

## Instrument Summary:

Instrument ID: iCAP Q  
Serial Number: Undefined

## Labbook Summary:

Path and filename: \_Application Data\Workspace\LabBooks\wlw\20210830-1.imexp  
Labbook created by: Administrator  
Based on template:  
Hardware configuration: iCAPQ1  
Labbook type: eQuant  
Qtegra version (last saved): 2.7.2425.154  
Labbook started: 8/30/2021 4:15:20 PM  
Labbook finished: 8/30/2021 5:30:53 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	

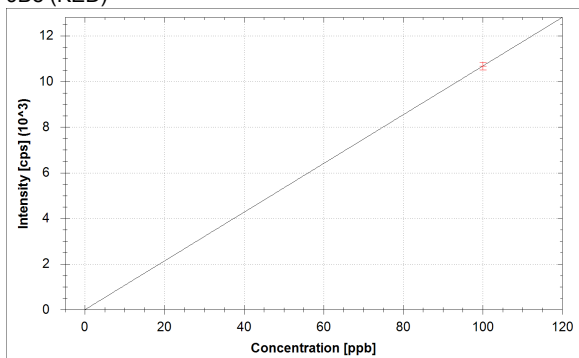
Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution
9Be (KED)	KED	0.03	3	0.1	Normal
11B (KED)	KED	0.03	3	0.1	Normal
24Mg (KED)	KED	0.03	3	0.1	Normal
27Al (KED)	KED	0.03	3	0.1	Normal
51V (KED)	KED	0.03	3	0.1	Normal
52Cr (KED)	KED	0.03	3	0.1	Normal
55Mn (KED)	KED	0.03	3	0.1	Normal
56Fe (KED)	KED	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)



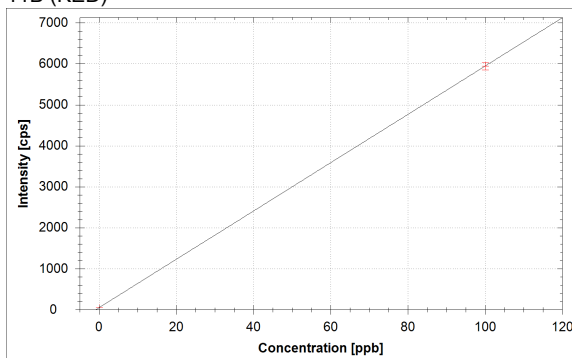
$$f(x) = 106.7235 \cdot x + 1.1111$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0541 \text{ ppb}$$

11B (KED)



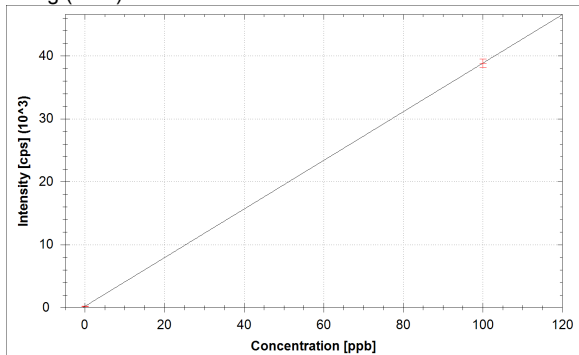
$$f(x) = 58.9143 \cdot x + 53.3335$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.905 \text{ ppb}$$

$$\text{LoD} = 0.1697 \text{ ppb}$$

24Mg (KED)



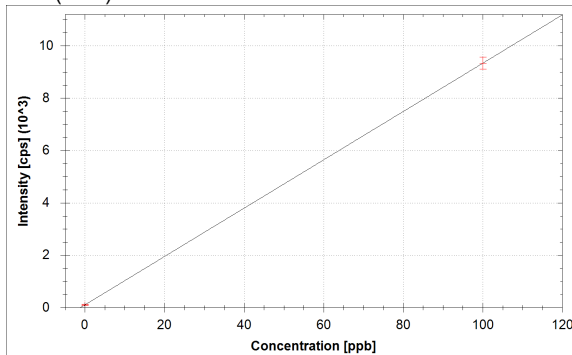
$$f(x) = 386.3589 \cdot x + 195.5574$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.506 \text{ ppb}$$

$$\text{LoD} = 0.1836 \text{ ppb}$$

27Al (KED)



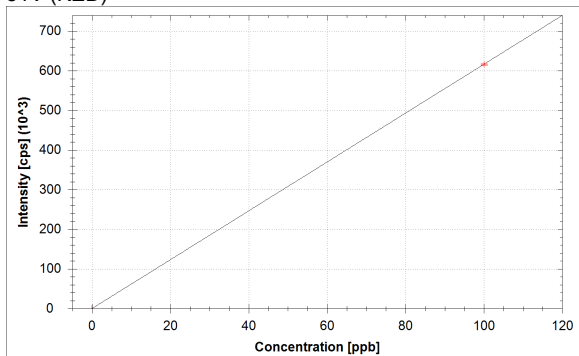
$$f(x) = 92.2905 \cdot x + 102.2227$$

$$R^2 = 1.0000$$

$$\text{BEC} = 1.108 \text{ ppb}$$

$$\text{LoD} = 1.0068 \text{ ppb}$$

51V (KED)



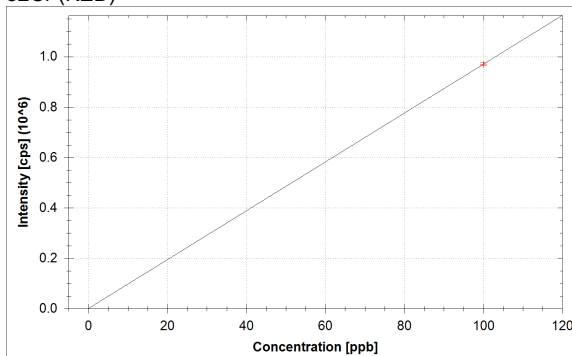
$$f(x) = 6164.0783 \cdot x + 11.1111$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0037 \text{ ppb}$$

52Cr (KED)



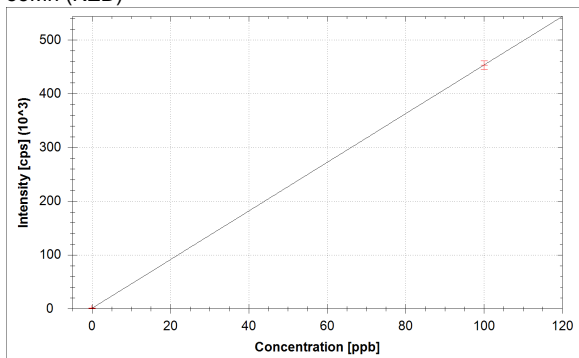
$$f(x) = 9700.4248 \cdot x + 240.0027$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.025 \text{ ppb}$$

$$\text{LoD} = 0.0162 \text{ ppb}$$

55Mn (KED)



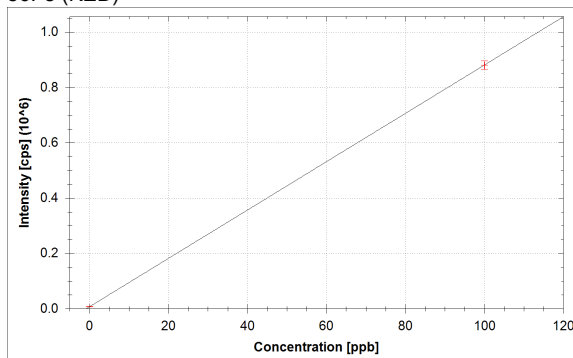
$$f(x) = 4523.0216 \cdot x + 823.3616$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.182 \text{ ppb}$$

$$\text{LoD} = 0.0378 \text{ ppb}$$

56Fe (KED)



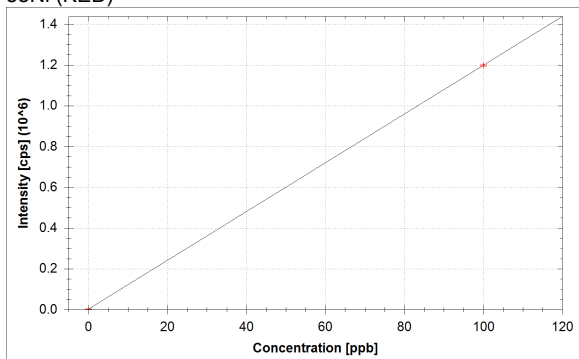
$$f(x) = 8735.8345 \cdot x + 7163.1729$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.820 \text{ ppb}$$

$$\text{LoD} = 0.1037 \text{ ppb}$$

58Ni (KED)



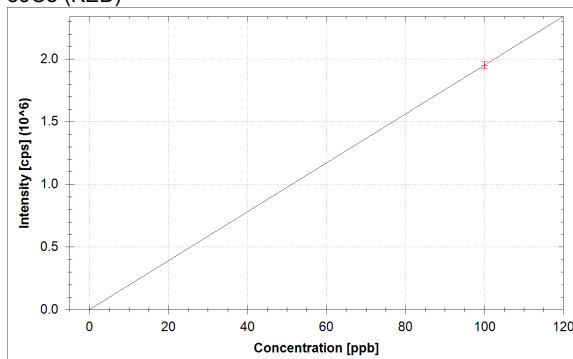
$$f(x) = 11963.5644 \cdot x + 2274.6540$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.190 \text{ ppb}$$

$$\text{LoD} = 0.0245 \text{ ppb}$$

59Co (KED)



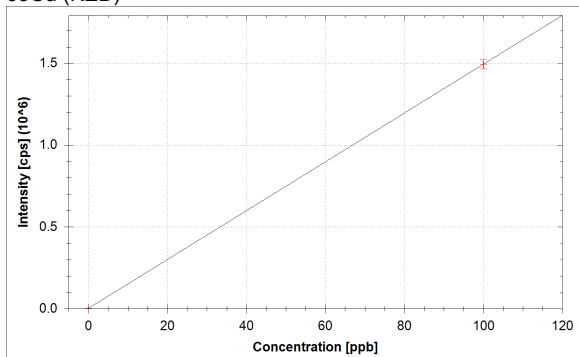
$$f(x) = 19503.3400 \cdot x + 13.3334$$

$$R^2 = 1.0000$$

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

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

63Cu (KED)



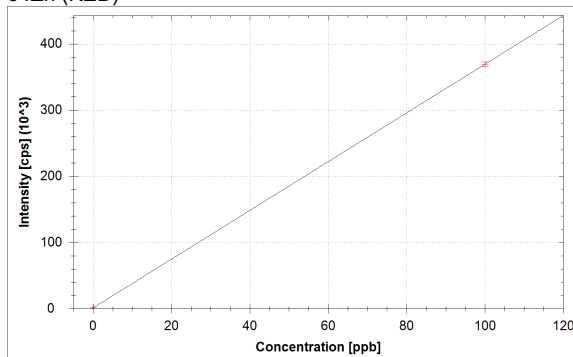
$$f(x) = 14927.2876 \cdot x + 1393.4134$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.093 \text{ ppb}$$

$$\text{LoD} = 0.0370 \text{ ppb}$$

64Zn (KED)



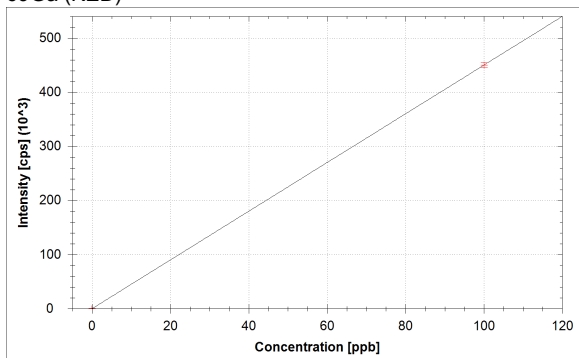
$$f(x) = 3682.4821 \cdot x + 986.7071$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.268 \text{ ppb}$$

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

69Ga (KED)



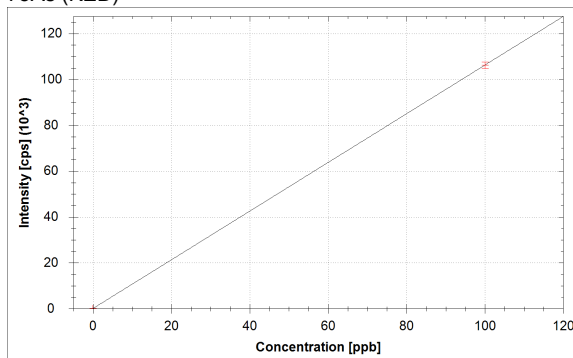
$$f(x) = 4500.7331 \cdot x + 136.6676$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0333 \text{ ppb}$$

75As (KED)



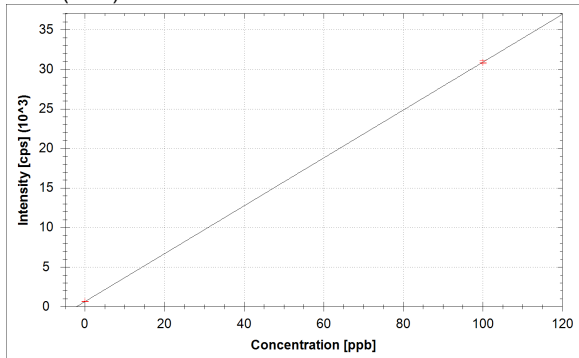
$$f(x) = 1061.2329 \cdot x + 110.0006$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.104 \text{ ppb}$$

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

80Se (KED)



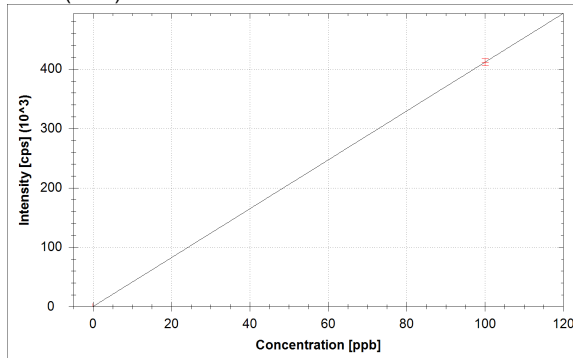
$$f(x) = 302.5931 \cdot x + 625.5720$$

$$R^2 = 1.0000$$

$$\text{BEC} = 2.067 \text{ ppb}$$

$$\text{LoD} = 0.2436 \text{ ppb}$$

85Rb (KED)



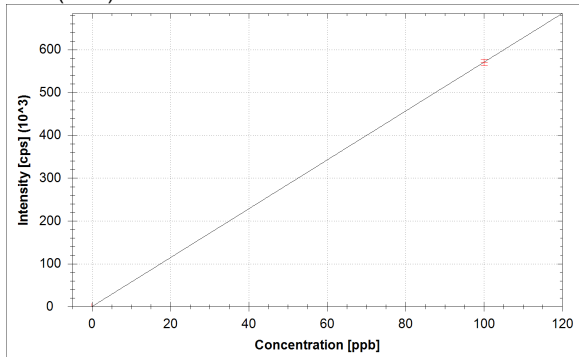
$$f(x) = 4114.2131 \cdot x + 34.4446$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.008 \text{ ppb}$$

$$\text{LoD} = 0.0028 \text{ ppb}$$

88Sr (KED)



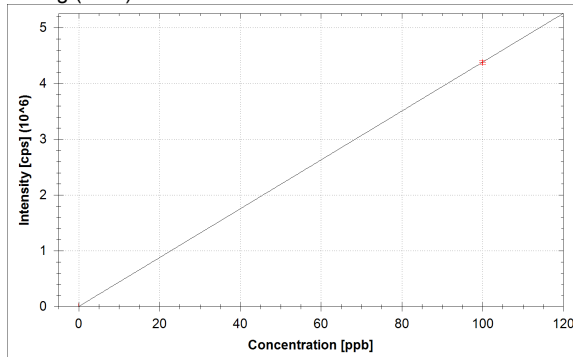
$$f(x) = 5704.3642 \cdot x + 78.8892$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0044 \text{ ppb}$$

107Ag (KED)

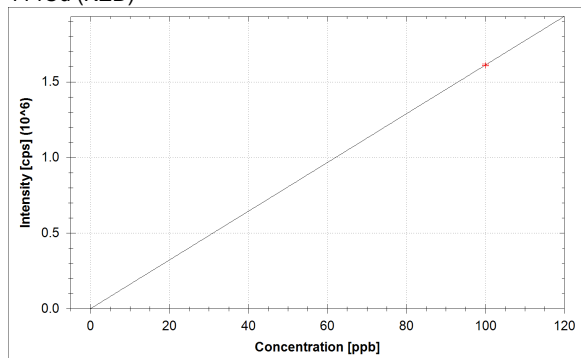


$$f(x) = 43795.8662 \cdot x + 718.9104$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.016 \text{ ppb}$$

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

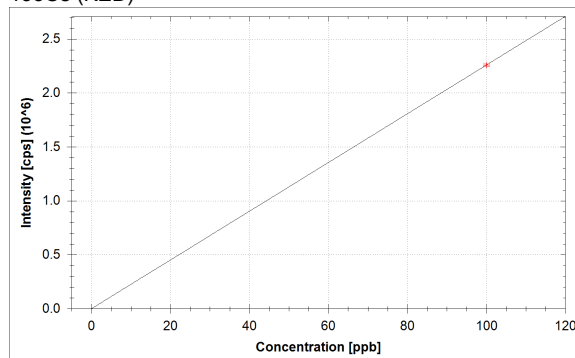
**<sup>114</sup>Cd (KED)**

$$f(x) = 16104.4595 \cdot x + 157.7790$$

$$R^2 = 1.0000$$

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

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

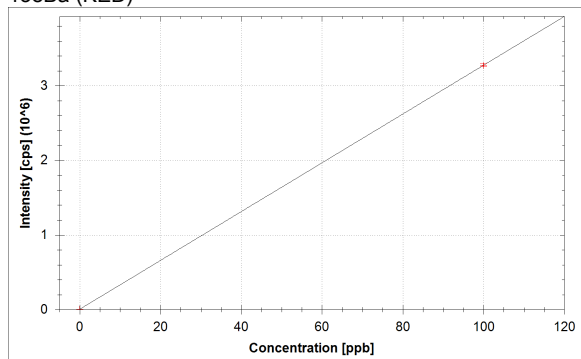
**<sup>133</sup>Cs (KED)**

$$f(x) = 22574.0869 \cdot x + 114.4451$$

$$R^2 = 1.0000$$

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

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

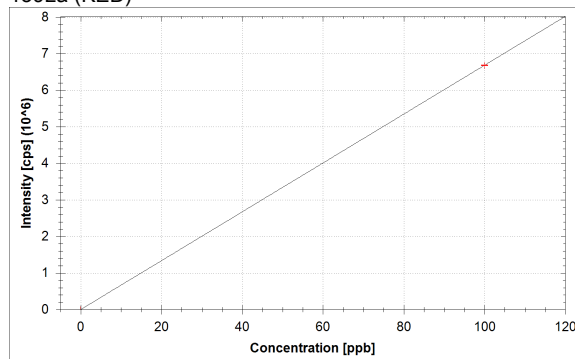
**<sup>138</sup>Ba (KED)**

$$f(x) = 32705.9543 \cdot x + 4107.3510$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.126 \text{ ppb}$$

