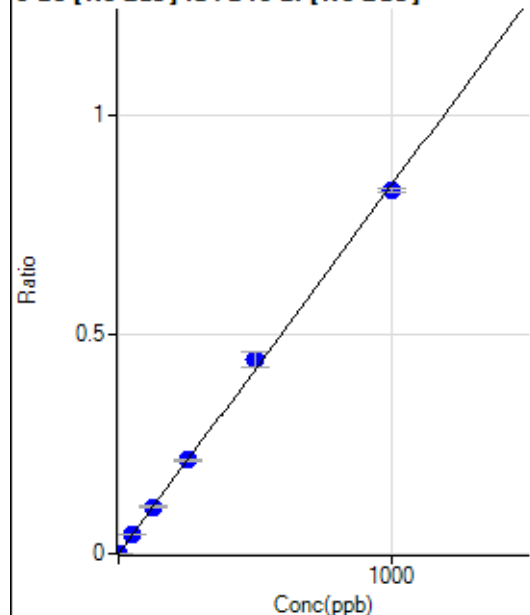


Batch Folder: D:\Agilent\ICPMH\1\DATA\P8051920-MS.b\
Analysis File: P8051920-MS.batch.bin
DA Date-Time: 2020-05-19 17:53:43
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-05-19 12:54:11
2	004CALS.d	S01	2020-05-19 12:57:24
3	005CALS.d	S02	2020-05-19 13:00:34
4	006CALS.d	S03	2020-05-19 13:03:42
5	007CALS.d	S04	2020-05-19 13:06:46
6	008CALS.d	S05	2020-05-19 13:09:49
7	009CALS.d	S06	2020-05-19 13:12:47
8	010CALS.d	S07	2020-05-19 13:15:48
9	011CALS.d	S08	2020-05-19 13:18:46

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34.66	0.0000	P	14.9
2	☐	0.100	0.098	112.65	0.0001	P	26.6
3	☐	1.000	0.971	809.86	0.0009	P	12.3
4	☐	50.000	51.572	41755.10	0.0433	P	2.7
5	☐	125.000	126.689	103412.68	0.1063	P	1.8
6	☐	250.000	253.436	210753.49	0.2126	P	2.2
7	☐	500.000	528.479	423108.32	0.4433	P	7.4
8	☐	1000.000	984.612	827167.96	0.8258	P	1.0
9	☐			330.60	0.0003	P	28.3

$$y = 8.3872\text{E-}004 * x + 3.6917\text{E-}005$$

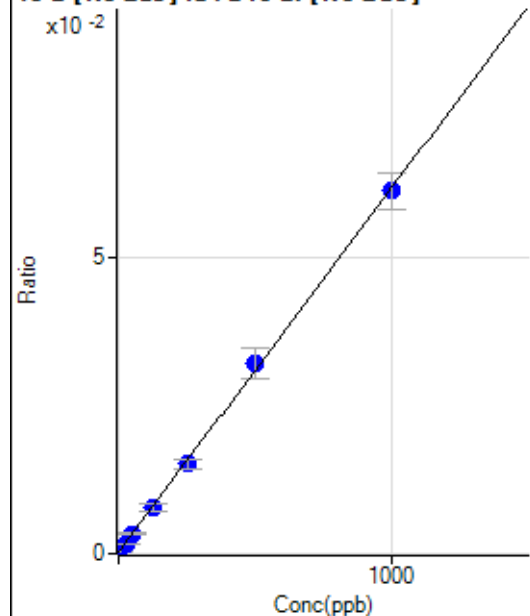
$$R = 0.9994$$

$$DL = 0.01966$$

$$BEC = 0.04402$$

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	240.63	0.0003	P	0.3
2	☐	2.500	1.798	347.93	0.0004	P	10.0
3	☐	25.000	22.498	1559.11	0.0016	P	11.6
4	☐	50.000	49.504	3185.06	0.0033	P	8.7
5	☐	125.000	123.309	7610.49	0.0078	P	13.7
6	☐	250.000	243.373	15066.09	0.0152	P	11.1
7	☐	500.000	518.877	30541.70	0.0322	P	17.1
8	☐	1000.000	992.519	61337.38	0.0613	P	10.3
9	☐			10859.90	0.0113	P	7.7

$$y = 6.1472\text{E-}005 * x + 2.5624\text{E-}004$$

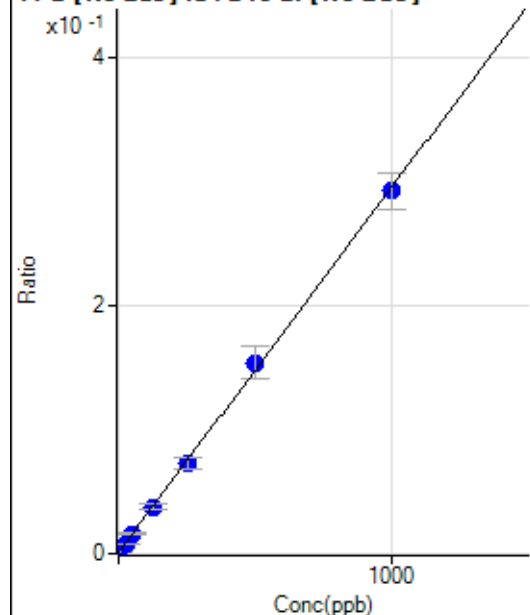
$$R = 0.9997$$

$$DL = 0.03708$$

$$BEC = 4.168$$

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	983.18	0.0010	P	4.4
2	☐	2.500	2.346	1646.44	0.0017	P	6.1
3	☐	25.000	23.411	7537.79	0.0079	P	9.5
4	☐	50.000	50.676	15382.38	0.0159	P	8.8
5	☐	125.000	124.330	36504.09	0.0376	P	12.0
6	☐	250.000	244.951	72274.26	0.0730	P	13.4
7	☐	500.000	520.737	146314.94	0.1541	P	17.3
8	☐	1000.000	990.984	292548.65	0.2922	P	10.3
9	☐			51809.34	0.0539	P	8.6

$$y = 2.9382\text{E-}004 * x + 0.0010$$

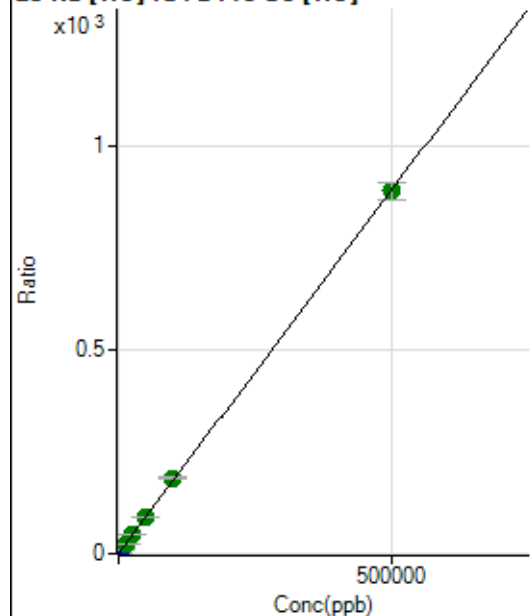
$$R = 0.9997$$

$$DL = 0.4745$$

$$BEC = 3.563$$

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	25141.59	0.3984	P	0.4
2	☐	50.000	45.686	30089.81	0.4797	P	2.3
3	☐	500.000	520.694	82658.76	1.3247	P	3.8
4	☐	5000.000	5295.781	620650.93	9.8188	P	1.6
5	☐	12500.000	13413.689	1470112.53	24.2594	A	7.1
6	☐	25000.000	25656.205	2984972.61	46.0370	A	1.1
7	☐	50000.000	50716.060	5860248.05	90.6148	A	1.0
8	☐	100000.00	103780.64	11472983.50	185.0089	A	3.1
9	☐	500000.00	499113.63	54031929.68	888.2482	A	4.5

$$y = 0.0018 * x + 0.3984$$

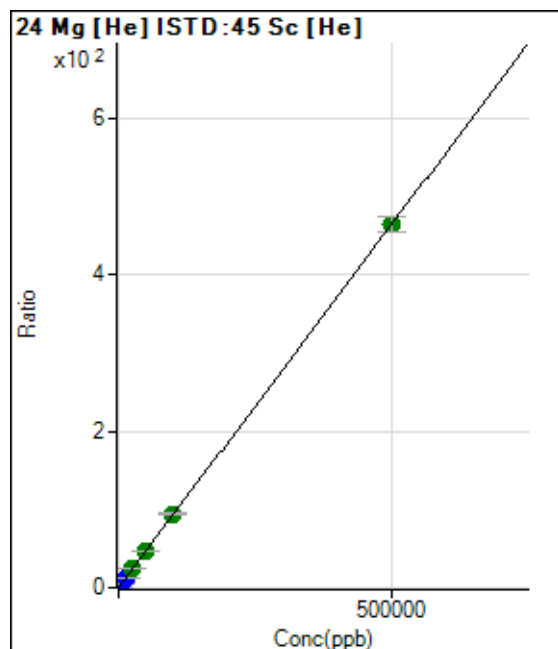
$$R = 1.0000$$

$$DL = 2.597$$

$$BEC = 224$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	213.90	0.0034	P	13.5
2	☐	50.000	54.145	3367.16	0.0537	P	8.3
3	☐	500.000	503.128	29380.07	0.4708	P	3.8
4	☐	5000.000	5247.128	308349.63	4.8781	P	1.4
5	☐	12500.000	13286.852	748636.41	12.3472	P	5.8
6	☐	25000.000	25613.240	1543150.98	23.7988	A	0.9
7	☐	50000.000	49792.528	2991648.14	46.2620	A	2.1
8	☐	100000.00	101633.70	5856439.24	94.4238	A	2.3
9	☐	500000.00	499641.19	28237474.59	464.1834	A	4.4

$$y = 9.2903\text{E-}004 * x + 0.0034$$

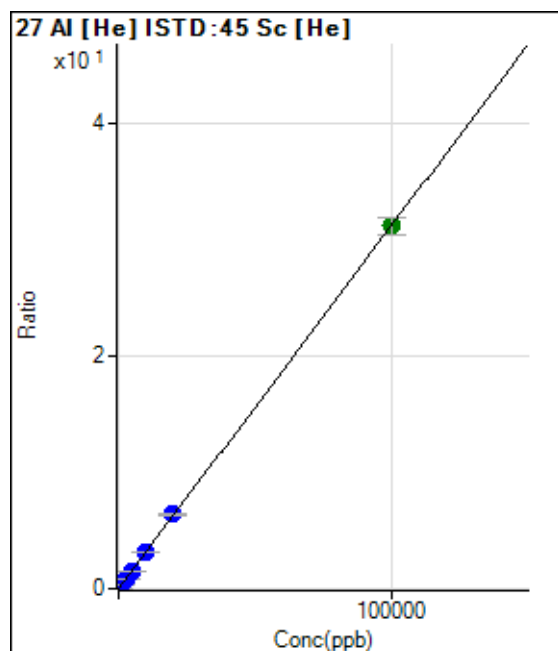
$$R = 1.0000$$

$$DL = 1.483$$

$$BEC = 3.652$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	230.62	0.0037	P	6.1
2	☐	2.000					
3	☐	20.000	21.072	637.89	0.0102	P	7.5
4	☐	1000.000	1024.613	20438.24	0.3233	P	1.9
5	☐	2500.000	2609.281	49576.59	0.8178	P	6.2
6	☐	5000.000	4984.824	101081.50	1.5590	P	0.8
7	☐	10000.000	10041.757	202859.26	3.1368	P	0.8
8	☐	20000.000	20396.223	394856.58	6.3674	P	3.0
9	☐	100000.00	99914.360	1896575.14	31.1776	A	4.4

$$y = 3.1201\text{E-}004 * x + 0.0037$$

$$R = 1.0000$$

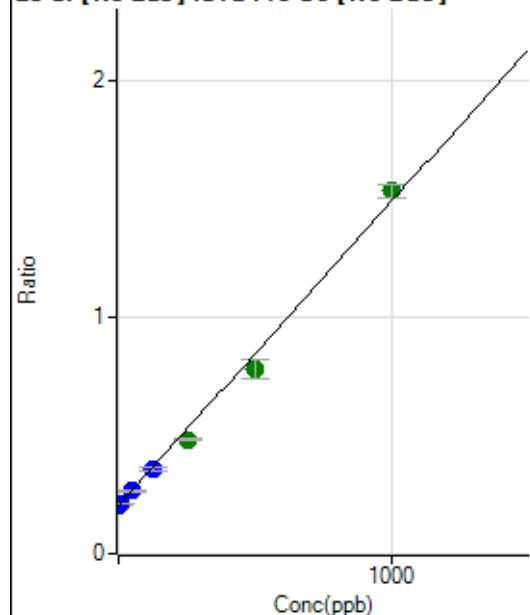
$$DL = 2.151$$

$$BEC = 11.72$$

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	403046.11	0.2032	P	1.8
2	☐	1.000	-1.920	405011.03	0.2007	P	1.5
3	☐	10.000	5.864	421187.17	0.2107	P	1.4
4	☐	50.000	47.417	536535.76	0.2641	P	1.6
5	☐	125.000	122.507	744653.43	0.3606	P	4.2
6	☐	250.000	215.571	1001821.38	0.4802	A	1.7
7	☐	500.000	449.736	1575295.17	0.7810	A	10.8
8	☐	1000.000	1034.224	3214578.18	1.5320	A	4.0
9	☐			643519.95	0.3126	P	2.7

$$y = 0.0013 * x + 0.2032$$

$$R = 0.9977$$

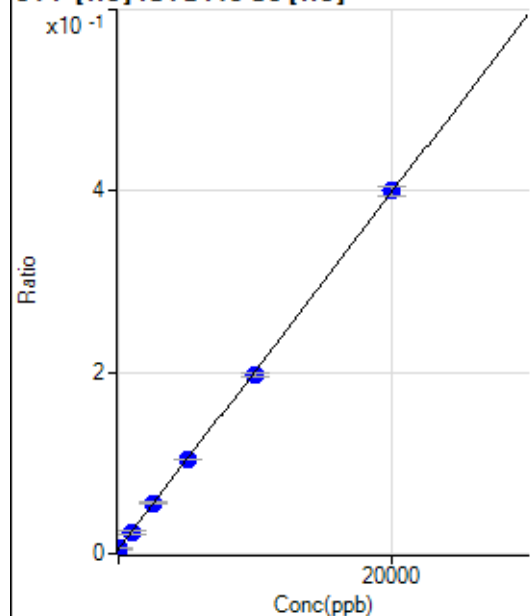
$$DL = 8.44$$

$$BEC = 158.2$$

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	-23.400	291.68	0.0046	P	26.9
2	☐	0.000	-11.293	305.57	0.0049	P	15.4
3	☐	0.000	34.693	361.12	0.0058	P	6.2
4	☐	1000.000	959.843	1514.01	0.0240	P	14.4
5	☐	2500.000	2595.561	3403.26	0.0561	P	5.7
6	☐	5000.000	5038.090	6751.73	0.1041	P	0.7
7	☐	10000.000	9774.994	12755.98	0.1972	P	2.9
8	☐	20000.000	20093.043	24813.43	0.4000	P	2.5
9	☐			308.34	0.0051	P	10.8

