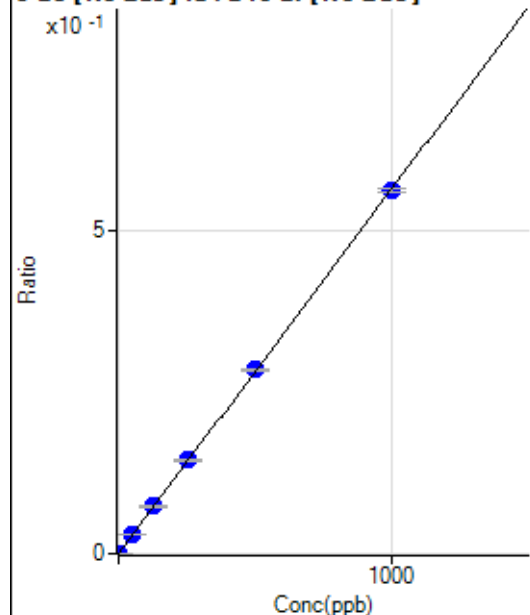


Batch Folder: D:\ICP-MS Data\P7122419 MS.b\
Analysis File: P7122419 MS.batch.bin
DA Date-Time: 2019-12-25 02:04:28
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-24 14:44:00
2	004CALS.d	S02	2019-12-24 14:47:39
3	005CALS.d	S03	2019-12-24 14:52:41
4	006CALS.d	S04	2019-12-24 14:56:59
5	007CALS.d	S05	2019-12-24 15:00:53
6	008CALS.d	S06	2019-12-24 15:04:43
7	009CALS.d	S07	2019-12-24 15:08:31
8	010CALS.d	S08	2019-12-24 15:12:22

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.12	0.0000	P	35.8
2	☐	1.000	0.972	3500.49	0.0006	P	1.9
3	☐	50.000	51.720	185172.87	0.0291	P	0.7
4	☐	125.000	129.529	427579.58	0.0729	P	0.5
5	☐	250.000	256.389	799888.29	0.1443	P	0.5
6	☐	500.000	504.304	1532730.30	0.2837	P	1.6
7	☐	1000.000	995.598	2960829.58	0.5602	P	1.1
8	☐			553.73	0.0001	P	19.8

$$y = 5.6261\text{E-}004 * x + 1.7283\text{E-}005$$

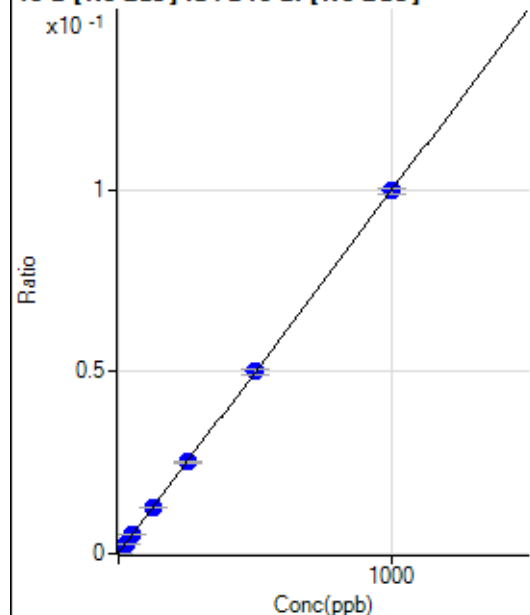
$$R = 1.0000$$

$$DL = 0.03302$$

$$BEC = 0.03072$$

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	913.96	0.0001	P	6.5
2	☐	25.000	24.934	16306.69	0.0026	P	2.9
3	☐	50.000	51.013	33243.23	0.0052	P	0.6
4	☐	125.000	127.314	75273.75	0.0128	P	0.4
5	☐	250.000	251.607	139838.97	0.0252	P	2.5
6	☐	500.000	500.002	269959.86	0.0500	P	2.5
7	☐	1000.000	999.259	527225.99	0.0997	P	1.2
8	☐			14465.84	0.0028	P	9.4

$$y = 9.9672\text{E-}005 * x + 1.4230\text{E-}004$$

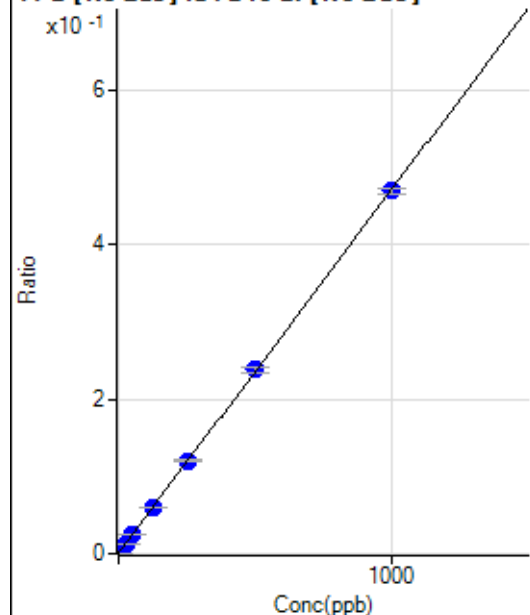
$$R = 1.0000$$

$$DL = 0.2768$$

$$BEC = 1.428$$

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	4717.59	0.0007	P	3.9
2	☐	25.000	25.107	77887.21	0.0126	P	1.4
3	☐	50.000	51.083	157555.39	0.0248	P	1.8
4	☐	125.000	126.261	352860.37	0.0602	P	1.9
5	☐	250.000	252.811	663832.66	0.1197	P	1.8
6	☐	500.000	504.266	1285888.08	0.2381	P	3.4
7	☐	1000.000	996.950	2484258.48	0.4700	P	1.5
8	☐			68454.53	0.0133	P	10.0

$$y = 4.7067\text{E-}004 * x + 7.3443\text{E-}004$$

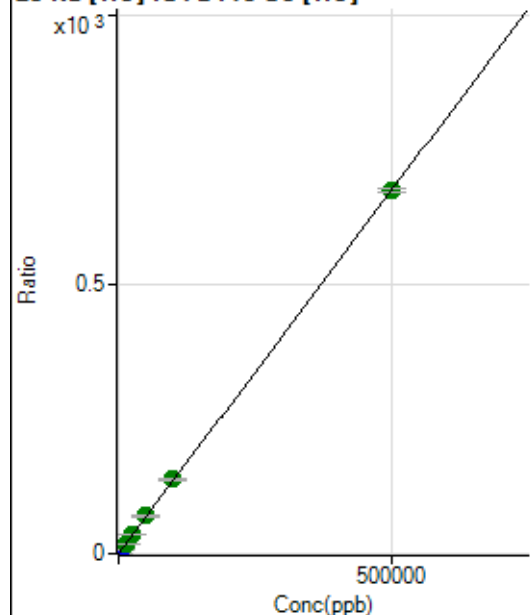
$$R = 1.0000$$

$$DL = 0.1813$$

$$BEC = 1.56$$

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	15850.60	0.0291	P	3.7
2	☐	500.000	502.001	395244.13	0.7057	P	2.9
3	☐	5000.000	5294.470	3783037.11	7.1648	P	0.4
4	☐	12500.000	13127.825	9329391.35	17.7224	A	1.1
5	☐	25000.000	26098.853	17687639.11	35.2043	A	0.7
6	☐	50000.000	51609.027	35027745.92	69.5861	A	2.5
7	☐	100000.00	102160.42	67513445.26	137.7176	A	0.9
8	☐	500000.00	499333.42	320556940.5	673.0143	A	1.2

$$y = 0.0013 * x + 0.0291$$

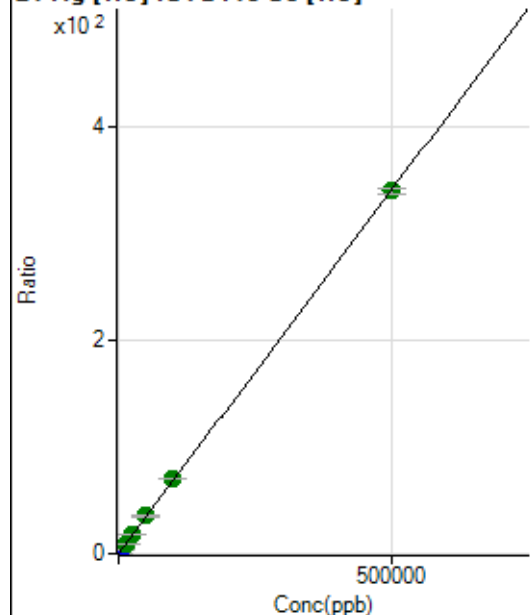
$$R = 1.0000$$

$$DL = 2.401$$

$$BEC = 21.61$$

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	358.35	0.0007	P	25.3
2	☐	500.000	518.864	198464.12	0.3544	P	3.6
3	☐	5000.000	5423.226	1952310.68	3.6975	P	0.4
4	☐	12500.000	13390.901	4805660.61	9.1289	A	1.0
5	☐	25000.000	26482.360	9070238.14	18.0530	A	0.9
6	☐	50000.000	52068.638	17867568.46	35.4946	A	2.2
7	☐	100000.00	103165.12	34476432.37	70.3258	A	0.5
8	☐	500000.00	499059.47	162034152.2	340.1971	A	1.2

$$y = 6.8168\text{E-}004 * x + 6.5707\text{E-}004$$

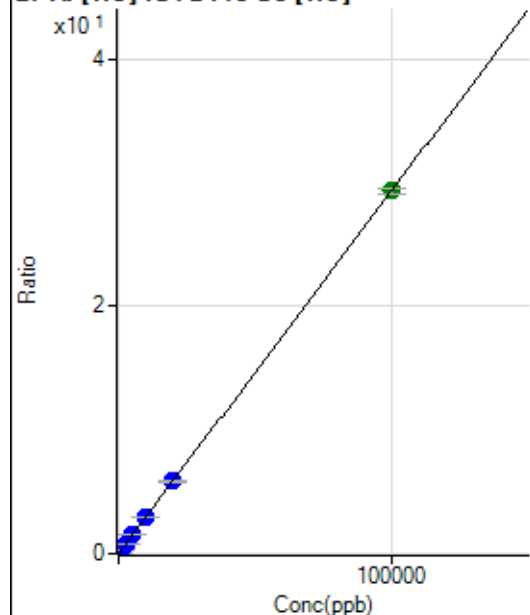
$$R = 1.0000$$

$$DL = 0.7325$$

$$BEC = 0.9639$$

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	44.45	0.0001	P	11.1
2	☐	20.000	18.905	3150.48	0.0056	P	6.0
3	☐	1000.000	1038.863	160883.70	0.3047	P	0.9
4	☐	2500.000	2557.055	394769.66	0.7499	P	0.6
5	☐	5000.000	5086.097	749333.23	1.4915	P	1.5
6	☐	10000.000	9997.083	1475601.63	2.9315	P	2.7
7	☐	20000.000	19897.342	2860340.15	5.8346	P	0.5
8	☐	100000.00	100014.70	13968036.42	29.3275	A	1.9

$$y = 2.9323\text{E-}004 * x + 8.1654\text{E-}005$$

$$R = 1.0000$$

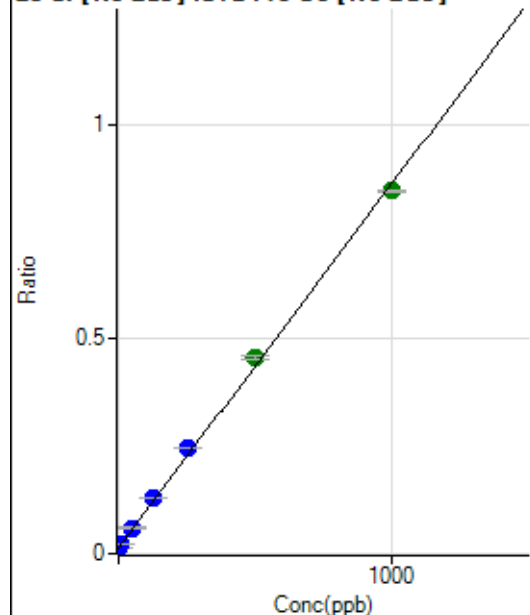
$$DL = 0.09293$$

$$BEC = 0.2785$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	193914.62	0.0138	P	0.6
2	☐	10.000	9.943	299035.89	0.0222	P	1.3
3	☐	50.000	54.890	829970.03	0.0603	P	1.3
4	☐	125.000	138.144	1681059.00	0.1307	P	1.6
5	☐	250.000	274.280	3018219.62	0.2459	P	0.6
6	☐	500.000	521.034	5507663.40	0.4546	A	1.9
7	☐	1000.000	981.526	10131587.46	0.8442	A	0.9
8	☐			612895.03	0.0525	P	1.3

$$y = 8.4598\text{E-}004 * x + 0.0138$$

$$R = 0.9993$$

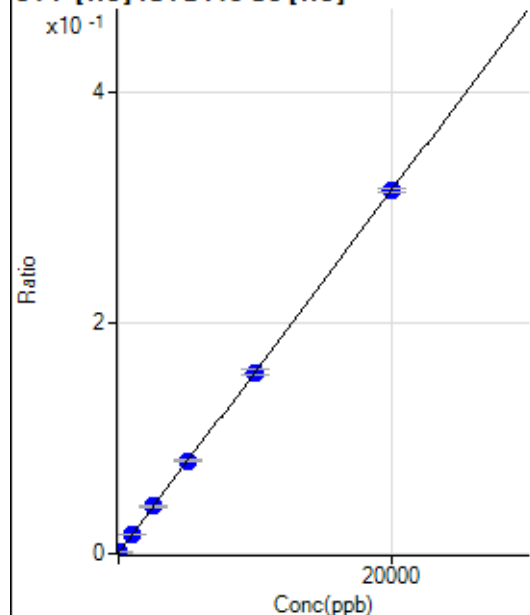
$$DL = 0.276$$

$$BEC = 16.33$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-22.539	144.45	0.0003	P	24.1
2	☐	0.000	22.539	544.48	0.0010	P	7.6
3	☐	1000.000	1010.564	8691.77	0.0165	P	0.8
4	☐	2500.000	2578.233	21605.29	0.0410	P	1.7
5	☐	5000.000	5098.838	40472.65	0.0806	P	2.0
6	☐	10000.000	9975.704	79029.14	0.1570	P	3.2
7	☐	20000.000	19977.131	153841.83	0.3138	P	0.9
8	☐			150.01	0.0003	P	6.5

