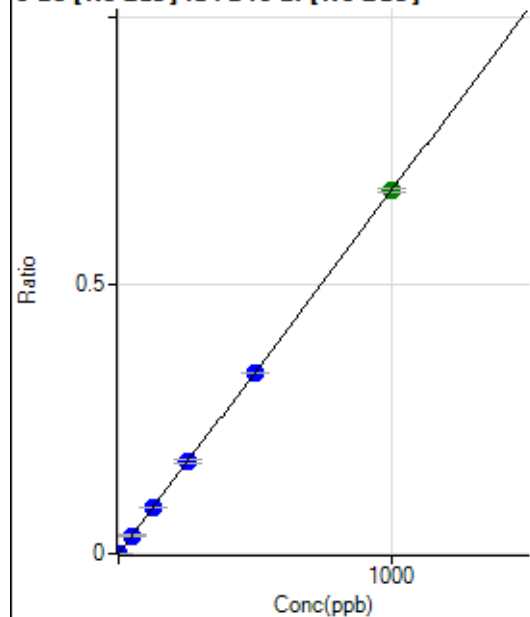


Calibration for 004CALS.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7071220 MS.b\
 Analysis File: P7071220 MS.batch.bin
 DA Date-Time: 2020-07-13 01:09:36
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-07-12 14:08:54
2	004CALS.d	S02	2020-07-12 14:12:37
3	006CALS.d	S03	2020-07-12 14:21:37
4	007CALS.d	S04	2020-07-12 14:26:07
5	008CALS.d	S05	2020-07-12 14:29:53
6	009CALS.d	S06	2020-07-12 14:33:31
7	011CALS.d	S07	2020-07-12 14:40:48
8	012CALS.d	S08	2020-07-12 14:44:20

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81.48	0.0000	P	14.5
2	☐	1.000	0.879	4052.50	0.0006	P	3.2
3	☐	50.000	50.155	232570.35	0.0339	P	2.9
4	☐	125.000	127.875	564962.09	0.0865	P	1.1
5	☐	250.000	255.608	1105072.62	0.1729	P	4.9
6	☐	500.000	498.165	2118609.84	0.3369	P	0.7
7	☐	1000.000	999.149	4121780.15	0.6757	A	1.2
8	☐			944.51	0.0002	P	7.4

$$y = 6.7630\text{E-}004 * x + 1.2354\text{E-}005$$

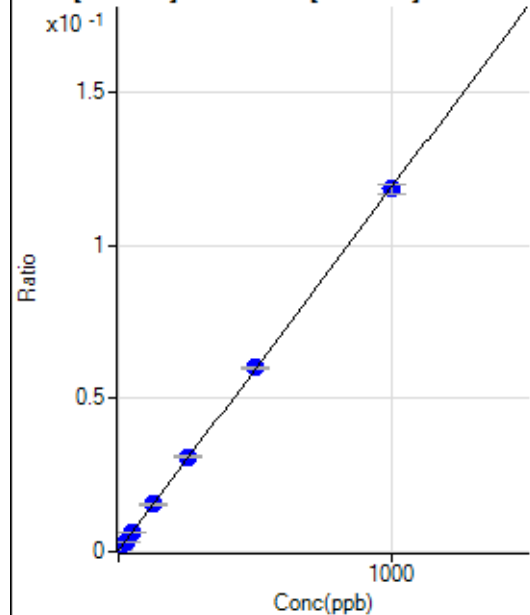
$$R = 1.0000$$

$$DL = 0.00792$$

$$BEC = 0.01827$$

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	2150.25	0.0003	P	4.6
2	☐	25.000	21.720	19365.82	0.0029	P	2.5
3	☐	50.000	51.197	43875.80	0.0064	P	2.1
4	☐	125.000	127.164	100637.80	0.0154	P	1.3
5	☐	250.000	258.667	198277.43	0.0310	P	3.2
6	☐	500.000	503.237	377323.54	0.0600	P	1.8
7	☐	1000.000	995.966	722434.21	0.1184	P	2.7
8	☐			24147.82	0.0045	P	4.7

$$y = 1.1860\text{E-}004 * x + 3.2601\text{E-}004$$

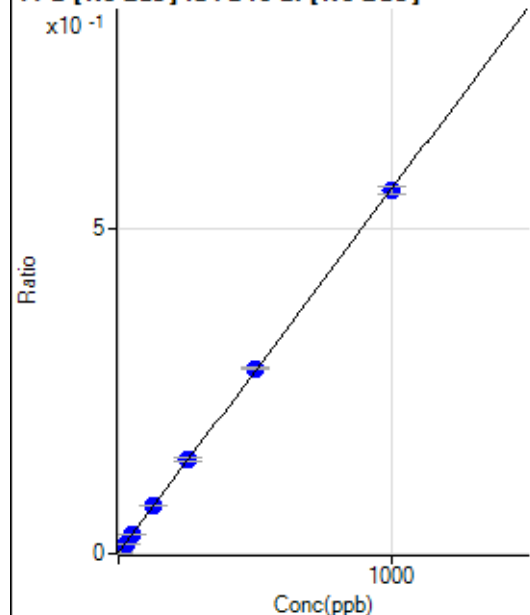
$$R = 0.9999$$

$$DL = 0.3784$$

$$BEC = 2.749$$

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	9817.43	0.0015	P	3.5
2	☐	25.000	21.681	90700.35	0.0136	P	1.5
3	☐	50.000	51.126	205847.52	0.0300	P	1.3
4	☐	125.000	127.734	475410.12	0.0728	P	1.2
5	☐	250.000	255.240	920418.50	0.1440	P	4.0
6	☐	500.000	506.434	1786860.70	0.2842	P	0.9
7	☐	1000.000	995.158	3397069.43	0.5570	P	2.3
8	☐			115945.87	0.0217	P	4.6

$$y = 5.5817\text{E-}004 * x + 0.0015$$

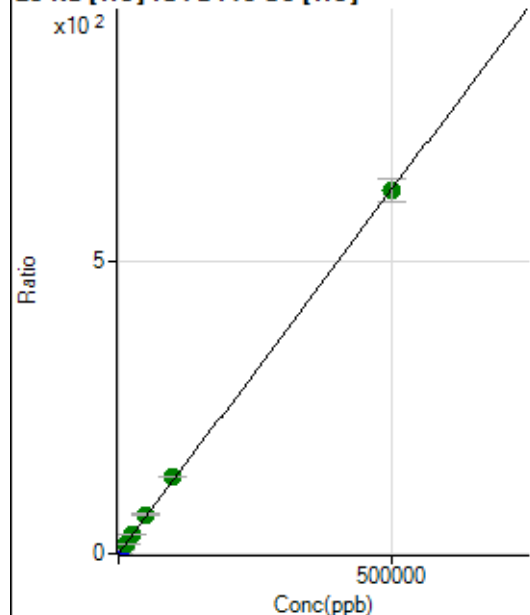
$$R = 0.9999$$

$$DL = 0.276$$

$$BEC = 2.667$$

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	23884.93	0.0467	P	0.6
2	☐	500.000	481.613	327796.59	0.6479	P	0.5
3	☐	5000.000	5583.064	3510724.32	7.0160	P	1.5
4	☐	12500.000	13120.061	8121317.05	16.4244	A	1.5
5	☐	25000.000	26523.934	15637573.46	33.1563	A	1.2
6	☐	50000.000	53880.308	30795042.97	67.3051	A	1.2
7	☐	100000.00	105199.92	60853925.20	131.3671	A	0.5
8	☐	500000.00	498474.47	296149304.3	622.2893	A	6.4

$$y = 0.0012 * x + 0.0467$$

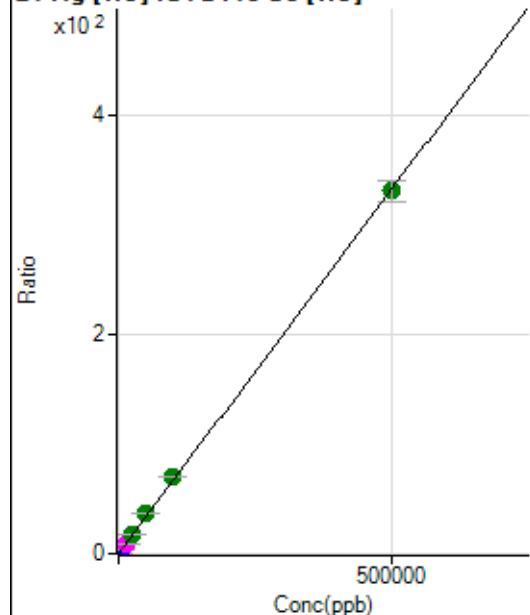
$$R = 0.9999$$

$$DL = 0.7088$$

$$BEC = 37.39$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1209.82	0.0024	P	4.5
2	☐	500.000	486.834	164940.75	0.3260	P	0.7
3	☐	5000.000	5758.857	1916862.21	3.8307	P	1.4
4	☐	12500.000	13504.317	4439903.58	8.9796	M	2.1
5	☐	25000.000	27006.492	8468448.78	17.9555	A	1.2
6	☐	50000.000	54764.704	16658330.28	36.4083	A	1.2
7	☐	100000.00	106218.50	32711152.69	70.6133	A	0.3
8	☐	500000.00	498146.82	157617094.0	331.1558	A	6.1

$$y = 6.6477\text{E-}004 * x + 0.0024$$

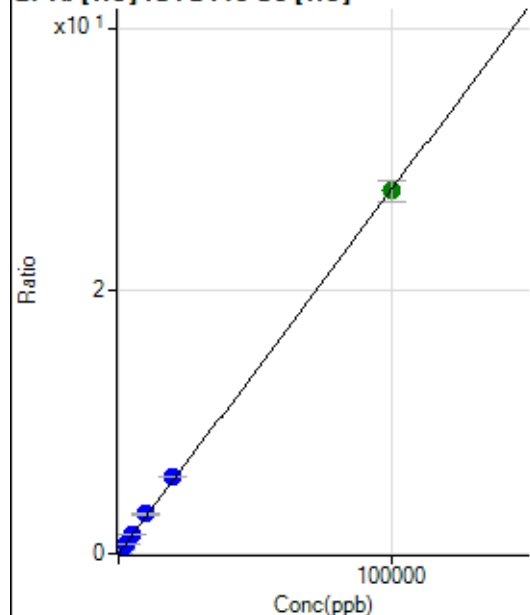
$$R = 0.9999$$

$$DL = 0.4812$$

$$BEC = 3.556$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	92.65	0.0002	P	20.8
2	☐	20.000	18.662	2708.40	0.0054	P	1.3
3	☐	1000.000	1131.429	157002.69	0.3137	P	1.1
4	☐	2500.000	2690.417	368750.41	0.7458	P	2.3
5	☐	5000.000	5428.184	709589.02	1.5045	P	1.1
6	☐	10000.000	10889.249	1380839.77	3.0180	P	1.3
7	☐	20000.000	21056.366	2703384.46	5.8357	P	0.1
8	☐	100000.00	99672.318	13147137.63	27.6233	A	6.2

$$y = 2.7714\text{E-}004 * x + 1.8106\text{E-}004$$

$$R = 0.9999$$

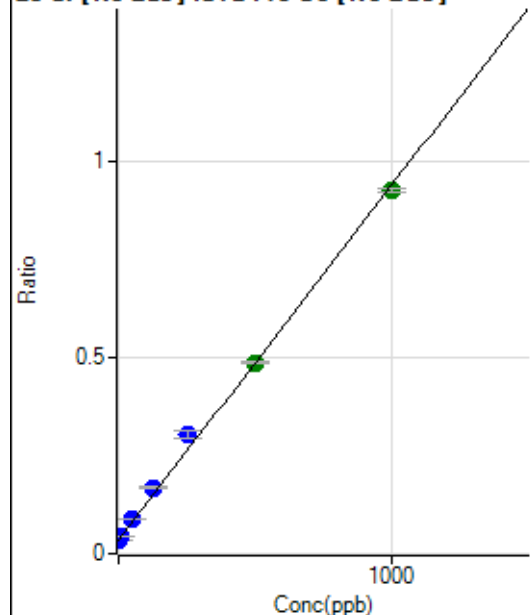
$$DL = 0.4086$$

$$BEC = 0.6533$$

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	508461.21	0.0349	P	0.8
2	☐	10.000	9.502	631202.11	0.0435	P	0.4
3	☐	50.000	58.552	1350225.21	0.0880	P	0.8
4	☐	125.000	148.129	2462606.91	0.1691	P	1.1
5	☐	250.000	297.580	4175046.67	0.3045	P	6.3
6	☐	500.000	500.443	6762689.73	0.4882	A	0.9
7	☐	1000.000	984.569	12682278.58	0.9267	A	0.9
8	☐			712177.37	0.0568	P	1.3

$$y = 9.0574\text{E-}004 * x + 0.0349$$

$$R = 0.9986$$

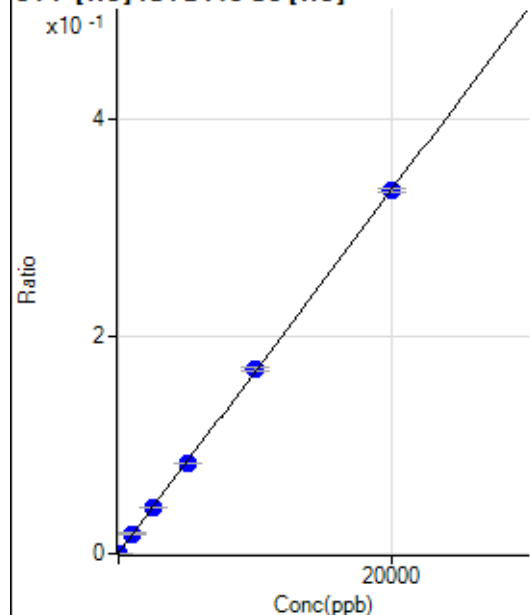
$$DL = 0.9717$$

$$BEC = 38.57$$

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	0.774	325.02	0.0006	P	16.4
2	☐	0.000	-0.774	308.35	0.0006	P	17.8
3	☐	1000.000	1068.806	9250.42	0.0185	P	1.2
4	☐	2500.000	2489.156	20882.03	0.0422	P	1.4
5	☐	5000.000	4941.597	39244.17	0.0832	P	1.7
6	☐	10000.000	10115.752	77632.24	0.1697	P	2.3
7	☐	20000.000	19954.640	154786.02	0.3341	P	1.0
8	☐			427.80	0.0009	P	5.7

$$y = 1.6713\text{E-}005 * x + 6.2244\text{E-}004$$

$$R = 1.0000$$

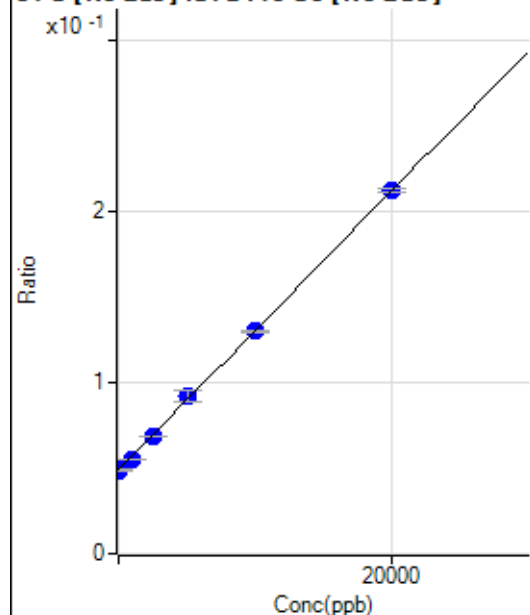
$$DL = 19.12$$

$$BEC = 37.24$$

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	-12.810	709759.13	0.0488	P	0.2
2	☐	0.000	12.810	709921.31	0.0490	P	0.9
3	☐	1000.000	782.968	848026.46	0.0553	P	1.0
4	☐	2500.000	2415.864	998464.19	0.0686	P	0.6
5	☐	5000.000	5307.550	1262894.95	0.0921	P	7.2
6	☐	10000.000	9920.457	1797120.44	0.1297	P	0.6
7	☐	20000.000	19984.252	2898120.88	0.2118	P	1.0
8	☐			568558.99	0.0453	P	2.2