$$y = 1.9656E-005 * x + 0.0051$$

$$R = 0.9999$$

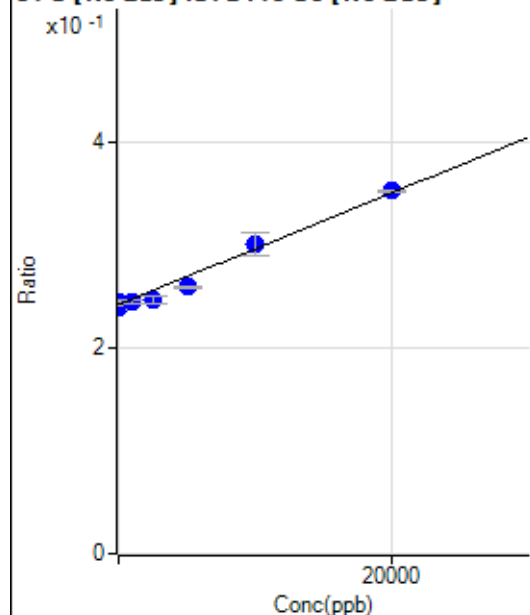
$$DL = 119.6$$

$$BEC = 259.1$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	583.902	486254.95	0.2452	P	1.8
2	☐	0.000	-633.736	481320.47	0.2386	P	1.5
3	☐	0.000	49.834	484190.39	0.2423	P	1.5
4	☐	1000.000	409.766	496074.51	0.2442	P	1.9
5	☐	2500.000	938.528	510342.90	0.2471	P	3.1
6	☐	5000.000	3104.184	539939.84	0.2588	P	1.2
7	☐	10000.000	10697.996	606065.91	0.3000	P	7.4
8	☐	20000.000	20349.652	739295.69	0.3523	P	0.6
9	☐			459630.20	0.2233	P	1.0

$$y = 5.4188\text{E-}006 * x + 0.2420$$

$$R = 0.9921$$

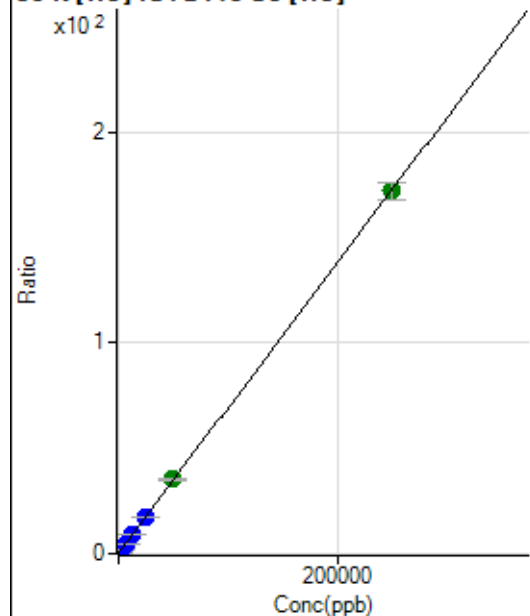
$$DL = 2139$$

$$BEC = 4.466\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16201.12	0.2568	P	1.7
2	☐	50.000	41.585	17903.14	0.2854	P	3.8
3	☐	500.000	507.209	37813.90	0.6059	P	3.5
4	☐	2500.000	2573.184	128213.81	2.0282	P	1.2
5	☐	6250.000	6493.681	286603.95	4.7272	P	5.9
6	☐	12500.000	12434.362	571621.46	8.8169	P	1.8
7	☐	25000.000	24984.055	1128962.42	17.4563	P	0.4
8	☐	50000.000	51118.777	2198132.53	35.4480	A	3.2
9	☐	250000.00	249774.28	10474557.96	172.2067	A	4.9

$$y = 6.8842\text{E-}004 * x + 0.2568$$

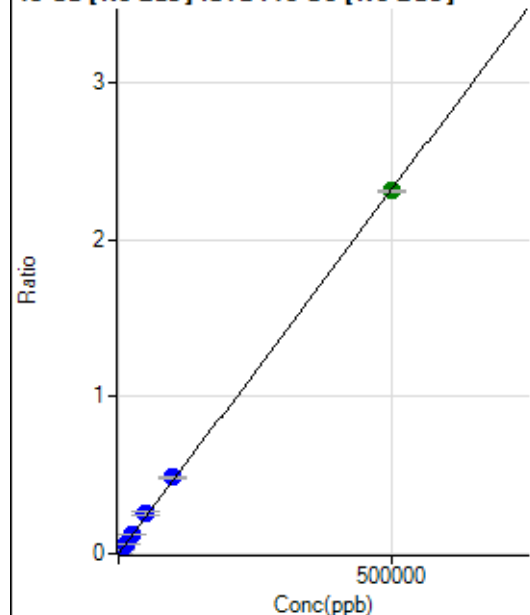
$$R = 1.0000$$

$$DL = 19.44$$

$$BEC = 373$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	577.80	0.0003	P	9.8
2	☐	50.000	47.911	1036.18	0.0005	P	6.1
3	☐	500.000	515.573	5353.91	0.0027	P	3.2
4	☐	5000.000	5366.212	51063.47	0.0251	P	3.6
5	☐	12500.000	13264.707	127472.61	0.0617	P	4.0
6	☐	25000.000	26739.143	258966.77	0.1241	P	0.5
7	☐	50000.000	55115.320	516315.56	0.2555	P	7.5
8	☐	100000.00	104495.57	1016262.41	0.4842	P	1.3
9	☐	500000.00	498479.60	4753194.81	2.3089	A	0.8

$$y = 4.6313\text{E-}006 * x + 2.9137\text{E-}004$$

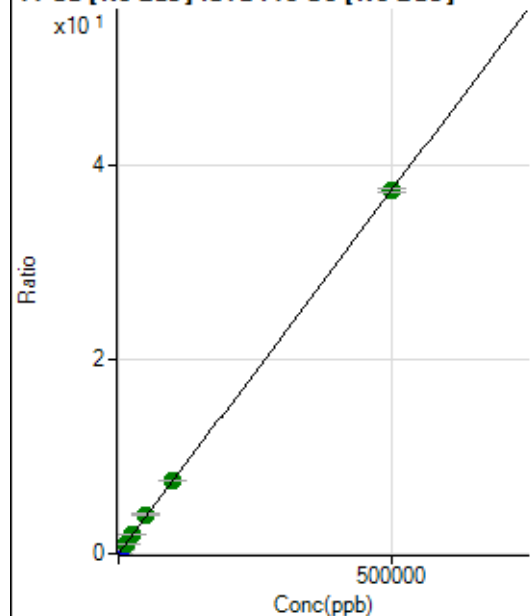
$$R = 0.9999$$

$$DL = 18.41$$

$$BEC = 62.91$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24602.16	0.0124	P	0.7
2	☐	50.000	53.099	33013.53	0.0164	P	4.8
3	☐	500.000	525.723	103274.95	0.0517	P	1.2
4	☐	5000.000	5388.259	842712.55	0.4149	P	2.4
5	☐	12500.000	13033.208	2036334.29	0.9860	A	3.4
6	☐	25000.000	25885.068	4059751.00	1.9460	A	0.9
7	☐	50000.000	53383.822	8083367.37	4.0000	A	7.2
8	☐	100000.00	101140.56	15881787.51	7.5674	A	0.3
9	☐	500000.00	499372.01	76817432.97	37.3143	A	1.0

$$y = 7.4698\text{E-}005 * x + 0.0124$$

$$R = 1.0000$$

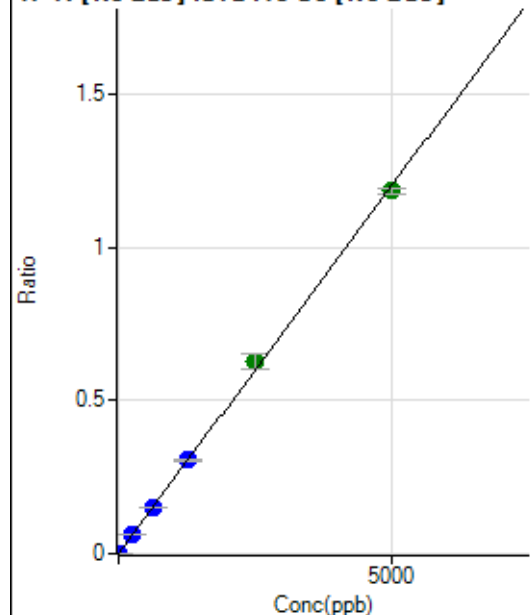
$$DL = 3.626$$

$$BEC = 166$$

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	355.57	0.0002	P	20.5
2	☐	0.500	0.376	544.47	0.0003	P	18.7
3	☐	5.000	5.594	3044.85	0.0015	P	5.3
4	☐	250.000	258.876	126754.76	0.0624	P	0.7
5	☐	625.000	630.324	313248.70	0.1516	P	2.8
6	☐	1250.000	1269.778	636974.90	0.3053	P	0.6
7	☐	2500.000	2620.170	1272260.40	0.6298	A	7.8
8	☐	5000.000	4933.861	2488621.08	1.1858	A	1.6
9	☐			1058.40	0.0005	P	19.5

$$y = 2.4030E-004 * x + 1.7959E-004$$

$$R = 0.9996$$

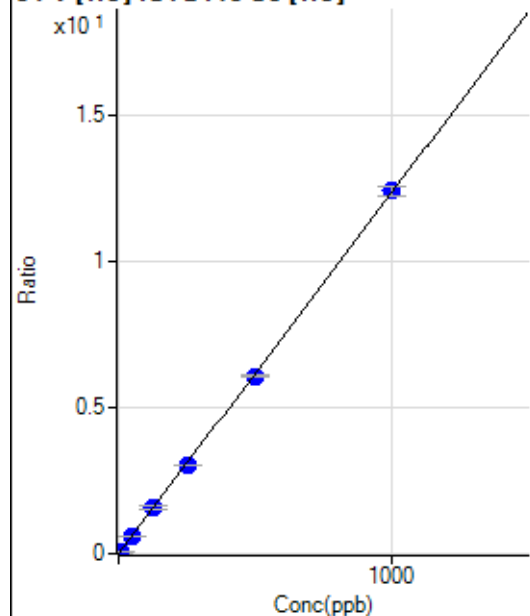
$$DL = 0.4593$$

$$BEC = 0.7473$$

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	13.33	0.0002	P	66.5
2	☐	0.500	0.491	394.46	0.0063	P	11.5
3	☐	5.000	5.147	3986.15	0.0639	P	4.4
4	☐	50.000	49.736	38907.19	0.6155	P	0.7
5	☐	125.000	126.593	94949.96	1.5663	P	6.2
6	☐	250.000	244.296	195973.07	3.0223	P	0.6
7	☐	500.000	492.207	393807.30	6.0892	P	0.5
8	☐	1000.000	1005.136	771103.70	12.4345	P	2.9
9	☐			196.67	0.0032	P	37.2

$$y = 0.0124 * x + 2.1140E-004$$

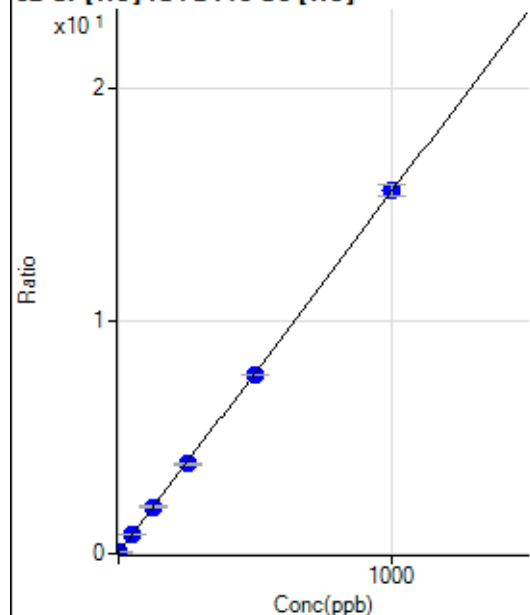
$$R = 0.9999$$

$$DL = 0.03409$$

$$BEC = 0.01709$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1087.83	0.0172	P	3.5
2	☐	0.200	0.147	1224.51	0.0195	P	7.0
3	☐	2.000	2.012	3022.58	0.0484	P	5.8
4	☐	50.000	50.487	50595.61	0.8004	P	1.1
5	☐	125.000	128.425	121850.01	2.0094	P	5.6
6	☐	250.000	246.953	249503.46	3.8480	P	0.6
7	☐	500.000	494.368	497069.33	7.6859	P	0.5
8	☐	1000.000	1003.125	965973.97	15.5778	P	3.1
9	☐			15643.08	0.2572	P	5.3

$$y = 0.0155 * x + 0.0172$$

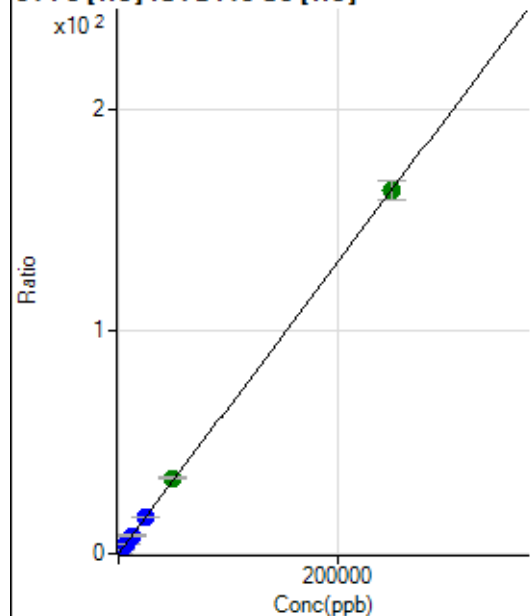
$$R = 1.0000$$

$$DL = 0.115$$

$$BEC = 1.111$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	331.49	0.0053	P	3.1
2	☐	5.000	5.779	566.69	0.0090	P	8.5
3	☐	50.000	53.657	2518.79	0.0403	P	3.5
4	☐	2500.000	2568.026	106457.71	1.6841	P	0.2
5	☐	6250.000	6511.443	258437.42	4.2620	P	5.6
6	☐	12500.000	12562.205	532829.86	8.2176	P	0.5
7	☐	25000.000	24962.559	1055727.82	16.3240	P	0.5
8	☐	50000.000	51797.062	2100285.31	33.8666	A	2.6
9	☐	250000.00	249634.00	9924739.80	163.1987	A	5.3

$$y = 6.5373E-004 * x + 0.0053$$

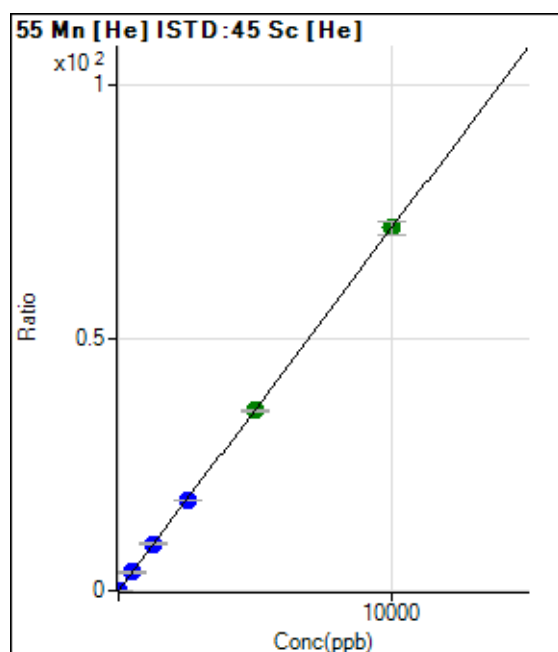
$$R = 1.0000$$

$$DL = 0.7537$$

$$BEC = 8.037$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.44	0.0012	P	14.4
2	☐	0.100	0.095	116.67	0.0019	P	13.3
3	☐	1.000	0.948	497.79	0.0080	P	7.4
4	☐	500.000	505.635	229534.40	3.6312	P	1.3
5	☐	1250.000	1296.958	564527.45	9.3122	P	6.2
6	☐	2500.000	2478.412	1153737.24	17.7941	P	0.9
7	☐	5000.000	4978.218	2311446.33	35.7405	A	0.8
8	☐	10000.000	10010.136	4455387.23	71.8654	A	4.1
9	☐			3526.03	0.0580	P	11.8

