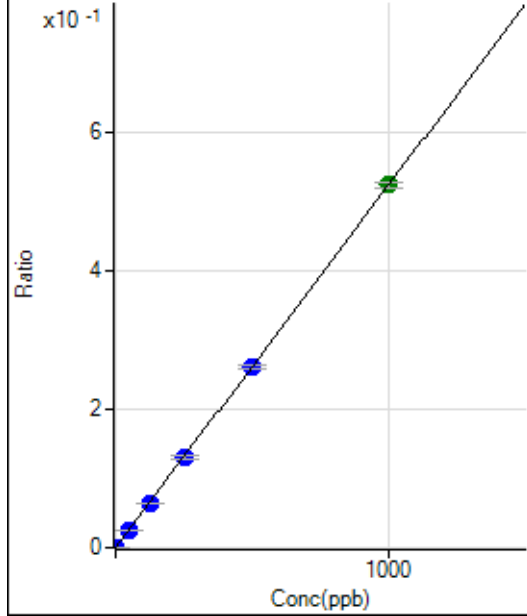


Calibration for 017ICSA.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P8032022 MS.b\
 Analysis File: P8032022 MS.batch.bin
 DA Date-Time: 2022-03-21 00:17:15
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2022-03-20 21:48:57
2	006CALS.d	S02	2022-03-20 21:55:07
3	007CALS.d	S03	2022-03-20 21:58:10
4	008CALS.d	S04	2022-03-20 22:01:16
5	009CALS.d	S05	2022-03-20 22:04:19
6	010CALS.d	S06	2022-03-20 22:07:25
7	011CALS.d	S07	2022-03-20 22:10:29
8	012CALS.d	S08	2022-03-20 22:13:35

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.00	0.0000	P	34.1
2	☐	1.000	1.002	1809.10	0.0005	P	2.9
3	☐	50.000	49.115	86200.47	0.0257	P	2.5
4	☐	125.000	122.204	218038.36	0.0640	P	1.3
5	☐	250.000	249.730	435133.99	0.1308	P	3.6
6	☐	500.000	498.973	856094.22	0.2613	P	1.2
7	☐	1000.000	1000.975	1696851.01	0.5242	A	1.5
8	☐			559.90	0.0002	P	16.5

$$y = 5.2372\text{E-}004 * x + 4.5986\text{E-}006$$

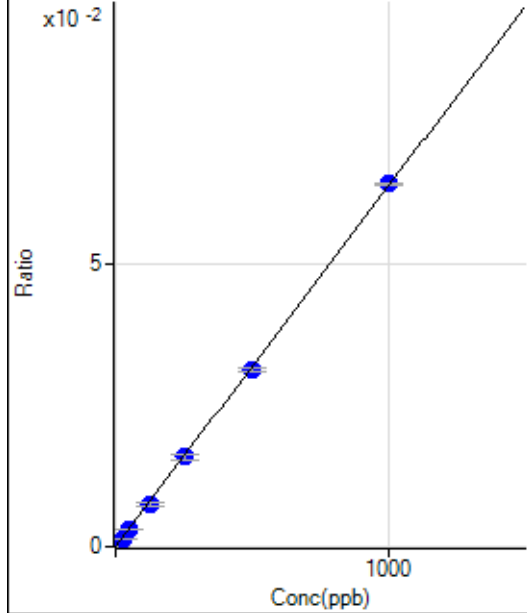
$$R = 1.0000$$

$$DL = 0.00899$$

$$BEC = 0.008781$$

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	161.97	0.0000	P	6.3
2	☐	25.000	20.281	4575.16	0.0013	P	7.0
3	☐	50.000	47.051	10200.95	0.0030	P	8.1
4	☐	125.000	116.067	25367.23	0.0074	P	6.1
5	☐	250.000	248.265	52775.84	0.0159	P	7.0
6	☐	500.000	490.806	102634.84	0.0313	P	2.0
7	☐	1000.000	1006.413	207786.06	0.0642	P	0.6
8	☐			30328.89	0.0096	P	4.1

$$y = 6.3734\text{E-}005 * x + 4.6898\text{E-}005$$

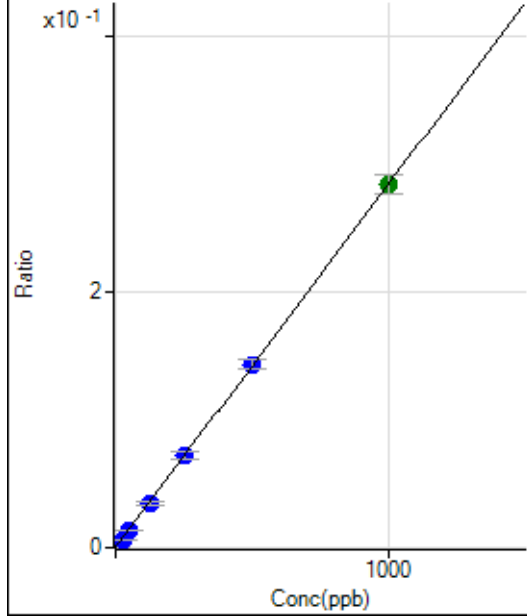
$$R = 0.9999$$

$$DL = 0.1385$$

$$BEC = 0.7358$$

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	828.53	0.0002	P	3.7
2	☐	25.000	20.719	20899.67	0.0061	P	9.5
3	☐	50.000	47.114	45666.84	0.0136	P	4.8
4	☐	125.000	119.515	116498.41	0.0342	P	6.8
5	☐	250.000	253.146	239974.15	0.0722	P	7.8
6	☐	500.000	504.264	470173.31	0.1435	P	5.3
7	☐	1000.000	998.018	918858.75	0.2838	A	5.5
8	☐			143864.65	0.0454	P	5.2

$$y = 2.8410E-004 * x + 2.3994E-004$$

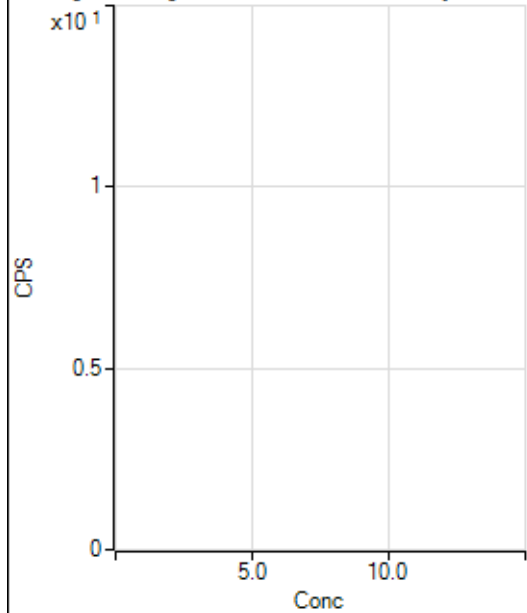
$$R = 1.0000$$

$$DL = 0.09249$$

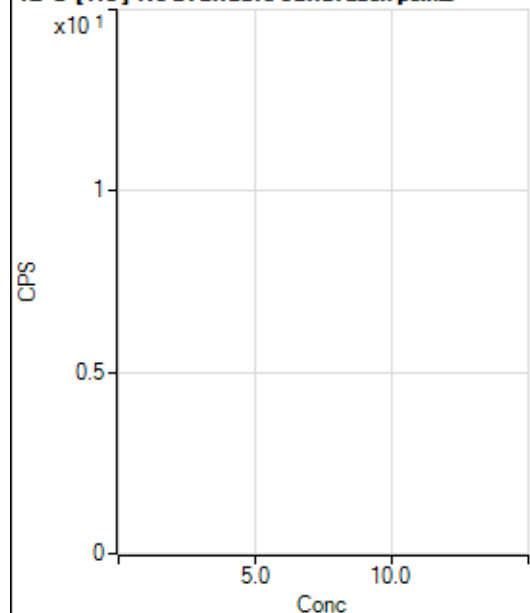
$$BEC = 0.8446$$

Weight: <None>

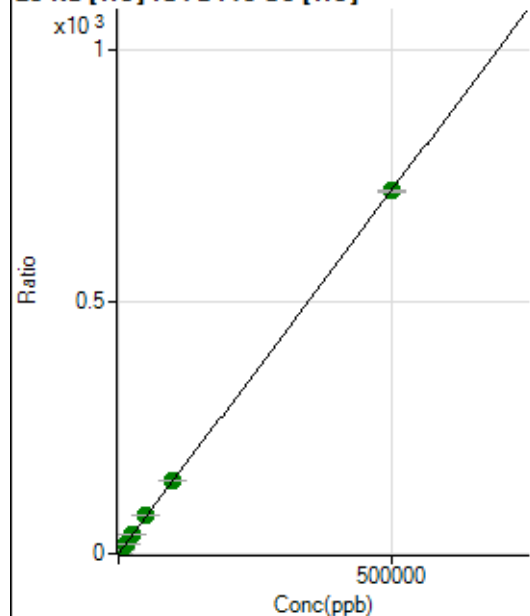
Min Conc: 0

12 C [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			5753668.06		A	0.9
2	☐			5617066.44		A	2.8
3	☐			5639468.18		A	2.6
4	☐			5675831.25		A	2.4
5	☐			5947546.01		A	1.6
6	☐			6096075.18		A	2.0
7	☐			7065534.71		A	5.6
8	☐			6111213.07		A	1.3

12 C [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			73546.10		P	1.4
2	☐			71620.05		P	1.4
3	☐			73752.51		P	1.0
4	☐			74841.49		P	0.5
5	☐			79253.92		P	1.3
6	☐			83726.03		P	1.8
7	☐			99815.32		P	0.8
8	☐			89753.11		P	3.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	6190.35	0.0267	P	1.4
2	☐	500.000	495.762	171671.11	0.7417	P	1.6
3	☐	5000.000	5296.358	1771783.77	7.6653	A	2.5
4	☐	12500.000	13271.490	4500958.17	19.1674	A	1.5
5	☐	25000.000	25768.423	8730586.57	37.1911	A	3.4
6	☐	50000.000	52564.165	17737436.16	75.8371	A	2.1
7	☐	100000.00	100732.87	35813060.52	145.3081	A	0.7
8	☐	500000.00	499536.34	182797887.4	720.4804	A	0.4

$$y = 0.0014 * x + 0.0267$$

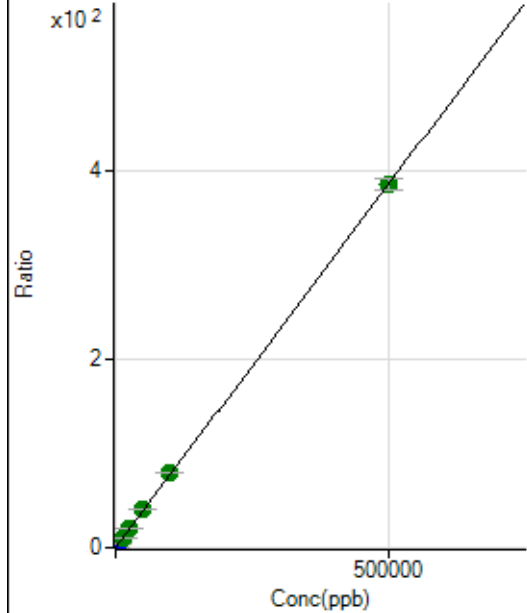
$$R = 1.0000$$

$$DL = 0.7961$$

$$BEC = 18.5$$

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	413.91	0.0018	P	5.9
2	☐	500.000	501.567	89886.81	0.3884	P	1.8
3	☐	5000.000	5289.948	942853.30	4.0790	P	0.9
4	☐	12500.000	13638.012	2468892.22	10.5132	A	0.9
5	☐	25000.000	26121.146	4726474.41	20.1345	A	2.4
6	☐	50000.000	53085.113	9568613.67	40.9169	A	2.0
7	☐	100000.00	102176.19	19409896.61	78.7536	A	0.5
8	☐	500000.00	499168.84	97595045.93	384.7336	A	3.3

$$y = 7.7074\text{E-}004 * x + 0.0018$$

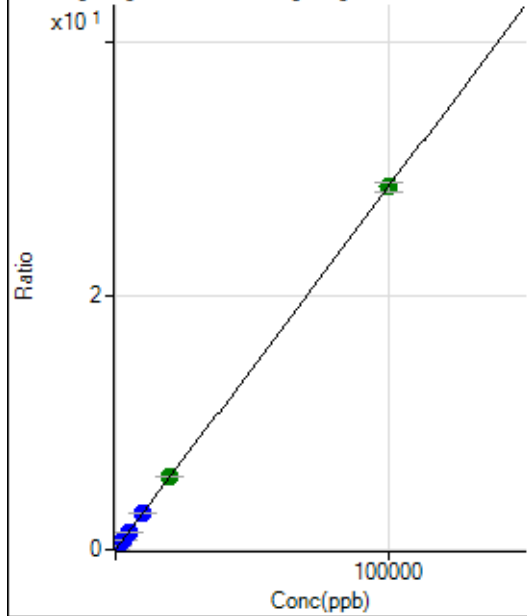
$$R = 1.0000$$

$$DL = 0.4082$$

$$BEC = 2.314$$

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	103.74	0.0004	P	6.3
2	☐	20.000	20.205	1439.90	0.0062	P	1.7
3	☐	1000.000	1019.257	67428.65	0.2917	P	0.9
4	☐	2500.000	2536.969	170356.17	0.7254	P	1.2
5	☐	5000.000	4944.265	331711.51	1.4134	P	1.5
6	☐	10000.000	10113.898	676036.25	2.8907	P	0.6
7	☐	20000.000	20095.233	1415526.58	5.7430	A	1.3
8	☐	100000.00	99971.234	7247373.36	28.5691	A	2.4

$$y = 2.8577\text{E-}004 * x + 4.4706\text{E-}004$$

$$R = 1.0000$$

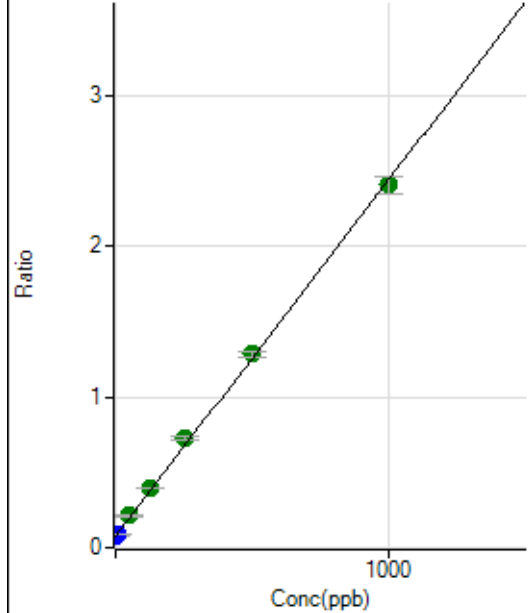
$$DL = 0.2952$$

$$BEC = 1.564$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	467275.95	0.0754	P	1.5
2	☐	10.000	4.982	534632.67	0.0871	P	2.3
3	☐	50.000	57.801	1280925.06	0.2118	A	3.8
4	☐	125.000	135.423	2493978.55	0.3950	A	0.9
5	☐	250.000	274.978	4520821.76	0.7244	A	2.7
6	☐	500.000	511.383	8204360.17	1.2823	A	2.5
7	☐	1000.000	986.421	15548119.27	2.4035	A	4.9
8	☐			1066434.34	0.1651	A	4.2

$$y = 0.0024 * x + 0.0754$$

$$R = 0.9995$$

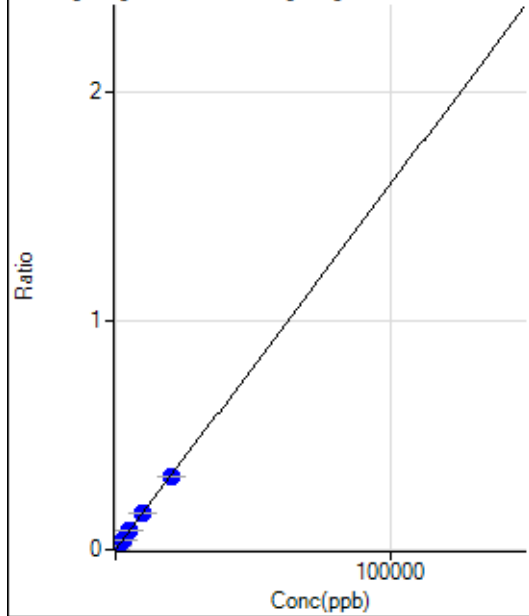
$$DL = 1.456$$

$$BEC = 31.94$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-7.185	113.89	0.0005	P	3.8
2	☐	0.000	7.185	166.67	0.0007	P	27.5
3	☐	1000.000	1002.441	3831.18	0.0166	P	3.1
4	☐	2500.000	2600.782	9870.25	0.0420	P	1.0
5	☐	5000.000	5160.741	19438.47	0.0828	P	3.9
6	☐	10000.000	9906.950	37042.69	0.1584	P	2.4
7	☐	20000.000	19993.620	78631.00	0.3191	P	1.7
8	☐			161.12	0.0006	P	24.5

