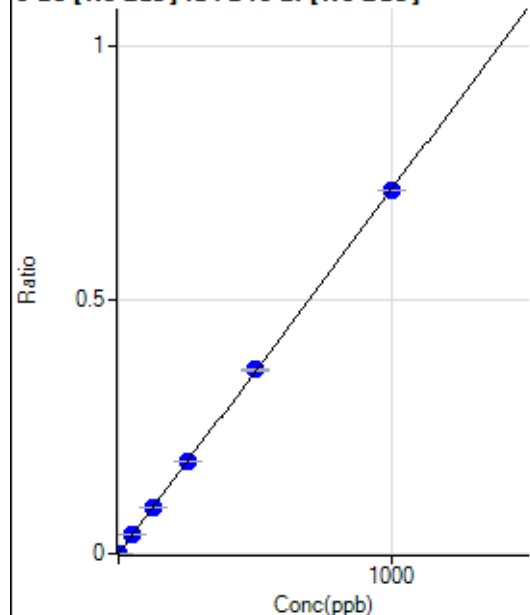


Batch Folder: D:\ICP-MS Data\P7120119MS1.b\
Analysis File: P7120119MS1.batch.bin
DA Date-Time: 2019-12-02 01:22:34
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-01 14:44:47
2	004CALS.d	S02	2019-12-01 14:48:21
3	005CALS.d	S03	2019-12-01 14:53:15
4	006CALS.d	S04	2019-12-01 14:57:25
5	007CALS.d	S05	2019-12-01 15:01:16
6	008CALS.d	S06	2019-12-01 15:05:02
7	009CALS.d	S07	2019-12-01 15:08:47
8	010CALS.d	S08	2019-12-01 15:12:33

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.23	0.0000	P	40.7
2	☐	1.000	1.076	3419.00	0.0008	P	6.5
3	☐	50.000	51.702	159068.46	0.0371	P	0.2
4	☐	125.000	128.192	381271.02	0.0921	P	0.2
5	☐	250.000	254.910	731465.97	0.1830	P	0.2
6	☐	500.000	504.543	1445330.61	0.3623	P	0.4
7	☐	1000.000	996.017	2872363.11	0.7151	P	0.2
8	☐			340.75	0.0001	P	12.7

$$y = 7.1798\text{E-}004 * x + 1.6321\text{E-}005$$

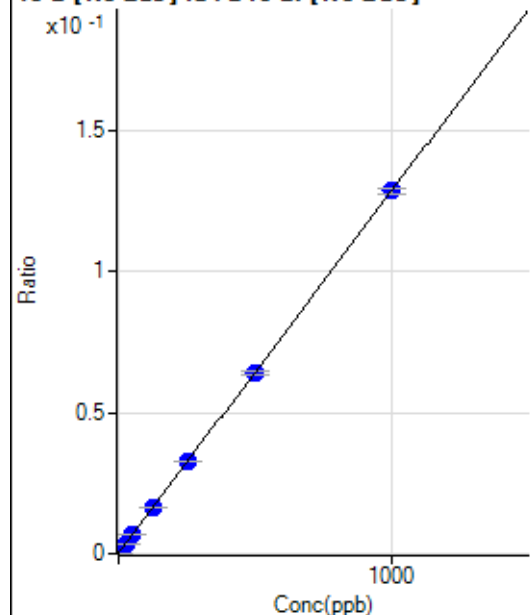
$$R = 1.0000$$

$$DL = 0.02774$$

$$BEC = 0.02273$$

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	866.73	0.0002	P	6.0
2	☐	25.000	24.134	14279.50	0.0033	P	1.9
3	☐	50.000	51.250	29034.31	0.0068	P	2.8
4	☐	125.000	126.271	67980.87	0.0164	P	2.6
5	☐	250.000	252.327	130301.06	0.0326	P	0.7
6	☐	500.000	497.825	255880.91	0.0641	P	1.7
7	☐	1000.000	1000.306	516839.23	0.1287	P	1.3
8	☐			10526.26	0.0025	P	9.8

$$y = 1.2844\text{E-}004 * x + 1.9586\text{E-}004$$

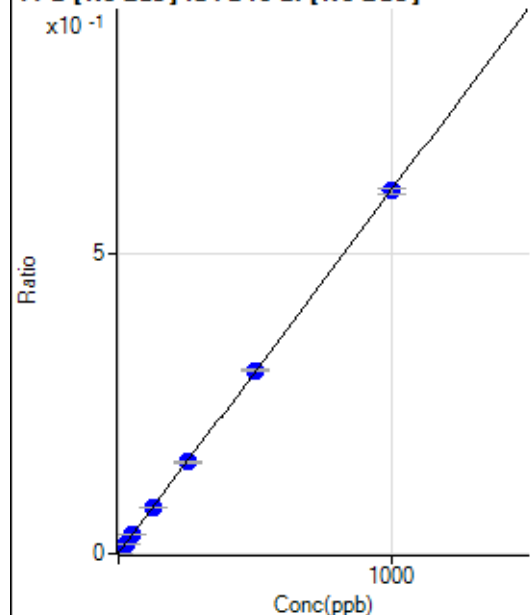
$$R = 1.0000$$

$$DL = 0.2735$$

$$BEC = 1.525$$

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	3725.61	0.0008	P	6.4
2	☐	25.000	23.987	66748.29	0.0154	P	1.2
3	☐	50.000	50.919	136012.67	0.0318	P	1.9
4	☐	125.000	125.978	320265.79	0.0773	P	1.0
5	☐	250.000	251.124	612650.11	0.1533	P	1.1
6	☐	500.000	503.665	1223361.94	0.3066	P	1.3
7	☐	1000.000	997.744	2436434.89	0.6066	P	1.3
8	☐			49688.69	0.0120	P	10.4

$$y = 6.0713\text{E-}004 * x + 8.4188\text{E-}004$$

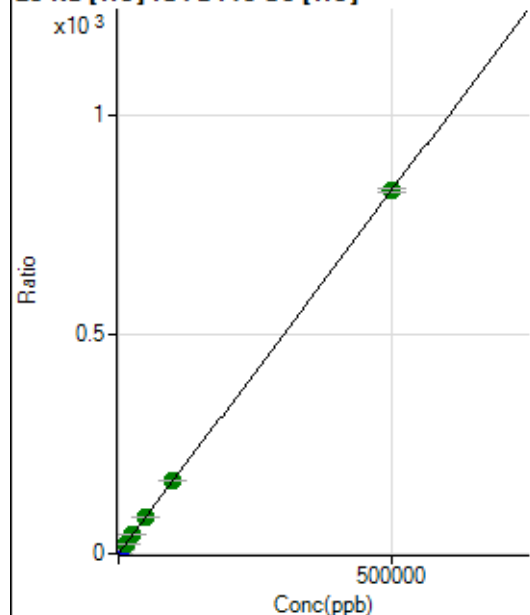
R = 1.0000

DL = 0.2649

BEC = 1.387

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	17638.77	0.0405	P	2.3
2	☐	500.000	493.218	376063.15	0.8576	P	0.5
3	☐	5000.000	5116.775	3619992.57	8.5172	P	1.0
4	☐	12500.000	12846.837	8624556.53	21.3231	A	0.1
5	☐	25000.000	25719.791	16854256.97	42.6489	A	0.6
6	☐	50000.000	50818.482	34488537.58	84.2283	A	0.7
7	☐	100000.00	100877.99	70637910.61	167.1587	A	0.5
8	☐	500000.00	499696.73	369772863.82	827.8562	A	1.2

$$y = 0.0017 * x + 0.0405$$

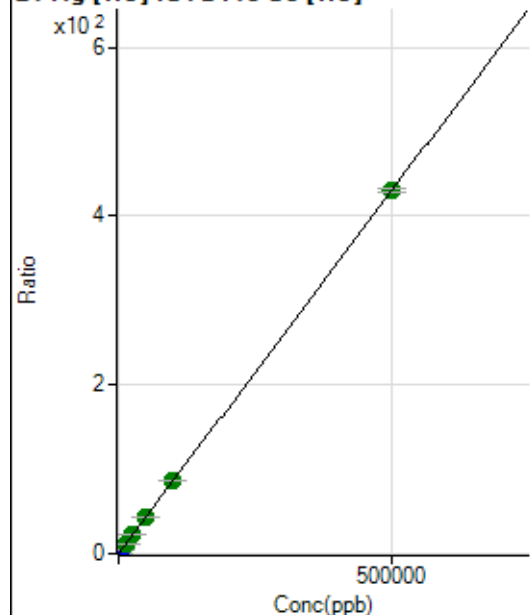
R = 1.0000

DL = 1.716

BEC = 24.47

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	258.35	0.0006	P	6.9
2	☐	500.000	522.251	197169.91	0.4496	P	1.0
3	☐	5000.000	5137.817	1877826.69	4.4182	P	0.3
4	☐	12500.000	12851.720	4469672.45	11.0507	A	0.2
5	☐	25000.000	25654.206	8717303.84	22.0584	A	0.5
6	☐	50000.000	50422.336	17751901.79	43.3544	A	1.0
7	☐	100000.00	99768.648	36250673.03	85.7831	A	0.2
8	☐	500000.00	499961.13	192018323.74	429.8741	A	1.0

$$y = 8.5981\text{E-}004 * x + 5.9375\text{E-}004$$

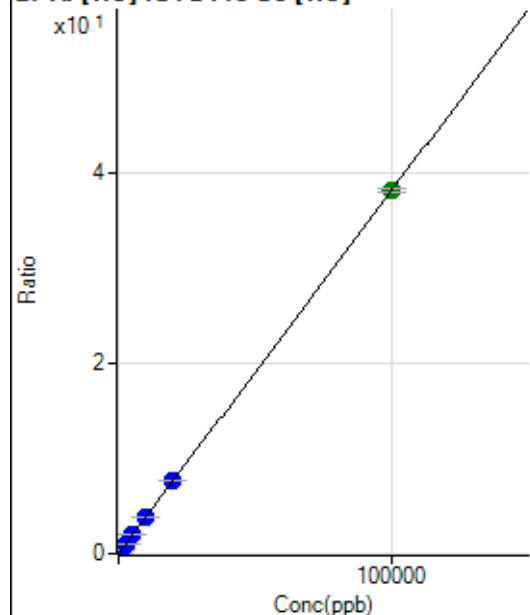
$$R = 1.0000$$

$$DL = 0.1419$$

$$BEC = 0.6906$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41.67	0.0001	P	40.0
2	☐	20.000	20.037	3394.95	0.0077	P	5.7
3	☐	1000.000	1035.186	167986.13	0.3952	P	0.5
4	☐	2500.000	2580.587	398460.42	0.9851	P	0.3
5	☐	5000.000	5145.633	776222.47	1.9642	P	1.0
6	☐	10000.000	10146.534	1585938.99	3.8732	P	0.5
7	☐	20000.000	20054.178	3234933.75	7.6550	P	0.4
8	☐	100000.00	99964.863	17044212.53	38.1579	A	1.0

$$y = 3.8171\text{E-}004 * x + 9.5799\text{E-}005$$

$$R = 1.0000$$

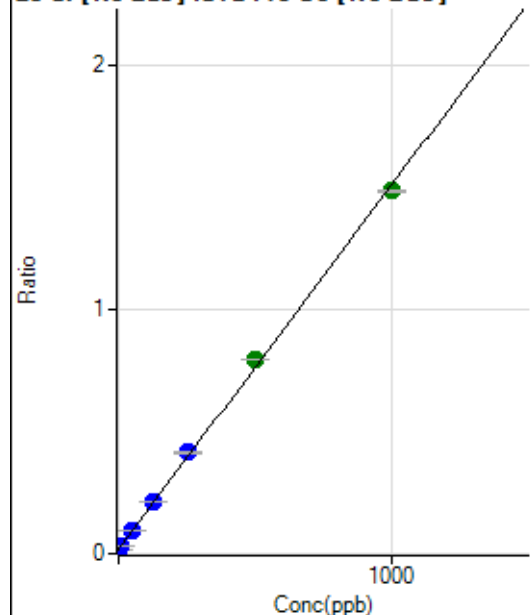
$$DL = 0.3015$$

$$BEC = 0.251$$

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	177635.70	0.0180	P	0.8
2	☐	10.000	6.842	274176.88	0.0282	P	0.7
3	☐	50.000	51.784	911225.07	0.0951	P	0.7
4	☐	125.000	130.798	1958856.64	0.2128	P	1.4
5	☐	250.000	265.425	3662869.36	0.4133	P	1.1
6	☐	500.000	522.314	7146714.92	0.7958	A	0.6
7	☐	1000.000	984.204	13584192.06	1.4837	A	0.5
8	☐			898643.74	0.0948	P	0.3

$$y = 0.0015 * x + 0.0180$$

$$R = 0.9994$$

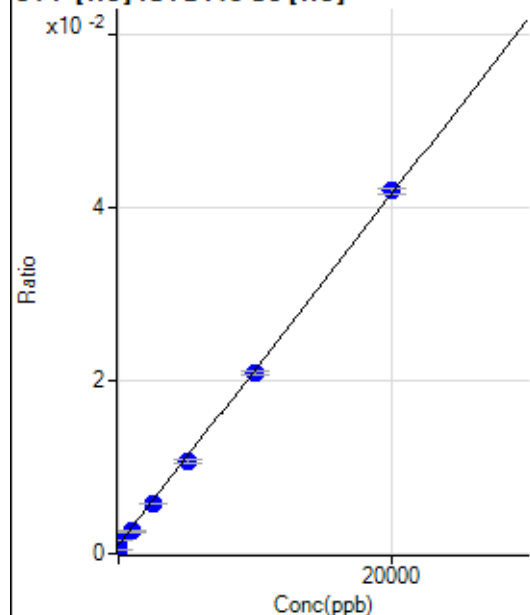
$$DL = 0.2767$$

$$BEC = 12.08$$

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	-280.015	197.23	0.0005	P	15.8
2	☐	0.000	280.015	697.27	0.0016	P	9.2
3	☐	1000.000	779.003	1105.64	0.0026	P	10.6
4	☐	2500.000	2347.470	2339.15	0.0058	P	1.1
5	☐	5000.000	4772.353	4228.56	0.0107	P	3.4
6	☐	10000.000	9807.114	8563.95	0.0209	P	2.0
7	☐	20000.000	20183.471	17733.48	0.0420	P	1.4
8	☐			277.79	0.0006	P	8.3

$$y = 2.0286E-006 * x + 0.0010$$

$$R = 0.9996$$

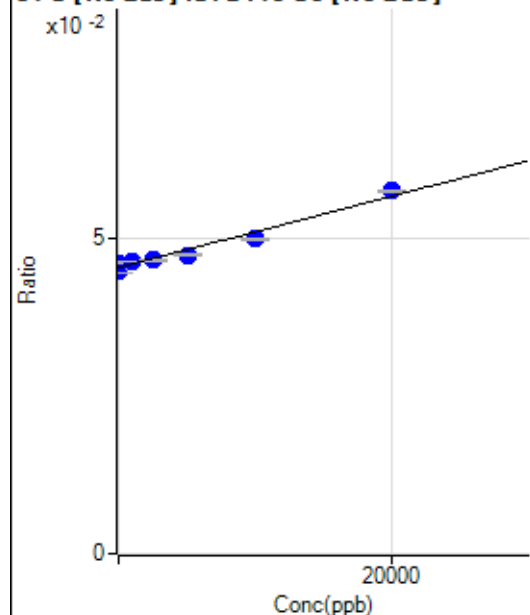
$$DL = 161.5$$

$$BEC = 503.4$$

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	-1029.843	442214.76	0.0448	P	0.8
2	☐	0.000	1029.843	447004.21	0.0459	P	0.2
3	☐	1000.000	1648.380	443431.68	0.0463	P	0.4
4	☐	2500.000	1965.571	427760.47	0.0465	P	1.1
5	☐	5000.000	3419.813	419054.62	0.0473	P	0.7
6	☐	10000.000	7911.307	447312.81	0.0498	P	0.6
7	☐	20000.000	21473.778	526109.07	0.0575	P	0.4
8	☐			405211.76	0.0427	P	1.1