$$y = 0.0072 * x + 0.0012$$

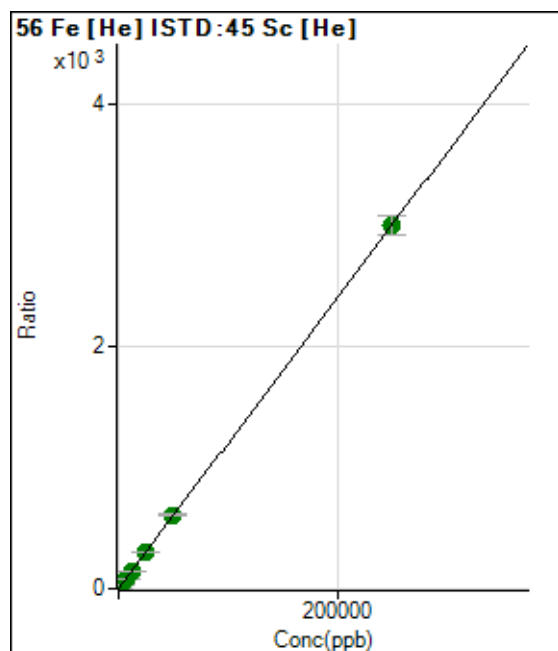
$$R = 1.0000$$

$$DL = 0.07099$$

$$BEC = 0.1641$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2526.19	0.0401	P	8.3
2	☐	5.000	5.439	6607.21	0.1053	P	3.4
3	☐	50.000	53.364	42466.94	0.6806	P	4.4
4	☐	2500.000	2560.542	1945487.37	30.7773	A	1.2
5	☐	6250.000	6492.601	4726434.54	77.9784	A	6.6
6	☐	12500.000	12318.331	9590588.87	147.9116	A	0.6
7	☐	25000.000	24604.518	19104113.16	295.3972	A	0.5
8	☐	50000.000	50715.739	37754858.72	608.8412	A	3.1
9	☐	250000.00	249898.81	182435172.6	2,999.871	A	5.3

$$y = 0.0120 * x + 0.0401$$

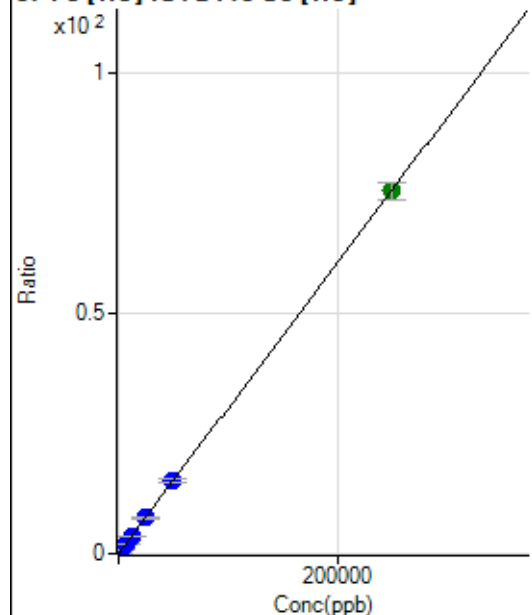
$$R = 1.0000$$

$$DL = 0.8298$$

$$BEC = 3.337$$

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	87.04	0.0014	P	30.0
2	☐	5.000	5.389	188.89	0.0030	P	13.3
3	☐	50.000	55.095	1124.14	0.0180	P	9.0
4	☐	2500.000	2507.268	47976.90	0.7590	P	2.3
5	☐	6250.000	6394.186	117253.49	1.9336	P	5.5
6	☐	12500.000	12298.580	241040.74	3.7178	P	1.6
7	☐	25000.000	24607.973	480991.57	7.4374	P	0.8
8	☐	50000.000	50340.067	943322.08	15.2132	P	3.3
9	☐	250000.00	249977.58	4594530.83	75.5397	A	4.8

$$y = 3.0218\text{E-}004 * x + 0.0014$$

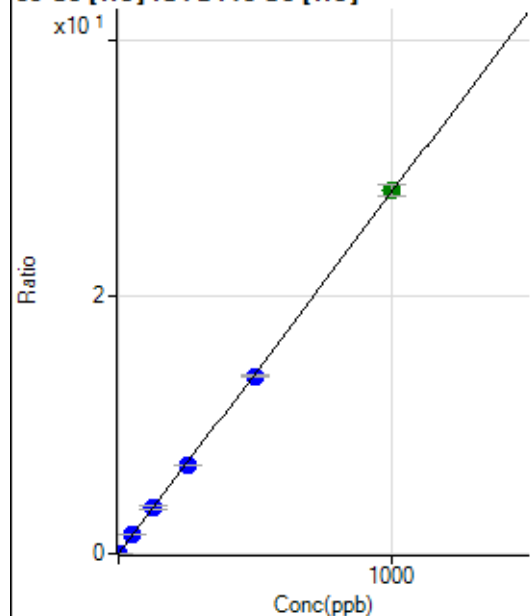
$$R = 1.0000$$

$$DL = 4.112$$

$$BEC = 4.576$$

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	34.44	0.0005	P	53.3
2	☐	0.100	0.098	206.67	0.0033	P	5.2
3	☐	1.000	1.014	1811.24	0.0290	P	6.7
4	☐	50.000	50.870	90422.45	1.4304	P	0.6
5	☐	125.000	128.538	219050.92	3.6136	P	6.4
6	☐	250.000	245.029	446600.12	6.8879	P	0.9
7	☐	500.000	492.157	894719.06	13.8343	P	0.2
8	☐	1000.000	1004.678	1751143.24	28.2405	A	3.2
9	☐			2762.52	0.0454	P	4.3

$$y = 0.0281 * x + 5.4501\text{E-}004$$

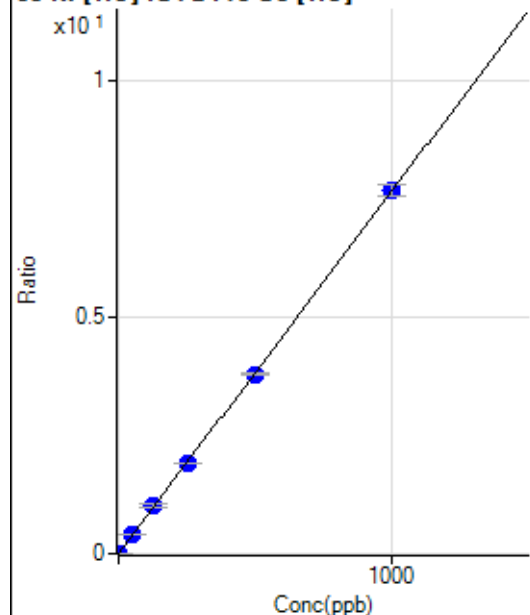
$$R = 0.9999$$

$$DL = 0.031$$

$$BEC = 0.01939$$

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	73.33	0.0012	P	28.0
2	☐	0.100					
3	☐	1.000	1.116	605.57	0.0097	P	3.9
4	☐	50.000	50.887	24689.28	0.3906	P	0.5
5	☐	125.000	131.100	60856.05	1.0044	P	7.4
6	☐	250.000	247.972	123113.56	1.8987	P	0.4
7	☐	500.000	495.682	245386.17	3.7942	P	0.4
8	☐	1000.000	1001.859	475447.19	7.6676	P	3.3
9	☐			4966.47	0.0817	P	6.7

$$y = 0.0077 * x + 0.0012$$

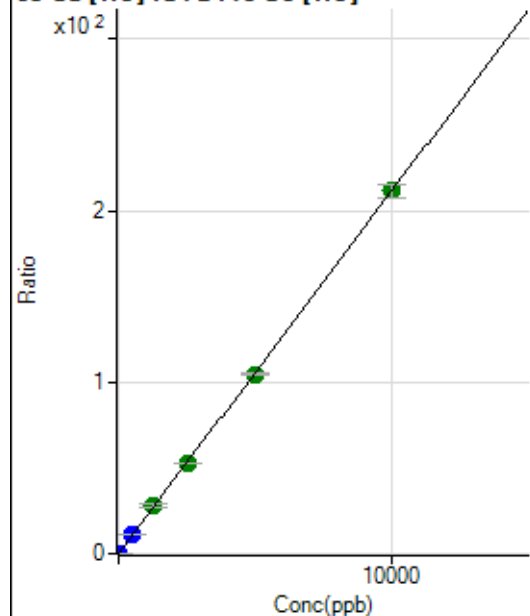
$$R = 1.0000$$

$$DL = 0.1276$$

$$BEC = 0.152$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	465.57	0.0074	P	0.4
2	☐	0.200	0.234	773.36	0.0123	P	2.6
3	☐	2.000	2.071	3191.51	0.0511	P	3.5
4	☐	500.000	520.968	696406.49	11.0170	P	1.1
5	☐	1250.000	1318.454	1690129.49	27.8704	A	5.6
6	☐	2500.000	2503.873	3431259.05	52.9220	A	1.2
7	☐	5000.000	4957.935	6776496.84	104.7840	A	1.1
8	☐	10000.000	10010.459	13117357.03	211.5595	A	3.6
9	☐			5980.22	0.0984	P	15.3

$$y = 0.0211 * x + 0.0074$$

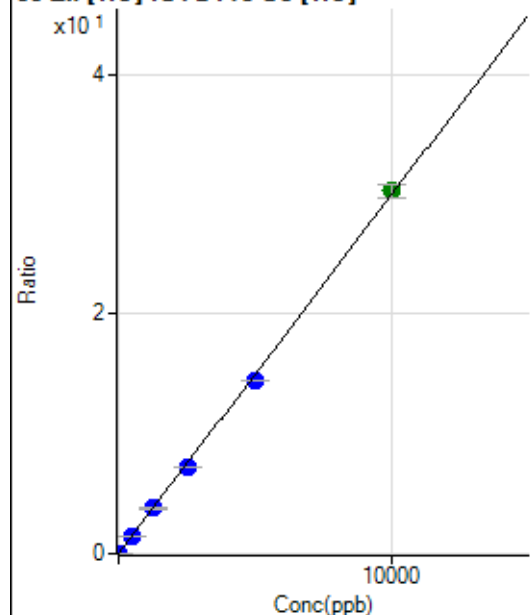
$$R = 1.0000$$

$$DL = 0.00448$$

$$BEC = 0.3491$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	168.89	0.0027	P	8.6
2	☐	0.200					
3	☐	2.000	2.521	637.80	0.0102	P	5.3
4	☐	500.000	498.218	94463.28	1.4943	P	0.5
5	☐	1250.000	1259.171	228743.09	3.7726	P	5.8
6	☐	2500.000	2413.734	468732.95	7.2294	P	1.2
7	☐	5000.000	4825.770	934592.30	14.4511	P	0.6
8	☐	10000.000	10107.624	1876611.78	30.2651	A	3.4
9	☐			4547.44	0.0747	P	4.0

$$y = 0.0030 * x + 0.0027$$

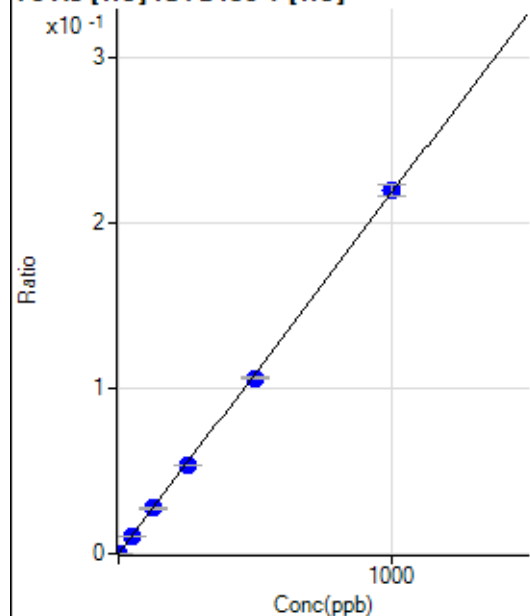
$$R = 0.9997$$

$$DL = 0.2309$$

$$BEC = 0.8933$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.33	0.0000	P	19.3
2	☐	0.100	0.091	21.67	0.0000	P	22.2
3	☐	1.000	0.960	131.01	0.0002	P	3.9
4	☐	50.000	49.895	6364.75	0.0109	P	0.9
5	☐	125.000	126.200	15673.91	0.0275	P	4.3
6	☐	250.000	247.100	32153.91	0.0538	P	0.7
7	☐	500.000	488.041	63871.16	0.1062	P	0.3
8	☐	1000.000	1006.560	126207.50	0.2191	P	3.2
9	☐			56.34	0.0001	P	15.6

$$y = 2.1761E-004 * x + 1.7692E-005$$

$$R = 0.9999$$

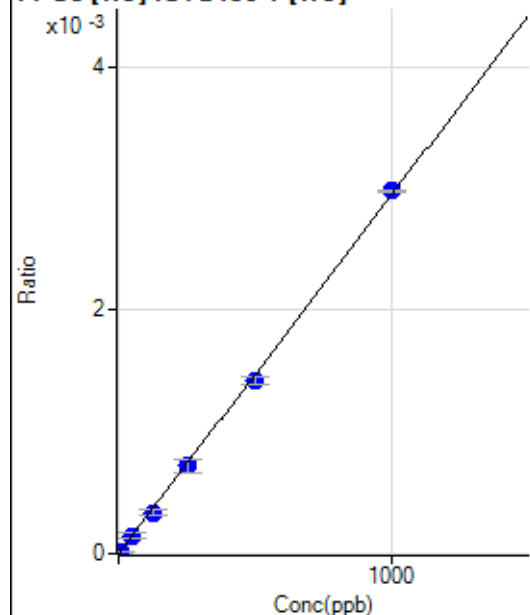
$$DL = 0.04697$$

$$BEC = 0.0813$$

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	☐	0.500	2.607	4.44	0.0000	P	42.8
3	☐	5.000	5.906	10.00	0.0000	P	66.7
4	☐	50.000	50.261	86.67	0.0001	P	35.4
5	☐	125.000	112.802	190.01	0.0003	P	14.4
6	☐	250.000	244.727	431.12	0.0007	P	16.1
7	☐	500.000	482.650	855.59	0.0014	P	3.8
8	☐	1000.000	1011.499	1719.01	0.0030	P	0.4
9	☐			2.22	0.0000	P	173.2

