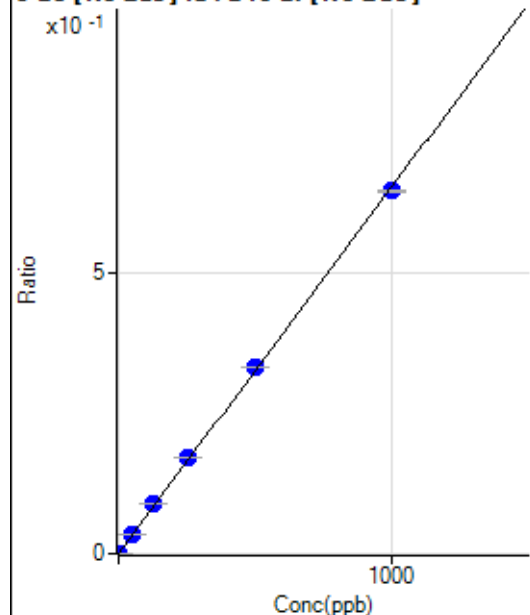


Batch Folder: D:\ICP-MS Data\P7121319MS.b\
Analysis File: P7121319MS.batch.bin
DA Date-Time: 2019-12-13 18:11:39
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-13 12:50:55
2	004CALS.d	S02	2019-12-13 12:54:31
3	005CALS.d	S03	2019-12-13 12:59:10
4	006CALS.d	S04	2019-12-13 13:03:21
5	007CALS.d	S05	2019-12-13 13:07:12
6	008CALS.d	S06	2019-12-13 13:11:00
7	009CALS.d	S07	2019-12-13 13:14:47
8	010CALS.d	S08	2019-12-13 13:18:35

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	43.0
2	☐	1.000	1.057	2570.65	0.0007	P	6.3
3	☐	50.000	53.322	125816.97	0.0347	P	0.8
4	☐	125.000	136.008	315622.68	0.0885	P	0.3
5	☐	250.000	263.754	583907.73	0.1715	P	0.4
6	☐	500.000	509.511	1084785.08	0.3314	P	0.6
7	☐	1000.000	990.264	2086117.26	0.6440	P	0.3
8	☐			374.09	0.0001	P	17.2

$$y = 6.5037\text{E-}004 * x + 6.0959\text{E-}006$$

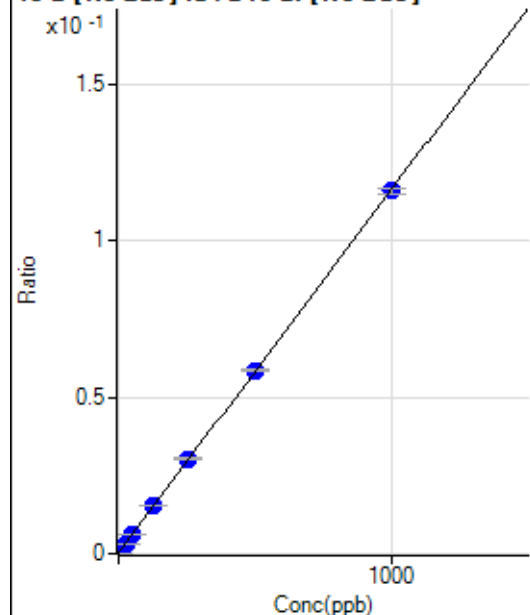
$$R = 0.9998$$

$$DL = 0.01208$$

$$BEC = 0.009373$$

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	1025.07	0.0003	P	7.3
2	☐	25.000	23.870	11310.18	0.0031	P	3.8
3	☐	50.000	51.138	22550.95	0.0062	P	2.7
4	☐	125.000	130.087	54875.16	0.0154	P	1.6
5	☐	250.000	257.514	102689.36	0.0302	P	1.7
6	☐	500.000	502.156	191717.04	0.0586	P	1.5
7	☐	1000.000	996.379	375511.33	0.1159	P	1.5
8	☐			10256.67	0.0031	P	10.8

$$y = 1.1607\text{E-}004 * x + 2.8142\text{E-}004$$

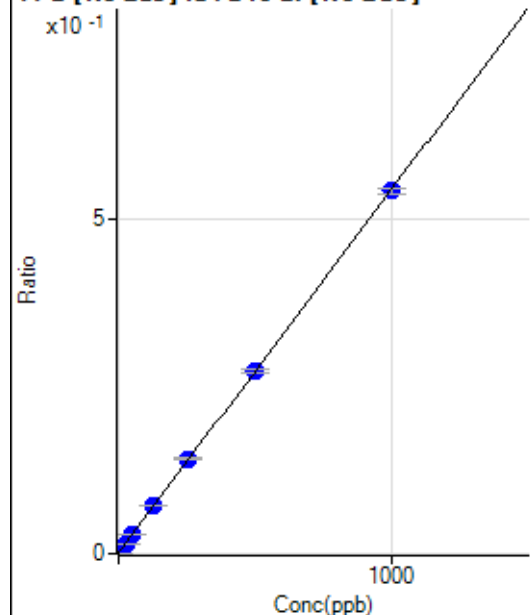
$$R = 1.0000$$

$$DL = 0.5285$$

$$BEC = 2.425$$

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	4806.50	0.0013	P	1.4
2	☐	25.000	24.089	53392.40	0.0144	P	1.9
3	☐	50.000	51.601	106487.60	0.0294	P	1.1
4	☐	125.000	129.411	255560.55	0.0716	P	1.3
5	☐	250.000	258.846	483159.04	0.1420	P	1.4
6	☐	500.000	502.121	897341.55	0.2741	P	2.1
7	☐	1000.000	996.119	1757320.61	0.5425	P	1.3
8	☐			47849.33	0.0145	P	9.1

$$y = 5.4332\text{E-}004 * x + 0.0013$$

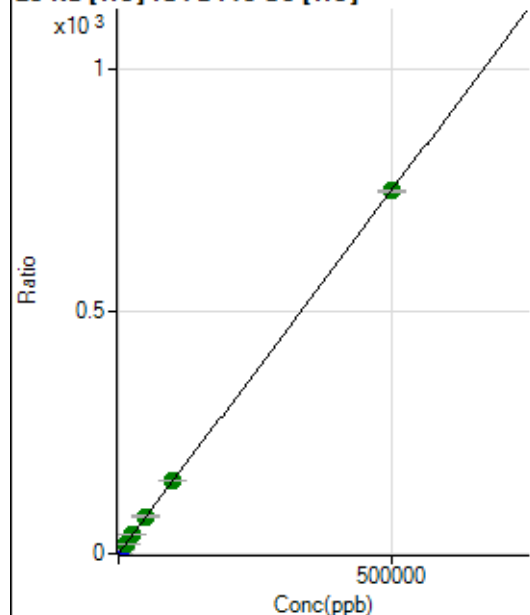
R = 0.9999

DL = 0.1051

BEC = 2.429

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	9583.96	0.0252	P	5.0
2	☐	500.000	513.061	302217.68	0.7927	P	0.6
3	☐	5000.000	5261.282	2930763.33	7.8953	P	0.5
4	☐	12500.000	13422.901	7283073.86	20.1038	A	1.9
5	☐	25000.000	26691.651	14023686.60	39.9518	A	0.7
6	☐	50000.000	51545.193	26985214.49	77.1289	A	0.9
7	☐	100000.00	100903.23	54348992.88	150.9610	A	0.5
8	☐	500000.00	499554.55	275889792.2	747.2822	A	0.2

$$y = 0.0015 * x + 0.0252$$

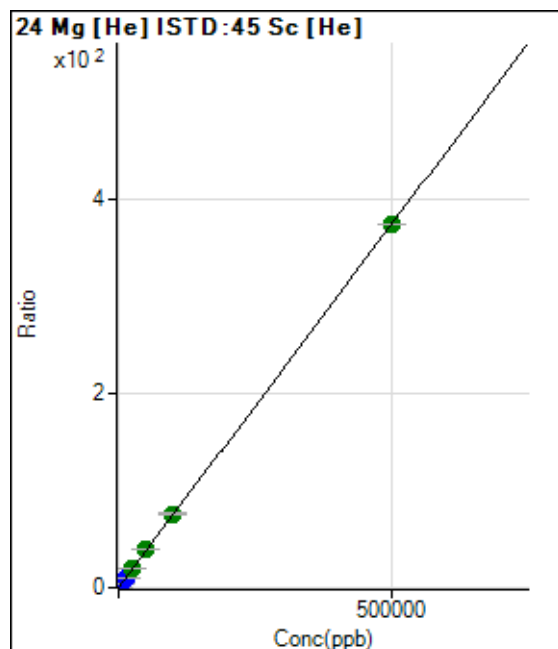
R = 1.0000

DL = 2.521

BEC = 16.87

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	163.90	0.0004	P	2.5
2	☐	500.000	535.089	152608.59	0.4003	P	2.2
3	☐	5000.000	5406.607	1499857.39	4.0405	P	0.8
4	☐	12500.000	13618.451	3686977.08	10.1769	P	1.6
5	☐	25000.000	27115.374	7112407.97	20.2625	A	0.5
6	☐	50000.000	51990.675	13592738.67	38.8506	A	0.9
7	☐	100000.00	101719.06	27364379.08	76.0103	A	1.0
8	☐	500000.00	499319.28	137753018.3	373.1184	A	0.1

$$y = 7.4725\text{E-}004 * x + 4.3150\text{E-}004$$

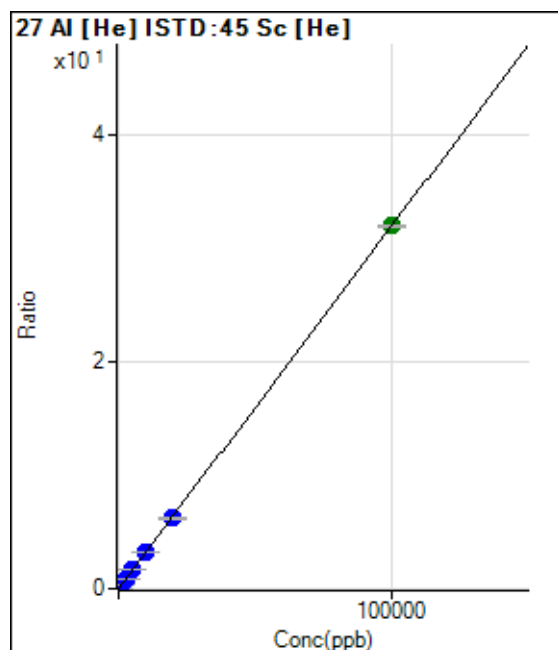
$$R = 1.0000$$

$$DL = 0.04391$$

$$BEC = 0.5774$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.67	0.0000	P	99.7
2	☐	20.000	19.027	2336.39	0.0061	P	7.8
3	☐	1000.000	1029.552	122199.03	0.3292	P	0.6
4	☐	2500.000	2641.966	306019.33	0.8447	P	1.5
5	☐	5000.000	5191.306	582553.13	1.6597	P	1.1
6	☐	10000.000	9909.151	1108459.99	3.1680	P	0.4
7	☐	20000.000	19374.647	2229937.44	6.1941	P	0.9
8	☐	100000.00	100120.74	11817220.49	32.0088	A	0.2

$$y = 3.1970\text{E-}004 * x + 4.3711\text{E-}005$$

$$R = 1.0000$$

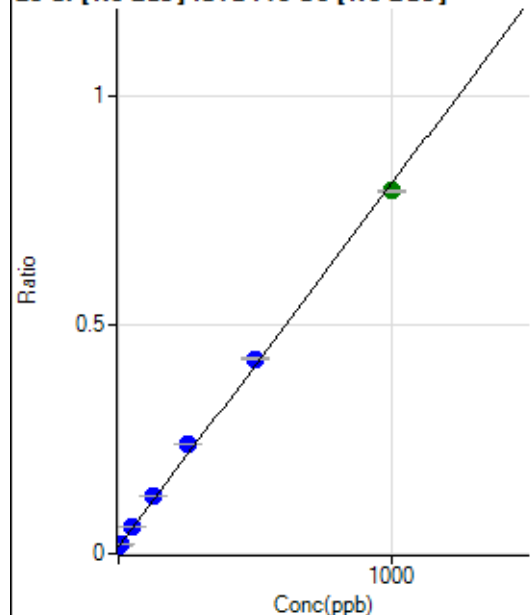
$$DL = 0.409$$

$$BEC = 0.1367$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	134640.99	0.0151	P	1.5
2	☐	10.000	9.866	206505.93	0.0229	P	0.6
3	☐	50.000	56.138	523925.13	0.0596	P	0.6
4	☐	125.000	141.413	1100652.94	0.1273	P	0.6
5	☐	250.000	281.823	1946801.56	0.2386	P	0.4
6	☐	500.000	518.301	3446740.09	0.4261	P	0.5
7	☐	1000.000	980.537	6516649.28	0.7927	A	0.4
8	☐			1203720.81	0.1418	P	0.5

$$y = 7.9304\text{E-}004 * x + 0.0151$$

$$R = 0.9991$$

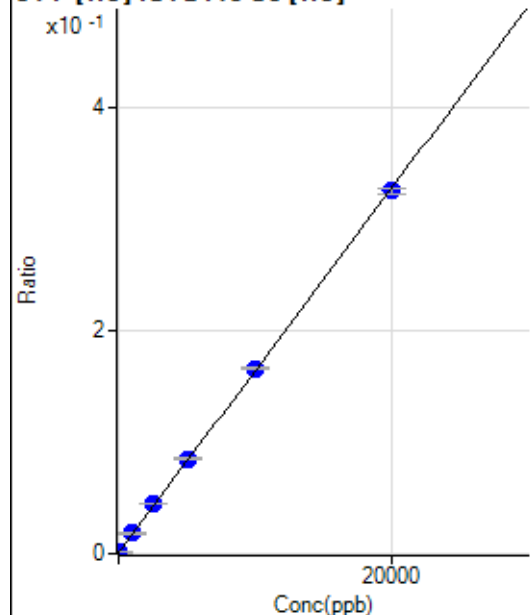
$$DL = 0.8582$$

$$BEC = 19.06$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-21.389	158.34	0.0004	P	23.4
2	☐	0.000	21.389	425.02	0.0011	P	8.7
3	☐	1000.000	1065.389	6732.35	0.0181	P	0.9
4	☐	2500.000	2688.688	16159.26	0.0446	P	1.3
5	☐	5000.000	5162.420	29811.27	0.0849	P	2.2
6	☐	10000.000	10136.479	58091.88	0.1660	P	1.1
7	☐	20000.000	19864.300	116905.58	0.3246	P	1.4
8	☐			200.01	0.0005	P	36.9