$$y = 1.5929E-005 * x + 6.0522E-004$$

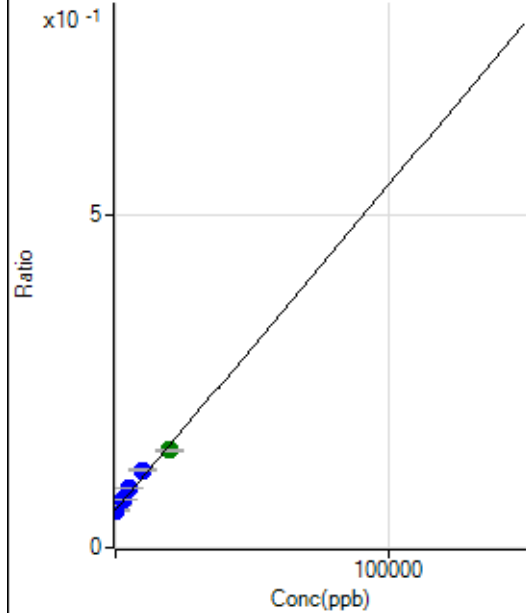
$$R = 0.9999$$

$$DL = 20.39$$

$$BEC = 38$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-160.354	346362.83	0.0559	P	1.5
2	☐	0.000	160.354	352347.94	0.0574	P	3.1
3	☐	1000.000	1889.829	398457.91	0.0659	P	2.9
4	☐	2500.000	3156.417	455033.29	0.0721	P	2.9
5	☐	5000.000	6847.917	562665.18	0.0902	P	1.6
6	☐	10000.000	12089.862	741039.13	0.1158	P	2.7
7	☐	20000.000	18366.546	947859.24	0.1465	A	2.0
8	☐			275435.78	0.0426	P	4.3

$$y = 4.8919\text{E-}006 * x + 0.0567$$

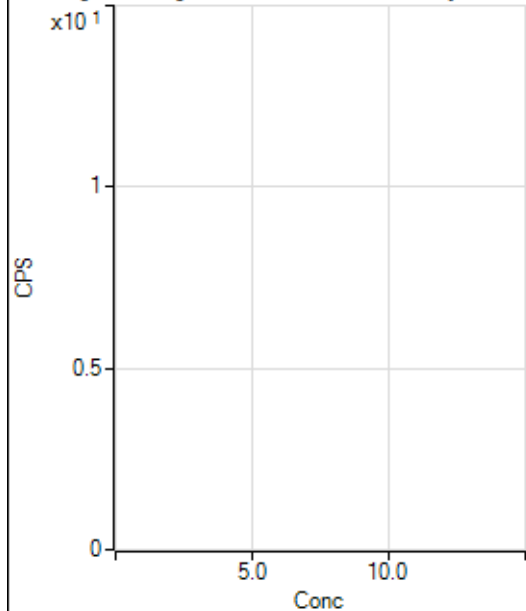
$$R = 0.9856$$

$$DL = 786.5$$

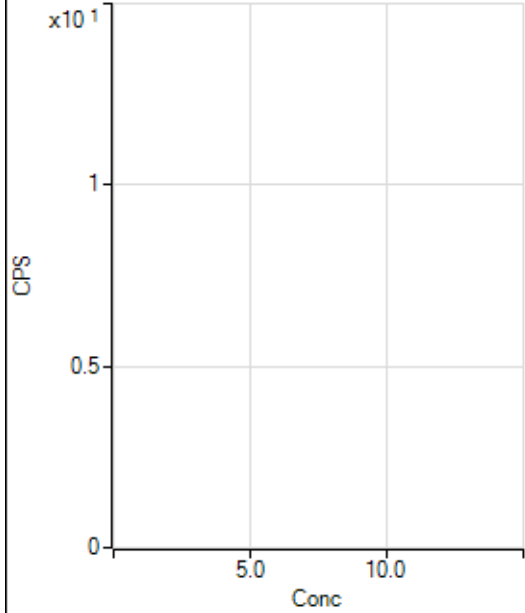
$$BEC = 1.158\text{E}+04$$

Weight: <None>

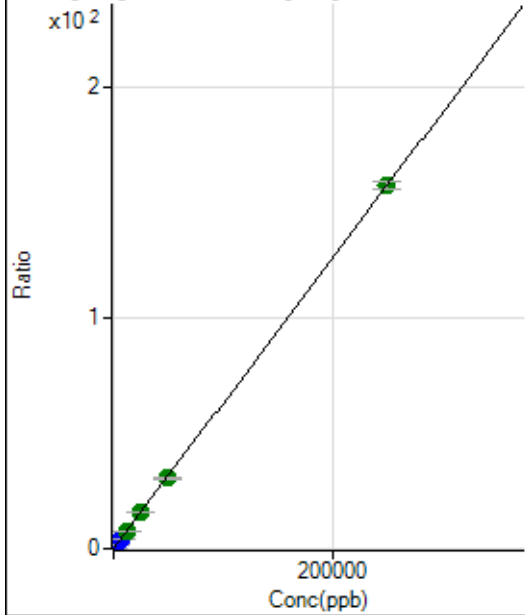
Min Conc: 0

35 Cl [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			373219.17		P	1.2
2	☐			376734.76		P	2.3
3	☐			352837.47		P	1.2
4	☐			370331.15		P	1.9
5	☐			326860.02		P	0.3
6	☐			345357.05		P	0.6
7	☐			339527.03		P	1.6
8	☐			361839.29		P	0.2

35 Cl [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3064.33		P	5.9
2	☐			2892.03		P	8.1
3	☐			3025.40		P	4.0
4	☐			2994.84		P	11.6
5	☐			2630.87		P	5.7
6	☐			2719.77		P	1.9
7	☐			2830.91		P	2.4
8	☐			3072.64		P	4.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	18395.51	0.0793	P	1.6
2	☐	500.000	453.287	84207.00	0.3638	P	1.9
3	☐	2500.000	2423.489	369999.22	1.6006	P	1.5
4	☐	6250.000	6188.433	930892.71	3.9641	P	0.7
5	☐	12500.000	12247.451	1823184.98	7.7676	A	1.4
6	☐	25000.000	25024.933	3692276.04	15.7887	A	1.5
7	☐	50000.000	48557.862	7531414.75	30.5615	A	1.9
8	☐	250000.00	250300.95	39880779.71	157.2061	A	2.0

$$y = 6.2775E-004 * x + 0.0793$$

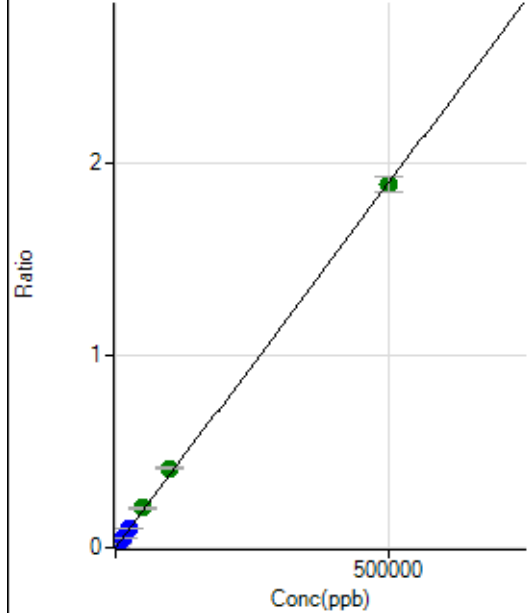
$$R = 1.0000$$

$$DL = 6.037$$

$$BEC = 126.3$$

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	288.30	0.0000	P	3.1
2	☐	500.000	485.662	11601.58	0.0019	P	0.8
3	☐	5000.000	5339.168	122873.44	0.0203	P	0.8
4	☐	12500.000	13267.480	318281.32	0.0504	P	2.0
5	☐	25000.000	26595.837	630481.40	0.1010	P	2.0
6	☐	50000.000	54135.901	1315479.73	0.2056	A	2.8
7	☐	100000.00	109005.26	2678029.78	0.4139	A	2.2
8	☐	500000.00	497683.00	12206437.86	1.8898	A	4.3

$$y = 3.7970\text{E-}006 * x + 4.6500\text{E-}005$$

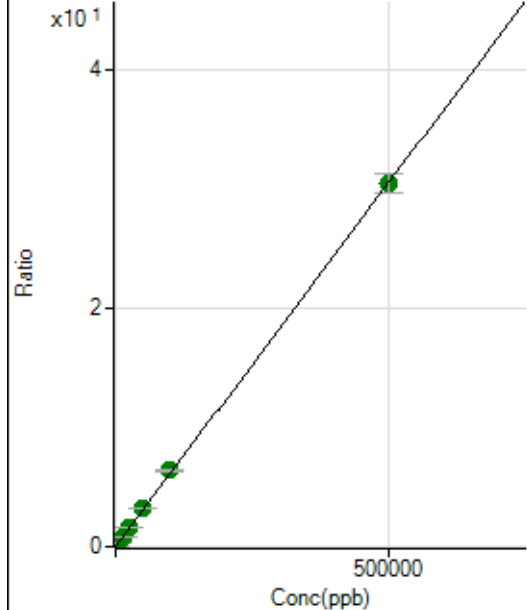
$$R = 0.9998$$

$$DL = 1.127$$

$$BEC = 12.25$$

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	13990.47	0.0023	P	1.1
2	☐	500.000	495.181	199486.81	0.0325	P	2.8
3	☐	5000.000	5416.754	2015250.60	0.3333	A	2.0
4	☐	12500.000	13305.426	5147402.78	0.8154	A	1.6
5	☐	25000.000	26134.526	9983243.77	1.5994	A	1.5
6	☐	50000.000	52456.978	20527941.96	3.2081	A	2.3
7	☐	100000.00	104924.65	41506466.76	6.4146	A	1.1
8	☐	500000.00	498688.34	196815278.4	30.4790	A	5.4

$$y = 6.1114\text{E-}005 * x + 0.0023$$

$$R = 0.9999$$

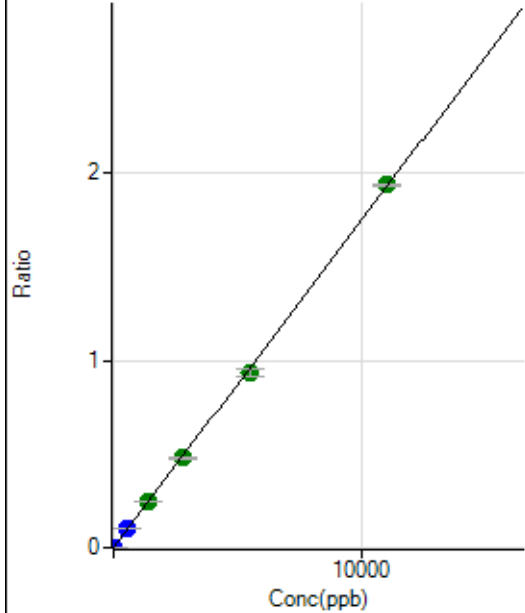
$$DL = 1.189$$

$$BEC = 36.93$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	341.68	0.0001	P	0.8
2	☐	5.000	5.058	5756.88	0.0009	P	8.8
3	☐	550.000	557.508	589771.63	0.0975	P	0.0
4	☐	1375.000	1402.633	1548421.04	0.2453	A	2.9
5	☐	2750.000	2751.747	3002521.66	0.4812	A	2.3
6	☐	5500.000	5350.829	5984713.90	0.9356	A	4.4
7	☐	11000.000	11070.319	12524485.09	1.9355	A	0.8
8	☐			4820.57	0.0007	P	21.8

$$y = 1.7484\text{E-}004 * x + 5.5118\text{E-}005$$

$$R = 0.9999$$

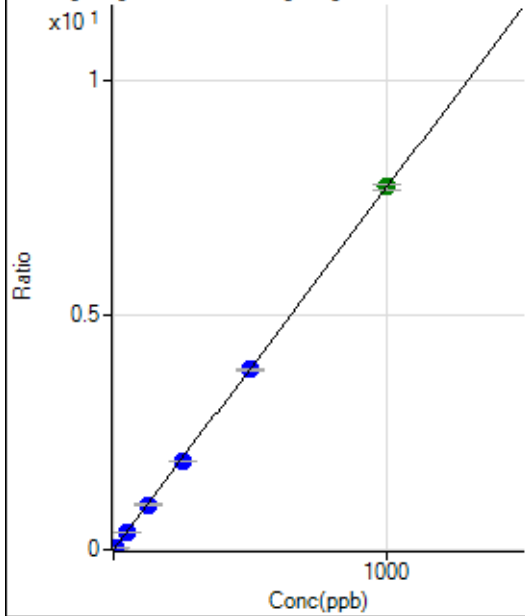
$$DL = 0.007638$$

$$BEC = 0.3153$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0000	P	34.6
2	☐	5.000	4.896	8767.21	0.0379	P	2.9
3	☐	50.000	49.940	89209.71	0.3859	P	1.1
4	☐	125.000	124.462	225842.80	0.9617	P	1.2
5	☐	250.000	245.139	444609.89	1.8942	P	1.3
6	☐	500.000	498.643	901050.17	3.8530	P	1.1
7	☐	1000.000	1001.965	1907958.51	7.7420	A	1.3
8	☐			663.36	0.0026	P	11.3

$$y = 0.0077 * x + 4.7882\text{E-}005$$

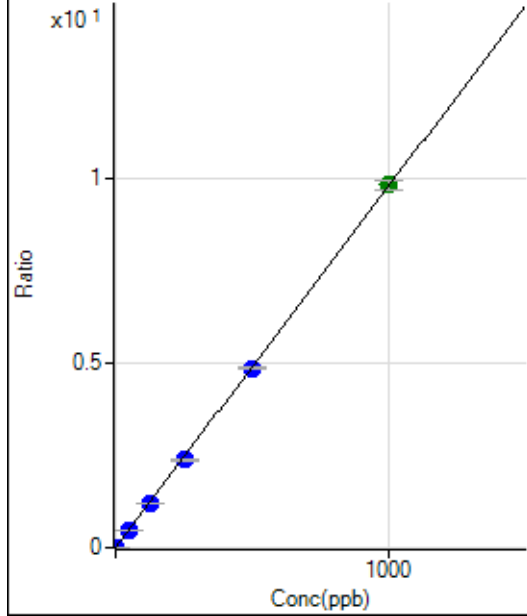
$$R = 1.0000$$

$$DL = 0.006438$$

$$BEC = 0.006197$$

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	935.59	0.0040	P	3.3
2	☐	2.000	1.948	5346.61	0.0231	P	3.6
3	☐	50.000	49.826	113670.94	0.4918	P	0.8
4	☐	125.000	122.992	283660.99	1.2080	P	1.6
5	☐	250.000	241.847	556643.64	2.3715	P	0.9
6	☐	500.000	496.367	1137282.47	4.8630	P	0.9
7	☐	1000.000	1004.114	2423195.03	9.8334	A	2.4
8	☐			28299.23	0.1116	P	1.8

$$y = 0.0098 * x + 0.0040$$

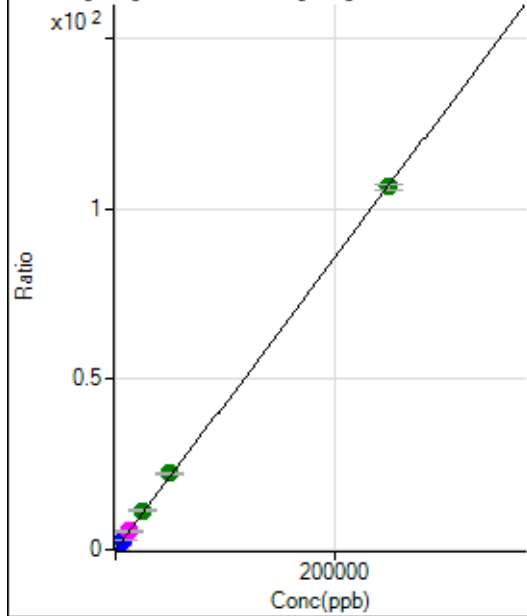
$$R = 1.0000$$

$$DL = 0.04104$$

$$BEC = 0.4119$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	683.36	0.0029	P	3.1
2	☐	50.000	54.243	6038.44	0.0261	P	3.6
3	☐	2500.000	2601.312	257256.87	1.1130	P	0.4
4	☐	6250.000	6639.475	666068.27	2.8361	P	1.3
5	☐	12500.000	12802.698	1283269.75	5.4661	M	4.0
6	☐	25000.000	26899.669	2685075.12	11.4815	A	1.4
7	☐	50000.000	52414.817	5512601.97	22.3693	A	1.7
8	☐	250000.00	249301.18	26988405.47	106.3845	A	1.8

$$y = 4.2672E-004 * x + 0.0029$$

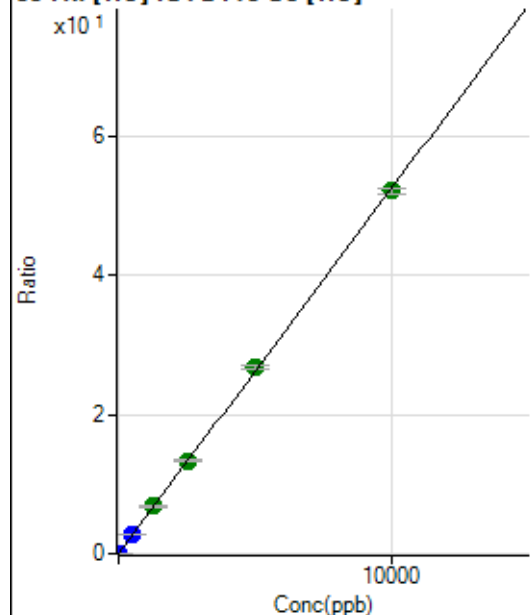
$$R = 0.9999$$

$$DL = 0.6327$$

$$BEC = 6.902$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	323.34	0.0014	P	10.7
2	☐	1.000	1.018	1557.88	0.0067	P	7.9
3	☐	500.000	503.214	610242.49	2.6400	P	0.6
4	☐	1250.000	1299.572	1600733.62	6.8157	A	1.5
5	☐	2500.000	2551.131	3139903.32	13.3782	A	0.9
6	☐	5000.000	5096.352	6249673.17	26.7241	A	1.6
7	☐	10000.000	9932.684	12835206.89	52.0833	A	1.6
8	☐			11051.05	0.0436	P	1.1