$$y = 8.1514\text{E-}006 * x + 0.0489$$

R = 0.9998

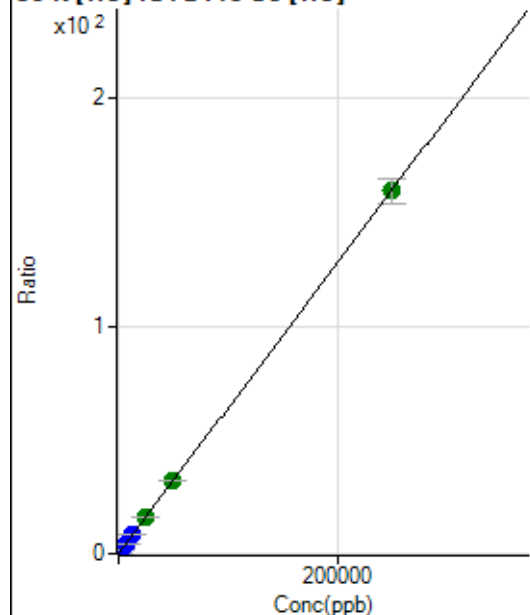
DL = 102.2

BEC = 5995

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	27465.89	0.0537	P	0.3
2	☐	500.000	455.219	174050.57	0.3440	P	0.5
3	☐	2500.000	2659.698	875677.89	1.7500	P	1.4
4	☐	6250.000	6282.372	2007930.45	4.0604	P	0.5
5	☐	12500.000	12675.327	3838022.39	8.1377	P	0.9
6	☐	25000.000	25547.321	7479382.79	16.3472	A	1.3
7	☐	50000.000	50083.341	14822040.27	31.9957	A	0.4
8	☐	250000.00	249917.51	75868224.51	159.4453	A	6.8

$$y = 6.3778\text{E-}004 * x + 0.0537$$

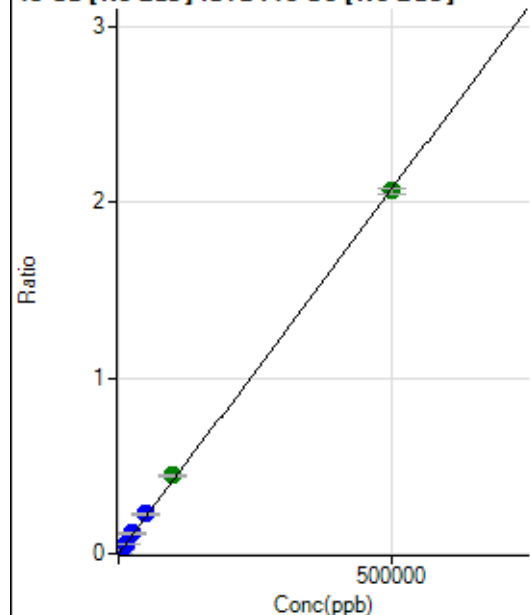
R = 1.0000

DL = 0.8803

BEC = 84.15

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	537.91	0.0000	P	4.1
2	☐	500.000	476.304	29156.83	0.0020	P	1.1
3	☐	5000.000	5280.788	336552.95	0.0219	P	1.1
4	☐	12500.000	13491.610	815007.06	0.0560	P	0.2
5	☐	25000.000	28223.518	1604180.11	0.1170	P	7.2
6	☐	50000.000	54101.209	3107062.82	0.2243	P	0.9
7	☐	100000.00	107148.19	6079020.16	0.4442	A	0.6
8	☐	500000.00	497971.49	25897637.95	2.0643	A	1.8

$$y = 4.1453\text{E-}006 * x + 3.6956\text{E-}005$$

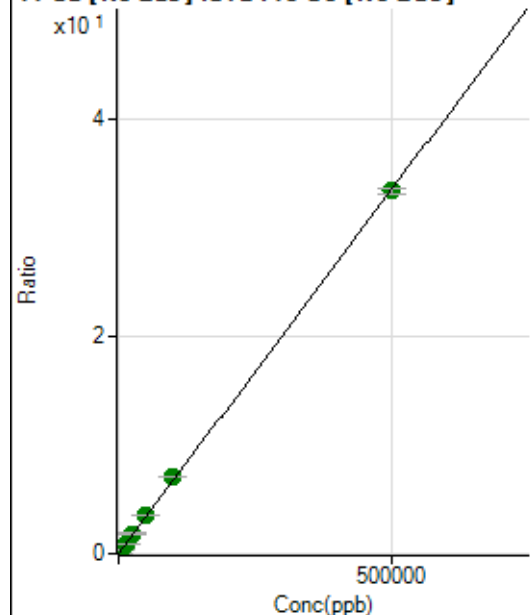
$$R = 0.9999$$

$$DL = 1.087$$

$$BEC = 8.915$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	29608.33	0.0020	P	1.2
2	☐	500.000	472.729	488822.01	0.0337	P	1.0
3	☐	5000.000	5090.690	5268364.86	0.3433	A	1.2
4	☐	12500.000	13085.356	12802830.26	0.8791	A	0.4
5	☐	25000.000	27512.059	25301646.66	1.8461	A	7.6
6	☐	50000.000	53249.553	49470193.99	3.5713	A	0.9
7	☐	100000.00	106128.46	97377851.20	7.1157	A	1.2
8	☐	500000.00	498308.23	419070569.3	33.4029	A	1.3

$$y = 6.7029\text{E-}005 * x + 0.0020$$

$$R = 0.9999$$

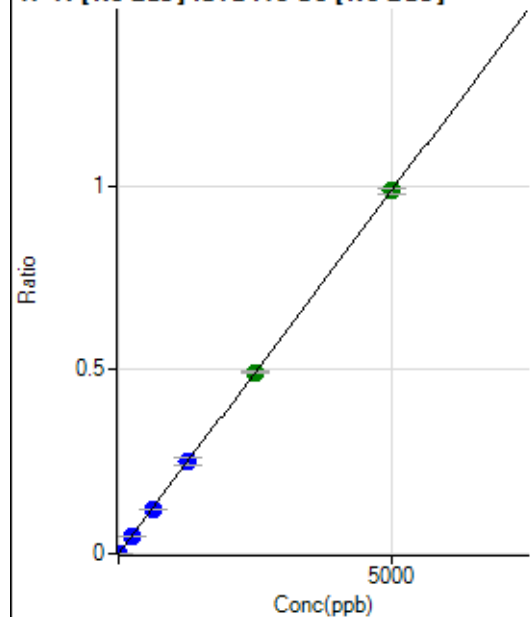
$$DL = 1.056$$

$$BEC = 30.35$$

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	197.23	0.0000	P	19.6
2	☐	5.000	4.366	12689.26	0.0009	P	2.7
3	☐	250.000	237.258	719034.75	0.0468	P	1.3
4	☐	625.000	608.842	1750469.51	0.1202	P	0.4
5	☐	1250.000	1269.577	3435359.88	0.2506	P	7.3
6	☐	2500.000	2497.478	6829313.61	0.4930	A	1.1
7	☐	5000.000	4999.024	13504641.62	0.9868	A	1.4
8	☐			4984.40	0.0004	P	6.7

$$y = 1.9740\text{E-}004 * x + 1.3562\text{E-}005$$

$$R = 1.0000$$

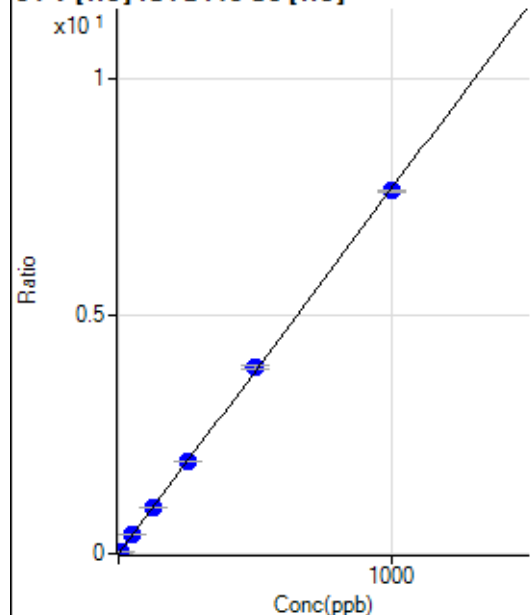
$$DL = 0.04042$$

$$BEC = 0.0687$$

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	11.11	0.0000	P	46.1
2	☐	5.000	4.504	17517.24	0.0346	P	2.0
3	☐	50.000	51.998	199892.89	0.3995	P	1.6
4	☐	125.000	124.348	472370.89	0.9553	P	0.8
5	☐	250.000	252.543	915006.74	1.9401	P	0.7
6	☐	500.000	510.840	1795535.15	3.9243	P	1.1
7	☐	1000.000	993.928	3537018.42	7.6354	P	0.5
8	☐			832.26	0.0017	P	8.6

$$y = 0.0077 * x + 2.1730\text{E-}005$$

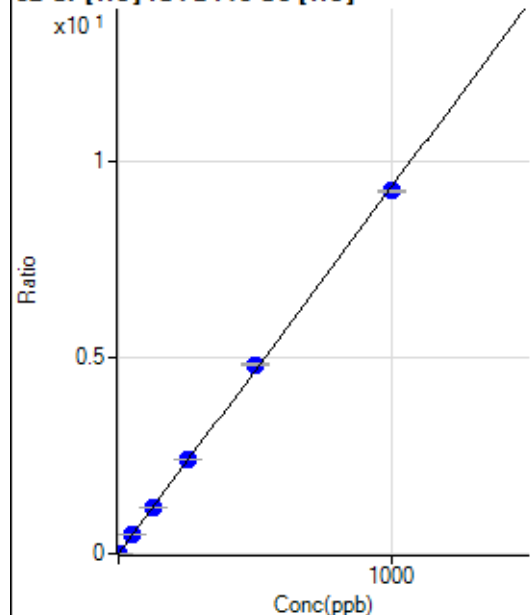
$$R = 0.9999$$

$$DL = 0.003915$$

$$BEC = 0.002829$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	756.70	0.0015	P	10.0
2	☐	2.000	1.776	9161.86	0.0181	P	1.5
3	☐	50.000	53.594	251842.44	0.5033	P	1.4
4	☐	125.000	126.978	588631.59	1.1904	P	0.9
5	☐	250.000	257.660	1138506.10	2.4140	P	0.5
6	☐	500.000	515.950	2211024.10	4.8324	P	1.1
7	☐	1000.000	989.683	4293348.17	9.2680	P	0.2
8	☐			6943.96	0.0146	P	7.5

$$y = 0.0094 * x + 0.0015$$

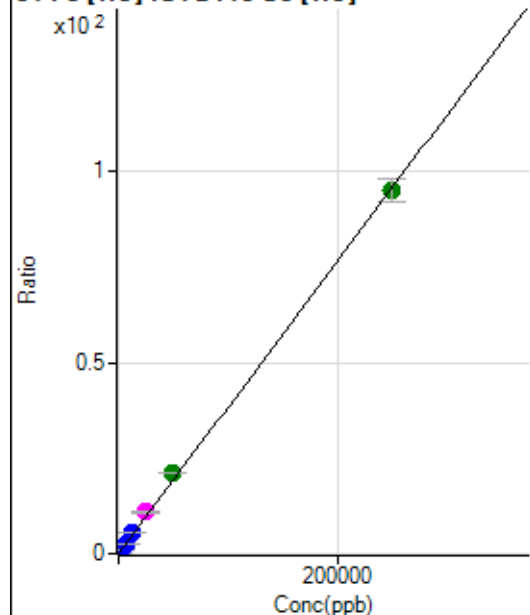
$$R = 0.9998$$

$$DL = 0.04758$$

$$BEC = 0.1579$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	700.55	0.0014	P	6.2
2	☐	50.000	52.242	10794.53	0.0213	P	1.3
3	☐	2500.000	2965.216	567736.45	1.1346	P	1.6
4	☐	6250.000	7055.345	1334004.92	2.6977	P	0.9
5	☐	12500.000	14197.328	2559644.67	5.4272	P	0.6
6	☐	25000.000	28416.688	4970232.46	10.8615	M	0.7
7	☐	50000.000	55382.995	9805885.08	21.1674	A	0.4
8	☐	250000.00	248472.08	45189201.33	94.9612	A	6.5

$$y = 3.8217E-004 * x + 0.0014$$

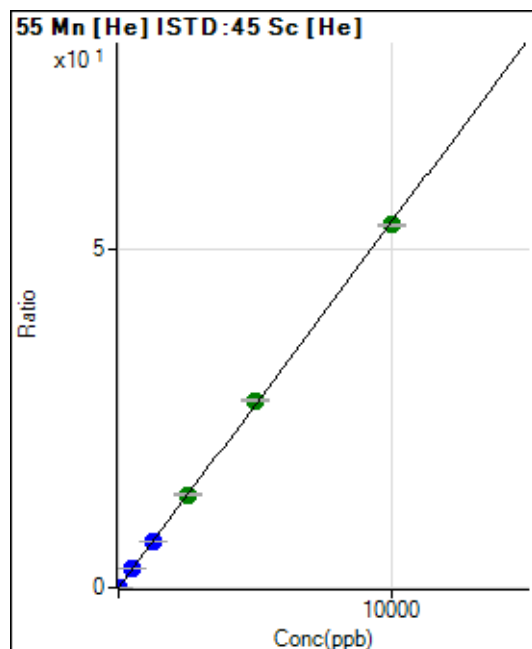
$$R = 0.9997$$

$$DL = 0.671$$

$$BEC = 3.582$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	575.58	0.0011	P	9.1
2	☐	1.000	0.885	2981.46	0.0059	P	4.7
3	☐	500.000	527.047	1421847.76	2.8416	P	1.9
4	☐	1250.000	1254.237	3342878.59	6.7607	P	1.8
5	☐	2500.000	2536.938	6448902.54	13.6737	A	1.3
6	☐	5000.000	5126.775	12642403.70	27.6314	A	1.1
7	☐	10000.000	9925.496	24780756.57	53.4936	A	0.2
8	☐			17256.95	0.0363	P	8.1

$$y = 0.0054 * x + 0.0011$$

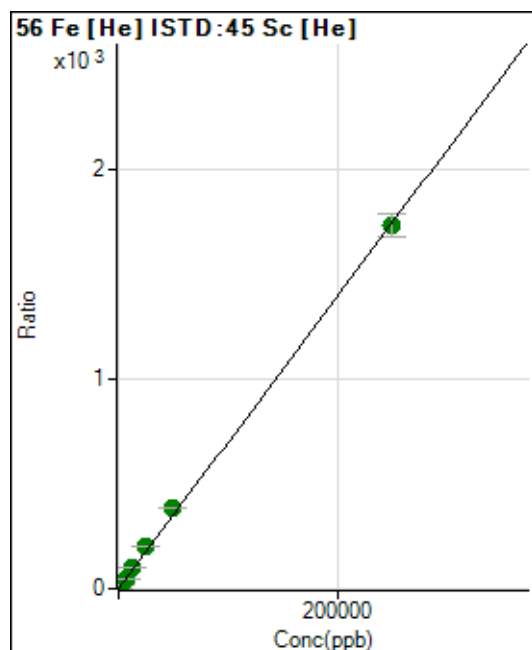
$$R = 0.9999$$

$$DL = 0.05671$$

$$BEC = 0.2086$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7175.04	0.0140	P	2.4
2	☐	50.000	50.610	185474.47	0.3666	P	1.0
3	☐	2500.000	2899.986	10115612.29	20.2160	A	1.7
4	☐	6250.000	6964.760	23997728.33	48.5322	A	1.4
5	☐	12500.000	14077.845	46259654.86	98.0836	A	0.7
6	☐	25000.000	28514.862	90897274.86	198.6553	A	0.8
7	☐	50000.000	55086.144	177769718.8	383.7572	A	0.6
8	☐	250000.00	248530.52	823901837.6	1.731336	A	6.5

