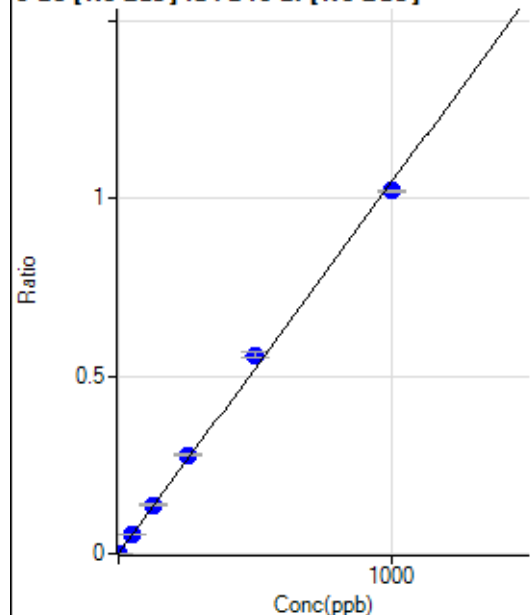


Batch Folder: D:\P8111318.b\
Analysis File: P8111318.batch.bin
DA Date-Time: 2018-11-13 18:52:19
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-11-13 14:25:07
2			
3	005CALS.d	S02	2018-11-13 14:32:39
4	006CALS.d	S03	2018-11-13 14:36:26
5	007CALS.d	S04	2018-11-13 14:40:12
6	008CALS.d	S05	2018-11-13 14:43:54
7	009CALS.d	S06	2018-11-13 14:47:30
8	010CALS.d	S07	2018-11-13 14:51:01
9	011CALS.d	S08	2018-11-13 14:54:28

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	74.08	0.0001	P	46.1
2	☐	0.100					
3	☐	1.000	1.140	1131.56	0.0013	P	6.7
4	☐	50.000	51.018	49281.01	0.0534	P	5.0
5	☐	125.000	131.961	128038.39	0.1380	P	4.3
6	☐	250.000	266.644	248650.86	0.2788	P	1.1
7	☐	500.000	535.241	509105.89	0.5596	P	2.6
8	☐	1000.000	977.297	956917.37	1.0217	P	0.3
9	☐			303.71	0.0003	P	11.4

$$y = 0.0010 * x + 8.5381E-005$$

$$R = 0.9989$$

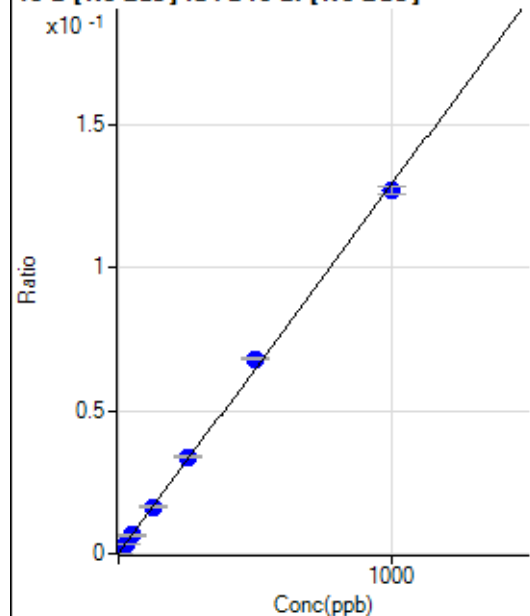
$$DL = 0.1129$$

$$BEC = 0.08168$$

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	77.78	0.0001	P	33.1
2	☐	2.500					
3	☐	25.000	25.782	3025.46	0.0034	P	14.4
4	☐	50.000	50.670	6109.88	0.0066	P	10.1
5	☐	125.000	126.407	15233.73	0.0164	P	1.6
6	☐	250.000	262.434	30288.37	0.0340	P	1.6
7	☐	500.000	528.046	62118.16	0.0682	P	1.7
8	☐	1000.000	982.640	118884.30	0.1269	P	2.0
9	☐			2428.10	0.0026	P	4.3

$$y = 1.2907E-004 * x + 8.9649E-005$$

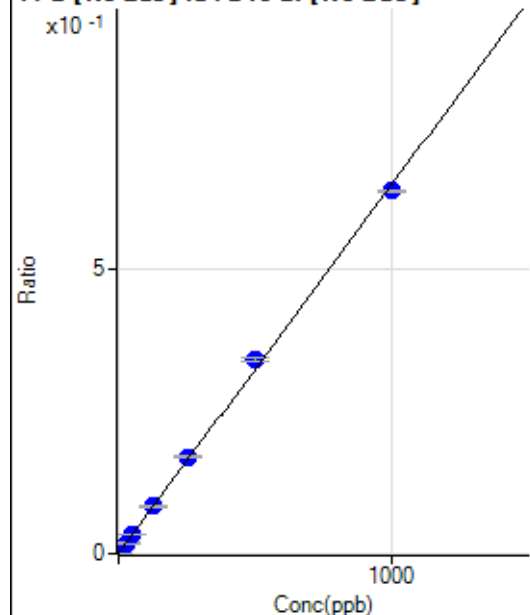
$$R = 0.9993$$

$$DL = 0.6893$$

$$BEC = 0.6945$$

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	405.58	0.0005	P	21.2
2	☐	2.500					
3	☐	25.000	27.683	16270.96	0.0184	P	4.5
4	☐	50.000	51.113	30903.77	0.0335	P	5.8
5	☐	125.000	128.045	77233.24	0.0832	P	2.8
6	☐	250.000	261.464	151119.49	0.1695	P	2.6
7	☐	500.000	525.621	309590.63	0.3402	P	1.3
8	☐	1000.000	983.820	596025.73	0.6364	P	0.7
9	☐			13509.75	0.0143	P	11.1

$$y = 6.4635E-004 * x + 4.6731E-004$$

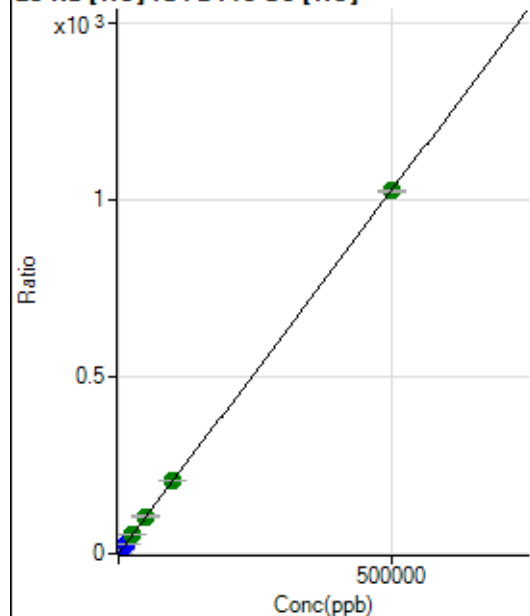
$$R = 0.9994$$

$$DL = 0.4602$$

$$BEC = 0.723$$

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	4667.66	0.1637	P	3.1
2	☐	50.000					
3	☐	500.000	500.386	35757.10	1.1918	P	2.4
4	☐	5000.000	5173.702	314511.97	10.7942	P	0.6
5	☐	12500.000	13489.939	792426.37	27.8819	P	4.6
6	☐	25000.000	27429.736	1543389.75	56.5244	A	1.7
7	☐	50000.000	51326.295	3016746.25	105.6255	A	2.2
8	☐	100000.00	100492.08	5755126.60	206.6481	A	1.2
9	☐	500000.00	499620.98	30348774.29	1,026.751	A	0.2

$$y = 0.0021 * x + 0.1637$$

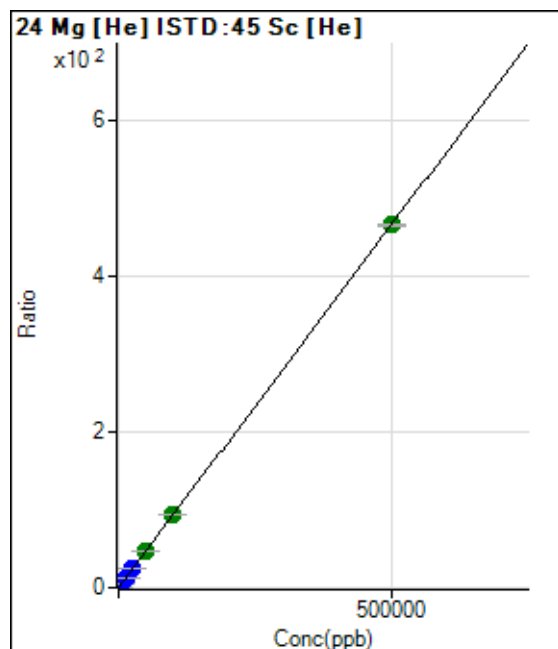
$$R = 1.0000$$

$$DL = 7.383$$

$$BEC = 79.65$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	161.12	0.0056	P	14.3
2	☐	50.000					
3	☐	500.000	493.184	13943.57	0.4647	P	1.8
4	☐	5000.000	5153.563	139927.04	4.8024	P	0.9
5	☐	12500.000	13372.075	353906.10	12.4519	P	4.3
6	☐	25000.000	26691.156	678537.29	24.8489	P	1.0
7	☐	50000.000	51023.157	1356605.36	47.4964	A	1.8
8	☐	100000.00	100255.69	2598972.80	93.3205	A	1.3
9	☐	500000.00	499738.65	13748782.42	465.1467	A	0.4

$$y = 9.3077\text{E-}004 * x + 0.0056$$

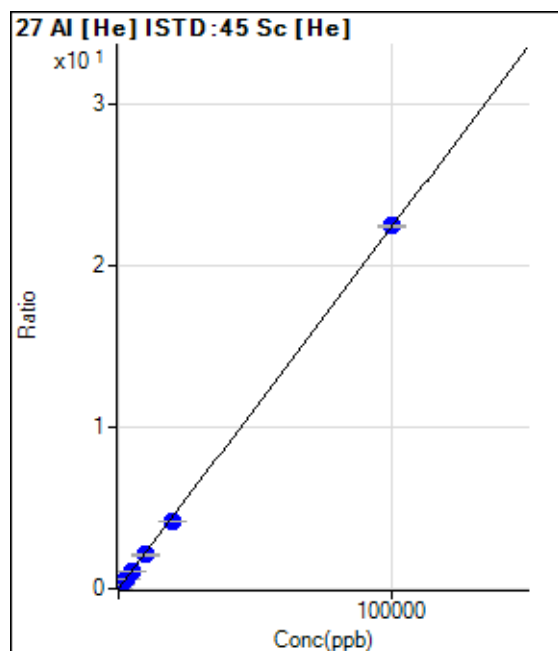
$$R = 1.0000$$

$$DL = 2.597$$

$$BEC = 6.06$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19.17	0.0007	P	18.4
2	☐	2.000					
3	☐	20.000	24.150	182.55	0.0061	P	6.8
4	☐	1000.000	945.747	6190.47	0.2125	P	0.4
5	☐	2500.000	2491.981	15872.93	0.5587	P	5.7
6	☐	5000.000	4939.668	30222.21	1.1068	P	1.6
7	☐	10000.000	9394.279	60104.38	2.1044	P	2.6
8	☐	20000.000	18513.469	115479.73	4.1465	P	1.3
9	☐	100000.00	100361.63	664331.38	22.4752	P	0.4

$$y = 2.2394\text{E-}004 * x + 6.7092\text{E-}004$$

$$R = 0.9999$$

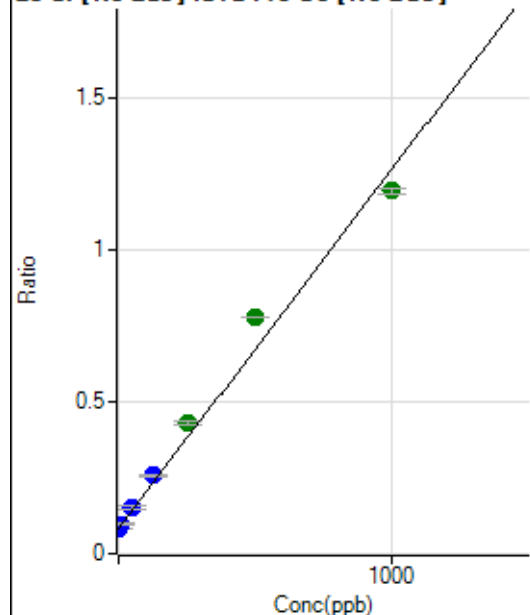
$$DL = 1.658$$

$$BEC = 2.996$$

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	255115.36	0.0829	P	0.9
2	☐	1.000					
3	☐	10.000	12.440	309514.59	0.0976	P	3.6
4	☐	50.000	57.046	496818.44	0.1503	P	9.5
5	☐	125.000	147.098	830678.71	0.2567	P	1.0
6	☐	250.000	294.392	1301993.73	0.4308	A	2.6
7	☐	500.000	589.655	2393532.45	0.7798	A	0.4
8	☐	1000.000	940.936	3854026.56	1.1949	A	1.7
9	☐			579397.74	0.1861	P	8.3

$$y = 0.0012 * x + 0.0829$$

$$R = 0.9924$$

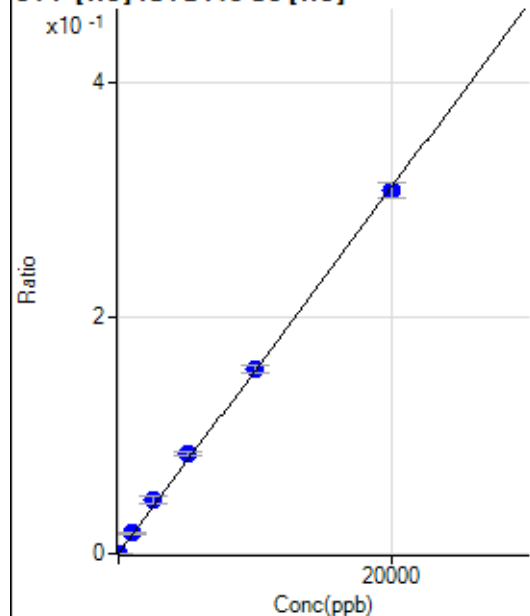
$$DL = 1.804$$

$$BEC = 70.11$$

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	-2.531	5.56	0.0002	P	173.2
2	☐	0.000					
3	☐	0.000	2.531	8.33	0.0003	P	98.9
4	☐	1000.000	1095.475	502.81	0.0172	P	13.6
5	☐	2500.000	2890.878	1277.90	0.0451	P	15.5
6	☐	5000.000	5449.909	2316.96	0.0848	P	2.2
7	☐	10000.000	10062.703	4470.34	0.1564	P	4.2
8	☐	20000.000	19802.538	8566.85	0.3076	P	4.2
9	☐			13.89	0.0005	P	69.5