$$y = 0.0052 * x + 0.0014$$

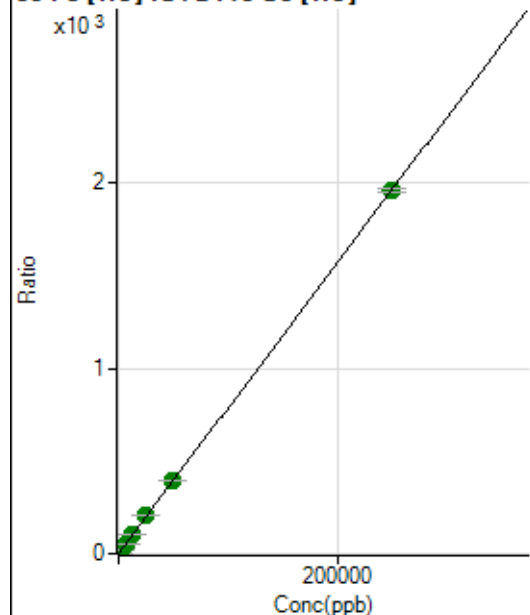
$$R = 0.9999$$

$$DL = 0.08516$$

$$BEC = 0.2657$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5163.97	0.0223	P	0.9
2	☐	50.000	49.624	95093.64	0.4108	P	1.1
3	☐	2500.000	2694.259	4881990.33	21.1203	A	0.5
4	☐	6250.000	6582.114	12109076.43	51.5652	A	2.2
5	☐	12500.000	12892.830	23700419.98	100.9828	A	1.9
6	☐	25000.000	26156.006	47906668.66	204.8435	A	0.7
7	☐	50000.000	50597.099	97648538.29	396.2357	A	1.3
8	☐	250000.00	249735.09	496209296.2	1955.636	A	1.1

$$y = 0.0078 * x + 0.0223$$

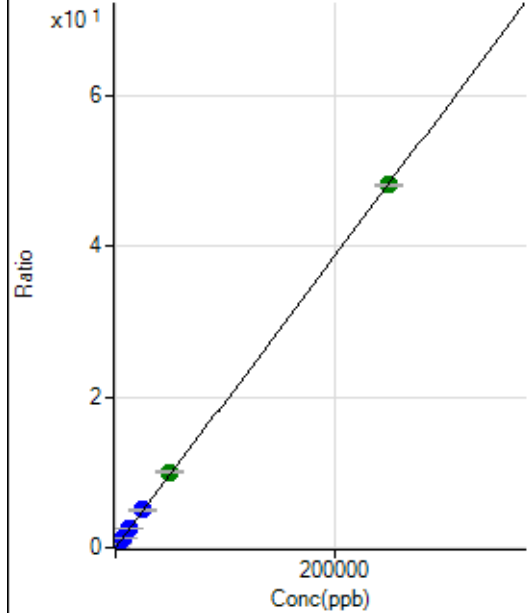
$$R = 1.0000$$

$$DL = 0.07974$$

$$BEC = 2.842$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	181.49	0.0008	P	20.3
2	☐	50.000	52.473	2528.05	0.0109	P	4.4
3	☐	2500.000	2560.466	114550.03	0.4956	P	0.5
4	☐	6250.000	6476.145	294061.53	1.2522	P	1.7
5	☐	12500.000	12672.107	574911.15	2.4495	P	1.6
6	☐	25000.000	25808.248	1166534.02	4.9880	P	0.5
7	☐	50000.000	51872.647	2470216.90	10.0246	A	3.2
8	☐	250000.00	249529.78	12233805.83	48.2198	A	0.6

$$y = 1.9324\text{E-}004 * x + 7.8258\text{E-}004$$

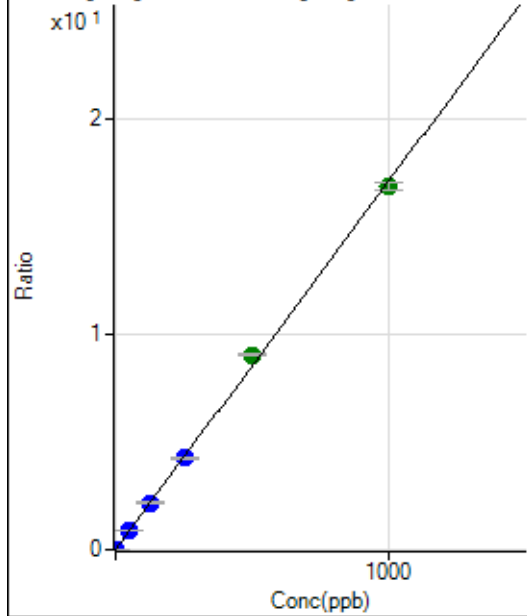
$$R = 1.0000$$

$$DL = 2.471$$

$$BEC = 4.05$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0005	P	26.2
2	☐	1.000	1.009	4089.51	0.0177	P	2.4
3	☐	50.000	51.157	201831.38	0.8732	P	1.1
4	☐	125.000	127.393	510461.90	2.1738	P	1.4
5	☐	250.000	249.642	999846.12	4.2594	P	2.6
6	☐	500.000	528.796	2109814.02	9.0219	A	1.3
7	☐	1000.000	985.334	4142629.35	16.8106	A	2.2
8	☐			7092.94	0.0280	P	2.3

$$y = 0.0171 * x + 4.5480\text{E-}004$$

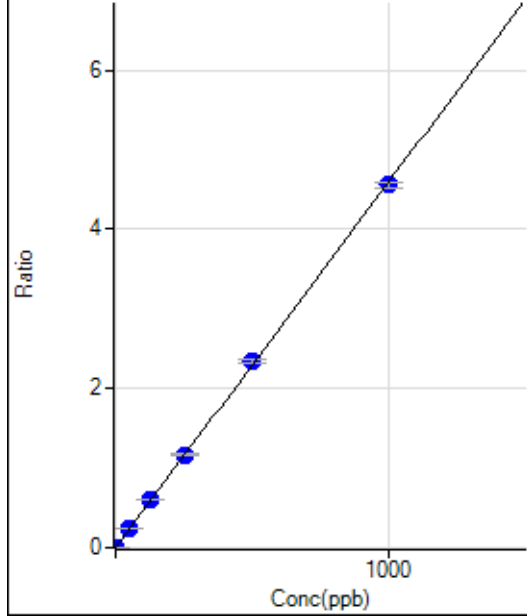
$$R = 0.9994$$

$$DL = 0.02096$$

$$BEC = 0.02666$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	62.22	0.0003	P	22.5
2	☐	1.000	0.991	1114.50	0.0048	P	4.3
3	☐	50.000	52.368	55632.87	0.2407	P	0.4
4	☐	125.000	131.112	141418.89	0.6022	P	1.0
5	☐	250.000	254.853	274688.95	1.1702	P	1.3
6	☐	500.000	509.990	547577.15	2.3415	P	1.3
7	☐	1000.000	992.909	1123396.60	4.5585	P	1.4
8	☐			9027.39	0.0356	P	2.9

$$y = 0.0046 * x + 2.6828E-004$$

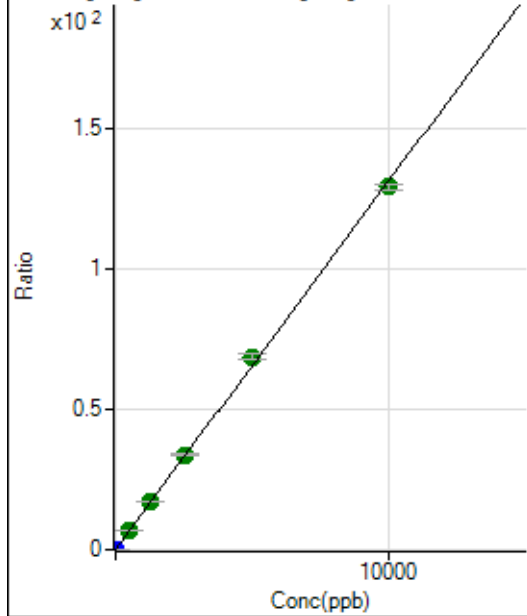
$$R = 0.9999$$

$$DL = 0.0395$$

$$BEC = 0.05844$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	713.36	0.0031	P	4.4
2	☐	2.000	2.169	7311.97	0.0316	P	1.0
3	☐	500.000	534.578	1625074.73	7.0310	A	2.0
4	☐	1250.000	1316.092	4064238.86	17.3054	A	1.5
5	☐	2500.000	2581.272	7965755.50	33.9385	A	0.8
6	☐	5000.000	5244.115	16122880.03	68.9463	A	2.4
7	☐	10000.000	9847.634	31906930.64	129.4677	A	1.3
8	☐			21655.60	0.0853	P	0.8

$$y = 0.0131 * x + 0.0031$$

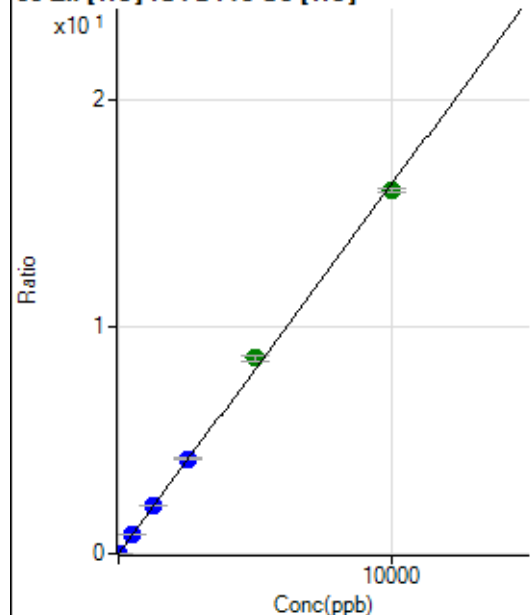
$$R = 0.9995$$

$$DL = 0.0311$$

$$BEC = 0.2338$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	324.45	0.0014	P	1.7
2	☐	2.000	2.421	1234.51	0.0053	P	3.5
3	☐	500.000	520.806	196035.34	0.8481	P	0.4
4	☐	1250.000	1302.084	497384.41	2.1182	P	2.1
5	☐	2500.000	2564.220	978834.51	4.1701	P	1.6
6	☐	5000.000	5301.182	2015586.88	8.6197	A	2.7
7	☐	10000.000	9825.803	3937220.32	15.9754	A	1.1
8	☐			6071.37	0.0239	P	2.4

$$y = 0.0016 * x + 0.0014$$

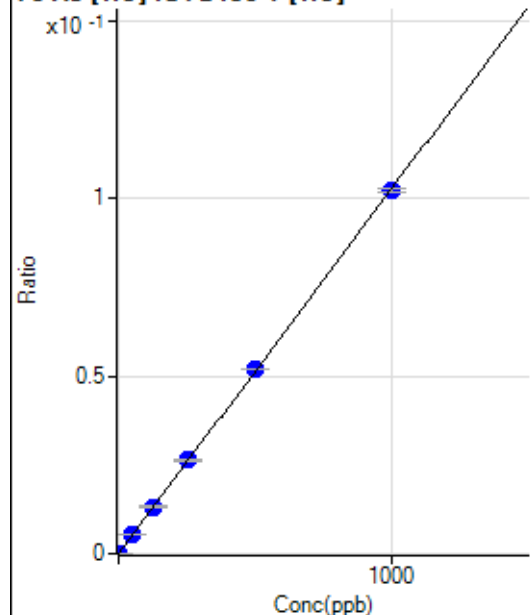
$$R = 0.9993$$

$$DL = 0.0444$$

$$BEC = 0.86$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.33	0.0000	P	40.8
2	☐	1.000	1.051	231.69	0.0001	P	10.7
3	☐	50.000	52.415	11172.21	0.0054	P	1.2
4	☐	125.000	128.642	28285.04	0.0132	P	2.6
5	☐	250.000	257.184	55777.35	0.0264	P	2.6
6	☐	500.000	505.780	112343.57	0.0520	P	0.6
7	☐	1000.000	994.738	231246.23	0.1022	P	1.0
8	☐			113.01	0.0000	P	5.3

$$y = 1.0274E-004 * x + 3.0547E-006$$

$$R = 0.9999$$

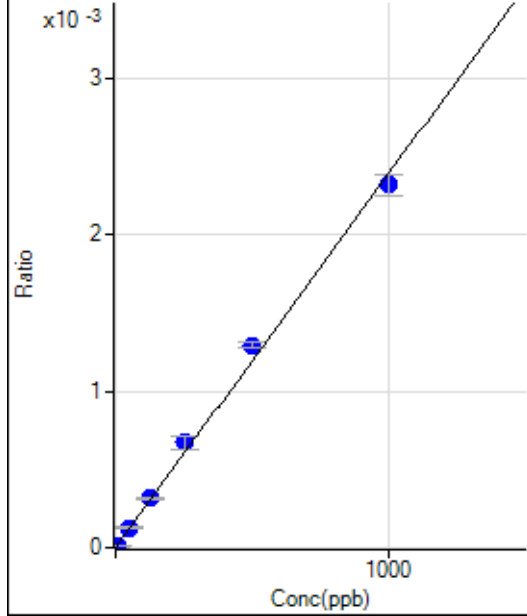
$$DL = 0.03639$$

$$BEC = 0.02973$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	4.905	25.56	0.0000	P	39.8
3	☐	50.000	51.865	257.78	0.0001	P	11.4
4	☐	125.000	132.171	676.69	0.0003	P	5.0
5	☐	250.000	280.435	1416.75	0.0007	P	12.5
6	☐	500.000	541.786	2799.20	0.0013	P	3.1
7	☐	1000.000	970.509	5244.37	0.0023	P	5.5
8	☐			1.11	0.0000	P	173.

$$y = 2.3887\text{E-}006 * x + 5.2657\text{E-}007$$

$$R = 0.9981$$

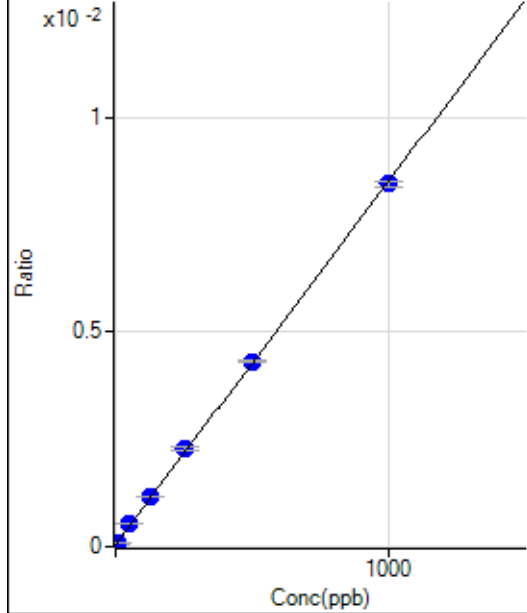
$$DL = 1.145$$

$$BEC = 0.2204$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.34	0.0000	P	3.6
2	☐	5.000	5.884	197.69	0.0001	P	3.8
3	☐	50.000	55.704	1070.48	0.0005	P	0.2
4	☐	125.000	131.616	2479.14	0.0012	P	2.0
5	☐	250.000	263.479	4798.64	0.0023	P	5.0
6	☐	500.000	504.480	9325.03	0.0043	P	1.1
7	☐	1000.000	993.274	19117.56	0.0084	P	1.4
8	☐			121.34	0.0001	P	10.4

