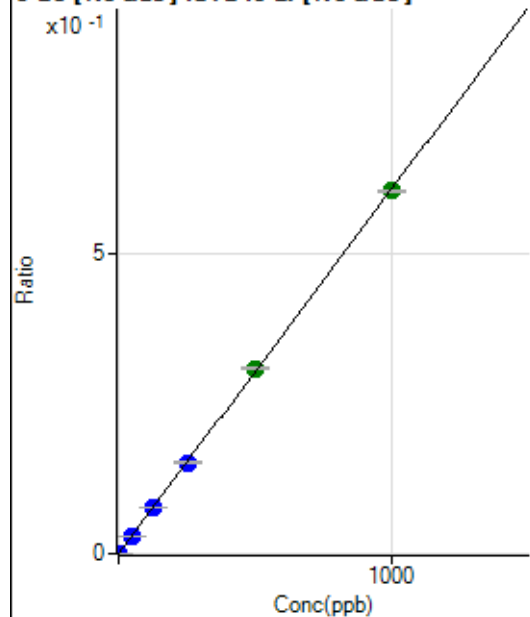


Batch Folder: C:\Agilent\ICPMH\1\DATA\P7122921-MS.b\
Analysis File: P7122921-MS.batch.bin
DA Date-Time: 12/29/2021 3:04:44 PM
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	12/29/2021 1:37:43 PM
2	005CALS.d	S02	12/29/2021 1:44:04 PM
3	006CALS.d	S03	12/29/2021 1:47:15 PM
4	007CALS.d	S04	12/29/2021 1:50:24 PM
5	008CALS.d	S05	12/29/2021 1:53:29 PM
6	009CALS.d	S06	12/29/2021 1:56:21 PM
7	010CALS.d	S07	12/29/2021 1:59:11 PM
8	011CALS.d	S08	12/29/2021 2:02:02 PM

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	51.11	0.0000	P	67.1
2	☐	1.000	0.971	3580.45	0.0006	P	2.4
3	☐	50.000	49.266	188093.27	0.0299	P	2.8
4	☐	125.000	126.057	464863.51	0.0764	P	0.9
5	☐	250.000	249.171	872906.94	0.1510	P	2.0
6	☐	500.000	508.607	1851160.46	0.3081	A	1.1
7	☐	1000.000	995.808	3336395.65	0.6033	A	0.8
8	☐			616.68	0.0001	P	11.4

$$y = 6.0585E-004 * x + 8.5570E-006$$

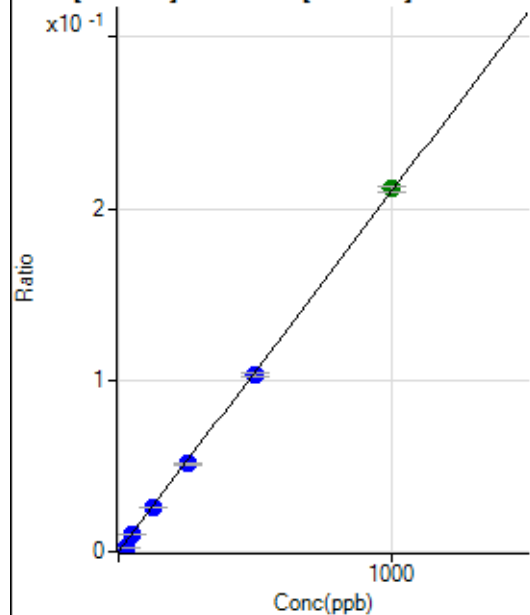
$$R = 0.9999$$

$$DL = 0.02845$$

$$BEC = 0.01412$$

Weight: <None>

Min Conc: 0

10 B [No Gas] ISTD:6 Li [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	466.68	0.0001	P	21.2
2	☐	25.000	11.358	14760.11	0.0025	P	1.4
3	☐	50.000	48.066	64035.50	0.0102	P	2.2
4	☐	125.000	121.423	155550.46	0.0256	P	0.9
5	☐	250.000	243.138	295495.54	0.0511	P	0.9
6	☐	500.000	489.737	617841.02	0.1028	P	2.2
7	☐	1000.000	1007.732	1169692.99	0.2115	A	1.6
8	☐			28493.48	0.0054	P	8.6

$$y = 2.0984E-004 * x + 7.7593E-005$$

$$R = 0.9999$$

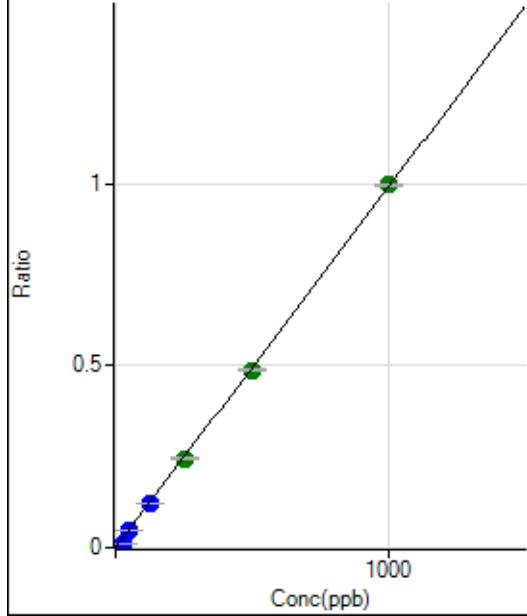
$$DL = 0.2349$$

$$BEC = 0.3698$$

Weight: <None>

Min Conc: 0

11 B [No Gas] ISTD:6 Li [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2272.44	0.0004	P	5.2
2	☐	25.000	11.754	72168.32	0.0120	P	1.6
3	☐	50.000	48.173	303319.22	0.0481	P	2.0
4	☐	125.000	122.753	743235.22	0.1221	P	1.1
5	☐	250.000	247.246	1420034.87	0.2456	A	1.2
6	☐	500.000	492.479	2936369.47	0.4888	A	1.5
7	☐	1000.000	1005.153	5514857.55	0.9972	A	0.5
8	☐			136509.08	0.0260	P	11.5

$$y = 9.9172\text{E-}004 * x + 3.7521\text{E-}004$$

$$R = 0.9999$$

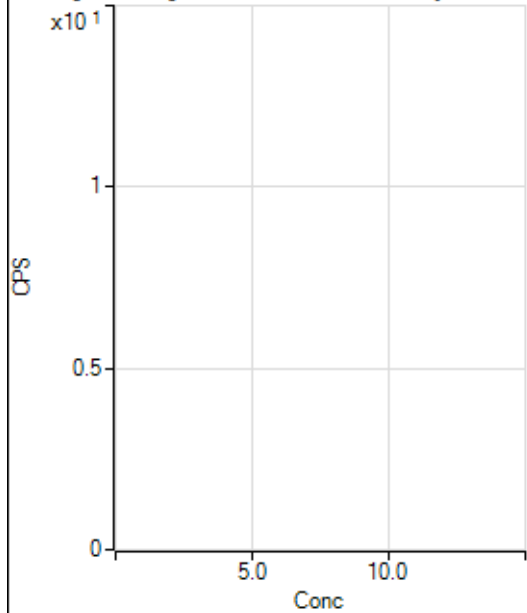
$$DL = 0.0587$$

$$BEC = 0.3783$$

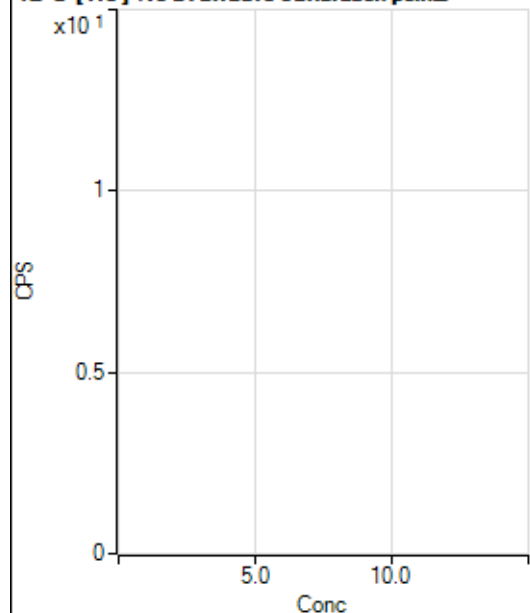
Weight: <None>

Min Conc: 0

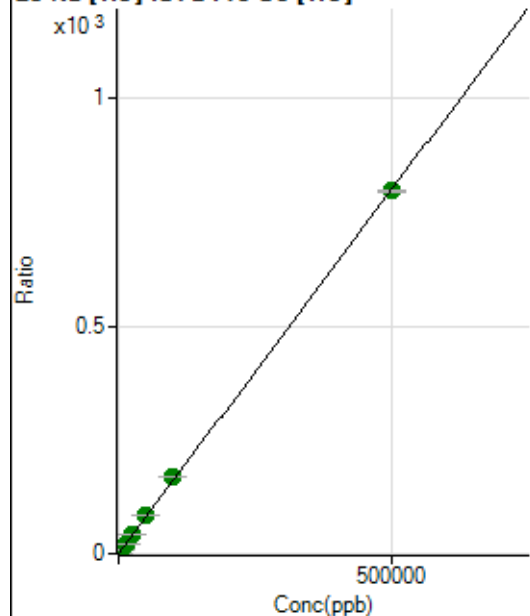
12 C [No Gas] No available calibration points



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

12 C [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

23 Na [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	17473.09	0.0219	P	2.1
2	☐	500.000	484.025	596877.96	0.7958	P	0.6
3	☐	5000.000	5312.577	6913405.01	8.5161	A	0.6
4	☐	12500.000	13285.780	16593176.53	21.2643	A	0.3
5	☐	25000.000	27072.212	31907362.06	43.3073	A	0.7
6	☐	50000.000	53091.225	67149657.06	84.9087	A	0.3
7	☐	100000.00	105581.64	123228886.0	168.8349	A	0.7
8	☐	500000.00	498448.18	677125170.6	796.9836	A	0.7

$$y = 0.0016 * x + 0.0219$$

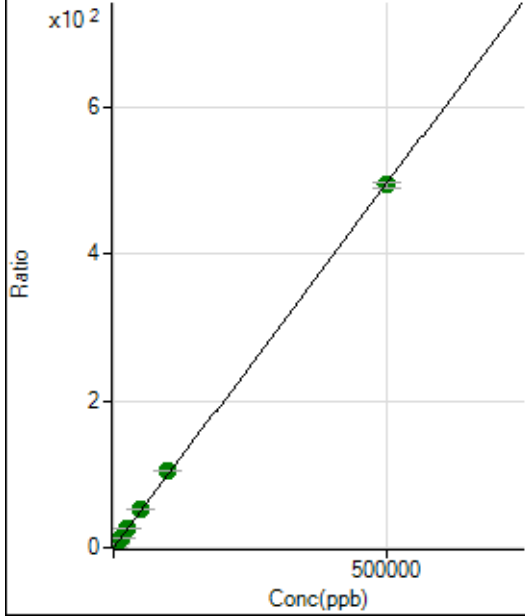
$$R = 0.9999$$

$$DL = 0.8715$$

$$BEC = 13.69$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	420.38	0.0005	P	5.7
2	☐	500.000	479.785	356745.68	0.4756	P	1.0
3	☐	5000.000	5232.550	4206848.85	5.1822	A	0.7
4	☐	12500.000	13064.409	10095384.83	12.9378	A	0.5
5	☐	25000.000	26575.229	19389738.63	26.3172	A	0.7
6	☐	50000.000	52047.665	40761944.43	51.5418	A	0.2
7	☐	100000.00	106029.45	76636385.97	104.9984	A	0.3
8	☐	500000.00	498494.16	419446405.6	493.6447	A	1.3

$$y = 9.9027E-004 * x + 5.2662E-004$$

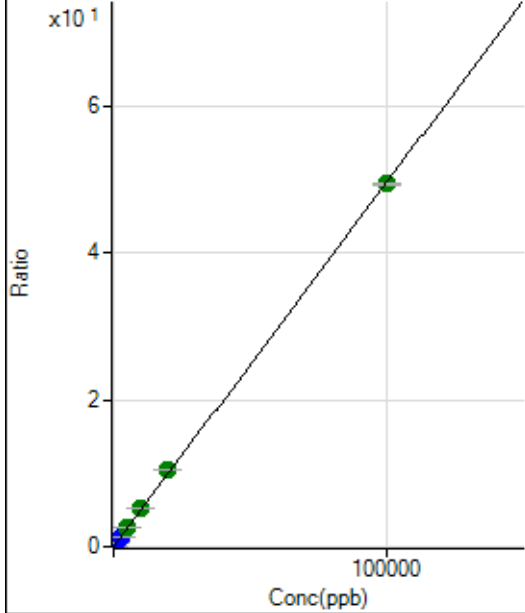
$$R = 0.9999$$

$$DL = 0.09072$$

$$BEC = 0.5318$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	238.90	0.0003	P	16.0
2	☐	20.000	21.268	8143.03	0.0109	P	2.8
3	☐	1000.000	1052.921	424580.73	0.5230	P	0.9
4	☐	2500.000	2628.573	1018511.13	1.3052	P	0.2
5	☐	5000.000	5414.049	1980401.14	2.6881	A	2.4
6	☐	10000.000	10514.688	4128468.67	5.2203	A	0.6
7	☐	20000.000	21231.172	7693225.58	10.5404	A	1.0
8	☐	100000.00	99677.851	42044493.53	49.4850	A	0.5

$$y = 4.9645E-004 * x + 2.9892E-004$$

$$R = 0.9999$$

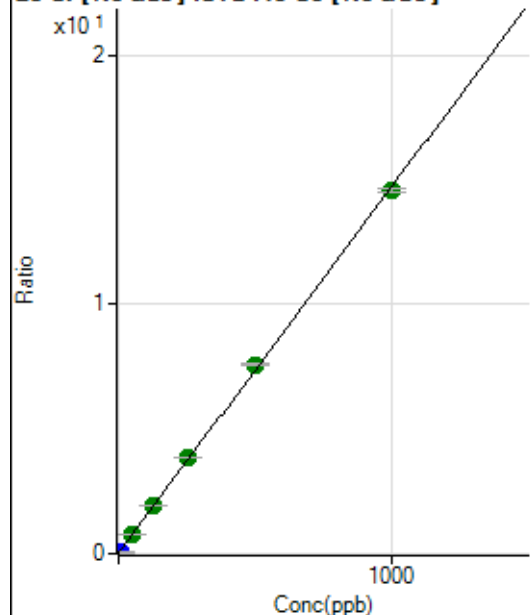
$$DL = 0.2891$$

$$BEC = 0.6021$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	208147.13	0.0290	P	3.2
2	☐	10.000	0.664	279348.40	0.0388	P	1.0
3	☐	50.000	52.461	5918776.56	0.7992	A	1.0
4	☐	125.000	130.869	14388594.24	1.9504	A	0.8
5	☐	250.000	259.698	26798448.86	3.8418	A	0.8
6	☐	500.000	514.708	56882579.05	7.5858	A	1.2
7	☐	1000.000	989.458	103278998.1	14.5560	A	1.2
8	☐			747366.99	0.1062	P	0.9

$$y = 0.0147 * x + 0.0290$$

$$R = 0.9997$$

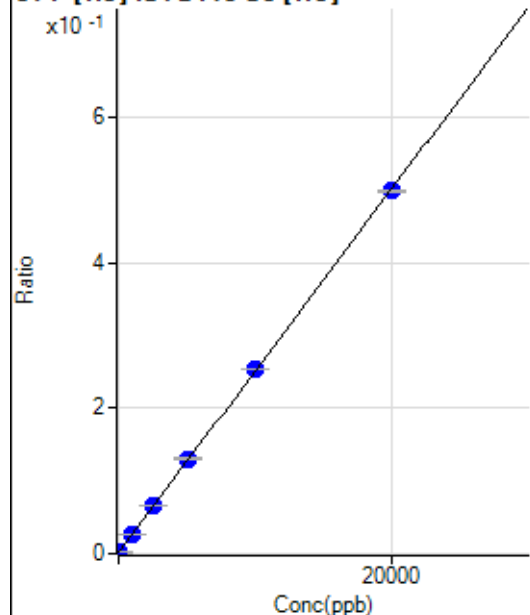
$$DL = 0.1903$$

$$BEC = 1.976$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	-11.069	861.15	0.0011	P	4.4
2	☐	0.000	11.069	1225.08	0.0016	P	1.9
3	☐	1000.000	1011.425	21640.67	0.0267	P	0.5
4	☐	2500.000	2561.584	51060.92	0.0654	P	1.8
5	☐	5000.000	5177.009	96414.48	0.1309	P	0.3
6	☐	10000.000	10082.323	200529.06	0.2536	P	0.3
7	☐	20000.000	19906.317	364439.34	0.4993	P	0.8
8	☐			1138.96	0.0013	P	17.7