$$y = 2.9477\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9997$$

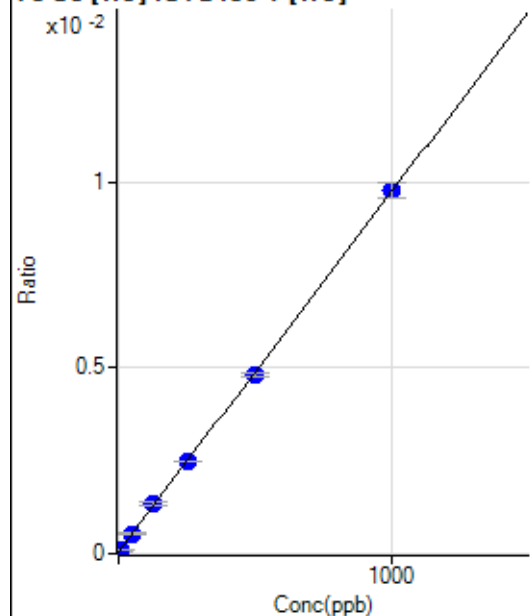
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	31.33	0.0001	P	28.5
2	☐	0.500	1.330	38.33	0.0001	P	12.8
3	☐	5.000	4.355	55.34	0.0001	P	29.2
4	☐	50.000	48.180	304.04	0.0005	P	9.1
5	☐	125.000	131.266	754.10	0.0013	P	7.2
6	☐	250.000	251.461	1486.23	0.0025	P	1.5
7	☐	500.000	491.968	2894.26	0.0048	P	3.0
8	☐	1000.000	1002.961	5620.36	0.0098	P	4.3
9	☐			25.33	0.0000	P	38.8

$$y = 9.6741\text{E-}006 * x + 5.3577\text{E-}005$$

$$R = 0.9999$$

$$DL = 4.732$$

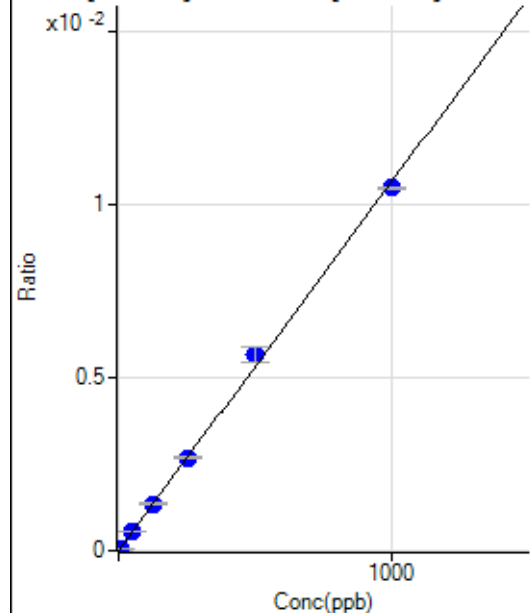
$$BEC = 5.538$$

Weight: <None>

Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1905.43		P	8.7
2	☐			1705.20		P	4.6
3	☐			1822.00		P	14.8
4	☐			1852.04		P	9.0
5	☐			1718.55		P	2.8
6	☐			1858.71		P	7.7
7	☐			1888.74		P	18.2
8	☐			1852.04		P	15.5
9	☐			1828.68		P	2.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	-23.67	0.0000	P	-174.
2	☐	0.500					
3	☐	5.000	5.219	258.57	0.0001	P	20.0
4	☐	50.000	52.107	2883.28	0.0006	P	3.5
5	☐	125.000	125.865	7010.59	0.0013	P	4.7
6	☐	250.000	250.944	14288.66	0.0027	P	2.0
7	☐	500.000	530.588	29043.49	0.0057	P	7.6
8	☐	1000.000	984.256	56429.20	0.0105	P	0.4
9	☐			8.27	0.0000	P	374.1

$$y = 1.0673E-005 * x - 4.6153E-006$$

$$R = 0.9993$$

$$DL = 2.258$$

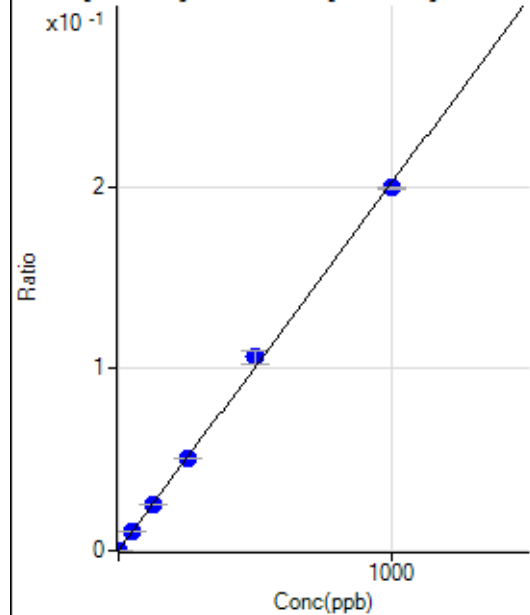
$$BEC = -0.4324$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			461.12		P	6.1
2	☐			482.24		P	12.4
3	☐			467.79		P	7.6
4	☐			464.46		P	12.1
5	☐			470.01		P	6.8
6	☐			454.46		P	2.2
7	☐			487.79		P	11.0
8	☐			440.01		P	8.2
9	☐			441.12		P	5.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	672.26	0.0001	P	5.0
2	☐	0.100	0.119	797.27	0.0002	P	8.8
3	☐	1.000	1.138	1833.50	0.0004	P	6.5
4	☐	50.000	49.885	53355.13	0.0102	P	2.9
5	☐	125.000	125.073	133035.08	0.0254	P	3.2
6	☐	250.000	250.395	271031.08	0.0507	P	0.9
7	☐	500.000	525.556	545550.89	0.1063	P	7.8
8	☐	1000.000	987.120	1072272.90	0.1995	P	0.7
9	☐			6473.92	0.0012	P	5.1

$$y = 2.0200\text{E-}004 * x + 1.3122\text{E-}004$$

$$R = 0.9995$$

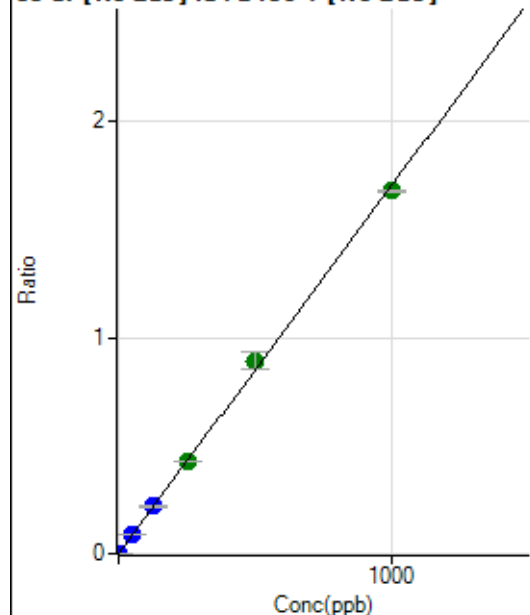
$$DL = 0.09741$$

$$BEC = 0.6496$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.34	0.0000	P	16.9
2	☐	0.100	0.104	1122.30	0.0002	P	5.4
3	☐	1.000	1.009	8922.53	0.0018	P	1.8
4	☐	50.000	51.904	462201.77	0.0884	P	1.2
5	☐	125.000	129.144	1151858.65	0.2199	P	3.8
6	☐	250.000	251.789	2291442.28	0.4287	A	0.8
7	☐	500.000	525.296	4589853.32	0.8944	A	8.0
8	☐	1000.000	986.291	9024272.94	1.6792	A	0.7
9	☐			50600.68	0.0096	P	1.0

$$y = 0.0017 * x + 4.0724E-005$$

$$R = 0.9995$$

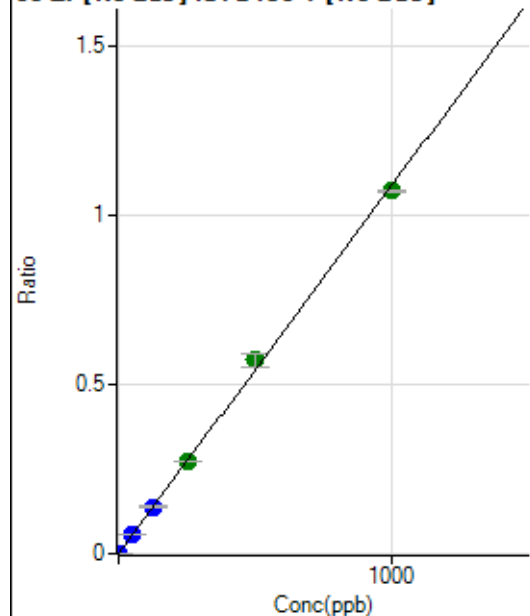
$$DL = 0.01214$$

$$BEC = 0.02392$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	244.45	0.0000	P	35.9
2	☐	0.100	0.090	750.05	0.0001	P	12.5
3	☐	1.000	0.996	5729.10	0.0011	P	0.4
4	☐	50.000	50.699	287962.89	0.0551	P	2.4
5	☐	125.000	127.232	723704.19	0.1382	P	4.0
6	☐	250.000	250.598	1454267.94	0.2721	A	0.7
7	☐	500.000	526.853	2936810.91	0.5720	A	7.1
8	☐	1000.000	986.110	5753442.66	1.0706	A	0.7
9	☐			2625.33	0.0005	P	14.0

$$y = 0.0011 * x + 4.7878E-005$$

$$R = 0.9995$$

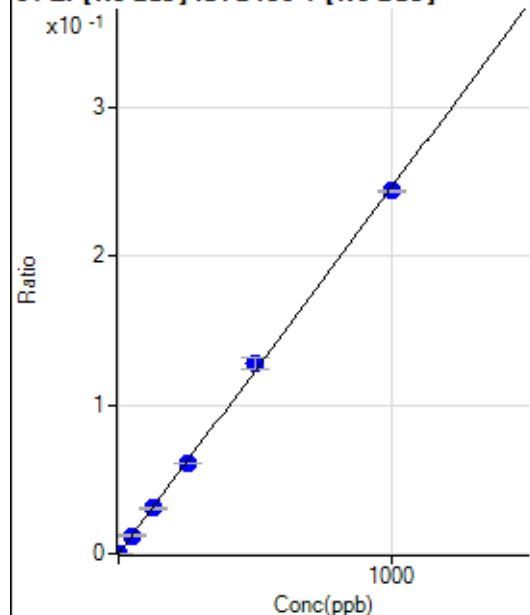
$$DL = 0.04748$$

$$BEC = 0.0441$$

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	22.22	0.0000	P	44.7
2	☐	0.100	0.149	211.12	0.0000	P	7.1
3	☐	1.000	0.969	1233.42	0.0002	P	3.7
4	☐	50.000	49.516	63754.71	0.0122	P	1.7
5	☐	125.000	124.329	160331.37	0.0306	P	4.6
6	☐	250.000	247.900	326226.17	0.0610	P	0.8
7	☐	500.000	519.730	657079.62	0.1280	P	7.0
8	☐	1000.000	990.768	1310961.03	0.2439	P	0.5
9	☐			552.81	0.0001	P	6.9

$$y = 2.4621\text{E-}004 * x + 4.3562\text{E-}006$$

$$R = 0.9997$$

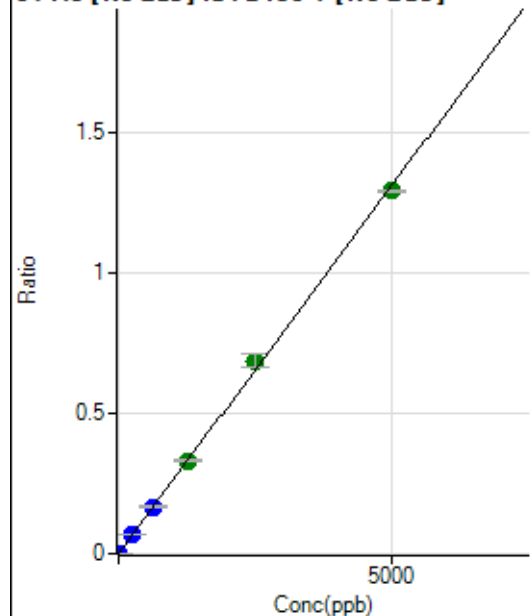
$$DL = 0.02373$$

$$BEC = 0.01769$$

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	80.56	0.0000	P	6.2
2	☐	0.500	0.540	808.38	0.0002	P	17.9
3	☐	5.000	5.043	6782.40	0.0013	P	1.6
4	☐	250.000	255.517	349981.71	0.0670	P	2.6
5	☐	625.000	638.479	876196.40	0.1673	P	3.8
6	☐	1250.000	1263.971	1769738.52	0.3311	A	1.6
7	☐	2500.000	2621.869	3526536.84	0.6869	A	7.2
8	☐	5000.000	4933.612	6945994.08	1.2925	A	0.7
9	☐			4709.27	0.0009	P	9.9

$$y = 2.6197\text{E-}004 * x + 1.5734\text{E-}005$$

$$R = 0.9996$$

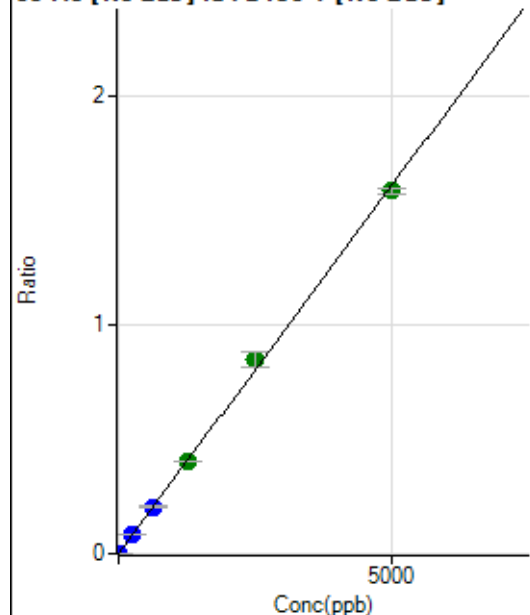
$$DL = 0.0112$$

$$BEC = 0.06006$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	132.7
2	☐	0.500	0.477	802.82	0.0002	P	8.3
3	☐	5.000	5.465	8908.64	0.0018	P	2.8
4	☐	250.000	254.748	427212.76	0.0817	P	1.9
5	☐	625.000	639.243	1074105.36	0.2051	P	3.8
6	☐	1250.000	1253.108	2148381.60	0.4020	A	1.2
7	☐	2500.000	2630.523	4331063.72	0.8438	A	7.8
8	☐	5000.000	4931.943	8502443.07	1.5821	A	1.3
9	☐			6304.39	0.0012	P	12.4

$$y = 3.2079\text{E-}004 * x + 3.2456\text{E-}006$$

$$R = 0.9995$$

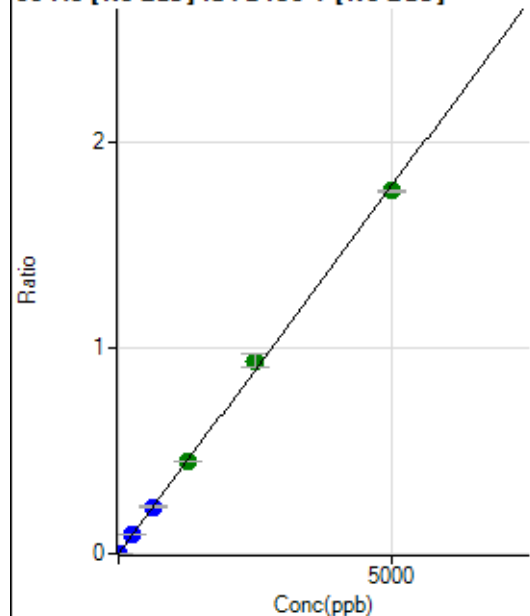
$$DL = 0.04028$$

$$BEC = 0.01012$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.11	0.0000	P	11.1
2	☐	0.500	0.528	1080.62	0.0002	P	13.1
3	☐	5.000	5.305	9709.19	0.0019	P	5.2
4	☐	250.000	254.659	475268.77	0.0909	P	1.1
5	☐	625.000	638.437	1193637.86	0.2279	P	3.5
6	☐	1250.000	1258.368	2400384.32	0.4491	A	1.3
7	☐	2500.000	2620.741	4801764.47	0.9353	A	7.3
8	☐	5000.000	4935.625	9466500.12	1.7615	A	0.4
9	☐			7096.46	0.0013	P	9.0

