

## Instrument Summary:

Instrument ID: iCAP Q  
Serial Number: Undefined

## Labbook Summary:

Path and filename: \_Application Data\Workspace\LabBooks\wlw\20210908-1.imexp  
Labbook created by: Administrator  
Based on template:  
Hardware configuration: iCAPQ1  
Labbook type: eQuant  
Qtegra version (last saved): 2.7.2425.154  
Labbook started: 9/8/2021 3:35:39 PM  
Labbook finished: 9/8/2021 5:02:19 PM

## Method Summary:

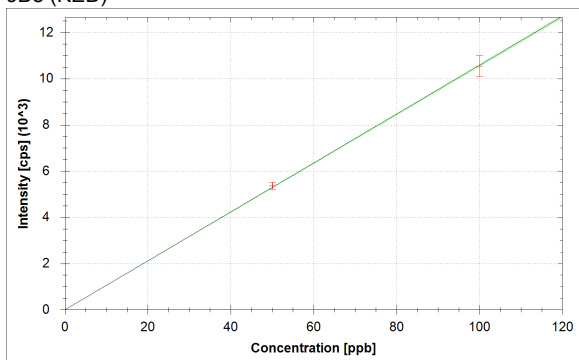
Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution	IS
6Li (KED)	KED	0.03	3	0.1	Normal	
9Be (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
11B (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
24Mg (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
27Al (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
45Sc (KED)	KED	0.03	3	0.1	Normal	
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)



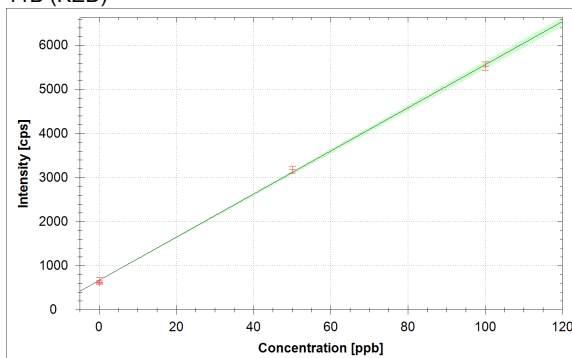
$$f(x) = 105.8088 \cdot x$$

$$R^2 = 0.9999$$

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

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

11B (KED)



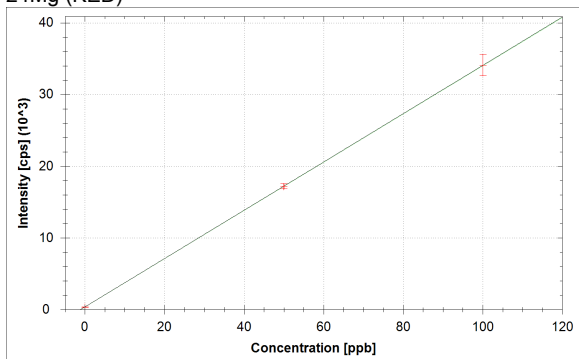
$$f(x) = 48.9620 \cdot x + 667.5115$$

$$R^2 = 0.9995$$

$$\text{BEC} = 13.633 \text{ ppb}$$

$$\text{LoD} = 1.6665 \text{ ppb}$$

24Mg (KED)



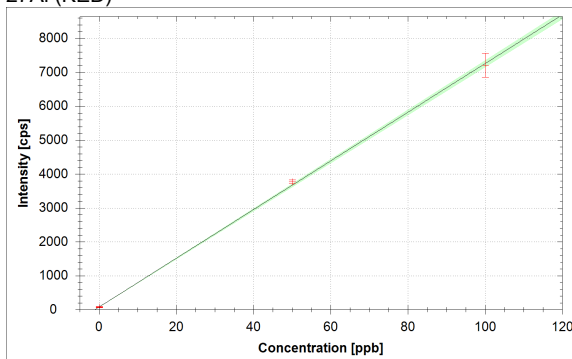
$$f(x) = 336.9577 \cdot x + 368.9779$$

$$R^2 = 1.0000$$

$$\text{BEC} = 1.095 \text{ ppb}$$

$$\text{LoD} = 0.3089 \text{ ppb}$$

27Al (KED)



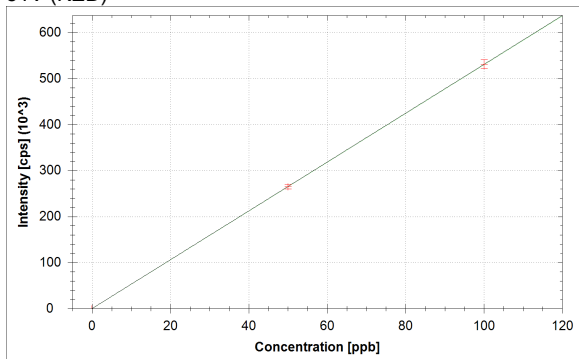
$$f(x) = 71.7881 \cdot x + 79.2775$$

$$R^2 = 0.9996$$

$$\text{BEC} = 1.104 \text{ ppb}$$

$$\text{LoD} = 0.7361 \text{ ppb}$$

51V (KED)



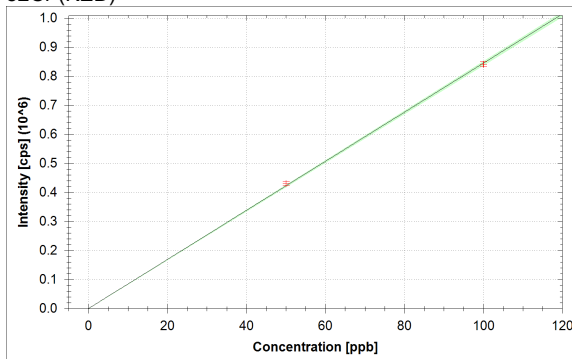
$$f(x) = 5306.6398 \cdot x + 8.6906$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0019 \text{ ppb}$$

52Cr (KED)



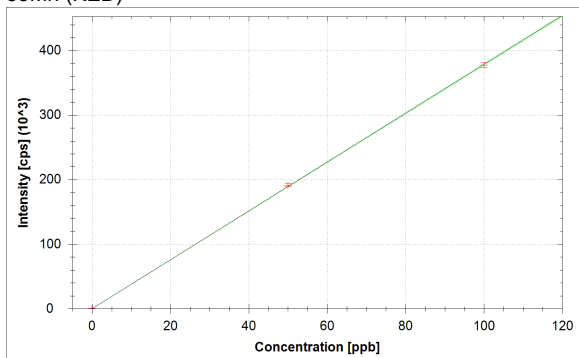
$$f(x) = 8452.0821 \cdot x + 121.6156$$

$$R^2 = 0.9999$$

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

$$\text{LoD} = 0.0029 \text{ ppb}$$

55Mn (KED)



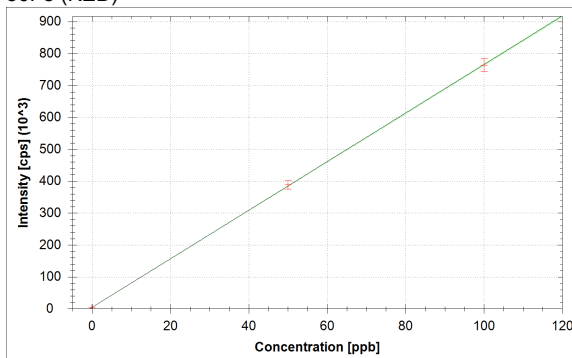
$$f(x) = 3783.6232 \cdot x + 115.1193$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.030 \text{ ppb}$$

$$\text{LoD} = 0.0220 \text{ ppb}$$

56Fe (KED)



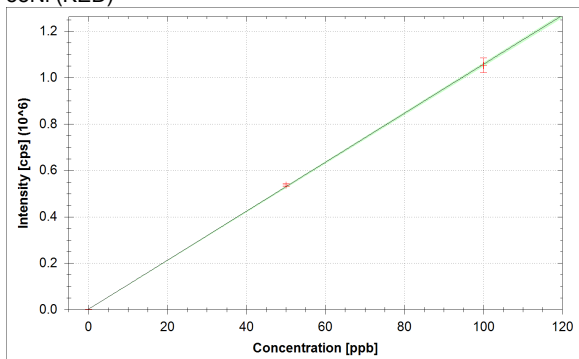
$$f(x) = 7613.0051 \cdot x + 4252.8298$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.559 \text{ ppb}$$

$$\text{LoD} = 0.1129 \text{ ppb}$$

58Ni (KED)



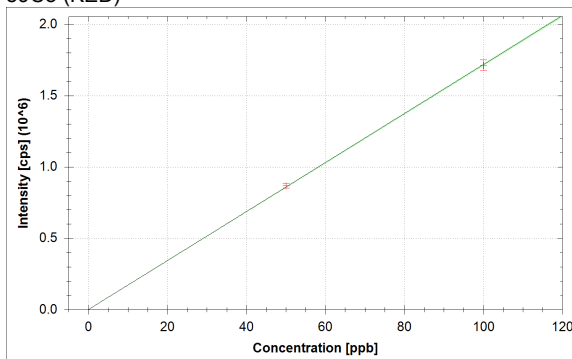
$$f(x) = 10557.1893 \cdot x + 1560.4107$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.148 \text{ ppb}$$

$$\text{LoD} = 0.0473 \text{ ppb}$$

59Co (KED)



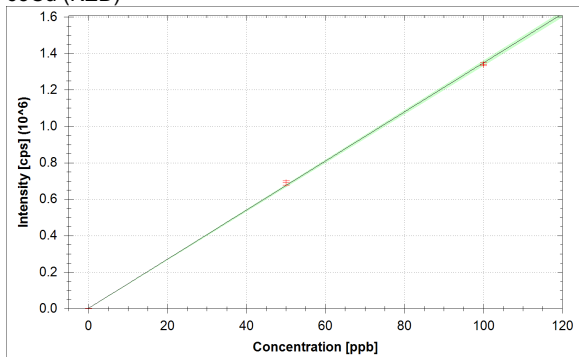
$$f(x) = 17163.0074 \cdot x + 194.3490$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0033 \text{ ppb}$$

63Cu (KED)



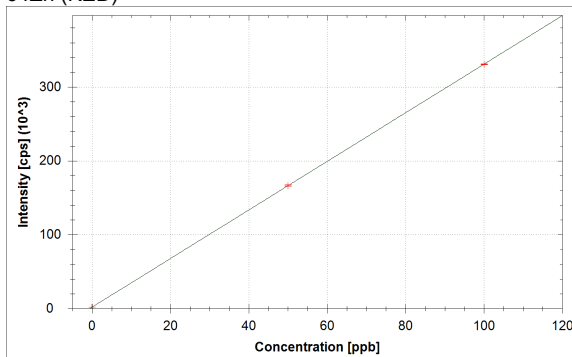
$$f(x) = 13460.2540 \cdot x + 1503.2526$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.112 \text{ ppb}$$

$$\text{LoD} = 0.0423 \text{ ppb}$$

64Zn (KED)



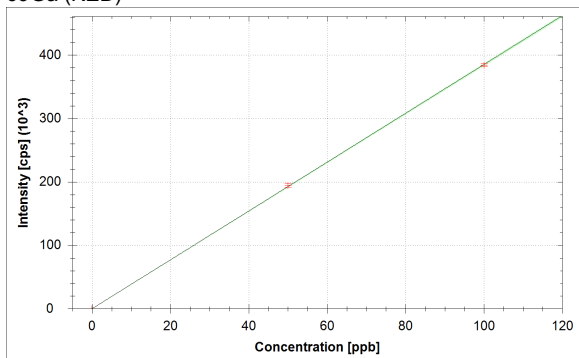
$$f(x) = 3289.6996 \cdot x + 1908.6520$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.580 \text{ ppb}$$

$$\text{LoD} = 0.0497 \text{ ppb}$$

69Ga (KED)



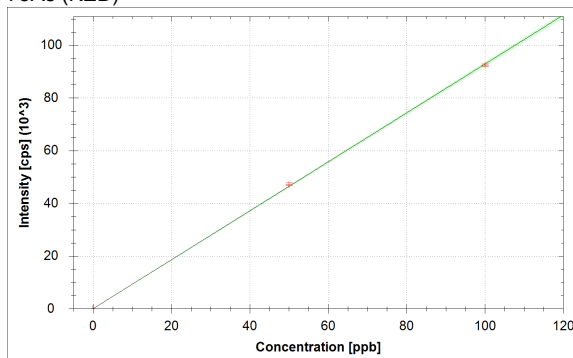
$$f(x) = 3849.2838 \cdot x + 78.3630$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0167 \text{ ppb}$$

75As (KED)



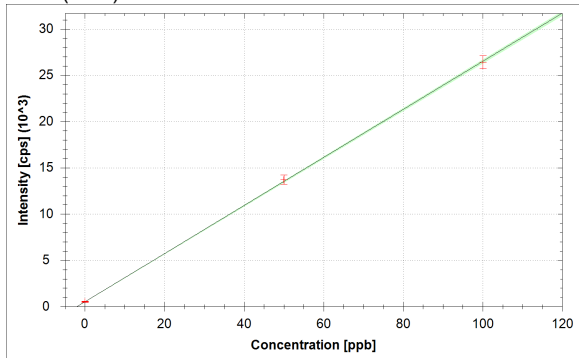
$$f(x) = 928.5671 \cdot x + 8.8273$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.010 \text{ ppb}$$

$$\text{LoD} = 0.0163 \text{ ppb}$$

80Se (KED)



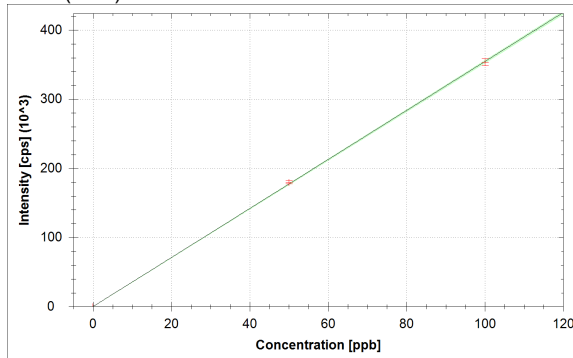
$$f(x) = 259.9206 \cdot x + 521.1385$$

$$R^2 = 0.9999$$

$$\text{BEC} = 2.005 \text{ ppb}$$

$$\text{LoD} = 0.6657 \text{ ppb}$$

85Rb (KED)



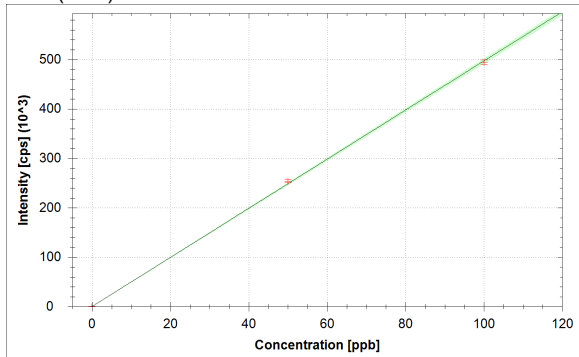
$$f(x) = 3545.1324 \cdot x + 60.7195$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.017 \text{ ppb}$$

$$\text{LoD} = 0.0015 \text{ ppb}$$

88Sr (KED)



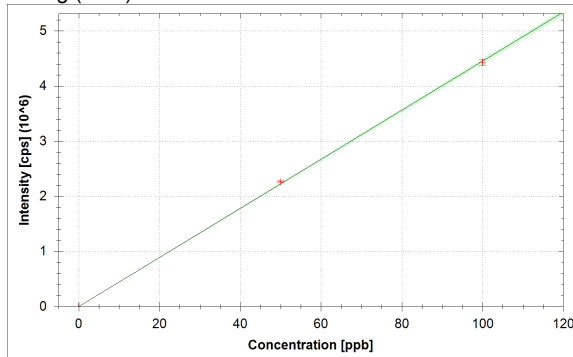
$$f(x) = 4971.0853 \cdot x + 153.3919$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.031 \text{ ppb}$$

$$\text{LoD} = 0.0204 \text{ ppb}$$

107Ag (KED)



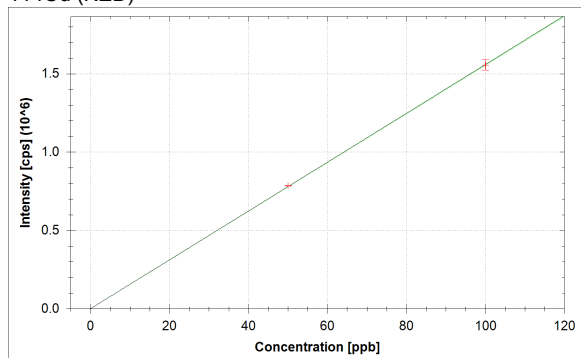
$$f(x) = 44504.4723 \cdot x + 38.7739$$

$$R^2 = 0.9999$$

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

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

114Cd (KED)



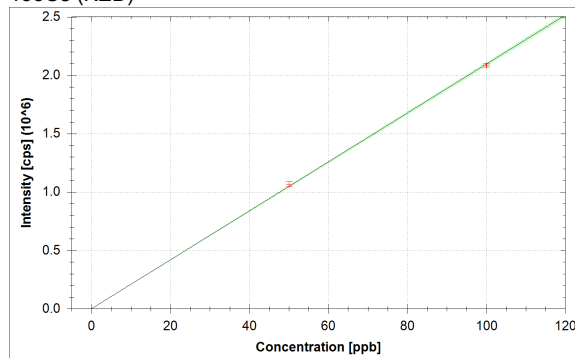
$$f(x) = 15576.3709 \cdot x + 155.1015$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.010 \text{ ppb}$$

$$\text{LoD} = 0.0010 \text{ ppb}$$

133Cs (KED)



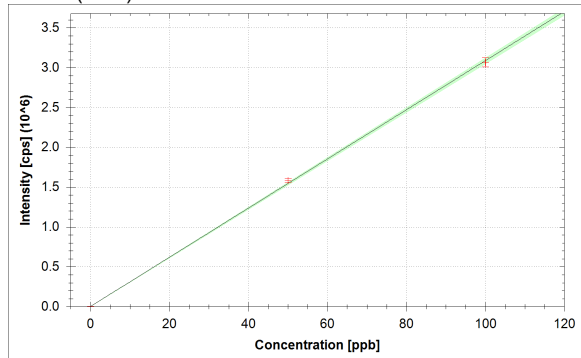
$$f(x) = 20960.4137 \cdot x + 44.1736$$

$$R^2 = 0.9999$$

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

$$\text{LoD} = 0.0021 \text{ ppb}$$

138Ba (KED)



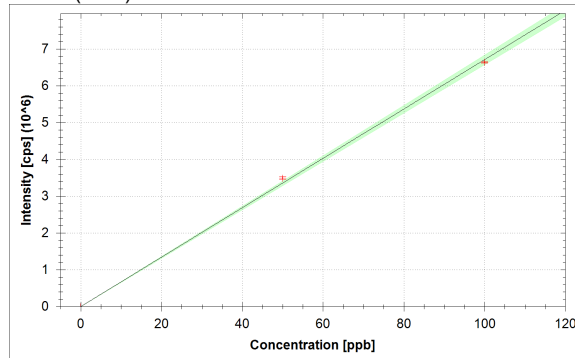
$$f(x) = 30853.1979 \cdot x + 1882.6878$$

$$R^2 = 0.9997$$

$$\text{BEC} = 0.061 \text{ ppb}$$

$$\text{LoD} = 0.0045 \text{ ppb}$$

139La (KED)



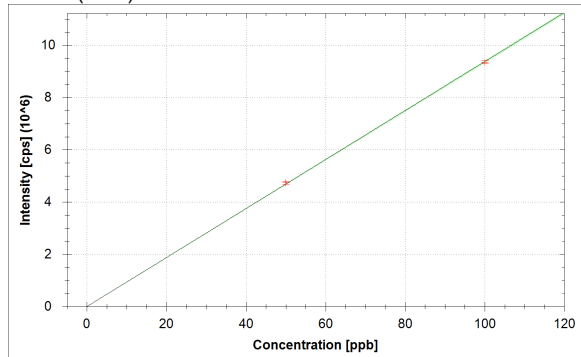
$$f(x) = 67107.9794 \cdot x + 147.3413$$

$$R^2 = 0.9992$$

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

$$\text{LoD} = 0.0007 \text{ ppb}$$

140Ce (KED)



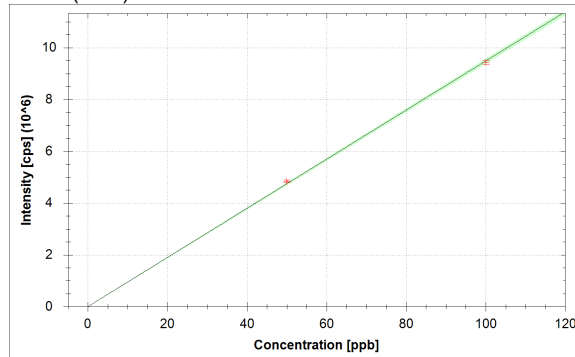
$$f(x) = 93759.6005 \cdot x + 492.0321$$

$$R^2 = 0.9999$$

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

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

141Pr (KED)



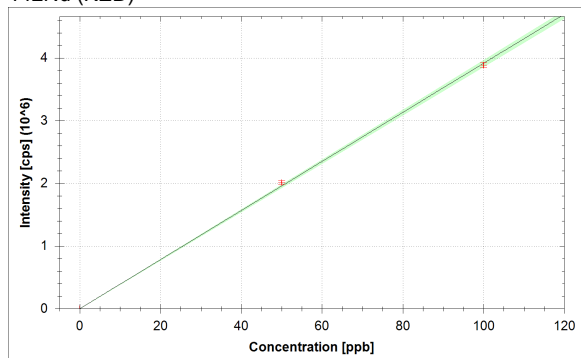
$$f(x) = 94880.7402 \cdot x + 63.2267$$

$$R^2 = 0.9998$$

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

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

142Nd (KED)