$$y = 8.4619\text{E-}006 * x + 4.4932\text{E-}005$$

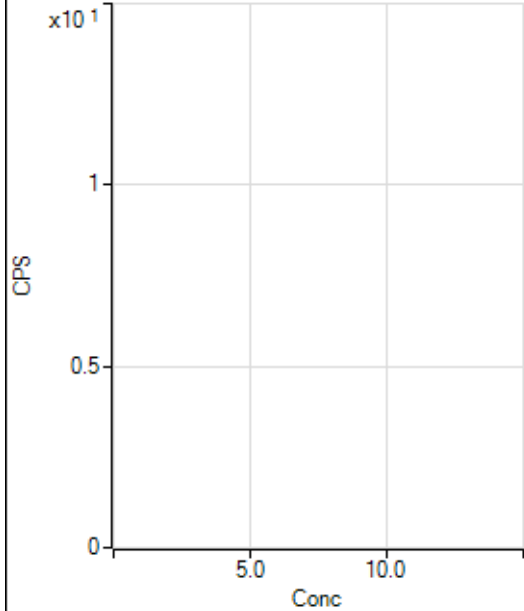
$$R = 0.9999$$

$$DL = 0.5747$$

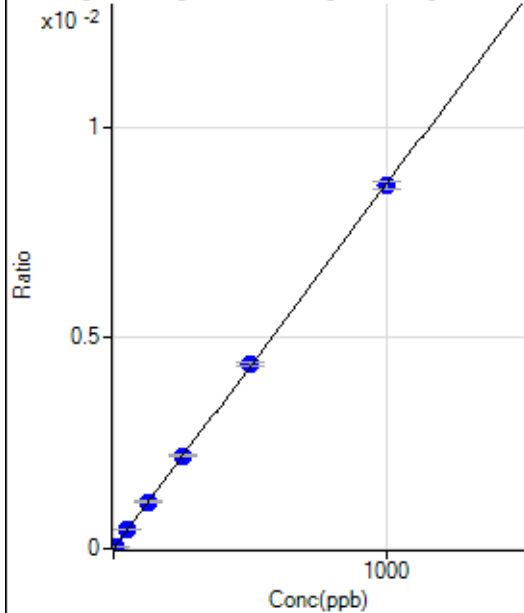
$$BEC = 5.31$$

Weight: <None>

Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26519.63		P	5.6
2	☐			26649.95		P	4.6
3	☐			25971.24		P	2.4
4	☐			25937.60		P	4.2
5	☐			26923.90		P	3.3
6	☐			26345.80		P	4.4
7	☐			26616.83		P	4.0
8	☐			28064.27		P	4.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	-61.71	0.0000	P	-74.
2	☐	5.000	5.422	708.80	0.0000	P	25.0
3	☐	50.000	51.259	7247.22	0.0004	P	2.2
4	☐	125.000	128.018	18420.74	0.0011	P	2.5
5	☐	250.000	254.256	37197.09	0.0022	P	2.1
6	☐	500.000	506.992	73847.26	0.0044	P	2.4
7	☐	1000.000	994.997	149224.68	0.0086	P	2.0
8	☐			168.86	0.0000	P	91.4

$$y = 8.6515E-006 * x - 3.6995E-006$$

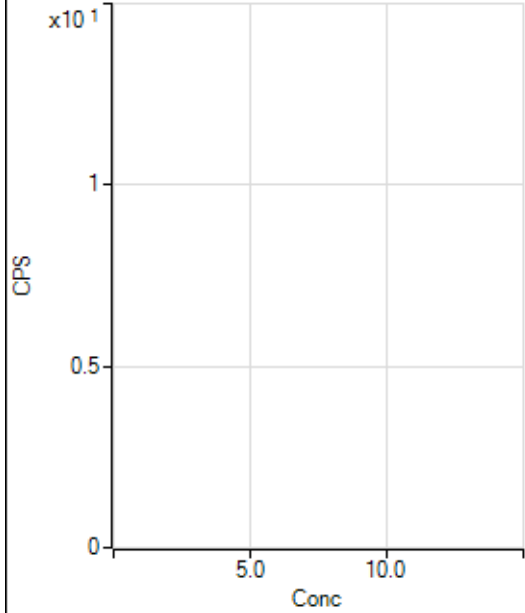
$$R = 1.0000$$

$$DL = 0.954$$

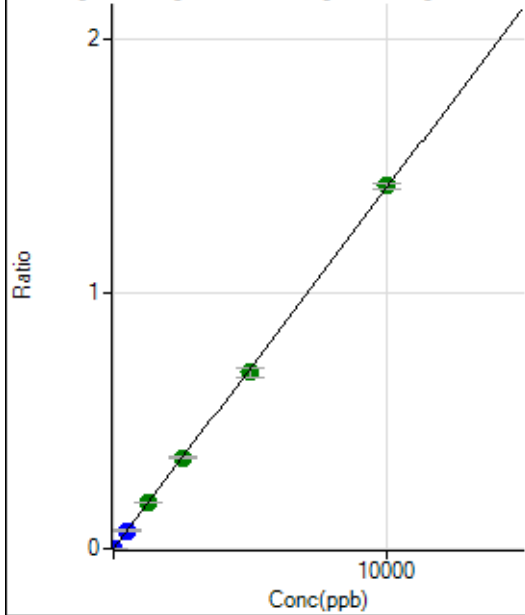
$$BEC = -0.4276$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10490.12		P	1.9
2	☐			10690.24		P	1.3
3	☐			10569.34		P	0.6
4	☐			10682.74		P	0.4
5	☐			10652.30		P	0.6
6	☐			10668.99		P	1.3
7	☐			10704.84		P	0.4
8	☐			10759.45		P	1.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	17294.39	0.0010	P	1.6
2	☐	1.000	1.387	20142.80	0.0012	P	1.7
3	☐	500.000	494.916	1170406.38	0.0710	P	3.0
4	☐	1250.000	1273.887	3025710.70	0.1812	A	0.5
5	☐	2500.000	2519.559	6054807.04	0.3575	A	2.5
6	☐	5000.000	4881.806	11650090.10	0.6917	A	5.0
7	☐	10000.000	10051.476	24679318.95	1.4230	A	1.7
8	☐			42501.74	0.0024	P	10.2

$$y = 1.4147\text{E-}004 * x + 0.0010$$

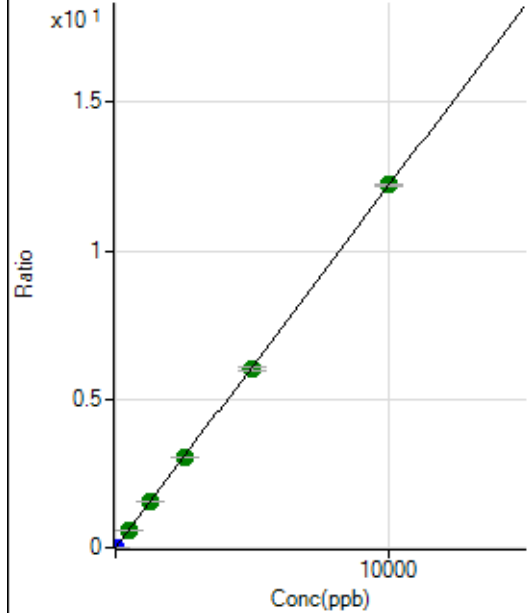
$$R = 0.9999$$

$$DL = 0.346$$

$$BEC = 7.299$$

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	316.68	0.0000	P	10.6
2	☐	1.000	1.043	21138.78	0.0013	P	3.8
3	☐	500.000	496.354	9958384.68	0.6045	A	2.7
4	☐	1250.000	1257.006	25556270.71	1.5307	A	0.4
5	☐	2500.000	2479.991	51164842.46	3.0200	A	0.5
6	☐	5000.000	4949.745	101570313.3	6.0276	A	2.1
7	☐	10000.000	10029.436	211816981.1	12.2134	A	0.8
8	☐			210163.33	0.0121	P	10.0

$$y = 0.0012 * x + 1.8928E-005$$

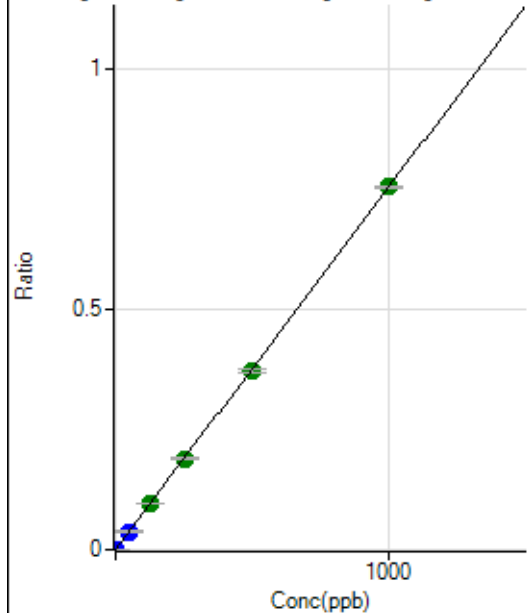
$$R = 1.0000$$

$$DL = 0.004928$$

$$BEC = 0.01554$$

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	847.27	0.0001	P	0.8
2	☐	1.000	0.975	12870.23	0.0008	P	1.8
3	☐	50.000	50.023	621559.88	0.0377	P	3.0
4	☐	125.000	127.508	1604006.01	0.0961	A	1.1
5	☐	250.000	251.006	3203121.90	0.1891	A	3.3
6	☐	500.000	495.874	6295180.70	0.3736	A	2.0
7	☐	1000.000	1001.497	13083620.26	0.7544	A	0.9
8	☐			10562.66	0.0006	P	9.5

$$y = 7.5325E-004 * x + 5.0569E-005$$

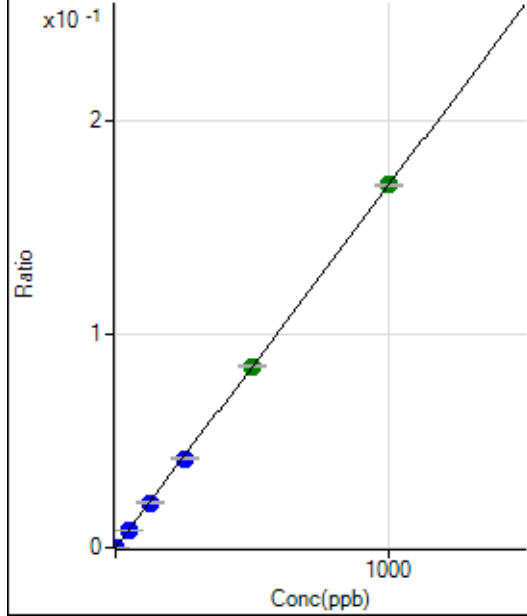
$$R = 1.0000$$

$$DL = 0.001569$$

$$BEC = 0.06713$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	141.67	0.0000	P	33.2
2	☐	1.000	0.978	2864.27	0.0002	P	11.3
3	☐	50.000	48.357	135626.40	0.0082	P	2.0
4	☐	125.000	124.081	352220.62	0.0211	P	2.9
5	☐	250.000	246.379	709758.75	0.0419	P	3.4
6	☐	500.000	499.482	1431608.82	0.0849	A	1.2
7	☐	1000.000	1001.362	2953194.64	0.1703	A	0.6
8	☐			2222.45	0.0001	P	12.7

$$y = 1.7005\text{E-}004 * x + 8.5036\text{E-}006$$

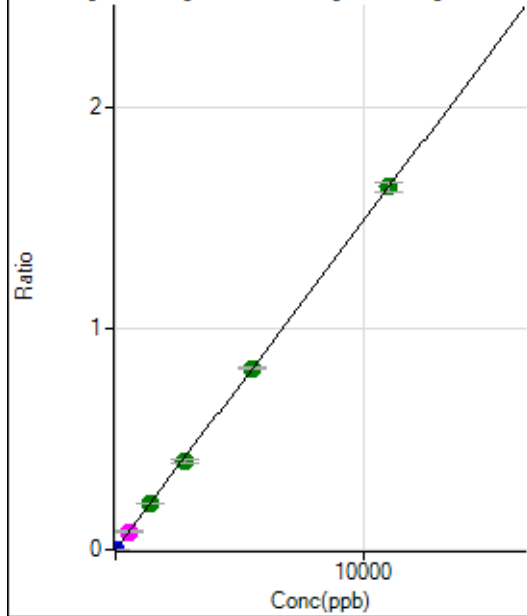
$$R = 1.0000$$

$$DL = 0.04986$$

$$BEC = 0.05001$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	341.68	0.0000	P	9.6
2	☐	5.000	5.876	14658.18	0.0009	P	3.1
3	☐	550.000	547.220	1340460.12	0.0814	M	3.9
4	☐	1375.000	1395.380	3462401.73	0.2075	A	2.9
5	☐	2750.000	2687.855	6769307.53	0.3997	A	2.8
6	☐	5500.000	5495.045	13771405.08	0.8171	A	1.2
7	☐	11000.000	11015.605	28404562.09	1.6379	A	2.7
8	☐			17686.10	0.0010	P	14.3

$$y = 1.4869\text{E-}004 * x + 2.0411\text{E-}005$$

$$R = 1.0000$$

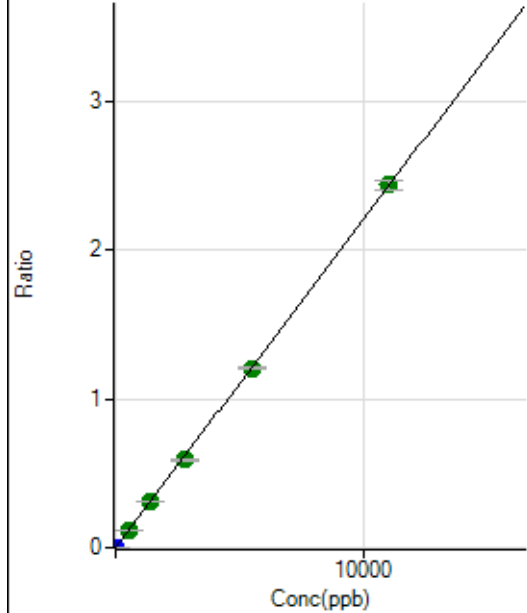
$$DL = 0.03948$$

$$BEC = 0.1373$$

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	33.33	0.0000	P	21.8
2	☐	5.000	4.839	17561.62	0.0011	P	1.5
3	☐	550.000	542.857	1976757.92	0.1200	A	1.7
4	☐	1375.000	1390.347	5127650.89	0.3072	A	1.8
5	☐	2750.000	2666.020	9977130.60	0.5891	A	3.6
6	☐	5500.000	5462.786	20341528.06	1.2071	A	1.7
7	☐	11000.000	11038.041	42297210.32	2.4390	A	2.3
8	☐			21915.50	0.0013	P	17.9

$$y = 2.2096\text{E-}004 * x + 1.9804\text{E-}006$$

$$R = 1.0000$$

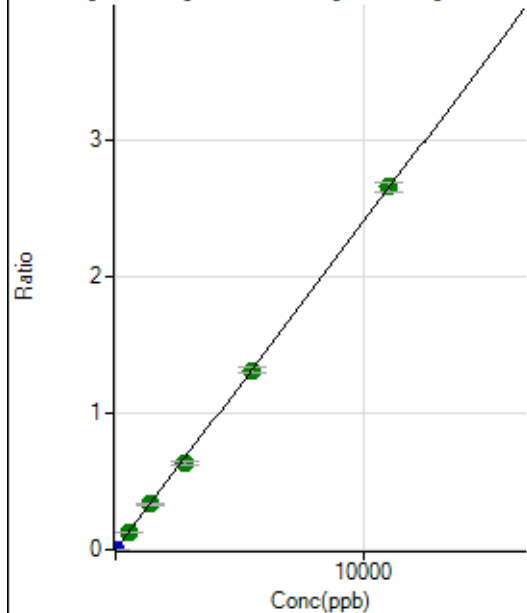
$$DL = 0.005853$$

$$BEC = 0.008963$$

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	427.80	0.0000	P	6.8
2	☐	5.000	5.007	20156.82	0.0012	P	2.5
3	☐	550.000	536.896	2128712.68	0.1291	A	0.6
4	☐	1375.000	1385.857	5563527.25	0.3333	A	1.7
5	☐	2750.000	2643.583	10768024.55	0.6358	A	3.7
6	☐	5500.000	5462.002	22132909.87	1.3136	A	3.3
7	☐	11000.000	11044.901	46065531.93	2.6563	A	2.7
8	☐			38481.78	0.0022	P	15.1

$$y = 2.4050\text{E-}004 * x + 2.5538\text{E-}005$$

$$R = 0.9999$$

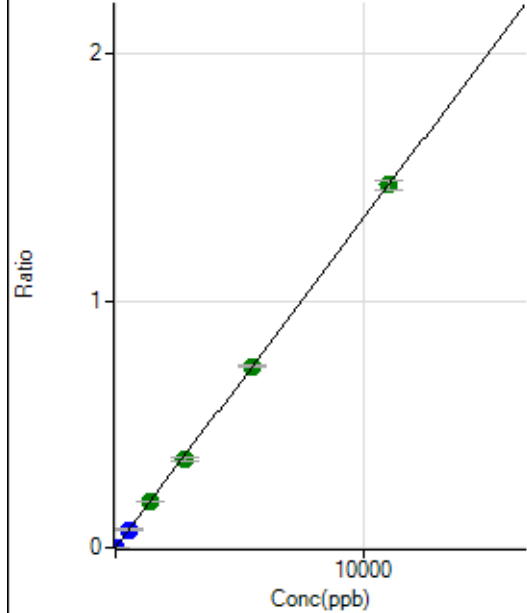
$$DL = 0.02179$$

$$BEC = 0.1062$$

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	19.45	0.0000	P	21.1
2	☐	5.000	4.784	10476.49	0.0006	P	5.2
3	☐	550.000	553.478	1216073.05	0.0738	P	3.7
4	☐	1375.000	1400.773	3118602.13	0.1868	A	2.1
5	☐	2750.000	2683.431	6063259.25	0.3579	A	2.4
6	☐	5500.000	5510.964	12388014.95	0.7351	A	1.6
7	☐	11000.000	11007.765	25463039.28	1.4683	A	2.4
8	☐			13601.64	0.0008	P	15.6