$$y = 2.5015E-005 * x + 0.0014$$

$$R = 0.9999$$

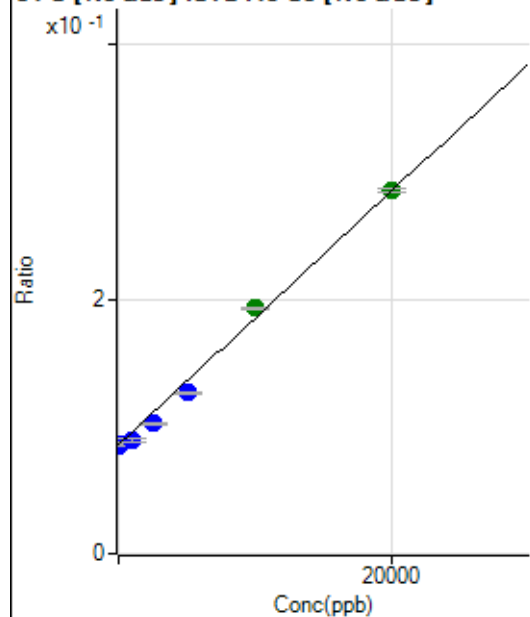
$$DL = 4.734$$

$$BEC = 54.23$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	82.654	620280.44	0.0865	P	3.7
2	☐	0.000	-82.654	611357.67	0.0848	P	1.2
3	☐	1000.000	323.301	657679.10	0.0889	P	3.0
4	☐	2500.000	1660.856	754019.35	0.1022	P	1.3
5	☐	5000.000	4076.212	880929.96	0.1263	P	0.9
6	☐	10000.000	10747.139	1445905.51	0.1928	A	0.4
7	☐	20000.000	19996.105	2022365.73	0.2850	A	0.9
8	☐			507333.90	0.0721	P	1.9

$$y = 9.9702\text{E-}006 * x + 0.0857$$

R = 0.9972

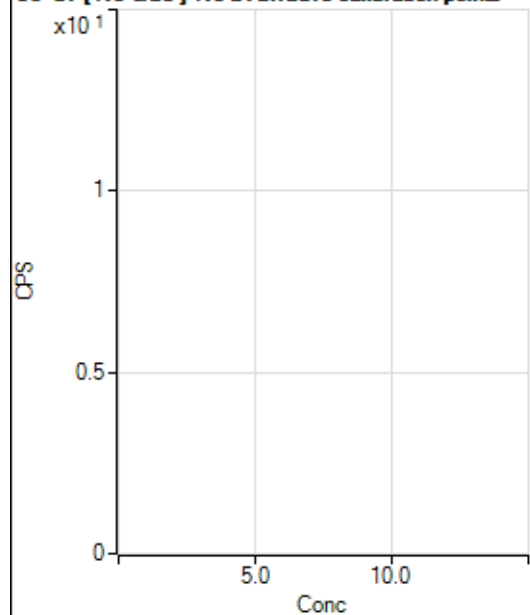
DL = 644.5

BEC = 8591

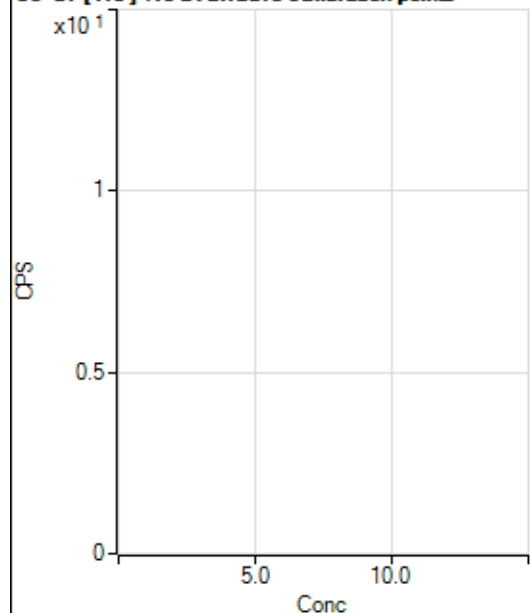
Weight: <None>

Min Conc: 0

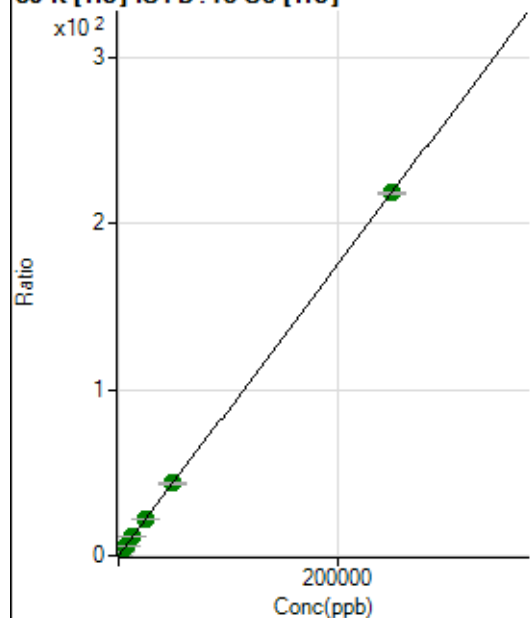
35 Cl [No Gas] No available calibration points



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

35 Cl [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	51418.30	0.0645	P	1.3
2	☐	500.000	486.688	367269.62	0.4897	P	0.5
3	☐	2500.000	2476.818	1809109.26	2.2284	A	0.1
4	☐	6250.000	6261.454	4319079.00	5.5350	A	0.3
5	☐	12500.000	12604.104	8160709.03	11.0765	A	1.2
6	☐	25000.000	25115.072	17404061.15	22.0072	A	0.4
7	☐	50000.000	49661.907	31715803.49	43.4535	A	0.4
8	☐	250000.00	250050.87	185662827.7	218.5310	A	0.6

$$y = 8.7369E-004 * x + 0.0645$$

$$R = 1.0000$$

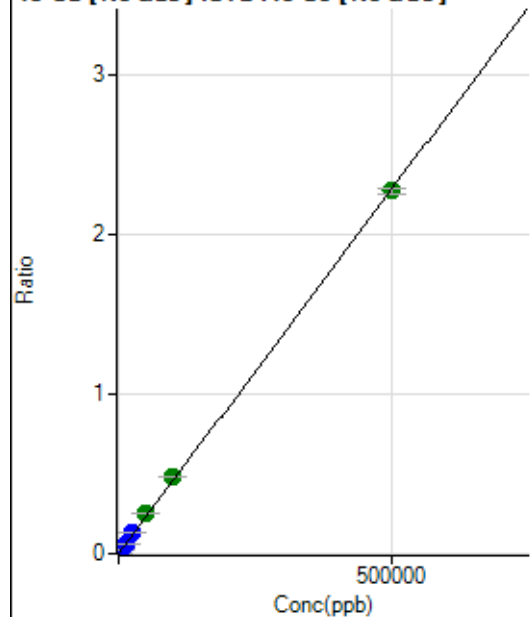
$$DL = 2.847$$

$$BEC = 73.77$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	297.23	0.0000	P	30.7
2	☐	500.000	475.763	15925.37	0.0022	P	2.9
3	☐	5000.000	5592.525	189142.98	0.0255	P	1.4
4	☐	12500.000	14119.743	475179.47	0.0644	P	0.6
5	☐	25000.000	28017.743	891243.72	0.1278	P	1.0
6	☐	50000.000	54468.269	1862484.48	0.2484	A	0.1
7	☐	100000.00	106424.33	3442840.61	0.4852	A	0.8
8	☐	500000.00	498071.02	15985010.77	2.2707	A	1.5

$$y = 4.5588\text{E-}006 * x + 4.1150\text{E-}005$$

$$R = 0.9999$$

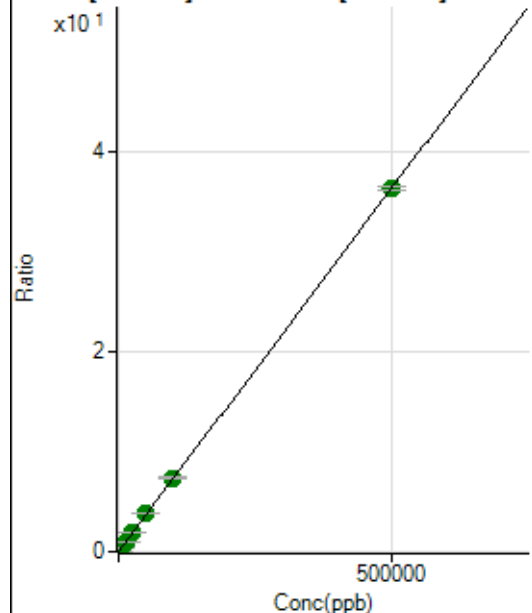
$$DL = 8.302$$

$$BEC = 9.026$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	15241.47	0.0021	P	3.4
2	☐	500.000	482.676	268366.79	0.0372	P	1.2
3	☐	5000.000	5224.048	2829353.02	0.3822	A	1.4
4	☐	12500.000	13005.849	6995562.57	0.9483	A	0.6
5	☐	25000.000	25946.871	13181492.92	1.8897	A	0.5
6	☐	50000.000	52213.506	28497824.94	3.8005	A	1.4
7	☐	100000.00	101175.94	52236454.29	7.3624	A	1.5
8	☐	500000.00	499481.24	255795286.2	36.3380	A	1.1

$$y = 7.2747\text{E-}005 * x + 0.0021$$

$$R = 1.0000$$

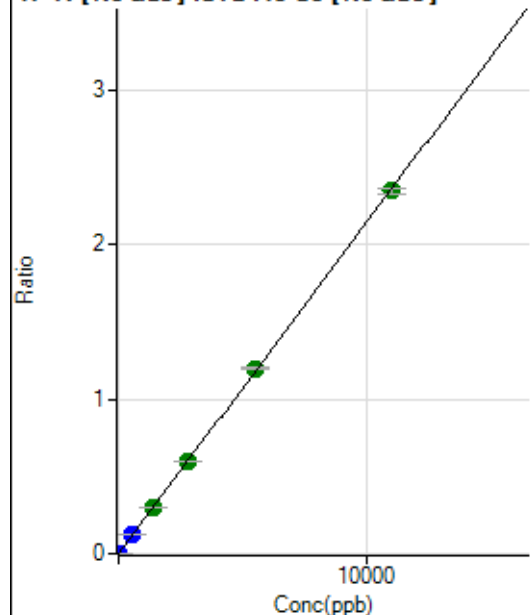
$$DL = 2.952$$

$$BEC = 29.21$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	102.78	0.0000	P	27.9
2	☐	5.000	4.773	7468.70	0.0010	P	3.8
3	☐	550.000	555.060	880473.23	0.1189	P	0.2
4	☐	1375.000	1395.234	2204682.56	0.2989	A	1.1
5	☐	2750.000	2792.061	4171665.41	0.5981	A	0.6
6	☐	5500.000	5585.508	8971421.38	1.1964	A	1.0
7	☐	11000.000	10943.949	16632108.70	2.3441	A	1.5
8	☐			4389.64	0.0006	P	4.9

$$y = 2.1419E-004 * x + 1.4291E-005$$

$$R = 0.9999$$

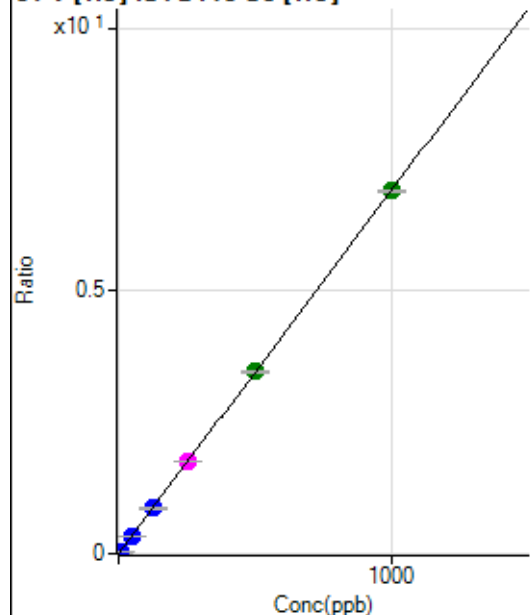
$$DL = 0.0558$$

$$BEC = 0.06672$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	10.00	0.0000	P	65.9
2	☐	5.000	4.531	23486.09	0.0313	P	0.1
3	☐	50.000	49.474	277482.32	0.3418	P	0.9
4	☐	125.000	124.393	670586.24	0.8594	P	0.8
5	☐	250.000	252.569	1285648.34	1.7450	M	0.7
6	☐	500.000	501.865	2741931.29	3.4673	A	1.3
7	☐	1000.000	998.530	5035159.68	6.8986	A	0.7
8	☐			941.15	0.0011	P	6.8

$$y = 0.0069 * x + 1.2527E-005$$

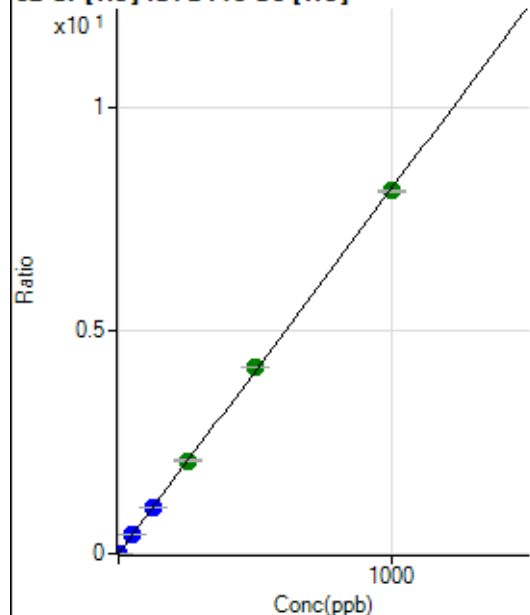
$$R = 1.0000$$

$$DL = 0.003586$$

$$BEC = 0.001813$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2806.96	0.0035	P	0.6
2	☐	2.000	1.893	14274.65	0.0190	P	2.2
3	☐	50.000	50.528	338971.11	0.4175	P	0.4
4	☐	125.000	126.704	812883.90	1.0417	P	0.2
5	☐	250.000	254.993	1541988.68	2.0929	A	1.6
6	☐	500.000	509.058	3301499.60	4.1747	A	0.3
7	☐	1000.000	993.983	5947216.92	8.1482	A	0.7
8	☐			12164.98	0.0143	P	1.2

$$y = 0.0082 * x + 0.0035$$

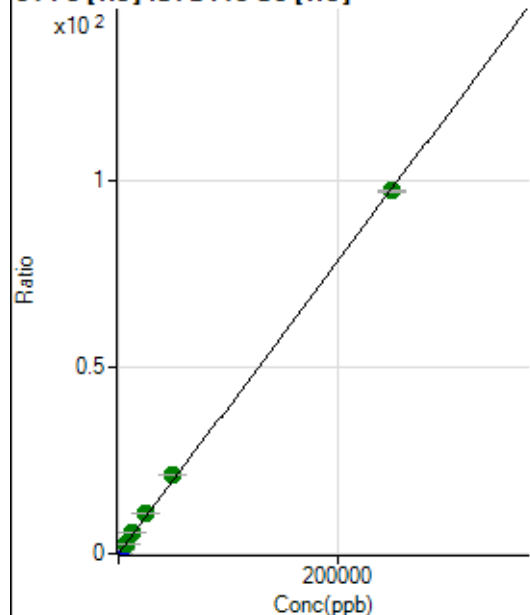
$$R = 0.9999$$

$$DL = 0.008083$$

$$BEC = 0.4294$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1528.31	0.0019	P	10.7
2	☐	50.000	51.966	16672.99	0.0222	P	1.4
3	☐	2500.000	2819.126	896304.86	1.1041	P	0.5
4	☐	6250.000	6917.505	2111865.86	2.7064	A	0.1
5	☐	12500.000	13906.740	4007257.35	5.4389	A	0.3
6	☐	25000.000	27417.890	8478721.75	10.7212	A	0.4
7	☐	50000.000	53799.076	15353145.00	21.0352	A	0.7
8	☐	250000.00	248908.18	82680858.78	97.3151	A	0.4

$$y = 3.9096E-004 * x + 0.0019$$

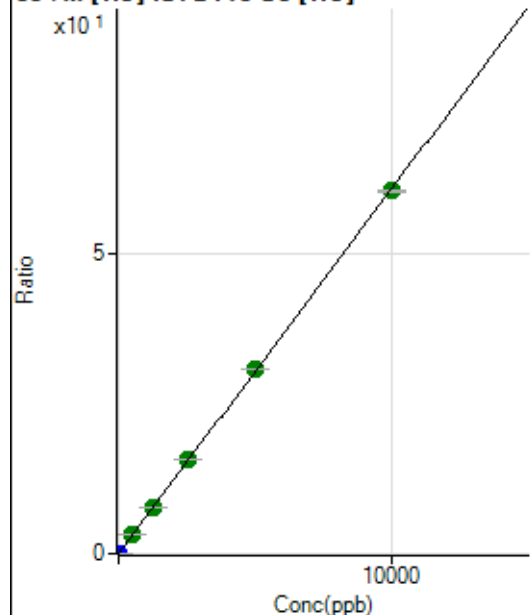
$$R = 0.9999$$

$$DL = 1.565$$

$$BEC = 4.894$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	243.34	0.0003	P	1.7
2	☐	1.000	0.979	4688.55	0.0063	P	3.7
3	☐	500.000	503.150	2482505.60	3.0578	A	0.5
4	☐	1250.000	1268.386	6014831.58	7.7080	A	0.0
5	☐	2500.000	2569.663	11505075.52	15.6156	A	0.7
6	☐	5000.000	5063.425	24334126.03	30.7697	A	0.6
7	☐	10000.000	9948.416	44124700.45	60.4548	A	0.4
8	☐			29663.73	0.0349	P	2.1

