

## Instrument Summary:

Instrument ID: iCAP Q  
Serial Number: Undefined

## Labbook Summary:

Path and filename: \_Application Data\Workspace\LabBooks\wlw\20210902-1.imexp  
Labbook created by: Administrator  
Based on template:  
Hardware configuration: iCAPQ1  
Labbook type: eQuant  
Qtegra version (last saved): 2.7.2425.154  
Labbook started: 9/2/2021 4:16:40 PM  
Labbook finished: 9/2/2021 5:36:35 PM

## Method Summary:

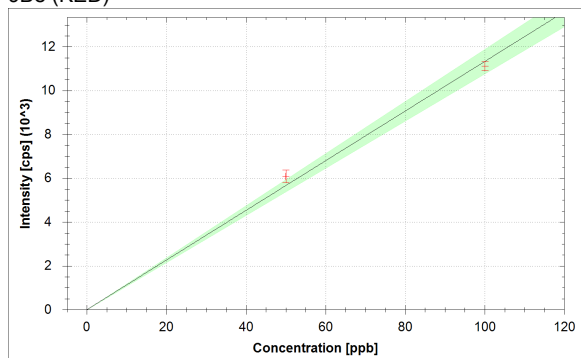
Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution	IS
6Li (KED)	KED	0.03	3	0.1	Normal	
9Be (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
11B (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
24Mg (KED)	KED	0.03	3	0.1	Normal	6Li (KED)
27Al (KED)	KED	0.03	3	0.1	Normal	45Sc (KED)
45Sc (KED)	KED	0.03	3	0.1	Normal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

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

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

## Calibration Curves:

9Be (KED)



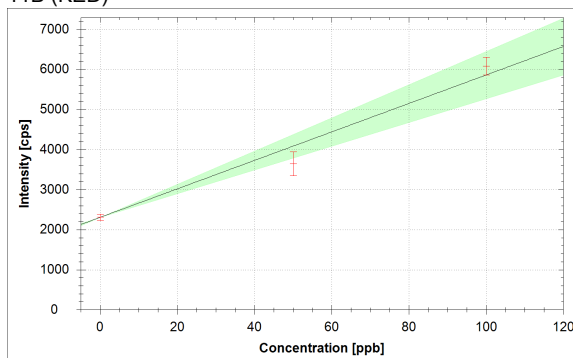
$$f(x) = 113.2724 \cdot x + 1.1143$$

$$R^2 = 0.9964$$

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

$$\text{LoD} = 0.0511 \text{ ppb}$$

11B (KED)



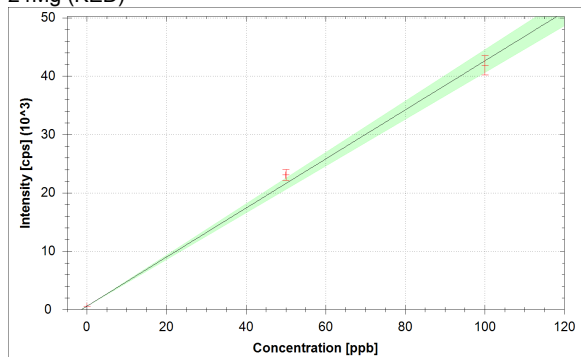
$$f(x) = 35.5351 \cdot x + 2308.1174$$

$$R^2 = 0.9665$$

$$\text{BEC} = 64.953 \text{ ppb}$$

$$\text{LoD} = 6.3010 \text{ ppb}$$

24Mg (KED)



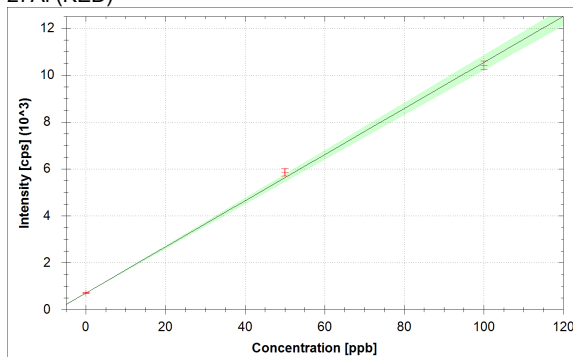
$$f(x) = 420.2140 \cdot x + 576.6735$$

$$R^2 = 0.9968$$

$$\text{BEC} = 1.372 \text{ ppb}$$

$$\text{LoD} = 0.2161 \text{ ppb}$$

27Al (KED)



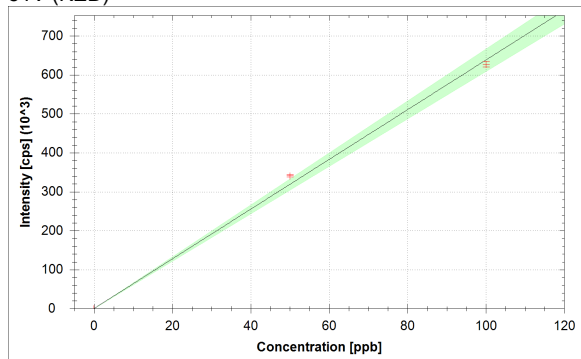
$$f(x) = 98.3384 \cdot x + 703.4215$$

$$R^2 = 0.9985$$

$$\text{BEC} = 7.153 \text{ ppb}$$

$$\text{LoD} = 1.1748 \text{ ppb}$$

51V (KED)



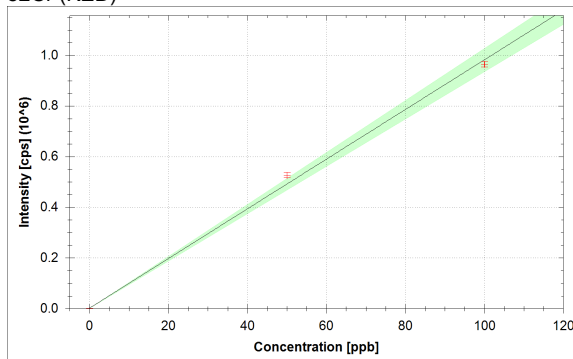
$$f(x) = 6381.7349 \cdot x + 77.9697$$

$$R^2 = 0.9970$$

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

$$\text{LoD} = 0.0084 \text{ ppb}$$

52Cr (KED)



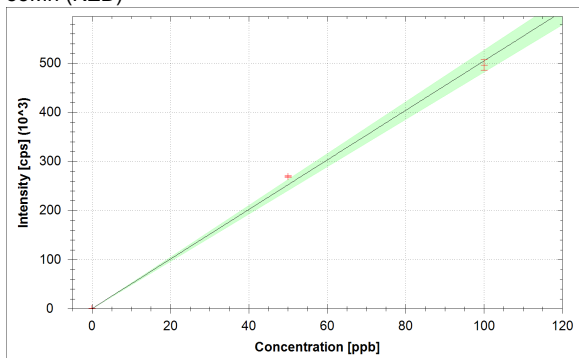
$$f(x) = 9803.6240 \cdot x + 1501.9397$$

$$R^2 = 0.9968$$

$$\text{BEC} = 0.153 \text{ ppb}$$

$$\text{LoD} = 0.0195 \text{ ppb}$$

55Mn (KED)



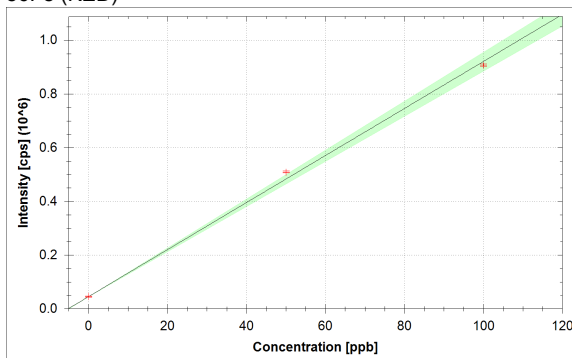
$$f(x) = 5043.7126 \cdot x + 240.1792$$

$$R^2 = 0.9971$$

$$\text{BEC} = 0.048 \text{ ppb}$$

$$\text{LoD} = 0.0121 \text{ ppb}$$

56Fe (KED)



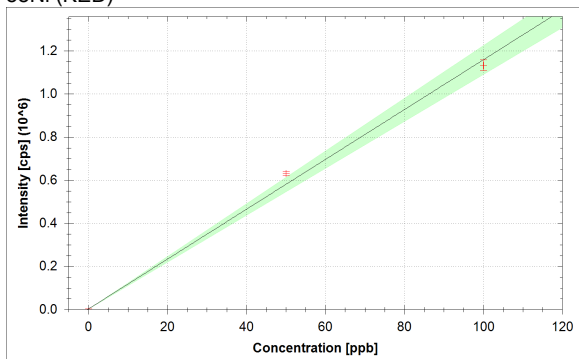
$$f(x) = 8757.7509 \cdot x + 44916.9182$$

$$R^2 = 0.9977$$

$$\text{BEC} = 5.129 \text{ ppb}$$

$$\text{LoD} = 0.5538 \text{ ppb}$$

58Ni (KED)



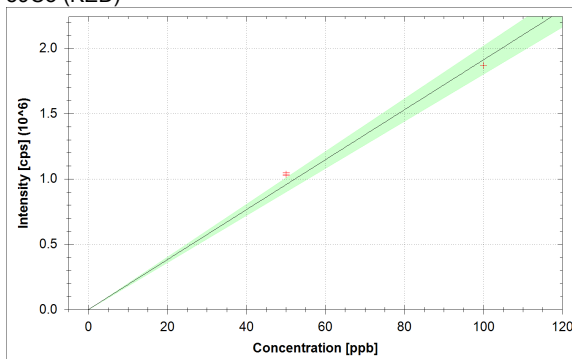
$$f(x) = 11556.8772 \cdot x + 2726.1090$$

$$R^2 = 0.9950$$

$$\text{BEC} = 0.236 \text{ ppb}$$

$$\text{LoD} = 0.0062 \text{ ppb}$$

59Co (KED)



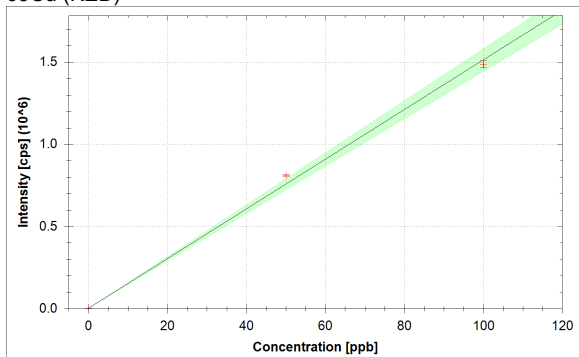
$$f(x) = 19101.9139 \cdot x + 163.2418$$

$$R^2 = 0.9953$$

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

$$\text{LoD} = 0.0054 \text{ ppb}$$

63Cu (KED)



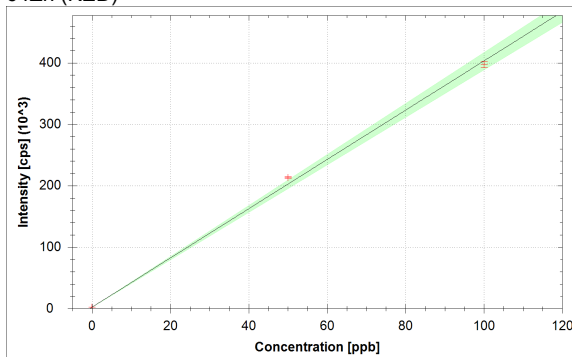
$$f(x) = 15118.3532 \cdot x + 1701.0887$$

$$R^2 = 0.9968$$

$$\text{BEC} = 0.113 \text{ ppb}$$

$$\text{LoD} = 0.0187 \text{ ppb}$$

64Zn (KED)



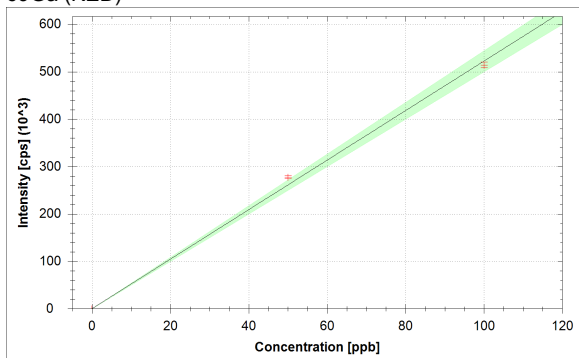
$$f(x) = 4007.7224 \cdot x + 2256.9934$$

$$R^2 = 0.9982$$

$$\text{BEC} = 0.563 \text{ ppb}$$

$$\text{LoD} = 0.0269 \text{ ppb}$$

69Ga (KED)



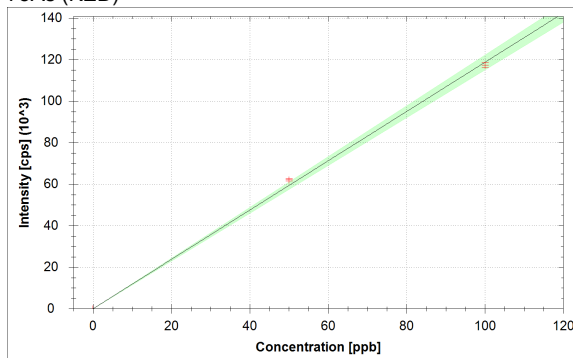
$$f(x) = 5223.3293 \cdot x + 129.9381$$

$$R^2 = 0.9974$$

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

$$\text{LoD} = 0.0083 \text{ ppb}$$

75As (KED)



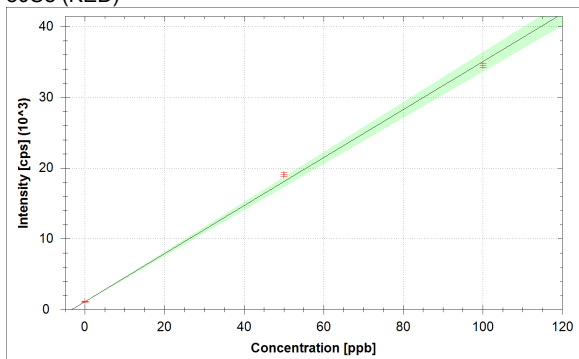
$$f(x) = 1187.0995 \cdot x + 12.2174$$

$$R^2 = 0.9987$$

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

$$\text{LoD} = 0.0048 \text{ ppb}$$

80Se (KED)



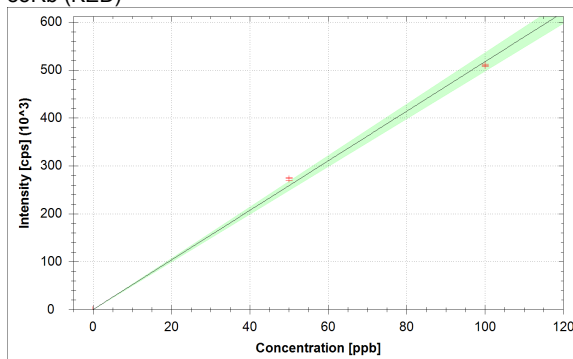
$$f(x) = 339.1908 \cdot x + 1111.9215$$

$$R^2 = 0.9977$$

$$\text{BEC} = 3.278 \text{ ppb}$$

$$\text{LoD} = 0.7629 \text{ ppb}$$

85Rb (KED)



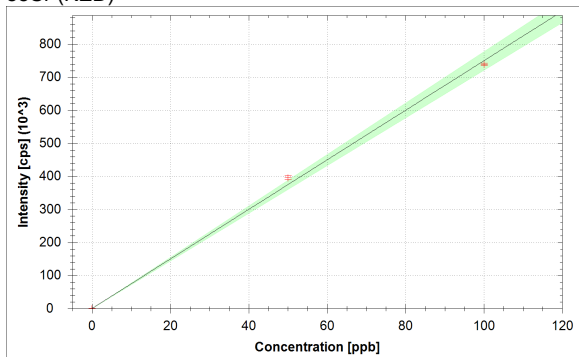
$$f(x) = 5170.7160 \cdot x + 41.1452$$

$$R^2 = 0.9980$$

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

$$\text{LoD} = 0.0112 \text{ ppb}$$

88Sr (KED)



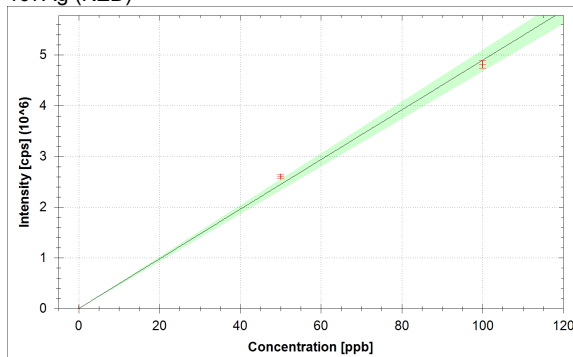
$$f(x) = 7497.0883 \cdot x + 228.8419$$

$$R^2 = 0.9979$$

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

$$\text{LoD} = 0.0098 \text{ ppb}$$

107Ag (KED)