$$y = 3.5689\text{E-}004 * x + 2.1692\text{E-}005$$

$$R = 0.9996$$

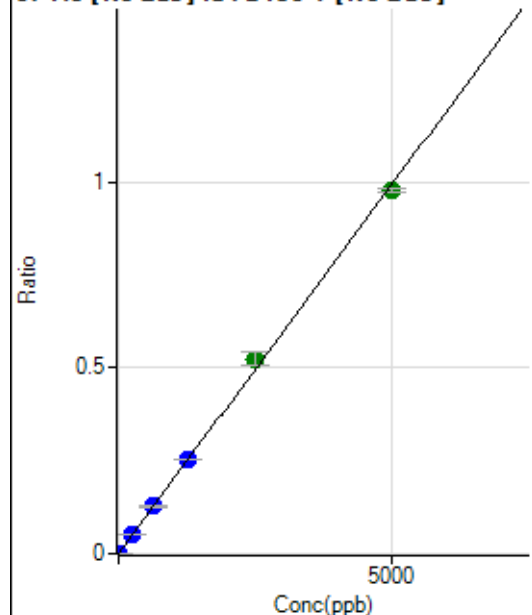
$$DL = 0.02017$$

$$BEC = 0.06078$$

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	16.67	0.0000	P	1.4
2	☐	0.500	0.549	575.03	0.0001	P	19.9
3	☐	5.000	5.452	5498.47	0.0011	P	4.2
4	☐	250.000	256.062	265444.45	0.0508	P	1.0
5	☐	625.000	640.921	665638.08	0.1271	P	3.7
6	☐	1250.000	1269.396	1345147.16	0.2517	P	0.5
7	☐	2500.000	2645.367	2693174.19	0.5245	A	7.0
8	☐	5000.000	4920.174	5242583.32	0.9755	A	0.9
9	☐			3720.05	0.0007	P	4.8

$$y = 1.9827E-004 * x + 3.2557E-006$$

$$R = 0.9994$$

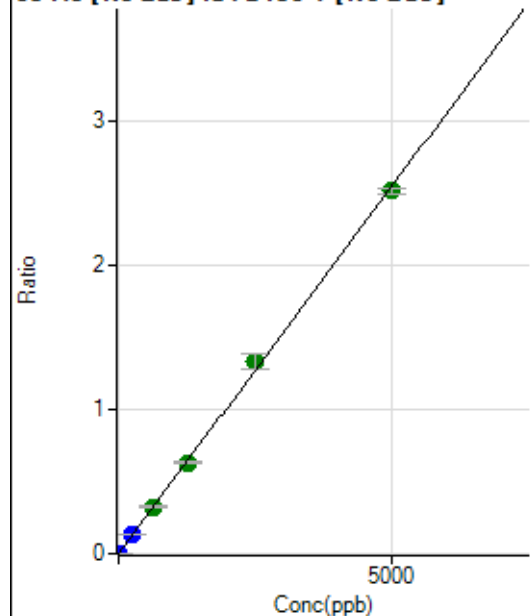
$$DL = 0.0007016$$

$$BEC = 0.01642$$

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	22.22	0.0000	P	79.3
2	☐	0.500	0.539	1433.45	0.0003	P	6.9
3	☐	5.000	5.378	13929.57	0.0027	P	4.2
4	☐	250.000	255.612	681471.36	0.1304	P	1.6
5	☐	625.000	631.587	1687546.75	0.3221	A	3.3
6	☐	1250.000	1244.176	3391021.34	0.6345	A	1.0
7	☐	2500.000	2614.029	6841447.12	1.3331	A	8.2
8	☐	5000.000	4943.337	13547834.33	2.5209	A	1.3
9	☐			9709.24	0.0018	P	8.2

$$y = 5.0997E-004 * x + 4.3645E-006$$

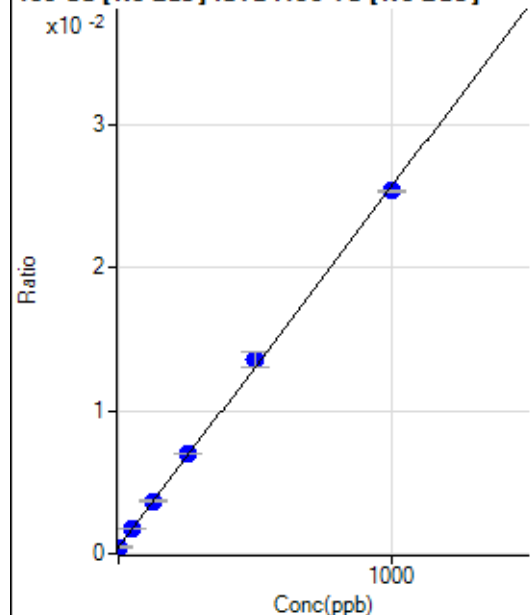
$$R = 0.9996$$

$$DL = 0.02037$$

$$BEC = 0.008558$$

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	1469.57	0.0004	P	4.3
2	☐	0.100	-1.341	1358.43	0.0004	P	2.9
3	☐	1.000	1.304	1566.80	0.0005	P	4.1
4	☐	50.000	51.805	5962.55	0.0017	P	2.8
5	☐	125.000	127.270	12647.81	0.0036	P	3.6
6	☐	250.000	258.476	24491.69	0.0070	P	0.4
7	☐	500.000	519.478	46638.05	0.0135	P	8.2
8	☐	1000.000	987.768	90020.74	0.0253	P	0.5
9	☐			1522.35	0.0004	P	10.4

$$y = 2.5217\text{E-}005 * x + 4.3701\text{E-}004$$

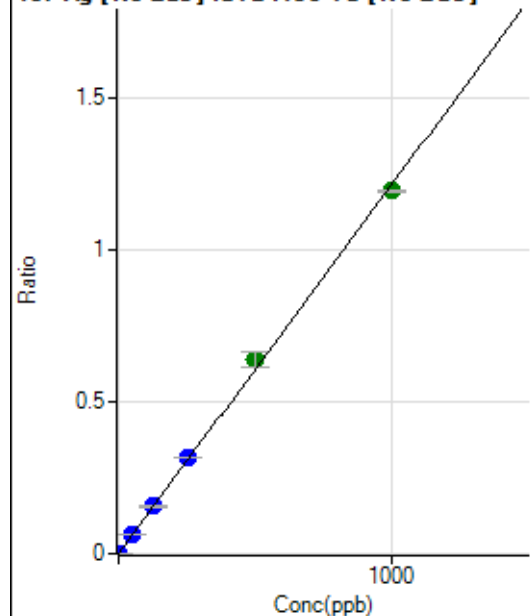
$$R = 0.9997$$

$$DL = 2.225$$

$$BEC = 17.33$$

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	50.00	0.0000	P	57.6
2	☐	0.100	0.106	483.36	0.0001	P	20.3
3	☐	1.000	1.118	4584.22	0.0014	P	7.1
4	☐	50.000	52.592	218717.93	0.0640	P	1.4
5	☐	125.000	128.433	541758.13	0.1562	P	2.5
6	☐	250.000	258.479	1106871.35	0.3143	P	0.1
7	☐	500.000	526.611	2206991.33	0.6404	A	7.6
8	☐	1000.000	984.016	4249877.40	1.1966	A	0.5
9	☐			1950.19	0.0006	P	16.5

$$y = 0.0012 * x + 1.4848\text{E-}005$$

$$R = 0.9995$$

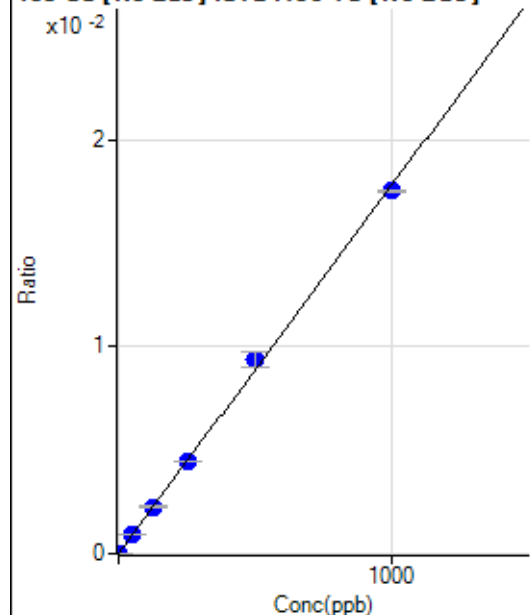
$$DL = 0.02109$$

$$BEC = 0.01221$$

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	6.95	0.0000	P	68.9
2	☐	0.100	0.070	11.11	0.0000	P	79.2
3	☐	1.000	0.917	61.11	0.0000	P	31.6
4	☐	50.000	51.065	3110.11	0.0009	P	1.3
5	☐	125.000	127.007	7835.64	0.0023	P	3.8
6	☐	250.000	252.181	15786.95	0.0045	P	0.6
7	☐	500.000	527.126	32286.38	0.0094	P	7.8
8	☐	1000.000	985.588	62208.67	0.0175	P	0.8
9	☐			41.67	0.0000	P	39.4

$$y = 1.7770\text{E-}005 * x + 2.0628\text{E-}006$$

$$R = 0.9995$$

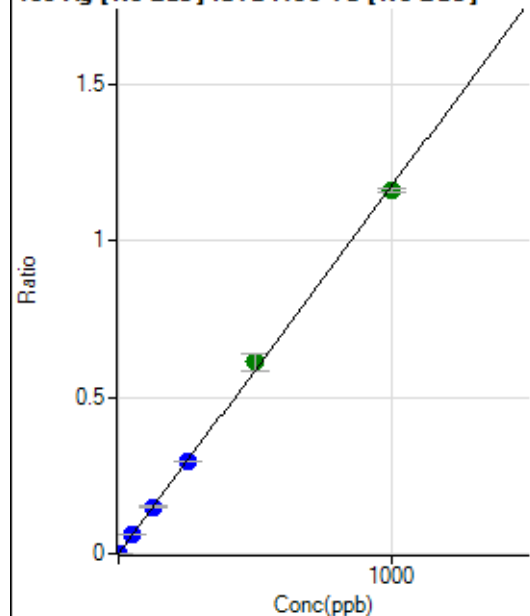
$$DL = 0.2399$$

$$BEC = 0.1161$$

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	22.22	0.0000	P	57.0
2	☐	0.100	0.108	447.24	0.0001	P	9.2
3	☐	1.000	1.079	4242.42	0.0013	P	3.8
4	☐	50.000	51.916	208202.15	0.0609	P	2.0
5	☐	125.000	127.692	519478.44	0.1498	P	2.2
6	☐	250.000	253.099	1045305.13	0.2969	P	0.4
7	☐	500.000	522.326	2109891.80	0.6126	A	8.8
8	☐	1000.000	987.630	4113890.63	1.1583	A	1.0
9	☐			1669.60	0.0005	P	20.5

$$y = 0.0012 * x + 6.5976\text{E-}006$$

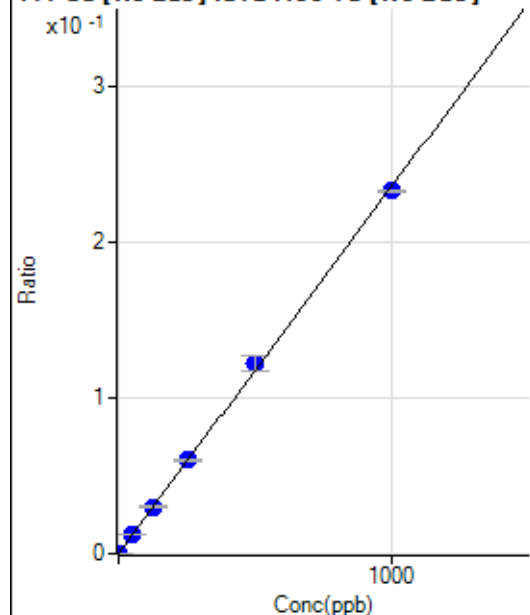
$$R = 0.9996$$

$$DL = 0.009627$$

$$BEC = 0.005625$$

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	297.38	0.0001	P	6.1
2	☐	0.100	0.081	362.52	0.0001	P	8.6
3	☐	1.000	1.030	1105.34	0.0003	P	8.1
4	☐	50.000	51.633	41934.88	0.0123	P	1.1
5	☐	125.000	126.715	103944.16	0.0300	P	2.7
6	☐	250.000	255.167	212202.99	0.0603	P	1.2
7	☐	500.000	519.600	422423.46	0.1226	P	8.3
8	☐	1000.000	988.612	828293.62	0.2332	P	0.8
9	☐			682.26	0.0002	P	3.6

$$y = 2.3582E-004 * x + 8.8440E-005$$

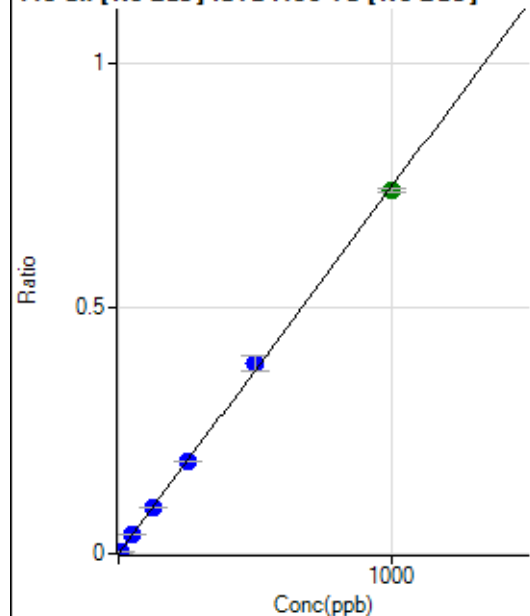
$$R = 0.9997$$

$$DL = 0.06903$$

$$BEC = 0.375$$

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	425.02	0.0001	P	13.3
2	☐	0.500	0.500	1683.48	0.0005	P	1.7
3	☐	5.000	5.195	13365.15	0.0040	P	1.1
4	☐	50.000	51.142	131078.16	0.0383	P	0.5
5	☐	125.000	126.520	328321.45	0.0946	P	1.5
6	☐	250.000	253.017	666069.05	0.1892	P	0.6
7	☐	500.000	520.196	1339820.58	0.3888	P	7.6
8	☐	1000.000	988.900	2624458.59	0.7389	A	1.2
9	☐			1836.28	0.0005	P	9.9

