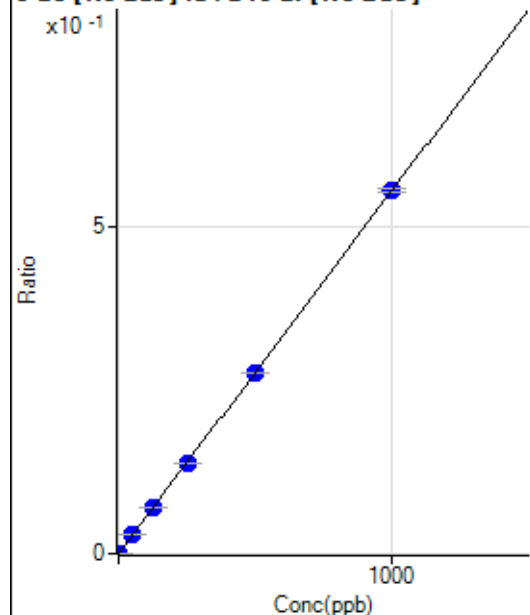


Batch Folder: D:\Agilent\ICPMH\1\DATA\P8121820MS.b\
Analysis File: P8121820MS.batch.bin
DA Date-Time: 2020-12-21 01:31:59
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-12-18 14:21:20
2	004CAL.S.d	S01	2020-12-18 14:24:31
3	005CAL.S.d	S02	2020-12-18 14:27:40
4	006CAL.S.d	S03	2020-12-18 14:30:52
5	007CAL.S.d	S04	2020-12-18 14:34:00
6	008CAL.S.d	S05	2020-12-18 14:37:07
7	009CAL.S.d	S06	2020-12-18 14:40:06
8	010CAL.S.d	S07	2020-12-18 14:43:06
9	011CAL.S.d	S08	2020-12-18 14:46:05

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	52.66	0.0000	P	18.8
2	☐	0.100	0.083	122.64	0.0001	P	16.7
3	☐	1.000	0.975	880.52	0.0006	P	1.5
4	☐	50.000	50.627	43765.84	0.0281	P	1.1
5	☐	125.000	126.651	109454.69	0.0702	P	1.9
6	☐	250.000	248.711	216927.67	0.1379	P	1.0
7	☐	500.000	498.693	427959.19	0.2764	P	0.7
8	☐	1000.000	1000.738	859498.00	0.5547	P	1.0
9	☐			1205.16	0.0008	P	42.5

$$y = 5.5422\text{E-}004 * x + 3.4223\text{E-}005$$

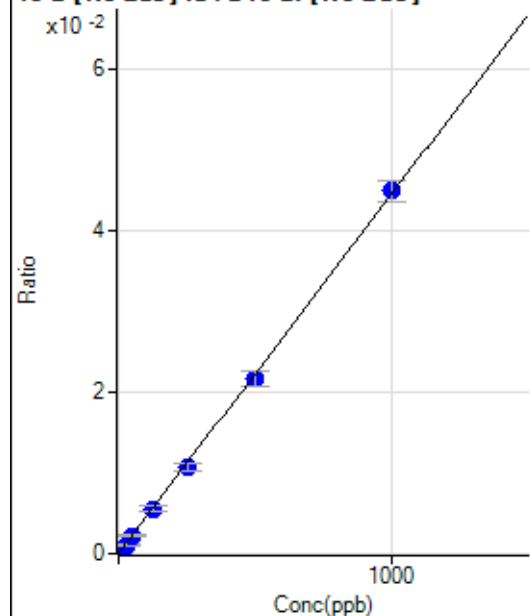
$$R = 1.0000$$

$$DL = 0.03474$$

$$BEC = 0.06175$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71.32	0.0000	P	33.6
2	☐	2.500	2.123	215.29	0.0001	P	12.8
3	☐	25.000	22.197	1581.78	0.0010	P	12.2
4	☐	50.000	48.440	3421.73	0.0022	P	5.7
5	☐	125.000	124.570	8676.87	0.0056	P	9.3
6	☐	250.000	239.196	16780.95	0.0107	P	8.2
7	☐	500.000	487.314	33552.85	0.0217	P	8.2
8	☐	1000.000	1009.247	69498.79	0.0448	P	5.9
9	☐			10369.64	0.0065	P	7.7

$$y = 4.4379\text{E-}005 * x + 4.6406\text{E-}005$$

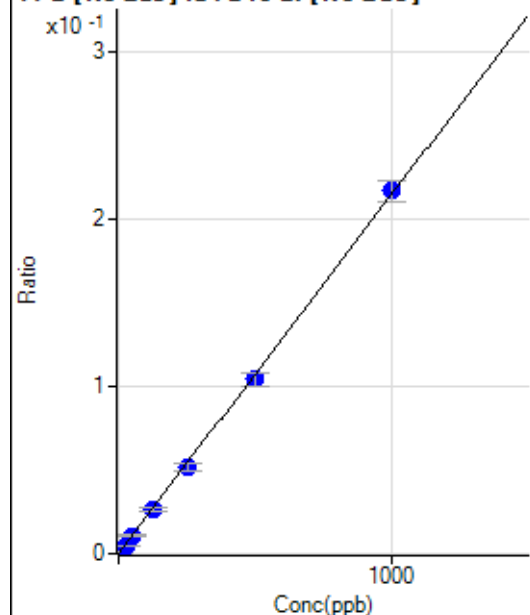
$$R = 0.9998$$

$$DL = 1.055$$

$$BEC = 1.046$$

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	303.28	0.0002	P	0.9
2	☐	2.500	2.079	984.51	0.0006	P	3.5
3	☐	25.000	22.072	7551.80	0.0049	P	9.2
4	☐	50.000	49.190	16726.20	0.0107	P	7.7
5	☐	125.000	122.798	41254.24	0.0265	P	9.5
6	☐	250.000	240.433	81378.61	0.0517	P	8.3
7	☐	500.000	484.899	161120.26	0.1041	P	8.0
8	☐	1000.000	1010.332	335794.05	0.2166	P	6.1
9	☐			50227.68	0.0315	P	7.6

$$y = 2.1422\text{E-}004 * x + 1.9710\text{E-}004$$

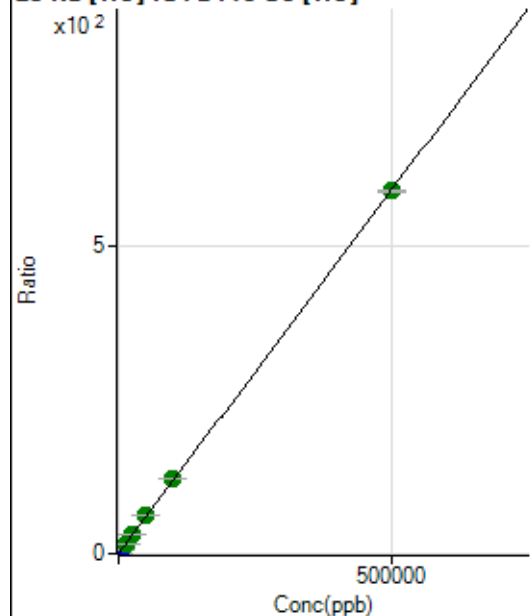
$$R = 0.9998$$

$$DL = 0.02579$$

$$BEC = 0.9201$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31537.33	0.3061	P	2.2
2	☐	50.000	51.158	37412.48	0.3665	P	0.8
3	☐	500.000	556.374	94756.76	0.9628	P	4.7
4	☐	5000.000	5448.245	699367.36	6.7367	P	0.3
5	☐	12500.000	13425.527	1684064.05	16.1523	A	1.4
6	☐	25000.000	26427.577	3285980.80	31.4986	A	0.2
7	☐	50000.000	52756.839	6555870.63	62.5751	A	0.4
8	☐	100000.00	103260.10	12995946.56	122.1842	A	1.4
9	☐	500000.00	498973.23	61689315.96	589.2450	A	0.8

$$y = 0.0012 * x + 0.3061$$

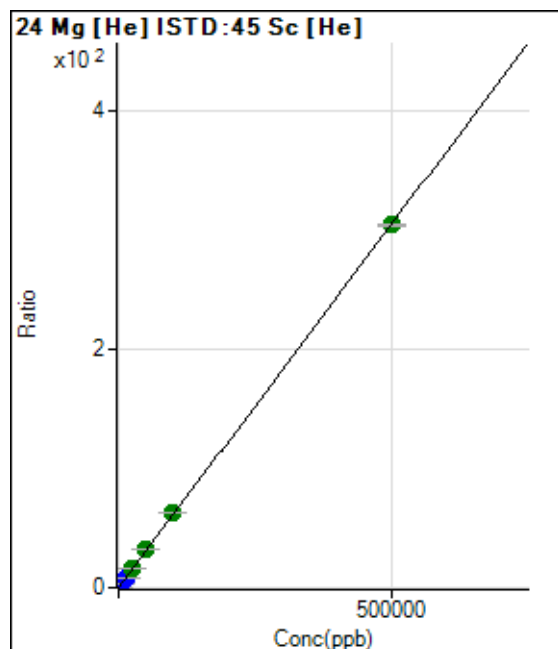
$$R = 1.0000$$

$$DL = 16.99$$

$$BEC = 259.4$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	677.81	0.0066	P	7.4
2	☐	50.000	52.778	3956.20	0.0388	P	8.2
3	☐	500.000	538.259	32912.75	0.3347	P	6.8
4	☐	5000.000	5415.159	343363.08	3.3077	P	1.2
5	☐	12500.000	13500.375	858786.45	8.2364	P	0.7
6	☐	25000.000	26496.727	1685755.37	16.1590	A	0.3
7	☐	50000.000	52211.872	3335286.97	31.8351	A	0.8
8	☐	100000.00	102728.23	6661509.31	62.6300	A	1.4
9	☐	500000.00	499129.12	31855263.91	304.2769	A	0.3

$$y = 6.0960E-004 * x + 0.0066$$

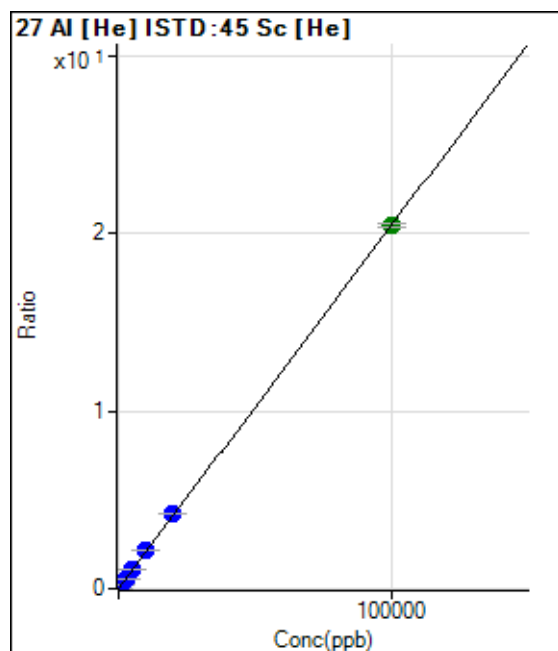
R = 1.0000

DL = 2.412

BEC = 10.8

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	425.79	0.0041	P	3.8
2	☐	2.000	2.144	466.62	0.0046	P	2.6
3	☐	20.000	23.473	878.67	0.0089	P	6.6
4	☐	1000.000	1060.503	22922.59	0.2208	P	1.7
5	☐	2500.000	2642.993	56738.28	0.5442	P	1.2
6	☐	5000.000	5229.261	111900.40	1.0726	P	0.6
7	☐	10000.000	10363.431	222284.38	2.1217	P	0.7
8	☐	20000.000	20603.297	448208.51	4.2140	P	1.5
9	☐	100000.00	99827.354	2135907.97	20.4018	A	1.0

$$y = 2.0433E-004 * x + 0.0041$$

R = 1.0000

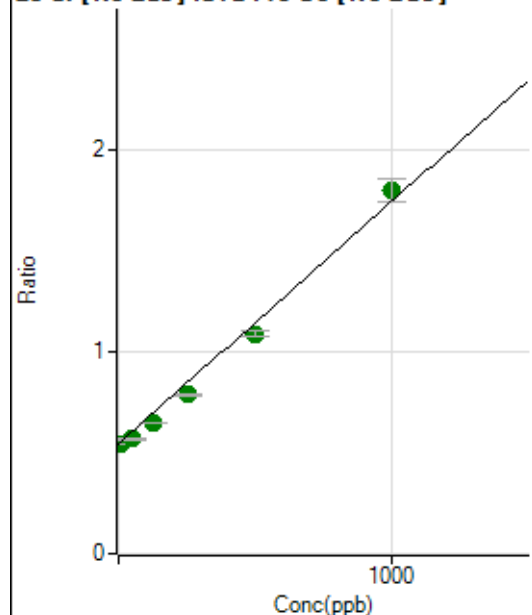
DL = 2.328

BEC = 20.23

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	1338642.77	0.5467	A	1.4
2	☐	1.000	0.330	1330503.99	0.5470	A	1.7
3	☐	10.000	-0.705	1338942.98	0.5458	A	0.3
4	☐	50.000	18.106	1437307.00	0.5684	A	1.7
5	☐	125.000	83.745	1637003.67	0.6472	A	0.9
6	☐	250.000	200.731	1993875.70	0.7877	A	1.6
7	☐	500.000	451.867	2748442.73	1.0894	A	2.9
8	☐	1000.000	1043.243	4624103.45	1.7996	A	6.4
9	☐			1620020.11	0.6340	A	2.0

