

Instrument Summary:

Instrument ID: iCAP Q
Serial Number: Undefined

Labbook Summary:

Path and filename: _Application Data\Workspace\LabBooks\wlw\20210824-1.imexp
Labbook created by: Administrator
Based on template:
Hardware configuration: iCAPQ1
Labbook type: eQuant
Qtegra version (last saved): 2.7.2425.154
Labbook started: 8/24/2021 5:56:48 PM
Labbook finished: 8/24/2021 6:34:57 PM

Method Summary:

Isotope	Mode	Dwell time (s)	# of Channels	Spacing	Resolution	IS
9Be	STD	0.03	3	0.1	Normal	
11B	STD	0.03	3	0.1	Normal	
23Na	STD	0.03	3	0.1	Normal	
24Mg	STD	0.03	3	0.1	Normal	
27Al	STD	0.03	3	0.1	Normal	
31P	STD	0.03	3	0.1	Normal	
32S	STD	0.03	3	0.1	Normal	
39K	STD	0.03	3	0.1	Normal	
40Ca	STD	0.03	3	0.1	Normal	
51V	STD	0.03	3	0.1	Normal	
52Cr	STD	0.03	3	0.1	Normal	
55Mn	STD	0.03	3	0.1	Normal	
56Fe	STD	0.03	3	0.1	Normal	
58Ni	STD	0.03	3	0.1	Normal	
59Co	STD	0.03	3	0.1	Normal	
63Cu	STD	0.03	3	0.1	Normal	
64Zn	STD	0.03	3	0.1	Normal	
69Ga	STD	0.03	3	0.1	Normal	
75As	STD	0.03	3	0.1	Normal	
80Se	STD	0.03	3	0.1	Normal	
85Rb	STD	0.03	3	0.1	Normal	
88Sr	STD	0.03	3	0.1	Normal	
107Ag	STD	0.03	3	0.1	Normal	
114Cd	STD	0.03	3	0.1	Normal	
133Cs	STD	0.03	3	0.1	Normal	
138Ba	STD	0.03	3	0.1	Normal	
139La	STD	0.03	3	0.1	Normal	
140Ce	STD	0.03	3	0.1	Normal	
141Pr	STD	0.03	3	0.1	Normal	
142Nd	STD	0.03	3	0.1	Normal	
152Sm	STD	0.03	3	0.1	Normal	
153Eu	STD	0.03	3	0.1	Normal	
158Gd	STD	0.03	3	0.1	Normal	
164Dy	STD	0.03	3	0.1	Normal	
165Ho	STD	0.03	3	0.1	Normal	
166Er	STD	0.03	3	0.1	Normal	
169Tm	STD	0.03	3	0.1	Normal	
174Yb	STD	0.03	3	0.1	Normal	
175Lu	STD	0.03	3	0.1	Normal	
205Tl	STD	0.03	3	0.1	Normal	
208Pb	STD	0.03	3	0.1	Normal	
232Th	STD	0.03	3	0.1	Normal	
238U	STD	0.03	3	0.1	Normal	

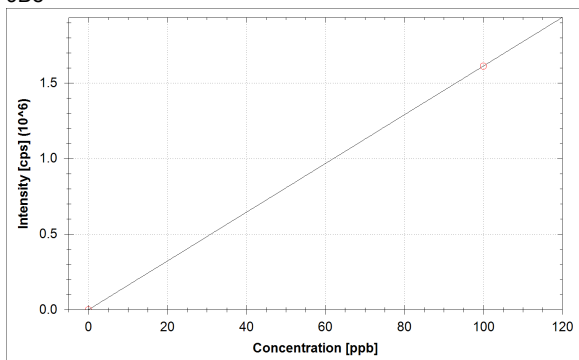
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59Co	STD	0.03	3	0.1	Normal
63Cu	STD	0.03	3	0.1	Normal
64Zn	STD	0.03	3	0.1	Normal
69Ga	STD	0.03	3	0.1	Normal
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174Yb	STD	0.03	3	0.1	Normal
175Lu	STD	0.03	3	0.1	Normal
205Tl	STD	0.03	3	0.1	Normal
208Pb	STD	0.03	3	0.1	Normal
232Th	STD	0.03	3	0.1	Normal
238U	STD	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



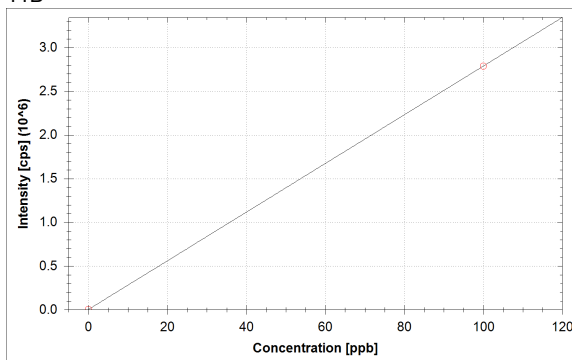
$$f(x) = 16123.6768 \cdot x + 76.6669$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

11B



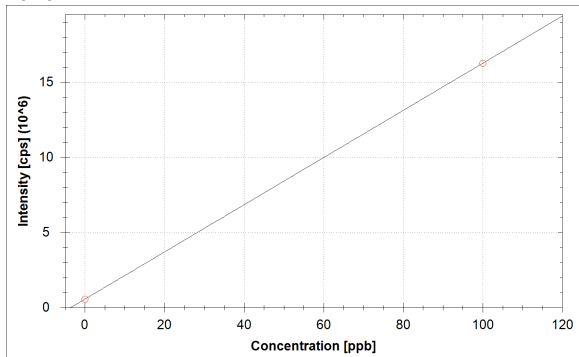
$$f(x) = 27855.2021 \cdot x + 2780.3150$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.100 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

23Na



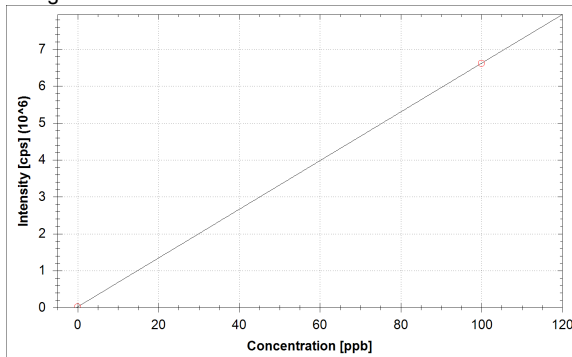
$$f(x) = 157187.7643 \cdot x + 558234.0064$$

$$R^2 = 1.0000$$

$$\text{BEC} = 3.551 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

24Mg



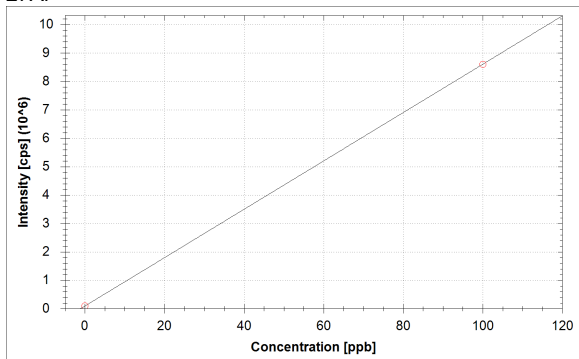
$$f(x) = 65981.0704 \cdot x + 21445.6064$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.325 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

27Al



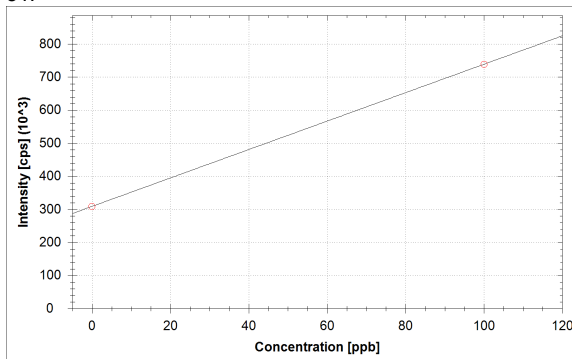
$$f(x) = 85155.9031 \cdot x + 87555.2887$$

$$R^2 = 1.0000$$

$$\text{BEC} = 1.028 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

31P



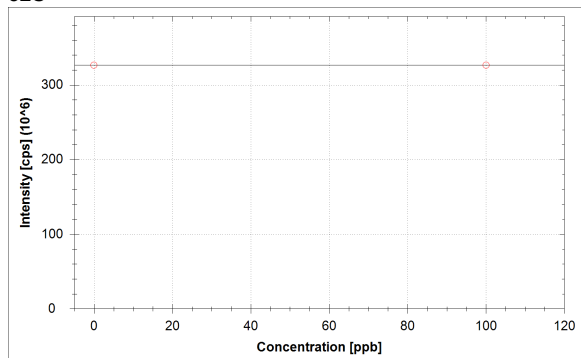
$$f(x) = 4298.0804 \cdot x + 309049.3184$$

$$R^2 = 1.0000$$

$$\text{BEC} = 71.904 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

32S



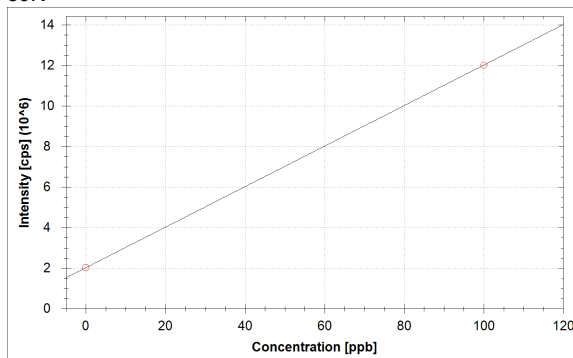
$$f(x) = 980.3035x + 326481139.4855$$

$$R^2 = 1.0000$$

$$\text{BEC} = 333040.891 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

39K



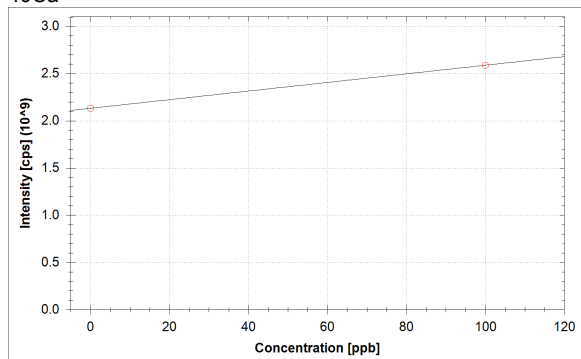
$$f(x) = 99916.0638x + 2024658.2299$$

$$R^2 = 1.0000$$

$$\text{BEC} = 20.264 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

40Ca



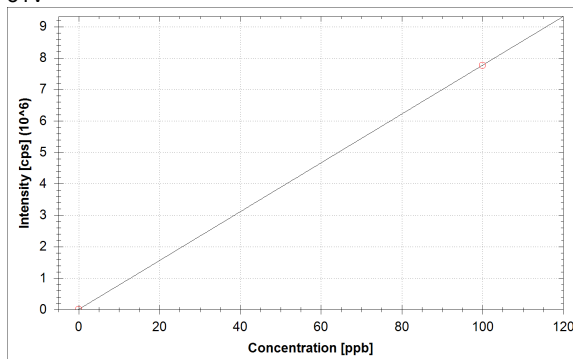
$$f(x) = 4562693.6177x + 2132145435.9794$$

$$R^2 = 1.0000$$

$$\text{BEC} = 467.300 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

51V



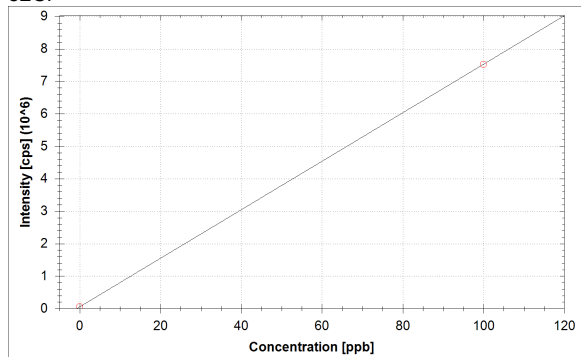
$$f(x) = 77660.5571x + 4844.2856$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.062 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

52Cr



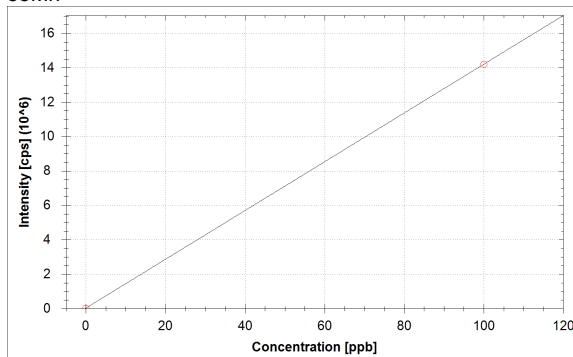
$$f(x) = 74735.7273x + 53300.3635$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.713 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

55Mn

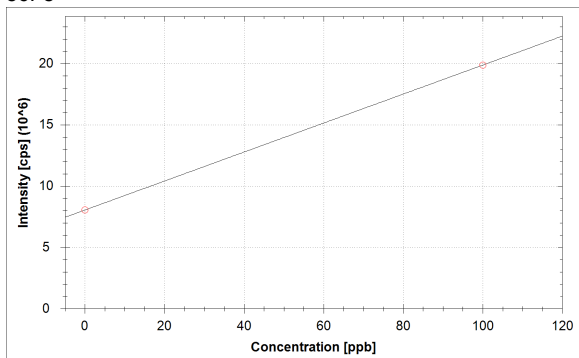


$$f(x) = 141731.5739x + 26956.1169$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