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

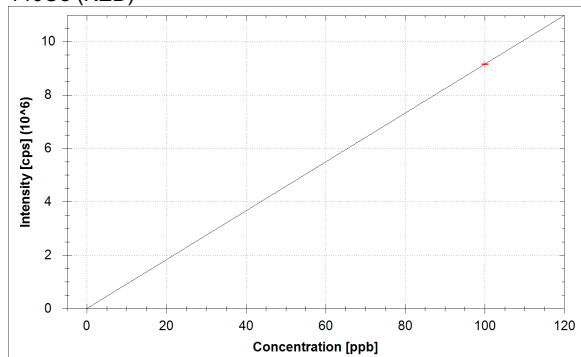
**<sup>139</sup>La (KED)**

$$f(x) = 66831.8325 \cdot x + 21.1112$$

$$R^2 = 1.0000$$

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

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

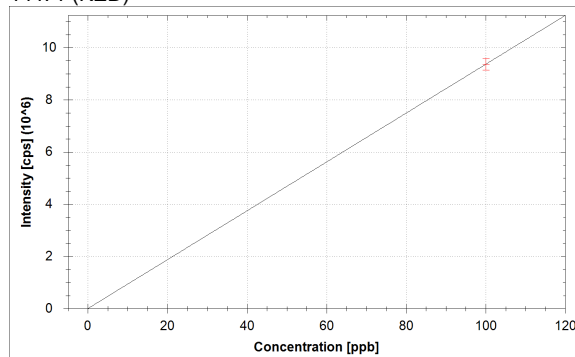
**<sup>140</sup>Ce (KED)**

$$f(x) = 91481.7029 \cdot x + 241.1138$$

$$R^2 = 1.0000$$

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

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

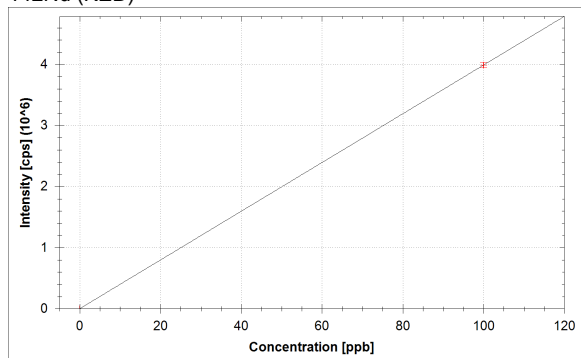
**<sup>141</sup>Pr (KED)**

$$f(x) = 93642.7145 \cdot x + 20.0000$$

$$R^2 = 1.0000$$

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

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

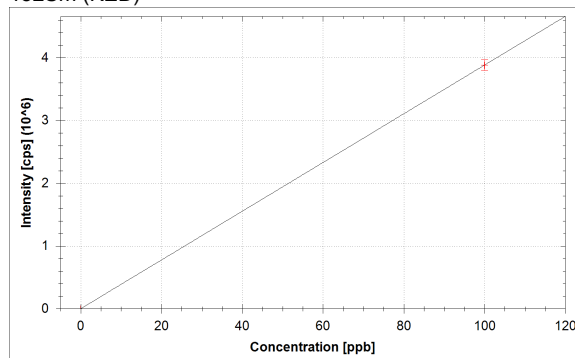
**<sup>142</sup>Nd (KED)**

$$f(x) = 39897.5337 \cdot x + 61.1113$$

$$R^2 = 1.0000$$

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

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

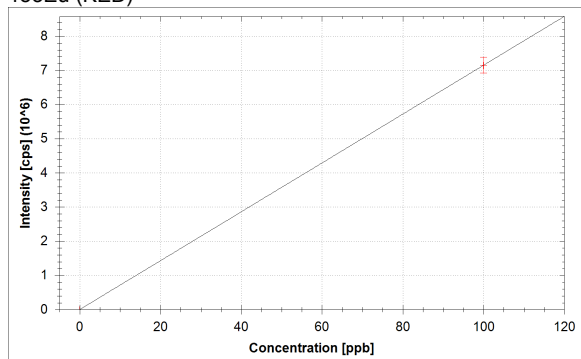
**<sup>152</sup>Sm (KED)**

$$f(x) = 38834.6751 \cdot x + 6.6667$$

$$R^2 = 1.0000$$

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

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

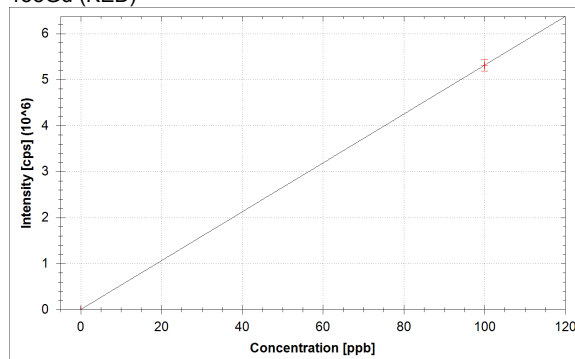
**<sup>153</sup>Eu (KED)**

$$f(x) = 71488.4796 \cdot x + 4.4445$$

$$R^2 = 1.0000$$

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

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

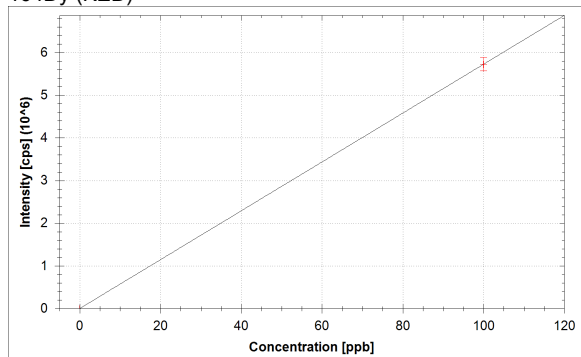
**<sup>158</sup>Gd (KED)**

$$f(x) = 53129.1083 \cdot x + 3.3333$$

$$R^2 = 1.0000$$

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

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

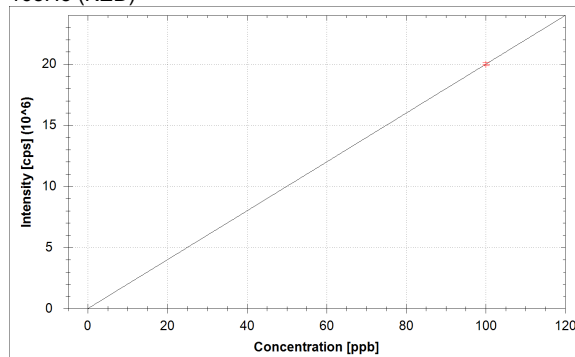
**<sup>164</sup>Dy (KED)**

$$f(x) = 57250.8475 \cdot x + 8.8889$$

$$R^2 = 1.0000$$

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

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

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

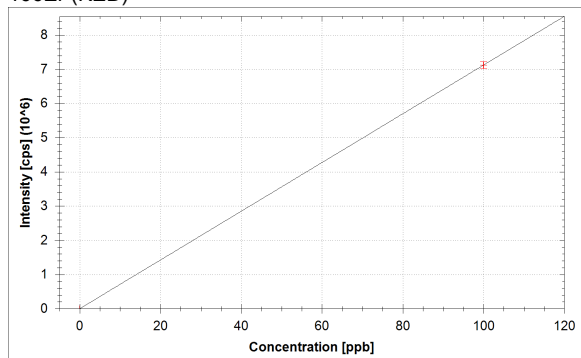
$$f(x) = 199856.0625 \cdot x + 4.4445$$

$$R^2 = 1.0000$$

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

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

166Er (KED)



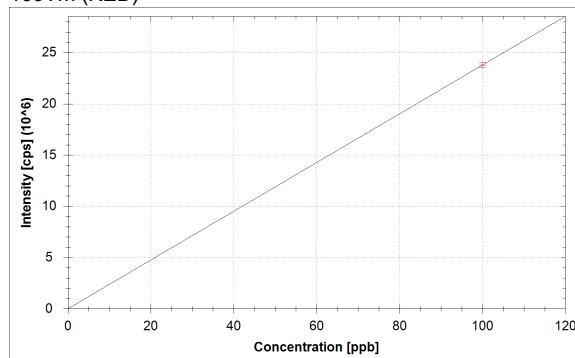
$$f(x) = 71229.6256 \cdot x + 56.6669$$

$$R^2 = 1.0000$$

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

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

169Tm (KED)



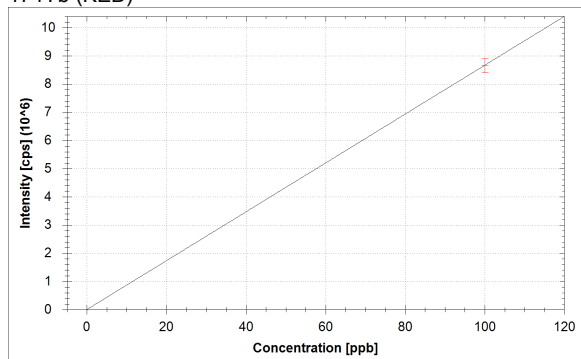
$$f(x) = 237777.0568 \cdot x$$

$$R^2 = 1.0000$$

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

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

174Yb (KED)



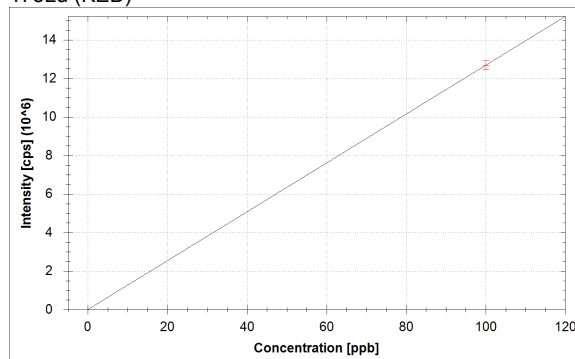
$$f(x) = 86673.9581 \cdot x + 1.1111$$

$$R^2 = 1.0000$$

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

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

175Lu (KED)



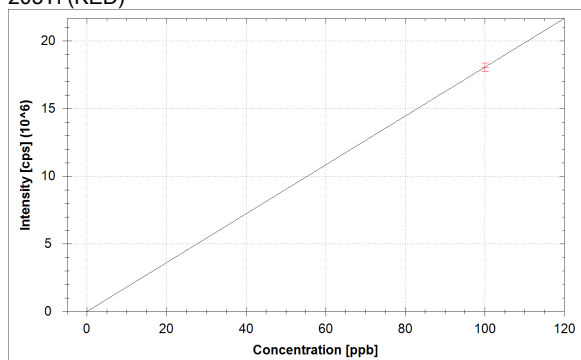
$$f(x) = 126791.5176 \cdot x + 1.1111$$

$$R^2 = 1.0000$$

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

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

205Tl (KED)



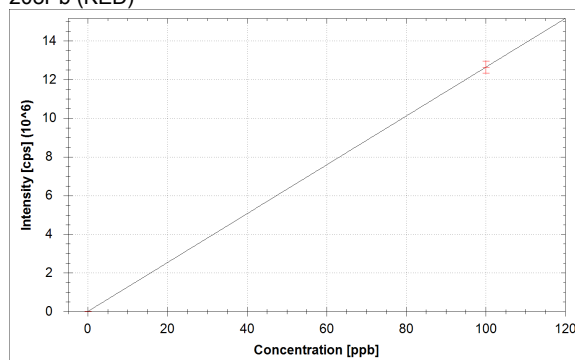
$$f(x) = 180530.4622 \cdot x + 12.2223$$

$$R^2 = 1.0000$$

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

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

208Pb (KED)



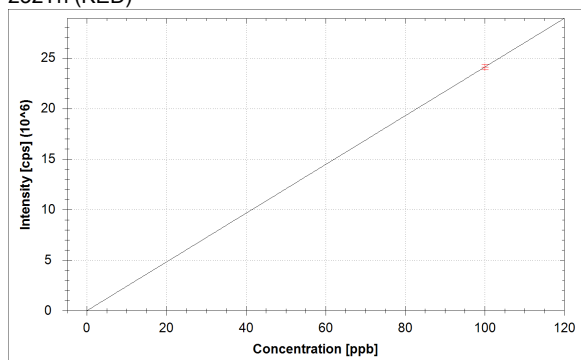
$$f(x) = 126278.3173 \cdot x + 7036.6033$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.056 \text{ ppb}$$

$$\text{LoD} = 0.0520 \text{ ppb}$$

232Th (KED)



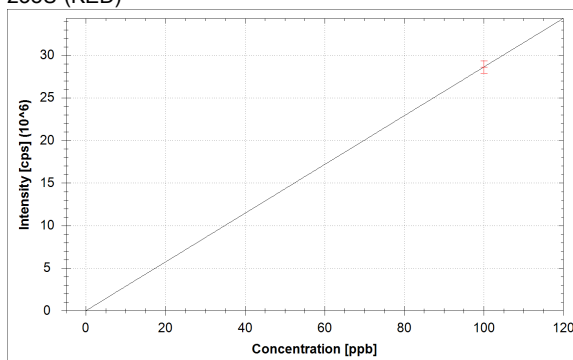
$$f(x) = 240987.5611 \cdot x + 433.3416$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = 0.0011 \text{ ppb}$$

238U (KED)



$$f(x) = 286119.6661 \cdot x + 108.8896$$

$$R^2 = 1.0000$$

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

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

**Standards:**

Analysis Index: 3  
 Analysis Name: std1  
 Analysis Type: STD  
 Analysis Started at: 8/30/2021 4:21:30 PM  
 Standard (Stock): std1  
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
9Be (KED)	100.000 ppb	1.6 %	100.000 ppb
11B (KED)	100.000 ppb	1.6 %	100.000 ppb
24Mg (KED)	100.000 ppb	1.7 %	100.000 ppb
27Al (KED)	100.000 ppb	2.5 %	100.000 ppb
51V (KED)	100.000 ppb	0.5 %	100.000 ppb
52Cr (KED)	100.000 ppb	0.5 %	100.000 ppb
55Mn (KED)	100.000 ppb	1.8 %	100.000 ppb
56Fe (KED)	100.000 ppb	1.8 %	100.000 ppb
58Ni (KED)	100.000 ppb	0.5 %	100.000 ppb
59Co (KED)	100.000 ppb	1.5 %	100.000 ppb
63Cu (KED)	100.000 ppb	1.9 %	100.000 ppb
64Zn (KED)	100.000 ppb	0.9 %	100.000 ppb
69Ga (KED)	100.000 ppb	1.0 %	100.000 ppb
75As (KED)	100.000 ppb	1.2 %	100.000 ppb
80Se (KED)	100.000 ppb	0.7 %	100.000 ppb
85Rb (KED)	100.000 ppb	1.4 %	100.000 ppb
88Sr (KED)	100.000 ppb	1.3 %	100.000 ppb
107Ag (KED)	100.000 ppb	0.8 %	100.000 ppb
114Cd (KED)	100.000 ppb	0.4 %	100.000 ppb
133Cs (KED)	100.000 ppb	0.4 %	100.000 ppb
138Ba (KED)	100.000 ppb	0.6 %	100.000 ppb
139La (KED)	100.000 ppb	0.1 %	100.000 ppb
140Ce (KED)	100.000 ppb	0.2 %	100.000 ppb
141Pr (KED)	100.000 ppb	2.4 %	100.000 ppb
142Nd (KED)	100.000 ppb	1.1 %	100.000 ppb
152Sm (KED)	100.000 ppb	2.2 %	100.000 ppb
153Eu (KED)	100.000 ppb	3.3 %	100.000 ppb
158Gd (KED)	100.000 ppb	2.4 %	100.000 ppb
164Dy (KED)	100.000 ppb	2.8 %	100.000 ppb
165Ho (KED)	100.000 ppb	0.6 %	100.000 ppb
166Er (KED)	100.000 ppb	1.4 %	100.000 ppb
169Tm (KED)	100.000 ppb	1.1 %	100.000 ppb
174Yb (KED)	100.000 ppb	2.9 %	100.000 ppb
175Lu (KED)	100.000 ppb	1.8 %	100.000 ppb
205Tl (KED)	100.000 ppb	1.7 %	100.000 ppb
208Pb (KED)	100.000 ppb	2.5 %	100.000 ppb
232Th (KED)	100.000 ppb	1.1 %	100.000 ppb
238U (KED)	100.000 ppb	2.5 %	100.000 ppb

## Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Main Runs:	Survey Runs:	Start Time:	User name:
1	water	3	0	8/30/2021 4:15:26 PM	WINDOWS-UPCI4ER\Administrator
2	blk	3	0	8/30/2021 4:18:23 PM	WINDOWS-UPCI4ER\Administrator
3	std1	3	0	8/30/2021 4:21:30 PM	WINDOWS-UPCI4ER\Administrator
4	1701502jian	3	0	8/30/2021 4:25:08 PM	WINDOWS-UPCI4ER\Administrator
5	18006jian	3	0	8/30/2021 4:28:40 PM	WINDOWS-UPCI4ER\Administrator
6	1701637jian	3	0	8/30/2021 4:31:55 PM	WINDOWS-UPCI4ER\Administrator
7	17004jian	3	0	8/30/2021 4:35:24 PM	WINDOWS-UPCI4ER\Administrator
8	1702003jian	3	0	8/30/2021 4:38:51 PM	WINDOWS-UPCI4ER\Administrator
9	1701508jian	3	0	8/30/2021 4:42:04 PM	WINDOWS-UPCI4ER\Administrator
10	18096jian	3	0	8/30/2021 4:45:23 PM	WINDOWS-UPCI4ER\Administrator
11	18003jian	3	0	8/30/2021 4:48:50 PM	WINDOWS-UPCI4ER\Administrator
12	18001jian	3	0	8/30/2021 4:52:14 PM	WINDOWS-UPCI4ER\Administrator
13	268jian	3	0	8/30/2021 4:55:16 PM	WINDOWS-UPCI4ER\Administrator
14	17174jian	3	0	8/30/2021 4:58:28 PM	WINDOWS-UPCI4ER\Administrator
15	17148jian	3	0	8/30/2021 5:01:39 PM	WINDOWS-UPCI4ER\Administrator
16	18094jian	3	0	8/30/2021 5:04:48 PM	WINDOWS-UPCI4ER\Administrator
17	17180jian	3	0	8/30/2021 5:07:53 PM	WINDOWS-UPCI4ER\Administrator
18	17186jian	3	0	8/30/2021 5:11:33 PM	WINDOWS-UPCI4ER\Administrator
19	17210jian	3	0	8/30/2021 5:14:51 PM	WINDOWS-UPCI4ER\Administrator
20	17013jian	3	0	8/30/2021 5:18:00 PM	WINDOWS-UPCI4ER\Administrator
21	17011jian	3	0	8/30/2021 5:21:26 PM	WINDOWS-UPCI4ER\Administrator
22	18120jian	3	0	8/30/2021 5:24:33 PM	WINDOWS-UPCI4ER\Administrator
23	18060jian	3	0	8/30/2021 5:27:39 PM	WINDOWS-UPCI4ER\Administrator

