

Instrument Summary:

Instrument ID: iCAP Q
Serial Number: Undefined

Labbook Summary:

Path and filename: _Application Data\Workspace\LabBooks\wlw\20210907-1.imexp
Labbook created by: Administrator
Based on template:
Hardware configuration: iCAPQ1
Labbook type: eQuant
Qtegra version (last saved): 2.7.2425.154
Labbook started: 9/7/2021 3:23:48 PM
Labbook finished: 9/7/2021 4:53:23 PM

Method Summary:

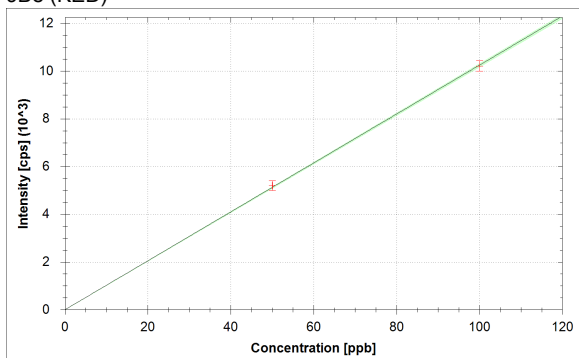
Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution	IS
6Li (KED)	KED	0.03	3	0.1	Normal	
9Be (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
11B (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
24Mg (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
27Al (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
45Sc (KED)	KED	0.03	3	0.1	Normal	
51V (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
52Cr (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
55Mn (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
56Fe (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
58Ni (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
59Co (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
63Cu (KED)	KED	0.03	3	0.1	Normal	89Y (KED)
64Zn (KED)	KED	0.03	3	0.1	Normal	89Y (KED)
69Ga (KED)	KED	0.03	3	0.1	Normal	89Y (KED)
75As (KED)	KED	0.03	3	0.1	Normal	89Y (KED)
80Se (KED)	KED	0.03	3	0.1	Normal	89Y (KED)
85Rb (KED)	KED	0.03	3	0.1	Normal	89Y (KED)
88Sr (KED)	KED	0.03	3	0.1	Normal	89Y (KED)
89Y (KED)	KED	0.03	3	0.1	Normal	
107Ag (KED)	KED	0.03	3	0.1	Normal	115In (KED)
114Cd (KED)	KED	0.03	3	0.1	Normal	115In (KED)
115In (KED)	KED	0.03	3	0.1	Normal	
133Cs (KED)	KED	0.03	3	0.1	Normal	115In (KED)
138Ba (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
139La (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
140Ce (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
141Pr (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
142Nd (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
152Sm (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
153Eu (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
158Gd (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
159Tb (KED)	KED	0.03	3	0.1	Normal	
164Dy (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
166Er (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
169Tm (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
174Yb (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
175Lu (KED)	KED	0.03	3	0.1	Normal	159Tb (KED)
205Tl (KED)	KED	0.03	3	0.1	Normal	209Bi (KED)
208Pb (KED)	KED	0.03	3	0.1	Normal	209Bi (KED)
209Bi (KED)	KED	0.03	3	0.1	Normal	
232Th (KED)	KED	0.03	3	0.1	Normal	209Bi (KED)
238U (KED)	KED	0.03	3	0.1	Normal	209Bi (KED)

Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution
6Li (KED)	KED	0.03	3	0.1	Normal
45Sc (KED)	KED	0.03	3	0.1	Normal
89Y (KED)	KED	0.03	3	0.1	Normal
115In (KED)	KED	0.03	3	0.1	Normal
159Tb (KED)	KED	0.03	3	0.1	Normal
209Bi (KED)	KED	0.03	3	0.1	Normal

No. of sweeps	Time per sweep[s]	Time per main run[s]
10	3.87	38.7

Calibration Curves:

9Be (KED)



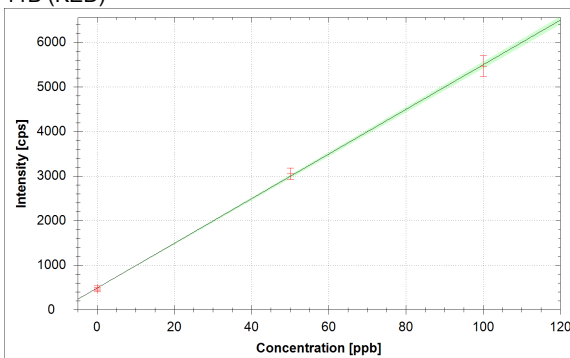
$$f(x) = 102.4500 \cdot x + 1.0916$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.011 \text{ ppb}$$

$$\text{LoD} = 0.0000 \text{ ppb}$$

11B (KED)



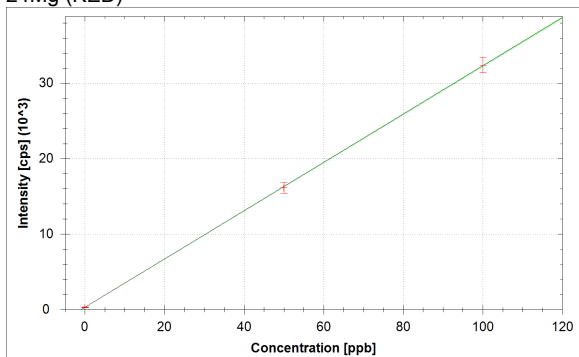
$$f(x) = 50.0727 \cdot x + 488.6825$$

$$R^2 = 0.9996$$

$$\text{BEC} = 9.759 \text{ ppb}$$

$$\text{LoD} = 1.8367 \text{ ppb}$$

24Mg (KED)



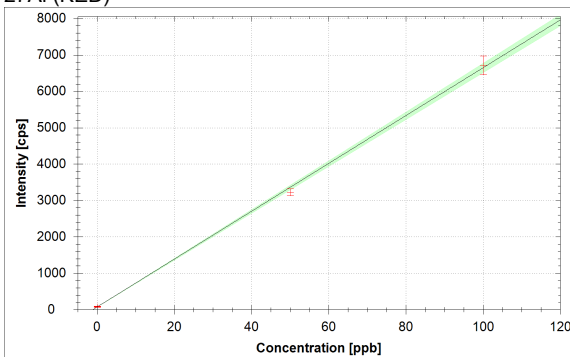
$$f(x) = 319.9341 \cdot x + 299.4187$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.936 \text{ ppb}$$

$$\text{LoD} = 0.2879 \text{ ppb}$$

27Al (KED)



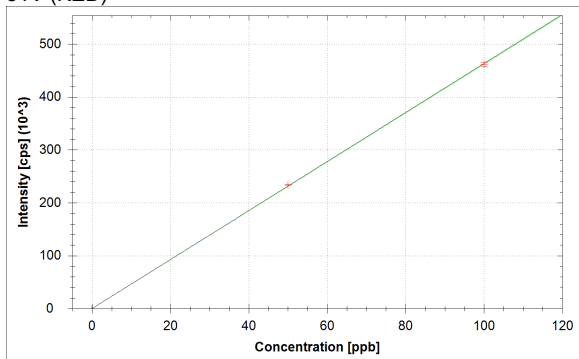
$$f(x) = 65.7333 \cdot x + 73.9979$$

$$R^2 = 0.9992$$

$$\text{BEC} = 1.126 \text{ ppb}$$

$$\text{LoD} = 0.4120 \text{ ppb}$$

51V (KED)



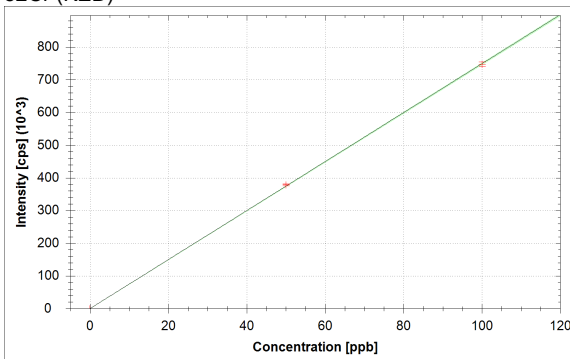
$$f(x) = 4630.4647 \cdot x + 7.5109$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.002 \text{ ppb}$$

$$\text{LoD} = 0.0025 \text{ ppb}$$

52Cr (KED)



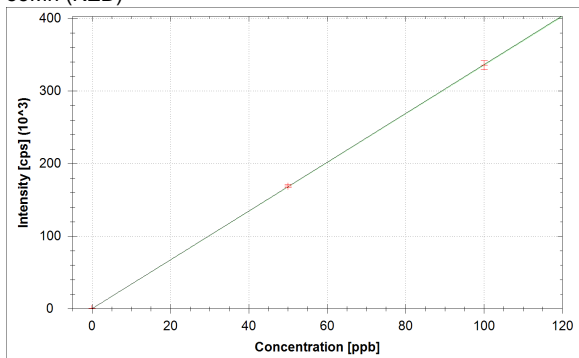
$$f(x) = 7491.6281 \cdot x + 102.5563$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.014 \text{ ppb}$$

$$\text{LoD} = 0.0091 \text{ ppb}$$

55Mn (KED)



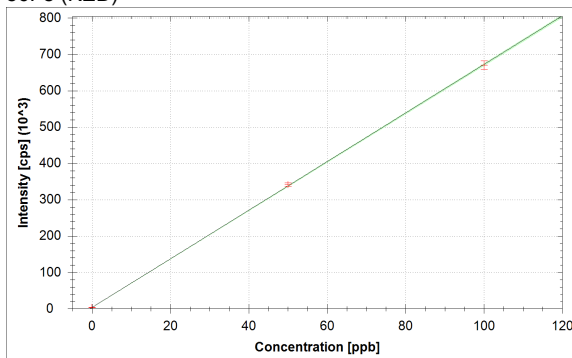
$$f(x) = 3360.3138 \cdot x + 124.2832$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.037 \text{ ppb}$$

$$\text{LoD} = 0.0119 \text{ ppb}$$

56Fe (KED)



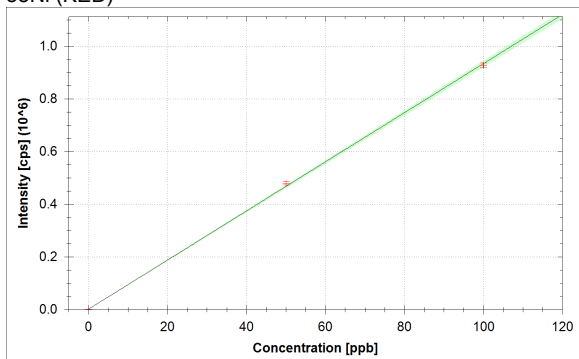
$$f(x) = 6685.3726 \cdot x + 3571.9145$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.534 \text{ ppb}$$

$$\text{LoD} = 0.1094 \text{ ppb}$$

58Ni (KED)



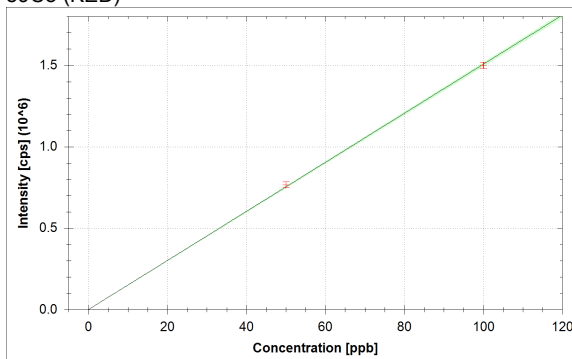
$$f(x) = 9322.9971 \cdot x + 1407.9880$$

$$R^2 = 0.9997$$

$$\text{BEC} = 0.151 \text{ ppb}$$

$$\text{LoD} = 0.0263 \text{ ppb}$$

59Co (KED)



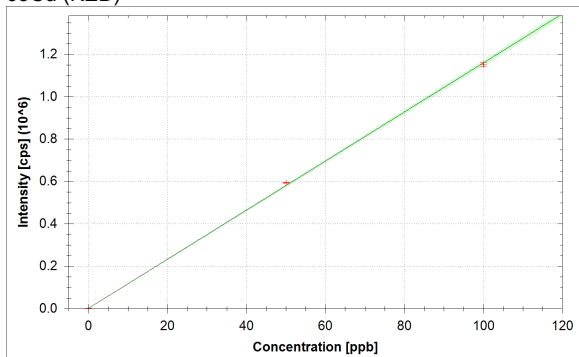
$$f(x) = 15064.8666 \cdot x + 162.2361$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.011 \text{ ppb}$$

$$\text{LoD} = 0.0026 \text{ ppb}$$

63Cu (KED)



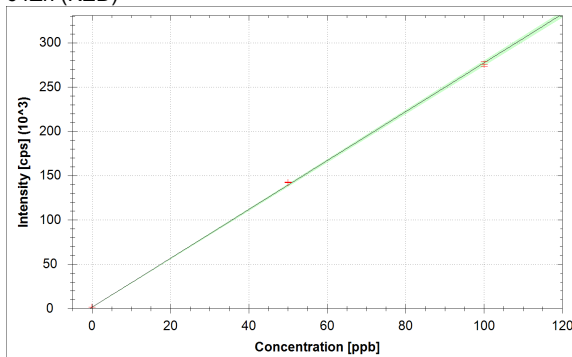
$$f(x) = 11581.0582 \cdot x + 1184.8155$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.102 \text{ ppb}$$

$$\text{LoD} = 0.0123 \text{ ppb}$$

64Zn (KED)



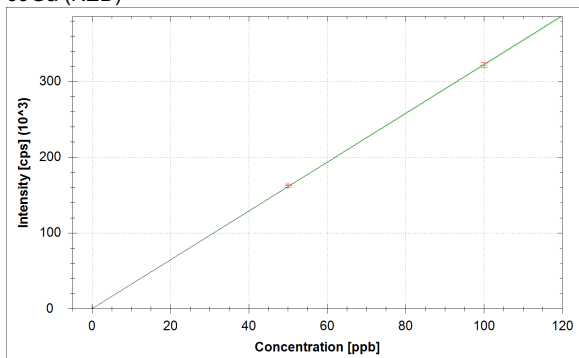
$$f(x) = 2756.5136 \cdot x + 1527.8725$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.554 \text{ ppb}$$

$$\text{LoD} = 0.0569 \text{ ppb}$$

69Ga (KED)



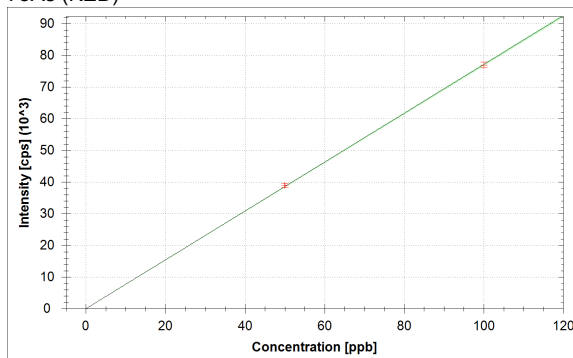
$$f(x) = 3221.3891 \cdot x + 64.8231$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.020 \text{ ppb}$$

$$\text{LoD} = 0.0034 \text{ ppb}$$

75As (KED)



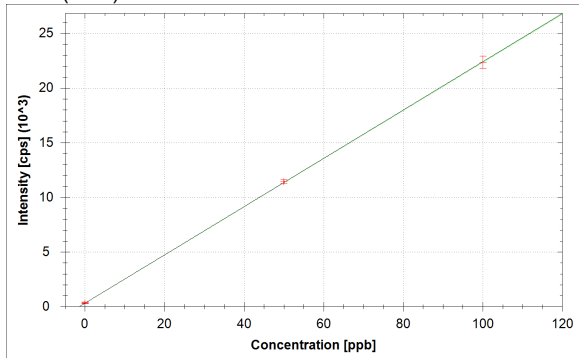
$$f(x) = 771.2574 \cdot x + 4.2711$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.006 \text{ ppb}$$

$$\text{LoD} = 0.0315 \text{ ppb}$$

80Se (KED)



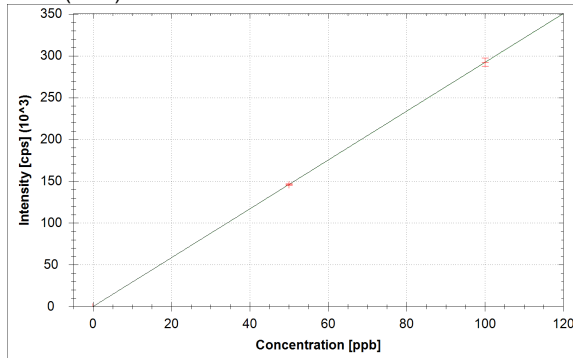
$$f(x) = 220.9615 \cdot x + 301.7525$$

$$R^2 = 1.0000$$

$$\text{BEC} = 1.366 \text{ ppb}$$

$$\text{LoD} = 0.9759 \text{ ppb}$$

85Rb (KED)



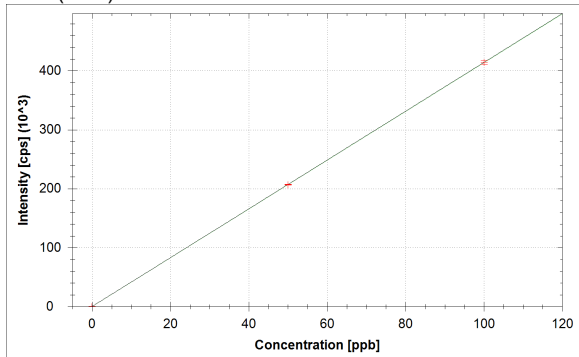
$$f(x) = 2921.9364 \cdot x + 39.8233$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.014 \text{ ppb}$$

$$\text{LoD} = 0.0270 \text{ ppb}$$

88Sr (KED)



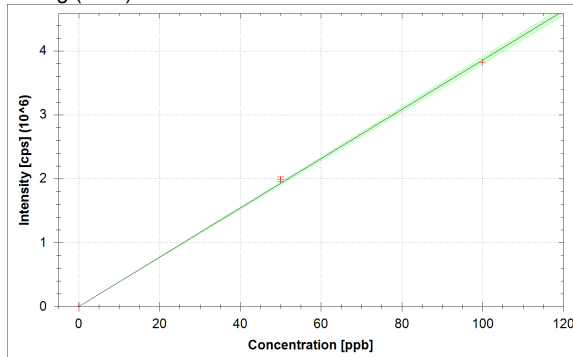
$$f(x) = 4141.3409 \cdot x + 140.2032$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.034 \text{ ppb}$$

$$\text{LoD} = 0.0095 \text{ ppb}$$

107Ag (KED)



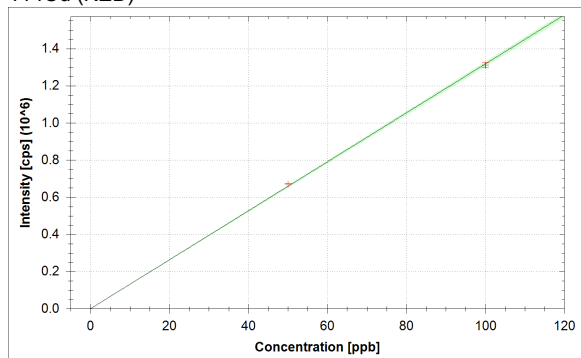
$$f(x) = 38536.2976 \cdot x + 30.5892$$

$$R^2 = 0.9995$$

$$\text{BEC} = 0.001 \text{ ppb}$$

$$\text{LoD} = 0.0003 \text{ ppb}$$

114Cd (KED)



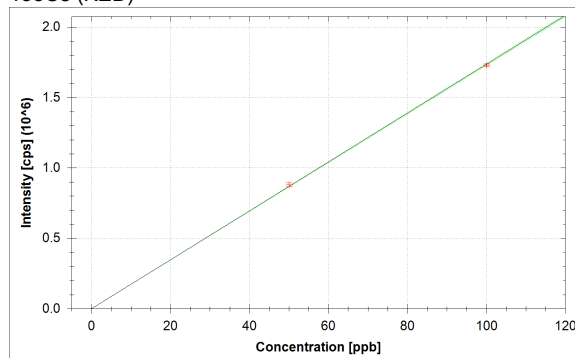
$$f(x) = 13174.4067 \cdot x + 124.9011$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.009 \text{ ppb}$$

$$\text{LoD} = 0.0025 \text{ ppb}$$

133Cs (KED)



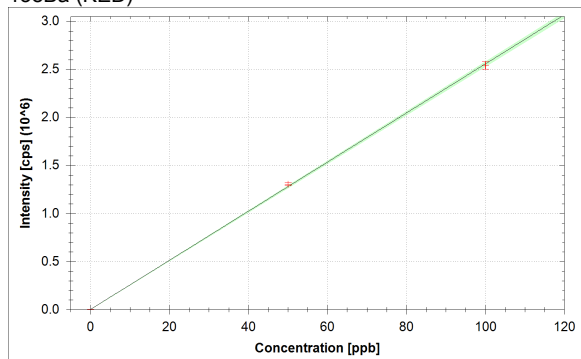
$$f(x) = 17352.1544 \cdot x + 29.5633$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.002 \text{ ppb}$$

$$\text{LoD} = 0.0000 \text{ ppb}$$

138Ba (KED)



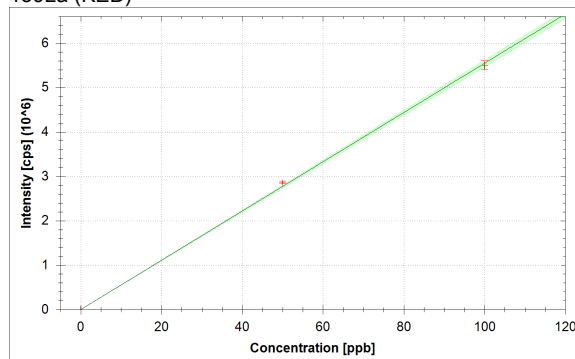
$$f(x) = 25546.2363 \cdot x + 1497.2447$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.059 \text{ ppb}$$

$$\text{LoD} = 0.0069 \text{ ppb}$$

139La (KED)



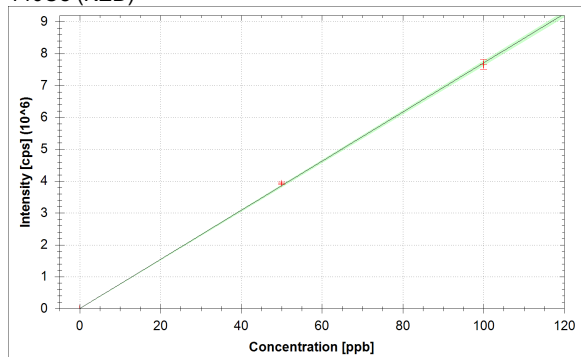
$$f(x) = 55450.5511 \cdot x + 99.5164$$

$$R^2 = 0.9995$$

$$\text{BEC} = 0.002 \text{ ppb}$$

$$\text{LoD} = 0.0014 \text{ ppb}$$

140Ce (KED)