$$y = 1.5524E-005 * x + 2.3686E-004$$

$$R = 0.9996$$

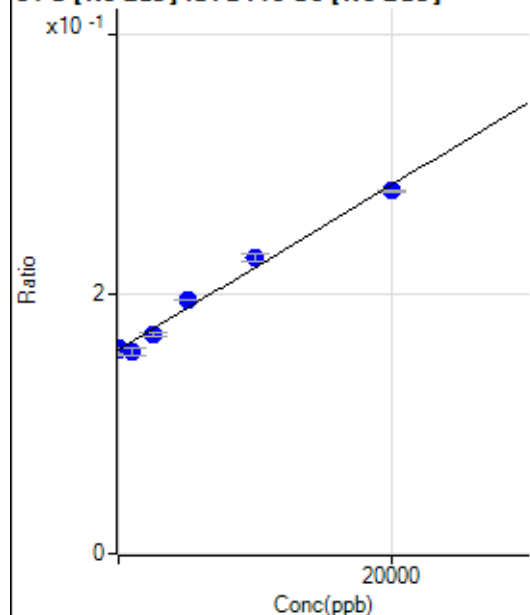
$$DL = 59.47$$

$$BEC = 15.26$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	135.428	487232.24	0.1583	P	0.7
2	☐	0.000					
3	☐	0.000	-135.428	496618.67	0.1565	P	3.4
4	☐	1000.000	-164.934	517600.54	0.1563	P	3.7
5	☐	2500.000	1914.538	548585.15	0.1696	P	1.8
6	☐	5000.000	6072.892	592479.62	0.1960	P	0.2
7	☐	10000.000	11201.949	701324.85	0.2286	P	2.9
8	☐	20000.000	19262.232	902649.74	0.2798	P	0.8
9	☐			444106.52	0.1425	P	6.2

$$y = 6.3573\text{E-}006 * x + 0.1574$$

$$R = 0.9925$$

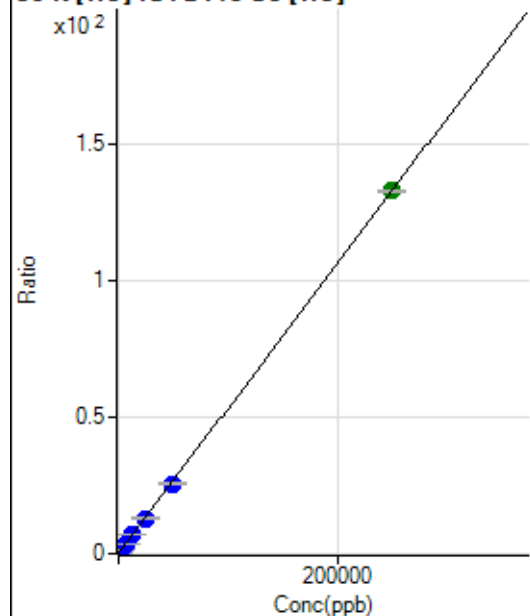
$$DL = 1503$$

$$BEC = 2.476\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3364.45	0.1180	P	4.1
2	☐	50.000					
3	☐	500.000	501.428	11508.02	0.3835	P	1.7
4	☐	2500.000	2496.080	41958.30	1.4399	P	0.3
5	☐	6250.000	6577.942	102331.22	3.6018	P	5.5
6	☐	12500.000	12783.821	188098.62	6.8885	P	1.2
7	☐	25000.000	24199.181	369420.33	12.9343	P	1.5
8	☐	50000.000	48082.235	712483.21	25.5831	P	1.5
9	☐	250000.00	250441.28	3924026.35	132.7558	A	0.8

$$y = 5.2962\text{E-}004 * x + 0.1180$$

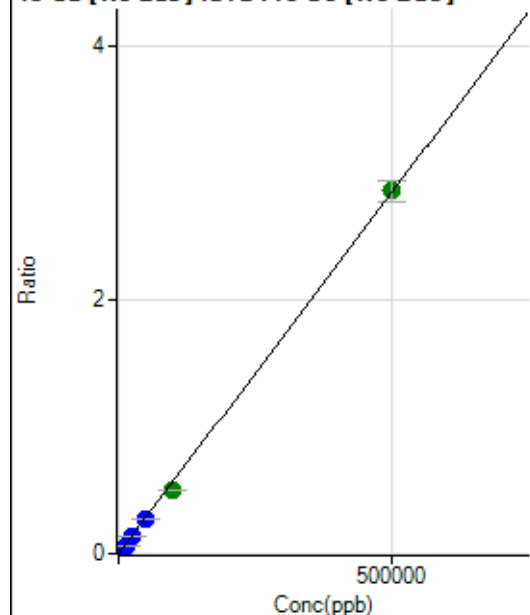
$$R = 1.0000$$

$$DL = 27.46$$

$$BEC = 222.8$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	472.25	0.0002	P	7.9
2	☐	50.000					
3	☐	500.000	472.459	9011.64	0.0028	P	6.1
4	☐	5000.000	4437.189	84046.26	0.0254	P	5.6
5	☐	12500.000	11573.372	213525.45	0.0660	P	2.3
6	☐	25000.000	23838.434	410414.54	0.1358	P	1.9
7	☐	50000.000	47809.974	835168.61	0.2722	P	1.9
8	☐	100000.00	88721.903	1628748.99	0.5050	A	0.8
9	☐	500000.00	502561.52	8910729.54	2.8596	A	5.8

$$y = 5.6898\text{E-}006 * x + 1.5338\text{E-}004$$

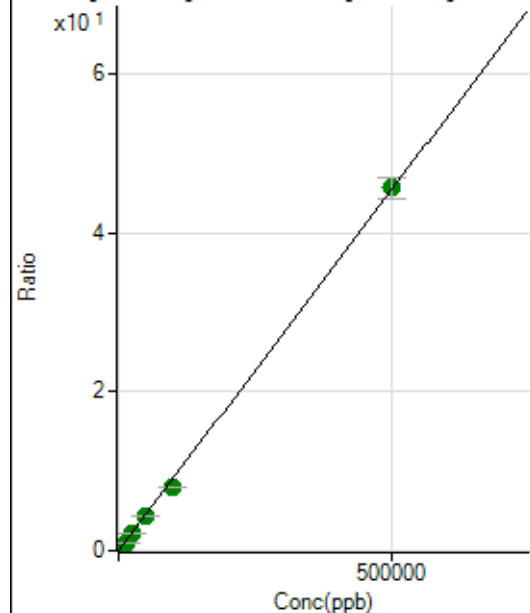
$$R = 0.9997$$

$$DL = 6.356$$

$$BEC = 26.96$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19636.69	0.0064	P	1.1
2	☐	50.000					
3	☐	500.000	470.839	155844.89	0.0491	P	4.1
4	☐	5000.000	4510.349	1376258.37	0.4159	A	5.3
5	☐	12500.000	11516.851	3403753.98	1.0521	A	1.7
6	☐	25000.000	23941.520	6589850.89	2.1802	A	1.1
7	☐	50000.000	47923.506	13369296.13	4.3576	A	2.6
8	☐	100000.00	87299.655	25587804.04	7.9328	A	0.7
9	☐	500000.00	502830.14	142299475.4	45.6612	A	5.5

$$y = 9.0796\text{E-}005 * x + 0.0064$$

$$R = 0.9997$$

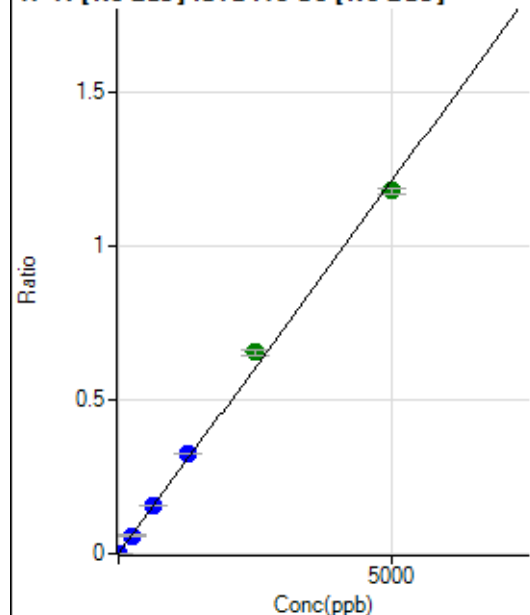
$$DL = 2.407$$

$$BEC = 70.24$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	100.01	0.0000	P	21.5
2	☐	0.500					
3	☐	5.000	5.125	4039.65	0.0013	P	2.4
4	☐	250.000	244.493	195927.79	0.0592	P	5.0
5	☐	625.000	643.971	504332.14	0.1559	P	1.8
6	☐	1250.000	1340.686	980863.98	0.3245	P	0.7
7	☐	2500.000	2705.408	2008734.62	0.6548	A	2.9
8	☐	5000.000	4872.528	3803520.57	1.1792	A	1.3
9	☐			1355.69	0.0004	P	6.8

$$y = 2.4201\text{E-}004 * x + 3.2458\text{E-}005$$

$$R = 0.9985$$

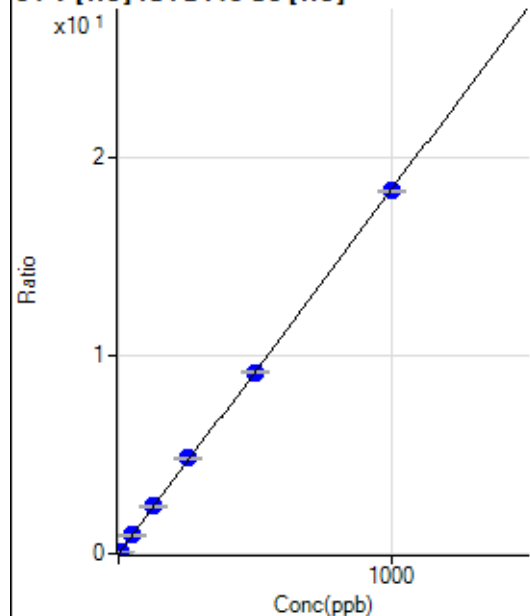
$$DL = 0.08644$$

$$BEC = 0.1341$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.67	0.0002	P	101.1
2	☐	0.500					
3	☐	5.000	4.972	2753.66	0.0918	P	5.3
4	☐	50.000	50.412	27041.92	0.9282	P	2.1
5	☐	125.000	131.133	68604.82	2.4141	P	4.7
6	☐	250.000	262.887	132142.74	4.8395	P	1.9
7	☐	500.000	498.943	262330.01	9.1848	P	1.5
8	☐	1000.000	996.520	510891.82	18.3442	P	0.8
9	☐			262.23	0.0089	P	7.0

$$y = 0.0184 * x + 2.3434\text{E-}004$$

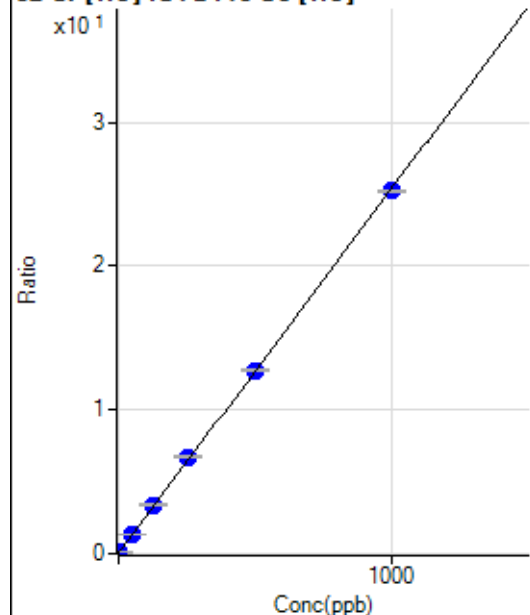
$$R = 0.9999$$

$$DL = 0.03863$$

$$BEC = 0.01273$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	736.70	0.0258	P	1.1
2	☐	0.200					
3	☐	2.000	2.196	2445.81	0.0815	P	2.5
4	☐	50.000	51.098	38504.06	1.3215	P	0.6
5	☐	125.000	133.147	96654.99	3.4019	P	5.8
6	☐	250.000	263.585	183198.29	6.7093	P	1.6
7	☐	500.000	502.716	364792.28	12.7727	P	1.9
8	☐	1000.000	994.172	702791.72	25.2341	P	0.3
9	☐			36067.72	1.2202	P	0.3

$$y = 0.0254 * x + 0.0258$$

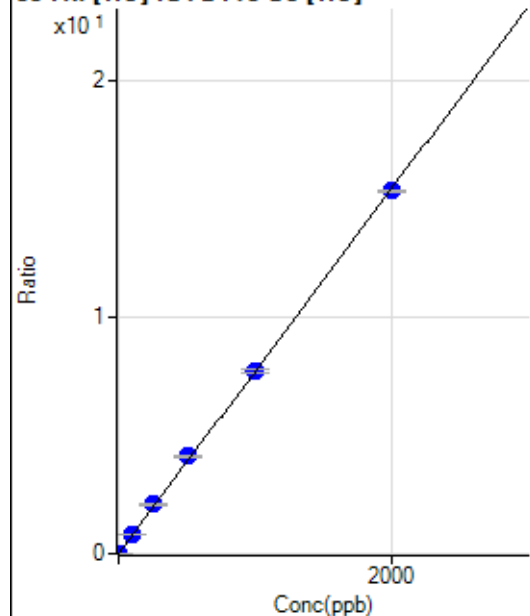
$$R = 0.9999$$

$$DL = 0.03361$$

$$BEC = 1.019$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0010	P	49.7
2	☐	0.100					
3	☐	1.000	1.050	272.23	0.0091	P	5.7
4	☐	100.000	102.645	23054.83	0.7913	P	1.4
5	☐	250.000	269.301	58959.43	2.0745	P	4.4
6	☐	500.000	532.839	112056.05	4.1036	P	1.2
7	☐	1000.000	1000.669	220080.33	7.7058	P	2.2
8	☐	2000.000	1988.911	426523.03	15.3149	P	0.9
9	☐			3194.87	0.1081	P	1.6

