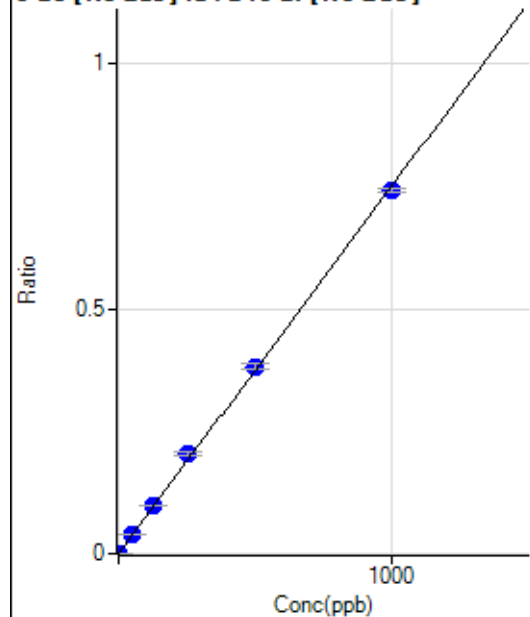


Batch Folder: D:\ICP-MS Data\1\DATA\P7032020IMS.b\
Analysis File: P7032020IMS.batch.bin
DA Date-Time: 2020-03-21 00:58:37
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-03-20 12:49:05
2	004CALS.d	S02	2020-03-20 12:52:37
3	005CALS.d	S03	2020-03-20 12:57:27
4	006CALS.d	S04	2020-03-20 13:01:45
5	007CALS.d	S05	2020-03-20 13:05:25
6	008CALS.d	S06	2020-03-20 13:08:59
7	009CALS.d	S07	2020-03-20 13:12:29
8	010CALS.d	S08	2020-03-20 13:15:59

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	87.04	0.0000	P	19.4
2	☐	1.000	1.104	4519.31	0.0008	P	0.8
3	☐	50.000	54.356	226191.08	0.0407	P	0.8
4	☐	125.000	132.529	532509.17	0.0993	P	0.3
5	☐	250.000	272.748	1032432.02	0.2043	P	2.4
6	☐	500.000	509.896	1882860.14	0.3819	P	3.2
7	☐	1000.000	988.206	3627447.97	0.7402	P	1.0
8	☐			1014.88	0.0002	P	10.3

$$y = 7.4898\text{E-}004 * x + 1.5961\text{E-}005$$

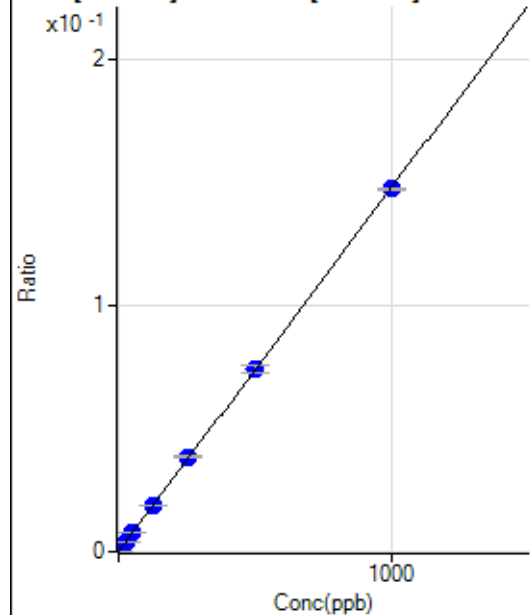
$$R = 0.9996$$

$$DL = 0.0124$$

$$BEC = 0.02131$$

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	347.24	0.0001	P	12.6
2	☐	25.000	25.292	20400.66	0.0038	P	0.8
3	☐	50.000	52.612	43569.62	0.0078	P	2.4
4	☐	125.000	127.523	101512.96	0.0189	P	0.7
5	☐	250.000	260.507	195033.68	0.0386	P	2.9
6	☐	500.000	501.039	365632.37	0.0742	P	3.8
7	☐	1000.000	996.400	722619.87	0.1474	P	0.3
8	☐			13612.18	0.0031	P	3.7

$$y = 1.4791\text{E-}004 * x + 6.3790\text{E-}005$$

$$R = 0.9999$$

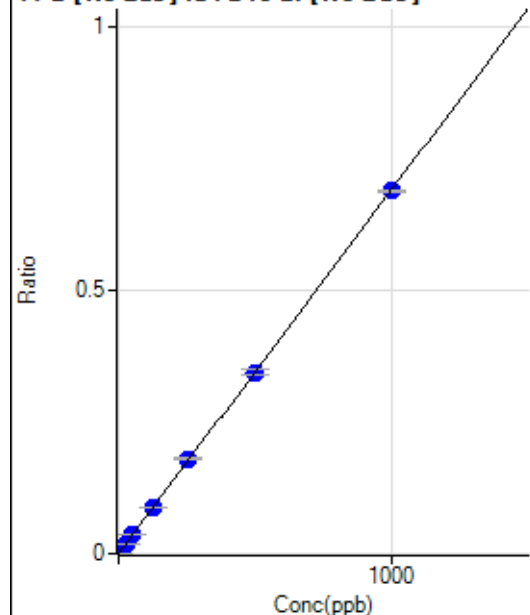
$$DL = 0.1629$$

$$BEC = 0.4313$$

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	1808.51	0.0003	P	9.5
2	☐	25.000	25.588	96444.62	0.0180	P	1.1
3	☐	50.000	52.780	204095.74	0.0368	P	1.4
4	☐	125.000	127.304	472915.62	0.0882	P	1.3
5	☐	250.000	261.069	912120.86	0.1805	P	1.6
6	☐	500.000	498.943	1698618.14	0.3446	P	3.9
7	☐	1000.000	997.319	3374235.67	0.6885	P	0.7
8	☐			64179.03	0.0147	P	0.8

$$y = 6.8999\text{E-}004 * x + 3.3226\text{E-}004$$

$$R = 0.9999$$

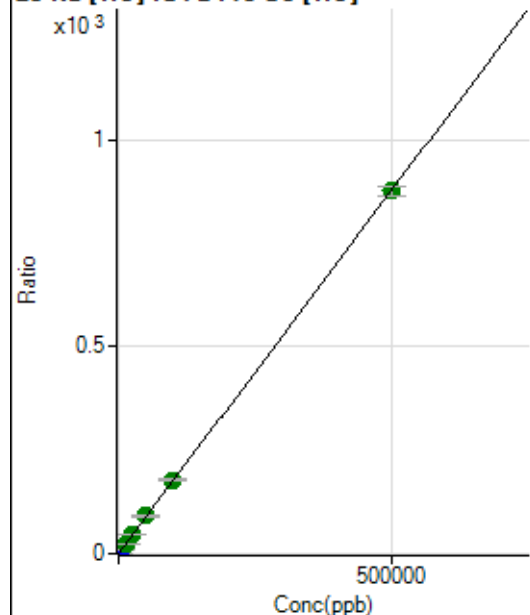
$$DL = 0.1372$$

$$BEC = 0.4815$$

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	13078.35	0.0314	P	1.7
2	☐	500.000	522.220	399265.96	0.9474	P	3.1
3	☐	5000.000	5372.458	4021737.50	9.4545	P	1.1
4	☐	12500.000	12944.622	9370191.70	22.7359	A	2.6
5	☐	25000.000	27314.934	19314541.75	47.9409	A	2.0
6	☐	50000.000	51701.541	36252687.27	90.7142	A	1.5
7	☐	100000.00	101604.70	73059990.52	178.2427	A	0.8
8	☐	500000.00	499378.29	320574007.1	875.9244	A	2.7

$$y = 0.0018 * x + 0.0314$$

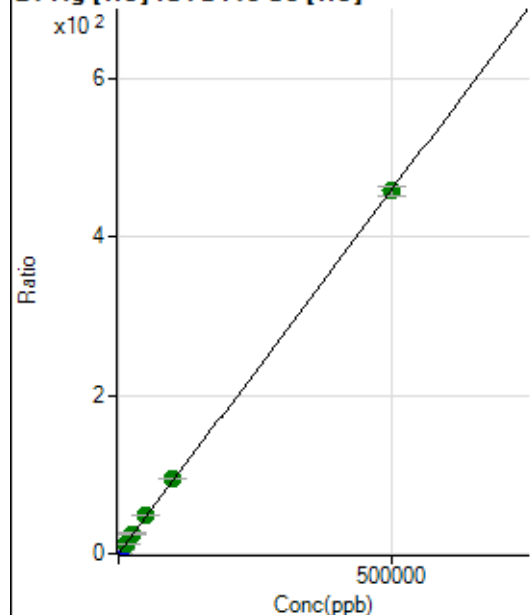
$$R = 1.0000$$

$$DL = 0.8869$$

$$BEC = 17.91$$

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	375.02	0.0009	P	8.6
2	☐	500.000	527.874	204788.68	0.4860	P	4.3
3	☐	5000.000	5494.844	2148288.18	5.0503	P	0.8
4	☐	12500.000	13334.973	5050664.74	12.2548	A	2.5
5	☐	25000.000	27527.928	10191571.24	25.2970	A	2.7
6	☐	50000.000	52733.778	19368088.97	48.4594	A	0.4
7	☐	100000.00	102575.97	38634992.88	94.2606	A	1.4
8	☐	500000.00	499059.18	167839735.7	458.5995	A	2.7

$$y = 9.1893\text{E-}004 * x + 9.0118\text{E-}004$$

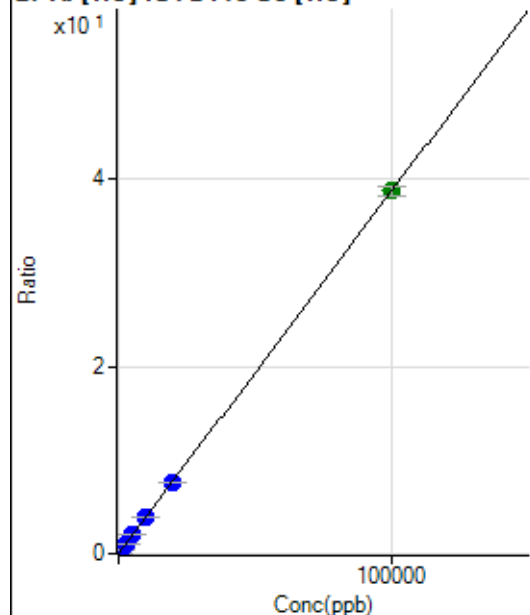
$$R = 1.0000$$

$$DL = 0.254$$

$$BEC = 0.9807$$

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	33.34	0.0001	P	43.6
2	☐	20.000	20.632	3394.98	0.0081	P	11.9
3	☐	1000.000	1041.070	171306.56	0.4027	P	0.4
4	☐	2500.000	2528.919	403134.26	0.9781	P	2.0
5	☐	5000.000	5286.987	823818.50	2.0447	P	1.7
6	☐	10000.000	10035.045	1551057.09	3.8810	P	1.1
7	☐	20000.000	19515.675	3093553.78	7.5475	P	1.3
8	☐	100000.00	100077.87	14164283.65	38.7036	A	3.0

$$y = 3.8673\text{E-}004 * x + 8.0195\text{E-}005$$

$$R = 1.0000$$

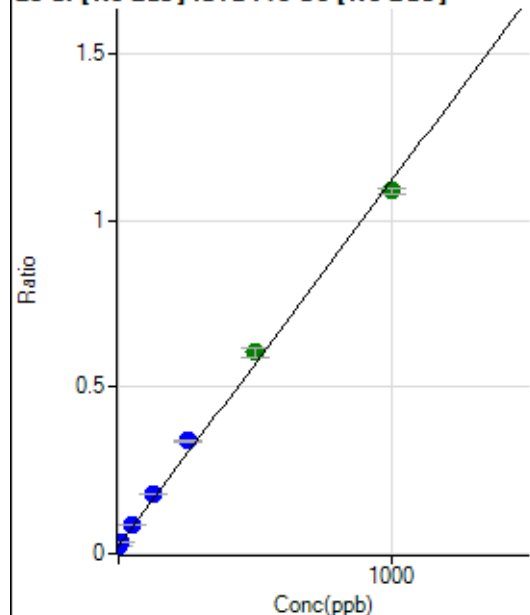
$$DL = 0.2713$$

$$BEC = 0.2074$$

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	266877.82	0.0233	P	2.7
2	☐	10.000	11.471	398458.32	0.0359	P	0.6
3	☐	50.000	55.538	981968.87	0.0842	P	0.1
4	☐	125.000	140.794	1983718.45	0.1776	P	1.3
5	☐	250.000	287.765	3740441.23	0.3387	P	1.0
6	☐	500.000	531.052	6501300.54	0.6054	A	4.6
7	☐	1000.000	972.767	12181163.12	1.0896	A	1.9
8	☐			893555.45	0.0913	P	2.0

$$y = 0.0011 * x + 0.0233$$

$$R = 0.9984$$

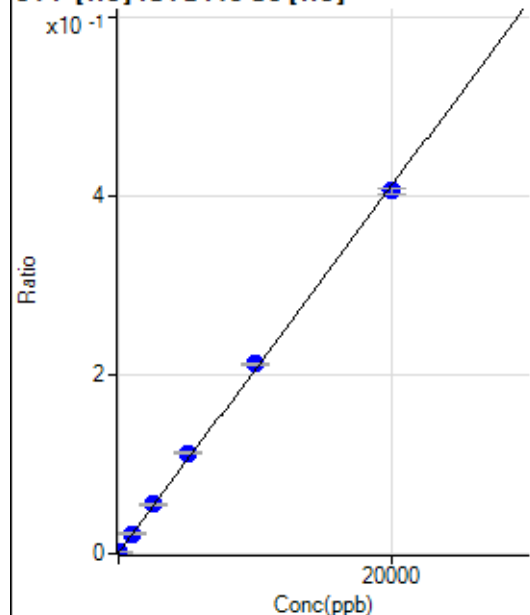
$$DL = 1.738$$

$$BEC = 21.27$$

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	-27.580	138.90	0.0003	P	19.6
2	☐	0.000	27.580	616.70	0.0015	P	12.2
3	☐	1000.000	1046.197	9503.41	0.0223	P	4.2
4	☐	2500.000	2644.583	22712.57	0.0551	P	2.4
5	☐	5000.000	5415.517	45085.98	0.1119	P	2.1
6	☐	10000.000	10285.566	84626.29	0.2117	P	0.6
7	☐	20000.000	19732.955	166152.75	0.4054	P	1.9
8	☐			252.79	0.0007	P	31.0

$$y = 2.0499E-005 * x + 8.9915E-004$$

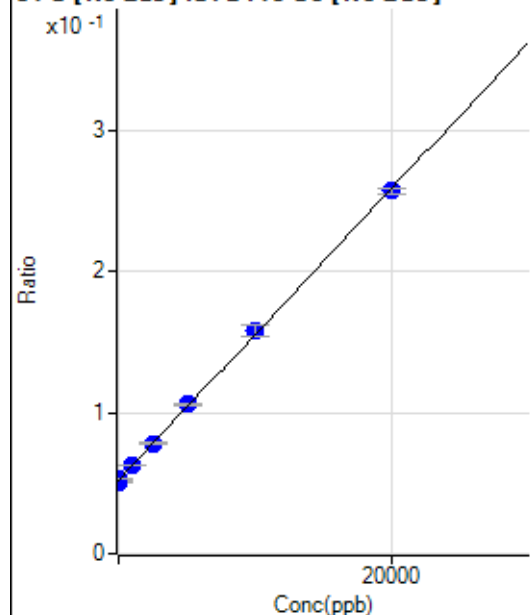
$$R = 0.9996$$

$$DL = 17.82$$

$$BEC = 43.86$$

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	-99.801	585939.66	0.0512	P	1.5
2	☐	0.000	99.801	591115.44	0.0532	P	0.3
3	☐	1000.000	984.918	727821.34	0.0624	P	0.3
4	☐	2500.000	2517.200	873885.25	0.0783	P	2.0
5	☐	5000.000	5176.971	1168175.45	0.1058	P	2.1
6	☐	10000.000	10253.013	1700250.10	0.1584	P	5.1
7	☐	20000.000	19827.855	2878638.95	0.2575	P	1.2
8	☐			495935.44	0.0507	P	1.6

