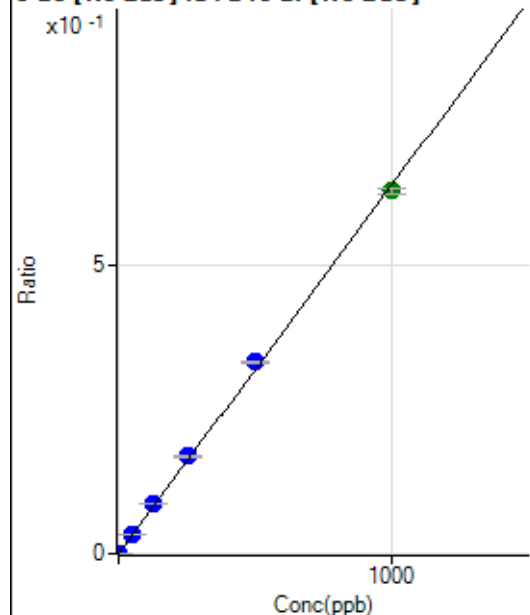


Calibration for 011CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P8020723-MS.b\
 Analysis File: P8020723-MS.batch.bin
 DA Date-Time: 2023-02-07 16:28:20
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2023-02-07 07:59:36
2	005CALS.d	S02	2023-02-07 08:02:47
3	006CALS.d	S03	2023-02-07 08:06:00
4	007CALS.d	S04	2023-02-07 08:09:06
5	008CALS.d	S05	2023-02-07 08:12:14
6	009CALS.d	S06	2023-02-07 08:15:21
7	010CALS.d	S07	2023-02-07 08:18:30
8	011CALS.d	S08	2023-02-07 08:21:36

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	51.66	0.0000	P	13.5
2	☐	1.000	1.033	2020.31	0.0007	P	5.8
3	☐	50.000	51.819	100970.16	0.0331	P	1.6
4	☐	125.000	134.897	261169.12	0.0861	P	0.3
5	☐	250.000	264.210	504744.90	0.1685	P	1.7
6	☐	500.000	520.352	973173.14	0.3319	P	1.1
7	☐	1000.000	984.943	1863230.77	0.6282	A	1.3
8	☐			614.94	0.0002	P	6.5

$$y = 6.3780\text{E-}004 * x + 1.7268\text{E-}005$$

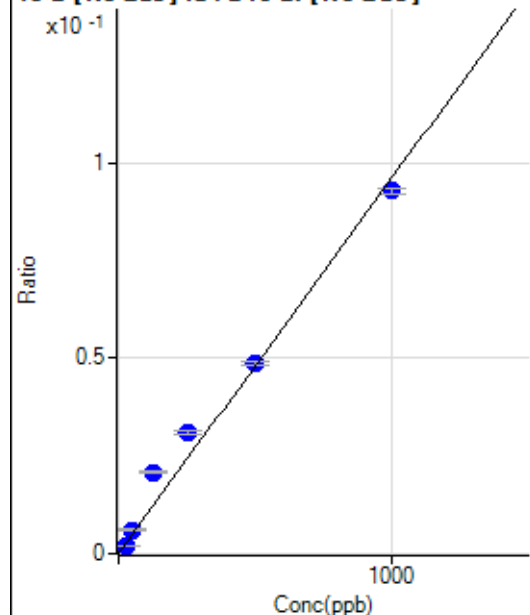
$$R = 0.9995$$

$$DL = 0.01093$$

$$BEC = 0.02707$$

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	172.64	0.0001	P	5.0
2	☐	25.000	20.862	6150.75	0.0021	P	5.3
3	☐	50.000	63.050	18638.80	0.0061	P	3.0
4	☐	125.000	216.008	63034.31	0.0208	P	2.6
5	☐	250.000	321.428	92468.92	0.0309	P	3.7
6	☐	500.000	506.505	142604.66	0.0486	P	2.3
7	☐	1000.000	966.966	275226.86	0.0928	P	1.9
8	☐			18704.88	0.0067	P	6.9

$$y = 9.5900\text{E-}005 * x + 5.7734\text{E-}005$$

$$R = 0.9933$$

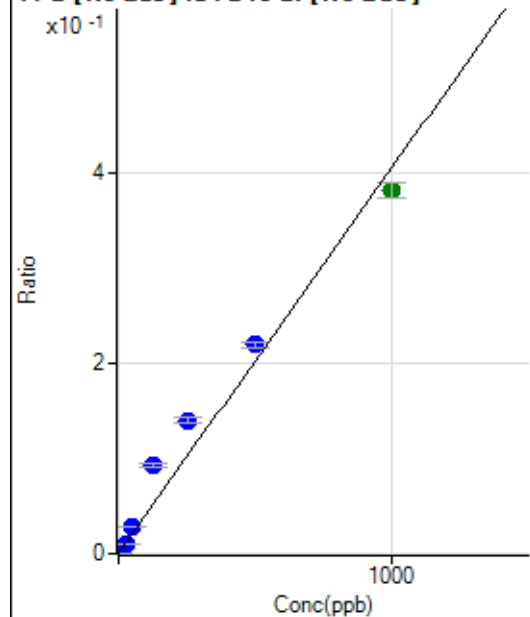
$$DL = 0.0912$$

$$BEC = 0.602$$

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	740.54	0.0002	P	2.7
2	☐	25.000	22.422	27792.04	0.0093	P	4.2
3	☐	50.000	68.450	85132.30	0.0279	P	1.9
4	☐	125.000	229.700	282062.05	0.0930	P	4.4
5	☐	250.000	346.187	419169.35	0.1400	P	4.3
6	☐	500.000	541.445	641603.12	0.2188	P	3.1
7	☐	1000.000	941.286	1127771.96	0.3802	A	4.3
8	☐			84425.08	0.0303	P	7.7

$$y = 4.0364\text{E-}004 * x + 2.4761\text{E-}004$$

$$R = 0.9884$$

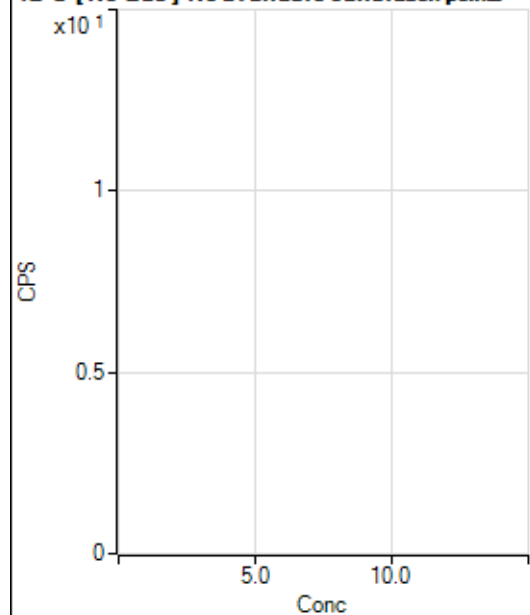
$$DL = 0.04911$$

$$BEC = 0.6134$$

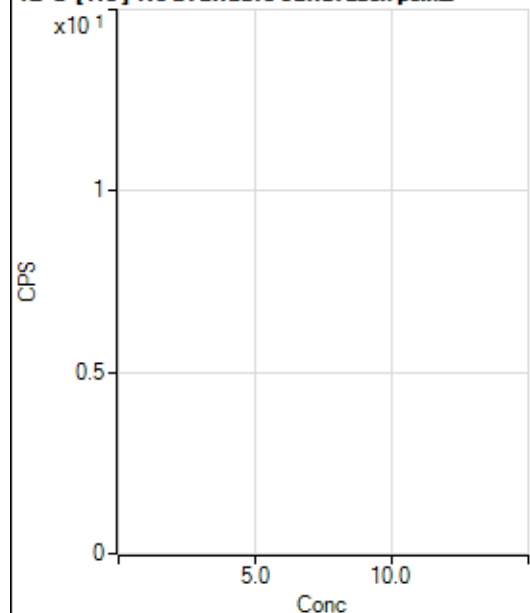
Weight: <None>

Min Conc: 0

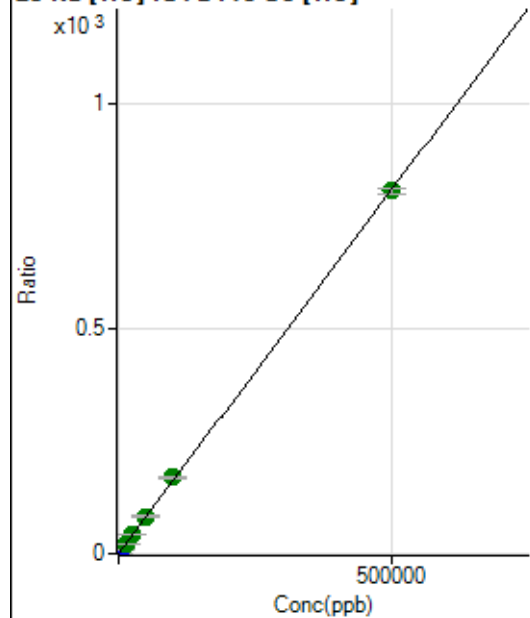
12 C [No Gas] No available calibration points



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			4276323.14		A	0.2
2	☐			4193380.56		A	0.3
3	☐			4151963.59		A	1.0
4	☐			4318944.06		A	1.8
5	☐			4503114.94		A	1.2
6	☐			4771421.46		A	3.0
7	☐			5036918.78		A	1.9
8	☐			4475401.53		A	0.9

12 C [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			45972.49		P	1.2
2	☐			44955.58		P	0.6
3	☐			44300.76		P	1.0
4	☐			47335.37		P	1.3
5	☐			48756.47		P	2.5
6	☐			53090.59		P	0.2
7	☐			57897.95		P	1.4
8	☐			51972.96		P	2.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	13428.75	0.1252	P	4.9
2	☐	500.000	464.410	93368.03	0.8759	P	2.3
3	☐	5000.000	5154.395	916148.88	8.4572	P	2.5
4	☐	12500.000	13830.731	2384713.46	22.4824	A	2.0
5	☐	25000.000	27048.442	4615342.64	43.8487	A	3.2
6	☐	50000.000	51318.368	8584256.87	83.0808	A	1.8
7	☐	100000.00	104811.90	17705205.43	169.5526	A	2.4
8	☐	500000.00	498768.58	81801524.74	806.3797	A	1.4

$$y = 0.0016 * x + 0.1252$$

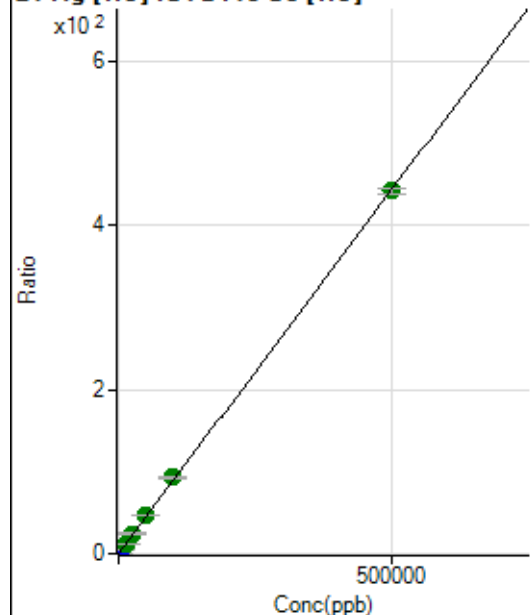
$$R = 0.9999$$

$$DL = 11.36$$

$$BEC = 77.42$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	316.68	0.0030	P	6.3
2	☐	500.000	480.508	45705.70	0.4288	P	2.6
3	☐	5000.000	5223.162	501692.33	4.6314	P	1.7
4	☐	12500.000	13965.810	1313070.36	12.3787	A	1.8
5	☐	25000.000	27575.903	2572507.63	24.4393	A	2.4
6	☐	50000.000	52189.097	4778265.39	46.2502	A	0.9
7	☐	100000.00	104415.96	9662464.11	92.5310	A	1.6
8	☐	500000.00	498730.24	44830736.42	441.9519	A	1.9

$$y = 8.8615\text{E-}004 * x + 0.0030$$

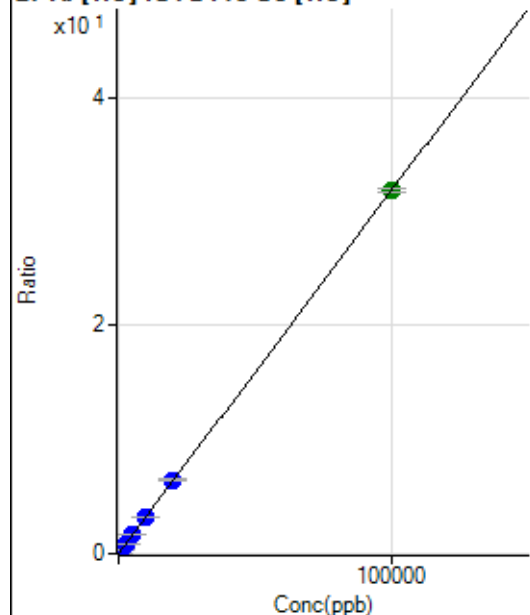
$$R = 1.0000$$

$$DL = 0.6277$$

$$BEC = 3.329$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	82.49	0.0008	P	19.6
2	☐	20.000	19.316	738.26	0.0069	P	4.2
3	☐	1000.000	1028.713	35591.74	0.3286	P	0.8
4	☐	2500.000	2693.336	91121.58	0.8590	P	1.7
5	☐	5000.000	5324.635	178681.74	1.6975	P	2.1
6	☐	10000.000	10114.631	333071.55	3.2239	P	0.4
7	☐	20000.000	20361.193	677620.61	6.4890	P	3.1
8	☐	100000.00	99894.946	3229371.73	31.8331	A	1.0

$$y = 3.1866\text{E-}004 * x + 7.6790\text{E-}004$$

$$R = 1.0000$$

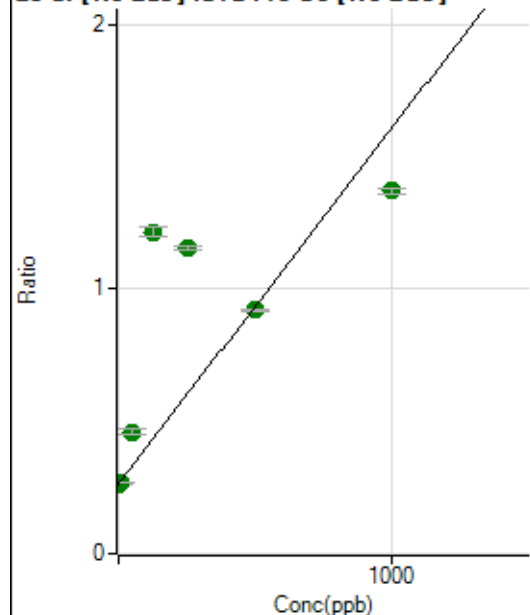
$$DL = 1.414$$

$$BEC = 2.41$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	936091.34	0.2636	A	0.4
2	☐	10.000	2.808	953597.08	0.2673	A	1.4
3	☐	50.000	146.270	1679483.26	0.4600	A	3.9
4	☐	125.000	708.082	4330811.43	1.2148	A	3.1
5	☐	250.000	663.776	4189585.86	1.1552	A	0.9
6	☐	500.000	488.361	3225180.65	0.9196	A	1.0
7	☐	1000.000	824.749	4894062.09	1.3715	A	1.5
8	☐			1915951.87	0.5556	A	3.7

$$y = 0.0013 * x + 0.2636$$

$$R = 0.7158$$

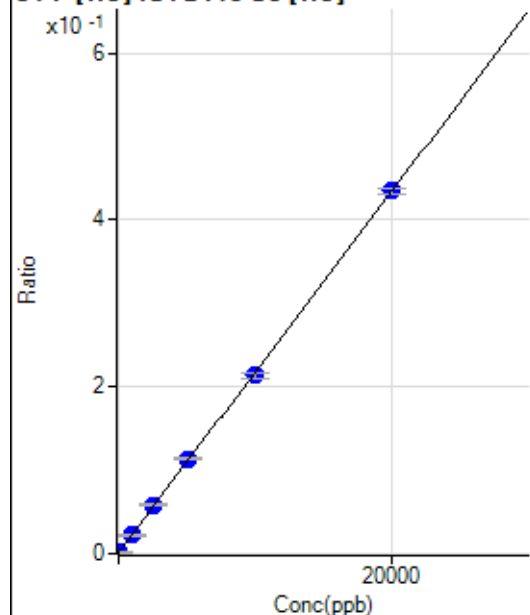
$$DL = 2.402$$

$$BEC = 196.2$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-11.012	88.89	0.0008	P	37.9
2	☐	0.000	11.012	138.89	0.0013	P	29.2
3	☐	1000.000	972.129	2394.71	0.0221	P	7.0
4	☐	2500.000	2627.258	6145.89	0.0579	P	3.5
5	☐	5000.000	5171.723	11899.67	0.1130	P	2.1
6	☐	10000.000	9809.698	22053.48	0.2134	P	2.7
7	☐	20000.000	20037.706	45413.33	0.4349	P	1.4
8	☐			97.23	0.0010	P	8.7