$$y = 0.0061 * x + 3.0501E-004$$

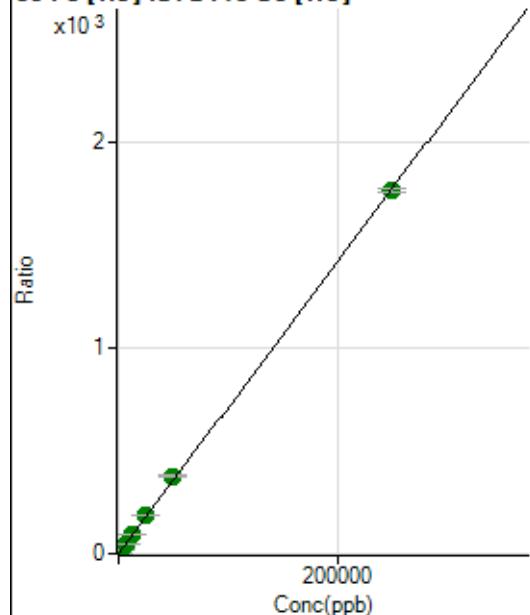
$$R = 0.9999$$

$$DL = 0.002502$$

$$BEC = 0.05019$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	8345.04	0.0105	P	3.7
2	☐	50.000	51.214	280090.11	0.3734	P	0.7
3	☐	2500.000	2703.676	15564041.20	19.1722	A	0.8
4	☐	6250.000	6783.163	37520067.97	48.0846	A	0.7
5	☐	12500.000	13733.833	71721942.81	97.3459	A	0.9
6	☐	25000.000	26884.813	150694590.4	190.5505	A	0.4
7	☐	50000.000	53247.668	275449876.5	377.3914	A	0.9
8	☐	250000.00	249084.92	1499909233.	1,765.344	A	1.2

$$y = 0.0071 * x + 0.0105$$

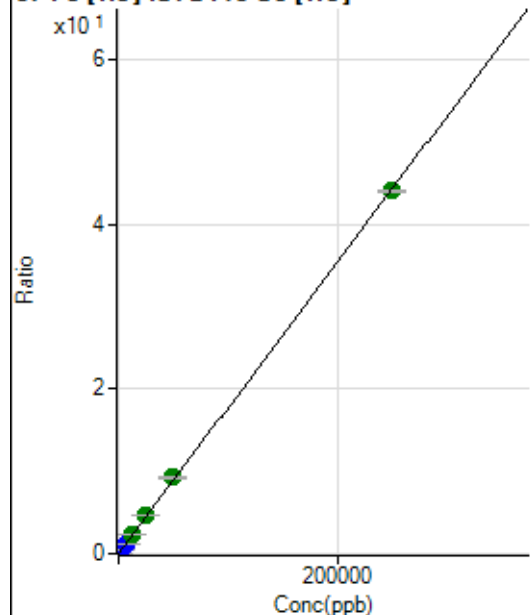
$$R = 0.9999$$

$$DL = 0.1643$$

$$BEC = 1.476$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	312.97	0.0004	P	10.8
2	☐	50.000	51.912	7177.75	0.0096	P	4.1
3	☐	2500.000	2735.712	392999.68	0.4841	P	0.4
4	☐	6250.000	6881.773	949778.99	1.2172	P	0.3
5	☐	12500.000	13577.255	1769022.44	2.4010	A	1.2
6	☐	25000.000	26796.248	3747056.59	4.7383	A	1.2
7	☐	50000.000	52408.300	6763683.02	9.2669	A	1.1
8	☐	250000.00	249266.70	37445251.77	44.0740	A	0.4

$$y = 1.7681\text{E-}004 * x + 3.9197\text{E-}004$$

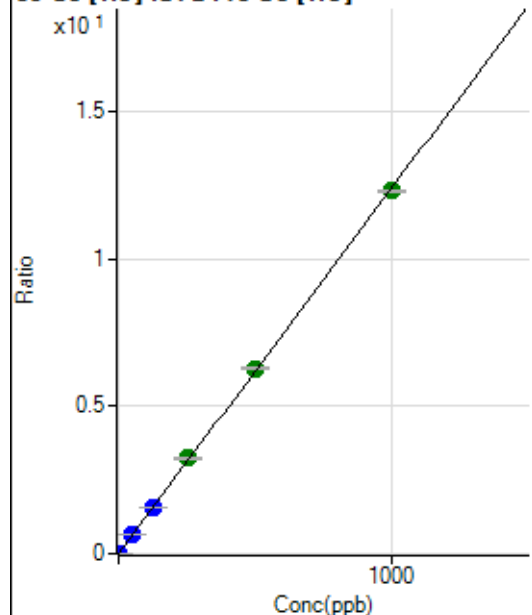
$$R = 0.9999$$

$$DL = 0.7175$$

$$BEC = 2.217$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	165.56	0.0002	P	6.5
2	☐	1.000	0.931	8813.78	0.0118	P	2.2
3	☐	50.000	50.938	512868.86	0.6318	P	0.6
4	☐	125.000	127.469	1233386.12	1.5806	P	0.6
5	☐	250.000	260.751	2382126.63	3.2331	A	0.3
6	☐	500.000	507.425	4975339.93	6.2915	A	1.2
7	☐	1000.000	993.244	8988459.10	12.3150	A	0.5
8	☐			16273.36	0.0192	P	2.3

$$y = 0.0124 * x + 2.0737\text{E-}004$$

$$R = 0.9999$$

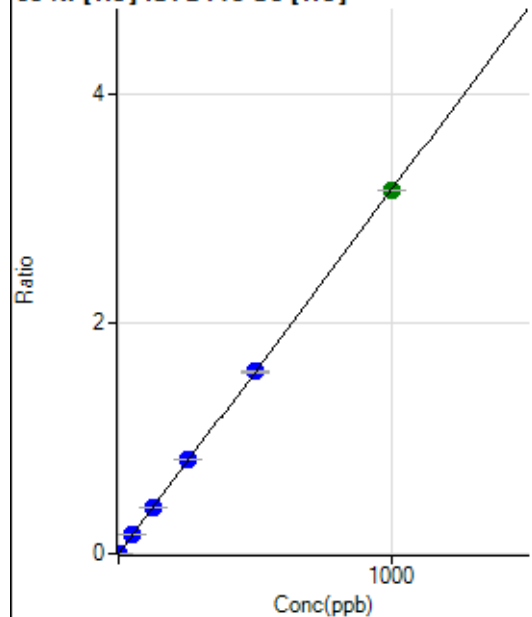
$$DL = 0.003239$$

$$BEC = 0.01673$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	564.46	0.0007	P	6.7
2	☐	1.000	1.085	3103.69	0.0041	P	3.1
3	☐	50.000	52.992	136621.39	0.1683	P	0.8
4	☐	125.000	128.457	317589.14	0.4070	P	1.4
5	☐	250.000	256.858	599029.18	0.8130	P	0.0
6	☐	500.000	500.533	1252385.31	1.5837	P	0.7
7	☐	1000.000	997.437	2302887.90	3.1552	A	0.2
8	☐			4290.66	0.0051	P	1.3

$$y = 0.0032 * x + 7.0706E-004$$

$$R = 1.0000$$

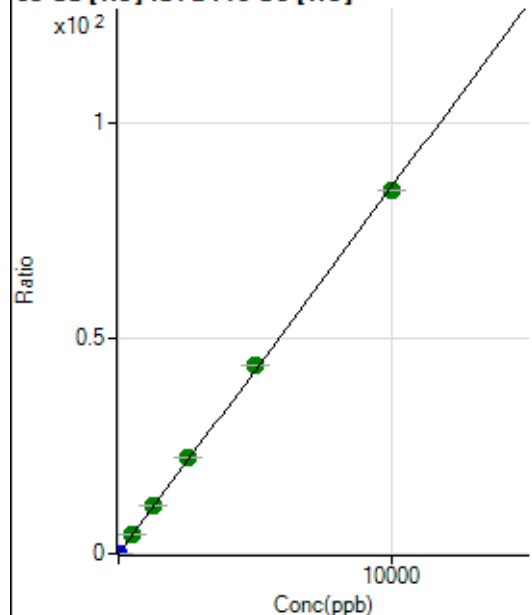
$$DL = 0.04463$$

$$BEC = 0.2236$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2103.50	0.0026	P	3.4
2	☐	2.000	2.054	15097.69	0.0201	P	0.7
3	☐	500.000	528.296	3653377.13	4.5005	A	1.3
4	☐	1250.000	1308.660	8696161.47	11.1446	A	0.5
5	☐	2500.000	2620.914	16442755.59	22.3171	A	0.5
6	☐	5000.000	5135.438	34579037.54	43.7258	A	0.9
7	☐	10000.000	9893.305	61480950.19	84.2343	A	0.1
8	☐			18549.37	0.0218	P	3.9

$$y = 0.0085 * x + 0.0026$$

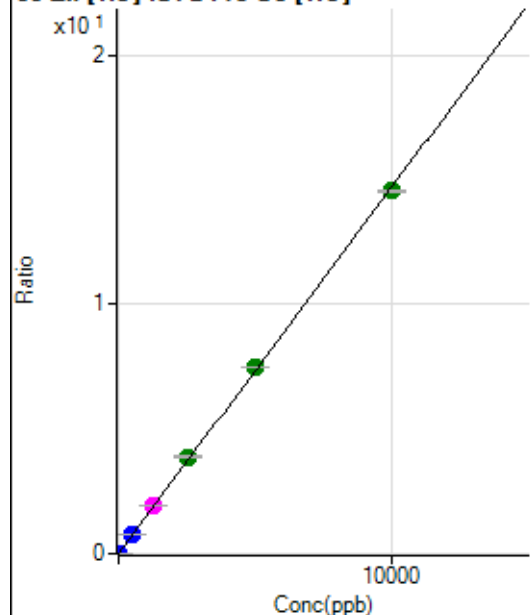
$$R = 0.9998$$

$$DL = 0.03155$$

$$BEC = 0.3098$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	691.13	0.0009	P	7.6
2	☐	2.000	2.310	3198.15	0.0043	P	2.5
3	☐	500.000	527.305	630101.72	0.7762	P	1.0
4	☐	1250.000	1306.683	1499989.39	1.9222	M	0.5
5	☐	2500.000	2649.872	2871324.58	3.8972	A	0.8
6	☐	5000.000	5094.837	5924925.54	7.4922	A	0.7
7	☐	10000.000	9906.663	10632410.12	14.5673	A	0.5
8	☐			14803.00	0.0174	P	0.9

$$y = 0.0015 * x + 8.6689E-004$$

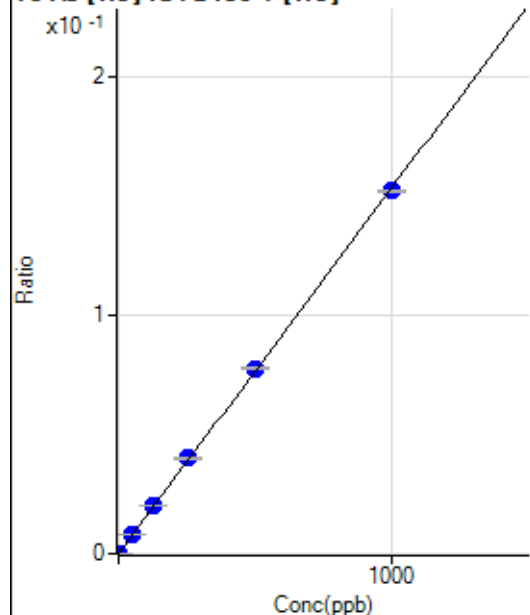
$$R = 0.9998$$

$$DL = 0.1337$$

$$BEC = 0.5896$$

Weight: <None>

Min Conc: 0

⁷⁵As [He] ISTD:89 Y [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	34.57	0.0000	P	9.8
2	☐	1.000	1.005	660.51	0.0002	P	6.9
3	☐	50.000	50.992	34442.89	0.0078	P	1.1
4	☐	125.000	130.023	83389.56	0.0199	P	1.3
5	☐	250.000	260.820	159823.10	0.0400	P	1.3
6	☐	500.000	507.505	336650.37	0.0778	P	0.9
7	☐	1000.000	992.865	606296.55	0.1522	P	0.9
8	☐			287.04	0.0001	P	13.1

$$y = 1.5330E-004 * x + 7.9086E-006$$

$$R = 0.9999$$

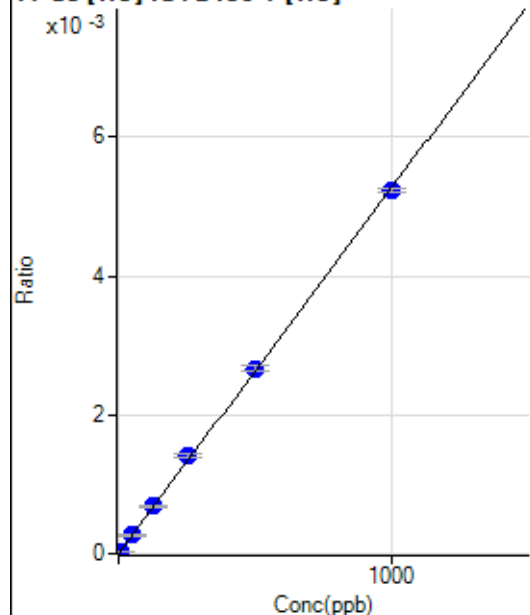
$$DL = 0.01516$$

$$BEC = 0.05159$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	4.497	96.67	0.0000	P	3.3
3	☐	50.000	50.453	1170.06	0.0003	P	7.2
4	☐	125.000	131.070	2890.31	0.0007	P	3.6
5	☐	250.000	267.838	5643.35	0.0014	P	2.8
6	☐	500.000	505.785	11532.36	0.0027	P	3.5
7	☐	1000.000	991.869	20824.71	0.0052	P	1.2
8	☐			7.78	0.0000	P	67.3

$$y = 5.2710\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9998$$

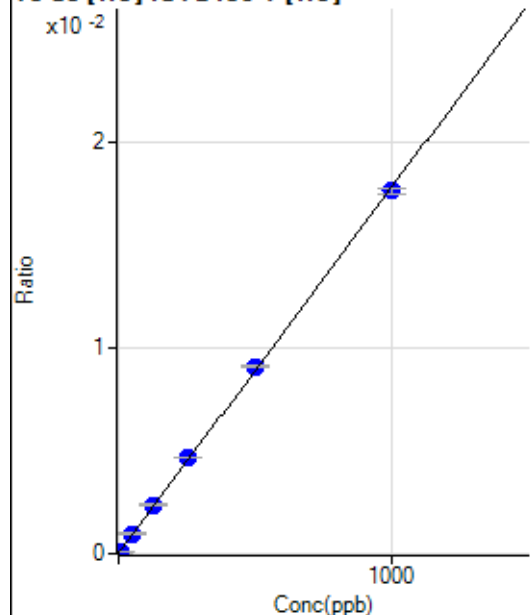
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	85.18	0.0000	P	8.4
2	☐	5.000	5.103	449.39	0.0001	P	4.9
3	☐	50.000	53.681	4284.59	0.0010	P	1.8
4	☐	125.000	132.379	9920.64	0.0024	P	1.0
5	☐	250.000	262.511	18722.32	0.0047	P	1.2
6	☐	500.000	510.312	39322.31	0.0091	P	1.2
7	☐	1000.000	990.609	70198.91	0.0176	P	1.5
8	☐			129.63	0.0000	P	10.2