$$y = 1.0353\text{E-}005 * x + 0.0522$$

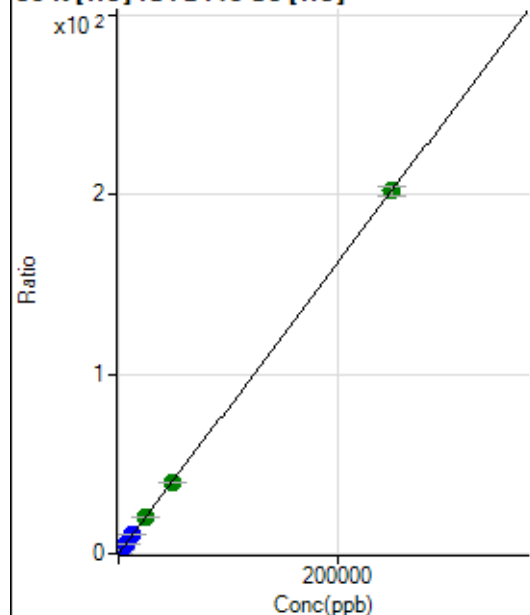
R = 0.9998

DL = 129.9

BEC = 5042

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	22367.56	0.0537	P	2.8
2	☐	500.000	513.245	197499.18	0.4686	P	2.6
3	☐	2500.000	2603.372	918022.19	2.1581	P	0.9
4	☐	6250.000	6355.657	2139633.42	5.1912	P	1.9
5	☐	12500.000	13222.199	4327677.01	10.7415	P	1.8
6	☐	25000.000	25116.394	8135484.12	20.3559	A	1.3
7	☐	50000.000	49094.034	16287278.84	39.7376	A	1.6
8	☐	250000.00	250129.74	74017468.32	202.2394	A	2.5

$$y = 8.0832\text{E-}004 * x + 0.0537$$

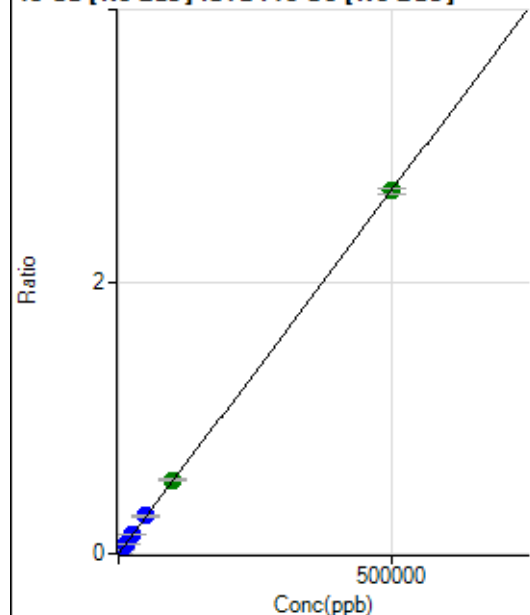
R = 1.0000

DL = 5.579

BEC = 66.47

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	405.58	0.0000	P	25.6
2	☐	500.000	536.399	32219.52	0.0029	P	1.3
3	☐	5000.000	5340.856	333285.74	0.0286	P	0.6
4	☐	12500.000	13262.285	791727.43	0.0709	P	1.6
5	☐	25000.000	26798.042	1581547.08	0.1432	P	1.3
6	☐	50000.000	52149.302	2992477.50	0.2787	P	4.9
7	☐	100000.00	101071.38	6037853.69	0.5401	A	2.0
8	☐	500000.00	499458.38	26110676.11	2.6689	A	1.4

$$y = 5.3435\text{E-}006 * x + 3.5519\text{E-}005$$

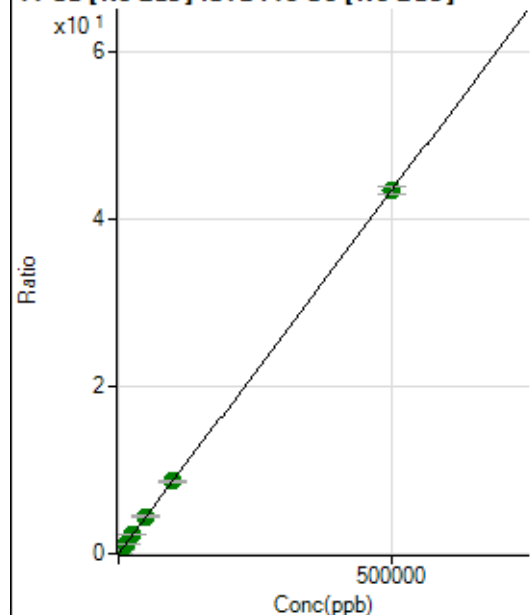
$$R = 1.0000$$

$$DL = 5.105$$

$$BEC = 6.647$$

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	7327.12	0.0006	P	1.2
2	☐	500.000	538.066	524877.00	0.0473	P	0.9
3	☐	5000.000	5168.303	5231790.39	0.4485	A	0.8
4	☐	12500.000	12922.487	12512897.50	1.1206	A	1.5
5	☐	25000.000	26240.643	25117448.30	2.2748	A	1.5
6	☐	50000.000	51226.075	47671299.33	4.4401	A	5.2
7	☐	100000.00	99428.440	96342724.38	8.6176	A	1.3
8	☐	500000.00	499917.38	423821423.3	43.3258	A	2.0

$$y = 8.6665\text{E-}005 * x + 6.3966\text{E-}004$$

$$R = 1.0000$$

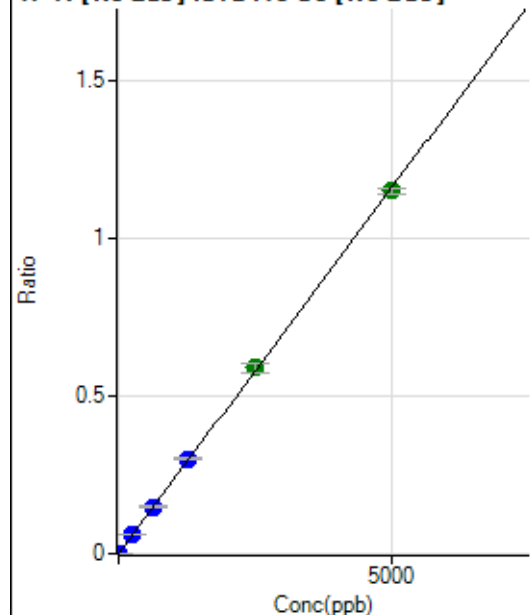
$$DL = 0.2706$$

$$BEC = 7.381$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	236.12	0.0000	P	17.2
2	☐	5.000	5.554	14499.37	0.0013	P	0.3
3	☐	250.000	257.341	694781.61	0.0596	P	0.7
4	☐	625.000	642.109	1659370.02	0.1486	P	1.6
5	☐	1250.000	1300.752	3323731.58	0.3010	P	1.0
6	☐	2500.000	2545.917	6325709.08	0.5891	A	5.0
7	☐	5000.000	4961.847	12835779.02	1.1482	A	1.6
8	☐			4384.19	0.0004	P	3.0

$$y = 2.3139E-004 * x + 2.0556E-005$$

$$R = 0.9999$$

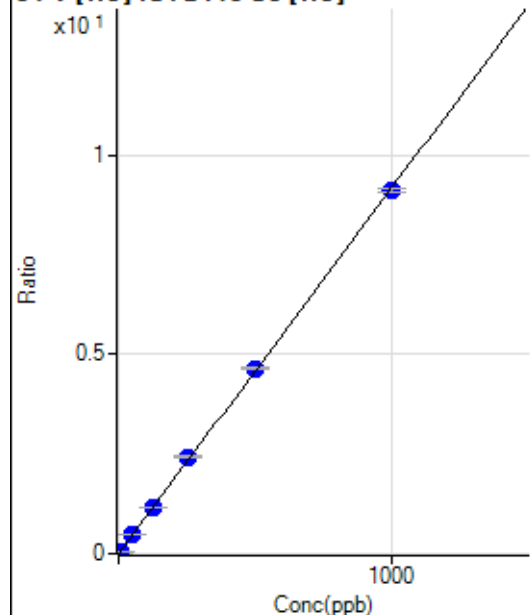
$$DL = 0.04596$$

$$BEC = 0.08884$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10.00	0.0000	P	33.3
2	☐	5.000	5.177	20020.44	0.0475	P	2.7
3	☐	50.000	51.381	200428.70	0.4712	P	0.8
4	☐	125.000	126.529	478243.49	1.1603	P	1.9
5	☐	250.000	264.230	976196.81	2.4230	P	2.0
6	☐	500.000	507.060	1858284.70	4.6497	P	1.0
7	☐	1000.000	992.651	3730994.67	9.1026	P	1.0
8	☐			1645.68	0.0045	P	1.4

$$y = 0.0092 * x + 2.4030E-005$$

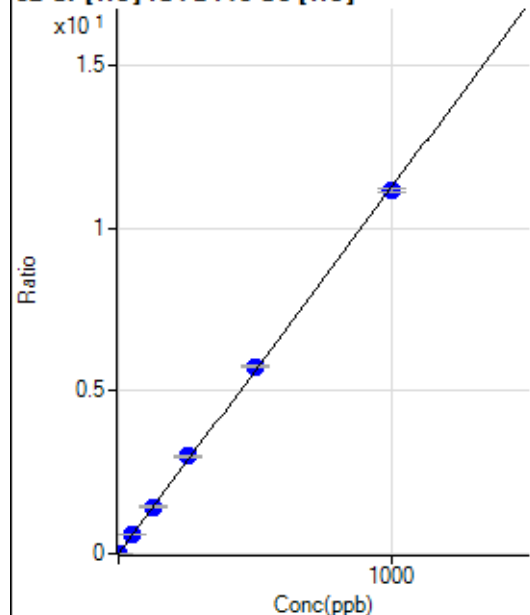
$$R = 0.9998$$

$$DL = 0.002619$$

$$BEC = 0.002621$$

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	574.47	0.0014	P	4.6
2	☐	2.000	2.030	10207.02	0.0242	P	3.0
3	☐	50.000	52.329	251022.92	0.5901	P	1.3
4	☐	125.000	128.001	594170.87	1.4415	P	1.4
5	☐	250.000	266.655	1209270.14	3.0014	P	1.6
6	☐	500.000	509.949	2293465.17	5.7386	P	1.0
7	☐	1000.000	990.370	4567602.22	11.1436	P	1.0
8	☐			106964.50	0.2922	P	1.3

$$y = 0.0113 * x + 0.0014$$

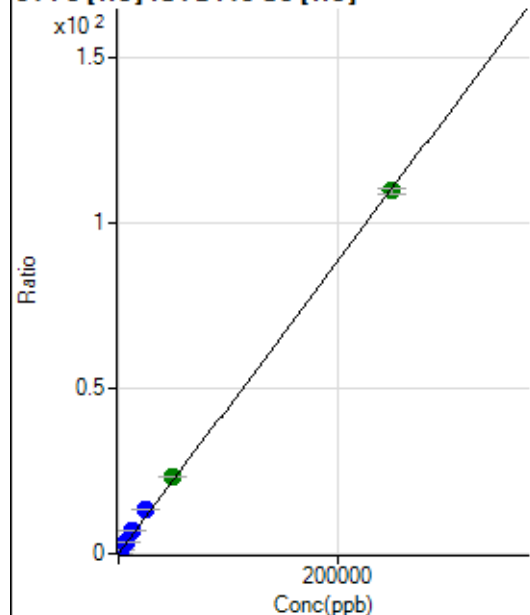
$$R = 0.9998$$

$$DL = 0.017$$

$$BEC = 0.1226$$

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	630.67	0.0015	P	20.2
2	☐	50.000	62.763	12294.68	0.0292	P	6.3
3	☐	2500.000	3115.455	584868.62	1.3749	P	0.8
4	☐	6250.000	7635.388	1388070.84	3.3675	P	1.4
5	☐	12500.000	15821.085	2810638.45	6.9761	P	1.8
6	☐	25000.000	29987.545	5283998.03	13.2212	P	0.8
7	☐	50000.000	52306.703	9452290.18	23.0604	A	0.8
8	☐	250000.00	248833.05	40154477.65	109.6969	A	1.4

$$y = 4.4084E-004 * x + 0.0015$$

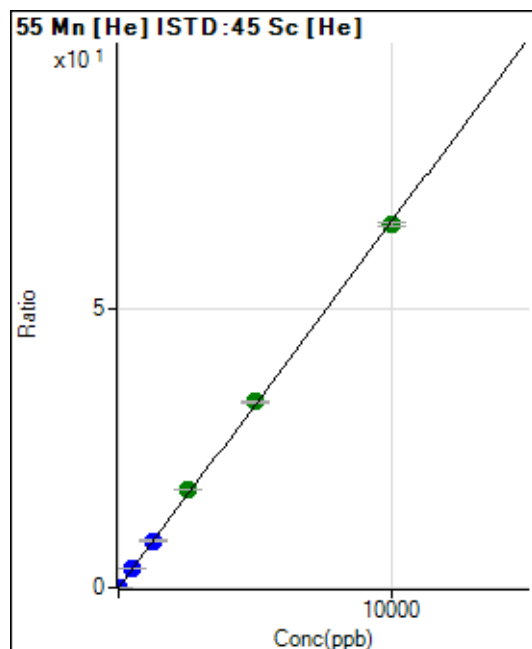
$$R = 0.9998$$

$$DL = 2.079$$

$$BEC = 3.434$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.34	0.0003	P	23.9
2	☐	1.000	1.066	3065.93	0.0073	P	5.3
3	☐	500.000	521.512	1456969.18	3.4251	P	0.7
4	☐	1250.000	1279.047	3462093.32	8.4000	P	2.1
5	☐	2500.000	2679.134	7088755.24	17.5945	A	1.7
6	☐	5000.000	5071.775	13311837.72	33.3073	A	0.8
7	☐	10000.000	9914.623	26687909.05	65.1110	A	1.0
8	☐			23897.37	0.0653	P	0.6

$$y = 0.0066 * x + 2.7251E-004$$

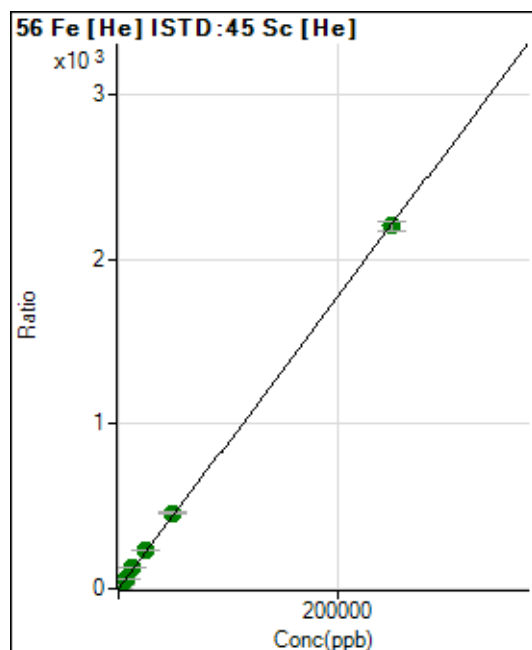
$$R = 0.9998$$

$$DL = 0.02973$$

$$BEC = 0.0415$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6690.60	0.0161	P	4.8
2	☐	50.000	56.272	216500.89	0.5138	P	5.0
3	☐	2500.000	2718.795	10236690.74	24.0643	A	0.7
4	☐	6250.000	6709.482	24468184.57	59.3627	A	1.7
5	☐	12500.000	14067.150	50138435.38	124.4428	A	1.8
6	☐	25000.000	26761.318	94603784.52	236.7251	A	1.5
7	☐	50000.000	52128.506	188992343.1	461.1028	A	1.5
8	☐	250000.00	249306.13	807074840.2	2.205177	A	2.5