$$y = 1.6305\text{E-}005 * x + 7.6590\text{E-}004$$

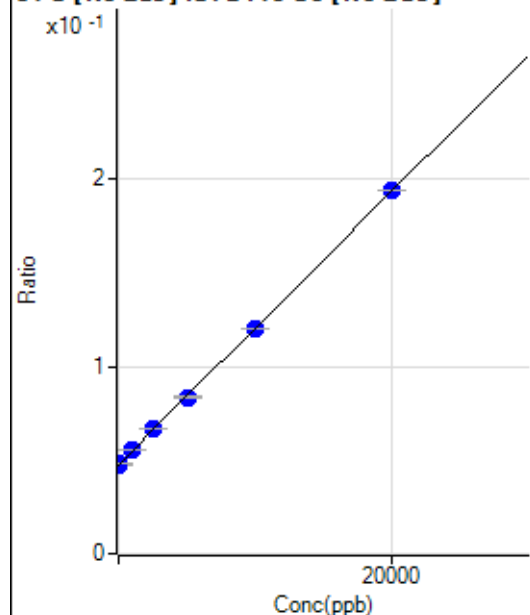
$$R = 0.9999$$

$$DL = 17.94$$

$$BEC = 46.97$$

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	-78.831	419024.71	0.0470	P	1.4
2	☐	0.000	78.831	433783.57	0.0482	P	0.3
3	☐	1000.000	1108.907	489259.74	0.0557	P	0.6
4	☐	2500.000	2600.356	575647.09	0.0666	P	0.8
5	☐	5000.000	4925.022	681256.46	0.0835	P	1.3
6	☐	10000.000	9911.775	969263.17	0.1198	P	0.3
7	☐	20000.000	20044.867	1592163.75	0.1937	P	0.2
8	☐			373402.09	0.0440	P	0.9

$$y = 7.2874\text{E-}006 * x + 0.0476$$

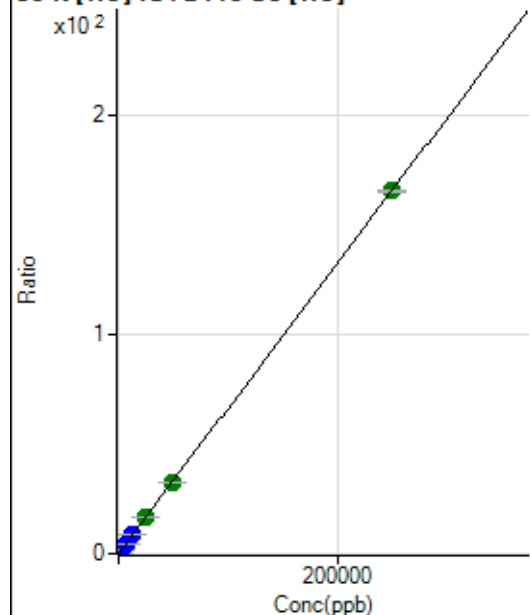
R = 0.9999

DL = 164.5

BEC = 6533

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	15661.54	0.0412	P	4.2
2	☐	500.000	492.427	139596.46	0.3661	P	1.1
3	☐	2500.000	2548.148	639395.45	1.7225	P	0.8
4	☐	6250.000	6491.184	1566712.52	4.3241	P	0.2
5	☐	12500.000	12726.381	2961933.27	8.4380	P	0.7
6	☐	25000.000	24672.177	5710107.46	16.3198	A	0.5
7	☐	50000.000	48696.388	11581946.18	32.1708	A	1.0
8	☐	250000.00	250275.69	60981069.42	165.1715	A	0.7

$$y = 6.5979\text{E-}004 * x + 0.0412$$

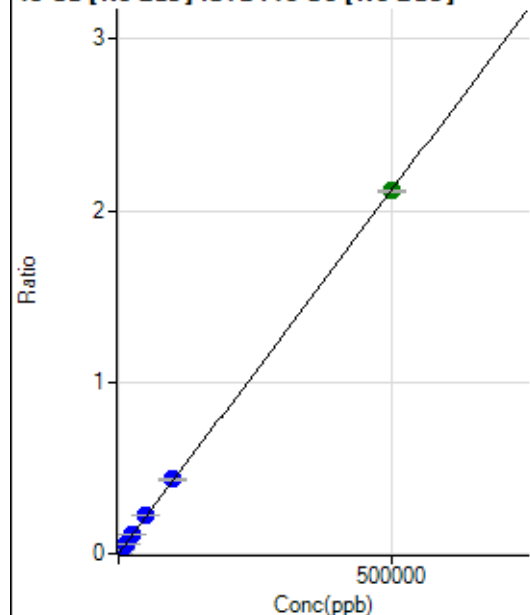
R = 1.0000

DL = 7.925

BEC = 62.5

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	188.90	0.0000	P	26.7
2	☐	500.000	497.129	19154.72	0.0021	P	1.7
3	☐	5000.000	5282.715	196835.63	0.0224	P	0.5
4	☐	12500.000	13571.476	497506.52	0.0575	P	0.2
5	☐	25000.000	27131.764	938076.83	0.1150	P	0.5
6	☐	50000.000	52191.705	1788711.78	0.2211	P	0.3
7	☐	100000.00	101896.57	3549167.09	0.4317	P	0.4
8	☐	500000.00	499265.31	17956262.90	2.1153	A	0.4

$$y = 4.2368\text{E-}006 * x + 2.1208\text{E-}005$$

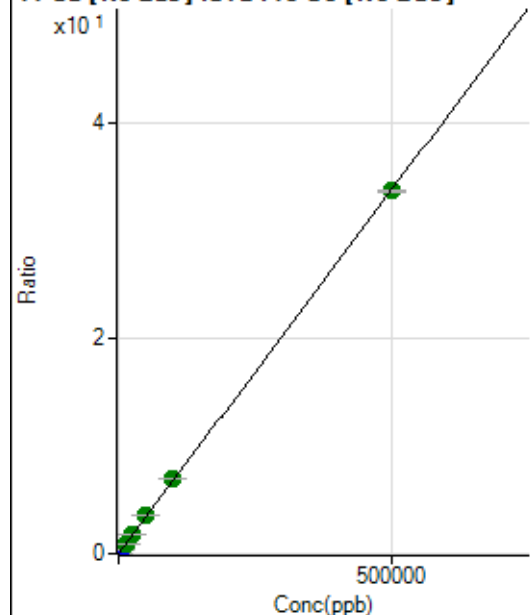
$$R = 1.0000$$

$$DL = 4.01$$

$$BEC = 5.005$$

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	6801.91	0.0008	P	0.7
2	☐	500.000	496.964	309308.92	0.0344	P	0.5
3	☐	5000.000	5305.688	3157588.53	0.3594	P	0.4
4	☐	12500.000	13432.339	7859311.98	0.9087	A	0.3
5	☐	25000.000	27031.738	14913749.47	1.8279	A	0.3
6	☐	50000.000	52532.990	28726173.90	3.5516	A	0.1
7	☐	100000.00	103730.46	57643919.34	7.0121	A	0.2
8	☐	500000.00	498872.65	286228186.9	33.7207	A	0.2

$$y = 6.7592\text{E-}005 * x + 7.6342\text{E-}004$$

$$R = 1.0000$$

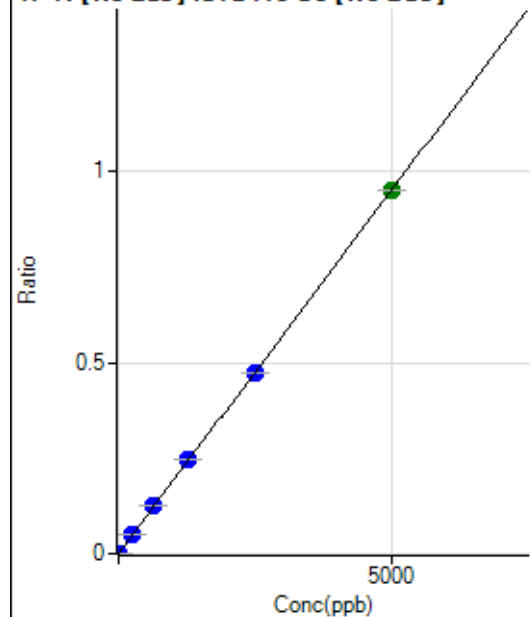
$$DL = 0.2209$$

$$BEC = 11.29$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	75.01	0.0000	P	29.3
2	☐	5.000	5.186	8944.69	0.0010	P	1.6
3	☐	250.000	254.551	424873.80	0.0484	P	0.3
4	☐	625.000	651.866	1070967.28	0.1238	P	0.3
5	☐	1250.000	1289.574	1998562.78	0.2450	P	0.6
6	☐	2500.000	2488.535	3823192.36	0.4727	P	0.4
7	☐	5000.000	4992.253	7795104.25	0.9482	A	0.1
8	☐			2686.47	0.0003	P	9.8

$$y = 1.8994\text{E-}004 * x + 8.4165\text{E-}006$$

$$R = 1.0000$$

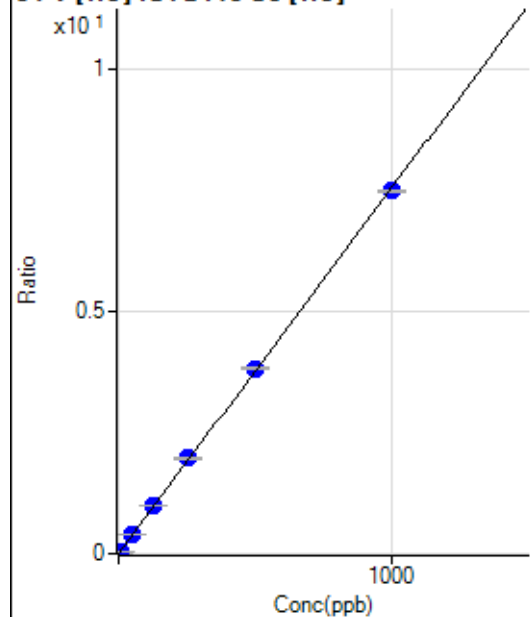
$$DL = 0.03897$$

$$BEC = 0.04431$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.55	0.0000	P	125.3
2	☐	5.000	5.236	15056.72	0.0395	P	2.0
3	☐	50.000	51.943	145370.81	0.3916	P	0.8
4	☐	125.000	132.725	362519.21	1.0007	P	1.3
5	☐	250.000	261.249	691350.60	1.9696	P	0.8
6	☐	500.000	507.162	1337838.44	3.8236	P	0.5
7	☐	1000.000	992.543	2694204.25	7.4830	P	0.7
8	☐			892.26	0.0024	P	1.7

$$y = 0.0075 * x + 1.4662\text{E-}005$$

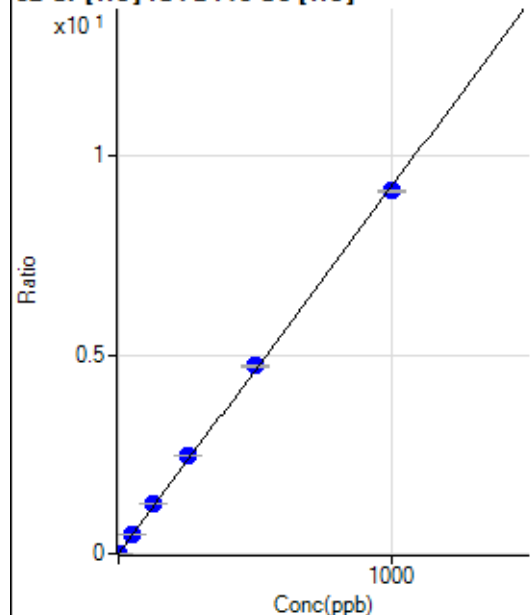
$$R = 0.9999$$

$$DL = 0.007312$$

$$BEC = 0.001945$$

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	1112.29	0.0029	P	7.3
2	☐	2.000	2.025	8239.10	0.0216	P	1.1
3	☐	50.000	53.031	182654.89	0.4921	P	0.5
4	☐	125.000	135.618	454242.42	1.2538	P	1.2
5	☐	250.000	266.468	863711.31	2.4607	P	1.2
6	☐	500.000	511.528	1651766.71	4.7210	P	0.9
7	☐	1000.000	988.640	3284121.90	9.1217	P	0.5
8	☐			92109.84	0.2495	P	0.3

$$y = 0.0092 * x + 0.0029$$

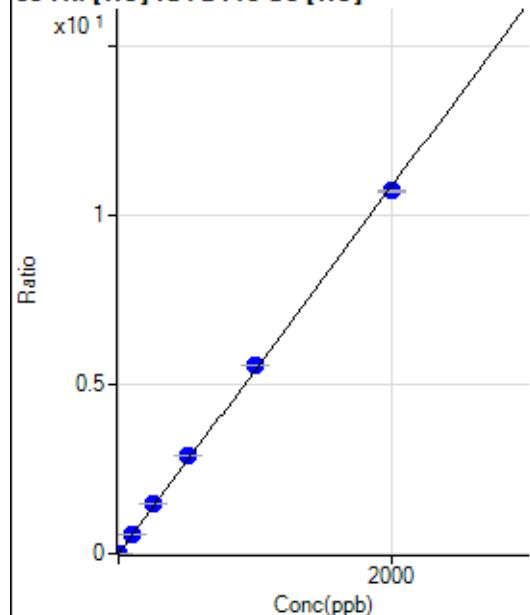
$$R = 0.9997$$

$$DL = 0.06979$$

$$BEC = 0.3176$$

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	35.55	0.0001	P	30.6
2	☐	1.000	1.096	2299.10	0.0060	P	0.8
3	☐	100.000	105.799	212708.51	0.5730	P	0.5
4	☐	250.000	269.010	527790.09	1.4568	P	1.1
5	☐	500.000	531.927	1011139.15	2.8806	P	0.8
6	☐	1000.000	1026.610	1945155.94	5.5594	P	0.3
7	☐	2000.000	1976.047	3852409.00	10.7007	P	0.5
8	☐			14470.62	0.0392	P	0.6