$$y = 1.7772\text{E-}005 * x + 1.9513\text{E-}005$$

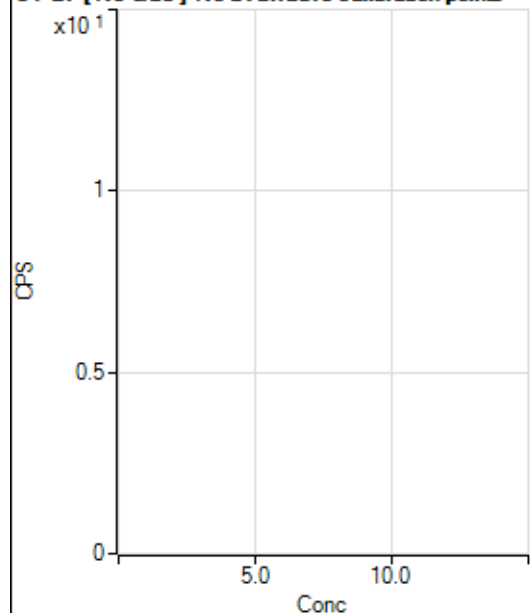
$$R = 0.9998$$

$$DL = 0.2757$$

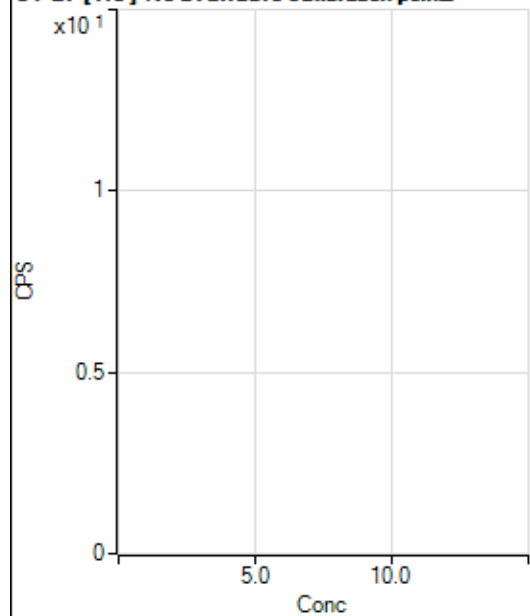
$$BEC = 1.098$$

Weight: <None>

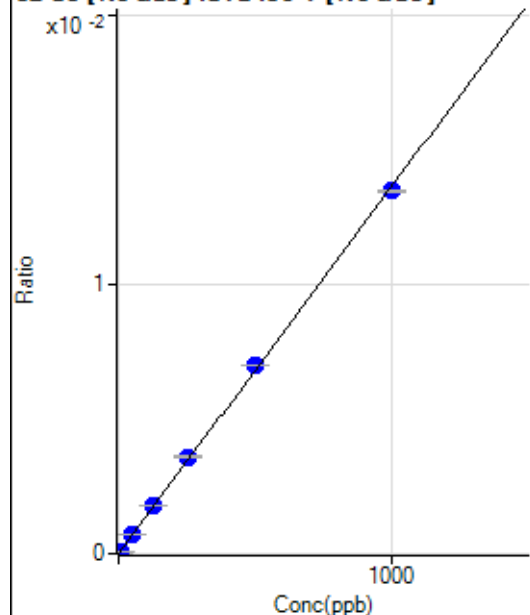
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			2733.66		P	3.9
2	☐			2811.45		P	9.0
3	☐			2503.05		P	2.6
4	☐			2733.66		P	5.4
5	☐			2714.22		P	4.0
6	☐			2864.24		P	10.8
7	☐			2622.54		P	8.1
8	☐			2661.42		P	4.5

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			123.46		P	16.9
2	☐			113.45		P	10.2
3	☐			90.09		P	40.1
4	☐			70.07		P	79.5
5	☐			83.42		P	18.3
6	☐			90.09		P	33.3
7	☐			63.40		P	39.7
8	☐			103.44		P	34.0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	42.01	0.0000	P	67.7
2	☐	5.000	5.074	1029.60	0.0001	P	4.8
3	☐	50.000	52.854	10712.25	0.0007	P	1.6
4	☐	125.000	132.524	26734.82	0.0018	P	0.9
5	☐	250.000	264.098	50548.54	0.0036	P	2.1
6	☐	500.000	513.284	105615.23	0.0070	P	0.7
7	☐	1000.000	988.750	189479.75	0.0135	P	0.8
8	☐			0.82	0.0000	P	-12082.

$$y = 1.3641\text{E-}005 * x + 2.9916\text{E-}006$$

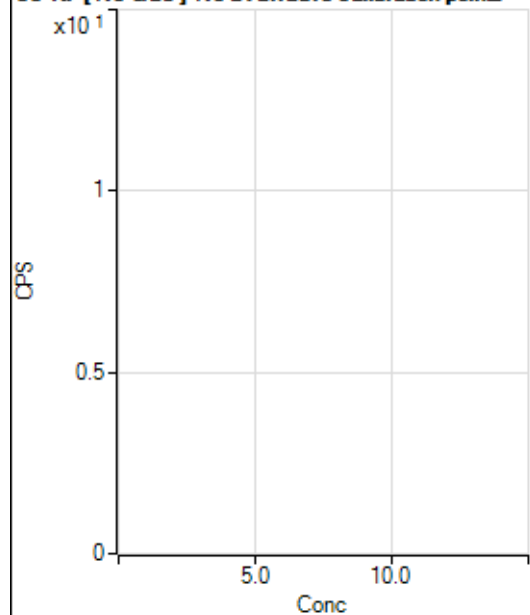
$$R = 0.9997$$

$$DL = 0.4457$$

$$BEC = 0.2193$$

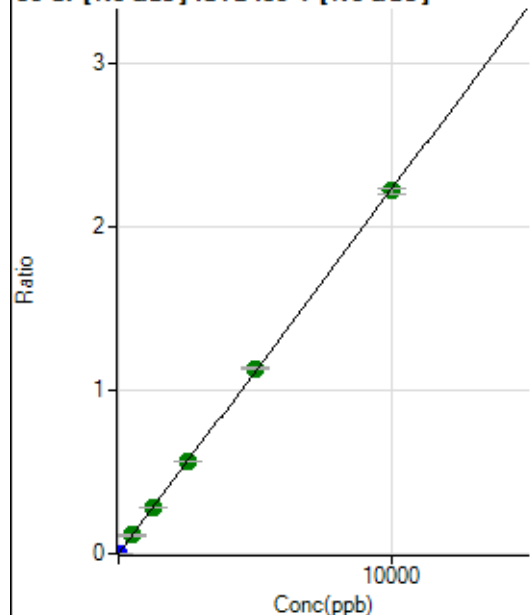
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			885.59		P	2.9
2	☐			898.93		P	4.0
3	☐			884.48		P	10.0
4	☐			915.59		P	9.2
5	☐			843.37		P	1.7
6	☐			906.70		P	0.7
7	☐			916.70		P	1.9
8	☐			933.37		P	10.8

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1436.22	0.0001	P	7.3
2	☐	1.000	0.960	4484.12	0.0003	P	5.5
3	☐	500.000	501.050	1651605.96	0.1116	A	1.0
4	☐	1250.000	1246.654	4098389.29	0.2776	A	1.1
5	☐	2500.000	2525.515	7882062.24	0.5622	A	0.9
6	☐	5000.000	5075.387	17034339.79	1.1298	A	1.4
7	☐	10000.000	9956.294	31125278.13	2.2162	A	1.6
8	☐			25564.38	0.0018	P	1.5

$$y = 2.2258E-004 * x + 1.0088E-004$$

$$R = 1.0000$$

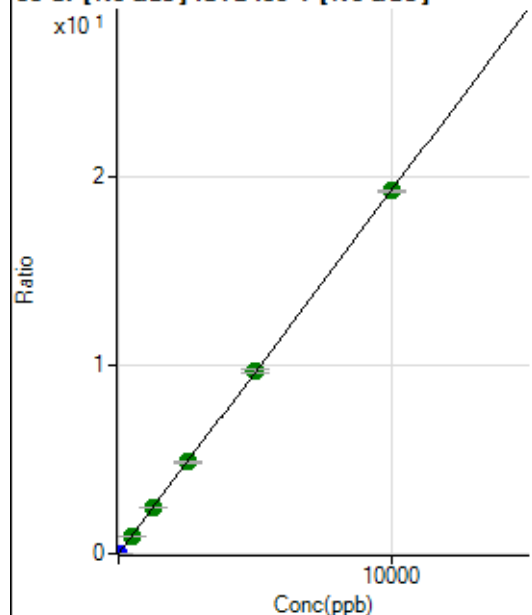
$$DL = 0.09952$$

$$BEC = 0.4532$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	219.45	0.0000	P	2.8
2	☐	1.000	0.911	25255.57	0.0018	P	0.4
3	☐	500.000	500.812	14278097.36	0.9649	A	0.2
4	☐	1250.000	1251.300	35593761.91	2.4107	A	0.7
5	☐	2500.000	2519.166	68042468.19	4.8534	A	0.5
6	☐	5000.000	5015.368	145684258.8	9.6625	A	1.9
7	☐	10000.000	9987.322	270249061.6	19.2414	A	0.7
8	☐			207186.20	0.0150	P	1.8

$$y = 0.0019 * x + 1.5386E-005$$

$$R = 1.0000$$

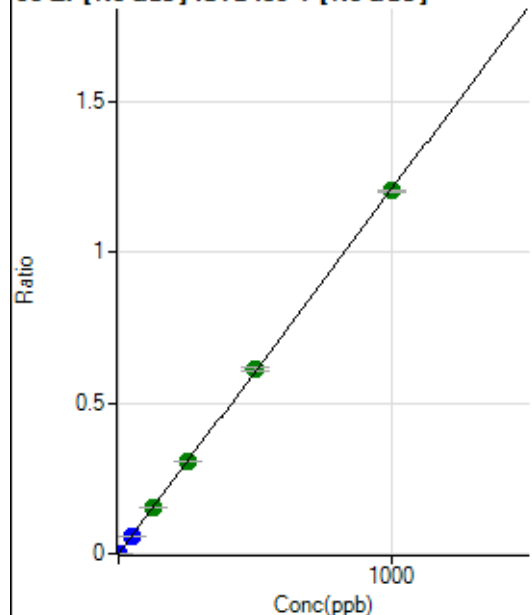
$$DL = 0.0006633$$

$$BEC = 0.007986$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	908.39	0.0001	P	8.1
2	☐	1.000	0.901	16437.38	0.0012	P	3.1
3	☐	50.000	49.507	886318.34	0.0599	P	0.3
4	☐	125.000	126.362	2255735.34	0.1528	A	1.3
5	☐	250.000	253.680	4299118.41	0.3067	A	1.0
6	☐	500.000	506.106	9222916.53	0.6117	A	1.3
7	☐	1000.000	995.882	16906809.23	1.2037	A	0.5
8	☐			9956.41	0.0007	P	2.2

$$y = 0.0012 * x + 6.3768E-005$$

$$R = 1.0000$$

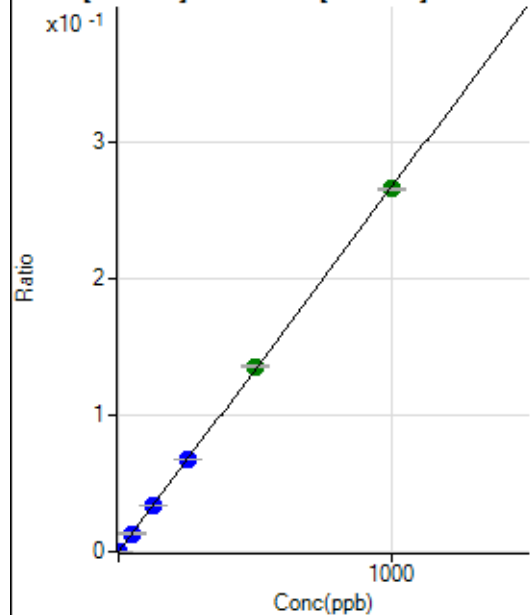
$$DL = 0.01284$$

$$BEC = 0.05276$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	202.78	0.0000	P	5.4
2	☐	1.000	0.909	3667.22	0.0003	P	8.8
3	☐	50.000	49.889	197690.94	0.0134	P	1.3
4	☐	125.000	126.034	497894.24	0.0337	P	0.2
5	☐	250.000	252.801	948015.89	0.0676	P	1.5
6	☐	500.000	507.609	2047229.13	0.1358	A	0.7
7	☐	1000.000	995.372	3739241.66	0.2662	A	0.7
8	☐			2294.68	0.0002	P	6.0

$$y = 2.6744E-004 * x + 1.4195E-005$$

$$R = 1.0000$$

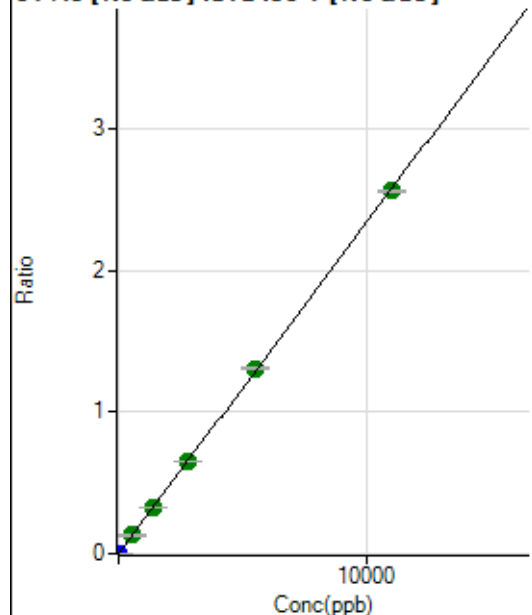
$$DL = 0.008533$$

$$BEC = 0.05308$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	350.01	0.0000	P	4.8
2	☐	5.000	5.706	19427.17	0.0014	P	0.7
3	☐	550.000	552.187	1916478.45	0.1295	A	0.7
4	☐	1375.000	1393.839	4825968.94	0.3269	A	1.1
5	☐	2750.000	2780.614	9140914.27	0.6521	A	1.7
6	☐	5500.000	5593.133	19774102.01	1.3116	A	1.1
7	☐	11000.000	10943.315	36041545.60	2.5661	A	0.8
8	☐			10303.91	0.0007	P	4.1

$$y = 2.3449\text{E-}004 * x + 2.4568\text{E-}005$$

$$R = 0.9999$$

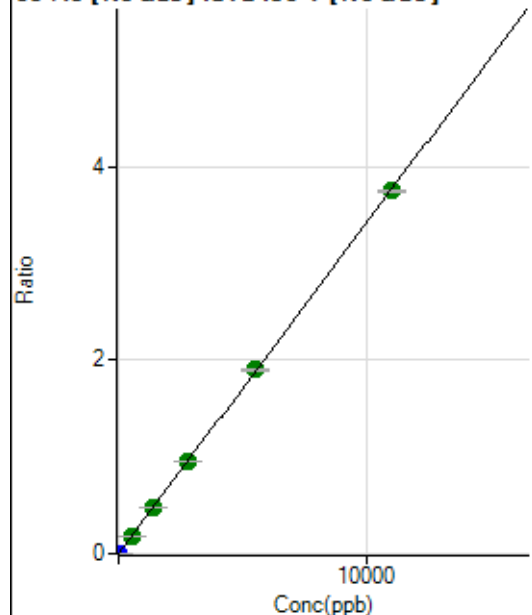
$$DL = 0.01516$$

$$BEC = 0.1048$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	91.67	0.0000	P	32.1
2	☐	5.000	4.672	22873.90	0.0016	P	1.5
3	☐	550.000	546.768	2767096.00	0.1870	A	0.5
4	☐	1375.000	1380.631	6971241.69	0.4721	A	0.3
5	☐	2750.000	2783.884	13346312.37	0.9520	A	1.6
6	☐	5500.000	5569.123	28714615.57	1.9045	A	1.1
7	☐	11000.000	10956.426	52625793.19	3.7468	A	0.3
8	☐			11285.14	0.0008	P	3.7

$$y = 3.4198\text{E-}004 * x + 6.4381\text{E-}006$$

$$R = 1.0000$$

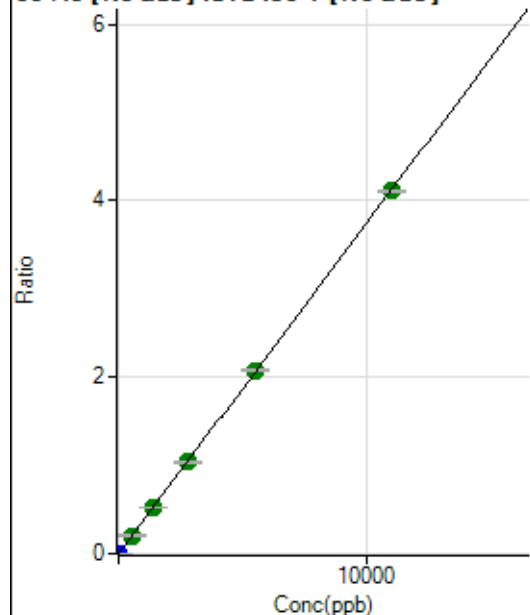
$$DL = 0.01811$$

$$BEC = 0.01883$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	180.56	0.0000	P	20.9
2	☐	5.000	4.911	26410.54	0.0019	P	1.1
3	☐	550.000	551.550	3057795.69	0.2066	A	0.8
4	☐	1375.000	1371.778	7586837.15	0.5139	A	0.7
5	☐	2750.000	2768.031	14535842.17	1.0369	A	1.4
6	☐	5500.000	5551.982	31357637.51	2.0797	A	0.6
7	☐	11000.000	10969.826	57713477.68	4.1091	A	0.5
8	☐			12619.67	0.0009	P	4.5

