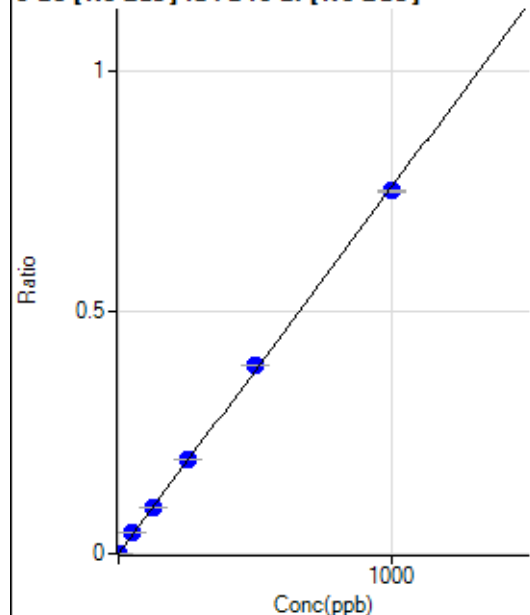


Batch Folder: D:\ICP-MS Data\P7073019-MS.b\
Analysis File: P7073019-MS.batch.bin
DA Date-Time: 2019-07-30 11:31:02
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-07-30 10:38:29
2	003CALS.d	S01	2019-07-30 10:42:05
3	004CALS.d	S02	2019-07-30 10:46:49
4	005CALS.d	S03	2019-07-30 10:50:45
5	006CALS.d	S04	2019-07-30 10:54:57
6	007CALS.d	S05	2019-07-30 10:58:47
7	008CALS.d	S06	2019-07-30 11:02:36
8	009CALS.d	S07	2019-07-30 11:06:23
9	010CALS.d	S08	2019-07-30 11:10:11

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	83.33	0.0000	P	7.9
2	☐	0.100	0.105	313.34	0.0001	P	10.1
3	☐	1.000	1.024	2380.22	0.0008	P	3.9
4	☐	50.000	58.842	130692.33	0.0446	P	0.4
5	☐	125.000	127.170	273897.00	0.0964	P	0.6
6	☐	250.000	258.740	548917.37	0.1962	P	0.4
7	☐	500.000	513.661	1077982.40	0.3895	P	0.2
8	☐	1000.000	990.271	2099251.11	0.7508	P	0.3
9	☐			443.35	0.0002	P	12.7

$$y = 7.5817\text{E-}004 * x + 2.8165\text{E-}005$$

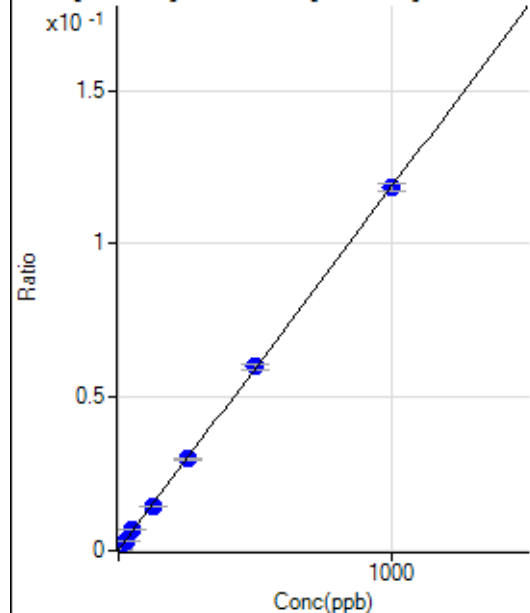
$$R = 0.9998$$

$$DL = 0.008768$$

$$BEC = 0.03715$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	827.84	0.0003	P	9.7
2	☐	2.500	2.359	1627.94	0.0006	P	10.4
3	☐	25.000	23.681	9108.67	0.0031	P	1.3
4	☐	50.000	56.019	20203.04	0.0069	P	1.9
5	☐	125.000	120.667	41299.00	0.0145	P	0.3
6	☐	250.000	250.542	83628.47	0.0299	P	3.2
7	☐	500.000	505.519	166164.72	0.0600	P	2.9
8	☐	1000.000	997.379	330361.00	0.1182	P	2.0
9	☐			17480.19	0.0065	P	5.6

$$y = 1.1820\text{E-}004 * x + 2.7978\text{E-}004$$

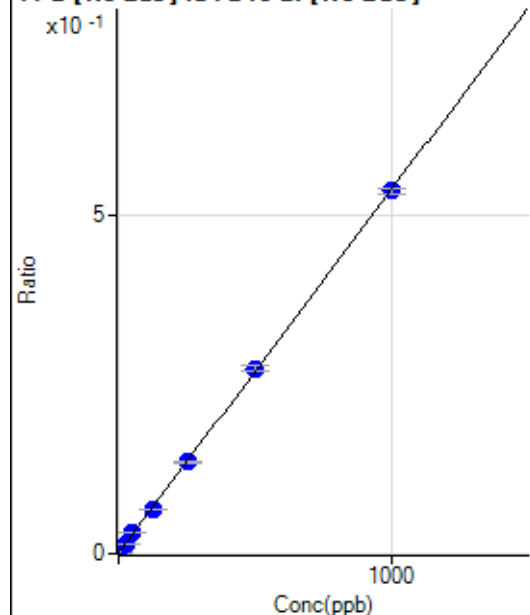
$$R = 0.9999$$

$$DL = 0.6888$$

$$BEC = 2.367$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3633.93	0.0012	P	0.9
2	☐	2.500	2.448	7416.00	0.0025	P	2.4
3	☐	25.000	23.333	40761.52	0.0138	P	2.6
4	☐	50.000	55.751	91379.09	0.0312	P	0.8
5	☐	125.000	121.476	189026.38	0.0666	P	0.7
6	☐	250.000	249.991	379601.21	0.1357	P	0.9
7	☐	500.000	507.954	759583.79	0.2744	P	2.4
8	☐	1000.000	996.220	1501379.40	0.5370	P	1.6
9	☐			80255.36	0.0297	P	6.5

$$y = 5.3784\text{E-}004 * x + 0.0012$$

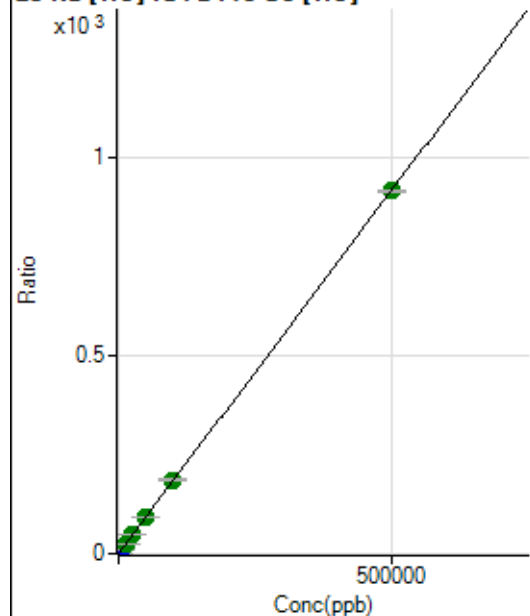
$$R = 0.9999$$

$$DL = 0.05883$$

$$BEC = 2.284$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12561.35	0.0522	P	1.6
2	☐	50.000	49.910	34418.04	0.1439	P	1.5
3	☐	500.000	558.280	234500.07	1.0776	P	8.5
4	☐	5000.000	5700.416	2443182.00	10.5223	P	0.1
5	☐	12500.000	12326.173	5136427.20	22.6920	A	0.7
6	☐	25000.000	25972.876	10616226.37	47.7573	A	0.4
7	☐	50000.000	51508.587	20906871.65	94.6594	A	0.3
8	☐	100000.00	101394.20	42368306.15	186.2857	A	1.6
9	☐	500000.00	499518.94	206900728.2	917.5320	A	0.4

$$y = 0.0018 * x + 0.0522$$

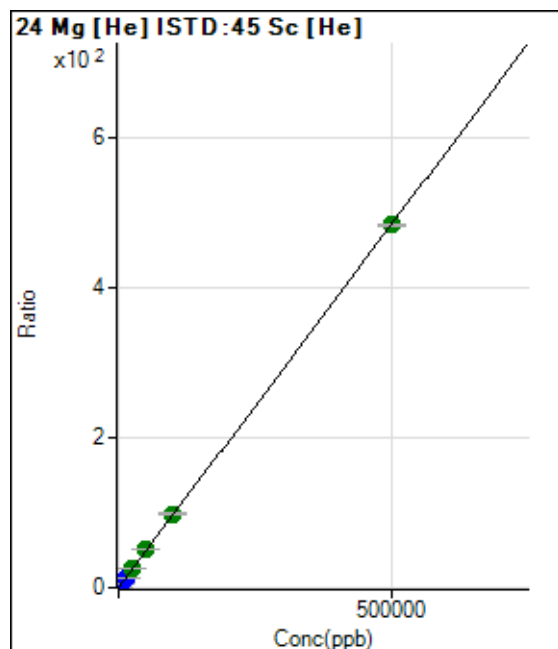
$$R = 1.0000$$

$$DL = 1.384$$

$$BEC = 28.44$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	113.89	0.0005	P	40.6
2	☐	50.000	53.331	12489.08	0.0522	P	2.1
3	☐	500.000	578.163	122254.38	0.5614	P	7.5
4	☐	5000.000	5761.690	1298090.19	5.5906	P	0.4
5	☐	12500.000	12379.074	2718723.26	12.0109	P	0.6
6	☐	25000.000	26159.377	5642071.96	25.3809	A	0.3
7	☐	50000.000	51958.670	11134755.20	50.4120	A	0.3
8	☐	100000.00	101416.58	22379443.04	98.3973	A	1.5
9	☐	500000.00	499458.17	109273581.6	484.5867	A	0.3

$$y = 9.7022\text{E-}004 * x + 4.7415\text{E-}004$$

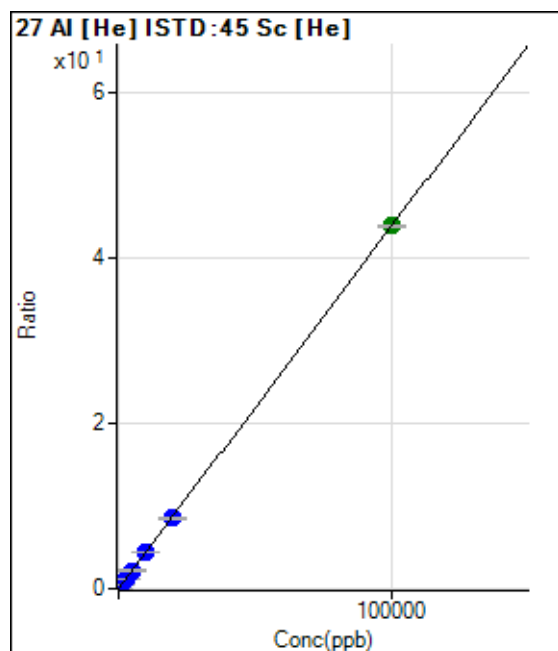
$$R = 1.0000$$

$$DL = 0.5952$$

$$BEC = 0.4887$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.56	0.0001	P	57.0
2	☐	2.000	2.120	252.79	0.0011	P	3.2
3	☐	20.000	20.439	1975.21	0.0091	P	13.9
4	☐	1000.000	1124.534	114494.50	0.4931	P	1.1
5	☐	2500.000	2405.550	238745.47	1.0547	P	0.7
6	☐	5000.000	5029.189	490141.66	2.2049	P	0.8
7	☐	10000.000	9964.347	964853.22	4.3685	P	0.3
8	☐	20000.000	19462.841	1940696.42	8.5326	P	1.1
9	☐	100000.00	100110.65	9896391.02	43.8882	A	0.4

$$y = 4.3840\text{E-}004 * x + 1.2722\text{E-}004$$

$$R = 1.0000$$

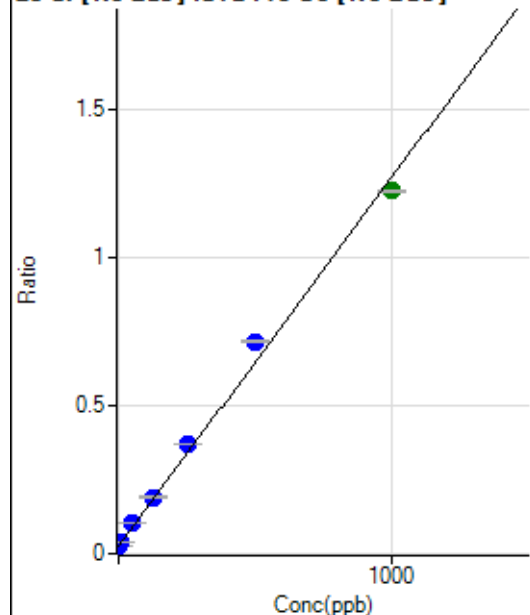
$$DL = 0.4963$$

$$BEC = 0.2902$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	134993.70	0.0247	P	0.5
2	☒	1.000					
3	☐	10.000	9.441	195397.83	0.0364	P	0.6
4	☐	50.000	61.681	533385.27	0.1014	P	1.5
5	☐	125.000	133.713	968992.81	0.1910	P	0.6
6	☐	250.000	276.960	1841930.60	0.3693	P	0.8
7	☐	500.000	554.465	3557057.59	0.7146	P	0.9
8	☐	1000.000	964.360	6189367.32	1.2247	A	0.7
9	☐			265515.18	0.0536	P	1.0

$$y = 0.0012 * x + 0.0247$$

$$R = 0.9973$$

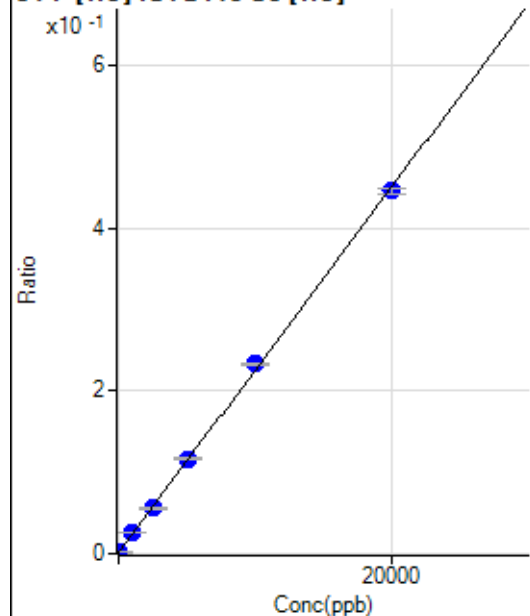
$$DL = 0.3033$$

$$BEC = 19.82$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-24.954	125.01	0.0005	P	11.3
2	☒	0.000					
3	☐	0.000	24.954	358.35	0.0016	P	13.4
4	☐	1000.000	1123.677	6107.09	0.0263	P	3.2
5	☐	2500.000	2432.464	12603.03	0.0557	P	2.4
6	☐	5000.000	5142.168	25901.08	0.1165	P	1.5
7	☐	10000.000	10332.504	51464.90	0.2330	P	0.9
8	☐	20000.000	19800.464	101337.94	0.4456	P	1.8
9	☐			136.12	0.0006	P	46.7

$$y = 2.2448E-005 * x + 0.0011$$

$$R = 0.9997$$

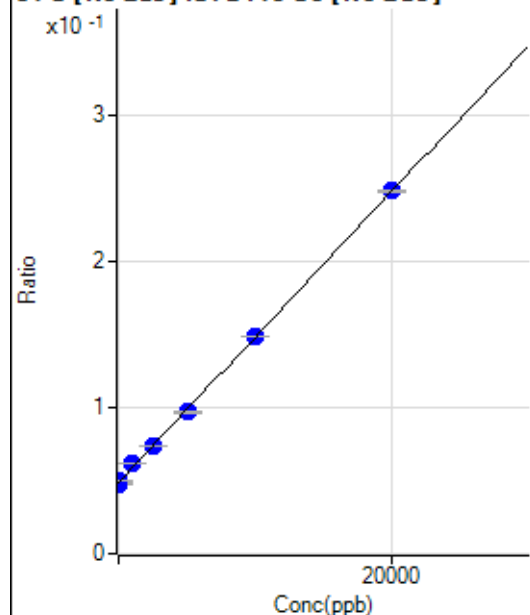
$$DL = 18.62$$

$$BEC = 48.11$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-74.935	262387.18	0.0479	P	2.0
2	☒	0.000					
3	☐	0.000	74.935	265223.73	0.0494	P	0.7
4	☐	1000.000	1273.509	322600.57	0.0613	P	0.7
5	☐	2500.000	2486.574	372253.08	0.0734	P	0.5
6	☐	5000.000	4835.310	482482.08	0.0967	P	1.3
7	☐	10000.000	9994.840	736780.78	0.1480	P	0.2
8	☐	20000.000	20031.755	1252314.81	0.2478	P	0.3
9	☐			212604.20	0.0429	P	0.7

