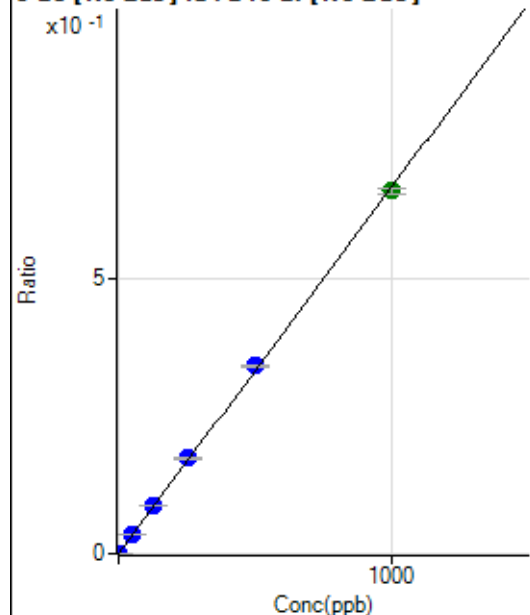


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\P7020320 MS.b\
 Analysis File: P7020320 MS.batch.bin
 DA Date-Time: 2020-02-03 15:38:57
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-02-03 12:53:04
2	004CALS.d	S02	2020-02-03 12:56:45
3	005CALS.d	S03	2020-02-03 13:02:05
4	006CALS.d	S04	2020-02-03 13:06:22
5	007CALS.d	S05	2020-02-03 13:10:16
6	008CALS.d	S06	2020-02-03 13:14:06
7	009CALS.d	S07	2020-02-03 13:17:58
8	010CALS.d	S08	2020-02-03 13:21:53

9 Be [No Gas] ISTD:6 Li [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	42.59	0.0000	P	15.2
2	☐	1.000	1.021	5108.40	0.0007	P	2.5
3	☐	50.000	54.506	262885.11	0.0364	P	1.5
4	☐	125.000	132.145	601461.94	0.0883	P	0.6
5	☐	250.000	260.837	1153926.37	0.1743	P	2.5
6	☐	500.000	511.834	2315346.37	0.3420	P	0.1
7	☐	1000.000	990.255	4433028.05	0.6617	A	1.2
8	☐			1196.38	0.0002	P	27.0

$$y = 6.6822\text{E-}004 * x + 5.7809\text{E-}006$$

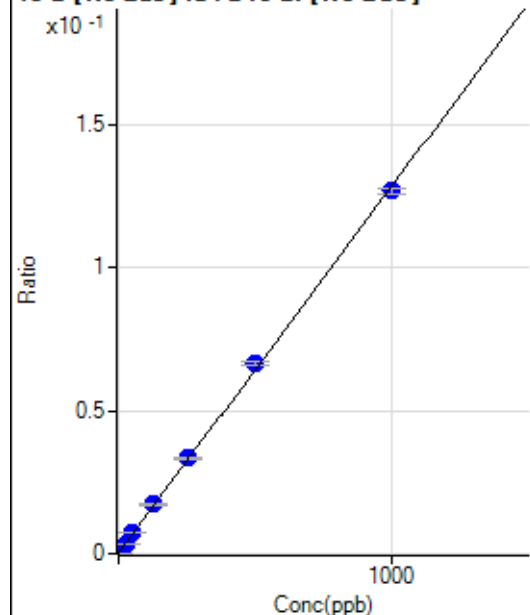
$$R = 0.9998$$

$$DL = 0.003952$$

$$BEC = 0.008651$$

Weight: <None>

Min Conc: 0

10 B [No Gas] ISTD:6 Li [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2247.48	0.0003	P	14.1
2	☐	25.000	24.848	25900.85	0.0035	P	0.4
3	☐	50.000	54.348	52492.30	0.0073	P	1.4
4	☐	125.000	131.817	117161.17	0.0172	P	1.0
5	☐	250.000	259.062	221870.16	0.0335	P	2.5
6	☐	500.000	516.720	450432.54	0.0665	P	1.4
7	☐	1000.000	988.309	850759.77	0.1270	P	1.4
8	☐			23738.98	0.0041	P	7.6

$$y = 1.2818\text{E-}004 * x + 3.0506\text{E-}004$$

$$R = 0.9997$$

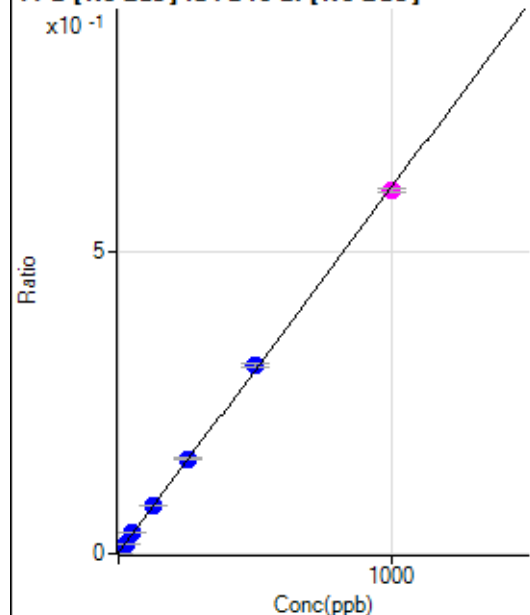
$$DL = 1.01$$

$$BEC = 2.38$$

Weight: <None>

Min Conc: 0

11 B [No Gas] ISTD:6 Li [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	10890.46	0.0015	P	4.5
2	☐	25.000	24.692	122194.78	0.0165	P	0.7
3	☐	50.000	54.360	248825.86	0.0345	P	1.1
4	☐	125.000	129.174	544092.45	0.0799	P	0.9
5	☐	250.000	257.941	1046301.57	0.1580	P	3.1
6	☐	500.000	514.292	2123308.86	0.3137	P	2.0
7	☐	1000.000	990.137	4036423.01	0.6025	M	1.1
8	☐			108921.47	0.0188	P	10.5

$$y = 6.0700\text{E-}004 * x + 0.0015$$

$$R = 0.9998$$

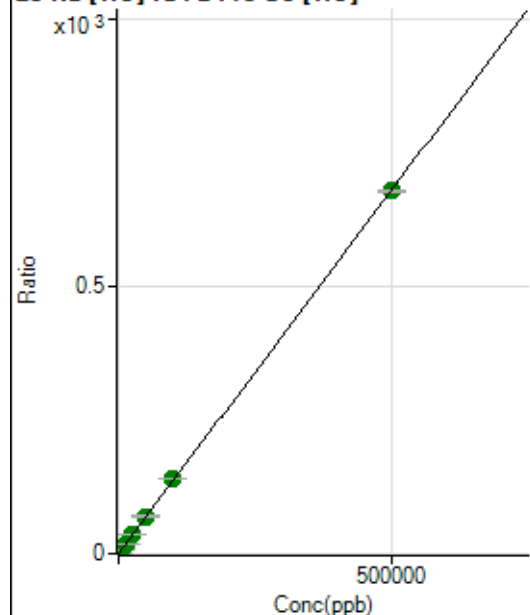
$$DL = 0.3297$$

$$BEC = 2.435$$

Weight: <None>

Min Conc: 0

23 Na [He] ISTD:45 Sc [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	23830.82	0.0333	P	1.3
2	☐	500.000	486.800	493514.16	0.6941	P	4.7
3	☐	5000.000	5489.069	5194400.64	7.4843	A	0.6
4	☐	12500.000	13371.199	11677800.18	18.1837	A	1.5
5	☐	25000.000	25881.979	22660167.52	35.1661	A	0.9
6	☐	50000.000	51549.457	46972236.46	70.0076	A	0.2
7	☐	100000.00	102790.62	95179802.82	139.5634	A	1.2
8	☐	500000.00	499216.17	441722137.6	677.6796	A	0.6

$$y = 0.0014 * x + 0.0333$$

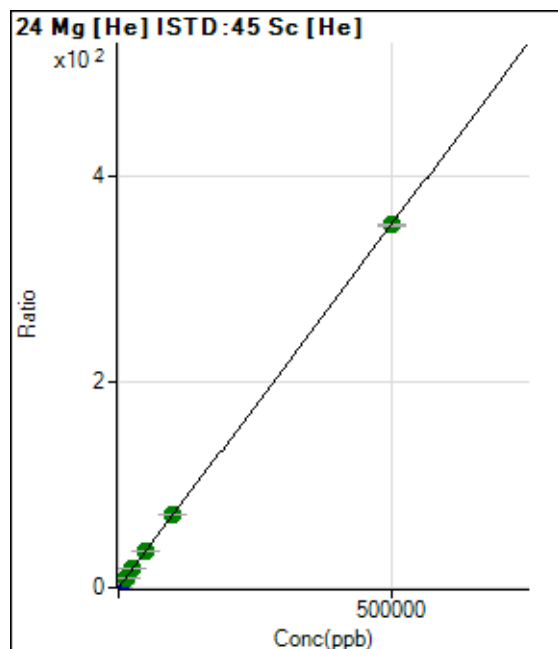
$$R = 1.0000$$

$$DL = 0.9209$$

$$BEC = 24.55$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	244.46	0.0003	P	23.1
2	☐	500.000	470.654	236190.22	0.3323	P	6.9
3	☐	5000.000	5554.816	2719061.50	3.9177	P	0.4
4	☐	12500.000	13438.530	6086400.22	9.4774	A	1.8
5	☐	25000.000	25980.853	11806693.23	18.3225	A	0.7
6	☐	50000.000	51549.823	24392455.58	36.3541	A	0.2
7	☐	100000.00	101278.79	48710005.60	71.4238	A	1.0
8	☐	500000.00	499511.23	229613644.0	352.2641	A	0.6

$$y = 7.0522\text{E-}004 * x + 3.4238\text{E-}004$$

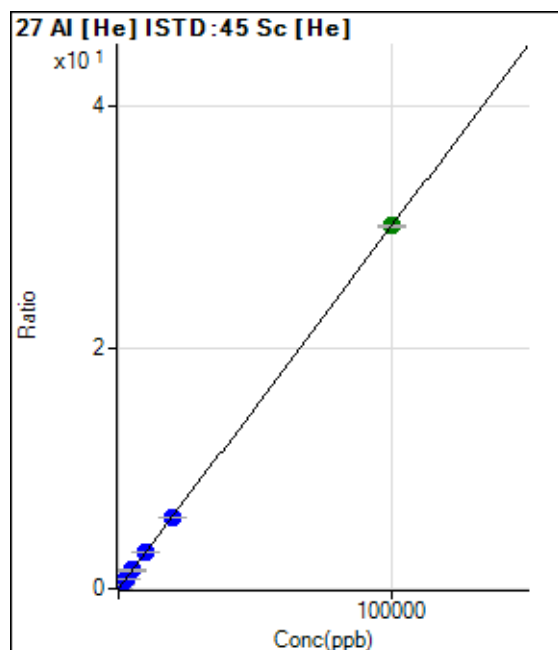
$$R = 1.0000$$

$$DL = 0.337$$

$$BEC = 0.4855$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	44.45	0.0001	P	46.4
2	☐	20.000	17.755	3839.54	0.0054	P	11.5
3	☐	1000.000	1067.081	222822.05	0.3210	P	0.4
4	☐	2500.000	2586.400	499673.55	0.7781	P	1.7
5	☐	5000.000	5047.441	978390.95	1.5184	P	0.9
6	☐	10000.000	9979.117	2014036.24	3.0018	P	0.5
7	☐	20000.000	19649.587	4031108.60	5.9108	P	1.0
8	☐	100000.00	100066.96	19620451.83	30.1007	A	0.5

$$y = 3.0080\text{E-}004 * x + 6.2045\text{E-}005$$

$$R = 1.0000$$

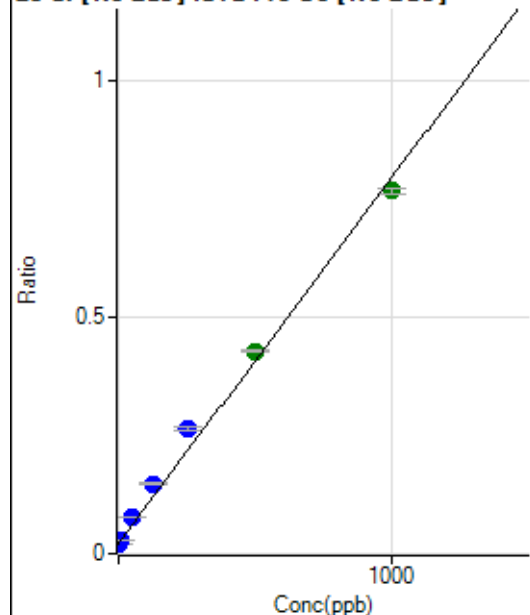
$$DL = 0.2874$$

$$BEC = 0.2063$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	420484.69	0.0216	P	0.5
2	☐	10.000	11.235	576286.86	0.0303	P	1.2
3	☐	50.000	71.736	1442366.26	0.0770	P	1.2
4	☐	125.000	162.955	2659416.29	0.1475	P	1.2
5	☐	250.000	314.184	4699926.49	0.2644	P	2.2
6	☐	500.000	526.651	8065841.67	0.4286	A	0.9
7	☐	1000.000	964.785	14702890.78	0.7671	A	1.3
8	☐			738643.05	0.0435	P	1.2

$$y = 7.7275E-004 * x + 0.0216$$

R = 0.9968

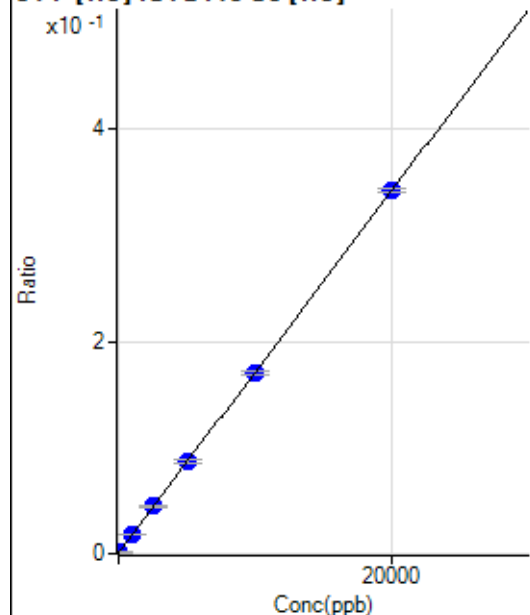
DL = 0.4144

BEC = 27.96

Weight: <None>

Min Conc: 0

31 P [He] ISTD:45 Sc [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	-21.539	155.56	0.0002	P	21.5
2	☐	0.000	21.539	677.82	0.0010	P	13.2
3	☐	1000.000	1054.902	12903.27	0.0186	P	2.6
4	☐	2500.000	2581.278	28672.82	0.0446	P	3.4
5	☐	5000.000	5069.524	56134.12	0.0871	P	2.3
6	☐	10000.000	9936.853	114207.23	0.1702	P	1.7
7	☐	20000.000	20001.288	233235.57	0.3420	P	0.9
8	☐			330.57	0.0005	P	19.2

$$y = 1.7070E-005 * x + 5.8491E-004$$

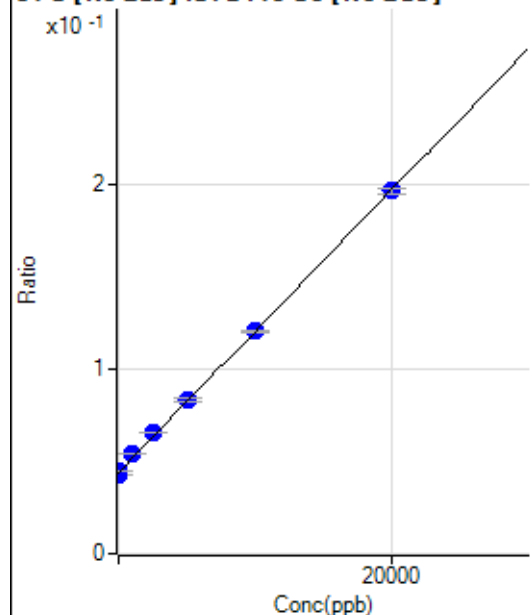
R = 1.0000

DL = 15.15

BEC = 34.27

Weight: <None>

Min Conc: 0

34 S [No Gas] ISTD:45 Sc [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	-146.207	834775.23	0.0429	P	0.4
2	☐	0.000	146.207	858806.30	0.0451	P	0.5
3	☐	1000.000	1291.872	1009212.58	0.0539	P	0.8
4	☐	2500.000	2814.909	1181968.00	0.0656	P	0.9
5	☐	5000.000	5161.339	1484683.38	0.0835	P	2.9
6	☐	10000.000	9981.491	2266436.22	0.1204	P	1.1
7	☐	20000.000	19914.962	3765501.30	0.1965	P	1.6
8	☐			654620.66	0.0385	P	0.7

