EPA SAMPLE NO.

E29X1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-01

% Solids: 84 Date Received: 11/15/2024

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	1600		11/20/2024	1332
7440-70-2	Calcium	120000	D	11/20/2024	1925
7439-89-6	Iron	7900		11/20/2024	1332
7439-95-4	Magnesium	49000		11/20/2024	1332
7440-09-7	Potassium	130	J	11/20/2024	1332
7440-23-5	Sodium	150	J	11/20/2024	1332

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

Comments:

EPA SAMPLE NO.

E29X2

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-02

% Solids: 83.5 Date Received: 11/15/2024

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	1700		11/20/2024	1337
7440-70-2	Calcium	190000	D	11/20/2024	1929
7439-89-6	Iron	6900		11/20/2024	1337
7439-95-4	Magnesium	72000		11/20/2024	1337
7440-09-7	Potassium	140	J	11/20/2024	1337
7440-23-5	Sodium	200	J	11/20/2024	1337

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

Comments:

EPA SAMPLE NO.

E29X3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-03

% Solids: 84.9 Date Received: 11/15/2024

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	1300		11/20/2024	1341
7440-70-2	Calcium	130000	D	11/20/2024	1943
7439-89-6	Iron	6700		11/20/2024	1341
7439-95-4	Magnesium	49000		11/20/2024	1341
7440-09-7	Potassium	110	J	11/20/2024	1341
7440-23-5	Sodium	170	J	11/20/2024	1341

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

Comments:

EPA SAMPLE NO.

E29X4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-04

% Solids: 87 Date Received: 11/15/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	1900		11/20/2024	1346
7440-70-2	Calcium	150000	D	11/20/2024	1947
7439-89-6	Iron	7900		11/20/2024	1346
7439-95-4	Magnesium	55000		11/20/2024	1346
7440-09-7	Potassium	170	J	11/20/2024	1346
7440-23-5	Sodium	210	J	11/20/2024	1346

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

Comments:

EPA SAMPLE NO.

E29X5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-05

% Solids: 74.9 Date Received: 11/15/2024

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	2100		11/20/2024	1350
7440-70-2	Calcium	130000	D	11/20/2024	1952
7439-89-6	Iron	8300		11/20/2024	1350
7439-95-4	Magnesium	38000		11/20/2024	1350
7440-09-7	Potassium	140	J	11/20/2024	1350
7440-23-5	Sodium	190	J	11/20/2024	1350

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

Comments:

EPA SAMPLE NO.

E29X6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-08

% Solids: 81.7 Date Received: 11/15/2024

Analytical Method: ICP_AES

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

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
7429-90-5	Aluminum	1900		11/20/2024	1409
7440-70-2	Calcium	160000	D	11/20/2024	2010
7439-89-6	Iron	6300		11/20/2024	1409
7439-95-4	Magnesium	50000		11/20/2024	1409
7440-09-7	Potassium	110	J	11/20/2024	1409
7440-23-5	Sodium	200	J	11/20/2024	1409

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

Comments:

EPA SAMPLE NO.

E29X7

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-09

% Solids: 92.9 Date Received: 11/15/2024

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	1300		11/20/2024	1413
7440-70-2	Calcium	130000	D	11/20/2024	2014
7439-89-6	Iron	5500		11/20/2024	1413
7439-95-4	Magnesium	42000		11/20/2024	1413
7440-09-7	Potassium	150	J	11/20/2024	1413
7440-23-5	Sodium	160	J	11/20/2024	1413

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

Comments:

EPA SAMPLE NO.

E29X8

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-10

% Solids: 83.3 Date Received: 11/15/2024

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	1800		11/20/2024	1418
7440-70-2	Calcium	110000	D	11/20/2024	2018
7439-89-6	Iron	5800		11/20/2024	1418
7439-95-4	Magnesium	38000		11/20/2024	1418
7440-09-7	Potassium	100	J	11/20/2024	1418
7440-23-5	Sodium	140	J	11/20/2024	1418

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

Comments:

EPA SAMPLE NO.

E29X9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-11

% Solids: 50.8 Date Received: 11/15/2024

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	6100		11/20/2024	1422
7440-70-2	Calcium	66000		11/20/2024	1422
7439-89-6	Iron	10000		11/20/2024	1422
7439-95-4	Magnesium	27000		11/20/2024	1422
7440-09-7	Potassium	460	J	11/20/2024	1422
7440-23-5	Sodium	760	U	11/20/2024	1422

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

Comments:

EPA SAMPLE NO.

E29Y0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-12

% Solids: 89.7 Date Received: 11/15/2024

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	3100		11/20/2024	1427
7440-70-2	Calcium	86000	D	11/20/2024	2023
7439-89-6	Iron	9400		11/20/2024	1427
7439-95-4	Magnesium	31000		11/20/2024	1427
7440-09-7	Potassium	580		11/20/2024	1427
7440-23-5	Sodium	160	J	11/20/2024	1427

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

Comments:

EPA SAMPLE NO.

E29Y1

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-13

% Solids: 76.1 Date Received: 11/16/2024

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	1800		11/20/2024	1431
7440-70-2	Calcium	91000	D	11/20/2024	2027
7439-89-6	Iron	6000		11/20/2024	1431
7439-95-4	Magnesium	33000		11/20/2024	1431
7440-09-7	Potassium	120	J	11/20/2024	1431
7440-23-5	Sodium	180	J	11/20/2024	1431

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

Comments:

EPA SAMPLE NO.

E29Y2

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-14

% Solids: 89 Date Received: 11/16/2024

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	1400		11/20/2024	1436
7440-70-2	Calcium	96000	D	11/20/2024	2032
7439-89-6	Iron	5800		11/20/2024	1436
7439-95-4	Magnesium	35000		11/20/2024	1436
7440-09-7	Potassium	160	J	11/20/2024	1436
7440-23-5	Sodium	170	J	11/20/2024	1436

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

Comments:

EPA SAMPLE NO.

E29Y3

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-15

% Solids: 89 Date Received: 11/16/2024

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	2600		11/20/2024	1450
7440-70-2	Calcium	110000	D	11/20/2024	2036
7439-89-6	Iron	9400		11/20/2024	1450
7439-95-4	Magnesium	40000		11/20/2024	1450
7440-09-7	Potassium	420		11/20/2024	1450
7440-23-5	Sodium	170	J	11/20/2024	1450

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

Comments:

EPA SAMPLE NO.

E29Y4

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-16

% Solids: 83.4 Date Received: 11/16/2024

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	1600		11/20/2024	1454
7440-70-2	Calcium	71000	D	11/20/2024	2041
7439-89-6	Iron	5600		11/20/2024	1454
7439-95-4	Magnesium	24000		11/20/2024	1454
7440-09-7	Potassium	170	J	11/20/2024	1454
7440-23-5	Sodium	120	J	11/20/2024	1454

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

Comments:

EPA SAMPLE NO.

E29Y5

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-17

% Solids: 83.9 Date Received: 11/16/2024

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	2000		11/20/2024	1459
7440-70-2	Calcium	89000	D	11/20/2024	2045
7439-89-6	Iron	7000		11/20/2024	1459
7439-95-4	Magnesium	30000		11/20/2024	1459
7440-09-7	Potassium	180	J	11/20/2024	1459
7440-23-5	Sodium	160	J	11/20/2024	1459

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

Comments:

EPA SAMPLE NO.

E29Y6

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-20

% Solids: 88.2 Date Received: 11/16/2024

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	2200		11/20/2024	1512
7440-70-2	Calcium	130000	D	11/20/2024	2059
7439-89-6	Iron	8800		11/20/2024	1512
7439-95-4	Magnesium	44000		11/20/2024	1512
7440-09-7	Potassium	220	J	11/20/2024	1512
7440-23-5	Sodium	150	J	11/20/2024	1512

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

Comments:

EPA SAMPLE NO.

E29Y7

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-21

% Solids: 77.8 Date Received: 11/16/2024

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	3200		11/20/2024	1517
7440-70-2	Calcium	77000		11/20/2024	1517
7439-89-6	Iron	8900		11/20/2024	1517
7439-95-4	Magnesium	27000		11/20/2024	1517
7440-09-7	Potassium	190	J	11/20/2024	1517
7440-23-5	Sodium	150	J	11/20/2024	1517

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

Comments:

EPA SAMPLE NO.

E29Y9

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-18

% Solids: 83.3 Date Received: 11/16/2024

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	1400		11/20/2024	1503
7440-70-2	Calcium	120000	D	11/20/2024	2050
7439-89-6	Iron	5800		11/20/2024	1503
7439-95-4	Magnesium	42000		11/20/2024	1503
7440-09-7	Potassium	130	J	11/20/2024	1503
7440-23-5	Sodium	150	J	11/20/2024	1503

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

Comments:

EPA SAMPLE NO.

E29Z0

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-19

% Solids: 82.4 Date Received: 11/16/2024

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	1500		11/20/2024	1508
7440-70-2	Calcium	140000	D	11/20/2024	2054
7439-89-6	Iron	6100		11/20/2024	1508
7439-95-4	Magnesium	52000		11/20/2024	1508
7440-09-7	Potassium	110	J	11/20/2024	1508
7440-23-5	Sodium	180	J	11/20/2024	1508

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

Comments:

EPA SAMPLE NO.

E2A11

FORM 1 - IN

INORGANIC ANALYSIS DATA SHEET

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

Lab Code: ACE Case No.: 51878 MA No. : SDG No.: E29X3

Matrix: SOIL Lab Sample ID: P4879-22

% Solids: 79.3 Date Received: 11/16/2024

Analytical Method: ICP_AES

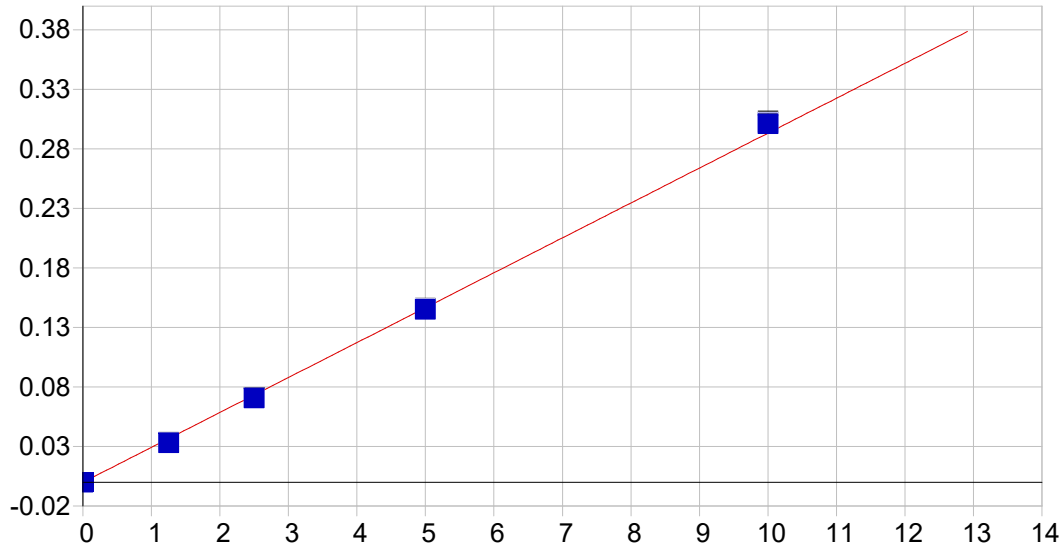
Concentration Units (µg/L, mg/L, mg/kg dry weight, µg, or µg/cm²): mg/kg

CAS No.	Analyte	Concentration	Q	Date Analyzed	Time Analyzed
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7440-70-2	Calcium	100000	D	11/20/2024	2104
7439-89-6	Iron	6100		11/20/2024	1522
7439-95-4	Magnesium	41000		11/20/2024	1522
7440-09-7	Potassium	180	J	11/20/2024	1522
7440-23-5	Sodium	180	J	11/20/2024	1522

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

Comments:

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



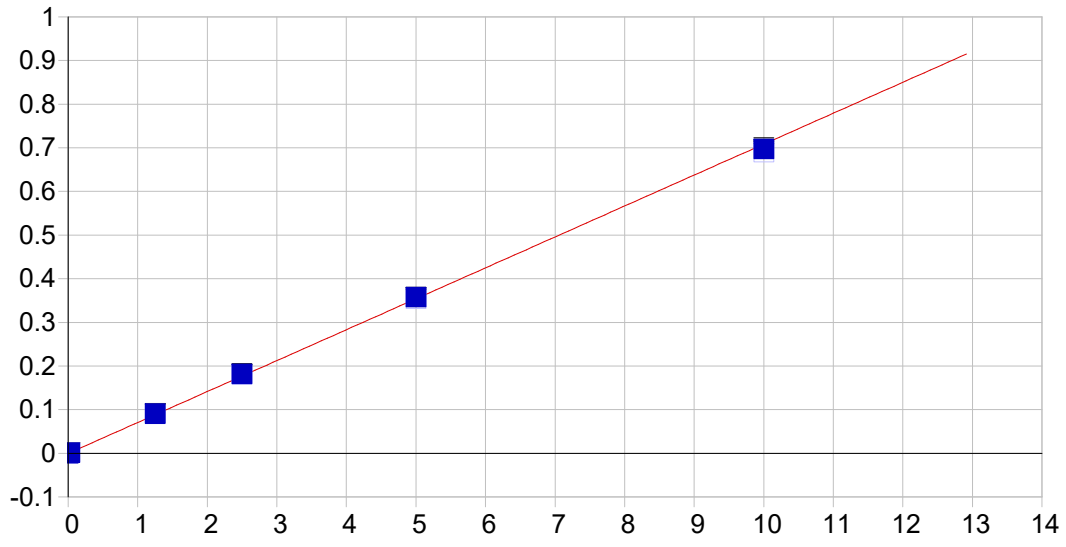
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A1 (Gain):	0.029333	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999387	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.006784		
Predicted MQL:	0.022615		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00005	.000	1
S1	.01000	.01014	.000	1.39	.00025	.000	1
S2	1.2500	1.1273	-.123	-9.81	.03317	.000	1
S3	2.5000	2.4056	-.094	-3.78	.07082	.000	1
S4	5.0000	4.9502	-.050	-.995	.14577	.000	1
S5	10.000	10.267	.267	2.67	.30233	.001	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



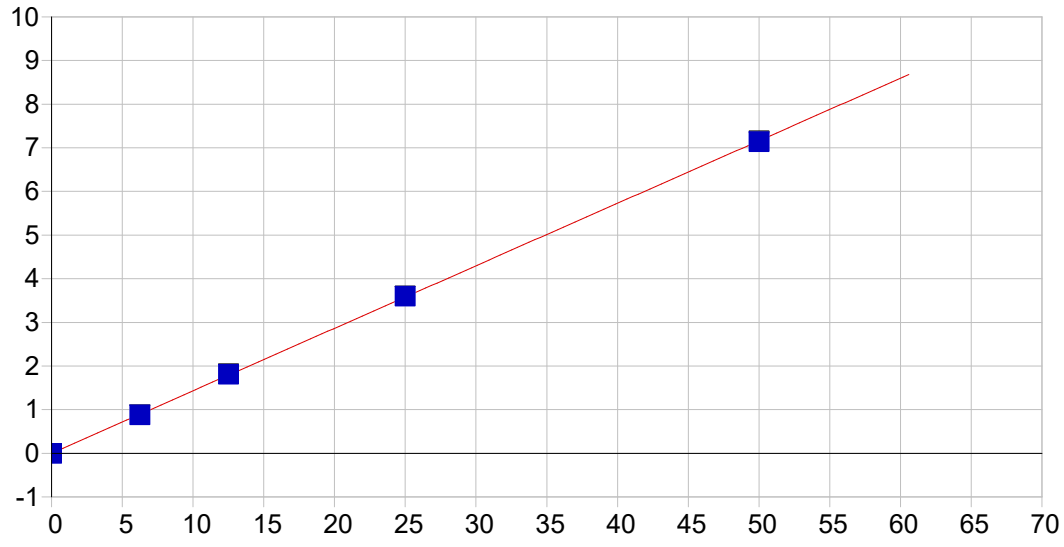
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A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999836	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.003147		
Predicted MQL:	0.010488		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
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S1	.02500	.02567	.001	2.68	.00141	.000	1
S2	1.2500	1.2863	.036	2.91	.08985	.000	1
S3	2.5000	2.5710	.071	2.84	.17995	.001	1
S4	5.0000	5.0489	.049	.978	.35367	.000	1
S5	10.000	9.8431	-.157	-1.57	.68965	.003	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



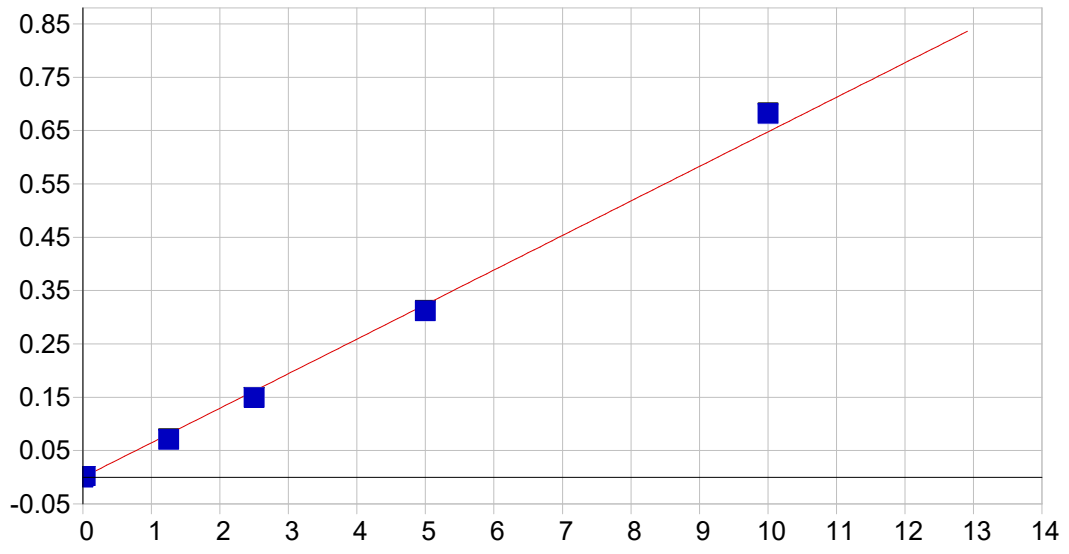
Pb 220.353 {453}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000725	Re-Slope:	1.000000
A1 (Gain):	0.143241	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000040		
Predicted MDL:	0.003383		
Predicted MQL:	0.011278		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00073	.000	1
S1	.01000	.01071	.001	7.13	.00081	.000	1
S2	6.2500	6.1382	-.112	-1.79	.87829	.002	1
S3	12.500	12.652	.152	1.22	1.8112	.002	1
S4	25.000	25.128	.128	.512	3.5977	.003	1
S5	50.000	49.831	-.169	-.339	7.1352	.020	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



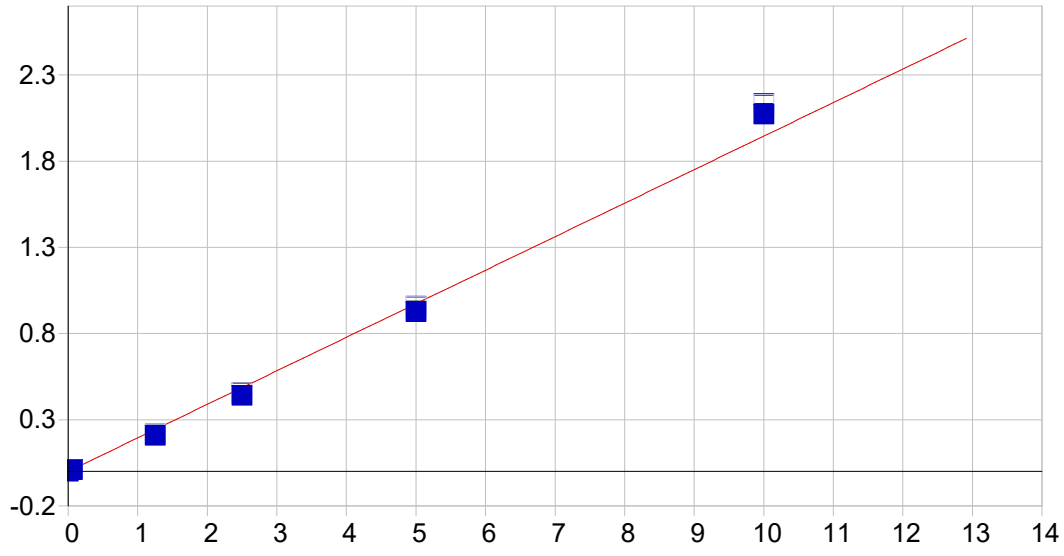
Se 196.090 {472}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000129	Re-Slope:	1.000000
A1 (Gain):	0.064769	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998165	Status:	OK.
Std Error of Est:	0.000123		
Predicted MDL:	0.006315		
Predicted MQL:	0.021049		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00013	.000	1
S1	.03500	.03440	-.001	-1.71	.00210	.000	1
S2	1.2500	1.0955	-.155	-12.4	.07067	.001	1
S3	2.5000	2.3098	-.190	-7.61	.14917	.000	1
S4	5.0000	4.8132	-.187	-3.74	.31100	.002	1
S5	10.000	10.532	.532	5.32	.68079	.001	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



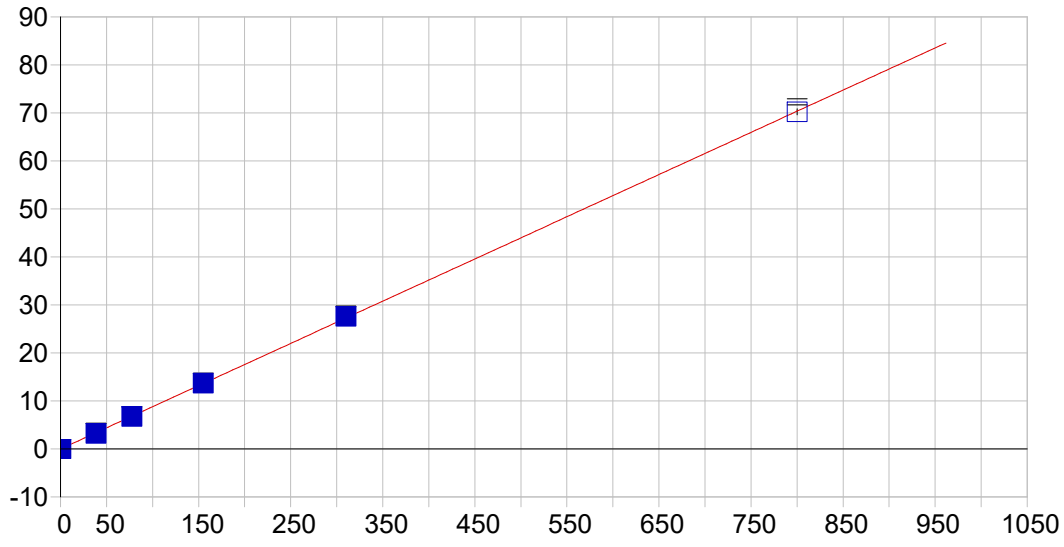
Sb 206.833 {463}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000244	Re-Slope:	1.000000
A1 (Gain):	0.194515	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997460	Status:	OK.
Std Error of Est:	0.000588		
Predicted MDL:	0.002562		
Predicted MQL:	0.008542		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00025	.000	1
S1	.06000	.05347	-.007	-10.9	.01065	.000	1
S2	1.2500	1.0729	-.177	-14.2	.21613	.001	1
S3	2.5000	2.2623	-.238	-9.51	.45465	.001	1
S4	5.0000	4.7688	-.231	-4.62	.95656	.002	1
S5	10.000	10.652	.652	6.52	2.1297	.004	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



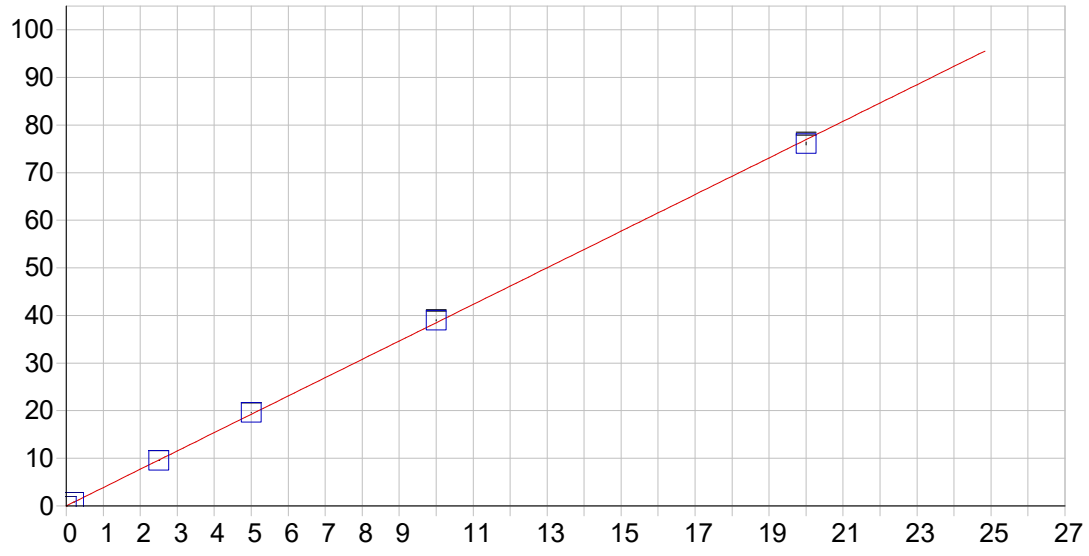
Al 396.152 { 85}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.004406	Re-Slope:	1.000000
A1 (Gain):	0.087944	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000610		
Predicted MDL:	0.013131		
Predicted MQL:	0.043772		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	-.00440	.001	1
S1	.20000	.18930	-.011	-5.35	.01227	.001	1
S2	38.750	36.718	-2.03	-5.24	3.2288	.013	1
S3	77.500	76.452	-1.05	-1.35	6.7273	.031	1
S4	155.00	155.66	.656	.423	13.701	.005	1
S5	310.00	313.77	3.77	1.22	27.623	.074	1
S6	800.00	798.66	-1.34	-.167	70.233	.627	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



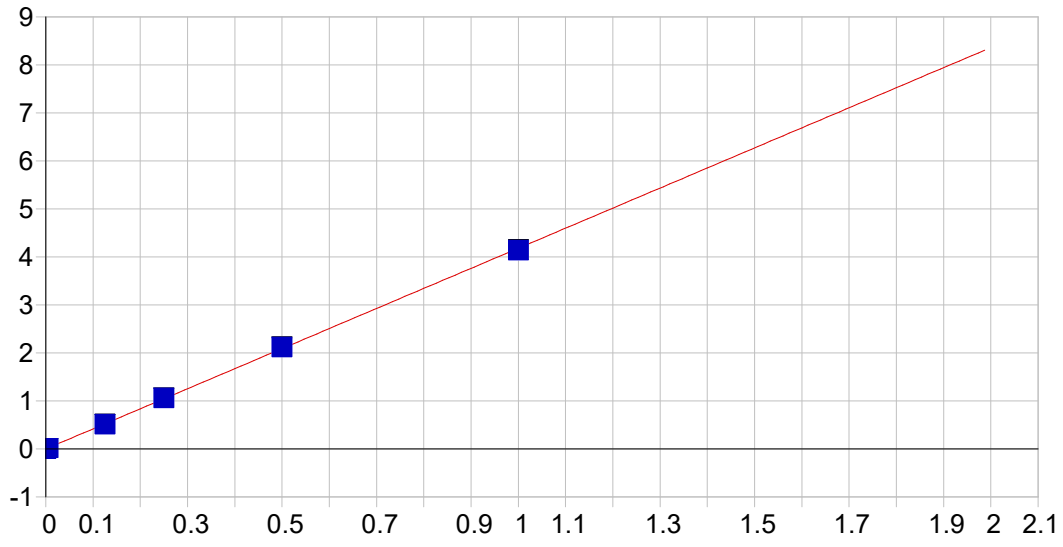
Ba 493.409 { 68}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.010315	Re-Slope:	1.000000
A1 (Gain):	3.846883	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999906	Status:	OK.
Std Error of Est:	0.005610		
Predicted MDL:	0.000659		
Predicted MQL:	0.002196		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.01025	.003	1
S1	.20000	.21392	.014	6.96	.83323	.002	1
S2	2.5000	2.4754	-.025	-.983	9.5330	.004	1
S3	5.0000	5.0957	.096	1.91	19.613	.049	1
S4	10.000	10.131	.131	1.31	38.983	.109	1
S5	20.000	19.784	-.216	-1.08	76.117	.290	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



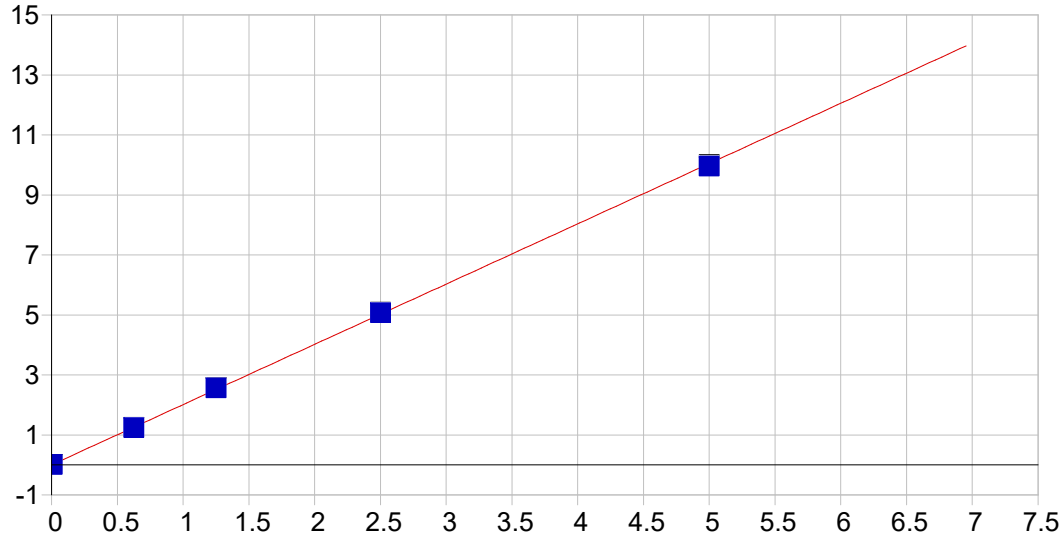
Be 234.861 {144}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000843	Re-Slope:	1.000000
A1 (Gain):	4.181050	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999915	Status:	OK.
Std Error of Est:	0.000205		
Predicted MDL:	0.000111		
Predicted MQL:	0.000371		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00084	.000	1
S1	.00500	.00538	.000	7.67	.02165	.001	1
S2	.12500	.12300	-.002	-1.60	.51259	.002	1
S3	.25000	.25384	.004	1.54	1.0588	.003	1
S4	.50000	.50735	.007	1.47	2.1170	.010	1
S5	1.0000	.99043	-.010	-.957	4.1335	.010	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



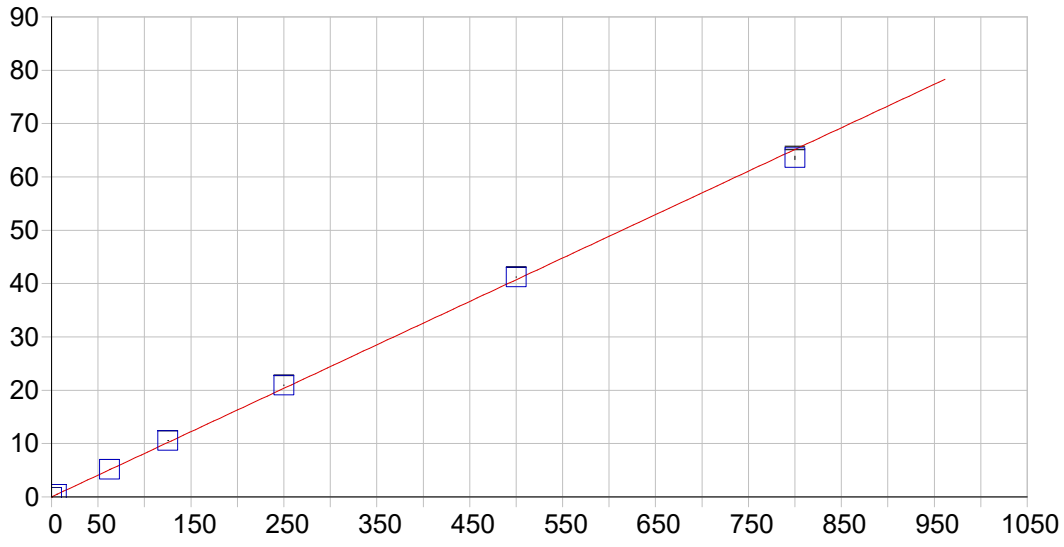
Cd 214.438 {457}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000160	Re-Slope:	1.000000
A1 (Gain):	2.009015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999926	Status:	OK.
Std Error of Est:	0.000205		
Predicted MDL:	0.000147		
Predicted MQL:	0.000490		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.00500	.00544	.000	8.76	.01109	.000	1
S2	.62500	.61909	-.006	-.946	1.2469	.004	1
S3	1.2500	1.2774	.027	2.20	2.5726	.003	1
S4	2.5000	2.5250	.025	1.00	5.0850	.004	1
S5	5.0000	4.9530	-.047	-.940	9.9749	.037	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



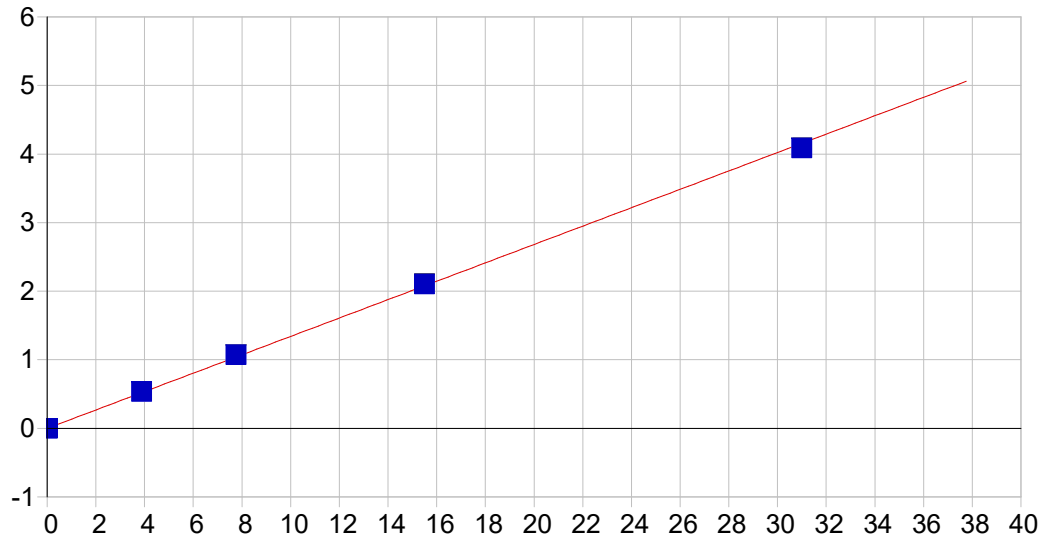
Ca 373.690 { 90}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006961	Re-Slope:	1.000000
A1 (Gain):	0.081425	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999714	Status:	OK.
Std Error of Est:	0.006795		
Predicted MDL:	0.012716		
Predicted MQL:	0.042388		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00095	-.001	.000	.00688	.000	1
S1	5.0000	5.6102	.610	12.2	.46377	.002	1
S2	62.500	63.488	.988	1.58	5.1765	.010	1
S3	125.00	129.66	4.66	3.73	10.564	.025	1
S4	250.00	256.96	6.96	2.78	20.930	.059	1
S5	500.00	506.07	6.07	1.21	41.214	.069	1
S6	800.00	780.71	-19.3	-2.41	63.577	.344	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



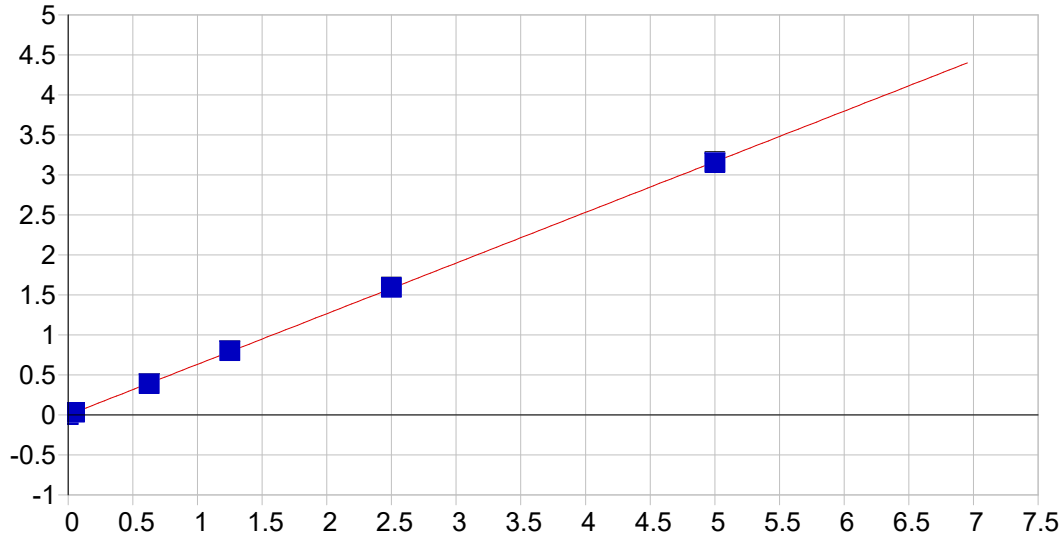
Cr 267.716 {126}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000254	Re-Slope:	1.000000
A1 (Gain):	0.134081	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999818	Status:	OK.
Std Error of Est:	0.000076		
Predicted MDL:	0.001243		
Predicted MQL:	0.004142		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00025	.000	1
S1	.01000	.01110	.001	11.0	.00124	.000	1
S2	3.8750	3.9793	.104	2.69	.53388	.001	1
S3	7.7500	7.9913	.241	3.11	1.0724	.001	1
S4	15.500	15.676	.176	1.13	2.1039	.003	1
S5	31.000	30.478	-.522	-1.69	4.0909	.004	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



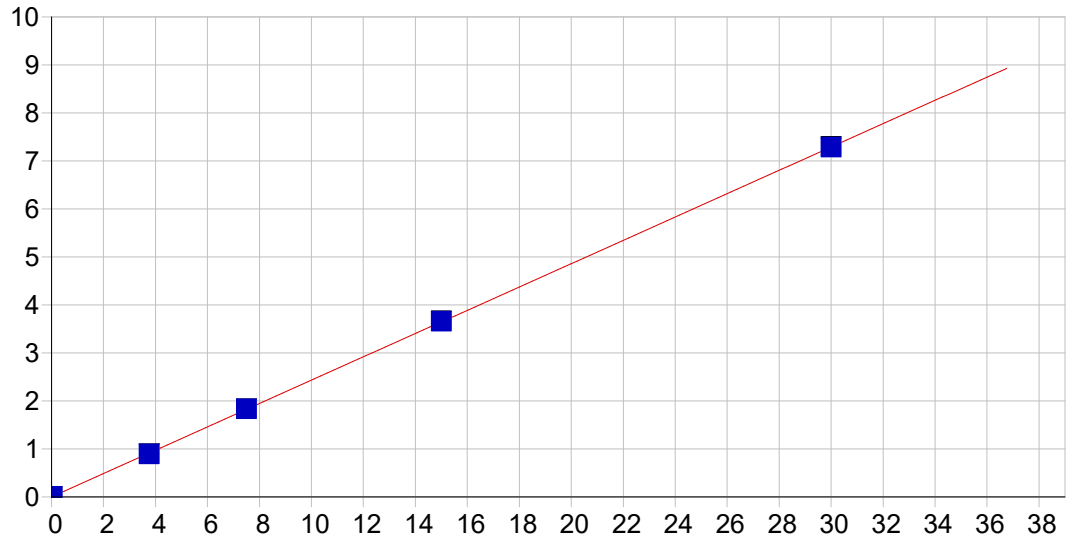
Co 228.616 {448}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000392	Re-Slope:	1.000000
A1 (Gain):	0.632889	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000130		
Predicted MDL:	0.000535		
Predicted MQL:	0.001784		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00039	.000	1
S1	.05000	.05091	.001	1.82	.03194	.000	1
S2	.62500	.61313	-.012	-1.90	.38814	.001	1
S3	1.2500	1.2621	.012	.967	.79934	.001	1
S4	2.5000	2.5179	.018	.717	1.5951	.002	1
S5	5.0000	4.9809	-.019	-.381	3.1558	.009	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



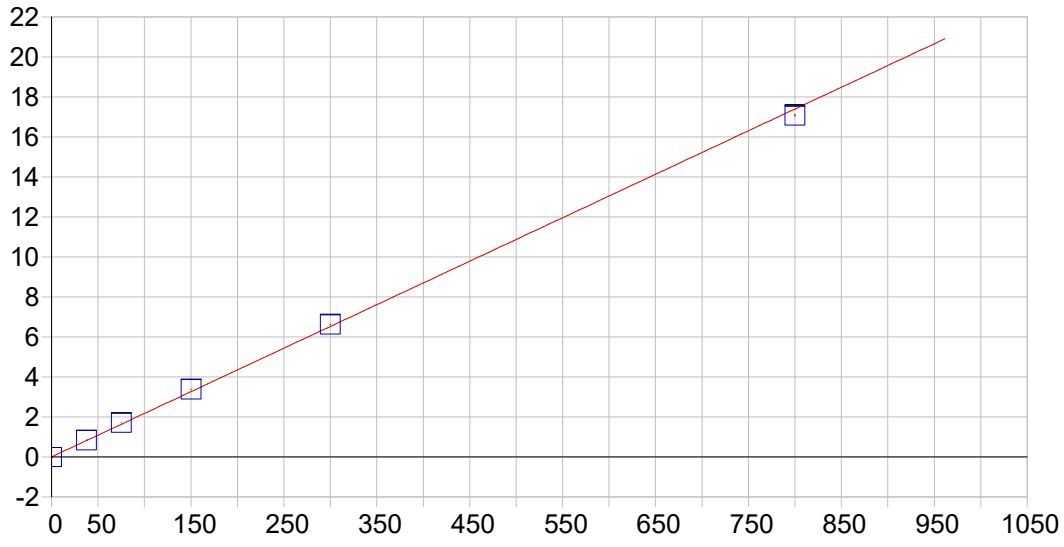
Cu 324.754 {104}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002020	Re-Slope:	1.000000
A1 (Gain):	0.242894	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999984	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.002789		
Predicted MQL:	0.009298		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00202	.000	1
S1	.02500	.02509	.000	.360	.00811	.001	1
S2	3.7500	3.6782	-.072	-1.92	.89484	.003	1
S3	7.5000	7.5374	.037	.499	1.8317	.006	1
S4	15.000	15.054	.054	.359	3.6562	.006	1
S5	30.000	29.980	-.020	-.065	7.2794	.016	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



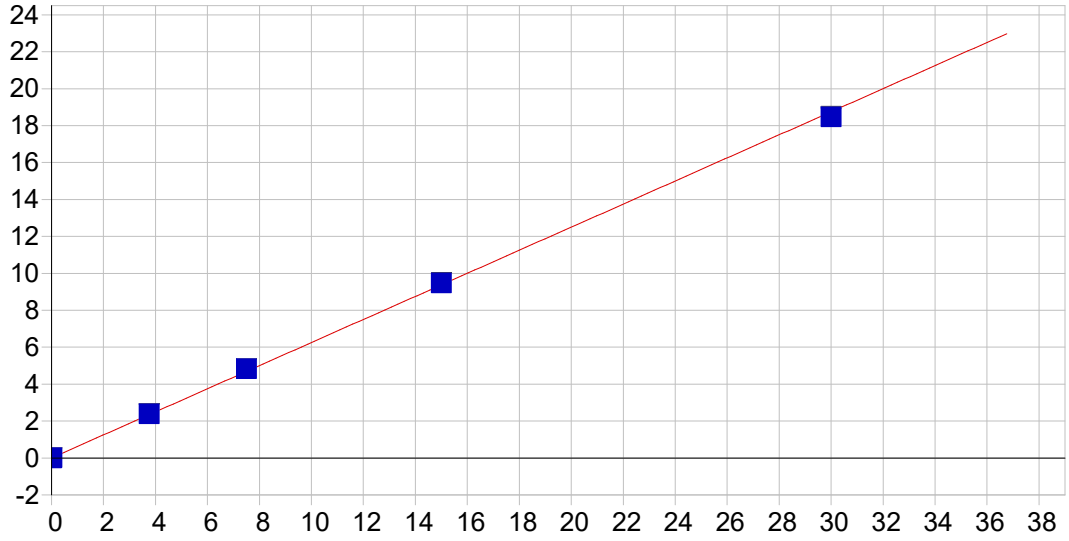
Fe 259.837 {130}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000171	Re-Slope:	1.000000
A1 (Gain):	0.021743	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999731	Status:	OK.
Std Error of Est:	0.000220		
Predicted MDL:	0.013467		
Predicted MQL:	0.044890		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	.00017	.000	1
S1	.10000	.12219	.022	22.2	.00283	.000	1
S2	37.500	38.441	.941	2.51	.83597	.003	1
S3	75.000	78.659	3.66	4.88	1.7104	.007	1
S4	150.00	155.36	5.36	3.57	3.3781	.008	1
S5	300.00	304.58	4.58	1.53	6.6225	.015	1
S6	800.00	785.44	-14.6	-1.82	17.078	.035	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



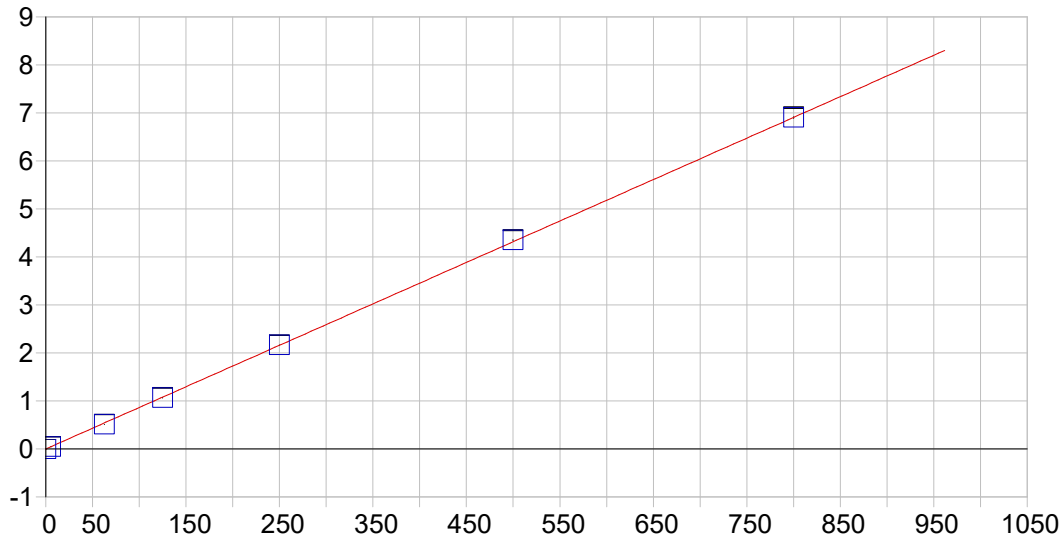
Mn 257.610 {131}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000094	Re-Slope:	1.000000
A1 (Gain):	0.625079	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999840	Status:	OK.
Std Error of Est:	0.000398		
Predicted MDL:	0.000562		
Predicted MQL:	0.001872		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.01500	.01802	.003	20.1	.01138	.000	1
S2	3.7500	3.8284	.078	2.09	2.3935	.005	1
S3	7.5000	7.7332	.233	3.11	4.8346	.007	1
S4	15.000	15.147	.147	.979	9.4694	.032	1
S5	30.000	29.539	-.461	-1.54	18.467	.044	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



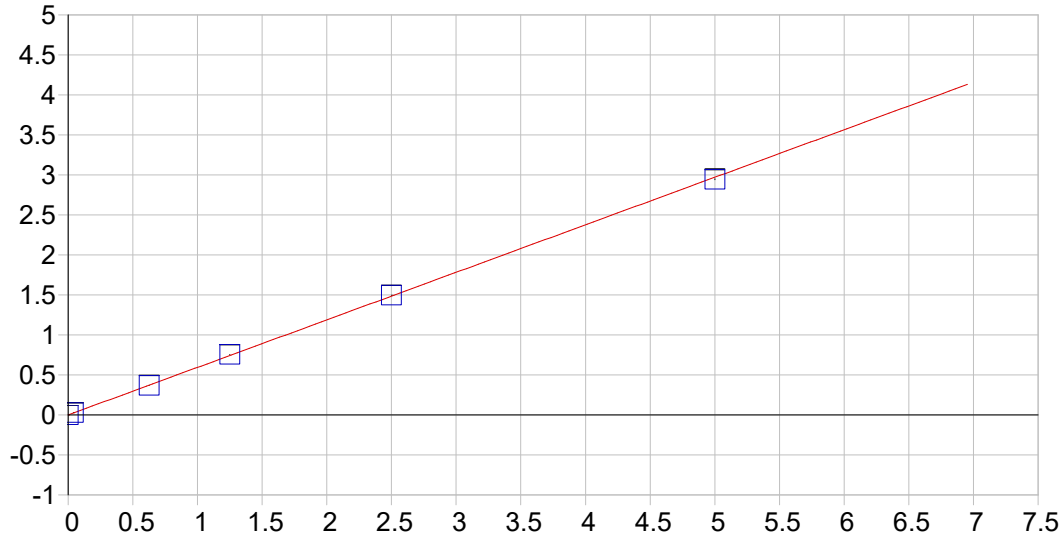
Mg 279.079 {121}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000131	Re-Slope:	1.000000
A1 (Gain):	0.008633	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999938	Status:	OK.
Std Error of Est:	0.000334		
Predicted MDL:	0.040336		
Predicted MQL:	0.134455		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00014	.000	.000	-.00013	.000	1
S1	5.0000	5.1184	.118	2.37	.04405	.000	1
S2	62.500	59.323	-3.18	-5.08	.51199	.003	1
S3	125.00	123.59	-1.41	-1.13	1.0668	.008	1
S4	250.00	250.65	.654	.261	2.1637	.001	1
S5	500.00	504.03	4.03	.807	4.3511	.009	1
S6	800.00	799.78	-.220	-.027	6.9042	.017	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



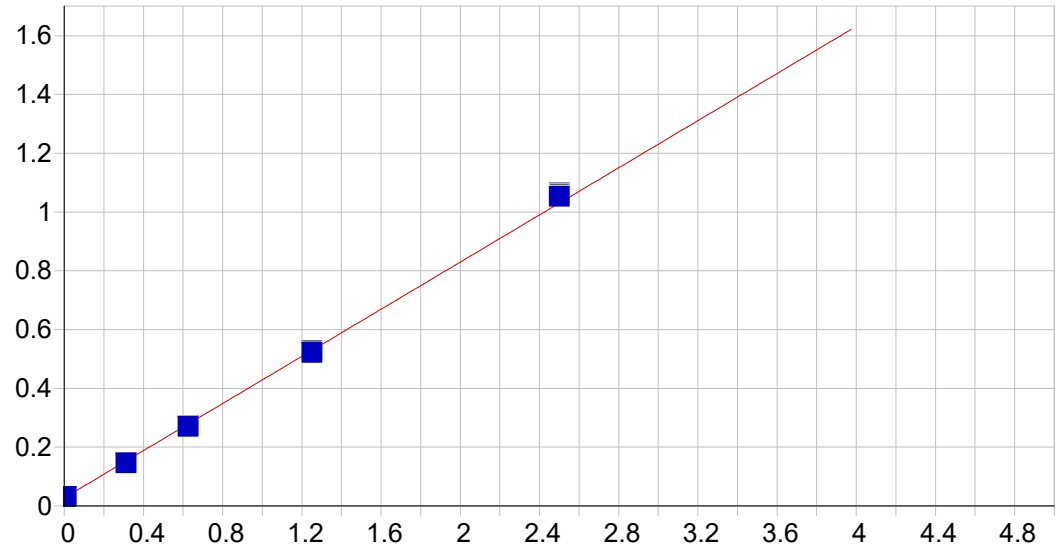
Ni 231.604 {446}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000249	Re-Slope:	1.000000
A1 (Gain):	0.594150	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999925	Status:	OK.
Std Error of Est:	0.000173		
Predicted MDL:	0.000606		
Predicted MQL:	0.002021		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	-.00025	.000	1
S1	.04000	.04456	.005	11.4	.02623	.000	1
S2	.62500	.62178	-.003	-.515	.36918	.001	1
S3	1.2500	1.2724	.022	1.80	.75577	.002	1
S4	2.5000	2.5177	.018	.709	1.4957	.001	1
S5	5.0000	4.9585	-.042	-.830	2.9458	.007	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



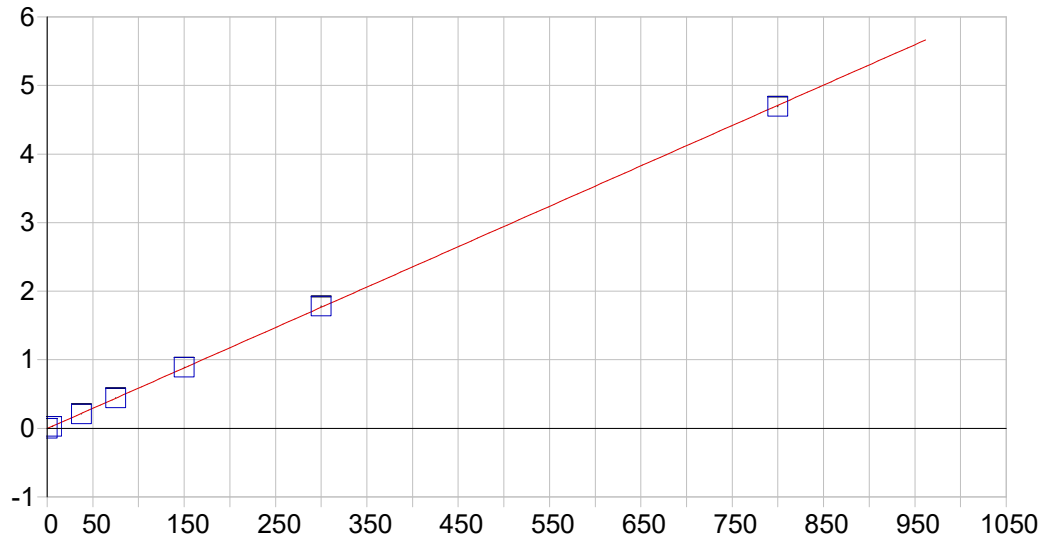
Ag 328.068 {103}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.027623	Re-Slope:	1.000000
A1 (Gain):	0.401073	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999667	Status:	OK.
Std Error of Est:	0.000088		
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	.02762	.000	1
S1	.01000	.01064	.001	6.40	.03188	.000	1
S2	.31250	.29482	-.018	-5.66	.14722	.000	1
S3	.62500	.60530	-.020	-3.15	.27309	.001	1
S4	1.2500	1.2310	-.019	-1.52	.52675	.001	1
S5	2.5000	2.5557	.056	2.23	1.0635	.002	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



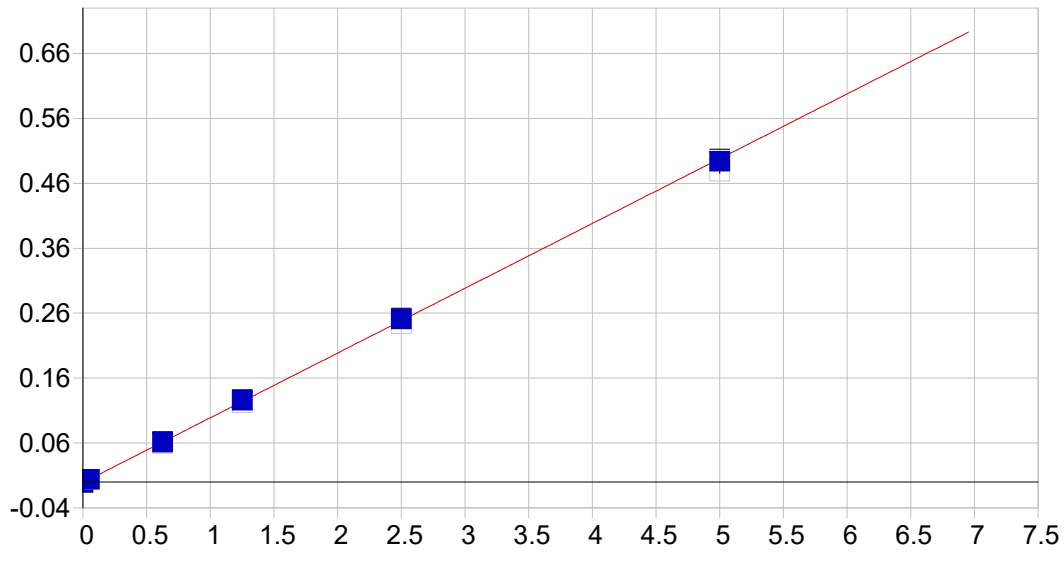
Na 818.326 { 41}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002637	Re-Slope:	1.000000
A1 (Gain):	0.005892	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999967	Status:	OK.
Std Error of Est:	0.000148		
Predicted MDL:	0.364540		
Predicted MQL:	1.215133		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	-.00264	.001	1
S1	5.0000	5.1147	.115	2.29	.02750	.001	1
S2	37.500	36.219	-1.28	-3.42	.21077	.002	1
S3	75.000	75.253	.253	.338	.44076	.004	1
S4	150.00	151.45	1.45	.965	.88970	.001	1
S5	300.00	302.38	2.38	.795	1.7790	.009	1
S6	800.00	797.08	-2.92	-.365	4.6938	.004	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



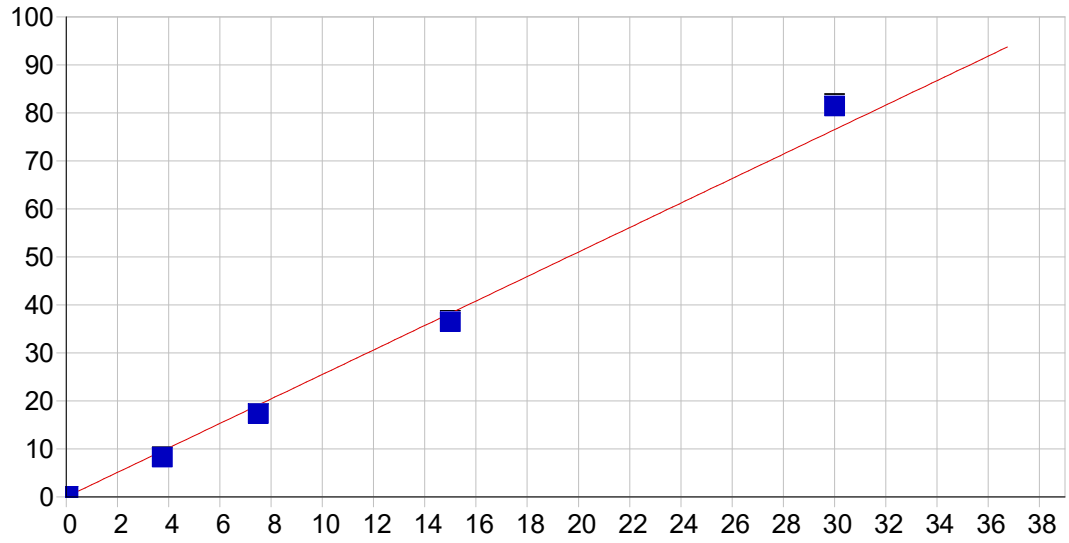
V 292.402 {115}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000996	Re-Slope:	1.000000
A1 (Gain):	0.099789	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	0.006473		
Predicted MQL:	0.021578		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00100	.001	1
S1	.05000	.05065	.001	1.29	.00405	.000	1
S2	.62500	.62366	-.001	-.215	.05932	.001	1
S3	1.2500	1.2671	.017	1.37	.12161	.001	1
S4	2.5000	2.5252	.025	1.01	.24332	.001	1
S5	5.0000	4.9585	-.042	-.831	.47847	.003	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



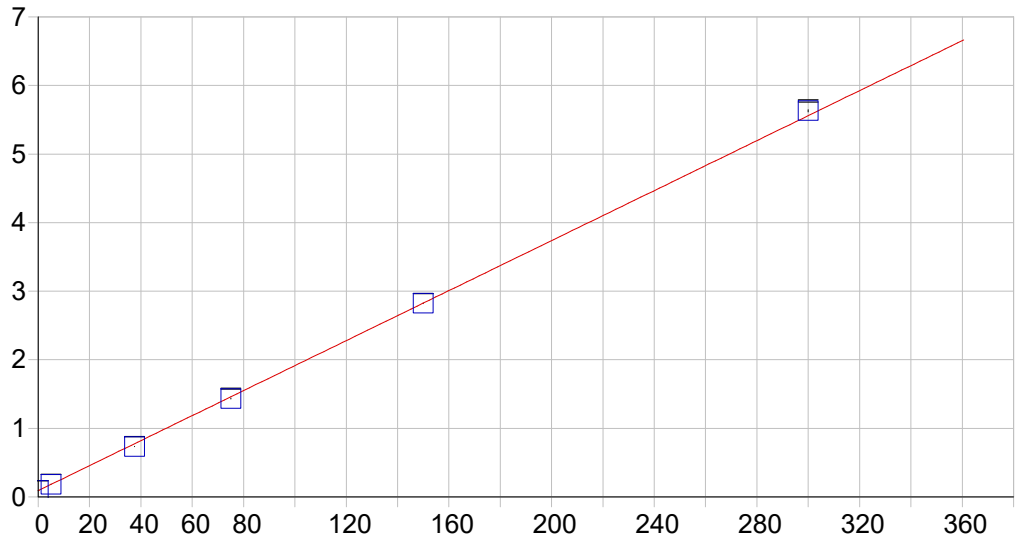
Zn 213.856 {158}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.008483	Re-Slope:	1.000000
A1 (Gain):	2.550187	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997399	Status:	OK.
Std Error of Est:	0.013128		
Predicted MDL:	0.000523		
Predicted MQL:	0.001743		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00851	.001	1
S1	.06000	.06413	.004	6.88	.17276	.001	1
S2	3.7500	3.2364	-.514	-13.7	8.2734	.047	1
S3	7.5000	6.7910	-.709	-9.45	17.350	.031	1
S4	15.000	14.292	-.708	-4.72	36.503	.246	1
S5	30.000	31.926	1.93	6.42	81.519	.381	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



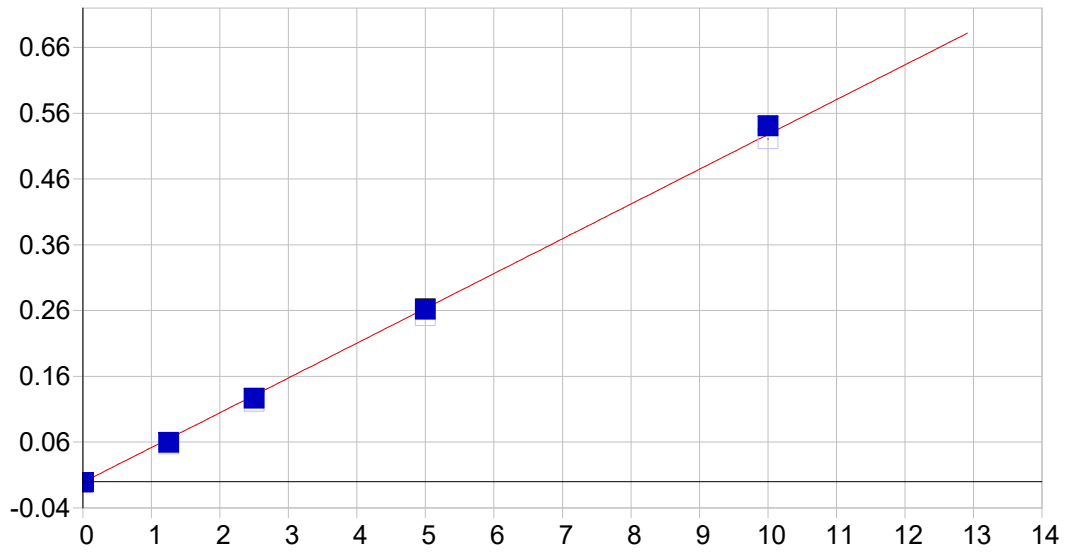
K 769.896 { 44}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.091882	Re-Slope:	1.000000
A1 (Gain):	0.018228	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999810	Status:	OK.
Std Error of Est:	0.000733		
Predicted MDL:	0.146698		
Predicted MQL:	0.488994		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00035	.000	.000	.09189	.002	1
S1	5.0000	4.9910	-.009	-.179	.18286	.002	1
S2	37.500	35.217	-2.28	-6.09	.73381	.002	1
S3	75.000	73.589	-1.41	-1.88	1.4332	.007	1
S4	150.00	149.82	-.177	-.118	2.8228	.002	1
S5	300.00	303.88	3.88	1.29	5.6309	.016	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



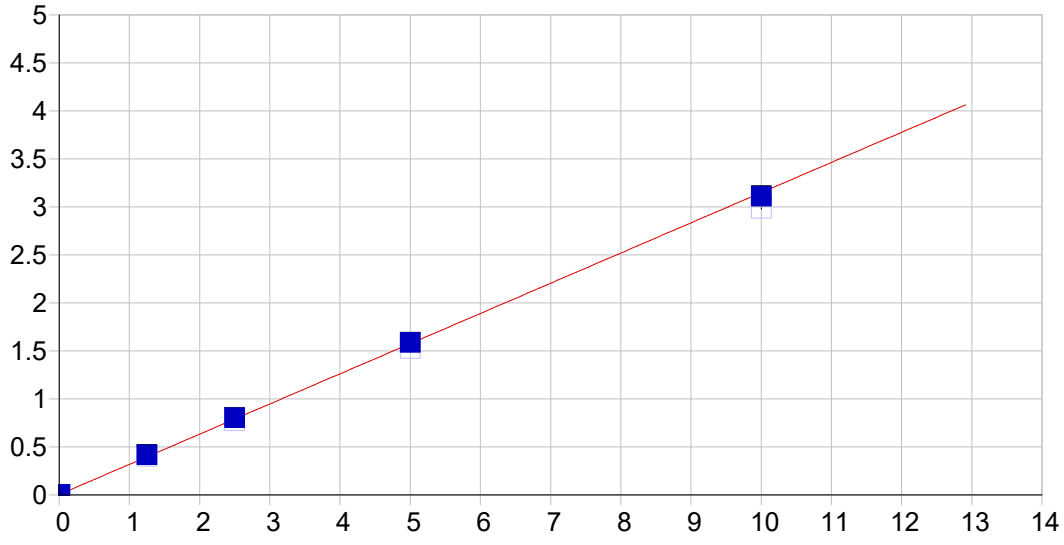
P 177.495 {490}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001072	Re-Slope:	1.000000
A1 (Gain):	0.052894	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999443	Status:	OK.
Std Error of Est:	0.000029		
Predicted MDL:	0.003613		
Predicted MQL:	0.012043		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00107	.000	1
S1	.01000	.00744	-.003	-25.6	-.00069	.000	1
S2	1.2500	1.1407	-.109	-8.75	.05683	.000	1
S3	2.5000	2.4079	-.092	-3.68	.12143	.001	1
S4	5.0000	4.9679	-.032	-.642	.25197	.001	1
S5	10.000	10.236	.236	2.36	.52091	.001	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



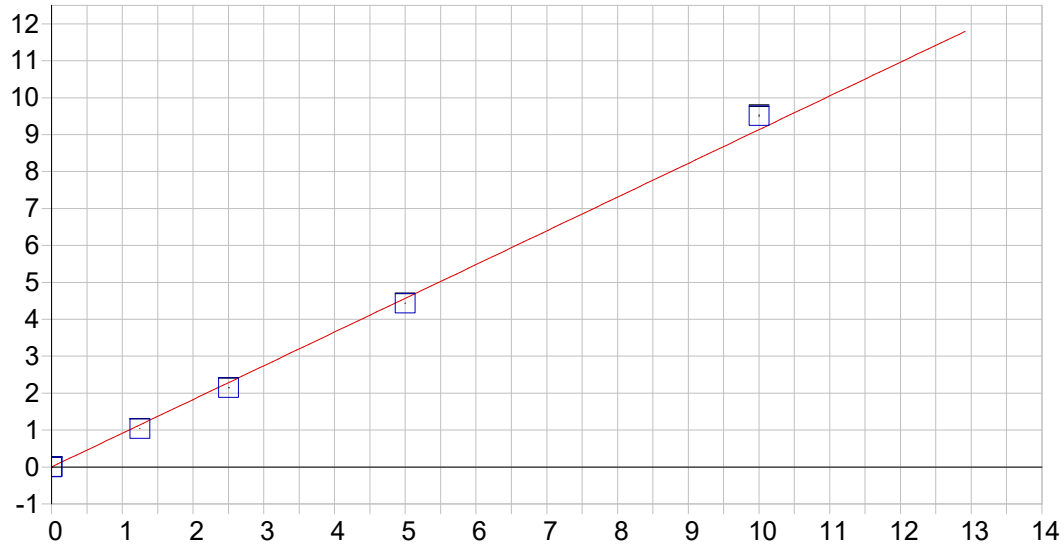
B 249.678 {135}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003635	Re-Slope:	1.000000
A1 (Gain):	0.314471	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999469	Status:	OK.
Std Error of Est:	0.000165		
Predicted MDL:	0.001499		
Predicted MQL:	0.004998		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00364	.000	1
S1	.01000	-.00157	-.012	-116.	.00311	.000	1
S2	1.2500	1.3094	.059	4.75	.39954	.003	1
S3	2.5000	2.5386	.039	1.54	.77022	.001	1
S4	5.0000	5.0307	.031	.613	1.5222	.004	1
S5	10.000	9.8833	-.117	-1.17	2.9847	.007	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



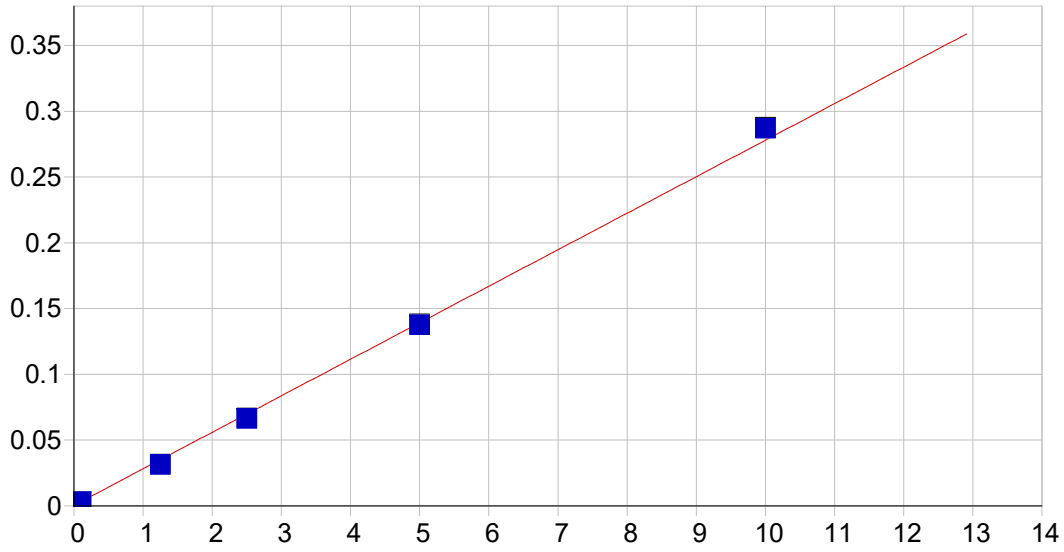
Mo 202.030 {467}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000335	Re-Slope:	1.000000
A1 (Gain):	0.913403	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998897	Status:	OK.
Std Error of Est:	0.000720		
Predicted MDL:	0.000487		
Predicted MQL:	0.001622		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00033	.000	1
S1	.01000	.00967	-.000	-3.29	.00850	.001	1
S2	1.2500	1.1354	-.115	-9.17	1.0367	.005	1
S3	2.5000	2.3474	-.153	-6.10	2.1438	.001	1
S4	5.0000	4.8523	-.148	-2.95	4.4318	.011	1
S5	10.000	10.415	.415	4.15	9.5130	.024	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