$$y = 0.0077 * x + 9.7968E-004$$

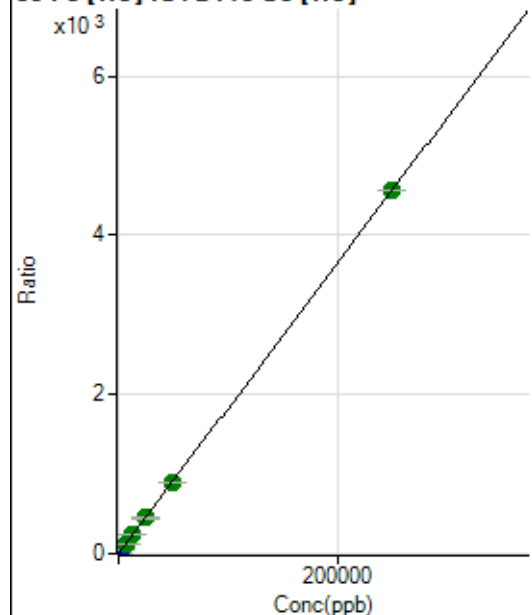
$$R = 0.9998$$

$$DL = 0.1898$$

$$BEC = 0.1272$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1468.64	0.0515	P	5.9
2	☐	5.000					
3	☐	50.000	51.092	29474.34	0.9826	P	4.7
4	☐	2500.000	2534.892	1347425.38	46.2443	P	0.5
5	☐	6250.000	6659.579	3449800.86	121.4076	A	5.2
6	☐	12500.000	13082.031	6510714.73	238.4426	A	1.5
7	☐	25000.000	24747.384	12881343.00	451.0178	A	2.3
8	☐	50000.000	49004.868	24871980.42	893.0567	A	0.7
9	☐	250000.00	250184.59	134758788.2	4,559.111	A	0.1

$$y = 0.0182 * x + 0.0515$$

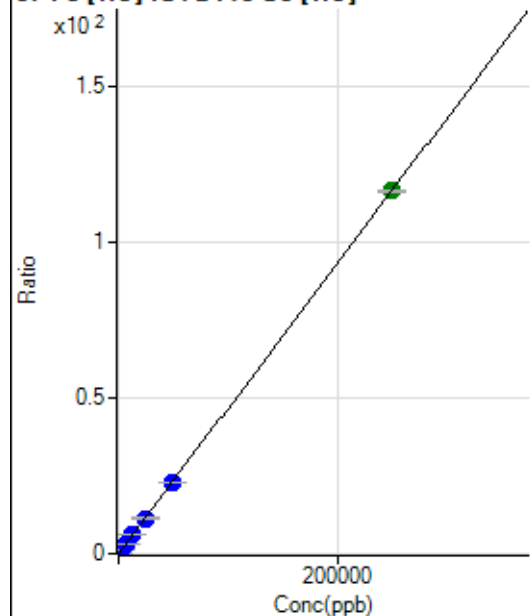
$$R = 1.0000$$

$$DL = 0.4986$$

$$BEC = 2.827$$

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	53.71	0.0019	P	14.3
2	☐	5.000					
3	☐	50.000	44.842	681.52	0.0227	P	7.4
4	☐	2500.000	2483.833	33680.13	1.1560	P	1.7
5	☐	6250.000	6495.999	85833.01	3.0204	P	4.7
6	☐	12500.000	13039.587	165498.50	6.0609	P	1.6
7	☐	25000.000	24507.591	325288.92	11.3898	P	2.4
8	☐	50000.000	48553.919	628406.81	22.5633	P	0.3
9	☐	250000.00	250305.49	3437929.62	116.3106	A	0.3

$$y = 4.6467E-004 * x + 0.0019$$

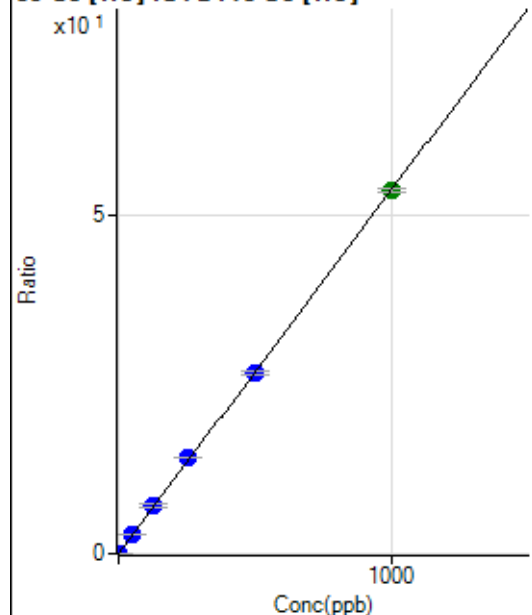
$$R = 1.0000$$

$$DL = 1.734$$

$$BEC = 4.046$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	87.78	0.0031	P	28.7
2	☐	0.100					
3	☐	1.000	1.003	1711.25	0.0570	P	3.5
4	☐	50.000	50.834	79778.86	2.7381	P	0.8
5	☐	125.000	131.780	201551.64	7.0933	P	5.2
6	☐	250.000	263.846	387705.37	14.1989	P	1.5
7	☐	500.000	496.938	763711.88	26.7401	P	1.9
8	☐	1000.000	997.180	1494294.23	53.6548	A	1.0
9	☐			20195.95	0.6833	P	2.1

$$y = 0.0538 * x + 0.0031$$

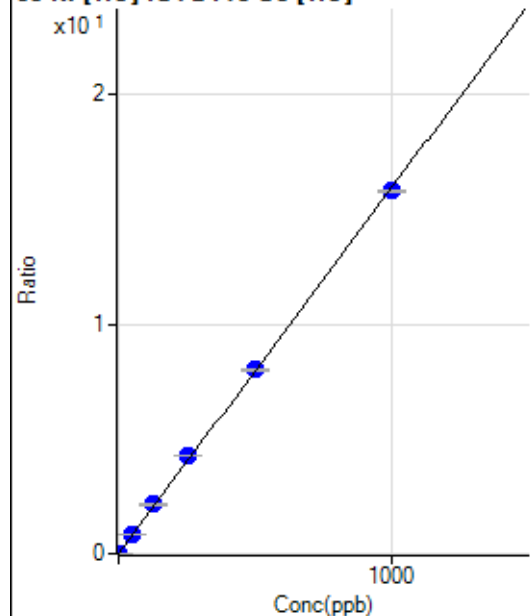
$$R = 0.9999$$

$$DL = 0.04919$$

$$BEC = 0.05713$$

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	81.11	0.0028	P	25.4
2	☐	0.100					
3	☐	1.000	1.097	610.03	0.0203	P	3.7
4	☐	50.000	52.230	24334.78	0.8351	P	0.5
5	☐	125.000	135.800	61590.99	2.1668	P	4.0
6	☐	250.000	268.061	116719.62	4.2744	P	1.0
7	☐	500.000	504.143	229540.72	8.0365	P	1.2
8	☐	1000.000	991.952	440312.27	15.8098	P	0.5
9	☐			18253.28	0.6176	P	1.4

$$y = 0.0159 * x + 0.0028$$

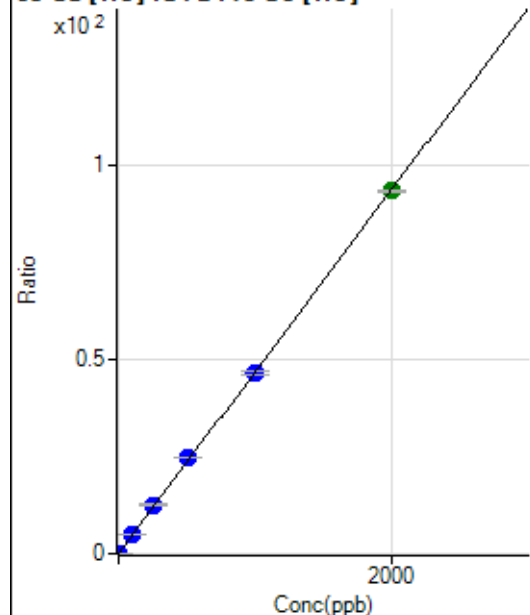
$$R = 0.9998$$

$$DL = 0.1356$$

$$BEC = 0.1779$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	904.49	0.0317	P	8.8
2	☐	0.200					
3	☐	2.000	2.066	3855.04	0.1285	P	1.8
4	☐	100.000	101.646	139552.40	4.7898	P	1.2
5	☐	250.000	265.498	354046.11	12.4597	P	5.2
6	☐	500.000	527.801	675487.12	24.7382	P	1.4
7	☐	1000.000	993.526	1329145.36	46.5388	P	2.2
8	☐	2000.000	1994.267	2600833.73	93.3836	A	0.2
9	☐			7593.34	0.2569	P	2.1

$$y = 0.0468 * x + 0.0317$$

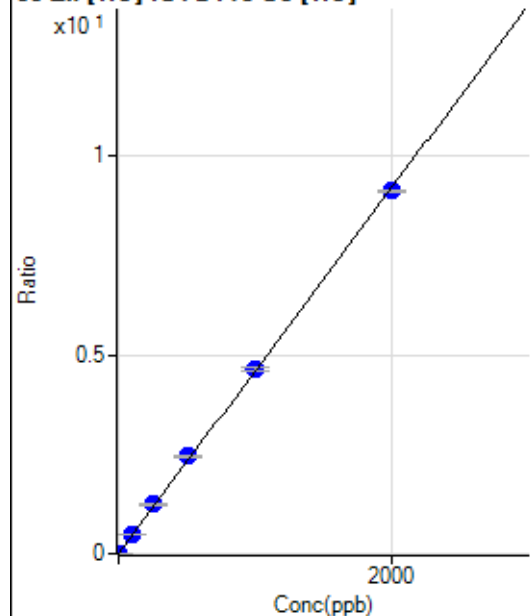
$$R = 0.9999$$

$$DL = 0.179$$

$$BEC = 0.6781$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0018	P	17.6
2	☐	0.200					
3	☐	2.000	2.310	371.12	0.0124	P	2.5
4	☐	100.000	105.049	14117.38	0.4845	P	1.0
5	☐	250.000	268.008	35061.09	1.2334	P	4.2
6	☐	500.000	533.088	66938.42	2.4516	P	2.0
7	☐	1000.000	1009.956	132602.00	4.6430	P	2.4
8	☐	2000.000	1984.246	254013.28	9.1204	P	0.4
9	☐			2698.09	0.0913	P	1.9

$$y = 0.0046 * x + 0.0018$$

$$R = 0.9998$$

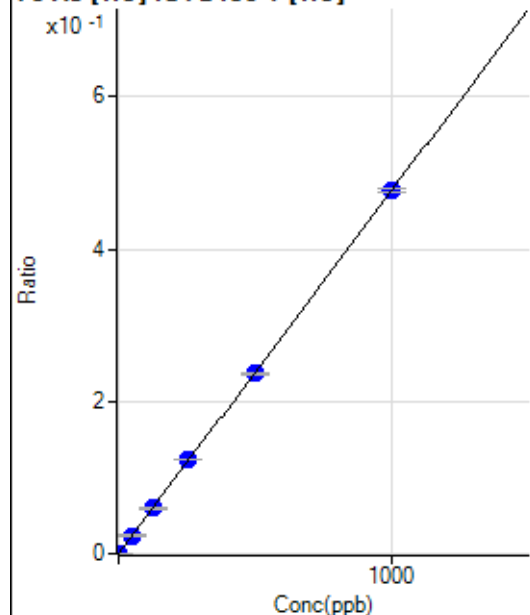
$$DL = 0.2018$$

$$BEC = 0.3814$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.94	0.0000	P	22.0
2	☐	0.100					
3	☐	1.000	1.133	114.82	0.0006	P	9.2
4	☐	50.000	50.030	4791.61	0.0239	P	2.5
5	☐	125.000	126.794	11850.85	0.0605	P	4.3
6	☐	250.000	258.521	22985.20	0.1232	P	0.4
7	☐	500.000	495.624	45594.66	0.2362	P	1.8
8	☐	1000.000	999.832	88620.54	0.4765	P	1.2
9	☐			166.05	0.0008	P	21.6

$$y = 4.7659\text{E-}004 * x + 2.5429\text{E-}005$$

$$R = 0.9999$$

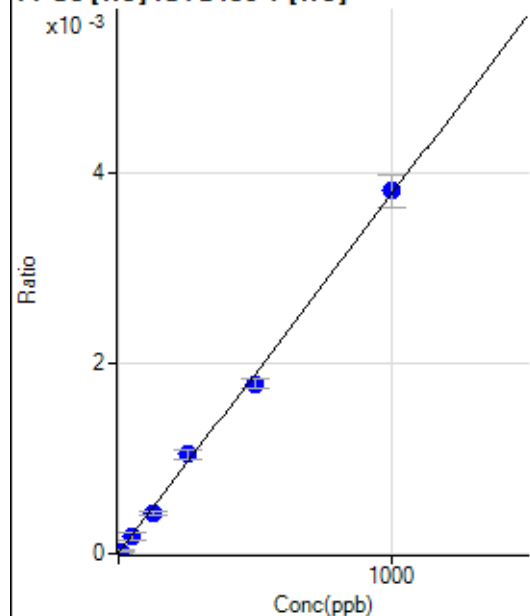
$$DL = 0.0352$$

$$BEC = 0.05336$$

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
2	☐	0.500					
3	☐	5.000	4.319	4.45	0.0000	P	86.6
4	☐	50.000	46.827	36.67	0.0002	P	38.3
5	☐	125.000	109.880	82.22	0.0004	P	11.5
6	☐	250.000	275.324	194.45	0.0010	P	9.1
7	☐	500.000	472.424	344.46	0.0018	P	5.7
8	☐	1000.000	1009.509	707.81	0.0038	P	8.9
9	☐			5.55	0.0000	P	125.5

$$y = 3.7668\text{E-}006 * x + 5.7131\text{E-}006$$

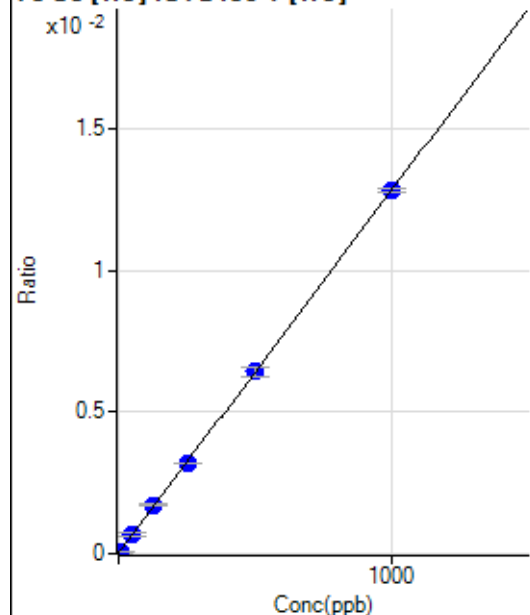
$$R = 0.9989$$

$$DL = 7.881$$

$$BEC = 1.517$$

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	2.47	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	5.197	16.05	0.0001	P	52.3
4	☐	50.000	52.287	137.04	0.0007	P	13.9
5	☐	125.000	132.931	336.43	0.0017	P	5.9
6	☐	250.000	249.834	598.78	0.0032	P	0.4
7	☐	500.000	500.781	1239.57	0.0064	P	5.6
8	☐	1000.000	998.544	2379.25	0.0128	P	1.0
9	☐			8.03	0.0000	P	26.7