$$y = 0.0088 * x + 0.0161$$

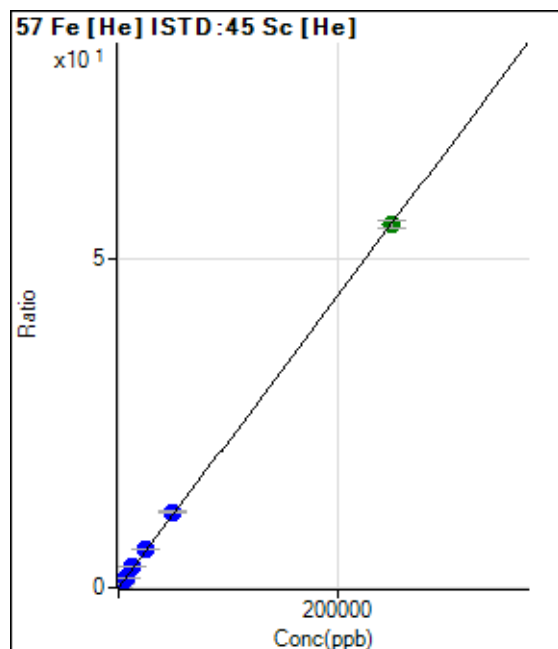
$$R = 0.9999$$

$$DL = 0.2636$$

$$BEC = 1.817$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	242.60	0.0006	P	1.7
2	☐	50.000	56.180	5490.08	0.0130	P	5.5
3	☐	2500.000	2781.127	262326.70	0.6167	P	0.5
4	☐	6250.000	6790.499	620237.72	1.5049	P	2.1
5	☐	12500.000	14144.329	1262666.52	3.1339	P	1.7
6	☐	25000.000	26804.131	2373343.14	5.9384	P	0.8
7	☐	50000.000	51923.095	4714684.08	11.5029	P	1.4
8	☐	250000.00	249336.42	20216580.08	55.2351	A	2.1

$$y = 2.2153\text{E-}004 * x + 5.8279\text{E-}004$$

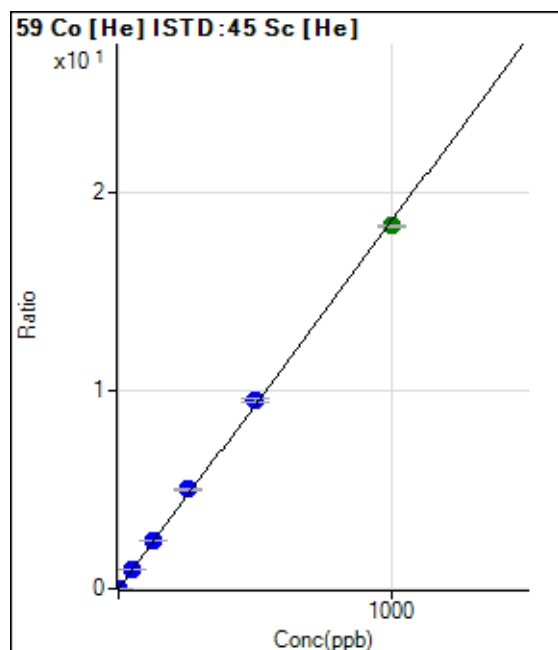
R = 0.9999

DL = 0.1333

BEC = 2.631

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	153.34	0.0004	P	40.7
2	☐	1.000	1.016	8086.78	0.0192	P	3.2
3	☐	50.000	53.598	422495.46	0.9932	P	0.2
4	☐	125.000	130.427	995986.11	2.4163	P	1.5
5	☐	250.000	270.939	2022204.12	5.0191	P	1.7
6	☐	500.000	513.366	3800458.90	9.5097	P	1.3
7	☐	1000.000	987.224	7496111.21	18.2872	A	0.7
8	☐			13764.41	0.0376	P	0.9

$$y = 0.0185 * x + 3.6902\text{E-}004$$

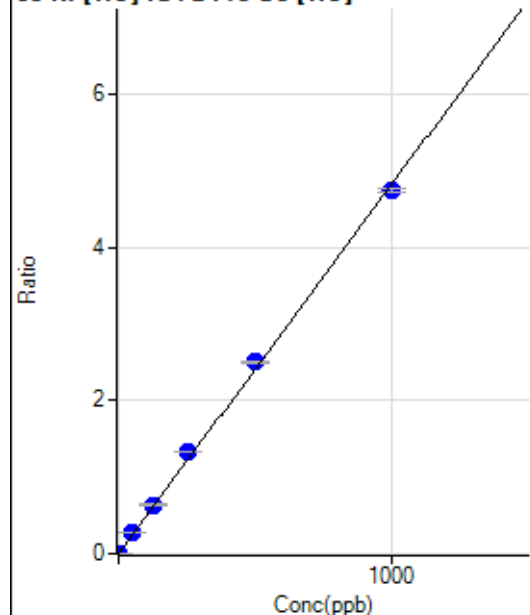
R = 0.9996

DL = 0.02432

BEC = 0.01992

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	138.89	0.0003	P	14.1
2	☐	1.000	1.171	2518.04	0.0060	P	3.5
3	☐	50.000	54.863	112585.13	0.2647	P	0.6
4	☐	125.000	132.646	263558.04	0.6394	P	1.8
5	☐	250.000	275.781	535472.63	1.3291	P	1.6
6	☐	500.000	518.658	998825.84	2.4992	P	1.1
7	☐	1000.000	983.027	1941439.59	4.7366	P	1.1
8	☐			29322.88	0.0801	P	1.8

$$y = 0.0048 * x + 3.3345E-004$$

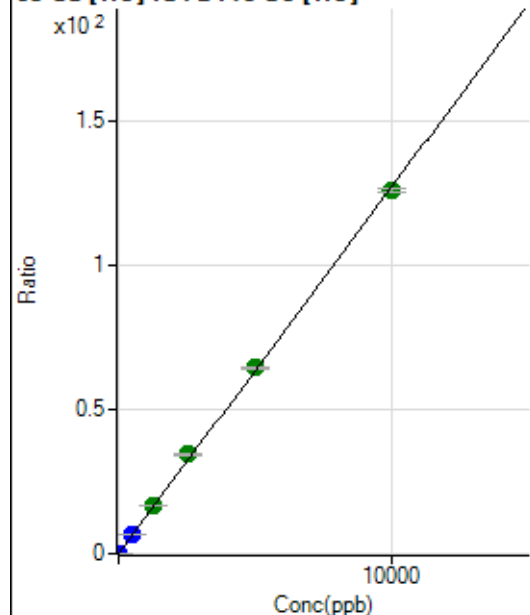
$$R = 0.9994$$

$$DL = 0.0293$$

$$BEC = 0.06921$$

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	990.05	0.0024	P	5.1
2	☐	2.000	2.152	12543.31	0.0298	P	3.2
3	☐	500.000	544.180	2947229.71	6.9285	P	0.7
4	☐	1250.000	1306.532	6855273.65	16.6314	A	1.6
5	☐	2500.000	2715.873	13927315.49	34.5689	A	1.9
6	☐	5000.000	5072.063	25799421.28	64.5576	A	1.6
7	☐	10000.000	9900.725	51651734.23	126.0148	A	0.9
8	☐			15961.10	0.0436	P	4.5

$$y = 0.0127 * x + 0.0024$$

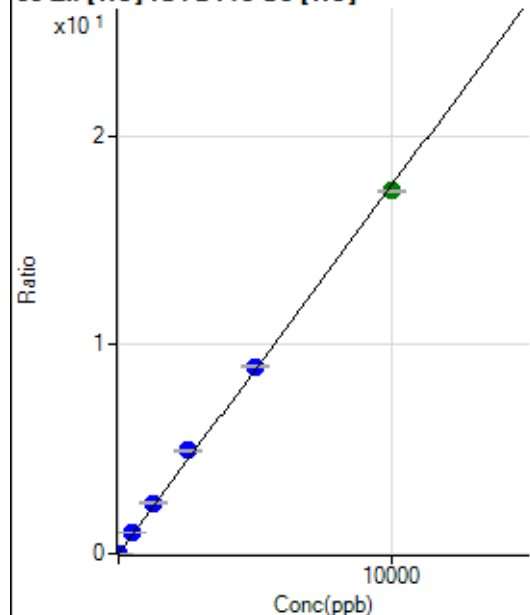
$$R = 0.9997$$

$$DL = 0.02846$$

$$BEC = 0.1869$$

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	1422.32	0.0034	P	2.7
2	☐	2.000	2.107	3004.81	0.0071	P	1.9
3	☐	500.000	569.612	428445.54	1.0072	P	0.5
4	☐	1250.000	1374.964	999998.15	2.4264	P	2.4
5	☐	2500.000	2800.908	1989956.88	4.9392	P	1.9
6	☐	5000.000	5093.451	3588516.48	8.9791	P	1.0
7	☐	10000.000	9858.947	7123101.49	17.3768	A	0.3
8	☐			20734.90	0.0567	P	2.3

$$y = 0.0018 * x + 0.0034$$

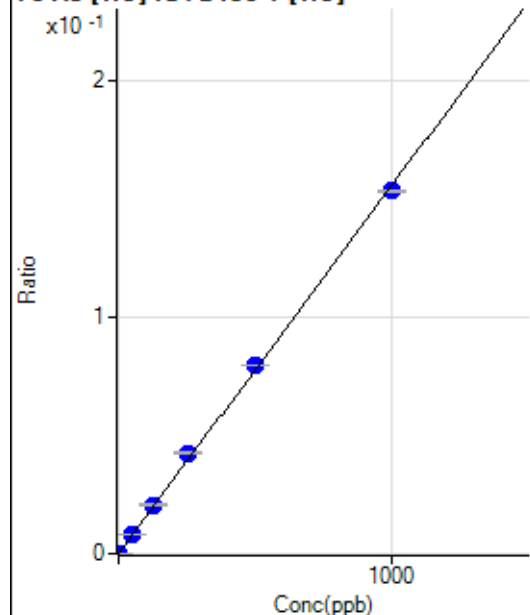
$$R = 0.9994$$

$$DL = 0.1575$$

$$BEC = 1.939$$

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	14.19	0.0000	P	8.2
2	☐	1.000	1.055	487.05	0.0002	P	0.9
3	☐	50.000	54.376	24574.53	0.0085	P	0.4
4	☐	125.000	132.515	58313.77	0.0206	P	2.0
5	☐	250.000	274.000	118565.46	0.0426	P	0.7
6	☐	500.000	512.715	220352.04	0.0798	P	0.3
7	☐	1000.000	986.484	431226.19	0.1535	P	0.8
8	☐			246.92	0.0001	P	2.9

$$y = 1.5557E-004 * x + 5.0143E-006$$

$$R = 0.9996$$

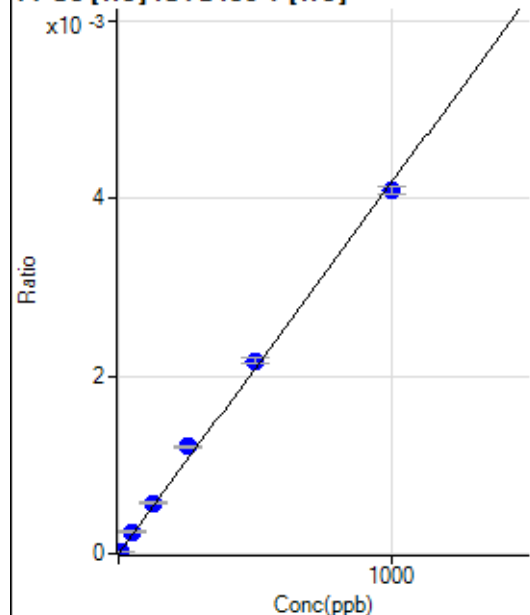
$$DL = 0.007937$$

$$BEC = 0.03223$$

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	6.176	74.45	0.0000	P	32.4
3	☐	50.000	59.421	720.03	0.0002	P	6.7
4	☐	125.000	136.148	1606.78	0.0006	P	2.9
5	☐	250.000	289.664	3361.55	0.0012	P	1.4
6	☐	500.000	520.411	5998.01	0.0022	P	3.1
7	☐	1000.000	978.008	11468.05	0.0041	P	1.9
8	☐			7.78	0.0000	P	23.1

$$y = 4.1727\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9988$$

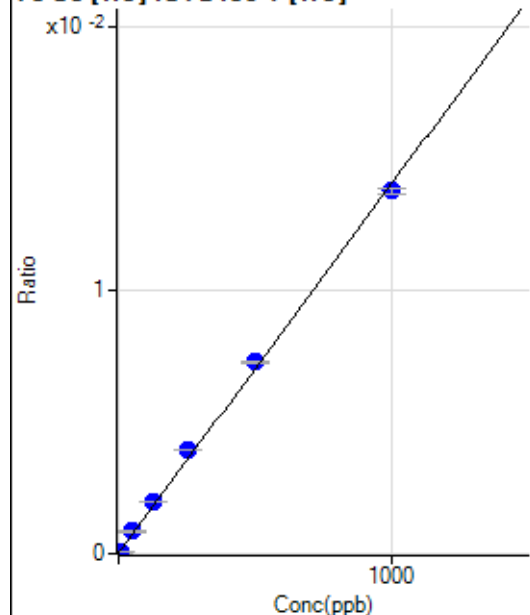
$$DL = 0$$

$$BEC = 0$$

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	58.02	0.0000	P	12.2
2	☐	5.000	5.727	289.51	0.0001	P	12.5
3	☐	50.000	58.527	2436.65	0.0008	P	1.3
4	☐	125.000	139.175	5562.84	0.0020	P	3.3
5	☐	250.000	279.742	10941.24	0.0039	P	0.1
6	☐	500.000	517.972	20073.21	0.0073	P	1.3
7	☐	1000.000	981.377	38631.04	0.0137	P	1.5
8	☐			82.72	0.0000	P	8.4

$$y = 1.3989\text{E-}005 * x + 2.0480\text{E-}005$$

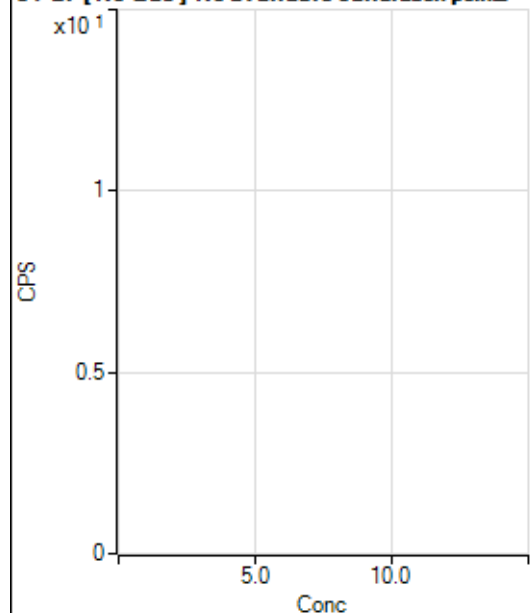
$$R = 0.9992$$

$$DL = 0.5349$$

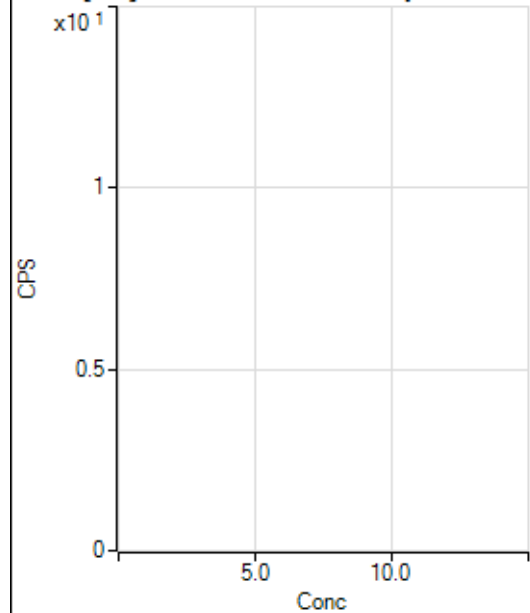
$$BEC = 1.464$$

Weight: <None>

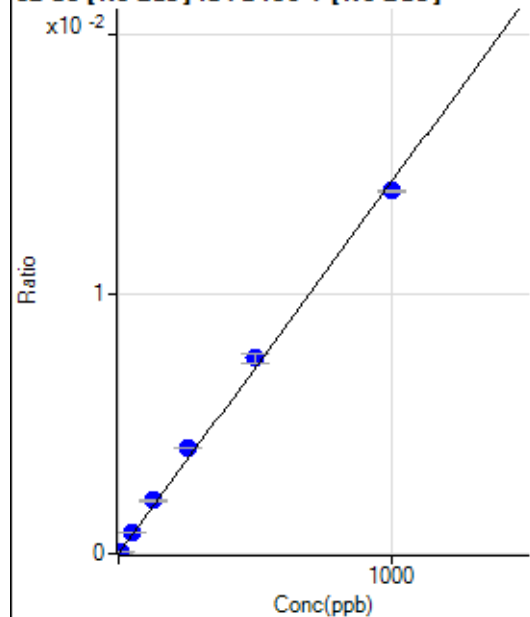
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			60726.46		P	0.5
2	☐			62699.62		P	1.1
3	☐			61011.38		P	1.8
4	☐			57539.68		P	1.4
5	☐			58166.44		P	1.3
6	☐			59948.65		P	2.1
7	☐			59955.75		P	1.6
8	☐			53055.18		P	0.6