$$y = 0.0070 * x + 0.0140$$

$$R = 0.9997$$

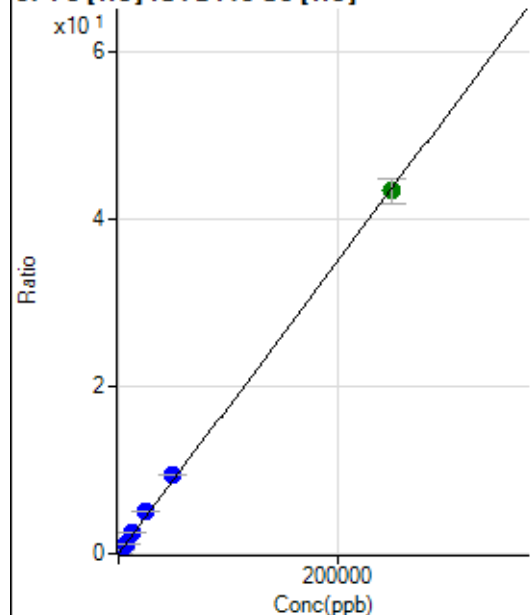
$$DL = 0.1479$$

$$BEC = 2.013$$

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	289.95	0.0006	P	4.7
2	☐	50.000	51.343	4809.20	0.0095	P	0.5
3	☐	2500.000	2949.347	257208.91	0.5140	P	1.7
4	☐	6250.000	7068.454	608754.66	1.2311	P	1.7
5	☐	12500.000	14206.756	1166765.46	2.4739	P	0.7
6	☐	25000.000	28474.690	2268484.50	4.9578	P	0.9
7	☐	50000.000	54376.178	4385599.69	9.4671	P	0.6
8	☐	250000.00	248667.00	20599485.25	43.2920	A	6.8

$$y = 1.7409\text{E-}004 * x + 5.6664\text{E-}004$$

$$R = 0.9998$$

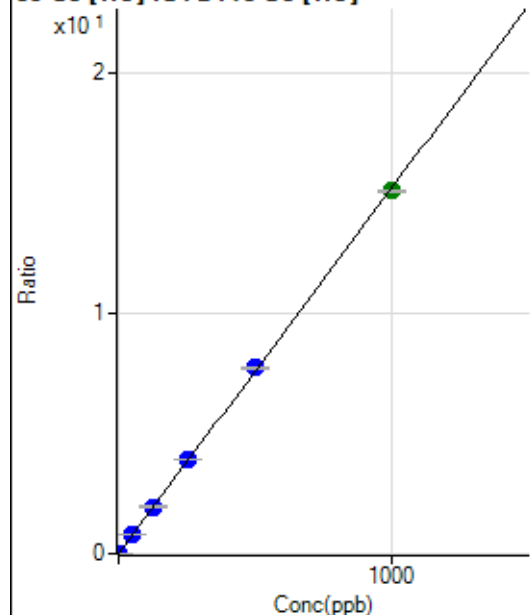
$$DL = 0.462$$

$$BEC = 3.255$$

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	94.45	0.0002	P	20.9
2	☐	1.000	0.941	7320.84	0.0145	P	1.1
3	☐	50.000	53.946	409949.02	0.8193	P	1.7
4	☐	125.000	128.298	963297.12	1.9482	P	1.8
5	☐	250.000	257.816	1846338.43	3.9147	P	0.8
6	☐	500.000	508.816	3534885.78	7.7258	P	1.1
7	☐	1000.000	993.028	6984734.41	15.0778	A	0.5
8	☐			11287.83	0.0237	P	7.0

$$y = 0.0152 * x + 1.8460\text{E-}004$$

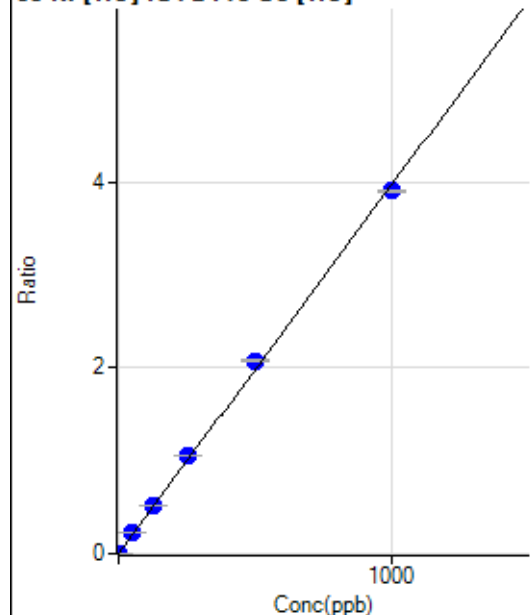
$$R = 0.9999$$

$$DL = 0.007613$$

$$BEC = 0.01216$$

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	322.23	0.0006	P	7.9
2	☐	1.000	0.942	2206.86	0.0044	P	4.5
3	☐	50.000	55.675	110724.14	0.2213	P	2.0
4	☐	125.000	131.027	257102.52	0.5199	P	0.9
5	☐	250.000	263.981	493749.65	1.0469	P	0.5
6	☐	500.000	522.356	947533.92	2.0709	P	1.1
7	☐	1000.000	984.290	1807394.84	3.9017	P	0.8
8	☐			3054.81	0.0064	P	8.0

$$y = 0.0040 * x + 6.2977E-004$$

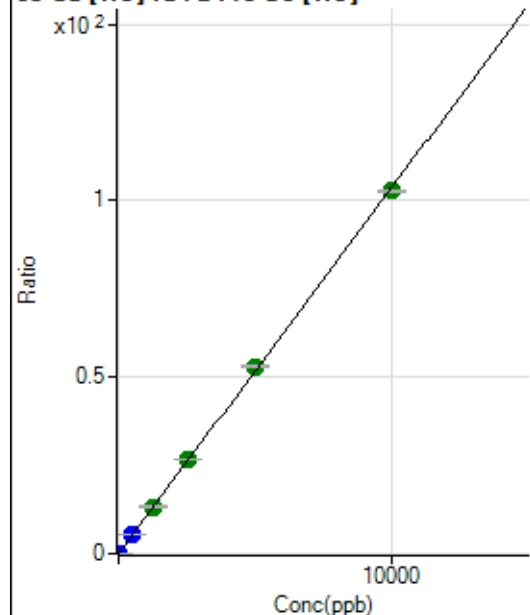
$$R = 0.9995$$

$$DL = 0.0375$$

$$BEC = 0.1589$$

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	671.14	0.0013	P	9.0
2	☐	2.000	2.146	11918.34	0.0236	P	1.3
3	☐	500.000	545.350	2828746.56	5.6534	P	2.0
4	☐	1250.000	1282.364	6572073.72	13.2919	A	2.2
5	☐	2500.000	2567.238	12549609.40	26.6086	A	1.1
6	☐	5000.000	5116.277	24262079.08	53.0272	A	1.2
7	☐	10000.000	9918.739	47622126.51	102.8007	A	0.3
8	☐			11281.17	0.0237	P	9.6

$$y = 0.0104 * x + 0.0013$$

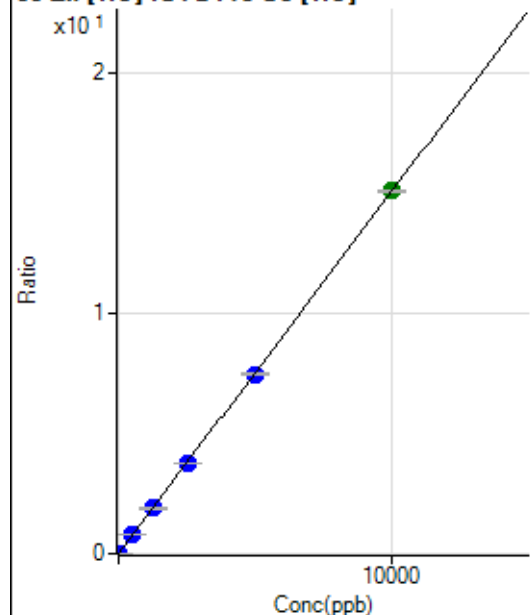
$$R = 0.9999$$

$$DL = 0.03428$$

$$BEC = 0.1266$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1092.28	0.0021	P	4.3
2	☐	2.000	1.759	2418.02	0.0048	P	4.9
3	☐	500.000	526.184	396950.38	0.7933	P	2.0
4	☐	1250.000	1252.543	932313.11	1.8855	P	1.7
5	☐	2500.000	2506.903	1778840.13	3.7716	P	0.5
6	☐	5000.000	4952.536	3408168.28	7.4490	P	1.5
7	☐	10000.000	10020.379	6980779.41	15.0693	A	0.2
8	☐			7560.95	0.0159	P	6.6

$$y = 0.0015 * x + 0.0021$$

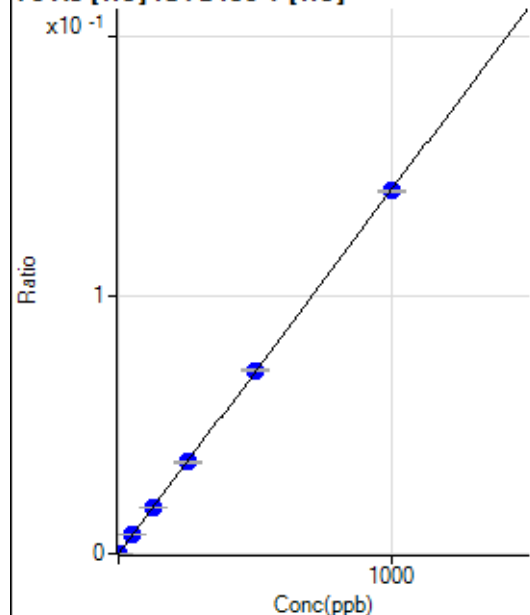
$$R = 1.0000$$

$$DL = 0.181$$

$$BEC = 1.42$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	17.28	0.0000	P	30.9
2	☐	1.000	0.907	433.34	0.0001	P	2.1
3	☐	50.000	52.030	23803.49	0.0073	P	1.5
4	☐	125.000	126.311	57089.20	0.0178	P	1.2
5	☐	250.000	251.712	110162.17	0.0354	P	0.8
6	☐	500.000	504.390	216516.68	0.0710	P	1.2
7	☐	1000.000	997.112	425243.40	0.1403	P	0.8
8	☐			219.14	0.0001	P	21.4

$$y = 1.4071E-004 * x + 5.2803E-006$$

$$R = 1.0000$$

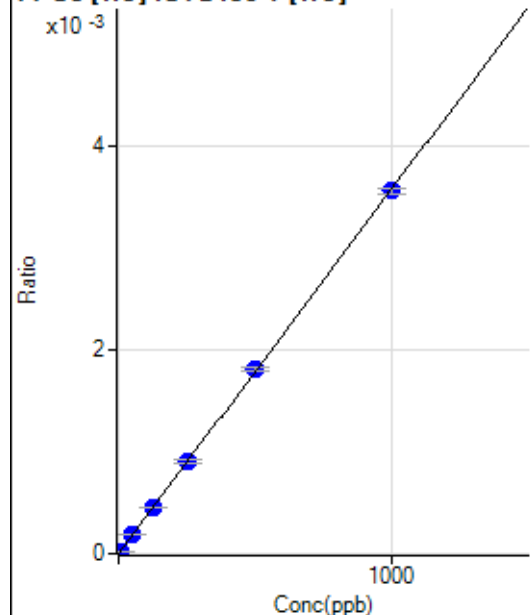
$$DL = 0.03477$$

$$BEC = 0.03753$$

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	0.00	0.0000	P	
2	☐	5.000	4.664	54.45	0.0000	P	12.8
3	☐	50.000	53.519	622.25	0.0002	P	7.0
4	☐	125.000	127.573	1466.76	0.0005	P	1.5
5	☐	250.000	253.283	2820.32	0.0009	P	3.5
6	☐	500.000	505.802	5523.36	0.0018	P	2.5
7	☐	1000.000	995.783	10805.27	0.0036	P	1.3
8	☐			6.67	0.0000	P	45.8

$$y = 3.5802\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 1.0000$$

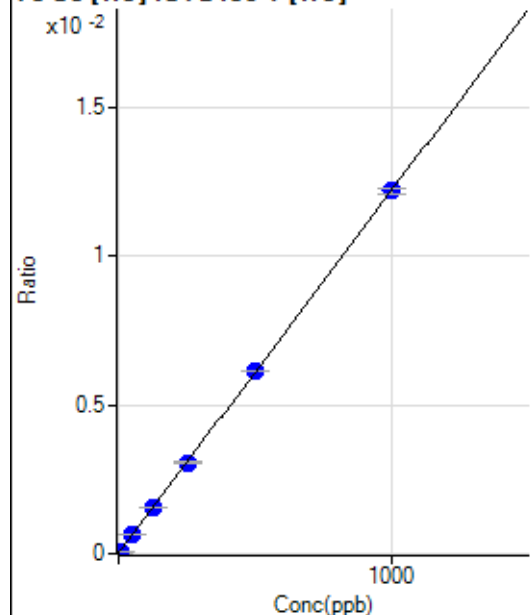
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37.04	0.0000	P	18.1
2	☐	5.000	5.462	253.71	0.0001	P	6.3
3	☐	50.000	51.308	2066.22	0.0006	P	3.0
4	☐	125.000	125.337	4936.68	0.0015	P	1.4
5	☐	250.000	249.753	9492.06	0.0031	P	1.7
6	☐	500.000	501.040	18645.37	0.0061	P	0.3
7	☐	1000.000	999.432	36914.80	0.0122	P	1.5
8	☐			60.49	0.0000	P	9.7

$$y = 1.2175\text{E-}005 * x + 1.1318\text{E-}005$$

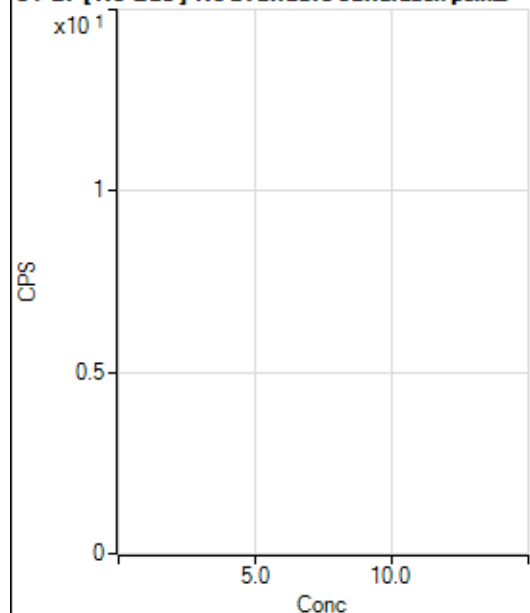
$$R = 1.0000$$

$$DL = 0.5041$$

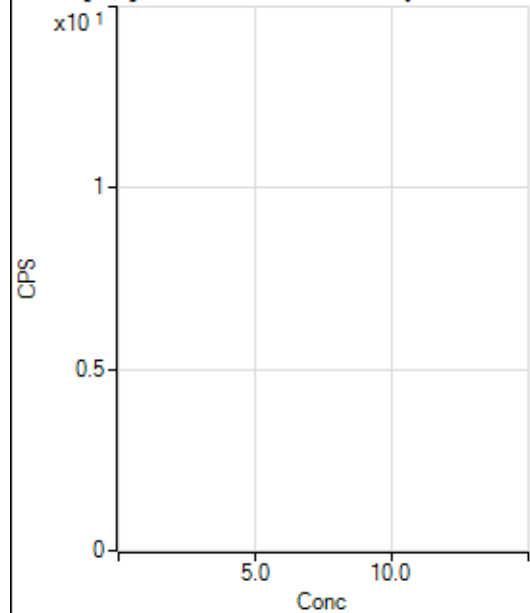
$$BEC = 0.9295$$

Weight: <None>

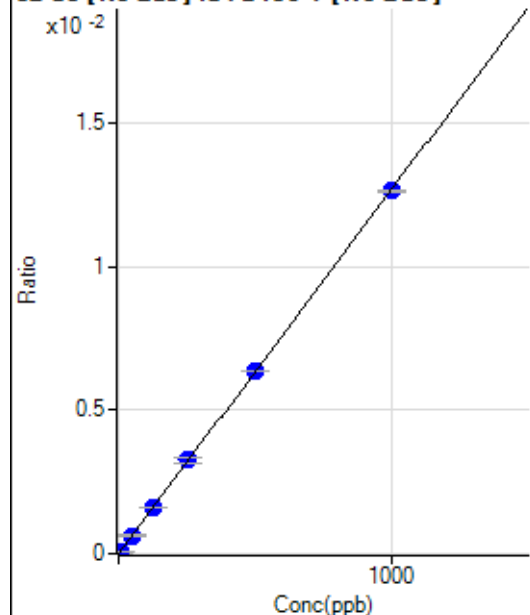
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			52144.48		P	0.1
2	☐			52205.05		P	1.7
3	☐			51464.60		P	0.8
4	☐			50848.57		P	0.6
5	☐			49217.71		P	1.6
6	☐			48019.40		P	0.8
7	☐			48310.54		P	1.0
8	☐			46375.58		P	3.5

