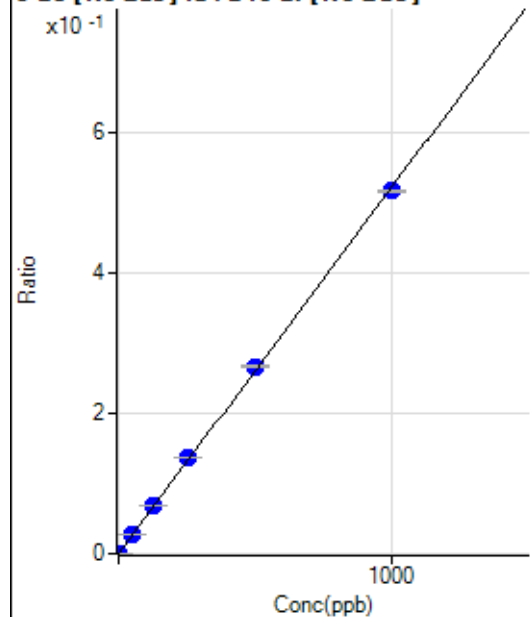


Calibration for 004CALS.d

Batch Folder: D:\ICP-MS Data\P7123119-MS .b\
 Analysis File: P7123119-MS .batch.bin
 DA Date-Time: 2020-01-01 02:24:29
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-31 15:40:44
2	004CALS.d	S02	2019-12-31 15:44:22
3	005CALS.d	S03	2019-12-31 15:49:08
4	006CALS.d	S04	2019-12-31 15:53:17
5	007CALS.d	S05	2019-12-31 15:57:10
6	008CALS.d	S06	2019-12-31 16:01:01
7	009CALS.d	S07	2019-12-31 16:04:51
8	010CALS.d	S08	2019-12-31 16:08:42

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0000	P	16.7
2	☐	1.000	1.026	3307.86	0.0006	P	4.0
3	☐	50.000	52.547	161960.10	0.0274	P	0.5
4	☐	125.000	132.197	391232.41	0.0689	P	0.7
5	☐	250.000	261.610	734573.17	0.1364	P	0.2
6	☐	500.000	510.037	1386172.63	0.2659	P	1.0
7	☐	1000.000	991.052	2592291.12	0.5166	P	0.5
8	☐			525.95	0.0001	P	11.9

$$y = 5.2124\text{E-}004 * x + 2.0481\text{E-}005$$

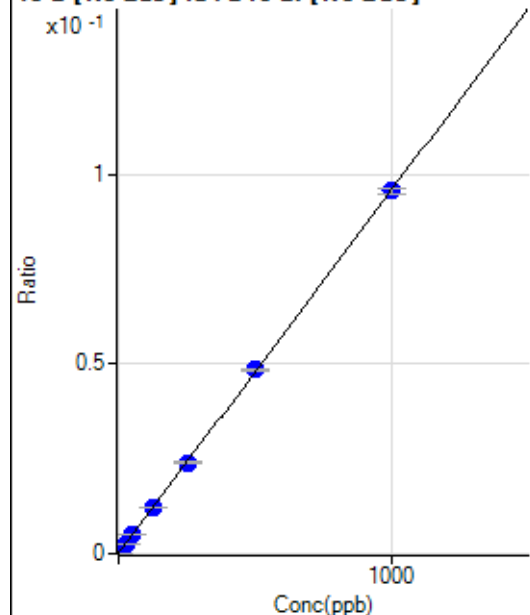
$$R = 0.9998$$

$$DL = 0.01968$$

$$BEC = 0.03929$$

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	641.71	0.0001	P	11.7
2	☐	25.000	24.323	14532.52	0.0024	P	2.4
3	☐	50.000	50.227	29067.56	0.0049	P	3.5
4	☐	125.000	124.970	68573.39	0.0121	P	2.2
5	☐	250.000	249.517	129344.20	0.0240	P	2.1
6	☐	500.000	504.552	252586.45	0.0484	P	1.8
7	☐	1000.000	997.854	480257.64	0.0957	P	1.5
8	☐			13450.94	0.0028	P	9.0

$$y = 9.5809\text{E-}005 * x + 1.0748\text{E-}004$$

$$R = 1.0000$$

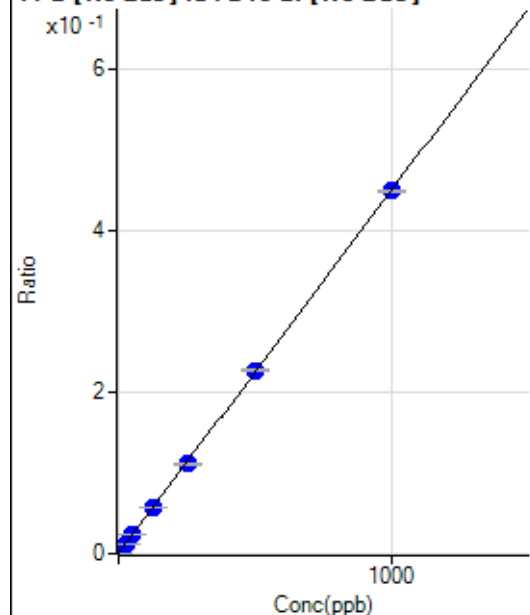
$$DL = 0.3941$$

$$BEC = 1.122$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2903.19	0.0005	P	8.0
2	☐	25.000	24.781	69315.10	0.0116	P	0.7
3	☐	50.000	50.664	137448.62	0.0233	P	2.0
4	☐	125.000	127.080	327044.44	0.0576	P	1.8
5	☐	250.000	247.476	601871.82	0.1117	P	2.1
6	☐	500.000	504.486	1184937.24	0.2273	P	1.4
7	☐	1000.000	998.100	2254025.61	0.4492	P	0.9
8	☐			62238.41	0.0127	P	10.4

$$y = 4.4956\text{E-}004 * x + 4.8636\text{E-}004$$

$$R = 1.0000$$

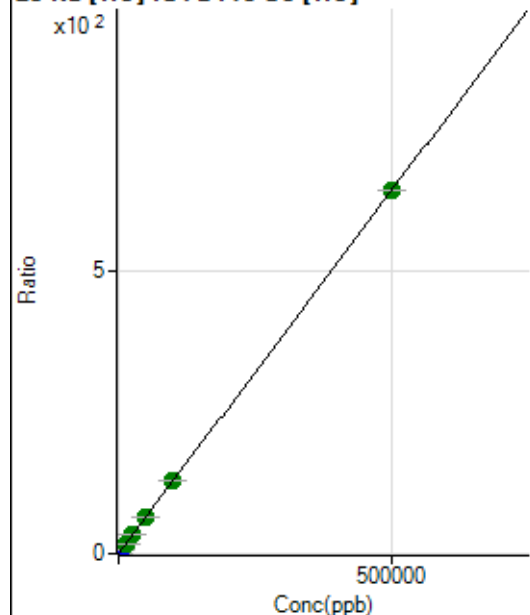
$$DL = 0.2599$$

$$BEC = 1.082$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	14371.23	0.0315	P	2.9
2	☐	500.000	497.813	310237.47	0.6688	P	0.9
3	☐	5000.000	5160.299	2934423.29	6.6385	P	0.2
4	☐	12500.000	12983.302	7167321.26	16.6547	A	0.3
5	☐	25000.000	25793.825	13604443.36	33.0567	A	1.0
6	☐	50000.000	51072.130	26134162.22	65.4219	A	0.5
7	☐	100000.00	100468.03	52105502.90	128.6662	A	0.6
8	☐	500000.00	499745.80	253516619.5	639.8836	A	0.2

$$y = 0.0013 * x + 0.0315$$

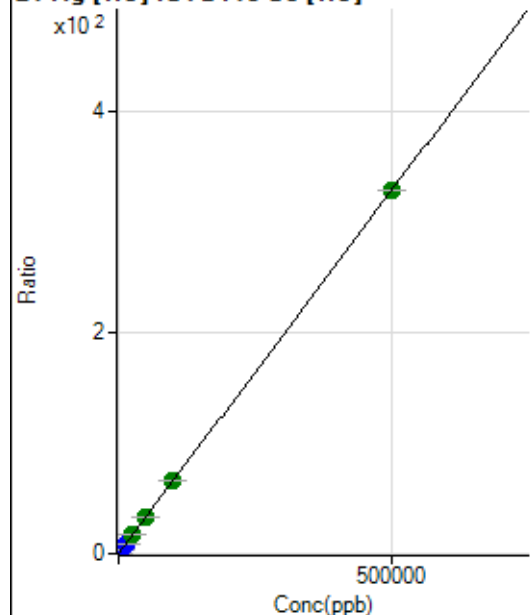
$$R = 1.0000$$

$$DL = 2.144$$

$$BEC = 24.57$$

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	305.57	0.0007	P	9.9
2	☐	500.000	526.833	160874.52	0.3468	P	1.1
3	☐	5000.000	5226.395	1518252.02	3.4346	P	0.3
4	☐	12500.000	13174.678	3725517.14	8.6570	P	0.4
5	☐	25000.000	26055.896	7045919.86	17.1205	A	0.9
6	☐	50000.000	51441.586	13502195.96	33.7999	A	0.5
7	☐	100000.00	100613.35	26771641.92	66.1079	A	0.4
8	☐	500000.00	499661.21	130068108.4	328.2990	A	0.2

$$y = 6.5704\text{E-}004 * x + 6.6908\text{E-}004$$

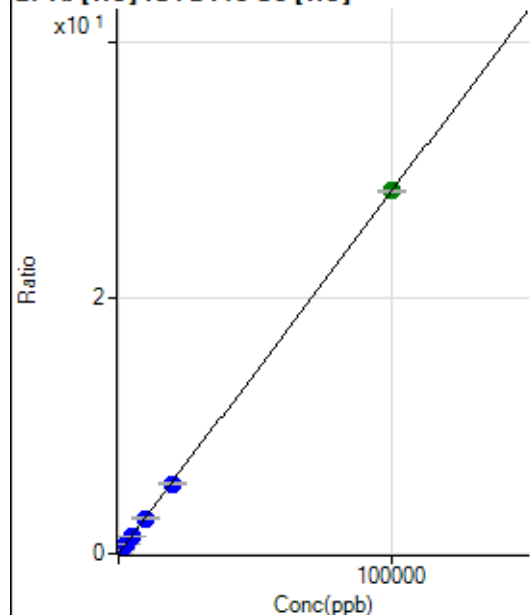
$$R = 1.0000$$

$$DL = 0.3018$$

$$BEC = 1.018$$

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	19.44	0.0000	P	89.3
2	☐	20.000	19.237	2544.78	0.0055	P	6.2
3	☐	1000.000	1003.410	125578.67	0.2841	P	1.1
4	☐	2500.000	2501.155	304696.20	0.7080	P	0.7
5	☐	5000.000	4954.526	577162.38	1.4024	P	1.3
6	☐	10000.000	9820.511	1110450.99	2.7798	P	0.5
7	☐	20000.000	19310.522	2213563.09	5.4660	P	0.8
8	☐	100000.00	100158.05	11231888.45	28.3503	A	0.4

$$y = 2.8306\text{E-}004 * x + 4.2391\text{E-}005$$

$$R = 1.0000$$

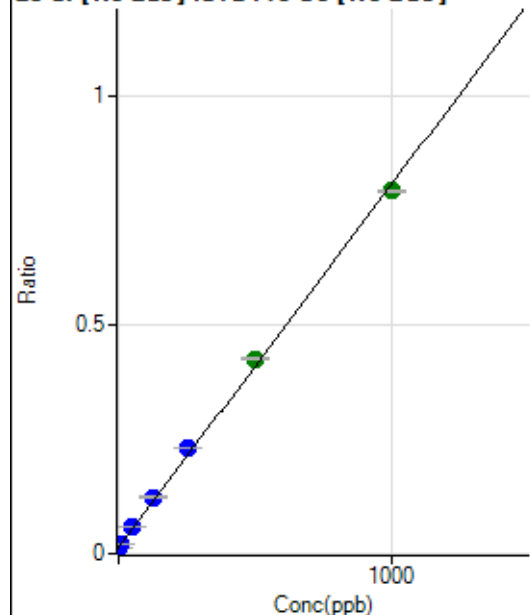
$$DL = 0.4012$$

$$BEC = 0.1498$$

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	163812.28	0.0133	P	0.5
2	☐	10.000	9.364	255309.98	0.0207	P	0.8
3	☐	50.000	55.285	690212.56	0.0571	P	0.7
4	☐	125.000	138.662	1423621.69	0.1231	P	2.0
5	☐	250.000	274.136	2567924.95	0.2304	P	0.7
6	☐	500.000	519.428	4663164.17	0.4248	A	0.7
7	☐	1000.000	982.286	8465992.38	0.7915	A	0.4
8	☐			943090.24	0.0905	P	0.9

$$y = 7.9222\text{E-}004 * x + 0.0133$$

$$R = 0.9993$$

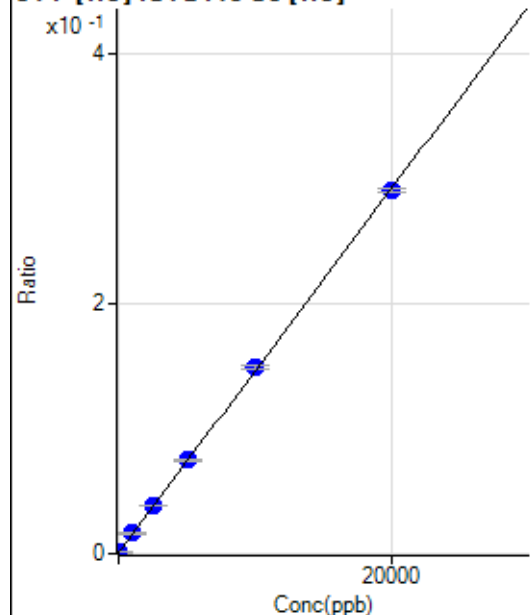
$$DL = 0.2701$$

$$BEC = 16.74$$

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	-28.470	83.34	0.0002	P	30.8
2	☐	0.000	28.470	469.47	0.0010	P	11.4
3	☐	1000.000	1076.868	7199.23	0.0163	P	4.0
4	☐	2500.000	2589.917	16490.34	0.0383	P	2.0
5	☐	5000.000	5078.859	30688.11	0.0746	P	2.7
6	☐	10000.000	10180.027	59472.14	0.1489	P	2.1
7	☐	20000.000	19875.189	117482.72	0.2901	P	1.0
8	☐			169.45	0.0004	P	23.5