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			53.39		P	39.0
2	☐			250.27		P	8.0
3	☐			36.70		P	68.6
4	☐			30.03		P	100.
5	☐			66.73		P	37.7
6	☐			66.73		P	22.9
7	☐			73.41		P	70.0
8	☐			60.06		P	33.3

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17.08	0.0000	P	279.
2	☐	5.000	6.136	2089.40	0.0001	P	2.0
3	☐	50.000	58.651	20955.78	0.0008	P	1.4
4	☐	125.000	142.838	49391.27	0.0020	P	1.1
5	☐	250.000	283.094	96265.76	0.0041	P	0.2
6	☐	500.000	525.884	176571.06	0.0075	P	4.6
7	☐	1000.000	976.116	341263.99	0.0140	P	0.7
8	☐			319.80	0.0000	P	17.2

$$y = 1.4313\text{E-}005 * x + 7.2054\text{E-}007$$

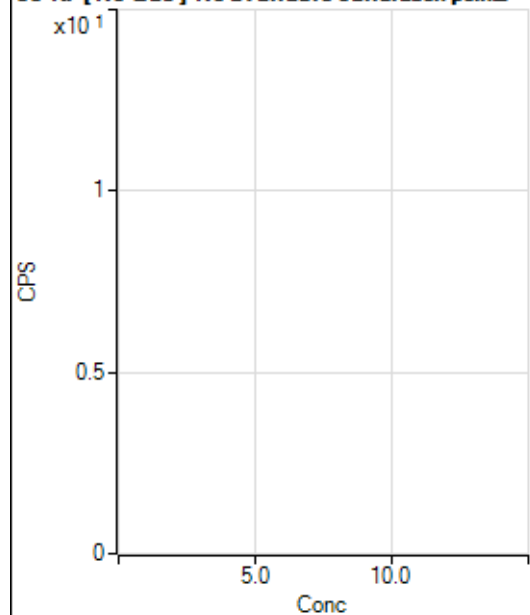
$$R = 0.9988$$

$$DL = 0.4224$$

$$BEC = 0.05034$$

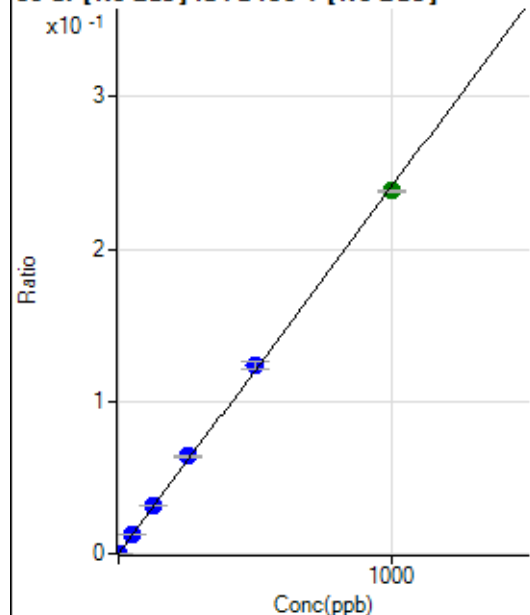
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			394.46		P	6.3
2	☐			421.13		P	2.8
3	☐			452.24		P	7.1
4	☐			400.01		P	8.8
5	☐			423.35		P	11.4
6	☐			480.01		P	4.9
7	☐			498.91		P	12.4
8	☐			474.46		P	5.7

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	716.72	0.0000	P	7.3
2	☐	1.000	1.101	6957.54	0.0003	P	1.8
3	☐	50.000	51.898	312421.13	0.0125	P	0.7
4	☐	125.000	130.032	756815.28	0.0313	P	1.3
5	☐	250.000	265.004	1516379.16	0.0638	P	0.4
6	☐	500.000	513.487	2901195.81	0.1237	P	3.9
7	☐	1000.000	988.781	5815891.67	0.2381	A	0.3
8	☐			12136.11	0.0006	P	1.1

$$y = 2.4077\text{E-}004 * x + 2.9677\text{E-}005$$

$$R = 0.9997$$

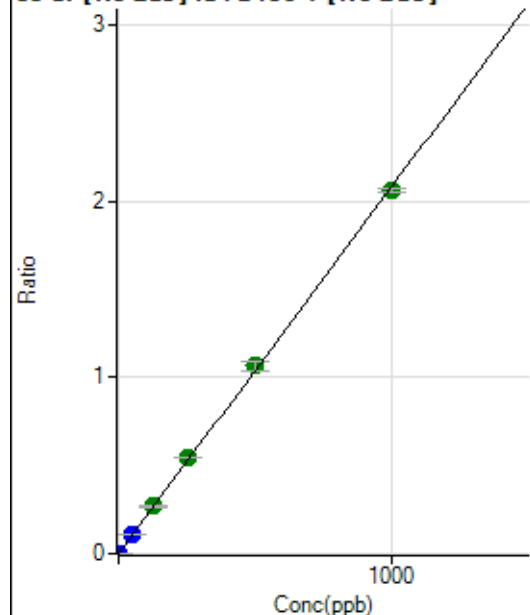
$$DL = 0.0269$$

$$BEC = 0.1233$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.02	0.0000	P	44.6
2	☐	1.000	1.097	54225.64	0.0023	P	1.2
3	☐	50.000	52.353	2720989.84	0.1091	P	0.7
4	☐	125.000	128.619	6472099.50	0.2680	A	1.4
5	☐	250.000	263.309	13032068.00	0.5486	A	0.8
6	☐	500.000	513.230	25080720.01	1.0693	A	4.9
7	☐	1000.000	989.488	50354468.14	2.0616	A	1.0
8	☐			100773.14	0.0047	P	1.3

$$y = 0.0021 * x + 1.2388\text{E-}005$$

$$R = 0.9998$$

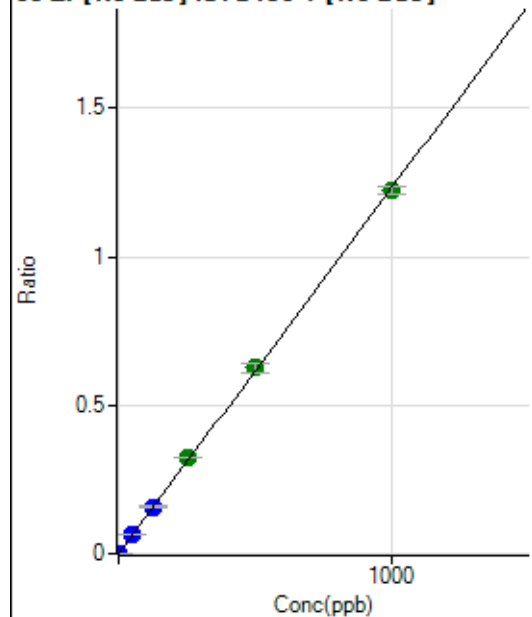
$$DL = 0.007964$$

$$BEC = 0.005946$$

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	1208.44	0.0001	P	8.7
2	☐	1.000	0.761	23291.94	0.0010	P	3.7
3	☐	50.000	50.235	1543396.51	0.0619	P	0.7
4	☐	125.000	128.688	3826102.95	0.1584	P	1.7
5	☐	250.000	261.673	7651485.94	0.3221	A	0.3
6	☐	500.000	507.867	14663495.64	0.6251	A	4.5
7	☐	1000.000	992.676	29840580.53	1.2218	A	2.1
8	☐			10807.28	0.0005	P	7.1

$$y = 0.0012 * x + 5.0076E-005$$

$$R = 0.9999$$

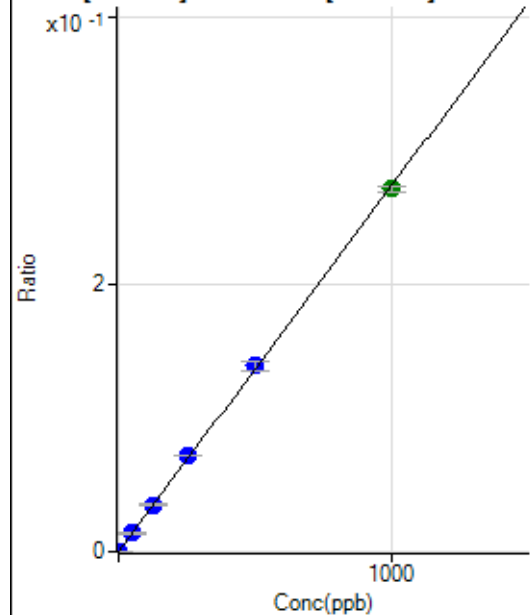
$$DL = 0.01066$$

$$BEC = 0.04069$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	205.57	0.0000	P	23.7
2	☐	1.000	0.755	5084.46	0.0002	P	5.6
3	☐	50.000	49.953	341685.16	0.0137	P	0.2
4	☐	125.000	128.449	850344.47	0.0352	P	1.5
5	☐	250.000	263.031	1712523.17	0.0721	P	0.8
6	☐	500.000	509.144	3272893.56	0.1395	P	4.9
7	☐	1000.000	991.742	6638466.03	0.2718	A	1.5
8	☐			2514.22	0.0001	P	6.0

$$y = 2.7405E-004 * x + 8.5150E-006$$

$$R = 0.9998$$

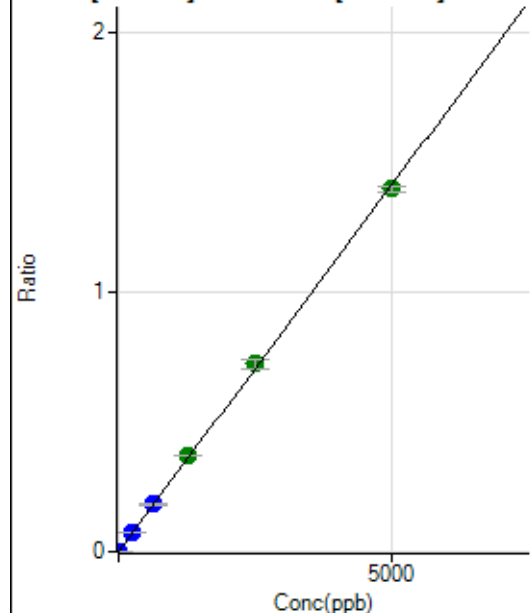
$$DL = 0.02208$$

$$BEC = 0.03107$$

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	444.47	0.0000	P	9.5
2	☐	5.000	5.094	34384.28	0.0015	P	2.0
3	☐	250.000	256.398	1806724.22	0.0724	P	0.3
4	☐	625.000	643.238	4387828.01	0.1817	P	1.3
5	☐	1250.000	1311.662	8800245.60	0.3705	A	1.1
6	☐	2500.000	2562.154	16971357.15	0.7236	A	5.2
7	☐	5000.000	4950.908	34152805.62	1.3983	A	1.3
8	☐			24852.99	0.0012	P	6.1

$$y = 2.8242\text{E-}004 * x + 1.8422\text{E-}005$$

$$R = 0.9998$$

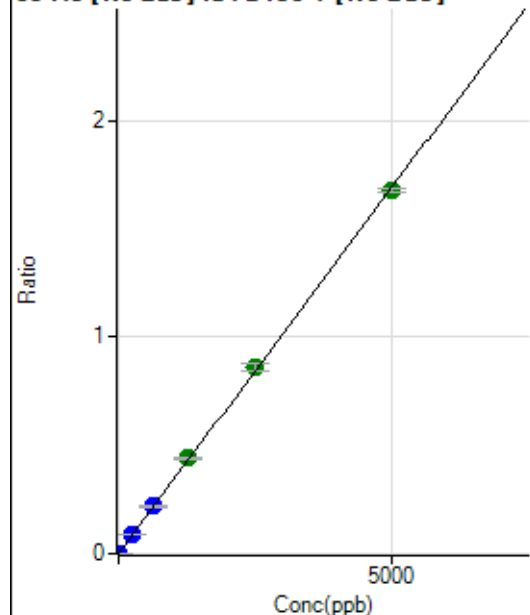
$$DL = 0.01861$$

$$BEC = 0.06523$$

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	122.23	0.0000	P	2.3
2	☐	5.000	5.526	44135.84	0.0019	P	1.1
3	☐	250.000	257.071	2164336.96	0.0868	P	0.7
4	☐	625.000	646.382	5268798.29	0.2182	P	1.6
5	☐	1250.000	1304.866	10461645.55	0.4404	A	1.3
6	☐	2500.000	2547.935	20176504.79	0.8600	A	3.9
7	☐	5000.000	4959.289	40883778.00	1.6738	A	1.0
8	☐			36001.86	0.0017	P	3.9

$$y = 3.3751\text{E-}004 * x + 5.0589\text{E-}006$$

$$R = 0.9999$$

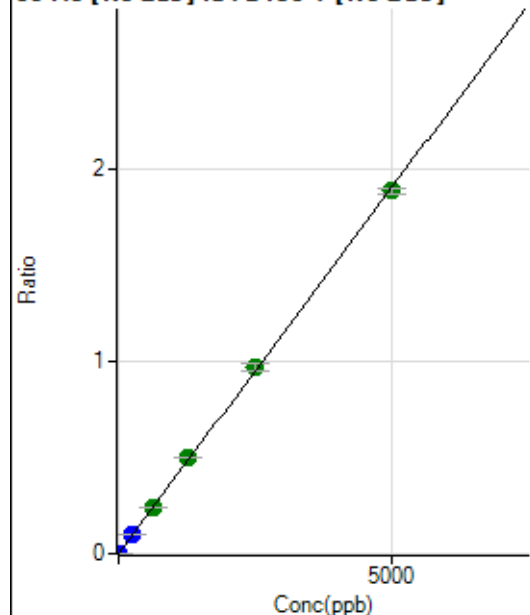
$$DL = 0.001038$$

$$BEC = 0.01499$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	258.35	0.0000	P	17.5
2	☐	5.000	5.513	49629.12	0.0021	P	2.6
3	☐	250.000	256.900	2432510.64	0.0975	P	0.9
4	☐	625.000	635.653	5827410.68	0.2413	A	1.2
5	☐	1250.000	1306.292	11778555.12	0.4958	A	0.4
6	☐	2500.000	2547.971	22687479.15	0.9672	A	4.4
7	☐	5000.000	4960.265	45986987.83	1.8828	A	1.4
8	☐			60683.50	0.0028	P	1.6

$$y = 3.7957\text{E-}004 * x + 1.0711\text{E-}005$$

$$R = 0.9999$$

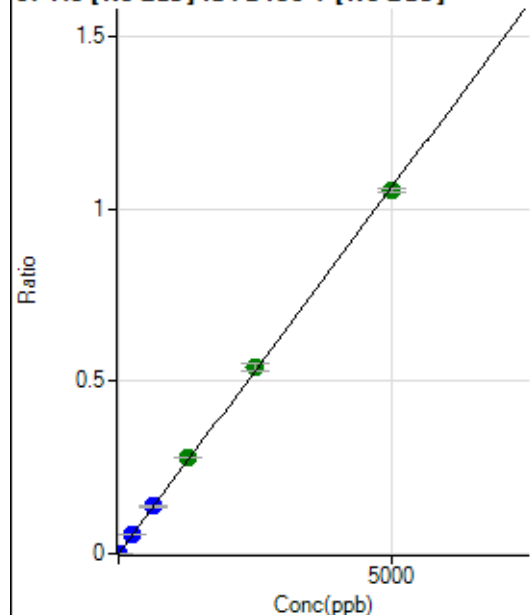
$$DL = 0.01483$$

$$BEC = 0.02822$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	33.3
2	☐	5.000	5.661	28448.73	0.0012	P	1.4
3	☐	250.000	258.155	1368621.61	0.0549	P	1.0
4	☐	625.000	644.003	3305724.49	0.1369	P	1.6
5	☐	1250.000	1310.316	6615476.41	0.2785	A	0.9
6	☐	2500.000	2554.303	12737014.35	0.5429	A	3.8
7	☐	5000.000	4954.986	25723074.36	1.0531	A	1.2
8	☐			22340.58	0.0010	P	5.2