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			83.42		P	54.1
2	☐			116.79		P	17.8
3	☐			96.77		P	15.8
4	☐			83.42		P	48.5
5	☐			90.09		P	38.5
6	☐			83.42		P	70.3
7	☐			93.43		P	59.0
8	☐			103.44		P	39.1

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-11.24	0.0000	P	-377.
2	☐	5.000	4.624	1589.19	0.0001	P	4.0
3	☐	50.000	50.024	18213.83	0.0006	P	0.7
4	☐	125.000	126.608	44010.65	0.0016	P	1.1
5	☐	250.000	258.443	86541.97	0.0033	P	6.1
6	☐	500.000	502.594	168367.97	0.0064	P	0.4
7	☐	1000.000	996.392	333359.67	0.0127	P	0.5
8	☐			247.79	0.0000	P	19.0

$$y = 1.2697E-005 * x - 3.9778E-007$$

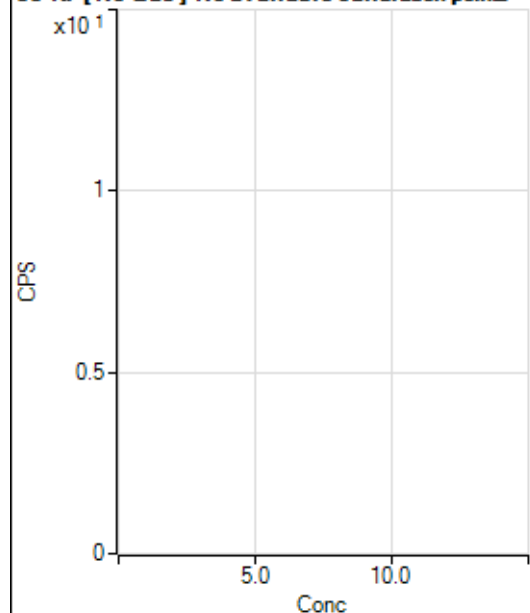
$$R = 1.0000$$

$$DL = 0.3549$$

$$BEC = -0.03133$$

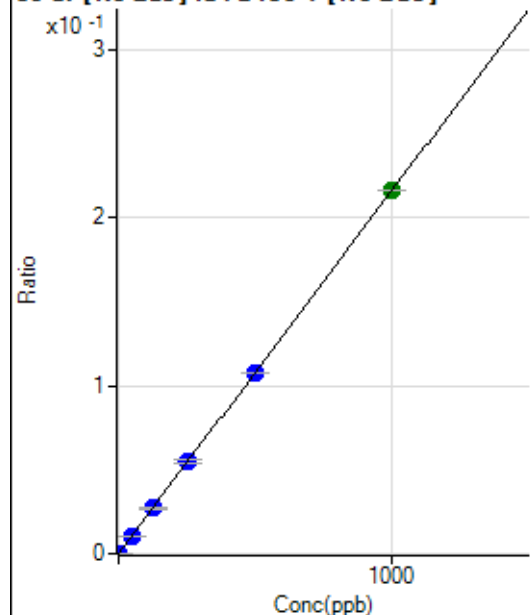
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			443.35		P	8.7
2	☐			442.24		P	1.7
3	☐			405.57		P	10.7
4	☐			436.68		P	3.5
5	☐			386.68		P	6.7
6	☐			435.57		P	10.9
7	☐			465.57		P	14.6
8	☐			518.90		P	8.4

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	711.16	0.0000	P	6.7
2	☐	1.000	0.915	6062.63	0.0002	P	4.4
3	☐	50.000	48.327	299904.81	0.0105	P	1.4
4	☐	125.000	124.730	737685.48	0.0269	P	1.2
5	☐	250.000	254.506	1449185.07	0.0549	P	5.9
6	☐	500.000	496.814	2829080.29	0.1072	P	0.4
7	☐	1000.000	1000.584	5689608.51	0.2159	A	0.2
8	☐			28448.46	0.0012	P	3.0

$$y = 2.1576E-004 * x + 2.5042E-005$$

$$R = 1.0000$$

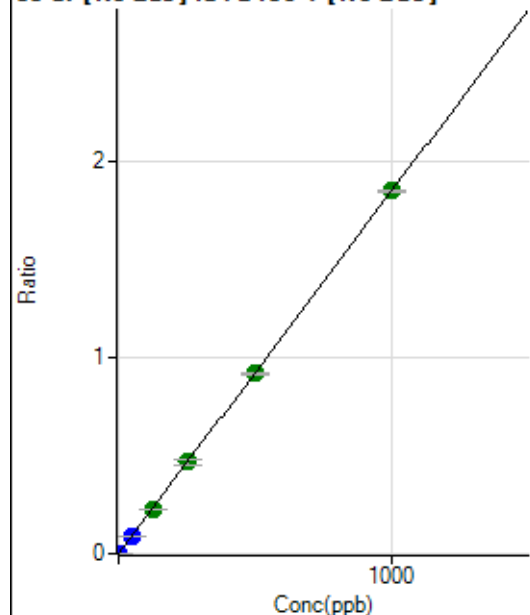
$$DL = 0.0233$$

$$BEC = 0.1161$$

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	402.80	0.0000	P	6.0
2	☐	1.000	0.916	46610.28	0.0017	P	0.7
3	☐	50.000	48.175	2559456.20	0.0892	P	1.3
4	☐	125.000	122.186	6195347.32	0.2262	A	0.3
5	☐	250.000	253.846	12396986.56	0.4700	A	5.9
6	☐	500.000	497.016	24279037.70	0.9202	A	0.7
7	☐	1000.000	1000.974	48832793.45	1.8532	A	0.3
8	☐			240377.64	0.0102	P	2.4

$$y = 0.0019 * x + 1.4185E-005$$

$$R = 1.0000$$

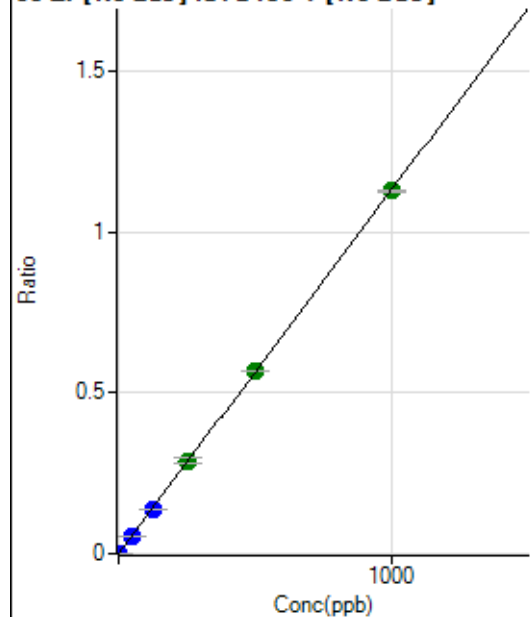
$$DL = 0.00139$$

$$BEC = 0.007662$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1630.72	0.0001	P	7.0
2	☐	1.000	0.794	26024.65	0.0010	P	0.7
3	☐	50.000	47.476	1541294.45	0.0537	P	2.1
4	☐	125.000	123.192	3814826.60	0.1393	P	0.6
5	☐	250.000	255.699	7625084.55	0.2891	A	6.0
6	☐	500.000	502.896	15000036.10	0.5685	A	0.4
7	☐	1000.000	997.480	29711285.38	1.1275	A	0.4
8	☐			11708.05	0.0005	P	6.5

$$y = 0.0011 * x + 5.7418E-005$$

$$R = 1.0000$$

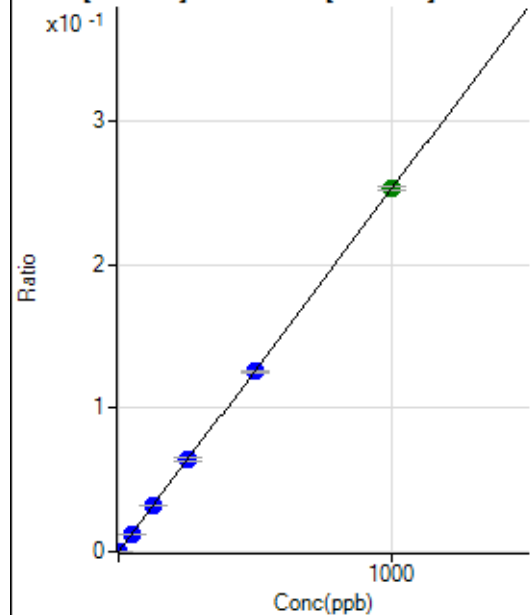
$$DL = 0.01062$$

$$BEC = 0.0508$$

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	288.90	0.0000	P	18.4
2	☐	1.000	0.785	5679.10	0.0002	P	5.8
3	☐	50.000	48.140	348877.87	0.0122	P	1.6
4	☐	125.000	125.674	868816.19	0.0317	P	0.9
5	☐	250.000	255.525	1701695.98	0.0645	P	5.2
6	☐	500.000	496.518	3306562.73	0.1253	P	1.0
7	☐	1000.000	1000.369	6652870.15	0.2525	A	0.9
8	☐			2580.90	0.0001	P	4.6

$$y = 2.5237E-004 * x + 1.0172E-005$$

$$R = 1.0000$$

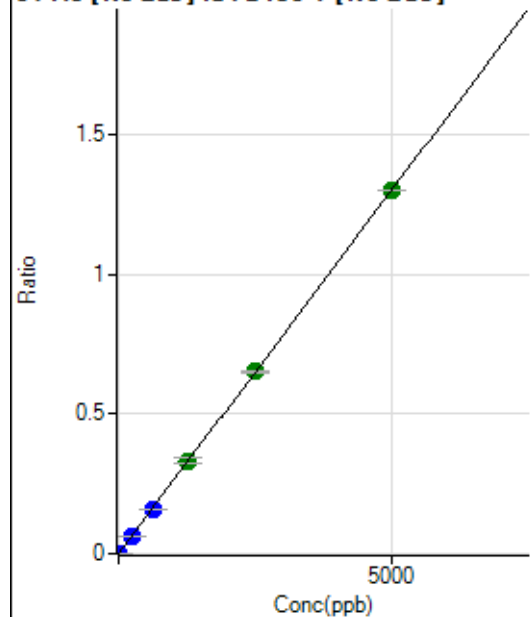
$$DL = 0.02227$$

$$BEC = 0.04031$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	536.14	0.0000	P	12.3
2	☐	5.000	4.213	30349.78	0.0011	P	2.3
3	☐	250.000	240.128	1790607.29	0.0624	P	1.3
4	☐	625.000	613.337	4364350.05	0.1594	P	0.7
5	☐	1250.000	1275.168	8740524.50	0.3313	A	5.6
6	☐	2500.000	2504.097	17166575.56	0.6506	A	1.0
7	☐	5000.000	4993.612	34188097.29	1.2974	A	0.1
8	☐			14777.65	0.0006	P	1.9

$$y = 2.5981E-004 * x + 1.8877E-005$$

$$R = 1.0000$$

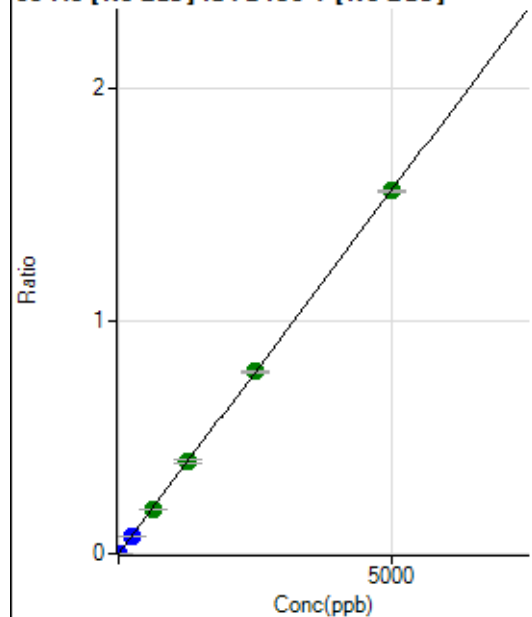
$$DL = 0.02682$$

$$BEC = 0.07266$$

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	88.90	0.0000	P	11.1
2	☐	5.000	4.561	38928.95	0.0014	P	1.0
3	☐	250.000	239.752	2149453.63	0.0749	P	1.8
4	☐	625.000	617.322	5282206.20	0.1929	A	1.1
5	☐	1250.000	1277.431	10534114.91	0.3991	A	4.3
6	☐	2500.000	2503.389	20638787.44	0.7822	A	1.0
7	☐	5000.000	4992.920	41109413.76	1.5601	A	0.7
8	☐			16930.08	0.0007	P	3.1

$$y = 3.1246E-004 * x + 3.1309E-006$$

$$R = 1.0000$$

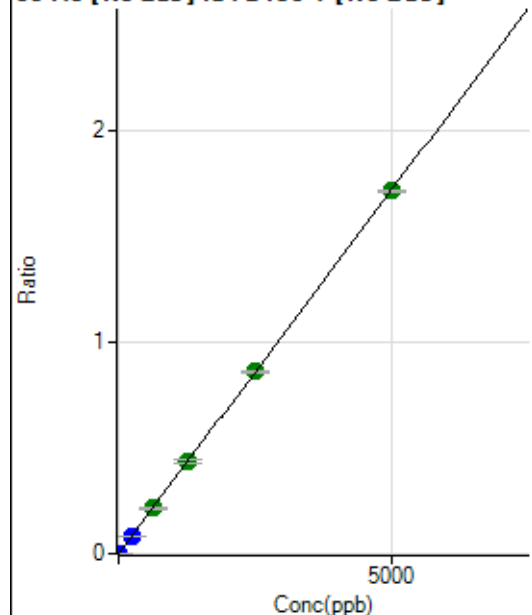
$$DL = 0.003323$$

$$BEC = 0.01002$$

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	202.79	0.0000	P	31.4
2	☐	5.000	4.539	42809.79	0.0016	P	0.6
3	☐	250.000	241.839	2390341.76	0.0833	P	1.5
4	☐	625.000	622.723	5874243.45	0.2145	A	0.8
5	☐	1250.000	1277.419	11610538.71	0.4400	A	4.9
6	☐	2500.000	2508.981	22803444.26	0.8642	A	1.1
7	☐	5000.000	4989.348	45286888.86	1.7186	A	0.7
8	☐			37096.51	0.0016	P	2.1

$$y = 3.4445\text{E-}004 * x + 7.1422\text{E-}006$$

$$R = 1.0000$$

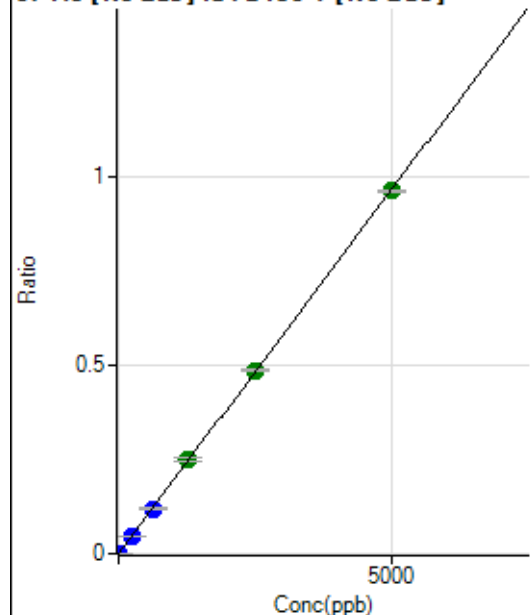
$$DL = 0.01955$$

$$BEC = 0.02073$$

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	69.45	0.0000	P	13.7
2	☐	5.000	4.608	24382.84	0.0009	P	3.3
3	☐	250.000	244.250	1356866.10	0.0473	P	1.3
4	☐	625.000	618.217	3277632.91	0.1197	P	1.2
5	☐	1250.000	1288.023	6579776.58	0.2494	A	5.0
6	☐	2500.000	2515.837	12851749.33	0.4871	A	0.7
7	☐	5000.000	4983.711	25425045.71	0.9649	A	0.5
8	☐			10651.65	0.0005	P	1.8