$$y = 2.1649E-005 * x + 0.0011$$

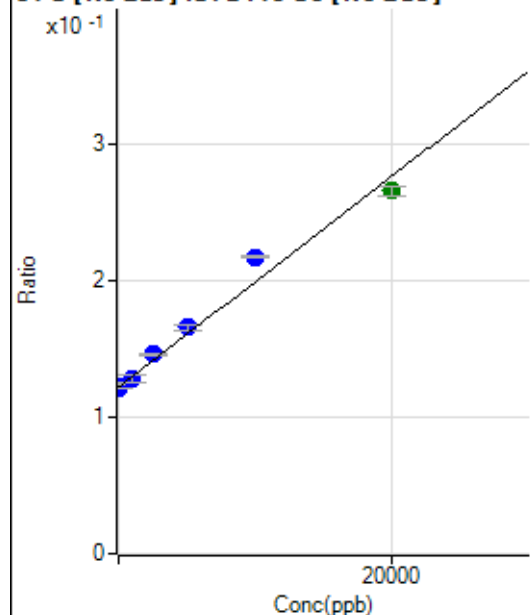
$$R = 0.9999$$

$$DL = 48.09$$

$$BEC = 49.26$$

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	-35.671	432956.27	0.1219	P	1.9
2	☐	0.000	35.671	436830.70	0.1225	P	1.8
3	☐	1000.000	863.135	470365.31	0.1289	P	4.3
4	☐	2500.000	3078.296	520483.57	0.1460	P	1.2
5	☐	5000.000	5627.667	600673.16	0.1656	P	2.0
6	☐	10000.000	12323.850	762303.95	0.2174	P	0.4
7	☐	20000.000	18615.714	948870.51	0.2659	A	2.4
8	☐			385773.74	0.1119	P	3.5

$$y = 7.7218\text{E-}006 * x + 0.1222$$

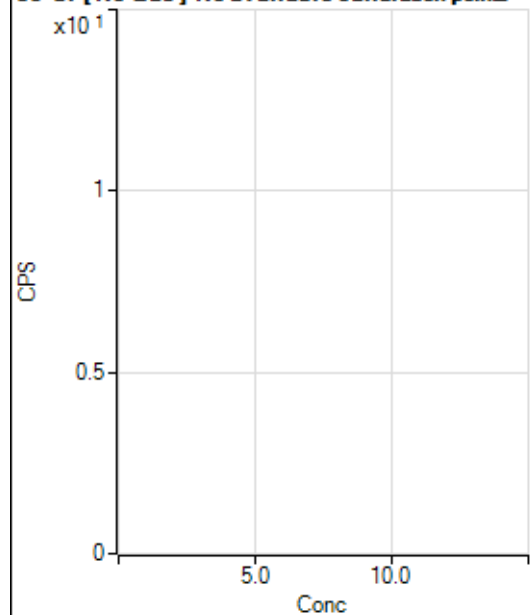
$$R = 0.9883$$

$$DL = 878.9$$

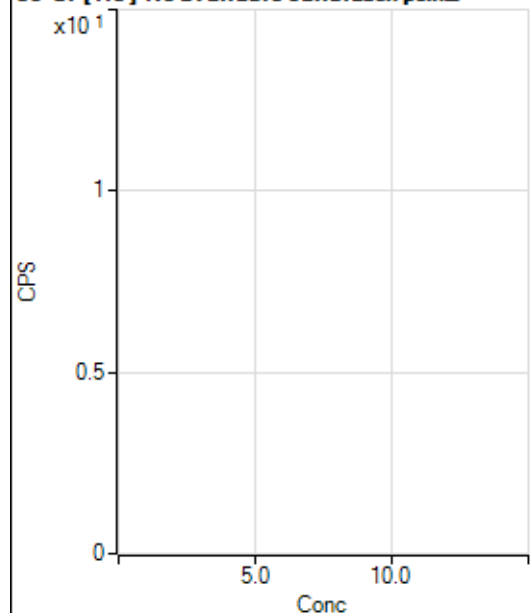
$$BEC = 1.582\text{E}+04$$

Weight: <None>

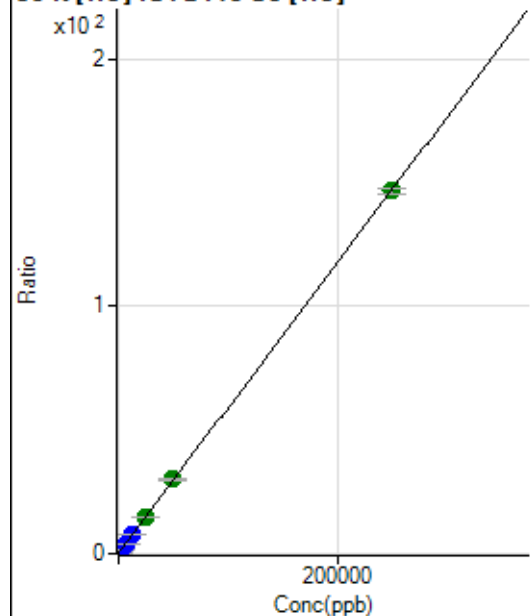
Min Conc: 0

35 Cl [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			105561.03		P	0.2
2	☐			110777.79		P	0.5
3	☐			108745.64		P	2.0
4	☐			110887.21		P	0.7
5	☐			111023.89		P	0.4
6	☐			107895.41		P	1.2
7	☐			111031.92		P	1.1
8	☐			106588.59		P	1.3

35 Cl [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			613.92		P	4.4
2	☐			622.25		P	7.8
3	☐			591.69		P	6.5
4	☐			630.59		P	11.2
5	☐			658.36		P	2.5
6	☐			663.92		P	2.9
7	☐			719.48		P	9.9
8	☐			600.03		P	2.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	20595.66	0.1919	P	1.0
2	☐	500.000	475.543	50182.51	0.4707	P	2.8
3	☐	2500.000	2516.534	180609.76	1.6674	P	0.8
4	☐	6250.000	6622.792	432237.57	4.0751	P	1.4
5	☐	12500.000	13177.097	833508.65	7.9181	P	1.2
6	☐	25000.000	25086.668	1539513.07	14.9010	A	1.0
7	☐	50000.000	51124.651	3149989.05	30.1679	A	2.3
8	☐	250000.00	249723.11	14873783.14	146.6125	A	1.8

$$y = 5.8633\text{E-}004 * x + 0.1919$$

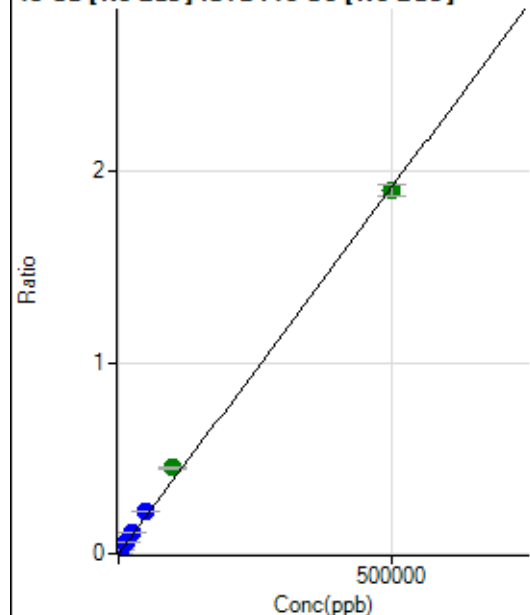
$$R = 1.0000$$

$$DL = 10.21$$

$$BEC = 327.3$$

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	158.31	0.0000	P	15.4
2	☐	500.000	494.542	6924.98	0.0019	P	1.6
3	☐	5000.000	5570.212	78164.34	0.0214	P	3.8
4	☐	12500.000	14879.586	203645.42	0.0571	P	2.1
5	☐	25000.000	28797.958	400724.16	0.1105	P	0.9
6	☐	50000.000	57397.615	772276.63	0.2202	P	1.0
7	☐	100000.00	116971.96	1601197.00	0.4487	A	1.6
8	☐	500000.00	495610.76	6558574.25	1.9009	A	3.3

$$y = 3.8354\text{E-}006 * x + 4.4630\text{E-}005$$

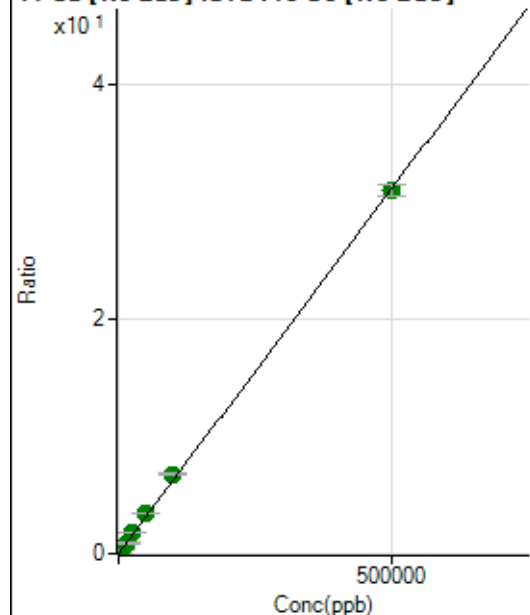
$$R = 0.9993$$

$$DL = 5.389$$

$$BEC = 11.64$$

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	10838.18	0.0031	P	2.9
2	☐	500.000	500.407	121859.82	0.0342	P	1.8
3	☐	5000.000	5343.940	1223948.49	0.3353	A	4.3
4	☐	12500.000	14294.850	3180010.71	0.8918	A	2.9
5	☐	25000.000	27811.620	6281443.37	1.7321	A	1.2
6	☐	50000.000	54789.520	11957945.49	3.4093	A	1.3
7	☐	100000.00	109244.32	24245184.18	6.7947	A	2.1
8	☐	500000.00	497483.29	106716604.7	30.9315	A	3.3

$$y = 6.2170\text{E-}005 * x + 0.0031$$

$$R = 0.9998$$

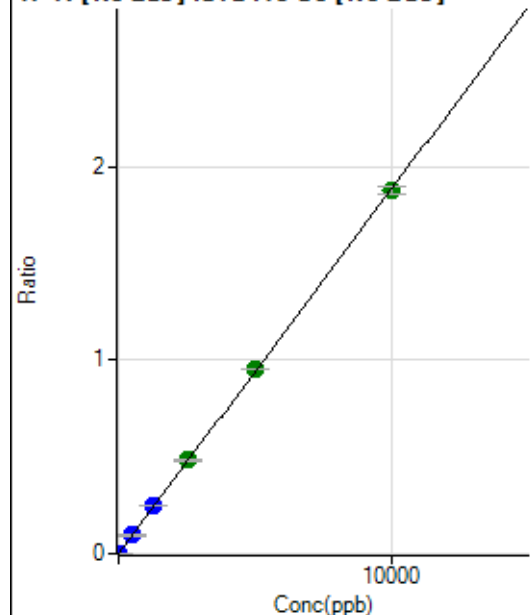
$$DL = 4.236$$

$$BEC = 49.09$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	155.56	0.0000	P	27.4
2	☐	5.000	5.064	3558.87	0.0010	P	8.9
3	☐	500.000	503.019	346317.75	0.0949	P	3.6
4	☐	1250.000	1332.478	895911.75	0.2512	P	0.6
5	☐	2500.000	2558.487	1748934.57	0.4823	A	1.8
6	☐	5000.000	5049.684	3338327.72	0.9518	A	0.4
7	☐	10000.000	9950.076	6692026.32	1.8755	A	2.2
8	☐			5679.06	0.0016	P	2.0

$$y = 1.8849\text{E-}004 * x + 4.3896\text{E-}005$$

$$R = 0.9999$$

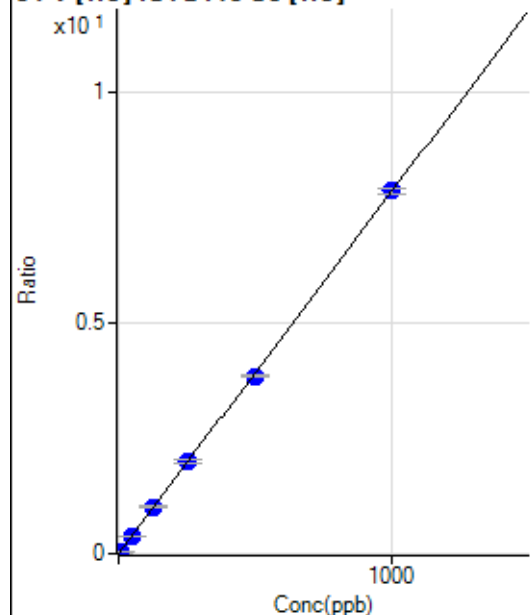
$$DL = 0.1916$$

$$BEC = 0.2329$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	7.78	0.0001	P	49.2
2	☐	5.000	4.684	3919.46	0.0368	P	4.2
3	☐	50.000	48.586	41234.95	0.3807	P	1.4
4	☐	125.000	129.385	107511.56	1.0136	P	2.2
5	☐	250.000	255.348	210550.16	2.0004	P	3.3
6	☐	500.000	490.786	397217.13	3.8447	P	0.9
7	☐	1000.000	1002.794	820304.56	7.8555	P	1.4
8	☐			1402.31	0.0138	P	3.3

$$y = 0.0078 * x + 7.2321\text{E-}005$$

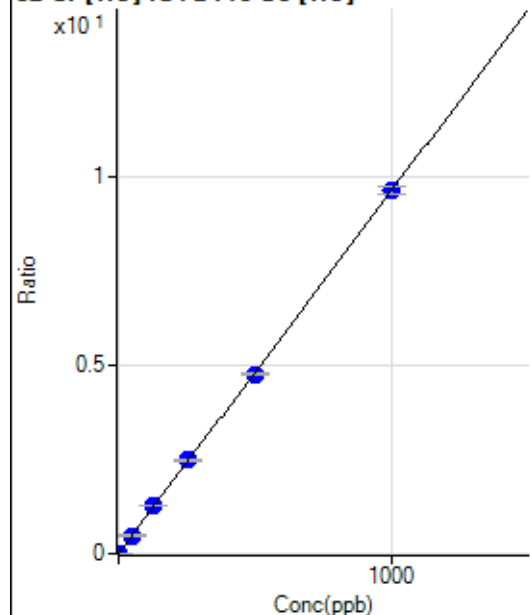
$$R = 0.9999$$

$$DL = 0.01362$$

$$BEC = 0.009232$$

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	362.23	0.0034	P	6.2
2	☐	2.000	1.889	2303.54	0.0216	P	1.7
3	☐	50.000	49.928	52546.32	0.4851	P	1.2
4	☐	125.000	132.369	135823.28	1.2805	P	2.1
5	☐	250.000	257.301	261653.91	2.4859	P	2.8
6	☐	500.000	495.122	493900.68	4.7804	P	1.0
7	☐	1000.000	999.697	1007512.34	9.6486	P	2.0
8	☐			8811.68	0.0869	P	1.7

$$y = 0.0096 * x + 0.0034$$

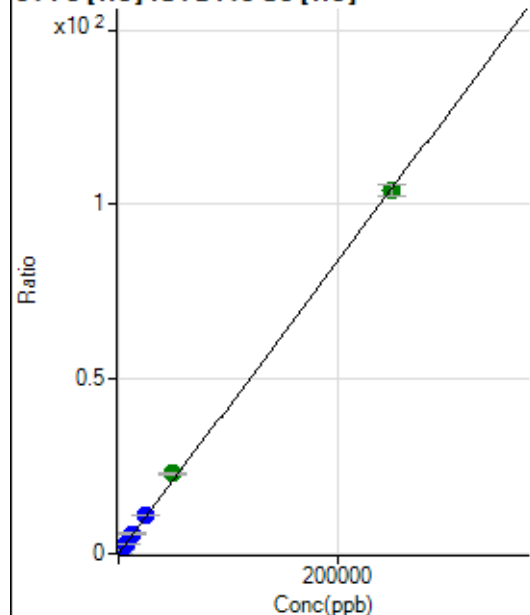
$$R = 0.9999$$

$$DL = 0.0646$$

$$BEC = 0.35$$

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	437.05	0.0041	P	15.9
2	☐	50.000	53.890	2833.67	0.0266	P	2.3
3	☐	2500.000	2662.698	120898.79	1.1161	P	2.3
4	☐	6250.000	7069.050	313570.80	2.9563	P	1.3
5	☐	12500.000	13804.637	607273.61	5.7693	P	2.4
6	☐	25000.000	26813.629	1157415.55	11.2022	P	1.2
7	☐	50000.000	54944.541	2396415.07	22.9505	A	1.8
8	☐	250000.00	248742.39	10538439.01	103.8860	A	3.0