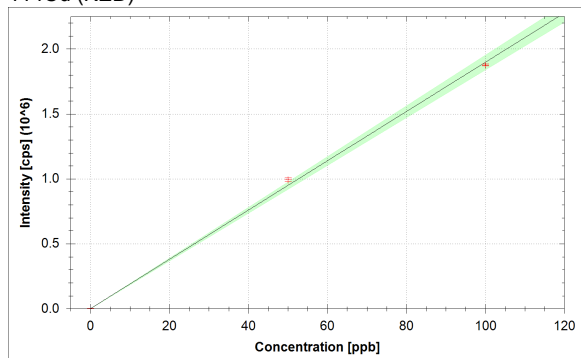


$$f(x) = 48951.6953 \cdot x + 88.9608$$

$$R^2 = 0.9974$$

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

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

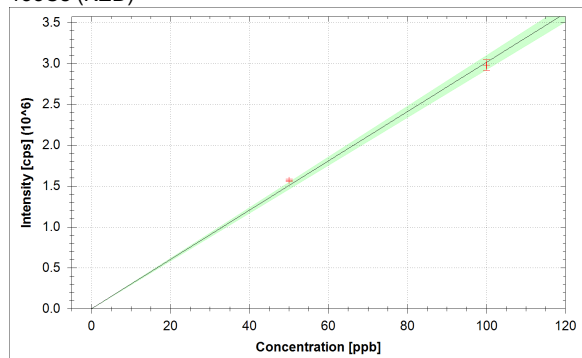
**<sup>114</sup>Cd (KED)**

$$f(x) = 18959.3397 \cdot x + 846.6805$$

$$R^2 = 0.9987$$

$$\text{BEC} = 0.045 \text{ ppb}$$

$$\text{LoD} = 0.0190 \text{ ppb}$$

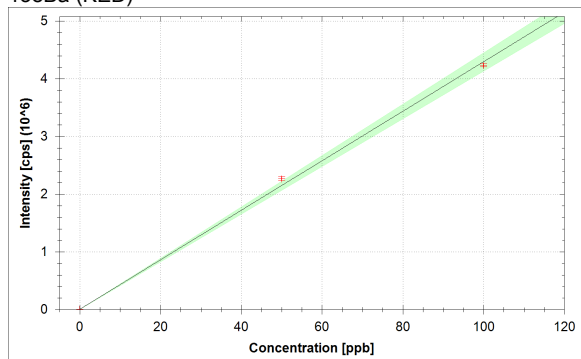
**<sup>133</sup>Cs (KED)**

$$f(x) = 30124.7249 \cdot x + 191.4587$$

$$R^2 = 0.9988$$

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

$$\text{LoD} = 0.0039 \text{ ppb}$$

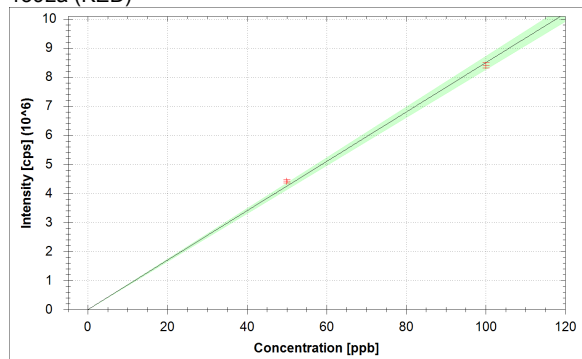
**<sup>138</sup>Ba (KED)**

$$f(x) = 42903.8947 \cdot x + 3621.6714$$

$$R^2 = 0.9980$$

$$\text{BEC} = 0.084 \text{ ppb}$$

$$\text{LoD} = 0.0036 \text{ ppb}$$

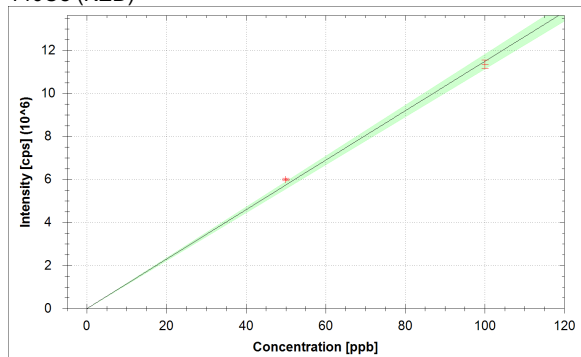
**<sup>139</sup>La (KED)**

$$f(x) = 84937.8751 \cdot x + 246.7815$$

$$R^2 = 0.9990$$

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

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

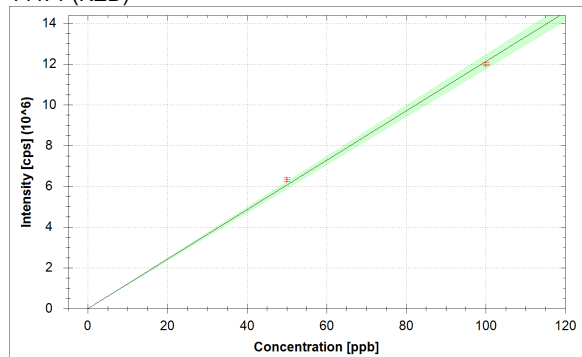
**<sup>140</sup>Ce (KED)**

$$f(x) = 114787.5355 \cdot x + 805.2054$$

$$R^2 = 0.9987$$

$$\text{BEC} = 0.007 \text{ ppb}$$

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

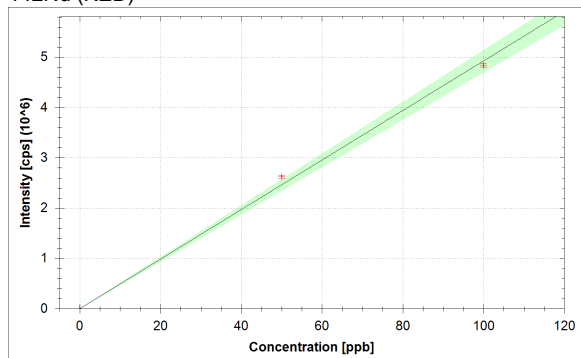
**<sup>141</sup>Pr (KED)**

$$f(x) = 121238.8355 \cdot x + 83.4457$$

$$R^2 = 0.9988$$

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

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

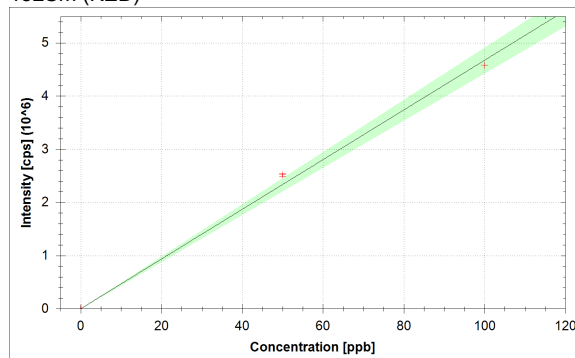
**<sup>142</sup>Nd (KED)**

$$f(x) = 49247.8996 \cdot x + 154.5310$$

$$R^2 = 0.9972$$

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

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

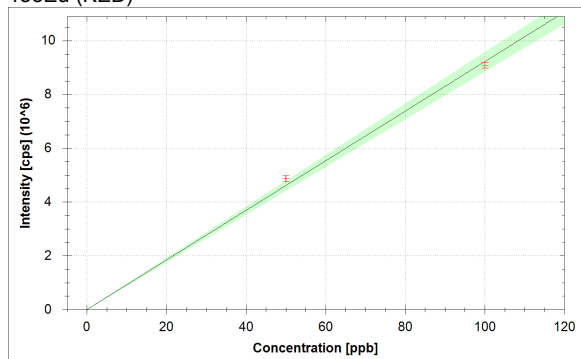
**<sup>152</sup>Sm (KED)**

$$f(x) = 46715.5819 \cdot x + 18.8957$$

$$R^2 = 0.9962$$

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

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

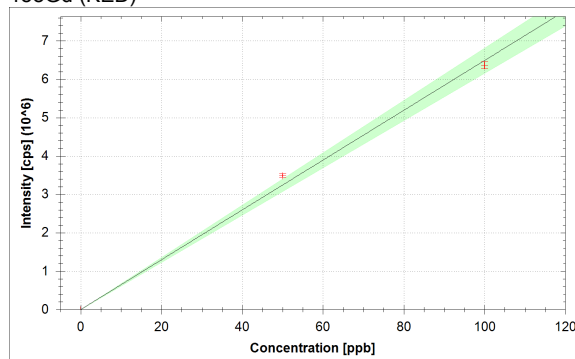
**<sup>153</sup>Eu (KED)**

$$f(x) = 92188.4333 \cdot x + 24.4623$$

$$R^2 = 0.9979$$

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

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

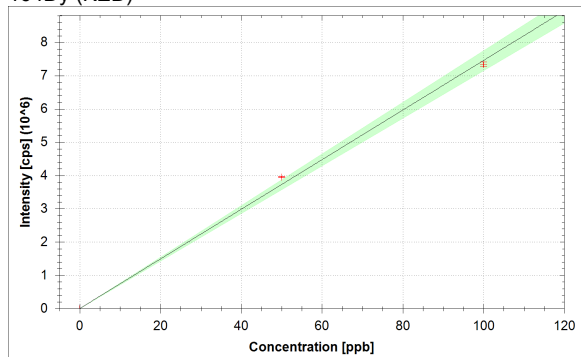
**<sup>158</sup>Gd (KED)**

$$f(x) = 64884.8408 \cdot x + 25.5287$$

$$R^2 = 0.9963$$

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

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

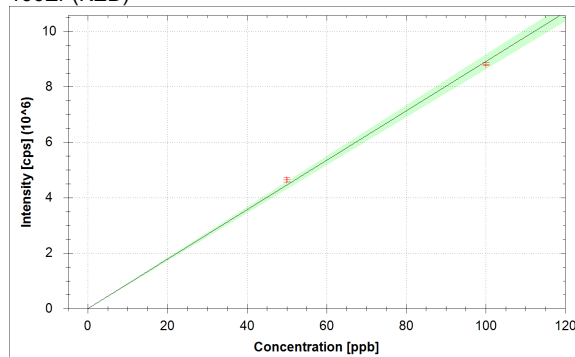
**<sup>164</sup>Dy (KED)**

$$f(x) = 74568.3776 \cdot x + 46.5735$$

$$R^2 = 0.9976$$

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

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

**<sup>166</sup>Er (KED)**

$$f(x) = 89053.8805 \cdot x + 526.8576$$

$$R^2 = 0.9988$$

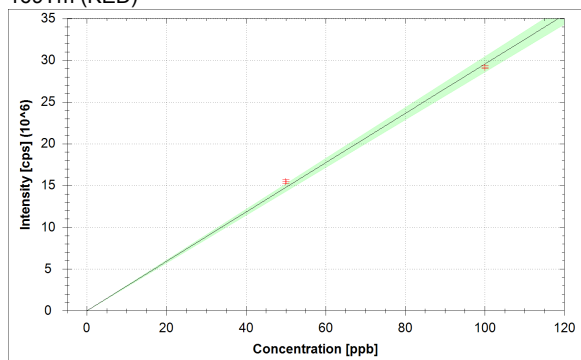
$$\text{BEC} = 0.006 \text{ ppb}$$

$$\text{LoD} = 0.0012 \text{ ppb}$$

# Comprehensive

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**<sup>169</sup>Tm (KED)**



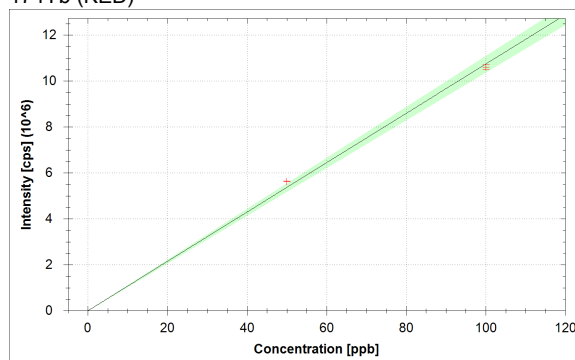
$$f(x) = 295287.5547 \cdot x + 47.8302$$

$$R^2 = 0.9986$$

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

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

**<sup>174</sup>Yb (KED)**



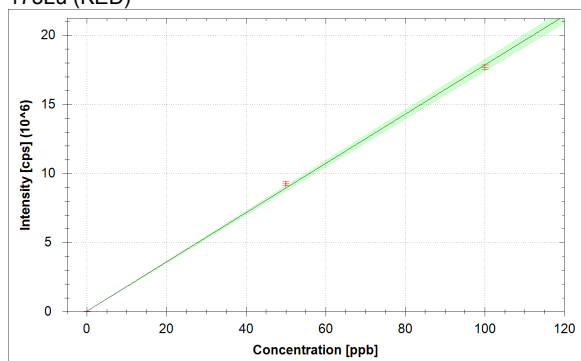
$$f(x) = 107384.4317 \cdot x + 86.7545$$

$$R^2 = 0.9985$$

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

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

**<sup>175</sup>Lu (KED)**



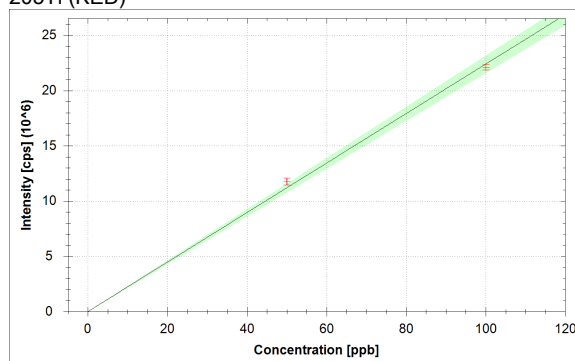
$$f(x) = 178180.3368 \cdot x + 28680.1334$$

$$R^2 = 0.9992$$

$$\text{BEC} = 0.161 \text{ ppb}$$

$$\text{LoD} = 0.0077 \text{ ppb}$$

**<sup>205</sup>Tl (KED)**



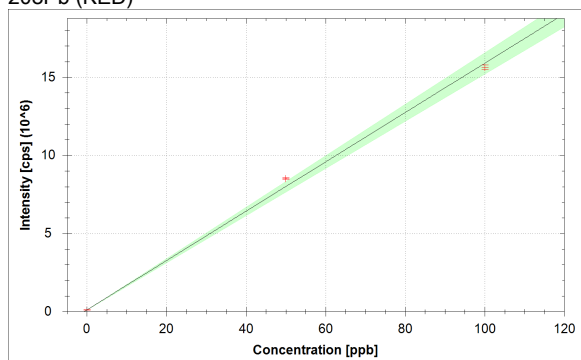
$$f(x) = 223989.2832 \cdot x + 61.0743$$

$$R^2 = 0.9983$$

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

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

**<sup>208</sup>Pb (KED)**



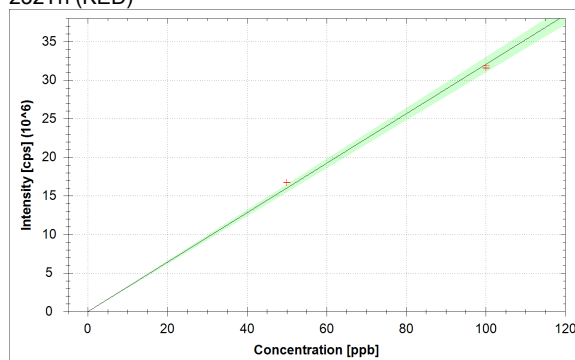
$$f(x) = 157918.7359 \cdot x + 104601.1280$$

$$R^2 = 0.9973$$

$$\text{BEC} = 0.662 \text{ ppb}$$

$$\text{LoD} = 0.0568 \text{ ppb}$$

**<sup>232</sup>Th (KED)**



$$f(x) = 320324.9636 \cdot x + 1447.5197$$

$$R^2 = 0.9987$$

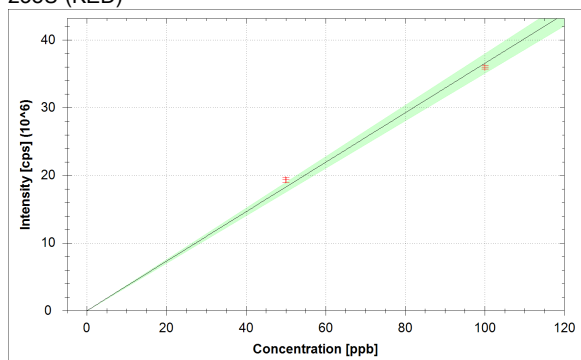
$$\text{BEC} = 0.005 \text{ ppb}$$

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

# Comprehensive

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238U (KED)



$$f(x) = 365414.0117 \cdot x + 1096.4179$$

$$R^2 = 0.9977$$

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

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

# Comprehensive

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## Standards:

Analysis Index: 3  
Analysis Name: 50+20  
Analysis Type: STD  
Analysis Started at: 9/2/2021 4:23:01 PM  
Standard (Stock): std1  
Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	94.603 %		
9Be (KED)	53.717 ppb	4.7 %	50.000 ppb
11B (KED)	37.531 ppb	22.5 %	50.000 ppb
24Mg (KED)	53.506 ppb	4.1 %	50.000 ppb
27Al (KED)	52.389 ppb	3.2 %	50.000 ppb
45Sc (KED)	101.318 %		
51V (KED)	53.407 ppb	0.8 %	50.000 ppb
52Cr (KED)	53.519 ppb	1.9 %	50.000 ppb
55Mn (KED)	53.342 ppb	0.8 %	50.000 ppb
56Fe (KED)	53.017 ppb	0.7 %	50.000 ppb
58Ni (KED)	54.366 ppb	1.2 %	50.000 ppb
59Co (KED)	54.256 ppb	1.1 %	50.000 ppb
63Cu (KED)	53.514 ppb	0.7 %	50.000 ppb
64Zn (KED)	52.655 ppb	0.8 %	50.000 ppb
69Ga (KED)	53.204 ppb	1.4 %	50.000 ppb
75As (KED)	52.277 ppb	0.9 %	50.000 ppb
80Se (KED)	52.967 ppb	1.5 %	50.000 ppb
85Rb (KED)	52.800 ppb	1.1 %	50.000 ppb
88Sr (KED)	52.830 ppb	1.4 %	50.000 ppb
89Y (KED)	98.387 %		
107Ag (KED)	53.154 ppb	1.5 %	50.000 ppb
114Cd (KED)	52.258 ppb	1.6 %	50.000 ppb
115In (KED)	99.756 %		
133Cs (KED)	52.162 ppb	1.0 %	50.000 ppb
138Ba (KED)	52.785 ppb	1.6 %	50.000 ppb
139La (KED)	52.028 ppb	1.4 %	50.000 ppb
140Ce (KED)	52.239 ppb	1.1 %	50.000 ppb
141Pr (KED)	52.193 ppb	1.6 %	50.000 ppb
142Nd (KED)	53.313 ppb	1.2 %	50.000 ppb
152Sm (KED)	53.832 ppb	1.1 %	50.000 ppb
153Eu (KED)	52.889 ppb	2.5 %	50.000 ppb
158Gd (KED)	53.805 ppb	1.3 %	50.000 ppb
159Tb (KED)	100.228 %		
164Dy (KED)	53.037 ppb	0.7 %	50.000 ppb
166Er (KED)	52.151 ppb	1.8 %	50.000 ppb
169Tm (KED)	52.352 ppb	1.6 %	50.000 ppb
174Yb (KED)	52.458 ppb	0.2 %	50.000 ppb
175Lu (KED)	51.790 ppb	1.7 %	50.000 ppb
205Tl (KED)	52.567 ppb	2.7 %	50.000 ppb
208Pb (KED)	53.247 ppb	0.6 %	50.000 ppb
209Bi (KED)	99.497 %		
232Th (KED)	52.236 ppb	0.3 %	50.000 ppb
238U (KED)	52.974 ppb	2.0 %	50.000 ppb

# Comprehensive

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## Standards:

Analysis Index: 4  
Analysis Name: 100+20  
Analysis Type: STD  
Analysis Started at: 9/2/2021 4:26:29 PM  
Standard (Stock): std2  
Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
6Li (KED)	97.230 %		
9Be (KED)	98.141 ppb	1.9 %	100.000 ppb
11B (KED)	106.235 ppb	5.9 %	100.000 ppb
24Mg (KED)	98.247 ppb	4.0 %	100.000 ppb
27Al (KED)	98.805 ppb	1.9 %	100.000 ppb
45Sc (KED)	103.194 %		
51V (KED)	98.296 ppb	1.2 %	100.000 ppb
52Cr (KED)	98.241 ppb	1.1 %	100.000 ppb
55Mn (KED)	98.329 ppb	2.1 %	100.000 ppb
56Fe (KED)	98.491 ppb	0.5 %	100.000 ppb
58Ni (KED)	97.817 ppb	2.2 %	100.000 ppb
59Co (KED)	97.872 ppb	0.0 %	100.000 ppb
63Cu (KED)	98.243 ppb	1.4 %	100.000 ppb
64Zn (KED)	98.673 ppb	1.3 %	100.000 ppb
69Ga (KED)	98.398 ppb	1.2 %	100.000 ppb
75As (KED)	98.862 ppb	1.1 %	100.000 ppb
80Se (KED)	98.517 ppb	0.8 %	100.000 ppb
85Rb (KED)	98.600 ppb	0.5 %	100.000 ppb
88Sr (KED)	98.585 ppb	0.5 %	100.000 ppb
89Y (KED)	98.908 %		
107Ag (KED)	98.423 ppb	1.6 %	100.000 ppb
114Cd (KED)	98.871 ppb	0.4 %	100.000 ppb
115In (KED)	98.799 %		
133Cs (KED)	98.919 ppb	2.2 %	100.000 ppb
138Ba (KED)	98.608 ppb	0.7 %	100.000 ppb
139La (KED)	98.986 ppb	1.2 %	100.000 ppb
140Ce (KED)	98.880 ppb	1.7 %	100.000 ppb
141Pr (KED)	98.903 ppb	0.6 %	100.000 ppb
142Nd (KED)	98.343 ppb	0.8 %	100.000 ppb
152Sm (KED)	98.084 ppb	0.0 %	100.000 ppb
153Eu (KED)	98.556 ppb	1.1 %	100.000 ppb
158Gd (KED)	98.098 ppb	1.5 %	100.000 ppb
159Tb (KED)	98.597 %		
164Dy (KED)	98.482 ppb	0.9 %	100.000 ppb
166Er (KED)	98.925 ppb	0.6 %	100.000 ppb
169Tm (KED)	98.824 ppb	0.7 %	100.000 ppb
174Yb (KED)	98.771 ppb	1.0 %	100.000 ppb
175Lu (KED)	99.105 ppb	1.0 %	100.000 ppb
205Tl (KED)	98.716 ppb	1.2 %	100.000 ppb
208Pb (KED)	98.376 ppb	0.9 %	100.000 ppb
209Bi (KED)	98.687 %		
232Th (KED)	98.882 ppb	0.6 %	100.000 ppb
238U (KED)	98.513 ppb	0.8 %	100.000 ppb

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## Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Main Runs:	Survey Runs:	Start Time:	User name:
1	water	3	0	9/2/2021 4:16:47 PM	WINDOWS-UPCI4ER\Administrator
2	blk	3	0	9/2/2021 4:19:46 PM	WINDOWS-UPCI4ER\Administrator
3	50+20	3	0	9/2/2021 4:23:01 PM	WINDOWS-UPCI4ER\Administrator
4	100+20	3	0	9/2/2021 4:26:29 PM	WINDOWS-UPCI4ER\Administrator
5	046055(178579)jian	3	0	9/2/2021 4:29:44 PM	WINDOWS-UPCI4ER\Administrator
6	022849(178574)jian	3	0	9/2/2021 4:33:07 PM	WINDOWS-UPCI4ER\Administrator
7	386jian	3	0	9/2/2021 4:36:19 PM	WINDOWS-UPCI4ER\Administrator
8	364jian	3	0	9/2/2021 4:39:37 PM	WINDOWS-UPCI4ER\Administrator
9	378jian	3	0	9/2/2021 4:43:06 PM	WINDOWS-UPCI4ER\Administrator
10	372jian	3	0	9/2/2021 4:46:24 PM	WINDOWS-UPCI4ER\Administrator
11	374jian	3	0	9/2/2021 4:49:50 PM	WINDOWS-UPCI4ER\Administrator
12	366jian	3	0	9/2/2021 4:53:05 PM	WINDOWS-UPCI4ER\Administrator
13	370jian	3	0	9/2/2021 4:56:18 PM	WINDOWS-UPCI4ER\Administrator
14	392jian	3	0	9/2/2021 4:59:40 PM	WINDOWS-UPCI4ER\Administrator
15	374jian	3	0	9/2/2021 5:02:57 PM	WINDOWS-UPCI4ER\Administrator
16	384jian	3	0	9/2/2021 5:06:18 PM	WINDOWS-UPCI4ER\Administrator
17	376jian	3	0	9/2/2021 5:09:43 PM	WINDOWS-UPCI4ER\Administrator
18	390jian	3	0	9/2/2021 5:13:05 PM	WINDOWS-UPCI4ER\Administrator
19	388jian	3	0	9/2/2021 5:16:22 PM	WINDOWS-UPCI4ER\Administrator
20	368jian	3	0	9/2/2021 5:19:47 PM	WINDOWS-UPCI4ER\Administrator
21	382jian	3	0	9/2/2021 5:23:09 PM	WINDOWS-UPCI4ER\Administrator
22	380jian	3	0	9/2/2021 5:26:32 PM	WINDOWS-UPCI4ER\Administrator
23	324jian	3	0	9/2/2021 5:29:51 PM	WINDOWS-UPCI4ER\Administrator
24	328jian	3	0	9/2/2021 5:33:10 PM	WINDOWS-UPCI4ER\Administrator