$$y = 1.3339\text{E-}004 * x + 1.1554\text{E-}006$$

$$R = 1.0000$$

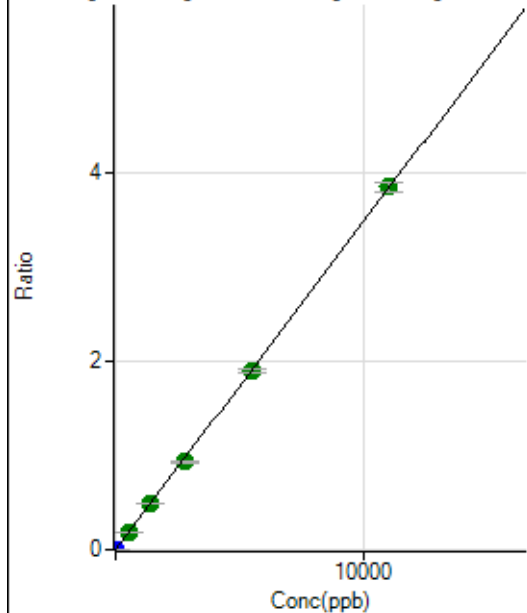
$$DL = 0.005479$$

$$BEC = 0.008662$$

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	119.45	0.0000	P	6.9
2	☐	5.000	4.951	28471.43	0.0017	P	4.0
3	☐	550.000	547.164	3149590.20	0.1912	A	2.8
4	☐	1375.000	1393.274	8127091.15	0.4868	A	0.0
5	☐	2750.000	2672.449	15815401.92	0.9338	A	2.9
6	☐	5500.000	5441.570	32041709.05	1.9013	A	1.5
7	☐	11000.000	11046.461	66933429.27	3.8596	A	2.5
8	☐			34932.27	0.0020	P	15.5

$$y = 3.4940\text{E-}004 * x + 7.1399\text{E-}006$$

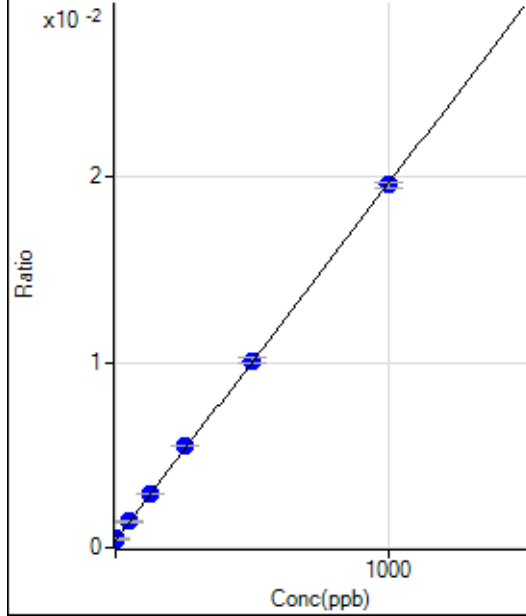
$$R = 0.9999$$

$$DL = 0.004207$$

$$BEC = 0.02043$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3956.22	0.0004	P	1.4
2	☐	1.000	1.755	4209.10	0.0005	P	5.4
3	☐	50.000	51.518	12703.49	0.0014	P	4.5
4	☐	125.000	127.978	26955.05	0.0029	P	0.1
5	☐	250.000	262.397	51322.08	0.0055	P	0.5
6	☐	500.000	502.238	97342.52	0.0101	P	3.0
7	☐	1000.000	995.333	192903.39	0.0196	P	1.4
8	☐			4072.96	0.0004	P	4.2

$$y = 1.9232\text{E-}005 * x + 4.4148\text{E-}004$$

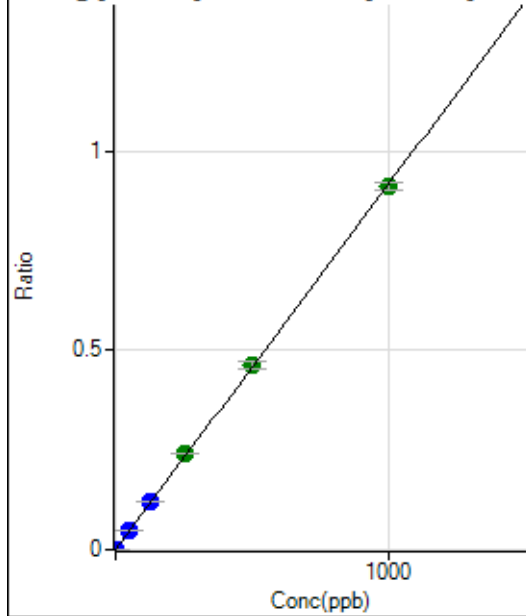
$$R = 0.9999$$

$$DL = 0.9547$$

$$BEC = 22.96$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	88.89	0.0000	P	48.5
2	☐	1.000	1.039	8519.56	0.0010	P	2.5
3	☐	50.000	53.444	434772.65	0.0490	P	2.3
4	☐	125.000	132.917	1131656.35	0.1219	P	1.4
5	☐	250.000	263.260	2256840.33	0.2414	A	1.9
6	☐	500.000	505.146	4462387.47	0.4631	A	3.8
7	☐	1000.000	992.950	8966699.25	0.9103	A	2.0
8	☐			4989.95	0.0005	P	9.9

$$y = 9.1679\text{E-}004 * x + 9.9439\text{E-}006$$

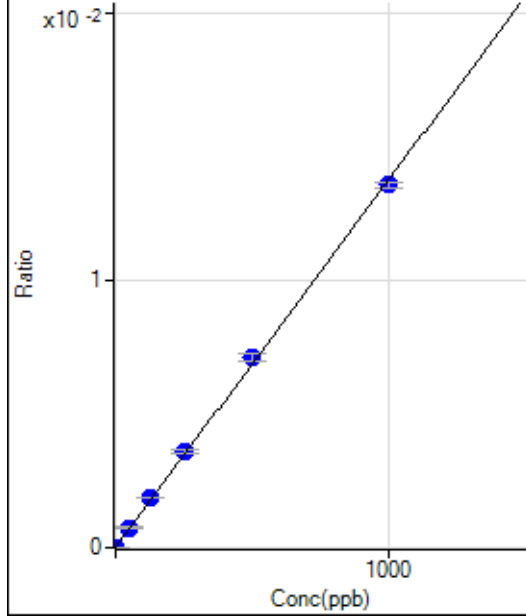
$$R = 0.9999$$

$$DL = 0.01578$$

$$BEC = 0.01085$$

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	44.44	0.0000	P	12.3
2	☐	1.000	1.022	168.06	0.0000	P	9.1
3	☐	50.000	53.949	6621.14	0.0007	P	5.2
4	☐	125.000	135.003	17279.07	0.0019	P	2.6
5	☐	250.000	262.759	33816.92	0.0036	P	4.6
6	☐	500.000	516.718	68484.28	0.0071	P	4.2
7	☐	1000.000	987.004	133705.12	0.0136	P	1.3
8	☐			108.33	0.0000	P	32.8

$$y = 1.3747\text{E-}005 * x + 4.9508\text{E-}006$$

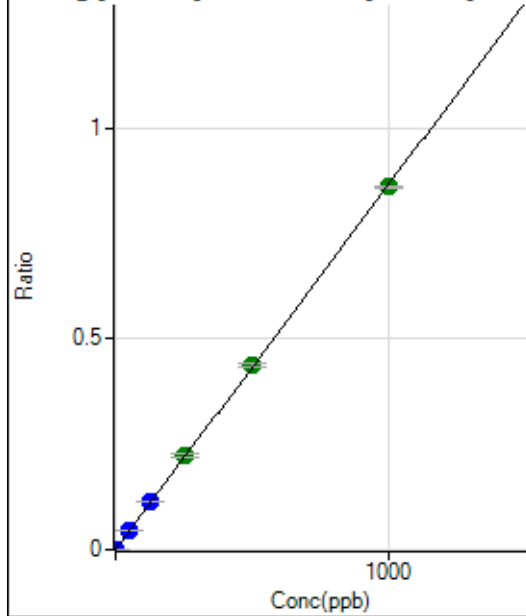
$$R = 0.9997$$

$$DL = 0.1333$$

$$BEC = 0.3601$$

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	50.00	0.0000	P	44.3
2	☐	1.000	1.049	8077.60	0.0009	P	1.9
3	☐	50.000	54.684	419486.22	0.0473	P	2.3
4	☐	125.000	133.253	1069840.32	0.1152	P	1.5
5	☐	250.000	258.905	2092876.28	0.2238	A	3.1
6	☐	500.000	504.429	4204178.13	0.4361	A	1.8
7	☐	1000.000	994.294	8468240.29	0.8596	A	0.6
8	☐			4762.07	0.0005	P	8.9

$$y = 8.6457\text{E-}004 * x + 5.5749\text{E-}006$$

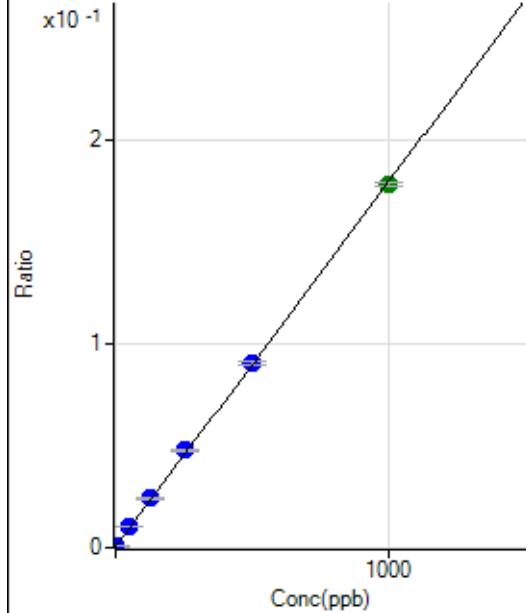
$$R = 0.9999$$

$$DL = 0.008564$$

$$BEC = 0.006448$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2816.03	0.0003	P	1.0
2	☐	1.000	1.151	4606.64	0.0005	P	5.2
3	☐	50.000	54.043	88655.49	0.0100	P	1.4
4	☐	125.000	132.746	223623.19	0.0241	P	1.8
5	☐	250.000	264.505	445689.32	0.0477	P	3.4
6	☐	500.000	505.686	875702.00	0.0909	P	2.4
7	☐	1000.000	992.360	1753341.31	0.1780	A	0.9
8	☐			3603.06	0.0004	P	6.6

$$y = 1.7904\text{E-}004 * x + 3.1423\text{E-}004$$

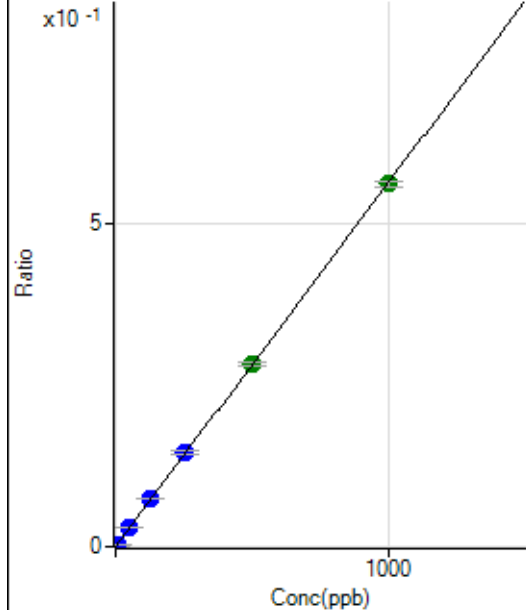
$$R = 0.9999$$

$$DL = 0.05244$$

$$BEC = 1.755$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	875.06	0.0001	P	17.7
2	☐	5.000	5.372	27600.65	0.0031	P	1.4
3	☐	50.000	52.260	261641.25	0.0295	P	1.4
4	☐	125.000	131.028	685124.46	0.0738	P	2.2
5	☐	250.000	259.144	1363490.82	0.1458	P	2.5
6	☐	500.000	500.804	2715597.61	0.2817	A	2.1
7	☐	1000.000	996.444	5520281.76	0.5605	A	1.7
8	☐			5629.14	0.0006	P	7.9

$$y = 5.6235\text{E-}004 * x + 9.7443\text{E-}005$$

$$R = 0.9999$$

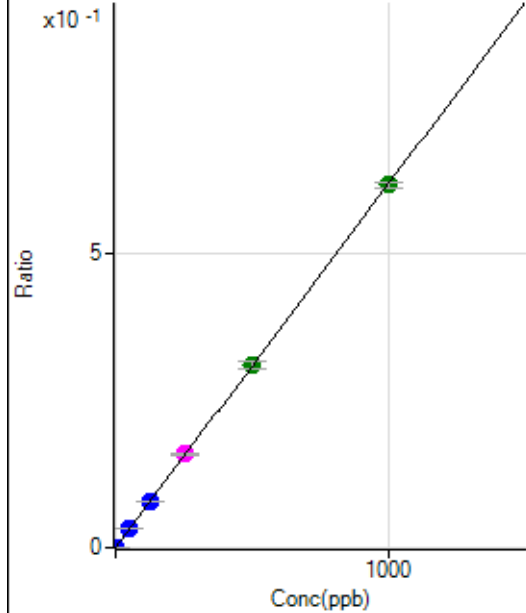
$$DL = 0.09211$$

$$BEC = 0.1733$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	23.3
2	☐	2.000	2.017	11127.05	0.0013	P	2.6
3	☐	50.000	52.305	287885.50	0.0325	P	2.5
4	☐	125.000	127.289	733234.37	0.0790	P	0.5
5	☐	250.000	256.915	1490143.73	0.1594	M	1.9
6	☐	500.000	501.249	2996031.60	0.3109	A	3.7
7	☐	1000.000	997.245	6093085.07	0.6186	A	1.6
8	☐			6938.11	0.0007	P	4.8

$$y = 6.2028\text{E-}004 * x + 6.2008\text{E-}006$$

$$R = 1.0000$$

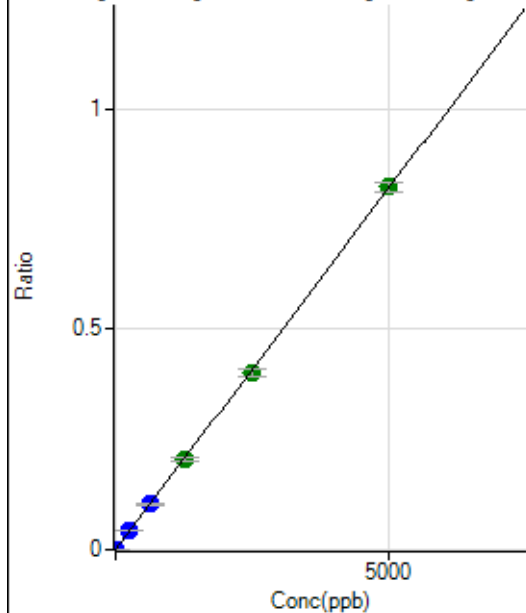
$$DL = 0.006986$$

$$BEC = 0.009997$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	101.
2	☐	10.000	10.061	14613.86	0.0017	P	0.9
3	☐	250.000	257.976	375109.47	0.0423	P	3.0
4	☐	625.000	629.515	958107.14	0.1032	P	1.5
5	☐	1250.000	1254.349	1922126.11	0.2056	A	2.8
6	☐	2500.000	2447.201	3864726.04	0.4011	A	3.8
7	☐	5000.000	5024.349	8111158.86	0.8235	A	2.6
8	☐			5273.65	0.0006	P	16.2

$$y = 1.6390\text{E-}004 * x + 1.8656\text{E-}006$$

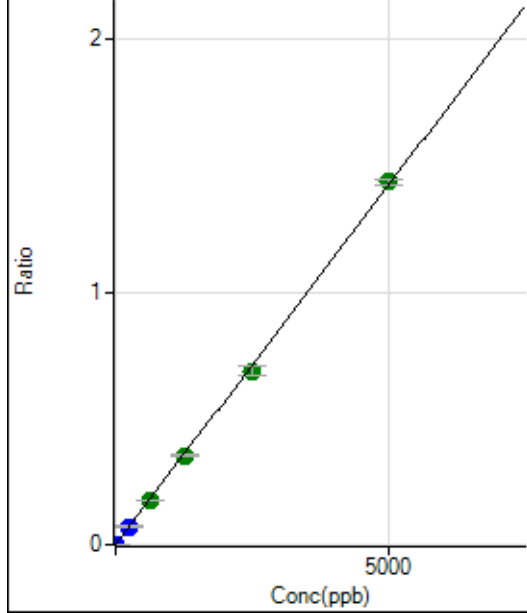
$$R = 0.9999$$

$$DL = 0.03468$$

$$BEC = 0.01138$$

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	44.44	0.0000	P	26.1
2	☐	10.000	10.061	25380.32	0.0029	P	4.8
3	☐	250.000	251.709	635499.30	0.0716	P	2.9
4	☐	625.000	621.011	1641117.56	0.1767	A	1.4
5	☐	1250.000	1242.042	3304656.41	0.3535	A	3.9
6	☐	2500.000	2414.732	6619010.09	0.6872	A	5.8
7	☐	5000.000	5045.037	14142651.18	1.4357	A	1.5
8	☐			9659.48	0.0010	P	12.5

