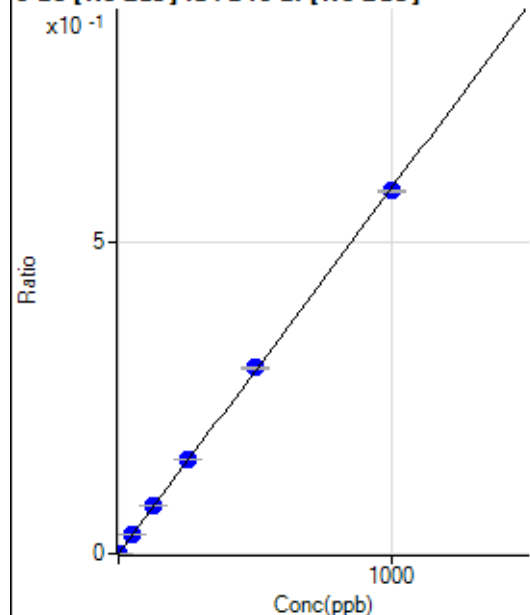


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7072020 MS.b\
 Analysis File: P7072020 MS.batch.bin
 DA Date-Time: 2020-07-20 21:19:52
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-07-20 19:46:46
2	004CALS.d	S02	2020-07-20 19:50:31
3	005CALS.d	S03	2020-07-20 19:55:25
4	006CALS.d	S04	2020-07-20 19:59:47
5	007CALS.d	S05	2020-07-20 20:03:40
6	008CALS.d	S06	2020-07-20 20:07:23
7	009CALS.d	S07	2020-07-20 20:11:01
8	010CALS.d	S08	2020-07-20 20:14:33

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	205.56	0.0000	P	14.1
2	☐	1.000	0.939	2837.39	0.0006	P	11.4
3	☐	50.000	51.152	143846.94	0.0301	P	1.2
4	☐	125.000	129.630	357341.09	0.0762	P	0.9
5	☐	250.000	257.999	711622.89	0.1516	P	0.6
6	☐	500.000	509.016	1348164.48	0.2991	P	1.4
7	☐	1000.000	992.856	2613446.96	0.5833	P	0.3
8	☐			611.14	0.0001	P	4.0

$$y = 5.8745\text{E-}004 * x + 4.3305\text{E-}005$$

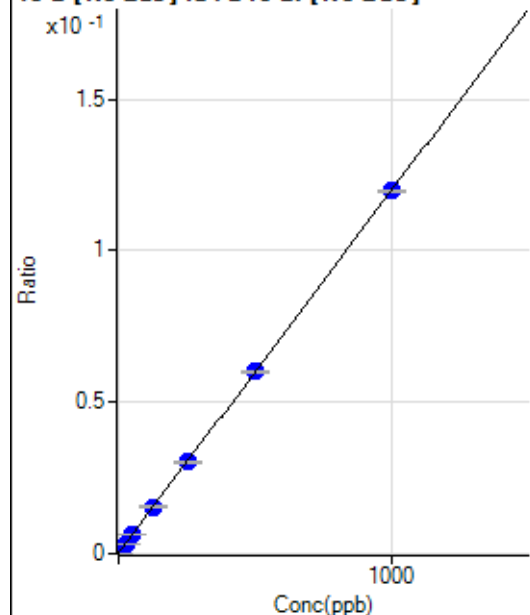
$$R = 0.9999$$

$$DL = 0.03113$$

$$BEC = 0.07372$$

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	1227.87	0.0003	P	11.1
2	☐	25.000	22.573	14112.67	0.0030	P	3.6
3	☐	50.000	49.028	29273.67	0.0061	P	2.4
4	☐	125.000	127.379	72689.46	0.0155	P	1.3
5	☐	250.000	250.356	141789.98	0.0302	P	1.6
6	☐	500.000	501.737	271756.38	0.0603	P	1.0
7	☐	1000.000	998.854	536545.97	0.1198	P	0.7
8	☐			20553.55	0.0050	P	6.7

$$y = 1.1963\text{E-}004 * x + 2.5889\text{E-}004$$

$$R = 1.0000$$

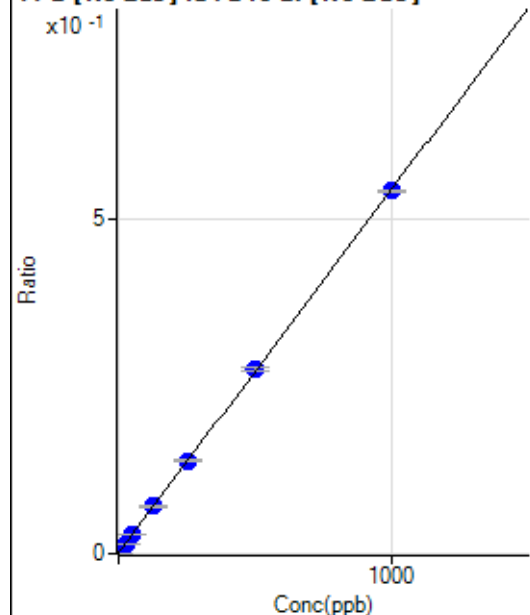
$$DL = 0.7192$$

$$BEC = 2.164$$

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	5823.60	0.0012	P	3.7
2	☐	25.000	23.360	66304.10	0.0139	P	2.4
3	☐	50.000	50.241	136178.86	0.0285	P	1.9
4	☐	125.000	127.573	330436.66	0.0704	P	1.3
5	☐	250.000	253.449	651218.46	0.1388	P	2.5
6	☐	500.000	504.907	1240613.83	0.2752	P	1.5
7	☐	1000.000	996.391	2427895.52	0.5419	P	0.6
8	☐			97548.21	0.0237	P	6.5

$$y = 5.4261\text{E-}004 * x + 0.0012$$

$$R = 1.0000$$

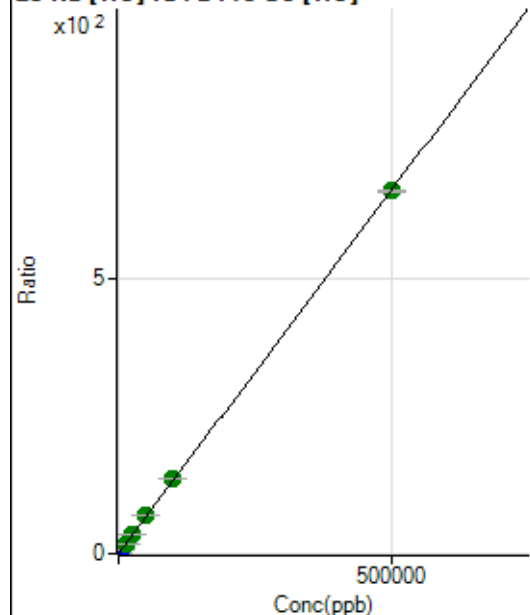
$$DL = 0.2515$$

$$BEC = 2.261$$

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	18047.29	0.0628	P	1.9
2	☐	500.000	519.030	220771.40	0.7503	P	1.1
3	☐	5000.000	5573.134	2195704.95	7.4446	P	0.3
4	☐	12500.000	13360.803	5293673.71	17.7597	A	0.9
5	☐	25000.000	26544.152	10610395.65	35.2216	A	1.0
6	☐	50000.000	52645.806	21079053.32	69.7942	A	0.2
7	☐	100000.00	103194.90	42669956.26	136.7485	A	0.4
8	☐	500000.00	498991.96	204889829.9	660.9970	A	0.4

$$y = 0.0013 * x + 0.0628$$

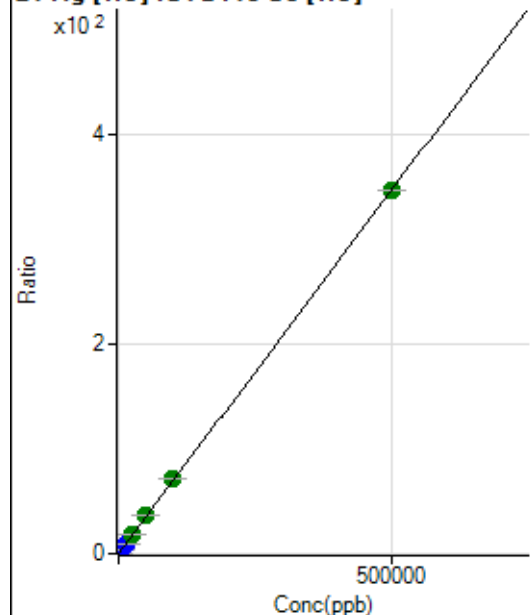
$$R = 1.0000$$

$$DL = 2.69$$

$$BEC = 47.41$$

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	1481.79	0.0052	P	1.3
2	☐	500.000	513.599	106253.15	0.3611	P	1.6
3	☐	5000.000	5650.449	1156494.73	3.9211	P	0.2
4	☐	12500.000	13641.150	2819360.18	9.4590	P	0.6
5	☐	25000.000	26601.020	5555228.23	18.4406	A	0.9
6	☐	50000.000	52661.631	11024140.14	36.5016	A	0.4
7	☐	100000.00	102389.65	22143502.23	70.9649	A	0.7
8	☐	500000.00	499140.80	107228102.8	345.9279	A	0.0

$$y = 6.9304\text{E-}004 * x + 0.0052$$

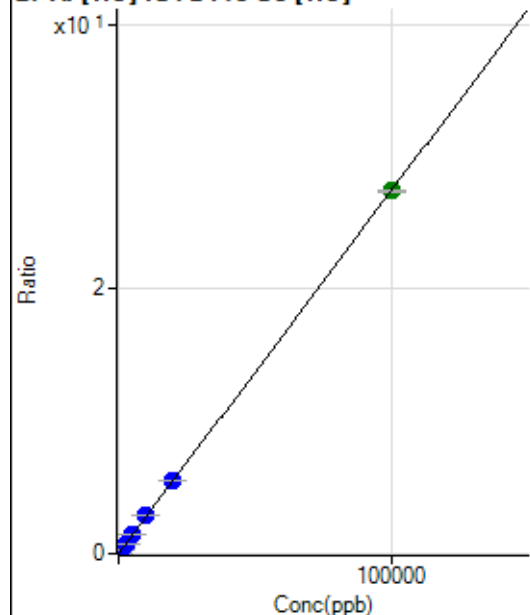
$$R = 1.0000$$

$$DL = 0.2927$$

$$BEC = 7.44$$

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	351.94	0.0012	P	4.4
2	☐	20.000	20.138	1985.75	0.0067	P	5.8
3	☐	1000.000	1076.187	87428.39	0.2964	P	0.6
4	☐	2500.000	2674.051	218986.78	0.7347	P	0.8
5	☐	5000.000	5247.968	434026.07	1.4407	P	0.6
6	☐	10000.000	10360.117	858625.95	2.8430	P	0.2
7	☐	20000.000	20242.985	1732967.77	5.5538	P	0.3
8	☐	100000.00	99897.880	8494059.99	27.4029	A	0.5

$$y = 2.7430\text{E-}004 * x + 0.0012$$

$$R = 1.0000$$

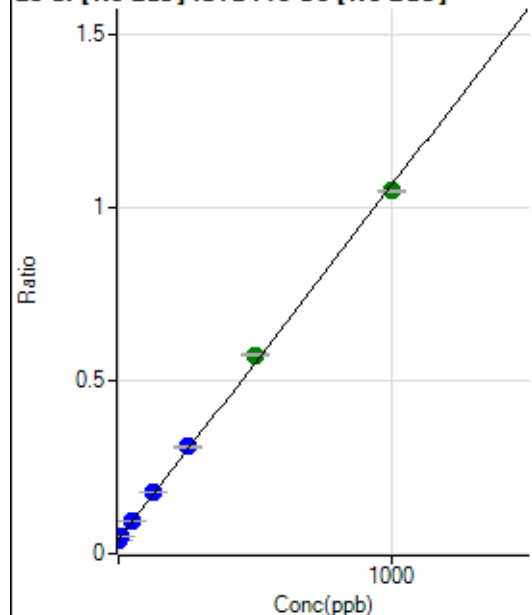
$$DL = 0.5934$$

$$BEC = 4.464$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	344083.31	0.0400	P	0.4
2	☐	10.000	10.204	428288.32	0.0504	P	0.9
3	☐	50.000	53.705	820618.56	0.0950	P	1.6
4	☐	125.000	134.957	1521546.13	0.1782	P	1.5
5	☐	250.000	263.101	2671968.33	0.3094	P	1.2
6	☐	500.000	520.957	4756795.77	0.5734	A	0.6
7	☐	1000.000	984.814	8856816.61	1.0484	A	0.3
8	☐			735442.00	0.0925	P	1.4

$$y = 0.0010 * x + 0.0400$$

$$R = 0.9996$$

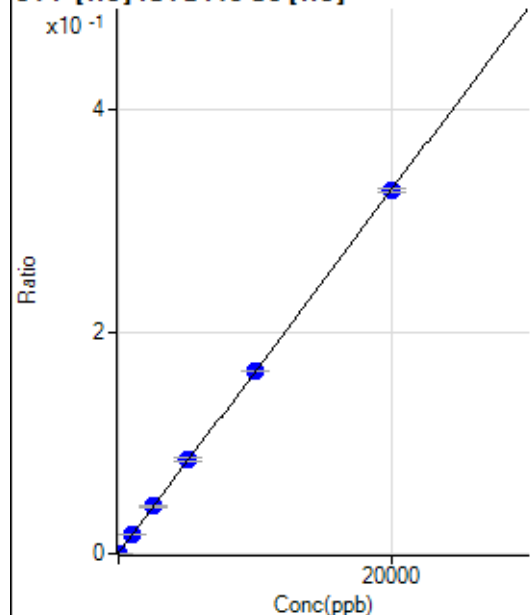
$$DL = 0.4495$$

$$BEC = 39.06$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-0.332	105.56	0.0004	P	24.7
2	☐	0.000	0.332	111.12	0.0004	P	11.9
3	☐	1000.000	1018.123	5031.60	0.0171	P	4.6
4	☐	2500.000	2580.237	12714.20	0.0427	P	1.6
5	☐	5000.000	5168.513	25633.87	0.0851	P	3.5
6	☐	10000.000	10013.651	49675.19	0.1645	P	0.7
7	☐	20000.000	19940.110	102083.64	0.3272	P	1.0
8	☐			155.56	0.0005	P	2.7

$$y = 1.6388E-005 * x + 3.7228E-004$$

$$R = 1.0000$$

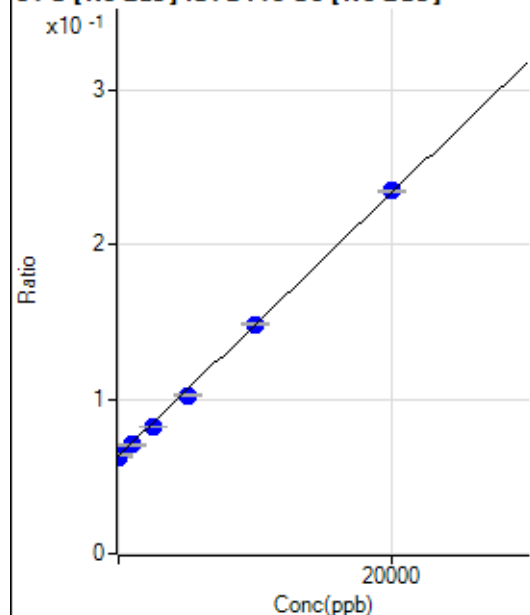
$$DL = 12.42$$

$$BEC = 22.72$$

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	-110.088	536115.67	0.0623	P	1.1
2	☐	0.000	110.088	545014.35	0.0642	P	0.9
3	☐	1000.000	831.312	607580.03	0.0703	P	0.8
4	☐	2500.000	2233.995	702394.89	0.0823	P	0.9
5	☐	5000.000	4616.061	885348.27	0.1025	P	0.2
6	☐	10000.000	9997.401	1230200.90	0.1483	P	0.5
7	☐	20000.000	20138.969	1981651.52	0.2346	P	0.7
8	☐			472011.04	0.0594	P	1.7

