.07727
#2	.0430120	-.000861	.0052562	.005313	-.006472	13.06465
#3	.0333317	.001417	.0029795	-.001343	.003329	13.10388

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0776932	.0077878	.0014044	233.6114	.0170694	.0196545
Stddev	.0001741	.0001183	.0000505	.7324	.0006621	.0004094
%RSD	.2240428	1.518665	3.593198	.3135301	3.878934	2.082833
#1	.0777787	.0078532	.0013494	233.0740	.0171670	.0194987
#2	.0778080	.0076512	.0014152	233.3146	.0176773	.0193459
#3	.0774930	.0078589	.0014486	234.4457	.0163639	.0201189

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.144522	21.05730	6.630606	19.77657	.0375504	-.003265
Stddev	.016626	.01614	.001022	.05395	.0002447	.000152
%RSD	.7752568	.0766429	.0154082	.2728090	.6515440	4.666246
#1	2.155371	21.07193	6.631035	19.71894	.0376292	-.003264
#2	2.125382	21.05998	6.631343	19.78488	.0372760	-.003418
#3	2.152815	21.03999	6.629439	19.82588	.0377459	-.003114

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.866107	.1045519	.4919099	4.084220	F 12.13594	.6766739
Stddev	.148579	.0163317	.0021760	.033290	.02771	.0046657
%RSD	2.163947	15.62067	.4423497	.8150980	.2283666	.6894972
#1	7.029089	.1153294	.4944040	4.074128	12.10450	.6744341
#2	6.831021	.0857613	.4903992	4.057144	12.14648	.6735504
#3	6.738211	.1125650	.4909265	4.121389	12.15684	.6820371

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-12 Acquired: 11/08/2024 20:45:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N6D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001063	F 312.4308	6.155390	-.006844	.0025378	.0219745
Stddev	.000152	.3638	.014378	.000176	.0022088	.0006087
%RSD	14.27022	.1164313	.2335833	2.577565	87.03711	2.769891
#1	-.000917	312.0990	6.143781	-.006660	.0041054	.0222689
#2	-.001051	312.3737	6.150915	-.007012	.0034962	.0223800
#3	-.001220	312.8197	6.171473	-.006860	.0000116	.0212746

Elem	Sr4077
Units	ppm
Avg	.5661102
Stddev	.0005004
%RSD	.0883924
#1	.5656451
#2	.5660458
#3	.5666396

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1061.635	27895.34	3125.867	974.1418	1751.675
Stddev	1.257	15.05	3.858	3.1721	.517
%RSD	.1184097	.0539535	.1234100	.3256326	.0295108
#1	1060.282	27911.29	3128.461	970.7611	1751.099
#2	1062.766	27881.38	3127.706	974.6113	1752.100
#3	1061.857	27893.34	3121.434	977.0530	1751.825

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-13 Acquired: 11/08/2024 20:49:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N6S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1255512	.0917106	.0408816	.1437832	.1506050	16.17610
Stddev	.0048748	.0005325	.0055077	.0035653	.0012508	.03448
%RSD	3.882687	.5806630	13.47234	2.479666	.8304910	.2131290
#1	.1215040	.0919598	.0371825	.1468314	.1501301	16.17870
#2	.1309628	.0910991	.0382511	.1446555	.1520236	16.14039
#3	.1241868	.0920728	.0472114	.1398626	.1496612	16.20920

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.477205	.0942646	.0970093	232.0090	.3798943	.9738699
Stddev	.002227	.0007416	.0004237	.8647	.0006389	.0017118
%RSD	.0640325	.7866891	.4367628	.3726907	.1681851	.1757747
#1	3.474645	.0944788	.0970677	232.3855	.3801458	.9718943
#2	3.478695	.0934394	.0965595	231.0199	.3791679	.9748019
#3	3.478274	.0948754	.0974008	232.6215	.3803693	.9749134

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.539025	22.79058	7.402918	19.62369	.9981310	.0783657
Stddev	.012525	.07038	.015042	.29171	.0010482	.0003667
%RSD	.4932929	.3088200	.2031913	1.486499	.1050128	.4679853
#1	2.525010	22.77483	7.418738	19.79969	.9970395	.0785281
#2	2.542942	22.72941	7.388799	19.28697	.9982238	.0779458
#3	2.549123	22.86751	7.401217	19.78441	.9991296	.0786232

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.968652	.9894135	1.281337	4.060334	F 12.14858	.6766939
Stddev	.241994	.0094165	.005078	.105585	.02787	.0018977
%RSD	3.472615	.9517270	.3962759	2.600402	.2294415	.2804440
#1	7.245290	.9997544	1.276269	4.039983	12.11701	.6783171
#2	6.796204	.9813327	1.286424	3.966405	12.15892	.6746074
#3	6.864461	.9871533	1.281319	4.174612	12.16981	.6771571

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: P4623-13 Acquired: 11/08/2024 20:49:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH6N6S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001416	F 312.8529	6.114120	-.006883	.0015798	.0232842
Stddev	.000382	.2970	.026880	.001115	.0020566	.0011010
%RSD	26.94098	.0949426	.4396399	16.20584	130.1850	4.728680
#1	-.001172	312.5101	6.135563	-.008097	.0033897	.0245549
#2	-.001221	313.0346	6.083964	-.006648	-.000657	.0226845
#3	-.001856	313.0141	6.122832	-.005904	.002006	.0226133

Elem	Sr4077
Units	ppm
Avg	.5606219
Stddev	.0008818
%RSD	.1572944
#1	.5602270
#2	.5600065
#3	.5616321

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1060.130	27968.93	3134.324	972.9412	1748.940
Stddev	2.495	18.91	14.478	3.8304	2.786
%RSD	.2353763	.0676107	.4619037	.3936971	.1592949
#1	1060.764	27981.21	3122.660	976.4908	1751.763
#2	1062.247	27978.43	3150.528	968.8811	1748.865
#3	1057.379	27947.15	3129.785	973.4516	1746.193

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCV036 Acquired: 11/08/2024 20:53:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV036 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.165763	4.749292	24.59677	4.704580	4.858409	404.4406
Stddev	.032291	.008250	.04263	.020112	.011477	.5291
%RSD	.6250891	.1737031	.1733198	.4275009	.2362199	.1308143
#1	5.141026	4.749506	24.56743	4.710115	4.871415	404.0110
#2	5.202293	4.740938	24.57720	4.721344	4.854105	405.0316
#3	5.153971	4.757433	24.64567	4.682279	4.849705	404.2792

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.952003	.5029477	2.486824	407.2876	15.21764	2.490241
Stddev	.007817	.0009130	.006206	.9421	.03010	.005235
%RSD	.0785472	.1815347	.2495413	.2313228	.1978235	.2102130
#1	9.944188	.5023938	2.481983	406.4205	15.19280	2.488774
#2	9.959822	.5040015	2.484670	408.2901	15.25112	2.485897
#3	9.952000	.5024478	2.493820	407.1522	15.20901	2.496053

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.86653	412.6633	14.62467	411.5945	2.476250	1.251587
Stddev	.01679	.9905	.04399	1.1561	.005203	.007411
%RSD	.1129392	.2400332	.3008139	.2808870	.2101033	.5921358
#1	14.88499	411.5283	14.60247	410.6564	2.470274	1.243681
#2	14.86245	413.1086	14.67534	412.8861	2.478705	1.258376
#3	14.85216	413.3531	14.59620	411.2409	2.479771	1.252705

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	403.2357	2.461028	14.89974	152.5748	4.930349	5.008917
Stddev	.5500	.018251	.04411	.2552	.007920	.018787
%RSD	.1363896	.7416040	.2960127	.1672798	.1606305	.3750807
#1	402.6838	2.439954	14.86046	152.2896	4.922306	5.012417
#2	403.7837	2.471524	14.89131	152.6530	4.930601	5.025708
#3	403.2395	2.471607	14.94745	152.7817	4.938139	4.988625

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCV036 Acquired: 11/08/2024 20:53:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV036 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.760416	F 5.513512	5.028132	4.974988	4.947386	5.037502
Stddev	.004452	.034162	.021087	.017820	.011052	.008791
%RSD	.0935150	.6196111	.4193845	.3582012	.2233942	.1745068
#1	4.764095	5.548440	5.030589	4.966838	4.940266	5.027546
#2	4.755468	5.511924	5.047884	4.962700	4.960119	5.040762
#3	4.761685	5.480171	5.005924	4.995426	4.941775	5.044196

Elem	Sr4077
Units	ppm
Avg	4.960914
Stddev	.005433
%RSD	.1095234
#1	4.956675
#2	4.959027
#3	4.967039

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	769.5835	22121.54	2593.122	682.4097	1432.610
Stddev	.1813	71.50	9.204	1.2825	2.718
%RSD	.0235645	.3232156	.3549295	.1879366	.1897257
#1	769.6911	22203.43	2594.092	683.6281	1434.365
#2	769.6853	22071.46	2583.471	682.5294	1433.985
#3	769.3742	22089.75	2601.802	681.0715	1429.479

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCB036 Acquired: 11/08/2024 20:58:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB036 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054433	.0031932	.0041867	-.000397	-.002732	.0126171
Stddev	.0180651	.0026720	.0014684	.000845	.000677	.0089313
%RSD	331.8812	83.67828	35.07375	213.0222	24.77480	70.78734
#1	.0128214	.0003560	.0055418	-.000533	-.002038	.0161486
#2	.0186515	.0056617	.0026265	.000508	-.002767	.0192426
#3	-.015143	.0035619	.0043918	-.001166	-.003391	.0024600

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006249	.0000187	.0001894	.0098072	.0007834	.0005125
Stddev	.0008884	.0000202	.0000347	.0236749	.0008772	.0005694
%RSD	142.1812	108.4660	18.31995	241.4034	111.9743	111.0986
#1	.0000312	.0000118	.0001592	.0170315	.0003207	-.000081
#2	.0016463	.0000414	.0001817	-.016638	.0017950	.001054
#3	.0001971	.0000027	.0002273	.029028	.0002343	.000565

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032843	.0494225	.0006826	.1100423	.0002134	.0009237
Stddev	.0062933	.0281177	.0007916	.0546159	.0008977	.0006442
%RSD	191.6193	56.89264	115.9706	49.63172	420.6942	69.74621
#1	.0060271	.0788128	-.000172	.0555524	-.000534	.0002908
#2	-.003915	.0227790	.000830	.1097912	-.000035	.0009015
#3	.007741	.0466756	.001390	.1647833	.001209	.0015787

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.292697	-.006587	.0002096	-.100500	-.001244	.0093576
Stddev	.315488	.007753	.0004582	.047714	.001821	.0006894
%RSD	107.7867	117.7071	218.5973	47.47667	146.3842	7.366762
#1	-.174613	-.014513	.0004517	-.068750	-.000021	.0089663
#2	-.053284	.000982	.0004959	-.077381	-.000374	.0101536
#3	-.650193	-.006230	-.000319	-.155370	-.003337	.0089529

Reviewed By:jaswal
On:11/12/2024 3:09:59 AM
Inst Id :P5

Sample Name: CCB036 Acquired: 11/08/2024 20:58:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v712) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB036 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002422	F .1989309	.0012475	.0022219	.0031416	.0030772
Stddev	.0004874	.0187244	.0004744	.0001789	.0012555	.0012580
%RSD	201.2852	9.412534	38.02351	8.053632	39.96318	40.88338
#1	-.000301	.2192133	.0016665	.0023391	.0035191	.0016598
#2	.000642	.1952762	.0007325	.0020159	.0017407	.0040615
#3	.000385	.1823033	.0013436	.0023107	.0041651	.0035102

Elem	Sr4077
Units	ppm
Avg	.0002439
Stddev	.0000706
%RSD	28.93392
#1	.0001690
#2	.0002534
#3	.0003092

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	957.7707	24528.88	2726.486	874.7163	1896.578
Stddev	1.1765	12.33	15.066	1.0147	2.326
%RSD	.1228331	.0502780	.5525706	.1159992	.1226612
#1	957.9427	24539.88	2735.168	875.3988	1897.889
#2	956.5177	24515.55	2709.089	875.1997	1893.892
#3	958.8517	24531.20	2735.200	873.5503	1897.952

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : P4483

Test : Metals CLP Full

Prepbatch ID : PB164443,

Sequence ID/Qc Batch ID: LB133197,LB133378,

Standard ID :

MP81119,MP82127,MP82441,MP82442,MP82443,MP82444,MP82445,MP82446,MP82450,MP82451,MP82452,MP82453,MP82455,MP82456,MP82631,MP82632,MP82711,MP82731,MP83134,MP83136,MP83137,MP83138,MP83139,MP83140,MP83141,MP83142,MP83143,MP83144,MP83145,MP83146,MP83148,MP83149,

Chemical ID :

M4960,M5130,M5192,M5218,M5223,M5288,M5289,M5295,M5296,M5390,M5394,M5395,M5429,M5467,M5473,M5476,M5498,M5513,M5515,M5519,M5634,M5658,M5697,M5698,M5747,M5748,M5751,M5768,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5814,M5815,M5816,M5817,M5818,M5819,M5820,M5875,M5935,M5960,M5961,M5962,M5970,M5976,M5978,M5982,M5984,M5985,M5990,M5999,M6021,M6023,M6025,M6028,M6030,M6033,M6037,M6040,M6097,M6111,M6117,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
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

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

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Metals STANDARD PREPARATION LOG

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	10/31/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 10/07/2024

FROM 0.00300ml of M6028 + 0.03000ml of M5798 + 0.05000ml of M5515 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6033 + 0.06000ml of M5747 + 0.10000ml of M5697 + 0.10000ml of M5698 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M5982 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5819 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5467 + 0.25000ml of M5802 + 0.50000ml of M5390 + 0.50000ml of M5814 + 1.00000ml of M5192 + 1.00000ml of M5288 + 1.00000ml of M5498 + 1.00000ml of M5769 + 1.00000ml of M5806 + 1.00000ml of M5978 + 2.00000ml of M5816 + 2.00000ml of M5818 + 77.68000ml of MP82441 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
921	ICPAES SPIKE SOL#6	MP82731	10/04/2024	10/31/2024	Sarabjit Jaswal	METALS_SCALE_2 (M SC-2)	METALS_PIPETTE_3 (A)	Mohan Bera 10/08/2024

FROM 2.50000ml of M5962 + 50.00000ml of M5990 + 50.00000ml of M5999 + 147.50000ml of MP82441 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83134	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 125.00000ml of M6111 + 2350.00000ml of W3112 + 25.00000ml of M6117 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2480	ICP AES STD 6 ISM01.3	MP83136	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 4.00000ml of M5289 + 4.00000ml of M5498 + 4.00000ml of M5515 + 4.00000ml of M5768 + 4.00000ml of M5806 + 30.00000ml of MP83134 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1004	ICPAES ISM01.2 (S5)	MP83137	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 0.25000ml of M5798 + 0.50000ml of M5429 + 0.50000ml of M5476 + 0.50000ml of M5815 + 0.50000ml of M5817 + 12.50000ml of M5519 + 12.50000ml of M5698 + 12.50000ml of M5806 + 12.50000ml of M5819 + 13.75000ml of M5751 + 14.50000ml of M5515 + 14.50000ml of M5658 + 14.50000ml of M6033 + 2.00000ml of M5513 + 22.50000ml of M5498 + 22.50000ml of M5768 + 5.00000ml of M5296 + 5.00000ml of M5395 + 5.00000ml of M5802 + 5.00000ml of M5818 + 5.00000ml of M5875 + 303.50000ml of MP83134 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1005	ICPAES ISM01.2(S4)	MP83138	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 250.00000ml of MP83134 + 250.00000ml of MP83137 = Final Quantity: 500.000 ml

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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)	MP83139	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 25.00000ml of MP83137 + 75.00000ml of MP83134 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1008	ICPAES ISM01.2(S2)	MP83140	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 12.50000ml of MP83137 + 87.50000ml of MP83134 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
994	ICPAES ISM01.2 S1 (CONC.)	MP83141	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 0.02000ml of M5815 + 0.03000ml of M5429 + 0.10000ml of M5798 + 0.10000ml of M6028 + 0.14000ml of M5799 + 0.20000ml of M5476 + 0.20000ml of M5515 + 0.20000ml of M5658 + 0.20000ml of M5801 + 0.20000ml of M5817 + 0.20000ml of M5976 + 0.20000ml of M6025 + 0.20000ml of M6030 + 0.30000ml of M5698 + 0.40000ml of M6033 + 0.50000ml of M5751 + 0.50000ml of M6023 + 0.70000ml of M5962 + 0.80000ml of M5960 + 1.00000ml of M5800 + 1.00000ml of M6021 + 1.20000ml of M5802 + 1.20000ml of M5819 + 10.00000ml of M5498 + 10.00000ml of M5519 + 10.00000ml of M5768 + 10.00000ml of M5806 + 10.00000ml of M5818 + 2.00000ml of M5978 + 4.00000ml of M5390 + 34.24000ml of MP83134 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1003	ICPAES ISM01.2 S1	MP83142	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 0.50000ml of MP83141 + 99.50000ml of MP83134 = Final Quantity: 100.000 ml

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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	MP83143	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 0.50000ml of M5218 + 0.50000ml of M5816 + 0.50000ml of M5820 + 0.50000ml of M5970 + 0.50000ml of M5982 + 10.00000ml of M5295 + 87.50000ml of MP83134 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP83144	10/30/2024	11/19/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 25.00000ml of M5130 + 225.00000ml of MP83134 = Final Quantity: 250.000 ml

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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	MP83145	10/30/2024	11/19/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 25.00000ml of M5130 + 25.00000ml of M5223 + 200.00000ml of MP83134 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1119	ICPAES ISM01.2(CCV)	MP83146	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 0.75000ml of M5498 + 0.75000ml of M5768 + 1.22500ml of M6033 + 1.25000ml of M5515 + 1.25000ml of M5806 + 19.77500ml of MP83134 + 25.00000ml of MP83137 = 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	MP83148	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 1.00000ml of M5984 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6117 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP83149	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 200.00000ml of M6117 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	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 #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	01/30/2024 / bin	09/19/2022 / bin	M5395

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/29/2025	03/16/2023 / jaswal	03/16/2023 / jaswal	M5473

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/09/2025	07/29/2024 / jaswal	03/16/2023 / jaswal	M5476

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	061522	06/15/2025	03/19/2023 / bin	03/17/2023 / bin	M5513

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	02/03/2025	04/18/2024 / jaswal	08/03/2022 / Al-Terek	M5634

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

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

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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.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

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

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

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

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

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

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

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

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

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

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	12/08/2024	06/21/2024 / Al-Terek	06/07/2024 / Al-Terek	M5935

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/03/2024 / kareem	06/11/2024 / kareem	M5960

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

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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	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-SPK-5 / CLP Spike Standard 5	V2-MEB742037	03/12/2029	10/04/2024 / Jaswal	02/22/2024 / Jaswal	M5990

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	06/12/2027	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	01/25/2019 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

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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	10/24/2024 / Janvi	09/21/2024 / Janvi	M6097

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22F0762009	05/09/2027	11/04/2024 / Eman	09/29/2024 / Janvi	M6111

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24B1362001	05/06/2025	11/06/2024 / Janvi	09/29/2024 / Eman	M6117

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

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

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R: 02/22/24 M5986 M5987, M5988, M5989-M5990

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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-SPK-5
Lot Number:	V2-MEB742037
Matrix:	5% (v/v) HNO_3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Selenium, Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.7 µg/mL	Arsenic, As	40.00 ± 0.26 µg/mL
Cadmium, Cd	49.99 ± 0.22 µg/mL	Lead, Pb	19.99 ± 0.09 µg/mL
Selenium, Se	50.00 ± 0.23 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

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

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6028

R 8/5/24

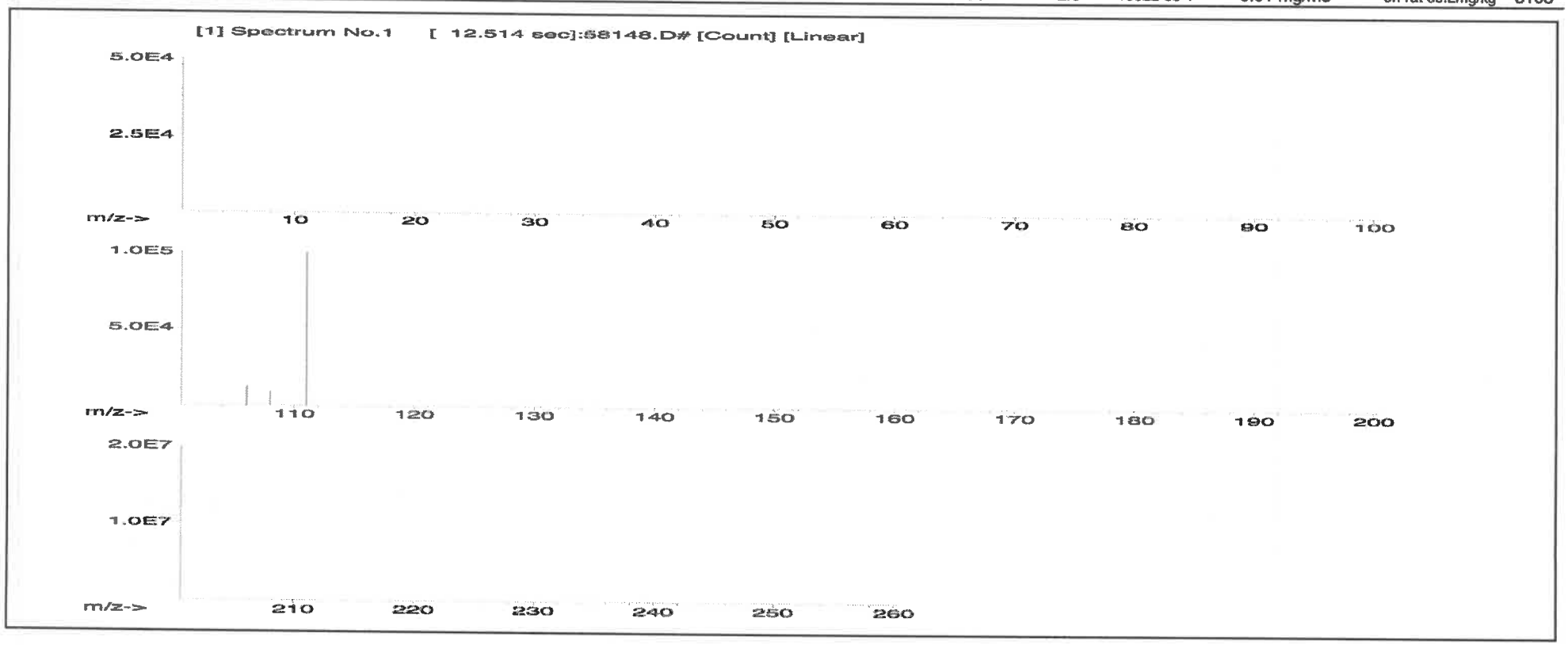
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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
Pedro Rentas		
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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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:	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

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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"

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

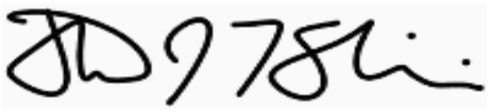
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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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

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- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 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

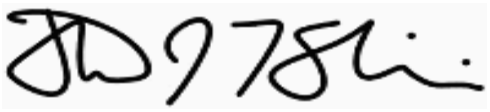
- Sealed TCT Bag Open Date: _____

- 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

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:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

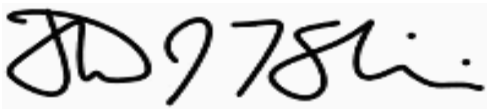
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

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

R: 8/5/24

CERTIFIED WEIGHT REPORT:

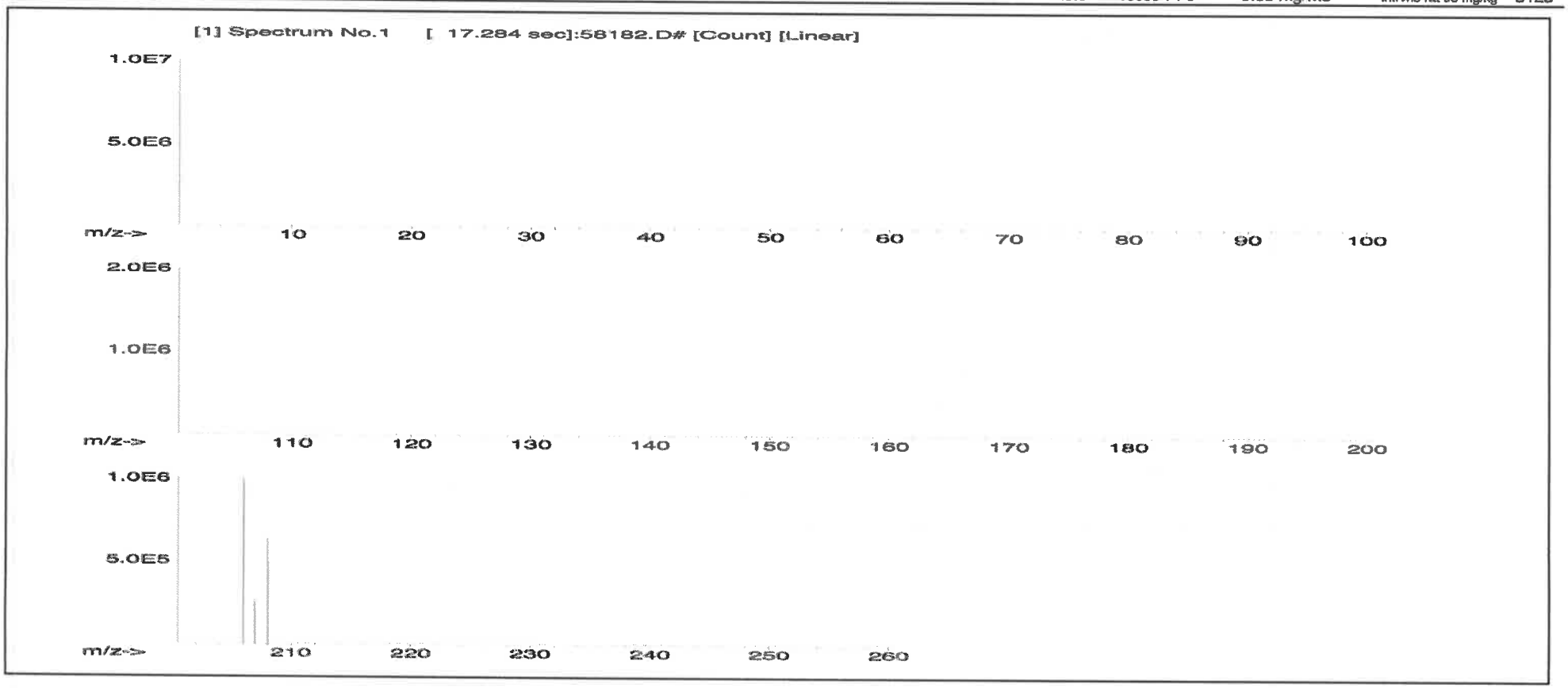
Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