$$y = 0.0012 * x + 0.5467$$

$$R = 0.9969$$

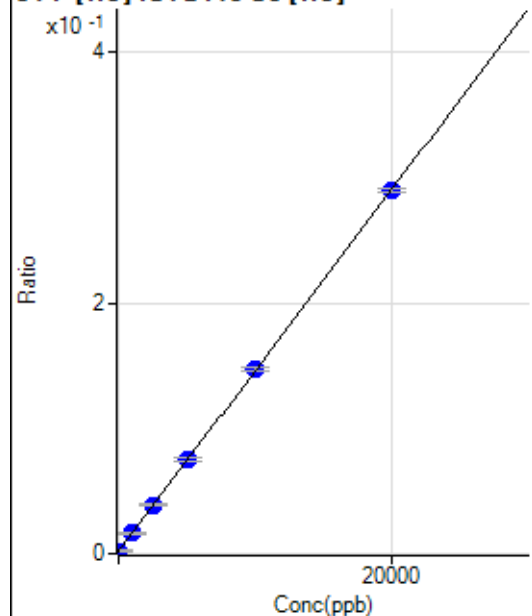
$$DL = 19.52$$

$$BEC = 455.2$$

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	-21.619	161.12	0.0016	P	2.5
2	☐	0.000	2.036	194.45	0.0019	P	10.6
3	☐	0.000	19.583	211.12	0.0022	P	19.9
4	☐	1000.000	1023.338	1725.15	0.0166	P	9.0
5	☐	2500.000	2569.946	4059.01	0.0389	P	4.8
6	☐	5000.000	5116.480	7888.49	0.0756	P	4.6
7	☐	10000.000	10054.175	15380.71	0.1468	P	1.6
8	☐	20000.000	19933.882	30763.65	0.2892	P	1.2
9	☐			172.23	0.0016	P	29.4

$$y = 1.4415E-005 * x + 0.0019$$

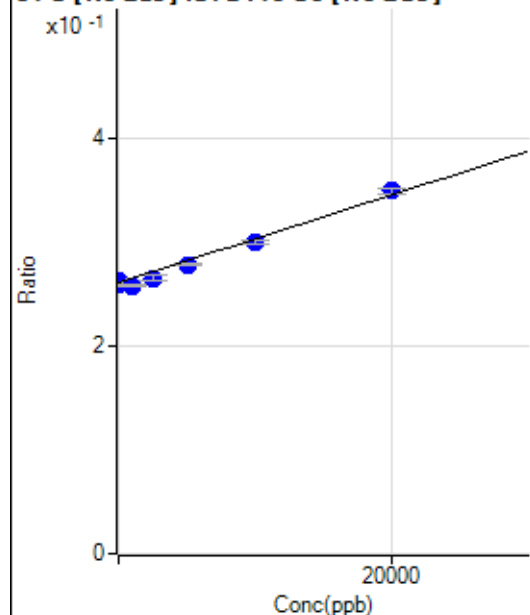
$$R = 1.0000$$

$$DL = 46.43$$

$$BEC = 130.1$$

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	-74.224	639947.31	0.2613	P	1.4
2	☐	0.000	432.227	640828.44	0.2635	P	1.4
3	☐	0.000	-358.003	638100.61	0.2601	P	1.4
4	☐	1000.000	-677.210	654386.10	0.2588	P	0.3
5	☐	2500.000	1039.882	672849.34	0.2661	P	1.6
6	☐	5000.000	4121.209	706390.39	0.2791	P	0.9
7	☐	10000.000	9188.639	757968.04	0.3005	P	1.8
8	☐	20000.000	20891.753	899968.10	0.3501	P	1.5
9	☐			588111.64	0.2302	P	0.9

$$y = 4.2328\text{E-}006 * x + 0.2617$$

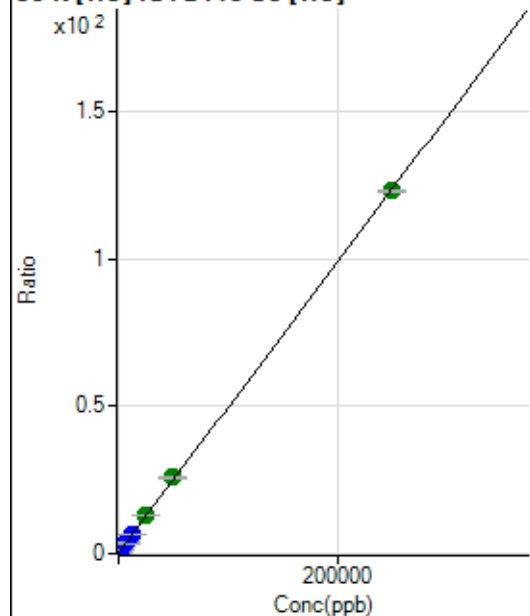
$$R = 0.9942$$

$$DL = 2563$$

$$BEC = 6.181\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	29795.36	0.2892	P	1.9
2	☐	50.000	46.816	31871.88	0.3122	P	1.5
3	☐	500.000	553.553	55236.86	0.5616	P	6.1
4	☐	2500.000	2631.453	164420.76	1.5840	P	1.9
5	☐	6250.000	6712.699	374508.26	3.5921	P	2.1
6	☐	12500.000	13281.166	711896.31	6.8240	P	0.3
7	☐	25000.000	26198.999	1380840.18	13.1800	A	0.8
8	☐	50000.000	51922.553	2748060.67	25.8369	A	1.4
9	☐	250000.00	249443.54	12879784.40	123.0240	A	0.6

$$y = 4.9203\text{E-}004 * x + 0.2892$$

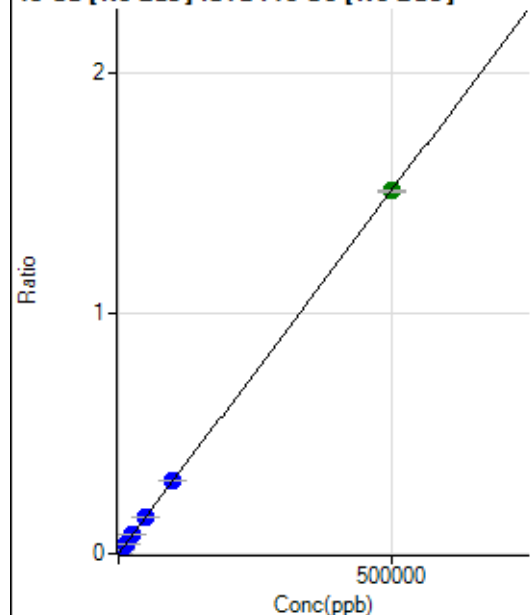
$$R = 1.0000$$

$$DL = 33.95$$

$$BEC = 587.8$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	262.47	0.0001	P	2.6
2	☐	50.000	44.638	588.27	0.0002	P	6.3
3	☐	500.000	485.884	3857.96	0.0016	P	1.3
4	☐	5000.000	4967.127	38157.05	0.0151	P	0.8
5	☐	12500.000	12639.314	96689.24	0.0382	P	1.7
6	☐	25000.000	25356.851	193862.11	0.0766	P	0.4
7	☐	50000.000	50648.692	385590.25	0.1529	P	1.3
8	☐	100000.00	100989.24	783383.11	0.3047	P	1.4
9	☐	500000.00	499716.30	3851329.47	1.5074	A	0.6

$$y = 3.0164\text{E-}006 * x + 1.0718\text{E-}004$$

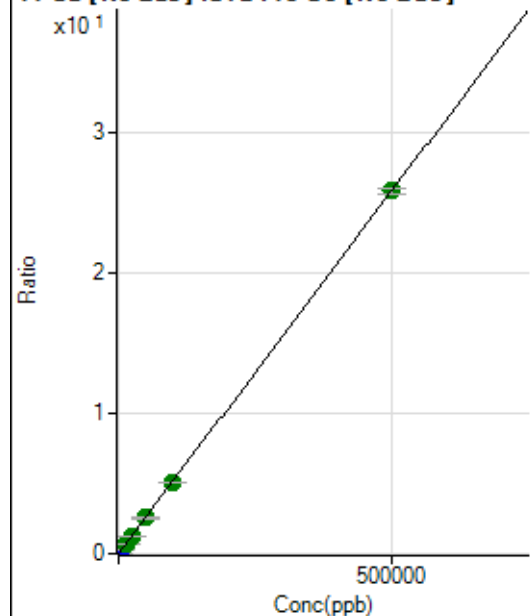
$$R = 1.0000$$

$$DL = 2.816$$

$$BEC = 35.53$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18541.92	0.0076	P	0.7
2	☐	50.000	45.331	24105.34	0.0099	P	1.5
3	☐	500.000	488.154	80362.17	0.0328	P	1.2
4	☐	5000.000	4999.026	671425.42	0.2655	P	1.1
5	☐	12500.000	12603.741	1663906.00	0.6579	A	1.9
6	☐	25000.000	24855.237	3265510.59	1.2901	A	0.3
7	☐	50000.000	49224.517	6425250.24	2.5476	A	1.6
8	☐	100000.00	98020.497	13021550.14	5.0656	A	2.4
9	☐	500000.00	500478.11	66004384.14	25.8331	A	1.3

$$y = 5.1602\text{E-}005 * x + 0.0076$$

$$R = 1.0000$$

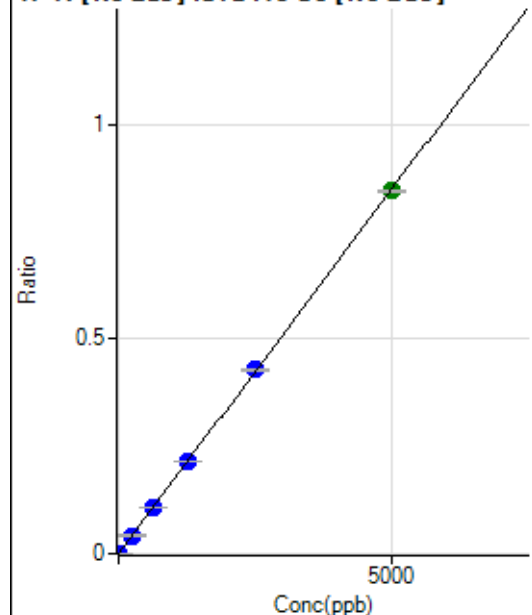
$$DL = 3.13$$

$$BEC = 146.7$$

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	386.13	0.0002	P	21.6
2	☐	0.500	0.322	516.69	0.0002	P	12.5
3	☐	5.000	4.961	2450.27	0.0010	P	3.5
4	☐	250.000	248.980	107112.87	0.0424	P	1.3
5	☐	625.000	634.101	272243.74	0.1076	P	0.8
6	☐	1250.000	1266.820	543927.03	0.2149	P	0.9
7	☐	2500.000	2526.178	1080477.12	0.4284	P	0.6
8	☐	5000.000	4981.619	2171313.44	0.8446	A	0.8
9	☐			2325.29	0.0009	P	53.9

$$y = 1.6950\text{E-}004 * x + 1.5792\text{E-}004$$

$$R = 1.0000$$

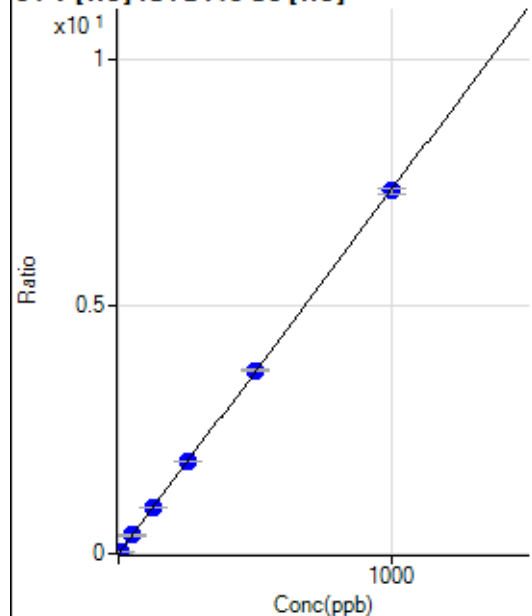
$$DL = 0.6048$$

$$BEC = 0.9317$$

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	10.00	0.0001	P	57.1
2	☐	0.500	0.511	393.34	0.0039	P	11.1
3	☐	5.000	5.192	3764.98	0.0383	P	5.6
4	☐	50.000	50.260	38366.78	0.3696	P	0.4
5	☐	125.000	128.183	98261.89	0.9424	P	0.8
6	☐	250.000	252.739	193832.45	1.8581	P	0.7
7	☐	500.000	504.194	388336.80	3.7066	P	0.3
8	☐	1000.000	996.806	779398.28	7.3280	P	1.7
9	☐			437.79	0.0042	P	11.8

$$y = 0.0074 * x + 9.6510\text{E-}005$$

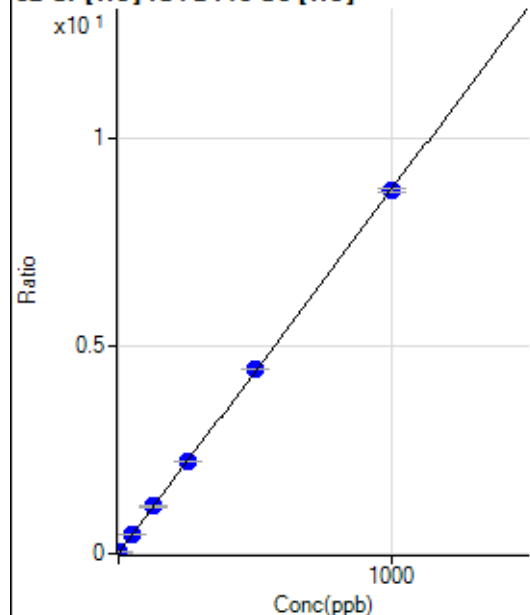
$$R = 1.0000$$

$$DL = 0.0225$$

$$BEC = 0.01313$$

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	714.47	0.0069	P	9.4
2	☐	0.200	0.257	937.82	0.0092	P	2.1
3	☐	2.000	2.241	2610.26	0.0265	P	6.7
4	☐	50.000	50.871	46916.67	0.4520	P	0.8
5	☐	125.000	128.811	118209.90	1.1338	P	1.3
6	☐	250.000	254.239	232737.66	2.2310	P	0.4
7	☐	500.000	504.685	463268.64	4.4219	P	0.3
8	☐	1000.000	996.077	927601.57	8.7205	P	1.0
9	☐			9243.06	0.0883	P	4.0