$$y = 7.6553\text{E-}006 * x + 0.0440$$

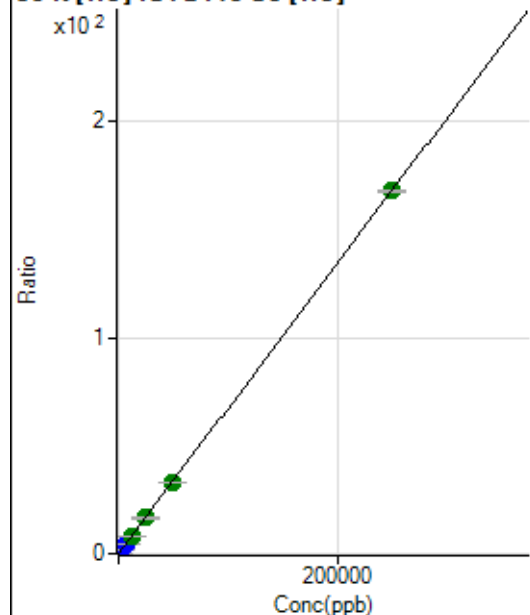
R = 0.9998

DL = 76.92

BEC = 5750

Weight: <None>

Min Conc: 0

39 K [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	31406.44	0.0439	P	1.1
2	☐	500.000	465.705	253533.33	0.3566	P	3.8
3	☐	2500.000	2653.309	1266790.35	1.8252	P	0.7
4	☐	6250.000	6424.841	2798362.78	4.3573	P	1.2
5	☐	12500.000	12476.378	5425680.72	8.4201	A	0.8
6	☐	25000.000	24684.800	11147535.23	16.6163	A	1.8
7	☐	50000.000	49077.576	22500225.33	32.9926	A	1.2
8	☐	250000.00	250211.35	109522252.4	168.0256	A	0.7

$$y = 6.7136\text{E-}004 * x + 0.0439$$

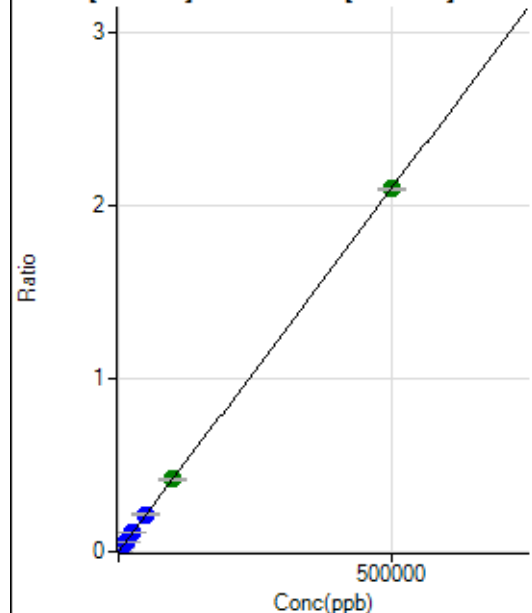
R = 1.0000

DL = 2.253

BEC = 65.42

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	300.02	0.0000	P	14.4
2	☐	500.000	500.387	40174.82	0.0021	P	1.1
3	☐	5000.000	5548.677	435400.84	0.0233	P	1.1
4	☐	12500.000	13319.267	1006002.28	0.0558	P	0.7
5	☐	25000.000	26599.763	1980801.00	0.1114	P	2.3
6	☐	50000.000	51621.495	4069682.04	0.2162	P	1.0
7	☐	100000.00	99952.019	8024446.27	0.4187	A	1.3
8	☐	500000.00	499741.49	35550642.11	2.0933	A	0.3

$$y = 4.1887E-006 * x + 1.5414E-005$$

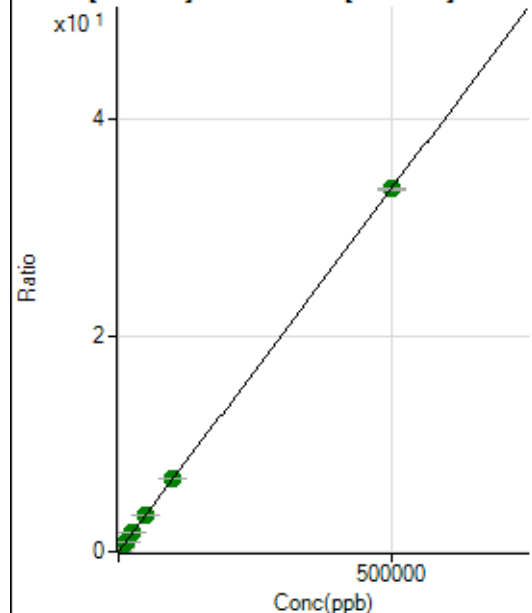
$$R = 1.0000$$

$$DL = 1.59$$

$$BEC = 3.68$$

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	15895.41	0.0008	P	3.1
2	☐	500.000	504.866	660977.98	0.0347	P	1.6
3	☐	5000.000	5462.709	6887498.59	0.3679	A	1.2
4	☐	12500.000	13002.117	15765658.17	0.8745	A	0.4
5	☐	25000.000	26370.476	31511833.34	1.7729	A	2.7
6	☐	50000.000	51276.170	64860785.48	3.4465	A	1.2
7	☐	100000.00	100046.85	128867793.1	6.7238	A	1.4
8	☐	500000.00	499777.30	570382501.6	33.5850	A	0.3

$$y = 6.7198E-005 * x + 8.1685E-004$$

$$R = 1.0000$$

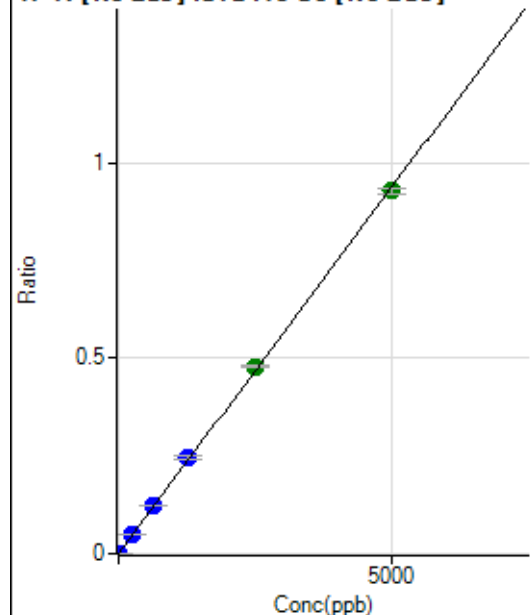
$$DL = 1.125$$

$$BEC = 12.16$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	191.67	0.0000	P	11.8
2	☐	5.000	5.044	18167.33	0.0010	P	1.0
3	☐	250.000	270.778	949908.28	0.0507	P	1.0
4	☐	625.000	651.839	2201674.51	0.1221	P	0.7
5	☐	1250.000	1314.478	4377779.74	0.2463	P	2.3
6	☐	2500.000	2550.454	8992933.62	0.4778	A	0.8
7	☐	5000.000	4954.260	17789661.16	0.9282	A	1.3
8	☐			6604.53	0.0004	P	16.9

$$y = 1.8735E-004 * x + 9.8524E-006$$

$$R = 0.9998$$

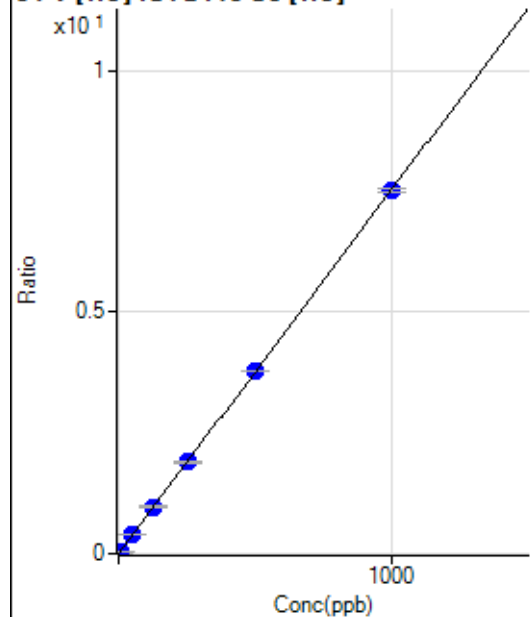
$$DL = 0.01858$$

$$BEC = 0.05259$$

Weight: <None>

Min Conc: 0

51 V [He] ISTD:45 Sc [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	7.78	0.0000	P	108.6
2	☐	5.000	4.568	24475.04	0.0344	P	7.2
3	☐	50.000	52.771	275995.56	0.3977	P	0.3
4	☐	125.000	128.701	622839.30	0.9698	P	1.3
5	☐	250.000	251.582	1221612.29	1.8958	P	0.5
6	☐	500.000	503.557	2545871.89	3.7945	P	0.4
7	☐	1000.000	997.227	5124837.60	7.5145	P	1.0
8	☐			1626.79	0.0025	P	7.3

$$y = 0.0075 * x + 1.0926E-005$$

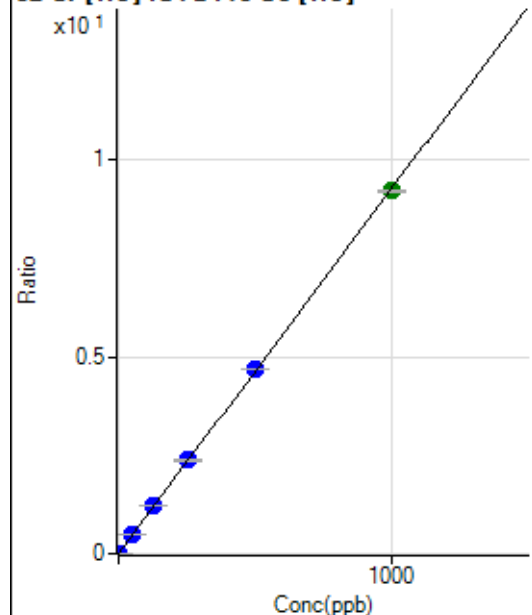
$$R = 1.0000$$

$$DL = 0.004722$$

$$BEC = 0.00145$$

Weight: <None>

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2023.50	0.0028	P	3.0
2	☐	2.000	1.769	13660.97	0.0192	P	5.8
3	☐	50.000	53.778	347778.74	0.5011	P	0.8
4	☐	125.000	130.847	780420.29	1.2152	P	1.0
5	☐	250.000	255.925	1529791.40	2.3740	P	0.7
6	☐	500.000	506.467	3150393.01	4.6954	P	0.1
7	☐	1000.000	994.366	6285127.82	9.2159	A	0.8
8	☐			105453.66	0.1618	P	0.5

$$y = 0.0093 * x + 0.0028$$

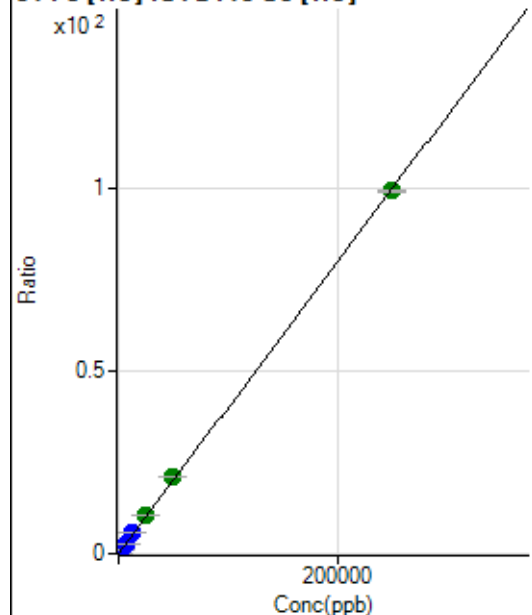
$$R = 0.9999$$

$$DL = 0.02769$$

$$BEC = 0.3054$$

Weight: <None>

Min Conc: 0

54 Fe [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	780.84	0.0011	P	12.2
2	☐	50.000	49.014	14669.26	0.0206	P	6.0
3	☐	2500.000	2940.694	814483.05	1.1736	P	1.2
4	☐	6250.000	7131.082	1826679.22	2.8443	P	1.1
5	☐	12500.000	13953.528	3585573.36	5.5644	P	0.9
6	☐	25000.000	26866.086	7187500.16	10.7127	A	0.7
7	☐	50000.000	53023.969	14418755.85	21.1419	A	0.8
8	☐	250000.00	249109.48	64739893.45	99.3220	A	0.5

$$y = 3.9870E-004 * x + 0.0011$$

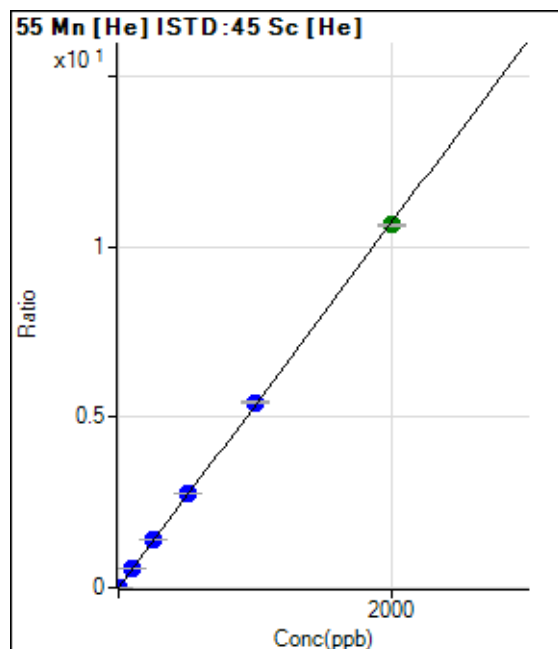
$$R = 0.9999$$

$$DL = 1.002$$

$$BEC = 2.74$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	51.11	0.0001	P	33.7
2	☐	1.000	0.953	3673.85	0.0052	P	8.5
3	☐	100.000	107.424	398845.33	0.5747	P	0.8
4	☐	250.000	262.743	902636.81	1.4055	P	1.2
5	☐	500.000	514.317	1772758.91	2.7511	P	1.0
6	☐	1000.000	1014.302	3640147.69	5.4255	P	0.6
7	☐	2000.000	1987.306	7249705.03	10.6300	A	0.8
8	☐			34294.46	0.0526	P	0.6

$$y = 0.0053 * x + 7.1631E-005$$

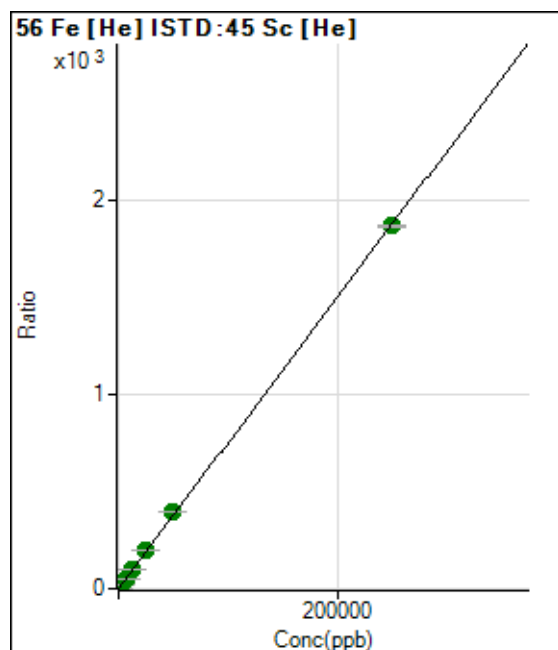
$$R = 0.9999$$

$$DL = 0.01354$$

$$BEC = 0.01339$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	7239.01	0.0101	P	1.2
2	☐	50.000	47.566	261035.45	0.3672	P	7.4
3	☐	2500.000	2792.995	14559279.84	20.9778	A	0.9
4	☐	6250.000	6854.566	33054653.52	51.4690	A	1.3
5	☐	12500.000	13369.255	64680205.15	100.3764	A	0.8
6	☐	25000.000	26626.581	134118194.6	199.9023	A	0.9
7	☐	50000.000	52555.763	269079604.1	394.5590	A	1.0
8	☐	250000.00	249264.68	1219768279.	1,871.300	A	0.5