$$y = 1.4566\text{E-}005 * x + 5.9742\text{E-}004$$

$$R = 0.9999$$

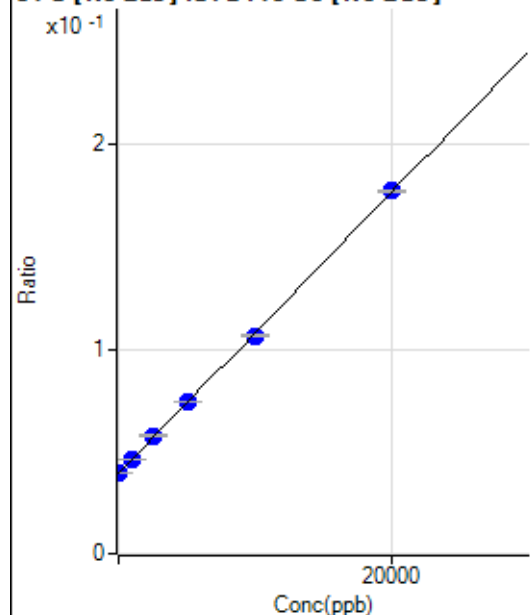
$$DL = 17.67$$

$$BEC = 41.01$$

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	-19.349	484490.53	0.0392	P	0.5
2	☐	0.000	19.349	487499.69	0.0395	P	1.1
3	☐	1000.000	992.556	558568.67	0.0462	P	0.1
4	☐	2500.000	2666.272	667133.92	0.0577	P	0.6
5	☐	5000.000	5059.966	826252.87	0.0741	P	0.8
6	☐	10000.000	9774.258	1169890.21	0.1066	P	0.5
7	☐	20000.000	20077.468	1897775.52	0.1774	P	0.5
8	☐			387856.17	0.0372	P	0.3

$$y = 6.8765E-006 * x + 0.0393$$

R = 0.9999

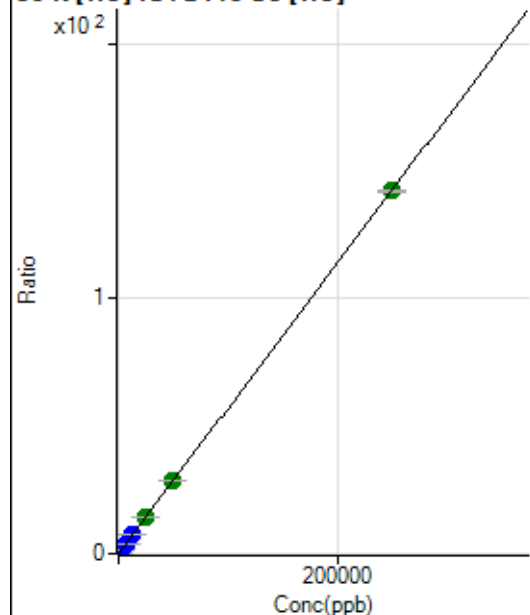
DL = 141.5

BEC = 5722

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	16737.81	0.0366	P	1.1
2	☐	500.000	505.841	150581.81	0.3246	P	1.3
3	☐	2500.000	2570.181	663009.80	1.5000	P	0.6
4	☐	6250.000	6434.219	1592250.27	3.6999	P	0.5
5	☐	12500.000	12732.387	2998560.14	7.2857	P	0.4
6	☐	25000.000	25080.655	5718888.76	14.3161	A	0.4
7	☐	50000.000	49774.772	11491330.99	28.3756	A	0.1
8	☐	250000.00	250020.04	56410628.35	142.3838	A	0.2

$$y = 5.6934E-004 * x + 0.0366$$

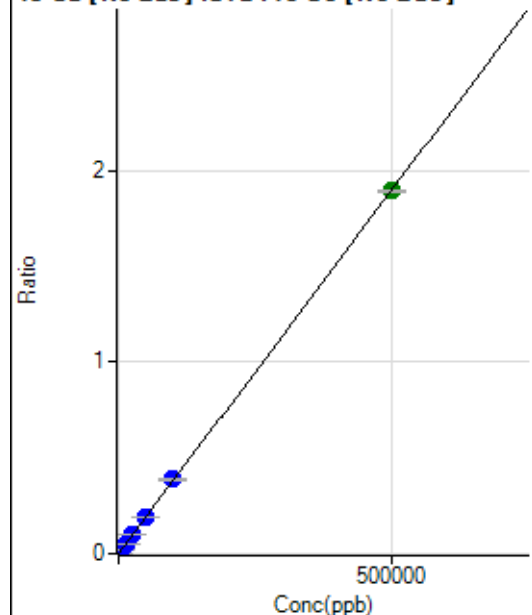
R = 1.0000

DL = 2.031

BEC = 64.36

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	230.57	0.0000	P	14.0
2	☐	500.000	500.639	23650.24	0.0019	P	0.7
3	☐	5000.000	5153.322	236393.96	0.0195	P	0.8
4	☐	12500.000	12966.410	568294.66	0.0491	P	1.0
5	☐	25000.000	25989.117	1097396.96	0.0985	P	0.8
6	☐	50000.000	51023.806	2122304.80	0.1933	P	0.8
7	☐	100000.00	102119.44	4138489.94	0.3869	P	0.6
8	☐	500000.00	499411.08	19718304.44	1.8920	A	0.5

$$y = 3.7884\text{E-}006 * x + 1.8668\text{E-}005$$

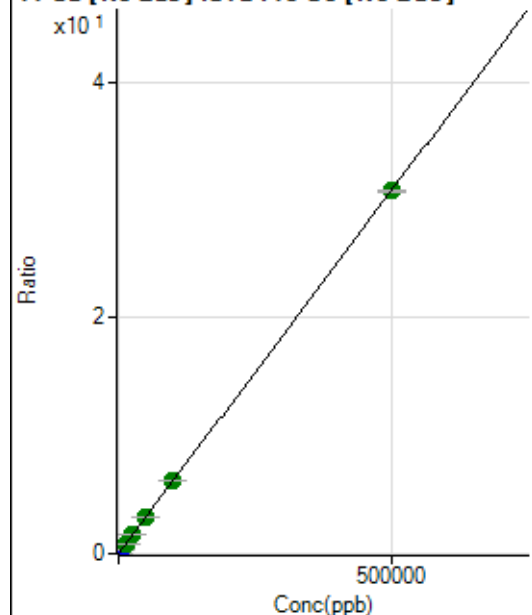
$$R = 1.0000$$

$$DL = 2.073$$

$$BEC = 4.928$$

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	7407.78	0.0006	P	1.9
2	☐	500.000	490.829	380348.21	0.0308	P	0.3
3	☐	5000.000	5137.724	3831707.08	0.3168	P	0.4
4	☐	12500.000	12842.384	9146382.75	0.7909	A	0.4
5	☐	25000.000	25679.263	17615871.05	1.5808	A	0.5
6	☐	50000.000	50786.340	34315640.00	3.1258	A	0.6
7	☐	100000.00	101542.05	66844657.05	6.2490	A	0.5
8	☐	500000.00	499569.06	320386587.7	30.7418	A	0.6

$$y = 6.1535\text{E-}005 * x + 5.9964\text{E-}004$$

$$R = 1.0000$$

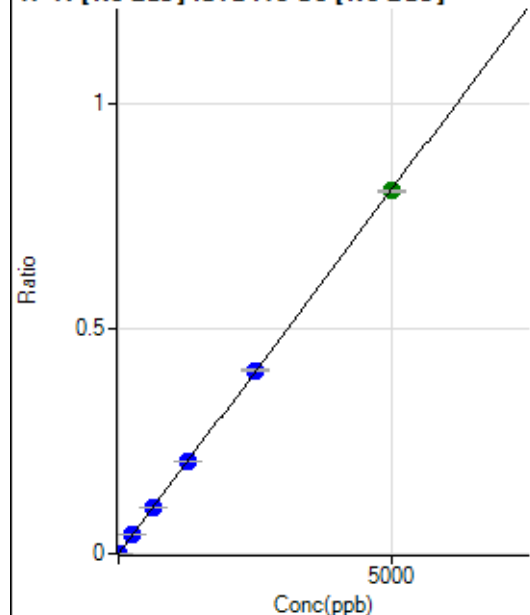
$$DL = 0.5584$$

$$BEC = 9.745$$

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	152.79	0.0000	P	34.9
2	☐	5.000	5.218	10579.27	0.0009	P	0.1
3	☐	250.000	255.652	500645.20	0.0414	P	0.5
4	☐	625.000	642.110	1201885.81	0.1039	P	1.1
5	☐	1250.000	1270.756	2291904.20	0.2057	P	0.5
6	☐	2500.000	2517.936	4473677.53	0.4075	P	0.9
7	☐	5000.000	4983.421	8627155.23	0.8065	A	0.4
8	☐			2830.94	0.0003	P	4.9

$$y = 1.6184\text{E-}004 * x + 1.2360\text{E-}005$$

$$R = 1.0000$$

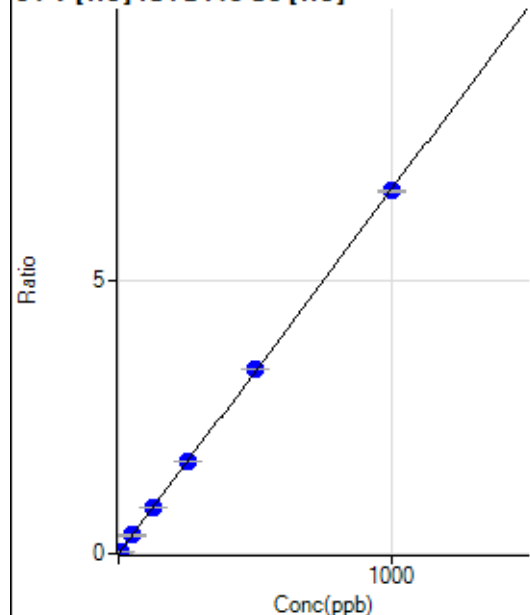
$$DL = 0.08$$

$$BEC = 0.07637$$

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	17.78	0.0000	P	38.9
2	☐	5.000	5.145	15899.83	0.0343	P	1.3
3	☐	50.000	50.225	147750.56	0.3343	P	0.4
4	☐	125.000	127.310	364593.76	0.8472	P	0.8
5	☐	250.000	252.914	692667.06	1.6830	P	0.7
6	☐	500.000	505.756	1344434.84	3.3656	P	0.5
7	☐	1000.000	996.093	2684340.93	6.6285	P	0.6
8	☐			953.38	0.0024	P	7.3

$$y = 0.0067 * x + 3.8912\text{E-}005$$

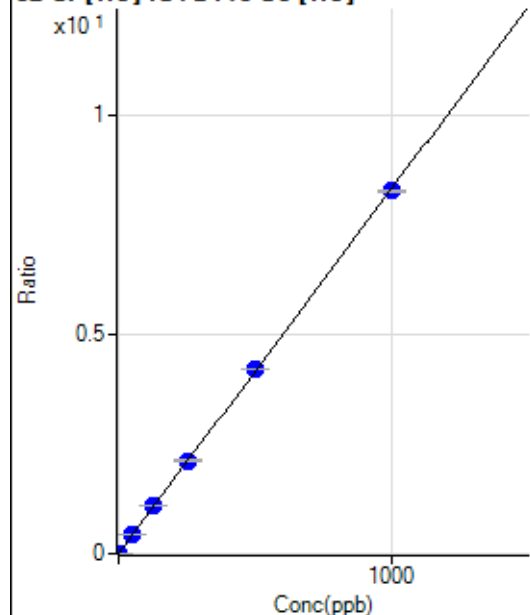
$$R = 1.0000$$

$$DL = 0.006822$$

$$BEC = 0.005848$$

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	1467.87	0.0032	P	4.2
2	☐	2.000	1.959	9040.67	0.0195	P	0.7
3	☐	50.000	51.116	189127.97	0.4279	P	0.4
4	☐	125.000	129.190	463261.87	1.0765	P	0.2
5	☐	250.000	255.139	873654.29	2.1228	P	0.7
6	☐	500.000	507.085	1684104.39	4.2159	P	0.4
7	☐	1000.000	994.593	3347413.11	8.2659	P	0.6
8	☐			87314.10	0.2204	P	0.4

$$y = 0.0083 * x + 0.0032$$

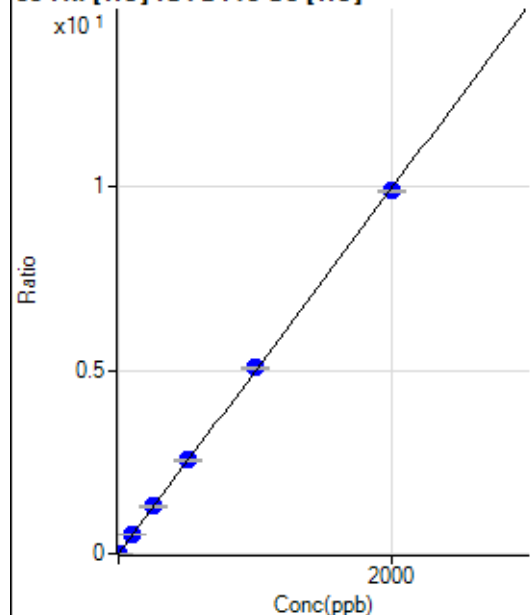
$$R = 0.9999$$

$$DL = 0.04829$$

$$BEC = 0.3868$$

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	215.56	0.0005	P	6.6
2	☐	1.000	1.048	2636.95	0.0057	P	2.3
3	☐	100.000	102.326	225252.64	0.5096	P	0.7
4	☐	250.000	258.386	553477.89	1.2861	P	0.4
5	☐	500.000	512.092	1048842.77	2.5485	P	0.7
6	☐	1000.000	1017.765	2023124.55	5.0645	P	0.5
7	☐	2000.000	1986.930	4003857.23	9.8868	P	0.5
8	☐			16703.03	0.0422	P	0.8

$$y = 0.0050 * x + 4.7203E-004$$

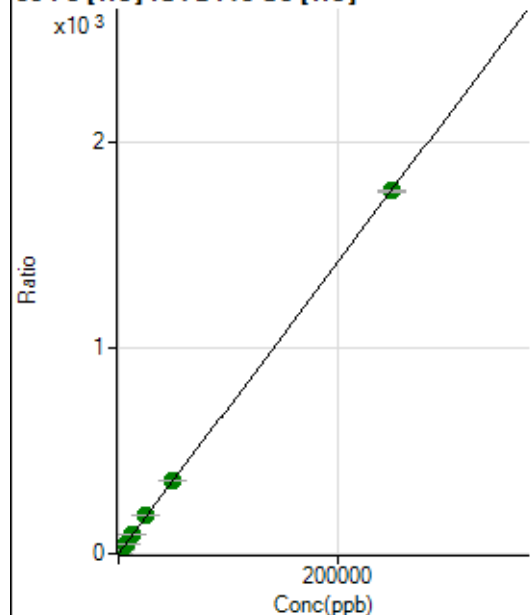
$$R = 0.9999$$

$$DL = 0.01883$$

$$BEC = 0.09487$$

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	7000.03	0.0153	P	1.7
2	☐	50.000	53.565	182646.38	0.3938	P	1.1
3	☐	2500.000	2605.260	8142855.80	18.4213	A	0.1
4	☐	6250.000	6572.802	19990532.86	46.4517	A	0.3
5	☐	12500.000	13092.346	38073863.35	92.5118	A	0.8
6	☐	25000.000	25989.241	73353982.19	183.6275	A	0.5
7	☐	50000.000	50760.351	145237995.8	358.6337	A	0.2
8	☐	250000.00	249710.26	698948223.0	1,764.201	A	0.3