$$y = 9.9397\text{E-}006 * x + 0.0487$$

$$R = 0.9998$$

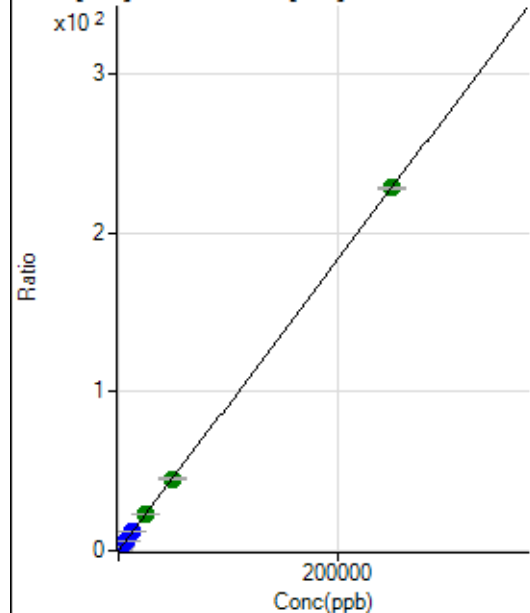
$$DL = 194.3$$

$$BEC = 4897$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	14955.34	0.0622	P	1.5
2	☐	50.000	53.298	26516.11	0.1109	P	0.9
3	☐	500.000	571.257	127045.93	0.5839	P	8.6
4	☐	2500.000	2848.022	618301.59	2.6629	P	0.4
5	☐	6250.000	6063.863	1267492.07	5.5996	P	0.6
6	☐	12500.000	12619.523	2575536.62	11.5861	P	0.4
7	☐	25000.000	25165.045	5089391.61	23.0423	A	0.5
8	☐	50000.000	49598.324	10315755.44	45.3543	A	1.2
9	☐	250000.00	250058.88	51505266.78	228.4103	A	0.3

$$y = 9.1318\text{E-}004 * x + 0.0622$$

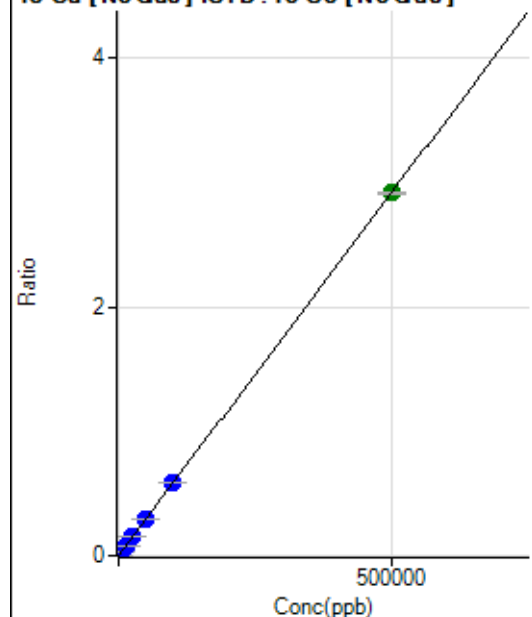
$$R = 1.0000$$

$$DL = 3.013$$

$$BEC = 68.11$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	88.89	0.0000	P	32.5
2	☐	50.000	51.583	1683.50	0.0003	P	7.7
3	☐	500.000	497.865	15681.18	0.0029	P	2.7
4	☐	5000.000	5726.693	175875.82	0.0334	P	0.7
5	☐	12500.000	12427.516	367942.13	0.0725	P	0.6
6	☐	25000.000	25559.492	744062.26	0.1492	P	0.2
7	☐	50000.000	50859.317	1477459.01	0.2968	P	0.2
8	☐	100000.00	99930.550	2947487.54	0.5832	P	0.6
9	☐	500000.00	499894.53	14452687.48	2.9173	A	0.4

$$y = 5.8359E-006 * x + 1.6225E-005$$

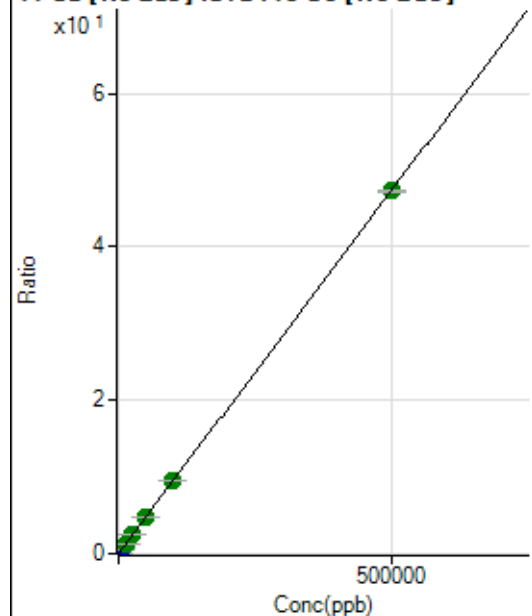
$$R = 1.0000$$

$$DL = 2.713$$

$$BEC = 2.78$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5665.33	0.0010	P	3.5
2	☐	50.000	51.912	31568.17	0.0059	P	0.9
3	☐	500.000	498.132	258555.79	0.0482	P	1.0
4	☐	5000.000	5682.699	2834153.80	0.5388	P	0.5
5	☐	12500.000	12361.201	5938873.27	1.1709	A	0.3
6	☐	25000.000	25541.523	12061269.97	2.4182	A	0.6
7	☐	50000.000	51297.709	24169580.92	4.8557	A	0.2
8	☐	100000.00	101119.23	48370075.73	9.5707	A	0.8
9	☐	500000.00	499615.95	234245446.9	47.2836	A	0.3

$$y = 9.4638E-005 * x + 0.0010$$

$$R = 1.0000$$

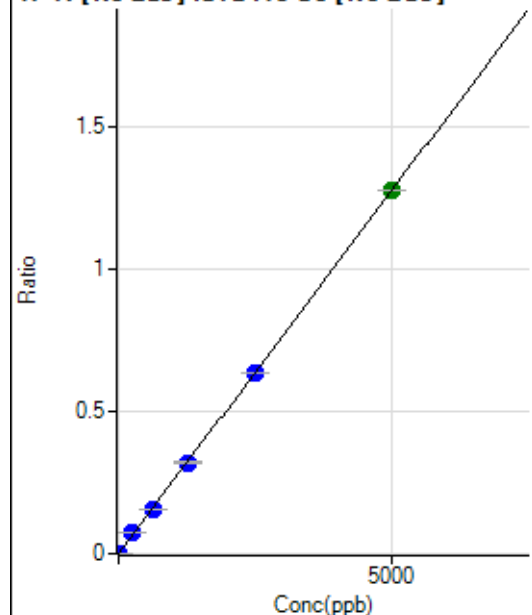
$$DL = 1.14$$

$$BEC = 10.93$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.23	0.0000	P	23.5
2	☐	0.500	0.503	750.05	0.0001	P	5.9
3	☐	5.000	4.884	6746.29	0.0013	P	2.0
4	☐	250.000	282.747	378778.74	0.0720	P	0.9
5	☐	625.000	613.548	792547.11	0.1563	P	0.3
6	☐	1250.000	1257.390	1597110.43	0.3202	P	0.3
7	☐	2500.000	2495.939	3163760.75	0.6356	P	0.3
8	☐	5000.000	4999.977	6435229.96	1.2733	A	0.2
9	☐			2558.67	0.0005	P	3.7

$$y = 2.5465E-004 * x + 1.3185E-005$$

$$R = 1.0000$$

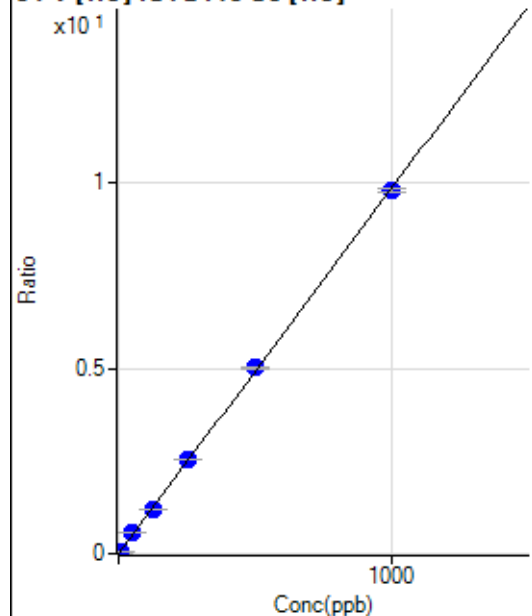
$$DL = 0.03652$$

$$BEC = 0.05178$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.56	0.0000	P	35.0
2	☐	0.500	0.522	1234.52	0.0052	P	5.4
3	☐	5.000	5.849	12543.26	0.0576	P	8.6
4	☐	50.000	56.769	129859.94	0.5593	P	0.3
5	☐	125.000	122.302	272735.94	1.2049	P	0.3
6	☐	250.000	256.611	561972.23	2.5280	P	0.3
7	☐	500.000	509.315	1108166.91	5.0175	P	0.8
8	☐	1000.000	993.685	2226564.53	9.7893	P	1.1
9	☐			467.79	0.0021	P	4.9

$$y = 0.0099 * x + 2.3133E-005$$

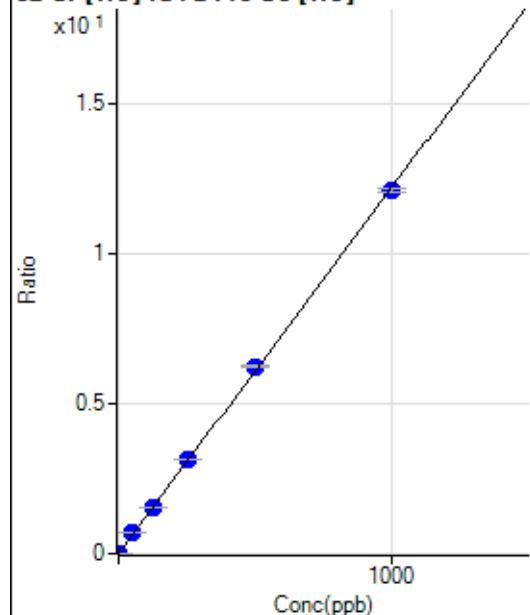
$$R = 0.9999$$

$$DL = 0.002469$$

$$BEC = 0.002348$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	708.92	0.0029	P	9.5
2	☐	0.200	0.160	1171.18	0.0049	P	6.1
3	☐	2.000	2.212	6512.67	0.0299	P	7.8
4	☐	50.000	58.105	165149.46	0.7113	P	0.6
5	☐	125.000	124.291	343630.58	1.5181	P	0.4
6	☐	250.000	258.360	700768.97	3.1524	P	0.3
7	☐	500.000	511.353	1377357.90	6.2364	P	0.7
8	☐	1000.000	991.917	2750846.35	12.0946	P	1.2
9	☐			40982.45	0.1818	P	2.1

$$y = 0.0122 * x + 0.0029$$

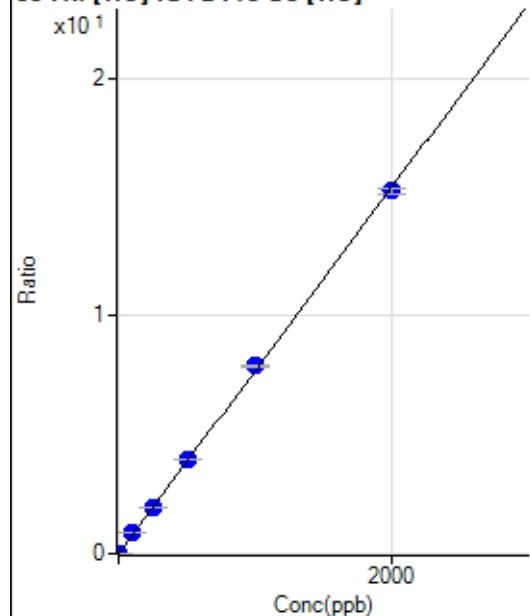
$$R = 0.9998$$

$$DL = 0.06908$$

$$BEC = 0.2419$$

Weight: <None>

Min Conc: 0

55 Mn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	166.67	0.0007	P	6.9
2	☒	0.100					
3	☐	1.000	1.149	2080.18	0.0095	P	5.6
4	☐	100.000	115.672	206963.90	0.8914	P	0.3
5	☐	250.000	249.430	434896.46	1.9213	P	0.3
6	☐	500.000	517.745	886363.68	3.9873	P	0.1
7	☐	1000.000	1026.090	1745057.09	7.9015	P	0.9
8	☐	2000.000	1981.806	3470844.84	15.2605	P	1.4
9	☐			13051.50	0.0579	P	1.9

$$y = 0.0077 * x + 6.9297E-004$$

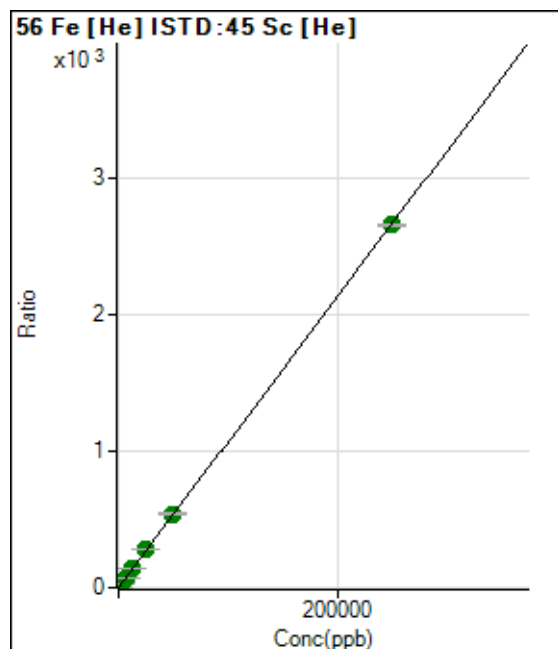
$$R = 0.9998$$

$$DL = 0.0186$$

$$BEC = 0.09$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3120.79	0.0130	P	3.9
2	☐	5.000	5.330	16683.91	0.0698	P	1.8
3	☐	50.000	61.057	144363.12	0.6634	P	8.9
4	☐	2500.000	2929.982	7250095.53	31.2252	A	0.4
5	☐	6250.000	6294.433	15180708.56	67.0657	A	0.8
6	☐	12500.000	13162.322	31171956.71	140.2273	A	0.3
7	☐	25000.000	26132.774	61486390.26	278.3977	A	0.7
8	☐	50000.000	50699.143	122842251.8	540.0960	A	1.1
9	☐	250000.00	249708.36	599831783.7	2,660.082	A	0.2

$$y = 0.0107 * x + 0.0130$$

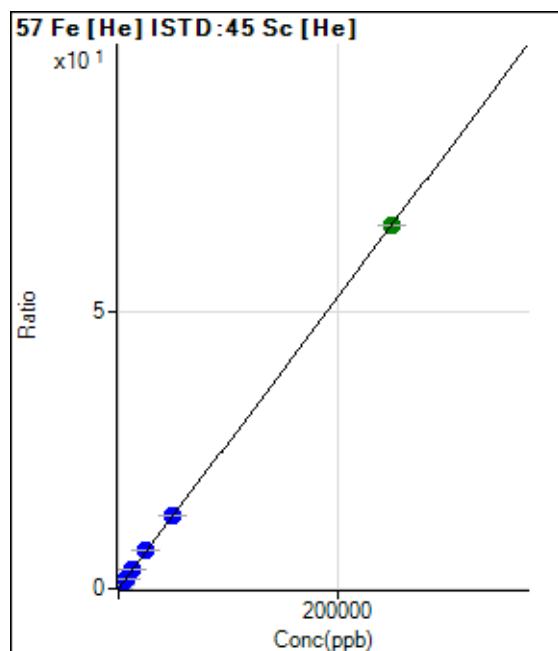
$$R = 1.0000$$

$$DL = 0.1419$$

$$BEC = 1.218$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	159.26	0.0007	P	17.8
2	☐	5.000	5.404	498.17	0.0021	P	4.0
3	☐	50.000	62.510	3728.37	0.0171	P	5.1
4	☐	2500.000	2961.855	180970.79	0.7794	P	0.4
5	☐	6250.000	6387.159	380278.93	1.6800	P	0.5
6	☐	12500.000	13268.171	775644.22	3.4892	P	0.1
7	☐	25000.000	26135.245	1517796.89	6.8723	P	0.8
8	☐	50000.000	50576.890	3024727.15	13.2987	P	1.1
9	☐	250000.00	249724.63	14805978.11	65.6598	A	0.1

