

## Instrument Summary:

Instrument ID: iCAP Q  
Serial Number: Undefined

## Labbook Summary:

Path and filename: \_Application Data\Workspace\LabBooks\wlv\20210827-3.imexp  
Labbook created by: Administrator  
Based on template:  
Hardware configuration: iCAPQ1  
Labbook type: eQuant  
Qtegra version (last saved): 2.7.2425.154  
Labbook started: 8/27/2021 4:29:06 PM  
Labbook finished: 8/27/2021 5:41:42 PM

## Method Summary:

Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution	IS
9Be (KED)	KED	0.03	3	0.1	Normal	
11B (KED)	KED	0.03	3	0.1	Normal	
24Mg (KED)	KED	0.03	3	0.1	Normal	
27Al (KED)	KED	0.03	3	0.1	Normal	
51V (KED)	KED	0.03	3	0.1	Normal	
52Cr (KED)	KED	0.03	3	0.1	Normal	
55Mn (KED)	KED	0.03	3	0.1	Normal	
56Fe (KED)	KED	0.03	3	0.1	Normal	
58Ni (KED)	KED	0.03	3	0.1	Normal	
59Co (KED)	KED	0.03	3	0.1	Normal	
63Cu (KED)	KED	0.03	3	0.1	Normal	
64Zn (KED)	KED	0.03	3	0.1	Normal	
69Ga (KED)	KED	0.03	3	0.1	Normal	
75As (KED)	KED	0.03	3	0.1	Normal	
80Se (KED)	KED	0.03	3	0.1	Normal	
85Rb (KED)	KED	0.03	3	0.1	Normal	
88Sr (KED)	KED	0.03	3	0.1	Normal	
107Ag (KED)	KED	0.03	3	0.1	Normal	
114Cd (KED)	KED	0.03	3	0.1	Normal	
133Cs (KED)	KED	0.03	3	0.1	Normal	
138Ba (KED)	KED	0.03	3	0.1	Normal	
139La (KED)	KED	0.03	3	0.1	Normal	
140Ce (KED)	KED	0.03	3	0.1	Normal	
141Pr (KED)	KED	0.03	3	0.1	Normal	
142Nd (KED)	KED	0.03	3	0.1	Normal	
152Sm (KED)	KED	0.03	3	0.1	Normal	
153Eu (KED)	KED	0.03	3	0.1	Normal	
158Gd (KED)	KED	0.03	3	0.1	Normal	
164Dy (KED)	KED	0.03	3	0.1	Normal	
165Ho (KED)	KED	0.03	3	0.1	Normal	
166Er (KED)	KED	0.03	3	0.1	Normal	
169Tm (KED)	KED	0.03	3	0.1	Normal	
174Yb (KED)	KED	0.03	3	0.1	Normal	
175Lu (KED)	KED	0.03	3	0.1	Normal	
205Tl (KED)	KED	0.03	3	0.1	Normal	
208Pb (KED)	KED	0.03	3	0.1	Normal	
232Th (KED)	KED	0.03	3	0.1	Normal	
238U (KED)	KED	0.03	3	0.1	Normal	

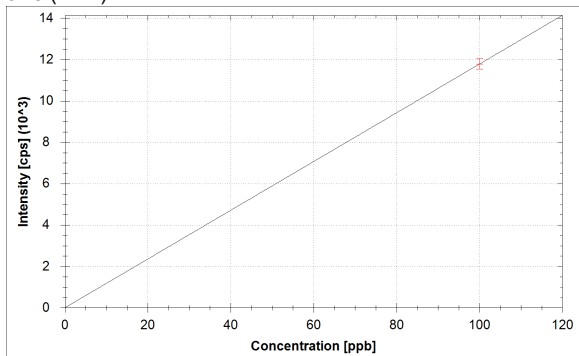
Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution
9Be (KED)	KED	0.03	3	0.1	Normal
11B (KED)	KED	0.03	3	0.1	Normal
24Mg (KED)	KED	0.03	3	0.1	Normal
27Al (KED)	KED	0.03	3	0.1	Normal
51V (KED)	KED	0.03	3	0.1	Normal
52Cr (KED)	KED	0.03	3	0.1	Normal
55Mn (KED)	KED	0.03	3	0.1	Normal
56Fe (KED)	KED	0.03	3	0.1	Normal
58Ni (KED)	KED	0.03	3	0.1	Normal
59Co (KED)	KED	0.03	3	0.1	Normal
63Cu (KED)	KED	0.03	3	0.1	Normal
64Zn (KED)	KED	0.03	3	0.1	Normal
69Ga (KED)	KED	0.03	3	0.1	Normal
75As (KED)	KED	0.03	3	0.1	Normal
80Se (KED)	KED	0.03	3	0.1	Normal
85Rb (KED)	KED	0.03	3	0.1	Normal
88Sr (KED)	KED	0.03	3	0.1	Normal

Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution
107Ag (KED)	KED	0.03	3	0.1	Normal
114Cd (KED)	KED	0.03	3	0.1	Normal
133Cs (KED)	KED	0.03	3	0.1	Normal
138Ba (KED)	KED	0.03	3	0.1	Normal
139La (KED)	KED	0.03	3	0.1	Normal
140Ce (KED)	KED	0.03	3	0.1	Normal
141Pr (KED)	KED	0.03	3	0.1	Normal
142Nd (KED)	KED	0.03	3	0.1	Normal
152Sm (KED)	KED	0.03	3	0.1	Normal
153Eu (KED)	KED	0.03	3	0.1	Normal
158Gd (KED)	KED	0.03	3	0.1	Normal
164Dy (KED)	KED	0.03	3	0.1	Normal
165Ho (KED)	KED	0.03	3	0.1	Normal
166Er (KED)	KED	0.03	3	0.1	Normal
169Tm (KED)	KED	0.03	3	0.1	Normal
174Yb (KED)	KED	0.03	3	0.1	Normal
175Lu (KED)	KED	0.03	3	0.1	Normal
205Tl (KED)	KED	0.03	3	0.1	Normal
208Pb (KED)	KED	0.03	3	0.1	Normal
232Th (KED)	KED	0.03	3	0.1	Normal
238U (KED)	KED	0.03	3	0.1	Normal

No. of sweeps	Time per sweep[s]	Time per main run[s]
10	3.42	34.2

## Calibration Curves:

9Be (KED)



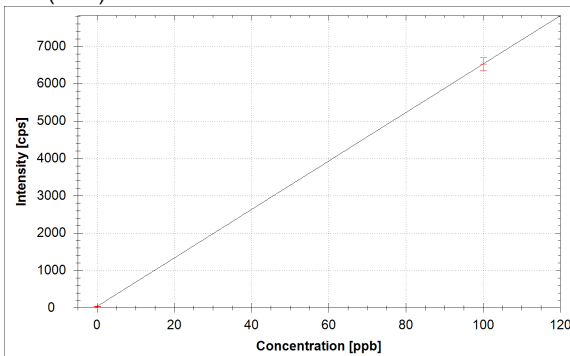
$$f(x) = 117.7890 \cdot x$$

$$R^2 = 1.0000$$

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

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

11B (KED)



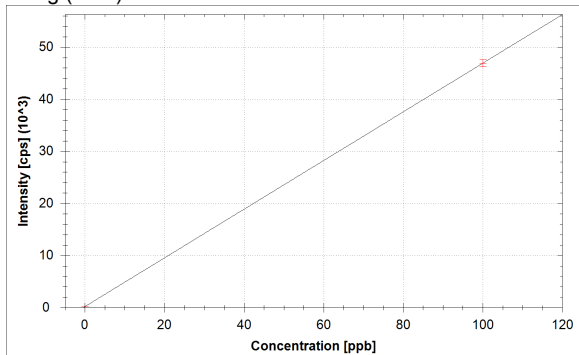
$$f(x) = 64.8727 \cdot x + 36.6668$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.565 \text{ ppb}$$

$$\text{LoD} = 0.3083 \text{ ppb}$$

24Mg (KED)



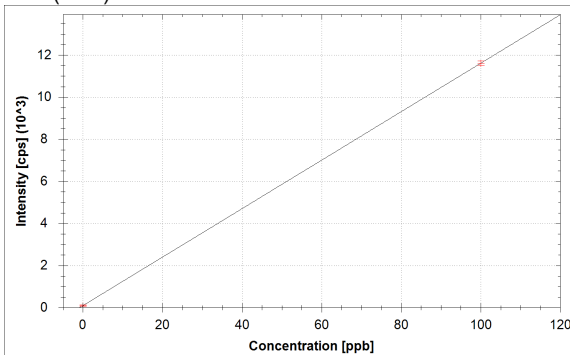
$$f(x) = 467.1582 \cdot x + 186.6683$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.400 \text{ ppb}$$

$$\text{LoD} = 0.0772 \text{ ppb}$$

27Al (KED)



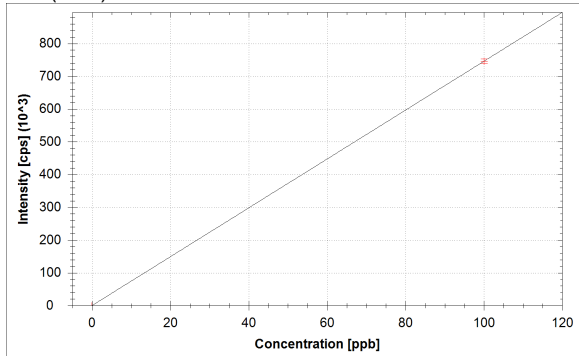
$$f(x) = 115.1763 \cdot x + 91.1117$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.791 \text{ ppb}$$

$$\text{LoD} = 0.8869 \text{ ppb}$$

51V (KED)



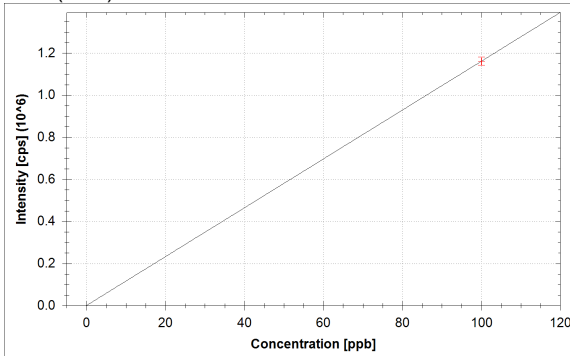
$$f(x) = 7458.4433 \cdot x + 4.4445$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0020 \text{ ppb}$$

52Cr (KED)



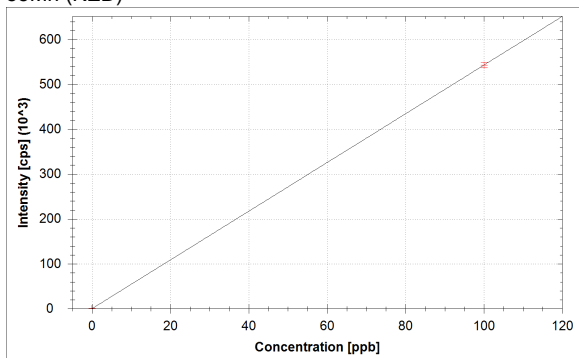
$$f(x) = 11612.0929 \cdot x + 150.0011$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.013 \text{ ppb}$$

$$\text{LoD} = 0.0078 \text{ ppb}$$

55Mn (KED)



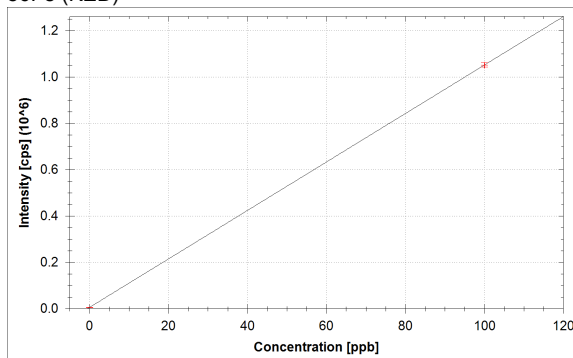
$$f(x) = 5428.8140 \cdot x + 240.0027$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.044 \text{ ppb}$$

$$\text{LoD} = 0.0394 \text{ ppb}$$

56Fe (KED)



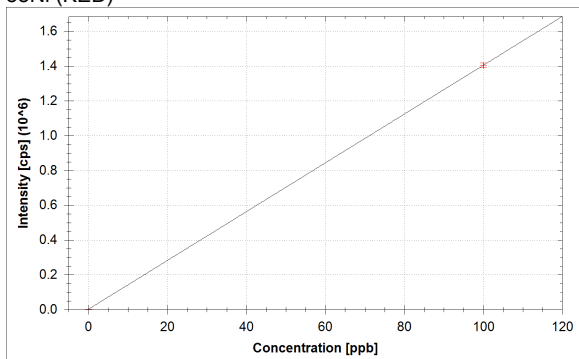
$$f(x) = 10461.0805 \cdot x + 5570.2984$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.532 \text{ ppb}$$

$$\text{LoD} = 0.1972 \text{ ppb}$$

58Ni (KED)



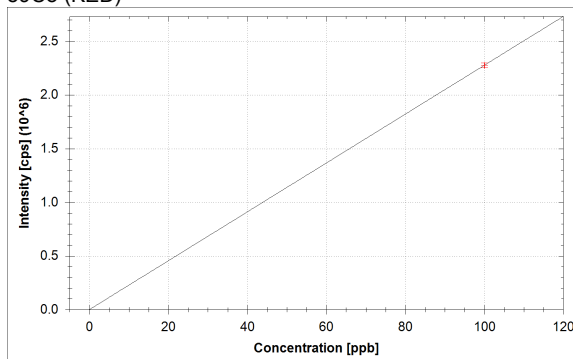
$$f(x) = 14034.1997 \cdot x + 1781.2404$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.127 \text{ ppb}$$

$$\text{LoD} = 0.0089 \text{ ppb}$$

59Co (KED)



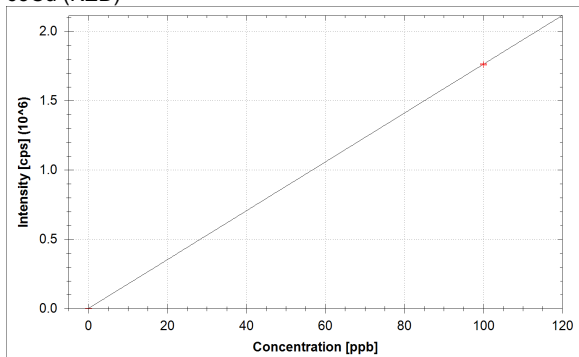
$$f(x) = 22765.1581 \cdot x + 7.7778$$

$$R^2 = 1.0000$$

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

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

63Cu (KED)



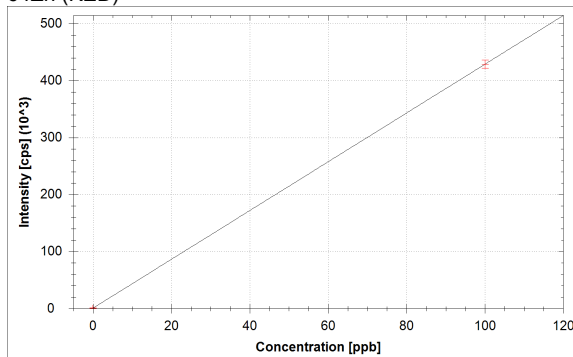
$$f(x) = 17623.9540 \cdot x + 814.4729$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.046 \text{ ppb}$$

$$\text{LoD} = 0.0237 \text{ ppb}$$

64Zn (KED)



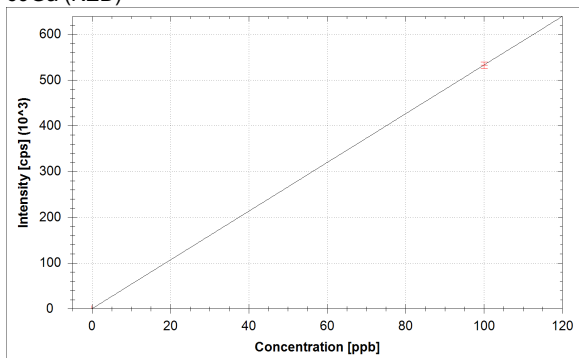
$$f(x) = 4277.8705 \cdot x + 804.4715$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.188 \text{ ppb}$$

$$\text{LoD} = 0.0296 \text{ ppb}$$

69Ga (KED)



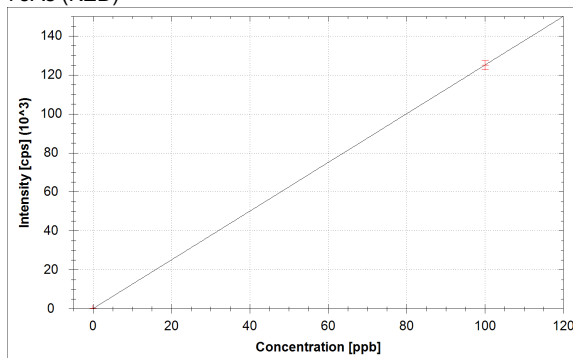
$$f(x) = 5325.4331x + 161.1125$$

$$R^2 = 1.0000$$

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

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

75As (KED)



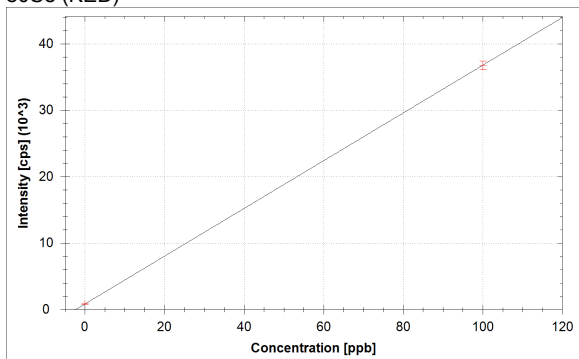
$$f(x) = 1249.7980x + 62.2225$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.050 \text{ ppb}$$

$$\text{LoD} = 0.0514 \text{ ppb}$$

80Se (KED)



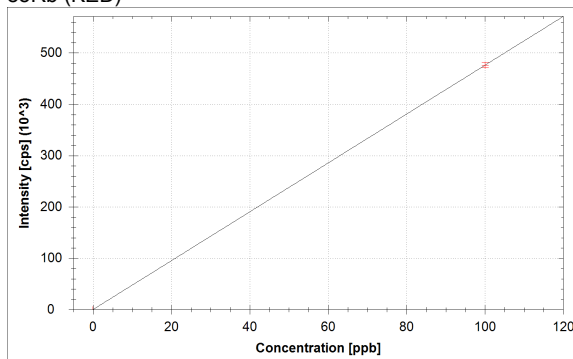
$$f(x) = 359.4636x + 831.1402$$

$$R^2 = 1.0000$$

$$\text{BEC} = 2.312 \text{ ppb}$$

$$\text{LoD} = 0.4025 \text{ ppb}$$

85Rb (KED)