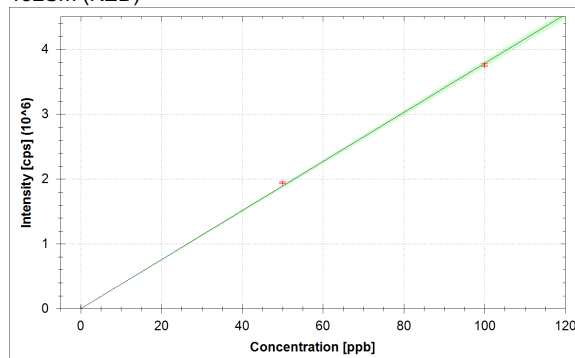
$$f(x) = 39143.9900 \cdot x + 115.6616$$

$$R^2 = 0.9996$$

$$\text{BEC} = 0.003 \text{ ppb}$$

$$\text{LoD} = 0.0004 \text{ ppb}$$

152Sm (KED)



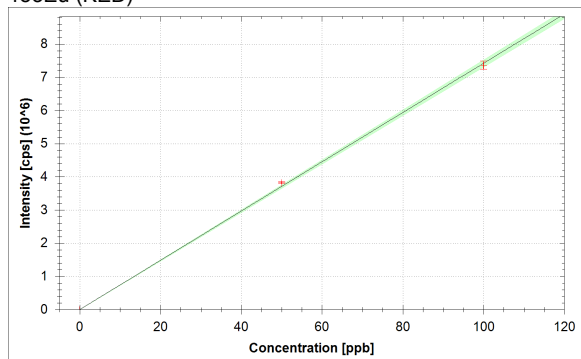
$$f(x) = 37820.7648 \cdot x + 15.2923$$

$$R^2 = 0.9997$$

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

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

153Eu (KED)



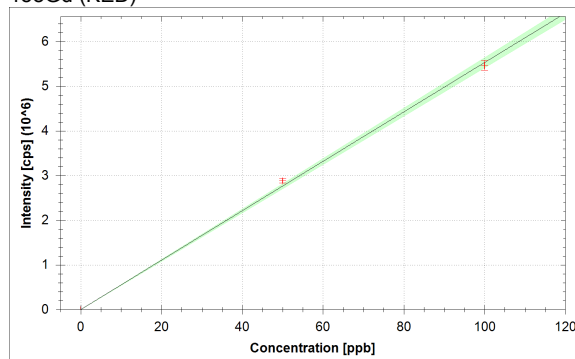
$$f(x) = 74203.3706 \cdot x + 9.8084$$

$$R^2 = 0.9996$$

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

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

158Gd (KED)



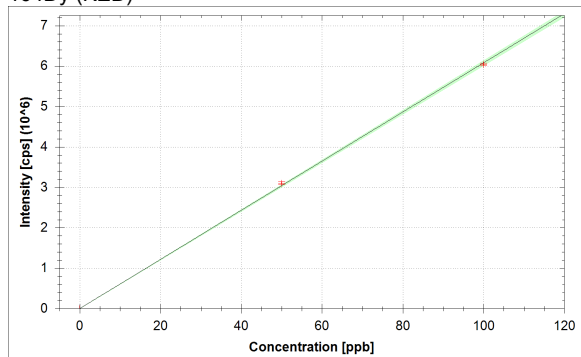
$$f(x) = 55297.2805 \cdot x + 28.3862$$

$$R^2 = 0.9991$$

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

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

164Dy (KED)



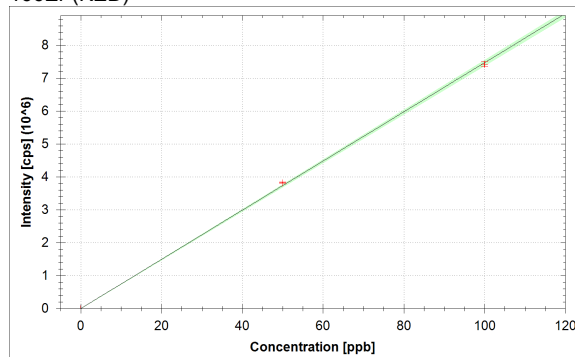
$$f(x) = 60784.0563 \cdot x + 27.2708$$

$$R^2 = 0.9998$$

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

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

166Er (KED)



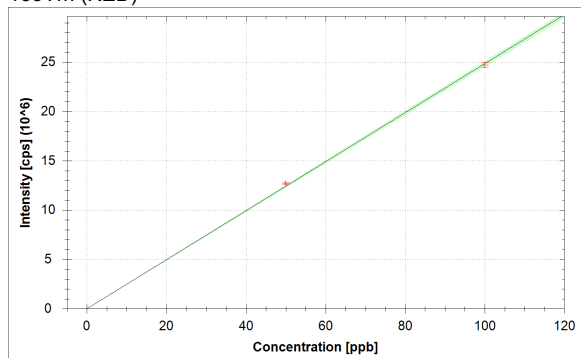
$$f(x) = 74703.8764 \cdot x + 436.2499$$

$$R^2 = 0.9997$$

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

$$\text{LoD} = 0.0004 \text{ ppb}$$

169Tm (KED)



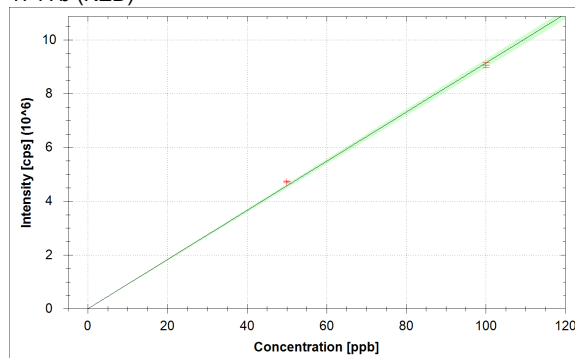
$$f(x) = 248468.6391 \cdot x + 29.4276$$

$$R^2 = 0.9998$$

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

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

174Yb (KED)



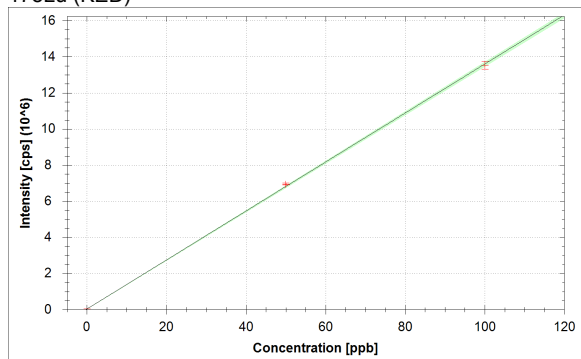
$$f(x) = 91393.6195 \cdot x + 30.4852$$

$$R^2 = 0.9995$$

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

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

175Lu (KED)



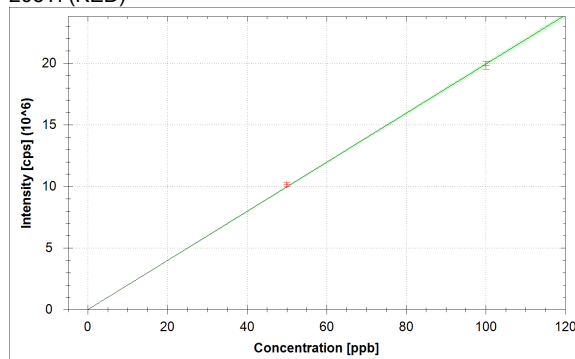
$$f(x) = 135644.7858 \cdot x + 31494.8436$$

$$R^2 = 0.9998$$

$$\text{BEC} = 0.232 \text{ ppb}$$

$$\text{LoD} = 0.0255 \text{ ppb}$$

205Tl (KED)



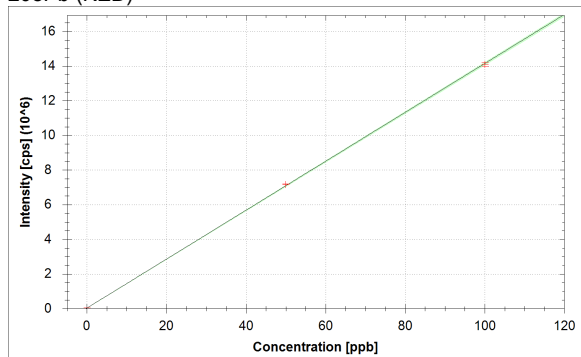
$$f(x) = 199220.8993 \cdot x + 49.0346$$

$$R^2 = 0.9999$$

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

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

208Pb (KED)



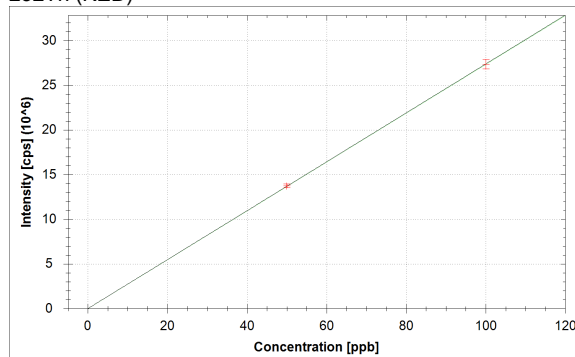
$$f(x) = 141189.3971 \cdot x + 30220.9932$$

$$R^2 = 0.9999$$

$$\text{BEC} = 0.214 \text{ ppb}$$

$$\text{LoD} = 0.0113 \text{ ppb}$$

232Th (KED)



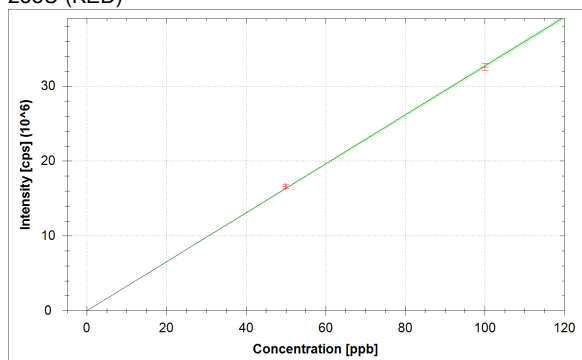
$$f(x) = 273767.0210 \cdot x + 430.4136$$

$$R^2 = 1.0000$$

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

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

238U (KED)



$$f(x) = 326729.9484 \cdot x + 149.7633$$

$$R^2 = 0.9999$$

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

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

**Standards:**

Analysis Index: 3  
 Analysis Name: 0+20  
 Analysis Type: STD  
 Analysis Started at: 9/8/2021 3:42:06 PM  
 Standard (Stock): std0  
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	96.138 %		
9Be (KED)	0.000 ppb		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	0.1 %	0.000 ppb
45Sc (KED)	102.327 %		
51V (KED)	0.000 ppb	0.4 %	0.000 ppb
52Cr (KED)	0.000 ppb	0.0 %	0.000 ppb
55Mn (KED)	0.000 ppb	0.2 %	0.000 ppb
56Fe (KED)	0.000 ppb	0.0 %	0.000 ppb
58Ni (KED)	0.000 ppb	0.0 %	0.000 ppb
59Co (KED)	0.000 ppb	0.1 %	0.000 ppb
63Cu (KED)	0.000 ppb	0.1 %	0.000 ppb
64Zn (KED)	0.000 ppb	0.0 %	0.000 ppb
69Ga (KED)	0.000 ppb	0.1 %	0.000 ppb
75As (KED)	0.000 ppb	0.4 %	0.000 ppb
80Se (KED)	0.000 ppb	0.1 %	0.000 ppb
85Rb (KED)	0.000 ppb	0.3 %	0.000 ppb
88Sr (KED)	0.000 ppb	0.1 %	0.000 ppb
89Y (KED)	100.659 %		
107Ag (KED)	0.000 ppb	0.2 %	0.000 ppb
114Cd (KED)	0.000 ppb	0.2 %	0.000 ppb
115In (KED)	100.483 %		
133Cs (KED)	0.000 ppb	0.2 %	0.000 ppb
138Ba (KED)	0.000 ppb	0.0 %	0.000 ppb
139La (KED)	0.000 ppb	0.3 %	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	0.1 %	0.000 ppb
152Sm (KED)	0.000 ppb	0.3 %	0.000 ppb
153Eu (KED)	0.000 ppb	0.6 %	0.000 ppb
158Gd (KED)	0.000 ppb	0.4 %	0.000 ppb
159Tb (KED)	101.872 %		
164Dy (KED)	0.000 ppb	0.1 %	0.000 ppb
166Er (KED)	0.000 ppb	0.0 %	0.000 ppb
169Tm (KED)	0.000 ppb	0.2 %	0.000 ppb
174Yb (KED)	0.000 ppb	0.4 %	0.000 ppb
175Lu (KED)	0.000 ppb	0.0 %	0.000 ppb
205Tl (KED)	0.000 ppb	0.4 %	0.000 ppb
208Pb (KED)	0.000 ppb	0.0 %	0.000 ppb
209Bi (KED)	101.734 %		
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: 9/8/2021 3:45:19 PM  
 Standard (Stock): std1  
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	98.507 %		
9Be (KED)	50.651 ppb	2.8 %	50.000 ppb
11B (KED)	51.292 ppb	3.2 %	50.000 ppb
24Mg (KED)	49.866 ppb	2.1 %	50.000 ppb
27Al (KED)	51.414 ppb	1.4 %	50.000 ppb
45Sc (KED)	105.421 %		
51V (KED)	49.851 ppb	1.9 %	50.000 ppb
52Cr (KED)	50.877 ppb	1.6 %	50.000 ppb
55Mn (KED)	50.556 ppb	1.3 %	50.000 ppb
56Fe (KED)	50.442 ppb	3.4 %	50.000 ppb
58Ni (KED)	50.742 ppb	1.2 %	50.000 ppb
59Co (KED)	50.497 ppb	1.7 %	50.000 ppb
63Cu (KED)	51.065 ppb	1.6 %	50.000 ppb
64Zn (KED)	50.045 ppb	0.8 %	50.000 ppb
69Ga (KED)	50.498 ppb	1.4 %	50.000 ppb
75As (KED)	50.841 ppb	1.2 %	50.000 ppb
80Se (KED)	50.795 ppb	3.8 %	50.000 ppb
85Rb (KED)	50.643 ppb	1.2 %	50.000 ppb
88Sr (KED)	51.069 ppb	1.2 %	50.000 ppb
89Y (KED)	104.314 %		
107Ag (KED)	50.890 ppb	0.6 %	50.000 ppb
114Cd (KED)	50.378 ppb	0.2 %	50.000 ppb
115In (KED)	103.402 %		
133Cs (KED)	50.842 ppb	1.9 %	50.000 ppb
138Ba (KED)	51.270 ppb	1.4 %	50.000 ppb
139La (KED)	52.088 ppb	1.0 %	50.000 ppb
140Ce (KED)	50.543 ppb	1.1 %	50.000 ppb
141Pr (KED)	51.040 ppb	0.8 %	50.000 ppb
142Nd (KED)	51.430 ppb	1.4 %	50.000 ppb
152Sm (KED)	51.339 ppb	0.9 %	50.000 ppb
153Eu (KED)	51.561 ppb	0.8 %	50.000 ppb
158Gd (KED)	52.193 ppb	1.9 %	50.000 ppb
159Tb (KED)	103.203 %		
164Dy (KED)	51.104 ppb	1.0 %	50.000 ppb
166Er (KED)	51.214 ppb	0.4 %	50.000 ppb
169Tm (KED)	51.145 ppb	0.9 %	50.000 ppb
174Yb (KED)	51.633 ppb	0.8 %	50.000 ppb
175Lu (KED)	50.975 ppb	0.8 %	50.000 ppb
205Tl (KED)	50.883 ppb	1.6 %	50.000 ppb
208Pb (KED)	50.635 ppb	0.1 %	50.000 ppb
209Bi (KED)	101.986 %		
232Th (KED)	50.185 ppb	1.6 %	50.000 ppb
238U (KED)	50.830 ppb	1.6 %	50.000 ppb

**Standards:**

Analysis Index: 5  
 Analysis Name: 100+20  
 Analysis Type: STD  
 Analysis Started at: 9/8/2021 3:48:36 PM  
 Standard (Stock): std2  
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	96.292 %		
9Be (KED)	99.674 ppb	4.3 %	100.000 ppb
11B (KED)	99.354 ppb	1.9 %	100.000 ppb
24Mg (KED)	100.067 ppb	4.4 %	100.000 ppb
27Al (KED)	99.293 ppb	4.9 %	100.000 ppb
45Sc (KED)	101.865 %		
51V (KED)	100.075 ppb	1.8 %	100.000 ppb
52Cr (KED)	99.561 ppb	1.0 %	100.000 ppb
55Mn (KED)	99.722 ppb	1.1 %	100.000 ppb
56Fe (KED)	99.779 ppb	2.6 %	100.000 ppb
58Ni (KED)	99.629 ppb	3.0 %	100.000 ppb
59Co (KED)	99.752 ppb	2.1 %	100.000 ppb
63Cu (KED)	99.467 ppb	0.7 %	100.000 ppb
64Zn (KED)	99.977 ppb	0.2 %	100.000 ppb
69Ga (KED)	99.751 ppb	0.7 %	100.000 ppb
75As (KED)	99.579 ppb	0.5 %	100.000 ppb
80Se (KED)	99.602 ppb	2.7 %	100.000 ppb
85Rb (KED)	99.679 ppb	1.4 %	100.000 ppb
88Sr (KED)	99.465 ppb	0.9 %	100.000 ppb
89Y (KED)	101.641 %		
107Ag (KED)	99.555 ppb	1.3 %	100.000 ppb
114Cd (KED)	99.811 ppb	2.1 %	100.000 ppb
115In (KED)	99.919 %		
133Cs (KED)	99.579 ppb	0.8 %	100.000 ppb
138Ba (KED)	99.365 ppb	1.9 %	100.000 ppb
139La (KED)	98.956 ppb	0.3 %	100.000 ppb
140Ce (KED)	99.729 ppb	0.6 %	100.000 ppb
141Pr (KED)	99.480 ppb	0.8 %	100.000 ppb
142Nd (KED)	99.285 ppb	1.1 %	100.000 ppb
152Sm (KED)	99.330 ppb	0.6 %	100.000 ppb
153Eu (KED)	99.220 ppb	1.6 %	100.000 ppb
158Gd (KED)	98.904 ppb	2.0 %	100.000 ppb
159Tb (KED)	101.125 %		
164Dy (KED)	99.448 ppb	0.4 %	100.000 ppb
166Er (KED)	99.393 ppb	1.1 %	100.000 ppb
169Tm (KED)	99.427 ppb	1.0 %	100.000 ppb
174Yb (KED)	99.183 ppb	1.1 %	100.000 ppb
175Lu (KED)	99.512 ppb	1.6 %	100.000 ppb
205Tl (KED)	99.559 ppb	1.6 %	100.000 ppb
208Pb (KED)	99.682 ppb	0.8 %	100.000 ppb
209Bi (KED)	99.135 %		
232Th (KED)	99.908 ppb	2.0 %	100.000 ppb
238U (KED)	99.585 ppb	1.4 %	100.000 ppb

## Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Main Runs:	Survey Runs:	Start Time:	User name:
1	water	3	0	9/8/2021 3:35:45 PM	WINDOWS-UPCI4ER\Administrator
2	blk	3	0	9/8/2021 3:38:50 PM	WINDOWS-UPCI4ER\Administrator
3	0+20	3	0	9/8/2021 3:42:06 PM	WINDOWS-UPCI4ER\Administrator
4	50+20	3	0	9/8/2021 3:45:19 PM	WINDOWS-UPCI4ER\Administrator
5	100+20	3	0	9/8/2021 3:48:36 PM	WINDOWS-UPCI4ER\Administrator
6	0191119ti	3	0	9/8/2021 3:53:00 PM	WINDOWS-UPCI4ER\Administrator
7	003jian	3	0	9/8/2021 3:56:26 PM	WINDOWS-UPCI4ER\Administrator
8	152923011915jian	3	0	9/8/2021 3:59:56 PM	WINDOWS-UPCI4ER\Administrator
9	001jian	3	0	9/8/2021 4:03:20 PM	WINDOWS-UPCI4ER\Administrator
10	152923028597jian	3	0	9/8/2021 4:06:46 PM	WINDOWS-UPCI4ER\Administrator
11	002jian	3	0	9/8/2021 4:10:12 PM	WINDOWS-UPCI4ER\Administrator
12	152923015111jian	3	0	9/8/2021 4:13:34 PM	WINDOWS-UPCI4ER\Administrator
13	152923020253jian	3	0	9/8/2021 4:17:06 PM	WINDOWS-UPCI4ER\Administrator
14	029749jan	3	0	9/8/2021 4:20:30 PM	WINDOWS-UPCI4ER\Administrator
15	20086jian	3	0	9/8/2021 4:24:10 PM	WINDOWS-UPCI4ER\Administrator
16	018865jian	3	0	9/8/2021 4:27:50 PM	WINDOWS-UPCI4ER\Administrator
17	28726jian	3	0	9/8/2021 4:31:28 PM	WINDOWS-UPCI4ER\Administrator
18	28725jian	3	0	9/8/2021 4:34:53 PM	WINDOWS-UPCI4ER\Administrator
19	28725fu	3	0	9/8/2021 4:38:15 PM	WINDOWS-UPCI4ER\Administrator
20	28721jian	3	0	9/8/2021 4:41:43 PM	WINDOWS-UPCI4ER\Administrator
21	28726fu	3	0	9/8/2021 4:45:12 PM	WINDOWS-UPCI4ER\Administrator
22	28721fu	3	0	9/8/2021 4:48:34 PM	WINDOWS-UPCI4ER\Administrator
23	1168jian	3	0	9/8/2021 4:51:58 PM	WINDOWS-UPCI4ER\Administrator
24	2fu	3	0	9/8/2021 4:55:26 PM	WINDOWS-UPCI4ER\Administrator
25	9424jian	3	0	9/8/2021 4:58:53 PM	WINDOWS-UPCI4ER\Administrator