$$y = 5.6413\text{E-}007 * x + 0.0453$$

$$R = 0.9846$$

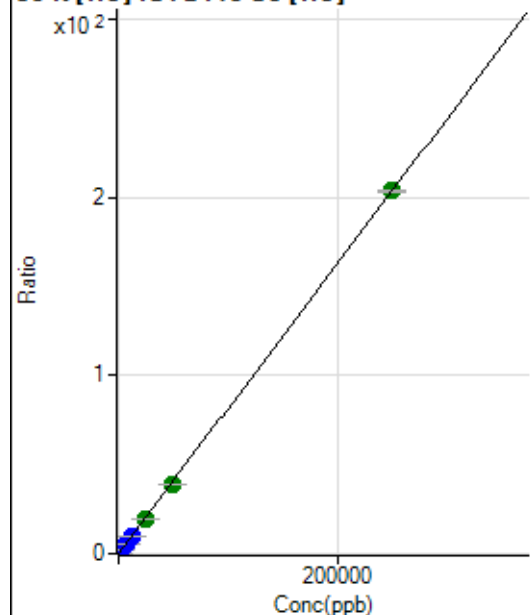
$$DL = 1243$$

$$BEC = 8.039\text{E}+04$$

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	19018.43	0.0437	P	3.5
2	☐	500.000	488.118	193099.10	0.4404	P	0.2
3	☐	2500.000	2433.297	859027.30	2.0211	P	1.1
4	☐	6250.000	6036.607	2001893.93	4.9494	P	0.2
5	☐	12500.000	12031.048	3881061.94	9.8208	P	0.7
6	☐	25000.000	23958.435	7990286.81	19.5136	A	0.3
7	☐	50000.000	47652.425	16383071.03	38.7686	A	0.4
8	☐	250000.00	250603.14	90989534.67	203.6972	A	0.8

$$y = 8.1265\text{E-}004 * x + 0.0437$$

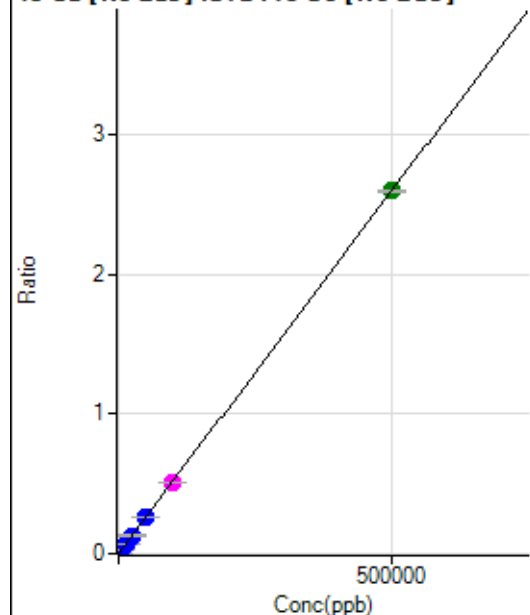
$$R = 0.9999$$

$$DL = 5.573$$

$$BEC = 53.78$$

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	302.79	0.0000	P	13.8
2	☐	500.000	497.383	25422.63	0.0026	P	1.0
3	☐	5000.000	5007.868	249350.89	0.0260	P	0.8
4	☐	12500.000	12582.324	601574.93	0.0653	P	0.4
5	☐	25000.000	25178.370	1158617.12	0.1307	P	0.3
6	☐	50000.000	49447.871	2305045.58	0.2567	P	0.6
7	☐	100000.00	98814.555	4696117.03	0.5129	M	1.1
8	☐	500000.00	500281.24	24621496.38	2.5967	A	0.8

$$y = 5.1904\text{E-}006 * x + 3.0644\text{E-}005$$

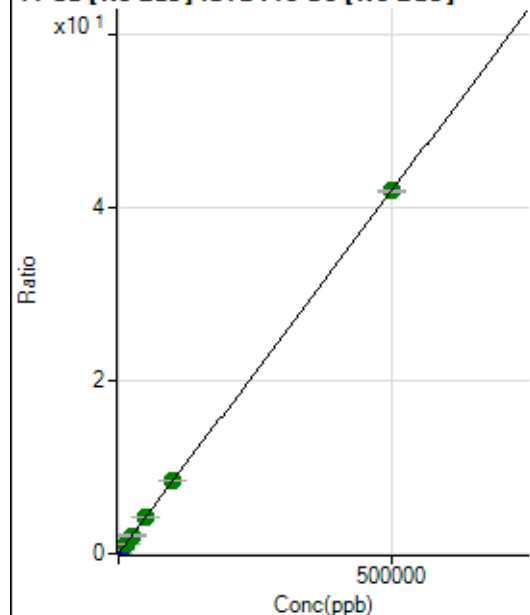
$$R = 1.0000$$

$$DL = 2.441$$

$$BEC = 5.904$$

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	12797.89	0.0013	P	3.5
2	☐	500.000	496.857	418643.38	0.0430	P	0.6
3	☐	5000.000	5021.619	4052659.42	0.4230	P	0.3
4	☐	12500.000	12539.938	9706695.70	1.0543	A	0.5
5	☐	25000.000	25135.168	18719053.37	2.1119	A	0.5
6	☐	50000.000	49883.970	37626981.40	4.1901	A	0.4
7	☐	100000.00	99468.673	76483466.99	8.3537	A	0.0
8	☐	500000.00	500109.89	398191745.01	41.9957	A	0.7

$$y = 8.3970\text{E-}005 * x + 0.0013$$

$$R = 1.0000$$

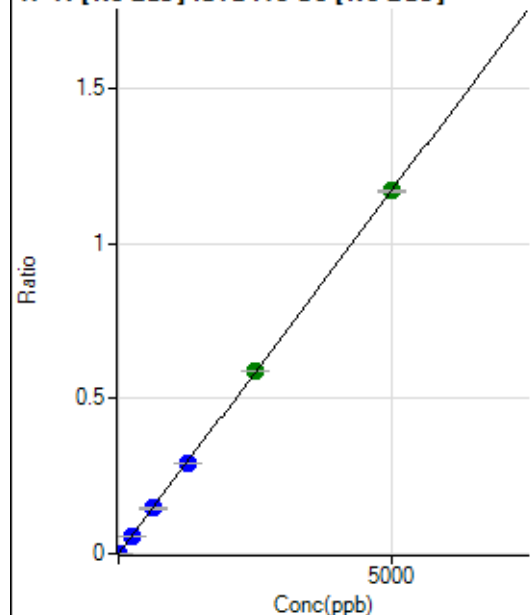
$$DL = 1.615$$

$$BEC = 15.43$$

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	102.78	0.0000	P	12.3
2	☐	5.000	4.994	11468.75	0.0012	P	1.4
3	☐	250.000	249.109	558349.30	0.0583	P	0.7
4	☐	625.000	623.669	1343041.72	0.1459	P	0.7
5	☐	1250.000	1240.183	2571018.03	0.2901	P	0.1
6	☐	2500.000	2507.518	5266606.37	0.5865	A	0.3
7	☐	5000.000	4998.906	10704338.78	1.1692	A	0.3
8	☐			2197.47	0.0002	P	7.7

$$y = 2.3388\text{E-}004 * x + 1.0404\text{E-}005$$

$$R = 1.0000$$

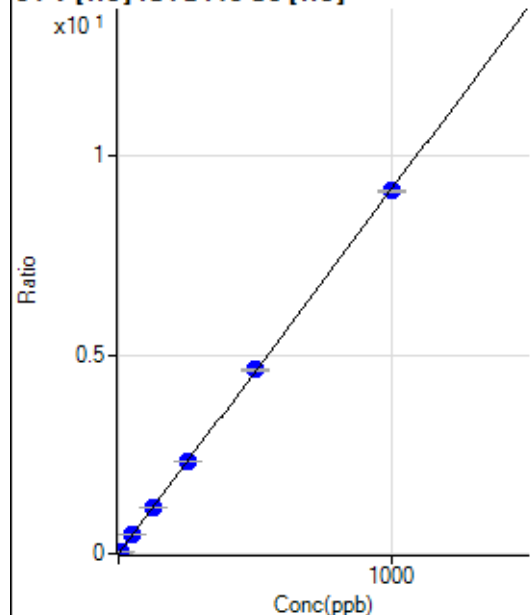
$$DL = 0.01638$$

$$BEC = 0.04448$$

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	6.67	0.0000	P	99.7
2	☐	5.000	5.357	21531.51	0.0491	P	0.9
3	☐	50.000	51.036	198759.34	0.4676	P	0.5
4	☐	125.000	127.350	471967.15	1.1669	P	0.4
5	☐	250.000	255.170	923966.61	2.3380	P	0.5
6	☐	500.000	505.178	1895306.86	4.6288	P	0.8
7	☐	1000.000	995.771	3855591.26	9.1239	P	0.6
8	☐			1342.31	0.0030	P	4.7

$$y = 0.0092 * x + 1.5338\text{E-}005$$

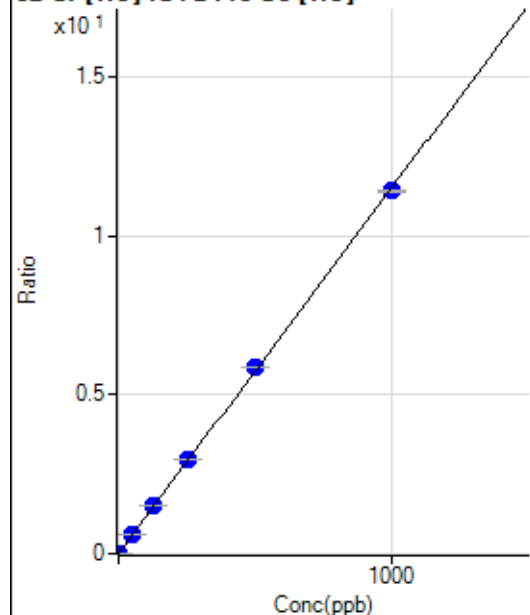
$$R = 1.0000$$

$$DL = 0.005008$$

$$BEC = 0.001674$$

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	1792.36	0.0041	P	0.2
2	☐	2.000	2.053	12146.29	0.0277	P	1.9
3	☐	50.000	51.887	255019.88	0.6000	P	0.9
4	☐	125.000	130.453	607634.26	1.5023	P	0.3
5	☐	250.000	258.249	1173679.64	2.9700	P	0.7
6	☐	500.000	509.636	2398260.97	5.8570	P	0.5
7	☐	1000.000	992.344	4817689.06	11.4006	P	0.7
8	☐			138030.84	0.3090	P	1.6

$$y = 0.0115 * x + 0.0041$$

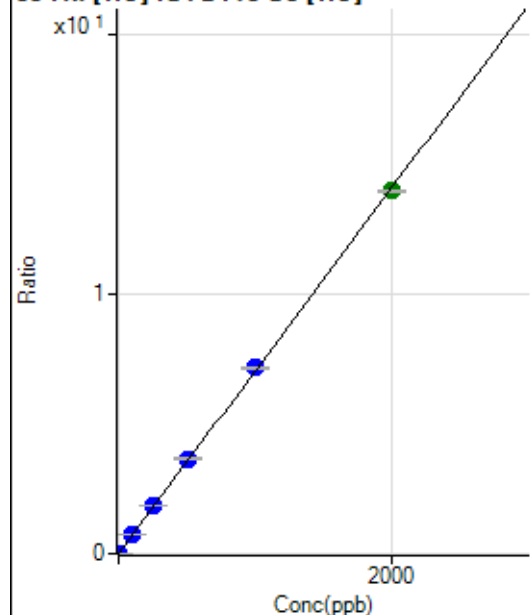
$$R = 0.9999$$

$$DL = 0.002384$$

$$BEC = 0.3586$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	87.78	0.0002	P	25.4
2	☐	1.000	1.102	3493.80	0.0080	P	3.7
3	☐	100.000	103.766	310801.85	0.7313	P	0.4
4	☐	250.000	261.631	745618.94	1.8435	P	0.5
5	☐	500.000	519.218	1445626.07	3.6582	P	0.9
6	☐	1000.000	1016.402	2932243.95	7.1610	P	0.3
7	☐	2000.000	1985.352	5910874.08	13.9874	A	0.5
8	☐			21841.96	0.0489	P	1.0

$$y = 0.0070 * x + 2.0154E-004$$

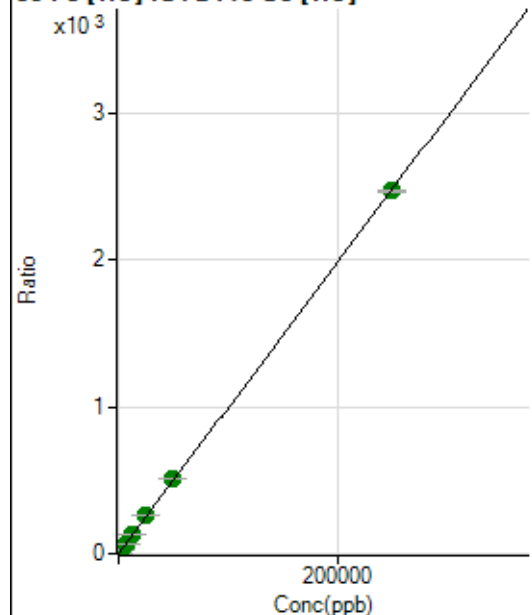
$$R = 0.9999$$

$$DL = 0.02176$$

$$BEC = 0.02861$$

Weight: <None>

Min Conc: 0

⁵⁶Fe [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6190.36	0.0142	P	3.3
2	☐	50.000	56.407	251054.57	0.5725	P	0.8
3	☐	2500.000	2682.698	11291324.10	26.5664	A	0.8
4	☐	6250.000	6759.432	27065548.75	66.9160	A	0.2
5	☐	12500.000	13447.202	52602284.97	133.1085	A	0.7
6	☐	25000.000	26353.682	106809591.28	260.8510	A	0.8
7	☐	50000.000	51298.592	214566543.69	507.7444	A	0.7
8	☐	250000.00	249542.98	1103281476.5	2469.877	A	0.7

$$y = 0.0099 * x + 0.0142$$

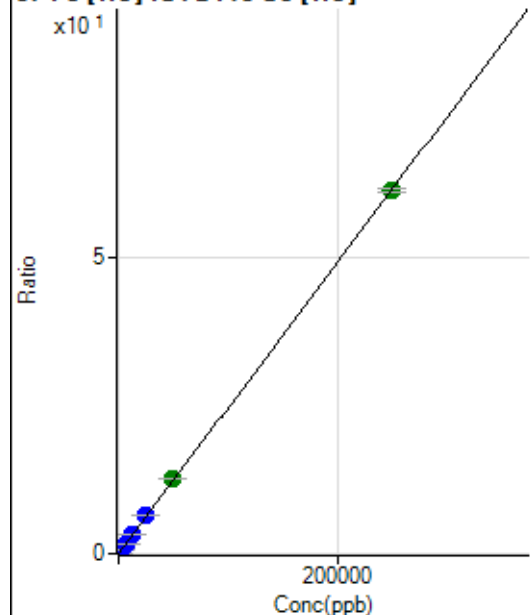
$$R = 1.0000$$

$$DL = 0.1413$$

$$BEC = 1.437$$

Weight: <None>

Min Conc: 0

⁵⁷Fe [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	161.12	0.0004	P	17.0
2	☐	50.000	57.611	6370.07	0.0145	P	4.6
3	☐	2500.000	2699.879	282059.43	0.6636	P	0.6
4	☐	6250.000	6789.551	674783.19	1.6683	P	0.3
5	☐	12500.000	13472.695	1308130.06	3.3101	P	0.5
6	☐	25000.000	26336.196	2649325.12	6.4702	P	0.8
7	☐	50000.000	51300.118	5325814.53	12.6029	A	0.4
8	☐	250000.00	249542.23	27383869.13	61.3038	A	1.0