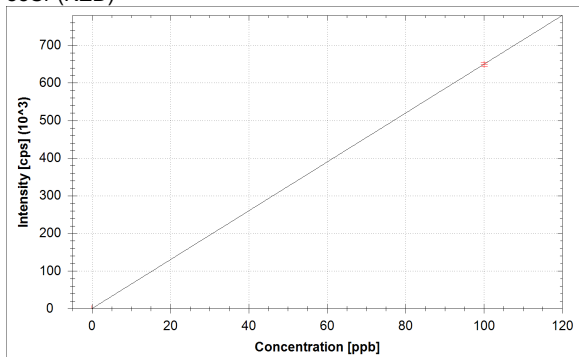
$$f(x) = 4759.4253x + 43.3335$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0073 \text{ ppb}$$

88Sr (KED)



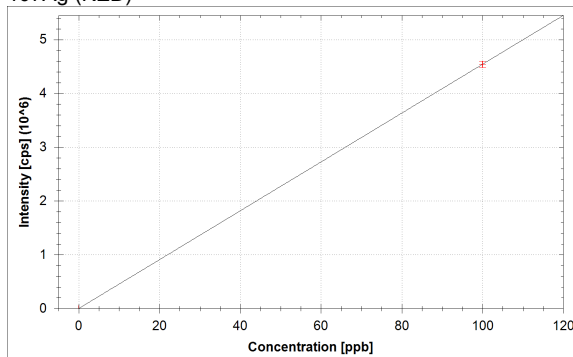
$$f(x) = 6494.1301x + 88.8893$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0105 \text{ ppb}$$

107Ag (KED)



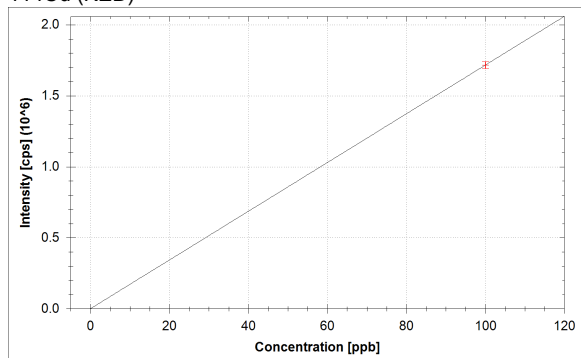
$$f(x) = 45426.4398x + 107.7784$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0018 \text{ ppb}$$

114Cd (KED)



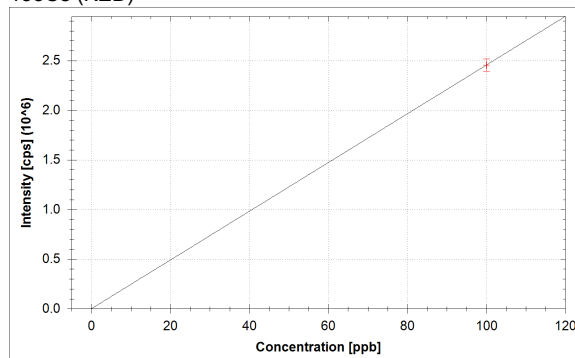
$$f(x) = 17161.2191 \cdot x + 30.0001$$

$$R^2 = 1.0000$$

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

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

133Cs (KED)



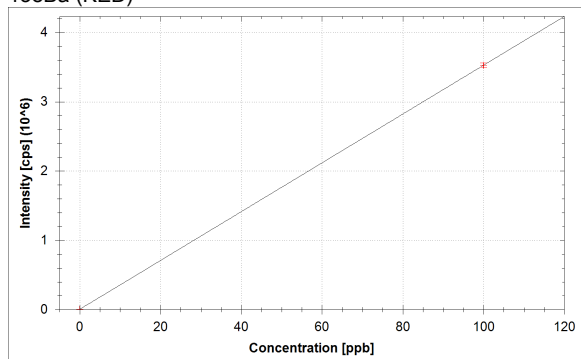
$$f(x) = 24547.3569 \cdot x + 83.3337$$

$$R^2 = 1.0000$$

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

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

138Ba (KED)



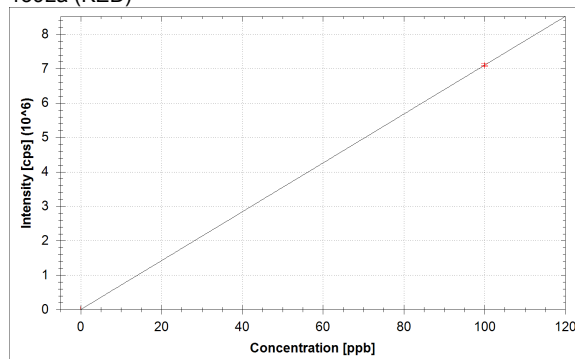
$$f(x) = 35237.7080 \cdot x + 3207.0838$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.091 \text{ ppb}$$

$$\text{LoD} = 0.0047 \text{ ppb}$$

139La (KED)



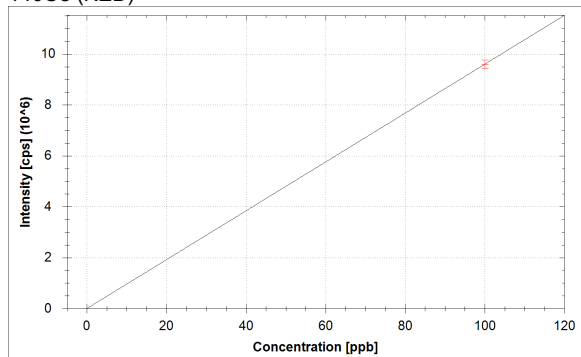
$$f(x) = 70987.1758 \cdot x + 26.6667$$

$$R^2 = 1.0000$$

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

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

140Ce (KED)



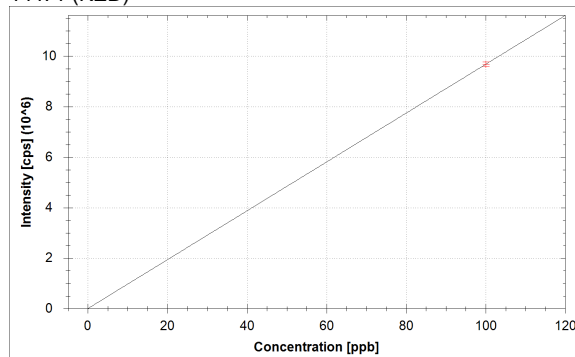
$$f(x) = 95973.1198 \cdot x + 141.1121$$

$$R^2 = 1.0000$$

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

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

141Pr (KED)

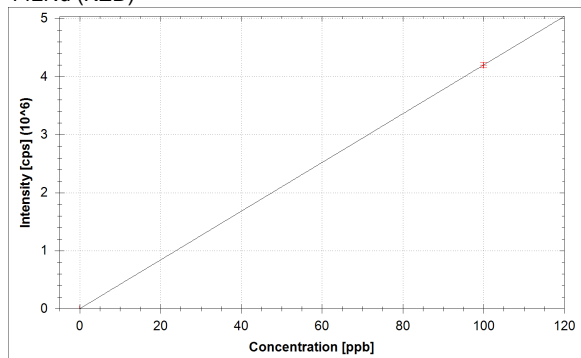


$$f(x) = 96800.4912 \cdot x + 8.8889$$

$$R^2 = 1.0000$$

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

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

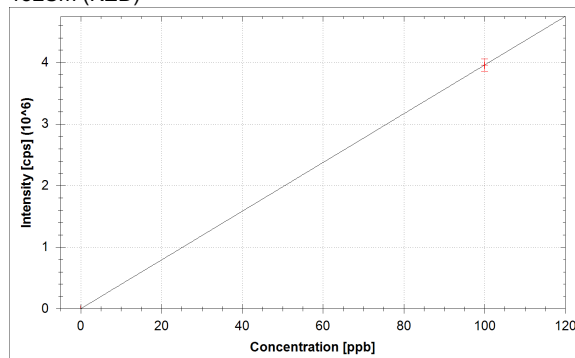
**<sup>142</sup>Nd (KED)**

$$f(x) = 41987.1771 \cdot x + 41.1112$$

$$R^2 = 1.0000$$

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

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

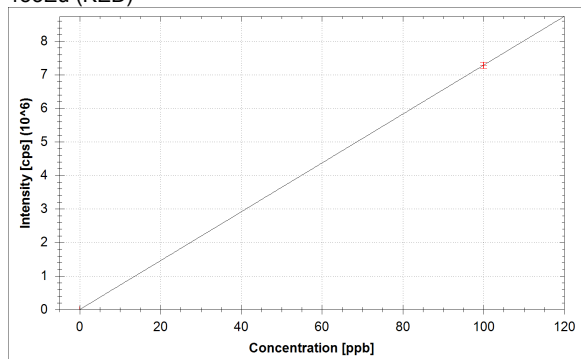
**<sup>152</sup>Sm (KED)**

$$f(x) = 39565.1656 \cdot x + 4.4445$$

$$R^2 = 1.0000$$

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

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

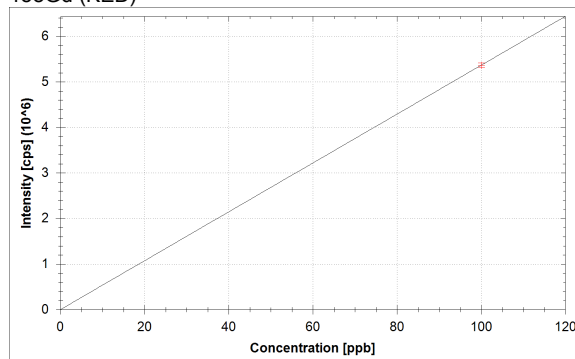
**<sup>153</sup>Eu (KED)**

$$f(x) = 72824.4167 \cdot x + 2.2222$$

$$R^2 = 1.0000$$

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

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

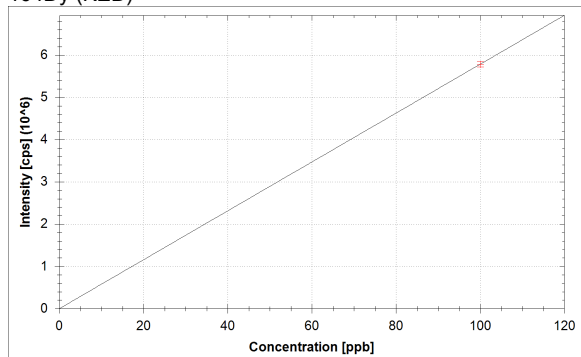
**<sup>158</sup>Gd (KED)**

$$f(x) = 53633.3367 \cdot x$$

$$R^2 = 1.0000$$

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

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

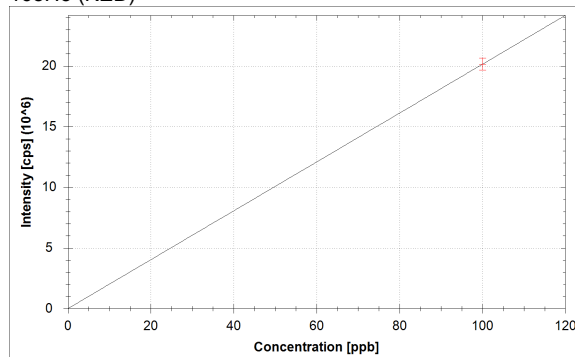
**<sup>164</sup>Dy (KED)**

$$f(x) = 57825.7525 \cdot x$$

$$R^2 = 1.0000$$

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

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

**<sup>165</sup>Ho (KED)**

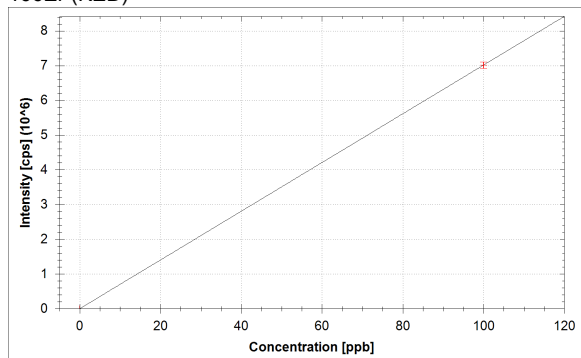
$$f(x) = 201390.2438 \cdot x$$

$$R^2 = 1.0000$$

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

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

166Er (KED)



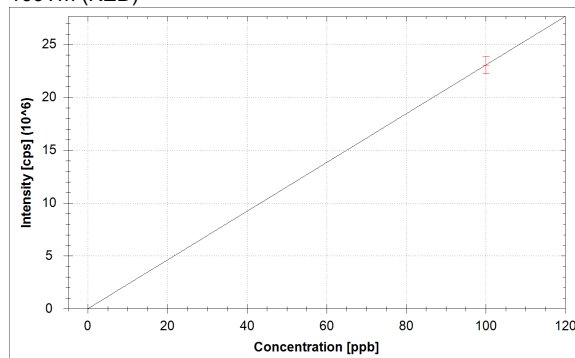
$$f(x) = 70144.0030 \cdot x + 44.4446$$

$$R^2 = 1.0000$$

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

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

169Tm (KED)



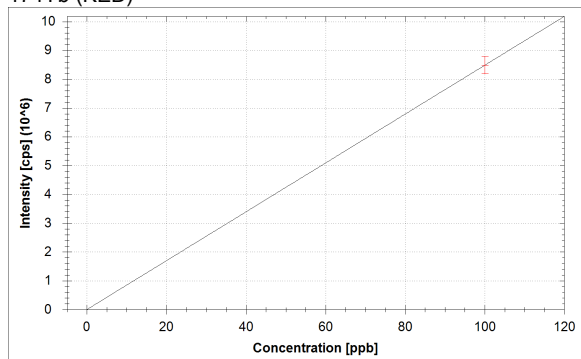
$$f(x) = 230511.5643 \cdot x + 3.3333$$

$$R^2 = 1.0000$$

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

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

174Yb (KED)



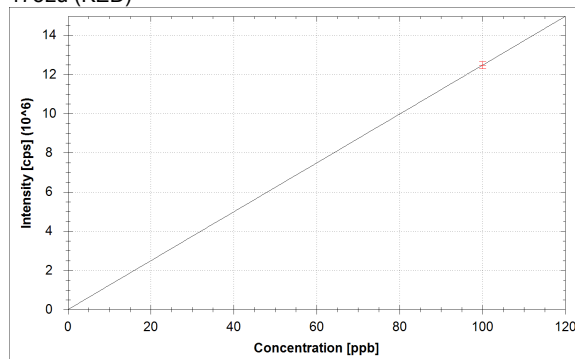
$$f(x) = 84834.6683 \cdot x + 5.5556$$

$$R^2 = 1.0000$$

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

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

175Lu (KED)



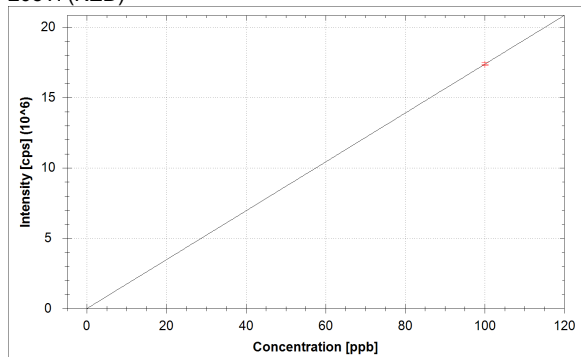
$$f(x) = 124704.1160 \cdot x$$

$$R^2 = 1.0000$$

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

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

205Tl (KED)



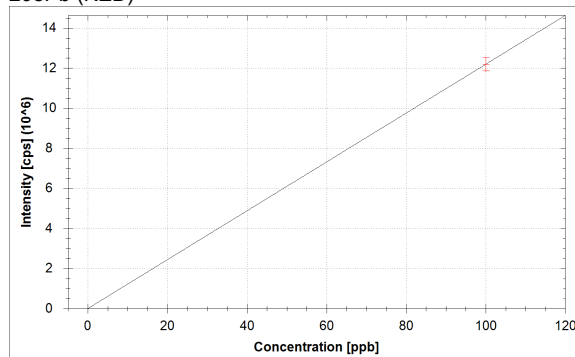
$$f(x) = 173664.5941 \cdot x + 10.0000$$

$$R^2 = 1.0000$$

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

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

208Pb (KED)



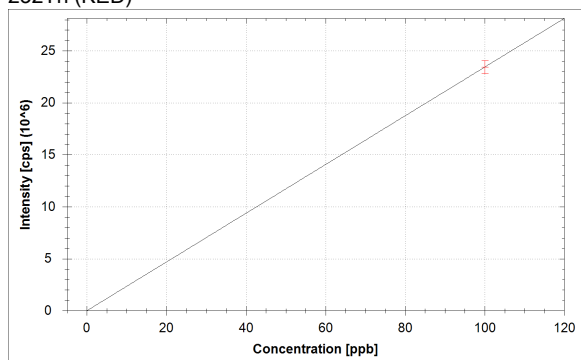
$$f(x) = 121907.5237 \cdot x + 1414.5274$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.012 \text{ ppb}$$

$$\text{LoD} = 0.0023 \text{ ppb}$$

232Th (KED)



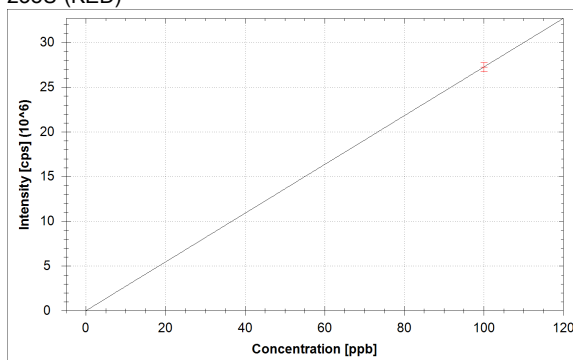
$$f(x) = 234395.1815 \cdot x + 402.2292$$

$$R^2 = 1.0000$$

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

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

238U (KED)



$$f(x) = 272420.7229 \cdot x + 17.7778$$

$$R^2 = 1.0000$$

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

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

**Standards:**

Analysis Index: 3  
 Analysis Name: std1  
 Analysis Type: STD  
 Analysis Started at: 8/27/2021 4:35:07 PM  
 Standard (Stock): std1  
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
9Be (KED)	100.000 ppb	2.1 %	100.000 ppb
11B (KED)	100.000 ppb	2.7 %	100.000 ppb
24Mg (KED)	100.000 ppb	1.5 %	100.000 ppb
27Al (KED)	100.000 ppb	0.9 %	100.000 ppb
51V (KED)	100.000 ppb	0.9 %	100.000 ppb
52Cr (KED)	100.000 ppb	1.7 %	100.000 ppb
55Mn (KED)	100.000 ppb	1.1 %	100.000 ppb
56Fe (KED)	100.000 ppb	0.9 %	100.000 ppb
58Ni (KED)	100.000 ppb	1.0 %	100.000 ppb
59Co (KED)	100.000 ppb	0.9 %	100.000 ppb
63Cu (KED)	100.000 ppb	0.3 %	100.000 ppb
64Zn (KED)	100.000 ppb	1.7 %	100.000 ppb
69Ga (KED)	100.000 ppb	1.3 %	100.000 ppb
75As (KED)	100.000 ppb	1.9 %	100.000 ppb
80Se (KED)	100.000 ppb	1.8 %	100.000 ppb
85Rb (KED)	100.000 ppb	1.0 %	100.000 ppb
88Sr (KED)	100.000 ppb	0.8 %	100.000 ppb
107Ag (KED)	100.000 ppb	1.3 %	100.000 ppb
114Cd (KED)	100.000 ppb	1.4 %	100.000 ppb
133Cs (KED)	100.000 ppb	2.5 %	100.000 ppb
138Ba (KED)	100.000 ppb	0.9 %	100.000 ppb
139La (KED)	100.000 ppb	0.6 %	100.000 ppb
140Ce (KED)	100.000 ppb	1.7 %	100.000 ppb
141Pr (KED)	100.000 ppb	0.9 %	100.000 ppb
142Nd (KED)	100.000 ppb	1.1 %	100.000 ppb
152Sm (KED)	100.000 ppb	2.6 %	100.000 ppb
153Eu (KED)	100.000 ppb	1.3 %	100.000 ppb
158Gd (KED)	100.000 ppb	0.9 %	100.000 ppb
164Dy (KED)	100.000 ppb	1.1 %	100.000 ppb
165Ho (KED)	100.000 ppb	2.4 %	100.000 ppb
166Er (KED)	100.000 ppb	1.2 %	100.000 ppb
169Tm (KED)	100.000 ppb	3.6 %	100.000 ppb
174Yb (KED)	100.000 ppb	3.4 %	100.000 ppb
175Lu (KED)	100.000 ppb	1.4 %	100.000 ppb
205Tl (KED)	100.000 ppb	0.6 %	100.000 ppb
208Pb (KED)	100.000 ppb	2.7 %	100.000 ppb
232Th (KED)	100.000 ppb	2.7 %	100.000 ppb
238U (KED)	100.000 ppb	1.9 %	100.000 ppb

## Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Main Runs:	Survey Runs:	Start Time:	User name:
1	water	3	0	8/27/2021 4:29:10 PM	WINDOWS-UPCI4ER\Administrator
2	blk	3	0	8/27/2021 4:32:07 PM	WINDOWS-UPCI4ER\Administrator
3	std1	3	0	8/27/2021 4:35:07 PM	WINDOWS-UPCI4ER\Administrator
4	1802151jian	3	0	8/27/2021 4:38:13 PM	WINDOWS-UPCI4ER\Administrator
5	1802161jian	3	0	8/27/2021 4:41:23 PM	WINDOWS-UPCI4ER\Administrator
6	18006ti	3	0	8/27/2021 4:44:30 PM	WINDOWS-UPCI4ER\Administrator
7	1801234ti	3	0	8/27/2021 4:47:40 PM	WINDOWS-UPCI4ER\Administrator
8	1802164jian	3	0	8/27/2021 4:50:48 PM	WINDOWS-UPCI4ER\Administrator
9	17010jian	3	0	8/27/2021 4:53:55 PM	WINDOWS-UPCI4ER\Administrator
10	1802039jian	3	0	8/27/2021 4:56:58 PM	WINDOWS-UPCI4ER\Administrator
11	1705003jian	3	0	8/27/2021 4:59:58 PM	WINDOWS-UPCI4ER\Administrator
12	1802110jian	3	0	8/27/2021 5:03:01 PM	WINDOWS-UPCI4ER\Administrator
13	1702069jian	3	0	8/27/2021 5:06:12 PM	WINDOWS-UPCI4ER\Administrator
14	17012jian	3	0	8/27/2021 5:09:30 PM	WINDOWS-UPCI4ER\Administrator
15	1801068jian	3	0	8/27/2021 5:12:44 PM	WINDOWS-UPCI4ER\Administrator
16	18008jian	3	0	8/27/2021 5:16:00 PM	WINDOWS-UPCI4ER\Administrator
17	1701189jian	3	0	8/27/2021 5:19:19 PM	WINDOWS-UPCI4ER\Administrator
18	1701286jian	3	0	8/27/2021 5:22:29 PM	WINDOWS-UPCI4ER\Administrator
19	1701053jian	3	0	8/27/2021 5:25:37 PM	WINDOWS-UPCI4ER\Administrator
20	1702067jian	3	0	8/27/2021 5:28:44 PM	WINDOWS-UPCI4ER\Administrator
21	1801003jian	3	0	8/27/2021 5:31:55 PM	WINDOWS-UPCI4ER\Administrator
22	1705021jian	3	0	8/27/2021 5:35:17 PM	WINDOWS-UPCI4ER\Administrator
23	1802135jian	3	0	8/27/2021 5:38:28 PM	WINDOWS-UPCI4ER\Administrator

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 1

Analysis name: water

Analysis started at: 8/27/2021 4:29:10 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	
11B (KED)	1.439 ppb	14.3 %
24Mg (KED)	1.011 ppb	7.0 %
27Al (KED)	-0.675 ppb	19.6 %
51V (KED)	0.000 ppb	0.0 %
52Cr (KED)	0.031 ppb	23.0 %
55Mn (KED)	-0.010 ppb	27.0 %
56Fe (KED)	-0.481 ppb	0.2 %
58Ni (KED)	0.059 ppb	10.7 %
59Co (KED)	0.004 ppb	19.5 %
63Cu (KED)	-0.038 ppb	5.4 %
64Zn (KED)	-0.154 ppb	1.3 %
69Ga (KED)	-0.026 ppb	3.6 %
75As (KED)	-0.045 ppb	9.0 %
80Se (KED)	0.201 ppb	95.4 %
85Rb (KED)	-0.003 ppb	0.0 %
88Sr (KED)	0.014 ppb	16.9 %
107Ag (KED)	-0.002 ppb	3.2 %
114Cd (KED)	-0.002 ppb	6.7 %
133Cs (KED)	-0.003 ppb	7.5 %
138Ba (KED)	-0.074 ppb	2.3 %
139La (KED)	0.000 ppb	0.0 %
140Ce (KED)	-0.001 ppb	2.8 %
141Pr (KED)	0.000 ppb	0.0 %
142Nd (KED)	-0.001 ppb	0.0 %
152Sm (KED)	0.000 ppb	0.0 %
153Eu (KED)	0.000 ppb	173.2 %
158Gd (KED)	0.000 ppb	
164Dy (KED)	0.000 ppb	
165Ho (KED)	0.000 ppb	
166Er (KED)	-0.001 ppb	4.4 %
169Tm (KED)	0.000 ppb	0.0 %
174Yb (KED)	0.000 ppb	0.0 %
175Lu (KED)	0.000 ppb	
205Tl (KED)	0.000 ppb	173.2 %
208Pb (KED)	-0.011 ppb	0.6 %
232Th (KED)	-0.002 ppb	0.0 %
238U (KED)	0.000 ppb	11.5 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	1.439 ppb	130 cps	10.3 %
24Mg (KED)	1.011 ppb	659 cps	5.0 %
27Al (KED)	-0.675 ppb	13 cps	114.6 %
51V (KED)	0.000 ppb	7 cps	0.0 %
52Cr (KED)	0.031 ppb	512 cps	16.2 %
55Mn (KED)	-0.010 ppb	183 cps	8.3 %
56Fe (KED)	-0.481 ppb	540 cps	2.2 %
58Ni (KED)	0.059 ppb	2,611 cps	3.4 %
59Co (KED)	0.004 ppb	93 cps	17.9 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	-0.038 ppb	146 cps	24.7 %
64Zn (KED)	-0.154 ppb	147 cps	6.0 %
69Ga (KED)	-0.026 ppb	21 cps	24.1 %
75As (KED)	-0.045 ppb	6 cps	91.7 %
80Se (KED)	0.201 ppb	903 cps	7.6 %
85Rb (KED)	-0.003 ppb	30 cps	0.0 %
88Sr (KED)	0.014 ppb	178 cps	8.5 %
107Ag (KED)	-0.002 ppb	3 cps	100.0 %
114Cd (KED)	-0.002 ppb	1 cps	173.2 %
133Cs (KED)	-0.003 ppb	7 cps	86.6 %
138Ba (KED)	-0.074 ppb	589 cps	10.1 %
139La (KED)	0.000 ppb	0 cps	
140Ce (KED)	-0.001 ppb	2 cps	173.2 %
141Pr (KED)	0.000 ppb	0 cps	
142Nd (KED)	-0.001 ppb	0 cps	
152Sm (KED)	0.000 ppb	0 cps	
153Eu (KED)	0.000 ppb	1 cps	173.2 %
158Gd (KED)	0.000 ppb	0 cps	
164Dy (KED)	0.000 ppb	0 cps	
165Ho (KED)	0.000 ppb	0 cps	
166Er (KED)	-0.001 ppb	1 cps	173.2 %
169Tm (KED)	0.000 ppb	0 cps	
174Yb (KED)	0.000 ppb	0 cps	
175Lu (KED)	0.000 ppb	0 cps	
205Tl (KED)	0.000 ppb	13 cps	43.3 %
208Pb (KED)	-0.011 ppb	28 cps	30.2 %
232Th (KED)	-0.002 ppb	7 cps	0.0 %
238U (KED)	0.000 ppb	1 cps	173.2 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 2

Analysis name: blk

Analysis started at: 8/27/2021 4:32:07 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	
11B (KED)	0.000 ppb	18.2 %
24Mg (KED)	0.000 ppb	6.4 %
27Al (KED)	0.000 ppb	37.4 %
51V (KED)	0.000 ppb	114.6 %
52Cr (KED)	0.000 ppb	20.0 %
55Mn (KED)	0.000 ppb	29.7 %
56Fe (KED)	0.000 ppb	12.3 %
58Ni (KED)	0.000 ppb	2.3 %
59Co (KED)	0.000 ppb	49.5 %
63Cu (KED)	0.000 ppb	17.1 %
64Zn (KED)	0.000 ppb	5.2 %
69Ga (KED)	0.000 ppb	10.4 %
75As (KED)	0.000 ppb	34.4 %
80Se (KED)	0.000 ppb	5.8 %
85Rb (KED)	0.000 ppb	26.6 %
88Sr (KED)	0.000 ppb	25.5 %
107Ag (KED)	0.000 ppb	25.0 %
114Cd (KED)	0.000 ppb	11.1 %
133Cs (KED)	0.000 ppb	6.9 %
138Ba (KED)	0.000 ppb	1.7 %
139La (KED)	0.000 ppb	33.1 %
140Ce (KED)	0.000 ppb	13.8 %
141Pr (KED)	0.000 ppb	21.7 %
142Nd (KED)	0.000 ppb	28.5 %
152Sm (KED)	0.000 ppb	86.6 %
153Eu (KED)	0.000 ppb	86.6 %
158Gd (KED)	0.000 ppb	
164Dy (KED)	0.000 ppb	
165Ho (KED)	0.000 ppb	
166Er (KED)	0.000 ppb	17.3 %
169Tm (KED)	0.000 ppb	100.0 %
174Yb (KED)	0.000 ppb	124.9 %
175Lu (KED)	0.000 ppb	
205Tl (KED)	0.000 ppb	57.7 %
208Pb (KED)	0.000 ppb	6.5 %
232Th (KED)	0.000 ppb	11.7 %
238U (KED)	0.000 ppb	47.2 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	0.000 ppb	37 cps	18.2 %
24Mg (KED)	0.000 ppb	187 cps	6.4 %
27Al (KED)	0.000 ppb	91 cps	37.4 %
51V (KED)	0.000 ppb	4 cps	114.6 %
52Cr (KED)	0.000 ppb	150 cps	20.0 %
55Mn (KED)	0.000 ppb	240 cps	29.7 %
56Fe (KED)	0.000 ppb	5,570 cps	12.3 %
58Ni (KED)	0.000 ppb	1,781 cps	2.3 %
59Co (KED)	0.000 ppb	8 cps	49.5 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	0.000 ppb	814 cps	17.1 %
64Zn (KED)	0.000 ppb	804 cps	5.2 %
69Ga (KED)	0.000 ppb	161 cps	10.4 %
75As (KED)	0.000 ppb	62 cps	34.4 %
80Se (KED)	0.000 ppb	831 cps	5.8 %
85Rb (KED)	0.000 ppb	43 cps	26.6 %
88Sr (KED)	0.000 ppb	89 cps	25.5 %
107Ag (KED)	0.000 ppb	108 cps	25.0 %
114Cd (KED)	0.000 ppb	30 cps	11.1 %
133Cs (KED)	0.000 ppb	83 cps	6.9 %
138Ba (KED)	0.000 ppb	3,207 cps	1.7 %
139La (KED)	0.000 ppb	27 cps	33.1 %
140Ce (KED)	0.000 ppb	141 cps	13.8 %
141Pr (KED)	0.000 ppb	9 cps	21.7 %
142Nd (KED)	0.000 ppb	41 cps	28.5 %
152Sm (KED)	0.000 ppb	4 cps	86.6 %
153Eu (KED)	0.000 ppb	2 cps	86.6 %
158Gd (KED)	0.000 ppb	0 cps	
164Dy (KED)	0.000 ppb	0 cps	
165Ho (KED)	0.000 ppb	0 cps	
166Er (KED)	0.000 ppb	44 cps	17.3 %
169Tm (KED)	0.000 ppb	3 cps	100.0 %
174Yb (KED)	0.000 ppb	6 cps	124.9 %
175Lu (KED)	0.000 ppb	0 cps	
205Tl (KED)	0.000 ppb	10 cps	57.7 %
208Pb (KED)	0.000 ppb	1,415 cps	6.5 %
232Th (KED)	0.000 ppb	402 cps	11.7 %
238U (KED)	0.000 ppb	18 cps	47.2 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 3

Analysis name: std1

Analysis started at: 8/27/2021 4:35:07 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	100.000 ppb	2.1 %
11B (KED)	100.000 ppb	2.7 %
24Mg (KED)	100.000 ppb	1.5 %
27Al (KED)	100.000 ppb	0.9 %
51V (KED)	100.000 ppb	0.9 %
52Cr (KED)	100.000 ppb	1.7 %
55Mn (KED)	100.000 ppb	1.1 %
56Fe (KED)	100.000 ppb	0.9 %
58Ni (KED)	100.000 ppb	1.0 %
59Co (KED)	100.000 ppb	0.9 %
63Cu (KED)	100.000 ppb	0.3 %
64Zn (KED)	100.000 ppb	1.7 %
69Ga (KED)	100.000 ppb	1.3 %
75As (KED)	100.000 ppb	1.9 %
80Se (KED)	100.000 ppb	1.8 %
85Rb (KED)	100.000 ppb	1.0 %
88Sr (KED)	100.000 ppb	0.8 %
107Ag (KED)	100.000 ppb	1.3 %
114Cd (KED)	100.000 ppb	1.4 %
133Cs (KED)	100.000 ppb	2.5 %
138Ba (KED)	100.000 ppb	0.9 %
139La (KED)	100.000 ppb	0.6 %
140Ce (KED)	100.000 ppb	1.7 %
141Pr (KED)	100.000 ppb	0.9 %
142Nd (KED)	100.000 ppb	1.1 %
152Sm (KED)	100.000 ppb	2.6 %
153Eu (KED)	100.000 ppb	1.3 %
158Gd (KED)	100.000 ppb	0.9 %
164Dy (KED)	100.000 ppb	1.1 %
165Ho (KED)	100.000 ppb	2.4 %
166Er (KED)	100.000 ppb	1.2 %
169Tm (KED)	100.000 ppb	3.6 %
174Yb (KED)	100.000 ppb	3.4 %
175Lu (KED)	100.000 ppb	1.4 %
205Tl (KED)	100.000 ppb	0.6 %
208Pb (KED)	100.000 ppb	2.7 %
232Th (KED)	100.000 ppb	2.7 %
238U (KED)	100.000 ppb	1.9 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	100.000 ppb	11,779 cps	2.1 %
11B (KED)	100.000 ppb	6,524 cps	2.7 %
24Mg (KED)	100.000 ppb	46,902 cps	1.5 %
27Al (KED)	100.000 ppb	11,609 cps	0.8 %
51V (KED)	100.000 ppb	745,849 cps	0.9 %
52Cr (KED)	100.000 ppb	1,161,359 cps	1.7 %
55Mn (KED)	100.000 ppb	543,121 cps	1.1 %
56Fe (KED)	100.000 ppb	1,051,678 cps	0.9 %
58Ni (KED)	100.000 ppb	1,405,201 cps	1.0 %
59Co (KED)	100.000 ppb	2,276,524 cps	0.9 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	100.000 ppb	1,763,210 cps	0.3 %
64Zn (KED)	100.000 ppb	428,592 cps	1.7 %
69Ga (KED)	100.000 ppb	532,704 cps	1.3 %
75As (KED)	100.000 ppb	125,042 cps	1.9 %
80Se (KED)	100.000 ppb	36,778 cps	1.8 %
85Rb (KED)	100.000 ppb	475,986 cps	1.0 %
88Sr (KED)	100.000 ppb	649,502 cps	0.8 %
107Ag (KED)	100.000 ppb	4,542,752 cps	1.3 %
114Cd (KED)	100.000 ppb	1,716,152 cps	1.4 %
133Cs (KED)	100.000 ppb	2,454,819 cps	2.5 %
138Ba (KED)	100.000 ppb	3,526,978 cps	0.9 %
139La (KED)	100.000 ppb	7,098,744 cps	0.6 %
140Ce (KED)	100.000 ppb	9,597,453 cps	1.7 %
141Pr (KED)	100.000 ppb	9,680,058 cps	0.9 %
142Nd (KED)	100.000 ppb	4,198,759 cps	1.1 %
152Sm (KED)	100.000 ppb	3,956,521 cps	2.6 %
153Eu (KED)	100.000 ppb	7,282,444 cps	1.3 %
158Gd (KED)	100.000 ppb	5,363,334 cps	0.9 %
164Dy (KED)	100.000 ppb	5,782,575 cps	1.1 %
165Ho (KED)	100.000 ppb	20,139,024 cps	2.4 %
166Er (KED)	100.000 ppb	7,014,445 cps	1.2 %
169Tm (KED)	100.000 ppb	23,051,160 cps	3.6 %
174Yb (KED)	100.000 ppb	8,483,472 cps	3.4 %
175Lu (KED)	100.000 ppb	12,470,412 cps	1.4 %
205Tl (KED)	100.000 ppb	17,366,469 cps	0.6 %
208Pb (KED)	100.000 ppb	12,192,167 cps	2.7 %
232Th (KED)	100.000 ppb	23,439,920 cps	2.7 %
238U (KED)	100.000 ppb	27,242,090 cps	1.9 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 4