$$y = 2.6293E-004 * x + 6.6218E-004$$

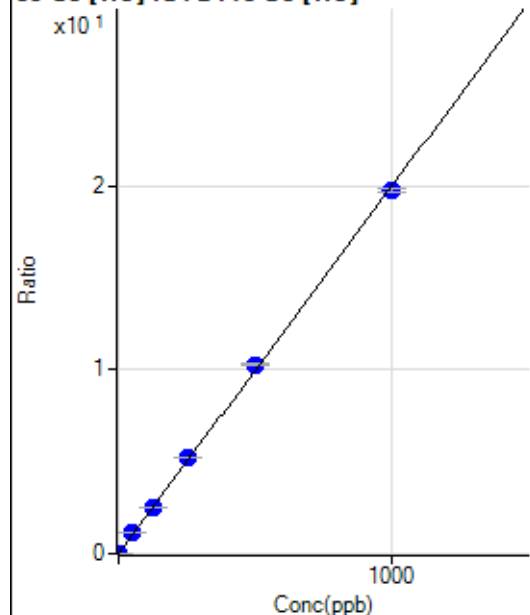
$$R = 1.0000$$

$$DL = 1.347$$

$$BEC = 2.519$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	61.11	0.0003	P	20.4
2	☐	0.100	0.111	588.91	0.0025	P	8.3
3	☐	1.000	1.158	5086.52	0.0234	P	8.5
4	☐	50.000	59.299	274923.99	1.1840	P	0.3
5	☐	125.000	126.366	571071.84	2.5229	P	0.7
6	☐	250.000	262.665	1165678.19	5.2439	P	0.6
7	☐	500.000	515.413	2272434.15	10.2895	P	0.9
8	☐	1000.000	988.491	4488318.16	19.7336	P	1.2
9	☐			52620.77	0.2333	P	0.4

$$y = 0.0200 * x + 2.5403E-004$$

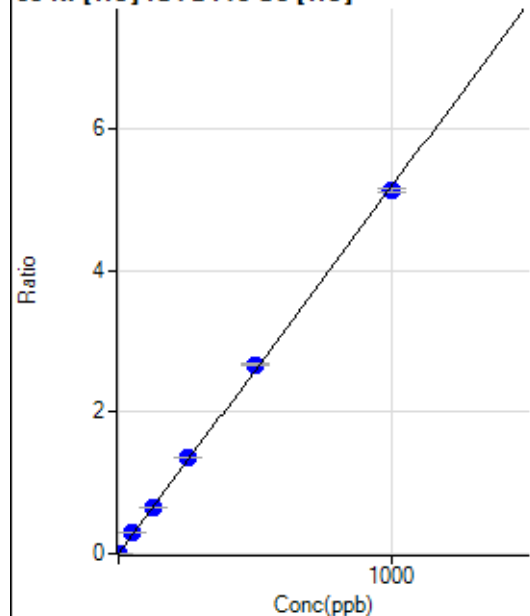
$$R = 0.9997$$

$$DL = 0.007776$$

$$BEC = 0.01272$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.22	0.0002	P	16.1
2	☐	0.100	0.107	184.45	0.0008	P	5.2
3	☐	1.000	1.222	1431.21	0.0066	P	4.1
4	☐	50.000	59.866	72207.90	0.3110	P	0.7
5	☐	125.000	127.729	150133.34	0.6633	P	0.6
6	☐	250.000	262.459	302914.91	1.3627	P	0.7
7	☐	500.000	514.977	590460.71	2.6735	P	1.1
8	☐	1000.000	988.562	1167239.86	5.1320	P	1.2
9	☐			20022.73	0.0888	P	1.2

$$y = 0.0052 * x + 2.1715E-004$$

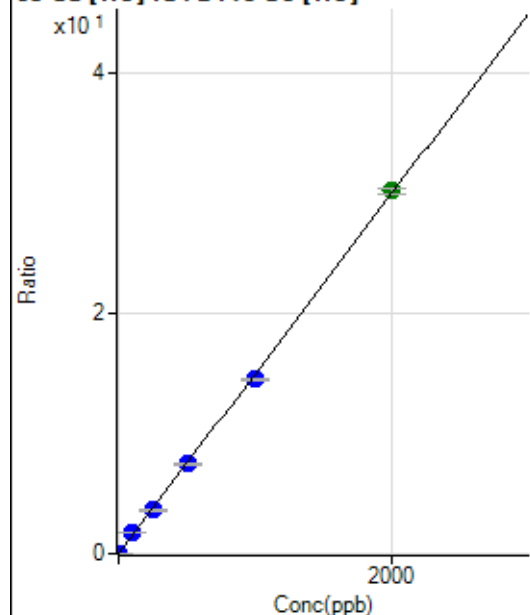
$$R = 0.9997$$

$$DL = 0.02019$$

$$BEC = 0.04183$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	760.03	0.0032	P	3.6
2	☐	0.200	0.205	1488.99	0.0062	P	2.6
3	☐	2.000	2.290	8131.26	0.0374	P	9.3
4	☐	100.000	114.125	396708.56	1.7086	P	0.4
5	☐	250.000	241.558	817763.03	3.6129	P	1.1
6	☐	500.000	497.798	1654292.68	7.4419	P	0.9
7	☐	1000.000	968.469	3197107.07	14.4754	P	0.6
8	☐	2000.000	2016.665	6854772.12	30.1389	A	1.5
9	☐			9992.45	0.0443	P	2.4

$$y = 0.0149 * x + 0.0032$$

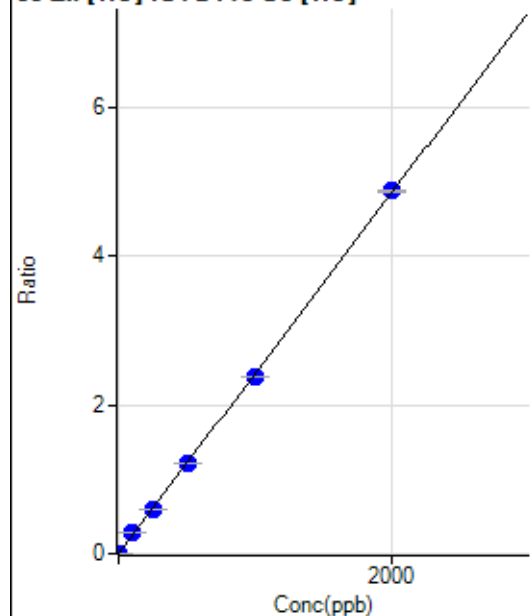
$$R = 0.9998$$

$$DL = 0.02254$$

$$BEC = 0.2115$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	274.45	0.0011	P	14.9
2	☒	0.200					
3	☐	2.000	2.237	1435.65	0.0066	P	6.3
4	☐	100.000	113.229	64086.74	0.2760	P	1.0
5	☐	250.000	241.538	132984.12	0.5875	P	0.9
6	☐	500.000	502.049	271178.09	1.2199	P	0.4
7	☐	1000.000	977.572	524379.48	2.3742	P	0.4
8	☐	2000.000	2011.098	1110672.37	4.8832	P	0.9
9	☐			13002.60	0.0577	P	0.8

$$y = 0.0024 * x + 0.0011$$

$$R = 0.9999$$

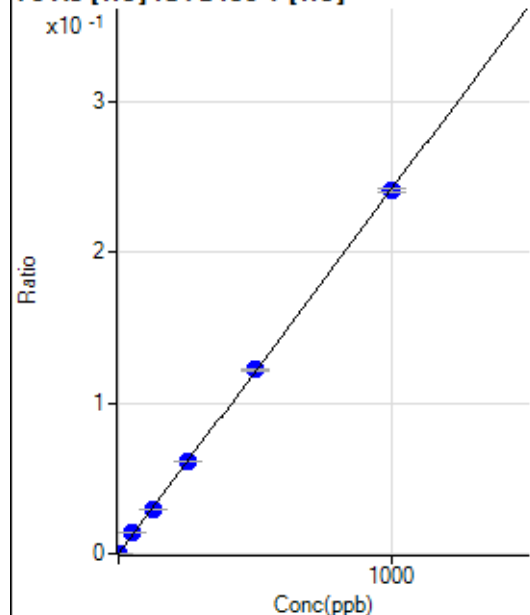
$$DL = 0.2099$$

$$BEC = 0.47$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12.96	0.0000	P	28.7
2	☒	0.100					
3	☐	1.000	1.086	340.75	0.0003	P	4.1
4	☐	50.000	57.597	18608.30	0.0139	P	1.7
5	☐	125.000	122.977	39172.33	0.0298	P	0.6
6	☐	250.000	254.259	79762.58	0.0615	P	0.2
7	☐	500.000	506.173	157605.47	0.1224	P	0.9
8	☐	1000.000	995.722	314173.26	0.2408	P	1.0
9	☐			408.65	0.0003	P	7.3

$$y = 2.4184\text{E-}004 * x + 9.4081\text{E-}006$$

$$R = 0.9999$$

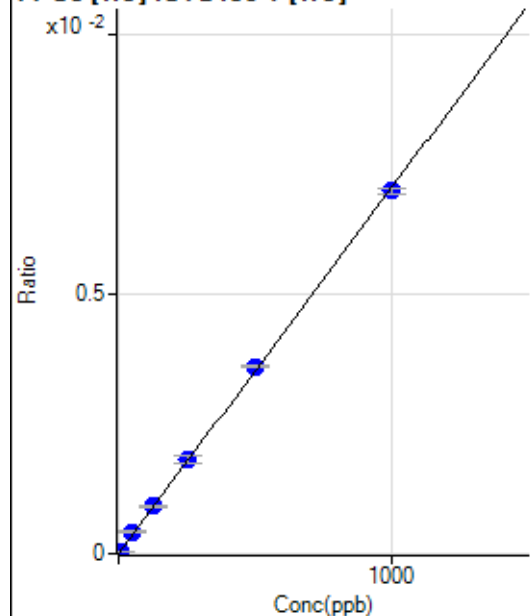
$$DL = 0.03348$$

$$BEC = 0.0389$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☒	0.500					
3	☐	5.000	4.320	37.78	0.0000	P	21.6
4	☐	50.000	59.359	558.91	0.0004	P	8.8
5	☐	125.000	129.356	1201.18	0.0009	P	2.0
6	☐	250.000	256.612	2346.90	0.0018	P	7.0
7	☐	500.000	511.107	4640.82	0.0036	P	1.0
8	☐	1000.000	991.784	9125.23	0.0070	P	1.4
9	☐			2.22	0.0000	P	86.6

$$y = 7.0525\text{E-}006 * x + 0.0000\text{E+}000$$

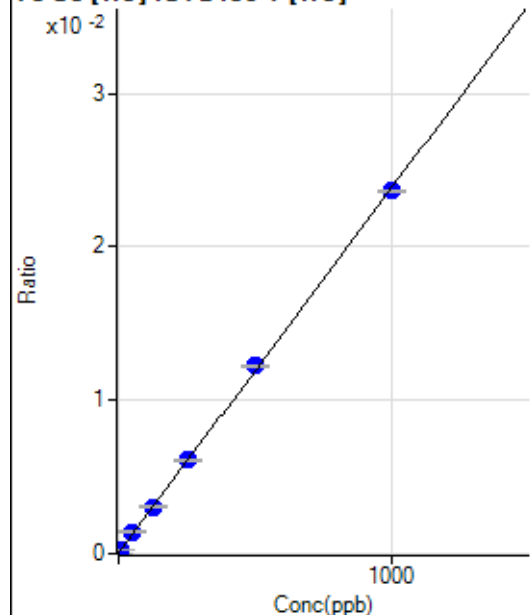
$$R = 0.9999$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.58	0.0000	P	14.4
2	☒	0.500					
3	☐	5.000	7.247	272.84	0.0002	P	8.7
4	☐	50.000	58.534	1919.28	0.0014	P	4.0
5	☐	125.000	125.168	3978.36	0.0030	P	3.4
6	☐	250.000	254.080	7893.57	0.0061	P	0.9
7	☐	500.000	512.252	15735.77	0.0122	P	1.7
8	☐	1000.000	992.395	30838.30	0.0236	P	0.8
9	☐			59.88	0.0000	P	7.2

$$y = 2.3772\text{E-}005 * x + 4.6135\text{E-}005$$

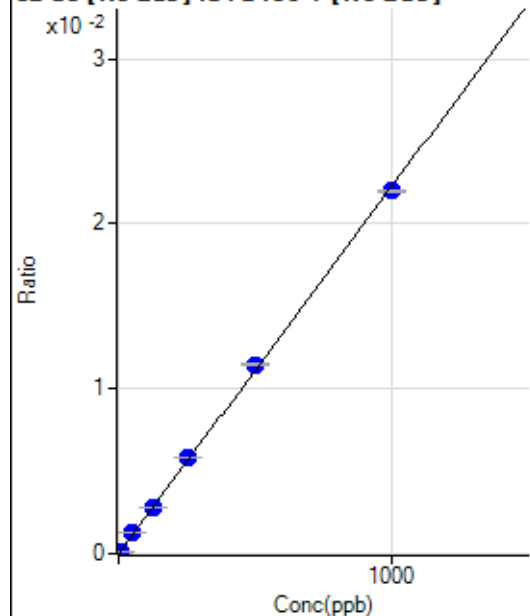
$$R = 0.9999$$

$$DL = 0.8399$$

$$BEC = 1.941$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-2.84	0.0000	P	-1758.
2	☐	0.500	0.627	129.63	0.0000	P	33.3
3	☐	5.000	5.518	1178.88	0.0001	P	4.2
4	☐	50.000	59.285	12479.31	0.0013	P	1.3
5	☐	125.000	127.128	26235.11	0.0028	P	0.3
6	☐	250.000	261.990	53001.31	0.0058	P	1.3
7	☐	500.000	514.928	104345.40	0.0114	P	1.0
8	☐	1000.000	988.806	203981.70	0.0220	P	0.4
9	☐			99.14	0.0000	P	77.6

$$y = 2.2233\text{E-}005 * x - 2.8130\text{E-}007$$

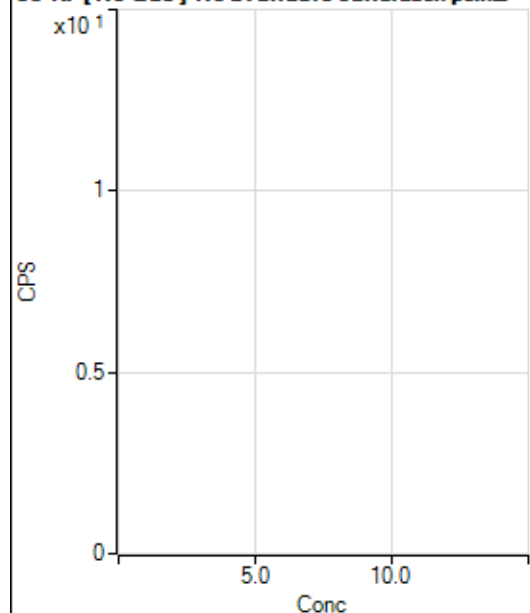
$$R = 0.9997$$

$$DL = 0.6673$$

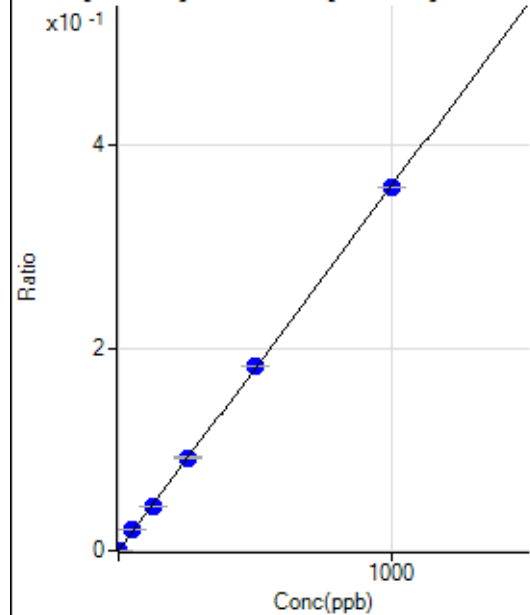
$$BEC = -0.01265$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			318.90		P	10.5
2	☐			288.90		P	14.0
3	☐			283.34		P	6.1
4	☐			277.78		P	5.0
5	☐			275.56		P	0.7
6	☐			308.90		P	8.0
7	☐			276.67		P	13.9
8	☐			268.90		P	11.1
9	☐			347.79		P	13.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	502.81	0.0001	P	18.1
2	☐	0.100	0.107	855.62	0.0001	P	6.6
3	☐	1.000	1.026	4056.31	0.0004	P	5.8
4	☐	50.000	57.203	195486.85	0.0206	P	0.9
5	☐	125.000	123.316	412539.02	0.0444	P	0.2
6	☐	250.000	255.286	836666.75	0.0919	P	0.8
7	☐	500.000	507.808	1666619.72	0.1828	P	0.3
8	☐	1000.000	994.625	3322502.11	0.3581	P	0.2
9	☐			14213.20	0.0016	P	1.3