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## Sample Summary

Instrument ID: iCAP Q

Analysis index: 1

Analysis name: water

Analysis started at: 9/2/2021 4:16:47 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	0.048 %	173.2 %
11B (KED)	Infinity ppb	
24Mg (KED)	Infinity ppb	
27Al (KED)	60.346 ppb	33.7 %
45Sc (KED)	0.053 %	27.0 %
51V (KED)	2.909 ppb	7.9 %
52Cr (KED)	71.761 ppb	17.9 %
55Mn (KED)	57.327 ppb	37.6 %
56Fe (KED)	50.345 ppb	45.4 %
58Ni (KED)	419.327 ppb	34.8 %
59Co (KED)	10.461 ppb	44.8 %
63Cu (KED)	Infinity ppb	
64Zn (KED)	Infinity ppb	
69Ga (KED)	Infinity ppb	
75As (KED)	Infinity ppb	
80Se (KED)	Infinity ppb	
85Rb (KED)	Infinity ppb	
88Sr (KED)	Infinity ppb	
89Y (KED)	0.000 %	
114Cd (KED)	Infinity ppb	
115In (KED)	0.000 %	173.2 %
133Cs (KED)	Infinity ppb	
138Ba (KED)	Infinity ppb	
159Tb (KED)	0.000 %	
205Tl (KED)	52.538 ppb	52.1 %
208Pb (KED)	92.291 ppb	65.8 %
209Bi (KED)	0.000 %	74.2 %
232Th (KED)	2.122 ppb	110.5 %
238U (KED)	17.116 ppb	40.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	0.048 %	1 cps	173.2 %
9Be (KED)		0 cps	
11B (KED)	Infinity ppb	112 cps	9.5 %
24Mg (KED)	Infinity ppb	523 cps	17.1 %
27Al (KED)	60.346 ppb	3 cps	0.0 %
45Sc (KED)	0.053 %	19 cps	27.0 %
51V (KED)	2.909 ppb	10 cps	33.3 %
52Cr (KED)	71.761 ppb	362 cps	11.7 %
55Mn (KED)	57.327 ppb	143 cps	14.5 %
56Fe (KED)	50.345 ppb	239 cps	10.7 %
58Ni (KED)	419.327 ppb	2,414 cps	4.6 %
59Co (KED)	10.461 ppb	98 cps	13.8 %
63Cu (KED)	Infinity ppb	29 cps	46.6 %
64Zn (KED)	Infinity ppb	103 cps	21.2 %
69Ga (KED)	Infinity ppb	29 cps	59.2 %
75As (KED)	Infinity ppb	10 cps	33.3 %
80Se (KED)	Infinity ppb	1,039 cps	6.0 %
85Rb (KED)	Infinity ppb	18 cps	78.1 %
88Sr (KED)	Infinity ppb	190 cps	15.6 %

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Category	Concentration average	Intensity average	Intensity RSD
89Y (KED)	0.000 %	0 cps	
107Ag (KED)		0 cps	
114Cd (KED)	Infinity ppb	3 cps	100.0 %
115In (KED)	0.000 %	1 cps	173.2 %
133Cs (KED)	Infinity ppb	3 cps	100.0 %
138Ba (KED)	Infinity ppb	754 cps	10.8 %
139La (KED)		0 cps	
140Ce (KED)		4 cps	114.6 %
141Pr (KED)		1 cps	173.2 %
142Nd (KED)		1 cps	173.2 %
152Sm (KED)		0 cps	
153Eu (KED)		1 cps	173.2 %
158Gd (KED)		0 cps	
159Tb (KED)	0.000 %	0 cps	
164Dy (KED)		0 cps	
166Er (KED)		0 cps	
169Tm (KED)		0 cps	
174Yb (KED)		0 cps	
175Lu (KED)		0 cps	
205Tl (KED)	52.538 ppb	29 cps	13.3 %
208Pb (KED)	92.291 ppb	32 cps	26.0 %
209Bi (KED)	0.000 %	14 cps	74.2 %
232Th (KED)	2.122 ppb	2 cps	86.6 %
238U (KED)	17.116 ppb	17 cps	34.6 %

# Comprehensive

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## Sample Summary

Instrument ID: iCAP Q

Analysis index: 2

Analysis name: blk

Analysis started at: 9/2/2021 4:19:46 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	100.000 %	
9Be (KED)	0.000 ppb	1.7 %
11B (KED)	0.000 ppb	0.0 %
24Mg (KED)	0.000 ppb	0.1 %
27Al (KED)	0.000 ppb	0.1 %
45Sc (KED)	100.000 %	
51V (KED)	0.000 ppb	0.2 %
52Cr (KED)	0.000 ppb	0.0 %
55Mn (KED)	0.000 ppb	0.1 %
56Fe (KED)	0.000 ppb	0.0 %
58Ni (KED)	0.000 ppb	0.0 %
59Co (KED)	0.000 ppb	0.2 %
63Cu (KED)	0.000 ppb	0.1 %
64Zn (KED)	0.000 ppb	0.0 %
69Ga (KED)	0.000 ppb	0.1 %
75As (KED)	0.000 ppb	0.2 %
80Se (KED)	0.000 ppb	0.1 %
85Rb (KED)	0.000 ppb	0.5 %
88Sr (KED)	0.000 ppb	0.1 %
89Y (KED)	100.000 %	
107Ag (KED)	0.000 ppb	0.1 %
114Cd (KED)	0.000 ppb	0.1 %
115In (KED)	100.000 %	
133Cs (KED)	0.000 ppb	0.2 %
138Ba (KED)	0.000 ppb	0.0 %
139La (KED)	0.000 ppb	0.1 %
140Ce (KED)	0.000 ppb	0.1 %
141Pr (KED)	0.000 ppb	0.3 %
142Nd (KED)	0.000 ppb	0.2 %
152Sm (KED)	0.000 ppb	0.1 %
153Eu (KED)	0.000 ppb	0.4 %
158Gd (KED)	0.000 ppb	0.3 %
159Tb (KED)	100.000 %	
164Dy (KED)	0.000 ppb	0.4 %
166Er (KED)	0.000 ppb	0.1 %
169Tm (KED)	0.000 ppb	0.3 %
174Yb (KED)	0.000 ppb	0.2 %
175Lu (KED)	0.000 ppb	0.0 %
205Tl (KED)	0.000 ppb	0.2 %
208Pb (KED)	0.000 ppb	0.0 %
209Bi (KED)	100.000 %	
232Th (KED)	0.000 ppb	0.2 %
238U (KED)	0.000 ppb	0.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	100.000 %	2,327 cps	0.2 %
9Be (KED)	0.000 ppb	1 cps	173.2 %
11B (KED)	0.000 ppb	2,308 cps	3.0 %
24Mg (KED)	0.000 ppb	577 cps	5.3 %
27Al (KED)	0.000 ppb	703 cps	5.5 %

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	100.000 %	35,590 cps	1.8 %
51V (KED)	0.000 ppb	78 cps	21.6 %
52Cr (KED)	0.000 ppb	1,502 cps	5.4 %
55Mn (KED)	0.000 ppb	240 cps	7.2 %
56Fe (KED)	0.000 ppb	44,915 cps	3.9 %
58Ni (KED)	0.000 ppb	2,726 cps	1.1 %
59Co (KED)	0.000 ppb	163 cps	21.3 %
63Cu (KED)	0.000 ppb	1,701 cps	5.8 %
64Zn (KED)	0.000 ppb	2,257 cps	1.2 %
69Ga (KED)	0.000 ppb	130 cps	11.8 %
75As (KED)	0.000 ppb	12 cps	15.7 %
80Se (KED)	0.000 ppb	1,112 cps	8.4 %
85Rb (KED)	0.000 ppb	41 cps	46.8 %
88Sr (KED)	0.000 ppb	229 cps	11.0 %
89Y (KED)	100.000 %	385,585 cps	0.7 %
107Ag (KED)	0.000 ppb	89 cps	7.8 %
114Cd (KED)	0.000 ppb	846 cps	12.8 %
115In (KED)	100.000 %	795,693 cps	1.4 %
133Cs (KED)	0.000 ppb	191 cps	19.1 %
138Ba (KED)	0.000 ppb	3,622 cps	1.6 %
139La (KED)	0.000 ppb	247 cps	10.7 %
140Ce (KED)	0.000 ppb	806 cps	11.6 %
141Pr (KED)	0.000 ppb	83 cps	26.2 %
142Nd (KED)	0.000 ppb	154 cps	21.3 %
152Sm (KED)	0.000 ppb	19 cps	10.2 %
153Eu (KED)	0.000 ppb	24 cps	41.7 %
158Gd (KED)	0.000 ppb	26 cps	27.2 %
159Tb (KED)	100.000 %	4,522,525 cps	0.8 %
164Dy (KED)	0.000 ppb	47 cps	42.9 %
166Er (KED)	0.000 ppb	527 cps	6.1 %
169Tm (KED)	0.000 ppb	48 cps	24.5 %
174Yb (KED)	0.000 ppb	87 cps	24.0 %
175Lu (KED)	0.000 ppb	28,680 cps	1.6 %
205Tl (KED)	0.000 ppb	61 cps	20.7 %
208Pb (KED)	0.000 ppb	104,590 cps	2.3 %
209Bi (KED)	100.000 %	4,459,471 cps	0.5 %
232Th (KED)	0.000 ppb	1,447 cps	14.9 %
238U (KED)	0.000 ppb	1,097 cps	9.4 %

# Comprehensive

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## Sample Summary

Instrument ID: iCAP Q

Analysis index: 3

Analysis name: 50+20

Analysis started at: 9/2/2021 4:23:01 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	94.603 %	
9Be (KED)	53.717 ppb	4.7 %
11B (KED)	37.531 ppb	22.5 %
24Mg (KED)	53.506 ppb	4.1 %
27Al (KED)	52.389 ppb	3.2 %
45Sc (KED)	101.318 %	
51V (KED)	53.407 ppb	0.8 %
52Cr (KED)	53.519 ppb	1.9 %
55Mn (KED)	53.342 ppb	0.8 %
56Fe (KED)	53.017 ppb	0.7 %
58Ni (KED)	54.366 ppb	1.2 %
59Co (KED)	54.256 ppb	1.1 %
63Cu (KED)	53.514 ppb	0.7 %
64Zn (KED)	52.655 ppb	0.8 %
69Ga (KED)	53.204 ppb	1.4 %
75As (KED)	52.277 ppb	0.9 %
80Se (KED)	52.967 ppb	1.5 %
85Rb (KED)	52.800 ppb	1.1 %
88Sr (KED)	52.830 ppb	1.4 %
89Y (KED)	98.387 %	
107Ag (KED)	53.154 ppb	1.5 %
114Cd (KED)	52.258 ppb	1.6 %
115In (KED)	99.756 %	
133Cs (KED)	52.162 ppb	1.0 %
138Ba (KED)	52.785 ppb	1.6 %
139La (KED)	52.028 ppb	1.4 %
140Ce (KED)	52.239 ppb	1.1 %
141Pr (KED)	52.193 ppb	1.6 %
142Nd (KED)	53.313 ppb	1.2 %
152Sm (KED)	53.832 ppb	1.1 %
153Eu (KED)	52.889 ppb	2.5 %
158Gd (KED)	53.805 ppb	1.3 %
159Tb (KED)	100.228 %	
164Dy (KED)	53.037 ppb	0.7 %
166Er (KED)	52.151 ppb	1.8 %
169Tm (KED)	52.352 ppb	1.6 %
174Yb (KED)	52.458 ppb	0.2 %
175Lu (KED)	51.790 ppb	1.7 %
205Tl (KED)	52.567 ppb	2.7 %
208Pb (KED)	53.247 ppb	0.6 %
209Bi (KED)	99.497 %	
232Th (KED)	52.236 ppb	0.3 %
238U (KED)	52.974 ppb	2.0 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	94.603 %	2,201 cps	5.2 %
9Be (KED)	53.717 ppb	5,748 cps	0.7 %
11B (KED)	37.531 ppb	3,436 cps	3.8 %
24Mg (KED)	53.506 ppb	21,789 cps	2.5 %
27Al (KED)	52.389 ppb	5,933 cps	3.0 %

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	101.318 %	36,059 cps	0.9 %
51V (KED)	53.407 ppb	345,388 cps	0.2 %
52Cr (KED)	53.519 ppb	533,093 cps	1.8 %
55Mn (KED)	53.342 ppb	272,823 cps	0.9 %
56Fe (KED)	53.017 ppb	515,929 cps	0.7 %
58Ni (KED)	54.366 ppb	639,320 cps	1.1 %
59Co (KED)	54.256 ppb	1,050,168 cps	0.5 %
63Cu (KED)	53.514 ppb	797,676 cps	1.3 %
64Zn (KED)	52.655 ppb	209,833 cps	0.2 %
69Ga (KED)	53.204 ppb	273,547 cps	1.6 %
75As (KED)	52.277 ppb	61,068 cps	1.1 %
80Se (KED)	52.967 ppb	18,769 cps	0.7 %
85Rb (KED)	52.800 ppb	268,632 cps	0.3 %
88Sr (KED)	52.830 ppb	389,899 cps	1.4 %
89Y (KED)	98.387 %	379,365 cps	0.9 %
107Ag (KED)	53.154 ppb	2,595,497 cps	0.6 %
114Cd (KED)	52.258 ppb	989,113 cps	0.7 %
115In (KED)	99.756 %	793,753 cps	1.0 %
133Cs (KED)	52.162 ppb	1,567,828 cps	2.0 %
138Ba (KED)	52.785 ppb	2,273,112 cps	0.2 %
139La (KED)	52.028 ppb	4,428,848 cps	0.4 %
140Ce (KED)	52.239 ppb	6,010,251 cps	0.4 %
141Pr (KED)	52.193 ppb	6,341,335 cps	0.2 %
142Nd (KED)	53.313 ppb	2,631,416 cps	0.7 %
152Sm (KED)	53.832 ppb	2,520,471 cps	1.6 %
153Eu (KED)	52.889 ppb	4,885,650 cps	1.2 %
158Gd (KED)	53.805 ppb	3,498,682 cps	0.6 %
159Tb (KED)	100.228 %	4,532,847 cps	1.5 %
164Dy (KED)	53.037 ppb	3,963,857 cps	1.5 %
166Er (KED)	52.151 ppb	4,654,658 cps	1.1 %
169Tm (KED)	52.352 ppb	15,491,694 cps	0.1 %
174Yb (KED)	52.458 ppb	5,646,057 cps	1.4 %
175Lu (KED)	51.790 ppb	9,276,254 cps	0.4 %
205Tl (KED)	52.567 ppb	11,714,723 cps	2.3 %
208Pb (KED)	53.247 ppb	8,470,386 cps	0.2 %
209Bi (KED)	99.497 %	4,437,056 cps	0.4 %
232Th (KED)	52.236 ppb	16,649,759 cps	0.4 %
238U (KED)	52.974 ppb	19,260,035 cps	1.6 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 4

Analysis name: 100+20

Analysis started at: 9/2/2021 4:26:29 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	97.230 %	
9Be (KED)	98.141 ppb	1.9 %
11B (KED)	106.235 ppb	5.9 %
24Mg (KED)	98.247 ppb	4.0 %
27Al (KED)	98.805 ppb	1.9 %
45Sc (KED)	103.194 %	
51V (KED)	98.296 ppb	1.2 %
52Cr (KED)	98.241 ppb	1.1 %
55Mn (KED)	98.329 ppb	2.1 %
56Fe (KED)	98.491 ppb	0.5 %
58Ni (KED)	97.817 ppb	2.2 %
59Co (KED)	97.872 ppb	0.0 %
63Cu (KED)	98.243 ppb	1.4 %
64Zn (KED)	98.673 ppb	1.3 %
69Ga (KED)	98.398 ppb	1.2 %
75As (KED)	98.862 ppb	1.1 %
80Se (KED)	98.517 ppb	0.8 %
85Rb (KED)	98.600 ppb	0.5 %
88Sr (KED)	98.585 ppb	0.5 %
89Y (KED)	98.908 %	
107Ag (KED)	98.423 ppb	1.6 %
114Cd (KED)	98.871 ppb	0.4 %
115In (KED)	98.799 %	
133Cs (KED)	98.919 ppb	2.2 %
138Ba (KED)	98.608 ppb	0.7 %
139La (KED)	98.986 ppb	1.2 %
140Ce (KED)	98.880 ppb	1.7 %
141Pr (KED)	98.903 ppb	0.6 %
142Nd (KED)	98.343 ppb	0.8 %
152Sm (KED)	98.084 ppb	0.0 %
153Eu (KED)	98.556 ppb	1.1 %
158Gd (KED)	98.098 ppb	1.5 %
159Tb (KED)	98.597 %	
164Dy (KED)	98.482 ppb	0.9 %
166Er (KED)	98.925 ppb	0.6 %
169Tm (KED)	98.824 ppb	0.7 %
174Yb (KED)	98.771 ppb	1.0 %
175Lu (KED)	99.105 ppb	1.0 %
205Tl (KED)	98.716 ppb	1.2 %
208Pb (KED)	98.376 ppb	0.9 %
209Bi (KED)	98.687 %	
232Th (KED)	98.882 ppb	0.6 %
238U (KED)	98.513 ppb	0.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	97.230 %	2,262 cps	3.8 %
9Be (KED)	98.141 ppb	10,805 cps	1.9 %
11B (KED)	106.235 ppb	5,909 cps	0.1 %
24Mg (KED)	98.247 ppb	40,662 cps	0.3 %
27Al (KED)	98.805 ppb	10,752 cps	1.7 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	103.194 %	36,726 cps	0.5 %
51V (KED)	98.296 ppb	647,402 cps	1.0 %
52Cr (KED)	98.241 ppb	995,394 cps	0.8 %
55Mn (KED)	98.329 ppb	512,058 cps	2.5 %
56Fe (KED)	98.491 ppb	936,474 cps	0.9 %
58Ni (KED)	97.817 ppb	1,169,300 cps	1.8 %
59Co (KED)	97.872 ppb	1,929,416 cps	0.5 %
63Cu (KED)	98.243 ppb	1,470,646 cps	1.4 %
64Zn (KED)	98.673 ppb	393,331 cps	1.0 %
69Ga (KED)	98.398 ppb	508,436 cps	0.9 %
75As (KED)	98.862 ppb	116,078 cps	0.7 %
80Se (KED)	98.517 ppb	34,151 cps	1.7 %
85Rb (KED)	98.600 ppb	504,284 cps	1.0 %
88Sr (KED)	98.585 ppb	731,219 cps	0.9 %
89Y (KED)	98.908 %	381,374 cps	1.4 %
107Ag (KED)	98.423 ppb	4,759,514 cps	0.6 %
114Cd (KED)	98.871 ppb	1,852,810 cps	1.3 %
115In (KED)	98.799 %	786,136 cps	1.5 %
133Cs (KED)	98.919 ppb	2,943,939 cps	1.8 %
138Ba (KED)	98.608 ppb	4,174,711 cps	0.3 %
139La (KED)	98.986 ppb	8,289,549 cps	0.7 %
140Ce (KED)	98.880 ppb	11,190,743 cps	0.9 %
141Pr (KED)	98.903 ppb	11,822,420 cps	0.3 %
142Nd (KED)	98.343 ppb	4,775,207 cps	0.1 %
152Sm (KED)	98.084 ppb	4,517,795 cps	0.9 %
153Eu (KED)	98.556 ppb	8,957,715 cps	0.3 %
158Gd (KED)	98.098 ppb	6,275,228 cps	0.7 %
159Tb (KED)	98.597 %	4,459,084 cps	0.9 %
164Dy (KED)	98.482 ppb	7,240,255 cps	0.1 %
166Er (KED)	98.925 ppb	8,686,563 cps	1.0 %
169Tm (KED)	98.824 ppb	28,771,045 cps	0.2 %
174Yb (KED)	98.771 ppb	10,457,282 cps	0.6 %
175Lu (KED)	99.105 ppb	17,438,316 cps	0.6 %
205Tl (KED)	98.716 ppb	21,820,104 cps	1.0 %
208Pb (KED)	98.376 ppb	15,434,031 cps	0.6 %
209Bi (KED)	98.687 %	4,400,919 cps	1.0 %
232Th (KED)	98.882 ppb	31,259,951 cps	1.2 %
238U (KED)	98.513 ppb	35,525,994 cps	1.1 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 5