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 1

Analysis name: water

Analysis started at: 9/8/2021 3:35:45 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	0.051 %	173.2 %
11B (KED)	Infinity ppb	
24Mg (KED)	Infinity ppb	
27Al (KED)	20.342 ppb	182.6 %
45Sc (KED)	0.096 %	43.3 %
51V (KED)	-0.002 ppb	0.0 %
52Cr (KED)	10.460 ppb	43.7 %
55Mn (KED)	35.168 ppb	51.3 %
56Fe (KED)	74.472 ppb	42.8 %
58Ni (KED)	286.886 ppb	32.5 %
59Co (KED)	0.841 ppb	75.6 %
63Cu (KED)	Infinity ppb	
64Zn (KED)	Infinity ppb	
69Ga (KED)	Infinity ppb	
75As (KED)	Infinity ppb	
80Se (KED)	Infinity ppb	
85Rb (KED)	Infinity ppb	
88Sr (KED)	Infinity ppb	
89Y (KED)	0.000 %	173.2 %
107Ag (KED)	Infinity ppb	
114Cd (KED)	Infinity ppb	
115In (KED)	0.000 %	
138Ba (KED)	Infinity ppb	
140Ce (KED)	Infinity ppb	
159Tb (KED)	0.000 %	86.6 %
205Tl (KED)	14.690 ppb	99.9 %
208Pb (KED)	118.927 ppb	76.4 %
209Bi (KED)	0.002 %	130.0 %
232Th (KED)	0.068 ppb	177.2 %
238U (KED)	16.436 ppb	116.5 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	0.051 %	1 cps	173.2 %
9Be (KED)		0 cps	
11B (KED)	Infinity ppb	32 cps	60.6 %
24Mg (KED)	Infinity ppb	123 cps	23.4 %
27Al (KED)	20.342 ppb	1 cps	173.2 %
45Sc (KED)	0.096 %	27 cps	43.3 %
51V (KED)	-0.002 ppb	0 cps	
52Cr (KED)	10.460 ppb	74 cps	12.9 %
55Mn (KED)	35.168 ppb	112 cps	26.6 %
56Fe (KED)	74.472 ppb	483 cps	12.1 %
58Ni (KED)	286.886 ppb	2,646 cps	5.7 %
59Co (KED)	0.841 ppb	11 cps	62.5 %
63Cu (KED)	Infinity ppb	337 cps	4.3 %
64Zn (KED)	Infinity ppb	1,337 cps	7.1 %
69Ga (KED)	Infinity ppb	9 cps	78.1 %
75As (KED)	Infinity ppb	19 cps	20.4 %
80Se (KED)	Infinity ppb	527 cps	6.7 %
85Rb (KED)	Infinity ppb	12 cps	41.7 %

Category	Concentration average	Intensity average	Intensity RSD
88Sr (KED)	Infinity ppb	34 cps	29.6 %
89Y (KED)	0.000 %	1 cps	173.2 %
107Ag (KED)	Infinity ppb	4 cps	43.3 %
114Cd (KED)	Infinity ppb	36 cps	39.0 %
115In (KED)	0.000 %	0 cps	
133Cs (KED)		2 cps	173.2 %
138Ba (KED)	Infinity ppb	349 cps	6.5 %
139La (KED)		2 cps	173.2 %
140Ce (KED)	Infinity ppb	11 cps	45.8 %
141Pr (KED)		0 cps	
142Nd (KED)		1 cps	173.2 %
152Sm (KED)		0 cps	
153Eu (KED)		2 cps	86.6 %
158Gd (KED)		1 cps	173.2 %
159Tb (KED)	0.000 %	2 cps	86.6 %
164Dy (KED)		1 cps	173.2 %
166Er (KED)		2 cps	86.6 %
169Tm (KED)		0 cps	
174Yb (KED)		1 cps	173.2 %
175Lu (KED)		0 cps	
205Tl (KED)	14.690 ppb	20 cps	44.1 %
208Pb (KED)	118.927 ppb	137 cps	24.0 %
209Bi (KED)	0.002 %	93 cps	130.0 %
232Th (KED)	0.068 ppb	1 cps	173.2 %
238U (KED)	16.436 ppb	250 cps	166.3 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 2

Analysis name: blk

Analysis started at: 9/8/2021 3:38:50 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	100.000 %	
9Be (KED)	0.000 ppb	
11B (KED)	-1.309 ppb	42.4 %
24Mg (KED)	-0.128 ppb	80.2 %
27Al (KED)	-0.055 ppb	450.0 %
45Sc (KED)	100.000 %	
51V (KED)	0.000 ppb	168.9 %
52Cr (KED)	0.001 ppb	86.2 %
55Mn (KED)	0.001 ppb	542.3 %
56Fe (KED)	0.033 ppb	112.7 %
58Ni (KED)	0.024 ppb	66.2 %
59Co (KED)	0.000 ppb	295.6 %
63Cu (KED)	0.022 ppb	64.2 %
64Zn (KED)	-0.015 ppb	111.9 %
69Ga (KED)	-0.004 ppb	154.4 %
75As (KED)	0.010 ppb	56.2 %
80Se (KED)	-0.108 ppb	205.0 %
85Rb (KED)	-0.005 ppb	10.6 %
88Sr (KED)	0.000 ppb	1,583.6 %
89Y (KED)	100.000 %	
107Ag (KED)	0.000 ppb	141.7 %
114Cd (KED)	-0.001 ppb	49.0 %
115In (KED)	100.000 %	
133Cs (KED)	0.000 ppb	9,231.5 %
138Ba (KED)	0.000 ppb	702.1 %
139La (KED)	0.000 ppb	509.5 %
140Ce (KED)	0.000 ppb	282.8 %
141Pr (KED)	0.000 ppb	35.1 %
142Nd (KED)	0.000 ppb	85.4 %
152Sm (KED)	0.000 ppb	130.2 %
153Eu (KED)	0.000 ppb	1,796.0 %
158Gd (KED)	0.000 ppb	79.5 %
159Tb (KED)	100.000 %	
164Dy (KED)	0.000 ppb	2,454.0 %
166Er (KED)	0.001 ppb	11.5 %
169Tm (KED)	0.000 ppb	450.2 %
174Yb (KED)	0.000 ppb	253.7 %
175Lu (KED)	0.023 ppb	36.9 %
205Tl (KED)	0.000 ppb	753.3 %
208Pb (KED)	0.000 ppb	45,044.7 %
209Bi (KED)	100.000 %	
232Th (KED)	0.000 ppb	277.4 %
238U (KED)	0.000 ppb	44.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	100.000 %	2,158 cps	7.7 %
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	-1.309 ppb	602 cps	4.5 %
24Mg (KED)	-0.128 ppb	324 cps	7.8 %
27Al (KED)	-0.055 ppb	76 cps	25.1 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	100.000 %	27,713 cps	1.6 %
51V (KED)	0.000 ppb	7 cps	50.0 %
52Cr (KED)	0.001 ppb	131 cps	7.3 %
55Mn (KED)	0.001 ppb	120 cps	21.7 %
56Fe (KED)	0.033 ppb	4,505 cps	5.6 %
58Ni (KED)	0.024 ppb	1,811 cps	8.9 %
59Co (KED)	0.000 ppb	188 cps	8.9 %
63Cu (KED)	0.022 ppb	1,798 cps	9.6 %
64Zn (KED)	-0.015 ppb	1,860 cps	3.6 %
69Ga (KED)	-0.004 ppb	64 cps	32.8 %
75As (KED)	0.010 ppb	18 cps	28.6 %
80Se (KED)	-0.108 ppb	493 cps	12.5 %
85Rb (KED)	-0.005 ppb	44 cps	4.3 %
88Sr (KED)	0.000 ppb	156 cps	22.0 %
89Y (KED)	100.000 %	291,201 cps	0.9 %
107Ag (KED)	0.000 ppb	36 cps	14.3 %
114Cd (KED)	-0.001 ppb	144 cps	2.7 %
115In (KED)	100.000 %	609,462 cps	1.7 %
133Cs (KED)	0.000 ppb	44 cps	33.8 %
138Ba (KED)	0.000 ppb	1,889 cps	1.6 %
139La (KED)	0.000 ppb	144 cps	11.4 %
140Ce (KED)	0.000 ppb	501 cps	4.7 %
141Pr (KED)	0.000 ppb	47 cps	12.4 %
142Nd (KED)	0.000 ppb	109 cps	4.7 %
152Sm (KED)	0.000 ppb	12 cps	31.5 %
153Eu (KED)	0.000 ppb	10 cps	33.3 %
158Gd (KED)	0.000 ppb	18 cps	47.2 %
159Tb (KED)	100.000 %	3,946,020 cps	0.9 %
164Dy (KED)	0.000 ppb	28 cps	42.1 %
166Er (KED)	0.001 ppb	518 cps	2.7 %
169Tm (KED)	0.000 ppb	33 cps	52.9 %
174Yb (KED)	0.000 ppb	34 cps	29.6 %
175Lu (KED)	0.023 ppb	34,614 cps	3.8 %
205Tl (KED)	0.000 ppb	48 cps	21.3 %
208Pb (KED)	0.000 ppb	30,220 cps	1.7 %
209Bi (KED)	100.000 %	4,023,356 cps	1.5 %
232Th (KED)	0.000 ppb	441 cps	8.1 %
238U (KED)	0.000 ppb	211 cps	12.0 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 3

Analysis name: 0+20

Analysis started at: 9/8/2021 3:42:06 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	96.138 %	
9Be (KED)	0.000 ppb	
11B (KED)	0.000 ppb	0.1 %
24Mg (KED)	0.000 ppb	0.1 %
27Al (KED)	0.000 ppb	0.1 %
45Sc (KED)	102.327 %	
51V (KED)	0.000 ppb	0.4 %
52Cr (KED)	0.000 ppb	0.0 %
55Mn (KED)	0.000 ppb	0.2 %
56Fe (KED)	0.000 ppb	0.0 %
58Ni (KED)	0.000 ppb	0.0 %
59Co (KED)	0.000 ppb	0.1 %
63Cu (KED)	0.000 ppb	0.1 %
64Zn (KED)	0.000 ppb	0.0 %
69Ga (KED)	0.000 ppb	0.1 %
75As (KED)	0.000 ppb	0.4 %
80Se (KED)	0.000 ppb	0.1 %
85Rb (KED)	0.000 ppb	0.3 %
88Sr (KED)	0.000 ppb	0.1 %
89Y (KED)	100.659 %	
107Ag (KED)	0.000 ppb	0.2 %
114Cd (KED)	0.000 ppb	0.2 %
115In (KED)	100.483 %	
133Cs (KED)	0.000 ppb	0.2 %
138Ba (KED)	0.000 ppb	0.0 %
139La (KED)	0.000 ppb	0.3 %
140Ce (KED)	0.000 ppb	0.1 %
141Pr (KED)	0.000 ppb	0.2 %
142Nd (KED)	0.000 ppb	0.1 %
152Sm (KED)	0.000 ppb	0.3 %
153Eu (KED)	0.000 ppb	0.6 %
158Gd (KED)	0.000 ppb	0.4 %
159Tb (KED)	101.872 %	
164Dy (KED)	0.000 ppb	0.1 %
166Er (KED)	0.000 ppb	0.0 %
169Tm (KED)	0.000 ppb	0.2 %
174Yb (KED)	0.000 ppb	0.4 %
175Lu (KED)	0.000 ppb	0.0 %
205Tl (KED)	0.000 ppb	0.4 %
208Pb (KED)	0.000 ppb	0.0 %
209Bi (KED)	101.734 %	
232Th (KED)	0.000 ppb	0.1 %
238U (KED)	0.000 ppb	0.2 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	96.138 %	2,075 cps	4.8 %
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	0.000 ppb	641 cps	8.5 %
24Mg (KED)	0.000 ppb	354 cps	5.5 %
27Al (KED)	0.000 ppb	81 cps	12.6 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	102.327 %	28,358 cps	0.2 %
51V (KED)	0.000 ppb	9 cps	43.3 %
52Cr (KED)	0.000 ppb	124 cps	1.5 %
55Mn (KED)	0.000 ppb	118 cps	20.1 %
56Fe (KED)	0.000 ppb	4,352 cps	3.1 %
58Ni (KED)	0.000 ppb	1,597 cps	4.3 %
59Co (KED)	0.000 ppb	199 cps	13.7 %
63Cu (KED)	0.000 ppb	1,513 cps	9.7 %
64Zn (KED)	0.000 ppb	1,921 cps	4.4 %
69Ga (KED)	0.000 ppb	79 cps	8.8 %
75As (KED)	0.000 ppb	9 cps	43.3 %
80Se (KED)	0.000 ppb	524 cps	13.4 %
85Rb (KED)	0.000 ppb	61 cps	25.8 %
88Sr (KED)	0.000 ppb	154 cps	14.4 %
89Y (KED)	100.659 %	293,119 cps	0.3 %
107Ag (KED)	0.000 ppb	39 cps	19.8 %
114Cd (KED)	0.000 ppb	156 cps	19.9 %
115In (KED)	100.483 %	612,408 cps	1.3 %
133Cs (KED)	0.000 ppb	44 cps	18.9 %
138Ba (KED)	0.000 ppb	1,918 cps	0.6 %
139La (KED)	0.000 ppb	150 cps	25.2 %
140Ce (KED)	0.000 ppb	501 cps	5.4 %
141Pr (KED)	0.000 ppb	64 cps	24.4 %
142Nd (KED)	0.000 ppb	118 cps	8.6 %
152Sm (KED)	0.000 ppb	16 cps	32.7 %
153Eu (KED)	0.000 ppb	10 cps	57.7 %
158Gd (KED)	0.000 ppb	29 cps	35.3 %
159Tb (KED)	101.872 %	4,019,902 cps	0.7 %
164Dy (KED)	0.000 ppb	28 cps	6.9 %
166Er (KED)	0.000 ppb	444 cps	4.1 %
169Tm (KED)	0.000 ppb	30 cps	22.2 %
174Yb (KED)	0.000 ppb	31 cps	44.6 %
175Lu (KED)	0.000 ppb	32,086 cps	1.6 %
205Tl (KED)	0.000 ppb	50 cps	40.6 %
208Pb (KED)	0.000 ppb	30,745 cps	0.6 %
209Bi (KED)	101.734 %	4,093,109 cps	0.9 %
232Th (KED)	0.000 ppb	438 cps	7.8 %
238U (KED)	0.000 ppb	152 cps	18.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 4

Analysis name: 50+20

Analysis started at: 9/8/2021 3:45:19 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	98.507 %	
9Be (KED)	50.651 ppb	2.8 %
11B (KED)	51.292 ppb	3.2 %
24Mg (KED)	49.866 ppb	2.1 %
27Al (KED)	51.414 ppb	1.4 %
45Sc (KED)	105.421 %	
51V (KED)	49.851 ppb	1.9 %
52Cr (KED)	50.877 ppb	1.6 %
55Mn (KED)	50.556 ppb	1.3 %
56Fe (KED)	50.442 ppb	3.4 %
58Ni (KED)	50.742 ppb	1.2 %
59Co (KED)	50.497 ppb	1.7 %
63Cu (KED)	51.065 ppb	1.6 %
64Zn (KED)	50.045 ppb	0.8 %
69Ga (KED)	50.498 ppb	1.4 %
75As (KED)	50.841 ppb	1.2 %
80Se (KED)	50.795 ppb	3.8 %
85Rb (KED)	50.643 ppb	1.2 %
88Sr (KED)	51.069 ppb	1.2 %
89Y (KED)	104.314 %	
107Ag (KED)	50.890 ppb	0.6 %
114Cd (KED)	50.378 ppb	0.2 %
115In (KED)	103.402 %	
133Cs (KED)	50.842 ppb	1.9 %
138Ba (KED)	51.270 ppb	1.4 %
139La (KED)	52.088 ppb	1.0 %
140Ce (KED)	50.543 ppb	1.1 %
141Pr (KED)	51.040 ppb	0.8 %
142Nd (KED)	51.430 ppb	1.4 %
152Sm (KED)	51.339 ppb	0.9 %
153Eu (KED)	51.561 ppb	0.8 %
158Gd (KED)	52.193 ppb	1.9 %
159Tb (KED)	103.203 %	
164Dy (KED)	51.104 ppb	1.0 %
166Er (KED)	51.214 ppb	0.4 %
169Tm (KED)	51.145 ppb	0.9 %
174Yb (KED)	51.633 ppb	0.8 %
175Lu (KED)	50.975 ppb	0.8 %
205Tl (KED)	50.883 ppb	1.6 %
208Pb (KED)	50.635 ppb	0.1 %
209Bi (KED)	101.986 %	
232Th (KED)	50.185 ppb	1.6 %
238U (KED)	50.830 ppb	1.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	98.507 %	2,126 cps	0.9 %
9Be (KED)	50.651 ppb	5,279 cps	2.5 %
11B (KED)	51.292 ppb	3,132 cps	2.9 %
24Mg (KED)	49.866 ppb	16,914 cps	1.6 %
27Al (KED)	51.414 ppb	3,974 cps	1.3 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	105.421 %	29,215 cps	2.0 %
51V (KED)	49.851 ppb	278,837 cps	1.4 %
52Cr (KED)	50.877 ppb	453,369 cps	0.9 %
55Mn (KED)	50.556 ppb	201,740 cps	0.9 %
56Fe (KED)	50.442 ppb	409,158 cps	2.0 %
58Ni (KED)	50.742 ppb	566,282 cps	0.8 %
59Co (KED)	50.497 ppb	913,654 cps	0.4 %
63Cu (KED)	51.065 ppb	718,507 cps	0.8 %
64Zn (KED)	50.045 ppb	173,721 cps	0.6 %
69Ga (KED)	50.498 ppb	202,831 cps	0.5 %
75As (KED)	50.841 ppb	49,254 cps	1.1 %
80Se (KED)	50.795 ppb	14,313 cps	2.7 %
85Rb (KED)	50.643 ppb	187,331 cps	0.6 %
88Sr (KED)	51.069 ppb	264,961 cps	0.3 %
89Y (KED)	104.314 %	303,763 cps	1.0 %
107Ag (KED)	50.890 ppb	2,341,788 cps	0.6 %
114Cd (KED)	50.378 ppb	811,549 cps	1.1 %
115In (KED)	103.402 %	630,193 cps	1.2 %
133Cs (KED)	50.842 ppb	1,102,097 cps	3.0 %
138Ba (KED)	51.270 ppb	1,634,485 cps	1.6 %
139La (KED)	52.088 ppb	3,607,559 cps	0.7 %
140Ce (KED)	50.543 ppb	4,891,154 cps	1.3 %
141Pr (KED)	51.040 ppb	4,997,970 cps	1.2 %
142Nd (KED)	51.430 ppb	2,077,777 cps	1.5 %
152Sm (KED)	51.339 ppb	2,003,827 cps	0.4 %
153Eu (KED)	51.561 ppb	3,948,410 cps	0.3 %
158Gd (KED)	52.193 ppb	2,978,454 cps	1.6 %
159Tb (KED)	103.203 %	4,072,406 cps	0.5 %
164Dy (KED)	51.104 ppb	3,205,736 cps	0.4 %
166Er (KED)	51.214 ppb	3,948,920 cps	0.8 %
169Tm (KED)	51.145 ppb	13,114,758 cps	0.5 %
174Yb (KED)	51.633 ppb	4,870,015 cps	0.7 %
175Lu (KED)	50.975 ppb	7,168,361 cps	0.7 %
205Tl (KED)	50.883 ppb	10,337,982 cps	1.3 %
208Pb (KED)	50.635 ppb	7,321,973 cps	0.4 %
209Bi (KED)	101.986 %	4,103,279 cps	0.5 %
232Th (KED)	50.185 ppb	14,011,499 cps	1.1 %
238U (KED)	50.830 ppb	16,936,817 cps	1.1 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 5

Analysis name: 100+20

Analysis started at: 9/8/2021 3:48:36 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	96.292 %	
9Be (KED)	99.674 ppb	4.3 %
11B (KED)	99.354 ppb	1.9 %
24Mg (KED)	100.067 ppb	4.4 %
27Al (KED)	99.293 ppb	4.9 %
45Sc (KED)	101.865 %	
51V (KED)	100.075 ppb	1.8 %
52Cr (KED)	99.561 ppb	1.0 %
55Mn (KED)	99.722 ppb	1.1 %
56Fe (KED)	99.779 ppb	2.6 %
58Ni (KED)	99.629 ppb	3.0 %
59Co (KED)	99.752 ppb	2.1 %
63Cu (KED)	99.467 ppb	0.7 %
64Zn (KED)	99.977 ppb	0.2 %
69Ga (KED)	99.751 ppb	0.7 %
75As (KED)	99.579 ppb	0.5 %
80Se (KED)	99.602 ppb	2.7 %
85Rb (KED)	99.679 ppb	1.4 %
88Sr (KED)	99.465 ppb	0.9 %
89Y (KED)	101.641 %	
107Ag (KED)	99.555 ppb	1.3 %
114Cd (KED)	99.811 ppb	2.1 %
115In (KED)	99.919 %	
133Cs (KED)	99.579 ppb	0.8 %
138Ba (KED)	99.365 ppb	1.9 %
139La (KED)	98.956 ppb	0.3 %
140Ce (KED)	99.729 ppb	0.6 %
141Pr (KED)	99.480 ppb	0.8 %
142Nd (KED)	99.285 ppb	1.1 %
152Sm (KED)	99.330 ppb	0.6 %
153Eu (KED)	99.220 ppb	1.6 %
158Gd (KED)	98.904 ppb	2.0 %
159Tb (KED)	101.125 %	
164Dy (KED)	99.448 ppb	0.4 %
166Er (KED)	99.393 ppb	1.1 %
169Tm (KED)	99.427 ppb	1.0 %
174Yb (KED)	99.183 ppb	1.1 %
175Lu (KED)	99.512 ppb	1.6 %
205Tl (KED)	99.559 ppb	1.6 %
208Pb (KED)	99.682 ppb	0.8 %
209Bi (KED)	99.135 %	
232Th (KED)	99.908 ppb	2.0 %
238U (KED)	99.585 ppb	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	96.292 %	2,078 cps	4.6 %
9Be (KED)	99.674 ppb	10,142 cps	0.6 %
11B (KED)	99.354 ppb	5,324 cps	3.3 %
24Mg (KED)	100.067 ppb	32,780 cps	0.7 %
27Al (KED)	99.293 ppb	7,338 cps	3.3 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	101.865 %	28,230 cps	1.8 %
51V (KED)	100.075 ppb	540,862 cps	0.7 %
52Cr (KED)	99.561 ppb	857,213 cps	0.8 %
55Mn (KED)	99.722 ppb	384,423 cps	1.1 %
56Fe (KED)	99.779 ppb	777,988 cps	2.3 %
58Ni (KED)	99.629 ppb	1,072,736 cps	2.1 %
59Co (KED)	99.752 ppb	1,743,807 cps	1.3 %
63Cu (KED)	99.467 ppb	1,362,409 cps	1.7 %
64Zn (KED)	99.977 ppb	336,235 cps	1.3 %
69Ga (KED)	99.751 ppb	390,346 cps	1.3 %
75As (KED)	99.579 ppb	93,990 cps	1.0 %
80Se (KED)	99.602 ppb	26,848 cps	3.6 %
85Rb (KED)	99.679 ppb	359,229 cps	1.7 %
88Sr (KED)	99.465 ppb	502,691 cps	0.6 %
89Y (KED)	101.641 %	295,978 cps	1.1 %
107Ag (KED)	99.555 ppb	4,426,877 cps	0.9 %
114Cd (KED)	99.811 ppb	1,553,445 cps	1.5 %
115In (KED)	99.919 %	608,966 cps	0.6 %
133Cs (KED)	99.579 ppb	2,085,581 cps	1.2 %
138Ba (KED)	99.365 ppb	3,101,826 cps	1.3 %
139La (KED)	98.956 ppb	6,715,441 cps	0.5 %
140Ce (KED)	99.729 ppb	9,455,898 cps	0.3 %
141Pr (KED)	99.480 ppb	9,544,590 cps	0.3 %
142Nd (KED)	99.285 ppb	3,930,097 cps	0.8 %
152Sm (KED)	99.330 ppb	3,799,030 cps	1.0 %
153Eu (KED)	99.220 ppb	7,444,599 cps	0.9 %
158Gd (KED)	98.904 ppb	5,530,086 cps	1.3 %
159Tb (KED)	101.125 %	3,990,398 cps	0.8 %
164Dy (KED)	99.448 ppb	6,112,832 cps	0.8 %
166Er (KED)	99.393 ppb	7,508,986 cps	1.3 %
169Tm (KED)	99.427 ppb	24,981,513 cps	0.7 %
174Yb (KED)	99.183 ppb	9,166,836 cps	1.5 %
175Lu (KED)	99.512 ppb	13,680,900 cps	0.9 %
205Tl (KED)	99.559 ppb	19,660,756 cps	1.1 %
208Pb (KED)	99.682 ppb	13,981,399 cps	0.5 %
209Bi (KED)	99.135 %	3,988,551 cps	1.3 %
232Th (KED)	99.908 ppb	27,111,264 cps	1.0 %
238U (KED)	99.585 ppb	32,252,228 cps	0.2 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 6