$$y = 1.5678\text{E-}005 * x + 6.1869\text{E-}004$$

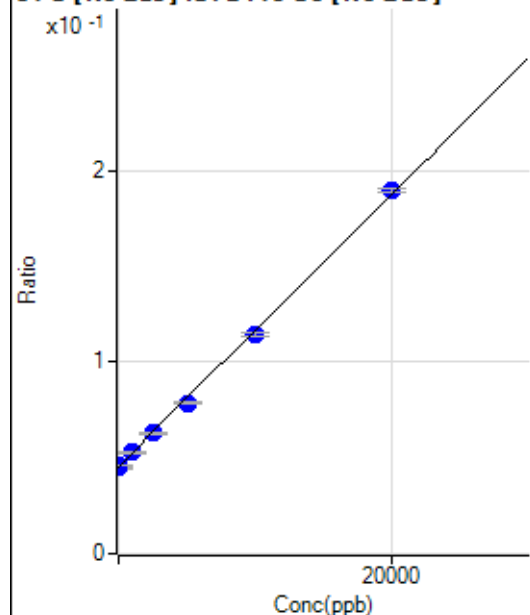
$$R = 1.0000$$

$$DL = 13.17$$

$$BEC = 39.46$$

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	-111.972	627976.44	0.0447	P	2.0
2	☐	0.000	111.972	623388.00	0.0463	P	1.0
3	☐	1000.000	1004.226	725597.43	0.0527	P	0.7
4	☐	2500.000	2414.827	806493.23	0.0627	P	0.9
5	☐	5000.000	4656.856	965044.61	0.0786	P	0.7
6	☐	10000.000	9726.234	1388486.11	0.1146	P	1.7
7	☐	20000.000	20233.104	2270903.59	0.1892	P	1.0
8	☐			473332.10	0.0405	P	1.3

$$y = 7.1010\text{E-}006 * x + 0.0455$$

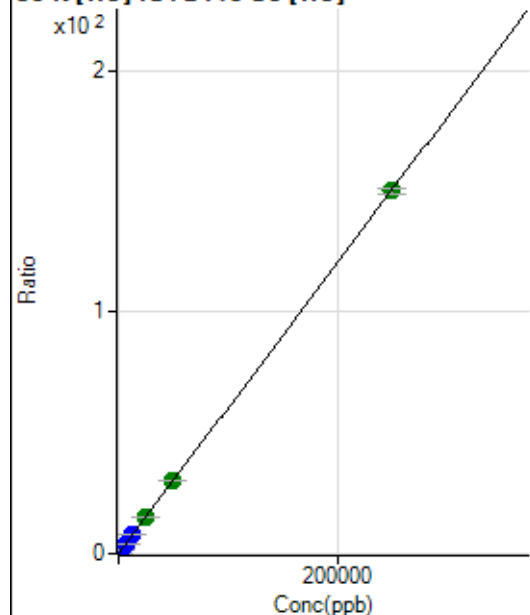
R = 0.9996

DL = 283.9

BEC = 6413

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	25380.77	0.0466	P	0.6
2	☐	500.000	502.935	195280.84	0.3487	P	2.0
3	☐	2500.000	2649.944	864916.38	1.6381	P	0.4
4	☐	6250.000	6557.703	2097860.75	3.9850	P	0.8
5	☐	12500.000	13055.533	3962967.45	7.8875	P	0.3
6	☐	25000.000	25429.915	7711505.12	15.3192	A	2.4
7	☐	50000.000	50558.485	14908605.37	30.4108	A	0.4
8	☐	250000.00	249808.33	71479825.21	150.0754	A	1.4

$$y = 6.0058\text{E-}004 * x + 0.0466$$

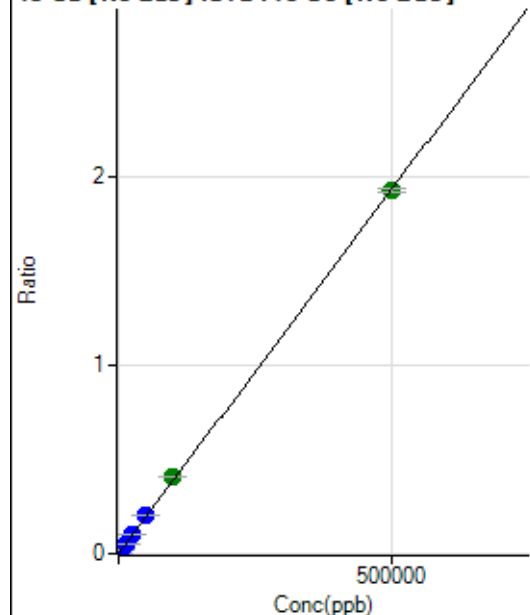
R = 1.0000

DL = 1.325

BEC = 77.62

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	352.80	0.0000	P	16.1
2	☐	500.000	514.830	27053.48	0.0020	P	1.9
3	☐	5000.000	5375.378	285968.70	0.0208	P	1.5
4	☐	12500.000	13490.657	669638.93	0.0521	P	1.4
5	☐	25000.000	27008.567	1279140.54	0.1042	P	0.2
6	☐	50000.000	53094.314	2481277.94	0.2048	P	1.9
7	☐	100000.00	106090.93	4911223.76	0.4092	A	0.8
8	☐	500000.00	498343.41	22452026.20	1.9221	A	1.2

$$y = 3.8569\text{E-}006 * x + 2.5119\text{E-}005$$

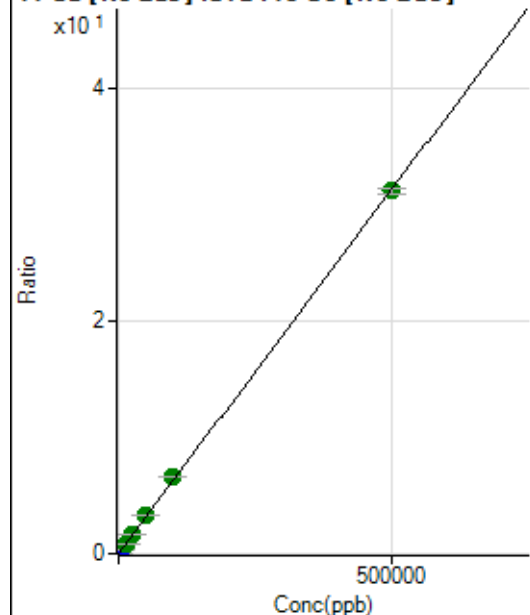
$$R = 0.9999$$

$$DL = 3.146$$

$$BEC = 6.513$$

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	10442.95	0.0007	P	4.7
2	☐	500.000	511.298	440443.80	0.0327	P	0.2
3	☐	5000.000	5324.116	4599968.94	0.3339	P	0.5
4	☐	12500.000	13235.162	10663645.11	0.8289	A	0.5
5	☐	25000.000	26541.486	20397535.52	1.6615	A	0.6
6	☐	50000.000	52851.425	40076612.70	3.3078	A	1.2
7	☐	100000.00	106015.68	79625337.20	6.6344	A	0.9
8	☐	500000.00	498413.01	364302427.5	31.1878	A	1.4

$$y = 6.2573\text{E-}005 * x + 7.4395\text{E-}004$$

$$R = 0.9999$$

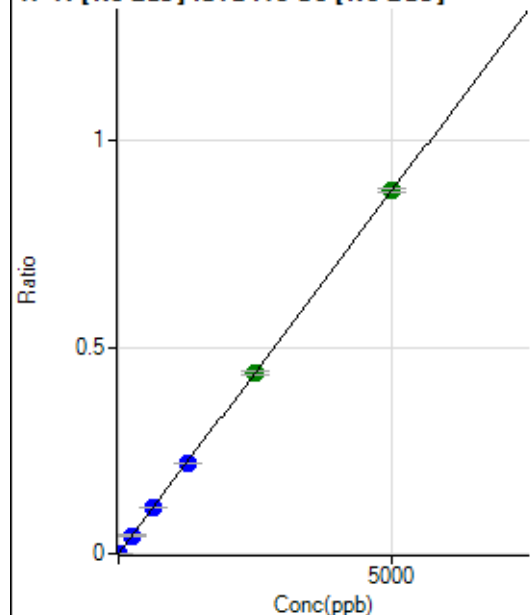
$$DL = 1.661$$

$$BEC = 11.89$$

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	158.34	0.0000	P	29.7
2	☐	5.000	5.137	12291.66	0.0009	P	2.0
3	☐	250.000	251.814	609625.41	0.0442	P	0.6
4	☐	625.000	630.967	1426051.78	0.1109	P	0.8
5	☐	1250.000	1254.503	2705601.41	0.2204	P	0.4
6	☐	2500.000	2488.129	5295566.18	0.4371	A	1.9
7	☐	5000.000	5003.973	10550063.86	0.8791	A	1.2
8	☐			2892.09	0.0002	P	10.1

$$y = 1.7567\text{E-}004 * x + 1.1288\text{E-}005$$

$$R = 1.0000$$

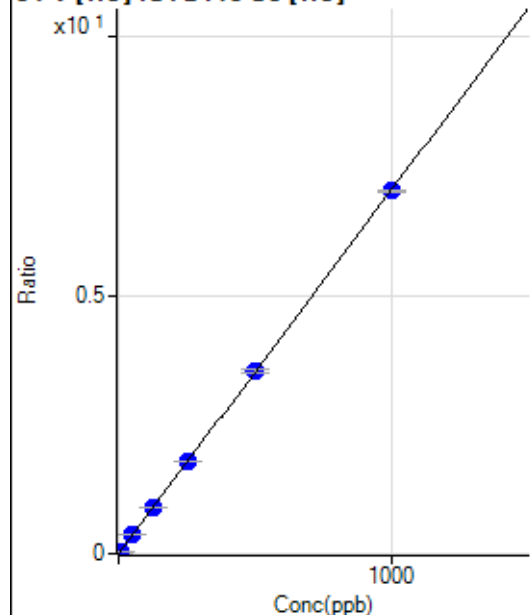
$$DL = 0.05729$$

$$BEC = 0.06426$$

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	7.78	0.0000	P	89.1
2	☐	5.000	4.842	19081.44	0.0341	P	4.0
3	☐	50.000	50.686	188235.29	0.3565	P	0.9
4	☐	125.000	126.875	469777.50	0.8924	P	0.8
5	☐	250.000	254.122	898046.47	1.7874	P	0.3
6	☐	500.000	502.869	1780437.98	3.5369	P	2.3
7	☐	1000.000	997.267	3438653.11	7.0143	P	0.6
8	☐			1237.85	0.0026	P	2.6

$$y = 0.0070 * x + 1.4359\text{E-}005$$

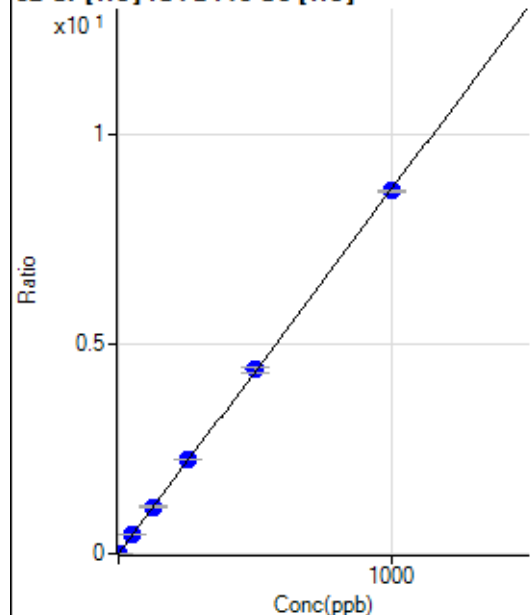
$$R = 1.0000$$

$$DL = 0.005458$$

$$BEC = 0.002041$$

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	1657.90	0.0030	P	4.2
2	☐	2.000	1.845	10671.76	0.0191	P	0.9
3	☐	50.000	51.588	237911.47	0.4506	P	0.4
4	☐	125.000	128.903	590296.87	1.1213	P	1.0
5	☐	250.000	257.603	1124373.05	2.2379	P	0.6
6	☐	500.000	503.878	2202038.91	4.3744	P	2.3
7	☐	1000.000	995.593	4235768.06	8.6402	P	0.6
8	☐			108355.38	0.2275	P	0.4

$$y = 0.0087 * x + 0.0030$$

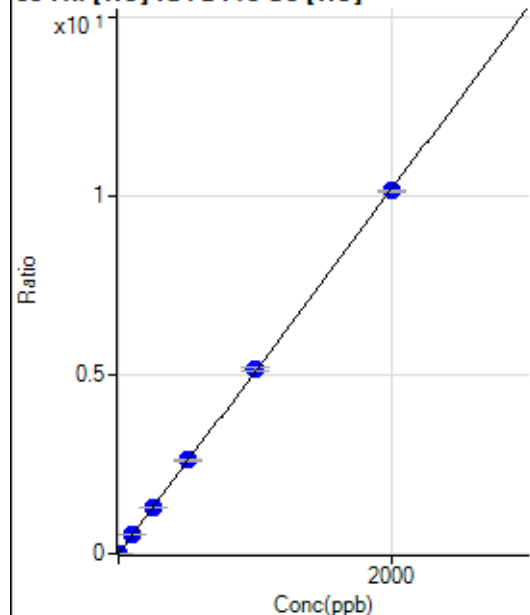
$$R = 1.0000$$

$$DL = 0.04408$$

$$BEC = 0.351$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	65.56	0.0001	P	20.1
2	☐	1.000	1.012	2958.12	0.0053	P	2.1
3	☐	100.000	102.809	276804.20	0.5243	P	0.4
4	☐	250.000	256.617	688794.83	1.3084	P	0.6
5	☐	500.000	513.383	1315054.94	2.6174	P	0.7
6	☐	1000.000	1009.309	2590268.83	5.1457	P	2.3
7	☐	2000.000	1991.032	4976286.80	10.1507	P	0.5
8	☐			19997.09	0.0420	P	2.6

$$y = 0.0051 * x + 1.2054E-004$$

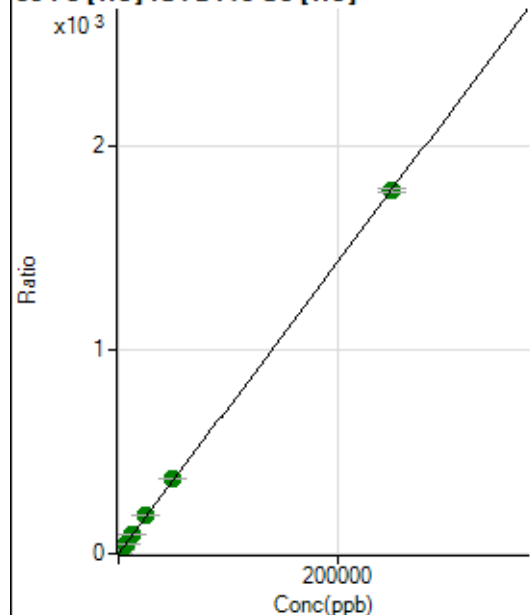
$$R = 1.0000$$

$$DL = 0.01425$$

$$BEC = 0.02364$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5415.97	0.0099	P	2.5
2	☐	50.000	51.435	211152.99	0.3770	P	4.0
3	☐	2500.000	2658.421	10022079.62	18.9815	A	0.9
4	☐	6250.000	6681.550	25106761.44	47.6922	A	0.6
5	☐	12500.000	13310.437	47729580.24	94.9986	A	0.8
6	☐	25000.000	26142.054	93917078.95	186.5702	A	2.2
7	☐	50000.000	51782.111	181169244.7	369.5480	A	0.1
8	☐	250000.00	249476.47	847995907.8	1,780.374	A	1.0