$$y = 2.4566E-004 * x + 3.7017E-004$$

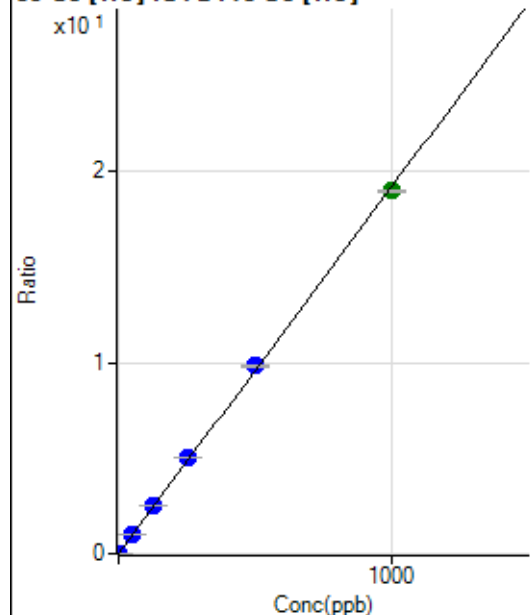
$$R = 1.0000$$

$$DL = 0.7696$$

$$BEC = 1.507$$

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	72.22	0.0002	P	11.1
2	☐	1.000	1.069	9076.27	0.0207	P	1.0
3	☐	50.000	53.646	437795.33	1.0300	P	0.6
4	☐	125.000	133.552	1037093.14	2.5641	P	0.2
5	☐	250.000	263.819	2001561.39	5.0649	P	0.7
6	☐	500.000	511.537	4021148.90	9.8206	P	0.9
7	☐	1000.000	989.526	8027962.45	18.9969	A	0.4
8	☐			15824.28	0.0354	P	2.3

$$y = 0.0192 * x + 1.6588E-004$$

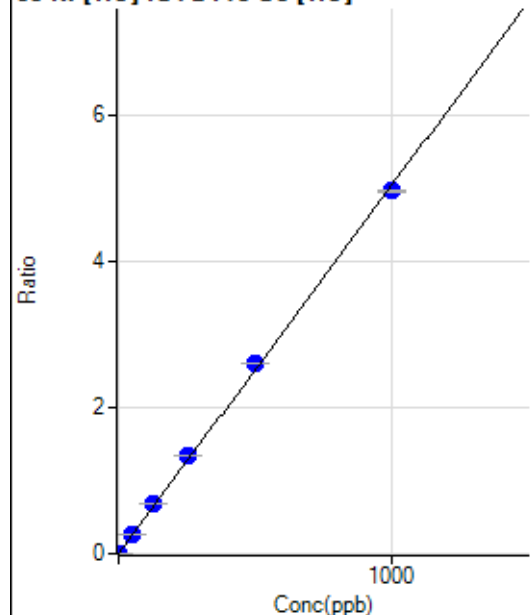
$$R = 0.9998$$

$$DL = 0.002872$$

$$BEC = 0.008641$$

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	65.56	0.0002	P	28.9
2	☐	1.000	1.087	2465.80	0.0056	P	5.0
3	☐	50.000	54.517	116701.91	0.2746	P	1.1
4	☐	125.000	135.448	275838.38	0.6820	P	0.3
5	☐	250.000	266.632	530453.19	1.3423	P	0.9
6	☐	500.000	516.654	1064989.42	2.6009	P	0.4
7	☐	1000.000	985.983	2097465.16	4.9634	P	0.6
8	☐			42540.60	0.0952	P	1.3

$$y = 0.0050 * x + 1.5065E-004$$

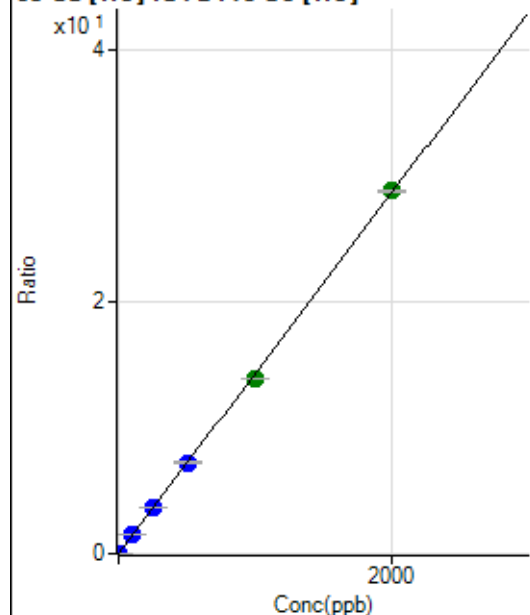
$$R = 0.9996$$

$$DL = 0.02594$$

$$BEC = 0.02993$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1020.05	0.0023	P	7.0
2	☐	2.000	2.083	14125.85	0.0322	P	1.4
3	☐	100.000	103.415	631171.04	1.4850	P	0.4
4	☐	250.000	256.565	1488770.08	3.6808	P	0.3
5	☐	500.000	504.038	2856652.28	7.2288	P	1.0
6	☐	1000.000	973.009	5713172.21	13.9525	A	0.3
7	☐	2000.000	2011.494	12188082.32	28.8415	A	0.3
8	☐			19712.38	0.0441	P	0.1

$$y = 0.0143 * x + 0.0023$$

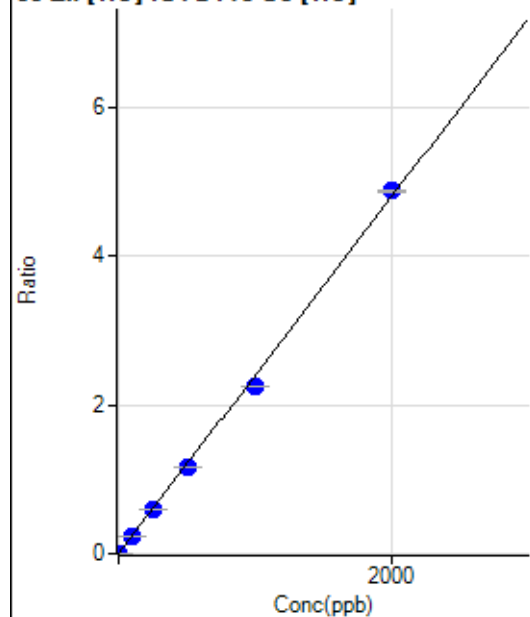
$$R = 0.9999$$

$$DL = 0.03414$$

$$BEC = 0.1635$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	745.59	0.0017	P	9.1
2	☐	2.000	2.357	3227.08	0.0074	P	1.2
3	☐	100.000	98.101	100597.92	0.2367	P	0.7
4	☐	250.000	247.225	240206.58	0.5939	P	0.3
5	☐	500.000	487.102	461755.28	1.1684	P	0.5
6	☐	1000.000	939.929	922566.68	2.2531	P	0.2
7	☐	2000.000	2033.701	2059202.82	4.8729	P	0.6
8	☐			24501.89	0.0548	P	0.9

$$y = 0.0024 * x + 0.0017$$

$$R = 0.9993$$

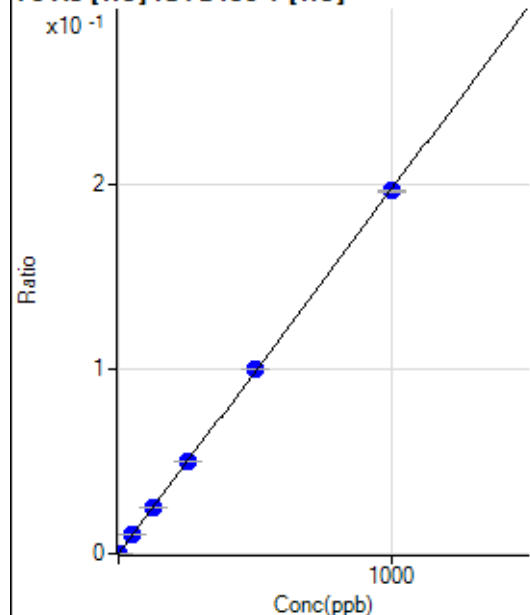
$$DL = 0.1952$$

$$BEC = 0.7154$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.37	0.0000	P	15.9
2	☐	1.000	1.025	596.32	0.0002	P	5.8
3	☐	50.000	51.334	28075.28	0.0101	P	0.8
4	☐	125.000	128.373	67113.67	0.0253	P	1.0
5	☐	250.000	255.183	131170.13	0.0503	P	0.3
6	☐	500.000	505.288	267107.43	0.0996	P	0.4
7	☐	1000.000	995.572	532342.56	0.1963	P	0.2
8	☐			235.80	0.0001	P	6.4

$$y = 1.9714\text{E-}004 * x + 7.2041\text{E-}006$$

$$R = 1.0000$$

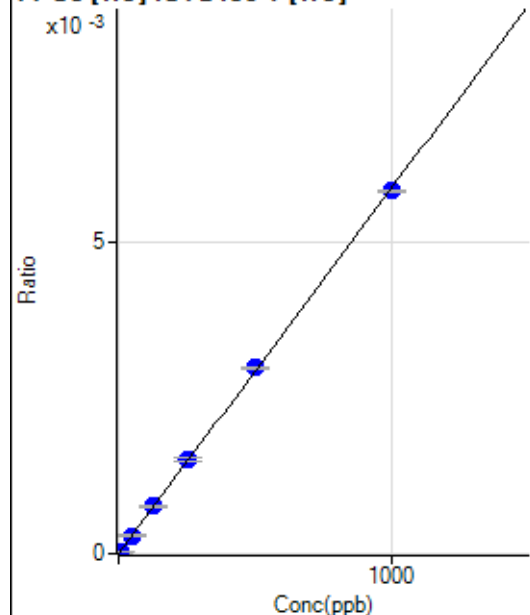
$$DL = 0.01739$$

$$BEC = 0.03654$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	6.236	105.56	0.0000	P	25.7
3	☐	50.000	49.659	810.04	0.0003	P	5.9
4	☐	125.000	130.366	2032.39	0.0008	P	5.6
5	☐	250.000	257.116	3940.60	0.0015	P	2.8
6	☐	500.000	509.346	8027.89	0.0030	P	1.3
7	☐	1000.000	992.888	15828.86	0.0058	P	0.3
8	☐			7.78	0.0000	P	25.0

$$y = 5.8776\text{E-}006 * x + 3.8882\text{E-}007$$

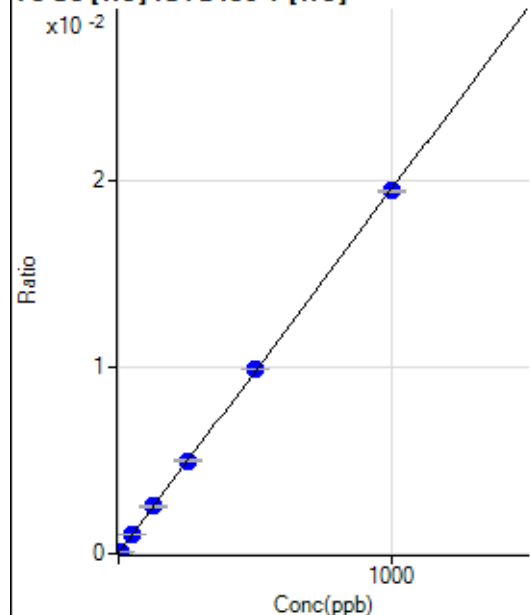
$$R = 0.9999$$

$$DL = 0.3437$$

$$BEC = 0.06615$$

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	67.90	0.0000	P	12.7
2	☐	5.000	5.639	382.72	0.0001	P	0.9
3	☐	50.000	51.891	2879.33	0.0010	P	4.2
4	☐	125.000	128.694	6735.57	0.0025	P	0.9
5	☐	250.000	254.780	13051.62	0.0050	P	0.5
6	☐	500.000	505.395	26563.85	0.0099	P	0.1
7	☐	1000.000	995.548	52867.39	0.0195	P	0.5
8	☐			105.56	0.0000	P	3.5

$$y = 1.9555\text{E-}005 * x + 2.3990\text{E-}005$$

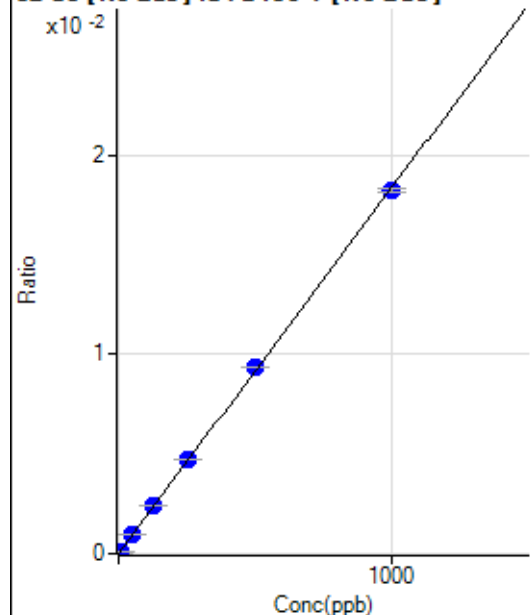
$$R = 1.0000$$

$$DL = 0.4691$$

$$BEC = 1.227$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	70.36	0.0000	P	132.
2	☐	5.000	5.194	1981.94	0.0001	P	10.5
3	☐	50.000	53.158	19379.40	0.0010	P	0.5
4	☐	125.000	130.417	46343.41	0.0024	P	0.4
5	☐	250.000	259.029	89352.97	0.0048	P	0.2
6	☐	500.000	509.548	177296.53	0.0094	P	0.6
7	☐	1000.000	992.132	348320.05	0.0182	P	1.0
8	☐			198.36	0.0000	P	94.6

$$y = 1.8353\text{E-}005 * x + 3.4588\text{E-}006$$

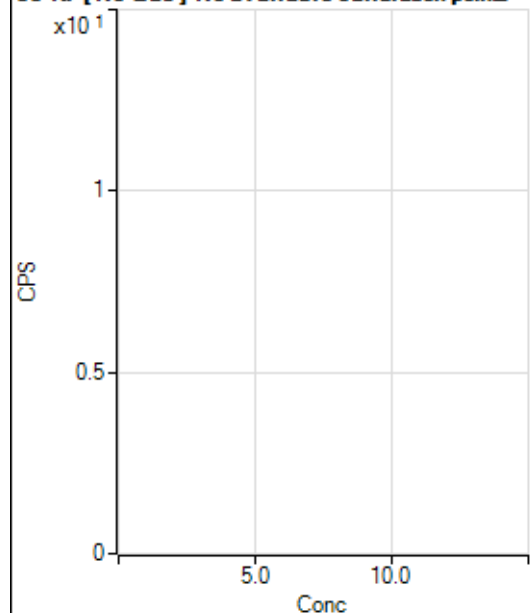
$$R = 0.9999$$

$$DL = 0.7497$$

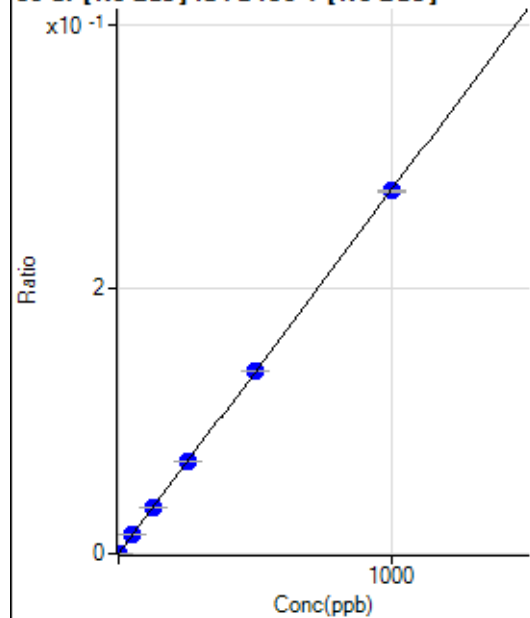
$$BEC = 0.1885$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1177.85		P	6.7
2	☐			1242.30		P	9.5
3	☐			1242.30		P	2.2
4	☐			1254.52		P	4.3
5	☐			1232.29		P	1.0
6	☐			1102.28		P	4.9
7	☐			1150.07		P	4.6
8	☐			1255.63		P	9.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1955.78	0.0001	P	11.9
2	☐	1.000	1.052	7730.17	0.0004	P	3.0
3	☐	50.000	51.243	280495.08	0.0142	P	0.5
4	☐	125.000	127.791	680488.48	0.0352	P	0.2
5	☐	250.000	255.149	1318056.02	0.0702	P	0.1
6	☐	500.000	501.573	2612779.33	0.1379	P	0.7
7	☐	1000.000	997.515	5242049.03	0.2741	P	0.5
8	☐			24176.80	0.0013	P	1.2