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 1

Analysis name: water

Analysis started at: 8/30/2021 4:15:26 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	0.0 %
11B (KED)	-0.905 ppb	0.0 %
24Mg (KED)	-0.414 ppb	9.8 %
27Al (KED)	-1.023 ppb	14.3 %
51V (KED)	-0.001 ppb	43.3 %
52Cr (KED)	-0.020 ppb	5.2 %
55Mn (KED)	-0.161 ppb	2.5 %
56Fe (KED)	-0.789 ppb	0.6 %
58Ni (KED)	-0.069 ppb	3.9 %
59Co (KED)	-0.001 ppb	34.6 %
63Cu (KED)	-0.082 ppb	1.3 %
64Zn (KED)	-0.155 ppb	7.1 %
69Ga (KED)	-0.028 ppb	5.4 %
75As (KED)	-0.094 ppb	6.7 %
80Se (KED)	0.066 ppb	249.6 %
85Rb (KED)	-0.006 ppb	26.0 %
88Sr (KED)	-0.011 ppb	11.6 %
107Ag (KED)	-0.016 ppb	0.3 %
114Cd (KED)	-0.009 ppb	0.0 %
133Cs (KED)	-0.005 ppb	0.0 %
138Ba (KED)	-0.118 ppb	0.6 %
139La (KED)	0.000 ppb	0.0 %
140Ce (KED)	-0.003 ppb	1.6 %
141Pr (KED)	0.000 ppb	0.0 %
142Nd (KED)	-0.001 ppb	3.3 %
152Sm (KED)	0.000 ppb	34.6 %
153Eu (KED)	0.000 ppb	0.0 %
158Gd (KED)	0.000 ppb	86.6 %
164Dy (KED)	0.000 ppb	0.0 %
165Ho (KED)	0.000 ppb	0.0 %
166Er (KED)	-0.001 ppb	0.0 %
169Tm (KED)	0.000 ppb	
174Yb (KED)	0.000 ppb	0.0 %
175Lu (KED)	0.000 ppb	0.0 %
205Tl (KED)	0.000 ppb	964.4 %
208Pb (KED)	-0.055 ppb	0.3 %
232Th (KED)	-0.002 ppb	0.0 %
238U (KED)	0.000 ppb	1.8 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	-0.010 ppb	0 cps	
11B (KED)	-0.905 ppb	0 cps	
24Mg (KED)	-0.414 ppb	36 cps	44.3 %
27Al (KED)	-1.023 ppb	8 cps	173.2 %
51V (KED)	-0.001 ppb	2 cps	173.2 %
52Cr (KED)	-0.020 ppb	46 cps	22.4 %
55Mn (KED)	-0.161 ppb	96 cps	19.2 %
56Fe (KED)	-0.789 ppb	273 cps	15.9 %
58Ni (KED)	-0.069 ppb	1,452 cps	2.2 %
59Co (KED)	-0.001 ppb	2 cps	173.2 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	-0.082 ppb	162 cps	9.5 %
64Zn (KED)	-0.155 ppb	417 cps	9.7 %
69Ga (KED)	-0.028 ppb	9 cps	78.1 %
75As (KED)	-0.094 ppb	10 cps	66.7 %
80Se (KED)	0.066 ppb	646 cps	7.7 %
85Rb (KED)	-0.006 ppb	8 cps	89.2 %
88Sr (KED)	-0.011 ppb	19 cps	36.7 %
107Ag (KED)	-0.016 ppb	1 cps	173.2 %
114Cd (KED)	-0.009 ppb	7 cps	0.0 %
133Cs (KED)	-0.005 ppb	7 cps	0.0 %
138Ba (KED)	-0.118 ppb	263 cps	8.9 %
139La (KED)	0.000 ppb	0 cps	
140Ce (KED)	-0.003 ppb	2 cps	173.2 %
141Pr (KED)	0.000 ppb	0 cps	
142Nd (KED)	-0.001 ppb	2 cps	86.6 %
152Sm (KED)	0.000 ppb	1 cps	173.2 %
153Eu (KED)	0.000 ppb	0 cps	
158Gd (KED)	0.000 ppb	1 cps	173.2 %
164Dy (KED)	0.000 ppb	0 cps	
165Ho (KED)	0.000 ppb	0 cps	
166Er (KED)	-0.001 ppb	0 cps	
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	11 cps	96.4 %
208Pb (KED)	-0.055 ppb	138 cps	14.2 %
232Th (KED)	-0.002 ppb	0 cps	
238U (KED)	0.000 ppb	1 cps	173.2 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 2

Analysis name: blk

Analysis started at: 8/30/2021 4:18:23 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	173.2 %
11B (KED)	0.000 ppb	6.3 %
24Mg (KED)	0.000 ppb	12.1 %
27Al (KED)	0.000 ppb	30.3 %
51V (KED)	0.000 ppb	69.3 %
52Cr (KED)	0.000 ppb	21.8 %
55Mn (KED)	0.000 ppb	6.9 %
56Fe (KED)	0.000 ppb	4.2 %
58Ni (KED)	0.000 ppb	4.3 %
59Co (KED)	0.000 ppb	25.0 %
63Cu (KED)	0.000 ppb	13.2 %
64Zn (KED)	0.000 ppb	4.9 %
69Ga (KED)	0.000 ppb	36.6 %
75As (KED)	0.000 ppb	0.0 %
80Se (KED)	0.000 ppb	3.9 %
85Rb (KED)	0.000 ppb	11.2 %
88Sr (KED)	0.000 ppb	10.6 %
107Ag (KED)	0.000 ppb	1.9 %
114Cd (KED)	0.000 ppb	8.5 %
133Cs (KED)	0.000 ppb	17.1 %
138Ba (KED)	0.000 ppb	1.8 %
139La (KED)	0.000 ppb	39.7 %
140Ce (KED)	0.000 ppb	6.8 %
141Pr (KED)	0.000 ppb	16.7 %
142Nd (KED)	0.000 ppb	12.6 %
152Sm (KED)	0.000 ppb	0.0 %
153Eu (KED)	0.000 ppb	114.6 %
158Gd (KED)	0.000 ppb	0.0 %
164Dy (KED)	0.000 ppb	21.7 %
165Ho (KED)	0.000 ppb	43.3 %
166Er (KED)	0.000 ppb	21.2 %
169Tm (KED)	0.000 ppb	
174Yb (KED)	0.000 ppb	173.2 %
175Lu (KED)	0.000 ppb	173.2 %
205Tl (KED)	0.000 ppb	15.7 %
208Pb (KED)	0.000 ppb	31.1 %
232Th (KED)	0.000 ppb	20.2 %
238U (KED)	0.000 ppb	20.4 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	1 cps	173.2 %
11B (KED)	0.000 ppb	53 cps	6.3 %
24Mg (KED)	0.000 ppb	196 cps	12.1 %
27Al (KED)	0.000 ppb	102 cps	30.3 %
51V (KED)	0.000 ppb	11 cps	69.3 %
52Cr (KED)	0.000 ppb	240 cps	21.8 %
55Mn (KED)	0.000 ppb	823 cps	6.9 %
56Fe (KED)	0.000 ppb	7,163 cps	4.2 %
58Ni (KED)	0.000 ppb	2,275 cps	4.3 %
59Co (KED)	0.000 ppb	13 cps	25.0 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	0.000 ppb	1,393 cps	13.2 %
64Zn (KED)	0.000 ppb	987 cps	4.9 %
69Ga (KED)	0.000 ppb	137 cps	36.6 %
75As (KED)	0.000 ppb	110 cps	0.0 %
80Se (KED)	0.000 ppb	626 cps	3.9 %
85Rb (KED)	0.000 ppb	34 cps	11.2 %
88Sr (KED)	0.000 ppb	79 cps	10.6 %
107Ag (KED)	0.000 ppb	719 cps	1.9 %
114Cd (KED)	0.000 ppb	158 cps	8.5 %
133Cs (KED)	0.000 ppb	114 cps	17.1 %
138Ba (KED)	0.000 ppb	4,107 cps	1.8 %
139La (KED)	0.000 ppb	21 cps	39.7 %
140Ce (KED)	0.000 ppb	241 cps	6.8 %
141Pr (KED)	0.000 ppb	20 cps	16.7 %
142Nd (KED)	0.000 ppb	61 cps	12.6 %
152Sm (KED)	0.000 ppb	7 cps	0.0 %
153Eu (KED)	0.000 ppb	4 cps	114.6 %
158Gd (KED)	0.000 ppb	3 cps	0.0 %
164Dy (KED)	0.000 ppb	9 cps	21.7 %
165Ho (KED)	0.000 ppb	4 cps	43.3 %
166Er (KED)	0.000 ppb	57 cps	21.2 %
169Tm (KED)	0.000 ppb	0 cps	
174Yb (KED)	0.000 ppb	1 cps	173.2 %
175Lu (KED)	0.000 ppb	1 cps	173.2 %
205Tl (KED)	0.000 ppb	12 cps	15.7 %
208Pb (KED)	0.000 ppb	7,037 cps	31.1 %
232Th (KED)	0.000 ppb	433 cps	20.2 %
238U (KED)	0.000 ppb	109 cps	20.4 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 3

Analysis name: std1

Analysis started at: 8/30/2021 4:21:30 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	100.000 ppb	1.6 %
11B (KED)	100.000 ppb	1.6 %
24Mg (KED)	100.000 ppb	1.7 %
27Al (KED)	100.000 ppb	2.5 %
51V (KED)	100.000 ppb	0.5 %
52Cr (KED)	100.000 ppb	0.5 %
55Mn (KED)	100.000 ppb	1.8 %
56Fe (KED)	100.000 ppb	1.8 %
58Ni (KED)	100.000 ppb	0.5 %
59Co (KED)	100.000 ppb	1.5 %
63Cu (KED)	100.000 ppb	1.9 %
64Zn (KED)	100.000 ppb	0.9 %
69Ga (KED)	100.000 ppb	1.0 %
75As (KED)	100.000 ppb	1.2 %
80Se (KED)	100.000 ppb	0.7 %
85Rb (KED)	100.000 ppb	1.4 %
88Sr (KED)	100.000 ppb	1.3 %
107Ag (KED)	100.000 ppb	0.8 %
114Cd (KED)	100.000 ppb	0.4 %
133Cs (KED)	100.000 ppb	0.4 %
138Ba (KED)	100.000 ppb	0.6 %
139La (KED)	100.000 ppb	0.1 %
140Ce (KED)	100.000 ppb	0.2 %
141Pr (KED)	100.000 ppb	2.4 %
142Nd (KED)	100.000 ppb	1.1 %
152Sm (KED)	100.000 ppb	2.2 %
153Eu (KED)	100.000 ppb	3.3 %
158Gd (KED)	100.000 ppb	2.4 %
164Dy (KED)	100.000 ppb	2.8 %
165Ho (KED)	100.000 ppb	0.6 %
166Er (KED)	100.000 ppb	1.4 %
169Tm (KED)	100.000 ppb	1.1 %
174Yb (KED)	100.000 ppb	2.9 %
175Lu (KED)	100.000 ppb	1.8 %
205Tl (KED)	100.000 ppb	1.7 %
208Pb (KED)	100.000 ppb	2.5 %
232Th (KED)	100.000 ppb	1.1 %
238U (KED)	100.000 ppb	2.5 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	100.000 ppb	10,673 cps	1.6 %
11B (KED)	100.000 ppb	5,945 cps	1.6 %
24Mg (KED)	100.000 ppb	38,831 cps	1.7 %
27Al (KED)	100.000 ppb	9,331 cps	2.4 %
51V (KED)	100.000 ppb	616,419 cps	0.5 %
52Cr (KED)	100.000 ppb	970,282 cps	0.5 %
55Mn (KED)	100.000 ppb	453,126 cps	1.8 %
56Fe (KED)	100.000 ppb	880,747 cps	1.7 %
58Ni (KED)	100.000 ppb	1,198,631 cps	0.5 %
59Co (KED)	100.000 ppb	1,950,347 cps	1.5 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	100.000 ppb	1,494,122 cps	1.9 %
64Zn (KED)	100.000 ppb	369,235 cps	0.9 %
69Ga (KED)	100.000 ppb	450,210 cps	1.0 %
75As (KED)	100.000 ppb	106,233 cps	1.2 %
80Se (KED)	100.000 ppb	30,885 cps	0.7 %
85Rb (KED)	100.000 ppb	411,456 cps	1.4 %
88Sr (KED)	100.000 ppb	570,515 cps	1.3 %
107Ag (KED)	100.000 ppb	4,380,306 cps	0.8 %
114Cd (KED)	100.000 ppb	1,610,604 cps	0.4 %
133Cs (KED)	100.000 ppb	2,257,523 cps	0.4 %
138Ba (KED)	100.000 ppb	3,274,703 cps	0.6 %
139La (KED)	100.000 ppb	6,683,204 cps	0.1 %
140Ce (KED)	100.000 ppb	9,148,411 cps	0.2 %
141Pr (KED)	100.000 ppb	9,364,291 cps	2.4 %
142Nd (KED)	100.000 ppb	3,989,814 cps	1.1 %
152Sm (KED)	100.000 ppb	3,883,474 cps	2.2 %
153Eu (KED)	100.000 ppb	7,148,852 cps	3.3 %
158Gd (KED)	100.000 ppb	5,312,914 cps	2.4 %
164Dy (KED)	100.000 ppb	5,725,094 cps	2.8 %
165Ho (KED)	100.000 ppb	19,985,611 cps	0.6 %
166Er (KED)	100.000 ppb	7,123,019 cps	1.4 %
169Tm (KED)	100.000 ppb	23,777,706 cps	1.1 %
174Yb (KED)	100.000 ppb	8,667,397 cps	2.9 %
175Lu (KED)	100.000 ppb	12,679,153 cps	1.8 %
205Tl (KED)	100.000 ppb	18,053,058 cps	1.7 %
208Pb (KED)	100.000 ppb	12,634,868 cps	2.5 %
232Th (KED)	100.000 ppb	24,099,189 cps	1.1 %
238U (KED)	100.000 ppb	28,612,076 cps	2.5 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 4

Analysis name: 1701502jian

Analysis started at: 8/30/2021 4:25:08 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.031 ppb	152.8 %
11B (KED)	2.716 ppb	15.0 %
24Mg (KED)	485.790 ppb	4.4 %
27Al (KED)	447.244 ppb	5.1 %
51V (KED)	0.877 ppb	4.0 %
52Cr (KED)	5.207 ppb	3.5 %
55Mn (KED)	19.521 ppb	2.6 %
56Fe (KED)	435.686 ppb	3.5 %
58Ni (KED)	3.092 ppb	3.6 %
59Co (KED)	0.261 ppb	2.0 %
63Cu (KED)	14.576 ppb	3.4 %
64Zn (KED)	185.920 ppb	2.1 %
69Ga (KED)	2.526 ppb	6.6 %
75As (KED)	0.454 ppb	6.2 %
80Se (KED)	3.338 ppb	15.4 %
85Rb (KED)	2.534 ppb	2.6 %
88Sr (KED)	6.906 ppb	2.7 %
107Ag (KED)	0.133 ppb	2.8 %
114Cd (KED)	0.604 ppb	1.6 %
133Cs (KED)	0.083 ppb	7.3 %
138Ba (KED)	9.660 ppb	1.3 %
139La (KED)	0.448 ppb	1.3 %
140Ce (KED)	0.893 ppb	1.3 %
141Pr (KED)	0.111 ppb	2.8 %
142Nd (KED)	0.551 ppb	1.9 %
152Sm (KED)	0.081 ppb	11.2 %
153Eu (KED)	0.020 ppb	7.5 %
158Gd (KED)	0.074 ppb	3.9 %
164Dy (KED)	0.053 ppb	3.0 %
165Ho (KED)	0.011 ppb	4.0 %
166Er (KED)	0.027 ppb	9.2 %
169Tm (KED)	0.004 ppb	13.0 %
174Yb (KED)	0.022 ppb	3.9 %
175Lu (KED)	0.005 ppb	10.0 %
205Tl (KED)	0.016 ppb	11.2 %
208Pb (KED)	2.167 ppb	2.0 %
232Th (KED)	0.232 ppb	13.4 %
238U (KED)	0.040 ppb	6.0 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.031 ppb	4 cps	114.6 %
11B (KED)	2.716 ppb	213 cps	11.3 %
24Mg (KED)	485.790 ppb	187,885 cps	4.4 %
27Al (KED)	447.244 ppb	41,379 cps	5.1 %
51V (KED)	0.877 ppb	5,415 cps	4.0 %
52Cr (KED)	5.207 ppb	50,752 cps	3.5 %
55Mn (KED)	19.521 ppb	89,119 cps	2.6 %
56Fe (KED)	435.686 ppb	3,813,248 cps	3.5 %
58Ni (KED)	3.092 ppb	39,265 cps	3.4 %
59Co (KED)	0.261 ppb	5,100 cps	2.0 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	14.576 ppb	218,969 cps	3.4 %
64Zn (KED)	185.920 ppb	685,633 cps	2.1 %
69Ga (KED)	2.526 ppb	11,508 cps	6.5 %
75As (KED)	0.454 ppb	592 cps	5.0 %
80Se (KED)	3.338 ppb	1,636 cps	9.5 %
85Rb (KED)	2.534 ppb	10,461 cps	2.6 %
88Sr (KED)	6.906 ppb	39,471 cps	2.6 %
107Ag (KED)	0.133 ppb	6,548 cps	2.5 %
114Cd (KED)	0.604 ppb	9,884 cps	1.6 %
133Cs (KED)	0.083 ppb	1,991 cps	6.8 %
138Ba (KED)	9.660 ppb	320,049 cps	1.3 %
139La (KED)	0.448 ppb	29,970 cps	1.3 %
140Ce (KED)	0.893 ppb	81,926 cps	1.3 %
141Pr (KED)	0.111 ppb	10,433 cps	2.8 %
142Nd (KED)	0.551 ppb	22,059 cps	1.9 %
152Sm (KED)	0.081 ppb	3,145 cps	11.1 %
153Eu (KED)	0.020 ppb	1,399 cps	7.5 %
158Gd (KED)	0.074 ppb	3,918 cps	3.9 %
164Dy (KED)	0.053 ppb	3,053 cps	3.0 %
165Ho (KED)	0.011 ppb	2,227 cps	4.0 %
166Er (KED)	0.027 ppb	1,947 cps	8.9 %
169Tm (KED)	0.004 ppb	1,064 cps	13.0 %
174Yb (KED)	0.022 ppb	1,951 cps	3.9 %
175Lu (KED)	0.005 ppb	591 cps	10.0 %
205Tl (KED)	0.016 ppb	2,894 cps	11.2 %
208Pb (KED)	2.167 ppb	280,648 cps	1.9 %
232Th (KED)	0.232 ppb	56,325 cps	13.3 %
238U (KED)	0.040 ppb	11,692 cps	5.9 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 5

