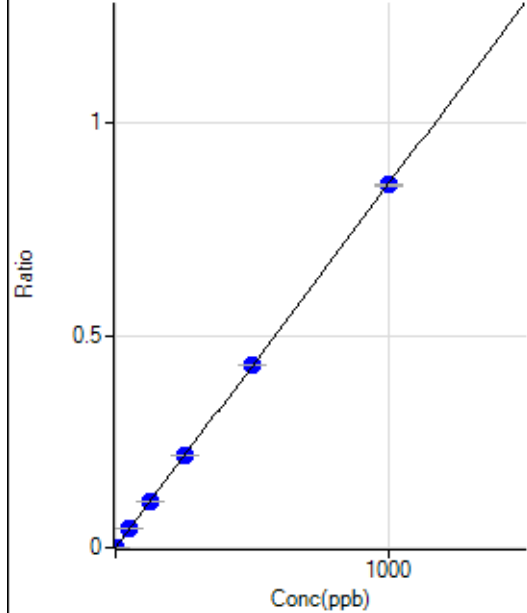


Batch Folder: D:\P8121417-MS .b\
Analysis File: P8121417-MS .batch.bin
DA Date-Time: 2017-12-15 13:15:19
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB P8121417-MS .D	S00	2017-12-14 11:34:21
2			
3	005CALS P8121417-MS .D	S02	2017-12-14 11:41:18
4	006CALS P8121417-MS .D	S03	2017-12-14 11:44:47
5	007CALS P8121417-MS .D	S04	2017-12-14 11:48:15
6	008CALS P8121417-MS .D	S05	2017-12-14 11:51:41
7	009CALS P8121417-MS .D	S06	2017-12-14 11:54:58
8	010CALS P8121417-MS .D	S07	2017-12-14 12:00:43
9	011CALS P8121417-MS .D	S08	2017-12-14 12:03:54

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	64.81	0.0001	P	19.5
2	☐	0.100					
3	☐	1.000	0.866	881.54	0.0008	P	9.6
4	☐	50.000	51.214	49981.55	0.0439	P	2.1
5	☐	125.000	126.481	122636.61	0.1084	P	0.3
6	☐	250.000	253.380	245619.52	0.2171	P	0.6
7	☐	500.000	502.282	466083.07	0.4302	P	0.7
8	☐	1000.000	997.768	905527.49	0.8546	P	0.5
9	☐			714.85	0.0007	P	8.5

$$y = 8.5642\text{E-}004 * x + 5.8890\text{E-}005$$

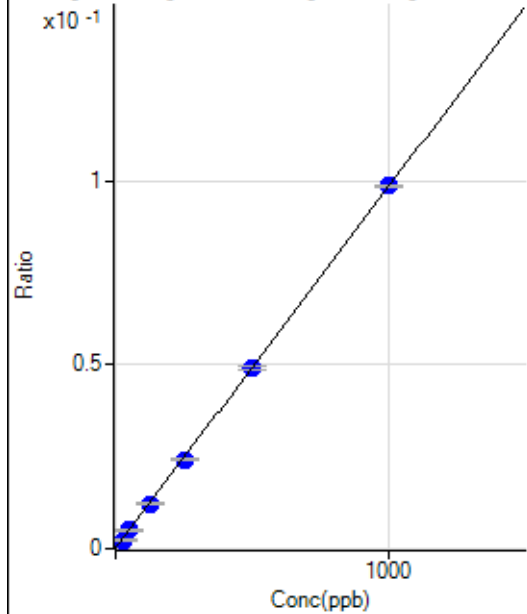
$$R = 1.0000$$

$$DL = 0.04033$$

$$BEC = 0.06876$$

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	222.23	0.0002	P	24.4
2	☐	2.500					
3	☐	25.000	21.093	2500.32	0.0023	P	11.9
4	☐	50.000	49.833	5793.12	0.0051	P	7.8
5	☐	125.000	121.993	13771.00	0.0122	P	3.3
6	☐	250.000	244.672	27382.57	0.0242	P	2.3
7	☐	500.000	498.719	53210.72	0.0491	P	2.3
8	☐	1000.000	1002.455	104394.98	0.0985	P	0.6
9	☐			3820.12	0.0037	P	6.7

$$y = 9.8081\text{E-}005 * x + 2.0210\text{E-}004$$

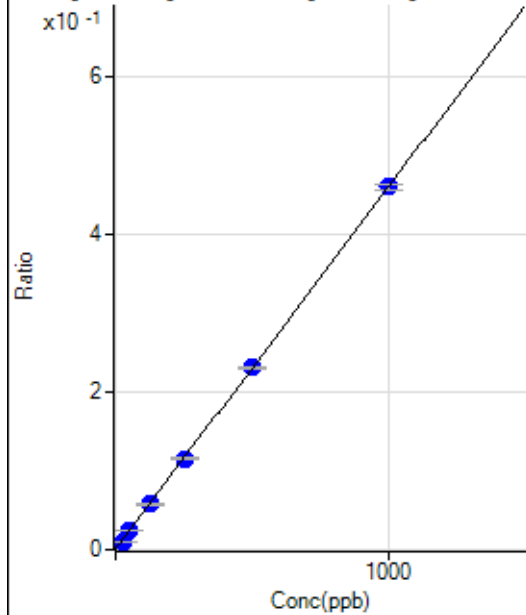
$$R = 1.0000$$

$$DL = 1.511$$

$$BEC = 2.061$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	911.18	0.0008	P	5.9
2	☐	2.500					
3	☐	25.000	21.261	11683.00	0.0106	P	4.1
4	☐	50.000	49.105	26628.33	0.0234	P	1.6
5	☐	125.000	124.538	65706.70	0.0581	P	3.0
6	☐	250.000	248.976	130450.88	0.1153	P	1.3
7	☐	500.000	500.979	250353.11	0.2311	P	1.2
8	☐	1000.000	999.963	487892.10	0.4605	P	1.8
9	☐			17797.86	0.0172	P	6.3

$$y = 4.5967\text{E-}004 * x + 8.2818\text{E-}004$$

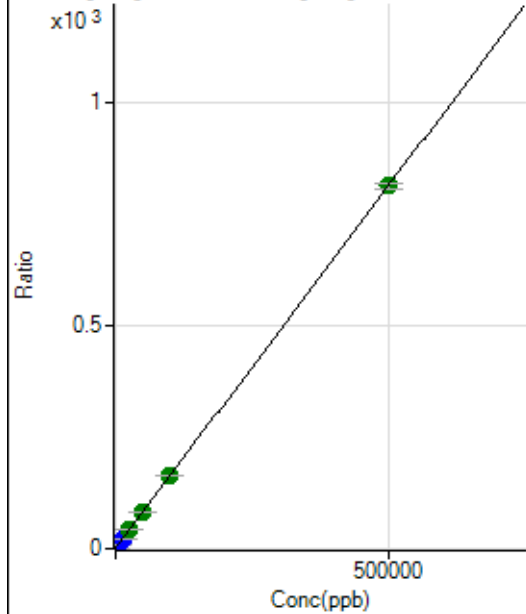
$$R = 1.0000$$

$$DL = 0.3164$$

$$BEC = 1.802$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	32749.80	0.9051	P	1.9
2	☐	50.000					
3	☐	500.000	450.806	60432.13	1.6365	P	0.7
4	☐	5000.000	5148.318	344041.64	9.2573	P	1.9
5	☐	12500.000	12988.855	811134.56	21.9770	P	0.7
6	☐	25000.000	26329.747	1606376.56	43.6201	A	2.1
7	☐	50000.000	50157.142	3030934.59	82.2754	A	1.6
8	☐	100000.00	100490.98	5618112.63	163.9324	A	1.6
9	☐	500000.00	499805.94	28540787.45	811.7440	A	1.5

$$y = 0.0016 * x + 0.9051$$

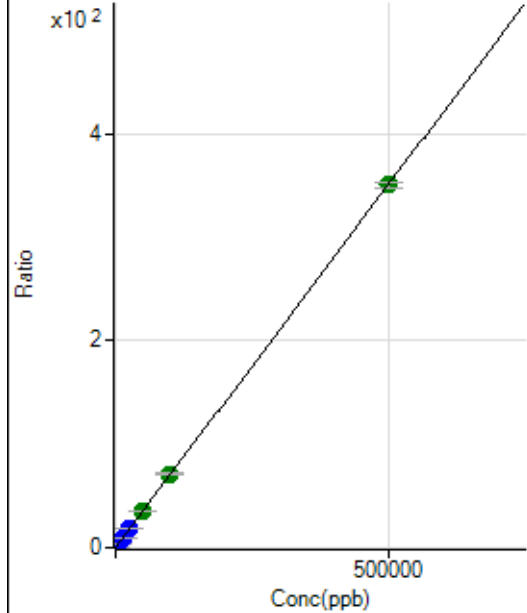
$$R = 1.0000$$

$$DL = 31.98$$

$$BEC = 557.9$$

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	900.07	0.0249	P	12.4
2	☐	50.000					
3	☐	500.000	454.438	12689.50	0.3436	P	6.9
4	☐	5000.000	5155.928	135316.13	3.6409	P	1.3
5	☐	12500.000	13027.788	338139.02	9.1616	P	1.0
6	☐	25000.000	25943.782	670941.33	18.2200	P	2.4
7	☐	50000.000	50825.456	1314190.77	35.6702	A	0.7
8	☐	100000.00	101852.63	2448859.36	71.4569	A	1.8
9	☐	500000.00	499485.03	12317432.22	350.3274	A	1.5

$$y = 7.0133\text{E-}004 * x + 0.0249$$

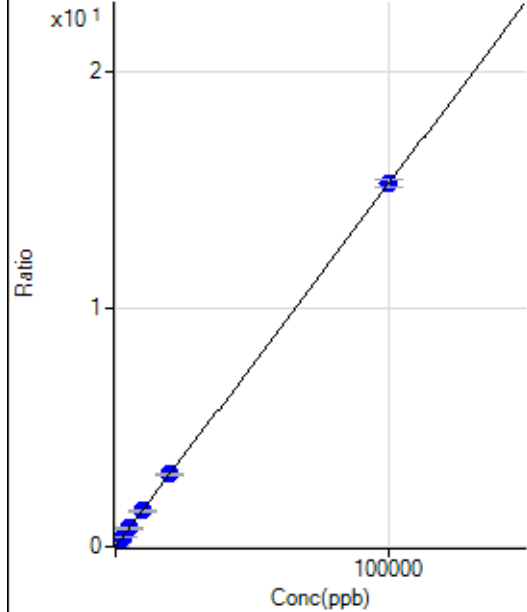
R = 1.0000

DL = 13.24

BEC = 35.48

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.67	0.0005	P	50.7
2	☐	2.000					
3	☐	20.000	19.185	125.01	0.0034	P	13.7
4	☐	1000.000	1000.888	5684.71	0.1530	P	7.3
5	☐	2500.000	2574.974	14502.48	0.3929	P	4.0
6	☐	5000.000	5056.041	28393.11	0.7711	P	2.9
7	☐	10000.000	9860.373	55383.94	1.5033	P	1.6
8	☐	20000.000	19921.713	104080.23	3.0369	P	1.3
9	☐	100000.00	100024.93	536031.21	15.2459	P	2.0

$$y = 1.5242\text{E-}004 * x + 4.6162\text{E-}004$$

R = 1.0000

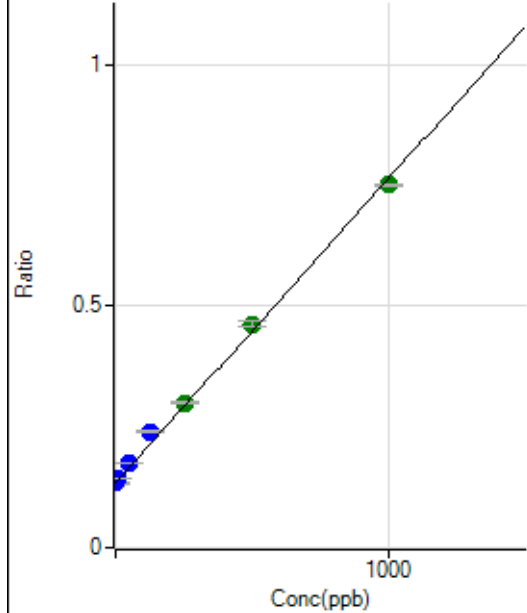
DL = 4.605

BEC = 3.029

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	466446.90	0.1337	P	1.6
2	☐	1.000					
3	☐	10.000	16.749	502836.57	0.1443	P	0.7
4	☐	50.000	65.750	628288.54	0.1752	P	1.4
5	☐	125.000	168.142	871962.30	0.2397	P	1.7
6	☐	250.000	264.094	1091921.39	0.3001	A	0.3
7	☐	500.000	522.898	1635612.67	0.4632	A	1.8
8	☐	1000.000	978.780	2675505.79	0.7504	A	0.5
9	☐			591374.35	0.1684	P	1.3

$$y = 6.3006\text{E-}004 * x + 0.1337$$

$$R = 0.9988$$

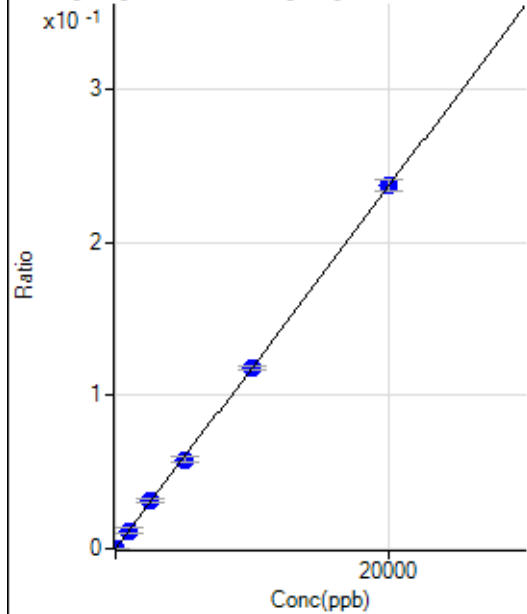
$$DL = 10.47$$

$$BEC = 212.3$$

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	3.284	5.55	0.0002	P	86.6
2	☐	0.000					
3	☐	0.000	-3.284	2.78	0.0001	P	173.
4	☐	1000.000	975.492	433.36	0.0117	P	28.3
5	☐	2500.000	2660.400	1166.77	0.0316	P	7.0
6	☐	5000.000	4911.430	2144.71	0.0583	P	5.7
7	☐	10000.000	9944.714	4342.52	0.1179	P	1.7
8	☐	20000.000	20030.961	8130.46	0.2373	P	3.1
9	☐			19.44	0.0006	P	99.7