$$y = 0.0054 * x + 9.3724E-005$$

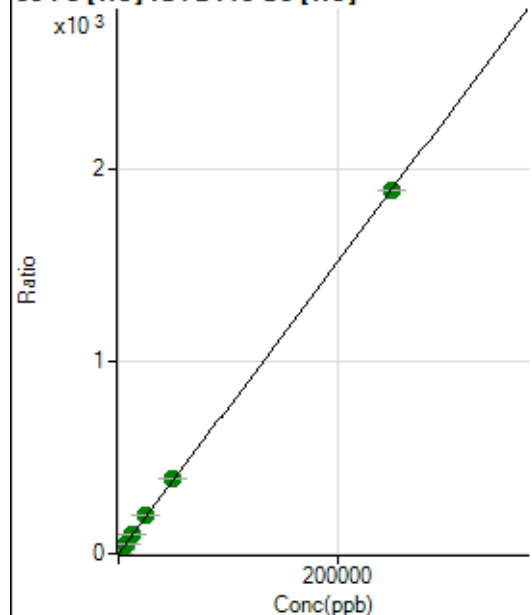
$$R = 0.9997$$

$$DL = 0.0159$$

$$BEC = 0.01731$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3241.19	0.0085	P	5.2
2	☐	50.000	54.874	161810.77	0.4244	P	1.2
3	☐	2500.000	2702.750	7606723.72	20.4923	A	0.9
4	☐	6250.000	6967.668	19134307.14	52.8156	A	1.2
5	☐	12500.000	13711.110	36477733.22	103.9232	A	0.6
6	☐	25000.000	26491.595	70249175.18	200.7848	A	0.9
7	☐	50000.000	51535.440	140616489.2	390.5887	A	0.7
8	☐	250000.00	249463.22	698006497.0	1,890.656	A	0.1

$$y = 0.0076 * x + 0.0085$$

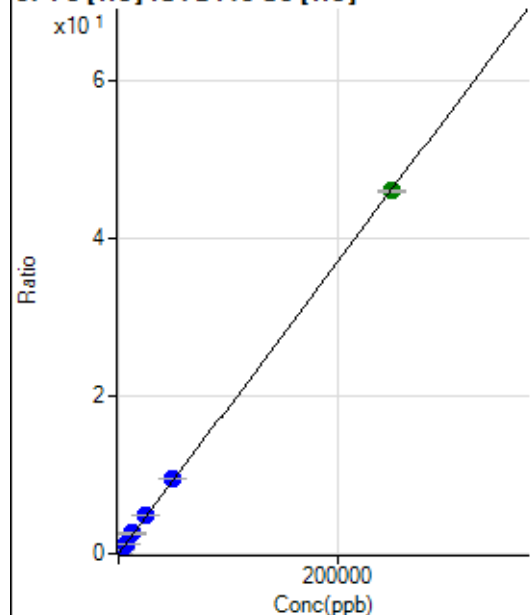
$$R = 1.0000$$

$$DL = 0.1758$$

$$BEC = 1.126$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	166.67	0.0004	P	13.6
2	☐	50.000	56.281	4128.46	0.0108	P	0.4
3	☐	2500.000	2762.190	189441.52	0.5104	P	1.3
4	☐	6250.000	7037.246	470810.22	1.2996	P	1.3
5	☐	12500.000	13901.118	900912.22	2.5667	P	0.8
6	☐	25000.000	26782.461	1730044.70	4.9447	P	0.6
7	☐	50000.000	52050.867	3459669.90	9.6094	P	0.3
8	☐	250000.00	249319.22	16991769.48	46.0265	A	0.7

$$y = 1.8461E-004 * x + 4.3892E-004$$

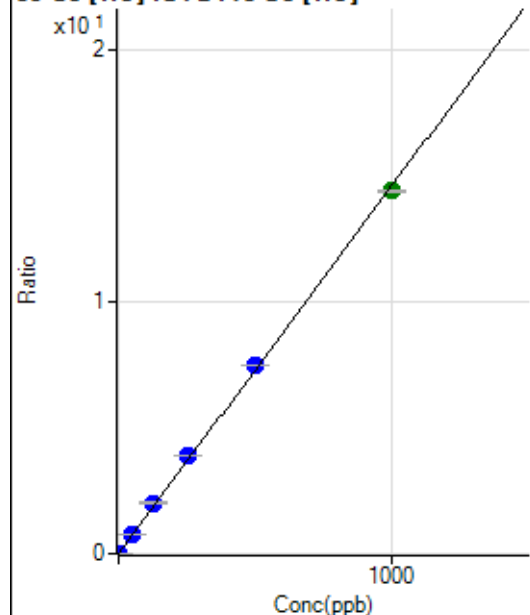
$$R = 0.9999$$

$$DL = 0.9678$$

$$BEC = 2.378$$

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	62.22	0.0002	P	7.9
2	☐	1.000	1.030	5796.79	0.0152	P	3.0
3	☐	50.000	54.397	294900.31	0.7944	P	0.4
4	☐	125.000	137.946	729774.32	2.0144	P	1.3
5	☐	250.000	268.239	1374869.27	3.9168	P	0.2
6	☐	500.000	512.383	2617734.15	7.4816	P	0.4
7	☐	1000.000	987.411	5190866.49	14.4177	A	0.7
8	☐			10520.57	0.0285	P	2.9

$$y = 0.0146 * x + 1.6381E-004$$

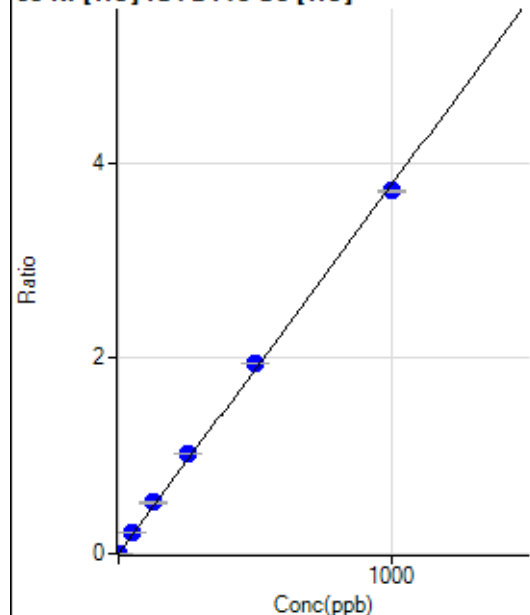
$$R = 0.9997$$

$$DL = 0.002674$$

$$BEC = 0.01122$$

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	36.66	0.0001	P	15.1
2	☐	1.000	1.083	1595.67	0.0042	P	2.3
3	☐	50.000	55.195	77399.62	0.2085	P	0.8
4	☐	125.000	138.503	189494.30	0.5231	P	1.7
5	☐	250.000	271.283	359587.79	1.0244	P	0.5
6	☐	500.000	517.479	683698.75	1.9541	P	0.4
7	☐	1000.000	983.992	1337777.85	3.7156	P	0.5
8	☐			26486.38	0.0717	P	0.4

$$y = 0.0038 * x + 9.6476E-005$$

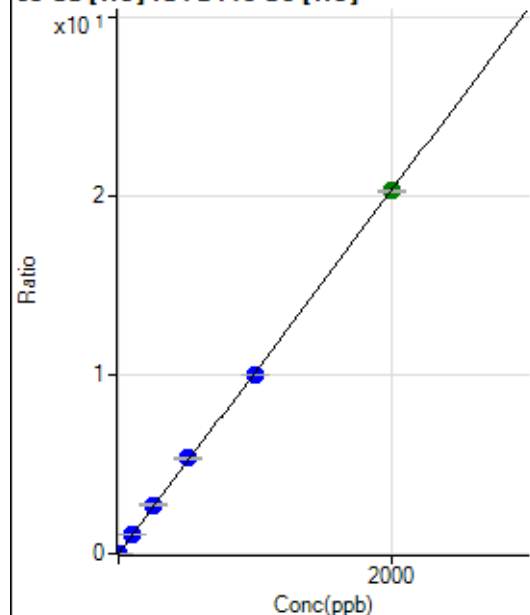
$$R = 0.9995$$

$$DL = 0.0116$$

$$BEC = 0.02555$$

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	584.47	0.0015	P	4.5
2	☐	2.000	2.089	8674.91	0.0228	P	1.0
3	☐	100.000	107.682	406435.96	1.0949	P	0.7
4	☐	250.000	269.227	990971.77	2.7352	P	1.0
5	☐	500.000	523.968	1867966.38	5.3218	P	1.0
6	☐	1000.000	987.957	3510494.29	10.0331	P	0.3
7	☐	2000.000	1997.242	7301709.34	20.2812	A	0.8
8	☐			11909.43	0.0323	P	1.0

$$y = 0.0102 * x + 0.0015$$

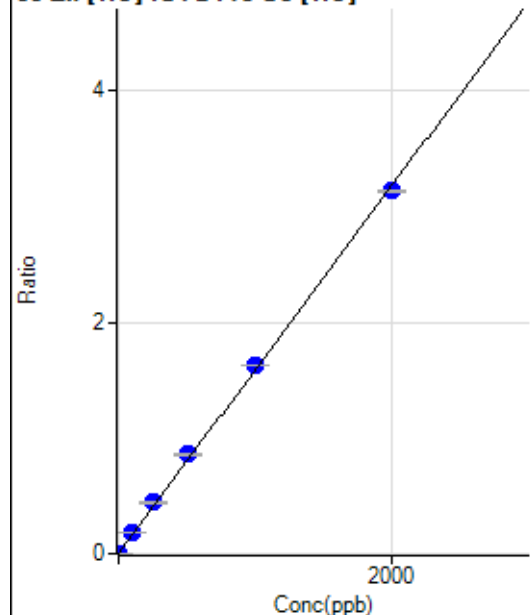
$$R = 0.9999$$

$$DL = 0.02035$$

$$BEC = 0.1516$$

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	722.25	0.0019	P	1.8
2	☐	2.000	2.228	2072.40	0.0054	P	0.4
3	☐	100.000	109.438	65153.54	0.1755	P	0.5
4	☐	250.000	276.282	159480.23	0.4402	P	1.3
5	☐	500.000	538.627	300606.87	0.8564	P	0.7
6	☐	1000.000	1024.862	569544.59	1.6278	P	0.4
7	☐	2000.000	1974.155	1128251.34	3.1338	P	0.3
8	☐			14997.88	0.0406	P	1.1

$$y = 0.0016 * x + 0.0019$$

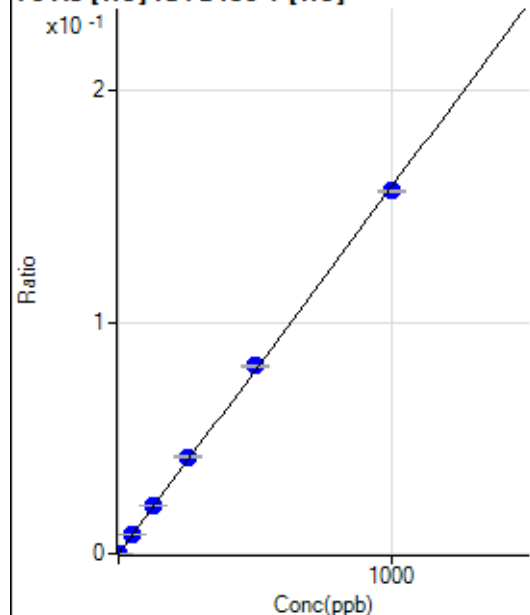
$$R = 0.9996$$

$$DL = 0.06403$$

$$BEC = 1.199$$

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	6.17	0.0000	P	45.0
2	☐	1.000	1.015	364.20	0.0002	P	1.4
3	☐	50.000	53.015	18335.71	0.0084	P	1.1
4	☐	125.000	133.020	45309.13	0.0211	P	1.0
5	☐	250.000	264.536	86684.53	0.0419	P	1.5
6	☐	500.000	511.515	167927.98	0.0811	P	0.6
7	☐	1000.000	989.455	333570.99	0.1569	P	0.4
8	☐			163.58	0.0001	P	7.3

$$y = 1.5855\text{E-}004 * x + 2.7812\text{E-}006$$

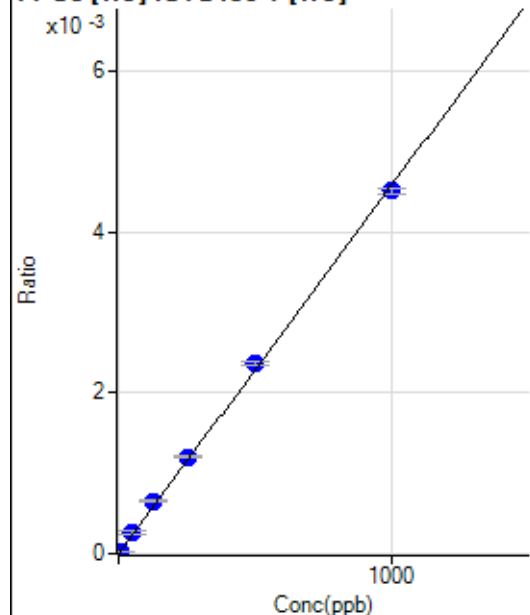
$$R = 0.9998$$

$$DL = 0.02369$$

$$BEC = 0.01754$$

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	0.00	0.0000	P	
2	☐	5.000	6.207	63.34	0.0000	P	8.9
3	☐	50.000	57.238	572.24	0.0003	P	10.5
4	☐	125.000	143.415	1412.31	0.0007	P	5.1
5	☐	250.000	262.221	2484.70	0.0012	P	2.1
6	☐	500.000	517.530	4913.13	0.0024	P	1.4
7	☐	1000.000	985.510	9608.87	0.0045	P	1.9
8	☐			3.33	0.0000	P	1.5

$$y = 4.5848\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9996$$

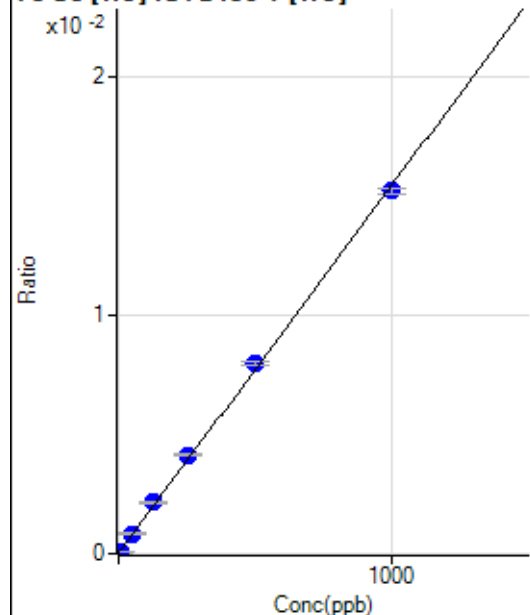
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0000	P	11.7
2	☐	5.000	5.939	248.15	0.0001	P	5.1
3	☐	50.000	53.072	1825.44	0.0008	P	2.9
4	☐	125.000	137.964	4606.32	0.0021	P	3.4
5	☐	250.000	267.640	8556.89	0.0041	P	0.6
6	☐	500.000	516.080	16491.53	0.0080	P	1.8
7	☐	1000.000	985.771	32305.11	0.0152	P	1.3
8	☐			67.28	0.0000	P	9.1