$$y = 0.0087 * x + 0.0069$$

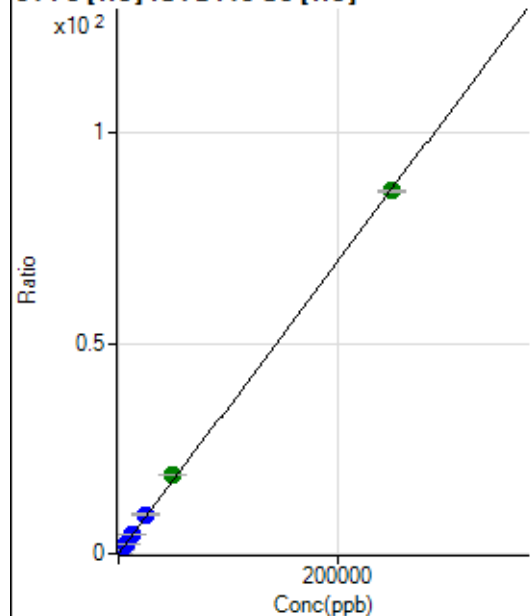
$$R = 1.0000$$

$$DL = 0.2235$$

$$BEC = 0.7931$$

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	296.30	0.0029	P	8.5
2	☐	5.000	6.408	520.39	0.0051	P	7.0
3	☐	50.000	61.445	2376.17	0.0242	P	9.2
4	☐	2500.000	2733.295	98663.78	0.9505	P	1.6
5	☐	6250.000	6882.073	249064.21	2.3888	P	1.0
6	☐	12500.000	13602.075	492253.55	4.7185	P	0.7
7	☐	25000.000	26999.086	980955.76	9.3631	P	0.5
8	☐	50000.000	53691.043	1980403.54	18.6169	A	0.5
9	☐	250000.00	248988.64	9037354.02	86.3239	A	0.6

$$y = 3.4669E-004 * x + 0.0029$$

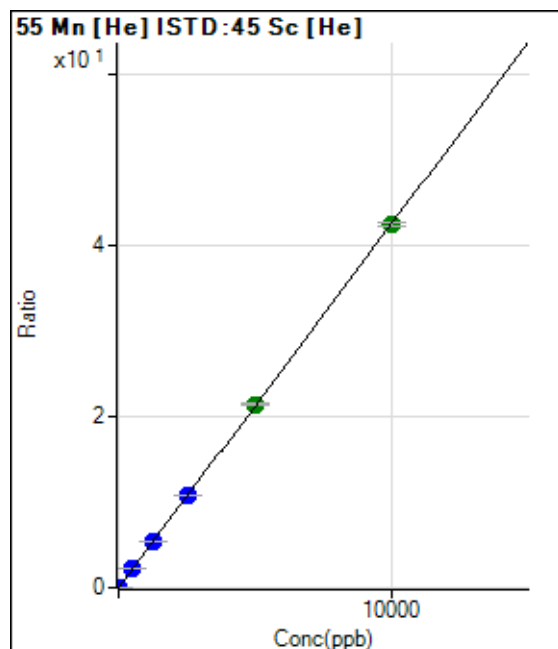
$$R = 0.9999$$

$$DL = 2.122$$

$$BEC = 8.297$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	108.89	0.0011	P	24.9
2	☐	0.100	0.079	142.22	0.0014	P	7.5
3	☐	1.000	1.007	523.35	0.0053	P	12.0
4	☐	500.000	505.924	223039.48	2.1485	P	0.9
5	☐	1250.000	1273.992	563925.31	5.4086	P	1.2
6	☐	2500.000	2527.558	1119308.24	10.7294	P	0.6
7	☐	5000.000	5031.646	2237649.33	21.3582	A	1.1
8	☐	10000.000	9973.992	4503222.16	42.3362	A	1.1
9	☐			5793.50	0.0553	P	7.4

$$y = 0.0042 * x + 0.0011$$

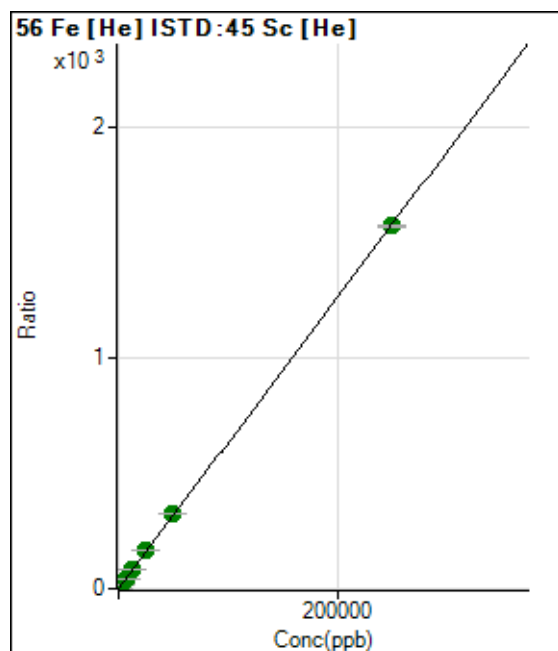
$$R = 1.0000$$

$$DL = 0.1855$$

$$BEC = 0.2488$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2718.82	0.0264	P	8.0
2	☐	5.000	5.167	6025.44	0.0590	P	1.8
3	☐	50.000	55.942	37332.41	0.3796	P	6.7
4	☐	2500.000	2683.332	1761471.28	16.9678	A	0.3
5	☐	6250.000	6667.637	4391949.98	42.1229	A	1.6
6	☐	12500.000	13227.911	8714990.47	83.5415	A	0.9
7	☐	25000.000	26123.060	17282036.61	164.9557	A	0.8
8	☐	50000.000	51945.180	34887085.27	327.9849	A	1.1
9	☐	250000.00	249449.98	164880153.6	1,574.941	A	0.8

$$y = 0.0063 * x + 0.0264$$

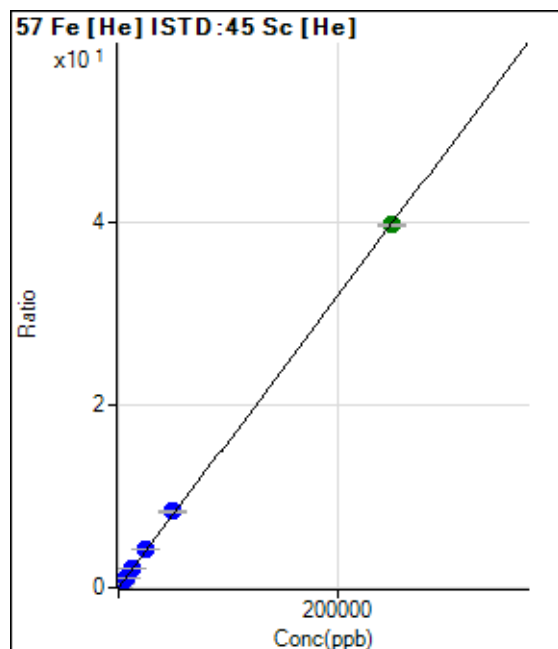
$$R = 1.0000$$

$$DL = 1.006$$

$$BEC = 4.183$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.11	0.0011	P	21.8
2	☐	5.000	6.461	214.82	0.0021	P	8.0
3	☐	50.000	54.083	950.05	0.0097	P	13.1
4	☐	2500.000	2639.253	43709.55	0.4210	P	1.5
5	☐	6250.000	6681.923	110965.39	1.0643	P	1.4
6	☐	12500.000	13192.432	219091.63	2.1002	P	0.5
7	☐	25000.000	26202.116	436905.99	4.1702	P	0.5
8	☐	50000.000	52251.169	884416.61	8.3150	P	1.3
9	☐	250000.00	249382.74	4154283.34	39.6815	A	0.7

$$y = 1.5911\text{E-}004 * x + 0.0011$$

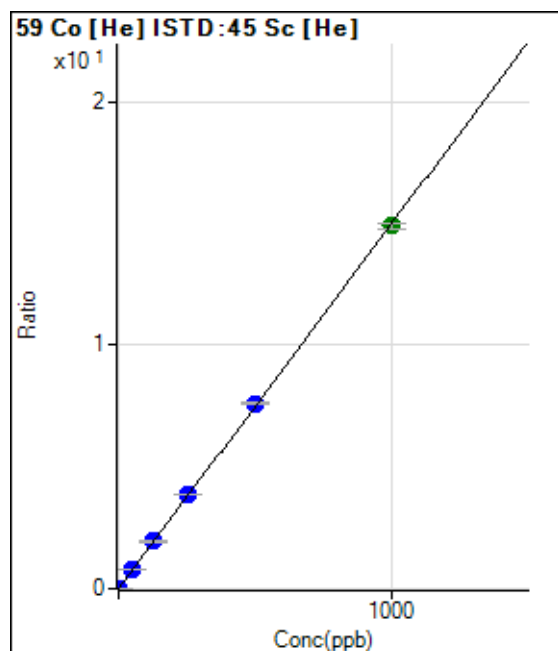
$$R = 0.9999$$

$$DL = 4.431$$

$$BEC = 6.767$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.78	0.0005	P	24.3
2	☐	0.100	0.128	243.34	0.0024	P	9.8
3	☐	1.000	1.048	1590.11	0.0162	P	4.6
4	☐	50.000	51.359	79881.35	0.7695	P	1.2
5	☐	125.000	129.169	201712.19	1.9346	P	1.0
6	☐	250.000	256.049	400031.86	3.8346	P	0.3
7	☐	500.000	506.929	795317.86	7.5913	P	1.1
8	☐	1000.000	994.434	1583765.46	14.8912	A	1.8
9	☐			3391.55	0.0324	P	4.2

$$y = 0.0150 * x + 4.6381\text{E-}004$$

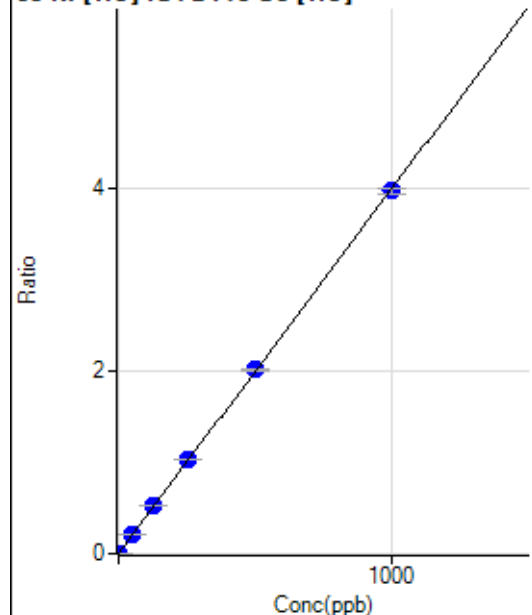
$$R = 0.9999$$

$$DL = 0.02261$$

$$BEC = 0.03097$$

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	194.45	0.0019	P	5.2
2	☒	0.100					
3	☐	1.000	1.036	592.24	0.0060	P	7.6
4	☐	50.000	51.228	21355.01	0.2057	P	1.0
5	☐	125.000	130.570	54361.23	0.5214	P	1.4
6	☐	250.000	258.243	107386.88	1.0294	P	0.1
7	☐	500.000	503.871	210235.39	2.0067	P	1.0
8	☐	1000.000	995.246	421378.01	3.9617	P	1.5
9	☐			3169.27	0.0303	P	4.7

$$y = 0.0040 * x + 0.0019$$

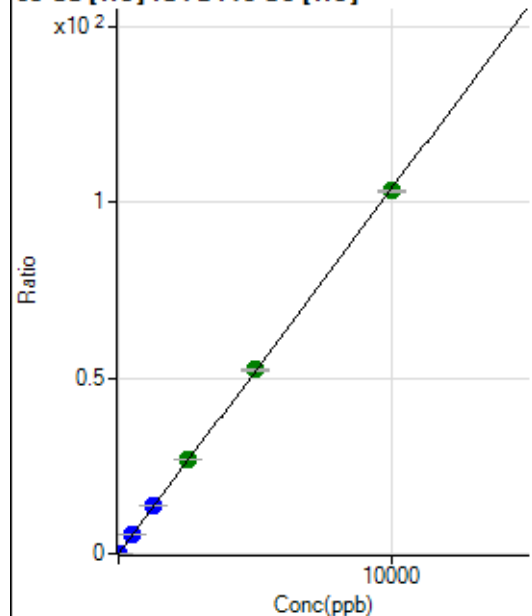
$$R = 0.9999$$

$$DL = 0.07344$$

$$BEC = 0.4741$$

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	682.71	0.0066	P	2.0
2	☐	0.200	0.240	929.89	0.0091	P	2.6
3	☐	2.000	2.341	3038.30	0.0309	P	8.0
4	☐	500.000	530.310	571773.46	5.5078	P	0.7
5	☐	1250.000	1321.818	1430371.19	13.7185	P	0.6
6	☐	2500.000	2595.292	2809287.49	26.9290	A	0.6
7	☐	5000.000	5041.799	5480154.04	52.3079	A	1.7
8	☐	10000.000	9944.785	10975571.41	103.1692	A	0.7
9	☐			11538.33	0.1102	P	6.9