Analysis name: 1802151jian

Analysis started at: 8/27/2021 4:38:13 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.028 ppb	0.0 %
11B (KED)	3.340 ppb	8.1 %
24Mg (KED)	413.556 ppb	2.6 %
27Al (KED)	439.102 ppb	4.3 %
51V (KED)	0.825 ppb	4.5 %
52Cr (KED)	4.120 ppb	2.6 %
55Mn (KED)	14.643 ppb	0.8 %
56Fe (KED)	423.893 ppb	0.5 %
58Ni (KED)	2.626 ppb	3.0 %
59Co (KED)	0.208 ppb	1.4 %
63Cu (KED)	9.568 ppb	1.2 %
64Zn (KED)	142.986 ppb	1.4 %
69Ga (KED)	2.194 ppb	2.0 %
75As (KED)	0.784 ppb	5.0 %
80Se (KED)	1.852 ppb	7.0 %
85Rb (KED)	2.320 ppb	1.8 %
88Sr (KED)	5.511 ppb	0.9 %
107Ag (KED)	0.115 ppb	3.7 %
114Cd (KED)	0.302 ppb	3.8 %
133Cs (KED)	0.091 ppb	2.6 %
138Ba (KED)	7.983 ppb	2.4 %
139La (KED)	0.455 ppb	3.3 %
140Ce (KED)	0.963 ppb	3.5 %
141Pr (KED)	0.115 ppb	1.8 %
142Nd (KED)	0.580 ppb	1.4 %
152Sm (KED)	0.082 ppb	7.2 %
153Eu (KED)	0.019 ppb	15.4 %
158Gd (KED)	0.072 ppb	7.5 %
164Dy (KED)	0.055 ppb	5.6 %
165Ho (KED)	0.012 ppb	10.2 %
166Er (KED)	0.029 ppb	5.8 %
169Tm (KED)	0.005 ppb	26.9 %
174Yb (KED)	0.023 ppb	5.0 %
175Lu (KED)	0.005 ppb	24.2 %
205Tl (KED)	0.020 ppb	13.6 %
208Pb (KED)	1.437 ppb	1.2 %
232Th (KED)	0.269 ppb	17.9 %
238U (KED)	0.039 ppb	15.0 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.028 ppb	3 cps	0.0 %
11B (KED)	3.340 ppb	253 cps	7.0 %
24Mg (KED)	413.556 ppb	193,383 cps	2.6 %
27Al (KED)	439.102 ppb	50,665 cps	4.3 %
51V (KED)	0.825 ppb	6,159 cps	4.5 %
52Cr (KED)	4.120 ppb	47,992 cps	2.6 %
55Mn (KED)	14.643 ppb	79,734 cps	0.8 %
56Fe (KED)	423.893 ppb	4,439,945 cps	0.5 %
58Ni (KED)	2.626 ppb	38,641 cps	2.8 %
59Co (KED)	0.208 ppb	4,745 cps	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	9.568 ppb	169,447 cps	1.2 %
64Zn (KED)	142.986 ppb	612,482 cps	1.4 %
69Ga (KED)	2.194 ppb	11,843 cps	2.0 %
75As (KED)	0.784 ppb	1,042 cps	4.7 %
80Se (KED)	1.852 ppb	1,497 cps	3.1 %
85Rb (KED)	2.320 ppb	11,086 cps	1.8 %
88Sr (KED)	5.511 ppb	35,879 cps	0.9 %
107Ag (KED)	0.115 ppb	5,320 cps	3.7 %
114Cd (KED)	0.302 ppb	5,206 cps	3.7 %
133Cs (KED)	0.091 ppb	2,306 cps	2.5 %
138Ba (KED)	7.983 ppb	284,494 cps	2.4 %
139La (KED)	0.455 ppb	32,327 cps	3.3 %
140Ce (KED)	0.963 ppb	92,599 cps	3.5 %
141Pr (KED)	0.115 ppb	11,169 cps	1.8 %
142Nd (KED)	0.580 ppb	24,402 cps	1.4 %
152Sm (KED)	0.082 ppb	3,229 cps	7.2 %
153Eu (KED)	0.019 ppb	1,385 cps	15.4 %
158Gd (KED)	0.072 ppb	3,867 cps	7.5 %
164Dy (KED)	0.055 ppb	3,179 cps	5.6 %
165Ho (KED)	0.012 ppb	2,352 cps	10.2 %
166Er (KED)	0.029 ppb	2,088 cps	5.7 %
169Tm (KED)	0.005 ppb	1,219 cps	26.9 %
174Yb (KED)	0.023 ppb	1,958 cps	5.0 %
175Lu (KED)	0.005 ppb	610 cps	24.2 %
205Tl (KED)	0.020 ppb	3,417 cps	13.5 %
208Pb (KED)	1.437 ppb	176,555 cps	1.2 %
232Th (KED)	0.269 ppb	63,377 cps	17.8 %
238U (KED)	0.039 ppb	10,769 cps	15.0 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 5

Analysis name: 1802161jian

Analysis started at: 8/27/2021 4:41:23 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.057 ppb	0.0 %
11B (KED)	8.718 ppb	10.3 %
24Mg (KED)	439.113 ppb	1.0 %
27Al (KED)	461.508 ppb	2.2 %
51V (KED)	0.877 ppb	3.0 %
52Cr (KED)	1.993 ppb	0.6 %
55Mn (KED)	16.329 ppb	0.9 %
56Fe (KED)	430.301 ppb	1.0 %
58Ni (KED)	2.721 ppb	1.1 %
59Co (KED)	0.242 ppb	1.2 %
63Cu (KED)	9.253 ppb	1.0 %
64Zn (KED)	170.529 ppb	1.0 %
69Ga (KED)	2.516 ppb	2.3 %
75As (KED)	0.688 ppb	5.8 %
80Se (KED)	2.900 ppb	6.8 %
85Rb (KED)	2.175 ppb	2.9 %
88Sr (KED)	5.604 ppb	1.4 %
107Ag (KED)	0.116 ppb	3.0 %
114Cd (KED)	0.523 ppb	0.1 %
133Cs (KED)	0.080 ppb	2.4 %
138Ba (KED)	8.321 ppb	2.1 %
139La (KED)	0.386 ppb	1.4 %
140Ce (KED)	0.807 ppb	1.4 %
141Pr (KED)	0.097 ppb	1.2 %
142Nd (KED)	0.493 ppb	1.4 %
152Sm (KED)	0.071 ppb	3.3 %
153Eu (KED)	0.015 ppb	5.6 %
158Gd (KED)	0.061 ppb	2.8 %
164Dy (KED)	0.046 ppb	12.5 %
165Ho (KED)	0.009 ppb	5.0 %
166Er (KED)	0.029 ppb	10.0 %
169Tm (KED)	0.003 ppb	7.8 %
174Yb (KED)	0.020 ppb	1.5 %
175Lu (KED)	0.003 ppb	5.8 %
205Tl (KED)	0.014 ppb	2.9 %
208Pb (KED)	1.075 ppb	2.1 %
232Th (KED)	0.151 ppb	1.8 %
238U (KED)	0.028 ppb	5.1 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.057 ppb	7 cps	0.0 %
11B (KED)	8.718 ppb	602 cps	9.7 %
24Mg (KED)	439.113 ppb	205,322 cps	1.0 %
27Al (KED)	461.508 ppb	53,246 cps	2.2 %
51V (KED)	0.877 ppb	6,547 cps	3.0 %
52Cr (KED)	1.993 ppb	23,297 cps	0.6 %
55Mn (KED)	16.329 ppb	88,886 cps	0.9 %
56Fe (KED)	430.301 ppb	4,506,986 cps	1.0 %
58Ni (KED)	2.721 ppb	39,963 cps	1.0 %
59Co (KED)	0.242 ppb	5,527 cps	1.2 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	9.253 ppb	163,882 cps	1.0 %
64Zn (KED)	170.529 ppb	730,305 cps	1.0 %
69Ga (KED)	2.516 ppb	13,558 cps	2.3 %
75As (KED)	0.688 ppb	922 cps	5.4 %
80Se (KED)	2.900 ppb	1,873 cps	3.8 %
85Rb (KED)	2.175 ppb	10,395 cps	2.9 %
88Sr (KED)	5.604 ppb	36,481 cps	1.4 %
107Ag (KED)	0.116 ppb	5,381 cps	2.9 %
114Cd (KED)	0.523 ppb	9,008 cps	0.1 %
133Cs (KED)	0.080 ppb	2,037 cps	2.3 %
138Ba (KED)	8.321 ppb	296,421 cps	2.0 %
139La (KED)	0.386 ppb	27,450 cps	1.4 %
140Ce (KED)	0.807 ppb	77,582 cps	1.4 %
141Pr (KED)	0.097 ppb	9,397 cps	1.2 %
142Nd (KED)	0.493 ppb	20,733 cps	1.4 %
152Sm (KED)	0.071 ppb	2,797 cps	3.3 %
153Eu (KED)	0.015 ppb	1,090 cps	5.6 %
158Gd (KED)	0.061 ppb	3,293 cps	2.8 %
164Dy (KED)	0.046 ppb	2,631 cps	12.5 %
165Ho (KED)	0.009 ppb	1,857 cps	5.0 %
166Er (KED)	0.029 ppb	2,065 cps	9.7 %
169Tm (KED)	0.003 ppb	794 cps	7.8 %
174Yb (KED)	0.020 ppb	1,682 cps	1.5 %
175Lu (KED)	0.003 ppb	417 cps	5.8 %
205Tl (KED)	0.014 ppb	2,389 cps	2.9 %
208Pb (KED)	1.075 ppb	132,493 cps	2.1 %
232Th (KED)	0.151 ppb	35,884 cps	1.8 %
238U (KED)	0.028 ppb	7,576 cps	5.1 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 6

Analysis name: 18006ti

Analysis started at: 8/27/2021 4:44:30 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.019 ppb	173.2 %
11B (KED)	9.489 ppb	10.7 %
24Mg (KED)	617.434 ppb	2.9 %
27Al (KED)	655.494 ppb	2.9 %
51V (KED)	1.316 ppb	4.2 %
52Cr (KED)	1.780 ppb	0.6 %
55Mn (KED)	19.473 ppb	2.2 %
56Fe (KED)	524.052 ppb	1.1 %
58Ni (KED)	2.504 ppb	2.7 %
59Co (KED)	0.290 ppb	4.4 %
63Cu (KED)	8.637 ppb	2.7 %
64Zn (KED)	175.397 ppb	1.8 %
69Ga (KED)	3.192 ppb	3.6 %
75As (KED)	0.573 ppb	7.2 %
80Se (KED)	2.897 ppb	6.6 %
85Rb (KED)	2.585 ppb	1.7 %
88Sr (KED)	7.084 ppb	2.9 %
107Ag (KED)	0.118 ppb	2.3 %
114Cd (KED)	0.383 ppb	2.5 %
133Cs (KED)	0.106 ppb	0.4 %
138Ba (KED)	10.063 ppb	6.5 %
139La (KED)	0.553 ppb	1.5 %
140Ce (KED)	1.107 ppb	3.4 %
141Pr (KED)	0.135 ppb	3.8 %
142Nd (KED)	0.666 ppb	0.5 %
152Sm (KED)	0.102 ppb	4.4 %
153Eu (KED)	0.023 ppb	8.6 %
158Gd (KED)	0.089 ppb	4.7 %
164Dy (KED)	0.066 ppb	1.9 %
165Ho (KED)	0.012 ppb	5.0 %
166Er (KED)	0.036 ppb	2.9 %
169Tm (KED)	0.004 ppb	2.7 %
174Yb (KED)	0.028 ppb	4.7 %
175Lu (KED)	0.004 ppb	7.9 %
205Tl (KED)	0.009 ppb	7.4 %
208Pb (KED)	0.862 ppb	3.2 %
232Th (KED)	0.173 ppb	3.4 %
238U (KED)	0.034 ppb	37.0 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.019 ppb	2 cps	173.2 %
11B (KED)	9.489 ppb	652 cps	10.1 %
24Mg (KED)	617.434 ppb	288,626 cps	2.9 %
27Al (KED)	655.494 ppb	75,588 cps	2.9 %
51V (KED)	1.316 ppb	9,823 cps	4.2 %
52Cr (KED)	1.780 ppb	20,821 cps	0.6 %
55Mn (KED)	19.473 ppb	105,956 cps	2.2 %
56Fe (KED)	524.052 ppb	5,487,723 cps	1.1 %
58Ni (KED)	2.504 ppb	36,919 cps	2.6 %
59Co (KED)	0.290 ppb	6,610 cps	4.4 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	8.637 ppb	153,033 cps	2.7 %
64Zn (KED)	175.397 ppb	751,128 cps	1.8 %
69Ga (KED)	3.192 ppb	17,162 cps	3.6 %
75As (KED)	0.573 ppb	778 cps	6.6 %
80Se (KED)	2.897 ppb	1,872 cps	3.7 %
85Rb (KED)	2.585 ppb	12,345 cps	1.7 %
88Sr (KED)	7.084 ppb	46,094 cps	2.9 %
107Ag (KED)	0.118 ppb	5,476 cps	2.3 %
114Cd (KED)	0.383 ppb	6,601 cps	2.5 %
133Cs (KED)	0.106 ppb	2,683 cps	0.4 %
138Ba (KED)	10.063 ppb	357,814 cps	6.4 %
139La (KED)	0.553 ppb	39,271 cps	1.5 %
140Ce (KED)	1.107 ppb	106,413 cps	3.4 %
141Pr (KED)	0.135 ppb	13,080 cps	3.8 %
142Nd (KED)	0.666 ppb	27,991 cps	0.5 %
152Sm (KED)	0.102 ppb	4,022 cps	4.4 %
153Eu (KED)	0.023 ppb	1,641 cps	8.6 %
158Gd (KED)	0.089 ppb	4,786 cps	4.7 %
164Dy (KED)	0.066 ppb	3,834 cps	1.9 %
165Ho (KED)	0.012 ppb	2,512 cps	5.0 %
166Er (KED)	0.036 ppb	2,574 cps	2.9 %
169Tm (KED)	0.004 ppb	1,038 cps	2.7 %
174Yb (KED)	0.028 ppb	2,402 cps	4.7 %
175Lu (KED)	0.004 ppb	500 cps	7.9 %
205Tl (KED)	0.009 ppb	1,605 cps	7.4 %
208Pb (KED)	0.862 ppb	106,478 cps	3.2 %
232Th (KED)	0.173 ppb	40,970 cps	3.4 %
238U (KED)	0.034 ppb	9,407 cps	36.9 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 7

Analysis name: 1801234ti

Analysis started at: 8/27/2021 4:47:40 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.019 ppb	86.6 %
11B (KED)	3.186 ppb	28.0 %
24Mg (KED)	570.647 ppb	1.7 %
27Al (KED)	469.026 ppb	0.6 %
51V (KED)	0.875 ppb	1.4 %
52Cr (KED)	1.384 ppb	18.7 %
55Mn (KED)	15.388 ppb	1.2 %
56Fe (KED)	389.484 ppb	1.4 %
58Ni (KED)	2.048 ppb	1.4 %
59Co (KED)	0.551 ppb	105.7 %
63Cu (KED)	14.304 ppb	0.6 %
64Zn (KED)	186.849 ppb	1.0 %
69Ga (KED)	3.082 ppb	1.3 %
75As (KED)	0.467 ppb	5.6 %
80Se (KED)	5.305 ppb	7.5 %
85Rb (KED)	2.544 ppb	1.9 %
88Sr (KED)	6.418 ppb	2.0 %
107Ag (KED)	0.185 ppb	0.3 %
114Cd (KED)	0.758 ppb	0.4 %
133Cs (KED)	0.074 ppb	2.7 %
138Ba (KED)	9.383 ppb	2.5 %
139La (KED)	0.369 ppb	2.0 %
140Ce (KED)	0.743 ppb	1.7 %
141Pr (KED)	0.092 ppb	1.4 %
142Nd (KED)	0.464 ppb	1.3 %
152Sm (KED)	0.067 ppb	3.8 %
153Eu (KED)	0.015 ppb	2.4 %
158Gd (KED)	0.061 ppb	3.9 %
164Dy (KED)	0.045 ppb	9.1 %
165Ho (KED)	0.008 ppb	2.8 %
166Er (KED)	0.027 ppb	1.4 %
169Tm (KED)	0.003 ppb	1.3 %
174Yb (KED)	0.019 ppb	4.1 %
175Lu (KED)	0.003 ppb	26.7 %
205Tl (KED)	0.012 ppb	3.7 %
208Pb (KED)	1.007 ppb	1.5 %
232Th (KED)	0.115 ppb	2.2 %
238U (KED)	0.027 ppb	19.8 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.019 ppb	2 cps	86.6 %
11B (KED)	3.186 ppb	243 cps	23.8 %
24Mg (KED)	570.647 ppb	266,769 cps	1.7 %
27Al (KED)	469.026 ppb	54,112 cps	0.6 %
51V (KED)	0.875 ppb	6,527 cps	1.4 %
52Cr (KED)	1.384 ppb	16,220 cps	18.5 %
55Mn (KED)	15.388 ppb	83,778 cps	1.1 %
56Fe (KED)	389.484 ppb	4,079,996 cps	1.4 %
58Ni (KED)	2.048 ppb	30,524 cps	1.3 %
59Co (KED)	0.551 ppb	12,541 cps	105.7 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	14.304 ppb	252,905 cps	0.6 %
64Zn (KED)	186.849 ppb	800,119 cps	1.0 %
69Ga (KED)	3.082 ppb	16,574 cps	1.3 %
75As (KED)	0.467 ppb	646 cps	5.1 %
80Se (KED)	5.305 ppb	2,738 cps	5.2 %
85Rb (KED)	2.544 ppb	12,151 cps	1.9 %
88Sr (KED)	6.418 ppb	41,767 cps	2.0 %
107Ag (KED)	0.185 ppb	8,530 cps	0.3 %
114Cd (KED)	0.758 ppb	13,042 cps	0.4 %
133Cs (KED)	0.074 ppb	1,907 cps	2.6 %
138Ba (KED)	9.383 ppb	333,844 cps	2.5 %
139La (KED)	0.369 ppb	26,241 cps	2.0 %
140Ce (KED)	0.743 ppb	71,493 cps	1.7 %
141Pr (KED)	0.092 ppb	8,939 cps	1.4 %
142Nd (KED)	0.464 ppb	19,524 cps	1.3 %
152Sm (KED)	0.067 ppb	2,641 cps	3.7 %
153Eu (KED)	0.015 ppb	1,127 cps	2.4 %
158Gd (KED)	0.061 ppb	3,260 cps	3.9 %
164Dy (KED)	0.045 ppb	2,603 cps	9.1 %
165Ho (KED)	0.008 ppb	1,693 cps	2.8 %
166Er (KED)	0.027 ppb	1,907 cps	1.3 %
169Tm (KED)	0.003 ppb	734 cps	1.3 %
174Yb (KED)	0.019 ppb	1,580 cps	4.1 %
175Lu (KED)	0.003 ppb	329 cps	26.7 %
205Tl (KED)	0.012 ppb	2,060 cps	3.7 %
208Pb (KED)	1.007 ppb	124,196 cps	1.5 %
232Th (KED)	0.115 ppb	27,291 cps	2.2 %
238U (KED)	0.027 ppb	7,472 cps	19.7 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 8