Analysis name: 0191119ti

Analysis started at: 9/8/2021 3:53:00 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	109.424 %	4.7 %
9Be (KED)	0.158 ppb	80.7 %
11B (KED)	-6.557 ppb	22.1 %
24Mg (KED)	490.071 ppb	2.3 %
27Al (KED)	428.733 ppb	1.4 %
45Sc (KED)	103.882 %	3.7 %
51V (KED)	1.038 ppb	16.1 %
52Cr (KED)	3.878 ppb	4.3 %
55Mn (KED)	15.631 ppb	2.2 %
56Fe (KED)	715.298 ppb	1.8 %
58Ni (KED)	7.150 ppb	3.2 %
59Co (KED)	0.467 ppb	18.6 %
63Cu (KED)	12.515 ppb	0.7 %
64Zn (KED)	155.748 ppb	1.4 %
69Ga (KED)	1.537 ppb	1.1 %
75As (KED)	0.495 ppb	18.7 %
80Se (KED)	0.223 ppb	37.5 %
85Rb (KED)	1.948 ppb	1.8 %
88Sr (KED)	7.996 ppb	1.4 %
89Y (KED)	98.273 %	1.0 %
107Ag (KED)	0.180 ppb	19.1 %
114Cd (KED)	0.095 ppb	24.9 %
115In (KED)	91.086 %	0.8 %
133Cs (KED)	0.123 ppb	34.6 %
138Ba (KED)	5.468 ppb	2.2 %
139La (KED)	0.393 ppb	8.3 %
140Ce (KED)	0.787 ppb	3.6 %
141Pr (KED)	0.113 ppb	24.6 %
142Nd (KED)	0.510 ppb	4.7 %
152Sm (KED)	0.087 ppb	30.9 %
153Eu (KED)	0.036 ppb	75.9 %
158Gd (KED)	0.082 ppb	29.0 %
159Tb (KED)	97.545 %	0.6 %
164Dy (KED)	0.063 ppb	44.4 %
166Er (KED)	0.043 ppb	72.0 %
169Tm (KED)	0.024 ppb	116.8 %
174Yb (KED)	0.036 ppb	70.1 %
175Lu (KED)	-0.021 ppb	159.4 %
205Tl (KED)	0.034 ppb	83.3 %
208Pb (KED)	1.009 ppb	7.4 %
209Bi (KED)	84.864 %	0.8 %
232Th (KED)	0.623 ppb	90.1 %
238U (KED)	0.371 ppb	132.5 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	109.424 %	2,361 cps	4.7 %
9Be (KED)	0.158 ppb	18 cps	75.8 %
11B (KED)	-6.557 ppb	377 cps	15.4 %
24Mg (KED)	490.071 ppb	180,977 cps	2.7 %
27Al (KED)	428.733 ppb	32,047 cps	2.8 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	103.882 %	28,789 cps	3.7 %
51V (KED)	1.038 ppb	5,709 cps	12.8 %
52Cr (KED)	3.878 ppb	34,138 cps	1.6 %
55Mn (KED)	15.631 ppb	61,529 cps	2.0 %
56Fe (KED)	715.298 ppb	5,659,023 cps	2.1 %
58Ni (KED)	7.150 ppb	79,979 cps	0.9 %
59Co (KED)	0.467 ppb	8,488 cps	15.0 %
63Cu (KED)	12.515 ppb	167,020 cps	1.2 %
64Zn (KED)	155.748 ppb	505,371 cps	1.3 %
69Ga (KED)	1.537 ppb	5,891 cps	0.7 %
75As (KED)	0.495 ppb	460 cps	17.4 %
80Se (KED)	0.223 ppb	569 cps	3.0 %
85Rb (KED)	1.948 ppb	6,844 cps	1.1 %
88Sr (KED)	7.996 ppb	39,212 cps	1.2 %
89Y (KED)	98.273 %	286,172 cps	1.0 %
107Ag (KED)	0.180 ppb	7,340 cps	19.5 %
114Cd (KED)	0.095 ppb	1,490 cps	23.1 %
115In (KED)	91.086 %	555,133 cps	0.8 %
133Cs (KED)	0.123 ppb	2,386 cps	34.6 %
138Ba (KED)	5.468 ppb	166,392 cps	1.7 %
139La (KED)	0.393 ppb	25,875 cps	7.7 %
140Ce (KED)	0.787 ppb	72,436 cps	3.1 %
141Pr (KED)	0.113 ppb	10,485 cps	23.9 %
142Nd (KED)	0.510 ppb	19,597 cps	4.1 %
152Sm (KED)	0.087 ppb	3,214 cps	30.1 %
153Eu (KED)	0.036 ppb	2,573 cps	75.0 %
158Gd (KED)	0.082 ppb	4,428 cps	28.3 %
159Tb (KED)	97.545 %	3,849,164 cps	0.6 %
164Dy (KED)	0.063 ppb	3,756 cps	43.4 %
166Er (KED)	0.043 ppb	3,556 cps	62.8 %
169Tm (KED)	0.024 ppb	5,735 cps	115.8 %
174Yb (KED)	0.036 ppb	3,235 cps	68.8 %
175Lu (KED)	-0.021 ppb	27,864 cps	15.6 %
205Tl (KED)	0.034 ppb	5,707 cps	82.2 %
208Pb (KED)	1.009 ppb	146,479 cps	5.8 %
209Bi (KED)	84.864 %	3,414,386 cps	0.8 %
232Th (KED)	0.623 ppb	144,728 cps	89.4 %
238U (KED)	0.371 ppb	102,569 cps	132.1 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 7

Analysis name: 003jian

Analysis started at: 9/8/2021 3:56:26 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	118.024 %	2.9 %
9Be (KED)	0.053 ppb	86.7 %
11B (KED)	-3.710 ppb	5.3 %
24Mg (KED)	958.787 ppb	1.3 %
27Al (KED)	923.681 ppb	1.5 %
45Sc (KED)	109.818 %	2.6 %
51V (KED)	1.818 ppb	2.2 %
52Cr (KED)	4.567 ppb	1.3 %
55Mn (KED)	24.276 ppb	0.5 %
56Fe (KED)	959.318 ppb	0.7 %
58Ni (KED)	4.468 ppb	2.9 %
59Co (KED)	0.475 ppb	3.5 %
63Cu (KED)	6.242 ppb	3.1 %
64Zn (KED)	183.744 ppb	1.2 %
69Ga (KED)	2.451 ppb	1.7 %
75As (KED)	1.162 ppb	3.1 %
80Se (KED)	0.491 ppb	44.1 %
85Rb (KED)	2.115 ppb	2.3 %
88Sr (KED)	11.546 ppb	1.1 %
89Y (KED)	98.666 %	0.5 %
107Ag (KED)	0.057 ppb	3.8 %
114Cd (KED)	0.058 ppb	8.6 %
115In (KED)	88.958 %	0.2 %
133Cs (KED)	0.190 ppb	1.0 %
138Ba (KED)	8.673 ppb	0.7 %
139La (KED)	0.716 ppb	0.5 %
140Ce (KED)	1.432 ppb	3.0 %
141Pr (KED)	0.173 ppb	4.0 %
142Nd (KED)	0.887 ppb	1.2 %
152Sm (KED)	0.131 ppb	1.1 %
153Eu (KED)	0.034 ppb	6.0 %
158Gd (KED)	0.120 ppb	3.8 %
159Tb (KED)	92.505 %	0.6 %
164Dy (KED)	0.086 ppb	1.1 %
166Er (KED)	0.049 ppb	4.7 %
169Tm (KED)	0.015 ppb	13.6 %
174Yb (KED)	0.040 ppb	10.9 %
175Lu (KED)	-0.041 ppb	20.0 %
205Tl (KED)	0.031 ppb	7.5 %
208Pb (KED)	1.110 ppb	3.7 %
209Bi (KED)	79.771 %	1.2 %
232Th (KED)	0.304 ppb	3.7 %
238U (KED)	0.124 ppb	4.5 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	118.024 %	2,547 cps	2.9 %
9Be (KED)	0.053 ppb	7 cps	86.6 %
11B (KED)	-3.710 ppb	573 cps	2.7 %
24Mg (KED)	958.787 ppb	381,664 cps	2.2 %
27Al (KED)	923.681 ppb	72,889 cps	1.2 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	109.818 %	30,434 cps	2.6 %
51V (KED)	1.818 ppb	10,600 cps	1.3 %
52Cr (KED)	4.567 ppb	42,515 cps	1.8 %
55Mn (KED)	24.276 ppb	100,986 cps	2.1 %
56Fe (KED)	959.318 ppb	8,024,107 cps	1.9 %
58Ni (KED)	4.468 ppb	53,490 cps	0.4 %
59Co (KED)	0.475 ppb	9,167 cps	0.8 %
63Cu (KED)	6.242 ppb	84,372 cps	2.6 %
64Zn (KED)	183.744 ppb	598,264 cps	0.7 %
69Ga (KED)	2.451 ppb	9,386 cps	1.7 %
75As (KED)	1.162 ppb	1,073 cps	3.0 %
80Se (KED)	0.491 ppb	640 cps	8.2 %
85Rb (KED)	2.115 ppb	7,458 cps	1.8 %
88Sr (KED)	11.546 ppb	56,783 cps	1.5 %
89Y (KED)	98.666 %	287,317 cps	0.5 %
107Ag (KED)	0.057 ppb	2,274 cps	3.7 %
114Cd (KED)	0.058 ppb	947 cps	7.1 %
115In (KED)	88.958 %	542,163 cps	0.2 %
133Cs (KED)	0.190 ppb	3,574 cps	0.8 %
138Ba (KED)	8.673 ppb	249,257 cps	0.3 %
139La (KED)	0.716 ppb	44,610 cps	0.7 %
140Ce (KED)	1.432 ppb	124,611 cps	2.9 %
141Pr (KED)	0.173 ppb	15,276 cps	3.4 %
142Nd (KED)	0.887 ppb	32,235 cps	0.6 %
152Sm (KED)	0.131 ppb	4,581 cps	1.6 %
153Eu (KED)	0.034 ppb	2,346 cps	5.4 %
158Gd (KED)	0.120 ppb	6,185 cps	3.6 %
159Tb (KED)	92.505 %	3,650,247 cps	0.6 %
164Dy (KED)	0.086 ppb	4,847 cps	1.5 %
166Er (KED)	0.049 ppb	3,765 cps	3.6 %
169Tm (KED)	0.015 ppb	3,572 cps	13.0 %
174Yb (KED)	0.040 ppb	3,436 cps	10.3 %
175Lu (KED)	-0.041 ppb	23,997 cps	3.7 %
205Tl (KED)	0.031 ppb	4,995 cps	7.0 %
208Pb (KED)	1.110 ppb	149,111 cps	2.5 %
209Bi (KED)	79.771 %	3,209,467 cps	1.2 %
232Th (KED)	0.304 ppb	66,776 cps	3.1 %
238U (KED)	0.124 ppb	32,518 cps	4.1 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 8

Analysis name: 152923011915jian

Analysis started at: 9/8/2021 3:59:56 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	119.775 %	5.6 %
9Be (KED)	0.063 ppb	91.3 %
11B (KED)	-2.075 ppb	49.8 %
24Mg (KED)	1,055.182 ppb	5.2 %
27Al (KED)	996.420 ppb	1.0 %
45Sc (KED)	114.568 %	0.8 %
51V (KED)	1.954 ppb	1.1 %
52Cr (KED)	3.499 ppb	1.3 %
55Mn (KED)	27.456 ppb	0.6 %
56Fe (KED)	1,101.767 ppb	0.6 %
58Ni (KED)	4.975 ppb	1.4 %
59Co (KED)	0.547 ppb	0.8 %
63Cu (KED)	9.919 ppb	2.1 %
64Zn (KED)	186.072 ppb	1.7 %
69Ga (KED)	2.870 ppb	1.1 %
75As (KED)	1.027 ppb	3.1 %
80Se (KED)	0.280 ppb	89.5 %
85Rb (KED)	1.965 ppb	0.7 %
88Sr (KED)	14.079 ppb	1.0 %
89Y (KED)	100.151 %	1.6 %
107Ag (KED)	0.057 ppb	2.7 %
114Cd (KED)	0.053 ppb	11.0 %
115In (KED)	90.141 %	1.5 %
133Cs (KED)	0.201 ppb	1.0 %
138Ba (KED)	9.473 ppb	1.9 %
139La (KED)	0.783 ppb	2.1 %
140Ce (KED)	1.633 ppb	3.0 %
141Pr (KED)	0.187 ppb	3.8 %
142Nd (KED)	1.003 ppb	3.4 %
152Sm (KED)	0.139 ppb	2.9 %
153Eu (KED)	0.029 ppb	2.0 %
158Gd (KED)	0.129 ppb	0.4 %
159Tb (KED)	91.242 %	2.7 %
164Dy (KED)	0.089 ppb	2.1 %
166Er (KED)	0.043 ppb	7.0 %
169Tm (KED)	0.007 ppb	6.1 %
174Yb (KED)	0.036 ppb	3.4 %
175Lu (KED)	-0.059 ppb	8.1 %
205Tl (KED)	0.021 ppb	5.2 %
208Pb (KED)	1.404 ppb	3.3 %
209Bi (KED)	76.476 %	1.7 %
232Th (KED)	0.369 ppb	2.5 %
238U (KED)	0.140 ppb	0.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	119.775 %	2,585 cps	5.6 %
9Be (KED)	0.063 ppb	8 cps	89.2 %
11B (KED)	-2.075 ppb	676 cps	3.1 %
24Mg (KED)	1,055.182 ppb	425,478 cps	0.6 %
27Al (KED)	996.420 ppb	82,044 cps	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	114.568 %	31,750 cps	0.8 %
51V (KED)	1.954 ppb	11,889 cps	1.6 %
52Cr (KED)	3.499 ppb	34,017 cps	1.2 %
55Mn (KED)	27.456 ppb	119,152 cps	1.1 %
56Fe (KED)	1,101.767 ppb	9,614,877 cps	1.4 %
58Ni (KED)	4.975 ppb	61,961 cps	0.5 %
59Co (KED)	0.547 ppb	10,978 cps	1.2 %
63Cu (KED)	9.919 ppb	135,191 cps	1.5 %
64Zn (KED)	186.072 ppb	614,874 cps	1.2 %
69Ga (KED)	2.870 ppb	11,142 cps	2.3 %
75As (KED)	1.027 ppb	963 cps	1.8 %
80Se (KED)	0.280 ppb	596 cps	12.6 %
85Rb (KED)	1.965 ppb	7,038 cps	2.1 %
88Sr (KED)	14.079 ppb	70,248 cps	1.8 %
89Y (KED)	100.151 %	291,640 cps	1.6 %
107Ag (KED)	0.057 ppb	2,341 cps	3.8 %
114Cd (KED)	0.053 ppb	882 cps	9.7 %
115In (KED)	90.141 %	549,374 cps	1.5 %
133Cs (KED)	0.201 ppb	3,833 cps	2.5 %
138Ba (KED)	9.473 ppb	268,309 cps	0.8 %
139La (KED)	0.783 ppb	48,082 cps	0.6 %
140Ce (KED)	1.633 ppb	140,094 cps	0.5 %
141Pr (KED)	0.187 ppb	16,196 cps	2.7 %
142Nd (KED)	1.003 ppb	35,904 cps	0.8 %
152Sm (KED)	0.139 ppb	4,811 cps	2.5 %
153Eu (KED)	0.029 ppb	2,005 cps	0.7 %
158Gd (KED)	0.129 ppb	6,519 cps	3.1 %
159Tb (KED)	91.242 %	3,600,442 cps	2.7 %
164Dy (KED)	0.089 ppb	4,942 cps	4.3 %
166Er (KED)	0.043 ppb	3,330 cps	3.9 %
169Tm (KED)	0.007 ppb	1,671 cps	3.3 %
174Yb (KED)	0.036 ppb	3,031 cps	4.6 %
175Lu (KED)	-0.059 ppb	21,452 cps	3.2 %
205Tl (KED)	0.021 ppb	3,279 cps	3.6 %
208Pb (KED)	1.404 ppb	174,666 cps	1.4 %
209Bi (KED)	76.476 %	3,076,889 cps	1.7 %
232Th (KED)	0.369 ppb	77,481 cps	0.8 %
238U (KED)	0.140 ppb	35,034 cps	1.3 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 9

Analysis name: 001jian

Analysis started at: 9/8/2021 4:03:20 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	125.080 %	7.0 %
9Be (KED)	0.051 ppb	51.6 %
11B (KED)	-6.400 ppb	8.2 %
24Mg (KED)	789.288 ppb	7.9 %
27Al (KED)	682.807 ppb	2.7 %
45Sc (KED)	117.089 %	1.3 %
51V (KED)	1.354 ppb	0.7 %
52Cr (KED)	2.550 ppb	1.7 %
55Mn (KED)	19.713 ppb	0.9 %
56Fe (KED)	737.724 ppb	2.0 %
58Ni (KED)	3.595 ppb	1.1 %
59Co (KED)	0.364 ppb	2.1 %
63Cu (KED)	7.664 ppb	1.5 %
64Zn (KED)	179.845 ppb	2.7 %
69Ga (KED)	2.007 ppb	3.4 %
75As (KED)	0.846 ppb	2.1 %
80Se (KED)	0.384 ppb	60.5 %
85Rb (KED)	1.556 ppb	6.2 %
88Sr (KED)	9.345 ppb	1.0 %
89Y (KED)	100.371 %	1.1 %
107Ag (KED)	0.046 ppb	7.1 %
114Cd (KED)	0.036 ppb	11.7 %
115In (KED)	88.889 %	1.5 %
133Cs (KED)	0.143 ppb	1.1 %
138Ba (KED)	6.621 ppb	1.1 %
139La (KED)	0.533 ppb	1.2 %
140Ce (KED)	1.089 ppb	1.7 %
141Pr (KED)	0.125 ppb	0.9 %
142Nd (KED)	0.662 ppb	1.3 %
152Sm (KED)	0.089 ppb	2.3 %
153Eu (KED)	0.018 ppb	5.6 %
158Gd (KED)	0.082 ppb	2.8 %
159Tb (KED)	89.836 %	1.5 %
164Dy (KED)	0.058 ppb	4.4 %
166Er (KED)	0.026 ppb	9.0 %
169Tm (KED)	0.004 ppb	1.3 %
174Yb (KED)	0.024 ppb	4.0 %
175Lu (KED)	-0.067 ppb	10.9 %
205Tl (KED)	0.016 ppb	5.9 %
208Pb (KED)	0.900 ppb	1.6 %
209Bi (KED)	75.358 %	2.0 %
232Th (KED)	0.197 ppb	0.9 %
238U (KED)	0.077 ppb	2.5 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	125.080 %	2,699 cps	7.0 %
9Be (KED)	0.051 ppb	7 cps	50.0 %
11B (KED)	-6.400 ppb	443 cps	11.4 %
24Mg (KED)	789.288 ppb	331,909 cps	1.7 %
27Al (KED)	682.807 ppb	57,473 cps	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	117.089 %	32,449 cps	1.3 %
51V (KED)	1.354 ppb	8,422 cps	1.9 %
52Cr (KED)	2.550 ppb	25,372 cps	1.1 %
55Mn (KED)	19.713 ppb	87,464 cps	1.5 %
56Fe (KED)	737.724 ppb	6,580,042 cps	1.2 %
58Ni (KED)	3.595 ppb	46,261 cps	0.5 %
59Co (KED)	0.364 ppb	7,535 cps	1.4 %
63Cu (KED)	7.664 ppb	105,048 cps	1.4 %
64Zn (KED)	179.845 ppb	595,651 cps	2.0 %
69Ga (KED)	2.007 ppb	7,834 cps	2.8 %
75As (KED)	0.846 ppb	798 cps	3.1 %
80Se (KED)	0.384 ppb	623 cps	9.8 %
85Rb (KED)	1.556 ppb	5,595 cps	5.5 %
88Sr (KED)	9.345 ppb	46,784 cps	1.6 %
89Y (KED)	100.371 %	292,281 cps	1.1 %
107Ag (KED)	0.046 ppb	1,846 cps	6.6 %
114Cd (KED)	0.036 ppb	639 cps	7.6 %
115In (KED)	88.889 %	541,745 cps	1.5 %
133Cs (KED)	0.143 ppb	2,696 cps	2.5 %
138Ba (KED)	6.621 ppb	185,187 cps	1.3 %
139La (KED)	0.533 ppb	32,293 cps	1.4 %
140Ce (KED)	1.089 ppb	92,177 cps	0.5 %
141Pr (KED)	0.125 ppb	10,686 cps	2.3 %
142Nd (KED)	0.662 ppb	23,386 cps	1.3 %
152Sm (KED)	0.089 ppb	3,047 cps	3.1 %
153Eu (KED)	0.018 ppb	1,209 cps	6.3 %
158Gd (KED)	0.082 ppb	4,121 cps	2.5 %
159Tb (KED)	89.836 %	3,544,946 cps	1.5 %
164Dy (KED)	0.058 ppb	3,184 cps	3.4 %
166Er (KED)	0.026 ppb	2,166 cps	7.5 %
169Tm (KED)	0.004 ppb	888 cps	2.7 %
174Yb (KED)	0.024 ppb	1,957 cps	3.6 %
175Lu (KED)	-0.067 ppb	20,170 cps	3.0 %
205Tl (KED)	0.016 ppb	2,406 cps	4.0 %
208Pb (KED)	0.900 ppb	118,503 cps	0.8 %
209Bi (KED)	75.358 %	3,031,933 cps	2.0 %
232Th (KED)	0.197 ppb	40,961 cps	1.3 %
238U (KED)	0.077 ppb	19,178 cps	1.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 10