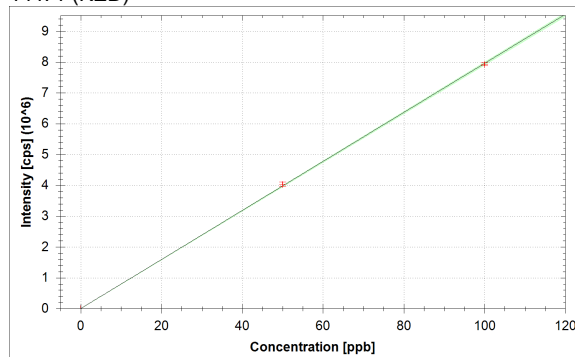
$$f(x) = 77047.2826 \cdot x + 412.1716$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.005 \text{ ppb}$$

$$\text{LoD} = 0.0001 \text{ ppb}$$

141Pr (KED)

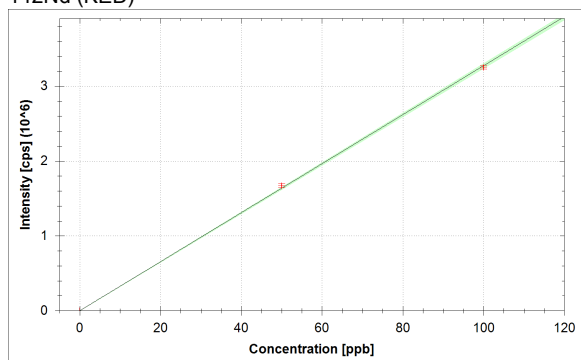


$$f(x) = 79586.0084 \cdot x + 38.9020$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.000 \text{ ppb}$$

$$\text{LoD} = 0.0006 \text{ ppb}$$

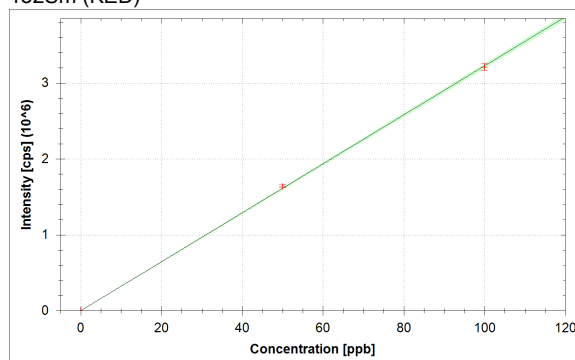
¹⁴²Nd (KED)

$$f(x) = 32731.0711 \cdot x + 79.9450$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.002 \text{ ppb}$$

$$\text{LoD} = 0.0008 \text{ ppb}$$

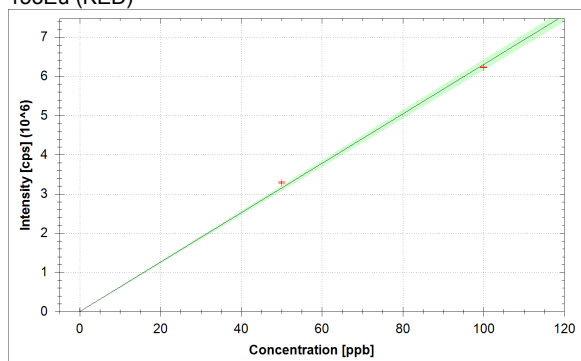
¹⁵²Sm (KED)

$$f(x) = 32254.4076 \cdot x + 11.8595$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.000 \text{ ppb}$$

$$\text{LoD} = 0.0008 \text{ ppb}$$

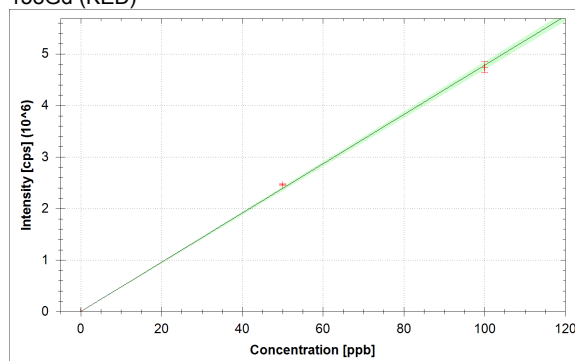
¹⁵³Eu (KED)

$$f(x) = 63017.8622 \cdot x + 12.9853$$

$$R^2 = 0.9991$$

$$\text{BEC} = 0.000 \text{ ppb}$$

$$\text{LoD} = 0.0001 \text{ ppb}$$

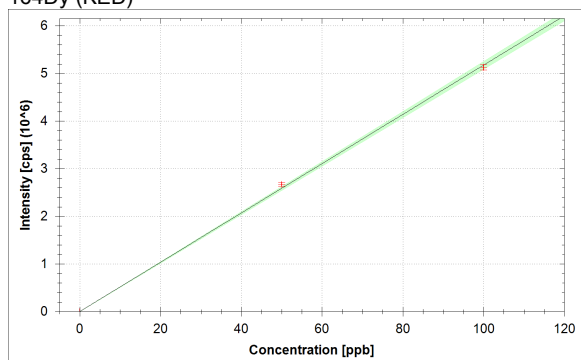
¹⁵⁸Gd (KED)

$$f(x) = 47784.6244 \cdot x + 16.2074$$

$$R^2 = 0.9996$$

$$\text{BEC} = 0.000 \text{ ppb}$$

$$\text{LoD} = 0.0006 \text{ ppb}$$

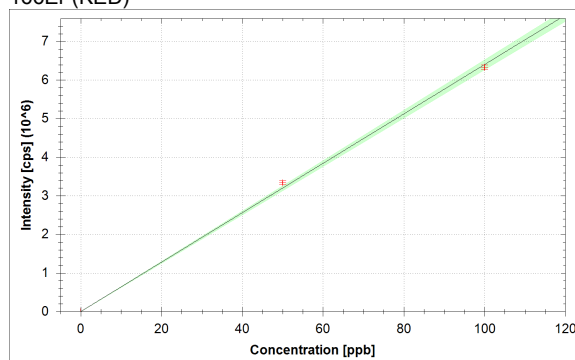
¹⁶⁴Dy (KED)

$$f(x) = 51735.1200 \cdot x + 27.0378$$

$$R^2 = 0.9995$$

$$\text{BEC} = 0.001 \text{ ppb}$$

$$\text{LoD} = 0.0008 \text{ ppb}$$

¹⁶⁶Er (KED)

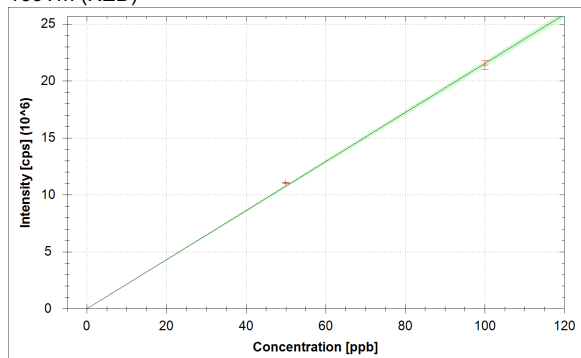
$$f(x) = 63996.7913 \cdot x + 403.3586$$

$$R^2 = 0.9992$$

$$\text{BEC} = 0.006 \text{ ppb}$$

$$\text{LoD} = 0.0022 \text{ ppb}$$

169Tm (KED)



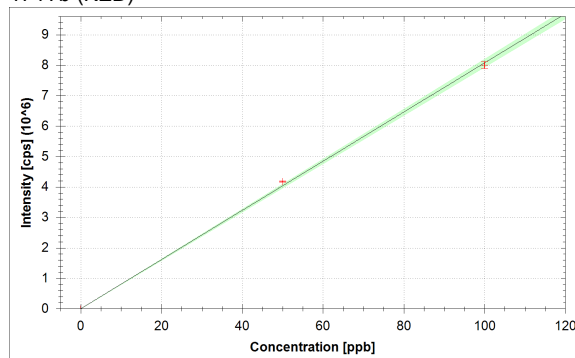
$$f(x) = 215211.1656 \cdot x + 19.4677$$

$$R^2 = 0.9997$$

$$\text{BEC} = 0.000 \text{ ppb}$$

$$\text{LoD} = 0.0002 \text{ ppb}$$

174Yb (KED)



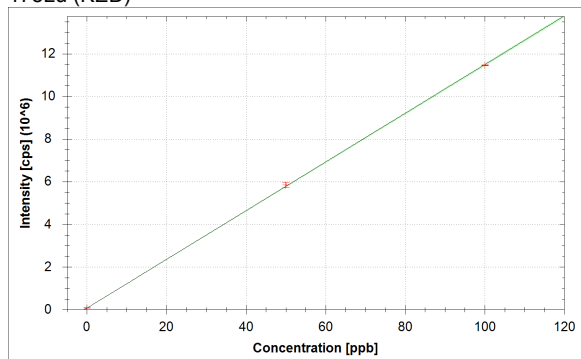
$$f(x) = 80725.9692 \cdot x + 47.5415$$

$$R^2 = 0.9994$$

$$\text{BEC} = 0.001 \text{ ppb}$$

$$\text{LoD} = 0.0008 \text{ ppb}$$

175Lu (KED)



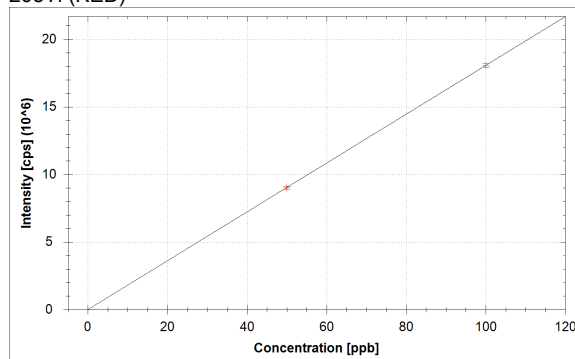
$$f(x) = 114235.6952 \cdot x + 68442.8194$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.599 \text{ ppb}$$

$$\text{LoD} = 0.0067 \text{ ppb}$$

205TI (KED)



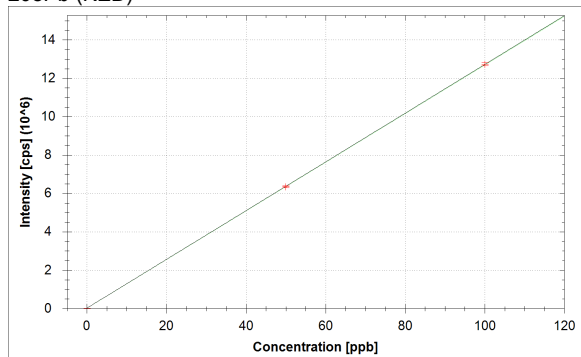
$$f(x) = 180719.5098 \cdot x + 34.5487$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppb}$$

$$\text{LoD} = 0.0005 \text{ ppb}$$

208Pb (KED)



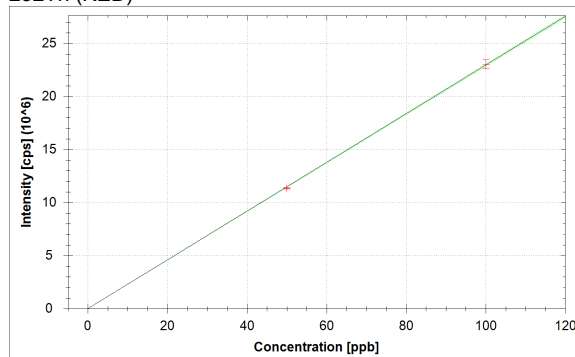
$$f(x) = 126909.3270 \cdot x + 22489.4599$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.177 \text{ ppb}$$

$$\text{LoD} = 0.0116 \text{ ppb}$$

232Th (KED)



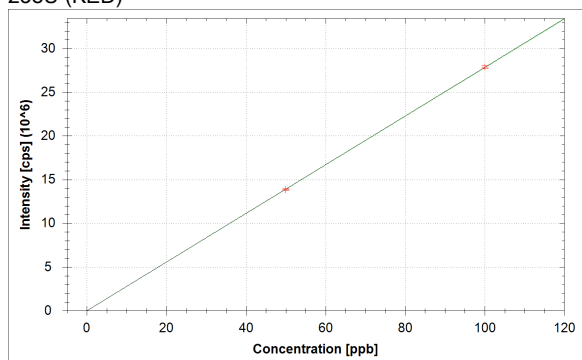
$$f(x) = 229678.6753 \cdot x + 347.8497$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.002 \text{ ppb}$$

$$\text{LoD} = 0.0008 \text{ ppb}$$

238U (KED)



$$f(x) = 278346.9802 \cdot x + 120.5050$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.000 \text{ ppb}$$

$$\text{LoD} = 0.0009 \text{ ppb}$$

Standards:

Analysis Index: 3
 Analysis Name: 0+20
 Analysis Type: STD
 Analysis Started at: 9/7/2021 3:30:42 PM
 Standard (Stock): std0
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	100.306 %		
9Be (KED)	0.000 ppb	1.7 %	0.000 ppb
11B (KED)	0.000 ppb	0.1 %	0.000 ppb
24Mg (KED)	0.000 ppb	0.1 %	0.000 ppb
27Al (KED)	0.000 ppb	0.2 %	0.000 ppb
45Sc (KED)	103.057 %		
51V (KED)	0.000 ppb	0.2 %	0.000 ppb
52Cr (KED)	0.000 ppb	0.1 %	0.000 ppb
55Mn (KED)	0.000 ppb	0.2 %	0.000 ppb
56Fe (KED)	0.000 ppb	0.1 %	0.000 ppb
58Ni (KED)	0.000 ppb	0.1 %	0.000 ppb
59Co (KED)	0.000 ppb	0.2 %	0.000 ppb
63Cu (KED)	0.000 ppb	0.0 %	0.000 ppb
64Zn (KED)	0.000 ppb	0.0 %	0.000 ppb
69Ga (KED)	0.000 ppb	0.2 %	0.000 ppb
75As (KED)	0.000 ppb	1.1 %	0.000 ppb
80Se (KED)	0.000 ppb	0.1 %	0.000 ppb
85Rb (KED)	0.000 ppb	0.2 %	0.000 ppb
88Sr (KED)	0.000 ppb	0.0 %	0.000 ppb
89Y (KED)	102.986 %		
107Ag (KED)	0.000 ppb	0.4 %	0.000 ppb
114Cd (KED)	0.000 ppb	0.2 %	0.000 ppb
115In (KED)	101.524 %		
133Cs (KED)	0.000 ppb	0.3 %	0.000 ppb
138Ba (KED)	0.000 ppb	0.1 %	0.000 ppb
139La (KED)	0.000 ppb	0.1 %	0.000 ppb
140Ce (KED)	0.000 ppb	0.1 %	0.000 ppb
141Pr (KED)	0.000 ppb	0.2 %	0.000 ppb
142Nd (KED)	0.000 ppb	0.3 %	0.000 ppb
152Sm (KED)	0.000 ppb	0.8 %	0.000 ppb
153Eu (KED)	0.000 ppb	0.3 %	0.000 ppb
158Gd (KED)	0.000 ppb	0.2 %	0.000 ppb
159Tb (KED)	102.738 %		
164Dy (KED)	0.000 ppb	0.1 %	0.000 ppb
166Er (KED)	0.000 ppb	0.1 %	0.000 ppb
169Tm (KED)	0.000 ppb	0.0 %	0.000 ppb
174Yb (KED)	0.000 ppb	0.2 %	0.000 ppb
175Lu (KED)	0.000 ppb	0.0 %	0.000 ppb
205Tl (KED)	0.000 ppb	0.1 %	0.000 ppb
208Pb (KED)	0.000 ppb	0.0 %	0.000 ppb
209Bi (KED)	99.685 %		
232Th (KED)	0.000 ppb	0.1 %	0.000 ppb
238U (KED)	0.000 ppb	0.2 %	0.000 ppb

Standards:

Analysis Index: 4
 Analysis Name: 50+20
 Analysis Type: STD
 Analysis Started at: 9/7/2021 3:34:13 PM
 Standard (Stock): std1
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	98.472 %		
9Be (KED)	50.758 ppb	3.8 %	50.000 ppb
11B (KED)	51.164 ppb	5.0 %	50.000 ppb
24Mg (KED)	49.474 ppb	4.6 %	50.000 ppb
27Al (KED)	47.915 ppb	3.1 %	50.000 ppb
45Sc (KED)	105.985 %		
51V (KED)	50.477 ppb	0.3 %	50.000 ppb
52Cr (KED)	50.475 ppb	0.9 %	50.000 ppb
55Mn (KED)	50.290 ppb	1.2 %	50.000 ppb
56Fe (KED)	50.520 ppb	1.5 %	50.000 ppb
58Ni (KED)	51.281 ppb	1.3 %	50.000 ppb
59Co (KED)	50.835 ppb	2.3 %	50.000 ppb
63Cu (KED)	51.080 ppb	0.6 %	50.000 ppb
64Zn (KED)	51.073 ppb	0.3 %	50.000 ppb
69Ga (KED)	50.440 ppb	1.3 %	50.000 ppb
75As (KED)	50.484 ppb	1.8 %	50.000 ppb
80Se (KED)	50.328 ppb	1.6 %	50.000 ppb
85Rb (KED)	49.919 ppb	0.7 %	50.000 ppb
88Sr (KED)	49.862 ppb	0.3 %	50.000 ppb
89Y (KED)	108.379 %		
107Ag (KED)	51.683 ppb	1.8 %	50.000 ppb
114Cd (KED)	50.957 ppb	0.1 %	50.000 ppb
115In (KED)	105.895 %		
133Cs (KED)	50.636 ppb	1.5 %	50.000 ppb
138Ba (KED)	51.073 ppb	1.5 %	50.000 ppb
139La (KED)	51.568 ppb	1.1 %	50.000 ppb
140Ce (KED)	51.030 ppb	1.0 %	50.000 ppb
141Pr (KED)	50.702 ppb	1.8 %	50.000 ppb
142Nd (KED)	51.081 ppb	1.6 %	50.000 ppb
152Sm (KED)	50.976 ppb	1.3 %	50.000 ppb
153Eu (KED)	52.159 ppb	0.9 %	50.000 ppb
158Gd (KED)	51.557 ppb	0.6 %	50.000 ppb
159Tb (KED)	105.682 %		
164Dy (KED)	51.696 ppb	1.5 %	50.000 ppb
166Er (KED)	52.140 ppb	1.5 %	50.000 ppb
169Tm (KED)	51.232 ppb	0.4 %	50.000 ppb
174Yb (KED)	51.742 ppb	0.5 %	50.000 ppb
175Lu (KED)	50.505 ppb	2.0 %	50.000 ppb
205Tl (KED)	49.897 ppb	1.2 %	50.000 ppb
208Pb (KED)	49.788 ppb	0.7 %	50.000 ppb
209Bi (KED)	103.709 %		
232Th (KED)	49.382 ppb	0.6 %	50.000 ppb
238U (KED)	49.737 ppb	0.6 %	50.000 ppb

Standards:

Analysis Index: 5
 Analysis Name: 100+20
 Analysis Type: STD
 Analysis Started at: 9/7/2021 3:37:35 PM
 Standard (Stock): std2
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	96.128 %		
9Be (KED)	99.621 ppb	2.1 %	100.000 ppb
11B (KED)	99.418 ppb	4.7 %	100.000 ppb
24Mg (KED)	100.263 ppb	3.1 %	100.000 ppb
27Al (KED)	101.043 ppb	3.8 %	100.000 ppb
45Sc (KED)	103.861 %		
51V (KED)	99.762 ppb	0.8 %	100.000 ppb
52Cr (KED)	99.762 ppb	1.0 %	100.000 ppb
55Mn (KED)	99.855 ppb	1.9 %	100.000 ppb
56Fe (KED)	99.740 ppb	1.7 %	100.000 ppb
58Ni (KED)	99.359 ppb	1.0 %	100.000 ppb
59Co (KED)	99.582 ppb	1.3 %	100.000 ppb
63Cu (KED)	99.460 ppb	0.8 %	100.000 ppb
64Zn (KED)	99.463 ppb	1.0 %	100.000 ppb
69Ga (KED)	99.780 ppb	1.0 %	100.000 ppb
75As (KED)	99.758 ppb	1.2 %	100.000 ppb
80Se (KED)	99.836 ppb	2.6 %	100.000 ppb
85Rb (KED)	100.040 ppb	1.7 %	100.000 ppb
88Sr (KED)	100.069 ppb	0.8 %	100.000 ppb
89Y (KED)	106.155 %		
107Ag (KED)	99.158 ppb	0.0 %	100.000 ppb
114Cd (KED)	99.522 ppb	1.1 %	100.000 ppb
115In (KED)	104.882 %		
133Cs (KED)	99.682 ppb	0.5 %	100.000 ppb
138Ba (KED)	99.464 ppb	1.6 %	100.000 ppb
139La (KED)	99.216 ppb	1.8 %	100.000 ppb
140Ce (KED)	99.485 ppb	2.1 %	100.000 ppb
141Pr (KED)	99.649 ppb	0.7 %	100.000 ppb
142Nd (KED)	99.460 ppb	0.8 %	100.000 ppb
152Sm (KED)	99.512 ppb	1.3 %	100.000 ppb
153Eu (KED)	98.921 ppb	0.2 %	100.000 ppb
158Gd (KED)	99.222 ppb	2.3 %	100.000 ppb
159Tb (KED)	105.873 %		
164Dy (KED)	99.152 ppb	1.1 %	100.000 ppb
166Er (KED)	98.930 ppb	0.9 %	100.000 ppb
169Tm (KED)	99.384 ppb	1.8 %	100.000 ppb
174Yb (KED)	99.129 ppb	1.4 %	100.000 ppb
175Lu (KED)	99.748 ppb	0.1 %	100.000 ppb
205Tl (KED)	100.051 ppb	0.8 %	100.000 ppb
208Pb (KED)	100.106 ppb	0.6 %	100.000 ppb
209Bi (KED)	101.444 %		
232Th (KED)	100.309 ppb	1.9 %	100.000 ppb
238U (KED)	100.132 ppb	0.6 %	100.000 ppb

Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Main Runs:	Survey Runs:	Start Time:	User name:
1	water	3	0	9/7/2021 3:23:54 PM	WINDOWS-UPCI4ER\Administrator
2	blk	3	0	9/7/2021 3:26:53 PM	WINDOWS-UPCI4ER\Administrator
3	0+20	3	0	9/7/2021 3:30:42 PM	WINDOWS-UPCI4ER\Administrator
4	50+20	3	0	9/7/2021 3:34:13 PM	WINDOWS-UPCI4ER\Administrator
5	100+20	3	0	9/7/2021 3:37:35 PM	WINDOWS-UPCI4ER\Administrator
6	921171362jian	3	0	9/7/2021 3:41:01 PM	WINDOWS-UPCI4ER\Administrator
7	921171377jian	3	0	9/7/2021 3:44:31 PM	WINDOWS-UPCI4ER\Administrator
8	921144406jian	3	0	9/7/2021 3:48:13 PM	WINDOWS-UPCI4ER\Administrator
9	028736jian	3	0	9/7/2021 3:52:07 PM	WINDOWS-UPCI4ER\Administrator
10	028733jian	3	0	9/7/2021 3:55:51 PM	WINDOWS-UPCI4ER\Administrator
11	011907jian	3	0	9/7/2021 3:59:15 PM	WINDOWS-UPCI4ER\Administrator
12	025899jian	3	0	9/7/2021 4:02:47 PM	WINDOWS-UPCI4ER\Administrator
13	028674jian	3	0	9/7/2021 4:06:16 PM	WINDOWS-UPCI4ER\Administrator
14	028732jian	3	0	9/7/2021 4:09:46 PM	WINDOWS-UPCI4ER\Administrator
15	026077jian	3	0	9/7/2021 4:13:21 PM	WINDOWS-UPCI4ER\Administrator
16	027060jian	3	0	9/7/2021 4:17:00 PM	WINDOWS-UPCI4ER\Administrator
17	019243ti	3	0	9/7/2021 4:20:34 PM	WINDOWS-UPCI4ER\Administrator
18	19000009wu	3	0	9/7/2021 4:24:13 PM	WINDOWS-UPCI4ER\Administrator
19	wuhao fu	3	0	9/7/2021 4:27:43 PM	WINDOWS-UPCI4ER\Administrator
20	wuhao ti	3	0	9/7/2021 4:31:19 PM	WINDOWS-UPCI4ER\Administrator
21	19304ti	3	0	9/7/2021 4:34:53 PM	WINDOWS-UPCI4ER\Administrator
22	19-1fu	3	0	9/7/2021 4:38:32 PM	WINDOWS-UPCI4ER\Administrator
23	19-20fu	3	0	9/7/2021 4:42:04 PM	WINDOWS-UPCI4ER\Administrator
24	19-10fu	3	0	9/7/2021 4:46:00 PM	WINDOWS-UPCI4ER\Administrator
25	028729ti	3	0	9/7/2021 4:49:59 PM	WINDOWS-UPCI4ER\Administrator

Sample Summary

Instrument ID: iCAP Q

Analysis index: 1

Analysis name: water

Analysis started at: 9/7/2021 3:23:54 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	0.000 %	
11B (KED)	Infinity ppb	
24Mg (KED)	Infinity ppb	
27Al (KED)	18.291 ppb	100.8 %
45Sc (KED)	0.290 %	21.8 %
51V (KED)	0.371 ppb	130.1 %
52Cr (KED)	1.171 ppb	69.8 %
55Mn (KED)	1.844 ppb	23.6 %
56Fe (KED)	10.080 ppb	13.9 %
58Ni (KED)	47.359 ppb	25.7 %
59Co (KED)	0.178 ppb	46.9 %
63Cu (KED)	Infinity ppb	
64Zn (KED)	Infinity ppb	
80Se (KED)	Infinity ppb	
85Rb (KED)	Infinity ppb	
88Sr (KED)	Infinity ppb	
89Y (KED)	0.000 %	
114Cd (KED)	Infinity ppb	
115In (KED)	0.000 %	86.6 %
138Ba (KED)	Infinity ppb	
140Ce (KED)	Infinity ppb	
159Tb (KED)	0.000 %	
205Tl (KED)	2.064 ppb	66.8 %
208Pb (KED)	27.225 ppb	50.8 %
209Bi (KED)	0.002 %	24.1 %
232Th (KED)	0.190 ppb	174.6 %
238U (KED)	0.688 ppb	103.7 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	0.000 %	0 cps	
9Be (KED)		0 cps	
11B (KED)	Infinity ppb	81 cps	22.6 %
24Mg (KED)	Infinity ppb	29 cps	33.3 %
27Al (KED)	18.291 ppb	3 cps	100.0 %
45Sc (KED)	0.290 %	70 cps	21.8 %
51V (KED)	0.371 ppb	4 cps	114.6 %
52Cr (KED)	1.171 ppb	24 cps	55.1 %
55Mn (KED)	1.844 ppb	18 cps	10.8 %
56Fe (KED)	10.080 ppb	202 cps	9.1 %
58Ni (KED)	47.359 ppb	1,239 cps	9.3 %
59Co (KED)	0.178 ppb	8 cps	24.7 %
63Cu (KED)	Infinity ppb	250 cps	9.6 %
64Zn (KED)	Infinity ppb	152 cps	7.7 %
69Ga (KED)		2 cps	173.2 %
75As (KED)		2 cps	86.6 %
80Se (KED)	Infinity ppb	312 cps	8.6 %
85Rb (KED)	Infinity ppb	8 cps	65.5 %
88Sr (KED)	Infinity ppb	10 cps	66.7 %
89Y (KED)	0.000 %	0 cps	
107Ag (KED)		1 cps	173.2 %

Category	Concentration average	Intensity average	Intensity RSD
114Cd (KED)	Infinity ppb	3 cps	100.0 %
115In (KED)	0.000 %	2 cps	86.6 %
133Cs (KED)		0 cps	
138Ba (KED)	Infinity ppb	89 cps	21.7 %
139La (KED)		3 cps	173.2 %
140Ce (KED)	Infinity ppb	3 cps	0.0 %
141Pr (KED)		2 cps	86.6 %
142Nd (KED)		2 cps	173.2 %
152Sm (KED)		0 cps	
153Eu (KED)		0 cps	
158Gd (KED)		0 cps	
159Tb (KED)	0.000 %	0 cps	
164Dy (KED)		0 cps	
166Er (KED)		2 cps	173.2 %
169Tm (KED)		0 cps	
174Yb (KED)		0 cps	
175Lu (KED)		0 cps	
205Tl (KED)	2.064 ppb	7 cps	50.0 %
208Pb (KED)	27.225 ppb	64 cps	29.9 %
209Bi (KED)	0.002 %	71 cps	24.1 %
232Th (KED)	0.190 ppb	1 cps	173.2 %
238U (KED)	0.688 ppb	4 cps	114.6 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 2

Analysis name: blk

Analysis started at: 9/7/2021 3:26:53 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	100.000 %	
9Be (KED)	-0.011 ppb	0.0 %
11B (KED)	-0.995 ppb	61.5 %
24Mg (KED)	-0.010 ppb	922.2 %
27Al (KED)	-0.094 ppb	146.5 %
45Sc (KED)	100.000 %	
51V (KED)	0.000 ppb	191.4 %
52Cr (KED)	0.000 ppb	1,294.8 %
55Mn (KED)	-0.012 ppb	33.5 %
56Fe (KED)	-0.017 ppb	218.4 %
58Ni (KED)	0.014 ppb	61.9 %
59Co (KED)	0.000 ppb	1,098.5 %
63Cu (KED)	0.005 ppb	80.3 %
64Zn (KED)	0.036 ppb	52.4 %
69Ga (KED)	-0.001 ppb	139.2 %
75As (KED)	0.009 ppb	116.1 %
80Se (KED)	0.137 ppb	237.8 %
85Rb (KED)	-0.002 ppb	588.2 %
88Sr (KED)	0.000 ppb	858.6 %
89Y (KED)	100.000 %	
107Ag (KED)	0.000 ppb	34.4 %
114Cd (KED)	-0.001 ppb	69.0 %
115In (KED)	100.000 %	
133Cs (KED)	0.000 ppb	54.8 %
138Ba (KED)	0.003 ppb	79.4 %
139La (KED)	0.000 ppb	273.7 %
140Ce (KED)	0.000 ppb	13.5 %
141Pr (KED)	0.000 ppb	744.9 %
142Nd (KED)	0.000 ppb	68.2 %
152Sm (KED)	0.000 ppb	601.4 %
153Eu (KED)	0.000 ppb	46.4 %
158Gd (KED)	0.000 ppb	1,928.2 %
159Tb (KED)	100.000 %	
164Dy (KED)	0.000 ppb	121.0 %
166Er (KED)	0.000 ppb	180.3 %
169Tm (KED)	0.000 ppb	133.7 %
174Yb (KED)	0.000 ppb	254.3 %
175Lu (KED)	0.095 ppb	2.4 %
205Tl (KED)	0.000 ppb	432.7 %
208Pb (KED)	-0.006 ppb	60.1 %
209Bi (KED)	100.000 %	
232Th (KED)	0.001 ppb	31.0 %
238U (KED)	0.000 ppb	106.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	100.000 %	2,181 cps	3.9 %
9Be (KED)	-0.011 ppb	0 cps	
11B (KED)	-0.995 ppb	439 cps	8.3 %
24Mg (KED)	-0.010 ppb	297 cps	13.2 %
27Al (KED)	-0.094 ppb	68 cps	12.4 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	100.000 %	24,109 cps	0.9 %
51V (KED)	0.000 ppb	6 cps	69.3 %
52Cr (KED)	0.000 ppb	104 cps	22.6 %
55Mn (KED)	-0.012 ppb	84 cps	14.9 %
56Fe (KED)	-0.017 ppb	3,462 cps	7.9 %
58Ni (KED)	0.014 ppb	1,540 cps	5.4 %
59Co (KED)	0.000 ppb	163 cps	7.1 %
63Cu (KED)	0.005 ppb	1,243 cps	1.5 %
64Zn (KED)	0.036 ppb	1,627 cps	1.1 %
69Ga (KED)	-0.001 ppb	62 cps	8.2 %
75As (KED)	0.009 ppb	11 cps	69.3 %
80Se (KED)	0.137 ppb	332 cps	22.6 %
85Rb (KED)	-0.002 ppb	36 cps	75.8 %
88Sr (KED)	0.000 ppb	139 cps	11.8 %
89Y (KED)	100.000 %	237,870 cps	2.5 %
107Ag (KED)	0.000 ppb	19 cps	20.4 %
114Cd (KED)	-0.001 ppb	109 cps	9.4 %
115In (KED)	100.000 %	509,129 cps	0.8 %
133Cs (KED)	0.000 ppb	30 cps	0.0 %
138Ba (KED)	0.003 ppb	1,571 cps	3.5 %
139La (KED)	0.000 ppb	109 cps	23.4 %
140Ce (KED)	0.000 ppb	393 cps	0.8 %
141Pr (KED)	0.000 ppb	41 cps	40.0 %
142Nd (KED)	0.000 ppb	92 cps	9.1 %
152Sm (KED)	0.000 ppb	13 cps	66.1 %
153Eu (KED)	0.000 ppb	9 cps	21.7 %
158Gd (KED)	0.000 ppb	17 cps	52.9 %
159Tb (KED)	100.000 %	3,343,206 cps	0.3 %
164Dy (KED)	0.000 ppb	16 cps	89.2 %
166Er (KED)	0.000 ppb	378 cps	12.5 %
169Tm (KED)	0.000 ppb	29 cps	43.7 %
174Yb (KED)	0.000 ppb	39 cps	57.1 %
175Lu (KED)	0.095 ppb	79,252 cps	0.3 %
205Tl (KED)	0.000 ppb	41 cps	69.0 %
208Pb (KED)	-0.006 ppb	21,672 cps	2.7 %
209Bi (KED)	100.000 %	3,570,445 cps	1.1 %
232Th (KED)	0.001 ppb	540 cps	12.0 %
238U (KED)	0.000 ppb	199 cps	41.9 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 3

Analysis name: 0+20

Analysis started at: 9/7/2021 3:30:42 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	100.306 %	
9Be (KED)	0.000 ppb	1.7 %
11B (KED)	0.000 ppb	0.1 %
24Mg (KED)	0.000 ppb	0.1 %
27Al (KED)	0.000 ppb	0.2 %
45Sc (KED)	103.057 %	
51V (KED)	0.000 ppb	0.2 %
52Cr (KED)	0.000 ppb	0.1 %
55Mn (KED)	0.000 ppb	0.2 %
56Fe (KED)	0.000 ppb	0.1 %
58Ni (KED)	0.000 ppb	0.1 %
59Co (KED)	0.000 ppb	0.2 %
63Cu (KED)	0.000 ppb	0.0 %
64Zn (KED)	0.000 ppb	0.0 %
69Ga (KED)	0.000 ppb	0.2 %
75As (KED)	0.000 ppb	1.1 %
80Se (KED)	0.000 ppb	0.1 %
85Rb (KED)	0.000 ppb	0.2 %
88Sr (KED)	0.000 ppb	0.0 %
89Y (KED)	102.986 %	
107Ag (KED)	0.000 ppb	0.4 %
114Cd (KED)	0.000 ppb	0.2 %
115In (KED)	101.524 %	
133Cs (KED)	0.000 ppb	0.3 %
138Ba (KED)	0.000 ppb	0.1 %
139La (KED)	0.000 ppb	0.1 %
140Ce (KED)	0.000 ppb	0.1 %
141Pr (KED)	0.000 ppb	0.2 %
142Nd (KED)	0.000 ppb	0.3 %
152Sm (KED)	0.000 ppb	0.8 %
153Eu (KED)	0.000 ppb	0.3 %
158Gd (KED)	0.000 ppb	0.2 %
159Tb (KED)	102.738 %	
164Dy (KED)	0.000 ppb	0.1 %
166Er (KED)	0.000 ppb	0.1 %
169Tm (KED)	0.000 ppb	0.0 %
174Yb (KED)	0.000 ppb	0.2 %
175Lu (KED)	0.000 ppb	0.0 %
205Tl (KED)	0.000 ppb	0.1 %
208Pb (KED)	0.000 ppb	0.0 %
209Bi (KED)	99.685 %	
232Th (KED)	0.000 ppb	0.1 %
238U (KED)	0.000 ppb	0.2 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	100.306 %	2,188 cps	1.3 %
9Be (KED)	0.000 ppb	1 cps	173.2 %
11B (KED)	0.000 ppb	490 cps	8.8 %
24Mg (KED)	0.000 ppb	300 cps	12.2 %
27Al (KED)	0.000 ppb	77 cps	26.4 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	103.057 %	24,846 cps	3.6 %
51V (KED)	0.000 ppb	8 cps	24.7 %
52Cr (KED)	0.000 ppb	106 cps	1.8 %
55Mn (KED)	0.000 ppb	128 cps	19.6 %
56Fe (KED)	0.000 ppb	3,676 cps	11.7 %
58Ni (KED)	0.000 ppb	1,448 cps	5.8 %
59Co (KED)	0.000 ppb	167 cps	22.3 %
63Cu (KED)	0.000 ppb	1,220 cps	3.7 %
64Zn (KED)	0.000 ppb	1,573 cps	1.3 %
69Ga (KED)	0.000 ppb	67 cps	17.3 %
75As (KED)	0.000 ppb	4 cps	114.6 %
80Se (KED)	0.000 ppb	311 cps	12.9 %
85Rb (KED)	0.000 ppb	41 cps	24.8 %
88Sr (KED)	0.000 ppb	144 cps	5.8 %
89Y (KED)	102.986 %	244,972 cps	1.6 %
107Ag (KED)	0.000 ppb	31 cps	37.6 %
114Cd (KED)	0.000 ppb	127 cps	21.5 %
115In (KED)	101.524 %	516,890 cps	1.6 %
133Cs (KED)	0.000 ppb	30 cps	29.4 %
138Ba (KED)	0.000 ppb	1,538 cps	4.5 %
139La (KED)	0.000 ppb	102 cps	5.0 %
140Ce (KED)	0.000 ppb	423 cps	8.7 %
141Pr (KED)	0.000 ppb	40 cps	22.0 %
142Nd (KED)	0.000 ppb	82 cps	29.3 %
152Sm (KED)	0.000 ppb	12 cps	78.7 %
153Eu (KED)	0.000 ppb	13 cps	25.0 %
158Gd (KED)	0.000 ppb	17 cps	20.0 %
159Tb (KED)	102.738 %	3,434,741 cps	0.7 %
164Dy (KED)	0.000 ppb	28 cps	6.9 %
166Er (KED)	0.000 ppb	414 cps	11.4 %
169Tm (KED)	0.000 ppb	20 cps	0.0 %
174Yb (KED)	0.000 ppb	49 cps	20.8 %
175Lu (KED)	0.000 ppb	70,303 cps	4.1 %
205Tl (KED)	0.000 ppb	34 cps	11.2 %
208Pb (KED)	0.000 ppb	22,418 cps	1.3 %
209Bi (KED)	99.685 %	3,559,212 cps	0.7 %
232Th (KED)	0.000 ppb	347 cps	5.8 %
238U (KED)	0.000 ppb	120 cps	22.2 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 4

Analysis name: 50+20

Analysis started at: 9/7/2021 3:34:13 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	98.472 %	
9Be (KED)	50.758 ppb	3.8 %
11B (KED)	51.164 ppb	5.0 %
24Mg (KED)	49.474 ppb	4.6 %
27Al (KED)	47.915 ppb	3.1 %
45Sc (KED)	105.985 %	
51V (KED)	50.477 ppb	0.3 %
52Cr (KED)	50.475 ppb	0.9 %
55Mn (KED)	50.290 ppb	1.2 %
56Fe (KED)	50.520 ppb	1.5 %
58Ni (KED)	51.281 ppb	1.3 %
59Co (KED)	50.835 ppb	2.3 %
63Cu (KED)	51.080 ppb	0.6 %
64Zn (KED)	51.073 ppb	0.3 %
69Ga (KED)	50.440 ppb	1.3 %
75As (KED)	50.484 ppb	1.8 %
80Se (KED)	50.328 ppb	1.6 %
85Rb (KED)	49.919 ppb	0.7 %
88Sr (KED)	49.862 ppb	0.3 %
89Y (KED)	108.379 %	
107Ag (KED)	51.683 ppb	1.8 %
114Cd (KED)	50.957 ppb	0.1 %
115In (KED)	105.895 %	
133Cs (KED)	50.636 ppb	1.5 %
138Ba (KED)	51.073 ppb	1.5 %
139La (KED)	51.568 ppb	1.1 %
140Ce (KED)	51.030 ppb	1.0 %
141Pr (KED)	50.702 ppb	1.8 %
142Nd (KED)	51.081 ppb	1.6 %
152Sm (KED)	50.976 ppb	1.3 %
153Eu (KED)	52.159 ppb	0.9 %
158Gd (KED)	51.557 ppb	0.6 %
159Tb (KED)	105.682 %	
164Dy (KED)	51.696 ppb	1.5 %
166Er (KED)	52.140 ppb	1.5 %
169Tm (KED)	51.232 ppb	0.4 %
174Yb (KED)	51.742 ppb	0.5 %
175Lu (KED)	50.505 ppb	2.0 %
205Tl (KED)	49.897 ppb	1.2 %
208Pb (KED)	49.788 ppb	0.7 %
209Bi (KED)	103.709 %	
232Th (KED)	49.382 ppb	0.6 %
238U (KED)	49.737 ppb	0.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	98.472 %	2,148 cps	3.1 %
9Be (KED)	50.758 ppb	5,118 cps	0.9 %
11B (KED)	51.164 ppb	3,001 cps	1.5 %
24Mg (KED)	49.474 ppb	15,869 cps	2.6 %
27Al (KED)	47.915 ppb	3,416 cps	2.4 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	105.985 %	25,552 cps	1.0 %
51V (KED)	50.477 ppb	247,724 cps	0.9 %
52Cr (KED)	50.475 ppb	400,889 cps	1.6 %
55Mn (KED)	50.290 ppb	179,229 cps	1.2 %
56Fe (KED)	50.520 ppb	361,707 cps	0.7 %
58Ni (KED)	51.281 ppb	508,161 cps	0.6 %
59Co (KED)	50.835 ppb	811,706 cps	1.4 %
63Cu (KED)	51.080 ppb	642,410 cps	0.5 %
64Zn (KED)	51.073 ppb	154,235 cps	0.1 %
69Ga (KED)	50.440 ppb	176,171 cps	1.2 %
75As (KED)	50.484 ppb	42,202 cps	1.7 %
80Se (KED)	50.328 ppb	12,379 cps	1.6 %
85Rb (KED)	49.919 ppb	158,124 cps	0.4 %
88Sr (KED)	49.862 ppb	223,951 cps	0.5 %
89Y (KED)	108.379 %	257,801 cps	0.3 %
107Ag (KED)	51.683 ppb	2,108,976 cps	1.3 %
114Cd (KED)	50.957 ppb	711,028 cps	0.6 %
115In (KED)	105.895 %	539,140 cps	0.7 %
133Cs (KED)	50.636 ppb	930,405 cps	0.8 %
138Ba (KED)	51.073 ppb	1,380,378 cps	1.1 %
139La (KED)	51.568 ppb	3,021,963 cps	0.7 %
140Ce (KED)	51.030 ppb	4,155,470 cps	0.6 %
141Pr (KED)	50.702 ppb	4,264,369 cps	1.6 %
142Nd (KED)	51.081 ppb	1,766,936 cps	1.3 %
152Sm (KED)	50.976 ppb	1,737,589 cps	0.8 %
153Eu (KED)	52.159 ppb	3,473,728 cps	1.2 %
158Gd (KED)	51.557 ppb	2,603,617 cps	0.7 %
159Tb (KED)	105.682 %	3,533,172 cps	0.5 %
164Dy (KED)	51.696 ppb	2,826,376 cps	1.1 %
166Er (KED)	52.140 ppb	3,526,697 cps	1.2 %
169Tm (KED)	51.232 ppb	11,652,387 cps	0.8 %
174Yb (KED)	51.742 ppb	4,414,375 cps	1.0 %
175Lu (KED)	50.505 ppb	6,169,703 cps	2.1 %
205Tl (KED)	49.897 ppb	9,351,425 cps	1.0 %
208Pb (KED)	49.788 ppb	6,575,874 cps	0.4 %
209Bi (KED)	103.709 %	3,702,856 cps	1.1 %
232Th (KED)	49.382 ppb	11,762,766 cps	1.1 %
238U (KED)	49.737 ppb	14,357,933 cps	1.5 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 5