Analysis name: 1802164jian

Analysis started at: 8/27/2021 4:50:48 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	
11B (KED)	3.014 ppb	11.6 %
24Mg (KED)	444.851 ppb	0.7 %
27Al (KED)	465.150 ppb	0.7 %
51V (KED)	0.858 ppb	4.0 %
52Cr (KED)	1.468 ppb	2.2 %
55Mn (KED)	13.144 ppb	1.4 %
56Fe (KED)	407.358 ppb	1.3 %
58Ni (KED)	2.108 ppb	3.3 %
59Co (KED)	0.203 ppb	0.3 %
63Cu (KED)	10.013 ppb	0.7 %
64Zn (KED)	164.841 ppb	0.3 %
69Ga (KED)	2.668 ppb	3.4 %
75As (KED)	0.738 ppb	22.4 %
80Se (KED)	3.503 ppb	6.8 %
85Rb (KED)	2.820 ppb	1.2 %
88Sr (KED)	5.385 ppb	2.7 %
107Ag (KED)	0.143 ppb	1.8 %
114Cd (KED)	0.541 ppb	1.9 %
133Cs (KED)	0.084 ppb	1.4 %
138Ba (KED)	8.063 ppb	0.8 %
139La (KED)	0.375 ppb	1.3 %
140Ce (KED)	0.788 ppb	1.9 %
141Pr (KED)	0.091 ppb	0.5 %
142Nd (KED)	0.459 ppb	1.6 %
152Sm (KED)	0.064 ppb	2.2 %
153Eu (KED)	0.015 ppb	1.2 %
158Gd (KED)	0.058 ppb	3.2 %
164Dy (KED)	0.045 ppb	4.2 %
165Ho (KED)	0.008 ppb	1.9 %
166Er (KED)	0.023 ppb	2.2 %
169Tm (KED)	0.003 ppb	11.9 %
174Yb (KED)	0.019 ppb	3.9 %
175Lu (KED)	0.003 ppb	4.3 %
205Tl (KED)	0.012 ppb	8.4 %
208Pb (KED)	1.132 ppb	1.0 %
232Th (KED)	0.111 ppb	3.3 %
238U (KED)	0.022 ppb	4.6 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	3.014 ppb	232 cps	9.8 %
24Mg (KED)	444.851 ppb	208,002 cps	0.7 %
27Al (KED)	465.150 ppb	53,665 cps	0.7 %
51V (KED)	0.858 ppb	6,406 cps	4.0 %
52Cr (KED)	1.468 ppb	17,200 cps	2.1 %
55Mn (KED)	13.144 ppb	71,597 cps	1.4 %
56Fe (KED)	407.358 ppb	4,266,974 cps	1.3 %
58Ni (KED)	2.108 ppb	31,369 cps	3.1 %
59Co (KED)	0.203 ppb	4,629 cps	0.3 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	10.013 ppb	177,289 cps	0.7 %
64Zn (KED)	164.841 ppb	705,974 cps	0.3 %
69Ga (KED)	2.668 ppb	14,367 cps	3.3 %
75As (KED)	0.738 ppb	985 cps	21.0 %
80Se (KED)	3.503 ppb	2,090 cps	4.1 %
85Rb (KED)	2.820 ppb	13,467 cps	1.2 %
88Sr (KED)	5.385 ppb	35,061 cps	2.7 %
107Ag (KED)	0.143 ppb	6,611 cps	1.7 %
114Cd (KED)	0.541 ppb	9,311 cps	1.9 %
133Cs (KED)	0.084 ppb	2,147 cps	1.4 %
138Ba (KED)	8.063 ppb	287,338 cps	0.8 %
139La (KED)	0.375 ppb	26,655 cps	1.3 %
140Ce (KED)	0.788 ppb	75,791 cps	1.9 %
141Pr (KED)	0.091 ppb	8,771 cps	0.5 %
142Nd (KED)	0.459 ppb	19,312 cps	1.6 %
152Sm (KED)	0.064 ppb	2,525 cps	2.2 %
153Eu (KED)	0.015 ppb	1,087 cps	1.2 %
158Gd (KED)	0.058 ppb	3,112 cps	3.2 %
164Dy (KED)	0.045 ppb	2,577 cps	4.2 %
165Ho (KED)	0.008 ppb	1,605 cps	1.9 %
166Er (KED)	0.023 ppb	1,689 cps	2.1 %
169Tm (KED)	0.003 ppb	787 cps	11.8 %
174Yb (KED)	0.019 ppb	1,606 cps	3.9 %
175Lu (KED)	0.003 ppb	357 cps	4.3 %
205Tl (KED)	0.012 ppb	2,037 cps	8.4 %
208Pb (KED)	1.132 ppb	139,421 cps	1.0 %
232Th (KED)	0.111 ppb	26,397 cps	3.3 %
238U (KED)	0.022 ppb	6,085 cps	4.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 9

Analysis name: 17010jian

Analysis started at: 8/27/2021 4:53:55 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	
11B (KED)	4.607 ppb	10.1 %
24Mg (KED)	516.018 ppb	1.5 %
27Al (KED)	423.653 ppb	1.5 %
51V (KED)	0.833 ppb	3.3 %
52Cr (KED)	1.693 ppb	4.2 %
55Mn (KED)	14.364 ppb	0.9 %
56Fe (KED)	360.184 ppb	0.6 %
58Ni (KED)	2.093 ppb	2.5 %
59Co (KED)	0.193 ppb	1.1 %
63Cu (KED)	8.052 ppb	2.1 %
64Zn (KED)	167.024 ppb	0.9 %
69Ga (KED)	2.441 ppb	2.0 %
75As (KED)	0.621 ppb	4.9 %
80Se (KED)	3.728 ppb	1.5 %
85Rb (KED)	2.933 ppb	1.0 %
88Sr (KED)	6.218 ppb	2.1 %
107Ag (KED)	0.132 ppb	4.9 %
114Cd (KED)	0.476 ppb	3.4 %
133Cs (KED)	0.065 ppb	9.9 %
138Ba (KED)	7.516 ppb	3.2 %
139La (KED)	0.354 ppb	3.5 %
140Ce (KED)	0.696 ppb	1.6 %
141Pr (KED)	0.080 ppb	4.1 %
142Nd (KED)	0.424 ppb	2.9 %
152Sm (KED)	0.058 ppb	6.9 %
153Eu (KED)	0.013 ppb	4.7 %
158Gd (KED)	0.053 ppb	2.8 %
164Dy (KED)	0.038 ppb	2.4 %
165Ho (KED)	0.008 ppb	3.1 %
166Er (KED)	0.022 ppb	1.2 %
169Tm (KED)	0.003 ppb	3.3 %
174Yb (KED)	0.017 ppb	3.7 %
175Lu (KED)	0.002 ppb	2.3 %
205Tl (KED)	0.007 ppb	8.9 %
208Pb (KED)	0.727 ppb	3.0 %
232Th (KED)	0.104 ppb	9.2 %
238U (KED)	0.022 ppb	7.3 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	4.607 ppb	336 cps	9.0 %
24Mg (KED)	516.018 ppb	241,249 cps	1.5 %
27Al (KED)	423.653 ppb	48,886 cps	1.5 %
51V (KED)	0.833 ppb	6,220 cps	3.3 %
52Cr (KED)	1.693 ppb	19,808 cps	4.2 %
55Mn (KED)	14.364 ppb	78,219 cps	0.9 %
56Fe (KED)	360.184 ppb	3,773,484 cps	0.6 %
58Ni (KED)	2.093 ppb	31,156 cps	2.3 %
59Co (KED)	0.193 ppb	4,402 cps	1.1 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	8.052 ppb	142,727 cps	2.1 %
64Zn (KED)	167.024 ppb	715,311 cps	0.9 %
69Ga (KED)	2.441 ppb	13,160 cps	2.0 %
75As (KED)	0.621 ppb	838 cps	4.5 %
80Se (KED)	3.728 ppb	2,171 cps	0.9 %
85Rb (KED)	2.933 ppb	14,005 cps	1.0 %
88Sr (KED)	6.218 ppb	40,472 cps	2.1 %
107Ag (KED)	0.132 ppb	6,110 cps	4.9 %
114Cd (KED)	0.476 ppb	8,190 cps	3.4 %
133Cs (KED)	0.065 ppb	1,690 cps	9.4 %
138Ba (KED)	7.516 ppb	268,068 cps	3.1 %
139La (KED)	0.354 ppb	25,136 cps	3.5 %
140Ce (KED)	0.696 ppb	66,905 cps	1.6 %
141Pr (KED)	0.080 ppb	7,725 cps	4.1 %
142Nd (KED)	0.424 ppb	17,848 cps	2.9 %
152Sm (KED)	0.058 ppb	2,307 cps	6.9 %
153Eu (KED)	0.013 ppb	950 cps	4.6 %
158Gd (KED)	0.053 ppb	2,826 cps	2.8 %
164Dy (KED)	0.038 ppb	2,202 cps	2.4 %
165Ho (KED)	0.008 ppb	1,521 cps	3.1 %
166Er (KED)	0.022 ppb	1,611 cps	1.2 %
169Tm (KED)	0.003 ppb	601 cps	3.2 %
174Yb (KED)	0.017 ppb	1,427 cps	3.7 %
175Lu (KED)	0.002 ppb	304 cps	2.3 %
205Tl (KED)	0.007 ppb	1,235 cps	8.8 %
208Pb (KED)	0.727 ppb	90,059 cps	3.0 %
232Th (KED)	0.104 ppb	24,809 cps	9.0 %
238U (KED)	0.022 ppb	5,889 cps	7.3 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 10

Analysis name: 1802039jian

Analysis started at: 8/27/2021 4:56:58 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.009 ppb	173.2 %
11B (KED)	12.456 ppb	105.7 %
24Mg (KED)	545.823 ppb	1.1 %
27Al (KED)	610.095 ppb	2.0 %
51V (KED)	1.087 ppb	2.1 %
52Cr (KED)	1.254 ppb	4.3 %
55Mn (KED)	16.843 ppb	2.2 %
56Fe (KED)	511.388 ppb	1.3 %
58Ni (KED)	2.530 ppb	1.8 %
59Co (KED)	1.021 ppb	100.1 %
63Cu (KED)	13.553 ppb	0.4 %
64Zn (KED)	168.001 ppb	1.7 %
69Ga (KED)	3.752 ppb	0.7 %
75As (KED)	0.600 ppb	4.4 %
80Se (KED)	4.455 ppb	6.3 %
85Rb (KED)	3.207 ppb	2.2 %
88Sr (KED)	5.915 ppb	3.1 %
107Ag (KED)	0.095 ppb	2.2 %
114Cd (KED)	0.666 ppb	1.4 %
133Cs (KED)	0.103 ppb	7.8 %
138Ba (KED)	11.491 ppb	4.0 %
139La (KED)	0.515 ppb	4.7 %
140Ce (KED)	1.068 ppb	0.7 %
141Pr (KED)	0.127 ppb	2.7 %
142Nd (KED)	0.657 ppb	3.2 %
152Sm (KED)	0.090 ppb	2.2 %
153Eu (KED)	0.021 ppb	6.4 %
158Gd (KED)	0.083 ppb	2.8 %
164Dy (KED)	0.062 ppb	13.5 %
165Ho (KED)	0.011 ppb	5.4 %
166Er (KED)	0.032 ppb	1.6 %
169Tm (KED)	0.004 ppb	0.2 %
174Yb (KED)	0.025 ppb	2.0 %
175Lu (KED)	0.004 ppb	9.9 %
205Tl (KED)	0.014 ppb	0.7 %
208Pb (KED)	1.285 ppb	1.0 %
232Th (KED)	0.137 ppb	2.4 %
238U (KED)	0.030 ppb	6.7 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.009 ppb	1 cps	173.2 %
11B (KED)	12.456 ppb	845 cps	101.1 %
24Mg (KED)	545.823 ppb	255,173 cps	1.1 %
27Al (KED)	610.095 ppb	70,360 cps	2.0 %
51V (KED)	1.087 ppb	8,113 cps	2.1 %
52Cr (KED)	1.254 ppb	14,711 cps	4.3 %
55Mn (KED)	16.843 ppb	91,677 cps	2.2 %
56Fe (KED)	511.388 ppb	5,355,237 cps	1.3 %
58Ni (KED)	2.530 ppb	37,281 cps	1.7 %
59Co (KED)	1.021 ppb	23,258 cps	100.0 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	13.553 ppb	239,665 cps	0.4 %
64Zn (KED)	168.001 ppb	719,491 cps	1.7 %
69Ga (KED)	3.752 ppb	20,144 cps	0.7 %
75As (KED)	0.600 ppb	812 cps	4.0 %
80Se (KED)	4.455 ppb	2,432 cps	4.2 %
85Rb (KED)	3.207 ppb	15,308 cps	2.2 %
88Sr (KED)	5.915 ppb	38,499 cps	3.1 %
107Ag (KED)	0.095 ppb	4,429 cps	2.1 %
114Cd (KED)	0.666 ppb	11,461 cps	1.4 %
133Cs (KED)	0.103 ppb	2,604 cps	7.5 %
138Ba (KED)	11.491 ppb	408,115 cps	4.0 %
139La (KED)	0.515 ppb	36,616 cps	4.7 %
140Ce (KED)	1.068 ppb	102,669 cps	0.7 %
141Pr (KED)	0.127 ppb	12,271 cps	2.7 %
142Nd (KED)	0.657 ppb	27,629 cps	3.2 %
152Sm (KED)	0.090 ppb	3,546 cps	2.2 %
153Eu (KED)	0.021 ppb	1,499 cps	6.4 %
158Gd (KED)	0.083 ppb	4,477 cps	2.8 %
164Dy (KED)	0.062 ppb	3,593 cps	13.5 %
165Ho (KED)	0.011 ppb	2,198 cps	5.4 %
166Er (KED)	0.032 ppb	2,288 cps	1.6 %
169Tm (KED)	0.004 ppb	909 cps	0.2 %
174Yb (KED)	0.025 ppb	2,151 cps	2.0 %
175Lu (KED)	0.004 ppb	481 cps	9.9 %
205Tl (KED)	0.014 ppb	2,359 cps	0.7 %
208Pb (KED)	1.285 ppb	158,061 cps	1.0 %
232Th (KED)	0.137 ppb	32,492 cps	2.3 %
238U (KED)	0.030 ppb	8,223 cps	6.7 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 11

Analysis name: 1705003jian

Analysis started at: 8/27/2021 4:59:58 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.019 ppb	173.2 %
11B (KED)	4.419 ppb	6.0 %
24Mg (KED)	646.912 ppb	1.8 %
27Al (KED)	530.411 ppb	2.2 %
51V (KED)	0.936 ppb	2.2 %
52Cr (KED)	2.066 ppb	47.7 %
55Mn (KED)	15.243 ppb	1.3 %
56Fe (KED)	513.505 ppb	2.0 %
58Ni (KED)	2.454 ppb	1.3 %
59Co (KED)	0.503 ppb	78.7 %
63Cu (KED)	14.896 ppb	2.2 %
64Zn (KED)	163.569 ppb	2.3 %
69Ga (KED)	2.404 ppb	1.8 %
75As (KED)	0.456 ppb	10.6 %
80Se (KED)	4.371 ppb	2.5 %
85Rb (KED)	5.163 ppb	4.2 %
88Sr (KED)	6.055 ppb	2.5 %
107Ag (KED)	0.085 ppb	3.6 %
114Cd (KED)	0.541 ppb	4.5 %
133Cs (KED)	0.085 ppb	1.0 %
138Ba (KED)	6.712 ppb	5.8 %
139La (KED)	0.457 ppb	5.5 %
140Ce (KED)	0.909 ppb	3.0 %
141Pr (KED)	0.105 ppb	6.0 %
142Nd (KED)	0.530 ppb	4.0 %
152Sm (KED)	0.069 ppb	9.3 %
153Eu (KED)	0.015 ppb	9.0 %
158Gd (KED)	0.066 ppb	3.1 %
164Dy (KED)	0.046 ppb	2.4 %
165Ho (KED)	0.009 ppb	9.5 %
166Er (KED)	0.024 ppb	4.2 %
169Tm (KED)	0.003 ppb	7.5 %
174Yb (KED)	0.019 ppb	4.5 %
175Lu (KED)	0.003 ppb	6.0 %
205Tl (KED)	0.009 ppb	2.2 %
208Pb (KED)	1.724 ppb	4.8 %
232Th (KED)	0.106 ppb	5.4 %
238U (KED)	0.023 ppb	21.6 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.019 ppb	2 cps	173.2 %
11B (KED)	4.419 ppb	323 cps	5.4 %
24Mg (KED)	646.912 ppb	302,397 cps	1.8 %
27Al (KED)	530.411 ppb	61,182 cps	2.2 %
51V (KED)	0.936 ppb	6,985 cps	2.2 %
52Cr (KED)	2.066 ppb	24,138 cps	47.4 %
55Mn (KED)	15.243 ppb	82,993 cps	1.3 %
56Fe (KED)	513.505 ppb	5,377,387 cps	2.0 %
58Ni (KED)	2.454 ppb	36,227 cps	1.2 %
59Co (KED)	0.503 ppb	11,467 cps	78.7 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	14.896 ppb	263,332 cps	2.2 %
64Zn (KED)	163.569 ppb	700,530 cps	2.3 %
69Ga (KED)	2.404 ppb	12,961 cps	1.8 %
75As (KED)	0.456 ppb	632 cps	9.6 %
80Se (KED)	4.371 ppb	2,402 cps	1.6 %
85Rb (KED)	5.163 ppb	24,614 cps	4.2 %
88Sr (KED)	6.055 ppb	39,412 cps	2.5 %
107Ag (KED)	0.085 ppb	3,973 cps	3.5 %
114Cd (KED)	0.541 ppb	9,318 cps	4.5 %
133Cs (KED)	0.085 ppb	2,171 cps	1.0 %
138Ba (KED)	6.712 ppb	239,734 cps	5.8 %
139La (KED)	0.457 ppb	32,440 cps	5.5 %
140Ce (KED)	0.909 ppb	87,422 cps	3.0 %
141Pr (KED)	0.105 ppb	10,205 cps	6.0 %
142Nd (KED)	0.530 ppb	22,284 cps	4.0 %
152Sm (KED)	0.069 ppb	2,736 cps	9.3 %
153Eu (KED)	0.015 ppb	1,129 cps	9.0 %
158Gd (KED)	0.066 ppb	3,554 cps	3.1 %
164Dy (KED)	0.046 ppb	2,687 cps	2.4 %
165Ho (KED)	0.009 ppb	1,751 cps	9.5 %
166Er (KED)	0.024 ppb	1,700 cps	4.1 %
169Tm (KED)	0.003 ppb	668 cps	7.5 %
174Yb (KED)	0.019 ppb	1,638 cps	4.5 %
175Lu (KED)	0.003 ppb	337 cps	6.0 %
205Tl (KED)	0.009 ppb	1,659 cps	2.1 %
208Pb (KED)	1.724 ppb	211,596 cps	4.8 %
232Th (KED)	0.106 ppb	25,187 cps	5.3 %
238U (KED)	0.023 ppb	6,377 cps	21.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 12