$$y = 2.7467E-004 * x + 9.5992E-005$$

$$R = 1.0000$$

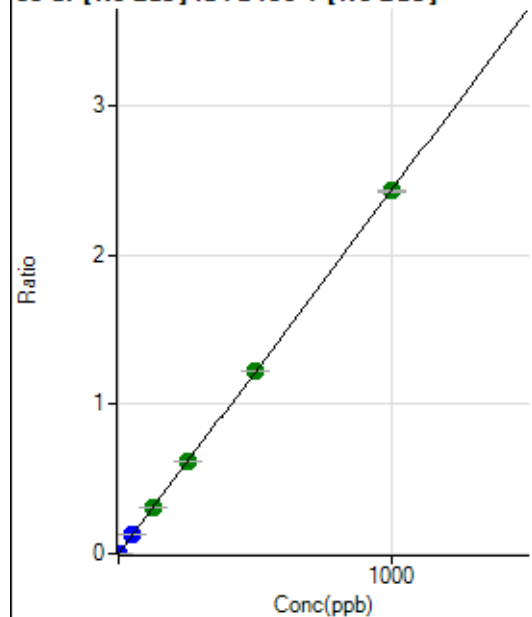
$$DL = 0.1246$$

$$BEC = 0.3495$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	275.01	0.0000	P	31.8
2	☐	1.000	1.044	51244.95	0.0026	P	1.1
3	☐	50.000	50.481	2429930.28	0.1228	P	0.2
4	☐	125.000	125.708	5910072.18	0.3057	A	0.2
5	☐	250.000	251.950	11506591.23	0.6126	A	0.4
6	☐	500.000	501.972	23132675.17	1.2206	A	0.6
7	☐	1000.000	998.414	46432697.22	2.4277	A	0.3
8	☐			197328.01	0.0103	P	0.2

$$y = 0.0024 * x + 1.3502E-005$$

$$R = 1.0000$$

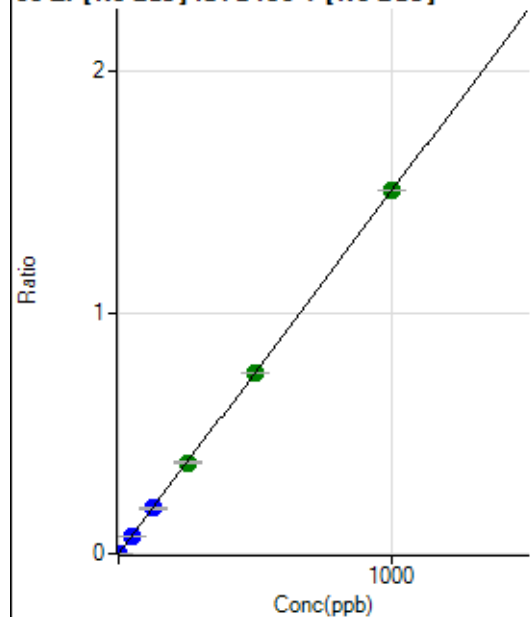
$$DL = 0.00529$$

$$BEC = 0.005553$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1280.67	0.0001	P	4.8
2	☐	1.000	0.841	26664.59	0.0013	P	3.0
3	☐	50.000	49.638	1479675.68	0.0748	P	0.2
4	☐	125.000	124.654	3627708.59	0.1876	P	0.2
5	☐	250.000	250.623	7084019.17	0.3772	A	1.0
6	☐	500.000	498.952	14229693.37	0.7508	A	0.8
7	☐	1000.000	1000.430	28792696.48	1.5054	A	0.1
8	☐			7121.52	0.0004	P	2.6

$$y = 0.0015 * x + 6.2853E-005$$

$$R = 1.0000$$

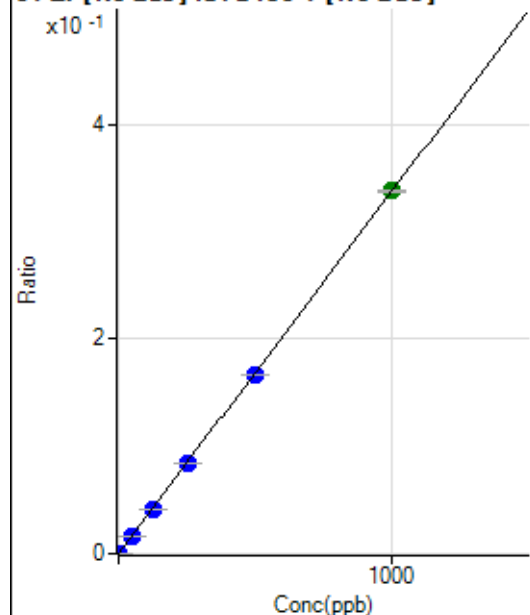
$$DL = 0.006017$$

$$BEC = 0.04177$$

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	186.12	0.0000	P	22.6
2	☐	1.000	0.851	5943.17	0.0003	P	2.7
3	☐	50.000	49.611	331163.56	0.0167	P	0.6
4	☐	125.000	124.591	812063.84	0.0420	P	0.2
5	☐	250.000	250.899	1588425.34	0.0846	P	0.8
6	☐	500.000	494.912	3161448.68	0.1668	P	0.7
7	☐	1000.000	1002.390	6461877.10	0.3379	A	0.4
8	☐			1644.61	0.0001	P	9.6

$$y = 3.3704\text{E-}004 * x + 9.1362\text{E-}006$$

$$R = 1.0000$$

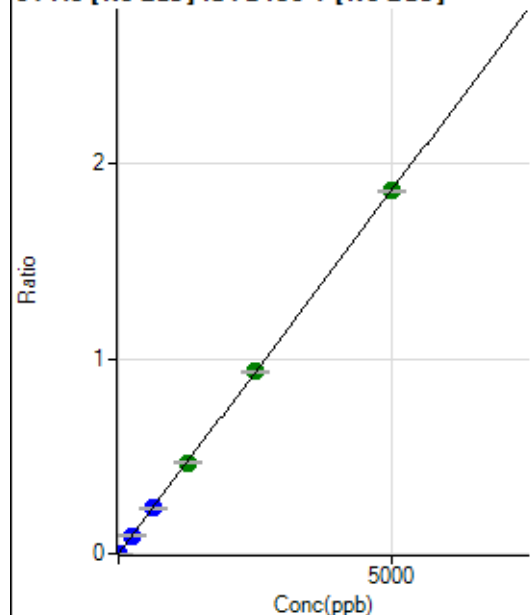
$$DL = 0.01835$$

$$BEC = 0.02711$$

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	422.25	0.0000	P	3.9
2	☐	5.000	4.855	36728.69	0.0018	P	2.0
3	☐	250.000	250.949	1851336.11	0.0935	P	0.5
4	☐	625.000	622.906	4488033.00	0.2321	P	0.5
5	☐	1250.000	1255.342	8786021.03	0.4678	A	0.7
6	☐	2500.000	2506.702	17702391.20	0.9341	A	0.9
7	☐	5000.000	4995.528	35602912.25	1.8615	A	0.4
8	☐			26439.37	0.0014	P	2.0

$$y = 3.7263\text{E-}004 * x + 2.0724\text{E-}005$$

$$R = 1.0000$$

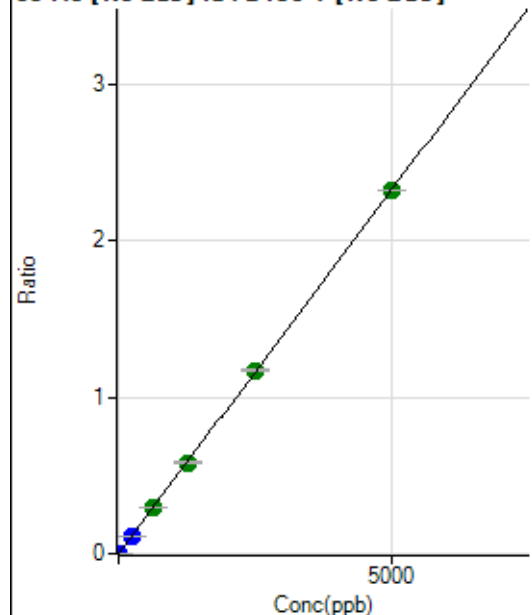
$$DL = 0.006497$$

$$BEC = 0.05562$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	230.57	0.0000	P	21.8
2	☐	5.000	5.059	47471.58	0.0024	P	1.1
3	☐	250.000	250.881	2309947.71	0.1167	P	0.2
4	☐	625.000	624.485	5615821.39	0.2905	A	0.8
5	☐	1250.000	1255.756	10969987.57	0.5841	A	1.0
6	☐	2500.000	2519.103	22205302.23	1.1717	A	0.7
7	☐	5000.000	4989.030	44381686.06	2.3205	A	0.1
8	☐			42375.11	0.0022	P	2.3

$$y = 4.6511\text{E-}004 * x + 1.1317\text{E-}005$$

$$R = 1.0000$$

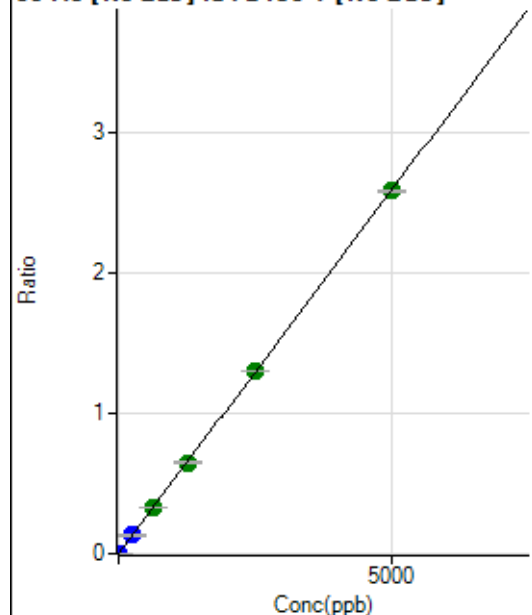
$$DL = 0.01588$$

$$BEC = 0.02433$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	266.68	0.0000	P	11.2
2	☐	5.000	4.938	51594.18	0.0026	P	1.0
3	☐	250.000	251.722	2580278.25	0.1304	P	0.6
4	☐	625.000	624.882	6256165.68	0.3236	A	0.5
5	☐	1250.000	1255.890	12214356.87	0.6503	A	0.8
6	☐	2500.000	2512.867	24660361.83	1.3012	A	0.8
7	☐	5000.000	4992.023	49440063.26	2.5850	A	0.3
8	☐			51580.25	0.0027	P	4.4

$$y = 5.1782\text{E-}004 * x + 1.3089\text{E-}005$$

$$R = 1.0000$$

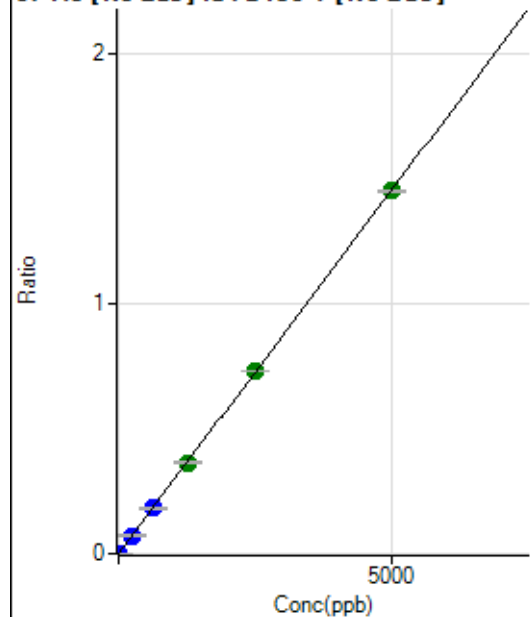
$$DL = 0.008509$$

$$BEC = 0.02528$$

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	138.89	0.0000	P	38.5
2	☐	5.000	5.041	29598.30	0.0015	P	1.2
3	☐	250.000	251.116	1447242.93	0.0731	P	0.9
4	☐	625.000	622.758	3505563.05	0.1813	P	0.8
5	☐	1250.000	1254.515	6860078.54	0.3653	A	0.8
6	☐	2500.000	2512.972	13866045.45	0.7316	A	0.8
7	☐	5000.000	4992.610	27801196.11	1.4536	A	0.4
8	☐			26364.12	0.0014	P	4.9

$$y = 2.9114\text{E-}004 * x + 6.8161\text{E-}006$$

$$R = 1.0000$$

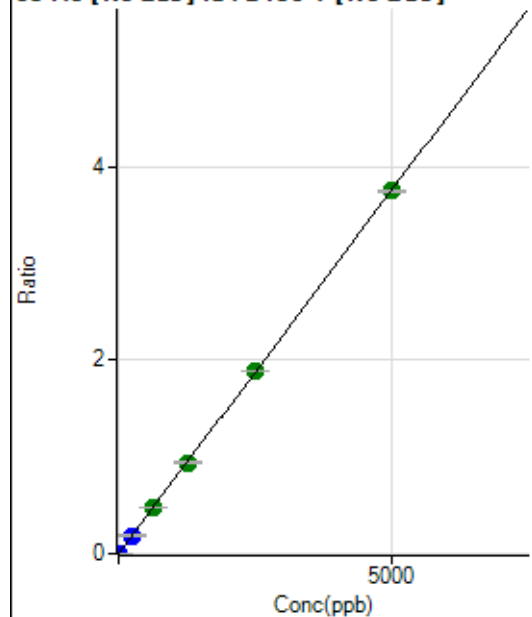
$$DL = 0.02702$$

$$BEC = 0.02341$$

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	405.58	0.0000	P	4.9
2	☐	5.000	5.062	76796.15	0.0038	P	1.1
3	☐	250.000	251.077	3736192.49	0.1888	P	0.9
4	☐	625.000	623.128	9056820.86	0.4684	A	0.3
5	☐	1250.000	1252.698	17686800.05	0.9417	A	0.9
6	☐	2500.000	2510.467	35765676.15	1.8872	A	0.4
7	☐	5000.000	4994.272	71805467.58	3.7543	A	0.3
8	☐			66031.65	0.0034	P	1.9