$$y = 1.1840\text{E-}005 * x + 1.1492\text{E-}004$$

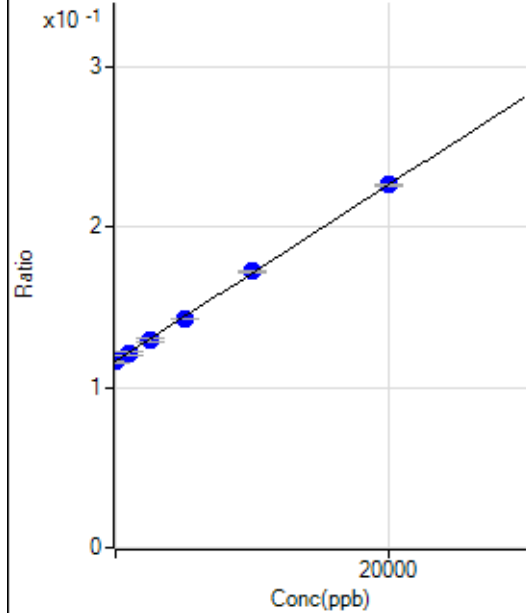
$$R = 0.9999$$

$$DL = 33.56$$

$$BEC = 9.706$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	115.134	407847.88	0.1169	P	0.4
2	☐	0.000					
3	☐	0.000	-115.134	403054.58	0.1157	P	1.1
4	☐	1000.000	907.951	435023.85	0.1213	P	1.5
5	☐	2500.000	2325.640	469584.02	0.1291	P	1.8
6	☐	5000.000	4826.945	519600.35	0.1428	P	0.5
7	☐	10000.000	10190.645	608400.43	0.1723	P	0.9
8	☐	20000.000	19974.339	806006.38	0.2261	P	0.6
9	☐			355924.06	0.1014	P	0.6

$$y = 5.4959\text{E-}006 * x + 0.1163$$

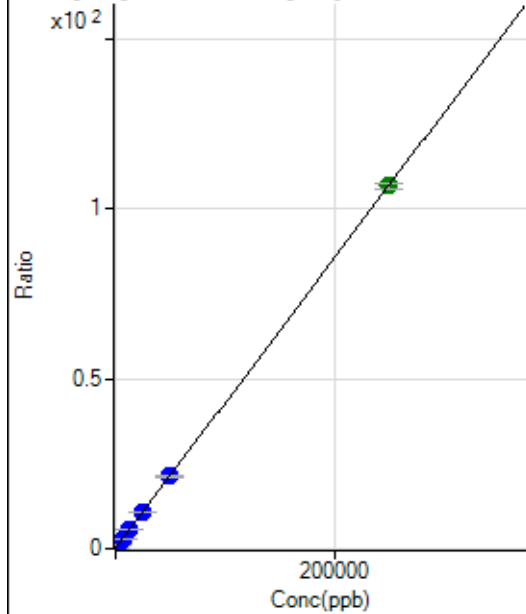
$$R = 0.9998$$

$$DL = 460.8$$

$$BEC = 2.116\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3431.15	0.0948	P	6.1
2	☐	50.000					
3	☐	500.000	429.989	10279.18	0.2784	P	2.6
4	☐	2500.000	2547.544	43936.22	1.1823	P	2.3
5	☐	6250.000	6419.778	104637.21	2.8351	P	2.1
6	☐	12500.000	12837.826	205263.46	5.5746	P	3.0
7	☐	25000.000	24843.174	394177.28	10.6990	P	0.7
8	☐	50000.000	49613.212	729011.06	21.2720	P	1.6
9	☐	250000.00	250071.56	3756400.47	106.8368	A	1.5

$$y = 4.2685\text{E-}004 * x + 0.0948$$

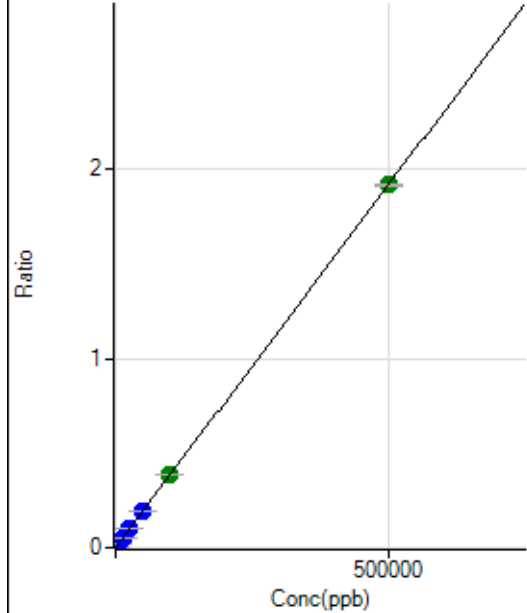
$$R = 1.0000$$

$$DL = 40.86$$

$$BEC = 222.2$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1391.80	0.0004	P	7.2
2	☐	50.000					
3	☐	500.000	444.138	7327.24	0.0021	P	5.0
4	☐	5000.000	5071.111	71223.36	0.0199	P	1.9
5	☐	12500.000	12619.222	177637.13	0.0488	P	0.8
6	☐	25000.000	25321.824	354929.22	0.0976	P	1.1
7	☐	50000.000	49927.033	677915.17	0.1920	P	0.4
8	☐	100000.00	100547.39	1376938.26	0.3862	A	0.9
9	☐	500000.00	499878.09	6737118.08	1.9185	A	0.3

$$y = 3.8371\text{E-}006 * x + 3.9891\text{E-}004$$

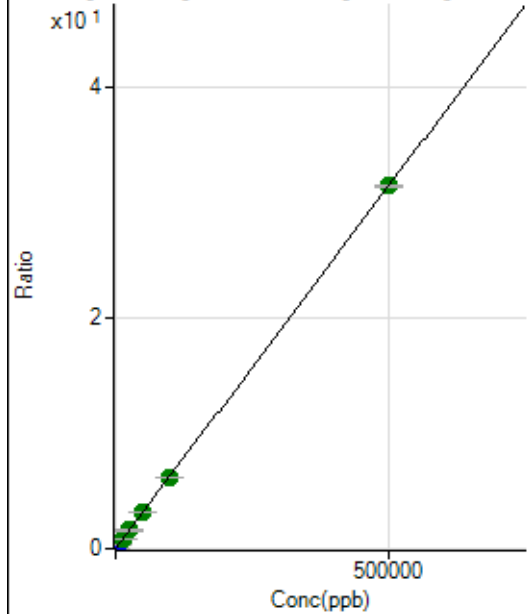
$$R = 1.0000$$

$$DL = 22.31$$

$$BEC = 104$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17817.58	0.0051	P	2.5
2	☐	50.000					
3	☐	500.000	439.191	114057.57	0.0327	P	1.3
4	☐	5000.000	5074.663	1163084.94	0.3243	P	1.3
5	☐	12500.000	12555.967	2891660.11	0.7948	A	1.0
6	☐	25000.000	25131.987	5769029.95	1.5857	A	0.4
7	☐	50000.000	50085.449	11141506.67	3.1551	A	0.2
8	☐	100000.00	98577.889	22121424.80	6.2049	A	1.2
9	☐	500000.00	500267.19	110504948.3	31.4679	A	0.3

$$y = 6.2892\text{E-}005 * x + 0.0051$$

$$R = 1.0000$$

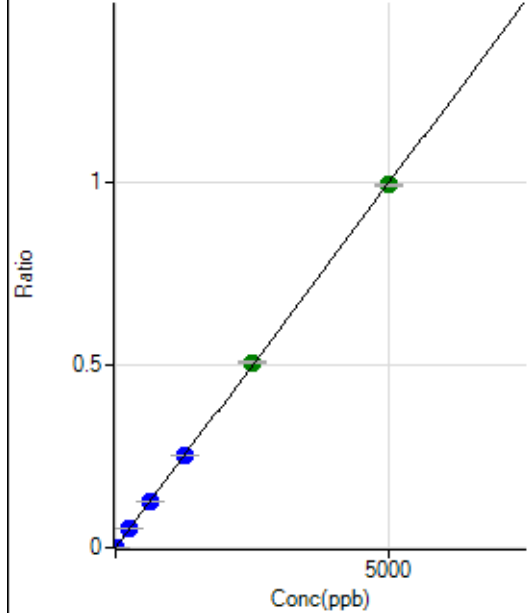
$$DL = 6.084$$

$$BEC = 81.22$$

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	152.78	0.0000	P	17.9
2	☐	0.500					
3	☐	5.000	4.432	3236.65	0.0009	P	1.5
4	☐	250.000	253.534	181741.30	0.0507	P	0.9
5	☐	625.000	627.155	455774.63	0.1253	P	0.9
6	☐	1250.000	1260.753	915985.10	0.2518	P	0.6
7	☐	2500.000	2536.493	1788627.90	0.5065	A	0.9
8	☐	5000.000	4978.620	3544431.37	0.9941	A	0.4
9	☐			719.50	0.0002	P	11.4

$$y = 1.9967E-004 * x + 4.3824E-005$$

$$R = 1.0000$$

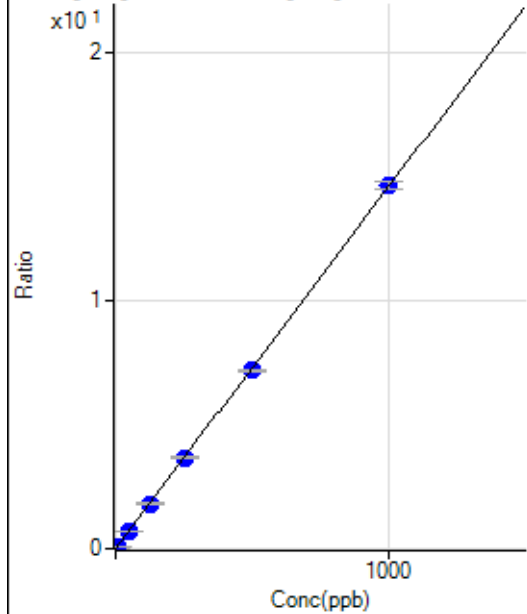
$$DL = 0.118$$

$$BEC = 0.2195$$

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	10.00	0.0003	P	32.8
2	☐	0.500					
3	☐	5.000	4.324	2336.90	0.0633	P	4.7
4	☐	50.000	49.637	26902.71	0.7238	P	2.2
5	☐	125.000	124.860	67184.78	1.8203	P	0.3
6	☐	250.000	251.934	135234.07	3.6726	P	2.7
7	☐	500.000	493.110	264819.12	7.1881	P	1.2
8	☐	1000.000	1003.000	501017.72	14.6205	P	2.2
9	☐			96.67	0.0027	P	8.8

$$y = 0.0146 * x + 2.7595E-004$$

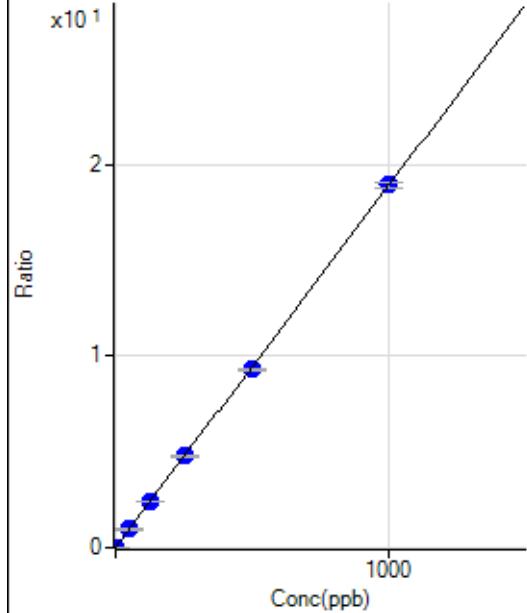
$$R = 1.0000$$

$$DL = 0.0186$$

$$BEC = 0.01893$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	425.57	0.0118	P	7.3
2	☐	0.200					
3	☐	2.000	1.788	1681.24	0.0455	P	5.4
4	☐	50.000	50.200	35680.01	0.9601	P	1.9
5	☐	125.000	126.152	88389.03	2.3948	P	0.8
6	☐	250.000	253.782	176983.89	4.8058	P	1.9
7	☐	500.000	493.306	343744.75	9.3305	P	1.1
8	☐	1000.000	1002.248	649249.30	18.9447	P	1.7
9	☐			5971.37	0.1699	P	3.8

$$y = 0.0189 * x + 0.0118$$

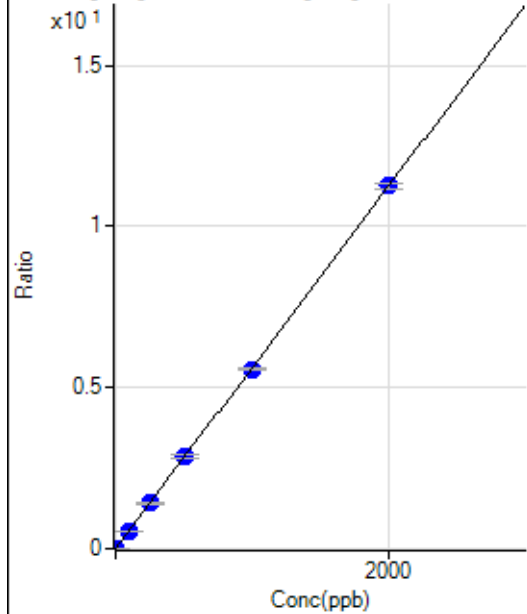
$$R = 1.0000$$

$$DL = 0.1368$$

$$BEC = 0.6225$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.56	0.0007	P	32.7
2	☐	0.100					
3	☐	1.000	0.885	210.01	0.0057	P	17.3
4	☐	100.000	99.613	20840.17	0.5607	P	1.5
5	☐	250.000	250.388	51979.74	1.4084	P	1.6
6	☐	500.000	508.498	105290.81	2.8594	P	2.9
7	☐	1000.000	990.440	205155.21	5.5689	P	1.3
8	☐	2000.000	2002.626	385870.64	11.2593	P	1.5
9	☐			1001.17	0.0285	P	6.3

$$y = 0.0056 * x + 7.0639E-004$$

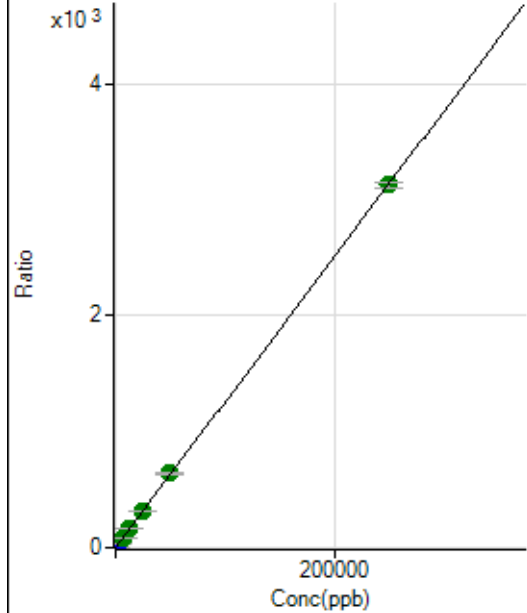
$$R = 1.0000$$

$$DL = 0.1234$$

$$BEC = 0.1257$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1427.89	0.0395	P	5.5
2	☐	5.000					
3	☐	50.000	45.547	22542.80	0.6105	P	1.5
4	☐	2500.000	2577.221	1202228.25	32.3484	P	1.7
5	☐	6250.000	6562.181	3037748.79	82.3052	A	0.6
6	☐	12500.000	12901.784	5958036.36	161.7807	A	1.8
7	☐	25000.000	25189.885	11635522.71	315.8285	A	1.3
8	☐	50000.000	51139.583	21974447.02	641.1428	A	1.0
9	☐	250000.00	249724.43	110071275.6	3,130.670	A	1.7