$$y = 2.1254\text{E-}004 * x + 2.2908\text{E-}006$$

$$R = 0.9998$$

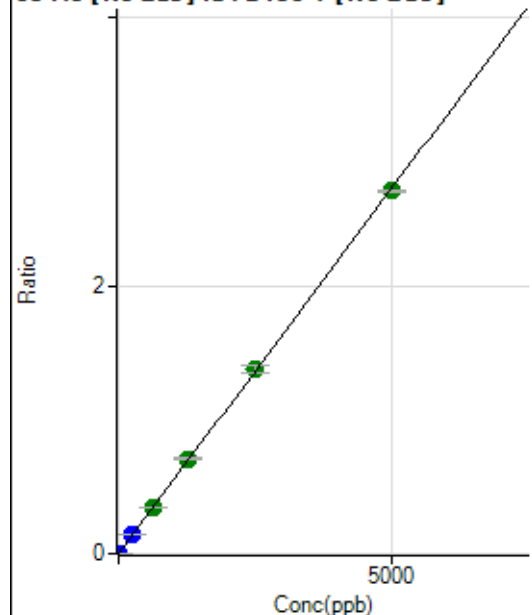
$$DL = 0.01078$$

$$BEC = 0.01078$$

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	200.01	0.0000	P	15.4
2	☐	5.000	5.645	72708.37	0.0031	P	1.5
3	☐	250.000	256.418	3481392.40	0.1396	P	1.0
4	☐	625.000	634.453	8340156.87	0.3453	A	1.3
5	☐	1250.000	1302.734	16843609.58	0.7091	A	0.8
6	☐	2500.000	2531.442	32327781.28	1.3779	A	3.8
7	☐	5000.000	4969.592	66070029.95	2.7049	A	0.7
8	☐			54956.83	0.0025	P	1.3

$$y = 5.4429\text{E-}004 * x + 8.2852\text{E-}006$$

$$R = 0.9999$$

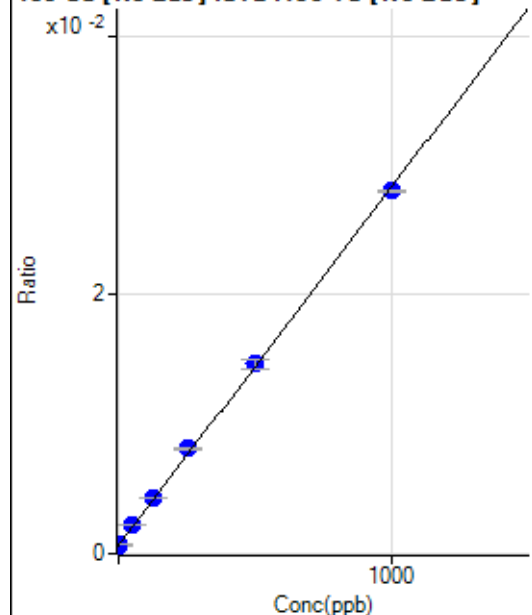
$$DL = 0.007022$$

$$BEC = 0.01522$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12239.23	0.0006	P	4.6
2	☐	1.000	2.474	13209.47	0.0007	P	3.2
3	☐	50.000	55.741	43484.63	0.0022	P	1.4
4	☐	125.000	134.272	85675.57	0.0043	P	1.2
5	☐	250.000	270.711	158385.52	0.0081	P	1.0
6	☐	500.000	507.593	283074.91	0.0147	P	5.1
7	☐	1000.000	989.578	563470.78	0.0280	P	0.6
8	☐			11463.58	0.0007	P	7.6

$$y = 2.7679\text{E-}005 * x + 6.2788\text{E-}004$$

$$R = 0.9997$$

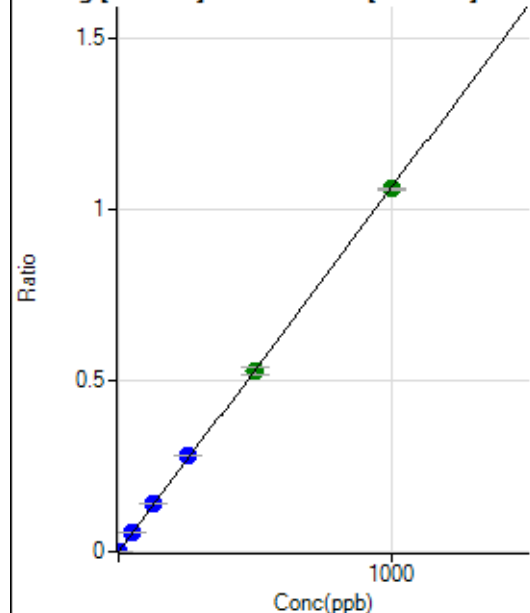
$$DL = 3.122$$

$$BEC = 22.68$$

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	219.45	0.0000	P	22.1
2	☐	1.000	1.285	26113.93	0.0014	P	0.4
3	☐	50.000	54.684	1164407.75	0.0581	P	0.7
4	☐	125.000	131.465	2755572.05	0.1397	P	0.8
5	☐	250.000	264.583	5484108.37	0.2812	P	1.6
6	☐	500.000	497.594	10199802.66	0.5288	A	4.8
7	☐	1000.000	996.515	21298497.18	1.0591	A	0.3
8	☐			5267.87	0.0003	P	3.7

$$y = 0.0011 * x + 1.1285E-005$$

$$R = 0.9999$$

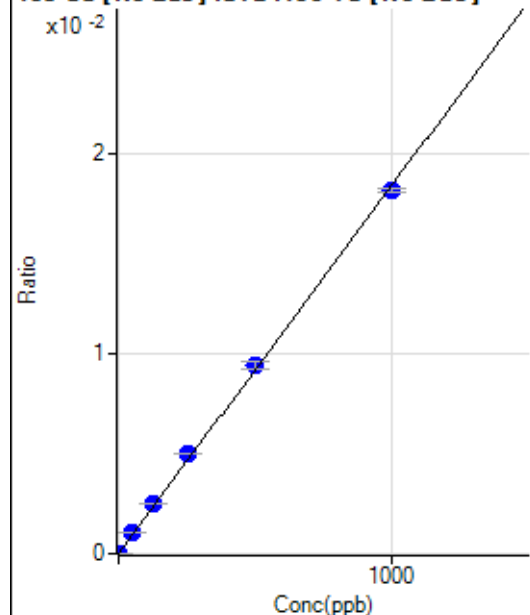
$$DL = 0.00704$$

$$BEC = 0.01062$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	18.05	0.0000	P	27.6
2	☐	1.000	1.173	426.40	0.0000	P	2.8
3	☐	50.000	56.507	20814.19	0.0010	P	0.9
4	☐	125.000	134.780	48846.78	0.0025	P	0.5
5	☐	250.000	272.514	97655.66	0.0050	P	0.9
6	☐	500.000	512.995	181790.96	0.0094	P	4.6
7	☐	1000.000	986.326	364395.01	0.0181	P	1.0
8	☐			219.45	0.0000	P	5.8

$$y = 1.8370E-005 * x + 9.2850E-007$$

$$R = 0.9996$$

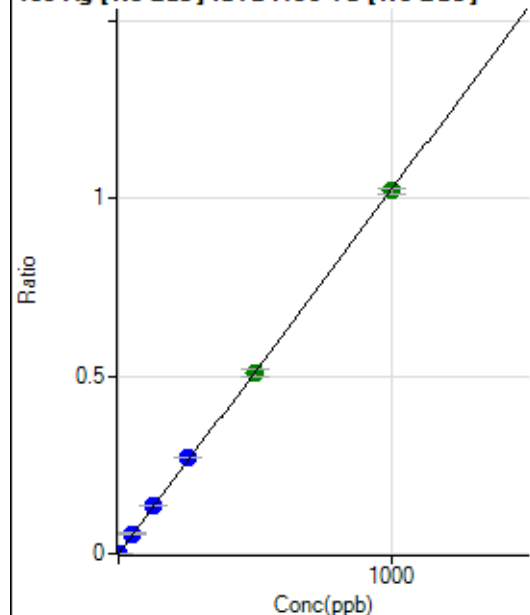
$$DL = 0.04178$$

$$BEC = 0.05054$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	16.3
2	☐	1.000	1.302	25382.06	0.0013	P	0.6
3	☐	50.000	55.164	1132783.86	0.0565	P	1.4
4	☐	125.000	132.204	2672630.81	0.1355	P	1.2
5	☐	250.000	264.483	5287544.00	0.2711	P	1.5
6	☐	500.000	497.277	9832788.07	0.5097	A	4.5
7	☐	1000.000	996.582	20543308.10	1.0216	A	1.4
8	☐			4650.97	0.0003	P	1.7

$$y = 0.0010 * x + 3.0003E-006$$

$$R = 0.9999$$

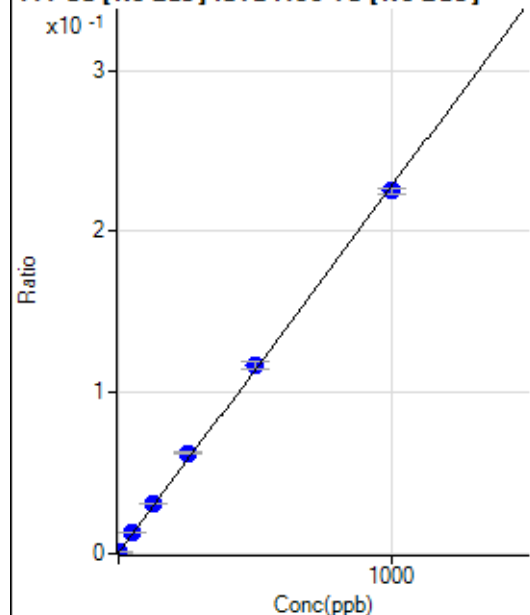
$$DL = 0.001432$$

$$BEC = 0.002927$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8611.77	0.0004	P	4.4
2	☐	1.000	1.264	13836.60	0.0007	P	2.2
3	☐	50.000	56.015	264175.21	0.0132	P	1.3
4	☐	125.000	135.433	616459.04	0.0313	P	0.5
5	☐	250.000	271.771	1214674.79	0.0623	P	1.6
6	☐	500.000	510.721	2250362.23	0.1167	P	4.2
7	☐	1000.000	987.591	4527925.53	0.2252	P	1.4
8	☐			9462.68	0.0005	P	7.8

$$y = 2.2755E-004 * x + 4.4180E-004$$

$$R = 0.9996$$

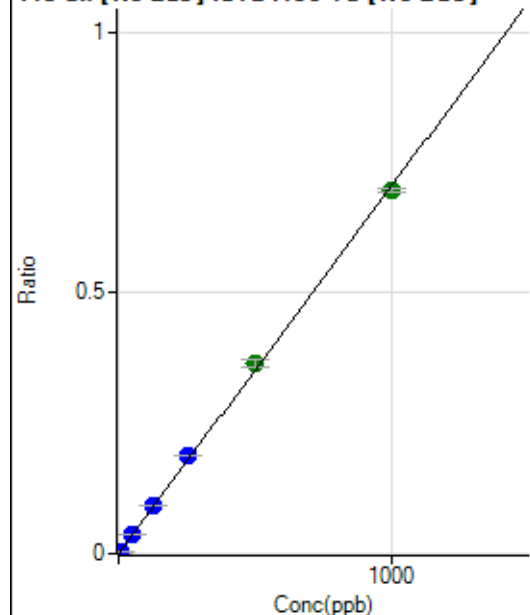
$$DL = 0.2575$$

$$BEC = 1.942$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	966.74	0.0000	P	5.5
2	☐	5.000	5.531	74869.60	0.0039	P	1.7
3	☐	50.000	53.027	749359.47	0.0374	P	1.4
4	☐	125.000	130.373	1812404.88	0.0919	P	0.1
5	☐	250.000	266.926	3668742.66	0.1881	P	1.0
6	☐	500.000	515.849	7012366.39	0.3635	A	4.0
7	☐	1000.000	987.018	13984990.41	0.6954	A	1.2
8	☐			15795.61	0.0009	P	1.8

$$y = 7.0454\text{E-}004 * x + 4.9576\text{E-}005$$

$$R = 0.9997$$

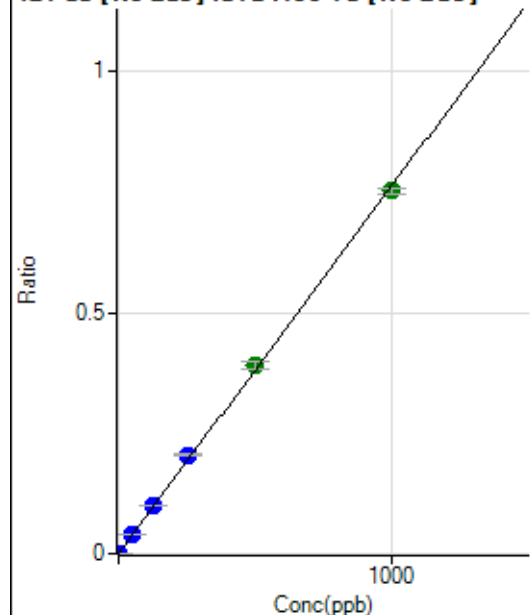
$$DL = 0.01153$$

$$BEC = 0.07037$$

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	44.45	0.0000	P	9.9
2	☐	2.000	2.185	31619.88	0.0017	P	2.3
3	☐	50.000	53.064	809606.81	0.0404	P	1.0
4	☐	125.000	131.435	1974142.02	0.1001	P	0.1
5	☐	250.000	269.025	3996074.53	0.2049	P	1.1
6	☐	500.000	514.493	7559578.56	0.3918	A	3.9
7	☐	1000.000	987.039	15116911.28	0.7517	A	1.4
8	☐			18418.54	0.0011	P	9.6

$$y = 7.6160\text{E-}004 * x + 2.2801\text{E-}006$$

$$R = 0.9996$$

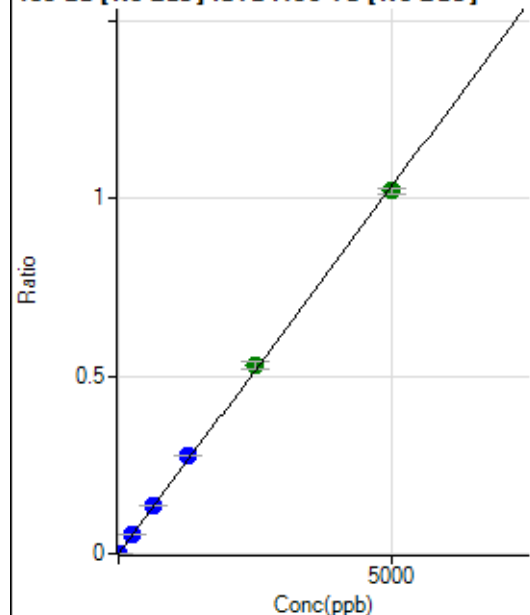
$$DL = 0.0008887$$

$$BEC = 0.002994$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	22.0
2	☐	10.000	11.118	43678.06	0.0023	P	3.0
3	☐	250.000	264.942	1097159.81	0.0548	P	0.8
4	☐	625.000	652.809	2661261.00	0.1349	P	0.5
5	☐	1250.000	1335.182	5382922.95	0.2760	P	1.0
6	☐	2500.000	2564.297	10226534.78	0.5301	A	3.8
7	☐	5000.000	4942.330	20543774.94	1.0216	A	1.8
8	☐			36476.55	0.0021	P	2.5