$$y = 3.5996E-004 * x + 5.1775E-005$$

$$R = 0.9999$$

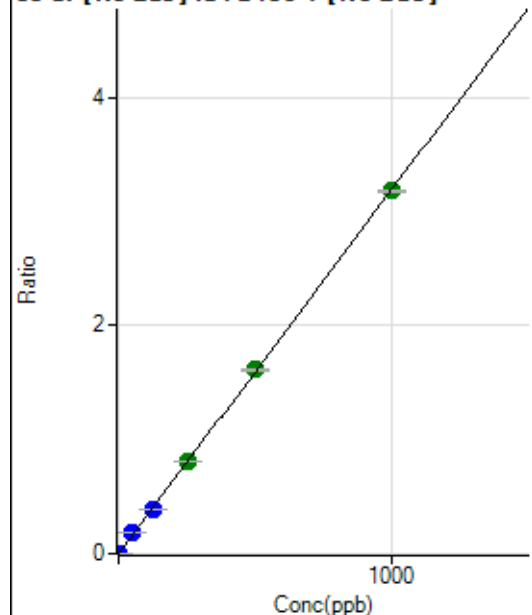
$$DL = 0.07798$$

$$BEC = 0.1438$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.89	0.0000	P	18.6
2	☐	0.100	0.109	3356.09	0.0004	P	2.1
3	☐	1.000	0.991	30502.86	0.0032	P	3.4
4	☐	50.000	56.161	1696914.49	0.1792	P	0.2
5	☐	125.000	120.310	3563248.17	0.3839	P	0.3
6	☐	250.000	251.578	7304009.89	0.8027	A	0.2
7	☐	500.000	505.130	14689935.05	1.6116	A	0.3
8	☐	1000.000	997.319	29524586.77	3.1820	A	0.4
9	☐			120040.24	0.0136	P	1.1

$$y = 0.0032 * x + 6.5816E-006$$

$$R = 0.9999$$

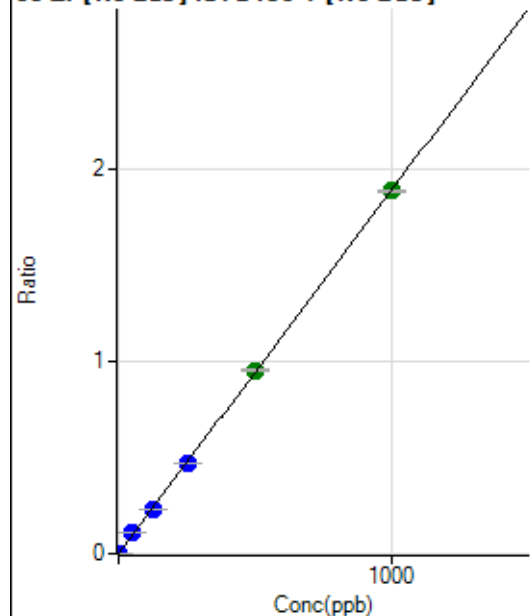
$$DL = 0.001152$$

$$BEC = 0.002063$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	755.61	0.0001	P	12.1
2	☐	0.100	0.089	2339.18	0.0002	P	4.3
3	☐	1.000	0.903	17158.27	0.0018	P	3.4
4	☐	50.000	55.598	994280.44	0.1050	P	0.2
5	☐	125.000	119.912	2101309.84	0.2264	P	0.5
6	☐	250.000	247.266	4246629.22	0.4667	P	0.3
7	☐	500.000	505.287	8691771.03	0.9536	A	0.4
8	☐	1000.000	998.396	17481963.24	1.8841	A	0.2
9	☐			5720.85	0.0006	P	3.5

$$y = 0.0019 * x + 7.7953E-005$$

$$R = 0.9999$$

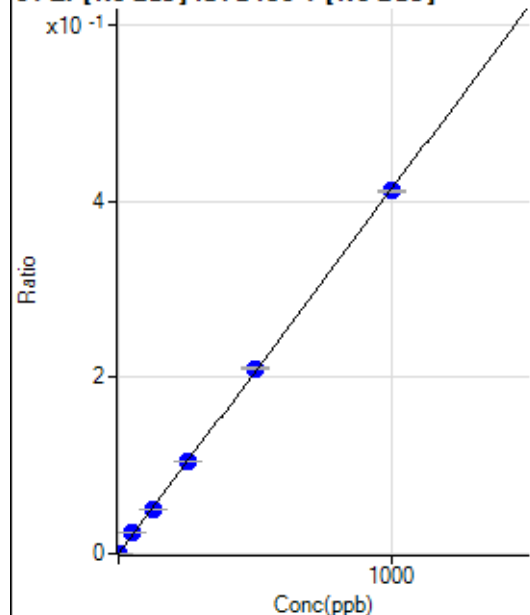
$$DL = 0.01494$$

$$BEC = 0.04131$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	147.23	0.0000	P	14.9
2	☐	0.100	0.091	500.03	0.0001	P	15.2
3	☐	1.000	0.954	3942.39	0.0004	P	3.4
4	☐	50.000	56.562	221461.76	0.0234	P	0.5
5	☐	125.000	121.684	466874.80	0.0503	P	0.5
6	☐	250.000	253.418	952951.82	0.1047	P	0.5
7	☐	500.000	507.404	1911040.45	0.2097	P	0.8
8	☐	1000.000	995.530	3816798.65	0.4114	P	0.4
9	☐			1188.99	0.0001	P	2.0

$$y = 4.1319\text{E-}004 * x + 1.5176\text{E-}005$$

$$R = 0.9999$$

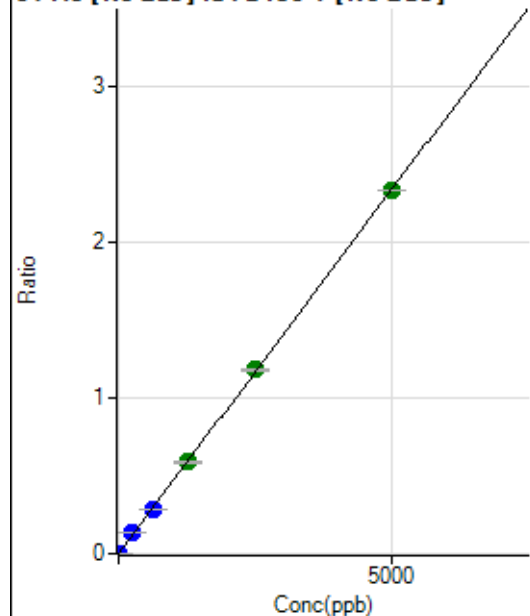
$$DL = 0.01645$$

$$BEC = 0.03673$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	336.13	0.0000	P	23.0
2	☐	0.500	0.488	2494.78	0.0003	P	2.1
3	☐	5.000	4.833	22106.85	0.0023	P	0.7
4	☐	250.000	279.088	1236518.22	0.1306	P	0.8
5	☐	625.000	601.840	2613449.12	0.2815	P	0.2
6	☐	1250.000	1256.601	5348656.81	0.5878	A	0.6
7	☐	2500.000	2528.167	10778585.48	1.1825	A	0.7
8	☐	5000.000	4985.707	21637942.84	2.3320	A	0.2
9	☐			11446.76	0.0013	P	2.0

$$y = 4.6773\text{E-}004 * x + 3.4789\text{E-}005$$

$$R = 0.9999$$

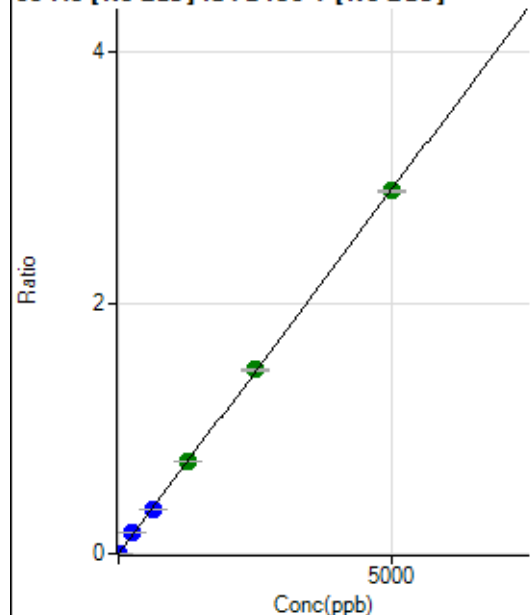
$$DL = 0.05125$$

$$BEC = 0.07438$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	138.90	0.0000	P	20.3
2	☐	0.500	0.481	2786.50	0.0003	P	9.2
3	☐	5.000	4.851	27271.45	0.0028	P	2.4
4	☐	250.000	279.540	1537524.51	0.1624	P	1.0
5	☐	625.000	601.968	3245439.79	0.3496	P	0.1
6	☐	1250.000	1260.569	6661918.12	0.7321	A	0.3
7	☐	2500.000	2527.784	13381098.73	1.4681	A	0.5
8	☐	5000.000	4984.868	26862134.63	2.8950	A	0.4
9	☐			16560.27	0.0019	P	4.0

$$y = 5.8076E-004 * x + 1.4372E-005$$

$$R = 0.9999$$

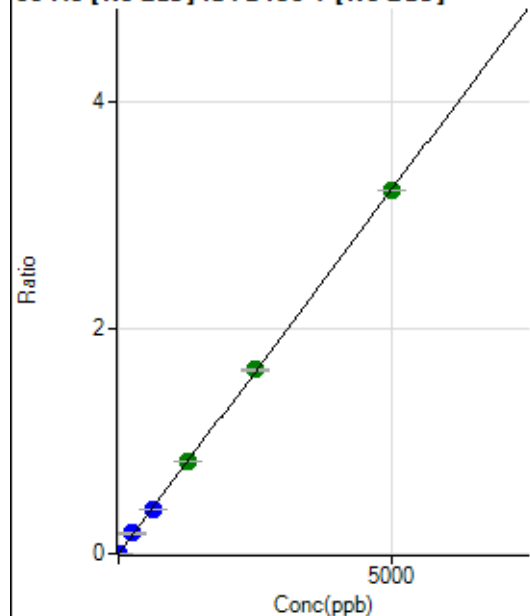
$$DL = 0.01508$$

$$BEC = 0.02475$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	188.90	0.0000	P	19.9
2	☐	0.500	0.494	3211.60	0.0003	P	7.2
3	☐	5.000	4.801	30007.56	0.0031	P	1.8
4	☐	250.000	277.707	1696362.41	0.1791	P	0.3
5	☐	625.000	598.223	3581847.09	0.3859	P	0.2
6	☐	1250.000	1260.963	7400766.48	0.8133	A	0.6
7	☐	2500.000	2526.021	14850153.63	1.6292	A	0.4
8	☐	5000.000	4986.211	29840003.79	3.2160	A	0.1
9	☐			23943.15	0.0027	P	2.8

$$y = 6.4497E-004 * x + 1.9487E-005$$

$$R = 0.9999$$

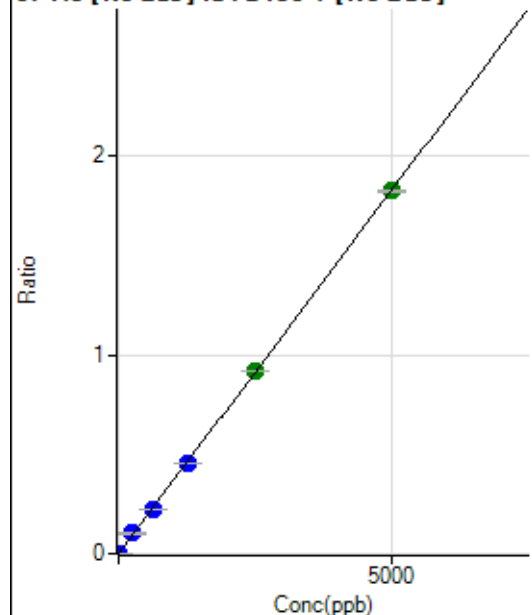
$$DL = 0.01805$$

$$BEC = 0.03021$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.23	0.0000	P	31.8
2	☐	0.500	0.468	1691.83	0.0002	P	4.5
3	☐	5.000	4.815	17013.62	0.0018	P	2.0
4	☐	250.000	278.164	962308.11	0.1016	P	0.5
5	☐	625.000	599.636	2033421.92	0.2190	P	0.2
6	☐	1250.000	1236.449	4110027.70	0.4517	P	0.2
7	☐	2500.000	2521.953	8397302.36	0.9212	A	0.2
8	☐	5000.000	4994.174	16927286.84	1.8243	A	0.3
9	☐			9837.16	0.0011	P	2.7

$$y = 3.6529E-004 * x + 7.4336E-006$$

$$R = 1.0000$$

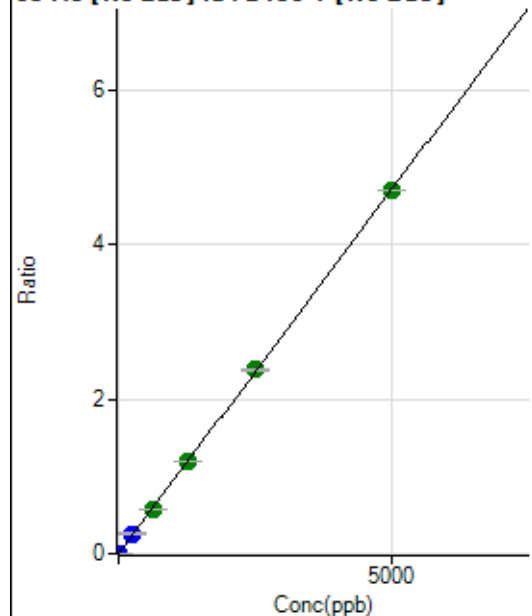
$$DL = 0.01942$$

$$BEC = 0.02035$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	200.01	0.0000	P	10.0
2	☐	0.500	0.479	4478.67	0.0005	P	6.5
3	☐	5.000	4.793	43701.41	0.0045	P	2.4
4	☐	250.000	277.138	2473459.06	0.2612	P	0.2
5	☐	625.000	603.066	5275844.21	0.5683	A	0.1
6	☐	1250.000	1259.352	10799599.37	1.1868	A	0.4
7	☐	2500.000	2527.453	21710195.10	2.3819	A	0.4
8	☐	5000.000	4985.320	43592291.60	4.6981	A	0.2
9	☐			24513.55	0.0028	P	3.9