Analysis name: 1802110jian

Analysis started at: 8/27/2021 5:03:01 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.009 ppb	173.2 %
11B (KED)	3.066 ppb	4.8 %
24Mg (KED)	400.585 ppb	2.1 %
27Al (KED)	417.726 ppb	3.2 %
51V (KED)	0.810 ppb	5.0 %
52Cr (KED)	4.872 ppb	0.4 %
55Mn (KED)	14.195 ppb	2.0 %
56Fe (KED)	368.995 ppb	2.7 %
58Ni (KED)	2.769 ppb	1.4 %
59Co (KED)	0.200 ppb	0.7 %
63Cu (KED)	15.455 ppb	1.4 %
64Zn (KED)	181.099 ppb	0.9 %
69Ga (KED)	2.277 ppb	0.6 %
75As (KED)	0.589 ppb	49.7 %
80Se (KED)	2.603 ppb	3.9 %
85Rb (KED)	1.726 ppb	2.0 %
88Sr (KED)	5.474 ppb	2.5 %
107Ag (KED)	0.167 ppb	1.7 %
114Cd (KED)	0.381 ppb	0.6 %
133Cs (KED)	0.060 ppb	4.5 %
138Ba (KED)	6.838 ppb	1.4 %
139La (KED)	0.364 ppb	2.2 %
140Ce (KED)	0.763 ppb	2.3 %
141Pr (KED)	0.085 ppb	0.4 %
142Nd (KED)	0.449 ppb	1.1 %
152Sm (KED)	0.058 ppb	6.2 %
153Eu (KED)	0.013 ppb	3.3 %
158Gd (KED)	0.055 ppb	1.4 %
164Dy (KED)	0.039 ppb	3.0 %
165Ho (KED)	0.008 ppb	4.0 %
166Er (KED)	0.023 ppb	1.4 %
169Tm (KED)	0.003 ppb	4.3 %
174Yb (KED)	0.017 ppb	3.5 %
175Lu (KED)	0.003 ppb	16.2 %
205Tl (KED)	0.007 ppb	6.8 %
208Pb (KED)	1.212 ppb	1.8 %
232Th (KED)	0.097 ppb	7.4 %
238U (KED)	0.025 ppb	4.8 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.009 ppb	1 cps	173.2 %
11B (KED)	3.066 ppb	236 cps	4.1 %
24Mg (KED)	400.585 ppb	187,323 cps	2.1 %
27Al (KED)	417.726 ppb	48,203 cps	3.2 %
51V (KED)	0.810 ppb	6,046 cps	5.0 %
52Cr (KED)	4.872 ppb	56,720 cps	0.4 %
55Mn (KED)	14.195 ppb	77,301 cps	2.0 %
56Fe (KED)	368.995 ppb	3,865,658 cps	2.7 %
58Ni (KED)	2.769 ppb	40,638 cps	1.3 %
59Co (KED)	0.200 ppb	4,566 cps	0.7 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	15.455 ppb	273,184 cps	1.4 %
64Zn (KED)	181.099 ppb	775,521 cps	0.9 %
69Ga (KED)	2.277 ppb	12,286 cps	0.6 %
75As (KED)	0.589 ppb	798 cps	45.8 %
80Se (KED)	2.603 ppb	1,767 cps	2.0 %
85Rb (KED)	1.726 ppb	8,257 cps	2.0 %
88Sr (KED)	5.474 ppb	35,635 cps	2.5 %
107Ag (KED)	0.167 ppb	7,706 cps	1.6 %
114Cd (KED)	0.381 ppb	6,573 cps	0.6 %
133Cs (KED)	0.060 ppb	1,567 cps	4.3 %
138Ba (KED)	6.838 ppb	244,156 cps	1.4 %
139La (KED)	0.364 ppb	25,846 cps	2.2 %
140Ce (KED)	0.763 ppb	73,350 cps	2.3 %
141Pr (KED)	0.085 ppb	8,262 cps	0.4 %
142Nd (KED)	0.449 ppb	18,897 cps	1.1 %
152Sm (KED)	0.058 ppb	2,314 cps	6.2 %
153Eu (KED)	0.013 ppb	934 cps	3.3 %
158Gd (KED)	0.055 ppb	2,936 cps	1.4 %
164Dy (KED)	0.039 ppb	2,230 cps	3.0 %
165Ho (KED)	0.008 ppb	1,515 cps	4.0 %
166Er (KED)	0.023 ppb	1,687 cps	1.4 %
169Tm (KED)	0.003 ppb	604 cps	4.3 %
174Yb (KED)	0.017 ppb	1,409 cps	3.4 %
175Lu (KED)	0.003 ppb	314 cps	16.2 %
205Tl (KED)	0.007 ppb	1,300 cps	6.7 %
208Pb (KED)	1.212 ppb	149,213 cps	1.8 %
232Th (KED)	0.097 ppb	23,198 cps	7.2 %
238U (KED)	0.025 ppb	6,728 cps	4.7 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 13

Analysis name: 1702069jian

Analysis started at: 8/27/2021 5:06:12 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	
11B (KED)	2.621 ppb	21.2 %
24Mg (KED)	514.637 ppb	2.0 %
27Al (KED)	416.089 ppb	2.0 %
51V (KED)	0.744 ppb	1.4 %
52Cr (KED)	2.552 ppb	8.3 %
55Mn (KED)	12.338 ppb	1.3 %
56Fe (KED)	366.464 ppb	1.4 %
58Ni (KED)	2.052 ppb	2.5 %
59Co (KED)	0.185 ppb	1.0 %
63Cu (KED)	11.813 ppb	1.5 %
64Zn (KED)	164.820 ppb	2.6 %
69Ga (KED)	2.133 ppb	2.4 %
75As (KED)	0.665 ppb	4.0 %
80Se (KED)	3.196 ppb	4.7 %
85Rb (KED)	3.103 ppb	1.0 %
88Sr (KED)	5.218 ppb	0.7 %
107Ag (KED)	0.073 ppb	5.8 %
114Cd (KED)	0.459 ppb	3.1 %
133Cs (KED)	0.064 ppb	1.0 %
138Ba (KED)	6.771 ppb	2.2 %
139La (KED)	0.332 ppb	3.1 %
140Ce (KED)	0.690 ppb	5.1 %
141Pr (KED)	0.080 ppb	0.9 %
142Nd (KED)	0.414 ppb	2.1 %
152Sm (KED)	0.055 ppb	3.0 %
153Eu (KED)	0.012 ppb	2.3 %
158Gd (KED)	0.051 ppb	2.3 %
164Dy (KED)	0.039 ppb	1.9 %
165Ho (KED)	0.008 ppb	3.3 %
166Er (KED)	0.022 ppb	7.3 %
169Tm (KED)	0.003 ppb	12.6 %
174Yb (KED)	0.017 ppb	1.6 %
175Lu (KED)	0.003 ppb	9.5 %
205Tl (KED)	0.009 ppb	6.1 %
208Pb (KED)	1.204 ppb	2.3 %
232Th (KED)	0.096 ppb	2.0 %
238U (KED)	0.022 ppb	5.3 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	2.621 ppb	207 cps	17.4 %
24Mg (KED)	514.637 ppb	240,603 cps	2.0 %
27Al (KED)	416.089 ppb	48,015 cps	2.0 %
51V (KED)	0.744 ppb	5,556 cps	1.4 %
52Cr (KED)	2.552 ppb	29,779 cps	8.2 %
55Mn (KED)	12.338 ppb	67,220 cps	1.3 %
56Fe (KED)	366.464 ppb	3,839,183 cps	1.4 %
58Ni (KED)	2.052 ppb	30,573 cps	2.4 %
59Co (KED)	0.185 ppb	4,212 cps	1.0 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	11.813 ppb	209,003 cps	1.5 %
64Zn (KED)	164.820 ppb	705,884 cps	2.6 %
69Ga (KED)	2.133 ppb	11,521 cps	2.4 %
75As (KED)	0.665 ppb	893 cps	3.7 %
80Se (KED)	3.196 ppb	1,980 cps	2.8 %
85Rb (KED)	3.103 ppb	14,812 cps	1.0 %
88Sr (KED)	5.218 ppb	33,977 cps	0.7 %
107Ag (KED)	0.073 ppb	3,404 cps	5.6 %
114Cd (KED)	0.459 ppb	7,901 cps	3.1 %
133Cs (KED)	0.064 ppb	1,650 cps	0.9 %
138Ba (KED)	6.771 ppb	241,810 cps	2.2 %
139La (KED)	0.332 ppb	23,568 cps	3.1 %
140Ce (KED)	0.690 ppb	66,342 cps	5.1 %
141Pr (KED)	0.080 ppb	7,761 cps	0.9 %
142Nd (KED)	0.414 ppb	17,414 cps	2.1 %
152Sm (KED)	0.055 ppb	2,190 cps	3.0 %
153Eu (KED)	0.012 ppb	880 cps	2.3 %
158Gd (KED)	0.051 ppb	2,739 cps	2.3 %
164Dy (KED)	0.039 ppb	2,239 cps	1.9 %
165Ho (KED)	0.008 ppb	1,549 cps	3.3 %
166Er (KED)	0.022 ppb	1,575 cps	7.1 %
169Tm (KED)	0.003 ppb	663 cps	12.5 %
174Yb (KED)	0.017 ppb	1,472 cps	1.6 %
175Lu (KED)	0.003 ppb	332 cps	9.5 %
205Tl (KED)	0.009 ppb	1,531 cps	6.1 %
208Pb (KED)	1.204 ppb	148,172 cps	2.3 %
232Th (KED)	0.096 ppb	22,978 cps	1.9 %
238U (KED)	0.022 ppb	6,144 cps	5.3 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 14

Analysis name: 17012jian

Analysis started at: 8/27/2021 5:09:30 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.019 ppb	86.6 %
11B (KED)	3.100 ppb	14.9 %
24Mg (KED)	670.367 ppb	0.3 %
27Al (KED)	523.326 ppb	2.2 %
51V (KED)	0.999 ppb	2.1 %
52Cr (KED)	2.791 ppb	1.7 %
55Mn (KED)	19.161 ppb	0.9 %
56Fe (KED)	389.574 ppb	1.7 %
58Ni (KED)	2.165 ppb	1.2 %
59Co (KED)	0.241 ppb	7.1 %
63Cu (KED)	10.752 ppb	1.5 %
64Zn (KED)	172.722 ppb	1.0 %
69Ga (KED)	3.002 ppb	1.6 %
75As (KED)	0.606 ppb	6.4 %
80Se (KED)	2.461 ppb	6.1 %
85Rb (KED)	2.753 ppb	3.3 %
88Sr (KED)	8.117 ppb	1.1 %
107Ag (KED)	0.085 ppb	3.2 %
114Cd (KED)	0.375 ppb	0.2 %
133Cs (KED)	0.084 ppb	5.9 %
138Ba (KED)	9.061 ppb	2.6 %
139La (KED)	0.375 ppb	3.6 %
140Ce (KED)	0.757 ppb	6.5 %
141Pr (KED)	0.092 ppb	3.2 %
142Nd (KED)	0.460 ppb	2.6 %
152Sm (KED)	0.066 ppb	4.0 %
153Eu (KED)	0.016 ppb	3.4 %
158Gd (KED)	0.063 ppb	3.3 %
164Dy (KED)	0.047 ppb	2.9 %
165Ho (KED)	0.011 ppb	29.0 %
166Er (KED)	0.026 ppb	3.3 %
169Tm (KED)	0.004 ppb	9.3 %
174Yb (KED)	0.020 ppb	3.7 %
175Lu (KED)	0.003 ppb	9.7 %
205Tl (KED)	0.009 ppb	3.4 %
208Pb (KED)	0.969 ppb	0.9 %
232Th (KED)	0.107 ppb	2.5 %
238U (KED)	0.022 ppb	2.0 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.019 ppb	2 cps	86.6 %
11B (KED)	3.100 ppb	238 cps	12.6 %
24Mg (KED)	670.367 ppb	313,354 cps	0.3 %
27Al (KED)	523.326 ppb	60,366 cps	2.2 %
51V (KED)	0.999 ppb	7,454 cps	2.1 %
52Cr (KED)	2.791 ppb	32,559 cps	1.7 %
55Mn (KED)	19.161 ppb	104,261 cps	0.9 %
56Fe (KED)	389.574 ppb	4,080,938 cps	1.7 %
58Ni (KED)	2.165 ppb	32,168 cps	1.2 %
59Co (KED)	0.241 ppb	5,488 cps	7.1 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	10.752 ppb	190,309 cps	1.5 %
64Zn (KED)	172.722 ppb	739,686 cps	1.0 %
69Ga (KED)	3.002 ppb	16,146 cps	1.6 %
75As (KED)	0.606 ppb	820 cps	5.9 %
80Se (KED)	2.461 ppb	1,716 cps	3.1 %
85Rb (KED)	2.753 ppb	13,148 cps	3.3 %
88Sr (KED)	8.117 ppb	52,803 cps	1.1 %
107Ag (KED)	0.085 ppb	3,966 cps	3.1 %
114Cd (KED)	0.375 ppb	6,464 cps	0.2 %
133Cs (KED)	0.084 ppb	2,151 cps	5.7 %
138Ba (KED)	9.061 ppb	322,507 cps	2.6 %
139La (KED)	0.375 ppb	26,666 cps	3.6 %
140Ce (KED)	0.757 ppb	72,762 cps	6.5 %
141Pr (KED)	0.092 ppb	8,961 cps	3.2 %
142Nd (KED)	0.460 ppb	19,366 cps	2.6 %
152Sm (KED)	0.066 ppb	2,611 cps	4.0 %
153Eu (KED)	0.016 ppb	1,183 cps	3.4 %
158Gd (KED)	0.063 ppb	3,372 cps	3.3 %
164Dy (KED)	0.047 ppb	2,714 cps	2.9 %
165Ho (KED)	0.011 ppb	2,193 cps	29.0 %
166Er (KED)	0.026 ppb	1,852 cps	3.2 %
169Tm (KED)	0.004 ppb	844 cps	9.3 %
174Yb (KED)	0.020 ppb	1,688 cps	3.7 %
175Lu (KED)	0.003 ppb	387 cps	9.7 %
205Tl (KED)	0.009 ppb	1,562 cps	3.4 %
208Pb (KED)	0.969 ppb	119,551 cps	0.9 %
232Th (KED)	0.107 ppb	25,534 cps	2.5 %
238U (KED)	0.022 ppb	6,017 cps	2.0 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 15

Analysis name: 1801068jian

Analysis started at: 8/27/2021 5:12:44 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.019 ppb	86.6 %
11B (KED)	5.173 ppb	7.0 %
24Mg (KED)	614.126 ppb	2.6 %
27Al (KED)	438.375 ppb	3.1 %
51V (KED)	0.931 ppb	1.3 %
52Cr (KED)	3.294 ppb	2.8 %
55Mn (KED)	20.946 ppb	2.4 %
56Fe (KED)	378.558 ppb	2.5 %
58Ni (KED)	2.282 ppb	0.7 %
59Co (KED)	0.261 ppb	3.9 %
63Cu (KED)	28.831 ppb	1.1 %
64Zn (KED)	163.173 ppb	1.3 %
69Ga (KED)	3.317 ppb	1.4 %
75As (KED)	0.425 ppb	7.2 %
80Se (KED)	2.999 ppb	4.4 %
85Rb (KED)	2.284 ppb	3.5 %
88Sr (KED)	8.828 ppb	1.7 %
107Ag (KED)	0.147 ppb	0.5 %
114Cd (KED)	0.466 ppb	1.9 %
133Cs (KED)	0.073 ppb	3.4 %
138Ba (KED)	10.826 ppb	1.3 %
139La (KED)	0.510 ppb	0.2 %
140Ce (KED)	0.964 ppb	1.7 %
141Pr (KED)	0.119 ppb	0.2 %
142Nd (KED)	0.589 ppb	0.7 %
152Sm (KED)	0.084 ppb	3.2 %
153Eu (KED)	0.017 ppb	3.8 %
158Gd (KED)	0.076 ppb	2.7 %
164Dy (KED)	0.055 ppb	2.8 %
165Ho (KED)	0.010 ppb	8.1 %
166Er (KED)	0.026 ppb	6.1 %
169Tm (KED)	0.003 ppb	4.9 %
174Yb (KED)	0.020 ppb	2.9 %
175Lu (KED)	0.003 ppb	4.1 %
205Tl (KED)	0.008 ppb	1.8 %
208Pb (KED)	3.405 ppb	2.3 %
232Th (KED)	0.095 ppb	1.8 %
238U (KED)	0.027 ppb	2.7 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.019 ppb	2 cps	86.6 %
11B (KED)	5.173 ppb	372 cps	6.3 %
24Mg (KED)	614.126 ppb	287,081 cps	2.6 %
27Al (KED)	438.375 ppb	50,581 cps	3.1 %
51V (KED)	0.931 ppb	6,945 cps	1.3 %
52Cr (KED)	3.294 ppb	38,398 cps	2.8 %
55Mn (KED)	20.946 ppb	113,952 cps	2.4 %
56Fe (KED)	378.558 ppb	3,965,695 cps	2.5 %
58Ni (KED)	2.282 ppb	33,807 cps	0.6 %
59Co (KED)	0.261 ppb	5,950 cps	3.9 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	28.831 ppb	508,924 cps	1.1 %
64Zn (KED)	163.173 ppb	698,836 cps	1.3 %
69Ga (KED)	3.317 ppb	17,826 cps	1.4 %
75As (KED)	0.425 ppb	593 cps	6.5 %
80Se (KED)	2.999 ppb	1,909 cps	2.5 %
85Rb (KED)	2.284 ppb	10,913 cps	3.5 %
88Sr (KED)	8.828 ppb	57,420 cps	1.7 %
107Ag (KED)	0.147 ppb	6,791 cps	0.5 %
114Cd (KED)	0.466 ppb	8,027 cps	1.9 %
133Cs (KED)	0.073 ppb	1,876 cps	3.2 %
138Ba (KED)	10.826 ppb	384,683 cps	1.3 %
139La (KED)	0.510 ppb	36,226 cps	0.2 %
140Ce (KED)	0.964 ppb	92,707 cps	1.7 %
141Pr (KED)	0.119 ppb	11,568 cps	0.2 %
142Nd (KED)	0.589 ppb	24,770 cps	0.7 %
152Sm (KED)	0.084 ppb	3,312 cps	3.2 %
153Eu (KED)	0.017 ppb	1,276 cps	3.8 %
158Gd (KED)	0.076 ppb	4,077 cps	2.7 %
164Dy (KED)	0.055 ppb	3,194 cps	2.8 %
165Ho (KED)	0.010 ppb	2,006 cps	8.1 %
166Er (KED)	0.026 ppb	1,876 cps	6.0 %
169Tm (KED)	0.003 ppb	804 cps	4.9 %
174Yb (KED)	0.020 ppb	1,702 cps	2.9 %
175Lu (KED)	0.003 ppb	389 cps	4.1 %
205Tl (KED)	0.008 ppb	1,432 cps	1.7 %
208Pb (KED)	3.405 ppb	416,497 cps	2.3 %
232Th (KED)	0.095 ppb	22,627 cps	1.7 %
238U (KED)	0.027 ppb	7,400 cps	2.7 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 16