$$y = 2.0671\text{E-}004 * x + 4.2890\text{E-}006$$

$$R = 0.9997$$

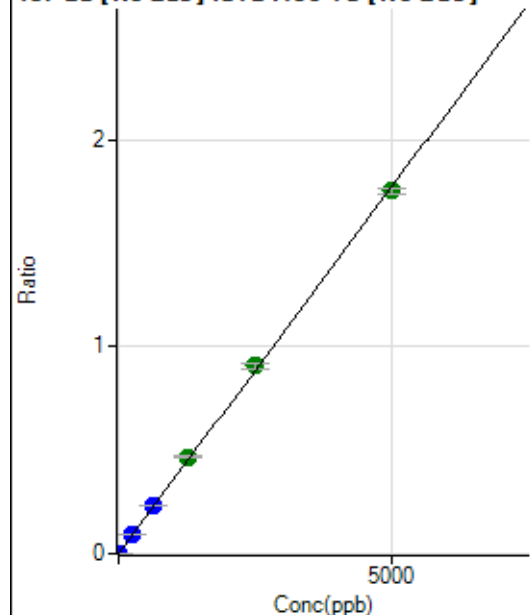
$$DL = 0.01368$$

$$BEC = 0.02075$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	108.34	0.0000	P	13.6
2	☐	10.000	11.045	74383.80	0.0039	P	2.2
3	☐	250.000	264.807	1880658.20	0.0939	P	0.6
4	☐	625.000	650.992	4551274.67	0.2308	P	0.4
5	☐	1250.000	1319.883	9125450.12	0.4679	A	1.3
6	☐	2500.000	2558.506	17497564.28	0.9070	A	4.0
7	☐	5000.000	4949.285	35281386.21	1.7545	A	1.8
8	☐			61827.58	0.0036	P	0.9

$$y = 3.5450\text{E-}004 * x + 5.5509\text{E-}006$$

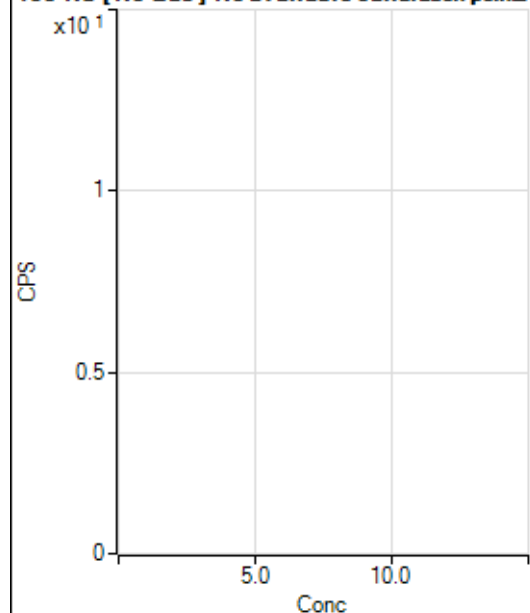
$$R = 0.9998$$

$$DL = 0.006394$$

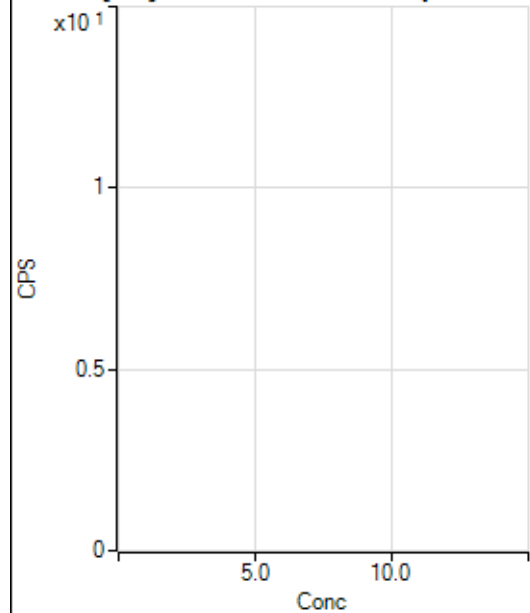
$$BEC = 0.01566$$

Weight: <None>

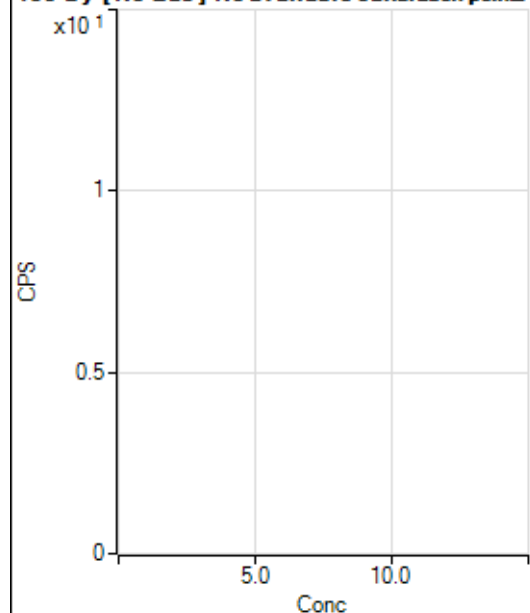
Min Conc: 0

150 Nd [No Gas] No available calibration points

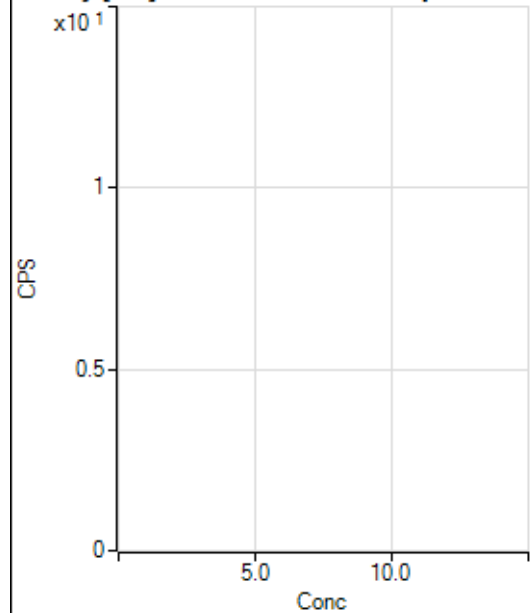
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	0.0
2	☐			24.44		P	41.7
3	☐			144.45		P	16.2
4	☐			375.58		P	7.2
5	☐			775.61		P	1.8
6	☐			1437.91		P	2.6
7	☐			2738.15		P	3.0
8	☐			204.46		P	14.7

150 Nd [He] No available calibration points

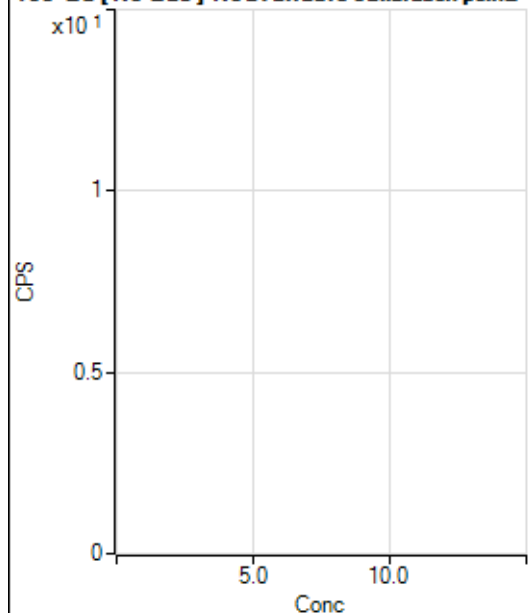
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐			2.22		P	86.6
3	☐			18.89		P	36.7
4	☐			35.56		P	32.9
5	☐			54.44		P	31.4
6	☐			82.22		P	22.3
7	☐			151.11		P	16.7
8	☐			81.11		P	23.7

156 Dy [No Gas] No available calibration points

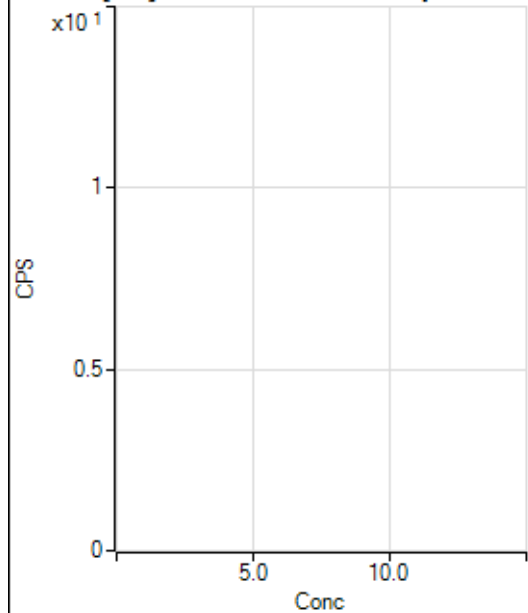
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			69.45		P	18.3
2	☐			55.56		P	22.9
3	☐			63.89		P	37.7
4	☐			111.12		P	15.6
5	☐			180.57		P	5.3
6	☐			402.80		P	16.6
7	☐			750.06		P	14.5
8	☐			1188.99		P	4.2

156 Dy [He] No available calibration points

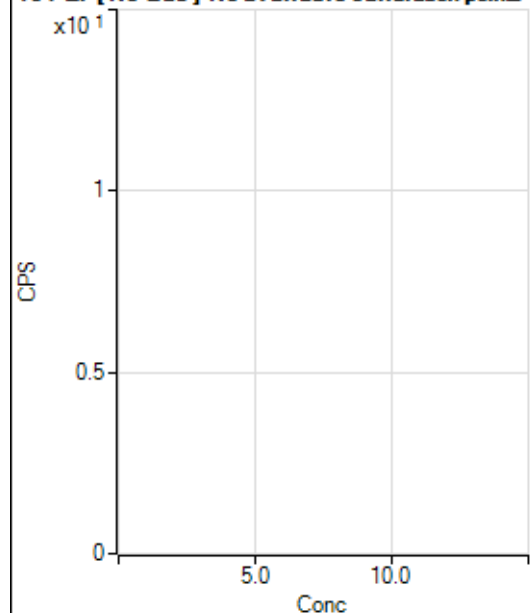
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	45.8
2	☐			13.34		P	43.3
3	☐			35.56		P	51.6
4	☐			76.67		P	7.5
5	☐			162.22		P	9.7
6	☐			233.34		P	18.2
7	☐			444.46		P	6.5
8	☐			495.58		P	6.4

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

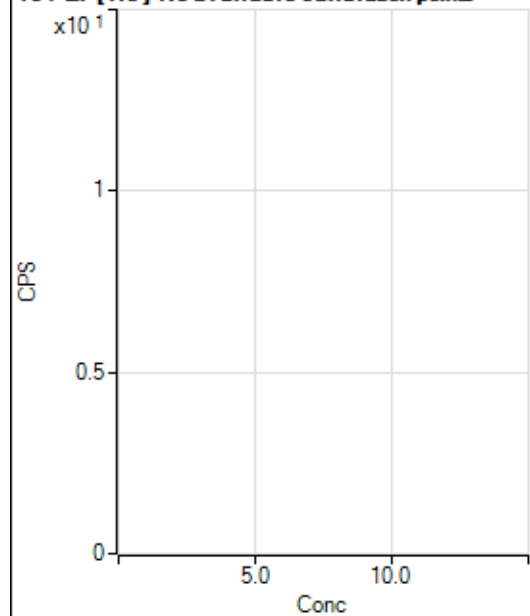
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			111.12		P	8.7
2	☐			130.56		P	32.1
3	☐			91.67		P	39.6
4	☐			177.79		P	24.1
5	☐			197.23		P	29.7
6	☐			247.24		P	22.4
7	☐			438.92		P	9.0
8	☐			1150.11		P	4.4

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			246.68		P	8.4
2	☐			274.45		P	13.4
3	☐			288.90		P	4.1
4	☐			277.79		P	9.8
5	☐			303.34		P	8.8
6	☐			341.12		P	5.4
7	☐			407.79		P	10.3
8	☐			771.15		P	6.1

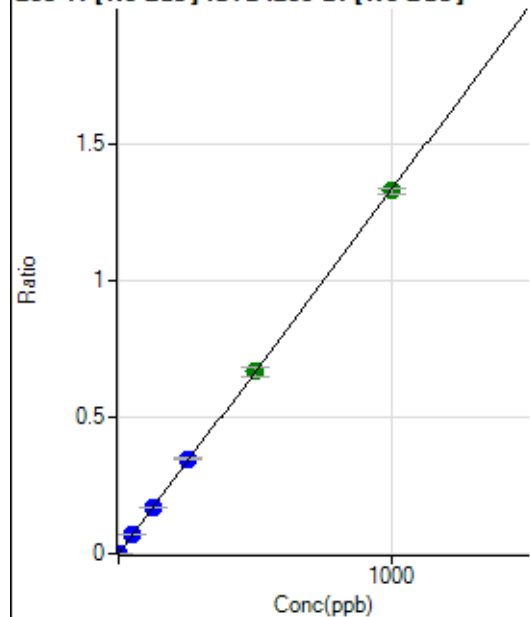
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.56		P	29.9
2	☐			75.01		P	38.5
3	☐			69.45		P	25.0
4	☐			102.78		P	52.8
5	☐			116.67		P	21.4
6	☐			119.45		P	39.7
7	☐			133.34		P	0.0
8	☐			275.01		P	10.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			43.33		P	13.3
2	☐			44.45		P	24.1
3	☐			47.78		P	26.4
4	☐			51.11		P	3.8
5	☐			45.55		P	8.5
6	☐			58.89		P	8.6
7	☐			66.67		P	27.8
8	☐			93.33		P	6.2

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	258.35	0.0000	P	8.6
2	☐	1.000	1.061	16811.31	0.0014	P	0.9
3	☐	50.000	50.731	819760.70	0.0676	P	0.7
4	☐	125.000	126.839	1990756.12	0.1689	P	0.4
5	☐	250.000	261.491	4000066.67	0.3481	P	1.4
6	☐	500.000	499.882	7443314.23	0.6654	A	4.9
7	☐	1000.000	996.919	14872618.91	1.3271	A	1.8
8	☐			5295.76	0.0006	P	10.5

$$y = 0.0013 * x + 2.1836E-005$$

$$R = 0.9999$$

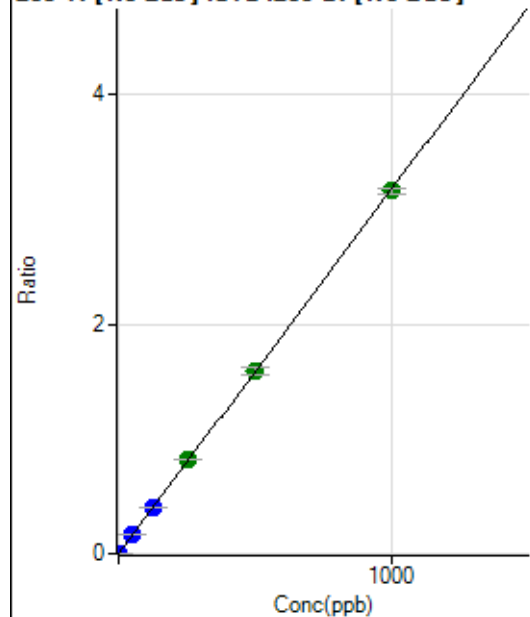
$$DL = 0.004253$$

$$BEC = 0.0164$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	636.16	0.0001	P	9.8
2	☐	1.000	1.044	39473.55	0.0034	P	1.5
3	☐	50.000	50.324	1939811.85	0.1598	P	0.6
4	☐	125.000	126.866	4749798.76	0.4029	P	0.9
5	☐	250.000	259.294	9461757.59	0.8234	A	0.7
6	☐	500.000	503.373	17883515.85	1.5984	A	4.2
7	☐	1000.000	995.740	35436354.26	3.1618	A	1.3
8	☐			12703.86	0.0015	P	13.8

$$y = 0.0032 * x + 5.3663E-005$$

$$R = 0.9999$$

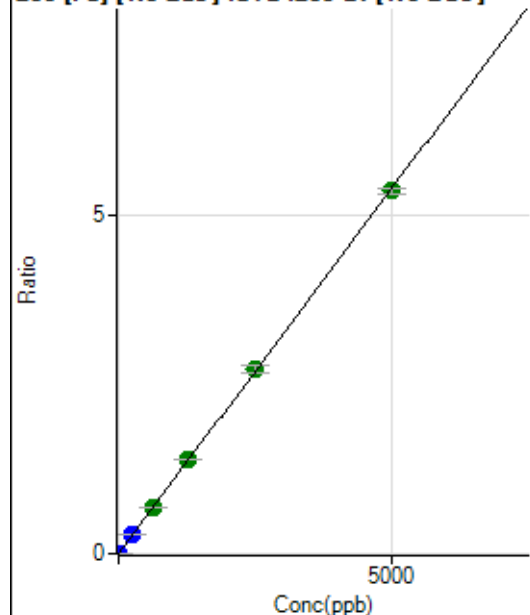
$$DL = 0.004975$$

$$BEC = 0.0169$$

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	1007.48	0.0001	P	11.8
2	☐	1.000	1.028	13991.04	0.0012	P	2.3
3	☐	250.000	254.702	3333020.01	0.2747	P	1.4
4	☐	625.000	625.496	7950537.33	0.6744	A	0.5
5	☐	1250.000	1290.141	15983105.22	1.3909	A	1.1
6	☐	2500.000	2534.598	30572034.71	2.7324	A	3.8
7	☐	5000.000	4972.369	60077222.64	5.3604	A	1.4
8	☐			54677.54	0.0063	P	0.5