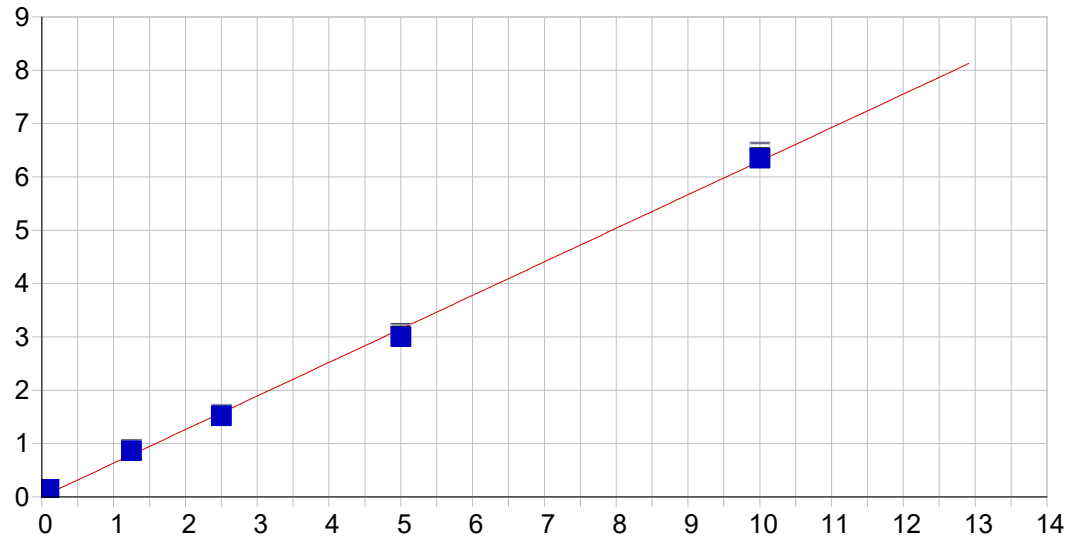
S 182.034 {485}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000466	Re-Slope:	1.000000
A1 (Gain):	0.027756	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999164	Status:	OK.
Std Error of Est:	0.000060		
Predicted MDL:	0.006727		
Predicted MQL:	0.022422		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00047	.000	1
S1	.10000	.09530	-.005	-4.70	.00311	.000	1
S2	1.2500	1.1183	-.132	-10.5	.03151	.000	1
S3	2.5000	2.3737	-.126	-5.05	.06636	.000	1
S4	5.0000	4.9408	-.059	-1.18	.13761	.001	1
S5	10.000	10.322	.322	3.22	.28698	.001	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



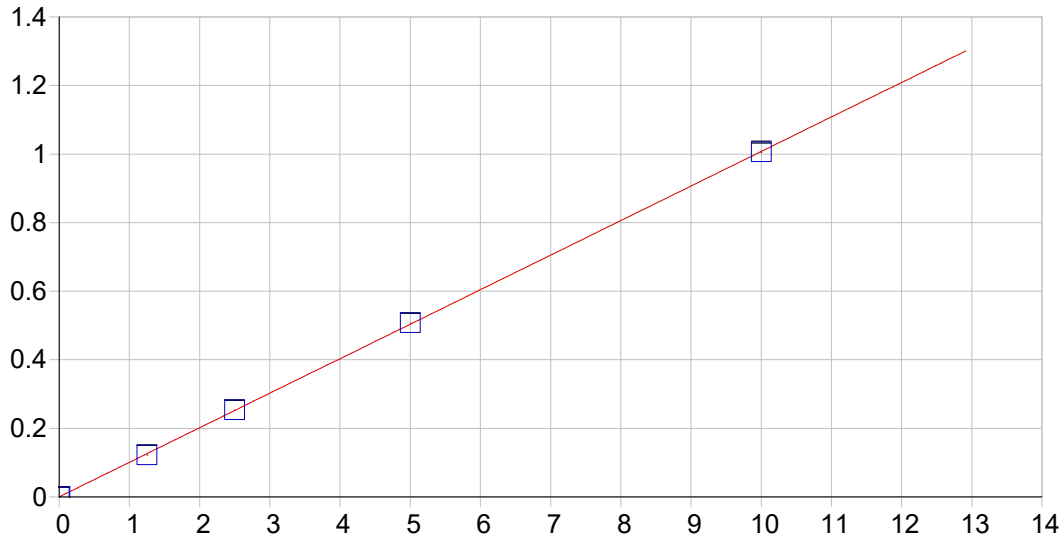
Si 251.611 {134}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004193	Re-Slope:	1.000000
A1 (Gain):	0.629075	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.994887	Status:	OK.
Std Error of Est:	0.003448		
Predicted MDL:	0.000722		
Predicted MQL:	0.002406		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00013	-.000	.000	.00411	.000	1
S1	.10000	.23214	.132	132.	.15065	.001	1
S2	1.2500	1.3645	.114	9.16	.87525	.005	1
S3	2.5000	2.4062	-.094	-3.75	1.5433	.003	1
S4	5.0000	4.7649	-.235	-4.70	3.0525	.013	1
S5	10.000	10.084	.084	.835	6.4492	.013	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



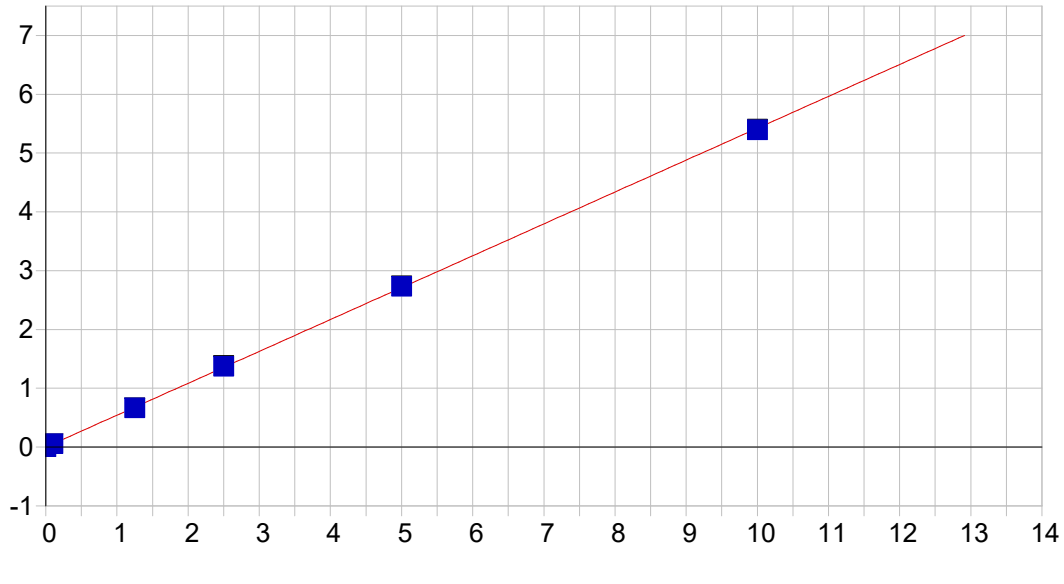
Sn 189.989 {478}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000230	Re-Slope:	1.000000
A1 (Gain):	0.100711	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.001856		
Predicted MQL:	0.006188		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00023	.000	1
S1	.00700	.00842	.001	20.3	.00108	.000	1
S2	1.2500	1.2123	-.038	-3.01	.12233	.000	1
S3	2.5000	2.5154	.015	.616	.25356	.000	1
S4	5.0000	5.0366	.037	.732	.50747	.000	1
S5	10.000	9.9843	-.016	-.157	1.0058	.003	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



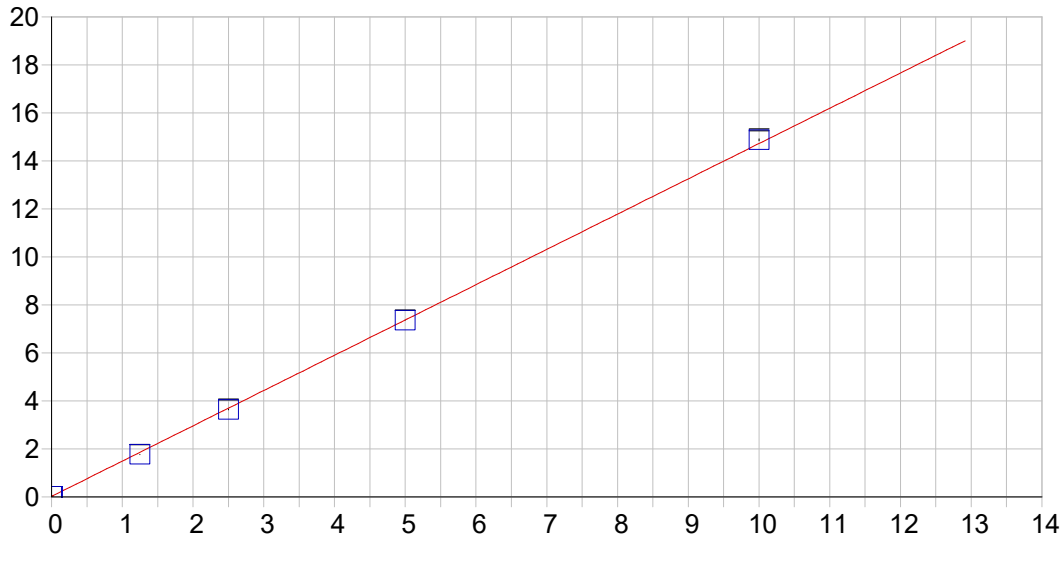
Ti 336.121 {100}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000506	Re-Slope:	1.000000
A1 (Gain):	0.542184	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999952	Status:	OK.
Std Error of Est:	0.000283		
Predicted MDL:	0.001358		
Predicted MQL:	0.004528		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00050	.001	1
S1	.10000	.10300	.003	3.00	.05633	.000	1
S2	1.2500	1.2242	-.026	-2.06	.66392	.002	1
S3	2.5000	2.5345	.034	1.38	1.3740	.007	1
S4	5.0000	5.0449	.045	.897	2.7344	.003	1
S5	10.000	9.9434	-.057	-.566	5.3890	.015	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



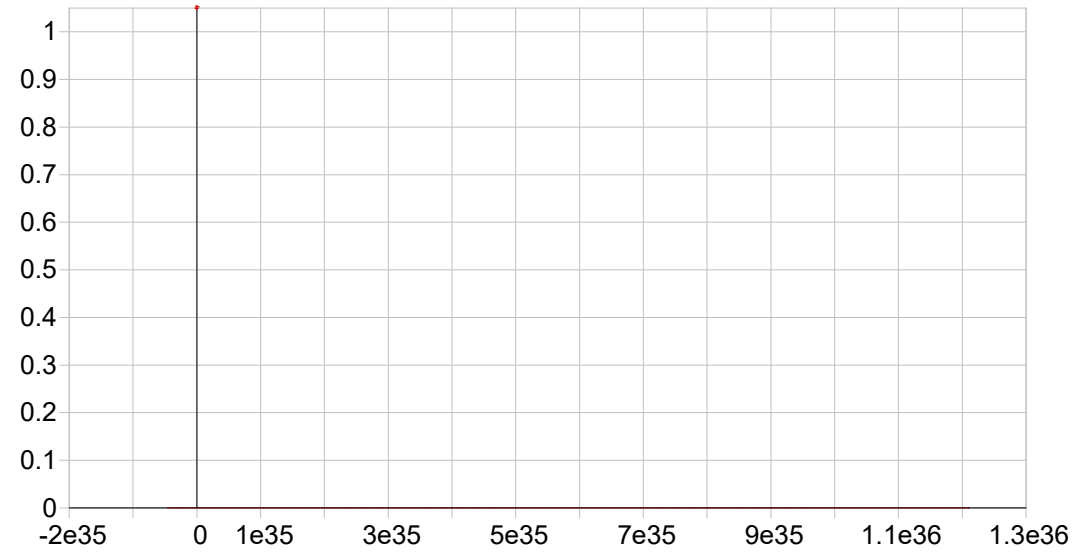
Li 670.784 { 50}

Date of Fit:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.022757	Re-Slope:	1.000000
A1 (Gain):	1.470014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999875	Status:	OK.
Std Error of Est:	0.000478		
Predicted MDL:	0.001445		
Predicted MQL:	0.004818		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.02276	.001	1
S5	10.000	10.105	.105	1.05	14.877	.040	1
S4	5.0000	4.9945	-.006	-.110	7.3647	.007	1
S3	2.5000	2.4626	-.037	-1.49	3.6429	.018	1
S2	1.2500	1.1884	-.062	-4.93	1.7697	.005	1
S1	.01500	.01486	-.000	-.935	.04460	.001	1

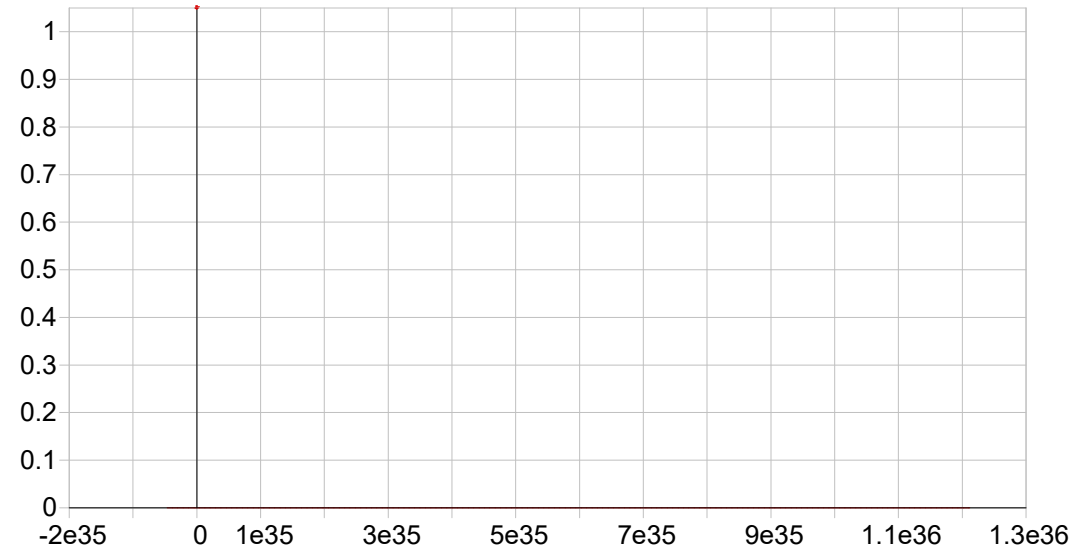
Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



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



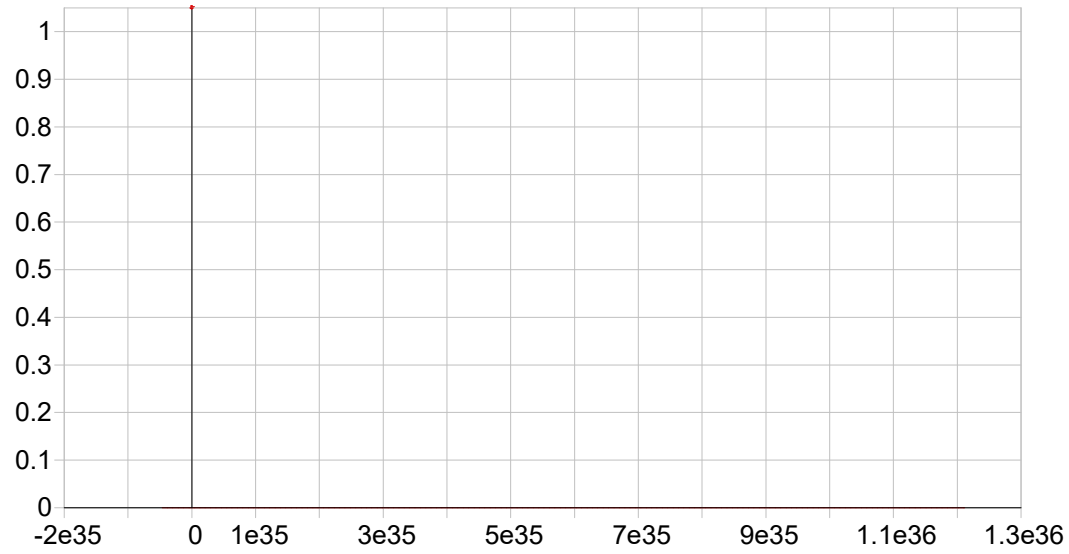
Y 360.073 { 94}*

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:11/21/2024 7:25:19 AM
Inst Id :P5

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

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



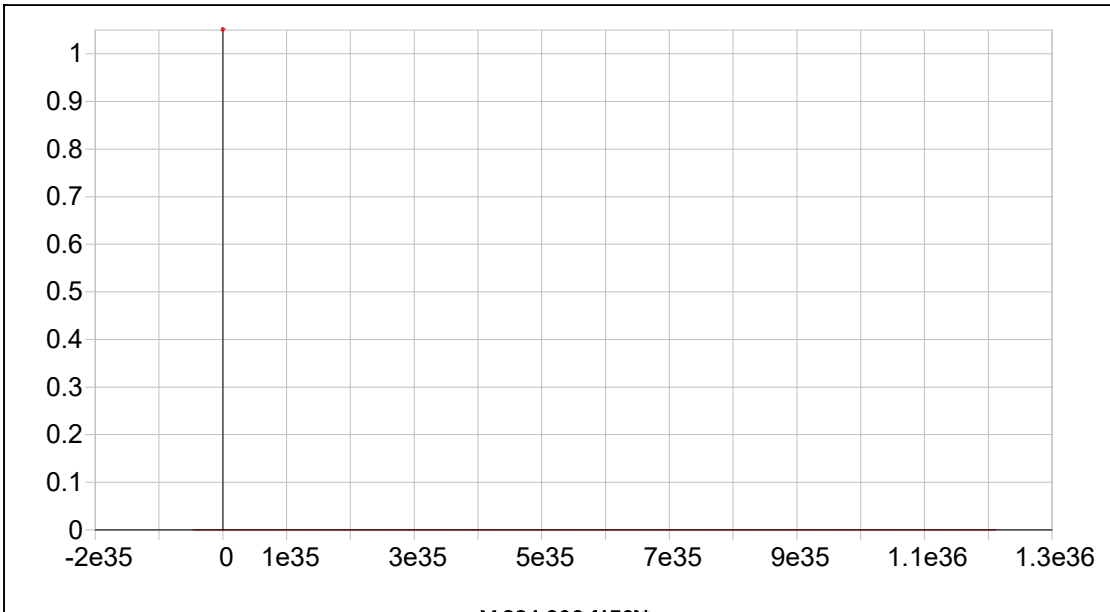
Y 371.030 { 91}*

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

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

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

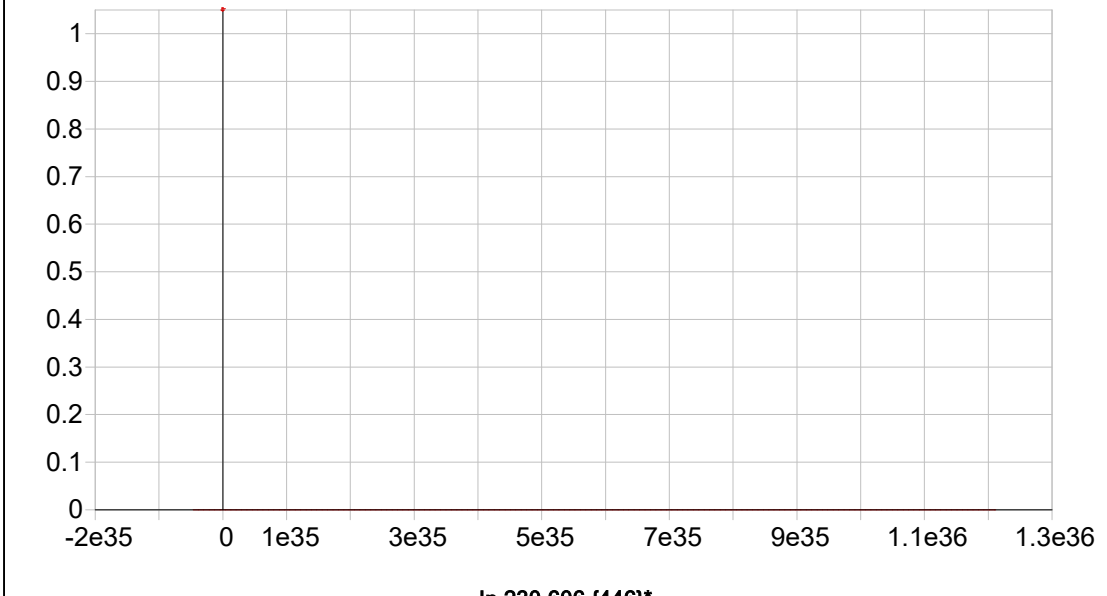
Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5



Y 224.306 {150}*

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

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



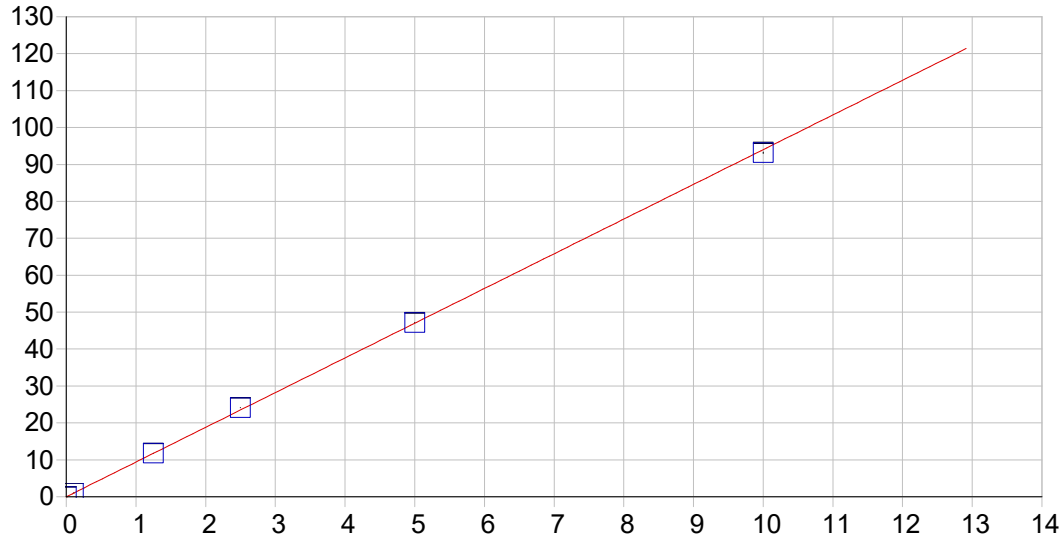
In 230.606 {446}*

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

Reviewed By:Mohan
On:11/21/2024 7:25:19 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:	11/20/2024 17:31:16	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002983	Re-Slope:	1.000000
A1 (Gain):	9.399785	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.006315		
Predicted MDL:	0.000112		
Predicted MQL:	0.000374		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00290	.001	1
S1	.10000	.10695	.007	6.95	1.0083	.002	1
S2	1.2500	1.2493	-.001	-.055	11.746	.021	1
S3	2.5000	2.5656	.066	2.62	24.119	.054	1
S4	5.0000	5.0153	.015	.305	47.145	.123	1
S5	10.000	9.9129	-.087	-.871	93.182	.184	1

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S0 Acquired: 11/20/2024 11:06:59 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	-.00005	-.00036	-.00073	-.00013	.00025	-.00440	.01025	-.00084
Stddev	.00018	.00030	.00038	.00027	.00035	.00076	.00262	.00016
%RSD	354.62	82.854	52.618	206.96	139.61	17.263	25.537	18.727
#1	.00015	-.00058	-.00030	.00018	.00064	-.00481	.00977	-.00095
#2	-.00019	-.00002	-.00105	-.00027	-.00001	-.00353	.01308	-.00066
#3	-.00011	-.00050	-.00082	-.00029	.00011	-.00488	.00791	-.00092

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	.00016	.00688	-.00025	-.00039	.00202	.00017	.00009	-.00013
Stddev	.00020	.00039	.00010	.00034	.00022	.00017	.00018	.00005
%RSD	123.40	5.6191	39.577	85.998	11.081	100.39	191.39	38.598
#1	-.00004	.00665	-.00017	-.00068	.00214	.00010	-.00006	-.00009
#2	.00035	.00733	-.00036	-.00047	.00176	.00004	.00029	-.00012
#3	.00016	.00667	-.00023	-.00002	.00216	.00036	.00004	-.00018

Elem	Ni2316	Ag3280	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00025	.02762	-.00264	-.00100	.00851	.09189	-.00107	.00364
Stddev	.00040	.00027	.00074	.00052	.00092	.00174	.00006	.00022
%RSD	159.13	.98569	27.987	51.873	10.834	1.8906	5.7917	6.1545
#1	-.00063	.02755	-.00334	-.00159	.00857	.09375	-.00104	.00388
#2	-.00030	.02792	-.00187	-.00067	.00939	.09031	-.00104	.00344
#3	.00017	.02739	-.00271	-.00073	.00755	.09160	-.00114	.00359

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	-.00033	.00047	.00411	.00023	.00050	.02276	.00290
Stddev	.00004	.00016	.00014	.00022	.00077	.00117	.00084
%RSD	12.781	34.994	3.4973	94.664	152.39	5.1222	28.887
#1	-.00038	.00046	.00410	.00011	.00116	.02405	.00278
#2	-.00033	.00031	.00426	.00048	-.00034	.02178	.00213
#3	-.00029	.00063	.00397	.00009	.00069	.02244	.00379

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S0 Acquired: 11/20/2024 11:06:59 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	970.95	24713.	4884.2	757.76	1830.3
Stddev	1.39	88.	1.9	4.21	1.4
%RSD	.14348	.35570	.03801	.55565	.07752
#1	969.55	24744.	4882.1	762.53	1828.7
#2	970.95	24614.	4885.6	756.18	1831.5
#3	972.34	24781.	4885.0	754.57	1830.6

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S1 Acquired: 11/20/2024 11:11:38 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: S01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00025	.00141	.00081	.00210	.01065	.01227	.83323	.02165
Stddev	.00004	.00006	.00020	.00009	.00045	.00069	.00240	.00080
%RSD	15.501	4.0270	24.133	4.2415	4.1945	5.6445	.28747	3.6966
#1	.00028	.00144	.00077	.00200	.01014	.01228	.83599	.02173
#2	.00021	.00135	.00103	.00212	.01084	.01296	.83171	.02241
#3	.00026	.00145	.00064	.00217	.01096	.01158	.83199	.02082

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	.01109	.46377	.00124	.03194	.00811	.00283	.01138	.04405
Stddev	.00029	.00164	.00008	.00019	.00078	.00014	.00032	.00023
%RSD	2.5742	.35421	6.7702	.60818	9.5697	5.0381	2.8479	.53268
#1	.01141	.46559	.00115	.03172	.00879	.00274	.01157	.04410
#2	.01086	.46239	.00131	.03202	.00727	.00299	.01156	.04380
#3	.01101	.46333	.00125	.03208	.00827	.00275	.01101	.04426

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	.02623	.03188	.02750	.00405	.17276	.18286	-.00069	.00311
Stddev	.00021	.00022	.00080	.00032	.00072	.00168	.00016	.00012
%RSD	.81883	.68051	2.9131	7.9462	.41685	.91935	23.757	3.8387
#1	.02608	.03213	.02683	.00434	.17331	.18427	-.00073	.00298
#2	.02647	.03173	.02729	.00370	.17195	.18100	-.00083	.00322
#3	.02613	.03177	.02838	.00410	.17304	.18330	-.00051	.00313

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	.00850	.00311	.15065	.00108	.05633	.04460	1.0083
Stddev	.00058	.00014	.00071	.00002	.00043	.00141	.0018
%RSD	6.8625	4.5905	.46903	1.6953	.76272	3.1575	.18039
#1	.00914	.00295	.14991	.00107	.05665	.04617	1.0074
#2	.00800	.00318	.15072	.00107	.05584	.04345	1.0072
#3	.00836	.00321	.15132	.00110	.05649	.04418	1.0104

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S1 Acquired: 11/20/2024 11:11:38 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	963.10	24639.	4929.5	758.18	1776.3
Stddev	1.64	54.	4.5	.65	3.1
%RSD	.17033	.22057	.09139	.08607	.17608
#1	961.22	24600.	4934.7	758.56	1772.9
#2	964.23	24701.	4927.1	758.54	1777.2
#3	963.85	24614.	4926.6	757.42	1778.9

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S2 Acquired: 11/20/2024 11:16:17 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.03317	.08985	.87829	.07067	.21613	3.2288	9.5330	.51259
Stddev	.00026	.00041	.00214	.00083	.00057	.0127	.0039	.00248
%RSD	.78237	.45488	.24328	1.1804	.26498	.39178	.04080	.48468
#1	.03302	.08992	.87639	.07043	.21549	3.2250	9.5290	.51051
#2	.03302	.08942	.87788	.06998	.21660	3.2429	9.5367	.51534
#3	.03347	.09023	.88060	.07160	.21629	3.2184	9.5333	.51191

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	1.2469	5.1765	.53388	.38814	.89484	.83597	2.3935	.51199
Stddev	.0035	.0097	.00119	.00127	.00260	.00280	.0049	.00278
%RSD	.28304	.18695	.22382	.32751	.29070	.33540	.20576	.54326
#1	1.2432	5.1726	.53266	.38689	.89673	.83524	2.3949	.51023
#2	1.2473	5.1876	.53393	.38943	.89188	.83907	2.3976	.51520
#3	1.2503	5.1695	.53505	.38808	.89592	.83360	2.3880	.51054

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	.36918	.14722	.21077	.05932	8.2734	.73381	.05683	.39954
Stddev	.00133	.00011	.00199	.00065	.0466	.00160	.00026	.00293
%RSD	.35975	.07370	.94310	1.0985	.56310	.21820	.44938	.73384
#1	.36795	.14725	.20868	.05969	8.2713	.73480	.05690	.39827
#2	.36901	.14710	.21264	.05970	8.2280	.73467	.05655	.40289
#3	.37059	.14731	.21098	.05857	8.3211	.73196	.05705	.39746

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	1.0367	.03151	.87525	.12233	.66392	1.7697	11.746
Stddev	.0046	.00009	.00462	.00013	.00167	.0048	.021
%RSD	.44415	.27438	.52775	.10290	.25190	.26881	.18123
#1	1.0352	.03156	.87113	.12221	.66307	1.7657	11.739
#2	1.0330	.03155	.88025	.12231	.66585	1.7750	11.770
#3	1.0419	.03141	.87438	.12246	.66284	1.7684	11.729

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S2 Acquired: 11/20/2024 11:16:17 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	908.29	24070.	4972.1	712.10	1581.8
Stddev	1.81	11.	26.5	2.99	1.3
%RSD	.19892	.04571	.53300	.42042	.08531
#1	907.51	24081.	4986.9	711.50	1583.2
#2	910.36	24059.	4941.5	715.35	1581.6
#3	907.01	24070.	4988.0	709.45	1580.5

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S3 Acquired: 11/20/2024 11:20:40 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.07082	.17995	1.8112	.14917	.45465	6.7273	19.613	1.0588
Stddev	.00035	.00070	.0018	.00011	.00091	.0307	.049	.0035
%RSD	.49329	.38669	.09858	.07638	.19923	.45583	.24751	.32900
#1	.07122	.17920	1.8120	.14926	.45503	6.7363	19.604	1.0600
#2	.07067	.18057	1.8091	.14920	.45362	6.7524	19.665	1.0549
#3	.07057	.18009	1.8123	.14904	.45531	6.6931	19.570	1.0615

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	2.5726	10.564	1.0724	.79934	1.8317	1.7104	4.8346	1.0668
Stddev	.0028	.025	.0009	.00115	.0064	.0073	.0065	.0075
%RSD	.11025	.23741	.08446	.14446	.35151	.42753	.13502	.70345
#1	2.5694	10.557	1.0728	.79839	1.8333	1.7106	4.8359	1.0674
#2	2.5736	10.592	1.0713	.79899	1.8371	1.7176	4.8404	1.0740
#3	2.5747	10.544	1.0730	.80062	1.8246	1.7030	4.8275	1.0590

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	.75577	.27309	.44076	.12161	17.350	1.4332	.12143	.77022
Stddev	.00200	.00077	.00444	.00099	.031	.0067	.00050	.00080
%RSD	.26445	.28039	1.0071	.81106	.18025	.46972	.41218	.10429
#1	.75350	.27307	.44116	.12101	17.374	1.4307	.12153	.76939
#2	.75654	.27387	.44499	.12275	17.361	1.4409	.12089	.77099
#3	.75727	.27234	.43614	.12107	17.314	1.4282	.12187	.77029

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	2.1438	.06636	1.5433	.25356	1.3740	3.6429	24.119
Stddev	.0014	.00027	.0026	.00024	.0070	.0176	.054
%RSD	.06462	.40830	.16788	.09553	.50790	.48407	.22469
#1	2.1439	.06662	1.5441	.25351	1.3789	3.6423	24.144
#2	2.1451	.06608	1.5404	.25334	1.3771	3.6608	24.156
#3	2.1423	.06638	1.5455	.25382	1.3660	3.6255	24.057

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S3 Acquired: 11/20/2024 11:20:40 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	861.07	23540.	4909.2	673.52	1488.7
Stddev	1.47	33.	7.7	1.56	1.6
%RSD	.17041	.14116	.15759	.23171	.10512
#1	860.01	23543.	4905.4	673.45	1490.5
#2	860.44	23506.	4904.1	671.99	1487.9
#3	862.74	23572.	4918.1	675.11	1487.7

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S4 Acquired: 11/20/2024 11:25:02 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.14577	.35367	3.5977	.31100	.95656	13.701	38.983	2.1170
Stddev	.00033	.00040	.0026	.00165	.00191	.005	.109	.0105
%RSD	.22842	.11173	.07330	.53193	.19985	.03966	.27944	.49542
#1	.14539	.35330	3.5958	.31263	.95805	13.705	39.074	2.1288
#2	.14597	.35408	3.5967	.30932	.95722	13.703	39.013	2.1085
#3	.14596	.35362	3.6007	.31104	.95440	13.695	38.862	2.1139

Elem	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.0850	20.930	2.1039	1.5951	3.6562	3.3781	9.4694	2.1637
Stddev	.0039	.059	.0033	.0016	.0059	.0080	.0322	.0014
%RSD	.07738	.28180	.15494	.09954	.16058	.23739	.33970	.06547
#1	5.0805	20.997	2.1026	1.5935	3.6572	3.3721	9.5062	2.1626
#2	5.0874	20.907	2.1076	1.5951	3.6615	3.3872	9.4559	2.1632
#3	5.0873	20.885	2.1015	1.5967	3.6499	3.3750	9.4463	2.1653

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	1.4957	.52675	.88970	.24332	36.503	2.8228	.25197	1.5222
Stddev	.0005	.00141	.00101	.00133	.246	.0022	.00113	.0039
%RSD	.03581	.26749	.11371	.54719	.67273	.07705	.44728	.25760
#1	1.4951	.52592	.89008	.24477	36.387	2.8205	.25073	1.5257
#2	1.4957	.52838	.88855	.24303	36.785	2.8232	.25226	1.5179
#3	1.4962	.52596	.89046	.24216	36.337	2.8248	.25293	1.5229

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	4.4318	.13761	3.0525	.50747	2.7344	7.3647	47.145
Stddev	.0112	.00067	.0132	.00038	.0031	.0072	.123
%RSD	.25180	.48424	.43241	.07580	.11277	.09808	.26028
#1	4.4393	.13699	3.0656	.50703	2.7323	7.3691	47.168
#2	4.4371	.13753	3.0392	.50774	2.7379	7.3687	47.013
#3	4.4190	.13832	3.0528	.50765	2.7330	7.3564	47.255

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S4 Acquired: 11/20/2024 11:25:02 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	787.00	22720.	4795.0	597.74	1386.9
Stddev	2.02	35.	10.1	3.64	1.6
%RSD	.25639	.15213	.21041	.60873	.11829
#1	784.84	22751.	4786.6	600.00	1388.7
#2	787.32	22683.	4806.2	593.54	1386.5
#3	788.84	22728.	4792.2	599.68	1385.5

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S5 Acquired: 11/20/2024 11:29:29 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.30233	.68965	7.1352	.68079	2.1297	27.623	76.117	4.1335
Stddev	.00126	.00252	.0203	.00114	.0038	.074	.290	.0101
%RSD	.41697	.36530	.28453	.16790	.18006	.26783	.38108	.24343
#1	.30155	.68707	7.1122	.68048	2.1254	27.540	75.830	4.1221
#2	.30166	.69210	7.1506	.67983	2.1309	27.646	76.111	4.1412
#3	.30379	.68978	7.1428	.68206	2.1328	27.682	76.410	4.1371

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	9.9749	41.214	4.0909	3.1558	7.2794	6.6225	18.467	4.3511
Stddev	.0367	.069	.0038	.0089	.0157	.0154	.044	.0095
%RSD	.36832	.16742	.09297	.28170	.21521	.23264	.23853	.21770
#1	9.9326	41.140	4.0874	3.1469	7.2625	6.6055	18.423	4.3402
#2	9.9934	41.226	4.0950	3.1560	7.2823	6.6264	18.466	4.3554
#3	9.9988	41.277	4.0902	3.1646	7.2935	6.6356	18.511	4.3576

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	2.9458	1.0635	1.7790	.47847	81.519	5.6309	.52091	2.9847
Stddev	.0070	.0016	.0091	.00333	.381	.0164	.00062	.0067
%RSD	.23797	.15069	.50859	.69510	.46783	.29037	.11868	.22318
#1	2.9383	1.0619	1.7688	.47472	81.109	5.6121	.52040	2.9773
#2	2.9470	1.0633	1.7858	.48107	81.863	5.6400	.52160	2.9903
#3	2.9522	1.0651	1.7825	.47963	81.586	5.6408	.52073	2.9866

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	9.5130	.28698	6.4492	1.0058	5.3890	14.877	93.182
Stddev	.0237	.00088	.0134	.0028	.0151	.040	.184
%RSD	.24935	.30588	.20778	.27855	.27948	.26735	.19711
#1	9.4897	.28601	6.4438	1.0025	5.3719	14.833	93.009
#2	9.5122	.28770	6.4394	1.0076	5.3948	14.885	93.161
#3	9.5371	.28725	6.4645	1.0071	5.4003	14.912	93.375

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S5 Acquired: 11/20/2024 11:29:29 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	674.61	21454.	4708.6	470.10	1270.7
Stddev	2.54	42.	16.1	2.10	3.4
%RSD	.37620	.19529	.34157	.44674	.26719
#1	676.07	21498.	4724.7	472.44	1274.0
#2	676.08	21415.	4708.4	468.37	1270.8
#3	671.68	21448.	4692.6	469.49	1267.2

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: S6 Acquired: 11/20/2024 11:33:58 Type: Cal
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	70.233	63.577	17.078	6.9042	4.6938
Stddev	.627	.344	.035	.0171	.0043
%RSD	.89274	.54077	.20522	.24747	.09205
#1	69.526	63.233	17.037	6.8859	4.6911
#2	70.449	63.921	17.094	6.9198	4.6988
#3	70.723	63.577	17.101	6.9068	4.6915

Int. Std.	Y_3710
Units	Cts/S
Avg	4638.7
Stddev	14.5
%RSD	.31361
#1	4651.4
#2	4641.9
#3	4622.9

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICV006 Acquired: 11/20/2024 12:34:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.9087581	1.054342	.9881629	.9364508	.9160311	2.425032
Stddev	.0052187	.005863	.0013995	.0034851	.0011363	.022494
%RSD	.5742685	.5560959	.1416237	.3721640	.1240467	.9275714
#1	.9045847	1.055083	.9866915	.9365566	.9168230	2.438531
#2	.9070802	1.048143	.9883199	.9398818	.9147291	2.437499
#3	.9146093	1.059799	.9894772	.9329140	.9165412	2.399065

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5291514	.5220062	.4948505	10.25951	.5476882	.5010092
Stddev	.0017197	.0004091	.0010209	.03660	.0002343	.0009465
%RSD	.3250016	.0783640	.2062956	.3567655	.0427869	.1889195
#1	.5303834	.5220703	.4943512	10.28249	.5474727	.5001563
#2	.5298840	.5223794	.4941754	10.27874	.5476542	.5008438
#3	.5271866	.5215689	.4960249	10.21730	.5479376	.5020275

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4971870	10.83124	.5294954	5.521329	.5096064	.2321398
Stddev	.0031152	.01586	.0023210	.007113	.0003806	.0002282
%RSD	.6265634	.1464034	.4383395	.1288282	.0746843	.0983076
#1	.5002735	10.84936	.5297162	5.525663	.5092700	.2321044
#2	.4940439	10.81990	.5316981	5.513120	.5095296	.2323837
#3	.4972435	10.82446	.5270719	5.525204	.5100195	.2319314

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.907102	.5443681	.9106659	9.334872	F .0025597	F .0050877
Stddev	.169952	.0045619	.0028877	.113555	.0017950	.0004327
%RSD	1.715453	.8380181	.3170944	1.216456	70.12690	8.504926
#1	10.03683	.5399210	.9118715	9.405392	.0043066	.0050511
#2	9.96975	.5441466	.9127555	9.395346	.0007201	.0046745
#3	9.71472	.5490367	.9073708	9.203879	.0026524	.0055376

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICV006 Acquired: 11/20/2024 12:34:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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 -.000246	F -.004260	F .0022877	F -.000641	F -.001362	F -.008527
Stddev	.000151	.006328	.0006572	.000568	.000916	.001367
%RSD	61.18775	148.5360	28.72824	88.69715	67.25578	16.03442
#1	-.000108	.002856	.0027983	-.000837	-.002242	-.009364
#2	-.000224	-.006383	.0015462	-.000000	-.000414	-.006949
#3	-.000407	-.009253	.0025185	-.001085	-.001431	-.009267

Elem	Sr4077
Units	ppm
Avg	F .0011747
Stddev	.0000511
%RSD	4.350188
#1	.0011158
#2	.0012006
#3	.0012076

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	920.2243	24936.23	4913.869	754.8512	1696.737
Stddev	.7333	38.43	15.280	2.5969	.998
%RSD	.0796924	.1541328	.3109515	.3440320	.0588270
#1	920.5430	24892.75	4919.030	755.1356	1697.830
#2	919.3855	24950.23	4896.677	752.1237	1696.507
#3	920.7444	24965.70	4925.900	757.2942	1695.874

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICB006 Acquired: 11/20/2024 12:38:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	-.003399	.0004634	.0004056	.0013046	-.000452	.0017379	-.002431
Stddev	.002748	.0024469	.0027150	.0026803	.000962	.0156036	.000495
%RSD	80.86058	527.9894	669.4622	205.4550	212.9950	897.8210	20.37771
#1	-.002600	-.001967	.0022040	.0016683	.000101	.0140423	-.002051
#2	-.001138	.002926	-.002717	-.001539	-.001562	-.015813	-.002251
#3	-.006458	.000431	.001730	.003784	.000106	.006984	-.002991

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000126	-.000108	-.013923	.0006094	-.000155	.0002667	.0031604
Stddev	.000101	.000012	.016157	.0012752	.000199	.0008414	.0071569
%RSD	80.51785	10.88042	116.0472	209.2463	128.4268	315.4423	226.4585
#1	-.000241	-.000117	-.029322	.0020724	-.000023	.0010203	.0097751
#2	-.000087	-.000095	-.015346	-.000267	-.000384	-.000641	-.004437
#3	-.000049	-.000111	.002898	.000023	-.000058	.000421	.004143

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001293	-.010628	.0010580	-.005972	.2342393	.0063651	-.001018
Stddev	.0005031	.024592	.0003619	.000195	.2099719	.0040275	.000141
%RSD	389.0639	231.3971	34.20835	3.261147	89.63990	63.27444	13.83822
#1	.0006166	.011427	.0007866	-.006146	.1173580	.0110109	-.001180
#2	-.000388	-.006163	.0009186	-.006007	.4766426	.0042249	-.000948
#3	.000160	-.037146	.0014690	-.005762	.1087173	.0038596	-.000925

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.670905	-.000525	-.005966	.0001940	-.004005	.0008128	-.001672
Stddev	.227432	.001362	.000278	.0001965	.002456	.0007353	.002957
%RSD	33.89926	259.6266	4.658479	101.2657	61.31552	90.46910	176.8520
#1	-.762480	-.002038	-.005775	.0001443	-.005689	.0005749	-.003995
#2	-.838275	.000603	-.005837	.0000272	-.001187	.0016376	.001657
#3	-.411961	-.000138	-.006285	.0004106	-.005139	.0002259	-.002679

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICB006 Acquired: 11/20/2024 12:38:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.0007407	-.009454	-.000064
Stddev	.0010262	.000586	.000175
%RSD	138.5393	6.193879	275.0322
#1	-.000066	-.008970	-.000017
#2	.001896	-.009287	-.000258
#3	.000392	-.010105	.000084

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	926.3111	25177.14	4924.512	763.4599	1758.961
Stddev	.1788	35.11	18.581	1.9154	3.413
%RSD	.0193063	.1394493	.3773243	.2508805	.1940412
#1	926.4874	25182.23	4912.586	762.0807	1758.654
#2	926.3160	25209.43	4915.029	765.6468	1755.712
#3	926.1299	25139.76	4945.921	762.6522	1762.517

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICSA006 Acquired: 11/20/2024 12:52:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.0059896	-.003174	.0002668	.0111432	.0080605	238.2179
Stddev	.0114268	.004568	.0029102	.0086101	.0018334	.4876
%RSD	190.7766	143.9189	1090.760	77.26748	22.74559	.2047023
#1	-.001560	.000199	.0017469	.0015862	.0101476	237.8557
#2	.019136	-.001348	-.003086	.0135488	.0067093	238.7723
#3	.000393	-.008372	.002139	.0182948	.0073248	238.0255

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037159	-.000081	.0017992	241.2341	.0489007	-.001541
Stddev	.0003827	.000064	.0001651	.6163	.0016667	.000661
%RSD	10.29761	78.52121	9.173178	.2554650	3.408253	42.87856
#1	.0038443	-.000154	.0016614	240.7621	.0506915	-.000780
#2	.0032855	-.000032	.0019821	241.9313	.0486156	-.001878
#3	.0040178	-.000059	.0017542	241.0088	.0473949	-.001965

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002294	100.4351	.0109118	233.9441	.0034055	-.001728
Stddev	.001515	.2891	.0004700	1.1351	.0003035	.000442
%RSD	66.03470	.2878327	4.306936	.4852043	8.913556	25.55986
#1	-.003337	100.1915	.0111814	232.7887	.0036168	-.001561
#2	-.000556	100.7545	.0111849	235.0578	.0035421	-.002229
#3	-.002989	100.3593	.0103691	233.9859	.0030577	-.001395

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5745721	-.001691	.0115015	-1.13192	.0026373	F .0789420
Stddev	.2868919	.009788	.0005342	.22079	.0041733	.0007177
%RSD	49.93140	578.7847	4.644777	19.50578	158.2387	.9091071
#1	.7349750	.006324	.0120907	-1.18035	.0044104	.0795922
#2	.7453888	-.012599	.0113653	-.89093	-.002130	.0790618
#3	.2433525	.001202	.0110486	-1.32447	.005631	.0781720

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICSA006 Acquired: 11/20/2024 12:52:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	-.002250	-.008287	.0014696	F -.010583	-.000821	-.006126
Stddev	.000639	.010697	.0002520	.001173	.001352	.001619
%RSD	28.38192	129.0853	17.15045	11.08651	164.7626	26.42318
#1	-.002288	.000247	.0013087	-.011420	.000575	-.007608
#2	-.002869	-.020288	.0013401	-.009242	-.002124	-.004399
#3	-.001593	-.004821	.0017601	-.011088	-.000913	-.006373

Elem	Sr4077
Units	ppm
Avg	F .1004199
Stddev	.0004063
%RSD	.4045730
#1	.1001364
#2	.1008853
#3	.1002380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	855.8689	22994.67	4827.007	702.8767	1422.814
Stddev	2.4045	48.59	35.225	1.6021	1.516
%RSD	.2809408	.2112959	.7297434	.2279316	.1065278
#1	853.8804	23020.96	4862.265	703.4675	1422.308
#2	858.5412	22938.61	4791.815	701.0631	1424.518
#3	855.1850	23024.45	4826.939	704.0994	1421.616

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICSAB006 Acquired: 11/20/2024 12:56:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.1059834	.1021071	.0523940	.0520870	.5582360	247.5890
Stddev	.0048531	.0062808	.0049456	.0121672	.0023070	1.2640
%RSD	4.579167	6.151200	9.439324	23.35929	.4132658	.5105298
#1	.1021427	.1091653	.0509077	.0380749	.5561373	248.1082
#2	.1043696	.0971343	.0579124	.0582066	.5578643	246.1480
#3	.1114378	.1000215	.0483620	.0599794	.5607062	248.5107

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5363671	.5210862	1.025790	250.9868	.5816051	.5143849
Stddev	.0025635	.0020224	.001546	.8085	.0043066	.0012127
%RSD	.4779374	.3881076	.1507119	.3221175	.7404611	.2357567
#1	.5382493	.5219131	1.024005	251.5990	.5798913	.5132698
#2	.5334475	.5187814	1.026693	250.0704	.5784194	.5142089
#3	.5374046	.5225642	1.026673	251.2911	.5865048	.5156759

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4861995	104.1941	.5245161	241.9522	1.028333	.1813973
Stddev	.0026957	.6331	.0032966	1.4524	.004517	.0005980
%RSD	.5544503	.6076485	.6285032	.6002661	.4392745	.3296392
#1	.4888015	104.2795	.5271281	241.9038	1.023513	.1813324
#2	.4834189	103.5226	.5208121	240.5246	1.032469	.1808344
#3	.4863780	104.7802	.5256083	243.4281	1.029017	.1820250

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7606733	.5330562	.8776747	-1.49872	.0085077	F .0815839
Stddev	.3515493	.0055427	.0060494	.10512	.0018987	.0012380
%RSD	46.21554	1.039790	.6892511	7.013698	22.31704	1.517390
#1	.4141715	.5291625	.8790516	-1.56351	.0105449	.0823302
#2	.7507867	.5394020	.8710556	-1.37744	.0081905	.0801549
#3	1.117062	.5306041	.8829170	-1.55521	.0067875	.0822667

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: ICSAB006 Acquired: 11/20/2024 12:56:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	-.001802	.0085413	.0010708	F -.007139	-.002376	-.007394
Stddev	.000655	.0011265	.0007348	.003793	.000322	.001372
%RSD	36.33685	13.18916	68.61870	53.12773	13.53489	18.55687
#1	-.001200	.0072533	.0014509	-.006301	-.002742	-.008936
#2	-.002499	.0093428	.0002238	-.003835	-.002137	-.006939
#3	-.001706	.0090278	.0015376	-.011281	-.002250	-.006307

Elem	Sr4077
Units	ppm
Avg	F .1045864
Stddev	.0003746
%RSD	.3582111
#1	.1048272
#2	.1041548
#3	.1047772

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	847.0440	22980.44	4841.820	697.9863	1413.619
Stddev	2.1459	66.60	21.100	.9758	2.244
%RSD	.2533417	.2898044	.4357928	.1398041	.1587350
#1	849.3832	22903.74	4821.443	696.8632	1412.758
#2	845.1665	23023.58	4863.576	698.4693	1411.933
#3	846.5823	23014.01	4840.441	698.6264	1416.166

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV034 Acquired: 11/20/2024 13:01:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV034 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.233934	4.853169	25.32462	4.940372	5.023570	427.4046	10.58154
Stddev	.015604	.008041	.03111	.024092	.013211	11.1658	.25394
%RSD	.2981240	.1656854	.1228253	.4876618	.2629734	2.612457	2.399863
#1	5.217187	4.862222	25.29431	4.962473	5.038077	422.7115	10.44114
#2	5.248063	4.850425	25.32310	4.914689	5.012232	419.3514	10.42879
#3	5.236551	4.846859	25.35646	4.943954	5.020401	440.1509	10.87468

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5086985	2.535530	416.1922	15.33342	2.553678	15.56404	431.5757
Stddev	.0125113	.003843	10.4192	.00634	.001139	.40093	11.4259
%RSD	2.459473	.1515497	2.503458	.0413440	.0445868	2.576013	2.647486
#1	.5026076	2.533825	410.3888	15.33796	2.552552	15.35774	426.3930
#2	.5003991	2.539930	409.9670	15.33613	2.554829	15.30827	423.6597
#3	.5230890	2.532835	428.2208	15.32618	2.553652	16.02612	444.6745

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.12224	415.4199	2.533547	1.261538	426.5783	2.599232	14.66469
Stddev	.37589	11.5396	.004015	.002417	11.4446	.078449	.05910
%RSD	2.485673	2.777824	.1584713	.1916172	2.682877	3.018159	.4029970
#1	14.87852	411.0196	2.530384	1.263514	422.5307	2.573297	14.59646
#2	14.93306	406.7278	2.538064	1.262259	417.7077	2.537035	14.69763
#3	15.55513	428.5123	2.532194	1.258843	439.4967	2.687365	14.69998

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	156.3186	5.072577	5.252961	4.883272	5.207196	4.963500	5.080049
Stddev	4.1410	.010077	.130293	.015268	.007617	.119269	.002731
%RSD	2.649084	.1986560	2.480366	.3126670	.1462721	2.402919	.0537654
#1	154.6511	5.070067	5.184096	4.900682	5.205665	4.904403	5.077301
#2	153.2713	5.063992	5.171551	4.876978	5.215462	4.885318	5.080082
#3	161.0334	5.083672	5.403235	4.872157	5.200461	5.100778	5.082763

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV034 Acquired: 11/20/2024 13:01:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV034 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.204926	5.298553	5.186546
Stddev	.140807	.129096	.091507
%RSD	2.705259	2.436445	1.764312
#1	5.146172	5.241566	5.140517
#2	5.103012	5.207757	5.127193
#3	5.365595	5.446338	5.291929

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	721.7971	21523.98	4691.380	561.6809	1251.700
Stddev	1.6201	36.04	114.218	1.5650	.528
%RSD	.2244494	.1674269	2.434628	.2786300	.0421669
#1	719.9849	21485.15	4740.672	563.4604	1252.295
#2	723.1053	21556.35	4772.674	561.0639	1251.513
#3	722.3012	21530.45	4560.793	560.5184	1251.291

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB034 Acquired: 11/20/2024 13:05:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB034 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002854	.0002201	.0019670	.0017456	.0020295	.0082581	-.001863
Stddev	.005194	.0004813	.0034730	.0033684	.0027008	.0146541	.000616
%RSD	181.9997	218.7079	176.5648	192.9676	133.0762	177.4507	33.08741
#1	-.007266	.0001216	.0039625	.0003093	.0008001	-.005053	-.001441
#2	.002871	-.000204	-.002043	-.000667	.0051263	.023961	-.001578
#3	-.004168	.000743	.003982	.005594	.0001621	.005866	-.002570

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000407	-.000049	-.005844	.0014127	.0002000	-.000044	.0070685
Stddev	.0000316	.000116	.008904	.0006557	.0002773	.001949	.0212694
%RSD	77.47659	235.1306	152.3522	46.41204	138.6256	4466.868	300.9029
#1	.0000385	.000076	-.001939	.0006584	-.000118	-.000893	.0256683
#2	.0000103	-.000071	.000439	.0018459	.000330	-.001423	-.016121
#3	.0000733	-.000154	-.016034	.0017338	.000388	.002186	.011658

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006386	-.008757	.0013771	-.006251	-.185311	-.001096	-.000646
Stddev	.0001605	.013368	.0000564	.000299	.239607	.005726	.000338
%RSD	25.13099	152.6531	4.098169	4.786538	129.2998	522.2342	52.28350
#1	.0006692	-.017450	.0013961	-.006012	-.351758	.004059	-.001018
#2	.0007816	-.015458	.0014215	-.006154	.089310	-.007259	-.000560
#3	.0004650	.006636	.0013136	-.006587	-.293486	-.000090	-.000359

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.527083	-.001537	.0028891	.0005406	.0017059	.0007717	-.002068
Stddev	.143915	.000441	.0016013	.0003166	.0026258	.0003163	.001501
%RSD	27.30410	28.67350	55.42396	58.57428	153.9224	40.98449	72.59083
#1	-.371114	-.002027	.0038181	.0002353	-.000790	.0011367	-.000385
#2	-.555400	-.001173	.0010402	.0005189	.001462	.0005991	-.003269
#3	-.654736	-.001412	.0038092	.0008674	.004445	.0005793	-.002549

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB034 Acquired: 11/20/2024 13:05:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB034 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000415	-.004592	.0000763
Stddev	.000787	.001102	.0001128
%RSD	189.8124	23.99413	147.6921
#1	-.000662	-.005695	.0001245
#2	.000466	-.003491	.0001570
#3	-.001049	-.004590	-.000053

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	923.8095	25295.02	4914.063	763.2502	1764.714
Stddev	.8823	81.96	11.376	6.8150	1.836
%RSD	.0955059	.3240007	.2314977	.8928976	.1040279
#1	922.9850	25273.06	4901.189	756.7258	1764.838
#2	924.7400	25226.29	4922.761	762.7021	1762.819
#3	923.7035	25385.72	4918.239	770.3228	1766.484

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-22 Acquired: 11/20/2024 13:09:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH97 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002294	.0031242	.0016418	.0007693	-.000930	.0171278
Stddev	.003956	.0028136	.0013886	.0016077	.002137	.0083466
%RSD	172.4455	90.05828	84.57869	208.9699	229.6418	48.73119
#1	-.001126	.0063694	.0016515	.0016770	-.000448	.0085959
#2	-.006703	.0013677	.0030256	-.001087	-.003267	.0252758
#3	.000946	.0016355	.0002484	.001718	.000923	.0175116

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000207	-.000035	-.000029	.1400866	.0017785	.0005281
Stddev	.000411	.000054	.000069	.0034888	.0004580	.0003172
%RSD	198.7918	153.9537	236.0163	2.490459	25.75312	60.05513
#1	-.000654	.000002	.000008	.1428082	.0012496	.0002827
#2	.000154	-.000010	-.000109	.1412980	.0020474	.0008863
#3	-.000120	-.000097	.000013	.1361535	.0020384	.0004154

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000164	.5715670	.0139021	.0239857	.0188514	-.007221
Stddev	.002443	.0105971	.0001575	.0390137	.0003591	.000160
%RSD	1492.346	1.854042	1.132567	162.6540	1.905035	2.218096
#1	-.001274	.5617170	.0137217	.0450933	.0190146	-.007043
#2	-.001854	.5702046	.0140117	-.021034	.0184397	-.007269
#3	.002637	.5827794	.0139729	.047898	.0191000	-.007353

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1403678	.0003894	-.000723	F -4.54560	.0025441	-.004458
Stddev	.5131777	.0024433	.000247	.09082	.0023909	.001262
%RSD	365.5950	627.4256	34.18180	1.997903	93.97878	28.31958
#1	.3729917	-.002137	-.000721	-4.44133	.0045508	-.003084
#2	.4960368	.002740	-.000972	-4.58812	-.000101	-.005566
#3	-.447925	.000565	-.000477	-4.60736	.003183	-.004724

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-22 Acquired: 11/20/2024 13:09:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH97 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002742	-.002324	.0221474	-.003023	-.000639	-.014246
Stddev	.0000334	.008125	.0008884	.001477	.000781	.000349
%RSD	12.18274	349.6633	4.011132	48.86437	122.1545	2.448088
#1	.0003127	.006565	.0218696	-.004422	-.001527	-.013995
#2	.0002553	-.009367	.0231415	-.003168	-.000058	-.014644
#3	.0002544	-.004169	.0214311	-.001478	-.000333	-.014099

Elem	Sr4077
Units	ppm
Avg	.0004722
Stddev	.0000658
%RSD	13.93506
#1	.0004336
#2	.0004348
#3	.0005482

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	982.4660	26536.26	5078.823	811.0303	1893.040
Stddev	1.5535	21.22	2.878	1.6462	3.190
%RSD	.1581258	.0799716	.0566733	.2029767	.1685359
#1	984.1364	26538.31	5081.832	811.7278	1896.716
#2	982.1971	26514.09	5078.539	812.2130	1890.993
#3	981.0644	26556.38	5076.096	809.1502	1891.411

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4907-18 Acquired: 11/20/2024 13:14:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHF0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003850	-.000240	.0003128	.0026690	.0004683	.0190819
Stddev	.003689	.001726	.0011399	.0032460	.0010524	.0116359
%RSD	95.81183	720.3355	364.4301	121.6160	224.7345	60.97872
#1	-.008015	-.001437	.0010848	-.000993	-.000645	.0061642
#2	-.000992	.001739	-.000996	.005191	.000603	.0287413
#3	-.002544	-.001021	.000850	.003809	.001447	.0223404

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002125	-.000068	.0000073	.1007402	.0003410	.0000218
Stddev	.000791	.000035	.0000509	.0016629	.0016318	.0002974
%RSD	37.24830	50.85825	700.7090	1.650707	478.5801	1366.296
#1	-.001924	-.000045	.0000537	.1003118	-.001438	.0003339
#2	-.001453	-.000108	.0000152	.0993335	.001767	-.000258
#3	-.002997	-.000052	-.000047	.1025755	.000694	-.000010

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019630	.5667089	.0072130	.0199969	.0024012	-.007951
Stddev	.0021604	.0111627	.0002571	.0164260	.0005933	.000520
%RSD	110.0544	1.969737	3.563964	82.14269	24.70763	6.545945
#1	.0042734	.5538388	.0072586	.0014800	.0030827	-.008496
#2	.0016225	.5725319	.0074442	.0256979	.0019992	-.007459
#3	-.000007	.5737561	.0069362	.0328130	.0021219	-.007898

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4456318	.0005138	-.001624	F -4.70688	.0068231	-.004035
Stddev	.1613602	.0050682	.000278	.04410	.0005425	.001585
%RSD	36.20931	986.3411	17.08676	.9369735	7.951181	39.27365
#1	.2941960	.0057007	-.001864	-4.66108	.0062001	-.005542
#2	.6153578	-.004427	-.001320	-4.71050	.0071908	-.004182
#3	.4273417	.000267	-.001689	-4.74906	.0070786	-.002382

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4907-18 Acquired: 11/20/2024 13:14:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHF0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002393	-.000061	.0254446	-.003110	.0006774	-.015581
Stddev	.0001909	.002545	.0004621	.001265	.0009509	.000972
%RSD	79.79646	4158.637	1.816018	40.68367	140.3720	6.240148
#1	.0001145	.002356	.0250368	-.002752	.0001684	-.015086
#2	.0001443	.000179	.0253507	-.004516	.0000894	-.016702
#3	.0004591	-.002718	.0259465	-.002062	.0017746	-.014957

Elem	Sr4077
Units	ppm
Avg	.0000358
Stddev	.0000295
%RSD	82.32405
#1	.0000034
#2	.0000432
#3	.0000610

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	976.9989	26549.16	5094.423	809.8650	1875.274
Stddev	2.4310	137.49	6.401	3.8042	4.830
%RSD	.2488184	.5178753	.1256432	.4697340	.2575804
#1	976.6103	26695.22	5089.943	814.2437	1876.915
#2	979.6008	26422.24	5091.571	807.9797	1879.070
#3	974.7857	26530.01	5101.754	807.3717	1869.837

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4907-19 Acquired: 11/20/2024 13:19:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHF1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000744	-.000084	.0008475	.0001273	-.001143	.0062829
Stddev	.004648	.002622	.0010035	.0046114	.000514	.0200135
%RSD	625.0778	3128.566	118.4073	3623.352	45.01914	318.5380
#1	-.006110	-.003090	.0005347	.0049132	-.000688	.0288997
#2	.001900	.001730	.0000376	-.004287	-.001701	-.000914
#3	.001980	.001108	.0019702	-.000244	-.001039	-.009137

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002405	-.000143	-.000052	.0618555	.0015089	-.000687
Stddev	.000732	.000150	.000129	.0097418	.0004285	.000194
%RSD	30.43616	104.9142	248.1155	15.74922	28.39699	28.19509
#1	-.003245	-.000307	-.000164	.0678429	.0014086	-.000865
#2	-.001906	-.000107	.000089	.0506147	.0019786	-.000481
#3	-.002063	-.000014	-.000082	.0671090	.0011394	-.000715

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001309	.0918032	.0020206	.0055659	.0011331	-.008254
Stddev	.002252	.0075543	.0004447	.0033121	.0003295	.000173
%RSD	171.9822	8.228739	22.00674	59.50765	29.07634	2.101813
#1	-.002044	.0913410	.0023685	.0030243	.0014363	-.008337
#2	-.003102	.0844907	.0015196	.0043618	.0007825	-.008371
#3	.001218	.0995779	.0021737	.0093116	.0011806	-.008055

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5611083	-.001993	-.001381	F -4.78383	.0402731	-.005302
Stddev	.5512992	.002573	.000179	.18083	.0014184	.000921
%RSD	98.25184	129.0883	12.93825	3.779936	3.521907	17.36283
#1	.7735693	-.001204	-.001418	-4.59293	.0411097	-.004989
#2	.9745662	-.004869	-.001538	-4.80604	.0410742	-.004579
#3	-.064811	.000092	-.001186	-4.95253	.0386355	-.006338

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4907-19 Acquired: 11/20/2024 13:19:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHF1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003309	-.000070	.0255259	-.001137	-.000157	-.013214
Stddev	.0003796	.011940	.0005026	.000888	.001519	.001082
%RSD	114.7078	17064.30	1.969177	78.11348	966.6962	8.185538
#1	.0005677	-.009149	.0258980	-.001111	-.000032	-.013618
#2	.0005319	-.004516	.0257256	-.000262	.001296	-.014035
#3	-.000107	.013455	.0249541	-.002038	-.001735	-.011988

Elem	Sr4077
Units	ppm
Avg	.0000076
Stddev	.0000965
%RSD	1263.889
#1	.0000133
#2	-.000092
#3	.000101

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	971.6800	26459.78	5115.307	810.4978	1863.381
Stddev	3.4026	26.75	8.297	2.2643	3.048
%RSD	.3501790	.1010811	.1621943	.2793755	.1635842
#1	973.3683	26488.54	5123.857	813.0491	1863.217
#2	973.9082	26455.16	5107.289	808.7268	1866.507
#3	967.7634	26435.65	5114.775	809.7175	1860.418

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165068BL Acquired: 11/20/2024 13:23:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW068 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002822	.0020716	.0010641	.0028358	.0015973	.0074791	-.002904
Stddev	.004038	.0026832	.0015989	.0034422	.0011260	.0037469	.000076
%RSD	143.0677	129.5275	150.2604	121.3870	70.49457	50.09767	2.613145
#1	.001621	.0044420	.0004605	.0050624	.0014673	.0115373	-.002912
#2	-.006266	-.000842	.0028769	.0045738	.0005420	.0067491	-.002976
#3	-.003822	.002614	-.000145	-.001129	.0027828	.0041510	-.002825

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000048	-.000174	-.006098	.0007095	.0000259	.0006243	.0016146
Stddev	.0000742	.000088	.010110	.0011712	.0004327	.0035732	.0083634
%RSD	1542.312	50.84005	165.7870	165.0788	1674.147	572.3921	517.9726
#1	.0000874	-.000076	.000116	-.000184	-.000468	.0047466	.0057751
#2	-.000056	-.000249	-.017764	.000277	.000340	-.001288	-.008013
#3	-.000017	-.000197	-.000647	.002035	.000206	-.001586	.007082

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001386	-.031677	.0004464	-.006382	-.025708	-.001466	-.001415
Stddev	.0003138	.046210	.0003532	.000146	.152868	.003118	.000794
%RSD	226.4327	145.8779	79.12846	2.287788	594.6222	212.7340	56.12643
#1	.0004822	-.006393	.0008404	-.006235	.041978	.001939	-.002332
#2	.0000664	-.085011	.0003405	-.006384	.081630	-.004180	-.000922
#3	-.000133	-.003626	.0001582	-.006527	-.200734	-.002156	-.000993

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.742159	-.001454	-.005367	.0000888	-.003655	.0009281	-.002634
Stddev	.203421	.002762	.001168	.0000993	.004833	.0002756	.001426
%RSD	27.40933	189.9791	21.75951	111.8074	132.2575	29.69504	54.15147
#1	-.920717	-.004422	-.005564	-.000026	-.005739	.0010611	-.002354
#2	-.785046	-.000982	-.006424	.000139	-.007096	.0006113	-.004179
#3	-.520714	.001042	-.004113	.000153	.001871	.0011121	-.001369

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165068BL Acquired: 11/20/2024 13:23:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBW068 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000717	-.008663	-.000051
Stddev	.000313	.001269	.000091
%RSD	43.69938	14.65167	176.8770
#1	-.001063	-.007721	-.000092
#2	-.000453	-.010106	-.000114
#3	-.000635	-.008162	.000053

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	919.7042	25246.67	4866.921	765.6099	1754.162
Stddev	.8104	38.36	88.705	6.7367	2.587
%RSD	.0881186	.1519596	1.822602	.8799172	.1474603
#1	920.4720	25246.46	4920.168	762.7795	1751.934
#2	919.7835	25208.42	4916.075	760.7500	1756.999
#3	918.8570	25285.14	4764.521	773.3000	1753.554

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165068BS Acquired: 11/20/2024 13:28:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS068 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0154152	.0542350	.0200858	.0732918	.1110778	.4040626
Stddev	.0060527	.0016126	.0024713	.0127390	.0029083	.0127777
%RSD	39.26479	2.973289	12.30368	17.38115	2.618285	3.162294
#1	.0085005	.0540216	.0197032	.0854261	.1111382	.3893085
#2	.0179914	.0559436	.0227260	.0600240	.1081397	.4115209
#3	.0197536	.0527397	.0178281	.0744252	.1139554	.4113583

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4202861	.0105241	.0102309	10.80572	.0218924	.1004135
Stddev	.0054884	.0000854	.0001438	.17017	.0012751	.0004833
%RSD	1.305883	.8116383	1.405506	1.574794	5.824366	.4813440
#1	.4140712	.0104281	.0101213	10.61244	.0205473	.0999369
#2	.4223194	.0105523	.0103937	10.87170	.0220463	.1004002
#3	.4244677	.0105918	.0101776	10.93301	.0230835	.1009033

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0518532	.2203827	.0343457	10.29138	.0861545	.0160958
Stddev	.0007302	.0097533	.0008894	.14285	.0007695	.0007240
%RSD	1.408219	4.425605	2.589449	1.388090	.8931868	4.497997
#1	.0523406	.2109430	.0337978	10.17775	.0854179	.0160415
#2	.0510137	.2197831	.0338675	10.24464	.0869532	.0168454
#3	.0522055	.2304219	.0353719	10.45175	.0860926	.0154005

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.49738	.1079610	.1262803	9.410029	.0185484	F -.003823
Stddev	.35999	.0017518	.0015198	.169524	.0026078	.001654
%RSD	3.429354	1.622664	1.203487	1.801529	14.05947	43.27173
#1	10.77486	.1069964	.1268602	9.290654	.0200341	-.001989
#2	10.09060	.1099831	.1274248	9.335363	.0200738	-.004277
#3	10.62668	.1069034	.1245560	9.604069	.0155372	-.005203

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165068BS Acquired: 11/20/2024 13:28:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS068 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0195384	.1890742	F .4579983	.0106813	.2073958	.0211944
Stddev	.0002221	.0029131	.0039904	.0005212	.0027325	.0010537
%RSD	1.136686	1.540711	.8712778	4.879937	1.317508	4.971578
#1	.0196732	.1921566	.4541655	.0108902	.2043756	.0203454
#2	.0192821	.1863668	.4576999	.0110657	.2081156	.0208643
#3	.0196600	.1886992	.4621296	.0100880	.2096964	.0223737

Elem	Sr4077
Units	ppm
Avg	.2118761
Stddev	.0026445
%RSD	1.248129
#1	.2089221
#2	.2126833
#3	.2140229

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	913.3341	24896.51	4948.763	759.2850	1688.765
Stddev	1.3390	45.14	49.770	2.9567	3.754
%RSD	.1466086	.1813066	1.005711	.3894073	.2222992
#1	914.8728	24887.21	5000.627	761.4044	1687.889
#2	912.6964	24856.74	4944.272	755.9073	1685.526
#3	912.4331	24945.57	4901.391	760.5434	1692.879

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-01 Acquired: 11/20/2024 13:32:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0845682	-.007759	.0418828	-.006517	.0075644	18.14556
Stddev	.0108139	.004620	.0047912	.006219	.0029016	.04074
%RSD	12.78723	59.53924	11.43961	95.43226	38.35936	.2244928
#1	.0756652	-.002937	.0434775	-.010212	.0067590	18.11382
#2	.0814371	-.012145	.0456733	-.010002	.0051505	18.19150
#3	.0966021	-.008196	.0364976	.000663	.0107836	18.13137

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7745610	.0012699	.0045161	F 1419.766	.0336643	.0415758
Stddev	.0008487	.0001723	.0000885	9.596	.0003883	.0001620
%RSD	.1095707	13.57032	1.959765	.6758574	1.153404	.3895439
#1	.7749545	.0010776	.0044636	1429.950	.0332226	.0416432
#2	.7751414	.0014103	.0044664	1410.894	.0338185	.0413910
#3	.7735869	.0013217	.0046183	1418.455	.0339518	.0416931

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0475233	92.32520	6.629914	572.3090	.0892535	.0153018
Stddev	.0026672	.18288	.011853	1.5923	.0008050	.0012841
%RSD	5.612291	.1980846	.1787746	.2782294	.9019795	8.391971
#1	.0480133	92.12305	6.639820	570.8468	.0892549	.0142562
#2	.0499114	92.47917	6.633139	574.0055	.0884478	.0149141
#3	.0446451	92.37337	6.616782	572.0747	.0900579	.0167351

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.786014	.0815269	.1904788	1.511329	2.508971	.1614397
Stddev	.471777	.0046204	.0018241	.067718	.003309	.0021237
%RSD	26.41508	5.667290	.9576159	4.480678	.1319060	1.315475
#1	1.389108	.0761975	.1896902	1.513660	2.505253	.1624101
#2	2.307612	.0839769	.1891817	1.577851	2.510064	.1629048
#3	1.661323	.0844063	.1925645	1.442476	2.511596	.1590041

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-01 Acquired: 11/20/2024 13:32:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0143602	7.294566	4.391640	-.006191	.3374666	.0545782
Stddev	.0002450	.029244	.005684	.002513	.0035632	.0002887
%RSD	1.706005	.4008976	.1294266	40.59775	1.055877	.5288681
#1	.0142966	7.264502	4.398021	-.006920	.3350819	.0548809
#2	.0146308	7.322914	4.387118	-.003394	.3415627	.0545478
#3	.0141534	7.296283	4.389783	-.008260	.3357552	.0543060