$$y = 0.0075 * x + 0.0101$$

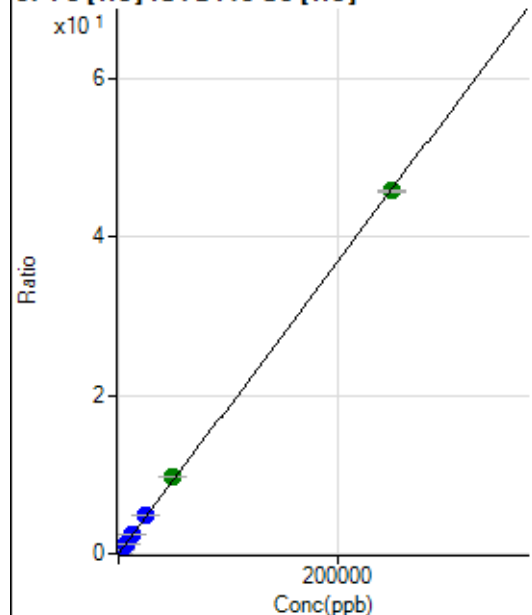
$$R = 0.9999$$

$$DL = 0.05052$$

$$BEC = 1.349$$

Weight: <None>

Min Conc: 0

57 Fe [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	272.23	0.0004	P	9.8
2	☐	50.000	51.240	6974.07	0.0098	P	8.7
3	☐	2500.000	2831.792	362018.02	0.5216	P	0.5
4	☐	6250.000	6977.092	825004.35	1.2846	P	1.2
5	☐	12500.000	13540.355	1606228.12	2.4926	P	0.4
6	☐	25000.000	27027.142	3338106.38	4.9750	P	0.3
7	☐	50000.000	52787.769	6626703.15	9.7166	A	0.7
8	☐	250000.00	249166.21	29893590.25	45.8622	A	0.6

$$y = 1.8406\text{E-}004 * x + 3.8047\text{E-}004$$

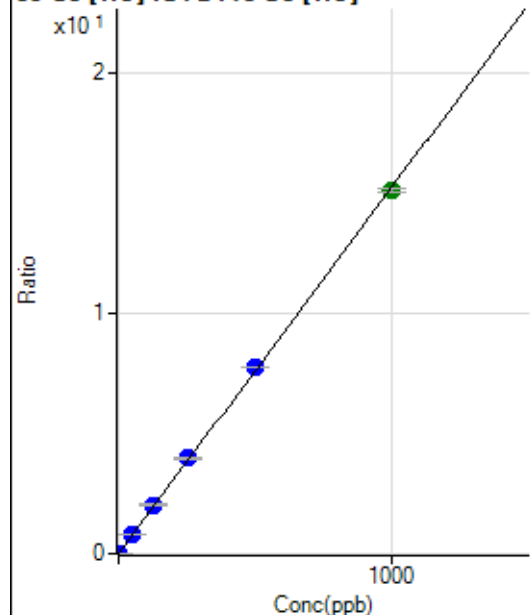
$$R = 0.9999$$

$$DL = 0.6106$$

$$BEC = 2.067$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	133.33	0.0002	P	19.8
2	☐	1.000	0.919	10086.96	0.0142	P	4.9
3	☐	50.000	55.005	581631.05	0.8380	P	0.4
4	☐	125.000	133.425	1305365.50	2.0325	P	0.9
5	☐	250.000	260.189	2553967.00	3.9634	P	0.6
6	☐	500.000	509.942	5211821.11	7.7677	P	0.2
7	☐	1000.000	991.178	10296596.37	15.0979	A	1.0
8	☐			17901.11	0.0275	P	1.0

$$y = 0.0152 * x + 1.8670\text{E-}004$$

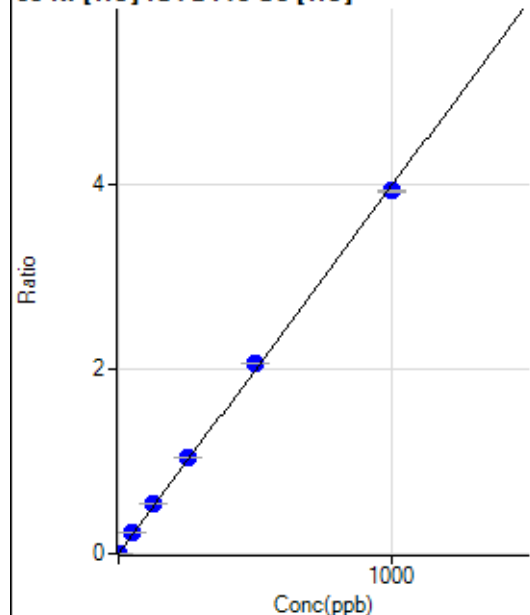
$$R = 0.9999$$

$$DL = 0.007298$$

$$BEC = 0.01226$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	110.00	0.0002	P	12.6
2	☐	1.000	1.007	2963.68	0.0042	P	10.2
3	☐	50.000	56.399	156272.33	0.2252	P	0.6
4	☐	125.000	135.606	347530.80	0.5412	P	2.1
5	☐	250.000	261.944	673512.73	1.0452	P	0.8
6	☐	500.000	516.791	1383506.11	2.0619	P	0.3
7	☐	1000.000	986.973	2685670.90	3.9378	P	0.8
8	☐			29764.79	0.0457	P	2.1

$$y = 0.0040 * x + 1.5390E-004$$

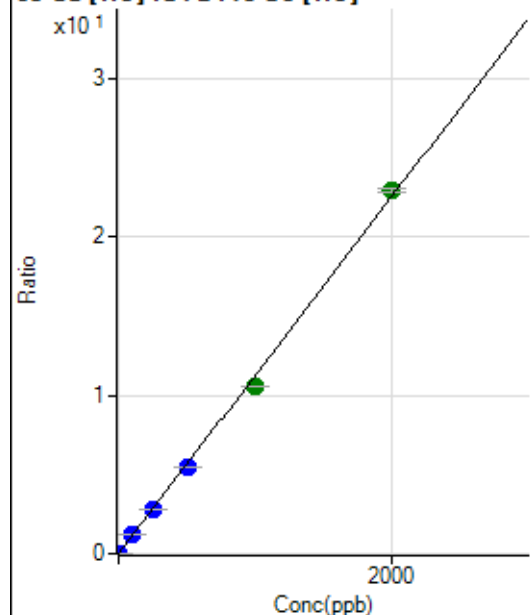
$$R = 0.9997$$

$$DL = 0.01455$$

$$BEC = 0.03858$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1545.66	0.0022	P	7.5
2	☐	2.000	1.768	15699.73	0.0221	P	5.5
3	☐	100.000	103.656	811958.03	1.1699	P	0.9
4	☐	250.000	250.996	1817373.74	2.8298	P	1.4
5	☐	500.000	484.427	3518052.17	5.4595	P	0.6
6	☐	1000.000	938.282	7093695.17	10.5725	A	0.4
7	☐	2000.000	2034.445	15631990.88	22.9215	A	1.0
8	☐			32717.85	0.0502	P	0.6

$$y = 0.0113 * x + 0.0022$$

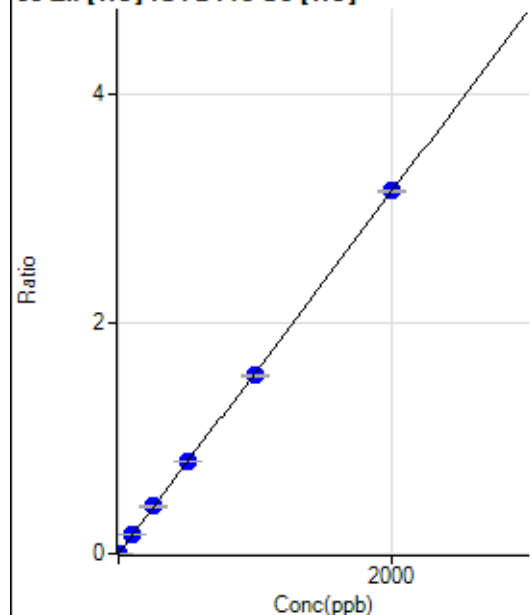
$$R = 0.9992$$

$$DL = 0.04324$$

$$BEC = 0.192$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	334.45	0.0005	P	1.5
2	☐	2.000	2.280	2882.56	0.0041	P	2.5
3	☐	100.000	107.541	117692.63	0.1696	P	0.1
4	☐	250.000	261.402	264280.71	0.4115	P	1.7
5	☐	500.000	507.111	514143.41	0.7979	P	0.7
6	☐	1000.000	983.887	1038396.72	1.5476	P	0.7
7	☐	2000.000	2004.476	2150028.30	3.1524	P	0.4
8	☐			23377.80	0.0359	P	2.6

$$y = 0.0016 * x + 4.6773E-004$$

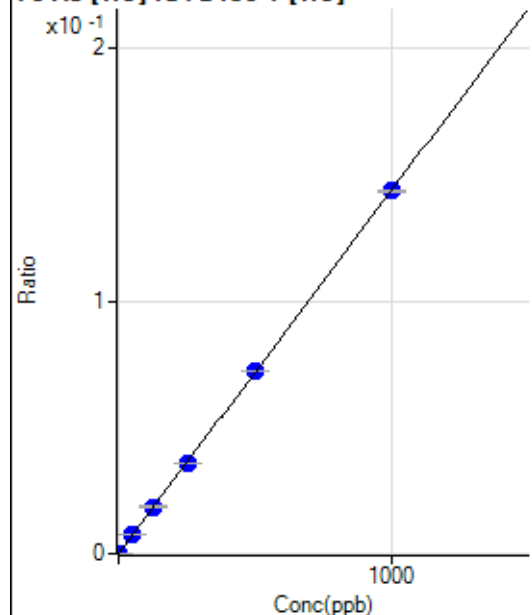
$$R = 0.9999$$

$$DL = 0.01355$$

$$BEC = 0.2974$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:89 Y [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	0.00	0.0000	P	-13745.
2	☐	1.000	0.945	620.62	0.0001	P	7.9
3	☐	50.000	52.905	34111.27	0.0076	P	0.3
4	☐	125.000	129.090	78685.33	0.0186	P	1.0
5	☐	250.000	249.451	153942.38	0.0359	P	0.9
6	☐	500.000	501.876	320569.65	0.0722	P	0.4
7	☐	1000.000	998.543	639755.26	0.1436	P	0.8
8	☐			309.01	0.0001	P	8.3

$$y = 1.4376E-004 * x - 1.5607E-009$$

$$R = 1.0000$$

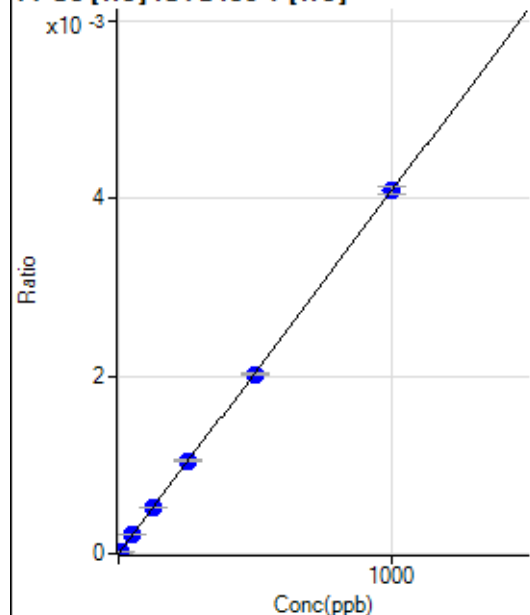
$$DL = 0.004477$$

$$BEC = -1.086E-05$$

Weight: <None>

Min Conc: 0

77 Se [He] ISTD:89 Y [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.2
2	☐	5.000	5.237	98.89	0.0000	P	11.9
3	☐	50.000	51.736	948.93	0.0002	P	2.4
4	☐	125.000	127.556	2210.21	0.0005	P	2.6
5	☐	250.000	256.909	4507.44	0.0010	P	2.7
6	☐	500.000	495.039	8986.25	0.0020	P	1.1
7	☐	1000.000	1000.346	18210.54	0.0041	P	1.9
8	☐			4.45	0.0000	P	86.6

$$y = 4.0852\text{E-}006 * x + 2.4029\text{E-}007$$

$$R = 1.0000$$

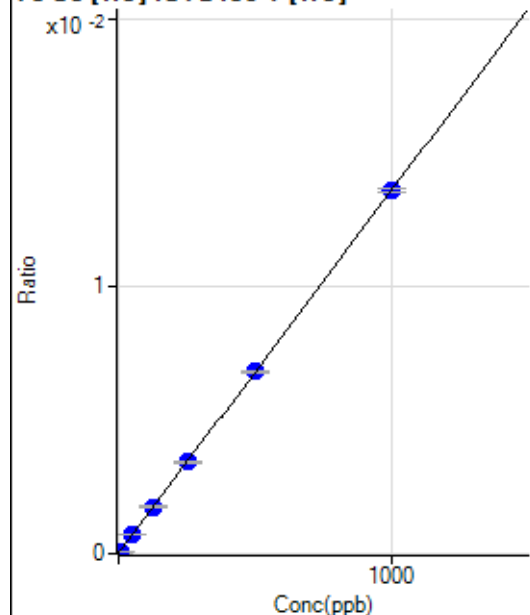
$$DL = 0.3056$$

$$BEC = 0.05882$$

Weight: <None>

Min Conc: 0

78 Se [He] ISTD:89 Y [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	77.78	0.0000	P	9.8
2	☐	5.000	5.290	405.56	0.0001	P	9.3
3	☐	50.000	53.447	3332.51	0.0007	P	2.7
4	☐	125.000	127.807	7433.45	0.0018	P	2.6
5	☐	250.000	251.098	14717.41	0.0034	P	0.5
6	☐	500.000	501.123	30325.48	0.0068	P	1.4
7	☐	1000.000	998.639	60539.77	0.0136	P	0.9
8	☐			124.69	0.0000	P	7.5

$$y = 1.3586\text{E-}005 * x + 1.6934\text{E-}005$$

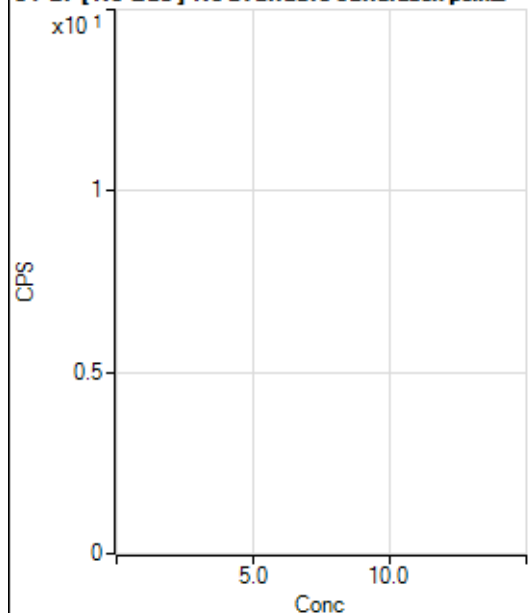
$$R = 1.0000$$

$$DL = 0.365$$

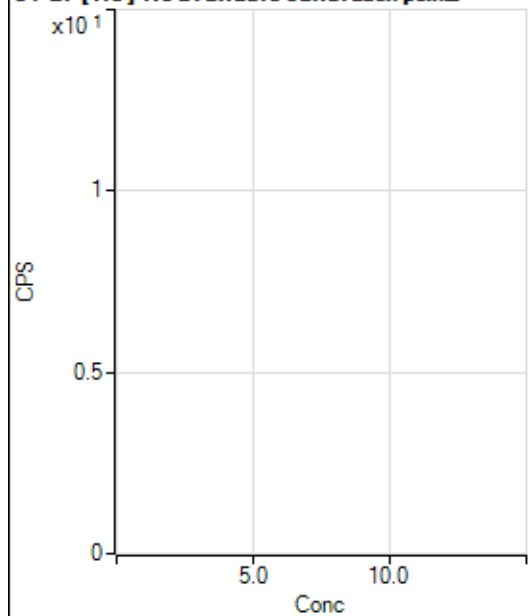
$$BEC = 1.246$$

Weight: <None>

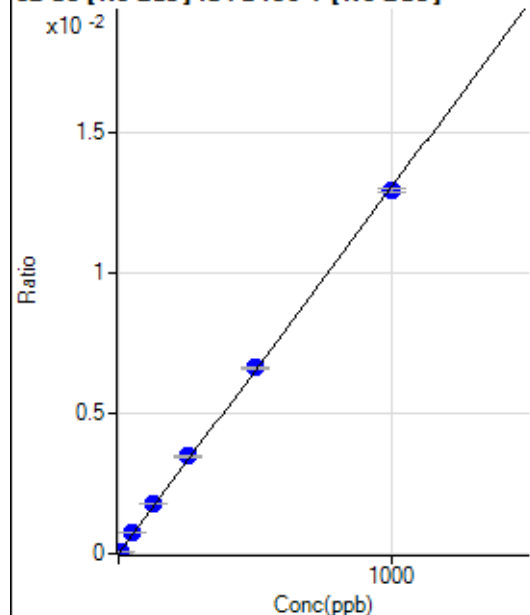
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			74195.62		P	2.0
2	☐			72630.15		P	1.0
3	☐			72384.16		P	0.6
4	☐			72327.87		P	0.6
5	☐			69357.13		P	1.7
6	☐			71918.13		P	3.2
7	☐			69615.68		P	1.9
8	☐			66337.07		P	1.7