$$y = 2.8458E-004 * x + 4.9379E-006$$

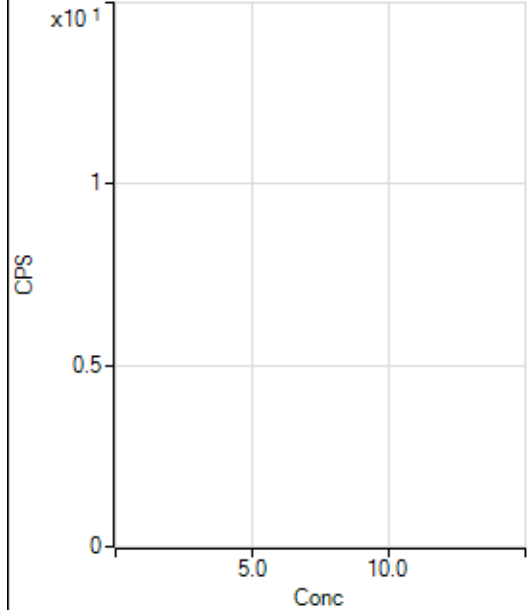
$$R = 0.9998$$

$$DL = 0.01358$$

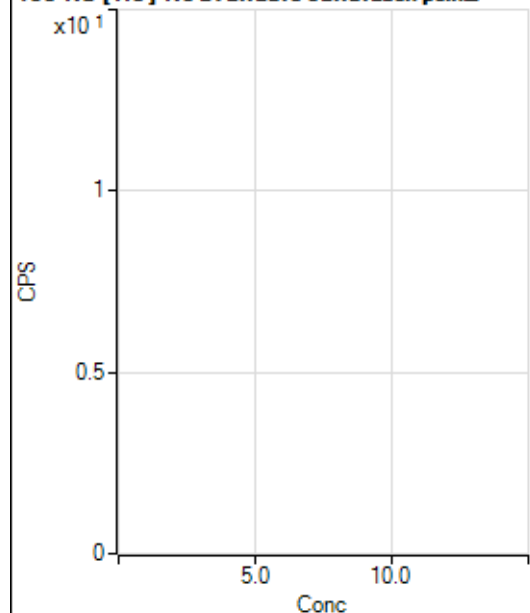
$$BEC = 0.01735$$

Weight: <None>

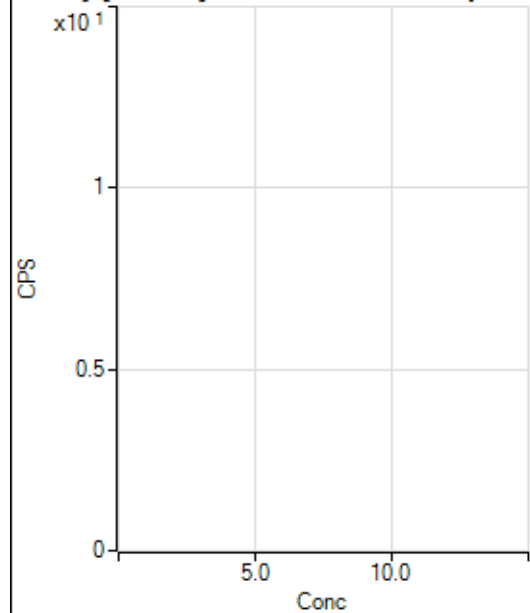
Min Conc: 0

150 Nd [No Gas] No available calibration points

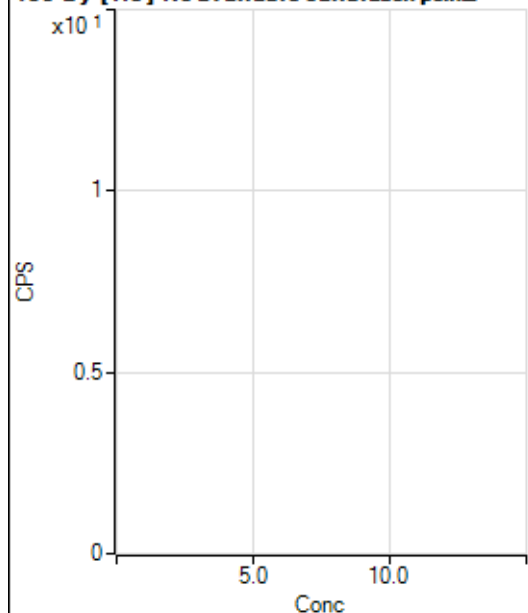
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐			4.45		P	86.6
3	☐			22.22		P	34.7
4	☐			42.22		P	48.2
5	☐			91.11		P	27.7
6	☐			186.67		P	3.6
7	☐			397.79		P	18.4
8	☐			57.78		P	37.1

150 Nd [He] No available calibration points

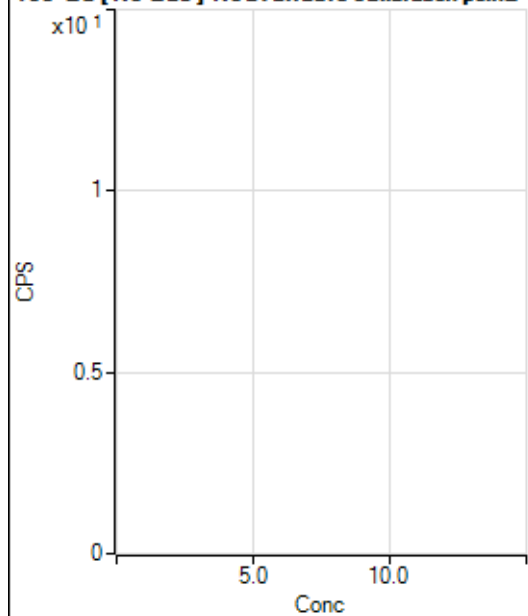
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			4.44		P	114.
3	☐			5.55		P	69.3
4	☐			2.22		P	86.6
5	☐			14.45		P	26.7
6	☐			21.11		P	32.9
7	☐			54.45		P	12.7
8	☐			28.89		P	24.0

156 Dy [No Gas] No available calibration points

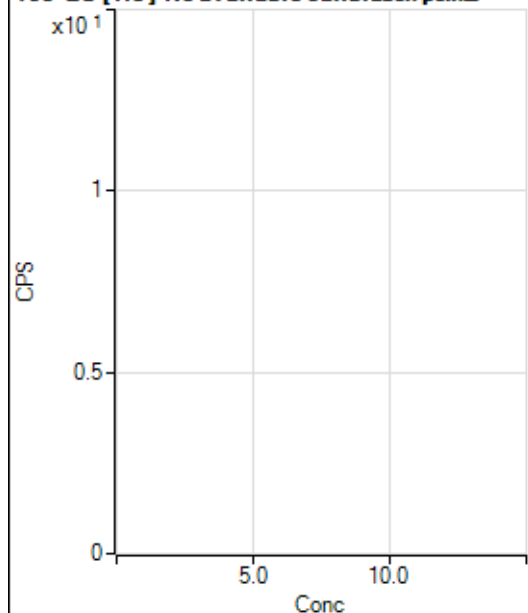
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	173.
2	☐			2.78		P	173.
3	☐			30.55		P	15.7
4	☐			44.45		P	39.0
5	☐			88.89		P	28.6
6	☐			191.68		P	28.5
7	☐			341.68		P	10.6
8	☐			1122.30		P	6.2

156 Dy [He] No available calibration points

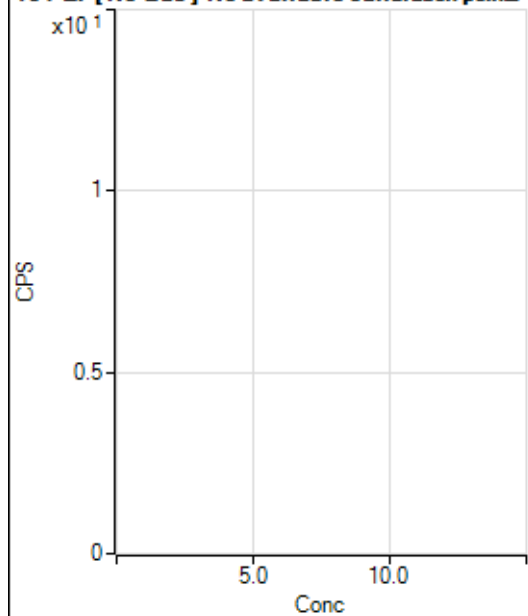
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐			1.11		P	173.
3	☐			6.67		P	132.
4	☐			20.00		P	44.1
5	☐			55.55		P	12.5
6	☐			81.11		P	10.3
7	☐			174.45		P	12.4
8	☐			611.13		P	5.4

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

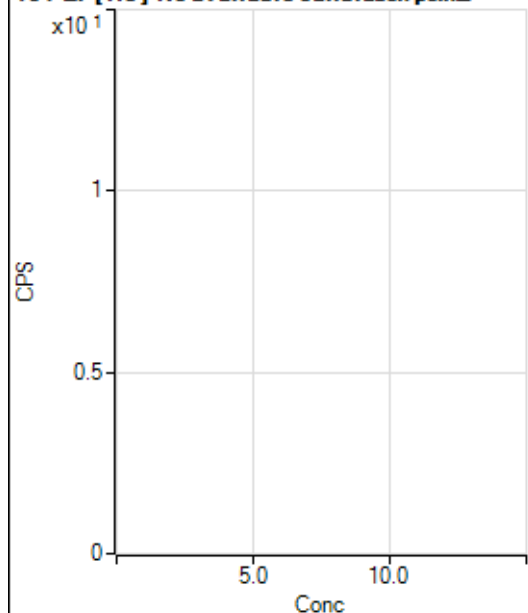
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	40.0
2	☐			75.00		P	11.1
3	☐			47.22		P	27.0
4	☐			83.33		P	45.8
5	☐			102.78		P	44.7
6	☐			163.90		P	28.0
7	☐			247.23		P	18.6
8	☐			1063.96		P	5.7

160 Gd [He] No available calibration points

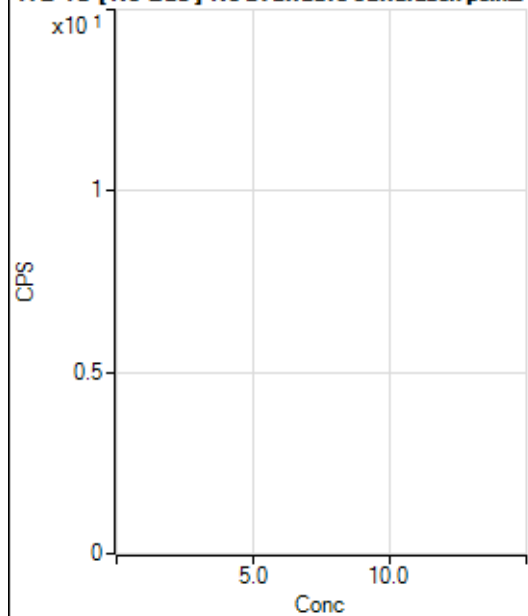
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			77.78		P	17.3
2	☐			82.22		P	2.3
3	☐			92.22		P	33.4
4	☐			104.45		P	22.4
5	☐			111.12		P	9.6
6	☐			151.11		P	6.7
7	☐			223.34		P	3.9
8	☐			732.25		P	1.5

164 Er [No Gas] No available calibration points

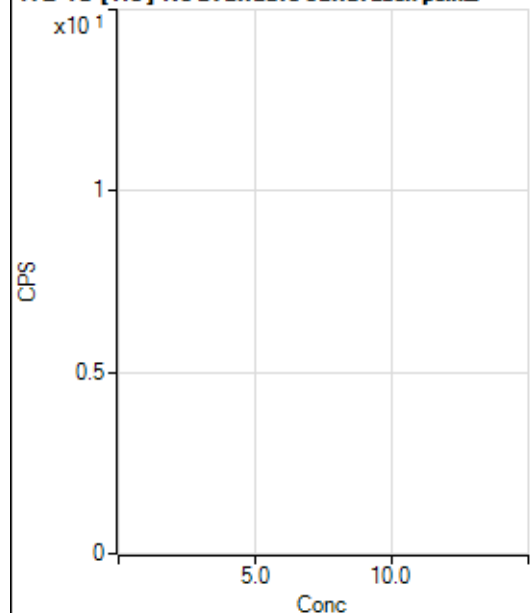
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.00		P	40.1
2	☐			77.78		P	40.6
3	☐			58.34		P	51.5
4	☐			77.78		P	48.3
5	☐			100.00		P	30.0
6	☐			105.56		P	22.8
7	☐			102.78		P	12.4
8	☐			205.57		P	16.4

164 Er [He] No available calibration points

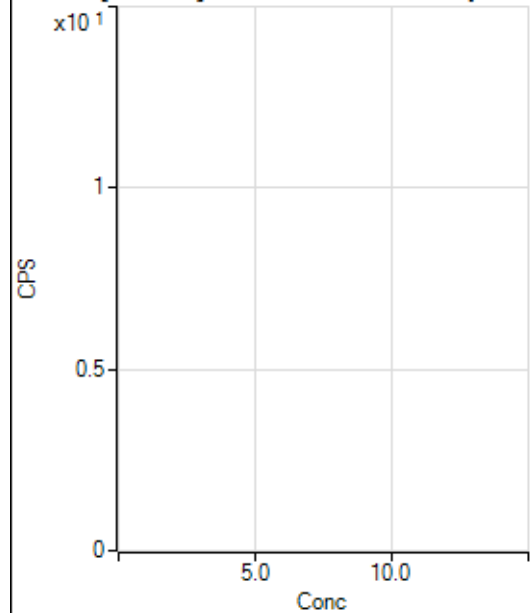
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	18.3
2	☐			30.00		P	11.1
3	☐			35.56		P	39.0
4	☐			53.33		P	12.5
5	☐			35.56		P	14.3
6	☐			46.67		P	14.3
7	☐			70.00		P	14.3
8	☐			101.11		P	9.5

172 Yb [No Gas] No available calibration points

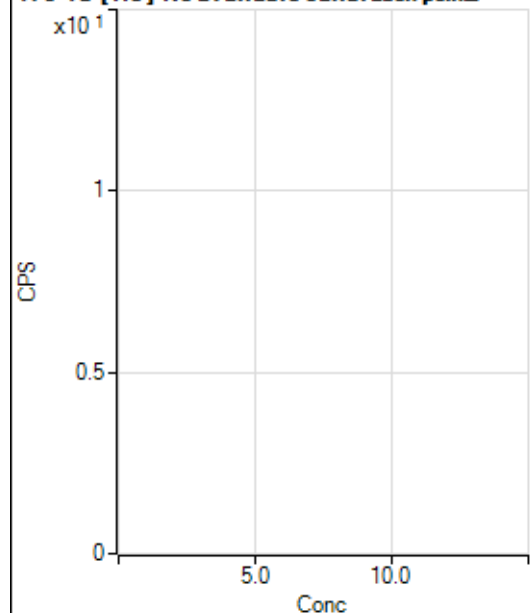
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	43.3
2	☐			27.78		P	34.6
3	☐			52.78		P	24.1
4	☐			22.22		P	21.6
5	☐			33.33		P	75.0
6	☐			72.23		P	43.7
7	☐			88.89		P	21.6
8	☐			130.56		P	32.8

172 Yb [He] No available calibration points

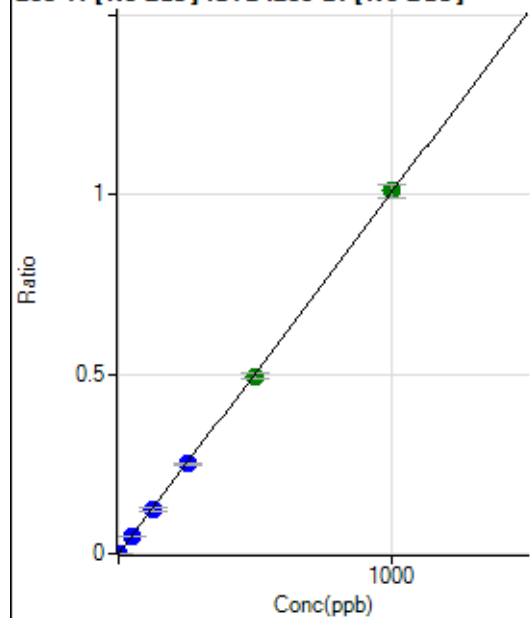
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	33.3
2	☐			11.11		P	50.0
3	☐			18.52		P	45.8
4	☐			22.22		P	25.0
5	☐			31.48		P	10.2
6	☐			22.22		P	43.3
7	☐			29.63		P	39.0
8	☐			57.41		P	34.0

176 Yb [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			958.40		P	7.1
2	☐			1036.18		P	9.3
3	☐			1922.42		P	5.8
4	☐			3608.93		P	3.9
5	☐			6187.73		P	1.8
6	☐			11647.15		P	2.0
7	☐			23452.11		P	2.0
8	☐			1058.41		P	5.2