$$y = 0.0011 * x + 8.4969E-005$$

$$R = 0.9999$$

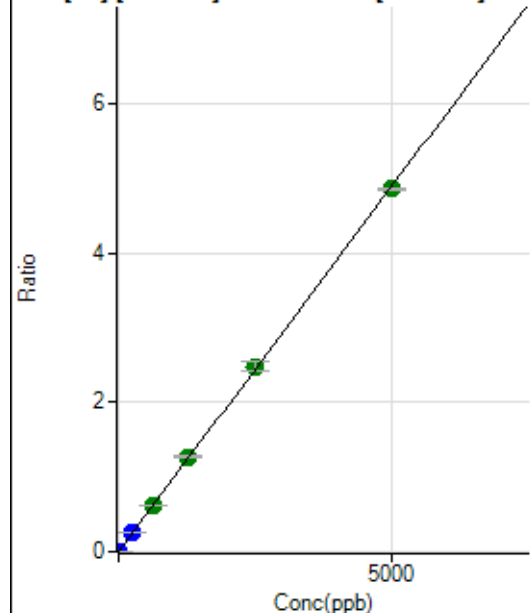
$$DL = 0.02796$$

$$BEC = 0.07882$$

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	818.57	0.0001	P	2.7
2	☐	1.000	1.021	12534.00	0.0011	P	0.4
3	☐	250.000	256.101	3043909.33	0.2508	P	0.7
4	☐	625.000	628.046	7250639.63	0.6150	A	0.6
5	☐	1250.000	1303.058	14662420.93	1.2760	A	1.1
6	☐	2500.000	2532.607	27738240.44	2.4799	A	5.0
7	☐	5000.000	4969.746	54542453.07	4.8662	A	0.6
8	☐			48223.12	0.0056	P	2.6

$$y = 9.7915E-004 * x + 6.9081E-005$$

$$R = 0.9999$$

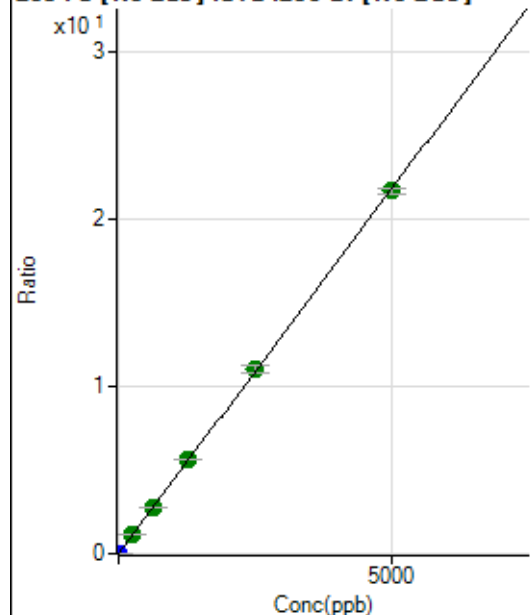
$$DL = 0.005632$$

$$BEC = 0.07055$$

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	3711.43	0.0003	P	0.9
2	☐	1.000	1.038	56613.29	0.0048	P	0.6
3	☐	250.000	253.126	13374729.67	1.1021	A	0.8
4	☐	625.000	627.504	32205329.19	2.7317	A	0.9
5	☐	1250.000	1297.282	64893454.69	5.6472	A	0.8
6	☐	2500.000	2524.539	122940693.7	10.9893	A	4.3
7	☐	5000.000	4975.441	242728361.9	21.6577	A	1.4
8	☐			219022.03	0.0253	P	1.9

$$y = 0.0044 * x + 3.1332E-004$$

$$R = 0.9999$$

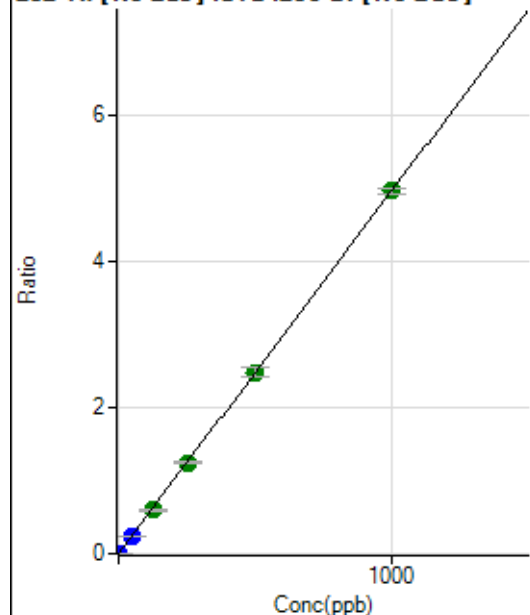
$$DL = 0.001898$$

$$BEC = 0.07198$$

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	6992.79	0.0006	P	1.7
2	☐	1.000	0.680	46497.84	0.0040	P	1.6
3	☐	50.000	45.355	2740111.95	0.2258	P	1.3
4	☐	125.000	119.378	6995306.06	0.5934	A	1.2
5	☐	250.000	251.379	14350364.56	1.2488	A	0.7
6	☐	500.000	499.917	27773591.59	2.4829	A	4.9
7	☐	1000.000	1000.632	55693139.67	4.9693	A	1.4
8	☐			29440.97	0.0034	P	1.8

$$y = 0.0050 * x + 5.9014E-004$$

$$R = 1.0000$$

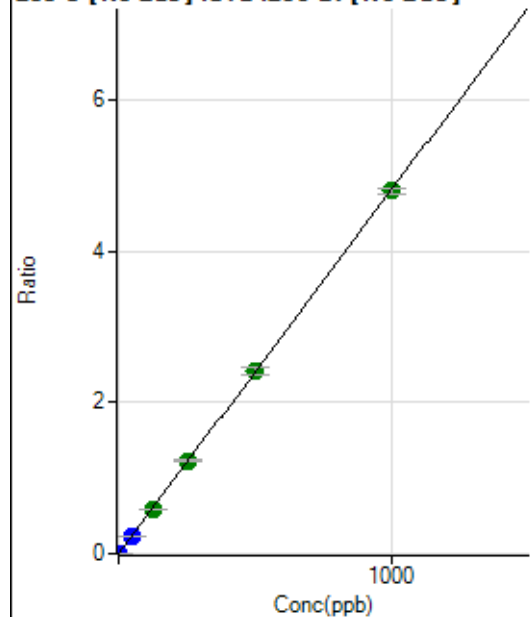
$$DL = 0.006003$$

$$BEC = 0.1188$$

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	105.56	0.0000	P	11.2
2	☐	1.000	0.974	55145.25	0.0047	P	1.5
3	☐	50.000	48.966	2865096.64	0.2361	P	0.7
4	☐	125.000	122.150	6943326.81	0.5890	A	1.1
5	☐	250.000	255.828	14173998.58	1.2335	A	1.9
6	☐	500.000	504.204	27196320.40	2.4310	A	4.3
7	☐	1000.000	996.849	53865697.04	4.8063	A	1.6
8	☐			9298.25	0.0011	P	10.4

$$y = 0.0048 * x + 8.9066E-006$$

$$R = 1.0000$$

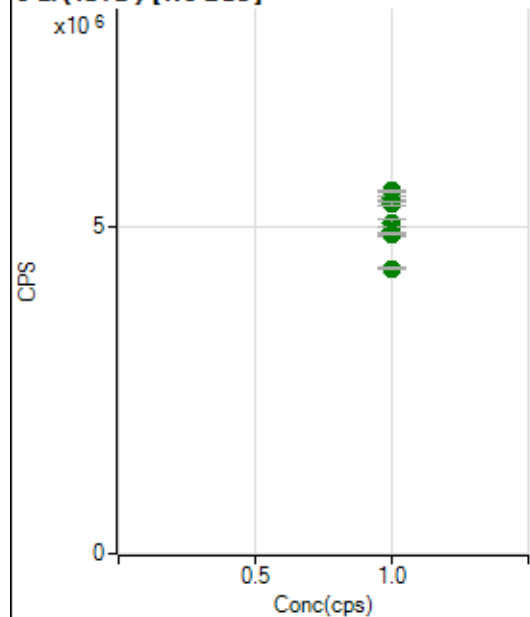
$$DL = 0.000622$$

$$BEC = 0.001847$$

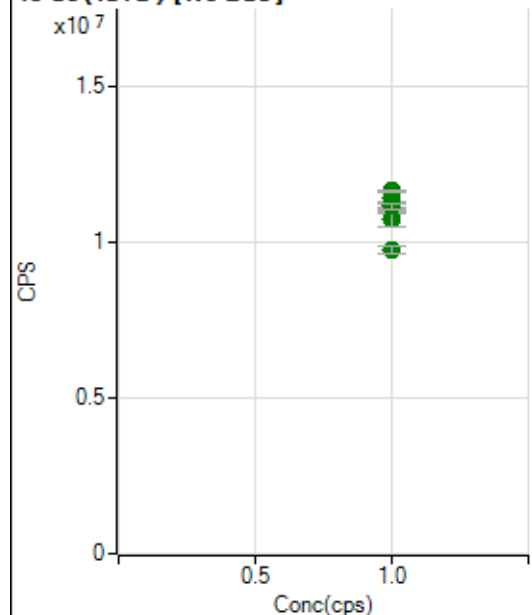
Weight: <None>

Min Conc: 0

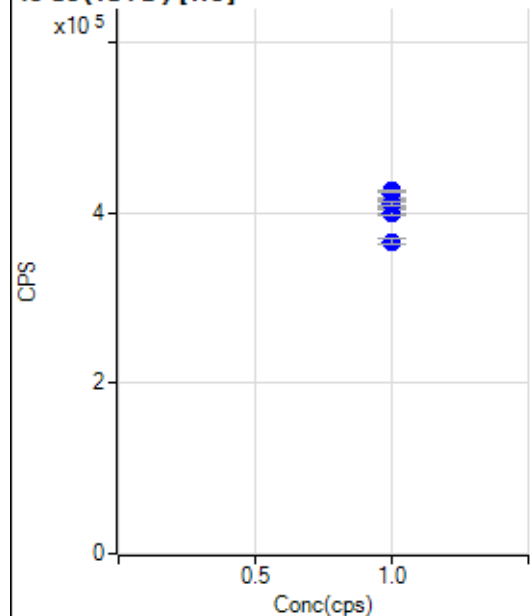
6 Li (ISTD) [No Gas]



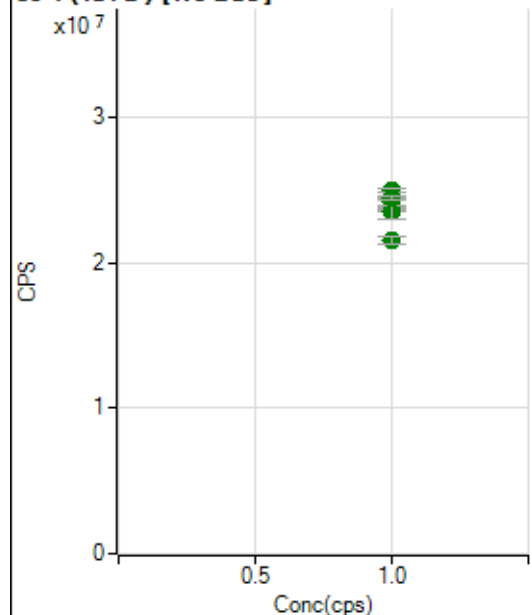
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5444679.05		A	1.6
2	☐	1.000		5361673.11		A	0.8
3	☐	1.000		5554005.40		A	0.8
4	☐	1.000		5363901.14		A	1.0
5	☐	1.000		5055541.98		A	2.5
6	☐	1.000		4933373.71		A	3.2
7	☐	1.000		4901031.94		A	0.4
8	☐	1.000		4370965.94		A	0.5

45 Sc (ISTD) [No Gas]

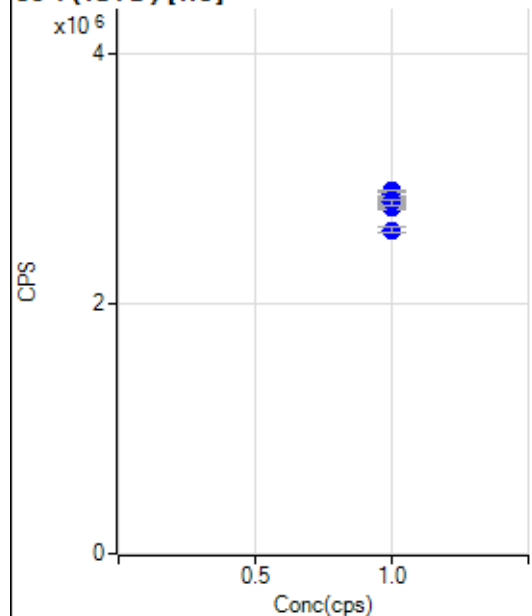
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11454134.97		A	2.6
2	☐	1.000		11103942.33		A	0.5
3	☐	1.000		11664026.21		A	0.7
4	☐	1.000		11168524.69		A	1.7
5	☐	1.000		11043199.56		A	1.5
6	☐	1.000		10753862.20		A	4.6
7	☐	1.000		11181194.42		A	1.6
8	☐	1.000		9785473.74		A	2.6

45 Sc (ISTD) [He]

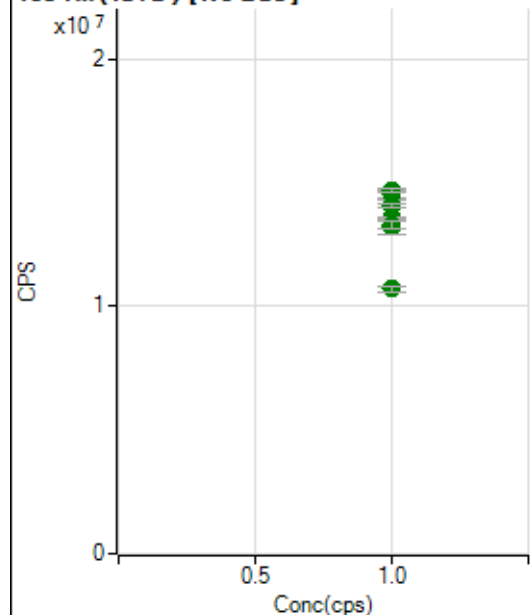
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		416297.66		P	0.7
2	☐	1.000		421584.24		P	1.6
3	☐	1.000		425392.57		P	0.7
4	☐	1.000		412277.86		P	2.1
5	☐	1.000		402957.34		P	1.4
6	☐	1.000		399690.19		P	1.4
7	☐	1.000		409917.85		P	1.3
8	☐	1.000		366116.34		P	2.1

89 Y (ISTD) [No Gas]

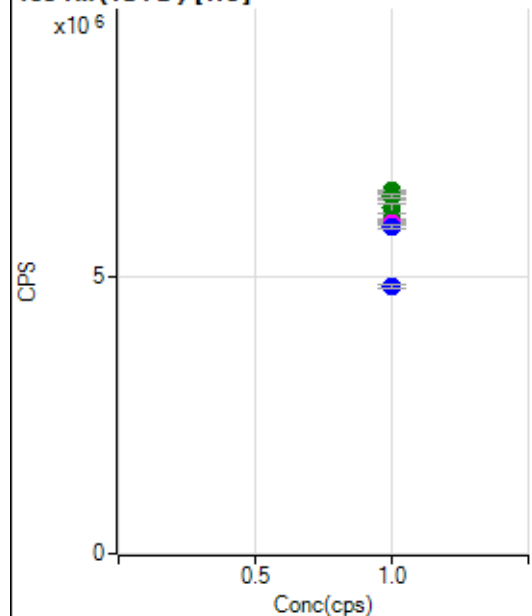
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		24156237.42		A	2.0
2	☐	1.000		23598762.43		A	0.3
3	☐	1.000		24944471.02		A	1.1
4	☐	1.000		24153427.97		A	1.4
5	☐	1.000		23754552.70		A	0.3
6	☐	1.000		23484213.82		A	3.8
7	☐	1.000		24426832.97		A	1.0
8	☐	1.000		21588750.09		A	2.5