$$y = 3.7458\text{E-}004 * x + 1.2571\text{E-}005$$

$$R = 1.0000$$

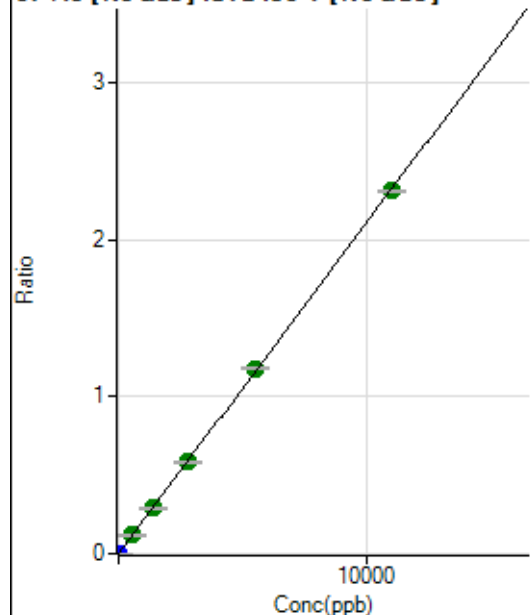
$$DL = 0.02101$$

$$BEC = 0.03356$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	33.33	0.0000	P	28.1
2	☐	5.000	4.681	14118.30	0.0010	P	1.0
3	☐	550.000	551.875	1723302.31	0.1165	A	0.4
4	☐	1375.000	1374.367	4281521.58	0.2900	A	1.7
5	☐	2750.000	2765.208	8179934.65	0.5835	A	1.0
6	☐	5500.000	5588.591	17782403.87	1.1793	A	0.6
7	☐	11000.000	10951.888	32458107.67	2.3110	A	0.5
8	☐			6487.74	0.0005	P	6.3

$$y = 2.1101\text{E-}004 * x + 2.3481\text{E-}006$$

$$R = 1.0000$$

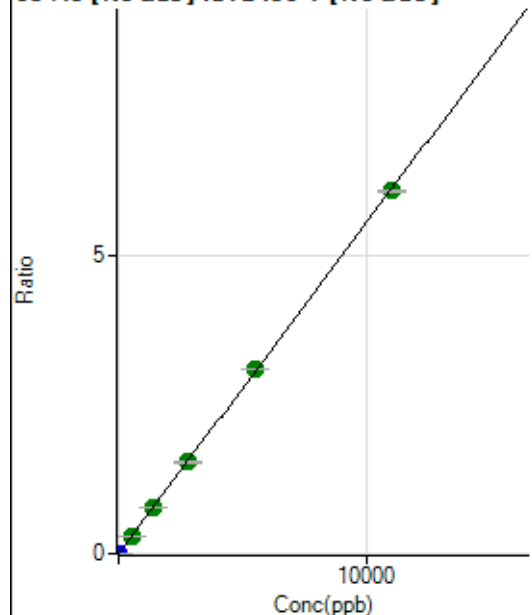
$$DL = 0.00937$$

$$BEC = 0.01113$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	102.78	0.0000	P	6.2
2	☐	5.000	4.782	37986.18	0.0027	P	2.3
3	☐	550.000	547.728	4503524.88	0.3043	A	1.2
4	☐	1375.000	1384.901	11359544.96	0.7694	A	1.1
5	☐	2750.000	2779.130	21644465.41	1.5440	A	1.7
6	☐	5500.000	5588.285	46814109.72	3.1046	A	0.3
7	☐	11000.000	10947.451	85422908.86	6.0820	A	0.4
8	☐			17711.15	0.0013	P	7.6

$$y = 5.5556E-004 * x + 7.1963E-006$$

$$R = 0.9999$$

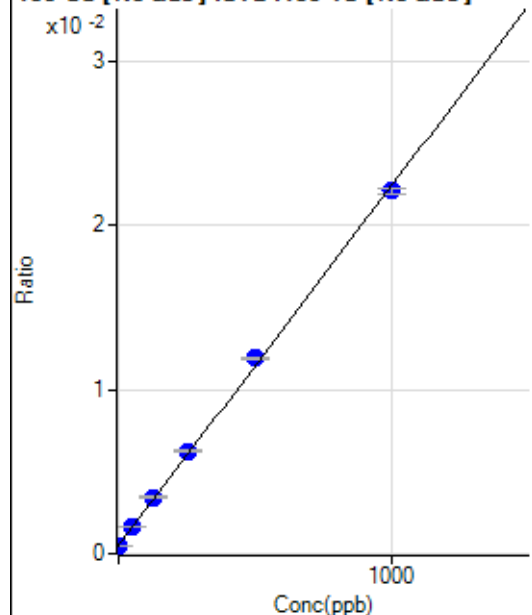
$$DL = 0.002425$$

$$BEC = 0.01295$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	7113.05	0.0005	P	6.3
2	☐	1.000	0.941	7332.62	0.0005	P	1.9
3	☐	50.000	51.309	24131.61	0.0016	P	0.4
4	☐	125.000	133.575	51447.24	0.0034	P	2.7
5	☐	250.000	262.395	89830.66	0.0063	P	0.8
6	☐	500.000	520.290	183090.35	0.0119	P	0.9
7	☐	1000.000	985.619	317489.89	0.0221	P	1.7
8	☐			7293.72	0.0005	P	1.4

$$y = 2.1942E-005 * x + 4.9450E-004$$

$$R = 0.9996$$

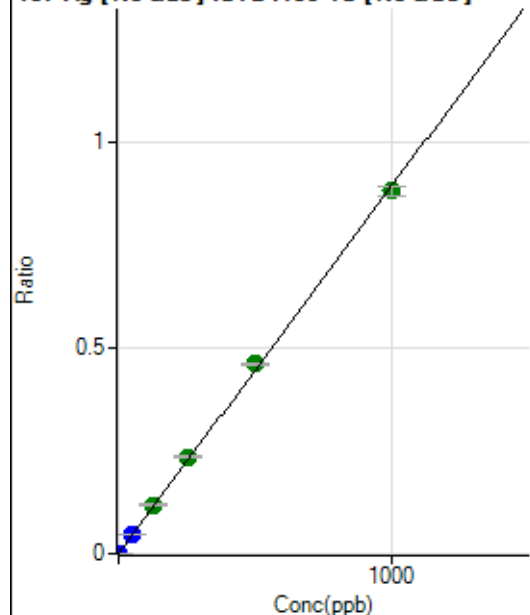
$$DL = 4.275$$

$$BEC = 22.54$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	147.23	0.0000	P	20.8
2	☐	1.000	0.971	12508.44	0.0009	P	2.5
3	☐	50.000	52.802	703541.82	0.0472	P	0.1
4	☐	125.000	133.010	1786871.91	0.1190	A	2.3
5	☐	250.000	264.094	3393978.59	0.2362	A	1.4
6	☐	500.000	515.737	7090508.75	0.4613	A	1.2
7	☐	1000.000	987.466	12674126.85	0.8832	A	2.8
8	☐			3828.39	0.0003	P	3.5

$$y = 8.9440\text{E-}004 * x + 1.0287\text{E-}005$$

$$R = 0.9997$$

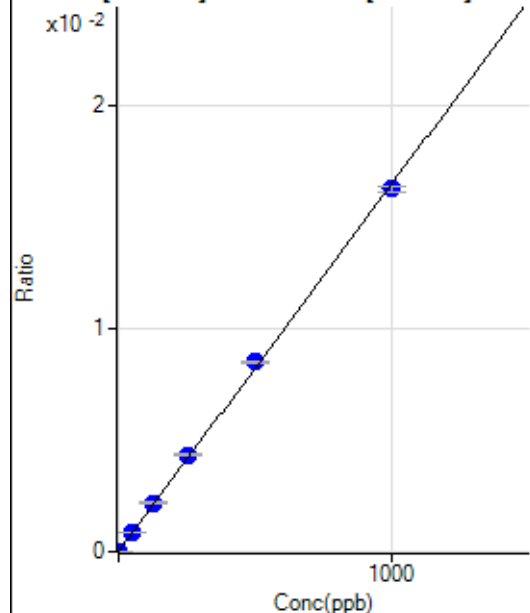
$$DL = 0.007172$$

$$BEC = 0.0115$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	105.56	0.0000	P	22.8
2	☐	1.000	1.028	344.45	0.0000	P	14.0
3	☐	50.000	52.955	13065.72	0.0009	P	1.9
4	☐	125.000	132.686	32853.89	0.0022	P	0.8
5	☐	250.000	262.946	62169.89	0.0043	P	1.4
6	☐	500.000	515.794	130367.81	0.0085	P	1.2
7	☐	1000.000	987.758	233018.80	0.0162	P	1.3
8	☐			180.56	0.0000	P	28.3

$$y = 1.6429\text{E-}005 * x + 7.3081\text{E-}006$$

$$R = 0.9997$$

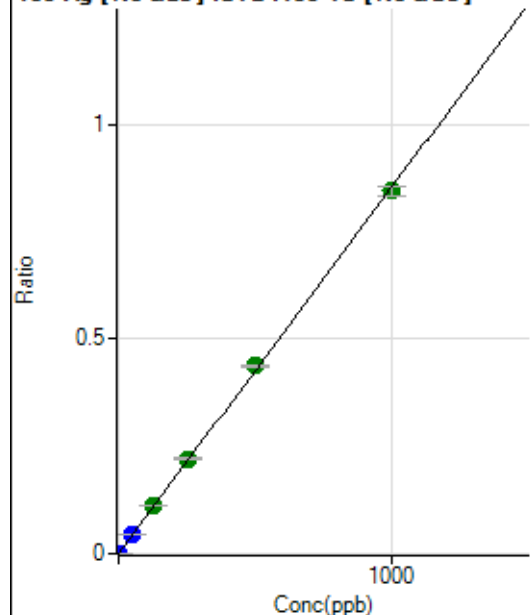
$$DL = 0.3038$$

$$BEC = 0.4448$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	41.67	0.0000	P	23.1
2	☐	1.000	0.960	11705.01	0.0008	P	3.4
3	☐	50.000	52.777	671016.52	0.0450	P	1.5
4	☐	125.000	130.028	1666812.97	0.1110	A	1.2
5	☐	250.000	259.386	3180559.27	0.2214	A	0.6
6	☐	500.000	512.461	6723025.67	0.4373	A	1.6
7	☐	1000.000	990.656	12132708.78	0.8455	A	2.8
8	☐			3492.17	0.0003	P	5.1

$$y = 8.5342\text{E-}004 * x + 2.9070\text{E-}006$$

$$R = 0.9998$$

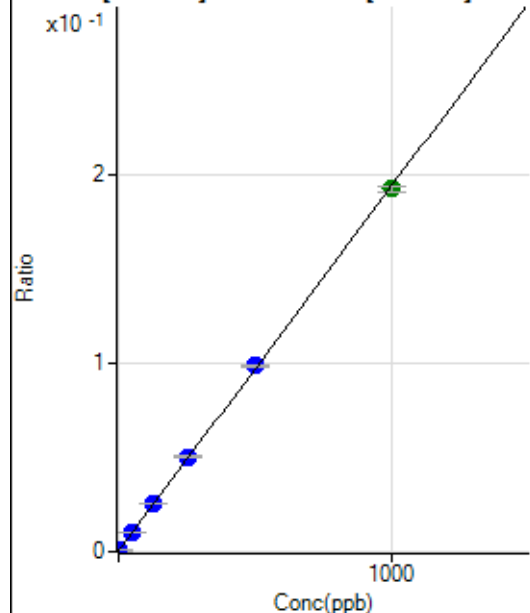
$$DL = 0.002356$$

$$BEC = 0.003406$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	4934.41	0.0003	P	6.8
2	☐	1.000	0.950	7505.88	0.0005	P	1.9
3	☐	50.000	52.506	156809.73	0.0105	P	0.1
4	☐	125.000	130.377	385039.14	0.0256	P	0.9
5	☐	250.000	258.693	725902.58	0.0505	P	0.3
6	☐	500.000	508.904	1522719.51	0.0991	P	0.9
7	☐	1000.000	992.578	2768410.44	0.1929	A	1.7
8	☐			5622.29	0.0004	P	0.7

$$y = 1.9398\text{E-}004 * x + 3.4308\text{E-}004$$

$$R = 0.9999$$

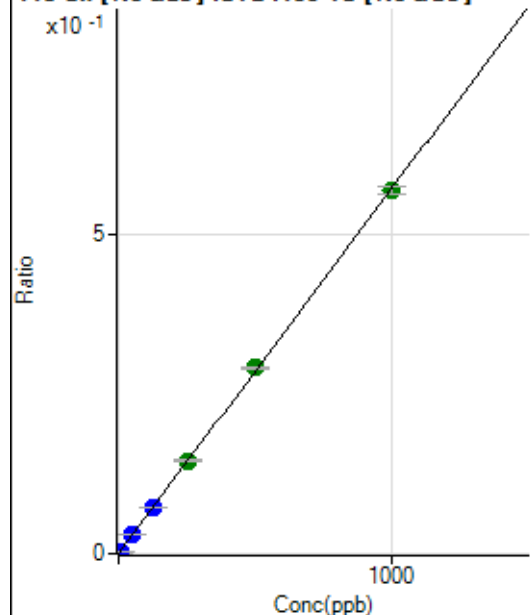
$$DL = 0.363$$

$$BEC = 1.769$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5701.27	0.0004	P	1.5
2	☐	5.000	4.861	45071.06	0.0032	P	3.6
3	☐	50.000	50.417	433939.20	0.0291	P	0.2
4	☐	125.000	125.086	1076980.48	0.0717	P	0.5
5	☐	250.000	255.076	2094632.29	0.1458	A	1.0
6	☐	500.000	508.672	4463217.72	0.2903	A	0.6
7	☐	1000.000	994.364	8139874.31	0.5672	A	2.2
8	☐			3464.40	0.0003	P	4.2

$$y = 5.7001\text{E-}004 * x + 3.9594\text{E-}004$$

$$R = 0.9999$$

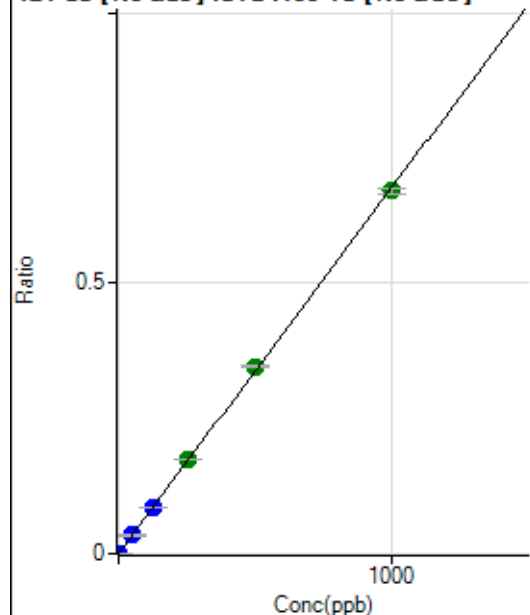
$$DL = 0.03202$$

$$BEC = 0.6946$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD : 159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	119.45	0.0000	P	25.7
2	☐	2.000	1.863	18056.22	0.0013	P	1.2
3	☐	50.000	49.975	503621.79	0.0338	P	1.3
4	☐	125.000	125.016	1270079.64	0.0846	P	0.6
5	☐	250.000	257.776	2504489.86	0.1743	A	1.2
6	☐	500.000	511.935	5322104.50	0.3462	A	0.9
7	☐	1000.000	992.088	9629600.39	0.6709	A	1.3
8	☐			7685.63	0.0006	P	8.0

$$y = 6.7627\text{E-}004 * x + 8.3656\text{E-}006$$

$$R = 0.9999$$

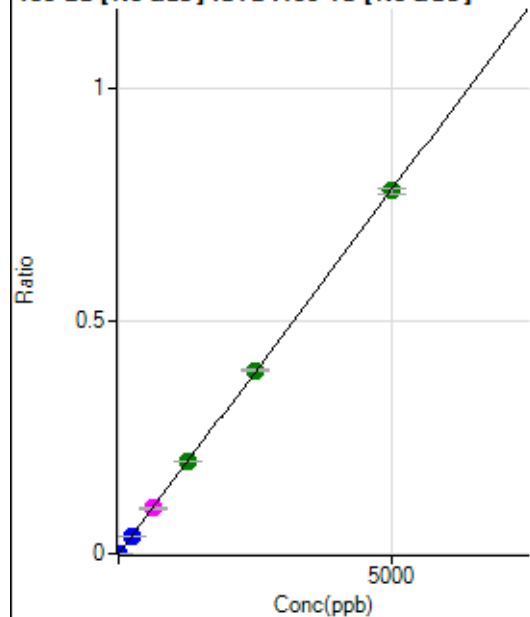
$$DL = 0.009529$$

$$BEC = 0.01237$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	52.78	0.0000	P	18.8
2	☐	10.000	9.091	20314.93	0.0014	P	2.4
3	☐	250.000	247.771	578098.25	0.0388	P	2.0
4	☐	625.000	621.577	1461716.64	0.0973	M	2.8
5	☐	1250.000	1259.475	2833429.62	0.1972	A	0.3
6	☐	2500.000	2519.274	6064041.24	0.3945	A	0.6
7	☐	5000.000	4988.535	11210520.30	0.7811	A	1.8
8	☐			5137.18	0.0004	P	0.8