$$y = 1.5394\text{E-}005 * x + 2.0060\text{E-}005$$

$$R = 0.9996$$

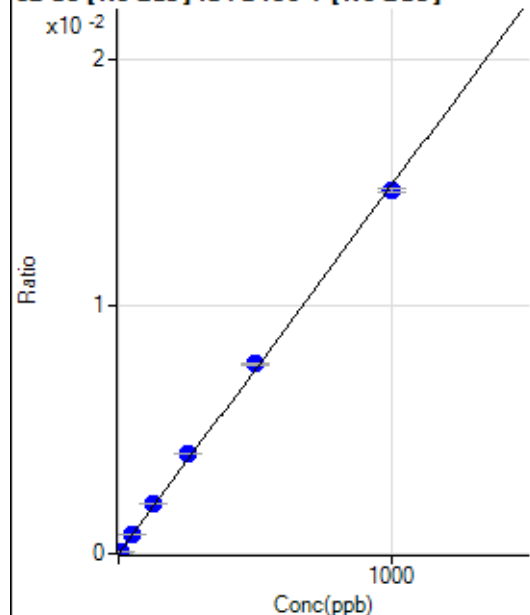
$$DL = 0.4566$$

$$BEC = 1.303$$

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	-16.47	0.0000	P	-365.
2	☐	5.000	5.569	1449.26	0.0001	P	6.5
3	☐	50.000	54.095	13942.01	0.0008	P	0.4
4	☐	125.000	137.988	35299.28	0.0021	P	0.5
5	☐	250.000	270.751	66542.46	0.0040	P	0.6
6	☐	500.000	515.170	126471.06	0.0077	P	0.7
7	☐	1000.000	985.396	245281.53	0.0147	P	1.1
8	☐			106.42	0.0000	P	39.2

$$y = 1.4890\text{E-}005 * x - 9.3823\text{E-}007$$

$$R = 0.9996$$

$$DL = 0.6901$$

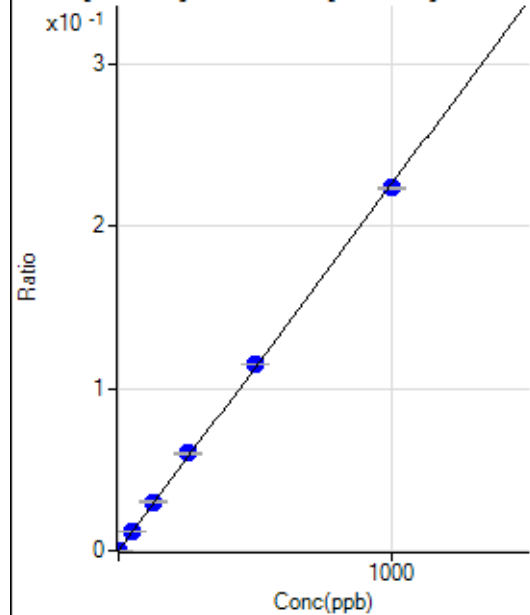
$$BEC = -0.06301$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			866.71		P	4.7
2	☐			867.82		P	3.3
3	☐			828.93		P	3.4
4	☐			852.26		P	4.4
5	☐			810.04		P	8.5
6	☐			837.81		P	10.6
7	☐			756.70		P	7.3
8	☐			935.60		P	6.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1358.46	0.0001	P	1.8
2	☐	1.000	0.986	5290.09	0.0003	P	6.1
3	☐	50.000	51.924	204336.92	0.0118	P	0.3
4	☐	125.000	133.280	518163.77	0.0301	P	0.5
5	☐	250.000	264.978	988249.40	0.0599	P	0.7
6	☐	500.000	510.127	1899042.51	0.1152	P	0.5
7	☐	1000.000	990.061	3735856.16	0.2234	P	0.6
8	☐			16671.34	0.0010	P	4.0

$$y = 2.2561E-004 * x + 7.6872E-005$$

$$R = 0.9998$$

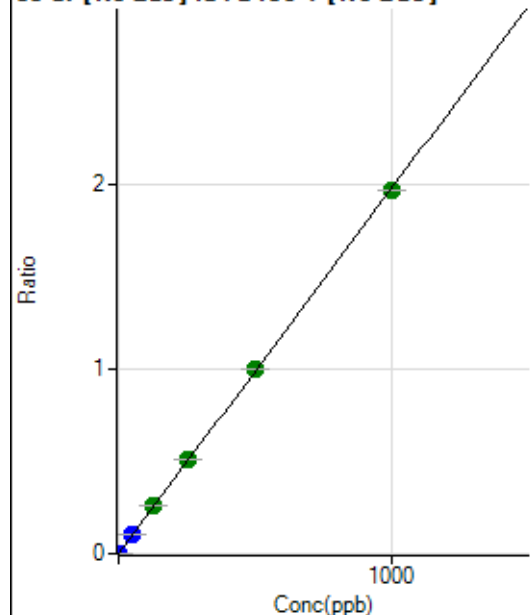
$$DL = 0.01822$$

$$BEC = 0.3407$$

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	108.34	0.0000	P	20.4
2	☐	1.000	0.992	34782.04	0.0020	P	0.2
3	☐	50.000	51.150	1752456.20	0.1011	P	0.5
4	☐	125.000	129.639	4405284.87	0.2563	A	0.2
5	☐	250.000	259.717	8476915.81	0.5134	A	0.3
6	☐	500.000	506.718	16518383.01	1.0017	A	0.1
7	☐	1000.000	993.574	32841072.61	1.9642	A	0.2
8	☐			134611.42	0.0082	P	1.1

$$y = 0.0020 * x + 6.1308E-006$$

$$R = 0.9999$$

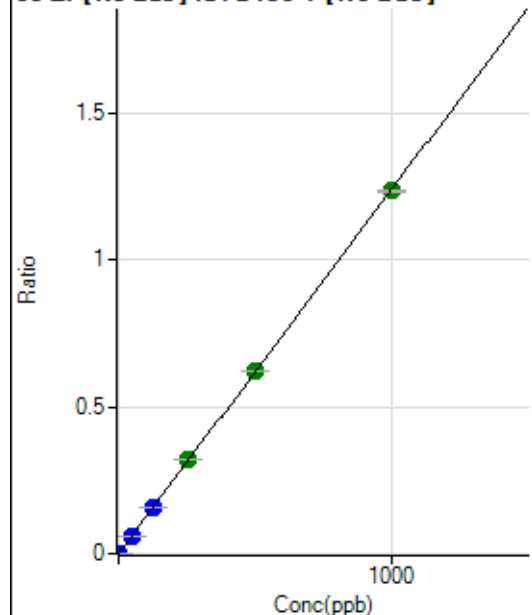
$$DL = 0.001898$$

$$BEC = 0.003101$$

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	1019.52	0.0001	P	18.2
2	☐	1.000	0.819	18929.79	0.0011	P	1.9
3	☐	50.000	49.732	1067744.88	0.0616	P	0.4
4	☐	125.000	128.797	2741161.87	0.1595	P	0.5
5	☐	250.000	257.303	5259017.31	0.3185	A	0.6
6	☐	500.000	502.141	10249740.51	0.6216	A	0.3
7	☐	1000.000	996.643	20626097.16	1.2337	A	0.3
8	☐			6129.35	0.0004	P	4.9

$$y = 0.0012 * x + 5.7715E-005$$

$$R = 1.0000$$

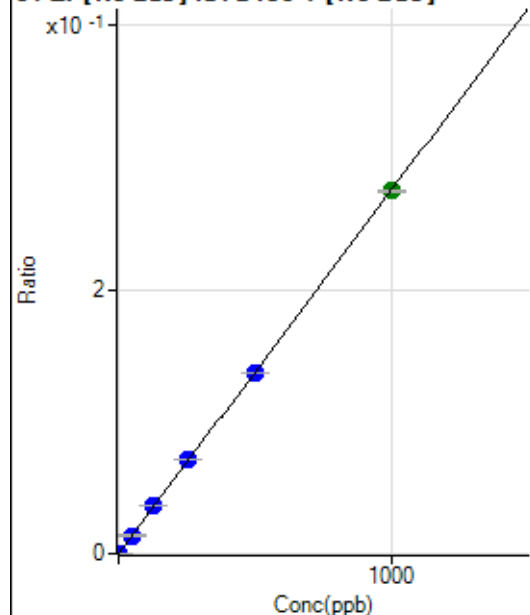
$$DL = 0.02553$$

$$BEC = 0.04663$$

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	191.68	0.0000	P	11.5
2	☐	1.000	0.815	4159.13	0.0002	P	3.5
3	☐	50.000	50.081	239335.75	0.0138	P	0.6
4	☐	125.000	129.812	615026.97	0.0358	P	0.2
5	☐	250.000	258.986	1178410.21	0.0714	P	0.8
6	☐	500.000	499.057	2267808.30	0.1375	P	0.2
7	☐	1000.000	997.620	4596282.18	0.2749	A	0.5
8	☐			1416.79	0.0001	P	10.7

$$y = 2.7555E-004 * x + 1.0847E-005$$

$$R = 0.9999$$

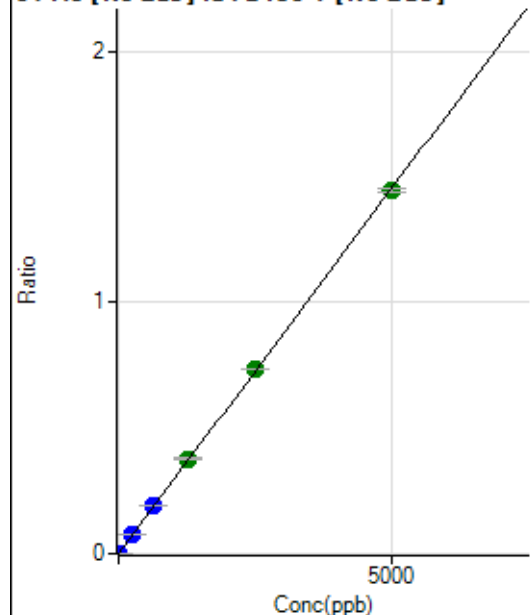
$$DL = 0.01358$$

$$BEC = 0.03936$$

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	333.35	0.0000	P	19.2
2	☐	5.000	4.839	25170.23	0.0014	P	1.1
3	☐	250.000	253.403	1275328.36	0.0736	P	0.7
4	☐	625.000	647.283	3230589.00	0.1880	P	0.6
5	☐	1250.000	1303.368	6248038.59	0.3784	A	0.5
6	☐	2500.000	2527.721	12102164.16	0.7339	A	0.3
7	☐	5000.000	4969.842	24124538.39	1.4430	A	1.0
8	☐			18103.74	0.0011	P	2.1

$$y = 2.9034E-004 * x + 1.8872E-005$$

$$R = 0.9999$$

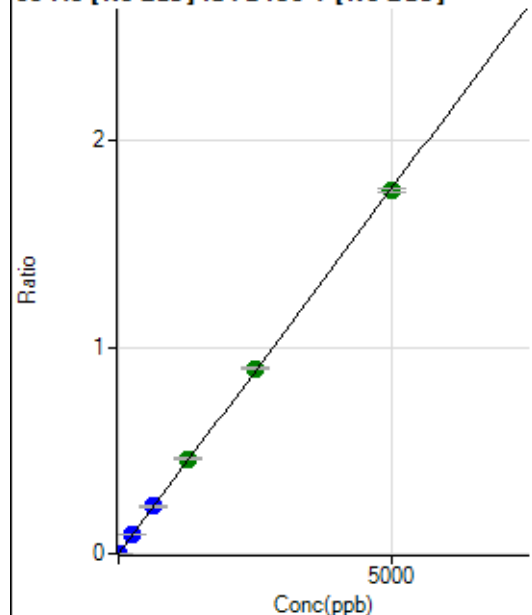
$$DL = 0.03745$$

$$BEC = 0.065$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41.67	0.0000	P	72.2
2	☐	5.000	5.113	32025.75	0.0018	P	1.4
3	☐	250.000	253.729	1556145.82	0.0898	P	0.3
4	☐	625.000	645.471	3926450.13	0.2284	P	0.5
5	☐	1250.000	1299.350	7592005.90	0.4598	A	0.8
6	☐	2500.000	2533.195	14782966.48	0.8965	A	0.7
7	☐	5000.000	4968.320	29396358.99	1.7583	A	1.0
8	☐			27716.60	0.0017	P	2.1

$$y = 3.5390\text{E-}004 * x + 2.3580\text{E-}006$$

$$R = 0.9999$$

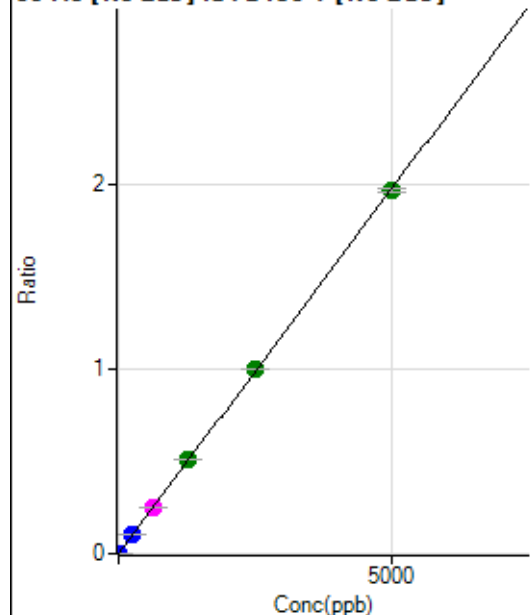
$$DL = 0.01444$$

$$BEC = 0.006663$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	97.23	0.0000	P	34.5
2	☐	5.000	5.168	36160.62	0.0020	P	1.2
3	☐	250.000	252.403	1726728.64	0.0996	P	0.4
4	☐	625.000	641.751	4354454.87	0.2533	M	0.5
5	☐	1250.000	1296.449	8449371.20	0.5118	A	0.5
6	☐	2500.000	2523.573	16426582.83	0.9962	A	0.4
7	☐	5000.000	4974.387	32829071.22	1.9636	A	1.0
8	☐			36692.78	0.0022	P	0.6