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			90.10		P	50.9
2	☐			76.75		P	37.7
3	☐			50.05		P	72.1
4	☐			66.74		P	45.8
5	☐			26.69		P	78.1
6	☐			40.04		P	66.1
7	☐			56.73		P	88.8
8	☐			76.75		P	49.4

82 Se [No Gas] ISTD:89 Y [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	54.81	0.0000	P	41.8
2	☐	5.000	5.358	2792.92	0.0001	P	1.0
3	☐	50.000	55.226	27816.23	0.0007	P	0.7
4	☐	125.000	134.552	66000.02	0.0018	P	0.7
5	☐	250.000	266.681	130159.38	0.0035	P	2.1
6	☐	500.000	508.387	264611.81	0.0066	P	1.1
7	☐	1000.000	990.179	522657.89	0.0129	P	1.1
8	☐			485.58	0.0000	P	4.9

$$y = 1.3030E-005 * x + 1.3630E-006$$

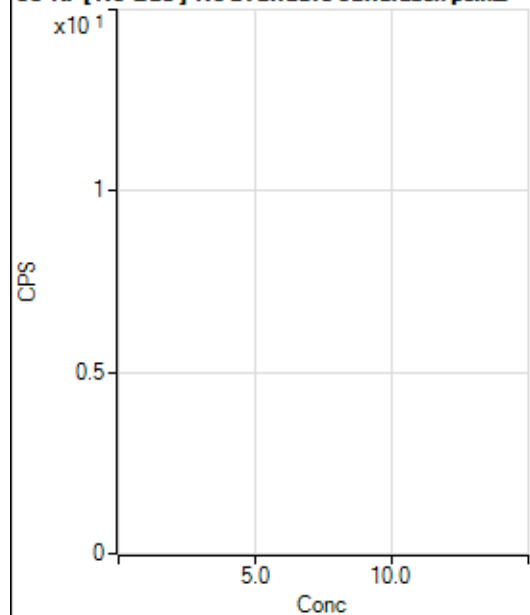
$$R = 0.9998$$

$$DL = 0.1311$$

$$BEC = 0.1046$$

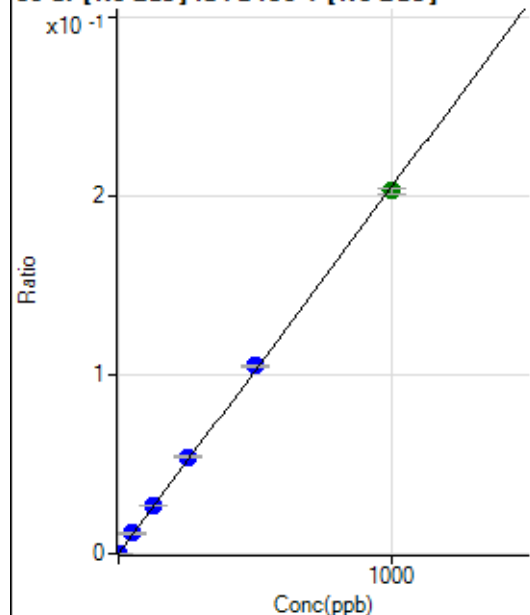
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			693.36		P	2.5
2	☐			662.25		P	4.2
3	☐			697.81		P	5.1
4	☐			702.25		P	8.6
5	☐			706.70		P	5.4
6	☐			657.80		P	10.7
7	☐			704.47		P	6.5
8	☐			781.15		P	2.7

86 Sr [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1116.77	0.0000	P	10.6
2	☐	1.000	0.976	8925.33	0.0002	P	1.0
3	☐	50.000	55.078	435820.87	0.0113	P	1.4
4	☐	125.000	132.187	1018550.31	0.0271	P	0.1
5	☐	250.000	263.269	2018192.02	0.0539	P	2.0
6	☐	500.000	511.651	4182854.56	0.1047	P	0.4
7	☐	1000.000	989.705	8203600.70	0.2026	A	1.6
8	☐			17400.01	0.0005	P	3.8

$$y = 2.0463\text{E-}004 * x + 2.7774\text{E-}005$$

$$R = 0.9998$$

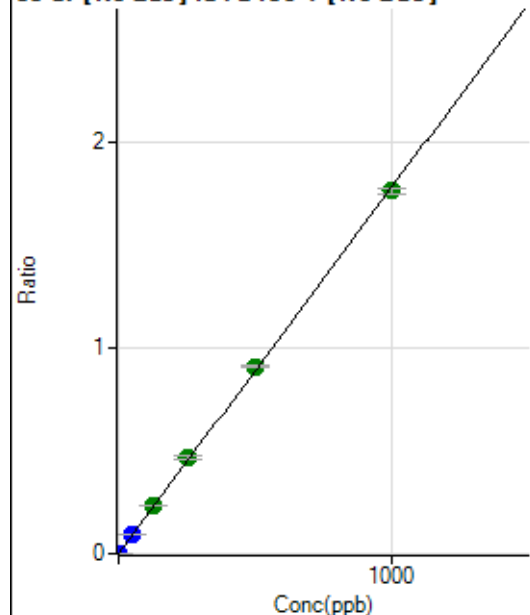
$$DL = 0.04312$$

$$BEC = 0.1357$$

Weight: <None>

Min Conc: 0

88 Sr [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	113.89	0.0000	P	10.8
2	☐	1.000	0.994	69608.62	0.0018	P	0.9
3	☐	50.000	54.701	3761343.70	0.0975	P	0.8
4	☐	125.000	129.714	8696746.38	0.2312	A	0.6
5	☐	250.000	262.287	17503794.49	0.4675	A	2.3
6	☐	500.000	510.793	36360408.45	0.9104	A	0.7
7	☐	1000.000	990.707	71521537.02	1.7658	A	1.4
8	☐			142780.21	0.0040	P	3.2

$$y = 0.0018 * x + 2.8315\text{E-}006$$

$$R = 0.9998$$

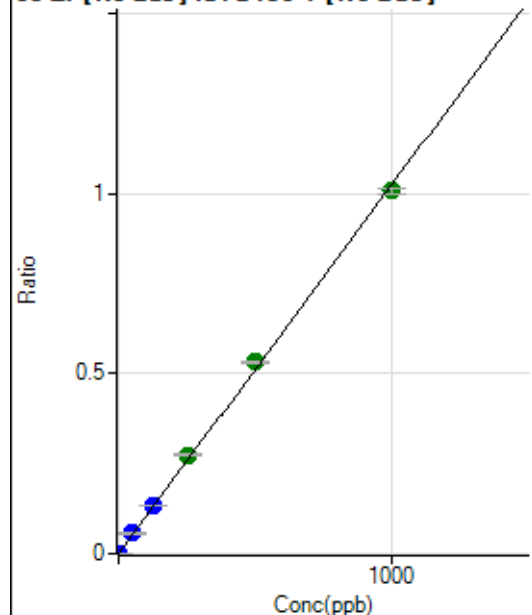
$$DL = 0.0005134$$

$$BEC = 0.001589$$

Weight: <None>

Min Conc: 0

90 Zr [No Gas] ISTD: 89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1866.88	0.0000	P	5.5
2	☐	1.000	0.769	32735.46	0.0008	P	5.8
3	☐	50.000	54.927	2172517.13	0.0563	P	0.9
4	☐	125.000	132.119	5093079.63	0.1354	P	0.1
5	☐	250.000	266.504	10223948.67	0.2731	A	2.2
6	☐	500.000	520.519	21297239.02	0.5333	A	1.2
7	☐	1000.000	984.478	40849887.37	1.0086	A	1.6
8	☐			18462.55	0.0005	P	12.3

$$y = 0.0010 * x + 4.6424E-005$$

$$R = 0.9995$$

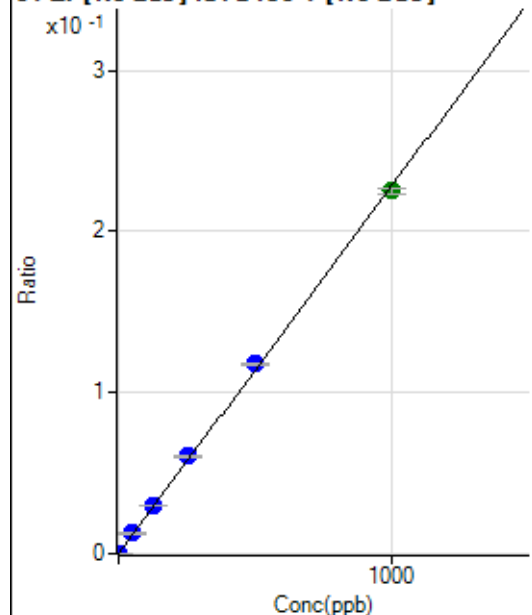
$$DL = 0.007476$$

$$BEC = 0.04532$$

Weight: <None>

Min Conc: 0

91 Zr [No Gas] ISTD: 89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	402.80	0.0000	P	24.5
2	☐	1.000	0.770	7274.37	0.0002	P	4.0
3	☐	50.000	54.987	483881.46	0.0125	P	1.1
4	☐	125.000	132.386	1135482.61	0.0302	P	0.1
5	☐	250.000	264.792	2260228.89	0.0604	P	2.1
6	☐	500.000	515.566	4693632.70	0.1175	P	0.9
7	☐	1000.000	987.347	9115215.57	0.2251	A	1.8
8	☐			3872.95	0.0001	P	16.3

$$y = 2.2794E-004 * x + 1.0010E-005$$

$$R = 0.9997$$

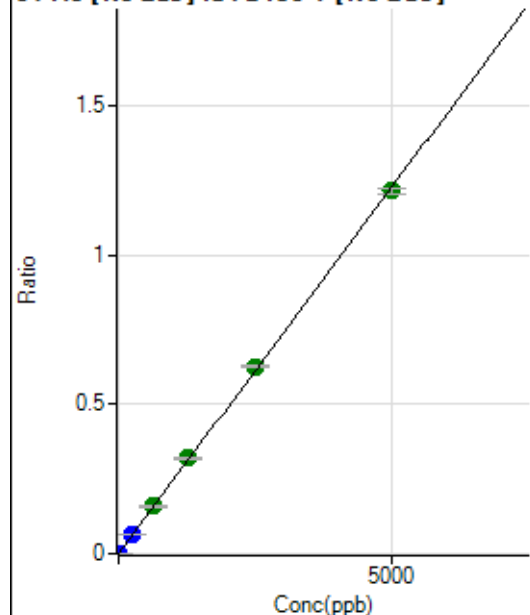
$$DL = 0.03224$$

$$BEC = 0.04392$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	627.82	0.0000	P	9.0
2	☐	5.000	4.741	46175.55	0.0012	P	1.2
3	☐	250.000	272.405	2574425.73	0.0667	P	1.0
4	☐	625.000	644.870	5941921.75	0.1580	A	0.7
5	☐	1250.000	1307.935	11994982.47	0.3204	A	1.9
6	☐	2500.000	2554.841	24989669.48	0.6257	A	1.2
7	☐	5000.000	4954.492	49147404.57	1.2135	A	1.7
8	☐			34548.29	0.0010	P	5.4

$$y = 2.4492\text{E-}004 * x + 1.5609\text{E-}005$$

$$R = 0.9998$$

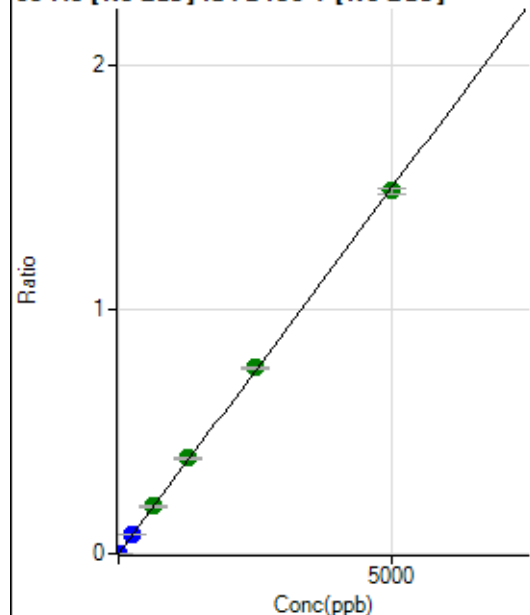
$$DL = 0.01725$$

$$BEC = 0.06373$$

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	88.89	0.0000	P	38.7
2	☐	5.000	5.144	60431.30	0.0015	P	0.7
3	☐	250.000	270.289	3117676.42	0.0808	P	1.0
4	☐	625.000	644.566	7249880.02	0.1927	A	0.9
5	☐	1250.000	1304.298	14601195.81	0.3900	A	2.1
6	☐	2500.000	2538.796	30312854.84	0.7591	A	1.6
7	☐	5000.000	4963.567	60106206.90	1.4840	A	1.5
8	☐			48773.28	0.0014	P	7.6

$$y = 2.9899\text{E-}004 * x + 2.2082\text{E-}006$$

$$R = 0.9999$$

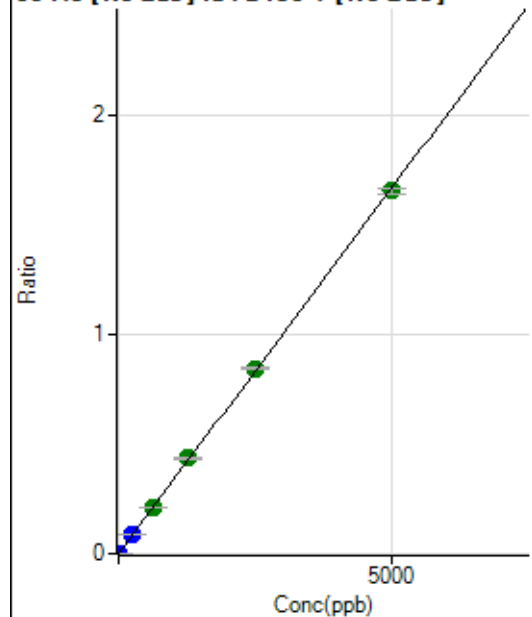
$$DL = 0.008579$$

$$BEC = 0.007386$$

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	338.91	0.0000	P	9.7
2	☐	5.000	5.071	66542.17	0.0017	P	3.0
3	☐	250.000	269.462	3459762.62	0.0897	P	0.9
4	☐	625.000	641.236	8028065.11	0.2134	A	0.6
5	☐	1250.000	1303.406	16240356.96	0.4338	A	2.8
6	☐	2500.000	2537.302	33721141.38	0.8444	A	1.7
7	☐	5000.000	4964.995	66924443.16	1.6524	A	1.4
8	☐			81474.62	0.0023	P	3.9

$$y = 3.3280\text{E-}004 * x + 8.4273\text{E-}006$$

$$R = 0.9999$$

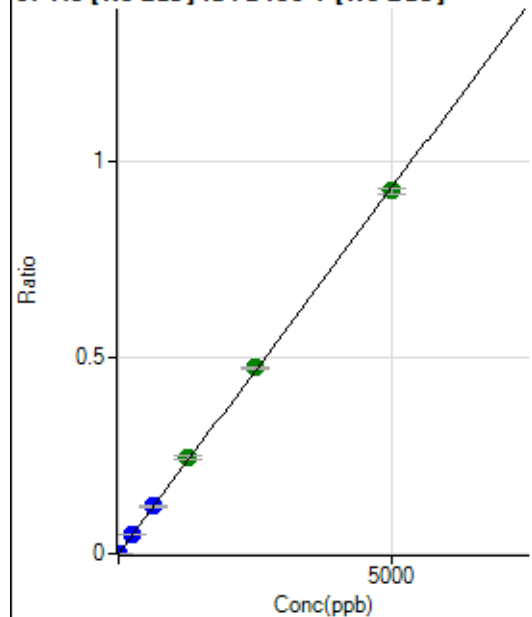
$$DL = 0.007398$$

$$BEC = 0.02532$$

Weight: <None>

Min Conc: 0

97 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	97.23	0.0000	P	24.6
2	☐	5.000	5.108	37503.08	0.0010	P	2.7
3	☐	250.000	270.832	1950369.59	0.0506	P	1.4
4	☐	625.000	644.780	4527869.67	0.1204	P	0.4
5	☐	1250.000	1310.399	9158430.59	0.2446	A	3.0
6	☐	2500.000	2544.131	18966903.89	0.4749	A	1.5
7	☐	5000.000	4959.320	37496519.24	0.9258	A	1.8
8	☐			30224.69	0.0009	P	6.4