$$y = 8.5070\text{E-}006 * x + 0.0632$$

$$R = 0.9997$$

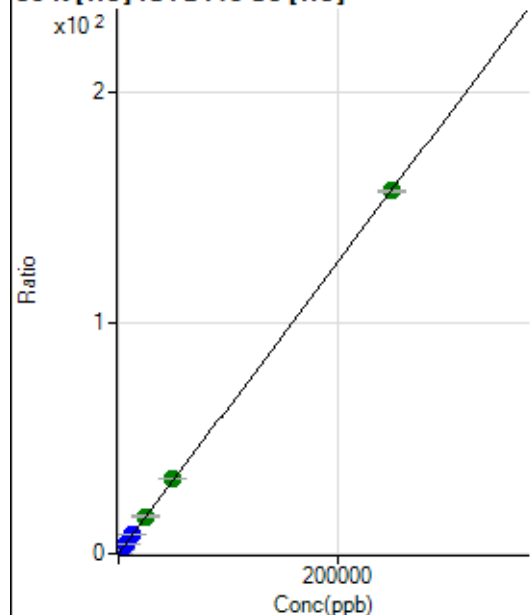
$$DL = 220.6$$

$$BEC = 7435$$

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	15142.08	0.0527	P	2.8
2	☐	500.000	476.585	103602.35	0.3521	P	0.3
3	☐	2500.000	2660.973	508565.73	1.7243	P	0.4
4	☐	6250.000	6603.181	1252102.59	4.2008	P	0.6
5	☐	12500.000	12920.898	2461120.52	8.1696	P	1.0
6	☐	25000.000	25704.964	4892873.64	16.2007	A	0.3
7	☐	50000.000	51057.110	10024646.32	32.1270	A	0.4
8	☐	250000.00	249686.64	48635958.53	156.9069	A	0.5

$$y = 6.2820\text{E-}004 * x + 0.0527$$

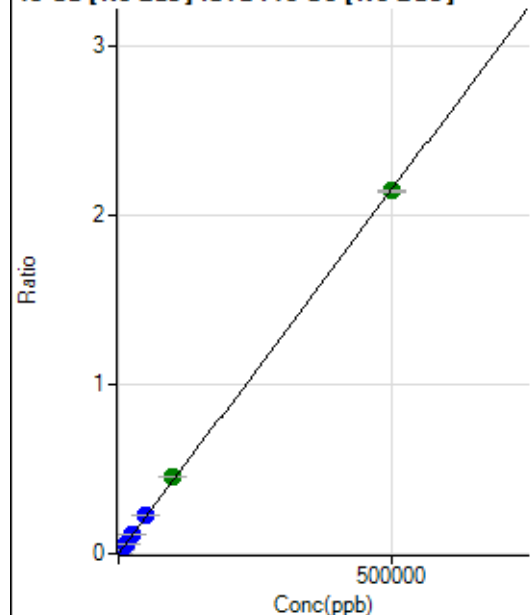
$$R = 1.0000$$

$$DL = 7.036$$

$$BEC = 83.86$$

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	649.89	0.0001	P	3.2
2	☐	500.000	502.954	19000.46	0.0022	P	0.4
3	☐	5000.000	5383.511	200600.90	0.0232	P	1.3
4	☐	12500.000	13667.333	502365.64	0.0588	P	0.9
5	☐	25000.000	26807.135	995846.00	0.1153	P	0.1
6	☐	50000.000	53616.640	1912610.83	0.2306	P	0.4
7	☐	100000.00	105162.80	3819731.47	0.4521	A	0.4
8	☐	500000.00	498482.39	17030164.90	2.1429	A	0.6

$$y = 4.2988\text{E-}006 * x + 7.5544\text{E-}005$$

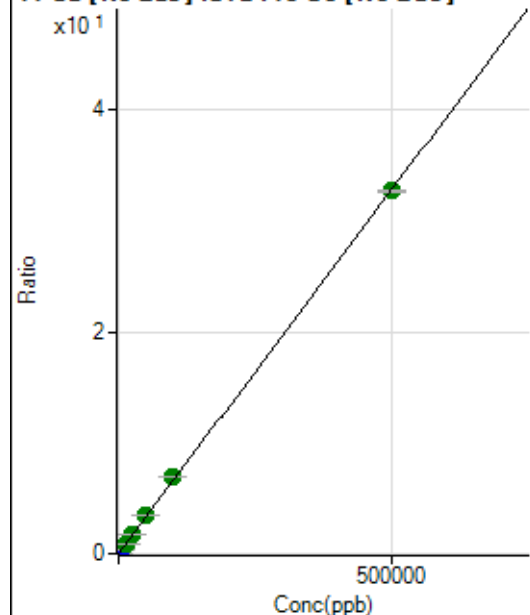
$$R = 0.9999$$

$$DL = 1.674$$

$$BEC = 17.57$$

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	18014.76	0.0021	P	1.4
2	☐	500.000	517.045	305804.12	0.0360	P	0.4
3	☐	5000.000	5348.591	3049632.95	0.3530	P	1.6
4	☐	12500.000	13128.040	7372285.97	0.8633	A	0.8
5	☐	25000.000	26073.034	14789530.27	1.7126	A	0.5
6	☐	50000.000	52609.036	28646534.41	3.4534	A	1.3
7	☐	100000.00	104753.92	58074241.89	6.8743	A	0.2
8	☐	500000.00	498715.45	260022058.9	32.7193	A	0.5

$$y = 6.5603\text{E-}005 * x + 0.0021$$

$$R = 0.9999$$

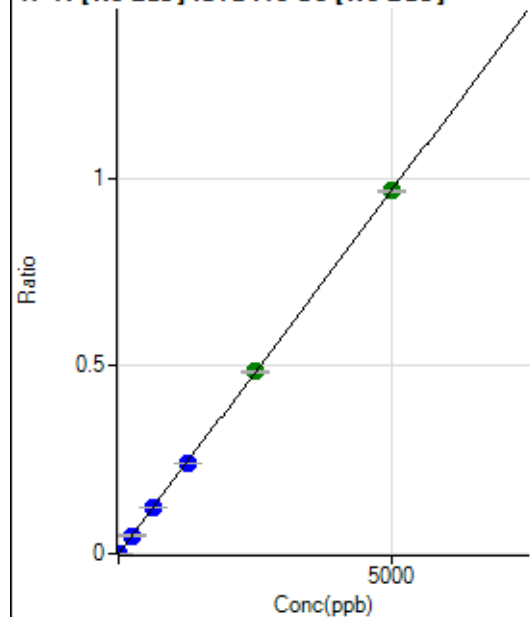
$$DL = 1.297$$

$$BEC = 31.92$$

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	163.90	0.0000	P	35.0
2	☐	5.000	4.661	7805.14	0.0009	P	4.4
3	☐	250.000	251.530	419809.28	0.0486	P	1.8
4	☐	625.000	628.848	1037204.19	0.1215	P	0.6
5	☐	1250.000	1236.919	2062994.86	0.2389	P	0.2
6	☐	2500.000	2509.108	4019760.98	0.4846	A	0.5
7	☐	5000.000	4998.159	8154251.66	0.9652	A	0.3
8	☐			3508.90	0.0004	P	3.8

$$y = 1.9311\text{E-}004 * x + 1.9017\text{E-}005$$

$$R = 1.0000$$

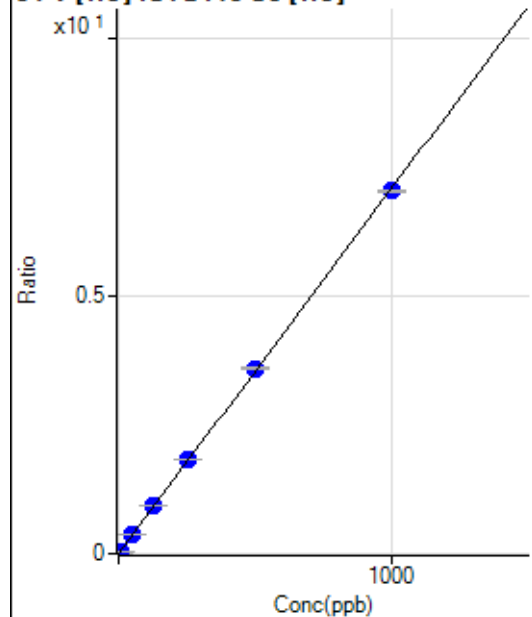
$$DL = 0.1034$$

$$BEC = 0.09848$$

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	35.55	0.0001	P	37.4
2	☐	5.000	4.678	9773.36	0.0332	P	2.4
3	☐	50.000	51.570	107632.12	0.3649	P	0.1
4	☐	125.000	129.869	273862.26	0.9188	P	0.5
5	☐	250.000	257.105	547957.61	1.8189	P	0.5
6	☐	500.000	507.908	1085161.06	3.5930	P	0.2
7	☐	1000.000	993.584	2193158.15	7.0287	P	0.3
8	☐			475.57	0.0015	P	8.4

$$y = 0.0071 * x + 1.2361\text{E-}004$$

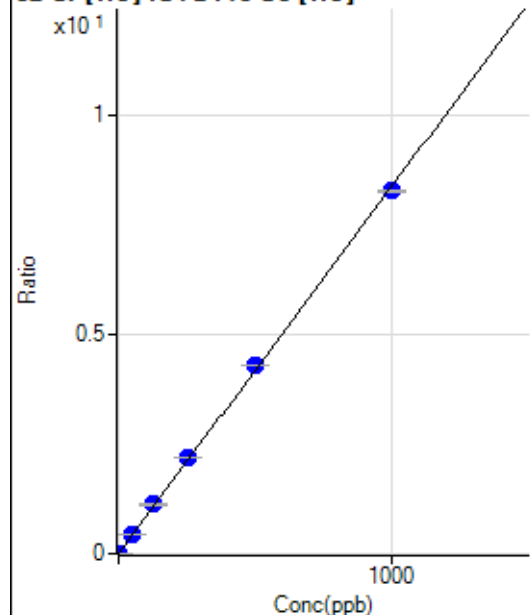
$$R = 0.9999$$

$$DL = 0.01961$$

$$BEC = 0.01747$$

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	548.91	0.0019	P	3.2
2	☐	2.000	1.953	5364.39	0.0182	P	1.7
3	☐	50.000	53.311	131985.21	0.4475	P	0.1
4	☐	125.000	133.546	333265.43	1.1181	P	0.6
5	☐	250.000	262.177	660730.92	2.1932	P	0.3
6	☐	500.000	513.956	1297953.01	4.2976	P	0.7
7	☐	1000.000	988.744	2579231.80	8.2660	P	0.4
8	☐			7619.84	0.0246	P	1.4

$$y = 0.0084 * x + 0.0019$$

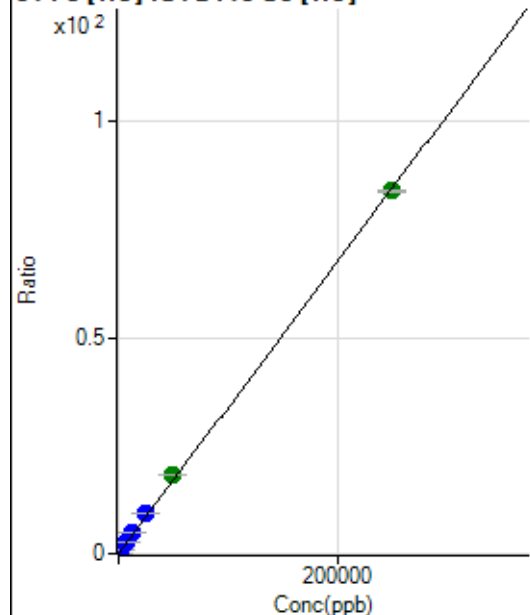
$$R = 0.9998$$

$$DL = 0.02218$$

$$BEC = 0.2286$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	584.57	0.0020	P	4.8
2	☐	50.000	54.484	6007.40	0.0204	P	2.4
3	☐	2500.000	2943.098	293456.80	0.9950	P	0.4
4	☐	6250.000	7315.657	736269.55	2.4702	P	0.7
5	☐	12500.000	14212.904	1445197.81	4.7972	P	0.4
6	☐	25000.000	27375.180	2790002.28	9.2379	P	0.5
7	☐	50000.000	53759.387	5660068.22	18.1395	A	0.3
8	☐	250000.00	248893.88	26029474.57	83.9743	A	0.3

$$y = 3.3738E-004 * x + 0.0020$$

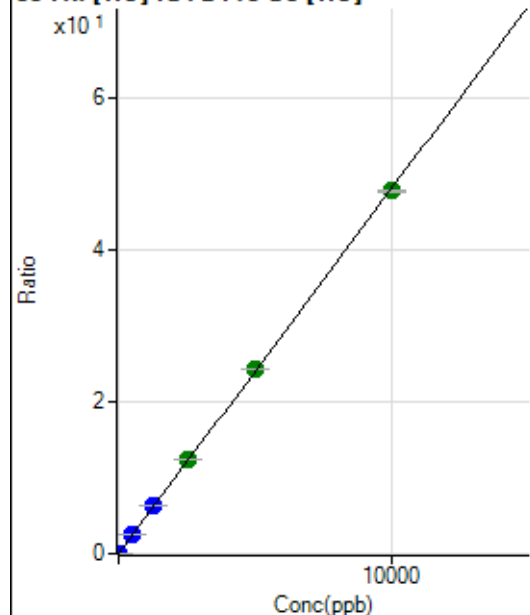
$$R = 0.9999$$

$$DL = 0.8731$$

$$BEC = 6.03$$

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	1021.16	0.0036	P	5.5
2	☐	1.000	0.562	1839.03	0.0062	P	3.2
3	☐	500.000	534.045	756486.83	2.5649	P	0.4
4	☐	1250.000	1312.830	1877797.80	6.3000	P	0.5
5	☐	2500.000	2567.529	3710863.31	12.3177	A	0.4
6	☐	5000.000	5066.373	7339730.65	24.3024	A	0.4
7	☐	10000.000	9940.375	14877228.94	47.6787	A	0.7
8	☐			11121.00	0.0359	P	2.3

$$y = 0.0048 * x + 0.0036$$

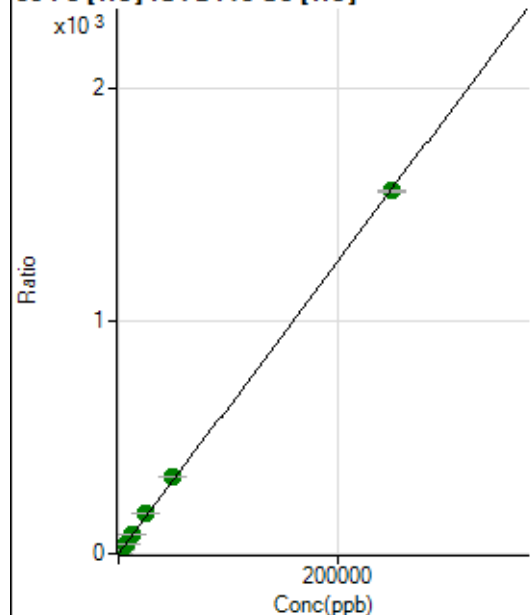
$$R = 0.9999$$

$$DL = 0.1216$$

$$BEC = 0.7411$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6821.61	0.0237	P	1.2
2	☐	50.000	51.991	102649.62	0.3489	P	2.0
3	☐	2500.000	2794.435	5161106.52	17.4987	A	0.4
4	☐	6250.000	6974.032	13006410.12	43.6358	A	0.3
5	☐	12500.000	13774.363	25956952.75	86.1616	A	0.5
6	☐	25000.000	27206.381	51390796.80	170.1587	A	0.3
7	☐	50000.000	53268.335	103948657.4	333.1369	A	0.2
8	☐	250000.00	249040.93	482749876.6	1557.399	A	0.5