$$y = 3.9474\text{E-}004 * x + 5.4986\text{E-}006$$

$$R = 0.9999$$

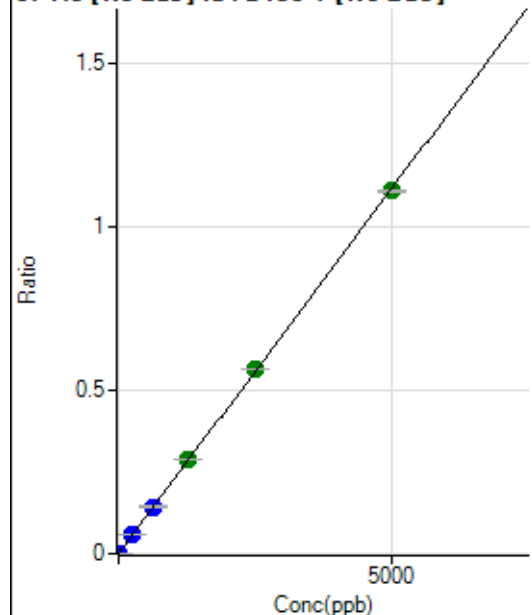
$$DL = 0.0144$$

$$BEC = 0.01393$$

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	50.00	0.0000	P	28.7
2	☐	5.000	5.043	19942.39	0.0011	P	1.1
3	☐	250.000	251.259	971815.33	0.0561	P	0.3
4	☐	625.000	645.580	2476575.86	0.1441	P	0.4
5	☐	1250.000	1294.293	4769083.40	0.2889	A	0.7
6	☐	2500.000	2525.426	9294045.61	0.5636	A	0.2
7	☐	5000.000	4973.579	18558121.07	1.1100	A	0.6
8	☐			16999.63	0.0010	P	0.4

$$y = 2.2318\text{E-}004 * x + 2.8282\text{E-}006$$

$$R = 0.9999$$

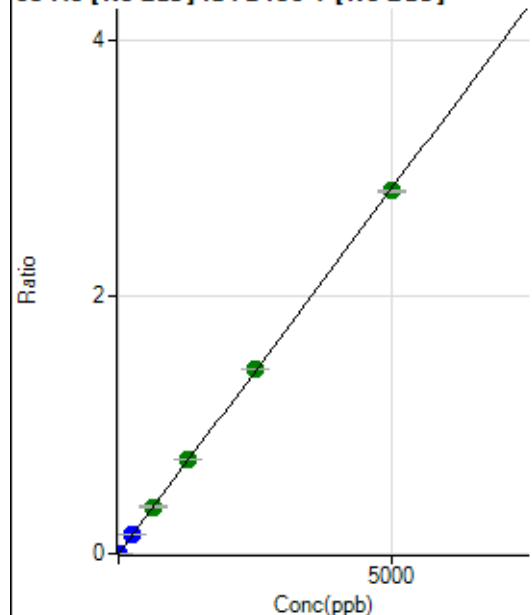
$$DL = 0.0109$$

$$BEC = 0.01267$$

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	80.56	0.0000	P	33.5
2	☐	5.000	5.165	51900.81	0.0029	P	0.5
3	☐	250.000	252.774	2486562.58	0.1435	P	0.7
4	☐	625.000	645.282	6295866.54	0.3663	A	0.6
5	☐	1250.000	1300.645	12189107.30	0.7383	A	0.5
6	☐	2500.000	2527.973	23662000.18	1.4349	A	0.0
7	☐	5000.000	4970.678	47172614.25	2.8215	A	0.7
8	☐			43531.35	0.0026	P	0.9

$$y = 5.6763\text{E-}004 * x + 4.5619\text{E-}006$$

$$R = 0.9999$$

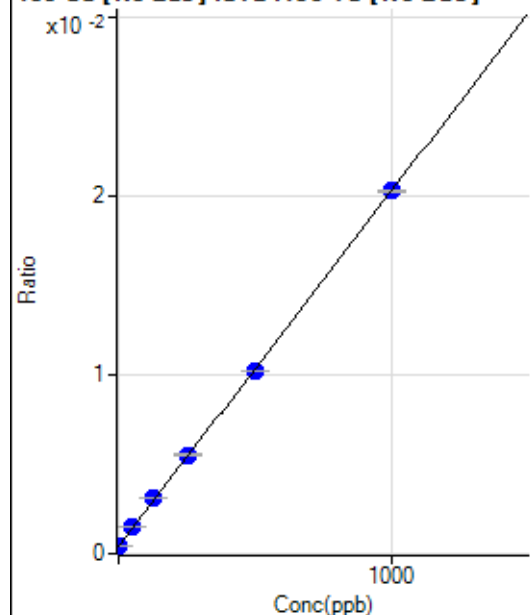
$$DL = 0.008075$$

$$BEC = 0.008037$$

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	8102.61	0.0004	P	5.6
2	☐	1.000	2.698	9081.02	0.0005	P	3.6
3	☐	50.000	53.319	28654.80	0.0015	P	0.9
4	☐	125.000	135.522	60925.96	0.0031	P	0.8
5	☐	250.000	257.316	107234.44	0.0055	P	2.0
6	☐	500.000	493.848	199878.52	0.0102	P	0.4
7	☐	1000.000	999.764	399694.91	0.0203	P	0.6
8	☐			7952.58	0.0004	P	2.3

$$y = 1.9886E-005 * x + 4.0608E-004$$

$$R = 0.9999$$

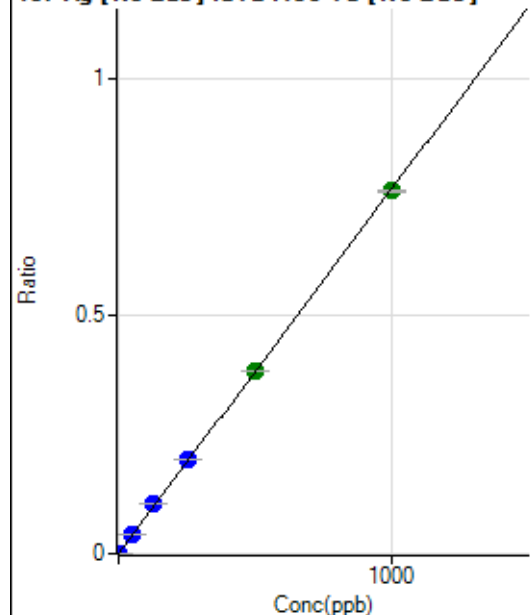
$$DL = 3.441$$

$$BEC = 20.42$$

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	144.45	0.0000	P	16.1
2	☐	1.000	1.116	17030.30	0.0009	P	0.3
3	☐	50.000	54.805	820229.11	0.0420	P	0.3
4	☐	125.000	136.349	2051447.68	0.1044	P	0.4
5	☐	250.000	258.343	3840935.50	0.1978	P	1.6
6	☐	500.000	501.173	7500636.45	0.3838	A	1.0
7	☐	1000.000	995.668	15021317.18	0.7624	A	0.5
8	☐			2100.26	0.0001	P	6.0

$$y = 7.6575E-004 * x + 7.2331E-006$$

$$R = 0.9999$$

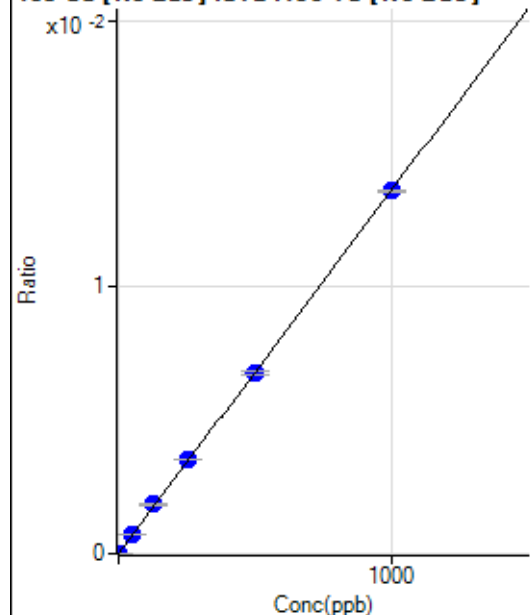
$$DL = 0.004569$$

$$BEC = 0.009446$$

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	18.06	0.0000	P	35.4
2	☐	1.000	1.048	300.01	0.0000	P	12.1
3	☐	50.000	53.924	14374.16	0.0007	P	2.5
4	☐	125.000	134.900	36128.19	0.0018	P	1.8
5	☐	250.000	259.468	68652.89	0.0035	P	1.2
6	☐	500.000	496.123	132121.01	0.0068	P	1.7
7	☐	1000.000	998.138	267948.73	0.0136	P	0.3
8	☐			86.11	0.0000	P	31.1

$$y = 1.3625E-005 * x + 9.0535E-007$$

$$R = 0.9999$$

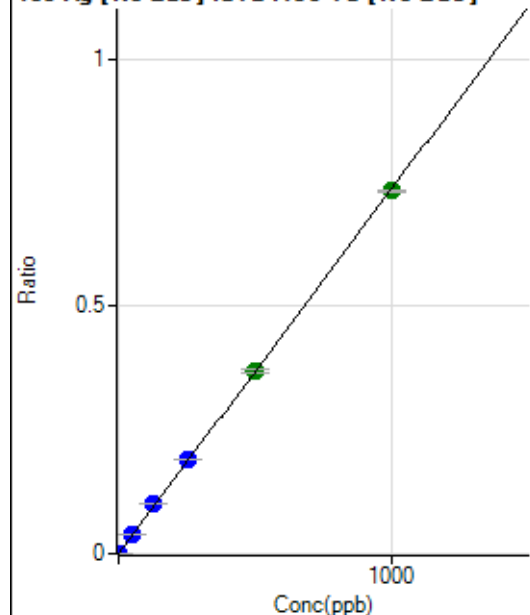
$$DL = 0.07061$$

$$BEC = 0.06645$$

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	44.45	0.0000	P	38.8
2	☐	1.000	1.118	16307.16	0.0008	P	3.0
3	☐	50.000	54.886	789858.34	0.0404	P	0.6
4	☐	125.000	137.386	1987743.36	0.1012	P	0.5
5	☐	250.000	259.416	3709038.15	0.1910	P	0.8
6	☐	500.000	501.754	7221379.15	0.3695	A	1.4
7	☐	1000.000	994.976	14435686.26	0.7327	A	0.4
8	☐			1780.74	0.0001	P	5.3

$$y = 7.3641E-004 * x + 2.2242E-006$$

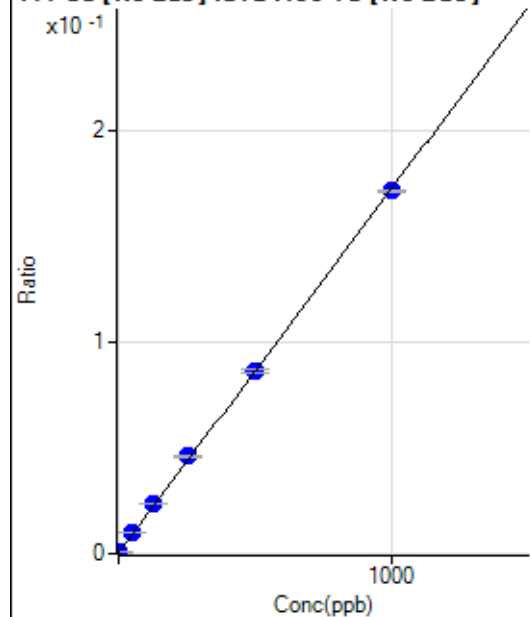
$$R = 0.9999$$

$$DL = 0.003512$$

$$BEC = 0.00302$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5675.85	0.0003	P	5.6
2	☐	1.000	1.146	9516.63	0.0005	P	3.7
3	☐	50.000	54.218	188027.29	0.0096	P	1.1
4	☐	125.000	137.912	472228.58	0.0240	P	0.3
5	☐	250.000	265.763	894167.35	0.0461	P	0.8
6	☐	500.000	499.942	1688312.65	0.0864	P	1.2
7	☐	1000.000	994.263	3379197.64	0.1715	P	0.6
8	☐			6207.95	0.0003	P	2.3

$$y = 1.7222\text{E-}004 * x + 2.8446\text{E-}004$$

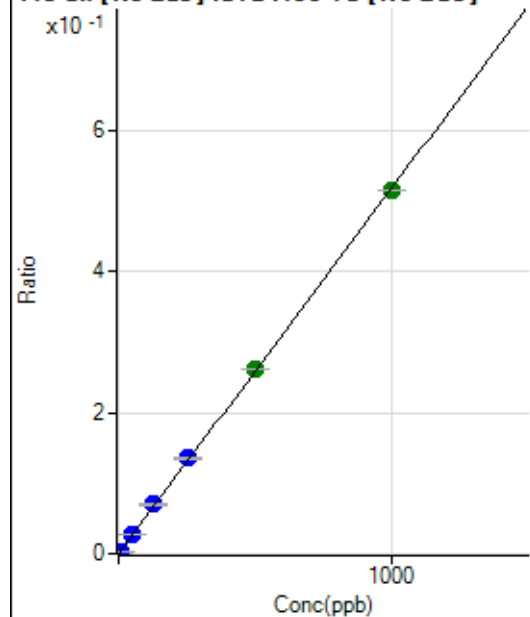
$$R = 0.9998$$

$$DL = 0.2789$$

$$BEC = 1.652$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1458.47	0.0001	P	4.0
2	☐	5.000	5.144	54085.48	0.0027	P	1.1
3	☐	50.000	52.382	531755.46	0.0272	P	0.9
4	☐	125.000	134.219	1367648.34	0.0696	P	0.6
5	☐	250.000	260.553	2622347.74	0.1351	P	0.6
6	☐	500.000	505.395	5118979.24	0.2619	A	0.8
7	☐	1000.000	993.392	10141637.64	0.5148	A	0.1
8	☐			6307.24	0.0003	P	7.0

$$y = 5.1810\text{E-}004 * x + 7.3078\text{E-}005$$

$$R = 0.9999$$

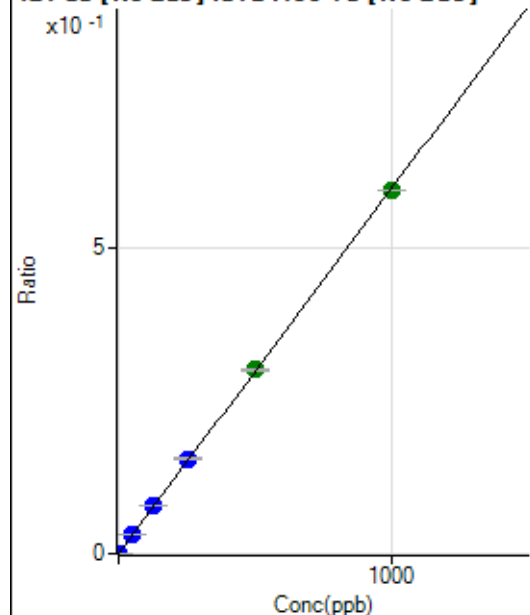
$$DL = 0.01695$$

$$BEC = 0.141$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	105.56	0.0000	P	20.2
2	☐	2.000	1.949	23150.28	0.0012	P	1.4
3	☐	50.000	51.822	606371.02	0.0310	P	0.7
4	☐	125.000	133.127	1566008.61	0.0797	P	0.3
5	☐	250.000	259.547	3017016.32	0.1554	P	1.0
6	☐	500.000	505.256	5912069.10	0.3025	A	1.1
7	☐	1000.000	993.879	11723529.43	0.5950	A	0.1
8	☐			12089.03	0.0007	P	6.9