Analysis name: 152923028597jian

Analysis started at: 9/8/2021 4:06:46 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	125.543 %	4.0 %
9Be (KED)	0.033 ppb	86.7 %
11B (KED)	4.821 ppb	16.1 %
24Mg (KED)	1,441.310 ppb	3.1 %
27Al (KED)	1,252.699 ppb	3.8 %
45Sc (KED)	120.345 %	2.0 %
51V (KED)	2.642 ppb	3.0 %
52Cr (KED)	5.150 ppb	2.3 %
55Mn (KED)	38.806 ppb	1.7 %
56Fe (KED)	1,565.528 ppb	1.1 %
58Ni (KED)	6.962 ppb	0.2 %
59Co (KED)	0.745 ppb	2.5 %
63Cu (KED)	8.569 ppb	1.6 %
64Zn (KED)	170.792 ppb	1.9 %
69Ga (KED)	3.739 ppb	2.7 %
75As (KED)	1.114 ppb	9.0 %
80Se (KED)	0.809 ppb	13.7 %
85Rb (KED)	2.406 ppb	1.8 %
88Sr (KED)	18.356 ppb	0.8 %
89Y (KED)	103.003 %	0.4 %
107Ag (KED)	0.064 ppb	2.5 %
114Cd (KED)	0.062 ppb	3.9 %
115In (KED)	89.352 %	0.4 %
133Cs (KED)	0.281 ppb	1.9 %
138Ba (KED)	12.964 ppb	0.9 %
139La (KED)	1.161 ppb	1.5 %
140Ce (KED)	2.398 ppb	0.5 %
141Pr (KED)	0.270 ppb	4.0 %
142Nd (KED)	1.440 ppb	1.0 %
152Sm (KED)	0.196 ppb	2.8 %
153Eu (KED)	0.041 ppb	2.6 %
158Gd (KED)	0.180 ppb	1.4 %
159Tb (KED)	88.774 %	1.0 %
164Dy (KED)	0.123 ppb	1.2 %
166Er (KED)	0.060 ppb	6.8 %
169Tm (KED)	0.008 ppb	1.5 %
174Yb (KED)	0.049 ppb	3.0 %
175Lu (KED)	-0.070 ppb	2.5 %
205Tl (KED)	0.022 ppb	6.6 %
208Pb (KED)	1.499 ppb	2.3 %
209Bi (KED)	73.579 %	0.1 %
232Th (KED)	0.442 ppb	0.1 %
238U (KED)	0.163 ppb	3.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	125.543 %	2,709 cps	4.0 %
9Be (KED)	0.033 ppb	4 cps	86.6 %
11B (KED)	4.821 ppb	1,136 cps	8.3 %
24Mg (KED)	1,441.310 ppb	609,685 cps	0.9 %
27Al (KED)	1,252.699 ppb	108,273 cps	2.3 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	120.345 %	33,351 cps	2.0 %
51V (KED)	2.642 ppb	16,874 cps	1.1 %
52Cr (KED)	5.150 ppb	52,517 cps	0.5 %
55Mn (KED)	38.806 ppb	176,802 cps	0.9 %
56Fe (KED)	1,565.528 ppb	14,346,291 cps	1.1 %
58Ni (KED)	6.962 ppb	90,324 cps	2.0 %
59Co (KED)	0.745 ppb	15,626 cps	3.2 %
63Cu (KED)	8.569 ppb	120,359 cps	1.7 %
64Zn (KED)	170.792 ppb	580,703 cps	2.1 %
69Ga (KED)	3.739 ppb	14,903 cps	2.5 %
75As (KED)	1.114 ppb	1,074 cps	8.5 %
80Se (KED)	0.809 ppb	753 cps	3.8 %
85Rb (KED)	2.406 ppb	8,848 cps	2.1 %
88Sr (KED)	18.356 ppb	94,150 cps	1.1 %
89Y (KED)	103.003 %	299,946 cps	0.4 %
107Ag (KED)	0.064 ppb	2,582 cps	2.5 %
114Cd (KED)	0.062 ppb	1,006 cps	3.4 %
115In (KED)	89.352 %	544,567 cps	0.4 %
133Cs (KED)	0.281 ppb	5,306 cps	1.5 %
138Ba (KED)	12.964 ppb	356,752 cps	1.5 %
139La (KED)	1.161 ppb	69,265 cps	1.4 %
140Ce (KED)	2.398 ppb	200,004 cps	0.8 %
141Pr (KED)	0.270 ppb	22,821 cps	3.0 %
142Nd (KED)	1.440 ppb	50,140 cps	0.4 %
152Sm (KED)	0.196 ppb	6,586 cps	1.8 %
153Eu (KED)	0.041 ppb	2,723 cps	3.6 %
158Gd (KED)	0.180 ppb	8,872 cps	1.4 %
159Tb (KED)	88.774 %	3,503,024 cps	1.0 %
164Dy (KED)	0.123 ppb	6,685 cps	2.0 %
166Er (KED)	0.060 ppb	4,345 cps	6.5 %
169Tm (KED)	0.008 ppb	1,740 cps	0.5 %
174Yb (KED)	0.049 ppb	4,036 cps	3.9 %
175Lu (KED)	-0.070 ppb	19,512 cps	1.5 %
205Tl (KED)	0.022 ppb	3,295 cps	6.5 %
208Pb (KED)	1.499 ppb	177,915 cps	1.9 %
209Bi (KED)	73.579 %	2,960,352 cps	0.1 %
232Th (KED)	0.442 ppb	89,401 cps	0.2 %
238U (KED)	0.163 ppb	39,378 cps	3.5 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 11

Analysis name: 002jian

Analysis started at: 9/8/2021 4:10:12 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	122.659 %	2.8 %
9Be (KED)	0.017 ppb	173.2 %
11B (KED)	-6.599 ppb	18.1 %
24Mg (KED)	868.466 ppb	3.0 %
27Al (KED)	750.850 ppb	0.6 %
45Sc (KED)	118.267 %	0.8 %
51V (KED)	1.444 ppb	1.2 %
52Cr (KED)	4.143 ppb	1.8 %
55Mn (KED)	21.237 ppb	0.9 %
56Fe (KED)	797.823 ppb	1.7 %
58Ni (KED)	3.660 ppb	1.7 %
59Co (KED)	0.400 ppb	2.7 %
63Cu (KED)	6.323 ppb	2.1 %
64Zn (KED)	189.505 ppb	1.5 %
69Ga (KED)	2.523 ppb	0.4 %
75As (KED)	0.993 ppb	4.7 %
80Se (KED)	0.892 ppb	15.4 %
85Rb (KED)	1.765 ppb	2.8 %
88Sr (KED)	10.826 ppb	3.0 %
89Y (KED)	99.941 %	1.2 %
107Ag (KED)	0.085 ppb	4.4 %
114Cd (KED)	0.054 ppb	0.8 %
115In (KED)	87.796 %	1.1 %
133Cs (KED)	0.162 ppb	6.5 %
138Ba (KED)	8.339 ppb	0.5 %
139La (KED)	0.606 ppb	1.1 %
140Ce (KED)	1.239 ppb	1.2 %
141Pr (KED)	0.140 ppb	1.7 %
142Nd (KED)	0.752 ppb	0.5 %
152Sm (KED)	0.105 ppb	4.6 %
153Eu (KED)	0.021 ppb	1.3 %
158Gd (KED)	0.095 ppb	8.7 %
159Tb (KED)	86.853 %	1.0 %
164Dy (KED)	0.065 ppb	3.3 %
166Er (KED)	0.031 ppb	3.0 %
169Tm (KED)	0.004 ppb	2.1 %
174Yb (KED)	0.025 ppb	4.1 %
175Lu (KED)	-0.079 ppb	6.5 %
205Tl (KED)	0.015 ppb	5.3 %
208Pb (KED)	1.191 ppb	0.9 %
209Bi (KED)	72.976 %	0.3 %
232Th (KED)	0.214 ppb	1.4 %
238U (KED)	0.086 ppb	3.0 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	122.659 %	2,647 cps	2.8 %
9Be (KED)	0.017 ppb	2 cps	173.2 %
11B (KED)	-6.599 ppb	421 cps	14.4 %
24Mg (KED)	868.466 ppb	359,199 cps	0.3 %
27Al (KED)	750.850 ppb	63,842 cps	1.0 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	118.267 %	32,775 cps	0.8 %
51V (KED)	1.444 ppb	9,072 cps	0.4 %
52Cr (KED)	4.143 ppb	41,554 cps	1.3 %
55Mn (KED)	21.237 ppb	95,164 cps	0.6 %
56Fe (KED)	797.823 ppb	7,187,735 cps	0.9 %
58Ni (KED)	3.660 ppb	47,539 cps	0.9 %
59Co (KED)	0.400 ppb	8,358 cps	3.4 %
63Cu (KED)	6.323 ppb	86,544 cps	1.1 %
64Zn (KED)	189.505 ppb	624,884 cps	0.5 %
69Ga (KED)	2.523 ppb	9,785 cps	1.4 %
75As (KED)	0.993 ppb	930 cps	4.8 %
80Se (KED)	0.892 ppb	752 cps	4.1 %
85Rb (KED)	1.765 ppb	6,314 cps	3.4 %
88Sr (KED)	10.826 ppb	53,924 cps	1.9 %
89Y (KED)	99.941 %	291,028 cps	1.2 %
107Ag (KED)	0.085 ppb	3,357 cps	3.9 %
114Cd (KED)	0.054 ppb	876 cps	1.0 %
115In (KED)	87.796 %	535,082 cps	1.1 %
133Cs (KED)	0.162 ppb	3,013 cps	6.1 %
138Ba (KED)	8.339 ppb	225,087 cps	1.3 %
139La (KED)	0.606 ppb	35,444 cps	1.8 %
140Ce (KED)	1.239 ppb	101,336 cps	1.0 %
141Pr (KED)	0.140 ppb	11,603 cps	1.4 %
142Nd (KED)	0.752 ppb	25,655 cps	0.5 %
152Sm (KED)	0.105 ppb	3,456 cps	5.5 %
153Eu (KED)	0.021 ppb	1,382 cps	2.1 %
158Gd (KED)	0.095 ppb	4,578 cps	7.9 %
159Tb (KED)	86.853 %	3,427,237 cps	1.0 %
164Dy (KED)	0.065 ppb	3,454 cps	3.4 %
166Er (KED)	0.031 ppb	2,388 cps	1.7 %
169Tm (KED)	0.004 ppb	956 cps	2.0 %
174Yb (KED)	0.025 ppb	2,020 cps	3.6 %
175Lu (KED)	-0.079 ppb	18,069 cps	3.1 %
205Tl (KED)	0.015 ppb	2,286 cps	5.0 %
208Pb (KED)	1.191 ppb	144,779 cps	0.6 %
209Bi (KED)	72.976 %	2,936,081 cps	0.3 %
232Th (KED)	0.214 ppb	43,011 cps	1.5 %
238U (KED)	0.086 ppb	20,618 cps	2.9 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 12

Analysis name: 15292301511jian

Analysis started at: 9/8/2021 4:13:34 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	128.582 %	3.0 %
9Be (KED)	0.033 ppb	116.0 %
11B (KED)	-4.693 ppb	9.0 %
24Mg (KED)	1,046.051 ppb	3.7 %
27Al (KED)	761.346 ppb	1.1 %
45Sc (KED)	121.640 %	1.9 %
51V (KED)	1.522 ppb	1.2 %
52Cr (KED)	3.153 ppb	1.9 %
55Mn (KED)	23.401 ppb	3.0 %
56Fe (KED)	960.603 ppb	2.5 %
58Ni (KED)	4.131 ppb	3.9 %
59Co (KED)	0.425 ppb	2.9 %
63Cu (KED)	9.392 ppb	0.1 %
64Zn (KED)	190.487 ppb	1.5 %
69Ga (KED)	2.332 ppb	0.3 %
75As (KED)	0.947 ppb	3.1 %
80Se (KED)	0.638 ppb	11.9 %
85Rb (KED)	1.574 ppb	1.8 %
88Sr (KED)	12.323 ppb	1.4 %
89Y (KED)	102.847 %	1.4 %
107Ag (KED)	0.054 ppb	1.5 %
114Cd (KED)	0.040 ppb	16.7 %
115In (KED)	88.277 %	0.3 %
133Cs (KED)	0.158 ppb	0.2 %
138Ba (KED)	7.631 ppb	1.7 %
139La (KED)	0.664 ppb	1.2 %
140Ce (KED)	1.362 ppb	2.4 %
141Pr (KED)	0.153 ppb	2.8 %
142Nd (KED)	0.837 ppb	2.0 %
152Sm (KED)	0.113 ppb	1.8 %
153Eu (KED)	0.023 ppb	1.5 %
158Gd (KED)	0.101 ppb	5.6 %
159Tb (KED)	87.270 %	1.6 %
164Dy (KED)	0.070 ppb	2.8 %
166Er (KED)	0.033 ppb	2.9 %
169Tm (KED)	0.004 ppb	4.8 %
174Yb (KED)	0.027 ppb	2.6 %
175Lu (KED)	-0.081 ppb	5.5 %
205Tl (KED)	0.017 ppb	3.9 %
208Pb (KED)	1.023 ppb	2.6 %
209Bi (KED)	73.040 %	1.2 %
232Th (KED)	0.234 ppb	2.1 %
238U (KED)	0.098 ppb	1.0 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	128.582 %	2,775 cps	3.0 %
9Be (KED)	0.033 ppb	4 cps	114.6 %
11B (KED)	-4.693 ppb	563 cps	7.8 %
24Mg (KED)	1,046.051 ppb	453,357 cps	0.8 %
27Al (KED)	761.346 ppb	66,571 cps	1.0 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	121.640 %	33,710 cps	1.9 %
51V (KED)	1.522 ppb	9,834 cps	1.1 %
52Cr (KED)	3.153 ppb	32,558 cps	0.8 %
55Mn (KED)	23.401 ppb	107,802 cps	1.3 %
56Fe (KED)	960.603 ppb	8,898,093 cps	1.0 %
58Ni (KED)	4.131 ppb	54,927 cps	2.0 %
59Co (KED)	0.425 ppb	9,113 cps	2.3 %
63Cu (KED)	9.392 ppb	131,570 cps	1.4 %
64Zn (KED)	190.487 ppb	646,363 cps	0.1 %
69Ga (KED)	2.332 ppb	9,311 cps	1.5 %
75As (KED)	0.947 ppb	913 cps	4.2 %
80Se (KED)	0.638 ppb	707 cps	3.9 %
85Rb (KED)	1.574 ppb	5,800 cps	2.3 %
88Sr (KED)	12.323 ppb	63,169 cps	2.7 %
89Y (KED)	102.847 %	299,492 cps	1.4 %
107Ag (KED)	0.054 ppb	2,156 cps	1.3 %
114Cd (KED)	0.040 ppb	681 cps	13.0 %
115In (KED)	88.277 %	538,015 cps	0.3 %
133Cs (KED)	0.158 ppb	2,969 cps	0.5 %
138Ba (KED)	7.631 ppb	207,092 cps	1.3 %
139La (KED)	0.664 ppb	39,023 cps	1.4 %
140Ce (KED)	1.362 ppb	111,884 cps	1.6 %
141Pr (KED)	0.153 ppb	12,735 cps	1.4 %
142Nd (KED)	0.837 ppb	28,700 cps	1.3 %
152Sm (KED)	0.113 ppb	3,758 cps	3.0 %
153Eu (KED)	0.023 ppb	1,529 cps	2.3 %
158Gd (KED)	0.101 ppb	4,905 cps	5.6 %
159Tb (KED)	87.270 %	3,443,698 cps	1.6 %
164Dy (KED)	0.070 ppb	3,719 cps	1.2 %
166Er (KED)	0.033 ppb	2,522 cps	4.1 %
169Tm (KED)	0.004 ppb	980 cps	6.2 %
174Yb (KED)	0.027 ppb	2,216 cps	3.0 %
175Lu (KED)	-0.081 ppb	17,863 cps	2.0 %
205Tl (KED)	0.017 ppb	2,571 cps	3.8 %
208Pb (KED)	1.023 ppb	127,593 cps	3.3 %
209Bi (KED)	73.040 %	2,938,666 cps	1.2 %
232Th (KED)	0.234 ppb	47,101 cps	1.2 %
238U (KED)	0.098 ppb	23,460 cps	1.0 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 13

Analysis name: 152923020253jian

Analysis started at: 9/8/2021 4:17:06 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	132.650 %	2.4 %
9Be (KED)	0.008 ppb	173.2 %
11B (KED)	-1.835 ppb	56.0 %
24Mg (KED)	1,451.723 ppb	2.6 %
27Al (KED)	641.437 ppb	1.4 %
45Sc (KED)	125.310 %	2.4 %
51V (KED)	1.183 ppb	7.6 %
52Cr (KED)	2.343 ppb	1.6 %
55Mn (KED)	17.640 ppb	1.6 %
56Fe (KED)	631.916 ppb	2.7 %
58Ni (KED)	3.045 ppb	3.5 %
59Co (KED)	0.311 ppb	2.6 %
63Cu (KED)	8.896 ppb	3.1 %
64Zn (KED)	198.053 ppb	2.2 %
69Ga (KED)	2.069 ppb	3.7 %
75As (KED)	0.925 ppb	4.2 %
80Se (KED)	0.556 ppb	32.0 %
85Rb (KED)	1.942 ppb	2.9 %
88Sr (KED)	14.340 ppb	1.8 %
89Y (KED)	99.023 %	0.8 %
107Ag (KED)	0.066 ppb	2.2 %
114Cd (KED)	0.034 ppb	5.9 %
115In (KED)	87.772 %	0.2 %
133Cs (KED)	0.128 ppb	8.0 %
138Ba (KED)	6.538 ppb	2.1 %
139La (KED)	0.477 ppb	2.2 %
140Ce (KED)	1.005 ppb	1.1 %
141Pr (KED)	0.113 ppb	4.2 %
142Nd (KED)	0.611 ppb	2.8 %
152Sm (KED)	0.084 ppb	1.6 %
153Eu (KED)	0.016 ppb	6.9 %
158Gd (KED)	0.074 ppb	2.1 %
159Tb (KED)	86.386 %	0.9 %
164Dy (KED)	0.051 ppb	4.1 %
166Er (KED)	0.023 ppb	2.9 %
169Tm (KED)	0.003 ppb	3.6 %
174Yb (KED)	0.020 ppb	4.6 %
175Lu (KED)	-0.083 ppb	4.4 %
205Tl (KED)	0.015 ppb	1.3 %
208Pb (KED)	1.236 ppb	1.9 %
209Bi (KED)	68.939 %	1.7 %
232Th (KED)	0.173 ppb	1.7 %
238U (KED)	0.081 ppb	2.0 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	132.650 %	2,863 cps	2.4 %
9Be (KED)	0.008 ppb	1 cps	173.2 %
11B (KED)	-1.835 ppb	766 cps	7.2 %
24Mg (KED)	1,451.723 ppb	649,108 cps	0.7 %
27Al (KED)	641.437 ppb	57,791 cps	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	125.310 %	34,727 cps	2.4 %
51V (KED)	1.183 ppb	7,870 cps	5.4 %
52Cr (KED)	2.343 ppb	24,966 cps	1.9 %
55Mn (KED)	17.640 ppb	83,761 cps	0.8 %
56Fe (KED)	631.916 ppb	6,031,399 cps	1.0 %
58Ni (KED)	3.045 ppb	42,237 cps	3.3 %
59Co (KED)	0.311 ppb	6,941 cps	1.9 %
63Cu (KED)	8.896 ppb	120,038 cps	2.5 %
64Zn (KED)	198.053 ppb	646,995 cps	1.5 %
69Ga (KED)	2.069 ppb	7,964 cps	3.3 %
75As (KED)	0.925 ppb	859 cps	4.3 %
80Se (KED)	0.556 ppb	659 cps	6.6 %
85Rb (KED)	1.942 ppb	6,877 cps	2.3 %
88Sr (KED)	14.340 ppb	70,735 cps	1.2 %
89Y (KED)	99.023 %	288,356 cps	0.8 %
107Ag (KED)	0.066 ppb	2,606 cps	2.0 %
114Cd (KED)	0.034 ppb	608 cps	4.8 %
115In (KED)	87.772 %	534,937 cps	0.2 %
133Cs (KED)	0.128 ppb	2,385 cps	7.6 %
138Ba (KED)	6.538 ppb	175,848 cps	1.2 %
139La (KED)	0.477 ppb	27,790 cps	1.3 %
140Ce (KED)	1.005 ppb	81,782 cps	0.6 %
141Pr (KED)	0.113 ppb	9,327 cps	3.3 %
142Nd (KED)	0.611 ppb	20,774 cps	1.9 %
152Sm (KED)	0.084 ppb	2,765 cps	2.2 %
153Eu (KED)	0.016 ppb	1,054 cps	6.1 %
158Gd (KED)	0.074 ppb	3,548 cps	1.3 %
159Tb (KED)	86.386 %	3,408,805 cps	0.9 %
164Dy (KED)	0.051 ppb	2,691 cps	4.3 %
166Er (KED)	0.023 ppb	1,878 cps	1.6 %
169Tm (KED)	0.003 ppb	691 cps	3.7 %
174Yb (KED)	0.020 ppb	1,601 cps	4.1 %
175Lu (KED)	-0.083 ppb	17,513 cps	2.7 %
205Tl (KED)	0.015 ppb	2,161 cps	1.4 %
208Pb (KED)	1.236 ppb	141,122 cps	0.1 %
209Bi (KED)	68.939 %	2,773,655 cps	1.7 %
232Th (KED)	0.173 ppb	32,861 cps	1.2 %
238U (KED)	0.081 ppb	18,400 cps	3.2 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 14