$$y = 9.4238E-004 * x + 2.0631E-005$$

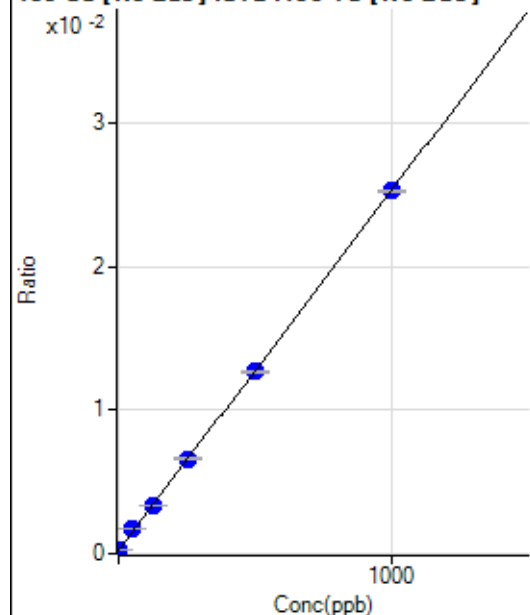
$$R = 1.0000$$

$$DL = 0.006543$$

$$BEC = 0.02189$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2983.78	0.0002	P	4.8
2	☒	0.100					
3	☐	1.000	1.481	3414.47	0.0003	P	2.4
4	☐	50.000	60.905	22424.01	0.0018	P	3.2
5	☐	125.000	126.149	43322.83	0.0034	P	0.5
6	☐	250.000	254.713	84532.82	0.0066	P	2.0
7	☐	500.000	497.731	163195.60	0.0127	P	1.1
8	☐	1000.000	999.267	330505.19	0.0253	P	0.7
9	☐			2944.89	0.0002	P	8.7

$$y = 2.5041\text{E-}005 * x + 2.2929\text{E-}004$$

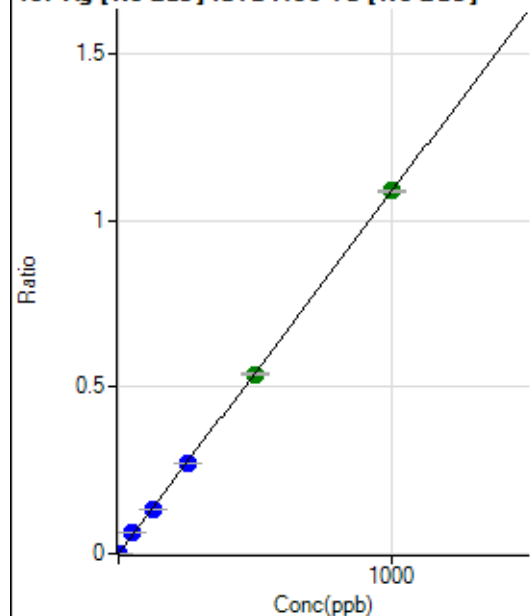
$$R = 0.9999$$

$$DL = 1.323$$

$$BEC = 9.157$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.11	0.0000	P	10.7
2	☐	0.100	0.106	1547.38	0.0001	P	5.8
3	☐	1.000	1.099	15403.42	0.0012	P	2.0
4	☐	50.000	59.403	825833.48	0.0646	P	0.4
5	☐	125.000	124.252	1727832.55	0.1351	P	0.6
6	☐	250.000	249.484	3471114.31	0.2713	P	0.8
7	☐	500.000	495.869	6933793.91	0.5393	A	0.3
8	☐	1000.000	1001.818	14259685.21	1.0895	A	0.3
9	☐			1539.04	0.0001	P	13.9

$$y = 0.0011 * x + 6.6144\text{E-}006$$

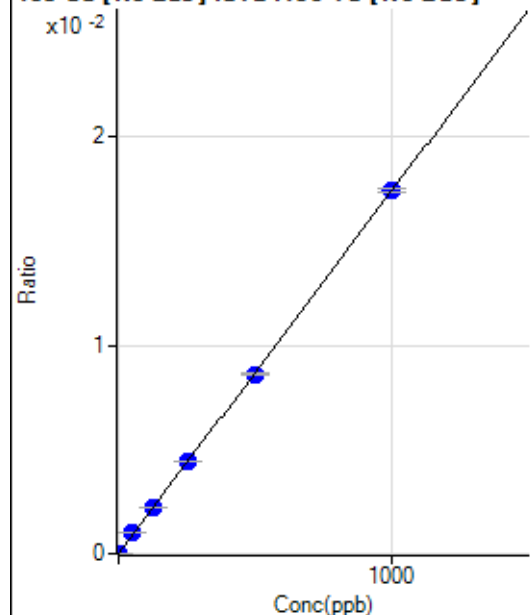
$$R = 0.9999$$

$$DL = 0.001955$$

$$BEC = 0.006082$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0000	P	43.6
2	☐	0.100	0.102	33.33	0.0000	P	0.5
3	☐	1.000	1.053	245.84	0.0000	P	7.2
4	☐	50.000	58.929	13121.60	0.0010	P	1.9
5	☐	125.000	126.005	28054.49	0.0022	P	1.2
6	☐	250.000	255.363	56877.67	0.0044	P	0.3
7	☐	500.000	494.827	110757.49	0.0086	P	0.6
8	☐	1000.000	1000.674	227988.06	0.0174	P	0.9
9	☐			63.89	0.0000	P	27.0

$$y = 1.7407\text{E-}005 * x + 8.5423\text{E-}007$$

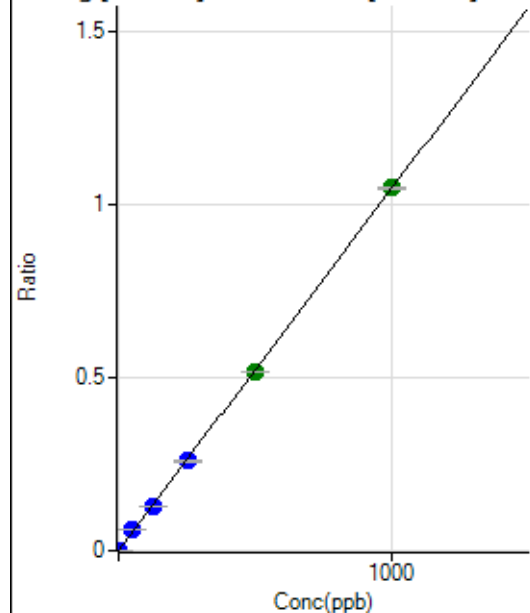
$$R = 0.9999$$

$$DL = 0.06418$$

$$BEC = 0.04908$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0000	P	26.9
2	☐	0.100	0.112	1555.71	0.0001	P	1.6
3	☐	1.000	1.060	14279.96	0.0011	P	4.8
4	☐	50.000	58.894	787258.61	0.0616	P	0.2
5	☐	125.000	123.749	1654674.49	0.1294	P	0.3
6	☐	250.000	247.857	3315819.41	0.2592	P	1.3
7	☐	500.000	495.031	6655889.95	0.5177	A	0.3
8	☐	1000.000	1002.732	13723757.60	1.0486	A	0.6
9	☐			1697.40	0.0001	P	11.0

$$y = 0.0010 * x + 5.3292\text{E-}006$$

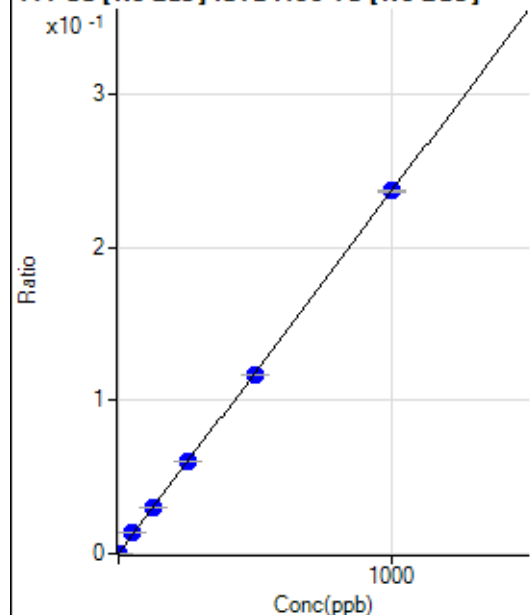
$$R = 0.9999$$

$$DL = 0.004111$$

$$BEC = 0.005096$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2098.93	0.0002	P	5.3
2	☒	0.100					
3	☐	1.000	1.084	5349.01	0.0004	P	0.4
4	☐	50.000	59.294	181068.22	0.0142	P	1.0
5	☐	125.000	125.570	381276.84	0.0298	P	0.7
6	☐	250.000	253.300	767450.42	0.0600	P	0.7
7	☐	500.000	495.030	1505384.10	0.1171	P	0.2
8	☐	1000.000	1001.124	3096905.16	0.2366	P	0.6
9	☐			2500.05	0.0002	P	6.0

$$y = 2.3619\text{E-}004 * x + 1.6129\text{E-}004$$

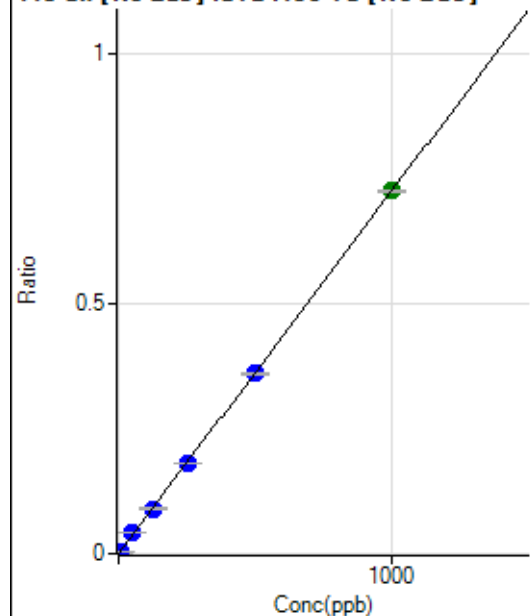
$$R = 0.9999$$

$$DL = 0.1081$$

$$BEC = 0.6829$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD :159 Tb [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	633.38	0.0000	P	12.0
2	☐	0.500	0.606	6187.75	0.0005	P	6.2
3	☐	5.000	5.295	49789.01	0.0039	P	2.6
4	☐	50.000	58.101	538696.59	0.0421	P	0.4
5	☐	125.000	124.022	1149538.90	0.0899	P	1.3
6	☐	250.000	251.503	2331884.23	0.1823	P	0.3
7	☐	500.000	496.278	4623730.22	0.3596	P	0.2
8	☐	1000.000	1001.201	9494778.16	0.7255	A	0.3
9	☐			7972.06	0.0007	P	1.2

$$y = 7.2454\text{E-}004 * x + 4.8648\text{E-}005$$

$$R = 1.0000$$

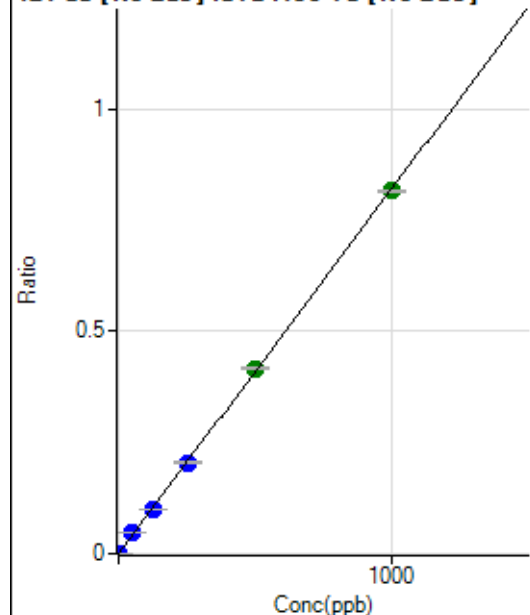
$$DL = 0.02425$$

$$BEC = 0.06714$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD : 159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	272.24	0.0000	P	20.8
2	☐	0.200	0.189	2230.84	0.0002	P	7.9
3	☐	2.000	1.975	21011.01	0.0016	P	1.5
4	☐	50.000	57.038	597811.47	0.0468	P	0.5
5	☐	125.000	123.107	1290371.57	0.1009	P	0.9
6	☐	250.000	250.238	2624195.74	0.2051	P	0.4
7	☐	500.000	509.039	5364523.12	0.4172	A	0.5
8	☐	1000.000	995.306	10677156.92	0.8158	A	0.2
9	☐			16218.33	0.0013	P	1.6

$$y = 8.1962\text{E-}004 * x + 2.0928\text{E-}005$$

$$R = 0.9999$$

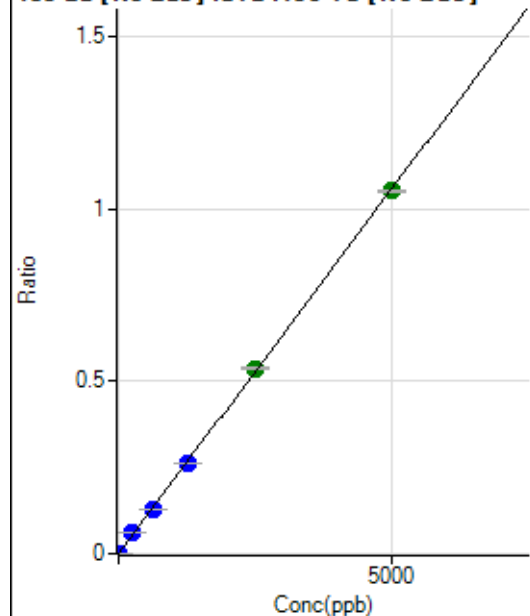
$$DL = 0.01593$$

$$BEC = 0.02553$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.00	0.0000	P	58.3
2	☐	1.000	1.035	2805.95	0.0002	P	4.3
3	☐	10.000	10.342	28087.55	0.0022	P	2.1
4	☐	250.000	287.499	777988.07	0.0609	P	0.3
5	☐	625.000	612.799	1658762.15	0.1297	P	0.8
6	☐	1250.000	1248.852	3382393.91	0.2644	P	0.3
7	☐	2500.000	2542.990	6921813.26	0.5384	A	0.6
8	☐	5000.000	4978.441	13794191.97	1.0539	A	0.3
9	☐			2722.60	0.0002	P	3.3

$$y = 2.1170\text{E-}004 * x + 1.9251\text{E-}006$$

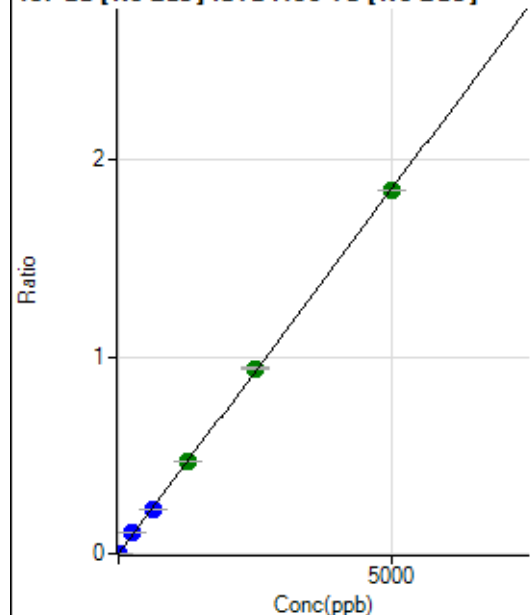
$$R = 0.9999$$

$$DL = 0.0159$$

$$BEC = 0.009093$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.11	0.0000	P	35.7
2	☐	1.000	1.057	4998.35	0.0004	P	4.2
3	☐	10.000	10.225	48516.34	0.0038	P	1.6
4	☐	250.000	286.366	1354027.21	0.1059	P	0.5
5	☐	625.000	611.665	2892964.21	0.2263	P	1.1
6	☐	1250.000	1262.519	5974713.76	0.4670	A	0.8
7	☐	2500.000	2537.424	12068021.28	0.9386	A	0.8
8	☐	5000.000	4978.006	24100850.89	1.8414	A	0.1
9	☐			4687.10	0.0004	P	1.4