$$y = 1.5658\text{E-}004 * x + 3.6703\text{E-}006$$

$$R = 1.0000$$

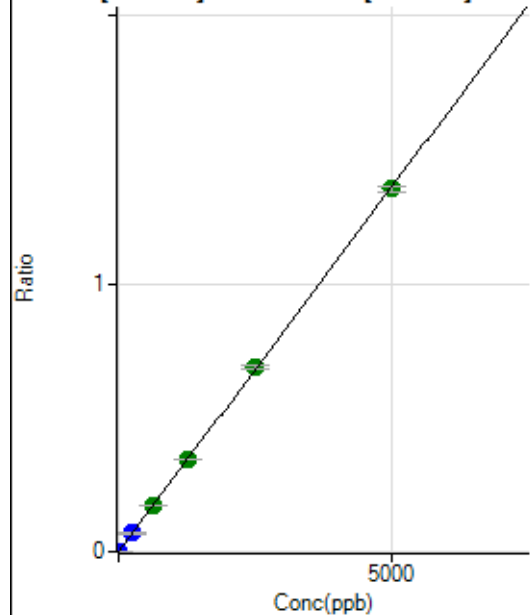
$$DL = 0.01319$$

$$BEC = 0.02344$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	41.67	0.0000	P	24.6
2	☐	10.000	9.109	35313.96	0.0025	P	2.5
3	☐	250.000	251.126	1017751.67	0.0683	P	1.3
4	☐	625.000	636.792	2602166.98	0.1732	A	0.3
5	☐	1250.000	1268.112	4955808.58	0.3450	A	1.2
6	☐	2500.000	2532.917	10590640.43	0.6890	A	1.3
7	☐	5000.000	4977.485	19432403.39	1.3540	A	1.7
8	☐			8878.01	0.0006	P	3.1

$$y = 2.7202\text{E-}004 * x + 2.9171\text{E-}006$$

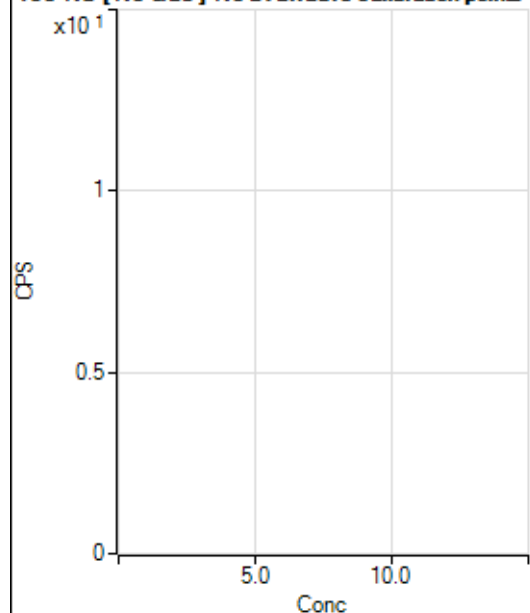
$$R = 1.0000$$

$$DL = 0.007919$$

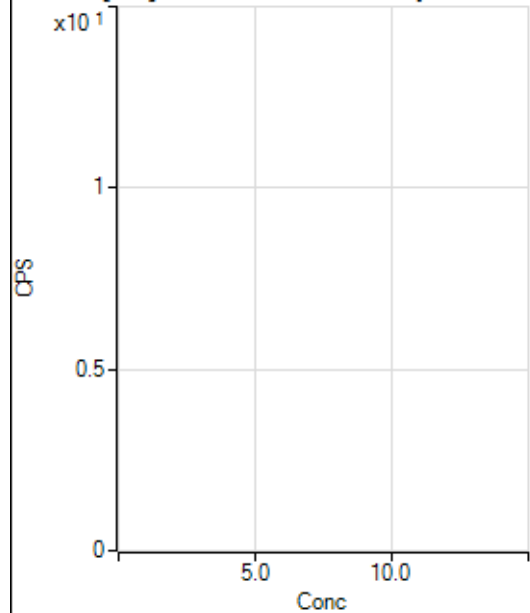
$$BEC = 0.01072$$

Weight: <None>

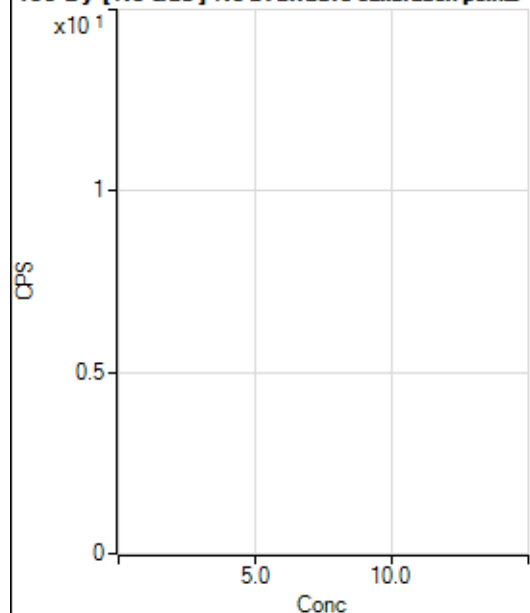
Min Conc: 0

150 Nd [No Gas] No available calibration points

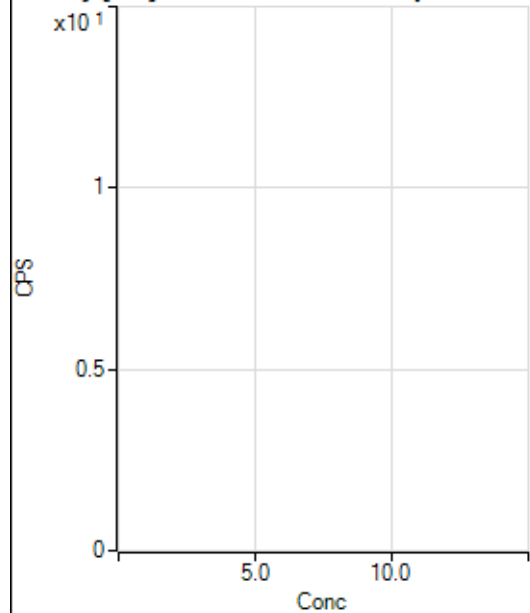
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			2.22		P	173.2
2	☐			2.22		P	173.2
3	☐			57.78		P	65.6
4	☐			113.33		P	10.2
5	☐			246.67		P	5.4
6	☐			451.13		P	6.2
7	☐			800.04		P	9.8
8	☐			84.45		P	9.1

150 Nd [He] No available calibration points

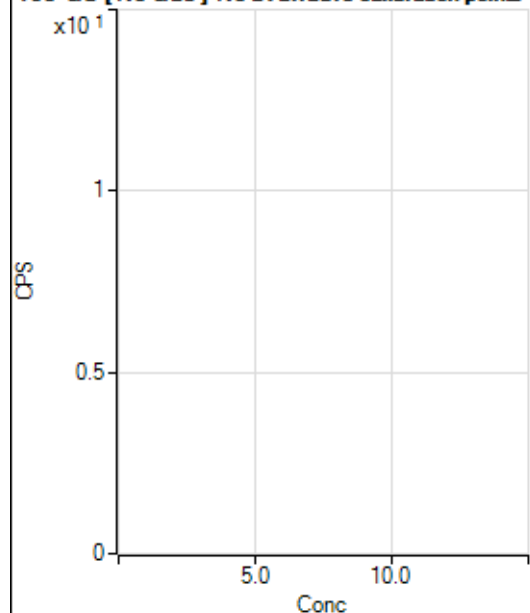
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			1.11		P	173.2
2	☐			1.11		P	173.2
3	☐			13.33		P	25.0
4	☐			27.78		P	25.0
5	☐			58.89		P	18.2
6	☐			110.00		P	32.8
7	☐			224.45		P	8.2
8	☐			62.22		P	16.4

156 Dy [No Gas] No available calibration points

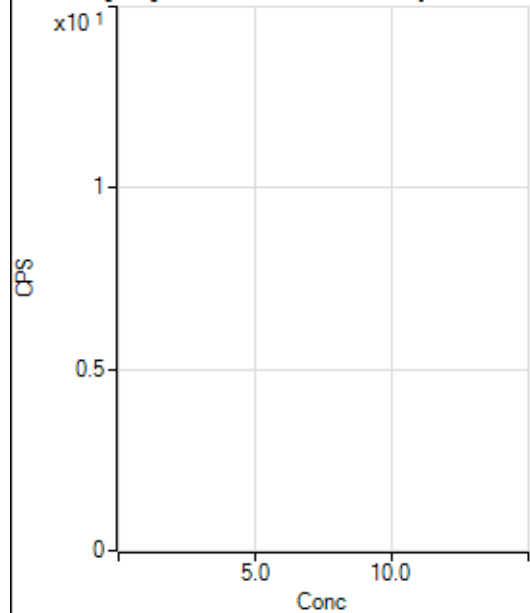
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			2.78		P	173.2
2	☐			11.11		P	43.3
3	☐			52.78		P	45.6
4	☐			127.78		P	10.0
5	☐			161.12		P	11.9
6	☐			386.13		P	23.3
7	☐			691.70		P	14.8
8	☐			2130.77		P	3.2

156 Dy [He] No available calibration points

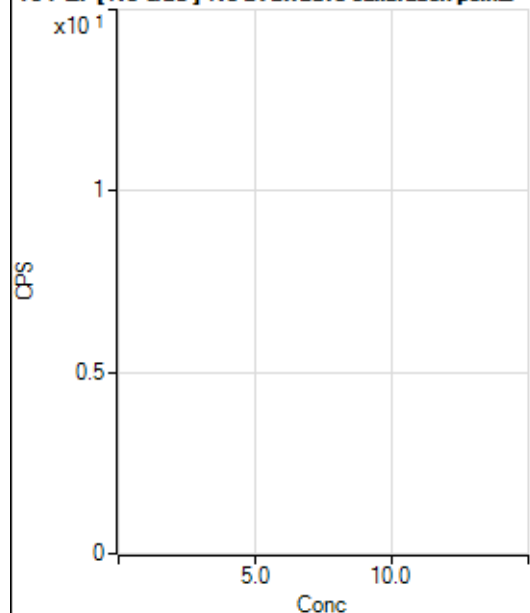
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			3.33		P	0.0
2	☐			3.33		P	173.2
3	☐			43.34		P	13.3
4	☐			95.56		P	21.0
5	☐			161.12		P	15.8
6	☐			366.67		P	9.0
7	☐			634.47		P	17.8
8	☐			1610.11		P	6.4

160 Gd [No Gas] No available calibration points

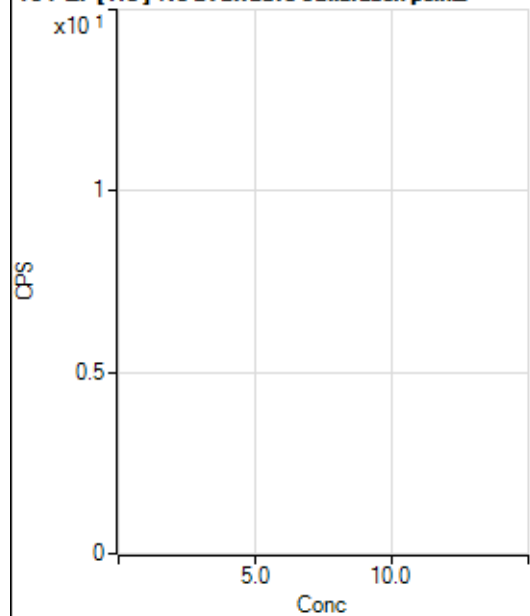
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			55.56		P	48.2
2	☐			66.67		P	33.1
3	☐			152.78		P	28.0
4	☐			166.67		P	26.0
5	☐			219.45		P	22.3
6	☐			263.90		P	15.6
7	☐			511.13		P	11.6
8	☐			1900.19		P	10.0

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			273.34		P	7.6
2	☐			276.67		P	7.3
3	☐			254.45		P	7.6
4	☐			307.78		P	5.6
5	☐			335.56		P	13.1
6	☐			471.13		P	6.2
7	☐			576.68		P	8.6
8	☐			1781.24		P	6.3

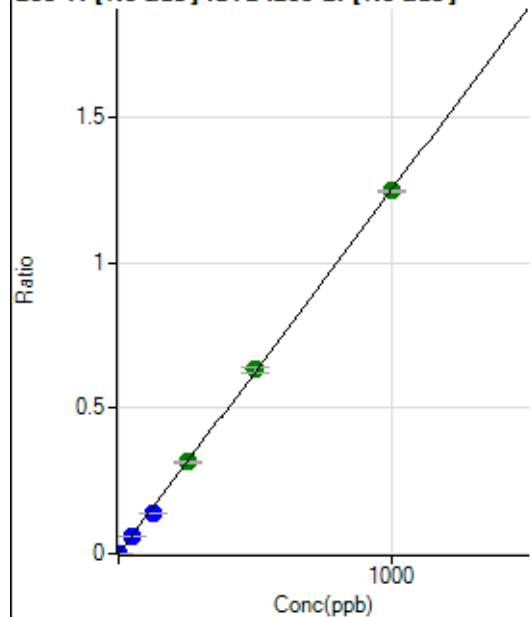
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			105.56		P	4.6
2	☐			102.78		P	58.7
3	☐			108.34		P	33.5
4	☐			116.67		P	12.4
5	☐			116.67		P	32.7
6	☐			166.67		P	5.0
7	☐			297.23		P	10.6
8	☐			325.01		P	7.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			70.00		P	36.0
2	☐			75.55		P	20.8
3	☐			77.78		P	25.1
4	☐			75.56		P	6.7
5	☐			112.23		P	31.2
6	☐			141.11		P	17.4
7	☐			182.23		P	10.1
8	☐			300.01		P	5.6

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	2472.52	0.0003	P	12.5
2	☐	1.000	0.754	11680.32	0.0012	P	1.3
3	☐	50.000	45.107	574771.33	0.0566	P	0.4
4	☐	125.000	112.318	1434310.94	0.1405	P	0.9
5	☐	250.000	252.835	3032785.87	0.3160	A	2.4
6	☐	500.000	506.992	6332620.37	0.6333	A	3.2
7	☐	1000.000	997.626	11545114.41	1.2459	A	0.5
8	☐			5801.41	0.0007	P	6.9

$$y = 0.0012 * x + 2.5002E-004$$

$$R = 0.9999$$

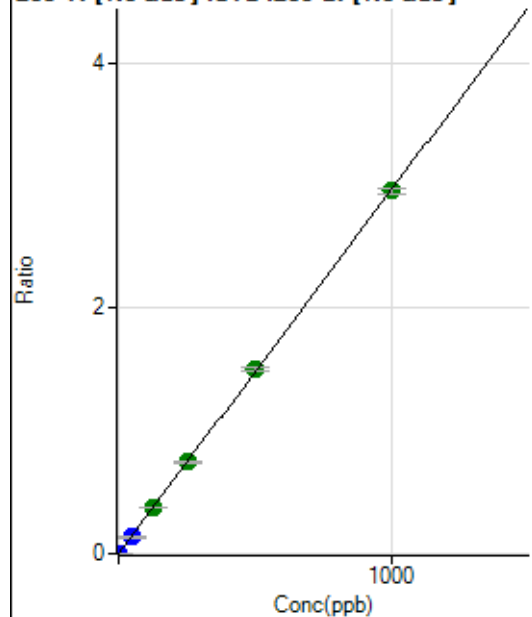
$$DL = 0.0753$$

$$BEC = 0.2002$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5620.76	0.0006	P	1.7
2	☐	1.000	0.784	28361.61	0.0029	P	2.0
3	☐	50.000	44.801	1354877.52	0.1334	P	1.1
4	☐	125.000	124.881	3784147.13	0.3707	A	0.9
5	☐	250.000	251.294	7155214.13	0.7454	A	2.2
6	☐	500.000	506.357	15016787.84	1.5013	A	1.4
7	☐	1000.000	996.773	27380335.85	2.9548	A	1.7
8	☐			12862.10	0.0016	P	5.4