Analysis name: 18006jian

Analysis started at: 8/30/2021 4:28:40 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.021 ppb	150.0 %
11B (KED)	9.883 ppb	4.6 %
24Mg (KED)	731.359 ppb	3.6 %
27Al (KED)	556.145 ppb	3.0 %
51V (KED)	1.125 ppb	1.1 %
52Cr (KED)	5.720 ppb	0.9 %
55Mn (KED)	19.267 ppb	3.3 %
56Fe (KED)	440.274 ppb	2.2 %
58Ni (KED)	2.979 ppb	1.5 %
59Co (KED)	0.284 ppb	4.1 %
63Cu (KED)	10.894 ppb	2.4 %
64Zn (KED)	176.656 ppb	1.2 %
69Ga (KED)	2.705 ppb	4.1 %
75As (KED)	0.496 ppb	8.8 %
80Se (KED)	3.716 ppb	9.8 %
85Rb (KED)	2.834 ppb	2.3 %
88Sr (KED)	7.945 ppb	1.9 %
107Ag (KED)	0.091 ppb	2.2 %
114Cd (KED)	0.510 ppb	2.2 %
133Cs (KED)	0.084 ppb	2.0 %
138Ba (KED)	8.599 ppb	2.0 %
139La (KED)	0.438 ppb	1.8 %
140Ce (KED)	0.863 ppb	0.6 %
141Pr (KED)	0.099 ppb	3.0 %
142Nd (KED)	0.523 ppb	4.1 %
152Sm (KED)	0.070 ppb	3.6 %
153Eu (KED)	0.016 ppb	8.9 %
158Gd (KED)	0.065 ppb	1.8 %
164Dy (KED)	0.046 ppb	1.0 %
165Ho (KED)	0.009 ppb	5.7 %
166Er (KED)	0.026 ppb	5.3 %
169Tm (KED)	0.003 ppb	7.3 %
174Yb (KED)	0.019 ppb	0.8 %
175Lu (KED)	0.003 ppb	7.2 %
205Tl (KED)	0.010 ppb	10.1 %
208Pb (KED)	1.175 ppb	2.8 %
232Th (KED)	0.132 ppb	2.5 %
238U (KED)	0.032 ppb	21.7 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.021 ppb	3 cps	100.0 %
11B (KED)	9.883 ppb	636 cps	4.2 %
24Mg (KED)	731.359 ppb	282,762 cps	3.6 %
27Al (KED)	556.145 ppb	51,429 cps	3.0 %
51V (KED)	1.125 ppb	6,944 cps	1.1 %
52Cr (KED)	5.720 ppb	55,725 cps	0.8 %
55Mn (KED)	19.267 ppb	87,970 cps	3.3 %
56Fe (KED)	440.274 ppb	3,853,325 cps	2.2 %
58Ni (KED)	2.979 ppb	37,919 cps	1.4 %
59Co (KED)	0.284 ppb	5,561 cps	4.1 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	10.894 ppb	164,008 cps	2.4 %
64Zn (KED)	176.656 ppb	651,520 cps	1.2 %
69Ga (KED)	2.705 ppb	12,309 cps	4.1 %
75As (KED)	0.496 ppb	637 cps	7.3 %
80Se (KED)	3.716 ppb	1,750 cps	6.3 %
85Rb (KED)	2.834 ppb	11,694 cps	2.3 %
88Sr (KED)	7.945 ppb	45,398 cps	1.9 %
107Ag (KED)	0.091 ppb	4,724 cps	1.8 %
114Cd (KED)	0.510 ppb	8,376 cps	2.1 %
133Cs (KED)	0.084 ppb	2,003 cps	1.9 %
138Ba (KED)	8.599 ppb	285,332 cps	2.0 %
139La (KED)	0.438 ppb	29,312 cps	1.8 %
140Ce (KED)	0.863 ppb	79,151 cps	0.6 %
141Pr (KED)	0.099 ppb	9,258 cps	3.0 %
142Nd (KED)	0.523 ppb	20,913 cps	4.1 %
152Sm (KED)	0.070 ppb	2,706 cps	3.6 %
153Eu (KED)	0.016 ppb	1,123 cps	8.9 %
158Gd (KED)	0.065 ppb	3,479 cps	1.8 %
164Dy (KED)	0.046 ppb	2,646 cps	1.0 %
165Ho (KED)	0.009 ppb	1,868 cps	5.7 %
166Er (KED)	0.026 ppb	1,891 cps	5.2 %
169Tm (KED)	0.003 ppb	690 cps	7.3 %
174Yb (KED)	0.019 ppb	1,689 cps	0.8 %
175Lu (KED)	0.003 ppb	392 cps	7.2 %
205Tl (KED)	0.010 ppb	1,787 cps	10.0 %
208Pb (KED)	1.175 ppb	155,445 cps	2.6 %
232Th (KED)	0.132 ppb	32,362 cps	2.5 %
238U (KED)	0.032 ppb	9,376 cps	21.5 %

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 6

Analysis name: 1701637jian

Analysis started at: 8/30/2021 4:31:55 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	1,596,686,889,329,620,000.0 %
11B (KED)	10.882 ppb	4.8 %
24Mg (KED)	910.162 ppb	1.8 %
27Al (KED)	655.990 ppb	1.4 %
51V (KED)	1.314 ppb	1.5 %
52Cr (KED)	6.419 ppb	1.6 %
55Mn (KED)	21.229 ppb	1.0 %
56Fe (KED)	545.099 ppb	1.8 %
58Ni (KED)	3.995 ppb	2.0 %
59Co (KED)	0.299 ppb	2.2 %
63Cu (KED)	14.712 ppb	0.7 %
64Zn (KED)	199.389 ppb	1.6 %
69Ga (KED)	4.200 ppb	3.3 %
75As (KED)	0.681 ppb	3.0 %
80Se (KED)	3.408 ppb	1.4 %
85Rb (KED)	2.803 ppb	0.8 %
88Sr (KED)	9.419 ppb	0.1 %
107Ag (KED)	0.256 ppb	0.4 %
114Cd (KED)	0.489 ppb	3.5 %
133Cs (KED)	0.093 ppb	3.4 %
138Ba (KED)	12.007 ppb	2.5 %
139La (KED)	0.626 ppb	1.9 %
140Ce (KED)	1.221 ppb	4.1 %
141Pr (KED)	0.136 ppb	2.6 %
142Nd (KED)	0.692 ppb	2.8 %
152Sm (KED)	0.080 ppb	1.9 %
153Eu (KED)	0.019 ppb	1.7 %
158Gd (KED)	0.071 ppb	2.7 %
164Dy (KED)	0.048 ppb	2.1 %
165Ho (KED)	0.009 ppb	8.3 %
166Er (KED)	0.025 ppb	5.6 %
169Tm (KED)	0.004 ppb	11.8 %
174Yb (KED)	0.020 ppb	6.3 %
175Lu (KED)	0.003 ppb	11.7 %
205Tl (KED)	0.010 ppb	3.3 %
208Pb (KED)	1.198 ppb	0.8 %
232Th (KED)	0.118 ppb	5.1 %
238U (KED)	0.029 ppb	3.2 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	1 cps	173.2 %
11B (KED)	10.882 ppb	694 cps	4.5 %
24Mg (KED)	910.162 ppb	351,845 cps	1.8 %
27Al (KED)	655.990 ppb	60,644 cps	1.4 %
51V (KED)	1.314 ppb	8,108 cps	1.5 %
52Cr (KED)	6.419 ppb	62,506 cps	1.6 %
55Mn (KED)	21.229 ppb	96,844 cps	1.0 %
56Fe (KED)	545.099 ppb	4,769,055 cps	1.8 %
58Ni (KED)	3.995 ppb	50,070 cps	1.9 %
59Co (KED)	0.299 ppb	5,848 cps	2.2 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	14.712 ppb	221,001 cps	0.7 %
64Zn (KED)	199.389 ppb	735,233 cps	1.6 %
69Ga (KED)	4.200 ppb	19,041 cps	3.3 %
75As (KED)	0.681 ppb	832 cps	2.6 %
80Se (KED)	3.408 ppb	1,657 cps	0.9 %
85Rb (KED)	2.803 ppb	11,565 cps	0.8 %
88Sr (KED)	9.419 ppb	53,807 cps	0.1 %
107Ag (KED)	0.256 ppb	11,946 cps	0.4 %
114Cd (KED)	0.489 ppb	8,029 cps	3.4 %
133Cs (KED)	0.093 ppb	2,209 cps	3.2 %
138Ba (KED)	12.007 ppb	396,816 cps	2.5 %
139La (KED)	0.626 ppb	41,860 cps	1.9 %
140Ce (KED)	1.221 ppb	111,970 cps	4.0 %
141Pr (KED)	0.136 ppb	12,765 cps	2.6 %
142Nd (KED)	0.692 ppb	27,657 cps	2.8 %
152Sm (KED)	0.080 ppb	3,129 cps	1.9 %
153Eu (KED)	0.019 ppb	1,382 cps	1.7 %
158Gd (KED)	0.071 ppb	3,775 cps	2.7 %
164Dy (KED)	0.048 ppb	2,773 cps	2.0 %
165Ho (KED)	0.009 ppb	1,768 cps	8.3 %
166Er (KED)	0.025 ppb	1,805 cps	5.4 %
169Tm (KED)	0.004 ppb	882 cps	11.8 %
174Yb (KED)	0.020 ppb	1,692 cps	6.3 %
175Lu (KED)	0.003 ppb	391 cps	11.6 %
205Tl (KED)	0.010 ppb	1,806 cps	3.3 %
208Pb (KED)	1.198 ppb	158,295 cps	0.7 %
232Th (KED)	0.118 ppb	28,826 cps	5.0 %
238U (KED)	0.029 ppb	8,412 cps	3.1 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 7

Analysis name: 17004jian

Analysis started at: 8/30/2021 4:35:24 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	0.0 %
11B (KED)	4.809 ppb	2.0 %
24Mg (KED)	1,028.549 ppb	1.9 %
27Al (KED)	858.828 ppb	1.1 %
51V (KED)	1.676 ppb	5.3 %
52Cr (KED)	5.774 ppb	2.3 %
55Mn (KED)	22.776 ppb	0.7 %
56Fe (KED)	655.514 ppb	1.3 %
58Ni (KED)	3.696 ppb	2.0 %
59Co (KED)	0.381 ppb	2.5 %
63Cu (KED)	11.852 ppb	0.6 %
64Zn (KED)	180.056 ppb	1.1 %
69Ga (KED)	4.549 ppb	3.5 %
75As (KED)	0.934 ppb	11.6 %
80Se (KED)	3.092 ppb	10.4 %
85Rb (KED)	4.681 ppb	1.8 %
88Sr (KED)	9.852 ppb	1.7 %
107Ag (KED)	0.117 ppb	3.7 %
114Cd (KED)	0.424 ppb	5.0 %
133Cs (KED)	0.111 ppb	9.3 %
138Ba (KED)	11.711 ppb	1.4 %
139La (KED)	0.577 ppb	2.7 %
140Ce (KED)	1.174 ppb	3.9 %
141Pr (KED)	0.139 ppb	3.4 %
142Nd (KED)	0.716 ppb	6.3 %
152Sm (KED)	0.101 ppb	4.1 %
153Eu (KED)	0.021 ppb	8.2 %
158Gd (KED)	0.089 ppb	2.4 %
164Dy (KED)	0.063 ppb	4.7 %
165Ho (KED)	0.013 ppb	1.3 %
166Er (KED)	0.034 ppb	2.0 %
169Tm (KED)	0.004 ppb	12.5 %
174Yb (KED)	0.027 ppb	5.8 %
175Lu (KED)	0.004 ppb	10.3 %
205Tl (KED)	0.010 ppb	8.1 %
208Pb (KED)	1.510 ppb	3.3 %
232Th (KED)	0.148 ppb	2.5 %
238U (KED)	0.032 ppb	4.1 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	-0.010 ppb	0 cps	
11B (KED)	4.809 ppb	337 cps	1.7 %
24Mg (KED)	1,028.549 ppb	397,584 cps	1.9 %
27Al (KED)	858.828 ppb	79,364 cps	1.1 %
51V (KED)	1.676 ppb	10,344 cps	5.3 %
52Cr (KED)	5.774 ppb	56,249 cps	2.3 %
55Mn (KED)	22.776 ppb	103,841 cps	0.7 %
56Fe (KED)	655.514 ppb	5,733,629 cps	1.3 %
58Ni (KED)	3.696 ppb	46,493 cps	1.9 %
59Co (KED)	0.381 ppb	7,453 cps	2.5 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	11.852 ppb	178,312 cps	0.6 %
64Zn (KED)	180.056 ppb	664,041 cps	1.1 %
69Ga (KED)	4.549 ppb	20,609 cps	3.5 %
75As (KED)	0.934 ppb	1,101 cps	10.5 %
80Se (KED)	3.092 ppb	1,561 cps	6.2 %
85Rb (KED)	4.681 ppb	19,295 cps	1.8 %
88Sr (KED)	9.852 ppb	56,280 cps	1.7 %
107Ag (KED)	0.117 ppb	5,831 cps	3.2 %
114Cd (KED)	0.424 ppb	6,979 cps	4.9 %
133Cs (KED)	0.111 ppb	2,619 cps	8.9 %
138Ba (KED)	11.711 ppb	387,135 cps	1.3 %
139La (KED)	0.577 ppb	38,561 cps	2.7 %
140Ce (KED)	1.174 ppb	107,628 cps	3.9 %
141Pr (KED)	0.139 ppb	13,057 cps	3.4 %
142Nd (KED)	0.716 ppb	28,642 cps	6.3 %
152Sm (KED)	0.101 ppb	3,926 cps	4.1 %
153Eu (KED)	0.021 ppb	1,513 cps	8.2 %
158Gd (KED)	0.089 ppb	4,729 cps	2.4 %
164Dy (KED)	0.063 ppb	3,609 cps	4.7 %
165Ho (KED)	0.013 ppb	2,531 cps	1.3 %
166Er (KED)	0.034 ppb	2,495 cps	1.9 %
169Tm (KED)	0.004 ppb	1,046 cps	12.5 %
174Yb (KED)	0.027 ppb	2,364 cps	5.8 %
175Lu (KED)	0.004 ppb	480 cps	10.3 %
205Tl (KED)	0.010 ppb	1,858 cps	8.0 %
208Pb (KED)	1.510 ppb	197,678 cps	3.2 %
232Th (KED)	0.148 ppb	36,004 cps	2.4 %
238U (KED)	0.032 ppb	9,172 cps	4.0 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 8

Analysis name: 1702003jian

Analysis started at: 8/30/2021 4:38:51 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.021 ppb	150.0 %
11B (KED)	2.433 ppb	12.9 %
24Mg (KED)	595.173 ppb	0.9 %
27Al (KED)	468.047 ppb	1.8 %
51V (KED)	0.829 ppb	1.5 %
52Cr (KED)	4.593 ppb	3.3 %
55Mn (KED)	15.524 ppb	1.9 %
56Fe (KED)	435.497 ppb	0.7 %
58Ni (KED)	2.682 ppb	1.1 %
59Co (KED)	0.259 ppb	1.7 %
63Cu (KED)	14.627 ppb	1.1 %
64Zn (KED)	192.870 ppb	1.1 %
69Ga (KED)	4.908 ppb	0.9 %
75As (KED)	0.695 ppb	13.7 %
80Se (KED)	3.691 ppb	6.4 %
85Rb (KED)	2.443 ppb	4.8 %
88Sr (KED)	5.518 ppb	1.7 %
107Ag (KED)	0.296 ppb	1.4 %
114Cd (KED)	0.557 ppb	2.5 %
133Cs (KED)	0.058 ppb	6.5 %
138Ba (KED)	12.397 ppb	0.7 %
139La (KED)	0.294 ppb	2.8 %
140Ce (KED)	0.598 ppb	2.3 %
141Pr (KED)	0.068 ppb	1.3 %
142Nd (KED)	0.356 ppb	2.9 %
152Sm (KED)	0.050 ppb	0.3 %
153Eu (KED)	0.012 ppb	6.0 %
158Gd (KED)	0.042 ppb	6.7 %
164Dy (KED)	0.031 ppb	6.9 %
165Ho (KED)	0.006 ppb	8.8 %
166Er (KED)	0.015 ppb	11.7 %
169Tm (KED)	0.002 ppb	5.2 %
174Yb (KED)	0.014 ppb	3.3 %
175Lu (KED)	0.002 ppb	7.9 %
205Tl (KED)	0.011 ppb	7.5 %
208Pb (KED)	1.092 ppb	3.2 %
232Th (KED)	0.072 ppb	5.0 %
238U (KED)	0.022 ppb	5.1 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.021 ppb	3 cps	100.0 %
11B (KED)	2.433 ppb	197 cps	9.4 %
24Mg (KED)	595.173 ppb	230,146 cps	0.9 %
27Al (KED)	468.047 ppb	43,299 cps	1.8 %
51V (KED)	0.829 ppb	5,119 cps	1.5 %
52Cr (KED)	4.593 ppb	44,795 cps	3.3 %
55Mn (KED)	15.524 ppb	71,038 cps	1.9 %
56Fe (KED)	435.497 ppb	3,811,592 cps	0.7 %
58Ni (KED)	2.682 ppb	34,361 cps	1.0 %
59Co (KED)	0.259 ppb	5,069 cps	1.7 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	14.627 ppb	219,736 cps	1.1 %
64Zn (KED)	192.870 ppb	711,228 cps	1.1 %
69Ga (KED)	4.908 ppb	22,224 cps	0.9 %
75As (KED)	0.695 ppb	848 cps	11.9 %
80Se (KED)	3.691 ppb	1,742 cps	4.1 %
85Rb (KED)	2.443 ppb	10,084 cps	4.8 %
88Sr (KED)	5.518 ppb	31,555 cps	1.7 %
107Ag (KED)	0.296 ppb	13,663 cps	1.3 %
114Cd (KED)	0.557 ppb	9,121 cps	2.5 %
133Cs (KED)	0.058 ppb	1,428 cps	6.0 %
138Ba (KED)	12.397 ppb	409,567 cps	0.7 %
139La (KED)	0.294 ppb	19,673 cps	2.8 %
140Ce (KED)	0.598 ppb	54,962 cps	2.3 %
141Pr (KED)	0.068 ppb	6,386 cps	1.3 %
142Nd (KED)	0.356 ppb	14,279 cps	2.9 %
152Sm (KED)	0.050 ppb	1,956 cps	0.3 %
153Eu (KED)	0.012 ppb	888 cps	5.9 %
158Gd (KED)	0.042 ppb	2,246 cps	6.7 %
164Dy (KED)	0.031 ppb	1,777 cps	6.9 %
165Ho (KED)	0.006 ppb	1,180 cps	8.8 %
166Er (KED)	0.015 ppb	1,107 cps	11.1 %
169Tm (KED)	0.002 ppb	459 cps	5.2 %
174Yb (KED)	0.014 ppb	1,179 cps	3.3 %
175Lu (KED)	0.002 ppb	242 cps	7.8 %
205Tl (KED)	0.011 ppb	1,925 cps	7.4 %
208Pb (KED)	1.092 ppb	144,944 cps	3.1 %
232Th (KED)	0.072 ppb	17,814 cps	4.8 %
238U (KED)	0.022 ppb	6,346 cps	5.0 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 9