89 Y (ISTD) [He]

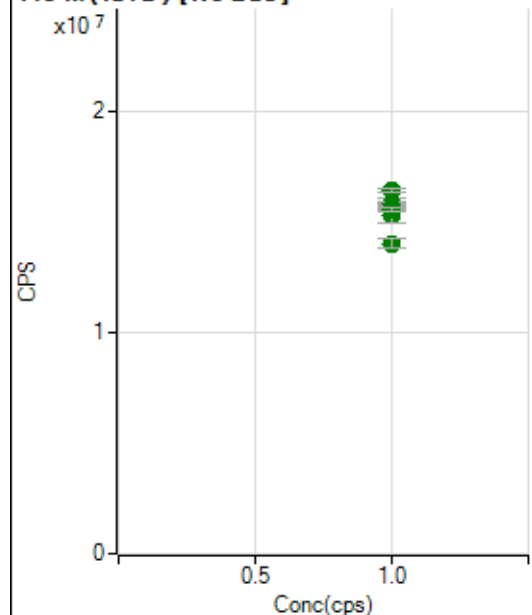
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2831681.66		P	0.9
2	☐	1.000		2880442.28		P	1.4
3	☐	1.000		2903389.19		P	0.6
4	☐	1.000		2828818.01		P	2.3
5	☐	1.000		2781263.47		P	0.4
6	☐	1.000		2762433.12		P	0.5
7	☐	1.000		2810027.67		P	1.3
8	☐	1.000		2588322.32		P	1.6

103 Rh (ISTD) [No Gas]

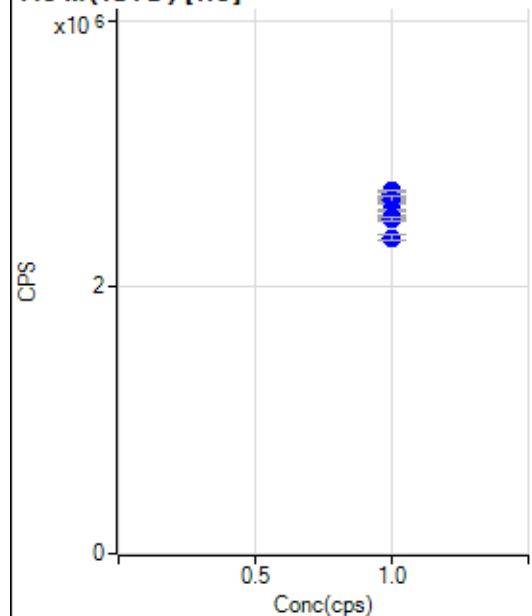
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14522854.51		A	2.1
2	☐	1.000		14311038.95		A	0.4
3	☐	1.000		14676051.72		A	1.0
4	☐	1.000		14101938.12		A	0.9
5	☐	1.000		13600871.60		A	0.2
6	☐	1.000		13218134.94		A	4.6
7	☐	1.000		13299975.50		A	2.1
8	☐	1.000		10720601.78		A	2.4

103 Rh (ISTD) [He]

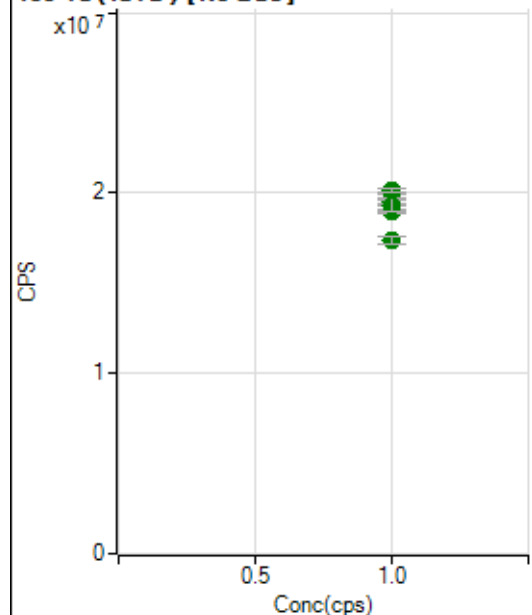
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6571910.66		A	0.9
2	☐	1.000		6495775.32		A	2.2
3	☐	1.000		6470389.83		A	0.8
4	☐	1.000		6254291.16		A	2.9
5	☐	1.000		6048363.45		A	0.5
6	☐	1.000		5978889.35		M	0.3
7	☐	1.000		5931619.56		P	1.2
8	☐	1.000		4834044.44		P	1.8

115 In (ISTD) [No Gas]

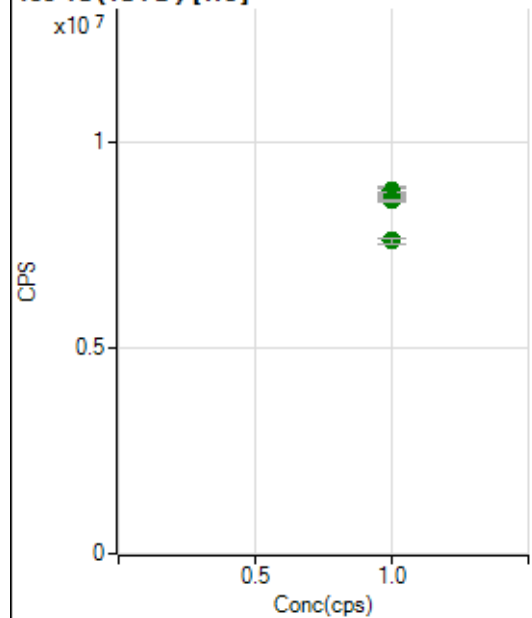
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15893502.59		A	2.1
2	☐	1.000		15722691.42		A	1.0
3	☐	1.000		16400962.37		A	1.0
4	☐	1.000		15797767.72		A	0.9
5	☐	1.000		15613988.21		A	0.9
6	☐	1.000		15340448.06		A	4.6
7	☐	1.000		15557943.84		A	1.4
8	☐	1.000		14035543.85		A	2.9

115 In (ISTD) [He]

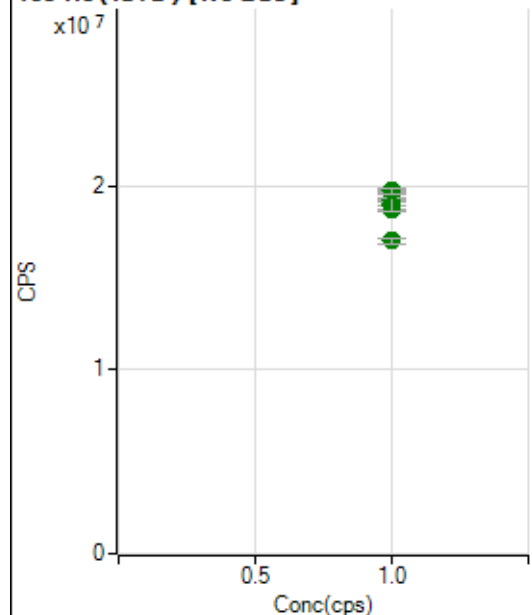
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2647963.19		P	0.3
2	☐	1.000		2705003.85		P	2.2
3	☐	1.000		2723402.07		P	0.7
4	☐	1.000		2653828.78		P	2.5
5	☐	1.000		2576652.59		P	1.0
6	☐	1.000		2527593.37		P	0.9
7	☐	1.000		2511293.47		P	0.8
8	☐	1.000		2372879.84		P	1.9

159 Tb (ISTD) [No Gas]

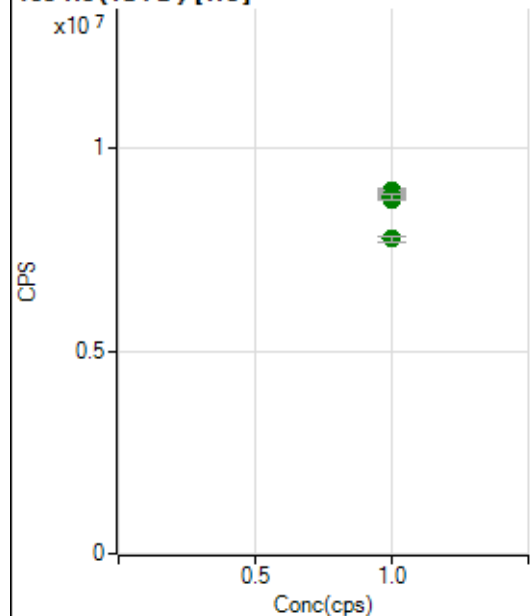
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19485263.74		A	2.2
2	☐	1.000		18972737.36		A	0.9
3	☐	1.000		20032532.76		A	0.5
4	☐	1.000		19721103.46		A	0.4
5	☐	1.000		19504466.10		A	0.9
6	☐	1.000		19311415.68		A	3.8
7	☐	1.000		20111144.70		A	1.0
8	☐	1.000		17364113.21		A	2.3

159 Tb (ISTD) [He]

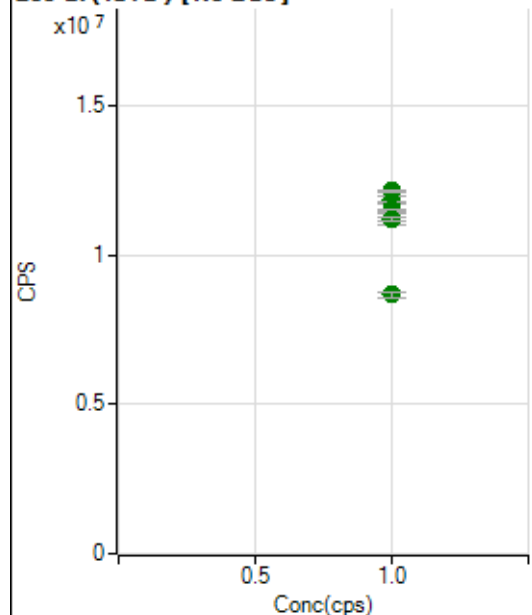
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8640637.02		A	0.5
2	☐	1.000		8711245.29		A	1.5
3	☐	1.000		8799098.90		A	1.9
4	☐	1.000		8796711.39		A	2.6
5	☐	1.000		8749941.74		A	0.1
6	☐	1.000		8566846.33		A	0.4
7	☐	1.000		8567907.16		A	0.8
8	☐	1.000		7585230.02		A	1.7

165 Ho (ISTD) [No Gas]

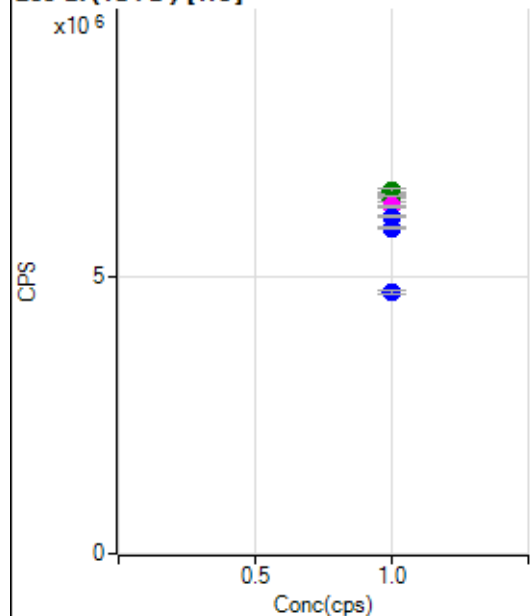
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18951766.94		A	2.7
2	☐	1.000		18689057.92		A	0.1
3	☐	1.000		19718787.07		A	0.6
4	☐	1.000		19265185.82		A	1.0
5	☐	1.000		19038161.94		A	0.9
6	☐	1.000		18977808.47		A	4.0
7	☐	1.000		19737921.93		A	1.4
8	☐	1.000		17012191.97		A	1.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8746969.66		A	0.6
2	☐	1.000		8868759.94		A	2.9
3	☐	1.000		8956106.19		A	0.6
4	☐	1.000		8891827.51		A	2.1
5	☐	1.000		8821923.06		A	1.4
6	☐	1.000		8759556.61		A	1.1
7	☐	1.000		8815620.28		A	1.4
8	☐	1.000		7768261.41		A	1.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11846523.30		A	2.2
2	☐	1.000		11722553.58		A	0.6
3	☐	1.000		12135621.48		A	0.5
4	☐	1.000		11789361.07		A	0.1
5	☐	1.000		11491257.61		A	0.2
6	☐	1.000		11199261.78		A	3.7
7	☐	1.000		11208806.36		A	1.2
8	☐	1.000		8658935.29		A	2.4

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6512355.67		A	0.8
2	☐	1.000		6534852.47		A	2.3
3	☐	1.000		6572231.50		A	1.4
4	☐	1.000		6418005.04		A	1.7
5	☐	1.000		6293608.24		M	0.4
6	☐	1.000		6105070.95		P	0.4
7	☐	1.000		5903399.57		P	1.1
8	☐	1.000		4727573.68		P	1.2

US EPA Tune Check Sample Report

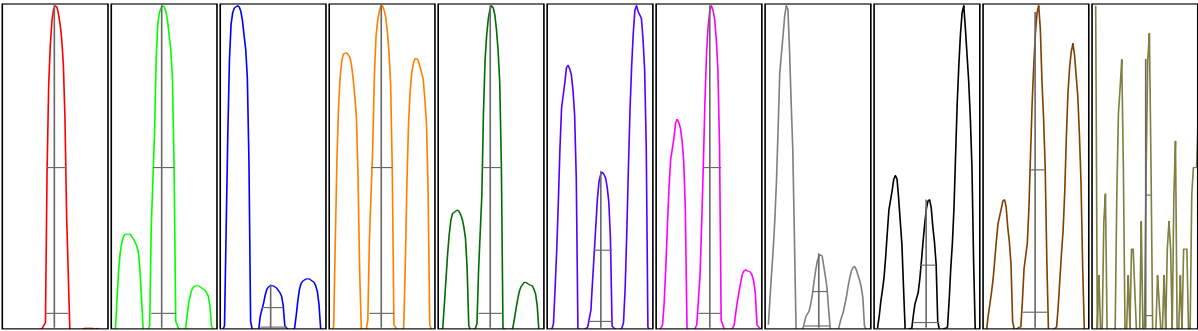
Batch Folder D:\ICP-MS Data\1\DATA\P7032020IMS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	15904	0.57	5.00	
24	207252	0.45	5.00	
25	27744	0.50	5.00	
26	31799	0.51	5.00	
59	103741	0.66	5.00	
113	17558	0.43	5.00	
115	56452	4.33	5.00	
206	20810	1.25	5.00	
207	17707	1.03	5.00	
208	43697	0.82	5.00	
220	0	57.74		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15751	15965	15965	15943	15894
24	205871	206967	207857	207235	208329
25	27497	27809	27814	27784	27815
26	31589	31863	31810	31717	32020
59	102780	103356	104183	103899	104488
113	17458	17633	17503	17614	17582
115	59963	57788	55860	54796	53854
206	20401	20720	20995	20900	21035
207	17393	17723	17755	17860	17804
208	43258	43508	43626	43909	44182
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	29039	9.00	8.9 - 9.1		0.690	0.900	
24	347294	23.95	23.9 - 24.1		0.741	0.900	
25	46531	24.95	24.9 - 25.1		0.765	0.900	
26	54380	26.00	25.9 - 26.1		0.742	0.900	
59	185150	59.00	58.9 - 59.1		0.736	0.900	
113	35809	113.05	112.9 - 113.1		0.682	0.900	
115	113729	115.05	114.9 - 115.1		0.686	0.900	
206	46207	206.05	205.9 - 206.1		0.755	0.900	
207	38434	207.00	206.9 - 207.1		0.733	0.900	
208	95206	208.00	207.9 - 208.1		0.760	0.900	
220	1	220.05	-		0.242		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V	Deflect	11.6	V
Extract 2	-110.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	190	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	24109	0.81	
89	65430	1.09	
205	50552	0.55	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	23867	23934	24188	24277	24278
89	64400	65002	65688	65954	66107
205	50162	50490	50671	50510	50926

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V	Deflect	0.8	V
Extract 2	-105.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	V	Cell Exit	-60	V			

Cell Parameters

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