$$y = 0.0125 * x + 0.0395$$

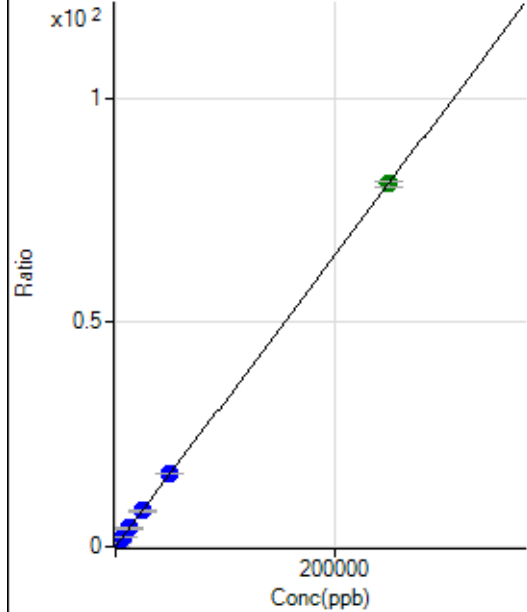
$$R = 1.0000$$

$$DL = 0.5211$$

$$BEC = 3.148$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0009	P	33.2
2	☐	5.000					
3	☐	50.000	43.887	557.43	0.0151	P	8.8
4	☐	2500.000	2474.335	29760.08	0.8009	P	4.0
5	☐	6250.000	6332.827	75602.90	2.0484	P	0.5
6	☐	12500.000	12602.669	150073.00	4.0755	P	2.6
7	☐	25000.000	24601.673	293066.97	7.9548	P	1.0
8	☐	50000.000	50193.430	556170.60	16.2288	P	1.8
9	☐	250000.00	249994.20	2841717.63	80.8260	A	1.9

$$y = 3.2331E-004 * x + 9.2116E-004$$

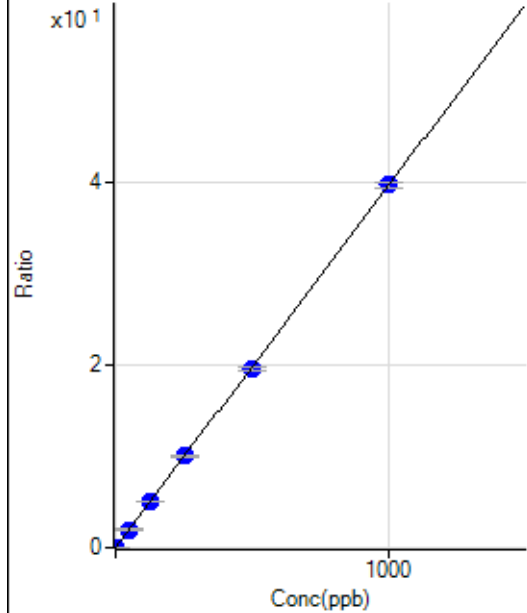
$$R = 1.0000$$

$$DL = 2.837$$

$$BEC = 2.849$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.33	0.0015	P	12.5
2	☐	0.100					
3	☐	1.000	0.880	1338.98	0.0363	P	10.1
4	☐	50.000	50.374	74106.76	1.9941	P	2.1
5	☐	125.000	126.309	184456.97	4.9977	P	1.1
6	☐	250.000	253.885	369884.48	10.0441	P	2.1
7	☐	500.000	494.174	720161.62	19.5490	P	1.7
8	☐	1000.000	1001.760	1358034.32	39.6269	P	1.7
9	☐			1465.66	0.0417	P	2.6

$$y = 0.0396 * x + 0.0015$$

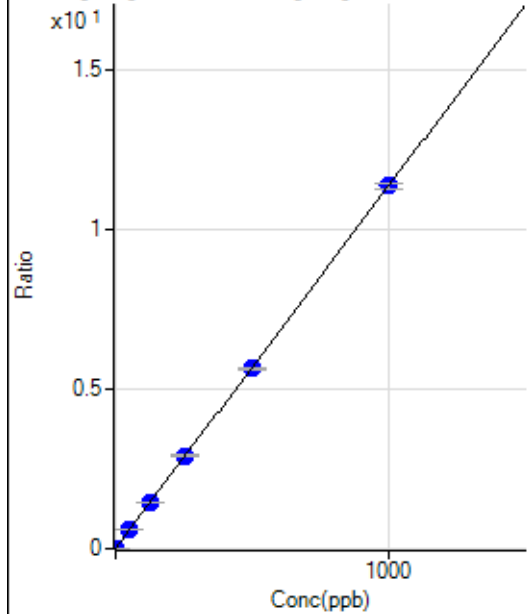
$$R = 1.0000$$

$$DL = 0.01395$$

$$BEC = 0.03726$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	292.23	0.0081	P	18.8
2	☐	0.100					
3	☐	1.000	0.816	641.14	0.0173	P	10.3
4	☐	50.000	50.358	21532.36	0.5794	P	1.2
5	☐	125.000	126.822	53398.82	1.4468	P	0.8
6	☐	250.000	255.450	107003.54	2.9060	P	2.8
7	☐	500.000	496.018	207596.30	5.6350	P	1.1
8	☐	1000.000	1000.383	389200.48	11.3566	P	1.7
9	☐			2654.75	0.0755	P	0.8

$$y = 0.0113 * x + 0.0081$$

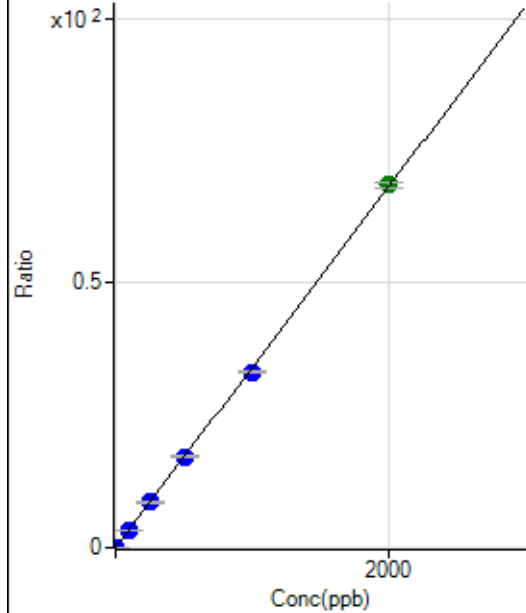
$$R = 1.0000$$

$$DL = 0.4011$$

$$BEC = 0.7124$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	290.01	0.0080	P	11.6
2	☐	0.200					
3	☐	2.000	1.813	2575.84	0.0697	P	2.0
4	☐	100.000	100.087	126945.49	3.4156	P	1.3
5	☐	250.000	251.295	316075.62	8.5638	P	0.8
6	☐	500.000	504.898	633325.46	17.1982	P	2.3
7	☐	1000.000	972.027	1219508.59	33.1024	P	1.3
8	☐	2000.000	2012.596	2348627.71	68.5304	A	1.7
9	☐			2724.76	0.0775	P	5.7

$$y = 0.0340 * x + 0.0080$$

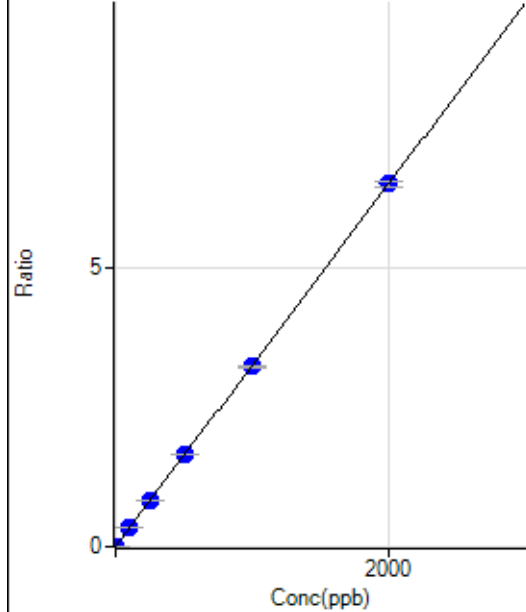
$$R = 0.9999$$

$$DL = 0.08173$$

$$BEC = 0.2355$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.00	0.0033	P	7.6
2	☐	0.200					
3	☐	2.000	1.632	317.79	0.0086	P	12.8
4	☐	100.000	101.418	12335.67	0.3319	P	3.0
5	☐	250.000	252.085	30268.73	0.8201	P	0.7
6	☐	500.000	509.525	60926.44	1.6542	P	1.3
7	☐	1000.000	992.472	118590.38	3.2191	P	1.3
8	☐	2000.000	2001.052	222319.52	6.4870	P	1.5
9	☐			663.36	0.0189	P	11.3

$$y = 0.0032 * x + 0.0033$$

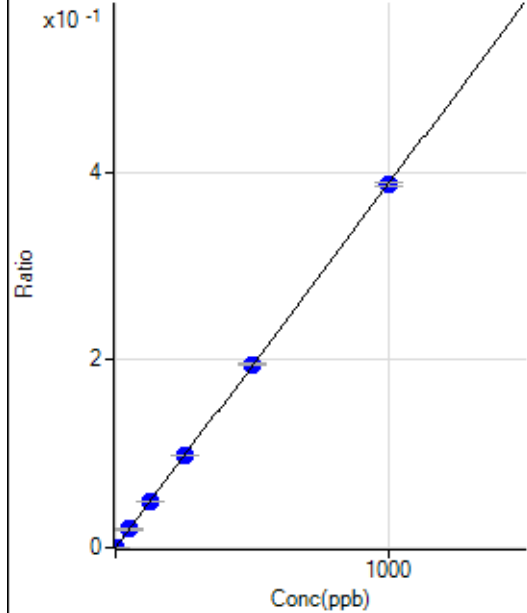
$$R = 1.0000$$

$$DL = 0.2336$$

$$BEC = 1.024$$

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	3.70	0.0000	P	100.
2	☐	0.100					
3	☐	1.000	0.916	89.51	0.0004	P	17.2
4	☐	50.000	50.418	4766.92	0.0196	P	2.6
5	☐	125.000	127.710	12095.49	0.0496	P	0.6
6	☐	250.000	253.448	24238.56	0.0983	P	1.2
7	☐	500.000	503.800	47204.95	0.1954	P	0.4
8	☐	1000.000	996.878	89767.89	0.3867	P	0.9
9	☐			35.19	0.0001	P	5.7

$$y = 3.8791\text{E-}004 * x + 1.5566\text{E-}005$$

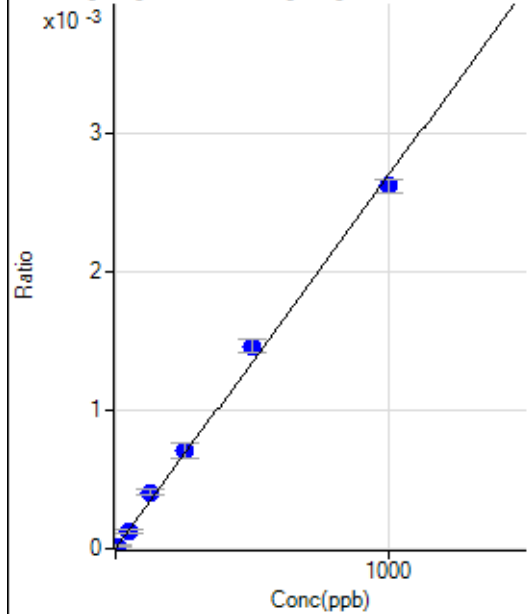
$$R = 1.0000$$

$$DL = 0.1204$$

$$BEC = 0.04013$$

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	5.181	3.33	0.0000	P	100.
4	☐	50.000	45.621	30.00	0.0001	P	21.8
5	☐	125.000	151.809	100.00	0.0004	P	8.4
6	☐	250.000	263.870	175.56	0.0007	P	15.2
7	☐	500.000	542.418	353.34	0.0015	P	6.7
8	☐	1000.000	972.191	608.91	0.0026	P	3.7
9	☐			0.00	0.0000	P	

$$y = 2.6982\text{E-}006 * x + 0.0000\text{E+}000$$

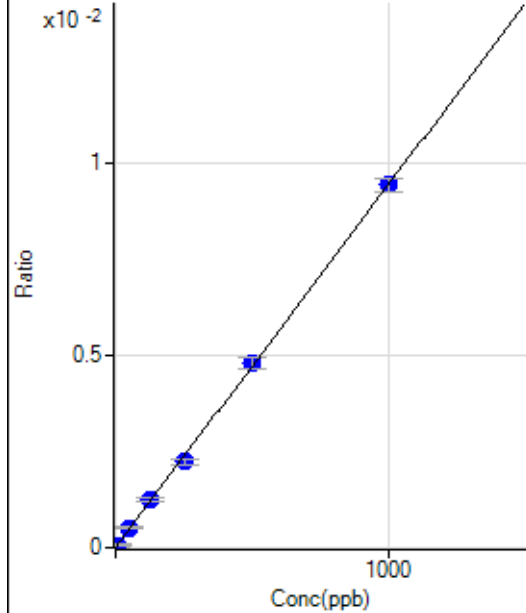
$$R = 0.9981$$

$$DL = 0$$

$$BEC = 0$$

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	1.23	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	7.021	17.28	0.0001	P	27.0
4	☐	50.000	53.659	124.70	0.0005	P	13.5
5	☐	125.000	131.131	303.71	0.0012	P	8.0
6	☐	250.000	235.361	549.40	0.0022	P	6.1
7	☐	500.000	506.902	1157.47	0.0048	P	5.8
8	☐	1000.000	999.249	2192.79	0.0094	P	3.7
9	☐			1.85	0.0000	P	173.

$$y = 9.4473\text{E-}006 * x + 5.1606\text{E-}006$$

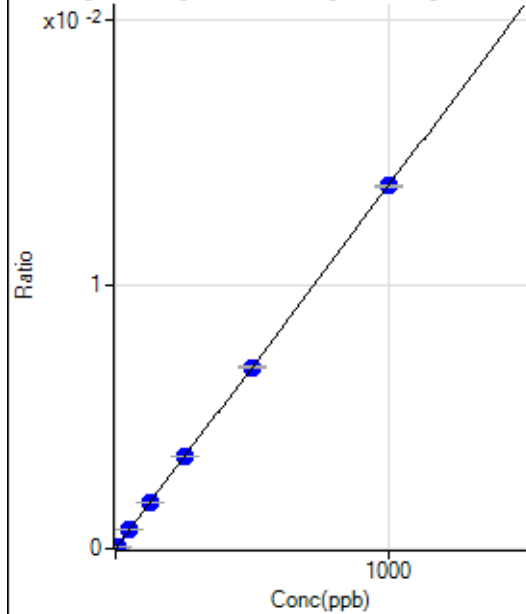
$$R = 0.9998$$

$$DL = 1.419$$

$$BEC = 0.5463$$

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	21.97	0.0000	P	79.8
2	☐	0.500					
3	☐	5.000	3.888	371.62	0.0001	P	10.2
4	☐	50.000	51.418	4823.17	0.0007	P	0.7
5	☐	125.000	127.461	12025.80	0.0018	P	0.7
6	☐	250.000	253.941	24129.02	0.0035	P	0.3
7	☐	500.000	499.200	46185.31	0.0069	P	0.6
8	☐	1000.000	999.042	92148.85	0.0137	P	0.7
9	☐			30.57	0.0000	P	165.