$$y = 7.5172\text{E-}004 * x + 1.9908\text{E-}005$$

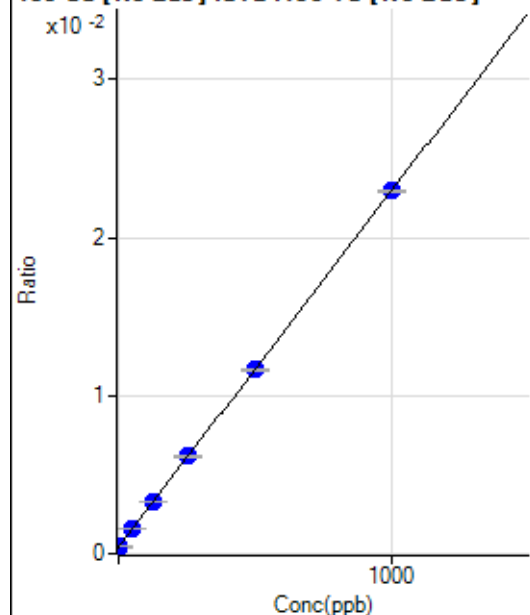
$$R = 1.0000$$

$$DL = 0.003905$$

$$BEC = 0.02648$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10732.24	0.0004	P	2.0
2	☐	1.000	1.240	11210.41	0.0004	P	0.4
3	☐	50.000	52.364	40093.74	0.0016	P	0.7
4	☐	125.000	127.469	82004.08	0.0033	P	0.8
5	☐	250.000	254.017	151218.20	0.0061	P	1.5
6	☐	500.000	497.759	288438.42	0.0116	P	0.6
7	☐	1000.000	999.689	568614.69	0.0229	P	0.7
8	☐			9842.70	0.0004	P	2.4

$$y = 2.2534\text{E-}005 * x + 4.1884\text{E-}004$$

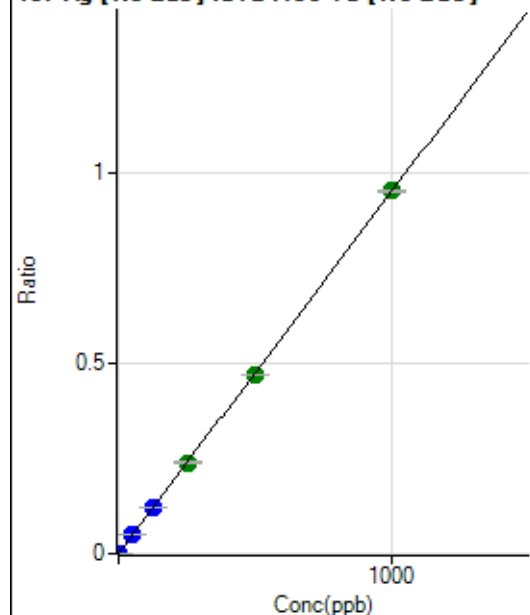
$$R = 1.0000$$

$$DL = 1.135$$

$$BEC = 18.59$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD :159 Tb [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	250.01	0.0000	P	9.3
2	☐	1.000	0.849	20523.90	0.0008	P	1.4
3	☐	50.000	52.992	1265272.80	0.0505	P	0.9
4	☐	125.000	128.499	3048095.34	0.1223	P	0.3
5	☐	250.000	252.026	5906422.48	0.2399	A	0.5
6	☐	500.000	493.008	11634656.42	0.4693	A	0.5
7	☐	1000.000	1002.402	23646795.67	0.9542	A	0.8
8	☐			2553.10	0.0001	P	3.4

$$y = 9.5194\text{E-}004 * x + 9.7591\text{E-}006$$

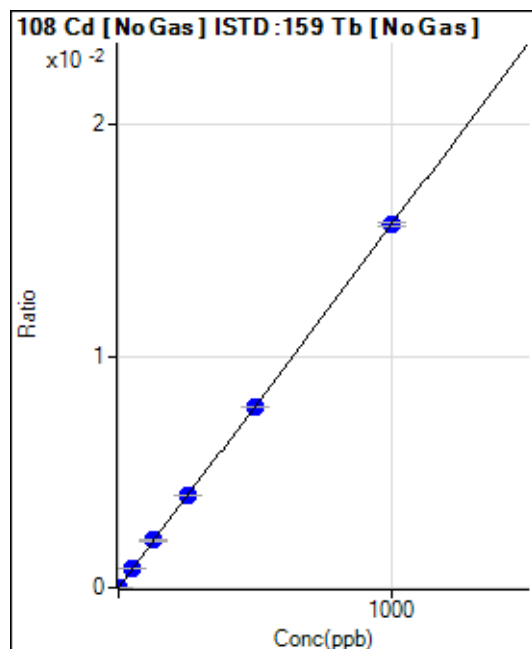
$$R = 1.0000$$

$$DL = 0.002848$$

$$BEC = 0.01025$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	43.05	0.0000	P	30.8
2	☐	1.000	0.970	423.63	0.0000	P	5.0
3	☐	50.000	52.740	20772.46	0.0008	P	1.9
4	☐	125.000	130.083	50842.44	0.0020	P	0.7
5	☐	250.000	254.619	98288.04	0.0040	P	0.6
6	☐	500.000	497.297	193272.18	0.0078	P	0.2
7	☐	1000.000	999.425	388225.19	0.0157	P	1.0
8	☐			105.56	0.0000	P	2.1

$$y = 1.5674\text{E-}005 * x + 1.6789\text{E-}006$$

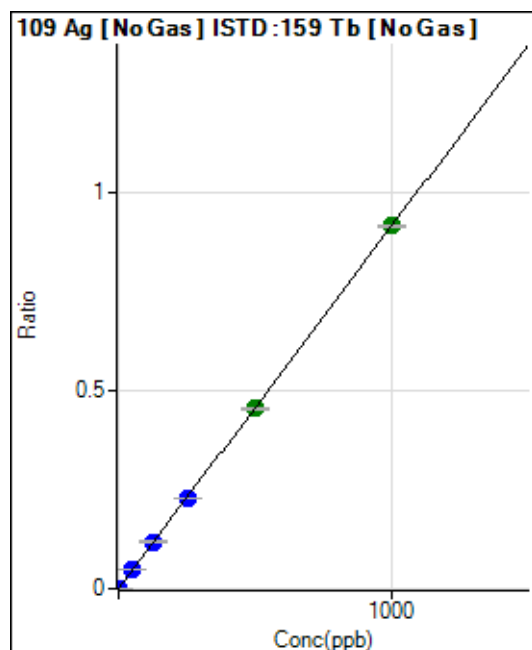
$$R = 1.0000$$

$$DL = 0.09882$$

$$BEC = 0.1071$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	113.90	0.0000	P	15.0
2	☐	1.000	0.872	20090.09	0.0008	P	2.1
3	☐	50.000	53.297	1220358.48	0.0487	P	0.6
4	☐	125.000	129.985	2957073.42	0.1187	P	0.2
5	☐	250.000	248.422	5583681.90	0.2268	P	0.2
6	☐	500.000	497.193	11253256.24	0.4539	A	0.5
7	☐	1000.000	1001.010	22648373.94	0.9139	A	0.5
8	☐			2250.29	0.0001	P	5.9

$$y = 9.1300\text{E-}004 * x + 4.4438\text{E-}006$$

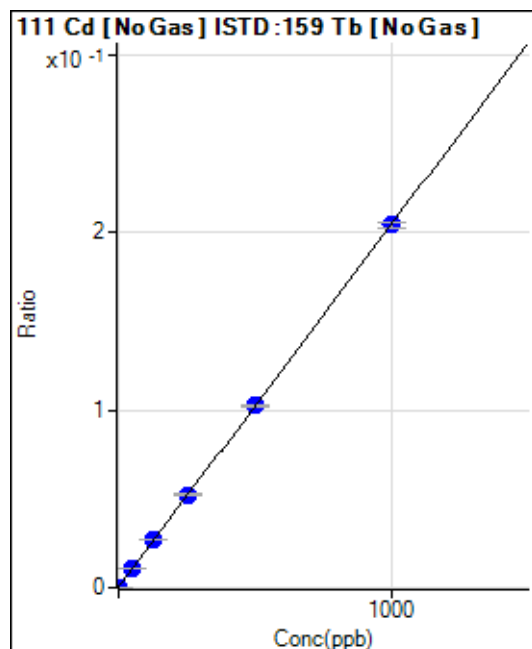
$$R = 1.0000$$

$$DL = 0.002195$$

$$BEC = 0.004867$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7546.32	0.0003	P	2.3
2	☐	1.000	1.092	12981.06	0.0005	P	1.4
3	☐	50.000	53.382	280578.89	0.0112	P	0.5
4	☐	125.000	130.828	672584.64	0.0270	P	0.2
5	☐	250.000	254.849	1287609.21	0.0523	P	0.8
6	☐	500.000	499.398	2533876.32	0.1022	P	0.9
7	☐	1000.000	998.191	5055126.36	0.2040	P	1.7
8	☐			7742.44	0.0003	P	2.4

$$y = 2.0408\text{E-}004 * x + 2.9451\text{E-}004$$

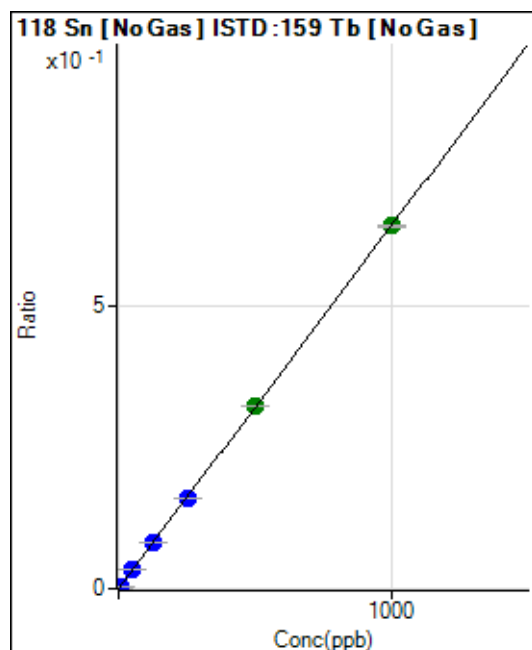
$$R = 1.0000$$

$$DL = 0.1005$$

$$BEC = 1.443$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2021.15	0.0001	P	34.6
2	☐	5.000	5.161	85146.98	0.0034	P	1.8
3	☐	50.000	51.274	827717.95	0.0330	P	0.5
4	☐	125.000	126.876	2032092.93	0.0816	P	0.7
5	☐	250.000	249.148	3940854.34	0.1601	P	0.3
6	☐	500.000	501.484	7985772.05	0.3221	A	0.3
7	☐	1000.000	999.172	15903167.54	0.6417	A	0.7
8	☐			9119.97	0.0004	P	2.1

$$y = 6.4220\text{E-}004 * x + 7.8842\text{E-}005$$

$$R = 1.0000$$

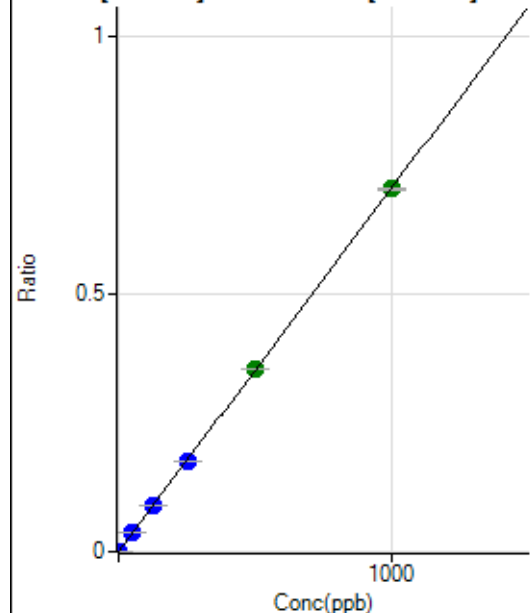
$$DL = 0.1274$$

$$BEC = 0.1228$$

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	100.00	0.0000	P	57.4
2	☐	2.000	2.041	36214.39	0.0014	P	1.6
3	☐	50.000	50.630	895662.04	0.0357	P	0.3
4	☐	125.000	126.634	2225671.47	0.0893	P	0.2
5	☐	250.000	249.342	4329858.87	0.1759	P	0.5
6	☐	500.000	503.322	8801341.25	0.3550	A	0.5
7	☐	1000.000	998.268	17449403.00	0.7041	A	0.8
8	☐			16182.17	0.0007	P	6.3

$$y = 7.0536\text{E-}004 * x + 3.8981\text{E-}006$$

$$R = 1.0000$$

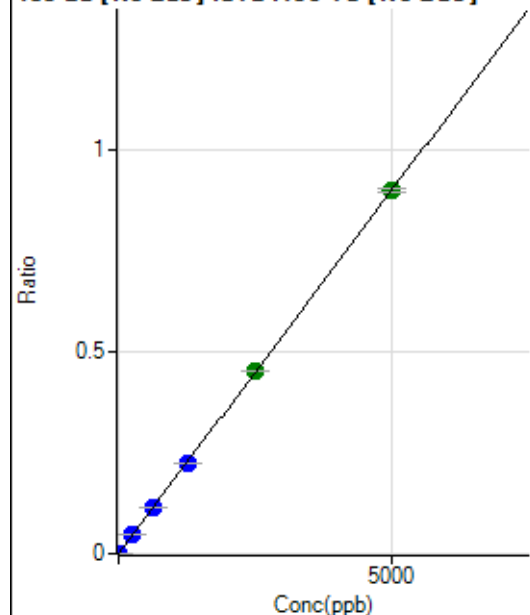
$$DL = 0.009516$$

$$BEC = 0.005526$$

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	55.56	0.0000	P	45.8
2	☐	10.000	10.310	46528.79	0.0019	P	0.3
3	☐	250.000	255.226	1149817.06	0.0459	P	0.4
4	☐	625.000	633.540	2835775.00	0.1138	P	0.2
5	☐	1250.000	1241.978	5492595.35	0.2231	P	0.4
6	☐	2500.000	2507.484	11166858.58	0.4505	A	0.3
7	☐	5000.000	4996.934	22244215.43	0.8977	A	1.2
8	☐			3647.87	0.0002	P	6.2

$$y = 1.7964\text{E-}004 * x + 2.1683\text{E-}006$$

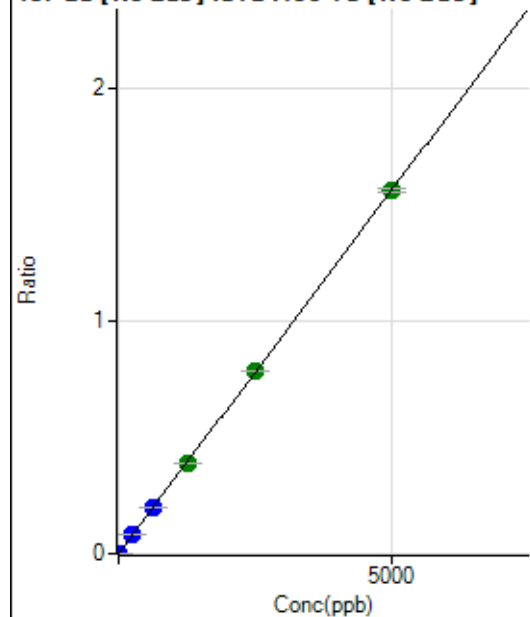
$$R = 1.0000$$

$$DL = 0.01657$$

$$BEC = 0.01207$$

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	116.67	0.0000	P	36.1
2	☐	10.000	10.422	81910.61	0.0033	P	0.7
3	☐	250.000	256.256	2010085.20	0.0802	P	0.4
4	☐	625.000	632.412	4928702.20	0.1978	P	0.1
5	☐	1250.000	1252.088	9641212.63	0.3916	A	0.3
6	☐	2500.000	2507.682	19444774.74	0.7844	A	0.4
7	☐	5000.000	4994.397	38711342.53	1.5622	A	0.9
8	☐			6518.51	0.0003	P	1.1