$$y = 3.6991\text{E-}004 * x + 2.7767\text{E-}006$$

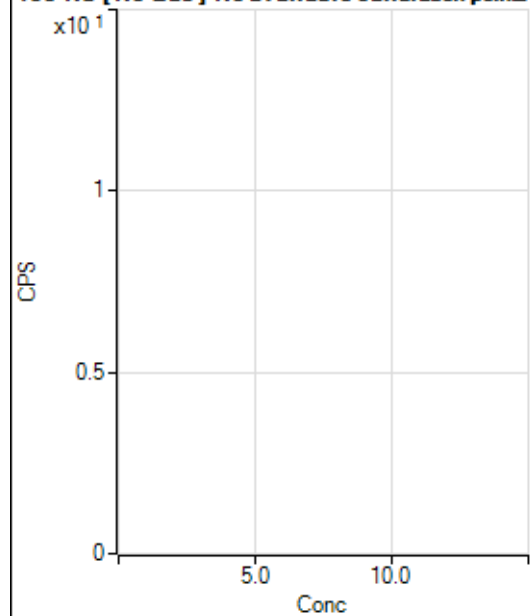
$$R = 0.9999$$

$$DL = 0.008038$$

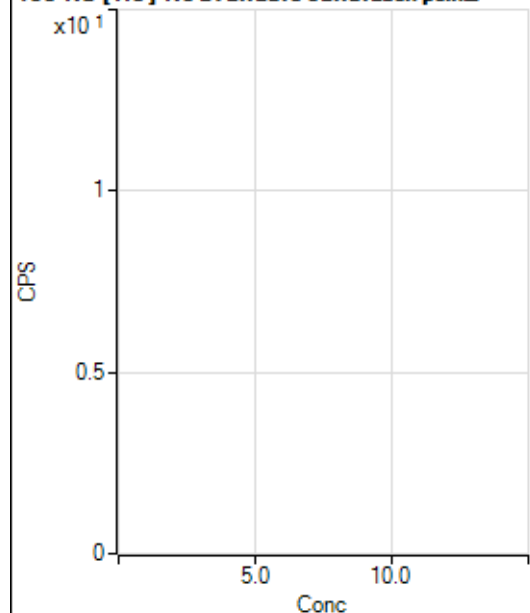
$$BEC = 0.007506$$

Weight: <None>

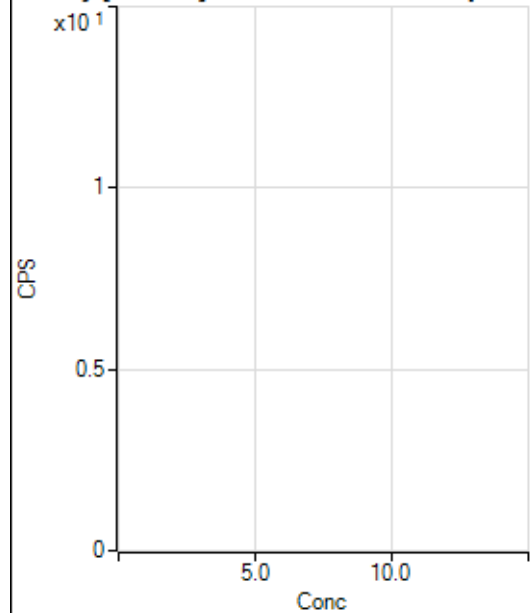
Min Conc: 0

150 Nd [No Gas] No available calibration points

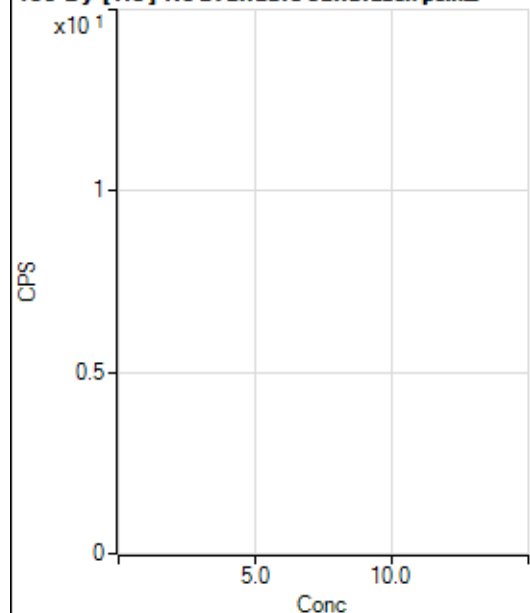
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			31.11		P	86.6
2	☐			24.44		P	56.8
3	☐			40.00		P	60.1
4	☐			71.11		P	42.3
5	☐			148.89		P	24.7
6	☐			231.12		P	10.9
7	☐			540.03		P	13.9
8	☐			895.62		P	4.8
9	☐			273.35		P	18.4

150 Nd [He] No available calibration points

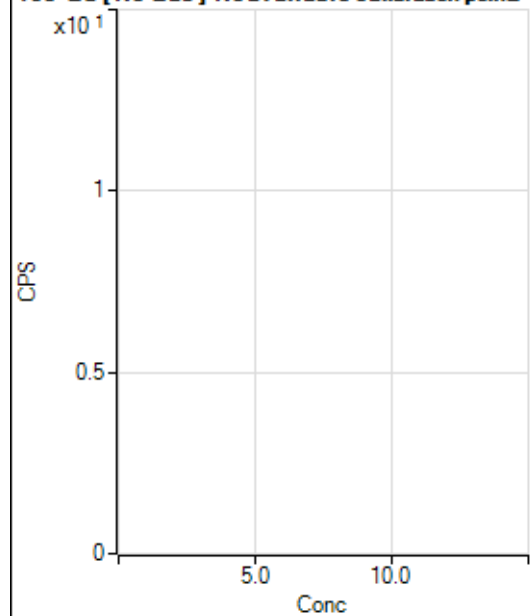
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			32.22		P	39.2
2	☐			38.89		P	34.6
3	☐			31.11		P	24.7
4	☐			37.78		P	51.7
5	☐			48.89		P	10.4
6	☐			32.22		P	33.3
7	☐			83.33		P	26.2
8	☐			108.89		P	19.7
9	☐			126.67		P	12.1

156 Dy [No Gas] No available calibration points

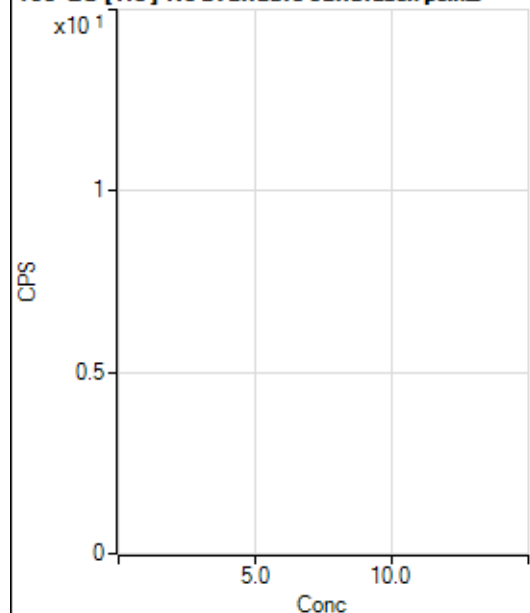
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	22.9
2	☐			33.33		P	114.6
3	☐			41.67		P	52.9
4	☐			55.56		P	52.7
5	☐			69.45		P	18.3
6	☐			91.67		P	36.4
7	☐			122.23		P	40.0
8	☐			213.90		P	25.0
9	☐			177.79		P	14.3

156 Dy [He] No available calibration points

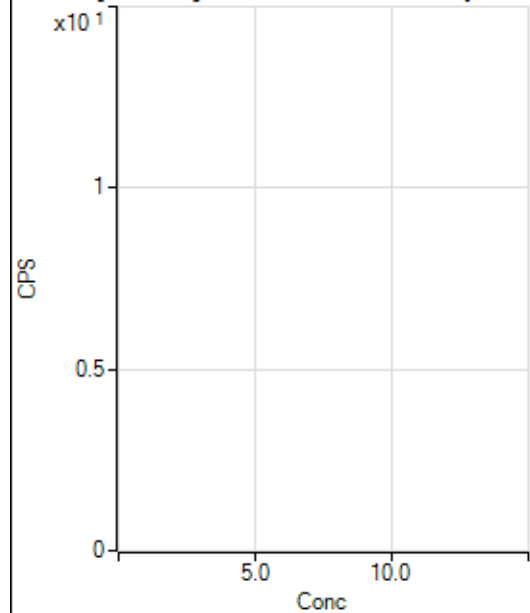
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			48.89		P	14.2
2	☐			55.55		P	28.4
3	☐			54.44		P	14.1
4	☐			76.67		P	26.1
5	☐			65.55		P	24.0
6	☐			120.00		P	16.7
7	☐			181.11		P	12.0
8	☐			297.79		P	6.2
9	☐			117.78		P	11.8

160 Gd [No Gas] Noavailable calibration poin_

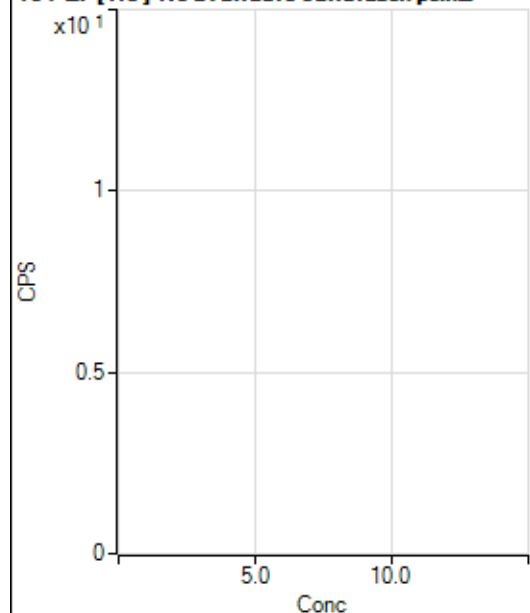
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			105.56		P	39.7
2	☐			91.67		P	24.1
3	☐			122.23		P	21.9
4	☐			108.34		P	53.8
5	☐			116.67		P	24.7
6	☐			105.56		P	36.5
7	☐			97.23		P	27.6
8	☐			147.23		P	13.1
9	☐			191.68		P	11.5

160 Gd [He] No available calibration points

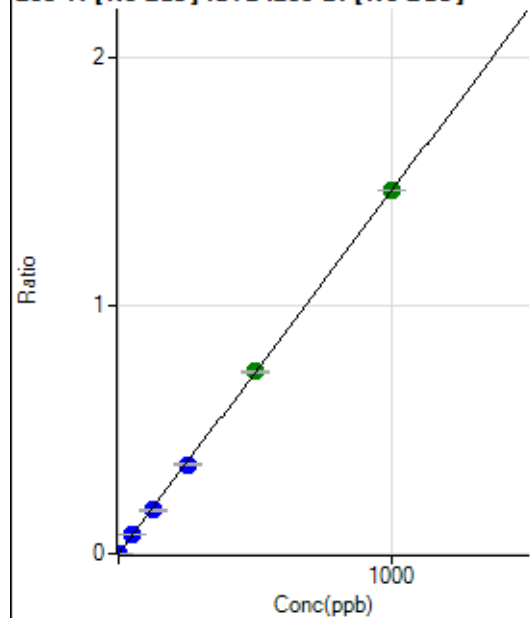
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			248.90		P	6.9
2	☐			234.45		P	8.6
3	☐			248.90		P	6.2
4	☐			245.56		P	4.8
5	☐			215.56		P	12.5
6	☐			246.67		P	5.4
7	☐			256.67		P	7.9
8	☐			262.23		P	6.0
9	☐			280.01		P	1.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			127.78		P	13.6
2	☐			94.45		P	68.5
3	☐			83.34		P	26.5
4	☐			63.89		P	32.8
5	☐			105.56		P	12.1
6	☐			119.45		P	17.6
7	☐			116.67		P	21.4
8	☐			136.12		P	19.7
9	☐			200.01		P	18.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			98.89		P	17.0
2	☐			118.89		P	5.8
3	☐			115.56		P	13.6
4	☐			106.67		P	0.0
5	☐			111.11		P	25.0
6	☐			90.00		P	30.3
7	☐			120.00		P	12.7
8	☐			124.45		P	32.3
9	☐			123.33		P	12.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	725.05	0.0001	P	6.8
2	☐	0.100	0.109	2014.14	0.0002	P	1.5
3	☐	1.000	0.956	12489.71	0.0015	P	4.2
4	☐	50.000	54.686	670825.47	0.0800	P	0.9
5	☐	125.000	119.277	1460381.23	0.1745	P	0.4
6	☐	250.000	245.557	3012491.11	0.3591	P	1.1
7	☐	500.000	503.019	6103670.27	0.7355	A	1.1
8	☐	1000.000	1000.082	12119130.82	1.4622	A	0.2
9	☐			3472.82	0.0005	P	4.5

$$y = 0.0015 * x + 8.4267E-005$$

$$R = 1.0000$$

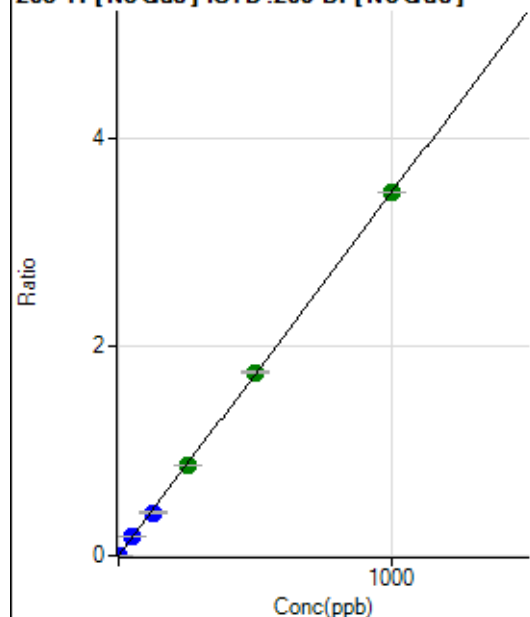
$$DL = 0.01173$$

$$BEC = 0.05764$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1175.11	0.0001	P	11.7
2	☐	0.100	0.095	3859.10	0.0005	P	7.8
3	☐	1.000	0.952	29027.31	0.0034	P	1.6
4	☐	50.000	54.769	1595633.08	0.1904	P	0.3
5	☐	125.000	119.011	3461214.70	0.4135	P	1.0
6	☐	250.000	247.691	7218799.29	0.8605	A	0.7
7	☐	500.000	503.557	14515569.25	1.7492	A	1.0
8	☐	1000.000	999.309	28769405.16	3.4712	A	0.1
9	☐			7302.34	0.0010	P	10.5

$$y = 0.0035 * x + 1.3656E-004$$

$$R = 1.0000$$

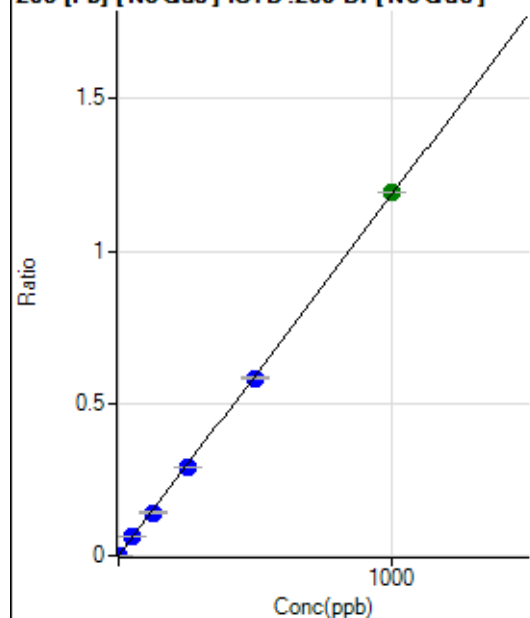
$$DL = 0.0138$$

$$BEC = 0.03931$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1176.02	0.0001	P	4.9
2	☐	0.100	0.097	2079.86	0.0003	P	0.3
3	☐	1.000	0.962	10745.39	0.0013	P	4.1
4	☐	50.000	54.933	546143.50	0.0652	P	0.8
5	☐	125.000	119.577	1185896.21	0.1417	P	1.1
6	☐	250.000	245.293	2437051.18	0.2905	P	0.7
7	☐	500.000	492.203	4835961.80	0.5828	P	0.7
8	☐	1000.000	1005.506	9865735.06	1.1903	A	0.1
9	☐			9251.61	0.0013	P	4.8