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

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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

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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

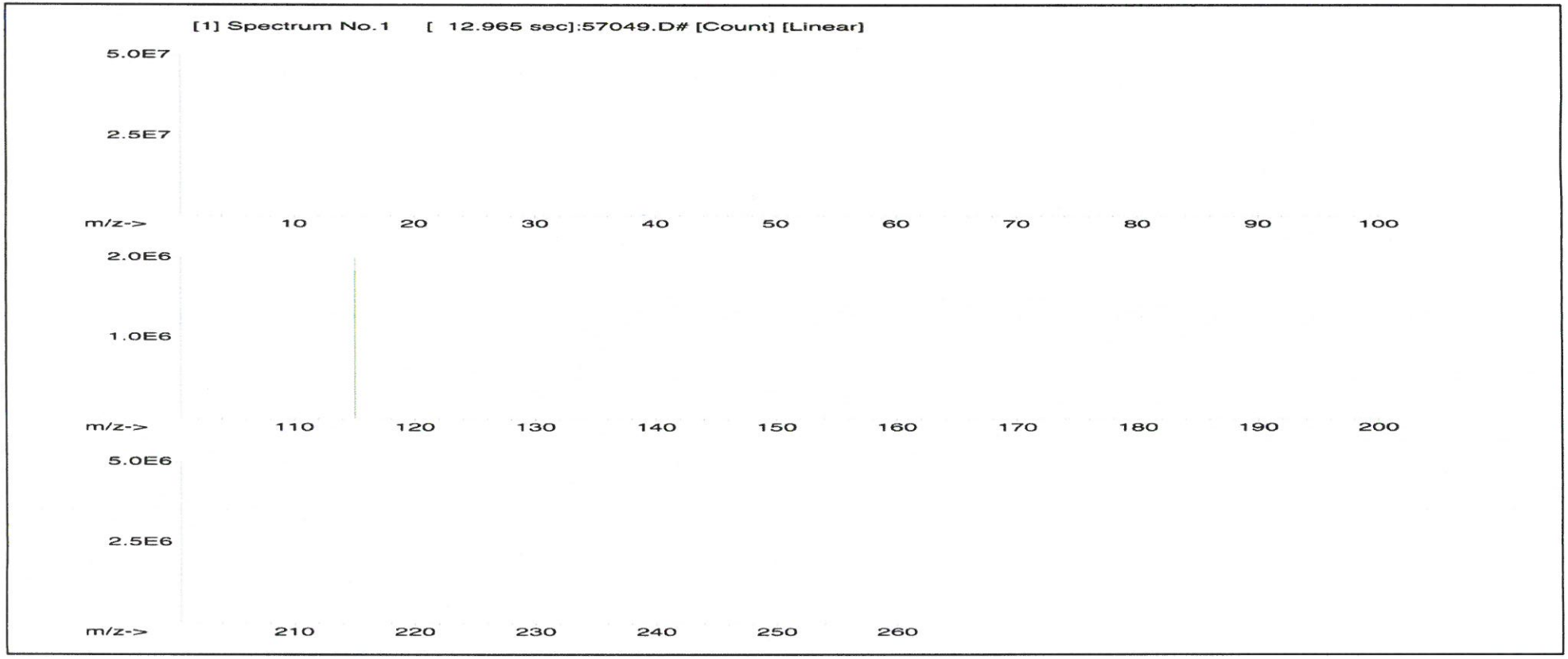
Weight shown below was diluted to (mL): 500.06 0.058 Flask Uncertainty

		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).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

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Certified Reference Material CRM

M5192 R: 06/17/22

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

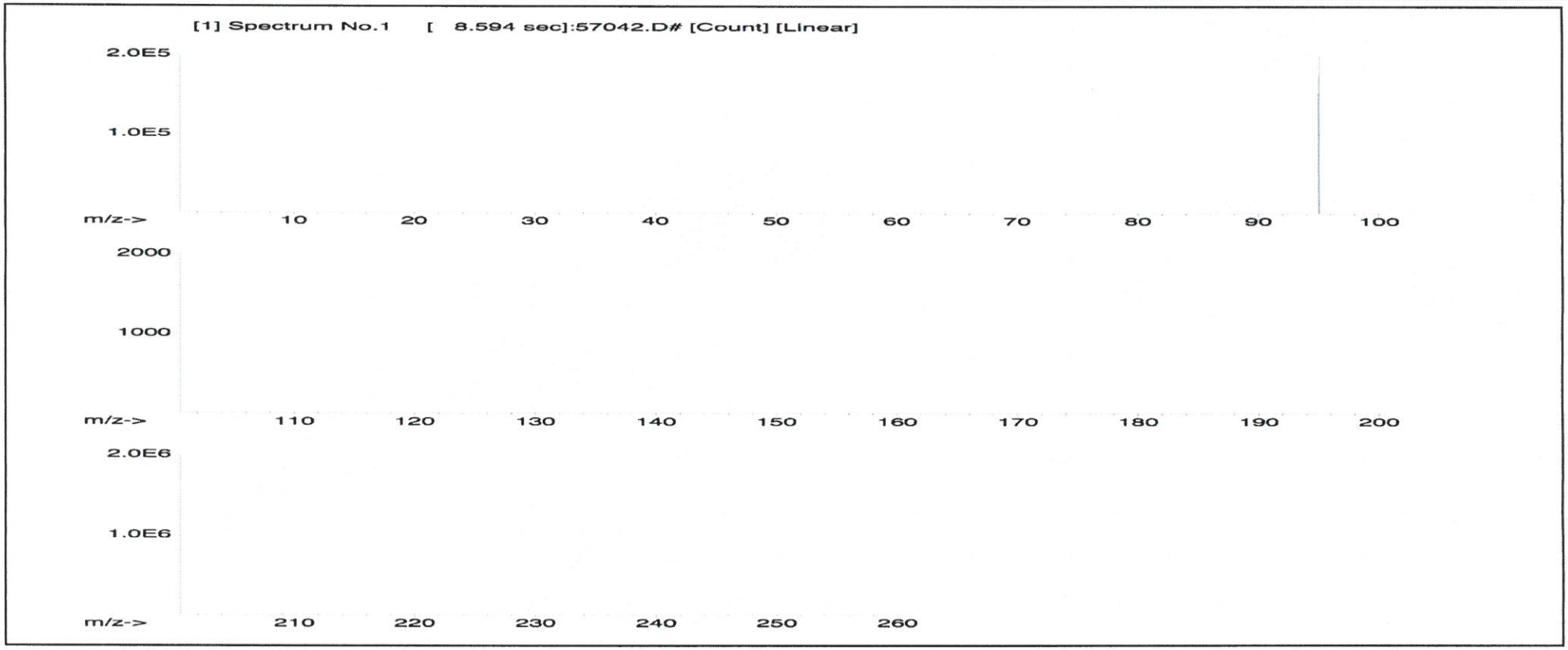
Part Number: 57042
Lot Number: 051722
Description: Molybdenum (Mo)
Expiration Date: 051725
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 3000.41

Lot #	Solvent:		
MKBQ8597V	Ammonium hydroxide		
0.5%	15.0 (mL)	Ammonium hydroxide	
	5E-05	Balance Uncertainty	
	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

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

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

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

V15200 R: 04/24/22 (BP)

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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

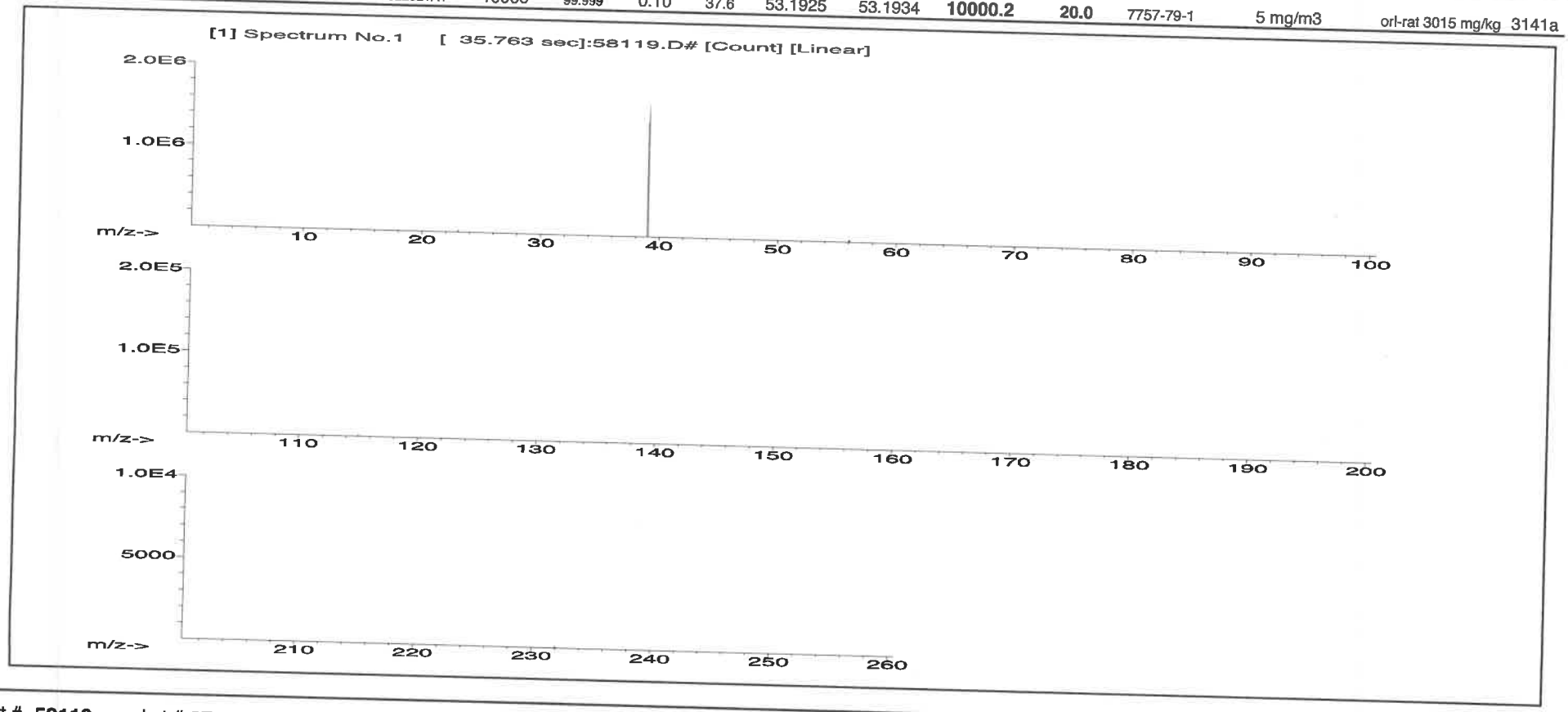
Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	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

Certified Reference Material CRM

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CERTIFIED WEIGHT REPORT:

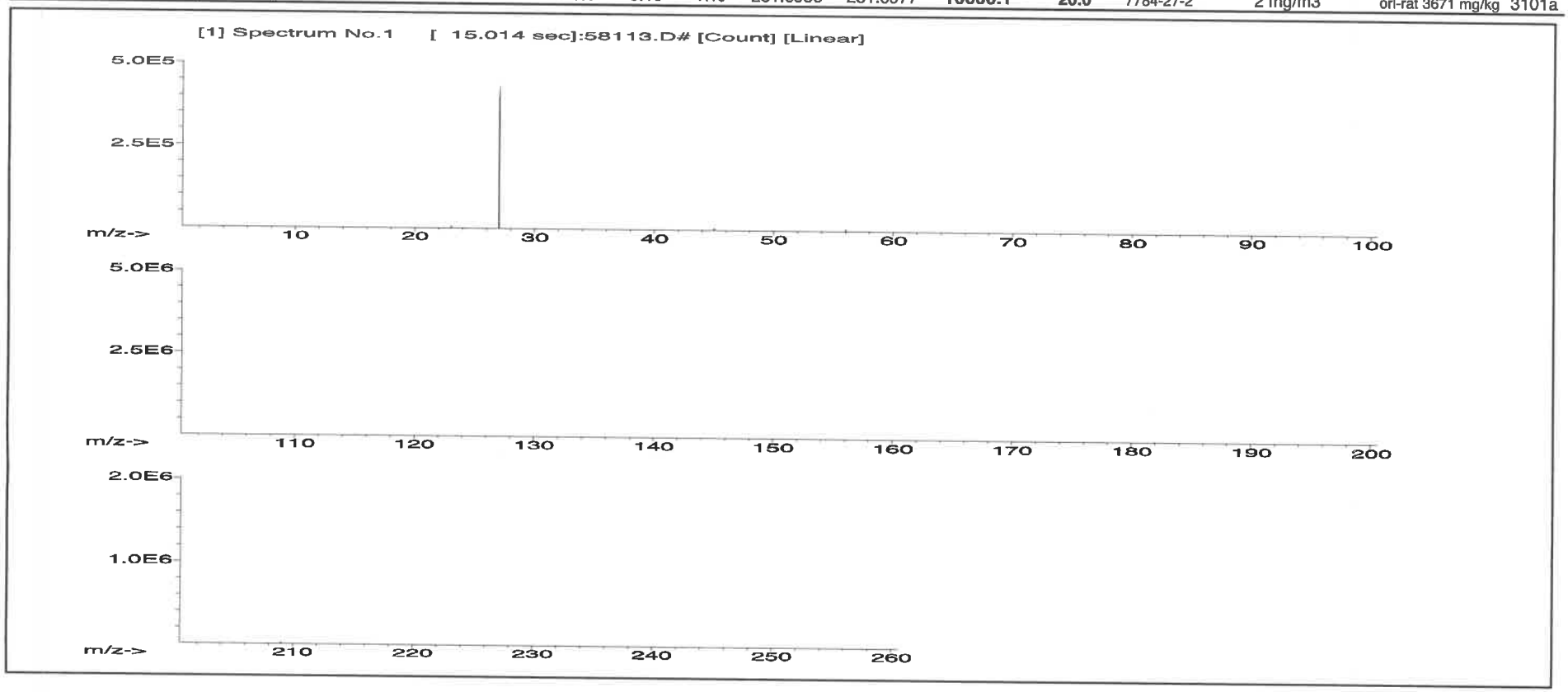
Part Number: 58113
Lot Number: 070622
Description: Aluminum (Al)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20370011	Nitric Acid	
2%	40.0 (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. 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

Absolute Standards, Inc.
800-368-1131
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R: 09/08/22 (BH)

Certified Reference Material CRM

M5387 . M5389 . M5390 . M5391 . M5392

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

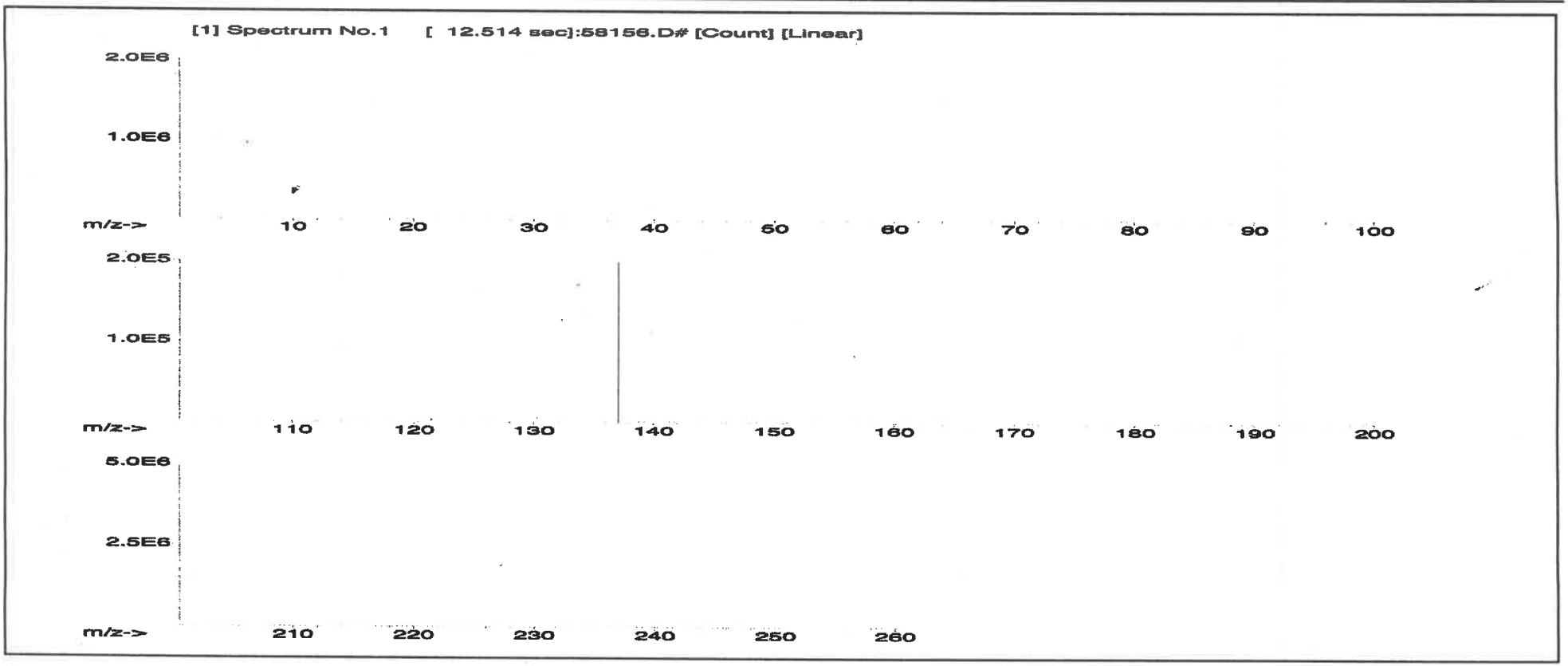
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**072122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	072125				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	2.0	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 | 0.058 Flask Uncertainty

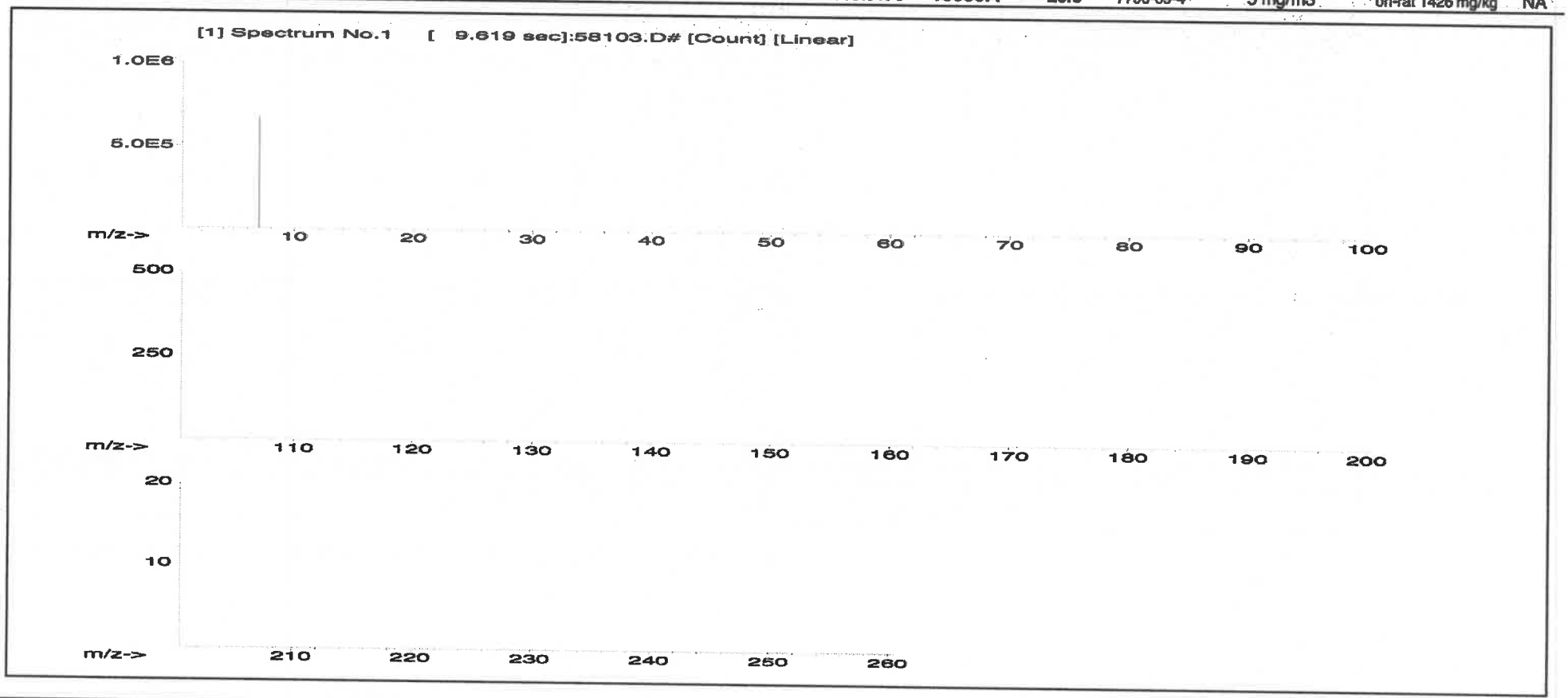
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By: Lawrence Barry 070622

Reviewed By: Pedro L. Rentas 070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. 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).
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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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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

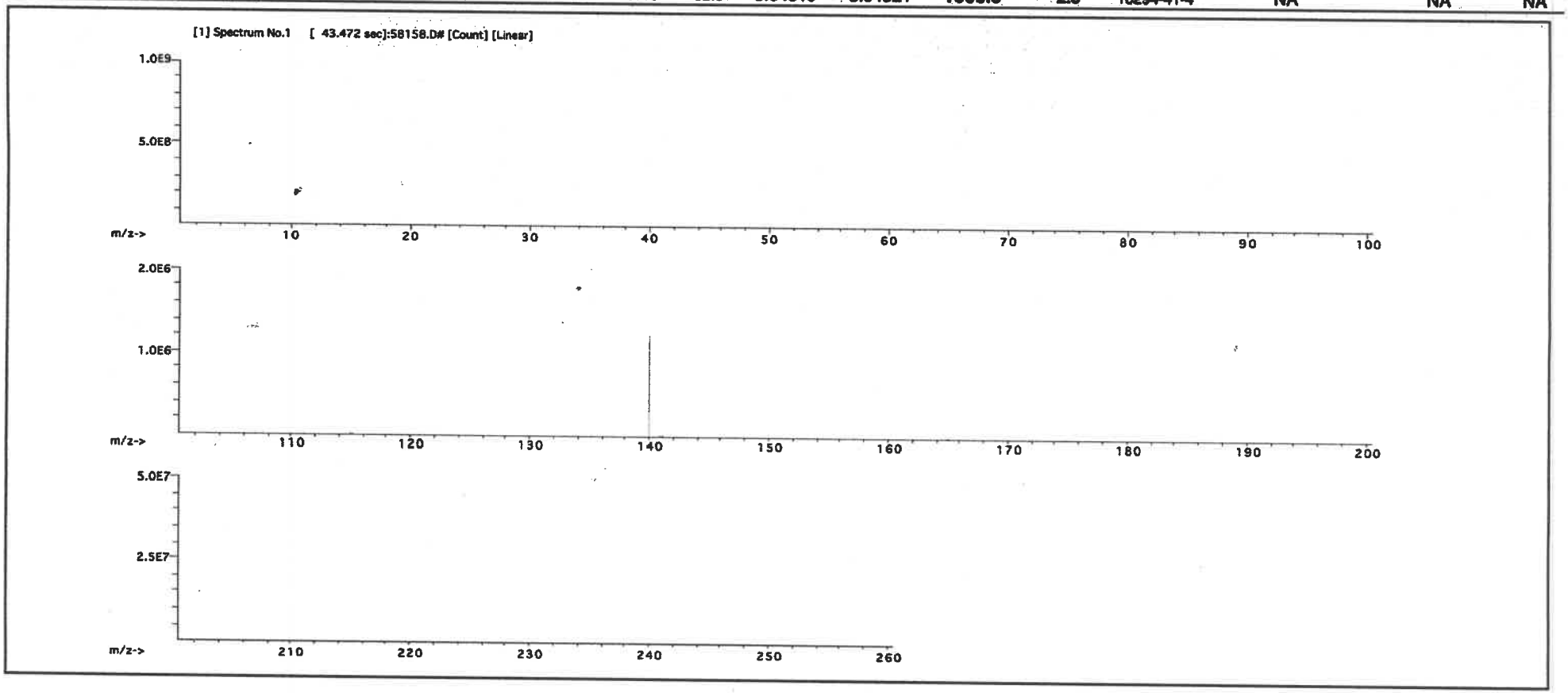
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		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.