$$y = 0.0063 * x + 0.0237$$

$$R = 0.9999$$

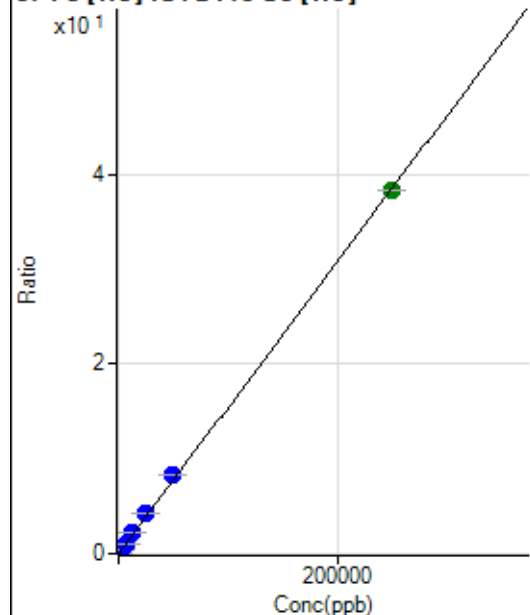
$$DL = 0.1422$$

$$BEC = 3.796$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	225.96	0.0008	P	1.7
2	☐	50.000	55.215	2726.40	0.0093	P	5.5
3	☐	2500.000	2896.825	131446.24	0.4457	P	0.6
4	☐	6250.000	7234.558	331409.45	1.1119	P	0.2
5	☐	12500.000	14238.633	659024.80	2.1876	P	0.6
6	☐	25000.000	27708.605	1285465.76	4.2563	P	0.3
7	☐	50000.000	53618.716	2569724.51	8.2355	P	0.6
8	☐	250000.00	248889.88	11848793.76	38.2253	A	0.1

$$y = 1.5358\text{E-}004 * x + 7.8631\text{E-}004$$

$$R = 0.9999$$

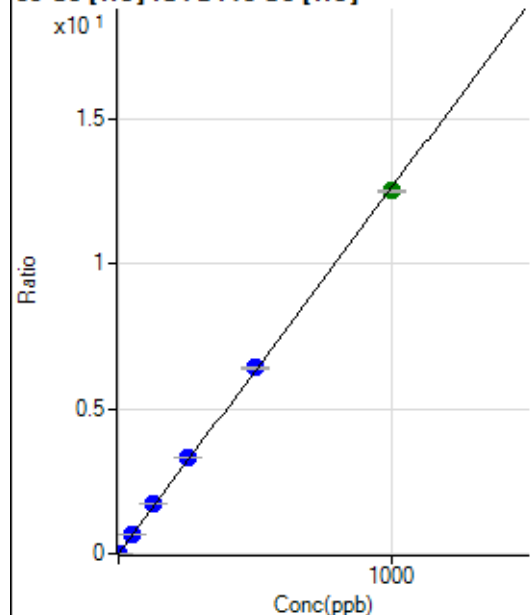
$$DL = 0.2542$$

$$BEC = 5.12$$

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	161.11	0.0006	P	6.5
2	☐	1.000	0.945	3678.30	0.0125	P	7.0
3	☐	50.000	54.262	202470.52	0.6865	P	0.1
4	☐	125.000	134.693	507666.62	1.7032	P	0.4
5	☐	250.000	262.807	1000962.30	3.3227	P	0.7
6	☐	500.000	507.758	1938656.17	6.4191	P	0.7
7	☐	1000.000	991.494	3910911.23	12.5339	A	0.8
8	☐			6962.86	0.0225	P	1.5

$$y = 0.0126 * x + 5.6043\text{E-}004$$

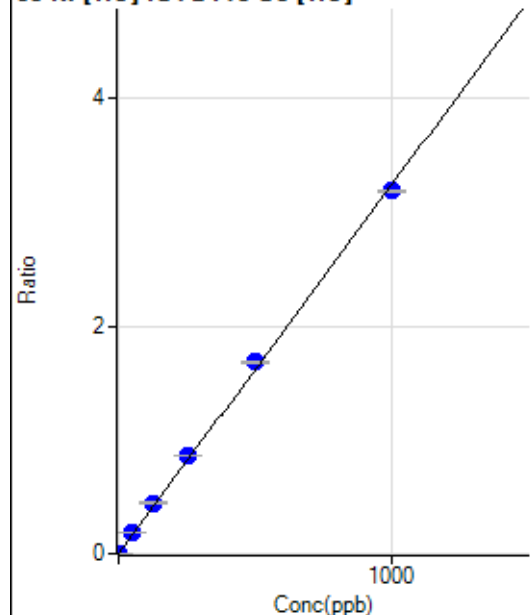
$$R = 0.9998$$

$$DL = 0.008682$$

$$BEC = 0.04433$$

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	181.12	0.0006	P	15.4
2	☐	1.000	1.078	1213.40	0.0041	P	4.7
3	☐	50.000	55.293	53027.83	0.1798	P	0.6
4	☐	125.000	137.892	133366.81	0.4474	P	0.6
5	☐	250.000	266.759	260588.67	0.8650	P	0.4
6	☐	500.000	519.164	508250.21	1.6829	P	0.3
7	☐	1000.000	984.352	995434.71	3.1902	P	0.5
8	☐			2950.34	0.0095	P	2.6

$$y = 0.0032 * x + 6.2976E-004$$

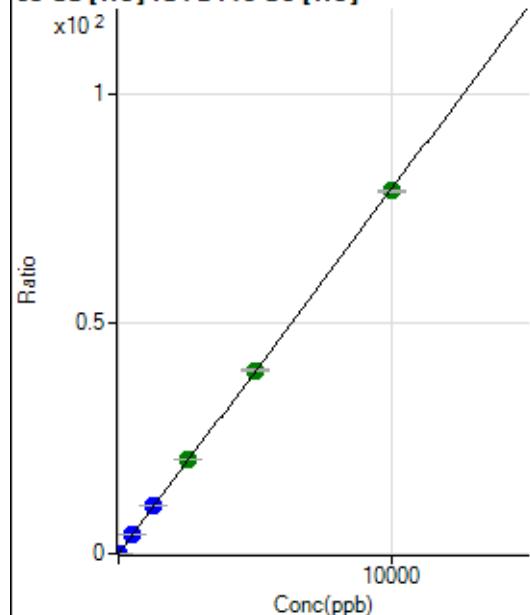
$$R = 0.9995$$

$$DL = 0.08961$$

$$BEC = 0.1944$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	408.90	0.0014	P	3.2
2	☐	2.000	2.120	5359.95	0.0182	P	1.0
3	☐	500.000	547.219	1278618.70	4.3353	P	0.4
4	☐	1250.000	1315.349	3105430.40	10.4186	P	0.3
5	☐	2500.000	2580.593	6157379.21	20.4390	A	1.0
6	☐	5000.000	5035.760	12045433.57	39.8833	A	0.6
7	☐	10000.000	9951.442	24592305.75	78.8142	A	0.4
8	☐			5174.33	0.0167	P	3.3

$$y = 0.0079 * x + 0.0014$$

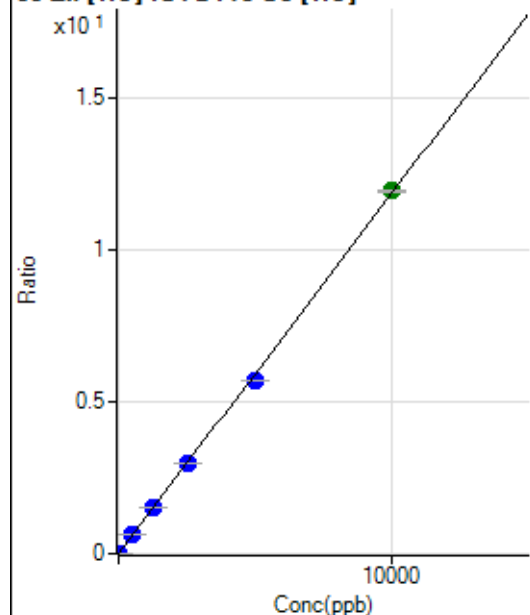
$$R = 0.9999$$

$$DL = 0.01718$$

$$BEC = 0.1796$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD: ⁴⁵Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	466.68	0.0016	P	7.9
2	☐	2.000	3.203	1595.67	0.0054	P	2.3
3	☐	500.000	525.203	184172.51	0.6245	P	1.0
4	☐	1250.000	1297.328	459060.24	1.5401	P	0.2
5	☐	2500.000	2505.309	895543.88	2.9727	P	0.5
6	☐	5000.000	4823.128	1727958.20	5.7214	P	0.3
7	☐	10000.000	10079.932	3730422.79	11.9555	A	0.9
8	☐			7587.63	0.0245	P	2.9

$$y = 0.0012 * x + 0.0016$$

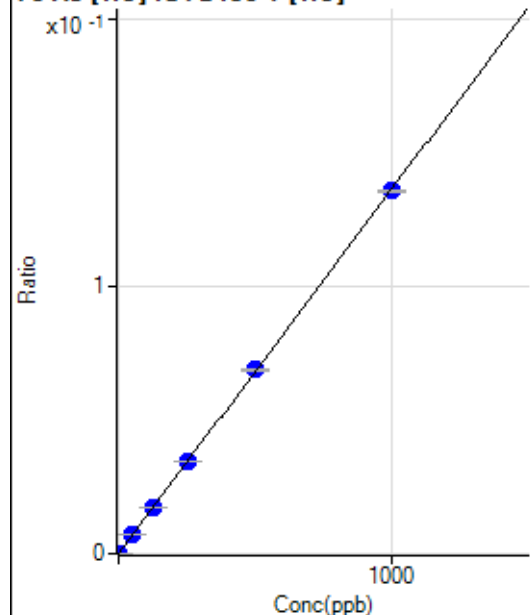
$$R = 0.9997$$

$$DL = 0.3244$$

$$BEC = 1.37$$

Weight: <None>

Min Conc: 0

⁷⁵As [He] ISTD: ⁸⁹Y [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31.48	0.0000	P	10.5
2	☐	1.000	0.860	222.84	0.0001	P	4.1
3	☐	50.000	50.962	11273.57	0.0070	P	2.3
4	☐	125.000	128.214	28762.37	0.0175	P	0.3
5	☐	250.000	255.131	57073.79	0.0347	P	0.4
6	☐	500.000	504.398	113293.88	0.0687	P	0.5
7	☐	1000.000	996.069	229153.37	0.1356	P	0.6
8	☐			109.26	0.0001	P	5.3

$$y = 1.3610E-004 * x + 1.9885E-005$$

$$R = 1.0000$$

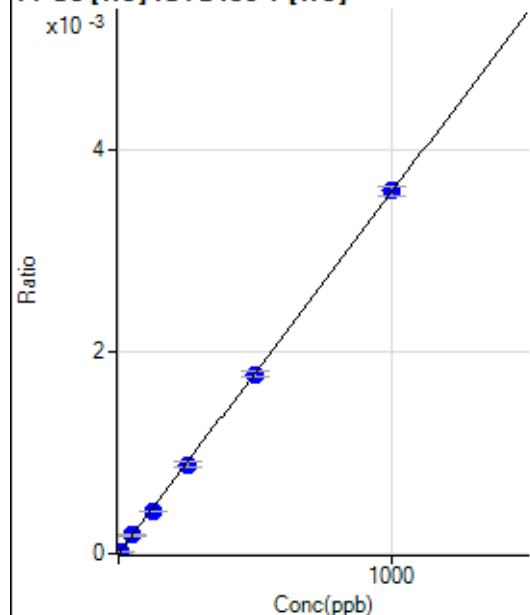
$$DL = 0.04608$$

$$BEC = 0.1461$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	5.131	31.11	0.0000	P	44.2
3	☐	50.000	51.666	301.12	0.0002	P	12.8
4	☐	125.000	116.478	688.92	0.0004	P	3.3
5	☐	250.000	247.064	1456.76	0.0009	P	4.5
6	☐	500.000	496.604	2939.24	0.0018	P	3.3
7	☐	1000.000	1003.413	6082.47	0.0036	P	3.0
8	☐			0.00	0.0000	P	

$$y = 3.5860\text{E-}006 * x + 7.0324\text{E-}007$$

$$R = 0.9999$$

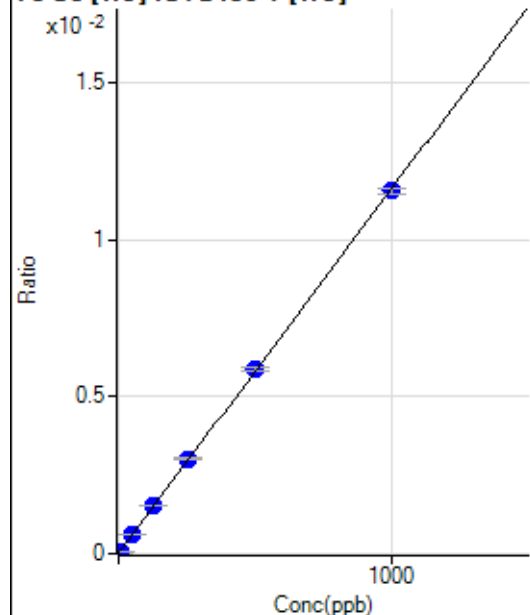
$$DL = 1.019$$

$$BEC = 0.1961$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	7.7
2	☐	5.000	5.225	121.61	0.0001	P	16.6
3	☐	50.000	50.267	969.18	0.0006	P	1.3
4	☐	125.000	130.209	2512.58	0.0015	P	2.9
5	☐	250.000	259.704	4978.05	0.0030	P	2.3
6	☐	500.000	504.727	9694.04	0.0059	P	1.7
7	☐	1000.000	994.545	19544.09	0.0116	P	1.4
8	☐			38.27	0.0000	P	24.6

$$y = 1.1613\text{E-}005 * x + 1.4026\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.2773$$

$$BEC = 1.208$$

Weight: <None>

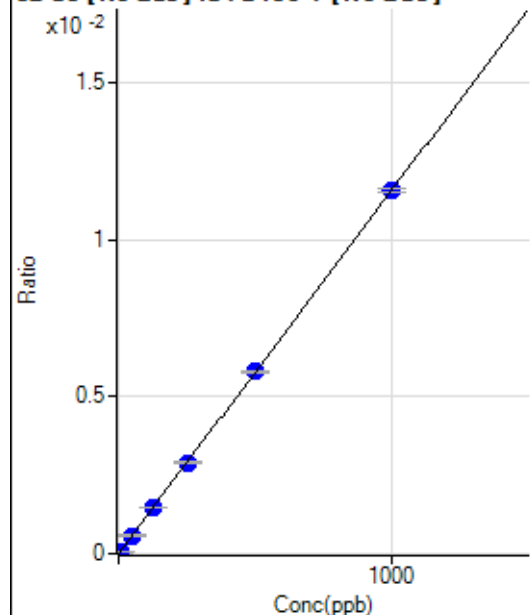
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			37832.07		P	2.5
2	☐			36343.39		P	0.5
3	☐			37129.16		P	0.9
4	☐			37213.05		P	3.9
5	☐			36881.98		P	1.0
6	☐			37249.74		P	0.9
7	☐			37169.44		P	2.5
8	☐			34660.83		P	1.4