Analysis name: 029749jan

Analysis started at: 9/8/2021 4:20:30 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	132.805 %	2.4 %
9Be (KED)	0.024 ppb	101.6 %
11B (KED)	-3.822 ppb	9.3 %
24Mg (KED)	945.572 ppb	1.6 %
27Al (KED)	499.423 ppb	1.3 %
45Sc (KED)	126.038 %	1.7 %
51V (KED)	1.034 ppb	2.8 %
52Cr (KED)	3.337 ppb	2.4 %
55Mn (KED)	17.914 ppb	1.3 %
56Fe (KED)	680.960 ppb	1.4 %
58Ni (KED)	3.010 ppb	2.2 %
59Co (KED)	0.309 ppb	1.4 %
63Cu (KED)	6.676 ppb	0.9 %
64Zn (KED)	193.265 ppb	2.0 %
69Ga (KED)	1.940 ppb	4.6 %
75As (KED)	0.914 ppb	5.8 %
80Se (KED)	0.687 ppb	23.7 %
85Rb (KED)	2.045 ppb	2.2 %
88Sr (KED)	12.525 ppb	1.0 %
89Y (KED)	103.339 %	0.7 %
107Ag (KED)	0.060 ppb	0.6 %
114Cd (KED)	0.047 ppb	6.6 %
115In (KED)	87.256 %	0.5 %
133Cs (KED)	0.110 ppb	8.4 %
138Ba (KED)	5.909 ppb	1.4 %
139La (KED)	0.412 ppb	3.6 %
140Ce (KED)	0.846 ppb	0.9 %
141Pr (KED)	0.095 ppb	2.3 %
142Nd (KED)	0.516 ppb	1.0 %
152Sm (KED)	0.071 ppb	1.5 %
153Eu (KED)	0.015 ppb	5.2 %
158Gd (KED)	0.063 ppb	4.8 %
159Tb (KED)	88.276 %	1.5 %
164Dy (KED)	0.043 ppb	6.8 %
166Er (KED)	0.021 ppb	7.5 %
169Tm (KED)	0.003 ppb	15.6 %
174Yb (KED)	0.017 ppb	5.9 %
175Lu (KED)	-0.086 ppb	8.0 %
205Tl (KED)	0.014 ppb	4.3 %
208Pb (KED)	0.798 ppb	3.8 %
209Bi (KED)	71.058 %	1.8 %
232Th (KED)	0.148 ppb	2.7 %
238U (KED)	0.067 ppb	1.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	132.805 %	2,866 cps	2.4 %
9Be (KED)	0.024 ppb	3 cps	100.0 %
11B (KED)	-3.822 ppb	638 cps	3.2 %
24Mg (KED)	945.572 ppb	423,524 cps	0.9 %
27Al (KED)	499.423 ppb	45,283 cps	1.1 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	126.038 %	34,929 cps	1.7 %
51V (KED)	1.034 ppb	6,926 cps	1.7 %
52Cr (KED)	3.337 ppb	35,690 cps	0.8 %
55Mn (KED)	17.914 ppb	85,562 cps	0.5 %
56Fe (KED)	680.960 ppb	6,538,615 cps	1.1 %
58Ni (KED)	3.010 ppb	42,012 cps	1.1 %
59Co (KED)	0.309 ppb	6,925 cps	2.3 %
63Cu (KED)	6.676 ppb	94,414 cps	0.8 %
64Zn (KED)	193.265 ppb	658,923 cps	1.2 %
69Ga (KED)	1.940 ppb	7,797 cps	3.9 %
75As (KED)	0.914 ppb	886 cps	5.1 %
80Se (KED)	0.687 ppb	723 cps	6.8 %
85Rb (KED)	2.045 ppb	7,556 cps	2.0 %
88Sr (KED)	12.525 ppb	64,501 cps	0.9 %
89Y (KED)	103.339 %	300,924 cps	0.7 %
107Ag (KED)	0.060 ppb	2,365 cps	1.1 %
114Cd (KED)	0.047 ppb	776 cps	4.9 %
115In (KED)	87.256 %	531,790 cps	0.5 %
133Cs (KED)	0.110 ppb	2,041 cps	7.8 %
138Ba (KED)	5.909 ppb	162,586 cps	1.6 %
139La (KED)	0.412 ppb	24,511 cps	2.0 %
140Ce (KED)	0.846 ppb	70,412 cps	1.3 %
141Pr (KED)	0.095 ppb	8,020 cps	2.8 %
142Nd (KED)	0.516 ppb	17,932 cps	1.5 %
152Sm (KED)	0.071 ppb	2,394 cps	2.9 %
153Eu (KED)	0.015 ppb	972 cps	6.2 %
158Gd (KED)	0.063 ppb	3,109 cps	3.4 %
159Tb (KED)	88.276 %	3,483,370 cps	1.5 %
164Dy (KED)	0.043 ppb	2,331 cps	5.6 %
166Er (KED)	0.021 ppb	1,785 cps	6.0 %
169Tm (KED)	0.003 ppb	670 cps	15.4 %
174Yb (KED)	0.017 ppb	1,417 cps	6.2 %
175Lu (KED)	-0.086 ppb	17,515 cps	3.4 %
205Tl (KED)	0.014 ppb	1,956 cps	3.1 %
208Pb (KED)	0.798 ppb	101,482 cps	1.2 %
209Bi (KED)	71.058 %	2,858,925 cps	1.8 %
232Th (KED)	0.148 ppb	29,125 cps	1.2 %
238U (KED)	0.067 ppb	15,759 cps	2.0 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 15

Analysis name: 20086jian

Analysis started at: 9/8/2021 4:24:10 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	133.217 %	4.7 %
9Be (KED)	0.031 ppb	41.4 %
11B (KED)	6.301 ppb	19.4 %
24Mg (KED)	918.169 ppb	3.4 %
27Al (KED)	1,215.359 ppb	1.2 %
45Sc (KED)	129.552 %	1.3 %
51V (KED)	2.220 ppb	1.5 %
52Cr (KED)	4.366 ppb	1.1 %
55Mn (KED)	25.950 ppb	1.2 %
56Fe (KED)	1,128.314 ppb	2.2 %
58Ni (KED)	4.822 ppb	0.1 %
59Co (KED)	0.483 ppb	3.3 %
63Cu (KED)	6.480 ppb	1.2 %
64Zn (KED)	192.007 ppb	1.1 %
69Ga (KED)	3.674 ppb	2.0 %
75As (KED)	1.145 ppb	3.8 %
80Se (KED)	0.892 ppb	29.5 %
85Rb (KED)	4.154 ppb	1.4 %
88Sr (KED)	14.260 ppb	1.2 %
89Y (KED)	104.072 %	0.6 %
107Ag (KED)	0.087 ppb	4.9 %
114Cd (KED)	0.049 ppb	11.9 %
115In (KED)	87.571 %	2.1 %
133Cs (KED)	0.238 ppb	0.6 %
138Ba (KED)	11.640 ppb	4.3 %
139La (KED)	0.894 ppb	3.7 %
140Ce (KED)	1.909 ppb	5.8 %
141Pr (KED)	0.208 ppb	1.3 %
142Nd (KED)	1.141 ppb	1.8 %
152Sm (KED)	0.154 ppb	3.6 %
153Eu (KED)	0.031 ppb	6.5 %
158Gd (KED)	0.140 ppb	6.7 %
159Tb (KED)	85.881 %	3.3 %
164Dy (KED)	0.097 ppb	3.9 %
166Er (KED)	0.048 ppb	8.1 %
169Tm (KED)	0.006 ppb	4.3 %
174Yb (KED)	0.041 ppb	4.0 %
175Lu (KED)	-0.085 ppb	4.8 %
205Tl (KED)	0.020 ppb	3.1 %
208Pb (KED)	1.285 ppb	1.5 %
209Bi (KED)	67.858 %	0.9 %
232Th (KED)	0.318 ppb	0.5 %
238U (KED)	0.137 ppb	2.0 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	133.217 %	2,875 cps	4.7 %
9Be (KED)	0.031 ppb	4 cps	43.3 %
11B (KED)	6.301 ppb	1,298 cps	2.1 %
24Mg (KED)	918.169 ppb	412,206 cps	1.6 %
27Al (KED)	1,215.359 ppb	113,134 cps	1.7 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	129.552 %	35,903 cps	1.3 %
51V (KED)	2.220 ppb	15,274 cps	1.5 %
52Cr (KED)	4.366 ppb	47,966 cps	1.1 %
55Mn (KED)	25.950 ppb	127,338 cps	0.1 %
56Fe (KED)	1,128.314 ppb	11,131,740 cps	1.0 %
58Ni (KED)	4.822 ppb	67,977 cps	1.2 %
59Co (KED)	0.483 ppb	10,986 cps	1.9 %
63Cu (KED)	6.480 ppb	92,335 cps	0.7 %
64Zn (KED)	192.007 ppb	659,344 cps	1.0 %
69Ga (KED)	3.674 ppb	14,800 cps	1.9 %
75As (KED)	1.145 ppb	1,116 cps	3.4 %
80Se (KED)	0.892 ppb	783 cps	8.5 %
85Rb (KED)	4.154 ppb	15,391 cps	1.5 %
88Sr (KED)	14.260 ppb	73,933 cps	0.8 %
89Y (KED)	104.072 %	303,059 cps	0.6 %
107Ag (KED)	0.087 ppb	3,413 cps	3.0 %
114Cd (KED)	0.049 ppb	810 cps	10.1 %
115In (KED)	87.571 %	533,715 cps	2.1 %
133Cs (KED)	0.238 ppb	4,414 cps	2.3 %
138Ba (KED)	11.640 ppb	309,754 cps	1.3 %
139La (KED)	0.894 ppb	51,602 cps	1.1 %
140Ce (KED)	1.909 ppb	153,954 cps	2.4 %
141Pr (KED)	0.208 ppb	17,038 cps	2.2 %
142Nd (KED)	1.141 ppb	38,448 cps	1.8 %
152Sm (KED)	0.154 ppb	5,012 cps	4.0 %
153Eu (KED)	0.031 ppb	1,959 cps	5.3 %
158Gd (KED)	0.140 ppb	6,657 cps	3.3 %
159Tb (KED)	85.881 %	3,388,876 cps	3.3 %
164Dy (KED)	0.097 ppb	5,071 cps	2.2 %
166Er (KED)	0.048 ppb	3,429 cps	4.5 %
169Tm (KED)	0.006 ppb	1,380 cps	0.9 %
174Yb (KED)	0.041 ppb	3,217 cps	1.2 %
175Lu (KED)	-0.085 ppb	17,157 cps	0.7 %
205Tl (KED)	0.020 ppb	2,739 cps	3.1 %
208Pb (KED)	1.285 ppb	143,660 cps	2.1 %
209Bi (KED)	67.858 %	2,730,174 cps	0.9 %
232Th (KED)	0.318 ppb	59,330 cps	1.4 %
238U (KED)	0.137 ppb	30,542 cps	2.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 16

Analysis name: 018865jian

Analysis started at: 9/8/2021 4:27:50 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	137.028 %	4.3 %
9Be (KED)	0.015 ppb	173.2 %
11B (KED)	-4.682 ppb	6.3 %
24Mg (KED)	1,021.054 ppb	2.6 %
27Al (KED)	814.468 ppb	1.8 %
45Sc (KED)	131.148 %	1.3 %
51V (KED)	1.582 ppb	1.4 %
52Cr (KED)	2.709 ppb	1.8 %
55Mn (KED)	23.549 ppb	0.9 %
56Fe (KED)	855.865 ppb	2.5 %
58Ni (KED)	3.941 ppb	2.3 %
59Co (KED)	0.424 ppb	3.2 %
63Cu (KED)	9.008 ppb	2.1 %
64Zn (KED)	176.446 ppb	1.1 %
69Ga (KED)	2.784 ppb	2.7 %
75As (KED)	1.063 ppb	8.9 %
80Se (KED)	0.458 ppb	52.7 %
85Rb (KED)	1.947 ppb	0.4 %
88Sr (KED)	12.533 ppb	1.3 %
89Y (KED)	104.547 %	2.0 %
107Ag (KED)	0.084 ppb	3.8 %
114Cd (KED)	0.052 ppb	7.4 %
115In (KED)	88.280 %	1.4 %
133Cs (KED)	0.168 ppb	2.5 %
138Ba (KED)	8.970 ppb	1.2 %
139La (KED)	0.742 ppb	2.5 %
140Ce (KED)	1.535 ppb	1.5 %
141Pr (KED)	0.175 ppb	0.1 %
142Nd (KED)	0.958 ppb	1.1 %
152Sm (KED)	0.124 ppb	3.9 %
153Eu (KED)	0.024 ppb	1.8 %
158Gd (KED)	0.113 ppb	5.0 %
159Tb (KED)	86.637 %	0.4 %
164Dy (KED)	0.076 ppb	2.6 %
166Er (KED)	0.033 ppb	4.7 %
169Tm (KED)	0.004 ppb	4.8 %
174Yb (KED)	0.027 ppb	3.3 %
175Lu (KED)	-0.089 ppb	2.3 %
205Tl (KED)	0.019 ppb	5.1 %
208Pb (KED)	1.112 ppb	2.9 %
209Bi (KED)	69.286 %	1.6 %
232Th (KED)	0.267 ppb	4.2 %
238U (KED)	0.107 ppb	3.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	137.028 %	2,957 cps	4.3 %
9Be (KED)	0.015 ppb	2 cps	173.2 %
11B (KED)	-4.682 ppb	601 cps	7.6 %
24Mg (KED)	1,021.054 ppb	471,597 cps	1.6 %
27Al (KED)	814.468 ppb	76,781 cps	1.8 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	131.148 %	36,345 cps	1.3 %
51V (KED)	1.582 ppb	11,025 cps	2.2 %
52Cr (KED)	2.709 ppb	30,184 cps	0.6 %
55Mn (KED)	23.549 ppb	116,997 cps	0.6 %
56Fe (KED)	855.865 ppb	8,549,036 cps	1.4 %
58Ni (KED)	3.941 ppb	56,596 cps	0.9 %
59Co (KED)	0.424 ppb	9,786 cps	2.4 %
63Cu (KED)	9.008 ppb	128,299 cps	0.6 %
64Zn (KED)	176.446 ppb	608,751 cps	0.9 %
69Ga (KED)	2.784 ppb	11,284 cps	1.5 %
75As (KED)	1.063 ppb	1,040 cps	7.2 %
80Se (KED)	0.458 ppb	670 cps	11.7 %
85Rb (KED)	1.947 ppb	7,279 cps	1.6 %
88Sr (KED)	12.533 ppb	65,286 cps	1.0 %
89Y (KED)	104.547 %	304,441 cps	2.0 %
107Ag (KED)	0.084 ppb	3,318 cps	3.1 %
114Cd (KED)	0.052 ppb	847 cps	4.8 %
115In (KED)	88.280 %	538,036 cps	1.4 %
133Cs (KED)	0.168 ppb	3,155 cps	1.8 %
138Ba (KED)	8.970 ppb	241,413 cps	1.2 %
139La (KED)	0.742 ppb	43,277 cps	2.8 %
140Ce (KED)	1.535 ppb	125,160 cps	1.9 %
141Pr (KED)	0.175 ppb	14,455 cps	0.4 %
142Nd (KED)	0.958 ppb	32,593 cps	0.7 %
152Sm (KED)	0.124 ppb	4,065 cps	4.2 %
153Eu (KED)	0.024 ppb	1,552 cps	1.4 %
158Gd (KED)	0.113 ppb	5,420 cps	4.6 %
159Tb (KED)	86.637 %	3,418,712 cps	0.4 %
164Dy (KED)	0.076 ppb	4,032 cps	2.3 %
166Er (KED)	0.033 ppb	2,500 cps	3.7 %
169Tm (KED)	0.004 ppb	943 cps	4.3 %
174Yb (KED)	0.027 ppb	2,162 cps	2.9 %
175Lu (KED)	-0.089 ppb	16,776 cps	1.8 %
205Tl (KED)	0.019 ppb	2,631 cps	3.7 %
208Pb (KED)	1.112 ppb	129,674 cps	1.4 %
209Bi (KED)	69.286 %	2,787,625 cps	1.6 %
232Th (KED)	0.267 ppb	51,014 cps	3.5 %
238U (KED)	0.107 ppb	24,225 cps	1.8 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 17

Analysis name: 28726jian

Analysis started at: 9/8/2021 4:31:28 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	134.247 %	1.5 %
9Be (KED)	0.008 ppb	173.2 %
11B (KED)	-6.092 ppb	8.3 %
24Mg (KED)	537.012 ppb	3.2 %
27Al (KED)	517.166 ppb	1.8 %
45Sc (KED)	125.326 %	1.1 %
51V (KED)	0.988 ppb	2.3 %
52Cr (KED)	1.972 ppb	0.9 %
55Mn (KED)	15.353 ppb	0.2 %
56Fe (KED)	627.007 ppb	2.1 %
58Ni (KED)	2.838 ppb	1.5 %
59Co (KED)	0.268 ppb	1.4 %
63Cu (KED)	10.168 ppb	1.0 %
64Zn (KED)	166.232 ppb	0.5 %
69Ga (KED)	1.554 ppb	2.6 %
75As (KED)	0.519 ppb	11.0 %
80Se (KED)	0.251 ppb	30.7 %
85Rb (KED)	2.820 ppb	0.8 %
88Sr (KED)	8.955 ppb	1.5 %
89Y (KED)	102.516 %	0.3 %
107Ag (KED)	0.051 ppb	4.1 %
114Cd (KED)	0.055 ppb	11.8 %
115In (KED)	88.985 %	0.9 %
133Cs (KED)	0.092 ppb	2.5 %
138Ba (KED)	4.749 ppb	1.0 %
139La (KED)	0.389 ppb	3.1 %
140Ce (KED)	0.789 ppb	0.8 %
141Pr (KED)	0.088 ppb	1.2 %
142Nd (KED)	0.470 ppb	3.2 %
152Sm (KED)	0.065 ppb	2.8 %
153Eu (KED)	0.012 ppb	3.4 %
158Gd (KED)	0.059 ppb	3.7 %
159Tb (KED)	88.464 %	0.3 %
164Dy (KED)	0.041 ppb	7.7 %
166Er (KED)	0.019 ppb	9.4 %
169Tm (KED)	0.003 ppb	3.6 %
174Yb (KED)	0.017 ppb	5.0 %
175Lu (KED)	-0.097 ppb	2.4 %
205Tl (KED)	0.014 ppb	3.4 %
208Pb (KED)	0.820 ppb	2.6 %
209Bi (KED)	70.294 %	1.9 %
232Th (KED)	0.139 ppb	2.3 %
238U (KED)	0.054 ppb	3.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	134.247 %	2,897 cps	1.5 %
9Be (KED)	0.008 ppb	1 cps	173.2 %
11B (KED)	-6.092 ppb	496 cps	6.2 %
24Mg (KED)	537.012 ppb	243,338 cps	1.8 %
27Al (KED)	517.166 ppb	46,624 cps	1.3 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	125.326 %	34,732 cps	1.1 %
51V (KED)	0.988 ppb	6,580 cps	1.6 %
52Cr (KED)	1.972 ppb	21,042 cps	0.6 %
55Mn (KED)	15.353 ppb	72,946 cps	1.3 %
56Fe (KED)	627.007 ppb	5,986,857 cps	1.4 %
58Ni (KED)	2.838 ppb	39,501 cps	0.9 %
59Co (KED)	0.268 ppb	6,001 cps	0.3 %
63Cu (KED)	10.168 ppb	141,850 cps	0.9 %
64Zn (KED)	166.232 ppb	562,562 cps	0.2 %
69Ga (KED)	1.554 ppb	6,213 cps	2.3 %
75As (KED)	0.519 ppb	503 cps	10.6 %
80Se (KED)	0.251 ppb	601 cps	3.7 %
85Rb (KED)	2.820 ppb	10,311 cps	0.6 %
88Sr (KED)	8.955 ppb	45,792 cps	1.3 %
89Y (KED)	102.516 %	298,527 cps	0.3 %
107Ag (KED)	0.051 ppb	2,072 cps	3.9 %
114Cd (KED)	0.055 ppb	902 cps	10.1 %
115In (KED)	88.985 %	542,328 cps	0.9 %
133Cs (KED)	0.092 ppb	1,751 cps	2.2 %
138Ba (KED)	4.749 ppb	131,285 cps	1.1 %
139La (KED)	0.389 ppb	23,222 cps	3.3 %
140Ce (KED)	0.789 ppb	65,904 cps	0.7 %
141Pr (KED)	0.088 ppb	7,406 cps	0.9 %
142Nd (KED)	0.470 ppb	16,375 cps	3.1 %
152Sm (KED)	0.065 ppb	2,195 cps	2.6 %
153Eu (KED)	0.012 ppb	819 cps	3.2 %
158Gd (KED)	0.059 ppb	2,916 cps	3.5 %
159Tb (KED)	88.464 %	3,490,807 cps	0.3 %
164Dy (KED)	0.041 ppb	2,225 cps	7.9 %
166Er (KED)	0.019 ppb	1,629 cps	7.0 %
169Tm (KED)	0.003 ppb	591 cps	3.2 %
174Yb (KED)	0.017 ppb	1,419 cps	4.7 %
175Lu (KED)	-0.097 ppb	16,223 cps	1.6 %
205Tl (KED)	0.014 ppb	1,959 cps	3.7 %
208Pb (KED)	0.820 ppb	102,572 cps	0.7 %
209Bi (KED)	70.294 %	2,828,170 cps	1.9 %
232Th (KED)	0.139 ppb	27,071 cps	1.7 %
238U (KED)	0.054 ppb	12,605 cps	2.5 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 18