$$y = 5.9870\text{E-}004 * x + 5.2912\text{E-}006$$

$$R = 0.9999$$

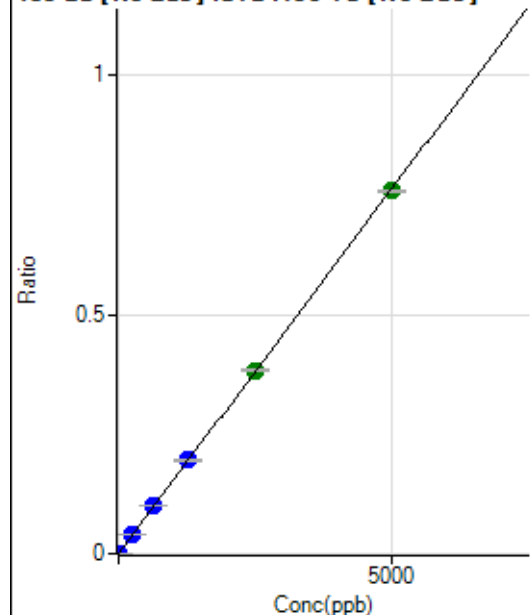
$$DL = 0.005353$$

$$BEC = 0.008838$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	87.2
2	☐	10.000	10.000	30119.50	0.0015	P	2.0
3	☐	250.000	262.073	779684.00	0.0399	P	0.6
4	☐	625.000	662.455	1981445.58	0.1009	P	0.4
5	☐	1250.000	1285.701	3800193.19	0.1957	P	1.0
6	☐	2500.000	2517.317	7489991.40	0.3832	A	0.8
7	☐	5000.000	4977.131	14928426.55	0.7577	A	0.3
8	☐			2819.85	0.0002	P	3.4

$$y = 1.5224\text{E-}004 * x + 2.5143\text{E-}006$$

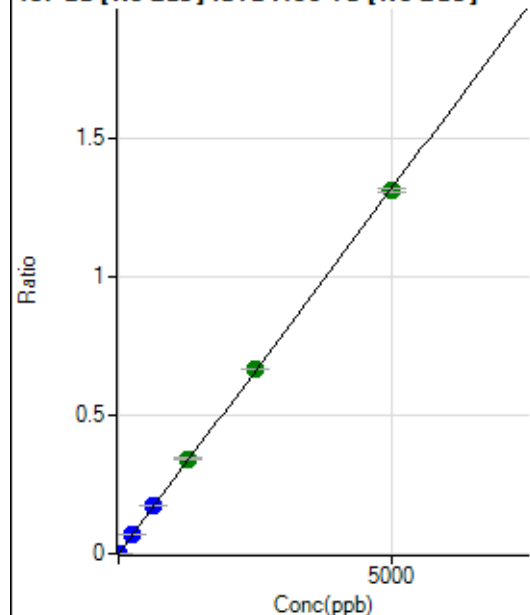
$$R = 0.9999$$

$$DL = 0.04321$$

$$BEC = 0.01652$$

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	27.78	0.0000	P	45.1
2	☐	10.000	10.256	53514.99	0.0027	P	0.7
3	☐	250.000	263.324	1358586.36	0.0695	P	0.6
4	☐	625.000	659.806	3422534.10	0.1742	P	0.4
5	☐	1250.000	1299.416	6660819.51	0.3431	A	0.8
6	☐	2500.000	2525.787	13033439.27	0.6669	A	0.6
7	☐	5000.000	4969.735	25850424.01	1.3121	A	0.9
8	☐			5059.48	0.0003	P	2.8

$$y = 2.6402E-004 * x + 1.3889E-006$$

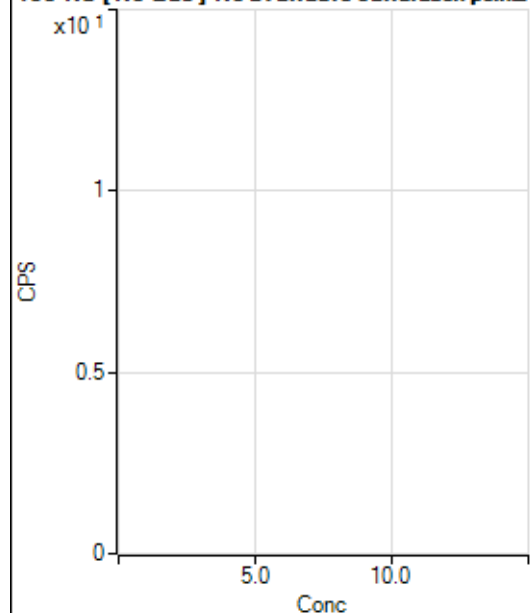
$$R = 0.9999$$

$$DL = 0.007121$$

$$BEC = 0.005261$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			4.45		P	86.6
2	☐			11.11		P	34.6
3	☐			66.67		P	10.0
4	☐			182.23		P	2.1
5	☐			393.35		P	7.8
6	☐			628.93		P	10.6
7	☐			1313.44		P	9.4
8	☐			126.67		P	13.9

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			12.22		P	31.5
2	☐			6.67		P	86.6
3	☐			11.11		P	34.6
4	☐			42.22		P	19.9
5	☐			33.33		P	26.4
6	☐			67.78		P	20.5
7	☐			117.78		P	26.3
8	☐			62.22		P	3.1

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	58.1
2	☐			11.11		P	86.6
3	☐			55.56		P	8.7
4	☐			61.11		P	43.8
5	☐			111.12		P	28.4
6	☐			133.34		P	33.1
7	☐			322.24		P	16.6
8	☐			97.23		P	13.1

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			28.89		P	40.5
2	☐			28.89		P	46.6
3	☐			35.56		P	5.4
4	☐			41.11		P	55.2
5	☐			97.78		P	24.2
6	☐			178.89		P	7.5
7	☐			323.34		P	3.7
8	☐			50.00		P	6.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			127.79		P	3.8
2	☐			133.34		P	43.3
3	☐			127.78		P	35.9
4	☐			169.45		P	2.8
5	☐			138.90		P	24.2
6	☐			175.01		P	12.6
7	☐			180.56		P	38.7
8	☐			227.79		P	15.2

160 Gd [He] No available calibration points

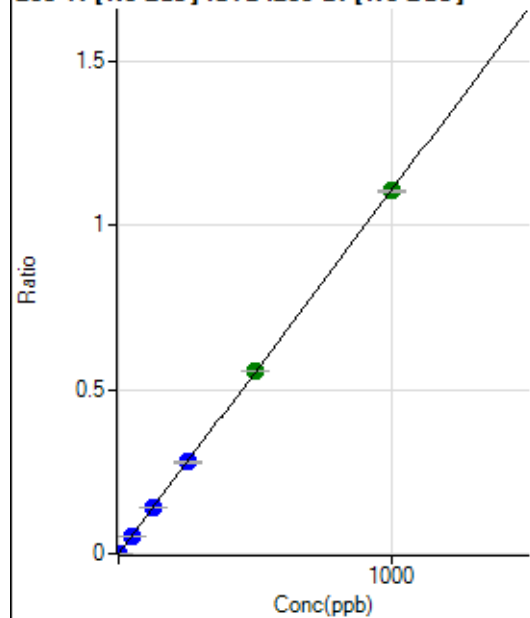
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			285.56		P	3.8
2	☐			306.67		P	10.4
3	☐			292.23		P	5.6
4	☐			266.67		P	15.0
5	☐			296.68		P	6.3
6	☐			293.34		P	12.0
7	☐			328.90		P	11.8
8	☐			324.46		P	9.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			147.23		P	8.6
2	☐			111.11		P	52.7
3	☐			108.34		P	20.4
4	☐			116.67		P	32.7
5	☐			111.12		P	37.0
6	☐			130.56		P	13.3
7	☐			136.12		P	14.1
8	☐			138.90		P	6.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			73.33		P	55.9
2	☐			77.78		P	16.2
3	☐			61.11		P	16.7
4	☐			75.55		P	25.9
5	☐			57.78		P	16.6
6	☐			58.89		P	8.6
7	☐			80.00		P	31.5
8	☐			83.34		P	12.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	622.27	0.0001	P	18.0
2	☐	1.000	0.951	13560.22	0.0011	P	3.0
3	☐	50.000	49.369	657322.10	0.0547	P	0.8
4	☐	125.000	127.200	1698022.61	0.1410	P	1.4
5	☐	250.000	251.490	3270560.12	0.2786	P	0.4
6	☐	500.000	501.748	6502424.97	0.5559	A	0.3
7	☐	1000.000	998.510	12725858.01	1.1062	A	0.4
8	☐			3189.41	0.0003	P	5.4

$$y = 0.0011 * x + 5.0090E-005$$

$$R = 1.0000$$

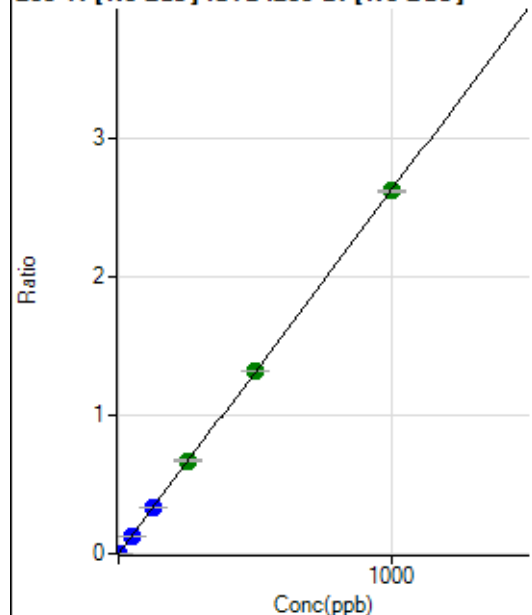
$$DL = 0.02437$$

$$BEC = 0.04522$$

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	1097.32	0.0001	P	9.7
2	☐	1.000	0.932	31198.62	0.0025	P	1.8
3	☐	50.000	49.632	1569202.75	0.1307	P	0.3
4	☐	125.000	125.281	3971930.86	0.3297	P	1.6
5	☐	250.000	255.913	7904522.14	0.6734	A	0.5
6	☐	500.000	501.312	15430974.31	1.3191	A	0.4
7	☐	1000.000	997.849	30206117.69	2.6256	A	0.4
8	☐			6738.08	0.0007	P	1.4

$$y = 0.0026 * x + 8.8363E-005$$

$$R = 1.0000$$

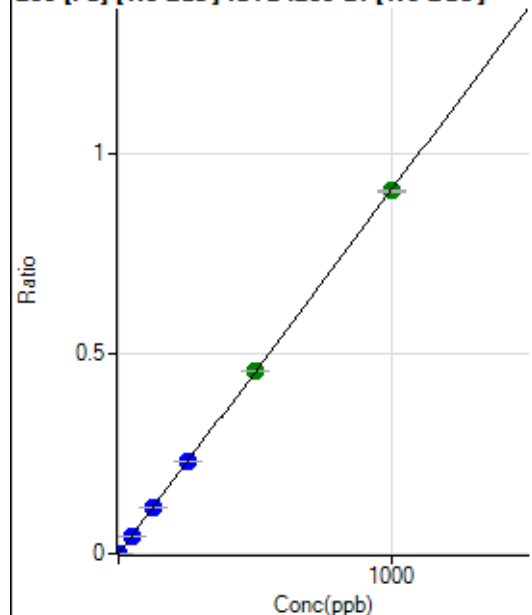
$$DL = 0.009777$$

$$BEC = 0.03358$$

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	1394.56	0.0001	P	2.1
2	☐	1.000	0.923	11694.32	0.0010	P	2.1
3	☐	50.000	49.884	546308.61	0.0455	P	0.5
4	☐	125.000	128.372	1408228.76	0.1169	P	1.4
5	☐	250.000	253.485	2708090.28	0.2307	P	0.3
6	☐	500.000	502.647	5350567.77	0.4574	A	0.2
7	☐	1000.000	997.390	10440101.04	0.9075	A	0.7
8	☐			35581.28	0.0037	P	1.1

$$y = 9.0977E-004 * x + 1.1229E-004$$

$$R = 1.0000$$

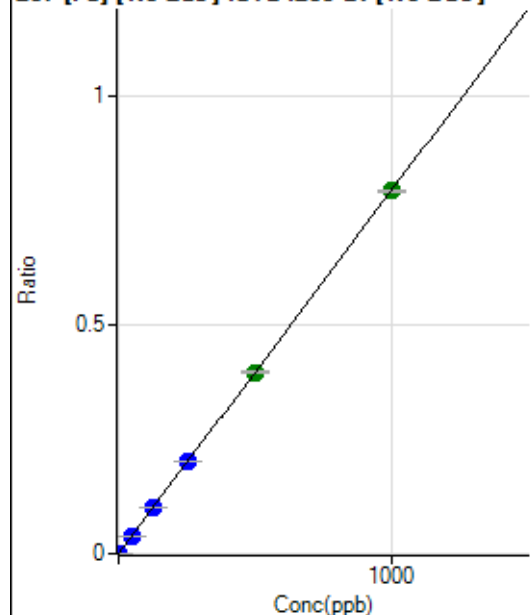
$$DL = 0.007815$$

$$BEC = 0.1234$$

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	1218.61	0.0001	P	3.6
2	☐	1.000	0.895	9922.48	0.0008	P	0.7
3	☐	50.000	49.825	475246.01	0.0396	P	0.9
4	☐	125.000	128.300	1225790.19	0.1018	P	1.1
5	☐	250.000	255.011	2372772.19	0.2022	P	0.3
6	☐	500.000	499.022	4626339.57	0.3955	A	0.6
7	☐	1000.000	998.833	9105954.72	0.7915	A	0.3
8	☐			32011.43	0.0033	P	2.4

$$y = 7.9235E-004 * x + 9.8122E-005$$

$$R = 1.0000$$

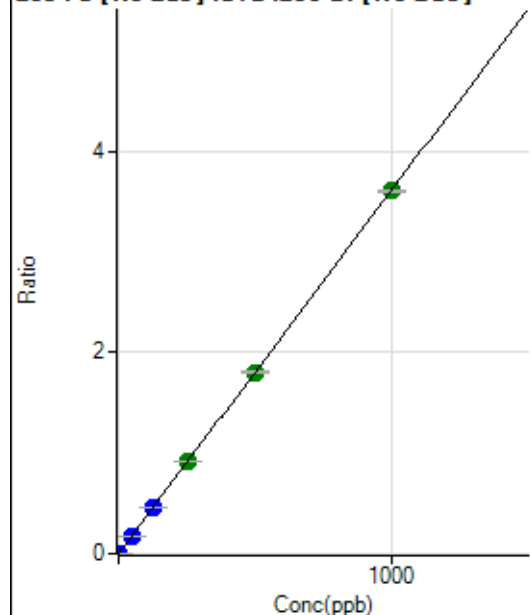
$$DL = 0.01353$$

$$BEC = 0.1238$$

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	4880.09	0.0004	P	1.5
2	☐	1.000	0.915	45434.90	0.0037	P	0.5
3	☐	50.000	49.887	2169554.64	0.1807	P	0.6
4	☐	125.000	127.770	5567054.64	0.4621	P	0.7
5	☐	250.000	254.686	10807371.34	0.9208	A	0.0
6	☐	500.000	499.915	21137097.40	1.8070	A	0.5
7	☐	1000.000	998.531	41517616.44	3.6089	A	0.3
8	☐			144298.57	0.0149	P	0.8