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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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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

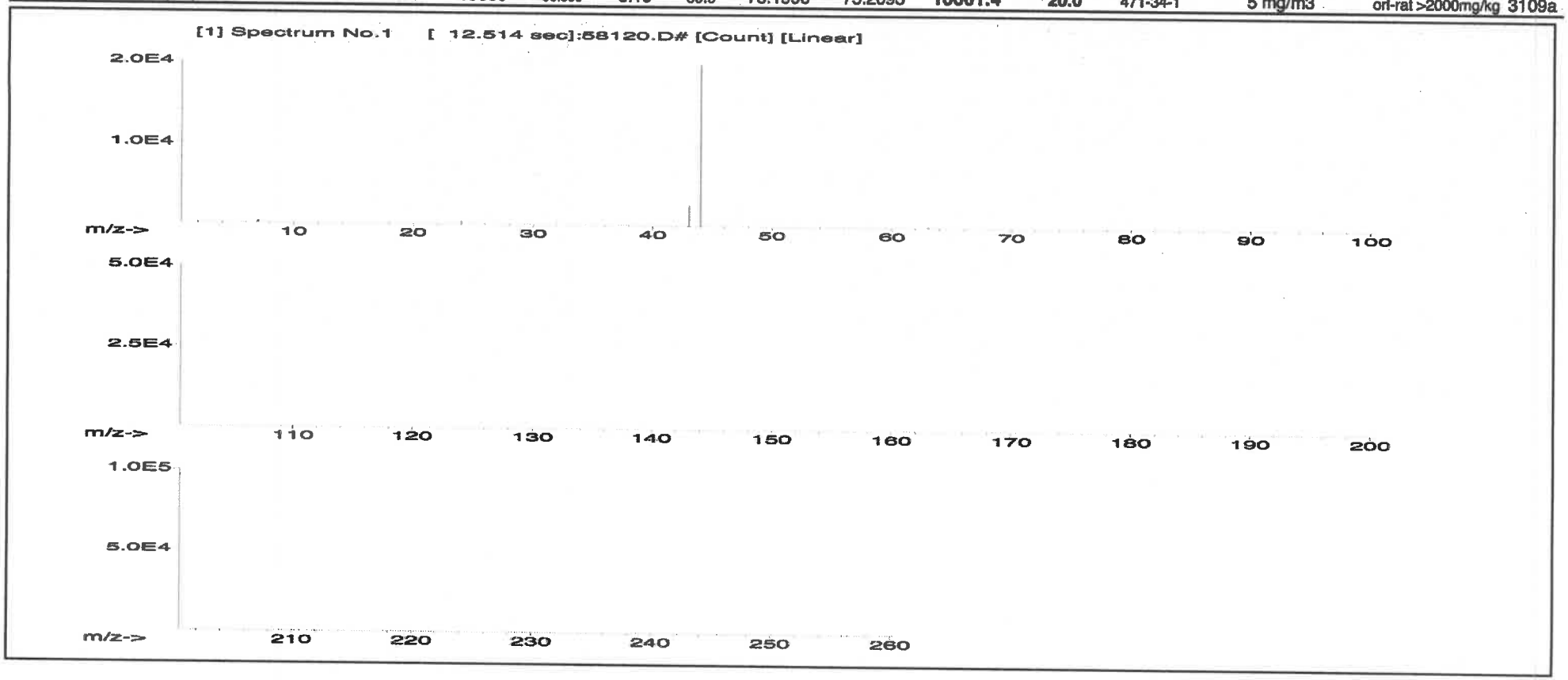
		Lot #	
Solvent:	21110221		Nitric Acid
	2%	60.0 (mL)	Nitric Acid

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.

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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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M 5513 R: 03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

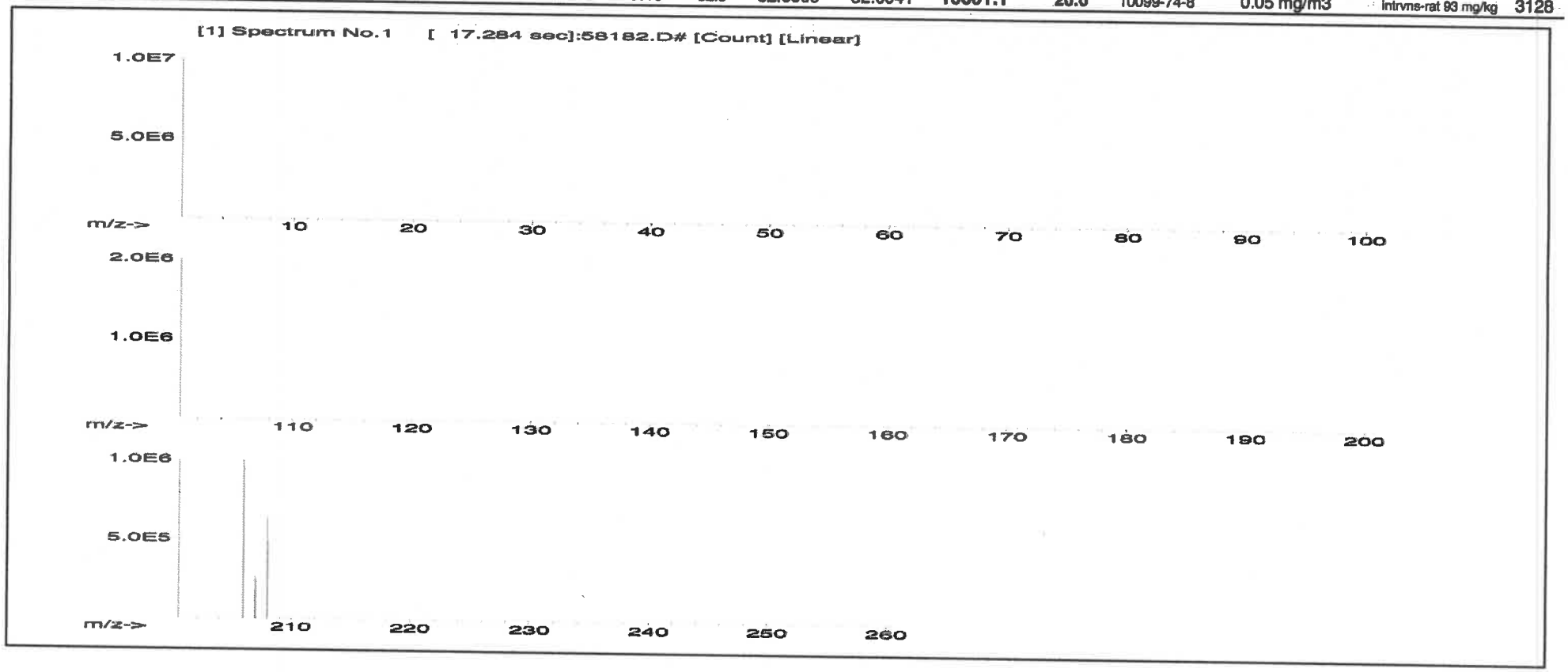
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	061522
Reviewed By:	Pedro L. Rentas	061522

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



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

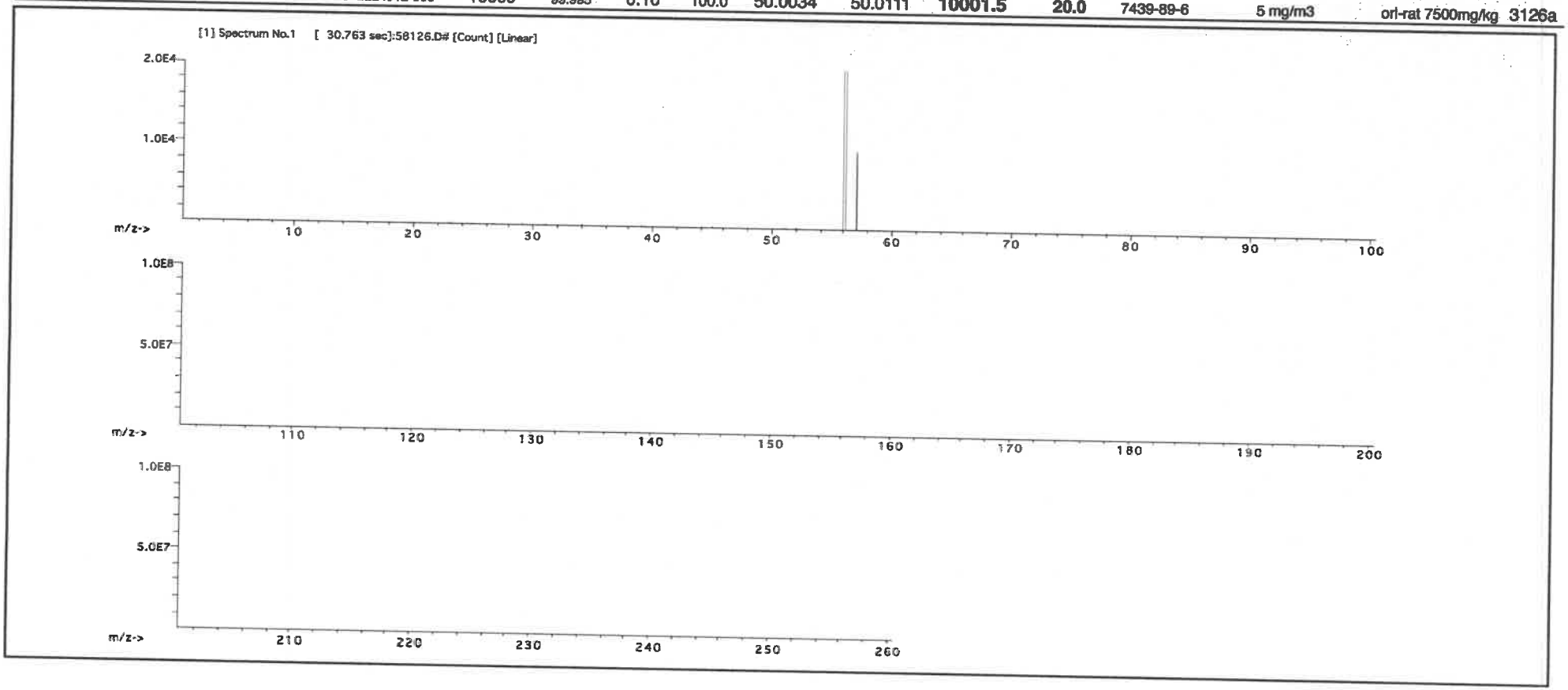
	Lot #		
Solvent:	20510011	Nitric Acid	
7.0%	350.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	092122
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.
* 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 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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M5519. M5520 (BH) R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

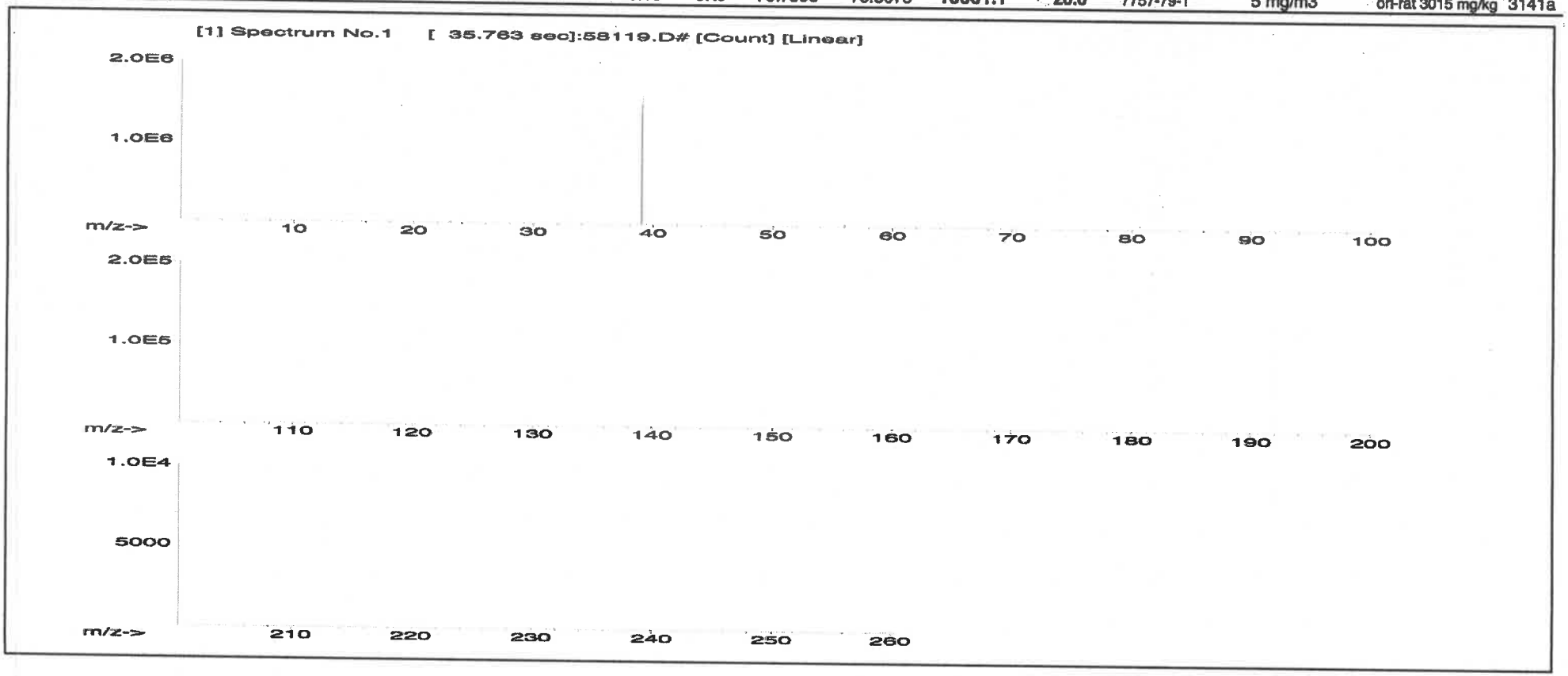
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



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.
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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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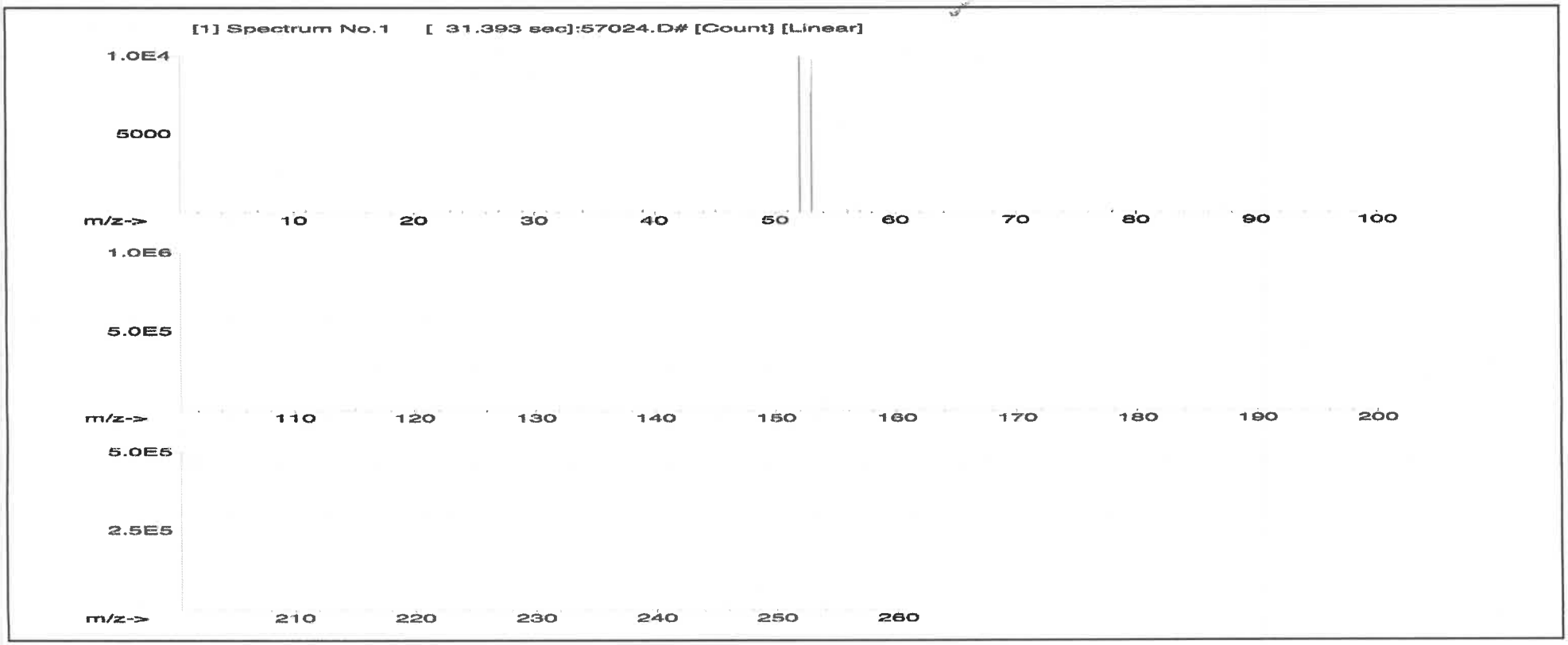
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5697 R: 10/27/23

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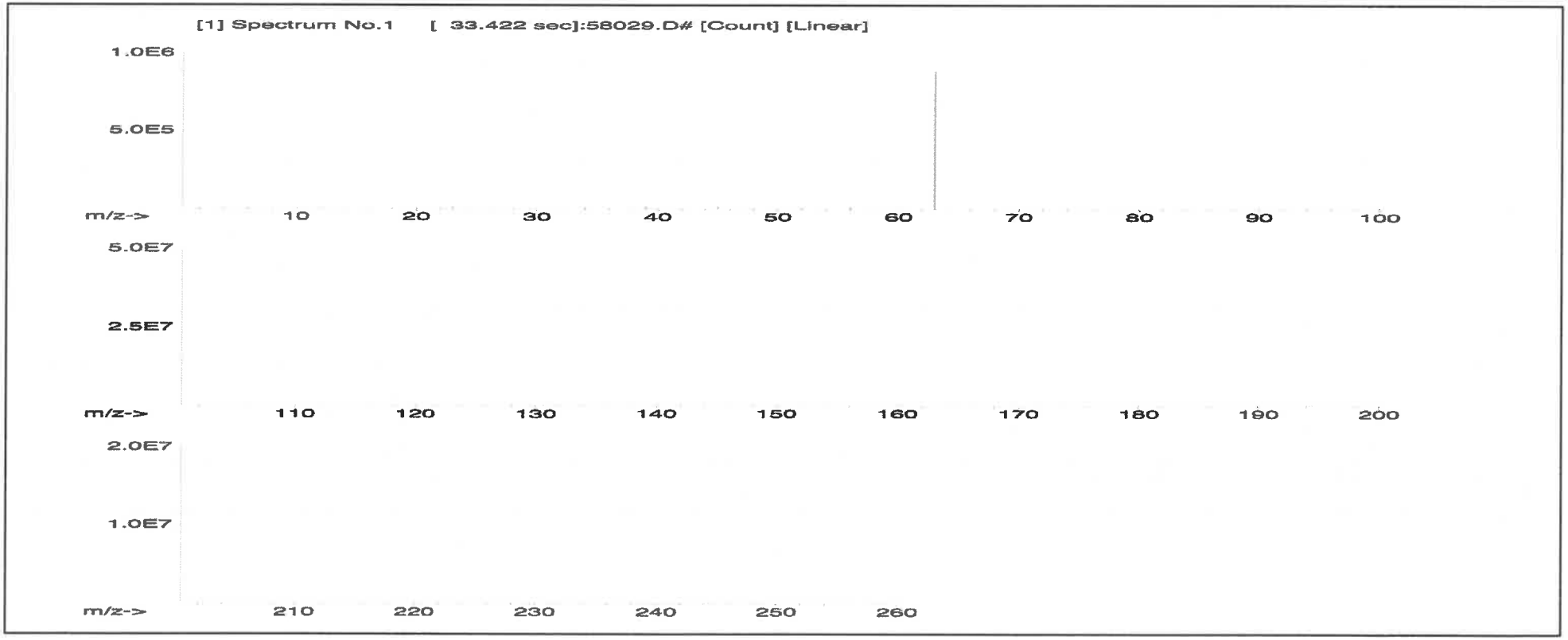
CERTIFIED WEIGHT REPORT:

		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:

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M5648 R: 10/27/23

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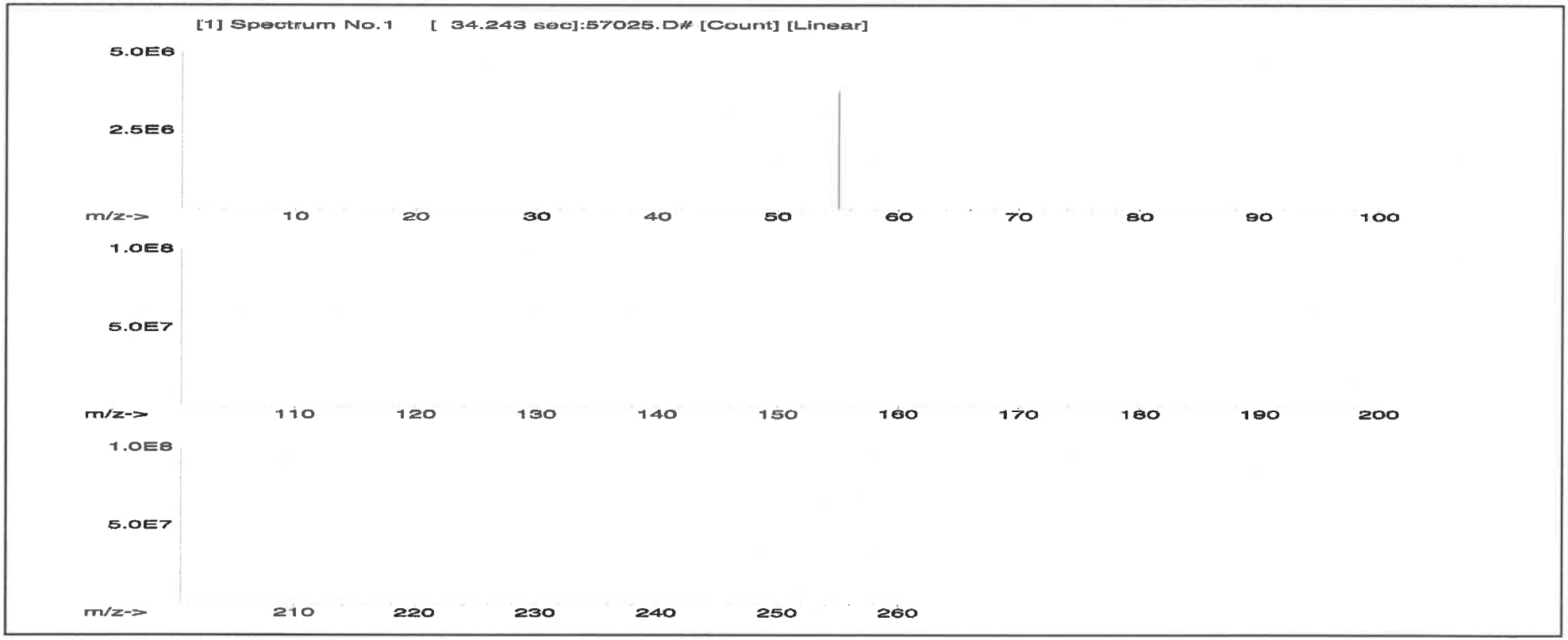
CERTIFIED WEIGHT REPORT:

		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:

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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

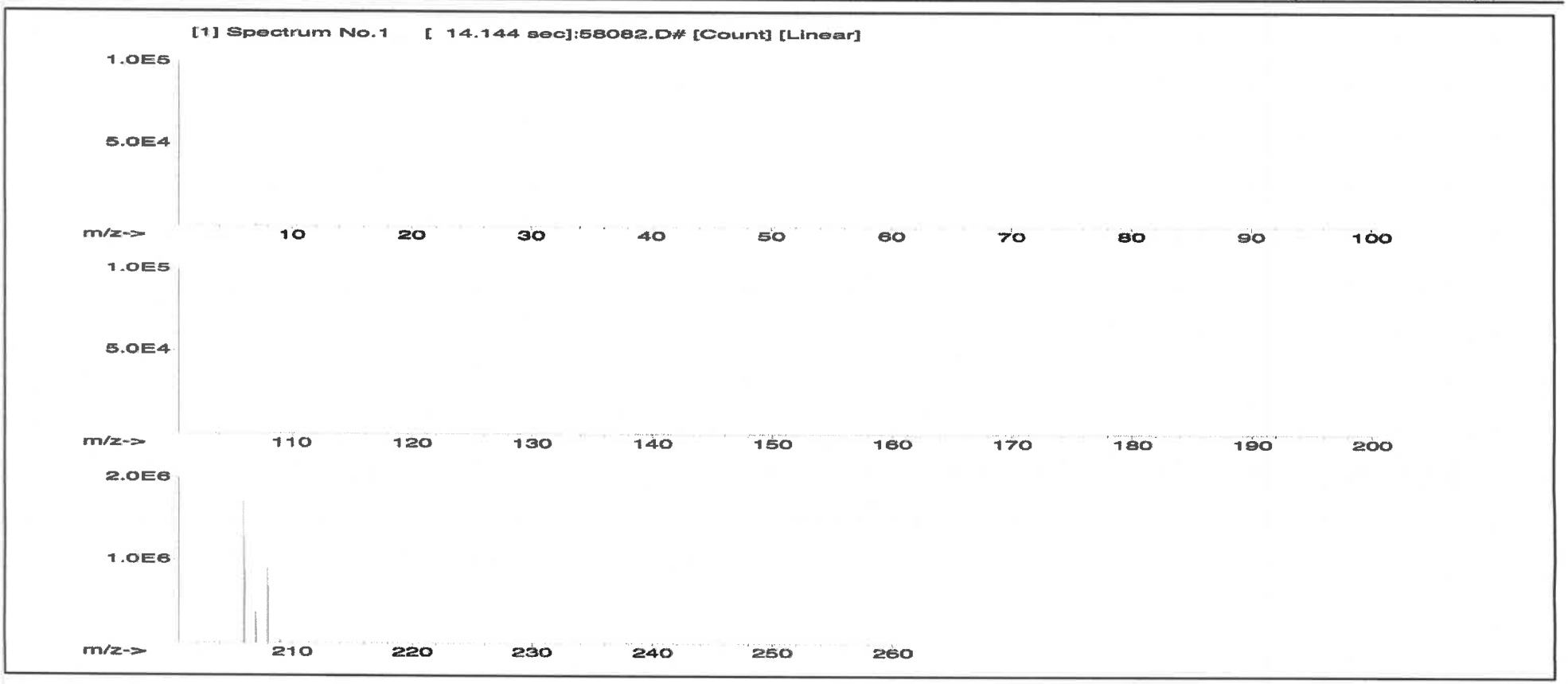
Weight shown below was diluted to (mL): 3000.41 ± 0.06 Flask Uncertainty