$$y = 0.0104 * x + 0.0066$$

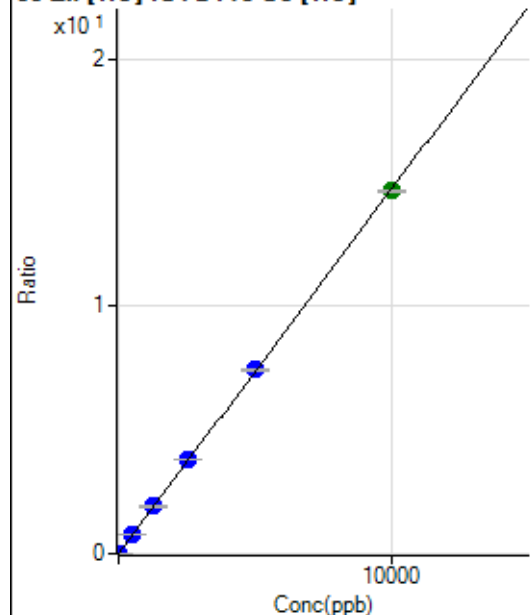
$$R = 0.9999$$

$$DL = 0.03782$$

$$BEC = 0.6387$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78.89	0.0008	P	14.0
2	☒	0.200					
3	☐	2.000	2.204	394.45	0.0040	P	10.7
4	☐	500.000	516.200	79062.13	0.7616	P	1.7
5	☐	1250.000	1298.985	199711.79	1.9155	P	1.2
6	☐	2500.000	2563.246	394229.50	3.7790	P	0.1
7	☐	5000.000	5049.548	779871.16	7.4438	P	0.7
8	☐	10000.000	9952.481	1560620.39	14.6707	A	0.6
9	☐			3930.58	0.0375	P	2.1

$$y = 0.0015 * x + 7.6609E-004$$

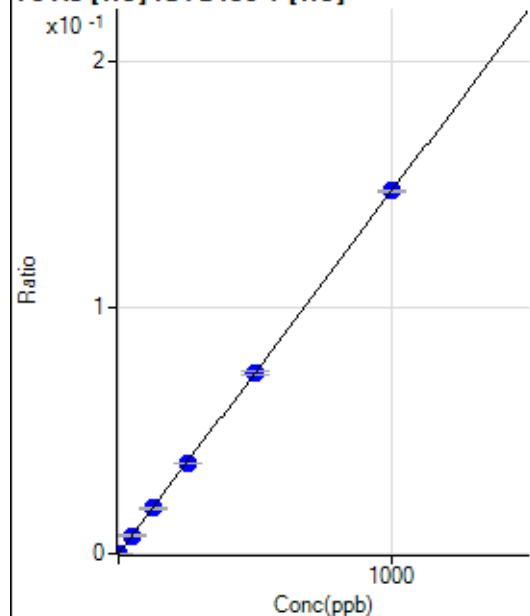
$$R = 1.0000$$

$$DL = 0.2179$$

$$BEC = 0.5197$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9.00	0.0000	P	11.6
2	☐	0.100	0.071	17.00	0.0000	P	5.5
3	☐	1.000	1.117	131.68	0.0002	P	6.7
4	☐	50.000	50.201	5843.80	0.0074	P	1.4
5	☐	125.000	124.731	14554.95	0.0184	P	0.9
6	☐	250.000	248.714	29180.61	0.0367	P	0.1
7	☐	500.000	498.593	58537.65	0.0735	P	1.2
8	☐	1000.000	1001.048	117794.06	0.1475	P	0.6
9	☐			80.34	0.0001	P	15.5

$$y = 1.4738E-004 * x + 1.1553E-005$$

$$R = 1.0000$$

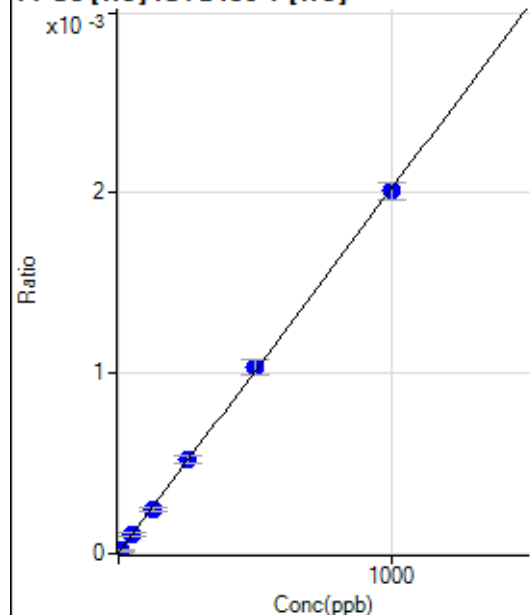
$$DL = 0.02717$$

$$BEC = 0.07839$$

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	3.33	0.0000	P	1.2
2	☐	0.500	-2.115	0.00	0.0000	P	
3	☐	5.000	6.700	13.33	0.0000	P	41.3
4	☐	50.000	52.265	86.67	0.0001	P	22.7
5	☐	125.000	118.747	193.34	0.0002	P	11.1
6	☐	250.000	256.460	415.56	0.0005	P	10.1
7	☐	500.000	510.379	824.48	0.0010	P	7.6
8	☐	1000.000	993.857	1605.67	0.0020	P	4.7
9	☐			2.22	0.0000	P	86.6

$$y = 2.0200\text{E-}006 * x + 4.2731\text{E-}006$$

$$R = 0.9999$$

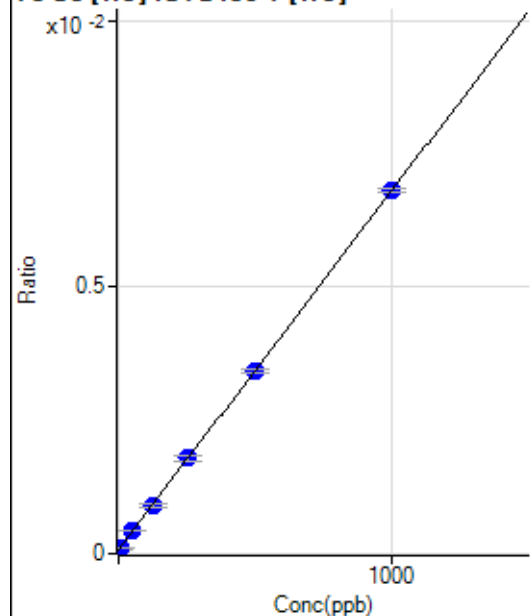
$$DL = 0.07405$$

$$BEC = 2.115$$

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	59.01	0.0001	P	2.2
2	☐	0.500	-1.004	53.34	0.0001	P	24.1
3	☐	5.000	3.980	76.34	0.0001	P	4.5
4	☐	50.000	53.191	342.04	0.0004	P	2.9
5	☐	125.000	122.998	714.76	0.0009	P	5.1
6	☐	250.000	256.446	1433.55	0.0018	P	5.9
7	☐	500.000	496.547	2722.54	0.0034	P	1.9
8	☐	1000.000	1000.211	5435.27	0.0068	P	0.9
9	☐			53.01	0.0001	P	17.5

$$y = 6.7303\text{E-}006 * x + 7.5702\text{E-}005$$

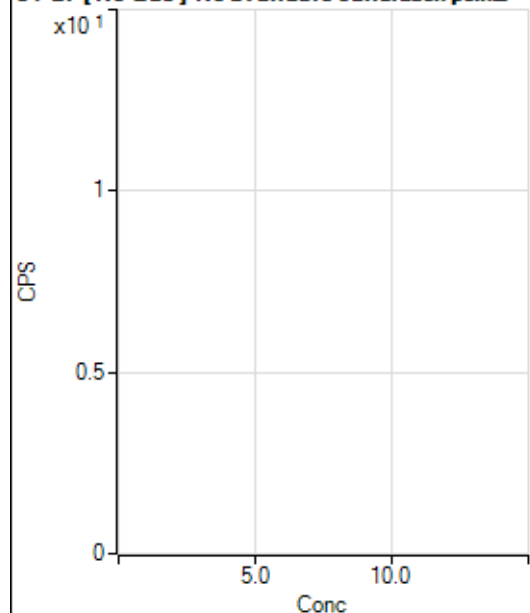
$$R = 1.0000$$

$$DL = 0.7543$$

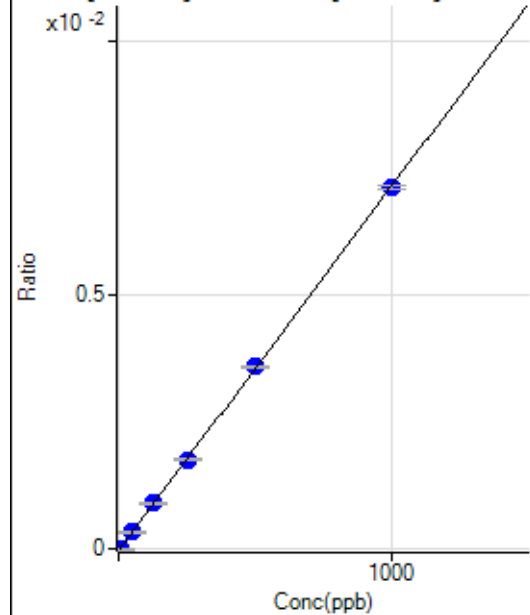
$$BEC = 11.25$$

Weight: <None>

Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3040.15		P	6.7
2	☐			3217.02		P	6.6
3	☐			3060.17		P	4.2
4	☐			3056.82		P	8.7
5	☐			2879.95		P	12.8
6	☐			3013.45		P	3.0
7	☐			3180.34		P	4.7
8	☐			3360.55		P	3.3
9	☐			3347.18		P	3.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	-233.28	0.0000	P	-46.9
2	☒	0.500					
3	☐	5.000	3.524	-65.83	0.0000	P	-171.
4	☐	50.000	51.691	2268.09	0.0003	P	11.0
5	☐	125.000	129.624	6056.15	0.0009	P	1.8
6	☐	250.000	249.453	11923.06	0.0018	P	1.6
7	☐	500.000	504.240	24180.35	0.0036	P	1.2
8	☐	1000.000	997.362	49131.61	0.0071	P	0.9
9	☐			-35.63	0.0000	P	-233.

$$y = 7.1780\text{E-}006 * x - 3.5310\text{E-}005$$

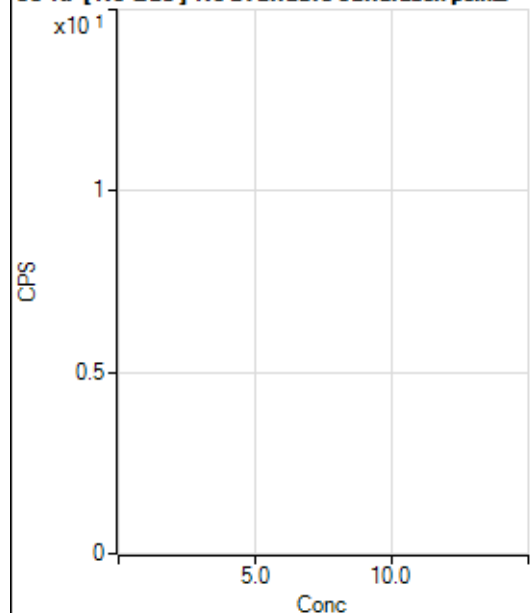
$$R = 1.0000$$

$$DL = 6.915$$

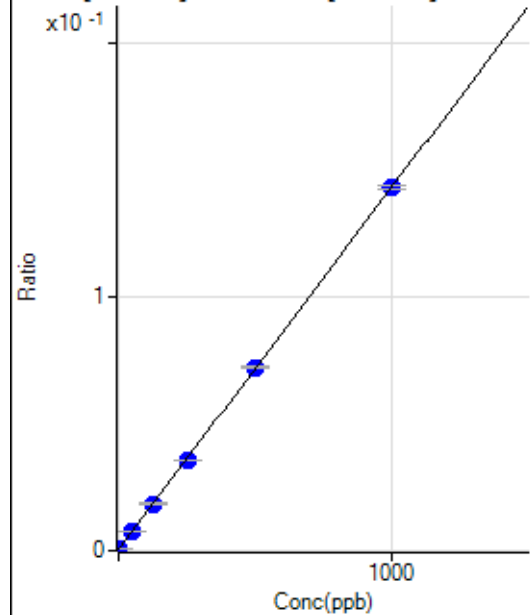
$$BEC = -4.919$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2045.73		P	6.4
2	☐			1987.94		P	8.5
3	☐			2002.39		P	4.5
4	☐			1969.05		P	6.0
5	☐			1962.38		P	2.2
6	☐			2111.29		P	2.2
7	☐			2090.18		P	5.7
8	☐			1952.38		P	2.6
9	☐			1904.59		P	4.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3064.32	0.0005	P	2.4
2	☐	0.100	0.089	3111.54	0.0005	P	7.8
3	☐	1.000	0.937	3936.78	0.0006	P	2.0
4	☐	50.000	50.180	51484.23	0.0076	P	1.3
5	☐	125.000	126.663	125433.76	0.0185	P	0.5
6	☐	250.000	247.400	242965.15	0.0358	P	0.2
7	☐	500.000	502.616	487021.18	0.0722	P	0.9
8	☐	1000.000	999.125	986543.46	0.1430	P	1.2
9	☐			9178.23	0.0013	P	2.6