Elem	Sr4077
Units	ppm
Avg	1.050355
Stddev	.002642
%RSD	.2515674
#1	1.050651
#2	1.052836
#3	1.047577

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	783.2533	21613.14	4761.007	640.9647	1189.798
Stddev	1.5018	245.51	11.975	6.9329	1.817
%RSD	.1917387	1.135922	.2515166	1.081639	.1526985
#1	784.6597	21728.51	4749.278	645.2000	1187.860
#2	783.4289	21779.71	4773.213	644.7303	1190.072
#3	781.6715	21331.20	4760.532	632.9638	1191.462

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-02 Acquired: 11/20/2024 13:37:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0819041	-.007349	.0377412	-.006080	.0061735	18.48175
Stddev	.0162400	.003677	.0092420	.008021	.0026012	.15644
%RSD	19.82811	50.03646	24.48780	131.9168	42.13387	.8464345
#1	.0883628	-.005280	.0274895	-.001062	.0033783	18.30217
#2	.0939212	-.005172	.0403000	-.001848	.0066193	18.55469
#3	.0634284	-.011594	.0454343	-.015331	.0085230	18.58841

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2230640	.0010736	.0034985	F 1973.867	.0368092	.0245460
Stddev	.0016589	.0000794	.0002960	20.344	.0005337	.0001288
%RSD	.7437025	7.394446	8.461348	1.030661	1.450023	.5247151
#1	.2212872	.0011472	.0038160	1951.488	.0371438	.0246850
#2	.2245724	.0009895	.0034492	1991.241	.0370901	.0245223
#3	.2233323	.0010842	.0032302	1978.873	.0361937	.0244307

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0430919	77.09869	3.836336	796.8161	.0707804	.0254743
Stddev	.0006984	.62442	.028408	7.2317	.0013136	.0008980
%RSD	1.620791	.8099025	.7405053	.9075688	1.855882	3.524934
#1	.0428676	76.38394	3.808638	788.4666	.0709185	.0251070
#2	.0438750	77.37394	3.865405	800.8832	.0694032	.0264977
#3	.0425333	77.53821	3.834965	801.0984	.0720195	.0248182

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.238068	.0711293	.1786319	1.521717	2.633541	.1675358
Stddev	.181363	.0078159	.0024646	.042659	.006229	.0002017
%RSD	8.103549	10.98824	1.379687	2.803347	.2365431	.1204036
#1	2.254397	.0713170	.1762840	1.569692	2.637815	.1675883
#2	2.049093	.0632213	.1811986	1.488055	2.636414	.1677061
#3	2.410715	.0788497	.1784132	1.507405	2.626394	.1673130

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-02 Acquired: 11/20/2024 13:37:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0131311	8.987837	3.944236	.0000840	.3543694	.0599107
Stddev	.0011199	.007521	.021579	.0033153	.0024891	.0011283
%RSD	8.528298	.0836828	.5470904	3945.711	.7023992	1.883234
#1	.0139576	8.980388	3.920139	.0028974	.3517658	.0586194
#2	.0118566	8.987694	3.950796	.0009257	.3567256	.0604072
#3	.0135790	8.995429	3.961774	-.003571	.3546167	.0607057

Elem	Sr4077
Units	ppm
Avg	1.707228
Stddev	.012569
%RSD	.7362126
#1	1.693207
#2	1.717486
#3	1.710990

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	749.6513	20796.86	4681.138	617.4103	1129.889
Stddev	.8757	56.51	31.659	3.7996	1.954
%RSD	.1168205	.2717037	.6763194	.6154153	.1729300
#1	749.3087	20831.42	4717.404	619.2197	1128.284
#2	750.6466	20731.65	4659.013	613.0441	1132.065
#3	748.9987	20827.51	4666.998	619.9671	1129.319

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-03 Acquired: 11/20/2024 13:41:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0884135	-.005036	.0464587	-.009213	.0025043	13.94521
Stddev	.0029441	.004340	.0028065	.010088	.0028061	.01472
%RSD	3.329958	86.19115	6.040914	109.4892	112.0470	.1055798
#1	.0917127	-.003406	.0496275	-.002419	.0050687	13.96219
#2	.0860535	-.001746	.0442862	-.020804	.0029373	13.93612
#3	.0874744	-.009955	.0454624	-.004417	-.000493	13.93731

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1502444	.0010891	.0029808	F 1380.532	.0307248	.0190369
Stddev	.0007897	.0001831	.0001137	1.272	.0001592	.0001863
%RSD	.5255926	16.81471	3.814969	.0921273	.5182541	.9787067
#1	.1504533	.0009495	.0029050	1379.698	.0308738	.0192499
#2	.1493713	.0010214	.0031115	1379.902	.0305570	.0189570
#3	.1509087	.0012965	.0029258	1381.996	.0307435	.0189039

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0614877	74.36362	2.075820	548.6592	.0596987	.0156225
Stddev	.0017647	.18152	.008763	.3474	.0003885	.0005458
%RSD	2.869926	.2441018	.4221544	.0633113	.6506923	3.493921
#1	.0630236	74.54965	2.078322	548.3123	.0593047	.0162479
#2	.0618794	74.18697	2.066078	548.6584	.0597102	.0152418
#3	.0595601	74.35424	2.083059	549.0070	.0600813	.0153779

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.886857	.0702998	.1518260	1.194483	2.085221	.1277980
Stddev	.062880	.0024200	.0008163	.144883	.007232	.0004815
%RSD	3.332551	3.442366	.5376187	12.12936	.3468000	.3767388
#1	1.816784	.0683296	.1512001	1.328927	2.090579	.1281130
#2	1.905421	.0730010	.1515287	1.213486	2.088087	.1272438
#3	1.938365	.0695690	.1527493	1.041036	2.076995	.1280372

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-03 Acquired: 11/20/2024 13:41:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0148215	8.189514	3.786380	-.001014	.7004531	.0373979
Stddev	.0002751	.035937	.012907	.004089	.0016039	.0006421
%RSD	1.856288	.4388141	.3408731	403.0472	.2289772	1.717034
#1	.0146547	8.219792	3.800420	-.000199	.6995028	.0380068
#2	.0151391	8.198950	3.775031	-.005450	.6995516	.0367270
#3	.0146708	8.149801	3.783689	.002605	.7023049	.0374598

Elem	Sr4077
Units	ppm
Avg	1.101658
Stddev	.003788
%RSD	.3438888
#1	1.105082
#2	1.097588
#3	1.102305

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	771.8384	21593.35	4775.637	643.4026	1191.802
Stddev	2.8296	54.11	10.377	1.7421	1.761
%RSD	.3666079	.2505984	.2172985	.2707675	.1477203
#1	774.7734	21569.31	4764.407	644.3978	1192.334
#2	769.1275	21555.43	4784.872	644.4189	1189.837
#3	771.6143	21655.32	4777.631	641.3910	1193.235

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-04 Acquired: 11/20/2024 13:46:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0998517	-.005825	.0568388	-.009537	.0068309	20.58003
Stddev	.0070292	.006453	.0044953	.007522	.0007128	.09553
%RSD	7.039652	110.7768	7.908826	78.87381	10.43535	.4641779
#1	.1079651	-.004464	.0615662	-.008411	.0067476	20.63739
#2	.0959923	-.000162	.0563314	-.017559	.0075817	20.46975
#3	.0955976	-.012850	.0526187	-.002641	.0061634	20.63295

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2221396	.0014033	.0039218	F 1509.439	.0321484	.0243423
Stddev	.0010615	.0001269	.0001943	19.762	.0006294	.0003728
%RSD	.4778316	9.044023	4.954003	1.309261	1.957809	1.531531
#1	.2233611	.0013993	.0039248	1530.953	.0314673	.0247713
#2	.2214405	.0012785	.0037261	1492.093	.0322694	.0241590
#3	.2216174	.0015322	.0041146	1505.272	.0327085	.0240966

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0625823	86.03328	2.877488	596.9303	.0727658	.0158206
Stddev	.0009812	.44559	.023899	3.2079	.0000357	.0004501
%RSD	1.567938	.5179251	.8305366	.5374049	.0490762	2.844796
#1	.0625603	86.18314	2.903722	598.8627	.0727744	.0154289
#2	.0635744	85.53208	2.871784	593.2272	.0727266	.0157207
#3	.0616122	86.38461	2.856958	598.7008	.0727964	.0163122

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.311745	.0772510	.2178597	1.884148	2.504839	.1392488
Stddev	.188910	.0009259	.0018447	.098692	.007912	.0021274
%RSD	8.171751	1.198547	.8467126	5.238027	.3158799	1.527784
#1	2.518757	.0780083	.2173770	1.954943	2.496239	.1417011
#2	2.267791	.0775259	.2198977	1.926089	2.511810	.1378978
#3	2.148687	.0762187	.2163044	1.771413	2.506469	.1381475

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-04 Acquired: 11/20/2024 13:46:24 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X4 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0144833	7.836081	5.475304	-.002651	.4020674	.0557192
Stddev	.0011669	.020128	.072750	.004672	.0017228	.0004014
%RSD	8.056604	.2568639	1.328702	176.2163	.4284735	.7203644
#1	.0149104	7.848787	5.557398	-.007824	.4040563	.0560013
#2	.0131631	7.812874	5.418829	.001261	.4011068	.0552597
#3	.0153765	7.846581	5.449684	-.001390	.4010392	.0558967

Elem	Sr4077
Units	ppm
Avg	1.278102
Stddev	.005088
%RSD	.3981020
#1	1.283976
#2	1.275048
#3	1.275284

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	779.9803	21781.72	4782.703	646.9189	1188.221
Stddev	.2931	46.79	51.715	.9528	2.134
%RSD	.0375732	.2148038	1.081298	.1472829	.1796021
#1	779.6422	21777.35	4724.949	646.4699	1186.279
#2	780.1360	21830.55	4824.728	646.2734	1190.506
#3	780.1626	21737.28	4798.432	648.0132	1187.880

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05 Acquired: 11/20/2024 13:50:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0579996	-.006069	.0844409	-.000562	.0034578	19.16685
Stddev	.0135397	.003184	.0037185	.008664	.0008490	.04067
%RSD	23.34454	52.46588	4.403687	1542.795	24.55385	.2121817
#1	.0586325	-.006039	.0883492	-.007246	.0024815	19.21351
#2	.0441545	-.009267	.0840266	-.003665	.0040236	19.13894
#3	.0712118	-.002900	.0809469	.009226	.0038682	19.14809

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3831210	.0011451	.0030319	F 1161.673	.0373338	.0235512
Stddev	.0018227	.0000994	.0000759	2.795	.0004091	.0010867
%RSD	.4757461	8.677269	2.502482	.2405865	1.095690	4.614006
#1	.3848650	.0010353	.0029560	1163.109	.0375570	.0223448
#2	.3832693	.0012289	.0031077	1158.452	.0375827	.0238555
#3	.3812287	.0011710	.0030321	1163.459	.0368617	.0244533

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0559001	77.23963	2.143588	354.3153	.0652788	.0097070
Stddev	.0009789	.26154	.005662	.8212	.0009045	.0005593
%RSD	1.751085	.3386061	.2641537	.2317823	1.385516	5.761498
#1	.0568588	77.52769	2.149965	355.2632	.0645481	.0094601
#2	.0559392	77.17417	2.141653	353.8184	.0649979	.0093137
#3	.0549023	77.01705	2.139147	353.8643	.0662904	.0103473

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.768848	.0732252	.2005526	1.284433	2.729914	.1132731
Stddev	.317846	.0045849	.0012228	.132556	.009788	.0016785
%RSD	17.96908	6.261362	.6097102	10.32022	.3585443	1.481792
#1	1.878480	.0780269	.2008468	1.431529	2.721498	.1152105
#2	1.410698	.0688932	.2016014	1.247538	2.727590	.1123481
#3	2.017367	.0727556	.1992096	1.174234	2.740655	.1122606

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05 Acquired: 11/20/2024 13:50:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0103948	9.455063	6.181120	.0001617	.5811921	.0381864
Stddev	.0002048	.002669	.020287	.0013237	.0040281	.0014771
%RSD	1.970609	.0282233	.3282169	818.6615	.6930818	3.868112
#1	.0103199	9.457625	6.192789	.0003863	.5824572	.0398726
#2	.0106266	9.455264	6.192877	.0013587	.5844358	.0371215
#3	.0102380	9.452299	6.157694	-.001260	.5766833	.0375649

Elem	Sr4077
Units	ppm
Avg	1.657059
Stddev	.004977
%RSD	.3003417
#1	1.662799
#2	1.654429
#3	1.653949

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	811.7827	22613.01	4873.030	673.2758	1244.137
Stddev	.5599	37.02	8.347	3.9144	1.939
%RSD	.0689722	.1637103	.1712890	.5814035	.1558217
#1	811.1680	22615.93	4873.014	677.2269	1242.780
#2	811.9165	22648.48	4864.690	673.2015	1243.274
#3	812.2636	22574.62	4881.384	669.3990	1246.358

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-06 Acquired: 11/20/2024 13:55:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0690079	-.004233	.0825602	-.008625	.0040045	19.21295
Stddev	.0134090	.006001	.0098741	.013158	.0026391	.02975
%RSD	19.43112	141.7535	11.95992	152.5660	65.90327	.1548656
#1	.0555502	-.010888	.0939176	-.008170	.0009702	19.21989
#2	.0691058	.000767	.0777506	-.022004	.0057657	19.23862
#3	.0823676	-.002579	.0760124	.004301	.0052777	19.18034

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3923109	.0011704	.0034444	F 1166.583	.0366244	.0240509
Stddev	.0011074	.0001358	.0001692	5.687	.0009713	.0006919
%RSD	.2822698	11.60183	4.911627	.4874536	2.652061	2.876897
#1	.3935824	.0011752	.0036350	1170.701	.0376616	.0232526
#2	.3917926	.0010323	.0033120	1168.954	.0364756	.0244785
#3	.3915578	.0013037	.0033862	1160.095	.0357361	.0244215

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0538928	75.83951	2.160765	359.8609	.0658832	.0108424
Stddev	.0039054	.20090	.003660	.6629	.0007558	.0007040
%RSD	7.246678	.2649019	.1694036	.1842199	1.147257	6.493414
#1	.0506361	76.01824	2.162923	360.5644	.0650566	.0110499
#2	.0528197	75.62207	2.156539	359.2478	.0660538	.0100580
#3	.0582226	75.87822	2.162834	359.7706	.0665391	.0114194

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.671780	.0720973	.1992806	1.329776	2.767473	.1126536
Stddev	.206858	.0032804	.0015214	.108809	.004592	.0021818
%RSD	12.37349	4.549936	.7634233	8.182493	.1659243	1.936711
#1	1.571637	.0714889	.1983752	1.251482	2.762181	.1145981
#2	1.534052	.0756393	.1984296	1.454023	2.769830	.1130686
#3	1.909651	.0691637	.2010370	1.283824	2.770408	.1102942

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-06 Acquired: 11/20/2024 13:55:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0104679	9.754648	6.086268	-.005411	.5993339	.0371447
Stddev	.0009243	.025172	.056821	.001568	.0054825	.0006466
%RSD	8.829643	.2580547	.9335984	28.98260	.9147693	1.740649
#1	.0098849	9.751166	6.112489	-.004089	.6036335	.0378562
#2	.0099853	9.731398	6.125244	-.005000	.5931600	.0365931
#3	.0115336	9.781380	6.021071	-.007144	.6012081	.0369849

Elem	Sr4077
Units	ppm
Avg	1.660950
Stddev	.003469
%RSD	.2088586
#1	1.662705
#2	1.656954
#3	1.663191

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	810.5265	22363.71	4872.167	663.7601	1240.055
Stddev	.8514	166.75	34.365	5.2154	1.793
%RSD	.1050429	.7456223	.7053238	.7857380	.1445667
#1	811.4399	22325.95	4843.249	665.2133	1241.651
#2	809.7549	22546.11	4863.095	668.0949	1240.399
#3	810.3848	22219.09	4910.158	657.9722	1238.115

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05LX5 Acquired: 11/20/2024 14:00:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112353	-.000392	.0164826	.0024467	.0003441	3.916685	.0782335
Stddev	.0099655	.001135	.0021333	.0015392	.0036435	.015955	.0001771
%RSD	88.69802	289.4134	12.94298	62.90818	1058.689	.4073485	.2264282
#1	.0225385	-.001671	.0189444	.0006699	.0022108	3.933505	.0780858
#2	.0037156	.000497	.0151760	.0033724	-.003854	3.914782	.0781849
#3	.0074519	-.000003	.0153274	.0032978	.002676	3.901767	.0784299

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002521	.0003691	250.5490	.0086405	.0035351	.0146032	16.59598
Stddev	.0001226	.0001794	.9374	.0005463	.0003809	.0028726	.06227
%RSD	48.64062	48.62297	.3741414	6.322790	10.77431	19.67125	.3752364
#1	.0003256	.0001869	251.2495	.0081570	.0034691	.0119492	16.65386
#2	.0001105	.0005457	250.9134	.0085315	.0031915	.0176534	16.60400
#3	.0003201	.0003746	249.4842	.0092332	.0039446	.0142070	16.53009

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4658253	71.83953	.0144671	.0013911	.4251642	.0183983	.0435817
Stddev	.0010786	.40487	.0002180	.0001576	.2896531	.0037609	.0007903
%RSD	.2315438	.5635756	1.506795	11.33177	68.12733	20.44152	1.813407
#1	.4665050	72.30480	.0146970	.0015718	.4716207	.0148314	.0438554
#2	.4645816	71.64643	.0142634	.0012816	.1150907	.0180365	.0426909
#3	.4663892	71.56736	.0144410	.0013199	.6887813	.0223270	.0441988

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.210305	.5035211	.0196769	.0016061	1.727714	1.333361	-.008467
Stddev	.112858	.0012381	.0009832	.0007715	.013830	.001683	.003877
%RSD	53.66401	.2458979	4.996982	48.03411	.8004868	.1262387	45.78933
#1	-.120936	.5048662	.0190458	.0013974	1.738481	1.335024	-.006762
#2	-.172850	.5024289	.0191752	.0009605	1.712116	1.331658	-.005735
#3	-.337128	.5032682	.0208098	.0024605	1.732544	1.333401	-.012905

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05LX5 Acquired: 11/20/2024 14:00:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1221258	.0006963	.3465280
Stddev	.0002102	.0014871	.0007957
%RSD	.1720885	213.5692	.2296321
#1	.1222829	.0013240	.3473739
#2	.1222075	-.001002	.3464158
#3	.1218871	.001767	.3457944

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	876.1419	23922.14	4956.655	721.1257	1503.091
Stddev	1.1081	23.28	21.394	1.1900	1.683
%RSD	.1264796	.0973105	.4316179	.1650215	.1119721
#1	876.2865	23903.38	4933.713	721.2669	1501.152
#2	874.9686	23914.85	4960.193	722.2388	1503.947
#3	877.1707	23948.20	4976.060	719.8714	1504.173

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-07 Acquired: 11/20/2024 14:04:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2174336	.1739224	.1611380	.3452149	.3463631	27.48504
Stddev	.0066605	.0008204	.0017181	.0100483	.0033261	.02335
%RSD	3.063234	.4716969	1.066255	2.910734	.9602837	.0849444
#1	.2202241	.1733483	.1593589	.3336154	.3477831	27.49481
#2	.2098317	.1735569	.1612671	.3507768	.3425628	27.50192
#3	.2222450	.1748620	.1627879	.3512526	.3487436	27.45840

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.124287	.1829517	.1993854	F 1141.945	.7906007	2.015608
Stddev	.014807	.0004664	.0008871	3.537	.0082414	.006278
%RSD	.1822500	.2549526	.4449419	.3096936	1.042421	.3114526
#1	8.140359	.1824757	.2003118	1145.951	.8000633	2.022747
#2	8.121301	.1834079	.1985435	1140.624	.7867447	2.010952
#3	8.111201	.1829716	.1993010	1139.258	.7849943	2.013124

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9430813	79.46467	3.916483	345.5019	2.032991	.1964083
Stddev	.0012803	.19022	.009126	.7940	.004300	.0024994
%RSD	.1357598	.2393802	.2330068	.2298039	.2115022	1.272580
#1	.9417800	79.27506	3.924724	344.6544	2.037945	.1992466
#2	.9443396	79.65550	3.918051	345.6229	2.030218	.1954421
#3	.9431243	79.46343	3.906675	346.2285	2.030812	.1945361

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.886317	2.016620	1.778221	1.796017	2.713094	.1180595
Stddev	.358893	.003391	.017962	.074162	.018425	.0009790
%RSD	19.02614	.1681404	1.010121	4.129260	.6791064	.8292737
#1	2.297504	2.013189	1.796458	1.805096	2.733652	.1170146
#2	1.636025	2.019969	1.760547	1.717733	2.707557	.1182083
#3	1.725421	2.016702	1.777660	1.865221	2.698073	.1189556

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-07 Acquired: 11/20/2024 14:04:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0094194	9.364123	7.543901	-.003382	.6443321	.0375819
Stddev	.0010153	.053216	.022318	.003522	.0027699	.0007036
%RSD	10.77926	.5683000	.2958350	104.1442	.4298886	1.872190
#1	.0105443	9.425570	7.518207	.000672	.6422334	.0367713
#2	.0085708	9.333806	7.555033	-.005690	.6432912	.0379394
#3	.0091431	9.332992	7.558463	-.005129	.6474716	.0380349

Elem	Sr4077
Units	ppm
Avg	1.632006
Stddev	.001994
%RSD	.1221790
#1	1.633821
#2	1.632325
#3	1.629871

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	808.7539	22599.10	4959.089	670.4860	1240.210
Stddev	1.2025	210.84	8.889	7.6258	2.594
%RSD	.1486897	.9329695	.1792417	1.137353	.2091575
#1	807.7623	22355.93	4969.250	662.1277	1237.775
#2	808.4079	22710.34	4955.263	677.0646	1242.938
#3	810.0915	22731.02	4952.753	672.2655	1239.916

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-08 Acquired: 11/20/2024 14:09:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0663144	-.009374	.0428341	-.008786	.0030980	19.97099
Stddev	.0140754	.015984	.0045805	.015597	.0027630	.12562
%RSD	21.22523	170.5049	10.69352	177.5241	89.18629	.6290364
#1	.0689212	-.019250	.0424126	-.009270	.0062479	19.90355
#2	.0789042	.009067	.0476108	-.024135	.0019626	20.11593
#3	.0511179	-.017940	.0384789	.007048	.0010836	19.89348

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1805559	.0012272	.0023288	F 1539.492	.0374923	.0200684
Stddev	.0006983	.0001278	.0002356	12.699	.0014912	.0008096
%RSD	.3867527	10.41154	10.11724	.8248674	3.977418	4.034066
#1	.1808115	.0013735	.0025803	1554.104	.0391015	.0199343
#2	.1810904	.0011706	.0021132	1533.246	.0361570	.0209367
#3	.1797658	.0011376	.0022930	1531.126	.0372183	.0193343

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0516233	64.81876	2.564191	521.0904	.0580368	.0174084
Stddev	.0024619	.34518	.009852	2.9403	.0003878	.0003999
%RSD	4.768918	.5325250	.3842077	.5642632	.6681839	2.297365
#1	.0487866	64.49238	2.568113	519.3511	.0584291	.0170438
#2	.0532020	65.18007	2.571478	524.4853	.0580276	.0173453
#3	.0528812	64.78383	2.552982	519.4348	.0576537	.0178361

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.079122	.0593229	.1825296	1.159154	2.004690	.1227644
Stddev	.145207	.0087769	.0007774	.094504	.017435	.0012232
%RSD	6.984039	14.79507	.4259031	8.152869	.8697189	.9964242
#1	2.244300	.0628959	.1829309	1.159776	1.991507	.1231594
#2	1.971587	.0493231	.1830244	1.253346	1.998103	.1213925
#3	2.021481	.0657497	.1816336	1.064341	2.024459	.1237414

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-08 Acquired: 11/20/2024 14:09:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085711	6.040285	4.796835	-.006379	.4303905	.0496191
Stddev	.0005959	.045977	.028468	.002027	.0029742	.0005332
%RSD	6.952872	.7611792	.5934769	31.77701	.6910373	1.074617
#1	.0092515	6.050493	4.822356	-.004954	.4281049	.0490124
#2	.0083206	5.990062	4.802018	-.008700	.4337531	.0500133
#3	.0081414	6.080300	4.766132	-.005484	.4293134	.0498317

Elem	Sr4077
Units	ppm
Avg	1.405999
Stddev	.006623
%RSD	.4710627
#1	1.401980
#2	1.413643
#3	1.402374

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	781.3833	21843.39	4773.137	650.8538	1199.393
Stddev	1.7690	30.94	28.171	2.5169	3.273
%RSD	.2263882	.1416305	.5902088	.3867058	.2728824
#1	780.1855	21879.09	4753.553	653.7597	1198.210
#2	783.4151	21824.33	4760.434	649.3610	1203.093
#3	780.5493	21826.76	4805.423	649.4408	1196.877

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-09 Acquired: 11/20/2024 14:13:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0797299	-.011566	.0434183	-.000011	.0063568	16.91509
Stddev	.0117633	.005563	.0043507	.006088	.0018546	.09716
%RSD	14.75389	48.09986	10.02036	53333.96	29.17482	.5743713
#1	.0929085	-.015801	.0386785	-.002959	.0047221	16.83544
#2	.0702916	-.005265	.0472301	-.004065	.0059761	17.02333
#3	.0759896	-.013631	.0443462	.006989	.0083722	16.88649

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1632690	.0011905	.0027612	F 1511.078	.0417185	.0215363
Stddev	.0007479	.0001281	.0000251	4.529	.0016241	.0010305
%RSD	.4580941	10.76048	.9086353	.2997493	3.893034	4.785139
#1	.1624451	.0011976	.0027902	1516.006	.0435839	.0203907
#2	.1634568	.0013148	.0027477	1507.096	.0409528	.0223878
#3	.1639051	.0010589	.0027458	1510.133	.0406187	.0218305

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0326595	70.03980	2.229303	530.2003	.0596731	.0175088
Stddev	.0009991	.30332	.008836	1.8992	.0007984	.0001318
%RSD	3.059114	.4330619	.3963719	.3582034	1.337972	.7529056
#1	.0333434	69.84671	2.237056	529.5994	.0605476	.0176369
#2	.0331221	70.38941	2.219682	532.3273	.0589831	.0173735
#3	.0315129	69.88330	2.231172	528.6743	.0594885	.0175159

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.024837	.0552353	.1519680	1.917981	2.829187	.1280831
Stddev	.190501	.0064648	.0001638	.043429	.030394	.0010277
%RSD	9.408238	11.70405	.1077862	2.264334	1.074295	.8024039
#1	1.881978	.0481730	.1521414	1.937460	2.798380	.1286940
#2	2.241126	.0566720	.1519466	1.868222	2.859150	.1286588
#3	1.951406	.0608608	.1518159	1.948260	2.830032	.1268966

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-09 Acquired: 11/20/2024 14:13:41 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0092172	8.217204	5.138223	-.005040	.3801448	.0506000
Stddev	.0003717	.018156	.019890	.003137	.0024107	.0007927
%RSD	4.033094	.2209458	.3870985	62.25040	.6341418	1.566613
#1	.0092341	8.201158	5.115760	-.008194	.3776244	.0501758
#2	.0088373	8.213544	5.145310	-.005004	.3803820	.0515145
#3	.0095802	8.236911	5.153598	-.001920	.3824282	.0501097

Elem	Sr4077
Units	ppm
Avg	1.127495
Stddev	.001198
%RSD	.1062133
#1	1.128650
#2	1.127576
#3	1.126259

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	777.4481	21631.88	4761.705	641.5258	1188.102
Stddev	3.5138	10.47	9.442	4.2511	1.524
%RSD	.4519689	.0483999	.1982998	.6626551	.1282870
#1	781.4015	21623.10	4772.480	637.7322	1189.739
#2	774.6810	21629.07	4754.876	640.7248	1187.842
#3	776.2617	21643.47	4757.757	646.1204	1186.724

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-10 Acquired: 11/20/2024 14:18:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0534302	-.009148	.0474763	.0011529	.0034823	19.07059
Stddev	.0126826	.002018	.0017393	.0054560	.0031607	.05895
%RSD	23.73678	22.05772	3.663581	473.2600	90.76560	.3091182
#1	.0510775	-.009443	.0466667	-.003971	.0041337	19.11804
#2	.0671245	-.011002	.0494729	.000541	.0062667	19.08913
#3	.0420888	-.006999	.0462894	.006889	.0000466	19.00460

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2880254	.0008826	.0023747	F 1101.406	.0351472	.0220131
Stddev	.0002947	.0000392	.0001203	11.286	.0009037	.0002507
%RSD	.1023044	4.436919	5.065102	1.024668	2.571144	1.139000
#1	.2882782	.0008377	.0023774	1111.303	.0342309	.0219794
#2	.2880962	.0009094	.0024937	1103.800	.0351729	.0217809
#3	.2877018	.0009008	.0022531	1089.116	.0360377	.0222789

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0569376	63.00993	1.613562	406.2371	.0575311	.0121177
Stddev	.0012768	.19424	.002021	1.2826	.0004829	.0005508
%RSD	2.242533	.3082765	.1252627	.3157381	.8394161	4.545716
#1	.0570862	63.09626	1.612065	407.6226	.0577362	.0118105
#2	.0555930	63.14604	1.615861	405.9977	.0569795	.0117890
#3	.0581336	62.78748	1.612761	405.0910	.0578777	.0127537

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.512806	.0636338	.1577419	1.104955	2.286952	.1071388
Stddev	.253667	.0054898	.0014526	.105095	.008198	.0011225
%RSD	16.76799	8.627237	.9208647	9.511260	.3584569	1.047717
#1	1.383610	.0678330	.1566518	.986949	2.294617	.1082696
#2	1.805063	.0656469	.1593909	1.139442	2.287928	.1071220
#3	1.349747	.0574216	.1571830	1.188472	2.278309	.1060248

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-10 Acquired: 11/20/2024 14:18:17 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098992	9.799021	4.249586	-.004066	.5861948	.0389191
Stddev	.0013135	.028833	.015842	.002109	.0016649	.0005418
%RSD	13.26900	.2942458	.3728012	51.87814	.2840261	1.392133
#1	.0083896	9.797780	4.260028	-.002337	.5877339	.0387400
#2	.0105266	9.770828	4.257372	-.006416	.5844276	.0395278
#3	.0107814	9.828454	4.231356	-.003444	.5864228	.0384895

Elem	Sr4077
Units	ppm
Avg	1.383213
Stddev	.001630
%RSD	.1178216
#1	1.384515
#2	1.383739
#3	1.381385

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	780.1269	21777.26	4774.048	644.1933	1241.924
Stddev	1.1606	40.57	17.124	3.6403	.487
%RSD	.1487646	.1863053	.3586933	.5650894	.0392012
#1	779.3589	21796.30	4762.183	641.9013	1241.610
#2	781.4620	21804.81	4766.281	642.2878	1242.485
#3	779.5599	21730.67	4793.679	648.3908	1241.677

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-11 Acquired: 11/20/2024 14:22:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0654162	-.006211	.0741297	.0054526	.0058889	39.86012	.4694459
Stddev	.0012693	.002264	.0015596	.0056775	.0016567	.01254	.0009844
%RSD	1.940313	36.45794	2.103919	104.1248	28.13277	.0314664	.2096863
#1	.0667505	-.008820	.0759281	.0044789	.0051052	39.85203	.4683346
#2	.0642238	-.005053	.0733135	.0115539	.0047694	39.87457	.4702081
#3	.0652744	-.004760	.0731476	.0003249	.0077921	39.85375	.4697951

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024826	.0036313	432.9028	.0602508	.0392394	.0957398	68.30374
Stddev	.0000200	.0000510	1.4618	.0007402	.0002160	.0033184	.12618
%RSD	.8034735	1.403618	.3376768	1.228558	.5505412	3.466081	.1847273
#1	.0024896	.0036902	431.3452	.0594127	.0392616	.0995706	68.44908
#2	.0024601	.0036002	434.2449	.0608152	.0394435	.0938989	68.22217
#3	.0024981	.0036036	433.1182	.0605244	.0390131	.0937500	68.23999

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.273808	177.8472	.1050957	-.003391	.8731086	.1125318	.2860356
Stddev	.009182	.3759	.0012217	.000086	.2987773	.0082905	.0008280
%RSD	.7208451	.2113750	1.162482	2.533360	34.21994	7.367247	.2894628
#1	1.263646	178.2313	.1037053	-.003352	1.035428	.1166079	.2867521
#2	1.281509	177.4800	.1059977	-.003331	.528307	.1179951	.2851292
#3	1.276268	177.8305	.1055840	-.003489	1.055591	.1029923	.2862255

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.989218	2.926472	.1116714	.0124961	12.33064	5.400790	-.000826
Stddev	.097176	.013374	.0006260	.0005425	.00556	.009700	.001902
%RSD	3.250878	.4570004	.5605668	4.341074	.0451246	.1796079	230.0738
#1	2.892804	2.924444	.1111200	.0123534	12.32678	5.406676	.001225
#2	3.087138	2.940744	.1115423	.0130957	12.32812	5.389594	-.002530
#3	2.987713	2.914228	.1123518	.0120393	12.33702	5.406100	-.001174

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-11 Acquired: 11/20/2024 14:22:53 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9268094	.0445737	1.153564
Stddev	.0027906	.0006589	.001395
%RSD	.3010984	1.478148	.1209423
#1	.9273164	.0448800	1.152168
#2	.9293118	.0450237	1.153566
#3	.9238001	.0438175	1.154958

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	852.5195	24146.27	5091.128	714.0773	1370.153
Stddev	.5256	71.62	1.753	.9452	3.499
%RSD	.0616537	.2965910	.0344400	.1323695	.2553828
#1	852.8949	24121.64	5092.178	713.0257	1373.385
#2	851.9188	24090.22	5089.104	714.8562	1370.637
#3	852.7449	24226.95	5092.102	714.3499	1366.437

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-12 Acquired: 11/20/2024 14:27:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0974836	-.007426	.0749447	.0006959	.0056950	37.52218
Stddev	.0107719	.004412	.0043796	.0059346	.0018160	.07398
%RSD	11.04998	59.41223	5.843699	852.7411	31.88821	.1971759
#1	.0868201	-.012429	.0703588	.0061713	.0039146	37.45258
#2	.0972699	-.004093	.0753919	.0015268	.0056258	37.59988
#3	.1083608	-.005755	.0790836	-.005610	.0075447	37.51406

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2998879	.0018987	.0045588	F 1007.884	.0721977	.0469222
Stddev	.0017987	.0001683	.0003722	5.627	.0014202	.0009066
%RSD	.5997759	8.863580	8.164884	.5583392	1.967109	1.932203
#1	.2999474	.0019821	.0042055	1013.918	.0707690	.0464989
#2	.3016560	.0020091	.0049474	1006.955	.0736093	.0479631
#3	.2980602	.0017050	.0045236	1002.779	.0722149	.0463047

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0981834	113.1170	2.410490	368.4440	.1325243	.0054326
Stddev	.0004005	.3934	.009635	1.0529	.0013461	.0003977
%RSD	.4079359	.3477947	.3997205	.2857686	1.015720	7.320869
#1	.0979745	112.7949	2.410111	367.2358	.1332957	.0049734
#2	.0986452	113.5555	2.420309	369.1656	.1309700	.0056671
#3	.0979306	113.0007	2.401049	368.9306	.1333071	.0056573

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.913776	.1135097	.2546016	7.011387	2.661570	.1597702
Stddev	.226850	.0047649	.0012720	.086963	.014295	.0001854
%RSD	11.85355	4.197794	.4995929	1.240308	.5370785	.1160287
#1	1.691824	.1142538	.2543102	6.937019	2.645188	.1599298
#2	2.145226	.1178588	.2559940	7.107006	2.668008	.1598138
#3	1.904277	.1084165	.2535006	6.990137	2.671512	.1595669

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-12 Acquired: 11/20/2024 14:27:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0253213	23.20485	7.101424	-.005614	1.167480	.0804626
Stddev	.0004613	.06068	.012711	.004111	.005502	.0002118
%RSD	1.821883	.2614937	.1789942	73.22360	.4712968	.2631598
#1	.0258305	23.17140	7.116055	-.000932	1.161192	.0805524
#2	.0252019	23.16826	7.095116	-.008632	1.169835	.0802208
#3	.0249313	23.27490	7.093101	-.007279	1.171413	.0806147

Elem	Sr4077
Units	ppm
Avg	.9187934
Stddev	.0029774
%RSD	.3240513
#1	.9184343
#2	.9219340
#3	.9160119

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	808.6809	22642.89	4883.625	673.5658	1244.668
Stddev	.6823	25.82	2.611	3.9507	2.773
%RSD	.0843731	.1140225	.0534687	.5865369	.2227657
#1	808.5855	22663.34	4880.655	677.0771	1242.430
#2	809.4059	22613.88	4884.658	669.2880	1247.770
#3	808.0513	22651.45	4885.561	674.3323	1243.803

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-13 Acquired: 11/20/2024 14:31:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0372716	-.002625	.0490362	-.004107	.0027795	17.31708
Stddev	.0039417	.004691	.0041692	.006577	.0033038	.00919
%RSD	10.57563	178.7075	8.502275	160.1270	118.8624	.0530433
#1	.0340295	.002650	.0464129	-.005641	.0053253	17.32429
#2	.0361262	-.004197	.0538437	.003101	-.000954	17.30674
#3	.0416592	-.006329	.0468521	-.009782	.003967	17.32021

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2864304	.0009112	.0021808	F 809.5040	.0365254	.0176011
Stddev	.0007754	.0000760	.0001912	6.5213	.0023428	.0012495
%RSD	.2707086	8.345748	8.767530	.8055906	6.414088	7.099205
#1	.2871002	.0009116	.0023105	803.4374	.0366297	.0178443
#2	.2866101	.0008349	.0022706	816.4005	.0341323	.0187112
#3	.2855810	.0009870	.0019612	808.6739	.0388143	.0162479

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0497066	56.22714	1.265829	308.0827	.0500566	.0086018
Stddev	.0007263	.13090	.005413	.3231	.0009467	.0003945
%RSD	1.461206	.2328032	.4276333	.1048707	1.891314	4.585629
#1	.0499760	56.37681	1.263514	308.3850	.0494679	.0090320
#2	.0502597	56.13407	1.272015	308.1209	.0495533	.0082572
#3	.0488841	56.17053	1.261958	307.7422	.0511487	.0085162

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.688131	.0819968	.1428672	1.138070	2.349293	.1033136
Stddev	.289430	.0048283	.0013522	.093443	.005774	.0024002
%RSD	17.14500	5.888394	.9464559	8.210635	.2457739	2.323196
#1	1.995064	.0819242	.1424478	1.135027	2.351353	.1007693
#2	1.649180	.0772052	.1417745	1.232997	2.342772	.1055375
#3	1.420149	.0868610	.1443794	1.046186	2.353756	.1036339

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-13 Acquired: 11/20/2024 14:31:54 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0102034	10.77376	6.513975	-.001757	1.005479	.0271382
Stddev	.0009175	.04348	.034174	.001246	.000719	.0023159
%RSD	8.992415	.4035490	.5246252	70.93287	.0715448	8.533881
#1	.0098046	10.76608	6.480191	-.003028	1.006129	.0292993
#2	.0095527	10.73463	6.548526	-.000537	1.005603	.0274219
#3	.0112529	10.82056	6.513208	-.001706	1.004706	.0246935

Elem	Sr4077
Units	ppm
Avg	1.274854
Stddev	.002205
%RSD	.1729532
#1	1.275271
#2	1.276820
#3	1.272470

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	798.4778	22269.81	4808.832	660.3140	1293.525
Stddev	3.2364	138.36	16.508	3.0310	3.254
%RSD	.4053231	.6212682	.3432846	.4590176	.2515252
#1	796.2434	22110.11	4820.965	658.4282	1292.195
#2	802.1892	22346.19	4790.033	663.8103	1297.233
#3	797.0009	22353.15	4815.498	658.7037	1291.147

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-14 Acquired: 11/20/2024 14:36:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1067503	-.007183	.0410674	-.002578	.0100320	18.05181
Stddev	.0099624	.008522	.0021598	.005278	.0040821	.06578
%RSD	9.332460	118.6402	5.259176	204.7462	40.69025	.3643932
#1	.1158275	-.014243	.0405945	.000532	.0063616	17.98558
#2	.0960918	.002283	.0391833	.000407	.0093061	18.05274
#3	.1083316	-.009588	.0434245	-.008672	.0144283	18.11713

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2130640	.0012798	.0028188	F 1200.329	.0399969	.0220302
Stddev	.0003942	.0000520	.0000809	8.718	.0005264	.0007574
%RSD	.1850011	4.066500	2.871490	.7263074	1.316135	3.437816
#1	.2127267	.0012198	.0027745	1200.276	.0403772	.0222132
#2	.2134973	.0013129	.0029122	1191.638	.0393961	.0226793
#3	.2129679	.0013068	.0027698	1209.074	.0402174	.0211981

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0465670	75.99076	2.181223	454.7977	.0643168	.0121789
Stddev	.0030016	.47935	.006437	2.3685	.0014303	.0002388
%RSD	6.445813	.6308050	.2951100	.5207764	2.223836	1.960408
#1	.0439307	75.46466	2.181753	452.5107	.0637294	.0120658
#2	.0459366	76.10484	2.174538	454.6425	.0632737	.0120176
#3	.0498338	76.40278	2.187379	457.2400	.0659473	.0124531

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.157591	.0585654	.1818643	2.060480	2.339212	.1324374
Stddev	.291524	.0063881	.0012556	.001236	.009780	.0023621
%RSD	13.51156	10.90768	.6903900	.0600043	.4180912	1.783593
#1	2.419593	.0654277	.1833113	2.061849	2.330854	.1298385
#2	1.843553	.0574771	.1810630	2.059445	2.349968	.1330199
#3	2.209627	.0527913	.1812185	2.060145	2.336813	.1344538

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-14 Acquired: 11/20/2024 14:36:31 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0178359	7.777349	4.326942	-.003036	.4566146	.0463324
Stddev	.0002907	.011312	.016208	.002008	.0035038	.0007349
%RSD	1.629791	.1454501	.3745725	66.14770	.7673346	1.586044
#1	.0181695	7.780081	4.320419	-.004555	.4525712	.0471308
#2	.0176368	7.764920	4.315013	-.003794	.4587582	.0456843
#3	.0177014	7.787044	4.345395	-.000759	.4585143	.0461821

Elem	Sr4077
Units	ppm
Avg	.8664879
Stddev	.0019615
%RSD	.2263690
#1	.8646732
#2	.8662216
#3	.8685689

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	780.3850	21787.99	4765.728	641.7281	1227.824
Stddev	.2065	25.29	24.011	.3347	2.116
%RSD	.0264553	.1160958	.5038347	.0521496	.1723585
#1	780.5474	21796.50	4778.006	641.7266	1228.423
#2	780.1526	21807.95	4781.119	642.0636	1229.577
#3	780.4550	21759.54	4738.061	641.3943	1225.473

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV035 Acquired: 11/20/2024 14:41:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	5.074964	4.784229	24.72755	4.801451	4.877463	412.0604	10.13043
Stddev	.012863	.013979	.06724	.037807	.028009	.8746	.02387
%RSD	.2534559	.2921853	.2719221	.7873989	.5742490	.2122552	.2356456
#1	5.060142	4.790087	24.70499	4.829212	4.878094	411.4518	10.13547
#2	5.083196	4.768274	24.67450	4.758393	4.849144	411.6668	10.10444
#3	5.081554	4.794325	24.80317	4.816749	4.905151	413.0627	10.15138

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4972537	2.479976	402.9370	15.08700	2.494986	14.95770	414.9583
Stddev	.0005882	.006202	.3014	.03309	.006405	.03533	1.3566
%RSD	.1182857	.2500928	.0748037	.2193605	.2567183	.2361918	.3269364
#1	.4974454	2.479012	403.1378	15.12180	2.494445	14.96044	413.5727
#2	.4977221	2.474312	402.5904	15.08327	2.488868	14.92108	415.0180
#3	.4965935	2.486604	403.0828	15.05592	2.501644	14.99157	416.2841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.57298	404.6218	2.467990	1.233834	412.2232	2.502836	14.38710
Stddev	.02000	.8728	.006645	.004859	1.3250	.005847	.12479
%RSD	.1372152	.2157163	.2692563	.3937802	.3214377	.2336008	.8673937
#1	14.58882	403.7741	2.471641	1.239412	411.1673	2.502164	14.53111
#2	14.55051	404.5735	2.460320	1.230525	411.7922	2.508989	14.31954
#3	14.57962	405.5178	2.472010	1.231565	413.7101	2.497353	14.31066

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	150.8594	4.967296	5.172434	4.774964	5.068626	5.018961	4.971921
Stddev	.2622	.019680	.007195	.022375	.026363	.009766	.018742
%RSD	.1738120	.3961954	.1390947	.4685928	.5201199	.1945861	.3769544
#1	151.0065	4.966699	5.164261	4.786692	5.041170	5.011882	4.966194
#2	150.5567	4.947921	5.177812	4.749163	5.070968	5.030102	4.956711
#3	151.0151	4.987268	5.175228	4.789038	5.093739	5.014897	4.992859

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV035 Acquired: 11/20/2024 14:41:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	5.004768	5.087118	5.036573
Stddev	.016502	.014626	.013124
%RSD	.3297171	.2875144	.2605769
#1	4.987528	5.083161	5.027660
#2	5.006363	5.074877	5.030416
#3	5.020415	5.103315	5.051644

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	734.3699	21744.96	4747.896	566.8278	1270.843
Stddev	2.4397	40.06	11.019	4.5982	1.949
%RSD	.3322185	.1842372	.2320857	.8112086	.1533319
#1	733.6669	21703.86	4747.644	561.5254	1272.845
#2	737.0839	21747.14	4737.005	569.7159	1270.733
#3	732.3588	21783.89	4759.039	569.2423	1268.952

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB035 Acquired: 11/20/2024 14:45:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	.0021836	.0015685	.0010178	.0027097	-.001619	.0284717	-.002133
Stddev	.0039616	.0008553	.0028380	.0055466	.001425	.0095687	.000230
%RSD	181.4209	54.53290	278.8518	204.6930	87.97306	33.60769	10.80487
#1	.0060824	.0024531	-.001348	.0052673	-.000804	.0176009	-.002393
#2	-.001838	.0015066	.004165	.0065160	-.000790	.0356183	-.001954
#3	.002306	.0007458	.000236	-.003654	-.003265	.0321960	-.002051

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000093	.0001509	.0150923	.0013457	-.000046	.0031648	.0171821
Stddev	.000107	.0000390	.0175022	.0001699	.000430	.0015311	.0023443
%RSD	114.9499	25.82447	115.9679	12.62405	941.7120	48.37987	13.64364
#1	-.000125	.0001957	.0147755	.0015403	-.000441	.0014007	.0191838
#2	-.000181	.0001314	.0327507	.0012699	.000413	.0039457	.0146031
#3	.000026	.0001255	-.002249	.0012270	-.000109	.0041480	.0177594

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006009	-.002649	.0004173	-.006402	-.006333	-.001858	-.000764
Stddev	.0004403	.056345	.0003653	.000436	.270041	.005871	.000172
%RSD	73.26482	2127.027	87.53561	6.806477	4263.781	315.8957	22.49660
#1	.0006519	.057463	.0003330	-.006088	.213419	-.005800	-.000708
#2	.0001374	-.054262	.0001016	-.006899	-.307792	-.004665	-.000628
#3	.0010135	-.011147	.0008175	-.006218	.075373	.004889	-.000957

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.812694	-.000578	.0000659	.0003578	-.003579	.0021583	-.000020
Stddev	.030193	.002761	.0004910	.0003611	.002315	.0001306	.000711
%RSD	3.715178	477.6396	745.1304	100.9300	64.69097	6.052615	3599.539
#1	-.797614	-.003546	-.000330	.0006690	-.001854	.0020122	.000493
#2	-.793011	-.000104	.000615	-.000038	-.006210	.0021991	-.000832
#3	-.847457	.001915	-.000087	.000442	-.002673	.0022638	.000280

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB035 Acquired: 11/20/2024 14:45:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) 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	-.000132	-.007981	.0001184
Stddev	.000535	.000588	.0000866
%RSD	405.1797	7.366165	73.18239
#1	-.000440	-.008252	.0000213
#2	.000486	-.007306	.0001878
#3	-.000442	-.008384	.0001459

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	924.0085	25374.97	4949.350	768.6052	1768.758
Stddev	1.9036	181.62	21.884	7.4332	4.474
%RSD	.2060120	.7157531	.4421613	.9671073	.2529229
#1	923.0922	25214.42	4964.900	763.1526	1765.417
#2	926.1970	25572.09	4924.325	777.0721	1773.840
#3	922.7365	25338.40	4958.825	765.5908	1767.017

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-15 Acquired: 11/20/2024 14:50:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1047455	-.006047	.0711745	-.000965	.0059155	31.56951
Stddev	.0146209	.008104	.0024979	.001995	.0010386	.11431
%RSD	13.95851	134.0199	3.509605	206.7530	17.55760	.3620790
#1	.0881788	-.002356	.0723058	.000327	.0048588	31.47136
#2	.1158449	-.000445	.0729067	.000041	.0069351	31.54216
#3	.1102128	-.015339	.0683111	-.003263	.0059527	31.69501

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2918548	.0019502	.0052083	F 1263.280	.0597094	.0435431
Stddev	.0014724	.0000348	.0003672	1.642	.0006054	.0001284
%RSD	.5045018	1.785448	7.049411	.1299949	1.013984	.2949706
#1	.2918537	.0019846	.0053815	1264.123	.0601519	.0435944
#2	.2903829	.0019150	.0054569	1264.330	.0599569	.0433969
#3	.2933278	.0019509	.0047866	1261.388	.0590194	.0436380

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0954080	116.2283	2.648232	489.6440	.1207951	.0097591
Stddev	.0039373	.4737	.016136	2.5877	.0010645	.0004558
%RSD	4.126830	.4075516	.6093159	.5284809	.8812075	4.670176
#1	.0935323	115.8026	2.642328	487.2138	.1219565	.0093218
#2	.0927593	116.1438	2.635879	489.3534	.1205629	.0102313
#3	.0999325	116.7386	2.666489	492.3647	.1198659	.0097240

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.057786	.1040415	.3921327	5.224114	3.311471	.1645355
Stddev	.172529	.0032408	.0010597	.122633	.011022	.0012456
%RSD	8.384186	3.114948	.2702331	2.347440	.3328533	.7570417
#1	2.079110	.1007804	.3909214	5.107961	3.309134	.1652846
#2	2.218661	.1072617	.3925882	5.212047	3.323474	.1630976
#3	1.875586	.1040822	.3928884	5.352335	3.301804	.1652242

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-15 Acquired: 11/20/2024 14:50:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0203607	13.72645	8.721088	-.002263	.8409629	.0807519
Stddev	.0008046	.04315	.015666	.004960	.0040657	.0016141
%RSD	3.951774	.3143766	.1796306	219.1688	.4834532	1.998798
#1	.0208940	13.72809	8.735017	-.003159	.8378253	.0788885
#2	.0207529	13.76877	8.704128	-.006715	.8395075	.0816531
#3	.0194352	13.68251	8.724119	.003084	.8455560	.0817141

Elem	Sr4077
Units	ppm
Avg	.8920638
Stddev	.0041322
%RSD	.4632162
#1	.8898464
#2	.8895135
#3	.8968313

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	802.9636	22270.09	4822.912	661.7701	1214.119
Stddev	1.0119	28.44	15.912	1.8825	1.562
%RSD	.1260229	.1276991	.3299345	.2844576	.1286120
#1	803.8828	22295.96	4826.247	663.3197	1213.518
#2	801.8793	22239.64	4836.892	659.6752	1212.947
#3	803.1286	22274.68	4805.596	662.3153	1215.892

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-16 Acquired: 11/20/2024 14:54:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0577534	-.003738	.0518151	-.000535	.0023666	18.82694
Stddev	.0124344	.003537	.0028401	.001777	.0024147	.01914
%RSD	21.53018	94.62311	5.481159	332.1472	102.0342	.1016809
#1	.0629917	-.006567	.0550889	-.002422	-.000329	18.83227
#2	.0435569	-.004873	.0503448	.001106	.004332	18.84285
#3	.0667115	.000227	.0500117	-.000289	.003097	18.80570

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2188587	.0013056	.0025403	F 809.1708	.0354655	.0234508
Stddev	.0003334	.0000462	.0000551	5.4548	.0021579	.0008042
%RSD	.1523316	3.542342	2.167962	.6741237	6.084488	3.429329
#1	.2192139	.0013418	.0025677	815.2479	.0340037	.0239937
#2	.2185526	.0013214	.0025763	804.6981	.0379439	.0238319
#3	.2188095	.0012535	.0024769	807.5663	.0344489	.0225269

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0461009	64.76279	1.498825	275.1275	.0652172	.0077091
Stddev	.0001628	.06345	.002992	.3212	.0010392	.0005810
%RSD	.3531470	.0979768	.1996036	.1167572	1.593366	7.536985
#1	.0461694	64.68957	1.502082	275.2702	.0663621	.0080594
#2	.0459151	64.79690	1.498192	275.3526	.0643339	.0070384
#3	.0462183	64.80189	1.496200	274.7596	.0649554	.0080295

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.396031	.0710614	.1792507	1.943532	2.444381	.1018059
Stddev	.271759	.0086038	.0019372	.321797	.010319	.0015805
%RSD	19.46656	12.10762	1.080700	16.55732	.4221385	1.552416
#1	1.269541	.0758577	.1812531	2.305702	2.433045	.1018124
#2	1.210573	.0761980	.1773861	1.834408	2.446873	.1033831
#3	1.707979	.0611285	.1791130	1.690487	2.453225	.1002222

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-16 Acquired: 11/20/2024 14:54:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y4 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0134335	11.12799	6.631680	.0005377	.8614241	.0379639
Stddev	.0006801	.01539	.005314	.0035048	.0041719	.0008646
%RSD	5.062956	.1382785	.0801309	651.7927	.4843008	2.277488
#1	.0133866	11.14474	6.629639	.0018362	.8570452	.0386085
#2	.0141359	11.12477	6.637712	.0032080	.8653524	.0369814
#3	.0127781	11.11447	6.627689	-.003431	.8618748	.0383019

Elem	Sr4077
Units	ppm
Avg	1.077707
Stddev	.000567
%RSD	.0525833
#1	1.078328
#2	1.077575
#3	1.077219

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	812.7321	22476.76	4794.655	670.5298	1298.334
Stddev	2.7534	63.02	7.948	5.3889	1.594
%RSD	.3387777	.2803812	.1657741	.8036748	.1227836
#1	810.4129	22405.51	4791.483	665.0689	1296.593
#2	815.7750	22499.58	4788.783	675.8437	1298.687
#3	812.0084	22525.19	4803.699	670.6769	1299.722

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-17 Acquired: 11/20/2024 14:59:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0534112	-.004901	.0590605	-.006968	.0048433	20.37639
Stddev	.0040925	.006353	.0040250	.007018	.0031733	.02851
%RSD	7.662216	129.6233	6.815030	100.7105	65.51946	.1398928
#1	.0580203	-.007082	.0565145	-.004164	.0082306	20.34641
#2	.0502035	.002255	.0569662	-.001786	.0043597	20.37961
#3	.0520098	-.009877	.0637009	-.014954	.0019396	20.40315

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2365941	.0011192	.0036212	F 876.3423	.0485420	.0240481
Stddev	.0008375	.0000572	.0000458	3.7522	.0010367	.0010864
%RSD	.3539706	5.108862	1.264693	.4281656	2.135582	4.517764
#1	.2366723	.0010541	.0036076	875.7074	.0474168	.0228561
#2	.2357202	.0011614	.0036723	872.9481	.0494582	.0249828
#3	.2373897	.0011420	.0035839	880.3715	.0487509	.0243053

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0523960	71.82048	1.998241	307.6024	.0662201	.0070786
Stddev	.0015229	.39574	.004723	.8279	.0000609	.0004027
%RSD	2.906545	.5510180	.2363803	.2691378	.0920234	5.688970
#1	.0508449	71.51433	1.993259	306.8096	.0661793	.0074914
#2	.0524542	71.67976	1.998811	307.5361	.0661909	.0070575
#3	.0538890	72.26736	2.002654	308.4614	.0662902	.0066869

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.632950	.0810387	.2977513	1.885418	3.095860	.1036483
Stddev	.168777	.0040707	.0020603	.044877	.008846	.0018161
%RSD	10.33571	5.023094	.6919704	2.380194	.2857253	1.752191
#1	1.551694	.0843822	.2981485	1.857382	3.106063	.1017296
#2	1.826986	.0765059	.2995841	1.861694	3.091168	.1053406
#3	1.520172	.0822281	.2955212	1.937177	3.090349	.1038747

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-17 Acquired: 11/20/2024 14:59:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0105003	11.20671	6.547545	-.003932	1.045073	.0395992
Stddev	.0002738	.01246	.008970	.004007	.003195	.0010125
%RSD	2.607126	.1111926	.1370017	101.8996	.3057536	2.556765
#1	.0107686	11.19479	6.537297	-.007448	1.041497	.0398634
#2	.0102214	11.20569	6.551366	.000430	1.047648	.0404534
#3	.0105108	11.21965	6.553972	-.004778	1.046074	.0384809

Elem	Sr4077
Units	ppm
Avg	.9864443
Stddev	.0007029
%RSD	.0712516
#1	.9856353
#2	.9867924
#3	.9869051

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	820.6023	22744.09	4905.232	679.0209	1285.892
Stddev	1.6539	55.37	8.110	2.1158	1.586
%RSD	.2015473	.2434299	.1653379	.3115978	.1233061
#1	818.8703	22740.61	4912.924	681.0965	1284.876
#2	822.1651	22690.54	4906.012	676.8670	1287.719
#3	820.7715	22801.11	4896.760	679.0993	1285.081

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-18 Acquired: 11/20/2024 15:03:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0664397	-.003330	.0498082	.0027385	.0056022	15.23009
Stddev	.0087275	.001502	.0032767	.0071908	.0036518	.01625
%RSD	13.13594	45.11379	6.578712	262.5863	65.18545	.1066648
#1	.0721854	-.004378	.0469729	.0093366	.0016399	15.22610
#2	.0707369	-.004003	.0490561	.0038047	.0088328	15.21621
#3	.0563968	-.001609	.0533956	-.004926	.0063338	15.24796

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1671525	.0009894	.0023781	F 1217.269	.0345834	.0185866
Stddev	.0006471	.0000883	.0004690	10.899	.0003492	.0006775
%RSD	.3871590	8.920172	19.72343	.8953989	1.009791	3.645084
#1	.1665307	.0010589	.0022014	1208.969	.0348769	.0186643
#2	.1678223	.0008901	.0029099	1229.612	.0341971	.0178736
#3	.1671044	.0010193	.0020231	1213.225	.0346761	.0192219

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0383015	62.50080	1.867017	458.7864	.0523164	.0141376
Stddev	.0011748	.05928	.002595	.5762	.0015469	.0002171
%RSD	3.067158	.0948498	.1389991	.1255896	2.956727	1.535906
#1	.0392970	62.56404	1.864499	459.4365	.0507614	.0143420
#2	.0370057	62.49186	1.866870	458.5841	.0523328	.0139097
#3	.0386018	62.44649	1.869683	458.3386	.0538550	.0141610

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.655617	.0696275	.1360353	1.360838	2.255101	.1134082
Stddev	.705977	.0057801	.0013410	.068201	.022791	.0019712
%RSD	42.64131	8.301476	.9857646	5.011718	1.010641	1.738118
#1	2.167683	.0754493	.1366594	1.324310	2.234259	.1122531
#2	1.948896	.0638901	.1344960	1.318682	2.251608	.1156843
#3	.850271	.0695432	.1369504	1.439523	2.279437	.1122873

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-18 Acquired: 11/20/2024 15:03:47 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067964	8.332603	5.074279	.0009231	.8511585	.0424032
Stddev	.0007296	.021919	.031393	.0008109	.0020171	.0006009
%RSD	10.73444	.2630493	.6186767	87.84524	.2369789	1.417156
#1	.0064370	8.319847	5.064129	.0017788	.8531389	.0430917
#2	.0063163	8.320049	5.109492	.0001661	.8512300	.0421337
#3	.0076359	8.357913	5.049217	.0008243	.8491066	.0419842

Elem	Sr4077
Units	ppm
Avg	.8968251
Stddev	.0014813
%RSD	.1651731
#1	.8982984
#2	.8968412
#3	.8953359

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	782.7347	21832.18	4764.381	651.0186	1220.236
Stddev	2.9131	42.36	11.346	2.2962	4.001
%RSD	.3721705	.1940260	.2381423	.3527115	.3278770
#1	784.4616	21789.91	4773.245	648.8938	1221.763
#2	784.3711	21874.63	4751.594	653.4545	1223.249
#3	779.3713	21832.00	4768.303	650.7074	1215.697

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-19 Acquired: 11/20/2024 15:08:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Z0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0699518	-.003155	.0344932	-.003643	.0029729	15.49072
Stddev	.0036283	.000717	.0038998	.009879	.0033523	.06808
%RSD	5.186930	22.73216	11.30589	271.1954	112.7654	.4394779
#1	.0694870	-.002618	.0376635	.000786	.0068378	15.41217
#2	.0737901	-.003969	.0301386	.003247	.0008541	15.52750
#3	.0665782	-.002878	.0356775	-.014961	.0012266	15.53250

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2565750	.0008394	.0026094	F 1402.378	.0361982	.0202316
Stddev	.0006523	.0000598	.0000973	9.756	.0015244	.0003376
%RSD	.2542389	7.122657	3.727298	.6956689	4.211283	1.668603
#1	.2558425	.0007709	.0025311	1401.595	.0372828	.0205405
#2	.2570931	.0008660	.0027183	1393.037	.0344553	.0202831
#3	.2567893	.0008813	.0025788	1412.502	.0368566	.0198713

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0343720	64.14992	2.338683	544.5144	.0571809	.0164748
Stddev	.0036818	.25721	.012002	2.9589	.0003681	.0004337
%RSD	10.71149	.4009491	.5131930	.5434026	.6437298	2.632745
#1	.0384024	63.87029	2.331722	541.1155	.0570924	.0168758
#2	.0335284	64.37640	2.331785	545.9130	.0568651	.0165343
#3	.0311853	64.20308	2.352542	546.5148	.0575852	.0160144

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.827072	.0600173	.1339567	1.147701	1.721210	.1189887
Stddev	.096440	.0027031	.0012327	.038727	.009003	.0010685
%RSD	5.278370	4.503907	.9202413	3.374320	.5230584	.8979564
#1	1.901882	.0612449	.1332710	1.152467	1.711444	.1183280
#2	1.718231	.0569182	.1353798	1.106811	1.729178	.1202214
#3	1.861104	.0618887	.1332193	1.183825	1.723008	.1184167

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-19 Acquired: 11/20/2024 15:08:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Z0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0083174	8.091751	4.935584	-.003232	.4407669	.0496933
Stddev	.0005841	.030562	.010224	.000319	.0031983	.0015156
%RSD	7.022594	.3776981	.2071522	9.853992	.7256180	3.049855
#1	.0088989	8.066267	4.932509	-.003276	.4378858	.0508275
#2	.0077307	8.125635	4.927250	-.002894	.4442083	.0479720
#3	.0083227	8.083351	4.946992	-.003527	.4402064	.0502803

Elem	Sr4077
Units	ppm
Avg	1.162639
Stddev	.003293
%RSD	.2832078
#1	1.158893
#2	1.163948
#3	1.165076

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	783.7711	21839.07	4766.540	651.1260	1200.547
Stddev	.2527	13.93	24.103	4.9582	3.237
%RSD	.0322466	.0638054	.5056662	.7614842	.2696649
#1	783.9983	21855.12	4764.472	655.6956	1197.645
#2	783.4989	21830.00	4791.611	651.8284	1204.039
#3	783.8160	21832.10	4743.539	645.8541	1199.956

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-20 Acquired: 11/20/2024 15:12:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0974865	-.007826	.0578949	-.011228	-.000397	26.62235
Stddev	.0122259	.002686	.0059473	.004409	.006016	.18468
%RSD	12.54114	34.32578	10.27260	39.26543	1515.215	.6937190
#1	.1115100	-.004999	.0526720	-.014354	-.007342	26.83404
#2	.0918822	-.010344	.0643679	-.013144	.002925	26.49417
#3	.0890674	-.008135	.0566447	-.006185	.003225	26.53883

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2631004	.0016985	.0042686	F 1487.245	.0392768	.0386790
Stddev	.0007579	.0003439	.0004064	1.468	.0022281	.0004228
%RSD	.2880710	20.24814	9.521658	.0986779	5.672861	1.093189
#1	.2622310	.0014827	.0038017	1485.760	.0368856	.0391657
#2	.2634482	.0015177	.0044616	1488.695	.0396501	.0384689
#3	.2636219	.0020951	.0045427	1487.278	.0412946	.0384024

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0731427	108.2599	2.309180	536.6103	.0928398	.0149270
Stddev	.0026440	.8485	.009246	3.4712	.0009760	.0008525
%RSD	3.614913	.7837657	.4003873	.6468816	1.051253	5.711145
#1	.0740896	109.2233	2.300143	540.4544	.0922810	.0142712
#2	.0751829	107.6236	2.308778	533.7050	.0922716	.0146191
#3	.0701555	107.9330	2.318621	535.6715	.0939667	.0158907

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.808580	.0872113	.2322453	2.658098	2.630472	.1722630
Stddev	.072932	.0056635	.0031072	.139908	.014332	.0007770
%RSD	4.032566	6.493947	1.337906	5.263478	.5448325	.4510368
#1	1.751566	.0936856	.2314976	2.529209	2.637738	.1731100
#2	1.890764	.0831757	.2295801	2.806894	2.613963	.1720956
#3	1.783411	.0847727	.2356581	2.638190	2.639716	.1715833

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-20 Acquired: 11/20/2024 15:12:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0270516	21.99876	7.059889	-.003787	.4027093	.0796931
Stddev	.0006418	.00819	.000726	.004292	.0017675	.0014825
%RSD	2.372639	.0372135	.0102875	113.3504	.4389029	1.860267
#1	.0277027	22.00644	7.060445	-.008743	.4047116	.0812555
#2	.0270327	21.99015	7.060154	-.001378	.4020504	.0783061
#3	.0264194	21.99969	7.059067	-.001240	.4013659	.0795177

Elem	Sr4077
Units	ppm
Avg	1.831668
Stddev	.003241
%RSD	.1769450
#1	1.835350
#2	1.830410
#3	1.829245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	775.9289	21495.99	4715.804	641.1630	1191.437
Stddev	1.8872	138.55	9.978	6.8197	2.052
%RSD	.2432143	.6445424	.2115905	1.063640	.1722131
#1	774.6915	21576.54	4705.089	643.4741	1189.288
#2	778.1010	21575.41	4724.830	646.5268	1193.375
#3	774.9943	21336.00	4717.493	633.4881	1191.648

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-21 Acquired: 11/20/2024 15:17:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0590459	-.006646	.0926195	.0068417	.0046227	30.70450	.3974314
Stddev	.0059665	.010273	.0018305	.0158094	.0011574	.03524	.0007252
%RSD	10.10492	154.5842	1.976355	231.0722	25.03723	.1147650	.1824730
#1	.0658954	-.018340	.0947273	.0147433	.0035492	30.73065	.3975265
#2	.0562636	.000923	.0914300	-.011361	.0044701	30.71843	.3981044
#3	.0549786	-.002519	.0917010	.017143	.0058488	30.66443	.3966634

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020011	.0033986	729.2286	.0489767	.0321817	.0737719	84.57030
Stddev	.0000500	.0002532	4.1141	.0014592	.0003191	.0024569	.27495
%RSD	2.499631	7.451010	.5641750	2.979299	.9914893	3.330451	.3251136
#1	.0019454	.0032808	724.5779	.0495966	.0321312	.0737889	84.36383
#2	.0020422	.0036893	730.7151	.0473100	.0318910	.0713065	84.46468
#3	.0020157	.0032257	732.3929	.0500236	.0325231	.0762202	84.88240

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.812939	260.4994	.0839420	.0033387	1.406044	.0946575	.2276155
Stddev	.004268	.6195	.0012277	.0003311	.038638	.0069167	.0032194
%RSD	.2354086	.2378002	1.462537	9.916863	2.747963	7.307062	1.414395
#1	1.808954	260.3444	.0833878	.0034602	1.442891	.0978824	.2281943
#2	1.817442	259.9721	.0830890	.0029640	1.409407	.0867172	.2241460
#3	1.812422	261.1816	.0853490	.0035919	1.365836	.0993727	.2305063

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.763358	3.427950	.1136872	.0109535	6.763720	11.55878	-.000938
Stddev	.099414	.001855	.0027316	.0003639	.008836	.09970	.001539
%RSD	5.637768	.0541010	2.402691	3.322572	.1306376	.8625329	164.1446
#1	1.859458	3.429495	.1168049	.0106537	6.753791	11.44387	-.000002
#2	1.769684	3.425893	.1125423	.0108484	6.766649	11.62222	-.002714
#3	1.660932	3.428463	.1117145	.0113585	6.770719	11.61026	-.000097

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-21 Acquired: 11/20/2024 15:17:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.003930	.0405173	1.492989
Stddev	.003151	.0021650	.002348
%RSD	.3138997	5.343489	.1572536
#1	1.002988	.0427216	1.490626
#2	1.001357	.0404366	1.495321
#3	1.007445	.0383938	1.493019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	838.2428	23171.19	4915.362	692.5313	1312.487
Stddev	2.2287	84.00	24.269	7.5435	1.262
%RSD	.2658822	.3625122	.4937351	1.089258	.0961482
#1	838.8277	23098.42	4940.986	685.7899	1313.687
#2	835.7800	23263.11	4892.725	700.6789	1311.171
#3	840.1208	23152.05	4912.375	691.1252	1312.601

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-22 Acquired: 11/20/2024 15:22:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E2A11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0686753	-.007550	.0748844	-.003945	.0023076	17.72770
Stddev	.0142895	.004682	.0024836	.004299	.0014099	.00965
%RSD	20.80731	62.01133	3.316518	108.9680	61.09931	.0544078
#1	.0539497	-.005427	.0733763	-.008595	.0030525	17.73588
#2	.0695917	-.012918	.0777509	-.000116	.0006815	17.73015
#3	.0824845	-.004306	.0735261	-.003124	.0031887	17.71706

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1869089	.0012175	.0025970	F 996.2889	.0367234	.0232288
Stddev	.0006640	.0001263	.0002024	3.9882	.0010354	.0005301
%RSD	.3552765	10.36950	7.793821	.4003048	2.819418	2.282194
#1	.1872494	.0010723	.0023939	992.4944	.0379158	.0236796
#2	.1873336	.0012791	.0025983	1000.446	.0360519	.0233622
#3	.1861437	.0013012	.0027987	995.926	.0362025	.0226448

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0501789	61.09390	1.608066	404.3545	.0616973	.0107089
Stddev	.0038138	.18931	.003299	1.0091	.0002071	.0001736
%RSD	7.600361	.3098619	.2051820	.2495549	.3356999	1.621045
#1	.0459515	60.88074	1.604732	403.2212	.0614648	.0106855
#2	.0512242	61.24243	1.608136	404.6866	.0618621	.0108930
#3	.0533611	61.15852	1.611330	405.1557	.0617649	.0105482

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.744054	.0679223	.2245260	1.803969	2.159779	.1125224
Stddev	.168164	.0078140	.0026929	.060226	.017989	.0010992
%RSD	9.642135	11.50434	1.199365	3.338539	.8329159	.9768839
#1	1.893950	.0631804	.2228533	1.734760	2.157729	.1130558
#2	1.562206	.0769412	.2230923	1.832675	2.142902	.1112582
#3	1.776004	.0636454	.2276324	1.844472	2.178705	.1132531

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-22 Acquired: 11/20/2024 15:22:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E2A11 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0172100	12.54374	6.840250	.0046095	.6456705	.0371973
Stddev	.0006759	.05708	.030380	.0016176	.0050967	.0004915
%RSD	3.927558	.4550368	.4441407	35.09321	.7893639	1.321200
#1	.0178850	12.48130	6.813788	.0042708	.6509749	.0369427
#2	.0172118	12.55670	6.833536	.0063697	.6452261	.0368854
#3	.0165332	12.59322	6.873425	.0031881	.6408106	.0377638

Elem	Sr4077
Units	ppm
Avg	1.073949
Stddev	.001204
%RSD	.1121230
#1	1.073193
#2	1.073317
#3	1.075338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	792.8702	22094.23	4814.451	658.4198	1250.000
Stddev	.9049	24.52	9.056	2.2533	1.767
%RSD	.1141334	.1109692	.1881045	.3422329	.1413885
#1	793.8956	22080.71	4824.900	658.7028	1251.590
#2	792.5315	22079.46	4808.868	660.5182	1250.313
#3	792.1834	22122.54	4809.586	656.0383	1248.097

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165106BL Acquired: 11/20/2024 15:26:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS106 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001635	-.003824	-.001179	.0047662	.0005340	.0056967	-.002331
Stddev	.000334	.003645	.001506	.0038977	.0020219	.0048083	.000311
%RSD	20.44326	95.31193	127.7346	81.77796	378.6664	84.40558	13.35954
#1	-.001855	-.007855	-.000075	.0089002	.0010974	.0047319	-.002109
#2	-.001250	-.000762	-.002895	.0011582	-.001710	.0014439	-.002687
#3	-.001798	-.002855	-.000568	.0042402	.002214	.0109143	-.002198