$$y = 1.8668\text{E-}004 * x + 2.4177\text{E-}006$$

$$R = 0.9999$$

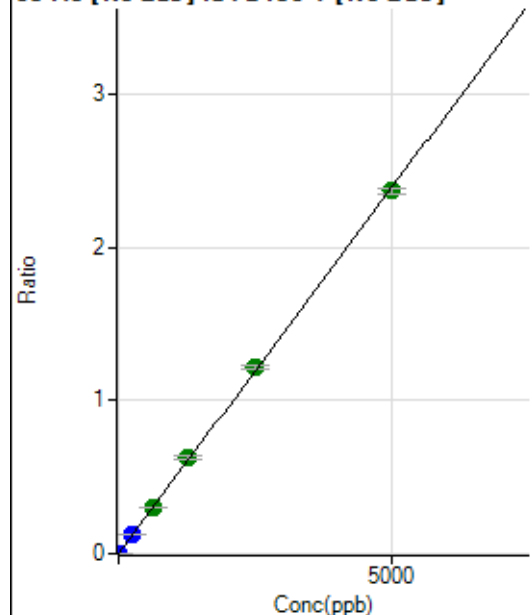
$$DL = 0.009575$$

$$BEC = 0.01295$$

Weight: <None>

Min Conc: 0

98 Mo [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	166.68	0.0000	P	9.6
2	☐	5.000	5.109	95991.39	0.0024	P	0.3
3	☐	250.000	271.144	5000153.24	0.1296	P	0.9
4	☐	625.000	643.354	11568934.81	0.3075	A	0.2
5	☐	1250.000	1312.136	23483264.24	0.6272	A	2.7
6	☐	2500.000	2542.884	48542527.47	1.2156	A	1.7
7	☐	5000.000	4959.673	96020202.84	2.3709	A	1.9
8	☐			72988.02	0.0021	P	4.9

$$y = 4.7803\text{E-}004 * x + 4.1440\text{E-}006$$

$$R = 0.9999$$

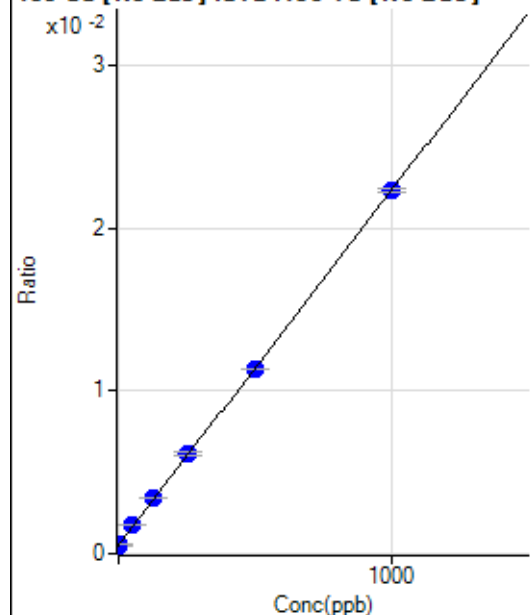
$$DL = 0.002494$$

$$BEC = 0.008669$$

Weight: <None>

Min Conc: 0

106 Cd [No Gas] ISTD:159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	18782.64	0.0005	P	1.1
2	☐	1.000	2.362	19686.60	0.0006	P	1.7
3	☐	50.000	57.606	60960.03	0.0018	P	1.6
4	☐	125.000	131.834	115412.24	0.0034	P	1.2
5	☐	250.000	258.760	210685.93	0.0062	P	3.5
6	☐	500.000	496.720	413186.95	0.0114	P	0.7
7	☐	1000.000	998.214	820290.84	0.0223	P	1.1
8	☐			17639.32	0.0006	P	1.8

$$y = 2.1809\text{E-}005 * x + 5.1701\text{E-}004$$

$$R = 0.9999$$

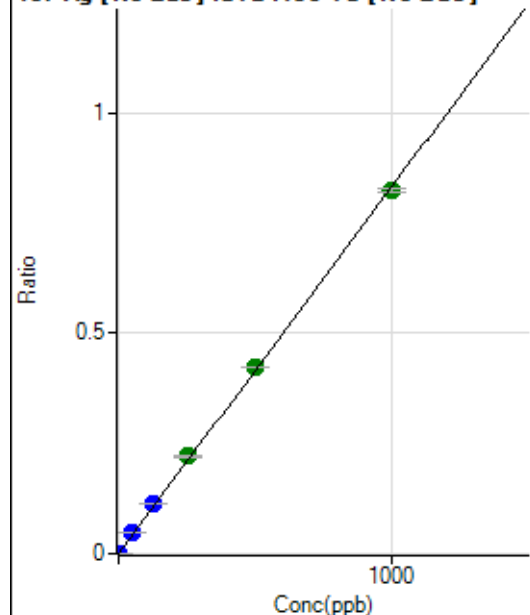
$$DL = 0.8095$$

$$BEC = 23.71$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	333.35	0.0000	P	35.0
2	☐	1.000	1.071	31160.19	0.0009	P	2.3
3	☐	50.000	58.383	1669966.18	0.0486	P	1.3
4	☐	125.000	135.965	3848591.71	0.1131	P	0.3
5	☐	250.000	264.992	7541135.85	0.2205	A	2.7
6	☐	500.000	508.914	15414217.88	0.4234	A	0.2
7	☐	1000.000	990.005	30314710.74	0.8237	A	0.9
8	☐			10815.76	0.0003	P	16.5

$$y = 8.3196E-004 * x + 9.1633E-006$$

$$R = 0.9998$$

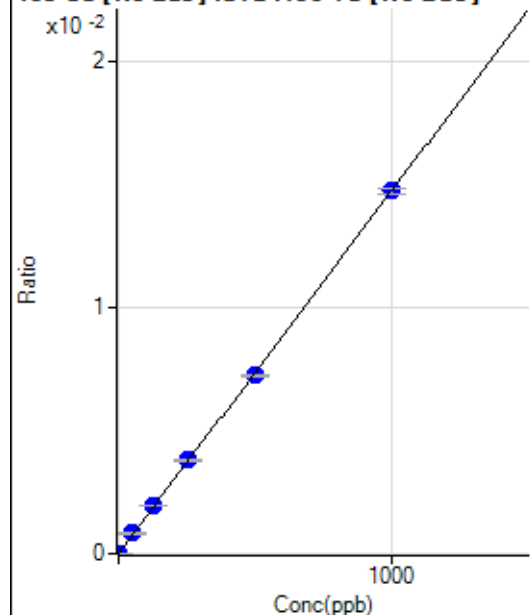
$$DL = 0.01155$$

$$BEC = 0.01101$$

Weight: <None>

Min Conc: 0

108 Cd [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	55.56	0.0000	P	22.3
2	☐	1.000	0.865	494.46	0.0000	P	8.1
3	☐	50.000	56.217	28522.02	0.0008	P	3.2
4	☐	125.000	131.742	66096.51	0.0019	P	0.6
5	☐	250.000	259.312	130773.09	0.0038	P	2.0
6	☐	500.000	492.016	264002.64	0.0073	P	0.7
7	☐	1000.000	1000.511	542665.43	0.0147	P	1.5
8	☐			250.01	0.0000	P	24.6

$$y = 1.4736E-005 * x + 1.5278E-006$$

$$R = 0.9999$$

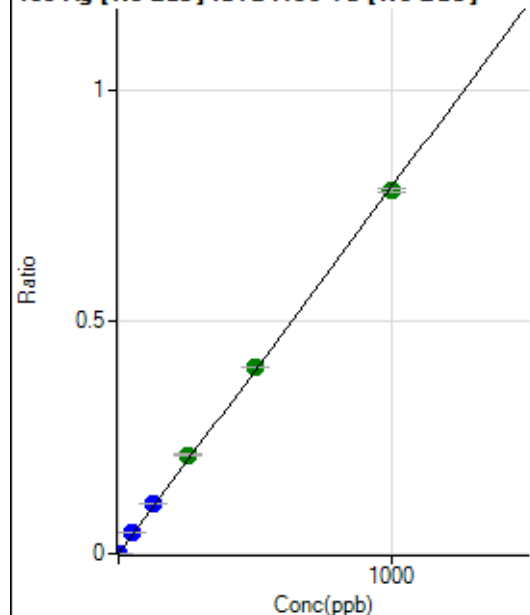
$$DL = 0.06944$$

$$BEC = 0.1037$$

Weight: <None>

Min Conc: 0

109 Ag [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	133.34	0.0000	P	12.7
2	☐	1.000	1.093	30010.69	0.0009	P	2.7
3	☐	50.000	58.510	1588509.66	0.0462	P	1.4
4	☐	125.000	136.078	3656261.54	0.1075	P	0.2
5	☐	250.000	268.681	7257947.56	0.2122	A	2.6
6	☐	500.000	508.381	14615980.54	0.4015	A	0.7
7	☐	1000.000	989.329	28756150.64	0.7813	A	1.2
8	☐			9884.49	0.0003	P	15.7

$$y = 7.8975\text{E-}004 * x + 3.6707\text{E-}006$$

$$R = 0.9997$$

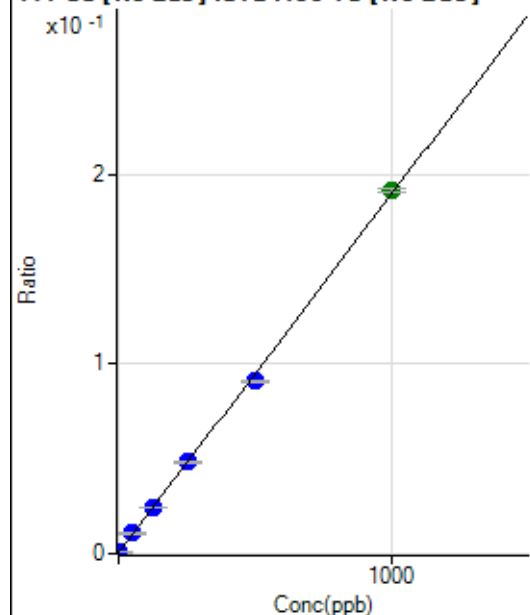
$$DL = 0.001772$$

$$BEC = 0.004648$$

Weight: <None>

Min Conc: 0

111 Cd [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	13143.68	0.0004	P	1.2
2	☐	1.000	1.125	19901.37	0.0006	P	2.3
3	☐	50.000	54.693	368165.83	0.0107	P	1.3
4	☐	125.000	128.446	839116.96	0.0247	P	0.5
5	☐	250.000	253.950	1655983.64	0.0484	P	2.3
6	☐	500.000	478.635	3310054.89	0.0909	P	0.6
7	☐	1000.000	1009.029	7040231.08	0.1913	A	1.0
8	☐			14232.43	0.0005	P	0.8

$$y = 1.8921\text{E-}004 * x + 3.6179\text{E-}004$$

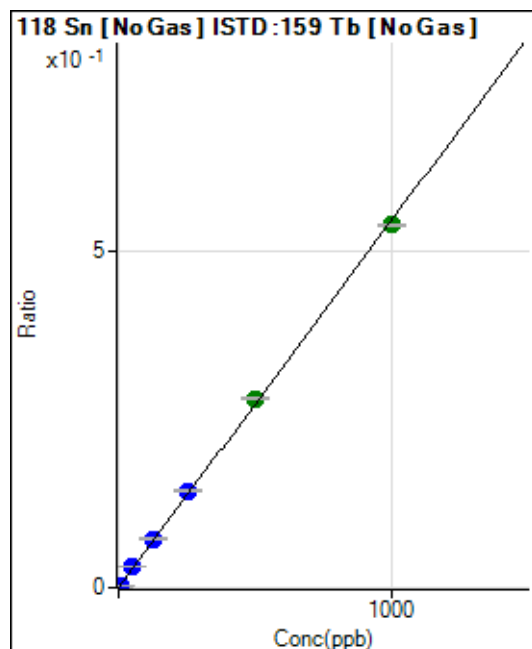
$$R = 0.9996$$

$$DL = 0.07081$$

$$BEC = 1.912$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1827.99	0.0001	P	3.7
2	☐	5.000	5.135	98648.18	0.0028	P	1.9
3	☐	50.000	55.686	1044965.78	0.0304	P	1.2
4	☐	125.000	133.329	2473744.33	0.0727	P	0.2
5	☐	250.000	264.152	4925981.97	0.1440	P	2.4
6	☐	500.000	514.276	10204707.52	0.2803	A	1.2
7	☐	1000.000	987.998	19819933.60	0.5385	A	0.8
8	☐			17124.97	0.0005	P	3.8

$$y = 5.4500\text{E-}004 * x + 5.0317\text{E-}005$$

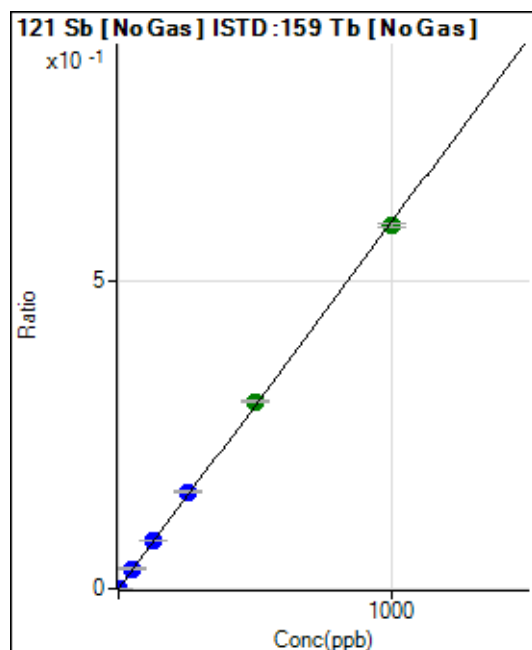
$$R = 0.9997$$

$$DL = 0.01015$$

$$BEC = 0.09232$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	197.23	0.0000	P	29.8
2	☐	2.000	1.971	40843.74	0.0012	P	4.5
3	☐	50.000	54.951	1125781.86	0.0327	P	1.1
4	☐	125.000	131.452	2664930.90	0.0783	P	0.2
5	☐	250.000	263.067	5361939.36	0.1568	P	2.4
6	☐	500.000	511.329	11091727.94	0.3047	A	0.9
7	☐	1000.000	990.015	21711937.12	0.5899	A	1.0
8	☐			30138.87	0.0010	P	4.6

$$y = 5.9586\text{E-}004 * x + 5.4214\text{E-}006$$

$$R = 0.9998$$

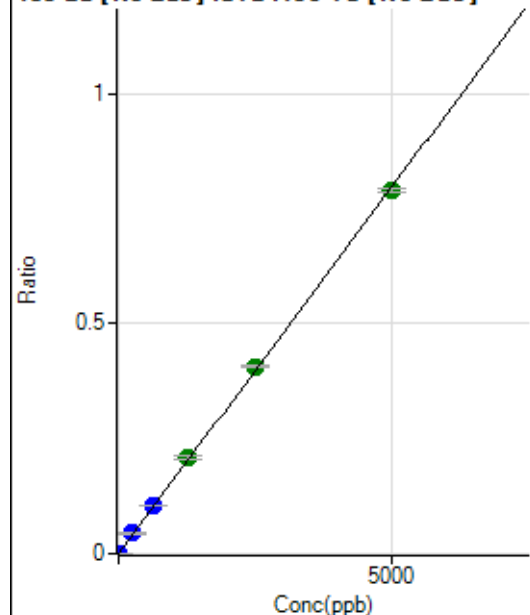
$$DL = 0.008134$$

$$BEC = 0.009098$$

Weight: <None>

Min Conc: 0

135 Ba [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	33.33	0.0000	P	75.1
2	☐	10.000	10.320	56945.20	0.0016	P	1.0
3	☐	250.000	276.636	1514508.63	0.0441	P	1.1
4	☐	625.000	660.171	3576421.70	0.1051	P	0.5
5	☐	1250.000	1309.555	7132727.16	0.2085	A	2.7
6	☐	2500.000	2554.620	14808846.69	0.4068	A	1.0
7	☐	5000.000	4952.073	29023601.69	0.7886	A	1.1
8	☐			51420.99	0.0017	P	3.2