Analysis name: 100+20

Analysis started at: 9/7/2021 3:37:35 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	96.128 %	
9Be (KED)	99.621 ppb	2.1 %
11B (KED)	99.418 ppb	4.7 %
24Mg (KED)	100.263 ppb	3.1 %
27Al (KED)	101.043 ppb	3.8 %
45Sc (KED)	103.861 %	
51V (KED)	99.762 ppb	0.8 %
52Cr (KED)	99.762 ppb	1.0 %
55Mn (KED)	99.855 ppb	1.9 %
56Fe (KED)	99.740 ppb	1.7 %
58Ni (KED)	99.359 ppb	1.0 %
59Co (KED)	99.582 ppb	1.3 %
63Cu (KED)	99.460 ppb	0.8 %
64Zn (KED)	99.463 ppb	1.0 %
69Ga (KED)	99.780 ppb	1.0 %
75As (KED)	99.758 ppb	1.2 %
80Se (KED)	99.836 ppb	2.6 %
85Rb (KED)	100.040 ppb	1.7 %
88Sr (KED)	100.069 ppb	0.8 %
89Y (KED)	106.155 %	
107Ag (KED)	99.158 ppb	0.0 %
114Cd (KED)	99.522 ppb	1.1 %
115In (KED)	104.882 %	
133Cs (KED)	99.682 ppb	0.5 %
138Ba (KED)	99.464 ppb	1.6 %
139La (KED)	99.216 ppb	1.8 %
140Ce (KED)	99.485 ppb	2.1 %
141Pr (KED)	99.649 ppb	0.7 %
142Nd (KED)	99.460 ppb	0.8 %
152Sm (KED)	99.512 ppb	1.3 %
153Eu (KED)	98.921 ppb	0.2 %
158Gd (KED)	99.222 ppb	2.3 %
159Tb (KED)	105.873 %	
164Dy (KED)	99.152 ppb	1.1 %
166Er (KED)	98.930 ppb	0.9 %
169Tm (KED)	99.384 ppb	1.8 %
174Yb (KED)	99.129 ppb	1.4 %
175Lu (KED)	99.748 ppb	0.1 %
205Tl (KED)	100.051 ppb	0.8 %
208Pb (KED)	100.106 ppb	0.6 %
209Bi (KED)	101.444 %	
232Th (KED)	100.309 ppb	1.9 %
238U (KED)	100.132 ppb	0.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	96.128 %	2,097 cps	2.7 %
9Be (KED)	99.621 ppb	9,808 cps	0.6 %
11B (KED)	99.418 ppb	5,251 cps	1.5 %
24Mg (KED)	100.263 ppb	31,107 cps	0.9 %
27Al (KED)	101.043 ppb	6,974 cps	3.2 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	103.861 %	25,040 cps	0.6 %
51V (KED)	99.762 ppb	479,770 cps	0.2 %
52Cr (KED)	99.762 ppb	776,311 cps	0.4 %
55Mn (KED)	99.855 ppb	348,604 cps	1.3 %
56Fe (KED)	99.740 ppb	696,226 cps	1.5 %
58Ni (KED)	99.359 ppb	963,545 cps	1.1 %
59Co (KED)	99.582 ppb	1,558,315 cps	1.7 %
63Cu (KED)	99.460 ppb	1,224,020 cps	1.1 %
64Zn (KED)	99.463 ppb	292,663 cps	0.7 %
69Ga (KED)	99.780 ppb	341,277 cps	0.7 %
75As (KED)	99.758 ppb	81,678 cps	0.9 %
80Se (KED)	99.836 ppb	23,737 cps	2.3 %
85Rb (KED)	100.040 ppb	310,334 cps	1.3 %
88Sr (KED)	100.069 ppb	440,071 cps	0.6 %
89Y (KED)	106.155 %	252,511 cps	0.3 %
107Ag (KED)	99.158 ppb	4,007,800 cps	1.2 %
114Cd (KED)	99.522 ppb	1,375,187 cps	0.7 %
115In (KED)	104.882 %	533,986 cps	1.2 %
133Cs (KED)	99.682 ppb	1,814,112 cps	0.8 %
138Ba (KED)	99.464 ppb	2,691,337 cps	0.5 %
139La (KED)	99.216 ppb	5,823,798 cps	0.5 %
140Ce (KED)	99.485 ppb	8,114,090 cps	0.9 %
141Pr (KED)	99.649 ppb	8,396,466 cps	1.6 %
142Nd (KED)	99.460 ppb	3,446,597 cps	1.4 %
152Sm (KED)	99.512 ppb	3,397,813 cps	0.6 %
153Eu (KED)	98.921 ppb	6,599,753 cps	1.2 %
158Gd (KED)	99.222 ppb	5,018,645 cps	0.9 %
159Tb (KED)	105.873 %	3,539,536 cps	1.4 %
164Dy (KED)	99.152 ppb	5,430,413 cps	0.6 %
166Er (KED)	98.930 ppb	6,702,888 cps	0.5 %
169Tm (KED)	99.384 ppb	22,640,792 cps	0.5 %
174Yb (KED)	99.129 ppb	8,471,173 cps	0.1 %
175Lu (KED)	99.748 ppb	12,136,447 cps	1.5 %
205Tl (KED)	100.051 ppb	18,341,535 cps	0.1 %
208Pb (KED)	100.106 ppb	12,910,627 cps	1.0 %
209Bi (KED)	101.444 %	3,621,991 cps	0.8 %
232Th (KED)	100.309 ppb	23,369,811 cps	1.2 %
238U (KED)	100.132 ppb	28,274,702 cps	1.4 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 6

Analysis name: 921171362jian

Analysis started at: 9/7/2021 3:41:01 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	116.150 %	5.7 %
9Be (KED)	0.065 ppb	57.8 %
11B (KED)	-2.483 ppb	18.1 %
24Mg (KED)	445.981 ppb	3.4 %
27Al (KED)	599.443 ppb	1.7 %
45Sc (KED)	113.846 %	2.3 %
51V (KED)	0.990 ppb	3.6 %
52Cr (KED)	2.542 ppb	1.5 %
55Mn (KED)	13.453 ppb	2.1 %
56Fe (KED)	519.318 ppb	1.1 %
58Ni (KED)	2.381 ppb	2.2 %
59Co (KED)	0.300 ppb	3.7 %
63Cu (KED)	4.495 ppb	1.6 %
64Zn (KED)	156.615 ppb	1.9 %
69Ga (KED)	1.410 ppb	3.3 %
75As (KED)	0.592 ppb	2.7 %
80Se (KED)	0.580 ppb	35.1 %
85Rb (KED)	1.989 ppb	1.5 %
88Sr (KED)	6.158 ppb	1.9 %
89Y (KED)	111.303 %	1.3 %
107Ag (KED)	0.083 ppb	8.8 %
114Cd (KED)	0.070 ppb	7.0 %
115In (KED)	101.415 %	1.5 %
133Cs (KED)	0.153 ppb	1.9 %
138Ba (KED)	5.303 ppb	2.2 %
139La (KED)	0.435 ppb	0.7 %
140Ce (KED)	0.936 ppb	1.5 %
141Pr (KED)	0.111 ppb	4.3 %
142Nd (KED)	0.563 ppb	2.0 %
152Sm (KED)	0.173 ppb	96.9 %
153Eu (KED)	0.286 ppb	161.4 %
158Gd (KED)	0.299 ppb	131.7 %
159Tb (KED)	105.862 %	0.4 %
164Dy (KED)	0.234 ppb	135.1 %
166Er (KED)	0.196 ppb	147.9 %
169Tm (KED)	0.134 ppb	163.2 %
174Yb (KED)	0.130 ppb	140.2 %
175Lu (KED)	-0.114 ppb	163.0 %
205Tl (KED)	0.113 ppb	141.5 %
208Pb (KED)	0.770 ppb	14.6 %
209Bi (KED)	89.595 %	1.6 %
232Th (KED)	0.343 ppb	42.3 %
238U (KED)	0.109 ppb	79.5 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	116.150 %	2,534 cps	5.7 %
9Be (KED)	0.065 ppb	9 cps	43.3 %
11B (KED)	-2.483 ppb	422 cps	0.5 %
24Mg (KED)	445.981 ppb	165,909 cps	3.9 %
27Al (KED)	599.443 ppb	44,943 cps	2.9 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	113.846 %	27,447 cps	2.3 %
51V (KED)	0.990 ppb	5,227 cps	1.2 %
52Cr (KED)	2.542 ppb	21,797 cps	3.5 %
55Mn (KED)	13.453 ppb	51,622 cps	4.4 %
56Fe (KED)	519.318 ppb	3,956,641 cps	2.7 %
58Ni (KED)	2.381 ppb	26,863 cps	1.3 %
59Co (KED)	0.300 ppb	5,323 cps	1.7 %
63Cu (KED)	4.495 ppb	59,258 cps	2.4 %
64Zn (KED)	156.615 ppb	482,205 cps	2.2 %
69Ga (KED)	1.410 ppb	5,128 cps	3.6 %
75As (KED)	0.592 ppb	513 cps	3.4 %
80Se (KED)	0.580 ppb	479 cps	11.3 %
85Rb (KED)	1.989 ppb	6,513 cps	1.6 %
88Sr (KED)	6.158 ppb	28,546 cps	3.2 %
89Y (KED)	111.303 %	264,756 cps	1.3 %
107Ag (KED)	0.083 ppb	3,255 cps	7.3 %
114Cd (KED)	0.070 ppb	1,064 cps	5.8 %
115In (KED)	101.415 %	516,334 cps	1.5 %
133Cs (KED)	0.153 ppb	2,717 cps	1.7 %
138Ba (KED)	5.303 ppb	144,998 cps	1.8 %
139La (KED)	0.435 ppb	25,660 cps	1.1 %
140Ce (KED)	0.936 ppb	76,749 cps	1.4 %
141Pr (KED)	0.111 ppb	9,387 cps	4.2 %
142Nd (KED)	0.563 ppb	19,602 cps	2.3 %
152Sm (KED)	0.173 ppb	5,901 cps	96.6 %
153Eu (KED)	0.286 ppb	19,082 cps	161.2 %
158Gd (KED)	0.299 ppb	15,128 cps	131.5 %
159Tb (KED)	105.862 %	3,539,192 cps	0.4 %
164Dy (KED)	0.234 ppb	12,857 cps	134.8 %
166Er (KED)	0.196 ppb	13,685 cps	143.2 %
169Tm (KED)	0.134 ppb	30,634 cps	163.0 %
174Yb (KED)	0.130 ppb	11,125 cps	139.6 %
175Lu (KED)	-0.114 ppb	58,712 cps	38.0 %
205Tl (KED)	0.113 ppb	18,550 cps	142.0 %
208Pb (KED)	0.770 ppb	107,794 cps	13.5 %
209Bi (KED)	89.595 %	3,198,947 cps	1.6 %
232Th (KED)	0.343 ppb	71,216 cps	43.8 %
238U (KED)	0.109 ppb	27,432 cps	80.7 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 7

Analysis name: 921171377jian

Analysis started at: 9/7/2021 3:44:31 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	120.379 %	2.3 %
9Be (KED)	0.035 ppb	119.0 %
11B (KED)	-1.446 ppb	86.2 %
24Mg (KED)	618.272 ppb	3.0 %
27Al (KED)	1,175.538 ppb	3.1 %
45Sc (KED)	122.645 %	1.1 %
51V (KED)	1.868 ppb	3.5 %
52Cr (KED)	3.386 ppb	1.9 %
55Mn (KED)	22.428 ppb	1.2 %
56Fe (KED)	904.592 ppb	0.9 %
58Ni (KED)	3.738 ppb	2.0 %
59Co (KED)	0.433 ppb	1.2 %
63Cu (KED)	7.043 ppb	2.6 %
64Zn (KED)	168.154 ppb	2.1 %
69Ga (KED)	2.306 ppb	1.5 %
75As (KED)	0.763 ppb	2.6 %
80Se (KED)	1.108 ppb	21.0 %
85Rb (KED)	2.677 ppb	2.9 %
88Sr (KED)	9.652 ppb	2.5 %
89Y (KED)	113.542 %	1.8 %
107Ag (KED)	0.072 ppb	7.7 %
114Cd (KED)	0.108 ppb	9.3 %
115In (KED)	99.344 %	0.6 %
133Cs (KED)	0.270 ppb	4.4 %
138Ba (KED)	8.076 ppb	1.3 %
139La (KED)	0.849 ppb	2.4 %
140Ce (KED)	1.775 ppb	1.1 %
141Pr (KED)	0.206 ppb	1.8 %
142Nd (KED)	1.084 ppb	1.7 %
152Sm (KED)	0.154 ppb	5.4 %
153Eu (KED)	0.040 ppb	6.3 %
158Gd (KED)	0.143 ppb	3.9 %
159Tb (KED)	100.934 %	0.3 %
164Dy (KED)	0.101 ppb	6.8 %
166Er (KED)	0.058 ppb	4.4 %
169Tm (KED)	0.018 ppb	35.5 %
174Yb (KED)	0.047 ppb	10.2 %
175Lu (KED)	-0.261 ppb	5.5 %
205Tl (KED)	0.031 ppb	24.3 %
208Pb (KED)	1.084 ppb	2.5 %
209Bi (KED)	85.077 %	1.1 %
232Th (KED)	0.335 ppb	2.5 %
238U (KED)	0.097 ppb	4.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	120.379 %	2,626 cps	2.3 %
9Be (KED)	0.035 ppb	6 cps	91.7 %
11B (KED)	-1.446 ppb	500 cps	12.7 %
24Mg (KED)	618.272 ppb	238,368 cps	0.7 %
27Al (KED)	1,175.538 ppb	94,840 cps	2.0 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	122.645 %	29,568 cps	1.1 %
51V (KED)	1.868 ppb	10,616 cps	2.4 %
52Cr (KED)	3.386 ppb	31,233 cps	1.8 %
55Mn (KED)	22.428 ppb	92,579 cps	1.0 %
56Fe (KED)	904.592 ppb	7,420,941 cps	0.6 %
58Ni (KED)	3.738 ppb	44,459 cps	1.1 %
59Co (KED)	0.433 ppb	8,203 cps	1.2 %
63Cu (KED)	7.043 ppb	93,933 cps	1.2 %
64Zn (KED)	168.154 ppb	527,895 cps	0.5 %
69Ga (KED)	2.306 ppb	8,507 cps	1.8 %
75As (KED)	0.763 ppb	673 cps	3.0 %
80Se (KED)	1.108 ppb	620 cps	7.6 %
85Rb (KED)	2.677 ppb	8,924 cps	1.3 %
88Sr (KED)	9.652 ppb	45,539 cps	2.2 %
89Y (KED)	113.542 %	270,081 cps	1.8 %
107Ag (KED)	0.072 ppb	2,769 cps	7.0 %
114Cd (KED)	0.108 ppb	1,540 cps	7.9 %
115In (KED)	99.344 %	505,788 cps	0.6 %
133Cs (KED)	0.270 ppb	4,681 cps	4.3 %
138Ba (KED)	8.076 ppb	209,749 cps	1.4 %
139La (KED)	0.849 ppb	47,593 cps	2.5 %
140Ce (KED)	1.775 ppb	138,460 cps	1.4 %
141Pr (KED)	0.206 ppb	16,627 cps	2.0 %
142Nd (KED)	1.084 ppb	35,893 cps	1.4 %
152Sm (KED)	0.154 ppb	5,034 cps	5.7 %
153Eu (KED)	0.040 ppb	2,557 cps	6.6 %
158Gd (KED)	0.143 ppb	6,910 cps	4.2 %
159Tb (KED)	100.934 %	3,374,416 cps	0.3 %
164Dy (KED)	0.101 ppb	5,311 cps	7.0 %
166Er (KED)	0.058 ppb	4,156 cps	4.3 %
169Tm (KED)	0.018 ppb	3,904 cps	35.6 %
174Yb (KED)	0.047 ppb	3,886 cps	10.4 %
175Lu (KED)	-0.261 ppb	39,028 cps	4.5 %
205Tl (KED)	0.031 ppb	4,772 cps	24.8 %
208Pb (KED)	1.084 ppb	136,146 cps	1.4 %
209Bi (KED)	85.077 %	3,037,638 cps	1.1 %
232Th (KED)	0.335 ppb	65,717 cps	3.3 %
238U (KED)	0.097 ppb	23,030 cps	4.9 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 8

Analysis name: 921144406jian

Analysis started at: 9/7/2021 3:48:13 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	127.563 %	0.4 %
9Be (KED)	-0.002 ppb	699.0 %
11B (KED)	-2.523 ppb	12.2 %
24Mg (KED)	306.921 ppb	1.2 %
27Al (KED)	458.137 ppb	0.5 %
45Sc (KED)	123.657 %	0.8 %
51V (KED)	0.797 ppb	3.2 %
52Cr (KED)	3.238 ppb	2.1 %
55Mn (KED)	9.769 ppb	1.1 %
56Fe (KED)	419.461 ppb	0.6 %
58Ni (KED)	1.953 ppb	0.5 %
59Co (KED)	0.199 ppb	4.0 %
63Cu (KED)	4.340 ppb	0.2 %
64Zn (KED)	173.630 ppb	0.2 %
69Ga (KED)	1.243 ppb	1.2 %
75As (KED)	0.843 ppb	8.1 %
80Se (KED)	0.772 ppb	26.2 %
85Rb (KED)	1.696 ppb	5.8 %
88Sr (KED)	5.027 ppb	0.9 %
89Y (KED)	111.536 %	0.9 %
107Ag (KED)	0.072 ppb	1.5 %
114Cd (KED)	0.053 ppb	5.0 %
115In (KED)	99.993 %	1.5 %
133Cs (KED)	0.113 ppb	4.3 %
138Ba (KED)	4.254 ppb	0.5 %
139La (KED)	0.390 ppb	1.2 %
140Ce (KED)	0.830 ppb	0.6 %
141Pr (KED)	0.091 ppb	3.8 %
142Nd (KED)	0.502 ppb	1.2 %
152Sm (KED)	0.064 ppb	6.4 %
153Eu (KED)	0.019 ppb	46.3 %
158Gd (KED)	0.075 ppb	40.5 %
159Tb (KED)	101.112 %	1.0 %
164Dy (KED)	0.060 ppb	58.2 %
166Er (KED)	0.033 ppb	70.1 %
169Tm (KED)	0.015 ppb	141.0 %
174Yb (KED)	0.028 ppb	68.4 %
175Lu (KED)	-0.310 ppb	7.2 %
205Tl (KED)	0.018 ppb	82.8 %
208Pb (KED)	0.697 ppb	2.9 %
209Bi (KED)	82.827 %	0.2 %
232Th (KED)	0.154 ppb	7.1 %
238U (KED)	0.043 ppb	18.5 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	127.563 %	2,783 cps	0.4 %
9Be (KED)	-0.002 ppb	1 cps	173.2 %
11B (KED)	-2.523 ppb	462 cps	4.3 %
24Mg (KED)	306.921 ppb	125,638 cps	0.8 %
27Al (KED)	458.137 ppb	37,331 cps	1.2 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	123.657 %	29,812 cps	0.8 %
51V (KED)	0.797 ppb	4,572 cps	2.6 %
52Cr (KED)	3.238 ppb	30,125 cps	2.2 %
55Mn (KED)	9.769 ppb	40,744 cps	0.7 %
56Fe (KED)	419.461 ppb	3,472,149 cps	1.3 %
58Ni (KED)	1.953 ppb	24,255 cps	1.3 %
59Co (KED)	0.199 ppb	3,907 cps	3.2 %
63Cu (KED)	4.340 ppb	57,386 cps	0.7 %
64Zn (KED)	173.630 ppb	535,522 cps	0.7 %
69Ga (KED)	1.243 ppb	4,540 cps	1.6 %
75As (KED)	0.843 ppb	730 cps	9.0 %
80Se (KED)	0.772 ppb	527 cps	8.8 %
85Rb (KED)	1.696 ppb	5,571 cps	5.7 %
88Sr (KED)	5.027 ppb	23,377 cps	0.3 %
89Y (KED)	111.536 %	265,310 cps	0.9 %
107Ag (KED)	0.072 ppb	2,818 cps	0.6 %
114Cd (KED)	0.053 ppb	824 cps	3.2 %
115In (KED)	99.993 %	509,094 cps	1.5 %
133Cs (KED)	0.113 ppb	1,991 cps	4.2 %
138Ba (KED)	4.254 ppb	111,396 cps	0.5 %
139La (KED)	0.390 ppb	21,962 cps	0.4 %
140Ce (KED)	0.830 ppb	65,109 cps	0.7 %
141Pr (KED)	0.091 ppb	7,384 cps	4.5 %
142Nd (KED)	0.502 ppb	16,706 cps	0.3 %
152Sm (KED)	0.064 ppb	2,091 cps	7.3 %
153Eu (KED)	0.019 ppb	1,229 cps	46.8 %
158Gd (KED)	0.075 ppb	3,651 cps	41.4 %
159Tb (KED)	101.112 %	3,380,380 cps	1.0 %
164Dy (KED)	0.060 ppb	3,193 cps	58.7 %
166Er (KED)	0.033 ppb	2,539 cps	59.8 %
169Tm (KED)	0.015 ppb	3,352 cps	140.7 %
174Yb (KED)	0.028 ppb	2,381 cps	68.0 %
175Lu (KED)	-0.310 ppb	33,467 cps	8.7 %
205Tl (KED)	0.018 ppb	2,663 cps	82.1 %
208Pb (KED)	0.697 ppb	91,878 cps	2.5 %
209Bi (KED)	82.827 %	2,957,300 cps	0.2 %
232Th (KED)	0.154 ppb	29,624 cps	7.2 %
238U (KED)	0.043 ppb	10,026 cps	18.6 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 9