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000112	-.000007	.0286342	.0012094	-.000099	.0014247	-.002403
Stddev	.000019	.000069	.0047934	.0007599	.000298	.0020605	.002649
%RSD	17.22396	964.0238	16.74007	62.83048	301.6271	144.6248	110.2234
#1	-.000097	-.000019	.0249040	.0007667	.000245	.0008758	-.005421
#2	-.000105	-.000070	.0269581	.0020869	-.000253	.0037041	-.000463
#3	-.000134	.000067	.0340406	.0007748	-.000288	-.000306	-.001325

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013435	-.006245	.0000357	-.006434	.4517271	.0008099	-.001205
Stddev	.0002155	.027355	.0004547	.000334	.1447643	.0022813	.000458
%RSD	16.04342	438.0317	1272.101	5.188090	32.04685	281.6858	37.99219
#1	.0012067	-.008129	.0005607	-.006550	.3877941	.0021843	-.001456
#2	.0012319	-.032610	-.000232	-.006058	.3499358	-.001823	-.000676
#3	.0015920	.022003	-.000221	-.006695	.6174514	.002069	-.001482

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.716963	-.001894	-.006670	.0001341	-.003142	.0016352	-.001794
Stddev	.129153	.002706	.001053	.0004238	.006110	.0005725	.001075
%RSD	18.01385	142.8438	15.79308	316.0923	194.4303	35.01059	59.88541
#1	-.751648	-.003118	-.005902	.0000775	-.006761	.0017748	-.002353
#2	-.574009	-.003772	-.006238	.0005834	-.006578	.0010058	-.002474
#3	-.825231	.001207	-.007871	-.000259	.003912	.0021249	-.000556

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165106BL Acquired: 11/20/2024 15:26:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS106 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000899	-.011257	-.000125
Stddev	.0007933	.001196	.000066
%RSD	882.9254	10.62829	53.09381
#1	-.000601	-.011750	-.000117
#2	.000956	-.009893	-.000195
#3	-.000086	-.012129	-.000063

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	924.9481	25391.64	4940.274	770.1284	1767.150
Stddev	.8159	105.91	3.639	2.0299	3.758
%RSD	.0882052	.4170963	.0736650	.2635796	.2126682
#1	924.0163	25326.62	4944.307	771.1240	1763.749
#2	925.5342	25334.46	4939.279	767.7930	1766.517
#3	925.2938	25513.85	4937.236	771.4684	1771.185

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165106BS Acquired: 11/20/2024 15:31:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS106 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189914	.0526154	.0187046	.0629616	.1095755	.4025467
Stddev	.0042985	.0013214	.0025336	.0059105	.0015968	.0143641
%RSD	22.63384	2.511343	13.54517	9.387453	1.457299	3.568316
#1	.0155455	.0530328	.0197912	.0564333	.1091384	.3922857
#2	.0176205	.0536776	.0158090	.0679490	.1082428	.3963916
#3	.0238081	.0511358	.0205137	.0645026	.1113454	.4189627

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4262715	.0109328	.0104395	10.98499	.0220832	.1015959
Stddev	.0011976	.0001726	.0001227	.04775	.0005847	.0008118
%RSD	.2809395	1.578919	1.175317	.4346689	2.647658	.7990820
#1	.4266538	.0107839	.0103284	10.94862	.0218529	.1024997
#2	.4272313	.0108924	.0105712	11.03906	.0216487	.1013593
#3	.4249295	.0111220	.0104189	10.96728	.0227479	.1009286

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0523521	.2346054	.0340681	10.54754	.0873047	.0166655
Stddev	.0014660	.0134421	.0006699	.00300	.0004940	.0006002
%RSD	2.800200	5.729671	1.966336	.0284549	.5658394	3.601538
#1	.0538269	.2486307	.0342688	10.55071	.0867417	.0163853
#2	.0508952	.2218344	.0346148	10.54719	.0876659	.0162567
#3	.0523342	.2333512	.0333208	10.54474	.0875064	.0173546

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.74206	.1098794	.1297362	9.555584	.0218406	F -.005596
Stddev	.54779	.0092584	.0004196	.070653	.0008947	.000608
%RSD	5.099459	8.425929	.3234267	.7393909	4.096678	10.86637
#1	10.38287	.1163375	.1297316	9.483420	.0219586	-.006268
#2	11.37255	.0992722	.1293189	9.558711	.0208927	-.005440
#3	10.47075	.1140285	.1301581	9.624622	.0226705	-.005082

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165106BS Acquired: 11/20/2024 15:31:15 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS106 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0203218	.1928383	F .4704240	.0108501	.2104505	F .0197936
Stddev	.0007144	.0063184	.0018558	.0015309	.0018139	.0013726
%RSD	3.515606	3.276513	.3944927	14.10981	.8619010	6.934337
#1	.0201067	.1960103	.4683486	.0111014	.2096401	.0184745
#2	.0197396	.1855623	.4719239	.0092091	.2091831	.0212140
#3	.0211190	.1969423	.4709994	.0122398	.2125283	.0196924

Elem	Sr4077
Units	ppm
Avg	.2156752
Stddev	.0006358
%RSD	.2947872
#1	.2156719
#2	.2163126
#3	.2150410

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	913.9508	24854.67	4911.130	754.8655	1693.256
Stddev	.6018	82.16	29.204	1.3372	2.749
%RSD	.0658513	.3305593	.5946544	.1771472	.1623635
#1	913.5492	24876.60	4941.252	756.3623	1692.811
#2	914.6428	24923.64	4882.940	753.7886	1696.200
#3	913.6606	24763.77	4909.199	754.4456	1690.756

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-01 Acquired: 11/20/2024 15:35:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH78 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0492566	-.006310	.5007972	-.006240	.0072766	85.61473	.7283507
Stddev	.0112120	.003002	.0052880	.003521	.0022313	.30381	.0017178
%RSD	22.76251	47.56716	1.055925	56.42759	30.66403	.3548595	.2358535
#1	.0619384	-.004816	.5045136	-.003748	.0059215	85.27761	.7274070
#2	.0451717	-.004349	.5031348	-.010268	.0098519	85.86734	.7273115
#3	.0406598	-.009765	.4947432	-.004704	.0060564	85.69922	.7303335

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046872	.0098459	302.8930	.1590429	.0754001	.1940011	178.4970
Stddev	.0000851	.0000621	.4758	.0005570	.0019035	.0008273	.6368
%RSD	1.816300	.6304306	.1570986	.3502359	2.524549	.4264630	.3567507
#1	.0045984	.0097955	302.5338	.1590548	.0738831	.1948584	177.8077
#2	.0047681	.0098269	302.7126	.1595939	.0775361	.1932073	179.0633
#3	.0046951	.0099152	303.4327	.1584801	.0747812	.1939377	178.6201

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.413293	67.56940	.2023141	-.015858	2.017858	.1989954	.8268126
Stddev	.012768	.43012	.0014910	.000368	.399617	.0029890	.0027769
%RSD	.2893098	.6365589	.7369621	2.323609	19.80401	1.502052	.3358562
#1	4.422176	67.17775	.2031289	-.015728	1.867987	.2023897	.8237318
#2	4.398661	68.02973	.2005933	-.016274	1.714842	.1978399	.8275831
#3	4.419040	67.50074	.2032202	-.015572	2.470745	.1967566	.8291229

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.390007	6.494806	.1919003	.0030706	4.050247	8.855328	.0128747
Stddev	.110166	.017421	.0029596	.0002044	.003990	.035508	.0030359
%RSD	1.724035	.2682332	1.542267	6.657745	.0985246	.4009788	23.58005
#1	6.514155	6.484419	.1906352	.0031075	4.054320	8.839631	.0163503
#2	6.351957	6.485080	.1952822	.0032541	4.046345	8.895980	.0115325
#3	6.303910	6.514919	.1897835	.0028503	4.050078	8.830374	.0107413

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-01 Acquired: 11/20/2024 15:35:45 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH78 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.649751	.1258811	.3753665
Stddev	.005872	.0009119	.0005704
%RSD	.3559524	.7244294	.1519487
#1	1.643020	.1262148	.3747210
#2	1.652408	.1265791	.3755764
#3	1.653825	.1248493	.3758022

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	946.5711	26084.65	5402.605	776.3282	1427.499
Stddev	.2089	16.67	8.279	1.3789	1.605
%RSD	.0220694	.0639211	.1532373	.1776134	.1124233
#1	946.7652	26087.14	5402.030	776.0500	1427.366
#2	946.3500	26099.94	5394.629	777.8249	1429.166
#3	946.5981	26066.88	5411.156	775.1096	1425.965

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-02 Acquired: 11/20/2024 15:40:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH79 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0332426	-.003925	.2960944	-.005253	.0032548	42.23658	.4353719
Stddev	.0068926	.004666	.0013785	.005396	.0008637	.06429	.0012960
%RSD	20.73435	118.8781	.4655534	102.7229	26.53688	.1522059	.2976745
#1	.0336943	-.009028	.2971846	-.000813	.0033791	42.18741	.4358915
#2	.0261352	-.002872	.2965536	-.003687	.0040497	42.21299	.4338967
#3	.0398983	.000124	.2945449	-.011258	.0023357	42.30933	.4363274

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021152	.0044210	297.2172	.0821494	.0363009	.1196366	97.39558
Stddev	.0000186	.0001533	.3264	.0007794	.0002077	.0010555	.29336
%RSD	.8804952	3.468595	.1098177	.9487461	.5720513	.8822228	.3012094
#1	.0021212	.0042439	297.0753	.0828346	.0362875	.1201877	97.05688
#2	.0021301	.0045084	296.9859	.0823123	.0361003	.1184197	97.56985
#3	.0020943	.0045106	297.5906	.0813015	.0365150	.1203024	97.56002

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.259834	40.08484	.0906697	-.008475	3.214509	.1182874	.4800035
Stddev	.001619	.14980	.0014868	.000484	.519500	.0004916	.0036687
%RSD	.0496603	.3737102	1.639806	5.708964	16.16109	.4156108	.7642988
#1	3.259021	39.91383	.0895041	-.007934	3.438028	.1188549	.4821274
#2	3.261698	40.14781	.0901609	-.008865	2.620661	.1179921	.4757673
#3	3.258783	40.19288	.0923441	-.008627	3.584838	.1180151	.4821158

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.993468	4.580004	.1011019	.0013433	2.004041	6.883051	.0177280
Stddev	.013837	.008741	.0008730	.0002738	.001640	.019468	.0021642
%RSD	.6940948	.1908460	.8634802	20.38171	.0818302	.2828415	12.20787
#1	1.977560	4.589083	.1020075	.0012450	2.002213	6.864401	.0201787
#2	2.002701	4.571647	.1002657	.0011323	2.004526	6.903245	.0160792
#3	2.000145	4.579282	.1010325	.0016527	2.005383	6.881507	.0169261

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-02 Acquired: 11/20/2024 15:40:08 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH79 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.028592	.0525191	.4569670
Stddev	.002638	.0003439	.0004421
%RSD	.2565148	.6547698	.0967532
#1	1.029494	.0524700	.4574774
#2	1.025621	.0522024	.4567014
#3	1.030661	.0528849	.4567223

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	918.8102	25313.02	5241.147	756.1116	1454.345
Stddev	.4662	97.92	2.095	6.7551	2.182
%RSD	.0507428	.3868314	.0399705	.8933962	.1500515
#1	919.1260	25201.56	5243.494	749.8505	1456.021
#2	918.2747	25385.23	5240.479	763.2708	1451.877
#3	919.0298	25352.26	5239.467	755.2135	1455.136

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-03 Acquired: 11/20/2024 15:44:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH80 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0895232	-.005457	4.119555	.0005617	.0103415	47.49494
Stddev	.0092687	.002637	.022544	.0057873	.0039050	.06095
%RSD	10.35343	48.32386	.5472377	1030.342	37.76066	.1283325
#1	.0816506	-.008462	4.141661	-.005547	.0145562	47.47025
#2	.0871805	-.003529	4.120407	.001269	.0096221	47.56436
#3	.0997385	-.004379	4.096597	.005963	.0068462	47.45020

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.152708	.0031364	.0150833	301.4460	.1176484	.0523803
Stddev	.005021	.0000222	.0003721	.3060	.0022751	.0003978
%RSD	.2332265	.7088911	2.466681	.1015007	1.933790	.7593691
#1	2.157092	.0031613	.0153561	301.4024	.1201501	.0528396
#2	2.147231	.0031294	.0152344	301.1642	.1157031	.0521456
#3	2.153801	.0031186	.0146595	301.7715	.1170921	.0521558

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4032507	117.9457	6.126524	56.81979	.1299542	-.009146
Stddev	.0012082	.2922	.004687	.19876	.0001978	.000528
%RSD	.2996135	.2477022	.0765045	.3498029	.1522182	5.777026
#1	.4025756	117.9056	6.122953	56.75399	.1300165	-.008611
#2	.4046456	118.2558	6.124787	57.04311	.1301134	-.009160
#3	.4025310	117.6756	6.131831	56.66228	.1297328	-.009667

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.838027	.1232697	1.848919	2.556902	F 11.33198	.1509070
Stddev	.512410	.0029891	.006039	.044199	.06158	.0004516
%RSD	13.35086	2.424808	.3266401	1.728619	.5434505	.2992666
#1	4.417917	.1228910	1.849410	2.607797	11.39021	.1509482
#2	3.649861	.1264301	1.854698	2.534746	11.33821	.1504363
#3	3.446303	.1204881	1.842649	2.528164	11.26752	.1513367

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-03 Acquired: 11/20/2024 15:44:35 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH80 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023900	3.165415	9.316687	.1507601	1.237139	.0646104
Stddev	.0002693	.035592	.031998	.0009592	.001065	.0005264
%RSD	11.26942	1.124391	.3434463	.6362271	.0861135	.8147116
#1	.0026520	3.202891	9.280085	.1515434	1.237953	.0644482
#2	.0021139	3.161287	9.339356	.1510467	1.235933	.0651989
#3	.0024042	3.132068	9.330620	.1496903	1.237531	.0641843

Elem	Sr4077
Units	ppm
Avg	.6000600
Stddev	.0008688
%RSD	.1447871
#1	.6004209
#2	.6006902
#3	.5990689

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	954.9057	26432.56	5496.984	791.2474	1457.689
Stddev	5.3832	55.83	17.087	4.1729	8.625
%RSD	.5637372	.2112226	.3108476	.5273811	.5917071
#1	949.3310	26371.92	5516.048	790.7256	1450.600
#2	955.3117	26443.94	5483.046	787.3601	1455.175
#3	960.0744	26481.82	5491.859	795.6567	1467.292

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-04 Acquired: 11/20/2024 15:48:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH81 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1009259	-.001623	4.287447	-.001025	.0114681	55.24939
Stddev	.0124034	.003008	.014145	.007076	.0002587	1.38927
%RSD	12.28964	185.3420	.3299230	690.2288	2.256301	2.514551
#1	.1060090	-.000999	4.274818	-.004415	.0116927	53.68093
#2	.1099803	-.004894	4.284790	-.005769	.0115265	56.32522
#3	.0867884	.001024	4.302732	.007108	.0111852	55.74201

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.852882	.0032576	.0126124	327.8671	.1297966	.0961944
Stddev	.046866	.0001095	.0004940	9.1530	.0013455	.0010723
%RSD	2.529373	3.362741	3.916886	2.791690	1.036583	1.114669
#1	1.799894	.0031312	.0131601	317.4105	.1311096	.0966850
#2	1.888897	.0033155	.0122004	334.4269	.1298591	.0949646
#3	1.869854	.0033260	.0124767	331.7638	.1284209	.0969335

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6639044	193.2677	7.481879	60.51795	.1618038	-.014436
Stddev	.0170075	5.0984	.204910	1.66160	.0013028	.000804
%RSD	2.561740	2.638020	2.738753	2.745635	.8051886	5.567562
#1	.6455469	187.5032	7.248626	58.64796	.1614409	-.013552
#2	.6791253	197.1853	7.632901	61.82481	.1607209	-.015124
#3	.6670409	195.1145	7.564110	61.08109	.1632496	-.014632

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.240386	.1593575	1.592357	3.963256	F 13.78347	.2215119
Stddev	.264255	.0073777	.001600	.246440	.08373	.0057494
%RSD	6.231860	4.629625	.1004509	6.218124	.6074571	2.595544
#1	4.278236	.1537603	1.591229	3.695251	13.77961	.2148891
#2	4.483675	.1677179	1.591654	4.014416	13.70174	.2252234
#3	3.959247	.1565944	1.594187	4.180100	13.86906	.2244232

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-04 Acquired: 11/20/2024 15:48:58 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH81 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025443	3.279765	9.020605	.1775264	1.157404	.0755666
Stddev	.0002163	.019266	.259085	.0040206	.030024	.0024098
%RSD	8.500844	.5874293	2.872149	2.264770	2.594046	3.188907
#1	.0023310	3.277908	8.725072	.1790394	1.124558	.0732510
#2	.0025386	3.261494	9.208621	.1729688	1.183432	.0780606
#3	.0027634	3.299892	9.128123	.1805709	1.164221	.0753882

Elem	Sr4077
Units	ppm
Avg	.6719644
Stddev	.0168124
%RSD	2.501980
#1	.6530541
#2	.6852217
#3	.6776175

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	960.9584	26497.93	5550.187	793.8696	1447.494
Stddev	2.2910	100.34	151.893	2.5690	5.086
%RSD	.2384118	.3786677	2.736719	.3236067	.3513613
#1	958.3746	26384.79	5724.296	793.3373	1444.184
#2	962.7421	26532.88	5444.804	796.6630	1453.350
#3	961.7584	26576.12	5481.461	791.6084	1444.947

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-05 Acquired: 11/20/2024 15:53:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH82 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1169587	.0004200	3.879224	.0005019	.0106138	59.54085
Stddev	.0055593	.0041410	.006534	.0021082	.0043952	.09637
%RSD	4.753174	985.9650	.1684397	420.0243	41.41065	.1618630
#1	.1231982	.0045447	3.883920	-.000429	.0154502	59.63631
#2	.1125325	.0004525	3.871761	-.000980	.0095279	59.44358
#3	.1151454	-.003737	3.881989	.002915	.0068633	59.54267

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.243723	.0037765	.0109247	514.4632	.1407114	.0674749
Stddev	.005873	.0002347	.0004837	1.5061	.0016908	.0006063
%RSD	.2617424	6.213471	4.427330	.2927459	1.201594	.8986156
#1	2.250329	.0040052	.0114825	515.6600	.1387869	.0680648
#2	2.241744	.0035364	.0106713	514.9575	.1413892	.0668534
#3	2.239095	.0037879	.0106205	512.7721	.1419582	.0675066

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.553565	127.8915	11.53386	76.16550	.1495225	-.005727
Stddev	.007243	.2095	.03750	.29926	.0010385	.000109
%RSD	.4662102	.1638038	.3251389	.3929129	.6945161	1.898619
#1	1.561928	128.1327	11.57318	76.43377	.1503211	-.005804
#2	1.549472	127.7550	11.52990	75.84273	.1498979	-.005773
#3	1.549295	127.7868	11.49850	76.21998	.1483486	-.005602

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.783945	.1576480	1.638275	4.974776	F 40.93136	.1939544
Stddev	.307963	.0028164	.007421	.014379	.09936	.0019755
%RSD	6.437427	1.786520	.4529590	.2890432	.2427392	1.018548
#1	5.078038	.1553418	1.636119	4.960863	40.81828	.1953204
#2	4.810025	.1607869	1.632171	4.973884	41.00467	.1948537
#3	4.463771	.1568154	1.646535	4.989580	40.97114	.1916893

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-05 Acquired: 11/20/2024 15:53:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH82 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037450	4.149760	9.892894	.3097059	1.127739	.0822391
Stddev	.0005477	.022094	.020288	.0010187	.004038	.0009714
%RSD	14.62529	.5324193	.2050793	.3289325	.3580440	1.181198
#1	.0043120	4.146077	9.899446	.3097513	1.132217	.0826773
#2	.0037041	4.173464	9.909097	.3107011	1.124376	.0811258
#3	.0032189	4.129738	9.870140	.3086652	1.126624	.0829143

Elem	Sr4077
Units	ppm
Avg	1.101043
Stddev	.003016
%RSD	.2739262
#1	1.104509
#2	1.099601
#3	1.099019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	966.6770	26536.57	5567.358	795.3237	1375.767
Stddev	2.3263	98.13	21.631	1.7662	1.168
%RSD	.2406482	.3698034	.3885414	.2220747	.0848951
#1	964.0638	26592.37	5549.681	793.5489	1374.508
#2	967.4448	26594.08	5560.913	797.0812	1375.976
#3	968.5223	26423.26	5591.479	795.3412	1376.816

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-06 Acquired: 11/20/2024 15:57:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH83 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1174701	.0003902	1.092115	.0141487	.0034866	60.10865	1.362006
Stddev	.0024353	.0018297	.015177	.0076874	.0020674	.38154	.010921
%RSD	2.073107	468.9361	1.389658	54.33310	59.29481	.6347542	.8018163
#1	.1174367	.0024198	1.085692	.0059651	.0034575	59.76358	1.352594
#2	.1199219	-.001133	1.081206	.0152625	.0014339	60.51840	1.373980
#3	.1150517	-.000116	1.109447	.0212185	.0055684	60.04396	1.359443

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027519	.0078209	28.10325	.1110747	.0589852	.2677537	129.6766
Stddev	.0001132	.0001590	.29762	.0011907	.0008448	.0018507	.6231
%RSD	4.113503	2.033256	1.059009	1.071980	1.432207	.6911880	.4805368
#1	.0028748	.0078941	27.86375	.1117907	.0581642	.2659534	129.1467
#2	.0027289	.0076384	28.43643	.1097002	.0589396	.2696510	130.3631
#3	.0026519	.0079300	28.00956	.1117332	.0598519	.2676568	129.5199

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.458205	23.59537	.1207583	-.018079	1.358493	.1393160	1.352529
Stddev	.082477	.17146	.0006897	.000164	.185187	.0048351	.001541
%RSD	.9751095	.7266540	.5711439	.9067338	13.63180	3.470577	.1139120
#1	8.389445	23.42612	.1203118	-.018193	1.442812	.1386371	1.352548
#2	8.549651	23.76895	.1204105	-.018153	1.486516	.1348563	1.354060
#3	8.435520	23.59103	.1215527	-.017891	1.146152	.1444547	1.350978

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.857863	5.511972	.1220234	.0008119	1.383390	8.010287	.0256433
Stddev	.110306	.029725	.0022748	.0004222	.020960	.070623	.0013924
%RSD	3.859733	.5392724	1.864244	51.99840	1.515146	.8816519	5.429679
#1	2.958184	5.491467	.1203474	.0006734	1.359244	7.952522	.0272136
#2	2.875667	5.498386	.1246130	.0012859	1.396902	8.089019	.0251571
#3	2.739738	5.546061	.1211098	.0004764	1.394024	7.989321	.0245592

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-06 Acquired: 11/20/2024 15:57:43 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH83 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.043693	.0685947	.0811424
Stddev	.005213	.0003500	.0007468
%RSD	.4994993	.5101790	.9203132
#1	1.040991	.0689454	.0806124
#2	1.049703	.0682454	.0819964
#3	1.040386	.0685933	.0808183

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	969.4598	26666.48	5332.895	801.3785	1599.352
Stddev	2.9895	38.53	49.481	1.7188	8.516
%RSD	.3083701	.1445044	.9278502	.2144754	.5324362
#1	968.7289	26637.97	5371.023	800.6137	1600.931
#2	972.7470	26651.15	5276.978	800.1750	1606.968
#3	966.9035	26710.32	5350.683	803.3470	1590.158

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-07 Acquired: 11/20/2024 16:02:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH84 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1295682	.0010541	2.306688	-.001598	.0043309	60.01138	2.779837
Stddev	.0059915	.0039776	.003247	.008951	.0036255	.10658	.001706
%RSD	4.624174	377.3486	.1407460	560.2431	83.71205	.1776076	.0613609
#1	.1321514	.0028267	2.304874	.008459	.0063129	60.07551	2.778043
#2	.1338349	-.003502	2.304754	-.008693	.0001465	60.07028	2.780029
#3	.1227185	.003837	2.310436	-.004558	.0065333	59.88834	2.781439

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028060	.0102547	107.3028	.1260689	.0597908	.4805884	151.8854
Stddev	.0000649	.0003341	.1451	.0006920	.0005213	.0054180	.2834
%RSD	2.311222	3.257948	.1352326	.5489072	.8718400	1.127371	.1865912
#1	.0027817	.0100706	107.2450	.1263976	.0602813	.4750430	152.0813
#2	.0027567	.0100532	107.1955	.1265353	.0592434	.4858694	152.0145
#3	.0028795	.0106404	107.4679	.1252738	.0598477	.4808529	151.5605

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.354276	48.97243	.1272768	-.017151	1.536347	.1533360	2.376467
Stddev	.006517	.23820	.0016625	.000208	.043844	.0036993	.017339
%RSD	.0780113	.4864013	1.306240	1.211493	2.853775	2.412550	.7296072
#1	8.357483	49.21457	.1259582	-.016929	1.495650	.1533272	2.388784
#2	8.346777	48.96435	.1267277	-.017341	1.582774	.1496411	2.383977
#3	8.358569	48.73837	.1291444	-.017183	1.530615	.1570397	2.356639

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.084825	7.958401	.1471699	.0030872	2.009911	7.980561	.0640588
Stddev	.119161	.032509	.0012019	.0012159	.008864	.019700	.0020251
%RSD	3.862817	.4084871	.8166749	39.38488	.4410387	.2468481	3.161237
#1	3.191574	7.929211	.1484655	.0044861	2.012470	7.974019	.0618158
#2	3.106635	7.952556	.1460913	.0022840	2.000048	7.964964	.0657525
#3	2.956265	7.993436	.1469528	.0024915	2.017214	8.002700	.0646082

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-07 Acquired: 11/20/2024 16:02:09 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH84 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.188229	.0582650	.1708351
Stddev	.001940	.0002802	.0004490
%RSD	.1632287	.4809624	.2628397
#1	1.190023	.0580189	.1710317
#2	1.188492	.0582061	.1711522
#3	1.186171	.0585700	.1703213

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	964.8675	26719.06	5464.864	799.5052	1516.395
Stddev	.1208	111.21	16.575	7.9511	1.490
%RSD	.0125216	.4162352	.3032982	.9945041	.0982786
#1	965.0070	26611.79	5445.766	792.5745	1517.137
#2	964.7985	26711.55	5473.327	797.7559	1517.368
#3	964.7971	26833.83	5475.499	808.1854	1514.679

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-08 Acquired: 11/20/2024 16:06:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH85 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0989749	-.001475	9.592076	-.002381	.0064735	67.08277
Stddev	.0088602	.003683	.046230	.006849	.0028936	.46722
%RSD	8.951967	249.8016	.4819633	287.6561	44.69867	.6964796
#1	.0921525	.000224	9.571304	.001897	.0031648	67.56590
#2	.0957835	.001053	9.559875	-.010281	.0077250	67.04913
#3	.1089887	-.005701	9.645048	.001240	.0085307	66.63328

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.35348	.0038887	.0178838	191.4976	.1500378	.0662620
Stddev	.06966	.0001445	.0002921	1.0082	.0011230	.0005792
%RSD	.6727962	3.715105	1.633387	.5264925	.7485031	.8740693
#1	10.42814	.0040545	.0177171	192.5014	.1487869	.0655982
#2	10.34209	.0038218	.0177133	191.5062	.1503672	.0666646
#3	10.29023	.0037898	.0182211	190.4851	.1509593	.0665231

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6656112	141.9360	6.429062	49.88022	.2010001	-.013831
Stddev	.0065206	1.0872	.026886	.36203	.0017442	.000483
%RSD	.9796348	.7660008	.4181939	.7257940	.8677504	3.495092
#1	.6728291	143.0320	6.454346	50.29820	.1995023	-.014329
#2	.6638578	141.9183	6.432022	49.67735	.2005830	-.013802
#3	.6601465	140.8577	6.400819	49.66512	.2029151	-.013364

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.946762	.1730137	6.870718	4.205231	F 13.79154	.1674446
Stddev	.161408	.0026182	.069753	.037450	.07964	.0010419
%RSD	8.291078	1.513284	1.015216	.8905591	.5774200	.6222515
#1	1.881114	.1720807	6.829867	4.246270	13.75195	.1682086
#2	2.130650	.1759706	6.831029	4.196516	13.73946	.1678676
#3	1.828523	.1709899	6.951259	4.172906	13.88321	.1662577

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-08 Acquired: 11/20/2024 16:06:32 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH85 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036402	4.935767	9.481107	.1665681	1.655948	.0750694
Stddev	.0008059	.018559	.042264	.0018221	.013925	.0013951
%RSD	22.13886	.3760078	.4457667	1.093927	.8409075	1.858432
#1	.0040278	4.917865	9.523291	.1646734	1.671986	.0763258
#2	.0027137	4.934516	9.481267	.1683077	1.648922	.0753144
#3	.0041789	4.954919	9.438764	.1667234	1.646935	.0735680

Elem	Sr4077
Units	ppm
Avg	.5390443
Stddev	.0036681
%RSD	.6804754
#1	.5431790
#2	.5377725
#3	.5361814

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	981.6168	27184.58	5583.331	816.2737	1478.697
Stddev	2.4761	75.17	24.465	7.1763	5.630
%RSD	.2522521	.2765185	.4381835	.8791531	.3807135
#1	982.5483	27223.09	5559.518	821.2006	1478.768
#2	983.4920	27232.69	5582.076	819.5802	1484.290
#3	978.8099	27097.95	5608.400	808.0402	1473.032

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-09 Acquired: 11/20/2024 16:10:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH86 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1302527	-.003074	12.27140	-.004553	.0117045	52.72954
Stddev	.0089726	.003923	.02634	.012057	.0011788	.61579
%RSD	6.888629	127.6098	.2146178	264.7932	10.07150	1.167837
#1	.1227731	.000778	12.25720	.009360	.0124509	52.10978
#2	.1277837	-.002937	12.25521	-.011951	.0103455	53.34129
#3	.1402014	-.007063	12.30179	-.011069	.0123171	52.73754

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.30638	.0033916	.0232308	314.6954	.1616939	.0639364
Stddev	.22675	.0000743	.0002069	4.0099	.0032047	.0006552
%RSD	1.310219	2.191984	.8907044	1.274203	1.981961	1.024745
#1	17.15798	.0033335	.0230166	310.3148	.1638826	.0634391
#2	17.56740	.0033660	.0232463	318.1845	.1631837	.0636913
#3	17.19377	.0034754	.0234295	315.5870	.1580155	.0646788

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9484145	133.2082	7.316815	49.61088	.2108289	-.007568
Stddev	.0081228	1.5923	.086250	.50940	.0008664	.001227
%RSD	.8564630	1.195315	1.178789	1.026788	.4109326	16.20737
#1	.9390654	131.4970	7.220957	49.08342	.2118004	-.007406
#2	.9537413	134.6462	7.388142	50.10005	.2105500	-.006431
#3	.9524368	133.4812	7.341346	49.64916	.2101363	-.008868

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.170506	.1438093	12.09629	5.619879	F 17.51521	.1952743
Stddev	.084471	.0032702	.17050	.231135	.03499	.0027592
%RSD	3.891743	2.273960	1.409525	4.112803	.1997505	1.412959
#1	2.267972	.1402440	12.14545	5.360602	17.53212	.1935082
#2	2.118509	.1466692	12.23681	5.804335	17.47498	.1984538
#3	2.125039	.1445149	11.90661	5.694698	17.53853	.1938610

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-09 Acquired: 11/20/2024 16:10:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH86 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050259	6.549855	8.201367	.3025581	2.172196	.0574622
Stddev	.0001457	.014405	.086482	.0021220	.022741	.0004008
%RSD	2.898922	.2199296	1.054477	.7013347	1.046903	.6974857
#1	.0051771	6.562227	8.116253	.3016852	2.153059	.0578021
#2	.0048865	6.534041	8.289154	.3010118	2.197336	.0575642
#3	.0050140	6.553297	8.198695	.3049773	2.166193	.0570203

Elem	Sr4077
Units	ppm
Avg	.8382027
Stddev	.0092896
%RSD	1.108278
#1	.8288149
#2	.8473909
#3	.8384023

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	951.8434	26593.65	5465.631	797.5877	1441.265
Stddev	3.0186	419.41	58.166	9.8070	3.955
%RSD	.3171337	1.577108	1.064212	1.229586	.2744409
#1	950.1260	26434.93	5529.498	794.1647	1440.311
#2	955.3288	26276.77	5415.697	789.9510	1445.610
#3	950.0752	27069.26	5451.696	808.6475	1437.873

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-10 Acquired: 11/20/2024 16:15:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH87 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1354192	-.001311	9.702145	.0027000	.0046800	55.55713
Stddev	.0072326	.005019	.034099	.0083236	.0025202	.17594
%RSD	5.340893	382.9292	.3514578	308.2800	53.84874	.3166805
#1	.1430050	-.003977	9.705312	-.006422	.0047055	55.66927
#2	.1346515	-.004435	9.666573	.009882	.0071873	55.64776
#3	.1286010	.004479	9.734550	.004641	.0021472	55.35435

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.381984	.0034828	.0186162	246.6083	.1578047	.0646771
Stddev	.023151	.0000458	.0002199	.4774	.0010990	.0008516
%RSD	.2762039	1.314618	1.181228	.1935716	.6964395	1.316700
#1	8.404985	.0034664	.0184002	247.0017	.1568249	.0655811
#2	8.358685	.0035345	.0186084	246.0772	.1589931	.0638900
#3	8.382283	.0034474	.0188398	246.7458	.1575960	.0645601

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7399946	133.2088	7.483753	44.35468	.1867135	-.010763
Stddev	.0038131	.4991	.028066	.15805	.0017158	.000503
%RSD	.5152877	.3746805	.3750271	.3563408	.9189258	4.671329
#1	.7443197	133.1588	7.508684	44.31831	.1882430	-.011028
#2	.7371178	133.7311	7.453356	44.52775	.1848582	-.011078
#3	.7385464	132.7367	7.489221	44.21799	.1870391	-.010183

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.131465	.1581014	7.220888	4.339942	F 16.91660	.1647022
Stddev	.316190	.0036669	.014405	.138411	.06619	.0015276
%RSD	14.83439	2.319302	.1994960	3.189232	.3912619	.9274809
#1	2.467224	.1577879	7.236080	4.483040	16.96209	.1635737
#2	2.087786	.1546014	7.207425	4.206751	16.84066	.1664405
#3	1.839386	.1619150	7.219159	4.330036	16.94703	.1640924

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-10 Acquired: 11/20/2024 16:15:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH87 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045457	4.136069	10.33246	.2364057	1.507405	.0588437
Stddev	.0003854	.029321	.02758	.0017419	.007549	.0010716
%RSD	8.477849	.7089206	.2669240	.7368330	.5007797	1.821117
#1	.0047899	4.155120	10.36198	.2345323	1.511409	.0584625
#2	.0047457	4.102305	10.32806	.2379765	1.512109	.0600538
#3	.0041014	4.150784	10.30735	.2367084	1.498698	.0580148

Elem	Sr4077
Units	ppm
Avg	.5903285
Stddev	.0023972
%RSD	.4060752
#1	.5930918
#2	.5888067
#3	.5890871

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	993.7584	27361.05	5627.373	814.1076	1501.347
Stddev	2.6980	24.47	13.815	2.0616	5.153
%RSD	.2714960	.0894274	.2454906	.2532381	.3432575
#1	992.6674	27332.80	5614.051	812.1510	1501.074
#2	996.8311	27374.63	5626.436	813.9117	1506.631
#3	991.7767	27375.71	5641.633	816.2602	1496.335

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV036 Acquired: 11/20/2024 16:19:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV036 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.982603	4.682799	24.18713	4.687737	4.766841	402.1664	9.897136
Stddev	.003069	.009736	.01824	.025667	.006232	.8412	.009842
%RSD	.0615962	.2079144	.0754084	.5475283	.1307395	.2091636	.0994383
#1	4.985780	4.688377	24.17749	4.693922	4.773894	402.8316	9.893719
#2	4.979655	4.671557	24.17573	4.659543	4.762077	401.2208	9.889459
#3	4.982373	4.688463	24.20817	4.709746	4.764552	402.4467	9.908231

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4838883	2.426322	392.9991	14.71266	2.439151	14.53615	404.0748
Stddev	.0031091	.001141	.5431	.05253	.005784	.03180	1.0263
%RSD	.6425283	.0470092	.1381893	.3570246	.2371338	.2187534	.2539899
#1	.4868056	2.425960	393.2195	14.70136	2.433426	14.56622	405.1913
#2	.4806175	2.425406	392.3805	14.66671	2.439036	14.50286	403.1725
#3	.4842418	2.427599	393.3974	14.76992	2.444992	14.53938	403.8605

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.14358	395.0173	2.415239	1.208770	402.3919	2.422685	13.96954
Stddev	.00770	1.4753	.001489	.003605	.8468	.015296	.00799
%RSD	.0544128	.3734792	.0616367	.2981970	.2104432	.6313840	.0572001
#1	14.15037	396.6215	2.416500	1.205030	403.2235	2.423466	13.97833
#2	14.13522	393.7188	2.413596	1.209060	401.5306	2.407013	13.96757
#3	14.14515	394.7117	2.415620	1.212221	402.4217	2.437575	13.96272

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	147.0562	4.855916	5.143537	4.667412	4.965135	5.226331	4.855880
Stddev	.4403	.018066	.024546	.009160	.008540	.035661	.003577
%RSD	.2994389	.3720428	.4772233	.1962445	.1719940	.6823270	.0736724
#1	147.5224	4.854293	5.169670	4.677859	4.969675	5.259468	4.856653
#2	146.6474	4.838716	5.120968	4.663616	4.970446	5.188594	4.851980
#3	146.9987	4.874739	5.139972	4.660761	4.955285	5.230932	4.859008

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV036 Acquired: 11/20/2024 16:19:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV036 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.861339	4.979660	4.911585
Stddev	.005192	.003929	.032648
%RSD	.1068007	.0789006	.6647228
#1	4.862745	4.983876	4.947712
#2	4.855589	4.976101	4.884191
#3	4.865683	4.979002	4.902853

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	730.1156	21563.30	4726.428	566.6776	1263.881
Stddev	2.4169	77.76	31.130	1.0268	2.945
%RSD	.3310234	.3606252	.6586355	.1811915	.2330127
#1	727.8197	21609.80	4700.341	565.8669	1260.888
#2	729.8896	21606.57	4760.889	567.8322	1263.978
#3	732.6375	21473.52	4718.055	566.3337	1266.776

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB036 Acquired: 11/20/2024 16:24:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB036 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039102	-.001694	.0013573	.0050973	-.000999	.0069787	-.003005
Stddev	.0024588	.001828	.0035212	.0023835	.001332	.0123338	.000546
%RSD	62.88154	107.8827	259.4337	46.75883	133.3129	176.7339	18.16703
#1	.0017078	-.002370	-.001687	.0044954	-.001955	-.005496	-.003635
#2	.0065632	-.003089	.005214	.0077241	.000522	.007265	-.002681
#3	.0034598	.000375	.000545	.0030725	-.001564	.019167	-.002699

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000129	-.000049	.0106714	.0003640	-.000022	.0018353	.0014276
Stddev	.000044	.000077	.0064361	.0008845	.000228	.0005219	.0108433
%RSD	33.90463	157.5347	60.31187	242.9671	1023.860	28.43498	759.5239
#1	-.000129	-.000133	.0180914	.0013437	-.000185	.0015400	.0056463
#2	-.000172	-.000035	.0073240	.0001246	-.000121	.0024379	-.010891
#3	-.000085	.000020	.0065988	-.000376	.000239	.0015281	.009528

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003949	-.009762	.0007940	-.006924	-.181970	.0040419	-.000686
Stddev	.0002038	.030533	.0003903	.000490	.366805	.0065209	.000531
%RSD	51.61650	312.7889	49.14898	7.073829	201.5748	161.3316	77.29202
#1	.0003627	-.010540	.0012367	-.006386	.216936	-.003145	-.000075
#2	.0006129	.021153	.0006456	-.007042	-.504716	.005690	-.000958
#3	.0002091	-.039898	.0004998	-.007345	-.258129	.009581	-.001027

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.682919	.0006517	.0011521	-.000038	-.004899	.0024207	-.000316
Stddev	.143009	.0009571	.0011565	.000117	.004626	.0012146	.001050
%RSD	20.94090	146.8717	100.3829	304.0471	94.42451	50.17560	332.1341
#1	-.549857	.0016633	.0020495	-.000123	-.008931	.0022636	-.001330
#2	-.664760	.0005314	.0015600	-.000087	-.005918	.0012923	.000767
#3	-.834141	-.000240	-.000153	.000095	.000151	.0037063	-.000386

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB036 Acquired: 11/20/2024 16:24:12 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB036 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005076	-.008137	-.000067
Stddev	.0003873	.001103	.000055
%RSD	76.30062	13.55003	83.22958
#1	.0002915	-.007319	-.000038
#2	.0002765	-.009391	-.000031
#3	.0009547	-.007700	-.000130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	926.1122	25384.03	4983.486	771.3967	1767.948
Stddev	2.7947	69.80	31.577	2.5629	4.194
%RSD	.3017692	.2749623	.6336393	.3322461	.2372019
#1	925.4338	25304.63	4979.293	769.0944	1767.919
#2	923.7192	25411.75	5016.950	770.9373	1763.768
#3	929.1837	25435.70	4954.214	774.1582	1772.156

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-11 Acquired: 11/20/2024 16:28:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH88 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1242687	-.002617	1.369139	-.005148	.0133391	63.04670	.8554383
Stddev	.0153014	.003650	.000927	.003853	.0015995	.01931	.0023259
%RSD	12.31316	139.4922	.0677192	74.84395	11.99134	.0306242	.2718898
#1	.1384072	-.006776	1.368248	-.004511	.0115943	63.03387	.8574622
#2	.1263761	-.001130	1.369070	-.001653	.0136869	63.06890	.8559551
#3	.1080228	.000055	1.370099	-.009280	.0147361	63.03731	.8528975

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032881	.0211613	282.4990	.1732916	.0622663	.3248177	186.7750
Stddev	.0000123	.0002318	.6087	.0014570	.0003650	.0026922	.1600
%RSD	.3731774	1.095435	.2154866	.8407619	.5861939	.8288280	.0856731
#1	.0032828	.0214165	282.8436	.1716766	.0624272	.3233895	186.6038
#2	.0033021	.0209638	282.8574	.1736911	.0625233	.3279230	186.8007
#3	.0032794	.0211036	281.7962	.1745072	.0618485	.3231405	186.9207

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.570934	72.52397	.1938556	-.016090	2.677140	.1654890	2.473626
Stddev	.005061	.24477	.0006634	.000308	.283688	.0018515	.012878
%RSD	.1107276	.3375033	.3422220	1.916392	10.59670	1.118789	.5206325
#1	4.574398	72.35907	.1931037	-.016410	3.003011	.1638319	2.487990
#2	4.573278	72.40763	.1941046	-.015795	2.543102	.1651478	2.463112
#3	4.565126	72.80521	.1943585	-.016065	2.485307	.1674874	2.469775

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.644094	9.957325	.2044277	.0112436	6.859584	11.40686	.0322757
Stddev	.050037	.025893	.0024933	.0007185	.008304	.08726	.0003614
%RSD	1.373107	.2600422	1.219664	6.390100	.1210560	.7649882	1.119831
#1	3.609726	9.951306	.2026642	.0105640	6.864518	11.50679	.0320501
#2	3.621055	9.934972	.2072803	.0111714	6.849997	11.34567	.0326926
#3	3.701500	9.985698	.2033387	.0119955	6.864237	11.36813	.0320844

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-11 Acquired: 11/20/2024 16:28:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH88 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.263004	.0750614	.4370078
Stddev	.003264	.0017318	.0005037
%RSD	.2584074	2.307208	.1152605
#1	1.262295	.0745486	.4371534
#2	1.266564	.0769917	.4374227
#3	1.260153	.0736438	.4364474

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	932.4471	25928.53	5388.367	775.3538	1442.585
Stddev	2.7500	23.21	24.702	2.1421	4.011
%RSD	.2949210	.0895235	.4584393	.2762758	.2780758
#1	929.2985	25954.87	5360.447	772.8863	1438.005
#2	933.6650	25919.63	5407.383	776.7358	1445.474
#3	934.3778	25911.08	5397.271	776.4394	1444.276

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-12 Acquired: 11/20/2024 16:33:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH89 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0646253	-.002490	2.720511	-.005598	.0080652	29.97146
Stddev	.0035751	.004828	.005720	.004268	.0036808	.07274
%RSD	5.532003	193.8836	.2102615	76.25060	45.63799	.2427133
#1	.0615327	-.007258	2.724085	-.004011	.0062793	30.04065
#2	.0638035	-.002607	2.713914	-.010432	.0056180	29.97810
#3	.0685398	.002395	2.723536	-.002350	.0122982	29.89562

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.029255	.0019714	.0122920	F 910.9368	.1000714	.0337421
Stddev	.002442	.0000918	.0000763	2.0876	.0003832	.0009820
%RSD	.2372767	4.657580	.6205531	.2291689	.3829445	2.910177
#1	1.031768	.0020632	.0122680	909.4237	.1003659	.0347381
#2	1.029106	.0018796	.0123774	913.3184	.0996381	.0337134
#3	1.026890	.0019713	.0122306	910.0682	.1002102	.0327748

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2660707	87.83592	5.980784	460.0904	.1381244	.0080054
Stddev	.0035669	.15823	.012863	1.1425	.0018354	.0001501
%RSD	1.340568	.1801440	.2150694	.2483248	1.328824	1.875446
#1	.2639370	88.01711	5.975110	460.6333	.1392288	.0080727
#2	.2701884	87.76571	5.995508	460.8602	.1360056	.0081101
#3	.2640865	87.72495	5.971734	458.7776	.1391386	.0078333

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.062299	.0973581	2.625158	2.255264	6.661760	.1273421
Stddev	.274550	.0062649	.013275	.124780	.025941	.0028988
%RSD	13.31283	6.434889	.5056930	5.532829	.3894055	2.276383
#1	1.857805	.1022324	2.633309	2.397805	6.642828	.1283891
#2	1.954751	.0902917	2.609840	2.165786	6.651124	.1295720
#3	2.374343	.0995502	2.632326	2.202200	6.691329	.1240653

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-12 Acquired: 11/20/2024 16:33:07 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH89 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032453	13.79901	10.49032	.0728808	.6497470	.0435188
Stddev	.0005179	.05973	.03163	.0019620	.0032739	.0006962
%RSD	15.95729	.4328903	.3015169	2.692076	.5038723	1.599742
#1	.0038071	13.75914	10.46215	.0745432	.6534490	.0442350
#2	.0027869	13.77020	10.52454	.0707166	.6485595	.0434768
#3	.0031421	13.86769	10.48428	.0733825	.6472326	.0428446

Elem	Sr4077
Units	ppm
Avg	.4591694
Stddev	.0010226
%RSD	.2226962
#1	.4597907
#2	.4597283
#3	.4579892

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	830.8256	22955.01	4969.381	684.9598	1255.279
Stddev	.1832	112.50	17.041	3.5752	2.504
%RSD	.0220511	.4900804	.3429130	.5219556	.1994467
#1	830.8026	22848.73	4965.439	680.9296	1256.770
#2	830.6550	22943.46	4954.657	687.7494	1256.677
#3	831.0192	23072.84	4988.048	686.2005	1252.388

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-13 Acquired: 11/20/2024 16:37:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH90 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1216038	.0000179	5.547329	.0025642	.0374685	50.07603	3.520652
Stddev	.0014818	.0023890	.018232	.0043152	.0027901	.19367	.012159
%RSD	1.218551	13348.57	.3286637	168.2888	7.446500	.3867432	.3453570
#1	.1206935	-.002491	5.529406	.0052102	.0387710	49.85745	3.506755
#2	.1233137	.002266	5.546727	-.002415	.0393691	50.22621	3.525872
#3	.1208042	.000278	5.565855	.004898	.0342653	50.14444	3.529329

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034905	.0145617	295.4831	.1919912	.0528015	1.103922	111.4285
Stddev	.0000450	.0001155	.9350	.0033134	.0006372	.004105	.4631
%RSD	1.289716	.7932888	.3164184	1.725832	1.206780	.3718416	.4156128
#1	.0034519	.0144773	294.4373	.1881705	.0521634	1.099371	111.0053
#2	.0035400	.0146933	296.2381	.1937260	.0534378	1.105048	111.9232
#3	.0034798	.0145145	295.7739	.1940770	.0528034	1.107346	111.3569

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.794075	109.2870	.1620601	-.005754	1.957978	.1530085	3.751744
Stddev	.009647	.2649	.0004343	.000472	.165966	.0082475	.020458
%RSD	.1664969	.2424293	.2680037	8.205076	8.476415	5.390257	.5452817
#1	5.783086	109.0522	.1625613	-.006003	1.952640	.1594471	3.732880
#2	5.797989	109.5742	.1617962	-.006049	2.126548	.1558664	3.748863
#3	5.801150	109.2346	.1618226	-.005209	1.794745	.1437122	3.773490

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.385246	9.457386	.1367307	.0064352	6.427660	10.59996	.3201572
Stddev	.178368	.031862	.0010456	.0004895	.014675	.04970	.0026447
%RSD	7.477964	.3368996	.7647058	7.606978	.2283085	.4688540	.8260482
#1	2.236321	9.422118	.1379343	.0069851	6.415488	10.54894	.3171038
#2	2.582920	9.484094	.1362107	.0062733	6.443956	10.64823	.3217252
#3	2.336497	9.465945	.1360470	.0060471	6.423538	10.60271	.3216426

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-13 Acquired: 11/20/2024 16:37:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH90 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.016236	.0668684	.4580735
Stddev	.003519	.0011627	.0009965
%RSD	.3462752	1.738797	.2175421
#1	1.013076	.0665327	.4569901
#2	1.020028	.0659105	.4589509
#3	1.015603	.0681620	.4582796

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	934.6257	25538.13	5324.265	763.8130	1436.069
Stddev	1.4479	146.17	19.556	3.0816	2.273
%RSD	.1549212	.5723651	.3672998	.4034469	.1582457
#1	936.2902	25691.34	5334.749	766.8030	1438.664
#2	933.6568	25522.86	5301.702	763.9888	1435.113
#3	933.9301	25400.20	5336.342	760.6473	1434.431

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-14 Acquired: 11/20/2024 16:42:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1045868	-.001569	4.280752	.0004473	.0088219	51.29445
Stddev	.0029381	.000908	.008232	.0028511	.0030662	.93324
%RSD	2.809244	57.85278	.1923053	637.3631	34.75651	1.819372
#1	.1079466	-.002333	4.271738	-.000950	.0087654	50.25265
#2	.1033147	-.001807	4.282648	-.001436	.0057843	52.05392
#3	.1024992	-.000566	4.287871	.003728	.0119159	51.57678

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.324671	.0034377	.0112083	269.5249	.1327280	.0596618
Stddev	.043984	.0001237	.0000826	4.7772	.0014297	.0004149
%RSD	1.892041	3.596693	.7365871	1.772470	1.077165	.6954286
#1	2.277560	.0033005	.0111505	264.2941	.1341131	.0601366
#2	2.364658	.0035404	.0113029	273.6573	.1312575	.0593690
#3	2.331795	.0034723	.0111716	270.6234	.1328134	.0594798

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6209982	117.9117	5.484724	90.15011	.1669141	-.009516
Stddev	.0114162	2.1876	.090900	1.43099	.0010661	.000583
%RSD	1.838370	1.855276	1.657324	1.587344	.6387130	6.124037
#1	.6083974	115.4503	5.387848	88.52131	.1674494	-.009829
#2	.6306521	119.6339	5.568148	91.20536	.1656864	-.008843
#3	.6239450	118.6508	5.498177	90.72365	.1676065	-.009875

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.153136	.1523407	2.435374	3.223513	F 10.57892	.1396295
Stddev	.109550	.0022231	.008069	.142427	.01381	.0034281
%RSD	5.087935	1.459270	.3313259	4.418375	.1305790	2.455172
#1	2.146333	.1498461	2.441028	3.082672	10.56839	.1394261
#2	2.047145	.1530639	2.438961	3.220393	10.57381	.1431548
#3	2.265929	.1541121	2.426134	3.367474	10.59456	.1363076

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-14 Acquired: 11/20/2024 16:42:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045955	3.908545	10.05219	.1402228	.9358062	.0807669
Stddev	.0000841	.018573	.09015	.0030430	.0135934	.0021696
%RSD	1.829888	.4751987	.8968212	2.170154	1.452583	2.686213
#1	.0045683	3.912628	9.94814	.1427919	.9204258	.0785749
#2	.0046898	3.888270	10.10143	.1410144	.9462098	.0829133
#3	.0045284	3.924738	10.10699	.1368622	.9407830	.0808124

Elem	Sr4077
Units	ppm
Avg	.3921271
Stddev	.0073754
%RSD	1.880857
#1	.3840167
#2	.3984321
#3	.3939324

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	950.5022	26243.58	5524.758	784.6139	1426.530
Stddev	1.8046	129.85	72.326	4.7030	2.317
%RSD	.1898535	.4947833	1.309133	.5994083	.1624333
#1	948.6011	26332.36	5604.032	784.6292	1427.090
#2	950.7137	26094.55	5462.365	779.9032	1428.517
#3	952.1916	26303.82	5507.879	789.3093	1423.985

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-15 Acquired: 11/20/2024 16:46:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1007388	-.001711	4.610147	.0027198	.0082865	50.66000
Stddev	.0135246	.005803	.041757	.0044195	.0024355	.09786
%RSD	13.42543	339.2599	.9057609	162.4966	29.39109	.1931615
#1	.1108822	-.006707	4.657349	.0064202	.0089100	50.75907
#2	.0853836	-.003080	4.578026	-.002174	.0055999	50.65752
#3	.1059505	.004655	4.595065	.003913	.0103497	50.56340

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.339928	.0033936	.0111636	258.9014	.1254410	.0594437
Stddev	.003138	.0000638	.0003859	1.0808	.0014993	.0004740
%RSD	.1341100	1.879154	3.456499	.4174725	1.195196	.7973427
#1	2.340995	.0033270	.0114748	259.4145	.1255252	.0595249
#2	2.342393	.0033998	.0112841	259.6301	.1239015	.0598719
#3	2.336396	.0034541	.0107318	257.6596	.1268965	.0589344

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5893846	121.2664	5.353676	86.78697	.1547047	-.011303
Stddev	.0053872	.1929	.023670	.26576	.0022943	.000290
%RSD	.9140470	.1591042	.4421216	.3062228	1.483041	2.562179
#1	.5929442	121.0857	5.362234	86.53921	.1573516	-.011239
#2	.5920229	121.4696	5.371876	87.06766	.1534793	-.011619
#3	.5831867	121.2440	5.326918	86.75402	.1532833	-.011050

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.093474	.1550516	2.371304	2.814446	F 10.24186	.1413787
Stddev	.185622	.0057950	.017917	.077383	.11705	.0009101
%RSD	8.866711	3.737446	.7555569	2.749476	1.142836	.6437678
#1	2.305121	.1548149	2.385996	2.745070	10.37665	.1420903
#2	2.016968	.1493786	2.351344	2.897902	10.18304	.1403532
#3	1.958331	.1609612	2.376572	2.800366	10.16588	.1416927

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-15 Acquired: 11/20/2024 16:46:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042453	3.694515	10.55745	.1342602	.9404260	.0797468
Stddev	.0005585	.062000	.08252	.0018811	.0037997	.0011996
%RSD	13.15578	1.678174	.7816144	1.401113	.4040417	1.504288
#1	.0045635	3.764432	10.53598	.1356453	.9413091	.0811286
#2	.0036004	3.672892	10.64858	.1350168	.9437064	.0789726
#3	.0045720	3.646222	10.48778	.1321186	.9362625	.0791391

Elem	Sr4077
Units	ppm
Avg	.3949885
Stddev	.0005883
%RSD	.1489397
#1	.3946161
#2	.3956668
#3	.3946828

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	950.7488	26590.64	5543.016	793.4384	1435.397
Stddev	7.4459	140.67	30.009	6.6857	17.716
%RSD	.7831611	.5290188	.5413859	.8426178	1.234206
#1	942.2334	26487.21	5544.234	788.4269	1414.977
#2	953.9780	26750.82	5512.417	801.0296	1444.548
#3	956.0349	26533.89	5572.398	790.8587	1446.666

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-14LX5 Acquired: 11/20/2024 16:50:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192042	-.000817	.8465585	.0055341	.0004792	11.17016	.5021627
Stddev	.0044663	.000624	.0065299	.0052030	.0018554	.04211	.0009415
%RSD	23.25682	76.30688	.7713500	94.01593	387.1534	.3770152	.1874956
#1	.0173987	-.001071	.8540911	.0081978	.0008747	11.21877	.5032332
#2	.0159234	-.000107	.8425009	.0088660	-.001542	11.14470	.5014629
#3	.0242906	-.001274	.8430836	-.000461	.002105	11.14701	.5017919

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008070	.0019407	59.34344	.0290331	.0106568	.1357326	26.75988
Stddev	.0001489	.0002471	.13733	.0013734	.0004743	.0015715	.08790
%RSD	18.45317	12.73241	.2314209	4.730309	4.450952	1.157818	.3284920
#1	.0009720	.0021253	59.49164	.0305095	.0111055	.1374721	26.86053
#2	.0007663	.0020369	59.31822	.0277937	.0107045	.1353102	26.69815
#3	.0006827	.0016600	59.22047	.0287962	.0101605	.1344154	26.72098

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.230426	19.82653	.0334364	-.005428	.6105395	.0371105	.5358541
Stddev	.003184	.04532	.0005745	.000071	.1960170	.0045213	.0062693
%RSD	.2587587	.2286019	1.718296	1.311649	32.10554	12.18333	1.169965
#1	1.234036	19.86415	.0340240	-.005409	.7234227	.0321703	.5346497
#2	1.229223	19.77621	.0328758	-.005368	.7239971	.0410428	.5426382
#3	1.228019	19.83923	.0334093	-.005507	.3841988	.0381183	.5302744

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0530561	1.979438	.0290012	.0004244	.7129426	2.313678	.0240260
Stddev	.1667620	.026698	.0018456	.0003604	.0147170	.011547	.0028671
%RSD	314.3129	1.348763	6.364013	84.89993	2.064265	.4990653	11.93343
#1	.2444548	2.007410	.0310208	.0001961	.7287875	2.324817	.0260282
#2	-.060931	1.976675	.0285806	.0008399	.7103395	2.314455	.0253082
#3	-.024355	1.954229	.0274021	.0002374	.6997008	2.301763	.0207415

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-14LX5 Acquired: 11/20/2024 16:50:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2072175	.0100729	.0862055
Stddev	.0005695	.0013812	.0003138
%RSD	.2748464	13.71236	.3640393
#1	.2066436	.0106753	.0865663
#2	.2077826	.0084928	.0859963
#3	.2072264	.0110506	.0860538

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	930.2979	25559.57	5088.364	771.7292	1635.825
Stddev	7.3494	10.43	24.810	6.4613	13.826
%RSD	.7899999	.0408158	.4875873	.8372446	.8452253
#1	922.8312	25563.44	5066.018	771.0285	1620.090
#2	930.5383	25547.75	5084.011	765.6469	1641.351
#3	937.5240	25567.51	5115.062	778.5123	1646.033

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-16 Acquired: 11/20/2024 16:55:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2512495	.1783360	4.211037	.3014138	.3213864	57.56783
Stddev	.0070732	.0047865	.011564	.0020895	.0046521	.15107
%RSD	2.815210	2.683989	.2746028	.6932213	1.447503	.2624224
#1	.2591594	.1829923	4.207524	.3036613	.3228607	57.69572
#2	.2490569	.1734291	4.201638	.2995302	.3161758	57.60663
#3	.2455322	.1785866	4.223950	.3010500	.3251228	57.40114

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.465053	.1748266	.2024065	263.8237	.8580990	2.012967
Stddev	.022324	.0008696	.0007135	.6330	.0047530	.007154
%RSD	.2358604	.4974157	.3525104	.2399269	.5538962	.3553823
#1	9.488634	.1754915	.2023509	264.4862	.8542779	2.011450
#2	9.444245	.1738425	.2017224	263.2251	.8634213	2.006695
#3	9.462279	.1751458	.2031461	263.7598	.8565978	2.020758

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.431243	120.0282	7.067150	88.86680	2.102702	.1572931
Stddev	.000344	.3897	.020610	.28417	.008717	.0024095
%RSD	.0240415	.3246628	.2916267	.3197721	.4145502	1.531822
#1	1.431212	120.3775	7.080148	88.97018	2.098787	.1564799
#2	1.431601	120.0992	7.043387	89.08481	2.096629	.1600039
#3	1.430915	119.6079	7.077915	88.54542	2.112690	.1553954

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.992732	1.992823	3.824028	3.144877	F 10.21970	.1429745
Stddev	.381261	.010810	.031139	.139247	.06545	.0022577
%RSD	19.13257	.5424291	.8143002	4.427732	.6404444	1.579083
#1	2.183992	1.980627	3.805825	3.301411	10.17591	.1455798
#2	1.553701	2.001223	3.859983	3.034793	10.18827	.1417526
#3	2.240504	1.996618	3.806276	3.098425	10.29494	.1415911

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-16 Acquired: 11/20/2024 16:55:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH91S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036357	3.763684	9.972797	.1381220	.9206239	.0809963
Stddev	.0008786	.021563	.049860	.0024338	.0015248	.0000956
%RSD	24.16725	.5729201	.4999643	1.762097	.1656213	.1180477
#1	.0044501	3.747267	10.00410	.1380621	.9202688	.0809237
#2	.0027045	3.755681	9.91530	.1357186	.9222949	.0809604
#3	.0037523	3.788104	9.99899	.1405852	.9193081	.0811046

Elem	Sr4077
Units	ppm
Avg	.3854176
Stddev	.0008168
%RSD	.2119302
#1	.3863523
#2	.3848412
#3	.3850592

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	945.0242	26110.85	5442.466	777.3898	1436.805
Stddev	2.3418	130.42	23.121	6.3500	4.855
%RSD	.2477980	.4995027	.4248274	.8168403	.3379171
#1	943.1147	26151.42	5422.244	781.3000	1433.391
#2	947.6370	25964.96	5467.673	770.0630	1442.363
#3	944.3209	26216.17	5437.482	780.8065	1434.660

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-17 Acquired: 11/20/2024 16:59:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH92 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0842131	-.004360	3.425561	-.001169	.0081142	57.79929
Stddev	.0037532	.000916	.011366	.004140	.0040791	.19289
%RSD	4.456768	21.00988	.3317990	353.9883	50.27090	.3337252
#1	.0833372	-.003568	3.430095	-.001859	.0084741	58.02144
#2	.0883268	-.005363	3.433960	.003272	.0120013	57.67430
#3	.0809753	-.004148	3.412628	-.004921	.0038670	57.70214

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.865175	.0041451	.0104911	232.3268	.1432675	.0671411
Stddev	.008672	.0000272	.0003107	1.1237	.0015695	.0004734
%RSD	.4649648	.6565540	2.961230	.4836853	1.095526	.7051193
#1	1.875102	.0041528	.0105338	233.6171	.1441802	.0669020
#2	1.859073	.0041149	.0107782	231.5624	.1441672	.0668349
#3	1.861349	.0041677	.0101613	231.8010	.1414552	.0676864

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4545352	118.9505	6.852308	66.32915	.1524319	-.011761
Stddev	.0047591	.2825	.032483	.26048	.0003042	.000238
%RSD	1.047027	.2374894	.4740485	.3927085	.1995763	2.026658
#1	.4567793	119.2758	6.889614	66.62043	.1525755	-.011606
#2	.4490690	118.7674	6.837035	66.11858	.1526377	-.011641
#3	.4577575	118.8082	6.830277	66.24843	.1520824	-.012036

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.752088	.1598613	1.919675	3.928470	F 11.05632	.1468868
Stddev	.174439	.0027615	.009579	.061646	.03885	.0008388
%RSD	9.956040	1.727461	.4990017	1.569212	.3513916	.5710719
#1	1.615648	.1593325	1.908775	3.984124	11.03335	.1469840
#2	1.948631	.1574024	1.926752	3.862209	11.10118	.1476728
#3	1.691984	.1628490	1.923499	3.939076	11.03443	.1460036

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-17 Acquired: 11/20/2024 16:59:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH92 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044420	3.898178	10.33406	.1771885	1.011411	.0843455
Stddev	.0004263	.021276	.04800	.0013753	.002621	.0017581
%RSD	9.596966	.5457871	.4645173	.7761894	.2591801	2.084367
#1	.0043233	3.875040	10.38255	.1764401	1.014434	.0862419
#2	.0049150	3.916899	10.28655	.1763497	1.009769	.0827700
#3	.0040876	3.902594	10.33307	.1787757	1.010030	.0840244

Elem	Sr4077
Units	ppm
Avg	.3844277
Stddev	.0015302
%RSD	.3980490
#1	.3861652
#2	.3832809
#3	.3838369

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	980.6621	26957.39	5595.164	801.4672	1455.383
Stddev	3.1683	85.08	24.528	6.8046	4.240
%RSD	.3230736	.3156162	.4383813	.8490136	.2913302
#1	980.4593	26985.52	5568.076	808.0152	1455.243
#2	977.6001	26861.80	5601.543	794.4322	1451.215
#3	983.9269	27024.84	5615.872	801.9542	1459.692

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-18 Acquired: 11/20/2024 17:03:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH93 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1460546	.0000565	2.096865	-.001172	.0082455	68.67528
Stddev	.0162487	.0031025	.010695	.006736	.0031763	.48276
%RSD	11.12509	5491.301	.5100680	574.4741	38.52152	.7029550
#1	.1272946	-.002777	2.108698	-.002957	.0078121	68.56037
#2	.1551768	.003372	2.087886	-.006836	.0053081	68.26035
#3	.1556924	-.000425	2.094012	.006276	.0116162	69.20512

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.585885	.0042313	.0131575	128.2923	.1735546	.1055734
Stddev	.007517	.0001075	.0000637	.8124	.0008391	.0006112
%RSD	.4740115	2.541499	.4842593	.6332375	.4834560	.5789624
#1	1.585247	.0043499	.0130874	128.2757	.1744360	.1051138
#2	1.578707	.0041401	.0132119	127.4884	.1734621	.1062671
#3	1.593701	.0042039	.0131733	129.1129	.1727656	.1053393

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3580527	152.2554	9.131480	39.32452	.1874689	-.023132
Stddev	.0031766	.9741	.050586	.16345	.0009603	.000034
%RSD	.8871944	.6397604	.5539733	.4156416	.5122656	.1461316
#1	.3581336	152.2883	9.144795	39.22239	.1880937	-.023104
#2	.3548364	151.2653	9.075569	39.23814	.1863631	-.023122
#3	.3611881	153.2126	9.174077	39.51304	.1879499	-.023170

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.753502	.1745549	1.356313	5.252083	F 19.22528	.1683441
Stddev	.087837	.0055350	.006923	.087450	.04970	.0024877
%RSD	5.009219	3.170929	.5104493	1.665063	.2585049	1.477740
#1	1.835382	.1803612	1.361928	5.151125	19.24345	.1712141
#2	1.764398	.1693385	1.348578	5.300773	19.16906	.1670146
#3	1.660726	.1739648	1.358433	5.304351	19.26334	.1668037

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-18 Acquired: 11/20/2024 17:03:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH93 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055669	3.418010	8.654306	.1199579	.5284431	.0844758
Stddev	.0004321	.012902	.072181	.0021422	.0053684	.0013191
%RSD	7.761455	.3774821	.8340438	1.785775	1.015885	1.561565
#1	.0050847	3.432161	8.647856	.1213674	.5263341	.0838695
#2	.0056973	3.414971	8.585567	.1210136	.5244494	.0859891
#3	.0059188	3.406899	8.729496	.1174928	.5345457	.0835688

Elem	Sr4077
Units	ppm
Avg	.2476456
Stddev	.0010985
%RSD	.4435769
#1	.2475728
#2	.2465853
#3	.2487787

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1103.010	30684.02	6317.142	918.6345	1482.136
Stddev	4.794	56.24	55.709	5.5284	4.435
%RSD	.4345997	.1832951	.8818630	.6018104	.2992251
#1	1097.577	30619.31	6306.733	912.5775	1477.275
#2	1106.644	30721.19	6377.320	923.4088	1485.962
#3	1104.808	30711.55	6267.372	919.9172	1483.171

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-19 Acquired: 11/20/2024 17:08:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH94 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0562962	.0005859	.6826126	.0042584	.0049888	61.38327	.6608764
Stddev	.0084142	.0040561	.0081456	.0040532	.0022518	.28016	.0027060
%RSD	14.94625	692.3101	1.193303	95.17927	45.13659	.4564053	.4094627
#1	.0650365	-.004074	.6870247	.0015433	.0046380	61.62235	.6637658
#2	.0556006	.003321	.6876004	.0089174	.0029330	61.07500	.6584015
#3	.0482514	.002511	.6732127	.0023147	.0073954	61.45246	.6604621

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032089	.0075195	229.6899	.1192192	.0679168	.1682163	145.2056
Stddev	.0001361	.0002110	.8708	.0001726	.0005966	.0043897	.7402
%RSD	4.241291	2.806391	.3791371	.1448028	.8784224	2.609579	.5097266
#1	.0032175	.0073361	230.6939	.1191619	.0682674	.1731174	145.9046
#2	.0033405	.0077501	229.2370	.1194132	.0672280	.1646456	144.4302
#3	.0030687	.0074723	229.1388	.1190825	.0682552	.1668861	145.2821

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.340703	57.49063	.1409208	-.016735	1.465352	.1524207	.6651690
Stddev	.023046	.41640	.0012242	.000099	.417915	.0032754	.0011454
%RSD	.5309216	.7242869	.8687047	.5917346	28.51976	2.148921	.1721993
#1	4.365199	57.95930	.1420390	-.016793	1.004252	.1557678	.6649471
#2	4.337460	57.16331	.1396128	-.016792	1.572642	.1522721	.6664091
#3	4.319451	57.34929	.1411107	-.016621	1.819163	.1492220	.6641507

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.343898	7.050416	.1466869	.0008469	1.305818	8.987163	.0231940
Stddev	.107292	.005902	.0045437	.0006073	.007343	.037686	.0020319
%RSD	2.007753	.0837155	3.097530	71.71237	.5623674	.4193275	8.760304
#1	5.355579	7.050943	.1506672	.0015014	1.312882	9.028858	.0212978
#2	5.231243	7.056038	.1417365	.0007378	1.298224	8.977101	.0229455
#3	5.444871	7.044268	.1476569	.0003015	1.306348	8.955529	.0253387

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-19 Acquired: 11/20/2024 17:08:20 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH94 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.234647	.0831665	.2497883
Stddev	.009509	.0014047	.0010907
%RSD	.7701687	1.689064	.4366423
#1	1.245162	.0837530	.2510476
#2	1.226652	.0815636	.2491755
#3	1.232127	.0841830	.2491418

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	993.4521	27606.51	5673.782	826.6429	1449.181
Stddev	2.2870	33.59	20.162	2.4159	4.386
%RSD	.2302098	.1216562	.3553468	.2922525	.3026439
#1	992.6272	27610.40	5656.939	827.6791	1447.067
#2	991.6921	27571.15	5668.284	823.8818	1446.252
#3	996.0372	27637.98	5696.122	828.3679	1454.223

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-20 Acquired: 11/20/2024 17:12:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH95 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1682189	.0000369	6.818878	.0081100	.0102560	55.25884
Stddev	.0059882	.0045558	.020752	.0128101	.0009503	.01434
%RSD	3.559772	12352.89	.3043304	157.9543	9.265666	.0259588
#1	.1710898	-.004940	6.795027	.0228610	.0109524	55.24780
#2	.1613358	.001049	6.828808	.0016847	.0091734	55.25367
#3	.1722311	.004002	6.832799	-.000216	.0106423	55.27505

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.753931	.0051250	.0136821	204.3548	.1366719	.0694875
Stddev	.006581	.0000767	.0001755	.3111	.0004019	.0005713
%RSD	.2389798	1.496884	1.282642	.1522320	.2940324	.8221730
#1	2.749574	.0050991	.0138204	204.0828	.1371330	.0692697
#2	2.750717	.0052114	.0137411	204.2875	.1363959	.0701356
#3	2.761501	.0050646	.0134847	204.6940	.1364868	.0690571

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8575393	138.4636	5.097999	37.00222	.1478165	-.007359
Stddev	.0010776	.0769	.004512	.07994	.0007912	.000328
%RSD	.1256653	.0555126	.0885029	.2160345	.5352868	4.460598
#1	.8574650	138.3774	5.093347	36.93797	.1469048	-.007119
#2	.8586521	138.4885	5.098293	36.97696	.1482202	-.007224
#3	.8565007	138.5250	5.102356	37.09174	.1483244	-.007733

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.627964	.2182857	3.992937	5.057139	F 24.60461	.1565335
Stddev	.125771	.0040941	.030180	.146696	.03102	.0009650
%RSD	4.785888	1.875558	.7558444	2.900765	.1260848	.6164520
#1	2.746601	.2152502	3.975182	5.076633	24.58555	.1555647
#2	2.641189	.2229421	4.027784	5.193113	24.58787	.1574946
#3	2.496103	.2166649	3.975844	4.901671	24.64040	.1565413

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-20 Acquired: 11/20/2024 17:12:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH95 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116709	3.627834	9.215473	.3938094	.9419663	.0745678
Stddev	.0005234	.018097	.019084	.0022736	.0014912	.0006260
%RSD	4.484988	.4988348	.2070917	.5773382	.1583075	.8395316
#1	.0116298	3.607032	9.201133	.3963872	.9411788	.0744989
#2	.0111692	3.639952	9.208152	.3929512	.9410339	.0739791
#3	.0122137	3.636519	9.237134	.3920898	.9436862	.0752254