$$y = 1.5924\text{E-}004 * x + 9.1995\text{E-}007$$

$$R = 0.9998$$

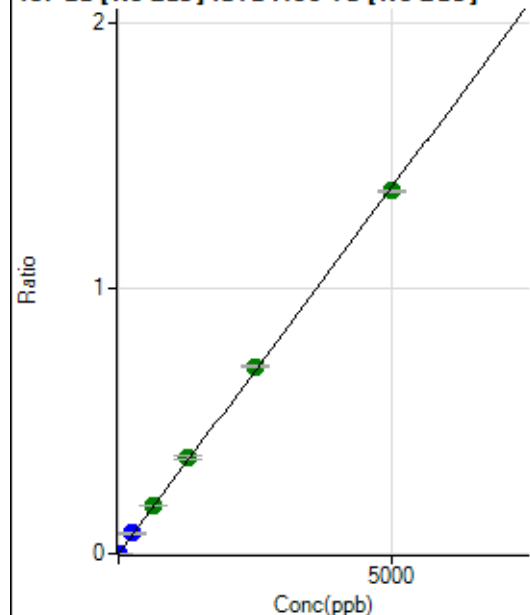
$$DL = 0.01302$$

$$BEC = 0.005777$$

Weight: <None>

Min Conc: 0

137 Ba [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	72.23	0.0000	P	24.6
2	☐	10.000	10.241	97796.05	0.0028	P	2.1
3	☐	250.000	276.756	2621750.19	0.0763	P	0.9
4	☐	625.000	649.781	6091010.21	0.1790	A	0.7
5	☐	1250.000	1308.723	12334164.95	0.3606	A	2.7
6	☐	2500.000	2551.877	25596868.46	0.7031	A	1.1
7	☐	5000.000	4954.945	50251657.72	1.3653	A	0.4
8	☐			89085.32	0.0029	P	2.8

$$y = 2.7554\text{E-}004 * x + 1.9899\text{E-}006$$

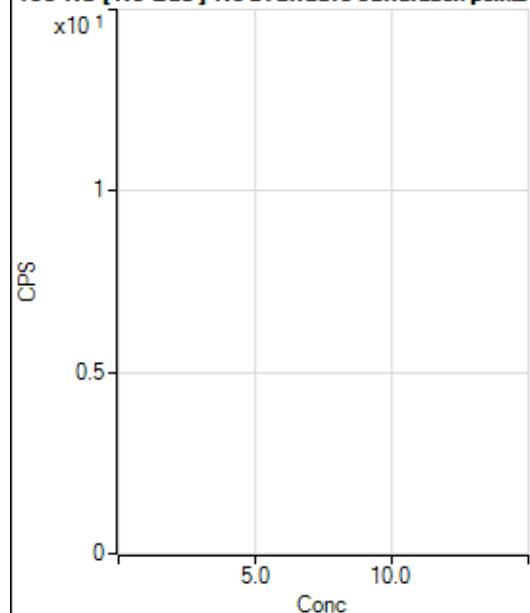
$$R = 0.9998$$

$$DL = 0.00533$$

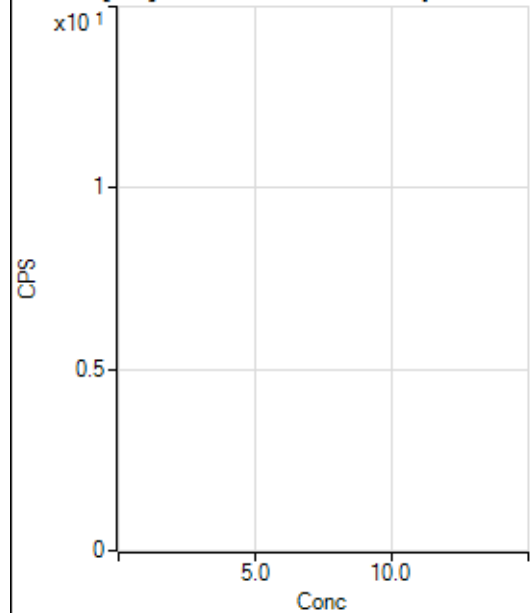
$$BEC = 0.007222$$

Weight: <None>

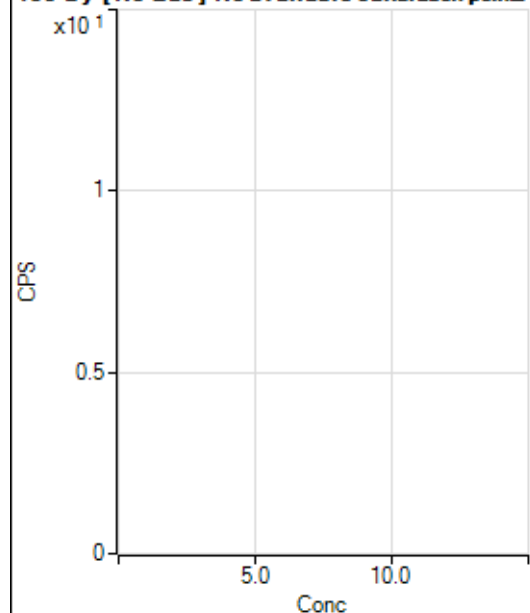
Min Conc: 0

150 Nd [No Gas] No available calibration points

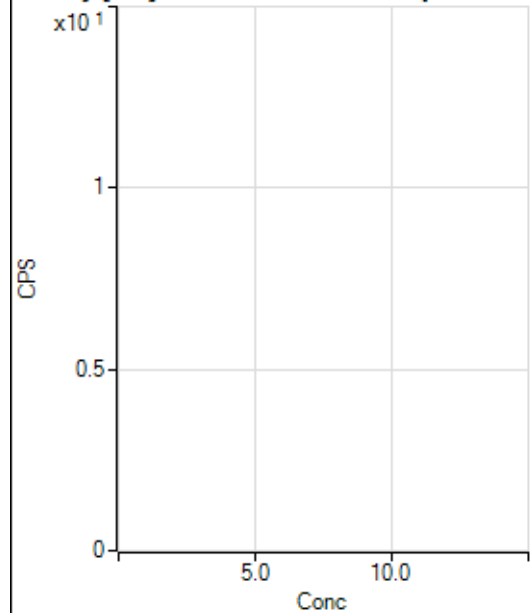
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			11.11		P	91.7
2	☐			11.11		P	34.6
3	☐			202.23		P	25.6
4	☐			466.69		P	18.6
5	☐			808.94		P	10.8
6	☐			1891.31		P	9.3
7	☐			3496.13		P	8.0
8	☐			282.23		P	1.4

150 Nd [He] No available calibration points

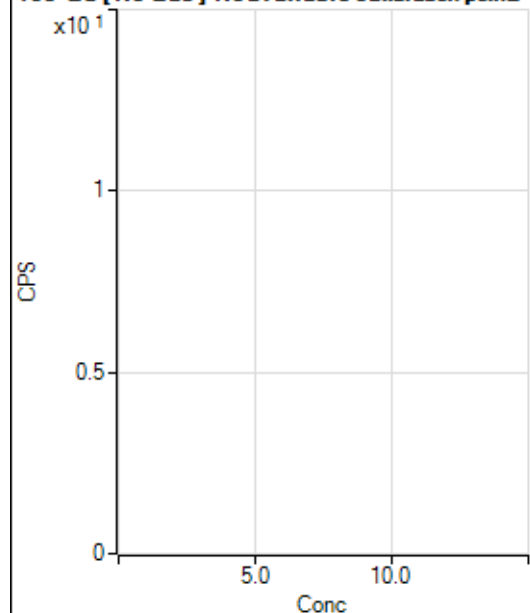
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			7.78		P	65.5
2	☐			2.22		P	86.6
3	☐			28.89		P	40.5
4	☐			43.33		P	35.3
5	☐			78.89		P	24.4
6	☐			164.45		P	11.2
7	☐			274.45		P	10.3
8	☐			101.11		P	30.6

156 Dy [No Gas] No available calibration points

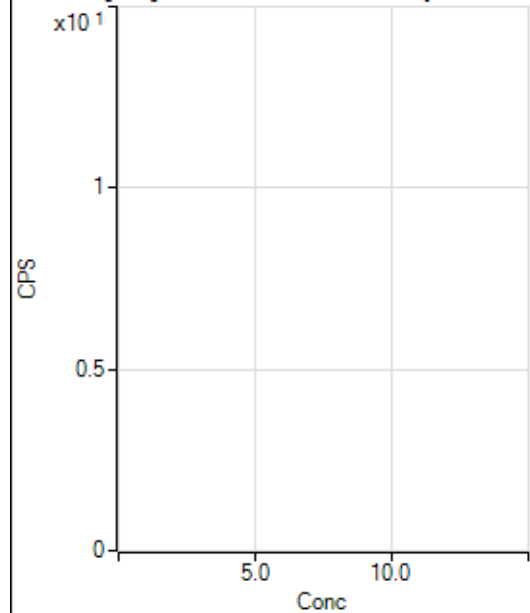
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			50.00		P	60.1
2	☐			58.33		P	49.5
3	☐			100.01		P	30.0
4	☐			163.90		P	2.9
5	☐			255.57		P	28.1
6	☐			502.81		P	11.0
7	☐			869.51		P	5.5
8	☐			1344.56		P	16.0

156 Dy [He] No available calibration points

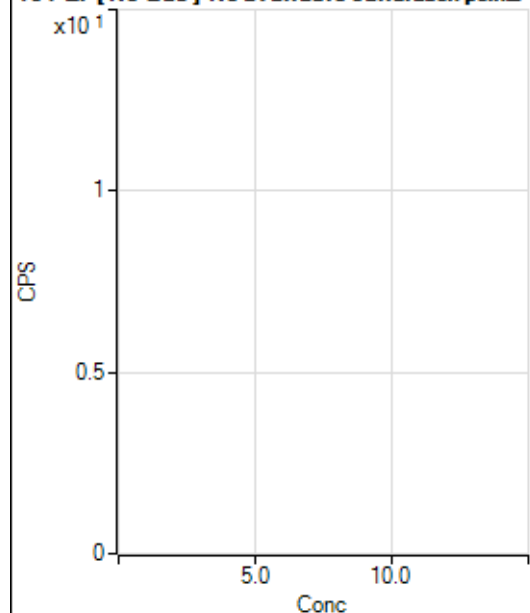
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			33.33		P	10.0
2	☐			25.56		P	19.9
3	☐			60.00		P	14.7
4	☐			80.00		P	8.3
5	☐			163.34		P	18.4
6	☐			383.35		P	11.3
7	☐			633.36		P	8.5
8	☐			704.47		P	5.5

160 Gd [No Gas] Noavailable calibration poin...

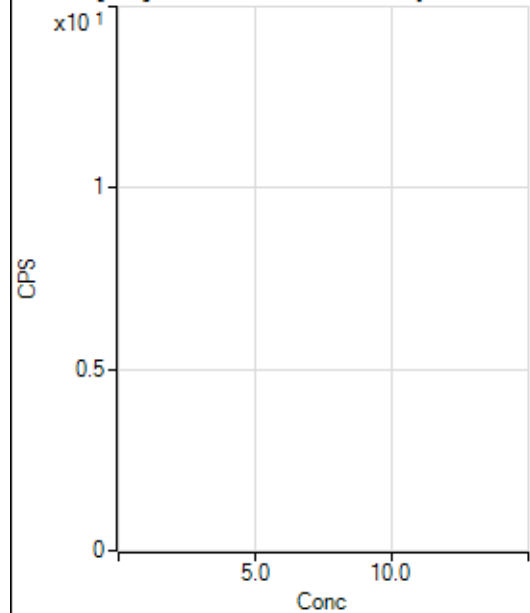
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			213.90		P	25.3
2	☐			252.79		P	14.9
3	☐			236.12		P	27.4
4	☐			294.46		P	16.1
5	☐			330.57		P	21.7
6	☐			447.25		P	7.8
7	☐			633.38		P	13.0
8	☐			1661.29		P	7.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			430.01		P	4.8
2	☐			436.68		P	3.3
3	☐			453.35		P	1.9
4	☐			476.68		P	10.1
5	☐			487.80		P	2.2
6	☐			573.35		P	4.1
7	☐			625.58		P	11.2
8	☐			1215.63		P	1.6

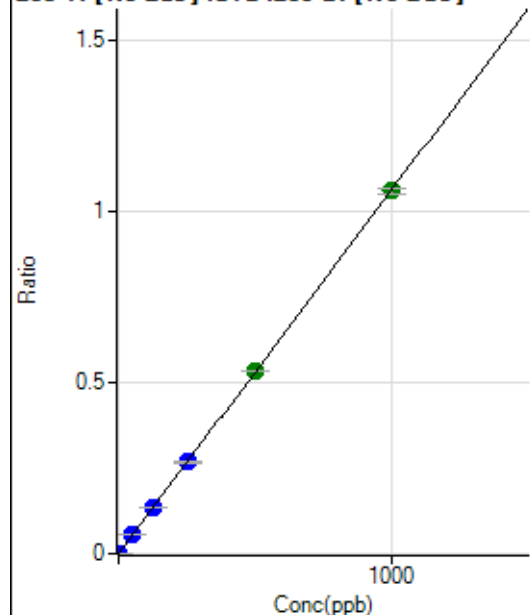
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			163.90		P	30.7
2	☐			186.12		P	9.3
3	☐			158.34		P	22.9
4	☐			180.56		P	11.6
5	☐			211.12		P	21.7
6	☐			277.79		P	3.5
7	☐			286.13		P	4.5
8	☐			372.24		P	5.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			78.89		P	19.1
2	☐			84.45		P	12.1
3	☐			88.89		P	25.5
4	☐			94.45		P	28.3
5	☐			95.56		P	7.3
6	☐			126.67		P	10.5
7	☐			127.78		P	22.2
8	☐			146.67		P	9.9

203 Tl [No Gas] ISTD:209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	666.72	0.0000	P	4.6
2	☐	1.000	0.955	22110.81	0.0010	P	0.6
3	☐	50.000	52.624	1160073.12	0.0560	P	1.9
4	☐	125.000	126.578	2720293.18	0.1346	P	0.4
5	☐	250.000	253.255	5460626.12	0.2693	P	1.9
6	☐	500.000	501.637	11230188.53	0.5334	A	0.5
7	☐	1000.000	998.039	21837755.18	1.0613	A	1.8
8	☐			8400.34	0.0005	P	19.1

$$y = 0.0011 * x + 2.9933E-005$$

$$R = 1.0000$$

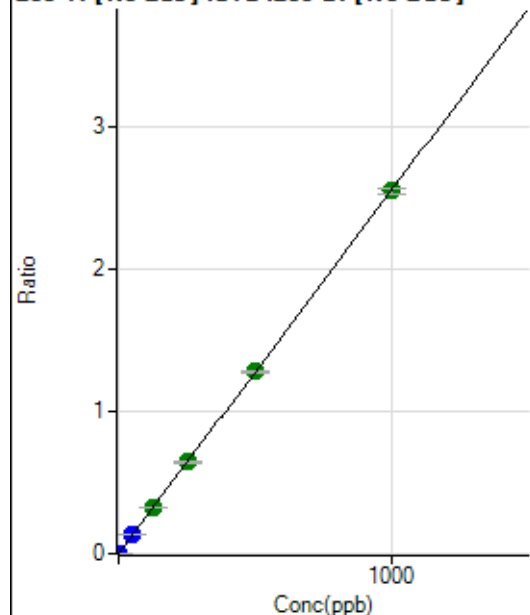
$$DL = 0.003891$$

$$BEC = 0.02815$$

Weight: <None>

Min Conc: 0

205 Tl [No Gas] ISTD:209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1286.23	0.0001	P	14.9
2	☐	1.000	0.947	52343.11	0.0025	P	0.4
3	☐	50.000	52.741	2791664.67	0.1347	P	1.5
4	☐	125.000	125.052	6453229.44	0.3194	A	0.3
5	☐	250.000	252.865	13090472.60	0.6457	A	2.2
6	☐	500.000	501.332	26948780.12	1.2801	A	0.6
7	☐	1000.000	998.474	52460178.25	2.5494	A	1.8
8	☐			19479.12	0.0012	P	17.0