$$y = 0.0036 * x + 3.9295E-004$$

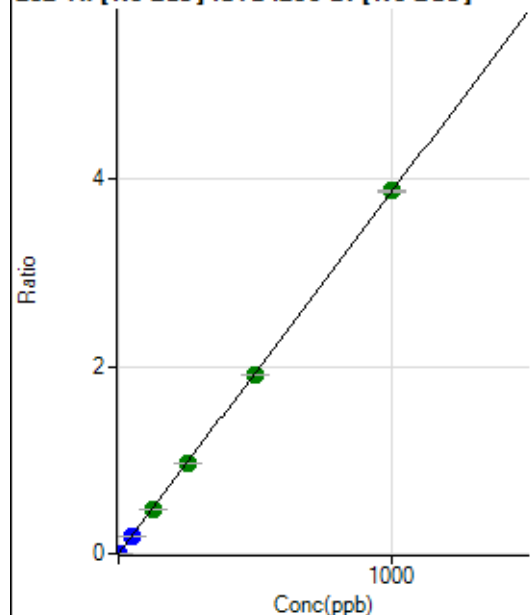
$$R = 1.0000$$

$$DL = 0.004832$$

$$BEC = 0.1087$$

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	2565.14	0.0002	P	5.6
2	☐	1.000	0.781	39636.56	0.0032	P	1.7
3	☐	50.000	46.514	2162011.25	0.1800	P	0.3
4	☐	125.000	120.430	5611977.73	0.4658	A	0.8
5	☐	250.000	247.837	11249506.50	0.9584	A	0.4
6	☐	500.000	495.898	22430667.17	1.9175	A	0.3
7	☐	1000.000	1003.338	44630684.79	3.8795	A	0.7
8	☐			11258.87	0.0012	P	2.0

$$y = 0.0039 * x + 2.0654E-004$$

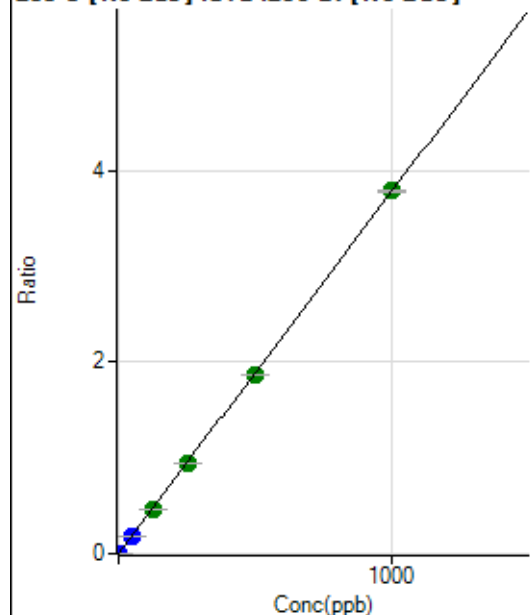
$$R = 1.0000$$

$$DL = 0.008964$$

$$BEC = 0.05342$$

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	2542.02	0.0002	P	6.3
2	☐	1.000	0.879	43295.74	0.0035	P	1.3
3	☐	50.000	47.293	2147944.54	0.1789	P	0.8
4	☐	125.000	122.241	5565946.39	0.4620	A	0.5
5	☐	250.000	251.323	11146956.93	0.9497	A	0.1
6	☐	500.000	494.802	21869207.78	1.8696	A	0.6
7	☐	1000.000	1002.749	43585070.42	3.7886	A	0.6
8	☐			6285.12	0.0006	P	4.1

$$y = 0.0038 * x + 2.0466E-004$$

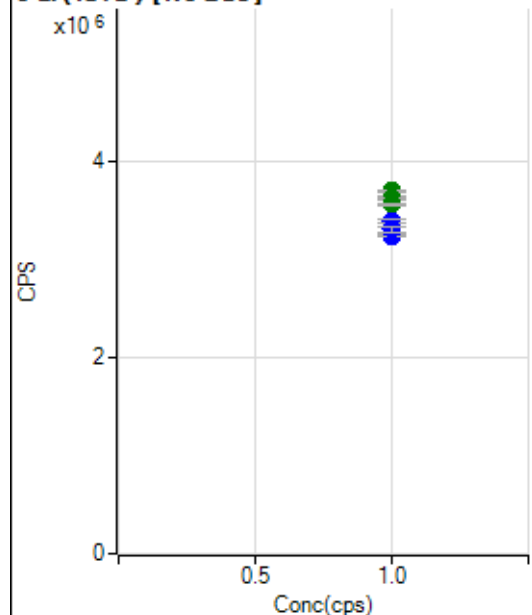
$$R = 1.0000$$

$$DL = 0.01017$$

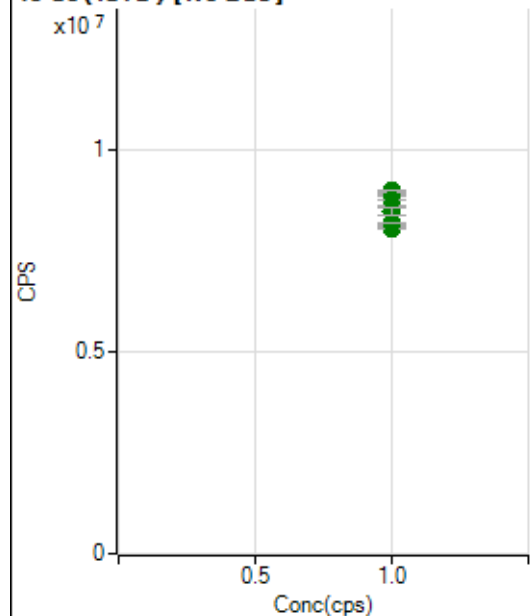
$$BEC = 0.05417$$

Weight: <None>

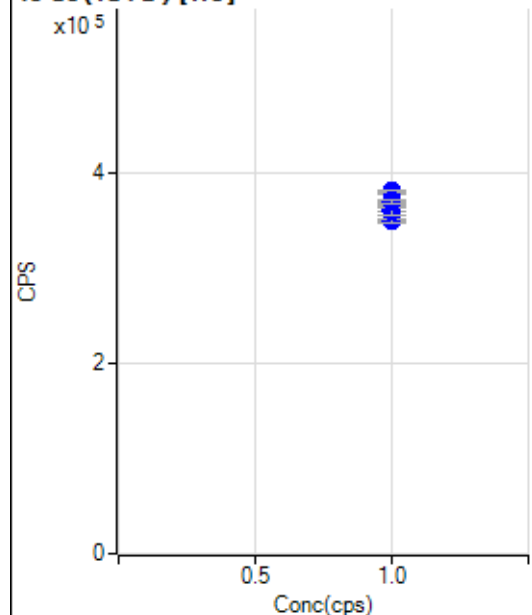
Min Conc: 0

6 Li (ISTD) [No Gas]

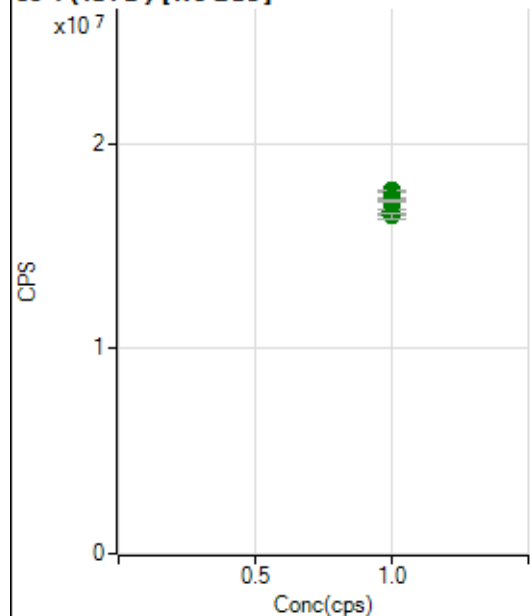
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3642543.35		A	0.3
2	☐	1.000		3705654.39		A	0.7
3	☐	1.000		3627456.09		A	0.3
4	☐	1.000		3567909.88		A	0.5
5	☐	1.000		3403893.28		P	1.0
6	☐	1.000		3273604.29		P	0.5
7	☐	1.000		3239076.97		P	0.2
8	☐	1.000		3311431.06		P	2.2

45 Sc (ISTD) [No Gas]

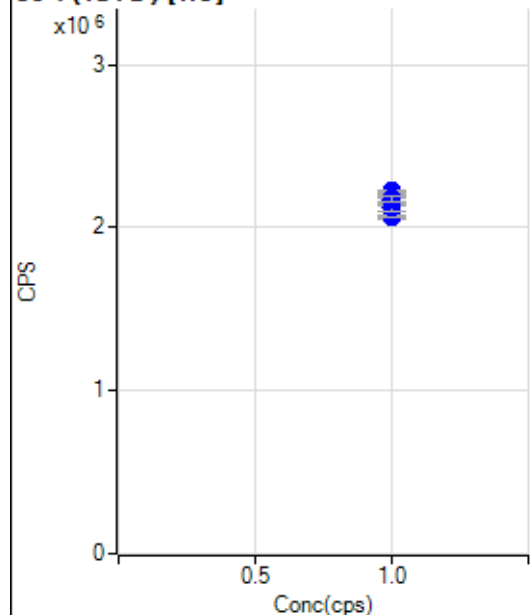
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8909913.66		A	0.5
2	☐	1.000		9003417.74		A	0.2
3	☐	1.000		8786005.32		A	0.1
4	☐	1.000		8649056.27		A	0.2
5	☐	1.000		8158898.45		A	0.4
6	☐	1.000		8088273.18		A	0.4
7	☐	1.000		8220598.88		A	0.2
8	☐	1.000		8488460.95		A	2.3

45 Sc (ISTD) [He]

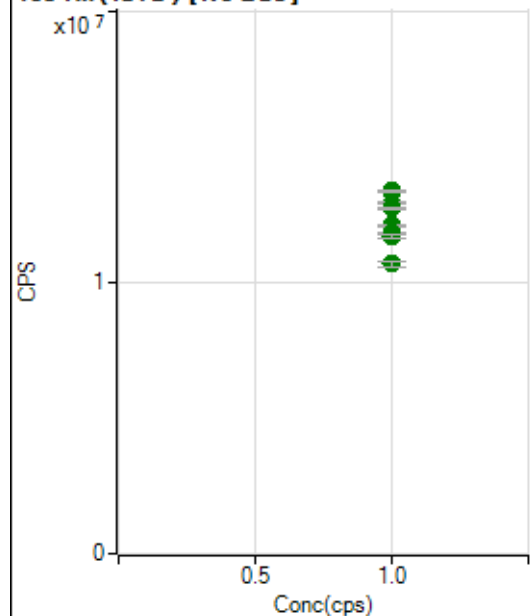
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		379805.95		P	0.6
2	☐	1.000		381254.52		P	0.5
3	☐	1.000		371209.46		P	0.5
4	☐	1.000		362327.91		P	1.5
5	☐	1.000		351014.06		P	0.8
6	☐	1.000		349897.18		P	1.2
7	☐	1.000		360035.27		P	2.0
8	☐	1.000		369190.42		P	1.1

89 Y (ISTD) [No Gas]

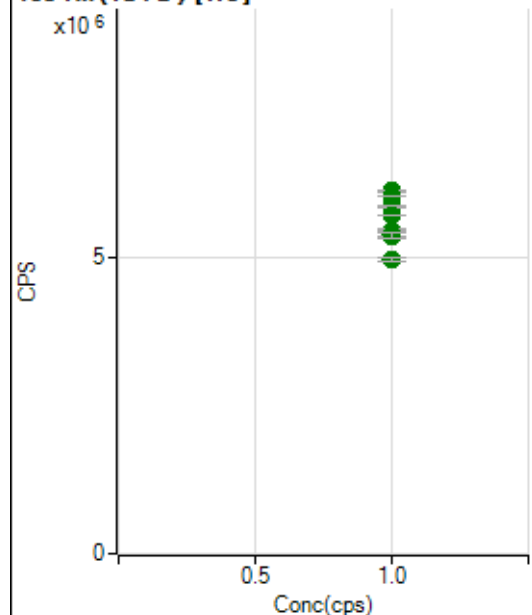
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17671566.82		A	0.4
2	☐	1.000		17676094.88		A	0.1
3	☐	1.000		17329692.66		A	0.2
4	☐	1.000		17188664.88		A	0.2
5	☐	1.000		16510094.06		A	0.1
6	☐	1.000		16489807.25		A	0.3
7	☐	1.000		16719839.33		A	1.1
8	☐	1.000		16447479.48		A	1.7

89 Y (ISTD) [He]

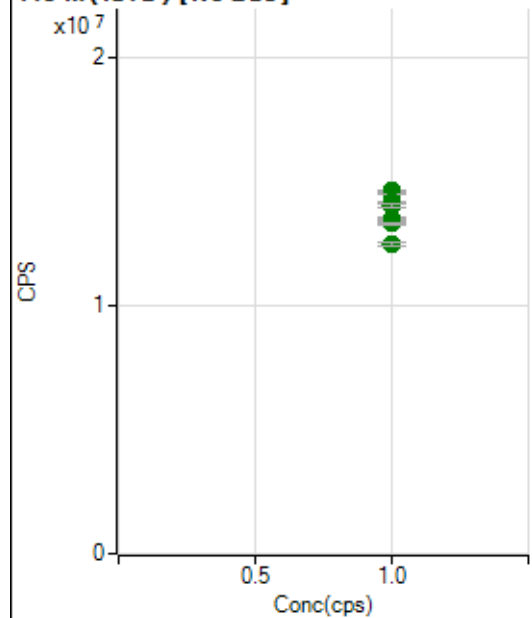
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2214120.96		P	0.8
2	☐	1.000		2225502.87		P	0.6
3	☐	1.000		2180699.08		P	0.2
4	☐	1.000		2148185.00		P	0.7
5	☐	1.000		2066859.47		P	1.0
6	☐	1.000		2070585.30		P	0.9
7	☐	1.000		2126289.01		P	2.0
8	☐	1.000		2174743.53		P	1.5