$$y = 1.3753\text{E-}005 * x + 3.4135\text{E-}006$$

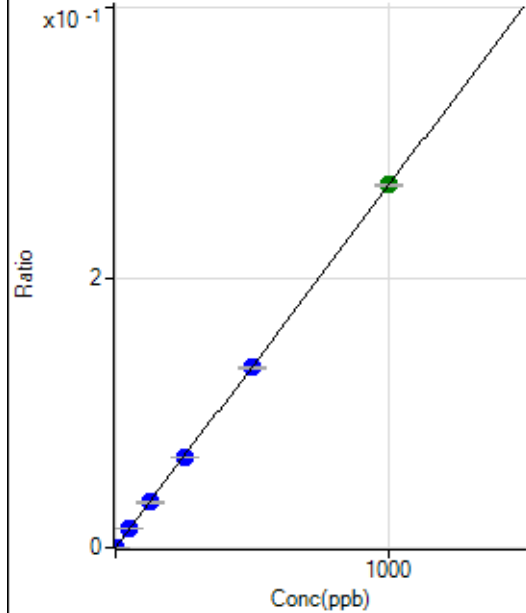
$$R = 1.0000$$

$$DL = 0.5946$$

$$BEC = 0.2482$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	627.82	0.0001	P	12.1
2	☐	0.100					
3	☐	1.000	0.828	2086.37	0.0003	P	3.4
4	☐	50.000	50.528	92730.13	0.0137	P	0.4
5	☐	125.000	124.968	230372.63	0.0336	P	1.4
6	☐	250.000	248.838	461771.82	0.0669	P	0.5
7	☐	500.000	497.208	898106.65	0.1336	P	0.7
8	☐	1000.000	1001.664	1803782.66	0.2690	A	0.3
9	☐			59619.67	0.0091	P	1.7

$$y = 2.6847\text{E-}004 * x + 9.7049\text{E-}005$$

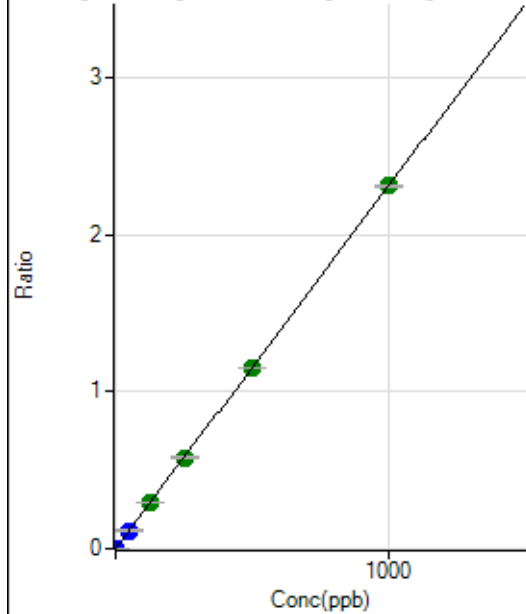
$$R = 1.0000$$

$$DL = 0.1308$$

$$BEC = 0.3615$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.57	0.0000	P	26.3
2	☐	0.100					
3	☐	1.000	0.930	14185.79	0.0022	P	2.6
4	☐	50.000	50.301	787998.31	0.1161	P	1.2
5	☐	125.000	127.674	2017502.63	0.2947	A	0.5
6	☐	250.000	251.822	4011218.32	0.5812	A	0.3
7	☐	500.000	497.704	7722430.21	1.1486	A	0.5
8	☐	1000.000	1000.343	15478693.23	2.3085	A	0.4
9	☐			514527.38	0.0784	P	0.5

$$y = 0.0023 * x + 2.4097\text{E-}005$$

$$R = 1.0000$$

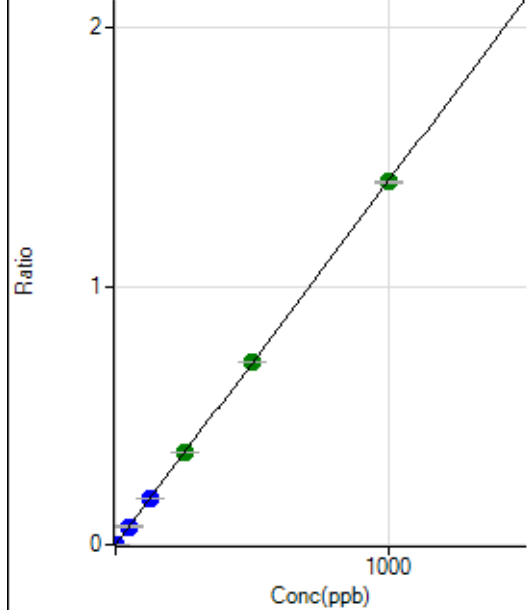
$$DL = 0.008252$$

$$BEC = 0.01044$$

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	388.91	0.0001	P	22.0
2	☐	0.100					
3	☐	1.000	0.938	9028.37	0.0014	P	3.2
4	☐	50.000	50.101	479379.05	0.0706	P	0.9
5	☐	125.000	125.751	1213170.60	0.1772	P	1.1
6	☐	250.000	254.181	2471589.44	0.3581	A	1.0
7	☐	500.000	502.365	4758038.17	0.7077	A	0.9
8	☐	1000.000	997.673	9422813.06	1.4053	A	0.5
9	☐			1302.90	0.0002	P	7.1

$$y = 0.0014 * x + 6.0177E-005$$

$$R = 1.0000$$

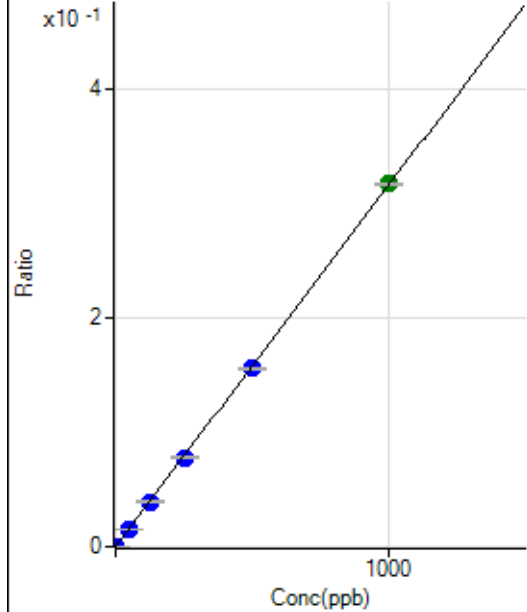
$$DL = 0.02824$$

$$BEC = 0.04272$$

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	91.67	0.0000	P	50.4
2	☐	0.100					
3	☐	1.000	0.980	2114.15	0.0003	P	2.3
4	☐	50.000	48.919	104905.67	0.0155	P	0.3
5	☐	125.000	124.358	268869.50	0.0393	P	1.2
6	☐	250.000	247.341	538986.26	0.0781	P	0.3
7	☐	500.000	494.018	1048494.71	0.1560	P	0.8
8	☐	1000.000	1003.790	2124613.31	0.3169	A	0.7
9	☐			269.46	0.0000	P	5.6

$$y = 3.1566E-004 * x + 1.4177E-005$$

$$R = 1.0000$$

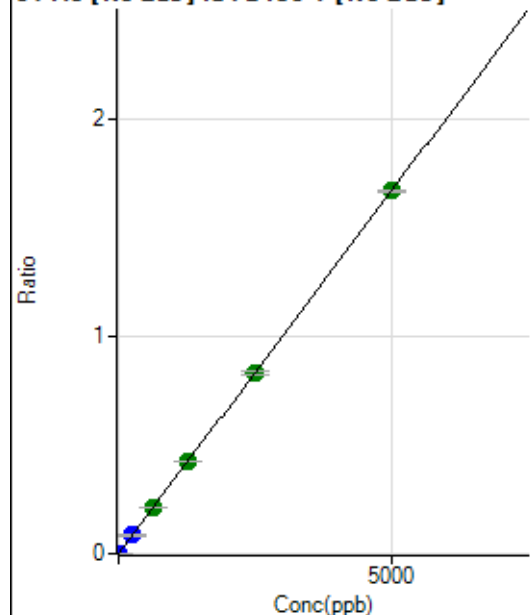
$$DL = 0.06789$$

$$BEC = 0.04491$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.79	0.0000	P	36.6
2	☐	0.500					
3	☐	5.000	4.523	10012.44	0.0015	P	1.9
4	☐	250.000	252.161	571004.37	0.0841	P	0.9
5	☐	625.000	633.107	1446049.77	0.2112	A	0.9
6	☐	1250.000	1266.854	2916679.64	0.4226	A	0.5
7	☐	2500.000	2489.275	5581866.79	0.8303	A	1.3
8	☐	5000.000	5000.028	11182488.97	1.6677	A	0.2
9	☐			3884.08	0.0006	P	4.2

$$y = 3.3354\text{E-}004 * x + 2.3603\text{E-}005$$

$$R = 1.0000$$

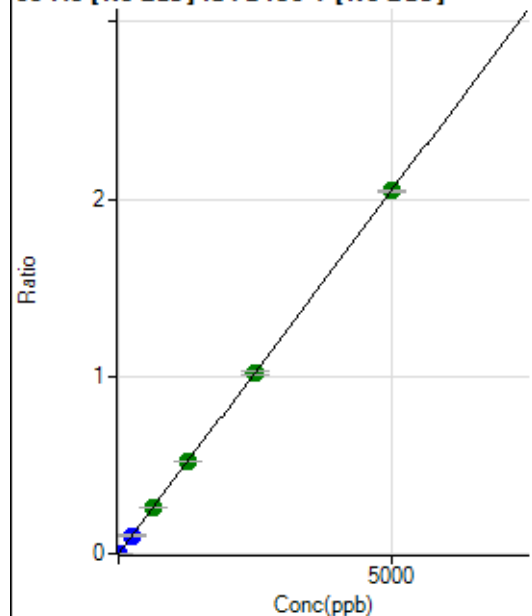
$$DL = 0.07762$$

$$BEC = 0.07076$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	57.6
2	☐	0.500					
3	☐	5.000	4.507	12091.97	0.0019	P	3.5
4	☐	250.000	250.522	695950.57	0.1025	P	1.0
5	☐	625.000	635.819	1781754.66	0.2602	A	1.5
6	☐	1250.000	1265.943	3576240.23	0.5181	A	0.2
7	☐	2500.000	2492.860	6859155.36	1.0203	A	1.7
8	☐	5000.000	4998.206	13716497.53	2.0457	A	0.2
9	☐			6590.79	0.0010	P	5.4

$$y = 4.0928\text{E-}004 * x + 5.5791\text{E-}006$$

$$R = 1.0000$$

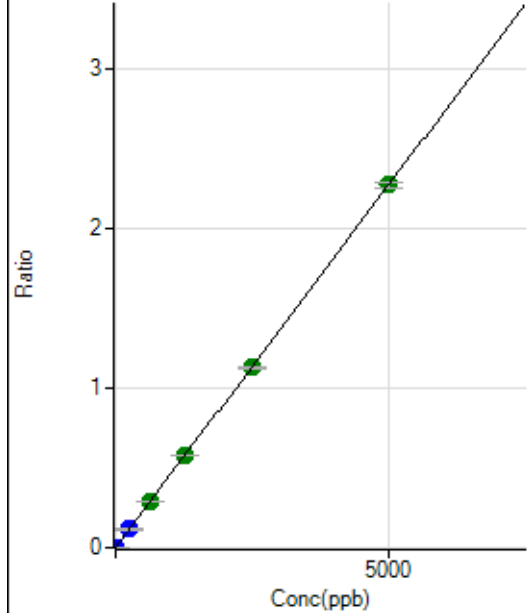
$$DL = 0.02354$$

$$BEC = 0.01363$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	7.9
2	☐	0.500					
3	☐	5.000	4.245	12661.96	0.0019	P	3.1
4	☐	250.000	252.163	776837.54	0.1145	P	1.0
5	☐	625.000	635.634	1975306.95	0.2885	A	1.5
6	☐	1250.000	1265.993	3965947.83	0.5746	A	0.6
7	☐	2500.000	2482.127	7573845.48	1.1265	A	1.2
8	☐	5000.000	5003.502	15226253.81	2.2709	A	1.5
9	☐			7621.91	0.0012	P	4.0

$$y = 4.5386\text{E-}004 * x + 1.0744\text{E-}005$$

$$R = 1.0000$$

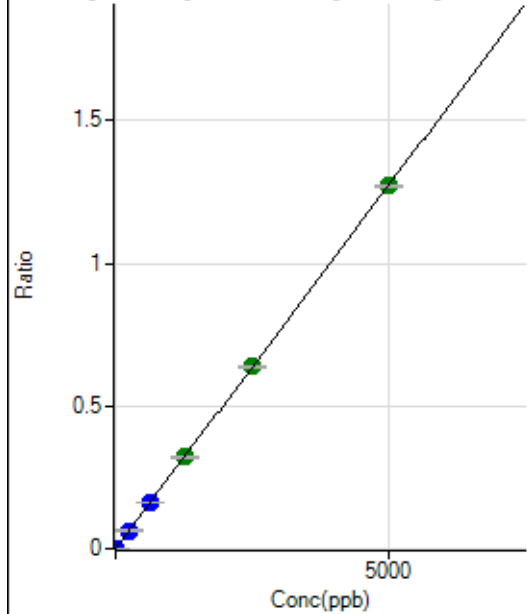
$$DL = 0.005613$$

$$BEC = 0.02367$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	52.78	0.0000	P	18.8
2	☐	0.500					
3	☐	5.000	4.348	7288.36	0.0011	P	1.2
4	☐	250.000	250.492	432906.10	0.0638	P	1.9
5	☐	625.000	625.820	1091011.49	0.1593	P	0.8
6	☐	1250.000	1261.483	2216881.88	0.3212	A	0.8
7	☐	2500.000	2503.788	4286173.93	0.6375	A	1.5
8	☐	5000.000	4995.109	8527239.77	1.2718	A	0.8
9	☐			3447.83	0.0005	P	2.7

$$y = 2.5460\text{E-}004 * x + 8.1688\text{E-}006$$

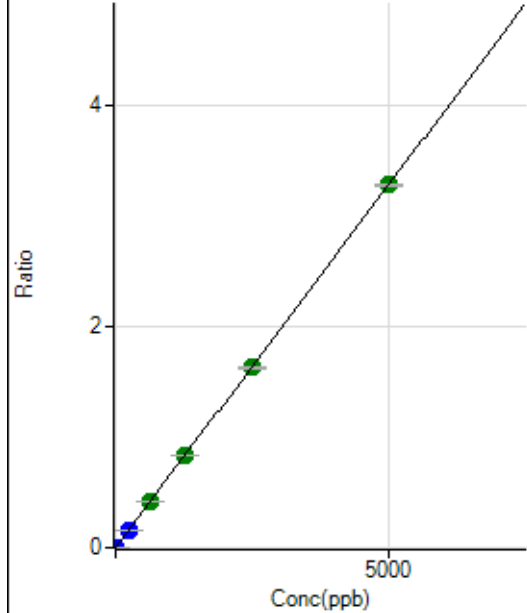
$$R = 1.0000$$

$$DL = 0.01808$$

$$BEC = 0.03208$$

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	47.22	0.0000	P	36.2
2	☐	0.500					
3	☐	5.000	4.344	18660.88	0.0029	P	0.4
4	☐	250.000	250.386	1114188.24	0.1642	P	0.9
5	☐	625.000	632.341	2838484.13	0.4146	A	1.1
6	☐	1250.000	1263.213	5716167.10	0.8282	A	0.1
7	☐	2500.000	2486.792	10960739.83	1.6303	A	1.2
8	☐	5000.000	5002.365	21989668.37	3.2795	A	0.7
9	☐			8669.85	0.0013	P	3.4