Analysis name: 028736jian

Analysis started at: 9/7/2021 3:52:07 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	127.563 %	6.4 %
9Be (KED)	0.083 ppb	12.7 %
11B (KED)	-1.383 ppb	27.1 %
24Mg (KED)	1,124.282 ppb	5.3 %
27Al (KED)	1,039.737 ppb	2.5 %
45Sc (KED)	127.284 %	2.3 %
51V (KED)	1.843 ppb	0.9 %
52Cr (KED)	4.697 ppb	2.9 %
55Mn (KED)	25.020 ppb	2.9 %
56Fe (KED)	861.850 ppb	2.2 %
58Ni (KED)	3.985 ppb	0.9 %
59Co (KED)	0.482 ppb	4.0 %
63Cu (KED)	8.373 ppb	0.8 %
64Zn (KED)	171.926 ppb	0.5 %
69Ga (KED)	4.339 ppb	3.2 %
75As (KED)	1.050 ppb	7.7 %
80Se (KED)	0.743 ppb	21.4 %
85Rb (KED)	2.080 ppb	2.4 %
88Sr (KED)	11.704 ppb	1.2 %
89Y (KED)	111.864 %	0.2 %
107Ag (KED)	0.066 ppb	1.5 %
114Cd (KED)	0.044 ppb	10.6 %
115In (KED)	97.667 %	1.2 %
133Cs (KED)	0.198 ppb	6.5 %
138Ba (KED)	14.871 ppb	2.1 %
139La (KED)	0.565 ppb	2.6 %
140Ce (KED)	1.227 ppb	3.1 %
141Pr (KED)	0.136 ppb	0.5 %
142Nd (KED)	0.758 ppb	2.0 %
152Sm (KED)	0.112 ppb	10.1 %
153Eu (KED)	0.030 ppb	36.1 %
158Gd (KED)	0.098 ppb	8.6 %
159Tb (KED)	98.530 %	1.8 %
164Dy (KED)	0.069 ppb	4.2 %
166Er (KED)	0.032 ppb	14.8 %
169Tm (KED)	0.007 ppb	53.4 %
174Yb (KED)	0.028 ppb	12.9 %
175Lu (KED)	-0.344 ppb	3.0 %
205Tl (KED)	0.017 ppb	12.3 %
208Pb (KED)	2.152 ppb	3.6 %
209Bi (KED)	78.722 %	2.6 %
232Th (KED)	0.247 ppb	0.8 %
238U (KED)	0.106 ppb	2.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	127.563 %	2,783 cps	6.4 %
9Be (KED)	0.083 ppb	12 cps	15.7 %
11B (KED)	-1.383 ppb	534 cps	5.2 %
24Mg (KED)	1,124.282 ppb	458,180 cps	1.1 %
27Al (KED)	1,039.737 ppb	87,053 cps	0.2 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	127.284 %	30,687 cps	2.3 %
51V (KED)	1.843 ppb	10,868 cps	1.4 %
52Cr (KED)	4.697 ppb	44,904 cps	1.6 %
55Mn (KED)	25.020 ppb	107,126 cps	1.1 %
56Fe (KED)	861.850 ppb	7,335,883 cps	0.2 %
58Ni (KED)	3.985 ppb	49,075 cps	1.5 %
59Co (KED)	0.482 ppb	9,437 cps	2.2 %
63Cu (KED)	8.373 ppb	109,791 cps	0.7 %
64Zn (KED)	171.926 ppb	531,847 cps	0.5 %
69Ga (KED)	4.339 ppb	15,709 cps	3.3 %
75As (KED)	1.050 ppb	911 cps	7.9 %
80Se (KED)	0.743 ppb	521 cps	7.6 %
85Rb (KED)	2.080 ppb	6,843 cps	2.4 %
88Sr (KED)	11.704 ppb	54,377 cps	1.4 %
89Y (KED)	111.864 %	266,089 cps	0.2 %
107Ag (KED)	0.066 ppb	2,499 cps	2.5 %
114Cd (KED)	0.044 ppb	691 cps	7.6 %
115In (KED)	97.667 %	497,248 cps	1.2 %
133Cs (KED)	0.198 ppb	3,376 cps	5.3 %
138Ba (KED)	14.871 ppb	375,699 cps	0.9 %
139La (KED)	0.565 ppb	30,939 cps	0.8 %
140Ce (KED)	1.227 ppb	93,529 cps	1.3 %
141Pr (KED)	0.136 ppb	10,694 cps	2.3 %
142Nd (KED)	0.758 ppb	24,526 cps	3.5 %
152Sm (KED)	0.112 ppb	3,584 cps	11.9 %
153Eu (KED)	0.030 ppb	1,885 cps	37.8 %
158Gd (KED)	0.098 ppb	4,618 cps	10.4 %
159Tb (KED)	98.530 %	3,294,075 cps	1.8 %
164Dy (KED)	0.069 ppb	3,521 cps	5.9 %
166Er (KED)	0.032 ppb	2,428 cps	14.2 %
169Tm (KED)	0.007 ppb	1,467 cps	54.6 %
174Yb (KED)	0.028 ppb	2,244 cps	14.5 %
175Lu (KED)	-0.344 ppb	28,680 cps	5.4 %
205Tl (KED)	0.017 ppb	2,476 cps	12.3 %
208Pb (KED)	2.152 ppb	232,558 cps	2.0 %
209Bi (KED)	78.722 %	2,810,724 cps	2.6 %
232Th (KED)	0.247 ppb	45,012 cps	2.8 %
238U (KED)	0.106 ppb	23,361 cps	1.5 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 10

Analysis name: 028733jian

Analysis started at: 9/7/2021 3:55:51 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	136.734 %	2.9 %
9Be (KED)	0.045 ppb	79.8 %
11B (KED)	-0.499 ppb	231.2 %
24Mg (KED)	712.319 ppb	3.6 %
27Al (KED)	939.641 ppb	3.6 %
45Sc (KED)	130.268 %	3.4 %
51V (KED)	1.782 ppb	0.5 %
52Cr (KED)	4.572 ppb	2.4 %
55Mn (KED)	24.348 ppb	2.0 %
56Fe (KED)	953.315 ppb	1.9 %
58Ni (KED)	4.351 ppb	2.3 %
59Co (KED)	0.480 ppb	3.7 %
63Cu (KED)	10.826 ppb	3.4 %
64Zn (KED)	166.230 ppb	1.7 %
69Ga (KED)	2.399 ppb	2.0 %
75As (KED)	0.794 ppb	3.2 %
80Se (KED)	1.037 ppb	20.3 %
85Rb (KED)	2.272 ppb	2.2 %
88Sr (KED)	8.961 ppb	1.6 %
89Y (KED)	114.521 %	2.3 %
107Ag (KED)	0.062 ppb	8.2 %
114Cd (KED)	0.064 ppb	16.2 %
115In (KED)	97.322 %	1.2 %
133Cs (KED)	0.193 ppb	1.0 %
138Ba (KED)	8.276 ppb	2.2 %
139La (KED)	0.575 ppb	1.8 %
140Ce (KED)	1.302 ppb	1.2 %
141Pr (KED)	0.138 ppb	4.3 %
142Nd (KED)	0.782 ppb	1.0 %
152Sm (KED)	0.106 ppb	4.2 %
153Eu (KED)	0.024 ppb	2.9 %
158Gd (KED)	0.098 ppb	2.0 %
159Tb (KED)	97.803 %	0.6 %
164Dy (KED)	0.068 ppb	4.2 %
166Er (KED)	0.033 ppb	7.0 %
169Tm (KED)	0.006 ppb	53.6 %
174Yb (KED)	0.028 ppb	20.1 %
175Lu (KED)	-0.368 ppb	2.1 %
205Tl (KED)	0.022 ppb	14.7 %
208Pb (KED)	1.350 ppb	1.4 %
209Bi (KED)	75.969 %	0.5 %
232Th (KED)	0.311 ppb	1.4 %
238U (KED)	0.097 ppb	0.2 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	136.734 %	2,983 cps	2.9 %
9Be (KED)	0.045 ppb	8 cps	65.5 %
11B (KED)	-0.499 ppb	633 cps	11.5 %
24Mg (KED)	712.319 ppb	311,807 cps	1.0 %
27Al (KED)	939.641 ppb	80,493 cps	0.7 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	130.268 %	31,406 cps	3.4 %
51V (KED)	1.782 ppb	10,757 cps	3.6 %
52Cr (KED)	4.572 ppb	44,734 cps	1.9 %
55Mn (KED)	24.348 ppb	106,697 cps	1.3 %
56Fe (KED)	953.315 ppb	8,303,450 cps	1.5 %
58Ni (KED)	4.351 ppb	54,649 cps	1.7 %
59Co (KED)	0.480 ppb	9,625 cps	3.6 %
63Cu (KED)	10.826 ppb	144,886 cps	2.3 %
64Zn (KED)	166.230 ppb	526,382 cps	1.1 %
69Ga (KED)	2.399 ppb	8,922 cps	2.6 %
75As (KED)	0.794 ppb	706 cps	2.7 %
80Se (KED)	1.037 ppb	608 cps	8.7 %
85Rb (KED)	2.272 ppb	7,649 cps	3.9 %
88Sr (KED)	8.961 ppb	42,650 cps	1.0 %
89Y (KED)	114.521 %	272,410 cps	2.3 %
107Ag (KED)	0.062 ppb	2,340 cps	7.1 %
114Cd (KED)	0.064 ppb	941 cps	13.1 %
115In (KED)	97.322 %	495,495 cps	1.2 %
133Cs (KED)	0.193 ppb	3,285 cps	2.2 %
138Ba (KED)	8.276 ppb	208,236 cps	1.8 %
139La (KED)	0.575 ppb	31,277 cps	2.3 %
140Ce (KED)	1.302 ppb	98,501 cps	1.1 %
141Pr (KED)	0.138 ppb	10,748 cps	3.7 %
142Nd (KED)	0.782 ppb	25,111 cps	0.8 %
152Sm (KED)	0.106 ppb	3,350 cps	4.3 %
153Eu (KED)	0.024 ppb	1,483 cps	3.1 %
158Gd (KED)	0.098 ppb	4,589 cps	2.5 %
159Tb (KED)	97.803 %	3,269,742 cps	0.6 %
164Dy (KED)	0.068 ppb	3,492 cps	4.8 %
166Er (KED)	0.033 ppb	2,432 cps	5.8 %
169Tm (KED)	0.006 ppb	1,372 cps	53.3 %
174Yb (KED)	0.028 ppb	2,245 cps	20.2 %
175Lu (KED)	-0.368 ppb	25,820 cps	3.8 %
205Tl (KED)	0.022 ppb	3,060 cps	14.8 %
208Pb (KED)	1.350 ppb	147,267 cps	1.1 %
209Bi (KED)	75.969 %	2,712,448 cps	0.5 %
232Th (KED)	0.311 ppb	54,527 cps	1.9 %
238U (KED)	0.097 ppb	20,540 cps	0.7 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 11

Analysis name: 011907jian

Analysis started at: 9/7/2021 3:59:15 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	133.422 %	5.6 %
9Be (KED)	0.048 ppb	125.4 %
11B (KED)	-2.788 ppb	21.3 %
24Mg (KED)	673.110 ppb	5.0 %
27Al (KED)	762.676 ppb	0.4 %
45Sc (KED)	136.307 %	1.5 %
51V (KED)	1.490 ppb	1.4 %
52Cr (KED)	4.908 ppb	1.5 %
55Mn (KED)	19.035 ppb	1.2 %
56Fe (KED)	728.029 ppb	2.0 %
58Ni (KED)	3.509 ppb	2.2 %
59Co (KED)	0.365 ppb	1.8 %
63Cu (KED)	9.523 ppb	1.9 %
64Zn (KED)	168.086 ppb	2.5 %
69Ga (KED)	2.557 ppb	4.4 %
75As (KED)	0.656 ppb	5.1 %
80Se (KED)	1.076 ppb	23.0 %
85Rb (KED)	2.603 ppb	0.8 %
88Sr (KED)	7.750 ppb	2.2 %
89Y (KED)	115.638 %	1.3 %
107Ag (KED)	0.093 ppb	5.3 %
114Cd (KED)	0.072 ppb	3.0 %
115In (KED)	97.276 %	1.6 %
133Cs (KED)	0.151 ppb	4.7 %
138Ba (KED)	8.523 ppb	2.7 %
139La (KED)	0.527 ppb	4.1 %
140Ce (KED)	1.147 ppb	1.2 %
141Pr (KED)	0.121 ppb	2.8 %
142Nd (KED)	0.691 ppb	3.9 %
152Sm (KED)	0.092 ppb	5.9 %
153Eu (KED)	0.020 ppb	8.6 %
158Gd (KED)	0.085 ppb	2.0 %
159Tb (KED)	95.780 %	2.4 %
164Dy (KED)	0.058 ppb	5.5 %
166Er (KED)	0.027 ppb	1.8 %
169Tm (KED)	0.004 ppb	8.2 %
174Yb (KED)	0.022 ppb	7.1 %
175Lu (KED)	-0.383 ppb	2.2 %
205Tl (KED)	0.014 ppb	6.1 %
208Pb (KED)	1.133 ppb	3.2 %
209Bi (KED)	75.397 %	1.1 %
232Th (KED)	0.221 ppb	1.0 %
238U (KED)	0.076 ppb	3.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	133.422 %	2,910 cps	5.6 %
9Be (KED)	0.048 ppb	8 cps	99.0 %
11B (KED)	-2.788 ppb	464 cps	4.4 %
24Mg (KED)	673.110 ppb	287,196 cps	0.7 %
27Al (KED)	762.676 ppb	68,435 cps	1.3 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	136.307 %	32,862 cps	1.5 %
51V (KED)	1.490 ppb	9,417 cps	2.4 %
52Cr (KED)	4.908 ppb	50,250 cps	0.4 %
55Mn (KED)	19.035 ppb	87,347 cps	0.8 %
56Fe (KED)	728.029 ppb	6,637,831 cps	0.6 %
58Ni (KED)	3.509 ppb	46,507 cps	0.7 %
59Co (KED)	0.365 ppb	7,725 cps	0.6 %
63Cu (KED)	9.523 ppb	128,879 cps	0.9 %
64Zn (KED)	168.086 ppb	537,442 cps	1.2 %
69Ga (KED)	2.557 ppb	9,596 cps	3.4 %
75As (KED)	0.656 ppb	590 cps	6.1 %
80Se (KED)	1.076 ppb	623 cps	8.9 %
85Rb (KED)	2.603 ppb	8,842 cps	1.0 %
88Sr (KED)	7.750 ppb	37,271 cps	1.3 %
89Y (KED)	115.638 %	275,068 cps	1.3 %
107Ag (KED)	0.093 ppb	3,508 cps	5.1 %
114Cd (KED)	0.072 ppb	1,049 cps	2.7 %
115In (KED)	97.276 %	495,258 cps	1.6 %
133Cs (KED)	0.151 ppb	2,582 cps	3.3 %
138Ba (KED)	8.523 ppb	209,890 cps	1.0 %
139La (KED)	0.527 ppb	28,070 cps	1.7 %
140Ce (KED)	1.147 ppb	85,023 cps	1.3 %
141Pr (KED)	0.121 ppb	9,253 cps	0.9 %
142Nd (KED)	0.691 ppb	21,722 cps	1.6 %
152Sm (KED)	0.092 ppb	2,846 cps	3.9 %
153Eu (KED)	0.020 ppb	1,243 cps	6.3 %
158Gd (KED)	0.085 ppb	3,902 cps	1.2 %
159Tb (KED)	95.780 %	3,202,132 cps	2.4 %
164Dy (KED)	0.058 ppb	2,901 cps	3.8 %
166Er (KED)	0.027 ppb	2,034 cps	2.8 %
169Tm (KED)	0.004 ppb	808 cps	7.2 %
174Yb (KED)	0.022 ppb	1,741 cps	6.5 %
175Lu (KED)	-0.383 ppb	23,599 cps	2.4 %
205Tl (KED)	0.014 ppb	1,981 cps	6.1 %
208Pb (KED)	1.133 ppb	125,317 cps	1.7 %
209Bi (KED)	75.397 %	2,692,025 cps	1.1 %
232Th (KED)	0.221 ppb	38,474 cps	1.2 %
238U (KED)	0.076 ppb	16,098 cps	2.0 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 12

Analysis name: 025899jian

Analysis started at: 9/7/2021 4:02:47 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	137.396 %	2.8 %
9Be (KED)	0.013 ppb	178.6 %
11B (KED)	-2.496 ppb	30.2 %
24Mg (KED)	797.559 ppb	3.7 %
27Al (KED)	705.349 ppb	1.1 %
45Sc (KED)	144.140 %	0.5 %
51V (KED)	1.387 ppb	2.8 %
52Cr (KED)	4.477 ppb	2.1 %
55Mn (KED)	19.601 ppb	1.0 %
56Fe (KED)	763.056 ppb	3.1 %
58Ni (KED)	3.473 ppb	2.0 %
59Co (KED)	0.373 ppb	2.1 %
63Cu (KED)	9.819 ppb	1.0 %
64Zn (KED)	143.449 ppb	1.5 %
69Ga (KED)	2.537 ppb	1.0 %
75As (KED)	0.797 ppb	8.2 %
80Se (KED)	0.951 ppb	13.0 %
85Rb (KED)	4.111 ppb	0.6 %
88Sr (KED)	11.706 ppb	1.1 %
89Y (KED)	118.799 %	2.6 %
107Ag (KED)	0.058 ppb	5.3 %
114Cd (KED)	0.076 ppb	5.4 %
115In (KED)	100.365 %	2.4 %
133Cs (KED)	0.158 ppb	4.0 %
138Ba (KED)	8.318 ppb	1.6 %
139La (KED)	0.577 ppb	0.8 %
140Ce (KED)	1.276 ppb	0.9 %
141Pr (KED)	0.139 ppb	2.6 %
142Nd (KED)	0.752 ppb	2.7 %
152Sm (KED)	0.100 ppb	2.9 %
153Eu (KED)	0.021 ppb	2.6 %
158Gd (KED)	0.089 ppb	3.3 %
159Tb (KED)	96.644 %	0.5 %
164Dy (KED)	0.062 ppb	3.5 %
166Er (KED)	0.030 ppb	8.0 %
169Tm (KED)	0.004 ppb	2.3 %
174Yb (KED)	0.023 ppb	0.7 %
175Lu (KED)	-0.397 ppb	0.8 %
205Tl (KED)	0.013 ppb	3.4 %
208Pb (KED)	1.229 ppb	0.7 %
209Bi (KED)	73.646 %	0.5 %
232Th (KED)	0.236 ppb	3.5 %
238U (KED)	0.079 ppb	3.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	137.396 %	2,997 cps	2.8 %
9Be (KED)	0.013 ppb	3 cps	100.0 %
11B (KED)	-2.496 ppb	499 cps	8.0 %
24Mg (KED)	797.559 ppb	350,773 cps	1.5 %
27Al (KED)	705.349 ppb	66,936 cps	0.9 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	144.140 %	34,751 cps	0.5 %
51V (KED)	1.387 ppb	9,267 cps	3.0 %
52Cr (KED)	4.477 ppb	48,491 cps	1.8 %
55Mn (KED)	19.601 ppb	95,113 cps	0.6 %
56Fe (KED)	763.056 ppb	7,357,926 cps	2.9 %
58Ni (KED)	3.473 ppb	48,699 cps	2.0 %
59Co (KED)	0.373 ppb	8,323 cps	2.0 %
63Cu (KED)	9.819 ppb	136,498 cps	3.0 %
64Zn (KED)	143.449 ppb	471,465 cps	1.7 %
69Ga (KED)	2.537 ppb	9,787 cps	3.0 %
75As (KED)	0.797 ppb	736 cps	8.9 %
80Se (KED)	0.951 ppb	608 cps	4.4 %
85Rb (KED)	4.111 ppb	14,319 cps	2.8 %
88Sr (KED)	11.706 ppb	57,749 cps	1.6 %
89Y (KED)	118.799 %	282,586 cps	2.6 %
107Ag (KED)	0.058 ppb	2,267 cps	3.1 %
114Cd (KED)	0.076 ppb	1,136 cps	2.5 %
115In (KED)	100.365 %	510,989 cps	2.4 %
133Cs (KED)	0.158 ppb	2,784 cps	2.2 %
138Ba (KED)	8.318 ppb	206,810 cps	1.6 %
139La (KED)	0.577 ppb	31,012 cps	1.2 %
140Ce (KED)	1.276 ppb	95,385 cps	0.4 %
141Pr (KED)	0.139 ppb	10,765 cps	2.7 %
142Nd (KED)	0.752 ppb	23,874 cps	2.2 %
152Sm (KED)	0.100 ppb	3,124 cps	3.4 %
153Eu (KED)	0.021 ppb	1,308 cps	2.1 %
158Gd (KED)	0.089 ppb	4,113 cps	3.0 %
159Tb (KED)	96.644 %	3,231,006 cps	0.5 %
164Dy (KED)	0.062 ppb	3,116 cps	4.0 %
166Er (KED)	0.030 ppb	2,216 cps	6.4 %
169Tm (KED)	0.004 ppb	843 cps	1.8 %
174Yb (KED)	0.023 ppb	1,815 cps	0.4 %
175Lu (KED)	-0.397 ppb	22,349 cps	1.0 %
205Tl (KED)	0.013 ppb	1,811 cps	3.7 %
208Pb (KED)	1.229 ppb	131,399 cps	0.8 %
209Bi (KED)	73.646 %	2,629,476 cps	0.5 %
232Th (KED)	0.236 ppb	40,140 cps	3.6 %
238U (KED)	0.079 ppb	16,372 cps	4.1 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 13

Analysis name: 028674jian

Analysis started at: 9/7/2021 4:06:16 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	138.517 %	3.4 %
9Be (KED)	-0.003 ppb	417.9 %
11B (KED)	-4.427 ppb	6.0 %
24Mg (KED)	372.636 ppb	4.7 %
27Al (KED)	531.759 ppb	3.0 %
45Sc (KED)	143.253 %	3.3 %
51V (KED)	0.947 ppb	0.9 %
52Cr (KED)	5.154 ppb	2.5 %
55Mn (KED)	12.108 ppb	2.9 %
56Fe (KED)	500.407 ppb	2.6 %
58Ni (KED)	2.503 ppb	2.4 %
59Co (KED)	0.245 ppb	1.7 %
63Cu (KED)	7.711 ppb	3.0 %
64Zn (KED)	146.501 ppb	1.9 %
69Ga (KED)	2.190 ppb	2.4 %
75As (KED)	0.935 ppb	4.5 %
80Se (KED)	0.896 ppb	19.3 %
85Rb (KED)	1.540 ppb	5.2 %
88Sr (KED)	5.529 ppb	3.1 %
89Y (KED)	117.826 %	2.0 %
107Ag (KED)	0.066 ppb	4.3 %
114Cd (KED)	0.068 ppb	5.8 %
115In (KED)	98.825 %	0.8 %
133Cs (KED)	0.108 ppb	1.8 %
138Ba (KED)	6.816 ppb	3.1 %
139La (KED)	0.754 ppb	2.2 %
140Ce (KED)	1.588 ppb	2.3 %
141Pr (KED)	0.175 ppb	3.4 %
142Nd (KED)	0.970 ppb	2.0 %
152Sm (KED)	0.111 ppb	0.9 %
153Eu (KED)	0.019 ppb	0.2 %
158Gd (KED)	0.088 ppb	3.1 %
159Tb (KED)	95.499 %	1.2 %
164Dy (KED)	0.052 ppb	5.8 %
166Er (KED)	0.021 ppb	1.9 %
169Tm (KED)	0.003 ppb	6.5 %
174Yb (KED)	0.018 ppb	3.1 %
175Lu (KED)	-0.411 ppb	0.7 %
205Tl (KED)	0.011 ppb	4.3 %
208Pb (KED)	1.593 ppb	2.7 %
209Bi (KED)	74.935 %	1.6 %
232Th (KED)	0.166 ppb	3.3 %
238U (KED)	0.050 ppb	3.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	138.517 %	3,021 cps	3.4 %
9Be (KED)	-0.003 ppb	1 cps	173.2 %
11B (KED)	-4.427 ppb	370 cps	6.8 %
24Mg (KED)	372.636 ppb	165,377 cps	1.4 %
27Al (KED)	531.759 ppb	50,147 cps	0.7 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	143.253 %	34,537 cps	3.3 %
51V (KED)	0.947 ppb	6,293 cps	3.7 %
52Cr (KED)	5.154 ppb	55,433 cps	1.3 %
55Mn (KED)	12.108 ppb	58,425 cps	0.9 %
56Fe (KED)	500.407 ppb	4,794,820 cps	0.8 %
58Ni (KED)	2.503 ppb	35,436 cps	2.1 %
59Co (KED)	0.245 ppb	5,527 cps	2.4 %
63Cu (KED)	7.711 ppb	106,571 cps	1.1 %
64Zn (KED)	146.501 ppb	477,499 cps	0.4 %
69Ga (KED)	2.190 ppb	8,388 cps	3.8 %
75As (KED)	0.935 ppb	854 cps	2.9 %
80Se (KED)	0.896 ppb	589 cps	8.5 %
85Rb (KED)	1.540 ppb	5,346 cps	4.6 %
88Sr (KED)	5.529 ppb	27,134 cps	1.8 %
89Y (KED)	117.826 %	280,272 cps	2.0 %
107Ag (KED)	0.066 ppb	2,540 cps	4.4 %
114Cd (KED)	0.068 ppb	1,007 cps	5.7 %
115In (KED)	98.825 %	503,145 cps	0.8 %
133Cs (KED)	0.108 ppb	1,883 cps	1.9 %
138Ba (KED)	6.816 ppb	167,712 cps	3.4 %
139La (KED)	0.754 ppb	40,009 cps	1.1 %
140Ce (KED)	1.588 ppb	117,214 cps	1.7 %
141Pr (KED)	0.175 ppb	13,300 cps	2.6 %
142Nd (KED)	0.970 ppb	30,393 cps	2.2 %
152Sm (KED)	0.111 ppb	3,432 cps	1.6 %
153Eu (KED)	0.019 ppb	1,172 cps	1.3 %
158Gd (KED)	0.088 ppb	4,054 cps	4.2 %
159Tb (KED)	95.499 %	3,192,729 cps	1.2 %
164Dy (KED)	0.052 ppb	2,576 cps	4.8 %
166Er (KED)	0.021 ppb	1,651 cps	2.3 %
169Tm (KED)	0.003 ppb	662 cps	7.6 %
174Yb (KED)	0.018 ppb	1,432 cps	4.0 %
175Lu (KED)	-0.411 ppb	20,476 cps	1.3 %
205Tl (KED)	0.011 ppb	1,485 cps	4.5 %
208Pb (KED)	1.593 ppb	168,337 cps	2.8 %
209Bi (KED)	74.935 %	2,675,513 cps	1.6 %
232Th (KED)	0.166 ppb	28,745 cps	2.6 %
238U (KED)	0.050 ppb	10,599 cps	2.6 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 14