Analysis name: 046055(178579)jian

Analysis started at: 9/2/2021 4:29:44 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	110.316 %	5.2 %
9Be (KED)	0.071 ppb	42.6 %
11B (KED)	-52.316 ppb	2.2 %
24Mg (KED)	875.773 ppb	2.3 %
27Al (KED)	1,192.725 ppb	0.7 %
45Sc (KED)	111.477 %	3.0 %
51V (KED)	2.245 ppb	2.6 %
52Cr (KED)	3.676 ppb	1.0 %
55Mn (KED)	32.696 ppb	0.2 %
56Fe (KED)	1,392.529 ppb	1.1 %
58Ni (KED)	5.867 ppb	0.6 %
59Co (KED)	0.607 ppb	3.1 %
63Cu (KED)	11.952 ppb	0.6 %
64Zn (KED)	166.185 ppb	0.0 %
69Ga (KED)	2.884 ppb	16.6 %
75As (KED)	1.052 ppb	38.2 %
80Se (KED)	0.312 ppb	77.9 %
85Rb (KED)	3.386 ppb	9.8 %
88Sr (KED)	13.765 ppb	1.6 %
89Y (KED)	102.891 %	2.1 %
107Ag (KED)	0.240 ppb	90.7 %
114Cd (KED)	0.224 ppb	71.3 %
115In (KED)	94.056 %	1.1 %
133Cs (KED)	0.418 ppb	38.5 %
138Ba (KED)	10.795 ppb	0.7 %
139La (KED)	1.339 ppb	6.3 %
140Ce (KED)	2.659 ppb	0.7 %
141Pr (KED)	0.366 ppb	18.8 %
142Nd (KED)	1.706 ppb	2.5 %
152Sm (KED)	0.273 ppb	21.1 %
153Eu (KED)	0.081 ppb	65.9 %
158Gd (KED)	0.235 ppb	16.2 %
159Tb (KED)	99.102 %	1.5 %
164Dy (KED)	0.168 ppb	19.7 %
166Er (KED)	0.095 ppb	30.1 %
169Tm (KED)	0.033 ppb	89.4 %
174Yb (KED)	0.081 ppb	33.8 %
175Lu (KED)	0.020 ppb	130.5 %
205Tl (KED)	0.047 ppb	43.7 %
208Pb (KED)	1.098 ppb	3.5 %
209Bi (KED)	87.410 %	2.6 %
232Th (KED)	0.521 ppb	9.1 %
238U (KED)	0.127 ppb	14.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	110.316 %	2,567 cps	5.2 %
9Be (KED)	0.071 ppb	10 cps	33.3 %
11B (KED)	-52.316 ppb	494 cps	7.0 %
24Mg (KED)	875.773 ppb	406,326 cps	3.2 %
27Al (KED)	1,192.725 ppb	131,528 cps	2.8 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	111.477 %	39,674 cps	3.0 %
51V (KED)	2.245 ppb	16,065 cps	5.3 %
52Cr (KED)	3.676 ppb	41,850 cps	2.8 %
55Mn (KED)	32.696 ppb	184,095 cps	2.9 %
56Fe (KED)	1,392.529 ppb	13,642,283 cps	2.0 %
58Ni (KED)	5.867 ppb	78,611 cps	2.4 %
59Co (KED)	0.607 ppb	13,104 cps	0.4 %
63Cu (KED)	11.952 ppb	187,659 cps	1.5 %
64Zn (KED)	166.185 ppb	687,597 cps	2.1 %
69Ga (KED)	2.884 ppb	15,620 cps	15.8 %
75As (KED)	1.052 ppb	1,296 cps	36.9 %
80Se (KED)	0.312 ppb	1,252 cps	5.6 %
85Rb (KED)	3.386 ppb	18,041 cps	8.6 %
88Sr (KED)	13.765 ppb	106,404 cps	1.6 %
89Y (KED)	102.891 %	396,732 cps	2.1 %
107Ag (KED)	0.240 ppb	11,122 cps	89.8 %
114Cd (KED)	0.224 ppb	4,785 cps	59.1 %
115In (KED)	94.056 %	748,401 cps	1.1 %
133Cs (KED)	0.418 ppb	12,022 cps	37.6 %
138Ba (KED)	10.795 ppb	462,554 cps	1.1 %
139La (KED)	1.339 ppb	112,990 cps	7.8 %
140Ce (KED)	2.659 ppb	303,320 cps	2.0 %
141Pr (KED)	0.366 ppb	44,191 cps	20.4 %
142Nd (KED)	1.706 ppb	83,432 cps	4.0 %
152Sm (KED)	0.273 ppb	12,672 cps	22.7 %
153Eu (KED)	0.081 ppb	7,456 cps	67.3 %
158Gd (KED)	0.235 ppb	15,184 cps	17.8 %
159Tb (KED)	99.102 %	4,481,891 cps	1.5 %
164Dy (KED)	0.168 ppb	12,451 cps	21.2 %
166Er (KED)	0.095 ppb	8,944 cps	30.0 %
169Tm (KED)	0.033 ppb	9,833 cps	90.5 %
174Yb (KED)	0.081 ppb	8,758 cps	35.2 %
175Lu (KED)	0.020 ppb	31,934 cps	15.8 %
205Tl (KED)	0.047 ppb	9,242 cps	45.1 %
208Pb (KED)	1.098 ppb	242,983 cps	1.7 %
209Bi (KED)	87.410 %	3,898,034 cps	2.6 %
232Th (KED)	0.521 ppb	147,387 cps	11.1 %
238U (KED)	0.127 ppb	41,436 cps	15.9 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 6

Analysis name: 022849(178574)jian

Analysis started at: 9/2/2021 4:33:07 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	126.364 %	3.2 %
9Be (KED)	0.107 ppb	78.7 %
11B (KED)	-49.653 ppb	1.9 %
24Mg (KED)	508.640 ppb	3.9 %
27Al (KED)	657.239 ppb	0.9 %
45Sc (KED)	124.229 %	2.9 %
51V (KED)	1.233 ppb	5.5 %
52Cr (KED)	3.126 ppb	1.8 %
55Mn (KED)	17.558 ppb	0.9 %
56Fe (KED)	672.339 ppb	2.1 %
58Ni (KED)	3.456 ppb	2.8 %
59Co (KED)	0.325 ppb	9.2 %
63Cu (KED)	13.163 ppb	2.1 %
64Zn (KED)	159.535 ppb	1.7 %
69Ga (KED)	1.956 ppb	2.4 %
75As (KED)	0.511 ppb	5.3 %
80Se (KED)	0.092 ppb	303.2 %
85Rb (KED)	2.438 ppb	2.2 %
88Sr (KED)	9.246 ppb	2.1 %
89Y (KED)	105.387 %	0.7 %
107Ag (KED)	0.219 ppb	5.1 %
114Cd (KED)	0.298 ppb	1.8 %
115In (KED)	95.695 %	0.7 %
133Cs (KED)	0.158 ppb	8.5 %
138Ba (KED)	7.407 ppb	0.7 %
139La (KED)	0.588 ppb	0.2 %
140Ce (KED)	1.200 ppb	2.9 %
141Pr (KED)	0.145 ppb	7.8 %
142Nd (KED)	0.759 ppb	0.9 %
152Sm (KED)	0.110 ppb	8.7 %
153Eu (KED)	0.030 ppb	26.3 %
158Gd (KED)	0.100 ppb	9.9 %
159Tb (KED)	95.730 %	0.9 %
164Dy (KED)	0.071 ppb	6.7 %
166Er (KED)	0.044 ppb	25.7 %
169Tm (KED)	0.012 ppb	56.4 %
174Yb (KED)	0.036 ppb	14.9 %
175Lu (KED)	-0.005 ppb	155.8 %
205Tl (KED)	0.026 ppb	28.3 %
208Pb (KED)	1.422 ppb	4.2 %
209Bi (KED)	82.036 %	1.9 %
232Th (KED)	0.215 ppb	4.4 %
238U (KED)	0.068 ppb	22.7 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	126.364 %	2,940 cps	3.2 %
9Be (KED)	0.107 ppb	17 cps	72.1 %
11B (KED)	-49.653 ppb	687 cps	6.0 %
24Mg (KED)	508.640 ppb	270,655 cps	2.7 %
27Al (KED)	657.239 ppb	81,168 cps	3.1 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	124.229 %	44,213 cps	2.9 %
51V (KED)	1.233 ppb	9,870 cps	5.1 %
52Cr (KED)	3.126 ppb	39,925 cps	1.1 %
55Mn (KED)	17.558 ppb	110,296 cps	2.1 %
56Fe (KED)	672.339 ppb	7,369,244 cps	2.5 %
58Ni (KED)	3.456 ppb	52,979 cps	1.5 %
59Co (KED)	0.325 ppb	7,907 cps	7.6 %
63Cu (KED)	13.163 ppb	211,497 cps	1.7 %
64Zn (KED)	159.535 ppb	676,157 cps	1.2 %
69Ga (KED)	1.956 ppb	10,906 cps	2.2 %
75As (KED)	0.511 ppb	652 cps	5.5 %
80Se (KED)	0.092 ppb	1,205 cps	8.2 %
85Rb (KED)	2.438 ppb	13,327 cps	1.5 %
88Sr (KED)	9.246 ppb	73,288 cps	1.5 %
89Y (KED)	105.387 %	406,358 cps	0.7 %
107Ag (KED)	0.219 ppb	10,357 cps	4.4 %
114Cd (KED)	0.298 ppb	6,224 cps	1.8 %
115In (KED)	95.695 %	761,439 cps	0.7 %
133Cs (KED)	0.158 ppb	4,741 cps	7.6 %
138Ba (KED)	7.407 ppb	307,676 cps	0.5 %
139La (KED)	0.588 ppb	48,021 cps	0.7 %
140Ce (KED)	1.200 ppb	132,673 cps	2.4 %
141Pr (KED)	0.145 ppb	16,927 cps	7.4 %
142Nd (KED)	0.759 ppb	35,916 cps	1.2 %
152Sm (KED)	0.110 ppb	4,924 cps	8.3 %
153Eu (KED)	0.030 ppb	2,680 cps	25.6 %
158Gd (KED)	0.100 ppb	6,216 cps	9.1 %
159Tb (KED)	95.730 %	4,329,428 cps	0.9 %
164Dy (KED)	0.071 ppb	5,133 cps	6.2 %
166Er (KED)	0.044 ppb	4,250 cps	22.1 %
169Tm (KED)	0.012 ppb	3,548 cps	55.2 %
174Yb (KED)	0.036 ppb	3,788 cps	14.0 %
175Lu (KED)	-0.005 ppb	26,656 cps	3.9 %
205Tl (KED)	0.026 ppb	4,789 cps	27.7 %
208Pb (KED)	1.422 ppb	270,002 cps	2.4 %
209Bi (KED)	82.036 %	3,658,388 cps	1.9 %
232Th (KED)	0.215 ppb	57,748 cps	4.4 %
238U (KED)	0.068 ppb	21,192 cps	21.7 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 7

Analysis name: 386jian

Analysis started at: 9/2/2021 4:36:19 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	140.693 %	2.8 %
9Be (KED)	-0.003 ppb	382.6 %
11B (KED)	-41.971 ppb	6.6 %
24Mg (KED)	526.893 ppb	2.7 %
27Al (KED)	601.645 ppb	1.3 %
45Sc (KED)	134.721 %	1.4 %
51V (KED)	1.079 ppb	1.5 %
52Cr (KED)	3.349 ppb	0.8 %
55Mn (KED)	17.258 ppb	0.8 %
56Fe (KED)	552.015 ppb	1.0 %
58Ni (KED)	2.610 ppb	1.6 %
59Co (KED)	0.358 ppb	1.9 %
63Cu (KED)	5.562 ppb	0.4 %
64Zn (KED)	166.075 ppb	0.7 %
69Ga (KED)	17.044 ppb	1.9 %
75As (KED)	0.713 ppb	9.4 %
80Se (KED)	0.317 ppb	32.4 %
85Rb (KED)	2.429 ppb	1.3 %
88Sr (KED)	9.771 ppb	1.4 %
89Y (KED)	108.282 %	1.1 %
107Ag (KED)	0.118 ppb	13.0 %
114Cd (KED)	0.071 ppb	29.0 %
115In (KED)	95.786 %	0.5 %
133Cs (KED)	0.148 ppb	6.2 %
138Ba (KED)	63.673 ppb	1.3 %
139La (KED)	0.494 ppb	1.4 %
140Ce (KED)	1.014 ppb	0.6 %
141Pr (KED)	0.121 ppb	6.8 %
142Nd (KED)	0.624 ppb	3.1 %
152Sm (KED)	0.113 ppb	3.0 %
153Eu (KED)	0.038 ppb	5.1 %
158Gd (KED)	0.080 ppb	10.7 %
159Tb (KED)	96.364 %	0.8 %
164Dy (KED)	0.058 ppb	6.2 %
166Er (KED)	0.031 ppb	8.5 %
169Tm (KED)	0.008 ppb	20.4 %
174Yb (KED)	0.027 ppb	7.5 %
175Lu (KED)	-0.013 ppb	36.4 %
205Tl (KED)	0.020 ppb	6.6 %
208Pb (KED)	0.763 ppb	3.2 %
209Bi (KED)	79.921 %	1.4 %
232Th (KED)	0.174 ppb	2.3 %
238U (KED)	0.061 ppb	2.6 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	140.693 %	3,274 cps	2.8 %
9Be (KED)	-0.003 ppb	1 cps	173.2 %
11B (KED)	-41.971 ppb	1,147 cps	9.6 %
24Mg (KED)	526.893 ppb	312,171 cps	0.8 %
27Al (KED)	601.645 ppb	80,661 cps	2.4 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	134.721 %	47,946 cps	1.4 %
51V (KED)	1.079 ppb	9,381 cps	2.9 %
52Cr (KED)	3.349 ppb	46,253 cps	1.3 %
55Mn (KED)	17.258 ppb	117,588 cps	1.3 %
56Fe (KED)	552.015 ppb	6,572,872 cps	0.6 %
58Ni (KED)	2.610 ppb	44,309 cps	1.9 %
59Co (KED)	0.358 ppb	9,429 cps	2.7 %
63Cu (KED)	5.562 ppb	92,898 cps	1.6 %
64Zn (KED)	166.075 ppb	723,131 cps	1.1 %
69Ga (KED)	17.044 ppb	96,549 cps	2.6 %
75As (KED)	0.713 ppb	929 cps	8.8 %
80Se (KED)	0.317 ppb	1,320 cps	1.8 %
85Rb (KED)	2.429 ppb	13,644 cps	1.9 %
88Sr (KED)	9.771 ppb	79,564 cps	0.9 %
89Y (KED)	108.282 %	417,519 cps	1.1 %
107Ag (KED)	0.118 ppb	5,605 cps	12.5 %
114Cd (KED)	0.071 ppb	2,099 cps	17.5 %
115In (KED)	95.786 %	762,166 cps	0.5 %
133Cs (KED)	0.148 ppb	4,467 cps	5.7 %
138Ba (KED)	63.673 ppb	2,636,061 cps	1.7 %
139La (KED)	0.494 ppb	40,688 cps	0.8 %
140Ce (KED)	1.014 ppb	112,895 cps	0.9 %
141Pr (KED)	0.121 ppb	14,236 cps	5.9 %
142Nd (KED)	0.624 ppb	29,762 cps	3.1 %
152Sm (KED)	0.113 ppb	5,091 cps	2.4 %
153Eu (KED)	0.038 ppb	3,369 cps	4.3 %
158Gd (KED)	0.080 ppb	5,045 cps	10.0 %
159Tb (KED)	96.364 %	4,358,070 cps	0.8 %
164Dy (KED)	0.058 ppb	4,211 cps	5.8 %
166Er (KED)	0.031 ppb	3,159 cps	6.4 %
169Tm (KED)	0.008 ppb	2,407 cps	19.3 %
174Yb (KED)	0.027 ppb	2,841 cps	6.5 %
175Lu (KED)	-0.013 ppb	25,438 cps	2.9 %
205Tl (KED)	0.020 ppb	3,609 cps	7.5 %
208Pb (KED)	0.763 ppb	179,872 cps	2.2 %
209Bi (KED)	79.921 %	3,564,073 cps	1.4 %
232Th (KED)	0.174 ppb	45,636 cps	2.3 %
238U (KED)	0.061 ppb	18,697 cps	3.0 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 8

Analysis name: 364jian

Analysis started at: 9/2/2021 4:39:37 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	143.033 %	4.8 %
9Be (KED)	0.024 ppb	178.0 %
11B (KED)	-56.033 ppb	0.2 %
24Mg (KED)	359.780 ppb	4.9 %
27Al (KED)	545.271 ppb	2.8 %
45Sc (KED)	136.369 %	1.1 %
51V (KED)	0.897 ppb	2.1 %
52Cr (KED)	3.407 ppb	3.4 %
55Mn (KED)	11.236 ppb	2.6 %
56Fe (KED)	488.719 ppb	1.4 %
58Ni (KED)	2.273 ppb	1.1 %
59Co (KED)	0.231 ppb	3.3 %
63Cu (KED)	6.483 ppb	0.6 %
64Zn (KED)	184.166 ppb	0.1 %
69Ga (KED)	1.444 ppb	2.7 %
75As (KED)	0.452 ppb	3.4 %
80Se (KED)	0.376 ppb	44.9 %
85Rb (KED)	2.369 ppb	2.4 %
88Sr (KED)	5.480 ppb	0.9 %
89Y (KED)	107.245 %	0.8 %
107Ag (KED)	0.048 ppb	6.1 %
114Cd (KED)	0.030 ppb	17.0 %
115In (KED)	94.387 %	1.4 %
133Cs (KED)	0.125 ppb	3.2 %
138Ba (KED)	4.868 ppb	1.5 %
139La (KED)	0.486 ppb	2.0 %
140Ce (KED)	0.888 ppb	1.4 %
141Pr (KED)	0.101 ppb	0.7 %
142Nd (KED)	0.532 ppb	2.4 %
152Sm (KED)	0.075 ppb	2.5 %
153Eu (KED)	0.017 ppb	2.0 %
158Gd (KED)	0.070 ppb	2.3 %
159Tb (KED)	93.531 %	0.2 %
164Dy (KED)	0.047 ppb	2.1 %
166Er (KED)	0.024 ppb	2.1 %
169Tm (KED)	0.006 ppb	2.7 %
174Yb (KED)	0.020 ppb	3.7 %
175Lu (KED)	-0.014 ppb	34.7 %
205Tl (KED)	0.015 ppb	4.2 %
208Pb (KED)	0.346 ppb	7.0 %
209Bi (KED)	75.995 %	3.5 %
232Th (KED)	0.148 ppb	3.5 %
238U (KED)	0.039 ppb	1.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	143.033 %	3,328 cps	4.8 %
9Be (KED)	0.024 ppb	6 cps	124.9 %
11B (KED)	-56.033 ppb	453 cps	4.6 %
24Mg (KED)	359.780 ppb	216,733 cps	0.2 %
27Al (KED)	545.271 ppb	74,070 cps	2.0 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	136.369 %	48,533 cps	1.1 %
51V (KED)	0.897 ppb	7,911 cps	1.0 %
52Cr (KED)	3.407 ppb	47,586 cps	2.2 %
55Mn (KED)	11.236 ppb	77,595 cps	1.6 %
56Fe (KED)	488.719 ppb	5,897,379 cps	0.5 %
58Ni (KED)	2.273 ppb	39,531 cps	0.7 %
59Co (KED)	0.231 ppb	6,252 cps	2.3 %
63Cu (KED)	6.483 ppb	106,940 cps	0.4 %
64Zn (KED)	184.166 ppb	793,975 cps	0.7 %
69Ga (KED)	1.444 ppb	8,228 cps	3.4 %
75As (KED)	0.452 ppb	589 cps	2.9 %
80Se (KED)	0.376 ppb	1,329 cps	4.2 %
85Rb (KED)	2.369 ppb	13,178 cps	1.8 %
88Sr (KED)	5.480 ppb	44,304 cps	1.7 %
89Y (KED)	107.245 %	413,521 cps	0.8 %
107Ag (KED)	0.048 ppb	2,301 cps	7.0 %
114Cd (KED)	0.030 ppb	1,329 cps	7.9 %
115In (KED)	94.387 %	751,033 cps	1.4 %
133Cs (KED)	0.125 ppb	3,736 cps	4.4 %
138Ba (KED)	4.868 ppb	198,748 cps	1.6 %
139La (KED)	0.486 ppb	38,859 cps	2.2 %
140Ce (KED)	0.888 ppb	96,101 cps	1.3 %
141Pr (KED)	0.101 ppb	11,476 cps	0.5 %
142Nd (KED)	0.532 ppb	24,672 cps	2.3 %
152Sm (KED)	0.075 ppb	3,283 cps	2.7 %
153Eu (KED)	0.017 ppb	1,515 cps	1.9 %
158Gd (KED)	0.070 ppb	4,280 cps	2.2 %
159Tb (KED)	93.531 %	4,229,966 cps	0.2 %
164Dy (KED)	0.047 ppb	3,318 cps	2.1 %
166Er (KED)	0.024 ppb	2,531 cps	1.7 %
169Tm (KED)	0.006 ppb	1,742 cps	2.8 %
174Yb (KED)	0.020 ppb	2,094 cps	3.8 %
175Lu (KED)	-0.014 ppb	24,470 cps	3.4 %
205Tl (KED)	0.015 ppb	2,673 cps	4.5 %
208Pb (KED)	0.346 ppb	120,946 cps	1.2 %
209Bi (KED)	75.995 %	3,388,983 cps	3.5 %
232Th (KED)	0.148 ppb	37,008 cps	0.9 %
238U (KED)	0.039 ppb	11,784 cps	2.5 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 9