$$y = 1.4271E-004 * x + 4.6229E-004$$

$$R = 1.0000$$

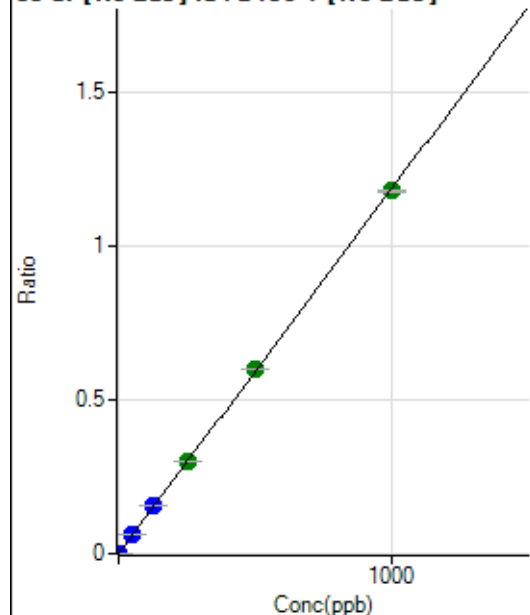
$$DL = 0.2332$$

$$BEC = 3.239$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	161.12	0.0000	P	19.4
2	☐	0.100	0.094	888.95	0.0001	P	13.0
3	☐	1.000	0.973	7774.63	0.0012	P	2.0
4	☐	50.000	51.519	412585.93	0.0611	P	0.4
5	☐	125.000	130.589	1047438.51	0.1548	P	1.1
6	☐	250.000	253.587	2041810.74	0.3006	A	1.1
7	☐	500.000	506.941	4053958.94	0.6009	A	0.5
8	☐	1000.000	994.858	8132777.96	1.1792	A	0.8
9	☐			51713.71	0.0076	P	10.0

$$y = 0.0012 * x + 2.4342E-005$$

$$R = 0.9999$$

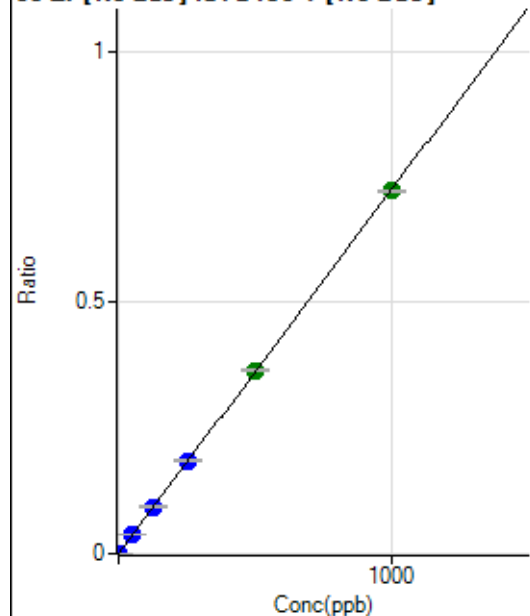
$$DL = 0.01196$$

$$BEC = 0.02054$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	272.24	0.0000	P	24.6
2	☐	0.100	0.099	738.93	0.0001	P	16.0
3	☐	1.000	0.978	4948.21	0.0007	P	2.4
4	☐	50.000	51.240	250835.15	0.0371	P	1.4
5	☐	125.000	129.157	632883.60	0.0935	P	1.5
6	☐	250.000	255.257	1255517.78	0.1848	P	1.2
7	☐	500.000	503.050	2457277.64	0.3642	A	1.4
8	☐	1000.000	996.579	4976373.37	0.7215	A	0.3
9	☐			5668.28	0.0008	P	51.5

$$y = 7.2394E-004 * x + 4.1145E-005$$

$$R = 1.0000$$

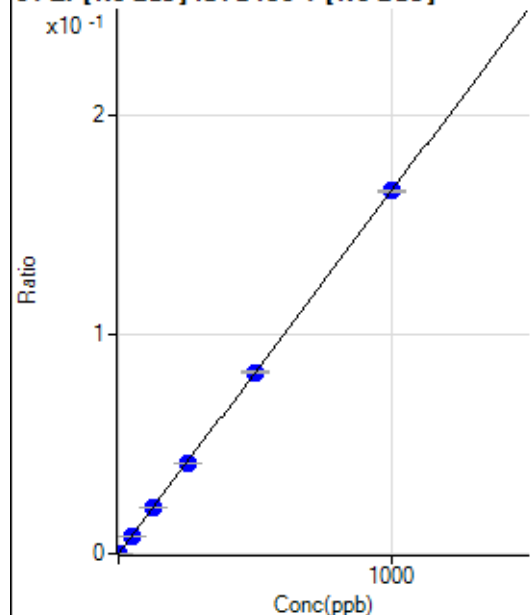
$$DL = 0.04193$$

$$BEC = 0.05684$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0000	P	25.8
2	☐	0.100	0.101	155.56	0.0000	P	3.5
3	☐	1.000	1.048	1191.75	0.0002	P	2.7
4	☐	50.000	49.945	55854.03	0.0083	P	0.3
5	☐	125.000	125.763	140816.46	0.0208	P	1.8
6	☐	250.000	250.216	281233.80	0.0414	P	1.2
7	☐	500.000	499.631	557712.47	0.0827	P	0.7
8	☐	1000.000	1000.038	1141138.98	0.1655	P	0.7
9	☐			1269.55	0.0002	P	52.9

$$y = 1.6544\text{E-}004 * x + 7.1078\text{E-}006$$

$$R = 1.0000$$

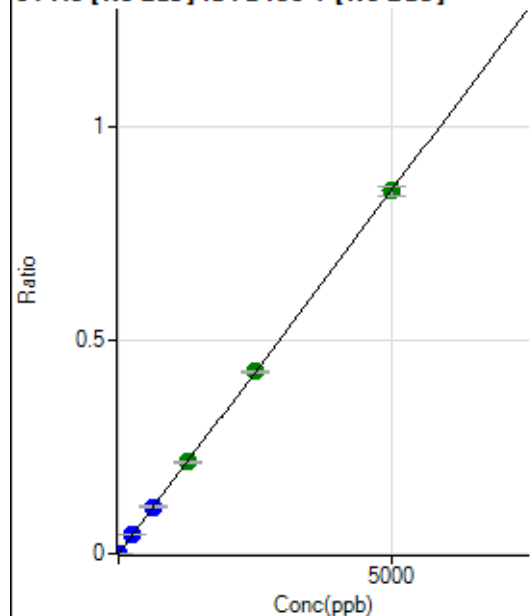
$$DL = 0.03329$$

$$BEC = 0.04296$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	19.6
2	☐	0.500	0.447	591.70	0.0001	P	15.5
3	☐	5.000	5.050	5770.79	0.0009	P	4.2
4	☐	250.000	256.809	295242.58	0.0437	P	1.3
5	☐	625.000	646.098	744006.63	0.1100	P	1.3
6	☐	1250.000	1260.455	1457163.20	0.2145	A	0.6
7	☐	2500.000	2501.349	2872109.12	0.4257	A	0.2
8	☐	5000.000	4993.734	5860369.84	0.8498	A	2.9
9	☐			7141.24	0.0010	P	49.0

$$y = 1.7018\text{E-}004 * x + 1.4271\text{E-}005$$

$$R = 1.0000$$

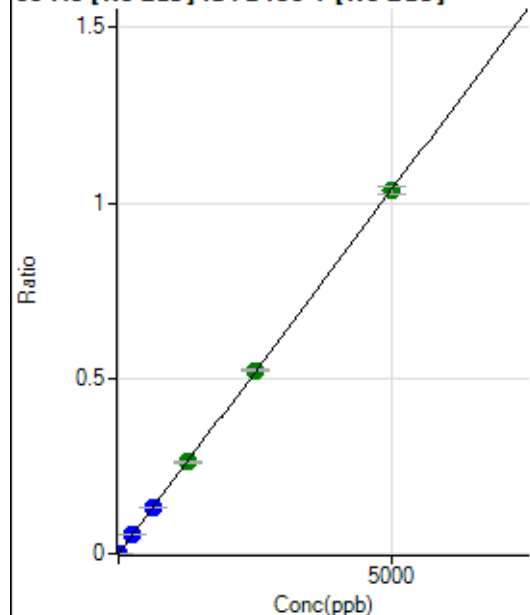
$$DL = 0.04929$$

$$BEC = 0.08386$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	25.00	0.0000	P	56.3
2	☐	0.500	0.503	708.38	0.0001	P	16.4
3	☐	5.000	5.002	6876.88	0.0010	P	2.1
4	☐	250.000	256.493	359328.92	0.0532	P	0.8
5	☐	625.000	637.663	894848.55	0.1323	P	0.8
6	☐	1250.000	1257.001	1770963.60	0.2607	A	1.9
7	☐	2500.000	2517.827	3523089.05	0.5222	A	1.2
8	☐	5000.000	4987.428	7133586.71	1.0344	A	2.0
9	☐			9100.91	0.0013	P	49.5

$$y = 2.0740\text{E-}004 * x + 3.7527\text{E-}006$$

$$R = 1.0000$$

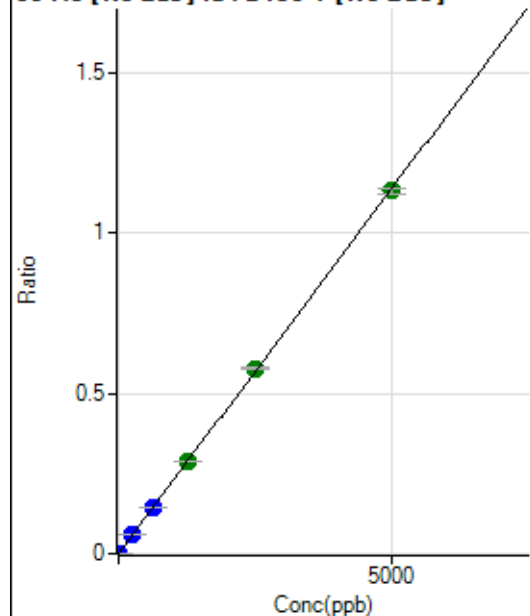
$$DL = 0.03054$$

$$BEC = 0.01809$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	52.78	0.0000	P	48.1
2	☐	0.500	0.572	905.61	0.0001	P	3.4
3	☐	5.000	4.934	7474.42	0.0011	P	5.2
4	☐	250.000	257.426	396069.29	0.0586	P	0.3
5	☐	625.000	643.282	991435.22	0.1465	P	0.8
6	☐	1250.000	1267.428	1961011.72	0.2887	A	1.5
7	☐	2500.000	2538.500	3900577.26	0.5782	A	1.6
8	☐	5000.000	4973.737	7812792.02	1.1329	A	1.8
9	☐			10721.72	0.0016	P	45.0

$$y = 2.2777\text{E-}004 * x + 7.9461\text{E-}006$$

$$R = 0.9999$$

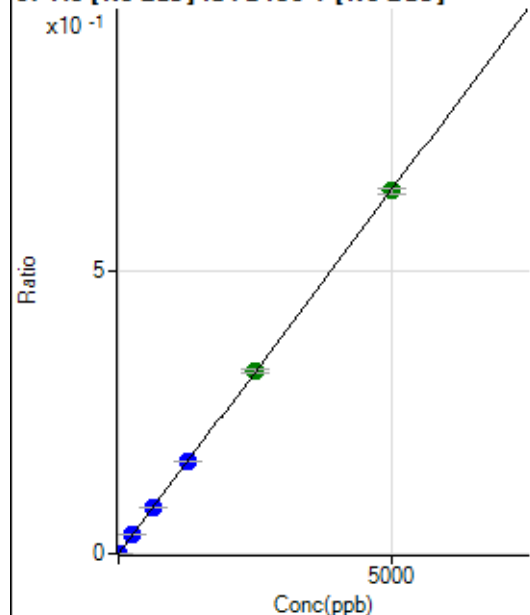
$$DL = 0.05035$$

$$BEC = 0.03489$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.44	0.0000	P	66.4
2	☐	0.500	0.497	438.91	0.0001	P	8.9
3	☐	5.000	5.087	4350.80	0.0007	P	7.3
4	☐	250.000	254.054	221299.85	0.0328	P	0.8
5	☐	625.000	635.591	554600.26	0.0820	P	1.1
6	☐	1250.000	1265.316	1108447.25	0.1632	P	0.4
7	☐	2500.000	2511.749	2185096.03	0.3239	A	1.8
8	☐	5000.000	4988.770	4437067.11	0.6434	A	1.6
9	☐			5490.30	0.0008	P	48.6

$$y = 1.2896\text{E-}004 * x + 2.9488\text{E-}006$$

$$R = 1.0000$$

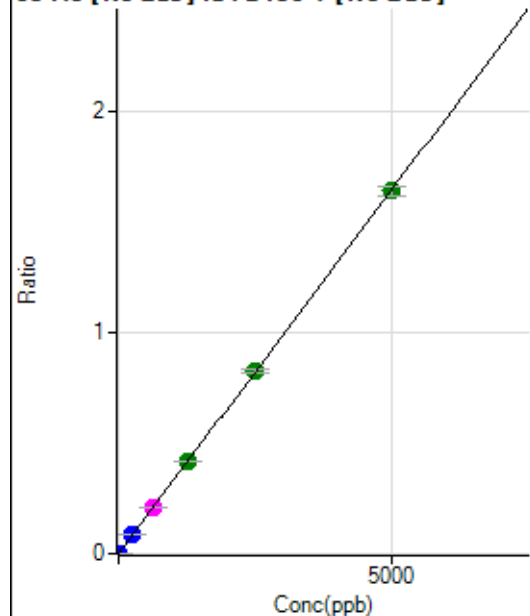
$$DL = 0.04555$$

$$BEC = 0.02287$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.44	0.0000	P	66.4
2	☐	0.500	0.497	1091.74	0.0002	P	8.9
3	☐	5.000	5.088	11085.28	0.0017	P	3.2
4	☐	250.000	254.496	565954.26	0.0838	P	0.3
5	☐	625.000	640.702	1427409.34	0.2110	M	0.3
6	☐	1250.000	1258.284	2814247.57	0.4143	A	0.2
7	☐	2500.000	2510.629	5576254.47	0.8266	A	2.0
8	☐	5000.000	4990.427	11331899.56	1.6431	A	2.6
9	☐			14459.03	0.0021	P	46.4