$$y = 0.0071 * x + 0.0099$$

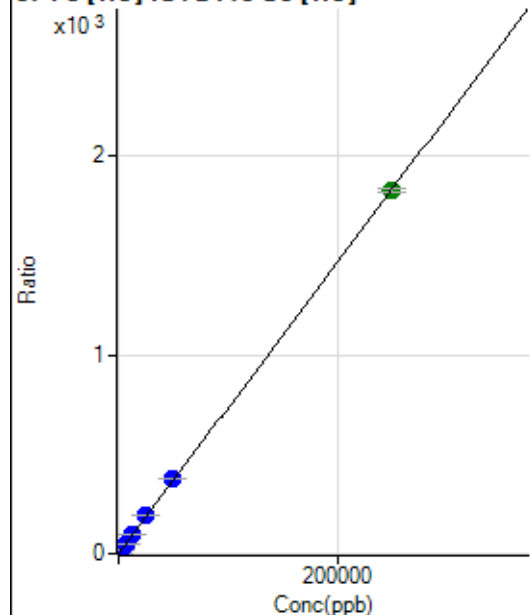
$$R = 1.0000$$

$$DL = 0.1028$$

$$BEC = 1.394$$

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	5662.28	0.0104	P	1.9
2	☐	50.000	51.469	216572.66	0.3867	P	4.0
3	☐	2500.000	2659.824	10272768.63	19.4563	P	0.9
4	☐	6250.000	6684.771	25733434.84	48.8826	P	0.6
5	☐	12500.000	13315.041	48914202.82	97.3563	P	0.8
6	☐	25000.000	26150.073	96244158.89	191.1930	P	2.2
7	☐	50000.000	51794.296	185644728.0	378.6773	P	0.1
8	☐	250000.00	249472.91	868726423.1	1,823.901	A	1.0

$$y = 0.0073 * x + 0.0104$$

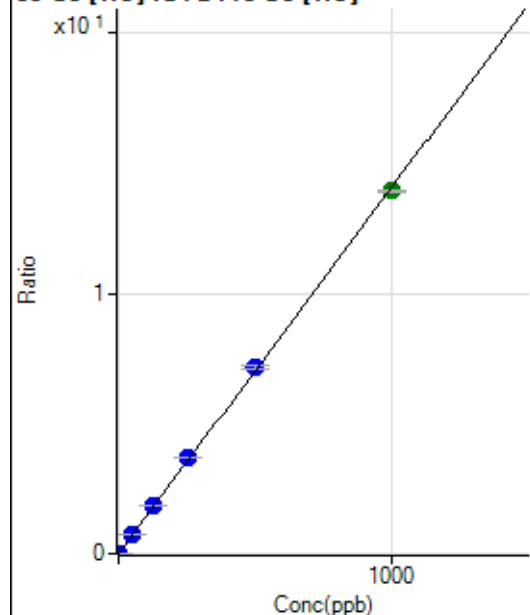
$$R = 1.0000$$

$$DL = 0.08114$$

$$BEC = 1.423$$

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	117.78	0.0002	P	28.5
2	☐	1.000	0.985	7880.01	0.0141	P	3.6
3	☐	50.000	53.129	394754.02	0.7476	P	0.2
4	☐	125.000	132.162	978872.86	1.8595	P	0.8
5	☐	250.000	261.065	1845385.30	3.6729	P	0.3
6	☐	500.000	509.454	3607811.20	7.1672	P	2.4
7	☐	1000.000	991.455	6837828.16	13.9479	A	0.6
8	☐			12696.77	0.0267	P	0.3

$$y = 0.0141 * x + 2.1673E-004$$

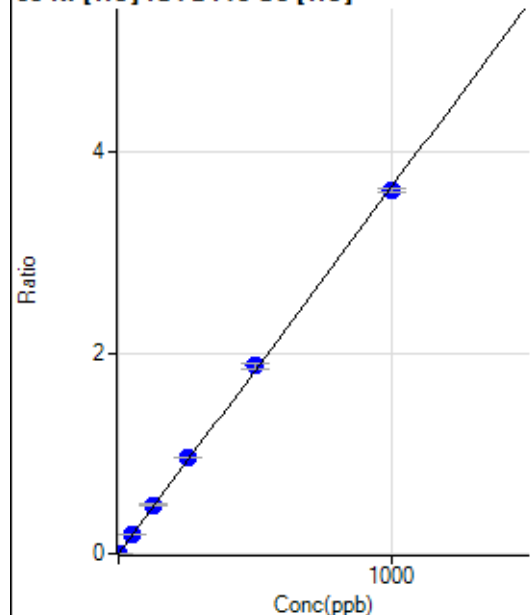
$$R = 0.9999$$

$$DL = 0.01319$$

$$BEC = 0.01541$$

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	77.78	0.0001	P	9.0
2	☐	1.000	1.054	2236.87	0.0040	P	9.0
3	☐	50.000	53.910	104096.90	0.1972	P	0.2
4	☐	125.000	133.637	257170.73	0.4885	P	0.4
5	☐	250.000	263.347	483588.77	0.9625	P	1.0
6	☐	500.000	511.634	941258.38	1.8699	P	2.3
7	☐	1000.000	989.571	1772914.94	3.6164	P	0.9
8	☐			32373.69	0.0680	P	1.3

$$y = 0.0037 * x + 1.4286E-004$$

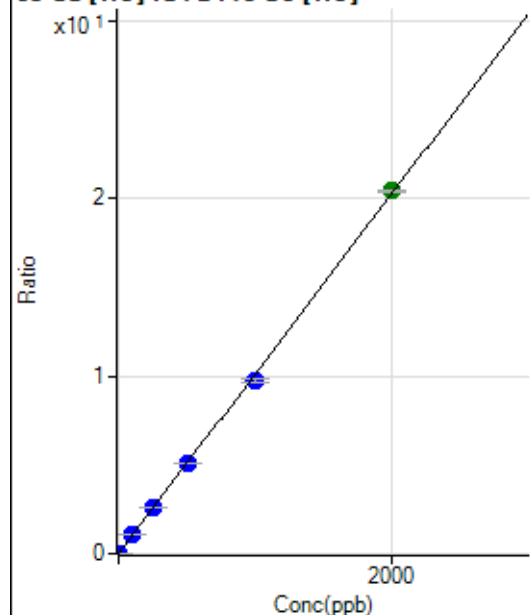
$$R = 0.9998$$

$$DL = 0.01057$$

$$BEC = 0.03909$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	906.71	0.0017	P	5.8
2	☐	2.000	1.899	11688.15	0.0209	P	3.9
3	☐	100.000	102.534	548411.29	1.0387	P	0.4
4	☐	250.000	253.628	1351214.37	2.5668	P	1.0
5	☐	500.000	502.333	2553375.55	5.0821	P	0.8
6	☐	1000.000	962.241	4900027.39	9.7335	P	2.1
7	☐	2000.000	2017.716	10004879.57	20.4082	A	0.5
8	☐			16612.97	0.0349	P	3.2

$$y = 0.0101 * x + 0.0017$$

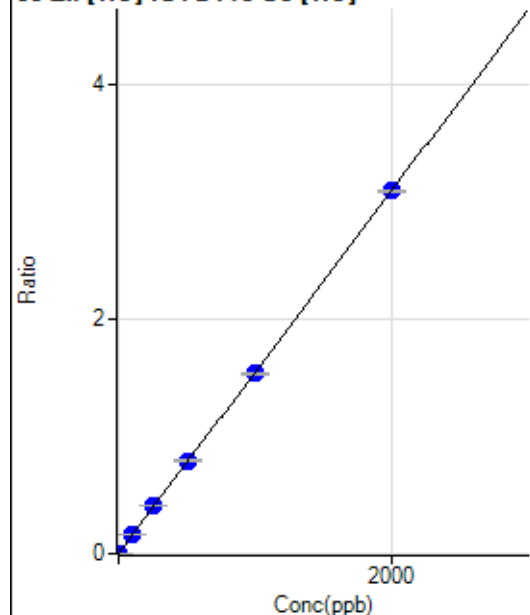
$$R = 0.9997$$

$$DL = 0.02869$$

$$BEC = 0.1647$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1235.63	0.0023	P	7.3
2	☐	2.000	2.439	3378.22	0.0060	P	1.3
3	☐	100.000	104.133	85992.47	0.1629	P	0.8
4	☐	250.000	259.629	211989.37	0.4027	P	0.8
5	☐	500.000	512.561	398305.78	0.7928	P	0.6
6	☐	1000.000	991.023	770576.70	1.5307	P	1.7
7	☐	2000.000	1999.938	1513183.89	3.0866	P	0.5
8	☐			19858.17	0.0417	P	1.1

$$y = 0.0015 * x + 0.0023$$

$$R = 1.0000$$

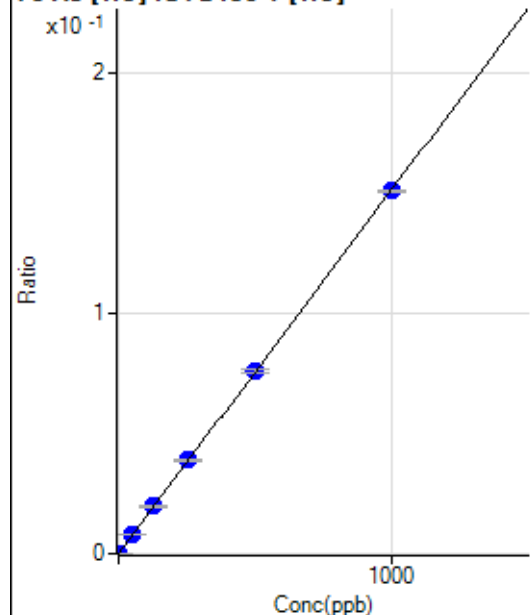
$$DL = 0.3242$$

$$BEC = 1.472$$

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	8.02	0.0000	P	48.0
2	☐	1.000	0.985	474.70	0.0002	P	6.6
3	☐	50.000	52.294	23625.42	0.0079	P	0.8
4	☐	125.000	129.980	59141.78	0.0197	P	1.0
5	☐	250.000	256.646	112691.62	0.0388	P	0.9
6	☐	500.000	500.018	221830.74	0.0757	P	2.0
7	☐	1000.000	997.592	426877.22	0.1510	P	0.7
8	☐			242.59	0.0001	P	4.5

$$y = 1.5133\text{E-}004 * x + 2.6277\text{E-}006$$

$$R = 1.0000$$

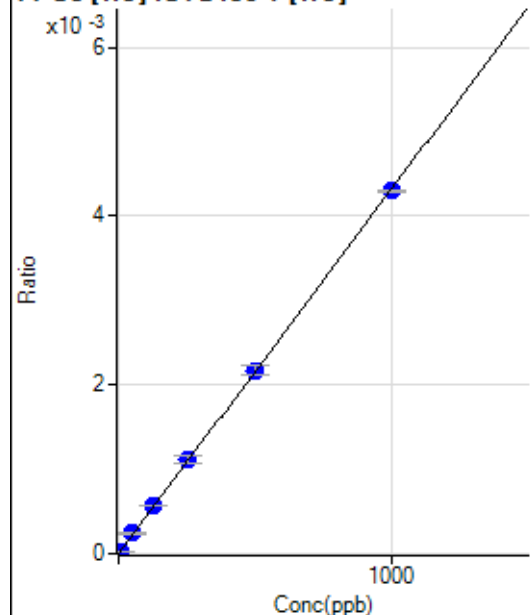
$$DL = 0.02499$$

$$BEC = 0.01736$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	5.262	71.11	0.0000	P	26.8
3	☐	50.000	55.610	716.69	0.0002	P	2.0
4	☐	125.000	132.074	1714.57	0.0006	P	3.0
5	☐	250.000	257.398	3225.97	0.0011	P	7.9
6	☐	500.000	503.312	6367.05	0.0022	P	5.9
7	☐	1000.000	995.328	12153.03	0.0043	P	0.8
8	☐			5.56	0.0000	P	91.4

$$y = 4.3184\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9999$$

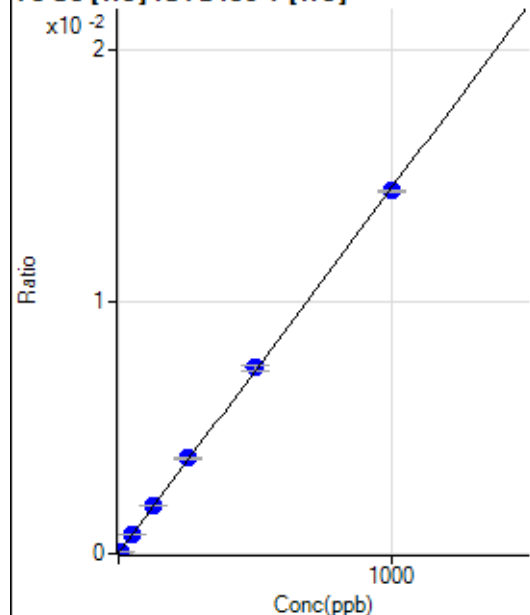
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	51.85	0.0000	P	6.3
2	☐	5.000	5.612	308.03	0.0001	P	13.0
3	☐	50.000	52.438	2320.58	0.0008	P	0.9
4	☐	125.000	131.955	5804.91	0.0019	P	0.9
5	☐	250.000	259.837	10983.86	0.0038	P	0.8
6	☐	500.000	508.053	21647.69	0.0074	P	3.1
7	☐	1000.000	992.520	40752.79	0.0144	P	0.6
8	☐			94.45	0.0000	P	17.1