$$y = 4.1763E-004 * x + 0.0041$$

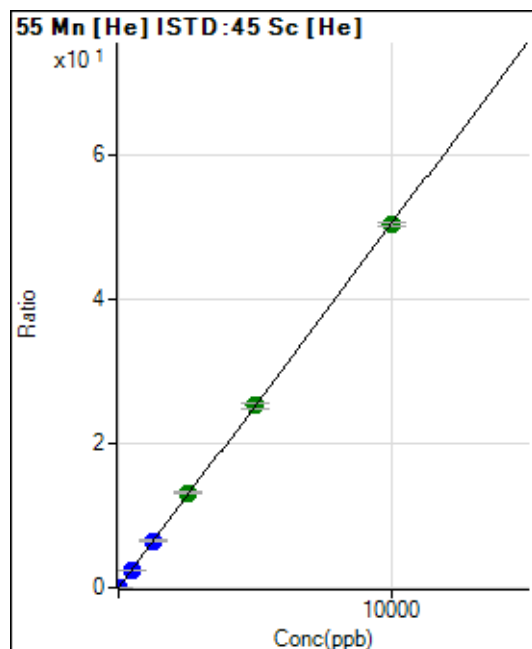
$$R = 0.9998$$

$$DL = 4.645$$

$$BEC = 9.756$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	25.55	0.0002	P	41.7
2	☐	1.000	1.009	567.79	0.0053	P	2.6
3	☐	500.000	491.774	268623.42	2.4798	P	1.8
4	☐	1250.000	1289.009	689450.37	6.4996	P	1.8
5	☐	2500.000	2612.434	1386600.40	13.1725	A	1.5
6	☐	5000.000	5007.737	2608759.53	25.2499	A	2.9
7	☐	10000.000	9963.558	5245988.43	50.2377	A	1.2
8	☐			5714.53	0.0563	P	0.7

$$y = 0.0050 * x + 2.3797E-004$$

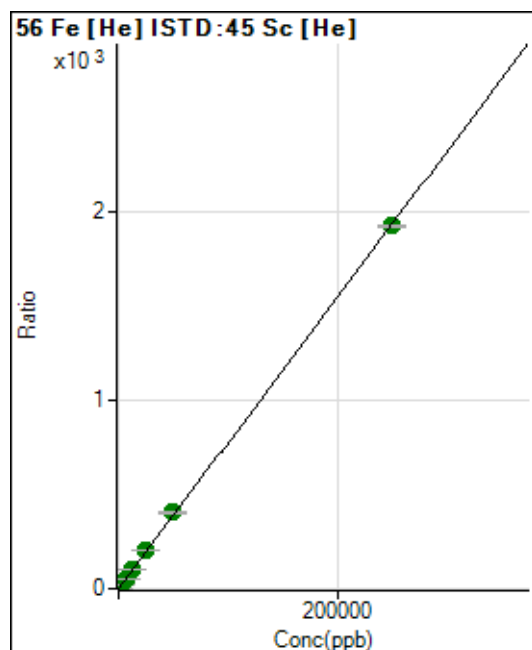
$$R = 0.9999$$

$$DL = 0.05905$$

$$BEC = 0.0472$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2235.40	0.0208	P	5.8
2	☐	50.000	48.481	42049.27	0.3944	P	1.9
3	☐	2500.000	2636.820	2203448.99	20.3409	A	1.7
4	☐	6250.000	6899.735	5642553.19	53.1922	A	2.5
5	☐	12500.000	13437.705	10902518.42	103.5757	A	2.3
6	☐	25000.000	25934.335	20650421.29	199.8783	A	1.0
7	☐	50000.000	52315.445	42104063.44	403.1788	A	2.4
8	☐	250000.00	249378.98	194983980.2	1,921.807	A	0.6

$$y = 0.0077 * x + 0.0208$$

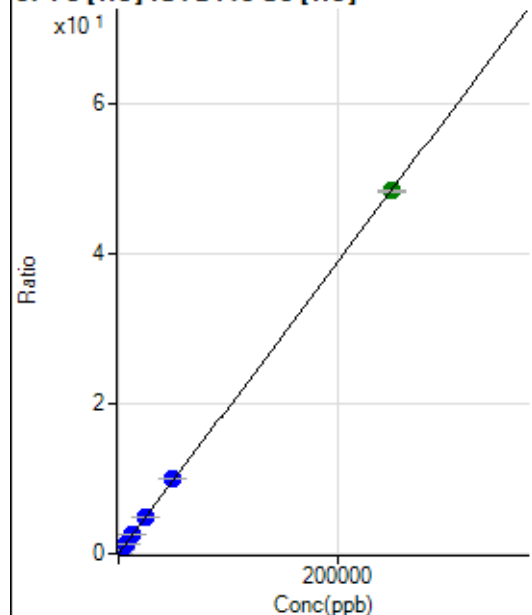
$$R = 1.0000$$

$$DL = 0.4739$$

$$BEC = 2.702$$

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	214.82	0.0020	P	10.4
2	☐	50.000	49.529	1237.11	0.0116	P	8.4
3	☐	2500.000	2598.374	54818.38	0.5061	P	1.4
4	☐	6250.000	6685.454	137779.11	1.2989	P	1.3
5	☐	12500.000	13420.834	274259.49	2.6055	P	2.9
6	☐	25000.000	25566.312	512644.79	4.9616	P	1.6
7	☐	50000.000	51363.347	1040695.02	9.9659	P	1.3
8	☐	250000.00	249612.78	4912875.57	48.4242	A	0.5

$$y = 1.9399\text{E-}004 * x + 0.0020$$

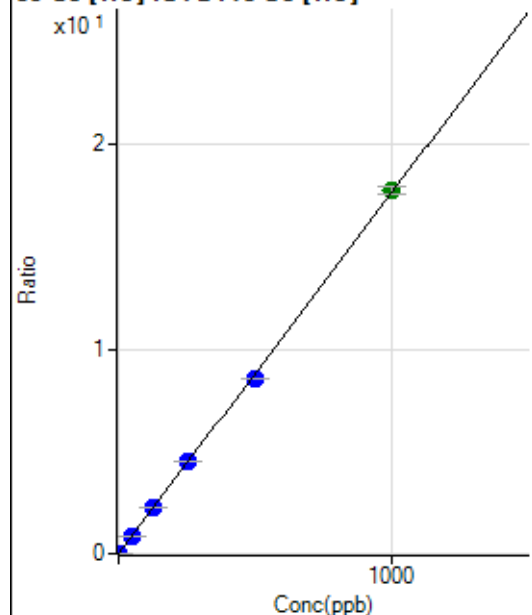
$$R = 1.0000$$

$$DL = 3.204$$

$$BEC = 10.32$$

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	47.78	0.0004	P	11.4
2	☐	1.000	0.990	1909.04	0.0179	P	4.7
3	☐	50.000	48.865	93384.18	0.8621	P	0.6
4	☐	125.000	128.487	240386.68	2.2662	P	2.1
5	☐	250.000	255.201	473763.37	4.5007	P	1.5
6	☐	500.000	486.376	886138.19	8.5772	P	0.4
7	☐	1000.000	1005.133	1850780.37	17.7250	A	2.0
8	☐			1774.57	0.0175	P	10.9

$$y = 0.0176 * x + 4.4547\text{E-}004$$

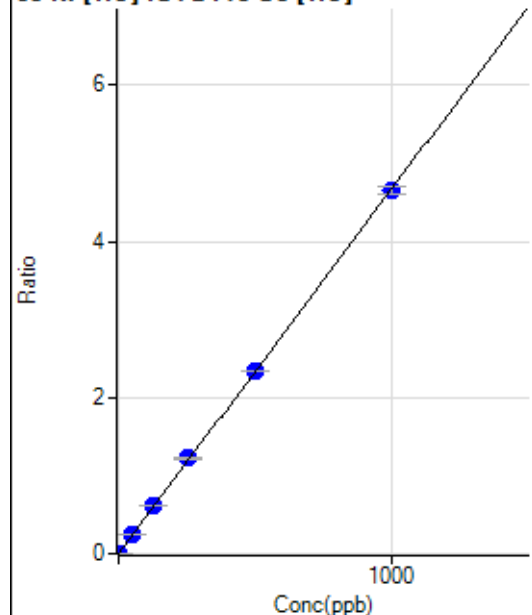
$$R = 0.9998$$

$$DL = 0.008651$$

$$BEC = 0.02526$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	27.78	0.0003	P	28.4
2	☐	1.000	1.133	591.13	0.0055	P	16.5
3	☐	50.000	51.281	25954.90	0.2396	P	0.5
4	☐	125.000	132.707	65732.32	0.6197	P	1.9
5	☐	250.000	262.690	129086.60	1.2264	P	2.6
6	☐	500.000	501.087	241666.14	2.3391	P	0.8
7	☐	1000.000	995.257	485129.47	4.6456	P	2.3
8	☐			1561.22	0.0154	P	3.8

$$y = 0.0047 * x + 2.5915E-004$$

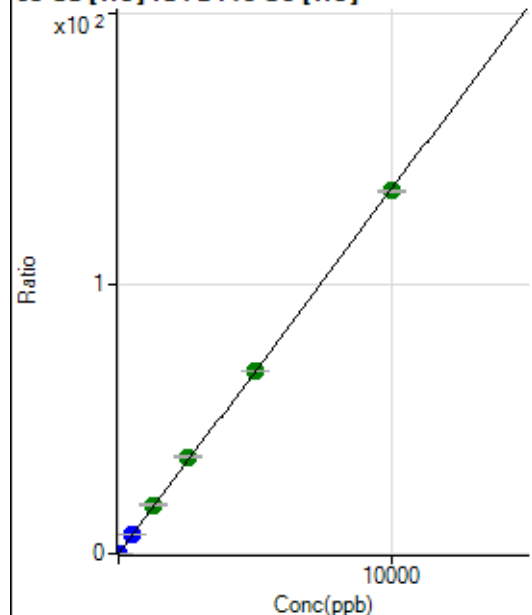
$$R = 0.9999$$

$$DL = 0.04734$$

$$BEC = 0.05552$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	431.12	0.0040	P	4.7
2	☐	2.000	2.106	3462.68	0.0325	P	4.0
3	☐	500.000	502.196	735420.42	6.7893	P	0.4
4	☐	1250.000	1343.447	1925764.62	18.1558	A	0.9
5	☐	2500.000	2648.632	3767365.67	35.7906	A	2.2
6	☐	5000.000	4998.163	6977068.09	67.5358	A	0.4
7	☐	10000.000	9951.970	14041031.18	134.4683	A	0.8
8	☐			5530.02	0.0545	P	3.9

$$y = 0.0135 * x + 0.0040$$

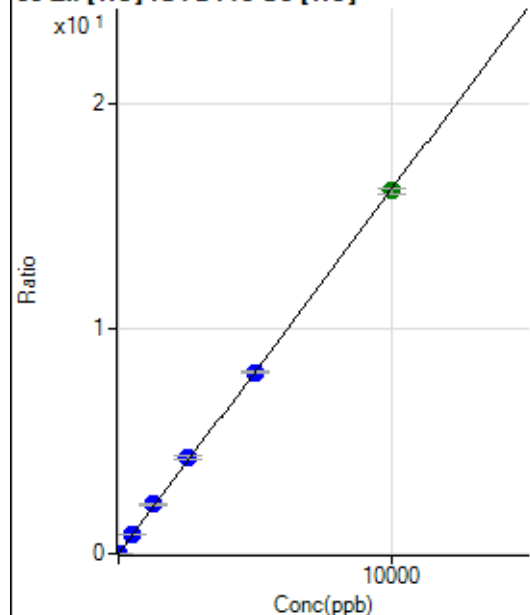
$$R = 0.9998$$

$$DL = 0.04212$$

$$BEC = 0.2974$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138.89	0.0013	P	9.3
2	☐	2.000	2.163	511.13	0.0048	P	4.8
3	☐	500.000	519.323	91157.85	0.8416	P	0.7
4	☐	1250.000	1346.180	231163.32	2.1794	P	1.7
5	☐	2500.000	2643.389	450325.85	4.2783	P	2.6
6	☐	5000.000	4980.757	832725.94	8.0601	P	0.4
7	☐	10000.000	9960.785	1682995.32	16.1178	A	1.8
8	☐			1682.34	0.0166	P	9.6

$$y = 0.0016 * x + 0.0013$$

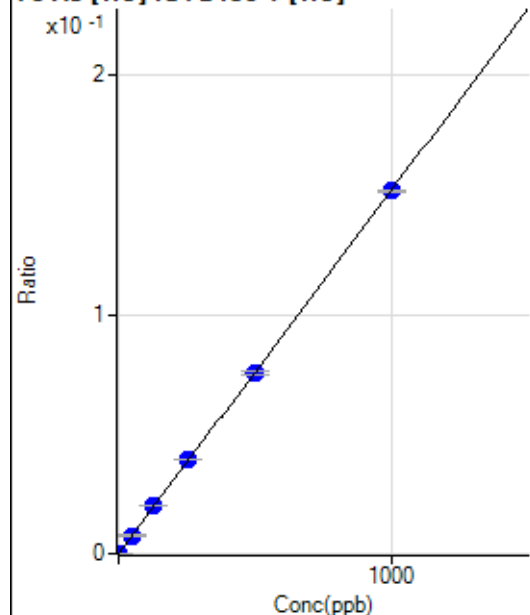
$$R = 0.9999$$

$$DL = 0.223$$

$$BEC = 0.7996$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.67	0.0000	P	41.9
2	☐	1.000	0.989	113.34	0.0002	P	11.5
3	☐	50.000	50.034	5641.70	0.0076	P	2.4
4	☐	125.000	132.600	14508.23	0.0201	P	2.5
5	☐	250.000	259.159	28397.25	0.0394	P	0.3
6	☐	500.000	497.532	53973.53	0.0756	P	1.4
7	☐	1000.000	997.992	108063.03	0.1516	P	0.6
8	☐			111.01	0.0002	P	3.5

$$y = 1.5189E-004 * x + 5.0610E-006$$

$$R = 0.9999$$

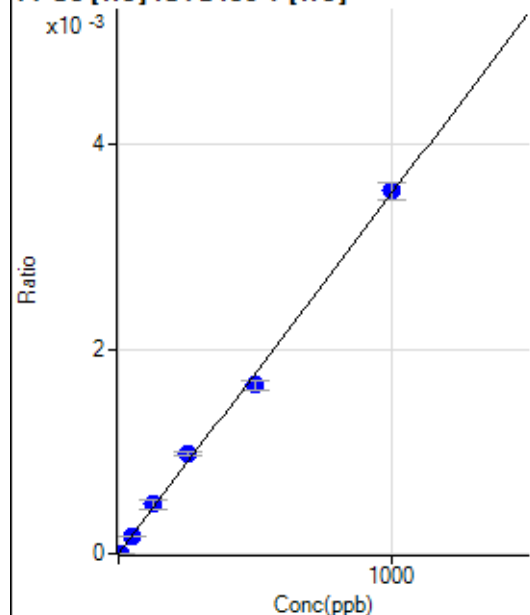
$$DL = 0.04187$$

$$BEC = 0.03332$$

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	0.860	3.33	0.0000	P	100.
3	☐	50.000	47.667	125.56	0.0002	P	9.9
4	☐	125.000	136.570	346.68	0.0005	P	21.1
5	☐	250.000	277.179	704.47	0.0010	P	3.4
6	☐	500.000	468.896	1178.95	0.0017	P	5.6
7	☐	1000.000	1007.449	2526.92	0.0035	P	4.5
8	☐			3.33	0.0000	P	173.

$$y = 3.5178\text{E-}006 * x + 1.5300\text{E-}006$$

$$R = 0.9988$$

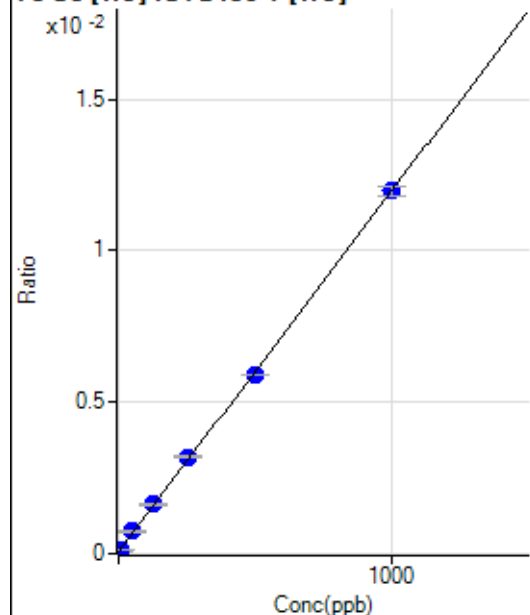
$$DL = 2.26$$

$$BEC = 0.4349$$

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	51.01	0.0001	P	8.7
2	☐	5.000	4.956	94.34	0.0001	P	7.1
3	☐	50.000	55.906	545.40	0.0007	P	5.9
4	☐	125.000	132.143	1182.50	0.0016	P	4.2
5	☐	250.000	262.750	2304.43	0.0032	P	2.1
6	☐	500.000	489.969	4211.39	0.0059	P	0.9
7	☐	1000.000	1000.640	8534.12	0.0120	P	2.9
8	☐			59.68	0.0001	P	8.0