Elem	Sr4077
Units	ppm
Avg	.6663410
Stddev	.0007777
%RSD	.1167152
#1	.6664957
#2	.6670298
#3	.6654976

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	942.9908	26057.69	5337.210	778.5439	1486.192
Stddev	.3844	68.54	.950	5.9825	1.033
%RSD	.0407655	.2630272	.0177964	.7684190	.0695371
#1	943.1659	26054.94	5336.349	780.4647	1487.070
#2	943.2564	25990.56	5337.051	771.8369	1486.454
#3	942.5499	26127.56	5338.229	783.3300	1485.053

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-21 Acquired: 11/20/2024 17:17:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH96 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3022382	-.002266	5.637267	.0134593	-.008103	43.83039
Stddev	.0108215	.004280	.023360	.0021843	.002702	.22791
%RSD	3.580465	188.8443	.4143832	16.22871	33.34896	.5199719
#1	.3056369	-.003430	5.655496	.0115120	-.004983	43.94612
#2	.2901253	.002475	5.610935	.0130447	-.009676	43.97721
#3	.3109525	-.005844	5.645370	.0158211	-.009651	43.56784

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.344477	.0032412	.0355566	248.9371	.1232442	.0433586
Stddev	.014701	.0001768	.0001902	1.1586	.0006109	.0004989
%RSD	.4395534	5.455923	.5349509	.4654120	.4956592	1.150582
#1	3.359778	.0030411	.0357746	250.1287	.1229217	.0429666
#2	3.343194	.0033061	.0354710	248.8680	.1239488	.0431891
#3	3.330460	.0033764	.0354243	247.8146	.1228622	.0439202

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.543196	211.0577	5.674203	28.62248	.1443055	.0265156
Stddev	.005234	1.1487	.028308	.14808	.0017782	.0004208
%RSD	.3391889	.5442711	.4988974	.5173389	1.232226	1.587150
#1	1.546699	211.2997	5.706010	28.61278	.1456985	.0267346
#2	1.545710	212.0662	5.664828	28.77516	.1423026	.0260305
#3	1.537179	209.8073	5.651772	28.47949	.1449154	.0267819

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.399382	.1729285	9.234665	3.333557	F 105.5493	.2196938
Stddev	.068394	.0032535	.049590	.134303	.4604	.0051372
%RSD	2.011968	1.881438	.5369960	4.028820	.4361590	2.338331
#1	3.379428	.1765680	9.289406	3.448157	105.9425	.2235276
#2	3.343183	.1719155	9.221841	3.366741	105.0429	.2216970
#3	3.475534	.1703020	9.192746	3.185772	105.6624	.2138568

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4880-21 Acquired: 11/20/2024 17:17:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHH96 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0097510	9.002807	9.225710	2.948036	.7429467	.0380513
Stddev	.0011009	.042914	.063263	.013509	.0043553	.0012724
%RSD	11.29044	.4766680	.6857212	.4582436	.5862200	3.343867
#1	.0108574	9.026472	9.244083	2.960871	.7463548	.0377749
#2	.0097399	8.953271	9.277752	2.933941	.7444454	.0394391
#3	.0086557	9.028678	9.155294	2.949296	.7380399	.0369398

Elem	Sr4077
Units	ppm
Avg	1.456355
Stddev	.006622
%RSD	.4546964
#1	1.460948
#2	1.459352
#3	1.448764

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	904.3901	24992.67	5184.013	742.5390	1473.039
Stddev	1.4546	136.82	34.018	3.8683	7.257
%RSD	.1608429	.5474554	.6562007	.5209562	.4926564
#1	902.8551	24835.82	5169.360	738.0845	1465.189
#2	905.7481	25087.49	5159.777	744.4794	1479.503
#3	904.5671	25054.70	5222.901	745.0530	1474.426

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165050BL Acquired: 11/20/2024 17:21:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS050 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036899	-.002238	.0008818	.0049442	.0000712	-.004278	-.002327
Stddev	.0077521	.004320	.0032509	.0037797	.0012255	.004334	.000517
%RSD	210.0886	193.0132	368.6570	76.44770	1720.633	101.3075	22.23915
#1	.0056511	-.004494	-.001396	.0022998	.0000134	-.006404	-.002904
#2	-.004854	.002742	.004605	.0032595	.0013246	-.007138	-.002172
#3	.010273	-.004962	-.000563	.0092734	-.001124	.000708	-.001905

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000086	.0000592	.0054630	.0002036	-.000315	-.000602	.0081194
Stddev	.000063	.0000898	.0058060	.0017697	.000197	.000850	.0035761
%RSD	73.32165	151.5152	106.2785	869.0406	62.57357	141.1211	44.04426
#1	-.000128	.0001472	.0034759	-.000514	-.000089	-.001412	.0052054
#2	-.000116	.0000628	.0120016	.002219	-.000409	.000284	.0070425
#3	-.000013	-.000032	.0009114	-.001095	-.000448	-.000679	.0121102

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001395	.0087334	.0008163	-.006525	.3346336	-.001781	-.000473
Stddev	.0005432	.0204883	.0006142	.000110	.3518535	.007742	.000559
%RSD	389.4014	234.5982	75.24136	1.680503	105.1459	434.6215	118.3677
#1	-.000223	-.010444	.0004369	-.006530	-.010244	.001551	.000048
#2	-.000122	.006324	.0015249	-.006413	.693071	-.010632	-.001064
#3	.000764	.030320	.0004871	-.006632	.321074	.003737	-.000402

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.694851	.0017339	-.005767	.0001467	-.000995	.0025098	-.000431
Stddev	.115388	.0004187	.001255	.0004921	.004134	.0005217	.000912
%RSD	16.60616	24.14572	21.75718	335.5079	415.3064	20.78823	211.5122
#1	-.617189	.0016594	-.004333	-.000414	-.003106	.0020308	.000449
#2	-.639923	.0013575	-.006305	.000348	-.003648	.0030658	-.001372
#3	-.827442	.0021848	-.006663	.000506	.003768	.0024328	-.000371

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165050BL Acquired: 11/20/2024 17:21:26 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS050 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000214	-.010142	-.000112
Stddev	.0007037	.000489	.000140
%RSD	3291.253	4.823974	125.5646
#1	.0008290	-.009614	-.000088
#2	-.000305	-.010580	-.000263
#3	-.000459	-.010231	.000015

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	912.5071	25360.15	4931.844	766.9051	1745.703
Stddev	9.8914	51.11	1.592	3.8304	18.897
%RSD	1.083984	.2015536	.0322851	.4994684	1.082515
#1	903.7771	25344.83	4933.543	762.6797	1728.907
#2	923.2502	25318.44	4931.604	770.1500	1766.165
#3	910.4938	25417.17	4930.386	767.8856	1742.036

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165050BS Acquired: 11/20/2024 17:25:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS050 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0184861	.0532552	.0220592	.0691493	.1097239	.3958673
Stddev	.0086364	.0032592	.0017999	.0056956	.0035461	.0040397
%RSD	46.71818	6.119899	8.159484	8.236643	3.231872	1.020467
#1	.0226552	.0533620	.0240640	.0751348	.1077045	.3992621
#2	.0085561	.0564597	.0215317	.0685168	.1076487	.3913994
#3	.0242470	.0499440	.0205821	.0637964	.1138185	.3969405

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4211275	.0106997	.0104003	10.80204	.0223593	.1007440
Stddev	.0010693	.0000800	.0000834	.06829	.0003491	.0004085
%RSD	.2539183	.7478968	.8018952	.6321670	1.561311	.4054757
#1	.4212414	.0106390	.0104695	10.85807	.0219760	.1011264
#2	.4200057	.0107904	.0104236	10.72598	.0226590	.1003137
#3	.4221352	.0106698	.0103077	10.82208	.0224429	.1007918

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0517793	.2244568	.0338466	10.38966	.0869277	.0150418
Stddev	.0014942	.0116552	.0005282	.06483	.0008936	.0006114
%RSD	2.885663	5.192643	1.560724	.6239811	1.027928	4.064782
#1	.0532789	.2304054	.0342453	10.39186	.0868573	.0149710
#2	.0502906	.2110276	.0332475	10.32376	.0860714	.0156855
#3	.0517684	.2319374	.0340471	10.45336	.0878543	.0144689

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.27668	.1102338	.1275611	9.234755	.0187363	F -.004622
Stddev	.15117	.0059255	.0009458	.151466	.0019739	.000920
%RSD	1.471045	5.375391	.7414838	1.640170	10.53537	19.91101
#1	10.15898	.1053091	.1265253	9.267940	.0197566	-.004584
#2	10.22390	.1085824	.1283789	9.069448	.0199912	-.003722
#3	10.44717	.1168098	.1277791	9.366876	.0164610	-.005561

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165050BS Acquired: 11/20/2024 17:25:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS050 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0195387	.1906428	F .4620990	.0107356	.2083113	F .0191865
Stddev	.0002625	.0031859	.0029812	.0030880	.0002094	.0003916
%RSD	1.343661	1.671116	.6451493	28.76428	.1005199	2.040916
#1	.0197746	.1873211	.4646567	.0099014	.2084053	.0195401
#2	.0192558	.1909343	.4588248	.0081504	.2080713	.0192537
#3	.0195856	.1936728	.4628155	.0141550	.2084572	.0187656

Elem	Sr4077
Units	ppm
Avg	.2137680
Stddev	.0009723
%RSD	.4548208
#1	.2144043
#2	.2126489
#3	.2142510

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	911.0430	24992.63	4981.518	758.6645	1684.196
Stddev	2.5572	97.25	10.784	4.7585	1.407
%RSD	.2806876	.3891110	.2164805	.6272146	.0835386
#1	908.9464	24970.72	4975.230	763.0750	1682.599
#2	913.8920	24908.21	4993.971	753.6214	1685.252
#3	910.2905	25098.97	4975.355	759.2971	1684.737

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-01 Acquired: 11/20/2024 17:30:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1001751	-.002599	3.194892	-.000729	.0078391	62.47710
Stddev	.0004713	.004705	.008137	.009122	.0036431	.10853
%RSD	.4705293	181.0146	.2546895	1251.596	46.47330	.1737143
#1	.0996962	.001534	3.194276	-.009542	.0120417	62.59720
#2	.1006385	-.001612	3.187080	-.001318	.0058993	62.44805
#3	.1001906	-.007720	3.203319	.008674	.0055763	62.38605

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.209723	.0042030	.0147037	145.5971	.1173788	.0882253
Stddev	.003039	.0000917	.0000405	.2657	.0028470	.0006207
%RSD	.1375383	2.182543	.2753061	.1824872	2.425526	.7035328
#1	2.212111	.0042588	.0146572	145.7893	.1178682	.0875467
#2	2.210756	.0040971	.0147233	145.7082	.1143188	.0887642
#3	2.206302	.0042531	.0147307	145.2939	.1199494	.0883652

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4267194	165.1779	11.20969	33.88905	.1801168	-.021615
Stddev	.0031182	.1363	.02326	.19234	.0004372	.000886
%RSD	.7307326	.0825161	.2074812	.5675657	.2427093	4.098469
#1	.4301830	165.2351	11.23110	33.81894	.1796585	-.021953
#2	.4258394	165.2762	11.21302	34.10661	.1801625	-.022283
#3	.4241358	165.0223	11.18495	33.74160	.1805293	-.020610

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.640639	.1672852	2.115869	10.54270	F 21.48719	.2027991
Stddev	.290904	.0054752	.032057	.04511	.07039	.0022203
%RSD	17.73111	3.272993	1.515093	.4278956	.3275812	1.094824
#1	1.348647	.1640769	2.134633	10.58569	21.42058	.2051725
#2	1.642828	.1641714	2.078853	10.49573	21.48016	.2007728
#3	1.930442	.1736072	2.134120	10.54667	21.56083	.2024521

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-01 Acquired: 11/20/2024 17:30:29 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046959	5.406680	13.64272	.2444627	1.280971	.0719787
Stddev	.0002228	.012659	.13008	.0070722	.002168	.0013964
%RSD	4.745037	.2341414	.9534607	2.892959	.1692529	1.940011
#1	.0049299	5.401164	13.72943	.2379276	1.282792	.0717109
#2	.0046716	5.397714	13.49315	.2434893	1.281549	.0707356
#3	.0044863	5.421161	13.70557	.2519711	1.278573	.0734896

Elem	Sr4077
Units	ppm
Avg	.3454928
Stddev	.0011329
%RSD	.3278981
#1	.3467117
#2	.3452944
#3	.3444722

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1066.322	29615.15	6070.890	881.8360	1498.265
Stddev	.600	326.27	11.315	8.6317	3.323
%RSD	.0562958	1.101706	.1863883	.9788313	.2218177
#1	1065.645	29586.73	6058.094	878.9398	1499.090
#2	1066.792	29954.71	6079.576	891.5434	1501.099
#3	1066.527	29304.02	6074.999	875.0249	1494.607

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-02 Acquired: 11/20/2024 17:34:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1033537	-.004050	3.404259	-.000009	.0066076	65.47146
Stddev	.0108933	.005843	.019022	.002943	.0021052	.11889
%RSD	10.53978	144.2459	.5587657	33165.52	31.86032	.1815960
#1	.1148586	.001306	3.395022	.003245	.0047139	65.40512
#2	.0931977	-.003177	3.391620	-.000788	.0062344	65.40055
#3	.1020048	-.010281	3.426136	-.002484	.0088744	65.60873

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.297448	.0043111	.0160321	142.2150	.1413905	.0919843
Stddev	.002137	.0001138	.0000391	.4035	.0011271	.0009239
%RSD	.0930232	2.640146	.2437739	.2837556	.7971229	1.004414
#1	2.299910	.0044325	.0160214	142.4611	.1426476	.0925397
#2	2.296366	.0042068	.0160754	141.7492	.1410534	.0909178
#3	2.296068	.0042941	.0159995	142.4346	.1404705	.0924954

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4480778	182.0351	11.67848	31.39883	.2027841	-.022728
Stddev	.0018195	.2908	.02257	.12129	.0007400	.000426
%RSD	.4060622	.1597369	.1932656	.3862785	.3649244	1.873217
#1	.4487448	181.9318	11.69790	31.30326	.2034553	-.022616
#2	.4494696	181.8101	11.65372	31.35795	.2019905	-.023198
#3	.4460190	182.3634	11.68382	31.53527	.2029066	-.022369

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.898427	.1796620	2.246079	10.36029	F 21.58901	.2103736
Stddev	.122506	.0005168	.014902	.03318	.11597	.0022505
%RSD	6.453045	.2876520	.6634658	.3202800	.5371885	1.069757
#1	1.772103	.1802582	2.254568	10.39163	21.55274	.2081951
#2	2.016720	.1793869	2.254797	10.36370	21.49550	.2102360
#3	1.906459	.1793410	2.228872	10.32553	21.71878	.2126897

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-02 Acquired: 11/20/2024 17:34:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052333	4.685789	7.621452	.1683768	1.297405	.0796273
Stddev	.0007061	.037482	.032806	.0018232	.003267	.0004306
%RSD	13.49300	.7999092	.4304407	1.082831	.2518444	.5407788
#1	.0059561	4.670288	7.597500	.1701193	1.295747	.0796329
#2	.0045452	4.658544	7.608012	.1664823	1.295299	.0800551
#3	.0051984	4.728535	7.658843	.1685288	1.301169	.0791939

Elem	Sr4077
Units	ppm
Avg	.3640260
Stddev	.0003656
%RSD	.1004314
#1	.3640662
#2	.3636420
#3	.3643698

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1076.046	29670.83	6083.736	886.1887	1505.784
Stddev	3.648	64.28	21.722	5.9126	4.994
%RSD	.3389825	.2166521	.3570572	.6671901	.3316243
#1	1078.651	29612.55	6088.211	881.1963	1509.840
#2	1077.612	29739.78	6102.873	884.6518	1507.305
#3	1071.878	29660.15	6060.125	892.7179	1500.207

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-03 Acquired: 11/20/2024 17:39:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1134006	-.004307	3.416725	.0000639	.0105559	65.18193
Stddev	.0037537	.003548	.006607	.0043104	.0017277	.70004
%RSD	3.310147	82.36959	.1933860	6748.788	16.36674	1.073980
#1	.1116697	-.008381	3.413516	-.004084	.0125424	65.31495
#2	.1177075	-.002637	3.424324	-.000244	.0094036	64.42492
#3	.1108246	-.001903	3.412334	.004520	.0097218	65.80591

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.293229	.0042773	.0159241	148.8389	.1377676	.0922933
Stddev	.023448	.0001690	.0002487	1.9692	.0006750	.0009832
%RSD	1.022469	3.951639	1.561777	1.323025	.4899455	1.065254
#1	2.297942	.0044707	.0157155	148.1818	.1371048	.0911582
#2	2.267783	.0041575	.0161993	147.2822	.1384541	.0928733
#3	2.313962	.0042038	.0158576	151.0526	.1377441	.0928485

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4419482	180.0548	11.68429	31.85398	.1996360	-.022301
Stddev	.0058179	1.9000	.11005	.43859	.0008233	.000232
%RSD	1.316410	1.055260	.9418310	1.376890	.4124075	1.039703
#1	.4458258	180.0011	11.68059	31.71669	.1994366	-.022087
#2	.4352585	178.1821	11.57614	31.50046	.2005407	-.022270
#3	.4447602	181.9811	11.79614	32.34480	.1989308	-.022548

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.787981	.1773263	2.238196	10.27397	F 21.70041	.2081718
Stddev	.258308	.0039835	.001788	.11491	.04923	.0036523
%RSD	14.44689	2.246438	.0798977	1.118496	.2268638	1.754457
#1	1.538230	.1727644	2.238698	10.36501	21.64586	.2059155
#2	1.771644	.1790971	2.236210	10.14484	21.71383	.2062143
#3	2.054069	.1801174	2.239679	10.31204	21.74154	.2123855

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-03 Acquired: 11/20/2024 17:39:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6D Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050490	4.710470	7.853711	.1616602	1.293660	.0788791
Stddev	.0006558	.012293	.067891	.0041675	.012301	.0003726
%RSD	12.98859	.2609757	.8644400	2.577926	.9508538	.4724111
#1	.0052015	4.696276	7.878308	.1590510	1.298058	.0789407
#2	.0043304	4.717389	7.776950	.1594631	1.279764	.0792171
#3	.0056152	4.717744	7.905874	.1664665	1.303157	.0784795

Elem	Sr4077
Units	ppm
Avg	.3680984
Stddev	.0039994
%RSD	1.086512
#1	.3679867
#2	.3641560
#3	.3721525

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1077.871	29655.05	6130.007	892.9477	1499.711
Stddev	1.279	40.54	60.541	2.3512	2.140
%RSD	.1186800	.1367192	.9876099	.2633056	.1426868
#1	1079.107	29687.01	6111.688	895.3378	1501.404
#2	1077.953	29668.69	6197.592	892.8678	1497.306
#3	1076.552	29609.44	6080.742	890.6375	1500.423

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-02LX5 Acquired: 11/20/2024 17:43:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0271369	.0006678	.7011725	.0066043	.0041258	15.62067	.5494271
Stddev	.0072553	.0029672	.0045404	.0016350	.0033979	.08150	.0005104
%RSD	26.73576	444.2981	.6475429	24.75716	82.35871	.5217213	.0928875
#1	.0327655	.0027799	.7028785	.0084449	.0039943	15.52662	.5488378
#2	.0189488	.0019481	.6960262	.0053199	.0007955	15.66504	.5497257
#3	.0296964	-.002725	.7046128	.0060481	.0075876	15.67036	.5497177

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011320	.0028933	34.49791	.0354046	.0175794	.1095930	44.72868
Stddev	.0001037	.0000848	.06792	.0010683	.0003642	.0016734	.16586
%RSD	9.159230	2.930473	.1968788	3.017340	2.071558	1.526964	.3708109
#1	.0011471	.0028472	34.42773	.0360519	.0177424	.1114738	44.58871
#2	.0010216	.0028416	34.50268	.0341716	.0171622	.1090362	44.91187
#3	.0012274	.0029912	34.56332	.0359903	.0178337	.1082689	44.68547

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.871632	7.674848	.0413589	-.009935	.4342500	.0442866	.5508997
Stddev	.003201	.034191	.0002293	.000368	.3202423	.0030467	.0033849
%RSD	.1114741	.4454969	.5544435	3.700459	73.74607	6.879553	.6144304
#1	2.871796	7.686733	.0412430	-.010275	.5760904	.0466158	.5487242
#2	2.868352	7.701510	.0412107	-.009545	.0675831	.0408386	.5547995
#3	2.874748	7.636300	.0416231	-.009986	.6590766	.0454053	.5491753

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.805179	4.288719	.0471319	.0007737	.9095362	1.950631	.0321665
Stddev	.081195	.050007	.0009701	.0004121	.0086933	.011521	.0033015
%RSD	4.497878	1.166008	2.058253	53.26319	.9557960	.5906147	10.26388
#1	1.751815	4.304600	.0463297	.0005672	.9113586	1.937331	.0339718
#2	1.898621	4.232700	.0482101	.0005057	.9000761	1.957046	.0283560
#3	1.765102	4.328856	.0468559	.0012483	.9171738	1.957517	.0341718

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-02LX5 Acquired: 11/20/2024 17:43:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3157902	.0104092	.0880132
Stddev	.0013066	.0002576	.0001705
%RSD	.4137514	2.475173	.1937128
#1	.3158534	.0101119	.0878165
#2	.3170640	.0105672	.0881034
#3	.3144531	.0105484	.0881196

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	969.5325	26442.11	5264.213	796.6738	1680.414
Stddev	6.8549	63.66	11.498	3.9712	11.427
%RSD	.7070288	.2407690	.2184160	.4984688	.6800169
#1	965.7274	26460.91	5266.376	797.6226	1675.448
#2	977.4459	26371.16	5251.787	792.3142	1693.484
#3	965.4241	26494.25	5274.475	800.0847	1672.311

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-04 Acquired: 11/20/2024 17:48:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2557317	.1725230	3.468806	.2677738	.2738265	70.94388
Stddev	.0088791	.0023860	.015227	.0083752	.0034840	.04114
%RSD	3.472033	1.382987	.4389729	3.127709	1.272324	.0579872
#1	.2455805	.1749181	3.471725	.2773720	.2770593	70.92666
#2	.2595610	.1701463	3.452330	.2619497	.2701365	70.91415
#3	.2620535	.1725048	3.482362	.2639998	.2742837	70.99083

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.535141	.1510238	.1982779	141.0111	.7712936	1.960680
Stddev	.019628	.0002250	.0010922	.1061	.0021538	.012004
%RSD	.2299721	.1489880	.5508636	.0752321	.2792431	.6122217
#1	8.531260	.1512462	.1991291	141.0214	.7690381	1.968932
#2	8.556420	.1507963	.1970463	141.1116	.7733287	1.946909
#3	8.517743	.1510288	.1986581	140.9002	.7715139	1.966198

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.152409	184.6520	13.03711	31.26042	2.062905	.1174275
Stddev	.005289	.3935	.02493	.11605	.007849	.0007431
%RSD	.4589773	.2131100	.1911907	.3712203	.3804875	.6328220
#1	1.158506	184.3945	13.05704	31.21695	2.067443	.1171084
#2	1.149681	184.4564	13.04514	31.17238	2.053841	.1168973
#3	1.149041	185.1050	13.00916	31.39192	2.067430	.1182769

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.611467	1.779390	3.429326	10.23037	F 21.30804	.2124780
Stddev	.076589	.014244	.013766	.06915	.04352	.0013859
%RSD	4.752722	.8004890	.4014116	.6759142	.2042626	.6522313
#1	1.688858	1.770575	3.439920	10.22637	21.29841	.2140762
#2	1.535707	1.795823	3.434291	10.16331	21.27014	.2117489
#3	1.609836	1.771773	3.413767	10.30143	21.35558	.2116088

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-04 Acquired: 11/20/2024 17:48:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA6S Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050182	4.652125	7.574020	.1683523	1.291682	.0772865
Stddev	.0006925	.028471	.004722	.0027608	.000962	.0011691
%RSD	13.79961	.6120022	.0623457	1.639896	.0744850	1.512629
#1	.0058173	4.682678	7.579422	.1679142	1.292754	.0786266
#2	.0045926	4.626337	7.571959	.1658367	1.290895	.0767567
#3	.0046448	4.647360	7.570678	.1713059	1.291397	.0764761

Elem	Sr4077
Units	ppm
Avg	.3619445
Stddev	.0005751
%RSD	.1589032
#1	.3617875
#2	.3625819
#3	.3614642

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1067.000	29714.46	6128.307	888.7143	1494.437
Stddev	3.763	27.66	18.895	.1406	6.409
%RSD	.3526672	.0930980	.3083168	.0158165	.4288343
#1	1067.500	29746.12	6132.959	888.6867	1492.957
#2	1070.488	29694.97	6144.441	888.5897	1501.457
#3	1063.012	29702.29	6107.521	888.8667	1488.898

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-05 Acquired: 11/20/2024 17:52:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1345479	-.001976	3.934753	.0001775	.0073349	75.86152
Stddev	.0073478	.004432	.013794	.0138615	.0014232	.16194
%RSD	5.461077	224.2698	.3505558	7809.609	19.40265	.2134726
#1	.1265036	-.006268	3.918846	.0081065	.0061769	76.04483
#2	.1409059	.002584	3.943415	-.015828	.0089237	75.73785
#3	.1362342	-.002244	3.941997	.008254	.0069041	75.80188

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.680484	.0050546	.0189887	158.4996	.1405493	.1084412
Stddev	.001936	.0000495	.0005115	.1989	.0012838	.0007247
%RSD	.0722219	.9801375	2.693931	.1254767	.9134011	.6682705
#1	2.682681	.0049974	.0184971	158.6160	.1408484	.1079769
#2	2.679028	.0050806	.0189510	158.2700	.1391424	.1092762
#3	2.679744	.0050857	.0195180	158.6129	.1416572	.1080704

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5196640	192.3402	13.39906	37.02882	.2261993	-.024137
Stddev	.0028711	.6342	.01681	.17110	.0023319	.000346
%RSD	.5524826	.3297240	.1254501	.4620751	1.030912	1.433885
#1	.5221455	193.0578	13.40954	37.19703	.2250256	-.023869
#2	.5203270	191.8552	13.37968	36.85497	.2288849	-.024014
#3	.5165194	192.1075	13.40798	37.03446	.2246875	-.024528

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.682663	.2007378	2.559951	11.66224	F 25.73676	.2261645
Stddev	.119968	.0018696	.013952	.06926	.04711	.0014027
%RSD	7.129666	.9313818	.5450192	.5939009	.1830542	.6202114
#1	1.811885	.2007049	2.575891	11.63473	25.70045	.2277129
#2	1.574825	.1988848	2.549955	11.74103	25.71985	.2258017
#3	1.661278	.2026237	2.554006	11.61096	25.79000	.2249788

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-05 Acquired: 11/20/2024 17:52:21 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061009	5.255117	10.36102	.1825701	1.411938	.0946176
Stddev	.0004416	.001742	.07587	.0039707	.005826	.0007747
%RSD	7.238211	.0331444	.7322596	2.174890	.4126463	.8187635
#1	.0064659	5.255266	10.33546	.1829728	1.418545	.0937546
#2	.0062268	5.256779	10.30123	.1784134	1.407537	.0948454
#3	.0056101	5.253305	10.44637	.1863241	1.409732	.0952529

Elem	Sr4077
Units	ppm
Avg	.4155376
Stddev	.0006928
%RSD	.1667206
#1	.4163103
#2	.4149718
#3	.4153309

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1100.992	30393.17	6265.874	909.3758	1476.400
Stddev	.899	108.35	22.700	5.9390	1.535
%RSD	.0816657	.3565089	.3622810	.6530877	.1039779
#1	1101.198	30277.39	6259.968	902.5229	1476.334
#2	1101.771	30409.96	6290.944	913.0272	1477.968
#3	1100.008	30492.14	6246.711	912.5773	1474.900

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV037 Acquired: 11/20/2024 17:56:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV037 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.916882	4.721936	24.03685	4.646909	4.724819	397.7862	9.751811
Stddev	.087421	.075053	.37974	.111604	.109061	1.5754	.029568
%RSD	1.777968	1.589446	1.579810	2.401685	2.308256	.3960448	.3032096
#1	5.006548	4.801235	24.41184	4.770800	4.843889	398.6560	9.767198
#2	4.831895	4.652011	23.65254	4.554244	4.629773	395.9676	9.717722
#3	4.912204	4.712562	24.04617	4.615681	4.700795	398.7349	9.770513

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4828902	2.408118	386.4680	14.62994	2.423459	14.39402	398.0177
Stddev	.0023087	.035907	1.4841	.01744	.034542	.05145	1.6643
%RSD	.4780937	1.491084	.3840166	.1191988	1.425299	.3574643	.4181496
#1	.4850433	2.444748	387.0076	14.60981	2.458090	14.41250	398.8175
#2	.4804524	2.372981	384.7896	14.63994	2.389008	14.33588	396.1045
#3	.4831749	2.406625	387.6069	14.64009	2.423279	14.43368	399.1312

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.97948	388.5517	2.407798	1.200776	397.8815	2.403572	13.90886
Stddev	.05037	1.4379	.036087	.004708	1.6413	.020260	.08892
%RSD	.3603368	.3700620	1.498741	.3920996	.4125106	.8429091	.6393253
#1	14.00399	389.2312	2.442029	1.195583	399.3114	2.408198	13.81002
#2	13.92154	386.9000	2.370105	1.201978	396.0893	2.381400	13.93420
#3	14.01290	389.5238	2.411260	1.204767	398.2439	2.421120	13.98236

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	146.2351	4.850686	5.125325	4.649352	4.934310	5.214026	4.833370
Stddev	.5079	.068995	.032363	.084985	.052931	.029525	.059315
%RSD	.3473113	1.422374	.6314311	1.827882	1.072713	.5662591	1.227202
#1	146.3260	4.920654	5.151509	4.743929	4.989211	5.236955	4.882471
#2	145.6879	4.782707	5.089143	4.579396	4.883598	5.180711	4.767466
#3	146.6914	4.848698	5.135323	4.624730	4.930121	5.224410	4.850174

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV037 Acquired: 11/20/2024 17:56:44 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV037 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.789753	4.921075	4.905492
Stddev	.023131	.018649	.009446
%RSD	.4829172	.3789552	.1925513
#1	4.802706	4.929941	4.916392
#2	4.763048	4.899648	4.899717
#3	4.803505	4.933637	4.900366

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	732.5126	21640.71	4707.279	565.4231	1265.177
Stddev	12.5842	92.56	8.369	4.3916	17.028
%RSD	1.717945	.4277110	.1777920	.7766906	1.345907
#1	718.8972	21737.88	4705.539	570.4468	1248.906
#2	743.7165	21553.58	4716.381	563.5095	1282.873
#3	734.9240	21630.67	4699.917	562.3131	1263.751

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB037 Acquired: 11/20/2024 18:01:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB037 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000365	.0004188	-.001785	.0032114	.0001734	.0310466	-.001981
Stddev	.003340	.0033969	.002278	.0043554	.0024589	.0089289	.000120
%RSD	915.8702	811.0341	127.5863	135.6239	1417.909	28.75968	6.064143
#1	-.004076	.0012874	-.004111	.0054115	-.002273	.0370821	-.002120
#2	.002398	.0032971	-.001687	-.001805	.002645	.0352680	-.001902
#3	.000585	-.003328	.000442	.006028	.000148	.0207897	-.001922

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000108	.0002554	.0151213	.0013055	-.000105	.0012770	.0237145
Stddev	.000114	.0002232	.0055266	.0002990	.001130	.0014022	.0096957
%RSD	106.0089	87.38736	36.54862	22.90698	1074.821	109.7993	40.88529
#1	-.000236	.0002363	.0170448	.0009669	-.001076	-.000176	.0348753
#2	-.000072	.0000424	.0194291	.0015333	.001135	.001385	.0173695
#3	-.000016	.0004876	.0088899	.0014163	-.000375	.002622	.0188987

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000461	.0324649	.0010328	-.006574	.2225898	-.003382	-.000167
Stddev	.0001419	.0320087	.0003067	.000409	.1152421	.007771	.000231
%RSD	308.0364	98.59484	29.69755	6.222599	51.77328	229.7839	138.2850
#1	-.000021	-.002689	.0006843	-.006359	.2705217	-.001824	-.000029
#2	.000209	.040157	.0011525	-.007046	.3061304	-.011814	-.000039
#3	-.000049	.059927	.0012616	-.006318	.0911175	.003492	-.000433

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.569149	.0004273	.0005636	.0001123	-.007331	.0027912	.0007101
Stddev	.140584	.0026579	.0015340	.0007386	.004162	.0010701	.0012603
%RSD	24.70076	622.0734	272.1953	657.6338	56.77550	38.33753	177.4904
#1	-.546885	.0018042	-.000845	-.000703	-.007579	.0035080	.0011428
#2	-.719537	.0021141	.000338	.000303	-.011364	.0015612	.0016970
#3	-.441025	-.002637	.002198	.000737	-.003050	.0033044	-.000710

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB037 Acquired: 11/20/2024 18:01:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB037 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000914	-.007860	.0001929
Stddev	.000812	.000868	.0001278
%RSD	88.89300	11.04495	66.26816
#1	-.000558	-.008788	.0002903
#2	-.001843	-.007724	.0002403
#3	-.000340	-.007068	.0000482

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	919.3665	25207.54	4961.955	760.5522	1754.902
Stddev	2.1116	65.34	41.620	1.9223	2.251
%RSD	.2296787	.2591925	.8387913	.2527474	.1282938
#1	918.9556	25137.69	4944.564	762.2055	1756.082
#2	917.4905	25217.76	5009.450	758.4429	1752.306
#3	921.6533	25267.16	4931.850	761.0082	1756.319

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-06 Acquired: 11/20/2024 18:05:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1279671	-.003752	2.292285	.0067577	.0096616	73.23357
Stddev	.0266180	.002339	.012709	.0051986	.0012118	.08750
%RSD	20.80062	62.33551	.5544338	76.92908	12.54240	.1194744
#1	.1074943	-.006084	2.288364	.0119396	.0086849	73.17797
#2	.1580571	-.001406	2.281998	.0015425	.0110177	73.33442
#3	.1183500	-.003767	2.306493	.0067909	.0092822	73.18830

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.997452	.0046280	.0161790	160.0924	.1186980	.1082907
Stddev	.001815	.0002101	.0003520	.4129	.0002632	.0009050
%RSD	.0908616	4.539126	2.175682	.2578976	.2217606	.8356829
#1	1.997575	.0043890	.0161838	159.6947	.1184325	.1082325
#2	1.999202	.0047119	.0158246	160.5189	.1187026	.1074162
#3	1.995579	.0047832	.0165286	160.0636	.1189589	.1092233

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4136513	188.5228	12.70852	33.31905	.1954276	-.024801
Stddev	.0015186	.2737	.03980	.12327	.0011078	.000639
%RSD	.3671298	.1451948	.3131658	.3699710	.5668695	2.574553
#1	.4140947	188.2197	12.67081	33.17755	.1941488	-.025420
#2	.4119603	188.7520	12.75012	33.40316	.1960397	-.024144
#3	.4148988	188.5968	12.70463	33.37644	.1960944	-.024840

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.905343	.1854533	1.610948	9.545579	F 21.30306	.2137698
Stddev	.209777	.0021868	.016306	.147573	.11107	.0004079
%RSD	11.00992	1.179187	1.012223	1.545983	.5213842	.1908288
#1	2.044463	.1870898	1.621297	9.387899	21.28983	.2136761
#2	1.664055	.1863004	1.619396	9.568466	21.19920	.2142164
#3	2.007511	.1829696	1.592151	9.680371	21.42016	.2134169

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-06 Acquired: 11/20/2024 18:05:37 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043622	4.061515	9.144543	.1128859	1.472431	.0867608
Stddev	.0001967	.007823	.040484	.0017386	.007325	.0007734
%RSD	4.507917	.1926064	.4427083	1.540132	.4974772	.8914675
#1	.0043305	4.065139	9.098696	.1110609	1.480736	.0866447
#2	.0045728	4.066869	9.175372	.1130741	1.466887	.0875857
#3	.0041834	4.052538	9.159560	.1145228	1.469672	.0860519

Elem	Sr4077
Units	ppm
Avg	.3670869
Stddev	.0010598
%RSD	.2886997
#1	.3665268
#2	.3683092
#3	.3664247

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1105.806	30675.10	6387.256	915.9234	1471.145
Stddev	6.610	186.96	40.666	6.7577	7.803
%RSD	.5977130	.6094926	.6366786	.7377968	.5303838
#1	1104.412	30821.13	6433.868	912.5274	1471.568
#2	1113.001	30464.38	6359.026	911.5373	1478.728
#3	1100.004	30739.78	6368.873	923.7055	1463.140

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-07 Acquired: 11/20/2024 18:10:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0897181	-.001556	4.663358	.0041241	.0075793	66.90254
Stddev	.0090422	.005904	.011568	.0075637	.0016557	.09903
%RSD	10.07852	379.4498	.2480704	183.4000	21.84511	.1480189
#1	.0873791	-.000438	4.676673	.0123871	.0078057	66.79651
#2	.0820751	.003709	4.655772	-.002457	.0058221	66.91847
#3	.0997000	-.007939	4.657629	.002442	.0091102	66.99263

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.371562	.0038075	.0172218	49.01407	.1433660	.0693739
Stddev	.004651	.0000361	.0002922	.11087	.0015118	.0003323
%RSD	.1961285	.9468246	1.696974	.2261998	1.054526	.4789590
#1	2.370393	.0038429	.0174487	49.04643	.1421545	.0697574
#2	2.376687	.0037709	.0173246	49.10515	.1428831	.0691918
#3	2.367607	.0038086	.0168920	48.89061	.1450602	.0691724

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5372456	151.4223	7.162598	20.16005	.2206166	-.021568
Stddev	.0021700	.6234	.027621	.09890	.0006586	.000188
%RSD	.4039168	.4117165	.3856215	.4905548	.2985150	.8724508
#1	.5374057	150.7143	7.153399	20.05450	.2211603	-.021352
#2	.5350000	151.8890	7.193644	20.25058	.2208052	-.021663
#3	.5393311	151.6636	7.140751	20.17507	.2198843	-.021690

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.406383	.1821874	3.147117	3.921024	F 13.00120	.1691100
Stddev	.129283	.0017136	.018458	.107542	.02919	.0020234
%RSD	9.192586	.9405903	.5864948	2.742704	.2245016	1.196522
#1	1.282711	.1840881	3.135953	3.807488	13.03404	.1667761
#2	1.395810	.1807606	3.136975	3.934233	12.99134	.1703711
#3	1.540628	.1817135	3.168421	4.021352	12.97822	.1701829

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-07 Acquired: 11/20/2024 18:10:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHA9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059529	5.074854	8.699285	.1398025	1.385754	.0755490
Stddev	.0000307	.022209	.039324	.0025714	.003956	.0007270
%RSD	.5161918	.4376371	.4520327	1.839272	.2854940	.9623407
#1	.0059513	5.100157	8.655572	.1393427	1.381364	.0763349
#2	.0059844	5.065822	8.731782	.1425727	1.389044	.0749005
#3	.0059230	5.058584	8.710501	.1374921	1.386854	.0754116

Elem	Sr4077
Units	ppm
Avg	.1882968
Stddev	.0005403
%RSD	.2869516
#1	.1879795
#2	.1889207
#3	.1879902

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1066.538	29505.15	5959.729	883.3304	1573.975
Stddev	1.372	48.70	18.421	3.9138	8.164
%RSD	.1286604	.1650441	.3090854	.4430741	.5187179
#1	1064.981	29520.26	5974.531	882.3544	1564.645
#2	1067.063	29544.50	5939.099	887.6399	1579.810
#3	1067.570	29450.69	5965.556	879.9970	1577.471

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-08 Acquired: 11/20/2024 18:14:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHB0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0677554	-.000338	3.494178	.0054996	.0068227	59.65765
Stddev	.0030273	.003542	.010308	.0012800	.0012043	.06993
%RSD	4.467986	1047.275	.2950002	23.27381	17.65111	.1172207
#1	.0711357	-.003571	3.496594	.0053051	.0061773	59.64930
#2	.0668367	-.000891	3.482877	.0068657	.0060787	59.59227
#3	.0652939	.003448	3.503064	.0043281	.0082121	59.73138

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.113020	.0032203	.0141893	47.56130	.1147940	.0597029
Stddev	.005062	.0001420	.0000979	.08704	.0006124	.0001195
%RSD	.2395783	4.407765	.6896289	.1830137	.5335095	.2001843
#1	2.107348	.0031902	.0140767	47.49644	.1149030	.0596901
#2	2.114632	.0033749	.0142373	47.52723	.1141345	.0598283
#3	2.117080	.0030959	.0142539	47.66022	.1153447	.0595903

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4594338	135.7558	6.748081	20.20605	.1758455	-.019272
Stddev	.0025237	.3933	.010482	.12441	.0016014	.000790
%RSD	.5493063	.2896780	.1553263	.6157285	.9106900	4.097872
#1	.4618380	136.1228	6.738057	20.23029	.1768804	-.018446
#2	.4568055	135.3407	6.747219	20.07129	.1740009	-.019350
#3	.4596580	135.8039	6.758967	20.31655	.1766552	-.020019

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.215847	.1570003	2.507130	2.310721	F 11.92459	.1434681
Stddev	.013898	.0045262	.004631	.081980	.03802	.0029353
%RSD	1.143106	2.882919	.1847141	3.547822	.3188445	2.045975
#1	1.230209	.1592797	2.512476	2.362515	11.91811	.1465906
#2	1.214868	.1517875	2.504340	2.216203	11.89023	.1430485
#3	1.202464	.1599336	2.504574	2.353444	11.96544	.1407651

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-08 Acquired: 11/20/2024 18:14:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHB0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042201	3.185972	8.529486	.0989400	1.104809	.0701391
Stddev	.0004347	.022842	.044855	.0018338	.003092	.0005011
%RSD	10.30147	.7169638	.5258852	1.853413	.2799008	.7144768
#1	.0039466	3.195981	8.478443	.0968229	1.107559	.0695923
#2	.0039924	3.202101	8.547394	.0999686	1.105407	.0705764
#3	.0047214	3.159834	8.562621	.1000286	1.101461	.0702485

Elem	Sr4077
Units	ppm
Avg	.1603464
Stddev	.0001344
%RSD	.0838474
#1	.1602182
#2	.1603346
#3	.1604863

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1036.131	28608.76	5715.040	857.3881	1587.674
Stddev	.580	154.52	10.302	4.2684	3.828
%RSD	.0560133	.5401015	.1802546	.4978376	.2411152
#1	1035.694	28448.41	5723.254	852.4631	1586.305
#2	1036.789	28756.70	5718.384	860.0169	1591.999
#3	1035.910	28621.18	5703.482	859.6842	1584.719

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-09 Acquired: 11/20/2024 18:18:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHB1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1113760	-.001631	10.93350	-.005863	.0101093	77.93665
Stddev	.0021968	.002011	.04979	.002695	.0007552	1.01124
%RSD	1.972398	123.2648	.4554029	45.95859	7.469888	1.297515
#1	.1138898	-.000202	10.90994	-.002893	.0103915	79.10301
#2	.1104128	-.000761	10.89985	-.006546	.0092537	77.40143
#3	.1098253	-.003931	10.99069	-.008151	.0106828	77.30550

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.911672	.0049010	.0304852	94.78095	.1710263	.0949778
Stddev	.040828	.0000255	.0000765	1.03054	.0009883	.0004140
%RSD	1.043758	.5210710	.2507610	1.087288	.5778497	.4358380
#1	3.958121	.0048824	.0303987	95.97041	.1699167	.0948619
#2	3.895432	.0049301	.0305131	94.21612	.1718118	.0946341
#3	3.881462	.0048904	.0305438	94.15631	.1713504	.0954373

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9430577	219.7563	9.092475	32.42203	.2463271	-.023236
Stddev	.0096730	3.1712	.074046	.48309	.0007901	.000622
%RSD	1.025703	1.443058	.8143679	1.490017	.3207341	2.677614
#1	.9540449	223.4166	9.177944	32.97344	.2455736	-.023933
#2	.9358240	217.8345	9.051760	32.21934	.2471492	-.022736
#3	.9393043	218.0179	9.047721	32.07329	.2462585	-.023039

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.137147	.2094002	5.153852	4.383497	F 21.72780	.2336264
Stddev	.334965	.0066259	.030153	.166425	.10748	.0029588
%RSD	15.67348	3.164248	.5850551	3.796618	.4946469	1.266467
#1	2.521598	.2137453	5.121043	4.575225	21.67699	.2370429
#2	1.981657	.2126814	5.160163	4.276340	21.65514	.2319068
#3	1.908185	.2017739	5.180350	4.298926	21.85126	.2319294

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-09 Acquired: 11/20/2024 18:18:48 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHB1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0071656	4.301120	12.97978	.2125086	1.523054	.0908398
Stddev	.0006943	.007249	.17833	.0043321	.020067	.0019415
%RSD	9.689319	.1685454	1.373918	2.038571	1.317570	2.137306
#1	.0063678	4.297186	13.18481	.2079500	1.545250	.0929205
#2	.0076330	4.296688	12.86073	.2130041	1.506194	.0905224
#3	.0074960	4.309486	12.89380	.2165717	1.517719	.0890766

Elem	Sr4077
Units	ppm
Avg	.3164052
Stddev	.0034423
%RSD	1.087949
#1	.3203196
#2	.3150462
#3	.3138498

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1053.217	29318.99	5933.767	874.8914	1520.337
Stddev	1.321	130.85	72.582	6.0229	5.885
%RSD	.1253987	.4462954	1.223207	.6884212	.3870741
#1	1054.110	29470.07	5851.409	881.6197	1522.273
#2	1053.840	29245.05	5988.399	873.0516	1525.010
#3	1051.699	29241.85	5961.494	870.0030	1513.728

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-10 Acquired: 11/20/2024 18:23:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0701781	-.003910	7.379679	.0048436	.0145806	60.38528
Stddev	.0052163	.002397	.016390	.0093235	.0049712	.10452
%RSD	7.432886	61.29007	.2221018	192.4921	34.09451	.1730808
#1	.0701426	-.001951	7.367702	-.003152	.0140783	60.27049
#2	.0754120	-.003197	7.372976	.015085	.0098796	60.47495
#3	.0649796	-.006582	7.398358	.002598	.0197839	60.41039

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.202521	.0037740	.0295435	180.3338	.1666824	.0740649
Stddev	.011715	.0001352	.0000453	.7019	.0015989	.0004651
%RSD	.3657981	3.582308	.1533311	.3892451	.9592576	.6278962
#1	3.189169	.0038145	.0295515	179.5290	.1654122	.0737456
#2	3.211072	.0036232	.0294947	180.6535	.1661570	.0738507
#3	3.207323	.0038844	.0295843	180.8191	.1684779	.0745985

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5163058	184.5896	8.297238	45.48191	.2587101	-.017173
Stddev	.0001258	.0865	.035647	.10636	.0016666	.000657
%RSD	.0243714	.0468784	.4296308	.2338467	.6441952	3.827323
#1	.5162742	184.5476	8.256116	45.37304	.2568181	-.017422
#2	.5164445	184.5321	8.319371	45.58557	.2593519	-.017669
#3	.5161989	184.6891	8.316228	45.48711	.2599605	-.016427

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.234574	.1635679	5.614755	4.898021	F 14.50350	.2246710
Stddev	.020293	.0027077	.007381	.202372	.01032	.0027896
%RSD	.9081403	1.655422	.1314499	4.131712	.0711293	1.241655
#1	2.258002	.1608365	5.622228	4.817658	14.49661	.2219499
#2	2.223240	.1662513	5.607471	5.128232	14.49853	.2275245
#3	2.222479	.1636158	5.614566	4.748175	14.51536	.2245386

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-10 Acquired: 11/20/2024 18:23:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070388	5.138488	13.00255	.1872142	1.446207	.0718655
Stddev	.0004995	.006006	.03733	.0034186	.003493	.0003130
%RSD	7.096072	.1168924	.2870667	1.826020	.2414967	.4355374
#1	.0066213	5.137665	12.98480	.1839345	1.448185	.0715337
#2	.0075921	5.132935	13.04543	.1907565	1.442175	.0719073
#3	.0069029	5.144863	12.97740	.1869517	1.448262	.0721555

Elem	Sr4077
Units	ppm
Avg	.5499457
Stddev	.0012156
%RSD	.2210398
#1	.5485530
#2	.5507938
#3	.5504902

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	973.4595	26983.45	5584.901	807.6062	1484.522
Stddev	1.4783	91.30	17.700	1.3885	3.936
%RSD	.1518648	.3383547	.3169217	.1719338	.2651240
#1	975.1648	27026.22	5601.807	807.4540	1488.856
#2	972.5390	27045.51	5586.393	809.0646	1483.539
#3	972.6749	26878.61	5566.502	806.3000	1481.170

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-11 Acquired: 11/20/2024 18:27:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0950057	.0010367	6.835463	-.000613	.0068912	65.31737
Stddev	.0081262	.0043410	.015159	.002132	.0007546	.18400
%RSD	8.553344	418.7549	.2217762	347.8857	10.95045	.2817004
#1	.0970882	.0053114	6.849228	-.003054	.0060280	65.50969
#2	.0860409	.0011663	6.819215	.000883	.0074254	65.14301
#3	.1018879	-.003368	6.837944	.000332	.0072204	65.29941

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.149789	.0038347	.0272782	214.6787	.1443771	.0816384
Stddev	.006678	.0001634	.0002885	.4822	.0022165	.0008710
%RSD	.2120243	4.261338	1.057753	.2246231	1.535217	1.066890
#1	3.152726	.0037592	.0271816	214.9703	.1445240	.0820778
#2	3.142146	.0040222	.0270504	214.1221	.1420908	.0806352
#3	3.154496	.0037226	.0276027	214.9436	.1465165	.0822022

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4881139	178.6682	9.251175	43.68990	.2165893	-.016786
Stddev	.0047093	.5235	.036144	.10488	.0004389	.000171
%RSD	.9647980	.2930189	.3907000	.2400602	.2026298	1.019611
#1	.4905448	179.1490	9.278140	43.80511	.2164625	-.016834
#2	.4826859	178.1105	9.210105	43.66461	.2162279	-.016928
#3	.4911109	178.7452	9.265281	43.59997	.2170777	-.016596

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.832657	.1694203	4.819980	4.291135	F 14.09896	.2088401
Stddev	.276445	.0052234	.022197	.067918	.05598	.0036234
%RSD	15.08440	3.083086	.4605243	1.582749	.3970384	1.735032
#1	2.129890	.1752329	4.803475	4.308368	14.15353	.2104595
#2	1.583236	.1651198	4.845215	4.216261	14.04167	.2046893
#3	1.784845	.1679082	4.811250	4.348777	14.10168	.2113713

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-11 Acquired: 11/20/2024 18:27:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC6 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055038	3.825366	11.27647	.2557043	1.349912	.0844867
Stddev	.0002755	.010956	.04240	.0024198	.001035	.0008919
%RSD	5.005105	.2864152	.3759662	.9463309	.0766661	1.055604
#1	.0052501	3.837820	11.31150	.2529117	1.351105	.0834788
#2	.0054645	3.821066	11.22934	.2570181	1.349359	.0848075
#3	.0057969	3.817212	11.28857	.2571829	1.349270	.0851738

Elem	Sr4077
Units	ppm
Avg	.7087740
Stddev	.0023339
%RSD	.3292891
#1	.7106553
#2	.7061622
#3	.7095046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	983.7347	27312.58	5651.154	818.1616	1463.618
Stddev	2.4389	15.24	25.416	2.7398	3.882
%RSD	.2479217	.0557911	.4497461	.3348693	.2652552
#1	984.5462	27330.03	5630.749	820.2034	1461.630
#2	985.6643	27305.81	5679.624	815.0480	1468.092
#3	980.9935	27301.90	5643.089	819.2335	1461.133

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-12 Acquired: 11/20/2024 18:31:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0961358	-.001648	4.657511	-.000602	.0089525	62.44218
Stddev	.0061104	.004169	.015749	.005499	.0037408	.02883
%RSD	6.356027	253.0193	.3381350	914.2361	41.78492	.0461665
#1	.0916604	.002943	4.650754	.005697	.0116912	62.44600
#2	.0936496	-.002689	4.675510	-.003048	.0104759	62.46891
#3	.1030974	-.005197	4.646268	-.004453	.0046904	62.41163

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.564849	.0033745	.0158722	226.6608	.1175280	.0723006
Stddev	.005083	.0000729	.0002170	.5386	.0003986	.0003175
%RSD	.1981620	2.159239	1.367085	.2376410	.3391085	.4391045
#1	2.570706	.0034415	.0158091	226.9217	.1179791	.0726151
#2	2.562243	.0033850	.0161138	226.0413	.1173814	.0719803
#3	2.561598	.0032969	.0156938	227.0192	.1172235	.0723064

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4372303	155.0633	9.384412	29.14689	.1521999	-.013690
Stddev	.0012261	.0859	.025257	.04596	.0017347	.000315
%RSD	.2804327	.0553667	.2691351	.1576683	1.139742	2.301754
#1	.4362611	155.0340	9.411219	29.17083	.1502160	-.013969
#2	.4368211	154.9959	9.361061	29.09391	.1529520	-.013348
#3	.4386088	155.1599	9.380956	29.17594	.1534315	-.013752

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.673026	.1550574	2.737576	4.643285	F 14.25810	.1955154
Stddev	.234771	.0039983	.018959	.051173	.05255	.0010887
%RSD	14.03271	2.578596	.6925363	1.102090	.3685975	.5568197
#1	1.441363	.1558711	2.741055	4.600811	14.20296	.1967461
#2	1.910786	.1507148	2.754554	4.700098	14.26372	.1951223
#3	1.666929	.1585862	2.717118	4.628946	14.30762	.1946780

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-12 Acquired: 11/20/2024 18:31:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC7 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036520	2.465284	9.594306	.2386676	1.325740	.0715461
Stddev	.0004509	.021957	.031962	.0007148	.002315	.0004526
%RSD	12.34818	.8906439	.3331371	.2995128	.1746429	.6325927
#1	.0034613	2.440012	9.603331	.2386683	1.323080	.0711930
#2	.0041669	2.476154	9.558802	.2393821	1.326845	.0713891
#3	.0033276	2.479685	9.620785	.2379525	1.327297	.0720563

Elem	Sr4077
Units	ppm
Avg	.7951472
Stddev	.0014434
%RSD	.1815232
#1	.7966288
#2	.7950675
#3	.7937453

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	966.3954	26937.28	5537.775	805.3324	1474.921
Stddev	1.9590	87.64	5.956	5.2359	2.749
%RSD	.2027139	.3253486	.1075548	.6501520	.1864122
#1	966.3093	26999.08	5539.014	805.0209	1476.901
#2	964.4809	26836.98	5543.014	800.2593	1471.782
#3	968.3961	26975.78	5531.296	810.7171	1476.080

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-13 Acquired: 11/20/2024 18:36:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0994833	.0004186	2.137736	-.003503	.0058975	87.22990
Stddev	.0089144	.0043661	.004931	.009135	.0035973	.30366
%RSD	8.960731	1043.033	.2306820	260.7840	60.99758	.3481172
#1	.1073998	-.004368	2.132176	-.003260	.0018664	87.13468
#2	.1012227	.004183	2.141583	.005508	.0070449	87.56976
#3	.0898274	.001441	2.139447	-.012756	.0087811	86.98526

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.562130	.0043893	.0115227	127.4070	.1180210	.0991716
Stddev	.005608	.0001012	.0001460	.3738	.0013986	.0005057
%RSD	.3589980	2.306598	1.267048	.2933676	1.185063	.5099330
#1	1.566424	.0043733	.0116342	127.7110	.1164061	.0987156
#2	1.564180	.0044975	.0113575	127.5204	.1188153	.0997155
#3	1.555785	.0042969	.0115766	126.9897	.1188418	.0990837

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3001991	185.8030	10.04475	24.22621	.1457568	-.021769
Stddev	.0004279	.6098	.02393	.17588	.0007918	.001099
%RSD	.1425338	.3282117	.2382408	.7259718	.5432279	5.049193
#1	.2997327	185.4506	10.06852	24.11716	.1453284	-.022520
#2	.3002910	186.5072	10.04506	24.42910	.1452714	-.022279
#3	.3005735	185.4513	10.02066	24.13237	.1466705	-.020508

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.576611	.2108974	1.199313	3.936324	F 10.63731	.1957274
Stddev	.126520	.0019452	.004776	.055804	.02335	.0004888
%RSD	8.024836	.9223695	.3981949	1.417677	.2194979	.2497467
#1	1.636730	.2086570	1.193847	4.000452	10.61303	.1956783
#2	1.661863	.2118788	1.202678	3.898797	10.63932	.1962389
#3	1.431240	.2121565	1.201414	3.909724	10.65960	.1952649

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-13 Acquired: 11/20/2024 18:36:19 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC8 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042026	1.381553	7.468821	.1420327	1.445340	.0864228
Stddev	.0002014	.012031	.037309	.0040163	.003222	.0004443
%RSD	4.792001	.8708453	.4995281	2.827753	.2229008	.5141576
#1	.0044220	1.391086	7.473396	.1374579	1.444897	.0867535
#2	.0040260	1.385540	7.503631	.1449791	1.448760	.0859177
#3	.0041599	1.368035	7.429435	.1436611	1.442363	.0865972

Elem	Sr4077
Units	ppm
Avg	.4726628
Stddev	.0010035
%RSD	.2123056
#1	.4727557
#2	.4736166
#3	.4716161

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1038.557	28752.47	5844.561	863.4660	1518.136
Stddev	2.949	200.54	15.038	2.0063	1.375
%RSD	.2839689	.6974805	.2572953	.2323539	.0905496
#1	1037.514	28970.53	5847.169	865.7518	1518.959
#2	1041.886	28710.90	5828.389	861.9968	1518.900
#3	1036.271	28575.96	5858.124	862.6494	1516.549

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-14 Acquired: 11/20/2024 18:40:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1109291	-.003891	1.989207	-.005845	.0069770	95.23737
Stddev	.0036300	.002760	.010788	.004619	.0005335	.11059
%RSD	3.272369	70.93483	.5423043	79.02253	7.646370	.1161155
#1	.1071380	-.005827	1.994419	-.007831	.0070476	95.34006
#2	.1143731	-.005117	1.976803	-.000565	.0064116	95.25176
#3	.1112761	-.000731	1.996398	-.009138	.0074716	95.12030

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.545082	.0051043	.0149730	108.5534	.1592906	.1309302
Stddev	.004389	.0000402	.0000068	.2109	.0013194	.0004243
%RSD	.2840392	.7882681	.0454769	.1943203	.8282948	.3240874
#1	1.549581	.0050590	.0149662	108.7961	.1577671	.1306217
#2	1.540813	.0051181	.0149730	108.4501	.1600570	.1307548
#3	1.544851	.0051359	.0149798	108.4140	.1600477	.1314141

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3065157	212.2288	13.08919	24.81319	.1978597	-.028128
Stddev	.0022498	.3233	.02615	.06999	.0003845	.000180
%RSD	.7339777	.1523121	.1997838	.2820580	.1943444	.6404002
#1	.3046327	212.1292	13.11933	24.83395	.1979588	-.028185
#2	.3059073	212.5901	13.07567	24.87046	.1974354	-.027927
#3	.3090071	211.9671	13.07256	24.73518	.1981850	-.028273

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.819652	.2165083	1.252647	4.662230	F 10.40013	.2180123
Stddev	.110221	.0050634	.005274	.060733	.00816	.0023389
%RSD	6.057245	2.338687	.4210356	1.302650	.0784814	1.072850
#1	1.740914	.2114171	1.251940	4.618317	10.40955	.2155256
#2	1.945617	.2215435	1.258238	4.731538	10.39537	.2201683
#3	1.772425	.2165642	1.247762	4.636835	10.39546	.2183432

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-14 Acquired: 11/20/2024 18:40:42 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHC9 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060764	1.503705	9.182645	.1086278	1.627588	.1218701
Stddev	.0003414	.004212	.022488	.0025040	.004801	.0004092
%RSD	5.618715	.2801341	.2448955	2.305147	.2950007	.3357606
#1	.0063768	1.499482	9.167488	.1060349	1.632009	.1215414
#2	.0057051	1.507906	9.208483	.1110323	1.622480	.1217404
#3	.0061472	1.503728	9.171964	.1088162	1.628276	.1223284

Elem	Sr4077
Units	ppm
Avg	.3386272
Stddev	.0005103
%RSD	.1506975
#1	.3392153
#2	.3383663
#3	.3383001

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1116.627	30841.06	6326.297	924.2346	1504.380
Stddev	2.762	54.45	10.079	3.2918	5.442
%RSD	.2473548	.1765567	.1593248	.3561702	.3617145
#1	1113.474	30779.68	6319.556	921.2223	1498.416
#2	1117.787	30883.55	6321.450	923.7330	1505.651
#3	1118.619	30859.96	6337.884	927.7484	1509.074

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-15 Acquired: 11/20/2024 18:45:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0683359	-.002979	1.834018	.0005614	.0049140	62.89948
Stddev	.0080706	.001881	.011881	.0049137	.0030425	.15666
%RSD	11.81014	63.15364	.6478229	875.2756	61.91509	.2490621
#1	.0773974	-.004530	1.832516	.0016052	.0083222	63.06635
#2	.0619207	-.000886	1.822959	-.004790	.0024718	62.75557
#3	.0656896	-.003519	1.846578	.004869	.0039479	62.87649

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.389529	.0041054	.0105964	44.52319	.1046781	.0795605
Stddev	.000894	.0001096	.0000311	.02531	.0000764	.0013012
%RSD	.0643540	2.668375	.2938628	.0568422	.0729493	1.635417
#1	1.390539	.0041918	.0105766	44.53701	.1045931	.0801944
#2	1.389209	.0041423	.0106323	44.49399	.1047410	.0780639
#3	1.388839	.0039822	.0105803	44.53858	.1047002	.0804232

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2972457	156.9825	9.907049	16.90583	.1538922	-.023978
Stddev	.0012490	.6454	.003927	.10937	.0009528	.000271
%RSD	.4201811	.4111424	.0396375	.6469563	.6191502	1.128855
#1	.2986776	157.6323	9.907822	17.03167	.1549896	-.023893
#2	.2966783	156.3416	9.910531	16.83363	.1534118	-.023761
#3	.2963811	156.9736	9.902793	16.85220	.1532753	-.024281

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.519674	.1849309	1.463509	6.832838	F 12.34714	.1625393
Stddev	.175337	.0063002	.003572	.188898	.04348	.0017467
%RSD	11.53781	3.406789	.2440985	2.764567	.3521763	1.074656
#1	1.317525	.1880847	1.459764	6.907986	12.36808	.1617237
#2	1.630498	.1776766	1.463884	6.617930	12.29715	.1645447
#3	1.610998	.1890313	1.466880	6.972597	12.37620	.1613495

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-15 Acquired: 11/20/2024 18:45:05 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD0 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038602	2.964754	13.02967	.0751662	1.062904	.0694450
Stddev	.0001946	.007625	.04440	.0006650	.004741	.0004473
%RSD	5.041902	.2571887	.3407626	.8847192	.4460757	.6440836
#1	.0038086	2.956288	13.07580	.0759323	1.068378	.0695314
#2	.0036966	2.966891	12.98722	.0747379	1.060117	.0689608
#3	.0040754	2.971082	13.02598	.0748285	1.060216	.0698427

Elem	Sr4077
Units	ppm
Avg	.1760966
Stddev	.0002169
%RSD	.1231866
#1	.1763355
#2	.1760423
#3	.1759120

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1060.831	29478.75	5937.606	886.5129	1568.655
Stddev	3.668	40.40	15.649	1.7422	3.880
%RSD	.3457784	.1370561	.2635621	.1965270	.2473727
#1	1057.614	29522.63	5919.873	888.3920	1566.009
#2	1064.826	29443.08	5949.483	886.1955	1573.109
#3	1060.055	29470.55	5943.462	884.9511	1566.845

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-16 Acquired: 11/20/2024 18:49:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1193678	-.002455	2.843291	.0013057	.0027119	68.30389
Stddev	.0078981	.004517	.004124	.0091388	.0019917	.19710
%RSD	6.616588	184.0264	.1450521	699.9076	73.44306	.2885613
#1	.1102508	-.002583	2.838694	.0000620	.0039996	68.07954
#2	.1241256	.002125	2.846667	-.007148	.0037181	68.44919
#3	.1237271	-.006906	2.844511	.011003	.0004178	68.38295

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.885053	.0048347	.0150884	79.92336	.1247855	.0943166
Stddev	.000515	.0002357	.0001079	.01881	.0004881	.0004352
%RSD	.0273129	4.874532	.7148110	.0235393	.3911375	.4614380
#1	1.884520	.0045809	.0149749	79.91035	.1242250	.0945913
#2	1.885548	.0048765	.0151008	79.94493	.1251167	.0938148
#3	1.885091	.0050466	.0151895	79.91481	.1250148	.0945437

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4473561	196.8902	11.39048	21.73102	.1982763	-.025252
Stddev	.0020955	.3512	.01645	.07284	.0007711	.000102
%RSD	.4684287	.1783561	.1444313	.3351664	.3889011	.4027761
#1	.4456194	196.5710	11.37169	21.65042	.1990108	-.025305
#2	.4496837	196.8333	11.40230	21.75054	.1974732	-.025135
#3	.4467653	197.2664	11.39745	21.79211	.1983449	-.025316

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.523174	.2089893	2.128887	6.738945	F 13.67637	.1981245
Stddev	.259893	.0043953	.002221	.086559	.01597	.0012512
%RSD	17.06260	2.103106	.1043213	1.284460	.1167676	.6315382
#1	1.647964	.2089921	2.130101	6.792983	13.67273	.1995527
#2	1.697137	.2045926	2.126324	6.784742	13.66254	.1972209
#3	1.224421	.2133832	2.130237	6.639108	13.69385	.1976000

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-16 Acquired: 11/20/2024 18:49:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD1 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049936	2.575851	10.83797	.1438509	1.022279	.0800096
Stddev	.0007690	.016427	.01783	.0014020	.003548	.0008961
%RSD	15.39988	.6377318	.1644792	.9746294	.3470343	1.120033
#1	.0054422	2.557428	10.85581	.1425656	1.018258	.0789785
#2	.0054330	2.588972	10.82015	.1453460	1.023610	.0806001
#3	.0041056	2.581153	10.83796	.1436411	1.024968	.0804503

Elem	Sr4077
Units	ppm
Avg	.2308980
Stddev	.0005353
%RSD	.2318456
#1	.2302807
#2	.2312345
#3	.2311788

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1070.907	29533.67	6036.059	885.0724	1538.171
Stddev	2.747	17.96	12.828	2.0611	.941
%RSD	.2565280	.0608122	.2125227	.2328752	.0611466
#1	1072.990	29513.75	6034.879	884.6250	1537.115
#2	1067.793	29548.61	6049.436	887.3204	1538.481
#3	1071.937	29538.67	6023.862	883.2717	1538.918

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-17 Acquired: 11/20/2024 18:53:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1748539	-.004901	5.508834	-.004440	.0070213	73.96042
Stddev	.0069187	.007251	.018329	.007135	.0020833	.18770
%RSD	3.956865	147.9559	.3327214	160.7037	29.67095	.2537870
#1	.1725737	.002195	5.515036	-.007445	.0055509	74.07993
#2	.1693631	-.012298	5.488209	-.009581	.0094053	74.05725
#3	.1826250	-.004599	5.523258	.003706	.0061076	73.74407

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.591933	.0053873	.0192747	155.4040	.1330416	.1091902
Stddev	.007046	.0001313	.0002030	.1942	.0018100	.0009178
%RSD	.2718251	2.437809	1.053085	.1249626	1.360475	.8405532
#1	2.599393	.0053963	.0190462	155.6265	.1316904	.1099745
#2	2.585393	.0052517	.0193442	155.3170	.1350980	.1094152
#3	2.591012	.0055139	.0194339	155.2685	.1323363	.1081808

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6147504	199.9020	14.95434	38.73452	.2115109	-.023809
Stddev	.0011948	.5766	.04582	.10759	.0008851	.000425
%RSD	.1943472	.2884387	.3064083	.2777666	.4184739	1.786956
#1	.6152974	200.1794	15.00620	38.66917	.2125211	-.023842
#2	.6155737	200.2875	14.93748	38.85869	.2111399	-.023368
#3	.6133800	199.2392	14.91934	38.67569	.2108715	-.024217

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.900094	.2282260	3.400600	8.110798	F 16.89604	.2078411
Stddev	.053519	.0052056	.047800	.039034	.03040	.0030849
%RSD	2.816634	2.280894	1.405631	.4812542	.1799481	1.484277
#1	1.903264	.2224716	3.394664	8.153735	16.92164	.2051204
#2	1.951958	.2295986	3.451090	8.101202	16.86243	.2111927
#3	1.845061	.2326077	3.356045	8.077458	16.90405	.2072102

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-17 Acquired: 11/20/2024 18:53:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD2 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0061930	3.692582	11.38506	.2418577	1.074128	.0938049
Stddev	.0003160	.016392	.06948	.0028833	.005558	.0004032
%RSD	5.102937	.4439149	.6103158	1.192138	.5174510	.4298377
#1	.0059081	3.706188	11.33898	.2451419	1.076814	.0939905
#2	.0061381	3.674384	11.46498	.2406890	1.077832	.0933424
#3	.0065329	3.697175	11.35121	.2397423	1.067737	.0940819

Elem	Sr4077
Units	ppm
Avg	.3728923
Stddev	.0013123
%RSD	.3519266
#1	.3737825
#2	.3735092
#3	.3713852

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1072.615	29664.39	6146.357	885.2516	1478.198
Stddev	2.407	149.29	16.452	11.0392	5.589
%RSD	.2243978	.5032490	.2676699	1.247018	.3781005
#1	1069.912	29674.16	6146.434	883.9428	1472.388
#2	1073.408	29510.47	6129.867	874.9251	1483.536
#3	1074.526	29808.56	6162.770	896.8869	1478.669

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-18 Acquired: 11/20/2024 18:58:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1456356	.0025231	3.433553	.0025574	.0056996	67.27933
Stddev	.0121649	.0044112	.013584	.0084201	.0014259	.17576
%RSD	8.352941	174.8344	.3956387	329.2477	25.01808	.2612341
#1	.1338437	.0076148	3.434414	.0066747	.0063069	67.23764
#2	.1581419	-.000147	3.419558	.0081265	.0067213	67.12816
#3	.1449211	.000101	3.446686	-.007129	.0040705	67.47218

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.168101	.0048844	.0158558	95.85615	.1144236	.0999496
Stddev	.007342	.0000604	.0001035	.28056	.0006960	.0002868
%RSD	.3386451	1.236705	.6530264	.2926873	.6082456	.2869275
#1	2.175879	.0048671	.0158318	96.13235	.1136296	.0996546
#2	2.167132	.0049516	.0157664	95.86467	.1149281	.0999668
#3	2.161291	.0048346	.0159693	95.57143	.1147132	.1002274

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5993086	186.4027	15.05829	20.15364	.1675990	-.023862
Stddev	.0043002	.4887	.07172	.10785	.0008012	.000339
%RSD	.7175327	.2621896	.4762862	.5351158	.4780687	1.420809
#1	.6034979	186.1398	15.13604	20.03446	.1667392	-.024054
#2	.5949054	186.1016	15.04412	20.18199	.1677331	-.023471
#3	.5995223	186.9666	14.99471	20.24448	.1683247	-.024062

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.617930	.2040830	2.387887	7.240444	F 16.48748	.1952011
Stddev	.169390	.0017196	.007431	.100189	.04388	.0002217
%RSD	10.46953	.8425752	.3111812	1.383741	.2661194	.1135682
#1	1.713175	.2043117	2.389424	7.290811	16.45268	.1953741
#2	1.422358	.2022606	2.379808	7.125065	16.47299	.1949512
#3	1.718258	.2056769	2.394429	7.305455	16.53677	.1952779

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-18 Acquired: 11/20/2024 18:58:14 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD3 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069836	2.719405	10.43048	.2567927	.9782120	.0828546
Stddev	.0002196	.027509	.02184	.0005699	.0059542	.0007470
%RSD	3.144985	1.011596	.2093759	.2219158	.6086816	.9016074
#1	.0069306	2.695217	10.45480	.2564714	.9742479	.0835688
#2	.0072249	2.713667	10.41253	.2564561	.9753292	.0829165
#3	.0067953	2.749331	10.42412	.2574507	.9850589	.0820786

Elem	Sr4077
Units	ppm
Avg	.3430131
Stddev	.0005987
%RSD	.1745318
#1	.3437024
#2	.3426225
#3	.3427145

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1079.494	29787.43	6049.892	891.1705	1533.716
Stddev	2.194	92.29	4.475	2.2521	4.664
%RSD	.2032189	.3098343	.0739666	.2527093	.3040793
#1	1077.880	29832.67	6049.256	893.0855	1535.143
#2	1081.991	29681.25	6045.769	891.7366	1537.499
#3	1078.610	29848.38	6054.650	888.6894	1528.506

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-19 Acquired: 11/20/2024 19:02:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1969009	.0011818	2.410875	-.004168	.0054791	76.56449
Stddev	.0014554	.0030568	.002572	.001749	.0013260	.06051
%RSD	.7391606	258.6477	.1066774	41.97466	24.20075	.0790368
#1	.1979191	-.000647	2.412428	-.006066	.0039809	76.62923
#2	.1952339	.004711	2.407906	-.002620	.0059549	76.50935
#3	.1975497	-.000519	2.412290	-.003818	.0065015	76.55490