$$y = 3.2926\text{E-}004 * x + 2.9488\text{E-}006$$

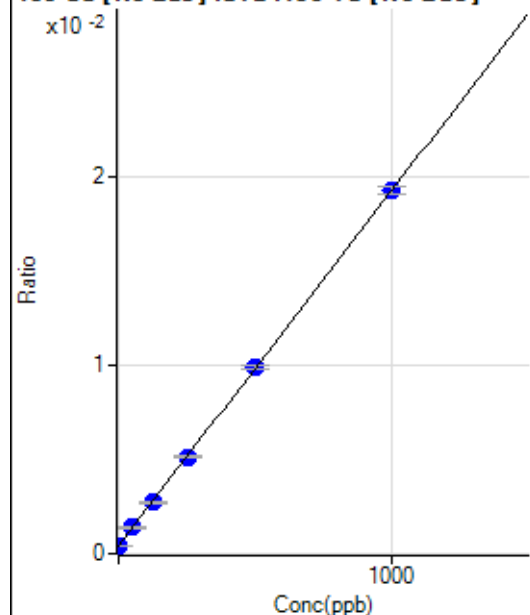
$$R = 1.0000$$

$$DL = 0.01784$$

$$BEC = 0.008956$$

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	1552.91	0.0004	P	4.4
2	☐	0.100	-0.882	1472.34	0.0004	P	4.3
3	☐	1.000	0.362	1594.58	0.0004	P	4.2
4	☐	50.000	50.812	5156.68	0.0014	P	4.3
5	☐	125.000	122.463	10154.00	0.0027	P	3.3
6	☐	250.000	250.210	19533.74	0.0051	P	2.4
7	☐	500.000	500.826	36727.26	0.0098	P	2.2
8	☐	1000.000	999.812	73571.62	0.0192	P	2.3
9	☐			1622.36	0.0004	P	8.6

$$y = 1.8803E-005 * x + 4.2525E-004$$

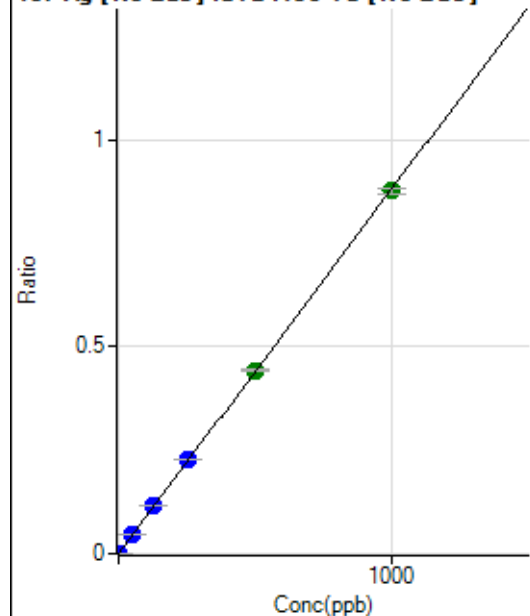
$$R = 1.0000$$

$$DL = 3.015$$

$$BEC = 22.62$$

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	66.67	0.0000	P	24.9
2	☐	0.100	0.115	430.57	0.0001	P	21.1
3	☐	1.000	1.002	3319.93	0.0009	P	3.4
4	☐	50.000	52.148	171336.52	0.0459	P	1.8
5	☐	125.000	131.127	429364.73	0.1153	P	1.0
6	☐	250.000	256.865	860205.97	0.2259	P	0.5
7	☐	500.000	503.522	1652609.78	0.4429	A	1.0
8	☐	1000.000	995.649	3351485.45	0.8757	A	1.3
9	☐			4548.19	0.0012	P	42.0

$$y = 8.7947E-004 * x + 1.8253E-005$$

$$R = 1.0000$$

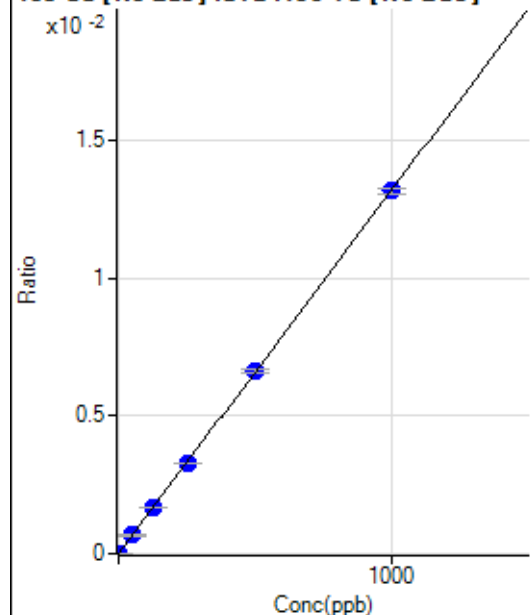
$$DL = 0.01551$$

$$BEC = 0.02075$$

Weight: <None>

Min Conc: 0

108 Cd [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	90.2
2	☐	0.100	0.269	29.17	0.0000	P	15.2
3	☐	1.000	1.256	77.78	0.0000	P	40.5
4	☐	50.000	50.297	2490.54	0.0007	P	4.9
5	☐	125.000	126.210	6204.25	0.0017	P	2.9
6	☐	250.000	249.020	12504.41	0.0033	P	0.7
7	☐	500.000	503.127	24738.91	0.0066	P	1.8
8	☐	1000.000	998.515	50347.08	0.0132	P	1.4
9	☐			138.89	0.0000	P	31.6

$$y = 1.3169\text{E-}005 * x + 4.5585\text{E-}006$$

$$R = 1.0000$$

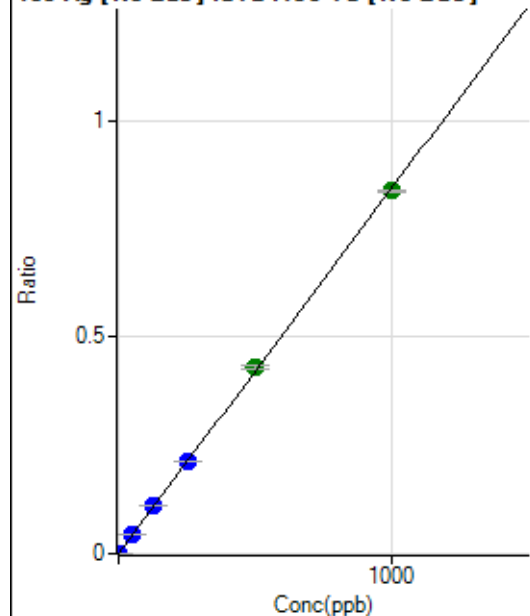
$$DL = 0.9368$$

$$BEC = 0.3461$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	50.0
2	☐	0.100	0.101	355.57	0.0001	P	10.3
3	☐	1.000	0.956	3025.42	0.0008	P	5.0
4	☐	50.000	50.968	160609.96	0.0430	P	1.4
5	☐	125.000	130.617	410201.35	0.1102	P	1.4
6	☐	250.000	251.884	809090.61	0.2125	P	0.8
7	☐	500.000	510.179	1605782.21	0.4304	A	1.5
8	☐	1000.000	993.689	3208485.47	0.8382	A	0.7
9	☐			4261.97	0.0011	P	44.4

$$y = 8.4355\text{E-}004 * x + 1.3686\text{E-}005$$

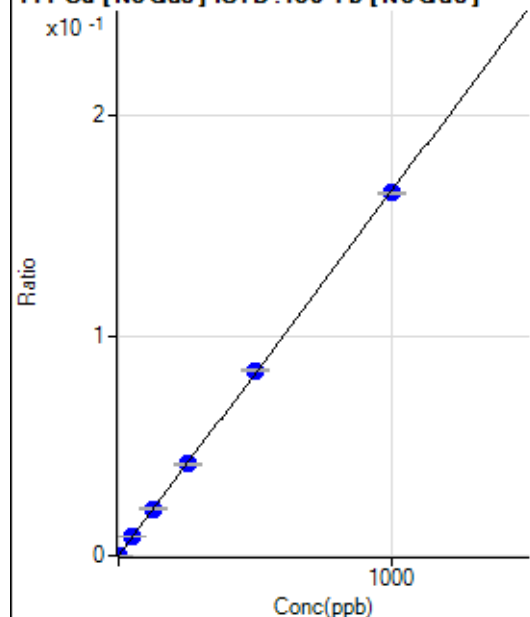
$$R = 0.9999$$

$$DL = 0.02432$$

$$BEC = 0.01622$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	82.65	0.0000	P	22.3
2	☐	0.100	0.076	126.81	0.0000	P	17.4
3	☐	1.000	1.191	812.82	0.0002	P	3.0
4	☐	50.000	50.601	31420.50	0.0084	P	1.5
5	☐	125.000	128.827	79604.42	0.0214	P	2.3
6	☐	250.000	250.628	158336.73	0.0416	P	0.7
7	☐	500.000	508.630	314809.63	0.0844	P	0.9
8	☐	1000.000	995.019	631656.29	0.1650	P	0.7
9	☐			861.71	0.0002	P	39.7

$$y = 1.6583\text{E-}004 * x + 2.2641\text{E-}005$$

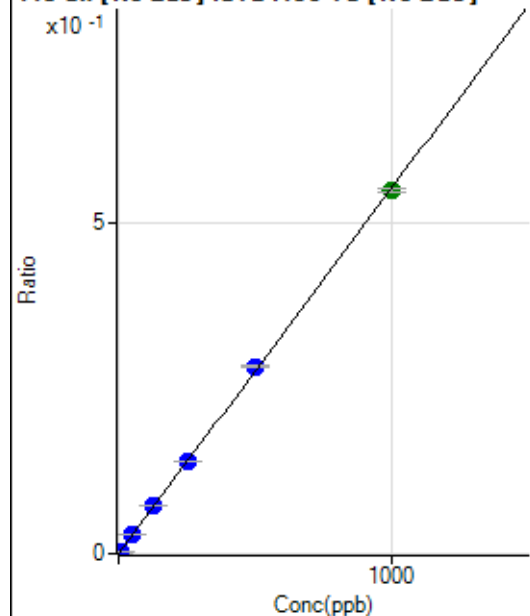
$$R = 0.9999$$

$$DL = 0.09123$$

$$BEC = 0.1365$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	141.67	0.0000	P	37.0
2	☐	0.500	0.507	1150.08	0.0003	P	10.7
3	☐	5.000	4.954	10262.43	0.0028	P	0.8
4	☐	50.000	51.120	105770.94	0.0283	P	1.8
5	☐	125.000	129.443	266780.21	0.0717	P	0.7
6	☐	250.000	251.057	529075.84	0.1390	P	0.6
7	☐	500.000	512.226	1057683.56	0.2835	P	0.7
8	☐	1000.000	993.011	2103219.08	0.5495	A	1.2
9	☐			2828.17	0.0007	P	41.9

$$y = 5.5331\text{E-}004 * x + 3.8825\text{E-}005$$

$$R = 0.9999$$

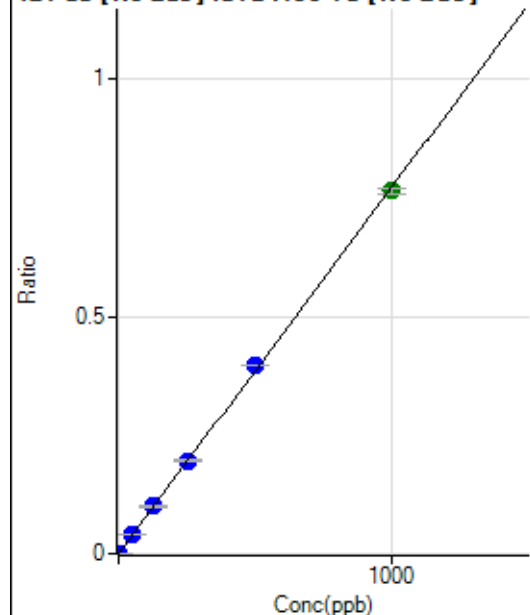
$$DL = 0.07797$$

$$BEC = 0.07017$$

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	22.22	0.0000	P	43.3
2	☐	0.200	0.176	511.13	0.0001	P	15.4
3	☐	2.000	1.948	5573.52	0.0015	P	3.9
4	☐	50.000	51.216	147680.98	0.0395	P	1.2
5	☐	125.000	129.086	371003.30	0.0997	P	1.0
6	☐	250.000	254.061	746851.77	0.1961	P	1.1
7	☐	500.000	514.451	1481988.91	0.3972	P	0.7
8	☐	1000.000	991.188	2928705.71	0.7652	A	1.9
9	☐			4817.73	0.0013	P	38.0