$$y = 1.1891\text{E-}005 * x + 7.0322\text{E-}005$$

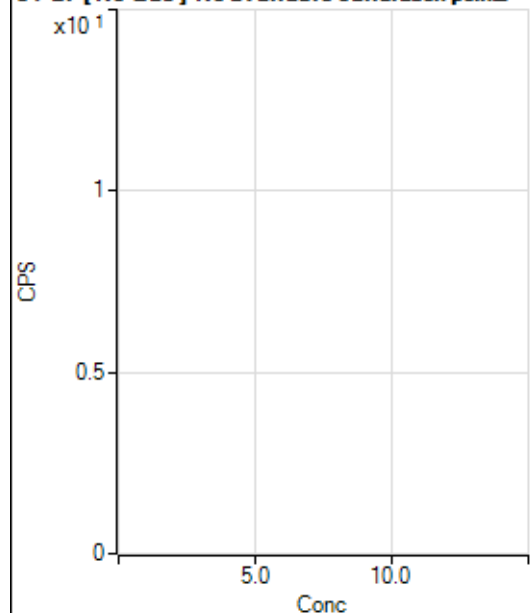
$$R = 0.9998$$

$$DL = 1.541$$

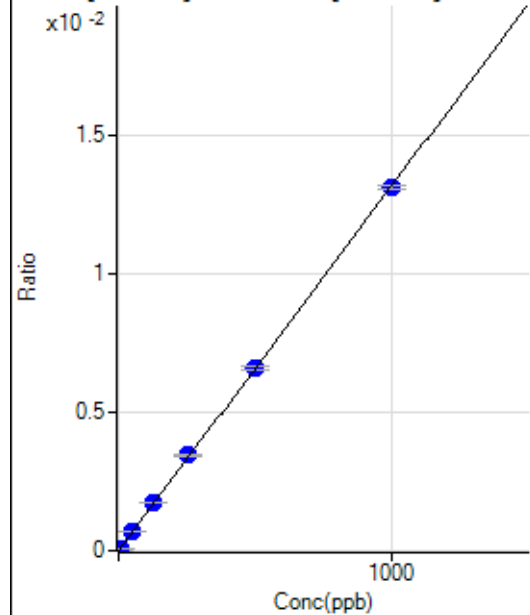
$$BEC = 5.914$$

Weight: <None>

Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33323.94		P	1.9
2	☐			33046.65		P	3.9
3	☐			33869.60		P	2.9
4	☐			32032.87		P	1.0
5	☐			31795.55		P	2.2
6	☐			31986.17		P	2.3
7	☐			31190.13		P	1.4
8	☐			31009.58		P	1.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	11.25	0.0000	P	278.
2	☐	5.000	4.800	462.88	0.0001	P	8.3
3	☐	50.000	51.651	5052.53	0.0007	P	5.7
4	☐	125.000	133.356	12764.16	0.0018	P	0.8
5	☐	250.000	262.934	25061.92	0.0035	P	1.5
6	☐	500.000	500.905	48181.48	0.0066	P	2.6
7	☐	1000.000	995.188	95984.24	0.0131	P	1.2
8	☐			308.31	0.0000	P	2.3

$$y = 1.3152E-005 * x + 1.5958E-006$$

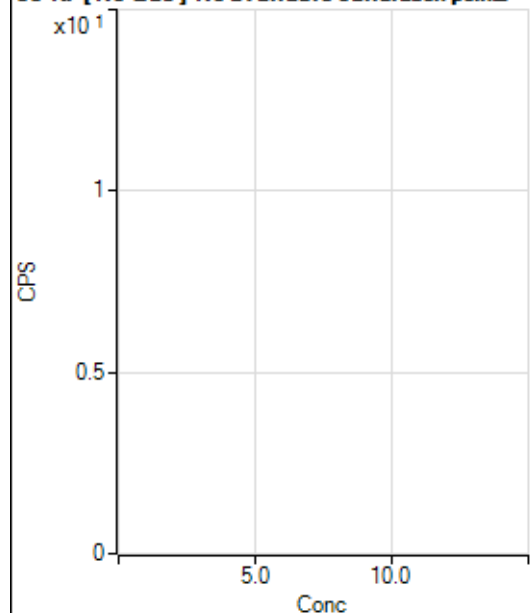
$$R = 0.9999$$

$$DL = 1.012$$

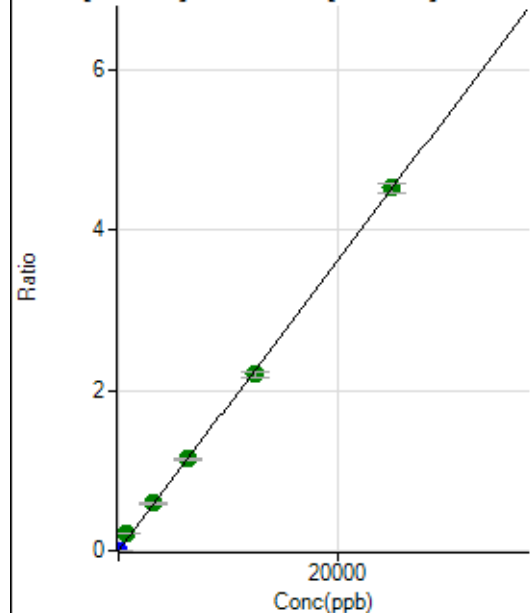
$$BEC = 0.1213$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			392.88		P	4.0
2	☐			372.88		P	10.9
3	☐			420.37		P	5.5
4	☐			403.29		P	4.7
5	☐			389.54		P	11.6
6	☐			362.04		P	2.6
7	☐			377.46		P	2.1
8	☐			372.88		P	8.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	647.26	0.0001	P	8.9
2	☐	1.000	0.948	1872.40	0.0003	P	6.7
3	☐	625.000	1234.139	1654465.02	0.2229	A	3.7
4	☐	3125.000	3262.584	4283672.84	0.5891	A	2.2
5	☐	6250.000	6352.177	8307414.94	1.1468	A	2.1
6	☐	12500.000	12218.926	16128700.01	2.2060	A	3.3
7	☐	25000.000	25082.566	33197035.12	4.5282	A	2.4
8	☐			12583.92	0.0018	P	7.3

$$y = 1.8053E-004 * x + 9.0572E-005$$

$$R = 0.9996$$

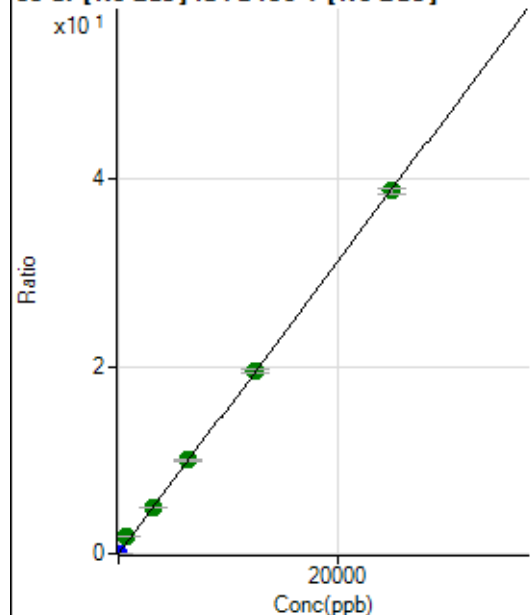
$$DL = 0.1342$$

$$BEC = 0.5017$$

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	183.34	0.0000	P	23.0
2	☐	1.000	0.946	10707.18	0.0015	P	2.4
3	☐	625.000	1220.847	14100237.82	1.8994	A	3.1
4	☐	3125.000	3195.271	36146616.78	4.9711	A	1.5
5	☐	6250.000	6423.845	72390938.42	9.9941	A	1.8
6	☐	12500.000	12526.738	142512012.9	19.4888	A	2.3
7	☐	25000.000	24919.490	284289153.5	38.7690	A	1.4
8	☐			104161.14	0.0147	P	7.9

$$y = 0.0016 * x + 2.5622E-005$$

$$R = 0.9997$$

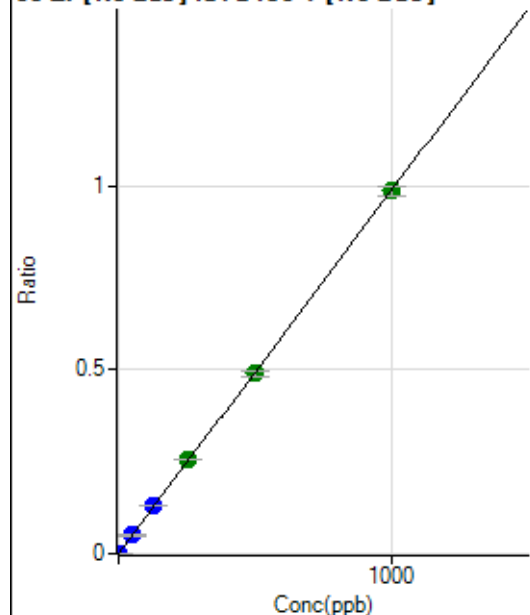
$$DL = 0.01135$$

$$BEC = 0.01647$$

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	280.56	0.0000	P	28.6
2	☐	1.000	0.947	6974.16	0.0010	P	3.2
3	☐	50.000	50.546	371148.81	0.0500	P	3.2
4	☐	125.000	133.186	957374.64	0.1317	P	0.6
5	☐	250.000	259.451	1857817.64	0.2565	A	1.1
6	☐	500.000	495.792	3583374.82	0.4901	A	2.8
7	☐	1000.000	998.691	7236904.24	0.9871	A	2.4
8	☐			2522.53	0.0004	P	16.2

$$y = 9.8835E-004 * x + 3.9257E-005$$

$$R = 0.9999$$

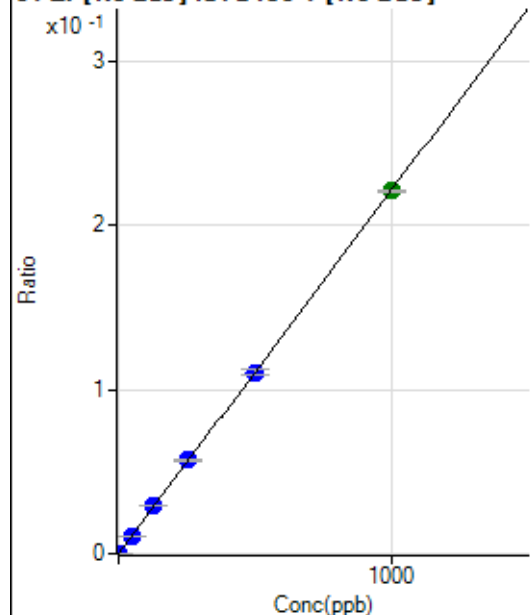
$$DL = 0.03409$$

$$BEC = 0.03972$$

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	30.56	0.0000	P	63.2
2	☐	1.000	0.952	1539.02	0.0002	P	7.8
3	☐	50.000	49.075	80832.39	0.0109	P	1.3
4	☐	125.000	132.176	213127.46	0.0293	P	0.4
5	☐	250.000	256.779	412456.13	0.0569	P	0.9
6	☐	500.000	499.036	809024.44	0.1107	P	3.0
7	☐	1000.000	997.937	1622619.54	0.2213	A	0.5
8	☐			566.69	0.0001	P	2.7

$$y = 2.2173\text{E-}004 * x + 4.2848\text{E-}006$$

$$R = 0.9999$$

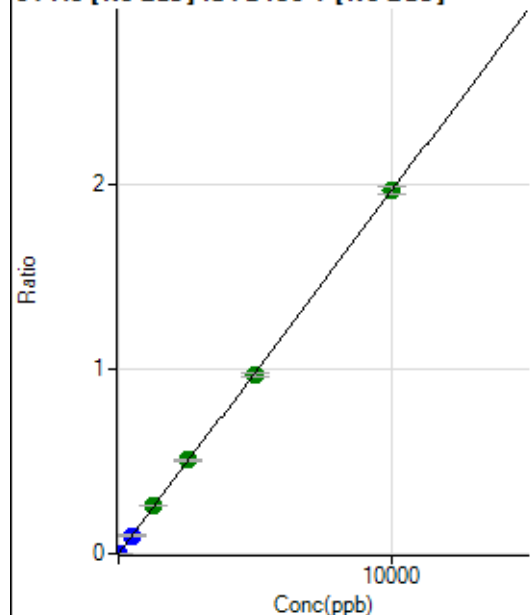
$$DL = 0.03665$$

$$BEC = 0.01932$$

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	77.78	0.0000	P	62.2
2	☐	5.000	5.710	8099.82	0.0011	P	2.3
3	☐	500.000	497.584	726076.53	0.0978	P	3.5
4	☐	1250.000	1309.341	1871385.27	0.2574	A	0.2
5	☐	2500.000	2583.755	3678826.13	0.5079	A	1.6
6	☐	5000.000	4941.101	7103281.75	0.9712	A	1.6
7	☐	10000.000	10001.214	14412973.07	1.9658	A	2.0
8	☐			6290.53	0.0009	P	5.5

$$y = 1.9656\text{E-}004 * x + 1.0850\text{E-}005$$

$$R = 0.9999$$

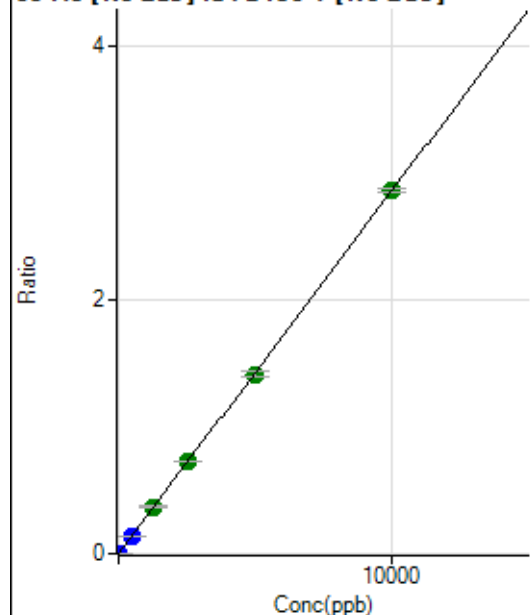
$$DL = 0.1029$$

$$BEC = 0.0552$$

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	13.89	0.0000	P	70.1
2	☐	5.000	5.004	10242.97	0.0014	P	7.0
3	☐	500.000	491.134	1041982.58	0.1404	P	3.5
4	☐	1250.000	1299.749	2701130.75	0.3715	A	1.8
5	☐	2500.000	2548.115	5275567.70	0.7283	A	0.7
6	☐	5000.000	4944.433	10331628.27	1.4132	A	3.5
7	☐	10000.000	10009.980	20977848.73	2.8610	A	1.1
8	☐			8580.69	0.0012	P	3.5

$$y = 2.8581E-004 * x + 1.9488E-006$$

$$R = 1.0000$$

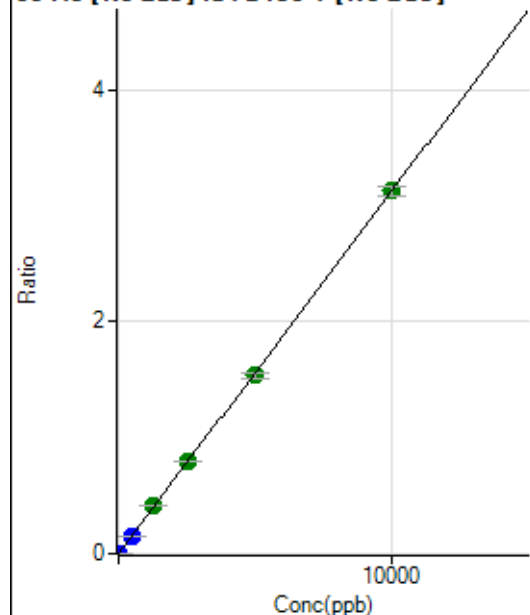
$$DL = 0.01433$$

$$BEC = 0.006818$$

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	102.78	0.0000	P	46.5
2	☐	5.000	4.952	11152.03	0.0016	P	1.4
3	☐	500.000	493.984	1144444.02	0.1542	P	3.2
4	☐	1250.000	1310.113	2972626.82	0.4088	A	1.3
5	☐	2500.000	2554.585	5774627.26	0.7972	A	0.6
6	☐	5000.000	4929.948	11247881.41	1.5384	A	3.5
7	☐	10000.000	10014.167	22910553.98	3.1250	A	2.6
8	☐			15801.17	0.0022	P	0.9

$$y = 3.1206E-004 * x + 1.4390E-005$$

$$R = 0.9999$$

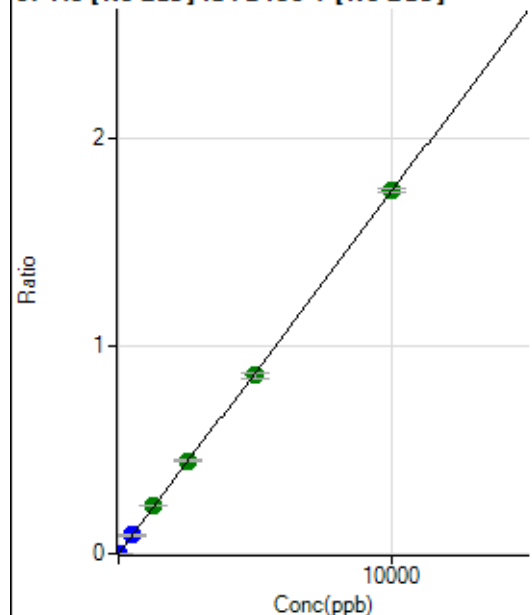
$$DL = 0.06427$$

$$BEC = 0.04611$$

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	11.11	0.0000	P	115.
2	☐	5.000	5.086	6354.40	0.0009	P	3.5
3	☐	500.000	508.367	658432.90	0.0887	P	3.8
4	☐	1250.000	1321.311	1676287.90	0.2306	A	0.9
5	☐	2500.000	2570.302	3248750.23	0.4485	A	1.1
6	☐	5000.000	4913.030	6269445.24	0.8573	A	2.5
7	☐	10000.000	10016.577	12815245.68	1.7477	A	1.1
8	☐			5328.95	0.0008	P	4.6