$$y = 6.5560\text{E-}004 * x + 7.2956\text{E-}006$$

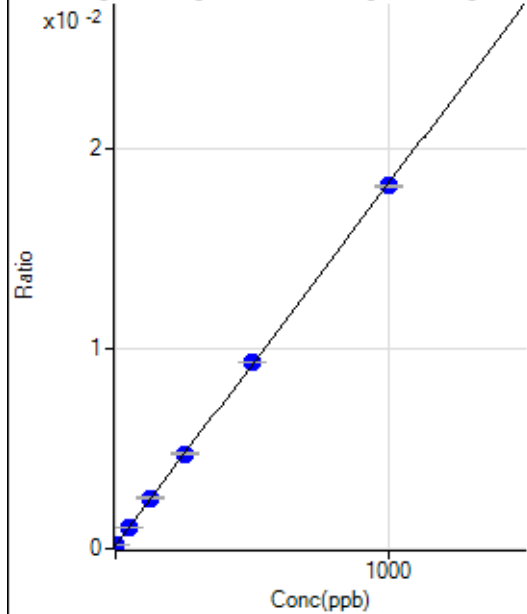
$$R = 1.0000$$

$$DL = 0.01208$$

$$BEC = 0.01113$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1250.12	0.0002	P	6.1
2	☐	0.100					
3	☐	1.000	0.018	1264.01	0.0002	P	2.7
4	☐	50.000	51.234	8664.28	0.0011	P	2.2
5	☐	125.000	131.681	20452.39	0.0025	P	1.9
6	☐	250.000	253.986	38954.51	0.0047	P	1.6
7	☐	500.000	508.305	74453.43	0.0093	P	0.2
8	☐	1000.000	993.955	146970.68	0.0181	P	0.5
9	☐			1208.45	0.0002	P	1.4

$$y = 1.8049\text{E-}005 * x + 1.6457\text{E-}004$$

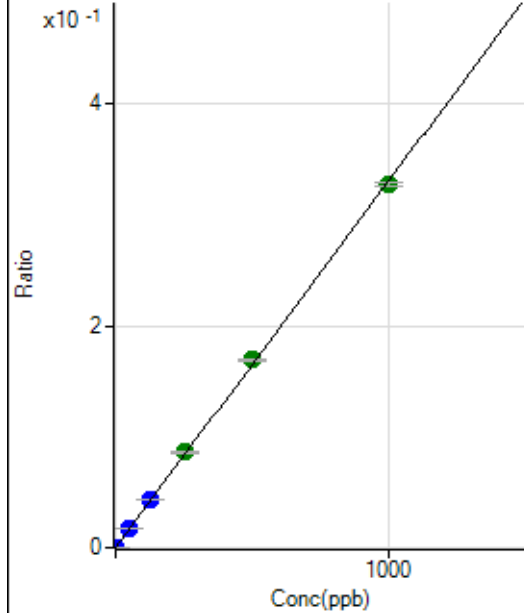
$$R = 0.9999$$

$$DL = 1.662$$

$$BEC = 9.118$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.75	0.0000	P	20.0
2	☐	0.100					
3	☐	1.000	0.873	2248.27	0.0003	P	10.8
4	☐	50.000	52.078	136878.85	0.0172	P	0.8
5	☐	125.000	130.857	347948.57	0.0432	P	1.0
6	☐	250.000	260.489	705953.67	0.0861	A	2.7
7	☐	500.000	512.912	1350826.19	0.1694	A	1.5
8	☐	1000.000	990.086	2655120.26	0.3271	A	1.1
9	☐			248.35	0.0000	P	13.4

$$y = 3.3034\text{E-}004 * x + 5.0942\text{E-}006$$

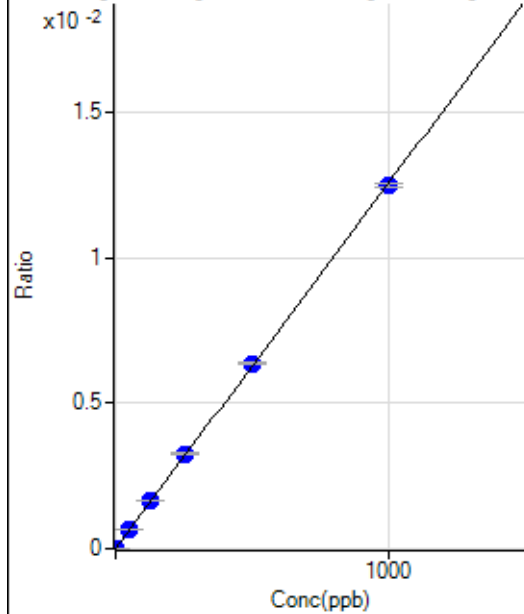
$$R = 0.9998$$

$$DL = 0.009263$$

$$BEC = 0.01542$$

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	15.28	0.0000	P	83.7
2	☐	0.100					
3	☐	1.000	0.805	93.06	0.0000	P	10.6
4	☐	50.000	53.601	5374.80	0.0007	P	3.2
5	☐	125.000	128.944	13062.12	0.0016	P	0.2
6	☐	250.000	260.366	26861.70	0.0033	P	0.9
7	☐	500.000	507.494	50866.64	0.0064	P	1.1
8	☐	1000.000	992.989	101343.82	0.0125	P	1.1
9	☐			25.00	0.0000	P	34.9

$$y = 1.2570\text{E-}005 * x + 2.0194\text{E-}006$$

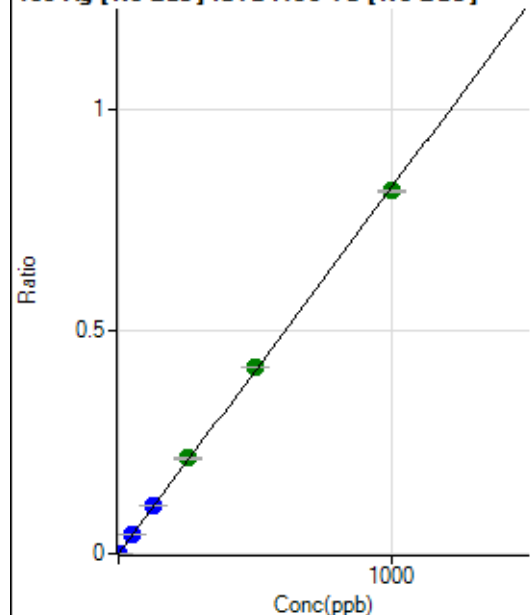
$$R = 0.9999$$

$$DL = 0.4035$$

$$BEC = 0.1607$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.78	0.0000	P	26.7
2	☐	0.100					
3	☐	1.000	0.939	6026.61	0.0008	P	3.4
4	☐	50.000	52.134	341255.14	0.0429	P	0.7
5	☐	125.000	129.732	859059.66	0.1067	P	1.5
6	☐	250.000	260.318	1756627.10	0.2142	A	1.9
7	☐	500.000	511.237	3353090.31	0.4206	A	0.3
8	☐	1000.000	991.104	6619142.94	0.8154	A	0.7
9	☐			622.27	0.0001	P	10.5

$$y = 8.2266\text{E-}004 * x + 1.3542\text{E-}005$$

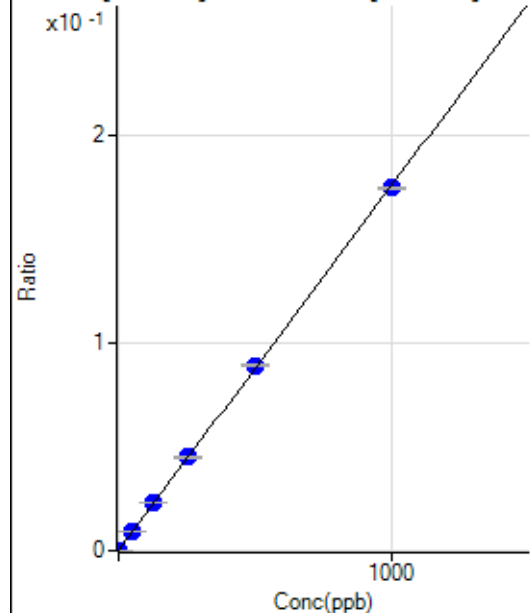
$$R = 0.9998$$

$$DL = 0.01321$$

$$BEC = 0.01646$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	881.05	0.0001	P	5.7
2	☐	0.100					
3	☐	1.000	0.893	2093.36	0.0003	P	1.6
4	☐	50.000	52.262	74003.39	0.0093	P	0.6
5	☐	125.000	131.135	186470.25	0.0232	P	1.6
6	☐	250.000	255.560	369465.02	0.0450	P	1.0
7	☐	500.000	507.896	712690.79	0.0894	P	1.2
8	☐	1000.000	993.782	1419242.67	0.1748	P	0.3
9	☐			1007.59	0.0001	P	2.0

$$y = 1.7580\text{E-}004 * x + 1.1598\text{E-}004$$

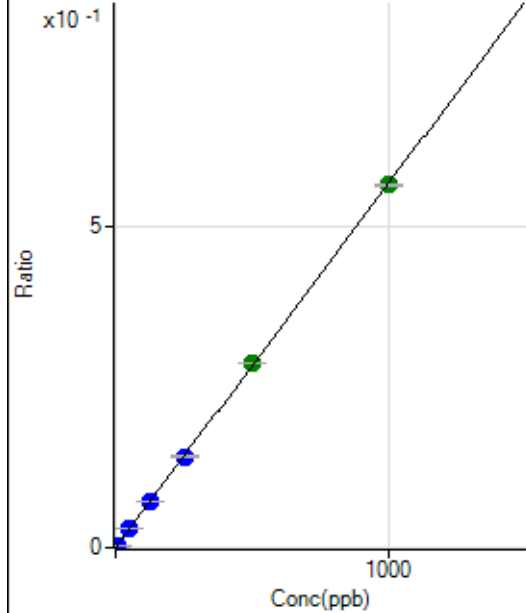
$$R = 0.9999$$

$$DL = 0.1126$$

$$BEC = 0.6597$$

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	602.82	0.0001	P	2.3
2	☐	0.500					
3	☐	5.000	4.587	20560.60	0.0027	P	5.9
4	☐	50.000	50.614	229127.18	0.0288	P	1.2
5	☐	125.000	126.445	578255.52	0.0718	P	0.9
6	☐	250.000	250.332	1166084.62	0.1422	P	0.6
7	☐	500.000	507.079	2295144.11	0.2879	A	0.5
8	☐	1000.000	996.168	4590643.29	0.5655	A	0.8
9	☐			4453.69	0.0006	P	2.2

$$y = 5.6757\text{E-}004 * x + 7.9318\text{E-}005$$

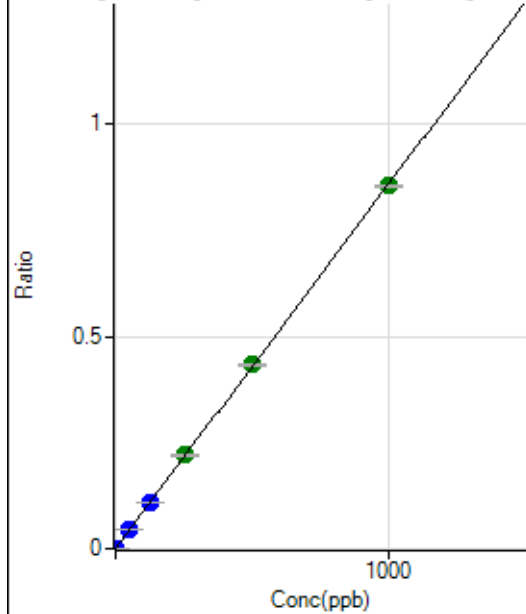
$$R = 1.0000$$

$$DL = 0.009527$$

$$BEC = 0.1397$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0000	P	44.2
2	☐	0.200					
3	☐	2.000	1.754	11611.10	0.0015	P	2.1
4	☐	50.000	50.929	347936.72	0.0437	P	0.3
5	☐	125.000	126.094	871549.53	0.1083	P	1.2
6	☐	250.000	256.465	1806568.40	0.2202	A	0.9
7	☐	500.000	504.988	3457313.97	0.4337	A	1.1
8	☐	1000.000	995.707	6941662.57	0.8551	A	0.3
9	☐			6879.88	0.0009	P	3.9

$$y = 8.5874\text{E-}004 * x + 8.0477\text{E-}006$$

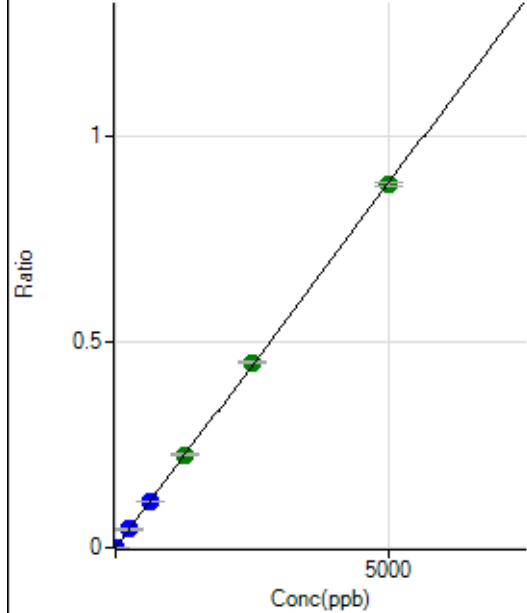
$$R = 1.0000$$

$$DL = 0.01242$$

$$BEC = 0.009372$$

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	33.33	0.0000	P	66.3
2	☐	1.000					
3	☐	10.000	8.821	12028.16	0.0016	P	3.0
4	☐	250.000	251.101	354312.91	0.0445	P	0.6
5	☐	625.000	628.994	898017.15	0.1116	P	0.6
6	☐	1250.000	1277.803	1859172.46	0.2267	A	1.1
7	☐	2500.000	2535.558	3585404.20	0.4498	A	0.8
8	☐	5000.000	4974.718	7163489.05	0.8824	A	0.9
9	☐			1825.22	0.0002	P	8.4

$$y = 1.7738\text{E-}004 * x + 4.3832\text{E-}006$$

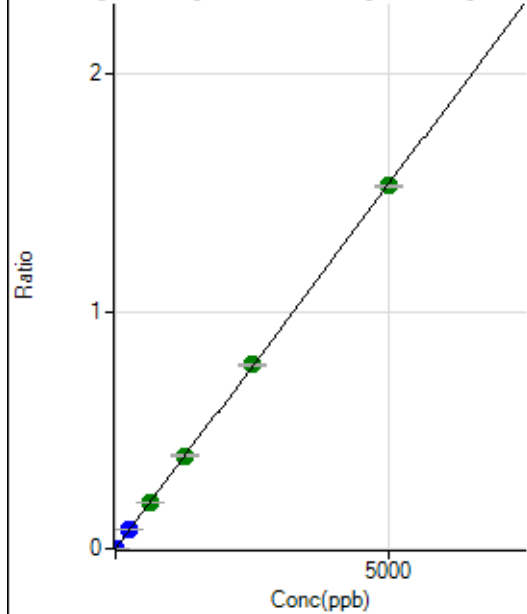
$$R = 0.9999$$

$$DL = 0.04913$$

$$BEC = 0.02471$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	22.8
2	☐	1.000					
3	☐	10.000	8.924	21053.71	0.0027	P	2.6
4	☐	250.000	255.382	623536.15	0.0784	P	0.9
5	☐	625.000	642.380	1587040.58	0.1972	A	0.3
6	☐	1250.000	1278.368	3218422.47	0.3924	A	1.7
7	☐	2500.000	2521.545	6170590.46	0.7740	A	1.0
8	☐	5000.000	4979.696	12408009.48	1.5284	A	0.7
9	☐			3003.24	0.0004	P	5.3