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.869937	.0051808	.0179408	95.60374	.1045674	.1372258
Stddev	.004529	.0000853	.0001965	.22000	.0013902	.0009559
%RSD	.2421835	1.646419	1.095404	.2301208	1.329494	.6966207
#1	1.875083	.0052731	.0179137	95.85776	.1030082	.1382762
#2	1.868168	.0051049	.0177592	95.47480	.1056778	.1364068
#3	1.866559	.0051644	.0181494	95.47864	.1050163	.1369944

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3866690	213.4005	23.46314	17.69748	.1845434	-.031691
Stddev	.0008519	.1642	.05075	.07610	.0011009	.000058
%RSD	.2203282	.0769514	.2162974	.4299991	.5965355	.1840192
#1	.3876195	213.3671	23.50563	17.61257	.1846578	-.031747
#2	.3859741	213.2555	23.40695	17.72032	.1833898	-.031694
#3	.3864133	213.5788	23.47686	17.75954	.1855826	-.031631

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.371897	.2095768	1.364190	7.213397	F 22.53997	.2169511
Stddev	.276332	.0040916	.010375	.118739	.05413	.0022057
%RSD	20.14236	1.952326	.7604930	1.646083	.2401488	1.016683
#1	1.179611	.2048639	1.375850	7.117059	22.54994	.2194114
#2	1.688560	.2122210	1.355977	7.177079	22.48155	.2162913
#3	1.247520	.2116455	1.360745	7.346053	22.58843	.2151506

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-19 Acquired: 11/20/2024 19:02:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD4 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112130	2.808918	8.689145	.1858973	.9802976	.0906428
Stddev	.0004751	.027748	.009303	.0010700	.0012872	.0004521
%RSD	4.236688	.9878570	.1070669	.5756064	.1313086	.4987470
#1	.0108452	2.778443	8.691210	.1868942	.9792941	.0908565
#2	.0110444	2.815590	8.678983	.1860310	.9798497	.0909483
#3	.0117493	2.832723	8.697243	.1847667	.9817489	.0901234

Elem	Sr4077
Units	ppm
Avg	.3063808
Stddev	.0001901
%RSD	.0620319
#1	.3064862
#2	.3061614
#3	.3064948

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1212.924	33563.85	6846.934	1009.791	1511.388
Stddev	2.623	67.99	11.670	6.069	2.004
%RSD	.2162231	.2025665	.1704381	.6010220	.1325869
#1	1211.535	33581.30	6833.479	1002.867	1509.407
#2	1215.949	33488.83	6854.291	1012.311	1513.414
#3	1211.288	33621.41	6853.033	1014.194	1511.343

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-20 Acquired: 11/20/2024 19:07:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1882459	-.002099	3.727059	-.003004	.0104755	78.98082
Stddev	.0138979	.002832	.008027	.002378	.0039575	.20406
%RSD	7.382820	134.9057	.2153712	79.14916	37.77831	.2583724
#1	.1722391	-.004904	3.719561	-.002995	.0130230	78.76512
#2	.1972428	.000760	3.726088	-.000631	.0124871	79.00654
#3	.1952557	-.002154	3.735527	-.005387	.0059163	79.17081

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.602219	.0056869	.0212607	156.3374	.1450346	.1287917
Stddev	.007296	.0000665	.0000454	.3196	.0009132	.0007230
%RSD	.2803583	1.169253	.2135692	.2044270	.6296666	.5613567
#1	2.596646	.0056609	.0212869	156.0182	.1458688	.1280877
#2	2.610476	.0056373	.0212083	156.6574	.1440589	.1287553
#3	2.599534	.0057625	.0212869	156.3366	.1451761	.1295322

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5508050	219.2771	17.97468	28.08929	.2291015	-.027597
Stddev	.0031788	.8310	.04947	.15384	.0025379	.000190
%RSD	.5771151	.3789896	.2752378	.5476654	1.107753	.6873141
#1	.5490284	218.4793	17.94328	27.93802	.2267577	-.027415
#2	.5544749	219.2140	18.03171	28.08427	.2287501	-.027581
#3	.5489117	220.1378	17.94905	28.24557	.2317968	-.027794

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.873235	.2353783	2.753285	8.154021	F 20.27568	.2288457
Stddev	.129666	.0052527	.015072	.072763	.07100	.0008041
%RSD	6.922056	2.231612	.5474267	.8923542	.3501818	.3513787
#1	1.997346	.2340852	2.736764	8.229927	20.20384	.2292498
#2	1.738648	.2308928	2.766285	8.147262	20.27741	.2279197
#3	1.883711	.2411568	2.756806	8.084873	20.34581	.2293676

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4905-20 Acquired: 11/20/2024 19:07:01 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBHHD5 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085586	3.376905	11.36005	.2573593	1.081203	.0953738
Stddev	.0003194	.022230	.01806	.0009463	.005985	.0009459
%RSD	3.731443	.6582868	.1589474	.3676999	.5535404	.9918205
#1	.0082358	3.356508	11.34024	.2583294	1.074314	.0942832
#2	.0088744	3.373607	11.36435	.2573097	1.084173	.0958668
#3	.0085656	3.400599	11.37557	.2564387	1.085121	.0959713

Elem	Sr4077
Units	ppm
Avg	.3881639
Stddev	.0009922
%RSD	.2556091
#1	.3870273
#2	.3888571
#3	.3886073

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1118.446	31097.58	6411.552	932.9121	1475.419
Stddev	.350	19.04	8.107	3.4010	2.450
%RSD	.0312987	.0612284	.1264371	.3645606	.1660259
#1	1118.451	31084.65	6420.351	936.0790	1477.921
#2	1118.794	31119.45	6409.920	929.3174	1475.311
#3	1118.094	31088.65	6404.386	933.3400	1473.025

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165101BL Acquired: 11/20/2024 19:11:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS101 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002872	-.001093	.0014221	.0053174	-.002251	.0117270	-.002629
Stddev	.004459	.000944	.0027757	.0044493	.001120	.0122965	.000173
%RSD	155.2438	86.32512	195.1893	83.67583	49.74660	104.8569	6.562250
#1	-.007422	-.000559	.0023522	.0004377	-.000972	.0019103	-.002828
#2	-.002685	-.000538	.0036132	.0091495	-.003055	.0077510	-.002522
#3	.001490	-.002183	-.001699	.0063648	-.002727	.0255196	-.002538

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000061	-.000003	.0032770	.0006117	-.000030	.0008631	.0248010
Stddev	.000063	.000030	.0051717	.0006746	.000227	.0011856	.0046820
%RSD	103.8136	990.2605	157.8158	110.2763	766.5037	137.3677	18.87826
#1	-.000011	-.000031	.0052732	.0012773	-.000197	-.000152	.0301953
#2	-.000132	.000028	-.002595	.0006294	.000229	.000576	.0224147
#3	-.000040	-.000007	.007153	-.000072	-.000121	.002166	.0217929

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014157	.0157784	-.000048	-.006826	-.124869	.0017940	-.000946
Stddev	.0001651	.0305695	.000428	.000291	.186094	.0091690	.000316
%RSD	11.66365	193.7425	896.3944	4.259911	149.0313	511.0943	33.42991
#1	.0015821	-.015247	-.000350	-.007114	.070099	-.006492	-.001050
#2	.0012519	.016711	-.000236	-.006533	-.300594	.000230	-.001196
#3	.0014131	.045871	.000442	-.006830	-.144113	.011645	-.000591

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.701205	.0014448	-.006053	-.000128	-.000950	.0029961	-.001154
Stddev	.018403	.0032998	.001032	.000522	.002430	.0006366	.000079
%RSD	2.624501	228.3957	17.05001	406.5589	255.6663	21.24719	6.816764
#1	-.685142	-.002267	-.005698	-.000458	-.003363	.0036891	-.001128
#2	-.697187	.002555	-.005245	-.000400	-.000984	.0024372	-.001243
#3	-.721285	.004046	-.007216	.000473	.001496	.0028621	-.001092

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165101BL Acquired: 11/20/2024 19:11:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: PBS101 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0006516	-.010770	-.000130
Stddev	.0003388	.001155	.000008
%RSD	51.99729	10.72392	6.388808
#1	.0004815	-.011677	-.000127
#2	.0010417	-.009470	-.000124
#3	.0004315	-.011163	-.000140

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	922.7389	25370.08	4977.801	768.9838	1759.592
Stddev	.7472	43.08	18.756	4.5275	.185
%RSD	.0809717	.1698250	.3767895	.5887617	.0105251
#1	923.6016	25405.78	4956.982	769.7434	1759.665
#2	922.3084	25322.22	4983.043	764.1246	1759.729
#3	922.3065	25382.24	4993.379	773.0834	1759.381

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165101BS Acquired: 11/20/2024 19:15:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS101 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0163382	.0536811	.0239773	.0652396	.1111937	.4152506
Stddev	.0004519	.0008748	.0042966	.0045991	.0030658	.0039939
%RSD	2.765961	1.629697	17.91932	7.049540	2.757202	.9617967
#1	.0167564	.0545800	.0273145	.0616509	.1136114	.4188020
#2	.0158588	.0528324	.0254880	.0636439	.1077453	.4109271
#3	.0163995	.0536310	.0191294	.0704240	.1122242	.4160228

Elem	Ba4934	Be2348	Cd2144	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4328781	.0108575	.0106238	11.01732	.0230116	.1032672
Stddev	.0007909	.0000771	.0001668	.01500	.0004014	.0001764
%RSD	.1827059	.7101558	1.569661	.1361492	1.744191	.1708407
#1	.4326091	.0108319	.0107552	11.03421	.0230212	.1031066
#2	.4322568	.0107965	.0106801	11.01222	.0226055	.1032390
#3	.4337684	.0109442	.0104362	11.00554	.0234080	.1034561

Elem	Cu3247	Fe2598	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0500146	.2299836	.0351539	10.52019	.0885558	.0159817
Stddev	.0015122	.0020596	.0005943	.02427	.0006045	.0003811
%RSD	3.023588	.8955428	1.690642	.2306976	.6826239	2.384473
#1	.0504541	.2278415	.0345459	10.53995	.0883407	.0160839
#2	.0512585	.2301598	.0351824	10.49310	.0880882	.0163013
#3	.0483314	.2319494	.0357335	10.52752	.0892384	.0155600

Elem	Na8183	V_2924	Zn2138	K_7698	P_1774	B_2496
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.83233	.1123964	.1292995	9.630563	.0203714	F -.004832
Stddev	.18055	.0054520	.0003650	.173071	.0023937	.001194
%RSD	1.666777	4.850651	.2822613	1.797099	11.75009	24.70424
#1	10.82354	.1159264	.1296998	9.668941	.0222158	-.003468
#2	11.01712	.1061172	.1292134	9.441524	.0176665	-.005689
#3	10.65634	.1151457	.1289852	9.781223	.0212321	-.005337

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: PB165101BS Acquired: 11/20/2024 19:15:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LCS101 Custom ID2: Custom ID3:
Comment:

Elem	Mo2020	S_1820	Si2516	Sn1899	Ti3361	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0204193	.1897256	F .4710202	.0115936	.2115433	F .0198961
Stddev	.0000665	.0015741	.0022739	.0015857	.0003177	.0008420
%RSD	.3257401	.8296848	.4827524	13.67741	.1501812	4.231953
#1	.0203599	.1915325	.4690086	.0118469	.2118941	.0208556
#2	.0204912	.1886511	.4705648	.0098965	.2114609	.0192803
#3	.0204068	.1889932	.4734873	.0130374	.2112750	.0195523

Elem	Sr4077
Units	ppm
Avg	.2193261
Stddev	.0001606
%RSD	.0732194
#1	.2194252
#2	.2191408
#3	.2194123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	917.2928	24997.31	4961.591	760.2507	1689.475
Stddev	.7256	92.09	17.144	3.4894	3.154
%RSD	.0791003	.3683946	.3455396	.4589756	.1866640
#1	916.9258	24933.19	4963.115	758.9143	1687.813
#2	918.1285	24955.92	4977.922	757.6271	1693.112
#3	916.8240	25102.84	4943.736	764.2108	1687.499

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4728-19DLX2 Acquired: 11/20/2024 19:20:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH9F6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0479122	-.004678	.0889968	-.003198	.0033211	16.19897	.1304381
Stddev	.0114325	.001854	.0053468	.003131	.0033545	.06949	.0007251
%RSD	23.86130	39.62789	6.007807	97.89015	101.0050	.4289771	.5559159
#1	.0549311	-.002938	.0832737	-.006808	.0023447	16.18071	.1302621
#2	.0347201	-.006627	.0898529	-.001217	.0005632	16.27576	.1312350
#3	.0540853	-.004468	.0938638	-.001571	.0070555	16.14043	.1298171

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018242	.0023803	665.8389	.0251775	.0264813	.0702379	69.98740
Stddev	.0001337	.0000977	2.7746	.0023502	.0003334	.0006035	.48854
%RSD	7.331717	4.102275	.4167130	9.334338	1.259061	.8592532	.6980397
#1	.0017228	.0024127	664.1384	.0257899	.0262979	.0703343	69.96204
#2	.0017740	.0022706	664.3375	.0225818	.0262799	.0695919	70.48813
#3	.0019757	.0024577	669.0407	.0271608	.0268662	.0707874	69.51204

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.542047	34.66605	.0769366	.0002862	1.303455	.0355125	.3817800
Stddev	.008220	.40757	.0003913	.0002592	.272597	.0030876	.0007031
%RSD	.3233491	1.175699	.5085517	90.56822	20.91346	8.694522	.1841734
#1	2.540792	34.57881	.0765221	.0003381	1.617944	.0327779	.3812461
#2	2.550822	35.11018	.0769880	.0005155	1.157690	.0388610	.3825767
#3	2.534527	34.30917	.0772996	.0000050	1.134730	.0348985	.3815173

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.278271	1.094901	.1240837	-.001527	.9098702	4.877663	-.006985
Stddev	.108843	.001227	.0032979	.001145	.0140171	.015449	.002389
%RSD	1.495456	.1121030	2.657829	74.97643	1.540555	.3167241	34.20348
#1	7.290116	1.095974	.1269760	-.002505	.9192050	4.875761	-.009515
#2	7.380707	1.093563	.1247830	-.001809	.9166539	4.893974	-.004768
#3	7.163989	1.095166	.1204922	-.000268	.8937519	4.863253	-.006672

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4728-19DLX2 Acquired: 11/20/2024 19:20:25 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: MBH9F6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1439527	.0209237	.7549064
Stddev	.0007196	.0011660	.0033432
%RSD	.4999022	5.572839	.4428628
#1	.1439827	.0205347	.7530692
#2	.1432186	.0200019	.7587653
#3	.1446569	.0222345	.7528847

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	899.1457	24654.92	5176.798	742.2257	1393.072
Stddev	2.7632	47.11	17.028	.3301	1.186
%RSD	.3073129	.1910924	.3289330	.0444682	.0851396
#1	902.2502	24600.53	5186.486	742.4855	1394.365
#2	898.2312	24683.30	5157.136	741.8543	1392.035
#3	896.9556	24680.92	5186.772	742.3373	1392.815

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-01DLX2 Acquired: 11/20/2024 19:25:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0543158	-.001576	.0239758	-.005912	.0051969	9.400840	.3951151
Stddev	.0077570	.003742	.0027811	.010699	.0033284	.057714	.0003031
%RSD	14.28124	237.4375	11.59960	180.9749	64.04471	.6139195	.0767178
#1	.0453816	-.004659	.0257177	.004064	.0090369	9.369689	.3954549
#2	.0593365	-.002658	.0254413	-.004588	.0031389	9.467435	.3950179
#3	.0582291	.002588	.0207684	-.017212	.0034151	9.365394	.3948724

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006255	.0018373	717.6273	.0192895	.0197082	.0252877	47.41821
Stddev	.0000845	.0002109	4.2473	.0014601	.0008782	.0002712	.07689
%RSD	13.51453	11.47613	.5918476	7.569463	4.455987	1.072583	.1621579
#1	.0006846	.0016785	713.3112	.0209621	.0189459	.0253946	47.39905
#2	.0006633	.0020766	717.7685	.0186372	.0195103	.0249793	47.50288
#3	.0005287	.0017569	721.8022	.0182693	.0206685	.0254891	47.35271

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.399972	281.3086	.0450195	.0085311	.9591949	.0378908	.0987862
Stddev	.008576	.0627	.0006450	.0003554	.1529111	.0046521	.0010323
%RSD	.2522413	.0222926	1.432634	4.165572	15.94161	12.27765	1.044951
#1	3.401672	281.2949	.0444481	.0089404	1.134086	.0422068	.0994133
#2	3.407571	281.3771	.0457189	.0083515	.850735	.0329631	.0975948
#3	3.390673	281.2539	.0448916	.0083013	.892763	.0385026	.0993504

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4496592	1.192208	.0781129	.0072190	3.440162	2.454621	-.006539
Stddev	.0220413	.008218	.0015056	.0002209	.012807	.009720	.001226
%RSD	4.901782	.6893043	1.927502	3.060231	.3722644	.3960065	18.74591
#1	.4749952	1.188443	.0779207	.0074096	3.449509	2.448897	-.005656
#2	.4348975	1.186546	.0797054	.0072704	3.425565	2.465845	-.007939
#3	.4390848	1.201633	.0767126	.0069769	3.445412	2.449123	-.006022

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-01DLX2 Acquired: 11/20/2024 19:25:02 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1812689	.0204576	.5320789
Stddev	.0040434	.0009290	.0006503
%RSD	2.230638	4.541112	.1222112
#1	.1848187	.0194036	.5314897
#2	.1821206	.0211573	.5327766
#3	.1768675	.0208120	.5319704

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	822.0694	22612.08	4849.490	679.6616	1328.388
Stddev	.2807	61.99	8.326	3.6563	.790
%RSD	.0341418	.2741235	.1716946	.5379660	.0594510
#1	822.1794	22542.80	4858.504	675.5531	1328.009
#2	821.7504	22631.14	4842.087	682.5579	1329.296
#3	822.2785	22662.29	4847.879	680.8738	1327.860

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-02DLX5 Acquired: 11/20/2024 19:29:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0123159	-.005060	.0064188	-.001729	-.002925	3.751140	.0432158
Stddev	.0024791	.005099	.0015788	.010628	.001885	.020819	.0006387
%RSD	20.12942	100.7661	24.59634	614.5673	64.43711	.5549933	1.477951
#1	.0146398	.000385	.0064725	.003769	-.000935	3.727137	.0428074
#2	.0097063	-.005844	.0048138	.005023	-.003158	3.762005	.0439519
#3	.0126017	-.009722	.0079700	-.013980	-.004684	3.764279	.0428882

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002438	.0003213	417.0597	.0080463	.0028426	.0081160	16.42743
Stddev	.0001784	.0002907	.9739	.0006417	.0005901	.0022198	.03680
%RSD	73.14803	90.47160	.2335132	7.974810	20.76037	27.35056	.2240198
#1	.0001437	.0006380	417.1789	.0078912	.0026081	.0060774	16.38520
#2	.0001380	.0000664	416.0317	.0074964	.0024058	.0104809	16.44447
#3	.0004497	.0002597	417.9685	.0087513	.0035140	.0077898	16.45262

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8090799	157.5730	.0144771	.0064995	.9438574	.0181776	.0351510
Stddev	.0020874	.8478	.0006849	.0002966	.1948853	.0017354	.0004583
%RSD	.2579973	.5380293	4.730619	4.563368	20.64775	9.546955	1.303658
#1	.8113104	156.9577	.0149327	.0065660	.8871769	.0180228	.0349099
#2	.8071735	158.5400	.0136895	.0067573	1.160800	.0165248	.0356794
#3	.8087559	157.2213	.0148091	.0061754	.783596	.0199853	.0348636

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.149374	.4715604	.0309554	.0031984	1.585611	.8218987	-.008932
Stddev	.115247	.0005625	.0017908	.0002554	.003377	.0035959	.002573
%RSD	77.15338	.1192883	5.784959	7.986568	.2129953	.4375111	28.80817
#1	-.043437	.4718788	.0300183	.0030268	1.589252	.8260418	-.010248
#2	-.272091	.4709109	.0330203	.0034919	1.585001	.8195889	-.010582
#3	-.132594	.4718916	.0298277	.0030764	1.582581	.8200655	-.005967

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-02DLX5 Acquired: 11/20/2024 19:29:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0727305	.0026310	.3523840
Stddev	.0009185	.0012863	.0001272
%RSD	1.262814	48.89164	.0360933
#1	.0726195	.0022596	.3522373
#2	.0718725	.0040621	.3524641
#3	.0736993	.0015712	.3524505

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	839.5701	22967.79	4824.675	694.1842	1418.380
Stddev	1.3354	11.38	4.870	1.1373	.871
%RSD	.1590540	.0495448	.1009397	.1638284	.0614396
#1	838.0435	22965.79	4823.106	695.3937	1417.950
#2	840.5213	22980.04	4820.782	693.1365	1419.383
#3	840.1456	22957.54	4830.136	694.0224	1417.807

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV038 Acquired: 11/20/2024 19:34:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV038 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.987469	4.708398	24.21681	4.703083	4.762016	404.0450	9.904464
Stddev	.012586	.015683	.06351	.011452	.015820	.5380	.007522
%RSD	.2523557	.3330826	.2622361	.2434988	.3322199	.1331520	.0759407
#1	4.998914	4.724888	24.28480	4.713179	4.764966	404.3375	9.899159
#2	4.973990	4.693671	24.15903	4.690639	4.744928	404.3734	9.913072
#3	4.989502	4.706634	24.20661	4.705430	4.776153	403.4241	9.901160

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4843072	2.428698	390.8928	14.71772	2.440948	14.53313	405.3176
Stddev	.0028053	.004791	.2565	.03767	.001017	.01763	.9962
%RSD	.5792372	.1972708	.0656228	.2559591	.0416524	.1213012	.2457886
#1	.4869117	2.434044	391.0916	14.71629	2.442036	14.54670	406.0159
#2	.4846729	2.424792	390.9836	14.75609	2.440023	14.53949	405.7602
#3	.4813370	2.427258	390.6033	14.68079	2.440785	14.51321	404.1768

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.12738	393.9606	2.421530	1.205656	403.5394	2.435529	13.97523
Stddev	.01689	.8813	.003578	.003773	.5763	.013616	.03803
%RSD	.1195570	.2237132	.1477674	.3129309	.1428174	.5590401	.2720971
#1	14.14027	394.9736	2.425364	1.203131	403.9159	2.425930	13.96776
#2	14.13361	393.3696	2.418280	1.209993	403.8263	2.451112	14.01644
#3	14.10826	393.5386	2.420944	1.203845	402.8759	2.429545	13.94150

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	148.1695	4.878098	5.155812	4.670915	4.969149	5.234834	4.875023
Stddev	.4420	.008645	.031739	.024524	.006417	.030223	.018150
%RSD	.2982784	.1772190	.6155921	.5250274	.1291272	.5773519	.3723032
#1	147.7227	4.868177	5.187740	4.664739	4.961933	5.266770	4.884453
#2	148.6064	4.884012	5.155431	4.650070	4.971303	5.231051	4.854099
#3	148.1793	4.882106	5.124266	4.697936	4.974211	5.206680	4.886516

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV038 Acquired: 11/20/2024 19:34:06 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV038 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.866427	4.983491	4.939552
Stddev	.009013	.002891	.017500
%RSD	.1852123	.0580207	.3542778
#1	4.869929	4.981414	4.927639
#2	4.873164	4.986793	4.959644
#3	4.856189	4.982264	4.931373

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	731.8099	21619.52	4732.220	566.3941	1263.890
Stddev	3.0277	35.47	23.725	.9833	2.214
%RSD	.4137272	.1640760	.5013402	.1735982	.1751906
#1	732.5783	21645.75	4711.698	566.7398	1261.450
#2	734.3793	21579.16	4726.766	565.2847	1265.772
#3	728.4720	21633.65	4758.197	567.1578	1264.447

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB038 Acquired: 11/20/2024 19:38:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB038 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015002	.0021550	.0009920	.0044272	-.001117	.0206118	-.002037
Stddev	.0029399	.0025576	.0024716	.0033156	.001802	.0048548	.000487
%RSD	195.9649	118.6829	249.1494	74.89186	161.2293	23.55367	23.88848
#1	.0021413	.0023988	.0013900	.0026144	.000299	.0258276	-.002596
#2	-.001707	-.000516	.0032405	.0024133	-.000506	.0162246	-.001804
#3	.004067	.004582	-.001654	.0082540	-.003145	.0197832	-.001710

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000019	.0000299	.0239423	.0002182	.0000728	.0007137	.0118387
Stddev	.000035	.0001200	.0153071	.0007653	.0004987	.0022408	.0096747
%RSD	180.8365	401.1963	63.93323	350.6969	685.5185	313.9595	81.72036
#1	-.000030	.0001208	.0416170	.0003039	-.000076	.0032368	.0006802
#2	-.000047	-.000106	.0151966	-.000586	.000629	-.000051	.0169542
#3	.000020	.000075	.0150132	.000937	-.000334	-.001045	.0178817

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005008	-.017069	.0010458	-.006178	.2450535	-.002679	-.000725
Stddev	.0001108	.046449	.0005745	.000167	.2706356	.006526	.000532
%RSD	22.11906	272.1309	54.93457	2.700548	110.4394	243.5994	73.33269
#1	.0004577	-.032094	.0007016	-.005990	.0263093	-.008703	-.000319
#2	.0006266	.035033	.0007268	-.006234	.1611463	-.003589	-.000530
#3	.0004181	-.054145	.0017091	-.006309	.5477049	.004254	-.001327

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.575396	.0005145	.0001839	-.000096	-.006500	.0026070	-.000652
Stddev	.032622	.0028852	.0006013	.000598	.000929	.0004681	.000223
%RSD	5.669472	560.7270	326.9406	620.5676	14.28531	17.95639	34.15995
#1	-.595123	-.002623	.0004371	.000562	-.007487	.0027807	-.000466
#2	-.537742	.003054	-.000503	-.000245	-.005644	.0020768	-.000592
#3	-.593324	.001113	.000617	-.000606	-.006369	.0029634	-.000899

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB038 Acquired: 11/20/2024 19:38:27 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB038 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000348	-.008407	.0000706
Stddev	.001567	.001015	.0000733
%RSD	450.3466	12.07018	103.7946
#1	-.000105	-.009317	.0001246
#2	.001083	-.007313	.0001001
#3	-.002022	-.008589	-.000013

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	921.1218	25135.57	4955.277	759.1988	1756.032
Stddev	4.0581	82.55	28.016	2.9809	7.845
%RSD	.4405621	.3284020	.5653673	.3926318	.4467548
#1	918.4299	25090.60	4931.886	756.7756	1750.106
#2	919.1460	25085.28	4947.621	762.5274	1753.060
#3	925.7894	25230.84	4986.325	758.2935	1764.928

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-03DLX2 Acquired: 11/20/2024 19:43:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0394271	-.001655	.0212392	.0072201	.0030995	6.910969	.0738397
Stddev	.0132385	.002159	.0057815	.0057008	.0030924	.010826	.0003289
%RSD	33.57715	130.4492	27.22083	78.95743	99.77003	.1566430	.4454195
#1	.0408726	-.000080	.0277563	.0017830	.0016704	6.923447	.0734656
#2	.0255252	-.000770	.0167273	.0131523	.0066480	6.904084	.0739702
#3	.0518836	-.004117	.0192339	.0067249	.0009801	6.905376	.0740833

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005889	.0012835	695.7578	.0160384	.0089572	.0300445	37.11975
Stddev	.0001086	.0001184	.8263	.0019572	.0012432	.0015819	.13472
%RSD	18.44225	9.228351	.1187652	12.20314	13.87962	5.265145	.3629275
#1	.0006871	.0014037	695.0653	.0181548	.0097737	.0297691	37.24932
#2	.0004722	.0012798	696.6725	.0142937	.0095713	.0286184	36.98041
#3	.0006073	.0011669	695.5356	.0156668	.0075264	.0317460	37.12953

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.052594	264.9722	.0294230	.0097255	1.055128	.0360701	.0742395
Stddev	.001081	.1328	.0009021	.0002992	.091673	.0119802	.0014965
%RSD	.1027330	.0501343	3.065934	3.076809	8.688298	33.21351	2.015819
#1	1.053653	264.9719	.0304645	.0093971	1.150545	.0465979	.0727770
#2	1.051491	264.8395	.0289180	.0099826	1.047111	.0385779	.0757679
#3	1.052637	265.1052	.0288866	.0097970	.967727	.0230346	.0741736

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2803686	.9733719	.0659075	.0072210	3.795011	1.894785	-.008600
Stddev	.1031873	.0091914	.0014338	.0004087	.004870	.004666	.003773
%RSD	36.80416	.9442870	2.175504	5.660117	.1283306	.2462332	43.87710
#1	.3483317	.9645411	.0675067	.0068683	3.799128	1.899547	-.008817
#2	.1616322	.9828859	.0654789	.0076689	3.796271	1.890222	-.004723
#3	.3311420	.9726887	.0647368	.0071260	3.789635	1.894587	-.012260

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-03DLX2 Acquired: 11/20/2024 19:43:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3440572	.0149167	.5510631
Stddev	.0030506	.0010542	.0014381
%RSD	.8866464	7.066923	.2609720
#1	.3466244	.0137110	.5523300
#2	.3448623	.0156642	.5494999
#3	.3406848	.0153748	.5513594

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	819.5557	22448.20	4821.019	673.3212	1335.783
Stddev	.8525	44.80	12.828	3.8085	3.158
%RSD	.1040184	.1995666	.2660810	.5656335	.2364379
#1	818.5904	22485.15	4834.374	674.6162	1333.066
#2	820.2054	22398.37	4819.891	669.0341	1335.034
#3	819.8712	22461.09	4808.793	676.3134	1339.248

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-04DLX5 Acquired: 11/20/2024 19:47:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0169829	.0004505	.0128400	-.001986	-.001084	4.161713	.0436035
Stddev	.0078967	.0032222	.0032951	.006062	.000981	.001538	.0004234
%RSD	46.49776	715.2772	25.66290	305.1637	90.47541	.0369664	.9710005
#1	.0199810	.0011312	.0159201	.004971	-.000229	4.162117	.0435902
#2	.0080263	.0032780	.0093654	-.004799	-.000868	4.163009	.0431869
#3	.0229415	-.003058	.0132345	-.006131	-.002154	4.160013	.0440333

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002163	.0004731	319.3924	.0080267	.0031067	.0107780	18.08936
Stddev	.0001626	.0001386	.5843	.0017442	.0003263	.0013259	.02509
%RSD	75.17506	29.28674	.1829564	21.73052	10.50240	12.30175	.1386882
#1	.0001043	.0004129	319.5917	.0084396	.0034542	.0119643	18.11731
#2	.0004027	.0003748	318.7345	.0061131	.0030590	.0110230	18.08198
#3	.0001418	.0006316	319.8510	.0095275	.0028069	.0093467	18.06879

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6157300	117.0794	.0156249	.0028585	.8312864	.0175546	.0431625
Stddev	.0022805	.1261	.0007067	.0024029	.2481955	.0072454	.0017622
%RSD	.3703752	.1077023	4.523174	84.06091	29.85680	41.27350	4.082629
#1	.6147351	117.1074	.0148971	.0042082	.5495892	.0195779	.0446268
#2	.6141159	117.1892	.0156691	.0042830	1.017808	.0235732	.0436540
#3	.6183389	116.9417	.0163086	.0000842	.926462	.0095126	.0412068

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.015285	.4596211	.0277660	.0025554	1.398066	1.133349	-.008382
Stddev	.083758	.0017729	.0011959	.0001362	.009102	.007735	.000746
%RSD	547.9849	.3857274	4.307023	5.329970	.6510434	.6825331	8.904007
#1	-.060398	.4587664	.0280291	.0027125	1.389328	1.137359	-.007606
#2	-.066816	.4584374	.0264605	.0024693	1.407493	1.138257	-.008446
#3	.081360	.4616594	.0288084	.0024846	1.397377	1.124432	-.009095

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-04DLX5 Acquired: 11/20/2024 19:47:36 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0813557	.0048209	.2649998
Stddev	.0018233	.0013120	.0003294
%RSD	2.241155	27.21396	.1243071
#1	.0831279	.0056244	.2649465
#2	.0794852	.0055315	.2647002
#3	.0814538	.0033069	.2653526

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	853.2353	23728.65	4848.760	711.3891	1458.310
Stddev	1.5235	793.46	4.450	21.5524	2.690
%RSD	.1785523	3.343875	.0917659	3.029622	.1844771
#1	851.6712	23216.86	4844.873	698.3652	1459.736
#2	853.3200	23326.41	4847.794	699.5356	1455.208
#3	854.7146	24642.67	4853.614	736.2665	1459.988

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05DLX2 Acquired: 11/20/2024 19:52:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0334110	-.005285	.0399202	-.004793	.0050536	10.10665	.1963643
Stddev	.0061261	.006489	.0011066	.004574	.0031536	.01846	.0010357
%RSD	18.33551	122.7922	2.771928	95.44389	62.40261	.1826666	.5274496
#1	.0290920	-.012536	.0410085	-.009270	.0015368	10.08881	.1975242
#2	.0404221	-.000026	.0399558	-.000127	.0059942	10.12568	.1960365
#3	.0307188	-.003292	.0387962	-.004982	.0076299	10.10547	.1955321

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006531	.0014022	596.9144	.0199665	.0105339	.0285717	39.74320
Stddev	.0000042	.0001183	.8627	.0005831	.0004520	.0013950	.01680
%RSD	.6371982	8.436378	.1445278	2.920364	4.290585	4.882518	.0422724
#1	.0006515	.0012701	597.1394	.0193913	.0105593	.0287426	39.72384
#2	.0006500	.0014985	597.6423	.0205571	.0100697	.0298734	39.75191
#3	.0006578	.0014379	595.9615	.0199510	.0109726	.0270991	39.75386

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.110035	176.8060	.0338972	.0052237	.9943499	.0399223	.1028760
Stddev	.000915	.2818	.0004608	.0003964	.2114882	.0048616	.0004994
%RSD	.0824143	.1593714	1.359517	7.588978	21.26899	12.17771	.4853957
#1	1.111008	176.8492	.0336215	.0054976	1.229135	.0451533	.1024641
#2	1.109192	177.0637	.0344292	.0047691	.935130	.0355424	.1034314
#3	1.109905	176.5051	.0336409	.0054043	.818785	.0390713	.1027326

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4692912	1.316965	.0587961	.0048152	4.529999	3.544627	-.004901
Stddev	.1232594	.002684	.0021640	.0001977	.018275	.008164	.001051
%RSD	26.26502	.2038209	3.680478	4.105862	.4034312	.2303315	21.44709
#1	.3301015	1.319919	.0611186	.0049195	4.512685	3.535479	-.005729
#2	.5646262	1.316303	.0568366	.0049389	4.528209	3.547228	-.003719
#3	.5131460	1.314674	.0584331	.0045872	4.549104	3.551174	-.005256

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05DLX2 Acquired: 11/20/2024 19:52:03 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3134832	.0148451	.8530618
Stddev	.0010744	.0014308	.0006276
%RSD	.3427424	9.637952	.0735665
#1	.3122518	.0142708	.8537554
#2	.3139681	.0137907	.8528967
#3	.3142298	.0164737	.8525332

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	837.8978	23150.69	4898.529	691.6945	1366.410
Stddev	1.4851	25.02	5.995	2.6173	1.935
%RSD	.1772417	.1080569	.1223897	.3783924	.1415870
#1	839.5400	23122.28	4891.837	688.7108	1365.771
#2	837.5045	23160.39	4903.411	693.6030	1368.584
#3	836.6489	23169.40	4900.338	692.7696	1364.876

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-06DLX2 Acquired: 11/20/2024 19:56:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5D Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0353008	-.003501	.0410783	.0007961	-.000006	9.553725	.1920680
Stddev	.0028483	.004528	.0019318	.0103611	.004930	.020954	.0015792
%RSD	8.068609	129.3346	4.702818	1301.493	83874.11	.2193240	.8222145
#1	.0360107	-.000340	.0432156	-.002543	.004842	9.529550	.1934237
#2	.0321647	-.008688	.0405629	-.007484	-.005015	9.566667	.1903340
#3	.0377270	-.001475	.0394564	.012415	.000155	9.564957	.1924464

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005741	.0012564	586.6467	.0201573	.0097298	.0269973	38.53673
Stddev	.0000215	.0003388	2.4148	.0009965	.0003159	.0007827	.04620
%RSD	3.750661	26.96938	.4116316	4.943397	3.246568	2.899240	.1198853
#1	.0005986	.0013523	588.1419	.0190146	.0093668	.0279009	38.51232
#2	.0005655	.0015370	583.8608	.0208452	.0098805	.0265267	38.50786
#3	.0005582	.0008799	587.9375	.0206122	.0099421	.0265644	38.59002

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.079989	177.1239	.0324941	.0051341	.9108532	.0359715	.0991319
Stddev	.000574	.7110	.0015395	.0003491	.1200668	.0006064	.0006509
%RSD	.0531236	.4013975	4.737752	6.799279	13.18179	1.685716	.6566156
#1	1.080040	176.3055	.0339374	.0053923	.8196365	.0352856	.0985938
#2	1.079391	177.5901	.0326710	.0052730	1.046881	.0361925	.0989465
#3	1.080535	177.4759	.0308737	.0047370	.866042	.0364364	.0998554

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3661840	1.288105	.0571779	.0043173	4.530176	3.071018	-.006611
Stddev	.0774133	.009369	.0011144	.0005863	.035692	.007286	.000976
%RSD	21.14054	.7273841	1.949044	13.58072	.7878719	.2372631	14.76035
#1	.2774893	1.289517	.0584619	.0036788	4.571094	3.076117	-.005487
#2	.4009005	1.296689	.0564621	.0048315	4.505450	3.062673	-.007247
#3	.4201622	1.278110	.0566097	.0044417	4.513983	3.074265	-.007098

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-06DLX2 Acquired: 11/20/2024 19:56:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5D Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2966030	.0137677	.8321715
Stddev	.0012360	.0012254	.0012159
%RSD	.4167264	8.900848	.1461111
#1	.2964916	.0124028	.8315157
#2	.2978910	.0141268	.8314242
#3	.2954265	.0147734	.8335745

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	838.9429	23243.56	4924.417	696.1733	1368.577
Stddev	4.4663	31.67	4.772	3.6616	6.940
%RSD	.5323769	.1362514	.0968958	.5259539	.5071247
#1	833.8079	23211.84	4928.842	692.8194	1360.642
#2	841.9249	23275.18	4925.046	700.0797	1373.520
#3	841.0960	23243.65	4919.361	695.6208	1371.569

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05LDLX10 Acquired: 11/20/2024 20:01:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5L Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047772	-.004035	.0093735	.0005478	-.002395	1.986322	.0379310
Stddev	.0032188	.004892	.0020939	.0053508	.003836	.007343	.0001760
%RSD	67.37874	121.2301	22.33834	976.7032	160.1763	.3696723	.4640125
#1	.0080267	-.003250	.0069601	.0049216	-.005256	1.978372	.0379136
#2	.0015900	.000417	.0107057	.0021403	-.003893	1.987742	.0381150
#3	.0047148	-.009272	.0104549	-.005418	.001964	1.992850	.0377643

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001293	.0001013	125.1115	.0051456	.0009712	.0067684	8.437275
Stddev	.0001084	.0000375	.1605	.0011217	.0005030	.0009784	.041023
%RSD	83.83131	37.04659	.1282523	21.79959	51.79435	14.45583	.4862067
#1	.0000797	.0001438	124.9673	.0044108	.0004085	.0065000	8.479909
#2	.0000546	.0000727	125.2843	.0045892	.0013774	.0078531	8.398081
#3	.0002536	.0000874	125.0827	.0064367	.0011277	.0059523	8.433836

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2367183	35.92887	.0073117	-.000778	.2300410	.0064337	.0222549
Stddev	.0001997	.21436	.0005840	.000316	.0980769	.0104132	.0004371
%RSD	.0843587	.5966318	7.986708	40.66671	42.63452	161.8526	1.964268
#1	.2364931	35.98878	.0067593	-.000777	.2563582	.0100502	.0220963
#2	.2368739	35.69093	.0072530	-.000462	.1214904	.0145566	.0227493
#3	.2367878	36.10691	.0079228	-.001095	.3122743	-.005306	.0219193

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.531670	.2445493	.0068220	.0003548	.8275312	.6745518	-.006481
Stddev	.099733	.0040307	.0009198	.0001675	.0060905	.0045319	.002290
%RSD	18.75836	1.648220	13.48229	47.20026	.7359827	.6718450	35.32915
#1	-.646040	.2454565	.0074569	.0005450	.8205830	.6794876	-.005268
#2	-.462816	.2401423	.0057673	.0002897	.8300637	.6705782	-.005053
#3	-.486153	.2480490	.0072419	.0002297	.8319468	.6735896	-.009122

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-05LDLX10 Acquired: 11/20/2024 20:01:11 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5L Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0612171	-.005029	.1766555
Stddev	.0014907	.000996	.0002671
%RSD	2.435076	19.80428	.1511762
#1	.0616993	-.004640	.1768574
#2	.0595450	-.004287	.1767563
#3	.0624070	-.006161	.1763527

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	888.4665	24306.71	4963.930	735.2766	1574.963
Stddev	1.8580	32.80	19.510	5.0204	1.292
%RSD	.2091262	.1349331	.3930370	.6827853	.0820566
#1	886.5942	24325.13	4943.200	730.1908	1574.480
#2	888.4953	24326.16	4981.933	735.4100	1576.427
#3	890.3099	24268.85	4966.656	740.2289	1573.982

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-07DLX2 Acquired: 11/20/2024 20:05:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5S Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1013140	.0887983	.0835078	.1662472	.1715114	13.69006	4.054294
Stddev	.0123296	.0028673	.0044205	.0021288	.0020472	.09693	.007776
%RSD	12.16972	3.229020	5.293466	1.280484	1.193599	.7080478	.1917986
#1	.1147910	.0879659	.0796936	.1656046	.1698314	13.79373	4.063081
#2	.0906009	.0919897	.0883525	.1686233	.1709112	13.60168	4.051501
#3	.0985501	.0864393	.0824773	.1645138	.1737916	13.67475	4.048300

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0922094	.0974697	582.7920	.4045139	.9831371	.4646023	40.14164
Stddev	.0002427	.0001747	1.1991	.0032898	.0007681	.0055911	.30959
%RSD	.2631594	.1792363	.2057579	.8132704	.0781236	1.203410	.7712509
#1	.0919887	.0973258	584.1001	.4015990	.9823142	.4702571	40.40964
#2	.0921704	.0976641	581.7448	.4038618	.9832621	.4590772	39.80275
#3	.0924692	.0974191	582.5311	.4080809	.9838350	.4644726	40.21252

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.986194	168.9629	.9986886	.0975140	.8907077	1.012490	.8836496
Stddev	.000414	.9268	.0013527	.0002331	.3581403	.005727	.0017621
%RSD	.0208688	.5485443	.1354468	.2390798	40.20851	.5656077	.1994167
#1	1.986156	169.7575	.9992220	.0974621	.9797139	1.011686	.8845390
#2	1.985800	167.9447	.9971505	.0977688	1.195951	1.007207	.8816200
#3	1.986627	169.1864	.9996932	.0973112	.496458	1.018576	.8847898

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5767504	1.261530	.0578088	.0044356	4.356994	3.826986	-.007265
Stddev	.1334850	.009691	.0009817	.0010216	.003202	.022053	.002021
%RSD	23.14432	.7682074	1.698209	23.03227	.0734927	.5762385	27.81393
#1	.7200235	1.250530	.0574610	.0041462	4.353365	3.803966	-.005780
#2	.4558914	1.265250	.0570483	.0055706	4.358195	3.829068	-.009566
#3	.5543362	1.268810	.0589170	.0035899	4.359422	3.847924	-.006448

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-07DLX2 Acquired: 11/20/2024 20:05:39 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X5S Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3225101	.0127290	.8198842
Stddev	.0090246	.0020987	.0024782
%RSD	2.798246	16.48738	.3022616
#1	.3328889	.0118234	.8223959
#2	.3181301	.0112352	.8174409
#3	.3165114	.0151285	.8198159

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	841.6465	23218.74	4916.992	695.0351	1365.468
Stddev	1.0645	26.46	13.168	2.0568	1.349
%RSD	.1264807	.1139457	.2678119	.2959288	.0988217
#1	840.4875	23188.50	4908.588	692.8080	1363.920
#2	841.8716	23230.13	4932.168	695.4341	1366.399
#3	842.5805	23237.60	4910.219	696.8632	1366.084

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-08DLX5 Acquired: 11/20/2024 20:10:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0101278	-.004625	.0102277	-.005512	-.000009	3.989723	.0352216
Stddev	.0129117	.007502	.0017172	.007824	.003247	.023547	.0002085
%RSD	127.4881	162.1976	16.78933	141.9379	34697.56	.5902031	.5918507
#1	.0027376	-.011579	.0093515	-.014440	-.002500	3.968870	.0353152
#2	.0250367	-.005621	.0122062	-.002248	-.001192	3.985039	.0349827
#3	.0026090	.003325	.0091254	.000151	.003663	4.015261	.0353668

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002235	.0003720	321.1549	.0076456	.0022872	.0109613	13.47843
Stddev	.0001402	.0001094	.4124	.0021829	.0008790	.0025836	.08392
%RSD	62.70848	29.40544	.1284218	28.55177	38.43092	23.57032	.6226195
#1	.0003538	.0003604	320.7213	.0083385	.0029202	.0106281	13.40276
#2	.0000752	.0002689	321.5423	.0093980	.0026579	.0136953	13.46385
#3	.0002416	.0004867	321.2010	.0052003	.0012836	.0085604	13.56869

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5418050	101.0396	.0122250	.0044450	.5401359	.0142447	.0370479
Stddev	.0004026	.3576	.0019814	.0002672	.1787309	.0010742	.0005042
%RSD	.0743020	.3539378	16.20806	6.012293	33.08999	7.541285	1.360879
#1	.5414885	100.6332	.0105091	.0042215	.7417086	.0130740	.0376256
#2	.5416684	101.1793	.0117724	.0047410	.4009950	.0144751	.0366963
#3	.5422581	101.3063	.0143937	.0043724	.4777041	.0151850	.0368219

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.158090	.3582227	.0211853	.0011703	1.064474	.9895723	-.007860
Stddev	.105903	.0065227	.0013789	.0005262	.020111	.0076907	.002096
%RSD	66.98911	1.820856	6.508555	44.96617	1.889306	.7771772	26.66002
#1	-.274937	.3518952	.0201247	.0017368	1.087193	.9848094	-.009332
#2	-.068431	.3578483	.0206873	.0006967	1.057281	.9854628	-.005461
#3	-.130903	.3649245	.0227440	.0010773	1.048950	.9984448	-.008788

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-08DLX5 Acquired: 11/20/2024 20:10:00 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0859850	.0007356	.2863520
Stddev	.0007904	.0012869	.0004390
%RSD	.9192042	174.9345	.1533089
#1	.0850749	.0022189	.2858556
#2	.0864992	.0000719	.2866892
#3	.0863809	-.000084	.2865112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	852.7712	23365.86	4806.292	703.7857	1461.344
Stddev	1.2617	27.23	18.734	2.7519	1.594
%RSD	.1479539	.1165352	.3897713	.3910106	.1090912
#1	852.9896	23343.51	4820.037	706.1601	1460.040
#2	853.9095	23357.90	4813.885	704.4273	1463.122
#3	851.4146	23396.19	4784.954	700.7697	1460.872

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-09DLX5 Acquired: 11/20/2024 20:14:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X7 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046103	-.004566	.0088500	.0001725	-.001797	3.448008	.0308775
Stddev	.0078312	.002939	.0020059	.0031447	.002291	.029570	.0007543
%RSD	169.8637	64.36616	22.66572	1823.127	127.4558	.8576096	2.443039
#1	-.001059	-.001598	.0108095	.0001031	-.002045	3.413991	.0311045
#2	.013546	-.007475	.0089398	-.002937	.000607	3.462458	.0314923
#3	.001344	-.004626	.0068007	.003351	-.003954	3.467576	.0300357

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002603	.0002854	318.9223	.0107466	.0022830	.0065852	14.88869
Stddev	.0001248	.0002852	1.2604	.0005319	.0007491	.0010577	.05784
%RSD	47.95201	99.93908	.3951910	4.949191	32.81238	16.06205	.3885158
#1	.0001880	.0006141	319.9743	.0113578	.0029898	.0054529	14.95273
#2	.0004044	.0001383	319.2673	.0104929	.0023612	.0067549	14.87312
#3	.0001884	.0001038	317.5254	.0103890	.0014978	.0075478	14.84023

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4725428	105.0176	.0125265	.0038931	.3391940	.0129606	.0302270
Stddev	.0016382	.2912	.0006056	.0003959	.2709118	.0035503	.0012365
%RSD	.3466790	.2773191	4.834731	10.17032	79.86925	27.39296	4.090810
#1	.4722052	104.7196	.0130236	.0039287	.6464594	.0095539	.0301941
#2	.4743235	105.0319	.0118520	.0034805	.2363960	.0166389	.0290073
#3	.4710997	105.3015	.0127040	.0042700	.1347267	.0126891	.0314797

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075443	.5104903	.0239165	.0009121	1.447246	1.075232	-.008031
Stddev	.0308063	.0075524	.0009021	.0000053	.000261	.004871	.000827
%RSD	408.3394	1.479432	3.771751	.5864884	.0180062	.4530027	10.29296
#1	-.002905	.5038718	.0229290	.0009168	1.447496	1.077298	-.007163
#2	-.016678	.5088818	.0246973	.0009132	1.447266	1.078729	-.008121
#3	.042216	.5187174	.0241232	.0009063	1.446976	1.069669	-.008808

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-09DLX5 Acquired: 11/20/2024 20:14:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X7 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0778613	.0015086	.2337913
Stddev	.0017913	.0010552	.0002248
%RSD	2.300591	69.94260	.0961469
#1	.0778673	.0007068	.2339334
#2	.0796496	.0027040	.2339084
#3	.0760671	.0011150	.2335322

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	851.8469	23376.31	4845.917	702.2323	1461.274
Stddev	1.7884	32.18	21.165	2.1661	2.338
%RSD	.2099411	.1376458	.4367679	.3084549	.1599978
#1	850.8937	23378.99	4839.716	701.1087	1460.630
#2	853.9099	23407.06	4828.544	704.7293	1463.866
#3	850.7370	23342.87	4869.490	700.8590	1459.325

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-10DLX2 Acquired: 11/20/2024 20:18:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X8 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0165233	-.007920	.0232999	-.002684	-.001007	9.754201	.1452449
Stddev	.0098765	.008291	.0033024	.009574	.001821	.014039	.0011236
%RSD	59.77338	104.6804	14.17332	356.6350	180.9025	.1439285	.7735865
#1	.0191192	.001416	.0202880	-.006328	-.002450	9.768235	.1459802
#2	.0056081	-.010756	.0227805	.008176	.001040	9.754212	.1458031
#3	.0248427	-.014421	.0268312	-.009901	-.001610	9.740157	.1439516

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007045	.0009553	570.7222	.0194603	.0098310	.0307736	32.96450
Stddev	.0001803	.0000236	2.6684	.0009054	.0007784	.0005452	.28803
%RSD	25.59050	2.475917	.4675499	4.652417	7.917284	1.771679	.8737677
#1	.0006808	.0009296	573.5931	.0204397	.0090918	.0308166	33.24233
#2	.0008955	.0009762	570.2557	.0192873	.0106433	.0312961	32.98392
#3	.0005373	.0009599	568.3177	.0186539	.0097579	.0302082	32.66724

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8331085	205.0643	.0295087	.0070118	.9215556	.0322002	.0801275
Stddev	.0039559	1.4560	.0007556	.0005378	.4934645	.0056968	.0006465
%RSD	.4748381	.7100199	2.560507	7.669728	53.54691	17.69187	.8067985
#1	.8374817	206.5413	.0296721	.0066165	.6347649	.0335426	.0808127
#2	.8320644	205.0213	.0286848	.0076242	1.491355	.0371060	.0795284
#3	.8297793	203.6303	.0301692	.0067946	.638547	.0259521	.0800415

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4008476	1.119410	.0524373	.0038846	4.761471	2.205007	-.008574
Stddev	.1371830	.008636	.0017482	.0005454	.018838	.012862	.002260
%RSD	34.22323	.7714945	3.333957	14.03957	.3956333	.5832890	26.35949
#1	.5360343	1.125519	.0542698	.0038094	4.740193	2.210748	-.010717
#2	.4047567	1.109529	.0522543	.0033808	4.776024	2.190275	-.006212
#3	.2617519	1.123181	.0507878	.0044638	4.768194	2.213998	-.008792

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-10DLX2 Acquired: 11/20/2024 20:18:55 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29X8 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2986136	.0135264	.7123211
Stddev	.0022835	.0007037	.0042288
%RSD	.7646885	5.202724	.5936605
#1	.3003481	.0128611	.7159216
#2	.2994662	.0134548	.7133773
#3	.2960265	.0142631	.7076643

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	810.1720	22486.20	4744.706	669.4311	1350.755
Stddev	1.0851	32.63	14.687	3.5310	2.585
%RSD	.1339339	.1451129	.3095484	.5274661	.1913731
#1	811.2580	22504.09	4730.845	673.3702	1352.629
#2	810.1701	22448.54	4760.099	668.3729	1351.831
#3	809.0878	22505.97	4743.174	666.5501	1347.806

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-12DLX2 Acquired: 11/20/2024 20:23:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0396897	-.004896	.0431025	-.001163	.0011142	19.08250	.1516265
Stddev	.0053558	.005003	.0055271	.003233	.0043201	.05293	.0004492
%RSD	13.49406	102.1938	12.82315	277.9170	387.7356	.2773593	.2962542
#1	.0433180	-.007273	.0447048	-.002840	.0060388	19.11893	.1516776
#2	.0422128	-.008267	.0476514	-.003213	-.002037	19.02179	.1520480
#3	.0335384	.000853	.0369513	.002564	-.000659	19.10678	.1511540

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011883	.0018222	518.9437	.0390150	.0222860	.0496190	58.78843
Stddev	.0002651	.0001174	.3271	.0018591	.0011895	.0038190	.13783
%RSD	22.30970	6.440885	.0630248	4.765199	5.337531	7.696577	.2344441
#1	.0013671	.0018103	519.0514	.0389081	.0236113	.0536442	58.80590
#2	.0013142	.0019451	518.5764	.0372115	.0219355	.0491662	58.64270
#3	.0008837	.0017113	519.2034	.0409252	.0213110	.0460466	58.91668

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.245134	184.5078	.0686681	.0028212	1.105763	.0591833	.1306117
Stddev	.000633	.3874	.0011930	.0004279	.362873	.0029197	.0003615
%RSD	.0508529	.2099629	1.737278	15.16598	32.81650	4.933320	.2767465
#1	1.245363	184.8169	.0678996	.0025658	1.503084	.0608033	.1309358
#2	1.245621	184.0732	.0680622	.0033152	.791871	.0558127	.1302219
#3	1.244419	184.6333	.0700424	.0025827	1.022333	.0609338	.1306774

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.194047	1.303648	.0823351	.0134835	11.29355	3.666764	-.005736
Stddev	.071987	.012584	.0008698	.0008068	.02866	.012578	.000848
%RSD	2.253780	.9652705	1.056421	5.983394	.2537991	.3430169	14.78249
#1	3.110924	1.308188	.0820021	.0136821	11.30951	3.671730	-.005007
#2	3.235658	1.289425	.0816810	.0141725	11.26046	3.652461	-.005536
#3	3.235560	1.313332	.0833222	.0125960	11.31068	3.676100	-.006667

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-12DLX2 Acquired: 11/20/2024 20:23:23 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5964323	.0356400	.4733620
Stddev	.0042193	.0011152	.0007333
%RSD	.7074198	3.129218	.1549135
#1	.6011890	.0364063	.4741517
#2	.5931414	.0361531	.4727026
#3	.5949665	.0343605	.4732316

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	831.4745	23089.91	4902.380	689.5812	1360.318
Stddev	2.0098	54.58	11.536	2.2237	3.334
%RSD	.2417210	.2363608	.2353144	.3224701	.2451095
#1	832.7242	23095.00	4909.077	688.7108	1360.201
#2	832.5433	23032.97	4909.004	692.1084	1363.709
#3	829.1561	23141.76	4889.059	687.9243	1357.044

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-13DLX2 Acquired: 11/20/2024 20:27:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y1 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0161410	-.002534	.0235173	.0055742	.0011896	9.020714	.1487539
Stddev	.0089364	.002920	.0059667	.0046955	.0035087	.031730	.0010851
%RSD	55.36482	115.2610	25.37166	84.23753	294.9493	.3517407	.7294826
#1	.0256929	-.002486	.0166629	.0092614	.0035148	9.057296	.1481290
#2	.0079840	-.005478	.0275486	.0071732	.0029004	9.000659	.1481258
#3	.0147461	.000362	.0263404	.0002880	-.002846	9.004188	.1500069

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004040	.0009434	430.2170	.0198495	.0082256	.0264050	29.77067
Stddev	.0001361	.0000509	.4351	.0003888	.0004788	.0020992	.03727
%RSD	33.68997	5.390859	.1011368	1.958928	5.821197	7.950034	.1252032
#1	.0004685	.0009958	430.0280	.0194074	.0077903	.0250842	29.79466
#2	.0002476	.0008942	430.7147	.0200028	.0081481	.0288256	29.78961
#3	.0004957	.0009402	429.9084	.0201383	.0087385	.0253053	29.72773

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6734570	157.6473	.0268989	.0043790	.8346840	.0469518	.0741992
Stddev	.0046578	.6416	.0008653	.0002559	.0935370	.0047336	.0005691
%RSD	.6916185	.4070048	3.216947	5.842586	11.20628	10.08172	.7670299
#1	.6686392	158.3534	.0275445	.0041434	.8317954	.0512693	.0743704
#2	.6779363	157.4886	.0272365	.0043425	.9296319	.0418903	.0746631
#3	.6737955	157.1000	.0259156	.0046511	.7426247	.0476957	.0735641

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3764240	1.195513	.0506968	.0049513	5.507113	3.433355	-.005340
Stddev	.0880734	.005966	.0016513	.0003235	.043310	.010074	.002373
%RSD	23.39739	.4989959	3.257277	6.534553	.7864321	.2934160	44.43967
#1	.2847363	1.202353	.0504807	.0053236	5.546405	3.423526	-.008063
#2	.3841635	1.192796	.0524456	.0047389	5.514260	3.443657	-.003715
#3	.4603723	1.191389	.0491642	.0047913	5.460674	3.432882	-.004242

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-13DLX2 Acquired: 11/20/2024 20:27:50 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y1 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5216459	.0079720	.6735004
Stddev	.0017844	.0010363	.0008843
%RSD	.3420635	12.99983	.1313044
#1	.5235450	.0072761	.6725605
#2	.5213883	.0074769	.6743161
#3	.5200043	.0091630	.6736246

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	825.3193	22884.88	4843.304	683.0080	1380.911
Stddev	1.9668	58.78	8.122	1.6466	5.411
%RSD	.2383103	.2568400	.1676943	.2410845	.3918214
#1	823.2507	22833.86	4850.302	682.0701	1374.785
#2	827.1654	22949.16	4834.398	682.0446	1385.039
#3	825.5418	22871.64	4845.213	684.9093	1382.908

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-14DLX2 Acquired: 11/20/2024 20:32:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y2 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0378235	-.002244	.0242650	-.001189	.0015439	9.324243	.1094955
Stddev	.0046755	.001795	.0021785	.004017	.0008405	.087395	.0010240
%RSD	12.36133	80.00988	8.977777	337.9383	54.44097	.9372850	.9351651
#1	.0396093	-.004060	.0217628	.001776	.0011052	9.320334	.1089783
#2	.0325183	-.000470	.0257396	.000418	.0025129	9.413527	.1106749
#3	.0413429	-.002202	.0252927	-.005761	.0010134	9.238869	.1088334

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005320	.0014214	627.7504	.0212572	.0095910	.0223390	40.22819
Stddev	.0002865	.0001809	1.6003	.0005581	.0000920	.0018275	.42795
%RSD	53.86566	12.72362	.2549266	2.625548	.9593449	8.180758	1.063799
#1	.0002318	.0014501	627.1203	.0218854	.0096076	.0205244	40.15955
#2	.0008026	.0012279	629.5698	.0210677	.0096736	.0223133	40.68630
#3	.0005615	.0015861	626.5611	.0208185	.0094918	.0241792	39.83871

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.156225	230.2299	.0335515	.0077170	.6662326	.0308075	.0937026
Stddev	.010040	2.0503	.0001758	.0000998	.2032000	.0041874	.0007746
%RSD	.8683363	.8905511	.5240279	1.292880	30.49987	13.59207	.8266989
#1	1.152507	229.7451	.0335492	.0078261	.4733822	.0271712	.0937921
#2	1.167594	232.4792	.0333768	.0076942	.8784023	.0298658	.0944286
#3	1.148575	228.4654	.0337285	.0076305	.6469132	.0353855	.0928871

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8942469	1.141699	.0645110	.0081549	3.798415	2.253690	-.006803
Stddev	.1916435	.009336	.0009499	.0009429	.001339	.012078	.002853
%RSD	21.43071	.8177448	1.472544	11.56203	.0352604	.5359259	41.93633
#1	.9220109	1.133013	.0636612	.0074607	3.798819	2.244271	-.003595
#2	1.070494	1.140511	.0643353	.0092284	3.799506	2.267307	-.007760
#3	.690236	1.151572	.0655365	.0077758	3.796920	2.249492	-.009055

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-14DLX2 Acquired: 11/20/2024 20:32:16 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y2 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2336751	.0183694	.4535657
Stddev	.0014514	.0010364	.0042260
%RSD	.6211155	5.642127	.9317170
#1	.2338141	.0188620	.4525279
#2	.2350521	.0190676	.4582139
#3	.2321593	.0171785	.4499553

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	807.3890	22403.64	4749.018	666.9527	1328.341
Stddev	1.6064	60.49	31.565	2.8124	2.671
%RSD	.1989666	.2700101	.6646628	.4216850	.2010741
#1	808.0346	22377.38	4763.936	667.9041	1329.692
#2	808.5722	22360.71	4712.759	663.7879	1330.067
#3	805.5602	22472.82	4770.358	669.1660	1325.265

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-15DLX2 Acquired: 11/20/2024 20:36:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y3 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0499089	-.000101	.0405076	.0026404	.0049097	15.90258	.1462268
Stddev	.0116939	.005225	.0030058	.0035213	.0029610	.04724	.0006579
%RSD	23.43049	5161.781	7.420239	133.3660	60.30882	.2970842	.4499297
#1	.0634109	-.004768	.0406160	.0064745	.0059909	15.95450	.1467232
#2	.0432977	-.001079	.0374492	-.000449	.0071782	15.89112	.1454806
#3	.0430181	.005543	.0434578	.001896	.0015601	15.86212	.1464768

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010822	.0021971	646.5523	.0319136	.0206047	.0463684	59.94610
Stddev	.0000215	.0000751	2.6136	.0015043	.0007969	.0010897	.13313
%RSD	1.989548	3.416377	.4042421	4.713682	3.867448	2.350128	.2220882
#1	.0010574	.0022539	646.7727	.0310498	.0215209	.0473162	59.83521
#2	.0010958	.0021120	649.0488	.0336506	.0200727	.0451778	60.09375
#3	.0010935	.0022254	643.8355	.0310404	.0202204	.0466113	59.90934

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.371195	243.5326	.0608416	.0056987	.9926453	.0510023	.2000059
Stddev	.005474	.3684	.0018937	.0003440	.2648282	.0037966	.0004217
%RSD	.3992342	.1512812	3.112503	6.036348	26.67904	7.443915	.2108433
#1	1.376576	243.7561	.0589741	.0059484	.8553573	.0524467	.1995561
#2	1.365632	243.7344	.0607903	.0053063	1.297928	.0538646	.2000695
#3	1.371376	243.1074	.0627605	.0058415	.824650	.0466955	.2003922

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.300261	1.586837	.0797016	.0097943	6.557928	4.432166	-.009342
Stddev	.041312	.006570	.0024678	.0007277	.015610	.012882	.001564
%RSD	1.795967	.4140064	3.096346	7.430259	.2380347	.2906371	16.74404
#1	2.318919	1.584671	.0820405	.0100653	6.551629	4.419861	-.007746
#2	2.252911	1.594216	.0799419	.0089699	6.575703	4.445556	-.009408
#3	2.328952	1.581624	.0771224	.0103476	6.546451	4.431082	-.010873

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-15DLX2 Acquired: 11/20/2024 20:36:52 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y3 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4242379	.0321124	.4549579
Stddev	.0028272	.0015592	.0011650
%RSD	.6664174	4.855369	.2560688
#1	.4216325	.0305798	.4561909
#2	.4272441	.0336968	.4548071
#3	.4238371	.0320605	.4538756

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	831.2625	22845.18	4857.181	685.1445	1339.407
Stddev	1.5567	23.75	7.177	2.7086	.337
%RSD	.1872677	.1039470	.1477557	.3953379	.0251442
#1	832.5304	22817.76	4849.923	688.0367	1339.243
#2	831.7320	22858.89	4857.346	684.7294	1339.183
#3	829.5251	22858.89	4864.274	682.6674	1339.794

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-16DLX2 Acquired: 11/20/2024 20:41:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y4 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0268033	-.003636	.0260276	-.004647	.0019432	9.445771	.1092878
Stddev	.0016006	.005313	.0019332	.006496	.0018390	.018441	.0015532
%RSD	5.971492	146.1138	7.427554	139.7901	94.63487	.1952316	1.421156
#1	.0266247	-.007166	.0240414	-.003113	.0039460	9.425890	.1083050
#2	.0284856	.002474	.0261382	.000945	.0015531	9.449106	.1110784
#3	.0252995	-.006216	.0279030	-.011773	.0003306	9.462317	.1084800

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004933	.0010260	416.4711	.0195603	.0113417	.0221269	33.46238
Stddev	.0000256	.0000914	.6719	.0005007	.0005598	.0016942	.13023
%RSD	5.186207	8.911269	.1613405	2.559723	4.935970	7.656916	.3891917
#1	.0005117	.0009298	415.9337	.0194701	.0109121	.0235556	33.53690
#2	.0005040	.0010362	417.2245	.0200999	.0111382	.0225700	33.53824
#3	.0004641	.0011118	416.2551	.0191108	.0119748	.0202552	33.31200

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7697396	137.0923	.0321182	.0033878	.9690910	.0433884	.0904228
Stddev	.0032298	.2156	.0006574	.0002027	.0487222	.0048869	.0012881
%RSD	.4195971	.1572992	2.046801	5.984093	5.027621	11.26313	1.424479
#1	.7672569	137.3226	.0315512	.0035142	1.004206	.0398882	.0889475
#2	.7733911	137.0591	.0328388	.0034952	.989600	.0489716	.0909975
#3	.7685709	136.8952	.0319647	.0031540	.913467	.0413053	.0913235

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6833329	1.171695	.0488793	.0069675	5.374875	3.379191	-.004254
Stddev	.1045010	.008488	.0019015	.0004924	.009833	.006857	.003059
%RSD	15.29284	.7244465	3.890241	7.066831	.1829397	.2029231	71.90547
#1	.7992558	1.163529	.0510552	.0070020	5.365452	3.371421	-.002838
#2	.6543863	1.180473	.0480463	.0074418	5.385072	3.384395	-.007765
#3	.5963565	1.171083	.0475365	.0064588	5.374102	3.381758	-.002160

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-16DLX2 Acquired: 11/20/2024 20:41:28 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y4 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4364705	.0100660	.5486917
Stddev	.0030334	.0002763	.0004572
%RSD	.6949779	2.744667	.0833202
#1	.4399694	.0098417	.5483801
#2	.4345803	.0103746	.5492165
#3	.4348619	.0099816	.5484784

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	843.6818	23250.53	4857.762	694.6342	1411.609
Stddev	3.2614	43.18	5.058	1.5257	6.277
%RSD	.3865621	.1857115	.1041307	.2196342	.4446353
#1	847.3442	23200.75	4857.524	695.6511	1417.194
#2	842.6100	23273.12	4852.827	695.3717	1412.816
#3	841.0912	23277.73	4862.935	692.8800	1404.817

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-17DLX2 Acquired: 11/20/2024 20:45:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y5 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0279887	-.005035	.0286565	.0027699	.0038264	10.25861	.1189267
Stddev	.0036761	.003229	.0025775	.0064313	.0014385	.00703	.0007434
%RSD	13.13417	64.13627	8.994555	232.1874	37.59407	.0685689	.6251326
#1	.0240469	-.002936	.0275270	.0049272	.0051977	10.25474	.1187884
#2	.0313235	-.003415	.0316060	-.004463	.0039526	10.26673	.1197296
#3	.0285956	-.008753	.0268366	.007845	.0023290	10.25437	.1182622

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006269	.0015399	454.4135	.0256519	.0108728	.0251816	37.29225
Stddev	.0000867	.0000628	.5420	.0017935	.0008593	.0026873	.03648
%RSD	13.83480	4.080798	.1192752	6.991852	7.902910	10.67170	.0978242
#1	.0005367	.0015961	453.8314	.0277043	.0118378	.0251220	37.32046
#2	.0007097	.0014720	454.9037	.0248659	.0105901	.0278982	37.30523
#3	.0006344	.0015517	454.5055	.0243856	.0101905	.0225246	37.25105

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.031295	154.5540	.0341014	.0037097	1.077130	.0349340	.1530033
Stddev	.003581	.0579	.0004040	.0002176	.203446	.0053346	.0010078
%RSD	.3472086	.0374630	1.184838	5.864289	18.88778	15.27045	.6586620
#1	1.027451	154.5727	.0342475	.0038217	.889656	.0380273	.1530542
#2	1.031899	154.4890	.0336446	.0038485	1.048268	.0287742	.1519710
#3	1.034536	154.6002	.0344121	.0034590	1.293465	.0380005	.1539846

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6213827	1.525937	.0502352	.0047965	5.380257	3.378053	-.004585
Stddev	.0609550	.002352	.0013556	.0001632	.019820	.016737	.002423
%RSD	9.809575	.1541426	2.698584	3.401386	.3683862	.4954729	52.85751
#1	.6808238	1.524658	.0494992	.0046328	5.359618	3.378827	-.007099
#2	.6243053	1.528652	.0517996	.0047976	5.399141	3.360942	-.004392
#3	.5590190	1.524502	.0494067	.0049591	5.382011	3.394390	-.002264

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-17DLX2 Acquired: 11/20/2024 20:45:56 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y5 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5305011	.0120162	.5038293
Stddev	.0021803	.0006244	.0008086
%RSD	.4109830	5.196459	.1604992
#1	.5329745	.0125982	.5030111
#2	.5288578	.0113566	.5046280
#3	.5296711	.0120939	.5038488

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	845.7252	23327.63	4900.103	699.1642	1400.304
Stddev	1.1820	84.58	3.855	3.5531	3.200
%RSD	.1397587	.3625846	.0786620	.5081916	.2285511
#1	844.4831	23305.10	4895.706	699.2461	1398.833
#2	845.8563	23256.59	4902.896	695.5709	1398.104
#3	846.8361	23421.19	4901.707	702.6757	1403.976

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-18DLX2 Acquired: 11/20/2024 20:50:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y9 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0250824	-.001992	.0255420	-.000108	.0012159	7.672269	.0818095
Stddev	.0046216	.003247	.0010110	.006832	.0017734	.022959	.0005260
%RSD	18.42580	162.9909	3.958085	6339.721	145.8536	.2992513	.6429805
#1	.0297281	-.000810	.0260461	-.003057	.0004078	7.676654	.0820095
#2	.0250339	.000498	.0262017	-.004970	.0032493	7.692719	.0822061
#3	.0204853	-.005665	.0243781	.007704	-.000010	7.647433	.0812128

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005372	.0008944	622.8628	.0181421	.0077418	.0186047	32.16176
Stddev	.0000126	.0001183	4.0914	.0010667	.0001298	.0022766	.15949
%RSD	2.351390	13.23064	.6568665	5.879498	1.676091	12.23695	.4959001
#1	.0005286	.0007581	618.8401	.0169651	.0077545	.0197310	32.14108
#2	.0005313	.0009707	622.7288	.0184164	.0078647	.0200987	32.33058
#3	.0005517	.0009545	627.0195	.0190449	.0076061	.0159845	32.01362

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9582306	227.9034	.0269526	.0076916	1.159194	.0361869	.0689383
Stddev	.0036759	.8483	.0012476	.0006166	.345654	.0043005	.0002909
%RSD	.3836122	.3722407	4.628808	8.016297	29.81849	11.88419	.4220064
#1	.9539874	227.9210	.0263698	.0072909	.762910	.0321543	.0686237
#2	.9604434	228.7428	.0283849	.0084016	1.316148	.0407128	.0691976
#3	.9602611	227.0464	.0261030	.0073824	1.398522	.0356936	.0689936

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4015423	1.086004	.0537436	.0031928	4.028090	2.572616	-.004427
Stddev	.1130089	.023404	.0031532	.0002891	.057507	.004028	.003858
%RSD	28.14371	2.155028	5.867100	9.055348	1.427650	.1565883	87.13872
#1	.3009617	1.078671	.0501417	.0030724	3.992291	2.568143	-.004754
#2	.5238303	1.112197	.0560054	.0035227	4.094424	2.575957	-.008111
#3	.3798350	1.067145	.0550836	.0029833	3.997554	2.573748	-.000416

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-18DLX2 Acquired: 11/20/2024 20:50:22 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y9 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4273941	.0135433	.4550050
Stddev	.0019635	.0009710	.0015778
%RSD	.4594046	7.169492	.3467595
#1	.4251396	.0124236	.4539852
#2	.4283139	.0140540	.4568223
#3	.4287289	.0141525	.4542074