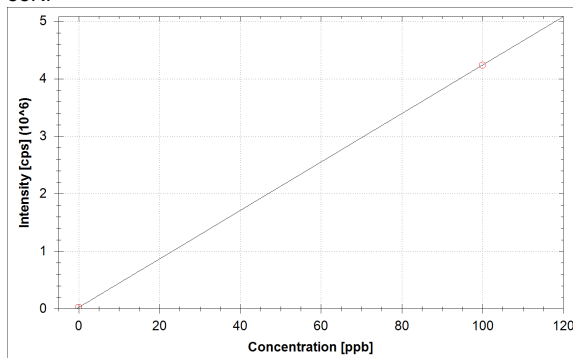
⁵⁶Fe

$$f(x) = 118230.8053 \cdot x + 8047198.1772$$

$$R^2 = 1.0000$$

$$\text{BEC} = 68.063 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

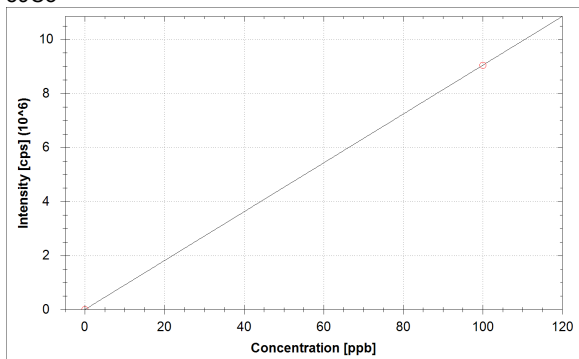
⁵⁸Ni

$$f(x) = 42154.0501 \cdot x + 22062.8064$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.523 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

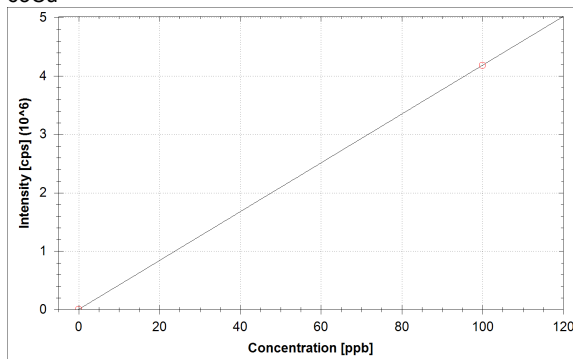
⁵⁹Co

$$f(x) = 90408.0616 \cdot x + 2683.6280$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

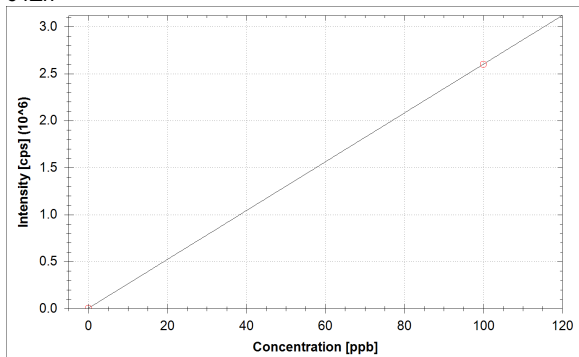
⁶³Cu

$$f(x) = 41812.1225 \cdot x + 3113.7336$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.074 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

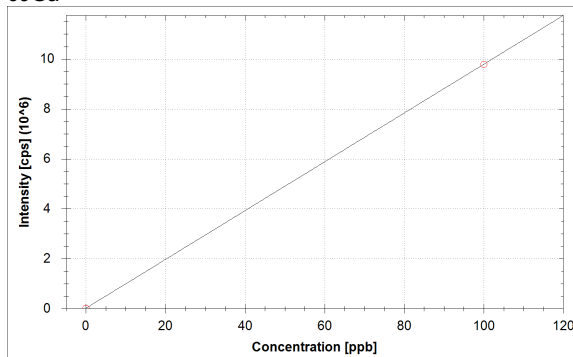
⁶⁴Zn

$$f(x) = 25965.0501 \cdot x + 3813.9330$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.147 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

⁶⁹Ga

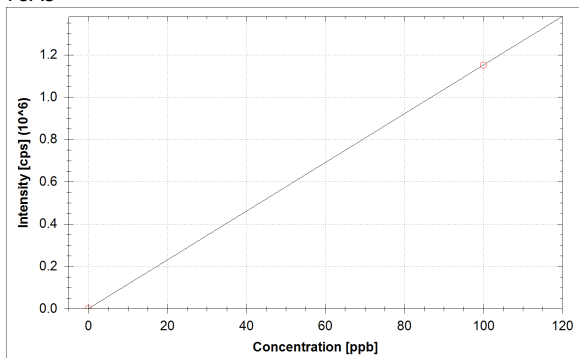
$$f(x) = 97802.3185 \cdot x + 10717.9602$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.110 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

75As



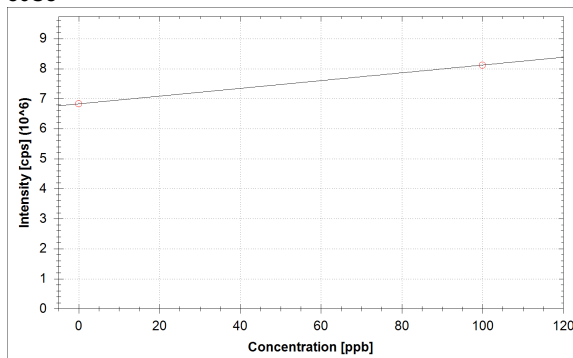
$$f(x) = 11505.6192 \cdot x + 636.6838$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.055 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

80Se



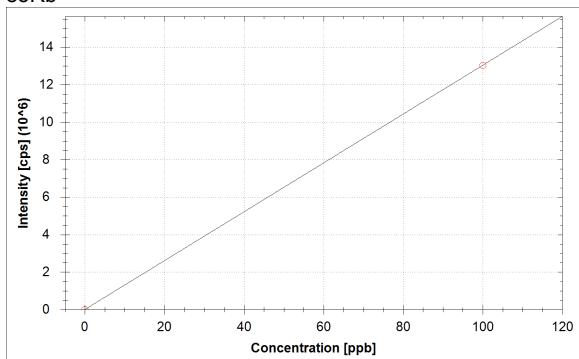
$$f(x) = 12943.5772 \cdot x + 6825136.7256$$

$$R^2 = 1.0000$$

$$\text{BEC} = 527.299 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

85Rb



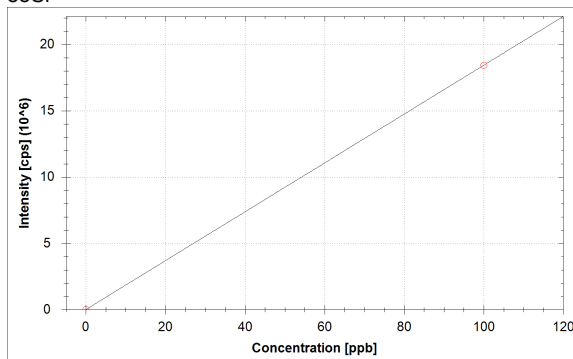
$$f(x) = 130327.4691 \cdot x + 2533.5957$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.019 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

88Sr



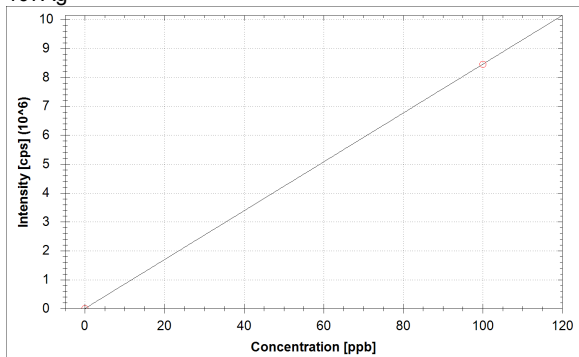
$$f(x) = 184308.8242 \cdot x + 1710.1251$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

107Ag



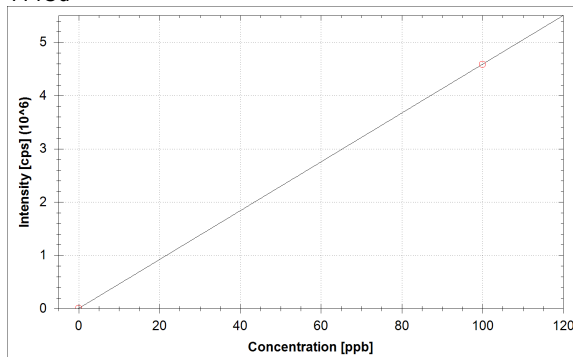
$$f(x) = 84518.0669 \cdot x + 1323.4043$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

114Cd



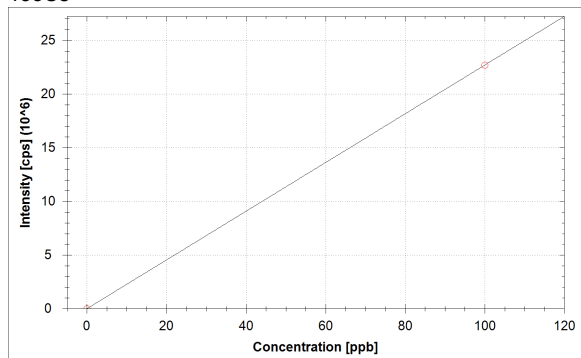
$$f(x) = 45859.0842 \cdot x + 2750.3058$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.060 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

133Cs



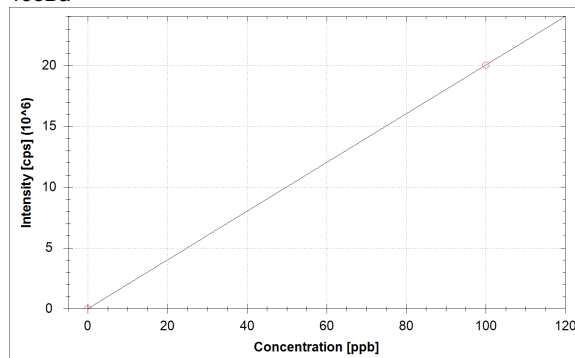
$$f(x) = 226890.3803 \cdot x + 163.3345$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

138Ba



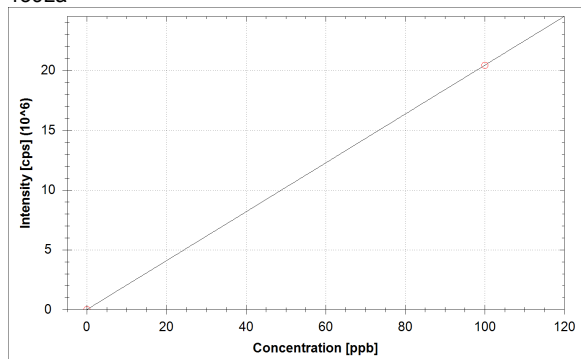
$$f(x) = 200296.5756 \cdot x + 4570.8635$$

$$R^2 = 1.0000$$

$$\text{BEC} = 0.023 \text{ ppb}$$

$$\text{LoD} = \text{N/A}$$

139La



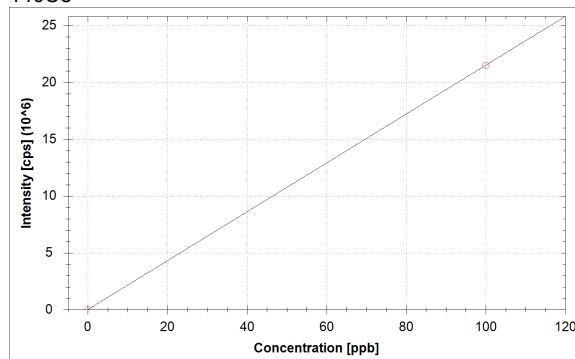
$$f(x) = 204369.2425 \cdot x + 126.6675$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

140Ce



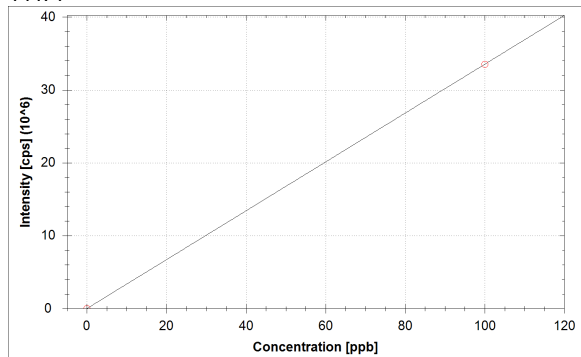
$$f(x) = 215090.2392 \cdot x + 290.0047$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

141Pr



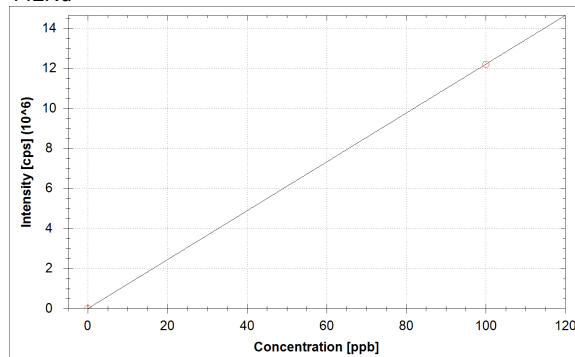
$$f(x) = 335221.0715 \cdot x + 96.6673$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

142Nd

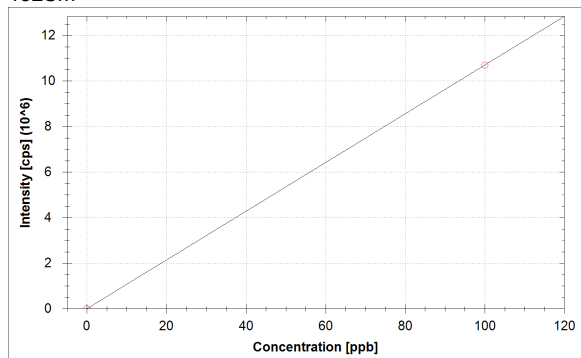


$$f(x) = 122019.3451 \cdot x + 113.3340$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

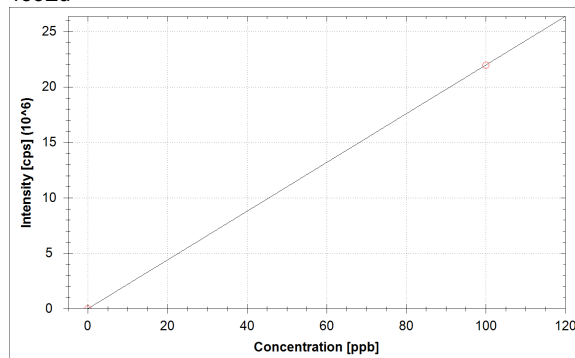
¹⁵²Sm

$$f(x) = 106956.3094 \cdot x + 33.3334$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