Analysis name: 1701508jian

Analysis started at: 8/30/2021 4:42:04 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	0.0 %
11B (KED)	2.282 ppb	10.0 %
24Mg (KED)	431.733 ppb	1.6 %
27Al (KED)	421.507 ppb	3.6 %
51V (KED)	0.808 ppb	1.6 %
52Cr (KED)	5.554 ppb	6.1 %
55Mn (KED)	14.873 ppb	1.0 %
56Fe (KED)	364.784 ppb	1.3 %
58Ni (KED)	2.342 ppb	0.8 %
59Co (KED)	0.234 ppb	2.1 %
63Cu (KED)	9.758 ppb	1.5 %
64Zn (KED)	190.264 ppb	1.6 %
69Ga (KED)	2.460 ppb	2.3 %
75As (KED)	0.598 ppb	7.5 %
80Se (KED)	3.379 ppb	7.4 %
85Rb (KED)	1.317 ppb	4.2 %
88Sr (KED)	4.824 ppb	2.1 %
107Ag (KED)	0.102 ppb	1.9 %
114Cd (KED)	0.471 ppb	2.0 %
133Cs (KED)	0.051 ppb	4.7 %
138Ba (KED)	6.708 ppb	1.3 %
139La (KED)	0.275 ppb	1.9 %
140Ce (KED)	0.562 ppb	2.6 %
141Pr (KED)	0.064 ppb	2.3 %
142Nd (KED)	0.331 ppb	1.9 %
152Sm (KED)	0.044 ppb	8.5 %
153Eu (KED)	0.010 ppb	6.1 %
158Gd (KED)	0.040 ppb	9.0 %
164Dy (KED)	0.030 ppb	5.0 %
165Ho (KED)	0.006 ppb	3.1 %
166Er (KED)	0.014 ppb	5.1 %
169Tm (KED)	0.002 ppb	5.1 %
174Yb (KED)	0.014 ppb	17.8 %
175Lu (KED)	0.002 ppb	15.1 %
205Tl (KED)	0.008 ppb	9.2 %
208Pb (KED)	1.355 ppb	1.7 %
232Th (KED)	0.065 ppb	4.6 %
238U (KED)	0.020 ppb	1.1 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	-0.010 ppb	0 cps	
11B (KED)	2.282 ppb	188 cps	7.2 %
24Mg (KED)	431.733 ppb	166,999 cps	1.6 %
27Al (KED)	421.507 ppb	39,003 cps	3.5 %
51V (KED)	0.808 ppb	4,993 cps	1.6 %
52Cr (KED)	5.554 ppb	54,116 cps	6.1 %
55Mn (KED)	14.873 ppb	68,095 cps	1.0 %
56Fe (KED)	364.784 ppb	3,193,852 cps	1.3 %
58Ni (KED)	2.342 ppb	30,297 cps	0.8 %
59Co (KED)	0.234 ppb	4,576 cps	2.1 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	9.758 ppb	147,050 cps	1.5 %
64Zn (KED)	190.264 ppb	701,630 cps	1.6 %
69Ga (KED)	2.460 ppb	11,209 cps	2.3 %
75As (KED)	0.598 ppb	744 cps	6.4 %
80Se (KED)	3.379 ppb	1,648 cps	4.6 %
85Rb (KED)	1.317 ppb	5,453 cps	4.2 %
88Sr (KED)	4.824 ppb	27,596 cps	2.1 %
107Ag (KED)	0.102 ppb	5,174 cps	1.6 %
114Cd (KED)	0.471 ppb	7,749 cps	2.0 %
133Cs (KED)	0.051 ppb	1,271 cps	4.3 %
138Ba (KED)	6.708 ppb	223,489 cps	1.3 %
139La (KED)	0.275 ppb	18,428 cps	1.9 %
140Ce (KED)	0.562 ppb	51,654 cps	2.6 %
141Pr (KED)	0.064 ppb	5,986 cps	2.2 %
142Nd (KED)	0.331 ppb	13,287 cps	1.9 %
152Sm (KED)	0.044 ppb	1,715 cps	8.5 %
153Eu (KED)	0.010 ppb	714 cps	6.1 %
158Gd (KED)	0.040 ppb	2,137 cps	9.0 %
164Dy (KED)	0.030 ppb	1,753 cps	5.0 %
165Ho (KED)	0.006 ppb	1,156 cps	3.1 %
166Er (KED)	0.014 ppb	1,083 cps	4.8 %
169Tm (KED)	0.002 ppb	529 cps	5.1 %
174Yb (KED)	0.014 ppb	1,199 cps	17.8 %
175Lu (KED)	0.002 ppb	243 cps	15.1 %
205Tl (KED)	0.008 ppb	1,530 cps	9.1 %
208Pb (KED)	1.355 ppb	178,167 cps	1.6 %
232Th (KED)	0.065 ppb	16,077 cps	4.5 %
238U (KED)	0.020 ppb	5,905 cps	1.1 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 10

Analysis name: 18096jian

Analysis started at: 8/30/2021 4:45:23 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.073 ppb	65.5 %
11B (KED)	4.017 ppb	23.9 %
24Mg (KED)	532.414 ppb	1.0 %
27Al (KED)	684.627 ppb	2.5 %
51V (KED)	1.364 ppb	1.6 %
52Cr (KED)	5.409 ppb	0.4 %
55Mn (KED)	19.208 ppb	1.8 %
56Fe (KED)	650.666 ppb	1.2 %
58Ni (KED)	3.232 ppb	1.8 %
59Co (KED)	0.309 ppb	2.5 %
63Cu (KED)	8.609 ppb	1.2 %
64Zn (KED)	192.442 ppb	0.8 %
69Ga (KED)	2.138 ppb	2.0 %
75As (KED)	0.747 ppb	4.4 %
80Se (KED)	1.597 ppb	2.9 %
85Rb (KED)	1.548 ppb	2.3 %
88Sr (KED)	6.169 ppb	3.5 %
107Ag (KED)	0.032 ppb	3.8 %
114Cd (KED)	0.219 ppb	3.4 %
133Cs (KED)	0.118 ppb	2.5 %
138Ba (KED)	6.187 ppb	2.3 %
139La (KED)	0.519 ppb	1.2 %
140Ce (KED)	1.307 ppb	33.0 %
141Pr (KED)	0.118 ppb	3.2 %
142Nd (KED)	0.643 ppb	6.1 %
152Sm (KED)	0.078 ppb	5.2 %
153Eu (KED)	0.016 ppb	12.4 %
158Gd (KED)	0.071 ppb	4.9 %
164Dy (KED)	0.048 ppb	1.1 %
165Ho (KED)	0.009 ppb	1.3 %
166Er (KED)	0.024 ppb	1.9 %
169Tm (KED)	0.003 ppb	4.3 %
174Yb (KED)	0.020 ppb	8.9 %
175Lu (KED)	0.003 ppb	7.6 %
205Tl (KED)	0.012 ppb	8.4 %
208Pb (KED)	1.259 ppb	2.2 %
232Th (KED)	0.140 ppb	0.6 %
238U (KED)	0.038 ppb	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.073 ppb	9 cps	57.3 %
11B (KED)	4.017 ppb	290 cps	19.5 %
24Mg (KED)	532.414 ppb	205,899 cps	1.0 %
27Al (KED)	684.627 ppb	63,287 cps	2.5 %
51V (KED)	1.364 ppb	8,422 cps	1.6 %
52Cr (KED)	5.409 ppb	52,708 cps	0.4 %
55Mn (KED)	19.208 ppb	87,700 cps	1.7 %
56Fe (KED)	650.666 ppb	5,691,275 cps	1.2 %
58Ni (KED)	3.232 ppb	40,943 cps	1.7 %
59Co (KED)	0.309 ppb	6,046 cps	2.5 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	8.609 ppb	129,898 cps	1.2 %
64Zn (KED)	192.442 ppb	709,650 cps	0.8 %
69Ga (KED)	2.138 ppb	9,759 cps	2.0 %
75As (KED)	0.747 ppb	902 cps	3.8 %
80Se (KED)	1.597 ppb	1,109 cps	1.3 %
85Rb (KED)	1.548 ppb	6,403 cps	2.3 %
88Sr (KED)	6.169 ppb	35,268 cps	3.5 %
107Ag (KED)	0.032 ppb	2,124 cps	2.5 %
114Cd (KED)	0.219 ppb	3,678 cps	3.3 %
133Cs (KED)	0.118 ppb	2,780 cps	2.4 %
138Ba (KED)	6.187 ppb	206,447 cps	2.3 %
139La (KED)	0.519 ppb	34,674 cps	1.2 %
140Ce (KED)	1.307 ppb	119,844 cps	32.9 %
141Pr (KED)	0.118 ppb	11,052 cps	3.2 %
142Nd (KED)	0.643 ppb	25,696 cps	6.1 %
152Sm (KED)	0.078 ppb	3,049 cps	5.2 %
153Eu (KED)	0.016 ppb	1,162 cps	12.3 %
158Gd (KED)	0.071 ppb	3,765 cps	4.9 %
164Dy (KED)	0.048 ppb	2,735 cps	1.1 %
165Ho (KED)	0.009 ppb	1,833 cps	1.3 %
166Er (KED)	0.024 ppb	1,772 cps	1.8 %
169Tm (KED)	0.003 ppb	808 cps	4.3 %
174Yb (KED)	0.020 ppb	1,746 cps	8.9 %
175Lu (KED)	0.003 ppb	414 cps	7.6 %
205Tl (KED)	0.012 ppb	2,196 cps	8.3 %
208Pb (KED)	1.259 ppb	166,010 cps	2.1 %
232Th (KED)	0.140 ppb	34,142 cps	0.6 %
238U (KED)	0.038 ppb	10,969 cps	1.4 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 11

Analysis name: 18003jian

Analysis started at: 8/30/2021 4:48:50 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.010 ppb	173.2 %
11B (KED)	9.694 ppb	13.3 %
24Mg (KED)	432.852 ppb	1.0 %
27Al (KED)	628.010 ppb	2.9 %
51V (KED)	1.160 ppb	2.9 %
52Cr (KED)	4.383 ppb	1.4 %
55Mn (KED)	16.839 ppb	1.6 %
56Fe (KED)	490.804 ppb	1.0 %
58Ni (KED)	2.324 ppb	2.2 %
59Co (KED)	0.259 ppb	2.5 %
63Cu (KED)	6.703 ppb	1.6 %
64Zn (KED)	181.794 ppb	1.1 %
69Ga (KED)	1.781 ppb	3.0 %
75As (KED)	0.546 ppb	1.2 %
80Se (KED)	2.905 ppb	6.7 %
85Rb (KED)	1.237 ppb	1.2 %
88Sr (KED)	5.867 ppb	2.8 %
107Ag (KED)	0.069 ppb	2.2 %
114Cd (KED)	0.421 ppb	0.9 %
133Cs (KED)	0.100 ppb	3.0 %
138Ba (KED)	5.228 ppb	3.8 %
139La (KED)	0.425 ppb	3.1 %
140Ce (KED)	0.838 ppb	1.6 %
141Pr (KED)	0.094 ppb	2.0 %
142Nd (KED)	0.490 ppb	2.8 %
152Sm (KED)	0.064 ppb	5.4 %
153Eu (KED)	0.013 ppb	1.1 %
158Gd (KED)	0.061 ppb	12.7 %
164Dy (KED)	0.043 ppb	3.0 %
165Ho (KED)	0.008 ppb	2.6 %
166Er (KED)	0.022 ppb	4.9 %
169Tm (KED)	0.003 ppb	13.0 %
174Yb (KED)	0.018 ppb	1.5 %
175Lu (KED)	0.003 ppb	4.6 %
205Tl (KED)	0.010 ppb	7.7 %
208Pb (KED)	1.026 ppb	2.9 %
232Th (KED)	0.123 ppb	4.1 %
238U (KED)	0.037 ppb	13.7 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.010 ppb	2 cps	86.6 %
11B (KED)	9.694 ppb	624 cps	12.1 %
24Mg (KED)	432.852 ppb	167,432 cps	1.0 %
27Al (KED)	628.010 ppb	58,062 cps	2.9 %
51V (KED)	1.160 ppb	7,164 cps	2.9 %
52Cr (KED)	4.383 ppb	42,760 cps	1.4 %
55Mn (KED)	16.839 ppb	76,988 cps	1.6 %
56Fe (KED)	490.804 ppb	4,294,744 cps	1.0 %
58Ni (KED)	2.324 ppb	30,079 cps	2.1 %
59Co (KED)	0.259 ppb	5,064 cps	2.5 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	6.703 ppb	101,454 cps	1.5 %
64Zn (KED)	181.794 ppb	670,440 cps	1.1 %
69Ga (KED)	1.781 ppb	8,150 cps	3.0 %
75As (KED)	0.546 ppb	689 cps	1.0 %
80Se (KED)	2.905 ppb	1,505 cps	3.9 %
85Rb (KED)	1.237 ppb	5,124 cps	1.2 %
88Sr (KED)	5.867 ppb	33,544 cps	2.8 %
107Ag (KED)	0.069 ppb	3,726 cps	1.8 %
114Cd (KED)	0.421 ppb	6,935 cps	0.9 %
133Cs (KED)	0.100 ppb	2,372 cps	2.8 %
138Ba (KED)	5.228 ppb	175,082 cps	3.7 %
139La (KED)	0.425 ppb	28,425 cps	3.1 %
140Ce (KED)	0.838 ppb	76,929 cps	1.6 %
141Pr (KED)	0.094 ppb	8,815 cps	2.0 %
142Nd (KED)	0.490 ppb	19,630 cps	2.8 %
152Sm (KED)	0.064 ppb	2,502 cps	5.4 %
153Eu (KED)	0.013 ppb	952 cps	1.1 %
158Gd (KED)	0.061 ppb	3,253 cps	12.7 %
164Dy (KED)	0.043 ppb	2,444 cps	3.0 %
165Ho (KED)	0.008 ppb	1,540 cps	2.6 %
166Er (KED)	0.022 ppb	1,627 cps	4.8 %
169Tm (KED)	0.003 ppb	651 cps	13.0 %
174Yb (KED)	0.018 ppb	1,520 cps	1.5 %
175Lu (KED)	0.003 ppb	372 cps	4.6 %
205Tl (KED)	0.010 ppb	1,830 cps	7.7 %
208Pb (KED)	1.026 ppb	136,572 cps	2.8 %
232Th (KED)	0.123 ppb	30,144 cps	4.0 %
238U (KED)	0.037 ppb	10,755 cps	13.6 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 12