176 Yb [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6110.82		P	1.7
2	☐			6133.02		P	6.3
3	☐			6577.69		P	4.5
4	☐			7522.68		P	3.5
5	☐			9192.22		P	2.0
6	☐			12194.73		P	2.9
7	☐			18274.06		P	1.2
8	☐			6247.89		P	1.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	594.48	0.0001	P	16.9
2	☐	1.000	0.967	5387.39	0.0011	P	2.9
3	☐	50.000	49.135	234768.41	0.0494	P	1.7
4	☐	125.000	122.611	620793.21	0.1232	P	4.7
5	☐	250.000	247.914	1250849.48	0.2490	P	3.8
6	☐	500.000	491.682	2582242.01	0.4937	A	3.3
7	☐	1000.000	1005.022	5205621.86	1.0090	A	3.5
8	☐			2867.07	0.0006	P	12.5

$$y = 0.0010 * x + 1.1847E-004$$

$$R = 0.9999$$

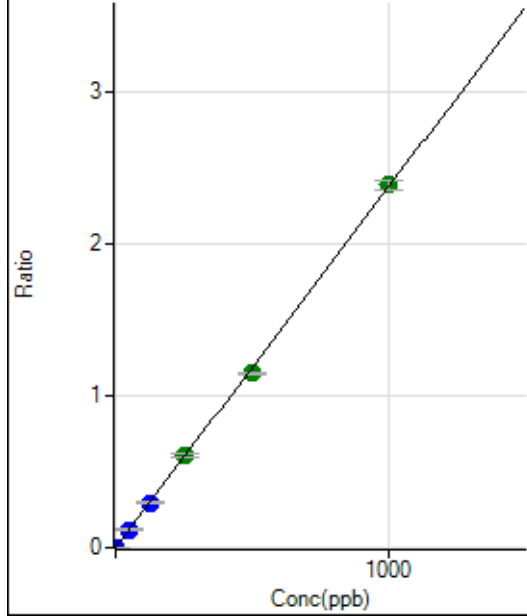
$$DL = 0.05974$$

$$BEC = 0.118$$

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	1386.23	0.0003	P	14.0
2	☐	1.000	0.947	12445.30	0.0025	P	4.9
3	☐	50.000	50.018	563475.16	0.1187	P	3.0
4	☐	125.000	124.063	1481347.29	0.2940	P	4.9
5	☐	250.000	256.396	3051097.27	0.6073	A	3.8
6	☐	500.000	483.758	5992355.26	1.1455	A	0.9
7	☐	1000.000	1006.638	12301225.80	2.3834	A	2.6
8	☐			6632.57	0.0014	P	16.6

$$y = 0.0024 * x + 2.7607E-004$$

$$R = 0.9998$$

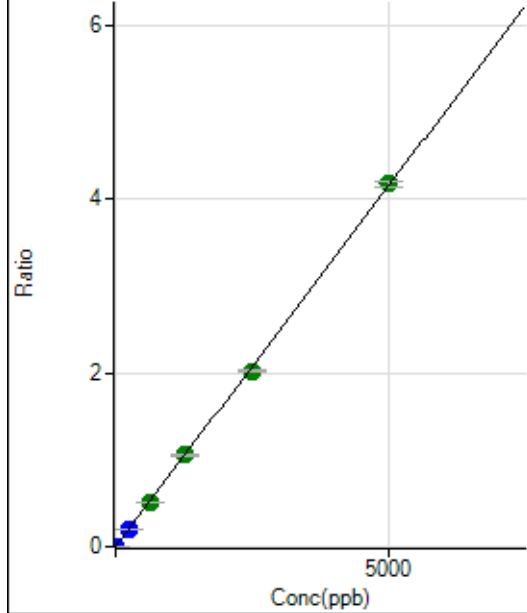
$$DL = 0.04887$$

$$BEC = 0.1166$$

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	920.42	0.0002	P	13.5
2	☐	1.000	0.941	4767.62	0.0010	P	3.6
3	☐	250.000	246.449	972437.15	0.2048	P	3.1
4	☐	625.000	613.648	2569946.64	0.5098	A	1.8
5	☐	1250.000	1268.557	5293188.43	1.0536	A	3.4
6	☐	2500.000	2437.101	10587198.15	2.0239	A	1.6
7	☐	5000.000	5028.407	21550390.76	4.1757	A	1.8
8	☐			14595.69	0.0031	P	12.4

$$y = 8.3039E-004 * x + 1.8326E-004$$

$$R = 0.9999$$

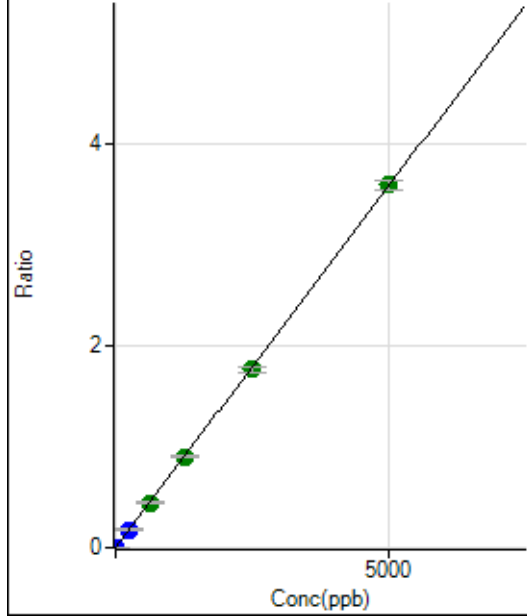
$$DL = 0.08971$$

$$BEC = 0.2207$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	785.22	0.0002	P	21.7
2	☐	1.000	0.962	4184.11	0.0008	P	4.9
3	☐	250.000	247.285	843087.27	0.1776	P	4.5
4	☐	625.000	622.412	2252283.48	0.4468	A	2.6
5	☐	1250.000	1259.988	4544940.55	0.9044	A	2.0
6	☐	2500.000	2461.401	9241342.22	1.7665	A	2.6
7	☐	5000.000	5017.262	18585346.02	3.6007	A	2.3
8	☐			12893.96	0.0027	P	11.4

$$y = 7.1763\text{E-}004 * x + 1.5581\text{E-}004$$

$$R = 1.0000$$

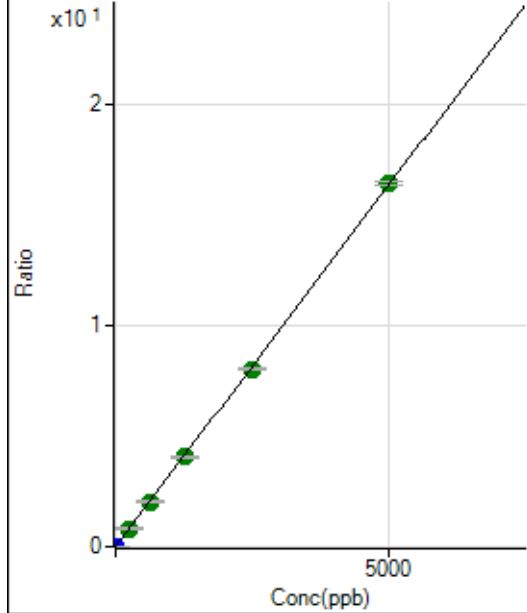
$$DL = 0.1415$$

$$BEC = 0.2171$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3548.40	0.0007	P	5.1
2	☐	1.000	0.957	18970.63	0.0038	P	2.3
3	☐	250.000	250.411	3893572.71	0.8202	A	3.4
4	☐	625.000	621.830	10263166.82	2.0356	A	1.3
5	☐	1250.000	1245.908	20491097.74	4.0778	A	2.0
6	☐	2500.000	2459.948	42115527.21	8.0507	A	1.1
7	☐	5000.000	5021.425	84826836.38	16.4329	A	1.0
8	☐			57798.75	0.0123	P	10.6

$$y = 0.0033 * x + 7.0587\text{E-}004$$

$$R = 1.0000$$

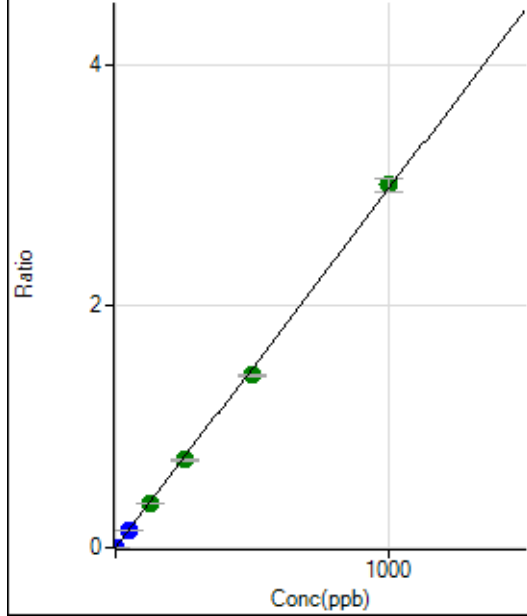
$$DL = 0.03324$$

$$BEC = 0.2157$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	130.
2	☐	1.000	0.937	13785.76	0.0028	P	1.9
3	☐	50.000	48.563	684967.63	0.1442	P	1.0
4	☐	125.000	122.322	1832065.19	0.3633	A	0.9
5	☐	250.000	245.676	3666837.71	0.7297	A	1.8
6	☐	500.000	480.030	7458950.34	1.4258	A	1.7
7	☐	1000.000	1011.473	15499485.24	3.0042	A	3.6
8	☐			4717.79	0.0010	P	16.6

$$y = 0.0030 * x + 3.2581E-006$$

$$R = 0.9997$$

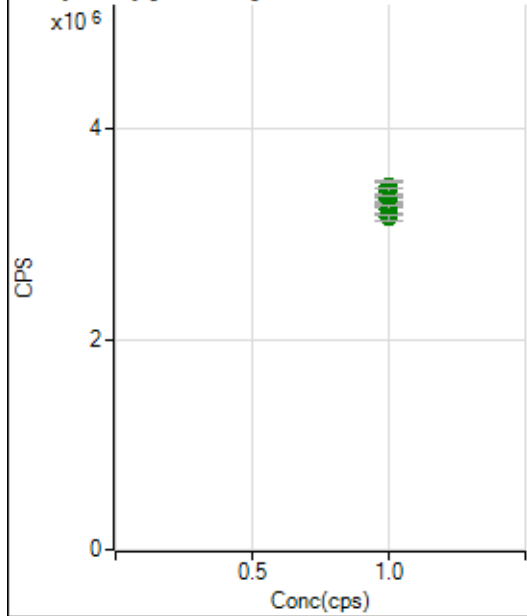
$$DL = 0.004307$$

$$BEC = 0.001097$$

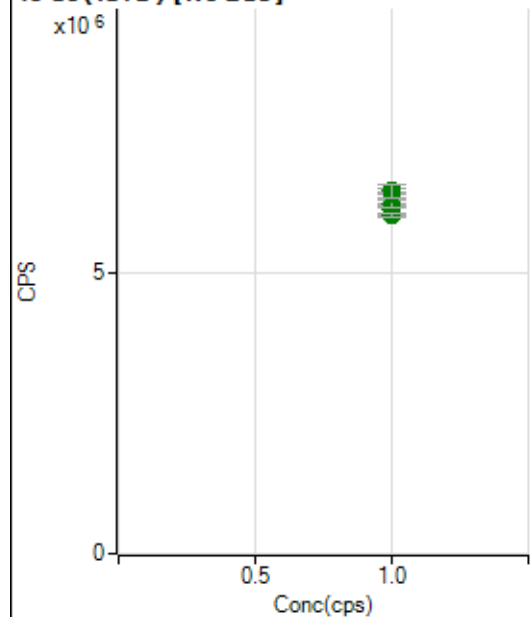
Weight: <None>

Min Conc: 0

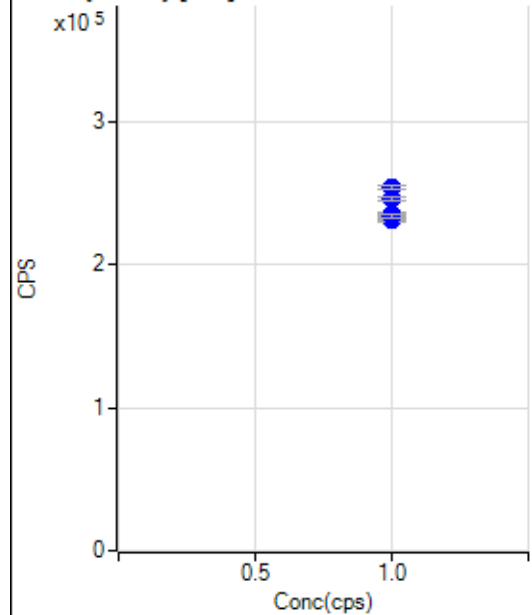
6 Li (ISTD) [No Gas]



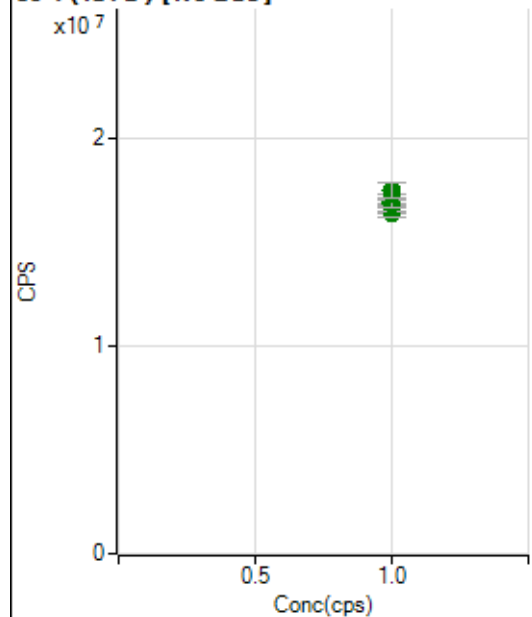
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3452885.77		A	3.8
2	☐	1.000		3419662.18		A	4.4
3	☐	1.000		3351489.95		A	2.3
4	☐	1.000		3406895.08		A	1.6
5	☐	1.000		3328536.39		A	2.3
6	☐	1.000		3275903.07		A	0.6
7	☐	1.000		3236753.28		A	2.4
8	☐	1.000		3164407.71		A	1.7

45 Sc (ISTD) [No Gas]

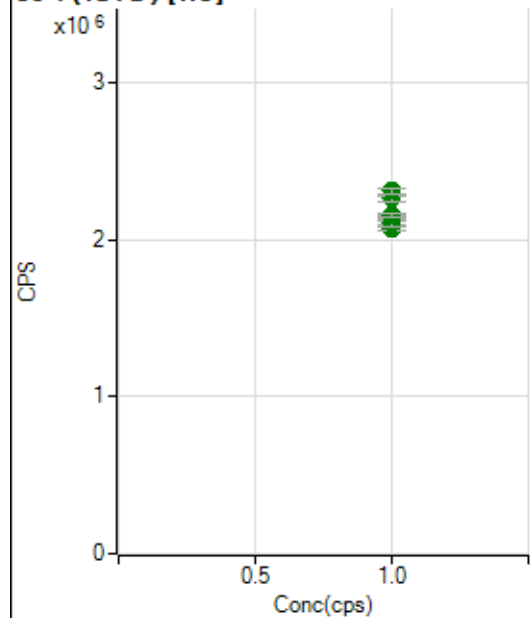
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6199351.65		A	0.8
2	☐	1.000		6137449.14		A	2.9
3	☐	1.000		6047234.15		A	1.0
4	☐	1.000		6314440.95		A	2.7
5	☐	1.000		6242171.57		A	2.1
6	☐	1.000		6399692.54		A	1.6
7	☐	1.000		6471320.94		A	1.8
8	☐	1.000		6466343.31		A	4.0

45 Sc (ISTD) [He]

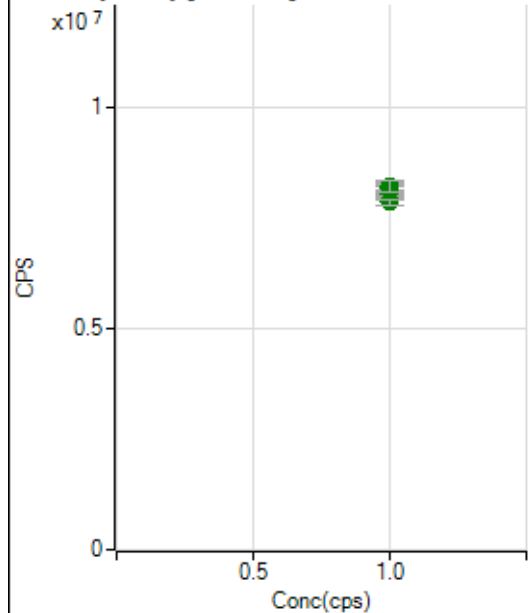
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		232044.36		P	0.4
2	☐	1.000		231451.03		P	0.4
3	☐	1.000		231147.52		P	0.6
4	☐	1.000		234843.56		P	1.0
5	☐	1.000		234715.29		P	1.0
6	☐	1.000		233877.07		P	1.1
7	☐	1.000		246459.90		P	0.9
8	☐	1.000		253717.15		P	1.0