	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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R: 12/20/23 M5748

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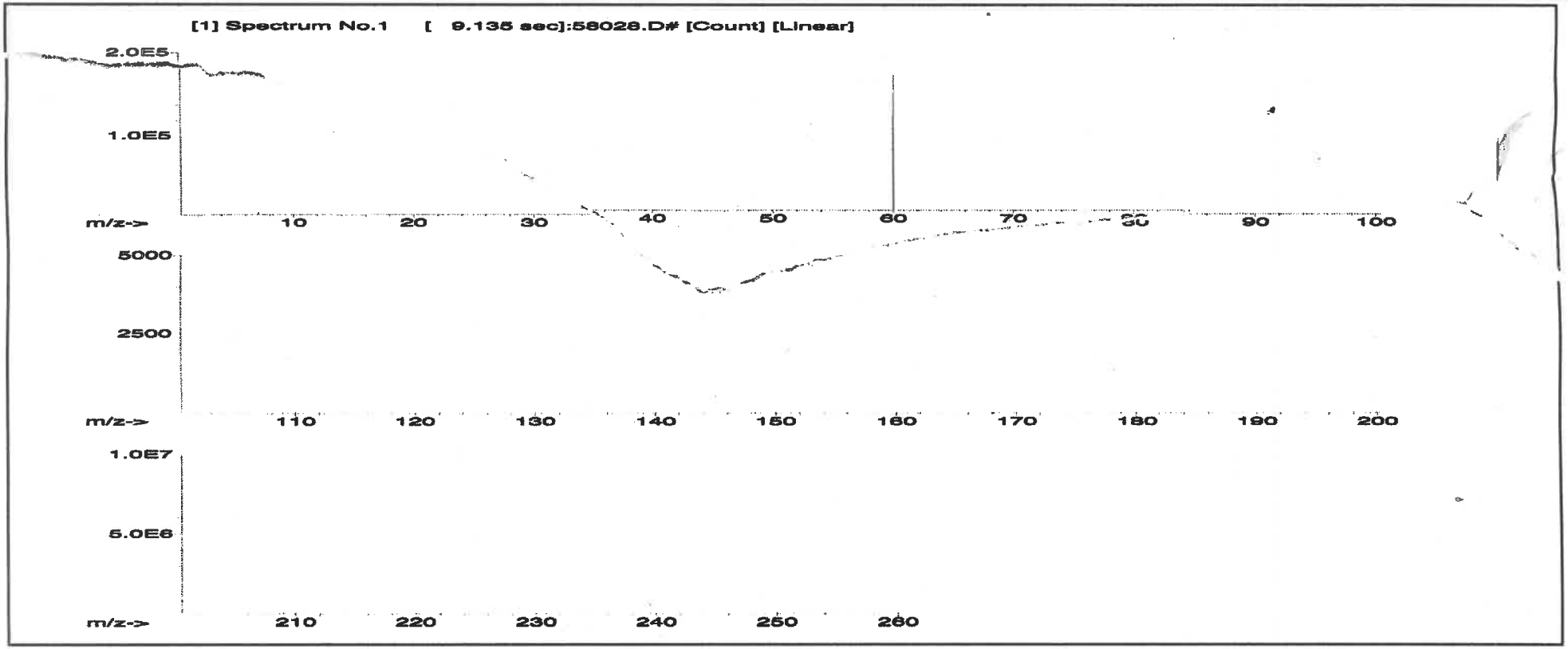
CERTIFIED WEIGHT REPORT:

		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.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 8/25/23 M5751

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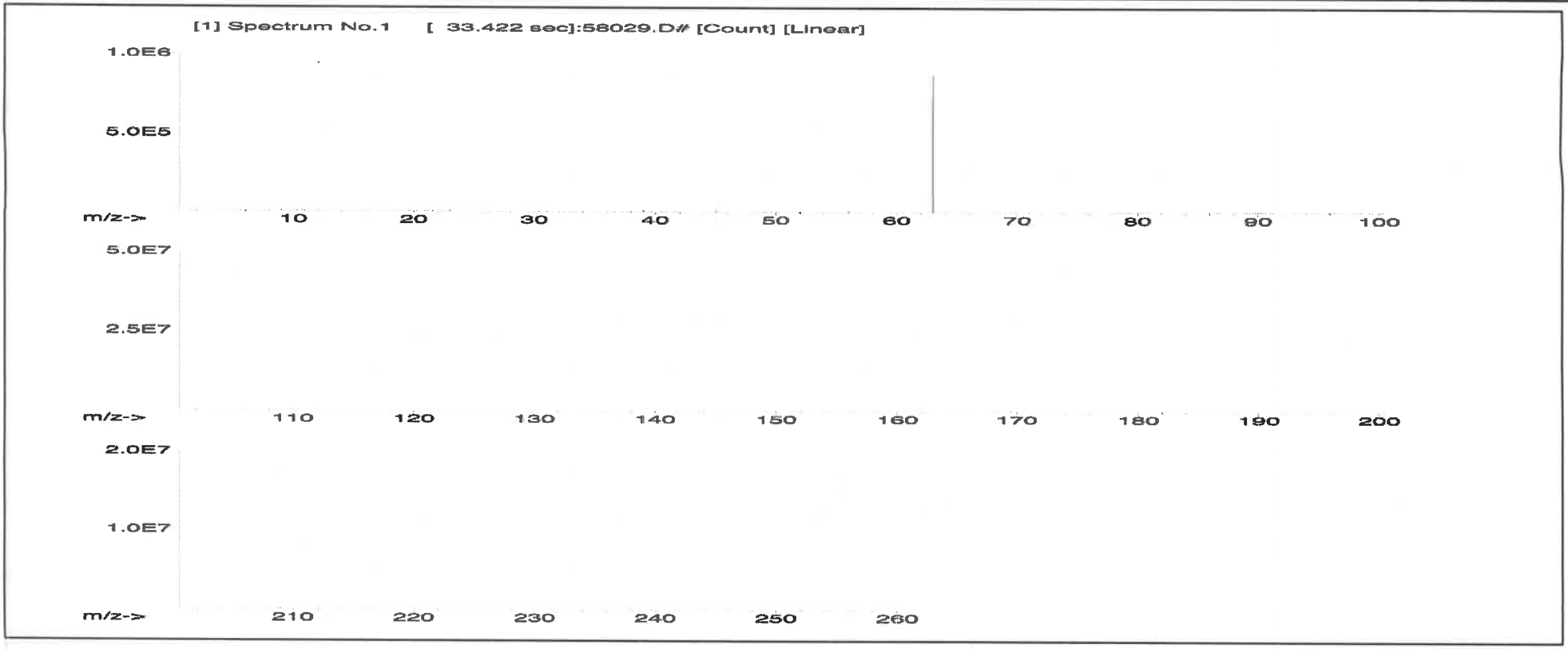
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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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

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

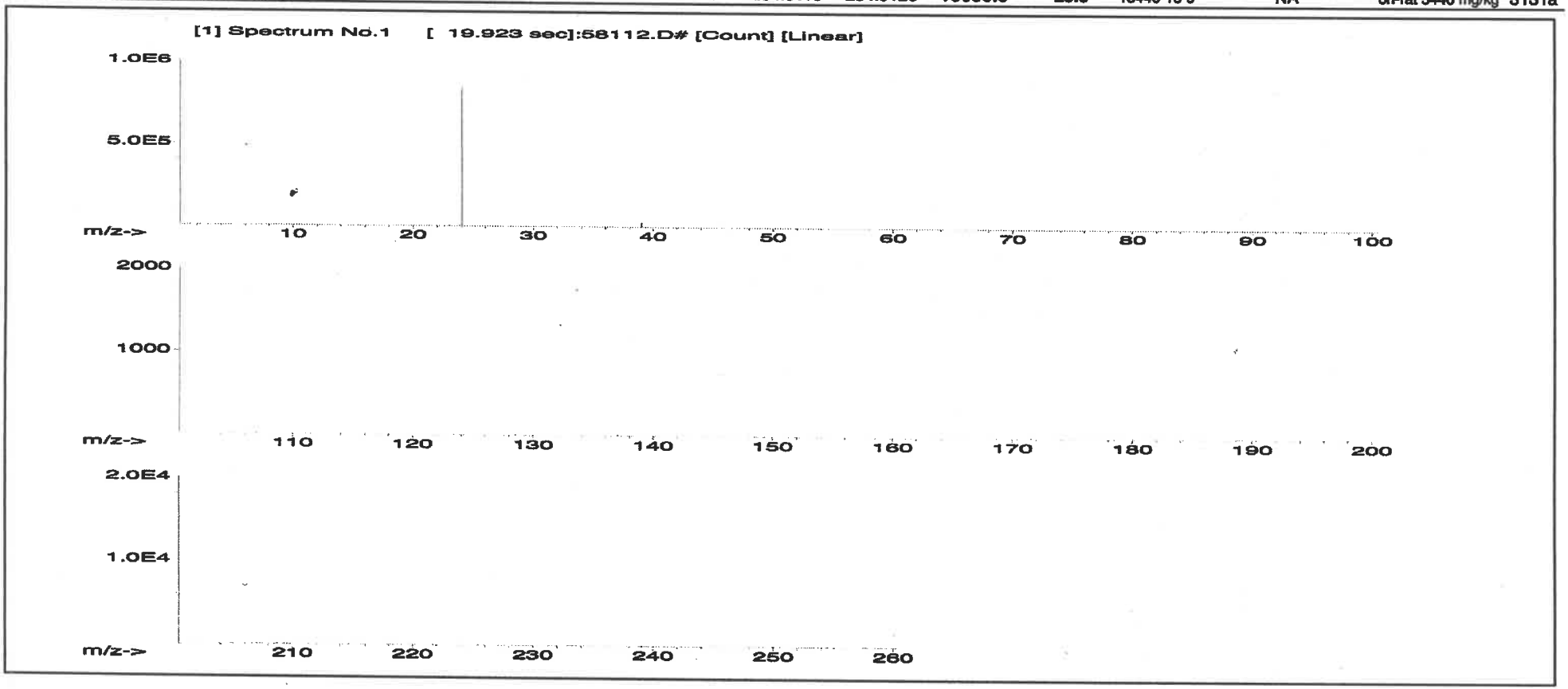
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

M5768, M5769 (BP) R: 1/3/24

Formulated By:	Lawrence Barry	091823
Reviewed By:	Pedro L. Rentas	091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	orl-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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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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

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

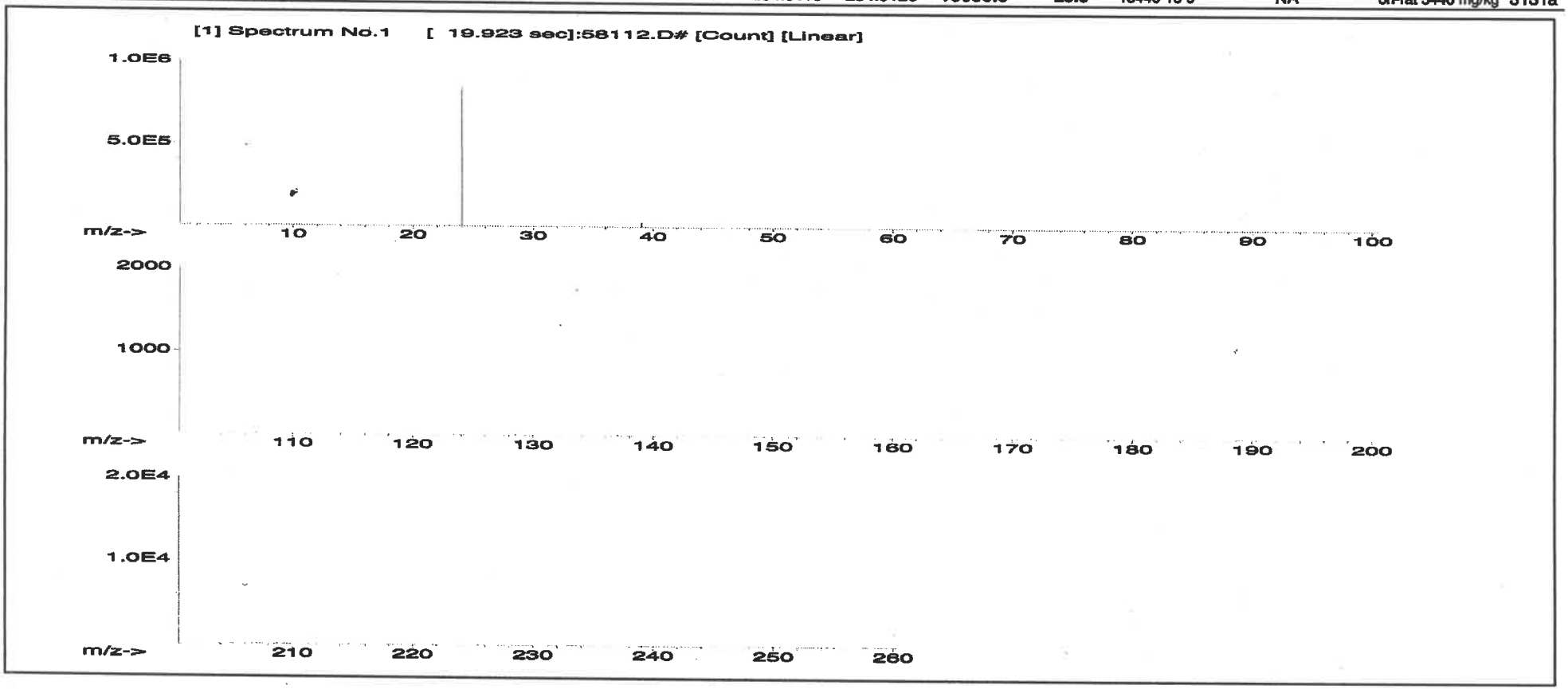
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

M5768, M5769 (BP) R: 1/3/24

Formulated By:	Lawrence Barry	091823
Reviewed By:	Pedro L. Rentas	091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	orl-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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R: 02/09/24 M5798

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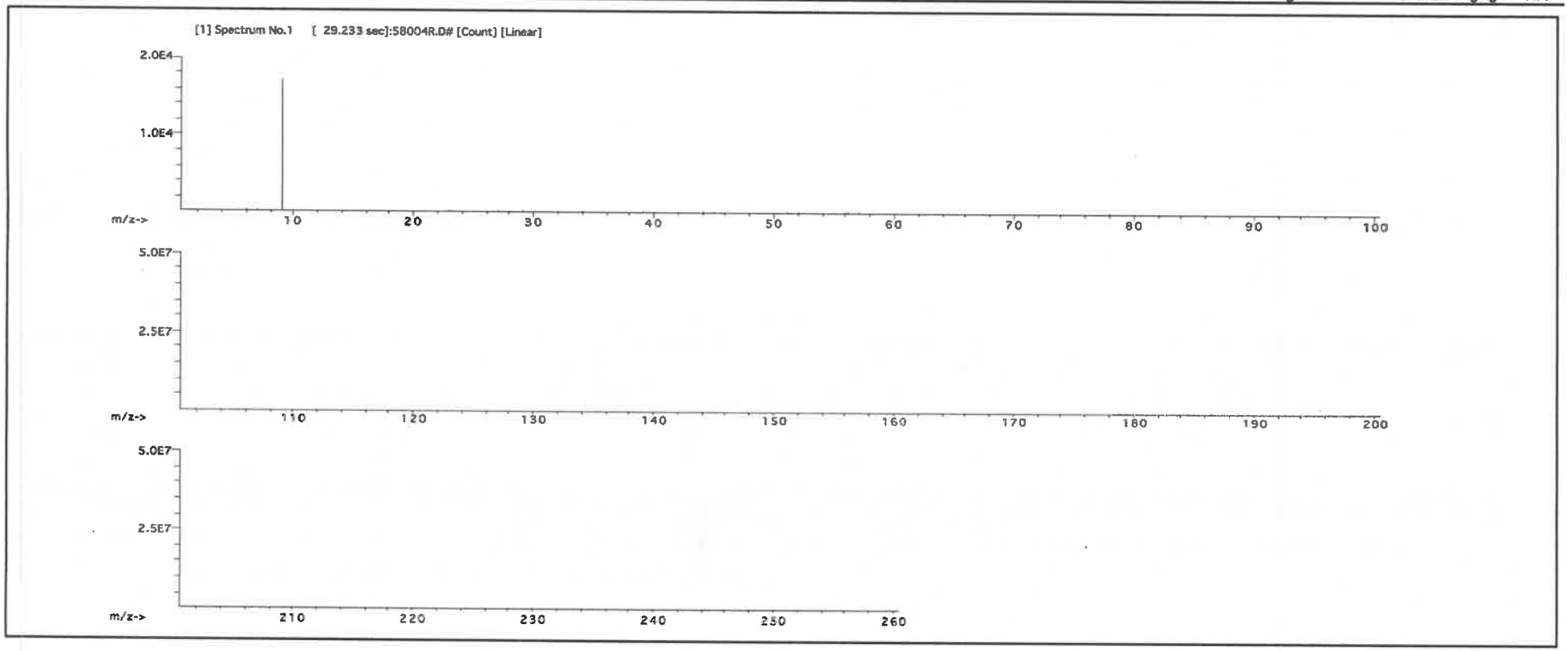
CERTIFIED WEIGHT REPORT:

		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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R? 02/09/24 IV15799

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

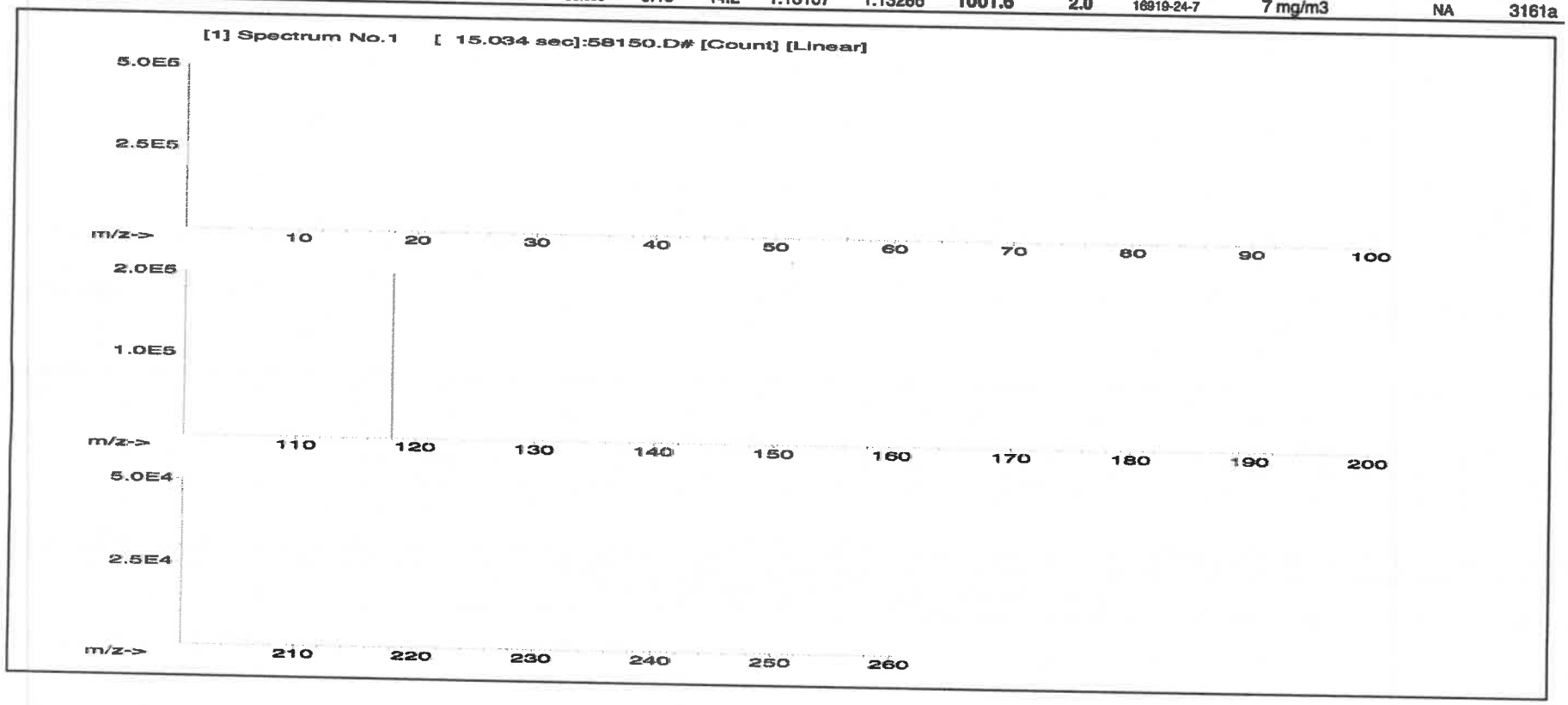
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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:

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R: 02/09/24 IM5800 BH

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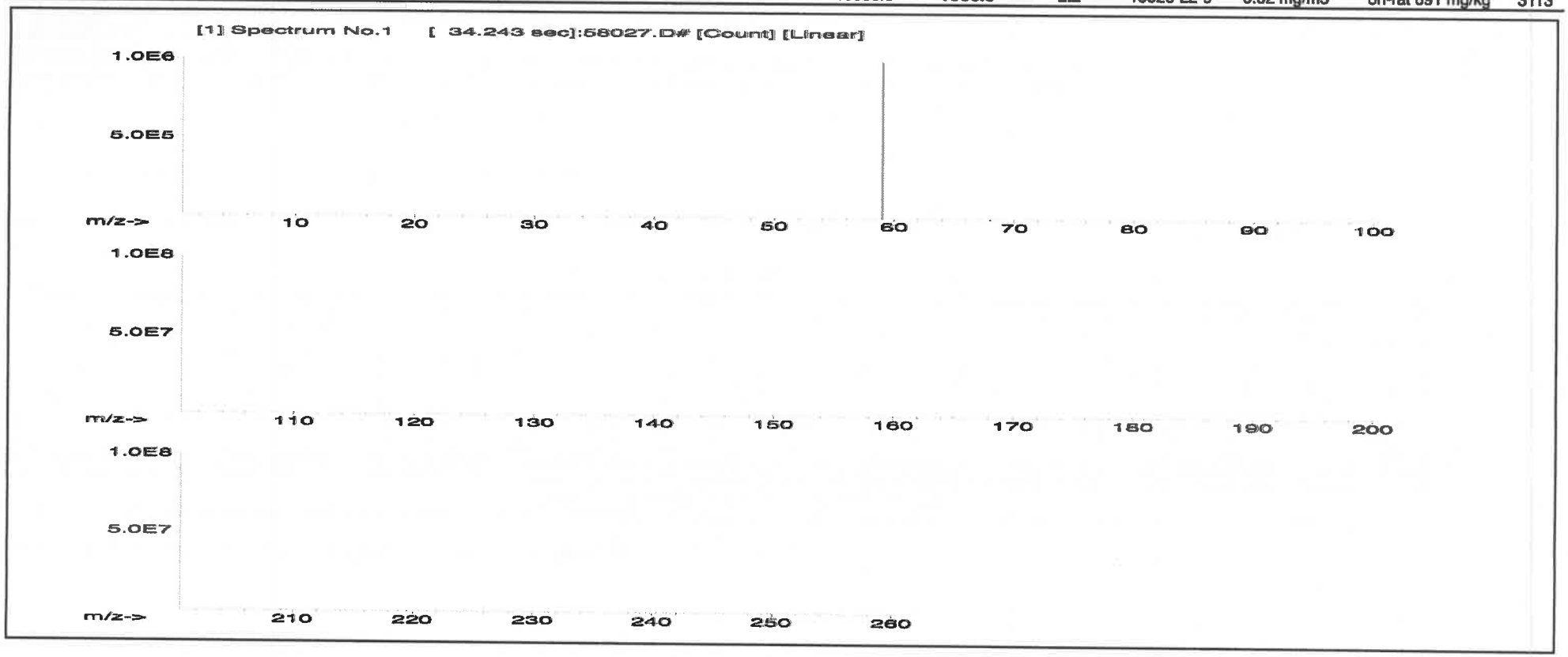
CERTIFIED WEIGHT REPORT:

		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.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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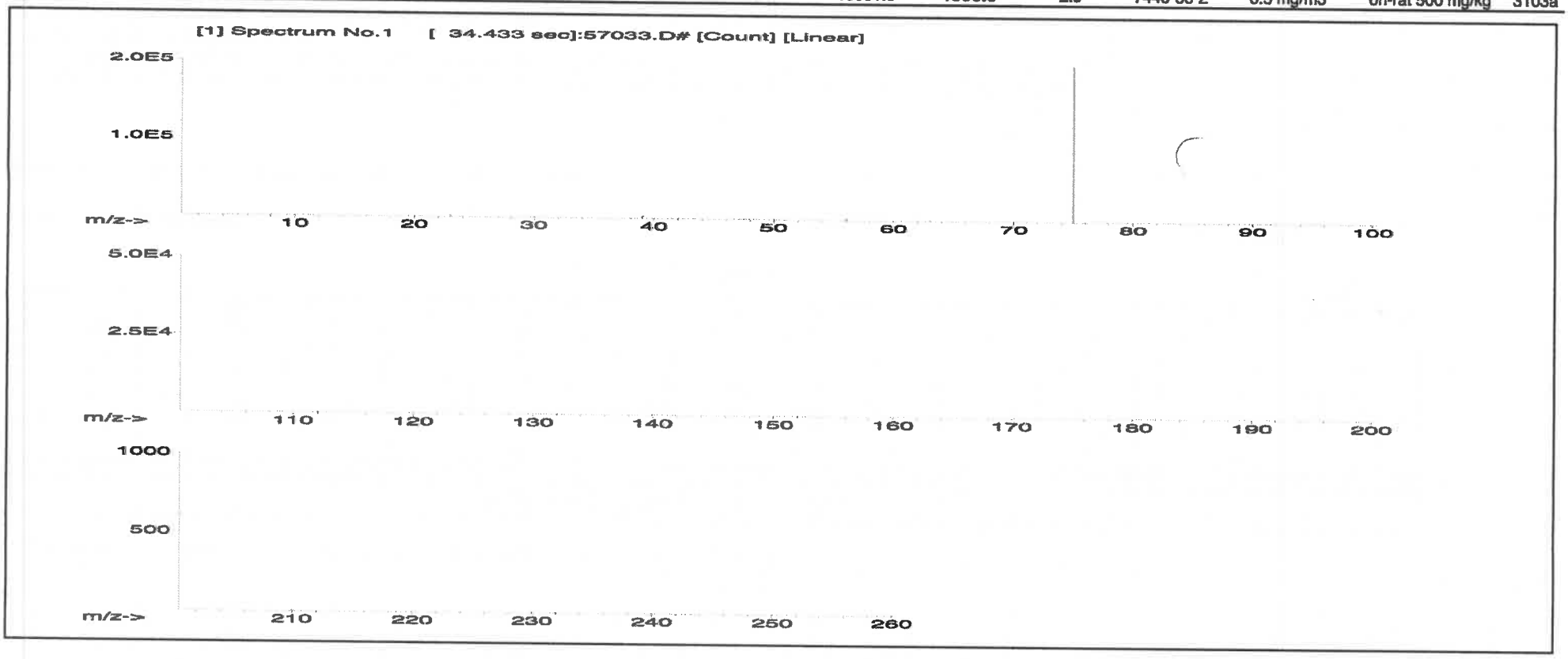
CERTIFIED **WEIGHT** REPORT:

		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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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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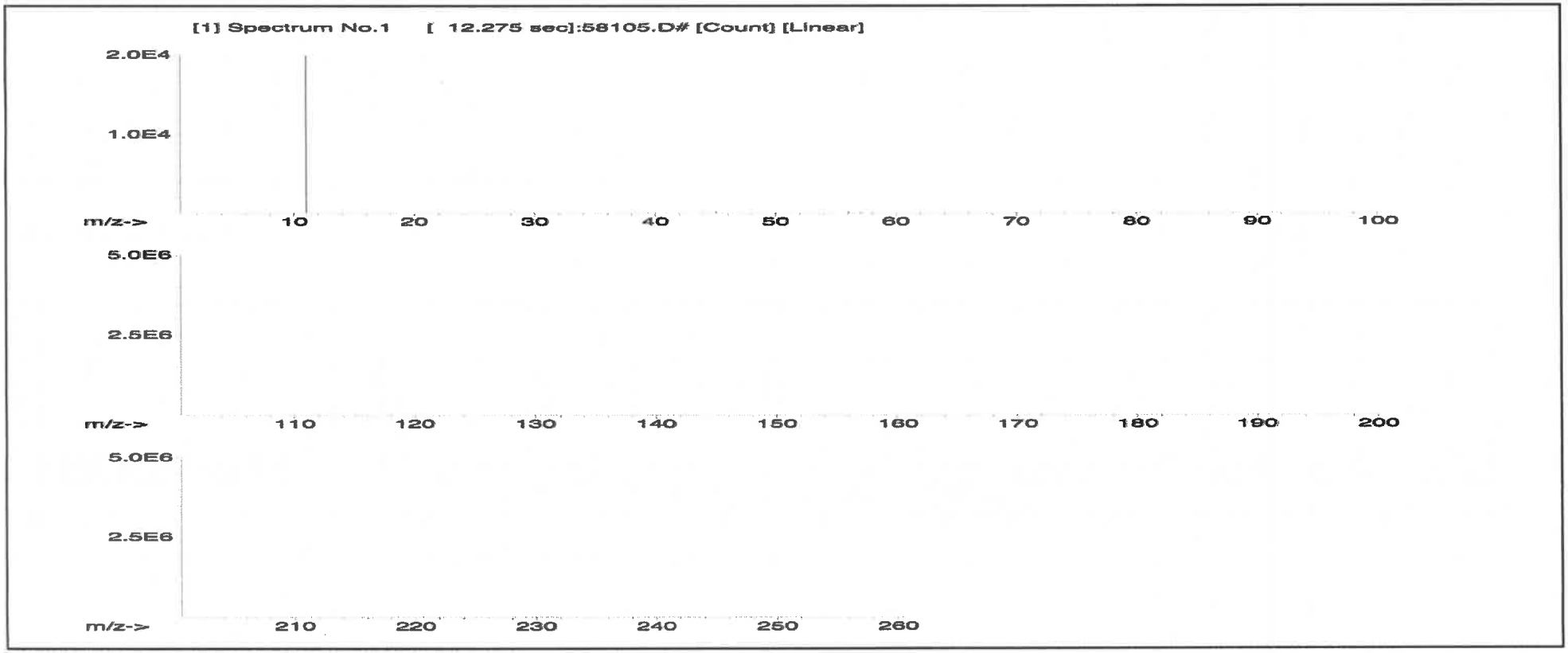
CERTIFIED WEIGHT REPORT:

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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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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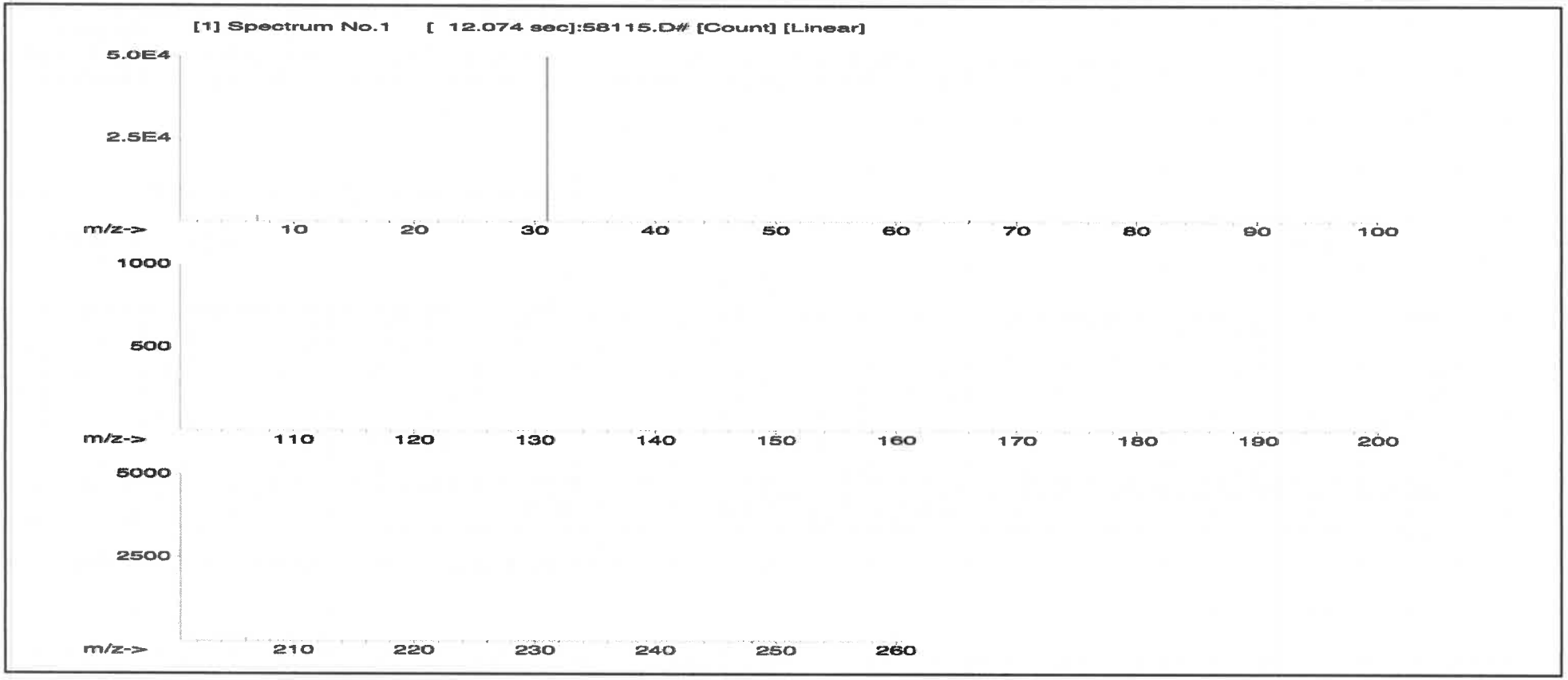
CERTIFIED WEIGHT REPORT:

			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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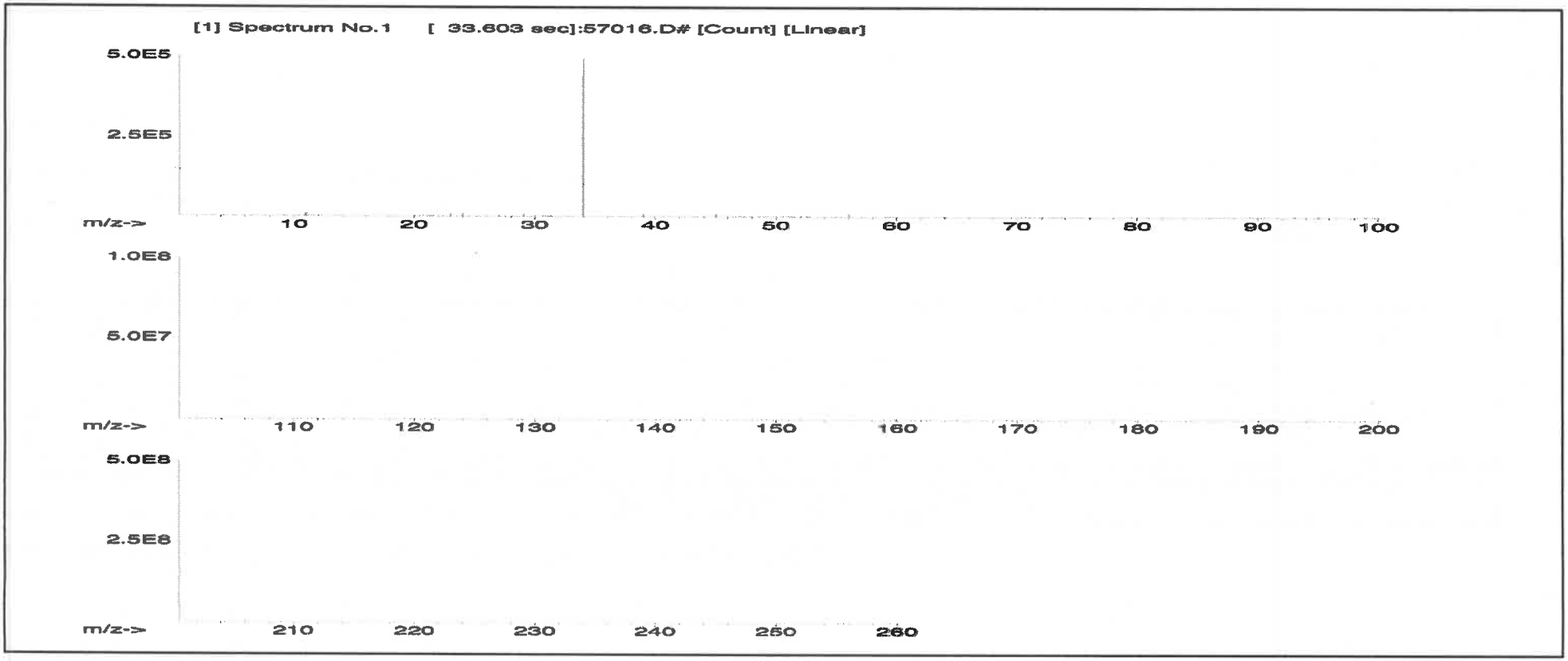
CERTIFIED WEIGHT REPORT:

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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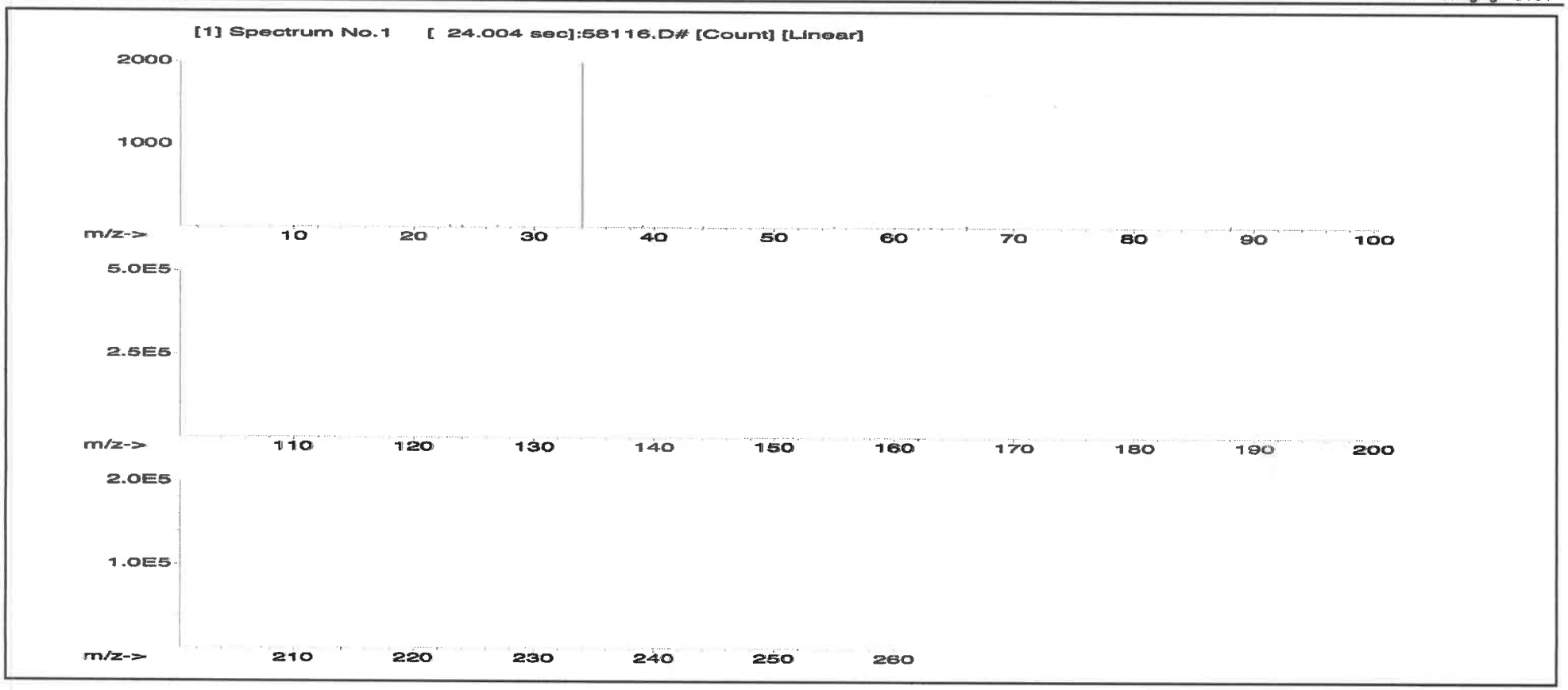
CERTIFIED WEIGHT REPORT:

Part Number:	**57116**			
Lot Number:	**071123**	**Solvent:**	071123	ASTM Type 1 Water
Description:	**Sulfur (S)**			
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	

Lot #

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
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Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	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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R: 02/09/24 M.5818

Lot #

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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

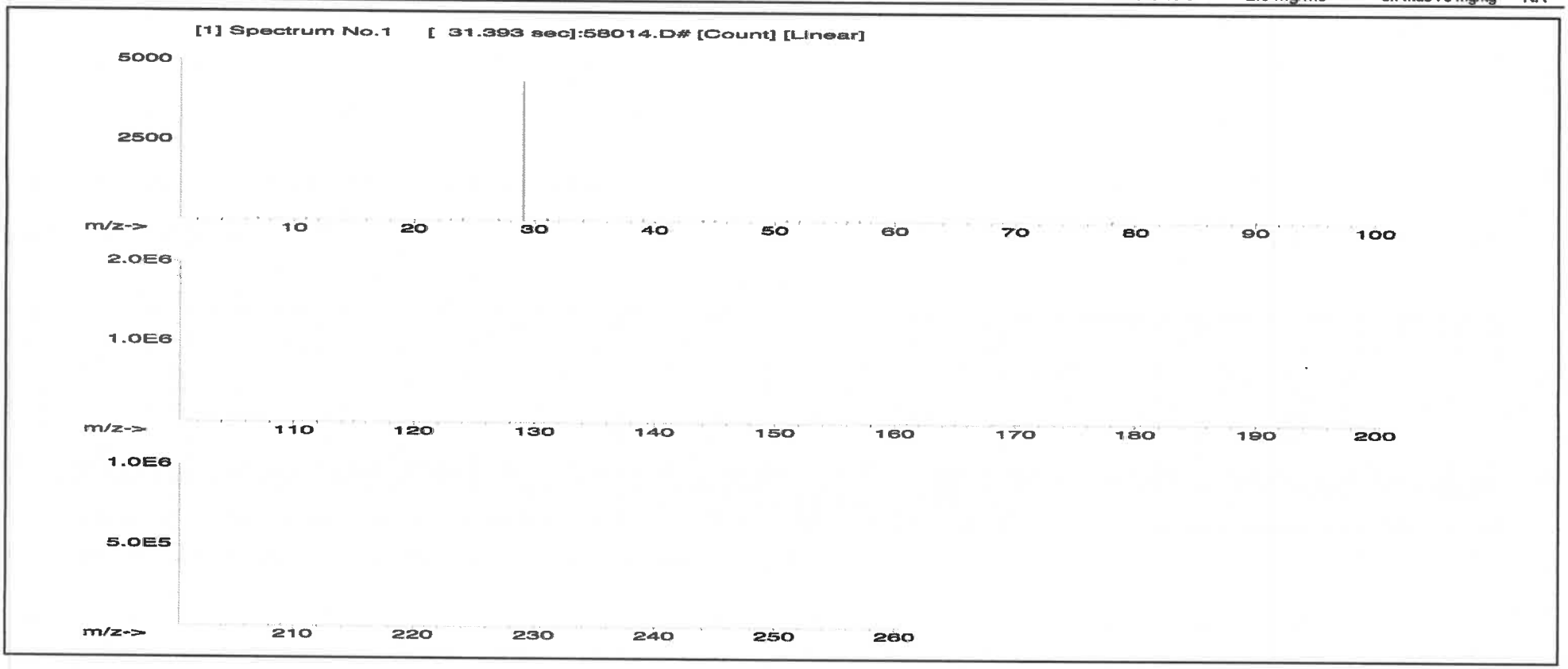
Aleah O'Brady

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:

* 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 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 M5819

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

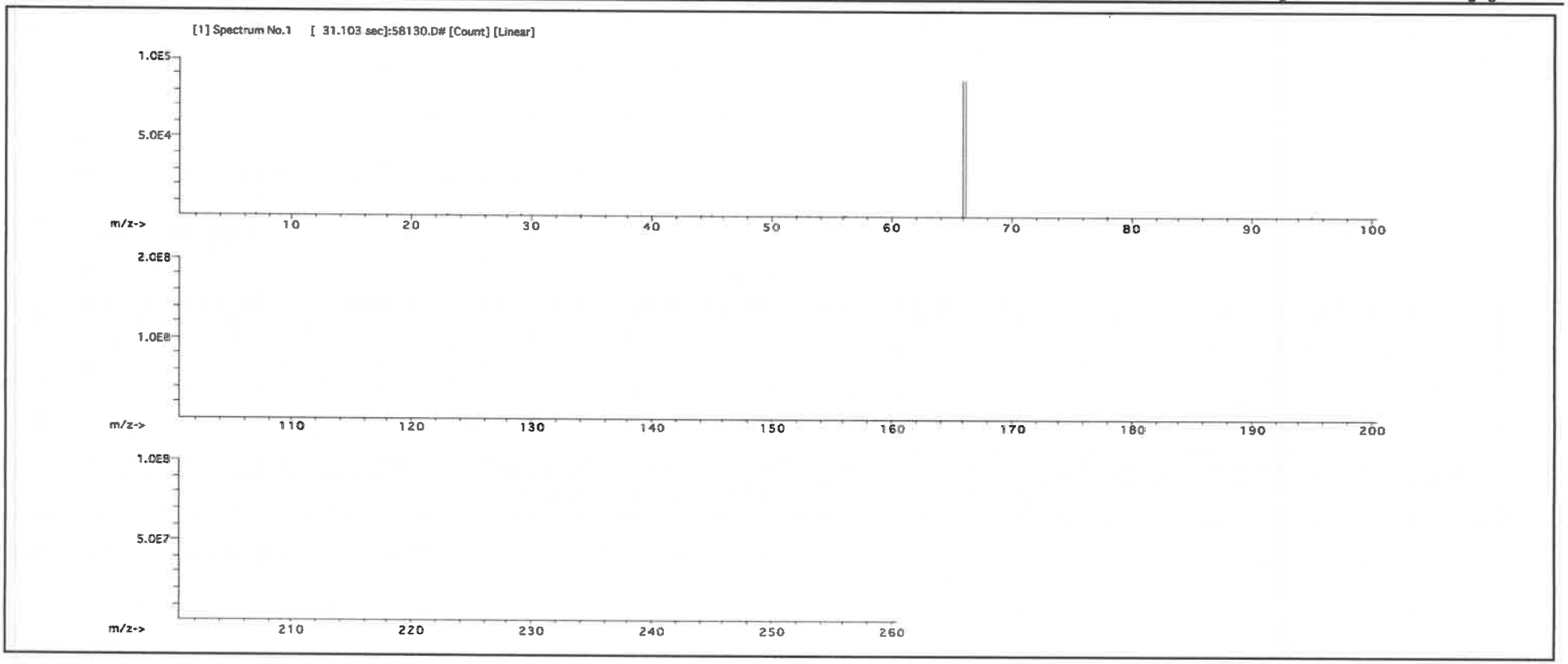
Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

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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R: 02/09/24 M5820

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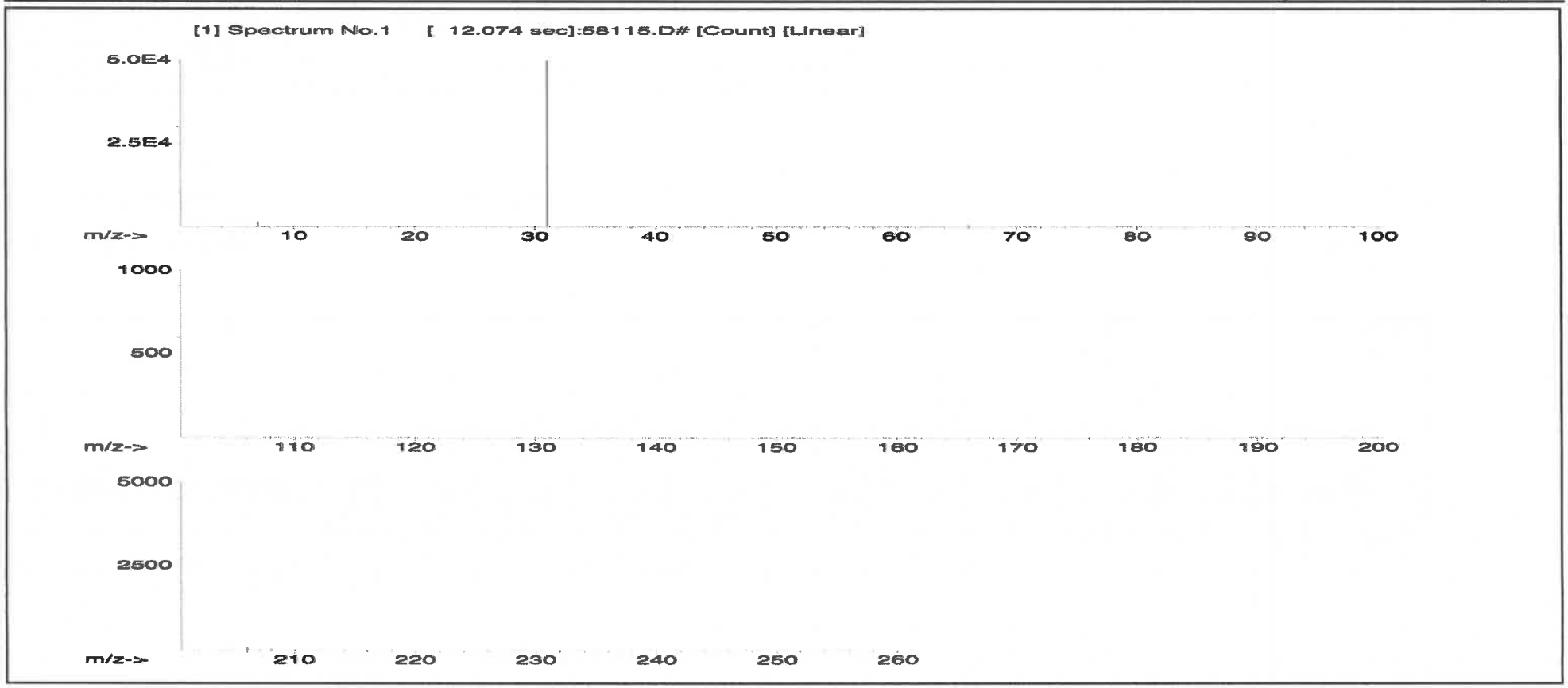
CERTIFIED WEIGHT REPORT:

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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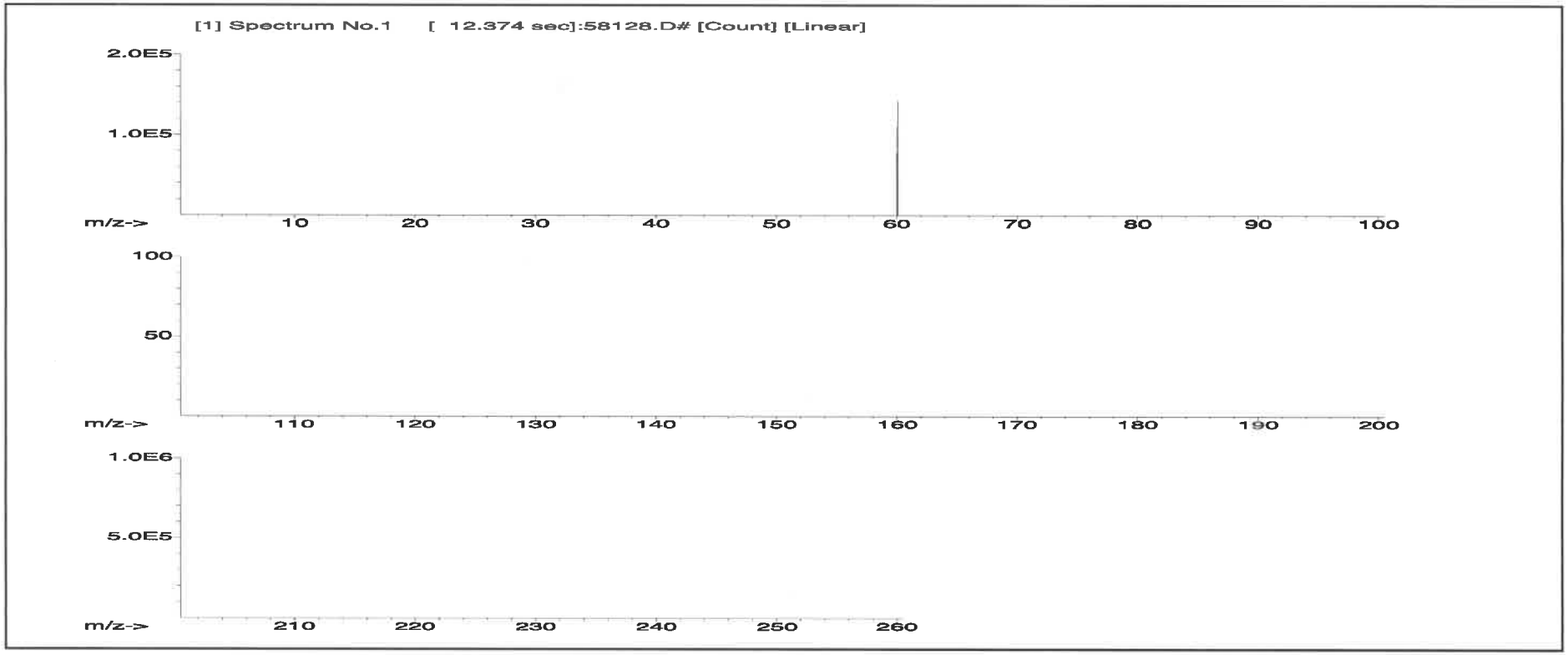
CERTIFIED WEIGHT REPORT:

			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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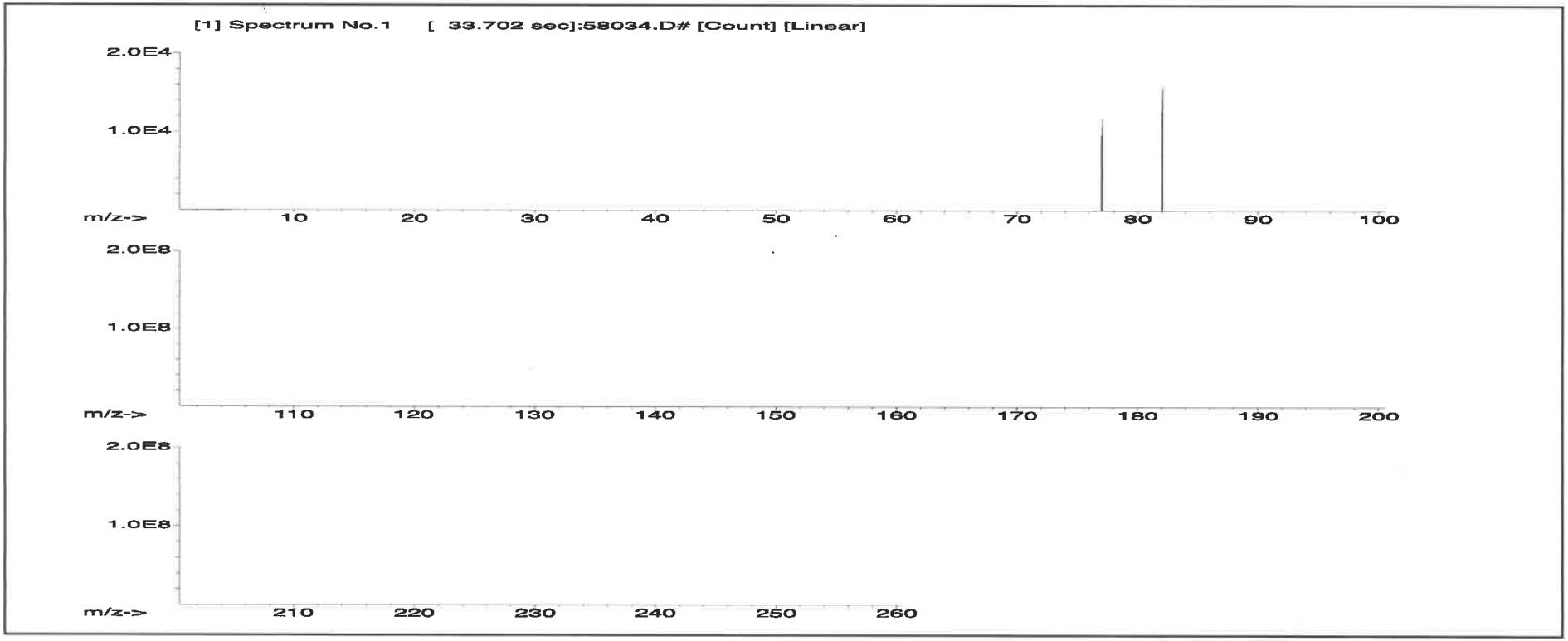
CERTIFIED WEIGHT REPORT:

		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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M5970, M5971 R: 7/01/24

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CERTIFIED WEIGHT REPORT:

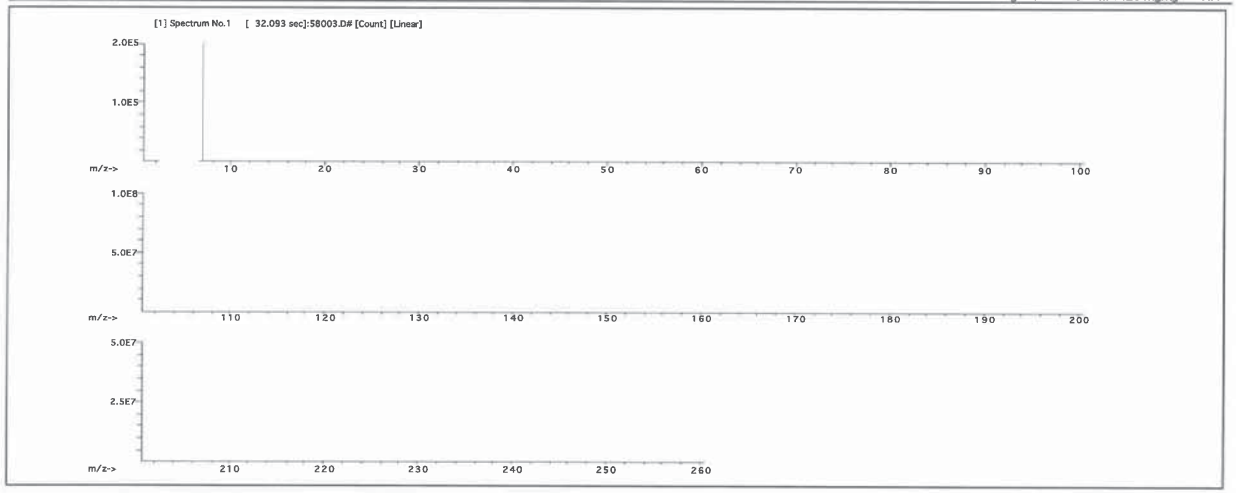
		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito

Formulated By: Giovanni Esposito 062124

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:

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* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

M5976, M5977
R: 02/22/24

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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:

$X_{CRM/RM} = \Sigma(w_i)(\bar{x}_i)$

$\bar{x}_i$ = 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:

$X_{CRM/RM} = (\bar{x}_a)\ (u_{char\ a})$

$\bar{x}_a$ = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

45982 R: 6/11/24

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

CERTIFIED WEIGHT REPORT:

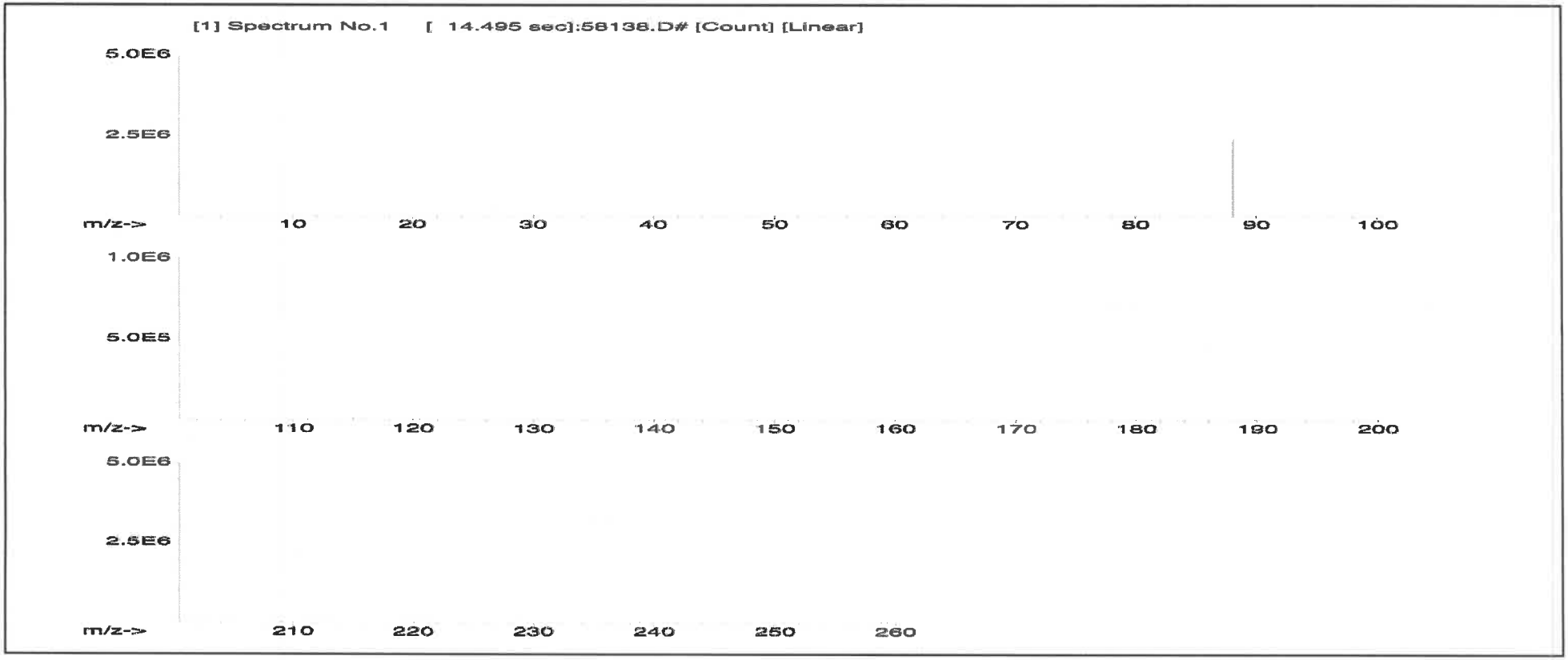
Part Number: 57038
Lot Number: 031524
Description: Strontium (Sr)

Expiration Date: 031527
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85502	**1000.1**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-1
Lot Number:	T2-MEB721963
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Manganese, Nickel, Vanadium, Zinc, Cobalt, 250 µg/mL ea: Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium, Silver

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Chromium, Cr	200.0 ± 1.1 µg/mL
Cobalt, Co	500.0 ± 2.4 µg/mL	Copper, Cu	250.0 ± 1.0 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Silver, Ag	50.00 ± 0.22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.070 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

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

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 01/03/24 M6033

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

CERTIFIED WEIGHT REPORT:

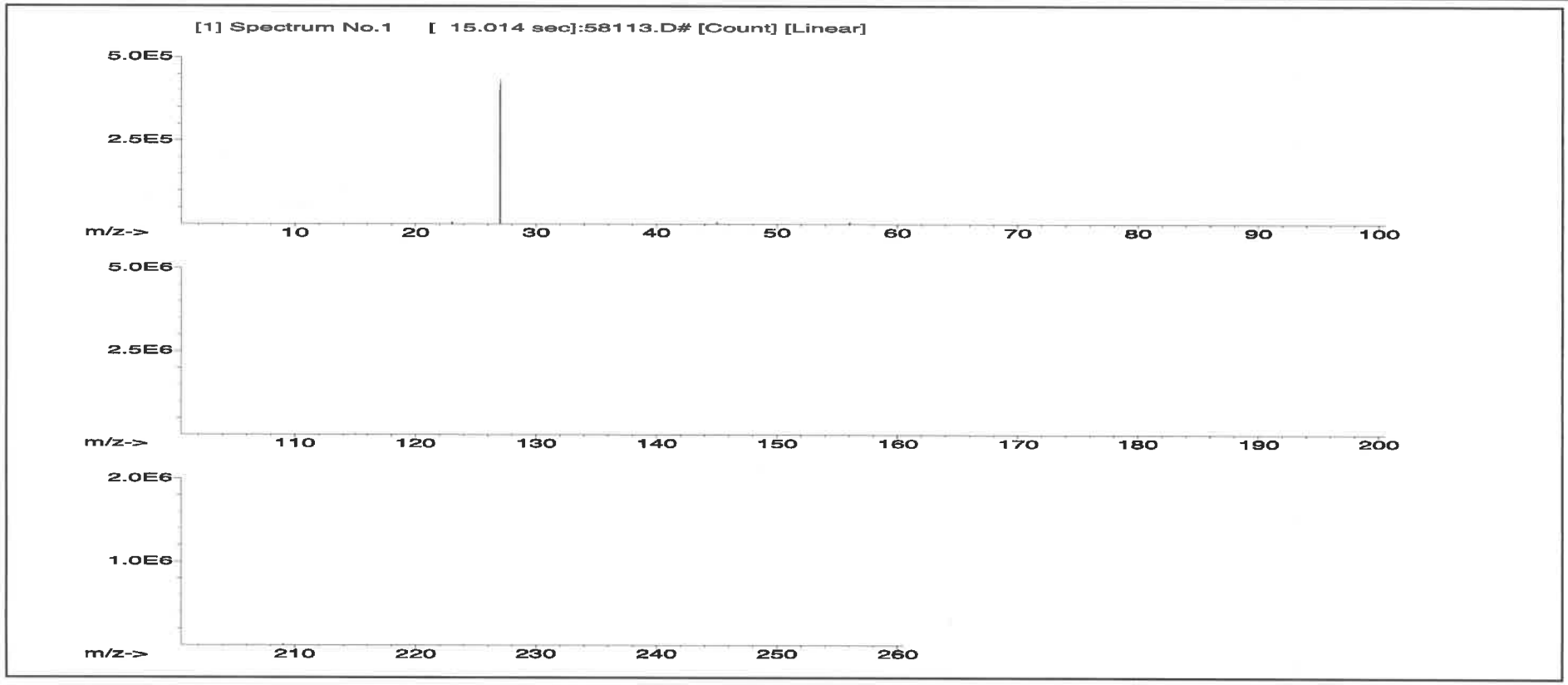
Part Number:	**58113**		**Solvent:**	20510011	Nitric Acid
Lot Number:	**011623**				
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05 Balance Uncertainty			
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

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

M6096
M6097
M6098
M6099
M6100

Mtd 9/21/24

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

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

J Croak

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6109
M6110
M6111

Received date 9/29/24 Met dig.

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22F0762009
Manufactured Date: 2022-05-10
Retest Date: 2027-05-09
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	0.8 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	14.9 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	0.8 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	1.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	0.7 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22F0762009

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

M6112
M6113
M6114
M6115
M6116
M6117

Receive:
9/29/24
Met dig

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.6 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	< 0.2 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

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R: 01/03/24 M5806, M5807

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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

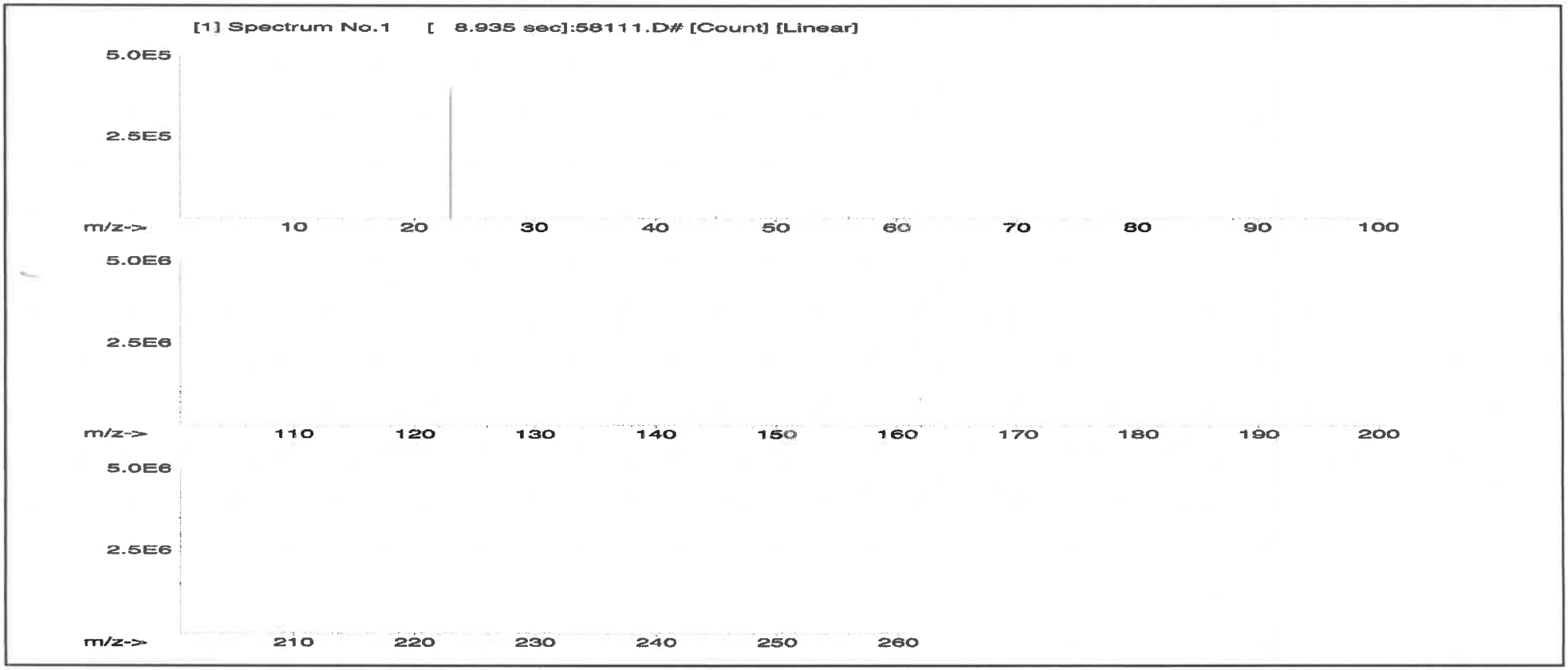
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

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

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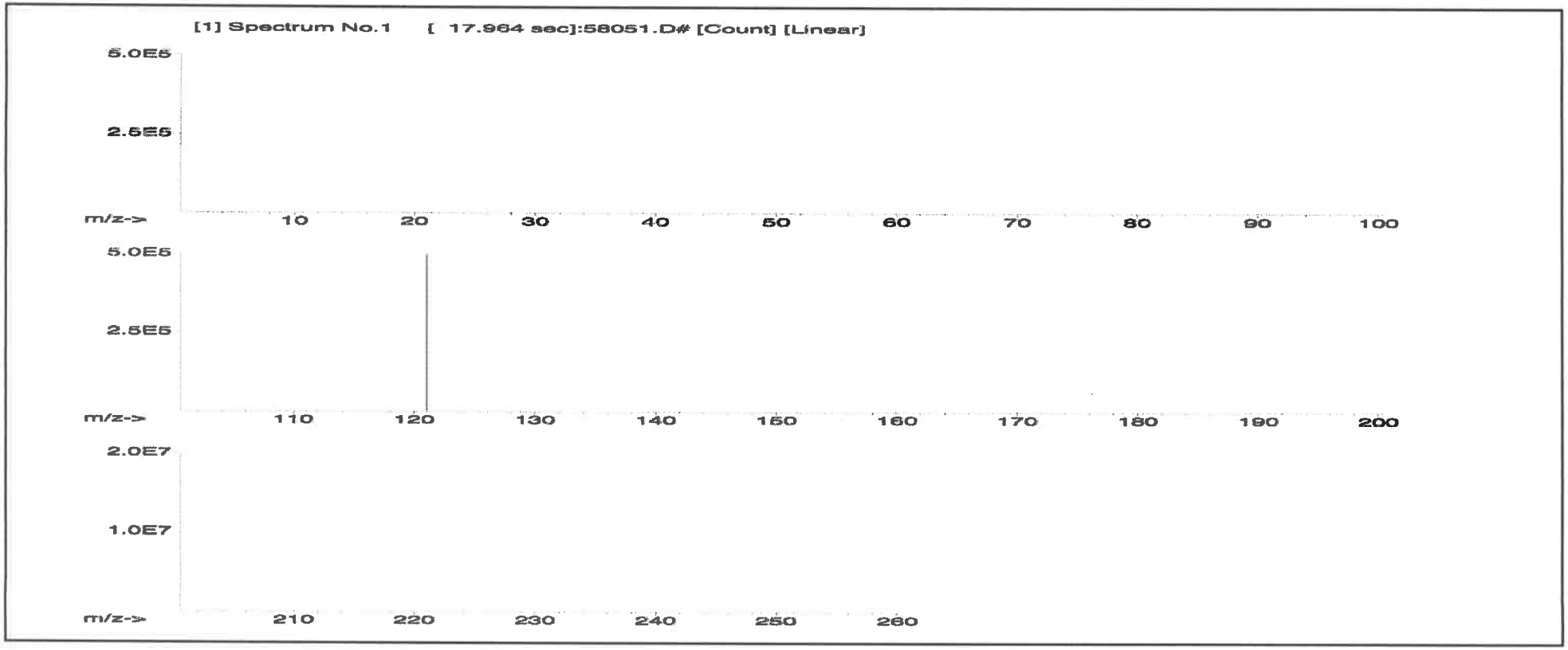
CERTIFIED WEIGHT REPORT:

		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.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

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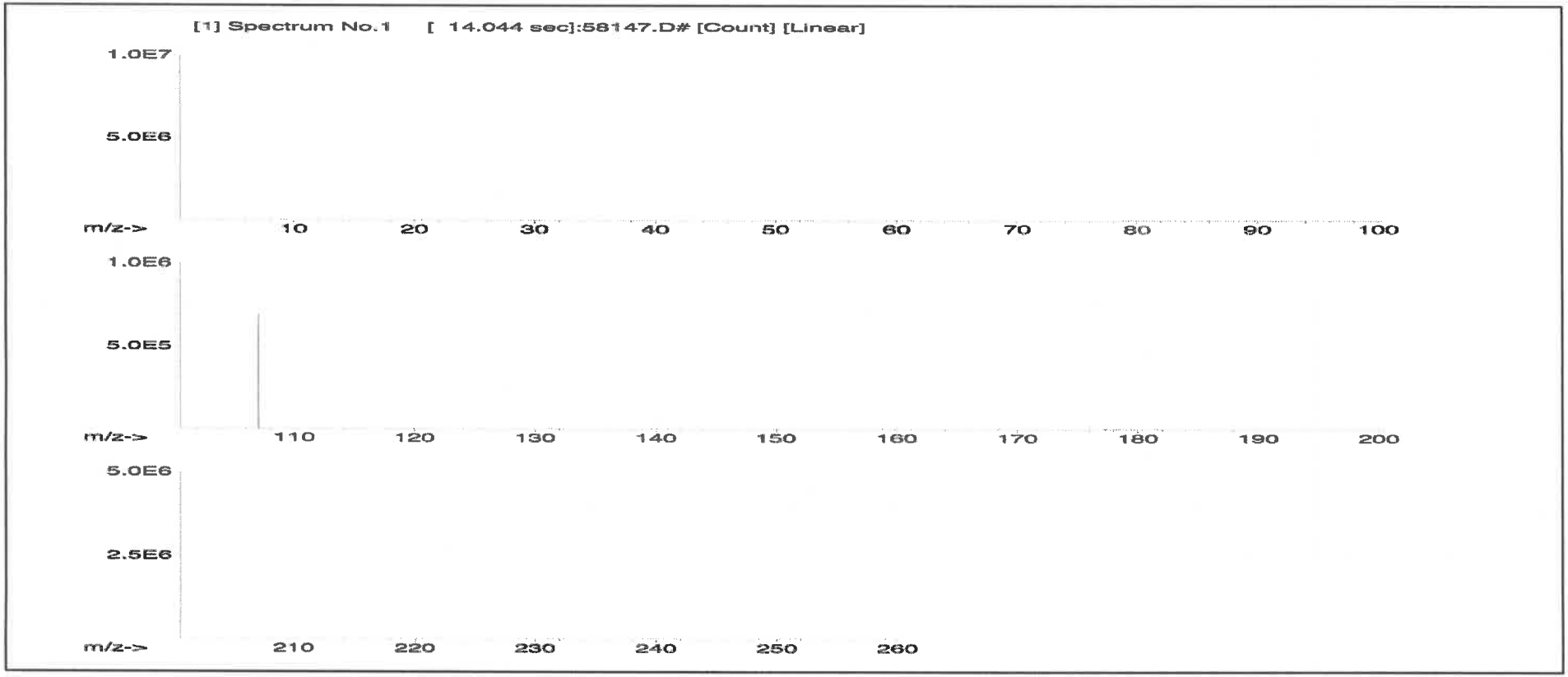
CERTIFIED WEIGHT REPORT:

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.
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R: 03/16/23 M5473, M5474, M5475, M5476

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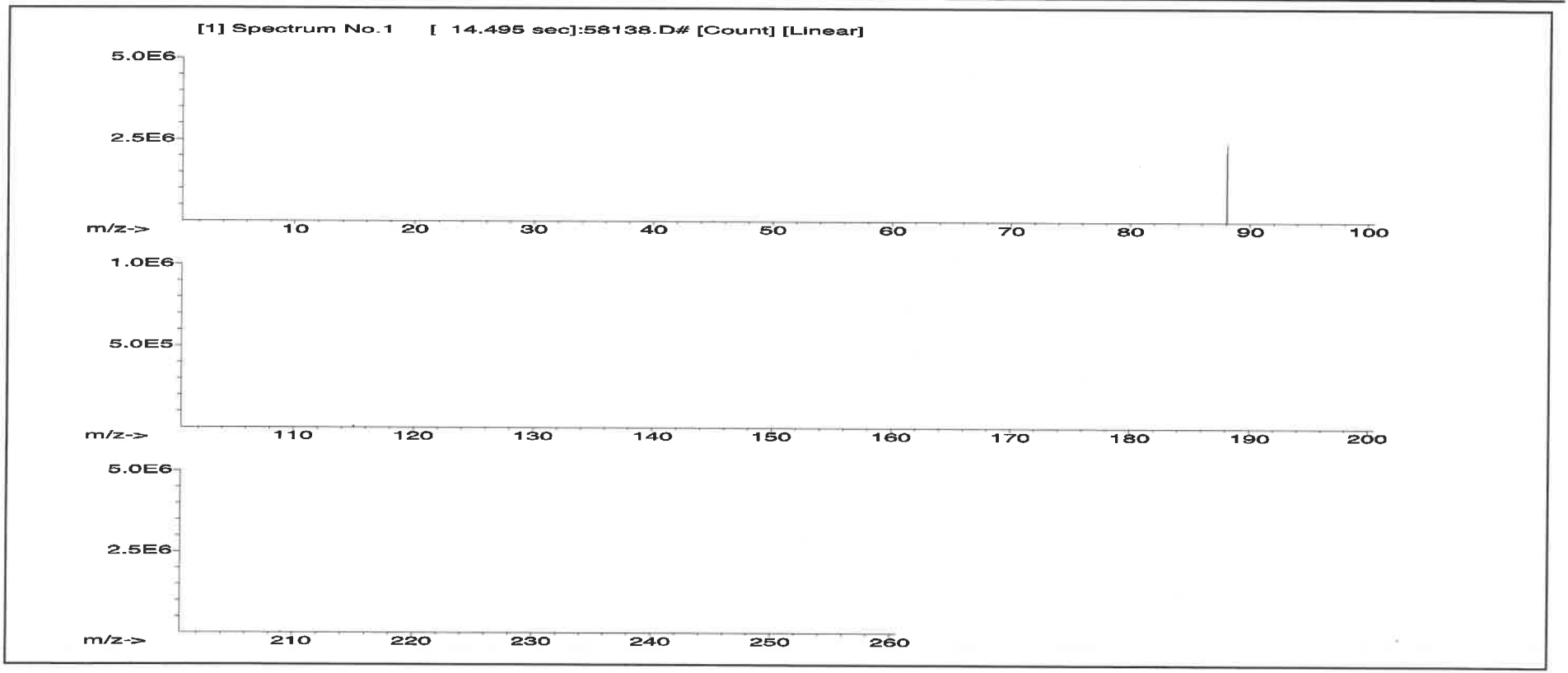
CERTIFIED WEIGHT REPORT:

Part Number:	**56138**		**Lot #**		
Lot Number:	**082922**	**Solvent:**	20510011	Nitric Acid	
Description:	**Strontium (Sr)**				
		2%	20.0 (mL)	Nitric Acid	
Expiration Date:	082925				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1000.12	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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Certified Reference Material CRM

R: 03/16/23 M5473, M5474, M5475, M5476

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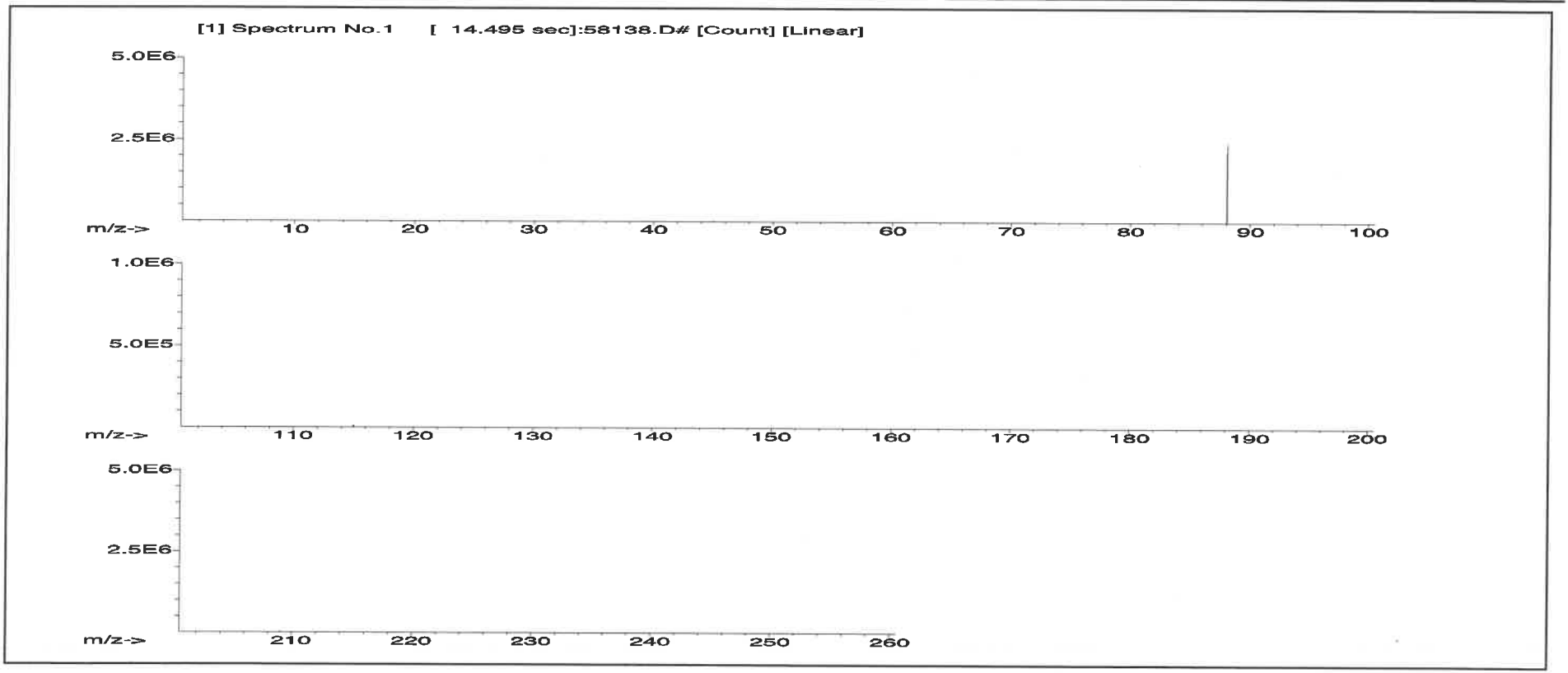
CERTIFIED WEIGHT REPORT:

Part Number:	**56138**		**Lot #**		
Lot Number:	**082922**	**Solvent:**	20510011	Nitric Acid	
Description:	**Strontium (Sr)**				
		2%	20.0 (mL)	Nitric Acid	
Expiration Date:	082925				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1000.12	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



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

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* 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 certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
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Certified Reference Material CRM

M6023

R ! 8/5/24

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

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		

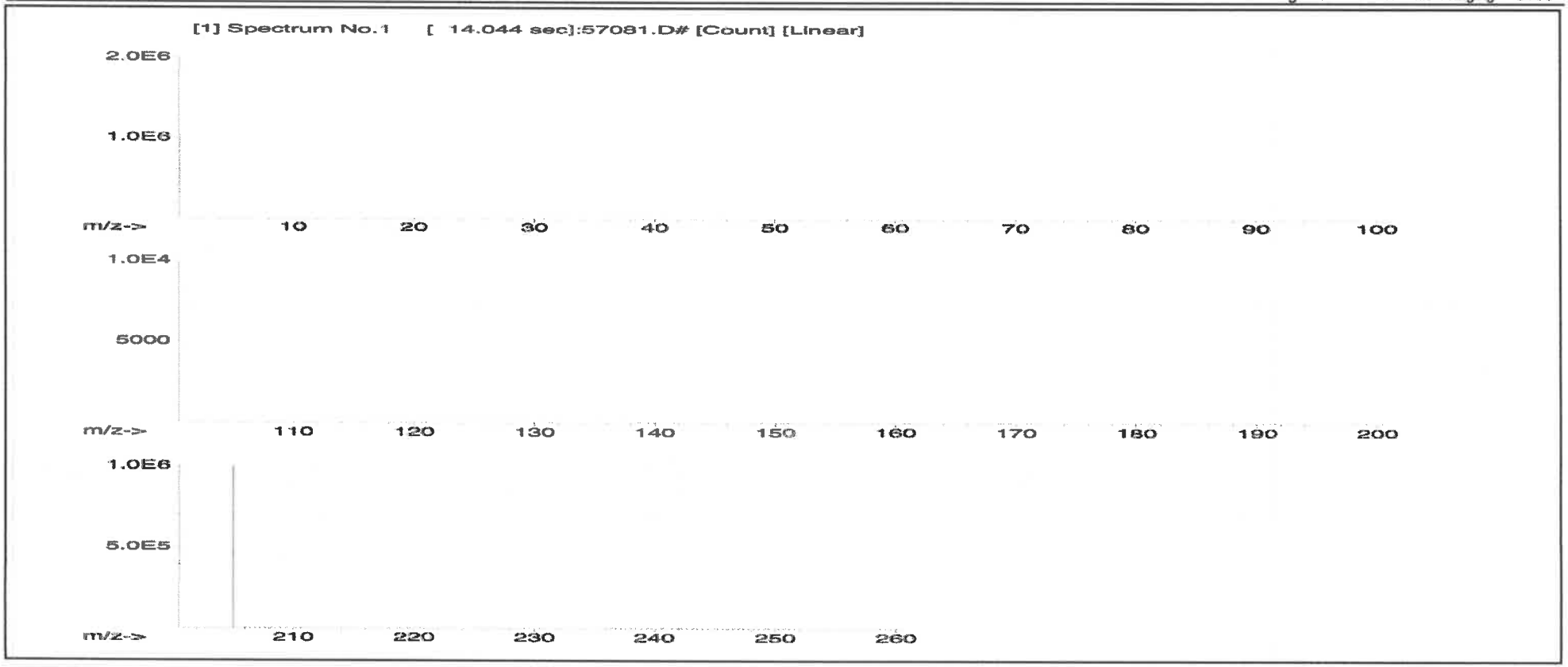
Aleah O'Brady

Formulated By:	Aleah O'Brady	062724

Pedro Rentas

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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Certified Reference Material CRM

M6021

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

Rc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**			
Description:	**Vanadium (V)**	24002546	Nitric Acid	
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

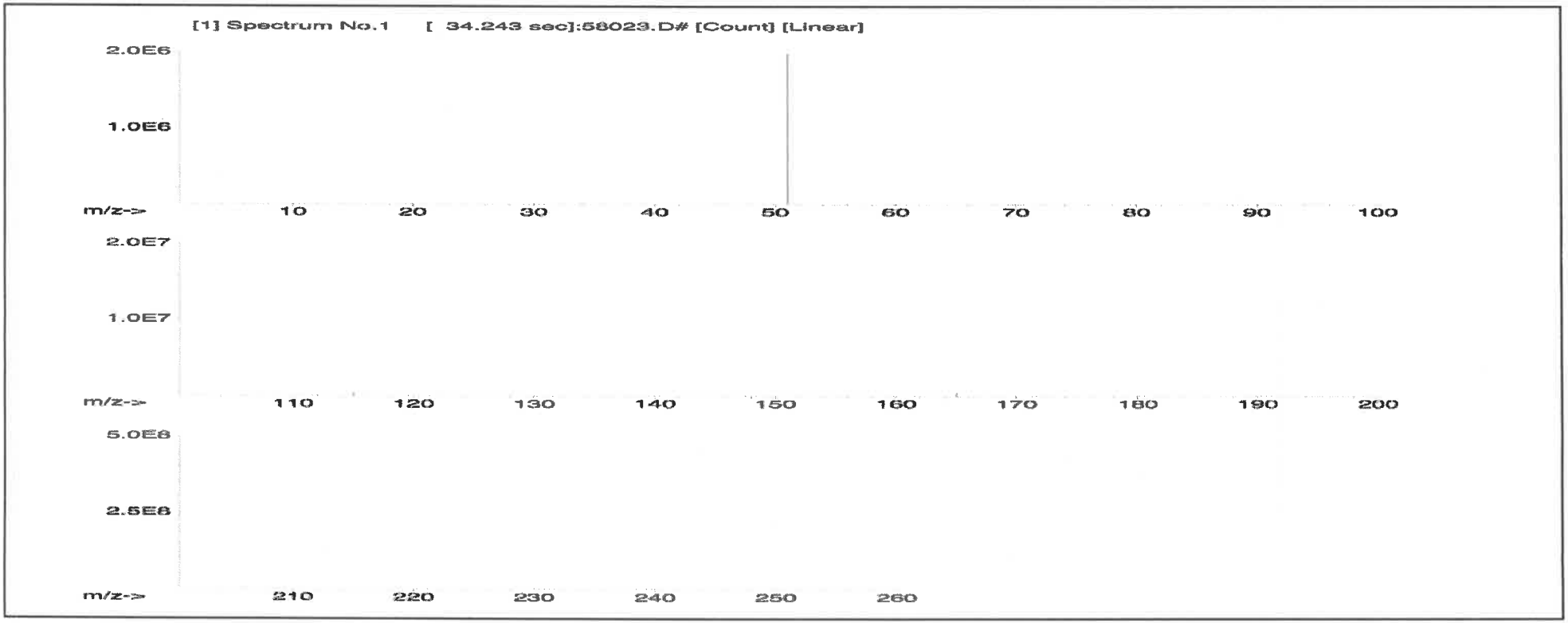
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



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

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

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB164443

SOP ID : M3050B-Digestion-20, MSFAM01.1-Trace Metals-2

SDG No : MYE4F0

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #1

Block ID: 1. HG HOT BLOCK #2 2. N/A

Start Digest Date: 10/26/2024 **Time :** 12:15 **Temp :** 97 °C

End Digest Date: 10/26/2024 **Time :** 15:15 **Temp :** 97 °C

Digestion tube ID: M6054

Block thermometer ID: HG-DIG. #2

Dig Technician Signature: JSP

Supervisor Signature: SG

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	M6097
30% H2O2	3.00	M5634
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HG HOT BLOCK #2 CELL #34 : 97 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/26/24 15:40	JSP / Met dig	SG (Metals Lab)
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB164443

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P4483-01	MYE4F0	N/A	1.09	100	Brown	Yellow	Medium	N/A	N/A	1
P4483-02	MYE4F1	N/A	1.32	100	Brown	Yellow	Medium	N/A	N/A	2
P4483-03	MYE4F2	N/A	1.27	100	Brown	Yellow	Medium	N/A	N/A	3
P4483-04	MYE4F3	N/A	1.42	100	Brown	Yellow	Medium	N/A	N/A	4
P4483-05	MYE4F4	N/A	1.16	100	Brown	Yellow	Medium	N/A	N/A	5
P4483-06	MYE4F5	N/A	1.40	100	Brown	Yellow	Medium	N/A	N/A	6
P4483-07	MYE4F6	N/A	1.34	100	Brown	Yellow	Medium	N/A	N/A	7
P4483-08	MYE4F7	N/A	1.19	100	Brown	Yellow	Medium	N/A	N/A	8
P4483-09	MYE4F8	N/A	1.46	100	Brown	Yellow	Medium	N/A	N/A	9
P4483-10	MYE4F9	N/A	1.21	100	Brown	Yellow	Medium	N/A	N/A	10
P4483-11	MYE4G0	N/A	1.38	100	Brown	Yellow	Medium	N/A	N/A	11
P4483-12	MYE4G1	N/A	1.07	100	Brown	Yellow	Medium	N/A	N/A	12
P4483-13	MYE4G2	N/A	1.14	100	Brown	Yellow	Medium	N/A	N/A	13
P4483-14	MYE4G3	N/A	1.31	100	Brown	Yellow	Medium	N/A	N/A	14
P4483-15	MYE4G4	N/A	1.24	100	Brown	Yellow	Medium	N/A	N/A	15
P4483-16	MYE4G5	N/A	1.35	100	Brown	Yellow	Medium	N/A	N/A	16
P4483-17	MYE4G6	N/A	1.11	100	Brown	Yellow	Medium	N/A	N/A	17
P4483-18	MYE4G7	N/A	1.20	100	Brown	Yellow	Medium	N/A	N/A	18
P4483-19	MYE4G8	N/A	1.41	100	Brown	Yellow	Medium	N/A	N/A	19
P4483-20	MYE4G9	N/A	1.16	100	Brown	Yellow	Medium	N/A	N/A	20
P4483-21	MYE4G9D	N/A	1.02	100	Brown	Yellow	Medium	N/A	N/A	22
P4483-22	MYE4G9S	N/A	1.17	100	Brown	Yellow	Medium	N/A	MP82731	29
PB164443BL	PBS443	N/A	1.00	100	Colorless	Colorless	Fine	N/A	N/A	24
PB164443BS	LCS443	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP82711	27
PB164443BSD	LCSD443	N/A	1.00	100	Colorless	Colorless	Fine	N/A	MP82711	28

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 # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/29/24 16:04		Kareem	OK
2	S1	S01	CAL2	10/29/24 16:09		Kareem	OK
3	S2	S02	CAL3	10/29/24 16:14		Kareem	OK
4	S3	S03	CAL4	10/29/24 16:18		Kareem	OK
5	S4	S04	CAL5	10/29/24 16:22		Kareem	OK
6	S5	S05	CAL6	10/29/24 16:27		Kareem	OK
7	S6	S06	CAL7	10/29/24 16:31		Kareem	OK
8	ICV004	ICV004	ICV	10/29/24 17:19	Inst. paused for calibration review	Kareem	OK
9	ICB004	ICB004	ICB	10/29/24 17:25	Inst. paused for review	Kareem	OK
10	ICSA004	ICSA004	ICSA	10/29/24 17:35	Inst. paused for review	Kareem	OK
11	ICSAB004	ICSAB004	ICSAB	10/29/24 17:40		Kareem	OK
12	CCV023	CCV023	CCV	10/29/24 17:44		Kareem	OK
13	CCB023	CCB023	CCB	10/29/24 17:51	Inst. paused for review	Kareem	OK
14	P4483-01DL	MYE4F0	SAM	10/29/24 17:55		Kareem	OK
15	P4483-02DL	MYE4F1	SAM	10/29/24 18:00		Kareem	OK
16	P4483-03DL	MYE4F2	SAM	10/29/24 18:04		Kareem	OK
17	P4483-04DL	MYE4F3	SAM	10/29/24 18:09		Kareem	OK
18	P4483-05DL	MYE4F4	SAM	10/29/24 18:13		Kareem	OK

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 # LB133197

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Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

19	P4483-06DL	MYE4F5	SAM	10/29/24 18:18		Kareem	OK
20	P4483-07DL	MYE4F6	SAM	10/29/24 18:22		Kareem	OK
21	P4483-08DL	MYE4F7	SAM	10/29/24 18:26		Kareem	OK
22	P4483-09DL	MYE4F8	SAM	10/29/24 18:31		Kareem	OK
23	P4483-10DL	MYE4F9	SAM	10/29/24 18:35		Kareem	OK
24	P4483-11DL	MYE4G0	SAM	10/29/24 18:40		Kareem	OK
25	P4483-12DL	MYE4G1	SAM	10/29/24 18:44		Kareem	OK
26	P4483-13DL	MYE4G2	SAM	10/29/24 18:49		Kareem	OK
27	P4483-14DL	MYE4G3	SAM	10/29/24 18:53		Kareem	OK
28	P4483-15DL	MYE4G4	SAM	10/29/24 18:57		Kareem	OK
29	P4483-16DL	MYE4G5	SAM	10/29/24 19:02		Kareem	OK
30	P4483-17DL	MYE4G6	SAM	10/29/24 19:06		Kareem	OK
31	P4483-18DL	MYE4G7	SAM	10/29/24 19:11		Kareem	OK
32	P4483-19DL	MYE4G8	SAM	10/29/24 19:15		Kareem	OK
33	P4483-20DL	MYE4G9	SAM	10/29/24 19:19		Kareem	OK
34	CCV024	CCV024	CCV	10/29/24 19:24		Kareem	OK
35	CCB024	CCB024	CCB	10/29/24 19:28		Kareem	OK
36	P4483-21DL	MYE4G9D	DUP	10/29/24 19:33		Kareem	OK
37	P4483-22DL	MYE4G9S	MS	10/29/24 19:37	MS fail for Zn (462.90 ppb)	Kareem	OK
38	P4483-20LDL	MYE4G9L	SD	10/29/24 19:41		Kareem	OK

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Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
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CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

39	PB164443BL	PBS443	MB	10/29/24 19:46		Kareem	OK
40	PB164443BS	LCS443	LCS	10/29/24 19:50		Kareem	OK
41	PB164443BSD	LCSD443	LCSD	10/29/24 19:55		Kareem	OK
42	P4480-01DL	MYE490	SAM	10/29/24 19:59		Kareem	OK
43	P4480-02DL	MYE491	SAM	10/29/24 20:04		Kareem	OK
44	P4480-03DL	MYE492	SAM	10/29/24 20:08		Kareem	OK
45	P4480-04DL	MYE493	SAM	10/29/24 20:13		Kareem	OK
46	P4480-05DL	MYE494	SAM	10/29/24 20:17		Kareem	OK
47	P4480-06DL	MYE494D	DUP	10/29/24 20:22		Kareem	OK
48	P4480-07DL	MYE494S	MS	10/29/24 20:26	MS fail for Pb (141.14 ppb), Se(Below RL)	Kareem	OK
49	P4480-05LDL	MYE494L	SD	10/29/24 20:30		Kareem	OK
50	P4480-08DL	MYE495	SAM	10/29/24 20:35		Kareem	OK
51	P4480-09DL	MYE496	SAM	10/29/24 20:39		Kareem	OK
52	P4480-10DL	MYE497	SAM	10/29/24 20:44		Kareem	OK
53	P4480-11DL	MYE498	SAM	10/29/24 20:48		Kareem	OK
54	P4480-12DL	MYE499	SAM	10/29/24 20:52		Kareem	OK
55	P4480-13DL	MYE4A0	SAM	10/29/24 20:57		Kareem	OK
56	CCV025	CCV025	CCV	10/29/24 21:01		Kareem	OK
57	CCB025	CCB025	CCB	10/29/24 21:05		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

58	P4480-14DL	MYE4A1	SAM	10/29/24 21:10		Kareem	OK
59	P4480-15DL	MYE4A2	SAM	10/29/24 21:14		Kareem	OK
60	P4480-16DL	MYE4A3	SAM	10/29/24 21:19		Kareem	OK
61	P4480-17DL	MYE4A4	SAM	10/29/24 21:23		Kareem	OK
62	P4480-18DL	MYE4A5	SAM	10/29/24 21:28		Kareem	OK
63	P4480-19DL	MYE4A6	SAM	10/29/24 21:32		Kareem	OK
64	P4480-20DL	MYE4A7	SAM	10/29/24 21:37		Kareem	OK
65	P4480-21DL	MYE4A8	SAM	10/29/24 21:41		Kareem	OK
66	P4480-22DL	MYE4A9	SAM	10/29/24 21:45		Kareem	OK
67	PB164428BL	PBS428	MB	10/29/24 21:50		Kareem	OK
68	PB164428BS	LCS428	LCS	10/29/24 21:54		Kareem	OK
69	PB164428BSD	LCSD428	LCSD	10/29/24 21:59		Kareem	OK
70	P4482-01DL	MYE4D0	SAM	10/29/24 22:03		Kareem	OK
71	P4482-02DL	MYE4D1	SAM	10/29/24 22:08		Kareem	OK
72	P4482-03DL	MYE4D2	SAM	10/29/24 22:12		Kareem	OK
73	P4482-04DL	MYE4D3	SAM	10/29/24 22:17		Kareem	OK
74	P4482-05DL	MYE4D4	SAM	10/29/24 22:21		Kareem	OK
75	P4482-06DL	MYE4D5	SAM	10/29/24 22:25		Kareem	OK
76	P4482-07DL	MYE4D6	SAM	10/29/24 22:30		Kareem	OK
77	P4482-08DL	MYE4D7	SAM	10/29/24 22:34		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