Analysis name: 378jian

Analysis started at: 9/2/2021 4:43:06 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	149.912 %	2.2 %
9Be (KED)	0.010 ppb	200.4 %
11B (KED)	-52.043 ppb	0.8 %
24Mg (KED)	531.756 ppb	2.1 %
27Al (KED)	738.047 ppb	1.0 %
45Sc (KED)	139.309 %	1.4 %
51V (KED)	1.346 ppb	1.9 %
52Cr (KED)	3.211 ppb	2.5 %
55Mn (KED)	17.858 ppb	2.2 %
56Fe (KED)	736.589 ppb	2.2 %
58Ni (KED)	3.153 ppb	0.7 %
59Co (KED)	0.372 ppb	0.2 %
63Cu (KED)	7.868 ppb	0.9 %
64Zn (KED)	184.207 ppb	0.5 %
69Ga (KED)	1.941 ppb	1.2 %
75As (KED)	0.848 ppb	8.6 %
80Se (KED)	0.468 ppb	18.1 %
85Rb (KED)	4.199 ppb	0.3 %
88Sr (KED)	7.580 ppb	0.8 %
89Y (KED)	107.567 %	0.2 %
107Ag (KED)	0.073 ppb	5.3 %
114Cd (KED)	0.049 ppb	13.3 %
115In (KED)	94.129 %	2.2 %
133Cs (KED)	0.185 ppb	1.4 %
138Ba (KED)	6.531 ppb	3.2 %
139La (KED)	0.642 ppb	3.5 %
140Ce (KED)	1.346 ppb	3.2 %
141Pr (KED)	0.156 ppb	3.1 %
142Nd (KED)	0.821 ppb	3.0 %
152Sm (KED)	0.120 ppb	0.6 %
153Eu (KED)	0.027 ppb	3.2 %
158Gd (KED)	0.107 ppb	3.3 %
159Tb (KED)	90.730 %	3.3 %
164Dy (KED)	0.075 ppb	2.4 %
166Er (KED)	0.040 ppb	6.4 %
169Tm (KED)	0.007 ppb	5.4 %
174Yb (KED)	0.032 ppb	1.5 %
175Lu (KED)	-0.011 ppb	45.8 %
205Tl (KED)	0.017 ppb	3.4 %
208Pb (KED)	0.419 ppb	2.6 %
209Bi (KED)	74.312 %	0.9 %
232Th (KED)	0.212 ppb	2.7 %
238U (KED)	0.058 ppb	0.9 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	149.912 %	3,488 cps	2.2 %
9Be (KED)	0.010 ppb	3 cps	100.0 %
11B (KED)	-52.043 ppb	688 cps	4.1 %
24Mg (KED)	531.756 ppb	335,741 cps	0.3 %
27Al (KED)	738.047 ppb	102,081 cps	1.0 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	139.309 %	49,579 cps	1.4 %
51V (KED)	1.346 ppb	12,074 cps	1.2 %
52Cr (KED)	3.211 ppb	45,943 cps	1.8 %
55Mn (KED)	17.858 ppb	125,782 cps	1.0 %
56Fe (KED)	736.589 ppb	9,047,335 cps	0.8 %
58Ni (KED)	3.153 ppb	54,558 cps	1.1 %
59Co (KED)	0.372 ppb	10,121 cps	1.4 %
63Cu (KED)	7.868 ppb	129,774 cps	0.6 %
64Zn (KED)	184.207 ppb	796,536 cps	0.4 %
69Ga (KED)	1.941 ppb	11,047 cps	1.0 %
75As (KED)	0.848 ppb	1,097 cps	8.7 %
80Se (KED)	0.468 ppb	1,367 cps	2.3 %
85Rb (KED)	4.199 ppb	23,399 cps	0.4 %
88Sr (KED)	7.580 ppb	61,376 cps	0.6 %
89Y (KED)	107.567 %	414,761 cps	0.2 %
107Ag (KED)	0.073 ppb	3,442 cps	5.8 %
114Cd (KED)	0.049 ppb	1,666 cps	7.5 %
115In (KED)	94.129 %	748,976 cps	2.2 %
133Cs (KED)	0.185 ppb	5,415 cps	3.4 %
138Ba (KED)	6.531 ppb	257,345 cps	0.8 %
139La (KED)	0.642 ppb	49,696 cps	0.2 %
140Ce (KED)	1.346 ppb	140,830 cps	0.1 %
141Pr (KED)	0.156 ppb	17,262 cps	1.9 %
142Nd (KED)	0.821 ppb	36,815 cps	0.6 %
152Sm (KED)	0.120 ppb	5,101 cps	3.3 %
153Eu (KED)	0.027 ppb	2,252 cps	3.6 %
158Gd (KED)	0.107 ppb	6,328 cps	1.3 %
159Tb (KED)	90.730 %	4,103,270 cps	3.3 %
164Dy (KED)	0.075 ppb	5,121 cps	5.4 %
166Er (KED)	0.040 ppb	3,719 cps	3.0 %
169Tm (KED)	0.007 ppb	2,020 cps	2.3 %
174Yb (KED)	0.032 ppb	3,237 cps	4.7 %
175Lu (KED)	-0.011 ppb	24,186 cps	4.6 %
205Tl (KED)	0.017 ppb	2,816 cps	4.3 %
208Pb (KED)	0.419 ppb	126,936 cps	1.7 %
209Bi (KED)	74.312 %	3,313,912 cps	0.9 %
232Th (KED)	0.212 ppb	51,458 cps	1.8 %
238U (KED)	0.058 ppb	16,570 cps	1.0 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 10

Analysis name: 372jian

Analysis started at: 9/2/2021 4:46:24 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	149.482 %	1.1 %
9Be (KED)	0.029 ppb	65.8 %
11B (KED)	-54.786 ppb	0.2 %
24Mg (KED)	619.340 ppb	1.6 %
27Al (KED)	949.800 ppb	1.8 %
45Sc (KED)	143.343 %	0.5 %
51V (KED)	1.686 ppb	2.0 %
52Cr (KED)	3.185 ppb	1.4 %
55Mn (KED)	20.280 ppb	1.2 %
56Fe (KED)	889.027 ppb	0.5 %
58Ni (KED)	3.872 ppb	2.6 %
59Co (KED)	0.389 ppb	4.6 %
63Cu (KED)	7.447 ppb	0.5 %
64Zn (KED)	180.617 ppb	1.4 %
69Ga (KED)	2.470 ppb	2.8 %
75As (KED)	0.886 ppb	4.8 %
80Se (KED)	0.154 ppb	129.7 %
85Rb (KED)	3.603 ppb	0.6 %
88Sr (KED)	8.374 ppb	1.6 %
89Y (KED)	107.973 %	1.4 %
107Ag (KED)	0.128 ppb	1.9 %
114Cd (KED)	0.026 ppb	8.5 %
115In (KED)	92.438 %	0.4 %
133Cs (KED)	0.237 ppb	3.9 %
138Ba (KED)	8.180 ppb	1.1 %
139La (KED)	0.828 ppb	4.3 %
140Ce (KED)	1.708 ppb	2.8 %
141Pr (KED)	0.198 ppb	2.8 %
142Nd (KED)	1.056 ppb	0.6 %
152Sm (KED)	0.150 ppb	3.6 %
153Eu (KED)	0.032 ppb	5.4 %
158Gd (KED)	0.128 ppb	2.3 %
159Tb (KED)	89.248 %	1.4 %
164Dy (KED)	0.093 ppb	4.1 %
166Er (KED)	0.048 ppb	0.6 %
169Tm (KED)	0.009 ppb	3.2 %
174Yb (KED)	0.041 ppb	2.0 %
175Lu (KED)	-0.012 ppb	33.9 %
205Tl (KED)	0.019 ppb	5.8 %
208Pb (KED)	0.583 ppb	5.1 %
209Bi (KED)	71.324 %	0.6 %
232Th (KED)	0.249 ppb	1.3 %
238U (KED)	0.069 ppb	3.0 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	149.482 %	3,478 cps	1.1 %
9Be (KED)	0.029 ppb	7 cps	50.0 %
11B (KED)	-54.786 ppb	540 cps	0.0 %
24Mg (KED)	619.340 ppb	389,878 cps	1.5 %
27Al (KED)	949.800 ppb	134,888 cps	1.5 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	143.343 %	51,015 cps	0.5 %
51V (KED)	1.686 ppb	15,539 cps	1.6 %
52Cr (KED)	3.185 ppb	46,912 cps	1.0 %
55Mn (KED)	20.280 ppb	146,960 cps	1.0 %
56Fe (KED)	889.027 ppb	11,224,773 cps	0.3 %
58Ni (KED)	3.872 ppb	68,050 cps	2.2 %
59Co (KED)	0.389 ppb	10,885 cps	4.1 %
63Cu (KED)	7.447 ppb	123,397 cps	1.0 %
64Zn (KED)	180.617 ppb	783,922 cps	0.7 %
69Ga (KED)	2.470 ppb	14,066 cps	2.2 %
75As (KED)	0.886 ppb	1,149 cps	3.4 %
80Se (KED)	0.154 ppb	1,257 cps	5.6 %
85Rb (KED)	3.603 ppb	20,161 cps	1.3 %
88Sr (KED)	8.374 ppb	68,027 cps	0.9 %
89Y (KED)	107.973 %	416,327 cps	1.4 %
107Ag (KED)	0.128 ppb	5,869 cps	2.2 %
114Cd (KED)	0.026 ppb	1,232 cps	3.4 %
115In (KED)	92.438 %	735,521 cps	0.4 %
133Cs (KED)	0.237 ppb	6,782 cps	3.6 %
138Ba (KED)	8.180 ppb	316,413 cps	0.8 %
139La (KED)	0.828 ppb	62,962 cps	3.4 %
140Ce (KED)	1.708 ppb	175,618 cps	1.4 %
141Pr (KED)	0.198 ppb	21,546 cps	3.1 %
142Nd (KED)	1.056 ppb	46,564 cps	0.8 %
152Sm (KED)	0.150 ppb	6,267 cps	3.2 %
153Eu (KED)	0.032 ppb	2,671 cps	4.3 %
158Gd (KED)	0.128 ppb	7,461 cps	1.4 %
159Tb (KED)	89.248 %	4,036,283 cps	1.4 %
164Dy (KED)	0.093 ppb	6,254 cps	3.5 %
166Er (KED)	0.048 ppb	4,256 cps	0.9 %
169Tm (KED)	0.009 ppb	2,455 cps	2.6 %
174Yb (KED)	0.041 ppb	4,051 cps	0.9 %
175Lu (KED)	-0.012 ppb	23,624 cps	2.2 %
205Tl (KED)	0.019 ppb	3,145 cps	5.1 %
208Pb (KED)	0.583 ppb	140,299 cps	1.9 %
209Bi (KED)	71.324 %	3,180,680 cps	0.6 %
232Th (KED)	0.249 ppb	57,856 cps	1.5 %
238U (KED)	0.069 ppb	18,764 cps	2.4 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 11

Analysis name: 374jian

Analysis started at: 9/2/2021 4:49:50 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	150.246 %	3.7 %
9Be (KED)	-0.003 ppb	358.7 %
11B (KED)	-50.783 ppb	0.3 %
24Mg (KED)	340.654 ppb	2.2 %
27Al (KED)	494.098 ppb	1.9 %
45Sc (KED)	139.466 %	1.3 %
51V (KED)	0.883 ppb	4.2 %
52Cr (KED)	3.366 ppb	0.3 %
55Mn (KED)	11.074 ppb	0.9 %
56Fe (KED)	478.883 ppb	2.0 %
58Ni (KED)	2.502 ppb	1.6 %
59Co (KED)	0.217 ppb	1.1 %
63Cu (KED)	11.155 ppb	1.8 %
64Zn (KED)	195.205 ppb	0.6 %
69Ga (KED)	1.531 ppb	2.3 %
75As (KED)	0.512 ppb	4.1 %
80Se (KED)	0.403 ppb	52.8 %
85Rb (KED)	2.251 ppb	1.5 %
88Sr (KED)	4.935 ppb	1.4 %
89Y (KED)	104.225 %	1.5 %
107Ag (KED)	0.234 ppb	3.6 %
114Cd (KED)	0.071 ppb	4.2 %
115In (KED)	92.499 %	2.9 %
133Cs (KED)	0.117 ppb	3.0 %
138Ba (KED)	4.969 ppb	1.9 %
139La (KED)	0.472 ppb	2.2 %
140Ce (KED)	0.871 ppb	2.5 %
141Pr (KED)	0.102 ppb	1.0 %
142Nd (KED)	0.531 ppb	1.2 %
152Sm (KED)	0.075 ppb	8.4 %
153Eu (KED)	0.017 ppb	3.2 %
158Gd (KED)	0.072 ppb	3.6 %
159Tb (KED)	89.965 %	1.7 %
164Dy (KED)	0.047 ppb	2.6 %
166Er (KED)	0.022 ppb	9.5 %
169Tm (KED)	0.005 ppb	2.2 %
174Yb (KED)	0.021 ppb	1.8 %
175Lu (KED)	-0.021 ppb	2.3 %
205Tl (KED)	0.012 ppb	2.2 %
208Pb (KED)	0.275 ppb	4.4 %
209Bi (KED)	73.577 %	1.1 %
232Th (KED)	0.139 ppb	2.8 %
238U (KED)	0.043 ppb	1.9 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	150.246 %	3,496 cps	3.7 %
9Be (KED)	-0.003 ppb	1 cps	173.2 %
11B (KED)	-50.783 ppb	757 cps	4.5 %
24Mg (KED)	340.654 ppb	215,825 cps	1.5 %
27Al (KED)	494.098 ppb	68,737 cps	1.1 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	139.466 %	49,635 cps	1.3 %
51V (KED)	0.883 ppb	7,970 cps	4.0 %
52Cr (KED)	3.366 ppb	48,116 cps	1.3 %
55Mn (KED)	11.074 ppb	78,236 cps	1.6 %
56Fe (KED)	478.883 ppb	5,912,737 cps	3.3 %
58Ni (KED)	2.502 ppb	44,129 cps	0.2 %
59Co (KED)	0.217 ppb	6,001 cps	2.3 %
63Cu (KED)	11.155 ppb	177,505 cps	0.4 %
64Zn (KED)	195.205 ppb	817,685 cps	0.9 %
69Ga (KED)	1.531 ppb	8,470 cps	0.8 %
75As (KED)	0.512 ppb	646 cps	3.1 %
80Se (KED)	0.403 ppb	1,301 cps	5.3 %
85Rb (KED)	2.251 ppb	12,173 cps	2.3 %
88Sr (KED)	4.935 ppb	38,796 cps	1.5 %
89Y (KED)	104.225 %	401,874 cps	1.5 %
107Ag (KED)	0.234 ppb	10,688 cps	1.9 %
114Cd (KED)	0.071 ppb	2,026 cps	1.9 %
115In (KED)	92.499 %	736,006 cps	2.9 %
133Cs (KED)	0.117 ppb	3,435 cps	2.3 %
138Ba (KED)	4.969 ppb	195,026 cps	0.5 %
139La (KED)	0.472 ppb	36,304 cps	1.0 %
140Ce (KED)	0.871 ppb	90,604 cps	1.5 %
141Pr (KED)	0.102 ppb	11,183 cps	2.7 %
142Nd (KED)	0.531 ppb	23,679 cps	1.6 %
152Sm (KED)	0.075 ppb	3,173 cps	8.4 %
153Eu (KED)	0.017 ppb	1,461 cps	3.9 %
158Gd (KED)	0.072 ppb	4,216 cps	2.7 %
159Tb (KED)	89.965 %	4,068,684 cps	1.7 %
164Dy (KED)	0.047 ppb	3,209 cps	2.8 %
166Er (KED)	0.022 ppb	2,235 cps	7.0 %
169Tm (KED)	0.005 ppb	1,496 cps	3.3 %
174Yb (KED)	0.021 ppb	2,100 cps	3.4 %
175Lu (KED)	-0.021 ppb	22,359 cps	1.9 %
205Tl (KED)	0.012 ppb	2,062 cps	1.1 %
208Pb (KED)	0.275 ppb	108,909 cps	1.4 %
209Bi (KED)	73.577 %	3,281,155 cps	1.1 %
232Th (KED)	0.139 ppb	33,793 cps	1.8 %
238U (KED)	0.043 ppb	12,348 cps	1.1 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 12

Analysis name: 366jian

Analysis started at: 9/2/2021 4:53:05 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	145.326 %	2.0 %
9Be (KED)	0.044 ppb	70.1 %
11B (KED)	-54.778 ppb	1.2 %
24Mg (KED)	616.642 ppb	1.7 %
27Al (KED)	1,041.604 ppb	1.3 %
45Sc (KED)	136.563 %	1.7 %
51V (KED)	1.763 ppb	3.2 %
52Cr (KED)	2.874 ppb	1.1 %
55Mn (KED)	22.208 ppb	1.6 %
56Fe (KED)	919.992 ppb	2.7 %
58Ni (KED)	3.785 ppb	3.1 %
59Co (KED)	0.401 ppb	3.3 %
63Cu (KED)	8.982 ppb	0.7 %
64Zn (KED)	174.076 ppb	0.5 %
69Ga (KED)	2.434 ppb	1.5 %
75As (KED)	0.723 ppb	10.0 %
80Se (KED)	0.392 ppb	25.5 %
85Rb (KED)	2.830 ppb	2.9 %
88Sr (KED)	9.260 ppb	1.6 %
89Y (KED)	105.422 %	0.3 %
107Ag (KED)	0.052 ppb	2.3 %
114Cd (KED)	0.040 ppb	4.9 %
115In (KED)	91.499 %	1.0 %
133Cs (KED)	0.241 ppb	2.0 %
138Ba (KED)	7.993 ppb	1.4 %
139La (KED)	0.772 ppb	0.4 %
140Ce (KED)	1.604 ppb	1.8 %
141Pr (KED)	0.185 ppb	2.6 %
142Nd (KED)	0.996 ppb	1.3 %
152Sm (KED)	0.139 ppb	3.1 %
153Eu (KED)	0.028 ppb	3.7 %
158Gd (KED)	0.127 ppb	1.2 %
159Tb (KED)	89.440 %	0.9 %
164Dy (KED)	0.085 ppb	3.1 %
166Er (KED)	0.041 ppb	5.6 %
169Tm (KED)	0.006 ppb	9.7 %
174Yb (KED)	0.036 ppb	4.5 %
175Lu (KED)	-0.020 ppb	7.5 %
205Tl (KED)	0.019 ppb	3.6 %
208Pb (KED)	0.453 ppb	6.4 %
209Bi (KED)	72.838 %	0.6 %
232Th (KED)	0.253 ppb	1.4 %
238U (KED)	0.065 ppb	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	145.326 %	3,382 cps	2.0 %
9Be (KED)	0.044 ppb	9 cps	57.3 %
11B (KED)	-54.778 ppb	526 cps	7.2 %
24Mg (KED)	616.642 ppb	377,327 cps	0.4 %
27Al (KED)	1,041.604 ppb	140,844 cps	2.2 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	136.563 %	48,602 cps	1.7 %
51V (KED)	1.763 ppb	15,463 cps	2.0 %
52Cr (KED)	2.874 ppb	40,524 cps	0.6 %
55Mn (KED)	22.208 ppb	153,273 cps	1.0 %
56Fe (KED)	919.992 ppb	11,062,162 cps	2.0 %
58Ni (KED)	3.785 ppb	63,448 cps	1.9 %
59Co (KED)	0.401 ppb	10,668 cps	2.4 %
63Cu (KED)	8.982 ppb	144,956 cps	1.0 %
64Zn (KED)	174.076 ppb	737,862 cps	0.8 %
69Ga (KED)	2.434 ppb	13,541 cps	1.7 %
75As (KED)	0.723 ppb	918 cps	9.9 %
80Se (KED)	0.392 ppb	1,312 cps	2.9 %
85Rb (KED)	2.830 ppb	15,473 cps	3.0 %
88Sr (KED)	9.260 ppb	73,429 cps	1.7 %
89Y (KED)	105.422 %	406,492 cps	0.3 %
107Ag (KED)	0.052 ppb	2,401 cps	1.5 %
114Cd (KED)	0.040 ppb	1,469 cps	1.5 %
115In (KED)	91.499 %	728,051 cps	1.0 %
133Cs (KED)	0.241 ppb	6,815 cps	2.7 %
138Ba (KED)	7.993 ppb	309,946 cps	1.9 %
139La (KED)	0.772 ppb	58,868 cps	1.0 %
140Ce (KED)	1.604 ppb	165,375 cps	1.0 %
141Pr (KED)	0.185 ppb	20,174 cps	1.7 %
142Nd (KED)	0.996 ppb	43,986 cps	1.1 %
152Sm (KED)	0.139 ppb	5,840 cps	2.1 %
153Eu (KED)	0.028 ppb	2,316 cps	4.3 %
158Gd (KED)	0.127 ppb	7,380 cps	1.4 %
159Tb (KED)	89.440 %	4,044,941 cps	0.9 %
164Dy (KED)	0.085 ppb	5,740 cps	3.4 %
166Er (KED)	0.041 ppb	3,768 cps	4.0 %
169Tm (KED)	0.006 ppb	1,703 cps	9.1 %
174Yb (KED)	0.036 ppb	3,509 cps	5.3 %
175Lu (KED)	-0.020 ppb	22,526 cps	1.3 %
205Tl (KED)	0.019 ppb	3,116 cps	4.0 %
208Pb (KED)	0.453 ppb	128,316 cps	2.1 %
209Bi (KED)	72.838 %	3,248,195 cps	0.6 %
232Th (KED)	0.253 ppb	60,172 cps	1.0 %
238U (KED)	0.065 ppb	18,138 cps	0.7 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 13