103 Rh (ISTD) [No Gas]

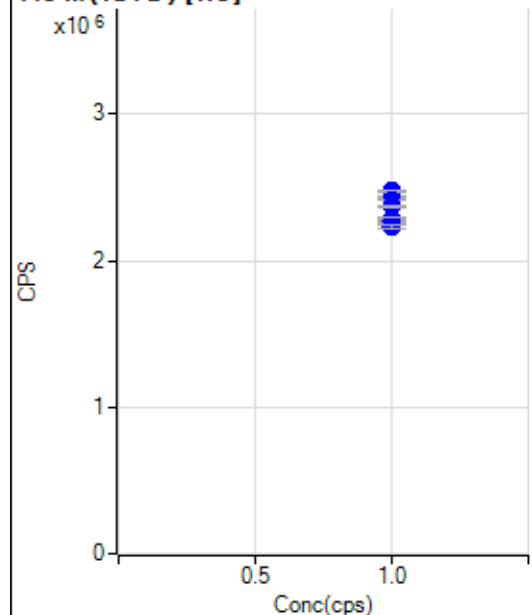
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13390293.44		A	0.6
2	☐	1.000		13378337.28		A	0.4
3	☐	1.000		12943065.13		A	0.2
4	☐	1.000		12755539.96		A	0.5
5	☐	1.000		12101971.36		A	0.8
6	☐	1.000		11862062.07		A	0.2
7	☐	1.000		11711202.95		A	0.8
8	☐	1.000		10682010.13		A	1.7

103 Rh (ISTD) [He]

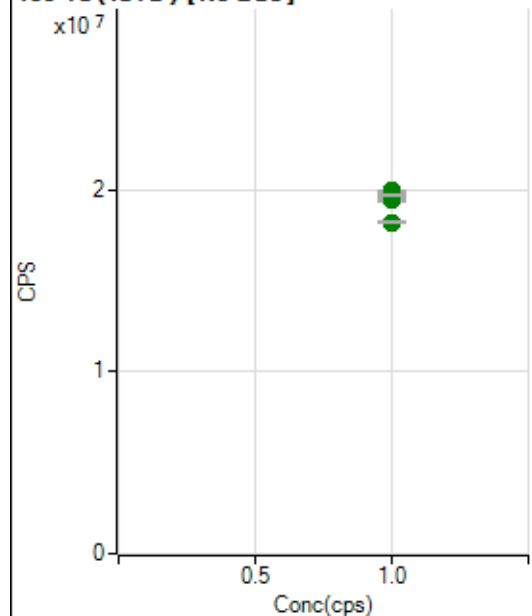
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6144978.03		A	0.4
2	☐	1.000		6051345.40		A	0.3
3	☐	1.000		5884581.72		A	0.3
4	☐	1.000		5735047.14		A	0.4
5	☐	1.000		5482197.21		A	0.6
6	☐	1.000		5381839.23		A	0.3
7	☐	1.000		5396869.08		A	1.7
8	☐	1.000		4980033.61		A	1.3

115 In (ISTD) [No Gas]

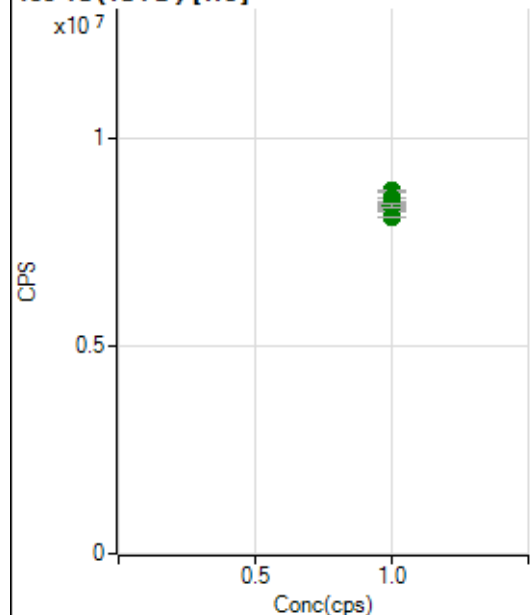
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14653289.08		A	0.3
2	☐	1.000		14544016.57		A	0.1
3	☐	1.000		14179325.80		A	0.6
4	☐	1.000		14086759.61		A	1.0
5	☐	1.000		13548234.55		A	0.5
6	☐	1.000		13458924.37		A	0.2
7	☐	1.000		13329205.64		A	0.7
8	☐	1.000		12493760.65		A	1.0

115 In (ISTD) [He]

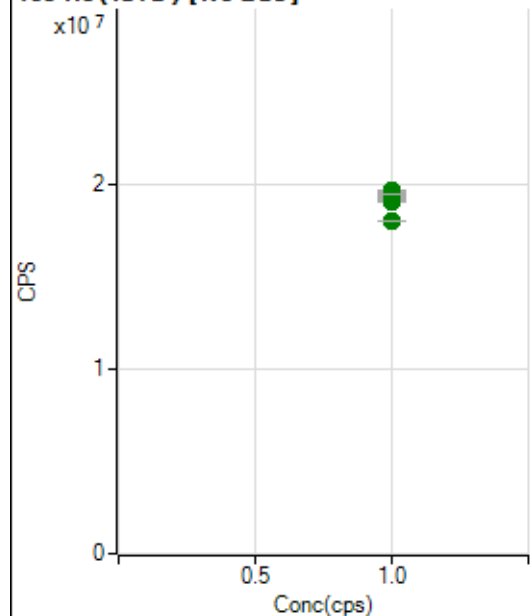
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2434178.53		P	1.0
2	☐	1.000		2475516.75		P	0.6
3	☐	1.000		2418426.76		P	0.1
4	☐	1.000		2370087.01		P	0.5
5	☐	1.000		2284629.66		P	0.8
6	☐	1.000		2265126.70		P	1.3
7	☐	1.000		2271259.96		P	1.7
8	☐	1.000		2230059.83		P	1.3

159 Tb (ISTD) [No Gas]

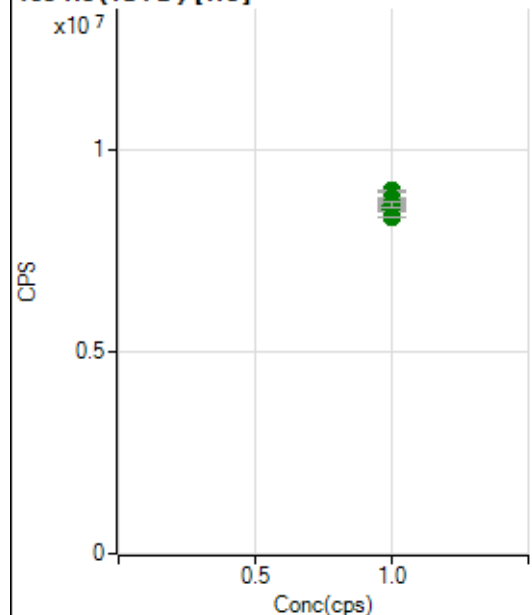
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19958045.81		A	0.7
2	☐	1.000		19752445.54		A	0.1
3	☐	1.000		19541018.46		A	0.3
4	☐	1.000		19646777.07		A	0.1
5	☐	1.000		19415790.54		A	0.6
6	☐	1.000		19544895.96		A	0.7
7	☐	1.000		19701990.68		A	0.6
8	☐	1.000		18231453.48		A	0.9

159 Tb (ISTD) [He]

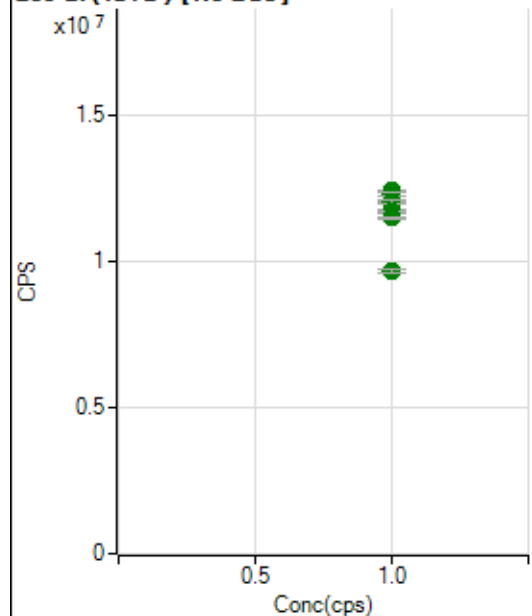
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8754494.17		A	0.2
2	☐	1.000		8598748.34		A	0.2
3	☐	1.000		8490677.79		A	0.5
4	☐	1.000		8428108.28		A	0.7
5	☐	1.000		8269963.97		A	0.4
6	☐	1.000		8276040.64		A	0.4
7	☐	1.000		8396611.26		A	1.5
8	☐	1.000		8108905.23		A	0.3

165 Ho (ISTD) [No Gas]

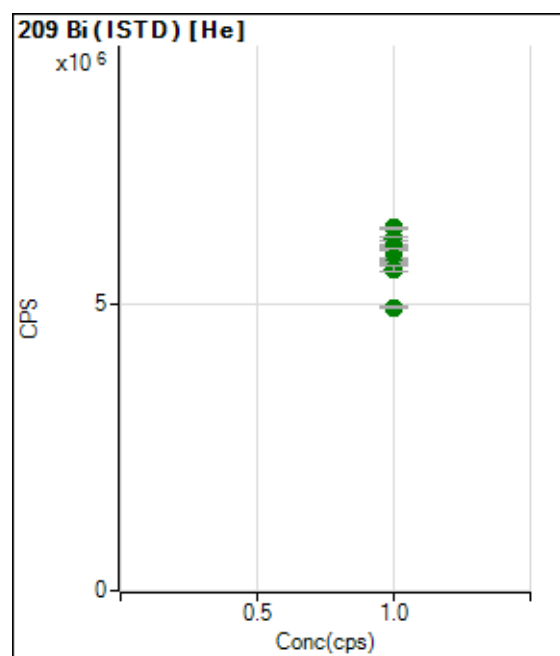
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19632475.26		A	0.5
2	☐	1.000		19437984.46		A	0.9
3	☐	1.000		19148635.50		A	0.4
4	☐	1.000		19415538.46		A	0.2
5	☐	1.000		19077900.25		A	0.4
6	☐	1.000		19252212.93		A	0.5
7	☐	1.000		19431821.96		A	0.2
8	☐	1.000		18025468.29		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8991631.32		A	0.3
2	☐	1.000		8808029.04		A	0.6
3	☐	1.000		8684941.33		A	0.4
4	☐	1.000		8658582.23		A	0.9
5	☐	1.000		8501706.47		A	0.9
6	☐	1.000		8528380.43		A	0.8
7	☐	1.000		8637444.52		A	1.6
8	☐	1.000		8343020.64		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12419302.87		A	0.3
2	☐	1.000		12285378.29		A	1.0
3	☐	1.000		12008131.91		A	0.4
4	☐	1.000		12047117.32		A	0.9
5	☐	1.000		11737352.46		A	0.2
6	☐	1.000		11697683.16		A	0.3
7	☐	1.000		11504540.11		A	0.7
8	☐	1.000		9676656.52		A	1.1



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6329366.09		A	0.4
2	☐	1.000		6149504.84		A	0.9
3	☐	1.000		6016192.62		A	0.4
4	☐	1.000		5959590.33		A	0.5
5	☐	1.000		5787201.58		A	0.6
6	☐	1.000		5718822.69		A	0.7
7	☐	1.000		5615759.71		A	1.7
8	☐	1.000		4940262.43		A	0.6

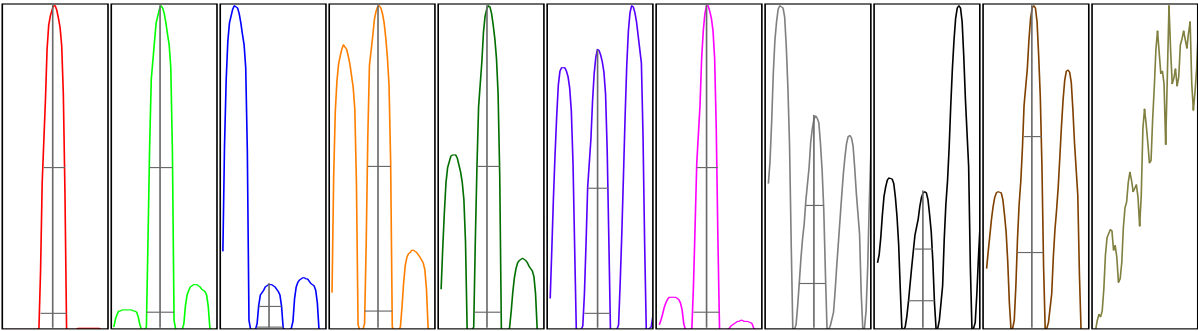
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7121319MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	12857	2.66	5.00	
24	1249009	2.80	5.00	
25	169788	2.26	5.00	
26	197124	2.67	5.00	
59	119588	2.66	5.00	
113	17788	2.26	5.00	
115	205133	2.49	5.00	
206	53247	1.93	5.00	
207	54501	2.09	5.00	
208	115345	1.78	5.00	
220	130	2.97		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	13197	13231	12448	12679	12732
24	1287393	1283033	1207065	1230132	1237424
25	173791	174161	166759	166779	167449
26	202556	202647	190834	194677	194906
59	122738	122975	115733	117631	118864
113	18133	18198	17209	17633	17764
115	209804	210143	197906	202798	205016
206	54346	54180	51862	52912	52936
207	55553	55763	53034	54075	54082
208	116975	117486	112319	114619	115325
220	131	132	135	130	124

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	21135	8.95	8.9 - 9.1		0.781	0.900	
24	1962161	23.90	23.9 - 24.1		0.789	0.900	
25	274295	24.90	24.9 - 25.1		0.777	0.900	
26	311613	25.90	25.9 - 26.1		0.786	0.900	
59	195383	58.90	58.9 - 59.1		0.786	0.900	
113	32019	112.95	112.9 - 113.1		0.772	0.900	
115	370495	114.95	114.9 - 115.1		0.773	0.900	
206	95519	205.90	205.9 - 206.1		0.763	0.900	
207	86766	206.90	206.9 - 207.1		0.744	0.900	
208	204546	207.90	207.9 - 208.1		0.757	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V	Deflect	13.2	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	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	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	31130	1.07	
89	452991	1.20	
205	41604	1.19	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	31570	30955	31378	30981	30765
89	460570	451075	456128	450603	446578
205	42281	41217	41985	41325	41211

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	6.9	V	Deflect	1.4	V
Extract 2	-110.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	V	Cell Exit	-60	V			

Cell Parameters

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