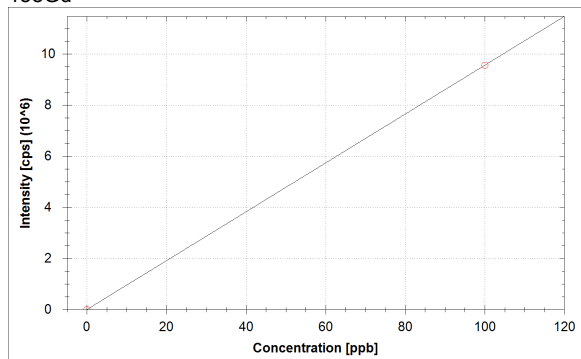
¹⁵³Eu

$$f(x) = 219705.1024 \cdot x + 30.0001$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

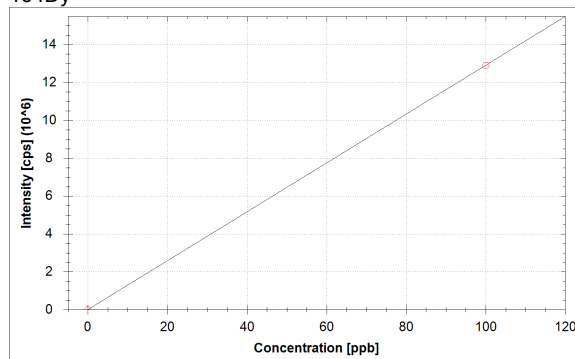
¹⁵⁸Gd

$$f(x) = 95611.1761 \cdot x + 13.3334$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

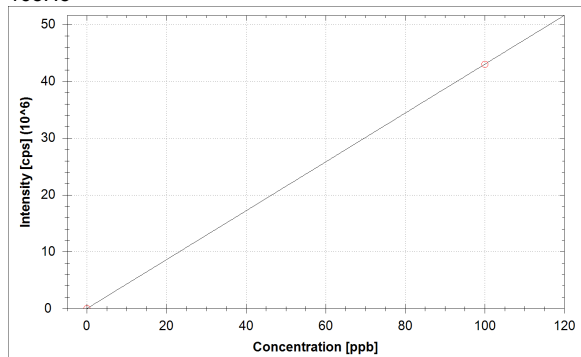
¹⁶⁴Dy

$$f(x) = 129090.6190 \cdot x + 3.3333$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

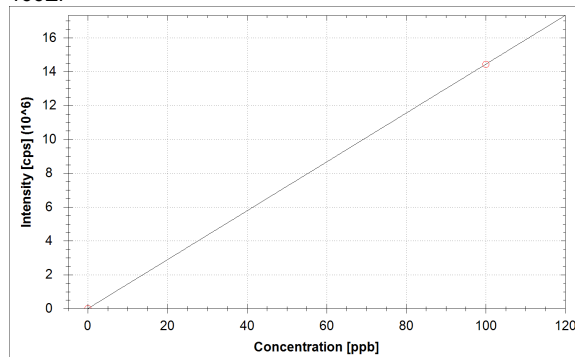
¹⁶⁵Ho

$$f(x) = 429782.8863 \cdot x + 126.6678$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

¹⁶⁶Er

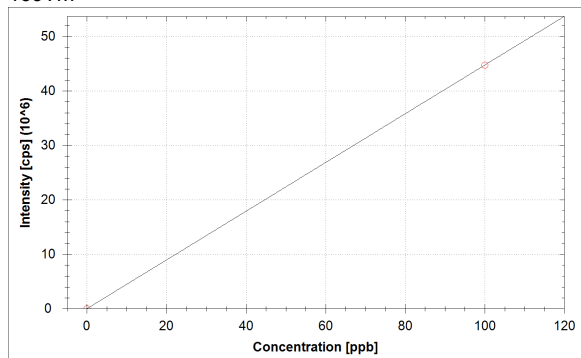
$$f(x) = 144383.7497 \cdot x + 6.6667$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

169Tm



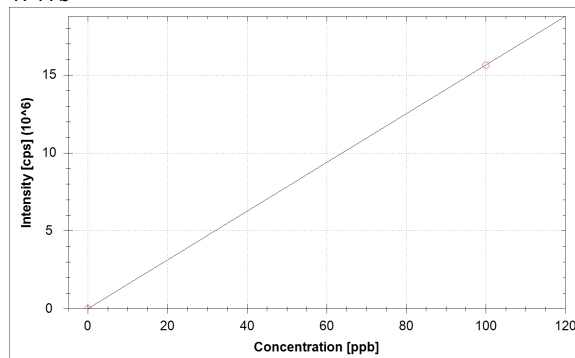
$$f(x) = 447354.4978 \cdot x + 23.3334$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

174Yb



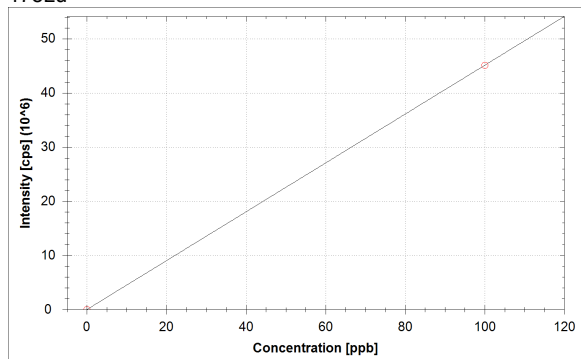
$$f(x) = 156327.6205 \cdot x + 3.3333$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

175Lu



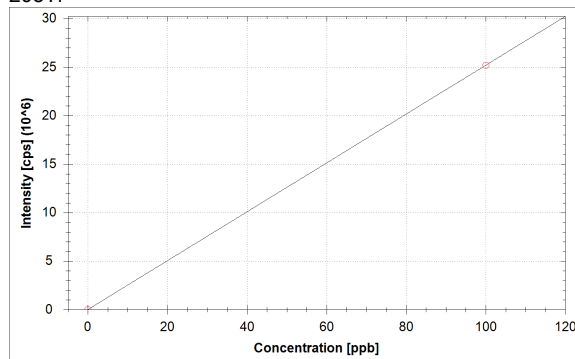
$$f(x) = 451122.3522 \cdot x + 10.0000$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

205Tl



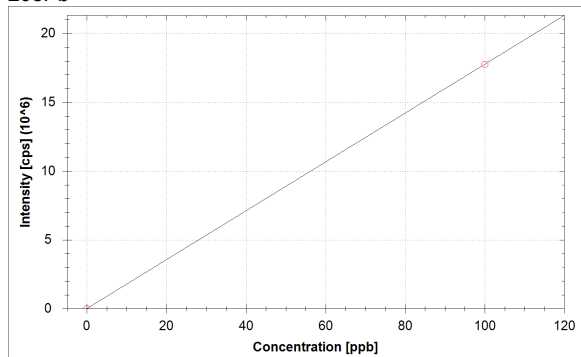
$$f(x) = 251934.2424 \cdot x + 56.6669$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

208Pb



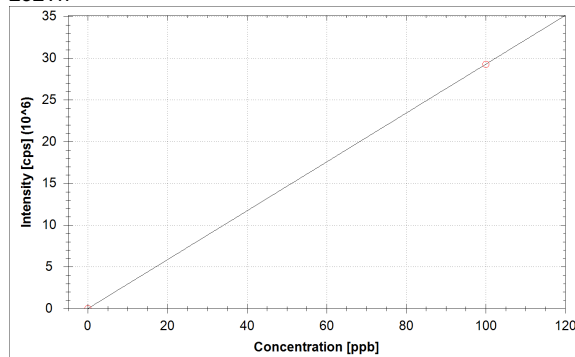
$$f(x) = 177609.1110 \cdot x + 2496.9262$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

232Th



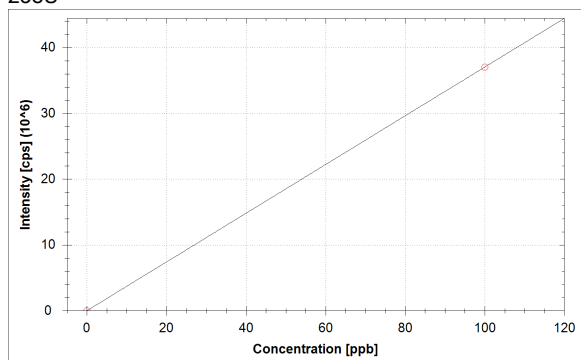
$$f(x) = 292772.4407 \cdot x + 370.0063$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

238U



$$f(x) = 370239.0936 \cdot x + 466.6771$$

$$R^2 = 1.0000$$

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

$$\text{LoD} = \text{N/A}$$

Standards:

Analysis Index: 3
 Analysis Name: std1
 Analysis Type: STD
 Analysis Started at: 8/24/2021 6:02:16 PM
 Standard (Stock): std1
 Standard DF: 1

Category	Concentration average	Concentration RSD	Standard Concentration
9Be	100.000 ppb		100.000 ppb
11B	100.000 ppb		100.000 ppb
23Na	100.000 ppb		100.000 ppb
24Mg	100.000 ppb		100.000 ppb
27Al	100.000 ppb		100.000 ppb
31P	100.000 ppb		100.000 ppb
32S	100.000 ppb		100.000 ppb
39K	100.000 ppb		100.000 ppb
40Ca	100.000 ppb		100.000 ppb
51V	100.000 ppb		100.000 ppb
52Cr	100.000 ppb		100.000 ppb
55Mn	100.000 ppb		100.000 ppb
56Fe	100.000 ppb		100.000 ppb
58Ni	100.000 ppb		100.000 ppb
59Co	100.000 ppb		100.000 ppb
63Cu	100.000 ppb		100.000 ppb
64Zn	100.000 ppb		100.000 ppb
69Ga	100.000 ppb		100.000 ppb
75As	100.000 ppb		100.000 ppb
80Se	100.000 ppb		100.000 ppb
85Rb	100.000 ppb		100.000 ppb
88Sr	100.000 ppb		100.000 ppb
107Ag	100.000 ppb		100.000 ppb
114Cd	100.000 ppb		100.000 ppb
133Cs	100.000 ppb		100.000 ppb
138Ba	100.000 ppb		100.000 ppb
139La	100.000 ppb		100.000 ppb
140Ce	100.000 ppb		100.000 ppb
141Pr	100.000 ppb		100.000 ppb
142Nd	100.000 ppb		100.000 ppb
152Sm	100.000 ppb		100.000 ppb
153Eu	100.000 ppb		100.000 ppb
158Gd	100.000 ppb		100.000 ppb
164Dy	100.000 ppb		100.000 ppb
165Ho	100.000 ppb		100.000 ppb
166Er	100.000 ppb		100.000 ppb
169Tm	100.000 ppb		100.000 ppb
174Yb	100.000 ppb		100.000 ppb
175Lu	100.000 ppb		100.000 ppb
205Tl	100.000 ppb		100.000 ppb
208Pb	100.000 ppb		100.000 ppb
232Th	100.000 ppb		100.000 ppb
238U	100.000 ppb		100.000 ppb

Sample List Summary:

Instrument ID: iCAP Q

Index:	Label:	Main Runs:	Survey Runs:	Start Time:	User name:
1	water	3	0	8/24/2021 5:56:53 PM	WINDOWS-UPCI4ER\Administrator
2	blk	1	0	8/24/2021 5:59:53 PM	WINDOWS-UPCI4ER\Administrator
3	std1	1	0	8/24/2021 6:02:16 PM	WINDOWS-UPCI4ER\Administrator
4	15002ti	1	0	8/24/2021 6:04:57 PM	WINDOWS-UPCI4ER\Administrator
5	15002jian	1	0	8/24/2021 6:07:16 PM	WINDOWS-UPCI4ER\Administrator
6	15018ti	1	0	8/24/2021 6:09:06 PM	WINDOWS-UPCI4ER\Administrator
7	15018jian	1	0	8/24/2021 6:11:03 PM	WINDOWS-UPCI4ER\Administrator
8	15016ti	1	0	8/24/2021 6:13:00 PM	WINDOWS-UPCI4ER\Administrator
9	15016jian	1	0	8/24/2021 6:14:58 PM	WINDOWS-UPCI4ER\Administrator
10	15020jian	1	0	8/24/2021 6:16:49 PM	WINDOWS-UPCI4ER\Administrator
11	15020ti	1	0	8/24/2021 6:18:41 PM	WINDOWS-UPCI4ER\Administrator
12	15022jian	1	0	8/24/2021 6:20:32 PM	WINDOWS-UPCI4ER\Administrator
13	15022ti	1	0	8/24/2021 6:22:20 PM	WINDOWS-UPCI4ER\Administrator
14	1502713jian	1	0	8/24/2021 6:24:07 PM	WINDOWS-UPCI4ER\Administrator
15	1502713ti	1	0	8/24/2021 6:25:59 PM	WINDOWS-UPCI4ER\Administrator
16	15026ti	1	0	8/24/2021 6:27:48 PM	WINDOWS-UPCI4ER\Administrator
17	15026jian	1	0	8/24/2021 6:29:33 PM	WINDOWS-UPCI4ER\Administrator
18	1502671jian	1	0	8/24/2021 6:31:18 PM	WINDOWS-UPCI4ER\Administrator
19	1502671ti	1	0	8/24/2021 6:33:07 PM	WINDOWS-UPCI4ER\Administrator