$$y = 3.0693\text{E-}004 * x + 7.3086\text{E-}006$$

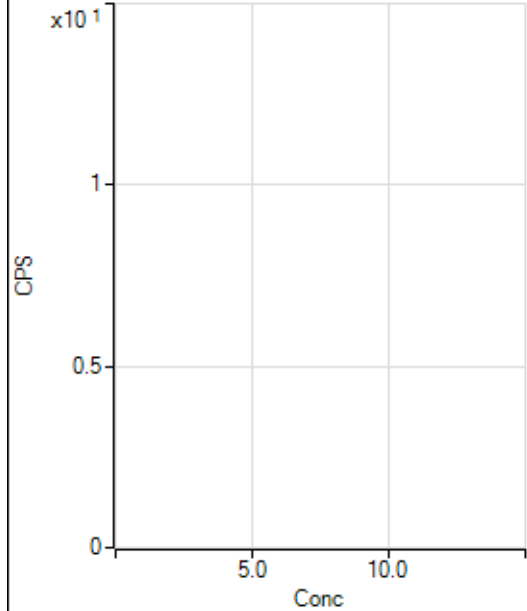
$$R = 1.0000$$

$$DL = 0.01626$$

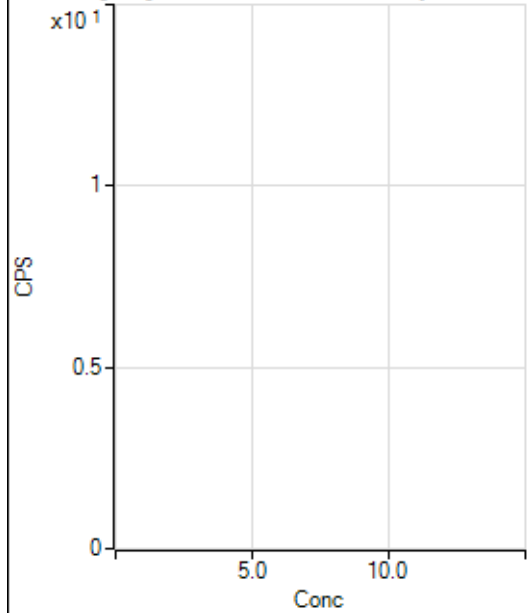
$$BEC = 0.02381$$

Weight: <None>

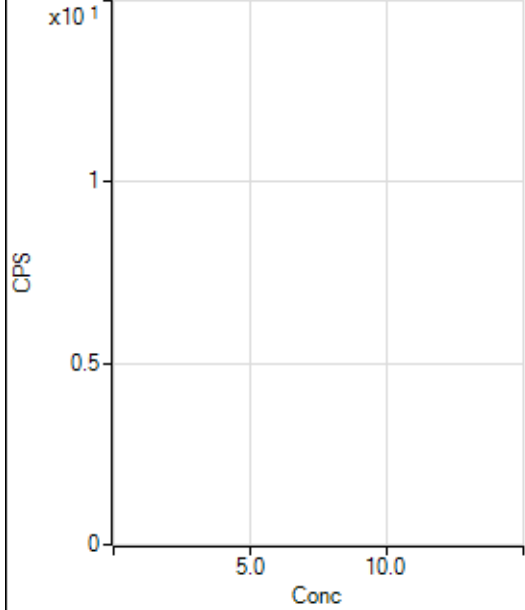
Min Conc: 0

150 Nd [No Gas] No available calibration points

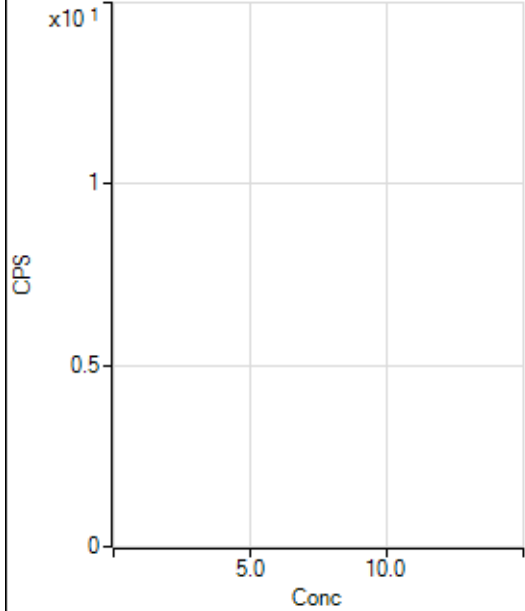
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	0.0
2	☐						
3	☐			4.44		P	173.
4	☐			40.00		P	33.3
5	☐			60.00		P	11.1
6	☐			77.78		P	21.6
7	☐			142.23		P	28.3
8	☐			328.90		P	16.5
9	☐			57.78		P	24.0

150 Nd [He] No available calibration points

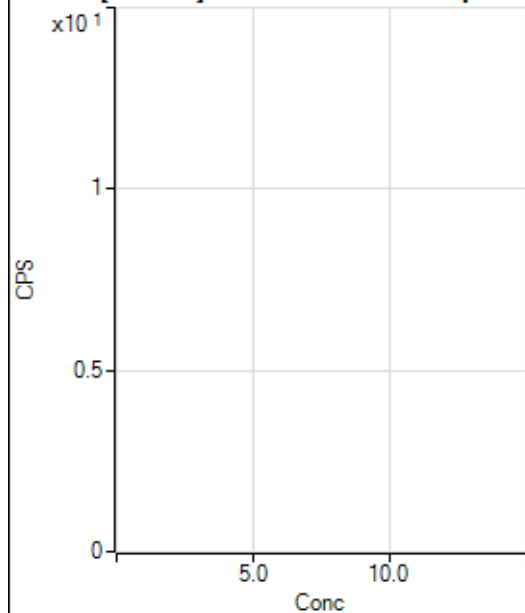
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.
4	☐			3.33		P	173.
5	☐			1.11		P	173.
6	☐			2.22		P	86.6
7	☐			2.22		P	173.
8	☐			8.89		P	114.
9	☐			8.89		P	57.3

156 Dy [No Gas] No available calibration points

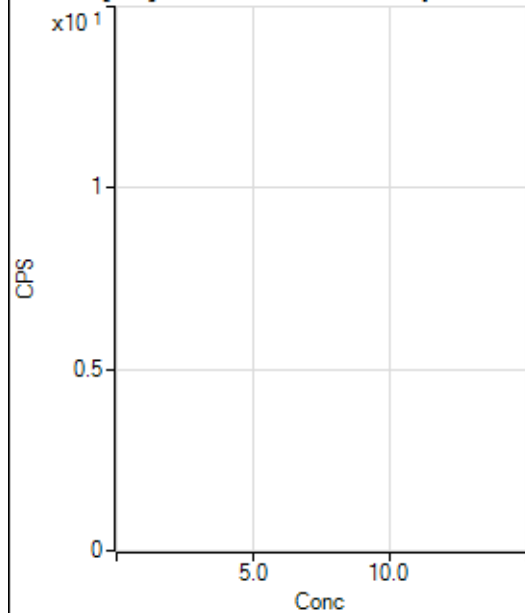
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	91.6
2	☐						
3	☐			22.22		P	57.3
4	☐			19.45		P	24.7
5	☐			27.78		P	96.4
6	☐			30.56		P	78.7
7	☐			61.11		P	47.9
8	☐			75.00		P	11.1
9	☐			55.56		P	17.3

156 Dy [He] No available calibration points

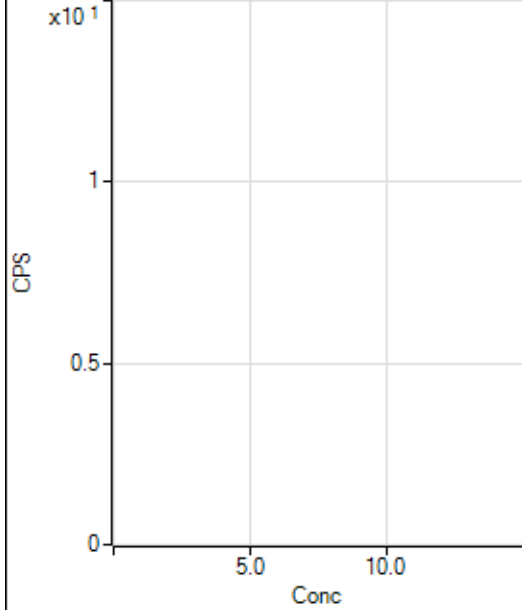
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			2.22		P	86.6
4	☐			1.11		P	173.
5	☐			1.11		P	173.
6	☐			1.11		P	173.
7	☐			3.33		P	100.
8	☐			2.22		P	173.
9	☐			8.89		P	43.3

160 Gd [No Gas] Noavailable calibration poin_

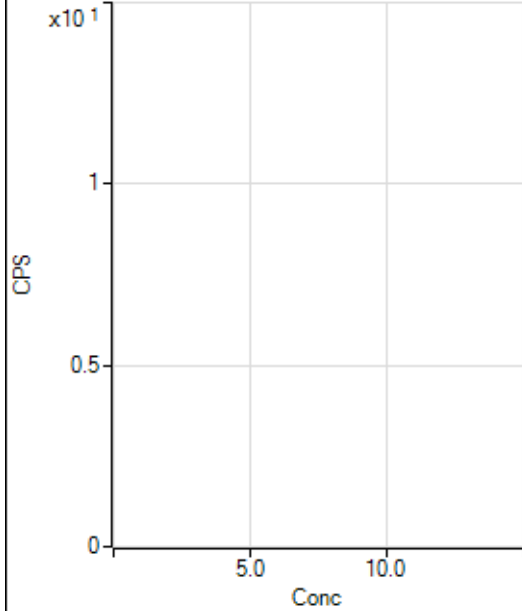
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	21.7
2	☐						
3	☐			55.56		P	22.9
4	☐			36.11		P	13.3
5	☐			58.34		P	75.6
6	☐			55.56		P	17.3
7	☐			52.78		P	45.6
8	☐			63.89		P	49.4
9	☐			72.23		P	46.6

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			5.55		P	69.3
4	☐			4.44		P	114.
5	☐			5.56		P	91.6
6	☐			6.67		P	100.
7	☐			7.78		P	65.5
8	☐			3.33		P	100.
9	☐			8.89		P	94.4

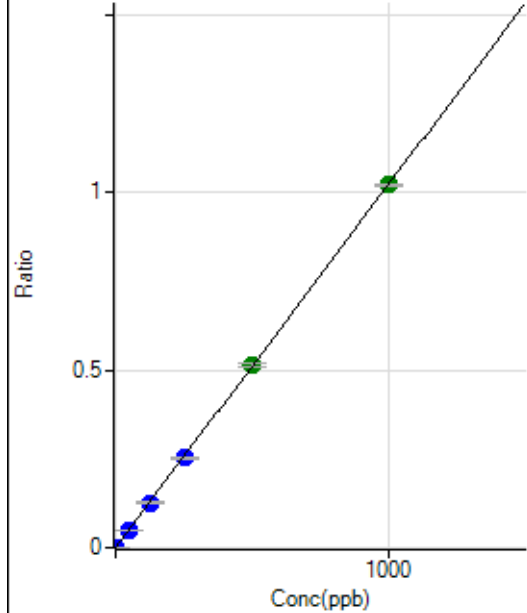
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	43.3
2	☐						
3	☐			41.67		P	34.7
4	☐			16.67		P	50.0
5	☐			38.89		P	32.7
6	☐			41.67		P	0.0
7	☐			47.23		P	20.4
8	☐			50.00		P	44.1
9	☐			44.45		P	78.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			4.44		P	114.
4	☐			4.44		P	43.4
5	☐			12.22		P	41.7
6	☐			6.67		P	132.
7	☐			5.56		P	91.6
8	☐			7.78		P	49.5
9	☐			5.56		P	34.7

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	183.34	0.0000	P	15.7
2	☐	0.100					
3	☐	1.000	0.868	4398.18	0.0009	P	1.0
4	☐	50.000	49.432	246646.34	0.0506	P	0.7
5	☐	125.000	123.517	623962.32	0.1264	P	1.6
6	☐	250.000	247.666	1259346.33	0.2534	P	1.2
7	☐	500.000	503.517	2460830.96	0.5150	A	1.6
8	☐	1000.000	999.039	5007483.36	1.0219	A	0.3
9	☐			1739.10	0.0004	P	4.3

$$y = 0.0010 * x + 3.8646E-005$$

$$R = 1.0000$$

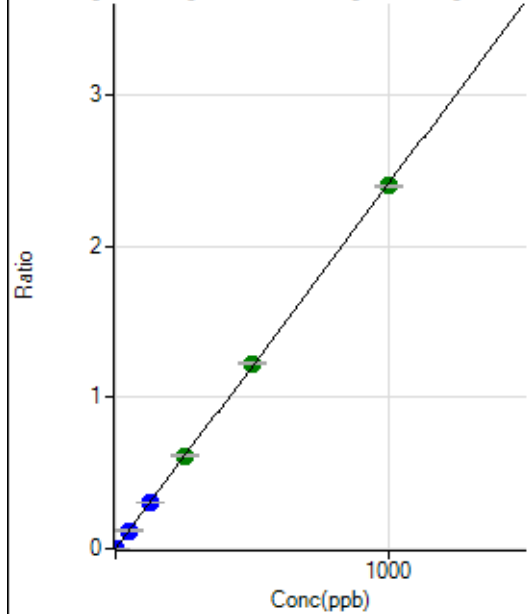
$$DL = 0.01775$$

$$BEC = 0.03778$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	486.15	0.0001	P	4.7
2	☐	0.100					
3	☐	1.000	0.884	10602.14	0.0022	P	1.5
4	☐	50.000	49.987	587756.42	0.1206	P	0.9
5	☐	125.000	124.991	1487873.86	0.3013	P	0.7
6	☐	250.000	254.586	3050433.82	0.6137	A	1.1
7	☐	500.000	508.401	5854629.86	1.2254	A	1.4
8	☐	1000.000	994.655	11747506.60	2.3973	A	0.6
9	☐			3989.72	0.0009	P	4.5

$$y = 0.0024 * x + 1.0256E-004$$

$$R = 0.9999$$

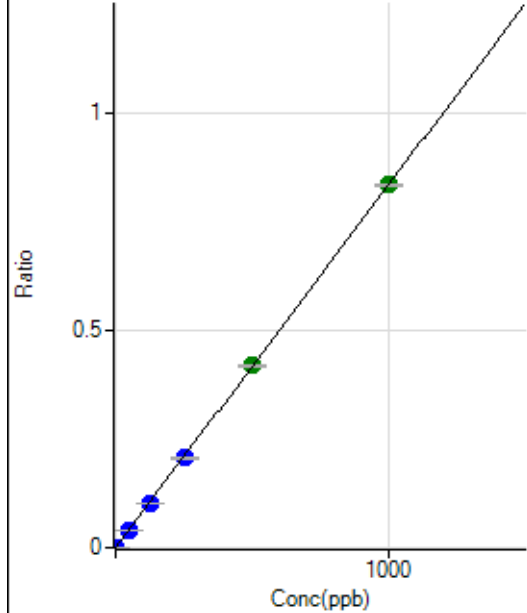
$$DL = 0.006024$$

$$BEC = 0.04255$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	229.64	0.0000	P	6.9
2	☐	0.100					
3	☐	1.000	0.913	3843.30	0.0008	P	1.5
4	☐	50.000	49.355	200850.13	0.0412	P	1.0
5	☐	125.000	123.262	507726.36	0.1028	P	0.8
6	☐	250.000	246.665	1022672.71	0.2057	P	0.8
7	☐	500.000	501.854	1999454.72	0.4185	A	0.7
8	☐	1000.000	1000.156	4087109.73	0.8340	A	0.4
9	☐			5866.41	0.0013	P	2.9