$$y = 1.7449\text{E-}004 * x + 1.5609\text{E-}006$$

$$R = 0.9999$$

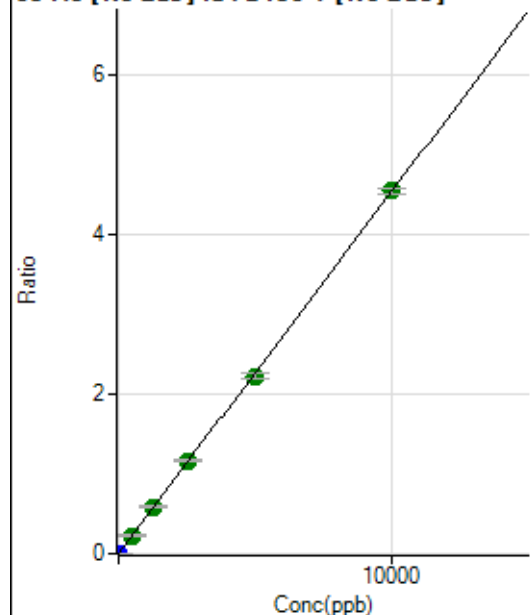
$$DL = 0.0309$$

$$BEC = 0.008946$$

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	25.00	0.0000	P	57.6
2	☐	5.000	4.988	16190.45	0.0023	P	2.7
3	☐	500.000	500.282	1683387.75	0.2268	A	3.7
4	☐	1250.000	1299.484	4282405.09	0.5891	A	3.6
5	☐	2500.000	2568.381	8433693.16	1.1643	A	1.8
6	☐	5000.000	4899.436	16239854.88	2.2210	A	3.6
7	☐	10000.000	10026.987	33324538.25	4.5453	A	1.9
8	☐			13557.04	0.0019	P	0.6

$$y = 4.5331\text{E-}004 * x + 3.4959\text{E-}006$$

$$R = 0.9999$$

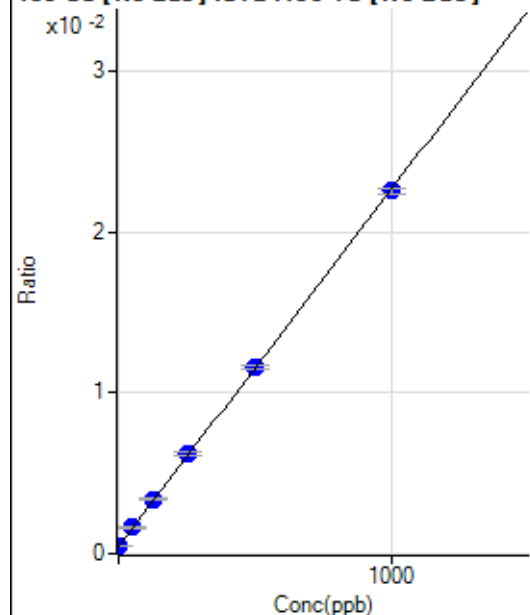
$$DL = 0.01333$$

$$BEC = 0.007712$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2361.38	0.0005	P	6.2
2	☐	1.000	0.081	2408.62	0.0005	P	12.0
3	☐	50.000	52.382	8850.32	0.0016	P	2.8
4	☐	125.000	132.147	18749.30	0.0034	P	2.2
5	☐	250.000	260.709	34449.55	0.0062	P	3.9
6	☐	500.000	502.524	63920.81	0.0116	P	2.3
7	☐	1000.000	995.049	125006.69	0.0225	P	1.5
8	☐			2194.68	0.0004	P	3.0

$$y = 2.2194\text{E-}005 * x + 4.5093\text{E-}004$$

$$R = 0.9999$$

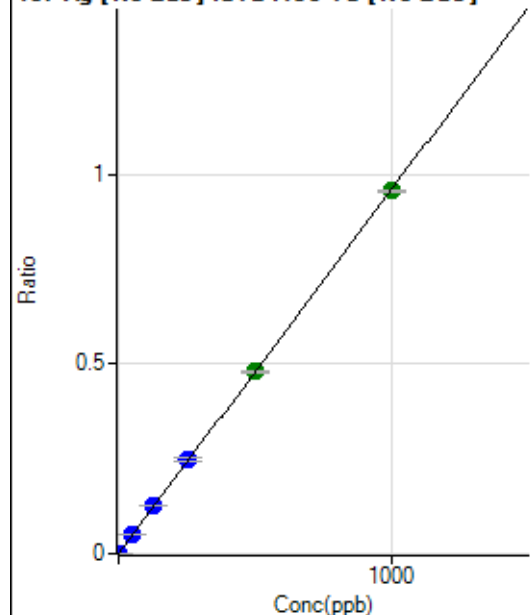
$$DL = 3.801$$

$$BEC = 20.32$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	161.12	0.0000	P	23.5
2	☐	1.000	1.001	5267.82	0.0010	P	5.1
3	☐	50.000	52.277	275198.55	0.0502	P	3.2
4	☐	125.000	130.877	695831.83	0.1256	P	0.8
5	☐	250.000	259.610	1375749.66	0.2491	P	4.0
6	☐	500.000	500.601	2645370.26	0.4802	A	1.3
7	☐	1000.000	996.448	5302615.18	0.9559	A	0.7
8	☐			6587.88	0.0012	P	0.2

$$y = 9.5927\text{E-}004 * x + 3.0771\text{E-}005$$

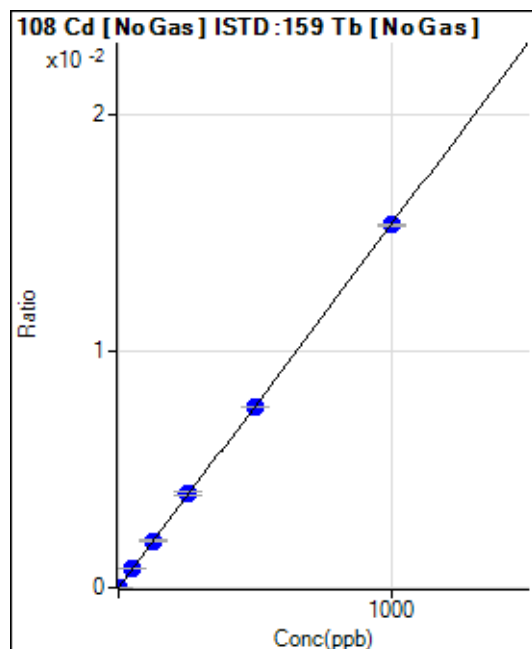
$$R = 0.9999$$

$$DL = 0.02257$$

$$BEC = 0.03208$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	50.0
2	☐	1.000	1.220	108.34	0.0000	P	26.0
3	☐	50.000	51.487	4347.96	0.0008	P	2.7
4	☐	125.000	129.168	11007.28	0.0020	P	1.8
5	☐	250.000	258.677	21964.85	0.0040	P	2.6
6	☐	500.000	498.243	42181.20	0.0077	P	0.5
7	☐	1000.000	998.114	85078.73	0.0153	P	0.9
8	☐			62.50	0.0000	P	11.9

$$y = 1.5364\text{E-}005 * x + 1.5909\text{E-}006$$

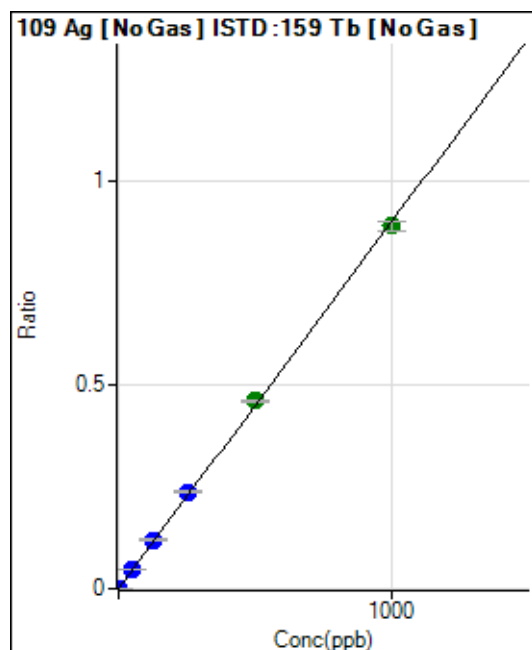
$$R = 1.0000$$

$$DL = 0.1553$$

$$BEC = 0.1035$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	108.34	0.0000	P	27.6
2	☐	1.000	1.002	4909.36	0.0009	P	3.9
3	☐	50.000	52.808	261120.90	0.0476	P	3.5
4	☐	125.000	133.128	664905.69	0.1200	P	1.3
5	☐	250.000	264.127	1315191.35	0.2381	P	2.1
6	☐	500.000	511.632	2540324.88	0.4611	A	1.8
7	☐	1000.000	989.496	4947063.70	0.8918	A	2.5
8	☐			6232.15	0.0012	P	4.8

$$y = 9.0124\text{E-}004 * x + 2.0682\text{E-}005$$

$$R = 0.9998$$

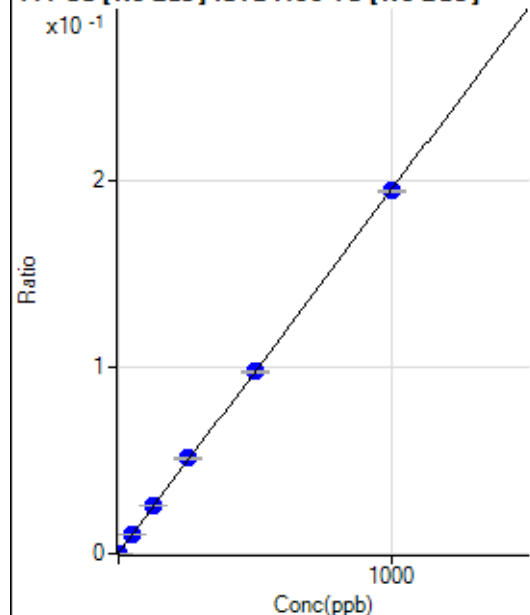
$$DL = 0.01899$$

$$BEC = 0.02295$$

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	1665.19	0.0003	P	5.9
2	☐	1.000	0.923	2646.36	0.0005	P	5.4
3	☐	50.000	52.303	57634.07	0.0105	P	1.0
4	☐	125.000	131.941	144172.61	0.0260	P	1.3
5	☐	250.000	261.083	282712.71	0.0512	P	2.3
6	☐	500.000	499.016	537245.78	0.0975	P	1.3
7	☐	1000.000	996.739	1078857.01	0.1945	P	0.4
8	☐			1971.71	0.0004	P	2.4

$$y = 1.9480\text{E-}004 * x + 3.1798\text{E-}004$$

$$R = 0.9999$$

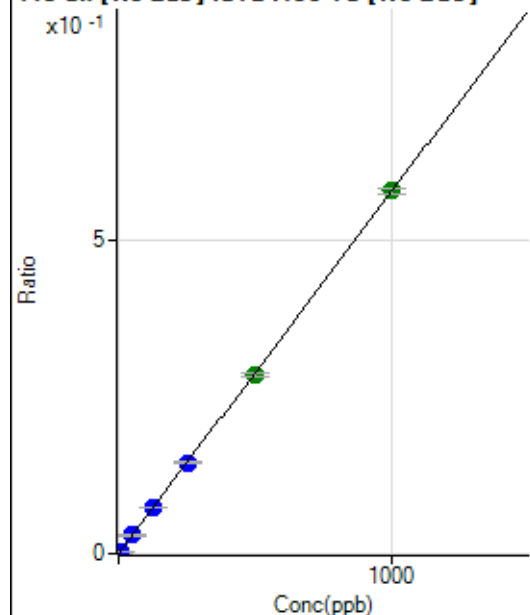
$$DL = 0.2912$$

$$BEC = 1.632$$

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	375.02	0.0001	P	15.5
2	☐	5.000	4.847	15292.32	0.0029	P	5.4
3	☐	50.000	50.513	160647.48	0.0293	P	3.7
4	☐	125.000	128.200	411289.93	0.0742	P	2.3
5	☐	250.000	251.857	805284.56	0.1458	P	3.1
6	☐	500.000	494.343	1575763.71	0.2860	A	1.5
7	☐	1000.000	1001.939	3215719.54	0.5797	A	1.3
8	☐			4692.60	0.0009	P	2.0

$$y = 5.7850\text{E-}004 * x + 7.1610\text{E-}005$$

$$R = 1.0000$$

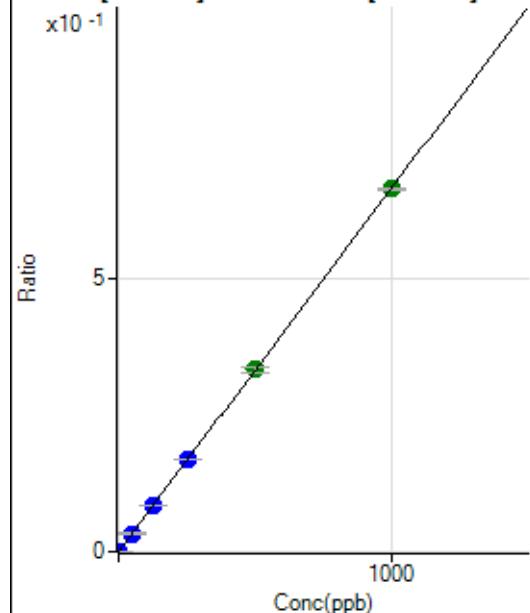
$$DL = 0.0577$$

$$BEC = 0.1238$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	33.33	0.0000	P	74.8
2	☐	2.000	1.921	6832.44	0.0013	P	4.3
3	☐	50.000	49.836	182061.84	0.0332	P	2.6
4	☐	125.000	125.808	464229.07	0.0838	P	2.1
5	☐	250.000	254.100	934858.04	0.1692	P	1.5
6	☐	500.000	501.003	1837860.63	0.3337	A	2.7
7	☐	1000.000	998.381	3688320.14	0.6649	A	0.8
8	☐			17497.73	0.0033	P	2.9

$$y = 6.6596E-004 * x + 6.3562E-006$$

$$R = 1.0000$$

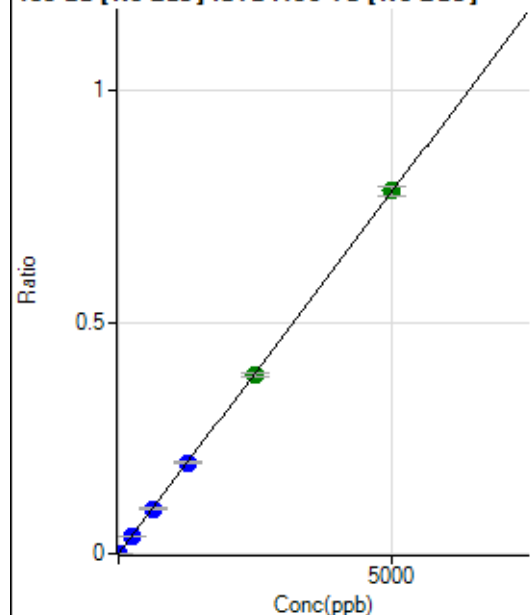
$$DL = 0.02142$$

$$BEC = 0.009544$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	16.67	0.0000	P	50.2
2	☐	10.000	9.096	7571.76	0.0014	P	1.8
3	☐	250.000	244.049	209155.28	0.0381	P	2.3
4	☐	625.000	622.690	539061.94	0.0973	P	1.5
5	☐	1250.000	1256.701	1084716.83	0.1963	P	2.0
6	☐	2500.000	2461.983	2119150.74	0.3847	A	2.2
7	☐	5000.000	5017.921	4349045.28	0.7840	A	2.4
8	☐			5151.15	0.0010	P	7.6

$$y = 1.5624E-004 * x + 3.1857E-006$$

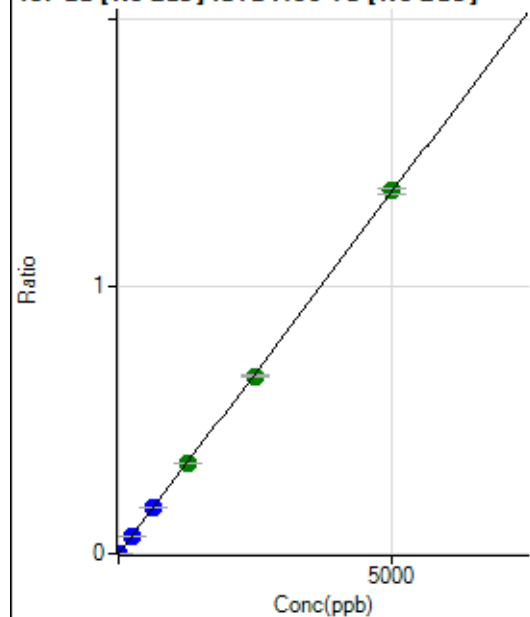
$$R = 1.0000$$

$$DL = 0.03072$$

$$BEC = 0.02039$$

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	19.44	0.0000	P	89.2
2	☐	10.000	9.447	13596.15	0.0026	P	3.1
3	☐	250.000	243.399	360766.95	0.0658	P	3.8
4	☐	625.000	638.802	956637.76	0.1726	P	1.2
5	☐	1250.000	1252.913	1870727.78	0.3386	A	0.8
6	☐	2500.000	2452.194	3651675.65	0.6627	A	1.2
7	☐	5000.000	5021.781	7528831.16	1.3572	A	1.6
8	☐			8917.06	0.0017	P	0.6