$$y = 1.2799\text{E-}005 * x + 1.2690\text{E-}005$$

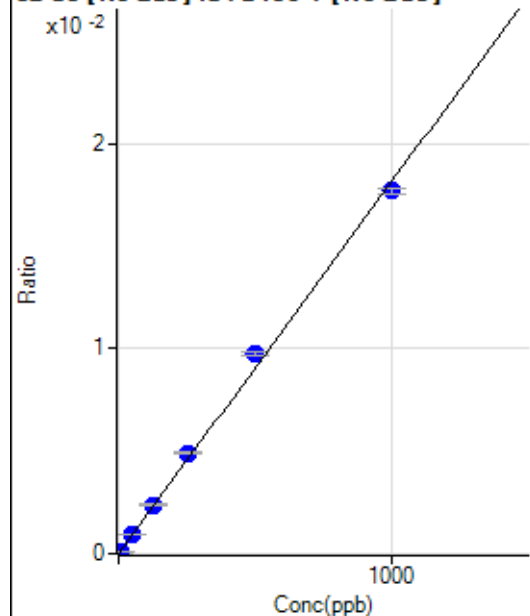
$$R = 1.0000$$

$$DL = 2.576$$

$$BEC = 0.9915$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-2.85	0.0000	P	-1417.
2	☐	0.500					
3	☐	5.000	4.935	452.62	0.0001	P	7.7
4	☐	50.000	49.780	4740.20	0.0009	P	1.5
5	☐	125.000	130.740	12433.74	0.0024	P	2.5
6	☐	250.000	270.414	24122.67	0.0049	P	1.0
7	☐	500.000	537.120	48876.85	0.0097	P	2.0
8	☐	1000.000	975.631	93422.34	0.0177	P	1.3
9	☐			88.72	0.0000	P	85.7

$$y = 1.8125\text{E-}005 * x - 6.0807\text{E-}007$$

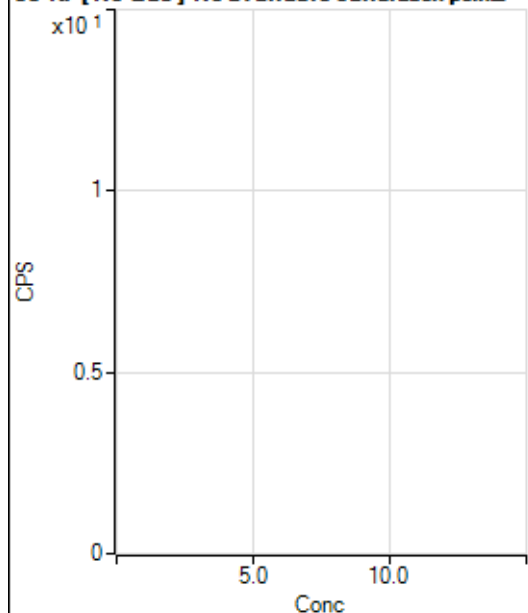
$$R = 0.9987$$

$$DL = 1.426$$

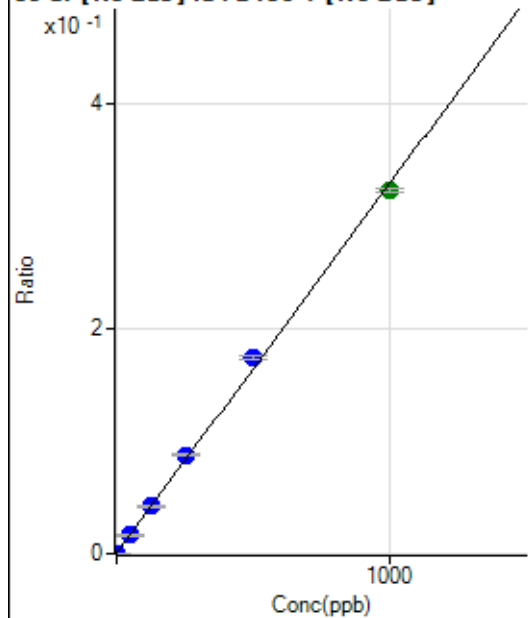
$$BEC = -0.03355$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			996.72		P	3.5
2	☐						
3	☐			1051.17		P	2.4
4	☐			1040.06		P	11.4
5	☐			912.27		P	1.8
6	☐			991.17		P	4.4
7	☐			1013.39		P	3.3
8	☐			1011.17		P	5.0
9	☐			1002.28		P	2.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1602.95	0.0003	P	9.0
2	☐	0.100					
3	☐	1.000	1.102	3511.74	0.0007	P	6.2
4	☐	50.000	49.168	86593.56	0.0165	P	5.9
5	☐	125.000	127.122	221087.57	0.0421	P	2.7
6	☐	250.000	265.662	431599.87	0.0877	P	1.7
7	☐	500.000	529.669	876173.67	0.1745	P	2.0
8	☐	1000.000	981.026	1706103.71	0.3229	A	1.1
9	☐			10295.98	0.0020	P	7.4

$$y = 3.2885E-004 * x + 3.2680E-004$$

$$R = 0.9992$$

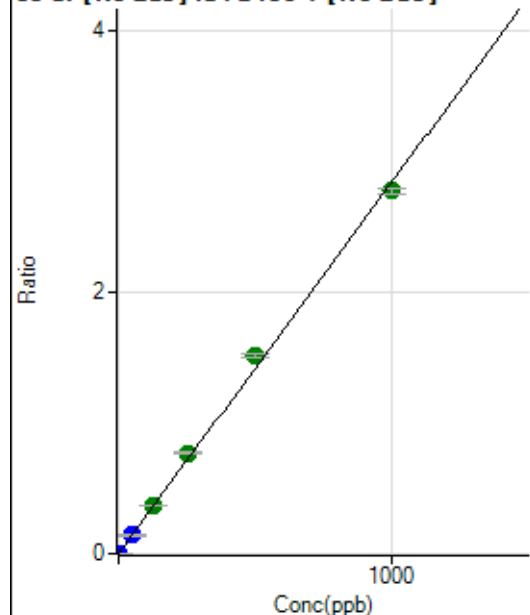
$$DL = 0.2697$$

$$BEC = 0.9938$$

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	144.45	0.0000	P	31.7
2	☐	0.100					
3	☐	1.000	1.077	15740.29	0.0031	P	6.5
4	☐	50.000	49.463	738205.27	0.1406	P	4.9
5	☐	125.000	129.276	1927868.38	0.3674	A	2.9
6	☐	250.000	270.472	3783146.40	0.7686	A	1.3
7	☐	500.000	532.889	7602720.13	1.5143	A	2.2
8	☐	1000.000	977.930	14681295.29	2.7789	A	1.4
9	☐			75565.26	0.0148	P	5.3

$$y = 0.0028 * x + 2.9445E-005$$

$$R = 0.9989$$

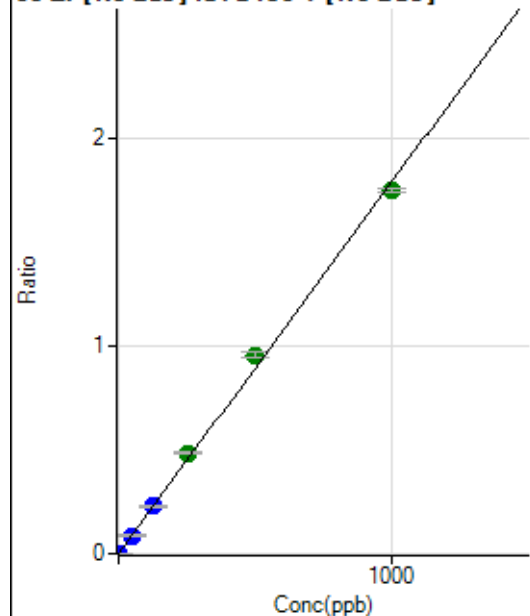
$$DL = 0.009857$$

$$BEC = 0.01036$$

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	325.02	0.0001	P	19.2
2	☐	0.100					
3	☐	1.000	1.077	10168.08	0.0020	P	5.3
4	☐	50.000	49.116	462211.71	0.0880	P	5.1
5	☐	125.000	127.797	1201428.57	0.2289	P	2.8
6	☐	250.000	271.574	2394162.14	0.4864	A	1.9
7	☐	500.000	534.759	4808049.93	0.9578	A	2.8
8	☐	1000.000	976.921	9243664.18	1.7496	A	1.1
9	☐			4912.22	0.0010	P	2.0

$$y = 0.0018 * x + 6.6242E-005$$

$$R = 0.9988$$

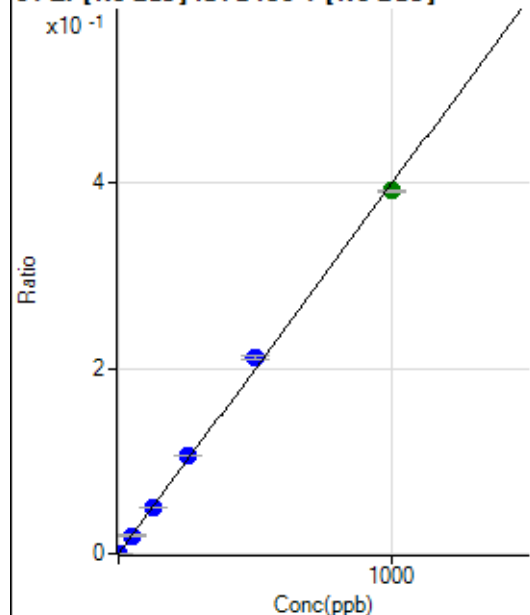
$$DL = 0.02131$$

$$BEC = 0.03699$$

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	72.22	0.0000	P	7.1
2	☐	0.100					
3	☐	1.000	1.055	2216.96	0.0004	P	11.0
4	☐	50.000	48.764	102210.26	0.0195	P	5.0
5	☐	125.000	125.315	262369.01	0.0500	P	3.0
6	☐	250.000	263.705	517816.55	0.1052	P	0.7
7	☐	500.000	530.139	1061692.22	0.2115	P	2.5
8	☐	1000.000	981.527	2068459.45	0.3915	A	0.9
9	☐			977.86	0.0002	P	18.8

$$y = 3.9887\text{E-}004 * x + 1.4727\text{E-}005$$

$$R = 0.9992$$

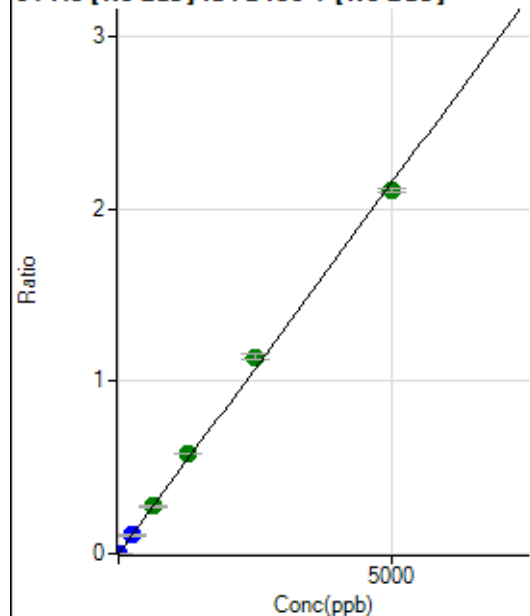
$$DL = 0.00789$$

$$BEC = 0.03692$$

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	169.45	0.0000	P	7.9
2	☐	0.500					
3	☐	5.000	5.478	12189.31	0.0024	P	5.0
4	☐	250.000	247.462	559509.83	0.1065	P	4.8
5	☐	625.000	637.788	1440912.49	0.2746	A	2.3
6	☐	1250.000	1350.189	2860879.60	0.5812	A	0.7
7	☐	2500.000	2656.556	5740699.17	1.1435	A	2.7
8	☐	5000.000	4895.203	11131919.00	2.1071	A	1.2
9	☐			15178.52	0.0030	P	5.0

$$y = 4.3043\text{E-}004 * x + 3.4551\text{E-}005$$

$$R = 0.9990$$

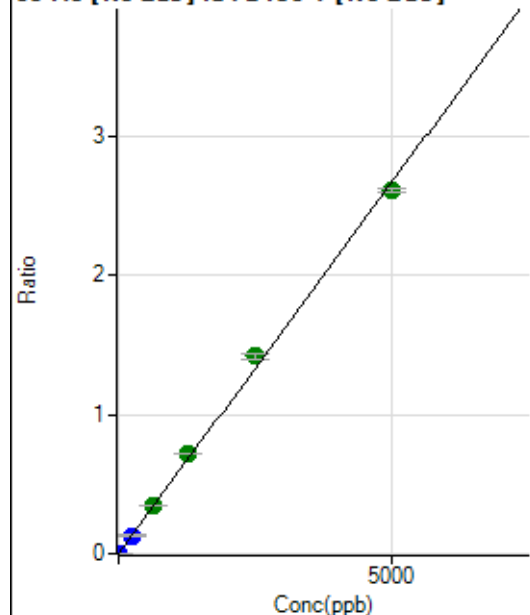
$$DL = 0.01902$$

$$BEC = 0.08027$$

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	108.34	0.0000	P	56.0
2	☐	0.500					
3	☐	5.000	5.249	14388.68	0.0028	P	4.4
4	☐	250.000	244.868	686397.04	0.1307	P	4.6
5	☐	625.000	645.022	1806883.70	0.3443	A	1.8
6	☐	1250.000	1346.925	3538569.18	0.7189	A	1.1
7	☐	2500.000	2665.196	7141181.41	1.4224	A	2.7
8	☐	5000.000	4890.924	13790504.30	2.6103	A	1.0
9	☐			23649.20	0.0046	P	4.4