$$y = 1.9360\text{E-}004 * x + 2.4450\text{E-}006$$

$$R = 1.0000$$

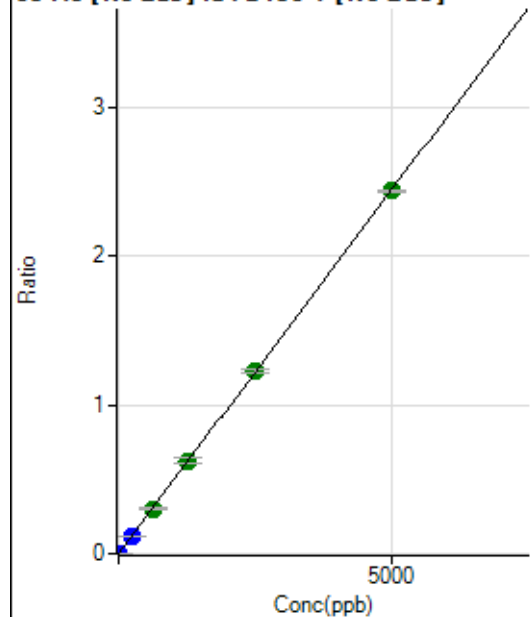
$$DL = 0.005173$$

$$BEC = 0.01263$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172.23	0.0000	P	22.0
2	☐	5.000	4.565	61051.11	0.0022	P	0.8
3	☐	250.000	244.300	3430295.82	0.1196	P	1.7
4	☐	625.000	620.605	8316975.19	0.3037	A	0.7
5	☐	1250.000	1279.030	16515884.57	0.6259	A	4.8
6	☐	2500.000	2509.891	32407758.71	1.2282	A	1.2
7	☐	5000.000	4988.632	64329452.13	2.4412	A	0.3
8	☐			25838.24	0.0011	P	4.6

$$y = 4.8936\text{E-}004 * x + 6.0663\text{E-}006$$

$$R = 1.0000$$

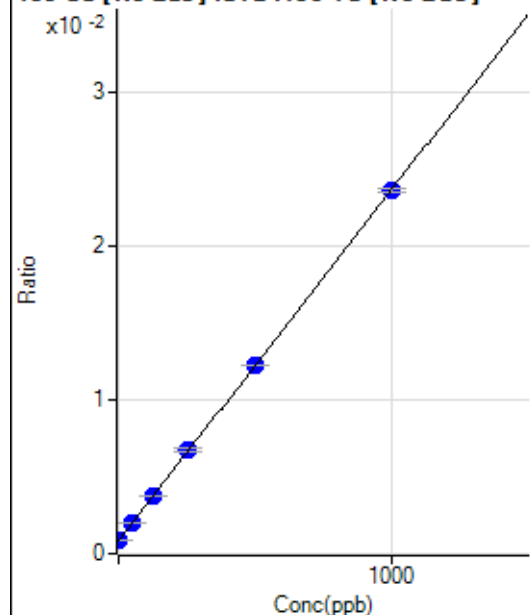
$$DL = 0.008177$$

$$BEC = 0.0124$$

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	19959.18	0.0008	P	0.8
2	☐	1.000	1.748	20025.92	0.0009	P	1.5
3	☐	50.000	50.766	48355.91	0.0020	P	2.3
4	☐	125.000	129.205	87123.59	0.0038	P	0.4
5	☐	250.000	261.111	151968.59	0.0068	P	3.5
6	☐	500.000	499.539	277358.90	0.0122	P	0.6
7	☐	1000.000	996.888	529844.87	0.0236	P	0.9
8	☐			15650.80	0.0008	P	0.7

$$y = 2.2798\text{E-}005 * x + 8.3411\text{E-}004$$

$$R = 0.9999$$

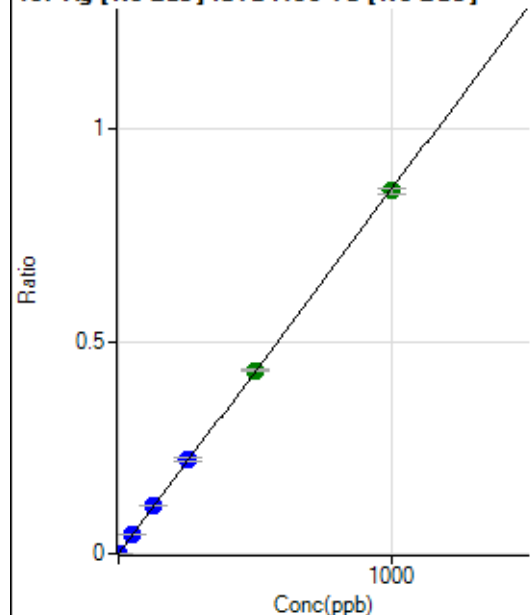
$$DL = 0.9098$$

$$BEC = 36.59$$

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	269.46	0.0000	P	18.5
2	☐	1.000	0.967	19300.02	0.0008	P	4.1
3	☐	50.000	51.881	1082633.54	0.0446	P	1.6
4	☐	125.000	131.722	2608428.10	0.1132	P	1.7
5	☐	250.000	258.634	4972353.80	0.2222	P	5.5
6	☐	500.000	502.897	9804335.38	0.4321	A	0.8
7	☐	1000.000	995.458	19232118.31	0.8552	A	1.5
8	☐			5406.80	0.0003	P	2.3

$$y = 8.5911\text{E-}004 * x + 1.1278\text{E-}005$$

$$R = 0.9999$$

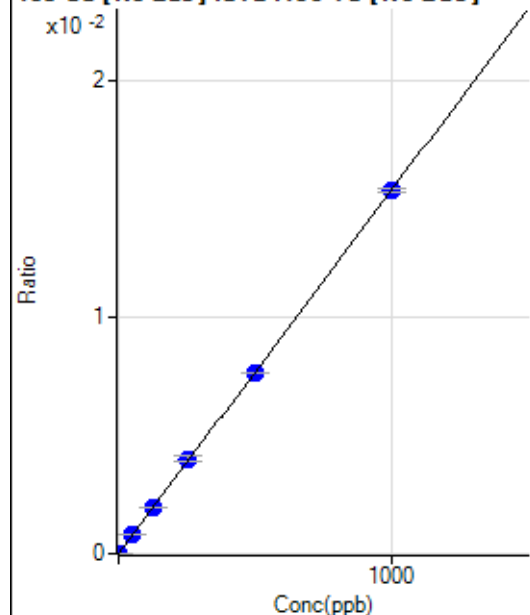
$$DL = 0.007287$$

$$BEC = 0.01313$$

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	47.22	0.0000	P	12.5
2	☐	1.000	0.832	337.51	0.0000	P	13.3
3	☐	50.000	51.338	19181.30	0.0008	P	1.8
4	☐	125.000	128.806	45609.59	0.0020	P	0.7
5	☐	250.000	260.425	89455.18	0.0040	P	6.4
6	☐	500.000	497.303	173241.23	0.0076	P	0.5
7	☐	1000.000	998.200	344570.72	0.0153	P	0.9
8	☐			308.34	0.0000	P	10.6

$$y = 1.5348\text{E-}005 * x + 1.9723\text{E-}006$$

$$R = 0.9999$$

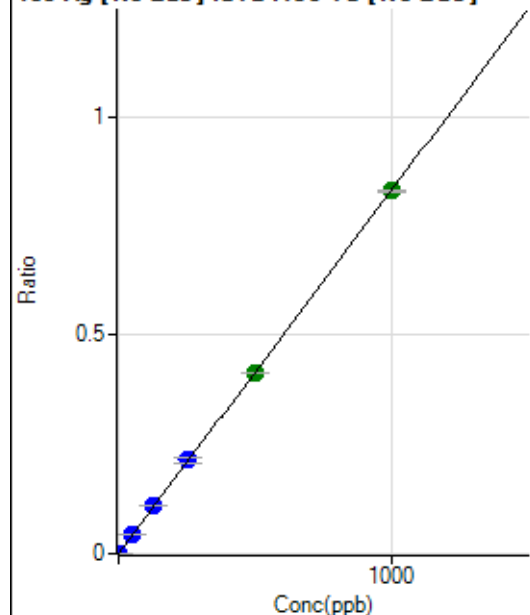
$$DL = 0.048$$

$$BEC = 0.1285$$

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	77.78	0.0000	P	4.9
2	☐	1.000	0.975	18668.59	0.0008	P	2.5
3	☐	50.000	51.473	1040334.88	0.0428	P	2.4
4	☐	125.000	130.858	2510359.15	0.1089	P	1.1
5	☐	250.000	257.547	4795497.85	0.2144	P	6.3
6	☐	500.000	497.710	9400498.22	0.4143	A	0.6
7	☐	1000.000	998.453	18689011.01	0.8310	A	0.3
8	☐			5137.26	0.0003	P	6.4

$$y = 8.3231\text{E-}004 * x + 3.2495\text{E-}006$$

$$R = 1.0000$$

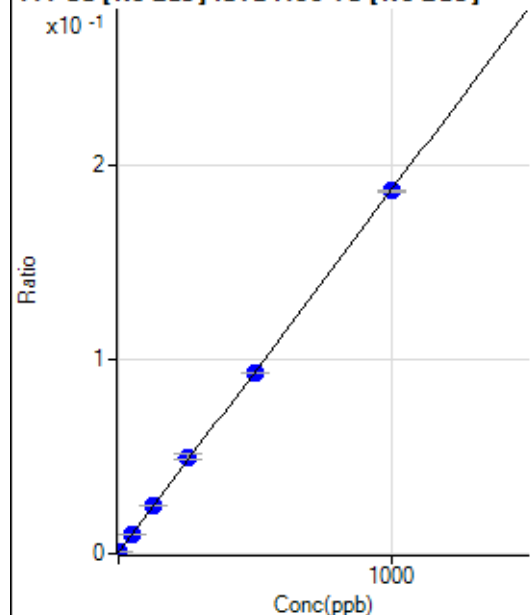
$$DL = 0.0005708$$

$$BEC = 0.003904$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13953.65	0.0006	P	0.9
2	☐	1.000	1.028	17758.91	0.0008	P	1.2
3	☐	50.000	51.042	245602.40	0.0101	P	2.1
4	☐	125.000	130.623	575666.22	0.0250	P	0.1
5	☐	250.000	263.904	1115646.35	0.0499	P	5.9
6	☐	500.000	496.363	2116566.62	0.0933	P	0.4
7	☐	1000.000	997.588	4202344.82	0.1869	P	0.8
8	☐			12360.68	0.0006	P	0.9

$$y = 1.8674\text{E-}004 * x + 5.8313\text{E-}004$$

$$R = 0.9999$$

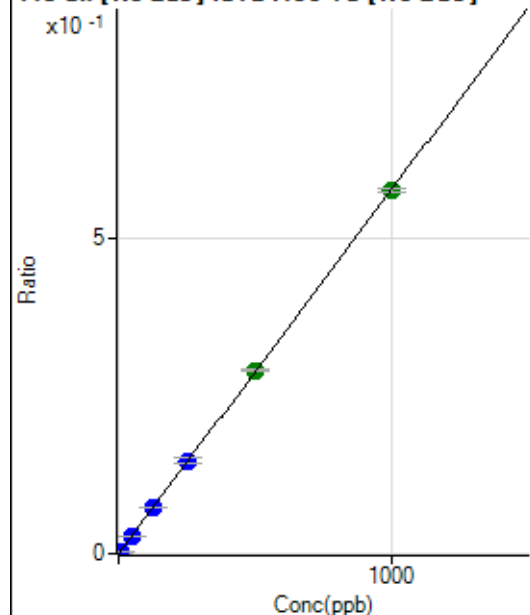
$$DL = 0.08303$$

$$BEC = 3.123$$

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	1441.81	0.0001	P	3.6
2	☐	5.000	4.577	61727.81	0.0027	P	3.0
3	☐	50.000	49.118	687836.27	0.0283	P	2.7
4	☐	125.000	126.482	1679168.22	0.0729	P	0.7
5	☐	250.000	255.667	3293751.35	0.1472	P	5.7
6	☐	500.000	503.770	6580593.77	0.2900	A	0.5
7	☐	1000.000	996.559	12898832.84	0.5736	A	1.1
8	☐			5962.62	0.0003	P	1.5

$$y = 5.7552\text{E-}004 * x + 6.0241\text{E-}005$$

$$R = 1.0000$$

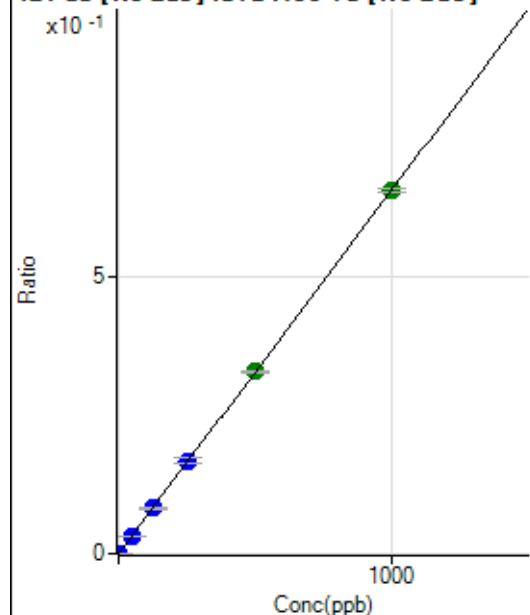
$$DL = 0.01141$$

$$BEC = 0.1047$$

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	88.89	0.0000	P	40.9
2	☐	2.000	1.748	26325.63	0.0011	P	0.9
3	☐	50.000	48.684	774824.33	0.0319	P	1.8
4	☐	125.000	124.763	1884593.42	0.0818	P	0.7
5	☐	250.000	254.896	3737852.47	0.1670	P	5.6
6	☐	500.000	500.489	7443015.88	0.3280	A	0.1
7	☐	1000.000	998.627	14717095.64	0.6544	A	1.0
8	☐			15500.83	0.0008	P	8.4

$$y = 6.5534\text{E-}004 * x + 3.6989\text{E-}006$$

$$R = 1.0000$$

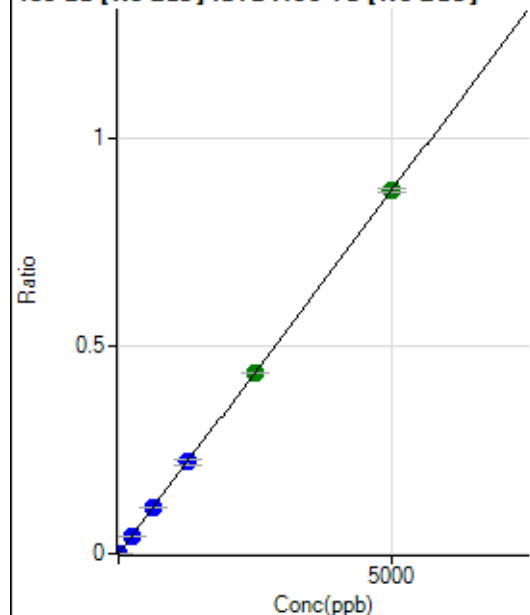
$$DL = 0.006929$$

$$BEC = 0.005644$$

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	130.56	0.0000	P	50.3
2	☐	10.000	9.066	36454.39	0.0016	P	0.8
3	☐	250.000	244.809	1039594.66	0.0428	P	2.9
4	☐	625.000	627.355	2528736.28	0.1097	P	1.2
5	☐	1250.000	1262.889	4942113.22	0.2209	P	5.5
6	☐	2500.000	2497.268	9910236.68	0.4367	A	0.2
7	☐	5000.000	4998.111	19655566.76	0.8741	A	1.1
8	☐			31202.66	0.0016	P	1.2