$$y = 0.0030 * x + 5.6986E-004$$

$$R = 1.0000$$

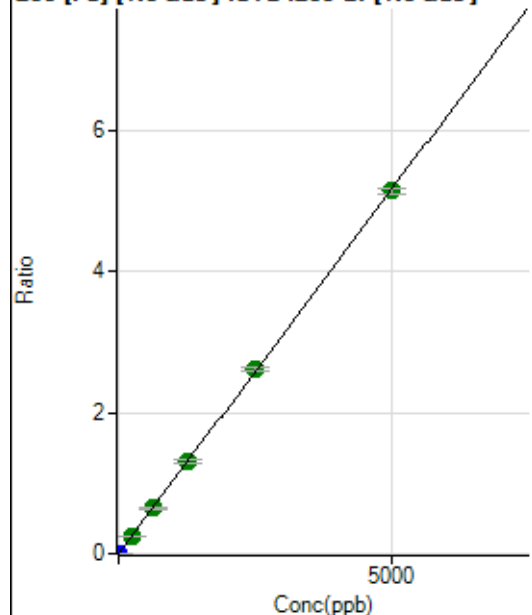
$$DL = 0.00964$$

$$BEC = 0.1923$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1038.95	0.0001	P	3.8
2	☐	1.000	0.815	9277.41	0.0009	P	2.9
3	☐	250.000	248.625	2610406.60	0.2569	A	1.2
4	☐	625.000	621.095	6549271.39	0.6416	A	1.4
5	☐	1250.000	1264.336	12534300.51	1.3059	A	2.8
6	☐	2500.000	2530.991	26140903.13	2.6141	A	2.7
7	☐	5000.000	4981.477	47674691.34	5.1449	A	1.3
8	☐			21727.14	0.0027	P	4.3

$$y = 0.0010 * x + 1.0538E-004$$

$$R = 1.0000$$

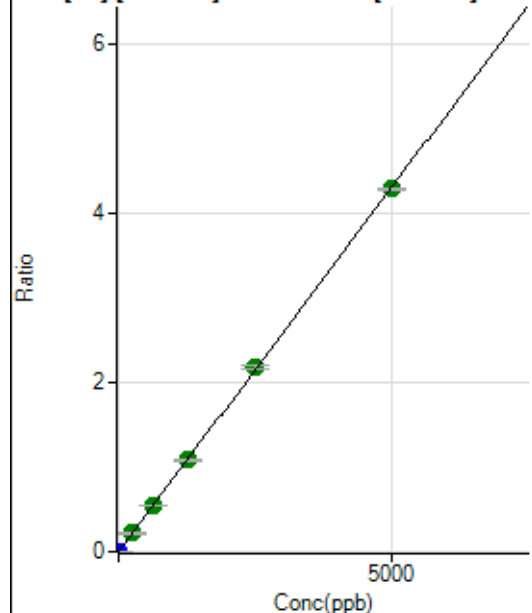
$$DL = 0.0116$$

$$BEC = 0.102$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	707.44	0.0001	P	1.9
2	☐	1.000	0.813	7548.60	0.0008	P	3.6
3	☐	250.000	251.594	2196334.54	0.2162	A	0.7
4	☐	625.000	627.686	5504382.18	0.5392	A	1.3
5	☐	1250.000	1261.307	10401228.93	1.0835	A	2.2
6	☐	2500.000	2528.034	21717675.72	2.1715	A	1.9
7	☐	5000.000	4982.741	39658720.33	4.2800	A	0.6
8	☐			18055.48	0.0023	P	4.4

$$y = 8.5894E-004 * x + 7.1685E-005$$

$$R = 1.0000$$

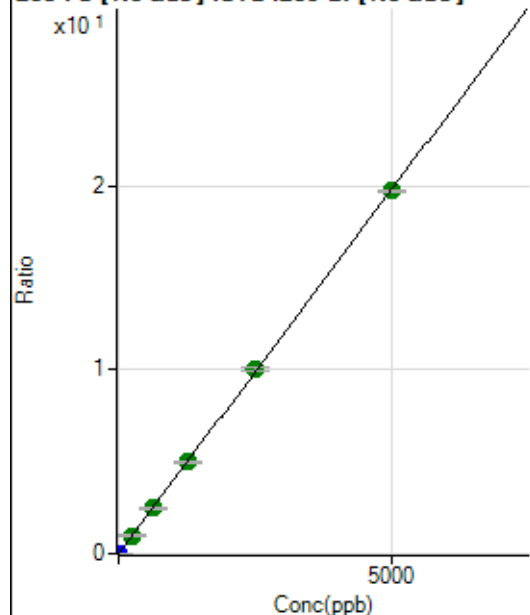
$$DL = 0.004736$$

$$BEC = 0.08346$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	3735.46	0.0004	P	3.3
2	☐	1.000	0.807	34970.42	0.0036	P	1.9
3	☐	250.000	250.802	10079413.13	0.9920	A	1.0
4	☐	625.000	623.328	25163252.70	2.4650	A	1.0
5	☐	1250.000	1259.375	47806817.27	4.9799	A	1.9
6	☐	2500.000	2527.315	99942404.09	9.9933	A	2.1
7	☐	5000.000	4984.167	182613945.2	19.7075	A	0.7
8	☐			82825.06	0.0104	P	3.8

$$y = 0.0040 * x + 3.7892E-004$$

$$R = 1.0000$$

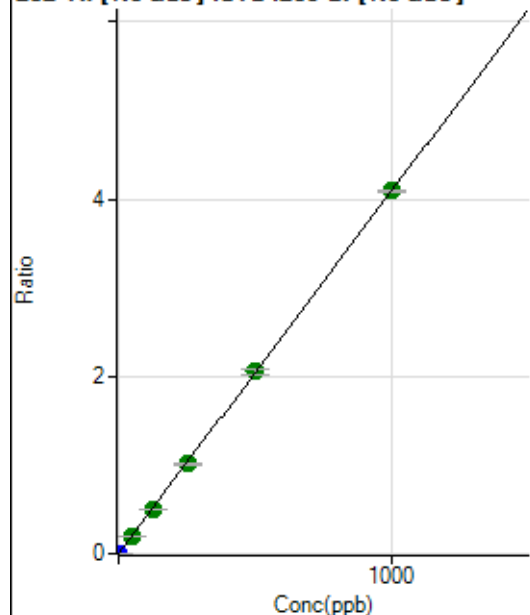
$$DL = 0.009461$$

$$BEC = 0.09583$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	201.86	0.0000	P	15.7
2	☐	1.000	0.755	30450.11	0.0031	P	1.9
3	☐	50.000	48.402	2011732.85	0.1980	A	1.0
4	☐	125.000	120.925	5049662.82	0.4947	A	1.2
5	☐	250.000	246.753	9689458.78	1.0093	A	2.1
6	☐	500.000	502.057	20536041.20	2.0536	A	2.8
7	☐	1000.000	1000.373	37916578.16	4.0920	A	0.5
8	☐			5429.06	0.0007	P	3.5

$$y = 0.0041 * x + 2.0522E-005$$

$$R = 1.0000$$

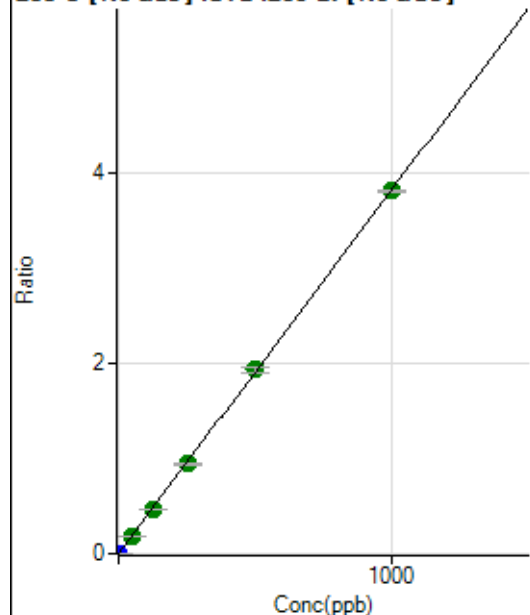
$$DL = 0.002369$$

$$BEC = 0.005017$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	25.00	0.0000	P	85.7
2	☐	1.000	0.788	29560.08	0.0030	P	0.9
3	☐	50.000	48.636	1890308.69	0.1861	A	1.2
4	☐	125.000	121.112	4729613.63	0.4633	A	2.2
5	☐	250.000	246.311	9045915.00	0.9423	A	2.3
6	☐	500.000	506.806	19387265.19	1.9388	A	2.9
7	☐	1000.000	998.074	35379213.46	3.8181	A	0.7
8	☐			4834.41	0.0006	P	16.9

$$y = 0.0038 * x + 2.4853E-006$$

$$R = 1.0000$$

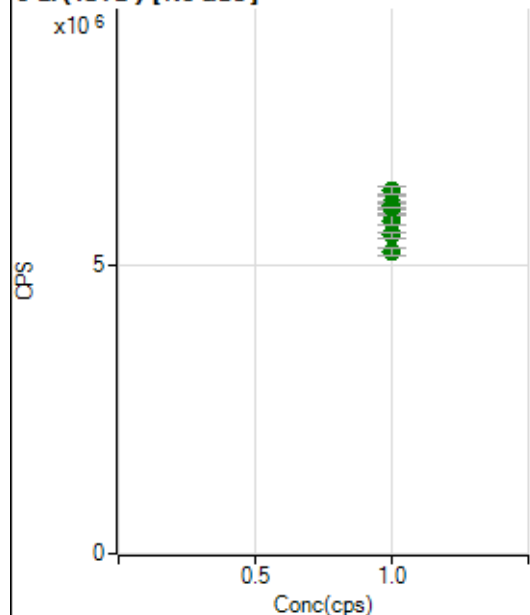
$$DL = 0.001671$$

$$BEC = 0.0006497$$

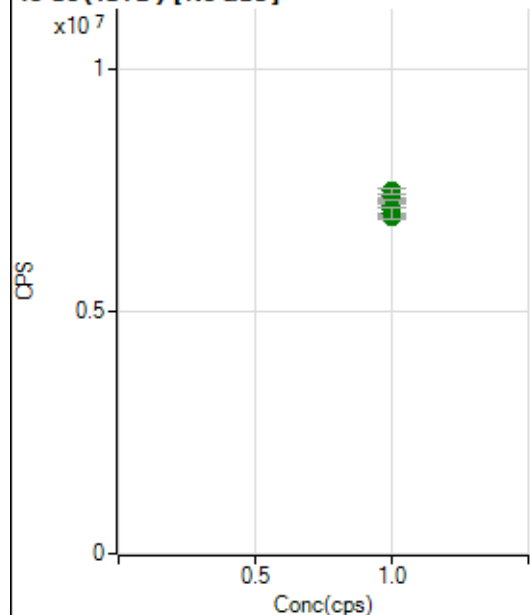
Weight: <None>

Min Conc: 0

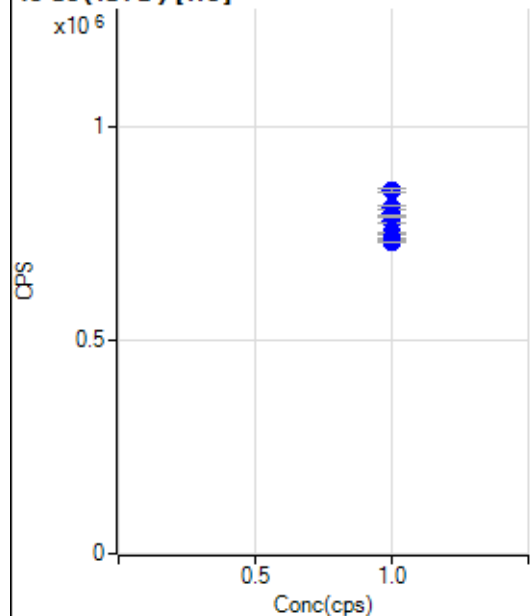
6 Li (ISTD) [No Gas]



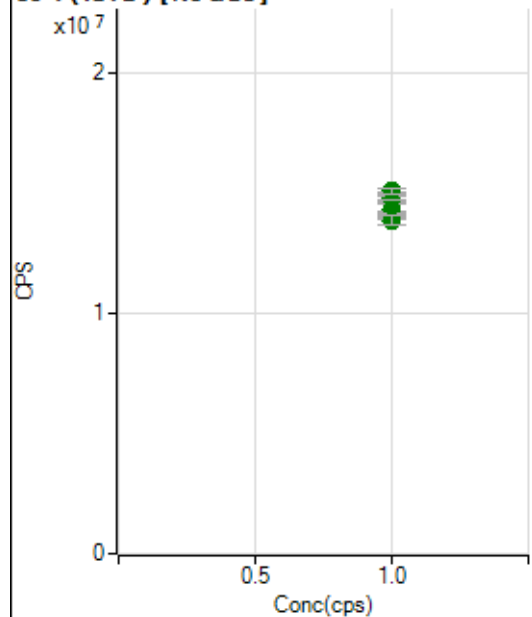
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		6048902.83		A	5.0
2	☐	1.000		5998457.76		A	0.8
3	☐	1.000		6299481.99		A	2.0
4	☐	1.000		6086251.92		A	0.6
5	☐	1.000		5783877.76		A	2.9
6	☐	1.000		6007471.93		A	0.4
7	☐	1.000		5530498.88		A	1.9
8	☐	1.000		5253734.71		A	2.4

45 Sc (ISTD) [No Gas]

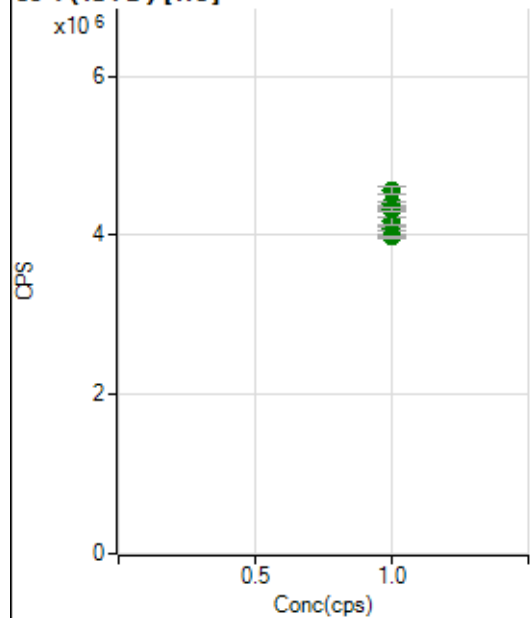
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		7180381.14		A	4.4
2	☐	1.000		7207414.27		A	1.3
3	☐	1.000		7404679.75		A	3.5
4	☐	1.000		7377558.02		A	1.2
5	☐	1.000		6975337.60		A	0.8
6	☐	1.000		7499400.44		A	1.4
7	☐	1.000		7096129.06		A	1.5
8	☐	1.000		7038097.05		A	3.2

45 Sc (ISTD) [He]

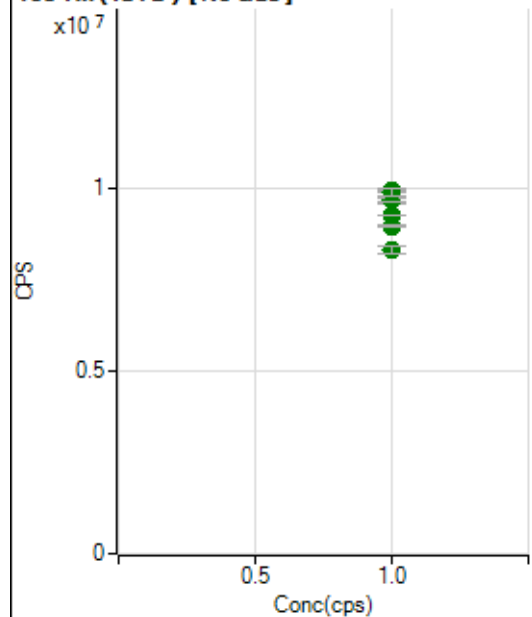
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		797778.55		P	1.8
2	☐	1.000		750046.01		P	0.4
3	☐	1.000		811832.19		P	1.0
4	☐	1.000		780333.90		P	1.5
5	☐	1.000		736781.27		P	0.4
6	☐	1.000		790844.78		P	0.9
7	☐	1.000		729880.84		P	0.1
8	☐	1.000		849606.30		P	1.1

89 Y (ISTD) [No Gas]

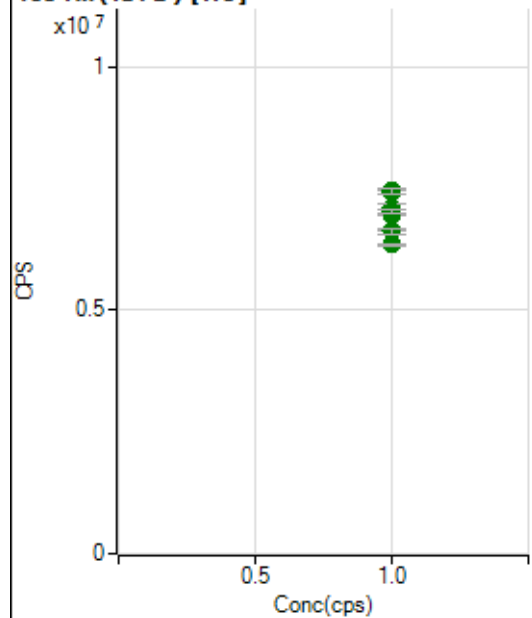
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		14269102.57		A	4.9
2	☐	1.000		14258908.12		A	0.1
3	☐	1.000		14797363.39		A	2.9
4	☐	1.000		14765253.67		A	1.2
5	☐	1.000		14020051.32		A	1.3
6	☐	1.000		15078453.11		A	1.5
7	☐	1.000		14045558.40		A	0.9
8	☐	1.000		13855694.66		A	2.5