$$y = 5.3369\text{E-}004 * x + 2.2130\text{E-}005$$

$$R = 0.9989$$

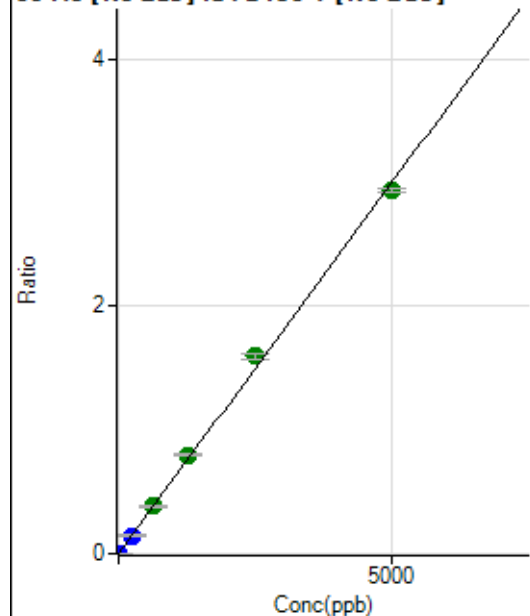
$$DL = 0.06962$$

$$BEC = 0.04146$$

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	119.45	0.0000	P	33.9
2	☐	0.500					
3	☐	5.000	5.239	16121.23	0.0032	P	2.4
4	☐	250.000	241.455	759538.86	0.1446	P	4.6
5	☐	625.000	641.581	2016730.13	0.3843	A	2.2
6	☐	1250.000	1333.069	3930103.95	0.7984	A	0.6
7	☐	2500.000	2666.327	8017190.63	1.5969	A	2.6
8	☐	5000.000	4894.423	15486811.98	2.9314	A	1.2
9	☐			26949.80	0.0053	P	2.0

$$y = 5.9892\text{E-}004 * x + 2.4327\text{E-}005$$

$$R = 0.9990$$

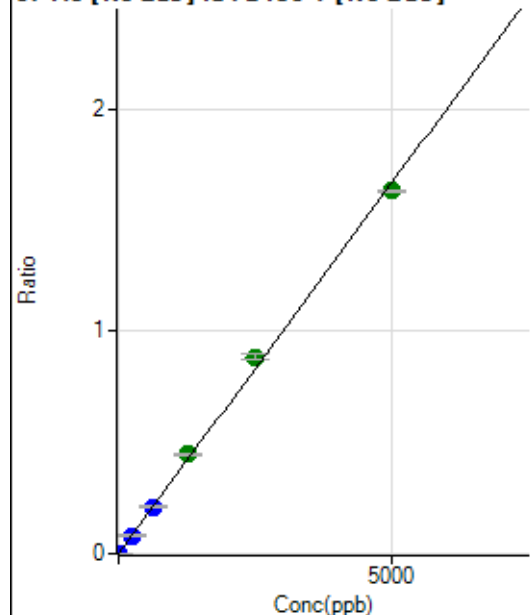
$$DL = 0.04131$$

$$BEC = 0.04062$$

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	133.34	0.0000	P	23.1
2	☐	0.500					
3	☐	5.000	5.238	9036.78	0.0018	P	6.1
4	☐	250.000	244.533	428360.03	0.0816	P	4.9
5	☐	625.000	631.422	1105116.05	0.2106	P	3.1
6	☐	1250.000	1339.047	2198297.12	0.4466	A	0.7
7	☐	2500.000	2658.771	4451872.45	0.8867	A	2.3
8	☐	5000.000	4897.823	8629959.31	1.6335	A	0.8
9	☐			14858.72	0.0029	P	4.7

$$y = 3.3350E-004 * x + 2.7205E-005$$

$$R = 0.9990$$

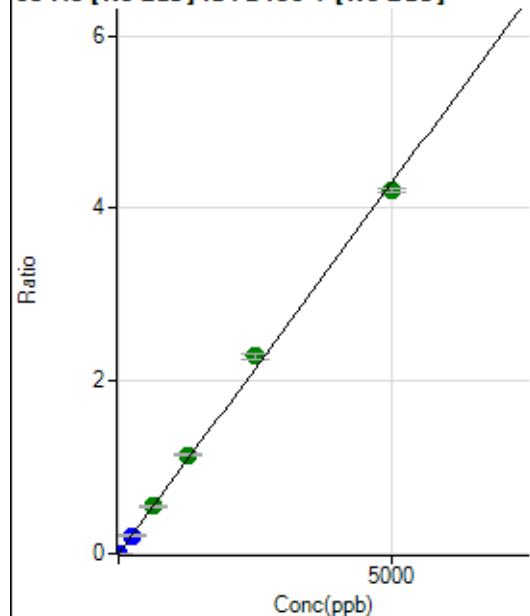
$$DL = 0.05648$$

$$BEC = 0.08157$$

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	186.12	0.0000	P	13.9
2	☐	0.500					
3	☐	5.000	5.186	22859.01	0.0045	P	4.1
4	☐	250.000	243.865	1098521.84	0.2092	P	4.9
5	☐	625.000	638.186	2872530.08	0.5474	A	3.1
6	☐	1250.000	1330.597	5617637.88	1.1413	A	1.5
7	☐	2500.000	2662.456	11465309.37	2.2837	A	2.4
8	☐	5000.000	4897.281	22192468.55	4.2006	A	1.1
9	☐			37369.29	0.0073	P	5.8

$$y = 8.5773E-004 * x + 3.7928E-005$$

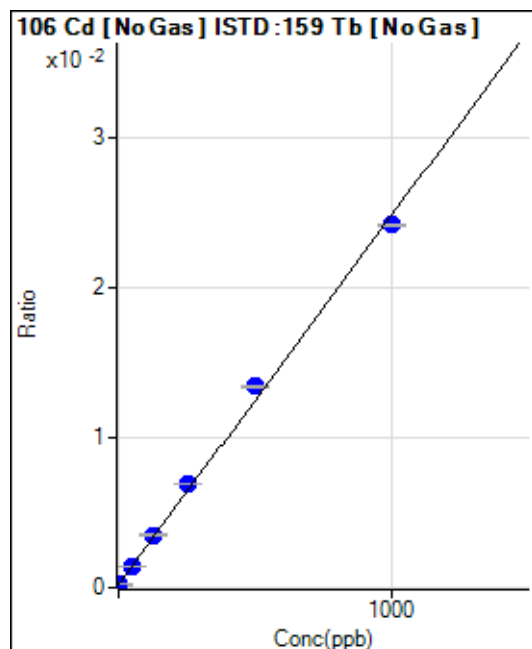
$$R = 0.9990$$

$$DL = 0.01847$$

$$BEC = 0.04422$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1130.66	0.0002	P	13.0
2	☐	0.100					
3	☐	1.000	0.499	1236.23	0.0002	P	6.3
4	☐	50.000	49.029	8553.10	0.0014	P	2.5
5	☐	125.000	132.832	21028.35	0.0035	P	3.6
6	☐	250.000	273.226	40113.69	0.0069	P	0.8
7	☐	500.000	537.119	80439.75	0.0134	P	1.2
8	☐	1000.000	974.704	153452.03	0.0242	P	0.4
9	☐			1247.34	0.0002	P	3.7

$$y = 2.4570\text{E-}005 * x + 2.0151\text{E-}004$$

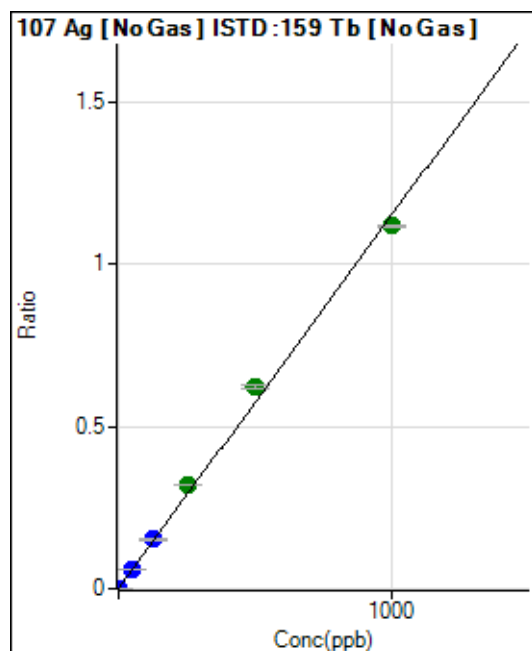
$$R = 0.9986$$

$$DL = 3.21$$

$$BEC = 8.201$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	97.23	0.0000	P	26.6
2	☐	0.100					
3	☐	1.000	1.106	7444.08	0.0013	P	5.5
4	☐	50.000	51.272	357979.17	0.0589	P	3.9
5	☐	125.000	132.697	925106.54	0.1524	P	3.2
6	☐	250.000	276.794	1844511.04	0.3180	A	0.2
7	☐	500.000	540.280	3725582.11	0.6206	A	1.6
8	☐	1000.000	972.136	7094979.33	1.1166	A	0.5
9	☐			19113.24	0.0033	P	101.6

$$y = 0.0011 * x + 1.7342\text{E-}005$$

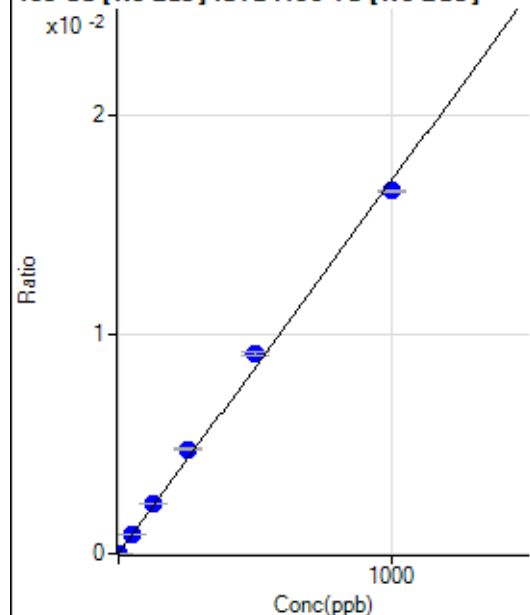
$$R = 0.9983$$

$$DL = 0.01206$$

$$BEC = 0.0151$$

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	11.11	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	1.074	116.67	0.0000	P	19.2
4	☐	50.000	51.963	5380.36	0.0009	P	3.0
5	☐	125.000	133.791	13812.87	0.0023	P	3.0
6	☐	250.000	279.418	27560.38	0.0048	P	1.6
7	☐	500.000	536.594	54759.51	0.0091	P	1.9
8	☐	1000.000	973.151	105102.85	0.0165	P	0.6
9	☐			51.39	0.0000	P	19.2

$$y = 1.6996\text{E-}005 * x + 1.9757\text{E-}006$$

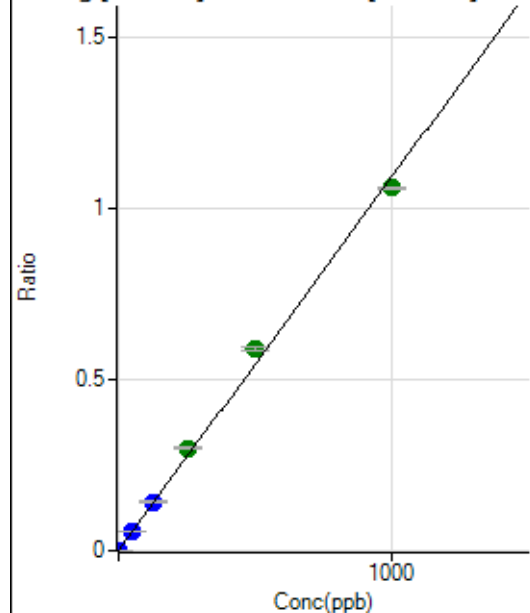
$$R = 0.9984$$

$$DL = 0.302$$

$$BEC = 0.1162$$

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	63.89	0.0000	P	46.1
2	☐	0.100					
3	☐	1.000	1.084	6910.44	0.0012	P	5.5
4	☐	50.000	50.901	337793.03	0.0556	P	5.5
5	☐	125.000	131.136	869403.92	0.1433	P	3.2
6	☐	250.000	274.957	1742407.61	0.3004	A	0.9
7	☐	500.000	542.144	3555120.87	0.5922	A	1.7
8	☐	1000.000	971.877	6745435.13	1.0616	A	0.4
9	☐			18106.05	0.0031	P	105.1

$$y = 0.0011 * x + 1.1398\text{E-}005$$

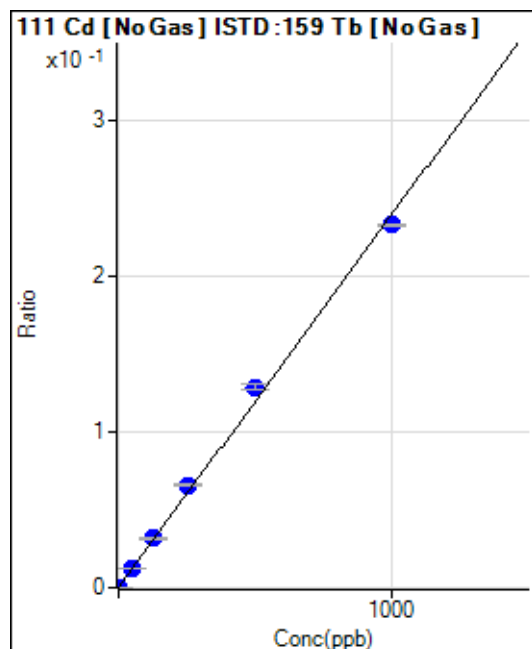
$$R = 0.9982$$

$$DL = 0.01444$$

$$BEC = 0.01043$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	793.40	0.0001	P	13.7
2	☐	0.100					
3	☐	1.000	1.113	2360.21	0.0004	P	2.6
4	☐	50.000	51.695	76083.60	0.0125	P	4.3
5	☐	125.000	132.489	193408.58	0.0319	P	3.0
6	☐	250.000	274.118	381607.19	0.0658	P	1.6
7	☐	500.000	538.892	775476.98	0.1292	P	2.2
8	☐	1000.000	973.504	1482087.78	0.2333	P	0.7
9	☐			1135.79	0.0002	P	1.4

$$y = 2.3947\text{E-}004 * x + 1.4141\text{E-}004$$

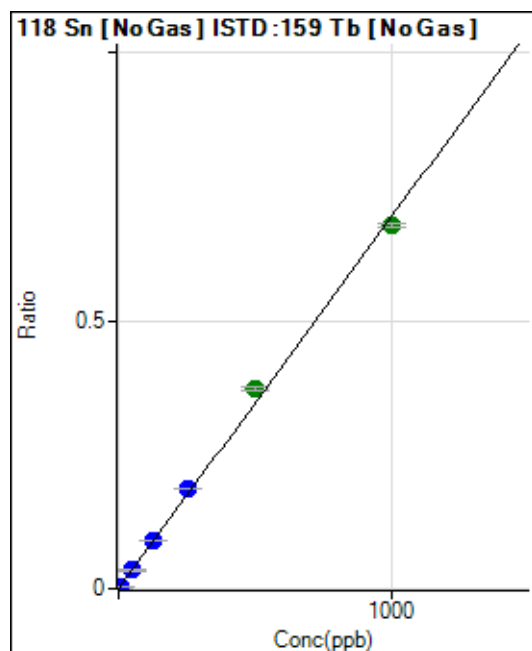
$$R = 0.9985$$

$$DL = 0.2428$$

$$BEC = 0.5905$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	216.68	0.0000	P	11.7
2	☐	0.500					
3	☐	5.000	5.470	22185.85	0.0038	P	4.4
4	☐	50.000	49.552	209201.76	0.0344	P	4.6
5	☐	125.000	129.249	544740.68	0.0898	P	2.7
6	☐	250.000	268.211	1080200.71	0.1862	P	1.1
7	☐	500.000	538.087	2242082.67	0.3735	A	2.5
8	☐	1000.000	975.893	4304071.88	0.6774	A	1.1
9	☐			6096.10	0.0010	P	5.9