Analysis name: 28725jian

Analysis started at: 9/8/2021 4:34:53 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	132.444 %	4.7 %
9Be (KED)	0.025 ppb	102.6 %
11B (KED)	-3.886 ppb	28.3 %
24Mg (KED)	588.976 ppb	6.4 %
27Al (KED)	390.014 ppb	3.6 %
45Sc (KED)	126.532 %	3.8 %
51V (KED)	0.742 ppb	8.7 %
52Cr (KED)	1.667 ppb	2.5 %
55Mn (KED)	14.144 ppb	4.1 %
56Fe (KED)	398.215 ppb	1.6 %
58Ni (KED)	2.027 ppb	4.8 %
59Co (KED)	0.213 ppb	4.8 %
63Cu (KED)	8.720 ppb	0.6 %
64Zn (KED)	167.876 ppb	0.7 %
69Ga (KED)	1.457 ppb	3.2 %
75As (KED)	0.551 ppb	7.9 %
80Se (KED)	0.488 ppb	29.4 %
85Rb (KED)	1.956 ppb	2.2 %
88Sr (KED)	10.336 ppb	0.8 %
89Y (KED)	102.931 %	0.8 %
107Ag (KED)	0.054 ppb	7.7 %
114Cd (KED)	0.054 ppb	11.2 %
115In (KED)	90.531 %	2.0 %
133Cs (KED)	0.077 ppb	0.8 %
138Ba (KED)	4.571 ppb	1.4 %
139La (KED)	0.404 ppb	1.3 %
140Ce (KED)	0.917 ppb	3.1 %
141Pr (KED)	0.099 ppb	2.2 %
142Nd (KED)	0.535 ppb	1.4 %
152Sm (KED)	0.065 ppb	3.1 %
153Eu (KED)	0.014 ppb	5.8 %
158Gd (KED)	0.056 ppb	4.5 %
159Tb (KED)	88.882 %	1.4 %
164Dy (KED)	0.037 ppb	5.8 %
166Er (KED)	0.016 ppb	3.4 %
169Tm (KED)	0.002 ppb	9.8 %
174Yb (KED)	0.014 ppb	6.7 %
175Lu (KED)	-0.093 ppb	4.5 %
205Tl (KED)	0.012 ppb	3.1 %
208Pb (KED)	0.694 ppb	3.4 %
209Bi (KED)	71.714 %	2.5 %
232Th (KED)	0.174 ppb	3.4 %
238U (KED)	0.044 ppb	2.7 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	132.444 %	2,858 cps	4.7 %
9Be (KED)	0.025 ppb	3 cps	100.0 %
11B (KED)	-3.886 ppb	630 cps	6.9 %
24Mg (KED)	588.976 ppb	262,811 cps	1.6 %
27Al (KED)	390.014 ppb	35,495 cps	0.3 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	126.532 %	35,066 cps	3.8 %
51V (KED)	0.742 ppb	4,985 cps	5.0 %
52Cr (KED)	1.667 ppb	17,976 cps	1.6 %
55Mn (KED)	14.144 ppb	67,793 cps	1.0 %
56Fe (KED)	398.215 ppb	3,839,785 cps	2.2 %
58Ni (KED)	2.027 ppb	29,015 cps	1.2 %
59Co (KED)	0.213 ppb	4,862 cps	2.3 %
63Cu (KED)	8.720 ppb	122,365 cps	1.4 %
64Zn (KED)	167.876 ppb	570,429 cps	1.4 %
69Ga (KED)	1.457 ppb	5,854 cps	3.9 %
75As (KED)	0.551 ppb	536 cps	8.4 %
80Se (KED)	0.488 ppb	667 cps	5.0 %
85Rb (KED)	1.956 ppb	7,199 cps	2.2 %
88Sr (KED)	10.336 ppb	53,044 cps	1.5 %
89Y (KED)	102.931 %	299,736 cps	0.8 %
107Ag (KED)	0.054 ppb	2,225 cps	5.7 %
114Cd (KED)	0.054 ppb	908 cps	8.2 %
115In (KED)	90.531 %	551,753 cps	2.0 %
133Cs (KED)	0.077 ppb	1,500 cps	1.2 %
138Ba (KED)	4.571 ppb	127,024 cps	1.8 %
139La (KED)	0.404 ppb	24,238 cps	0.1 %
140Ce (KED)	0.917 ppb	76,858 cps	1.7 %
141Pr (KED)	0.099 ppb	8,423 cps	3.5 %
142Nd (KED)	0.535 ppb	18,701 cps	0.3 %
152Sm (KED)	0.065 ppb	2,197 cps	3.3 %
153Eu (KED)	0.014 ppb	916 cps	5.3 %
158Gd (KED)	0.056 ppb	2,767 cps	5.3 %
159Tb (KED)	88.882 %	3,507,285 cps	1.4 %
164Dy (KED)	0.037 ppb	2,044 cps	5.6 %
166Er (KED)	0.016 ppb	1,439 cps	3.8 %
169Tm (KED)	0.002 ppb	518 cps	10.4 %
174Yb (KED)	0.014 ppb	1,196 cps	7.6 %
175Lu (KED)	-0.093 ppb	16,821 cps	1.7 %
205Tl (KED)	0.012 ppb	1,785 cps	1.1 %
208Pb (KED)	0.694 ppb	91,872 cps	0.9 %
209Bi (KED)	71.714 %	2,885,321 cps	2.5 %
232Th (KED)	0.174 ppb	34,458 cps	0.9 %
238U (KED)	0.044 ppb	10,427 cps	0.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 19

Analysis name: 28725fu

Analysis started at: 9/8/2021 4:38:15 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	132.960 %	4.7 %
9Be (KED)	0.016 ppb	86.7 %
11B (KED)	-6.947 ppb	9.2 %
24Mg (KED)	525.765 ppb	4.2 %
27Al (KED)	398.176 ppb	1.8 %
45Sc (KED)	126.255 %	0.8 %
51V (KED)	0.767 ppb	2.2 %
52Cr (KED)	2.027 ppb	1.1 %
55Mn (KED)	14.365 ppb	0.3 %
56Fe (KED)	402.703 ppb	0.6 %
58Ni (KED)	2.287 ppb	0.6 %
59Co (KED)	0.220 ppb	0.7 %
63Cu (KED)	8.914 ppb	0.5 %
64Zn (KED)	174.569 ppb	1.0 %
69Ga (KED)	1.587 ppb	1.0 %
75As (KED)	0.602 ppb	1.8 %
80Se (KED)	0.604 ppb	3.5 %
85Rb (KED)	1.699 ppb	1.1 %
88Sr (KED)	10.476 ppb	1.6 %
89Y (KED)	101.273 %	1.6 %
107Ag (KED)	0.056 ppb	10.3 %
114Cd (KED)	0.048 ppb	6.1 %
115In (KED)	88.603 %	1.1 %
133Cs (KED)	0.079 ppb	6.1 %
138Ba (KED)	5.017 ppb	2.9 %
139La (KED)	0.311 ppb	1.9 %
140Ce (KED)	0.656 ppb	2.6 %
141Pr (KED)	0.073 ppb	4.1 %
142Nd (KED)	0.398 ppb	2.8 %
152Sm (KED)	0.052 ppb	7.1 %
153Eu (KED)	0.012 ppb	7.1 %
158Gd (KED)	0.048 ppb	2.6 %
159Tb (KED)	88.191 %	2.4 %
164Dy (KED)	0.033 ppb	3.8 %
166Er (KED)	0.015 ppb	6.9 %
169Tm (KED)	0.002 ppb	1.5 %
174Yb (KED)	0.013 ppb	2.5 %
175Lu (KED)	-0.099 ppb	3.8 %
205Tl (KED)	0.013 ppb	8.1 %
208Pb (KED)	0.770 ppb	3.7 %
209Bi (KED)	70.323 %	1.1 %
232Th (KED)	0.113 ppb	5.3 %
238U (KED)	0.043 ppb	3.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	132.960 %	2,869 cps	4.7 %
9Be (KED)	0.016 ppb	2 cps	86.6 %
11B (KED)	-6.947 ppb	434 cps	7.6 %
24Mg (KED)	525.765 ppb	235,744 cps	1.3 %
27Al (KED)	398.176 ppb	36,186 cps	1.0 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	126.255 %	34,989 cps	0.8 %
51V (KED)	0.767 ppb	5,152 cps	2.8 %
52Cr (KED)	2.027 ppb	21,786 cps	0.5 %
55Mn (KED)	14.365 ppb	68,768 cps	0.9 %
56Fe (KED)	402.703 ppb	3,876,112 cps	1.1 %
58Ni (KED)	2.287 ppb	32,457 cps	0.7 %
59Co (KED)	0.220 ppb	5,010 cps	0.4 %
63Cu (KED)	8.914 ppb	123,032 cps	1.5 %
64Zn (KED)	174.569 ppb	583,464 cps	0.7 %
69Ga (KED)	1.587 ppb	6,264 cps	0.9 %
75As (KED)	0.602 ppb	576 cps	3.4 %
80Se (KED)	0.604 ppb	687 cps	1.0 %
85Rb (KED)	1.699 ppb	6,160 cps	0.9 %
88Sr (KED)	10.476 ppb	52,901 cps	2.8 %
89Y (KED)	101.273 %	294,909 cps	1.6 %
107Ag (KED)	0.056 ppb	2,259 cps	9.1 %
114Cd (KED)	0.048 ppb	800 cps	5.0 %
115In (KED)	88.603 %	540,003 cps	1.1 %
133Cs (KED)	0.079 ppb	1,502 cps	4.8 %
138Ba (KED)	5.017 ppb	138,120 cps	0.5 %
139La (KED)	0.311 ppb	18,556 cps	0.8 %
140Ce (KED)	0.656 ppb	54,641 cps	1.6 %
141Pr (KED)	0.073 ppb	6,124 cps	2.3 %
142Nd (KED)	0.398 ppb	13,850 cps	1.7 %
152Sm (KED)	0.052 ppb	1,742 cps	4.6 %
153Eu (KED)	0.012 ppb	786 cps	9.3 %
158Gd (KED)	0.048 ppb	2,385 cps	1.0 %
159Tb (KED)	88.191 %	3,480,022 cps	2.4 %
164Dy (KED)	0.033 ppb	1,770 cps	1.3 %
166Er (KED)	0.015 ppb	1,390 cps	3.0 %
169Tm (KED)	0.002 ppb	480 cps	3.0 %
174Yb (KED)	0.013 ppb	1,077 cps	2.6 %
175Lu (KED)	-0.099 ppb	15,919 cps	3.4 %
205Tl (KED)	0.013 ppb	1,897 cps	7.2 %
208Pb (KED)	0.770 ppb	97,742 cps	3.0 %
209Bi (KED)	70.323 %	2,829,362 cps	1.1 %
232Th (KED)	0.113 ppb	22,045 cps	5.2 %
238U (KED)	0.043 ppb	9,950 cps	2.3 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 20

Analysis name: 28721jian

Analysis started at: 9/8/2021 4:41:43 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	131.775 %	0.8 %
9Be (KED)	0.040 ppb	69.9 %
11B (KED)	-8.915 ppb	3.7 %
24Mg (KED)	322.184 ppb	1.1 %
27Al (KED)	304.178 ppb	1.6 %
45Sc (KED)	121.820 %	1.4 %
51V (KED)	0.568 ppb	1.3 %
52Cr (KED)	1.703 ppb	0.2 %
55Mn (KED)	10.128 ppb	0.4 %
56Fe (KED)	438.654 ppb	1.6 %
58Ni (KED)	1.986 ppb	1.2 %
59Co (KED)	0.186 ppb	4.8 %
63Cu (KED)	10.055 ppb	1.5 %
64Zn (KED)	156.918 ppb	2.0 %
69Ga (KED)	1.036 ppb	6.6 %
75As (KED)	0.414 ppb	14.6 %
80Se (KED)	0.526 ppb	46.5 %
85Rb (KED)	1.336 ppb	4.2 %
88Sr (KED)	5.952 ppb	3.5 %
89Y (KED)	101.487 %	2.5 %
107Ag (KED)	0.064 ppb	0.9 %
114Cd (KED)	0.043 ppb	13.2 %
115In (KED)	89.112 %	1.6 %
133Cs (KED)	0.060 ppb	6.4 %
138Ba (KED)	3.437 ppb	1.1 %
139La (KED)	0.214 ppb	2.8 %
140Ce (KED)	0.476 ppb	0.9 %
141Pr (KED)	0.051 ppb	0.7 %
142Nd (KED)	0.284 ppb	3.8 %
152Sm (KED)	0.035 ppb	4.6 %
153Eu (KED)	0.008 ppb	11.9 %
158Gd (KED)	0.035 ppb	6.2 %
159Tb (KED)	89.100 %	1.5 %
164Dy (KED)	0.025 ppb	1.7 %
166Er (KED)	0.009 ppb	11.2 %
169Tm (KED)	0.001 ppb	13.6 %
174Yb (KED)	0.010 ppb	8.9 %
175Lu (KED)	-0.101 ppb	3.7 %
205Tl (KED)	0.010 ppb	9.7 %
208Pb (KED)	0.514 ppb	1.7 %
209Bi (KED)	73.350 %	1.4 %
232Th (KED)	0.077 ppb	2.7 %
238U (KED)	0.036 ppb	0.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	131.775 %	2,844 cps	0.8 %
9Be (KED)	0.040 ppb	6 cps	69.3 %
11B (KED)	-8.915 ppb	304 cps	7.1 %
24Mg (KED)	322.184 ppb	143,536 cps	0.6 %
27Al (KED)	304.178 ppb	26,696 cps	1.7 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	121.820 %	33,760 cps	1.4 %
51V (KED)	0.568 ppb	3,682 cps	1.0 %
52Cr (KED)	1.703 ppb	17,679 cps	1.6 %
55Mn (KED)	10.128 ppb	46,819 cps	1.1 %
56Fe (KED)	438.654 ppb	4,073,084 cps	1.6 %
58Ni (KED)	1.986 ppb	27,443 cps	1.5 %
59Co (KED)	0.186 ppb	4,118 cps	3.9 %
63Cu (KED)	10.055 ppb	138,842 cps	1.0 %
64Zn (KED)	156.918 ppb	525,660 cps	0.7 %
69Ga (KED)	1.036 ppb	4,122 cps	4.0 %
75As (KED)	0.414 ppb	400 cps	16.7 %
80Se (KED)	0.526 ppb	667 cps	7.3 %
85Rb (KED)	1.336 ppb	4,867 cps	2.1 %
88Sr (KED)	5.952 ppb	30,165 cps	1.5 %
89Y (KED)	101.487 %	295,533 cps	2.5 %
107Ag (KED)	0.064 ppb	2,557 cps	1.9 %
114Cd (KED)	0.043 ppb	732 cps	12.2 %
115In (KED)	89.112 %	543,103 cps	1.6 %
133Cs (KED)	0.060 ppb	1,167 cps	5.1 %
138Ba (KED)	3.437 ppb	96,163 cps	0.9 %
139La (KED)	0.214 ppb	12,908 cps	1.8 %
140Ce (KED)	0.476 ppb	40,239 cps	1.1 %
141Pr (KED)	0.051 ppb	4,365 cps	2.1 %
142Nd (KED)	0.284 ppb	10,022 cps	2.3 %
152Sm (KED)	0.035 ppb	1,195 cps	3.1 %
153Eu (KED)	0.008 ppb	546 cps	10.3 %
158Gd (KED)	0.035 ppb	1,765 cps	5.1 %
159Tb (KED)	89.100 %	3,515,900 cps	1.5 %
164Dy (KED)	0.025 ppb	1,403 cps	3.1 %
166Er (KED)	0.009 ppb	1,019 cps	5.5 %
169Tm (KED)	0.001 ppb	357 cps	13.8 %
174Yb (KED)	0.010 ppb	826 cps	10.0 %
175Lu (KED)	-0.101 ppb	15,898 cps	1.6 %
205Tl (KED)	0.010 ppb	1,478 cps	9.3 %
208Pb (KED)	0.514 ppb	75,361 cps	0.5 %
209Bi (KED)	73.350 %	2,951,113 cps	1.4 %
232Th (KED)	0.077 ppb	15,847 cps	3.7 %
238U (KED)	0.036 ppb	8,706 cps	0.9 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 21

Analysis name: 28726fu

Analysis started at: 9/8/2021 4:45:12 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	125.595 %	3.8 %
9Be (KED)	0.009 ppb	173.2 %
11B (KED)	-7.795 ppb	3.0 %
24Mg (KED)	559.165 ppb	4.9 %
27Al (KED)	445.673 ppb	2.0 %
45Sc (KED)	122.428 %	1.9 %
51V (KED)	0.867 ppb	2.1 %
52Cr (KED)	2.611 ppb	1.8 %
55Mn (KED)	13.981 ppb	2.3 %
56Fe (KED)	492.677 ppb	2.7 %
58Ni (KED)	2.447 ppb	2.3 %
59Co (KED)	0.241 ppb	4.4 %
63Cu (KED)	10.377 ppb	1.2 %
64Zn (KED)	156.848 ppb	1.0 %
69Ga (KED)	1.408 ppb	3.2 %
75As (KED)	0.539 ppb	13.5 %
80Se (KED)	0.471 ppb	11.9 %
85Rb (KED)	2.859 ppb	1.0 %
88Sr (KED)	9.301 ppb	1.0 %
89Y (KED)	102.042 %	0.4 %
107Ag (KED)	0.041 ppb	5.4 %
114Cd (KED)	0.071 ppb	4.8 %
115In (KED)	88.871 %	0.6 %
133Cs (KED)	0.092 ppb	3.5 %
138Ba (KED)	4.683 ppb	1.2 %
139La (KED)	0.348 ppb	1.6 %
140Ce (KED)	0.730 ppb	1.8 %
141Pr (KED)	0.082 ppb	2.5 %
142Nd (KED)	0.437 ppb	2.4 %
152Sm (KED)	0.060 ppb	5.0 %
153Eu (KED)	0.013 ppb	6.3 %
158Gd (KED)	0.052 ppb	3.2 %
159Tb (KED)	87.675 %	1.5 %
164Dy (KED)	0.037 ppb	4.3 %
166Er (KED)	0.018 ppb	7.7 %
169Tm (KED)	0.003 ppb	2.8 %
174Yb (KED)	0.016 ppb	6.3 %
175Lu (KED)	-0.098 ppb	5.5 %
205Tl (KED)	0.014 ppb	2.6 %
208Pb (KED)	0.775 ppb	1.8 %
209Bi (KED)	71.888 %	1.5 %
232Th (KED)	0.119 ppb	1.8 %
238U (KED)	0.053 ppb	1.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	125.595 %	2,710 cps	3.8 %
9Be (KED)	0.009 ppb	1 cps	173.2 %
11B (KED)	-7.795 ppb	359 cps	4.2 %
24Mg (KED)	559.165 ppb	236,817 cps	1.3 %
27Al (KED)	445.673 ppb	39,268 cps	3.0 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	122.428 %	33,928 cps	1.9 %
51V (KED)	0.867 ppb	5,642 cps	0.6 %
52Cr (KED)	2.611 ppb	27,174 cps	3.4 %
55Mn (KED)	13.981 ppb	64,885 cps	0.4 %
56Fe (KED)	492.677 ppb	4,595,841 cps	1.5 %
58Ni (KED)	2.447 ppb	33,533 cps	1.5 %
59Co (KED)	0.241 ppb	5,309 cps	2.4 %
63Cu (KED)	10.377 ppb	144,054 cps	0.8 %
64Zn (KED)	156.848 ppb	528,454 cps	0.5 %
69Ga (KED)	1.408 ppb	5,610 cps	3.1 %
75As (KED)	0.539 ppb	520 cps	13.4 %
80Se (KED)	0.471 ppb	657 cps	2.7 %
85Rb (KED)	2.859 ppb	10,403 cps	0.6 %
88Sr (KED)	9.301 ppb	47,336 cps	1.1 %
89Y (KED)	102.042 %	297,148 cps	0.4 %
107Ag (KED)	0.041 ppb	1,665 cps	4.9 %
114Cd (KED)	0.071 ppb	1,120 cps	3.9 %
115In (KED)	88.871 %	541,637 cps	0.6 %
133Cs (KED)	0.092 ppb	1,755 cps	3.3 %
138Ba (KED)	4.683 ppb	128,315 cps	0.8 %
139La (KED)	0.348 ppb	20,606 cps	1.3 %
140Ce (KED)	0.730 ppb	60,415 cps	1.6 %
141Pr (KED)	0.082 ppb	6,834 cps	1.1 %
142Nd (KED)	0.437 ppb	15,105 cps	1.4 %
152Sm (KED)	0.060 ppb	2,017 cps	4.3 %
153Eu (KED)	0.013 ppb	848 cps	7.7 %
158Gd (KED)	0.052 ppb	2,556 cps	4.2 %
159Tb (KED)	87.675 %	3,459,659 cps	1.5 %
164Dy (KED)	0.037 ppb	2,022 cps	5.4 %
166Er (KED)	0.018 ppb	1,549 cps	5.0 %
169Tm (KED)	0.003 ppb	578 cps	2.7 %
174Yb (KED)	0.016 ppb	1,277 cps	6.8 %
175Lu (KED)	-0.098 ppb	16,007 cps	2.5 %
205Tl (KED)	0.014 ppb	2,064 cps	3.9 %
208Pb (KED)	0.775 ppb	100,423 cps	1.8 %
209Bi (KED)	71.888 %	2,892,308 cps	1.5 %
232Th (KED)	0.119 ppb	23,669 cps	0.3 %
238U (KED)	0.053 ppb	12,519 cps	3.1 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 22