$$y = 1.7488\text{E-}004 * x + 5.4672\text{E-}006$$

$$R = 1.0000$$

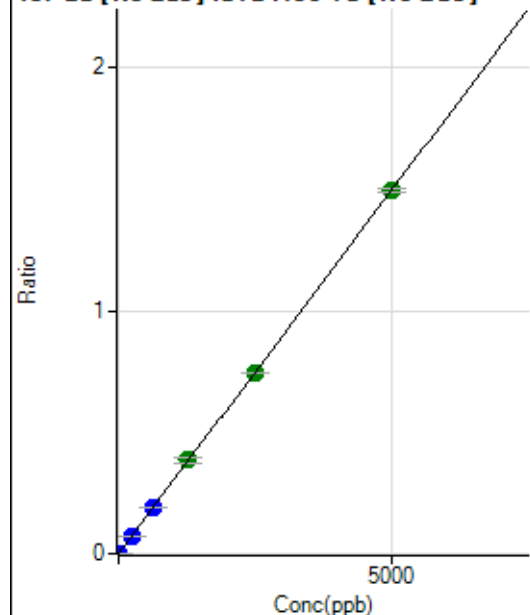
$$DL = 0.04713$$

$$BEC = 0.03126$$

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	261.13	0.0000	P	14.5
2	☐	10.000	9.164	62996.51	0.0027	P	0.2
3	☐	250.000	247.238	1794186.56	0.0739	P	2.5
4	☐	625.000	625.529	4308570.10	0.1869	P	1.0
5	☐	1250.000	1286.908	8605434.65	0.3846	A	5.5
6	☐	2500.000	2493.203	16906933.19	0.7450	A	0.4
7	☐	5000.000	4994.245	33561225.75	1.4924	A	1.1
8	☐			55177.43	0.0028	P	1.0

$$y = 2.9883\text{E-}004 * x + 1.0929\text{E-}005$$

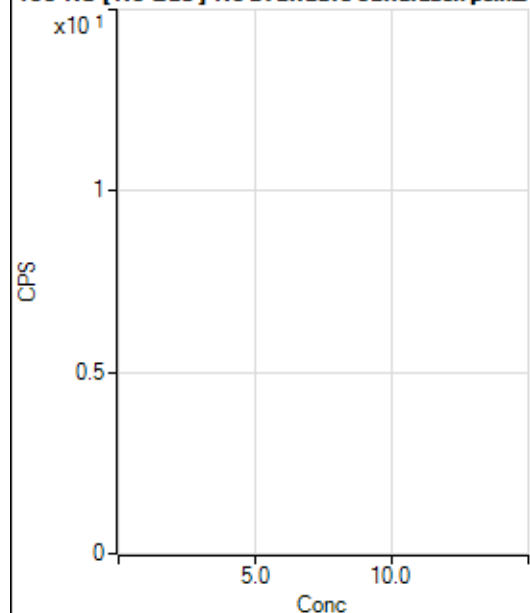
$$R = 1.0000$$

$$DL = 0.01587$$

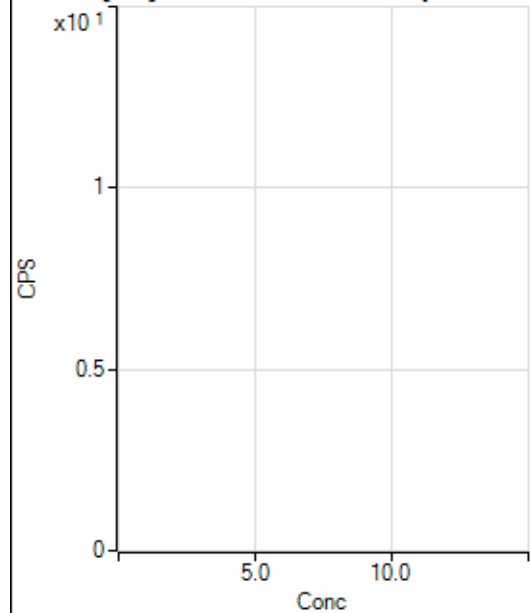
$$BEC = 0.03657$$

Weight: <None>

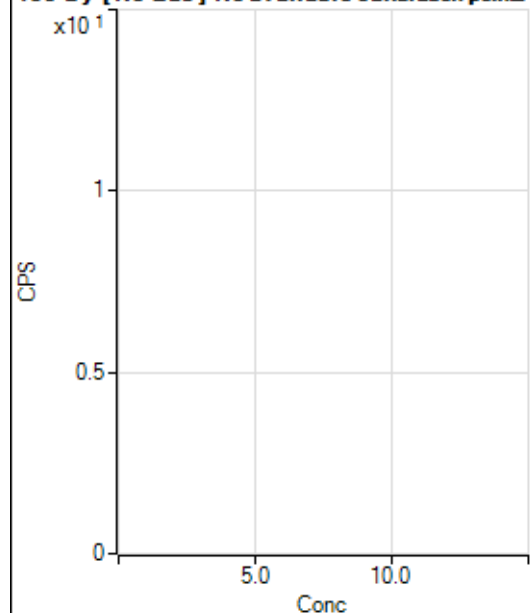
Min Conc: 0

150 Nd [No Gas] No available calibration points

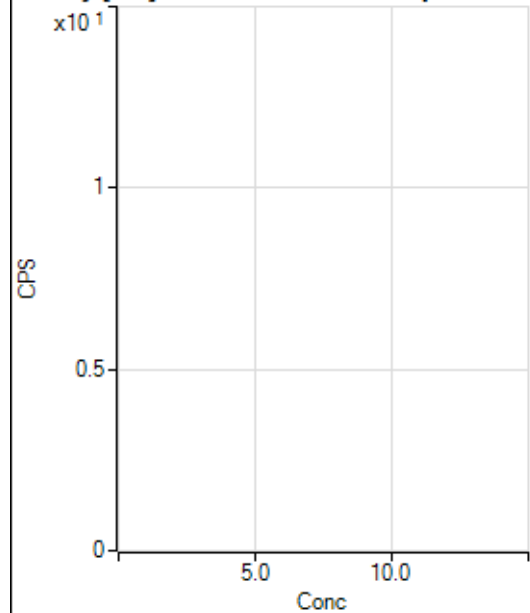
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	173.2
2	☐			15.55		P	24.8
3	☐			180.01		P	39.0
4	☐			342.24		P	21.4
5	☐			668.93		P	3.2
6	☐			1315.67		P	7.7
7	☐			2502.53		P	0.9
8	☐			77.78		P	19.8

150 Nd [He] No available calibration points

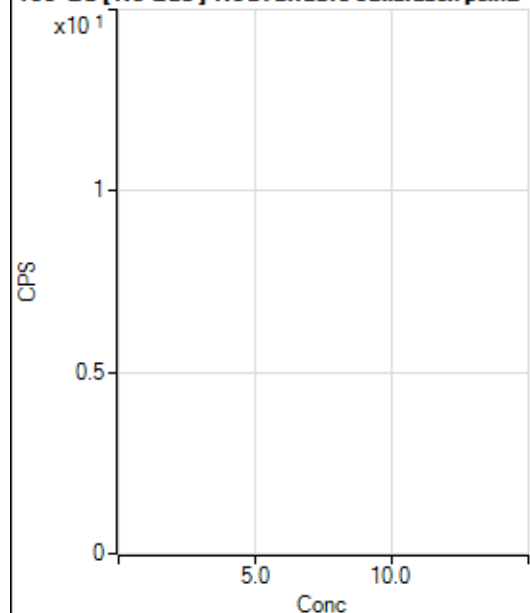
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐			0.00		P	
3	☐			11.11		P	34.6
4	☐			31.11		P	24.7
5	☐			53.33		P	22.5
6	☐			120.00		P	29.0
7	☐			172.22		P	13.6
8	☐			17.78		P	54.1

156 Dy [No Gas] No available calibration points

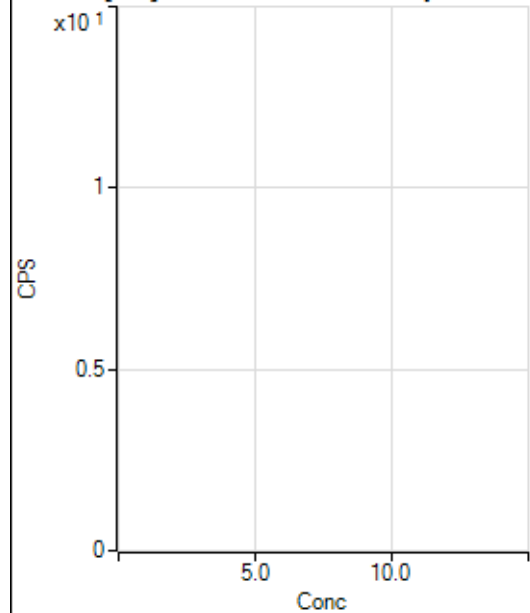
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	25.0
2	☐			41.67		P	40.0
3	☐			75.00		P	40.1
4	☐			125.01		P	17.6
5	☐			200.01		P	19.1
6	☐			402.80		P	15.3
7	☐			733.39		P	8.0
8	☐			1058.43		P	4.8

156 Dy [He] No available calibration points

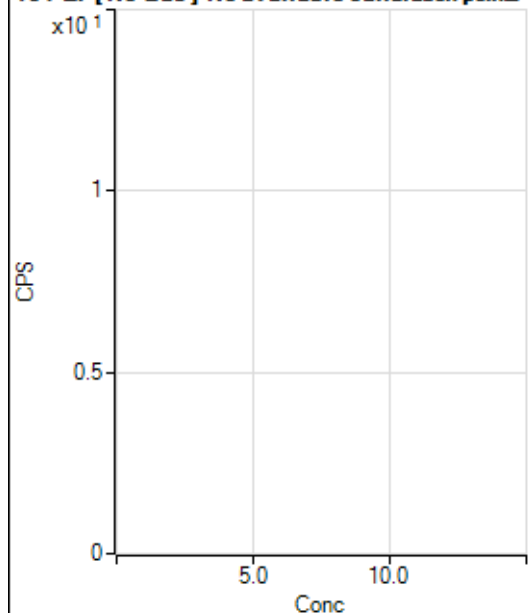
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	25.0
2	☐			15.55		P	44.6
3	☐			50.00		P	24.0
4	☐			62.22		P	8.2
5	☐			116.67		P	8.6
6	☐			264.45		P	16.8
7	☐			483.35		P	10.8
8	☐			508.91		P	1.4

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

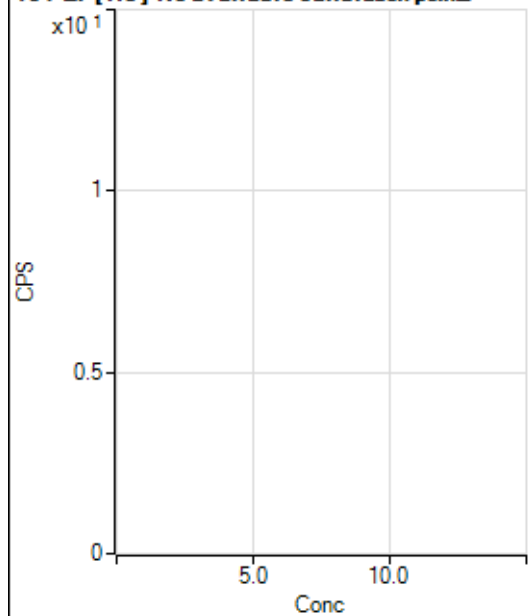
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			263.90		P	12.8
2	☐			275.01		P	3.0
3	☐			313.91		P	1.5
4	☐			238.90		P	23.2
5	☐			358.36		P	4.0
6	☐			386.13		P	21.6
7	☐			486.14		P	13.7
8	☐			1275.12		P	12.5

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			472.24		P	11.0
2	☐			430.01		P	3.9
3	☐			434.46		P	9.2
4	☐			452.24		P	4.5
5	☐			424.46		P	9.8
6	☐			506.69		P	11.0
7	☐			525.58		P	4.1
8	☐			955.60		P	4.5

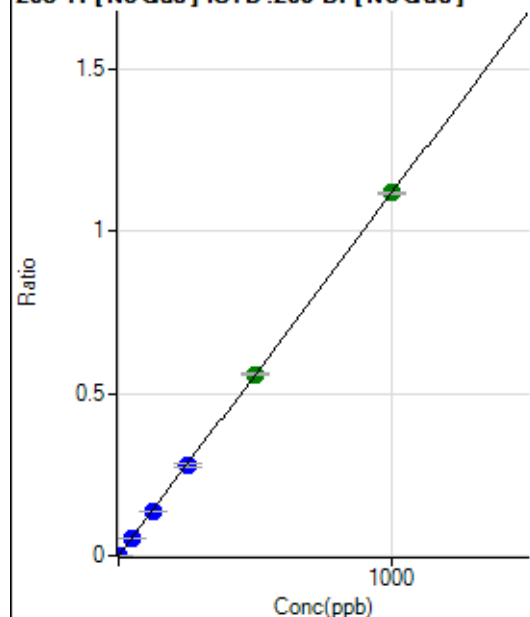
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			133.34		P	6.2
2	☐			116.67		P	39.8
3	☐			69.45		P	13.9
4	☐			108.34		P	46.8
5	☐			111.12		P	17.3
6	☐			138.90		P	42.1
7	☐			222.23		P	17.7
8	☐			247.24		P	21.4

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			48.89		P	14.2
2	☐			43.33		P	30.8
3	☐			63.33		P	10.5
4	☐			55.56		P	33.0
5	☐			50.00		P	17.6
6	☐			63.33		P	31.6
7	☐			102.23		P	1.9
8	☐			94.44		P	20.1

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.00	0.0000	P	18.5
2	☐	1.000	0.825	12584.27	0.0009	P	0.7
3	☐	50.000	47.339	739979.64	0.0528	P	1.8
4	☐	125.000	119.766	1776161.11	0.1337	P	0.6
5	☐	250.000	247.969	3555793.00	0.2767	P	4.8
6	☐	500.000	500.254	7044374.46	0.5583	A	0.8
7	☐	1000.000	1001.168	13569995.10	1.1173	A	0.5
8	☐			2264.19	0.0002	P	15.1

$$y = 0.0011 * x + 5.4518E-006$$

$$R = 1.0000$$

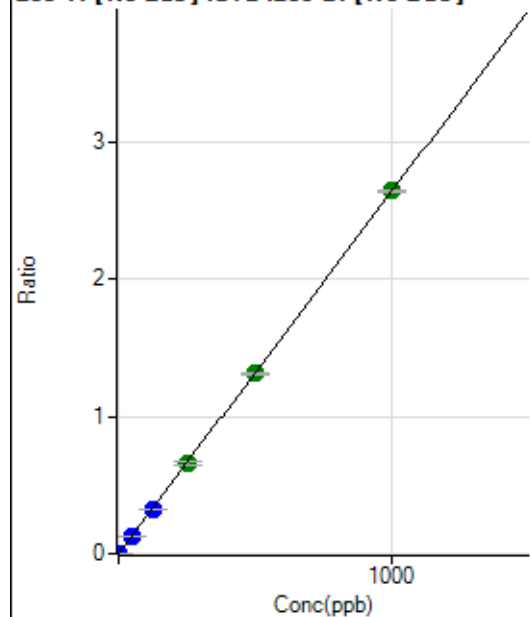
$$DL = 0.002707$$

$$BEC = 0.004885$$

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	219.46	0.0000	P	1.6
2	☐	1.000	0.858	30967.75	0.0023	P	4.6
3	☐	50.000	47.508	1755385.11	0.1253	P	2.0
4	☐	125.000	120.640	4228974.14	0.3183	P	0.9
5	☐	250.000	249.083	8444351.84	0.6571	A	4.3
6	☐	500.000	496.935	16540467.91	1.3109	A	1.2
7	☐	1000.000	1002.431	32115847.59	2.6443	A	0.8
8	☐			5715.38	0.0006	P	7.5

$$y = 0.0026 * x + 1.5965E-005$$

$$R = 1.0000$$

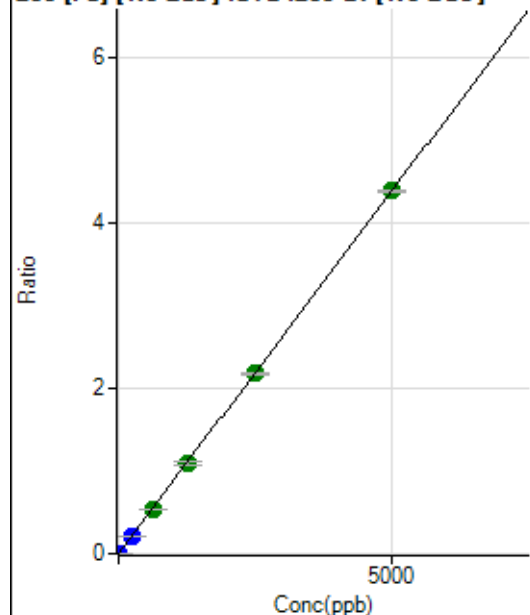
$$DL = 0.0002983$$

$$BEC = 0.006052$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	416.69	0.0000	P	10.1
2	☐	1.000	0.936	11531.19	0.0008	P	2.5
3	☐	250.000	240.125	2943494.57	0.2102	P	1.5
4	☐	625.000	604.788	7033179.44	0.5293	A	0.8
5	☐	1250.000	1246.204	14011961.19	1.0906	A	5.0
6	☐	2500.000	2491.931	27515719.60	2.1807	A	0.9
7	☐	5000.000	5008.004	53227304.89	4.3825	A	0.8
8	☐			14812.27	0.0015	P	2.6