Analysis name: 18001jian

Analysis started at: 8/30/2021 4:52:14 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	1,596,686,889,329,620,000.0 %
11B (KED)	4.281 ppb	10.6 %
24Mg (KED)	593.484 ppb	1.9 %
27Al (KED)	723.018 ppb	3.6 %
51V (KED)	1.323 ppb	1.8 %
52Cr (KED)	3.902 ppb	2.8 %
55Mn (KED)	18.911 ppb	1.7 %
56Fe (KED)	595.050 ppb	1.6 %
58Ni (KED)	3.095 ppb	0.4 %
59Co (KED)	1.142 ppb	126.0 %
63Cu (KED)	7.735 ppb	1.6 %
64Zn (KED)	186.128 ppb	0.3 %
69Ga (KED)	2.213 ppb	3.8 %
75As (KED)	0.819 ppb	3.8 %
80Se (KED)	3.474 ppb	6.1 %
85Rb (KED)	1.925 ppb	0.4 %
88Sr (KED)	6.483 ppb	0.7 %
107Ag (KED)	0.097 ppb	5.2 %
114Cd (KED)	0.425 ppb	1.1 %
133Cs (KED)	0.118 ppb	4.4 %
138Ba (KED)	6.275 ppb	1.7 %
139La (KED)	0.550 ppb	2.3 %
140Ce (KED)	1.068 ppb	3.3 %
141Pr (KED)	0.125 ppb	9.4 %
142Nd (KED)	0.650 ppb	2.6 %
152Sm (KED)	0.080 ppb	3.2 %
153Eu (KED)	0.018 ppb	1.7 %
158Gd (KED)	0.070 ppb	7.5 %
164Dy (KED)	0.049 ppb	0.8 %
165Ho (KED)	0.009 ppb	4.3 %
166Er (KED)	0.025 ppb	4.1 %
169Tm (KED)	0.003 ppb	6.1 %
174Yb (KED)	0.023 ppb	12.6 %
175Lu (KED)	0.003 ppb	14.3 %
205Tl (KED)	0.013 ppb	5.5 %
208Pb (KED)	1.076 ppb	2.2 %
232Th (KED)	0.151 ppb	1.0 %
238U (KED)	0.042 ppb	12.6 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	1 cps	173.2 %
11B (KED)	4.281 ppb	306 cps	8.8 %
24Mg (KED)	593.484 ppb	229,493 cps	1.9 %
27Al (KED)	723.018 ppb	66,830 cps	3.6 %
51V (KED)	1.323 ppb	8,168 cps	1.8 %
52Cr (KED)	3.902 ppb	38,091 cps	2.8 %
55Mn (KED)	18.911 ppb	86,359 cps	1.7 %
56Fe (KED)	595.050 ppb	5,205,418 cps	1.6 %
58Ni (KED)	3.095 ppb	39,301 cps	0.4 %
59Co (KED)	1.142 ppb	22,282 cps	126.0 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	7.735 ppb	116,850 cps	1.5 %
64Zn (KED)	186.128 ppb	686,399 cps	0.3 %
69Ga (KED)	2.213 ppb	10,096 cps	3.7 %
75As (KED)	0.819 ppb	979 cps	3.4 %
80Se (KED)	3.474 ppb	1,677 cps	3.8 %
85Rb (KED)	1.925 ppb	7,954 cps	0.4 %
88Sr (KED)	6.483 ppb	37,061 cps	0.7 %
107Ag (KED)	0.097 ppb	4,972 cps	4.5 %
114Cd (KED)	0.425 ppb	6,998 cps	1.1 %
133Cs (KED)	0.118 ppb	2,783 cps	4.3 %
138Ba (KED)	6.275 ppb	209,353 cps	1.7 %
139La (KED)	0.550 ppb	36,809 cps	2.3 %
140Ce (KED)	1.068 ppb	97,899 cps	3.2 %
141Pr (KED)	0.125 ppb	11,770 cps	9.4 %
142Nd (KED)	0.650 ppb	25,982 cps	2.6 %
152Sm (KED)	0.080 ppb	3,102 cps	3.2 %
153Eu (KED)	0.018 ppb	1,282 cps	1.7 %
158Gd (KED)	0.070 ppb	3,746 cps	7.5 %
164Dy (KED)	0.049 ppb	2,815 cps	0.8 %
165Ho (KED)	0.009 ppb	1,840 cps	4.3 %
166Er (KED)	0.025 ppb	1,848 cps	3.9 %
169Tm (KED)	0.003 ppb	790 cps	6.1 %
174Yb (KED)	0.023 ppb	1,956 cps	12.6 %
175Lu (KED)	0.003 ppb	386 cps	14.3 %
205Tl (KED)	0.013 ppb	2,384 cps	5.5 %
208Pb (KED)	1.076 ppb	142,906 cps	2.1 %
232Th (KED)	0.151 ppb	36,814 cps	0.9 %
238U (KED)	0.042 ppb	12,240 cps	12.5 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 13

Analysis name: 268jian

Analysis started at: 8/30/2021 4:55:16 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.031 ppb	230.9 %
11B (KED)	3.546 ppb	5.1 %
24Mg (KED)	795.895 ppb	1.1 %
27Al (KED)	1,166.361 ppb	1.3 %
51V (KED)	2.201 ppb	3.4 %
52Cr (KED)	7.789 ppb	2.2 %
55Mn (KED)	31.251 ppb	0.6 %
56Fe (KED)	1,016.488 ppb	0.5 %
58Ni (KED)	4.586 ppb	2.5 %
59Co (KED)	0.580 ppb	16.9 %
63Cu (KED)	6.234 ppb	1.9 %
64Zn (KED)	196.513 ppb	1.0 %
69Ga (KED)	5.064 ppb	1.3 %
75As (KED)	1.123 ppb	9.8 %
80Se (KED)	4.403 ppb	8.4 %
85Rb (KED)	2.426 ppb	3.0 %
88Sr (KED)	10.003 ppb	2.7 %
107Ag (KED)	0.127 ppb	4.1 %
114Cd (KED)	0.445 ppb	2.4 %
133Cs (KED)	0.186 ppb	2.3 %
138Ba (KED)	14.996 ppb	1.6 %
139La (KED)	0.846 ppb	2.1 %
140Ce (KED)	1.693 ppb	4.4 %
141Pr (KED)	0.192 ppb	6.2 %
142Nd (KED)	0.961 ppb	1.9 %
152Sm (KED)	0.128 ppb	4.1 %
153Eu (KED)	0.028 ppb	5.7 %
158Gd (KED)	0.116 ppb	2.2 %
164Dy (KED)	0.082 ppb	4.8 %
165Ho (KED)	0.015 ppb	1.7 %
166Er (KED)	0.041 ppb	4.3 %
169Tm (KED)	0.007 ppb	12.3 %
174Yb (KED)	0.034 ppb	8.0 %
175Lu (KED)	0.005 ppb	10.0 %
205Tl (KED)	0.014 ppb	4.4 %
208Pb (KED)	1.587 ppb	2.8 %
232Th (KED)	0.225 ppb	3.0 %
238U (KED)	0.059 ppb	5.9 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.031 ppb	4 cps	173.2 %
11B (KED)	3.546 ppb	262 cps	4.1 %
24Mg (KED)	795.895 ppb	307,696 cps	1.1 %
27Al (KED)	1,166.361 ppb	107,746 cps	1.3 %
51V (KED)	2.201 ppb	13,579 cps	3.4 %
52Cr (KED)	7.789 ppb	75,801 cps	2.2 %
55Mn (KED)	31.251 ppb	142,172 cps	0.6 %
56Fe (KED)	1,016.488 ppb	8,887,034 cps	0.5 %
58Ni (KED)	4.586 ppb	57,144 cps	2.4 %
59Co (KED)	0.580 ppb	11,321 cps	16.9 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	6.234 ppb	94,445 cps	1.8 %
64Zn (KED)	196.513 ppb	724,642 cps	1.0 %
69Ga (KED)	5.064 ppb	22,927 cps	1.3 %
75As (KED)	1.123 ppb	1,302 cps	9.0 %
80Se (KED)	4.403 ppb	1,958 cps	5.7 %
85Rb (KED)	2.426 ppb	10,014 cps	3.0 %
88Sr (KED)	10.003 ppb	57,139 cps	2.7 %
107Ag (KED)	0.127 ppb	6,267 cps	3.6 %
114Cd (KED)	0.445 ppb	7,322 cps	2.3 %
133Cs (KED)	0.186 ppb	4,323 cps	2.2 %
138Ba (KED)	14.996 ppb	494,566 cps	1.6 %
139La (KED)	0.846 ppb	56,561 cps	2.1 %
140Ce (KED)	1.693 ppb	155,083 cps	4.4 %
141Pr (KED)	0.192 ppb	18,037 cps	6.2 %
142Nd (KED)	0.961 ppb	38,390 cps	1.9 %
152Sm (KED)	0.128 ppb	4,973 cps	4.1 %
153Eu (KED)	0.028 ppb	2,024 cps	5.7 %
158Gd (KED)	0.116 ppb	6,179 cps	2.2 %
164Dy (KED)	0.082 ppb	4,685 cps	4.8 %
165Ho (KED)	0.015 ppb	3,049 cps	1.7 %
166Er (KED)	0.041 ppb	2,974 cps	4.2 %
169Tm (KED)	0.007 ppb	1,561 cps	12.3 %
174Yb (KED)	0.034 ppb	2,967 cps	8.0 %
175Lu (KED)	0.005 ppb	619 cps	10.0 %
205Tl (KED)	0.014 ppb	2,552 cps	4.4 %
208Pb (KED)	1.587 ppb	207,480 cps	2.7 %
232Th (KED)	0.225 ppb	54,612 cps	3.0 %
238U (KED)	0.059 ppb	16,925 cps	5.9 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 14

Analysis name: 17174jian

Analysis started at: 8/30/2021 4:58:28 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	0.0 %
11B (KED)	3.187 ppb	10.1 %
24Mg (KED)	317.055 ppb	0.7 %
27Al (KED)	425.695 ppb	0.9 %
51V (KED)	0.746 ppb	3.6 %
52Cr (KED)	3.877 ppb	1.0 %
55Mn (KED)	10.298 ppb	0.8 %
56Fe (KED)	356.057 ppb	0.3 %
58Ni (KED)	1.940 ppb	2.3 %
59Co (KED)	0.201 ppb	15.6 %
63Cu (KED)	6.707 ppb	1.3 %
64Zn (KED)	198.287 ppb	0.6 %
69Ga (KED)	1.520 ppb	0.6 %
75As (KED)	0.939 ppb	4.7 %
80Se (KED)	3.669 ppb	5.9 %
85Rb (KED)	1.297 ppb	3.4 %
88Sr (KED)	3.722 ppb	1.4 %
107Ag (KED)	0.161 ppb	2.7 %
114Cd (KED)	0.469 ppb	0.7 %
133Cs (KED)	0.090 ppb	7.0 %
138Ba (KED)	4.459 ppb	2.6 %
139La (KED)	0.332 ppb	4.8 %
140Ce (KED)	0.656 ppb	1.2 %
141Pr (KED)	0.071 ppb	1.5 %
142Nd (KED)	0.359 ppb	3.5 %
152Sm (KED)	0.045 ppb	3.6 %
153Eu (KED)	0.010 ppb	13.2 %
158Gd (KED)	0.040 ppb	3.1 %
164Dy (KED)	0.030 ppb	5.5 %
165Ho (KED)	0.006 ppb	7.8 %
166Er (KED)	0.018 ppb	8.1 %
169Tm (KED)	0.002 ppb	5.3 %
174Yb (KED)	0.013 ppb	1.6 %
175Lu (KED)	0.002 ppb	21.4 %
205Tl (KED)	0.010 ppb	5.8 %
208Pb (KED)	0.967 ppb	2.2 %
232Th (KED)	0.088 ppb	1.6 %
238U (KED)	0.024 ppb	2.1 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	-0.010 ppb	0 cps	
11B (KED)	3.187 ppb	241 cps	7.9 %
24Mg (KED)	317.055 ppb	122,693 cps	0.7 %
27Al (KED)	425.695 ppb	39,390 cps	0.9 %
51V (KED)	0.746 ppb	4,608 cps	3.6 %
52Cr (KED)	3.877 ppb	37,844 cps	0.9 %
55Mn (KED)	10.298 ppb	47,402 cps	0.8 %
56Fe (KED)	356.057 ppb	3,117,616 cps	0.3 %
58Ni (KED)	1.940 ppb	25,486 cps	2.1 %
59Co (KED)	0.201 ppb	3,935 cps	15.5 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	6.707 ppb	101,511 cps	1.3 %
64Zn (KED)	198.287 ppb	731,175 cps	0.6 %
69Ga (KED)	1.520 ppb	6,979 cps	0.6 %
75As (KED)	0.939 ppb	1,107 cps	4.2 %
80Se (KED)	3.669 ppb	1,736 cps	3.7 %
85Rb (KED)	1.297 ppb	5,370 cps	3.4 %
88Sr (KED)	3.722 ppb	21,310 cps	1.4 %
107Ag (KED)	0.161 ppb	7,766 cps	2.5 %
114Cd (KED)	0.469 ppb	7,710 cps	0.7 %
133Cs (KED)	0.090 ppb	2,149 cps	6.7 %
138Ba (KED)	4.459 ppb	149,945 cps	2.5 %
139La (KED)	0.332 ppb	22,220 cps	4.8 %
140Ce (KED)	0.656 ppb	60,245 cps	1.2 %
141Pr (KED)	0.071 ppb	6,672 cps	1.5 %
142Nd (KED)	0.359 ppb	14,369 cps	3.5 %
152Sm (KED)	0.045 ppb	1,758 cps	3.6 %
153Eu (KED)	0.010 ppb	698 cps	13.1 %
158Gd (KED)	0.040 ppb	2,114 cps	3.1 %
164Dy (KED)	0.030 ppb	1,748 cps	5.5 %
165Ho (KED)	0.006 ppb	1,130 cps	7.7 %
166Er (KED)	0.018 ppb	1,318 cps	7.8 %
169Tm (KED)	0.002 ppb	451 cps	5.3 %
174Yb (KED)	0.013 ppb	1,142 cps	1.6 %
175Lu (KED)	0.002 ppb	273 cps	21.3 %
205Tl (KED)	0.010 ppb	1,901 cps	5.8 %
208Pb (KED)	0.967 ppb	129,159 cps	2.1 %
232Th (KED)	0.088 ppb	21,522 cps	1.5 %
238U (KED)	0.024 ppb	7,001 cps	2.1 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 15

Analysis name: 17148jian

Analysis started at: 8/30/2021 5:01:39 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	-0.010 ppb	0.0 %
11B (KED)	2.640 ppb	10.6 %
24Mg (KED)	410.646 ppb	2.9 %
27Al (KED)	478.412 ppb	2.2 %
51V (KED)	0.887 ppb	3.0 %
52Cr (KED)	4.870 ppb	2.9 %
55Mn (KED)	11.672 ppb	2.8 %
56Fe (KED)	412.579 ppb	2.4 %
58Ni (KED)	2.401 ppb	1.9 %
59Co (KED)	0.203 ppb	2.8 %
63Cu (KED)	8.259 ppb	3.2 %
64Zn (KED)	201.300 ppb	1.3 %
69Ga (KED)	1.747 ppb	5.3 %
75As (KED)	0.739 ppb	4.4 %
80Se (KED)	4.300 ppb	7.4 %
85Rb (KED)	2.421 ppb	2.4 %
88Sr (KED)	4.163 ppb	1.8 %
107Ag (KED)	0.083 ppb	17.5 %
114Cd (KED)	0.517 ppb	3.7 %
133Cs (KED)	0.071 ppb	1.0 %
138Ba (KED)	5.062 ppb	0.3 %
139La (KED)	0.343 ppb	2.9 %
140Ce (KED)	0.671 ppb	2.0 %
141Pr (KED)	0.072 ppb	4.4 %
142Nd (KED)	0.382 ppb	1.9 %
152Sm (KED)	0.049 ppb	5.1 %
153Eu (KED)	0.010 ppb	6.6 %
158Gd (KED)	0.044 ppb	3.5 %
164Dy (KED)	0.034 ppb	6.4 %
165Ho (KED)	0.006 ppb	2.3 %
166Er (KED)	0.016 ppb	10.9 %
169Tm (KED)	0.002 ppb	3.5 %
174Yb (KED)	0.017 ppb	39.5 %
175Lu (KED)	0.002 ppb	18.1 %
205Tl (KED)	0.010 ppb	4.5 %
208Pb (KED)	0.800 ppb	3.4 %
232Th (KED)	0.090 ppb	5.3 %
238U (KED)	0.025 ppb	6.3 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	-0.010 ppb	0 cps	
11B (KED)	2.640 ppb	209 cps	7.9 %
24Mg (KED)	410.646 ppb	158,852 cps	2.9 %
27Al (KED)	478.412 ppb	44,255 cps	2.2 %
51V (KED)	0.887 ppb	5,480 cps	3.0 %
52Cr (KED)	4.870 ppb	47,477 cps	2.9 %
55Mn (KED)	11.672 ppb	53,616 cps	2.8 %
56Fe (KED)	412.579 ppb	3,611,387 cps	2.4 %
58Ni (KED)	2.401 ppb	30,997 cps	1.7 %
59Co (KED)	0.203 ppb	3,963 cps	2.8 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	8.259 ppb	124,684 cps	3.2 %
64Zn (KED)	201.300 ppb	742,269 cps	1.3 %
69Ga (KED)	1.747 ppb	7,999 cps	5.2 %
75As (KED)	0.739 ppb	894 cps	3.9 %
80Se (KED)	4.300 ppb	1,927 cps	5.0 %
85Rb (KED)	2.421 ppb	9,996 cps	2.4 %
88Sr (KED)	4.163 ppb	23,828 cps	1.8 %
107Ag (KED)	0.083 ppb	4,336 cps	14.6 %
114Cd (KED)	0.517 ppb	8,492 cps	3.6 %
133Cs (KED)	0.071 ppb	1,722 cps	1.0 %
138Ba (KED)	5.062 ppb	169,667 cps	0.3 %
139La (KED)	0.343 ppb	22,919 cps	2.9 %
140Ce (KED)	0.671 ppb	61,638 cps	2.0 %
141Pr (KED)	0.072 ppb	6,794 cps	4.4 %
142Nd (KED)	0.382 ppb	15,287 cps	1.9 %
152Sm (KED)	0.049 ppb	1,907 cps	5.1 %
153Eu (KED)	0.010 ppb	744 cps	6.6 %
158Gd (KED)	0.044 ppb	2,318 cps	3.5 %
164Dy (KED)	0.034 ppb	1,928 cps	6.4 %
165Ho (KED)	0.006 ppb	1,222 cps	2.3 %
166Er (KED)	0.016 ppb	1,200 cps	10.4 %
169Tm (KED)	0.002 ppb	568 cps	3.5 %
174Yb (KED)	0.017 ppb	1,496 cps	39.5 %
175Lu (KED)	0.002 ppb	317 cps	18.0 %
205Tl (KED)	0.010 ppb	1,845 cps	4.4 %
208Pb (KED)	0.800 ppb	107,997 cps	3.2 %
232Th (KED)	0.090 ppb	22,140 cps	5.2 %
238U (KED)	0.025 ppb	7,129 cps	6.2 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 16