$$y = 2.7026E-004 * x + 3.7187E-006$$

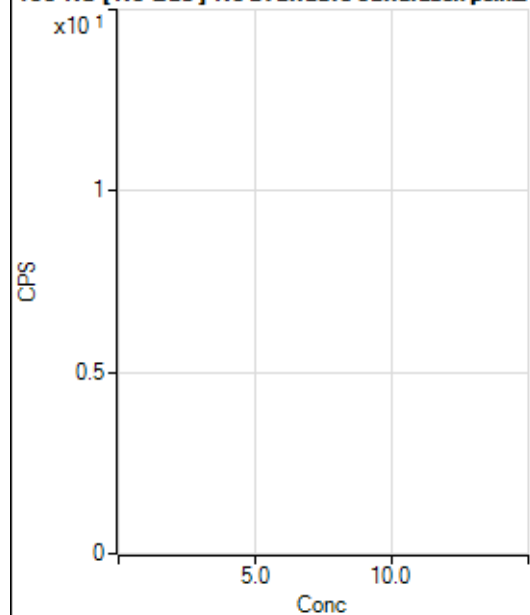
$$R = 0.9999$$

$$DL = 0.03681$$

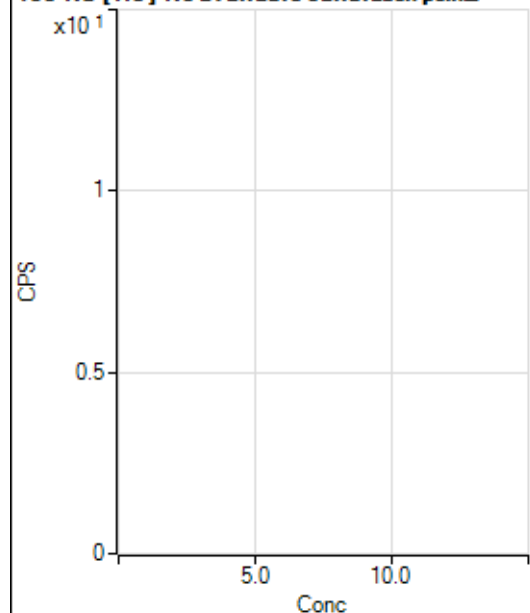
$$BEC = 0.01376$$

Weight: <None>

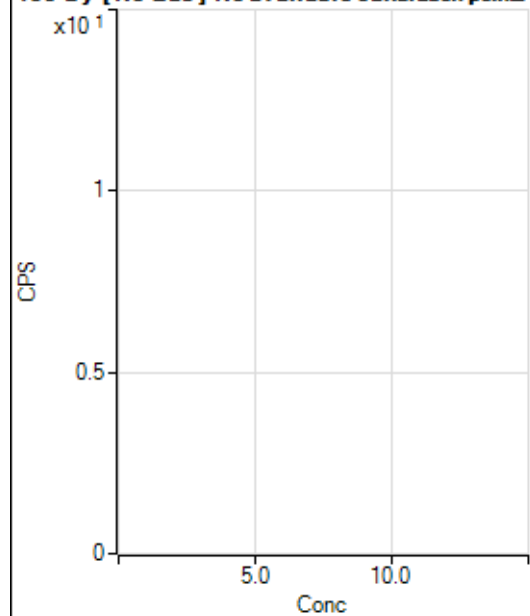
Min Conc: 0

150 Nd [No Gas] No available calibration points

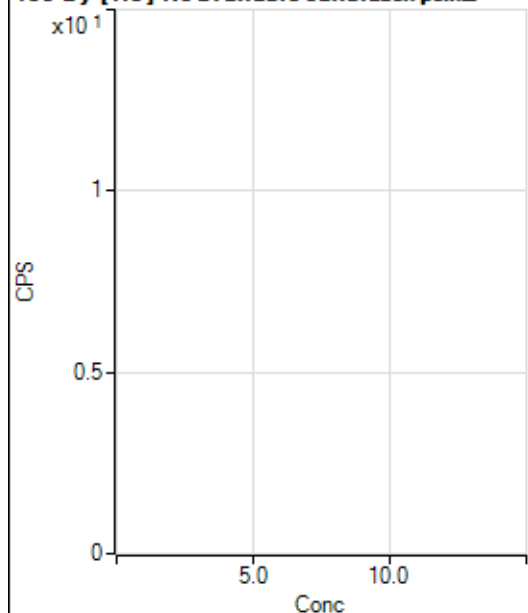
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐			6.67		P	0.0
3	☐			31.11		P	32.7
4	☐			86.67		P	53.3
5	☐			117.78		P	21.4
6	☐			226.67		P	2.9
7	☐			384.46		P	17.1
8	☐			17.78		P	57.3

150 Nd [He] No available calibration points

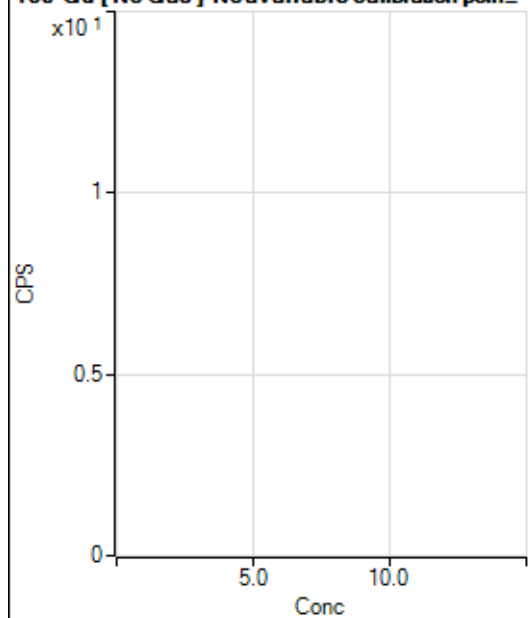
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.
3	☐			2.22		P	173.
4	☐			5.55		P	69.3
5	☐			4.45		P	86.6
6	☐			4.44		P	43.4
7	☐			31.11		P	40.6
8	☐			3.33		P	100.

156 Dy [No Gas] No available calibration points

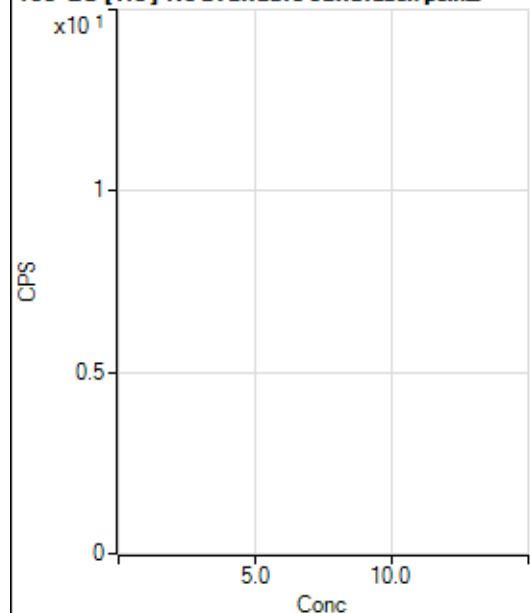
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐			0.00		P	
3	☐			33.33		P	66.1
4	☐			27.78		P	17.3
5	☐			55.55		P	37.8
6	☐			127.78		P	3.8
7	☐			275.01		P	15.2
8	☐			744.48		P	15.9

156 Dy [He] No available calibration points

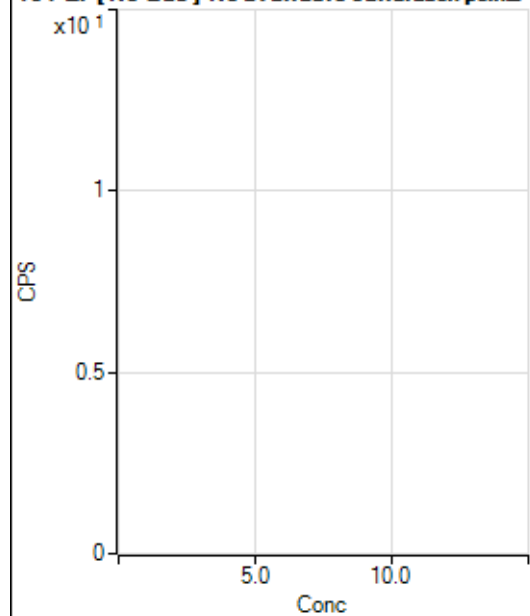
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			4.44		P	43.4
3	☐			2.22		P	86.6
4	☐			16.67		P	80.0
5	☐			35.56		P	27.1
6	☐			52.22		P	13.3
7	☐			112.23		P	21.1
8	☐			326.68		P	8.1

160 Gd [No Gas] Noavailable calibration poin_

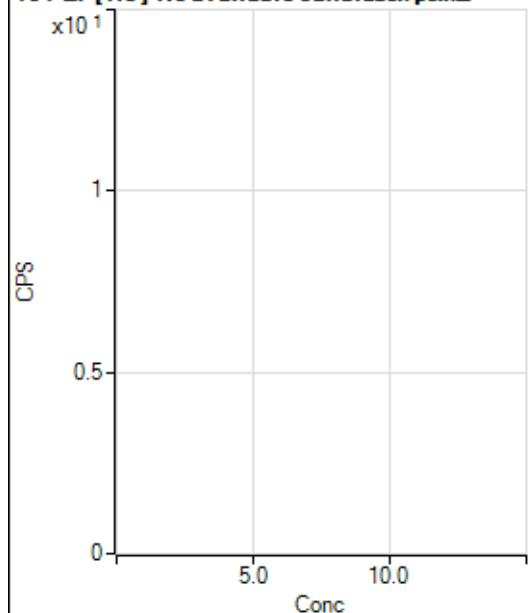
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	24.7
2	☐			30.56		P	41.7
3	☐			66.67		P	21.7
4	☐			61.11		P	55.1
5	☐			77.78		P	16.4
6	☐			108.34		P	7.7
7	☐			247.23		P	23.7
8	☐			838.94		P	6.1

160 Gd [He] No available calibration points

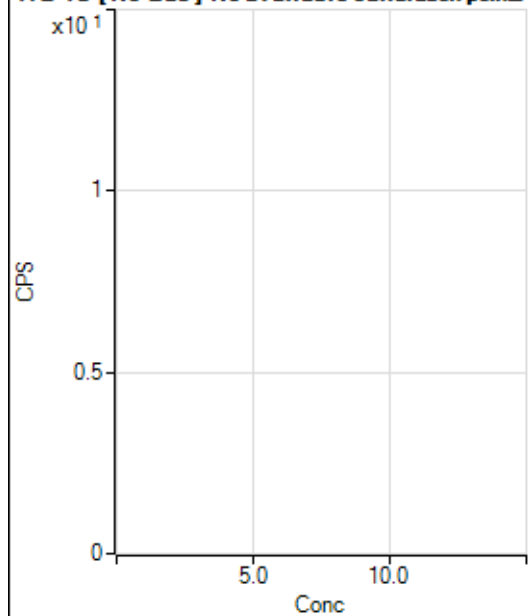
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			90.00		P	19.2
2	☐			57.78		P	16.6
3	☐			64.44		P	28.5
4	☐			57.78		P	23.3
5	☐			81.11		P	2.4
6	☐			98.89		P	25.7
7	☐			157.78		P	15.9
8	☐			381.12		P	4.8

164 Er [No Gas] No available calibration points

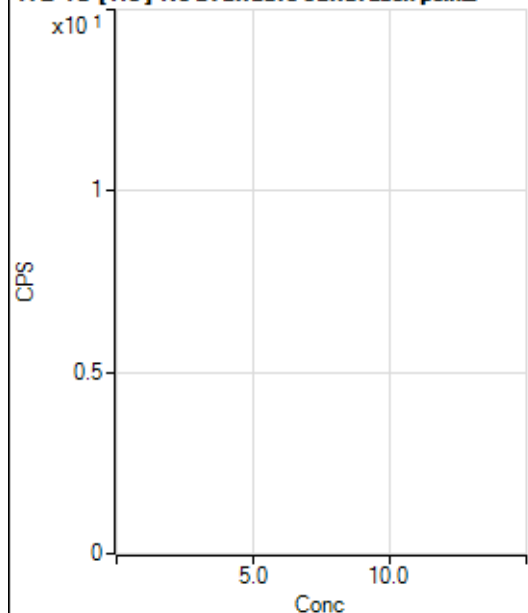
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	74.2
2	☐			47.22		P	10.2
3	☐			36.11		P	13.3
4	☐			16.67		P	50.0
5	☐			55.56		P	17.3
6	☐			58.34		P	37.8
7	☐			66.67		P	0.0
8	☐			105.56		P	4.6

164 Er [He] No available calibration points

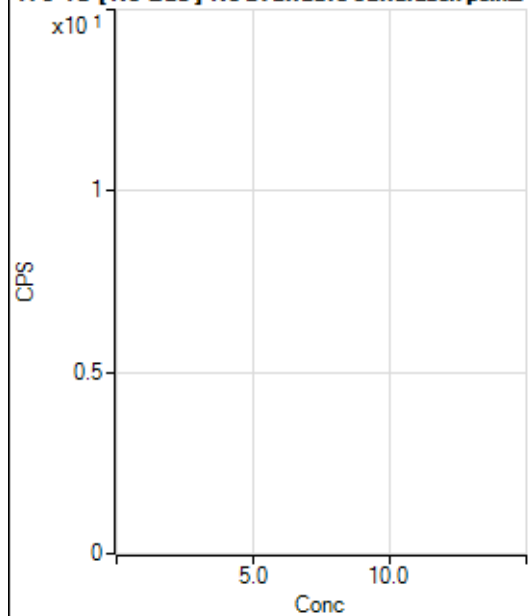
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	NaN
2	☐			14.45		P	48.0
3	☐			11.11		P	45.8
4	☐			17.78		P	28.6
5	☐			18.89		P	27.0
6	☐			20.00		P	44.1
7	☐			22.22		P	34.7
8	☐			26.67		P	0.0

172 Yb [No Gas] No available calibration points

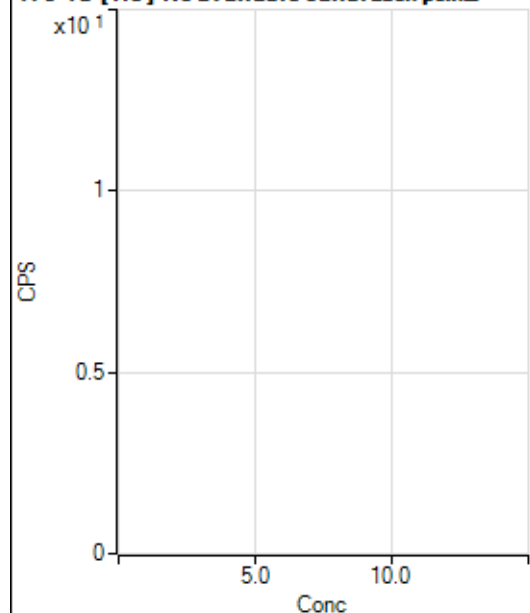
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.44		P	21.7
2	☐			33.33		P	25.0
3	☐			52.78		P	65.7
4	☐			30.56		P	87.7
5	☐			69.45		P	18.3
6	☐			63.89		P	45.8
7	☐			83.34		P	43.6
8	☐			325.01		P	14.3

172 Yb [He] No available calibration points

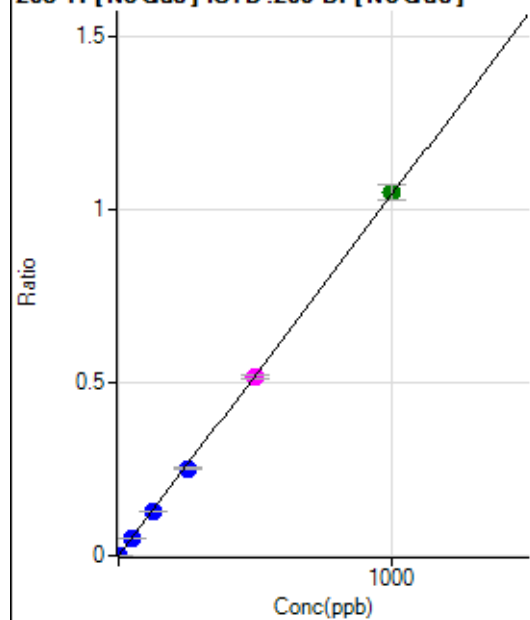
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	33.3
2	☐			29.63		P	28.6
3	☐			14.82		P	21.7
4	☐			16.67		P	57.7
5	☐			12.96		P	89.2
6	☐			24.07		P	87.4
7	☐			44.45		P	50.0
8	☐			155.56		P	7.1

176 Yb [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			766.71		P	7.1
2	☐			755.60		P	4.5
3	☐			1441.80		P	6.5
4	☐			2589.23		P	4.7
5	☐			4339.74		P	2.2
6	☐			8038.77		P	2.5
7	☐			15442.80		P	1.0
8	☐			908.39		P	20.1