$$y = 1.4505\text{E-}005 * x + 1.6988\text{E-}005$$

$$R = 0.9999$$

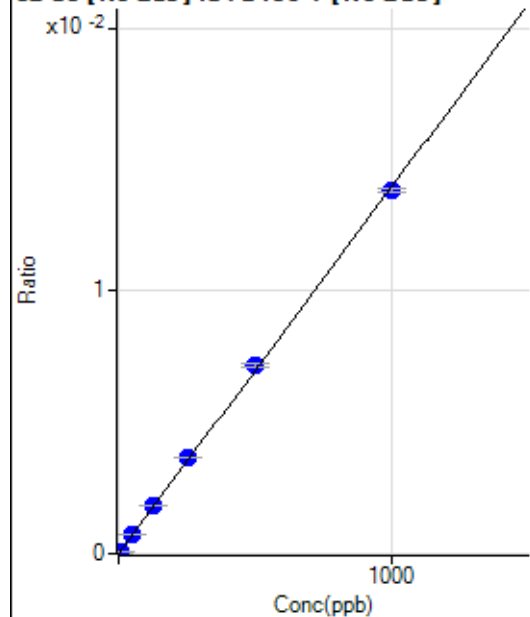
$$DL = 0.223$$

$$BEC = 1.171$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-23.09	0.0000	P	-216.
2	☐	5.000	5.748	2022.18	0.0001	P	2.9
3	☐	50.000	53.105	19406.26	0.0007	P	0.9
4	☐	125.000	132.565	45910.03	0.0018	P	1.6
5	☐	250.000	261.443	87981.77	0.0036	P	0.9
6	☐	500.000	512.415	171286.51	0.0071	P	2.1
7	☐	1000.000	989.827	326833.82	0.0138	P	1.1
8	☐			201.74	0.0000	P	43.8

$$y = 1.3955\text{E-}005 * x - 8.8784\text{E-}007$$

$$R = 0.9998$$

$$DL = 0.4132$$

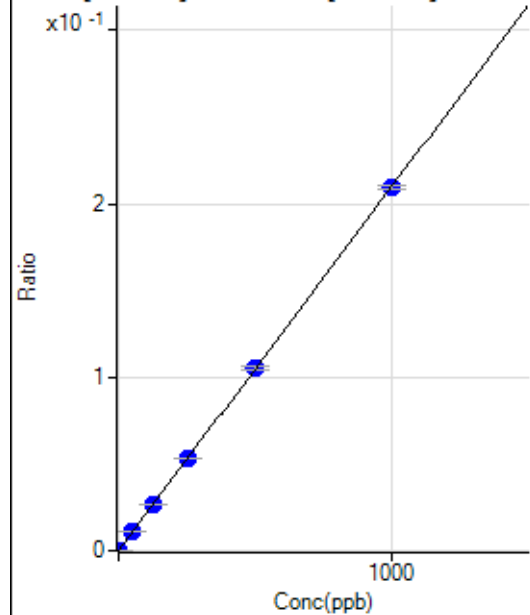
$$BEC = -0.06362$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			781.14		P	1.6
2	☐			745.59		P	5.3
3	☐			712.25		P	3.9
4	☐			743.36		P	9.0
5	☐			720.03		P	3.7
6	☐			624.47		P	10.4
7	☐			687.81		P	11.9
8	☐			726.70		P	5.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1183.43	0.0000	P	9.1
2	☐	1.000	0.990	6443.40	0.0003	P	4.2
3	☐	50.000	50.921	281197.61	0.0107	P	0.2
4	☐	125.000	127.073	662855.03	0.0267	P	1.0
5	☐	250.000	255.067	1291389.76	0.0535	P	0.5
6	☐	500.000	501.971	2523084.78	0.1053	P	2.3
7	☐	1000.000	997.442	4950966.08	0.2092	P	1.1
8	☐			11151.98	0.0005	P	2.0

$$y = 2.0972E-004 * x + 4.5119E-005$$

$$R = 1.0000$$

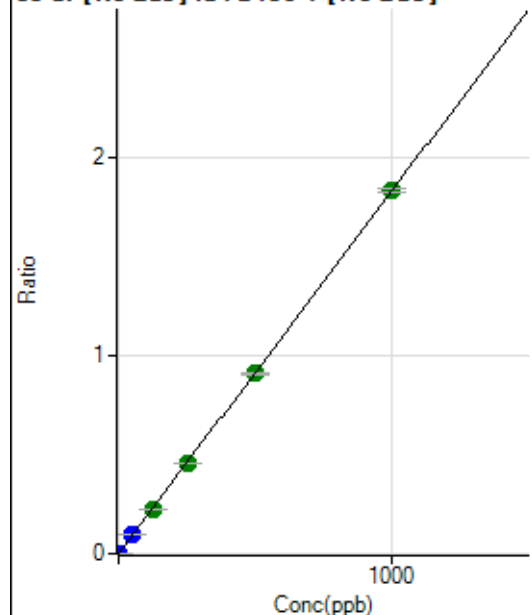
$$DL = 0.05894$$

$$BEC = 0.2151$$

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	175.01	0.0000	P	14.6
2	☐	1.000	0.997	46726.90	0.0018	P	0.1
3	☐	50.000	50.598	2429472.82	0.0927	P	0.2
4	☐	125.000	123.915	5634252.51	0.2269	A	0.9
5	☐	250.000	250.367	11058434.54	0.4584	A	0.4
6	☐	500.000	496.737	21790994.24	0.9096	A	1.6
7	☐	1000.000	1001.645	43400477.71	1.8341	A	1.1
8	☐			87313.19	0.0038	P	2.7

$$y = 0.0018 * x + 6.6775E-006$$

$$R = 1.0000$$

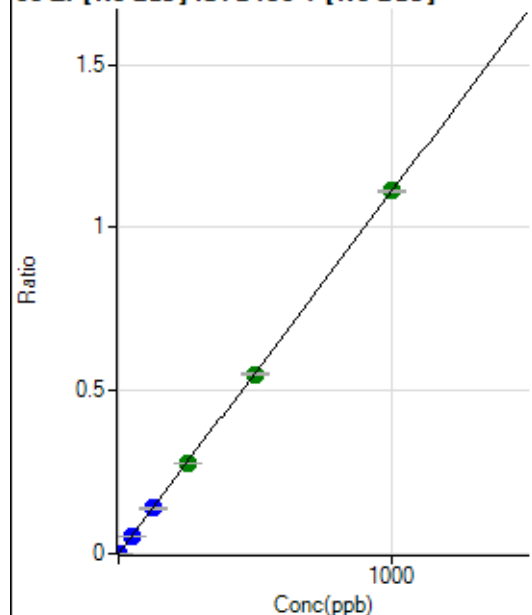
$$DL = 0.001599$$

$$BEC = 0.003647$$

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	1361.23	0.0001	P	8.7
2	☐	1.000	0.791	23709.17	0.0009	P	3.2
3	☐	50.000	49.739	1449261.33	0.0553	P	0.6
4	☐	125.000	124.964	3446269.26	0.1388	P	1.2
5	☐	250.000	248.802	6664306.57	0.2763	A	0.7
6	☐	500.000	496.147	13198101.08	0.5509	A	1.5
7	☐	1000.000	1002.244	26332496.94	1.1128	A	0.8
8	☐			8575.15	0.0004	P	3.1

$$y = 0.0011 * x + 5.1932E-005$$

$$R = 1.0000$$

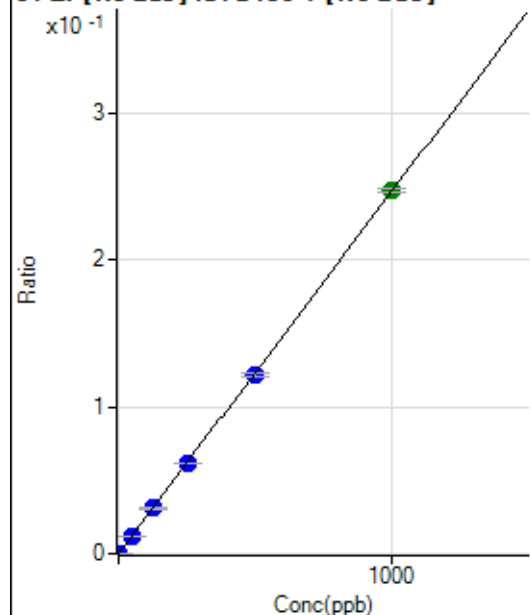
$$DL = 0.01225$$

$$BEC = 0.04678$$

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	294.46	0.0000	P	2.2
2	☐	1.000	0.802	5315.09	0.0002	P	6.3
3	☐	50.000	50.089	323412.71	0.0123	P	0.9
4	☐	125.000	125.286	765720.02	0.0308	P	0.9
5	☐	250.000	250.397	1486370.82	0.0616	P	0.2
6	☐	500.000	494.321	2914051.76	0.1216	P	1.8
7	☐	1000.000	1002.700	5838168.45	0.2467	A	1.1
8	☐			1827.97	0.0001	P	0.6

$$y = 2.4604\text{E-}004 * x + 1.1232\text{E-}005$$

$$R = 1.0000$$

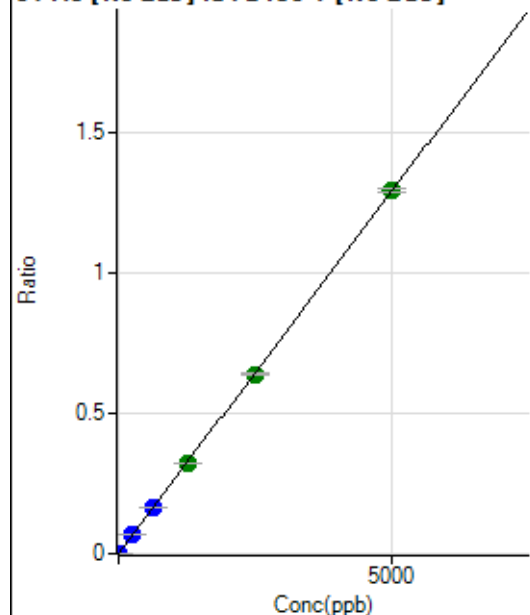
$$DL = 0.003059$$

$$BEC = 0.04565$$

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	544.48	0.0000	P	12.2
2	☐	5.000	4.887	32716.15	0.0013	P	1.7
3	☐	250.000	253.553	1717773.02	0.0655	P	0.9
4	☐	625.000	631.257	4049562.76	0.1631	P	0.9
5	☐	1250.000	1253.635	7811784.64	0.3238	A	0.7
6	☐	2500.000	2476.790	15328369.61	0.6398	A	1.6
7	☐	5000.000	5009.737	30622642.01	1.2941	A	1.2
8	☐			20863.20	0.0009	P	1.5

$$y = 2.5831\text{E-}004 * x + 2.0764\text{E-}005$$

$$R = 1.0000$$

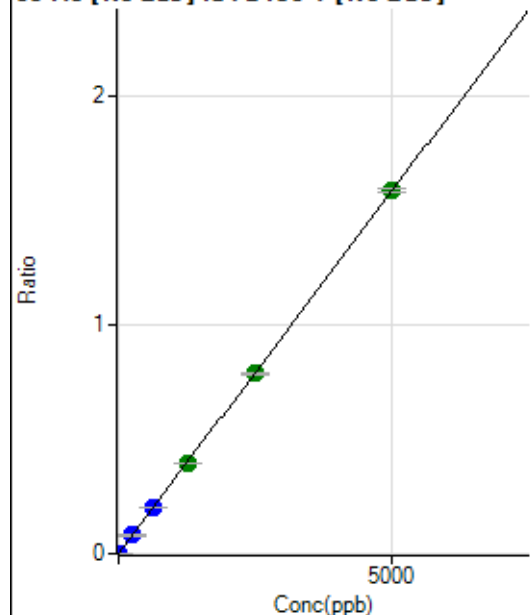
$$DL = 0.02946$$

$$BEC = 0.08038$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	175.01	0.0000	P	23.2
2	☐	5.000	5.132	41503.17	0.0016	P	0.9
3	☐	250.000	252.363	2090394.36	0.0797	P	0.9
4	☐	625.000	626.807	4917127.76	0.1980	P	0.8
5	☐	1250.000	1248.224	9511799.09	0.3943	A	0.6
6	☐	2500.000	2482.777	18790943.30	0.7843	A	1.3
7	☐	5000.000	5008.711	37442030.35	1.5823	A	1.2
8	☐			31271.21	0.0014	P	1.9

$$y = 3.1590E-004 * x + 6.6680E-006$$

$$R = 1.0000$$

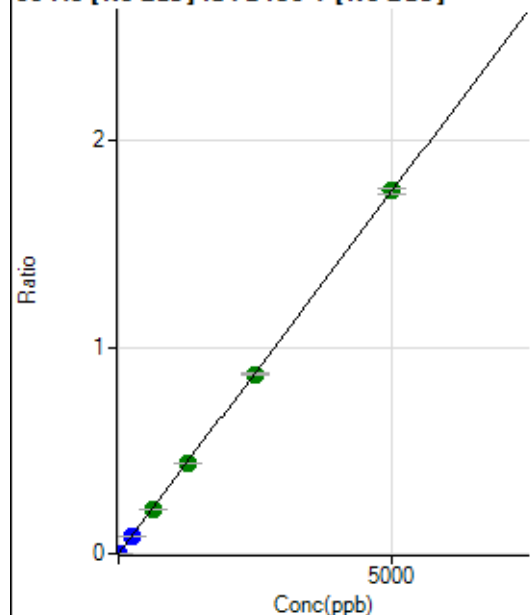
$$DL = 0.01466$$

$$BEC = 0.02111$$

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	322.24	0.0000	P	13.0
2	☐	5.000	5.094	45830.12	0.0018	P	1.6
3	☐	250.000	249.792	2295373.93	0.0876	P	1.6
4	☐	625.000	621.337	5407587.79	0.2178	A	0.7
5	☐	1250.000	1246.483	10537471.76	0.4368	A	0.4
6	☐	2500.000	2482.691	20844934.32	0.8701	A	1.7
7	☐	5000.000	5010.002	41547140.51	1.7558	A	1.4
8	☐			43531.52	0.0019	P	1.2