Analysis name: 18094jian

Analysis started at: 8/30/2021 5:04:48 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.031 ppb	57.7 %
11B (KED)	5.960 ppb	2.0 %
24Mg (KED)	463.447 ppb	1.0 %
27Al (KED)	548.604 ppb	2.6 %
51V (KED)	1.023 ppb	2.3 %
52Cr (KED)	5.085 ppb	1.6 %
55Mn (KED)	13.685 ppb	0.5 %
56Fe (KED)	477.414 ppb	0.3 %
58Ni (KED)	2.533 ppb	1.2 %
59Co (KED)	0.245 ppb	1.4 %
63Cu (KED)	10.065 ppb	0.9 %
64Zn (KED)	219.408 ppb	0.6 %
69Ga (KED)	1.849 ppb	4.9 %
75As (KED)	0.819 ppb	2.5 %
80Se (KED)	4.374 ppb	4.8 %
85Rb (KED)	1.888 ppb	2.3 %
88Sr (KED)	4.894 ppb	2.4 %
107Ag (KED)	0.085 ppb	1.1 %
114Cd (KED)	0.459 ppb	3.4 %
133Cs (KED)	0.087 ppb	4.6 %
138Ba (KED)	5.152 ppb	2.6 %
139La (KED)	0.444 ppb	8.4 %
140Ce (KED)	0.840 ppb	1.3 %
141Pr (KED)	0.094 ppb	2.8 %
142Nd (KED)	0.485 ppb	5.2 %
152Sm (KED)	0.061 ppb	6.5 %
153Eu (KED)	0.013 ppb	8.7 %
158Gd (KED)	0.056 ppb	1.7 %
164Dy (KED)	0.036 ppb	4.1 %
165Ho (KED)	0.007 ppb	4.5 %
166Er (KED)	0.018 ppb	3.1 %
169Tm (KED)	0.003 ppb	2.2 %
174Yb (KED)	0.015 ppb	5.1 %
175Lu (KED)	0.002 ppb	6.6 %
205Tl (KED)	0.010 ppb	2.4 %
208Pb (KED)	1.018 ppb	0.4 %
232Th (KED)	0.109 ppb	1.3 %
238U (KED)	0.034 ppb	11.6 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.031 ppb	4 cps	43.3 %
11B (KED)	5.960 ppb	404 cps	1.7 %
24Mg (KED)	463.447 ppb	179,253 cps	1.0 %
27Al (KED)	548.604 ppb	50,733 cps	2.6 %
51V (KED)	1.023 ppb	6,318 cps	2.3 %
52Cr (KED)	5.085 ppb	49,563 cps	1.6 %
55Mn (KED)	13.685 ppb	62,719 cps	0.5 %
56Fe (KED)	477.414 ppb	4,177,769 cps	0.3 %
58Ni (KED)	2.533 ppb	32,581 cps	1.1 %
59Co (KED)	0.245 ppb	4,794 cps	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	10.065 ppb	151,636 cps	0.9 %
64Zn (KED)	219.408 ppb	808,953 cps	0.6 %
69Ga (KED)	1.849 ppb	8,457 cps	4.8 %
75As (KED)	0.819 ppb	979 cps	2.2 %
80Se (KED)	4.374 ppb	1,949 cps	3.3 %
85Rb (KED)	1.888 ppb	7,801 cps	2.3 %
88Sr (KED)	4.894 ppb	27,995 cps	2.4 %
107Ag (KED)	0.085 ppb	4,444 cps	0.9 %
114Cd (KED)	0.459 ppb	7,556 cps	3.4 %
133Cs (KED)	0.087 ppb	2,082 cps	4.4 %
138Ba (KED)	5.152 ppb	172,622 cps	2.6 %
139La (KED)	0.444 ppb	29,671 cps	8.4 %
140Ce (KED)	0.840 ppb	77,068 cps	1.3 %
141Pr (KED)	0.094 ppb	8,864 cps	2.8 %
142Nd (KED)	0.485 ppb	19,426 cps	5.2 %
152Sm (KED)	0.061 ppb	2,380 cps	6.5 %
153Eu (KED)	0.013 ppb	939 cps	8.7 %
158Gd (KED)	0.056 ppb	2,984 cps	1.7 %
164Dy (KED)	0.036 ppb	2,084 cps	4.1 %
165Ho (KED)	0.007 ppb	1,419 cps	4.5 %
166Er (KED)	0.018 ppb	1,328 cps	2.9 %
169Tm (KED)	0.003 ppb	612 cps	2.2 %
174Yb (KED)	0.015 ppb	1,302 cps	5.1 %
175Lu (KED)	0.002 ppb	289 cps	6.6 %
205Tl (KED)	0.010 ppb	1,736 cps	2.4 %
208Pb (KED)	1.018 ppb	135,559 cps	0.4 %
232Th (KED)	0.109 ppb	26,699 cps	1.3 %
238U (KED)	0.034 ppb	9,839 cps	11.4 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 17

Analysis name: 17180jian

Analysis started at: 8/30/2021 5:07:53 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.000 ppb	1,596,686,889,329,620,000.0 %
11B (KED)	3.602 ppb	5.0 %
24Mg (KED)	480.831 ppb	1.0 %
27Al (KED)	651.925 ppb	1.8 %
51V (KED)	1.191 ppb	1.6 %
52Cr (KED)	4.126 ppb	31.2 %
55Mn (KED)	16.052 ppb	1.1 %
56Fe (KED)	513.218 ppb	0.5 %
58Ni (KED)	2.430 ppb	2.0 %
59Co (KED)	0.701 ppb	104.5 %
63Cu (KED)	6.926 ppb	1.2 %
64Zn (KED)	195.222 ppb	1.7 %
69Ga (KED)	2.081 ppb	3.1 %
75As (KED)	0.691 ppb	9.5 %
80Se (KED)	3.764 ppb	3.0 %
85Rb (KED)	1.799 ppb	1.6 %
88Sr (KED)	5.643 ppb	2.8 %
107Ag (KED)	0.148 ppb	4.6 %
114Cd (KED)	0.429 ppb	2.1 %
133Cs (KED)	0.122 ppb	3.8 %
138Ba (KED)	5.825 ppb	0.2 %
139La (KED)	0.428 ppb	0.9 %
140Ce (KED)	0.842 ppb	2.2 %
141Pr (KED)	0.093 ppb	5.9 %
142Nd (KED)	0.496 ppb	5.4 %
152Sm (KED)	0.059 ppb	1.2 %
153Eu (KED)	0.014 ppb	9.1 %
158Gd (KED)	0.055 ppb	3.6 %
164Dy (KED)	0.041 ppb	2.2 %
165Ho (KED)	0.008 ppb	7.3 %
166Er (KED)	0.019 ppb	4.0 %
169Tm (KED)	0.003 ppb	10.1 %
174Yb (KED)	0.018 ppb	9.9 %
175Lu (KED)	0.004 ppb	66.8 %
205Tl (KED)	0.012 ppb	4.2 %
208Pb (KED)	1.559 ppb	10.9 %
232Th (KED)	0.124 ppb	2.9 %
238U (KED)	0.032 ppb	5.7 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.000 ppb	1 cps	173.2 %
11B (KED)	3.602 ppb	266 cps	4.0 %
24Mg (KED)	480.831 ppb	185,969 cps	1.0 %
27Al (KED)	651.925 ppb	60,269 cps	1.8 %
51V (KED)	1.191 ppb	7,354 cps	1.6 %
52Cr (KED)	4.126 ppb	40,263 cps	31.0 %
55Mn (KED)	16.052 ppb	73,427 cps	1.1 %
56Fe (KED)	513.218 ppb	4,490,548 cps	0.5 %
58Ni (KED)	2.430 ppb	31,347 cps	1.9 %
59Co (KED)	0.701 ppb	13,687 cps	104.4 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	6.926 ppb	104,778 cps	1.2 %
64Zn (KED)	195.222 ppb	719,888 cps	1.7 %
69Ga (KED)	2.081 ppb	9,501 cps	3.1 %
75As (KED)	0.691 ppb	843 cps	8.2 %
80Se (KED)	3.764 ppb	1,765 cps	2.0 %
85Rb (KED)	1.799 ppb	7,438 cps	1.6 %
88Sr (KED)	5.643 ppb	32,266 cps	2.8 %
107Ag (KED)	0.148 ppb	7,183 cps	4.2 %
114Cd (KED)	0.429 ppb	7,061 cps	2.1 %
133Cs (KED)	0.122 ppb	2,868 cps	3.6 %
138Ba (KED)	5.825 ppb	194,632 cps	0.2 %
139La (KED)	0.428 ppb	28,622 cps	0.9 %
140Ce (KED)	0.842 ppb	77,231 cps	2.2 %
141Pr (KED)	0.093 ppb	8,684 cps	5.9 %
142Nd (KED)	0.496 ppb	19,840 cps	5.4 %
152Sm (KED)	0.059 ppb	2,312 cps	1.2 %
153Eu (KED)	0.014 ppb	981 cps	9.1 %
158Gd (KED)	0.055 ppb	2,926 cps	3.6 %
164Dy (KED)	0.041 ppb	2,370 cps	2.2 %
165Ho (KED)	0.008 ppb	1,598 cps	7.2 %
166Er (KED)	0.019 ppb	1,423 cps	3.9 %
169Tm (KED)	0.003 ppb	634 cps	10.1 %
174Yb (KED)	0.018 ppb	1,520 cps	9.9 %
175Lu (KED)	0.004 ppb	563 cps	66.7 %
205Tl (KED)	0.012 ppb	2,237 cps	4.2 %
208Pb (KED)	1.559 ppb	203,929 cps	10.5 %
232Th (KED)	0.124 ppb	30,276 cps	2.8 %
238U (KED)	0.032 ppb	9,319 cps	5.6 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 18

Analysis name: 17186jian

Analysis started at: 8/30/2021 5:11:33 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.031 ppb	152.8 %
11B (KED)	2.584 ppb	12.1 %
24Mg (KED)	314.568 ppb	1.3 %
27Al (KED)	419.078 ppb	2.8 %
51V (KED)	0.801 ppb	6.1 %
52Cr (KED)	4.071 ppb	2.9 %
55Mn (KED)	9.749 ppb	2.1 %
56Fe (KED)	371.267 ppb	0.3 %
58Ni (KED)	1.730 ppb	1.2 %
59Co (KED)	0.186 ppb	3.7 %
63Cu (KED)	7.710 ppb	2.0 %
64Zn (KED)	195.099 ppb	0.7 %
69Ga (KED)	1.320 ppb	1.7 %
75As (KED)	0.811 ppb	7.7 %
80Se (KED)	3.228 ppb	10.0 %
85Rb (KED)	1.360 ppb	3.5 %
88Sr (KED)	3.415 ppb	2.0 %
107Ag (KED)	0.064 ppb	4.4 %
114Cd (KED)	0.367 ppb	1.6 %
133Cs (KED)	0.071 ppb	4.4 %
138Ba (KED)	4.112 ppb	0.8 %
139La (KED)	0.357 ppb	1.3 %
140Ce (KED)	0.715 ppb	1.9 %
141Pr (KED)	0.081 ppb	3.0 %
142Nd (KED)	0.410 ppb	4.2 %
152Sm (KED)	0.052 ppb	3.6 %
153Eu (KED)	0.012 ppb	10.2 %
158Gd (KED)	0.047 ppb	5.1 %
164Dy (KED)	0.032 ppb	4.6 %
165Ho (KED)	0.006 ppb	4.9 %
166Er (KED)	0.016 ppb	2.1 %
169Tm (KED)	0.002 ppb	5.8 %
174Yb (KED)	0.013 ppb	2.5 %
175Lu (KED)	0.002 ppb	32.3 %
205Tl (KED)	0.007 ppb	3.6 %
208Pb (KED)	0.646 ppb	1.1 %
232Th (KED)	0.093 ppb	3.1 %
238U (KED)	0.023 ppb	5.2 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.031 ppb	4 cps	114.6 %
11B (KED)	2.584 ppb	206 cps	8.9 %
24Mg (KED)	314.568 ppb	121,732 cps	1.3 %
27Al (KED)	419.078 ppb	38,779 cps	2.8 %
51V (KED)	0.801 ppb	4,951 cps	6.0 %
52Cr (KED)	4.071 ppb	39,733 cps	2.9 %
55Mn (KED)	9.749 ppb	44,919 cps	2.0 %
56Fe (KED)	371.267 ppb	3,250,489 cps	0.3 %
58Ni (KED)	1.730 ppb	22,969 cps	1.1 %
59Co (KED)	0.186 ppb	3,637 cps	3.7 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	7.710 ppb	116,486 cps	2.0 %
64Zn (KED)	195.099 ppb	719,437 cps	0.7 %
69Ga (KED)	1.320 ppb	6,078 cps	1.7 %
75As (KED)	0.811 ppb	971 cps	6.8 %
80Se (KED)	3.228 ppb	1,602 cps	6.1 %
85Rb (KED)	1.360 ppb	5,630 cps	3.5 %
88Sr (KED)	3.415 ppb	19,556 cps	2.0 %
107Ag (KED)	0.064 ppb	3,533 cps	3.5 %
114Cd (KED)	0.367 ppb	6,068 cps	1.5 %
133Cs (KED)	0.071 ppb	1,713 cps	4.1 %
138Ba (KED)	4.112 ppb	138,604 cps	0.8 %
139La (KED)	0.357 ppb	23,875 cps	1.3 %
140Ce (KED)	0.715 ppb	65,657 cps	1.9 %
141Pr (KED)	0.081 ppb	7,608 cps	3.0 %
142Nd (KED)	0.410 ppb	16,429 cps	4.2 %
152Sm (KED)	0.052 ppb	2,044 cps	3.6 %
153Eu (KED)	0.012 ppb	827 cps	10.1 %
158Gd (KED)	0.047 ppb	2,506 cps	5.1 %
164Dy (KED)	0.032 ppb	1,843 cps	4.6 %
165Ho (KED)	0.006 ppb	1,232 cps	4.9 %
166Er (KED)	0.016 ppb	1,182 cps	2.0 %
169Tm (KED)	0.002 ppb	567 cps	5.8 %
174Yb (KED)	0.013 ppb	1,131 cps	2.5 %
175Lu (KED)	0.002 ppb	259 cps	32.1 %
205Tl (KED)	0.007 ppb	1,339 cps	3.6 %
208Pb (KED)	0.646 ppb	88,650 cps	1.0 %
232Th (KED)	0.093 ppb	22,830 cps	3.0 %
238U (KED)	0.023 ppb	6,790 cps	5.1 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 19

Analysis name: 17210jian

Analysis started at: 8/30/2021 5:14:51 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.031 ppb	115.5 %
11B (KED)	2.414 ppb	9.5 %
24Mg (KED)	357.811 ppb	1.3 %
27Al (KED)	416.107 ppb	1.0 %
51V (KED)	0.773 ppb	1.5 %
52Cr (KED)	3.707 ppb	3.4 %
55Mn (KED)	10.407 ppb	0.4 %
56Fe (KED)	369.822 ppb	1.5 %
58Ni (KED)	1.854 ppb	0.5 %
59Co (KED)	3.347 ppb	161.8 %
63Cu (KED)	5.942 ppb	0.7 %
64Zn (KED)	197.395 ppb	1.0 %
69Ga (KED)	1.352 ppb	1.9 %
75As (KED)	0.883 ppb	1.2 %
80Se (KED)	3.614 ppb	11.9 %
85Rb (KED)	1.508 ppb	4.7 %
88Sr (KED)	4.005 ppb	1.4 %
107Ag (KED)	0.062 ppb	5.6 %
114Cd (KED)	0.389 ppb	1.6 %
133Cs (KED)	0.067 ppb	1.8 %
138Ba (KED)	3.994 ppb	0.3 %
139La (KED)	0.303 ppb	1.6 %
140Ce (KED)	0.586 ppb	3.6 %
141Pr (KED)	0.071 ppb	1.3 %
142Nd (KED)	0.361 ppb	1.6 %
152Sm (KED)	0.045 ppb	6.2 %
153Eu (KED)	0.010 ppb	6.1 %
158Gd (KED)	0.040 ppb	2.8 %
164Dy (KED)	0.030 ppb	1.5 %
165Ho (KED)	0.006 ppb	13.6 %
166Er (KED)	0.014 ppb	7.1 %
169Tm (KED)	0.002 ppb	14.2 %
174Yb (KED)	0.012 ppb	6.1 %
175Lu (KED)	0.002 ppb	8.8 %
205Tl (KED)	0.008 ppb	2.8 %
208Pb (KED)	1.914 ppb	0.8 %
232Th (KED)	0.086 ppb	3.2 %
238U (KED)	0.025 ppb	7.3 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.031 ppb	4 cps	86.6 %
11B (KED)	2.414 ppb	196 cps	6.9 %
24Mg (KED)	357.811 ppb	138,439 cps	1.3 %
27Al (KED)	416.107 ppb	38,505 cps	1.0 %
51V (KED)	0.773 ppb	4,774 cps	1.5 %
52Cr (KED)	3.707 ppb	36,199 cps	3.4 %
55Mn (KED)	10.407 ppb	47,894 cps	0.4 %
56Fe (KED)	369.822 ppb	3,237,870 cps	1.5 %
58Ni (KED)	1.854 ppb	24,456 cps	0.5 %
59Co (KED)	3.347 ppb	65,294 cps	161.7 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	5.942 ppb	90,091 cps	0.7 %
64Zn (KED)	197.395 ppb	727,889 cps	1.0 %
69Ga (KED)	1.352 ppb	6,220 cps	1.8 %
75As (KED)	0.883 ppb	1,047 cps	1.1 %
80Se (KED)	3.614 ppb	1,719 cps	7.5 %
85Rb (KED)	1.508 ppb	6,239 cps	4.7 %
88Sr (KED)	4.005 ppb	22,926 cps	1.4 %
107Ag (KED)	0.062 ppb	3,419 cps	4.4 %
114Cd (KED)	0.389 ppb	6,422 cps	1.6 %
133Cs (KED)	0.067 ppb	1,621 cps	1.7 %
138Ba (KED)	3.994 ppb	134,723 cps	0.3 %
139La (KED)	0.303 ppb	20,254 cps	1.6 %
140Ce (KED)	0.586 ppb	53,830 cps	3.6 %
141Pr (KED)	0.071 ppb	6,642 cps	1.3 %
142Nd (KED)	0.361 ppb	14,453 cps	1.6 %
152Sm (KED)	0.045 ppb	1,773 cps	6.2 %
153Eu (KED)	0.010 ppb	693 cps	6.0 %
158Gd (KED)	0.040 ppb	2,137 cps	2.8 %
164Dy (KED)	0.030 ppb	1,706 cps	1.5 %
165Ho (KED)	0.006 ppb	1,222 cps	13.5 %
166Er (KED)	0.014 ppb	1,050 cps	6.8 %
169Tm (KED)	0.002 ppb	461 cps	14.2 %
174Yb (KED)	0.012 ppb	1,063 cps	6.1 %
175Lu (KED)	0.002 ppb	248 cps	8.8 %
205Tl (KED)	0.008 ppb	1,493 cps	2.7 %
208Pb (KED)	1.914 ppb	248,787 cps	0.8 %
232Th (KED)	0.086 ppb	21,111 cps	3.2 %
238U (KED)	0.025 ppb	7,259 cps	7.2 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 20