$$y = 0.0012 * x + 1.3672E-004$$

$$R = 0.9999$$

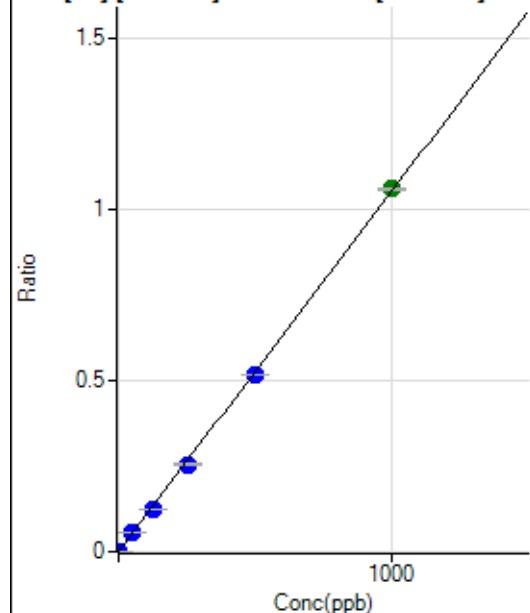
$$DL = 0.01713$$

$$BEC = 0.1155$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1253.80	0.0001	P	11.1
2	☐	0.100	0.104	2107.64	0.0003	P	8.2
3	☐	1.000	0.935	9524.05	0.0011	P	1.7
4	☐	50.000	54.479	481720.91	0.0575	P	0.5
5	☐	125.000	118.662	1046389.51	0.1250	P	1.1
6	☐	250.000	242.101	2138475.94	0.2549	P	1.0
7	☐	500.000	490.858	4287669.19	0.5167	P	0.8
8	☐	1000.000	1007.114	8784706.85	1.0599	A	0.4
9	☐			7865.51	0.0011	P	0.5

$$y = 0.0011 * x + 1.4576E-004$$

$$R = 0.9999$$

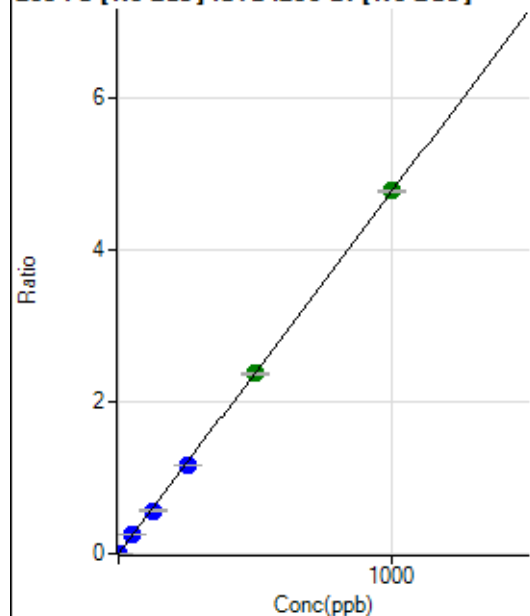
$$DL = 0.04608$$

$$BEC = 0.1385$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4231.86	0.0005	P	4.6
2	☐	0.100	0.095	7793.68	0.0009	P	3.9
3	☐	1.000	0.941	41859.67	0.0050	P	1.5
4	☐	50.000	54.894	2192709.82	0.2616	P	0.6
5	☐	125.000	119.161	4748659.16	0.5673	P	0.7
6	☐	250.000	243.797	9733224.93	1.1602	P	0.8
7	☐	500.000	497.665	19649614.68	2.3678	A	0.4
8	☐	1000.000	1003.204	39555468.54	4.7726	A	0.2
9	☐			35198.32	0.0050	P	1.3

$$y = 0.0048 * x + 4.9195E-004$$

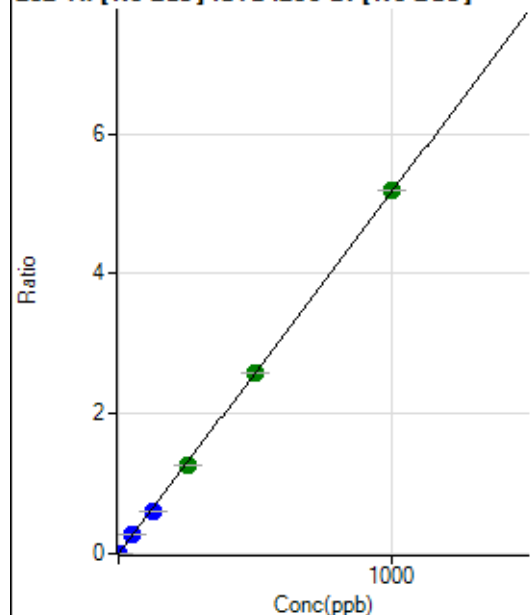
$$R = 0.9999$$

$$DL = 0.01436$$

$$BEC = 0.1034$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3057.85	0.0004	P	5.6
2	☐	0.100	0.087	6642.62	0.0008	P	0.7
3	☐	1.000	0.858	40329.20	0.0048	P	1.0
4	☐	50.000	51.957	2252148.14	0.2687	P	0.3
5	☐	125.000	114.646	4959239.17	0.5925	P	0.5
6	☐	250.000	242.659	10517878.59	1.2536	A	0.3
7	☐	500.000	498.819	21383146.54	2.5766	A	0.4
8	☐	1000.000	1003.623	42963747.72	5.1838	A	0.1
9	☐			11536.89	0.0016	P	6.4

$$y = 0.0052 * x + 3.5549E-004$$

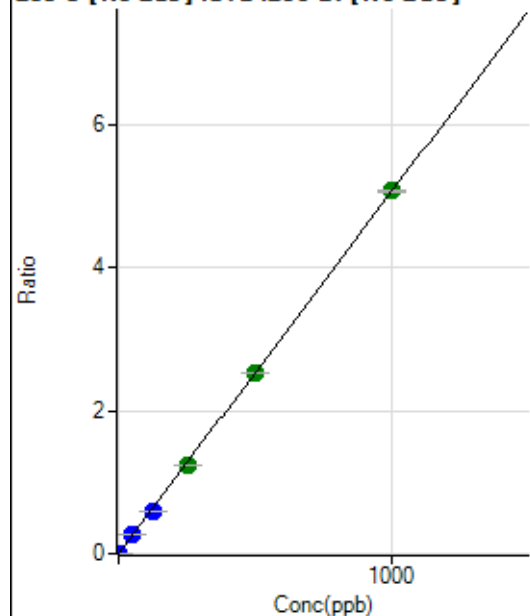
$$R = 0.9999$$

$$DL = 0.01155$$

$$BEC = 0.06883$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3936.88	0.0005	P	4.3
2	☐	0.100	0.094	7730.38	0.0009	P	3.7
3	☐	1.000	0.893	41893.45	0.0050	P	2.3
4	☐	50.000	52.394	2224414.83	0.2654	P	0.5
5	☐	125.000	115.519	4893279.06	0.5846	P	0.6
6	☐	250.000	242.912	10308674.88	1.2288	A	0.6
7	☐	500.000	499.909	20981031.89	2.5283	A	0.4
8	☐	1000.000	1002.883	42034214.83	5.0716	A	0.4
9	☐			8831.21	0.0013	P	7.4

$$y = 0.0051 * x + 4.5763E-004$$

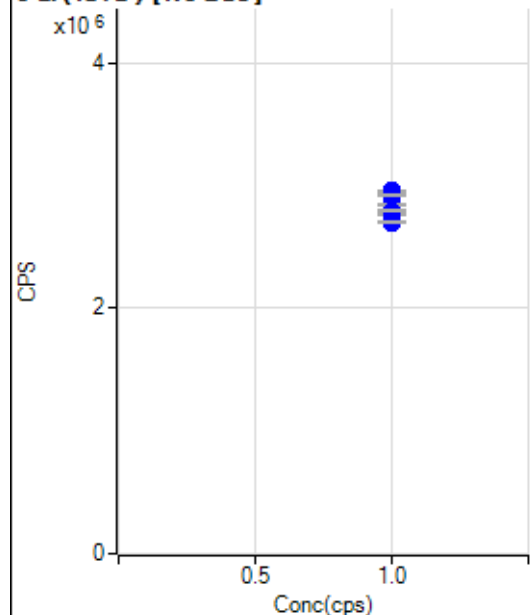
$$R = 0.9999$$

$$DL = 0.01174$$

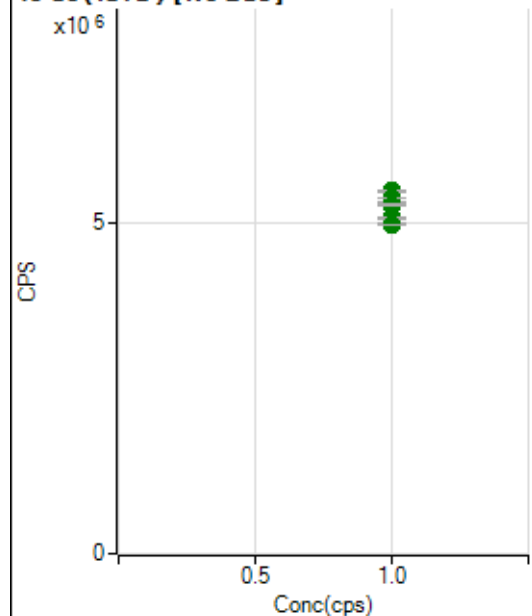
$$BEC = 0.0905$$

Weight: <None>

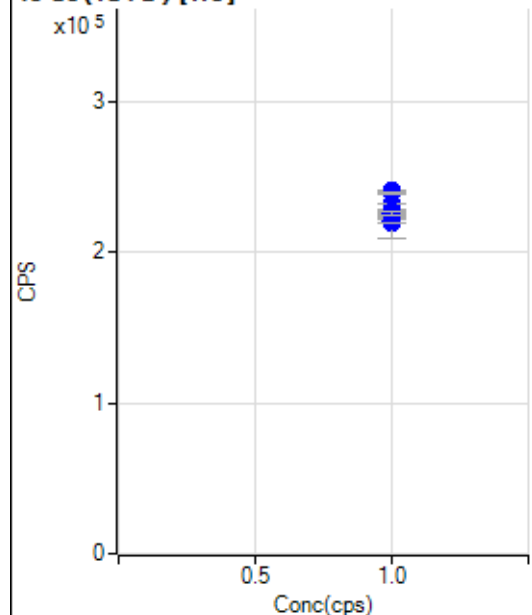
Min Conc: 0

6 Li (ISTD) [No Gas]

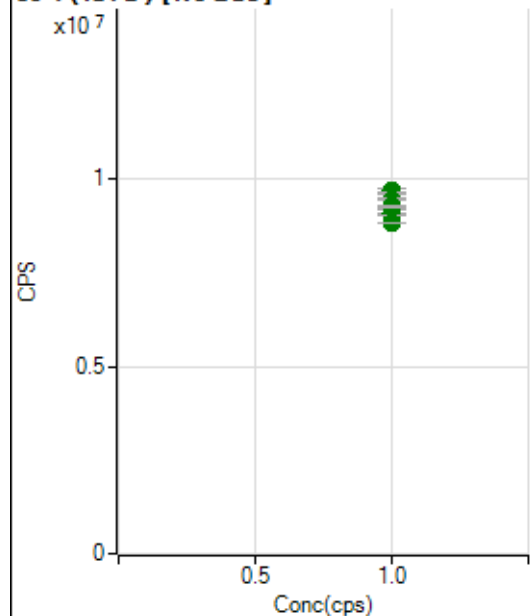
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2958591.08		P	0.9
2	☐	1.000		2913947.90		P	0.1
3	☐	1.000		2958547.67		P	0.5
4	☐	1.000		2927650.91		P	0.4
5	☐	1.000		2839874.94		P	0.6
6	☐	1.000		2797788.34		P	0.4
7	☐	1.000		2767791.48		P	0.3
8	☐	1.000		2795890.07		P	0.6
9	☐	1.000		2703182.40		P	0.7

45 Sc (ISTD) [No Gas]

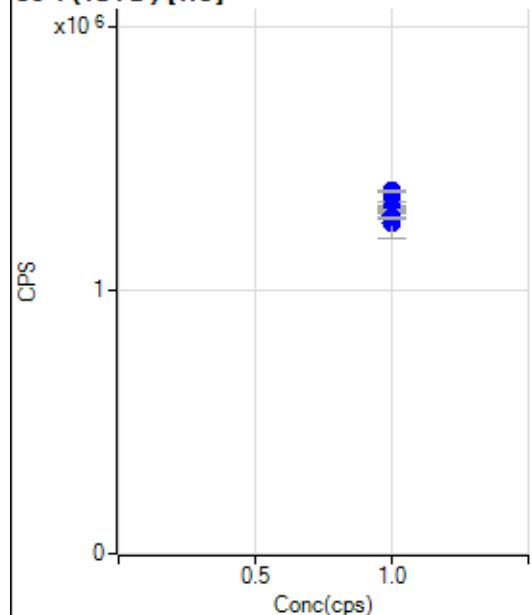
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5474077.77		A	0.5
2	☐	1.000		5307500.16		A	0.5
3	☐	1.000		5366813.53		A	0.4
4	☐	1.000		5259940.27		A	0.8
5	☐	1.000		5072128.76		A	0.5
6	☐	1.000		4987751.33		A	0.5
7	☐	1.000		4977504.11		A	0.5
8	☐	1.000		5054106.15		A	0.7
9	☐	1.000		4954074.42		A	0.3

45 Sc (ISTD) [He]

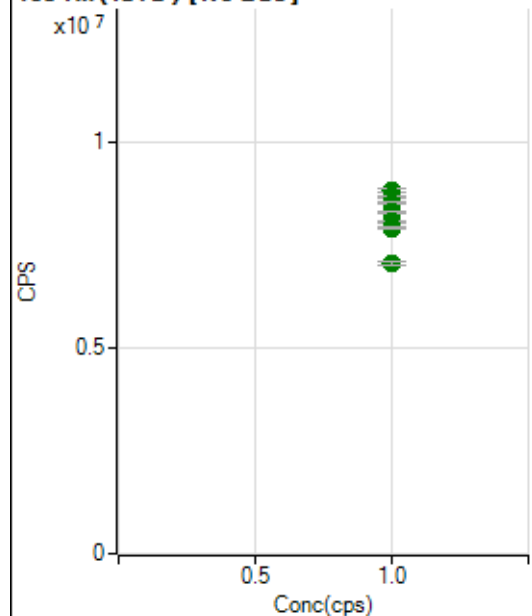
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		240479.44		P	0.5
2	☐	1.000		239189.12		P	0.9
3	☐	1.000		218730.81		P	9.1
4	☐	1.000		232189.32		P	0.4
5	☐	1.000		226356.08		P	0.7
6	☐	1.000		222297.59		P	0.4
7	☐	1.000		220871.37		P	1.6
8	☐	1.000		227463.12		P	1.1
9	☐	1.000		225495.36		P	1.1

89 Y (ISTD) [No Gas]

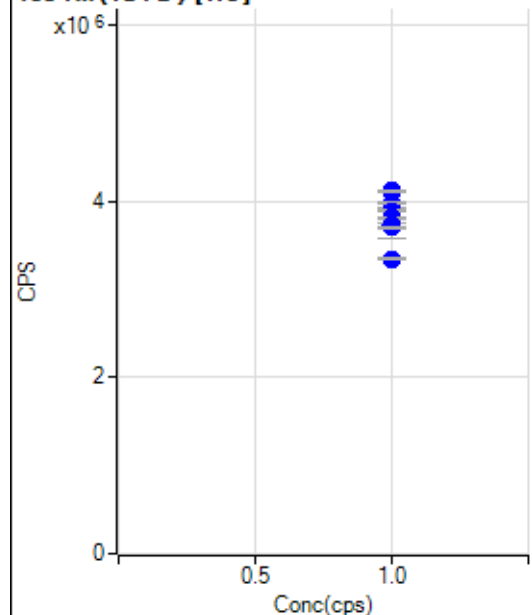
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		9689384.37		A	1.9
2	☐	1.000		9490307.43		A	0.5
3	☐	1.000		9631796.18		A	0.6
4	☐	1.000		9469931.32		A	0.3
5	☐	1.000		9282885.90		A	0.7
6	☐	1.000		9099646.60		A	0.0
7	☐	1.000		9115139.86		A	1.2
8	☐	1.000		9278702.09		A	0.3
9	☐	1.000		8840992.64		A	0.2