$$y = 7.7200\text{E-}004 * x + 6.0861\text{E-}006$$

$$R = 0.9998$$

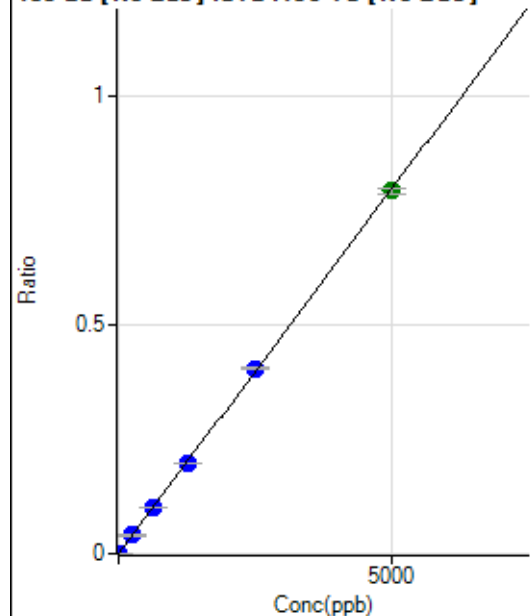
$$DL = 0.01024$$

$$BEC = 0.007883$$

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	30.55	0.0000	P	68.5
2	☐	1.000	1.001	605.59	0.0002	P	7.1
3	☐	10.000	9.634	5704.13	0.0015	P	1.5
4	☐	250.000	252.751	150600.34	0.0403	P	2.0
5	☐	625.000	642.601	381643.99	0.1025	P	0.9
6	☐	1250.000	1248.189	758207.56	0.1991	P	0.5
7	☐	2500.000	2541.971	1513070.57	0.4055	P	1.4
8	☐	5000.000	4977.131	3038959.46	0.7940	A	1.3
9	☐			8049.91	0.0021	P	22.5

$$y = 1.5953\text{E-}004 * x + 8.3554\text{E-}006$$

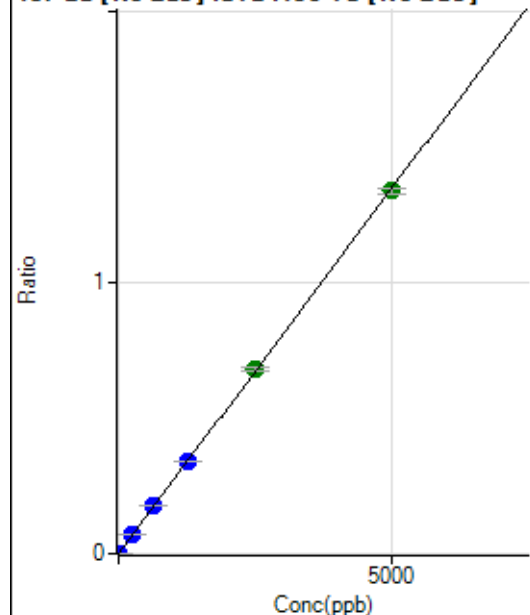
$$R = 0.9999$$

$$DL = 0.1076$$

$$BEC = 0.05238$$

Weight: <None>

Min Conc: 0

¹³⁷Ba [No Gas] ISTD : ¹⁵⁹Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	30.55	0.0000	P	68.5
2	☐	1.000	1.042	1041.74	0.0003	P	7.0
3	☐	10.000	10.031	10006.79	0.0027	P	3.9
4	☐	250.000	255.868	257535.24	0.0690	P	1.3
5	☐	625.000	649.603	651697.93	0.1751	P	1.1
6	☐	1250.000	1275.180	1308471.68	0.3437	P	0.2
7	☐	2500.000	2537.988	2551826.25	0.6840	A	2.2
8	☐	5000.000	4971.342	5127626.89	1.3397	A	1.3
9	☐			13866.02	0.0036	P	19.1

$$y = 2.6949\text{E-}004 * x + 8.3621\text{E-}006$$

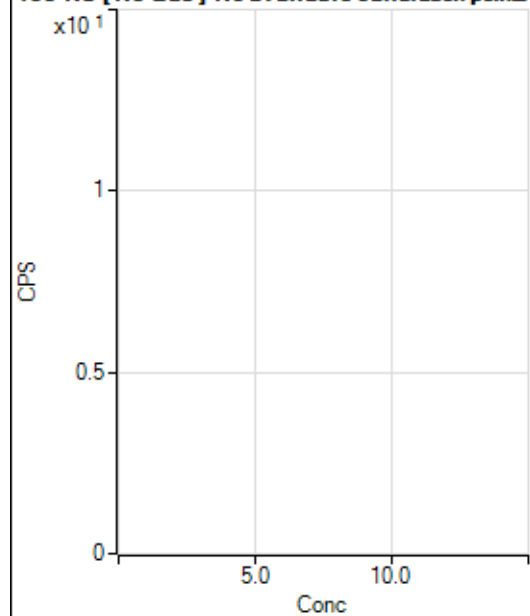
$$R = 0.9999$$

$$DL = 0.06374$$

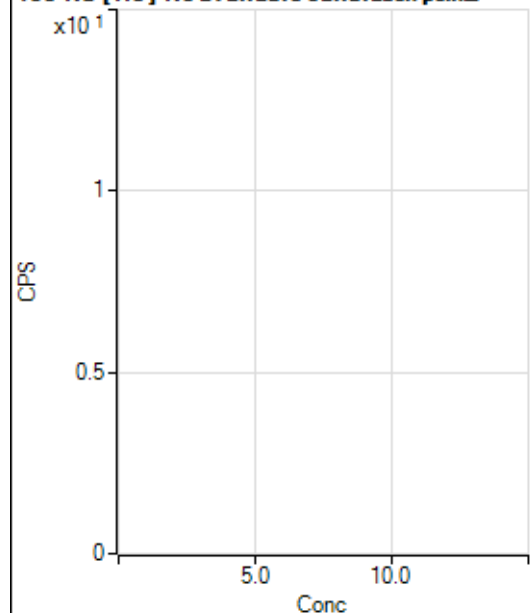
$$BEC = 0.03103$$

Weight: <None>

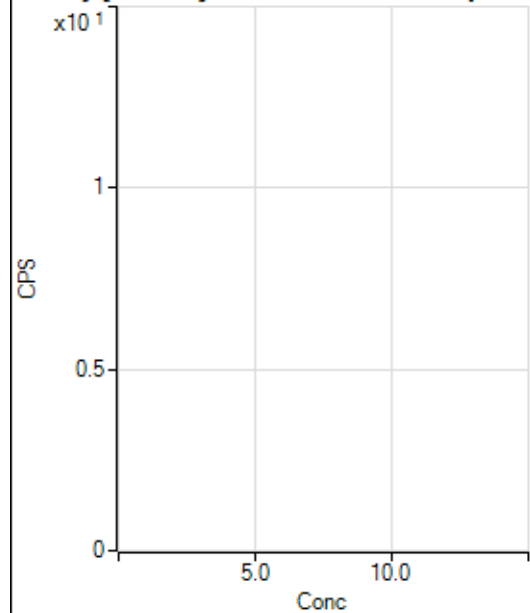
Min Conc: 0

¹⁵⁰Nd [No Gas] No available calibration points

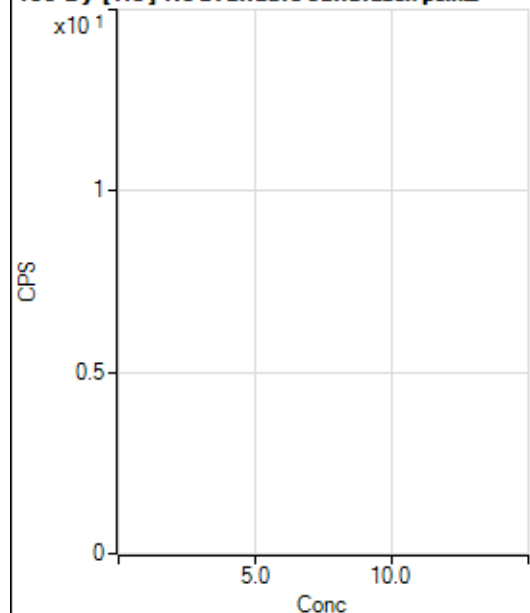
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	34.6
2	☐			4.44		P	173.2
3	☐			6.67		P	100.0
4	☐			15.56		P	49.5
5	☐			35.55		P	10.8
6	☐			53.33		P	54.5
7	☐			64.44		P	21.5
8	☐			144.45		P	32.7
9	☐			20.00		P	0.0

150 Nd [He] No available calibration points

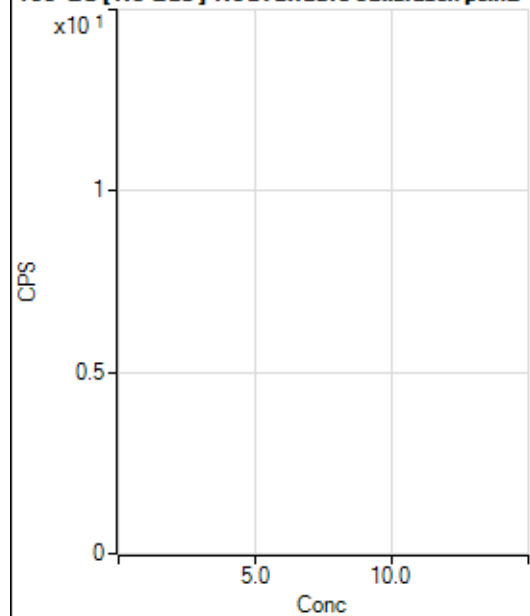
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			3.33		P	100.1
5	☐			1.11		P	173.2
6	☐			3.33		P	100.1
7	☐			6.67		P	50.0
8	☐			7.78		P	49.5
9	☐			2.22		P	173.2

156 Dy [No Gas] No available calibration points

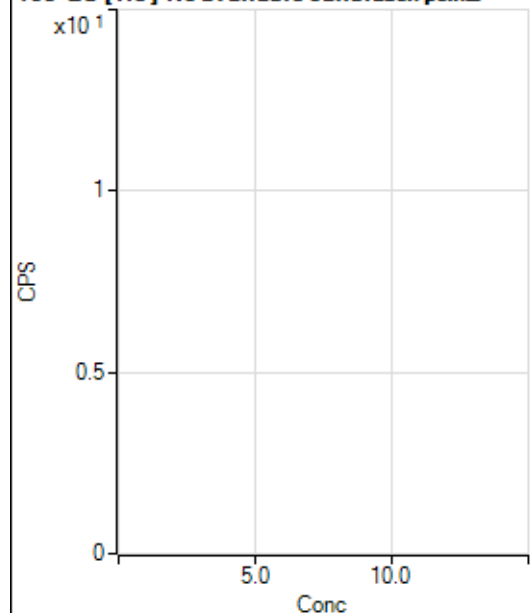
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐			8.33		P	100.0
3	☐			13.89		P	124.9
4	☐			16.67		P	50.0
5	☐			25.00		P	57.7
6	☐			44.45		P	10.8
7	☐			66.67		P	50.0
8	☐			86.12		P	24.4
9	☐			180.56		P	23.2

156 Dy [He] No available calibration points

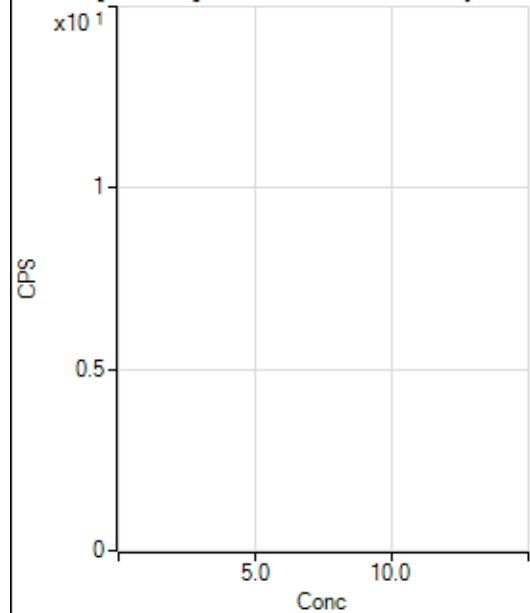
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			0.00		P	
3	☐			4.44		P	43.4
4	☐			3.33		P	0.0
5	☐			5.56		P	34.7
6	☐			7.78		P	89.2
7	☐			8.89		P	21.6
8	☐			20.00		P	66.7
9	☐			106.67		P	22.5

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

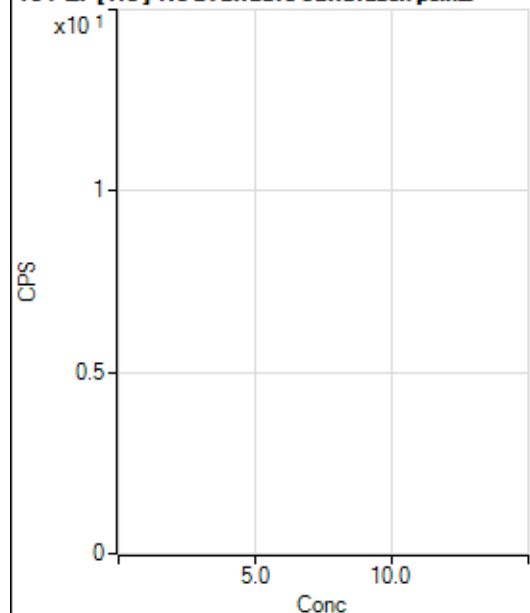
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	44.6
2	☐			36.11		P	48.0
3	☐			36.11		P	87.4
4	☐			38.89		P	65.5
5	☐			38.89		P	24.7
6	☐			38.89		P	68.9
7	☐			58.33		P	37.8
8	☐			83.34		P	10.0
9	☐			194.45		P	17.3