$$y = 0.0071 * x + 0.0153$$

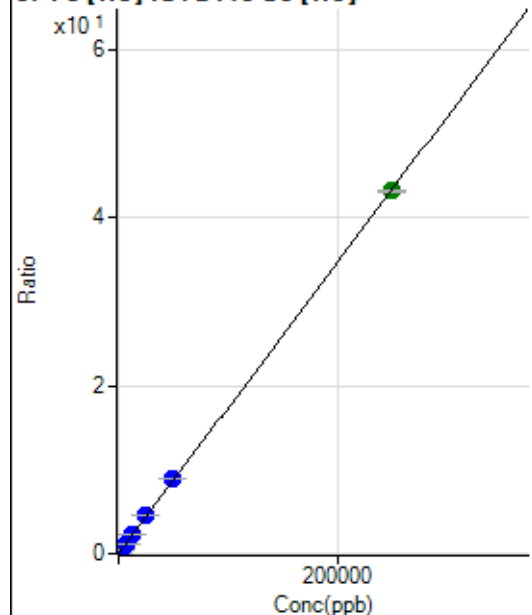
$$R = 1.0000$$

$$DL = 0.108$$

$$BEC = 2.169$$

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	257.42	0.0006	P	14.4
2	☐	50.000	55.291	4704.58	0.0101	P	1.6
3	☐	2500.000	2650.443	203219.89	0.4597	P	0.5
4	☐	6250.000	6666.766	497271.70	1.1555	P	0.9
5	☐	12500.000	13232.485	943677.76	2.2930	P	1.0
6	☐	25000.000	26253.942	1817122.20	4.5489	P	0.6
7	☐	50000.000	51387.081	3605460.76	8.9030	P	1.0
8	☐	250000.00	249548.64	17128294.94	43.2330	A	0.3

$$y = 1.7324E-004 * x + 5.6334E-004$$

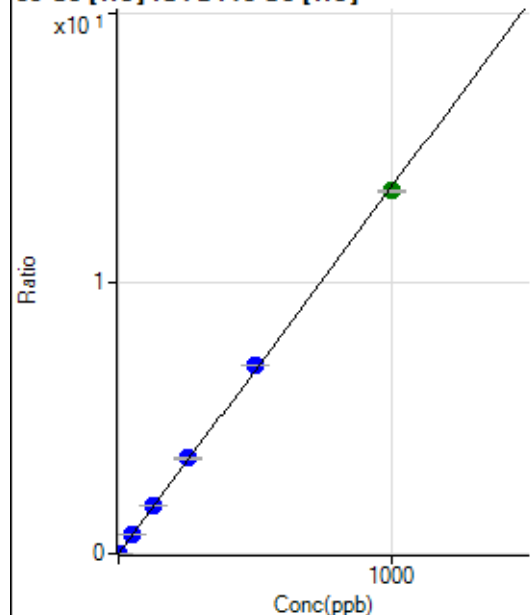
$$R = 1.0000$$

$$DL = 1.404$$

$$BEC = 3.252$$

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	226.67	0.0005	P	13.0
2	☐	1.000	1.031	6720.52	0.0145	P	2.6
3	☐	50.000	53.000	318075.81	0.7195	P	0.5
4	☐	125.000	132.242	772282.71	1.7946	P	0.9
5	☐	250.000	260.168	1452838.07	3.5302	P	1.0
6	☐	500.000	514.194	2786895.06	6.9765	P	0.6
7	☐	1000.000	989.305	5435637.77	13.4223	A	0.3
8	☐			10638.43	0.0269	P	1.5

$$y = 0.0136 * x + 4.9621E-004$$

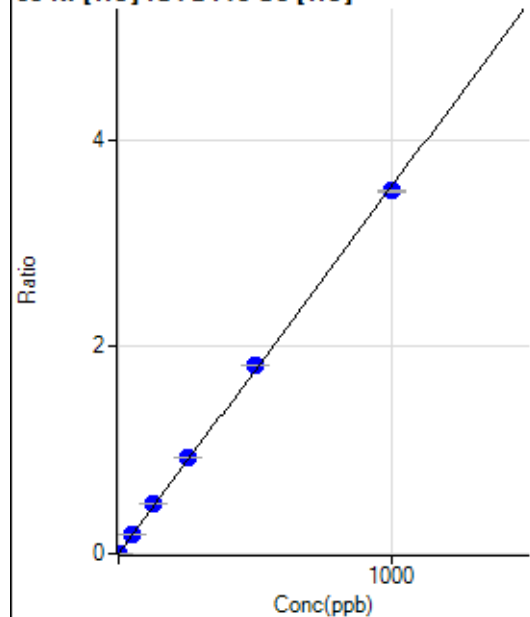
$$R = 0.9998$$

$$DL = 0.01431$$

$$BEC = 0.03658$$

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	337.78	0.0007	P	4.8
2	☐	1.000	1.067	2097.96	0.0045	P	1.6
3	☐	50.000	53.504	84198.86	0.1905	P	0.5
4	☐	125.000	134.039	204875.84	0.4761	P	0.3
5	☐	250.000	261.862	382465.63	0.9294	P	1.4
6	☐	500.000	514.433	729041.05	1.8250	P	0.3
7	☐	1000.000	988.513	1419920.83	3.5062	P	0.4
8	☐			26192.47	0.0661	P	0.8

$$y = 0.0035 * x + 7.3923E-004$$

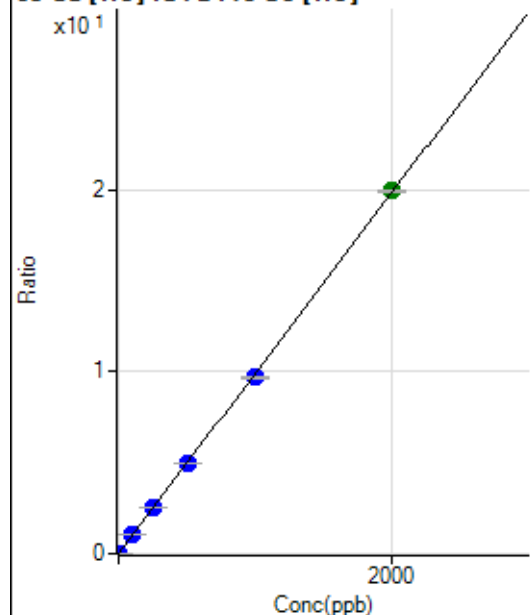
$$R = 0.9997$$

$$DL = 0.03015$$

$$BEC = 0.2085$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1314.52	0.0029	P	3.9
2	☐	2.000	1.996	10501.70	0.0226	P	1.3
3	☐	100.000	102.039	447970.66	1.0134	P	0.3
4	☐	250.000	255.168	1088773.58	2.5300	P	0.5
5	☐	500.000	499.419	2036776.95	4.9490	P	0.9
6	☐	1000.000	977.195	3867149.80	9.6808	P	0.6
7	☐	2000.000	2010.800	8065878.70	19.9173	A	0.5
8	☐			13890.10	0.0351	P	1.3

$$y = 0.0099 * x + 0.0029$$

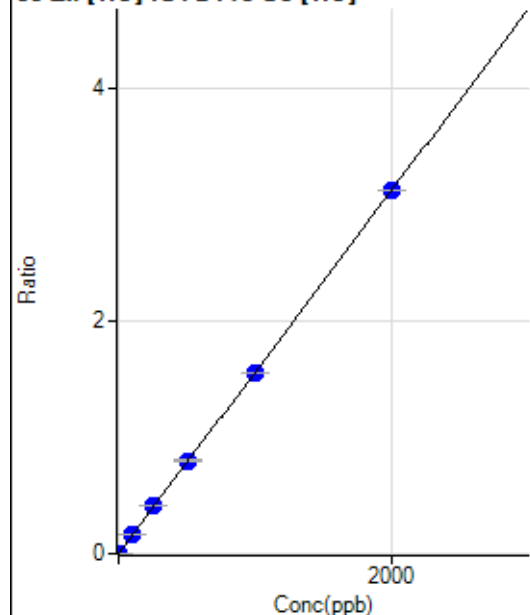
$$R = 0.9999$$

$$DL = 0.03365$$

$$BEC = 0.2906$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	395.57	0.0009	P	10.1
2	☐	2.000	2.348	2096.85	0.0045	P	4.4
3	☐	100.000	102.487	70920.15	0.1604	P	0.6
4	☐	250.000	259.855	174486.92	0.4055	P	0.4
5	☐	500.000	512.478	328740.39	0.7988	P	1.0
6	☐	1000.000	994.515	618909.43	1.5493	P	0.1
7	☐	2000.000	1998.266	1260339.43	3.1121	P	0.1
8	☐			16396.07	0.0414	P	1.0

$$y = 0.0016 * x + 8.6557E-004$$

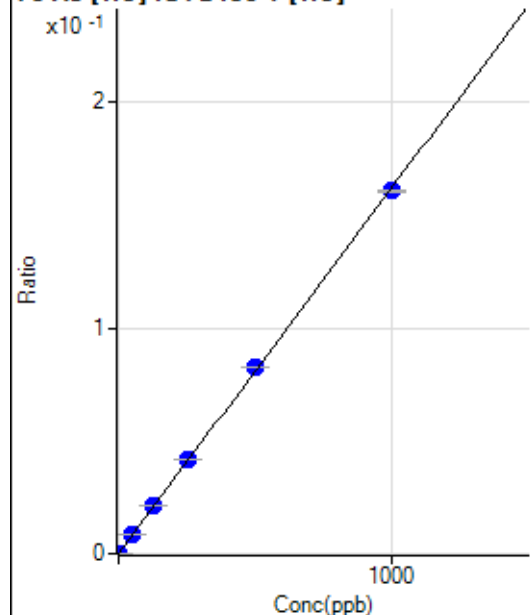
$$R = 1.0000$$

$$DL = 0.1686$$

$$BEC = 0.5559$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.93	0.0000	P	29.9
2	☐	1.000	1.075	446.31	0.0002	P	8.1
3	☐	50.000	52.355	19738.79	0.0085	P	1.2
4	☐	125.000	131.242	48373.30	0.0213	P	0.2
5	☐	250.000	257.289	91575.89	0.0417	P	0.6
6	☐	500.000	508.937	177489.55	0.0824	P	0.4
7	☐	1000.000	992.811	350031.75	0.1608	P	0.6
8	☐			237.04	0.0001	P	1.8

$$y = 1.6196\text{E-}004 * x + 1.0930\text{E-}005$$

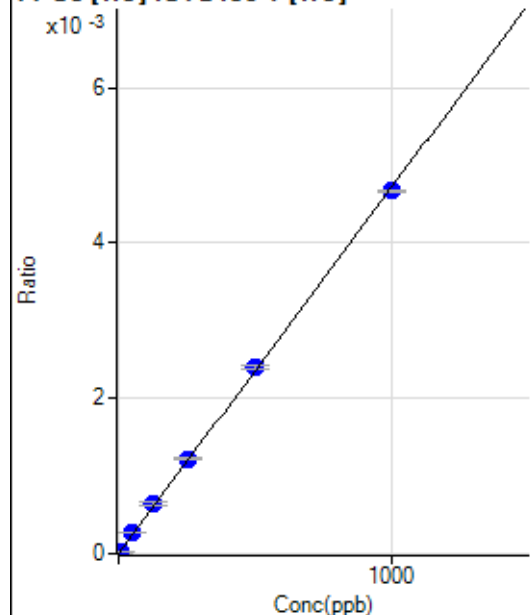
$$R = 0.9999$$

$$DL = 0.06055$$

$$BEC = 0.06749$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.22	0.0000	P	173.2
2	☐	5.000	5.754	67.78	0.0000	P	16.6
3	☐	50.000	56.379	620.02	0.0003	P	0.5
4	☐	125.000	134.730	1446.76	0.0006	P	7.3
5	☐	250.000	257.867	2672.52	0.0012	P	1.9
6	☐	500.000	511.618	5194.34	0.0024	P	2.0
7	☐	1000.000	990.685	10167.06	0.0047	P	0.5
8	☐			7.78	0.0000	P	49.2

$$y = 4.7140\text{E-}006 * x + 9.5093\text{E-}007$$

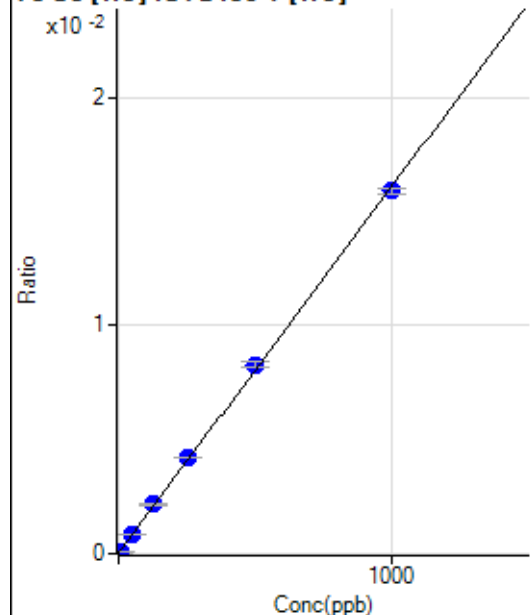
$$R = 0.9998$$

$$DL = 1.048$$

$$BEC = 0.2017$$

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	50.62	0.0000	P	25.3
2	☐	5.000	5.765	274.70	0.0001	P	5.9
3	☐	50.000	51.171	1960.03	0.0008	P	2.7
4	☐	125.000	133.037	4908.90	0.0022	P	1.3
5	☐	250.000	261.217	9265.36	0.0042	P	0.6
6	☐	500.000	514.379	17832.01	0.0083	P	3.2
7	☐	1000.000	988.940	34623.93	0.0159	P	1.3
8	☐			64.20	0.0000	P	6.1

$$y = 1.6063\text{E-}005 * x + 2.1234\text{E-}005$$

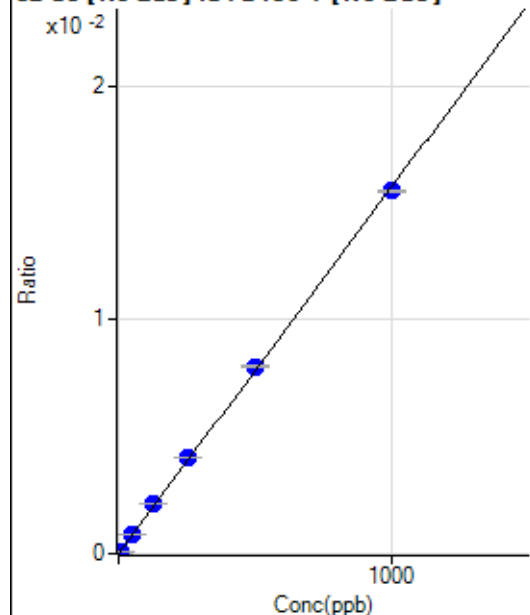
$$R = 0.9998$$

$$DL = 1.003$$

$$BEC = 1.322$$

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	-26.84	0.0000	P	-162.
2	☐	5.000	5.503	1737.60	0.0001	P	3.7
3	☐	50.000	53.922	17030.01	0.0008	P	0.9
4	☐	125.000	135.448	41114.08	0.0021	P	0.3
5	☐	250.000	264.487	78599.96	0.0041	P	0.1
6	☐	500.000	509.837	151280.75	0.0080	P	0.8
7	☐	1000.000	989.955	286813.65	0.0155	P	0.5
8	☐			255.40	0.0000	P	13.4

$$y = 1.5668\text{E-}005 * x - 1.2871\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.4007$$