$$y = 3.5045E-004 * x + 1.2288E-005$$

$$R = 1.0000$$

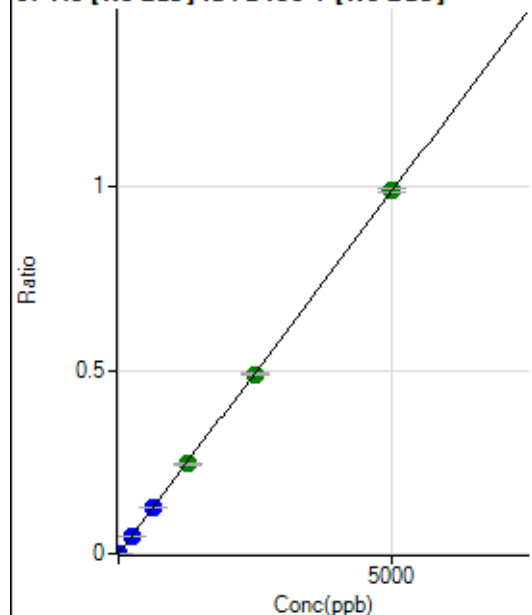
$$DL = 0.0137$$

$$BEC = 0.03506$$

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	175.01	0.0000	P	22.3
2	☐	5.000	5.201	26358.47	0.0010	P	1.6
3	☐	250.000	250.330	1296454.05	0.0494	P	1.0
4	☐	625.000	627.754	3078991.84	0.1240	P	0.5
5	☐	1250.000	1241.569	5915113.63	0.2452	A	1.1
6	☐	2500.000	2481.179	11740638.28	0.4901	A	1.7
7	☐	5000.000	5011.157	23420947.57	0.9897	A	1.1
8	☐			18740.74	0.0008	P	1.2

$$y = 1.9751\text{E-}004 * x + 6.6790\text{E-}006$$

$$R = 1.0000$$

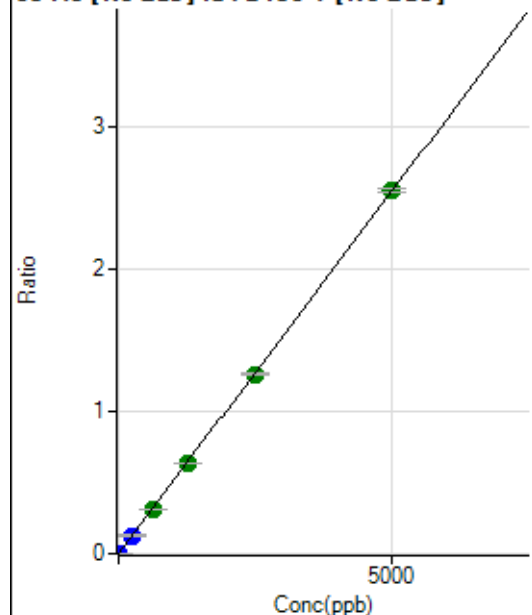
$$DL = 0.02263$$

$$BEC = 0.03382$$

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	269.46	0.0000	P	8.4
2	☐	5.000	5.212	67809.28	0.0027	P	1.3
3	☐	250.000	250.835	3343211.79	0.1275	P	1.3
4	☐	625.000	620.250	7829355.65	0.3153	A	0.9
5	☐	1250.000	1246.087	15279063.88	0.6334	A	1.4
6	☐	2500.000	2480.037	30203025.33	1.2607	A	1.8
7	☐	5000.000	5011.512	60282804.13	2.5475	A	1.2
8	☐			47791.96	0.0021	P	1.6

$$y = 5.0833\text{E-}004 * x + 1.0274\text{E-}005$$

$$R = 1.0000$$

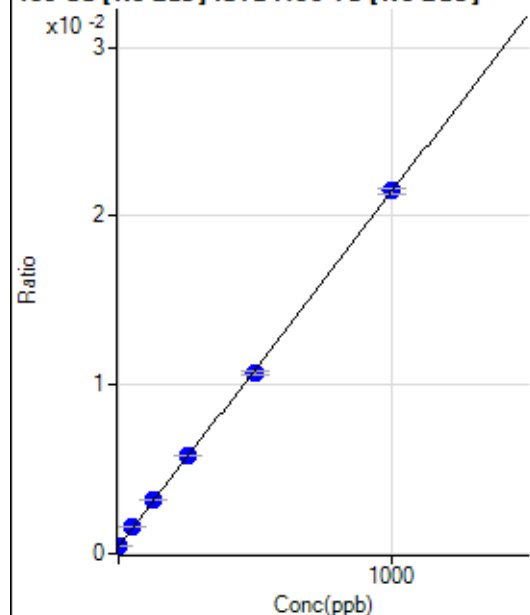
$$DL = 0.005098$$

$$BEC = 0.02021$$

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	11140.92	0.0004	P	2.0
2	☐	1.000	2.284	11699.81	0.0005	P	2.1
3	☐	50.000	54.820	40503.39	0.0016	P	1.1
4	☐	125.000	130.222	78794.75	0.0032	P	0.4
5	☐	250.000	256.516	142168.61	0.0058	P	1.5
6	☐	500.000	489.215	263202.89	0.0107	P	1.4
7	☐	1000.000	1002.868	524442.41	0.0215	P	1.6
8	☐			10131.82	0.0004	P	0.5

$$y = 2.1014\text{E-}005 * x + 4.1767\text{E-}004$$

$$R = 0.9999$$

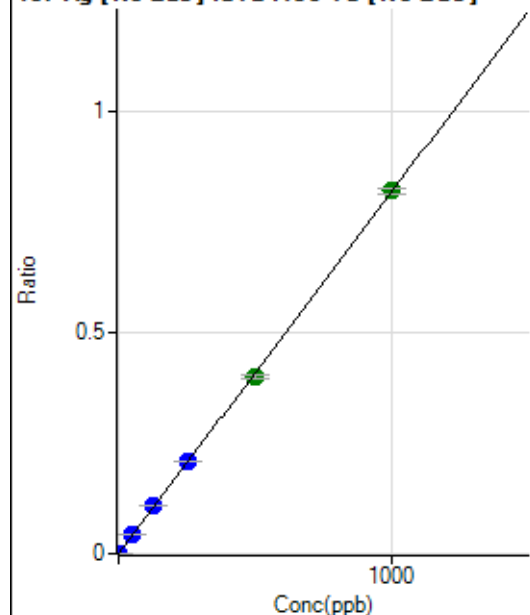
$$DL = 1.164$$

$$BEC = 19.88$$

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	391.69	0.0000	P	18.9
2	☐	1.000	1.093	22816.32	0.0009	P	0.5
3	☐	50.000	53.735	1133993.05	0.0439	P	0.1
4	☐	125.000	130.621	2668032.76	0.1068	P	0.3
5	☐	250.000	254.669	5096542.52	0.2082	P	1.4
6	☐	500.000	489.083	9837211.07	0.3999	A	1.4
7	☐	1000.000	1003.402	20017197.32	0.8203	A	1.2
8	☐			3344.99	0.0001	P	4.2

$$y = 8.1752\text{E-}004 * x + 1.4657\text{E-}005$$

$$R = 0.9999$$

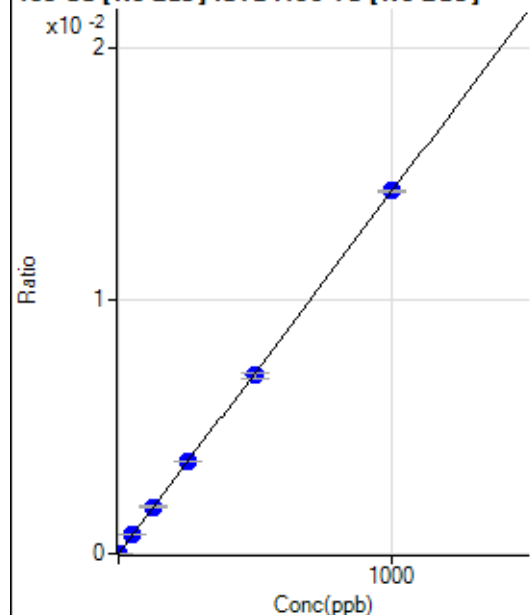
$$DL = 0.01017$$

$$BEC = 0.01793$$

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	19.44	0.0000	P	48.6
2	☐	1.000	0.962	363.90	0.0000	P	7.9
3	☐	50.000	52.502	19396.89	0.0008	P	1.3
4	☐	125.000	129.737	46374.61	0.0019	P	1.3
5	☐	250.000	254.776	89223.27	0.0036	P	1.2
6	☐	500.000	491.674	173032.36	0.0070	P	2.4
7	☐	1000.000	1002.252	349854.36	0.0143	P	0.4
8	☐			100.00	0.0000	P	4.1

$$y = 1.4304\text{E-}005 * x + 7.2508\text{E-}007$$

$$R = 0.9999$$

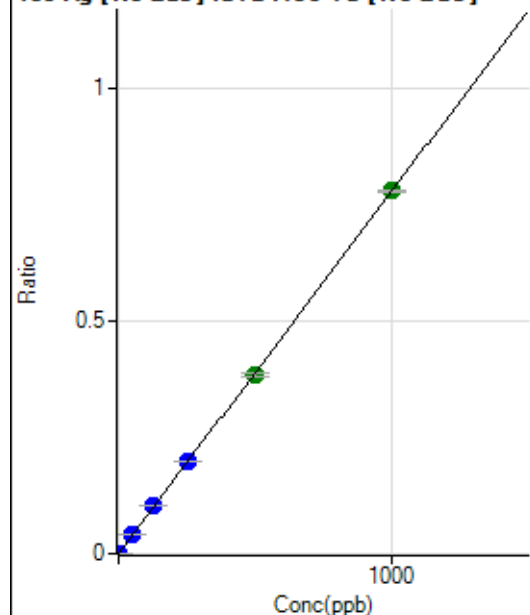
$$DL = 0.07387$$

$$BEC = 0.05069$$

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	175.01	0.0000	P	42.5
2	☐	1.000	1.081	21336.14	0.0008	P	1.0
3	☐	50.000	53.638	1079421.26	0.0418	P	0.1
4	☐	125.000	131.133	2554341.96	0.1023	P	0.7
5	☐	250.000	255.135	4869770.64	0.1989	P	0.9
6	☐	500.000	491.835	9434552.47	0.3835	A	2.1
7	☐	1000.000	1001.850	19062534.28	0.7812	A	0.6
8	☐			2919.87	0.0001	P	4.9

$$y = 7.7972\text{E-}004 * x + 6.5640\text{E-}006$$

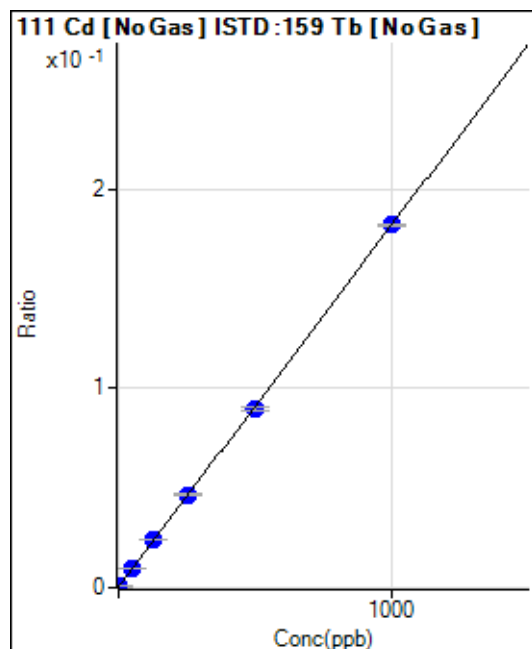
$$R = 0.9999$$

$$DL = 0.01074$$

$$BEC = 0.008418$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7818.37	0.0003	P	1.9
2	☐	1.000	1.129	12519.30	0.0005	P	0.5
3	☐	50.000	53.235	257227.25	0.0100	P	0.9
4	☐	125.000	130.059	597798.76	0.0239	P	1.0
5	☐	250.000	256.030	1146208.22	0.0468	P	1.2
6	☐	500.000	493.073	2211866.49	0.0899	P	2.4
7	☐	1000.000	1001.162	4447494.89	0.1823	P	0.8
8	☐			7852.88	0.0003	P	1.5

$$y = 1.8175\text{E-}004 * x + 2.9311\text{E-}004$$

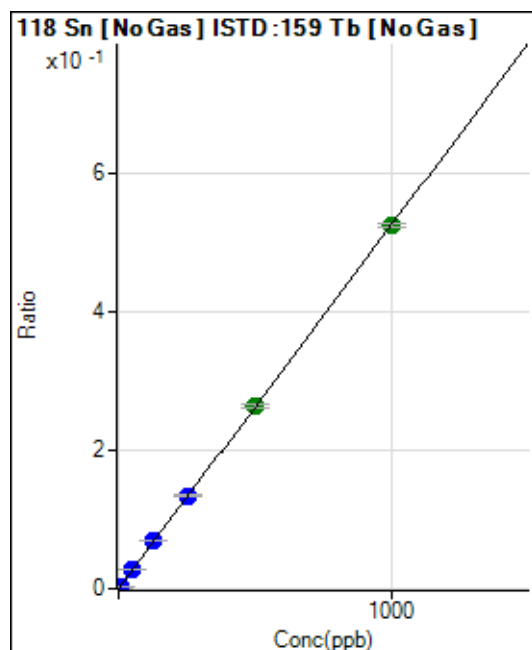
$$R = 0.9999$$

$$DL = 0.09376$$

$$BEC = 1.613$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1358.46	0.0001	P	7.2
2	☐	5.000	5.259	70722.71	0.0028	P	1.1
3	☐	50.000	52.551	714082.16	0.0277	P	1.1
4	☐	125.000	129.957	1707548.91	0.0684	P	0.8
5	☐	250.000	255.554	3288956.21	0.1344	P	1.5
6	☐	500.000	501.022	6479474.23	0.2634	A	2.4
7	☐	1000.000	997.352	12792588.13	0.5242	A	1.1
8	☐			8116.53	0.0004	P	4.0

$$y = 5.2559\text{E-}004 * x + 5.0925\text{E-}005$$

$$R = 1.0000$$

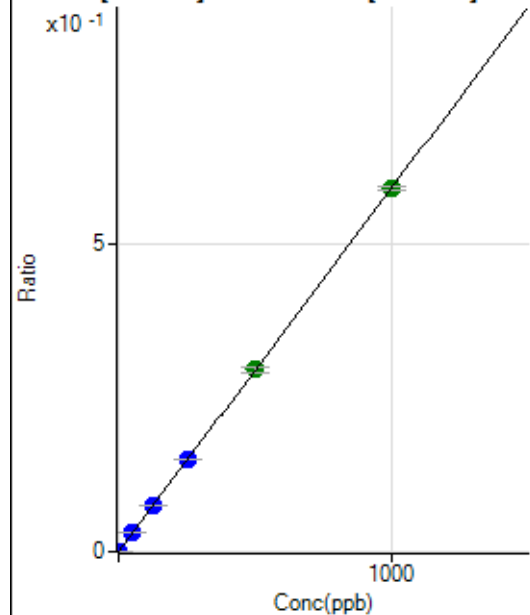
$$DL = 0.02101$$

$$BEC = 0.09689$$

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	277.79	0.0000	P	29.7
2	☐	2.000	1.972	29473.40	0.0012	P	1.8
3	☐	50.000	51.891	789661.06	0.0306	P	0.4
4	☐	125.000	128.452	1891828.88	0.0757	P	0.7
5	☐	250.000	254.795	3676812.24	0.1502	P	1.4
6	☐	500.000	500.060	7252130.46	0.2948	A	3.0
7	☐	1000.000	998.245	14360180.87	0.5885	A	0.9
8	☐			14900.25	0.0007	P	6.0