$$y = 7.4709E-004 * x + 1.2636E-004$$

$$R = 0.9997$$

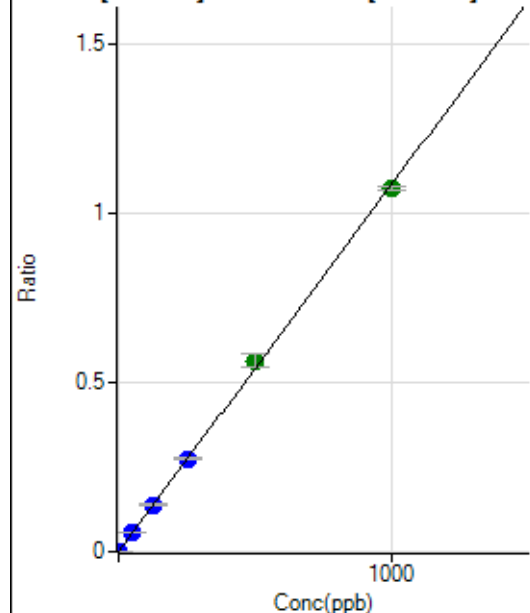
$$DL = 0.06727$$

$$BEC = 0.1691$$

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	19.44	0.0000	P	65.2
2	☐	0.200	0.182	686.15	0.0002	P	21.3
3	☐	2.000	1.989	7227.10	0.0022	P	4.7
4	☐	50.000	50.515	187680.96	0.0549	P	1.1
5	☐	125.000	126.906	478245.32	0.1379	P	2.3
6	☐	250.000	253.627	970300.28	0.2756	P	1.2
7	☐	500.000	520.926	1950334.64	0.5660	A	7.8
8	☐	1000.000	988.366	3813714.84	1.0738	A	1.2
9	☐			3547.78	0.0010	P	9.2

$$y = 0.0011 * x + 5.7725E-006$$

$$R = 0.9997$$

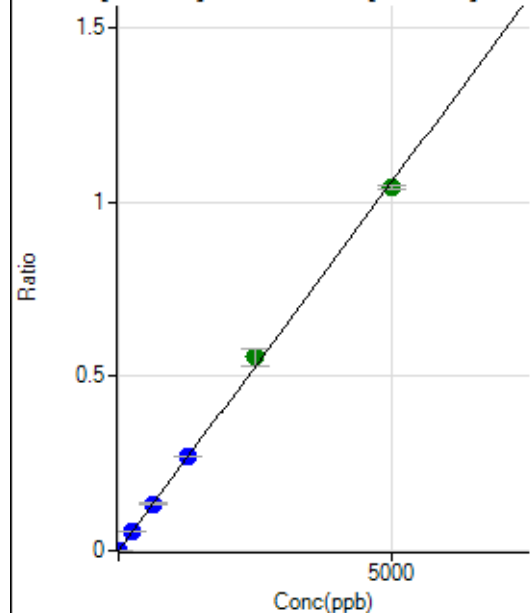
$$DL = 0.01039$$

$$BEC = 0.005313$$

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	44.45	0.0000	P	84.4
2	☐	1.000	1.017	769.48	0.0002	P	2.6
3	☐	10.000	10.503	7457.81	0.0022	P	2.9
4	☐	250.000	257.941	186700.14	0.0546	P	0.4
5	☐	625.000	636.018	466898.93	0.1346	P	2.2
6	☐	1250.000	1281.408	954934.90	0.2712	P	0.4
7	☐	2500.000	2632.841	1918970.51	0.5572	A	8.9
8	☐	5000.000	4923.952	3700837.50	1.0420	A	1.0
9	☐			7171.53	0.0021	P	3.1

$$y = 2.1162E-004 * x + 1.3188E-005$$

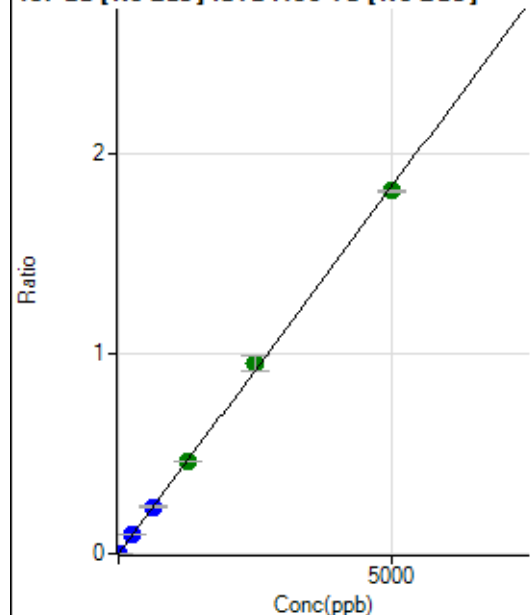
$$R = 0.9995$$

$$DL = 0.1577$$

$$BEC = 0.06232$$

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	44.44	0.0000	P	21.7
2	☐	1.000	1.045	1333.43	0.0004	P	10.2
3	☐	10.000	10.432	12784.18	0.0038	P	2.3
4	☐	250.000	259.856	325325.11	0.0952	P	2.3
5	☐	625.000	636.937	808942.06	0.2332	P	2.1
6	☐	1250.000	1260.388	1625055.99	0.4615	A	0.4
7	☐	2500.000	2601.831	3282473.94	0.9526	A	8.1
8	☐	5000.000	4944.501	6429602.40	1.8103	A	0.5
9	☐			12734.10	0.0037	P	6.2

$$y = 3.6613\text{E-}004 * x + 1.3218\text{E-}005$$

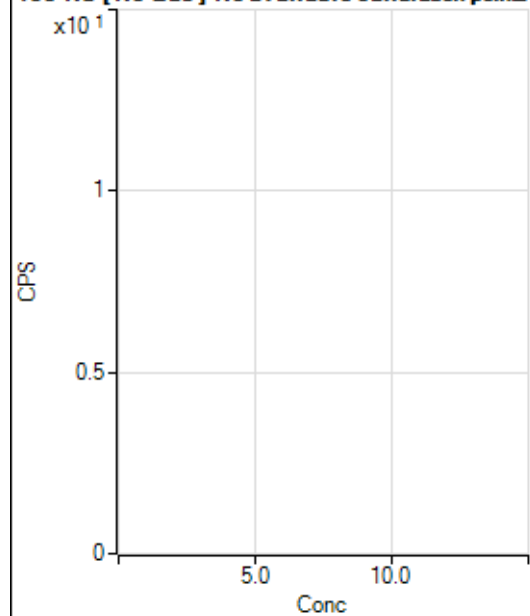
$$R = 0.9997$$

$$DL = 0.02352$$

$$BEC = 0.0361$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	0.0
2	☐			0.00		P	
3	☐			8.89		P	86.6
4	☐			4.45		P	86.6
5	☐			20.00		P	33.4
6	☐			42.22		P	24.1
7	☐			53.33		P	37.5
8	☐			133.34		P	10.0
9	☐			33.33		P	20.0

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			2.22		P	86.6
3	☐			3.33		P	100.1
4	☐			0.00		P	
5	☐			1.11		P	173.2
6	☐			6.67		P	0.0
7	☐			6.67		P	50.0
8	☐			23.34		P	24.7
9	☐			4.44		P	43.4

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.0
2	☐			11.11		P	86.6
3	☐			13.89		P	69.3
4	☐			13.89		P	91.6
5	☐			11.11		P	114.6
6	☐			19.45		P	24.7
7	☐			27.78		P	17.3
8	☐			72.22		P	29.0
9	☐			202.78		P	37.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐			2.22		P	86.6
3	☐			3.33		P	100.1
4	☐			3.33		P	0.0
5	☐			8.89		P	94.4
6	☐			6.67		P	50.0
7	☐			26.67		P	25.0
8	☐			34.44		P	29.6
9	☐			123.33		P	21.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	41.7
2	☐			25.00		P	33.3
3	☐			30.55		P	68.6
4	☐			30.56		P	56.8
5	☐			44.45		P	10.8
6	☐			55.56		P	48.2
7	☐			66.67		P	25.0
8	☐			119.45		P	32.2
9	☐			258.34		P	28.7

160 Gd [He] No available calibration points

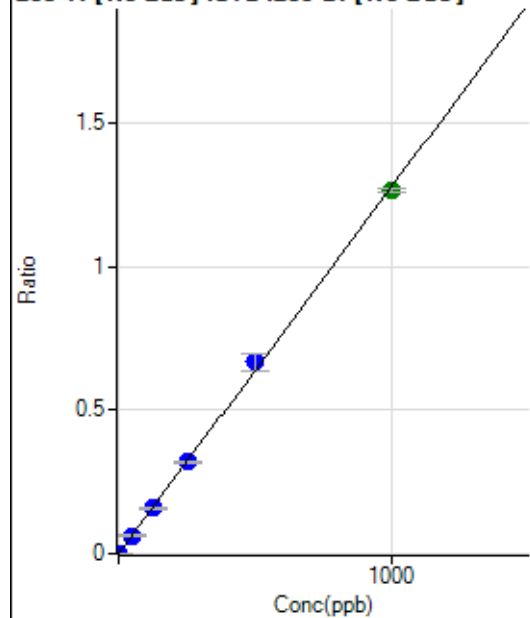
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.55		P	44.6
2	☐			11.11		P	17.3
3	☐			11.11		P	69.3
4	☐			26.67		P	12.5
5	☐			18.89		P	27.0
6	☐			15.55		P	24.8
7	☐			32.22		P	47.8
8	☐			46.67		P	32.7
9	☐			152.22		P	19.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	24.7
2	☐			16.67		P	50.0
3	☐			5.55		P	86.6
4	☐			16.67		P	50.0
5	☐			38.89		P	44.6
6	☐			22.22		P	21.6
7	☐			25.00		P	33.3
8	☐			55.56		P	75.5
9	☐			41.67		P	60.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	34.7
2	☐			4.44		P	43.4
3	☐			3.33		P	100.1
4	☐			13.33		P	66.1
5	☐			15.56		P	12.4
6	☐			2.22		P	86.6
7	☐			18.89		P	27.0
8	☐			15.56		P	53.9
9	☐			26.67		P	33.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	58.33	0.0000	P	37.9
2	☐	0.100	0.067	233.34	0.0001	P	17.2
3	☐	1.000	0.944	2483.63	0.0012	P	2.2
4	☐	50.000	49.616	130142.39	0.0635	P	2.3
5	☐	125.000	123.749	329241.51	0.1583	P	3.2
6	☐	250.000	249.139	667295.87	0.3187	P	1.3
7	☐	500.000	522.227	1361398.29	0.6681	P	8.7
8	☐	1000.000	989.277	2681900.80	1.2656	A	0.9
9	☐			1636.27	0.0008	P	17.9

$$y = 0.0013 * x + 2.8896E-005$$

$$R = 0.9997$$

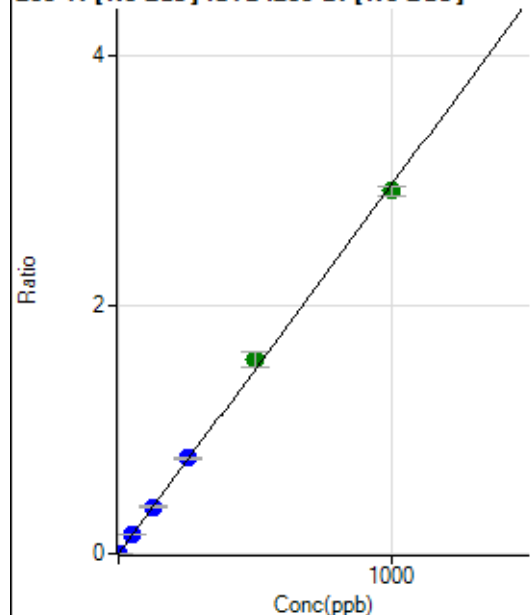
$$DL = 0.02568$$

$$BEC = 0.02259$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	28.2
2	☐	0.100	0.086	608.37	0.0003	P	6.8
3	☐	1.000	1.007	6084.93	0.0030	P	4.1
4	☐	50.000	51.866	314962.59	0.1537	P	2.0
5	☐	125.000	126.691	780444.56	0.3753	P	2.8
6	☐	250.000	258.320	1601922.07	0.7652	P	1.0
7	☐	500.000	527.180	3184791.98	1.5615	A	7.3
8	☐	1000.000	984.026	6176298.45	2.9147	A	2.3
9	☐			3636.75	0.0018	P	25.5

$$y = 0.0030 * x + 4.6749E-005$$

$$R = 0.9994$$

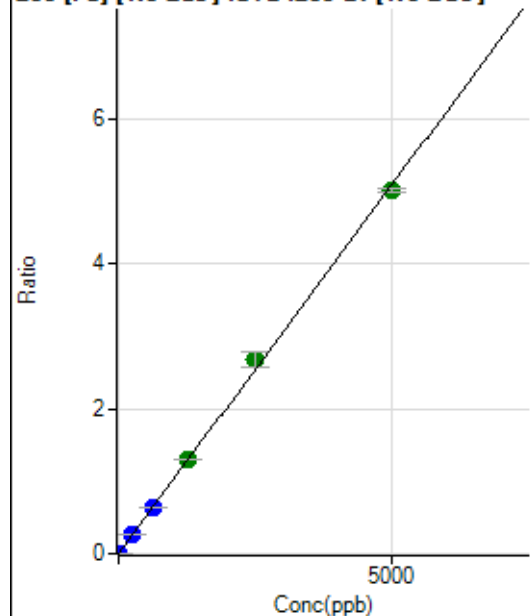
$$DL = 0.01334$$

$$BEC = 0.01578$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	337.05	0.0002	P	2.6
2	☐	0.100	0.106	557.43	0.0003	P	1.6
3	☐	1.000	0.991	2357.66	0.0012	P	2.0
4	☐	250.000	254.067	529038.24	0.2581	P	2.7
5	☐	625.000	627.979	1326518.00	0.6378	P	1.9
6	☐	1250.000	1282.141	2725867.60	1.3021	A	1.0
7	☐	2500.000	2632.317	5449979.58	2.6730	A	7.8
8	☐	5000.000	4925.231	10598061.12	5.0013	A	1.1
9	☐			9188.60	0.0047	P	6.3

$$y = 0.0010 * x + 1.6688E-004$$

$$R = 0.9995$$

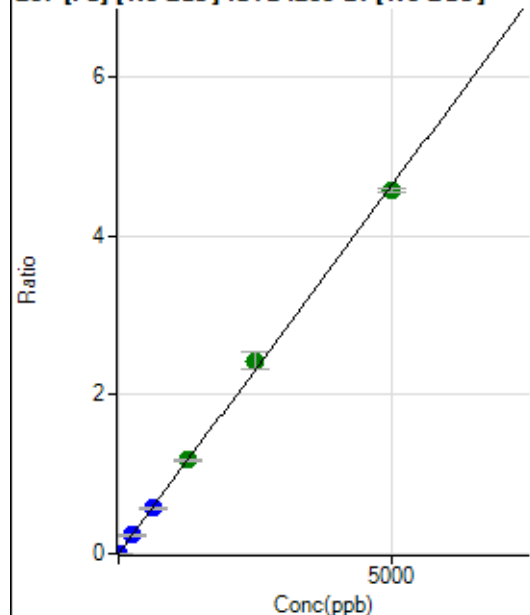
$$DL = 0.01285$$

$$BEC = 0.1643$$

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	320.38	0.0002	P	1.8
2	☐	0.100	0.108	524.09	0.0003	P	8.7
3	☐	1.000	0.971	2126.14	0.0011	P	2.0
4	☐	250.000	250.033	475016.05	0.2318	P	2.2
5	☐	625.000	623.065	1200497.35	0.5773	P	2.9
6	☐	1250.000	1276.125	2474908.50	1.1823	A	2.0
7	☐	2500.000	2625.774	4958695.08	2.4325	A	8.0
8	☐	5000.000	4930.822	9679410.17	4.5677	A	0.9
9	☐			8441.79	0.0043	P	5.1