Sample Summary

Instrument ID: iCAP Q

Analysis index: 1

Analysis name: water

Analysis started at: 8/24/2021 5:56:53 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.001 ppb	43.3 %
11B	-0.021 ppb	12.4 %
23Na	0.995 ppb	6.4 %
24Mg	-0.270 ppb	2.0 %
27Al	-0.769 ppb	0.5 %
31P	-59.212 ppb	0.7 %
32S	-89,612.548 ppb	7.4 %
39K	0.657 ppb	40.0 %
40Ca	259.969 ppb	12.9 %
51V	0.015 ppb	17.6 %
52Cr	0.067 ppb	19.4 %
55Mn	0.017 ppb	24.4 %
56Fe	-1.430 ppb	41.4 %
58Ni	-0.029 ppb	25.5 %
59Co	0.006 ppb	37.1 %
63Cu	-0.056 ppb	1.3 %
64Zn	-0.041 ppb	21.5 %
69Ga	0.028 ppb	21.9 %
75As	0.013 ppb	22.2 %
80Se	121.511 ppb	14.0 %
85Rb	0.003 ppb	34.1 %
88Sr	-0.007 ppb	4.0 %
107Ag	-0.013 ppb	2.8 %
114Cd	-0.058 ppb	1.1 %
133Cs	0.000 ppb	16.7 %
138Ba	-0.021 ppb	0.8 %
139La	0.000 ppb	15.2 %
140Ce	-0.001 ppb	2.0 %
141Pr	0.000 ppb	127.1 %
142Nd	-0.001 ppb	3.8 %
152Sm	0.000 ppb	70.5 %
153Eu	0.000 ppb	264.6 %
158Gd	0.000 ppb	15.7 %
164Dy	0.000 ppb	86.6 %
165Ho	0.000 ppb	2.9 %
166Er	0.000 ppb	34.6 %
169Tm	0.000 ppb	96.5 %
174Yb	0.000 ppb	0.0 %
175Lu	0.000 ppb	24.7 %
205Tl	0.000 ppb	4.7 %
208Pb	-0.013 ppb	0.7 %
232Th	-0.001 ppb	0.5 %
238U	-0.001 ppb	0.8 %

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.001 ppb	90 cps	6.4 %
11B	-0.021 ppb	2,209 cps	3.2 %
23Na	0.995 ppb	714,588 cps	1.4 %
24Mg	-0.270 ppb	3,613 cps	9.7 %
27Al	-0.769 ppb	22,088 cps	1.3 %

Category	Concentration average	Intensity average	Intensity RSD
31P	-59.212 ppb	54,552 cps	3.3 %
32S	-89,612.548 ppb	238,633,648 cps	2.7 %
39K	0.657 ppb	2,090,262 cps	1.3 %
40Ca	259.969 ppb	3,318,304,237 cps	4.6 %
51V	0.015 ppb	6,019 cps	3.4 %
52Cr	0.067 ppb	58,288 cps	1.7 %
55Mn	0.017 ppb	29,323 cps	2.0 %
56Fe	-1.430 ppb	7,878,177 cps	0.9 %
58Ni	-0.029 ppb	20,847 cps	1.5 %
59Co	0.006 ppb	3,184 cps	5.8 %
63Cu	-0.056 ppb	767 cps	3.9 %
64Zn	-0.041 ppb	2,755 cps	8.3 %
69Ga	0.028 ppb	13,436 cps	4.4 %
75As	0.013 ppb	787 cps	4.2 %
80Se	121.511 ppb	8,397,922 cps	2.6 %
85Rb	0.003 ppb	2,907 cps	4.4 %
88Sr	-0.007 ppb	344 cps	15.7 %
107Ag	-0.013 ppb	261 cps	11.4 %
114Cd	-0.058 ppb	71 cps	42.5 %
133Cs	0.000 ppb	103 cps	9.7 %
138Ba	-0.021 ppb	379 cps	8.9 %
139La	0.000 ppb	28 cps	54.1 %
140Ce	-0.001 ppb	7 cps	86.6 %
141Pr	0.000 ppb	82 cps	22.3 %
142Nd	-0.001 ppb	12 cps	31.5 %
152Sm	0.000 ppb	19 cps	53.9 %
153Eu	0.000 ppb	27 cps	33.1 %
158Gd	0.000 ppb	1 cps	173.2 %
164Dy	0.000 ppb	1 cps	173.2 %
165Ho	0.000 ppb	13 cps	25.0 %
166Er	0.000 ppb	1 cps	173.2 %
169Tm	0.000 ppb	44 cps	45.8 %
174Yb	0.000 ppb	0 cps	
175Lu	0.000 ppb	2 cps	86.6 %
205Tl	0.000 ppb	16 cps	12.4 %
208Pb	-0.013 ppb	106 cps	16.2 %
232Th	-0.001 ppb	1 cps	173.2 %
238U	-0.001 ppb	4 cps	86.6 %

Sample Summary

Instrument ID: iCAP Q

Analysis index: 2

Analysis name: blk

Analysis started at: 8/24/2021 5:59:53 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.000 ppb	
11B	0.000 ppb	
23Na	0.000 ppb	
24Mg	0.000 ppb	
27Al	0.000 ppb	
31P	0.000 ppb	
32S	0.000 ppb	
39K	0.000 ppb	
40Ca	0.000 ppb	
51V	0.000 ppb	
52Cr	0.000 ppb	
55Mn	0.000 ppb	
56Fe	0.000 ppb	
58Ni	0.000 ppb	
59Co	0.000 ppb	
63Cu	0.000 ppb	
64Zn	0.000 ppb	
69Ga	0.000 ppb	
75As	0.000 ppb	
80Se	0.000 ppb	
85Rb	0.000 ppb	
88Sr	0.000 ppb	
107Ag	0.000 ppb	
114Cd	0.000 ppb	
133Cs	0.000 ppb	
138Ba	0.000 ppb	
139La	0.000 ppb	
140Ce	0.000 ppb	
141Pr	0.000 ppb	
142Nd	0.000 ppb	
152Sm	0.000 ppb	
153Eu	0.000 ppb	
158Gd	0.000 ppb	
164Dy	0.000 ppb	
165Ho	0.000 ppb	
166Er	0.000 ppb	
169Tm	0.000 ppb	
174Yb	0.000 ppb	
175Lu	0.000 ppb	
205Tl	0.000 ppb	
208Pb	0.000 ppb	
232Th	0.000 ppb	
238U	0.000 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.000 ppb	77 cps	
11B	0.000 ppb	2,780 cps	
23Na	0.000 ppb	558,234 cps	
24Mg	0.000 ppb	21,446 cps	
27Al	0.000 ppb	87,555 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	0.000 ppb	309,049 cps	
32S	0.000 ppb	326,481,139 cps	
39K	0.000 ppb	2,024,658 cps	
40Ca	0.000 ppb	2,132,145,436 cps	
51V	0.000 ppb	4,844 cps	
52Cr	0.000 ppb	53,300 cps	
55Mn	0.000 ppb	26,956 cps	
56Fe	0.000 ppb	8,047,198 cps	
58Ni	0.000 ppb	22,063 cps	
59Co	0.000 ppb	2,684 cps	
63Cu	0.000 ppb	3,114 cps	
64Zn	0.000 ppb	3,814 cps	
69Ga	0.000 ppb	10,718 cps	
75As	0.000 ppb	637 cps	
80Se	0.000 ppb	6,825,137 cps	
85Rb	0.000 ppb	2,534 cps	
88Sr	0.000 ppb	1,710 cps	
107Ag	0.000 ppb	1,323 cps	
114Cd	0.000 ppb	2,750 cps	
133Cs	0.000 ppb	163 cps	
138Ba	0.000 ppb	4,571 cps	
139La	0.000 ppb	127 cps	
140Ce	0.000 ppb	290 cps	
141Pr	0.000 ppb	97 cps	
142Nd	0.000 ppb	113 cps	
152Sm	0.000 ppb	33 cps	
153Eu	0.000 ppb	30 cps	
158Gd	0.000 ppb	13 cps	
164Dy	0.000 ppb	3 cps	
165Ho	0.000 ppb	127 cps	
166Er	0.000 ppb	7 cps	
169Tm	0.000 ppb	23 cps	
174Yb	0.000 ppb	3 cps	
175Lu	0.000 ppb	10 cps	
205Tl	0.000 ppb	57 cps	
208Pb	0.000 ppb	2,497 cps	
232Th	0.000 ppb	370 cps	
238U	0.000 ppb	467 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 3

Analysis name: std1

Analysis started at: 8/24/2021 6:02:16 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	100.000 ppb	
11B	100.000 ppb	
23Na	100.000 ppb	
24Mg	100.000 ppb	
27Al	100.000 ppb	
31P	100.000 ppb	
32S	100.000 ppb	
39K	100.000 ppb	
40Ca	100.000 ppb	
51V	100.000 ppb	
52Cr	100.000 ppb	
55Mn	100.000 ppb	
56Fe	100.000 ppb	
58Ni	100.000 ppb	
59Co	100.000 ppb	
63Cu	100.000 ppb	
64Zn	100.000 ppb	
69Ga	100.000 ppb	
75As	100.000 ppb	
80Se	100.000 ppb	
85Rb	100.000 ppb	
88Sr	100.000 ppb	
107Ag	100.000 ppb	
114Cd	100.000 ppb	
133Cs	100.000 ppb	
138Ba	100.000 ppb	
139La	100.000 ppb	
140Ce	100.000 ppb	
141Pr	100.000 ppb	
142Nd	100.000 ppb	
152Sm	100.000 ppb	
153Eu	100.000 ppb	
158Gd	100.000 ppb	
164Dy	100.000 ppb	
165Ho	100.000 ppb	
166Er	100.000 ppb	
169Tm	100.000 ppb	
174Yb	100.000 ppb	
175Lu	100.000 ppb	
205Tl	100.000 ppb	
208Pb	100.000 ppb	
232Th	100.000 ppb	
238U	100.000 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	100.000 ppb	1,612,444 cps	
11B	100.000 ppb	2,788,301 cps	
23Na	100.000 ppb	16,277,010 cps	
24Mg	100.000 ppb	6,619,553 cps	
27Al	100.000 ppb	8,603,146 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	100.000 ppb	738,857 cps	
32S	100.000 ppb	326,579,170 cps	
39K	100.000 ppb	12,016,265 cps	
40Ca	100.000 ppb	2,588,414,798 cps	
51V	100.000 ppb	7,770,900 cps	
52Cr	100.000 ppb	7,526,873 cps	
55Mn	100.000 ppb	14,200,114 cps	
56Fe	100.000 ppb	19,870,279 cps	
58Ni	100.000 ppb	4,237,468 cps	
59Co	100.000 ppb	9,043,490 cps	
63Cu	100.000 ppb	4,184,326 cps	
64Zn	100.000 ppb	2,600,319 cps	
69Ga	100.000 ppb	9,790,950 cps	
75As	100.000 ppb	1,151,199 cps	
80Se	100.000 ppb	8,119,494 cps	
85Rb	100.000 ppb	13,035,281 cps	
88Sr	100.000 ppb	18,432,593 cps	
107Ag	100.000 ppb	8,453,130 cps	
114Cd	100.000 ppb	4,588,659 cps	
133Cs	100.000 ppb	22,689,201 cps	
138Ba	100.000 ppb	20,034,228 cps	
139La	100.000 ppb	20,437,051 cps	
140Ce	100.000 ppb	21,509,314 cps	
141Pr	100.000 ppb	33,522,204 cps	
142Nd	100.000 ppb	12,202,048 cps	
152Sm	100.000 ppb	10,695,664 cps	
153Eu	100.000 ppb	21,970,540 cps	
158Gd	100.000 ppb	9,561,131 cps	
164Dy	100.000 ppb	12,909,065 cps	
165Ho	100.000 ppb	42,978,415 cps	
166Er	100.000 ppb	14,438,382 cps	
169Tm	100.000 ppb	44,735,473 cps	
174Yb	100.000 ppb	15,632,765 cps	
175Lu	100.000 ppb	45,112,245 cps	
205Tl	100.000 ppb	25,193,481 cps	
208Pb	100.000 ppb	17,763,408 cps	
232Th	100.000 ppb	29,277,614 cps	
238U	100.000 ppb	37,024,376 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 4

Analysis name: 15002ti

Analysis started at: 8/24/2021 6:04:57 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.036 ppb	
11B	22.564 ppb	
23Na	1,365.071 ppb	
24Mg	374.805 ppb	
27Al	204.079 ppb	
31P	372.887 ppb	
32S	308,283.605 ppb	
39K	3,341.229 ppb	
40Ca	-140.671 ppb	
51V	0.635 ppb	
52Cr	1.562 ppb	
55Mn	9.499 ppb	
56Fe	209.139 ppb	
58Ni	5.623 ppb	
59Co	0.126 ppb	
63Cu	46.575 ppb	
64Zn	175.566 ppb	
69Ga	0.489 ppb	
75As	0.678 ppb	
80Se	-118.000 ppb	
85Rb	2.290 ppb	
88Sr	7.699 ppb	
107Ag	0.903 ppb	
114Cd	0.210 ppb	
133Cs	0.050 ppb	
138Ba	17.535 ppb	
139La	0.206 ppb	
140Ce	0.405 ppb	
141Pr	0.051 ppb	
142Nd	0.250 ppb	
152Sm	0.047 ppb	
153Eu	0.011 ppb	
158Gd	0.072 ppb	
164Dy	0.037 ppb	
165Ho	0.005 ppb	
166Er	0.200 ppb	
169Tm	0.002 ppb	
174Yb	0.012 ppb	
175Lu	0.002 ppb	
205Tl	0.009 ppb	
208Pb	4.847 ppb	
232Th	0.157 ppb	
238U	0.033 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.036 ppb	653 cps	
11B	22.564 ppb	631,307 cps	
23Na	1,365.071 ppb	215,130,746 cps	
24Mg	374.805 ppb	24,751,504 cps	
27Al	204.079 ppb	17,466,079 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	372.887 ppb	1,911,747 cps	
32S	308,283.605 ppb	628,692,626 cps	
39K	3,341.229 ppb	335,867,078 cps	
40Ca	-140.671 ppb	1,490,307,834 cps	
51V	0.635 ppb	54,171 cps	
52Cr	1.562 ppb	170,049 cps	
55Mn	9.499 ppb	1,373,207 cps	
56Fe	209.139 ppb	32,773,890 cps	
58Ni	5.623 ppb	259,097 cps	
59Co	0.126 ppb	14,108 cps	
63Cu	46.575 ppb	1,950,515 cps	
64Zn	175.566 ppb	4,562,403 cps	
69Ga	0.489 ppb	58,564 cps	
75As	0.678 ppb	8,443 cps	
80Se	-118.000 ppb	5,297,797 cps	
85Rb	2.290 ppb	300,985 cps	
88Sr	7.699 ppb	1,420,777 cps	
107Ag	0.903 ppb	77,607 cps	
114Cd	0.210 ppb	12,369 cps	
133Cs	0.050 ppb	11,459 cps	
138Ba	17.535 ppb	3,516,765 cps	
139La	0.206 ppb	42,182 cps	
140Ce	0.405 ppb	87,366 cps	
141Pr	0.051 ppb	17,172 cps	
142Nd	0.250 ppb	30,618 cps	
152Sm	0.047 ppb	5,061 cps	
153Eu	0.011 ppb	2,547 cps	
158Gd	0.072 ppb	6,879 cps	
164Dy	0.037 ppb	4,754 cps	
165Ho	0.005 ppb	2,384 cps	
166Er	0.200 ppb	28,880 cps	
169Tm	0.002 ppb	967 cps	
174Yb	0.012 ppb	1,880 cps	
175Lu	0.002 ppb	893 cps	
205Tl	0.009 ppb	2,410 cps	
208Pb	4.847 ppb	863,281 cps	
232Th	0.157 ppb	46,363 cps	
238U	0.033 ppb	12,720 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 5