Analysis name: 028732jian

Analysis started at: 9/7/2021 4:09:46 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	136.224 %	0.9 %
9Be (KED)	0.021 ppb	66.4 %
11B (KED)	-3.261 ppb	32.0 %
24Mg (KED)	793.868 ppb	1.9 %
27Al (KED)	792.878 ppb	0.3 %
45Sc (KED)	142.222 %	1.9 %
51V (KED)	1.564 ppb	4.8 %
52Cr (KED)	3.911 ppb	2.4 %
55Mn (KED)	21.422 ppb	2.0 %
56Fe (KED)	856.155 ppb	2.4 %
58Ni (KED)	3.904 ppb	1.5 %
59Co (KED)	0.433 ppb	2.9 %
63Cu (KED)	11.351 ppb	0.6 %
64Zn (KED)	174.704 ppb	1.3 %
69Ga (KED)	3.646 ppb	0.9 %
75As (KED)	0.755 ppb	8.2 %
80Se (KED)	1.226 ppb	21.0 %
85Rb (KED)	2.940 ppb	3.2 %
88Sr (KED)	10.717 ppb	1.9 %
89Y (KED)	117.288 %	1.4 %
107Ag (KED)	0.058 ppb	3.0 %
114Cd (KED)	0.060 ppb	9.1 %
115In (KED)	97.768 %	2.4 %
133Cs (KED)	0.170 ppb	4.5 %
138Ba (KED)	11.758 ppb	1.9 %
139La (KED)	0.616 ppb	1.4 %
140Ce (KED)	1.349 ppb	1.4 %
141Pr (KED)	0.145 ppb	3.1 %
142Nd (KED)	0.804 ppb	1.2 %
152Sm (KED)	0.106 ppb	2.3 %
153Eu (KED)	0.023 ppb	4.9 %
158Gd (KED)	0.095 ppb	0.5 %
159Tb (KED)	93.458 %	0.7 %
164Dy (KED)	0.063 ppb	0.6 %
166Er (KED)	0.029 ppb	3.3 %
169Tm (KED)	0.004 ppb	2.3 %
174Yb (KED)	0.024 ppb	1.6 %
175Lu (KED)	-0.421 ppb	1.1 %
205Tl (KED)	0.015 ppb	1.1 %
208Pb (KED)	4.922 ppb	2.8 %
209Bi (KED)	71.008 %	0.7 %
232Th (KED)	0.259 ppb	1.8 %
238U (KED)	0.080 ppb	2.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	136.224 %	2,971 cps	0.9 %
9Be (KED)	0.021 ppb	4 cps	43.3 %
11B (KED)	-3.261 ppb	443 cps	16.3 %
24Mg (KED)	793.868 ppb	346,377 cps	1.6 %
27Al (KED)	792.878 ppb	74,227 cps	1.7 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	142.222 %	34,288 cps	1.9 %
51V (KED)	1.564 ppb	10,305 cps	3.3 %
52Cr (KED)	3.911 ppb	41,799 cps	0.7 %
55Mn (KED)	21.422 ppb	102,530 cps	0.2 %
56Fe (KED)	856.155 ppb	8,143,163 cps	1.0 %
58Ni (KED)	3.904 ppb	53,756 cps	0.6 %
59Co (KED)	0.433 ppb	9,496 cps	1.5 %
63Cu (KED)	11.351 ppb	155,574 cps	1.2 %
64Zn (KED)	174.704 ppb	566,561 cps	0.6 %
69Ga (KED)	3.646 ppb	13,851 cps	0.6 %
75As (KED)	0.755 ppb	688 cps	7.3 %
80Se (KED)	1.226 ppb	671 cps	9.1 %
85Rb (KED)	2.940 ppb	10,120 cps	2.0 %
88Sr (KED)	10.717 ppb	52,212 cps	1.2 %
89Y (KED)	117.288 %	278,993 cps	1.4 %
107Ag (KED)	0.058 ppb	2,209 cps	2.8 %
114Cd (KED)	0.060 ppb	894 cps	7.0 %
115In (KED)	97.768 %	497,765 cps	2.4 %
133Cs (KED)	0.170 ppb	2,915 cps	2.0 %
138Ba (KED)	11.758 ppb	282,110 cps	1.5 %
139La (KED)	0.616 ppb	32,038 cps	1.2 %
140Ce (KED)	1.349 ppb	97,548 cps	0.7 %
141Pr (KED)	0.145 ppb	10,839 cps	3.4 %
142Nd (KED)	0.804 ppb	24,664 cps	0.7 %
152Sm (KED)	0.106 ppb	3,214 cps	2.8 %
153Eu (KED)	0.023 ppb	1,356 cps	5.2 %
158Gd (KED)	0.095 ppb	4,253 cps	1.0 %
159Tb (KED)	93.458 %	3,124,508 cps	0.7 %
164Dy (KED)	0.063 ppb	3,091 cps	1.1 %
166Er (KED)	0.029 ppb	2,135 cps	3.1 %
169Tm (KED)	0.004 ppb	889 cps	1.6 %
174Yb (KED)	0.024 ppb	1,822 cps	0.9 %
175Lu (KED)	-0.421 ppb	19,011 cps	1.8 %
205Tl (KED)	0.015 ppb	1,887 cps	1.1 %
208Pb (KED)	4.922 ppb	459,541 cps	3.1 %
209Bi (KED)	71.008 %	2,535,300 cps	0.7 %
232Th (KED)	0.259 ppb	42,560 cps	1.3 %
238U (KED)	0.080 ppb	15,950 cps	2.5 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 15

Analysis name: 026077jian

Analysis started at: 9/7/2021 4:13:21 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	140.963 %	2.8 %
9Be (KED)	0.013 ppb	185.7 %
11B (KED)	-1.776 ppb	20.5 %
24Mg (KED)	583.810 ppb	3.3 %
27Al (KED)	681.439 ppb	2.7 %
45Sc (KED)	140.235 %	1.8 %
51V (KED)	1.302 ppb	2.2 %
52Cr (KED)	3.410 ppb	3.2 %
55Mn (KED)	17.483 ppb	2.3 %
56Fe (KED)	701.428 ppb	2.1 %
58Ni (KED)	3.276 ppb	3.6 %
59Co (KED)	0.347 ppb	3.3 %
63Cu (KED)	11.226 ppb	2.2 %
64Zn (KED)	157.977 ppb	2.8 %
69Ga (KED)	2.513 ppb	1.5 %
75As (KED)	0.737 ppb	6.5 %
80Se (KED)	0.957 ppb	25.3 %
85Rb (KED)	2.190 ppb	4.3 %
88Sr (KED)	8.836 ppb	1.4 %
89Y (KED)	119.433 %	2.3 %
107Ag (KED)	0.090 ppb	4.2 %
114Cd (KED)	0.060 ppb	4.7 %
115In (KED)	101.246 %	2.2 %
133Cs (KED)	0.143 ppb	3.2 %
138Ba (KED)	7.985 ppb	3.1 %
139La (KED)	0.544 ppb	2.7 %
140Ce (KED)	1.137 ppb	2.6 %
141Pr (KED)	0.128 ppb	1.6 %
142Nd (KED)	0.685 ppb	1.4 %
152Sm (KED)	0.091 ppb	3.1 %
153Eu (KED)	0.020 ppb	5.6 %
158Gd (KED)	0.082 ppb	2.9 %
159Tb (KED)	98.497 %	1.7 %
164Dy (KED)	0.059 ppb	2.6 %
166Er (KED)	0.026 ppb	8.0 %
169Tm (KED)	0.004 ppb	9.8 %
174Yb (KED)	0.021 ppb	2.2 %
175Lu (KED)	-0.429 ppb	1.4 %
205Tl (KED)	0.010 ppb	7.0 %
208Pb (KED)	1.443 ppb	1.3 %
209Bi (KED)	76.880 %	0.9 %
232Th (KED)	0.204 ppb	3.5 %
238U (KED)	0.069 ppb	0.2 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	140.963 %	3,075 cps	2.8 %
9Be (KED)	0.013 ppb	3 cps	100.0 %
11B (KED)	-1.776 ppb	563 cps	4.6 %
24Mg (KED)	583.810 ppb	263,559 cps	1.1 %
27Al (KED)	681.439 ppb	62,904 cps	1.6 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	140.235 %	33,809 cps	1.8 %
51V (KED)	1.302 ppb	8,464 cps	1.6 %
52Cr (KED)	3.410 ppb	35,953 cps	1.4 %
55Mn (KED)	17.483 ppb	82,542 cps	1.2 %
56Fe (KED)	701.428 ppb	6,579,404 cps	0.3 %
58Ni (KED)	3.276 ppb	44,793 cps	1.6 %
59Co (KED)	0.347 ppb	7,567 cps	2.7 %
63Cu (KED)	11.226 ppb	156,639 cps	0.3 %
64Zn (KED)	157.977 ppb	521,691 cps	0.5 %
69Ga (KED)	2.513 ppb	9,747 cps	3.7 %
75As (KED)	0.737 ppb	683 cps	5.9 %
80Se (KED)	0.957 ppb	613 cps	11.4 %
85Rb (KED)	2.190 ppb	7,687 cps	3.4 %
88Sr (KED)	8.836 ppb	43,864 cps	1.5 %
89Y (KED)	119.433 %	284,095 cps	2.3 %
107Ag (KED)	0.090 ppb	3,544 cps	2.1 %
114Cd (KED)	0.060 ppb	929 cps	2.0 %
115In (KED)	101.246 %	515,473 cps	2.2 %
133Cs (KED)	0.143 ppb	2,536 cps	2.4 %
138Ba (KED)	7.985 ppb	202,325 cps	1.5 %
139La (KED)	0.544 ppb	29,783 cps	1.6 %
140Ce (KED)	1.137 ppb	86,681 cps	1.0 %
141Pr (KED)	0.128 ppb	10,069 cps	2.5 %
142Nd (KED)	0.685 ppb	22,168 cps	2.8 %
152Sm (KED)	0.091 ppb	2,896 cps	2.9 %
153Eu (KED)	0.020 ppb	1,259 cps	4.4 %
158Gd (KED)	0.082 ppb	3,865 cps	2.9 %
159Tb (KED)	98.497 %	3,292,955 cps	1.7 %
164Dy (KED)	0.059 ppb	3,013 cps	1.7 %
166Er (KED)	0.026 ppb	2,055 cps	4.8 %
169Tm (KED)	0.004 ppb	767 cps	8.6 %
174Yb (KED)	0.021 ppb	1,749 cps	3.5 %
175Lu (KED)	-0.429 ppb	19,173 cps	2.1 %
205Tl (KED)	0.010 ppb	1,441 cps	6.0 %
208Pb (KED)	1.443 ppb	158,110 cps	0.7 %
209Bi (KED)	76.880 %	2,744,959 cps	0.9 %
232Th (KED)	0.204 ppb	36,232 cps	2.6 %
238U (KED)	0.069 ppb	14,896 cps	0.8 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 16

Analysis name: 027060jian

Analysis started at: 9/7/2021 4:17:00 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	136.377 %	4.7 %
9Be (KED)	0.022 ppb	72.3 %
11B (KED)	-0.978 ppb	109.4 %
24Mg (KED)	1,040.342 ppb	3.9 %
27Al (KED)	1,225.830 ppb	1.5 %
45Sc (KED)	140.323 %	2.0 %
51V (KED)	2.327 ppb	4.3 %
52Cr (KED)	5.542 ppb	2.4 %
55Mn (KED)	30.951 ppb	1.5 %
56Fe (KED)	1,189.686 ppb	2.1 %
58Ni (KED)	5.366 ppb	1.7 %
59Co (KED)	0.606 ppb	3.3 %
63Cu (KED)	9.325 ppb	3.4 %
64Zn (KED)	157.113 ppb	2.2 %
69Ga (KED)	3.912 ppb	2.0 %
75As (KED)	0.963 ppb	7.3 %
80Se (KED)	0.758 ppb	18.6 %
85Rb (KED)	2.691 ppb	4.2 %
88Sr (KED)	13.020 ppb	2.1 %
89Y (KED)	122.488 %	2.1 %
107Ag (KED)	0.069 ppb	4.3 %
114Cd (KED)	0.046 ppb	11.8 %
115In (KED)	101.706 %	1.9 %
133Cs (KED)	0.260 ppb	2.8 %
138Ba (KED)	13.120 ppb	2.9 %
139La (KED)	0.882 ppb	2.3 %
140Ce (KED)	1.897 ppb	4.1 %
141Pr (KED)	0.204 ppb	3.4 %
142Nd (KED)	1.138 ppb	3.1 %
152Sm (KED)	0.152 ppb	1.2 %
153Eu (KED)	0.032 ppb	5.7 %
158Gd (KED)	0.138 ppb	2.7 %
159Tb (KED)	101.332 %	2.8 %
164Dy (KED)	0.096 ppb	0.7 %
166Er (KED)	0.046 ppb	1.1 %
169Tm (KED)	0.006 ppb	3.4 %
174Yb (KED)	0.036 ppb	7.6 %
175Lu (KED)	-0.431 ppb	1.2 %
205Tl (KED)	0.018 ppb	6.0 %
208Pb (KED)	1.721 ppb	3.6 %
209Bi (KED)	79.418 %	1.1 %
232Th (KED)	0.359 ppb	2.2 %
238U (KED)	0.139 ppb	1.7 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	136.377 %	2,975 cps	4.7 %
9Be (KED)	0.022 ppb	4 cps	43.3 %
11B (KED)	-0.978 ppb	601 cps	15.8 %
24Mg (KED)	1,040.342 ppb	453,782 cps	1.0 %
27Al (KED)	1,225.830 ppb	113,151 cps	0.5 %

Comprehensive

9/7/2021 4:53:36 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	140.323 %	33,830 cps	2.0 %
51V (KED)	2.327 ppb	15,120 cps	2.9 %
52Cr (KED)	5.542 ppb	58,386 cps	0.6 %
55Mn (KED)	30.951 ppb	146,098 cps	1.5 %
56Fe (KED)	1,189.686 ppb	11,162,685 cps	0.6 %
58Ni (KED)	5.366 ppb	72,167 cps	0.9 %
59Co (KED)	0.606 ppb	13,033 cps	2.2 %
63Cu (KED)	9.325 ppb	133,666 cps	1.4 %
64Zn (KED)	157.113 ppb	532,185 cps	0.1 %
69Ga (KED)	3.912 ppb	15,511 cps	0.1 %
75As (KED)	0.963 ppb	916 cps	9.3 %
80Se (KED)	0.758 ppb	574 cps	5.6 %
85Rb (KED)	2.691 ppb	9,675 cps	2.1 %
88Sr (KED)	13.020 ppb	66,200 cps	1.0 %
89Y (KED)	122.488 %	291,362 cps	2.1 %
107Ag (KED)	0.069 ppb	2,750 cps	5.0 %
114Cd (KED)	0.046 ppb	750 cps	11.8 %
115In (KED)	101.706 %	517,814 cps	1.9 %
133Cs (KED)	0.260 ppb	4,613 cps	0.8 %
138Ba (KED)	13.120 ppb	340,965 cps	0.4 %
139La (KED)	0.882 ppb	49,622 cps	1.7 %
140Ce (KED)	1.897 ppb	148,414 cps	1.3 %
141Pr (KED)	0.204 ppb	16,499 cps	0.6 %
142Nd (KED)	1.138 ppb	37,806 cps	0.3 %
152Sm (KED)	0.152 ppb	4,979 cps	4.1 %
153Eu (KED)	0.032 ppb	2,067 cps	3.4 %
158Gd (KED)	0.138 ppb	6,721 cps	3.0 %
159Tb (KED)	101.332 %	3,387,749 cps	2.8 %
164Dy (KED)	0.096 ppb	5,083 cps	2.6 %
166Er (KED)	0.046 ppb	3,368 cps	2.0 %
169Tm (KED)	0.006 ppb	1,359 cps	4.4 %
174Yb (KED)	0.036 ppb	2,960 cps	5.4 %
175Lu (KED)	-0.431 ppb	19,487 cps	0.7 %
205Tl (KED)	0.018 ppb	2,625 cps	5.2 %
208Pb (KED)	1.721 ppb	191,318 cps	2.3 %
209Bi (KED)	79.418 %	2,835,562 cps	1.1 %
232Th (KED)	0.359 ppb	65,770 cps	2.9 %
238U (KED)	0.139 ppb	30,919 cps	2.8 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 17

Analysis name: 019243ti

Analysis started at: 9/7/2021 4:20:34 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	139.638 %	3.3 %
9Be (KED)	0.005 ppb	284.4 %
11B (KED)	-2.520 ppb	31.7 %
24Mg (KED)	583.925 ppb	3.6 %
27Al (KED)	539.793 ppb	3.5 %
45Sc (KED)	140.416 %	2.7 %
51V (KED)	1.108 ppb	3.3 %
52Cr (KED)	5.516 ppb	1.8 %
55Mn (KED)	15.965 ppb	3.7 %
56Fe (KED)	637.606 ppb	2.8 %
58Ni (KED)	3.266 ppb	2.9 %
59Co (KED)	0.306 ppb	3.3 %
63Cu (KED)	11.253 ppb	1.2 %
64Zn (KED)	184.874 ppb	1.3 %
69Ga (KED)	2.136 ppb	0.9 %
75As (KED)	0.619 ppb	6.1 %
80Se (KED)	1.341 ppb	14.4 %
85Rb (KED)	1.995 ppb	4.4 %
88Sr (KED)	9.645 ppb	0.3 %
89Y (KED)	121.728 %	0.9 %
107Ag (KED)	0.087 ppb	2.8 %
114Cd (KED)	0.067 ppb	1.6 %
115In (KED)	104.980 %	0.5 %
133Cs (KED)	0.117 ppb	2.5 %
138Ba (KED)	7.414 ppb	0.4 %
139La (KED)	0.539 ppb	1.7 %
140Ce (KED)	1.092 ppb	0.4 %
141Pr (KED)	0.122 ppb	2.1 %
142Nd (KED)	0.686 ppb	1.4 %
152Sm (KED)	0.089 ppb	4.1 %
153Eu (KED)	0.018 ppb	6.5 %
158Gd (KED)	0.076 ppb	7.2 %
159Tb (KED)	103.806 %	1.4 %
164Dy (KED)	0.051 ppb	10.6 %
166Er (KED)	0.022 ppb	2.4 %
169Tm (KED)	0.003 ppb	3.9 %
174Yb (KED)	0.020 ppb	2.2 %
175Lu (KED)	-0.440 ppb	0.4 %
205Tl (KED)	0.010 ppb	3.8 %
208Pb (KED)	1.559 ppb	1.8 %
209Bi (KED)	79.949 %	1.1 %
232Th (KED)	0.182 ppb	0.9 %
238U (KED)	0.068 ppb	2.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	139.638 %	3,046 cps	3.3 %
9Be (KED)	0.005 ppb	2 cps	86.6 %
11B (KED)	-2.520 ppb	506 cps	9.9 %
24Mg (KED)	583.925 ppb	261,081 cps	0.7 %
27Al (KED)	539.793 ppb	49,895 cps	0.8 %

Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	140.416 %	33,853 cps	2.7 %
51V (KED)	1.108 ppb	7,211 cps	1.2 %
52Cr (KED)	5.516 ppb	58,153 cps	1.3 %
55Mn (KED)	15.965 ppb	75,454 cps	1.1 %
56Fe (KED)	637.606 ppb	5,987,434 cps	0.2 %
58Ni (KED)	3.266 ppb	44,712 cps	0.9 %
59Co (KED)	0.306 ppb	6,701 cps	4.6 %
63Cu (KED)	11.253 ppb	160,074 cps	0.8 %
64Zn (KED)	184.874 ppb	622,147 cps	0.5 %
69Ga (KED)	2.136 ppb	8,455 cps	0.9 %
75As (KED)	0.619 ppb	587 cps	6.9 %
80Se (KED)	1.341 ppb	728 cps	6.3 %
85Rb (KED)	1.995 ppb	7,144 cps	4.9 %
88Sr (KED)	9.645 ppb	48,791 cps	0.6 %
89Y (KED)	121.728 %	289,553 cps	0.9 %
107Ag (KED)	0.087 ppb	3,533 cps	2.3 %
114Cd (KED)	0.067 ppb	1,060 cps	1.1 %
115In (KED)	104.980 %	534,483 cps	0.5 %
133Cs (KED)	0.117 ppb	2,158 cps	2.7 %
138Ba (KED)	7.414 ppb	198,156 cps	1.2 %
139La (KED)	0.539 ppb	31,097 cps	0.6 %
140Ce (KED)	1.092 ppb	87,746 cps	1.1 %
141Pr (KED)	0.122 ppb	10,136 cps	1.2 %
142Nd (KED)	0.686 ppb	23,388 cps	0.2 %
152Sm (KED)	0.089 ppb	3,008 cps	4.1 %
153Eu (KED)	0.018 ppb	1,218 cps	5.0 %
158Gd (KED)	0.076 ppb	3,773 cps	5.8 %
159Tb (KED)	103.806 %	3,470,463 cps	1.4 %
164Dy (KED)	0.051 ppb	2,763 cps	9.1 %
166Er (KED)	0.022 ppb	1,891 cps	3.2 %
169Tm (KED)	0.003 ppb	746 cps	2.9 %
174Yb (KED)	0.020 ppb	1,730 cps	1.7 %
175Lu (KED)	-0.440 ppb	18,852 cps	1.2 %
205Tl (KED)	0.010 ppb	1,535 cps	3.2 %
208Pb (KED)	1.559 ppb	176,140 cps	1.3 %
209Bi (KED)	79.949 %	2,854,534 cps	1.1 %
232Th (KED)	0.182 ppb	33,641 cps	0.8 %
238U (KED)	0.068 ppb	15,301 cps	2.2 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 18

Analysis name: 19000009wu

Analysis started at: 9/7/2021 4:24:13 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	136.021 %	2.8 %
9Be (KED)	0.021 ppb	130.5 %
11B (KED)	0.074 ppb	2,108.3 %
24Mg (KED)	920.113 ppb	1.6 %
27Al (KED)	676.442 ppb	1.3 %
45Sc (KED)	143.045 %	1.7 %
51V (KED)	1.375 ppb	2.2 %
52Cr (KED)	3.560 ppb	1.4 %
55Mn (KED)	20.588 ppb	0.9 %
56Fe (KED)	805.883 ppb	1.4 %
58Ni (KED)	3.749 ppb	1.3 %
59Co (KED)	0.412 ppb	1.3 %
63Cu (KED)	9.746 ppb	1.1 %
64Zn (KED)	174.043 ppb	1.1 %
69Ga (KED)	2.382 ppb	2.4 %
75As (KED)	0.608 ppb	7.9 %
80Se (KED)	1.048 ppb	1.1 %
85Rb (KED)	2.016 ppb	0.6 %
88Sr (KED)	11.450 ppb	0.9 %
89Y (KED)	124.578 %	0.6 %
107Ag (KED)	0.076 ppb	5.7 %
114Cd (KED)	0.063 ppb	6.3 %
115In (KED)	104.354 %	1.9 %
133Cs (KED)	0.151 ppb	4.2 %
138Ba (KED)	8.078 ppb	1.4 %
139La (KED)	0.578 ppb	2.4 %
140Ce (KED)	1.241 ppb	6.5 %
141Pr (KED)	0.136 ppb	0.7 %
142Nd (KED)	0.734 ppb	2.9 %
152Sm (KED)	0.101 ppb	0.8 %
153Eu (KED)	0.022 ppb	5.9 %
158Gd (KED)	0.092 ppb	2.7 %
159Tb (KED)	102.852 %	1.1 %
164Dy (KED)	0.062 ppb	1.2 %
166Er (KED)	0.028 ppb	7.5 %
169Tm (KED)	0.004 ppb	5.0 %
174Yb (KED)	0.023 ppb	5.7 %
175Lu (KED)	-0.439 ppb	0.8 %
205Tl (KED)	0.012 ppb	7.0 %
208Pb (KED)	1.130 ppb	1.7 %
209Bi (KED)	79.425 %	0.7 %
232Th (KED)	0.217 ppb	2.0 %
238U (KED)	0.111 ppb	2.2 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	136.021 %	2,967 cps	2.8 %
9Be (KED)	0.021 ppb	4 cps	86.6 %
11B (KED)	0.074 ppb	668 cps	13.2 %
24Mg (KED)	920.113 ppb	400,708 cps	1.5 %
27Al (KED)	676.442 ppb	63,701 cps	0.5 %

Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	143.045 %	34,487 cps	1.7 %
51V (KED)	1.375 ppb	9,116 cps	0.5 %
52Cr (KED)	3.560 ppb	38,292 cps	0.3 %
55Mn (KED)	20.588 ppb	99,132 cps	0.9 %
56Fe (KED)	805.883 ppb	7,711,024 cps	1.3 %
58Ni (KED)	3.749 ppb	52,006 cps	0.4 %
59Co (KED)	0.412 ppb	9,101 cps	1.0 %
63Cu (KED)	9.746 ppb	142,074 cps	0.7 %
64Zn (KED)	174.043 ppb	599,547 cps	0.7 %
69Ga (KED)	2.382 ppb	9,643 cps	3.0 %
75As (KED)	0.608 ppb	590 cps	8.4 %
80Se (KED)	1.048 ppb	664 cps	0.8 %
85Rb (KED)	2.016 ppb	7,389 cps	1.2 %
88Sr (KED)	11.450 ppb	59,251 cps	1.6 %
89Y (KED)	124.578 %	296,333 cps	0.6 %
107Ag (KED)	0.076 ppb	3,072 cps	3.8 %
114Cd (KED)	0.063 ppb	999 cps	6.6 %
115In (KED)	104.354 %	531,297 cps	1.9 %
133Cs (KED)	0.151 ppb	2,770 cps	2.3 %
138Ba (KED)	8.078 ppb	213,762 cps	0.7 %
139La (KED)	0.578 ppb	33,084 cps	1.5 %
140Ce (KED)	1.241 ppb	98,705 cps	5.6 %
141Pr (KED)	0.136 ppb	11,153 cps	1.1 %
142Nd (KED)	0.734 ppb	24,771 cps	1.8 %
152Sm (KED)	0.101 ppb	3,365 cps	1.6 %
153Eu (KED)	0.022 ppb	1,421 cps	4.9 %
158Gd (KED)	0.092 ppb	4,543 cps	1.7 %
159Tb (KED)	102.852 %	3,438,547 cps	1.1 %
164Dy (KED)	0.062 ppb	3,334 cps	2.3 %
166Er (KED)	0.028 ppb	2,265 cps	5.6 %
169Tm (KED)	0.004 ppb	866 cps	5.1 %
174Yb (KED)	0.023 ppb	1,980 cps	6.1 %
175Lu (KED)	-0.439 ppb	18,790 cps	2.9 %
205Tl (KED)	0.012 ppb	1,771 cps	6.7 %
208Pb (KED)	1.130 ppb	131,748 cps	1.1 %
209Bi (KED)	79.425 %	2,835,811 cps	0.7 %
232Th (KED)	0.217 ppb	39,904 cps	1.4 %
238U (KED)	0.111 ppb	24,710 cps	1.6 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 19

Analysis name: wuhao fu

Analysis started at: 9/7/2021 4:27:43 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	139.893 %	0.6 %
9Be (KED)	0.013 ppb	320.4 %
11B (KED)	-1.476 ppb	85.6 %
24Mg (KED)	1,149.409 ppb	1.6 %
27Al (KED)	904.099 ppb	0.3 %
45Sc (KED)	152.538 %	1.0 %
51V (KED)	1.938 ppb	1.6 %
52Cr (KED)	4.332 ppb	0.7 %
55Mn (KED)	32.619 ppb	0.6 %
56Fe (KED)	855.722 ppb	0.4 %
58Ni (KED)	3.983 ppb	0.6 %
59Co (KED)	0.563 ppb	1.9 %
63Cu (KED)	11.540 ppb	1.3 %
64Zn (KED)	131.116 ppb	0.9 %
69Ga (KED)	3.375 ppb	2.1 %
75As (KED)	0.664 ppb	7.2 %
80Se (KED)	1.085 ppb	7.9 %
85Rb (KED)	3.276 ppb	2.3 %
88Sr (KED)	24.042 ppb	3.3 %
89Y (KED)	125.417 %	0.8 %
107Ag (KED)	0.087 ppb	1.2 %
114Cd (KED)	0.109 ppb	1.9 %
115In (KED)	104.962 %	0.1 %
133Cs (KED)	0.172 ppb	2.3 %
138Ba (KED)	11.165 ppb	2.1 %
139La (KED)	0.728 ppb	3.0 %
140Ce (KED)	1.537 ppb	4.5 %
141Pr (KED)	0.169 ppb	3.1 %
142Nd (KED)	0.943 ppb	2.0 %
152Sm (KED)	0.128 ppb	3.8 %
153Eu (KED)	0.027 ppb	4.7 %
158Gd (KED)	0.123 ppb	2.5 %
159Tb (KED)	101.774 %	2.3 %
164Dy (KED)	0.091 ppb	2.1 %
166Er (KED)	0.043 ppb	3.9 %
169Tm (KED)	0.006 ppb	5.3 %
174Yb (KED)	0.036 ppb	6.8 %
175Lu (KED)	-0.441 ppb	2.4 %
205Tl (KED)	0.021 ppb	7.2 %
208Pb (KED)	2.057 ppb	2.3 %
209Bi (KED)	75.829 %	0.8 %
232Th (KED)	0.265 ppb	0.7 %
238U (KED)	0.122 ppb	2.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	139.893 %	3,051 cps	0.6 %
9Be (KED)	0.013 ppb	3 cps	173.2 %
11B (KED)	-1.476 ppb	580 cps	15.0 %
24Mg (KED)	1,149.409 ppb	514,836 cps	1.4 %
27Al (KED)	904.099 ppb	90,766 cps	1.1 %

Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	152.538 %	36,775 cps	1.0 %
51V (KED)	1.938 ppb	13,700 cps	1.0 %
52Cr (KED)	4.332 ppb	49,653 cps	0.3 %
55Mn (KED)	32.619 ppb	167,392 cps	1.4 %
56Fe (KED)	855.722 ppb	8,731,639 cps	0.5 %
58Ni (KED)	3.983 ppb	58,790 cps	1.1 %
59Co (KED)	0.563 ppb	13,194 cps	2.3 %
63Cu (KED)	11.540 ppb	169,117 cps	2.1 %
64Zn (KED)	131.116 ppb	455,196 cps	1.1 %
69Ga (KED)	3.375 ppb	13,716 cps	2.7 %
75As (KED)	0.664 ppb	648 cps	7.0 %
80Se (KED)	1.085 ppb	679 cps	3.0 %
85Rb (KED)	3.276 ppb	12,056 cps	3.1 %
88Sr (KED)	24.042 ppb	125,069 cps	4.0 %
89Y (KED)	125.417 %	298,329 cps	0.8 %
107Ag (KED)	0.087 ppb	3,546 cps	1.3 %
114Cd (KED)	0.109 ppb	1,640 cps	1.8 %
115In (KED)	104.962 %	534,390 cps	0.1 %
133Cs (KED)	0.172 ppb	3,163 cps	2.3 %
138Ba (KED)	11.165 ppb	291,762 cps	2.1 %
139La (KED)	0.728 ppb	41,147 cps	0.7 %
140Ce (KED)	1.537 ppb	120,850 cps	2.3 %
141Pr (KED)	0.169 ppb	13,756 cps	1.0 %
142Nd (KED)	0.943 ppb	31,493 cps	1.5 %
152Sm (KED)	0.128 ppb	4,224 cps	1.9 %
153Eu (KED)	0.027 ppb	1,758 cps	2.4 %
158Gd (KED)	0.123 ppb	5,997 cps	0.7 %
159Tb (KED)	101.774 %	3,402,529 cps	2.3 %
164Dy (KED)	0.091 ppb	4,794 cps	0.8 %
166Er (KED)	0.043 ppb	3,185 cps	1.4 %
169Tm (KED)	0.006 ppb	1,343 cps	7.5 %
174Yb (KED)	0.036 ppb	2,977 cps	8.9 %
175Lu (KED)	-0.441 ppb	18,320 cps	4.7 %
205Tl (KED)	0.021 ppb	2,879 cps	7.1 %
208Pb (KED)	2.057 ppb	215,003 cps	2.2 %
209Bi (KED)	75.829 %	2,707,425 cps	0.8 %
232Th (KED)	0.265 ppb	46,459 cps	1.4 %
238U (KED)	0.122 ppb	25,737 cps	2.2 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 20

Analysis name: wuhao ti

Analysis started at: 9/7/2021 4:31:19 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	144.631 %	4.1 %
9Be (KED)	0.012 ppb	194.7 %
11B (KED)	-3.024 ppb	1.8 %
24Mg (KED)	664.364 ppb	3.7 %
27Al (KED)	628.345 ppb	0.7 %
45Sc (KED)	151.180 %	1.3 %
51V (KED)	1.283 ppb	2.2 %
52Cr (KED)	3.110 ppb	2.7 %
55Mn (KED)	17.461 ppb	2.7 %
56Fe (KED)	725.412 ppb	1.6 %
58Ni (KED)	3.319 ppb	2.4 %
59Co (KED)	0.408 ppb	0.3 %
63Cu (KED)	14.120 ppb	1.3 %
64Zn (KED)	168.329 ppb	1.5 %
69Ga (KED)	2.631 ppb	0.5 %
75As (KED)	0.559 ppb	4.3 %
80Se (KED)	0.910 ppb	16.4 %
85Rb (KED)	2.698 ppb	2.9 %
88Sr (KED)	9.222 ppb	2.4 %
89Y (KED)	125.489 %	0.1 %
107Ag (KED)	0.138 ppb	1.9 %
114Cd (KED)	0.090 ppb	11.7 %
115In (KED)	104.383 %	2.9 %
133Cs (KED)	0.139 ppb	6.3 %
138Ba (KED)	8.771 ppb	1.9 %
139La (KED)	0.573 ppb	0.5 %
140Ce (KED)	1.199 ppb	2.8 %
141Pr (KED)	0.139 ppb	2.6 %
142Nd (KED)	0.735 ppb	3.3 %
152Sm (KED)	0.095 ppb	5.1 %
153Eu (KED)	0.022 ppb	3.2 %
158Gd (KED)	0.090 ppb	3.0 %
159Tb (KED)	101.314 %	2.0 %
164Dy (KED)	0.059 ppb	5.4 %
166Er (KED)	0.026 ppb	4.9 %
169Tm (KED)	0.004 ppb	7.1 %
174Yb (KED)	0.022 ppb	3.9 %
175Lu (KED)	-0.444 ppb	1.0 %
205Tl (KED)	0.013 ppb	3.1 %
208Pb (KED)	1.034 ppb	4.0 %
209Bi (KED)	77.815 %	0.3 %
232Th (KED)	0.226 ppb	0.6 %
238U (KED)	0.074 ppb	3.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	144.631 %	3,155 cps	4.1 %
9Be (KED)	0.012 ppb	3 cps	100.0 %
11B (KED)	-3.024 ppb	488 cps	3.9 %
24Mg (KED)	664.364 ppb	307,550 cps	1.0 %
27Al (KED)	628.345 ppb	62,552 cps	1.1 %

Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	151.180 %	36,448 cps	1.3 %
51V (KED)	1.283 ppb	8,993 cps	1.8 %
52Cr (KED)	3.110 ppb	35,370 cps	1.6 %
55Mn (KED)	17.461 ppb	88,877 cps	1.9 %
56Fe (KED)	725.412 ppb	7,336,111 cps	0.5 %
58Ni (KED)	3.319 ppb	48,897 cps	1.0 %
59Co (KED)	0.408 ppb	9,534 cps	1.2 %
63Cu (KED)	14.120 ppb	206,690 cps	1.2 %
64Zn (KED)	168.329 ppb	584,178 cps	1.3 %
69Ga (KED)	2.631 ppb	10,716 cps	0.5 %
75As (KED)	0.559 ppb	547 cps	4.3 %
80Se (KED)	0.910 ppb	631 cps	6.7 %
85Rb (KED)	2.698 ppb	9,943 cps	2.8 %
88Sr (KED)	9.222 ppb	48,103 cps	2.3 %
89Y (KED)	125.489 %	298,499 cps	0.1 %
107Ag (KED)	0.138 ppb	5,565 cps	1.5 %
114Cd (KED)	0.090 ppb	1,371 cps	8.2 %
115In (KED)	104.383 %	531,445 cps	2.9 %
133Cs (KED)	0.139 ppb	2,552 cps	3.8 %
138Ba (KED)	8.771 ppb	228,466 cps	0.6 %
139La (KED)	0.573 ppb	32,315 cps	2.2 %
140Ce (KED)	1.199 ppb	93,999 cps	1.7 %
141Pr (KED)	0.139 ppb	11,243 cps	0.7 %
142Nd (KED)	0.735 ppb	24,445 cps	1.4 %
152Sm (KED)	0.095 ppb	3,120 cps	3.9 %
153Eu (KED)	0.022 ppb	1,403 cps	1.4 %
158Gd (KED)	0.090 ppb	4,390 cps	2.6 %
159Tb (KED)	101.314 %	3,387,129 cps	2.0 %
164Dy (KED)	0.059 ppb	3,115 cps	6.0 %
166Er (KED)	0.026 ppb	2,110 cps	2.5 %
169Tm (KED)	0.004 ppb	843 cps	5.3 %
174Yb (KED)	0.022 ppb	1,833 cps	5.1 %
175Lu (KED)	-0.444 ppb	17,972 cps	4.9 %
205Tl (KED)	0.013 ppb	1,796 cps	2.7 %
208Pb (KED)	1.034 ppb	119,649 cps	3.4 %
209Bi (KED)	77.815 %	2,778,358 cps	0.3 %
232Th (KED)	0.226 ppb	40,607 cps	0.9 %
238U (KED)	0.074 ppb	16,074 cps	3.6 %

Comprehensive

9/7/2021 4:53:36 PM

Sample Summary

Instrument ID: iCAP Q

Analysis index: 21

Analysis name: 19304ti

Analysis started at: 9/7/2021 4:34:53 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	136.734 %	6.3 %
9Be (KED)	0.015 ppb	297.6 %
11B (KED)	-3.138 ppb	12.1 %
24Mg (KED)	770.598 ppb	5.7 %
27Al (KED)	769.236 ppb	2.2 %
45Sc (KED)	144.505 %	1.7 %
51V (KED)	1.525 ppb	2.2 %
52Cr (KED)	3.842 ppb	2.1 %
55Mn (KED)	21.409 ppb	1.2 %
56Fe (KED)	881.752 ppb	3.2 %
58Ni (KED)	3.793 ppb	3.1 %
59Co (KED)	0.425 ppb	2.3 %
63Cu (KED)	13.392 ppb	1.9 %
64Zn (KED)	170.618 ppb	3.1 %
69Ga (KED)	2.923 ppb	3.8 %
75As (KED)	0.612 ppb	4.6 %
80Se (KED)	0.816 ppb	8.9 %
85Rb (KED)	2.801 ppb	0.4 %
88Sr (KED)	10.067 ppb	2.2 %
89Y (KED)	127.449 %	1.5 %
107Ag (KED)	0.073 ppb	5.4 %
114Cd (KED)	0.057 ppb	12.7 %
115In (KED)	105.909 %	2.0 %
133Cs (KED)	0.171 ppb	4.7 %
138Ba (KED)	10.101 ppb	3.5 %
139La (KED)	0.718 ppb	3.2 %
140Ce (KED)	1.475 ppb	3.3 %
141Pr (KED)	0.166 ppb	2.1 %
142Nd (KED)	0.900 ppb	4.1 %
152Sm (KED)	0.120 ppb	4.8 %
153Eu (KED)	0.022 ppb	3.3 %
158Gd (KED)	0.107 ppb	2.3 %
159Tb (KED)	104.688 %	2.3 %
164Dy (KED)	0.070 ppb	2.1 %
166Er (KED)	0.032 ppb	1.6 %
169Tm (KED)	0.005 ppb	6.3 %
174Yb (KED)	0.027 ppb	3.4 %
175Lu (KED)	-0.445 ppb	0.8 %
205Tl (KED)	0.013 ppb	3.7 %
208Pb (KED)	2.218 ppb	1.7 %
209Bi (KED)	80.247 %	0.8 %
232Th (KED)	0.283 ppb	2.9 %
238U (KED)	0.073 ppb	2.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	136.734 %	2,983 cps	6.3 %
9Be (KED)	0.015 ppb	3 cps	173.2 %
11B (KED)	-3.138 ppb	454 cps	11.9 %
24Mg (KED)	770.598 ppb	336,719 cps	0.7 %
27Al (KED)	769.236 ppb	73,158 cps	0.8 %

Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	144.505 %	34,839 cps	1.7 %
51V (KED)	1.525 ppb	10,212 cps	2.5 %
52Cr (KED)	3.842 ppb	41,735 cps	0.4 %
55Mn (KED)	21.409 ppb	104,127 cps	0.6 %
56Fe (KED)	881.752 ppb	8,520,947 cps	2.0 %
58Ni (KED)	3.793 ppb	53,122 cps	1.6 %
59Co (KED)	0.425 ppb	9,487 cps	1.5 %
63Cu (KED)	13.392 ppb	199,141 cps	0.5 %
64Zn (KED)	170.618 ppb	601,205 cps	1.9 %
69Ga (KED)	2.923 ppb	12,080 cps	3.3 %
75As (KED)	0.612 ppb	607 cps	3.3 %
80Se (KED)	0.816 ppb	614 cps	4.4 %
85Rb (KED)	2.801 ppb	10,482 cps	1.3 %
88Sr (KED)	10.067 ppb	53,304 cps	0.7 %
89Y (KED)	127.449 %	303,163 cps	1.5 %
107Ag (KED)	0.073 ppb	3,020 cps	4.4 %
114Cd (KED)	0.057 ppb	926 cps	9.5 %
115In (KED)	105.909 %	539,215 cps	2.0 %
133Cs (KED)	0.171 ppb	3,167 cps	3.6 %
138Ba (KED)	10.101 ppb	271,561 cps	1.4 %
139La (KED)	0.718 ppb	41,755 cps	1.1 %
140Ce (KED)	1.475 ppb	119,311 cps	1.1 %
141Pr (KED)	0.166 ppb	13,850 cps	0.3 %
142Nd (KED)	0.900 ppb	30,889 cps	2.1 %
152Sm (KED)	0.120 ppb	4,054 cps	3.0 %
153Eu (KED)	0.022 ppb	1,493 cps	3.8 %
158Gd (KED)	0.107 ppb	5,387 cps	2.0 %
159Tb (KED)	104.688 %	3,499,952 cps	2.3 %
164Dy (KED)	0.070 ppb	3,841 cps	0.6 %
166Er (KED)	0.032 ppb	2,539 cps	3.0 %
169Tm (KED)	0.005 ppb	1,137 cps	3.9 %
174Yb (KED)	0.027 ppb	2,369 cps	4.2 %
175Lu (KED)	-0.445 ppb	18,382 cps	2.2 %
205Tl (KED)	0.013 ppb	1,931 cps	3.2 %
208Pb (KED)	2.218 ppb	243,962 cps	1.1 %
209Bi (KED)	80.247 %	2,865,178 cps	0.8 %
232Th (KED)	0.283 ppb	52,511 cps	3.4 %
238U (KED)	0.073 ppb	16,380 cps	1.7 %