$$y = 8.3386E-004 * x + 4.8456E-005$$

$$R = 1.0000$$

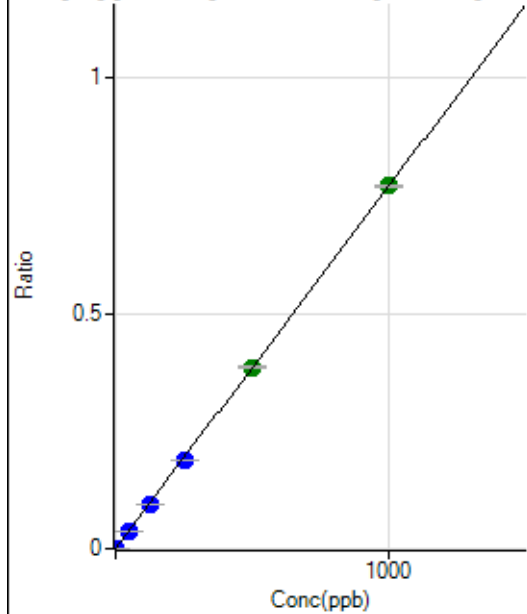
$$DL = 0.01195$$

$$BEC = 0.05811$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	188.90	0.0000	P	27.5
2	☐	0.100					
3	☐	1.000	0.884	3422.79	0.0007	P	7.6
4	☐	50.000	48.696	182946.87	0.0375	P	1.1
5	☐	125.000	121.580	462365.52	0.0936	P	0.3
6	☐	250.000	242.905	929807.86	0.1871	P	0.8
7	☐	500.000	501.209	1843839.02	0.3859	A	1.2
8	☐	1000.000	1001.662	3779204.51	0.7712	A	0.5
9	☐			4865.91	0.0011	P	1.5

$$y = 7.6990E-004 * x + 3.9873E-005$$

$$R = 1.0000$$

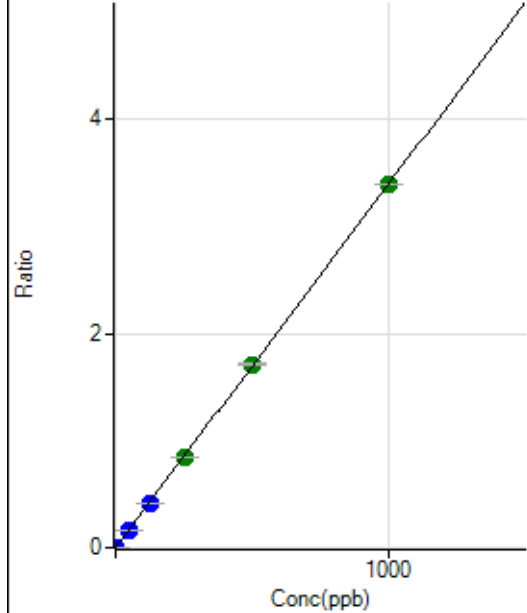
$$DL = 0.04265$$

$$BEC = 0.05179$$

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	913.01	0.0002	P	1.7
2	☐	0.100					
3	☐	1.000	0.888	15216.97	0.0032	P	0.6
4	☐	50.000	49.434	818049.09	0.1678	P	0.9
5	☐	125.000	123.510	2068855.56	0.4190	P	0.4
6	☐	250.000	249.452	4205739.54	0.8461	A	0.7
7	☐	500.000	504.717	8177538.94	1.7117	A	0.4
8	☐	1000.000	997.993	16584474.97	3.3843	A	0.2
9	☐			22797.65	0.0050	P	0.7

$$y = 0.0034 * x + 1.9257E-004$$

$$R = 1.0000$$

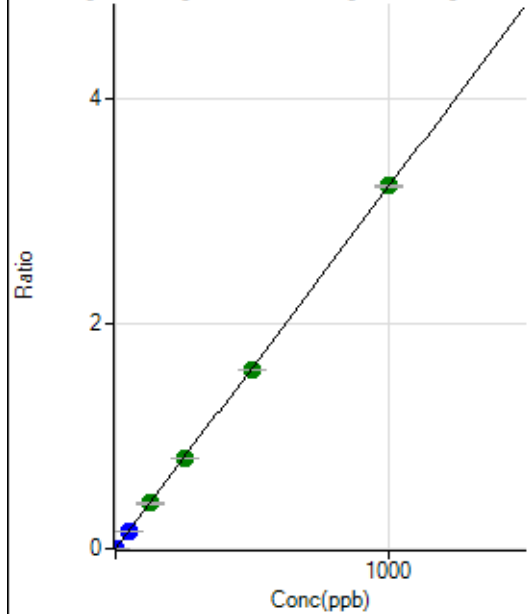
$$DL = 0.002925$$

$$BEC = 0.05679$$

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	33.33	0.0000	P	24.4
2	☐	0.100					
3	☐	1.000	0.833	12768.21	0.0027	P	1.5
4	☐	50.000	49.163	771860.52	0.1583	P	0.2
5	☐	125.000	124.916	1986416.62	0.4023	A	0.4
6	☐	250.000	249.639	3996481.04	0.8040	A	1.2
7	☐	500.000	495.775	7628053.64	1.5967	A	0.3
8	☐	1000.000	1002.255	15817734.90	3.2279	A	0.7
9	☐			658.39	0.0001	P	14.6

$$y = 0.0032 * x + 7.0249E-006$$

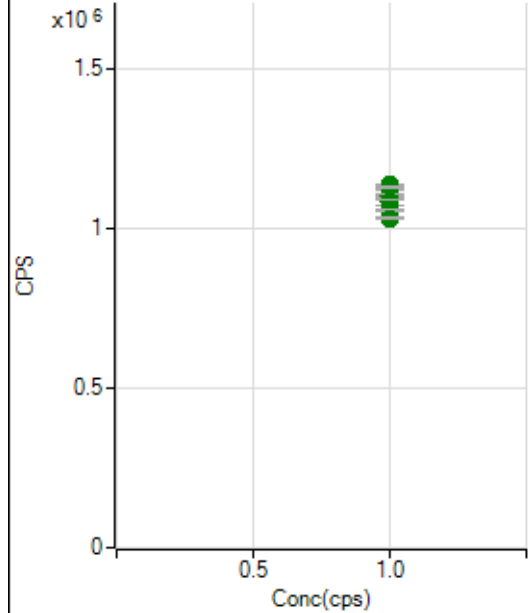
$$R = 1.0000$$

$$DL = 0.001597$$

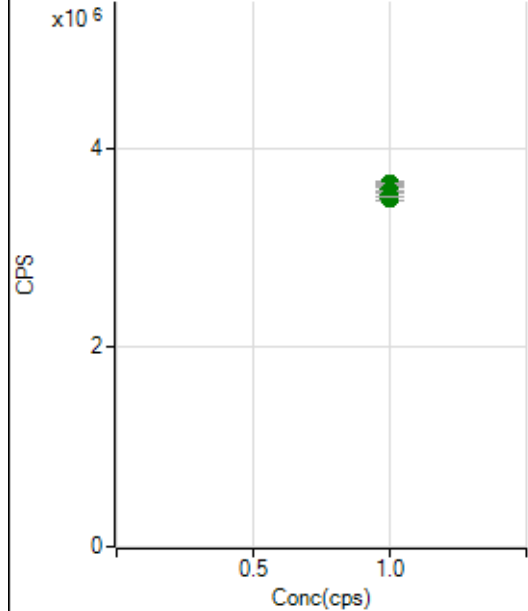
$$BEC = 0.002181$$

Weight: <None>

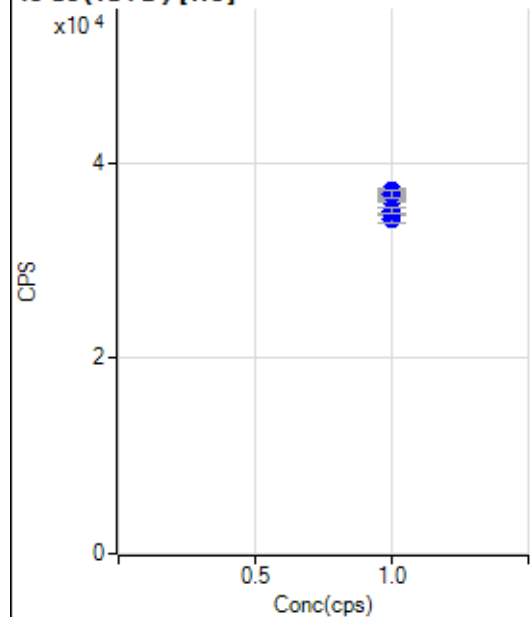
Min Conc: 0

6 Li (ISTD) [No Gas]

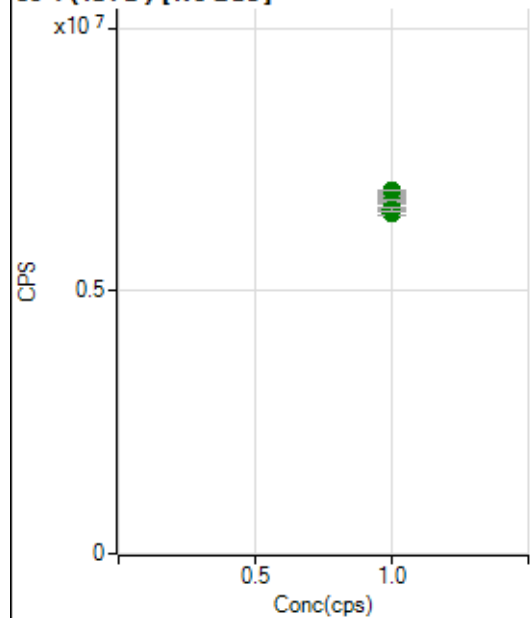
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1100182.44		A	0.4
2	☐	1.000					
3	☐	1.000		1102514.30		A	1.8
4	☐	1.000		1137969.09		A	0.4
5	☐	1.000		1131576.80		A	1.3
6	☐	1.000		1131601.96		A	0.6
7	☐	1.000		1083380.37		A	1.5
8	☐	1.000		1059618.68		A	0.7
9	☐	1.000		1032416.91		A	0.8

45 Sc (ISTD) [No Gas]

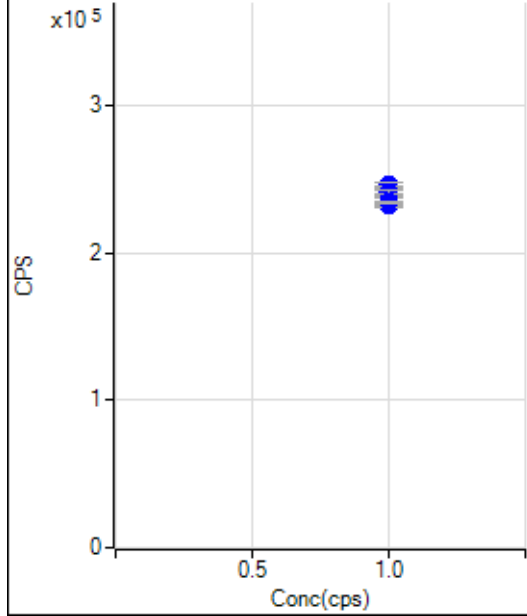
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3488004.81		A	0.9
2	☐	1.000					
3	☐	1.000		3485009.71		A	1.0
4	☐	1.000		3587210.15		A	1.2
5	☐	1.000		3638708.67		A	1.6
6	☐	1.000		3638114.01		A	0.5
7	☐	1.000		3531241.53		A	1.6
8	☐	1.000		3565329.12		A	0.6
9	☐	1.000		3511668.05		A	0.2

45 Sc (ISTD) [He]

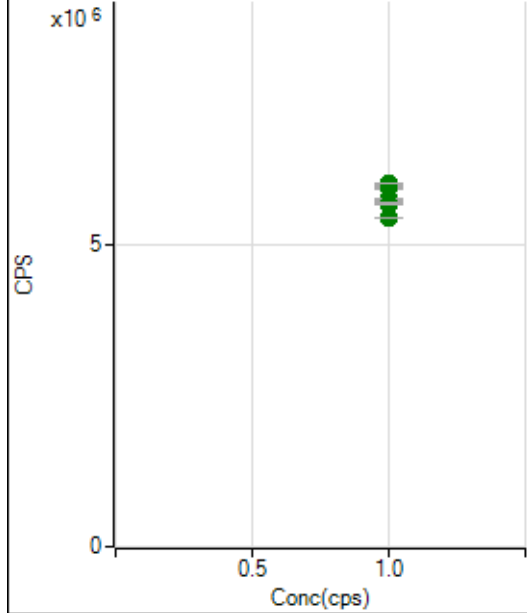
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		36186.63		P	0.8
2	☐	1.000					
3	☐	1.000		36931.93		P	2.0
4	☐	1.000		37169.20		P	1.1
5	☐	1.000		36908.56		P	0.2
6	☐	1.000		36837.40		P	2.2
7	☐	1.000		36845.08		P	1.6
8	☐	1.000		34278.60		P	2.1
9	☐	1.000		35165.16		P	1.5

89 Y (ISTD) [No Gas]

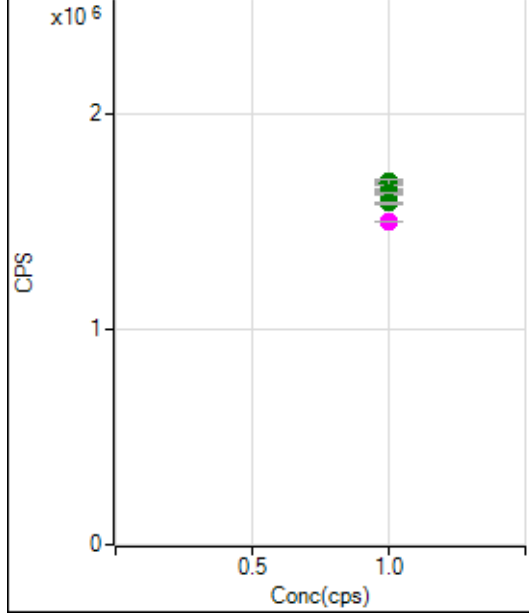
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6466756.50		A	1.0
2	☐	1.000					
3	☐	1.000		6535429.49		A	0.5
4	☐	1.000		6787523.16		A	0.8
5	☐	1.000		6847108.30		A	0.6
6	☐	1.000		6902203.79		A	0.1
7	☐	1.000		6723732.61		A	2.0
8	☐	1.000		6705149.34		A	0.6
9	☐	1.000		6560967.05		A	0.9

89 Y(ISTD) [He]

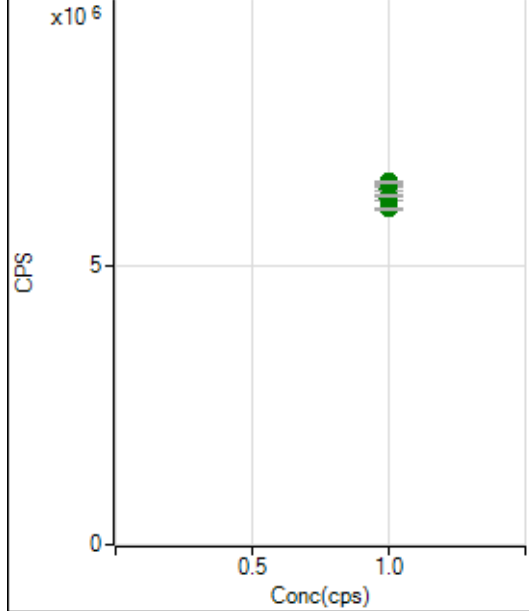
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		238634.81		P	0.5
2	☐	1.000					
3	☐	1.000		241682.37		P	2.1
4	☐	1.000		243547.35		P	0.5
5	☐	1.000		244079.15		P	0.6
6	☐	1.000		246527.92		P	1.2
7	☐	1.000		241523.36		P	1.0
8	☐	1.000		232134.54		P	0.4
9	☐	1.000		234626.88		P	0.5