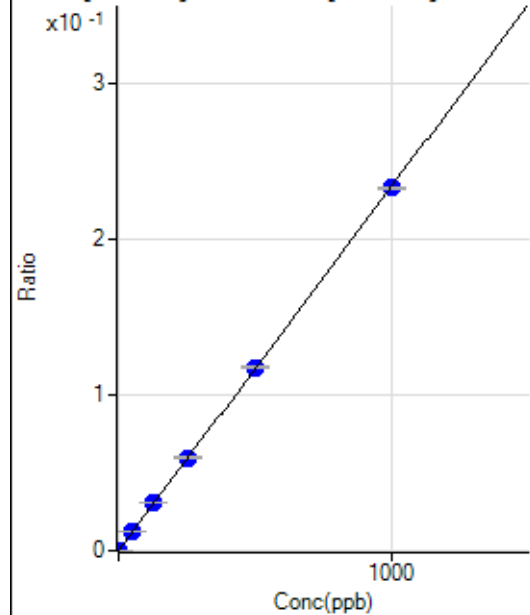
$$BEC = -0.08215$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			751.14		P	11.2
2	☐			770.04		P	3.8
3	☐			753.37		P	10.7
4	☐			686.70		P	9.7
5	☐			660.03		P	1.0
6	☐			696.70		P	7.5
7	☐			671.14		P	5.8
8	☐			680.03		P	2.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1108.43	0.0001	P	7.8
2	☐	1.000	1.005	5890.36	0.0003	P	2.4
3	☐	50.000	50.807	240385.52	0.0119	P	0.8
4	☐	125.000	129.645	587350.15	0.0303	P	0.4
5	☐	250.000	255.823	1133399.20	0.0597	P	0.1
6	☐	500.000	503.301	2225142.30	0.1175	P	0.5
7	☐	1000.000	996.273	4299368.59	0.2325	P	0.6
8	☐			10326.37	0.0006	P	1.4

$$y = 2.3330E-004 * x + 5.3547E-005$$

$$R = 1.0000$$

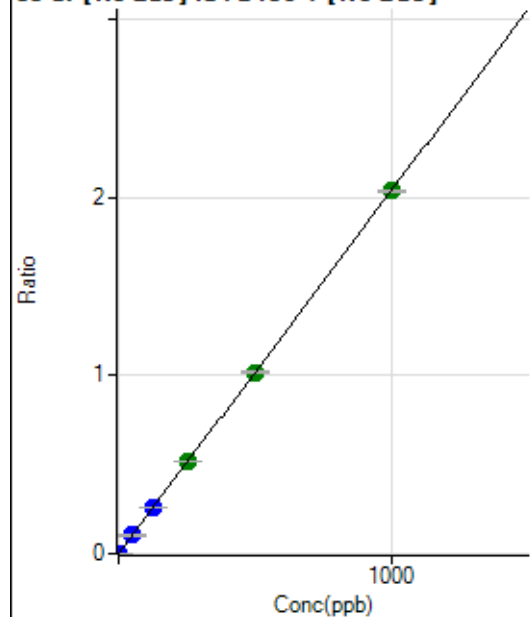
$$DL = 0.05392$$

$$BEC = 0.2295$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	158.34	0.0000	P	16.5
2	☐	1.000	1.007	42193.47	0.0021	P	0.1
3	☐	50.000	50.425	2076755.93	0.1029	P	0.9
4	☐	125.000	127.871	5056297.34	0.2608	P	0.6
5	☐	250.000	251.773	9744212.02	0.5136	A	0.1
6	☐	500.000	500.227	19327804.43	1.0204	A	0.2
7	☐	1000.000	999.063	37687607.79	2.0379	A	0.3
8	☐			80933.54	0.0046	P	1.1

$$y = 0.0020 * x + 7.6523E-006$$

$$R = 1.0000$$

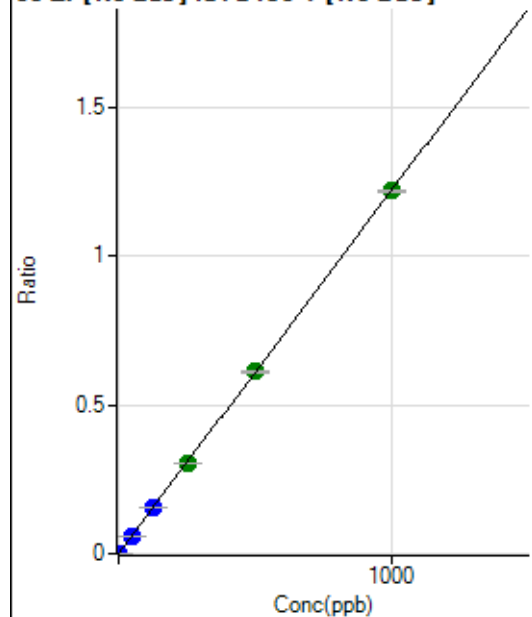
$$DL = 0.001852$$

$$BEC = 0.003752$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1266.78	0.0001	P	16.0
2	☐	1.000	0.829	21931.50	0.0011	P	2.9
3	☐	50.000	49.777	1227163.26	0.0608	P	0.7
4	☐	125.000	127.261	3010547.72	0.1553	P	0.4
5	☐	250.000	250.709	5803985.89	0.3059	A	0.6
6	☐	500.000	501.313	11584831.77	0.6116	A	0.5
7	☐	1000.000	998.895	22536367.34	1.2186	A	0.3
8	☐			7699.60	0.0004	P	4.8

$$y = 0.0012 * x + 6.1134E-005$$

$$R = 1.0000$$

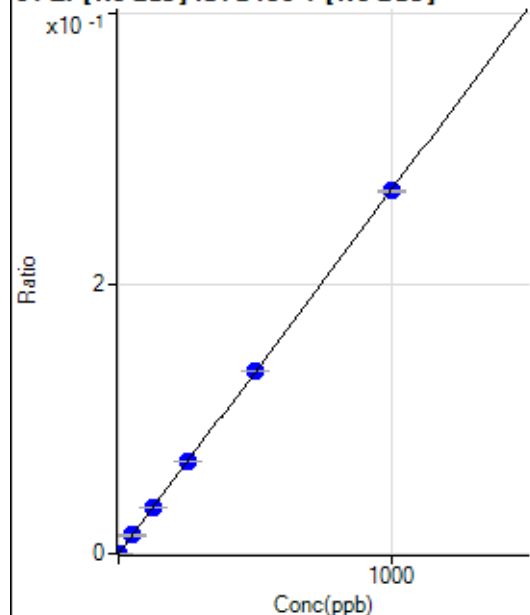
$$DL = 0.02398$$

$$BEC = 0.05012$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	255.57	0.0000	P	16.6
2	☐	1.000	0.832	4837.13	0.0002	P	4.5
3	☐	50.000	50.297	273790.13	0.0136	P	0.7
4	☐	125.000	129.119	674482.48	0.0348	P	0.5
5	☐	250.000	253.505	1295908.34	0.0683	P	1.1
6	☐	500.000	502.044	2561869.85	0.1352	P	0.9
7	☐	1000.000	997.572	4969701.29	0.2687	P	0.8
8	☐			1764.07	0.0001	P	4.9

$$y = 2.6937E-004 * x + 1.2341E-005$$

$$R = 1.0000$$

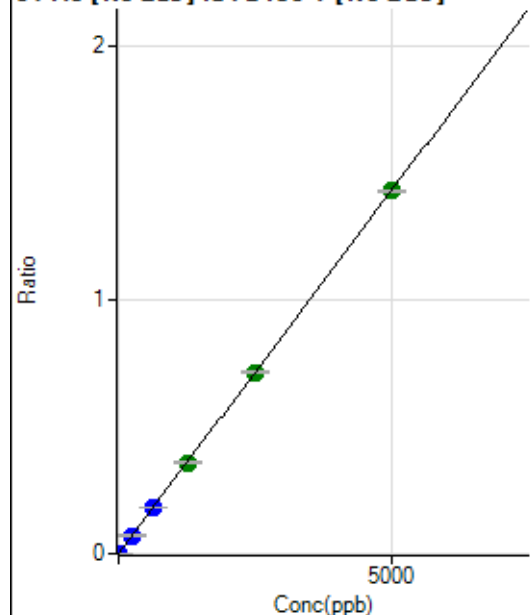
$$DL = 0.02279$$

$$BEC = 0.04581$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	494.47	0.0000	P	7.3
2	☐	5.000	4.809	28665.83	0.0014	P	3.3
3	☐	250.000	251.040	1452191.96	0.0719	P	0.8
4	☐	625.000	642.825	3569740.75	0.1841	P	0.2
5	☐	1250.000	1257.604	6835043.29	0.3602	A	0.6
6	☐	2500.000	2498.713	13557064.89	0.7157	A	0.7
7	☐	5000.000	4996.463	26467503.37	1.4312	A	0.2
8	☐			19374.81	0.0011	P	0.5

$$y = 2.8643E-004 * x + 2.3872E-005$$

$$R = 1.0000$$

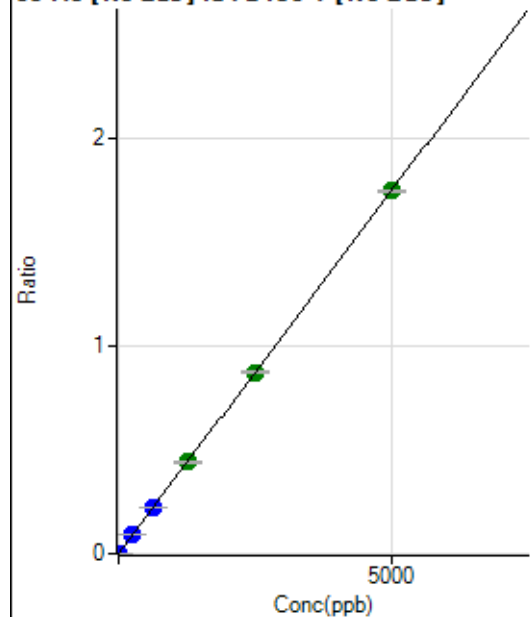
$$DL = 0.01832$$

$$BEC = 0.08334$$

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	197.23	0.0000	P	19.7
2	☐	5.000	5.188	37277.68	0.0018	P	0.3
3	☐	250.000	252.638	1782401.28	0.0883	P	0.3
4	☐	625.000	639.876	4334335.56	0.2236	P	0.6
5	☐	1250.000	1259.317	8348985.34	0.4400	A	0.3
6	☐	2500.000	2495.648	16517758.88	0.8720	A	0.6
7	☐	5000.000	4997.855	32296619.82	1.7463	A	0.5
8	☐			29369.85	0.0017	P	0.6

$$y = 3.4942\text{E-}004 * x + 9.5333\text{E-}006$$

$$R = 1.0000$$

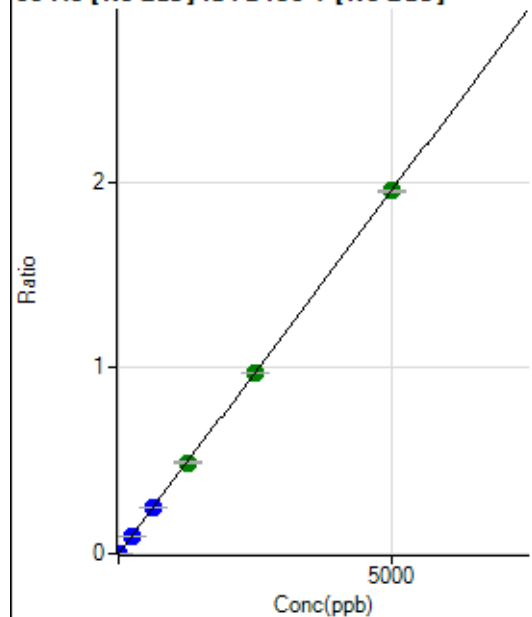
$$DL = 0.01613$$

$$BEC = 0.02728$$

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	375.02	0.0000	P	16.1
2	☐	5.000	5.122	41274.38	0.0020	P	2.3
3	☐	250.000	250.193	1972494.83	0.0977	P	0.4
4	☐	625.000	637.370	4824252.23	0.2489	P	1.0
5	☐	1250.000	1257.779	9317746.74	0.4911	A	0.3
6	☐	2500.000	2494.354	18447391.21	0.9739	A	0.5
7	☐	5000.000	4999.322	36098271.64	1.9519	A	0.3
8	☐			38399.98	0.0022	P	1.4

$$y = 3.9043\text{E-}004 * x + 1.8123\text{E-}005$$

$$R = 1.0000$$

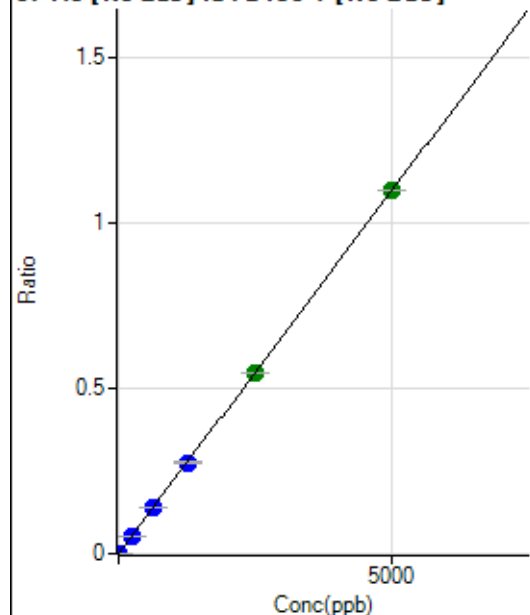
$$DL = 0.02237$$

$$BEC = 0.04642$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.68	0.0000	P	27.2
2	☐	5.000	5.229	23598.19	0.0012	P	1.8
3	☐	250.000	250.231	1106966.31	0.0548	P	0.3
4	☐	625.000	642.183	2727455.51	0.1407	P	1.0
5	☐	1250.000	1257.991	5229467.09	0.2756	P	0.4
6	☐	2500.000	2489.210	10330279.57	0.5454	A	0.3
7	☐	5000.000	5001.238	20263714.86	1.0957	A	0.2
8	☐			17745.08	0.0010	P	1.7