89 Y(ISTD) [He]

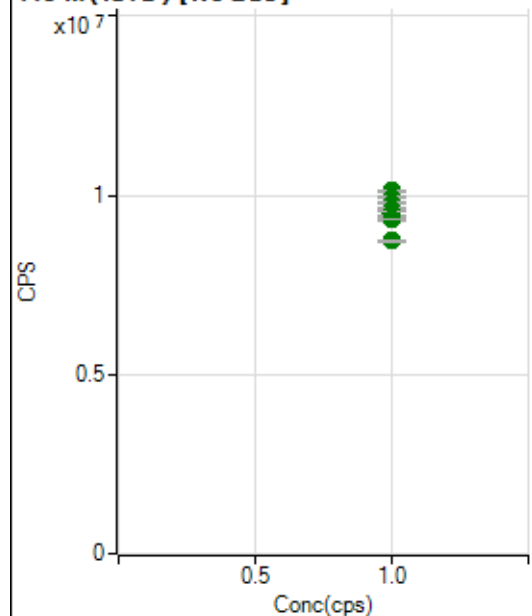
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1378208.45		P	0.1
2	☐	1.000		1375661.23		P	0.7
3	☐	1.000		1255665.23		P	9.1
4	☐	1.000		1334979.21		P	0.2
5	☐	1.000		1316701.02		P	0.4
6	☐	1.000		1296981.35		P	0.4
7	☐	1.000		1287520.04		P	1.7
8	☐	1.000		1304701.08		P	0.9
9	☐	1.000		1276849.26		P	0.7

103 Rh(ISTD) [No Gas]

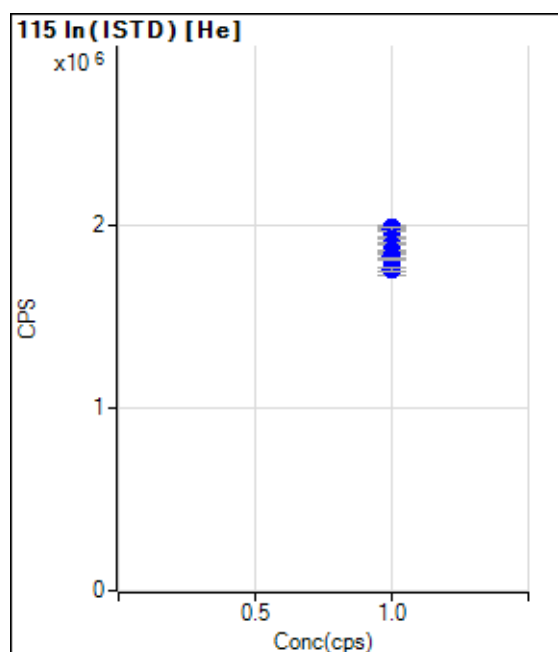
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8829479.88		A	0.9
2	☐	1.000		8659704.28		A	0.2
3	☐	1.000		8699641.34		A	0.2
4	☐	1.000		8536282.57		A	0.7
5	☐	1.000		8308163.73		A	0.4
6	☐	1.000		8079685.69		A	0.5
7	☐	1.000		7939048.53		A	1.0
8	☐	1.000		7920324.13		A	0.5
9	☐	1.000		7064444.69		A	0.9

103 Rh (ISTD) [He]

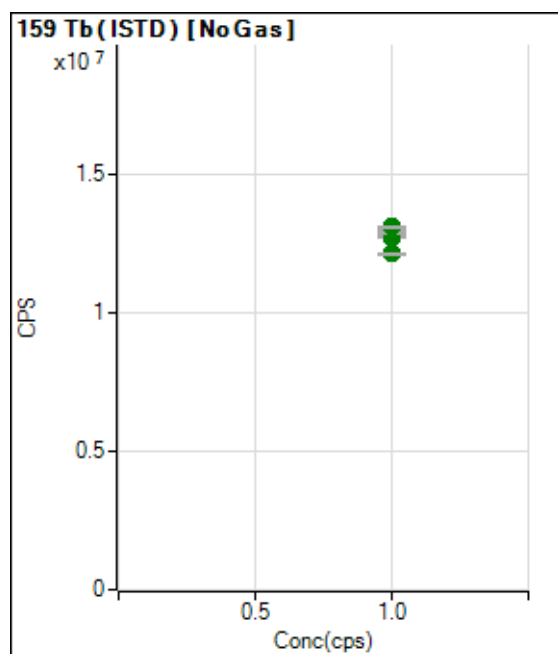
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4118686.47		P	0.2
2	☐	1.000		4110617.34		P	0.7
3	☐	1.000		3756622.27		P	9.1
4	☐	1.000		3983031.85		P	0.3
5	☐	1.000		3894559.56		P	0.3
6	☐	1.000		3813963.38		P	0.5
7	☐	1.000		3740068.03		P	1.2
8	☐	1.000		3706148.70		P	0.3
9	☐	1.000		3344724.67		P	0.9

115 In (ISTD) [No Gas]

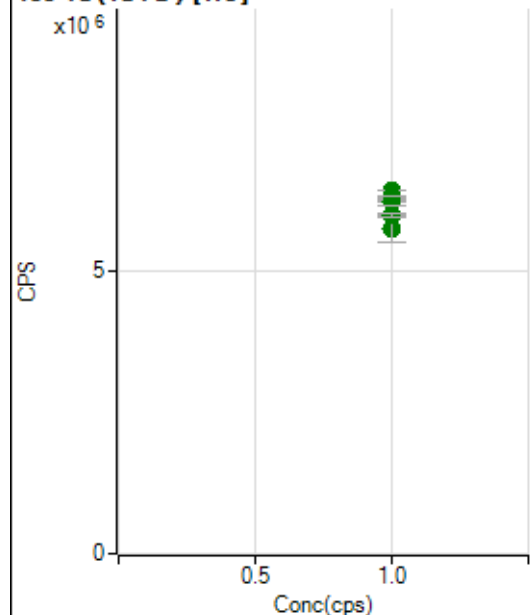
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10123920.74		A	0.3
2	☐	1.000		9823895.58		A	0.4
3	☐	1.000		9939160.64		A	0.4
4	☐	1.000		9791354.38		A	0.2
5	☐	1.000		9627199.70		A	0.5
6	☐	1.000		9494332.81		A	0.7
7	☐	1.000		9323511.51		A	1.0
8	☐	1.000		9338609.97		A	0.2
9	☐	1.000		8733904.65		A	0.8



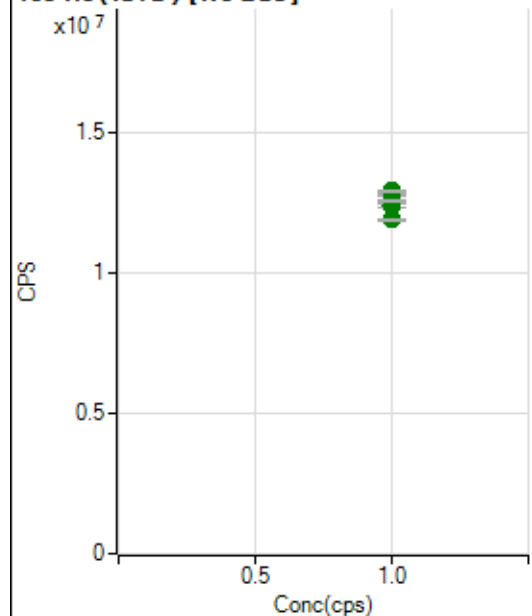
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1982951.32		P	1.0
2	☐	1.000		1978317.68		P	0.8
3	☐	1.000		1807702.80		P	8.7
4	☐	1.000		1926856.88		P	0.6
5	☐	1.000		1896820.63		P	0.4
6	☐	1.000		1856906.58		P	0.7
7	☐	1.000		1824251.61		P	1.1
8	☐	1.000		1813645.53		P	0.6
9	☐	1.000		1753837.01		P	1.0



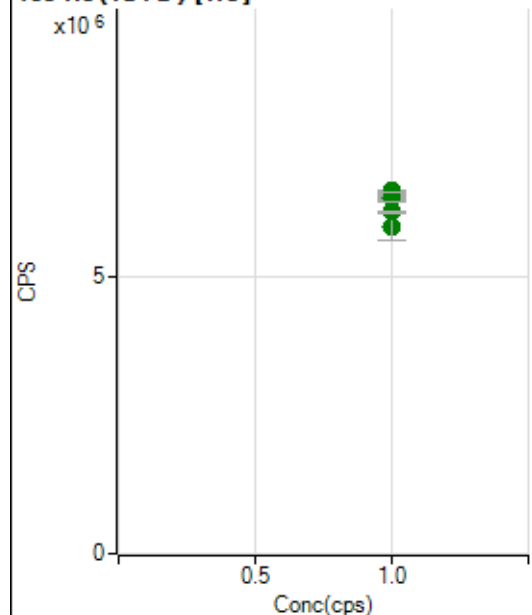
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13014640.50		A	0.8
2	☐	1.000		12695462.45		A	0.5
3	☐	1.000		12817469.81		A	0.6
4	☐	1.000		12782065.50		A	0.4
5	☐	1.000		12786253.28		A	0.6
6	☐	1.000		12793508.84		A	0.6
7	☐	1.000		12857376.61		A	0.7
8	☐	1.000		13088091.19		A	0.3
9	☐	1.000		12127133.29		A	0.7

159 Tb (ISTD) [He]

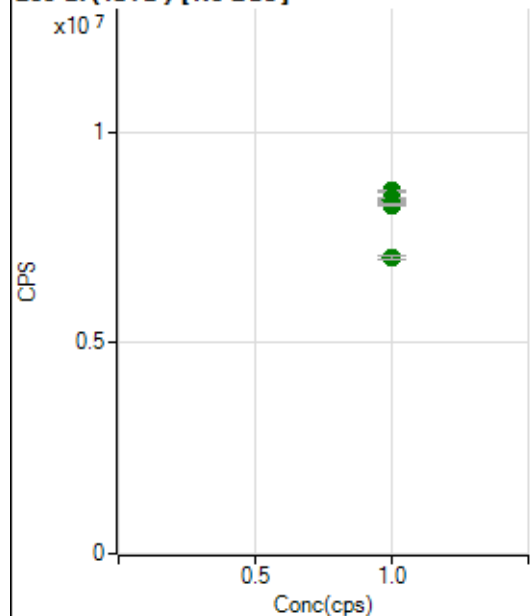
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6400788.44		A	0.1
2	☐	1.000		6243587.89		A	0.8
3	☐	1.000		5730154.11		A	8.6
4	☐	1.000		6229709.77		A	0.5
5	☐	1.000		6256627.06		A	0.1
6	☐	1.000		6216220.05		A	0.6
7	☐	1.000		6197676.23		A	1.9
8	☐	1.000		6315115.18		A	0.4
9	☐	1.000		5970080.88		A	0.9

165 Ho (ISTD) [No Gas]

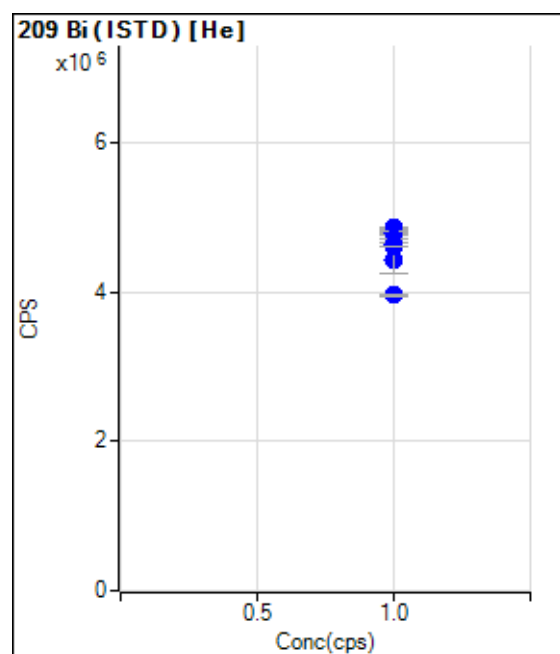
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12781185.09		A	0.5
2	☐	1.000		12396621.37		A	1.0
3	☐	1.000		12493322.33		A	0.4
4	☐	1.000		12494888.38		A	0.6
5	☐	1.000		12509172.76		A	0.6
6	☐	1.000		12574452.36		A	0.3
7	☐	1.000		12576550.63		A	0.9
8	☐	1.000		12930143.95		A	0.5
9	☐	1.000		11892964.76		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6540772.40		A	0.7
2	☐	1.000		6415344.84		A	0.2
3	☐	1.000		5898560.68		A	9.0
4	☐	1.000		6412191.43		A	0.7
5	☐	1.000		6445135.39		A	0.2
6	☐	1.000		6410586.92		A	0.3
7	☐	1.000		6412076.85		A	1.7
8	☐	1.000		6512766.08		A	0.2
9	☐	1.000		6155960.40		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8602779.31		A	0.4
2	☐	1.000		8263968.63		A	0.6
3	☐	1.000		8427273.56		A	0.3
4	☐	1.000		8381704.80		A	0.4
5	☐	1.000		8370479.46		A	0.4
6	☐	1.000		8389844.04		A	1.2
7	☐	1.000		8298763.56		A	1.0
8	☐	1.000		8288131.96		A	0.4
9	☐	1.000		7016954.62		A	0.9



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4863076.28		P	0.8
2	☐	1.000		4831945.69		P	0.4
3	☐	1.000		4438998.79		P	8.4
4	☐	1.000		4806341.87		P	0.5
5	☐	1.000		4793050.06		P	0.6
6	☐	1.000		4718786.49		P	0.4
7	☐	1.000		4638034.27		P	1.3
8	☐	1.000		4616851.42		P	0.4
9	☐	1.000		3958976.47		P	0.8

US EPA Tune Check Sample Report

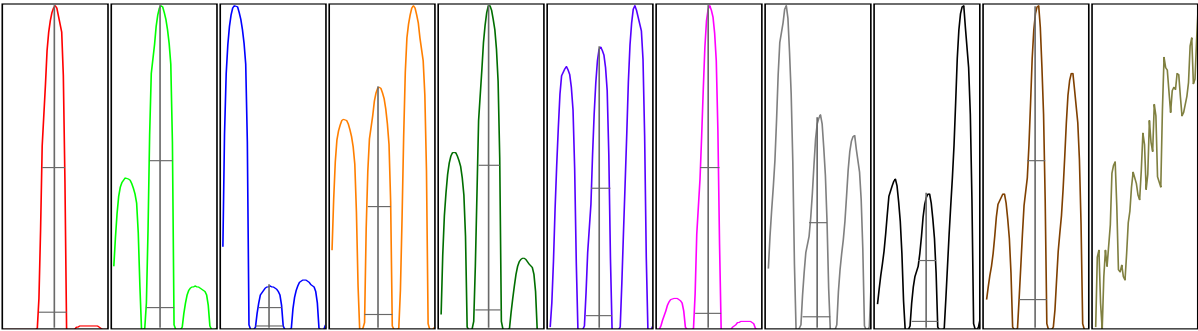
Batch Folder D:\ICP-MS Data\P7073019-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	9844	0.55	5.00	
24	144058	0.32	5.00	
25	19425	0.46	5.00	
26	22446	0.26	5.00	
59	78592	0.26	5.00	
113	11789	0.30	5.00	
115	140404	0.27	5.00	
206	34516	0.72	5.00	
207	32077	0.32	5.00	
208	74637	0.53	5.00	
220	141	2.65		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9799	9815	9855	9815	9934
24	143765	143496	144339	144021	144668
25	19336	19356	19418	19559	19456
26	22354	22475	22451	22439	22514
59	78554	78338	78734	78476	78857
113	11776	11749	11826	11828	11768
115	140407	139913	140560	140207	140933
206	34369	34233	34459	34653	34869
207	32078	32000	31973	32093	32240
208	74594	74266	74482	74535	75306
220	140	146	141	143	136

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	15599	9.00	8.9 - 9.1		0.818	0.900	
24	223882	23.90	23.9 - 24.1		0.805	0.900	
25	29968	24.90	24.9 - 25.1		0.796	0.900	
26	34501	25.90	25.9 - 26.1		0.791	0.900	
59	129753	58.95	58.9 - 59.1		0.785	0.900	
113	22012	113.00	112.9 - 113.1		0.774	0.900	
115	263567	115.00	114.9 - 115.1		0.768	0.900	
206	66336	206.00	205.9 - 206.1		0.820	0.900	
207	60635	207.00	206.9 - 207.1		0.783	0.900	
208	144169	208.00	207.9 - 208.1		0.790	0.900	
220			-				

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	7.4	V	Deflect	13.8	V
Extract 2	-105.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	160	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	20480	0.24	
89	40709	0.32	
205	30863	0.62	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	20542	20408	20478	20498	20474
89	40880	40726	40774	40594	40572
205	30775	30793	31039	31081	30628

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	7.6	V	Deflect	1.6	V
Extract 2	-100.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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	190	V			