Analysis name: 18008jian

Analysis started at: 8/27/2021 5:16:00 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.047 ppb	34.6 %
11B (KED)	6.235 ppb	8.6 %
24Mg (KED)	687.403 ppb	1.5 %
27Al (KED)	379.286 ppb	2.1 %
51V (KED)	0.803 ppb	1.5 %
52Cr (KED)	4.327 ppb	2.7 %
55Mn (KED)	17.772 ppb	1.2 %
56Fe (KED)	331.839 ppb	0.5 %
58Ni (KED)	2.319 ppb	1.9 %
59Co (KED)	0.569 ppb	111.0 %
63Cu (KED)	13.164 ppb	0.3 %
64Zn (KED)	177.423 ppb	0.4 %
69Ga (KED)	2.594 ppb	1.0 %
75As (KED)	0.435 ppb	11.0 %
80Se (KED)	3.459 ppb	5.5 %
85Rb (KED)	2.365 ppb	4.1 %
88Sr (KED)	8.774 ppb	1.6 %
107Ag (KED)	0.142 ppb	3.7 %
114Cd (KED)	0.589 ppb	1.9 %
133Cs (KED)	0.066 ppb	3.7 %
138Ba (KED)	8.631 ppb	2.6 %
139La (KED)	0.353 ppb	1.4 %
140Ce (KED)	0.732 ppb	0.3 %
141Pr (KED)	0.084 ppb	1.6 %
142Nd (KED)	0.426 ppb	1.7 %
152Sm (KED)	0.058 ppb	3.1 %
153Eu (KED)	0.014 ppb	0.6 %
158Gd (KED)	0.055 ppb	8.2 %
164Dy (KED)	0.040 ppb	5.6 %
165Ho (KED)	0.008 ppb	3.2 %
166Er (KED)	0.025 ppb	8.4 %
169Tm (KED)	0.003 ppb	7.0 %
174Yb (KED)	0.016 ppb	7.9 %
175Lu (KED)	0.003 ppb	14.2 %
205Tl (KED)	0.008 ppb	8.2 %
208Pb (KED)	1.290 ppb	1.4 %
232Th (KED)	0.090 ppb	1.4 %
238U (KED)	0.024 ppb	1.8 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.047 ppb	6 cps	34.6 %
11B (KED)	6.235 ppb	441 cps	7.9 %
24Mg (KED)	687.403 ppb	321,312 cps	1.5 %
27Al (KED)	379.286 ppb	43,776 cps	2.1 %
51V (KED)	0.803 ppb	5,996 cps	1.5 %
52Cr (KED)	4.327 ppb	50,394 cps	2.7 %
55Mn (KED)	17.772 ppb	96,721 cps	1.2 %
56Fe (KED)	331.839 ppb	3,476,964 cps	0.5 %
58Ni (KED)	2.319 ppb	34,325 cps	1.8 %
59Co (KED)	0.569 ppb	12,956 cps	111.0 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	13.164 ppb	232,824 cps	0.3 %
64Zn (KED)	177.423 ppb	759,799 cps	0.4 %
69Ga (KED)	2.594 ppb	13,974 cps	1.0 %
75As (KED)	0.435 ppb	606 cps	9.9 %
80Se (KED)	3.459 ppb	2,075 cps	3.3 %
85Rb (KED)	2.365 ppb	11,300 cps	4.1 %
88Sr (KED)	8.774 ppb	57,066 cps	1.6 %
107Ag (KED)	0.142 ppb	6,537 cps	3.6 %
114Cd (KED)	0.589 ppb	10,130 cps	1.9 %
133Cs (KED)	0.066 ppb	1,712 cps	3.5 %
138Ba (KED)	8.631 ppb	307,345 cps	2.5 %
139La (KED)	0.353 ppb	25,105 cps	1.4 %
140Ce (KED)	0.732 ppb	70,440 cps	0.3 %
141Pr (KED)	0.084 ppb	8,166 cps	1.6 %
142Nd (KED)	0.426 ppb	17,915 cps	1.7 %
152Sm (KED)	0.058 ppb	2,307 cps	3.1 %
153Eu (KED)	0.014 ppb	990 cps	0.6 %
158Gd (KED)	0.055 ppb	2,924 cps	8.2 %
164Dy (KED)	0.040 ppb	2,290 cps	5.6 %
165Ho (KED)	0.008 ppb	1,577 cps	3.2 %
166Er (KED)	0.025 ppb	1,777 cps	8.2 %
169Tm (KED)	0.003 ppb	604 cps	7.0 %
174Yb (KED)	0.016 ppb	1,392 cps	7.9 %
175Lu (KED)	0.003 ppb	328 cps	14.2 %
205Tl (KED)	0.008 ppb	1,366 cps	8.2 %
208Pb (KED)	1.290 ppb	158,633 cps	1.4 %
232Th (KED)	0.090 ppb	21,387 cps	1.3 %
238U (KED)	0.024 ppb	6,445 cps	1.8 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 17

Analysis name: 1701189jian

Analysis started at: 8/27/2021 5:19:19 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.009 ppb	173.2 %
11B (KED)	3.134 ppb	4.9 %
24Mg (KED)	420.277 ppb	0.4 %
27Al (KED)	245.498 ppb	1.3 %
51V (KED)	0.461 ppb	2.9 %
52Cr (KED)	4.628 ppb	49.1 %
55Mn (KED)	8.008 ppb	0.7 %
56Fe (KED)	235.664 ppb	2.4 %
58Ni (KED)	1.817 ppb	0.9 %
59Co (KED)	0.140 ppb	8.4 %
63Cu (KED)	16.072 ppb	1.1 %
64Zn (KED)	181.921 ppb	0.7 %
69Ga (KED)	4.468 ppb	1.7 %
75As (KED)	0.352 ppb	13.6 %
80Se (KED)	2.507 ppb	4.0 %
85Rb (KED)	4.191 ppb	1.9 %
88Sr (KED)	3.677 ppb	1.2 %
107Ag (KED)	0.343 ppb	1.8 %
114Cd (KED)	0.386 ppb	2.1 %
133Cs (KED)	0.041 ppb	4.6 %
138Ba (KED)	14.427 ppb	1.7 %
139La (KED)	0.212 ppb	0.8 %
140Ce (KED)	0.430 ppb	1.5 %
141Pr (KED)	0.051 ppb	3.4 %
142Nd (KED)	0.257 ppb	2.8 %
152Sm (KED)	0.037 ppb	1.3 %
153Eu (KED)	0.010 ppb	17.3 %
158Gd (KED)	0.033 ppb	8.5 %
164Dy (KED)	0.023 ppb	4.2 %
165Ho (KED)	0.005 ppb	7.2 %
166Er (KED)	0.013 ppb	22.2 %
169Tm (KED)	0.002 ppb	8.3 %
174Yb (KED)	0.010 ppb	8.7 %
175Lu (KED)	0.002 ppb	9.8 %
205Tl (KED)	0.008 ppb	2.6 %
208Pb (KED)	1.514 ppb	3.5 %
232Th (KED)	0.061 ppb	4.7 %
238U (KED)	0.018 ppb	3.5 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.009 ppb	1 cps	173.2 %
11B (KED)	3.134 ppb	240 cps	4.2 %
24Mg (KED)	420.277 ppb	196,522 cps	0.4 %
27Al (KED)	245.498 ppb	28,367 cps	1.3 %
51V (KED)	0.461 ppb	3,446 cps	2.9 %
52Cr (KED)	4.628 ppb	53,890 cps	49.0 %
55Mn (KED)	8.008 ppb	43,712 cps	0.7 %
56Fe (KED)	235.664 ppb	2,470,872 cps	2.4 %
58Ni (KED)	1.817 ppb	27,280 cps	0.9 %
59Co (KED)	0.140 ppb	3,203 cps	8.3 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	16.072 ppb	284,069 cps	1.1 %
64Zn (KED)	181.921 ppb	779,038 cps	0.7 %
69Ga (KED)	4.468 ppb	23,957 cps	1.7 %
75As (KED)	0.352 ppb	502 cps	12.0 %
80Se (KED)	2.507 ppb	1,732 cps	2.1 %
85Rb (KED)	4.191 ppb	19,990 cps	1.9 %
88Sr (KED)	3.677 ppb	23,965 cps	1.2 %
107Ag (KED)	0.343 ppb	15,667 cps	1.7 %
114Cd (KED)	0.386 ppb	6,652 cps	2.0 %
133Cs (KED)	0.041 ppb	1,090 cps	4.2 %
138Ba (KED)	14.427 ppb	511,586 cps	1.7 %
139La (KED)	0.212 ppb	15,110 cps	0.8 %
140Ce (KED)	0.430 ppb	41,395 cps	1.5 %
141Pr (KED)	0.051 ppb	4,925 cps	3.4 %
142Nd (KED)	0.257 ppb	10,845 cps	2.8 %
152Sm (KED)	0.037 ppb	1,479 cps	1.3 %
153Eu (KED)	0.010 ppb	733 cps	17.3 %
158Gd (KED)	0.033 ppb	1,768 cps	8.5 %
164Dy (KED)	0.023 ppb	1,335 cps	4.2 %
165Ho (KED)	0.005 ppb	930 cps	7.2 %
166Er (KED)	0.013 ppb	991 cps	21.2 %
169Tm (KED)	0.002 ppb	390 cps	8.2 %
174Yb (KED)	0.010 ppb	854 cps	8.6 %
175Lu (KED)	0.002 ppb	188 cps	9.8 %
205Tl (KED)	0.008 ppb	1,389 cps	2.6 %
208Pb (KED)	1.514 ppb	185,977 cps	3.4 %
232Th (KED)	0.061 ppb	14,635 cps	4.6 %
238U (KED)	0.018 ppb	4,979 cps	3.5 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 18

Analysis name: 1701286jian

Analysis started at: 8/27/2021 5:22:29 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.009 ppb	173.2 %
11B (KED)	2.055 ppb	19.8 %
24Mg (KED)	307.689 ppb	1.8 %
27Al (KED)	255.761 ppb	5.6 %
51V (KED)	0.496 ppb	1.0 %
52Cr (KED)	2.838 ppb	1.6 %
55Mn (KED)	9.942 ppb	3.1 %
56Fe (KED)	236.371 ppb	1.6 %
58Ni (KED)	1.696 ppb	1.5 %
59Co (KED)	0.125 ppb	4.1 %
63Cu (KED)	11.559 ppb	3.1 %
64Zn (KED)	175.154 ppb	1.3 %
69Ga (KED)	1.703 ppb	3.4 %
75As (KED)	0.469 ppb	7.0 %
80Se (KED)	2.937 ppb	3.8 %
85Rb (KED)	1.454 ppb	4.2 %
88Sr (KED)	3.859 ppb	1.4 %
107Ag (KED)	0.101 ppb	5.2 %
114Cd (KED)	0.523 ppb	1.2 %
133Cs (KED)	0.040 ppb	3.5 %
138Ba (KED)	5.520 ppb	1.0 %
139La (KED)	0.197 ppb	3.6 %
140Ce (KED)	0.417 ppb	3.2 %
141Pr (KED)	0.048 ppb	2.0 %
142Nd (KED)	0.250 ppb	3.2 %
152Sm (KED)	0.035 ppb	2.1 %
153Eu (KED)	0.009 ppb	2.2 %
158Gd (KED)	0.032 ppb	5.6 %
164Dy (KED)	0.026 ppb	5.9 %
165Ho (KED)	0.005 ppb	4.1 %
166Er (KED)	0.014 ppb	9.0 %
169Tm (KED)	0.002 ppb	12.7 %
174Yb (KED)	0.015 ppb	37.1 %
175Lu (KED)	0.001 ppb	5.8 %
205Tl (KED)	0.010 ppb	6.0 %
208Pb (KED)	0.936 ppb	1.2 %
232Th (KED)	0.055 ppb	3.5 %
238U (KED)	0.015 ppb	1.5 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.009 ppb	1 cps	173.2 %
11B (KED)	2.055 ppb	170 cps	15.6 %
24Mg (KED)	307.689 ppb	143,926 cps	1.8 %
27Al (KED)	255.761 ppb	29,549 cps	5.5 %
51V (KED)	0.496 ppb	3,705 cps	1.0 %
52Cr (KED)	2.838 ppb	33,111 cps	1.6 %
55Mn (KED)	9.942 ppb	54,213 cps	3.1 %
56Fe (KED)	236.371 ppb	2,478,269 cps	1.6 %
58Ni (KED)	1.696 ppb	25,586 cps	1.4 %
59Co (KED)	0.125 ppb	2,844 cps	4.1 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	11.559 ppb	204,537 cps	3.1 %
64Zn (KED)	175.154 ppb	750,090 cps	1.3 %
69Ga (KED)	1.703 ppb	9,232 cps	3.3 %
75As (KED)	0.469 ppb	648 cps	6.3 %
80Se (KED)	2.937 ppb	1,887 cps	2.1 %
85Rb (KED)	1.454 ppb	6,965 cps	4.1 %
88Sr (KED)	3.859 ppb	25,149 cps	1.4 %
107Ag (KED)	0.101 ppb	4,700 cps	5.1 %
114Cd (KED)	0.523 ppb	9,011 cps	1.2 %
133Cs (KED)	0.040 ppb	1,060 cps	3.2 %
138Ba (KED)	5.520 ppb	197,708 cps	1.0 %
139La (KED)	0.197 ppb	13,995 cps	3.6 %
140Ce (KED)	0.417 ppb	40,151 cps	3.2 %
141Pr (KED)	0.048 ppb	4,673 cps	2.0 %
142Nd (KED)	0.250 ppb	10,529 cps	3.2 %
152Sm (KED)	0.035 ppb	1,383 cps	2.1 %
153Eu (KED)	0.009 ppb	638 cps	2.2 %
158Gd (KED)	0.032 ppb	1,742 cps	5.6 %
164Dy (KED)	0.026 ppb	1,480 cps	5.9 %
165Ho (KED)	0.005 ppb	982 cps	4.1 %
166Er (KED)	0.014 ppb	1,003 cps	8.6 %
169Tm (KED)	0.002 ppb	390 cps	12.6 %
174Yb (KED)	0.015 ppb	1,265 cps	36.9 %
175Lu (KED)	0.001 ppb	184 cps	5.8 %
205Tl (KED)	0.010 ppb	1,727 cps	6.0 %
208Pb (KED)	0.936 ppb	115,485 cps	1.2 %
232Th (KED)	0.055 ppb	13,298 cps	3.4 %
238U (KED)	0.015 ppb	4,215 cps	1.5 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 19

Analysis name: 1701053jian

Analysis started at: 8/27/2021 5:25:37 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	
11B (KED)	2.398 ppb	13.1 %
24Mg (KED)	413.402 ppb	1.6 %
27Al (KED)	544.546 ppb	2.0 %
51V (KED)	0.952 ppb	4.5 %
52Cr (KED)	2.499 ppb	1.3 %
55Mn (KED)	16.379 ppb	0.1 %
56Fe (KED)	460.413 ppb	0.4 %
58Ni (KED)	2.753 ppb	0.7 %
59Co (KED)	0.232 ppb	3.0 %
63Cu (KED)	35.039 ppb	1.0 %
64Zn (KED)	163.541 ppb	0.9 %
69Ga (KED)	2.371 ppb	2.7 %
75As (KED)	0.559 ppb	7.3 %
80Se (KED)	1.774 ppb	9.4 %
85Rb (KED)	2.253 ppb	1.5 %
88Sr (KED)	5.084 ppb	1.7 %
107Ag (KED)	0.074 ppb	0.5 %
114Cd (KED)	0.305 ppb	2.9 %
133Cs (KED)	0.089 ppb	3.5 %
138Ba (KED)	7.933 ppb	2.8 %
139La (KED)	0.483 ppb	1.6 %
140Ce (KED)	0.972 ppb	1.8 %
141Pr (KED)	0.115 ppb	3.7 %
142Nd (KED)	0.598 ppb	1.6 %
152Sm (KED)	0.085 ppb	6.1 %
153Eu (KED)	0.019 ppb	4.2 %
158Gd (KED)	0.079 ppb	3.2 %
164Dy (KED)	0.056 ppb	2.4 %
165Ho (KED)	0.011 ppb	4.7 %
166Er (KED)	0.032 ppb	2.6 %
169Tm (KED)	0.004 ppb	5.5 %
174Yb (KED)	0.028 ppb	14.2 %
175Lu (KED)	0.004 ppb	10.7 %
205Tl (KED)	0.013 ppb	3.6 %
208Pb (KED)	3.294 ppb	2.3 %
232Th (KED)	0.146 ppb	2.3 %
238U (KED)	0.029 ppb	12.3 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	2.398 ppb	192 cps	10.6 %
24Mg (KED)	413.402 ppb	193,311 cps	1.6 %
27Al (KED)	544.546 ppb	62,810 cps	2.0 %
51V (KED)	0.952 ppb	7,102 cps	4.5 %
52Cr (KED)	2.499 ppb	29,163 cps	1.3 %
55Mn (KED)	16.379 ppb	89,156 cps	0.1 %
56Fe (KED)	460.413 ppb	4,821,983 cps	0.4 %
58Ni (KED)	2.753 ppb	40,415 cps	0.6 %
59Co (KED)	0.232 ppb	5,297 cps	2.9 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	35.039 ppb	618,338 cps	1.0 %
64Zn (KED)	163.541 ppb	700,411 cps	0.9 %
69Ga (KED)	2.371 ppb	12,790 cps	2.6 %
75As (KED)	0.559 ppb	761 cps	6.7 %
80Se (KED)	1.774 ppb	1,469 cps	4.1 %
85Rb (KED)	2.253 ppb	10,767 cps	1.5 %
88Sr (KED)	5.084 ppb	33,103 cps	1.7 %
107Ag (KED)	0.074 ppb	3,479 cps	0.5 %
114Cd (KED)	0.305 ppb	5,269 cps	2.9 %
133Cs (KED)	0.089 ppb	2,274 cps	3.4 %
138Ba (KED)	7.933 ppb	282,763 cps	2.8 %
139La (KED)	0.483 ppb	34,295 cps	1.6 %
140Ce (KED)	0.972 ppb	93,473 cps	1.8 %
141Pr (KED)	0.115 ppb	11,129 cps	3.7 %
142Nd (KED)	0.598 ppb	25,149 cps	1.6 %
152Sm (KED)	0.085 ppb	3,365 cps	6.0 %
153Eu (KED)	0.019 ppb	1,373 cps	4.1 %
158Gd (KED)	0.079 ppb	4,261 cps	3.2 %
164Dy (KED)	0.056 ppb	3,256 cps	2.4 %
165Ho (KED)	0.011 ppb	2,180 cps	4.7 %
166Er (KED)	0.032 ppb	2,255 cps	2.5 %
169Tm (KED)	0.004 ppb	924 cps	5.5 %
174Yb (KED)	0.028 ppb	2,368 cps	14.1 %
175Lu (KED)	0.004 ppb	504 cps	10.7 %
205Tl (KED)	0.013 ppb	2,187 cps	3.6 %
208Pb (KED)	3.294 ppb	402,918 cps	2.3 %
232Th (KED)	0.146 ppb	34,668 cps	2.3 %
238U (KED)	0.029 ppb	7,978 cps	12.3 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 20