$$y = 5.8950\text{E-}004 * x + 1.0448\text{E-}005$$

$$R = 1.0000$$

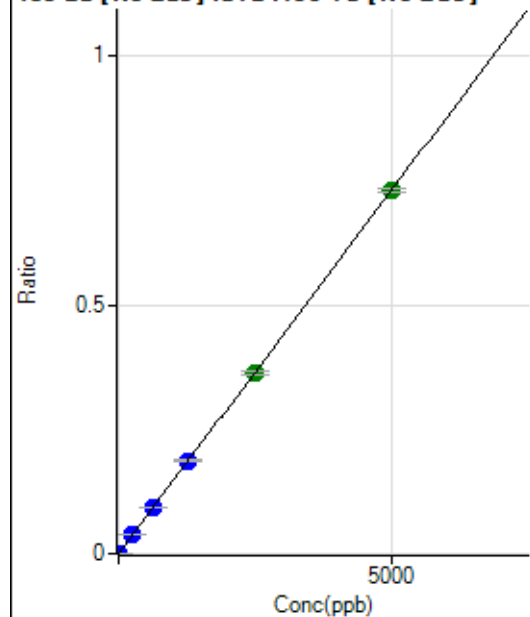
$$DL = 0.01579$$

$$BEC = 0.01772$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	55.56	0.0000	P	37.5
2	☐	10.000	10.366	38097.78	0.0015	P	1.8
3	☐	250.000	259.041	976608.35	0.0378	P	0.4
4	☐	625.000	641.898	2342573.16	0.0938	P	1.0
5	☐	1250.000	1275.661	4561832.96	0.1864	P	1.3
6	☐	2500.000	2498.295	8979086.23	0.3650	A	2.3
7	☐	5000.000	4991.872	17795851.27	0.7293	A	1.0
8	☐			3611.72	0.0002	P	6.1

$$y = 1.4609\text{E-}004 * x + 2.0838\text{E-}006$$

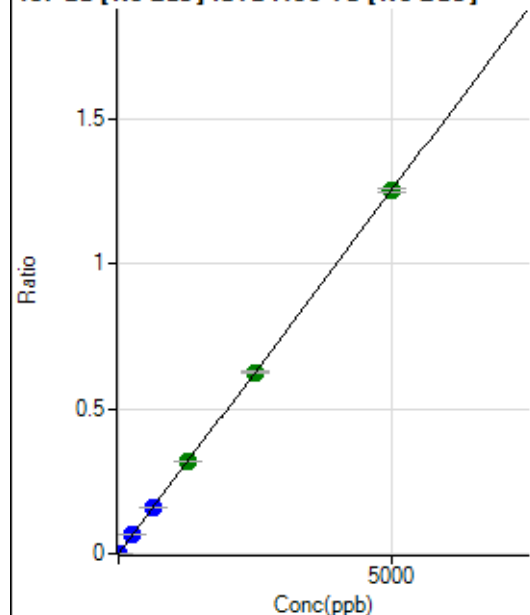
$$R = 1.0000$$

$$DL = 0.01607$$

$$BEC = 0.01426$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.45	0.0000	P	10.0
2	☐	10.000	10.422	65742.85	0.0026	P	2.3
3	☐	250.000	259.996	1683614.98	0.0652	P	0.6
4	☐	625.000	638.937	4005303.99	0.1603	P	0.6
5	☐	1250.000	1267.539	7785691.75	0.3181	A	1.4
6	☐	2500.000	2499.879	15433169.27	0.6273	A	1.5
7	☐	5000.000	4993.433	30576771.52	1.2530	A	1.1
8	☐			6171.06	0.0003	P	2.0

$$y = 2.5094E-004 * x + 1.6656E-006$$

$$R = 1.0000$$

$$DL = 0.001982$$

$$BEC = 0.006637$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			11.11		P	124.9
2	☐			13.34		P	86.6
3	☐			97.78		P	21.9
4	☐			213.34		P	18.8
5	☐			460.02		P	6.6
6	☐			853.39		P	6.2
7	☐			1562.37		P	3.6
8	☐			222.23		P	30.6

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			12.22		P	83.3
2	☐			11.11		P	34.6
3	☐			8.89		P	57.3
4	☐			23.33		P	28.6
5	☐			25.55		P	15.1
6	☐			76.67		P	4.4
7	☐			116.67		P	10.3
8	☐			86.67		P	13.9

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	17.3
2	☐			41.67		P	40.0
3	☐			61.11		P	51.6
4	☐			58.34		P	28.6
5	☐			125.01		P	29.1
6	☐			175.01		P	17.2
7	☐			308.35		P	16.2
8	☐			716.72		P	15.7

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			35.55		P	37.9
2	☐			25.55		P	41.9
3	☐			54.44		P	46.0
4	☐			56.67		P	32.7
5	☐			87.78		P	4.4
6	☐			167.78		P	16.1
7	☐			394.46		P	8.0
8	☐			310.01		P	10.4

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			158.34		P	34.5
2	☐			169.45		P	12.4
3	☐			169.45		P	28.4
4	☐			136.12		P	9.4
5	☐			180.56		P	29.7
6	☐			141.67		P	15.6
7	☐			188.90		P	39.5
8	☐			747.28		P	13.5

160 Gd [He] No available calibration points

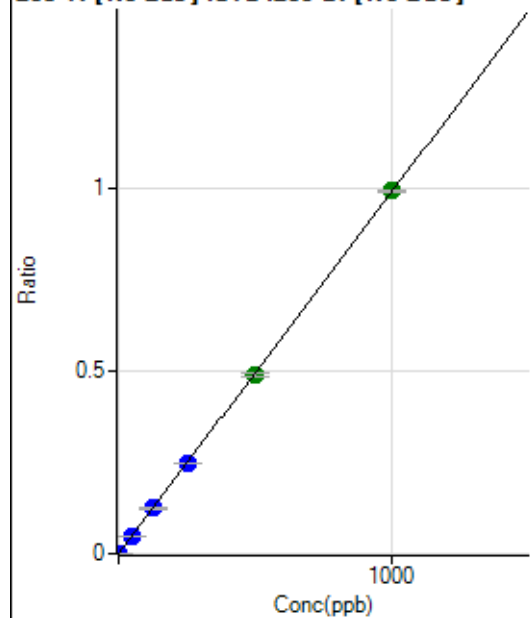
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			344.46		P	10.1
2	☐			343.34		P	4.2
3	☐			332.23		P	11.8
4	☐			373.35		P	11.8
5	☐			366.68		P	3.3
6	☐			368.90		P	6.8
7	☐			377.79		P	4.0
8	☐			603.36		P	12.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			152.79		P	25.8
2	☐			122.23		P	14.2
3	☐			105.56		P	31.9
4	☐			102.78		P	28.5
5	☐			138.89		P	33.0
6	☐			113.89		P	22.4
7	☐			155.56		P	30.9
8	☐			208.34		P	34.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			72.22		P	14.1
2	☐			71.11		P	17.7
3	☐			83.33		P	6.9
4	☐			75.56		P	22.2
5	☐			84.45		P	12.1
6	☐			63.33		P	15.8
7	☐			80.00		P	25.3
8	☐			125.56		P	23.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	875.07	0.0001	P	9.4
2	☐	1.000	0.960	15326.25	0.0010	P	2.6
3	☐	50.000	49.743	764425.94	0.0492	P	0.8
4	☐	125.000	125.408	1853947.53	0.1239	P	1.8
5	☐	250.000	248.776	3593222.52	0.2457	P	0.5
6	☐	500.000	493.440	7058584.27	0.4874	A	1.6
7	☐	1000.000	1003.548	13755428.61	0.9912	A	0.2
8	☐			6282.32	0.0005	P	3.2

$$y = 9.8760E-004 * x + 5.3702E-005$$

$$R = 1.0000$$

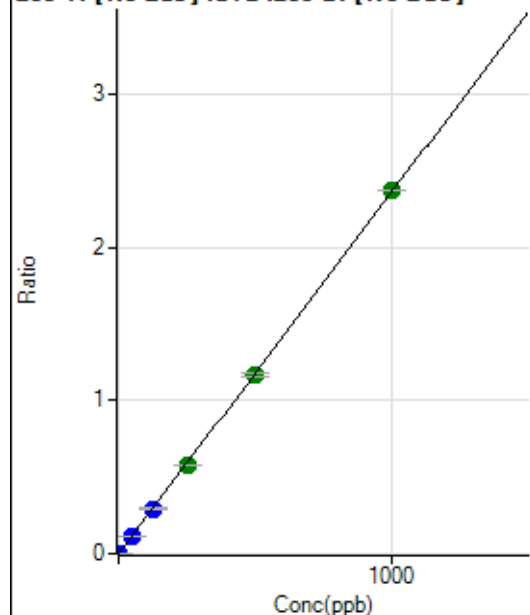
$$DL = 0.01538$$

$$BEC = 0.05438$$

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	1430.70	0.0001	P	4.3
2	☐	1.000	0.967	36295.29	0.0024	P	2.0
3	☐	50.000	49.362	1813533.50	0.1167	P	0.4
4	☐	125.000	124.338	4395376.05	0.2938	P	1.6
5	☐	250.000	246.599	8517453.92	0.5825	A	0.3
6	☐	500.000	493.467	16880684.93	1.1656	A	1.7
7	☐	1000.000	1004.232	32917877.82	2.3719	A	0.1
8	☐			14642.06	0.0012	P	4.1

$$y = 0.0024 * x + 8.7738E-005$$

$$R = 1.0000$$

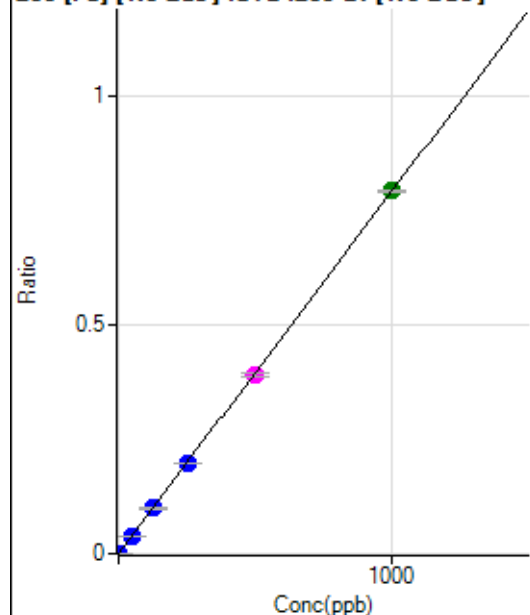
$$DL = 0.004737$$

$$BEC = 0.03715$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1335.30	0.0001	P	9.0
2	☐	1.000	0.976	13040.05	0.0009	P	1.5
3	☐	50.000	50.083	615607.26	0.0396	P	0.9
4	☐	125.000	125.571	1484096.73	0.0992	P	1.3
5	☐	250.000	250.828	2895649.66	0.1980	P	0.5
6	☐	500.000	493.880	5645687.57	0.3899	M	2.9
7	☐	1000.000	1002.778	10984019.23	0.7915	A	0.6
8	☐			34880.16	0.0029	P	1.3

$$y = 7.8920E-004 * x + 8.1931E-005$$

$$R = 1.0000$$

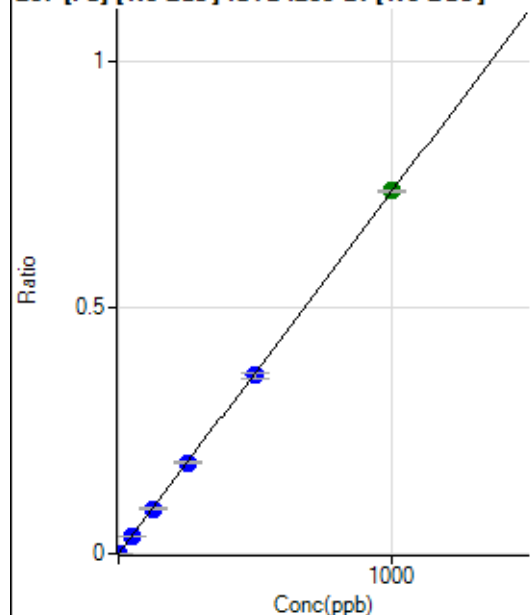
$$DL = 0.02816$$

$$BEC = 0.1038$$

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	1307.50	0.0001	P	7.4
2	☐	1.000	0.959	11987.24	0.0008	P	1.8
3	☐	50.000	49.861	569801.50	0.0367	P	0.9
4	☐	125.000	124.633	1369317.10	0.0915	P	1.7
5	☐	250.000	251.123	2694851.54	0.1843	P	1.2
6	☐	500.000	493.094	5239949.08	0.3618	P	2.7
7	☐	1000.000	1003.225	10215225.35	0.7361	A	0.4
8	☐			32564.63	0.0028	P	1.0

$$y = 7.3363\text{E-}004 * x + 8.0171\text{E-}005$$

$$R = 1.0000$$

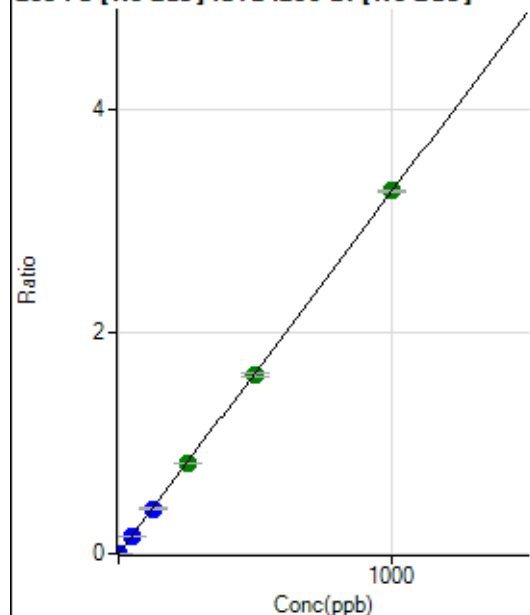
$$DL = 0.02436$$

$$BEC = 0.1093$$

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	4978.26	0.0003	P	1.9
2	☐	1.000	0.950	52023.91	0.0034	P	1.4
3	☐	50.000	49.818	2527536.05	0.1626	P	0.6
4	☐	125.000	124.604	6079110.58	0.4063	P	1.2
5	☐	250.000	248.871	11859683.92	0.8111	A	1.0
6	☐	500.000	494.443	23333546.41	1.6112	A	2.4
7	☐	1000.000	1003.119	45359308.54	3.2685	A	0.6
8	☐			142712.90	0.0121	P	1.0