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			73.41		P	7.9
2	☐			60.06		P	16.7
3	☐			46.71		P	24.7
4	☐			56.72		P	62.0
5	☐			46.71		P	32.7
6	☐			56.73		P	44.4
7	☐			53.39		P	39.0
8	☐			56.73		P	44.4

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.79	0.0000	P	165.
2	☐	5.000	4.800	880.25	0.0001	P	2.7
3	☐	50.000	50.201	9195.90	0.0006	P	2.2
4	☐	125.000	125.694	22874.73	0.0015	P	1.5
5	☐	250.000	250.863	45799.90	0.0029	P	0.8
6	☐	500.000	500.650	89090.71	0.0058	P	0.6
7	☐	1000.000	999.363	176720.70	0.0116	P	1.0
8	☐			142.30	0.0000	P	59.0

$$y = 1.1562\text{E-}005 * x + 8.1703\text{E-}007$$

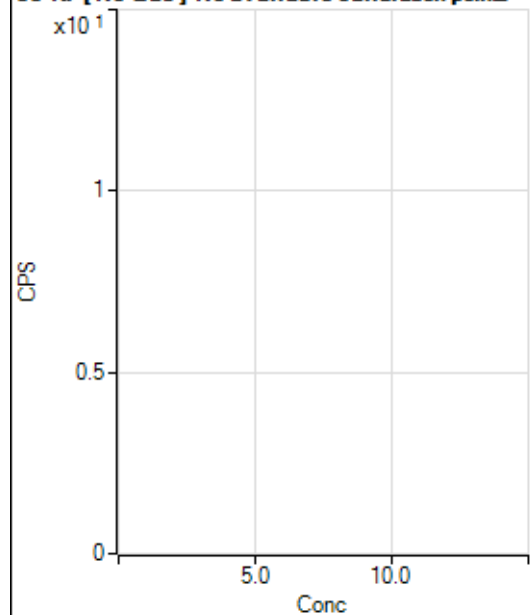
$$R = 1.0000$$

$$DL = 0.3502$$

$$BEC = 0.07067$$

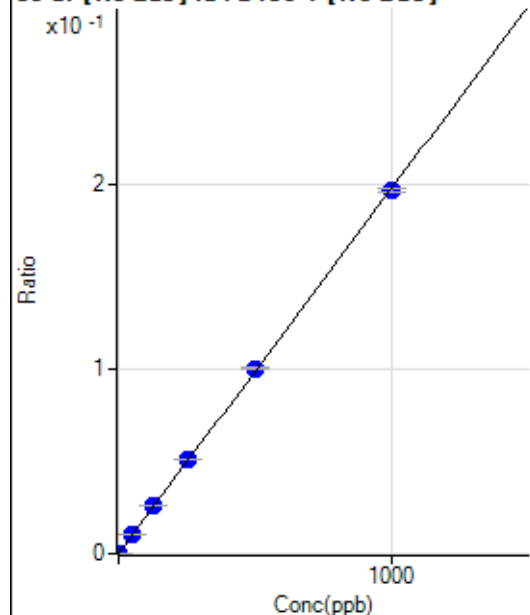
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			185.56		P	6.8
2	☐			158.89		P	3.2
3	☐			180.01		P	11.6
4	☐			152.22		P	15.8
5	☐			161.11		P	8.6
6	☐			180.01		P	10.3
7	☐			222.23		P	10.0
8	☐			284.45		P	17.7

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	438.91	0.0000	P	10.7
2	☐	1.000	0.974	3447.78	0.0002	P	1.6
3	☐	50.000	51.720	162155.99	0.0103	P	1.7
4	☐	125.000	129.292	402464.01	0.0256	P	0.3
5	☐	250.000	258.980	808503.88	0.0512	P	0.1
6	☐	500.000	506.735	1541632.67	0.1002	P	0.9
7	☐	1000.000	993.765	3004187.59	0.1964	P	0.9
8	☐			16343.21	0.0012	P	2.1

$$y = 1.9764\text{E-}004 * x + 2.8116\text{E-}005$$

$$R = 0.9999$$

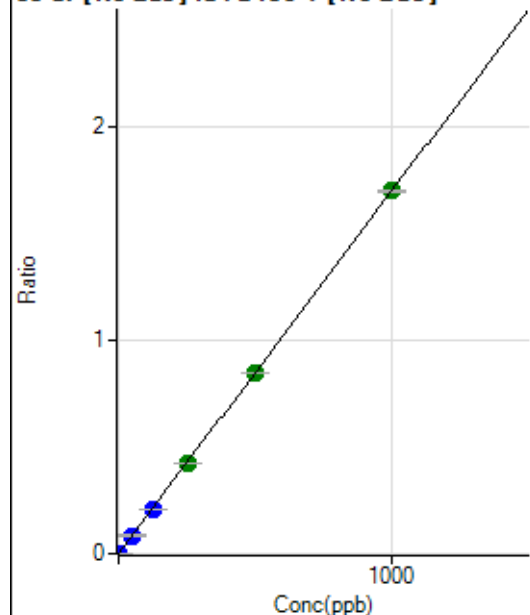
$$DL = 0.04561$$

$$BEC = 0.1423$$

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	1897.43	0.0001	P	9.2
2	☐	1.000	0.956	27237.63	0.0017	P	1.5
3	☐	50.000	50.140	1347138.86	0.0852	P	1.7
4	☐	125.000	122.794	3278264.55	0.2084	P	0.3
5	☐	250.000	249.956	6693873.11	0.4240	A	0.7
6	☐	500.000	498.115	13002341.78	0.8449	A	0.1
7	☐	1000.000	1001.222	25970694.68	1.6981	A	0.4
8	☐			136372.98	0.0096	P	0.8

$$y = 0.0017 * x + 1.2158\text{E-}004$$

$$R = 1.0000$$

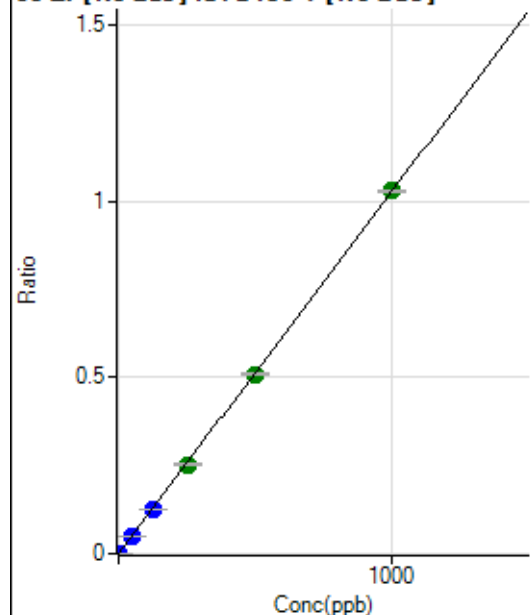
$$DL = 0.01989$$

$$BEC = 0.07169$$

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	1033.41	0.0001	P	14.2
2	☐	1.000	0.831	14360.50	0.0009	P	3.2
3	☐	50.000	48.843	793291.62	0.0501	P	1.9
4	☐	125.000	122.882	1983311.92	0.1261	P	0.5
5	☐	250.000	246.825	3996313.94	0.2531	A	0.7
6	☐	500.000	495.810	7824395.66	0.5084	A	0.8
7	☐	1000.000	1003.211	15732708.69	1.0287	A	0.4
8	☐			5834.76	0.0004	P	6.4

$$y = 0.0010 * x + 6.6202E-005$$

$$R = 1.0000$$

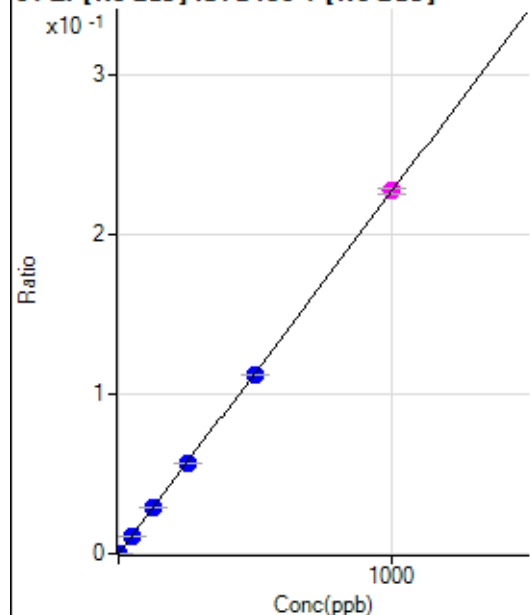
$$DL = 0.02741$$

$$BEC = 0.06457$$

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	183.34	0.0000	P	7.7
2	☐	1.000	0.843	3167.15	0.0002	P	0.7
3	☐	50.000	49.692	178187.86	0.0113	P	1.6
4	☐	125.000	127.900	455827.46	0.0290	P	0.4
5	☐	250.000	250.466	895520.02	0.0567	P	0.3
6	☐	500.000	494.806	1724372.83	0.1121	P	0.7
7	☐	1000.000	1002.134	3470794.22	0.2269	M	1.8
8	☐			1352.90	0.0001	P	10.7

$$y = 2.2643E-004 * x + 1.1746E-005$$

$$R = 1.0000$$

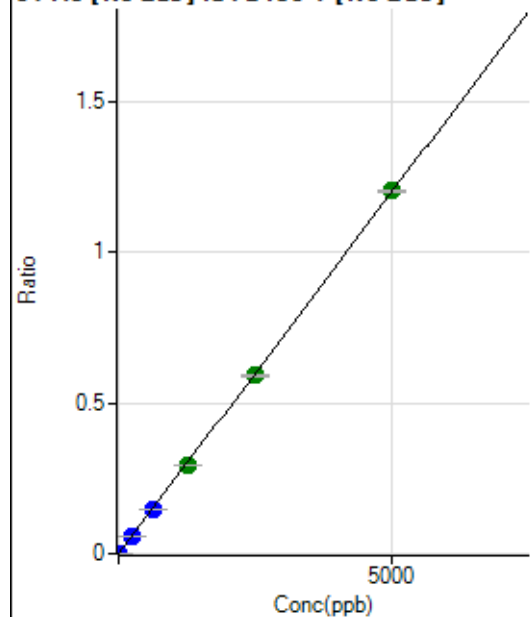
$$DL = 0.01205$$

$$BEC = 0.05188$$

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	427.80	0.0000	P	9.5
2	☐	5.000	4.470	17183.23	0.0011	P	1.3
3	☐	250.000	246.219	934375.23	0.0591	P	2.2
4	☐	625.000	614.129	2317122.71	0.1473	P	0.7
5	☐	1250.000	1232.309	4665031.96	0.2955	A	0.7
6	☐	2500.000	2463.369	9089890.31	0.5907	A	1.3
7	☐	5000.000	5024.287	18425092.43	1.2047	A	0.6
8	☐			7113.16	0.0005	P	4.0

$$y = 2.3978E-004 * x + 2.7405E-005$$

$$R = 1.0000$$

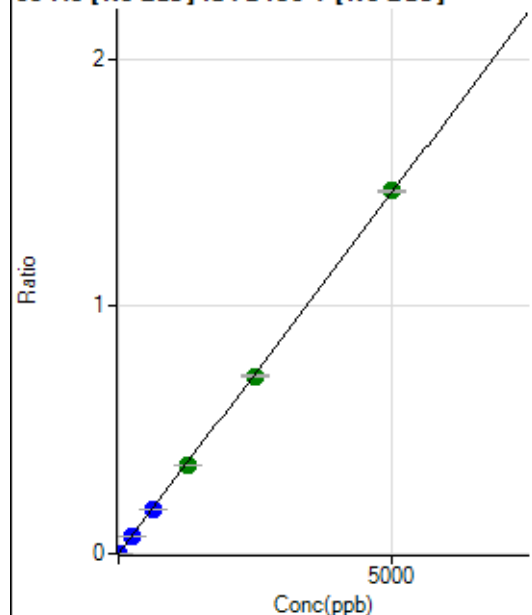
$$DL = 0.0327$$

$$BEC = 0.1143$$

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	186.12	0.0000	P	20.9
2	☐	5.000	4.583	21080.20	0.0013	P	2.3
3	☐	250.000	247.497	1142045.39	0.0722	P	2.4
4	☐	625.000	608.633	2792772.39	0.1775	P	0.9
5	☐	1250.000	1229.708	5661702.73	0.3587	A	0.9
6	☐	2500.000	2462.809	11053196.69	0.7183	A	1.5
7	☐	5000.000	5025.840	22417177.76	1.4658	A	0.6
8	☐			8400.00	0.0006	P	3.6

$$y = 2.9165E-004 * x + 1.1920E-005$$

$$R = 0.9999$$

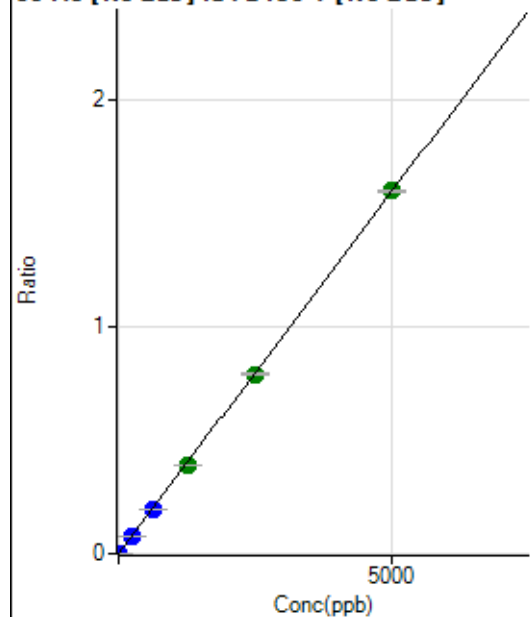
$$DL = 0.02564$$

$$BEC = 0.04087$$

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	252.79	0.0000	P	19.1
2	☐	5.000	4.481	22604.78	0.0014	P	1.6
3	☐	250.000	249.173	1258049.65	0.0795	P	1.7
4	☐	625.000	610.583	3065308.55	0.1948	P	0.9
5	☐	1250.000	1226.138	6177061.77	0.3913	A	0.5
6	☐	2500.000	2483.944	12196901.92	0.7926	A	1.5
7	☐	5000.000	5015.838	24477554.02	1.6005	A	0.5
8	☐			21522.53	0.0015	P	2.5

$$y = 3.1908\text{E-}004 * x + 1.6193\text{E-}005$$

$$R = 1.0000$$

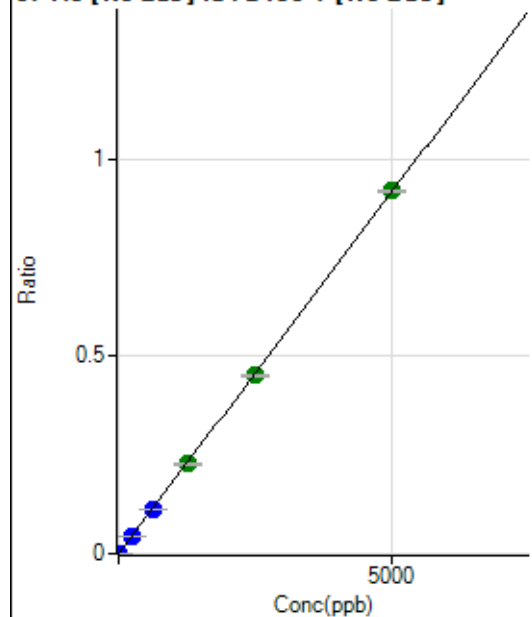
$$DL = 0.02909$$

$$BEC = 0.05075$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	17.5
2	☐	5.000	4.623	13345.61	0.0009	P	0.5
3	☐	250.000	248.154	718486.01	0.0454	P	2.5
4	☐	625.000	616.286	1774357.29	0.1128	P	1.2
5	☐	1250.000	1239.867	3582070.96	0.2269	A	0.7
6	☐	2500.000	2467.041	6947489.13	0.4515	A	1.5
7	☐	5000.000	5020.195	14050251.01	0.9187	A	0.7
8	☐			5012.20	0.0004	P	3.6