Analysis name: 15002jian

Analysis started at: 8/24/2021 6:07:16 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.015 ppb	
11B	14.715 ppb	
23Na	682.729 ppb	
24Mg	259.655 ppb	
27Al	182.347 ppb	
31P	395.224 ppb	
32S	339,012.415 ppb	
39K	2,622.610 ppb	
40Ca	-167.340 ppb	
51V	0.554 ppb	
52Cr	1.441 ppb	
55Mn	6.556 ppb	
56Fe	153.740 ppb	
58Ni	2.427 ppb	
59Co	0.087 ppb	
63Cu	34.947 ppb	
64Zn	148.721 ppb	
69Ga	0.320 ppb	
75As	0.563 ppb	
80Se	-64.544 ppb	
85Rb	2.096 ppb	
88Sr	4.264 ppb	
107Ag	0.401 ppb	
114Cd	0.156 ppb	
133Cs	0.041 ppb	
138Ba	11.728 ppb	
139La	0.190 ppb	
140Ce	0.346 ppb	
141Pr	0.055 ppb	
142Nd	0.274 ppb	
152Sm	0.035 ppb	
153Eu	0.008 ppb	
158Gd	0.063 ppb	
164Dy	0.033 ppb	
165Ho	0.020 ppb	
166Er	0.196 ppb	
169Tm	0.002 ppb	
174Yb	0.010 ppb	
175Lu	0.002 ppb	
205Tl	0.007 ppb	
208Pb	1.414 ppb	
232Th	0.074 ppb	
238U	0.018 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.015 ppb	317 cps	
11B	14.715 ppb	412,661 cps	
23Na	682.729 ppb	107,874,945 cps	
24Mg	259.655 ppb	17,153,783 cps	
27Al	182.347 ppb	15,615,455 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	395.224 ppb	2,007,754 cps	
32S	339,012.415 ppb	658,816,185 cps	
39K	2,622.610 ppb	264,065,554 cps	
40Ca	-167.340 ppb	1,368,625,495 cps	
51V	0.554 ppb	47,855 cps	
52Cr	1.441 ppb	160,996 cps	
55Mn	6.556 ppb	956,181 cps	
56Fe	153.740 ppb	26,224,030 cps	
58Ni	2.427 ppb	124,367 cps	
59Co	0.087 ppb	10,558 cps	
63Cu	34.947 ppb	1,464,324 cps	
64Zn	148.721 ppb	3,865,354 cps	
69Ga	0.320 ppb	42,007 cps	
75As	0.563 ppb	7,109 cps	
80Se	-64.544 ppb	5,989,713 cps	
85Rb	2.096 ppb	275,698 cps	
88Sr	4.264 ppb	787,569 cps	
107Ag	0.401 ppb	35,186 cps	
114Cd	0.156 ppb	9,904 cps	
133Cs	0.041 ppb	9,434 cps	
138Ba	11.728 ppb	2,353,716 cps	
139La	0.190 ppb	39,045 cps	
140Ce	0.346 ppb	74,784 cps	
141Pr	0.055 ppb	18,444 cps	
142Nd	0.274 ppb	33,565 cps	
152Sm	0.035 ppb	3,784 cps	
153Eu	0.008 ppb	1,887 cps	
158Gd	0.063 ppb	5,991 cps	
164Dy	0.033 ppb	4,271 cps	
165Ho	0.020 ppb	8,593 cps	
166Er	0.196 ppb	28,292 cps	
169Tm	0.002 ppb	773 cps	
174Yb	0.010 ppb	1,580 cps	
175Lu	0.002 ppb	697 cps	
205Tl	0.007 ppb	1,773 cps	
208Pb	1.414 ppb	253,596 cps	
232Th	0.074 ppb	21,923 cps	
238U	0.018 ppb	7,229 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 6

Analysis name: 15018ti

Analysis started at: 8/24/2021 6:09:06 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.033 ppb	
11B	21.483 ppb	
23Na	809.409 ppb	
24Mg	887.028 ppb	
27Al	758.712 ppb	
31P	597.361 ppb	
32S	429,260.525 ppb	
39K	4,236.759 ppb	
40Ca	-38.646 ppb	
51V	1.741 ppb	
52Cr	2.319 ppb	
55Mn	26.332 ppb	
56Fe	659.685 ppb	
58Ni	14.149 ppb	
59Co	0.341 ppb	
63Cu	43.717 ppb	
64Zn	165.267 ppb	
69Ga	1.048 ppb	
75As	1.014 ppb	
80Se	-19.622 ppb	
85Rb	3.754 ppb	
88Sr	14.535 ppb	
107Ag	0.244 ppb	
114Cd	0.332 ppb	
133Cs	0.159 ppb	
138Ba	25.972 ppb	
139La	0.684 ppb	
140Ce	1.382 ppb	
141Pr	0.182 ppb	
142Nd	0.889 ppb	
152Sm	0.156 ppb	
153Eu	0.031 ppb	
158Gd	0.237 ppb	
164Dy	0.101 ppb	
165Ho	0.017 ppb	
166Er	0.234 ppb	
169Tm	0.006 ppb	
174Yb	0.039 ppb	
175Lu	0.005 ppb	
205Tl	0.013 ppb	
208Pb	3.231 ppb	
232Th	0.162 ppb	
238U	0.058 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.033 ppb	603 cps	
11B	21.483 ppb	601,201 cps	
23Na	809.409 ppb	127,787,449 cps	
24Mg	887.028 ppb	58,548,495 cps	
27Al	758.712 ppb	64,696,366 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	597.361 ppb	2,876,555 cps	
32S	429,260.525 ppb	747,286,719 cps	
39K	4,236.759 ppb	425,344,910 cps	
40Ca	-38.646 ppb	1,955,816,299 cps	
51V	1.741 ppb	140,085 cps	
52Cr	2.319 ppb	226,644 cps	
55Mn	26.332 ppb	3,759,036 cps	
56Fe	659.685 ppb	86,042,286 cps	
58Ni	14.149 ppb	618,519 cps	
59Co	0.341 ppb	33,528 cps	
63Cu	43.717 ppb	1,831,024 cps	
64Zn	165.267 ppb	4,294,991 cps	
69Ga	1.048 ppb	113,255 cps	
75As	1.014 ppb	12,299 cps	
80Se	-19.622 ppb	6,571,154 cps	
85Rb	3.754 ppb	491,771 cps	
88Sr	14.535 ppb	2,680,642 cps	
107Ag	0.244 ppb	21,949 cps	
114Cd	0.332 ppb	17,976 cps	
133Cs	0.159 ppb	36,149 cps	
138Ba	25.972 ppb	5,206,651 cps	
139La	0.684 ppb	139,888 cps	
140Ce	1.382 ppb	297,614 cps	
141Pr	0.182 ppb	61,217 cps	
142Nd	0.889 ppb	108,574 cps	
152Sm	0.156 ppb	16,674 cps	
153Eu	0.031 ppb	6,949 cps	
158Gd	0.237 ppb	22,668 cps	
164Dy	0.101 ppb	13,064 cps	
165Ho	0.017 ppb	7,422 cps	
166Er	0.234 ppb	33,822 cps	
169Tm	0.006 ppb	2,687 cps	
174Yb	0.039 ppb	6,135 cps	
175Lu	0.005 ppb	2,467 cps	
205Tl	0.013 ppb	3,217 cps	
208Pb	3.231 ppb	576,433 cps	
232Th	0.162 ppb	47,882 cps	
238U	0.058 ppb	21,879 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 7

Analysis name: 15018jian

Analysis started at: 8/24/2021 6:11:03 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.023 ppb	
11B	13.408 ppb	
23Na	1,467.415 ppb	
24Mg	686.987 ppb	
27Al	638.559 ppb	
31P	606.873 ppb	
32S	562,105.054 ppb	
39K	7,363.446 ppb	
40Ca	65.666 ppb	
51V	1.538 ppb	
52Cr	2.180 ppb	
55Mn	18.566 ppb	
56Fe	555.736 ppb	
58Ni	7.418 ppb	
59Co	0.295 ppb	
63Cu	42.086 ppb	
64Zn	181.280 ppb	
69Ga	0.792 ppb	
75As	1.077 ppb	
80Se	46.551 ppb	
85Rb	5.501 ppb	
88Sr	9.085 ppb	
107Ag	0.816 ppb	
114Cd	0.328 ppb	
133Cs	0.130 ppb	
138Ba	15.998 ppb	
139La	0.522 ppb	
140Ce	1.069 ppb	
141Pr	0.155 ppb	
142Nd	0.725 ppb	
152Sm	0.113 ppb	
153Eu	0.024 ppb	
158Gd	0.228 ppb	
164Dy	0.085 ppb	
165Ho	0.013 ppb	
166Er	0.153 ppb	
169Tm	0.005 ppb	
174Yb	0.033 ppb	
175Lu	0.004 ppb	
205Tl	0.010 ppb	
208Pb	3.193 ppb	
232Th	0.126 ppb	
238U	0.034 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.023 ppb	453 cps	
11B	13.408 ppb	376,257 cps	
23Na	1,467.415 ppb	231,217,862 cps	
24Mg	686.987 ppb	45,349,554 cps	
27Al	638.559 ppb	54,464,643 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	606.873 ppb	2,917,437 cps	
32S	562,105.054 ppb	877,514,671 cps	
39K	7,363.446 ppb	737,751,223 cps	
40Ca	65.666 ppb	2,431,759,409 cps	
51V	1.538 ppb	124,284 cps	
52Cr	2.180 ppb	216,254 cps	
55Mn	18.566 ppb	2,658,284 cps	
56Fe	555.736 ppb	73,752,338 cps	
58Ni	7.418 ppb	334,771 cps	
59Co	0.295 ppb	29,358 cps	
63Cu	42.086 ppb	1,762,827 cps	
64Zn	181.280 ppb	4,710,750 cps	
69Ga	0.792 ppb	88,174 cps	
75As	1.077 ppb	13,033 cps	
80Se	46.551 ppb	7,427,673 cps	
85Rb	5.501 ppb	719,447 cps	
88Sr	9.085 ppb	1,676,147 cps	
107Ag	0.816 ppb	70,318 cps	
114Cd	0.328 ppb	17,776 cps	
133Cs	0.130 ppb	29,578 cps	
138Ba	15.998 ppb	3,208,935 cps	
139La	0.522 ppb	106,711 cps	
140Ce	1.069 ppb	230,219 cps	
141Pr	0.155 ppb	52,035 cps	
142Nd	0.725 ppb	88,615 cps	
152Sm	0.113 ppb	12,069 cps	
153Eu	0.024 ppb	5,254 cps	
158Gd	0.228 ppb	21,799 cps	
164Dy	0.085 ppb	10,975 cps	
165Ho	0.013 ppb	5,678 cps	
166Er	0.153 ppb	22,036 cps	
169Tm	0.005 ppb	2,230 cps	
174Yb	0.033 ppb	5,214 cps	
175Lu	0.004 ppb	1,983 cps	
205Tl	0.010 ppb	2,647 cps	
208Pb	3.193 ppb	569,617 cps	
232Th	0.126 ppb	37,279 cps	
238U	0.034 ppb	12,980 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 8

Analysis name: 15016ti

Analysis started at: 8/24/2021 6:13:00 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.013 ppb	
11B	23.885 ppb	
23Na	729.712 ppb	
24Mg	631.714 ppb	
27Al	425.982 ppb	
31P	586.196 ppb	
32S	557,028.571 ppb	
39K	3,351.449 ppb	
40Ca	480.521 ppb	
51V	1.174 ppb	
52Cr	2.130 ppb	
55Mn	16.570 ppb	
56Fe	349.825 ppb	
58Ni	6.592 ppb	
59Co	0.247 ppb	
63Cu	79.145 ppb	
64Zn	169.096 ppb	
69Ga	1.104 ppb	
75As	0.902 ppb	
80Se	175.817 ppb	
85Rb	2.243 ppb	
88Sr	9.707 ppb	
107Ag	0.468 ppb	
114Cd	0.220 ppb	
133Cs	0.067 ppb	
138Ba	21.164 ppb	
139La	0.292 ppb	
140Ce	0.544 ppb	
141Pr	0.123 ppb	
142Nd	0.406 ppb	
152Sm	0.064 ppb	
153Eu	0.016 ppb	
158Gd	0.098 ppb	
164Dy	0.049 ppb	
165Ho	0.006 ppb	
166Er	0.183 ppb	
169Tm	0.003 ppb	
174Yb	0.015 ppb	
175Lu	0.002 ppb	
205Tl	0.007 ppb	
208Pb	4.015 ppb	
232Th	0.066 ppb	
238U	0.024 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.013 ppb	293 cps	
11B	23.885 ppb	668,100 cps	
23Na	729.712 ppb	115,260,031 cps	
24Mg	631.714 ppb	41,702,625 cps	
27Al	425.982 ppb	36,362,427 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	586.196 ppb	2,828,566 cps	
32S	557,028.571 ppb	872,538,178 cps	
39K	3,351.449 ppb	336,888,246 cps	
40Ca	480.521 ppb	4,324,614,581 cps	
51V	1.174 ppb	96,001 cps	
52Cr	2.130 ppb	212,472 cps	
55Mn	16.570 ppb	2,375,427 cps	
56Fe	349.825 ppb	49,407,244 cps	
58Ni	6.592 ppb	299,933 cps	
59Co	0.247 ppb	25,024 cps	
63Cu	79.145 ppb	3,312,346 cps	
64Zn	169.096 ppb	4,394,390 cps	
69Ga	1.104 ppb	118,704 cps	
75As	0.902 ppb	11,019 cps	
80Se	175.817 ppb	9,100,834 cps	
85Rb	2.243 ppb	294,812 cps	
88Sr	9.707 ppb	1,790,794 cps	
107Ag	0.468 ppb	40,843 cps	
114Cd	0.220 ppb	12,818 cps	
133Cs	0.067 ppb	15,404 cps	
138Ba	21.164 ppb	4,243,618 cps	
139La	0.292 ppb	59,838 cps	
140Ce	0.544 ppb	117,255 cps	
141Pr	0.123 ppb	41,369 cps	
142Nd	0.406 ppb	49,656 cps	
152Sm	0.064 ppb	6,842 cps	
153Eu	0.016 ppb	3,611 cps	
158Gd	0.098 ppb	9,358 cps	
164Dy	0.049 ppb	6,322 cps	
165Ho	0.006 ppb	2,734 cps	
166Er	0.183 ppb	26,363 cps	
169Tm	0.003 ppb	1,147 cps	
174Yb	0.015 ppb	2,367 cps	
175Lu	0.002 ppb	1,060 cps	
205Tl	0.007 ppb	1,703 cps	
208Pb	4.015 ppb	715,667 cps	
232Th	0.066 ppb	19,798 cps	
238U	0.024 ppb	9,284 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 9