176 Yb [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4793.54		P	6.4
2	☐			5001.04		P	4.1
3	☐			5164.06		P	2.5
4	☐			5636.49		P	3.4
5	☐			6527.66		P	4.9
6	☐			7606.00		P	1.6
7	☐			10406.13		P	1.8
8	☐			4947.33		P	1.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	91.67	0.0000	P	31.8
2	☐	1.000	0.893	2989.32	0.0010	P	4.2
3	☐	50.000	47.955	155108.27	0.0501	P	1.0
4	☐	125.000	123.894	407077.81	0.1293	P	1.7
5	☐	250.000	242.185	800233.34	0.2527	P	0.7
6	☐	500.000	493.903	1593091.28	0.5153	M	2.1
7	☐	1000.000	1005.243	3288003.59	1.0488	A	4.3
8	☐			1902.97	0.0007	P	2.9

$$y = 0.0010 * x + 3.0299E-005$$

$$R = 0.9999$$

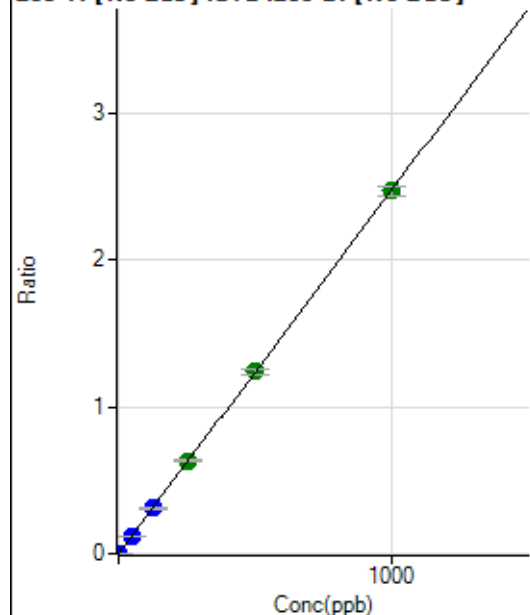
$$DL = 0.02769$$

$$BEC = 0.02904$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	183.34	0.0001	P	19.3
2	☐	1.000	0.934	7371.78	0.0024	P	2.9
3	☐	50.000	48.817	374656.88	0.1209	P	0.3
4	☐	125.000	124.864	973674.29	0.3092	P	1.8
5	☐	250.000	255.892	2006457.66	0.6336	A	1.0
6	☐	500.000	500.500	3830899.31	1.2392	A	2.7
7	☐	1000.000	998.353	7751961.28	2.4718	A	2.8
8	☐			4342.52	0.0015	P	8.6

$$y = 0.0025 * x + 6.0527E-005$$

$$R = 1.0000$$

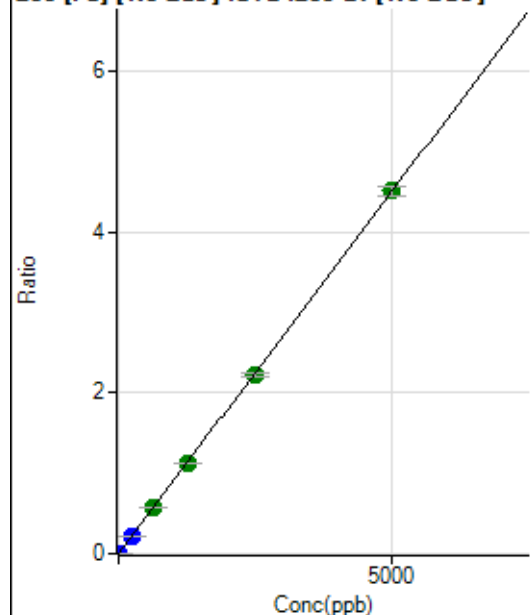
$$DL = 0.01413$$

$$BEC = 0.02445$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	461.13	0.0002	P	12.8
2	☐	1.000	0.788	2672.55	0.0009	P	4.4
3	☐	250.000	229.490	639182.91	0.2063	P	0.9
4	☐	625.000	633.740	1793132.35	0.5695	A	1.2
5	☐	1250.000	1258.903	3581778.44	1.1311	A	0.3
6	☐	2500.000	2462.999	6839036.03	2.2128	A	1.9
7	☐	5000.000	5016.208	14131558.30	4.5064	A	2.8
8	☐			4456.42	0.0016	P	7.5

$$y = 8.9834E-004 * x + 1.5237E-004$$

$$R = 0.9999$$

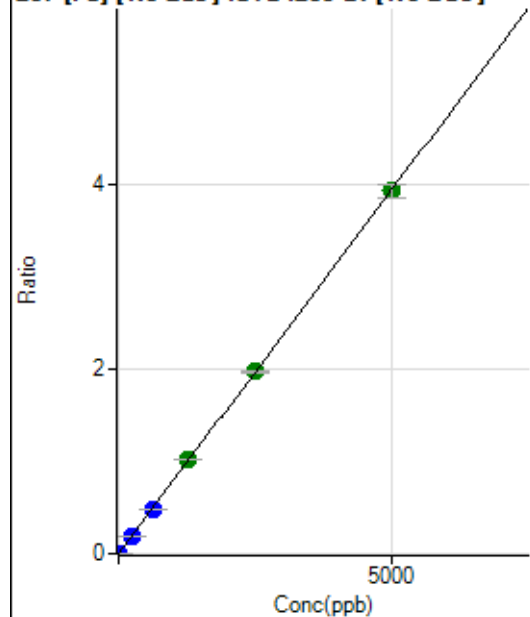
$$DL = 0.06507$$

$$BEC = 0.1696$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	322.23	0.0001	P	12.5
2	☐	1.000	0.831	2361.37	0.0008	P	10.8
3	☐	250.000	235.480	574116.68	0.1853	P	0.8
4	☐	625.000	611.369	1514395.55	0.4810	P	1.8
5	☐	1250.000	1295.262	3226321.74	1.0188	A	1.9
6	☐	2500.000	2503.442	6086454.48	1.9691	A	1.1
7	☐	5000.000	4989.393	12302351.20	3.9243	A	3.6
8	☐			3722.85	0.0013	P	7.2

$$y = 7.8651\text{E-}004 * x + 1.0649\text{E-}004$$

$$R = 0.9999$$

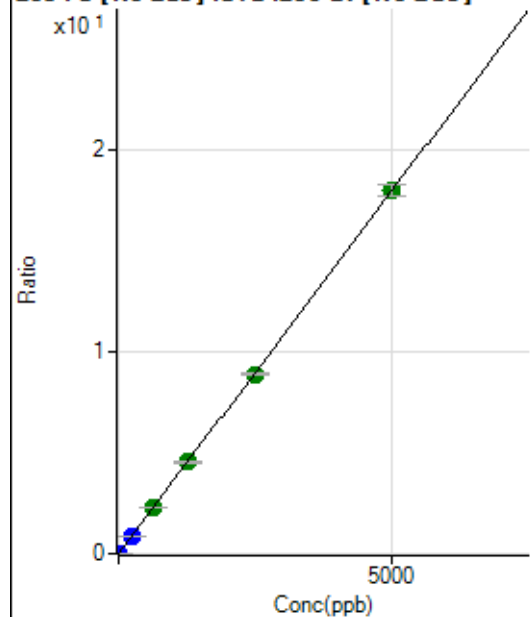
$$DL = 0.05074$$

$$BEC = 0.1354$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1694.52	0.0006	P	5.4
2	☐	1.000	0.816	10826.07	0.0035	P	4.0
3	☐	250.000	233.874	2599653.60	0.8391	P	0.8
4	☐	625.000	630.110	7115254.28	2.2598	A	0.8
5	☐	1250.000	1262.593	14336994.21	4.5275	A	0.7
6	☐	2500.000	2480.599	27491318.15	8.8945	A	1.9
7	☐	5000.000	5006.720	56282192.58	17.9516	A	3.2
8	☐			17521.72	0.0062	P	5.3

$$y = 0.0036 * x + 5.5988\text{E-}004$$

$$R = 1.0000$$

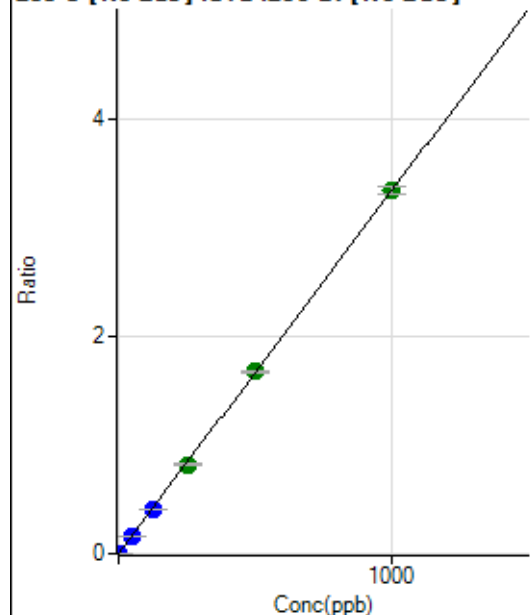
$$DL = 0.02522$$

$$BEC = 0.1562$$

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	22.22	0.0000	P	57.4
2	☐	1.000	0.898	9323.13	0.0030	P	1.6
3	☐	50.000	46.069	475880.85	0.1536	P	2.6
4	☐	125.000	121.031	1270397.57	0.4035	P	1.2
5	☐	250.000	245.960	2596796.80	0.8200	A	0.8
6	☐	500.000	502.717	5181207.19	1.6761	A	1.4
7	☐	1000.000	1000.344	10462285.13	3.3352	A	2.3
8	☐			1511.25	0.0005	P	11.4

$$y = 0.0033 * x + 7.3380E-006$$

$$R = 1.0000$$

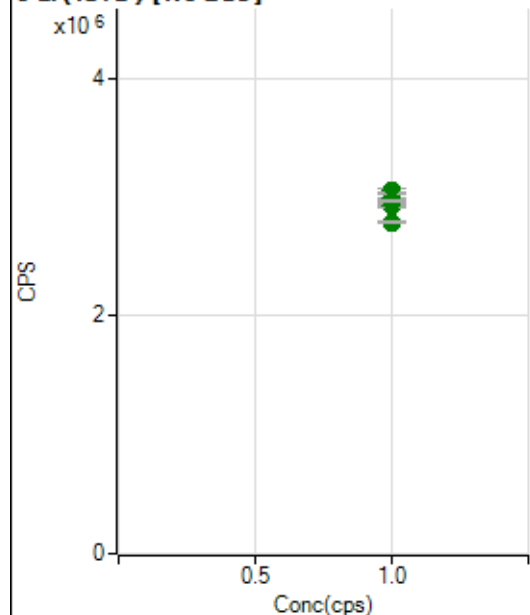
$$DL = 0.003789$$

$$BEC = 0.002201$$

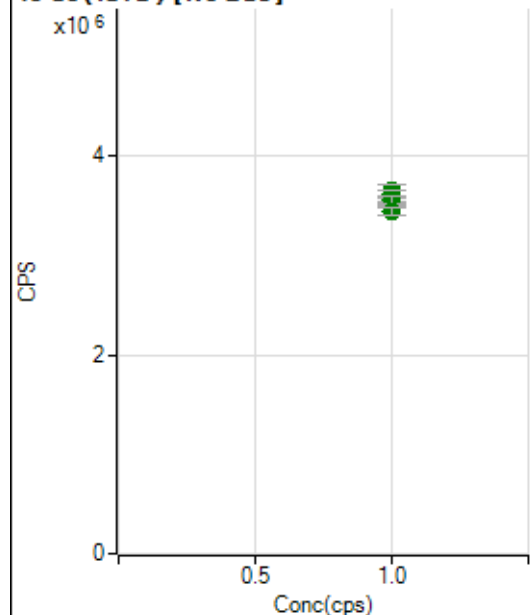
Weight: <None>

Min Conc: 0

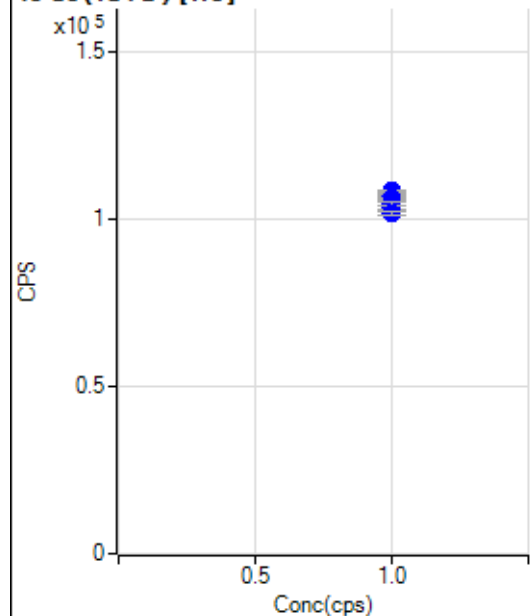
6 Li (ISTD) [No Gas]



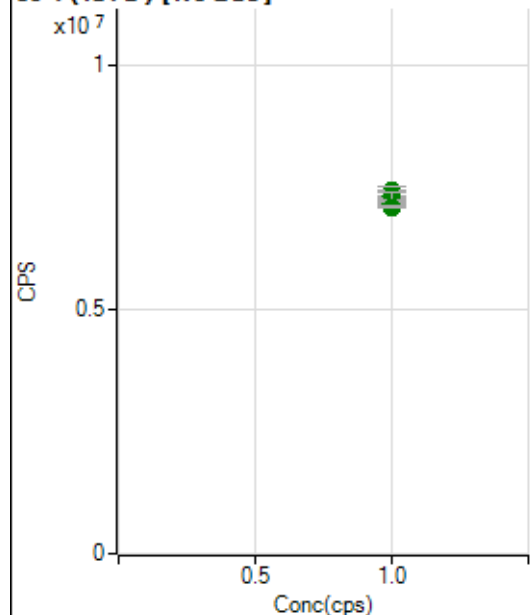
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2990596.81		A	0.4
2	☐	1.000		2990158.58		A	3.6
3	☐	1.000		3053639.18		A	1.2
4	☐	1.000		3034991.15		A	1.0
5	☐	1.000		2995542.23		A	1.8
6	☐	1.000		2932385.10		A	1.3
7	☐	1.000		2965994.67		A	0.4
8	☐	1.000		2789564.98		A	0.5

45 Sc (ISTD) [No Gas]

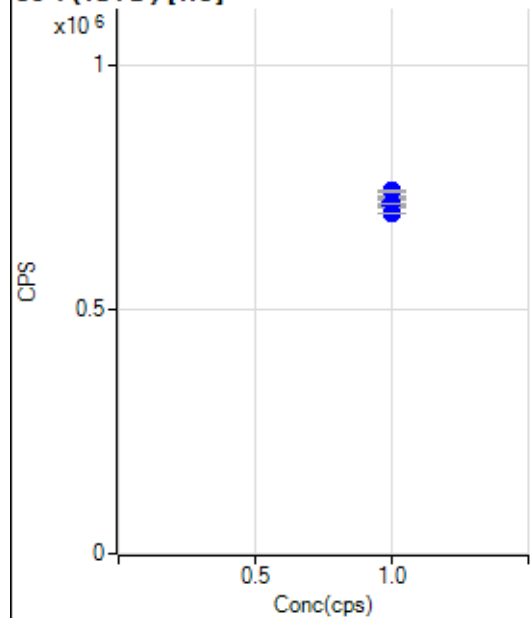
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3551825.05		A	1.3
2	☐	1.000		3567492.44		A	1.2
3	☐	1.000		3653787.27		A	3.3
4	☐	1.000		3566350.95		A	1.6
5	☐	1.000		3626952.93		A	1.6
6	☐	1.000		3507246.16		A	0.7
7	☐	1.000		3569134.57		A	2.0
8	☐	1.000		3450503.87		A	2.4

45 Sc (ISTD) [He]

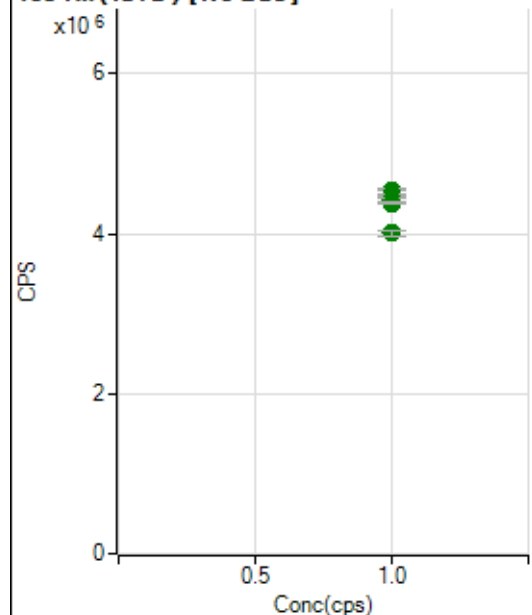
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		107312.18		P	0.8
2	☐	1.000		106613.95		P	0.9
3	☐	1.000		108318.04		P	0.7
4	☐	1.000		106071.80		P	0.5
5	☐	1.000		105273.74		P	0.8
6	☐	1.000		103311.66		P	1.0
7	☐	1.000		104421.86		P	0.8
8	☐	1.000		101454.52		P	1.3