$$y = 3.1278E-004 * x + 4.5563E-006$$

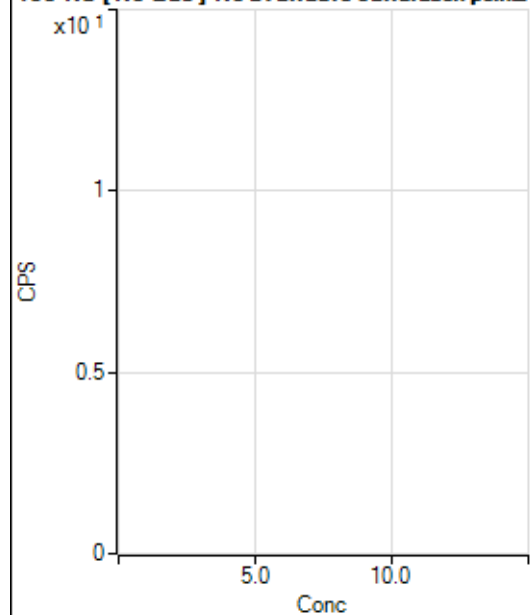
$$R = 1.0000$$

$$DL = 0.01576$$

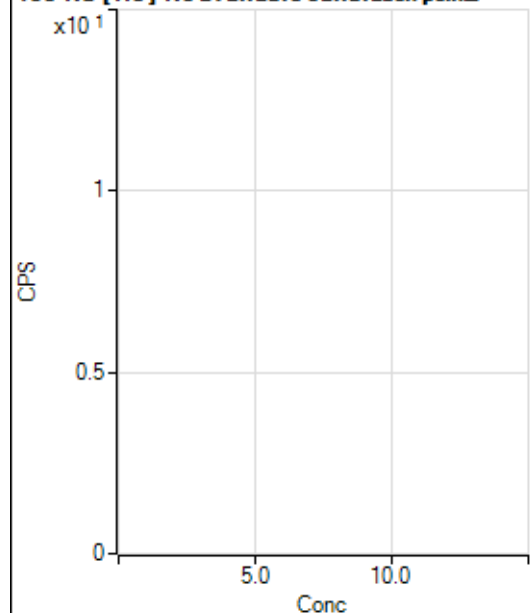
$$BEC = 0.01457$$

Weight: <None>

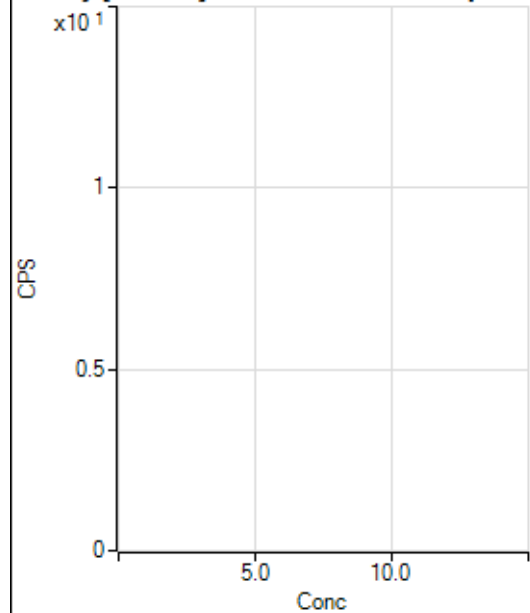
Min Conc: 0

150 Nd [No Gas] No available calibration points

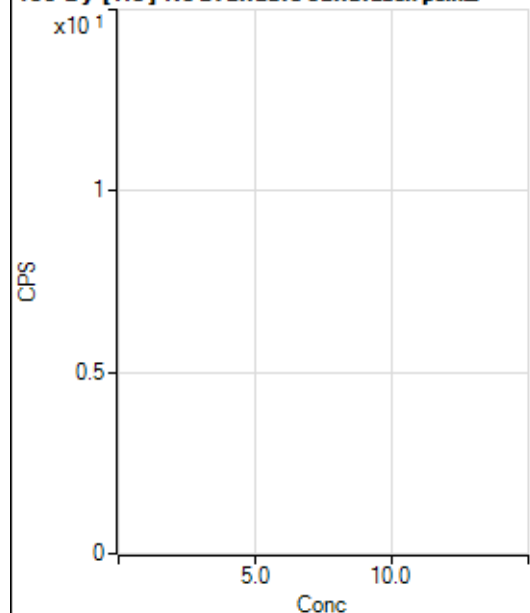
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			11.11		P	124.
2	☐			22.22		P	45.8
3	☐			117.78		P	34.1
4	☐			251.12		P	17.7
5	☐			488.92		P	17.5
6	☐			902.28		P	4.5
7	☐			1777.96		P	9.6
8	☐			188.90		P	10.8

150 Nd [He] No available calibration points

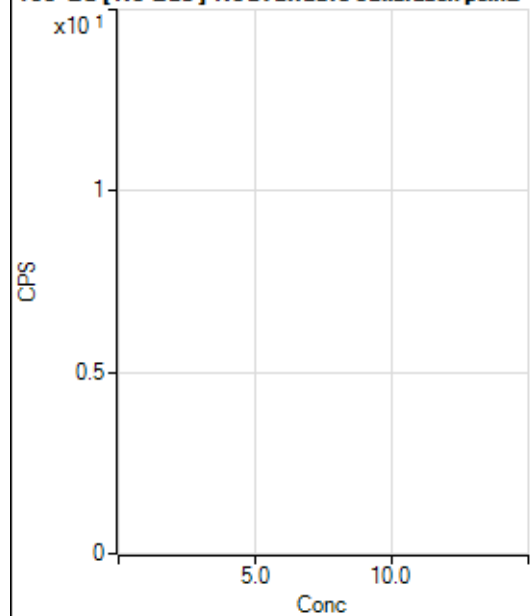
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	78.1
2	☐			11.11		P	75.5
3	☐			10.00		P	33.3
4	☐			31.11		P	37.6
5	☐			37.78		P	13.5
6	☐			98.89		P	3.9
7	☐			160.00		P	12.5
8	☐			87.78		P	19.5

156 Dy [No Gas] No available calibration points

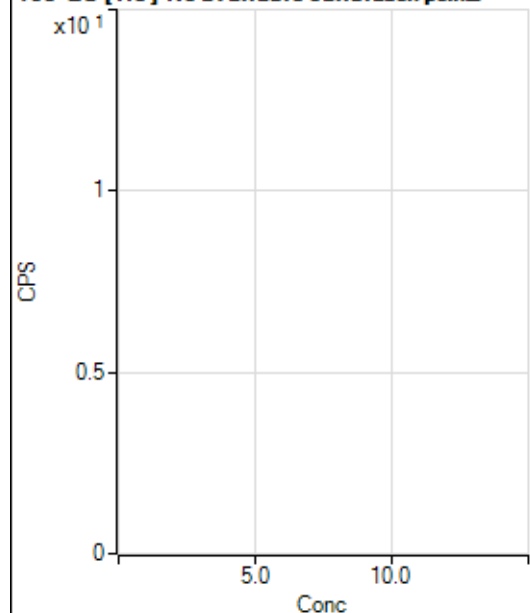
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	28.7
2	☐			44.44		P	21.7
3	☐			66.67		P	45.1
4	☐			97.23		P	42.3
5	☐			169.45		P	24.8
6	☐			230.57		P	34.4
7	☐			380.58		P	5.5
8	☐			166.68		P	18.0

156 Dy [He] No available calibration points

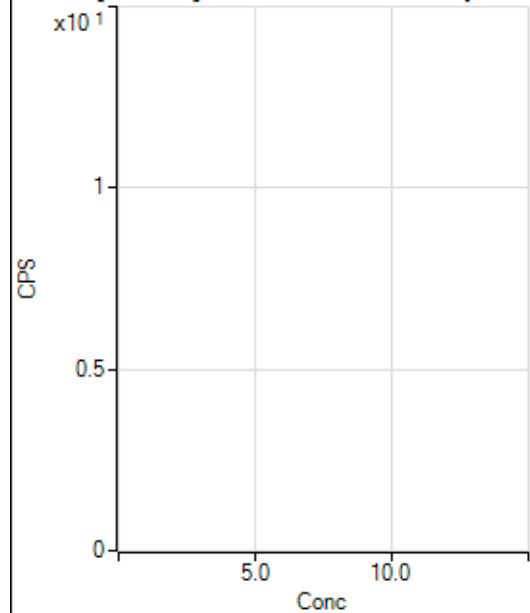
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	6.9
2	☐			25.56		P	37.7
3	☐			45.55		P	8.5
4	☐			76.67		P	15.1
5	☐			137.78		P	1.4
6	☐			210.01		P	12.4
7	☐			466.68		P	3.6
8	☐			71.11		P	23.1

160 Gd [No Gas] Noavailable calibration poin_

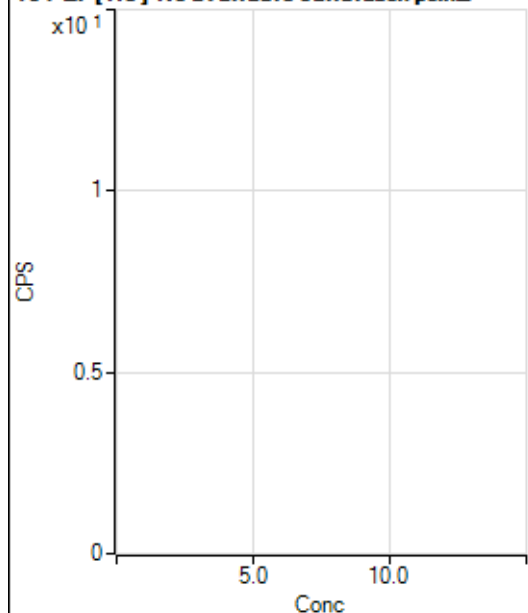
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			236.13		P	36.7
2	☐			261.12		P	4.9
3	☐			269.46		P	31.0
4	☐			283.35		P	31.8
5	☐			294.46		P	32.8
6	☐			350.02		P	14.9
7	☐			375.02		P	8.0
8	☐			291.68		P	13.1

160 Gd [He] No available calibration points

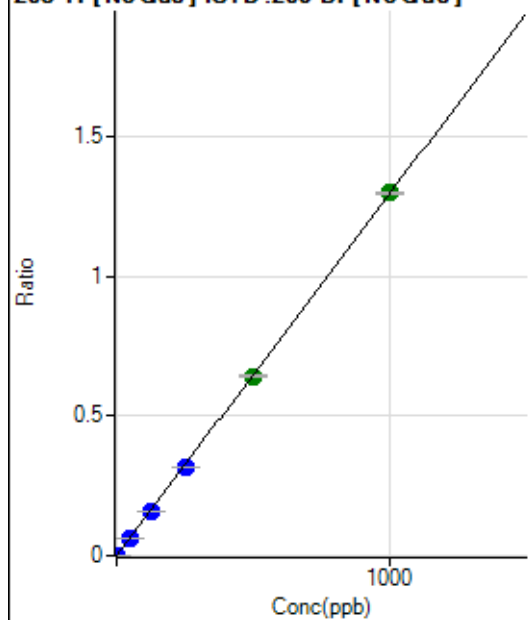
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			395.57		P	7.2
2	☐			400.01		P	9.6
3	☐			412.24		P	19.0
4	☐			427.79		P	9.0
5	☐			385.57		P	11.0
6	☐			450.01		P	2.7
7	☐			491.13		P	5.5
8	☐			438.91		P	6.5

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			113.89		P	25.7
2	☐			119.45		P	14.5
3	☐			141.67		P	5.9
4	☐			158.34		P	9.1
5	☐			161.12		P	20.9
6	☐			213.90		P	20.0
7	☐			238.90		P	14.1
8	☐			180.56		P	11.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			86.67		P	27.7
2	☐			85.56		P	29.2
3	☐			81.11		P	28.0
4	☐			87.78		P	17.1
5	☐			103.34		P	3.2
6	☐			103.34		P	11.6
7	☐			138.89		P	16.3
8	☐			101.12		P	20.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	905.62	0.0001	P	4.2
2	☐	1.000	0.964	21673.95	0.0013	P	1.8
3	☐	50.000	48.586	1040150.06	0.0630	P	0.6
4	☐	125.000	123.332	2613925.45	0.1598	P	0.4
5	☐	250.000	243.694	5072727.59	0.3158	P	1.2
6	☐	500.000	497.177	10296504.22	0.6442	A	0.2
7	☐	1000.000	1003.267	20101615.90	1.2999	A	0.7
8	☐			3597.88	0.0003	P	4.5

$$y = 0.0013 * x + 5.3115E-005$$

$$R = 1.0000$$

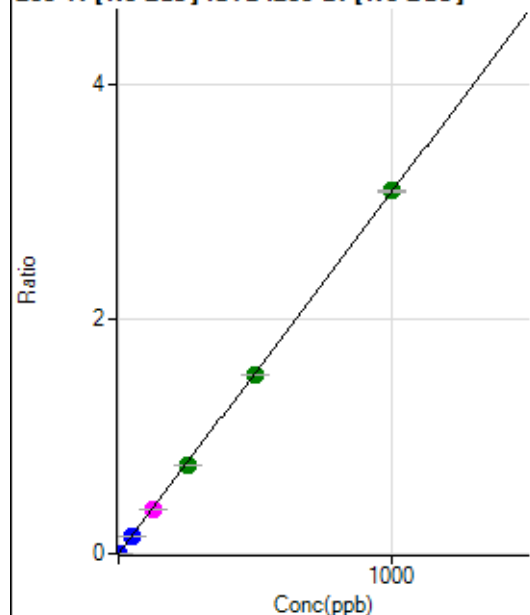
$$DL = 0.005157$$

$$BEC = 0.041$$

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	1575.17	0.0001	P	13.8
2	☐	1.000	0.965	51004.46	0.0031	P	0.6
3	☐	50.000	48.728	2479345.74	0.1502	P	0.7
4	☐	125.000	122.223	6157503.48	0.3765	M	0.7
5	☐	250.000	246.140	12179788.55	0.7582	A	0.9
6	☐	500.000	495.636	24401021.73	1.5266	A	0.4
7	☐	1000.000	1003.558	47800700.37	3.0910	A	0.7
8	☐			7860.97	0.0006	P	4.4

$$y = 0.0031 * x + 9.2352E-005$$

$$R = 1.0000$$

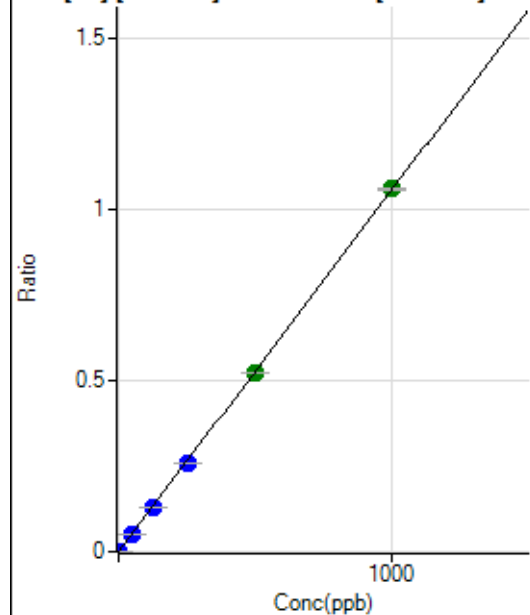
$$DL = 0.01238$$

$$BEC = 0.02998$$

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	1926.13	0.0001	P	3.0
2	☐	1.000	0.954	18606.11	0.0011	P	0.9
3	☐	50.000	48.956	853376.07	0.0517	P	0.5
4	☐	125.000	123.154	2123543.39	0.1299	P	0.5
5	☐	250.000	244.634	4141894.22	0.2578	P	0.9
6	☐	500.000	494.589	8329965.81	0.5212	A	0.4
7	☐	1000.000	1004.330	16363925.60	1.0582	A	0.3
8	☐			55145.86	0.0043	P	1.2