Analysis name: 370jian

Analysis started at: 9/2/2021 4:56:18 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	143.941 %	3.1 %
9Be (KED)	0.011 ppb	189.9 %
11B (KED)	-55.411 ppb	1.6 %
24Mg (KED)	550.141 ppb	4.2 %
27Al (KED)	620.677 ppb	0.8 %
45Sc (KED)	137.482 %	1.9 %
51V (KED)	1.064 ppb	3.7 %
52Cr (KED)	2.587 ppb	1.5 %
55Mn (KED)	15.926 ppb	2.1 %
56Fe (KED)	584.133 ppb	1.6 %
58Ni (KED)	2.725 ppb	1.8 %
59Co (KED)	0.278 ppb	1.7 %
63Cu (KED)	9.846 ppb	0.6 %
64Zn (KED)	190.917 ppb	1.0 %
69Ga (KED)	1.852 ppb	1.7 %
75As (KED)	0.596 ppb	4.5 %
80Se (KED)	0.473 ppb	32.4 %
85Rb (KED)	2.895 ppb	1.9 %
88Sr (KED)	10.162 ppb	3.3 %
89Y (KED)	104.994 %	0.4 %
107Ag (KED)	0.238 ppb	3.2 %
114Cd (KED)	0.054 ppb	7.3 %
115In (KED)	89.884 %	0.2 %
133Cs (KED)	0.147 ppb	3.9 %
138Ba (KED)	6.105 ppb	2.4 %
139La (KED)	0.514 ppb	2.1 %
140Ce (KED)	1.031 ppb	1.3 %
141Pr (KED)	0.121 ppb	3.0 %
142Nd (KED)	0.633 ppb	2.6 %
152Sm (KED)	0.092 ppb	4.1 %
153Eu (KED)	0.019 ppb	0.4 %
158Gd (KED)	0.083 ppb	0.2 %
159Tb (KED)	89.343 %	0.4 %
164Dy (KED)	0.054 ppb	0.6 %
166Er (KED)	0.025 ppb	3.2 %
169Tm (KED)	0.004 ppb	5.2 %
174Yb (KED)	0.023 ppb	2.2 %
175Lu (KED)	-0.023 ppb	8.2 %
205Tl (KED)	0.015 ppb	8.4 %
208Pb (KED)	0.386 ppb	5.8 %
209Bi (KED)	71.340 %	2.0 %
232Th (KED)	0.172 ppb	1.6 %
238U (KED)	0.048 ppb	3.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	143.941 %	3,349 cps	3.1 %
9Be (KED)	0.011 ppb	3 cps	100.0 %
11B (KED)	-55.411 ppb	489 cps	12.0 %
24Mg (KED)	550.141 ppb	333,307 cps	1.3 %
27Al (KED)	620.677 ppb	84,877 cps	1.6 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	137.482 %	48,929 cps	1.9 %
51V (KED)	1.064 ppb	9,441 cps	2.1 %
52Cr (KED)	2.587 ppb	36,930 cps	0.5 %
55Mn (KED)	15.926 ppb	110,736 cps	0.7 %
56Fe (KED)	584.133 ppb	7,093,745 cps	1.0 %
58Ni (KED)	2.725 ppb	47,042 cps	1.5 %
59Co (KED)	0.278 ppb	7,530 cps	3.2 %
63Cu (KED)	9.846 ppb	158,077 cps	1.0 %
64Zn (KED)	190.917 ppb	805,742 cps	1.4 %
69Ga (KED)	1.852 ppb	10,293 cps	1.7 %
75As (KED)	0.596 ppb	756 cps	4.4 %
80Se (KED)	0.473 ppb	1,336 cps	3.6 %
85Rb (KED)	2.895 ppb	15,761 cps	1.8 %
88Sr (KED)	10.162 ppb	80,223 cps	3.0 %
89Y (KED)	104.994 %	404,841 cps	0.4 %
107Ag (KED)	0.238 ppb	10,567 cps	3.2 %
114Cd (KED)	0.054 ppb	1,686 cps	4.2 %
115In (KED)	89.884 %	715,197 cps	0.2 %
133Cs (KED)	0.147 ppb	4,150 cps	3.6 %
138Ba (KED)	6.105 ppb	237,264 cps	2.4 %
139La (KED)	0.514 ppb	39,225 cps	1.7 %
140Ce (KED)	1.031 ppb	106,402 cps	1.3 %
141Pr (KED)	0.121 ppb	13,195 cps	2.6 %
142Nd (KED)	0.633 ppb	27,983 cps	2.3 %
152Sm (KED)	0.092 ppb	3,848 cps	3.8 %
153Eu (KED)	0.019 ppb	1,561 cps	0.7 %
158Gd (KED)	0.083 ppb	4,812 cps	0.2 %
159Tb (KED)	89.343 %	4,040,567 cps	0.4 %
164Dy (KED)	0.054 ppb	3,633 cps	0.7 %
166Er (KED)	0.025 ppb	2,485 cps	2.6 %
169Tm (KED)	0.004 ppb	1,212 cps	5.4 %
174Yb (KED)	0.023 ppb	2,246 cps	2.4 %
175Lu (KED)	-0.023 ppb	21,938 cps	1.7 %
205Tl (KED)	0.015 ppb	2,489 cps	8.1 %
208Pb (KED)	0.386 ppb	118,062 cps	0.9 %
209Bi (KED)	71.340 %	3,181,370 cps	2.0 %
232Th (KED)	0.172 ppb	40,279 cps	2.1 %
238U (KED)	0.048 ppb	13,325 cps	1.6 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 14

Analysis name: 392jian

Analysis started at: 9/2/2021 4:59:40 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	146.902 %	3.0 %
9Be (KED)	0.031 ppb	69.5 %
11B (KED)	-56.043 ppb	1.6 %
24Mg (KED)	474.690 ppb	3.3 %
27Al (KED)	723.975 ppb	0.6 %
45Sc (KED)	137.999 %	1.8 %
51V (KED)	1.166 ppb	1.3 %
52Cr (KED)	2.031 ppb	1.6 %
55Mn (KED)	16.077 ppb	0.9 %
56Fe (KED)	605.954 ppb	1.9 %
58Ni (KED)	2.664 ppb	1.3 %
59Co (KED)	0.262 ppb	1.4 %
63Cu (KED)	7.605 ppb	0.6 %
64Zn (KED)	166.187 ppb	2.2 %
69Ga (KED)	1.727 ppb	2.2 %
75As (KED)	0.714 ppb	3.3 %
80Se (KED)	0.593 ppb	12.9 %
85Rb (KED)	3.302 ppb	0.8 %
88Sr (KED)	7.284 ppb	0.2 %
89Y (KED)	105.384 %	1.4 %
107Ag (KED)	0.058 ppb	3.5 %
114Cd (KED)	0.058 ppb	9.9 %
115In (KED)	91.122 %	1.5 %
133Cs (KED)	0.152 ppb	5.1 %
138Ba (KED)	5.813 ppb	1.5 %
139La (KED)	0.623 ppb	2.4 %
140Ce (KED)	1.268 ppb	2.5 %
141Pr (KED)	0.147 ppb	2.8 %
142Nd (KED)	0.774 ppb	0.8 %
152Sm (KED)	0.106 ppb	1.5 %
153Eu (KED)	0.021 ppb	8.4 %
158Gd (KED)	0.095 ppb	1.0 %
159Tb (KED)	88.827 %	1.7 %
164Dy (KED)	0.071 ppb	2.6 %
166Er (KED)	0.036 ppb	4.3 %
169Tm (KED)	0.006 ppb	9.4 %
174Yb (KED)	0.031 ppb	5.3 %
175Lu (KED)	-0.018 ppb	34.0 %
205Tl (KED)	0.014 ppb	8.4 %
208Pb (KED)	0.387 ppb	12.6 %
209Bi (KED)	72.820 %	1.9 %
232Th (KED)	0.199 ppb	0.8 %
238U (KED)	0.056 ppb	1.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	146.902 %	3,418 cps	3.0 %
9Be (KED)	0.031 ppb	7 cps	50.0 %
11B (KED)	-56.043 ppb	466 cps	11.5 %
24Mg (KED)	474.690 ppb	293,677 cps	0.3 %
27Al (KED)	723.975 ppb	99,223 cps	2.2 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	137.999 %	49,113 cps	1.8 %
51V (KED)	1.166 ppb	10,379 cps	1.8 %
52Cr (KED)	2.031 ppb	29,551 cps	0.8 %
55Mn (KED)	16.077 ppb	112,223 cps	1.6 %
56Fe (KED)	605.954 ppb	7,383,615 cps	0.2 %
58Ni (KED)	2.664 ppb	46,246 cps	0.7 %
59Co (KED)	0.262 ppb	7,142 cps	1.2 %
63Cu (KED)	7.605 ppb	122,961 cps	1.6 %
64Zn (KED)	166.187 ppb	704,130 cps	0.9 %
69Ga (KED)	1.727 ppb	9,644 cps	1.5 %
75As (KED)	0.714 ppb	906 cps	3.3 %
80Se (KED)	0.593 ppb	1,383 cps	1.2 %
85Rb (KED)	3.302 ppb	18,033 cps	1.1 %
88Sr (KED)	7.284 ppb	57,789 cps	1.2 %
89Y (KED)	105.384 %	406,347 cps	1.4 %
107Ag (KED)	0.058 ppb	2,673 cps	3.2 %
114Cd (KED)	0.058 ppb	1,771 cps	4.1 %
115In (KED)	91.122 %	725,050 cps	1.5 %
133Cs (KED)	0.152 ppb	4,354 cps	3.4 %
138Ba (KED)	5.813 ppb	224,714 cps	0.8 %
139La (KED)	0.623 ppb	47,233 cps	0.8 %
140Ce (KED)	1.268 ppb	129,999 cps	1.1 %
141Pr (KED)	0.147 ppb	15,907 cps	2.0 %
142Nd (KED)	0.774 ppb	33,989 cps	1.6 %
152Sm (KED)	0.106 ppb	4,410 cps	2.4 %
153Eu (KED)	0.021 ppb	1,742 cps	9.2 %
158Gd (KED)	0.095 ppb	5,527 cps	1.9 %
159Tb (KED)	88.827 %	4,017,242 cps	1.7 %
164Dy (KED)	0.071 ppb	4,750 cps	2.2 %
166Er (KED)	0.036 ppb	3,333 cps	2.4 %
169Tm (KED)	0.006 ppb	1,667 cps	8.3 %
174Yb (KED)	0.031 ppb	2,994 cps	4.2 %
175Lu (KED)	-0.018 ppb	22,564 cps	2.7 %
205Tl (KED)	0.014 ppb	2,348 cps	6.6 %
208Pb (KED)	0.387 ppb	120,625 cps	2.7 %
209Bi (KED)	72.820 %	3,247,381 cps	1.9 %
232Th (KED)	0.199 ppb	47,498 cps	1.8 %
238U (KED)	0.056 ppb	15,594 cps	2.5 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 15

Analysis name: 374jian

Analysis started at: 9/2/2021 5:02:57 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	138.066 %	2.6 %
9Be (KED)	0.005 ppb	528.8 %
11B (KED)	-56.559 ppb	1.1 %
24Mg (KED)	326.231 ppb	3.7 %
27Al (KED)	450.544 ppb	0.9 %
45Sc (KED)	138.607 %	2.2 %
51V (KED)	0.794 ppb	0.9 %
52Cr (KED)	2.266 ppb	2.3 %
55Mn (KED)	9.944 ppb	0.9 %
56Fe (KED)	416.583 ppb	1.7 %
58Ni (KED)	2.181 ppb	2.5 %
59Co (KED)	0.181 ppb	1.5 %
63Cu (KED)	10.686 ppb	7.2 %
64Zn (KED)	188.146 ppb	6.5 %
69Ga (KED)	1.410 ppb	17.5 %
75As (KED)	0.521 ppb	0.8 %
80Se (KED)	0.686 ppb	16.6 %
85Rb (KED)	2.094 ppb	1.3 %
88Sr (KED)	4.548 ppb	1.3 %
89Y (KED)	99.729 %	4.9 %
107Ag (KED)	0.195 ppb	2.7 %
114Cd (KED)	0.044 ppb	6.6 %
115In (KED)	86.772 %	8.3 %
133Cs (KED)	0.097 ppb	4.9 %
138Ba (KED)	4.151 ppb	0.6 %
139La (KED)	0.435 ppb	4.1 %
140Ce (KED)	0.935 ppb	3.2 %
141Pr (KED)	0.097 ppb	1.0 %
142Nd (KED)	0.545 ppb	2.2 %
152Sm (KED)	0.068 ppb	6.7 %
153Eu (KED)	0.013 ppb	7.7 %
158Gd (KED)	0.060 ppb	3.6 %
159Tb (KED)	82.908 %	8.8 %
164Dy (KED)	0.039 ppb	7.9 %
166Er (KED)	0.018 ppb	4.8 %
169Tm (KED)	0.004 ppb	11.4 %
174Yb (KED)	0.017 ppb	8.7 %
175Lu (KED)	-0.026 ppb	20.0 %
205Tl (KED)	0.009 ppb	4.2 %
208Pb (KED)	0.186 ppb	16.6 %
209Bi (KED)	65.909 %	12.9 %
232Th (KED)	0.158 ppb	3.2 %
238U (KED)	0.037 ppb	3.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	138.066 %	3,213 cps	2.6 %
9Be (KED)	0.005 ppb	2 cps	173.2 %
11B (KED)	-56.559 ppb	412 cps	9.6 %
24Mg (KED)	326.231 ppb	189,950 cps	1.3 %
27Al (KED)	450.544 ppb	62,378 cps	1.4 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	138.607 %	49,330 cps	2.2 %
51V (KED)	0.794 ppb	7,134 cps	3.0 %
52Cr (KED)	2.266 ppb	32,869 cps	0.8 %
55Mn (KED)	9.944 ppb	69,857 cps	2.7 %
56Fe (KED)	416.583 ppb	5,118,112 cps	1.5 %
58Ni (KED)	2.181 ppb	38,713 cps	3.0 %
59Co (KED)	0.181 ppb	5,027 cps	3.7 %
63Cu (KED)	10.686 ppb	162,430 cps	2.3 %
64Zn (KED)	188.146 ppb	752,767 cps	2.9 %
69Ga (KED)	1.410 ppb	7,431 cps	12.0 %
75As (KED)	0.521 ppb	629 cps	4.4 %
80Se (KED)	0.686 ppb	1,341 cps	6.1 %
85Rb (KED)	2.094 ppb	10,833 cps	3.7 %
88Sr (KED)	4.548 ppb	34,239 cps	5.7 %
89Y (KED)	99.729 %	384,539 cps	4.9 %
107Ag (KED)	0.195 ppb	8,364 cps	5.9 %
114Cd (KED)	0.044 ppb	1,463 cps	6.7 %
115In (KED)	86.772 %	690,438 cps	8.3 %
133Cs (KED)	0.097 ppb	2,715 cps	11.3 %
138Ba (KED)	4.151 ppb	150,678 cps	9.1 %
139La (KED)	0.435 ppb	30,740 cps	4.9 %
140Ce (KED)	0.935 ppb	89,517 cps	7.0 %
141Pr (KED)	0.097 ppb	9,855 cps	9.8 %
142Nd (KED)	0.545 ppb	22,374 cps	8.7 %
152Sm (KED)	0.068 ppb	2,658 cps	15.3 %
153Eu (KED)	0.013 ppb	1,044 cps	15.4 %
158Gd (KED)	0.060 ppb	3,243 cps	12.3 %
159Tb (KED)	82.908 %	3,749,527 cps	8.8 %
164Dy (KED)	0.039 ppb	2,461 cps	15.8 %
166Er (KED)	0.018 ppb	1,751 cps	12.2 %
169Tm (KED)	0.004 ppb	903 cps	19.4 %
174Yb (KED)	0.017 ppb	1,592 cps	15.4 %
175Lu (KED)	-0.026 ppb	19,942 cps	11.5 %
205Tl (KED)	0.009 ppb	1,440 cps	13.9 %
208Pb (KED)	0.186 ppb	88,342 cps	13.8 %
209Bi (KED)	65.909 %	2,939,196 cps	12.9 %
232Th (KED)	0.158 ppb	34,336 cps	13.8 %
238U (KED)	0.037 ppb	9,596 cps	14.9 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 16

Analysis name: 384jian

Analysis started at: 9/2/2021 5:06:18 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	136.777 %	4.3 %
9Be (KED)	0.019 ppb	67.4 %
11B (KED)	-53.092 ppb	1.3 %
24Mg (KED)	442.191 ppb	4.2 %
27Al (KED)	624.535 ppb	0.6 %
45Sc (KED)	133.210 %	1.3 %
51V (KED)	1.030 ppb	4.0 %
52Cr (KED)	2.031 ppb	2.1 %
55Mn (KED)	13.839 ppb	1.5 %
56Fe (KED)	544.857 ppb	2.4 %
58Ni (KED)	2.341 ppb	1.9 %
59Co (KED)	0.251 ppb	2.4 %
63Cu (KED)	6.044 ppb	0.4 %
64Zn (KED)	177.348 ppb	1.1 %
69Ga (KED)	1.635 ppb	0.6 %
75As (KED)	0.655 ppb	2.7 %
80Se (KED)	0.362 ppb	85.2 %
85Rb (KED)	2.865 ppb	3.1 %
88Sr (KED)	6.346 ppb	4.0 %
89Y (KED)	104.801 %	0.7 %
107Ag (KED)	0.055 ppb	1.5 %
114Cd (KED)	0.037 ppb	14.4 %
115In (KED)	90.876 %	0.9 %
133Cs (KED)	0.135 ppb	3.3 %
138Ba (KED)	5.455 ppb	1.6 %
139La (KED)	0.508 ppb	0.6 %
140Ce (KED)	1.071 ppb	0.6 %
141Pr (KED)	0.119 ppb	1.0 %
142Nd (KED)	0.637 ppb	1.8 %
152Sm (KED)	0.089 ppb	1.8 %
153Eu (KED)	0.017 ppb	5.0 %
158Gd (KED)	0.080 ppb	4.6 %
159Tb (KED)	88.431 %	0.3 %
164Dy (KED)	0.054 ppb	2.8 %
166Er (KED)	0.025 ppb	3.8 %
169Tm (KED)	0.004 ppb	1.6 %
174Yb (KED)	0.021 ppb	5.8 %
175Lu (KED)	-0.029 ppb	14.2 %
205Tl (KED)	0.012 ppb	2.9 %
208Pb (KED)	0.296 ppb	6.3 %
209Bi (KED)	72.789 %	2.4 %
232Th (KED)	0.183 ppb	3.7 %
238U (KED)	0.042 ppb	1.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	136.777 %	3,183 cps	4.3 %
9Be (KED)	0.019 ppb	4 cps	43.3 %
11B (KED)	-53.092 ppb	576 cps	2.2 %
24Mg (KED)	442.191 ppb	254,632 cps	0.4 %
27Al (KED)	624.535 ppb	82,747 cps	1.1 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	133.210 %	47,409 cps	1.3 %
51V (KED)	1.030 ppb	8,858 cps	3.2 %
52Cr (KED)	2.031 ppb	28,520 cps	0.9 %
55Mn (KED)	13.839 ppb	93,290 cps	0.2 %
56Fe (KED)	544.857 ppb	6,414,910 cps	1.1 %
58Ni (KED)	2.341 ppb	39,670 cps	0.8 %
59Co (KED)	0.251 ppb	6,605 cps	1.0 %
63Cu (KED)	6.044 ppb	97,546 cps	0.3 %
64Zn (KED)	177.348 ppb	747,229 cps	0.9 %
69Ga (KED)	1.635 ppb	9,086 cps	1.3 %
75As (KED)	0.655 ppb	828 cps	2.5 %
80Se (KED)	0.362 ppb	1,293 cps	7.8 %
85Rb (KED)	2.865 ppb	15,568 cps	2.6 %
88Sr (KED)	6.346 ppb	50,102 cps	4.1 %
89Y (KED)	104.801 %	404,096 cps	0.7 %
107Ag (KED)	0.055 ppb	2,539 cps	0.7 %
114Cd (KED)	0.037 ppb	1,411 cps	6.7 %
115In (KED)	90.876 %	723,096 cps	0.9 %
133Cs (KED)	0.135 ppb	3,863 cps	2.3 %
138Ba (KED)	5.455 ppb	210,186 cps	1.8 %
139La (KED)	0.508 ppb	38,404 cps	0.6 %
140Ce (KED)	1.071 ppb	109,406 cps	0.3 %
141Pr (KED)	0.119 ppb	12,785 cps	0.7 %
142Nd (KED)	0.637 ppb	27,876 cps	2.1 %
152Sm (KED)	0.089 ppb	3,697 cps	1.5 %
153Eu (KED)	0.017 ppb	1,419 cps	5.3 %
158Gd (KED)	0.080 ppb	4,615 cps	4.8 %
159Tb (KED)	88.431 %	3,999,324 cps	0.3 %
164Dy (KED)	0.054 ppb	3,574 cps	2.7 %
166Er (KED)	0.025 ppb	2,446 cps	2.8 %
169Tm (KED)	0.004 ppb	1,138 cps	1.2 %
174Yb (KED)	0.021 ppb	2,085 cps	5.2 %
175Lu (KED)	-0.029 ppb	20,750 cps	2.9 %
205Tl (KED)	0.012 ppb	1,928 cps	4.1 %
208Pb (KED)	0.296 ppb	110,185 cps	1.3 %
209Bi (KED)	72.789 %	3,245,992 cps	2.4 %
232Th (KED)	0.183 ppb	43,642 cps	1.3 %
238U (KED)	0.042 ppb	11,966 cps	3.8 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 17