$$y = 2.1909\text{E-}004 * x + 8.0589\text{E-}006$$

$$R = 1.0000$$

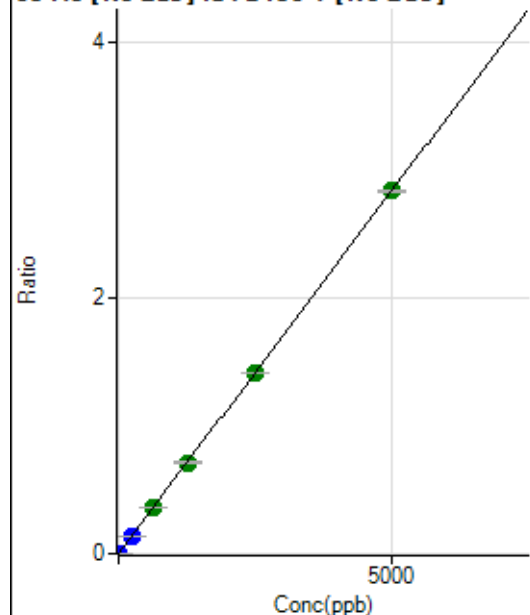
$$DL = 0.02997$$

$$BEC = 0.03678$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	350.02	0.0000	P	15.0
2	☐	5.000	5.245	61293.46	0.0030	P	1.5
3	☐	250.000	249.879	2866250.74	0.1420	P	0.4
4	☐	625.000	630.974	6948791.56	0.3585	A	0.6
5	☐	1250.000	1256.796	13546807.42	0.7140	A	0.5
6	☐	2500.000	2489.814	26792245.04	1.4144	A	0.5
7	☐	5000.000	5002.653	52557746.66	2.8420	A	0.2
8	☐			45136.37	0.0026	P	0.8

$$y = 5.6809\text{E-}004 * x + 1.6913\text{E-}005$$

$$R = 1.0000$$

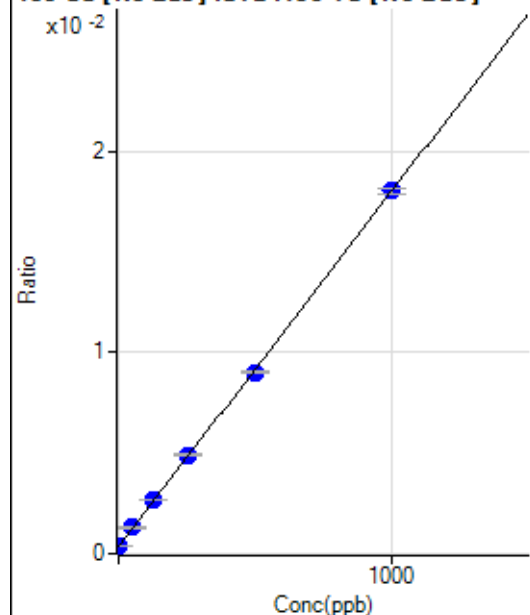
$$DL = 0.01341$$

$$BEC = 0.02977$$

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	9347.87	0.0003	P	1.9
2	☐	1.000	1.063	9742.61	0.0004	P	2.4
3	☐	50.000	54.038	34442.79	0.0013	P	2.8
4	☐	125.000	131.551	69590.74	0.0027	P	0.1
5	☐	250.000	257.604	126799.67	0.0049	P	2.0
6	☐	500.000	491.050	235625.38	0.0090	P	1.7
7	☐	1000.000	1001.553	462002.48	0.0180	P	1.2
8	☐			8327.75	0.0004	P	3.4

$$y = 1.7658\text{E-}005 * x + 3.4651\text{E-}004$$

$$R = 0.9999$$

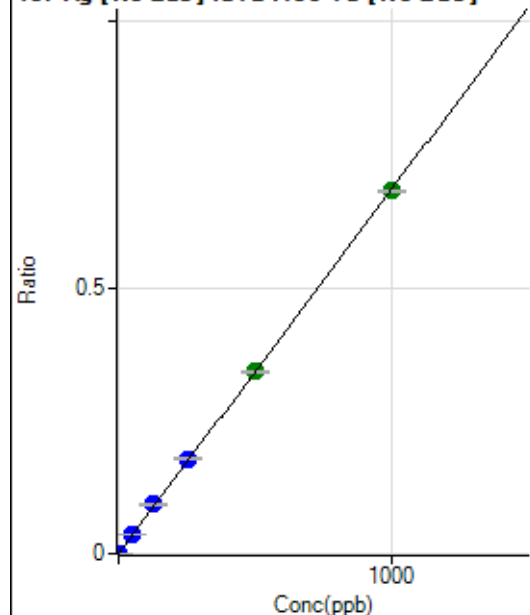
$$DL = 1.119$$

$$BEC = 19.62$$

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	161.12	0.0000	P	21.3
2	☐	1.000	1.165	21430.72	0.0008	P	2.8
3	☐	50.000	55.120	999056.47	0.0377	P	0.6
4	☐	125.000	135.014	2409145.56	0.0924	P	0.7
5	☐	250.000	259.977	4608866.90	0.1779	P	1.1
6	☐	500.000	499.391	8931741.61	0.3418	A	0.9
7	☐	1000.000	996.302	17471912.89	0.6819	A	0.6
8	☐			3431.12	0.0001	P	14.9

$$y = 6.8444\text{E-}004 * x + 5.9706\text{E-}006$$

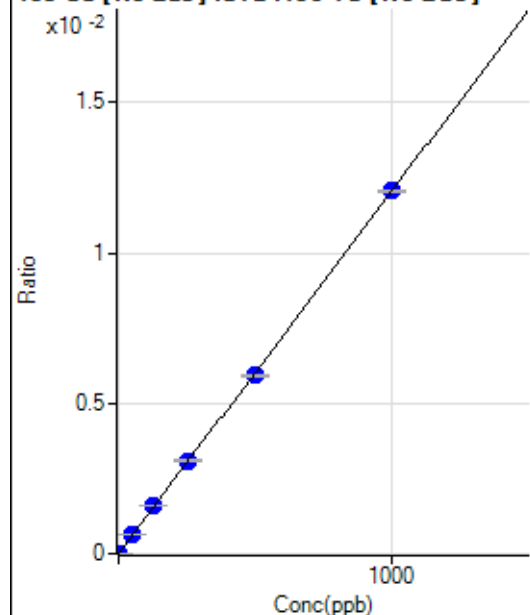
$$R = 0.9999$$

$$DL = 0.00557$$

$$BEC = 0.008723$$

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	23.61	0.0000	P	44.2
2	☐	1.000	1.129	386.13	0.0000	P	23.3
3	☐	50.000	53.058	16943.74	0.0006	P	1.4
4	☐	125.000	131.132	41197.61	0.0016	P	0.3
5	☐	250.000	256.460	80031.46	0.0031	P	1.0
6	☐	500.000	491.535	154731.75	0.0059	P	0.7
7	☐	1000.000	1001.698	309163.10	0.0121	P	0.2
8	☐			98.62	0.0000	P	8.5

$$y = 1.2045\text{E-}005 * x + 8.7486\text{E-}007$$

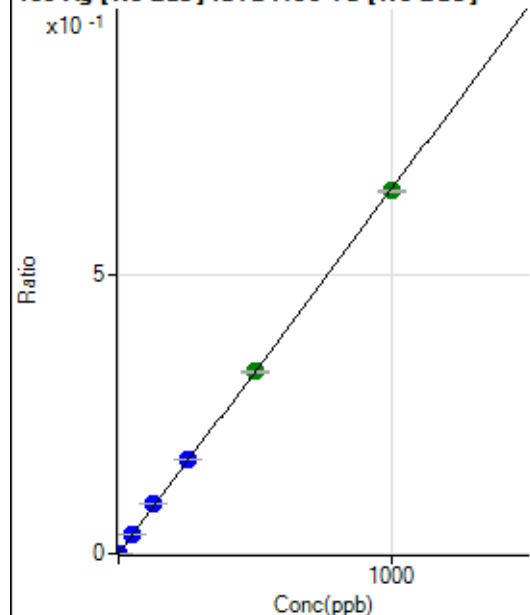
$$R = 0.9999$$

$$DL = 0.09641$$

$$BEC = 0.07263$$

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	108.34	0.0000	P	38.7
2	☐	1.000	1.165	20457.13	0.0008	P	1.1
3	☐	50.000	54.885	952046.60	0.0360	P	0.9
4	☐	125.000	135.467	2313451.18	0.0887	P	0.4
5	☐	250.000	259.874	4409523.80	0.1702	P	0.6
6	☐	500.000	501.138	8578379.44	0.3283	A	1.0
7	☐	1000.000	995.410	16707130.76	0.6521	A	0.5
8	☐			3014.35	0.0001	P	9.9

$$y = 6.5506\text{E-}004 * x + 4.0191\text{E-}006$$

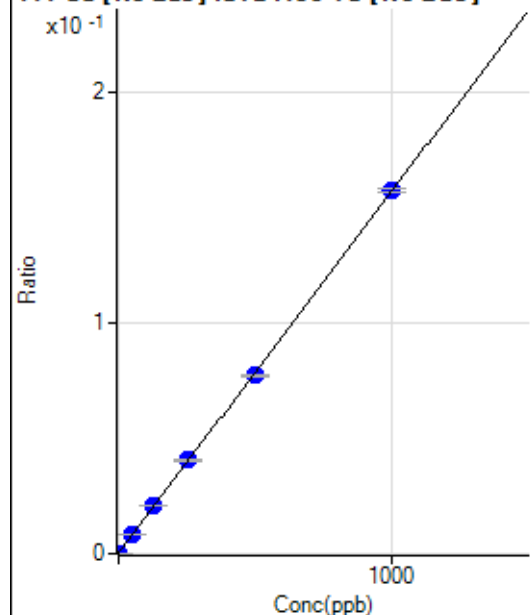
$$R = 0.9999$$

$$DL = 0.007128$$

$$BEC = 0.006135$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6572.82	0.0002	P	2.1
2	☐	1.000	1.037	10823.89	0.0004	P	1.9
3	☐	50.000	53.038	226136.51	0.0085	P	0.1
4	☐	125.000	131.482	542533.71	0.0208	P	1.3
5	☐	250.000	256.378	1045122.41	0.0403	P	1.1
6	☐	500.000	491.392	2014976.04	0.0771	P	1.6
7	☐	1000.000	1001.747	4021237.43	0.1569	P	1.1
8	☐			6717.39	0.0003	P	4.3

$$y = 1.5643\text{E-}004 * x + 2.4364\text{E-}004$$

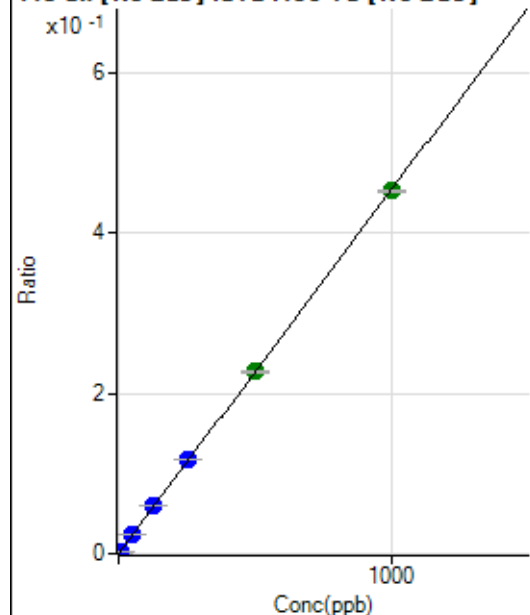
$$R = 0.9999$$

$$DL = 0.09648$$

$$BEC = 1.557$$

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	1191.78	0.0000	P	10.0
2	☐	5.000	5.334	65774.11	0.0025	P	0.8
3	☐	50.000	52.688	634473.98	0.0240	P	0.9
4	☐	125.000	131.558	1558100.77	0.0598	P	0.8
5	☐	250.000	257.743	3031762.87	0.1171	P	1.1
6	☐	500.000	500.842	5942494.18	0.2274	A	1.1
7	☐	1000.000	996.687	11594713.28	0.4525	A	0.4
8	☐			8244.44	0.0003	P	7.7

$$y = 4.5397\text{E-}004 * x + 4.4175\text{E-}005$$

$$R = 1.0000$$

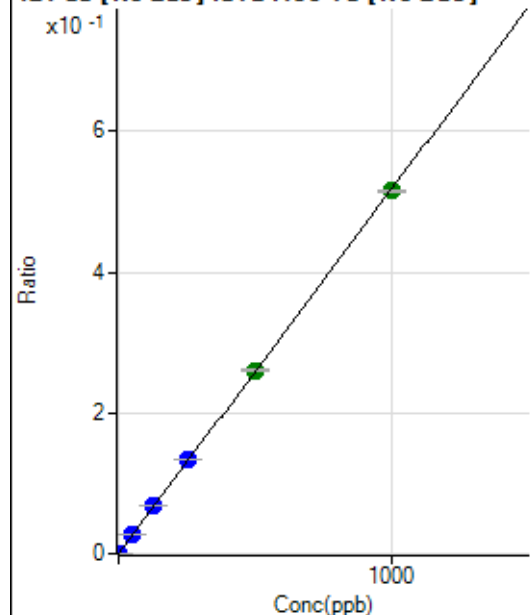
$$DL = 0.02916$$

$$BEC = 0.09731$$

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	205.56	0.0000	P	33.1
2	☐	2.000	1.999	27822.86	0.0010	P	1.2
3	☐	50.000	51.964	712881.95	0.0269	P	1.1
4	☐	125.000	131.511	1776019.37	0.0681	P	0.1
5	☐	250.000	258.469	3467905.37	0.1339	P	0.8
6	☐	500.000	502.828	6806280.53	0.2605	A	0.5
7	☐	1000.000	995.557	13212809.93	0.5157	A	0.6
8	☐			14763.84	0.0006	P	7.1