$$y = 1.8300\text{E-}004 * x + 7.6530\text{E-}006$$

$$R = 1.0000$$

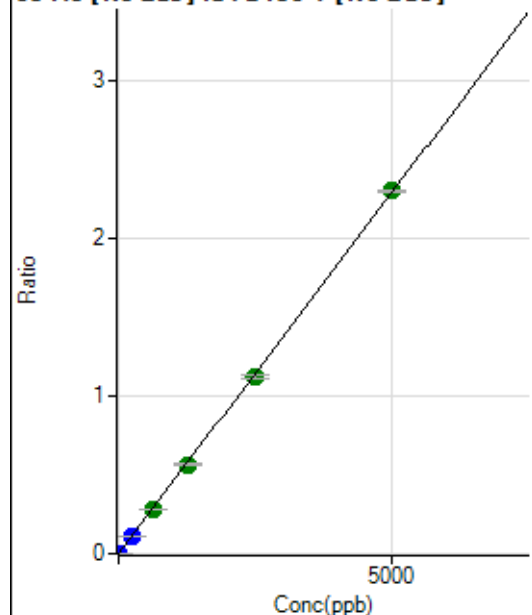
$$DL = 0.02192$$

$$BEC = 0.04182$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	269.46	0.0000	P	4.7
2	☐	5.000	4.541	32771.92	0.0021	P	3.2
3	☐	250.000	247.734	1794775.19	0.1135	P	1.8
4	☐	625.000	616.314	4440057.91	0.2822	A	0.8
5	☐	1250.000	1232.040	8905621.99	0.5642	A	1.5
6	☐	2500.000	2459.163	17328138.24	1.1261	A	1.9
7	☐	5000.000	5026.108	35198222.31	2.3015	A	0.3
8	☐			12041.65	0.0009	P	1.7

$$y = 4.5790\text{E-}004 * x + 1.7265\text{E-}005$$

$$R = 0.9999$$

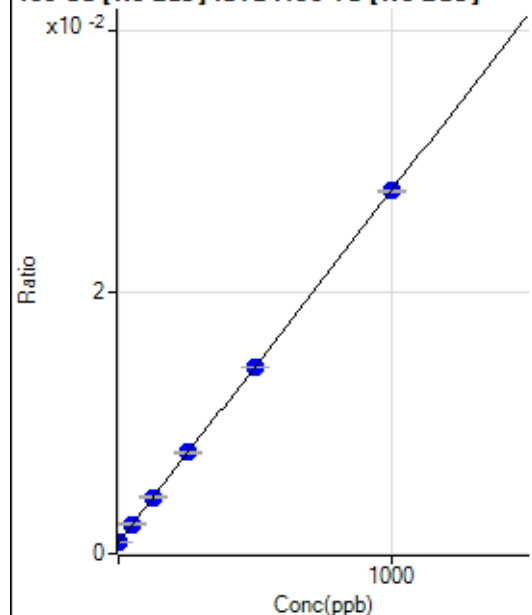
$$DL = 0.005306$$

$$BEC = 0.0377$$

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	9103.30	0.0009	P	5.4
2	☐	1.000	1.547	9264.53	0.0009	P	1.3
3	☐	50.000	52.038	23537.02	0.0023	P	3.1
4	☐	125.000	128.833	44186.80	0.0043	P	1.4
5	☐	250.000	256.401	78769.63	0.0078	P	1.4
6	☐	500.000	498.341	141746.73	0.0143	P	0.6
7	☐	1000.000	998.648	276933.78	0.0278	P	0.6
8	☐			8008.19	0.0009	P	1.5

$$y = 2.6930\text{E-}005 * x + 8.7197\text{E-}004$$

$$R = 1.0000$$

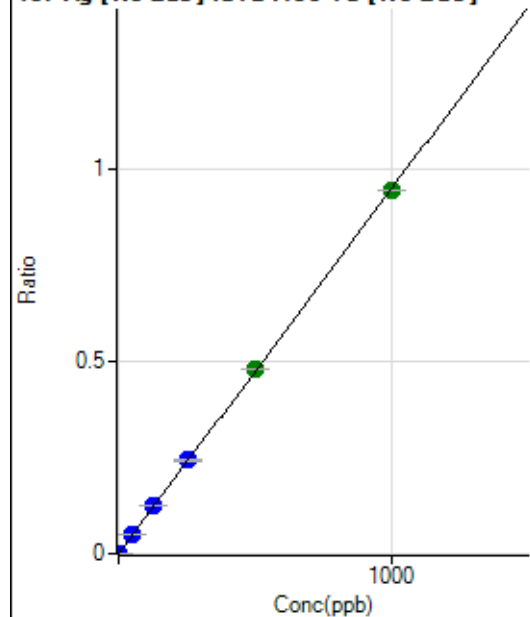
$$DL = 5.287$$

$$BEC = 32.38$$

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	183.34	0.0000	P	15.6
2	☐	1.000	1.016	9965.00	0.0010	P	3.6
3	☐	50.000	53.629	527651.62	0.0510	P	2.4
4	☐	125.000	132.329	1279995.52	0.1258	P	0.7
5	☐	250.000	255.667	2460880.20	0.2430	P	1.4
6	☐	500.000	505.844	4767491.95	0.4807	A	0.7
7	☐	1000.000	994.564	9426699.69	0.9451	A	0.1
8	☐			3650.63	0.0004	P	6.0

$$y = 9.5029E-004 * x + 1.7557E-005$$

$$R = 0.9999$$

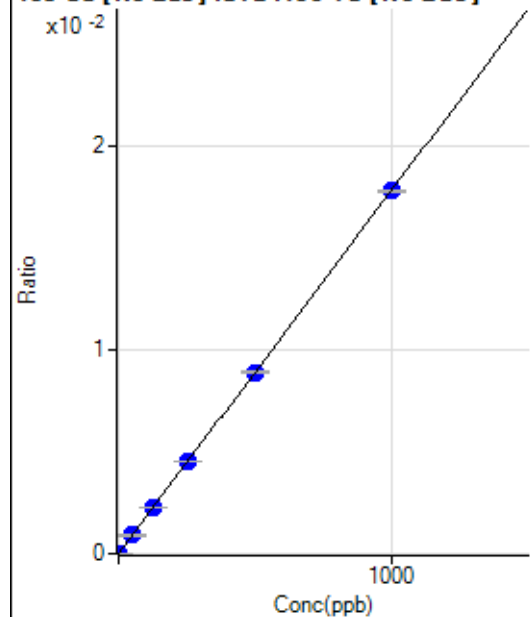
$$DL = 0.008671$$

$$BEC = 0.01848$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31.94	0.0000	P	49.3
2	☐	1.000	0.920	197.23	0.0000	P	8.8
3	☐	50.000	50.263	9304.62	0.0009	P	0.9
4	☐	125.000	128.232	23291.68	0.0023	P	0.6
5	☐	250.000	254.529	45975.96	0.0045	P	1.2
6	☐	500.000	499.416	88302.51	0.0089	P	1.1
7	☐	1000.000	998.742	177564.91	0.0178	P	0.8
8	☐			170.84	0.0000	P	10.6

$$y = 1.7822E-005 * x + 3.0589E-006$$

$$R = 1.0000$$

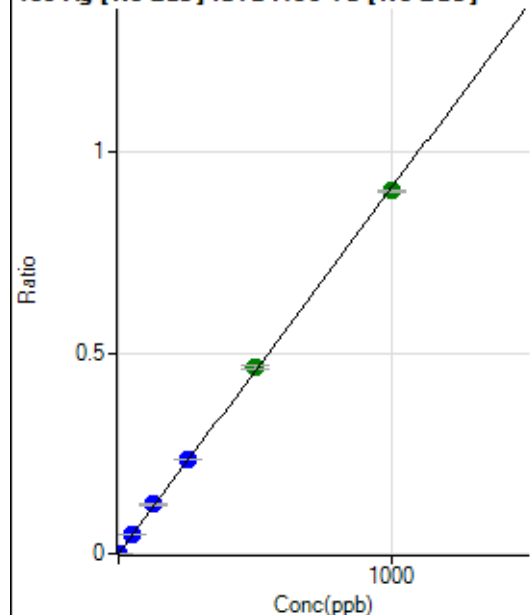
$$DL = 0.2538$$

$$BEC = 0.1716$$

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	63.89	0.0000	P	26.8
2	☐	1.000	1.009	9392.39	0.0009	P	3.7
3	☐	50.000	53.987	509547.47	0.0492	P	2.0
4	☐	125.000	134.155	1244878.74	0.1223	P	0.9
5	☐	250.000	258.629	2388378.20	0.2358	P	0.5
6	☐	500.000	508.840	4600897.02	0.4639	A	1.6
7	☐	1000.000	992.079	9021526.59	0.9045	A	0.3
8	☐			3581.16	0.0004	P	5.5

$$y = 9.1173\text{E-}004 * x + 6.1156\text{E-}006$$

$$R = 0.9999$$

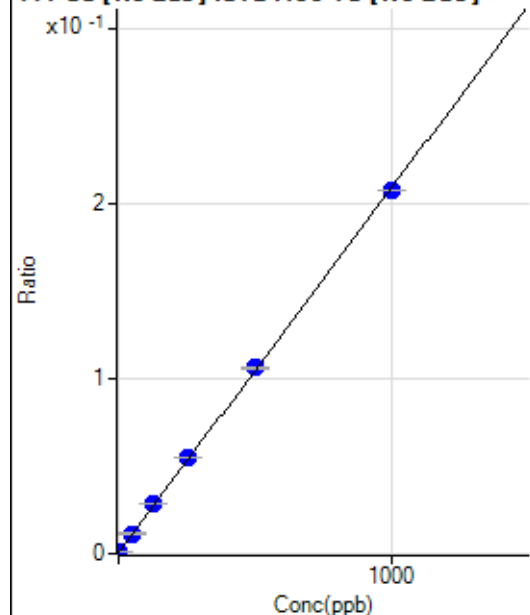
$$DL = 0.005389$$

$$BEC = 0.006708$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6431.90	0.0006	P	5.4
2	☐	1.000	1.139	8652.91	0.0009	P	1.1
3	☐	50.000	52.354	119245.06	0.0115	P	2.1
4	☐	125.000	133.246	288742.55	0.0284	P	0.5
5	☐	250.000	262.487	560011.07	0.0553	P	0.1
6	☐	500.000	507.742	1054940.38	0.1064	P	1.1
7	☐	1000.000	991.859	2066670.05	0.2072	P	0.1
8	☐			6275.07	0.0007	P	2.5

$$y = 2.0829\text{E-}004 * x + 6.1608\text{E-}004$$

$$R = 0.9999$$

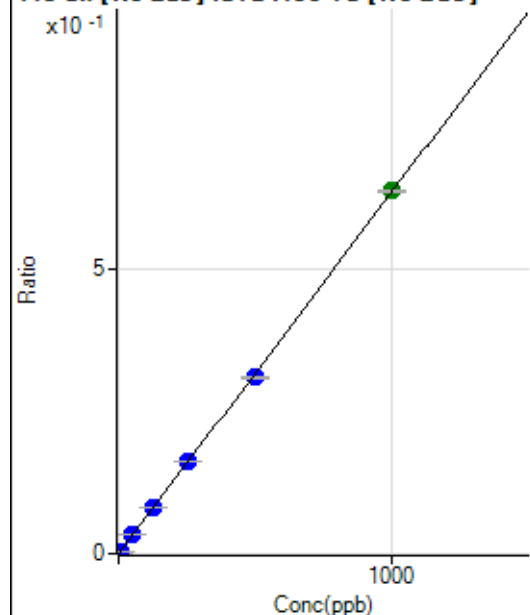
$$DL = 0.4814$$

$$BEC = 2.958$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	658.38	0.0001	P	5.9
2	☐	5.000	4.800	31486.31	0.0031	P	2.3
3	☐	50.000	51.275	336996.71	0.0326	P	1.8
4	☐	125.000	128.875	831901.69	0.0817	P	0.5
5	☐	250.000	253.640	1628762.95	0.1608	P	0.1
6	☐	500.000	487.440	3064298.38	0.3090	P	0.4
7	☐	1000.000	1004.823	6352002.48	0.6369	A	0.6
8	☐			3094.91	0.0003	P	2.6

$$y = 6.3374\text{E-}004 * x + 6.3055\text{E-}005$$

$$R = 0.9999$$

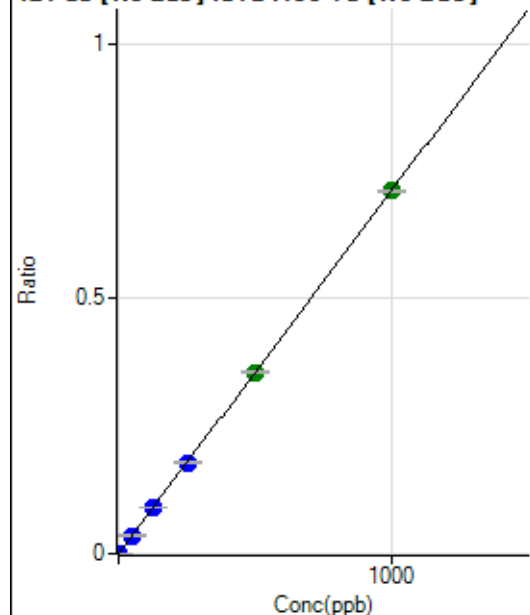
$$DL = 0.01757$$

$$BEC = 0.0995$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	16.1
2	☐	2.000	1.805	13137.15	0.0013	P	3.3
3	☐	50.000	50.211	369946.35	0.0357	P	1.6
4	☐	125.000	127.497	923494.36	0.0907	P	0.3
5	☐	250.000	251.150	1810264.34	0.1787	P	0.6
6	☐	500.000	499.330	3524008.54	0.3553	A	1.0
7	☐	1000.000	999.725	7095590.61	0.7114	A	0.2
8	☐			6223.86	0.0007	P	5.7

$$y = 7.1160\text{E-}004 * x + 1.0647\text{E-}005$$

$$R = 1.0000$$

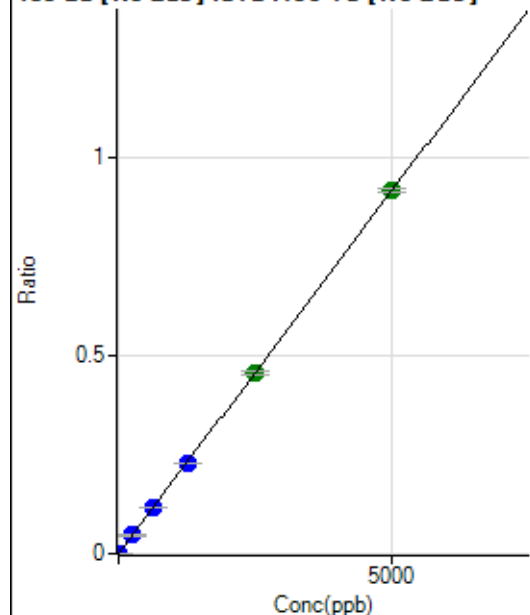
$$DL = 0.007214$$

$$BEC = 0.01496$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.02	0.0000	P	0.5
2	☐	10.000	9.374	17756.49	0.0018	P	0.9
3	☐	250.000	252.338	478879.97	0.0463	P	2.2
4	☐	625.000	634.144	1182865.12	0.1162	P	0.5
5	☐	1250.000	1239.548	2300684.49	0.2271	P	0.8
6	☐	2500.000	2492.962	4530200.92	0.4568	A	1.3
7	☐	5000.000	5004.873	9146444.82	0.9170	A	1.1
8	☐			15089.38	0.0017	P	2.8