$$y = 0.0026 * x + 5.7724E-005$$

$$R = 1.0000$$

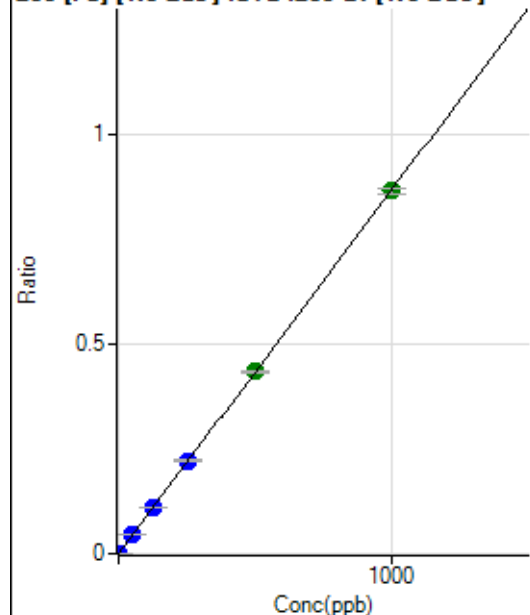
$$DL = 0.01011$$

$$BEC = 0.02261$$

Weight: <None>

Min Conc: 0

206 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	3098.60	0.0001	P	5.1
2	☐	1.000	0.947	20332.65	0.0010	P	2.1
3	☐	50.000	52.851	953948.68	0.0460	P	1.0
4	☐	125.000	126.763	2227216.34	0.1102	P	0.8
5	☐	250.000	254.321	4480480.89	0.2210	P	2.3
6	☐	500.000	501.190	9165864.33	0.4354	A	0.8
7	☐	1000.000	997.962	17836049.36	0.8668	A	1.9
8	☐			74403.74	0.0047	P	1.0

$$y = 8.6845E-004 * x + 1.3910E-004$$

$$R = 1.0000$$

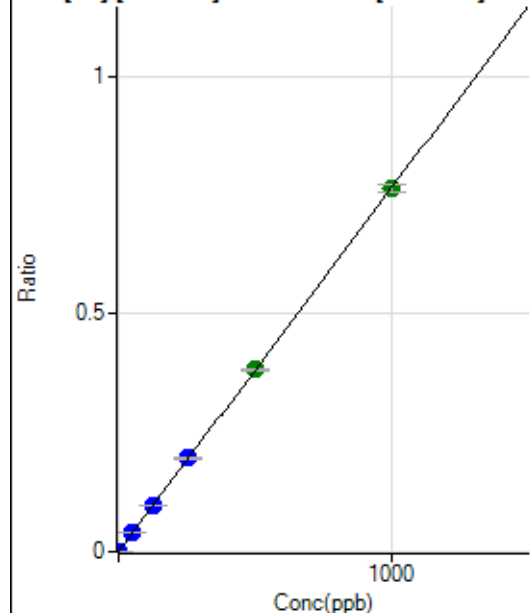
$$DL = 0.02431$$

$$BEC = 0.1602$$

Weight: <None>

Min Conc: 0

207 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2674.42	0.0001	P	5.1
2	☐	1.000	0.967	18168.38	0.0009	P	2.0
3	☐	50.000	53.035	842368.24	0.0407	P	1.6
4	☐	125.000	127.971	1978671.86	0.0979	P	1.2
5	☐	250.000	256.534	3977442.97	0.1962	P	2.4
6	☐	500.000	500.102	8049219.68	0.3823	A	0.5
7	☐	1000.000	997.792	15694281.60	0.7627	A	2.1
8	☐			66502.88	0.0042	P	1.2

$$y = 7.6429E-004 * x + 1.2008E-004$$

$$R = 1.0000$$

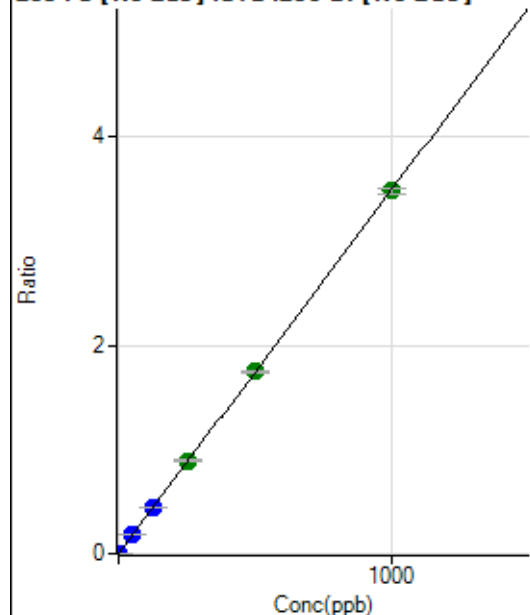
$$DL = 0.02411$$

$$BEC = 0.1571$$

Weight: <None>

Min Conc: 0

208 Pb [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	12382.24	0.0006	P	3.2
2	☐	1.000	0.952	82050.61	0.0039	P	1.5
3	☐	50.000	52.922	3839182.54	0.1853	P	1.4
4	☐	125.000	127.458	9000567.71	0.4454	P	1.0
5	☐	250.000	255.529	18093528.36	0.8925	A	2.4
6	☐	500.000	500.981	36824893.47	1.7492	A	0.6
7	☐	1000.000	997.674	71667409.12	3.4829	A	1.9
8	☐			300836.28	0.0190	P	1.2

$$y = 0.0035 * x + 5.5591E-004$$

$$R = 1.0000$$

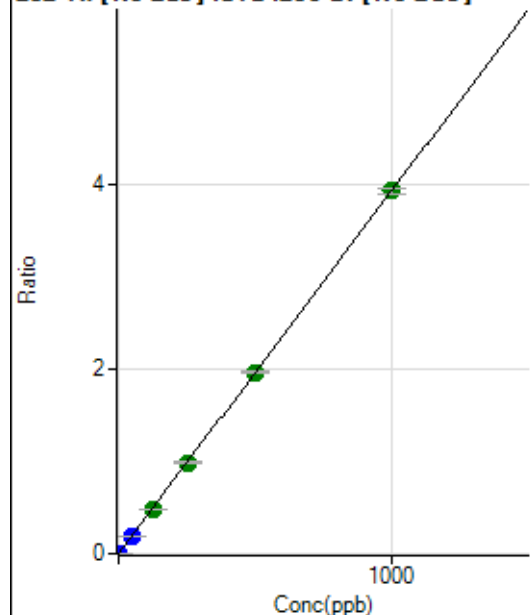
$$DL = 0.01524$$

$$BEC = 0.1593$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1955.76	0.0001	P	11.3
2	☐	1.000	0.667	57180.55	0.0027	P	3.6
3	☐	50.000	49.559	4032221.97	0.1946	P	1.7
4	☐	125.000	121.324	9624181.24	0.4763	A	0.6
5	☐	250.000	249.951	19890032.85	0.9812	A	2.7
6	☐	500.000	500.175	41331361.57	1.9633	A	0.6
7	☐	1000.000	1000.406	80805391.62	3.9267	A	1.4
8	☐			32463.44	0.0021	P	14.8

$$y = 0.0039 * x + 8.7777E-005$$

$$R = 1.0000$$

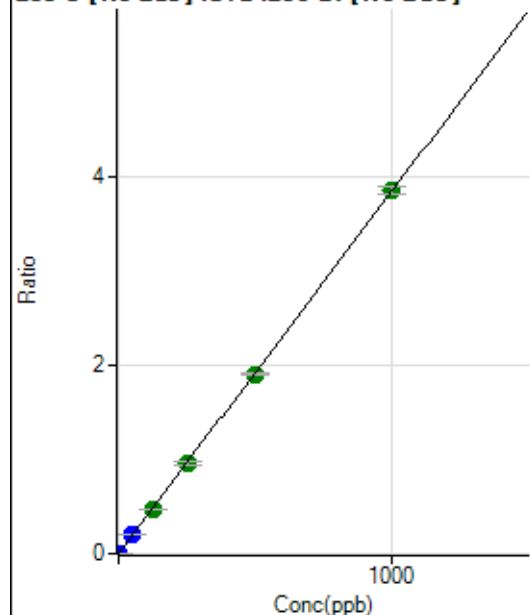
$$DL = 0.007559$$

$$BEC = 0.02236$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1344.58	0.0001	P	10.5
2	☐	1.000	0.887	73289.88	0.0035	P	1.1
3	☐	50.000	50.949	4052379.60	0.1956	P	1.1
4	☐	125.000	121.835	9448036.76	0.4676	A	0.8
5	☐	250.000	249.247	19390598.52	0.9565	A	2.7
6	☐	500.000	496.488	40109586.66	1.9053	A	0.8
7	☐	1000.000	1002.293	79140733.71	3.8462	A	2.0
8	☐			21210.06	0.0013	P	17.3

$$y = 0.0038 * x + 6.0371E-005$$

$$R = 1.0000$$

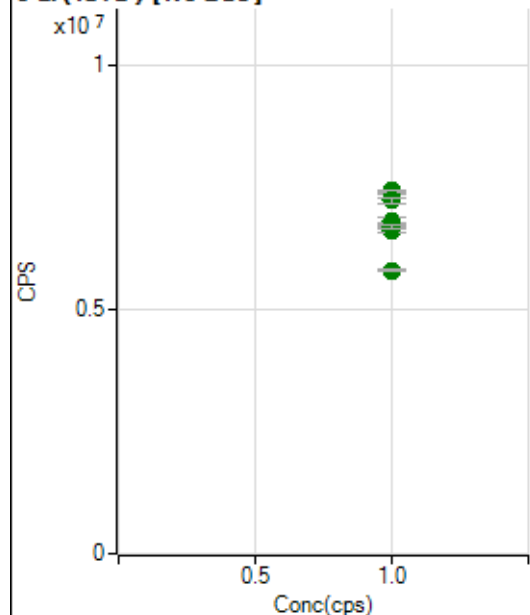
$$DL = 0.004937$$

$$BEC = 0.01573$$

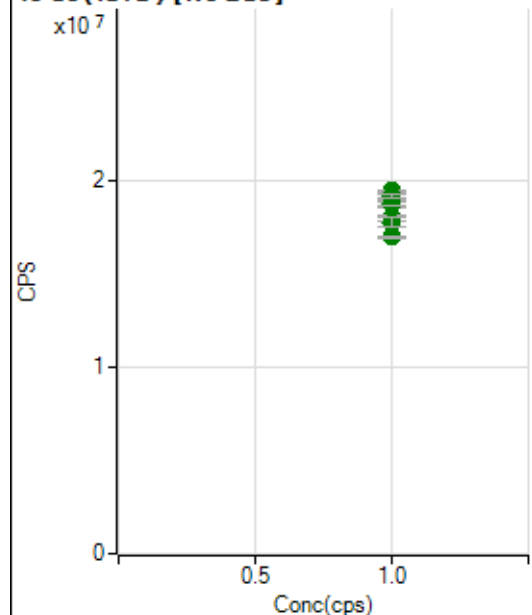
Weight: <None>

Min Conc: 0

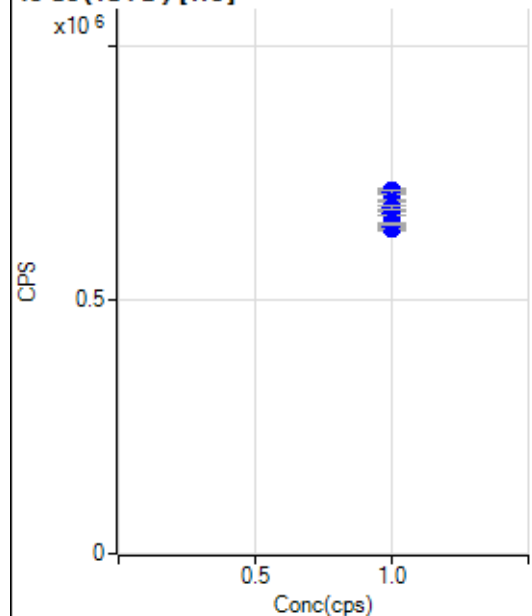
6 Li (ISTD) [No Gas]



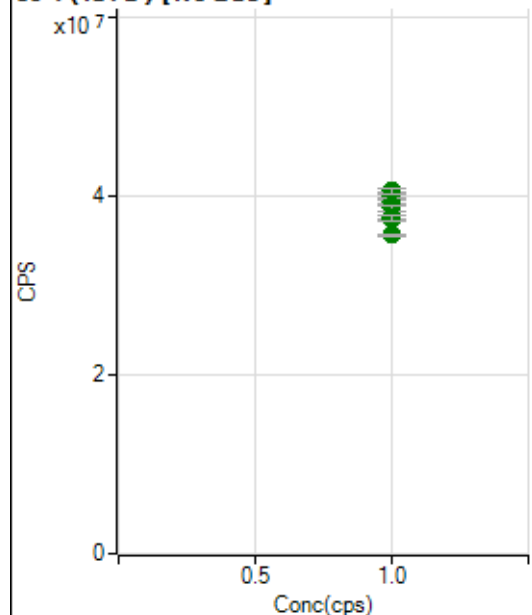
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		7369186.49		A	0.3
2	☐	1.000		7421084.40		A	0.6
3	☐	1.000		7217888.36		A	1.8
4	☐	1.000		6811434.20		A	1.7
5	☐	1.000		6622049.07		A	1.6
6	☐	1.000		6769559.97		A	0.4
7	☐	1.000		6699962.89		A	1.2
8	☐	1.000		5798283.25		A	0.5

45 Sc (ISTD) [No Gas]

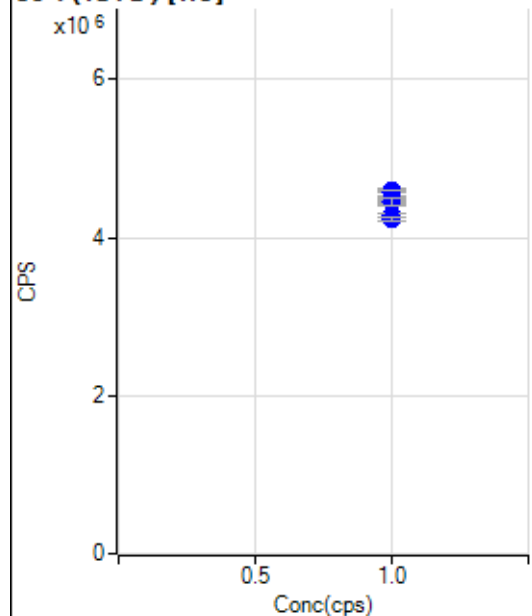
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		19458895.22		A	0.3
2	☐	1.000		19026661.19		A	0.9
3	☐	1.000		18722262.74		A	1.5
4	☐	1.000		18028058.91		A	1.5
5	☐	1.000		17782464.64		A	2.5
6	☐	1.000		18821082.37		A	1.2
7	☐	1.000		19168002.51		A	1.4
8	☐	1.000		16983248.64		A	0.5

45 Sc (ISTD) [He]

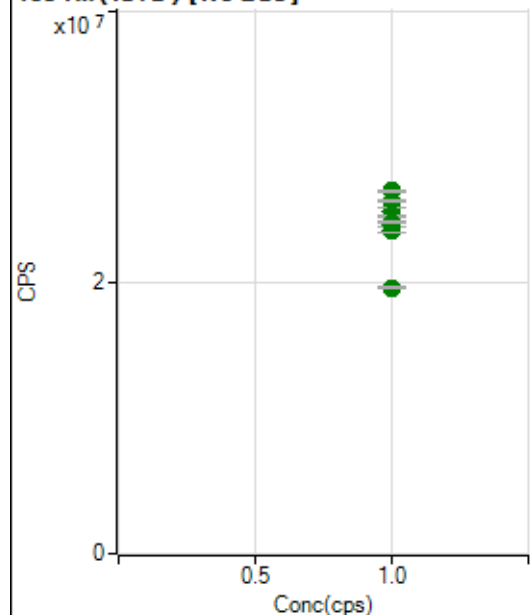
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		715084.13		P	1.0
2	☐	1.000		711211.77		P	1.1
3	☐	1.000		694054.77		P	0.5
4	☐	1.000		642284.76		P	1.2
5	☐	1.000		644403.77		P	0.8
6	☐	1.000		670958.04		P	1.0
7	☐	1.000		682033.84		P	1.4
8	☐	1.000		651825.16		P	0.6

89 Y (ISTD) [No Gas]

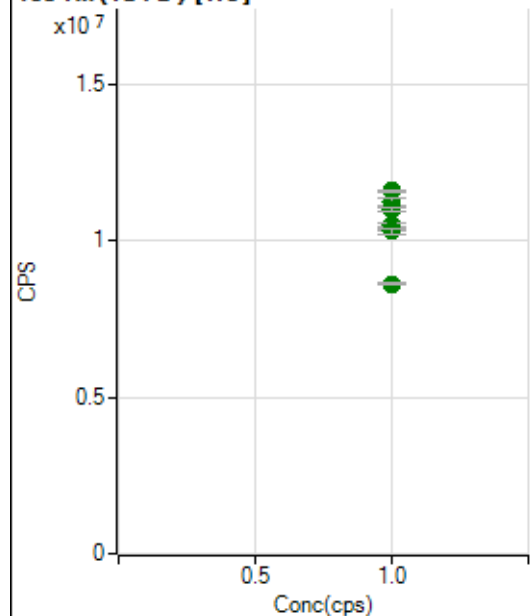
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		40211010.79		A	0.4
2	☐	1.000		39237941.92		A	1.1
3	☐	1.000		38580209.43		A	1.8
4	☐	1.000		37616668.33		A	1.0
5	☐	1.000		37451011.94		A	1.8
6	☐	1.000		39939429.68		A	1.2
7	☐	1.000		40509307.73		A	1.8
8	☐	1.000		35555558.08		A	0.2