Analysis name: 15016jian

Analysis started at: 8/24/2021 6:14:58 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.043 ppb	
11B	25.171 ppb	
23Na	1,444.232 ppb	
24Mg	980.208 ppb	
27Al	791.137 ppb	
31P	792.330 ppb	
32S	834,322.364 ppb	
39K	5,113.249 ppb	
40Ca	296.230 ppb	
51V	2.009 ppb	
52Cr	2.921 ppb	
55Mn	25.935 ppb	
56Fe	572.014 ppb	
58Ni	7.130 ppb	
59Co	0.359 ppb	
63Cu	39.618 ppb	
64Zn	184.586 ppb	
69Ga	0.888 ppb	
75As	3.597 ppb	
80Se	96.988 ppb	
85Rb	4.134 ppb	
88Sr	13.601 ppb	
107Ag	0.367 ppb	
114Cd	0.226 ppb	
133Cs	0.409 ppb	
138Ba	15.487 ppb	
139La	0.545 ppb	
140Ce	1.117 ppb	
141Pr	0.142 ppb	
142Nd	0.707 ppb	
152Sm	0.114 ppb	
153Eu	0.021 ppb	
158Gd	0.188 ppb	
164Dy	0.078 ppb	
165Ho	0.012 ppb	
166Er	0.092 ppb	
169Tm	0.005 ppb	
174Yb	0.029 ppb	
175Lu	0.004 ppb	
205Tl	0.011 ppb	
208Pb	2.220 ppb	
232Th	0.125 ppb	
238U	0.031 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.043 ppb	773 cps	
11B	25.171 ppb	703,921 cps	
23Na	1,444.232 ppb	227,573,844 cps	
24Mg	980.208 ppb	64,696,645 cps	
27Al	791.137 ppb	67,457,582 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	792.330 ppb	3,714,548 cps	
32S	834,322.364 ppb	1,144,370,243 cps	
39K	5,113.249 ppb	512,920,349 cps	
40Ca	296.230 ppb	3,483,750,478 cps	
51V	2.009 ppb	160,846 cps	
52Cr	2.921 ppb	271,587 cps	
55Mn	25.935 ppb	3,702,822 cps	
56Fe	572.014 ppb	75,676,867 cps	
58Ni	7.130 ppb	322,636 cps	
59Co	0.359 ppb	35,123 cps	
63Cu	39.618 ppb	1,659,606 cps	
64Zn	184.586 ppb	4,796,601 cps	
69Ga	0.888 ppb	97,601 cps	
75As	3.597 ppb	42,021 cps	
80Se	96.988 ppb	8,080,515 cps	
85Rb	4.134 ppb	541,257 cps	
88Sr	13.601 ppb	2,508,554 cps	
107Ag	0.367 ppb	32,349 cps	
114Cd	0.226 ppb	13,100 cps	
133Cs	0.409 ppb	92,992 cps	
138Ba	15.487 ppb	3,106,476 cps	
139La	0.545 ppb	111,419 cps	
140Ce	1.117 ppb	240,439 cps	
141Pr	0.142 ppb	47,534 cps	
142Nd	0.707 ppb	86,354 cps	
152Sm	0.114 ppb	12,213 cps	
153Eu	0.021 ppb	4,668 cps	
158Gd	0.188 ppb	17,953 cps	
164Dy	0.078 ppb	10,084 cps	
165Ho	0.012 ppb	5,208 cps	
166Er	0.092 ppb	13,270 cps	
169Tm	0.005 ppb	2,060 cps	
174Yb	0.029 ppb	4,604 cps	
175Lu	0.004 ppb	1,660 cps	
205Tl	0.011 ppb	2,907 cps	
208Pb	2.220 ppb	396,713 cps	
232Th	0.125 ppb	36,868 cps	
238U	0.031 ppb	12,036 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 10

Analysis name: 15020jian

Analysis started at: 8/24/2021 6:16:49 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.027 ppb	
11B	15.371 ppb	
23Na	2,139.136 ppb	
24Mg	1,099.042 ppb	
27Al	1,041.035 ppb	
31P	998.473 ppb	
32S	883,762.953 ppb	
39K	8,312.853 ppb	
40Ca	339.400 ppb	
51V	2.542 ppb	
52Cr	3.370 ppb	
55Mn	27.826 ppb	
56Fe	820.566 ppb	
58Ni	9.735 ppb	
59Co	0.440 ppb	
63Cu	21.657 ppb	
64Zn	206.906 ppb	
69Ga	1.181 ppb	
75As	1.008 ppb	
80Se	110.529 ppb	
85Rb	6.089 ppb	
88Sr	14.406 ppb	
107Ag	0.665 ppb	
114Cd	0.275 ppb	
133Cs	0.176 ppb	
138Ba	19.823 ppb	
139La	0.741 ppb	
140Ce	1.389 ppb	
141Pr	0.178 ppb	
142Nd	0.870 ppb	
152Sm	0.156 ppb	
153Eu	0.028 ppb	
158Gd	0.236 ppb	
164Dy	0.098 ppb	
165Ho	0.016 ppb	
166Er	0.181 ppb	
169Tm	0.006 ppb	
174Yb	0.038 ppb	
175Lu	0.005 ppb	
205Tl	0.011 ppb	
208Pb	1.342 ppb	
232Th	0.171 ppb	
238U	0.035 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.027 ppb	520 cps	
11B	15.371 ppb	430,937 cps	
23Na	2,139.136 ppb	336,804,252 cps	
24Mg	1,099.042 ppb	72,537,394 cps	
27Al	1,041.035 ppb	88,737,857 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	998.473 ppb	4,600,568 cps	
32S	883,762.953 ppb	1,192,837,023 cps	
39K	8,312.853 ppb	832,612,182 cps	
40Ca	339.400 ppb	3,680,721,936 cps	
51V	2.542 ppb	202,235 cps	
52Cr	3.370 ppb	305,176 cps	
55Mn	27.826 ppb	3,970,790 cps	
56Fe	820.566 ppb	105,063,435 cps	
58Ni	9.735 ppb	432,414 cps	
59Co	0.440 ppb	42,499 cps	
63Cu	21.657 ppb	908,619 cps	
64Zn	206.906 ppb	5,376,148 cps	
69Ga	1.181 ppb	126,198 cps	
75As	1.008 ppb	12,233 cps	
80Se	110.529 ppb	8,255,782 cps	
85Rb	6.089 ppb	796,125 cps	
88Sr	14.406 ppb	2,656,820 cps	
107Ag	0.665 ppb	57,519 cps	
114Cd	0.275 ppb	15,343 cps	
133Cs	0.176 ppb	40,034 cps	
138Ba	19.823 ppb	3,975,042 cps	
139La	0.741 ppb	151,661 cps	
140Ce	1.389 ppb	299,070 cps	
141Pr	0.178 ppb	59,779 cps	
142Nd	0.870 ppb	106,294 cps	
152Sm	0.156 ppb	16,761 cps	
153Eu	0.028 ppb	6,275 cps	
158Gd	0.236 ppb	22,617 cps	
164Dy	0.098 ppb	12,703 cps	
165Ho	0.016 ppb	6,985 cps	
166Er	0.181 ppb	26,124 cps	
169Tm	0.006 ppb	2,760 cps	
174Yb	0.038 ppb	5,948 cps	
175Lu	0.005 ppb	2,350 cps	
205Tl	0.011 ppb	2,947 cps	
208Pb	1.342 ppb	240,839 cps	
232Th	0.171 ppb	50,542 cps	
238U	0.035 ppb	13,537 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 11

Analysis name: 15020ti

Analysis started at: 8/24/2021 6:18:41 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.028 ppb	
11B	22.533 ppb	
23Na	1,139.904 ppb	
24Mg	897.263 ppb	
27Al	500.614 ppb	
31P	904.455 ppb	
32S	861,322.682 ppb	
39K	5,200.556 ppb	
40Ca	436.138 ppb	
51V	1.483 ppb	
52Cr	2.348 ppb	
55Mn	21.803 ppb	
56Fe	395.311 ppb	
58Ni	5.203 ppb	
59Co	0.843 ppb	
63Cu	27.225 ppb	
64Zn	207.108 ppb	
69Ga	0.835 ppb	
75As	2.837 ppb	
80Se	145.694 ppb	
85Rb	3.688 ppb	
88Sr	12.438 ppb	
107Ag	0.604 ppb	
114Cd	0.307 ppb	
133Cs	0.312 ppb	
138Ba	13.029 ppb	
139La	0.305 ppb	
140Ce	0.940 ppb	
141Pr	0.071 ppb	
142Nd	0.379 ppb	
152Sm	0.061 ppb	
153Eu	0.014 ppb	
158Gd	0.112 ppb	
164Dy	0.040 ppb	
165Ho	0.007 ppb	
166Er	0.071 ppb	
169Tm	0.003 ppb	
174Yb	0.015 ppb	
175Lu	0.002 ppb	
205Tl	0.008 ppb	
208Pb	1.262 ppb	
232Th	0.069 ppb	
238U	0.020 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.028 ppb	527 cps	
11B	22.533 ppb	630,444 cps	
23Na	1,139.904 ppb	179,737,244 cps	
24Mg	897.263 ppb	59,223,792 cps	
27Al	500.614 ppb	42,717,800 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	904.455 ppb	4,196,469 cps	
32S	861,322.682 ppb	1,170,838,748 cps	
39K	5,200.556 ppb	521,643,725 cps	
40Ca	436.138 ppb	4,122,110,793 cps	
51V	1.483 ppb	119,987 cps	
52Cr	2.348 ppb	228,807 cps	
55Mn	21.803 ppb	3,117,087 cps	
56Fe	395.311 ppb	54,785,150 cps	
58Ni	5.203 ppb	241,376 cps	
59Co	0.843 ppb	78,873 cps	
63Cu	27.225 ppb	1,141,468 cps	
64Zn	207.108 ppb	5,381,393 cps	
69Ga	0.835 ppb	92,421 cps	
75As	2.837 ppb	33,274 cps	
80Se	145.694 ppb	8,710,941 cps	
85Rb	3.688 ppb	483,211 cps	
88Sr	12.438 ppb	2,294,202 cps	
107Ag	0.604 ppb	52,376 cps	
114Cd	0.307 ppb	16,828 cps	
133Cs	0.312 ppb	70,978 cps	
138Ba	13.029 ppb	2,614,317 cps	
139La	0.305 ppb	62,426 cps	
140Ce	0.940 ppb	202,456 cps	
141Pr	0.071 ppb	23,943 cps	
142Nd	0.379 ppb	46,389 cps	
152Sm	0.061 ppb	6,582 cps	
153Eu	0.014 ppb	3,070 cps	
158Gd	0.112 ppb	10,735 cps	
164Dy	0.040 ppb	5,138 cps	
165Ho	0.007 ppb	2,940 cps	
166Er	0.071 ppb	10,321 cps	
169Tm	0.003 ppb	1,213 cps	
174Yb	0.015 ppb	2,347 cps	
175Lu	0.002 ppb	1,050 cps	
205Tl	0.008 ppb	2,090 cps	
208Pb	1.262 ppb	226,696 cps	
232Th	0.069 ppb	20,514 cps	
238U	0.020 ppb	7,893 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 12