$$y = 8.7510E-004 * x + 3.0325E-005$$

$$R = 1.0000$$

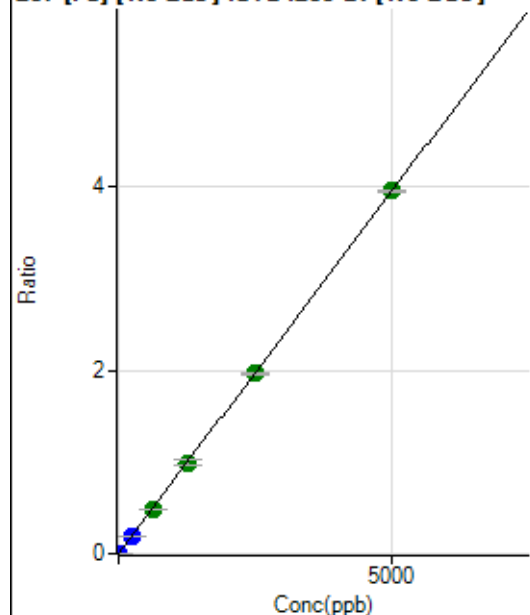
$$DL = 0.01048$$

$$BEC = 0.03465$$

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	387.05	0.0000	P	4.0
2	☐	1.000	0.890	9928.03	0.0007	P	4.4
3	☐	250.000	238.497	2638504.14	0.1884	P	0.9
4	☐	625.000	604.012	6339193.66	0.4770	A	0.3
5	☐	1250.000	1256.492	12749931.07	0.9923	A	5.0
6	☐	2500.000	2485.257	24766059.58	1.9628	A	0.6
7	☐	5000.000	5008.948	48045280.24	3.9559	A	0.4
8	☐			12797.23	0.0013	P	3.0

$$y = 7.8975E-004 * x + 2.8150E-005$$

$$R = 1.0000$$

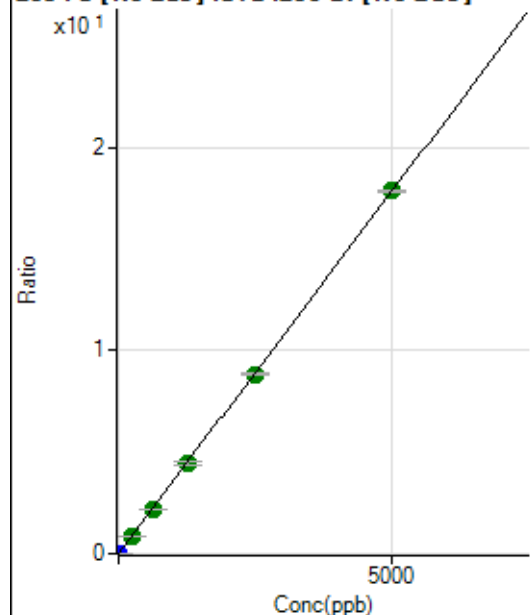
$$DL = 0.004315$$

$$BEC = 0.03564$$

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	1726.02	0.0001	P	5.2
2	☐	1.000	0.909	45705.99	0.0034	P	1.3
3	☐	250.000	236.374	11802003.48	0.8426	A	0.9
4	☐	625.000	603.429	28581934.20	2.1509	A	0.5
5	☐	1250.000	1248.775	57185389.47	4.4511	A	5.1
6	☐	2500.000	2483.126	111675836.5	8.8506	A	0.7
7	☐	5000.000	5012.121	216971846.9	17.8646	A	0.2
8	☐			58560.95	0.0060	P	2.2

$$y = 0.0036 * x + 1.2558E-004$$

$$R = 1.0000$$

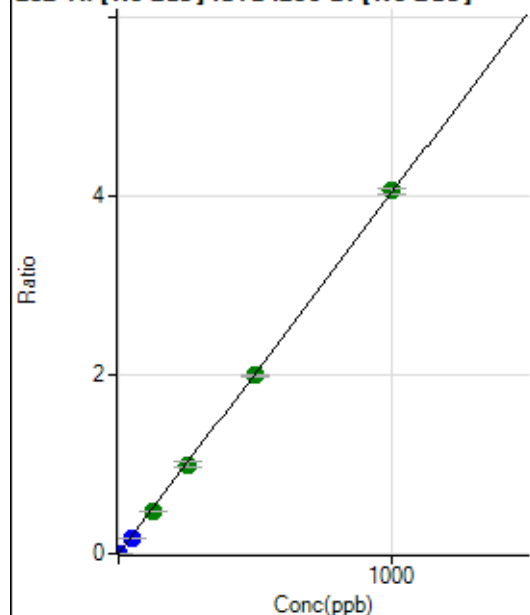
$$DL = 0.005532$$

$$BEC = 0.03523$$

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	742.64	0.0001	P	5.3
2	☐	1.000	0.002	842.65	0.0001	P	9.4
3	☐	50.000	43.517	2464387.32	0.1760	P	1.3
4	☐	125.000	118.004	6339040.94	0.4770	A	1.1
5	☐	250.000	245.766	12759594.85	0.9935	A	6.0
6	☐	500.000	493.488	25170822.09	1.9948	A	0.3
7	☐	1000.000	1005.514	49363263.14	4.0645	A	1.3
8	☐			13783.54	0.0014	P	3.3

$$y = 0.0040 * x + 5.4031E-005$$

$$R = 0.9999$$

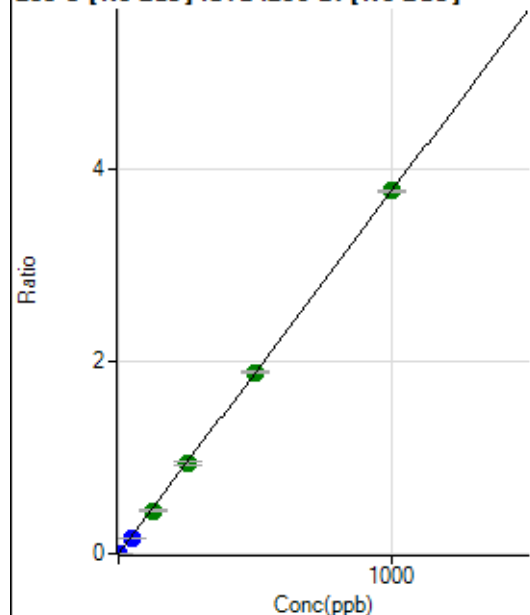
$$DL = 0.002105$$

$$BEC = 0.01337$$

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	97.23	0.0000	P	18.9
2	☐	1.000	0.811	41585.03	0.0031	P	1.3
3	☐	50.000	44.626	2353946.37	0.1681	P	0.8
4	☐	125.000	119.241	5967124.92	0.4491	A	0.8
5	☐	250.000	249.668	12075541.24	0.9402	A	6.1
6	☐	500.000	499.937	23755894.80	1.8827	A	0.7
7	☐	1000.000	1001.103	45787815.26	3.7700	A	0.7
8	☐			8202.99	0.0008	P	2.8

$$y = 0.0038 * x + 7.0644E-006$$

$$R = 1.0000$$

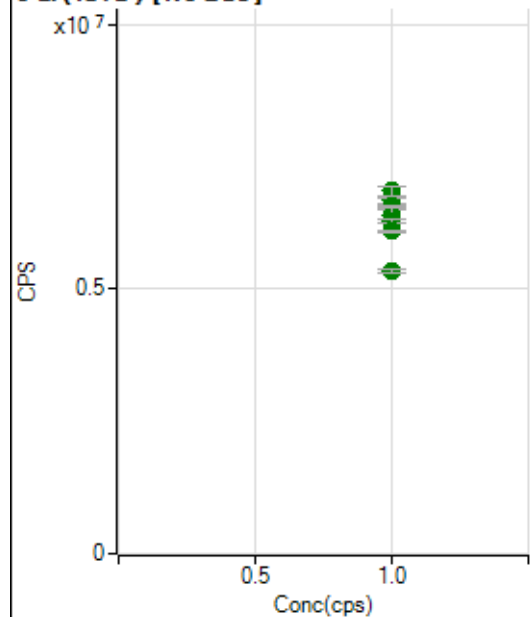
$$DL = 0.001065$$

$$BEC = 0.001876$$

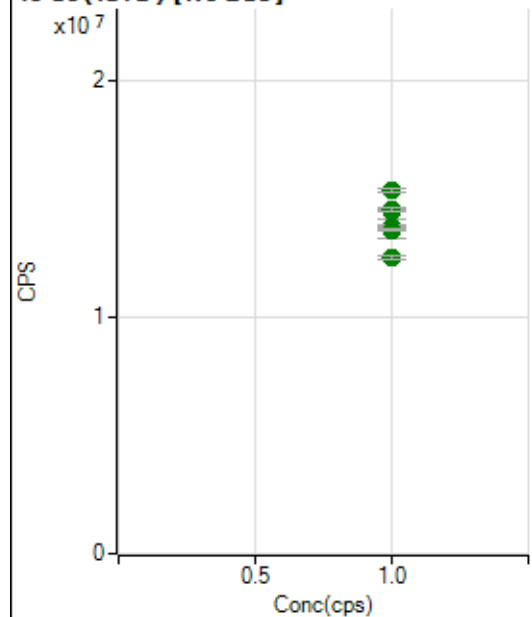
Weight: <None>

Min Conc: 0

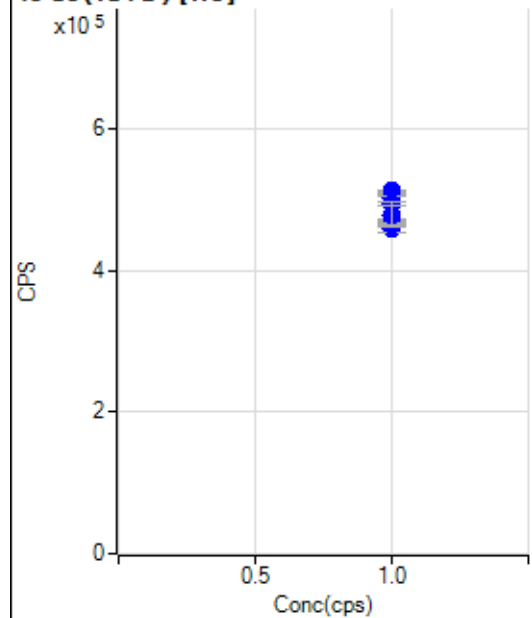
6 Li (ISTD) [No Gas]



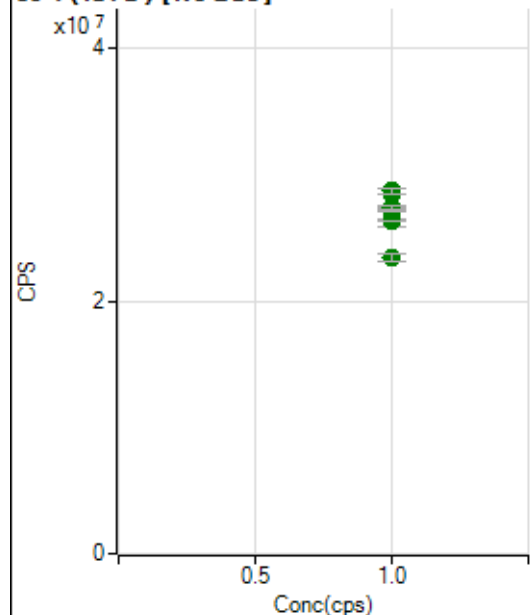
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		6596935.25		A	0.7
2	☐	1.000		6674943.51		A	1.4
3	☐	1.000		6857349.34		A	2.6
4	☐	1.000		6532291.64		A	1.2
5	☐	1.000		6401296.64		A	4.4
6	☐	1.000		6288351.29		A	0.8
7	☐	1.000		6100011.44		A	0.7
8	☐	1.000		5342880.55		A	1.5

45 Sc (ISTD) [No Gas]

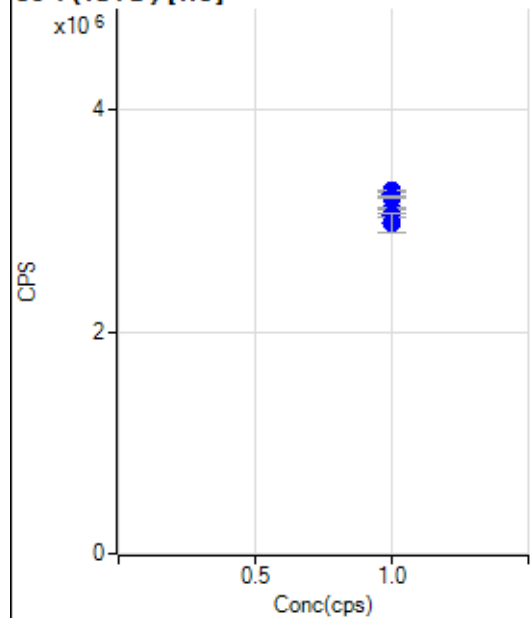
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14554676.31		A	0.7
2	☐	1.000		14496376.59		A	0.4
3	☐	1.000		15349693.94		A	1.2
4	☐	1.000		14563205.62		A	0.7
5	☐	1.000		13748430.35		A	6.2
6	☐	1.000		13852720.90		A	0.8
7	☐	1.000		13685701.05		A	0.7
8	☐	1.000		12547706.06		A	1.6

45 Sc (ISTD) [He]

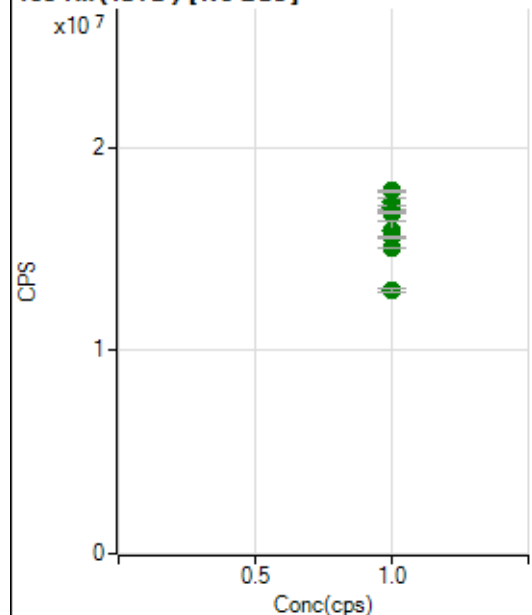
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		511766.97		P	0.5
2	☐	1.000		505961.92		P	0.2
3	☐	1.000		500477.26		P	1.8
4	☐	1.000		494517.37		P	1.1
5	☐	1.000		471635.12		P	0.5
6	☐	1.000		457587.04		P	1.4
7	☐	1.000		463250.46		P	0.9
8	☐	1.000		477120.37		P	6.0

89 Y (ISTD) [No Gas]

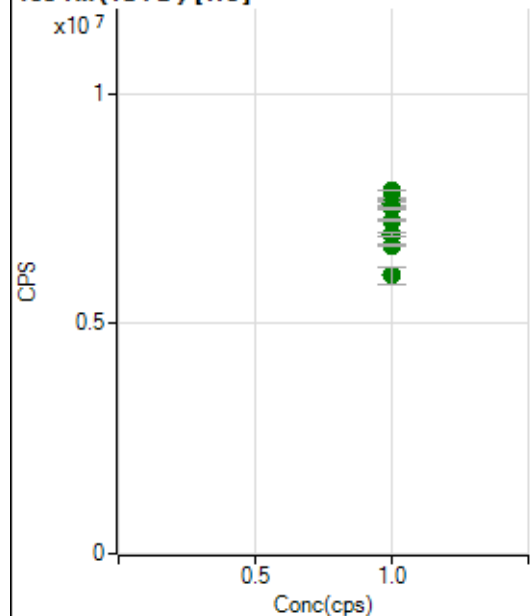
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		28398073.74		A	0.2
2	☐	1.000		27256662.09		A	0.3
3	☐	1.000		28695994.85		A	1.2
4	☐	1.000		27386047.09		A	0.7
5	☐	1.000		26426834.88		A	4.7
6	☐	1.000		26386128.22		A	0.3
7	☐	1.000		26351219.88		A	0.2
8	☐	1.000		23495755.20		A	2.6