$$y = 1.8322\text{E-}004 * x + 3.3521\text{E-}005$$

$$R = 1.0000$$

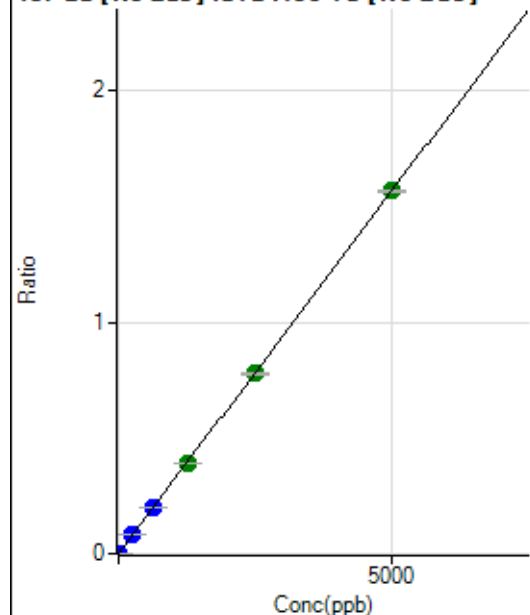
$$DL = 0.002963$$

$$BEC = 0.183$$

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	669.49	0.0001	P	20.6
2	☐	10.000	9.630	31236.17	0.0031	P	2.3
3	☐	250.000	254.955	827198.82	0.0799	P	2.4
4	☐	625.000	631.838	2014780.14	0.1980	P	0.7
5	☐	1250.000	1247.909	3959577.43	0.3909	A	1.0
6	☐	2500.000	2485.816	7722418.92	0.7787	A	1.1
7	☐	5000.000	5006.513	15641263.54	1.5682	A	0.9
8	☐			26161.63	0.0029	P	2.0

$$y = 3.1322\text{E-}004 * x + 6.4079\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.1262$$

$$BEC = 0.2046$$

Weight: <None>

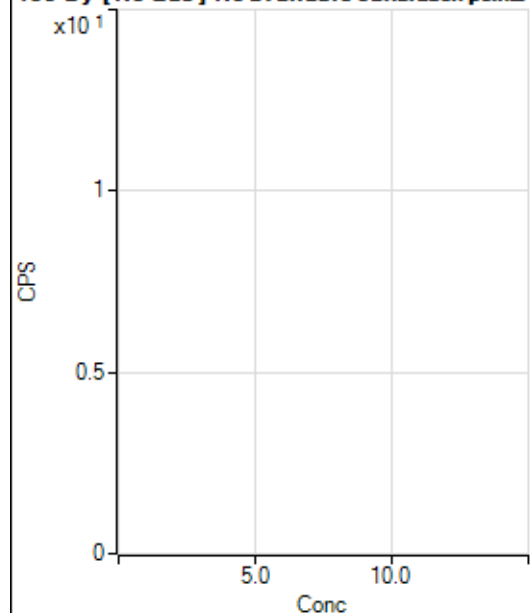
Min Conc: 0

150 Nd [No Gas] No available calibration points

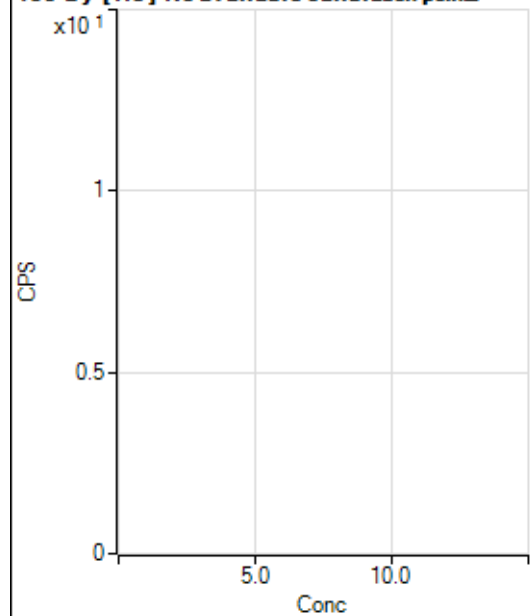
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	86.6
2	☐			11.11		P	124.
3	☐			71.11		P	42.3
4	☐			242.23		P	14.1
5	☐			342.24		P	23.1
6	☐			648.93		P	12.3
7	☐			1575.70		P	5.7
8	☐			42.23		P	32.9

150 Nd [He] No available calibration points

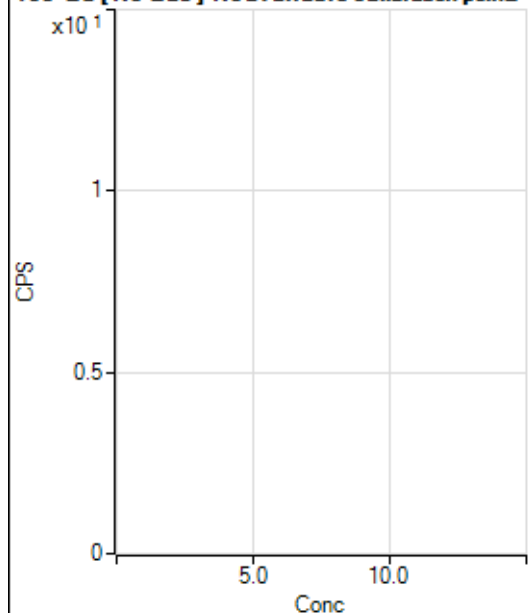
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			2.22		P	86.6
3	☐			4.44		P	43.4
4	☐			17.78		P	78.1
5	☐			28.89		P	29.0
6	☐			46.67		P	7.1
7	☐			100.00		P	8.8
8	☐			11.11		P	45.8

156 Dy [No Gas] No available calibration points

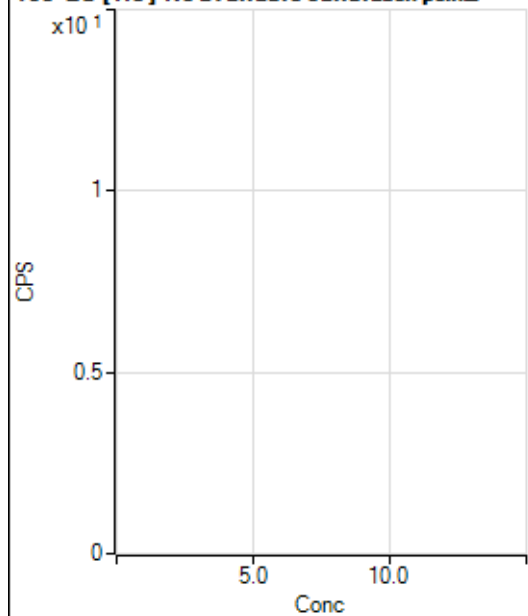
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	52.9
2	☐			16.67		P	50.0
3	☐			61.11		P	55.1
4	☐			72.22		P	29.0
5	☐			133.34		P	25.0
6	☐			202.79		P	14.4
7	☐			377.80		P	12.1
8	☐			525.03		P	8.4

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	33.3
2	☐			4.44		P	173.
3	☐			17.78		P	10.8
4	☐			32.22		P	47.8
5	☐			47.78		P	17.6
6	☐			122.23		P	12.3
7	☐			222.23		P	4.3
8	☐			253.34		P	10.3

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

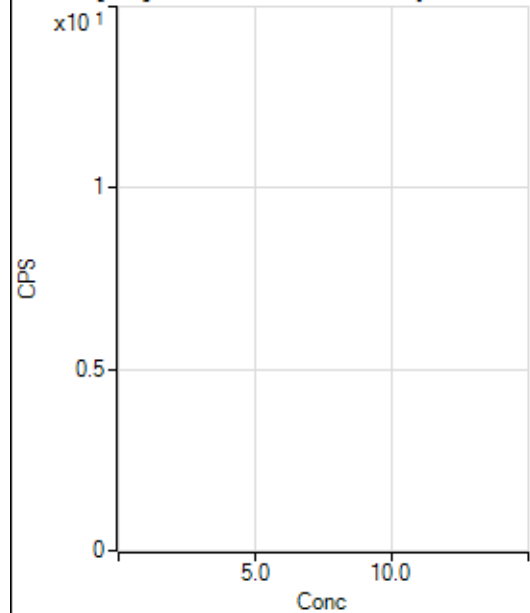
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			105.56		P	24.1
2	☐			75.00		P	29.4
3	☐			66.67		P	25.0
4	☐			77.78		P	16.4
5	☐			105.56		P	38.9
6	☐			158.34		P	29.3
7	☐			244.46		P	20.0
8	☐			591.71		P	17.6

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			175.56		P	6.1
2	☐			191.12		P	24.1
3	☐			177.78		P	8.9
4	☐			162.23		P	3.1
5	☐			175.56		P	4.8
6	☐			170.00		P	12.2
7	☐			215.56		P	18.3
8	☐			375.57		P	7.7

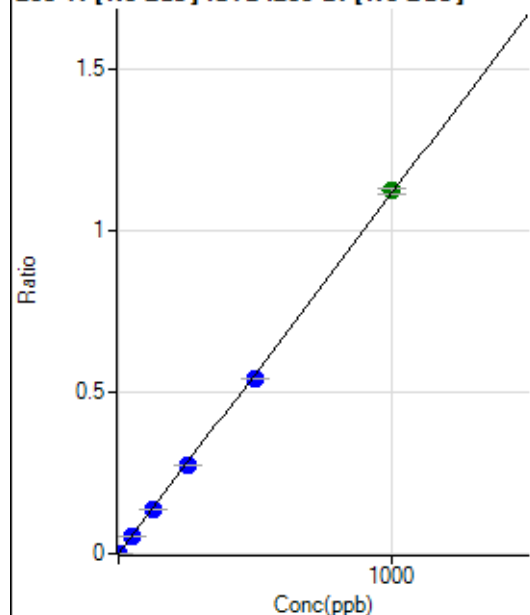
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			47.22		P	53.9
2	☐			41.67		P	40.0
3	☐			69.45		P	34.6
4	☐			47.23		P	40.8
5	☐			44.45		P	57.3
6	☐			58.34		P	42.9
7	☐			77.78		P	34.4
8	☐			119.45		P	14.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.67		P	50.0
2	☐			24.45		P	28.4
3	☐			14.44		P	13.4
4	☐			18.89		P	10.2
5	☐			22.22		P	60.6
6	☐			25.56		P	30.1
7	☐			35.56		P	5.4
8	☐			47.78		P	26.4

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	261.13	0.0000	P	11.4
2	☐	1.000	0.875	5734.82	0.0010	P	4.9
3	☐	50.000	49.098	309049.73	0.0548	P	2.3
4	☐	125.000	124.274	760762.56	0.1387	P	1.1
5	☐	250.000	246.062	1472954.87	0.2746	P	1.3
6	☐	500.000	486.167	2775346.96	0.5426	P	0.6
7	☐	1000.000	1008.037	5647760.15	1.1249	A	1.3
8	☐			675.05	0.0002	P	13.4

$$y = 0.0011 * x + 4.5717E-005$$

$$R = 0.9999$$

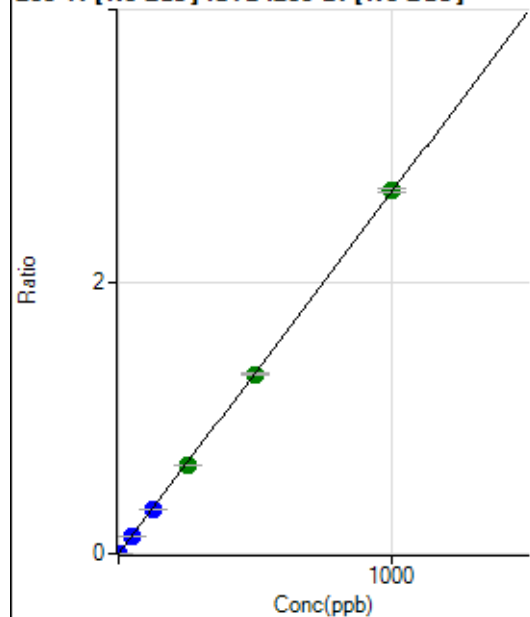
$$DL = 0.01401$$

$$BEC = 0.04097$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	619.49	0.0001	P	23.5
2	☐	1.000	0.888	13877.16	0.0025	P	0.6
3	☐	50.000	48.541	728640.99	0.1293	P	2.1
4	☐	125.000	121.557	1774556.59	0.3236	P	0.7
5	☐	250.000	243.232	3472482.63	0.6474	A	0.5
6	☐	500.000	497.199	6768596.59	1.3232	A	0.8
7	☐	1000.000	1003.596	13408811.76	2.6708	A	1.2
8	☐			1622.39	0.0004	P	14.8

$$y = 0.0027 * x + 1.0862E-004$$

$$R = 1.0000$$

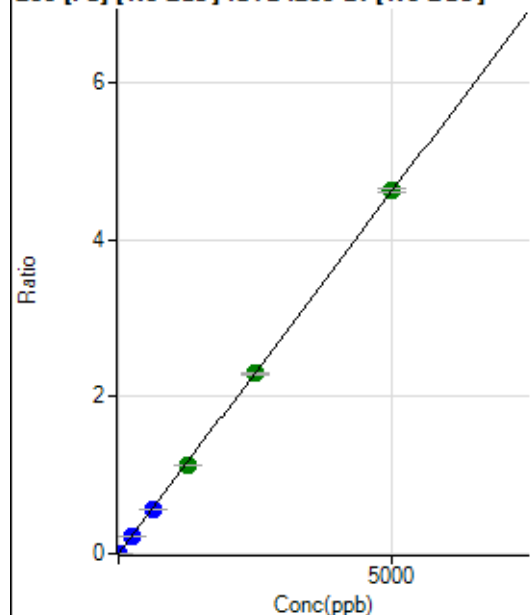
$$DL = 0.02883$$

$$BEC = 0.04082$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	379.65	0.0001	P	6.5
2	☐	1.000	0.877	4917.73	0.0009	P	3.0
3	☐	250.000	247.538	1287730.46	0.2285	P	2.0
4	☐	625.000	604.730	3060678.71	0.5581	P	0.4
5	☐	1250.000	1227.118	6073979.94	1.1324	A	0.4
6	☐	2500.000	2486.842	11738294.01	2.2948	A	1.1
7	☐	5000.000	5014.956	23233493.81	4.6276	A	0.9
8	☐			5430.89	0.0013	P	4.2