$$y = 9.2633\text{E-}004 * x + 1.5862\text{E-}004$$

$$R = 0.9995$$

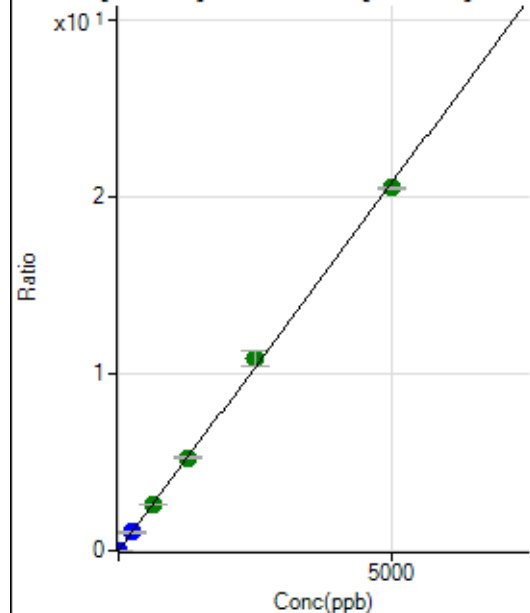
$$DL = 0.009497$$

$$BEC = 0.1712$$

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	1309.31	0.0006	P	3.9
2	☐	0.100	0.105	2200.11	0.0011	P	2.6
3	☐	1.000	0.996	9614.53	0.0048	P	1.4
4	☐	250.000	251.095	2139636.74	1.0440	P	2.1
5	☐	625.000	627.466	5423153.27	2.6079	A	2.6
6	☐	1250.000	1264.883	11004303.66	5.2564	A	1.1
7	☐	2500.000	2616.246	22162230.70	10.8716	A	8.0
8	☐	5000.000	4937.793	43479995.65	20.5180	A	0.8
9	☐			37686.87	0.0192	P	5.0

$$y = 0.0042 * x + 6.4818\text{E-}004$$

$$R = 0.9996$$

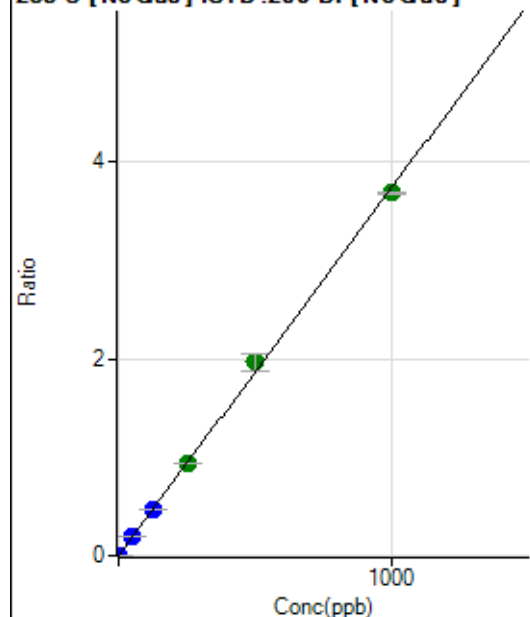
$$DL = 0.01824$$

$$BEC = 0.156$$

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	22.22	0.0000	P	57.6
2	☐	0.100	0.100	780.60	0.0004	P	19.9
3	☐	1.000	0.959	7224.48	0.0036	P	7.7
4	☐	50.000	50.071	383859.63	0.1873	P	1.1
5	☐	125.000	124.970	971987.32	0.4674	P	2.6
6	☐	250.000	250.803	1963721.90	0.9380	A	1.4
7	☐	500.000	526.287	4010403.99	1.9684	A	8.9
8	☐	1000.000	986.656	7819927.87	3.6902	A	0.8
9	☐			2022.46	0.0010	P	26.3

$$y = 0.0037 * x + 1.1016E-005$$

$$R = 0.9995$$

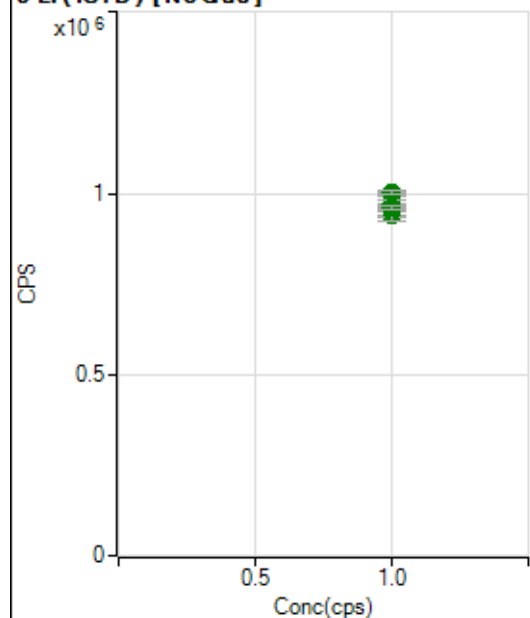
$$DL = 0.005089$$

$$BEC = 0.002945$$

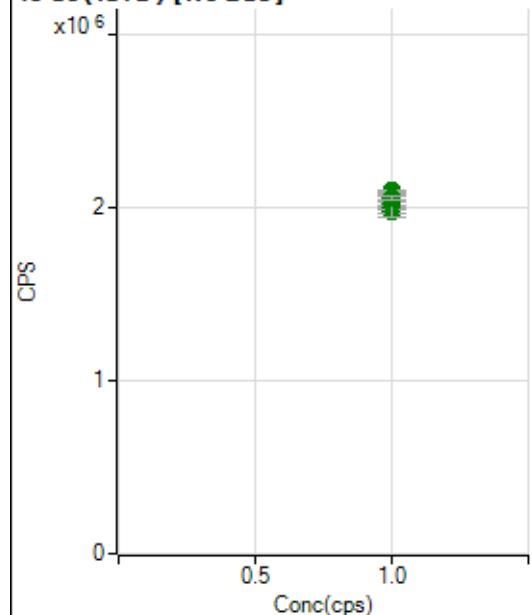
Weight: <None>

Min Conc: 0

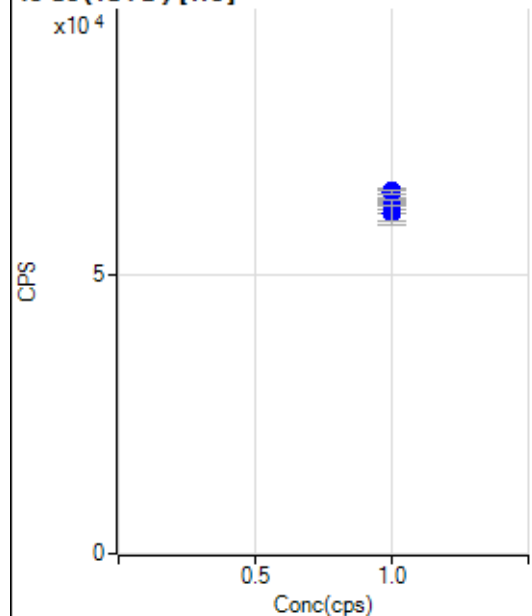
6 Li (ISTD) [No Gas]



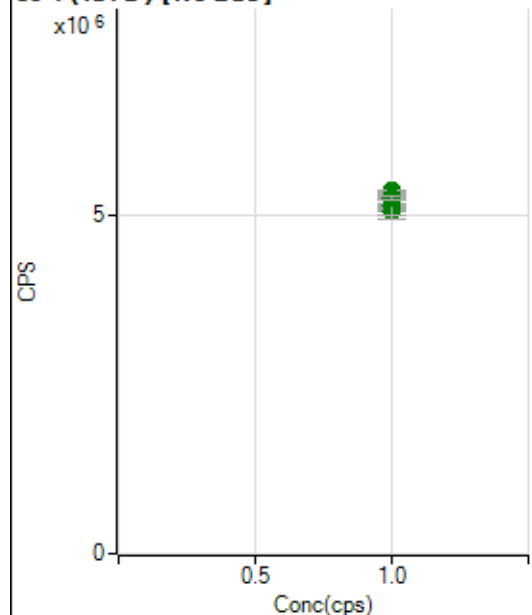
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		939082.25		A	0.5
2	☐	1.000		948095.71		A	1.4
3	☐	1.000		951126.12		A	0.3
4	☐	1.000		964828.60		A	1.8
5	☐	1.000		973166.64		A	2.3
6	☐	1.000		991652.96		A	2.3
7	☐	1.000		958035.57		A	7.5
8	☐	1.000		1001664.23		A	0.9
9	☐	1.000		961474.81		A	1.1

45 Sc (ISTD) [No Gas]

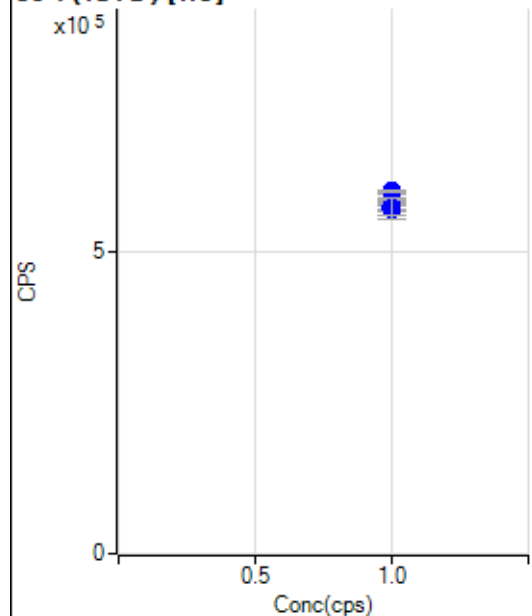
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1983796.17		A	1.6
2	☐	1.000		2017899.59		A	1.6
3	☐	1.000		1998793.88		A	1.1
4	☐	1.000		2031767.00		A	1.9
5	☐	1.000		2066760.16		A	3.0
6	☐	1.000		2086265.37		A	0.6
7	☐	1.000		2028276.32		A	7.8
8	☐	1.000		2098743.79		A	0.8
9	☐	1.000		2058584.95		A	0.9

45 Sc (ISTD) [He]

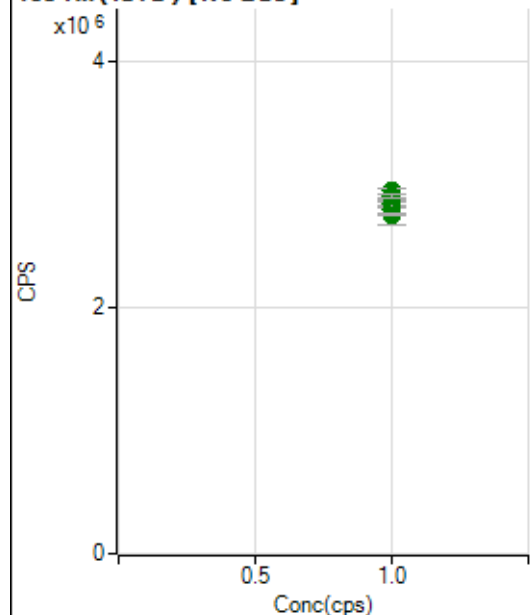
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		63103.90		P	1.3
2	☐	1.000		62724.12		P	0.5
3	☐	1.000		62453.05		P	3.4
4	☐	1.000		63215.18		P	0.7
5	☐	1.000		60779.30		P	6.3
6	☐	1.000		64843.54		P	1.4
7	☐	1.000		64674.59		P	0.9
8	☐	1.000		62053.87		P	3.4
9	☐	1.000		60914.55		P	4.7

89 Y (ISTD) [No Gas]

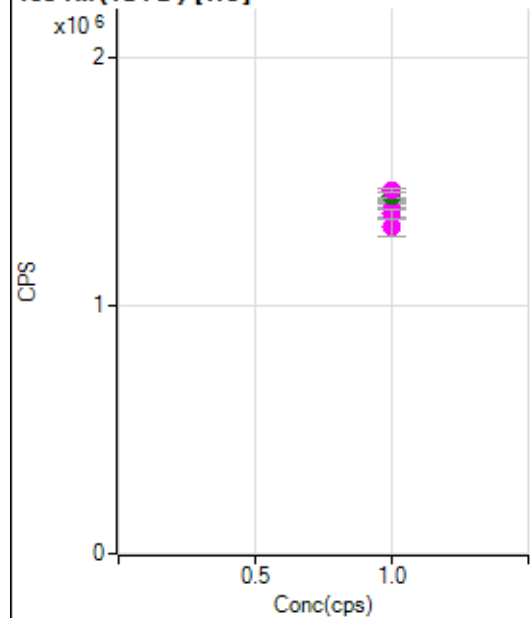
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5120892.32		A	1.4
2	☐	1.000		5136690.24		A	1.9
3	☐	1.000		5073388.68		A	1.9
4	☐	1.000		5228659.78		A	1.7
5	☐	1.000		5242322.25		A	3.4
6	☐	1.000		5344664.57		A	0.7
7	☐	1.000		5152792.36		A	7.6
8	☐	1.000		5374087.97		A	0.1
9	☐	1.000		5266157.94		A	0.8

89 Y (ISTD) [He]

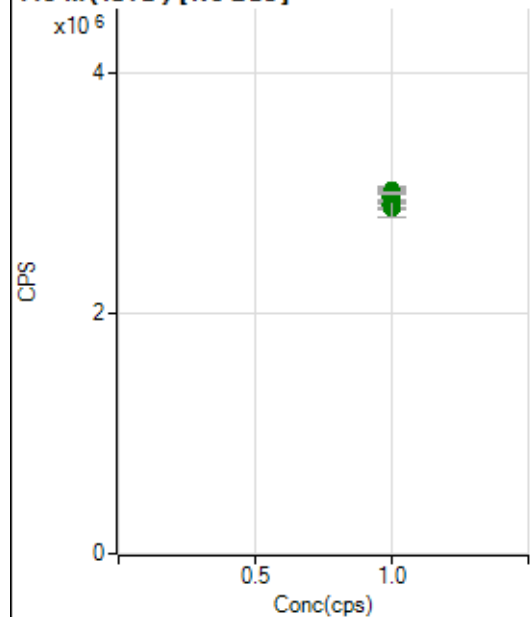
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		583425.66		P	1.6
2	☐	1.000		577199.28		P	0.6
3	☐	1.000		578353.70		P	3.1
4	☐	1.000		585261.28		P	0.6
5	☐	1.000		571284.30		P	5.5
6	☐	1.000		597779.95		P	0.3
7	☐	1.000		601314.80		P	0.5
8	☐	1.000		576550.76		P	3.2
9	☐	1.000		574903.83		P	5.4