Analysis name: 28721fu

Analysis started at: 9/8/2021 4:48:34 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	135.020 %	3.2 %
9Be (KED)	0.031 ppb	43.5 %
11B (KED)	-8.816 ppb	4.0 %
24Mg (KED)	469.360 ppb	4.3 %
27Al (KED)	459.195 ppb	0.2 %
45Sc (KED)	123.010 %	0.7 %
51V (KED)	0.900 ppb	1.6 %
52Cr (KED)	2.386 ppb	1.8 %
55Mn (KED)	12.912 ppb	1.2 %
56Fe (KED)	520.461 ppb	1.2 %
58Ni (KED)	2.833 ppb	1.3 %
59Co (KED)	0.238 ppb	3.8 %
63Cu (KED)	8.943 ppb	2.5 %
64Zn (KED)	142.658 ppb	0.9 %
69Ga (KED)	1.473 ppb	1.3 %
75As (KED)	0.443 ppb	8.8 %
80Se (KED)	0.608 ppb	28.0 %
85Rb (KED)	1.738 ppb	2.3 %
88Sr (KED)	7.865 ppb	1.7 %
89Y (KED)	102.449 %	1.3 %
107Ag (KED)	0.034 ppb	6.3 %
114Cd (KED)	0.050 ppb	7.1 %
115In (KED)	90.036 %	0.5 %
133Cs (KED)	0.092 ppb	4.7 %
138Ba (KED)	4.820 ppb	0.9 %
139La (KED)	0.466 ppb	1.8 %
140Ce (KED)	0.912 ppb	1.4 %
141Pr (KED)	0.103 ppb	2.0 %
142Nd (KED)	0.551 ppb	2.8 %
152Sm (KED)	0.073 ppb	6.0 %
153Eu (KED)	0.014 ppb	8.0 %
158Gd (KED)	0.063 ppb	3.1 %
159Tb (KED)	89.963 %	1.2 %
164Dy (KED)	0.043 ppb	5.3 %
166Er (KED)	0.018 ppb	1.2 %
169Tm (KED)	0.003 ppb	3.9 %
174Yb (KED)	0.017 ppb	3.7 %
175Lu (KED)	-0.099 ppb	1.5 %
205Tl (KED)	0.012 ppb	3.0 %
208Pb (KED)	0.676 ppb	1.4 %
209Bi (KED)	73.991 %	1.1 %
232Th (KED)	0.137 ppb	3.0 %
238U (KED)	0.050 ppb	0.7 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	135.020 %	2,914 cps	3.2 %
9Be (KED)	0.031 ppb	4 cps	43.3 %
11B (KED)	-8.816 ppb	319 cps	10.3 %
24Mg (KED)	469.360 ppb	213,842 cps	1.1 %
27Al (KED)	459.195 ppb	40,647 cps	0.6 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	123.010 %	34,090 cps	0.7 %
51V (KED)	0.900 ppb	5,887 cps	1.9 %
52Cr (KED)	2.386 ppb	24,955 cps	2.5 %
55Mn (KED)	12.912 ppb	60,233 cps	0.8 %
56Fe (KED)	520.461 ppb	4,879,301 cps	1.5 %
58Ni (KED)	2.833 ppb	38,704 cps	1.2 %
59Co (KED)	0.238 ppb	5,263 cps	3.1 %
63Cu (KED)	8.943 ppb	124,840 cps	1.3 %
64Zn (KED)	142.658 ppb	482,721 cps	0.7 %
69Ga (KED)	1.473 ppb	5,889 cps	1.4 %
75As (KED)	0.443 ppb	430 cps	7.6 %
80Se (KED)	0.608 ppb	696 cps	5.8 %
85Rb (KED)	1.738 ppb	6,374 cps	2.7 %
88Sr (KED)	7.865 ppb	40,210 cps	1.3 %
89Y (KED)	102.449 %	298,334 cps	1.3 %
107Ag (KED)	0.034 ppb	1,383 cps	6.4 %
114Cd (KED)	0.050 ppb	846 cps	6.1 %
115In (KED)	90.036 %	548,736 cps	0.5 %
133Cs (KED)	0.092 ppb	1,770 cps	4.7 %
138Ba (KED)	4.820 ppb	135,477 cps	0.4 %
139La (KED)	0.466 ppb	28,279 cps	2.3 %
140Ce (KED)	0.912 ppb	77,396 cps	0.6 %
141Pr (KED)	0.103 ppb	8,843 cps	2.0 %
142Nd (KED)	0.551 ppb	19,507 cps	2.0 %
152Sm (KED)	0.073 ppb	2,494 cps	4.8 %
153Eu (KED)	0.014 ppb	940 cps	8.7 %
158Gd (KED)	0.063 ppb	3,165 cps	1.9 %
159Tb (KED)	89.963 %	3,549,939 cps	1.2 %
164Dy (KED)	0.043 ppb	2,389 cps	5.3 %
166Er (KED)	0.018 ppb	1,575 cps	2.1 %
169Tm (KED)	0.003 ppb	626 cps	3.9 %
174Yb (KED)	0.017 ppb	1,405 cps	3.8 %
175Lu (KED)	-0.099 ppb	16,198 cps	0.2 %
205Tl (KED)	0.012 ppb	1,822 cps	4.0 %
208Pb (KED)	0.676 ppb	93,019 cps	0.4 %
209Bi (KED)	73.991 %	2,976,935 cps	1.1 %
232Th (KED)	0.137 ppb	28,151 cps	3.0 %
238U (KED)	0.050 ppb	12,190 cps	1.7 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 23

Analysis name: 1168jian

Analysis started at: 9/8/2021 4:51:58 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	129.612 %	3.2 %
9Be (KED)	0.040 ppb	32.6 %
11B (KED)	13.165 ppb	9.5 %
24Mg (KED)	773.548 ppb	4.6 %
27Al (KED)	931.506 ppb	0.7 %
45Sc (KED)	120.807 %	1.8 %
51V (KED)	1.759 ppb	2.8 %
52Cr (KED)	3.689 ppb	1.0 %
55Mn (KED)	23.291 ppb	1.8 %
56Fe (KED)	957.077 ppb	0.6 %
58Ni (KED)	4.542 ppb	1.9 %
59Co (KED)	0.446 ppb	2.8 %
63Cu (KED)	7.477 ppb	2.1 %
64Zn (KED)	192.865 ppb	1.5 %
69Ga (KED)	2.695 ppb	0.3 %
75As (KED)	1.003 ppb	8.2 %
80Se (KED)	0.738 ppb	24.0 %
85Rb (KED)	2.506 ppb	1.6 %
88Sr (KED)	12.537 ppb	1.6 %
89Y (KED)	102.231 %	0.6 %
107Ag (KED)	0.094 ppb	1.6 %
114Cd (KED)	0.060 ppb	5.1 %
115In (KED)	88.208 %	0.3 %
133Cs (KED)	0.191 ppb	0.5 %
138Ba (KED)	8.907 ppb	2.7 %
139La (KED)	0.747 ppb	0.8 %
140Ce (KED)	1.508 ppb	1.8 %
141Pr (KED)	0.174 ppb	3.6 %
142Nd (KED)	0.936 ppb	5.0 %
152Sm (KED)	0.126 ppb	5.4 %
153Eu (KED)	0.025 ppb	3.0 %
158Gd (KED)	0.110 ppb	5.0 %
159Tb (KED)	89.209 %	3.0 %
164Dy (KED)	0.078 ppb	2.1 %
166Er (KED)	0.035 ppb	0.9 %
169Tm (KED)	0.005 ppb	9.1 %
174Yb (KED)	0.031 ppb	3.1 %
175Lu (KED)	-0.098 ppb	5.1 %
205Tl (KED)	0.020 ppb	5.0 %
208Pb (KED)	1.113 ppb	1.0 %
209Bi (KED)	71.403 %	1.4 %
232Th (KED)	0.281 ppb	2.4 %
238U (KED)	0.158 ppb	3.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	129.612 %	2,797 cps	3.2 %
9Be (KED)	0.040 ppb	6 cps	34.6 %
11B (KED)	13.165 ppb	1,699 cps	1.9 %
24Mg (KED)	773.548 ppb	338,005 cps	1.8 %
27Al (KED)	931.506 ppb	80,875 cps	1.2 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	120.807 %	33,479 cps	1.8 %
51V (KED)	1.759 ppb	11,283 cps	2.0 %
52Cr (KED)	3.689 ppb	37,814 cps	0.8 %
55Mn (KED)	23.291 ppb	106,611 cps	3.2 %
56Fe (KED)	957.077 ppb	8,807,172 cps	1.6 %
58Ni (KED)	4.542 ppb	59,807 cps	2.2 %
59Co (KED)	0.446 ppb	9,479 cps	1.1 %
63Cu (KED)	7.477 ppb	104,412 cps	1.5 %
64Zn (KED)	192.865 ppb	650,540 cps	1.0 %
69Ga (KED)	2.695 ppb	10,685 cps	0.6 %
75As (KED)	1.003 ppb	961 cps	8.7 %
80Se (KED)	0.738 ppb	729 cps	6.5 %
85Rb (KED)	2.506 ppb	9,146 cps	2.1 %
88Sr (KED)	12.537 ppb	63,864 cps	1.0 %
89Y (KED)	102.231 %	297,699 cps	0.6 %
107Ag (KED)	0.094 ppb	3,743 cps	1.8 %
114Cd (KED)	0.060 ppb	968 cps	4.4 %
115In (KED)	88.208 %	537,595 cps	0.3 %
133Cs (KED)	0.191 ppb	3,577 cps	0.3 %
138Ba (KED)	8.907 ppb	246,712 cps	1.0 %
139La (KED)	0.747 ppb	44,826 cps	2.3 %
140Ce (KED)	1.508 ppb	126,549 cps	1.2 %
141Pr (KED)	0.174 ppb	14,807 cps	1.6 %
142Nd (KED)	0.936 ppb	32,750 cps	2.0 %
152Sm (KED)	0.126 ppb	4,246 cps	3.2 %
153Eu (KED)	0.025 ppb	1,695 cps	5.1 %
158Gd (KED)	0.110 ppb	5,458 cps	5.0 %
159Tb (KED)	89.209 %	3,520,217 cps	3.0 %
164Dy (KED)	0.078 ppb	4,247 cps	4.8 %
166Er (KED)	0.035 ppb	2,724 cps	2.7 %
169Tm (KED)	0.005 ppb	1,106 cps	6.0 %
174Yb (KED)	0.031 ppb	2,520 cps	2.3 %
175Lu (KED)	-0.098 ppb	16,248 cps	0.7 %
205Tl (KED)	0.020 ppb	2,883 cps	6.4 %
208Pb (KED)	1.113 ppb	133,803 cps	1.5 %
209Bi (KED)	71.403 %	2,872,789 cps	1.4 %
232Th (KED)	0.281 ppb	55,305 cps	1.1 %
238U (KED)	0.158 ppb	36,855 cps	2.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 24

Analysis name: 2fu

Analysis started at: 9/8/2021 4:55:26 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	122.556 %	0.8 %
9Be (KED)	0.026 ppb	100.0 %
11B (KED)	8.987 ppb	18.8 %
24Mg (KED)	990.738 ppb	0.8 %
27Al (KED)	1,229.840 ppb	3.0 %
45Sc (KED)	122.049 %	1.7 %
51V (KED)	2.386 ppb	2.3 %
52Cr (KED)	5.914 ppb	2.9 %
55Mn (KED)	32.580 ppb	0.6 %
56Fe (KED)	1,240.470 ppb	2.8 %
58Ni (KED)	5.479 ppb	1.6 %
59Co (KED)	0.541 ppb	1.4 %
63Cu (KED)	7.689 ppb	0.3 %
64Zn (KED)	180.387 ppb	0.4 %
69Ga (KED)	3.571 ppb	2.9 %
75As (KED)	1.009 ppb	4.5 %
80Se (KED)	0.972 ppb	16.5 %
85Rb (KED)	3.121 ppb	3.9 %
88Sr (KED)	14.380 ppb	2.7 %
89Y (KED)	101.522 %	0.4 %
107Ag (KED)	0.051 ppb	1.9 %
114Cd (KED)	0.038 ppb	14.4 %
115In (KED)	89.462 %	2.4 %
133Cs (KED)	0.249 ppb	4.4 %
138Ba (KED)	11.905 ppb	0.3 %
139La (KED)	0.968 ppb	1.6 %
140Ce (KED)	2.001 ppb	3.3 %
141Pr (KED)	0.226 ppb	1.1 %
142Nd (KED)	1.218 ppb	1.9 %
152Sm (KED)	0.160 ppb	4.6 %
153Eu (KED)	0.033 ppb	1.7 %
158Gd (KED)	0.148 ppb	3.6 %
159Tb (KED)	88.413 %	2.1 %
164Dy (KED)	0.104 ppb	2.6 %
166Er (KED)	0.051 ppb	1.8 %
169Tm (KED)	0.007 ppb	5.5 %
174Yb (KED)	0.043 ppb	5.4 %
175Lu (KED)	-0.096 ppb	6.0 %
205Tl (KED)	0.018 ppb	5.7 %
208Pb (KED)	1.412 ppb	0.9 %
209Bi (KED)	73.815 %	1.0 %
232Th (KED)	0.361 ppb	1.6 %
238U (KED)	0.163 ppb	2.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	122.556 %	2,645 cps	0.8 %
9Be (KED)	0.026 ppb	3 cps	100.0 %
11B (KED)	8.987 ppb	1,358 cps	8.3 %
24Mg (KED)	990.738 ppb	409,573 cps	0.4 %
27Al (KED)	1,229.840 ppb	107,816 cps	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	122.049 %	33,824 cps	1.7 %
51V (KED)	2.386 ppb	15,463 cps	1.7 %
52Cr (KED)	5.914 ppb	61,144 cps	1.7 %
55Mn (KED)	32.580 ppb	150,595 cps	2.1 %
56Fe (KED)	1,240.470 ppb	11,528,437 cps	1.9 %
58Ni (KED)	5.479 ppb	72,483 cps	0.3 %
59Co (KED)	0.541 ppb	11,562 cps	0.9 %
63Cu (KED)	7.689 ppb	106,600 cps	0.5 %
64Zn (KED)	180.387 ppb	604,390 cps	0.7 %
69Ga (KED)	3.571 ppb	14,033 cps	2.5 %
75As (KED)	1.009 ppb	960 cps	4.9 %
80Se (KED)	0.972 ppb	786 cps	5.7 %
85Rb (KED)	3.121 ppb	11,295 cps	3.9 %
88Sr (KED)	14.380 ppb	72,722 cps	2.4 %
89Y (KED)	101.522 %	295,632 cps	0.4 %
107Ag (KED)	0.051 ppb	2,046 cps	0.6 %
114Cd (KED)	0.038 ppb	662 cps	9.5 %
115In (KED)	89.462 %	545,239 cps	2.4 %
133Cs (KED)	0.249 ppb	4,710 cps	3.3 %
138Ba (KED)	11.905 ppb	326,395 cps	2.0 %
139La (KED)	0.968 ppb	57,565 cps	2.3 %
140Ce (KED)	2.001 ppb	166,211 cps	1.2 %
141Pr (KED)	0.226 ppb	18,983 cps	1.1 %
142Nd (KED)	1.218 ppb	42,243 cps	2.3 %
152Sm (KED)	0.160 ppb	5,357 cps	2.5 %
153Eu (KED)	0.033 ppb	2,145 cps	0.5 %
158Gd (KED)	0.148 ppb	7,264 cps	5.6 %
159Tb (KED)	88.413 %	3,488,780 cps	2.1 %
164Dy (KED)	0.104 ppb	5,632 cps	1.2 %
166Er (KED)	0.051 ppb	3,728 cps	2.5 %
169Tm (KED)	0.007 ppb	1,537 cps	3.2 %
174Yb (KED)	0.043 ppb	3,480 cps	4.2 %
175Lu (KED)	-0.096 ppb	16,360 cps	2.1 %
205Tl (KED)	0.018 ppb	2,646 cps	4.7 %
208Pb (KED)	1.412 ppb	169,469 cps	0.4 %
209Bi (KED)	73.815 %	2,969,825 cps	1.0 %
232Th (KED)	0.361 ppb	73,300 cps	1.5 %
238U (KED)	0.163 ppb	39,474 cps	2.3 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 25

Analysis name: 9424jian

Analysis started at: 9/8/2021 4:58:53 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	129.354 %	2.5 %
9Be (KED)	0.073 ppb	31.0 %
11B (KED)	20.893 ppb	7.3 %
24Mg (KED)	1,566.046 ppb	1.7 %
27Al (KED)	1,780.274 ppb	2.8 %
45Sc (KED)	124.490 %	1.5 %
51V (KED)	3.289 ppb	1.9 %
52Cr (KED)	5.688 ppb	1.7 %
55Mn (KED)	38.939 ppb	2.3 %
56Fe (KED)	1,666.147 ppb	1.9 %
58Ni (KED)	7.137 ppb	1.7 %
59Co (KED)	0.737 ppb	3.3 %
63Cu (KED)	6.665 ppb	0.9 %
64Zn (KED)	172.610 ppb	1.3 %
69Ga (KED)	6.433 ppb	2.2 %
75As (KED)	1.424 ppb	6.8 %
80Se (KED)	0.649 ppb	30.5 %
85Rb (KED)	4.708 ppb	2.0 %
88Sr (KED)	21.199 ppb	1.4 %
89Y (KED)	104.816 %	1.2 %
107Ag (KED)	0.078 ppb	5.0 %
114Cd (KED)	0.057 ppb	5.8 %
115In (KED)	88.567 %	0.8 %
133Cs (KED)	0.357 ppb	1.5 %
138Ba (KED)	22.040 ppb	1.1 %
139La (KED)	1.381 ppb	2.0 %
140Ce (KED)	2.881 ppb	1.9 %
141Pr (KED)	0.306 ppb	1.2 %
142Nd (KED)	1.706 ppb	0.9 %
152Sm (KED)	0.223 ppb	2.3 %
153Eu (KED)	0.045 ppb	6.0 %
158Gd (KED)	0.203 ppb	1.1 %
159Tb (KED)	89.329 %	1.2 %
164Dy (KED)	0.143 ppb	0.4 %
166Er (KED)	0.068 ppb	4.1 %
169Tm (KED)	0.009 ppb	3.1 %
174Yb (KED)	0.058 ppb	3.5 %
175Lu (KED)	-0.092 ppb	2.3 %
205Tl (KED)	0.026 ppb	2.8 %
208Pb (KED)	1.788 ppb	2.8 %
209Bi (KED)	71.567 %	1.1 %
232Th (KED)	0.522 ppb	0.7 %
238U (KED)	0.230 ppb	3.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	129.354 %	2,791 cps	2.5 %
9Be (KED)	0.073 ppb	10 cps	33.3 %
11B (KED)	20.893 ppb	2,186 cps	3.5 %
24Mg (KED)	1,566.046 ppb	682,876 cps	0.8 %
27Al (KED)	1,780.274 ppb	159,162 cps	1.6 %

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	124.490 %	34,500 cps	1.5 %
51V (KED)	3.289 ppb	21,739 cps	1.9 %
52Cr (KED)	5.688 ppb	59,995 cps	1.7 %
55Mn (KED)	38.939 ppb	183,551 cps	2.6 %
56Fe (KED)	1,666.147 ppb	15,794,062 cps	1.4 %
58Ni (KED)	7.137 ppb	95,736 cps	1.6 %
59Co (KED)	0.737 ppb	15,984 cps	4.0 %
63Cu (KED)	6.665 ppb	95,608 cps	1.5 %
64Zn (KED)	172.610 ppb	597,133 cps	0.6 %
69Ga (KED)	6.433 ppb	26,039 cps	3.3 %
75As (KED)	1.424 ppb	1,396 cps	7.6 %
80Se (KED)	0.649 ppb	723 cps	8.2 %
85Rb (KED)	4.708 ppb	17,562 cps	3.1 %
88Sr (KED)	21.199 ppb	110,619 cps	1.7 %
89Y (KED)	104.816 %	305,226 cps	1.2 %
107Ag (KED)	0.078 ppb	3,126 cps	4.3 %
114Cd (KED)	0.057 ppb	930 cps	4.1 %
115In (KED)	88.567 %	539,781 cps	0.8 %
133Cs (KED)	0.357 ppb	6,668 cps	2.0 %
138Ba (KED)	22.040 ppb	609,072 cps	0.5 %
139La (KED)	1.381 ppb	82,897 cps	2.7 %
140Ce (KED)	2.881 ppb	241,747 cps	1.6 %
141Pr (KED)	0.306 ppb	26,023 cps	0.2 %
142Nd (KED)	1.706 ppb	59,757 cps	1.9 %
152Sm (KED)	0.223 ppb	7,532 cps	1.9 %
153Eu (KED)	0.045 ppb	3,009 cps	5.2 %
158Gd (KED)	0.203 ppb	10,046 cps	0.2 %
159Tb (KED)	89.329 %	3,524,934 cps	1.2 %
164Dy (KED)	0.143 ppb	7,787 cps	1.6 %
166Er (KED)	0.068 ppb	4,904 cps	2.6 %
169Tm (KED)	0.009 ppb	2,074 cps	3.5 %
174Yb (KED)	0.058 ppb	4,741 cps	2.3 %
175Lu (KED)	-0.092 ppb	16,936 cps	2.7 %
205Tl (KED)	0.026 ppb	3,745 cps	2.0 %
208Pb (KED)	1.788 ppb	202,213 cps	1.4 %
209Bi (KED)	71.567 %	2,879,412 cps	1.1 %
232Th (KED)	0.522 ppb	102,545 cps	1.7 %
238U (KED)	0.230 ppb	53,832 cps	2.3 %