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	817.6856	22652.27	4838.712	675.1731	1341.241
Stddev	6.7840	62.83	7.266	1.3268	9.941
%RSD	.8296566	.2773887	.1501599	.1965164	.7411762
#1	823.1483	22719.09	4845.515	676.3753	1348.698
#2	810.0920	22594.38	4831.058	673.7495	1329.955
#3	819.8164	22643.33	4839.563	675.3944	1345.069

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-19DLX2 Acquired: 11/20/2024 20:54:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Z0 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0352411	-.003696	.0140771	-.003322	-.000961	7.686756	.1275722
Stddev	.0031570	.008334	.0033775	.004473	.000120	.042307	.0005624
%RSD	8.958185	225.4811	23.99304	134.6532	12.53823	.5503892	.4408696
#1	.0317152	-.010704	.0144265	-.004551	-.000852	7.729169	.1280889
#2	.0378056	-.005905	.0105384	.001637	-.001090	7.686542	.1269731
#3	.0362025	.005520	.0172663	-.007053	-.000940	7.644556	.1276545

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004328	.0009782	714.1529	.0186401	.0085325	.0164492	32.63885
Stddev	.0000886	.0003765	1.9768	.0009830	.0010546	.0014350	.06451
%RSD	20.48134	38.48346	.2767997	5.273526	12.35935	8.723996	.1976431
#1	.0005146	.0010531	711.8937	.0196487	.0097464	.0163292	32.70397
#2	.0004453	.0005699	715.5646	.0176849	.0080096	.0150779	32.63760
#3	.0003386	.0013116	715.0005	.0185867	.0078417	.0179405	32.57497

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.206926	265.8994	.0295683	.0089616	1.319585	.0310195	.0677986
Stddev	.004763	.7155	.0005524	.0005263	.217157	.0056488	.0011106
%RSD	.3946746	.2690802	1.868274	5.872681	16.45642	18.21043	1.638085
#1	1.201518	266.6779	.0299105	.0095686	1.072776	.0254978	.0688584
#2	1.210502	265.2706	.0289310	.0086822	1.481340	.0367873	.0666434
#3	1.208757	265.7497	.0298635	.0086338	1.404640	.0307733	.0678940

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3047835	.8194713	.0567840	.0031505	3.840960	2.469800	-.007979
Stddev	.0318294	.0048462	.0002735	.0006034	.019269	.007994	.001603
%RSD	10.44328	.5913783	.4817176	19.15276	.5016717	.3236872	20.08597
#1	.3230552	.8170802	.0569432	.0036232	3.845293	2.464572	-.008486
#2	.2680303	.8162853	.0564681	.0033575	3.857694	2.465826	-.006184
#3	.3232650	.8250483	.0569405	.0024709	3.819894	2.479003	-.009268

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-19DLX2 Acquired: 11/20/2024 20:54:57 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Z0 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2188800	.0169332	.5875564
Stddev	.0014538	.0010361	.0000576
%RSD	.6642104	6.118667	.0097963
#1	.2192664	.0179084	.5874923
#2	.2201016	.0158454	.5876037
#3	.2172720	.0170457	.5875732

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	818.7427	22608.98	4843.946	677.4182	1323.355
Stddev	2.1315	31.00	9.791	.3740	.889
%RSD	.2603442	.1371084	.2021229	.0552086	.0671758
#1	819.4446	22598.01	4849.871	677.0729	1322.892
#2	820.4349	22584.95	4849.322	677.8155	1324.380
#3	816.3488	22643.97	4832.645	677.3662	1322.793

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-20DLX2 Acquired: 11/20/2024 20:59:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y6 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0610663	-.005058	.0308044	-.011667	.0038823	13.31960	.1318433
Stddev	.0174040	.002592	.0014145	.008317	.0030871	.01491	.0008909
%RSD	28.50011	51.24236	4.591745	71.28432	79.51762	.1119352	.6757545
#1	.0525299	-.003296	.0301734	-.021266	.0055116	13.33675	.1311975
#2	.0810904	-.003844	.0324245	-.006602	.0058134	13.30974	.1328597
#3	.0495788	-.008034	.0298152	-.007134	.0003219	13.31230	.1314726

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008154	.0020088	764.6338	.0219023	.0175382	.0363548	55.25708
Stddev	.0000601	.0002924	6.2459	.0019575	.0006556	.0015248	.29482
%RSD	7.374551	14.55839	.8168439	8.937323	3.738067	4.194148	.5335463
#1	.0007617	.0017522	763.0808	.0204068	.0182305	.0379315	55.39958
#2	.0008042	.0019470	759.3109	.0211824	.0174574	.0362451	54.91808
#3	.0008804	.0023272	771.5096	.0241178	.0169268	.0348879	55.45357

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.191578	264.0066	.0472976	.0089106	.5968030	.0467454	.1188198
Stddev	.001483	.6653	.0010883	.0004472	.0753136	.0049501	.0006331
%RSD	.1244957	.2519911	2.300926	5.018274	12.61950	10.58940	.5328164
#1	1.189880	264.5226	.0460861	.0089639	.5319681	.0462267	.1182377
#2	1.192232	263.2558	.0481923	.0093287	.5790263	.0519344	.1187278
#3	1.192621	264.2415	.0476144	.0084392	.6794147	.0420751	.1194938

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.202401	1.250071	.0846034	.0133607	10.56511	3.564874	-.007678
Stddev	.070155	.010239	.0016285	.0003083	.04773	.028403	.002018
%RSD	5.834613	.8190735	1.924854	2.307892	.4518156	.7967322	26.27993
#1	1.227250	1.261297	.0862886	.0130451	10.52635	3.597047	-.005888
#2	1.256751	1.241246	.0830383	.0136613	10.55056	3.543276	-.007281
#3	1.123204	1.247670	.0844834	.0133755	10.61843	3.554298	-.009865

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-20DLX2 Acquired: 11/20/2024 20:59:33 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E29Y6 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2007180	.0338012	.9305643
Stddev	.0005203	.0013480	.0006683
%RSD	.2592195	3.987967	.0718157
#1	.2006522	.0323748	.9299287
#2	.2002337	.0350539	.9305030
#3	.2012681	.0339747	.9312611

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	812.8986	22336.54	4792.515	663.6991	1316.876
Stddev	.8959	45.06	21.929	3.5116	.752
%RSD	.1102129	.2017107	.4575577	.5290953	.0570822
#1	813.1592	22359.21	4769.836	665.7679	1317.718
#2	813.6353	22284.66	4813.607	665.6849	1316.274
#3	811.9013	22365.77	4794.102	659.6446	1316.637

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-22DLX2 Acquired: 11/20/2024 21:04:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E2A11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0283958	-.002924	.0376859	.0004060	.0004821	8.920426	.0933524
Stddev	.0084999	.001405	.0006732	.0108529	.0028335	.049268	.0004760
%RSD	29.93384	48.03966	1.786287	2673.183	587.7575	.5523091	.5099309
#1	.0358418	-.002875	.0381630	-.000821	.0024182	8.906530	.0928028
#2	.0191350	-.001545	.0369159	-.009781	.0017981	8.975150	.0936330
#3	.0302105	-.004353	.0379788	.011820	-.002770	8.879598	.0936215

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005208	.0010991	508.6702	.0182290	.0100776	.0265661	31.26944
Stddev	.0000498	.0000872	1.0025	.0007887	.0008914	.0012020	.13666
%RSD	9.565188	7.933866	.1970771	4.326463	8.845435	4.524511	.4370253
#1	.0004679	.0010890	508.1411	.0177395	.0101485	.0272149	31.12706
#2	.0005279	.0011909	509.8263	.0191388	.0109315	.0273043	31.39955
#3	.0005667	.0010174	508.0431	.0178088	.0091529	.0251791	31.28171

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8197422	199.9784	.0313452	.0062884	.9599150	.0351122	.1124396
Stddev	.0032710	.5053	.0001770	.0007634	.2094835	.0087488	.0006301
%RSD	.3990333	.2526719	.5647120	12.13943	21.82313	24.91668	.5604209
#1	.8206367	199.4052	.0315315	.0062652	1.201799	.0253213	.1131100
#2	.8224729	200.3596	.0311793	.0070630	.840494	.0378524	.1118595
#3	.8161170	200.1703	.0313248	.0055368	.837452	.0421628	.1123492

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7309118	1.023075	.0541872	.0082765	5.859160	3.494194	-.002926
Stddev	.0472348	.007147	.0013779	.0002512	.016098	.011527	.004205
%RSD	6.462448	.6985845	2.542793	3.034603	.2747448	.3298892	143.7115
#1	.7591396	1.014943	.0557124	.0080967	5.843553	3.483513	.001761
#2	.7572147	1.028357	.0530322	.0081692	5.858219	3.506413	-.006368
#3	.6763811	1.025926	.0538172	.0085634	5.875707	3.492656	-.004171

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: P4879-22DLX2 Acquired: 11/20/2024 21:04:10 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: E2A11 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3236909	.0124178	.5451968
Stddev	.0015279	.0010883	.0006538
%RSD	.4720110	8.764355	.1199194
#1	.3224684	.0112955	.5448482
#2	.3254037	.0134687	.5459511
#3	.3232007	.0124891	.5447912

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	828.4980	22788.32	4786.233	682.5766	1377.906
Stddev	.1681	78.19	23.104	1.8975	3.475
%RSD	.0202859	.3431326	.4827271	.2779910	.2521696
#1	828.3105	22767.68	4786.493	683.6179	1381.515
#2	828.6352	22722.51	4762.999	680.3864	1374.584
#3	828.5481	22874.76	4809.206	683.7253	1377.619

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV039 Acquired: 11/20/2024 21:08:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV039 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.925211	4.697470	23.97656	4.697705	4.745220	403.3417	9.887761
Stddev	.022796	.019480	.05445	.012105	.015944	.5913	.011565
%RSD	.4628532	.4146985	.2271103	.2576695	.3360117	.1465969	.1169657
#1	4.907141	4.690772	23.96296	4.697336	4.751369	403.7222	9.901025
#2	4.917669	4.682223	23.93020	4.709989	4.757175	402.6605	9.882478
#3	4.950823	4.719416	24.03652	4.685789	4.727117	403.6423	9.879781

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4863955	2.400688	388.2131	14.69529	2.419935	14.54600	402.7442
Stddev	.0012088	.005627	.3134	.02471	.003707	.01770	.7590
%RSD	.2485137	.2343849	.0807385	.1681805	.1532059	.1216601	.1884568
#1	.4857571	2.398617	388.5149	14.72376	2.417400	14.55229	403.5416
#2	.4856398	2.396391	388.2353	14.67937	2.418215	14.52602	402.0305
#3	.4877896	2.407057	387.8892	14.68274	2.424190	14.55970	402.6604

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.11036	391.2106	2.397925	1.203735	401.3726	2.427846	13.91407
Stddev	.02115	.2422	.006541	.004756	1.8924	.008708	.07088
%RSD	.1498657	.0619115	.2727794	.3950783	.4714865	.3586724	.5094476
#1	14.13473	391.4812	2.395776	1.207946	403.0064	2.419327	13.83451
#2	14.09685	391.1366	2.392729	1.204681	399.2990	2.427478	13.93720
#3	14.09949	391.0141	2.405270	1.198577	401.8123	2.436732	13.97050

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	148.0806	4.839815	5.162743	4.662162	4.941800	5.244330	4.829709
Stddev	.1892	.010369	.019263	.002481	.015226	.017570	.004831
%RSD	.1277476	.2142537	.3731233	.0532104	.3081040	.3350353	.1000172
#1	148.0506	4.832037	5.147027	4.660015	4.940298	5.224536	4.831423
#2	147.9082	4.851588	5.156969	4.664877	4.927380	5.258083	4.824256
#3	148.2829	4.835820	5.184233	4.661593	4.957721	5.250371	4.833450

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCV039 Acquired: 11/20/2024 21:08:38 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV039 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.842366	4.982855	4.937399
Stddev	.010691	.007738	.036080
%RSD	.2207870	.1552913	.7307572
#1	4.841534	4.990676	4.977234
#2	4.832115	4.975203	4.928049
#3	4.853449	4.982687	4.906914

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	729.9361	21564.83	4697.830	565.3504	1267.744
Stddev	1.8308	66.79	3.458	1.9828	1.591
%RSD	.2508211	.3097296	.0736027	.3507196	.1255026
#1	730.2344	21490.78	4697.141	567.6115	1269.320
#2	727.9744	21583.19	4694.768	563.9083	1267.773
#3	731.5995	21620.52	4701.580	564.5314	1266.138

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB039 Acquired: 11/20/2024 21:12:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB039 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004269	.0003927	.0005281	-.000302	-.001317	.0193381	-.001913
Stddev	.002910	.0012381	.0039501	.004309	.000350	.0054750	.000191
%RSD	68.17208	315.2636	748.0019	1429.075	26.61489	28.31219	9.994442
#1	-.002977	-.000999	.0050144	.004608	-.001164	.0249451	-.002064
#2	-.002228	.000807	-.002428	-.002057	-.001717	.0140053	-.001698
#3	-.007601	.001370	-.001003	-.003455	-.001068	.0190640	-.001977

Elem	Be2348	Cd2144	Ca3736	Cr2677	Co2286	Cu3247	Fe2598
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000027	-.000005	.0057652	-.000411	-.000261	.0003020	.0287967
Stddev	.000076	.000062	.0056447	.000261	.000177	.0004538	.0090219
%RSD	282.6785	1141.558	97.91096	63.54222	67.79781	150.2416	31.32969
#1	-.000094	-.000061	.0121542	-.000588	-.000261	-.000091	.0189142
#2	.000056	.000061	.0036882	-.000535	-.000084	.000198	.0308836
#3	-.000043	-.000017	.0014532	-.000111	-.000437	.000799	.0365923

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na8183	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008500	.0040929	.0003648	-.006553	.3629897	.0026342	-.000814
Stddev	.0004514	.0255354	.0005068	.000440	.3175580	.0028000	.000417
%RSD	53.10000	623.8900	138.9033	6.707061	87.48403	106.2950	51.24318
#1	.0012938	-.023574	-.000027	-.006879	.3284886	.0001521	-.000334
#2	.0008649	.026756	.000937	-.006053	.6963896	.0020810	-.001015
#3	.0003914	.009096	.000184	-.006727	.0640910	.0056696	-.001092

Elem	K_7698	P_1774	B_2496	Mo2020	S_1820	Si2516	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.576407	-.002493	-.000254	.0002483	-.002538	.0022459	.0002108
Stddev	.098611	.002350	.001202	.0002191	.004556	.0002323	.0003704
%RSD	17.10787	94.25749	472.3684	88.24249	179.5250	10.34289	175.7644
#1	-.550438	-.004239	-.001264	.0002923	-.002578	.0024090	.0000995
#2	-.685404	.000179	.001075	.0004422	-.007073	.0019800	.0006241
#3	-.493380	-.003419	-.000575	.0000106	.002038	.0023488	-.000091

Reviewed By:Mohan
On:11/21/2024 7:25:19 AM
Inst Id :P5

Sample Name: CCB039 Acquired: 11/20/2024 21:12:59 Type: Unk
Method: SFAM01.1 INSTRUMENT P5 WITH 6 POINT ICAL(v752) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB039 Custom ID2: Custom ID3:
Comment:

Elem	Ti3361	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000581	-.008438	.0000413
Stddev	.000789	.002186	.0000763
%RSD	135.8157	25.90429	184.9571
#1	-.001429	-.008335	.0001154
#2	.000133	-.010673	-.000037
#3	-.000448	-.006305	.000046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	918.5829	25131.00	4920.886	760.6432	1758.132
Stddev	2.2703	76.92	12.217	5.6425	5.115
%RSD	.2471547	.3060710	.2482670	.7418014	.2909130
#1	919.6312	25077.46	4916.711	754.1600	1763.095
#2	915.9779	25096.40	4911.304	763.3244	1752.878
#3	920.1397	25219.14	4934.643	764.4451	1758.423

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Prep Standard - Chemical Standard Summary

Order ID : P4879

Test : Metals CLP12

Prepbatch ID : PB165106,

Sequence ID/Qc Batch ID: LB133543,

Standard ID :
MP83122,MP83134,MP83136,MP83137,MP83138,MP83139,MP83140,MP83141,MP83142,MP83143,MP83144,MP831
45,MP83146,MP83147,MP83148,MP83149,

Chemical ID :
M5130,M5218,M5223,M5289,M5295,M5296,M5390,M5395,M5429,M5476,M5498,M5513,M5515,M5519,M5634,M5658
,M5698,M5751,M5768,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5816,M5817,M5818,M5819,M5820,M587
5,M5960,M5962,M5970,M5976,M5978,M5982,M5984,M5985,M5990,M5999,M6021,M6023,M6025,M6028,M6030,M60
33,M6111,M6116,M6117,M6118,M6120,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
169	1:1HNO3	MP83122	11/07/2024	12/06/2024	Janvi Patel	None	None	Sarabjit Jaswal 11/07/2024

FROM 1000.00000ml of M6116 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83134	10/30/2024	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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2480	ICP AES STD 6 ISM01.3	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

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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1005	ICPAES ISM01.2(S4)	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

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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1008	ICPAES ISM01.2(S2)	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

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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1003	ICPAES ISM01.2 S1	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

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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP83144	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 25.00000ml of M5130 + 200.00000ml of MP83134 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
905	ICP AES ICSAB SOLN	MP83145	10/30/2024	11/30/2024	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

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1119	ICPAES ISM01.2(CCV)	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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
921	ICPAES SPIKE SOL#6	MP83147	10/30/2024	11/30/2024	Kareem Khairalla	None	None	Mohan Bera 11/08/2024

FROM 2.50000ml of M5962 + 50.00000ml of M5990 + 50.00000ml of M5999 + 147.50000ml of MP83134 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
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 #
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 #
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.	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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	08/07/2024 / jaswal	09/18/2022 / bin	M5390

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	01/30/2024 / bin	09/19/2022 / bin	M5395

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57138 / Sr, 10000 PPM, 125 ml	082922	08/09/2025	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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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	092122	09/21/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5515

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	02/03/2025	04/18/2024 / jaswal	08/03/2022 / Al-Terek	M5634

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	102623	10/26/2026	04/18/2024 / jaswal	10/27/2023 / jaswal	M5698

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	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.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/03/2024 / kareem	06/11/2024 / kareem	M5960

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5976

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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

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

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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.	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

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22F0762009	05/09/2027	11/04/2024 / Eman	09/29/2024 / Janvi	M6111

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24B1362001	05/03/2025	11/04/2024 / Janvi	09/29/2024 / Eman	M6116

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24B1362001	05/06/2025	11/06/2024 / Janvi	09/29/2024 / Eman	M6117

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22E1662006	05/09/2025	11/09/2024 / Janvi	10/09/2024 / Janvi	M6118

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	23I0662003	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6120

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-SPK-5
Lot Number:	V2-MEB742037
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	100 µg/mL ea: Antimony,
	50 µg/mL ea: Selenium, Cadmium, Thallium,
	40 µg/mL ea: Arsenic,
	20 µg/mL ea: Lead

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	100.0 ± 0.7 µg/mL	Arsenic, As	40.00 ± 0.26 µg/mL
Cadmium, Cd	49.99 ± 0.22 µg/mL	Lead, Pb	19.99 ± 0.09 µg/mL
Selenium, Se	50.00 ± 0.23 µg/mL	Thallium, Tl	50.00 ± 0.22 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R 8/5/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

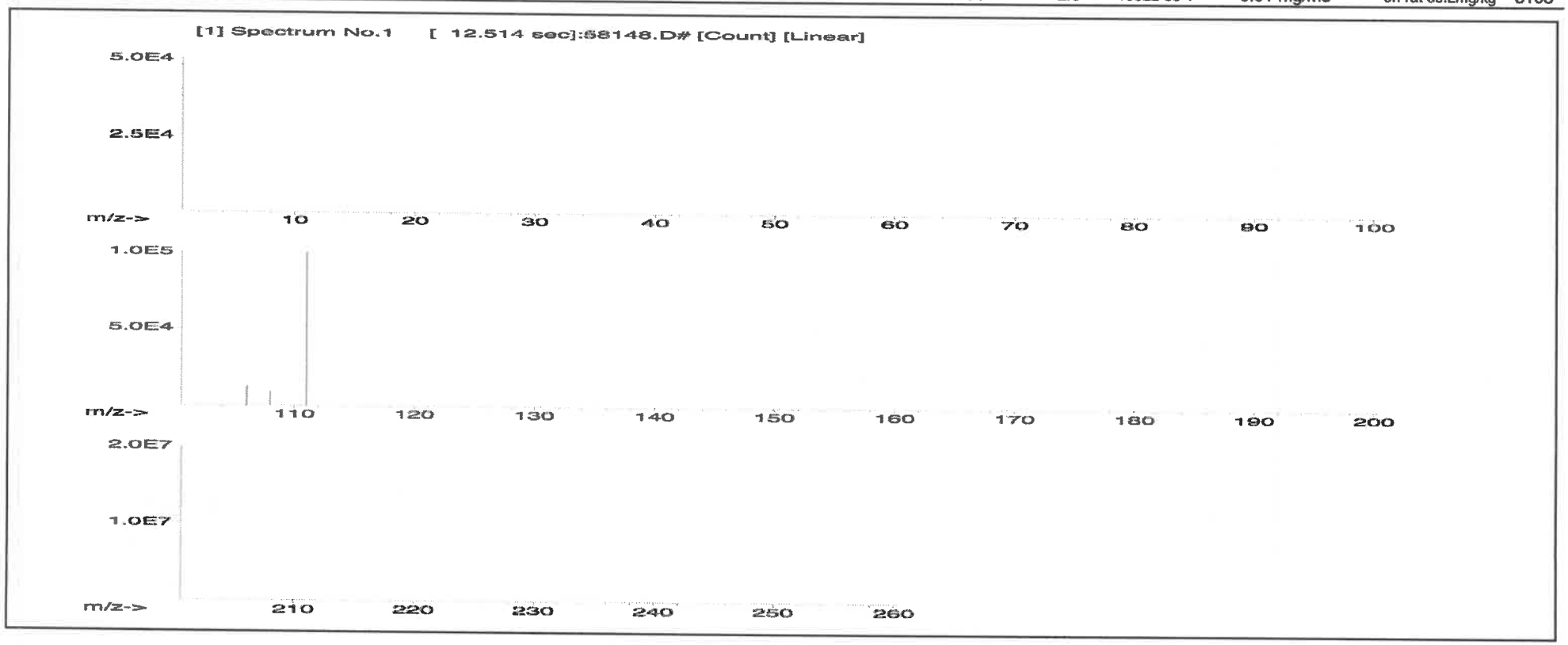
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5296 OP: 09/19/2022 BH

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
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-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

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u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

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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

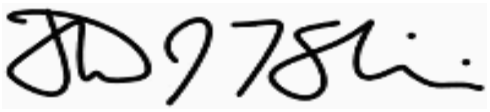
- Sealed TCT Bag Open Date: _____

- 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

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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:

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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

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u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

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- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

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- 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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

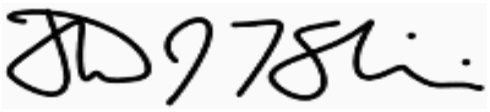
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

R: 8/5/24

CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

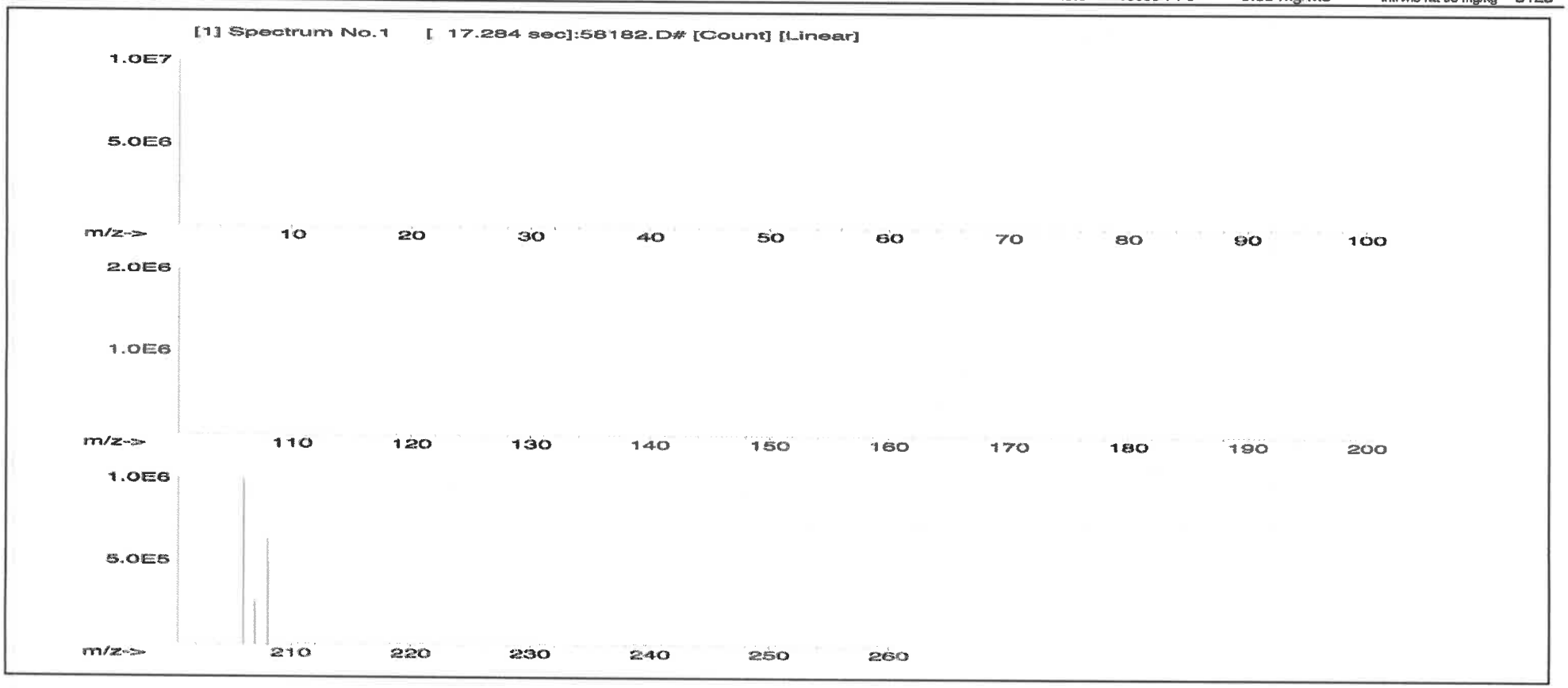
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546		Nitric Acid
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 7 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 02, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M5289 R: 07/12/22 (BH)

Certified Reference Material CRM

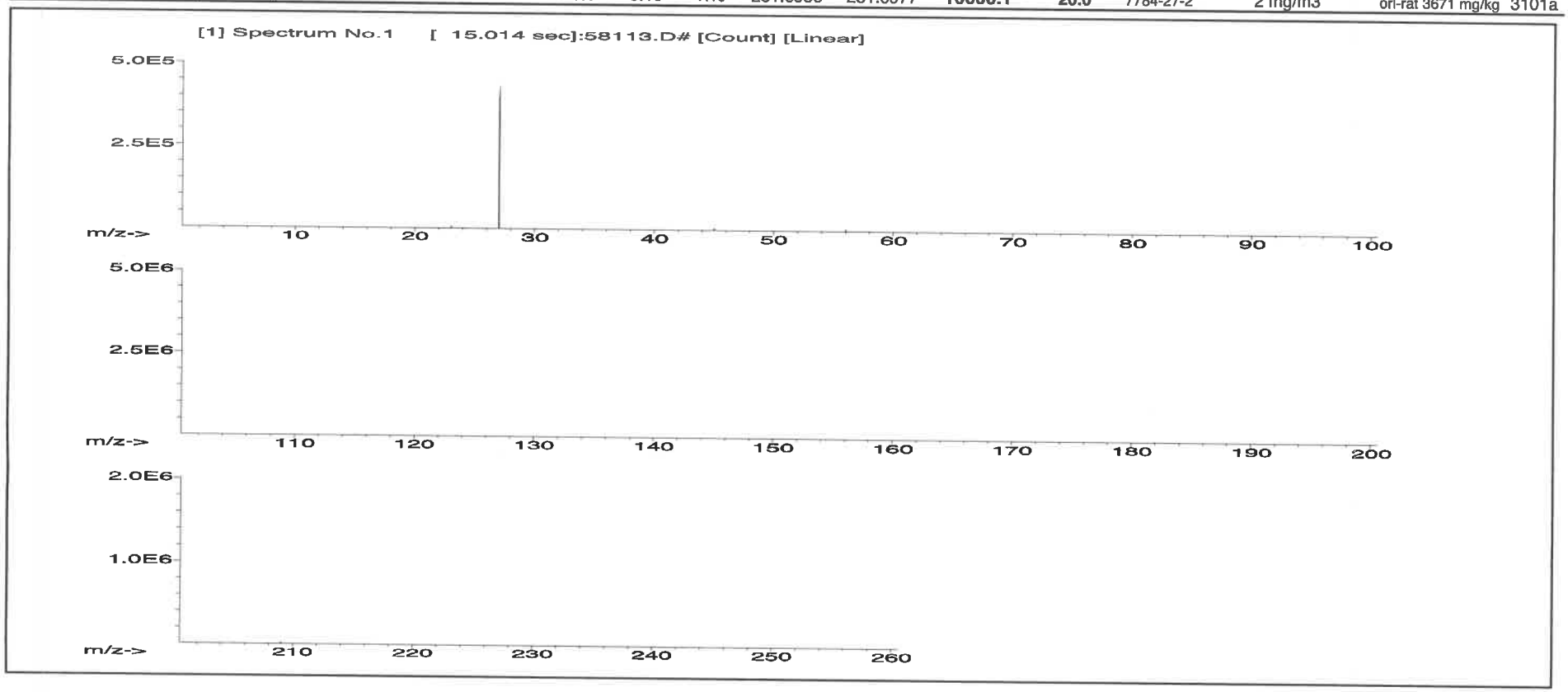
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**58113**			**Lot #**	
Lot Number:	**070622**		**Solvent:**	20370011	Nitric Acid
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	070625				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALD012021A1	10000	99.999	0.10	7.10	281.6956	281.6977	**10000.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	T	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

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R: 09/08/22 (BH)

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M5387 . M5389 . M5390 . M5391 . M5392

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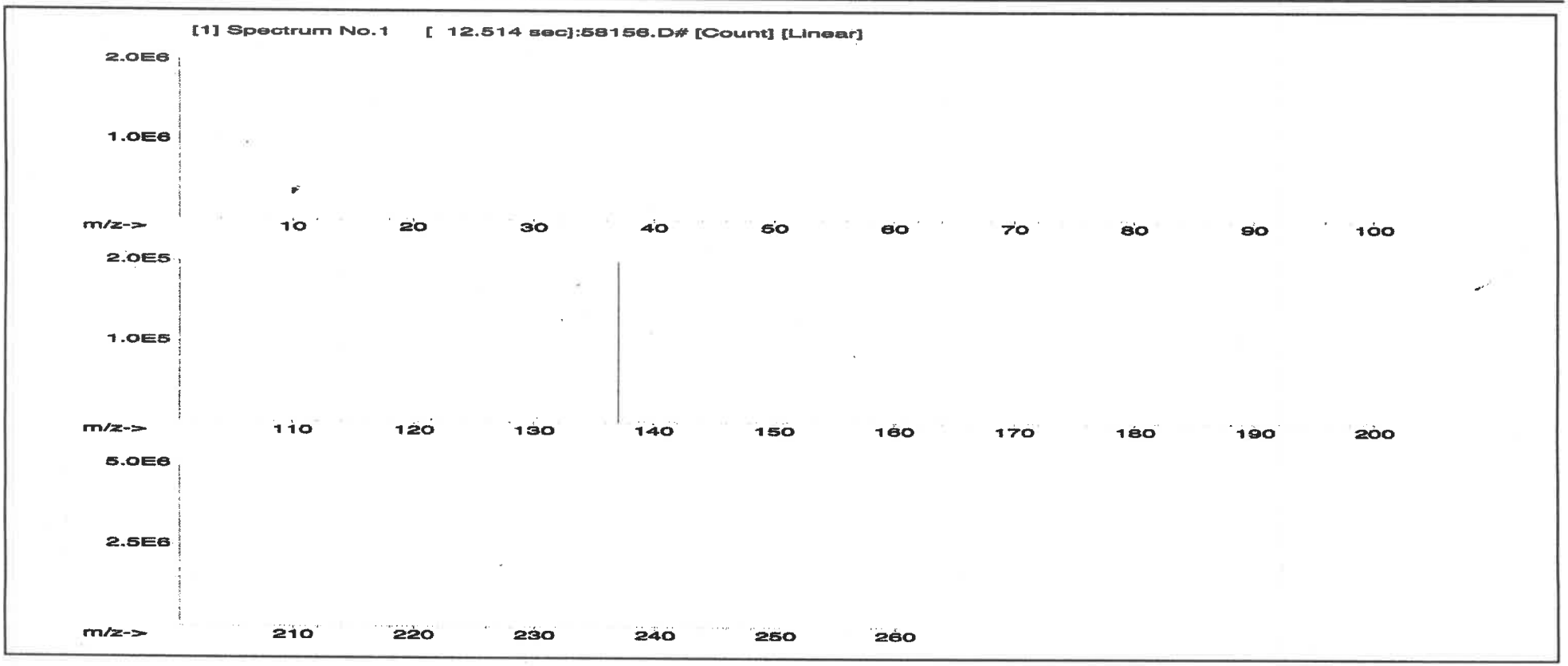
CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57056**	**Solvent:**	20510011	Nitric Acid
Lot Number:	**072122**			
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	072125			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

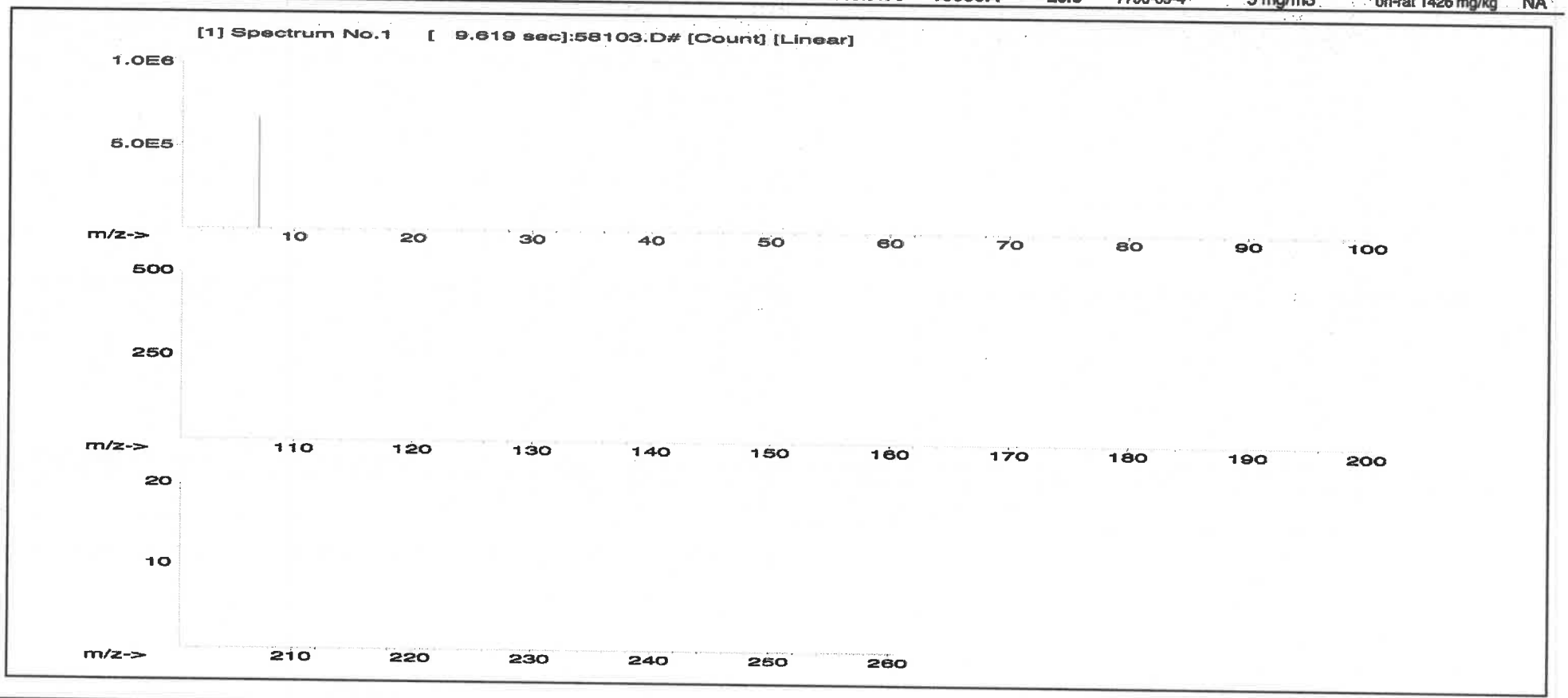
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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IN5497 - IN5498 R: 03/17/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

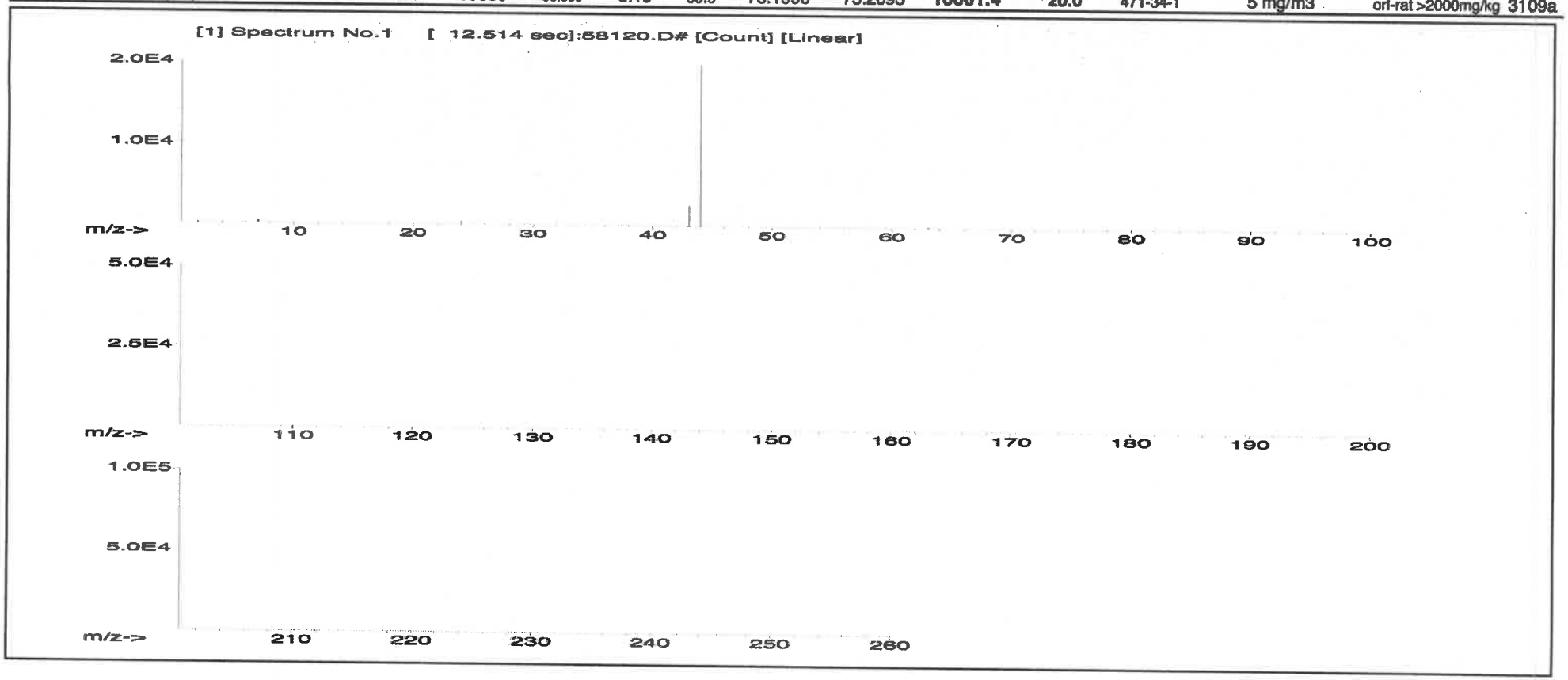
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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MS513 R:03/17/23 BE

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CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 061522
Description: Lead (Pb)

Expiration Date: 061525
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

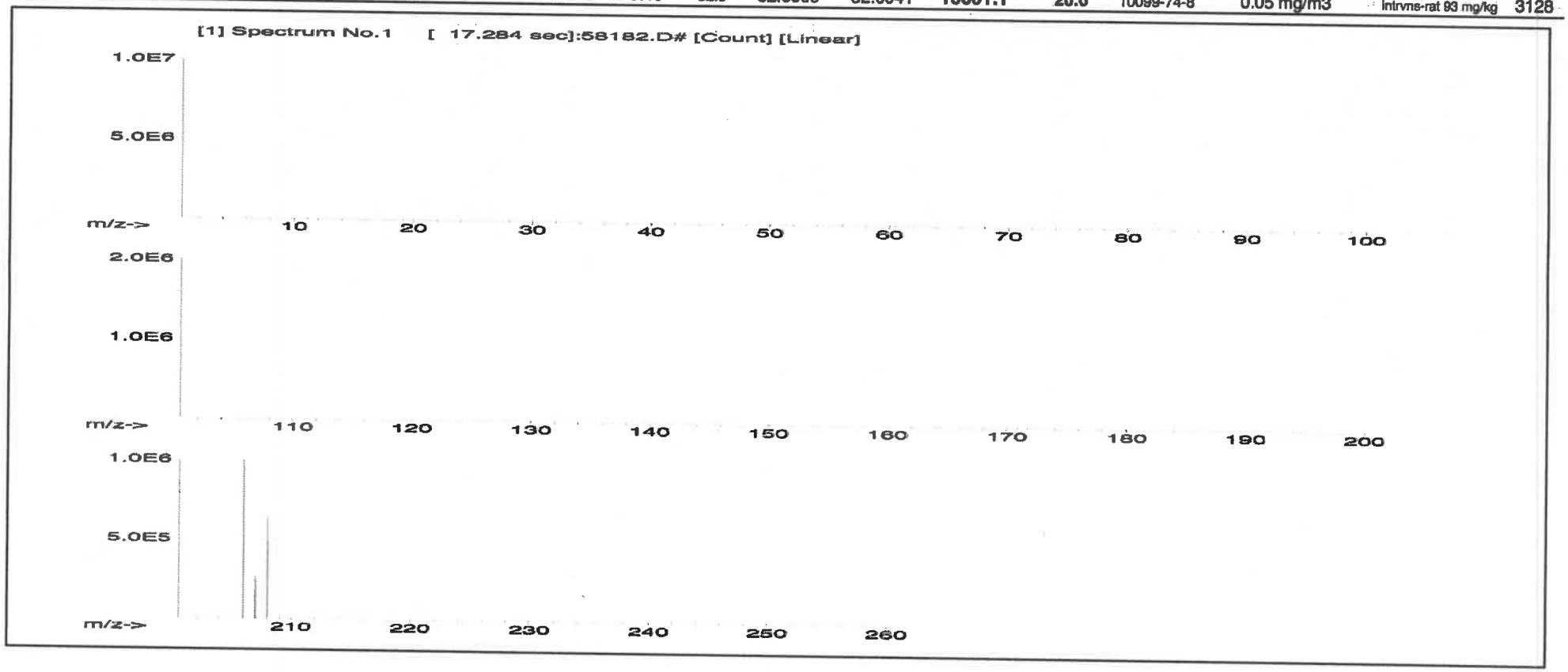
	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	061522
Reviewed By:	Pedro L. Rentas	061522

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0041	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	Intrvns-rat 93 mg/kg	3128



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.
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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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M5514 - M5515 R: 03/17/22

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CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 092122
Description: Iron (Fe)

Expiration Date: 092125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1 ± 0.12 Flask Uncertainty

	Lot #		
Solvent:	20510011	Nitric Acid	
7.0%	350.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

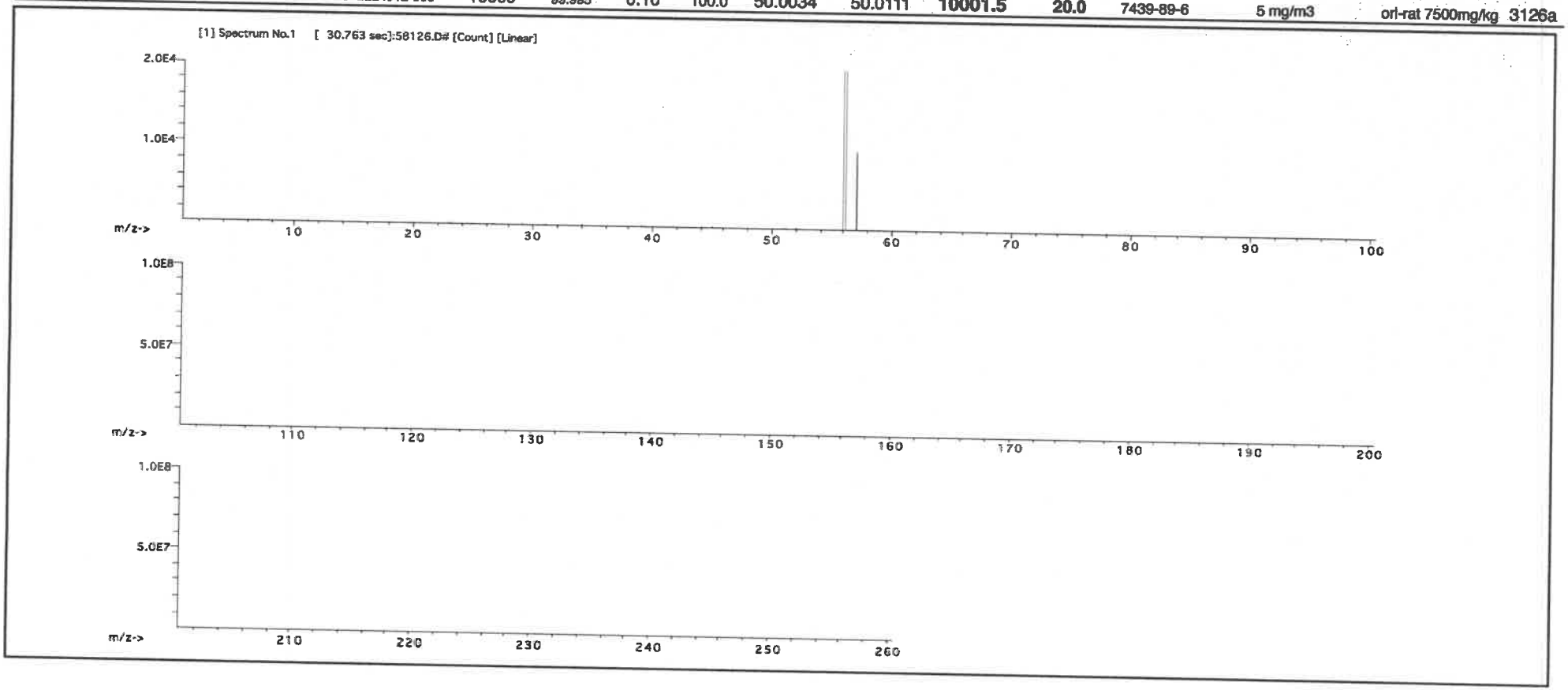
Giovanni Esposito

Formulated By: Giovanni Esposito 092122

Pedro Rentas

Reviewed By: Pedro L. Rentas 092122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* 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 Reference Material CRM

M519. M520 (BH) R:03/17/23

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CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

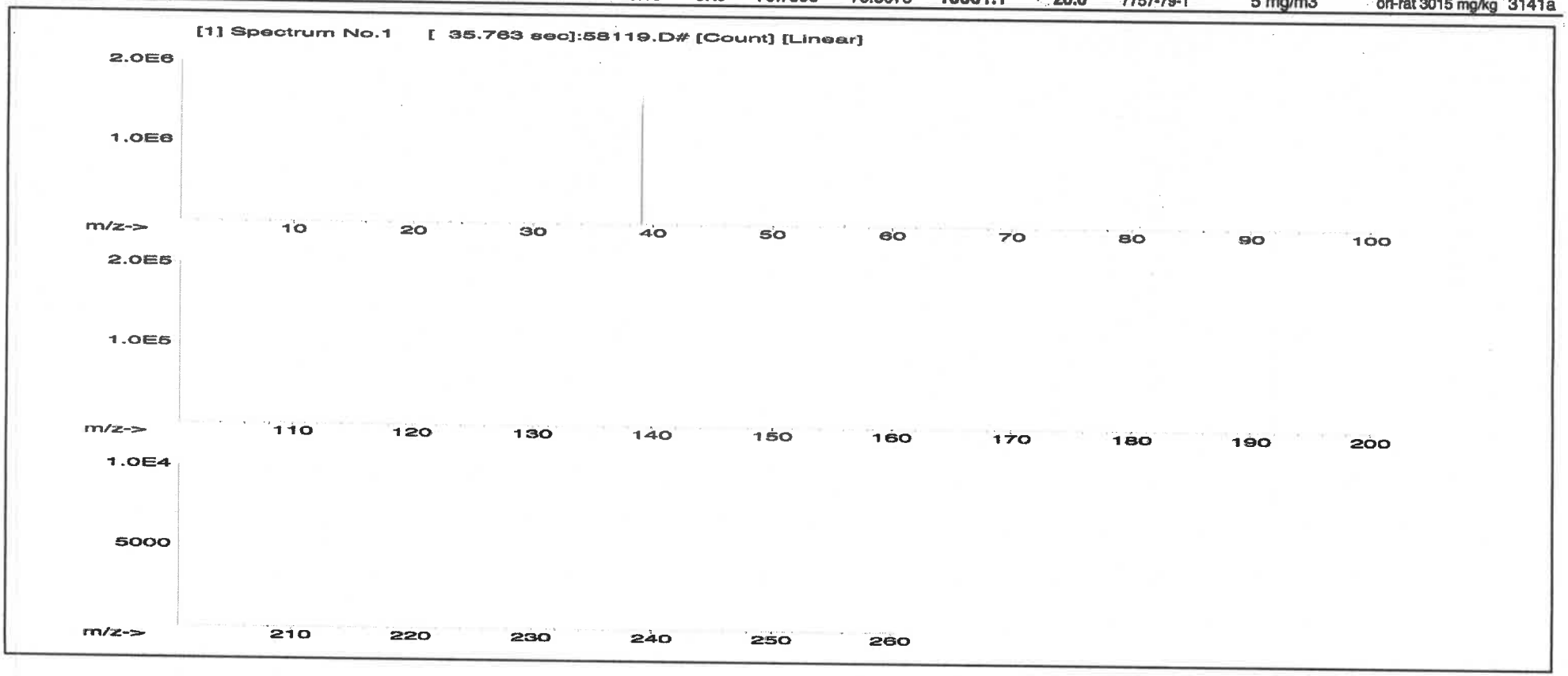
Lot #		
Solvent: 20510011		Nitric Acid
2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* 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).

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

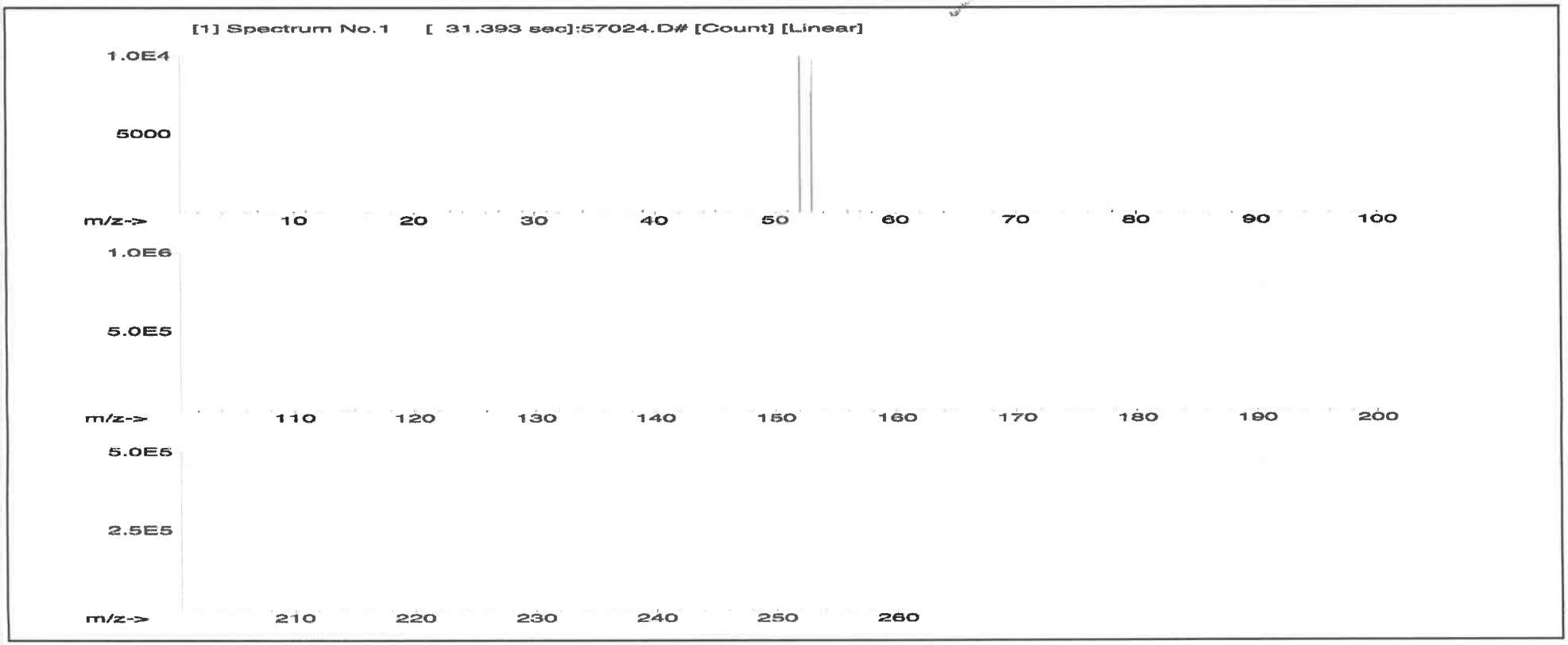
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CERTIFIED WEIGHT REPORT:

		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.

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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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M5648 R: 10/27/23

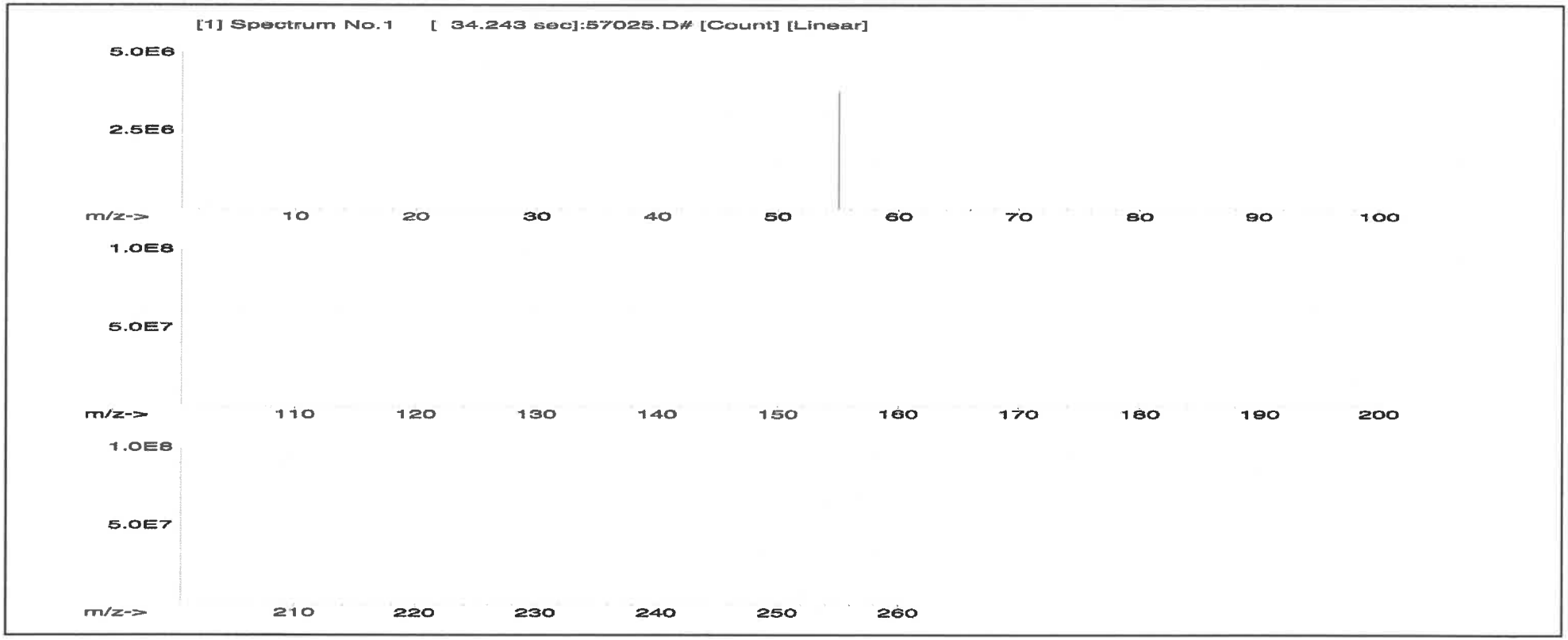
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CERTIFIED WEIGHT REPORT:

		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: 8/25/23 M5751

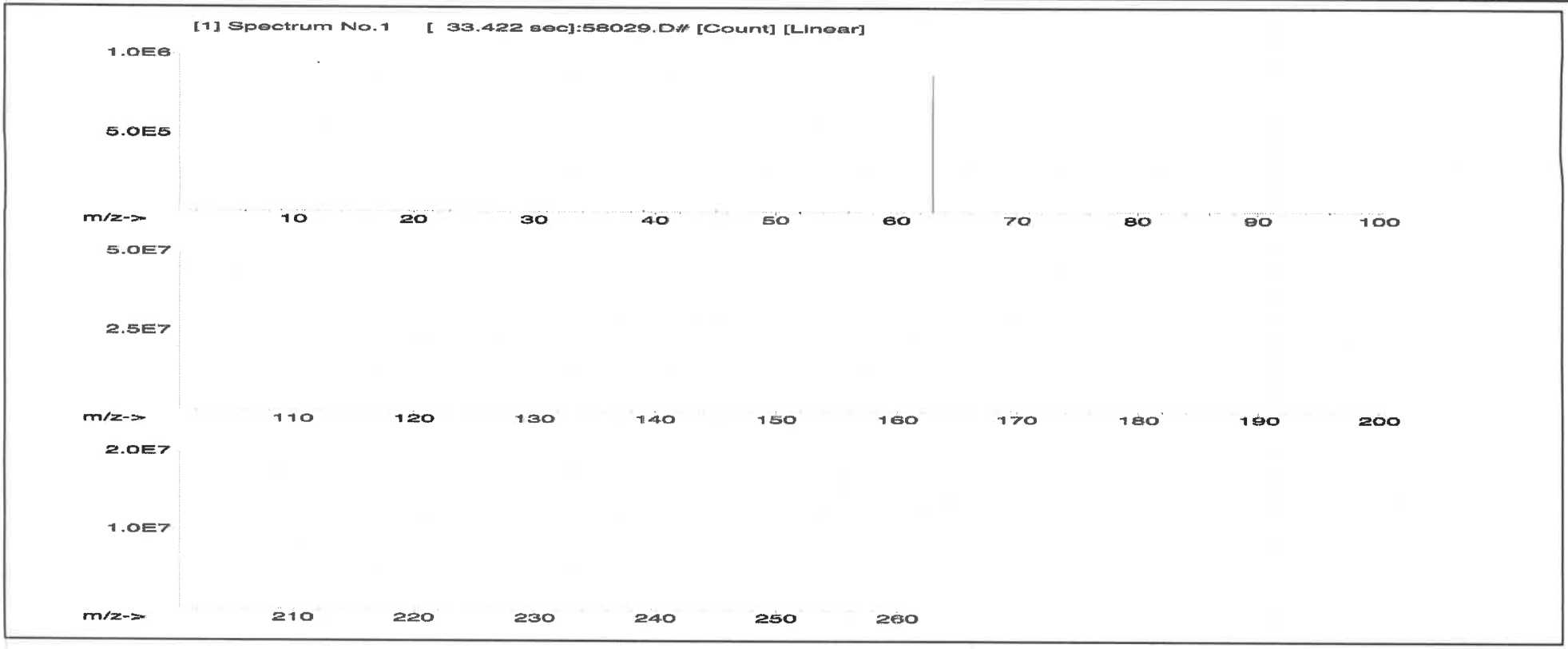
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CERTIFIED WEIGHT REPORT:

		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.

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M5768 M5769 (BP) R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

M5768, M5769 (BP) R: 1/3/24

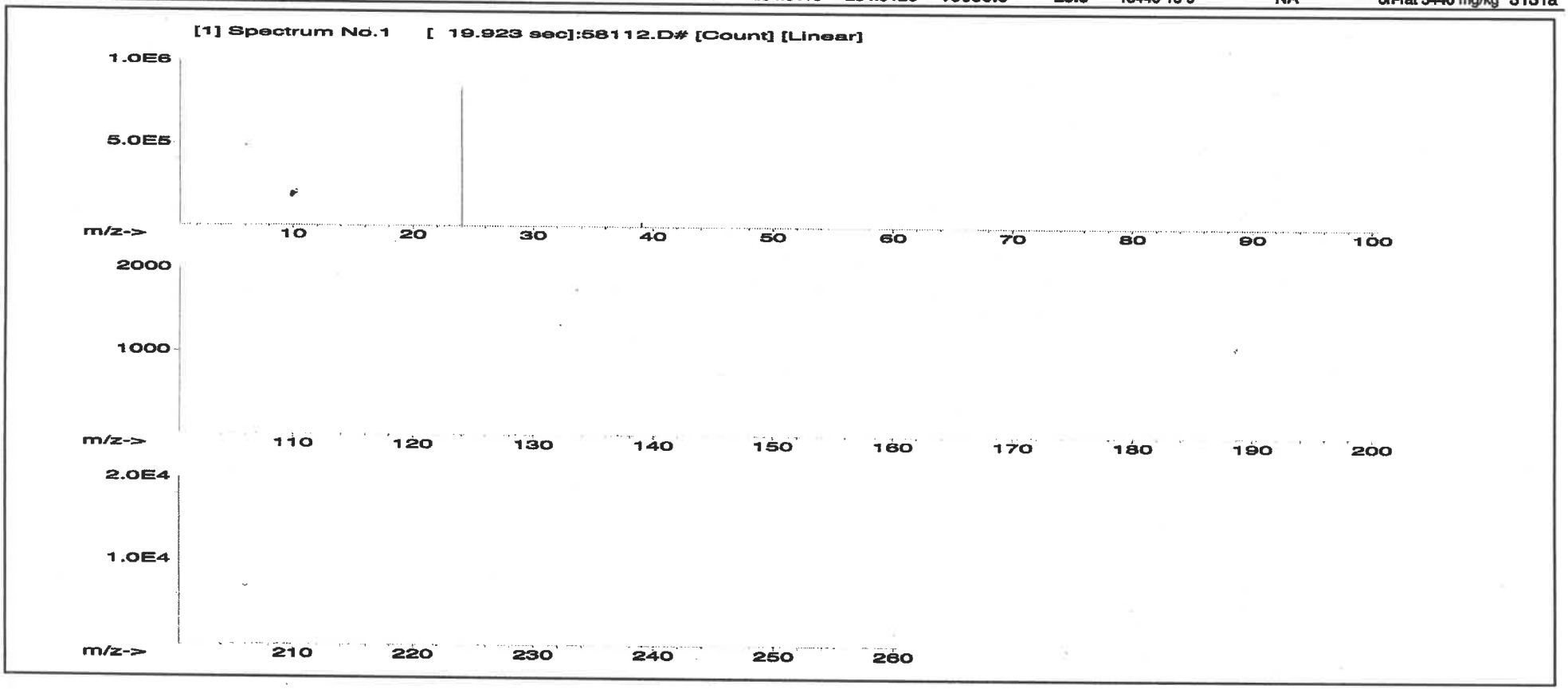
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Formulated By: Lawrence Barry 091823

Reviewed By: Pedro L. Rentas 091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R: 02/09/24 M5798

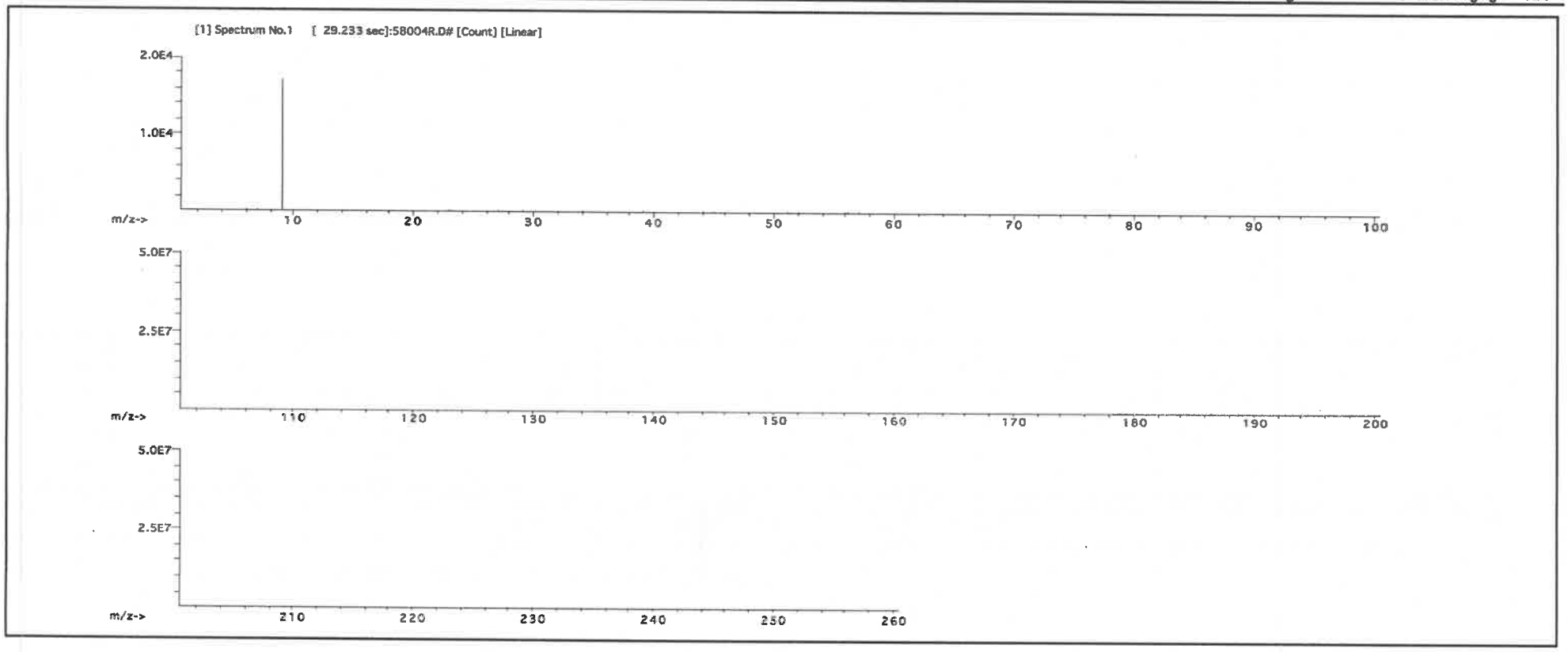
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CERTIFIED WEIGHT REPORT:

		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)

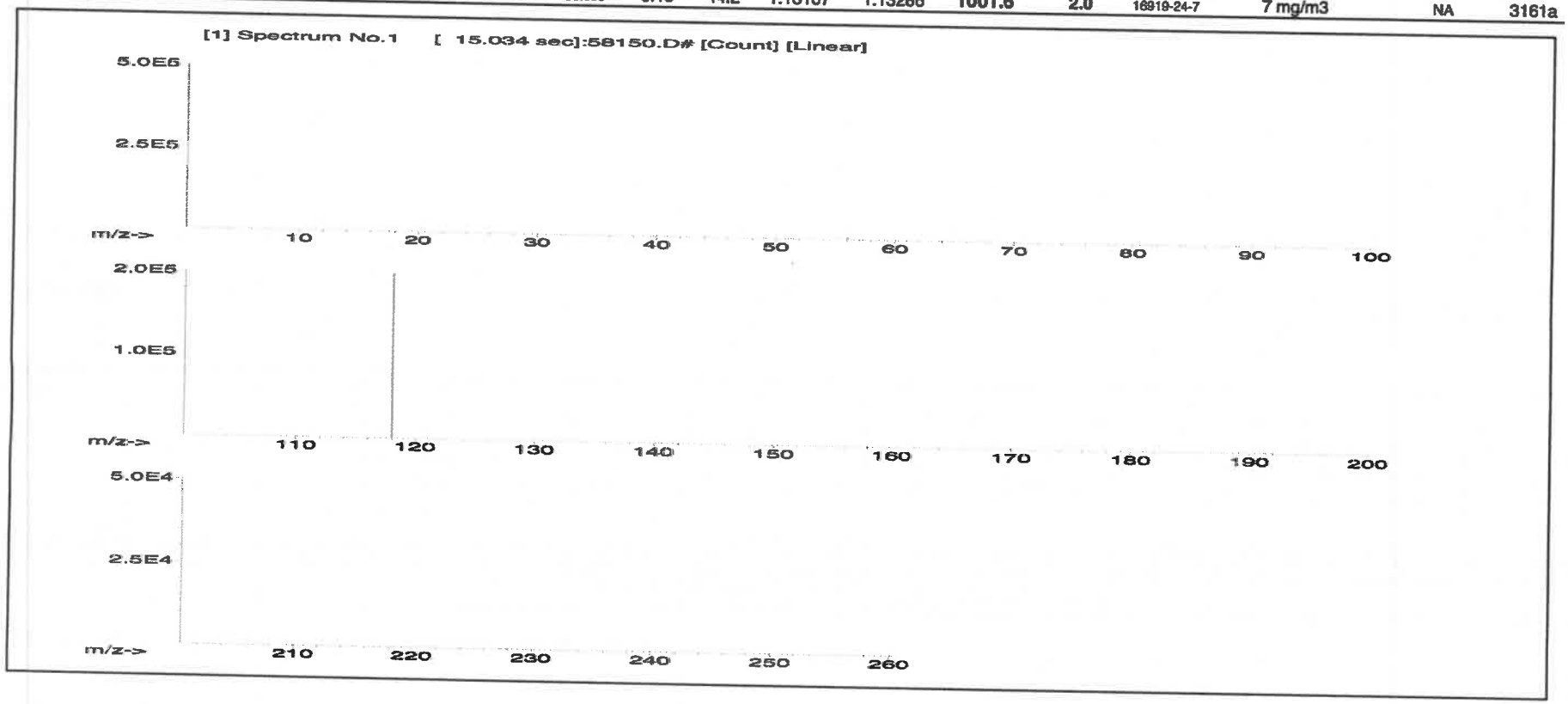
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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:

* 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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R: 02/09/24 IM5800 BH

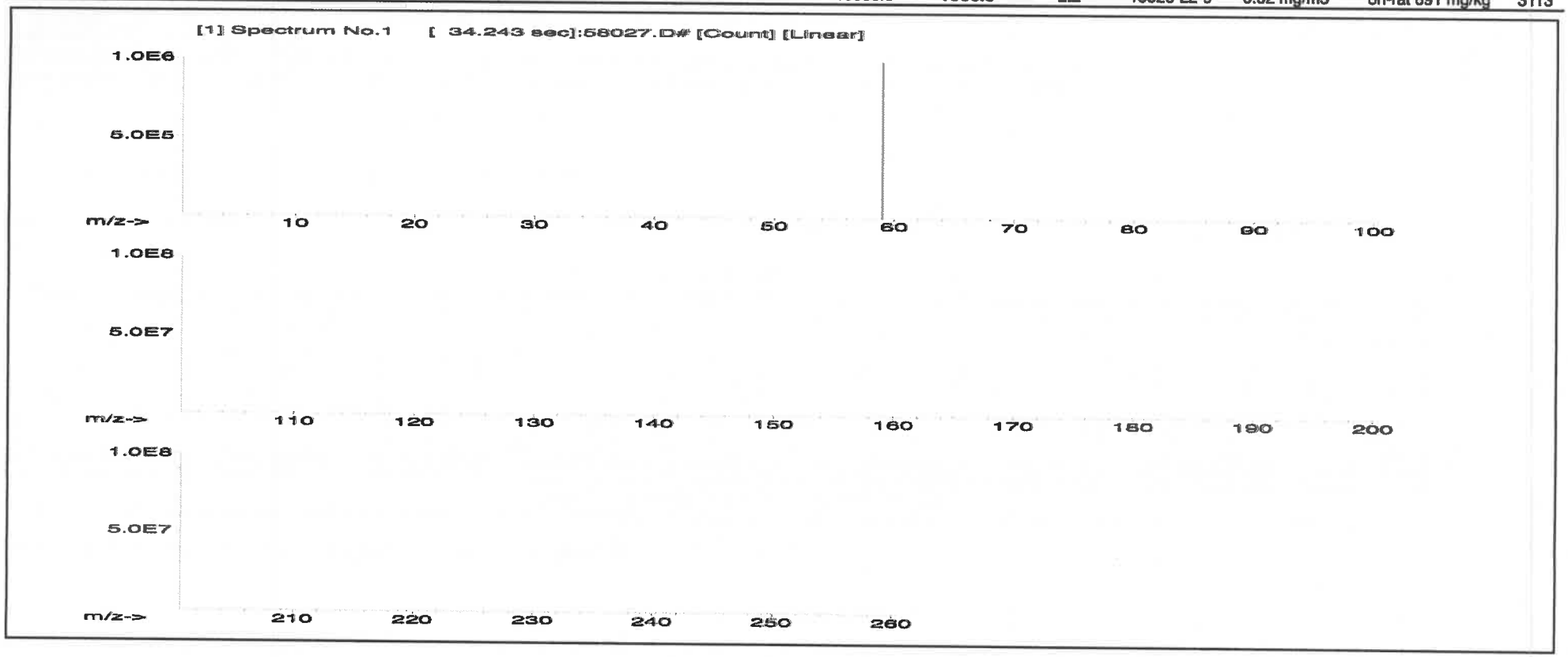
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CERTIFIED WEIGHT REPORT:

		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.