89 Y (ISTD) [No Gas]

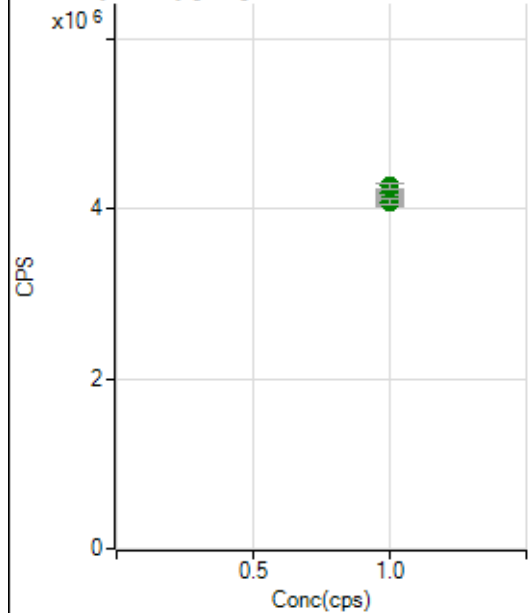
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16753078.78		A	3.5
2	☐	1.000		16392176.28		A	0.5
3	☐	1.000		16482859.75		A	2.9
4	☐	1.000		16694389.89		A	2.4
5	☐	1.000		16942498.91		A	1.7
6	☐	1.000		16856562.94		A	2.4
7	☐	1.000		17342715.16		A	0.3
8	☐	1.000		17479559.74		A	4.3

89 Y (ISTD) [He]

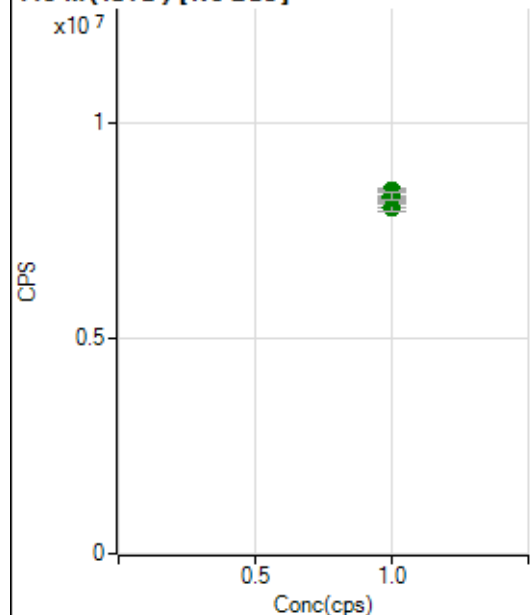
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2078122.66		A	1.4
2	☐	1.000		2087076.72		A	0.0
3	☐	1.000		2073416.77		A	1.1
4	☐	1.000		2140179.59		A	1.9
5	☐	1.000		2111378.91		A	2.4
6	☐	1.000		2161846.61		A	1.2
7	☐	1.000		2262742.79		A	1.4
8	☐	1.000		2313023.35		A	1.7

103 Rh (ISTD) [No Gas]

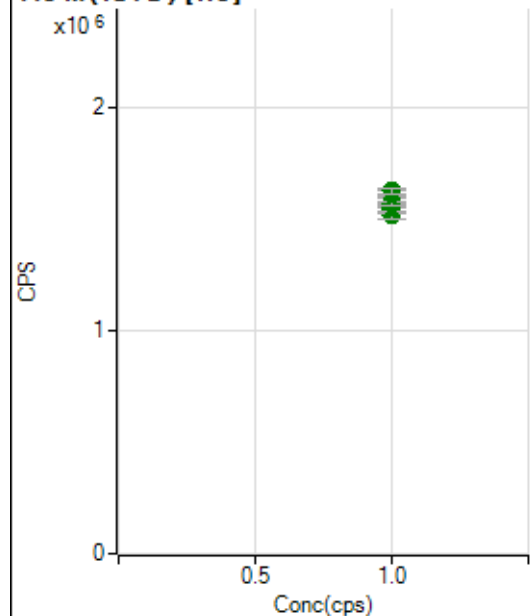
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8179104.00		A	2.5
2	☐	1.000		8172537.25		A	1.3
3	☐	1.000		7970651.48		A	0.7
4	☐	1.000		8156129.00		A	2.7
5	☐	1.000		8052715.63		A	1.5
6	☐	1.000		8171418.93		A	1.5
7	☐	1.000		8199026.75		A	3.1
8	☐	1.000		7858412.16		A	1.7

103 Rh (ISTD) [He]

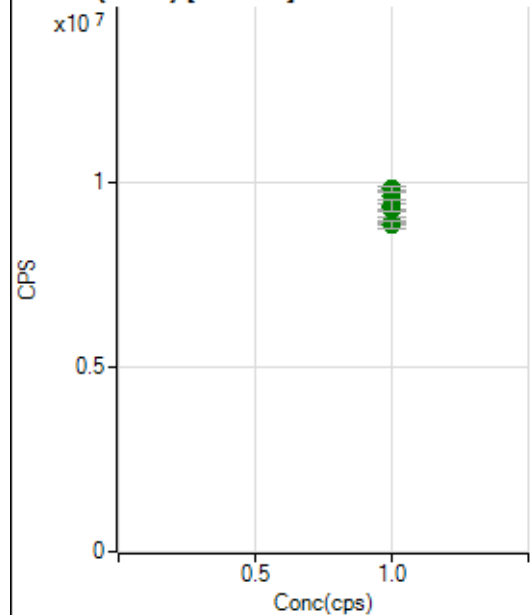
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4152505.49		A	2.3
2	☐	1.000		4072716.09		A	2.3
3	☐	1.000		4110452.09		A	2.3
4	☐	1.000		4138334.04		A	1.8
5	☐	1.000		4157266.22		A	1.2
6	☐	1.000		4192814.42		A	1.7
7	☐	1.000		4270544.38		A	1.3
8	☐	1.000		4085037.99		A	1.3

115 In (ISTD) [No Gas]

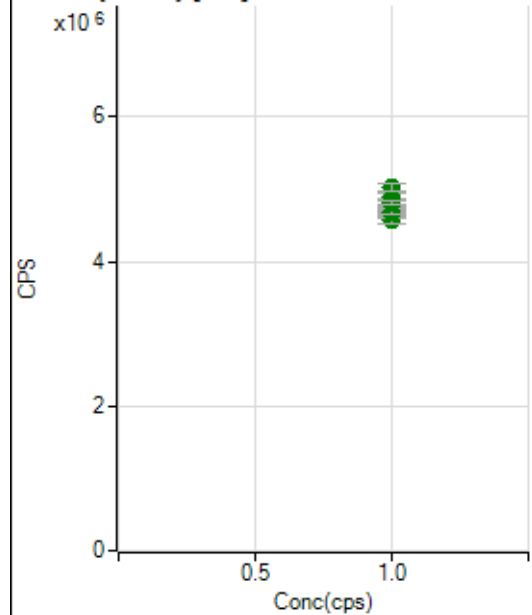
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8221432.01		A	4.7
2	☐	1.000		8235471.11		A	1.1
3	☐	1.000		8033689.33		A	2.3
4	☐	1.000		8292383.28		A	2.3
5	☐	1.000		8414600.18		A	1.9
6	☐	1.000		8435218.55		A	0.2
7	☐	1.000		8428249.78		A	0.8
8	☐	1.000		8314843.58		A	2.0

115 In (ISTD) [He]

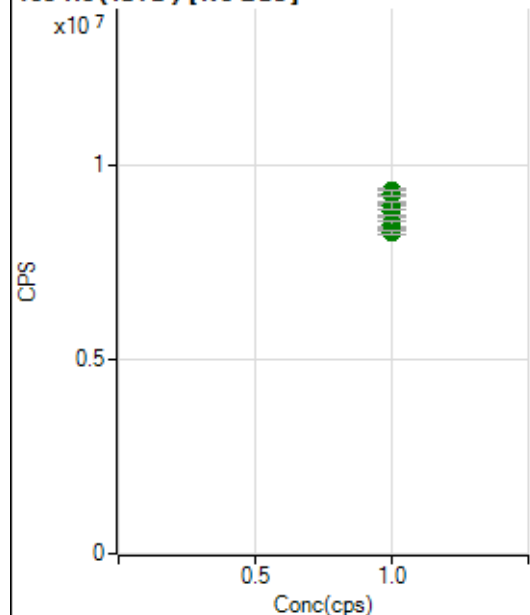
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1567169.70		A	0.4
2	☐	1.000		1545172.58		A	1.1
3	☐	1.000		1516927.66		A	1.4
4	☐	1.000		1581067.74		A	1.7
5	☐	1.000		1551513.39		A	1.7
6	☐	1.000		1572207.79		A	1.3
7	☐	1.000		1617801.08		A	1.7
8	☐	1.000		1628969.11		A	1.9

159 Tb (ISTD) [No Gas]

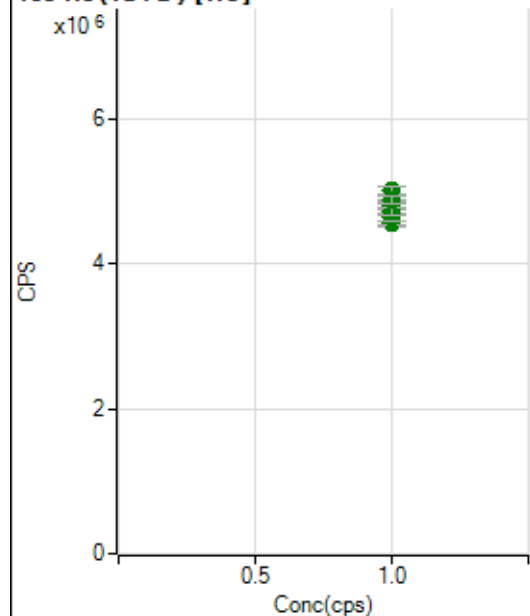
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8962660.70		A	2.5
2	☐	1.000		8851714.24		A	1.6
3	☐	1.000		8874276.95		A	1.8
4	☐	1.000		9286041.05		A	0.2
5	☐	1.000		9352260.97		A	1.6
6	☐	1.000		9644024.37		A	3.6
7	☐	1.000		9851435.55		A	1.6
8	☐	1.000		9399278.40		A	3.8

159 Tb (ISTD) [He]

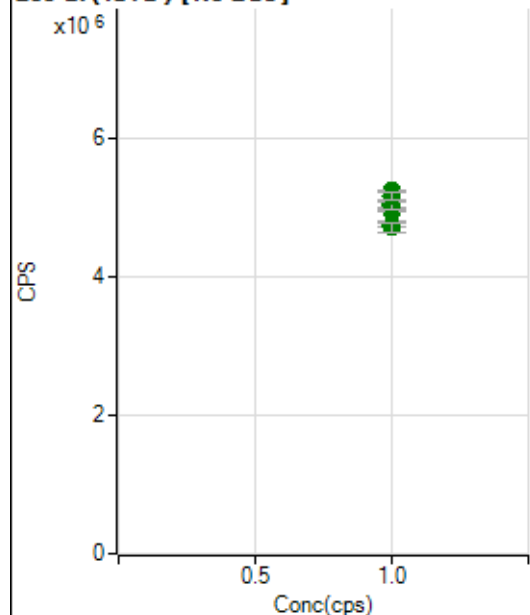
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4650707.08		A	1.6
2	☐	1.000		4634630.07		A	0.8
3	☐	1.000		4566131.15		A	1.9
4	☐	1.000		4733221.04		A	1.6
5	☐	1.000		4690367.29		A	1.5
6	☐	1.000		4904800.10		A	2.0
7	☐	1.000		5017126.11		A	2.2
8	☐	1.000		4807571.70		A	1.4

165 Ho (ISTD) [No Gas]

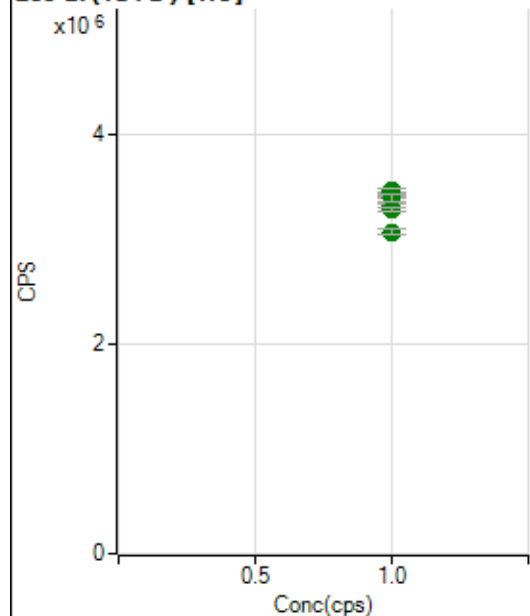
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8555058.70		A	2.8
2	☐	1.000		8471728.05		A	2.5
3	☐	1.000		8263670.06		A	1.0
4	☐	1.000		8984415.13		A	0.9
5	☐	1.000		8830704.97		A	3.0
6	☐	1.000		9345302.99		A	1.7
7	☐	1.000		9267712.36		A	1.6
8	☐	1.000		8963457.32		A	2.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4553079.13		A	1.6
2	☐	1.000		4596197.99		A	2.9
3	☐	1.000		4625056.87		A	2.3
4	☐	1.000		4801362.15		A	2.6
5	☐	1.000		4708825.55		A	2.3
6	☐	1.000		4883930.21		A	1.5
7	☐	1.000		4999408.61		A	2.1
8	☐	1.000		4872410.10		A	2.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5030691.52		A	2.3
2	☐	1.000		4945196.84		A	0.9
3	☐	1.000		4749353.37		A	1.9
4	☐	1.000		5042874.34		A	2.5
5	☐	1.000		5026495.97		A	2.2
6	☐	1.000		5231225.68		A	0.6
7	☐	1.000		5162089.96		A	2.3
8	☐	1.000		4706817.81		A	2.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3281446.62		A	0.8
2	☐	1.000		3312525.02		A	1.1
3	☐	1.000		3280861.90		A	0.8
4	☐	1.000		3415116.13		A	0.5
5	☐	1.000		3457232.83		A	1.1
6	☐	1.000		3440675.23		A	2.8
7	☐	1.000		3395004.01		A	1.9
8	☐	1.000		3068951.38		A	2.0

US EPA Tune Check Report

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\IP8032022 MS.b
Acq. Date-Time 2022-03-20 20:06:00
Report Comment ---
Instrument Name G8403A SG19224459

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		9210	92096.43			1.298	5.000
24		77226	772255.35			2.297	5.000
25		10161	101609.36			0.551	5.000
26		11877	118769.33			1.266	5.000
59		19534	195336.77			1.194	5.000
113		8835	88350.51			0.909	5.000
115		28549	285493.46			3.178	5.000
206		9198	91975.75			1.933	5.000
207		7620	76200.29			1.957	5.000
208		18900	188995.83			2.353	5.000
220		1	6.60			26.998	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

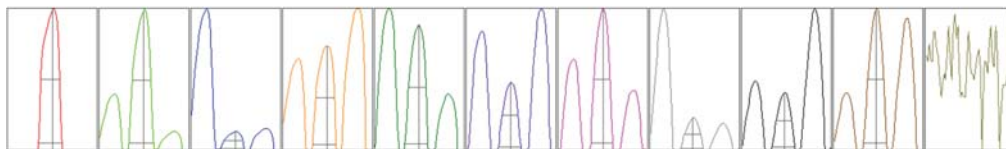
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	9055	9239	9181	9188	9386
24	76592	76842	78567	74807	79320
25	10097	10129	10143	10236	10200
26	11680	11782	11882	12046	11995
59	19191	19544	19568	19517	19848
113	8758	8766	8912	8811	8928
115	29810	29031	28520	27683	27702
206	8993	9078	9339	9160	9418
207	7402	7550	7683	7671	7794
208	18277	18761	18929	19026	19505

US EPA Tune Check Report

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	1	1	1	1	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	15823.20	9.05	8.90 - 9.10	
24	131487.60	24.00	23.90 - 24.10	
25	17155.09	25.00	24.90 - 25.10	
26	19700.92	26.00	25.90 - 26.10	
59	35118.82	59.00	58.90 - 59.10	
113	17383.09	113.00	112.90 - 113.10	
115	56155.96	115.05	114.90 - 115.10	
206	18072.96	205.95	205.90 - 206.10	
207	15062.29	206.95	206.90 - 207.10	
208	37017.44	207.95	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.62	0.782	0.900	
24	0.62	0.826	0.900	
25	0.63	0.791	0.900	
26	0.64	0.786	0.900	
59	0.58	0.772	0.900	
113	0.53	0.746	0.900	
115	0.53	0.732	0.900	
206	0.53	0.747	0.900	
207	0.52	0.773	0.900	
208	0.53	0.776	0.900	
220				

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.73 L/min Dilution Gas 0.40 L/min

US EPA Tune Check Report

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.40 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	8.7 V	Deflect	15.4 V
Extract 2	-145.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-75 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	190 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9991	QP Bias	-4.0 V
Mass Offset	124	Axis Offset	0.01		

Hardware Settings

Torch

Torch H	0.1 mm	Torch V	-0.2 mm
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EM

Discriminator	3.9 mV	Analog HV	2292 V	Pulse HV	1648 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		4745	47451.70			1.209	
89		16871	168713.14			1.594	
205		26281	262812.15			1.302	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	4763	4768	4789	4762	4644
89	17106	16961	16903	16978	16409
205	25999	26364	26657	26529	25858

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.75 L/min	Dilution Gas	0.40 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.40 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	10.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	8.7 V	Deflect	4.4 V
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US EPA Tune Check Report

Extract 2	-145.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-75 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9991	QP Bias	-13.0 V
Mass Offset	124	Axis Offset	0.01		

Hardware Settings

Torch

Torch H	0.1 mm	Torch V	-0.2 mm
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EM

Discriminator	3.9 mV	Analog HV	2292 V	Pulse HV	1648 V
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