89 Y (ISTD) [He]

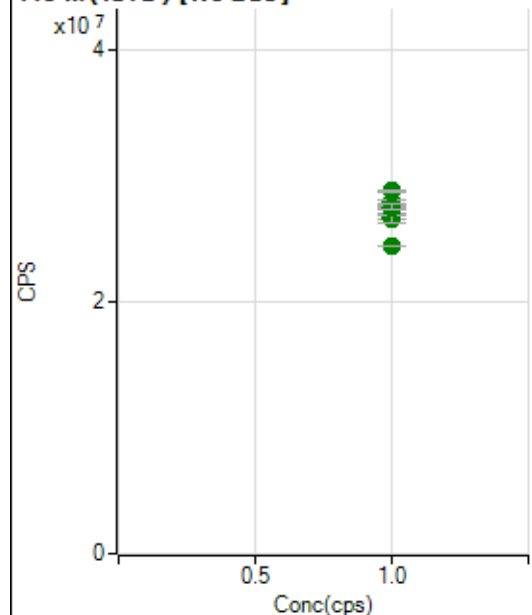
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		4591481.42		P	1.1
2	☐	1.000		4571376.29		P	1.6
3	☐	1.000		4484940.35		P	0.2
4	☐	1.000		4240213.72		P	1.1
5	☐	1.000		4292972.85		P	1.1
6	☐	1.000		4443004.17		P	0.5
7	☐	1.000		4457078.51		P	2.0
8	☐	1.000		4236602.16		P	0.7

103 Rh (ISTD) [No Gas]

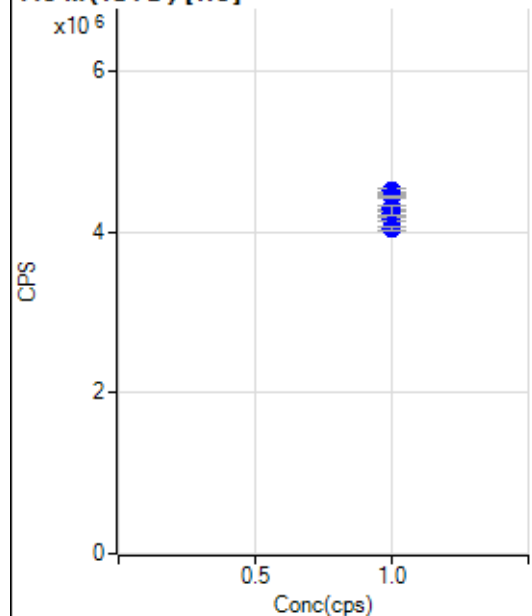
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		26742397.12		A	0.6
2	☐	1.000		25966333.22		A	0.6
3	☐	1.000		25233093.97		A	1.9
4	☐	1.000		24275133.01		A	1.0
5	☐	1.000		23876203.31		A	2.0
6	☐	1.000		24893594.13		A	0.4
7	☐	1.000		24438371.38		A	1.0
8	☐	1.000		19605619.88		A	0.6

103 Rh (ISTD) [He]

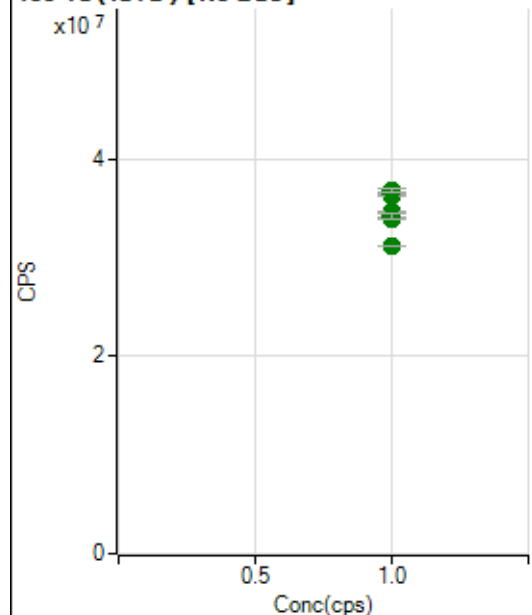
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11595622.33		A	0.4
2	☐	1.000		11241069.00		A	1.9
3	☐	1.000		11011472.06		A	0.9
4	☐	1.000		10338982.00		A	0.7
5	☐	1.000		10373809.98		A	1.5
6	☐	1.000		10516083.04		A	1.2
7	☐	1.000		10321755.75		A	1.8
8	☐	1.000		8628856.05		A	0.7

115 In (ISTD) [No Gas]

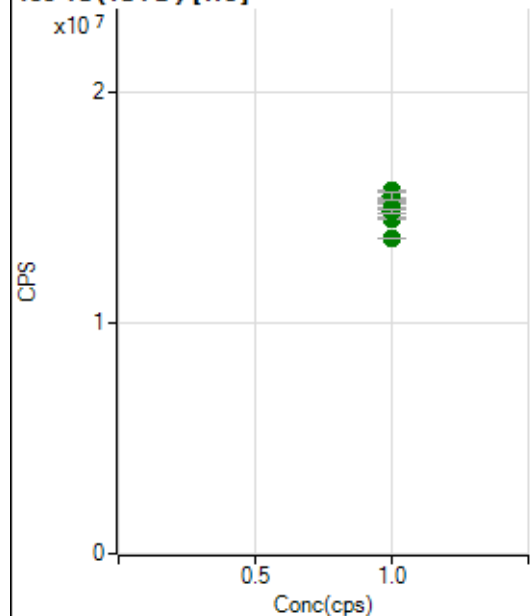
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		28846224.09		A	0.6
2	☐	1.000		27734476.66		A	0.8
3	☐	1.000		27295932.42		A	1.8
4	☐	1.000		26753979.79		A	0.7
5	☐	1.000		26563637.33		A	2.1
6	☐	1.000		27962270.08		A	1.3
7	☐	1.000		27585070.17		A	1.8
8	☐	1.000		24440410.17		A	0.2

115 In (ISTD) [He]

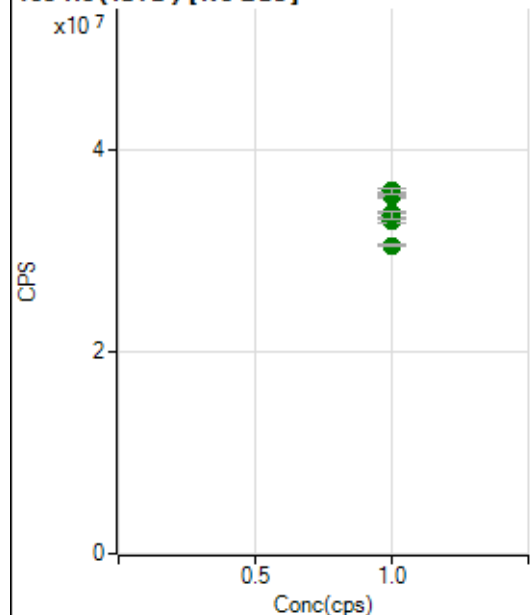
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		4470454.28		P	0.8
2	☐	1.000		4508498.16		P	1.8
3	☐	1.000		4439124.13		P	0.5
4	☐	1.000		4167742.59		P	1.3
5	☐	1.000		4218801.96		P	1.6
6	☐	1.000		4304831.45		P	1.0
7	☐	1.000		4271363.88		P	2.6
8	☐	1.000		4048561.72		P	1.2

159 Tb (ISTD) [No Gas]

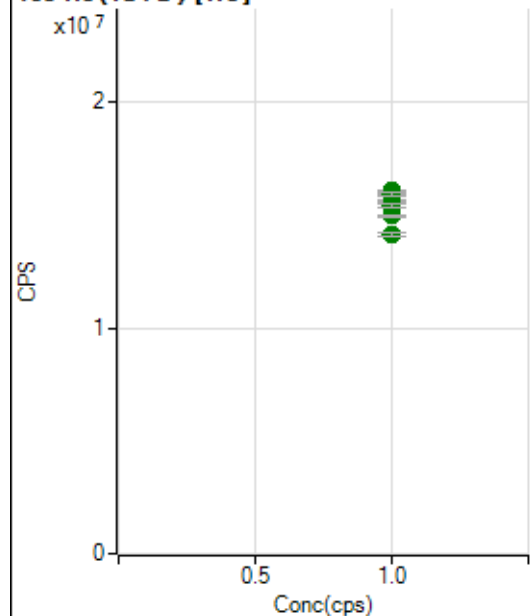
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		36331317.24		A	0.7
2	☐	1.000		34631847.82		A	1.0
3	☐	1.000		34380587.54		A	2.1
4	☐	1.000		34020494.21		A	0.9
5	☐	1.000		34216834.21		A	2.1
6	☐	1.000		36405264.73		A	1.0
7	☐	1.000		36807593.34		A	1.2
8	☐	1.000		31146358.98		A	0.1

159 Tb (ISTD) [He]

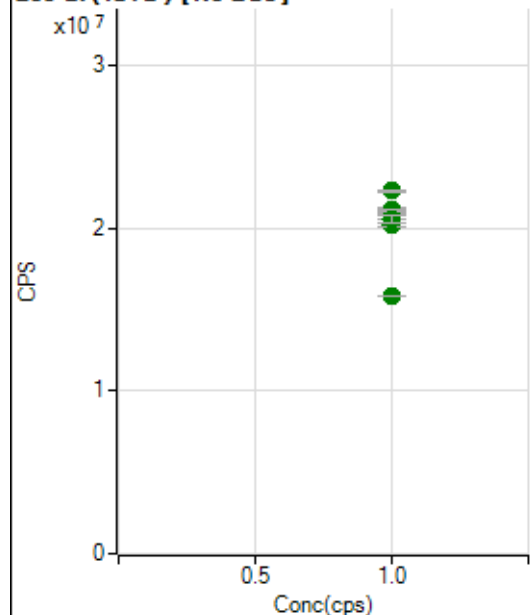
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		15711231.29		A	0.4
2	☐	1.000		15124723.11		A	1.8
3	☐	1.000		15156259.50		A	0.2
4	☐	1.000		14526600.34		A	0.5
5	☐	1.000		14827994.92		A	1.1
6	☐	1.000		15311201.71		A	1.0
7	☐	1.000		15472698.52		A	1.9
8	☐	1.000		13662612.02		A	0.5

165 Ho (ISTD) [No Gas]

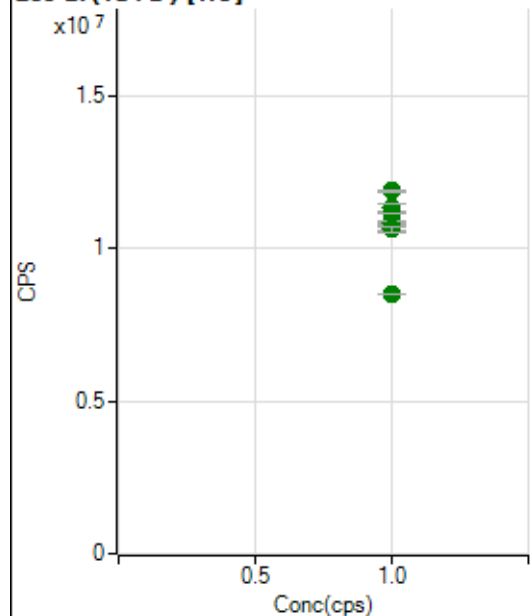
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		35381201.48		A	0.6
2	☐	1.000		33813345.90		A	0.8
3	☐	1.000		33590277.14		A	1.3
4	☐	1.000		32958025.74		A	1.1
5	☐	1.000		33542843.46		A	2.4
6	☐	1.000		35599100.10		A	0.9
7	☐	1.000		35977550.11		A	1.5
8	☐	1.000		30600792.35		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		16061759.21		A	0.5
2	☐	1.000		15486551.02		A	2.6
3	☐	1.000		15581745.32		A	0.5
4	☐	1.000		14955263.81		A	0.4
5	☐	1.000		15398528.80		A	0.8
6	☐	1.000		15936374.62		A	0.6
7	☐	1.000		15920524.21		A	1.6
8	☐	1.000		14139039.23		A	0.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		22275628.84		A	0.4
2	☐	1.000		21148598.44		A	0.6
3	☐	1.000		20723100.66		A	1.9
4	☐	1.000		20207020.53		A	1.0
5	☐	1.000		20280232.06		A	2.3
6	☐	1.000		21052621.77		A	0.7
7	☐	1.000		20582445.81		A	2.3
8	☐	1.000		15812174.35		A	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11897856.35		A	0.6
2	☐	1.000		11337629.41		A	1.9
3	☐	1.000		11175259.42		A	0.3
4	☐	1.000		10660848.17		A	1.1
5	☐	1.000		10810748.45		A	1.1
6	☐	1.000		10859440.95		A	0.9
7	☐	1.000		10643639.08		A	1.5
8	☐	1.000		8518253.28		A	0.5

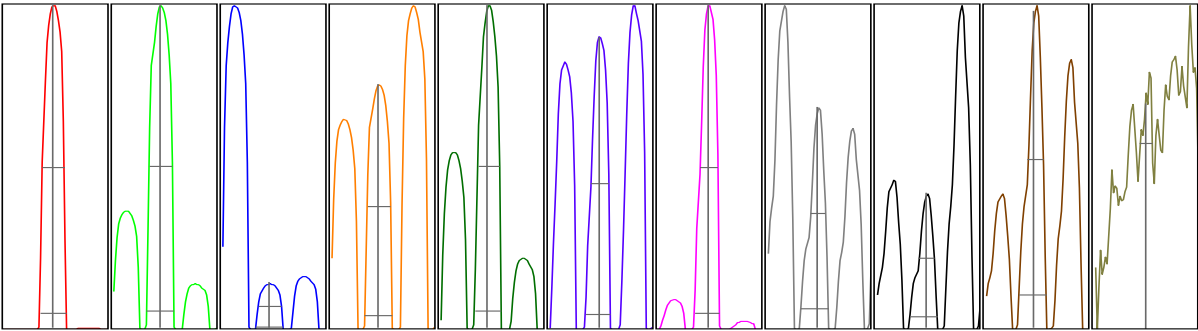
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7020320 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	25355	3.36	5.00		
24	422558	3.27	5.00		
25	59757	3.63	5.00		
26	69797	3.61	5.00		
59	248111	3.50	5.00		
113	29781	3.67	5.00		
115	366107	3.84	5.00		
206	74825	3.51	5.00		
207	69726	3.48	5.00		
208	161602	3.21	5.00		
220	58	6.01			

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	26464	25251	25743	24137	25180
24	440795	420553	429334	403393	418716
25	62676	59601	60658	56753	59099
26	73434	69083	70880	66675	68914
59	259759	246946	252112	236202	245535
113	31290	29663	30204	28292	29458
115	385189	365517	372311	347331	360186
206	78482	74184	75890	71302	74265
207	73204	69486	70206	66407	69326
208	169175	161672	162246	154690	160228
220	56	56	53	60	62

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	42125	8.95	8.9 - 9.1		0.781	0.900	
24	663990	23.90	23.9 - 24.1		0.788	0.900	
25	93369	24.90	24.9 - 25.1		0.788	0.900	
26	108884	25.90	25.9 - 26.1		0.788	0.900	
59	413590	58.90	58.9 - 59.1		0.782	0.900	
113	56294	113.00	112.9 - 113.1		0.725	0.900	
115	688973	115.00	114.9 - 115.1		0.727	0.900	
206	151184	206.00	205.9 - 206.1		0.792	0.900	
207	137357	207.00	206.9 - 207.1		0.787	0.900	
208	323057	207.95	207.9 - 208.1		0.785	0.900	
220	59	220.05	-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.0	V	Deflect	13.2	V
Extract 2	-140.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	190	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	57334	1.26	
89	93523	1.18	
205	59450	0.79	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	57544	58470	57218	56718	56721
89	93900	95195	93443	92576	92500
205	59798	60062	59291	58913	59184

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.2	V	Deflect	2.2	V
Extract 2	-155.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			