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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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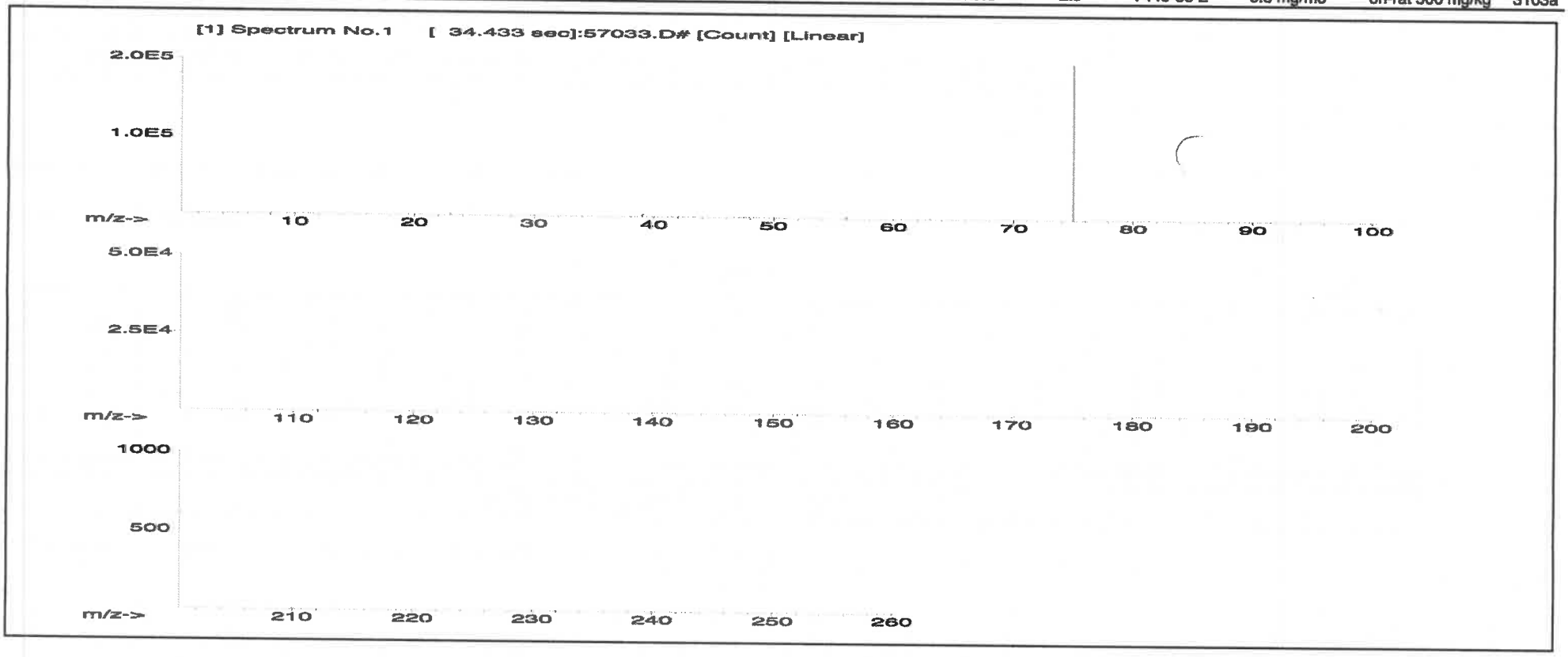
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**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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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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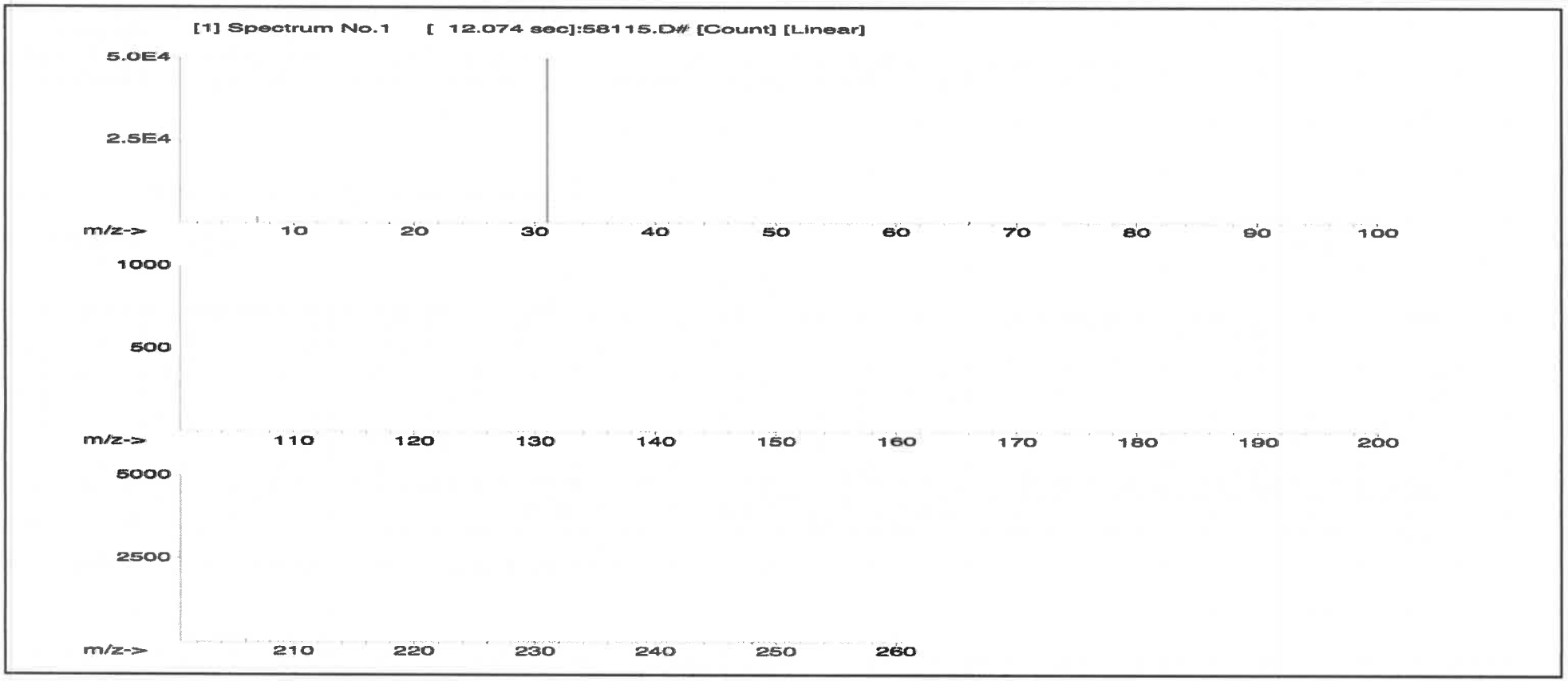
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CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**10000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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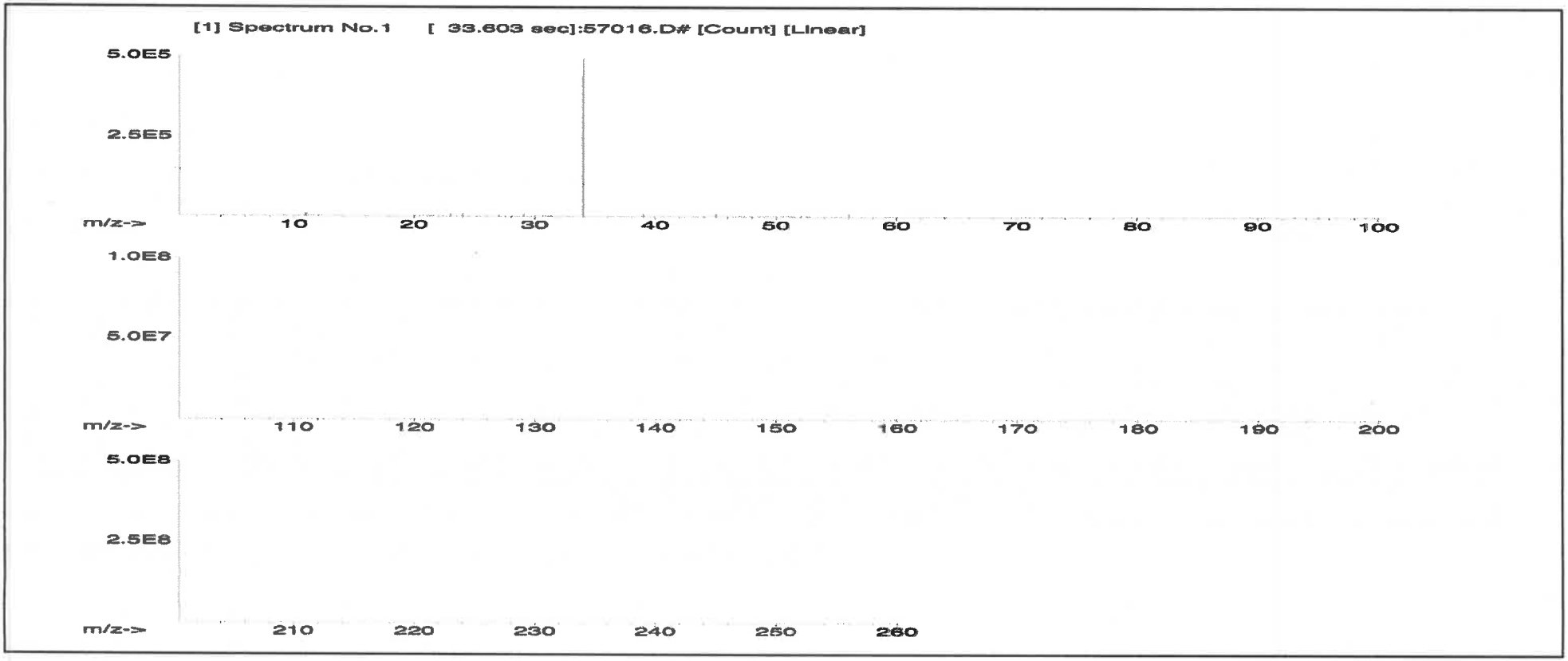
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CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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CERTIFIED WEIGHT REPORT:

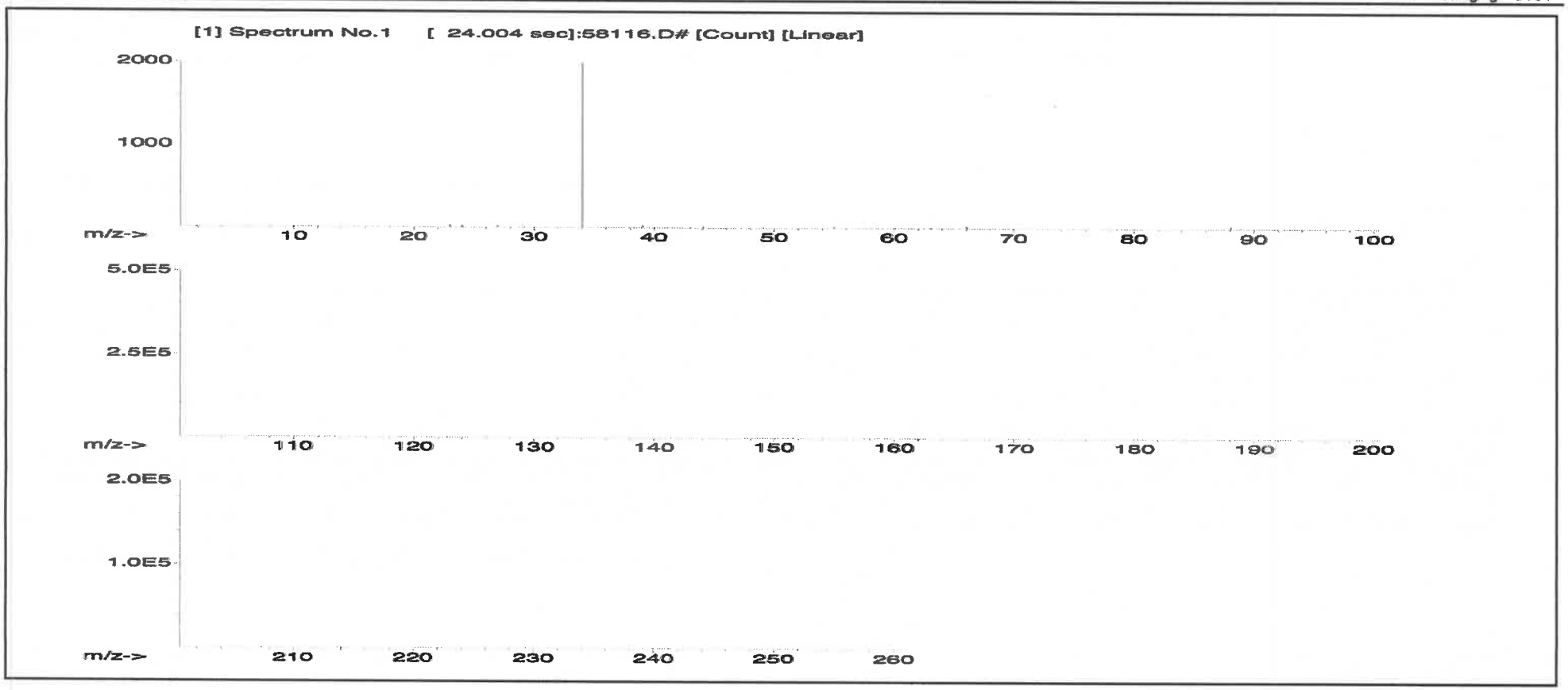
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



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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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Certified Reference Material CRM

R: 02/09/24 M.5818

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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

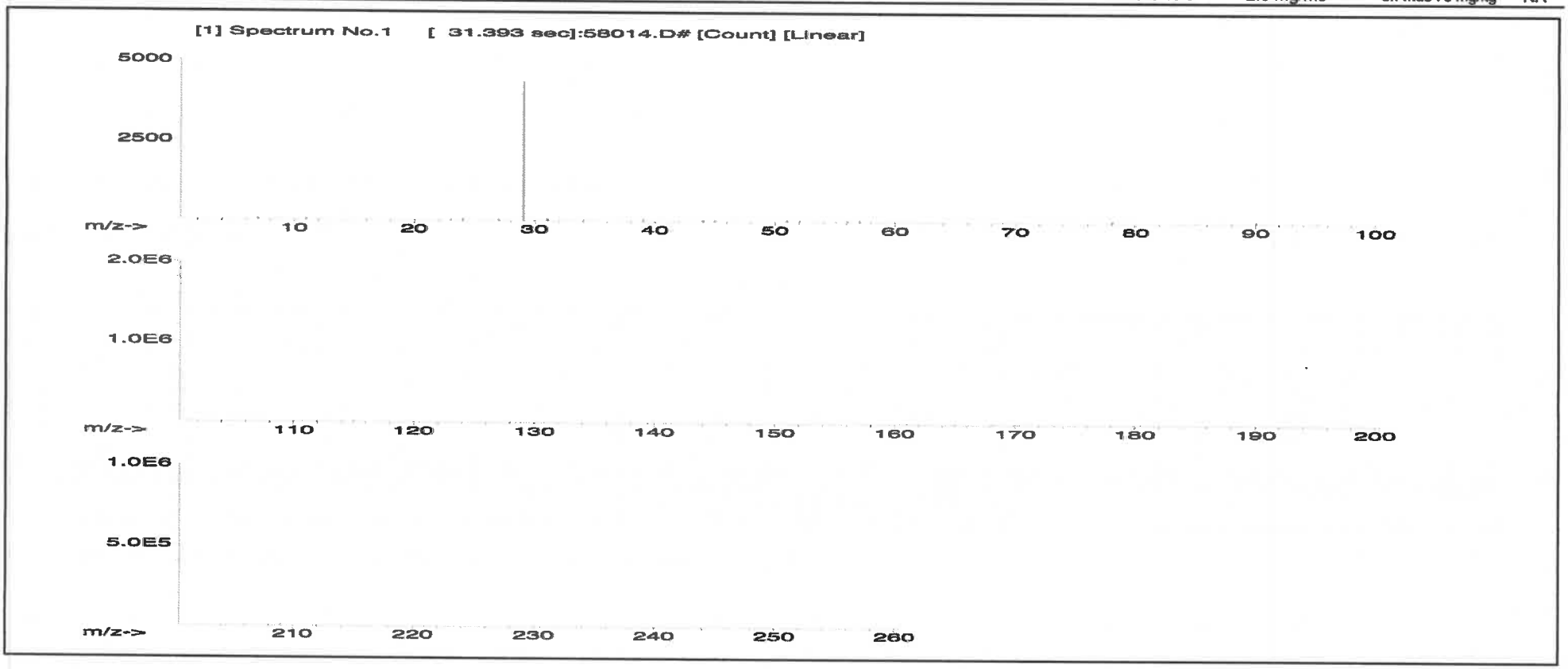
Aleah O'Brady

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.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5819

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CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 111623
Description: Zinc (Zn)

Expiration Date: 111626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

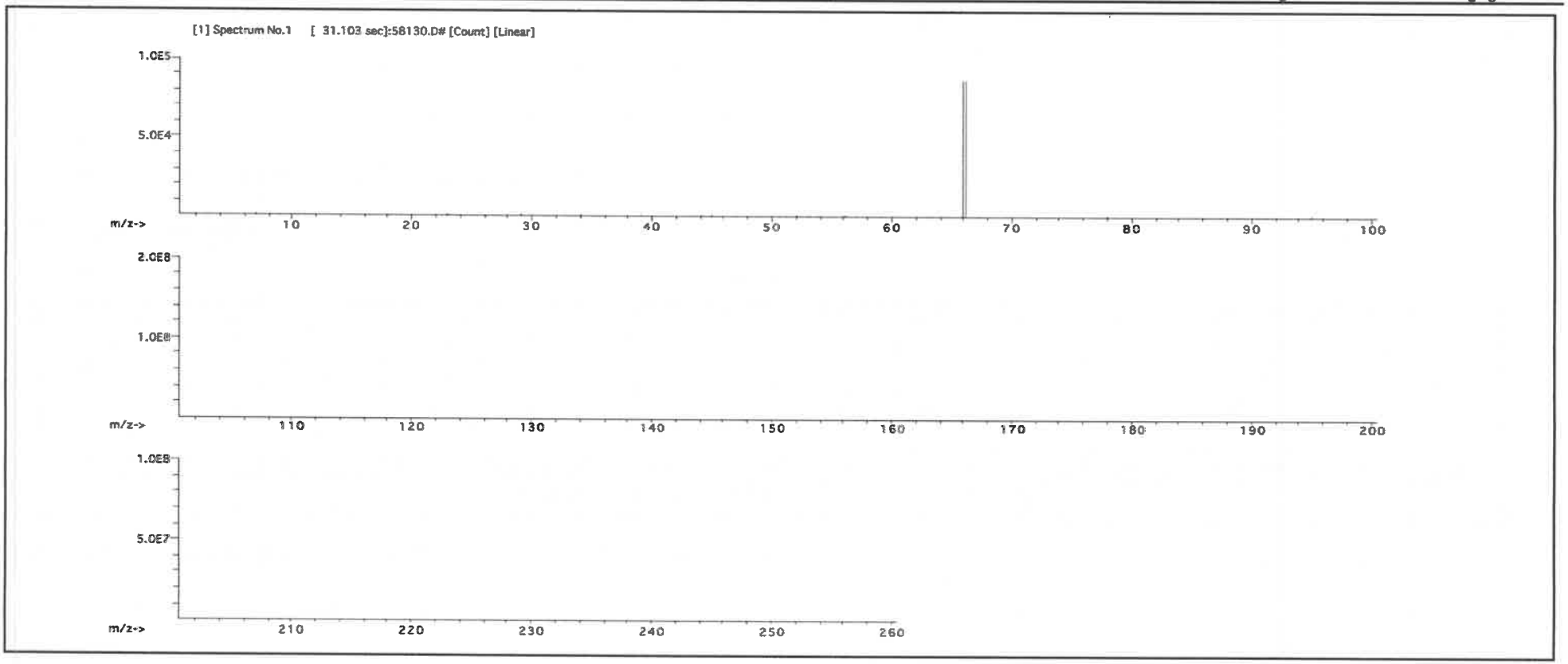
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

		Lot #		
Solvent:	24002546	Nitric Acid		
	2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	111623
Reviewed By:	Pedro L. Rentas	111623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5820

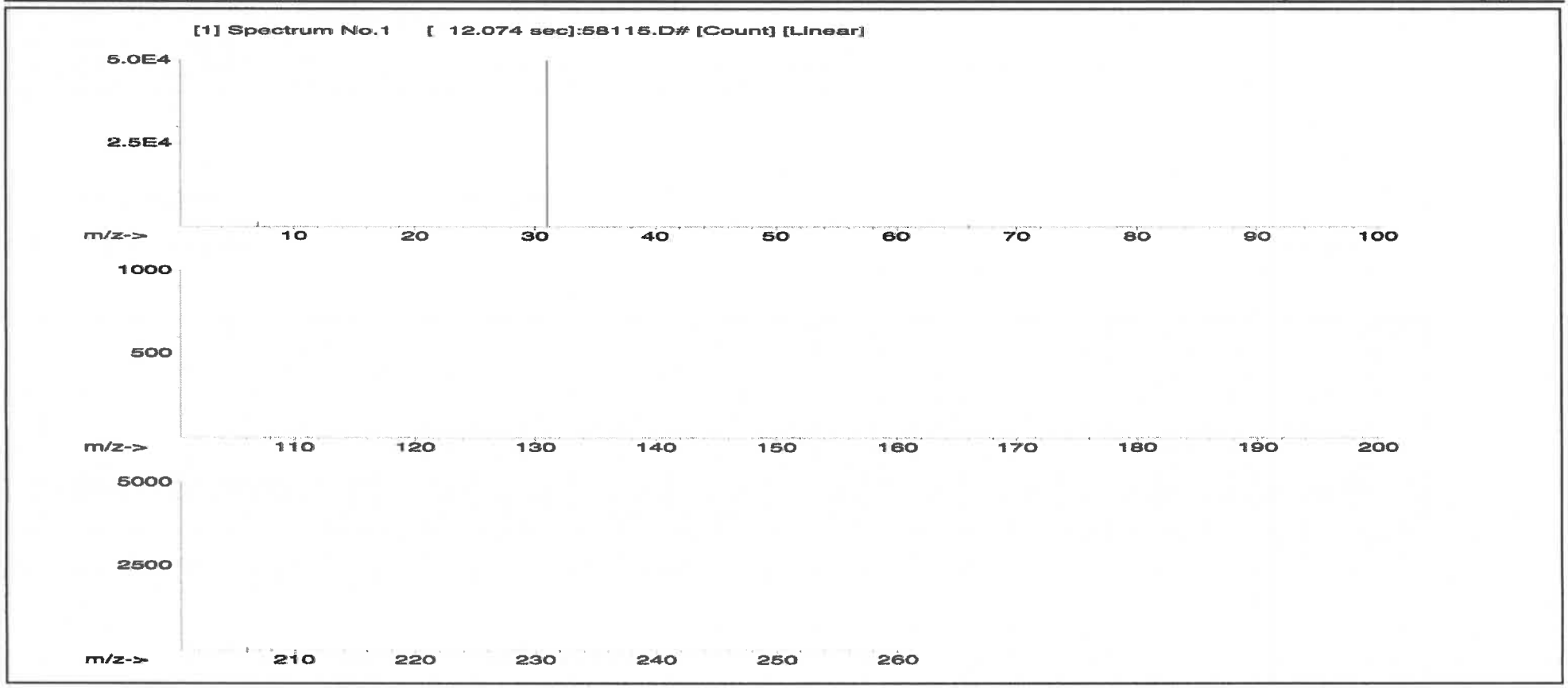
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CERTIFIED WEIGHT REPORT:

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.

* 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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M5962 R! 06/14/24.

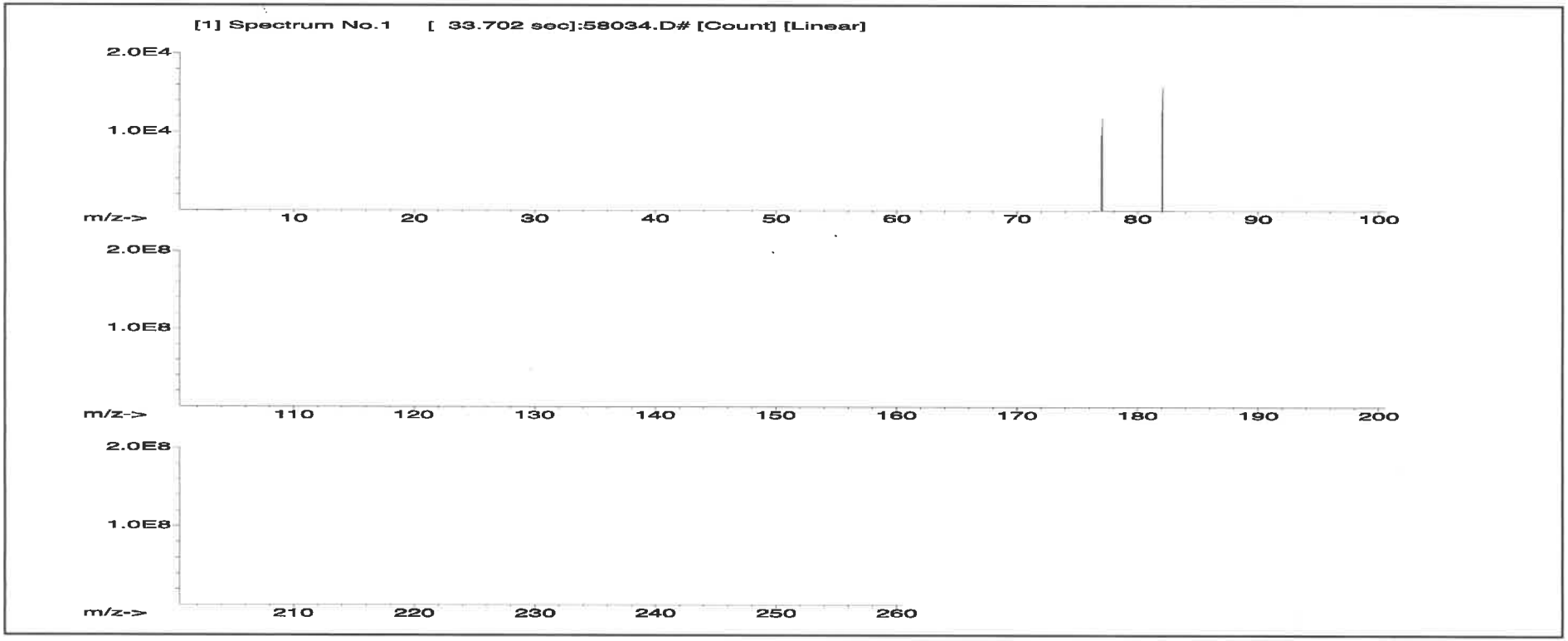
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CERTIFIED WEIGHT REPORT:

		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:



* 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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M5970, M5971 R: 7/01/24

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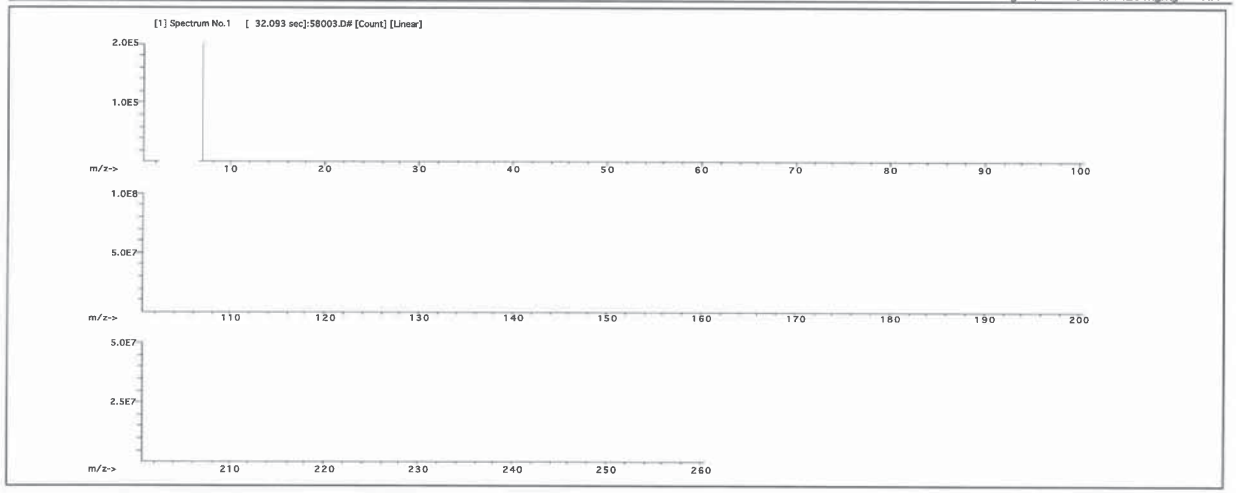
CERTIFIED WEIGHT REPORT:

		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

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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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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M5976, M5977
R: 02/22/24

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M5978, M5979

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300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

R: 2/22/24

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO_3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma(w_i)^2\ (u_{char\ i})^2]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

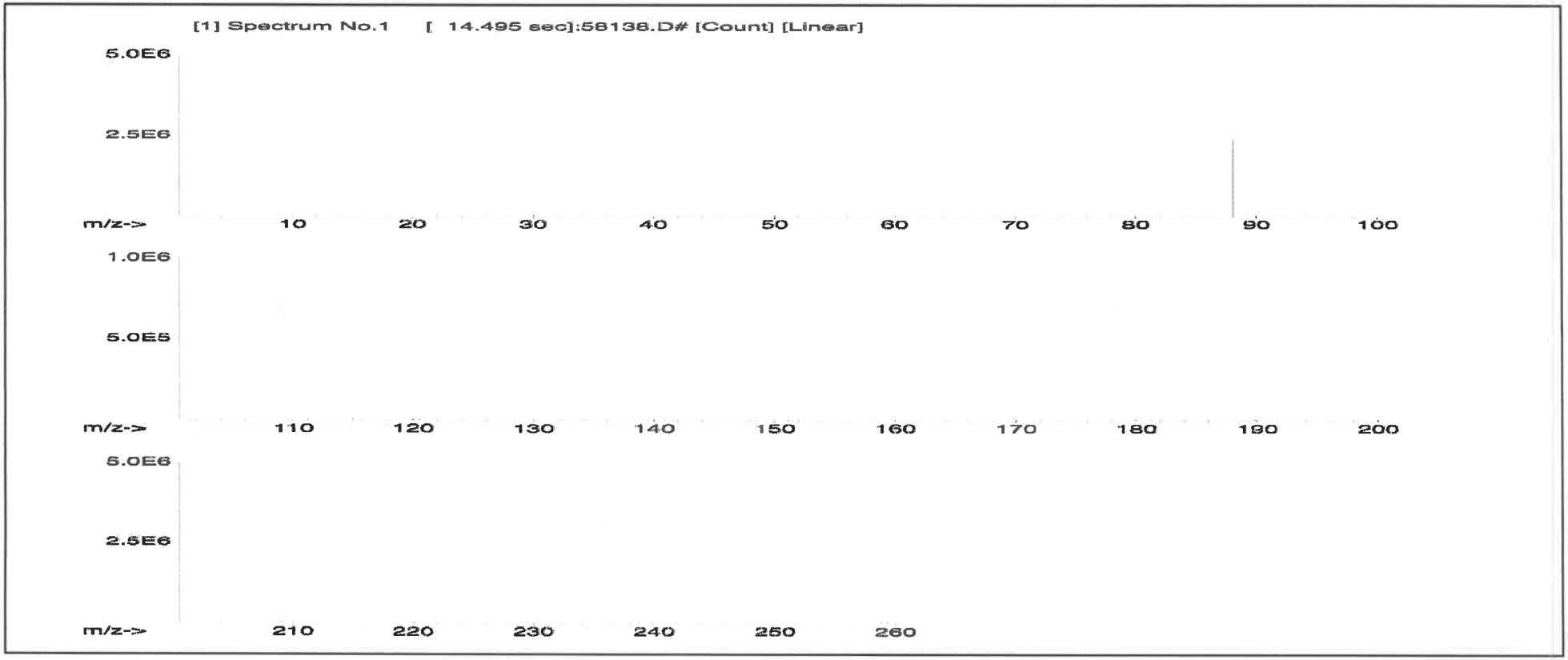
45982 R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:	**57038**		**Lot #**		
Lot Number:	**031524**	**Solvent:**	24002546	Nitric Acid	
Description:	**Strontium (Sr)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	031527				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85502	**1000.1**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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300 Technology Drive
Christiansburg, VA 24073 USA
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P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	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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Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

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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inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 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:

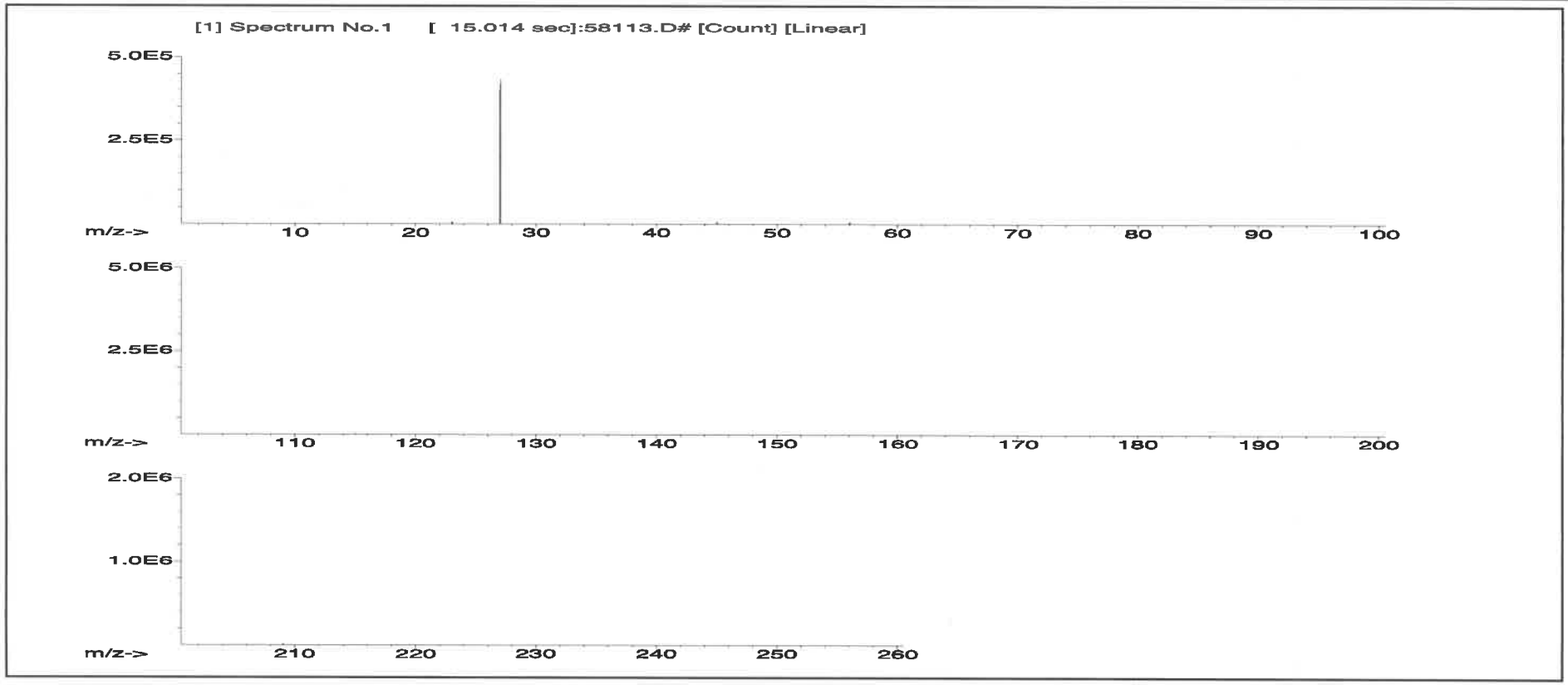
Part Number:	**58113**		**Solvent:**	20510011	Nitric Acid
Lot Number:	**011623**				
Description:	**Aluminum (Al)**				
			2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
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



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

Nitric Acid 69%
CMOS

M6112
M6113
M6114
M6115
M6116
M6117

Receive:
9/29/24
Met dig

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001
Manufactured Date: 2024-01-25
Retest Date: 2029-01-23
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.6 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	< 0.2 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	1 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24B1362001

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Recieve → 10/9/24
Met dig

M6118

Material No.: 9530-33
Batch No.: 22E1662006
Manufactured Date: 2022-04-11
Retest Date: 2027-04-10
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	< 0.2 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	37.0 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	1 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.: 22E1662006

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	1.0 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	< 0.4 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	1.9 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	< 0.3 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.: 22E1662006

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

avantor™ | J.T.Baker®

R ->10/13/24
Metal g

M 6120

Material No.: 9606-03
Batch No.: 2310662003
Manufactured Date: 2023-08-21
Retest Date: 2028-08-19
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.5 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	10
Residue after Ignition	≤ 2 ppm	< 2 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.08 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.10 ppm
Sulfate (SO_4)	≤ 0.2 ppm	0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 40.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 5.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 50 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	< 50.0 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	30.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 20 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 20 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 40.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 20 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 20.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 2310662003

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 50.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 50 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 50 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 150.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 30.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 20.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 10.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	60 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	10 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 2310662003

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

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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

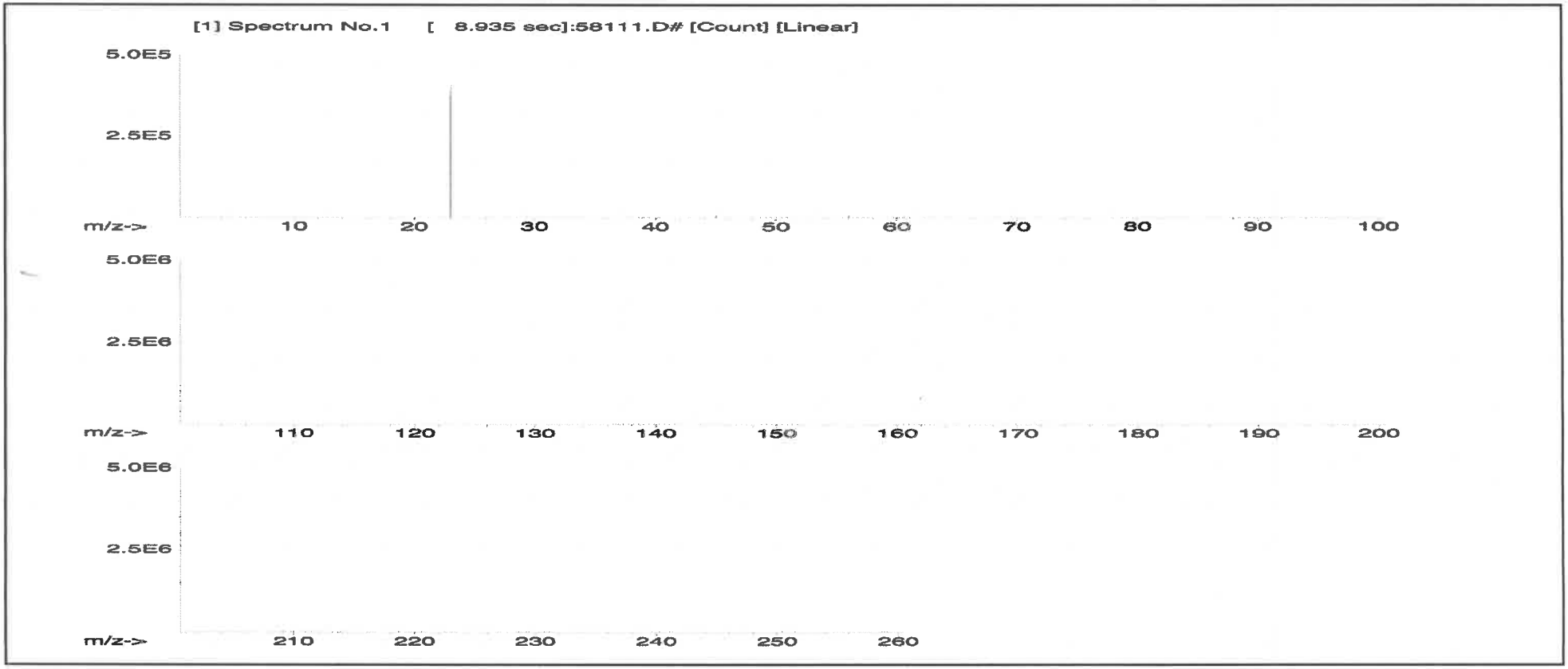
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

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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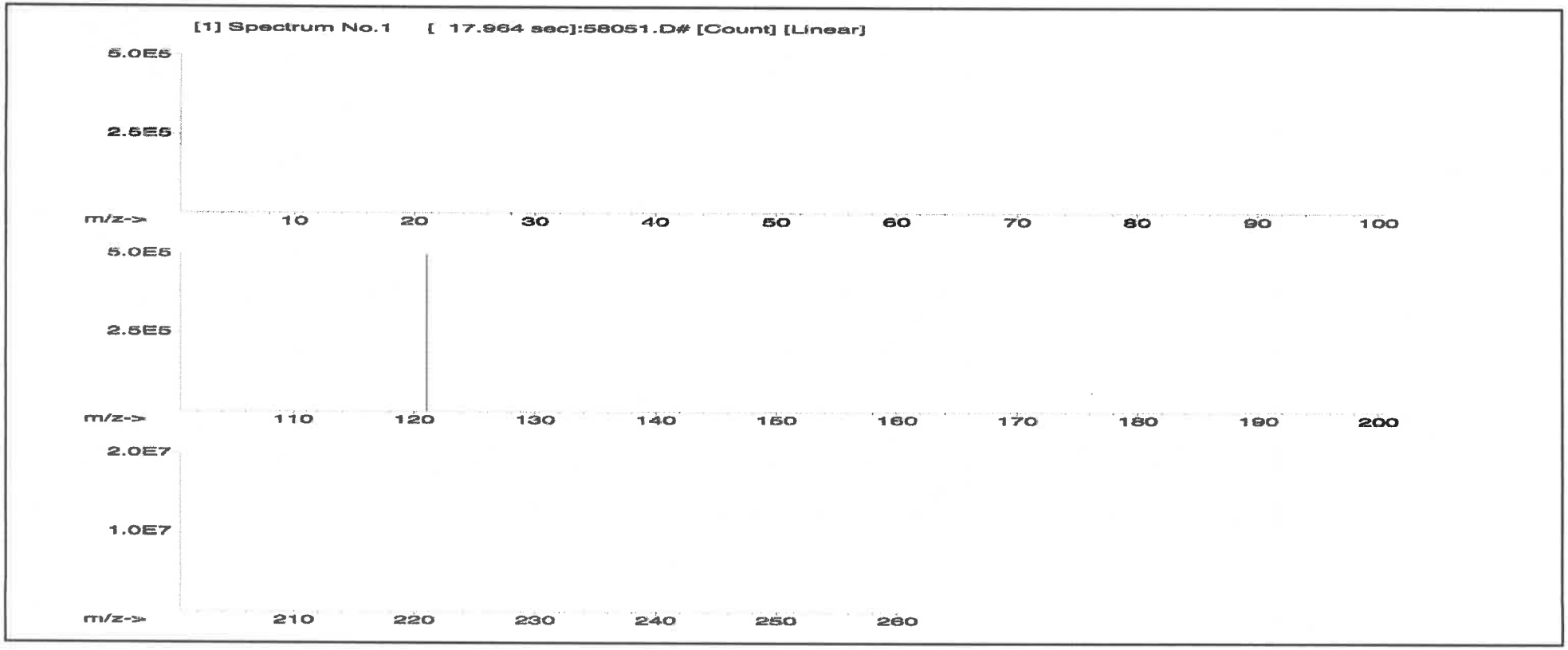
R: 01/03/24 M5802, M5803

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:

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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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M6030

R: 8/5/24

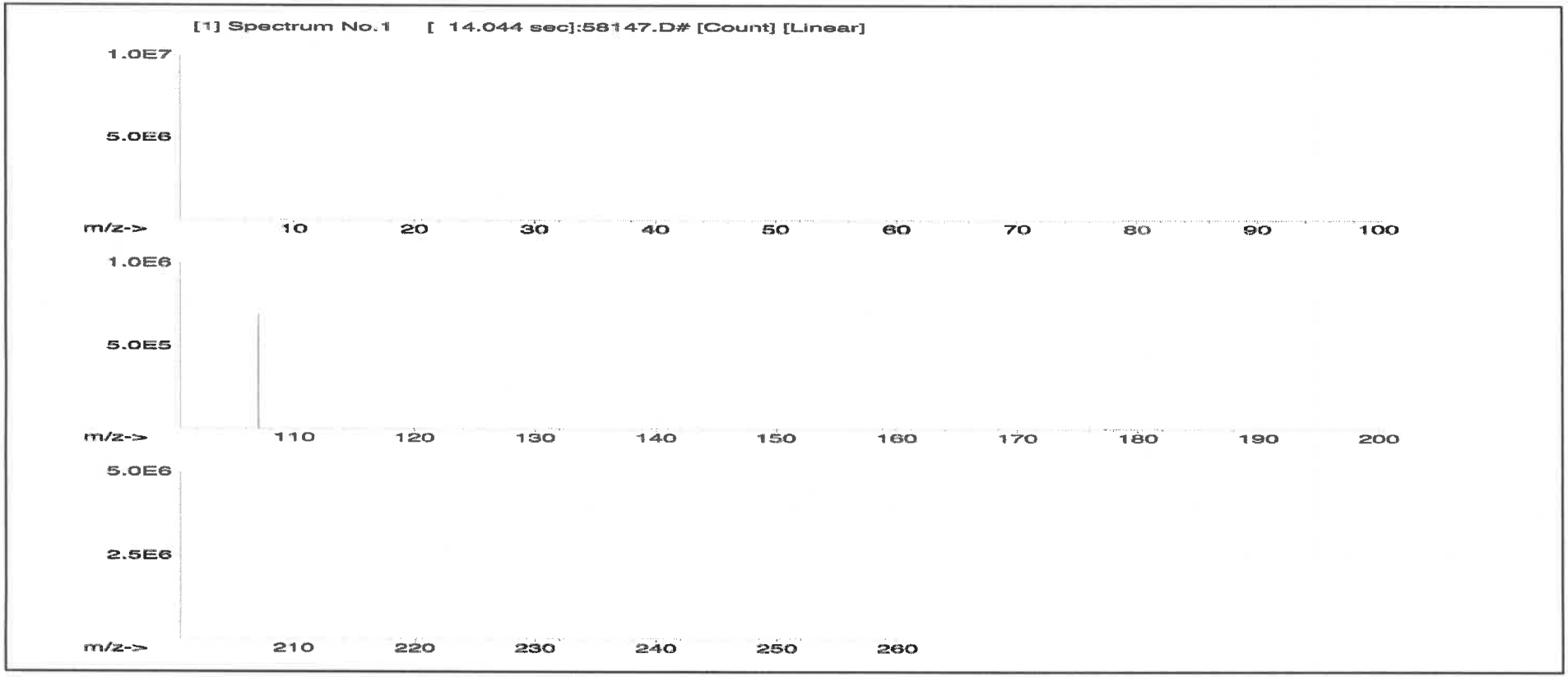
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CERTIFIED WEIGHT REPORT:

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:

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R: 03/16/23 M5473, M5474, M5475, M5476

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CERTIFIED WEIGHT REPORT:

Part Number: 56138
Lot Number: 082922
Description: Strontium (Sr)

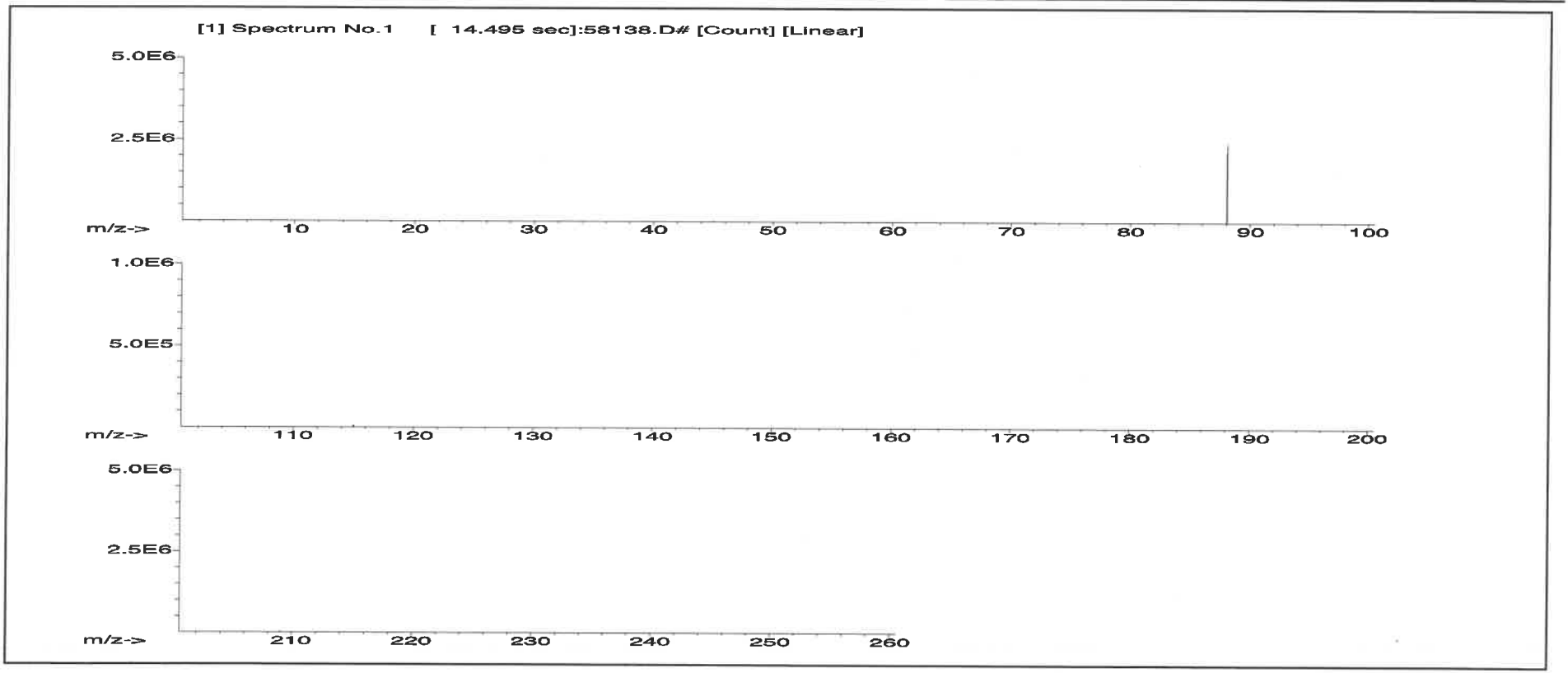
Expiration Date: 082925
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	082922
Reviewed By:	Pedro L. Rentas	082922

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	10000	99.997	0.10	41.2	24.2756	24.2758	**10000.1**	**20.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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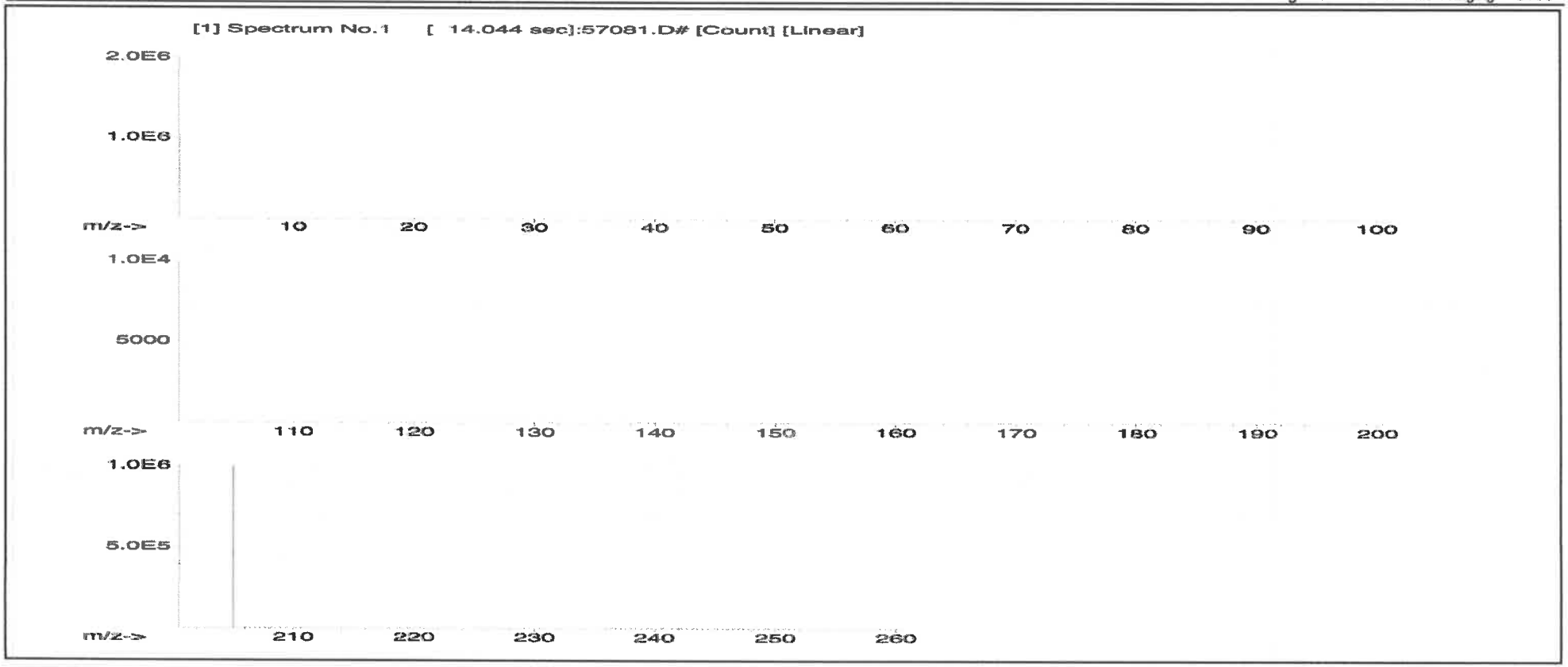
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

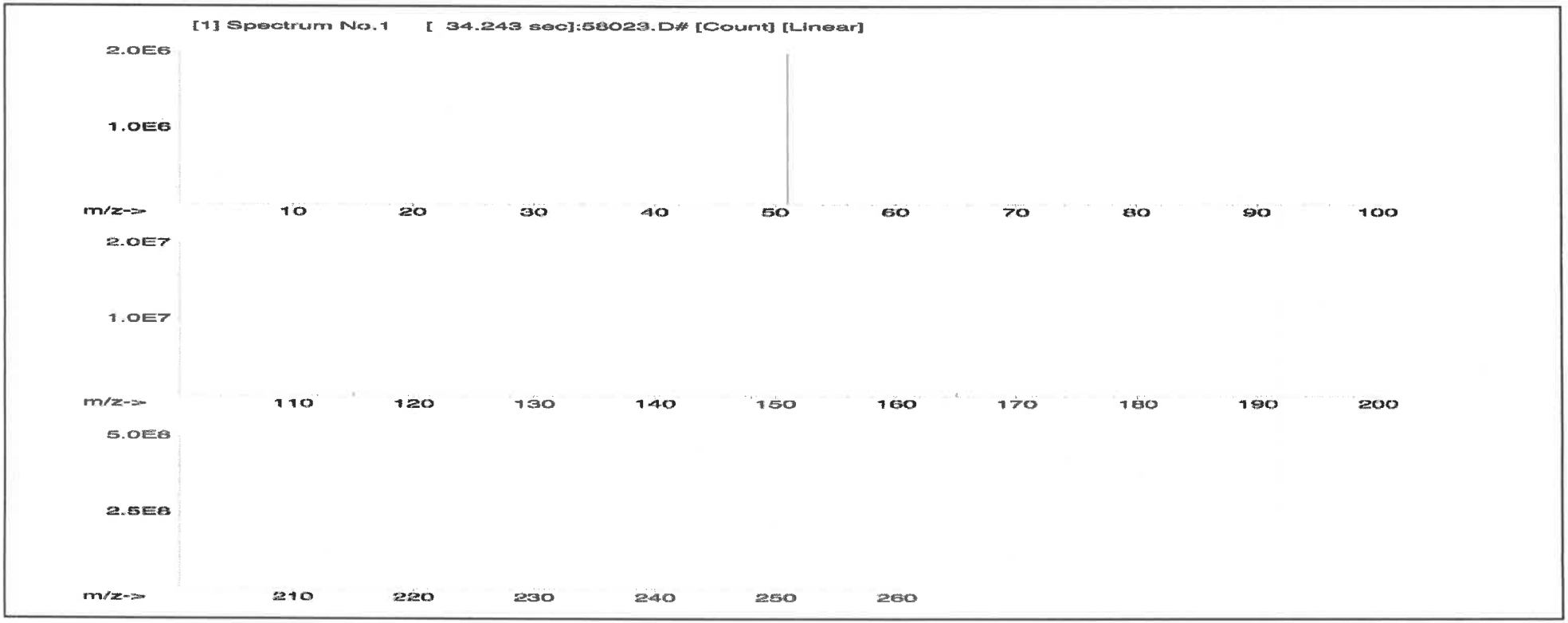
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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).

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165106

SOP ID : M3050B-Digestion-20, MSFAM01.1-Trace Metals-2

SDG No : E29X3

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 11/19/2024 **Time :** 10:30 **Temp :** 96 °C

End Digest Date: 11/19/2024 **Time :** 12:35 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #3

Dig Technician Signature: jgp

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LCSS	1.00	MP83141
Spike Sol 6	1.00	MP83147
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
1:1 HNO3	10.00	MP83122
Conc. HNO3	5.00	M6120
30% H2O2	3.00	M5634
Conc. HCL	10.00	M6118
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #3 CELL #34 : 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/19/24 13:00	jgp / Metdig.	Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165106

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P4879-01	E29X1	N/A	1.39	100	Brown	Yellow	Medium	N/A	N/A	1
P4879-02	E29X2	N/A	1.33	100	Brown	Yellow	Medium	N/A	N/A	2
P4879-03	E29X3	N/A	1.31	100	Brown	Yellow	Medium	N/A	N/A	3
P4879-04	E29X4	N/A	1.25	100	Brown	Yellow	Medium	N/A	N/A	4
P4879-05	E29X5	N/A	1.24	100	Black	Yellow	Medium	N/A	N/A	5
P4879-06	E29X5D	N/A	1.37	100	Black	Yellow	Medium	N/A	N/A	6
P4879-07	E29X5S	N/A	1.42	100	Black	Yellow	Medium	N/A	MP83147	7
P4879-08	E29X6	N/A	1.27	100	Brown	Yellow	Medium	N/A	N/A	8
P4879-09	E29X7	N/A	1.37	100	Brown	Yellow	Medium	N/A	N/A	9
P4879-10	E29X8	N/A	1.30	100	Black	Yellow	Medium	N/A	N/A	10
P4879-11	E29X9	N/A	1.29	100	Black	Yellow	Medium	N/A	N/A	11
P4879-12	E29Y0	N/A	1.34	100	Brown	Yellow	Medium	N/A	N/A	12
P4879-13	E29Y1	N/A	1.24	100	Black	Yellow	Medium	N/A	N/A	13
P4879-14	E29Y2	N/A	1.47	100	Brown	Yellow	Medium	N/A	N/A	14
P4879-15	E29Y3	N/A	1.39	100	Brown	Yellow	Medium	N/A	N/A	15
P4879-16	E29Y4	N/A	1.40	100	Black	Yellow	Medium	N/A	N/A	16
P4879-17	E29Y5	N/A	1.22	100	Black	Yellow	Medium	N/A	N/A	17
P4879-18	E29Y9	N/A	1.30	100	Brown	Yellow	Medium	N/A	N/A	18
P4879-19	E29Z0	N/A	1.27	100	Brown	Yellow	Medium	N/A	N/A	19
P4879-20	E29Y6	N/A	1.39	100	Black	Yellow	Medium	N/A	N/A	20
P4879-21	E29Y7	N/A	1.22	100	Black	Yellow	Medium	N/A	N/A	21
P4879-22	E2A11	N/A	1.26	100	Black	Yellow	Medium	N/A	N/A	22
PB165106BL	PBS106	N/A	1.00	100	Colorless	Colorless	fine	N/A	N/A	23
PB165106BS	LCS106	N/A	1.00	100	Colorless	Colorless	fine	N/A	MP83141	24

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133543

Review By	Sarabjit Jaswal	Review On	11/21/2024 7:23:59 AM
Supervise By	Mohan Bera	Supervise On	11/21/2024 7:25:19 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	11/20/24 11:06		Kareem	OK
2	S1	S01	CAL2	11/20/24 11:11		Kareem	OK
3	S2	S02	CAL3	11/20/24 11:16		Kareem	OK
4	S3	S03	CAL4	11/20/24 11:20		Kareem	OK
5	S4	S04	CAL5	11/20/24 11:25		Kareem	OK
6	S5	S05	CAL6	11/20/24 11:29		Kareem	OK
7	S6	S06	CAL7	11/20/24 11:33		Kareem	OK
8	ICV006	ICV006	ICV	11/20/24 12:34	Inst. paused for calibration review	Kareem	OK
9	ICB006	ICB006	ICB	11/20/24 12:38		Kareem	OK
10	ICSA006	ICSA006	ICSA	11/20/24 12:52	Inst. paused for review	Kareem	OK
11	ICSAB006	ICSAB006	ICSAB	11/20/24 12:56		Kareem	OK
12	CCV034	CCV034	CCV	11/20/24 13:01		Kareem	OK
13	CCB034	CCB034	CCB	11/20/24 13:05		Kareem	OK
14	P4880-22	MBHH97	SAM	11/20/24 13:09		Kareem	OK
15	P4907-18	MBHHF0	SAM	11/20/24 13:14		Kareem	OK
16	P4907-19	MBHHF1	SAM	11/20/24 13:19		Kareem	OK
17	PB165068BL	PBW068	MB	11/20/24 13:23		Kareem	OK
18	PB165068BS	LCS068	LCS	11/20/24 13:28		Kareem	OK

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CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

19	P4879-01	E29X1	SAM	11/20/24 13:32	Ca high	Kareem	Dilution
20	P4879-02	E29X2	SAM	11/20/24 13:37	Ca high	Kareem	Dilution
21	P4879-03	E29X3	SAM	11/20/24 13:41	Ca high	Kareem	Dilution
22	P4879-04	E29X4	SAM	11/20/24 13:46	Ca high	Kareem	Dilution
23	P4879-05	E29X5	SAM	11/20/24 13:50	Ca high	Kareem	Dilution
24	P4879-06	E29X5D	DUP	11/20/24 13:55	Ca high	Kareem	Dilution
25	P4879-05L	E29X5L	SD	11/20/24 14:00	Ca high	Kareem	Dilution
26	P4879-07	E29X5S	MS	11/20/24 14:04		Kareem	OK
27	P4879-08	E29X6	SAM	11/20/24 14:09	Ca high	Kareem	Dilution
28	P4879-09	E29X7	SAM	11/20/24 14:13	Ca high	Kareem	Dilution
29	P4879-10	E29X8	SAM	11/20/24 14:18	Ca high	Kareem	Dilution
30	P4879-11	E29X9	SAM	11/20/24 14:22		Kareem	OK
31	P4879-12	E29Y0	SAM	11/20/24 14:27	Ca high	Kareem	Dilution
32	P4879-13	E29Y1	SAM	11/20/24 14:31	Ca high	Kareem	Dilution
33	P4879-14	E29Y2	SAM	11/20/24 14:36	Ca high	Kareem	Dilution
34	CCV035	CCV035	CCV	11/20/24 14:41		Kareem	OK
35	CCB035	CCB035	CCB	11/20/24 14:45		Kareem	OK
36	P4879-15	E29Y3	SAM	11/20/24 14:50	Ca high	Kareem	Dilution
37	P4879-16	E29Y4	SAM	11/20/24 14:54	Ca high	Kareem	Dilution
38	P4879-17	E29Y5	SAM	11/20/24 14:59	Ca high	Kareem	Dilution

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CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

39	P4879-18	E29Y9	SAM	11/20/24 15:03	Ca high	Kareem	Dilution
40	P4879-19	E29Z0	SAM	11/20/24 15:08	Ca high	Kareem	Dilution
41	P4879-20	E29Y6	SAM	11/20/24 15:12	Ca high	Kareem	Dilution
42	P4879-21	E29Y7	SAM	11/20/24 15:17		Kareem	OK
43	P4879-22	E2A11	SAM	11/20/24 15:22	Ca high	Kareem	Dilution
44	PB165106BL	PBS106	MB	11/20/24 15:26		Kareem	OK
45	PB165106BS	LCS106	LCS	11/20/24 15:31		Kareem	OK
46	P4880-01	MBHH78	SAM	11/20/24 15:35		Kareem	OK
47	P4880-02	MBHH79	SAM	11/20/24 15:40		Kareem	OK
48	P4880-03	MBHH80	SAM	11/20/24 15:44		Kareem	OK
49	P4880-04	MBHH81	SAM	11/20/24 15:48		Kareem	OK
50	P4880-05	MBHH82	SAM	11/20/24 15:53		Kareem	OK
51	P4880-06	MBHH83	SAM	11/20/24 15:57		Kareem	OK
52	P4880-07	MBHH84	SAM	11/20/24 16:02		Kareem	OK
53	P4880-08	MBHH85	SAM	11/20/24 16:06		Kareem	OK
54	P4880-09	MBHH86	SAM	11/20/24 16:10		Kareem	OK
55	P4880-10	MBHH87	SAM	11/20/24 16:15		Kareem	OK
56	CCV036	CCV036	CCV	11/20/24 16:19		Kareem	OK
57	CCB036	CCB036	CCB	11/20/24 16:24		Kareem	OK
58	P4880-11	MBHH88	SAM	11/20/24 16:28		Kareem	OK

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CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

59	P4880-12	MBHH89	SAM	11/20/24 16:33	Ca high	Kareem	Dilution
60	P4880-13	MBHH90	SAM	11/20/24 16:37		Kareem	OK
61	P4880-14	MBHH91	SAM	11/20/24 16:42	NOT USE	Kareem	OK
62	P4880-15	MBHH91D	DUP	11/20/24 16:46	NOT USE	Kareem	OK
63	P4880-14L	MBHH91L	SD	11/20/24 16:50	NOT USE	Kareem	OK
64	P4880-16	MBHH91S	MS	11/20/24 16:55	NOT USE	Kareem	OK
65	P4880-17	MBHH92	SAM	11/20/24 16:59		Kareem	OK
66	P4880-18	MBHH93	SAM	11/20/24 17:03		Kareem	OK
67	P4880-19	MBHH94	SAM	11/20/24 17:08		Kareem	OK
68	P4880-20	MBHH95	SAM	11/20/24 17:12		Kareem	OK
69	P4880-21	MBHH96	SAM	11/20/24 17:17		Kareem	OK
70	PB165050BL	PBS050	MB	11/20/24 17:21		Kareem	OK
71	PB165050BS	LCS050	LCS	11/20/24 17:25		Kareem	OK
72	P4905-01	MBHHA5	SAM	11/20/24 17:30		Kareem	OK
73	P4905-02	MBHHA6	SAM	11/20/24 17:34	NOT USE	Kareem	OK
74	P4905-03	MBHHA6D	DUP	11/20/24 17:39	NOT USE	Kareem	OK
75	P4905-02L	MBHHA6L	SD	11/20/24 17:43	NOT USE	Kareem	OK
76	P4905-04	MBHHA6S	MS	11/20/24 17:48	NOT USE	Kareem	OK
77	P4905-05	MBHHA7	SAM	11/20/24 17:52		Kareem	OK
78	CCV037	CCV037	CCV	11/20/24 17:56		Kareem	OK

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ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

79	CCB037	CCB037	CCB	11/20/24 18:01		Kareem	OK
80	P4905-06	MBHHA8	SAM	11/20/24 18:05		Kareem	OK
81	P4905-07	MBHHA9	SAM	11/20/24 18:10		Kareem	OK
82	P4905-08	MBHHB0	SAM	11/20/24 18:14		Kareem	OK
83	P4905-09	MBHHB1	SAM	11/20/24 18:18		Kareem	OK
84	P4905-10	MBHHC5	SAM	11/20/24 18:23		Kareem	OK
85	P4905-11	MBHHC6	SAM	11/20/24 18:27		Kareem	OK
86	P4905-12	MBHHC7	SAM	11/20/24 18:31		Kareem	OK
87	P4905-13	MBHHC8	SAM	11/20/24 18:36		Kareem	OK
88	P4905-14	MBHHC9	SAM	11/20/24 18:40		Kareem	OK
89	P4905-15	MBHHD0	SAM	11/20/24 18:45		Kareem	OK
90	P4905-16	MBHHD1	SAM	11/20/24 18:49		Kareem	OK
91	P4905-17	MBHHD2	SAM	11/20/24 18:53		Kareem	OK
92	P4905-18	MBHHD3	SAM	11/20/24 18:58		Kareem	OK
93	P4905-19	MBHHD4	SAM	11/20/24 19:02		Kareem	OK
94	P4905-20	MBHHD5	SAM	11/20/24 19:07		Kareem	OK
95	PB165101BL	PBS101	MB	11/20/24 19:11		Kareem	OK
96	PB165101BS	LCS101	LCS	11/20/24 19:15		Kareem	OK
97	P4728-19DL	MBH9F6	SAM	11/20/24 19:20	2x for Ca	Kareem	Confirms
98	P4879-01DL	E29X1	SAM	11/20/24 19:25	2x for Ca	Kareem	Confirms

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Instrument ID: P5

Daily Analysis Runlog For Sequence/QCBatch ID # LB133543

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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

99	P4879-02DL	E29X2	SAM	11/20/24 19:29	5x for Ca	Kareem	Confirms
100	CCV038	CCV038	CCV	11/20/24 19:34		Kareem	OK
101	CCB038	CCB038	CCB	11/20/24 19:38		Kareem	OK
102	P4879-03DL	E29X3	SAM	11/20/24 19:43	2x for Ca	Kareem	Confirms
103	P4879-04DL	E29X4	SAM	11/20/24 19:47	5x for Ca	Kareem	Confirms
104	P4879-05DL	E29X5	SAM	11/20/24 19:52	2x for Ca	Kareem	Confirms
105	P4879-06DL	E29X5D	DUP	11/20/24 19:56	2x for Ca	Kareem	Confirms
106	P4879-05LDL	E29X5L	SD	11/20/24 20:01	10x for Ca	Kareem	Confirms
107	P4879-07DL	E29X5S	MS	11/20/24 20:05	Not required	Kareem	Not Ok
108	P4879-08DL	E29X6	SAM	11/20/24 20:10	5x for Ca	Kareem	Confirms
109	P4879-09DL	E29X7	SAM	11/20/24 20:14	5x for Ca	Kareem	Confirms
110	P4879-10DL	E29X8	SAM	11/20/24 20:18	2x for Ca	Kareem	Confirms
111	P4879-12DL	E29Y0	SAM	11/20/24 20:23	2x for Ca	Kareem	Confirms
112	P4879-13DL	E29Y1	SAM	11/20/24 20:27	2x for Ca	Kareem	Confirms
113	P4879-14DL	E29Y2	SAM	11/20/24 20:32	2x for Ca	Kareem	Confirms
114	P4879-15DL	E29Y3	SAM	11/20/24 20:36	2x for Ca	Kareem	Confirms
115	P4879-16DL	E29Y4	SAM	11/20/24 20:41	2x for Ca	Kareem	Confirms
116	P4879-17DL	E29Y5	SAM	11/20/24 20:45	2x for Ca	Kareem	Confirms
117	P4879-18DL	E29Y9	SAM	11/20/24 20:50	2x for Ca	Kareem	Confirms
118	P4879-19DL	E29Z0	SAM	11/20/24 20:54	2x for Ca	Kareem	Confirms

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ICV Standard	MP83143
CCV Standard	MP83146
ICSA Standard	MP83144,MP83145
CRI Standard	
LCS Standard	
Chk Standard	MP83148,MP83149

119	P4879-20DL	E29Y6	SAM	11/20/24 20:59	2x for Ca	Kareem	Confirms
120	P4879-22DL	E2A11	SAM	11/20/24 21:04	2x for Ca	Kareem	Confirms
121	CCV039	CCV039	CCV	11/20/24 21:08		Kareem	OK
122	CCB039	CCB039	CCB	11/20/24 21:12		Kareem	OK