$$y = 9.2275\text{E-}004 * x + 6.6470\text{E-}005$$

$$R = 1.0000$$

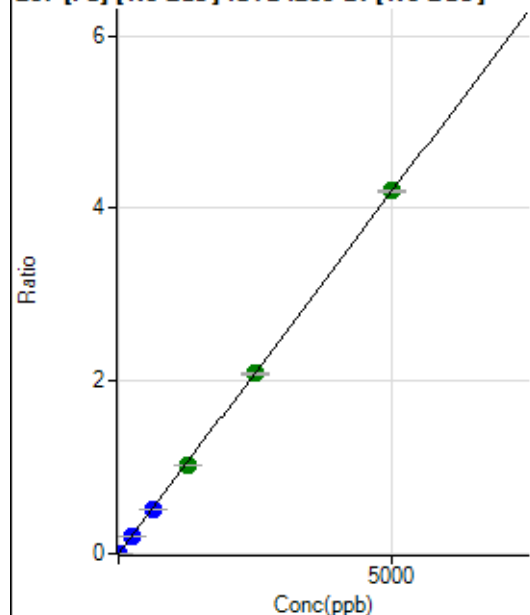
$$DL = 0.014$$

$$BEC = 0.07203$$

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	314.83	0.0001	P	22.5
2	☐	1.000	0.839	4252.66	0.0008	P	3.2
3	☐	250.000	247.991	1171201.54	0.2078	P	1.7
4	☐	625.000	609.169	2799049.08	0.5104	P	0.5
5	☐	1250.000	1225.595	5507277.61	1.0268	A	0.6
6	☐	2500.000	2486.891	10656910.31	2.0834	A	0.8
7	☐	5000.000	5014.735	21091906.26	4.2010	A	0.7
8	☐			4656.52	0.0011	P	5.4

$$y = 8.3772\text{E-}004 * x + 5.5084\text{E-}005$$

$$R = 1.0000$$

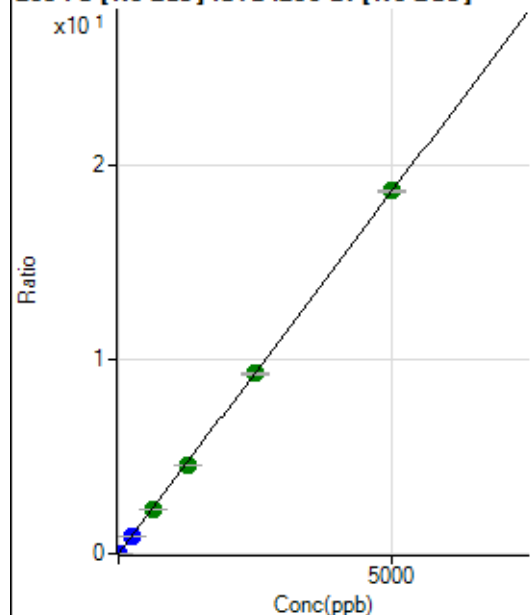
$$DL = 0.0443$$

$$BEC = 0.06575$$

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	1507.49	0.0003	P	9.1
2	☐	1.000	0.880	19839.77	0.0035	P	2.5
3	☐	250.000	247.578	5187397.14	0.9204	P	1.8
4	☐	625.000	607.303	12379752.36	2.2573	A	0.2
5	☐	1250.000	1224.788	24417117.56	4.5522	A	0.4
6	☐	2500.000	2486.112	47264046.54	9.2398	A	0.6
7	☐	5000.000	5015.580	93589461.35	18.6406	A	0.6
8	☐			21457.36	0.0053	P	4.6

$$y = 0.0037 * x + 2.6397E-004$$

$$R = 1.0000$$

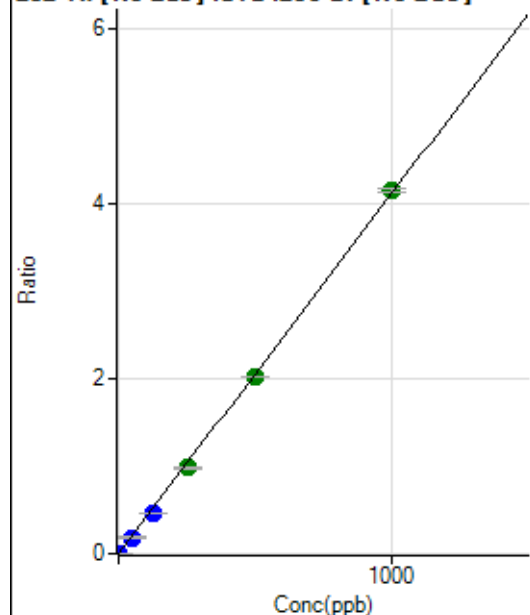
$$DL = 0.0193$$

$$BEC = 0.07103$$

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	2868.93	0.0005	P	4.3
2	☐	1.000	-0.035	2003.92	0.0004	P	4.6
3	☐	50.000	45.187	1050838.04	0.1864	P	1.6
4	☐	125.000	112.821	2548525.35	0.4647	P	1.2
5	☐	250.000	238.231	5260577.20	0.9808	A	0.9
6	☐	500.000	492.891	10377058.91	2.0286	A	0.4
7	☐	1000.000	1008.261	20831700.70	4.1493	A	1.2
8	☐			9755.79	0.0024	P	10.0

$$y = 0.0041 * x + 5.0236E-004$$

$$R = 0.9999$$

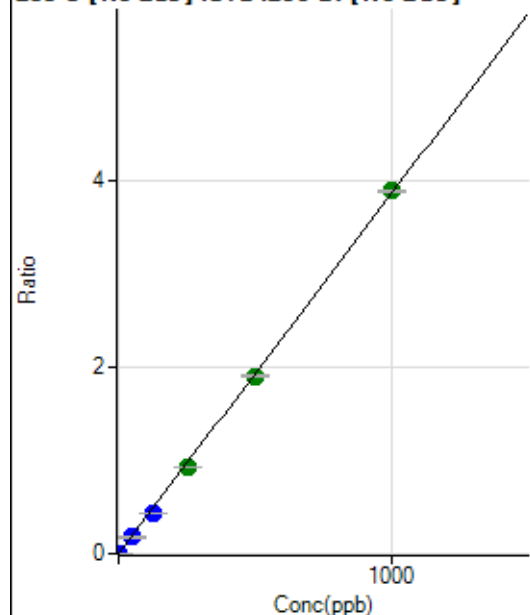
$$DL = 0.0156$$

$$BEC = 0.1221$$

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	300.02	0.0001	P	31.3
2	☐	1.000	0.829	18302.51	0.0033	P	3.6
3	☐	50.000	45.594	994283.29	0.1764	P	1.6
4	☐	125.000	113.532	2408307.84	0.4392	P	1.5
5	☐	250.000	240.174	4982268.73	0.9290	A	2.0
6	☐	500.000	493.524	9764414.19	1.9089	A	1.4
7	☐	1000.000	1007.348	19561889.32	3.8963	A	0.8
8	☐			2383.68	0.0006	P	13.3

$$y = 0.0039 * x + 5.2539E-005$$

$$R = 0.9999$$

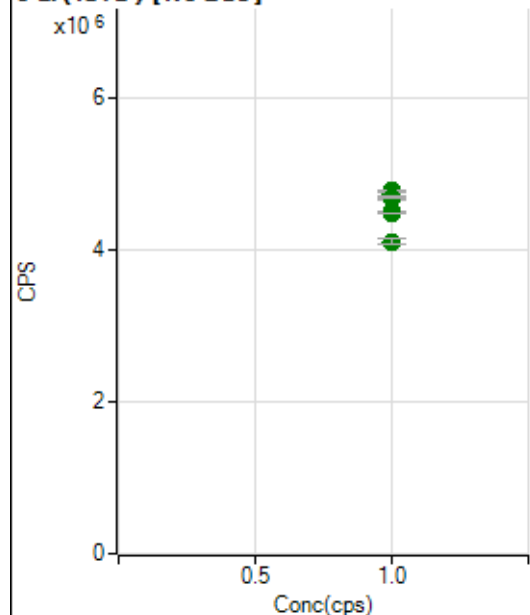
$$DL = 0.01274$$

$$BEC = 0.01358$$

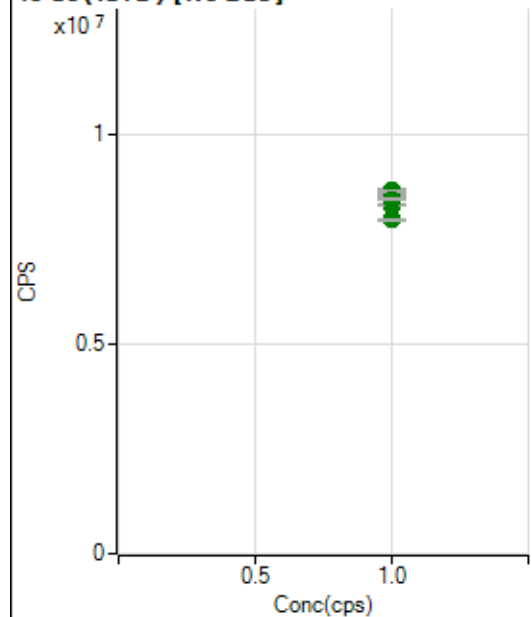
Weight: <None>

Min Conc: 0

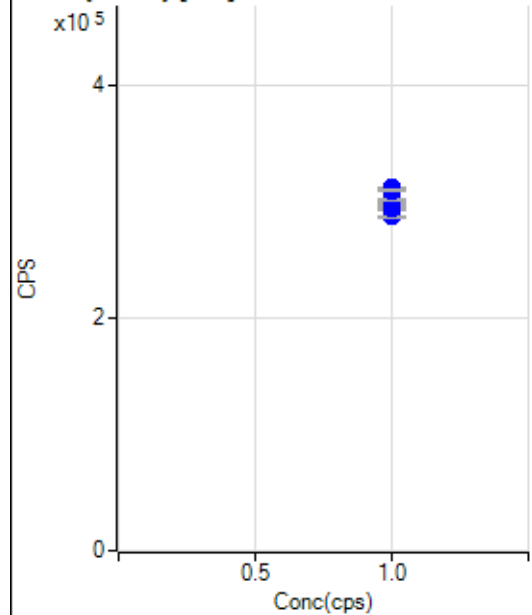
6 Li (ISTD) [No Gas]



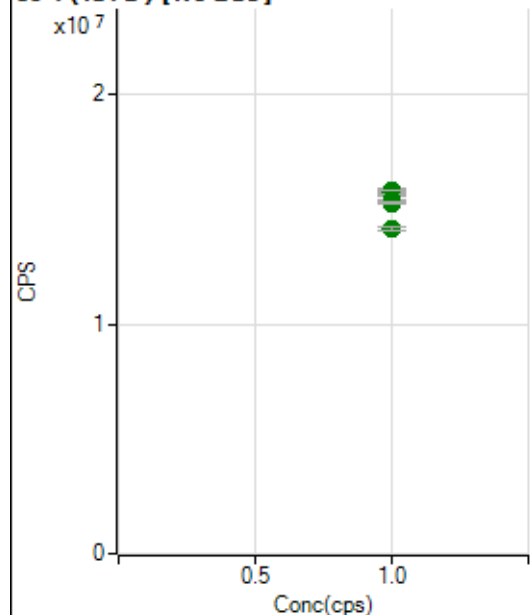
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4745881.01		A	0.9
2	☐	1.000		4769506.70		A	0.8
3	☐	1.000		4780222.81		A	0.2
4	☐	1.000		4690127.74		A	1.0
5	☐	1.000		4693996.07		A	0.8
6	☐	1.000		4508142.54		A	0.5
7	☐	1.000		4480504.48		A	0.2
8	☐	1.000		4113928.34		A	1.5

45 Sc (ISTD) [No Gas]

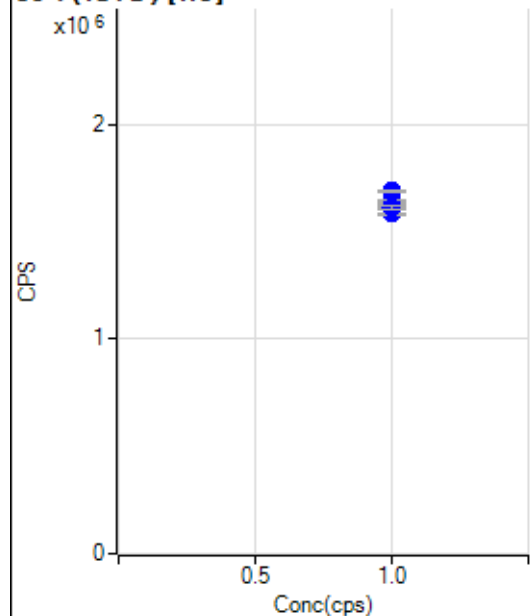
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8604006.89		A	0.7
2	☐	1.000		8491520.71		A	0.9
3	☐	1.000		8640558.21		A	1.2
4	☐	1.000		8539821.40		A	1.0
5	☐	1.000		8635970.84		A	0.3
6	☐	1.000		8295584.60		A	0.7
7	☐	1.000		8448065.43		A	0.4
8	☐	1.000		7946997.59		A	0.6

45 Sc (ISTD) [He]

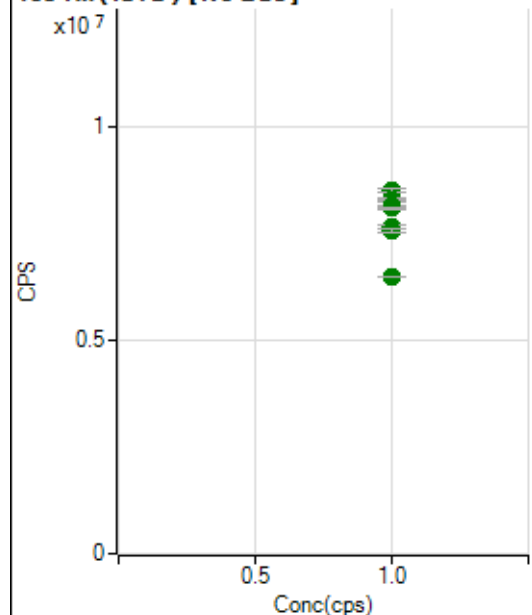
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		287391.40		P	0.8
2	☐	1.000		294267.76		P	0.6
3	☐	1.000		294941.71		P	0.8
4	☐	1.000		298067.88		P	0.6
5	☐	1.000		301266.63		P	1.0
6	☐	1.000		302017.46		P	0.1
7	☐	1.000		312031.02		P	0.3
8	☐	1.000		309972.38		P	0.5

89 Y (ISTD) [No Gas]

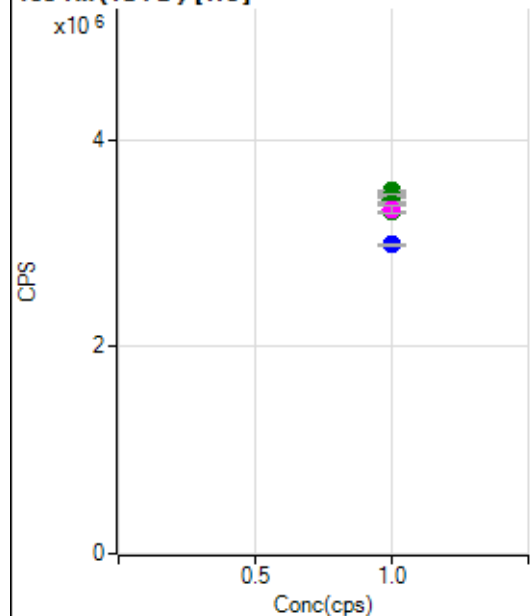
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15607401.85		A	0.3
2	☐	1.000		15633549.35		A	0.4
3	☐	1.000		15821083.24		A	0.9
4	☐	1.000		15732787.82		A	0.7
5	☐	1.000		15787198.66		A	1.1
6	☐	1.000		15389536.99		A	0.7
7	☐	1.000		15294046.72		A	0.5
8	☐	1.000		14161928.12		A	0.9