89 Y (ISTD) [No Gas]

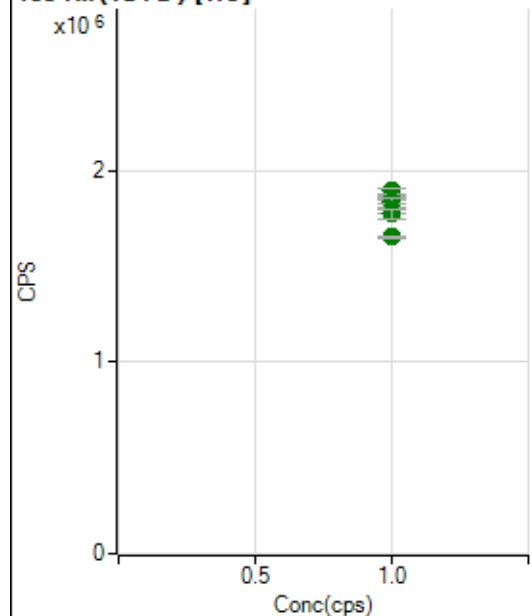
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7149315.03		A	0.8
2	☐	1.000		7149364.34		A	1.0
3	☐	1.000		7427297.11		A	2.5
4	☐	1.000		7271011.90		A	0.8
5	☐	1.000		7243748.29		A	0.7
6	☐	1.000		7316224.89		A	3.5
7	☐	1.000		7333505.24		A	2.0
8	☐	1.000		7097912.54		A	0.8

89 Y (ISTD) [He]

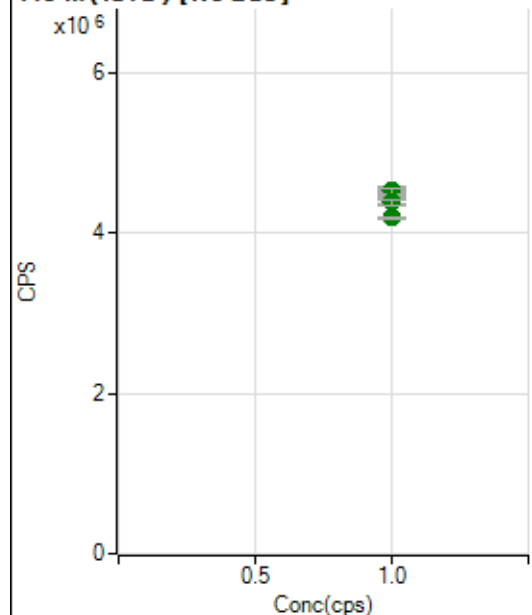
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		725389.49		P	0.7
2	☐	1.000		729758.80		P	0.7
3	☐	1.000		741944.07		P	0.5
4	☐	1.000		720265.39		P	1.0
5	☐	1.000		721341.31		P	1.2
6	☐	1.000		714220.41		P	1.0
7	☐	1.000		712874.61		P	1.2
8	☐	1.000		695781.32		P	0.5

103 Rh (ISTD) [No Gas]

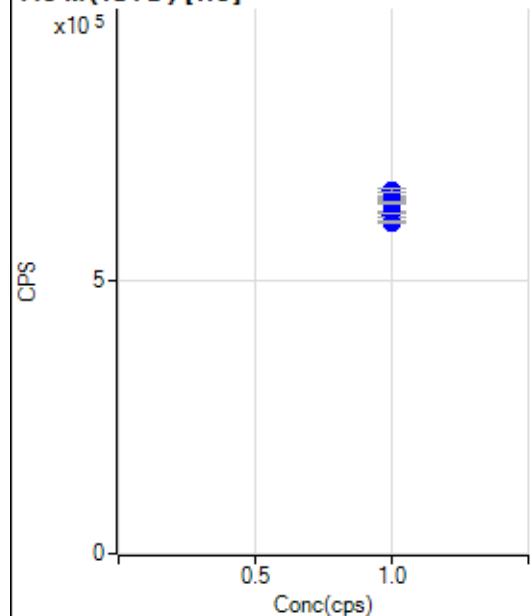
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4536247.19		A	1.4
2	☐	1.000		4433278.87		A	1.4
3	☐	1.000		4506865.16		A	1.2
4	☐	1.000		4410429.35		A	1.9
5	☐	1.000		4490884.73		A	0.7
6	☐	1.000		4422826.79		A	1.0
7	☐	1.000		4384681.57		A	0.6
8	☐	1.000		4009852.57		A	1.7

103 Rh (ISTD) [He]

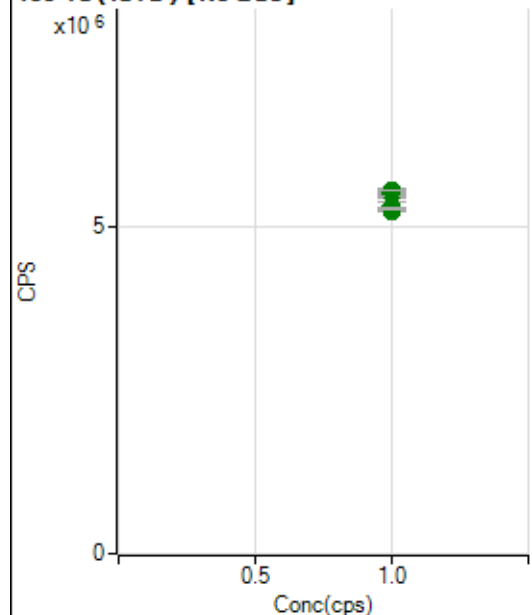
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1866336.45		A	1.0
2	☐	1.000		1856373.67		A	0.8
3	☐	1.000		1894859.87		A	1.6
4	☐	1.000		1853211.85		A	2.3
5	☐	1.000		1840995.60		A	1.5
6	☐	1.000		1796097.87		A	1.7
7	☐	1.000		1776236.64		A	2.9
8	☐	1.000		1652385.88		A	0.7

115 In (ISTD) [No Gas]

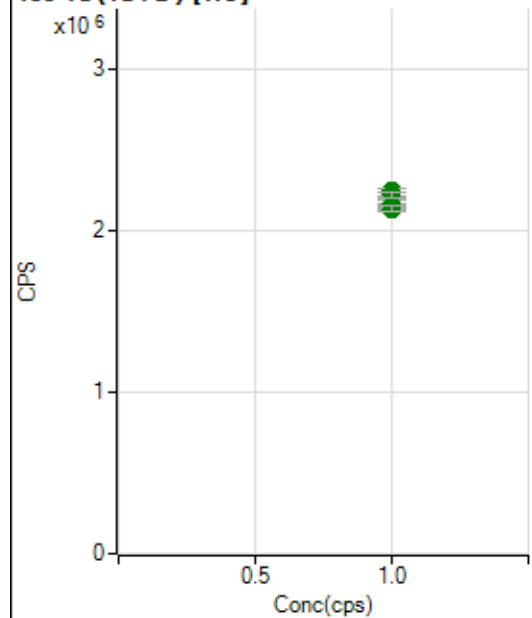
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4497949.93		A	1.9
2	☐	1.000		4499112.24		A	2.8
3	☐	1.000		4527471.17		A	2.0
4	☐	1.000		4486855.41		A	1.4
5	☐	1.000		4523714.45		A	1.4
6	☐	1.000		4398257.72		A	0.9
7	☐	1.000		4379697.83		A	1.8
8	☐	1.000		4196142.05		A	0.7

115 In (ISTD) [He]

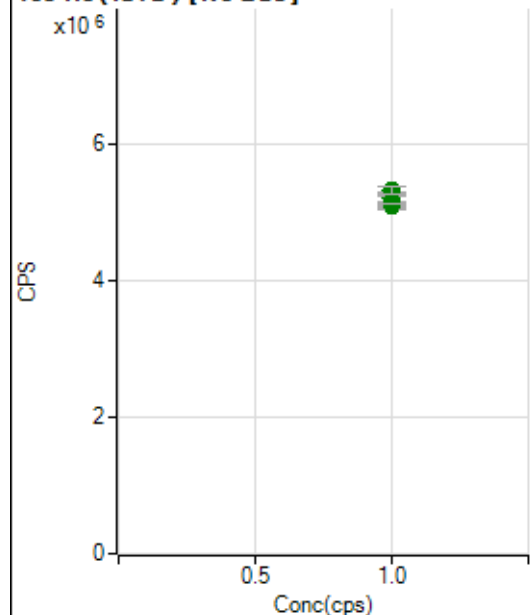
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		654560.54		P	0.4
2	☐	1.000		651335.62		P	0.4
3	☐	1.000		666462.69		P	0.9
4	☐	1.000		643206.87		P	0.5
5	☐	1.000		644714.04		P	0.3
6	☐	1.000		623680.22		P	2.0
7	☐	1.000		623054.72		P	1.2
8	☐	1.000		608341.95		P	0.4

159 Tb (ISTD) [No Gas]

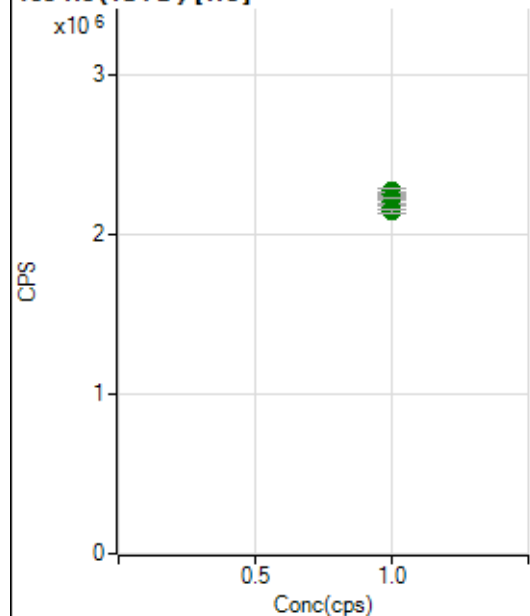
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5236728.88		A	0.3
2	☐	1.000		5317551.41		A	2.5
3	☐	1.000		5486062.42		A	1.5
4	☐	1.000		5541330.20		A	1.2
5	☐	1.000		5524835.68		A	1.0
6	☐	1.000		5509265.89		A	1.8
7	☐	1.000		5547289.71		A	0.1
8	☐	1.000		5287391.03		A	0.6

159 Tb (ISTD) [He]

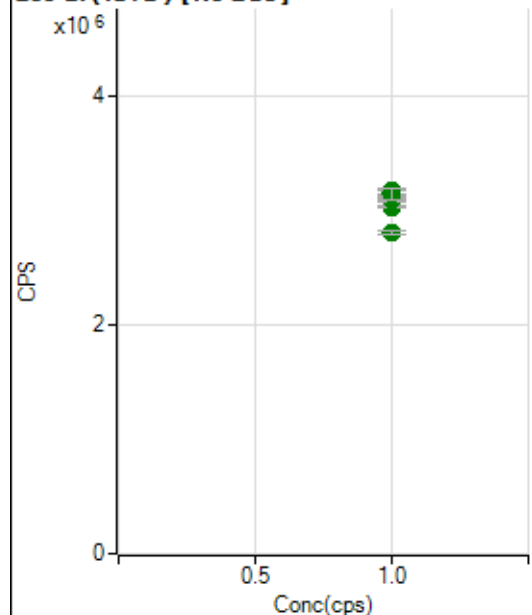
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2158811.81		A	0.2
2	☐	1.000		2148351.90		A	1.5
3	☐	1.000		2245388.28		A	1.0
4	☐	1.000		2184297.10		A	2.6
5	☐	1.000		2210762.33		A	0.8
6	☐	1.000		2167439.88		A	2.1
7	☐	1.000		2220567.55		A	1.8
8	☐	1.000		2134628.23		A	1.7

165 Ho (ISTD) [No Gas]

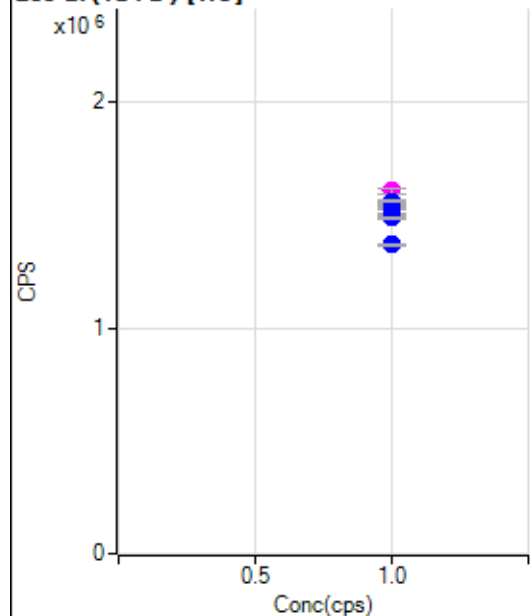
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5099780.15		A	1.2
2	☐	1.000		5090591.56		A	2.2
3	☐	1.000		5123125.55		A	0.9
4	☐	1.000		5219822.95		A	2.8
5	☐	1.000		5269944.30		A	1.5
6	☐	1.000		5272693.56		A	1.0
7	☐	1.000		5317671.99		A	2.1
8	☐	1.000		5134472.60		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2236147.75		A	1.2
2	☐	1.000		2171614.65		A	1.4
3	☐	1.000		2258321.89		A	2.9
4	☐	1.000		2207106.46		A	0.8
5	☐	1.000		2273559.46		A	0.9
6	☐	1.000		2230062.19		A	0.9
7	☐	1.000		2229811.79		A	0.3
8	☐	1.000		2145072.66		A	1.0

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3027127.91		A	0.5
2	☐	1.000		3106009.96		A	1.4
3	☐	1.000		3098322.39		A	1.5
4	☐	1.000		3148519.50		A	1.1
5	☐	1.000		3166702.45		A	0.2
6	☐	1.000		3091191.55		A	1.2
7	☐	1.000		3137313.95		A	3.2
8	☐	1.000		2803439.85		A	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1538986.04		P	1.9
2	☐	1.000		1543400.85		P	1.0
3	☐	1.000		1605980.88		M	1.7
4	☐	1.000		1546347.96		P	0.9
5	☐	1.000		1558818.40		P	0.6
6	☐	1.000		1504212.89		P	0.4
7	☐	1.000		1486394.35		P	0.9
8	☐	1.000		1366610.60		P	0.4

US EPA Tune Check Report

Operator Name Jaswal

Acq/Data Batch D:\Agilent\ICPMH\1\DATA\IP8020723-MS.b

Acq. Date-Time 2023-02-07 07:11:34

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		8280	82795.93			0.284	5.000
24		53056	530561.34			0.445	5.000
25		7293	72933.96			0.459	5.000
26		8175	81750.72			0.642	5.000
59		37950	379498.70			0.977	5.000
113		3835	38347.38			0.785	5.000
115		47997	479965.62			1.344	5.000
206		9411	94108.81			1.195	5.000
207		8585	85845.20			0.903	5.000
208		20817	208168.92			1.092	5.000
220		1	7.20			31.672	

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

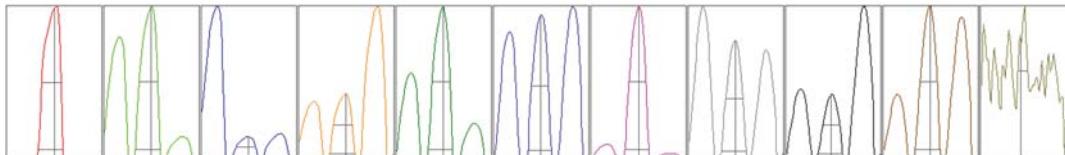
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	8301	8286	8245	8267	8298
24	52848	53364	53117	53161	52791
25	7241	7332	7298	7308	7288
26	8230	8192	8210	8101	8142
59	37637	38301	38342	37938	37531
113	3810	3862	3818	3873	3811
115	47058	48695	47880	48505	47845
206	9367	9297	9597	9379	9414
207	8498	8613	8696	8527	8587
208	20528	20905	21134	20696	20821

US EPA Tune Check Report

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

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	14369.36	9.05	8.90 - 9.10	
24	94931.65	24.00	23.90 - 24.10	
25	12639.82	25.00	24.90 - 25.10	
26	14525.12	26.00	25.90 - 26.10	
59	71401.34	59.00	58.90 - 59.10	
113	7557.57	113.00	112.90 - 113.10	
115	95296.71	115.05	114.90 - 115.10	
206	18113.00	206.00	205.90 - 206.10	
207	16650.33	206.95	206.90 - 207.10	
208	39764.22	208.00	207.90 - 208.10	
220	0.95	219.80	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.61	0.775	0.900	
24	0.59	0.783	0.900	
25	0.61	0.784	0.900	
26	0.60	0.792	0.900	
59	0.56	0.773	0.900	
113	0.53	0.729	0.900	
115	0.52	0.759	0.900	
206	0.53	0.783	0.900	
207	0.53	0.776	0.900	
208	0.54	0.781	0.900	
220	0.29			

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.87 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	9.2 V	Deflect	15.8 V
Extract 2	-170.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-90 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	123	Axis Gain	0.9992	QP Bias	-4.0 V
Mass Offset	125	Axis Offset	-0.01		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-1.0 mm
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EM

Discriminator	4.4 mV	Analog HV	2307 V	Pulse HV	1664 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		7603	76031.28			0.586	
89		8382	83822.16			1.129	
205		6147	61469.82			1.369	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	7674	7551	7602	7596	7592
89	8432	8420	8410	8435	8214
205	6167	6169	6246	6137	6015

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.87 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	9.2 V	Deflect	5.0 V
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US EPA Tune Check Report

Extract 2	-170.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-90 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	123	Axis Gain	0.9992	QP Bias	-13.0 V
Mass Offset	125	Axis Offset	-0.01		

Hardware Settings

Torch

Torch H	0.8 mm	Torch V	-1.0 mm
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EM

Discriminator	4.4 mV	Analog HV	2307 V	Pulse HV	1664 V
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