Analysis name: 15022jian

Analysis started at: 8/24/2021 6:20:32 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.016 ppb	
11B	21.378 ppb	
23Na	1,073.192 ppb	
24Mg	945.533 ppb	
27Al	710.714 ppb	
31P	817.104 ppb	
32S	866,944.250 ppb	
39K	5,745.748 ppb	
40Ca	366.319 ppb	
51V	1.895 ppb	
52Cr	3.018 ppb	
55Mn	23.318 ppb	
56Fe	595.971 ppb	
58Ni	19.305 ppb	
59Co	0.358 ppb	
63Cu	36.952 ppb	
64Zn	222.812 ppb	
69Ga	1.202 ppb	
75As	0.928 ppb	
80Se	158.229 ppb	
85Rb	4.171 ppb	
88Sr	14.759 ppb	
107Ag	0.867 ppb	
114Cd	0.702 ppb	
133Cs	0.131 ppb	
138Ba	19.921 ppb	
139La	0.480 ppb	
140Ce	0.941 ppb	
141Pr	0.120 ppb	
142Nd	0.571 ppb	
152Sm	0.097 ppb	
153Eu	0.021 ppb	
158Gd	0.154 ppb	
164Dy	0.069 ppb	
165Ho	0.009 ppb	
166Er	0.238 ppb	
169Tm	0.004 ppb	
174Yb	0.024 ppb	
175Lu	0.004 ppb	
205Tl	0.010 ppb	
208Pb	2.057 ppb	
232Th	0.119 ppb	
238U	0.027 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.016 ppb	327 cps	
11B	21.378 ppb	598,280 cps	
23Na	1,073.192 ppb	169,250,941 cps	
24Mg	945.533 ppb	62,408,752 cps	
27Al	710.714 ppb	60,609,007 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	817.104 ppb	3,821,029 cps	
32S	866,944.250 ppb	1,176,349,591 cps	
39K	5,745.748 ppb	576,117,208 cps	
40Ca	366.319 ppb	3,803,545,089 cps	
51V	1.895 ppb	151,990 cps	
52Cr	3.018 ppb	278,876 cps	
55Mn	23.318 ppb	3,331,837 cps	
56Fe	595.971 ppb	78,509,380 cps	
58Ni	19.305 ppb	835,853 cps	
59Co	0.358 ppb	35,046 cps	
63Cu	36.952 ppb	1,548,141 cps	
64Zn	222.812 ppb	5,789,139 cps	
69Ga	1.202 ppb	128,296 cps	
75As	0.928 ppb	11,312 cps	
80Se	158.229 ppb	8,873,184 cps	
85Rb	4.171 ppb	546,112 cps	
88Sr	14.759 ppb	2,721,859 cps	
107Ag	0.867 ppb	74,558 cps	
114Cd	0.702 ppb	34,956 cps	
133Cs	0.131 ppb	29,812 cps	
138Ba	19.921 ppb	3,994,699 cps	
139La	0.480 ppb	98,219 cps	
140Ce	0.941 ppb	202,782 cps	
141Pr	0.120 ppb	40,168 cps	
142Nd	0.571 ppb	69,818 cps	
152Sm	0.097 ppb	10,398 cps	
153Eu	0.021 ppb	4,711 cps	
158Gd	0.154 ppb	14,759 cps	
164Dy	0.069 ppb	8,917 cps	
165Ho	0.009 ppb	4,197 cps	
166Er	0.238 ppb	34,301 cps	
169Tm	0.004 ppb	1,730 cps	
174Yb	0.024 ppb	3,791 cps	
175Lu	0.004 ppb	1,600 cps	
205Tl	0.010 ppb	2,497 cps	
208Pb	2.057 ppb	367,875 cps	
232Th	0.119 ppb	35,226 cps	
238U	0.027 ppb	10,511 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 13

Analysis name: 15022ti

Analysis started at: 8/24/2021 6:22:20 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.014 ppb	
11B	21.199 ppb	
23Na	856.295 ppb	
24Mg	913.650 ppb	
27Al	628.917 ppb	
31P	830.904 ppb	
32S	887,769.558 ppb	
39K	5,363.662 ppb	
40Ca	323.208 ppb	
51V	1.861 ppb	
52Cr	2.686 ppb	
55Mn	22.553 ppb	
56Fe	510.402 ppb	
58Ni	6.195 ppb	
59Co	0.310 ppb	
63Cu	28.681 ppb	
64Zn	240.880 ppb	
69Ga	1.033 ppb	
75As	0.979 ppb	
80Se	141.261 ppb	
85Rb	3.322 ppb	
88Sr	11.859 ppb	
107Ag	0.525 ppb	
114Cd	0.721 ppb	
133Cs	0.104 ppb	
138Ba	18.710 ppb	
139La	0.379 ppb	
140Ce	0.738 ppb	
141Pr	0.095 ppb	
142Nd	0.469 ppb	
152Sm	0.086 ppb	
153Eu	0.019 ppb	
158Gd	0.129 ppb	
164Dy	0.059 ppb	
165Ho	0.009 ppb	
166Er	0.225 ppb	
169Tm	0.004 ppb	
174Yb	0.021 ppb	
175Lu	0.003 ppb	
205Tl	0.008 ppb	
208Pb	1.370 ppb	
232Th	0.102 ppb	
238U	0.026 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.014 ppb	300 cps	
11B	21.199 ppb	593,272 cps	
23Na	856.295 ppb	135,157,264 cps	
24Mg	913.650 ppb	60,305,065 cps	
27Al	628.917 ppb	53,643,580 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	830.904 ppb	3,880,342 cps	
32S	887,769.558 ppb	1,196,764,713 cps	
39K	5,363.662 ppb	537,940,641 cps	
40Ca	323.208 ppb	3,606,844,726 cps	
51V	1.861 ppb	149,407 cps	
52Cr	2.686 ppb	254,070 cps	
55Mn	22.553 ppb	3,223,468 cps	
56Fe	510.402 ppb	68,392,480 cps	
58Ni	6.195 ppb	283,226 cps	
59Co	0.310 ppb	30,674 cps	
63Cu	28.681 ppb	1,202,347 cps	
64Zn	240.880 ppb	6,258,264 cps	
69Ga	1.033 ppb	111,715 cps	
75As	0.979 ppb	11,902 cps	
80Se	141.261 ppb	8,653,556 cps	
85Rb	3.322 ppb	435,438 cps	
88Sr	11.859 ppb	2,187,341 cps	
107Ag	0.525 ppb	45,660 cps	
114Cd	0.721 ppb	35,798 cps	
133Cs	0.104 ppb	23,779 cps	
138Ba	18.710 ppb	3,752,146 cps	
139La	0.379 ppb	77,548 cps	
140Ce	0.738 ppb	159,099 cps	
141Pr	0.095 ppb	31,968 cps	
142Nd	0.469 ppb	57,358 cps	
152Sm	0.086 ppb	9,227 cps	
153Eu	0.019 ppb	4,244 cps	
158Gd	0.129 ppb	12,376 cps	
164Dy	0.059 ppb	7,632 cps	
165Ho	0.009 ppb	4,177 cps	
166Er	0.225 ppb	32,513 cps	
169Tm	0.004 ppb	1,710 cps	
174Yb	0.021 ppb	3,324 cps	
175Lu	0.003 ppb	1,267 cps	
205Tl	0.008 ppb	2,140 cps	
208Pb	1.370 ppb	245,890 cps	
232Th	0.102 ppb	30,183 cps	
238U	0.026 ppb	10,027 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 14

Analysis name: 1502713jian

Analysis started at: 8/24/2021 6:24:07 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.017 ppb	
11B	22.116 ppb	
23Na	1,194.284 ppb	
24Mg	853.587 ppb	
27Al	644.322 ppb	
31P	787.633 ppb	
32S	802,045.165 ppb	
39K	4,705.242 ppb	
40Ca	187.229 ppb	
51V	1.712 ppb	
52Cr	3.221 ppb	
55Mn	19.715 ppb	
56Fe	598.689 ppb	
58Ni	7.746 ppb	
59Co	0.324 ppb	
63Cu	34.236 ppb	
64Zn	196.089 ppb	
69Ga	0.946 ppb	
75As	1.279 ppb	
80Se	98.443 ppb	
85Rb	3.838 ppb	
88Sr	8.571 ppb	
107Ag	0.619 ppb	
114Cd	0.735 ppb	
133Cs	0.113 ppb	
138Ba	18.279 ppb	
139La	0.419 ppb	
140Ce	0.865 ppb	
141Pr	0.106 ppb	
142Nd	0.520 ppb	
152Sm	0.088 ppb	
153Eu	0.021 ppb	
158Gd	0.151 ppb	
164Dy	0.068 ppb	
165Ho	0.009 ppb	
166Er	0.243 ppb	
169Tm	0.004 ppb	
174Yb	0.025 ppb	
175Lu	0.003 ppb	
205Tl	0.013 ppb	
208Pb	1.755 ppb	
232Th	0.102 ppb	
238U	0.027 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.017 ppb	347 cps	
11B	22.116 ppb	618,837 cps	
23Na	1,194.284 ppb	188,285,138 cps	
24Mg	853.587 ppb	56,341,999 cps	
27Al	644.322 ppb	54,955,414 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	787.633 ppb	3,694,360 cps	
32S	802,045.165 ppb	1,112,728,793 cps	
39K	4,705.242 ppb	472,153,921 cps	
40Ca	187.229 ppb	2,986,411,755 cps	
51V	1.712 ppb	137,787 cps	
52Cr	3.221 ppb	294,058 cps	
55Mn	19.715 ppb	2,821,237 cps	
56Fe	598.689 ppb	78,830,636 cps	
58Ni	7.746 ppb	348,580 cps	
59Co	0.324 ppb	32,004 cps	
63Cu	34.236 ppb	1,434,576 cps	
64Zn	196.089 ppb	5,095,285 cps	
69Ga	0.946 ppb	103,212 cps	
75As	1.279 ppb	15,356 cps	
80Se	98.443 ppb	8,099,344 cps	
85Rb	3.838 ppb	502,713 cps	
88Sr	8.571 ppb	1,581,362 cps	
107Ag	0.619 ppb	53,609 cps	
114Cd	0.735 ppb	36,446 cps	
133Cs	0.113 ppb	25,860 cps	
138Ba	18.279 ppb	3,665,727 cps	
139La	0.419 ppb	85,852 cps	
140Ce	0.865 ppb	186,311 cps	
141Pr	0.106 ppb	35,554 cps	
142Nd	0.520 ppb	63,505 cps	
152Sm	0.088 ppb	9,434 cps	
153Eu	0.021 ppb	4,701 cps	
158Gd	0.151 ppb	14,462 cps	
164Dy	0.068 ppb	8,723 cps	
165Ho	0.009 ppb	4,187 cps	
166Er	0.243 ppb	35,079 cps	
169Tm	0.004 ppb	1,737 cps	
174Yb	0.025 ppb	3,864 cps	
175Lu	0.003 ppb	1,360 cps	
205Tl	0.013 ppb	3,214 cps	
208Pb	1.755 ppb	314,166 cps	
232Th	0.102 ppb	30,170 cps	
238U	0.027 ppb	10,581 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 15

Analysis name: 1502713ti

Analysis started at: 8/24/2021 6:25:59 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.016 ppb	
11B	13.685 ppb	
23Na	1,085.368 ppb	
24Mg	763.429 ppb	
27Al	633.267 ppb	
31P	774.460 ppb	
32S	755,664.027 ppb	
39K	4,831.292 ppb	
40Ca	218.049 ppb	
51V	1.598 ppb	
52Cr	2.895 ppb	
55Mn	18.655 ppb	
56Fe	539.929 ppb	
58Ni	6.828 ppb	
59Co	0.286 ppb	
63Cu	34.293 ppb	
64Zn	196.972 ppb	
69Ga	0.770 ppb	
75As	0.928 ppb	
80Se	84.578 ppb	
85Rb	3.563 ppb	
88Sr	8.188 ppb	
107Ag	1.031 ppb	
114Cd	0.748 ppb	
133Cs	0.114 ppb	
138Ba	14.430 ppb	
139La	0.424 ppb	
140Ce	0.856 ppb	
141Pr	0.110 ppb	
142Nd	0.566 ppb	
152Sm	0.087 ppb	
153Eu	0.018 ppb	
158Gd	0.148 ppb	
164Dy	0.063 ppb	
165Ho	0.010 ppb	
166Er	0.129 ppb	
169Tm	0.004 ppb	
174Yb	0.024 ppb	
175Lu	0.003 ppb	
205Tl	0.013 ppb	
208Pb	1.889 ppb	
232Th	0.105 ppb	
238U	0.048 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.016 ppb	337 cps	
11B	13.685 ppb	383,970 cps	
23Na	1,085.368 ppb	171,164,809 cps	
24Mg	763.429 ppb	50,393,313 cps	
27Al	633.267 ppb	54,013,972 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	774.460 ppb	3,637,742 cps	
32S	755,664.027 ppb	1,067,261,203 cps	
39K	4,831.292 ppb	484,748,373 cps	
40Ca	218.049 ppb	3,127,036,730 cps	
51V	1.598 ppb	128,920 cps	
52Cr	2.895 ppb	269,624 cps	
55Mn	18.655 ppb	2,671,004 cps	
56Fe	539.929 ppb	71,883,456 cps	
58Ni	6.828 ppb	309,899 cps	
59Co	0.286 ppb	28,576 cps	
63Cu	34.293 ppb	1,436,993 cps	
64Zn	196.972 ppb	5,118,205 cps	
69Ga	0.770 ppb	86,063 cps	
75As	0.928 ppb	11,315 cps	
80Se	84.578 ppb	7,919,876 cps	
85Rb	3.563 ppb	466,865 cps	
88Sr	8.188 ppb	1,510,794 cps	
107Ag	1.031 ppb	88,442 cps	
114Cd	0.748 ppb	37,058 cps	
133Cs	0.114 ppb	26,051 cps	
138Ba	14.430 ppb	2,894,942 cps	
139La	0.424 ppb	86,720 cps	
140Ce	0.856 ppb	184,427 cps	
141Pr	0.110 ppb	36,899 cps	
142Nd	0.566 ppb	69,232 cps	
152Sm	0.087 ppb	9,313 cps	
153Eu	0.018 ppb	4,091 cps	
158Gd	0.148 ppb	14,135 cps	
164Dy	0.063 ppb	8,113 cps	
165Ho	0.010 ppb	4,471 cps	
166Er	0.129 ppb	18,604 cps	
169Tm	0.004 ppb	1,830 cps	
174Yb	0.024 ppb	3,684 cps	
175Lu	0.003 ppb	1,480 cps	
205Tl	0.013 ppb	3,440 cps	
208Pb	1.889 ppb	338,010 cps	
232Th	0.105 ppb	31,142 cps	
238U	0.048 ppb	18,333 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 16