Analysis name: 376jian

Analysis started at: 9/2/2021 5:09:43 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	136.203 %	1.6 %
9Be (KED)	0.026 ppb	48.0 %
11B (KED)	-50.458 ppb	2.3 %
24Mg (KED)	400.319 ppb	2.2 %
27Al (KED)	650.311 ppb	1.0 %
45Sc (KED)	131.769 %	1.0 %
51V (KED)	1.022 ppb	1.4 %
52Cr (KED)	2.374 ppb	0.8 %
55Mn (KED)	13.932 ppb	0.5 %
56Fe (KED)	536.214 ppb	1.7 %
58Ni (KED)	2.527 ppb	1.9 %
59Co (KED)	0.285 ppb	1.4 %
63Cu (KED)	7.172 ppb	2.9 %
64Zn (KED)	168.705 ppb	2.9 %
69Ga (KED)	1.620 ppb	4.3 %
75As (KED)	0.732 ppb	8.8 %
80Se (KED)	0.333 ppb	45.0 %
85Rb (KED)	1.805 ppb	1.0 %
88Sr (KED)	6.323 ppb	1.7 %
89Y (KED)	102.266 %	2.0 %
107Ag (KED)	0.044 ppb	8.7 %
114Cd (KED)	0.024 ppb	6.0 %
115In (KED)	91.354 %	1.2 %
133Cs (KED)	0.147 ppb	2.9 %
138Ba (KED)	5.395 ppb	1.3 %
139La (KED)	0.468 ppb	1.3 %
140Ce (KED)	0.973 ppb	0.2 %
141Pr (KED)	0.110 ppb	1.6 %
142Nd (KED)	0.592 ppb	0.7 %
152Sm (KED)	0.080 ppb	3.0 %
153Eu (KED)	0.016 ppb	6.9 %
158Gd (KED)	0.071 ppb	2.5 %
159Tb (KED)	89.282 %	0.7 %
164Dy (KED)	0.050 ppb	3.4 %
166Er (KED)	0.025 ppb	3.6 %
169Tm (KED)	0.004 ppb	3.6 %
174Yb (KED)	0.021 ppb	4.2 %
175Lu (KED)	-0.024 ppb	12.4 %
205Tl (KED)	0.012 ppb	2.3 %
208Pb (KED)	0.306 ppb	6.8 %
209Bi (KED)	73.374 %	0.6 %
232Th (KED)	0.170 ppb	1.1 %
238U (KED)	0.043 ppb	2.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	136.203 %	3,169 cps	1.6 %
9Be (KED)	0.026 ppb	6 cps	34.6 %
11B (KED)	-50.458 ppb	701 cps	7.2 %
24Mg (KED)	400.319 ppb	229,856 cps	0.9 %
27Al (KED)	650.311 ppb	85,189 cps	0.4 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	131.769 %	46,896 cps	1.0 %
51V (KED)	1.022 ppb	8,696 cps	0.4 %
52Cr (KED)	2.374 ppb	32,654 cps	1.7 %
55Mn (KED)	13.932 ppb	92,907 cps	0.5 %
56Fe (KED)	536.214 ppb	6,246,952 cps	1.8 %
58Ni (KED)	2.527 ppb	42,072 cps	1.6 %
59Co (KED)	0.285 ppb	7,382 cps	0.7 %
63Cu (KED)	7.172 ppb	112,578 cps	1.1 %
64Zn (KED)	168.705 ppb	693,487 cps	1.0 %
69Ga (KED)	1.620 ppb	8,784 cps	2.4 %
75As (KED)	0.732 ppb	901 cps	9.8 %
80Se (KED)	0.333 ppb	1,252 cps	3.2 %
85Rb (KED)	1.805 ppb	9,585 cps	1.4 %
88Sr (KED)	6.323 ppb	48,715 cps	3.0 %
89Y (KED)	102.266 %	394,323 cps	2.0 %
107Ag (KED)	0.044 ppb	2,045 cps	7.5 %
114Cd (KED)	0.024 ppb	1,185 cps	2.8 %
115In (KED)	91.354 %	726,896 cps	1.2 %
133Cs (KED)	0.147 ppb	4,222 cps	1.7 %
138Ba (KED)	5.395 ppb	209,892 cps	0.6 %
139La (KED)	0.468 ppb	35,678 cps	0.6 %
140Ce (KED)	0.973 ppb	100,412 cps	0.8 %
141Pr (KED)	0.110 ppb	12,030 cps	2.1 %
142Nd (KED)	0.592 ppb	26,153 cps	1.4 %
152Sm (KED)	0.080 ppb	3,353 cps	2.7 %
153Eu (KED)	0.016 ppb	1,336 cps	6.8 %
158Gd (KED)	0.071 ppb	4,163 cps	2.3 %
159Tb (KED)	89.282 %	4,037,806 cps	0.7 %
164Dy (KED)	0.050 ppb	3,373 cps	2.9 %
166Er (KED)	0.025 ppb	2,470 cps	2.3 %
169Tm (KED)	0.004 ppb	1,131 cps	2.8 %
174Yb (KED)	0.021 ppb	2,050 cps	4.6 %
175Lu (KED)	-0.024 ppb	21,798 cps	1.8 %
205Tl (KED)	0.012 ppb	2,017 cps	1.9 %
208Pb (KED)	0.306 ppb	112,165 cps	2.7 %
209Bi (KED)	73.374 %	3,272,083 cps	0.6 %
232Th (KED)	0.170 ppb	40,973 cps	1.4 %
238U (KED)	0.043 ppb	12,391 cps	2.2 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 18

Analysis name: 390jian

Analysis started at: 9/2/2021 5:13:05 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	141.457 %	4.7 %
9Be (KED)	0.010 ppb	340.2 %
11B (KED)	-54.920 ppb	1.2 %
24Mg (KED)	539.874 ppb	5.3 %
27Al (KED)	862.431 ppb	3.0 %
45Sc (KED)	127.099 %	2.0 %
51V (KED)	1.653 ppb	1.7 %
52Cr (KED)	2.496 ppb	2.6 %
55Mn (KED)	20.288 ppb	1.4 %
56Fe (KED)	866.609 ppb	1.9 %
58Ni (KED)	3.573 ppb	2.9 %
59Co (KED)	0.376 ppb	3.8 %
63Cu (KED)	7.759 ppb	2.5 %
64Zn (KED)	158.562 ppb	1.7 %
69Ga (KED)	1.935 ppb	1.5 %
75As (KED)	0.742 ppb	6.7 %
80Se (KED)	0.411 ppb	37.1 %
85Rb (KED)	2.673 ppb	3.0 %
88Sr (KED)	7.385 ppb	0.8 %
89Y (KED)	102.104 %	1.9 %
107Ag (KED)	0.041 ppb	7.0 %
114Cd (KED)	0.029 ppb	13.6 %
115In (KED)	89.991 %	1.4 %
133Cs (KED)	0.205 ppb	5.5 %
138Ba (KED)	6.631 ppb	0.8 %
139La (KED)	0.747 ppb	1.9 %
140Ce (KED)	1.513 ppb	0.9 %
141Pr (KED)	0.180 ppb	2.4 %
142Nd (KED)	0.941 ppb	2.9 %
152Sm (KED)	0.130 ppb	0.6 %
153Eu (KED)	0.028 ppb	4.6 %
158Gd (KED)	0.119 ppb	2.8 %
159Tb (KED)	90.164 %	1.7 %
164Dy (KED)	0.084 ppb	3.5 %
166Er (KED)	0.040 ppb	2.2 %
169Tm (KED)	0.006 ppb	11.3 %
174Yb (KED)	0.033 ppb	3.7 %
175Lu (KED)	-0.026 ppb	12.8 %
205Tl (KED)	0.014 ppb	3.1 %
208Pb (KED)	0.321 ppb	2.8 %
209Bi (KED)	74.568 %	1.2 %
232Th (KED)	0.243 ppb	0.9 %
238U (KED)	0.057 ppb	2.8 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	141.457 %	3,292 cps	4.7 %
9Be (KED)	0.010 ppb	3 cps	173.2 %
11B (KED)	-54.920 ppb	503 cps	2.0 %
24Mg (KED)	539.874 ppb	321,200 cps	0.9 %
27Al (KED)	862.431 ppb	108,645 cps	1.3 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	127.099 %	45,234 cps	2.0 %
51V (KED)	1.653 ppb	13,505 cps	0.3 %
52Cr (KED)	2.496 ppb	33,001 cps	1.4 %
55Mn (KED)	20.288 ppb	130,346 cps	1.3 %
56Fe (KED)	866.609 ppb	9,701,271 cps	1.0 %
58Ni (KED)	3.573 ppb	55,925 cps	1.5 %
59Co (KED)	0.376 ppb	9,339 cps	2.7 %
63Cu (KED)	7.759 ppb	121,481 cps	1.1 %
64Zn (KED)	158.562 ppb	651,017 cps	0.3 %
69Ga (KED)	1.935 ppb	10,450 cps	0.4 %
75As (KED)	0.742 ppb	911 cps	4.8 %
80Se (KED)	0.411 ppb	1,278 cps	5.1 %
85Rb (KED)	2.673 ppb	14,154 cps	2.8 %
88Sr (KED)	7.385 ppb	56,757 cps	1.1 %
89Y (KED)	102.104 %	393,700 cps	1.9 %
107Ag (KED)	0.041 ppb	1,885 cps	5.6 %
114Cd (KED)	0.029 ppb	1,258 cps	6.0 %
115In (KED)	89.991 %	716,055 cps	1.4 %
133Cs (KED)	0.205 ppb	5,735 cps	5.3 %
138Ba (KED)	6.631 ppb	259,787 cps	1.9 %
139La (KED)	0.747 ppb	57,451 cps	0.6 %
140Ce (KED)	1.513 ppb	157,304 cps	1.5 %
141Pr (KED)	0.180 ppb	19,751 cps	1.3 %
142Nd (KED)	0.941 ppb	41,909 cps	1.2 %
152Sm (KED)	0.130 ppb	5,492 cps	1.6 %
153Eu (KED)	0.028 ppb	2,328 cps	3.0 %
158Gd (KED)	0.119 ppb	6,971 cps	1.9 %
159Tb (KED)	90.164 %	4,077,703 cps	1.7 %
164Dy (KED)	0.084 ppb	5,689 cps	1.7 %
166Er (KED)	0.040 ppb	3,715 cps	3.3 %
169Tm (KED)	0.006 ppb	1,702 cps	10.5 %
174Yb (KED)	0.033 ppb	3,300 cps	3.5 %
175Lu (KED)	-0.026 ppb	21,658 cps	2.0 %
205Tl (KED)	0.014 ppb	2,457 cps	3.9 %
208Pb (KED)	0.321 ppb	115,799 cps	0.2 %
209Bi (KED)	74.568 %	3,325,355 cps	1.2 %
232Th (KED)	0.243 ppb	59,079 cps	0.4 %
238U (KED)	0.057 ppb	16,324 cps	3.9 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 19

Analysis name: 388jian

Analysis started at: 9/2/2021 5:16:22 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	137.923 %	1.6 %
9Be (KED)	0.033 ppb	64.4 %
11B (KED)	-58.087 ppb	0.6 %
24Mg (KED)	371.089 ppb	1.1 %
27Al (KED)	475.430 ppb	1.2 %
45Sc (KED)	128.917 %	1.8 %
51V (KED)	0.884 ppb	1.1 %
52Cr (KED)	2.668 ppb	0.6 %
55Mn (KED)	11.027 ppb	1.7 %
56Fe (KED)	513.159 ppb	0.9 %
58Ni (KED)	2.281 ppb	1.7 %
59Co (KED)	0.206 ppb	3.7 %
63Cu (KED)	7.634 ppb	0.8 %
64Zn (KED)	178.421 ppb	1.4 %
69Ga (KED)	1.230 ppb	4.0 %
75As (KED)	0.546 ppb	5.8 %
80Se (KED)	0.271 ppb	39.3 %
85Rb (KED)	3.230 ppb	1.9 %
88Sr (KED)	4.598 ppb	0.4 %
89Y (KED)	103.726 %	1.1 %
107Ag (KED)	0.090 ppb	3.1 %
114Cd (KED)	0.037 ppb	9.2 %
115In (KED)	90.285 %	2.7 %
133Cs (KED)	0.112 ppb	2.9 %
138Ba (KED)	4.342 ppb	1.7 %
139La (KED)	0.495 ppb	1.2 %
140Ce (KED)	0.951 ppb	2.6 %
141Pr (KED)	0.113 ppb	1.6 %
142Nd (KED)	0.599 ppb	2.1 %
152Sm (KED)	0.080 ppb	5.9 %
153Eu (KED)	0.015 ppb	10.7 %
158Gd (KED)	0.069 ppb	1.2 %
159Tb (KED)	90.869 %	0.3 %
164Dy (KED)	0.047 ppb	4.5 %
166Er (KED)	0.021 ppb	3.7 %
169Tm (KED)	0.004 ppb	8.0 %
174Yb (KED)	0.019 ppb	3.6 %
175Lu (KED)	-0.029 ppb	17.0 %
205Tl (KED)	0.009 ppb	4.7 %
208Pb (KED)	0.176 ppb	12.3 %
209Bi (KED)	75.444 %	0.7 %
232Th (KED)	0.157 ppb	1.3 %
238U (KED)	0.041 ppb	4.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	137.923 %	3,209 cps	1.6 %
9Be (KED)	0.033 ppb	7 cps	50.0 %
11B (KED)	-58.087 ppb	337 cps	6.5 %
24Mg (KED)	371.089 ppb	215,860 cps	1.7 %
27Al (KED)	475.430 ppb	61,176 cps	1.8 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	128.917 %	45,881 cps	1.8 %
51V (KED)	0.884 ppb	7,374 cps	2.1 %
52Cr (KED)	2.668 ppb	35,653 cps	2.0 %
55Mn (KED)	11.027 ppb	71,997 cps	0.4 %
56Fe (KED)	513.159 ppb	5,850,953 cps	1.0 %
58Ni (KED)	2.281 ppb	37,494 cps	2.5 %
59Co (KED)	0.206 ppb	5,286 cps	4.0 %
63Cu (KED)	7.634 ppb	121,477 cps	1.6 %
64Zn (KED)	178.421 ppb	743,968 cps	0.3 %
69Ga (KED)	1.230 ppb	6,796 cps	2.8 %
75As (KED)	0.546 ppb	684 cps	6.1 %
80Se (KED)	0.271 ppb	1,249 cps	4.1 %
85Rb (KED)	3.230 ppb	17,365 cps	0.9 %
88Sr (KED)	4.598 ppb	35,992 cps	1.4 %
89Y (KED)	103.726 %	399,954 cps	1.1 %
107Ag (KED)	0.090 ppb	4,066 cps	1.5 %
114Cd (KED)	0.037 ppb	1,403 cps	4.3 %
115In (KED)	90.285 %	718,388 cps	2.7 %
133Cs (KED)	0.112 ppb	3,223 cps	0.6 %
138Ba (KED)	4.342 ppb	172,584 cps	1.9 %
139La (KED)	0.495 ppb	38,449 cps	1.4 %
140Ce (KED)	0.951 ppb	99,922 cps	2.3 %
141Pr (KED)	0.113 ppb	12,504 cps	1.8 %
142Nd (KED)	0.599 ppb	26,926 cps	2.3 %
152Sm (KED)	0.080 ppb	3,396 cps	6.0 %
153Eu (KED)	0.015 ppb	1,300 cps	10.4 %
158Gd (KED)	0.069 ppb	4,105 cps	1.1 %
159Tb (KED)	90.869 %	4,109,578 cps	0.3 %
164Dy (KED)	0.047 ppb	3,227 cps	4.4 %
166Er (KED)	0.021 ppb	2,215 cps	2.7 %
169Tm (KED)	0.004 ppb	1,039 cps	7.9 %
174Yb (KED)	0.019 ppb	1,976 cps	3.3 %
175Lu (KED)	-0.029 ppb	21,340 cps	3.7 %
205Tl (KED)	0.009 ppb	1,613 cps	4.0 %
208Pb (KED)	0.176 ppb	99,881 cps	2.0 %
209Bi (KED)	75.444 %	3,364,398 cps	0.7 %
232Th (KED)	0.157 ppb	39,076 cps	1.8 %
238U (KED)	0.041 ppb	12,144 cps	3.8 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 20

Analysis name: 368jian

Analysis started at: 9/2/2021 5:19:47 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	141.935 %	1.6 %
9Be (KED)	-0.003 ppb	400.4 %
11B (KED)	-55.592 ppb	0.8 %
24Mg (KED)	456.653 ppb	0.7 %
27Al (KED)	685.090 ppb	0.2 %
45Sc (KED)	132.683 %	1.5 %
51V (KED)	1.139 ppb	1.6 %
52Cr (KED)	3.316 ppb	1.4 %
55Mn (KED)	15.345 ppb	1.3 %
56Fe (KED)	619.836 ppb	1.2 %
58Ni (KED)	2.771 ppb	0.8 %
59Co (KED)	0.318 ppb	2.3 %
63Cu (KED)	5.365 ppb	2.0 %
64Zn (KED)	170.860 ppb	1.0 %
69Ga (KED)	1.844 ppb	1.8 %
75As (KED)	0.685 ppb	6.1 %
80Se (KED)	0.373 ppb	16.1 %
85Rb (KED)	2.258 ppb	3.2 %
88Sr (KED)	7.510 ppb	1.1 %
89Y (KED)	102.096 %	1.1 %
107Ag (KED)	0.051 ppb	5.9 %
114Cd (KED)	0.042 ppb	11.7 %
115In (KED)	91.779 %	1.1 %
133Cs (KED)	0.165 ppb	4.4 %
138Ba (KED)	5.929 ppb	1.6 %
139La (KED)	0.477 ppb	3.5 %
140Ce (KED)	1.006 ppb	0.8 %
141Pr (KED)	0.115 ppb	1.8 %
142Nd (KED)	0.607 ppb	1.9 %
152Sm (KED)	0.082 ppb	2.0 %
153Eu (KED)	0.018 ppb	6.9 %
158Gd (KED)	0.074 ppb	2.3 %
159Tb (KED)	91.455 %	1.3 %
164Dy (KED)	0.053 ppb	5.3 %
166Er (KED)	0.026 ppb	3.7 %
169Tm (KED)	0.004 ppb	6.1 %
174Yb (KED)	0.022 ppb	2.6 %
175Lu (KED)	-0.029 ppb	10.6 %
205Tl (KED)	0.013 ppb	5.8 %
208Pb (KED)	0.220 ppb	10.2 %
209Bi (KED)	76.433 %	0.4 %
232Th (KED)	0.163 ppb	2.3 %
238U (KED)	0.046 ppb	2.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	141.935 %	3,303 cps	1.6 %
9Be (KED)	-0.003 ppb	1 cps	173.2 %
11B (KED)	-55.592 ppb	472 cps	5.7 %
24Mg (KED)	456.653 ppb	273,161 cps	0.9 %
27Al (KED)	685.090 ppb	90,323 cps	1.4 %

# Comprehensive

9/2/2021 5:36:52 PM

Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	132.683 %	47,221 cps	1.5 %
51V (KED)	1.139 ppb	9,748 cps	2.0 %
52Cr (KED)	3.316 ppb	45,121 cps	1.9 %
55Mn (KED)	15.345 ppb	103,000 cps	0.4 %
56Fe (KED)	619.836 ppb	7,261,262 cps	0.3 %
58Ni (KED)	2.771 ppb	46,104 cps	2.2 %
59Co (KED)	0.318 ppb	8,285 cps	2.7 %
63Cu (KED)	5.365 ppb	84,545 cps	1.6 %
64Zn (KED)	170.860 ppb	701,420 cps	1.5 %
69Ga (KED)	1.844 ppb	9,968 cps	2.8 %
75As (KED)	0.685 ppb	842 cps	5.3 %
80Se (KED)	0.373 ppb	1,265 cps	1.6 %
85Rb (KED)	2.258 ppb	11,959 cps	2.5 %
88Sr (KED)	7.510 ppb	57,717 cps	1.4 %
89Y (KED)	102.096 %	393,667 cps	1.1 %
107Ag (KED)	0.051 ppb	2,395 cps	5.2 %
114Cd (KED)	0.042 ppb	1,508 cps	5.9 %
115In (KED)	91.779 %	730,276 cps	1.1 %
133Cs (KED)	0.165 ppb	4,743 cps	4.5 %
138Ba (KED)	5.929 ppb	235,924 cps	1.4 %
139La (KED)	0.477 ppb	37,292 cps	2.3 %
140Ce (KED)	1.006 ppb	106,342 cps	0.6 %
141Pr (KED)	0.115 ppb	12,792 cps	2.4 %
142Nd (KED)	0.607 ppb	27,497 cps	1.2 %
152Sm (KED)	0.082 ppb	3,516 cps	3.0 %
153Eu (KED)	0.018 ppb	1,499 cps	5.6 %
158Gd (KED)	0.074 ppb	4,437 cps	1.6 %
159Tb (KED)	91.455 %	4,136,060 cps	1.3 %
164Dy (KED)	0.053 ppb	3,689 cps	4.7 %
166Er (KED)	0.026 ppb	2,561 cps	3.0 %
169Tm (KED)	0.004 ppb	1,010 cps	4.6 %
174Yb (KED)	0.022 ppb	2,256 cps	3.0 %
175Lu (KED)	-0.029 ppb	21,451 cps	1.1 %
205Tl (KED)	0.013 ppb	2,287 cps	5.9 %
208Pb (KED)	0.220 ppb	106,535 cps	2.6 %
209Bi (KED)	76.433 %	3,408,518 cps	0.4 %
232Th (KED)	0.163 ppb	40,899 cps	1.9 %
238U (KED)	0.046 ppb	13,669 cps	1.6 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 21