$$y = 0.0033 * x + 3.0538\text{E-}004$$

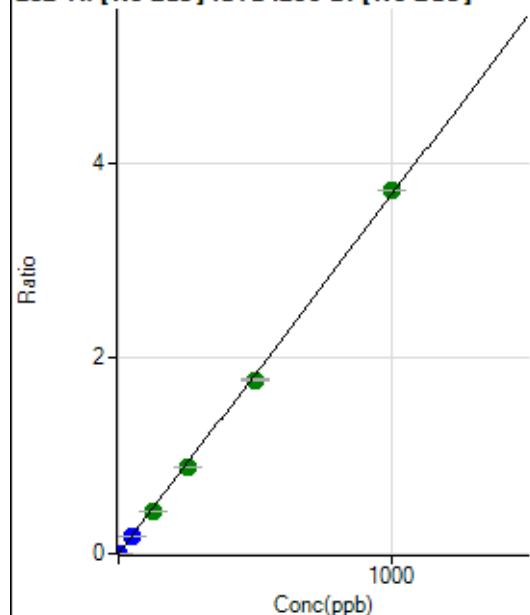
$$R = 1.0000$$

$$DL = 0.005343$$

$$BEC = 0.09373$$

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	2668.88	0.0002	P	8.3
2	☐	1.000	0.750	44669.17	0.0029	P	1.3
3	☐	50.000	46.374	2651043.35	0.1705	P	0.7
4	☐	125.000	116.512	6408220.17	0.4282	A	1.1
5	☐	250.000	241.958	13000532.81	0.8891	A	0.5
6	☐	500.000	484.420	25778047.11	1.7799	A	1.9
7	☐	1000.000	1011.043	51553497.91	3.7147	A	0.2
8	☐			11016.04	0.0009	P	5.4

$$y = 0.0037 * x + 1.6376E-004$$

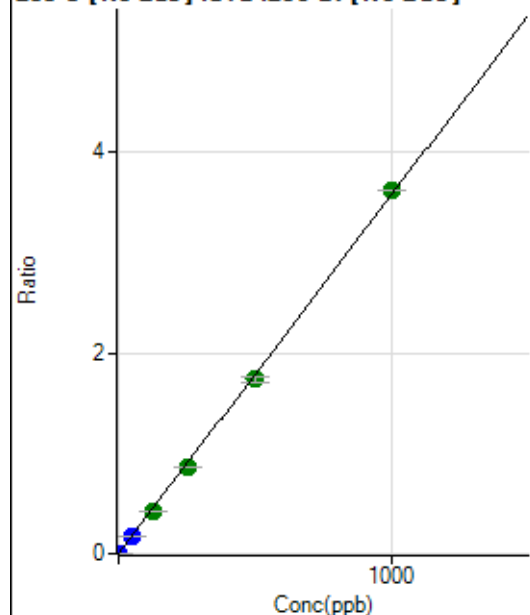
$$R = 0.9998$$

$$DL = 0.01111$$

$$BEC = 0.04457$$

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	2786.52	0.0002	P	5.5
2	☐	1.000	0.892	51452.63	0.0034	P	2.5
3	☐	50.000	47.166	2626084.61	0.1690	P	0.7
4	☐	125.000	117.616	6300939.12	0.4211	A	0.5
5	☐	250.000	241.096	12617574.32	0.8629	A	0.2
6	☐	500.000	484.921	25132813.75	1.7354	A	2.4
7	☐	1000.000	1010.830	50202086.54	3.6174	A	0.2
8	☐			9036.81	0.0008	P	2.5

$$y = 0.0036 * x + 1.7088E-004$$

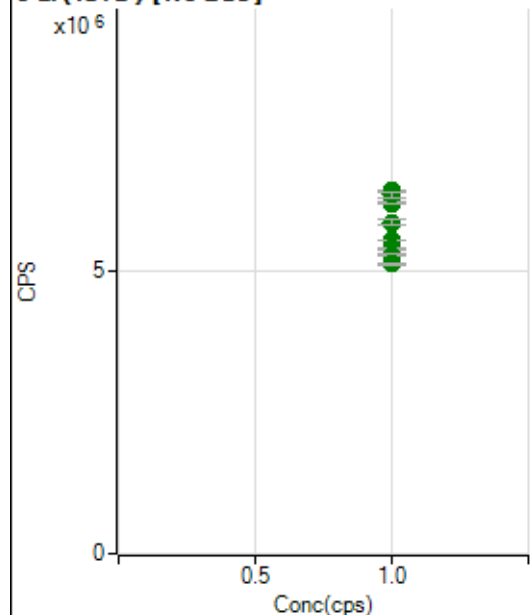
$$R = 0.9998$$

$$DL = 0.007845$$

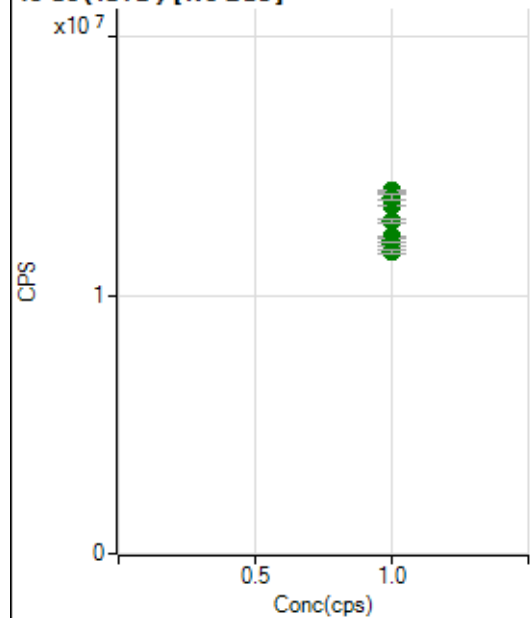
$$BEC = 0.04775$$

Weight: <None>

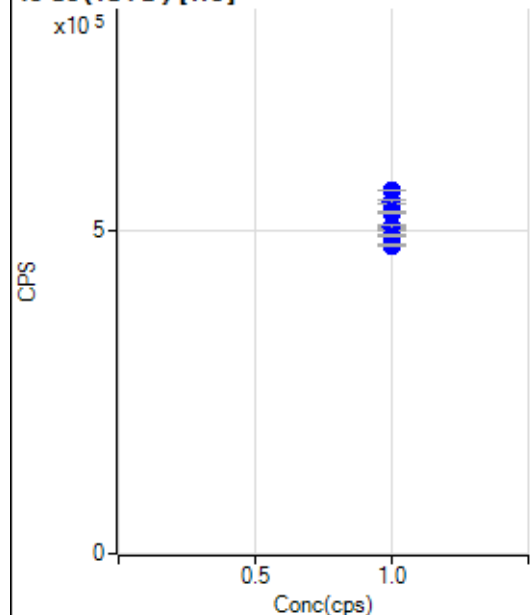
Min Conc: 0

6 Li (ISTD) [No Gas]

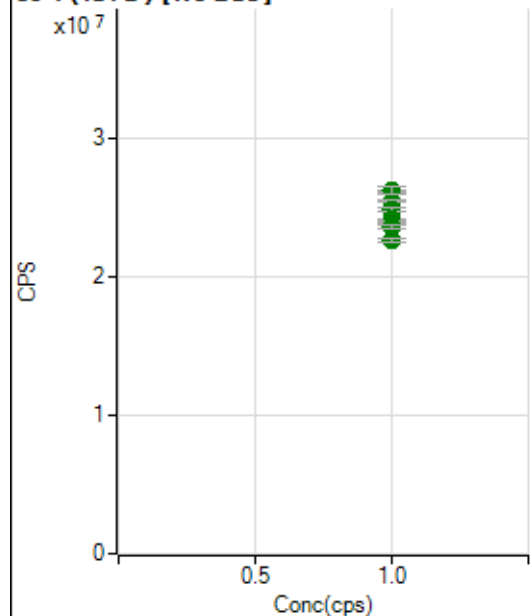
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6423724.90		A	0.5
2	☐	1.000		6205842.13		A	0.7
3	☐	1.000		6360203.03		A	1.8
4	☐	1.000		5866256.86		A	1.5
5	☐	1.000		5544618.95		A	0.1
6	☐	1.000		5402414.57		A	1.0
7	☐	1.000		5285837.42		A	0.4
8	☐	1.000		5127934.65		A	0.8

45 Sc (ISTD) [No Gas]

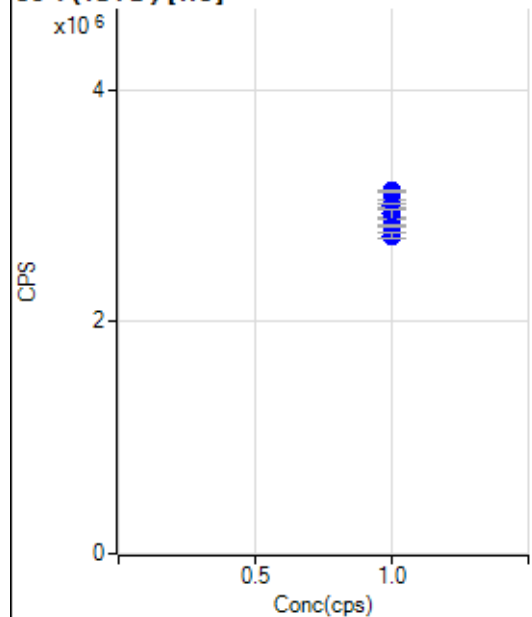
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14035953.26		A	0.7
2	☐	1.000		13453885.54		A	0.3
3	☐	1.000		13776946.83		A	1.6
4	☐	1.000		12865172.51		A	1.3
5	☐	1.000		12276606.70		A	0.4
6	☐	1.000		12116907.30		A	1.2
7	☐	1.000		12002633.95		A	1.2
8	☐	1.000		11682367.27		A	1.4

45 Sc (ISTD) [He]

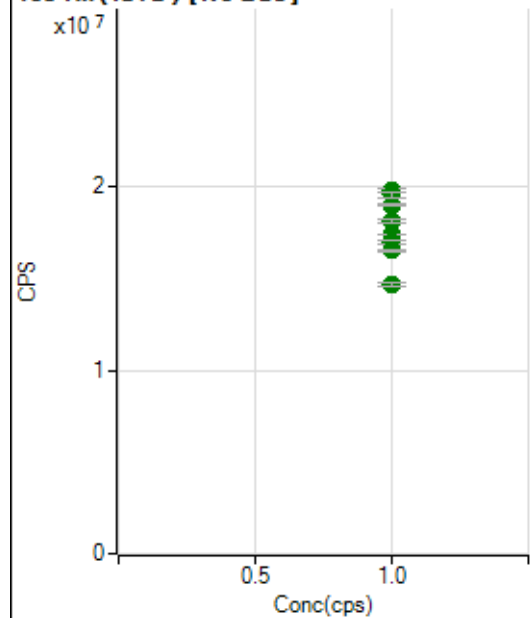
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		544464.85		P	1.0
2	☐	1.000		560088.40		P	0.2
3	☐	1.000		527999.90		P	0.3
4	☐	1.000		526449.71		P	0.8
5	☐	1.000		502445.40		P	0.8
6	☐	1.000		503549.49		P	2.1
7	☐	1.000		490246.36		P	0.5
8	☐	1.000		476336.25		P	1.1

89 Y (ISTD) [No Gas]

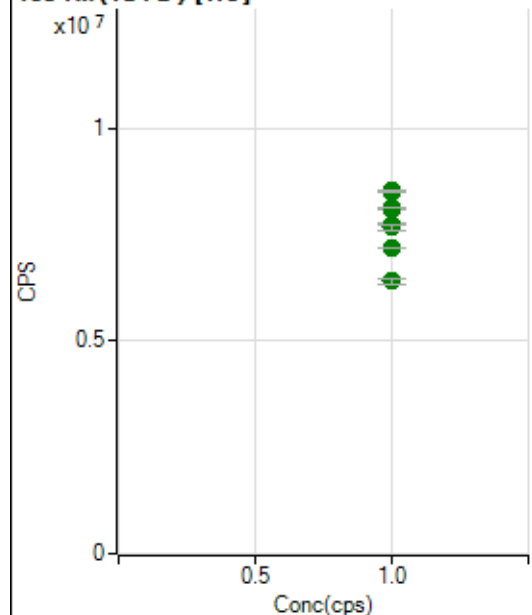
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26218967.67		A	0.7
2	☐	1.000		25495841.56		A	0.3
3	☐	1.000		26221691.27		A	2.0
4	☐	1.000		24832863.24		A	1.3
5	☐	1.000		24122085.75		A	0.6
6	☐	1.000		23959908.81		A	0.9
7	☐	1.000		23665231.87		A	1.1
8	☐	1.000		22713908.00		A	1.3

89 Y (ISTD) [He]

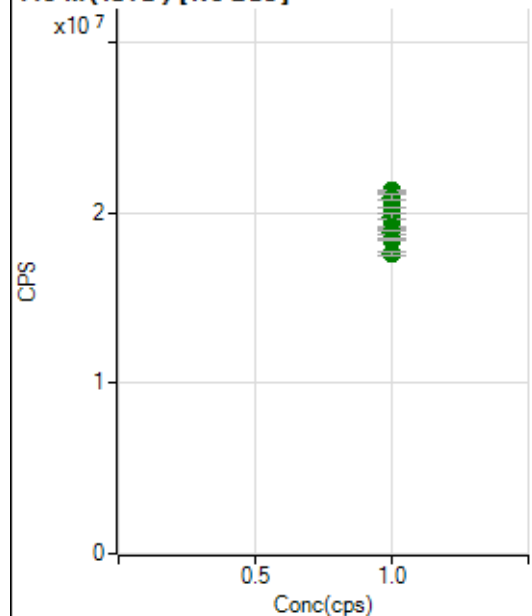
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3052361.52		P	0.2
2	☐	1.000		3130347.31		P	0.2
3	☐	1.000		2984367.56		P	0.3
4	☐	1.000		3006380.06		P	0.9
5	☐	1.000		2901397.42		P	0.7
6	☐	1.000		2932382.84		P	2.6
7	☐	1.000		2827488.67		P	0.2
8	☐	1.000		2745842.91		P	1.6