Analysis name: 15026ti

Analysis started at: 8/24/2021 6:27:48 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.011 ppb	
11B	21.542 ppb	
23Na	1,223.291 ppb	
24Mg	955.936 ppb	
27Al	544.361 ppb	
31P	796.618 ppb	
32S	764,183.128 ppb	
39K	5,061.703 ppb	
40Ca	170.774 ppb	
51V	1.560 ppb	
52Cr	2.585 ppb	
55Mn	22.410 ppb	
56Fe	462.751 ppb	
58Ni	6.205 ppb	
59Co	0.272 ppb	
63Cu	18.426 ppb	
64Zn	210.678 ppb	
69Ga	0.914 ppb	
75As	0.896 ppb	
80Se	67.325 ppb	
85Rb	3.677 ppb	
88Sr	11.275 ppb	
107Ag	0.559 ppb	
114Cd	0.732 ppb	
133Cs	0.106 ppb	
138Ba	18.688 ppb	
139La	0.385 ppb	
140Ce	0.769 ppb	
141Pr	0.101 ppb	
142Nd	0.473 ppb	
152Sm	0.086 ppb	
153Eu	0.019 ppb	
158Gd	0.130 ppb	
164Dy	0.063 ppb	
165Ho	0.009 ppb	
166Er	0.211 ppb	
169Tm	0.004 ppb	
174Yb	0.024 ppb	
175Lu	0.003 ppb	
205Tl	0.010 ppb	
208Pb	1.690 ppb	
232Th	0.102 ppb	
238U	0.024 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.011 ppb	247 cps	
11B	21.542 ppb	602,835 cps	
23Na	1,223.291 ppb	192,844,661 cps	
24Mg	955.936 ppb	63,095,124 cps	
27Al	544.361 ppb	46,443,077 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	796.618 ppb	3,732,978 cps	
32S	764,183.128 ppb	1,075,612,507 cps	
39K	5,061.703 ppb	507,770,111 cps	
40Ca	170.774 ppb	2,911,335,673 cps	
51V	1.560 ppb	126,026 cps	
52Cr	2.585 ppb	246,494 cps	
55Mn	22.410 ppb	3,203,108 cps	
56Fe	462.751 ppb	62,758,626 cps	
58Ni	6.205 ppb	283,611 cps	
59Co	0.272 ppb	27,307 cps	
63Cu	18.426 ppb	773,539 cps	
64Zn	210.678 ppb	5,474,091 cps	
69Ga	0.914 ppb	100,108 cps	
75As	0.896 ppb	10,945 cps	
80Se	67.325 ppb	7,696,568 cps	
85Rb	3.677 ppb	481,726 cps	
88Sr	11.275 ppb	2,079,819 cps	
107Ag	0.559 ppb	48,554 cps	
114Cd	0.732 ppb	36,319 cps	
133Cs	0.106 ppb	24,324 cps	
138Ba	18.688 ppb	3,747,766 cps	
139La	0.385 ppb	78,883 cps	
140Ce	0.769 ppb	165,783 cps	
141Pr	0.101 ppb	33,840 cps	
142Nd	0.473 ppb	57,874 cps	
152Sm	0.086 ppb	9,270 cps	
153Eu	0.019 ppb	4,124 cps	
158Gd	0.130 ppb	12,423 cps	
164Dy	0.063 ppb	8,093 cps	
165Ho	0.009 ppb	4,091 cps	
166Er	0.211 ppb	30,481 cps	
169Tm	0.004 ppb	1,683 cps	
174Yb	0.024 ppb	3,804 cps	
175Lu	0.003 ppb	1,327 cps	
205Tl	0.010 ppb	2,554 cps	
208Pb	1.690 ppb	302,597 cps	
232Th	0.102 ppb	30,253 cps	
238U	0.024 ppb	9,260 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 17

Analysis name: 15026jian

Analysis started at: 8/24/2021 6:29:33 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.007 ppb	
11B	10.398 ppb	
23Na	779.490 ppb	
24Mg	514.318 ppb	
27Al	306.901 ppb	
31P	717.199 ppb	
32S	737,537.326 ppb	
39K	4,055.058 ppb	
40Ca	172.496 ppb	
51V	1.003 ppb	
52Cr	1.984 ppb	
55Mn	12.791 ppb	
56Fe	265.320 ppb	
58Ni	3.429 ppb	
59Co	0.164 ppb	
63Cu	9.205 ppb	
64Zn	204.142 ppb	
69Ga	0.397 ppb	
75As	0.717 ppb	
80Se	66.472 ppb	
85Rb	3.097 ppb	
88Sr	7.314 ppb	
107Ag	0.070 ppb	
114Cd	0.527 ppb	
133Cs	0.057 ppb	
138Ba	7.213 ppb	
139La	0.229 ppb	
140Ce	0.445 ppb	
141Pr	0.056 ppb	
142Nd	0.286 ppb	
152Sm	0.047 ppb	
153Eu	0.010 ppb	
158Gd	0.075 ppb	
164Dy	0.029 ppb	
165Ho	0.005 ppb	
166Er	0.021 ppb	
169Tm	0.002 ppb	
174Yb	0.011 ppb	
175Lu	0.002 ppb	
205Tl	0.006 ppb	
208Pb	0.820 ppb	
232Th	0.058 ppb	
238U	0.014 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.007 ppb	187 cps	
11B	10.398 ppb	292,424 cps	
23Na	779.490 ppb	123,084,484 cps	
24Mg	514.318 ppb	33,956,710 cps	
27Al	306.901 ppb	26,221,959 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	717.199 ppb	3,391,627 cps	
32S	737,537.326 ppb	1,049,491,535 cps	
39K	4,055.058 ppb	407,190,117 cps	
40Ca	172.496 ppb	2,919,193,522 cps	
51V	1.003 ppb	82,737 cps	
52Cr	1.984 ppb	201,581 cps	
55Mn	12.791 ppb	1,839,815 cps	
56Fe	265.320 ppb	39,416,175 cps	
58Ni	3.429 ppb	166,611 cps	
59Co	0.164 ppb	17,509 cps	
63Cu	9.205 ppb	387,981 cps	
64Zn	204.142 ppb	5,304,379 cps	
69Ga	0.397 ppb	49,568 cps	
75As	0.717 ppb	8,890 cps	
80Se	66.472 ppb	7,685,525 cps	
85Rb	3.097 ppb	406,157 cps	
88Sr	7.314 ppb	1,349,693 cps	
107Ag	0.070 ppb	7,255 cps	
114Cd	0.527 ppb	26,926 cps	
133Cs	0.057 ppb	13,007 cps	
138Ba	7.213 ppb	1,449,367 cps	
139La	0.229 ppb	46,921 cps	
140Ce	0.445 ppb	95,918 cps	
141Pr	0.056 ppb	18,991 cps	
142Nd	0.286 ppb	35,069 cps	
152Sm	0.047 ppb	5,038 cps	
153Eu	0.010 ppb	2,227 cps	
158Gd	0.075 ppb	7,185 cps	
164Dy	0.029 ppb	3,771 cps	
165Ho	0.005 ppb	2,174 cps	
166Er	0.021 ppb	2,990 cps	
169Tm	0.002 ppb	880 cps	
174Yb	0.011 ppb	1,743 cps	
175Lu	0.002 ppb	780 cps	
205Tl	0.006 ppb	1,623 cps	
208Pb	0.820 ppb	148,067 cps	
232Th	0.058 ppb	17,466 cps	
238U	0.014 ppb	5,565 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 18

Analysis name: 1502671jian

Analysis started at: 8/24/2021 6:31:18 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.014 ppb	
11B	7.315 ppb	
23Na	1,035.441 ppb	
24Mg	761.321 ppb	
27Al	543.236 ppb	
31P	693.088 ppb	
32S	726,305.969 ppb	
39K	3,472.078 ppb	
40Ca	116.776 ppb	
51V	1.513 ppb	
52Cr	2.419 ppb	
55Mn	18.980 ppb	
56Fe	456.536 ppb	
58Ni	8.958 ppb	
59Co	0.282 ppb	
63Cu	11.598 ppb	
64Zn	178.710 ppb	
69Ga	0.568 ppb	
75As	0.725 ppb	
80Se	39.675 ppb	
85Rb	2.752 ppb	
88Sr	9.253 ppb	
107Ag	0.079 ppb	
114Cd	0.753 ppb	
133Cs	0.099 ppb	
138Ba	11.426 ppb	
139La	0.413 ppb	
140Ce	0.822 ppb	
141Pr	0.102 ppb	
142Nd	0.520 ppb	
152Sm	0.085 ppb	
153Eu	0.017 ppb	
158Gd	0.145 ppb	
164Dy	0.057 ppb	
165Ho	0.010 ppb	
166Er	0.029 ppb	
169Tm	0.004 ppb	
174Yb	0.024 ppb	
175Lu	0.004 ppb	
205Tl	0.009 ppb	
208Pb	1.550 ppb	
232Th	0.099 ppb	
238U	0.030 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.014 ppb	300 cps	
11B	7.315 ppb	206,553 cps	
23Na	1,035.441 ppb	163,316,892 cps	
24Mg	761.321 ppb	50,254,219 cps	
27Al	543.236 ppb	46,347,275 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	693.088 ppb	3,287,996 cps	
32S	726,305.969 ppb	1,038,481,397 cps	
39K	3,472.078 ppb	348,941,023 cps	
40Ca	116.776 ppb	2,664,957,867 cps	
51V	1.513 ppb	122,343 cps	
52Cr	2.419 ppb	234,051 cps	
55Mn	18.980 ppb	2,717,055 cps	
56Fe	456.536 ppb	62,023,871 cps	
58Ni	8.958 ppb	399,692 cps	
59Co	0.282 ppb	28,172 cps	
63Cu	11.598 ppb	488,050 cps	
64Zn	178.710 ppb	4,644,030 cps	
69Ga	0.568 ppb	66,290 cps	
75As	0.725 ppb	8,983 cps	
80Se	39.675 ppb	7,338,670 cps	
85Rb	2.752 ppb	361,227 cps	
88Sr	9.253 ppb	1,707,159 cps	
107Ag	0.079 ppb	7,966 cps	
114Cd	0.753 ppb	37,278 cps	
133Cs	0.099 ppb	22,580 cps	
138Ba	11.426 ppb	2,293,209 cps	
139La	0.413 ppb	84,628 cps	
140Ce	0.822 ppb	177,018 cps	
141Pr	0.102 ppb	34,394 cps	
142Nd	0.520 ppb	63,583 cps	
152Sm	0.085 ppb	9,150 cps	
153Eu	0.017 ppb	3,794 cps	
158Gd	0.145 ppb	13,911 cps	
164Dy	0.057 ppb	7,349 cps	
165Ho	0.010 ppb	4,244 cps	
166Er	0.029 ppb	4,151 cps	
169Tm	0.004 ppb	1,693 cps	
174Yb	0.024 ppb	3,727 cps	
175Lu	0.004 ppb	1,677 cps	
205Tl	0.009 ppb	2,217 cps	
208Pb	1.550 ppb	277,794 cps	
232Th	0.099 ppb	29,305 cps	
238U	0.030 ppb	11,613 cps	

Sample Summary

Instrument ID: iCAP Q

Analysis index: 19

Analysis name: 1502671ti

Analysis started at: 8/24/2021 6:33:07 PM

User name: WINDOWS-UPCI4ER\Administrator

Category	Concentration average	Concentration RSD
9Be	0.022 ppb	
11B	20.133 ppb	
23Na	940.913 ppb	
24Mg	721.223 ppb	
27Al	838.103 ppb	
31P	737.104 ppb	
32S	574,944.131 ppb	
39K	4,262.387 ppb	
40Ca	95.465 ppb	
51V	1.944 ppb	
52Cr	2.641 ppb	
55Mn	24.354 ppb	
56Fe	719.189 ppb	
58Ni	8.505 ppb	
59Co	0.419 ppb	
63Cu	15.397 ppb	
64Zn	156.091 ppb	
69Ga	0.885 ppb	
75As	0.890 ppb	
80Se	49.672 ppb	
85Rb	3.755 ppb	
88Sr	9.993 ppb	
107Ag	0.301 ppb	
114Cd	0.578 ppb	
133Cs	0.163 ppb	
138Ba	18.236 ppb	
139La	0.766 ppb	
140Ce	1.540 ppb	
141Pr	0.187 ppb	
142Nd	0.944 ppb	
152Sm	0.160 ppb	
153Eu	0.032 ppb	
158Gd	0.272 ppb	
164Dy	0.102 ppb	
165Ho	0.017 ppb	
166Er	0.181 ppb	
169Tm	0.007 ppb	
174Yb	0.038 ppb	
175Lu	0.005 ppb	
205Tl	0.017 ppb	
208Pb	1.830 ppb	
232Th	0.141 ppb	
238U	0.043 ppb	

Category	Concentration average	Intensity average	Intensity RSD
9Be	0.022 ppb	433 cps	
11B	20.133 ppb	563,582 cps	
23Na	940.913 ppb	148,458,283 cps	
24Mg	721.223 ppb	47,608,521 cps	
27Al	838.103 ppb	71,456,978 cps	

Category	Concentration average	Intensity average	Intensity RSD
31P	737.104 ppb	3,477,179 cps	
32S	574,944.131 ppb	890,100,862 cps	
39K	4,262.387 ppb	427,905,558 cps	
40Ca	95.465 ppb	2,567,723,862 cps	
51V	1.944 ppb	155,818 cps	
52Cr	2.641 ppb	250,647 cps	
55Mn	24.354 ppb	3,478,661 cps	
56Fe	719.189 ppb	93,077,471 cps	
58Ni	8.505 ppb	380,563 cps	
59Co	0.419 ppb	40,607 cps	
63Cu	15.397 ppb	646,915 cps	
64Zn	156.091 ppb	4,056,713 cps	
69Ga	0.885 ppb	97,257 cps	
75As	0.890 ppb	10,881 cps	
80Se	49.672 ppb	7,468,068 cps	
85Rb	3.755 ppb	491,877 cps	
88Sr	9.993 ppb	1,843,553 cps	
107Ag	0.301 ppb	26,789 cps	
114Cd	0.578 ppb	29,241 cps	
133Cs	0.163 ppb	37,105 cps	
138Ba	18.236 ppb	3,657,223 cps	
139La	0.766 ppb	156,721 cps	
140Ce	1.540 ppb	331,443 cps	
141Pr	0.187 ppb	62,654 cps	
142Nd	0.944 ppb	115,267 cps	
152Sm	0.160 ppb	17,192 cps	
153Eu	0.032 ppb	7,085 cps	
158Gd	0.272 ppb	25,974 cps	
164Dy	0.102 ppb	13,224 cps	
165Ho	0.017 ppb	7,376 cps	
166Er	0.181 ppb	26,151 cps	
169Tm	0.007 ppb	2,967 cps	
174Yb	0.038 ppb	5,971 cps	
175Lu	0.005 ppb	2,487 cps	
205Tl	0.017 ppb	4,271 cps	
208Pb	1.830 ppb	327,479 cps	
232Th	0.141 ppb	41,526 cps	
238U	0.043 ppb	16,441 cps	