$$y = 5.1798\text{E-}004 * x + 7.6242\text{E-}006$$

$$R = 0.9999$$

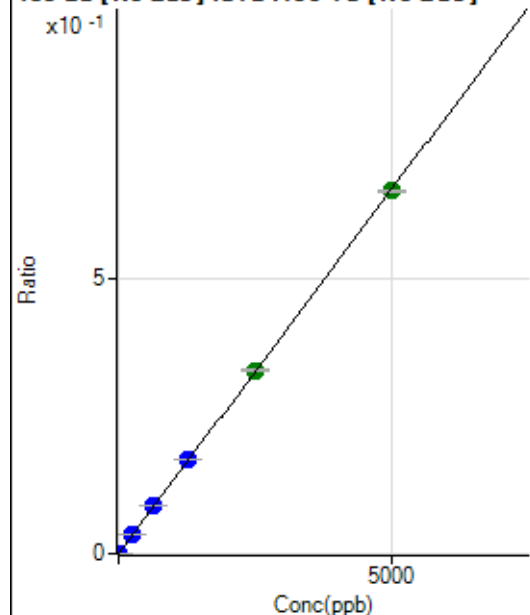
$$DL = 0.0146$$

$$BEC = 0.01472$$

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	55.56	0.0000	P	30.9
2	☐	10.000	10.509	37128.53	0.0014	P	1.3
3	☐	250.000	261.858	916948.90	0.0346	P	0.6
4	☐	625.000	655.542	2259989.98	0.0867	P	0.9
5	☐	1250.000	1285.274	4402654.61	0.1700	P	0.4
6	☐	2500.000	2513.909	8687500.28	0.3325	A	0.5
7	☐	5000.000	4979.815	16873285.62	0.6586	A	0.8
8	☐			4439.81	0.0002	P	3.9

$$y = 1.3224\text{E-}004 * x + 2.0582\text{E-}006$$

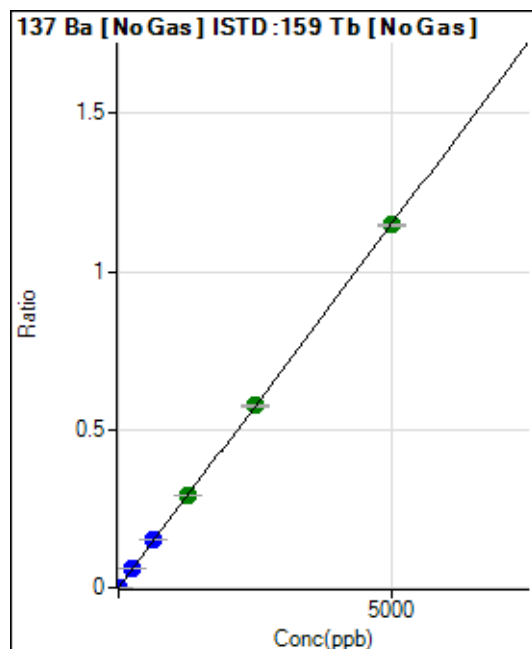
$$R = 1.0000$$

$$DL = 0.01444$$

$$BEC = 0.01556$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	77.78	0.0000	P	43.2
2	☐	10.000	10.287	63160.93	0.0024	P	0.7
3	☐	250.000	259.601	1580368.24	0.0597	P	0.8
4	☐	625.000	653.922	3919259.64	0.1503	P	0.9
5	☐	1250.000	1271.642	7572804.77	0.2924	A	0.4
6	☐	2500.000	2502.022	15031607.11	0.5752	A	0.8
7	☐	5000.000	4989.483	29391595.10	1.1471	A	0.6
8	☐			7324.47	0.0003	P	3.9

$$y = 2.2991E-004 * x + 2.8819E-006$$

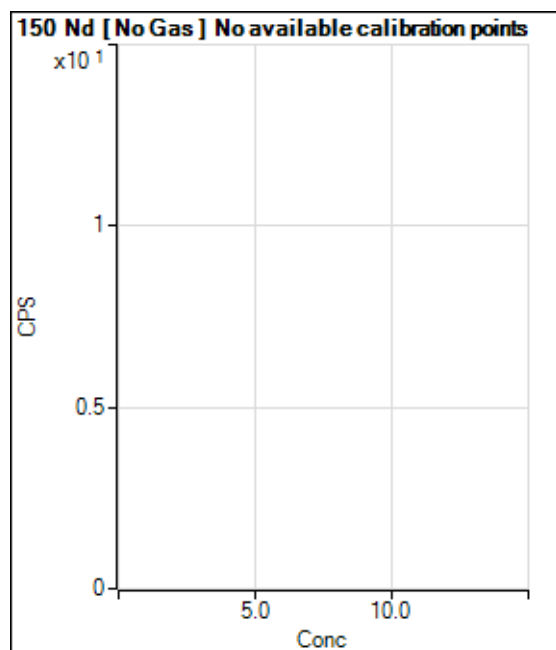
$$R = 1.0000$$

$$DL = 0.01625$$

$$BEC = 0.01254$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			20.00		P	57.7
3	☐			93.34		P	18.9
4	☐			284.46		P	14.1
5	☐			524.48		P	12.8
6	☐			748.93		P	5.8
7	☐			1602.38		P	2.4
8	☐			173.34		P	13.9

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	57.3
2	☐			8.89		P	21.6
3	☐			8.89		P	57.3
4	☐			18.89		P	27.0
5	☐			36.67		P	32.8
6	☐			56.67		P	25.6
7	☐			123.33		P	28.2
8	☐			61.11		P	3.1

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.11		P	15.7
2	☐			69.45		P	38.6
3	☐			83.34		P	26.5
4	☐			94.45		P	31.0
5	☐			144.45		P	21.8
6	☐			269.46		P	9.4
7	☐			455.59		P	10.1
8	☐			688.94		P	6.7

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			35.56		P	5.4
2	☐			28.89		P	54.5
3	☐			41.11		P	52.1
4	☐			64.44		P	18.2
5	☐			97.78		P	12.9
6	☐			198.89		P	23.8
7	☐			327.79		P	12.9
8	☐			314.46		P	1.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			161.12		P	15.8
2	☐			191.68		P	4.3
3	☐			122.23		P	7.9
4	☐			161.12		P	15.8
5	☐			111.12		P	18.9
6	☐			172.23		P	10.1
7	☐			225.01		P	9.8
8	☐			694.49		P	11.1

160 Gd [He] No available calibration points

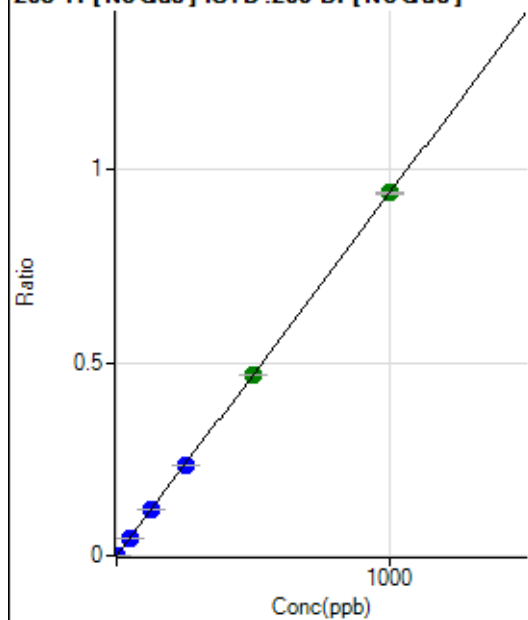
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			380.01		P	14.4
2	☐			398.90		P	5.9
3	☐			394.46		P	16.5
4	☐			403.35		P	20.1
5	☐			373.35		P	11.7
6	☐			358.90		P	1.9
7	☐			358.90		P	10.4
8	☐			632.25		P	2.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			133.34		P	33.1
2	☐			138.90		P	22.7
3	☐			158.34		P	27.3
4	☐			141.67		P	27.0
5	☐			136.12		P	15.4
6	☐			158.34		P	10.5
7	☐			163.90		P	26.1
8	☐			200.01		P	22.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			84.45		P	8.2
2	☐			93.34		P	15.6
3	☐			84.45		P	2.3
4	☐			72.22		P	9.6
5	☐			110.00		P	16.9
6	☐			91.11		P	11.2
7	☐			110.00		P	16.9
8	☐			102.22		P	16.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	944.53	0.0001	P	12.7
2	☐	1.000	0.936	15918.60	0.0009	P	1.0
3	☐	50.000	49.043	775764.38	0.0461	P	0.4
4	☐	125.000	126.224	1965684.74	0.1185	P	0.5
5	☐	250.000	250.430	3852717.36	0.2351	P	0.7
6	☐	500.000	497.473	7572336.80	0.4669	A	0.3
7	☐	1000.000	1001.051	14688049.64	0.9395	A	0.4
8	☐			7199.46	0.0005	P	3.5

$$y = 9.3847E-004 * x + 5.4782E-005$$

$$R = 1.0000$$

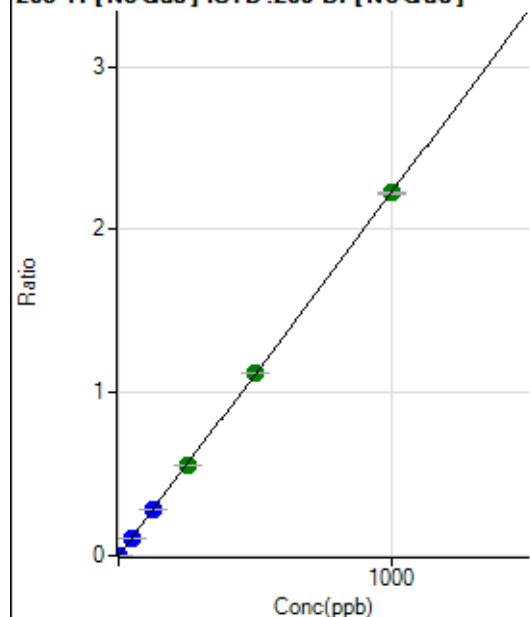
$$DL = 0.02228$$

$$BEC = 0.05837$$

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	1925.23	0.0001	P	1.3
2	☐	1.000	0.963	38453.79	0.0023	P	1.4
3	☐	50.000	49.818	1869287.00	0.1110	P	0.4
4	☐	125.000	126.225	4663217.94	0.2811	P	0.3
5	☐	250.000	249.332	9099957.58	0.5552	A	0.7
6	☐	500.000	502.152	18133719.85	1.1181	A	0.5
7	☐	1000.000	998.947	34773579.94	2.2243	A	0.3
8	☐			16883.65	0.0013	P	2.3

$$y = 0.0022 * x + 1.1164E-004$$

$$R = 1.0000$$

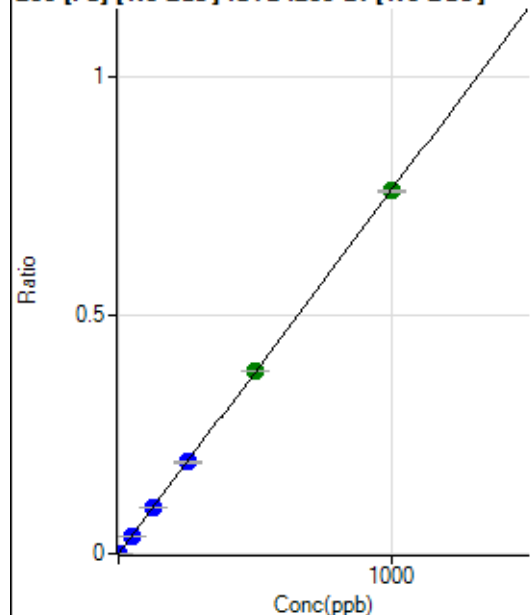
$$DL = 0.001945$$

$$BEC = 0.05014$$

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	1509.39	0.0001	P	6.9
2	☐	1.000	0.926	13512.75	0.0008	P	0.2
3	☐	50.000	49.829	639740.75	0.0380	P	0.7
4	☐	125.000	126.162	1593515.40	0.0961	P	0.4
5	☐	250.000	251.415	3136427.33	0.1914	P	0.5
6	☐	500.000	503.329	6211986.60	0.3830	A	0.4
7	☐	1000.000	997.845	11870485.45	0.7593	A	0.8
8	☐			39265.83	0.0030	P	1.8

$$y = 7.6084E-004 * x + 8.7524E-005$$

$$R = 1.0000$$

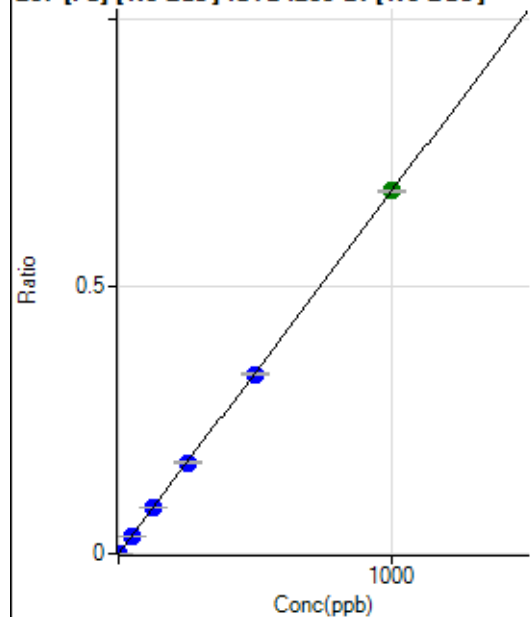
$$DL = 0.02388$$

$$BEC = 0.115$$

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	1326.03	0.0001	P	7.5
2	☐	1.000	0.942	12178.09	0.0007	P	1.3
3	☐	50.000	49.604	566375.86	0.0336	P	0.4
4	☐	125.000	126.145	1416988.80	0.0854	P	0.2
5	☐	250.000	251.699	2792497.95	0.1704	P	0.7
6	☐	500.000	495.898	5442868.06	0.3356	P	1.0
7	☐	1000.000	1001.503	10595469.68	0.6777	A	0.8
8	☐			35913.94	0.0027	P	1.5

$$y = 6.7665E-004 * x + 7.6908E-005$$

$$R = 1.0000$$

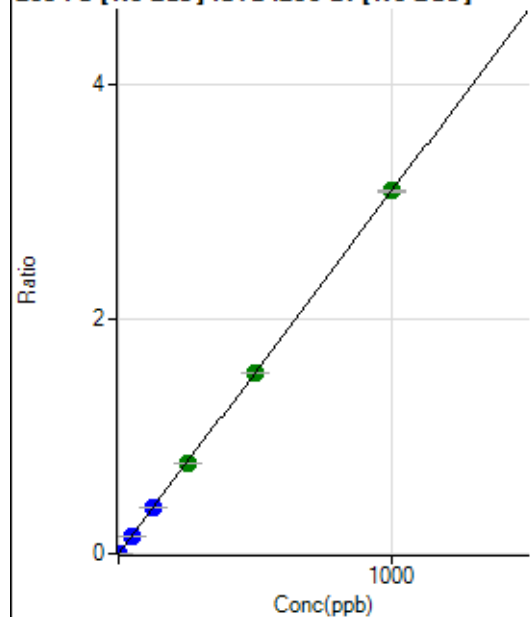
$$DL = 0.02545$$

$$BEC = 0.1137$$

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	5419.09	0.0003	P	3.2
2	☐	1.000	0.936	54611.80	0.0032	P	0.9
3	☐	50.000	49.499	2577657.85	0.1531	P	0.5
4	☐	125.000	126.169	6464883.22	0.3898	P	0.2
5	☐	250.000	250.150	12660175.43	0.7725	A	0.5
6	☐	500.000	498.232	24946589.22	1.5383	A	0.7
7	☐	1000.000	1000.725	48298517.75	3.0894	A	0.4
8	☐			160186.94	0.0121	P	0.7