89 Y (ISTD) [He]

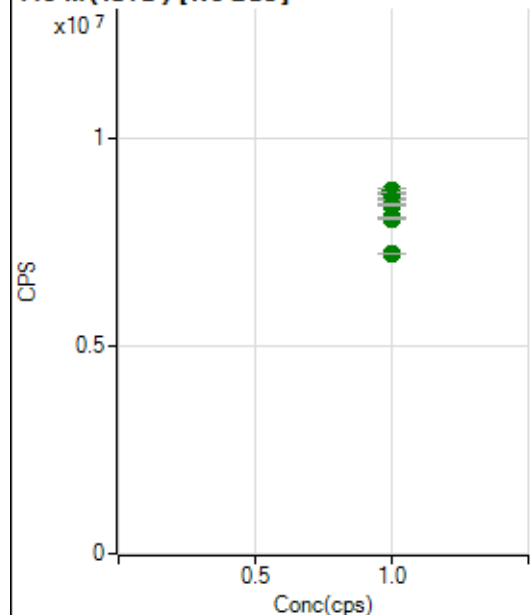
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1583642.30		P	0.7
2	☐	1.000		1627045.59		P	0.5
3	☐	1.000		1621089.90		P	1.5
4	☐	1.000		1646428.47		P	0.6
5	☐	1.000		1642710.37		P	0.8
6	☐	1.000		1649878.86		P	0.1
7	☐	1.000		1690124.51		P	0.2
8	☐	1.000		1611936.26		P	0.7

103 Rh (ISTD) [No Gas]

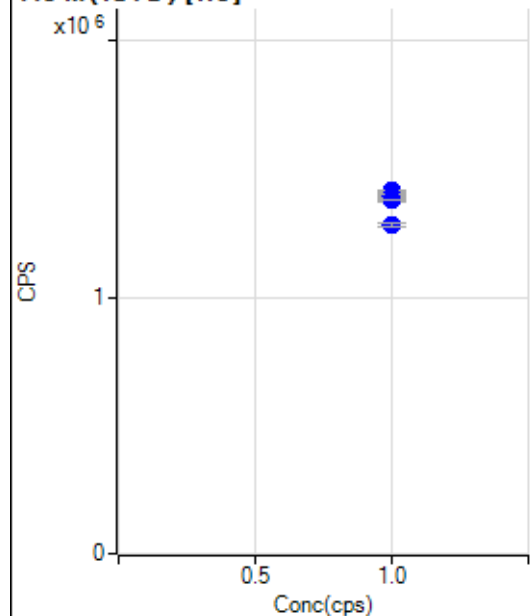
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8488448.83		A	1.2
2	☐	1.000		8254784.95		A	0.5
3	☐	1.000		8290776.68		A	0.5
4	☐	1.000		8143801.34		A	0.5
5	☐	1.000		8079631.62		A	0.8
6	☐	1.000		7667176.62		A	1.1
7	☐	1.000		7541575.10		A	1.2
8	☐	1.000		6474883.10		A	0.5

103 Rh (ISTD) [He]

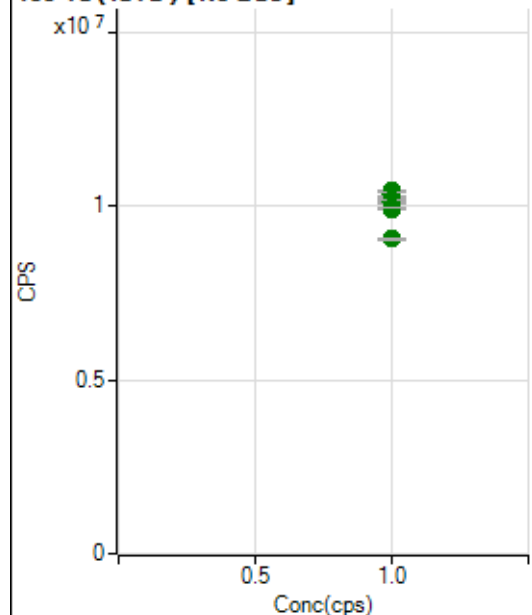
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3445910.05		A	0.9
2	☐	1.000		3506074.81		A	0.4
3	☐	1.000		3426481.41		A	1.4
4	☐	1.000		3461764.36		A	0.7
5	☐	1.000		3390708.63		A	0.4
6	☐	1.000		3302205.71		A	0.3
7	☐	1.000		3325982.62		M	2.1
8	☐	1.000		2984513.04		P	0.4

115 In (ISTD) [No Gas]

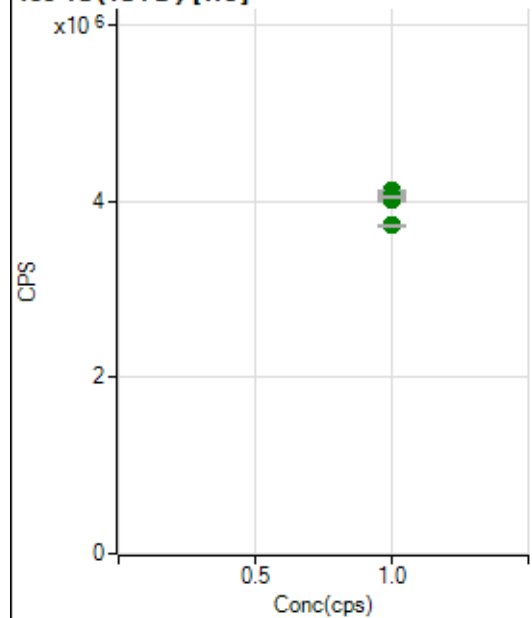
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8736048.54		A	1.1
2	☐	1.000		8583805.54		A	1.5
3	☐	1.000		8635768.30		A	1.1
4	☐	1.000		8523954.87		A	0.3
5	☐	1.000		8398552.00		A	1.0
6	☐	1.000		8086617.16		A	0.4
7	☐	1.000		8070120.39		A	0.8
8	☐	1.000		7216532.70		A	0.3

115 In (ISTD) [He]

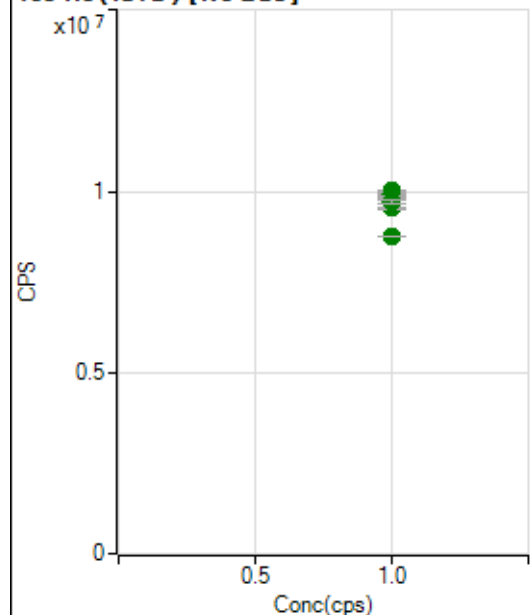
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1382355.74		P	0.6
2	☐	1.000		1414199.95		P	0.5
3	☐	1.000		1404612.76		P	1.0
4	☐	1.000		1415648.49		P	0.2
5	☐	1.000		1396106.91		P	0.8
6	☐	1.000		1378609.84		P	0.3
7	☐	1.000		1379791.20		P	0.3
8	☐	1.000		1284148.27		P	0.8

159 Tb (ISTD) [No Gas]

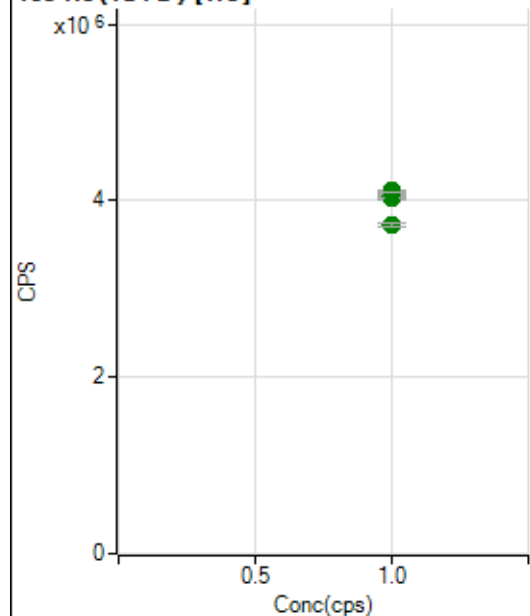
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10441872.07		A	0.5
2	☐	1.000		10140497.07		A	0.4
3	☐	1.000		10351770.75		A	1.0
4	☐	1.000		10177650.61		A	0.8
5	☐	1.000		10128785.89		A	0.7
6	☐	1.000		9917761.52		A	0.5
7	☐	1.000		9973893.60		A	0.2
8	☐	1.000		9050725.07		A	0.1

159 Tb (ISTD) [He]

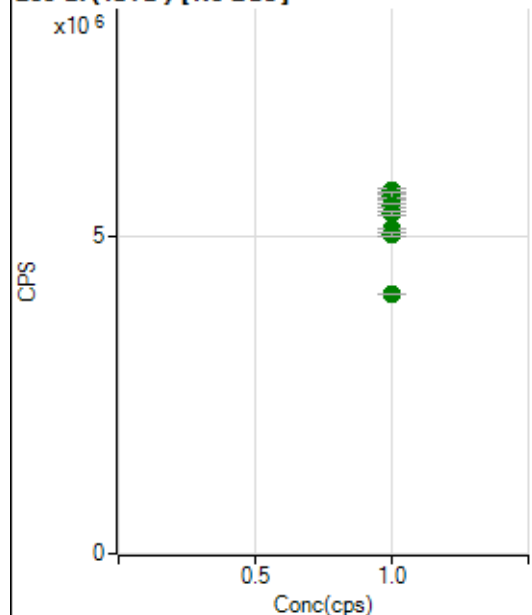
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4018641.71		A	1.2
2	☐	1.000		4079899.45		A	1.1
3	☐	1.000		4033579.73		A	1.1
4	☐	1.000		4112898.97		A	0.4
5	☐	1.000		4017549.52		A	0.3
6	☐	1.000		4056267.51		A	0.7
7	☐	1.000		4042084.31		A	0.5
8	☐	1.000		3720648.10		A	0.5

165 Ho (ISTD) [No Gas]

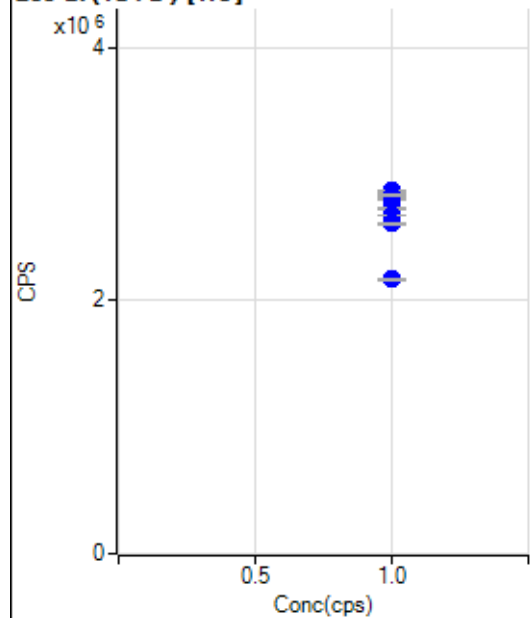
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10016694.02		A	0.1
2	☐	1.000		9894662.42		A	0.6
3	☐	1.000		9937242.07		A	1.0
4	☐	1.000		9851732.91		A	0.5
5	☐	1.000		9832488.95		A	0.3
6	☐	1.000		9536894.86		A	0.6
7	☐	1.000		9702671.52		A	0.9
8	☐	1.000		8771567.99		A	0.0

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4025036.60		A	0.9
2	☐	1.000		4110622.33		A	0.8
3	☐	1.000		4054925.08		A	1.4
4	☐	1.000		4110607.72		A	0.4
5	☐	1.000		4050996.54		A	0.7
6	☐	1.000		4087194.42		A	0.7
7	☐	1.000		4099731.50		A	0.2
8	☐	1.000		3732467.41		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5712615.75		A	1.0
2	☐	1.000		5614489.50		A	1.2
3	☐	1.000		5637060.26		A	1.5
4	☐	1.000		5484356.76		A	1.3
5	☐	1.000		5364024.64		A	1.3
6	☐	1.000		5115308.50		A	0.4
7	☐	1.000		5020936.80		A	1.1
8	☐	1.000		4084078.86		A	0.6

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2812705.96		P	1.1
2	☐	1.000		2868596.55		P	0.7
3	☐	1.000		2827163.90		P	0.8
4	☐	1.000		2833214.65		P	0.2
5	☐	1.000		2730701.57		P	0.3
6	☐	1.000		2681393.52		P	0.1
7	☐	1.000		2611247.13		P	0.4
8	☐	1.000		2172747.90		P	0.6

US EPA Tune Check Sample Report

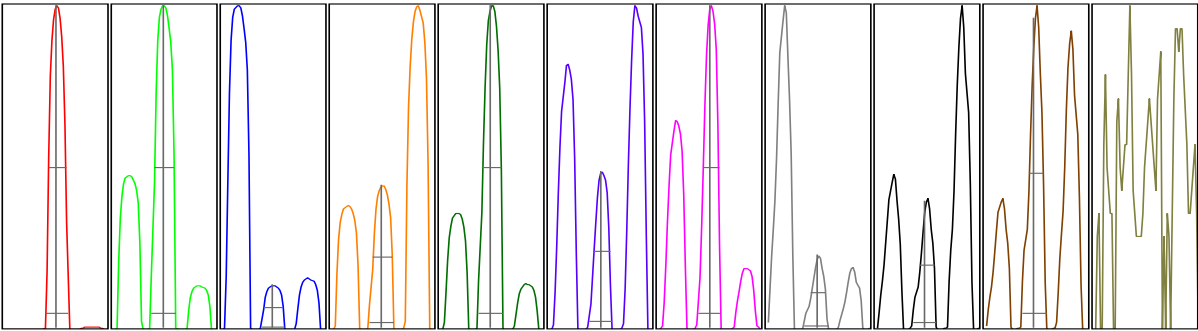
Batch Folder D:\ICP-MS Data\1\DATA\P7072020 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	9450	1.36	5.00	
24	124799	1.15	5.00	
25	16661	1.09	5.00	
26	19223	1.34	5.00	
59	52412	0.96	5.00	
113	7611	0.74	5.00	
115	24064	3.18	5.00	
206	7212	1.43	5.00	
207	6041	1.26	5.00	
208	14901	1.26	5.00	
220	0	11.77		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9236	9432	9506	9566	9512
24	122481	124402	126041	125653	125420
25	16359	16643	16801	16798	16703
26	18822	19154	19375	19498	19268
59	51569	52344	52829	52714	52605
113	7544	7647	7684	7573	7607
115	25138	24349	24077	23663	23095
206	7057	7164	7245	7315	7281
207	5932	5992	6089	6111	6082
208	14674	14912	14870	15196	14855
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	18784	9.05	8.9 - 9.1		0.679	0.900	
24	216703	24.00	23.9 - 24.1		0.731	0.900	
25	29426	25.00	24.9 - 25.1		0.693	0.900	
26	34236	26.00	25.9 - 26.1		0.731	0.900	
59	96444	59.00	58.9 - 59.1		0.729	0.900	
113	16410	113.05	112.9 - 113.1		0.679	0.900	
115	52238	115.05	114.9 - 115.1		0.678	0.900	
206	17076	206.00	205.9 - 206.1		0.706	0.900	
207	13999	206.95	206.9 - 207.1		0.687	0.900	
208	34278	207.95	207.9 - 208.1		0.718	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	0.76	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	6.8	V	Deflect	13.0	V
Extract 2	-120.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	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	150	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	10730	0.47	
89	30075	0.61	
205	15663	0.81	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	10651	10774	10712	10748	10764
89	29782	30235	30023	30127	30207
205	15494	15692	15570	15782	15776

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.76	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	7.3	V	Deflect	1.6	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

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