Analysis name: 382jian

Analysis started at: 9/2/2021 5:23:09 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	146.568 %	2.1 %
9Be (KED)	0.031 ppb	67.2 %
11B (KED)	-55.004 ppb	1.8 %
24Mg (KED)	602.168 ppb	1.9 %
27Al (KED)	872.068 ppb	2.0 %
45Sc (KED)	132.759 %	3.0 %
51V (KED)	1.638 ppb	2.9 %
52Cr (KED)	4.568 ppb	1.3 %
55Mn (KED)	21.726 ppb	2.9 %
56Fe (KED)	889.714 ppb	3.2 %
58Ni (KED)	3.781 ppb	2.5 %
59Co (KED)	0.451 ppb	1.6 %
63Cu (KED)	8.446 ppb	2.5 %
64Zn (KED)	153.633 ppb	0.7 %
69Ga (KED)	1.941 ppb	4.0 %
75As (KED)	0.681 ppb	4.7 %
80Se (KED)	0.485 ppb	40.3 %
85Rb (KED)	4.336 ppb	2.0 %
88Sr (KED)	8.659 ppb	1.9 %
89Y (KED)	105.184 %	1.2 %
107Ag (KED)	0.036 ppb	5.0 %
114Cd (KED)	0.040 ppb	17.2 %
115In (KED)	90.971 %	1.4 %
133Cs (KED)	0.226 ppb	1.7 %
138Ba (KED)	6.568 ppb	1.5 %
139La (KED)	0.897 ppb	0.5 %
140Ce (KED)	1.844 ppb	1.8 %
141Pr (KED)	0.213 ppb	1.5 %
142Nd (KED)	1.120 ppb	0.7 %
152Sm (KED)	0.156 ppb	0.5 %
153Eu (KED)	0.028 ppb	2.5 %
158Gd (KED)	0.134 ppb	2.1 %
159Tb (KED)	89.916 %	0.5 %
164Dy (KED)	0.091 ppb	0.3 %
166Er (KED)	0.045 ppb	3.5 %
169Tm (KED)	0.006 ppb	3.8 %
174Yb (KED)	0.037 ppb	6.4 %
175Lu (KED)	-0.024 ppb	5.8 %
205Tl (KED)	0.014 ppb	3.8 %
208Pb (KED)	0.494 ppb	3.6 %
209Bi (KED)	73.317 %	1.7 %
232Th (KED)	0.276 ppb	2.8 %
238U (KED)	0.067 ppb	0.4 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	146.568 %	3,410 cps	2.1 %
9Be (KED)	0.031 ppb	7 cps	50.0 %
11B (KED)	-55.004 ppb	519 cps	12.1 %
24Mg (KED)	602.168 ppb	371,635 cps	1.0 %
27Al (KED)	872.068 ppb	114,740 cps	1.2 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	132.759 %	47,248 cps	3.0 %
51V (KED)	1.638 ppb	13,977 cps	1.7 %
52Cr (KED)	4.568 ppb	61,431 cps	1.9 %
55Mn (KED)	21.726 ppb	145,709 cps	0.3 %
56Fe (KED)	889.714 ppb	10,397,455 cps	0.4 %
58Ni (KED)	3.781 ppb	61,599 cps	0.7 %
59Co (KED)	0.451 ppb	11,658 cps	2.1 %
63Cu (KED)	8.446 ppb	136,070 cps	1.4 %
64Zn (KED)	153.633 ppb	649,976 cps	0.6 %
69Ga (KED)	1.941 ppb	10,798 cps	3.1 %
75As (KED)	0.681 ppb	863 cps	4.1 %
80Se (KED)	0.485 ppb	1,342 cps	4.4 %
85Rb (KED)	4.336 ppb	23,625 cps	0.8 %
88Sr (KED)	8.659 ppb	68,520 cps	1.8 %
89Y (KED)	105.184 %	405,574 cps	1.2 %
107Ag (KED)	0.036 ppb	1,695 cps	3.7 %
114Cd (KED)	0.040 ppb	1,455 cps	8.4 %
115In (KED)	90.971 %	723,849 cps	1.4 %
133Cs (KED)	0.226 ppb	6,374 cps	0.5 %
138Ba (KED)	6.568 ppb	256,619 cps	1.2 %
139La (KED)	0.897 ppb	68,735 cps	0.9 %
140Ce (KED)	1.844 ppb	191,059 cps	1.9 %
141Pr (KED)	0.213 ppb	23,266 cps	1.2 %
142Nd (KED)	1.120 ppb	49,730 cps	1.1 %
152Sm (KED)	0.156 ppb	6,583 cps	1.0 %
153Eu (KED)	0.028 ppb	2,382 cps	2.7 %
158Gd (KED)	0.134 ppb	7,866 cps	1.8 %
159Tb (KED)	89.916 %	4,066,491 cps	0.5 %
164Dy (KED)	0.091 ppb	6,130 cps	0.7 %
166Er (KED)	0.045 ppb	4,091 cps	3.6 %
169Tm (KED)	0.006 ppb	1,760 cps	3.7 %
174Yb (KED)	0.037 ppb	3,616 cps	5.8 %
175Lu (KED)	-0.024 ppb	21,930 cps	1.0 %
205Tl (KED)	0.014 ppb	2,277 cps	2.6 %
208Pb (KED)	0.494 ppb	133,919 cps	1.7 %
209Bi (KED)	73.317 %	3,269,560 cps	1.7 %
232Th (KED)	0.276 ppb	65,961 cps	2.1 %
238U (KED)	0.067 ppb	18,692 cps	2.1 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 22

Analysis name: 380jian

Analysis started at: 9/2/2021 5:26:32 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	142.842 %	1.4 %
9Be (KED)	0.045 ppb	70.8 %
11B (KED)	-55.119 ppb	2.4 %
24Mg (KED)	788.503 ppb	0.8 %
27Al (KED)	1,280.831 ppb	0.8 %
45Sc (KED)	136.993 %	0.2 %
51V (KED)	2.238 ppb	0.8 %
52Cr (KED)	3.021 ppb	1.2 %
55Mn (KED)	28.478 ppb	0.9 %
56Fe (KED)	1,174.282 ppb	2.1 %
58Ni (KED)	5.075 ppb	0.9 %
59Co (KED)	0.530 ppb	1.7 %
63Cu (KED)	9.505 ppb	1.1 %
64Zn (KED)	178.054 ppb	0.6 %
69Ga (KED)	3.138 ppb	2.9 %
75As (KED)	0.974 ppb	1.5 %
80Se (KED)	0.359 ppb	20.6 %
85Rb (KED)	4.198 ppb	0.1 %
88Sr (KED)	11.327 ppb	1.6 %
89Y (KED)	107.464 %	0.6 %
107Ag (KED)	0.258 ppb	0.7 %
114Cd (KED)	0.048 ppb	7.3 %
115In (KED)	91.065 %	1.8 %
133Cs (KED)	0.309 ppb	2.9 %
138Ba (KED)	10.958 ppb	1.7 %
139La (KED)	1.068 ppb	2.2 %
140Ce (KED)	2.164 ppb	2.6 %
141Pr (KED)	0.254 ppb	4.2 %
142Nd (KED)	1.312 ppb	2.4 %
152Sm (KED)	0.191 ppb	2.6 %
153Eu (KED)	0.038 ppb	2.2 %
158Gd (KED)	0.163 ppb	4.0 %
159Tb (KED)	89.356 %	1.9 %
164Dy (KED)	0.119 ppb	5.1 %
166Er (KED)	0.059 ppb	3.3 %
169Tm (KED)	0.008 ppb	3.8 %
174Yb (KED)	0.049 ppb	5.2 %
175Lu (KED)	-0.022 ppb	40.6 %
205Tl (KED)	0.022 ppb	0.8 %
208Pb (KED)	0.783 ppb	1.4 %
209Bi (KED)	73.434 %	1.0 %
232Th (KED)	0.346 ppb	1.5 %
238U (KED)	0.087 ppb	1.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	142.842 %	3,324 cps	1.4 %
9Be (KED)	0.045 ppb	9 cps	57.3 %
11B (KED)	-55.119 ppb	499 cps	12.9 %
24Mg (KED)	788.503 ppb	474,085 cps	0.6 %
27Al (KED)	1,280.831 ppb	173,511 cps	0.6 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	136.993 %	48,755 cps	0.2 %
51V (KED)	2.238 ppb	19,674 cps	0.8 %
52Cr (KED)	3.021 ppb	42,635 cps	1.2 %
55Mn (KED)	28.478 ppb	197,093 cps	0.7 %
56Fe (KED)	1,174.282 ppb	14,149,712 cps	1.9 %
58Ni (KED)	5.075 ppb	84,082 cps	0.8 %
59Co (KED)	0.530 ppb	14,106 cps	1.6 %
63Cu (KED)	9.505 ppb	156,241 cps	0.7 %
64Zn (KED)	178.054 ppb	769,258 cps	0.0 %
69Ga (KED)	3.138 ppb	17,753 cps	2.3 %
75As (KED)	0.974 ppb	1,256 cps	0.9 %
80Se (KED)	0.359 ppb	1,326 cps	1.5 %
85Rb (KED)	4.198 ppb	23,373 cps	0.6 %
88Sr (KED)	11.327 ppb	91,502 cps	1.5 %
89Y (KED)	107.464 %	414,365 cps	0.6 %
107Ag (KED)	0.258 ppb	11,594 cps	2.4 %
114Cd (KED)	0.048 ppb	1,592 cps	2.8 %
115In (KED)	91.065 %	724,596 cps	1.8 %
133Cs (KED)	0.309 ppb	8,656 cps	3.4 %
138Ba (KED)	10.958 ppb	423,244 cps	0.4 %
139La (KED)	1.068 ppb	81,241 cps	2.8 %
140Ce (KED)	2.164 ppb	222,624 cps	0.6 %
141Pr (KED)	0.254 ppb	27,542 cps	2.4 %
142Nd (KED)	1.312 ppb	57,871 cps	0.7 %
152Sm (KED)	0.191 ppb	8,006 cps	1.7 %
153Eu (KED)	0.038 ppb	3,126 cps	1.1 %
158Gd (KED)	0.163 ppb	9,460 cps	2.0 %
159Tb (KED)	89.356 %	4,041,159 cps	1.9 %
164Dy (KED)	0.119 ppb	7,976 cps	3.2 %
166Er (KED)	0.059 ppb	5,146 cps	1.1 %
169Tm (KED)	0.008 ppb	2,255 cps	3.9 %
174Yb (KED)	0.049 ppb	4,803 cps	4.0 %
175Lu (KED)	-0.022 ppb	22,120 cps	4.5 %
205Tl (KED)	0.022 ppb	3,603 cps	1.4 %
208Pb (KED)	0.783 ppb	167,659 cps	0.3 %
209Bi (KED)	73.434 %	3,274,783 cps	1.0 %
232Th (KED)	0.346 ppb	82,431 cps	0.8 %
238U (KED)	0.087 ppb	24,071 cps	1.3 %

# Comprehensive

9/2/2021 5:36:52 PM

## Sample Summary

Instrument ID: iCAP Q

Analysis index: 23

Analysis name: 324jian

Analysis started at: 9/2/2021 5:29:51 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	141.075 %	0.6 %
9Be (KED)	0.018 ppb	67.8 %
11B (KED)	-57.039 ppb	0.9 %
24Mg (KED)	284.384 ppb	0.5 %
27Al (KED)	330.583 ppb	3.2 %
45Sc (KED)	132.649 %	2.2 %
51V (KED)	0.578 ppb	1.0 %
52Cr (KED)	1.255 ppb	4.8 %
55Mn (KED)	7.882 ppb	3.5 %
56Fe (KED)	333.733 ppb	2.9 %
58Ni (KED)	1.367 ppb	2.2 %
59Co (KED)	0.192 ppb	3.6 %
63Cu (KED)	6.382 ppb	2.2 %
64Zn (KED)	176.796 ppb	0.6 %
69Ga (KED)	0.833 ppb	5.4 %
75As (KED)	0.263 ppb	14.8 %
80Se (KED)	0.419 ppb	43.0 %
85Rb (KED)	1.718 ppb	1.0 %
88Sr (KED)	5.068 ppb	2.1 %
89Y (KED)	102.881 %	1.3 %
107Ag (KED)	0.030 ppb	2.6 %
114Cd (KED)	0.043 ppb	3.9 %
115In (KED)	93.133 %	0.8 %
133Cs (KED)	0.067 ppb	3.2 %
138Ba (KED)	2.866 ppb	2.4 %
139La (KED)	0.279 ppb	2.4 %
140Ce (KED)	0.573 ppb	1.5 %
141Pr (KED)	0.066 ppb	1.9 %
142Nd (KED)	0.349 ppb	0.4 %
152Sm (KED)	0.047 ppb	3.9 %
153Eu (KED)	0.009 ppb	4.8 %
158Gd (KED)	0.039 ppb	4.1 %
159Tb (KED)	90.900 %	0.8 %
164Dy (KED)	0.028 ppb	3.7 %
166Er (KED)	0.012 ppb	15.7 %
169Tm (KED)	0.002 ppb	10.5 %
174Yb (KED)	0.011 ppb	9.4 %
175Lu (KED)	-0.031 ppb	9.6 %
205Tl (KED)	0.006 ppb	12.3 %
208Pb (KED)	0.041 ppb	20.1 %
209Bi (KED)	75.680 %	2.6 %
232Th (KED)	0.091 ppb	2.0 %
238U (KED)	0.024 ppb	4.1 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	141.075 %	3,283 cps	0.6 %
9Be (KED)	0.018 ppb	4 cps	43.3 %
11B (KED)	-57.039 ppb	397 cps	5.9 %
24Mg (KED)	284.384 ppb	169,399 cps	0.4 %
27Al (KED)	330.583 ppb	44,035 cps	1.0 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	132.649 %	47,209 cps	2.2 %
51V (KED)	0.578 ppb	4,997 cps	2.2 %
52Cr (KED)	1.255 ppb	18,302 cps	2.4 %
55Mn (KED)	7.882 ppb	53,027 cps	1.5 %
56Fe (KED)	333.733 ppb	3,934,975 cps	0.7 %
58Ni (KED)	1.367 ppb	24,572 cps	0.7 %
59Co (KED)	0.192 ppb	5,069 cps	2.6 %
63Cu (KED)	6.382 ppb	101,007 cps	1.3 %
64Zn (KED)	176.796 ppb	731,249 cps	0.8 %
69Ga (KED)	0.833 ppb	4,606 cps	4.1 %
75As (KED)	0.263 ppb	333 cps	14.7 %
80Se (KED)	0.419 ppb	1,290 cps	4.7 %
85Rb (KED)	1.718 ppb	9,182 cps	1.1 %
88Sr (KED)	5.068 ppb	39,322 cps	1.0 %
89Y (KED)	102.881 %	396,695 cps	1.3 %
107Ag (KED)	0.030 ppb	1,450 cps	2.6 %
114Cd (KED)	0.043 ppb	1,540 cps	2.3 %
115In (KED)	93.133 %	741,051 cps	0.8 %
133Cs (KED)	0.067 ppb	2,068 cps	3.7 %
138Ba (KED)	2.866 ppb	115,049 cps	1.5 %
139La (KED)	0.279 ppb	21,797 cps	2.1 %
140Ce (KED)	0.573 ppb	60,489 cps	1.0 %
141Pr (KED)	0.066 ppb	7,378 cps	1.7 %
142Nd (KED)	0.349 ppb	15,767 cps	1.3 %
152Sm (KED)	0.047 ppb	2,012 cps	4.7 %
153Eu (KED)	0.009 ppb	762 cps	5.5 %
158Gd (KED)	0.039 ppb	2,310 cps	3.2 %
159Tb (KED)	90.900 %	4,110,984 cps	0.8 %
164Dy (KED)	0.028 ppb	1,967 cps	4.4 %
166Er (KED)	0.012 ppb	1,481 cps	9.8 %
169Tm (KED)	0.002 ppb	634 cps	9.0 %
174Yb (KED)	0.011 ppb	1,161 cps	9.6 %
175Lu (KED)	-0.031 ppb	20,988 cps	1.7 %
205Tl (KED)	0.006 ppb	1,121 cps	9.4 %
208Pb (KED)	0.041 ppb	84,034 cps	1.5 %
209Bi (KED)	75.680 %	3,374,932 cps	2.6 %
232Th (KED)	0.091 ppb	23,196 cps	1.1 %
238U (KED)	0.024 ppb	7,560 cps	1.3 %

# Comprehensive

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## Sample Summary

Instrument ID: iCAP Q

Analysis index: 24

Analysis name: 328jian

Analysis started at: 9/2/2021 5:33:10 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
6Li (KED)	139.308 %	3.0 %
9Be (KED)	-0.003 ppb	405.8 %
11B (KED)	-50.863 ppb	3.5 %
24Mg (KED)	386.054 ppb	2.9 %
27Al (KED)	458.575 ppb	2.8 %
45Sc (KED)	132.235 %	2.3 %
51V (KED)	0.853 ppb	3.4 %
52Cr (KED)	2.264 ppb	4.3 %
55Mn (KED)	11.187 ppb	1.7 %
56Fe (KED)	475.310 ppb	2.9 %
58Ni (KED)	1.994 ppb	4.0 %
59Co (KED)	0.209 ppb	1.9 %
63Cu (KED)	6.839 ppb	0.2 %
64Zn (KED)	206.637 ppb	0.7 %
69Ga (KED)	1.257 ppb	4.2 %
75As (KED)	0.344 ppb	8.9 %
80Se (KED)	0.463 ppb	71.2 %
85Rb (KED)	1.889 ppb	1.1 %
88Sr (KED)	6.495 ppb	0.8 %
89Y (KED)	103.848 %	0.2 %
107Ag (KED)	0.041 ppb	4.3 %
114Cd (KED)	0.063 ppb	8.1 %
115In (KED)	91.011 %	2.8 %
133Cs (KED)	0.119 ppb	2.3 %
138Ba (KED)	4.414 ppb	2.0 %
139La (KED)	0.555 ppb	2.2 %
140Ce (KED)	1.011 ppb	1.4 %
141Pr (KED)	0.110 ppb	4.0 %
142Nd (KED)	0.598 ppb	2.2 %
152Sm (KED)	0.073 ppb	4.9 %
153Eu (KED)	0.014 ppb	2.7 %
158Gd (KED)	0.063 ppb	6.4 %
159Tb (KED)	91.687 %	1.9 %
164Dy (KED)	0.042 ppb	5.2 %
166Er (KED)	0.021 ppb	4.2 %
169Tm (KED)	0.003 ppb	4.5 %
174Yb (KED)	0.018 ppb	2.4 %
175Lu (KED)	-0.032 ppb	9.4 %
205Tl (KED)	0.011 ppb	5.7 %
208Pb (KED)	0.251 ppb	5.4 %
209Bi (KED)	75.314 %	1.9 %
232Th (KED)	0.126 ppb	1.0 %
238U (KED)	0.037 ppb	2.3 %

Category	Concentration average	Intensity average	Intensity RSD
6Li (KED)	139.308 %	3,242 cps	3.0 %
9Be (KED)	-0.003 ppb	1 cps	173.2 %
11B (KED)	-50.863 ppb	697 cps	11.8 %
24Mg (KED)	386.054 ppb	226,669 cps	0.7 %
27Al (KED)	458.575 ppb	60,537 cps	0.8 %

# Comprehensive

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Category	Concentration average	Intensity average	Intensity RSD
45Sc (KED)	132.235 %	47,062 cps	2.3 %
51V (KED)	0.853 ppb	7,295 cps	1.3 %
52Cr (KED)	2.264 ppb	31,315 cps	1.9 %
55Mn (KED)	11.187 ppb	74,913 cps	0.9 %
56Fe (KED)	475.310 ppb	5,561,417 cps	0.6 %
58Ni (KED)	1.994 ppb	34,063 cps	1.3 %
59Co (KED)	0.209 ppb	5,489 cps	3.7 %
63Cu (KED)	6.839 ppb	109,141 cps	0.4 %
64Zn (KED)	206.637 ppb	862,355 cps	0.7 %
69Ga (KED)	1.257 ppb	6,954 cps	4.0 %
75As (KED)	0.344 ppb	437 cps	8.5 %
80Se (KED)	0.463 ppb	1,318 cps	8.9 %
85Rb (KED)	1.889 ppb	10,186 cps	1.1 %
88Sr (KED)	6.495 ppb	50,804 cps	0.7 %
89Y (KED)	103.848 %	400,421 cps	0.2 %
107Ag (KED)	0.041 ppb	1,895 cps	1.6 %
114Cd (KED)	0.063 ppb	1,853 cps	2.6 %
115In (KED)	91.011 %	724,166 cps	2.8 %
133Cs (KED)	0.119 ppb	3,426 cps	2.4 %
138Ba (KED)	4.414 ppb	176,934 cps	2.0 %
139La (KED)	0.555 ppb	43,403 cps	0.3 %
140Ce (KED)	1.011 ppb	107,108 cps	0.5 %
141Pr (KED)	0.110 ppb	12,254 cps	2.2 %
142Nd (KED)	0.598 ppb	27,152 cps	1.1 %
152Sm (KED)	0.073 ppb	3,152 cps	3.0 %
153Eu (KED)	0.014 ppb	1,220 cps	4.5 %
158Gd (KED)	0.063 ppb	3,784 cps	4.5 %
159Tb (KED)	91.687 %	4,146,579 cps	1.9 %
164Dy (KED)	0.042 ppb	2,930 cps	3.9 %
166Er (KED)	0.021 ppb	2,228 cps	2.3 %
169Tm (KED)	0.003 ppb	874 cps	6.2 %
174Yb (KED)	0.018 ppb	1,803 cps	1.6 %
175Lu (KED)	-0.032 ppb	21,098 cps	3.4 %
205Tl (KED)	0.011 ppb	1,838 cps	3.7 %
208Pb (KED)	0.251 ppb	108,565 cps	0.4 %
209Bi (KED)	75.314 %	3,358,628 cps	1.9 %
232Th (KED)	0.126 ppb	31,544 cps	1.3 %
238U (KED)	0.037 ppb	10,871 cps	0.4 %