Analysis name: 1702067jian

Analysis started at: 8/27/2021 5:28:44 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	
11B (KED)	3.545 ppb	21.6 %
24Mg (KED)	485.638 ppb	1.6 %
27Al (KED)	311.112 ppb	2.2 %
51V (KED)	0.549 ppb	1.6 %
52Cr (KED)	1.167 ppb	1.8 %
55Mn (KED)	10.145 ppb	2.1 %
56Fe (KED)	270.434 ppb	1.1 %
58Ni (KED)	1.561 ppb	2.6 %
59Co (KED)	0.142 ppb	5.3 %
63Cu (KED)	15.497 ppb	1.0 %
64Zn (KED)	203.829 ppb	1.1 %
69Ga (KED)	1.551 ppb	0.6 %
75As (KED)	0.349 ppb	4.2 %
80Se (KED)	3.082 ppb	6.6 %
85Rb (KED)	3.310 ppb	3.4 %
88Sr (KED)	4.263 ppb	1.8 %
107Ag (KED)	0.082 ppb	1.2 %
114Cd (KED)	0.408 ppb	2.0 %
133Cs (KED)	0.051 ppb	2.9 %
138Ba (KED)	5.132 ppb	2.3 %
139La (KED)	0.220 ppb	2.0 %
140Ce (KED)	0.466 ppb	1.4 %
141Pr (KED)	0.054 ppb	4.5 %
142Nd (KED)	0.281 ppb	1.1 %
152Sm (KED)	0.041 ppb	7.2 %
153Eu (KED)	0.009 ppb	1.6 %
158Gd (KED)	0.036 ppb	5.3 %
164Dy (KED)	0.028 ppb	5.0 %
165Ho (KED)	0.005 ppb	7.1 %
166Er (KED)	0.015 ppb	4.8 %
169Tm (KED)	0.002 ppb	5.4 %
174Yb (KED)	0.013 ppb	10.4 %
175Lu (KED)	0.002 ppb	5.1 %
205Tl (KED)	0.009 ppb	2.1 %
208Pb (KED)	1.383 ppb	1.1 %
232Th (KED)	0.066 ppb	2.7 %
238U (KED)	0.017 ppb	1.6 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	0 cps	
11B (KED)	3.545 ppb	267 cps	18.7 %
24Mg (KED)	485.638 ppb	227,056 cps	1.5 %
27Al (KED)	311.112 ppb	35,924 cps	2.2 %
51V (KED)	0.549 ppb	4,102 cps	1.6 %
52Cr (KED)	1.167 ppb	13,704 cps	1.8 %
55Mn (KED)	10.145 ppb	55,318 cps	2.1 %
56Fe (KED)	270.434 ppb	2,834,600 cps	1.1 %
58Ni (KED)	1.561 ppb	23,687 cps	2.4 %
59Co (KED)	0.142 ppb	3,239 cps	5.3 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	15.497 ppb	273,937 cps	1.0 %
64Zn (KED)	203.829 ppb	872,758 cps	1.1 %
69Ga (KED)	1.551 ppb	8,421 cps	0.6 %
75As (KED)	0.349 ppb	499 cps	3.7 %
80Se (KED)	3.082 ppb	1,939 cps	3.8 %
85Rb (KED)	3.310 ppb	15,796 cps	3.4 %
88Sr (KED)	4.263 ppb	27,773 cps	1.8 %
107Ag (KED)	0.082 ppb	3,812 cps	1.1 %
114Cd (KED)	0.408 ppb	7,031 cps	2.0 %
133Cs (KED)	0.051 ppb	1,347 cps	2.7 %
138Ba (KED)	5.132 ppb	184,031 cps	2.3 %
139La (KED)	0.220 ppb	15,668 cps	2.0 %
140Ce (KED)	0.466 ppb	44,866 cps	1.4 %
141Pr (KED)	0.054 ppb	5,244 cps	4.5 %
142Nd (KED)	0.281 ppb	11,841 cps	1.1 %
152Sm (KED)	0.041 ppb	1,645 cps	7.1 %
153Eu (KED)	0.009 ppb	684 cps	1.6 %
158Gd (KED)	0.036 ppb	1,912 cps	5.3 %
164Dy (KED)	0.028 ppb	1,598 cps	5.0 %
165Ho (KED)	0.005 ppb	1,082 cps	7.1 %
166Er (KED)	0.015 ppb	1,116 cps	4.6 %
169Tm (KED)	0.002 ppb	532 cps	5.4 %
174Yb (KED)	0.013 ppb	1,103 cps	10.3 %
175Lu (KED)	0.002 ppb	201 cps	5.1 %
205Tl (KED)	0.009 ppb	1,651 cps	2.1 %
208Pb (KED)	1.383 ppb	169,957 cps	1.1 %
232Th (KED)	0.066 ppb	15,987 cps	2.6 %
238U (KED)	0.017 ppb	4,738 cps	1.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 21

Analysis name: 1801003jian

Analysis started at: 8/27/2021 5:31:55 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.019 ppb	86.6 %
11B (KED)	3.751 ppb	17.1 %
24Mg (KED)	502.908 ppb	0.8 %
27Al (KED)	515.221 ppb	1.2 %
51V (KED)	0.886 ppb	2.1 %
52Cr (KED)	1.184 ppb	1.9 %
55Mn (KED)	18.777 ppb	1.0 %
56Fe (KED)	415.611 ppb	2.5 %
58Ni (KED)	2.317 ppb	0.5 %
59Co (KED)	0.219 ppb	3.1 %
63Cu (KED)	27.015 ppb	0.8 %
64Zn (KED)	180.839 ppb	0.5 %
69Ga (KED)	2.574 ppb	5.2 %
75As (KED)	0.804 ppb	38.2 %
80Se (KED)	2.544 ppb	2.2 %
85Rb (KED)	2.265 ppb	1.6 %
88Sr (KED)	6.702 ppb	2.1 %
107Ag (KED)	0.077 ppb	0.7 %
114Cd (KED)	0.424 ppb	1.2 %
133Cs (KED)	0.081 ppb	8.3 %
138Ba (KED)	8.276 ppb	1.3 %
139La (KED)	0.465 ppb	11.8 %
140Ce (KED)	0.921 ppb	1.8 %
141Pr (KED)	0.104 ppb	4.6 %
142Nd (KED)	0.533 ppb	2.3 %
152Sm (KED)	0.076 ppb	5.6 %
153Eu (KED)	0.016 ppb	4.4 %
158Gd (KED)	0.069 ppb	4.6 %
164Dy (KED)	0.051 ppb	3.7 %
165Ho (KED)	0.009 ppb	2.4 %
166Er (KED)	0.026 ppb	7.7 %
169Tm (KED)	0.004 ppb	5.6 %
174Yb (KED)	0.021 ppb	3.3 %
175Lu (KED)	0.003 ppb	8.4 %
205Tl (KED)	0.014 ppb	3.1 %
208Pb (KED)	2.603 ppb	2.6 %
232Th (KED)	0.119 ppb	0.8 %
238U (KED)	0.027 ppb	6.7 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.019 ppb	2 cps	86.6 %
11B (KED)	3.751 ppb	280 cps	14.9 %
24Mg (KED)	502.908 ppb	235,124 cps	0.8 %
27Al (KED)	515.221 ppb	59,432 cps	1.2 %
51V (KED)	0.886 ppb	6,616 cps	2.1 %
52Cr (KED)	1.184 ppb	13,898 cps	1.9 %
55Mn (KED)	18.777 ppb	102,178 cps	1.0 %
56Fe (KED)	415.611 ppb	4,353,308 cps	2.5 %
58Ni (KED)	2.317 ppb	34,294 cps	0.5 %
59Co (KED)	0.219 ppb	5,003 cps	3.1 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	27.015 ppb	476,931 cps	0.8 %
64Zn (KED)	180.839 ppb	774,412 cps	0.5 %
69Ga (KED)	2.574 ppb	13,871 cps	5.1 %
75As (KED)	0.804 ppb	1,067 cps	35.9 %
80Se (KED)	2.544 ppb	1,746 cps	1.2 %
85Rb (KED)	2.265 ppb	10,825 cps	1.6 %
88Sr (KED)	6.702 ppb	43,611 cps	2.1 %
107Ag (KED)	0.077 ppb	3,605 cps	0.7 %
114Cd (KED)	0.424 ppb	7,314 cps	1.2 %
133Cs (KED)	0.081 ppb	2,081 cps	8.0 %
138Ba (KED)	8.276 ppb	294,821 cps	1.3 %
139La (KED)	0.465 ppb	33,004 cps	11.8 %
140Ce (KED)	0.921 ppb	88,530 cps	1.8 %
141Pr (KED)	0.104 ppb	10,095 cps	4.6 %
142Nd (KED)	0.533 ppb	22,425 cps	2.3 %
152Sm (KED)	0.076 ppb	3,013 cps	5.6 %
153Eu (KED)	0.016 ppb	1,203 cps	4.4 %
158Gd (KED)	0.069 ppb	3,698 cps	4.6 %
164Dy (KED)	0.051 ppb	2,949 cps	3.7 %
165Ho (KED)	0.009 ppb	1,898 cps	2.4 %
166Er (KED)	0.026 ppb	1,899 cps	7.5 %
169Tm (KED)	0.004 ppb	854 cps	5.6 %
174Yb (KED)	0.021 ppb	1,802 cps	3.3 %
175Lu (KED)	0.003 ppb	397 cps	8.4 %
205Tl (KED)	0.014 ppb	2,437 cps	3.1 %
208Pb (KED)	2.603 ppb	318,746 cps	2.6 %
232Th (KED)	0.119 ppb	28,392 cps	0.8 %
238U (KED)	0.027 ppb	7,468 cps	6.6 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 22

Analysis name: 1705021jian

Analysis started at: 8/27/2021 5:35:17 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.009 ppb	173.2 %
11B (KED)	5.121 ppb	17.2 %
24Mg (KED)	734.280 ppb	1.0 %
27Al (KED)	466.505 ppb	0.8 %
51V (KED)	0.853 ppb	1.2 %
52Cr (KED)	1.372 ppb	1.8 %
55Mn (KED)	18.804 ppb	1.8 %
56Fe (KED)	402.573 ppb	1.3 %
58Ni (KED)	2.313 ppb	1.0 %
59Co (KED)	0.251 ppb	1.8 %
63Cu (KED)	16.079 ppb	1.8 %
64Zn (KED)	207.271 ppb	0.6 %
69Ga (KED)	2.547 ppb	2.4 %
75As (KED)	0.454 ppb	5.8 %
80Se (KED)	2.371 ppb	2.8 %
85Rb (KED)	4.325 ppb	0.8 %
88Sr (KED)	8.435 ppb	2.4 %
107Ag (KED)	0.067 ppb	2.5 %
114Cd (KED)	0.421 ppb	3.0 %
133Cs (KED)	0.080 ppb	2.1 %
138Ba (KED)	8.430 ppb	0.7 %
139La (KED)	0.389 ppb	1.5 %
140Ce (KED)	0.794 ppb	1.9 %
141Pr (KED)	0.096 ppb	3.8 %
142Nd (KED)	0.487 ppb	2.4 %
152Sm (KED)	0.070 ppb	1.3 %
153Eu (KED)	0.016 ppb	2.9 %
158Gd (KED)	0.064 ppb	2.3 %
164Dy (KED)	0.049 ppb	8.2 %
165Ho (KED)	0.009 ppb	2.8 %
166Er (KED)	0.023 ppb	5.3 %
169Tm (KED)	0.003 ppb	8.9 %
174Yb (KED)	0.019 ppb	2.4 %
175Lu (KED)	0.003 ppb	14.2 %
205Tl (KED)	0.011 ppb	5.4 %
208Pb (KED)	2.166 ppb	1.2 %
232Th (KED)	0.111 ppb	4.3 %
238U (KED)	0.030 ppb	3.8 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.009 ppb	1 cps	173.2 %
11B (KED)	5.121 ppb	369 cps	15.5 %
24Mg (KED)	734.280 ppb	343,212 cps	1.0 %
27Al (KED)	466.505 ppb	53,821 cps	0.8 %
51V (KED)	0.853 ppb	6,364 cps	1.2 %
52Cr (KED)	1.372 ppb	16,085 cps	1.8 %
55Mn (KED)	18.804 ppb	102,321 cps	1.8 %
56Fe (KED)	402.573 ppb	4,216,918 cps	1.3 %
58Ni (KED)	2.313 ppb	34,237 cps	1.0 %
59Co (KED)	0.251 ppb	5,718 cps	1.8 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	16.079 ppb	284,182 cps	1.8 %
64Zn (KED)	207.271 ppb	887,484 cps	0.6 %
69Ga (KED)	2.547 ppb	13,728 cps	2.4 %
75As (KED)	0.454 ppb	630 cps	5.2 %
80Se (KED)	2.371 ppb	1,683 cps	1.4 %
85Rb (KED)	4.325 ppb	20,626 cps	0.8 %
88Sr (KED)	8.435 ppb	54,866 cps	2.4 %
107Ag (KED)	0.067 ppb	3,174 cps	2.5 %
114Cd (KED)	0.421 ppb	7,257 cps	3.0 %
133Cs (KED)	0.080 ppb	2,046 cps	2.0 %
138Ba (KED)	8.430 ppb	300,268 cps	0.7 %
139La (KED)	0.389 ppb	27,614 cps	1.5 %
140Ce (KED)	0.794 ppb	76,362 cps	1.9 %
141Pr (KED)	0.096 ppb	9,271 cps	3.8 %
142Nd (KED)	0.487 ppb	20,486 cps	2.4 %
152Sm (KED)	0.070 ppb	2,764 cps	1.3 %
153Eu (KED)	0.016 ppb	1,168 cps	2.9 %
158Gd (KED)	0.064 ppb	3,458 cps	2.3 %
164Dy (KED)	0.049 ppb	2,815 cps	8.2 %
165Ho (KED)	0.009 ppb	1,841 cps	2.8 %
166Er (KED)	0.023 ppb	1,686 cps	5.2 %
169Tm (KED)	0.003 ppb	732 cps	8.9 %
174Yb (KED)	0.019 ppb	1,638 cps	2.4 %
175Lu (KED)	0.003 ppb	407 cps	14.2 %
205Tl (KED)	0.011 ppb	1,951 cps	5.4 %
208Pb (KED)	2.166 ppb	265,426 cps	1.2 %
232Th (KED)	0.111 ppb	26,399 cps	4.2 %
238U (KED)	0.030 ppb	8,160 cps	3.8 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 23

Analysis name: 1802135jian

Analysis started at: 8/27/2021 5:38:28 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.009 ppb	173.2 %
11B (KED)	6.611 ppb	8.5 %
24Mg (KED)	516.261 ppb	0.7 %
27Al (KED)	596.017 ppb	0.7 %
51V (KED)	1.092 ppb	3.0 %
52Cr (KED)	1.661 ppb	0.1 %
55Mn (KED)	21.007 ppb	1.1 %
56Fe (KED)	501.683 ppb	1.9 %
58Ni (KED)	2.444 ppb	2.0 %
59Co (KED)	0.262 ppb	2.7 %
63Cu (KED)	14.251 ppb	2.4 %
64Zn (KED)	167.811 ppb	1.0 %
69Ga (KED)	2.808 ppb	1.3 %
75As (KED)	0.701 ppb	2.7 %
80Se (KED)	1.836 ppb	5.9 %
85Rb (KED)	2.803 ppb	2.0 %
88Sr (KED)	6.586 ppb	1.9 %
107Ag (KED)	0.065 ppb	3.2 %
114Cd (KED)	0.254 ppb	1.6 %
133Cs (KED)	0.097 ppb	3.0 %
138Ba (KED)	9.119 ppb	0.9 %
139La (KED)	0.525 ppb	3.5 %
140Ce (KED)	1.100 ppb	1.9 %
141Pr (KED)	0.129 ppb	0.4 %
142Nd (KED)	0.665 ppb	0.9 %
152Sm (KED)	0.094 ppb	4.9 %
153Eu (KED)	0.022 ppb	1.9 %
158Gd (KED)	0.086 ppb	0.7 %
164Dy (KED)	0.062 ppb	4.7 %
165Ho (KED)	0.012 ppb	4.4 %
166Er (KED)	0.037 ppb	1.3 %
169Tm (KED)	0.004 ppb	3.3 %
174Yb (KED)	0.027 ppb	6.9 %
175Lu (KED)	0.004 ppb	7.4 %
205Tl (KED)	0.015 ppb	3.4 %
208Pb (KED)	1.604 ppb	0.9 %
232Th (KED)	0.141 ppb	1.1 %
238U (KED)	0.028 ppb	3.1 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.009 ppb	1 cps	173.2 %
11B (KED)	6.611 ppb	466 cps	7.9 %
24Mg (KED)	516.261 ppb	241,362 cps	0.7 %
27Al (KED)	596.017 ppb	68,738 cps	0.7 %
51V (KED)	1.092 ppb	8,146 cps	3.0 %
52Cr (KED)	1.661 ppb	19,437 cps	0.1 %
55Mn (KED)	21.007 ppb	114,283 cps	1.1 %
56Fe (KED)	501.683 ppb	5,253,712 cps	1.9 %
58Ni (KED)	2.444 ppb	36,083 cps	1.9 %
59Co (KED)	0.262 ppb	5,966 cps	2.7 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	14.251 ppb	251,975 cps	2.4 %
64Zn (KED)	167.811 ppb	718,677 cps	1.0 %
69Ga (KED)	2.808 ppb	15,116 cps	1.3 %
75As (KED)	0.701 ppb	939 cps	2.5 %
80Se (KED)	1.836 ppb	1,491 cps	2.6 %
85Rb (KED)	2.803 ppb	13,383 cps	1.9 %
88Sr (KED)	6.586 ppb	42,860 cps	1.9 %
107Ag (KED)	0.065 ppb	3,064 cps	3.1 %
114Cd (KED)	0.254 ppb	4,394 cps	1.6 %
133Cs (KED)	0.097 ppb	2,457 cps	2.9 %
138Ba (KED)	9.119 ppb	324,551 cps	0.8 %
139La (KED)	0.525 ppb	37,301 cps	3.5 %
140Ce (KED)	1.100 ppb	105,678 cps	1.9 %
141Pr (KED)	0.129 ppb	12,543 cps	0.4 %
142Nd (KED)	0.665 ppb	27,948 cps	0.9 %
152Sm (KED)	0.094 ppb	3,733 cps	4.9 %
153Eu (KED)	0.022 ppb	1,587 cps	1.9 %
158Gd (KED)	0.086 ppb	4,590 cps	0.7 %
164Dy (KED)	0.062 ppb	3,565 cps	4.7 %
165Ho (KED)	0.012 ppb	2,408 cps	4.4 %
166Er (KED)	0.037 ppb	2,665 cps	1.3 %
169Tm (KED)	0.004 ppb	964 cps	3.3 %
174Yb (KED)	0.027 ppb	2,284 cps	6.8 %
175Lu (KED)	0.004 ppb	538 cps	7.4 %
205Tl (KED)	0.015 ppb	2,628 cps	3.3 %
208Pb (KED)	1.604 ppb	196,953 cps	0.9 %
232Th (KED)	0.141 ppb	33,513 cps	1.1 %
238U (KED)	0.028 ppb	7,778 cps	3.1 %