$$y = 0.0031 * x + 3.1426E-004$$

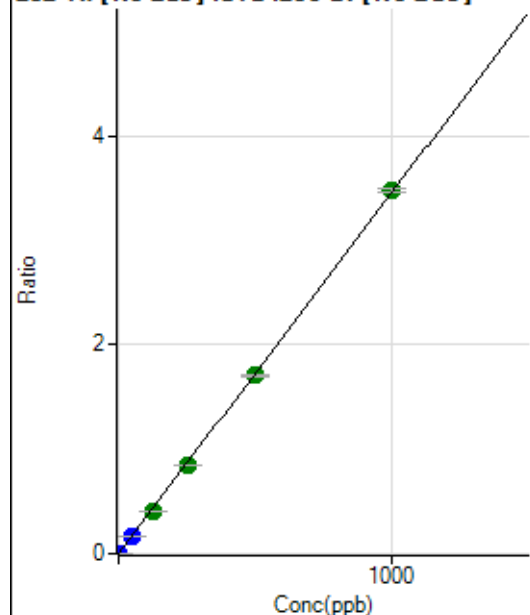
$$R = 1.0000$$

$$DL = 0.009655$$

$$BEC = 0.1018$$

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	3178.26	0.0002	P	1.7
2	☐	1.000	0.753	47434.38	0.0028	P	1.1
3	☐	50.000	46.086	2680777.61	0.1592	P	0.6
4	☐	125.000	118.709	6798086.55	0.4099	A	0.5
5	☐	250.000	242.976	13745933.53	0.8387	A	0.2
6	☐	500.000	493.949	27648989.28	1.7049	A	0.6
7	☐	1000.000	1005.764	54267097.51	3.4712	A	1.0
8	☐			14539.99	0.0011	P	5.8

$$y = 0.0035 * x + 1.8431E-004$$

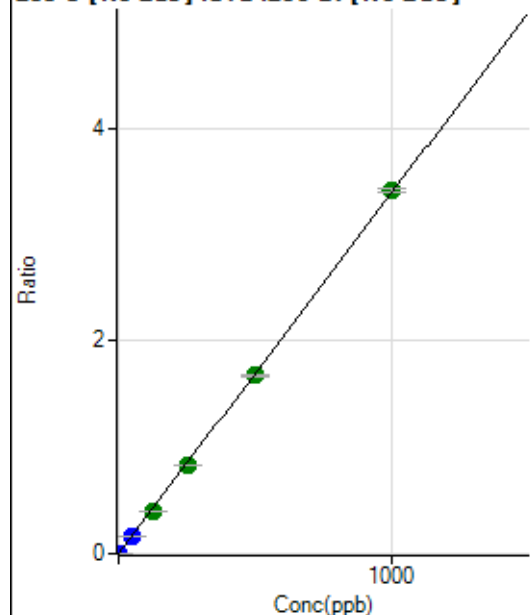
$$R = 0.9999$$

$$DL = 0.002709$$

$$BEC = 0.05341$$

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	2942.14	0.0002	P	4.9
2	☐	1.000	0.888	54319.57	0.0032	P	0.2
3	☐	50.000	47.246	2702701.86	0.1605	P	0.3
4	☐	125.000	119.645	6738500.93	0.4063	A	0.2
5	☐	250.000	244.277	13591715.58	0.8293	A	0.6
6	☐	500.000	493.277	27156238.80	1.6745	A	0.3
7	☐	1000.000	1005.599	53363006.06	3.4134	A	1.1
8	☐			12039.42	0.0009	P	0.6

$$y = 0.0034 * x + 1.7063E-004$$

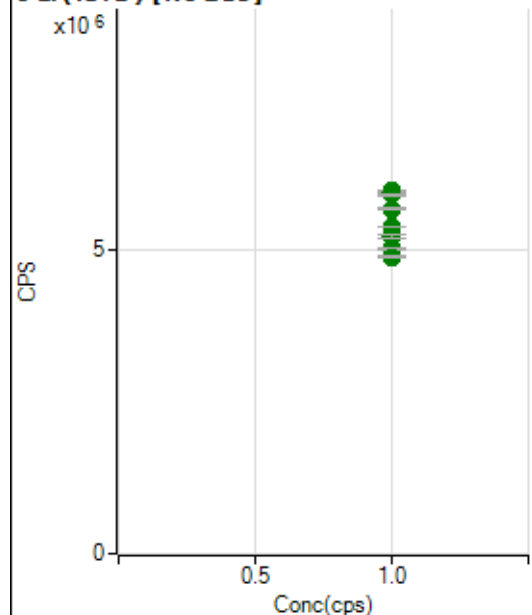
$$R = 0.9999$$

$$DL = 0.007389$$

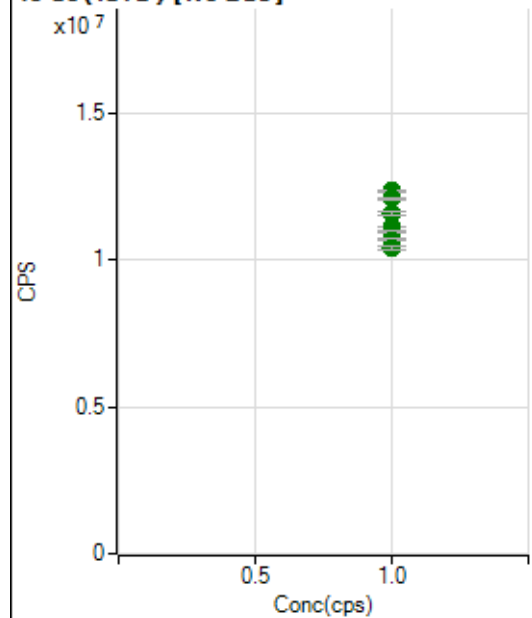
$$BEC = 0.05027$$

Weight: <None>

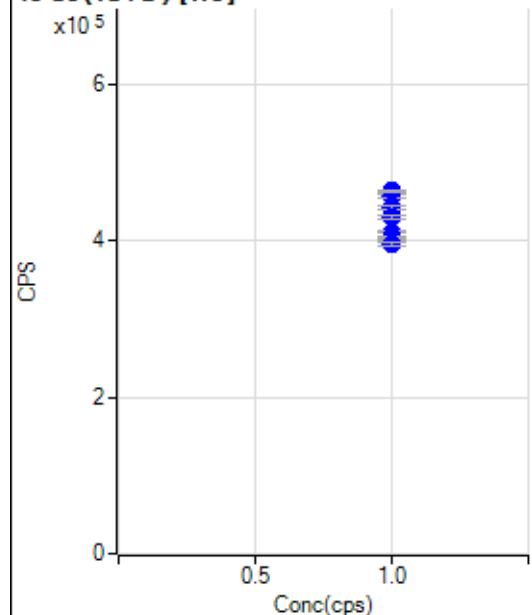
Min Conc: 0

6 Li (ISTD) [No Gas]

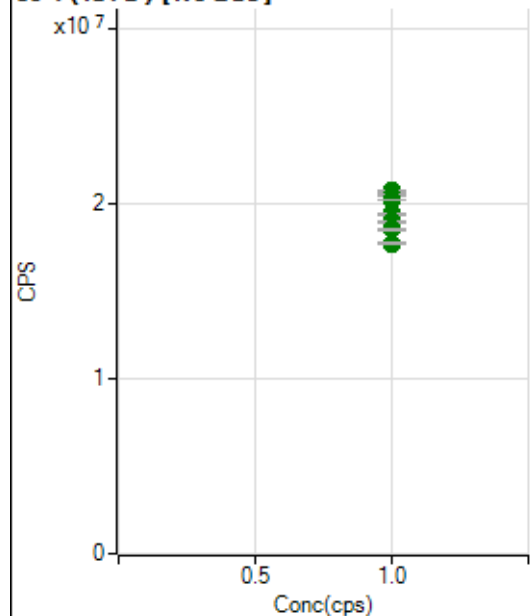
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5969662.48		A	0.3
2	☐	1.000		5961543.59		A	1.0
3	☐	1.000		5908725.40		A	0.5
4	☐	1.000		5676164.98		A	0.2
5	☐	1.000		5386177.35		A	0.2
6	☐	1.000		5214107.98		A	1.2
7	☐	1.000		5018195.59		A	0.8
8	☐	1.000		4886874.79		A	0.9

45 Sc (ISTD) [No Gas]

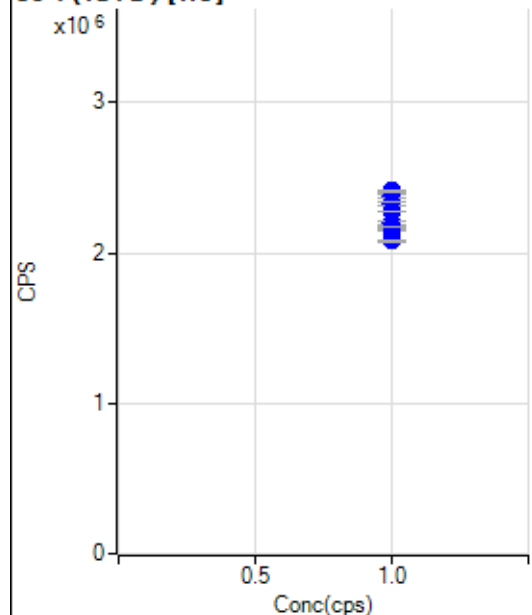
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12354377.27		A	0.4
2	☐	1.000		12347711.04		A	0.6
3	☐	1.000		12096814.25		A	0.4
4	☐	1.000		11565308.42		A	1.0
5	☐	1.000		11143816.57		A	0.2
6	☐	1.000		10978653.98		A	0.7
7	☐	1.000		10697010.65		A	0.8
8	☐	1.000		10422167.77		A	0.9

45 Sc (ISTD) [He]

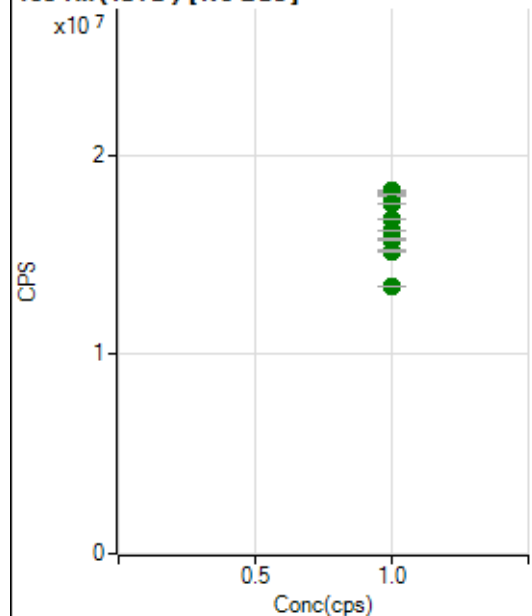
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		456819.26		P	0.8
2	☐	1.000		463831.13		P	0.8
3	☐	1.000		442037.05		P	1.4
4	☐	1.000		430354.73		P	0.8
5	☐	1.000		411575.25		P	1.0
6	☐	1.000		399472.29		P	0.3
7	☐	1.000		404973.45		P	0.5
8	☐	1.000		396191.81		P	0.9

89 Y (ISTD) [No Gas]

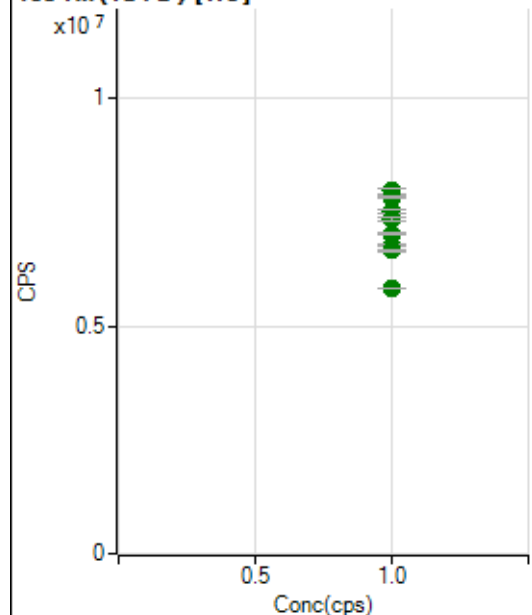
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20706960.80		A	0.7
2	☐	1.000		20456769.83		A	0.6
3	☐	1.000		20189007.34		A	0.4
4	☐	1.000		19385319.16		A	0.6
5	☐	1.000		18973582.08		A	0.4
6	☐	1.000		18942382.63		A	0.8
7	☐	1.000		18493692.36		A	0.6
8	☐	1.000		17692407.23		A	0.8

89 Y (ISTD) [He]

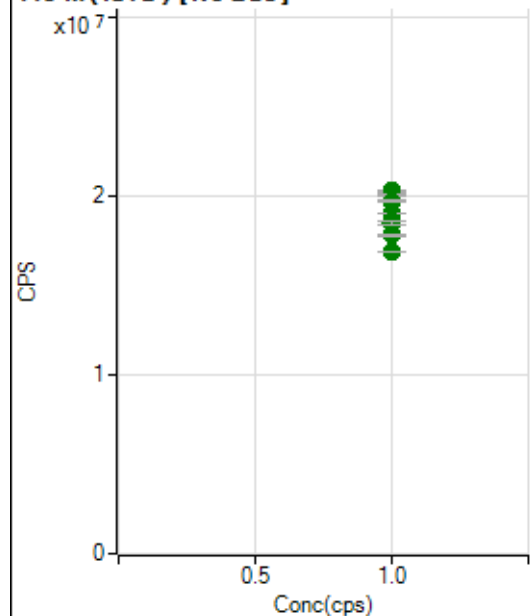
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2378123.65		P	1.5
2	☐	1.000		2412338.94		P	0.7
3	☐	1.000		2324590.59		P	1.2
4	☐	1.000		2274521.39		P	0.4
5	☐	1.000		2197068.99		P	0.9
6	☐	1.000		2152981.98		P	0.7
7	☐	1.000		2176651.08		P	0.3
8	☐	1.000		2078856.19		P	0.6