Comprehensive

9/7/2021 4:53:36 PM

Sample Summary

Instrument ID: iCAP Q

Analysis index: 22

Analysis name: 19-1fu

Analysis started at: 9/7/2021 4:38:32 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	135.970 %	3.7 %
9Be (KED)	0.029 ppb	46.6 %
11B (KED)	-1.433 ppb	46.6 %
24Mg (KED)	559.224 ppb	3.7 %
27Al (KED)	569.316 ppb	1.0 %
45Sc (KED)	144.464 %	0.4 %
51V (KED)	1.130 ppb	0.5 %
52Cr (KED)	2.594 ppb	1.6 %
55Mn (KED)	14.654 ppb	1.3 %
56Fe (KED)	594.146 ppb	1.5 %
58Ni (KED)	2.632 ppb	1.9 %
59Co (KED)	0.267 ppb	2.0 %
63Cu (KED)	3.100 ppb	1.1 %
64Zn (KED)	194.506 ppb	1.6 %
69Ga (KED)	2.131 ppb	3.1 %
75As (KED)	0.529 ppb	14.1 %
80Se (KED)	1.538 ppb	5.1 %
85Rb (KED)	2.067 ppb	1.2 %
88Sr (KED)	9.022 ppb	0.8 %
89Y (KED)	126.927 %	0.6 %
107Ag (KED)	0.088 ppb	0.9 %
114Cd (KED)	0.074 ppb	2.0 %
115In (KED)	108.000 %	0.7 %
133Cs (KED)	0.131 ppb	3.3 %
138Ba (KED)	7.645 ppb	2.0 %
139La (KED)	0.480 ppb	2.7 %
140Ce (KED)	1.020 ppb	0.8 %
141Pr (KED)	0.112 ppb	0.8 %
142Nd (KED)	0.626 ppb	1.3 %
152Sm (KED)	0.086 ppb	2.6 %
153Eu (KED)	0.018 ppb	1.5 %
158Gd (KED)	0.075 ppb	0.7 %
159Tb (KED)	107.226 %	1.3 %
164Dy (KED)	0.050 ppb	3.3 %
166Er (KED)	0.023 ppb	6.6 %
169Tm (KED)	0.003 ppb	8.5 %
174Yb (KED)	0.019 ppb	0.5 %
175Lu (KED)	-0.448 ppb	0.5 %
205Tl (KED)	0.008 ppb	6.4 %
208Pb (KED)	0.747 ppb	4.3 %
209Bi (KED)	83.766 %	2.1 %
232Th (KED)	0.174 ppb	1.6 %
238U (KED)	0.065 ppb	1.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	135.970 %	2,966 cps	3.7 %
9Be (KED)	0.029 ppb	6 cps	34.6 %
11B (KED)	-1.433 ppb	567 cps	8.2 %
24Mg (KED)	559.224 ppb	243,453 cps	0.3 %
27Al (KED)	569.316 ppb	54,168 cps	0.7 %

Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	144.464 %	34,829 cps	0.4 %
51V (KED)	1.130 ppb	7,571 cps	0.9 %
52Cr (KED)	2.594 ppb	28,224 cps	1.2 %
55Mn (KED)	14.654 ppb	71,317 cps	1.7 %
56Fe (KED)	594.146 ppb	5,743,169 cps	1.1 %
58Ni (KED)	2.632 ppb	37,482 cps	1.5 %
59Co (KED)	0.267 ppb	6,036 cps	2.1 %
63Cu (KED)	3.100 ppb	47,072 cps	0.8 %
64Zn (KED)	194.506 ppb	682,438 cps	1.2 %
69Ga (KED)	2.131 ppb	8,794 cps	2.6 %
75As (KED)	0.529 ppb	523 cps	13.3 %
80Se (KED)	1.538 ppb	814 cps	3.3 %
85Rb (KED)	2.067 ppb	7,718 cps	1.7 %
88Sr (KED)	9.022 ppb	47,602 cps	0.7 %
89Y (KED)	126.927 %	301,921 cps	0.6 %
107Ag (KED)	0.088 ppb	3,687 cps	1.5 %
114Cd (KED)	0.074 ppb	1,183 cps	1.8 %
115In (KED)	108.000 %	549,857 cps	0.7 %
133Cs (KED)	0.131 ppb	2,485 cps	2.6 %
138Ba (KED)	7.645 ppb	210,980 cps	1.0 %
139La (KED)	0.480 ppb	28,624 cps	1.5 %
140Ce (KED)	1.020 ppb	84,669 cps	0.6 %
141Pr (KED)	0.112 ppb	9,625 cps	2.1 %
142Nd (KED)	0.626 ppb	22,064 cps	2.3 %
152Sm (KED)	0.086 ppb	2,981 cps	1.4 %
153Eu (KED)	0.018 ppb	1,211 cps	2.2 %
158Gd (KED)	0.075 ppb	3,880 cps	1.5 %
159Tb (KED)	107.226 %	3,584,773 cps	1.3 %
164Dy (KED)	0.050 ppb	2,808 cps	3.1 %
166Er (KED)	0.023 ppb	2,022 cps	5.6 %
169Tm (KED)	0.003 ppb	722 cps	9.5 %
174Yb (KED)	0.019 ppb	1,730 cps	1.5 %
175Lu (KED)	-0.448 ppb	18,486 cps	0.1 %
205Tl (KED)	0.008 ppb	1,292 cps	5.9 %
208Pb (KED)	0.747 ppb	98,223 cps	2.6 %
209Bi (KED)	83.766 %	2,990,820 cps	2.1 %
232Th (KED)	0.174 ppb	33,781 cps	1.9 %
238U (KED)	0.065 ppb	15,356 cps	0.6 %

Comprehensive

9/7/2021 4:53:36 PM

Sample Summary

Instrument ID: iCAP Q

Analysis index: 23

Analysis name: 19-20fu

Analysis started at: 9/7/2021 4:42:04 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	132.709 %	1.6 %
9Be (KED)	0.014 ppb	175.3 %
11B (KED)	0.456 ppb	70.8 %
24Mg (KED)	474.173 ppb	2.7 %
27Al (KED)	528.540 ppb	2.4 %
45Sc (KED)	138.170 %	0.2 %
51V (KED)	1.061 ppb	2.8 %
52Cr (KED)	3.460 ppb	1.3 %
55Mn (KED)	14.348 ppb	0.4 %
56Fe (KED)	712.736 ppb	0.7 %
58Ni (KED)	3.190 ppb	1.1 %
59Co (KED)	0.291 ppb	4.1 %
63Cu (KED)	4.237 ppb	1.9 %
64Zn (KED)	189.647 ppb	1.3 %
69Ga (KED)	2.093 ppb	1.8 %
75As (KED)	0.644 ppb	6.1 %
80Se (KED)	0.980 ppb	17.3 %
85Rb (KED)	1.857 ppb	2.7 %
88Sr (KED)	7.177 ppb	1.7 %
89Y (KED)	124.823 %	1.5 %
107Ag (KED)	0.091 ppb	4.9 %
114Cd (KED)	0.046 ppb	12.0 %
115In (KED)	108.908 %	1.4 %
133Cs (KED)	0.120 ppb	4.7 %
138Ba (KED)	7.467 ppb	0.5 %
139La (KED)	0.441 ppb	1.2 %
140Ce (KED)	0.905 ppb	1.9 %
141Pr (KED)	0.106 ppb	0.6 %
142Nd (KED)	0.563 ppb	2.2 %
152Sm (KED)	0.073 ppb	5.3 %
153Eu (KED)	0.016 ppb	4.6 %
158Gd (KED)	0.069 ppb	1.5 %
159Tb (KED)	109.057 %	0.6 %
164Dy (KED)	0.049 ppb	4.5 %
166Er (KED)	0.021 ppb	5.8 %
169Tm (KED)	0.003 ppb	6.9 %
174Yb (KED)	0.017 ppb	4.8 %
175Lu (KED)	-0.453 ppb	1.3 %
205Tl (KED)	0.009 ppb	6.7 %
208Pb (KED)	1.239 ppb	3.3 %
209Bi (KED)	85.392 %	2.4 %
232Th (KED)	0.164 ppb	3.9 %
238U (KED)	0.066 ppb	3.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	132.709 %	2,895 cps	1.6 %
9Be (KED)	0.014 ppb	3 cps	100.0 %
11B (KED)	0.456 ppb	679 cps	3.8 %
24Mg (KED)	474.173 ppb	201,664 cps	1.2 %
27Al (KED)	528.540 ppb	48,105 cps	2.2 %

Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	138.170 %	33,311 cps	0.2 %
51V (KED)	1.061 ppb	6,799 cps	2.8 %
52Cr (KED)	3.460 ppb	35,955 cps	1.2 %
55Mn (KED)	14.348 ppb	66,789 cps	0.4 %
56Fe (KED)	712.736 ppb	6,588,625 cps	0.8 %
58Ni (KED)	3.190 ppb	43,043 cps	1.2 %
59Co (KED)	0.291 ppb	6,286 cps	4.0 %
63Cu (KED)	4.237 ppb	62,713 cps	0.8 %
64Zn (KED)	189.647 ppb	654,362 cps	0.5 %
69Ga (KED)	2.093 ppb	8,497 cps	0.6 %
75As (KED)	0.644 ppb	626 cps	6.2 %
80Se (KED)	0.980 ppb	647 cps	6.9 %
85Rb (KED)	1.857 ppb	6,821 cps	1.8 %
88Sr (KED)	7.177 ppb	37,280 cps	2.8 %
89Y (KED)	124.823 %	296,917 cps	1.5 %
107Ag (KED)	0.091 ppb	3,849 cps	4.1 %
114Cd (KED)	0.046 ppb	799 cps	9.2 %
115In (KED)	108.908 %	554,481 cps	1.4 %
133Cs (KED)	0.120 ppb	2,309 cps	5.7 %
138Ba (KED)	7.467 ppb	209,649 cps	0.6 %
139La (KED)	0.441 ppb	26,785 cps	0.9 %
140Ce (KED)	0.905 ppb	76,492 cps	2.3 %
141Pr (KED)	0.106 ppb	9,238 cps	1.1 %
142Nd (KED)	0.563 ppb	20,176 cps	2.7 %
152Sm (KED)	0.073 ppb	2,591 cps	5.6 %
153Eu (KED)	0.016 ppb	1,094 cps	4.7 %
158Gd (KED)	0.069 ppb	3,621 cps	1.8 %
159Tb (KED)	109.057 %	3,646,005 cps	0.6 %
164Dy (KED)	0.049 ppb	2,813 cps	3.8 %
166Er (KED)	0.021 ppb	1,932 cps	3.9 %
169Tm (KED)	0.003 ppb	663 cps	7.0 %
174Yb (KED)	0.017 ppb	1,531 cps	4.0 %
175Lu (KED)	-0.453 ppb	18,161 cps	4.5 %
205Tl (KED)	0.009 ppb	1,419 cps	6.2 %
208Pb (KED)	1.239 ppb	153,428 cps	0.9 %
209Bi (KED)	85.392 %	3,048,887 cps	2.4 %
232Th (KED)	0.164 ppb	32,532 cps	1.5 %
238U (KED)	0.066 ppb	15,721 cps	2.2 %

Comprehensive

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Sample Summary

Instrument ID: iCAP Q

Analysis index: 24

Analysis name: 19-10fu

Analysis started at: 9/7/2021 4:46:00 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	130.977 %	1.8 %
9Be (KED)	0.014 ppb	3.2 %
11B (KED)	0.743 ppb	62.4 %
24Mg (KED)	474.992 ppb	2.8 %
27Al (KED)	472.552 ppb	0.7 %
45Sc (KED)	138.442 %	0.7 %
51V (KED)	0.920 ppb	5.1 %
52Cr (KED)	2.848 ppb	1.9 %
55Mn (KED)	11.826 ppb	1.9 %
56Fe (KED)	496.341 ppb	2.0 %
58Ni (KED)	2.423 ppb	1.9 %
59Co (KED)	0.226 ppb	3.6 %
63Cu (KED)	4.871 ppb	2.3 %
64Zn (KED)	183.841 ppb	2.1 %
69Ga (KED)	1.784 ppb	2.0 %
75As (KED)	0.464 ppb	12.7 %
80Se (KED)	1.125 ppb	15.9 %
85Rb (KED)	3.759 ppb	0.3 %
88Sr (KED)	7.620 ppb	3.3 %
89Y (KED)	125.361 %	0.8 %
107Ag (KED)	0.104 ppb	2.1 %
114Cd (KED)	0.057 ppb	5.6 %
115In (KED)	109.571 %	1.5 %
133Cs (KED)	0.101 ppb	2.3 %
138Ba (KED)	6.478 ppb	1.7 %
139La (KED)	0.395 ppb	2.7 %
140Ce (KED)	0.836 ppb	1.5 %
141Pr (KED)	0.095 ppb	2.6 %
142Nd (KED)	0.508 ppb	1.0 %
152Sm (KED)	0.069 ppb	1.8 %
153Eu (KED)	0.015 ppb	2.5 %
158Gd (KED)	0.061 ppb	9.2 %
159Tb (KED)	108.206 %	0.9 %
164Dy (KED)	0.041 ppb	3.1 %
166Er (KED)	0.017 ppb	12.0 %
169Tm (KED)	0.003 ppb	7.9 %
174Yb (KED)	0.014 ppb	5.0 %
175Lu (KED)	-0.454 ppb	1.4 %
205Tl (KED)	0.008 ppb	3.3 %
208Pb (KED)	0.753 ppb	2.4 %
209Bi (KED)	85.088 %	1.0 %
232Th (KED)	0.147 ppb	2.1 %
238U (KED)	0.054 ppb	3.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	130.977 %	2,857 cps	1.8 %
9Be (KED)	0.014 ppb	3 cps	0.0 %
11B (KED)	0.743 ppb	689 cps	5.2 %
24Mg (KED)	474.992 ppb	199,365 cps	0.9 %
27Al (KED)	472.552 ppb	43,105 cps	0.8 %

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	138.442 %	33,377 cps	0.7 %
51V (KED)	0.920 ppb	5,905 cps	4.6 %
52Cr (KED)	2.848 ppb	29,675 cps	1.2 %
55Mn (KED)	11.826 ppb	55,184 cps	1.2 %
56Fe (KED)	496.341 ppb	4,598,333 cps	1.4 %
58Ni (KED)	2.423 ppb	33,229 cps	1.8 %
59Co (KED)	0.226 ppb	4,933 cps	3.1 %
63Cu (KED)	4.871 ppb	72,188 cps	1.5 %
64Zn (KED)	183.841 ppb	637,122 cps	1.3 %
69Ga (KED)	1.784 ppb	7,283 cps	1.2 %
75As (KED)	0.464 ppb	454 cps	13.3 %
80Se (KED)	1.125 ppb	690 cps	7.8 %
85Rb (KED)	3.759 ppb	13,819 cps	0.6 %
88Sr (KED)	7.620 ppb	39,730 cps	2.5 %
89Y (KED)	125.361 %	298,195 cps	0.8 %
107Ag (KED)	0.104 ppb	4,427 cps	0.8 %
114Cd (KED)	0.057 ppb	958 cps	5.3 %
115In (KED)	109.571 %	557,855 cps	1.5 %
133Cs (KED)	0.101 ppb	1,946 cps	3.5 %
138Ba (KED)	6.478 ppb	180,668 cps	1.4 %
139La (KED)	0.395 ppb	23,788 cps	2.0 %
140Ce (KED)	0.836 ppb	70,166 cps	1.1 %
141Pr (KED)	0.095 ppb	8,180 cps	1.8 %
142Nd (KED)	0.508 ppb	18,075 cps	1.6 %
152Sm (KED)	0.069 ppb	2,409 cps	1.0 %
153Eu (KED)	0.015 ppb	1,051 cps	1.9 %
158Gd (KED)	0.061 ppb	3,159 cps	8.5 %
159Tb (KED)	108.206 %	3,617,541 cps	0.9 %
164Dy (KED)	0.041 ppb	2,331 cps	3.5 %
166Er (KED)	0.017 ppb	1,612 cps	8.0 %
169Tm (KED)	0.003 ppb	646 cps	8.5 %
174Yb (KED)	0.014 ppb	1,302 cps	4.1 %
175Lu (KED)	-0.454 ppb	17,997 cps	5.0 %
205Tl (KED)	0.008 ppb	1,209 cps	2.3 %
208Pb (KED)	0.753 ppb	100,420 cps	1.5 %
209Bi (KED)	85.088 %	3,038,025 cps	1.0 %
232Th (KED)	0.147 ppb	29,068 cps	1.2 %
238U (KED)	0.054 ppb	13,003 cps	4.4 %

Comprehensive

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Sample Summary

Instrument ID: iCAP Q

Analysis index: 25

Analysis name: 028729ti

Analysis started at: 9/7/2021 4:49:59 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	139.587 %	0.8 %
9Be (KED)	0.028 ppb	96.0 %
11B (KED)	9.045 ppb	8.2 %
24Mg (KED)	1,125.022 ppb	0.9 %
27Al (KED)	1,240.882 ppb	2.6 %
45Sc (KED)	145.513 %	1.7 %
51V (KED)	2.397 ppb	1.8 %
52Cr (KED)	4.026 ppb	1.0 %
55Mn (KED)	30.814 ppb	1.8 %
56Fe (KED)	1,236.142 ppb	1.8 %
58Ni (KED)	5.948 ppb	1.0 %
59Co (KED)	0.604 ppb	2.9 %
63Cu (KED)	11.401 ppb	1.3 %
64Zn (KED)	162.029 ppb	1.3 %
69Ga (KED)	3.375 ppb	1.1 %
75As (KED)	0.900 ppb	8.9 %
80Se (KED)	1.059 ppb	6.8 %
85Rb (KED)	2.807 ppb	1.6 %
88Sr (KED)	14.785 ppb	0.7 %
89Y (KED)	127.975 %	0.5 %
107Ag (KED)	0.084 ppb	1.7 %
114Cd (KED)	0.072 ppb	10.8 %
115In (KED)	109.460 %	0.9 %
133Cs (KED)	0.264 ppb	0.8 %
138Ba (KED)	11.834 ppb	0.3 %
139La (KED)	0.950 ppb	1.4 %
140Ce (KED)	1.990 ppb	1.0 %
141Pr (KED)	0.222 ppb	0.6 %
142Nd (KED)	1.221 ppb	2.5 %
152Sm (KED)	0.165 ppb	2.9 %
153Eu (KED)	0.034 ppb	2.5 %
158Gd (KED)	0.148 ppb	3.1 %
159Tb (KED)	107.150 %	0.5 %
164Dy (KED)	0.104 ppb	3.2 %
166Er (KED)	0.049 ppb	6.4 %
169Tm (KED)	0.006 ppb	3.8 %
174Yb (KED)	0.038 ppb	3.9 %
175Lu (KED)	-0.448 ppb	2.0 %
205Tl (KED)	0.022 ppb	7.6 %
208Pb (KED)	2.088 ppb	3.2 %
209Bi (KED)	83.932 %	3.0 %
232Th (KED)	0.386 ppb	2.6 %
238U (KED)	0.188 ppb	1.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	139.587 %	3,045 cps	0.8 %
9Be (KED)	0.028 ppb	6 cps	69.3 %
11B (KED)	9.045 ppb	1,315 cps	4.5 %
24Mg (KED)	1,125.022 ppb	502,857 cps	1.6 %
27Al (KED)	1,240.882 ppb	118,767 cps	1.3 %

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	145.513 %	35,081 cps	1.7 %
51V (KED)	2.397 ppb	16,162 cps	0.2 %
52Cr (KED)	4.026 ppb	44,036 cps	0.9 %
55Mn (KED)	30.814 ppb	150,827 cps	1.4 %
56Fe (KED)	1,236.142 ppb	12,029,576 cps	2.0 %
58Ni (KED)	5.948 ppb	82,736 cps	0.9 %
59Co (KED)	0.604 ppb	13,463 cps	2.2 %
63Cu (KED)	11.401 ppb	170,483 cps	0.9 %
64Zn (KED)	162.029 ppb	573,518 cps	0.9 %
69Ga (KED)	3.375 ppb	13,997 cps	1.4 %
75As (KED)	0.900 ppb	893 cps	8.7 %
80Se (KED)	1.059 ppb	686 cps	3.4 %
85Rb (KED)	2.807 ppb	10,549 cps	1.7 %
88Sr (KED)	14.785 ppb	78,540 cps	1.0 %
89Y (KED)	127.975 %	304,415 cps	0.5 %
107Ag (KED)	0.084 ppb	3,556 cps	2.3 %
114Cd (KED)	0.072 ppb	1,175 cps	10.1 %
115In (KED)	109.460 %	557,292 cps	0.9 %
133Cs (KED)	0.264 ppb	5,038 cps	0.6 %
138Ba (KED)	11.834 ppb	325,525 cps	0.8 %
139La (KED)	0.950 ppb	56,549 cps	1.3 %
140Ce (KED)	1.990 ppb	164,723 cps	0.6 %
141Pr (KED)	0.222 ppb	18,967 cps	0.4 %
142Nd (KED)	1.221 ppb	42,904 cps	2.7 %
152Sm (KED)	0.165 ppb	5,716 cps	2.3 %
153Eu (KED)	0.034 ppb	2,308 cps	2.0 %
158Gd (KED)	0.148 ppb	7,620 cps	3.5 %
159Tb (KED)	107.150 %	3,582,228 cps	0.5 %
164Dy (KED)	0.104 ppb	5,775 cps	3.5 %
166Er (KED)	0.049 ppb	3,767 cps	6.0 %
169Tm (KED)	0.006 ppb	1,505 cps	3.4 %
174Yb (KED)	0.038 ppb	3,379 cps	3.8 %
175Lu (KED)	-0.448 ppb	18,510 cps	5.5 %
205Tl (KED)	0.022 ppb	3,339 cps	4.7 %
208Pb (KED)	2.088 ppb	241,161 cps	1.8 %
209Bi (KED)	83.932 %	2,996,760 cps	3.0 %
232Th (KED)	0.386 ppb	74,599 cps	1.8 %
238U (KED)	0.188 ppb	44,056 cps	1.2 %