103 Rh(ISTD) [No Gas]

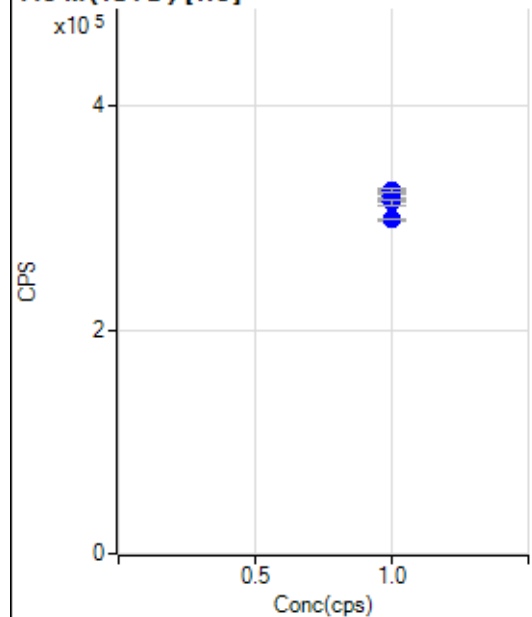
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5730820.14		A	0.2
2	☐	1.000					
3	☐	1.000		5755492.79		A	0.3
4	☐	1.000		5945347.74		A	0.4
5	☐	1.000		5956730.38		A	0.5
6	☐	1.000		6005070.40		A	0.1
7	☐	1.000		5702097.96		A	1.7
8	☐	1.000		5678419.53		A	0.2
9	☐	1.000		5434029.46		A	0.1

103 Rh (ISTD) [He]

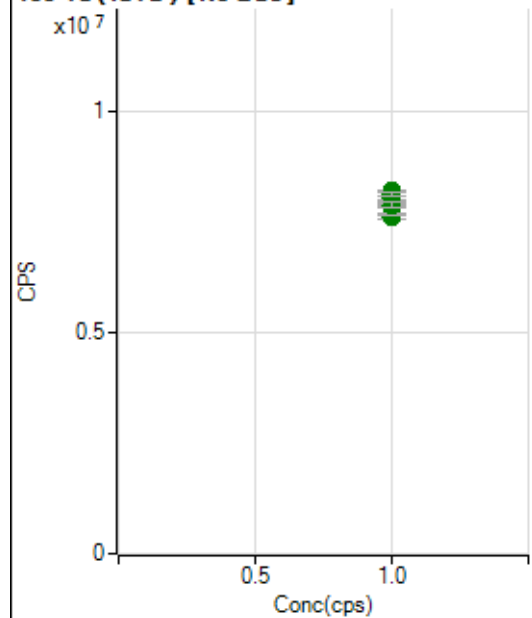
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1631158.93		A	1.0
2	☐	1.000					
3	☐	1.000		1665899.70		A	1.3
4	☐	1.000		1684543.81		A	0.3
5	☐	1.000		1677155.67		A	1.1
6	☐	1.000		1680034.19		A	1.5
7	☐	1.000		1630833.05		A	0.5
8	☐	1.000		1586303.05		A	0.8
9	☐	1.000		1498959.61		M	0.4

115 In (ISTD) [No Gas]

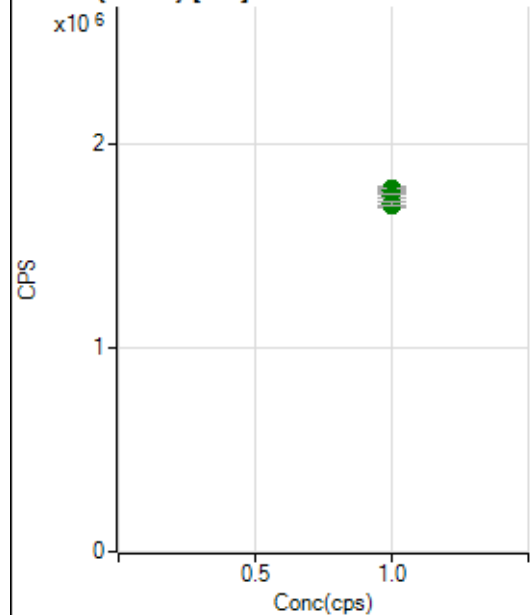
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6187965.38		A	0.7
2	☐	1.000					
3	☐	1.000		6191283.62		A	0.7
4	☐	1.000		6361401.11		A	0.7
5	☐	1.000		6452659.70		A	0.9
6	☐	1.000		6486198.03		A	0.5
7	☐	1.000		6210075.35		A	1.3
8	☐	1.000		6231905.05		A	0.6
9	☐	1.000		6007968.14		A	0.4

115 In (ISTD) [He]

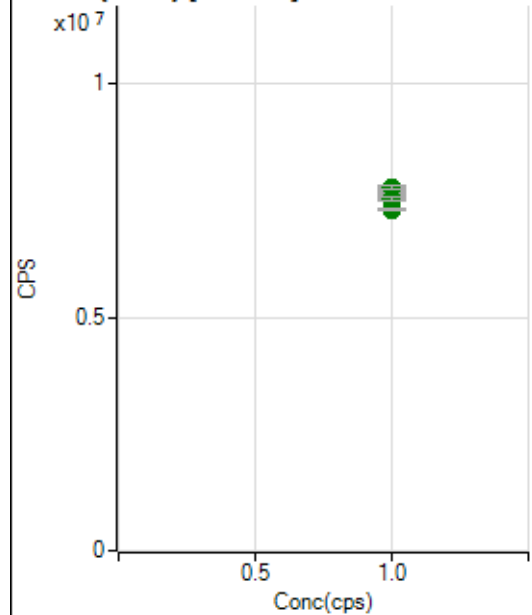
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		315239.01		P	0.9
2	☐	1.000					
3	☐	1.000		320113.54		P	1.0
4	☐	1.000		323142.46		P	0.4
5	☐	1.000		323520.14		P	0.5
6	☐	1.000		324354.74		P	1.2
7	☐	1.000		314037.56		P	1.4
8	☐	1.000		298708.27		P	0.3
9	☐	1.000		299277.16		P	0.5

159 Tb (ISTD) [No Gas]

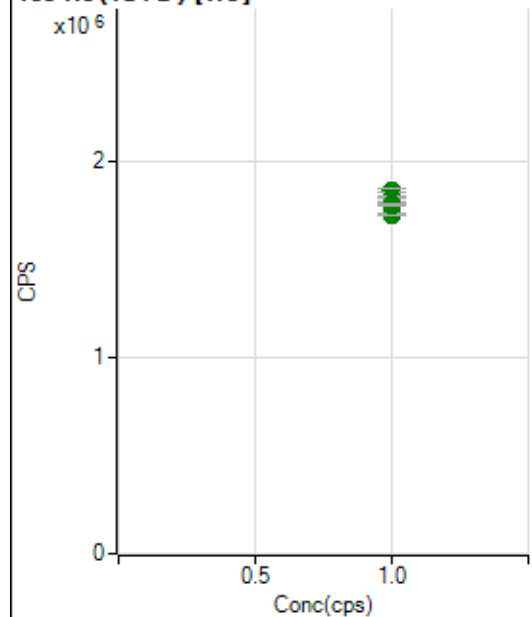
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7599037.11		A	0.9
2	☐	1.000					
3	☐	1.000		7666663.84		A	0.8
4	☐	1.000		7954233.84		A	0.6
5	☐	1.000		8048924.74		A	1.0
6	☐	1.000		8202781.96		A	0.6
7	☐	1.000		7972763.28		A	2.4
8	☐	1.000		8118333.49		A	0.8
9	☐	1.000		7880214.54		A	1.8

159 Tb (ISTD) [He]

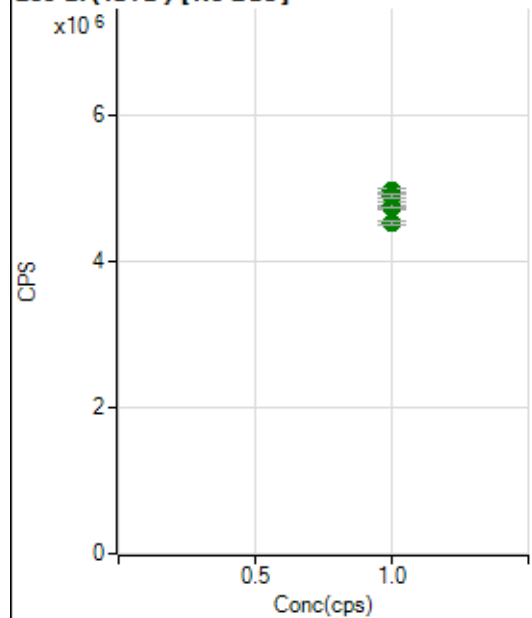
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1694060.90		A	0.6
2	☐	1.000					
3	☐	1.000		1733068.50		A	0.4
4	☐	1.000		1749523.46		A	0.2
5	☐	1.000		1772112.58		A	0.4
6	☐	1.000		1776472.56		A	1.0
7	☐	1.000		1769468.37		A	0.9
8	☐	1.000		1740399.04		A	0.9
9	☐	1.000		1702526.92		A	1.2

165 Ho (ISTD) [No Gas]

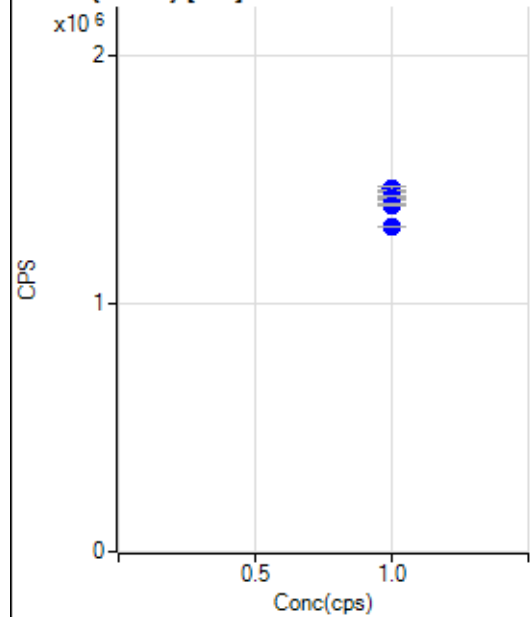
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7316923.86		A	0.8
2	☐	1.000					
3	☐	1.000		7302185.14		A	0.3
4	☐	1.000		7568753.73		A	0.9
5	☐	1.000		7667532.11		A	0.8
6	☐	1.000		7759929.69		A	0.9
7	☐	1.000		7575023.69		A	2.3
8	☐	1.000		7770812.50		A	1.0
9	☐	1.000		7538583.33		A	1.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1730456.89		A	0.2
2	☐	1.000					
3	☐	1.000		1787068.53		A	1.3
4	☐	1.000		1819222.23		A	0.5
5	☐	1.000		1821452.63		A	0.7
6	☐	1.000		1851207.90		A	1.2
7	☐	1.000		1818840.70		A	0.5
8	☐	1.000		1786837.09		A	1.2
9	☐	1.000		1778177.47		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4740885.35		A	0.8
2	☐	1.000					
3	☐	1.000		4747609.82		A	0.5
4	☐	1.000		4874572.92		A	0.2
5	☐	1.000		4937487.57		A	0.4
6	☐	1.000		4971072.81		A	1.0
7	☐	1.000		4777427.46		A	1.3
8	☐	1.000		4900371.07		A	0.7
9	☐	1.000		4522906.70		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1399024.65		P	0.5
2	☐	1.000					
3	☐	1.000		1424908.02		P	1.4
4	☐	1.000		1450084.68		P	0.4
5	☐	1.000		1447904.58		P	0.2
6	☐	1.000		1461026.07		P	1.1
7	☐	1.000		1427350.97		P	0.8
8	☐	1.000		1395944.46		P	0.4
9	☐	1.000		1309648.75		P	0.4

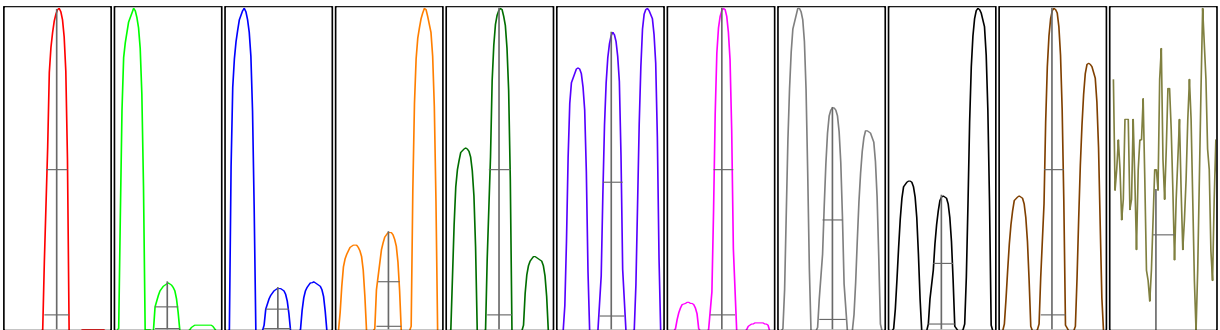
US EPA Tune Check Sample Report

Batch Folder D:\P8121417-MS .b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	4260	0.45	5.00	
24	28602	0.29	5.00	
25	3814	0.21	5.00	
26	4266	0.31	5.00	
59	42438	0.20	5.00	
113	5752	0.69	5.00	
115	71268	0.31	5.00	
206	15835	0.56	5.00	
207	14179	0.71	5.00	
208	33851	0.78	5.00	
220	2	22.56		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	4286	4271	4243	4241	4262
24	28516	28550	28627	28730	28589
25	3806	3811	3820	3826	3810
26	4256	4270	4256	4288	4261
59	42388	42395	42467	42364	42575
113	5772	5795	5720	5771	5701
115	71480	71310	71119	71466	70968
206	15873	15715	15807	15823	15957
207	14249	14082	14106	14139	14319
208	33874	33798	33532	33785	34266
220	2	2	2	2	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	7247	9.00	8.9 - 9.1		0.734	0.900	
24	47926	24.00	23.9 - 24.1		0.739	0.900	
25	6305	25.00	24.9 - 25.1		0.774	0.900	
26	7227	26.00	25.9 - 26.1		0.740	0.900	
59	73582	59.00	58.9 - 59.1		0.734	0.900	
113	10875	113.05	112.9 - 113.1		0.725	0.900	
115	134413	115.05	114.9 - 115.1		0.720	0.900	
206	28666	206.05	205.9 - 206.1		0.774	0.900	
207	25795	207.00	206.9 - 207.1		0.747	0.900	
208	61825	208.00	207.9 - 208.1		0.736	0.900	
220	2	219.80	-				

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.3	V	Deflect	13.8	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-115	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	5936	2.59	
89	1340	2.60	
205	8142	2.78	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	6012	6020	5979	6006	5662
89	1367	1341	1363	1348	1281
205	8302	8261	8194	8209	7745

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.3	V	Deflect	2.2	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-115	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	5.0	mL/min	OctP RF	200	V			