103 Rh (ISTD) [No Gas]

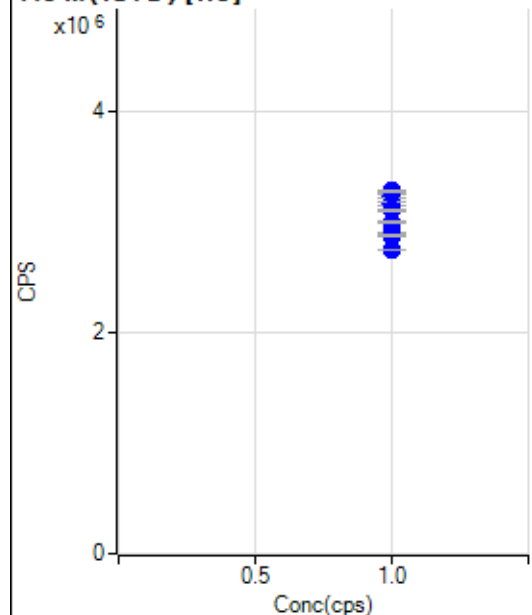
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18225268.46		A	0.5
2	☐	1.000		18019642.42		A	0.6
3	☐	1.000		17602373.49		A	0.3
4	☐	1.000		16789263.92		A	0.2
5	☐	1.000		16235205.57		A	0.3
6	☐	1.000		15791059.55		A	0.8
7	☐	1.000		15188448.60		A	0.5
8	☐	1.000		13403037.45		A	0.2

103 Rh (ISTD) [He]

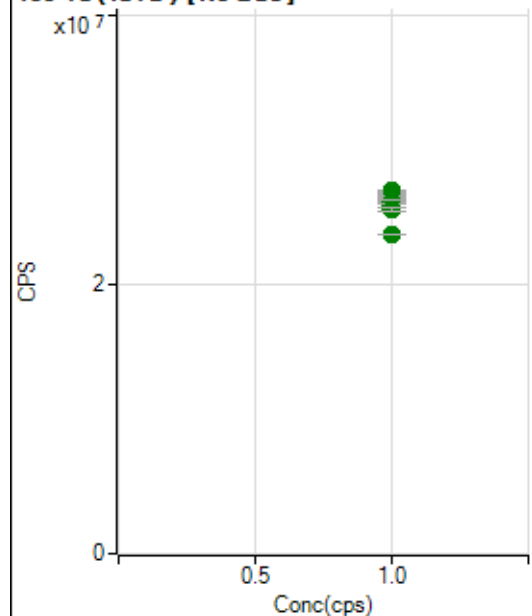
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7966429.88		A	1.4
2	☐	1.000		7829371.62		A	0.5
3	☐	1.000		7511121.21		A	1.2
4	☐	1.000		7348939.33		A	0.7
5	☐	1.000		7020891.77		A	0.4
6	☐	1.000		6775521.64		A	0.5
7	☐	1.000		6659874.48		A	0.5
8	☐	1.000		5837392.76		A	0.1

115 In (ISTD) [No Gas]

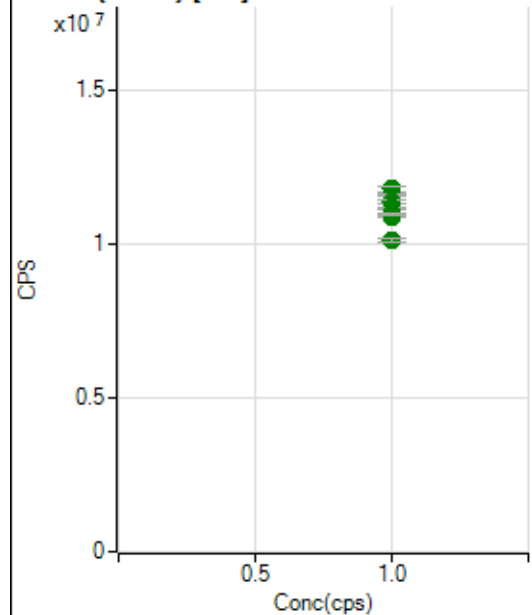
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20296380.57		A	0.5
2	☐	1.000		20078414.49		A	0.5
3	☐	1.000		19699731.20		A	0.6
4	☐	1.000		19045647.07		A	0.4
5	☐	1.000		18606042.84		A	0.2
6	☐	1.000		18510542.42		A	0.8
7	☐	1.000		17821066.14		A	0.9
8	☐	1.000		16888995.83		A	0.3

115 In (ISTD) [He]

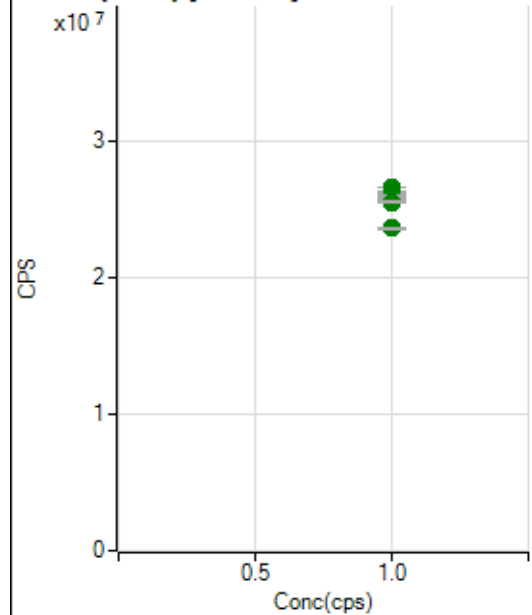
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3228665.32		P	1.2
2	☐	1.000		3277256.43		P	0.7
3	☐	1.000		3161141.60		P	1.3
4	☐	1.000		3104304.10		P	0.6
5	☐	1.000		2991739.73		P	0.6
6	☐	1.000		2892290.70		P	0.3
7	☐	1.000		2870113.62		P	0.5
8	☐	1.000		2742649.51		P	0.4

159 Tb (ISTD) [No Gas]

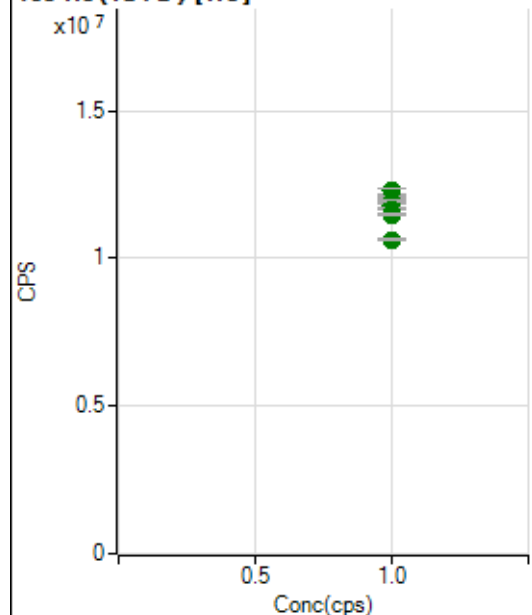
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26976945.43		A	0.3
2	☐	1.000		26674585.43		A	0.6
3	☐	1.000		26478007.38		A	0.6
4	☐	1.000		26069194.05		A	0.3
5	☐	1.000		25903128.22		A	1.2
6	☐	1.000		26132656.55		A	1.1
7	☐	1.000		25622867.40		A	0.9
8	☐	1.000		23715161.59		A	0.3

159 Tb (ISTD) [He]

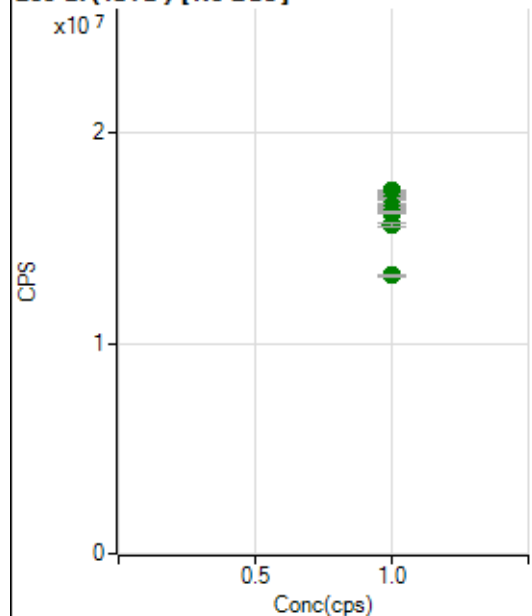
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11796157.46		A	1.4
2	☐	1.000		11593592.47		A	0.9
3	☐	1.000		11356225.67		A	1.1
4	☐	1.000		11390584.28		A	1.1
5	☐	1.000		11166395.94		A	0.7
6	☐	1.000		10907017.47		A	0.3
7	☐	1.000		10983567.61		A	0.6
8	☐	1.000		10128543.11		A	0.6

165 Ho (ISTD) [No Gas]

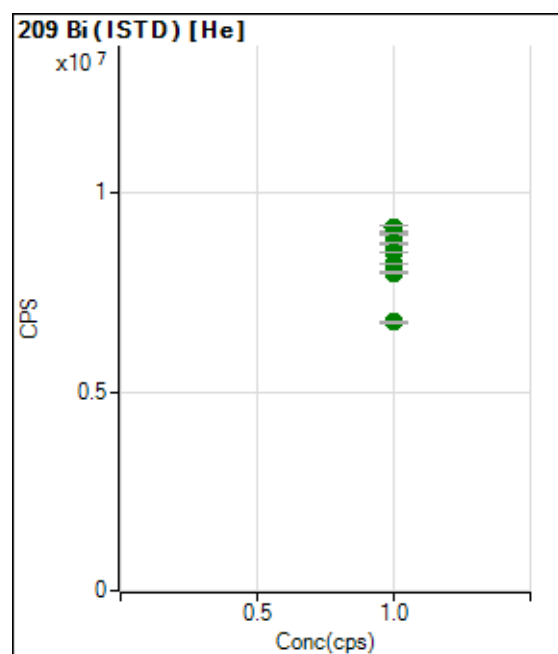
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26516154.59		A	0.2
2	☐	1.000		26240269.34		A	0.8
3	☐	1.000		26052336.17		A	0.5
4	☐	1.000		25867818.29		A	0.5
5	☐	1.000		25639614.12		A	0.5
6	☐	1.000		25892473.15		A	0.6
7	☐	1.000		25503043.10		A	1.0
8	☐	1.000		23558485.07		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12278793.98		A	1.4
2	☐	1.000		12053354.13		A	0.4
3	☐	1.000		11790350.38		A	1.2
4	☐	1.000		11919731.63		A	0.6
5	☐	1.000		11654399.41		A	0.6
6	☐	1.000		11444596.36		A	0.1
7	☐	1.000		11501505.80		A	0.8
8	☐	1.000		10616000.88		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17244558.08		A	0.3
2	☐	1.000		17054102.39		A	0.7
3	☐	1.000		16835477.53		A	0.5
4	☐	1.000		16586138.09		A	0.5
5	☐	1.000		16388802.95		A	0.6
6	☐	1.000		16217913.51		A	0.7
7	☐	1.000		15634015.18		A	0.8
8	☐	1.000		13221205.50		A	0.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9121496.32		A	1.4
2	☐	1.000		8964496.88		A	0.4
3	☐	1.000		8735043.20		A	0.9
4	☐	1.000		8717559.87		A	0.7
5	☐	1.000		8504198.69		A	0.3
6	☐	1.000		8213959.39		A	0.4
7	☐	1.000		7980912.59		A	0.5
8	☐	1.000		6745886.78		A	0.5

US EPA Tune Check Sample Report

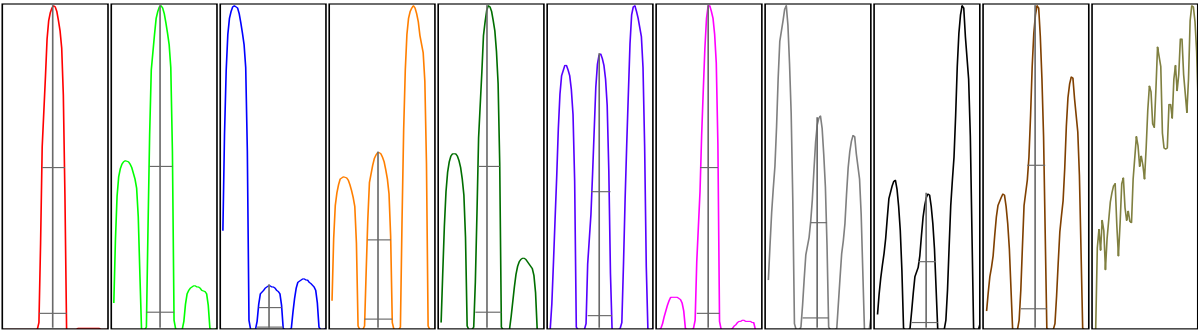
Batch Folder D:\ICP-MS Data\P7123119-MS .b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	15075	0.34	5.00	
24	173020	0.75	5.00	
25	23024	0.82	5.00	
26	26899	0.68	5.00	
59	123707	0.81	5.00	
113	17326	0.97	5.00	
115	202556	0.99	5.00	
206	49260	1.02	5.00	
207	45505	1.28	5.00	
208	106808	1.20	5.00	
220	131	1.95		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15107	15074	15143	15022	15027
24	174396	172967	174244	171975	171518
25	23201	23001	23227	22907	22784
26	26981	26942	27131	26782	26661
59	124873	123783	124313	123321	122245
113	17500	17420	17391	17247	17073
115	205234	203317	203053	200993	200183
206	49953	49336	49441	48938	48630
207	46394	45455	45650	44856	45170
208	108591	106754	107294	106265	105134
220	132	130	133	131	127

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	24205	8.95	8.9 - 9.1		0.788	0.900	
24	268259	23.90	23.9 - 24.1		0.790	0.900	
25	35878	24.90	24.9 - 25.1		0.784	0.900	
26	41757	25.90	25.9 - 26.1		0.792	0.900	
59	207888	58.90	58.9 - 59.1		0.779	0.900	
113	33642	113.00	112.9 - 113.1		0.731	0.900	
115	392359	115.00	114.9 - 115.1		0.691	0.900	
206	99830	206.00	205.9 - 206.1		0.773	0.900	
207	91429	207.00	206.9 - 207.1		0.773	0.900	
208	218452	208.00	207.9 - 208.1		0.771	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.9	V	Deflect	12.6	V
Extract 2	-110.0	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	28565	1.46	
89	9380	1.11	
205	40269	1.36	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	28087	28204	29077	28821	28637
89	9264	9296	9513	9450	9378
205	39620	39993	41092	40405	40236

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.3	V	Deflect	1.4	V
Extract 2	-125.0	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			