$$y = 6.9412\text{E-}004 * x + 3.8629\text{E-}005$$

$$R = 0.9987$$

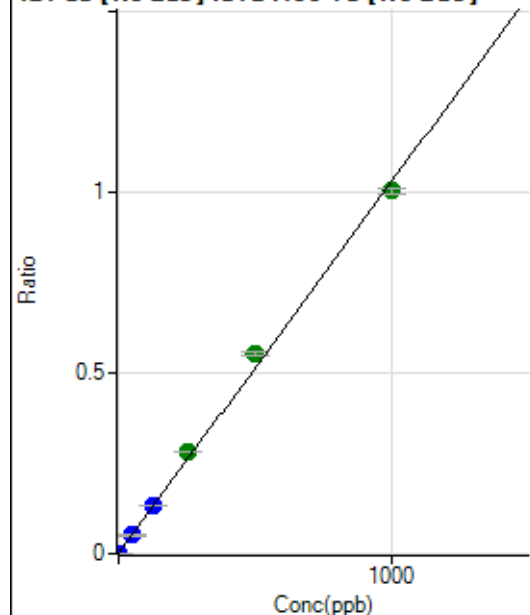
$$DL = 0.01953$$

$$BEC = 0.05565$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	144.45	0.0000	P	9.3
2	☐	0.200					
3	☐	2.000	2.093	12578.67	0.0022	P	8.8
4	☐	50.000	49.733	310755.60	0.0511	P	3.6
5	☐	125.000	129.651	808831.50	0.1333	P	2.6
6	☐	250.000	273.429	1630206.56	0.2810	A	0.9
7	☐	500.000	536.206	3307926.31	0.5511	A	2.1
8	☐	1000.000	975.471	6369225.97	1.0025	A	1.7
9	☐			11549.89	0.0019	P	7.8

$$y = 0.0010 * x + 2.5756E-005$$

$$R = 0.9986$$

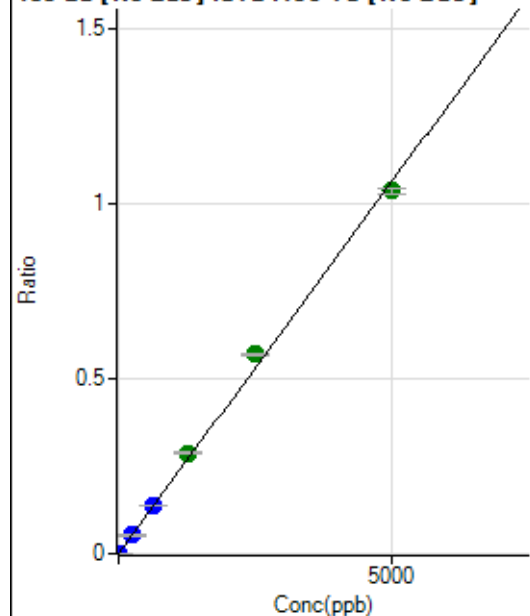
$$DL = 0.007006$$

$$BEC = 0.02506$$

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	19.44	0.0000	P	65.4
2	☐	1.000					
3	☐	10.000	10.523	12945.77	0.0022	P	6.7
4	☐	250.000	246.986	318771.13	0.0525	P	4.9
5	☐	625.000	643.169	829271.83	0.1366	P	2.7
6	☐	1250.000	1355.007	1669796.06	0.2878	A	1.5
7	☐	2500.000	2678.499	3415855.20	0.5690	A	1.5
8	☐	5000.000	4882.377	6589598.15	1.0372	A	1.6
9	☐			1683.52	0.0003	P	15.9

$$y = 2.1243E-004 * x + 3.4672E-006$$

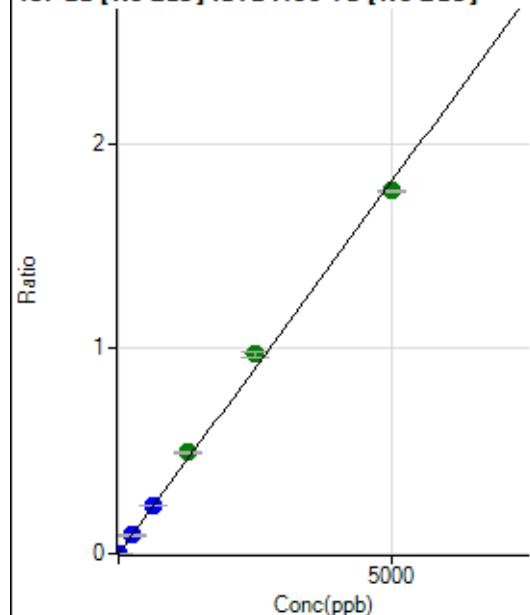
$$R = 0.9987$$

$$DL = 0.03202$$

$$BEC = 0.01632$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.11	0.0000	P	12.9
2	☐	1.000					
3	☐	10.000	10.594	22269.60	0.0038	P	4.3
4	☐	250.000	249.387	549611.45	0.0905	P	5.1
5	☐	625.000	649.395	1429863.51	0.2356	P	2.7
6	☐	1250.000	1360.014	2862232.94	0.4934	A	1.0
7	☐	2500.000	2681.528	5838589.28	0.9728	A	3.0
8	☐	5000.000	4878.713	11245288.70	1.7699	A	0.8
9	☐			3203.32	0.0005	P	6.0

$$y = 3.6277E-004 * x + 6.4344E-006$$

$$R = 0.9987$$

$$DL = 0.006875$$

$$BEC = 0.01774$$

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	100.0
2	☐						
3	☐			6.67		P	100.0
4	☐			17.78		P	94.4
5	☐			37.78		P	66.8
6	☐			68.89		P	24.4
7	☐			135.56		P	38.2
8	☐			237.79		P	3.2
9	☐			104.45		P	19.5

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			2.22		P	86.6
6	☐			2.22		P	86.6
7	☐			5.56		P	34.7
8	☐			4.45		P	86.6
9	☐			25.56		P	19.9

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐						
3	☐			25.00		P	88.2
4	☐			13.89		P	34.7
5	☐			25.00		P	115.5
6	☐			36.11		P	81.1
7	☐			50.00		P	16.7
8	☐			102.78		P	38.3
9	☐			69.45		P	27.7

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			3.33		P	100.1
6	☐			4.45		P	86.6
7	☐			5.56		P	34.7
8	☐			7.78		P	49.5
9	☐			6.67		P	50.0

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	34.7
2	☐						
3	☐			47.23		P	71.3
4	☐			55.56		P	17.3
5	☐			66.67		P	0.0
6	☐			77.78		P	16.4
7	☐			72.23		P	35.3
8	☐			83.34		P	43.6
9	☐			86.12		P	14.8

160 Gd [He] No available calibration points

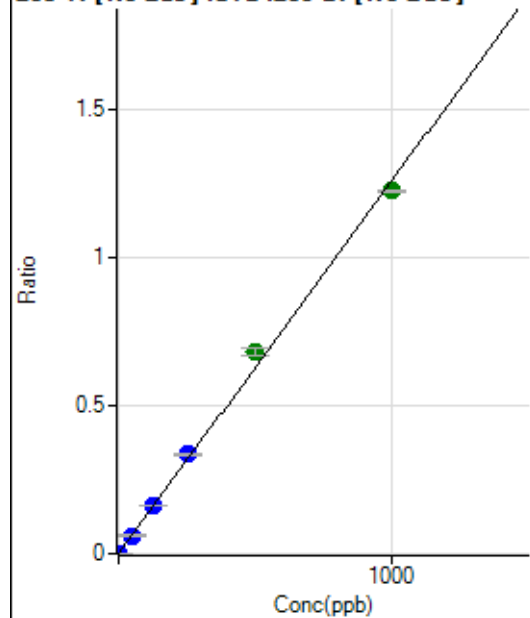
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			8.89		P	43.3
4	☐			8.89		P	57.3
5	☐			4.44		P	43.4
6	☐			10.00		P	88.2
7	☐			14.44		P	13.4
8	☐			10.00		P	33.3
9	☐			23.33		P	14.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	69.3
2	☐						
3	☐			33.34		P	43.3
4	☐			19.45		P	65.5
5	☐			27.78		P	34.6
6	☐			30.56		P	83.3
7	☐			44.45		P	39.0
8	☐			52.78		P	18.2
9	☐			58.34		P	24.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			4.45		P	86.6
4	☐			2.22		P	86.6
5	☐			8.89		P	78.1
6	☐			4.45		P	86.6
7	☐			8.89		P	43.3
8	☐			5.56		P	34.7
9	☐			3.33		P	100.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0000	P	59.1
2	☐	0.100					
3	☐	1.000	1.098	4965.11	0.0014	P	3.4
4	☐	50.000	48.514	228605.68	0.0611	P	5.8
5	☐	125.000	127.769	600917.74	0.1609	P	1.0
6	☐	250.000	266.117	1203463.49	0.3350	P	1.1
7	☐	500.000	542.939	2536229.03	0.6835	A	3.4
8	☐	1000.000	974.230	4846784.57	1.2264	A	0.3
9	☐			2086.39	0.0006	P	9.9

$$y = 0.0013 * x + 1.9957E-005$$

$$R = 0.9984$$

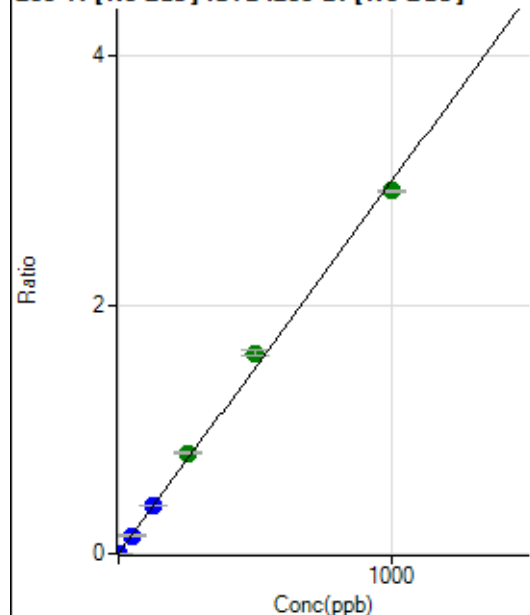
$$DL = 0.02812$$

$$BEC = 0.01585$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	200.01	0.0001	P	33.8
2	☐	0.100					
3	☐	1.000	1.093	11772.69	0.0033	P	2.5
4	☐	50.000	48.726	545833.65	0.1459	P	5.6
5	☐	125.000	128.272	1434006.24	0.3839	P	1.0
6	☐	250.000	271.075	2913853.30	0.8112	A	2.0
7	☐	500.000	538.325	5977804.08	1.6109	A	3.1
8	☐	1000.000	975.224	11532042.45	2.9182	A	0.8
9	☐			4803.92	0.0013	P	2.2

$$y = 0.0030 * x + 5.7544E-005$$

$$R = 0.9986$$

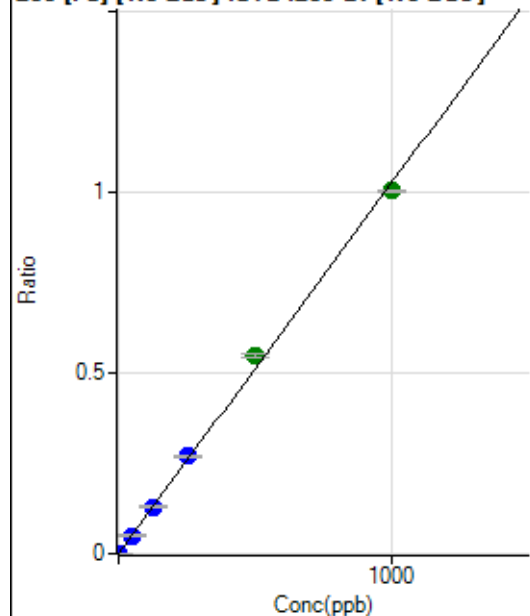
$$DL = 0.01951$$

$$BEC = 0.01923$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	392.61	0.0001	P	8.5
2	☐	0.100					
3	☐	1.000	1.099	4382.37	0.0012	P	3.5
4	☐	50.000	48.132	184985.16	0.0494	P	5.3
5	☐	125.000	126.791	485639.05	0.1300	P	1.7
6	☐	250.000	263.323	969511.07	0.2699	P	1.5
7	☐	500.000	534.804	2034178.04	0.5480	A	2.1
8	☐	1000.000	979.137	3964733.16	1.0033	A	0.8
9	☐			6872.46	0.0019	P	3.4

$$y = 0.0010 * x + 1.1285E-004$$

$$R = 0.9989$$

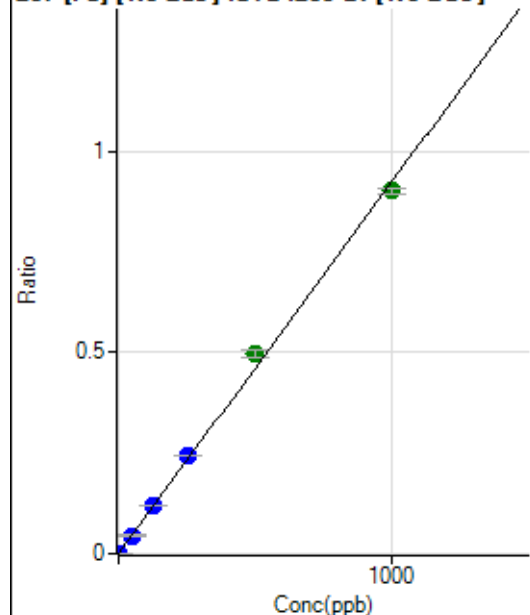
$$DL = 0.02802$$

$$BEC = 0.1101$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	353.72	0.0001	P	18.6
2	☐	0.100					
3	☐	1.000	1.111	3980.37	0.0011	P	6.5
4	☐	50.000	48.233	166878.72	0.0446	P	5.5
5	☐	125.000	127.315	439098.77	0.1175	P	0.6
6	☐	250.000	264.302	876122.93	0.2439	P	1.2
7	☐	500.000	538.038	1841910.37	0.4964	A	3.5
8	☐	1000.000	977.204	3562389.95	0.9015	A	1.5
9	☐			6036.81	0.0017	P	9.3