78	CCV026	CCV026	CCV	10/29/24 22:39		Kareem	OK
79	CCB026	CCB026	CCB	10/29/24 22:43		Kareem	OK
80	P4482-09DL	MYE4D8	SAM	10/29/24 22:48		Kareem	OK
81	P4482-10DL	MYE4D9	SAM	10/29/24 22:52		Kareem	OK
82	P4482-11DL	MYE4E0	SAM	10/29/24 22:56		Kareem	OK
83	P4482-12DL	MYE4E1	SAM	10/29/24 23:01		Kareem	OK
84	P4482-13DL	MYE4E2	SAM	10/29/24 23:05		Kareem	OK
85	P4482-14DL	MYE4E3	SAM	10/29/24 23:10		Kareem	OK
86	P4482-15DL	MYE4E3D	DUP	10/29/24 23:14		Kareem	OK
87	P4482-16DL	MYE4E3S	MS	10/29/24 23:19	MS fail for Pb (131.58 ppb), Mn (3949.42 ppb)	Kareem	OK
88	P4482-14LDL	MYE4E3L	SD	10/29/24 23:23		Kareem	OK
89	P4482-17DL	MYE4E4	SAM	10/29/24 23:27		Kareem	OK
90	P4482-18DL	MYE4E5	SAM	10/29/24 23:32		Kareem	OK
91	P4482-19DL	MYE4E6	SAM	10/29/24 23:36		Kareem	OK
92	P4482-20DL	MYE4E7	SAM	10/29/24 23:41		Kareem	OK
93	P4482-21DL	MYE4E8	SAM	10/29/24 23:45		Kareem	OK
94	P4482-22DL	MYE4E9	SAM	10/29/24 23:50		Kareem	OK
95	PB164441BL	PBS441	MB	10/29/24 23:54		Kareem	OK
96	PB164441BS	LCS441	LCS	10/29/24 23:59		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133197

Review By	Sarabjit Jaswal	Review On	11/7/2024 4:08:45 AM
Supervise By	Mohan Bera	Supervise On	11/7/2024 4:26:00 AM

STD. NAME	STD REF.#
ICAL Standard	MP82441,MP82632,MP82446,MP82445,MP82444,MP82443,MP82442
ICV Standard	MP82450
CCV Standard	MP82453
ICSA Standard	MP82451,MP82452
CRI Standard	
LCS Standard	MP82711
Chk Standard	MP82455,MP82456

97	PB164441BSD	LCSD441	LCSD	10/30/24 00:03		Kareem	OK
98	P4496-04	MBHDO5	SAM	10/30/24 00:08	Ca high	Kareem	Dilution
99	P4496-05	MBHDO6	SAM	10/30/24 00:12	Ca high	Kareem	Dilution
100	CCV027	CCV027	CCV	10/30/24 00:17		Kareem	OK
101	CCB027	CCB027	CCB	10/30/24 00:21		Kareem	OK
102	P4496-06	MBHZC7	SAM	10/30/24 00:25	Ca high	Kareem	Dilution
103	P4496-07	MBHZC8	SAM	10/30/24 00:30	Ca high	Kareem	Dilution
104	P4496-08	MBHZC8D	DUP	10/30/24 00:34	Ca high	Kareem	Dilution
105	P4496-09	MBHZC8S	MS	10/30/24 00:38	Ca high, MS fail for Pb (91.85 ppb), Ni (1725.64 ppb), Sb,Se,Ag,Tl (Below RL)	Kareem	Dilution
106	P4496-07L	MBHZC8L	SD	10/30/24 00:43	Ca high	Kareem	Dilution
107	PB164450BL	PBS450	MB	10/30/24 00:47		Kareem	OK
108	PB164450BS	LCS450	LCS	10/30/24 00:52		Kareem	OK
109	CCV028	CCV028	CCV	10/30/24 00:56		Kareem	OK
110	CCB028	CCB028	CCB	10/30/24 01:01		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133378

Review By	Mohan Bera	Review On	11/12/2024 1:59:23 AM
Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	11/08/24 15:31		Kareem	OK
2	S1	S01	CAL2	11/08/24 15:36		Kareem	OK
3	S2	S02	CAL3	11/08/24 15:41		Kareem	OK
4	S3	S03	CAL4	11/08/24 15:45		Kareem	OK
5	S4	S04	CAL5	11/08/24 15:49		Kareem	OK
6	S5	S05	CAL6	11/08/24 15:53		Kareem	OK
7	S6	S06	CAL7	11/08/24 15:58		Kareem	OK
8	ICV006	ICV006	ICV	11/08/24 16:09	Inst. pause for calibration review	Kareem	OK
9	ICB006	ICB006	ICB	11/08/24 18:04	Inst. pause for review	Kareem	OK
10	ICSA006	ICSA006	ICSA	11/08/24 18:51	Inst. pause for review	Kareem	OK
11	ICSAB006	ICSAB006	ICSAB	11/08/24 18:55		Kareem	OK
12	CCV035	CCV035	CCV	11/08/24 19:00		Kareem	OK
13	CCB035	CCB035	CCB	11/08/24 19:15	Inst. pause for review	Kareem	OK
14	P4482-14ADL	MYE4E3A	PS	11/08/24 19:25	PS for PB 0.026ml m6025, Mn 0.078 ml m5698-10 ml sample	Kareem	OK
15	P4483-20ADL	MYE4G9A	PS	11/08/24 19:29	PS for Zn 0.0093ml m5819	Kareem	OK
16	P4484-03ADL	MYE4H2A	PS	11/08/24 19:34	PS for Cr 0.031ml m5658	Kareem	OK
17	P4500-10ADL	MBHCP0A	PS	11/08/24 19:38	Not used	Kareem	Not Ok

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133378

Review By	Mohan Bera	Review On	11/12/2024 1:59:23 AM
Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

18	P4496-06	MBHZC7	SAM	11/08/24 19:43	Not used	Kareem	Not Ok
19	PB164450BL	PBS450	MB	11/08/24 19:47	Not used	Kareem	Not Ok
20	PB164450BS	LCS450	LCS	11/08/24 19:52	Not used	Kareem	Not Ok
21	P4623-01	MBH6M7	SAM	11/08/24 19:56		Kareem	OK
22	P4623-02	MBH6M8	SAM	11/08/24 20:01		Kareem	OK
23	P4623-03	MBH6M9	SAM	11/08/24 20:05		Kareem	OK
24	P4623-04	MBH6N0	SAM	11/08/24 20:10		Kareem	OK
25	P4623-05	MBH6N1	SAM	11/08/24 20:14		Kareem	OK
26	P4623-06	MBH8M6	SAM	11/08/24 20:18		Kareem	OK
27	P4623-07	MBH6N2	SAM	11/08/24 20:23		Kareem	OK
28	P4623-08	MBH6N3	SAM	11/08/24 20:27		Kareem	OK
29	P4623-09	MBH6N4	SAM	11/08/24 20:31		Kareem	OK
30	P4623-10	MBH6N5	SAM	11/08/24 20:36		Kareem	OK
31	P4623-11	MBH6N6	SAM	11/08/24 20:40	MS fail for Many parameter	Kareem	Not Ok
32	P4623-12	MBH6N6D	DUP	11/08/24 20:45	MS fail for Many parameter	Kareem	Not Ok
33	P4623-13	MBH6N6S	MS	11/08/24 20:49	MS fail for Many parameter	Kareem	Not Ok
34	CCV036	CCV036	CCV	11/08/24 20:53		Kareem	OK
35	CCB036	CCB036	CCB	11/08/24 20:58		Kareem	OK
36	P4623-11L	MBH6N6L	SD	11/08/24 21:02	MS fail for Many parameter	Kareem	Not Ok
37	P4623-14	MBH6N7	SAM	11/08/24 21:07		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133378

Review By	Mohan Bera	Review On	11/12/2024 1:59:23 AM
Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

38	PB164760TB	LEB760	MB	11/08/24 21:11		Kareem	OK
39	PB164760BL	PBW760	MB	11/08/24 21:16		Kareem	OK
40	PB164760BS	LCS760	LCS	11/08/24 21:20		Kareem	OK
41	P4502-01	MBHCY1	SAM	11/08/24 21:25	Not used	Kareem	Not Ok
42	P4502-02	MBHCY2	SAM	11/08/24 21:29	Not used	Kareem	Not Ok
43	P4502-03	MBHCY3	SAM	11/08/24 21:33	Not used	Kareem	Not Ok
44	P4502-04	MBHCY4	SAM	11/08/24 21:38	Not used	Kareem	Not Ok
45	P4502-05	MBHCY8	SAM	11/08/24 21:42	Not used	Kareem	Not Ok
46	P4502-06	MBHCY9	SAM	11/08/24 21:47	Not used	Kareem	Not Ok
47	P4502-07	MBHCZ0	SAM	11/08/24 21:51	Not used	Kareem	Not Ok
48	P4502-08	MBHCZ1	SAM	11/08/24 21:56	Not used	Kareem	Not Ok
49	P4502-09	MBHCZ2	SAM	11/08/24 22:00	Not used	Kareem	Not Ok
50	P4502-10	MBHCZ3	SAM	11/08/24 22:05	Not used	Kareem	Not Ok
51	P4502-11	MBHCX4	SAM	11/08/24 22:09	Not used	Kareem	Not Ok
52	P4502-12	MBHCX7	SAM	11/08/24 22:14	Not used	Kareem	Not Ok
53	P4502-13	MBHCX8	SAM	11/08/24 22:18	Not used	Kareem	Not Ok
54	P4502-14	MBHCX9	SAM	11/08/24 22:23	Not used	Kareem	Not Ok
55	P4502-15	MBHDO0	SAM	11/08/24 22:27	Not used	Kareem	Not Ok
56	CCV037	CCV037	CCV	11/08/24 22:32		Kareem	OK
57	CCB037	CCB037	CCB	11/08/24 22:36		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133378

Review By	Mohan Bera	Review On	11/12/2024 1:59:23 AM
Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

58	P4502-16	MBHDO1	SAM	11/08/24 22:40	Not used	Kareem	Not Ok
59	P4502-17	MBHDO2	SAM	11/08/24 22:45	Not used	Kareem	Not Ok
60	P4502-18	MBHDO3	SAM	11/08/24 22:49	Not used	Kareem	Not Ok
61	P4502-19	MBHDO4	SAM	11/08/24 22:54	Not used	Kareem	Not Ok
62	P4502-20	MBHZC9	SAM	11/08/24 22:59	Not used	Kareem	Not Ok
63	P4502-21	MBHZC9D	DUP	11/08/24 23:03	Not used	Kareem	Not Ok
64	P4502-22	MBHZC9S	MS	11/08/24 23:08	Not used	Kareem	Not Ok
65	P4502-20L	MBHZC9L	SD	11/08/24 23:12	Not used	Kareem	Not Ok
66	PB164545BL	PBS545	MB	11/08/24 23:17	Not used	Kareem	Not Ok
67	PB164545BS	LCS545	LCS	11/08/24 23:21	Not used	Kareem	Not Ok
68	P4520-01DL	MYE4L4	SAM	11/08/24 23:26	Not used	Kareem	Not Ok
69	P4520-02DL	MYE4L5	SAM	11/08/24 23:30	Not used	Kareem	Not Ok
70	P4520-03DL	MYE4L6	SAM	11/08/24 23:34	Not used	Kareem	Not Ok
71	P4520-04DL	MYE4L7	SAM	11/08/24 23:39	Not used	Kareem	Not Ok
72	P4520-05DL	MYE4L8	SAM	11/08/24 23:43	Not used	Kareem	Not Ok
73	P4520-06DL	MYE4L9	SAM	11/08/24 23:48	Not used	Kareem	Not Ok
74	P4520-07DL	MYE4M0	SAM	11/08/24 23:52	Not used	Kareem	Not Ok
75	P4520-08DL	MYE4M1	SAM	11/08/24 23:57	Not used	Kareem	Not Ok
76	P4520-09DL	MYE4M1D	DUP	11/09/24 00:01	Not used	Kareem	Not Ok
77	P4520-10DL	MYE4M1S	MS	11/09/24 00:06	Not used	Kareem	Not Ok

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133378

Review By	Mohan Bera	Review On	11/12/2024 1:59:23 AM
Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

78	CCV038	CCV038	CCV	11/09/24 00:10		Kareem	OK
79	CCB038	CCB038	CCB	11/09/24 00:14		Kareem	OK
80	P4520-08LDL	MYE4M1L	SD	11/09/24 00:19	Not used	Kareem	Not Ok
81	P4520-11DL	MYE4M2	SAM	11/09/24 00:23	Not used	Kareem	Not Ok
82	P4520-12DL	MYE4M4	SAM	11/09/24 00:28	Not used	Kareem	Not Ok
83	P4520-13DL	MYE4M5	SAM	11/09/24 00:32	Not used	Kareem	Not Ok
84	P4520-14DL	MYE4M6	SAM	11/09/24 00:36	Not used	Kareem	Not Ok
85	P4520-15DL	MYE4M7	SAM	11/09/24 00:41	Not used	Kareem	Not Ok
86	P4520-16DL	MYE4M8	SAM	11/09/24 00:45	Not used	Kareem	Not Ok
87	P4520-17DL	MYE4M9	SAM	11/09/24 00:50	Not used	Kareem	Not Ok
88	P4520-18DL	MYE4N0	SAM	11/09/24 00:54	Not used	Kareem	Not Ok
89	P4520-19DL	MYE4N1	SAM	11/09/24 00:59	Not used	Kareem	Not Ok
90	P4520-20DL	MYE4N2	SAM	11/09/24 01:03	Not used	Kareem	Not Ok
91	P4520-21DL	MYE4N3	SAM	11/09/24 01:08	Not used	Kareem	Not Ok
92	P4520-22DL	MYE4N4	SAM	11/09/24 01:12	Not used	Kareem	Not Ok
93	PB164570BL	PBS570	MB	11/09/24 01:37	Not used	Kareem	Not Ok
94	PB164570BS	LCS570	LCS	11/09/24 01:42	Not used	Kareem	Not Ok
95	PB164570BSD	LCSD570	LCSD	11/09/24 01:46	Not used	Kareem	Not Ok
96	P4521-01DL	MYE4N5	SAM	11/09/24 01:51	Not used	Kareem	Not Ok
97	CCV039	CCV039	CCV	11/09/24 01:55		Kareem	OK

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133378

Review By	Mohan Bera	Review On	11/12/2024 1:59:23 AM
Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

98	CCB039	CCB039	CCB	11/09/24 02:07	Inst. pause for review	Kareem	OK
99	P4521-02DL	MYE4N6	SAM	11/09/24 02:12	Not used	Kareem	Not Ok
100	P4521-03DL	MYE4N7	SAM	11/09/24 02:16	Not used	Kareem	Not Ok
101	P4521-04DL	MYE4N8	SAM	11/09/24 02:21	Not used	Kareem	Not Ok
102	P4521-05DL	MYE4N9	SAM	11/09/24 02:25	Not used	Kareem	Not Ok
103	P4521-06DL	MYE4P0	SAM	11/09/24 02:30	Not used	Kareem	Not Ok
104	P4521-07DL	MYE4P1	SAM	11/09/24 02:34	Not used	Kareem	Not Ok
105	P4521-08DL	MYE4P2	SAM	11/09/24 02:38	Not used	Kareem	Not Ok
106	P4521-09DL	MYE4P2D	DUP	11/09/24 02:43	Not used	Kareem	Not Ok
107	P4521-10DL	MYE4P2S	MS	11/09/24 02:47	Not used	Kareem	Not Ok
108	P4521-08LDL	MYE4P2L	SD	11/09/24 02:52	Not used	Kareem	Not Ok
109	P4521-11DL	MYE4P3	SAM	11/09/24 02:56	Not used	Kareem	Not Ok
110	P4521-12DL	MYE4P4	SAM	11/09/24 03:01	Not used	Kareem	Not Ok
111	P4521-13DL	MYE4P5	SAM	11/09/24 03:05	Not used	Kareem	Not Ok
112	P4521-14DL	MYE4Q2	SAM	11/09/24 03:09	Not used	Kareem	Not Ok
113	P4521-15DL	MYE4Q3	SAM	11/09/24 03:14	Not used	Kareem	Not Ok
114	P4521-16DL	MYE4Q4	SAM	11/09/24 03:18	Not used	Kareem	Not Ok
115	P4521-17DL	MYE4Q5	SAM	11/09/24 03:23	Not used	Kareem	Not Ok
116	P4521-18DL	MYE4Q6	SAM	11/09/24 03:27	Not used	Kareem	Not Ok
117	P4521-19DL	MYE4Q7	SAM	11/09/24 03:32	Not used	Kareem	Not Ok

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133378

Review By	Mohan Bera	Review On	11/12/2024 1:59:23 AM
Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

STD. NAME	STD REF.#
ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

118	P4521-20DL	MYE4Q8	SAM	11/09/24 03:36	Not used	Kareem	Not Ok
119	CCV040	CCV040	CCV	11/09/24 03:40		Kareem	OK
120	CCB040	CCB040	CCB	11/09/24 03:45		Kareem	OK
121	P4521-21DL	MYE4Q9	SAM	11/09/24 03:49	Not used	Kareem	Not Ok
122	P4521-22DL	MYE4R0	SAM	11/09/24 03:54	Not used	Kareem	Not Ok
123	PB164584BL	PBS584	MB	11/09/24 03:58	Not used	Kareem	Not Ok
124	PB164584BS	LCS584	LCS	11/09/24 04:03	Not used	Kareem	Not Ok
125	PB164584BSD	LCSD584	LCSD	11/09/24 04:07	Not used	Kareem	Not Ok
126	P4522-01DL	MYE4R1	SAM	11/09/24 04:12	Not used	Kareem	Not Ok
127	P4522-02DL	MYE4R1D	DUP	11/09/24 04:16	Not used	Kareem	Not Ok
128	P4522-03DL	MYE4R1S	MS	11/09/24 04:20	Not used	Kareem	Not Ok
129	P4522-01LDL	MYE4R1L	SD	11/09/24 04:25	Not used	Kareem	Not Ok
130	P4522-04DL	MYE4R2	SAM	11/09/24 04:29	Not used	Kareem	Not Ok
131	P4522-05DL	MYE4R3	SAM	11/09/24 04:34	Not used	Kareem	Not Ok
132	P4522-06DL	MYE4R4	SAM	11/09/24 04:38	Not used	Kareem	Not Ok
133	P4522-07DL	MYE4R5	SAM	11/09/24 04:43	Not used	Kareem	Not Ok
134	P4522-08DL	MYE4R6	SAM	11/09/24 04:47	Not used	Kareem	Not Ok
135	P4522-09DL	MYE4R7	SAM	11/09/24 04:51	Not used	Kareem	Not Ok
136	P4522-10DL	MYE4R8	SAM	11/09/24 04:56	Not used	Kareem	Not Ok
137	P4522-11DL	MYE4S0	SAM	11/09/24 05:00	Not used	Kareem	Not Ok

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Supervise By	Sarabjit Jaswal	Supervise On	11/12/2024 3:09:59 AM

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ICAL Standard	MP83134,MP83142,MP83140,MP83139,MP83138,MP83137,MP83136
ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

138	P4522-12DL	MYE4S1	SAM	11/09/24 05:05	Not used	Kareem	Not Ok
139	P4522-13DL	MYE4S2	SAM	11/09/24 05:09	Not used	Kareem	Not Ok
140	P4522-14DL	MYE4S3	SAM	11/09/24 05:14	Not used	Kareem	Not Ok
141	CCV041	CCV041	CCV	11/09/24 05:18		Kareem	OK
142	CCB041	CCB041	CCB	11/09/24 05:22		Kareem	OK
143	P4522-15DL	MYE4S4	SAM	11/09/24 05:27	Not used	Kareem	Not Ok
144	P4522-16DL	MYE4S5	SAM	11/09/24 05:31	Not used	Kareem	Not Ok
145	P4522-17DL	MYE4S6	SAM	11/09/24 05:36	Not used	Kareem	Not Ok
146	P4522-18DL	MYE4S7	SAM	11/09/24 05:40	Not used	Kareem	Not Ok
147	P4522-19DL	MYE4S8	SAM	11/09/24 05:44	Not used	Kareem	Not Ok
148	P4522-20DL	MYE4S9	SAM	11/09/24 05:49	Not used	Kareem	Not Ok
149	P4522-21DL	MYE4T0	SAM	11/09/24 05:53	Not used	Kareem	Not Ok
150	P4522-22DL	MYE4T1	SAM	11/09/24 05:58	Not used	Kareem	Not Ok
151	PB164586BL	PBS586	MB	11/09/24 06:02	Not used	Kareem	Not Ok
152	PB164586BS	LCS586	LCS	11/09/24 06:06	Not used	Kareem	Not Ok
153	PB164586BSD	LCSD586	LCSD	11/09/24 06:11	Not used	Kareem	Not Ok
154	P4730-01	MC0B82	SAM	11/09/24 06:15	Not used	Kareem	Not Ok
155	P4730-04	MC0B86	SAM	11/09/24 06:20	Not used	Kareem	Not Ok
156	P4730-05	MC0B86D	DUP	11/09/24 06:25	Not used	Kareem	Not Ok
157	P4730-06	MC0B86S	MS	11/09/24 06:29	Not used	Kareem	Not Ok

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CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

158	P4730-04L	MC0B86L	SD	11/09/24 06:33	Not used	Kareem	Not Ok
159	P4730-07	MC0B88	SAM	11/09/24 06:38	Not used	Kareem	Not Ok
160	PB164767BL	PBW767	MB	11/09/24 06:42	Not used	Kareem	Not Ok
161	PB164767BS	LCS767	LCS	11/09/24 06:47	Not used	Kareem	Not Ok
162	P4523-01DL	MYE4T2	SAM	11/09/24 06:51	Not used	Kareem	Not Ok
163	CCV042	CCV042	CCV	11/09/24 06:56		Kareem	OK
164	CCB042	CCB042	CCB	11/09/24 07:00		Kareem	OK
165	P4523-02DL	MYE4T3	SAM	11/09/24 07:05	Not used	Kareem	Not Ok
166	P4523-03DL	MYE4T4	SAM	11/09/24 07:09	Not used	Kareem	Not Ok
167	P4523-04DL	MYE4T5	SAM	11/09/24 07:13	Not used	Kareem	Not Ok
168	P4523-05DL	MYE4T6	SAM	11/09/24 07:18	Not used	Kareem	Not Ok
169	P4523-06DL	MYE4T7	SAM	11/09/24 07:22	Not used	Kareem	Not Ok
170	P4523-07DL	MYE4T8	SAM	11/09/24 07:27	Not used	Kareem	Not Ok
171	P4523-08DL	MYE4T8D	DUP	11/09/24 07:31	Not used	Kareem	Not Ok
172	P4523-09DL	MYE4T8S	MS	11/09/24 07:36	Not used	Kareem	Not Ok
173	P4523-07LDL	MYE4T8L	SD	11/09/24 07:40	Not used	Kareem	Not Ok
174	P4523-10DL	MYE4T9	SAM	11/09/24 07:44	Not used	Kareem	Not Ok
175	P4523-11DL	MYE4W8	SAM	11/09/24 07:49	Not used	Kareem	Not Ok
176	P4523-12DL	MYE4W9	SAM	11/09/24 07:53	Not used	Kareem	Not Ok
177	P4523-13DL	MYE4X0	SAM	11/09/24 07:58	Not used	Kareem	Not Ok

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CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

178	P4523-14DL	MYE4X1	SAM	11/09/24 08:02	Not used	Kareem	Not Ok
179	P4523-15DL	MYE4X2	SAM	11/09/24 08:06	Not used	Kareem	Not Ok
180	P4523-16DL	MYE4X3	SAM	11/09/24 08:11	Not used	Kareem	Not Ok
181	P4523-17DL	MYE4X4	SAM	11/09/24 08:15	Not used	Kareem	Not Ok
182	P4523-18DL	MYE4X5	SAM	11/09/24 08:20	Not used	Kareem	Not Ok
183	P4523-19DL	MYE4X6	SAM	11/09/24 08:24	Not used	Kareem	Not Ok
184	P4523-20DL	MYE4X7	SAM	11/09/24 08:29	Not used	Kareem	Not Ok
185	CCV043	CCV043	CCV	11/09/24 08:33		Kareem	OK
186	CCB043	CCB043	CCB	11/09/24 08:37		Kareem	OK
187	P4523-21DL	MYE4X8	SAM	11/09/24 08:42	Not used	Kareem	Not Ok
188	P4523-22DL	MYE4X9	SAM	11/09/24 08:46	Not used	Kareem	Not Ok
189	PB164595BL	PBS595	MB	11/09/24 08:51	Not used	Kareem	Not Ok
190	PB164595BS	LCS595	LCS	11/09/24 08:55	Not used	Kareem	Not Ok
191	PB164595BSD	LCSD595	LCSD	11/09/24 09:00	Not used	Kareem	Not Ok
192	P4497-20ADL	MBHDD0A	PS	11/09/24 09:04	Not used	Kareem	Not Ok
193	P4501-13ADL	MBHCW0A	PS	11/09/24 09:08	Not used	Kareem	Not Ok
194	P4499-20A	MBHCN0A	PS	11/09/24 09:13	PS for Co 0.0069ml m5800, Cu 0.01ml mp83158, Tl 0.05ml mp83153-10 ml sample	Kareem	OK
195	CCV044	CCV044	CCV	11/09/24 09:17		Kareem	OK

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CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

196	CCB044	CCB044	CCB	11/09/24 09:22		Kareem	OK