89 Y (ISTD) [He]

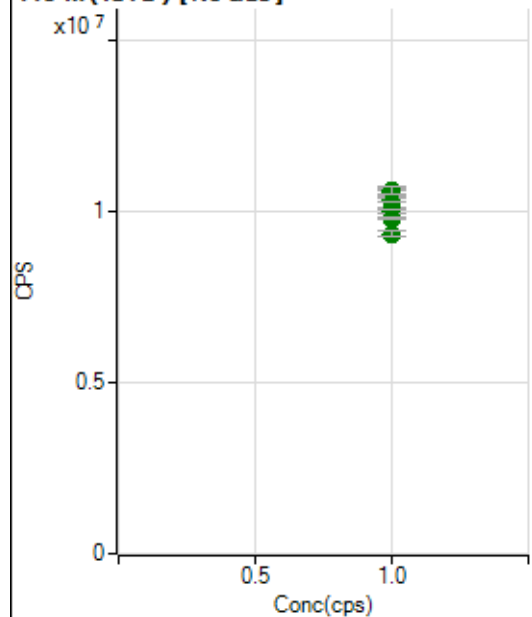
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		4367718.75		A	2.2
2	☐	1.000		4078178.93		A	1.0
3	☐	1.000		4401670.32		A	1.1
4	☐	1.000		4182457.33		A	2.2
5	☐	1.000		3996712.40		A	1.0
6	☐	1.000		4326920.28		A	1.3
7	☐	1.000		3983268.65		A	0.7
8	☐	1.000		4558533.61		A	2.1

103 Rh (ISTD) [No Gas]

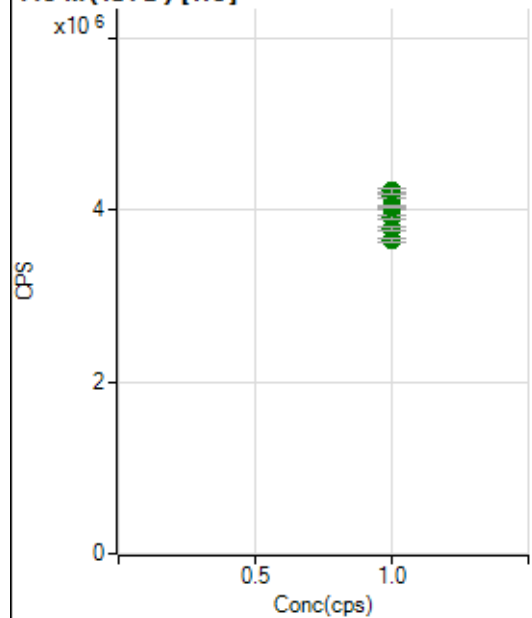
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		9762113.95		A	4.2
2	☐	1.000		9685500.69		A	1.5
3	☐	1.000		9871811.17		A	2.7
4	☐	1.000		9915334.37		A	0.8
5	☐	1.000		9266052.43		A	0.1
6	☐	1.000		9871834.37		A	2.1
7	☐	1.000		8945785.91		A	0.4
8	☐	1.000		8297024.46		A	2.7

103 Rh (ISTD) [He]

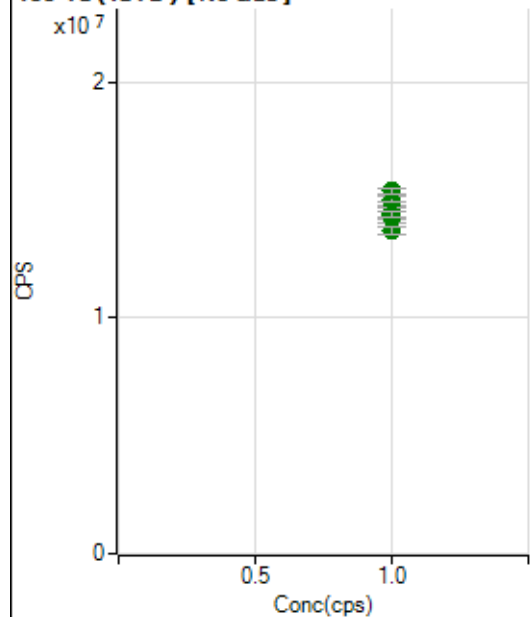
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		7424090.72		A	0.9
2	☐	1.000		6968756.84		A	0.6
3	☐	1.000		7456952.39		A	1.4
4	☐	1.000		7133387.53		A	1.6
5	☐	1.000		6659701.70		A	0.5
6	☐	1.000		7023988.51		A	1.1
7	☐	1.000		6344640.39		A	0.7
8	☐	1.000		6631887.13		A	1.6

115 In (ISTD) [No Gas]

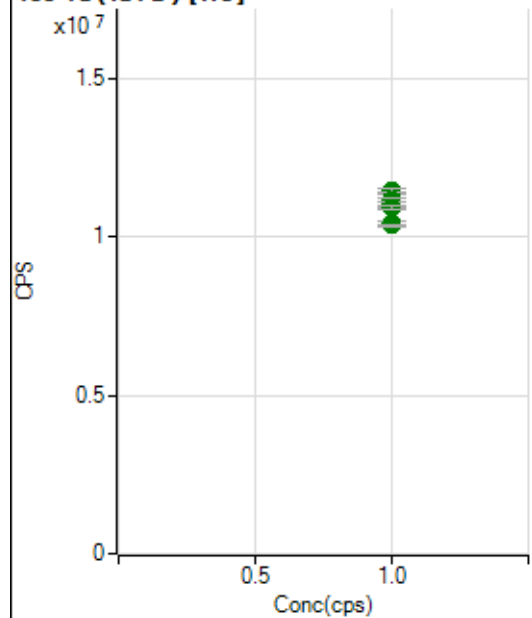
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		10277411.96		A	3.7
2	☐	1.000		10315532.08		A	1.3
3	☐	1.000		10577797.04		A	1.6
4	☐	1.000		10527373.60		A	1.4
5	☐	1.000		10014599.33		A	1.1
6	☐	1.000		10591544.75		A	2.0
7	☐	1.000		9774613.91		A	0.5
8	☐	1.000		9345217.58		A	2.1

115 In (ISTD) [He]

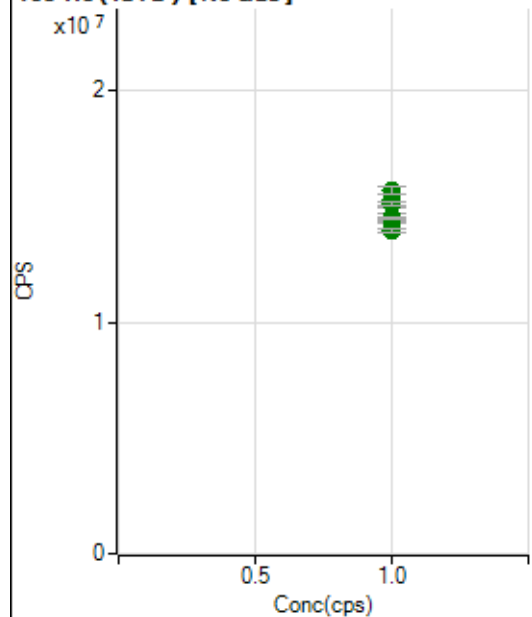
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		4167179.58		A	1.6
2	☐	1.000		3919533.36		A	0.6
3	☐	1.000		4225446.99		A	1.8
4	☐	1.000		4035927.62		A	0.9
5	☐	1.000		3782080.76		A	1.3
6	☐	1.000		4038575.98		A	0.5
7	☐	1.000		3641195.53		A	1.2
8	☐	1.000		4046419.17		A	0.4

159 Tb (ISTD) [No Gas]

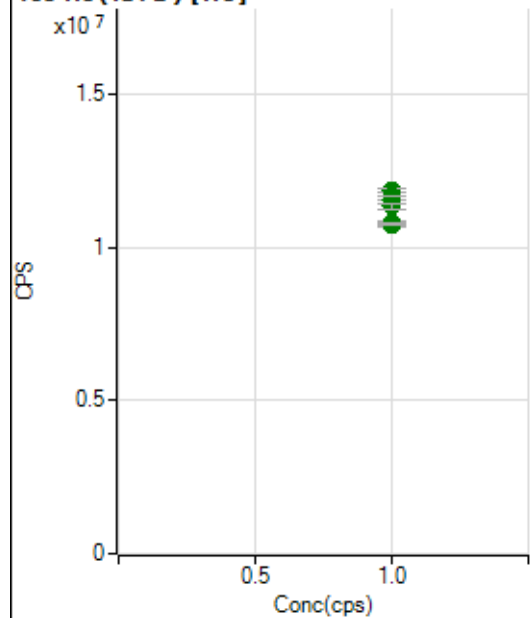
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		14397170.62		A	4.8
2	☐	1.000		14234687.01		A	0.5
3	☐	1.000		14894078.67		A	3.1
4	☐	1.000		15021993.80		A	1.5
5	☐	1.000		14367521.87		A	1.4
6	☐	1.000		15373255.47		A	1.9
7	☐	1.000		14354621.87		A	1.7
8	☐	1.000		13693083.27		A	2.8

159 Tb (ISTD) [He]

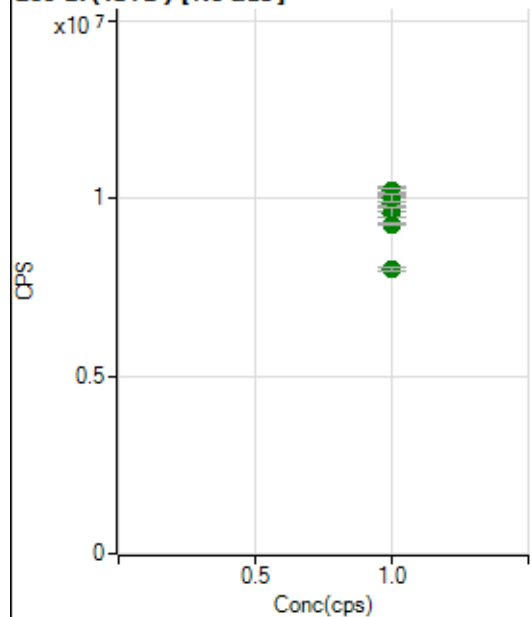
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11249569.55		A	2.2
2	☐	1.000		10458363.18		A	0.8
3	☐	1.000		11464059.55		A	1.0
4	☐	1.000		11053162.40		A	1.6
5	☐	1.000		10449318.94		A	0.8
6	☐	1.000		11202095.18		A	1.2
7	☐	1.000		10374561.44		A	0.7
8	☐	1.000		10946846.64		A	1.1

165 Ho (ISTD) [No Gas]

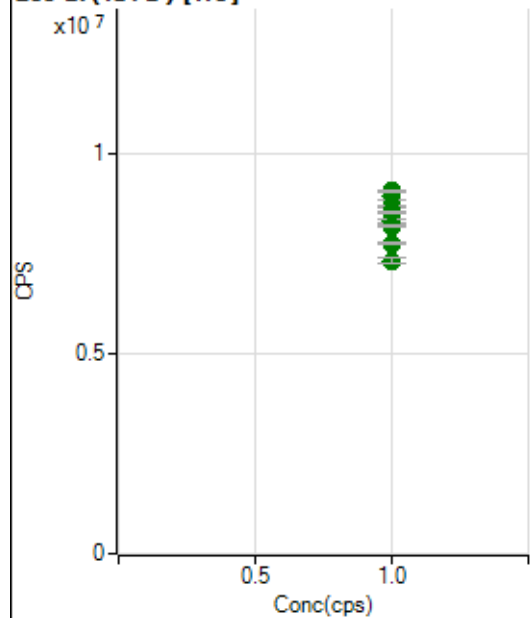
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		14376399.51		A	4.5
2	☐	1.000		14294117.29		A	0.5
3	☐	1.000		15232289.91		A	3.8
4	☐	1.000		15099973.66		A	1.4
5	☐	1.000		14438087.29		A	1.0
6	☐	1.000		15659517.27		A	2.0
7	☐	1.000		14494475.48		A	0.6
8	☐	1.000		13914032.71		A	1.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11647676.91		A	2.2
2	☐	1.000		10718546.44		A	1.6
3	☐	1.000		11831342.88		A	1.0
4	☐	1.000		11546172.88		A	2.3
5	☐	1.000		10811535.95		A	0.4
6	☐	1.000		11676748.16		A	0.3
7	☐	1.000		10754009.77		A	0.4
8	☐	1.000		11346494.28		A	1.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		9867329.85		A	4.3
2	☐	1.000		9799628.32		A	0.3
3	☐	1.000		10159370.61		A	3.0
4	☐	1.000		10208833.87		A	0.9
5	☐	1.000		9603079.79		A	2.8
6	☐	1.000		10004466.93		A	2.5
7	☐	1.000		9265953.19		A	0.6
8	☐	1.000		7995477.73		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		8943582.16		A	1.9
2	☐	1.000		8315462.24		A	1.3
3	☐	1.000		9082370.42		A	0.8
4	☐	1.000		8691181.26		A	0.8
5	☐	1.000		8203035.85		A	0.6
6	☐	1.000		8548022.37		A	0.7
7	☐	1.000		7761405.16		A	0.4
8	☐	1.000		7332088.43		A	1.9

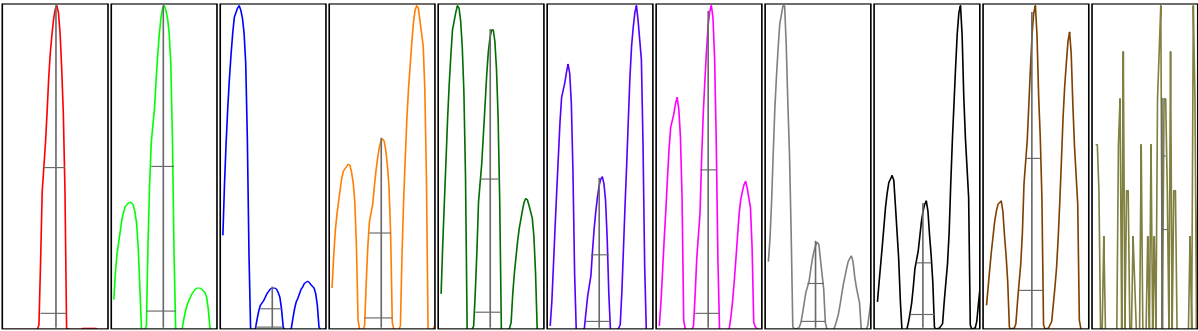
US EPA Tune Check Sample Report

Batch Folder C:\Agilent\ICPMH\1\DATA\P7122921-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	19197	3.04	5.00	
24	133811	3.89	5.00	
25	16845	3.30	5.00	
26	18993	3.25	5.00	
59	29238	3.11	5.00	
113	14809	2.71	5.00	
115	43655	3.73	5.00	
206	22377	3.07	5.00	
207	19504	3.01	5.00	
208	46550	3.12	5.00	
220	0	88.55		

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
9	18289	19729	19178	19688	19103
24	127020	139022	134214	138525	130273
25	16013	17255	16750	17443	16764
26	18079	19544	19044	19557	18743
59	27909	30150	29266	29996	28869
113	14312	15308	14847	15059	14517
115	43249	46129	43862	43432	41604
206	21748	23289	22419	22763	21665
207	19043	20325	19520	19772	18858
208	45070	48202	46785	47648	45047
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak	Axis	Axis	Axis	Width-X%	Width-X%	Width-
	Height	(Actual)	(Required)	(Flag)	(Actual)	(Required)	X% (Flag)
9	33849	9.05	8.9 - 9.1		0.785	0.900	
24	221451	24.00	23.9 - 24.1		0.830	0.900	
25	28515	25.00	24.9 - 25.1		0.790	0.900	
26	32768	26.00	25.9 - 26.1		0.788	0.900	
59	55023	59.00	58.9 - 59.1		0.773	0.900	
113	31884	113.00	112.9 - 113.1		0.720	0.900	
115	94624	115.00	114.9 - 115.1		0.718	0.900	
206	49379	205.95	205.9 - 206.1		0.696	0.900	
207	40190	206.90	206.9 - 207.1		0.695	0.900	
208	101888	207.90	207.9 - 208.1		0.706	0.900	
220	0	220.50	-		0.143		

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 256.8 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.76	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.42 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.4	V	Deflect	12.2	V
Extract 2	-160.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-80	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	120	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	11589	2.90	
89	48296	2.51	
205	61841	3.13	

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
59	12143	11225	11512	11517	11547
89	50113	46790	47813	48235	48527
205	64871	59610	61015	61546	62161

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.76	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.42 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.9	V	Deflect	1.6	V
Extract 2	-175.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-85	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	3.9	mL/min	OctP RF	200	V			