$$y = 9.2242\text{E-}004 * x + 1.0166\text{E-}004$$

$$R = 0.9988$$

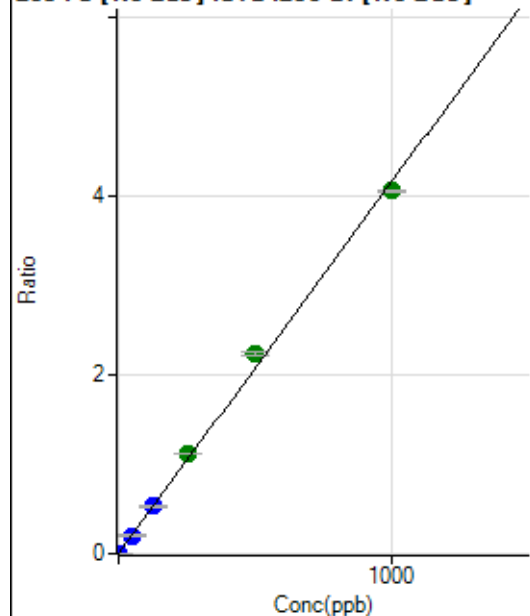
$$DL = 0.06165$$

$$BEC = 0.1102$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1659.35	0.0005	P	2.0
2	☐	0.100					
3	☐	1.000	1.089	17712.80	0.0050	P	3.2
4	☐	50.000	48.399	755543.65	0.2019	P	5.4
5	☐	125.000	127.010	1976152.91	0.5290	P	1.3
6	☐	250.000	268.215	4011201.13	1.1167	A	1.3
7	☐	500.000	537.923	8309615.56	2.2391	A	2.7
8	☐	1000.000	976.313	16057788.24	4.0635	A	0.8
9	☐			27458.72	0.0076	P	7.5

$$y = 0.0042 * x + 4.7689\text{E-}004$$

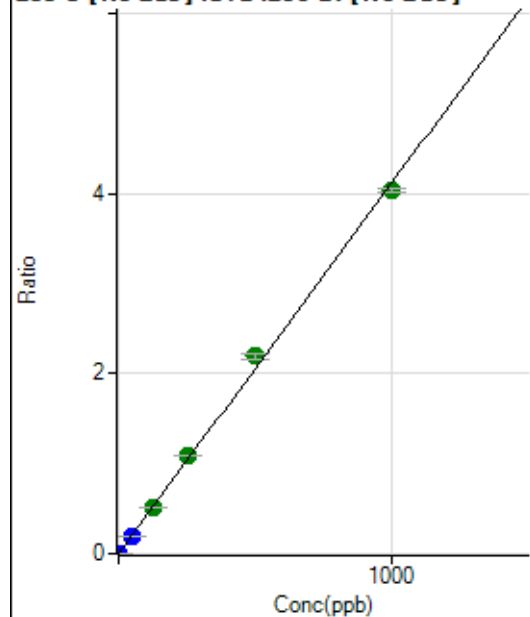
$$R = 0.9987$$

$$DL = 0.006933$$

$$BEC = 0.1146$$

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	52.78	0.0000	P	23.8
2	☐	0.100					
3	☐	1.000	1.039	15157.14	0.0043	P	4.8
4	☐	50.000	46.859	720797.21	0.1926	P	5.9
5	☐	125.000	125.707	1930352.65	0.5168	A	1.6
6	☐	250.000	264.854	3911194.10	1.0888	A	0.8
7	☐	500.000	533.667	8142114.59	2.1939	A	2.5
8	☐	1000.000	979.522	15912504.70	4.0267	A	1.0
9	☐			2964.38	0.0008	P	10.5

$$y = 0.0041 * x + 1.5161E-005$$

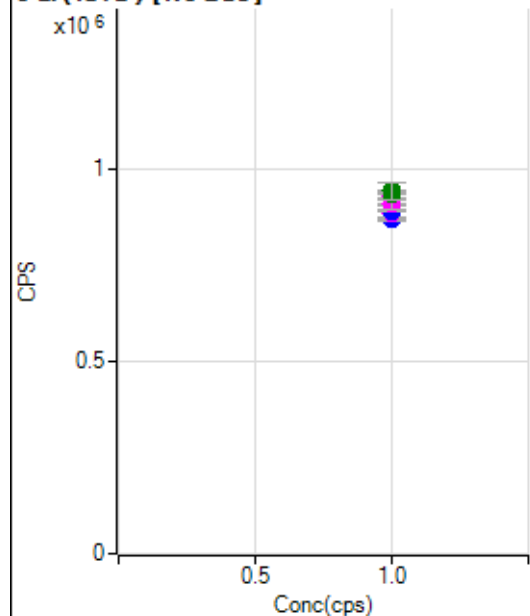
$$R = 0.9990$$

$$DL = 0.002631$$

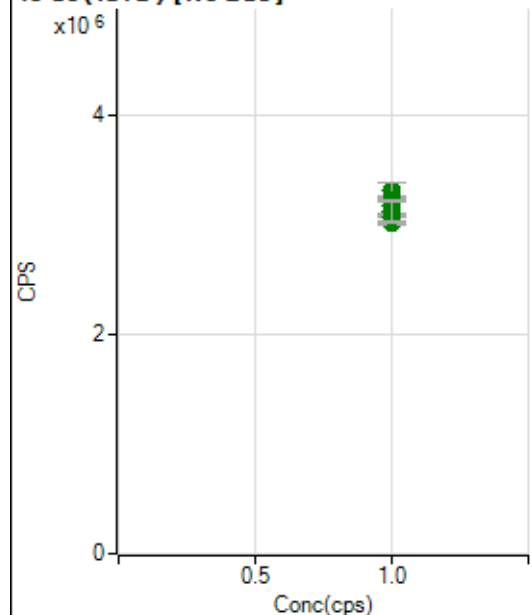
$$BEC = 0.003688$$

Weight: <None>

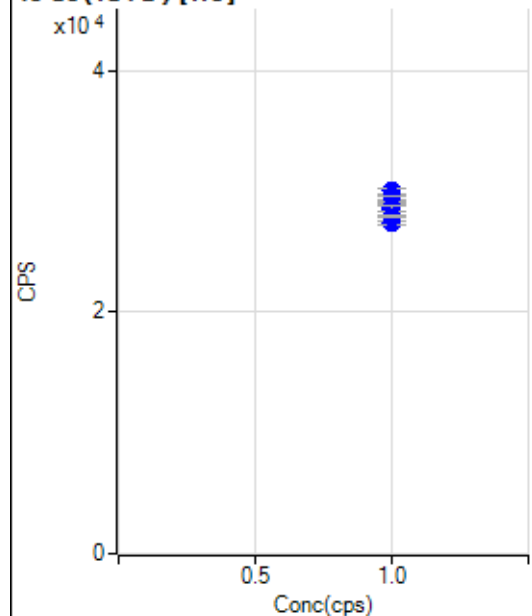
Min Conc: 0

6 Li (ISTD) [No Gas]

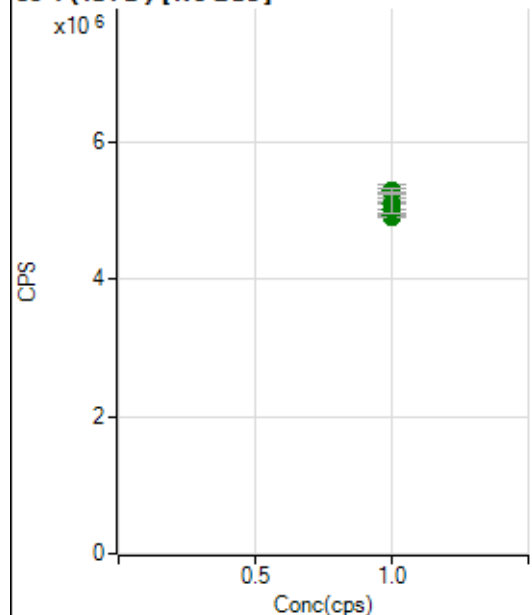
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		868523.64		P	0.5
2	☐	1.000					
3	☐	1.000		886816.65		M	2.3
4	☐	1.000		923905.75		M	4.4
5	☐	1.000		928504.05		M	3.4
6	☐	1.000		891821.61		P	0.5
7	☐	1.000		910310.00		M	3.5
8	☐	1.000		936603.53		A	0.5
9	☐	1.000		944174.99		A	4.9

45 Sc (ISTD) [No Gas]

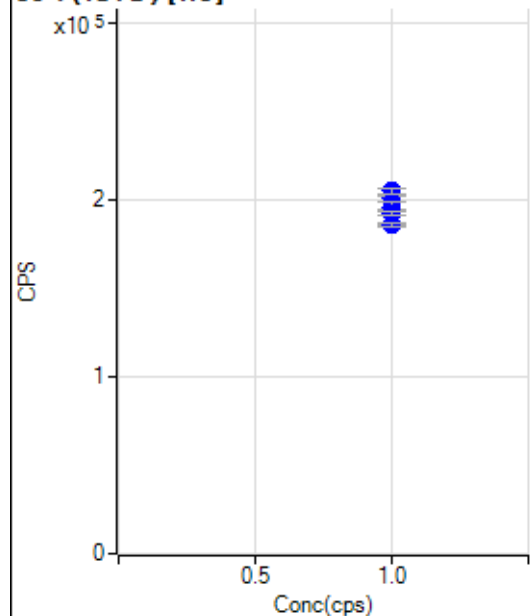
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3078866.04		A	0.6
2	☐	1.000					
3	☐	1.000		3175217.09		A	3.6
4	☐	1.000		3313985.60		A	4.1
5	☐	1.000		3235920.93		A	1.7
6	☐	1.000		3022905.10		A	1.2
7	☐	1.000		3069615.76		A	3.0
8	☐	1.000		3225626.96		A	0.9
9	☐	1.000		3122462.77		A	5.4

45 Sc (ISTD) [He]

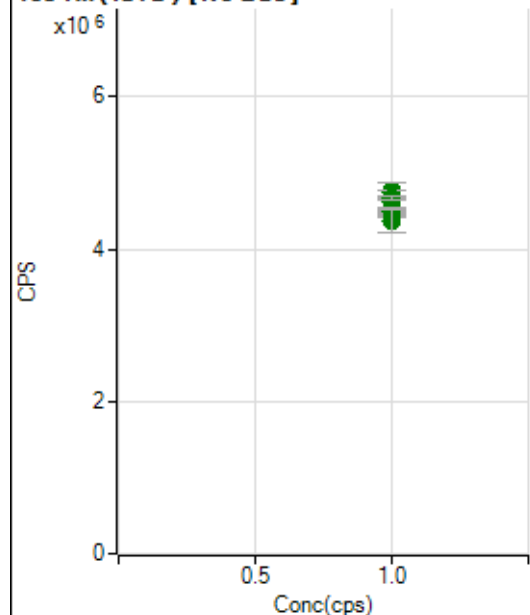
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		28523.57		P	1.8
2	☐	1.000					
3	☐	1.000		30010.02		P	1.6
4	☐	1.000		29138.25		P	1.3
5	☐	1.000		28457.91		P	4.5
6	☐	1.000		27308.92		P	1.3
7	☐	1.000		28564.77		P	1.3
8	☐	1.000		27851.13		P	0.6
9	☐	1.000		29558.16		P	0.3

89 Y (ISTD) [No Gas]

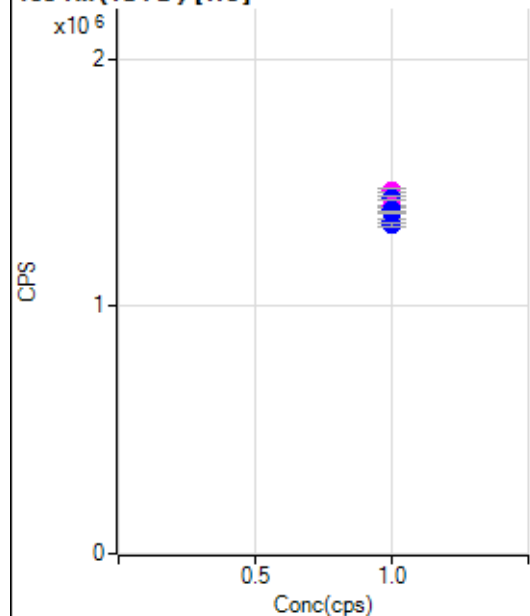
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4905361.59		A	0.5
2	☐	1.000					
3	☐	1.000		5099986.62		A	3.0
4	☐	1.000		5259186.24		A	4.8
5	☐	1.000		5250204.19		A	2.7
6	☐	1.000		4922539.51		A	1.1
7	☐	1.000		5022625.86		A	2.7
8	☐	1.000		5283483.67		A	0.9
9	☐	1.000		5099089.79		A	5.3

89 Y (ISTD) [He]

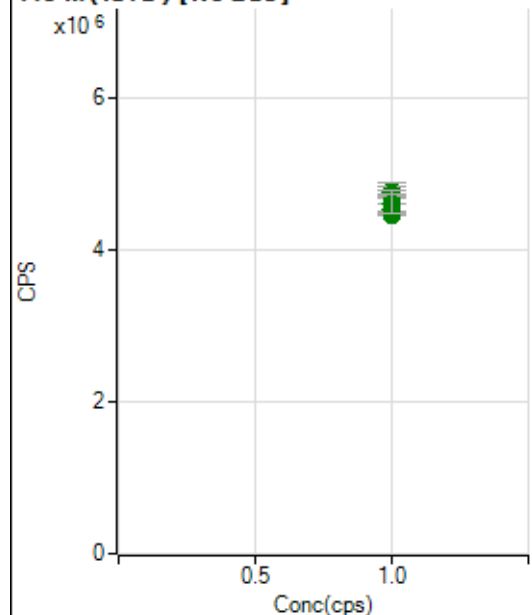
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		194348.76		P	0.3
2	☐	1.000					
3	☐	1.000		202983.49		P	0.6
4	☐	1.000		200761.56		P	1.2
5	☐	1.000		196168.79		P	2.8
6	☐	1.000		186520.32		P	0.6
7	☐	1.000		193031.16		P	1.2
8	☐	1.000		185985.96		P	1.2
9	☐	1.000		205224.80		P	1.5