$$y = 0.0011 * x + 1.1295E-004$$

$$R = 1.0000$$

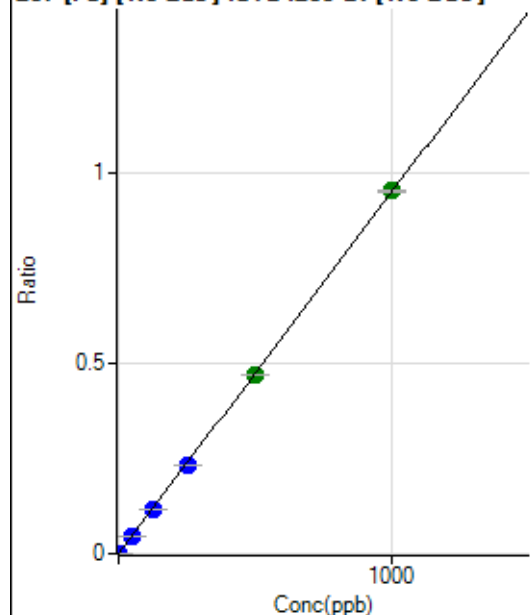
$$DL = 0.009777$$

$$BEC = 0.1072$$

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	1724.24	0.0001	P	8.4
2	☐	1.000	0.977	17135.52	0.0010	P	3.7
3	☐	50.000	48.913	768928.12	0.0466	P	0.8
4	☐	125.000	122.361	1902793.59	0.1164	P	0.9
5	☐	250.000	243.986	3725440.36	0.2319	P	0.8
6	☐	500.000	495.339	7523703.58	0.4707	A	0.4
7	☐	1000.000	1004.218	14755997.09	0.9542	A	0.7
8	☐			50390.28	0.0039	P	1.0

$$y = 9.5009\text{E-}004 * x + 1.0115\text{E-}004$$

$$R = 1.0000$$

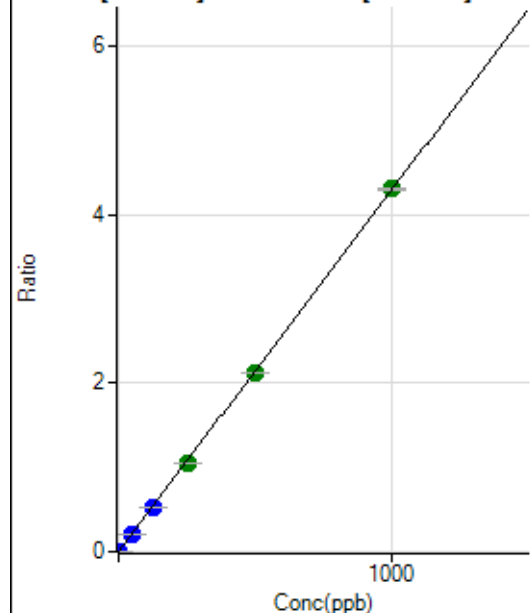
$$DL = 0.0269$$

$$BEC = 0.1065$$

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	7254.66	0.0004	P	1.6
2	☐	1.000	0.967	76038.28	0.0046	P	1.5
3	☐	50.000	49.060	3476970.89	0.2106	P	0.7
4	☐	125.000	122.967	8621733.84	0.5272	P	0.4
5	☐	250.000	246.194	16950200.87	1.0551	A	0.2
6	☐	500.000	495.180	33913443.18	2.1218	A	0.3
7	☐	1000.000	1003.663	66498758.43	4.3001	A	0.3
8	☐			225681.36	0.0174	P	0.8

$$y = 0.0043 * x + 4.2550\text{E-}004$$

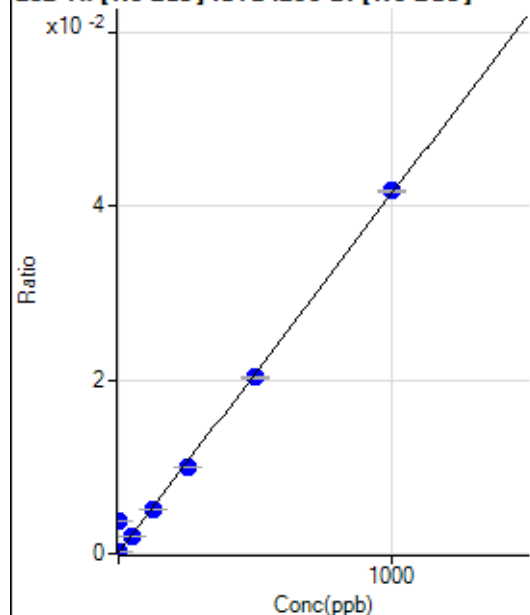
$$R = 1.0000$$

$$DL = 0.004672$$

$$BEC = 0.09932$$

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	2072.45	0.0001	P	8.1
2	☐	1.000	87.216	61899.89	0.0037	P	1.5
3	☐	50.000	47.131	34091.10	0.0021	P	0.4
4	☐	125.000	120.155	83009.67	0.0051	P	1.7
5	☐	250.000	240.427	161207.71	0.0100	P	0.2
6	☐	500.000	488.917	324152.85	0.0203	P	1.4
7	☐	1000.000	1008.598	644988.69	0.0417	P	0.2
8	☐			2811.50	0.0002	P	2.9

$$y = 4.1232\text{E-}005 * x + 1.2154\text{E-}004$$

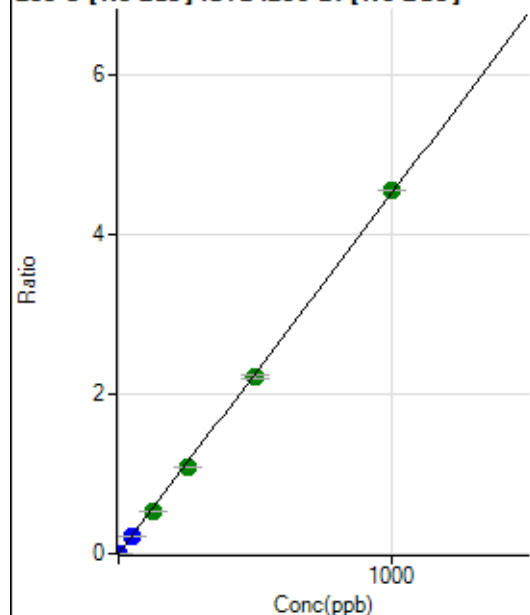
$$R = 0.9956$$

$$DL = 0.7175$$

$$BEC = 2.948$$

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	2547.58	0.0001	P	2.6
2	☐	1.000	0.931	72507.53	0.0044	P	1.4
3	☐	50.000	47.045	3512864.06	0.2128	P	0.3
4	☐	125.000	118.970	8795361.66	0.5378	A	0.1
5	☐	250.000	242.415	17602746.05	1.0957	A	0.1
6	☐	500.000	491.159	35482208.43	2.2199	A	1.3
7	☐	1000.000	1007.218	70398332.13	4.5523	A	0.1
8	☐			6693.67	0.0005	P	4.5

$$y = 0.0045 * x + 1.4942\text{E-}004$$

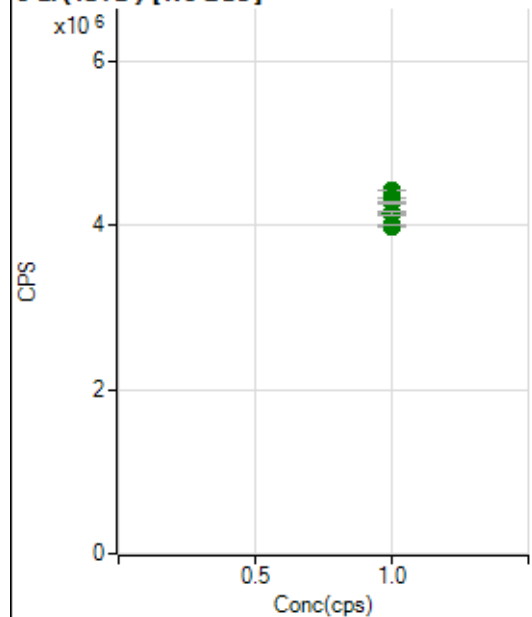
$$R = 0.9999$$

$$DL = 0.00261$$

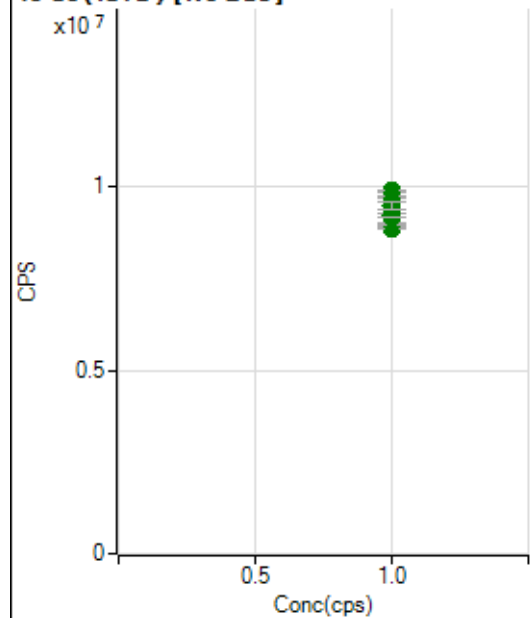
$$BEC = 0.03306$$

Weight: <None>

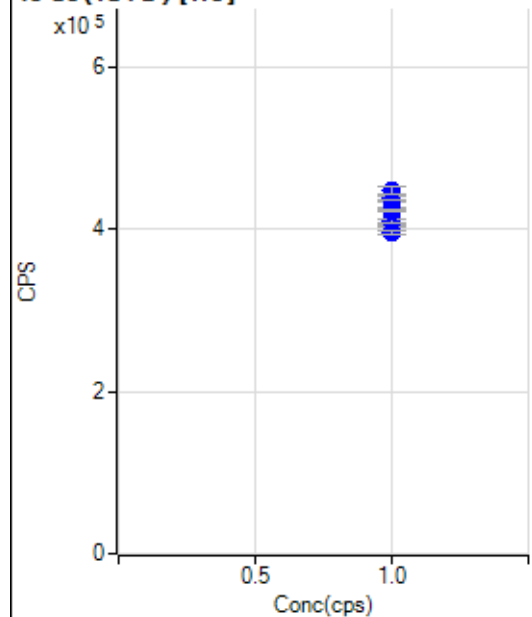
Min Conc: 0

6 Li (ISTD) [No Gas]

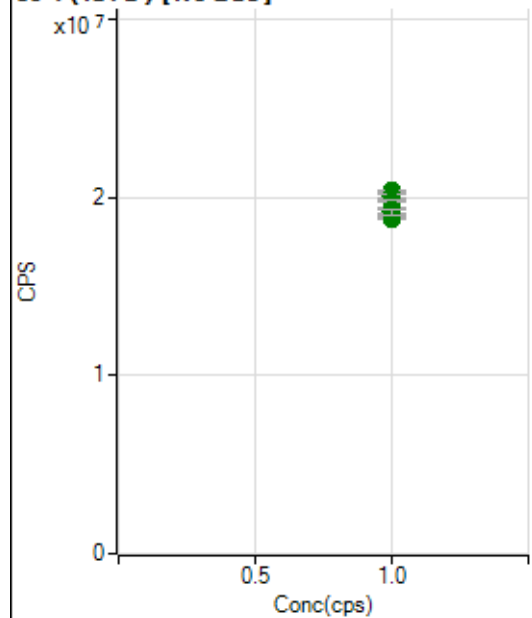
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4425225.18		A	0.1
2	☐	1.000		4332833.10		A	0.2
3	☐	1.000		4283263.34		A	0.6
4	☐	1.000		4141754.87		A	0.4
5	☐	1.000		3996283.17		A	0.3
6	☐	1.000		3989736.88		A	0.6
7	☐	1.000		4016519.87		A	0.3
8	☐	1.000		4149545.42		A	1.4

45 Sc (ISTD) [No Gas]

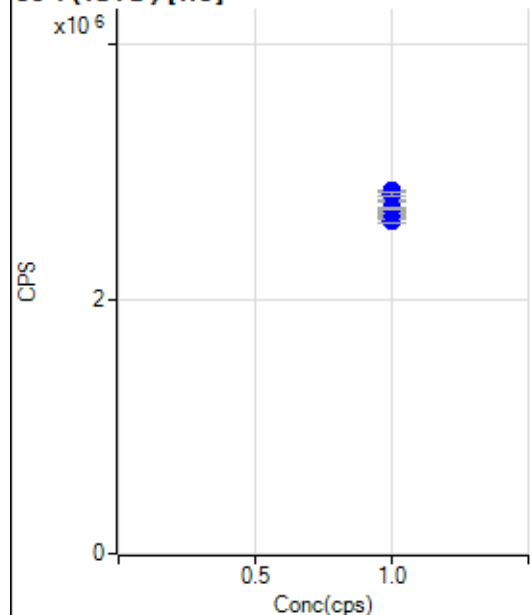
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9877951.00		A	0.4
2	☐	1.000		9732212.46		A	0.5
3	☐	1.000		9581623.82		A	0.2
4	☐	1.000		9207262.79		A	1.1
5	☐	1.000		8863570.95		A	0.5
6	☐	1.000		8980109.49		A	0.6
7	☐	1.000		9155619.21		A	0.4
8	☐	1.000		9482511.85		A	1.8

45 Sc (ISTD) [He]

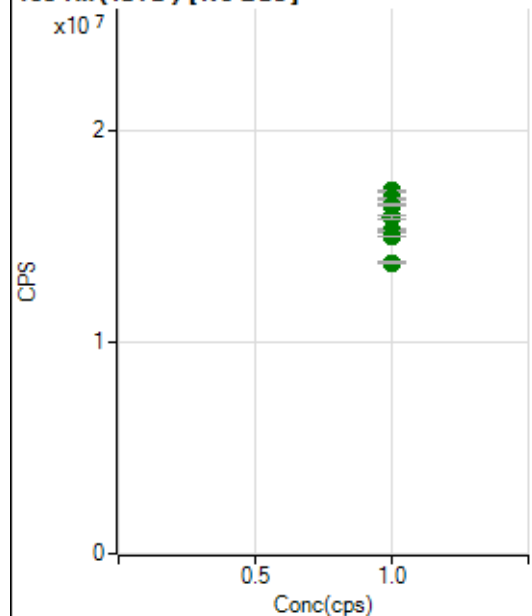
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		435185.67		P	0.6
2	☐	1.000		438491.62		P	1.0
3	☐	1.000		425025.31		P	0.1
4	☐	1.000		404472.05		P	0.4
5	☐	1.000		395208.99		P	1.5
6	☐	1.000		409477.94		P	0.7
7	☐	1.000		422588.06		P	0.6
8	☐	1.000		446739.56		P	2.2

89 Y (ISTD) [No Gas]

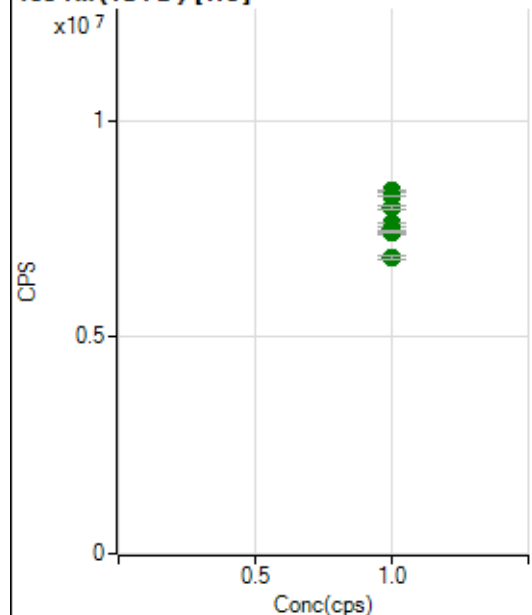
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20373758.31		A	0.3
2	☐	1.000		20075881.09		A	0.8
3	☐	1.000		19794182.21		A	0.7
4	☐	1.000		19334184.57		A	0.6
5	☐	1.000		18781875.69		A	0.2
6	☐	1.000		18952030.97		A	0.6
7	☐	1.000		19126160.27		A	0.4
8	☐	1.000		19183673.05		A	1.5