Analysis name: 17013jian

Analysis started at: 8/30/2021 5:18:00 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.010 ppb	173.2 %
11B (KED)	3.470 ppb	16.3 %
24Mg (KED)	465.501 ppb	0.3 %
27Al (KED)	577.485 ppb	1.7 %
51V (KED)	1.050 ppb	2.1 %
52Cr (KED)	4.402 ppb	0.6 %
55Mn (KED)	15.889 ppb	2.0 %
56Fe (KED)	485.983 ppb	0.8 %
58Ni (KED)	2.679 ppb	2.2 %
59Co (KED)	0.267 ppb	15.1 %
63Cu (KED)	4.353 ppb	1.9 %
64Zn (KED)	224.252 ppb	0.5 %
69Ga (KED)	1.841 ppb	2.6 %
75As (KED)	0.654 ppb	14.4 %
80Se (KED)	4.565 ppb	3.2 %
85Rb (KED)	2.429 ppb	0.7 %
88Sr (KED)	6.031 ppb	2.3 %
107Ag (KED)	0.062 ppb	4.6 %
114Cd (KED)	0.431 ppb	2.0 %
133Cs (KED)	0.096 ppb	2.5 %
138Ba (KED)	5.466 ppb	2.1 %
139La (KED)	0.415 ppb	1.6 %
140Ce (KED)	0.836 ppb	1.0 %
141Pr (KED)	0.090 ppb	2.2 %
142Nd (KED)	0.486 ppb	3.9 %
152Sm (KED)	0.061 ppb	2.6 %
153Eu (KED)	0.012 ppb	2.7 %
158Gd (KED)	0.054 ppb	1.3 %
164Dy (KED)	0.040 ppb	2.0 %
165Ho (KED)	0.008 ppb	7.6 %
166Er (KED)	0.019 ppb	6.5 %
169Tm (KED)	0.003 ppb	4.5 %
174Yb (KED)	0.015 ppb	5.9 %
175Lu (KED)	0.002 ppb	13.2 %
205Tl (KED)	0.010 ppb	12.0 %
208Pb (KED)	0.808 ppb	3.0 %
232Th (KED)	0.109 ppb	4.2 %
238U (KED)	0.033 ppb	10.3 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.010 ppb	2 cps	86.6 %
11B (KED)	3.470 ppb	258 cps	13.0 %
24Mg (KED)	465.501 ppb	180,046 cps	0.3 %
27Al (KED)	577.485 ppb	53,399 cps	1.7 %
51V (KED)	1.050 ppb	6,481 cps	2.1 %
52Cr (KED)	4.402 ppb	42,945 cps	0.6 %
55Mn (KED)	15.889 ppb	72,689 cps	1.9 %
56Fe (KED)	485.983 ppb	4,252,633 cps	0.8 %
58Ni (KED)	2.679 ppb	34,327 cps	2.0 %
59Co (KED)	0.267 ppb	5,214 cps	15.1 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	4.353 ppb	66,365 cps	1.8 %
64Zn (KED)	224.252 ppb	826,790 cps	0.5 %
69Ga (KED)	1.841 ppb	8,424 cps	2.5 %
75As (KED)	0.654 ppb	804 cps	12.4 %
80Se (KED)	4.565 ppb	2,007 cps	2.2 %
85Rb (KED)	2.429 ppb	10,028 cps	0.7 %
88Sr (KED)	6.031 ppb	34,482 cps	2.3 %
107Ag (KED)	0.062 ppb	3,443 cps	3.6 %
114Cd (KED)	0.431 ppb	7,094 cps	2.0 %
133Cs (KED)	0.096 ppb	2,287 cps	2.4 %
138Ba (KED)	5.466 ppb	182,888 cps	2.0 %
139La (KED)	0.415 ppb	27,783 cps	1.6 %
140Ce (KED)	0.836 ppb	76,684 cps	0.9 %
141Pr (KED)	0.090 ppb	8,458 cps	2.2 %
142Nd (KED)	0.486 ppb	19,436 cps	3.9 %
152Sm (KED)	0.061 ppb	2,367 cps	2.6 %
153Eu (KED)	0.012 ppb	888 cps	2.7 %
158Gd (KED)	0.054 ppb	2,848 cps	1.3 %
164Dy (KED)	0.040 ppb	2,287 cps	2.0 %
165Ho (KED)	0.008 ppb	1,523 cps	7.6 %
166Er (KED)	0.019 ppb	1,443 cps	6.3 %
169Tm (KED)	0.003 ppb	671 cps	4.5 %
174Yb (KED)	0.015 ppb	1,298 cps	5.9 %
175Lu (KED)	0.002 ppb	294 cps	13.1 %
205Tl (KED)	0.010 ppb	1,832 cps	11.9 %
208Pb (KED)	0.808 ppb	109,054 cps	2.8 %
232Th (KED)	0.109 ppb	26,798 cps	4.1 %
238U (KED)	0.033 ppb	9,652 cps	10.2 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 21

Analysis name: 17011jian

Analysis started at: 8/30/2021 5:21:26 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.021 ppb	259.8 %
11B (KED)	6.318 ppb	15.8 %
24Mg (KED)	557.197 ppb	1.1 %
27Al (KED)	486.749 ppb	2.0 %
51V (KED)	0.991 ppb	1.9 %
52Cr (KED)	4.146 ppb	1.3 %
55Mn (KED)	13.846 ppb	1.8 %
56Fe (KED)	443.783 ppb	0.3 %
58Ni (KED)	2.512 ppb	0.4 %
59Co (KED)	0.775 ppb	123.9 %
63Cu (KED)	7.759 ppb	0.3 %
64Zn (KED)	203.391 ppb	0.9 %
69Ga (KED)	1.558 ppb	1.1 %
75As (KED)	0.654 ppb	0.7 %
80Se (KED)	5.027 ppb	3.9 %
85Rb (KED)	1.276 ppb	2.5 %
88Sr (KED)	6.666 ppb	0.7 %
107Ag (KED)	0.252 ppb	1.7 %
114Cd (KED)	0.534 ppb	6.0 %
133Cs (KED)	0.083 ppb	5.1 %
138Ba (KED)	4.756 ppb	0.9 %
139La (KED)	0.360 ppb	1.9 %
140Ce (KED)	0.759 ppb	3.8 %
141Pr (KED)	0.084 ppb	1.6 %
142Nd (KED)	0.434 ppb	1.2 %
152Sm (KED)	0.055 ppb	5.2 %
153Eu (KED)	0.012 ppb	3.4 %
158Gd (KED)	0.059 ppb	16.4 %
164Dy (KED)	0.039 ppb	3.5 %
165Ho (KED)	0.007 ppb	9.9 %
166Er (KED)	0.021 ppb	17.8 %
169Tm (KED)	0.002 ppb	7.1 %
174Yb (KED)	0.019 ppb	8.8 %
175Lu (KED)	0.003 ppb	42.4 %
205Tl (KED)	0.009 ppb	6.6 %
208Pb (KED)	1.018 ppb	2.1 %
232Th (KED)	0.103 ppb	0.6 %
238U (KED)	0.075 ppb	2.5 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.021 ppb	3 cps	173.2 %
11B (KED)	6.318 ppb	426 cps	13.8 %
24Mg (KED)	557.197 ppb	215,473 cps	1.1 %
27Al (KED)	486.749 ppb	45,025 cps	2.0 %
51V (KED)	0.991 ppb	6,122 cps	1.9 %
52Cr (KED)	4.146 ppb	40,453 cps	1.3 %
55Mn (KED)	13.846 ppb	63,451 cps	1.8 %
56Fe (KED)	443.783 ppb	3,883,979 cps	0.3 %
58Ni (KED)	2.512 ppb	32,324 cps	0.4 %
59Co (KED)	0.775 ppb	15,126 cps	123.8 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	7.759 ppb	117,214 cps	0.2 %
64Zn (KED)	203.391 ppb	749,970 cps	0.9 %
69Ga (KED)	1.558 ppb	7,148 cps	1.1 %
75As (KED)	0.654 ppb	804 cps	0.6 %
80Se (KED)	5.027 ppb	2,147 cps	2.7 %
85Rb (KED)	1.276 ppb	5,283 cps	2.5 %
88Sr (KED)	6.666 ppb	38,102 cps	0.7 %
107Ag (KED)	0.252 ppb	11,748 cps	1.6 %
114Cd (KED)	0.534 ppb	8,763 cps	5.9 %
133Cs (KED)	0.083 ppb	1,995 cps	4.8 %
138Ba (KED)	4.756 ppb	159,652 cps	0.9 %
139La (KED)	0.360 ppb	24,096 cps	1.9 %
140Ce (KED)	0.759 ppb	69,646 cps	3.8 %
141Pr (KED)	0.084 ppb	7,923 cps	1.6 %
142Nd (KED)	0.434 ppb	17,375 cps	1.2 %
152Sm (KED)	0.055 ppb	2,144 cps	5.1 %
153Eu (KED)	0.012 ppb	893 cps	3.4 %
158Gd (KED)	0.059 ppb	3,140 cps	16.4 %
164Dy (KED)	0.039 ppb	2,246 cps	3.5 %
165Ho (KED)	0.007 ppb	1,388 cps	9.9 %
166Er (KED)	0.021 ppb	1,533 cps	17.1 %
169Tm (KED)	0.002 ppb	589 cps	7.1 %
174Yb (KED)	0.019 ppb	1,617 cps	8.8 %
175Lu (KED)	0.003 ppb	319 cps	42.2 %
205Tl (KED)	0.009 ppb	1,565 cps	6.5 %
208Pb (KED)	1.018 ppb	135,545 cps	1.9 %
232Th (KED)	0.103 ppb	25,179 cps	0.6 %
238U (KED)	0.075 ppb	21,459 cps	2.5 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 22

Analysis name: 18120jian

Analysis started at: 8/30/2021 5:24:33 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.010 ppb	173.2 %
11B (KED)	6.130 ppb	9.8 %
24Mg (KED)	442.598 ppb	0.8 %
27Al (KED)	562.989 ppb	0.5 %
51V (KED)	1.066 ppb	4.7 %
52Cr (KED)	4.332 ppb	2.3 %
55Mn (KED)	14.281 ppb	2.4 %
56Fe (KED)	500.339 ppb	0.6 %
58Ni (KED)	2.342 ppb	1.7 %
59Co (KED)	0.292 ppb	21.9 %
63Cu (KED)	10.198 ppb	0.3 %
64Zn (KED)	204.695 ppb	1.3 %
69Ga (KED)	1.636 ppb	1.3 %
75As (KED)	0.831 ppb	7.0 %
80Se (KED)	2.930 ppb	8.6 %
85Rb (KED)	1.873 ppb	0.7 %
88Sr (KED)	5.159 ppb	1.2 %
107Ag (KED)	0.070 ppb	2.3 %
114Cd (KED)	0.272 ppb	3.3 %
133Cs (KED)	0.095 ppb	8.6 %
138Ba (KED)	5.026 ppb	0.8 %
139La (KED)	0.419 ppb	1.8 %
140Ce (KED)	0.830 ppb	1.9 %
141Pr (KED)	0.094 ppb	4.4 %
142Nd (KED)	0.489 ppb	2.0 %
152Sm (KED)	0.059 ppb	5.1 %
153Eu (KED)	0.013 ppb	5.3 %
158Gd (KED)	0.058 ppb	4.5 %
164Dy (KED)	0.043 ppb	6.7 %
165Ho (KED)	0.008 ppb	2.8 %
166Er (KED)	0.020 ppb	2.8 %
169Tm (KED)	0.003 ppb	9.5 %
174Yb (KED)	0.017 ppb	4.2 %
175Lu (KED)	0.003 ppb	13.4 %
205Tl (KED)	0.011 ppb	6.5 %
208Pb (KED)	0.984 ppb	1.1 %
232Th (KED)	0.115 ppb	1.2 %
238U (KED)	0.031 ppb	1.1 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.010 ppb	2 cps	86.6 %
11B (KED)	6.130 ppb	414 cps	8.5 %
24Mg (KED)	442.598 ppb	171,197 cps	0.8 %
27Al (KED)	562.989 ppb	52,061 cps	0.5 %
51V (KED)	1.066 ppb	6,581 cps	4.7 %
52Cr (KED)	4.332 ppb	42,262 cps	2.3 %
55Mn (KED)	14.281 ppb	65,414 cps	2.4 %
56Fe (KED)	500.339 ppb	4,378,040 cps	0.6 %
58Ni (KED)	2.342 ppb	30,295 cps	1.5 %
59Co (KED)	0.292 ppb	5,716 cps	21.9 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	10.198 ppb	153,628 cps	0.3 %
64Zn (KED)	204.695 ppb	754,772 cps	1.3 %
69Ga (KED)	1.636 ppb	7,501 cps	1.3 %
75As (KED)	0.831 ppb	992 cps	6.2 %
80Se (KED)	2.930 ppb	1,512 cps	5.1 %
85Rb (KED)	1.873 ppb	7,740 cps	0.7 %
88Sr (KED)	5.159 ppb	29,511 cps	1.2 %
107Ag (KED)	0.070 ppb	3,796 cps	1.8 %
114Cd (KED)	0.272 ppb	4,532 cps	3.2 %
133Cs (KED)	0.095 ppb	2,257 cps	8.2 %
138Ba (KED)	5.026 ppb	168,503 cps	0.8 %
139La (KED)	0.419 ppb	28,036 cps	1.8 %
140Ce (KED)	0.830 ppb	76,140 cps	1.8 %
141Pr (KED)	0.094 ppb	8,785 cps	4.4 %
142Nd (KED)	0.489 ppb	19,572 cps	2.0 %
152Sm (KED)	0.059 ppb	2,298 cps	5.1 %
153Eu (KED)	0.013 ppb	928 cps	5.3 %
158Gd (KED)	0.058 ppb	3,105 cps	4.5 %
164Dy (KED)	0.043 ppb	2,470 cps	6.7 %
165Ho (KED)	0.008 ppb	1,682 cps	2.8 %
166Er (KED)	0.020 ppb	1,462 cps	2.7 %
169Tm (KED)	0.003 ppb	696 cps	9.5 %
174Yb (KED)	0.017 ppb	1,510 cps	4.2 %
175Lu (KED)	0.003 ppb	367 cps	13.4 %
205Tl (KED)	0.011 ppb	1,910 cps	6.4 %
208Pb (KED)	0.984 ppb	131,275 cps	1.1 %
232Th (KED)	0.115 ppb	28,254 cps	1.1 %
238U (KED)	0.031 ppb	9,111 cps	1.1 %

# Comprehensive

8/30/2021 5:35:01 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 23

Analysis name: 18060jian

Analysis started at: 8/30/2021 5:27:39 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be (KED)	0.021 ppb	150.0 %
11B (KED)	5.828 ppb	5.4 %
24Mg (KED)	499.747 ppb	0.5 %
27Al (KED)	636.731 ppb	1.0 %
51V (KED)	1.156 ppb	0.6 %
52Cr (KED)	4.026 ppb	26.8 %
55Mn (KED)	15.730 ppb	0.8 %
56Fe (KED)	512.183 ppb	1.7 %
58Ni (KED)	2.321 ppb	2.6 %
59Co (KED)	0.285 ppb	2.4 %
63Cu (KED)	9.500 ppb	0.8 %
64Zn (KED)	185.219 ppb	0.5 %
69Ga (KED)	2.031 ppb	0.5 %
75As (KED)	0.780 ppb	4.4 %
80Se (KED)	4.752 ppb	5.3 %
85Rb (KED)	1.796 ppb	3.0 %
88Sr (KED)	5.804 ppb	3.2 %
107Ag (KED)	0.132 ppb	4.1 %
114Cd (KED)	0.482 ppb	0.4 %
133Cs (KED)	0.102 ppb	4.7 %
138Ba (KED)	6.357 ppb	3.6 %
139La (KED)	0.465 ppb	0.9 %
140Ce (KED)	0.959 ppb	6.6 %
141Pr (KED)	0.105 ppb	7.0 %
142Nd (KED)	0.533 ppb	3.0 %
152Sm (KED)	0.068 ppb	1.5 %
153Eu (KED)	0.015 ppb	6.3 %
158Gd (KED)	0.061 ppb	3.7 %
164Dy (KED)	0.044 ppb	4.1 %
165Ho (KED)	0.009 ppb	13.4 %
166Er (KED)	0.024 ppb	5.1 %
169Tm (KED)	0.003 ppb	11.4 %
174Yb (KED)	0.019 ppb	2.0 %
175Lu (KED)	0.003 ppb	18.6 %
205Tl (KED)	0.012 ppb	1.5 %
208Pb (KED)	0.987 ppb	0.9 %
232Th (KED)	0.128 ppb	2.3 %
238U (KED)	0.033 ppb	3.9 %

Category	Concentration average	Intensity average	Intensity RSD
9Be (KED)	0.021 ppb	3 cps	100.0 %
11B (KED)	5.828 ppb	397 cps	4.7 %
24Mg (KED)	499.747 ppb	193,277 cps	0.5 %
27Al (KED)	636.731 ppb	58,866 cps	1.0 %
51V (KED)	1.156 ppb	7,136 cps	0.6 %
52Cr (KED)	4.026 ppb	39,290 cps	26.6 %
55Mn (KED)	15.730 ppb	71,969 cps	0.8 %
56Fe (KED)	512.183 ppb	4,481,509 cps	1.7 %
58Ni (KED)	2.321 ppb	30,038 cps	2.4 %
59Co (KED)	0.285 ppb	5,572 cps	2.4 %

Category	Concentration average	Intensity average	Intensity RSD
63Cu (KED)	9.500 ppb	143,198 cps	0.8 %
64Zn (KED)	185.219 ppb	683,051 cps	0.5 %
69Ga (KED)	2.031 ppb	9,279 cps	0.5 %
75As (KED)	0.780 ppb	938 cps	3.9 %
80Se (KED)	4.752 ppb	2,064 cps	3.7 %
85Rb (KED)	1.796 ppb	7,424 cps	3.0 %
88Sr (KED)	5.804 ppb	33,189 cps	3.2 %
107Ag (KED)	0.132 ppb	6,516 cps	3.7 %
114Cd (KED)	0.482 ppb	7,918 cps	0.4 %
133Cs (KED)	0.102 ppb	2,426 cps	4.5 %
138Ba (KED)	6.357 ppb	212,013 cps	3.5 %
139La (KED)	0.465 ppb	31,074 cps	0.9 %
140Ce (KED)	0.959 ppb	87,941 cps	6.6 %
141Pr (KED)	0.105 ppb	9,842 cps	7.0 %
142Nd (KED)	0.533 ppb	21,307 cps	3.0 %
152Sm (KED)	0.068 ppb	2,654 cps	1.5 %
153Eu (KED)	0.015 ppb	1,063 cps	6.3 %
158Gd (KED)	0.061 ppb	3,226 cps	3.7 %
164Dy (KED)	0.044 ppb	2,545 cps	4.1 %
165Ho (KED)	0.009 ppb	1,805 cps	13.4 %
166Er (KED)	0.024 ppb	1,748 cps	4.9 %
169Tm (KED)	0.003 ppb	804 cps	11.4 %
174Yb (KED)	0.019 ppb	1,622 cps	2.0 %
175Lu (KED)	0.003 ppb	351 cps	18.5 %
205Tl (KED)	0.012 ppb	2,097 cps	1.5 %
208Pb (KED)	0.987 ppb	131,686 cps	0.8 %
232Th (KED)	0.128 ppb	31,268 cps	2.3 %
238U (KED)	0.033 ppb	9,579 cps	3.9 %