89 Y (ISTD) [He]

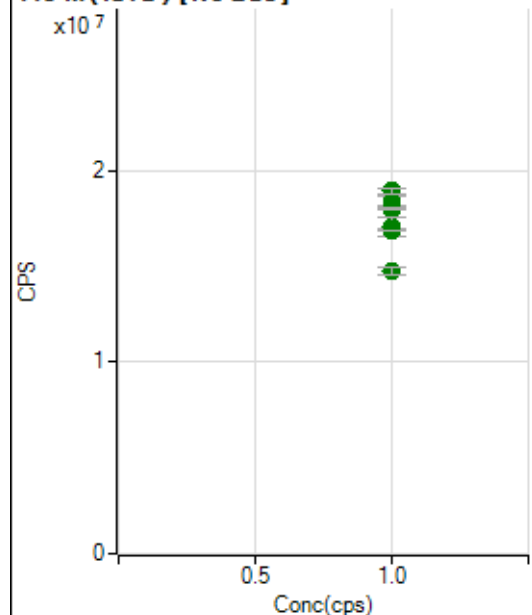
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3272679.74		P	0.1
2	☐	1.000		3260444.95		P	0.2
3	☐	1.000		3249517.00		P	1.3
4	☐	1.000		3211303.28		P	0.6
5	☐	1.000		3109978.36		P	0.5
6	☐	1.000		3050857.39		P	1.5
7	☐	1.000		3030829.71		P	0.1
8	☐	1.000		2991814.40		P	5.8

103 Rh (ISTD) [No Gas]

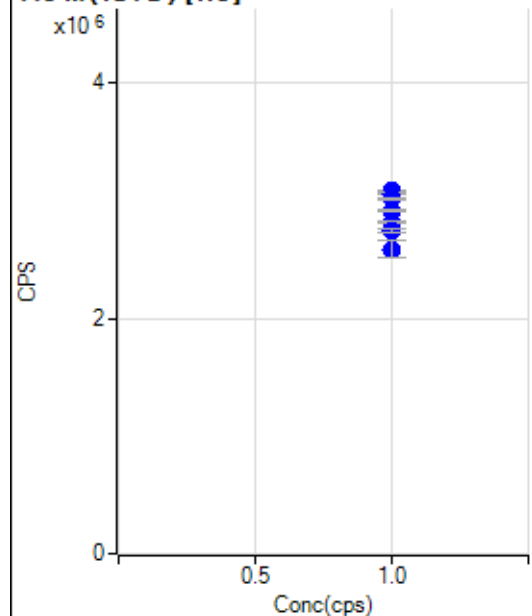
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17295001.96		A	2.0
2	☐	1.000		17031402.66		A	0.6
3	☐	1.000		17846787.51		A	0.6
4	☐	1.000		16759561.70		A	0.4
5	☐	1.000		15908914.21		A	5.4
6	☐	1.000		15561461.57		A	0.4
7	☐	1.000		15041300.05		A	0.6
8	☐	1.000		12973814.95		A	1.6

103 Rh (ISTD) [He]

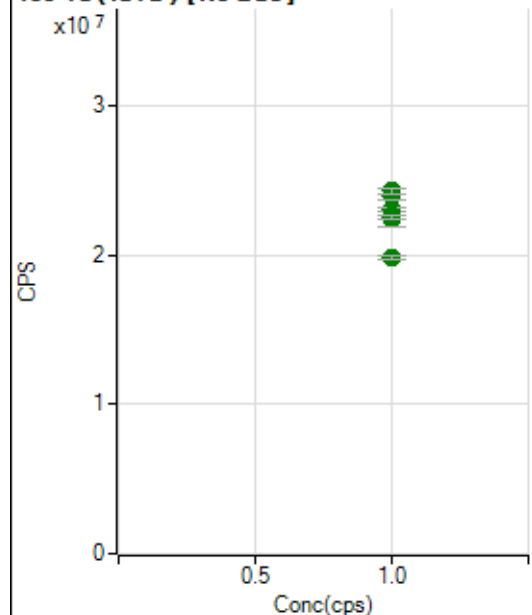
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7893847.17		A	0.1
2	☐	1.000		7710646.76		A	0.2
3	☐	1.000		7608411.97		A	1.4
4	☐	1.000		7519898.22		A	0.6
5	☐	1.000		7255418.36		A	0.7
6	☐	1.000		6951339.00		A	0.8
7	☐	1.000		6712230.11		A	0.7
8	☐	1.000		6051211.58		A	5.9

115 In (ISTD) [No Gas]

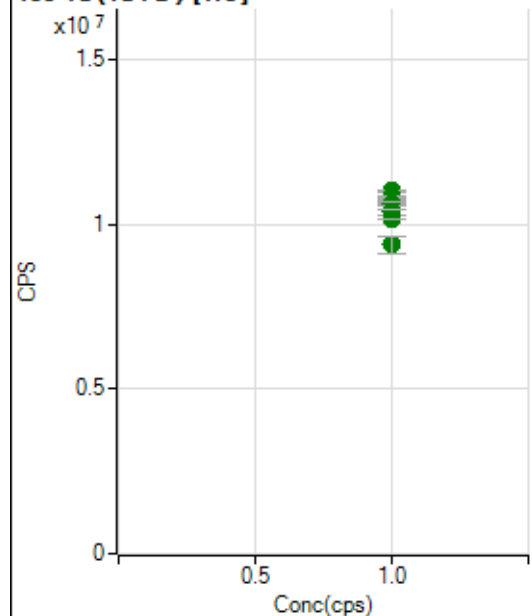
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18674837.06		A	0.6
2	☐	1.000		18120507.63		A	0.9
3	☐	1.000		18931253.02		A	1.3
4	☐	1.000		18002443.16		A	0.9
5	☐	1.000		17061924.28		A	5.8
6	☐	1.000		16946401.90		A	0.2
7	☐	1.000		16824435.38		A	0.1
8	☐	1.000		14709185.60		A	2.7

115 In (ISTD) [He]

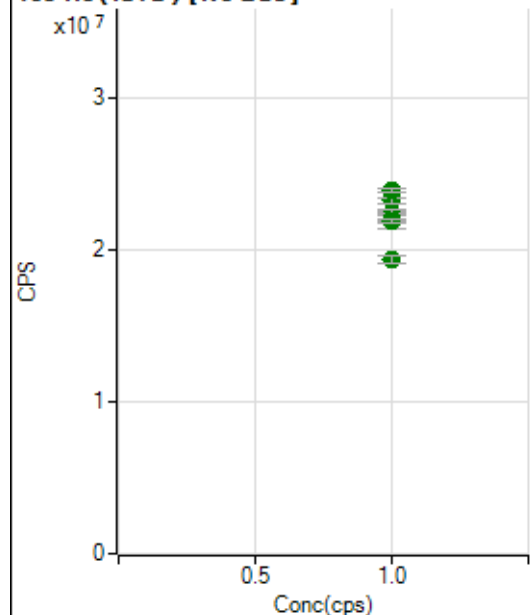
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3084265.01		P	0.5
2	☐	1.000		3074450.94		P	0.6
3	☐	1.000		3049287.46		P	1.7
4	☐	1.000		3023127.38		P	0.6
5	☐	1.000		2915733.53		P	0.5
6	☐	1.000		2818956.43		P	1.0
7	☐	1.000		2749693.89		P	1.0
8	☐	1.000		2586964.98		P	5.5

159 Tb (ISTD) [No Gas]

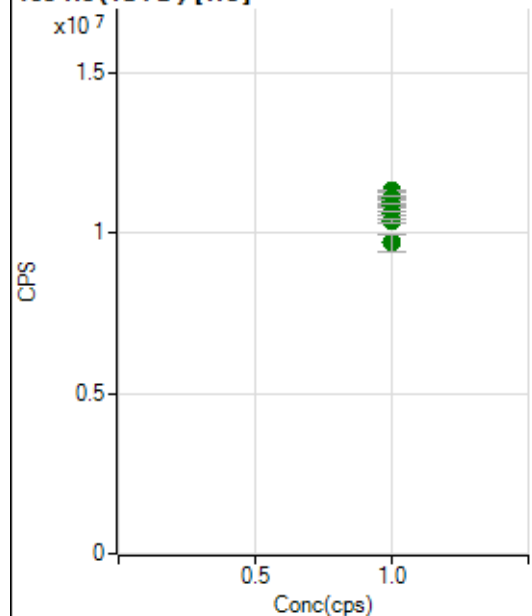
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23926531.03		A	1.6
2	☐	1.000		22913115.77		A	0.4
3	☐	1.000		24288119.64		A	1.8
4	☐	1.000		23049740.77		A	1.0
5	☐	1.000		22417627.31		A	5.0
6	☐	1.000		22692492.44		A	0.2
7	☐	1.000		22489406.89		A	1.0
8	☐	1.000		19804121.79		A	1.2

159 Tb (ISTD) [He]

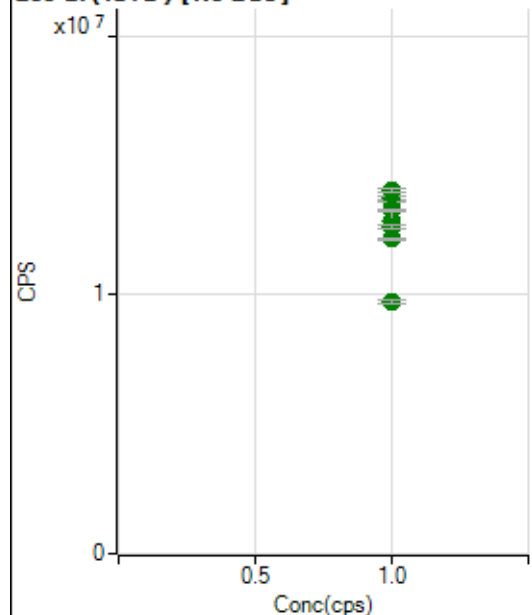
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11012031.78		A	0.3
2	☐	1.000		10793767.48		A	0.8
3	☐	1.000		10697596.65		A	1.9
4	☐	1.000		10837966.16		A	0.7
5	☐	1.000		10626353.94		A	0.7
6	☐	1.000		10379314.92		A	1.7
7	☐	1.000		10154912.63		A	0.4
8	☐	1.000		9385324.02		A	5.6

165 Ho (ISTD) [No Gas]

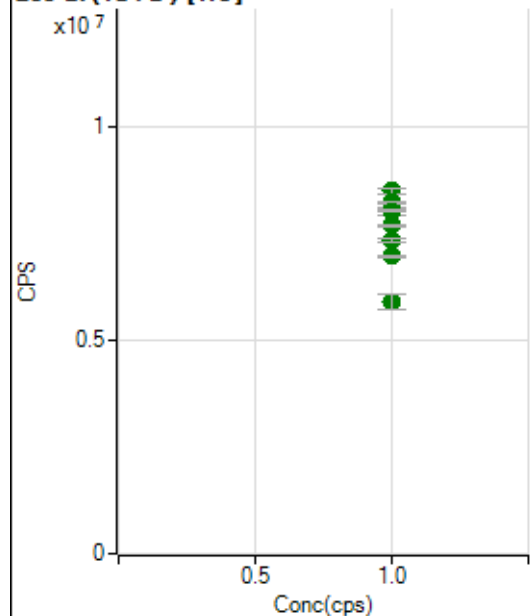
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23239151.60		A	1.3
2	☐	1.000		22403568.00		A	0.7
3	☐	1.000		23882692.70		A	0.9
4	☐	1.000		22410264.67		A	0.2
5	☐	1.000		22016185.51		A	6.0
6	☐	1.000		21939894.12		A	0.7
7	☐	1.000		21900612.45		A	1.1
8	☐	1.000		19392345.96		A	2.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11306882.33		A	0.7
2	☐	1.000		11033598.31		A	0.6
3	☐	1.000		10961421.92		A	1.6
4	☐	1.000		11084486.92		A	0.8
5	☐	1.000		10856886.37		A	0.9
6	☐	1.000		10607979.22		A	1.4
7	☐	1.000		10376240.89		A	1.1
8	☐	1.000		9683441.59		A	5.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13745850.07		A	1.0
2	☐	1.000		13581449.38		A	0.3
3	☐	1.000		14007055.35		A	1.1
4	☐	1.000		13288565.22		A	0.6
5	☐	1.000		12871687.86		A	5.5
6	☐	1.000		12618418.56		A	1.0
7	☐	1.000		12145276.35		A	0.2
8	☐	1.000		9735799.65		A	1.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8487539.11		A	1.3
2	☐	1.000		8213081.75		A	0.5
3	☐	1.000		8002253.56		A	2.0
4	☐	1.000		8028611.62		A	0.4
5	☐	1.000		7677482.32		A	0.5
6	☐	1.000		7353207.11		A	1.2
7	☐	1.000		6961562.05		A	0.7
8	☐	1.000		5897279.70		A	5.5

US EPA Tune Check Sample Report

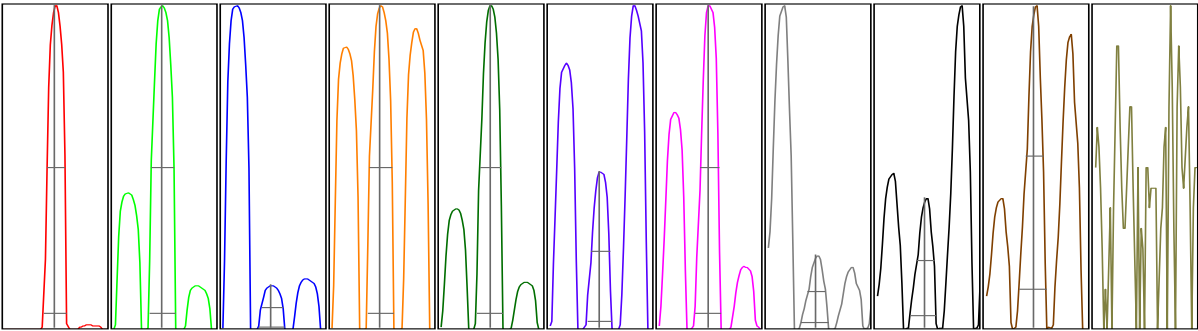
Batch Folder D:\ICP-MS Data\1\DATA\P7071220 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	14620	0.80	5.00	
24	196257	0.87	5.00	
25	26089	0.71	5.00	
26	30440	1.25	5.00	
59	101248	0.72	5.00	
113	16415	1.18	5.00	
115	50295	3.20	5.00	
206	19899	1.12	5.00	
207	17077	0.64	5.00	
208	41095	0.94	5.00	
220	0	12.30		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	14502	14562	14544	14750	14741
24	195964	194430	194896	197620	198377
25	25950	25859	26110	26309	26217
26	30215	29955	30386	30839	30805
59	100333	100798	101181	102100	101827
113	16145	16278	16519	16595	16538
115	47849	49570	50868	51325	51862
206	19648	19797	19800	20045	20205
207	17025	16992	17049	17268	17049
208	40737	40794	40927	41539	41478
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	27559	9.00	8.9 - 9.1		0.686	0.900	
24	317360	23.95	23.9 - 24.1		0.783	0.900	
25	43034	24.95	24.9 - 25.1		0.763	0.900	
26	49388	25.95	25.9 - 26.1		0.785	0.900	
59	172231	59.00	58.9 - 59.1		0.783	0.900	
113	30898	113.00	112.9 - 113.1		0.735	0.900	
115	94607	115.00	114.9 - 115.1		0.757	0.900	
206	38488	205.95	205.9 - 206.1		0.783	0.900	
207	32301	206.95	206.9 - 207.1		0.752	0.900	
208	79778	207.95	207.9 - 208.1		0.782	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	0.76	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V	Deflect	13.0	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	160	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	22162	0.46	
89	64505	0.61	
205	54403	0.21	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	22029	22277	22176	22093	22236
89	63922	64873	64328	64569	64834
205	54455	54258	54471	54301	54530

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.76	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	8.0	V	Deflect	2.4	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-75	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			