103 Rh (ISTD) [No Gas]

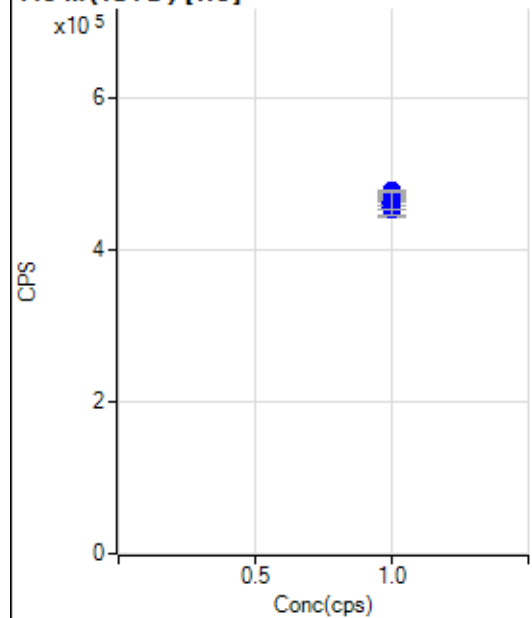
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2857979.71		A	1.9
2	☐	1.000		2858044.66		A	2.0
3	☐	1.000		2833985.00		A	1.9
4	☐	1.000		2891305.58		A	1.6
5	☐	1.000		2925016.17		A	3.2
6	☐	1.000		2944393.97		A	1.8
7	☐	1.000		2787550.93		A	9.0
8	☐	1.000		2902462.93		A	0.9
9	☐	1.000		2749873.74		A	0.6

103 Rh (ISTD) [He]

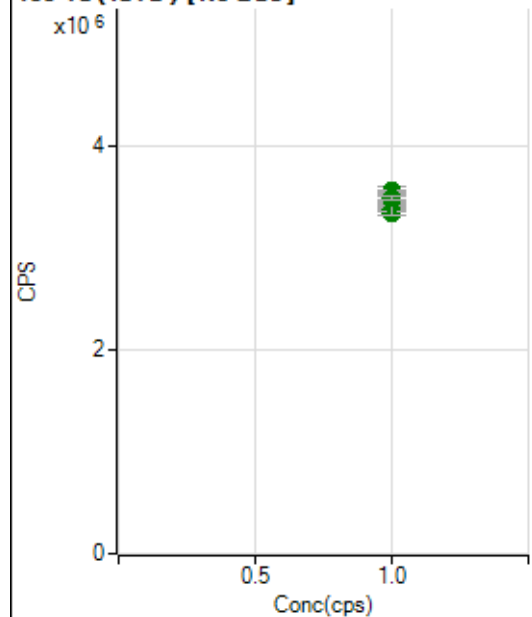
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1445209.82		M	1.8
2	☐	1.000		1421575.34		A	1.4
3	☐	1.000		1415282.95		M	2.5
4	☐	1.000		1424000.43		A	1.7
5	☐	1.000		1388691.19		M	4.5
6	☐	1.000		1446372.34		A	1.7
7	☐	1.000		1465292.18		M	1.0
8	☐	1.000		1372923.27		M	2.8
9	☐	1.000		1318449.04		M	5.3

115 In (ISTD) [No Gas]

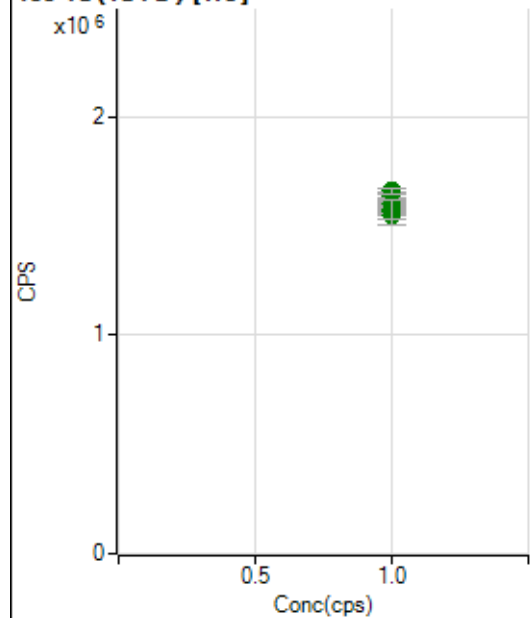
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2889676.57		A	1.3
2	☐	1.000		2902180.64		A	1.9
3	☐	1.000		2917334.22		A	2.2
4	☐	1.000		2965626.69		A	2.2
5	☐	1.000		2979416.83		A	4.0
6	☐	1.000		3021644.38		A	2.0
7	☐	1.000		2917013.86		A	8.1
8	☐	1.000		3018433.00		A	0.3
9	☐	1.000		3000779.80		A	0.5

115 In (ISTD) [He]

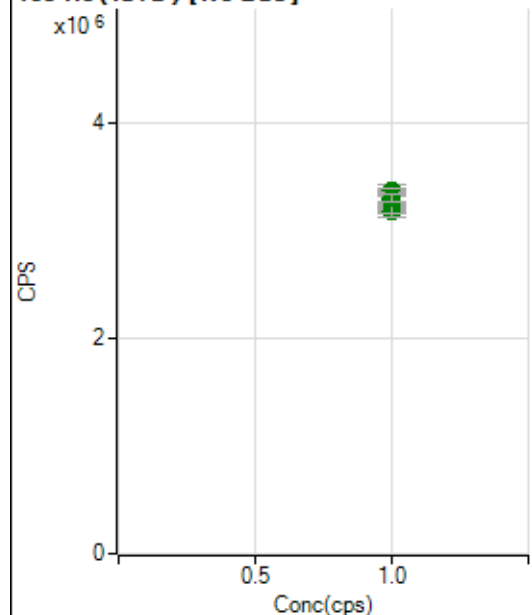
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		468688.36		P	1.7
2	☐	1.000		461627.38		P	1.1
3	☐	1.000		465170.28		P	3.0
4	☐	1.000		467850.07		P	0.4
5	☐	1.000		454818.68		P	5.3
6	☐	1.000		474860.67		P	0.5
7	☐	1.000		477838.24		P	0.6
8	☐	1.000		453547.62		P	3.9
9	☐	1.000		464541.99		P	4.7

159 Tb (ISTD) [No Gas]

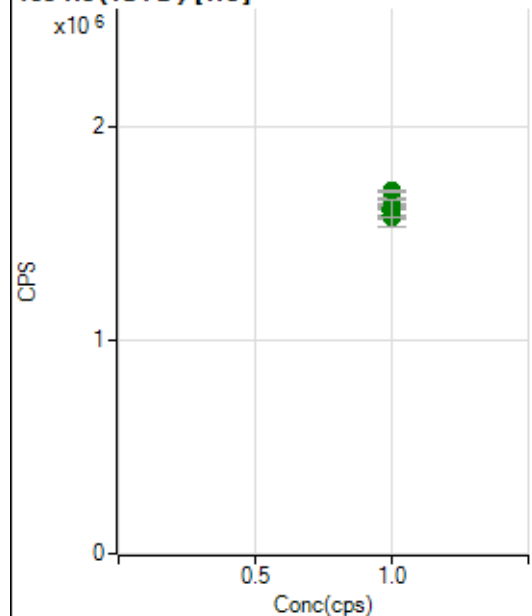
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3362761.51		A	0.4
2	☐	1.000		3369707.28		A	1.2
3	☐	1.000		3335244.15		A	1.0
4	☐	1.000		3419512.28		A	1.2
5	☐	1.000		3469577.31		A	2.1
6	☐	1.000		3521347.10		A	0.6
7	☐	1.000		3460580.19		A	8.1
8	☐	1.000		3551626.51		A	0.4
9	☐	1.000		3475956.82		A	1.0

159 Tb (ISTD) [He]

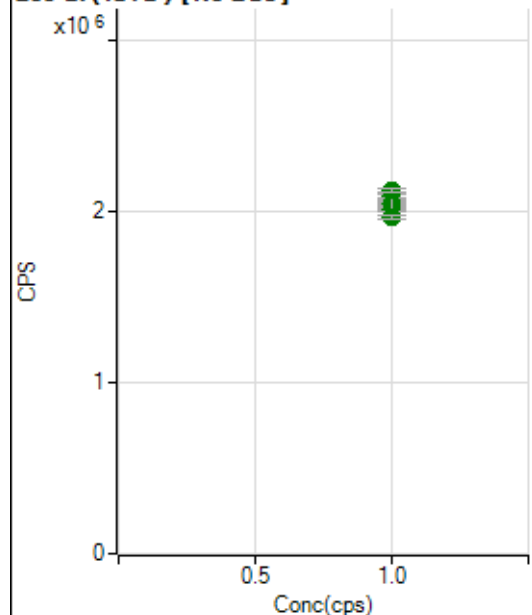
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1597675.85		A	1.0
2	☐	1.000		1563904.11		A	0.4
3	☐	1.000		1571618.07		A	2.7
4	☐	1.000		1612328.20		A	0.4
5	☐	1.000		1546409.59		A	5.5
6	☐	1.000		1638375.30		A	1.6
7	☐	1.000		1661314.75		A	1.3
8	☐	1.000		1598891.92		A	3.1
9	☐	1.000		1576032.20		A	5.2

165 Ho (ISTD) [No Gas]

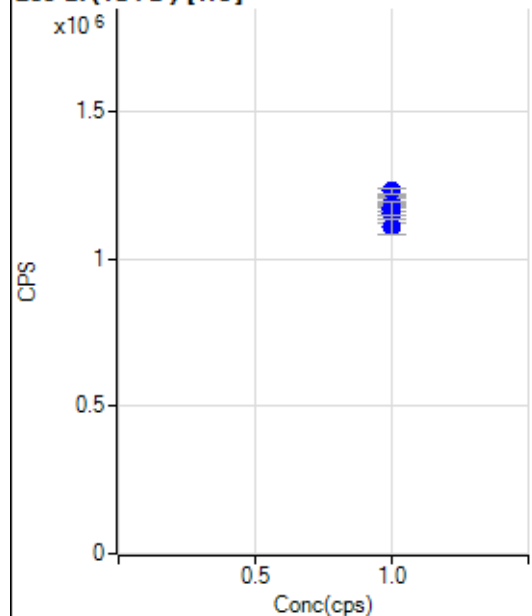
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3185299.33		A	0.4
2	☐	1.000		3202026.03		A	1.4
3	☐	1.000		3182746.84		A	1.6
4	☐	1.000		3252719.00		A	0.8
5	☐	1.000		3276521.19		A	2.2
6	☐	1.000		3358305.15		A	0.6
7	☐	1.000		3275374.59		A	9.4
8	☐	1.000		3364695.08		A	0.9
9	☐	1.000		3292752.39		A	2.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1603679.65		A	3.3
2	☐	1.000		1573138.88		A	0.9
3	☐	1.000		1585982.13		A	2.9
4	☐	1.000		1621386.61		A	0.6
5	☐	1.000		1575327.86		A	5.9
6	☐	1.000		1662013.97		A	0.8
7	☐	1.000		1698265.86		A	0.8
8	☐	1.000		1607225.09		A	3.5
9	☐	1.000		1616091.97		A	4.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2019814.47		A	0.5
2	☐	1.000		2027959.16		A	1.1
3	☐	1.000		2008896.37		A	1.1
4	☐	1.000		2049876.29		A	1.4
5	☐	1.000		2080368.11		A	2.3
6	☐	1.000		2093636.86		A	1.0
7	☐	1.000		2048097.07		A	8.8
8	☐	1.000		2119220.40		A	1.0
9	☐	1.000		1964093.84		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1189694.48		P	1.2
2	☐	1.000		1166699.20		P	1.3
3	☐	1.000		1175113.64		P	2.8
4	☐	1.000		1180600.71		P	0.7
5	☐	1.000		1153530.32		P	5.1
6	☐	1.000		1209175.60		P	0.5
7	☐	1.000		1231106.90		P	1.6
8	☐	1.000		1173168.84		P	4.0
9	☐	1.000		1109813.27		P	4.4

US EPA Tune Check Report

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\P8051920-MS.b
Acq. Date-Time 2020-05-19 12:23:48
Report Comment ---
Instrument Name G8403A SG19224459

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		3878	38781.56			0.656	5.000
24		30177	301769.59			1.103	5.000
25		4112	41118.53			0.888	5.000
26		4852	48520.56			0.661	5.000
59		24361	243614.39			1.250	5.000
113		4086	40856.18			1.243	5.000
115		12613	126127.25			2.097	5.000
206		4885	48849.38			1.409	5.000
207		4064	40636.55			1.740	5.000
208		9974	99744.00			1.723	5.000
220		0	3.70			36.512	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

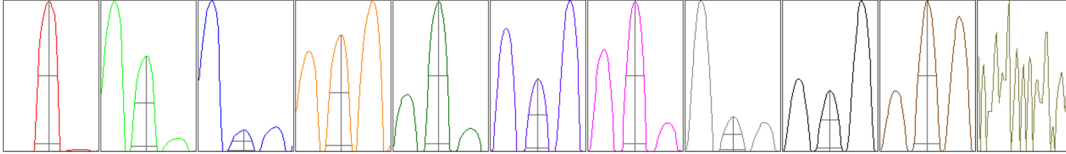
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	3860	3865	3914	3896	3856
24	30286	29886	30559	30377	29776
25	4137	4073	4133	4145	4072
26	4865	4802	4879	4876	4838
59	24431	24183	24716	24537	23940
113	4076	4032	4132	4144	4044
115	12941	12678	12667	12570	12209
206	4798	4838	4913	4975	4901
207	3984	4021	4080	4171	4063
208	9835	9776	9967	10152	10141

US EPA Tune Check Report

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	0	0	1	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	6512.55	8.95	8.90 - 9.10	
24	51382.54	23.95	23.90 - 24.10	
25	6926.21	24.95	24.90 - 25.10	
26	8078.58	25.95	25.90 - 26.10	
59	42893.73	58.95	58.90 - 59.10	
113	7709.27	113.00	112.90 - 113.10	
115	23720.69	115.00	114.90 - 115.10	
206	8888.67	206.05	205.90 - 206.10	
207	7502.22	207.00	206.90 - 207.10	
208	18582.39	208.00	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.62	0.785	0.900	
24	0.63	0.822	0.900	
25	0.63	0.829	0.900	
26	0.63	0.822	0.900	
59	0.60	0.779	0.900	
113	0.56	0.732	0.900	
115	0.55	0.734	0.900	
206	0.58	0.805	0.900	
207	0.57	0.797	0.900	
208	0.56	0.816	0.900	
220				

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode HMI Nebulizer Gas 0.51 L/min Dilution Gas 0.46 L/min

US EPA Tune Check Report

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.40 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	11.9 V	Deflect	14.2 V
Extract 2	-245.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-120 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	140 V		

QP Parameters

Mass Gain	122	Axis Gain	0.9995	QP Bias	-4.0 V
Mass Offset	123	Axis Offset	-0.05		

Hardware Settings

Torch

Torch H	0.3 mm	Torch V	0.0 mm
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EM

Discriminator	4.0 mV	Analog HV	2169 V	Pulse HV	1203 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		5818	58177.81			1.752	
89		10081	100806.95			1.411	
205		13429	134287.74			1.451	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	5890	5892	5884	5755	5668
89	10221	10132	10179	9996	9876
205	13582	13531	13595	13194	13241

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	HMI	Nebulizer Gas	0.51 L/min	Dilution Gas	0.46 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.40 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	11.9 V	Deflect	3.6 V
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US EPA Tune Check Report

Extract 2	-245.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-120 V	Cell Exit	-70 V		
Cell Parameters					
Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	190 V		
QP Parameters					
Mass Gain	122	Axis Gain	0.9995	QP Bias	-13.0 V
Mass Offset	123	Axis Offset	-0.05		
Hardware Settings					
Torch					
Torch H	0.3 mm	Torch V	0.0 mm		
EM					
Discriminator	4.0 mV	Analog HV	2169 V	Pulse HV	1203 V