89 Y (ISTD) [He]

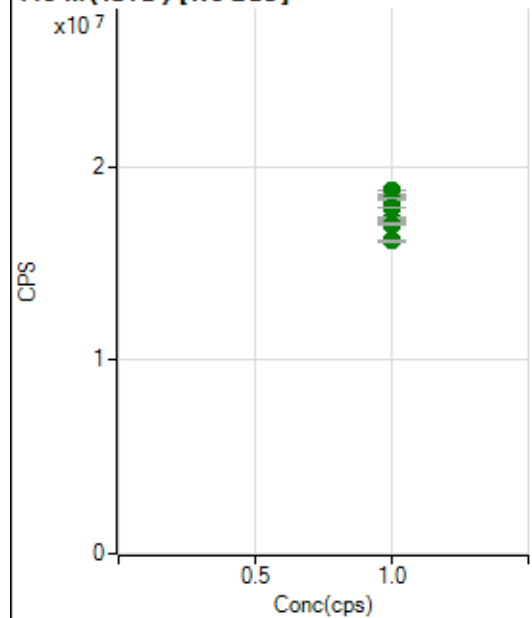
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2828078.26		P	1.0
2	☐	1.000		2850680.03		P	0.2
3	☐	1.000		2772211.24		P	0.6
4	☐	1.000		2651128.97		P	0.2
5	☐	1.000		2607060.27		P	1.2
6	☐	1.000		2681283.78		P	0.9
7	☐	1.000		2712210.17		P	0.4
8	☐	1.000		2828271.66		P	1.4

103 Rh (ISTD) [No Gas]

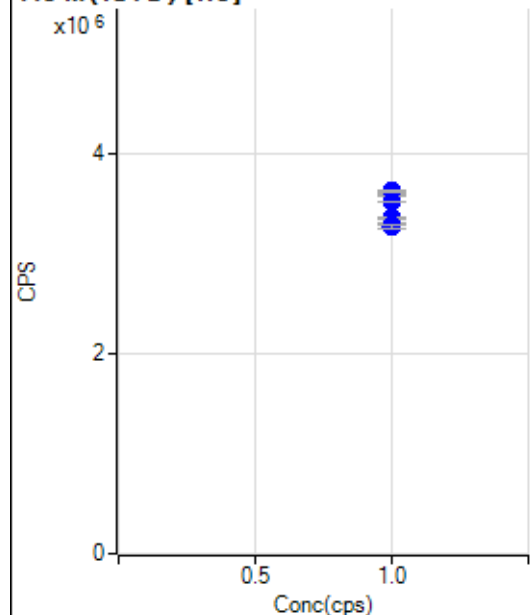
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17164563.92		A	0.3
2	☐	1.000		16806081.10		A	0.5
3	☐	1.000		16500968.77		A	0.4
4	☐	1.000		15922639.25		A	0.7
5	☐	1.000		15326325.34		A	0.6
6	☐	1.000		15226914.57		A	0.5
7	☐	1.000		15033275.16		A	0.3
8	☐	1.000		13765431.90		A	0.8

103 Rh (ISTD) [He]

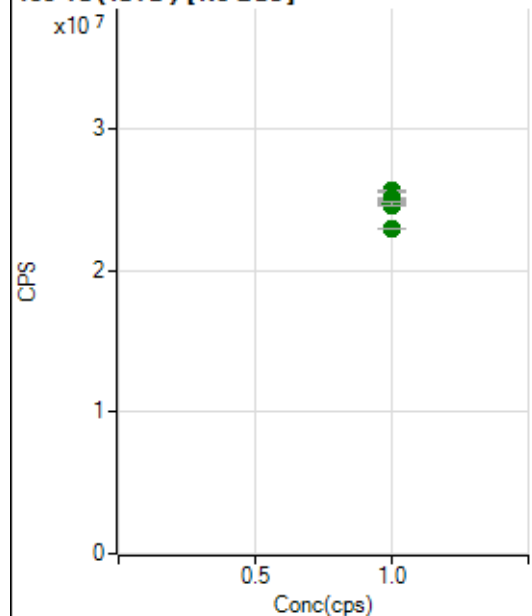
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8368562.44		A	0.6
2	☐	1.000		8251906.89		A	0.3
3	☐	1.000		7987401.06		A	1.0
4	☐	1.000		7636991.07		A	0.1
5	☐	1.000		7403580.51		A	1.1
6	☐	1.000		7495226.70		A	0.6
7	☐	1.000		7432025.93		A	0.3
8	☐	1.000		6825289.69		A	0.9

115 In (ISTD) [No Gas]

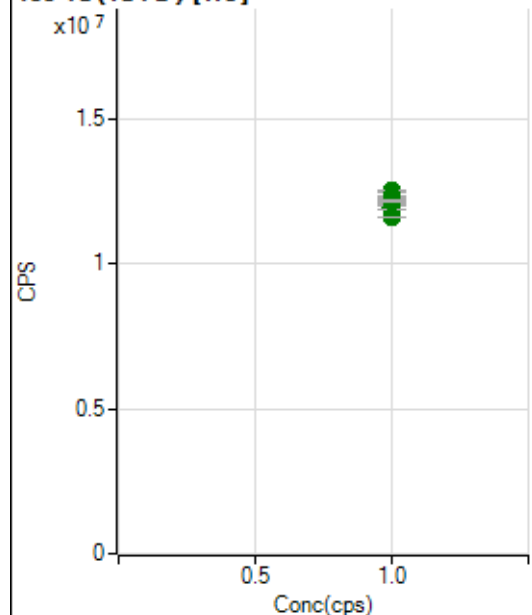
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		18739388.64		A	0.1
2	☐	1.000		18553958.20		A	0.5
3	☐	1.000		18320036.07		A	0.6
4	☐	1.000		17852025.10		A	0.2
5	☐	1.000		17268264.30		A	0.8
6	☐	1.000		17327520.15		A	0.2
7	☐	1.000		17016559.96		A	0.4
8	☐	1.000		16154757.60		A	0.7

115 In (ISTD) [He]

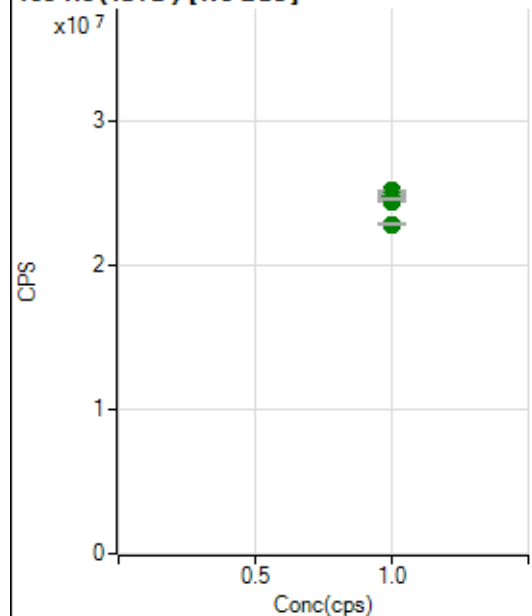
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3590303.59		P	0.9
2	☐	1.000		3630465.46		P	0.2
3	☐	1.000		3521774.72		P	0.5
4	☐	1.000		3361393.29		P	0.8
5	☐	1.000		3301077.22		P	0.9
6	☐	1.000		3351690.05		P	0.7
7	☐	1.000		3297056.22		P	0.5
8	☐	1.000		3269685.28		P	1.5

159 Tb (ISTD) [No Gas]

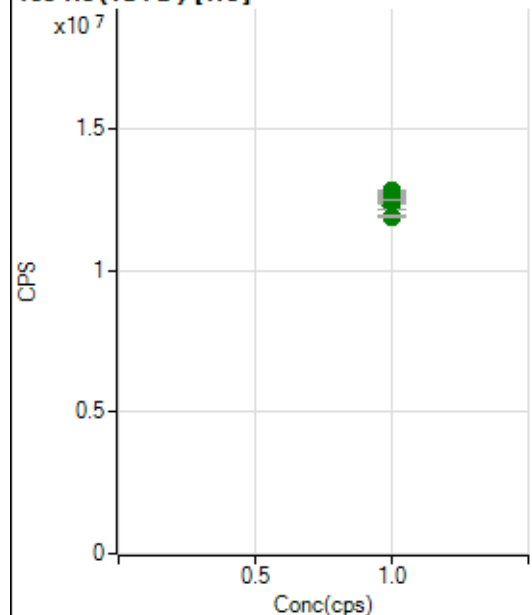
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		25625277.67		A	0.4
2	☐	1.000		25091782.68		A	0.4
3	☐	1.000		25077165.18		A	0.4
4	☐	1.000		24916072.41		A	0.3
5	☐	1.000		24617935.19		A	0.3
6	☐	1.000		24790349.91		A	0.3
7	☐	1.000		24782272.69		A	1.1
8	☐	1.000		22970769.10		A	0.2

159 Tb (ISTD) [He]

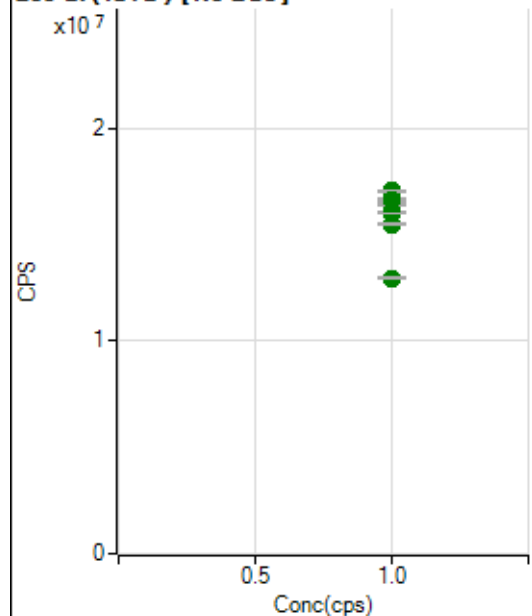
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12471459.40		A	0.5
2	☐	1.000		12505734.81		A	0.1
3	☐	1.000		12309679.81		A	0.7
4	☐	1.000		12049576.63		A	0.2
5	☐	1.000		11947981.77		A	1.0
6	☐	1.000		12236721.34		A	0.4
7	☐	1.000		12137234.12		A	0.5
8	☐	1.000		11601368.99		A	0.5

165 Ho (ISTD) [No Gas]

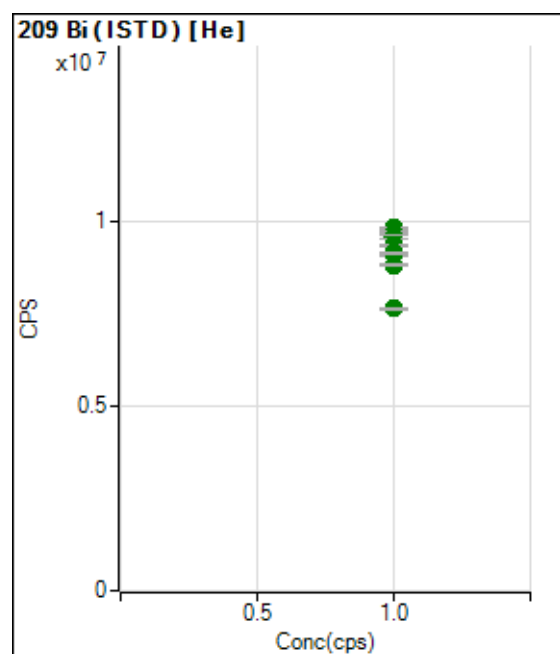
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		25211575.56		A	0.5
2	☐	1.000		24833767.39		A	0.4
3	☐	1.000		24852871.74		A	0.9
4	☐	1.000		24793478.68		A	0.3
5	☐	1.000		24456920.69		A	0.1
6	☐	1.000		24866651.25		A	0.7
7	☐	1.000		24646488.74		A	0.8
8	☐	1.000		22898420.30		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12828113.98		A	0.3
2	☐	1.000		12827966.89		A	0.5
3	☐	1.000		12693652.59		A	0.8
4	☐	1.000		12450437.04		A	0.3
5	☐	1.000		12277918.57		A	1.3
6	☐	1.000		12588567.31		A	0.5
7	☐	1.000		12490316.34		A	0.2
8	☐	1.000		11931703.43		A	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17050813.22		A	0.5
2	☐	1.000		16649645.58		A	0.4
3	☐	1.000		16510231.28		A	0.5
4	☐	1.000		16353276.70		A	0.4
5	☐	1.000		16064663.79		A	0.7
6	☐	1.000		15983416.15		A	0.1
7	☐	1.000		15464372.96		A	0.5
8	☐	1.000		12944555.92		A	0.4



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9810035.90		A	0.8
2	☐	1.000		9694606.31		A	0.5
3	☐	1.000		9570118.74		A	0.7
4	☐	1.000		9334736.74		A	0.5
5	☐	1.000		9101875.14		A	1.3
6	☐	1.000		9127115.35		A	0.4
7	☐	1.000		8805162.72		A	0.6
8	☐	1.000		7632386.76		A	0.5

US EPA Tune Check Sample Report

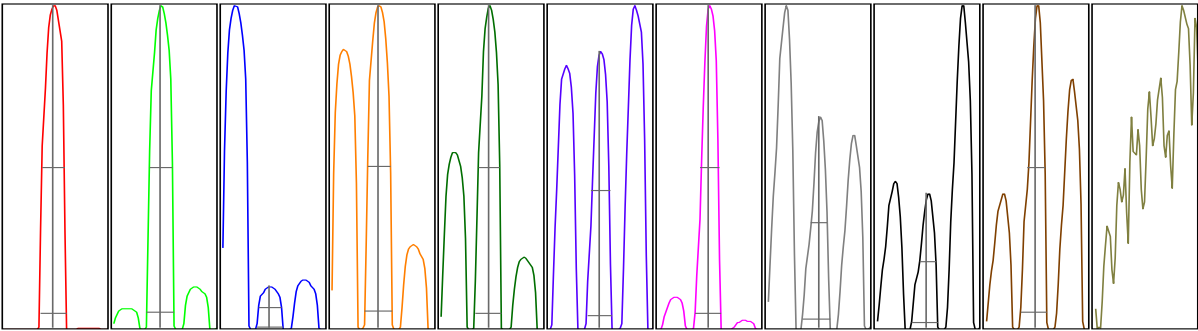
Batch Folder D:\ICP-MS Data\P7120119MS1.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	15526	0.71	5.00	
24	1458806	0.50	5.00	
25	191809	0.54	5.00	
26	220396	0.65	5.00	
59	156749	0.49	5.00	
113	22966	0.28	5.00	
115	266498	0.61	5.00	
206	70914	0.61	5.00	
207	65368	0.73	5.00	
208	155591	0.67	5.00	
220	109	6.31		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15352	15505	15544	15642	15586
24	1447167	1458434	1465182	1464838	1458410
25	190061	191686	192291	192702	192303
26	218465	219497	221898	221600	220521
59	155862	156466	157666	157416	156337
113	22854	22990	22974	23006	23009
115	264535	266828	268588	267345	265196
206	70246	70779	71243	71321	70981
207	64752	65074	65845	65824	65344
208	154056	155078	156373	156630	155816
220	106	102	109	106	120

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	25339	8.95	8.9 - 9.1		0.784	0.900	
24	2334152	23.90	23.9 - 24.1		0.787	0.900	
25	305798	24.90	24.9 - 25.1		0.778	0.900	
26	353916	25.90	25.9 - 26.1		0.787	0.900	
59	268357	58.95	58.9 - 59.1		0.779	0.900	
113	45244	113.00	112.9 - 113.1		0.730	0.900	
115	529469	115.00	114.9 - 115.1		0.741	0.900	
206	144052	206.05	205.9 - 206.1		0.802	0.900	
207	131349	207.00	206.9 - 207.1		0.753	0.900	
208	313503	208.00	207.9 - 208.1		0.758	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	8.2	V	Deflect	13.2	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	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	140	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	41331	0.68	
89	578338	0.69	
205	64030	0.81	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	41346	41686	41464	41227	40934
89	578687	583200	580905	575635	573260
205	63978	64262	64742	63815	63351

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	8.3	V	Deflect	1.2	V
Extract 2	-135.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

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