103 Rh (ISTD) [No Gas]

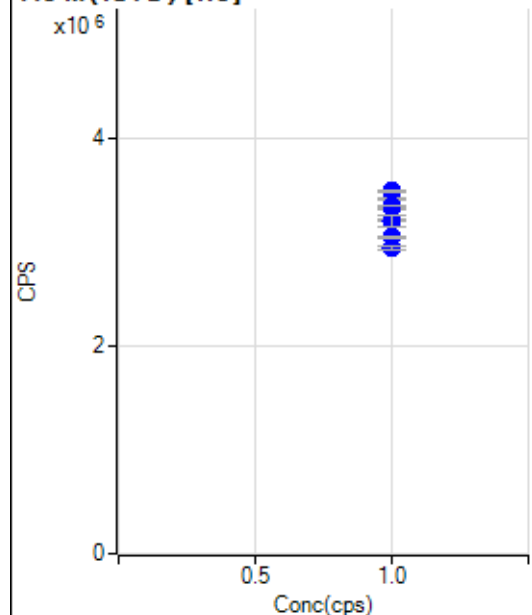
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19780257.21		A	0.9
2	☐	1.000		19011902.51		A	0.5
3	☐	1.000		19585293.32		A	1.8
4	☐	1.000		18139920.02		A	1.6
5	☐	1.000		17404807.68		A	0.3
6	☐	1.000		16990077.46		A	1.2
7	☐	1.000		16518610.44		A	0.9
8	☐	1.000		14694638.18		A	1.9

103 Rh (ISTD) [He]

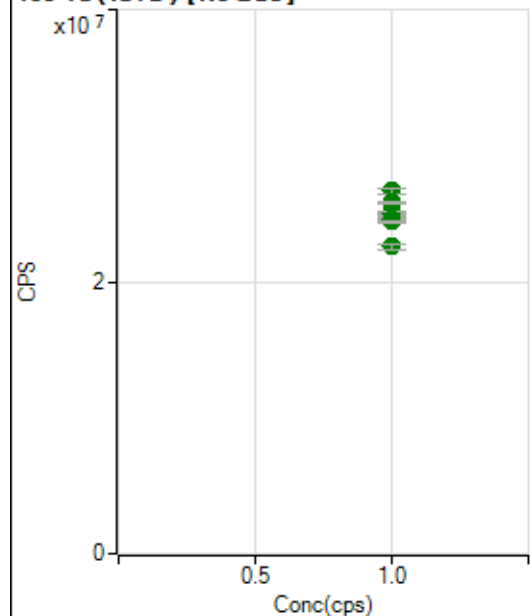
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8502873.14		A	0.4
2	☐	1.000		8528997.86		A	0.6
3	☐	1.000		8090566.89		A	0.4
4	☐	1.000		8139972.38		A	0.2
5	☐	1.000		7747503.56		A	0.6
6	☐	1.000		7664464.33		A	2.0
7	☐	1.000		7196866.70		A	0.2
8	☐	1.000		6400871.02		A	1.6

115 In (ISTD) [No Gas]

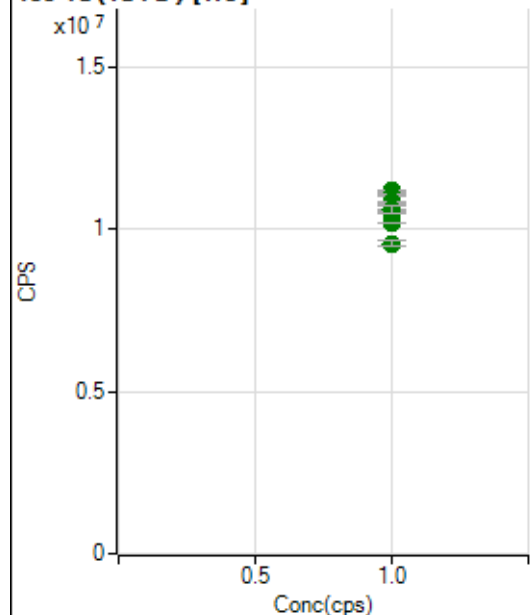
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		21312653.22		A	0.2
2	☐	1.000		20339491.10		A	0.4
3	☐	1.000		20941272.14		A	1.2
4	☐	1.000		19806476.93		A	1.6
5	☐	1.000		19165195.20		A	0.4
6	☐	1.000		18873286.48		A	1.2
7	☐	1.000		18449560.33		A	0.3
8	☐	1.000		17619711.83		A	1.5

115 In (ISTD) [He]

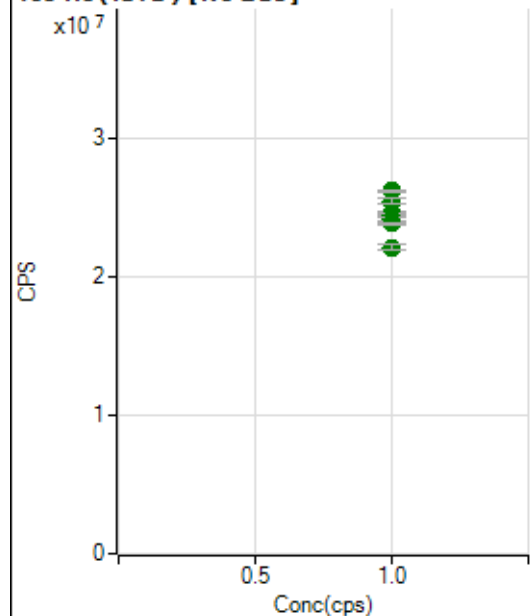
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3410144.01		P	0.6
2	☐	1.000		3495607.95		P	0.4
3	☐	1.000		3325933.32		P	0.4
4	☐	1.000		3350604.88		P	0.2
5	☐	1.000		3216646.28		P	0.9
6	☐	1.000		3203063.54		P	3.0
7	☐	1.000		3048876.49		P	0.9
8	☐	1.000		2942983.99		P	1.1

159 Tb (ISTD) [No Gas]

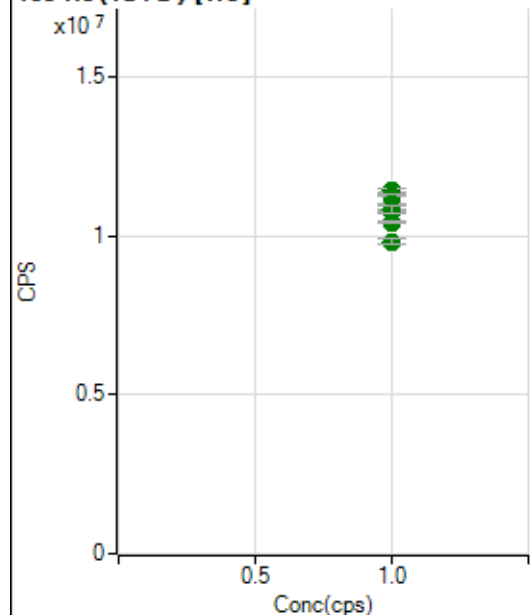
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26673219.88		A	1.6
2	☐	1.000		25123213.24		A	0.6
3	☐	1.000		25805404.06		A	1.0
4	☐	1.000		24981797.41		A	1.3
5	☐	1.000		24480210.19		A	1.2
6	☐	1.000		24604587.69		A	1.0
7	☐	1.000		24402879.64		A	0.6
8	☐	1.000		22584062.72		A	1.7

159 Tb (ISTD) [He]

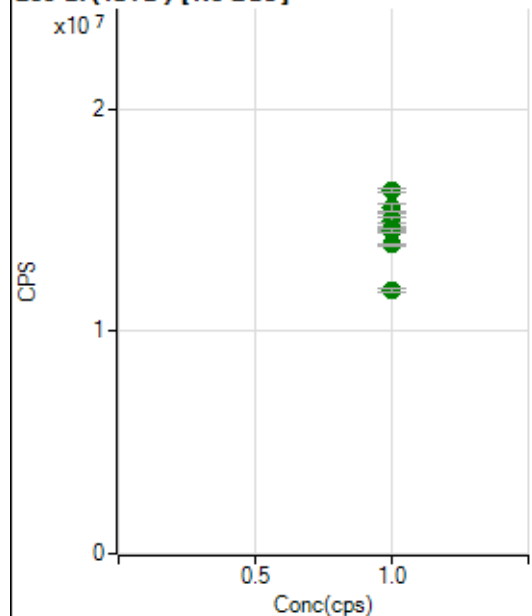
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11168825.74		A	0.8
2	☐	1.000		11032634.07		A	0.2
3	☐	1.000		10555586.51		A	0.9
4	☐	1.000		10812149.70		A	0.5
5	☐	1.000		10496286.23		A	0.8
6	☐	1.000		10582565.81		A	2.4
7	☐	1.000		10179629.36		A	0.3
8	☐	1.000		9553202.70		A	1.6

165 Ho (ISTD) [No Gas]

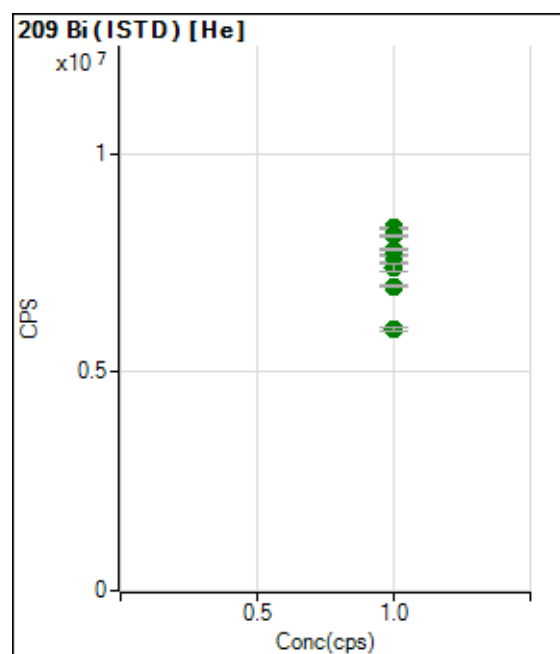
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		26229700.24		A	0.5
2	☐	1.000		24582127.11		A	0.9
3	☐	1.000		25453627.31		A	1.7
4	☐	1.000		24465406.45		A	1.5
5	☐	1.000		23892986.64		A	1.0
6	☐	1.000		24176421.55		A	1.0
7	☐	1.000		23894273.28		A	0.5
8	☐	1.000		22155216.47		A	2.0

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11416023.44		A	0.9
2	☐	1.000		11278501.08		A	0.4
3	☐	1.000		10791445.40		A	0.7
4	☐	1.000		11029798.87		A	0.2
5	☐	1.000		10765139.70		A	0.5
6	☐	1.000		10841882.06		A	2.3
7	☐	1.000		10432201.44		A	0.3
8	☐	1.000		9823199.30		A	1.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16301990.59		A	1.0
2	☐	1.000		15302285.88		A	0.6
3	☐	1.000		15544364.49		A	1.8
4	☐	1.000		14965338.39		A	1.6
5	☐	1.000		14622237.42		A	1.2
6	☐	1.000		14484500.20		A	1.0
7	☐	1.000		13878145.90		A	0.7
8	☐	1.000		11841965.73		A	1.9



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8297765.57		A	0.5
2	☐	1.000		8119835.09		A	0.3
3	☐	1.000		7675302.52		A	1.0
4	☐	1.000		7801176.90		A	0.5
5	☐	1.000		7492745.86		A	0.5
6	☐	1.000		7406832.11		A	2.5
7	☐	1.000		6964247.19		A	0.9
8	☐	1.000		5981872.13		A	1.8

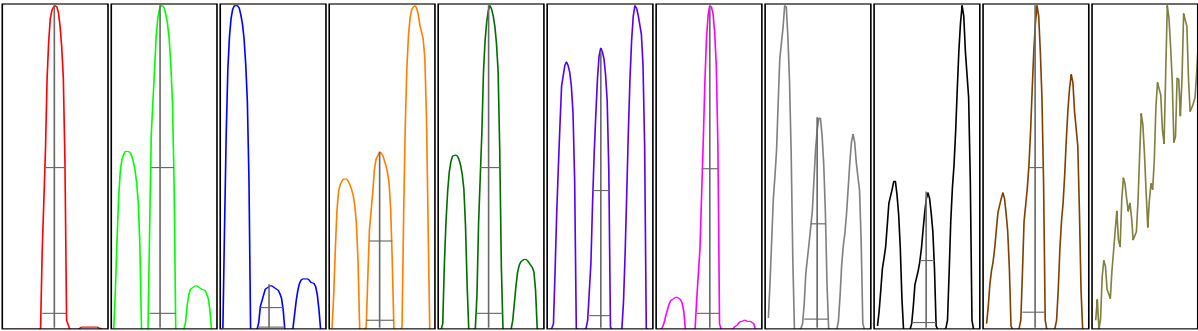
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7122419 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	15510	1.34	5.00	
24	189651	1.15	5.00	
25	25008	1.36	5.00	
26	29330	1.03	5.00	
59	134042	1.22	5.00	
113	17645	0.73	5.00	
115	205361	0.93	5.00	
206	44801	1.33	5.00	
207	40912	1.13	5.00	
208	97485	0.92	5.00	
220	123	5.07		

	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
Mass	Count	Count	Count	Count	Count
9	15164	15638	15677	15592	15481
24	186003	191557	190817	190421	189456
25	24439	25218	25229	25212	24941
26	28848	29581	29571	29410	29243
59	131410	135474	135199	134515	133612
113	17533	17750	17784	17666	17491
115	202273	207426	206057	205818	205232
206	43824	45426	45048	44868	44839
207	40262	41535	41094	40834	40838
208	96290	98788	97602	97504	97242
220	116	120	124	123	133

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	26532	9.00	8.9 - 9.1		0.738	0.900	
24	301196	23.90	23.9 - 24.1		0.787	0.900	
25	40576	24.90	24.9 - 25.1		0.780	0.900	
26	47551	25.95	25.9 - 26.1		0.787	0.900	
59	243316	58.95	58.9 - 59.1		0.764	0.900	
113	36961	113.05	112.9 - 113.1		0.642	0.900	
115	431901	115.05	114.9 - 115.1		0.671	0.900	
206	100995	206.00	205.9 - 206.1		0.725	0.900	
207	93567	207.00	206.9 - 207.1		0.694	0.900	
208	221007	208.00	207.9 - 208.1		0.688	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.2	V	Deflect	12.8	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	160	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	33136	0.61	
89	10357	0.81	
205	35346	1.38	

	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
Mass	Count	Count	Count	Count	Count
59	33273	32887	33042	33403	33077
89	10416	10301	10248	10363	10455
205	35803	34908	35214	35919	34887

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.9	V	Deflect	1.2	V
Extract 2	-125.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	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			