103 Rh (ISTD) [No Gas]

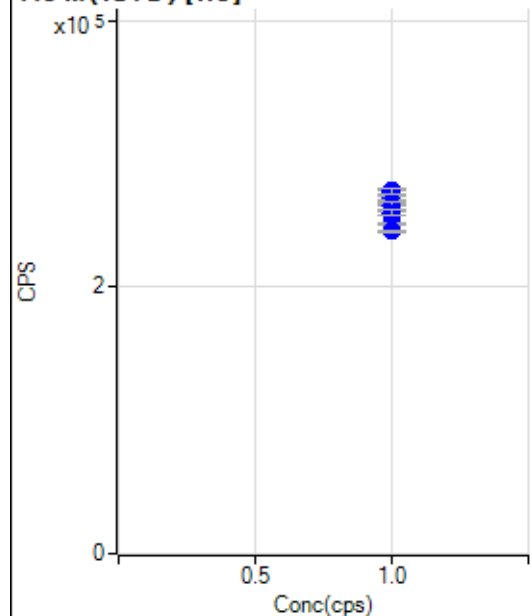
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4486538.60		A	0.7
2	☐	1.000					
3	☐	1.000		4611405.75		A	2.7
4	☐	1.000		4761646.55		A	4.4
5	☐	1.000		4732340.99		A	1.9
6	☐	1.000		4429065.94		A	0.5
7	☐	1.000		4480728.18		A	2.8
8	☐	1.000		4674374.97		A	1.1
9	☐	1.000		4364929.92		A	6.8

103 Rh (ISTD) [He]

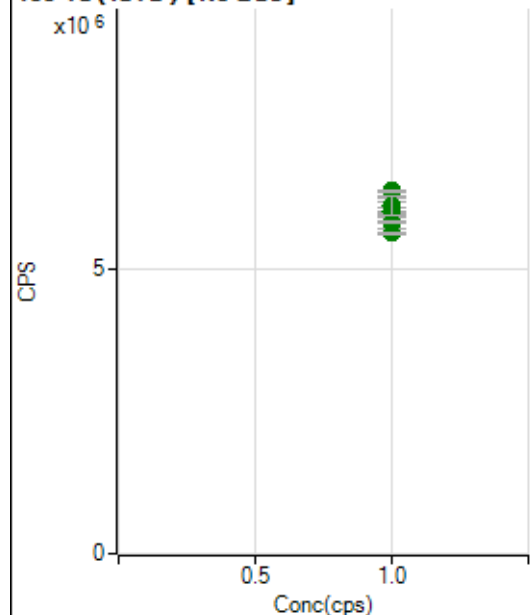
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1404573.77		P	0.8
2	☐	1.000					
3	☐	1.000		1467987.95		M	1.0
4	☐	1.000		1439332.53		P	1.0
5	☐	1.000		1406481.93		M	3.4
6	☐	1.000		1345592.24		P	1.0
7	☐	1.000		1390651.39		P	1.3
8	☐	1.000		1330671.60		P	0.8
9	☐	1.000		1382956.71		P	0.8

115 In (ISTD) [No Gas]

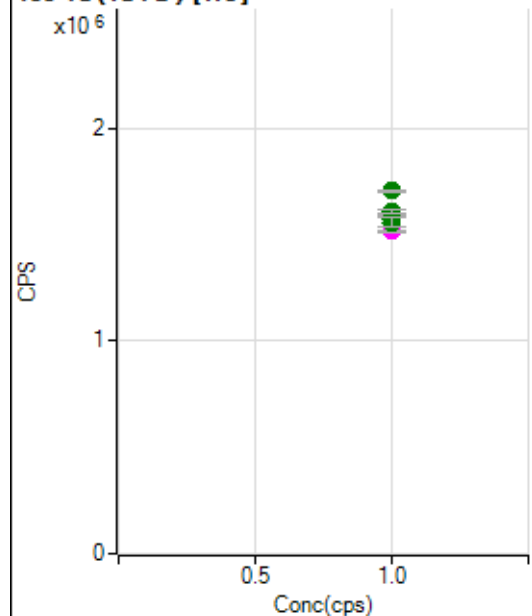
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4474805.27		A	0.7
2	☐	1.000					
3	☐	1.000		4610746.41		A	4.0
4	☐	1.000		4785713.08		A	4.2
5	☐	1.000		4773482.46		A	2.7
6	☐	1.000		4504005.85		A	0.3
7	☐	1.000		4550042.18		A	2.8
8	☐	1.000		4753969.09		A	1.2
9	☐	1.000		4607708.98		A	5.4

115 In (ISTD) [He]

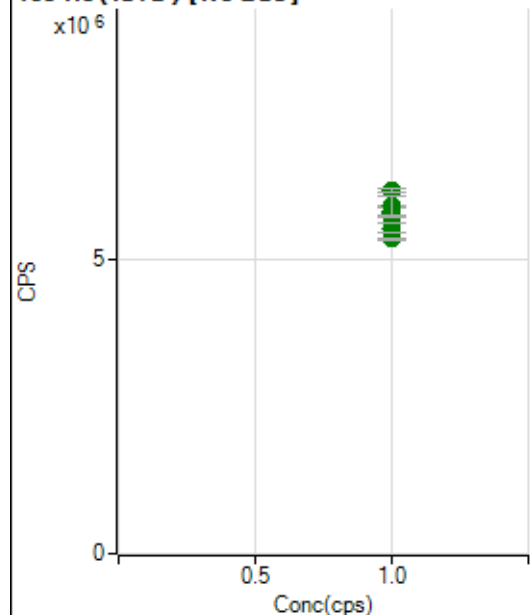
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		262239.57		P	0.7
2	☐	1.000					
3	☐	1.000		271526.99		P	0.8
4	☐	1.000		267383.73		P	0.9
5	☐	1.000		261141.03		P	2.8
6	☐	1.000		247763.53		P	1.1
7	☐	1.000		256016.04		P	1.4
8	☐	1.000		241930.74		P	0.2
9	☐	1.000		272423.94		P	1.6

159 Tb (ISTD) [No Gas]

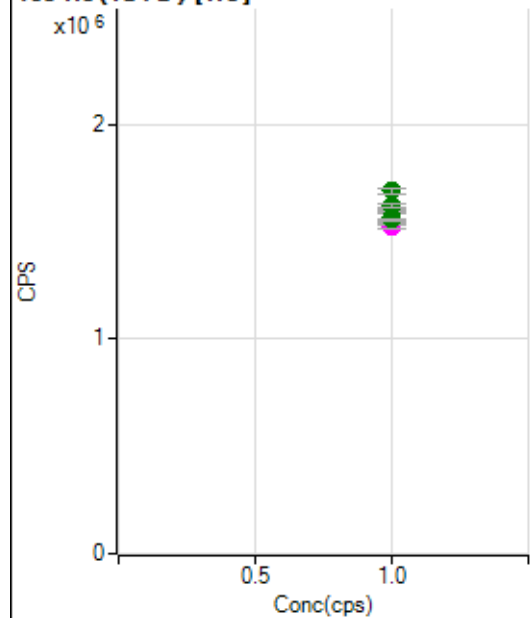
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		5610176.65		A	0.5
2	☐	1.000					
3	☐	1.000		5790990.54		A	3.9
4	☐	1.000		6083579.98		A	4.4
5	☐	1.000		6072266.37		A	2.7
6	☐	1.000		5801220.95		A	0.5
7	☐	1.000		6004681.99		A	2.4
8	☐	1.000		6353931.57		A	0.8
9	☐	1.000		6105209.00		A	5.6

159 Tb (ISTD) [He]

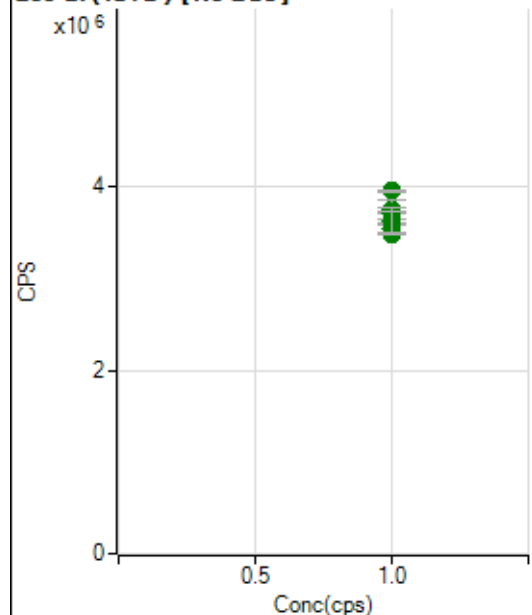
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1521329.19		M	0.1
2	☐	1.000					
3	☐	1.000		1607256.87		A	1.1
4	☐	1.000		1586141.32		A	0.6
5	☐	1.000		1569277.30		A	3.8
6	☐	1.000		1514468.12		M	1.0
7	☐	1.000		1607982.74		A	0.9
8	☐	1.000		1558058.26		A	2.4
9	☐	1.000		1704510.06		A	0.9

165 Ho (ISTD) [No Gas]

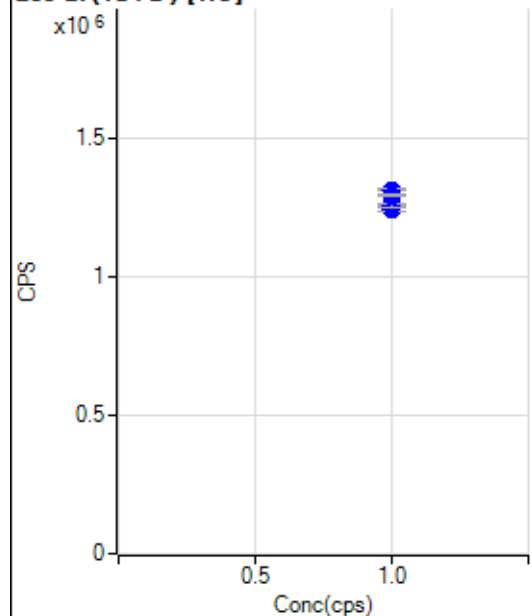
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5355413.14		A	0.4
2	☐	1.000					
3	☐	1.000		5539678.68		A	3.2
4	☐	1.000		5782702.73		A	5.3
5	☐	1.000		5824068.79		A	3.0
6	☐	1.000		5624773.26		A	0.1
7	☐	1.000		5823588.37		A	2.8
8	☐	1.000		6172910.04		A	1.1
9	☐	1.000		5918825.74		A	5.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1536356.63		A	0.9
2	☐	1.000					
3	☐	1.000		1595528.59		A	1.3
4	☐	1.000		1593047.27		A	0.9
5	☐	1.000		1571267.30		A	3.3
6	☐	1.000		1526315.80		M	1.0
7	☐	1.000		1619030.03		A	1.2
8	☐	1.000		1558023.22		A	0.5
9	☐	1.000		1690139.52		A	1.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3479762.31		A	0.5
2	☐	1.000					
3	☐	1.000		3539518.98		A	3.4
4	☐	1.000		3749247.06		A	5.2
5	☐	1.000		3736035.88		A	2.0
6	☐	1.000		3592344.98		A	0.7
7	☐	1.000		3713309.28		A	3.2
8	☐	1.000		3951919.94		A	0.8
9	☐	1.000		3622240.29		A	6.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1252709.59		P	0.7
2	☐	1.000					
3	☐	1.000		1297771.65		P	1.7
4	☐	1.000		1294443.12		P	0.0
5	☐	1.000		1286022.47		P	3.9
6	☐	1.000		1243555.44		P	1.8
7	☐	1.000		1307667.60		P	1.8
8	☐	1.000		1253958.89		P	0.8
9	☐	1.000		1291651.43		P	0.8

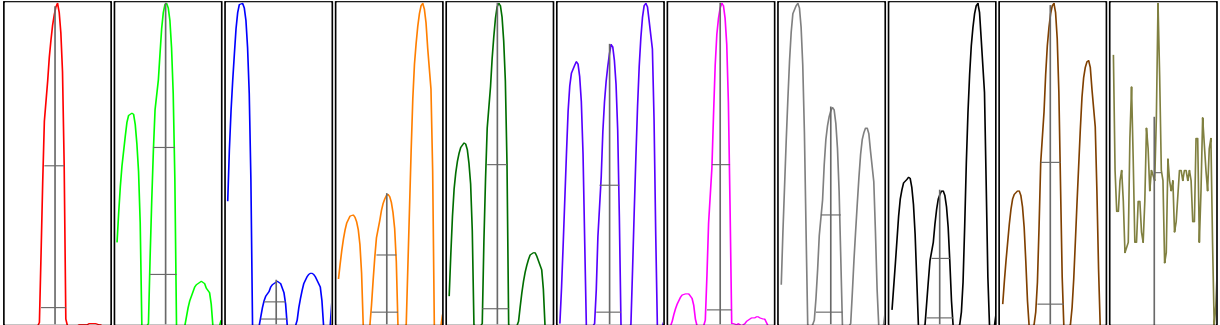
US EPA Tune Check Sample Report

Batch Folder D:\P8111318.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	4574	1.56	5.00	
24	43798	1.26	5.00	
25	6159	1.15	5.00	
26	7478	1.26	5.00	
59	50215	1.51	5.00	
113	6427	2.05	5.00	
115	75397	1.63	5.00	
206	17144	1.23	5.00	
207	15461	1.24	5.00	
208	36517	0.96	5.00	
220	1	19.62		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	4564	4570	4567	4684	4484
24	43806	43428	43617	44743	43394
25	6217	6143	6113	6247	6077
26	7508	7409	7429	7631	7411
59	50489	49768	49790	51425	49601
113	6510	6330	6366	6618	6312
115	76014	74351	74745	77270	74605
206	17235	16974	17041	17473	16996
207	15596	15266	15312	15718	15415
208	36784	36289	36329	36990	36193
220	1	1	1	1	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	8201	8.95	8.9 - 9.1		0.736	0.900	
24	77709	23.95	23.9 - 24.1		0.746	0.900	
25	10663	24.95	24.9 - 25.1		0.749	0.900	
26	12664	25.95	25.9 - 26.1		0.755	0.900	
59	90646	58.95	58.9 - 59.1		0.736	0.900	
113	12556	113.00	112.9 - 113.1		0.726	0.900	
115	146114	115.00	114.9 - 115.1		0.732	0.900	
206	32453	206.00	205.9 - 206.1		0.772	0.900	
207	29265	206.95	206.9 - 207.1		0.771	0.900	
208	69714	207.95	207.9 - 208.1		0.766	0.900	
220	2	219.75	-				

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	10.4	V	Deflect	16.0	V
Extract 2	-240.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-95	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	7060	3.25	
89	1856	4.09	
205	10259	2.01	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	6879	7020	7152	6842	7408
89	1789	1862	1884	1781	1966
205	10171	10250	10172	10088	10613

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	10.4	V	Deflect	3.2	V
Extract 2	-240.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-95	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			