160 Gd [He] No available calibration points

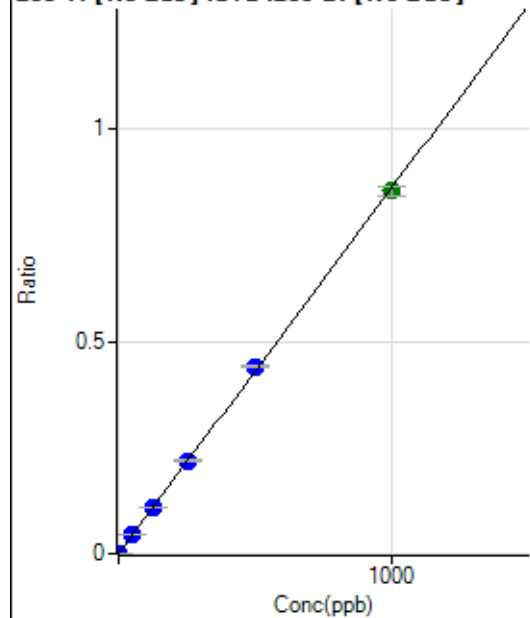
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	75.5
2	☐			7.78		P	99.0
3	☐			7.78		P	65.5
4	☐			13.33		P	25.0
5	☐			16.67		P	40.0
6	☐			11.11		P	45.8
7	☐			26.67		P	25.0
8	☐			32.22		P	29.8
9	☐			124.45		P	6.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	17.3
2	☐			13.89		P	34.7
3	☐			25.00		P	33.3
4	☐			27.78		P	105.4
5	☐			19.44		P	99.0
6	☐			25.00		P	0.0
7	☐			36.11		P	96.1
8	☐			30.56		P	41.7
9	☐			50.00		P	16.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	78.1
2	☐			5.55		P	69.3
3	☐			6.67		P	100.0
4	☐			7.78		P	65.5
5	☐			12.22		P	110.2
6	☐			15.56		P	49.5
7	☐			11.11		P	75.5
8	☐			15.56		P	12.4
9	☐			13.33		P	25.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	122.23	0.0001	P	46.4
2	☐	0.100	0.065	225.01	0.0001	P	3.0
3	☐	1.000	0.978	1777.95	0.0009	P	0.9
4	☐	50.000	50.680	85514.70	0.0437	P	1.6
5	☐	125.000	127.180	215668.61	0.1095	P	2.0
6	☐	250.000	253.951	432985.81	0.2186	P	1.8
7	☐	500.000	511.629	862495.74	0.4402	P	1.1
8	☐	1000.000	992.891	1702536.02	0.8543	A	2.5
9	☐			2533.70	0.0013	P	44.2

$$y = 8.6035E-004 * x + 6.2713E-005$$

$$R = 0.9999$$

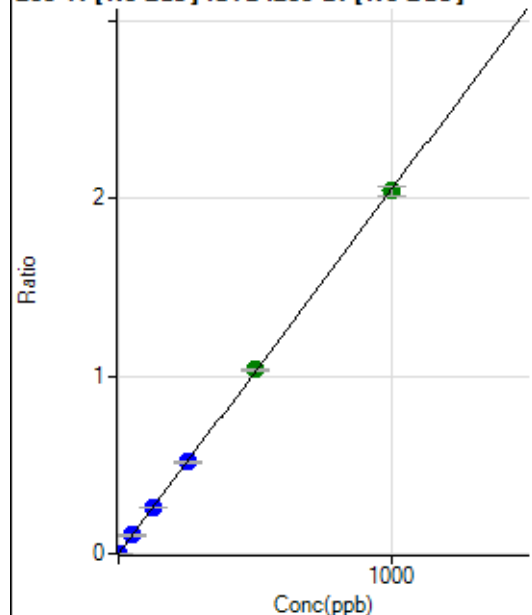
$$DL = 0.1014$$

$$BEC = 0.07289$$

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	269.46	0.0001	P	21.9
2	☐	0.100	0.095	633.37	0.0003	P	8.0
3	☐	1.000	0.920	3975.71	0.0020	P	8.4
4	☐	50.000	50.231	201763.40	0.1030	P	0.8
5	☐	125.000	126.146	509213.17	0.2585	P	2.3
6	☐	250.000	251.779	1021876.36	0.5158	P	1.7
7	☐	500.000	505.481	2028556.14	1.0354	A	1.1
8	☐	1000.000	996.660	4068316.71	2.0414	A	2.6
9	☐			6557.63	0.0034	P	43.9

$$y = 0.0020 * x + 1.3909E-004$$

$$R = 1.0000$$

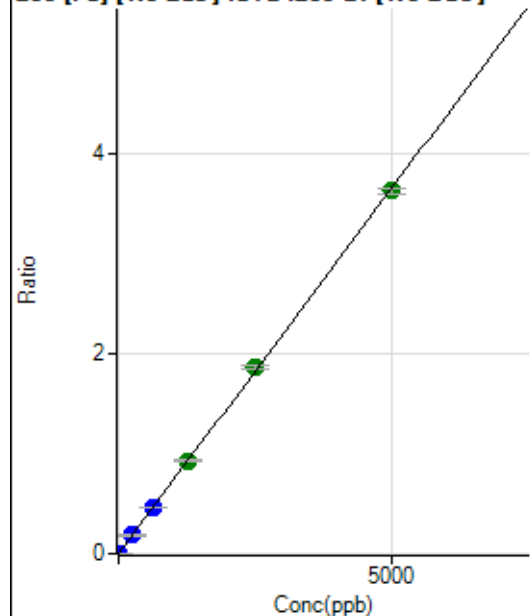
$$DL = 0.04463$$

$$BEC = 0.06791$$

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	246.31	0.0001	P	12.5
2	☐	0.100	0.111	394.46	0.0002	P	16.7
3	☐	1.000	0.910	1551.98	0.0008	P	7.0
4	☐	250.000	250.857	358295.71	0.1829	P	1.1
5	☐	625.000	630.890	905981.50	0.4599	P	2.0
6	☐	1250.000	1270.006	1833909.68	0.9257	A	1.6
7	☐	2500.000	2552.568	3644884.11	1.8604	A	1.7
8	☐	5000.000	4967.935	7216267.12	3.6207	A	1.4
9	☐			14733.24	0.0076	P	29.6

$$y = 7.2879E-004 * x + 1.2679E-004$$

$$R = 0.9999$$

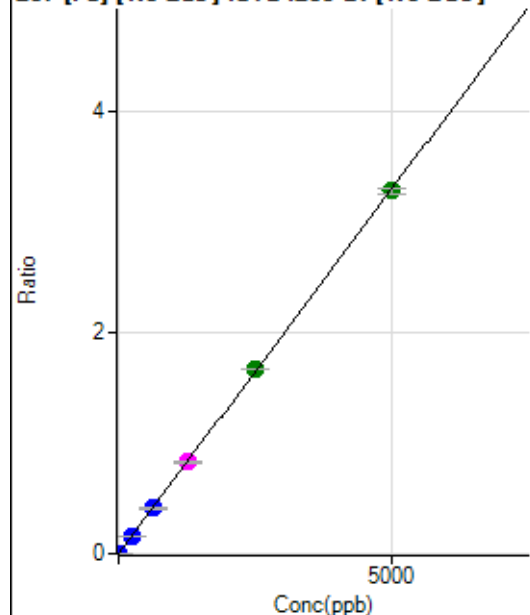
$$DL = 0.06503$$

$$BEC = 0.174$$

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	214.82	0.0001	P	16.0
2	☐	0.100	0.058	283.34	0.0001	P	16.1
3	☐	1.000	0.854	1322.32	0.0007	P	3.5
4	☐	250.000	249.105	321162.57	0.1640	P	0.9
5	☐	625.000	628.671	814769.29	0.4137	P	3.2
6	☐	1250.000	1258.405	1640242.06	0.8280	M	1.5
7	☐	2500.000	2536.636	3269573.25	1.6689	A	0.7
8	☐	5000.000	4979.167	6528721.10	3.2757	A	1.3
9	☐			13238.91	0.0069	P	30.8

$$y = 6.5786\text{E-}004 * x + 1.1070\text{E-}004$$

$$R = 1.0000$$

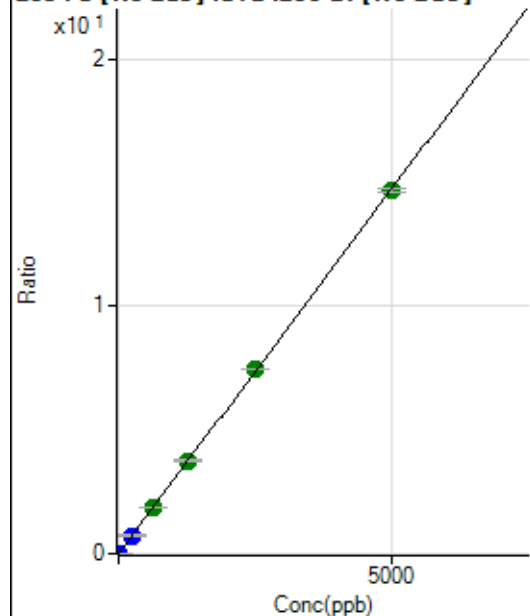
$$DL = 0.08102$$

$$BEC = 0.1683$$

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	1013.00	0.0005	P	8.2
2	☐	0.100	0.078	1427.84	0.0008	P	2.4
3	☐	1.000	0.886	6152.56	0.0031	P	4.8
4	☐	250.000	250.411	1445257.84	0.7379	P	0.5
5	☐	625.000	637.586	3699268.57	1.8781	A	2.6
6	☐	1250.000	1274.929	7439126.02	3.7549	A	1.0
7	☐	2500.000	2529.475	14594485.59	7.4492	A	0.4
8	☐	5000.000	4977.436	29215120.97	14.6579	A	1.0
9	☐			58659.06	0.0304	P	29.4

$$y = 0.0029 * x + 5.2172\text{E-}004$$

$$R = 1.0000$$

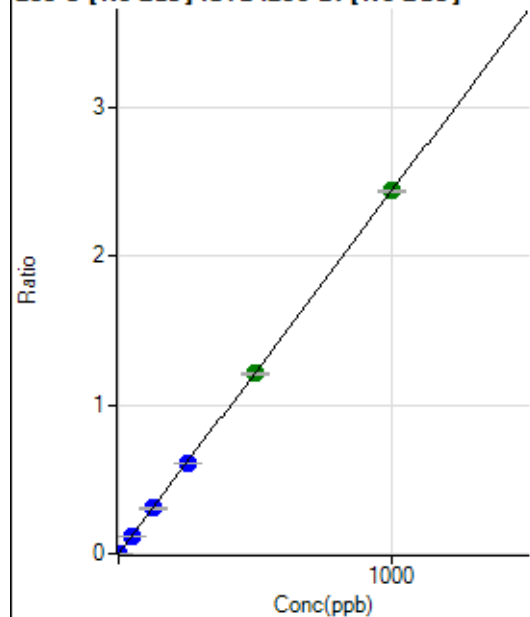
$$DL = 0.04367$$

$$BEC = 0.1772$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	11.11	0.0000	P	113.4
2	☐	0.100	0.093	444.47	0.0002	P	15.9
3	☐	1.000	0.966	4639.88	0.0024	P	9.7
4	☐	50.000	49.614	236604.94	0.1208	P	0.1
5	☐	125.000	126.160	605086.05	0.3072	P	2.5
6	☐	250.000	249.520	1203764.38	0.6075	P	1.3
7	☐	500.000	497.761	2374496.34	1.2119	A	0.7
8	☐	1000.000	1001.114	4858543.08	2.4375	A	0.4
9	☐			5050.73	0.0026	P	57.3

$$y = 0.0024 * x + 5.6614E-006$$

$$R = 1.0000$$

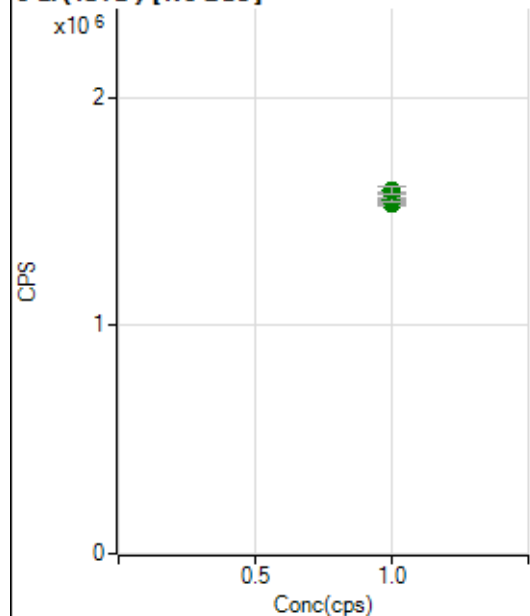
$$DL = 0.00791$$

$$BEC = 0.002325$$

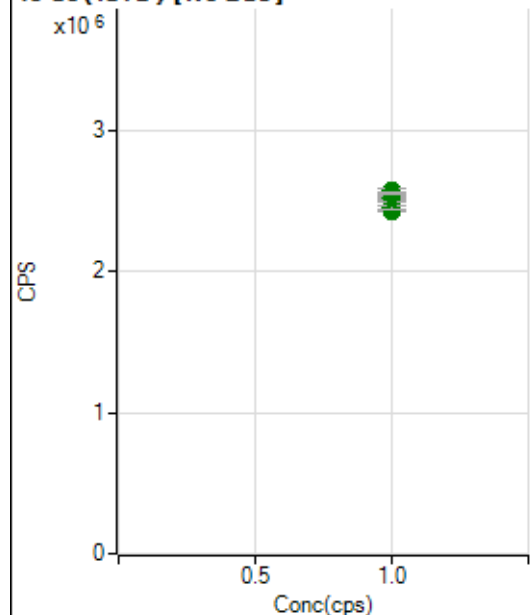
Weight: <None>

Min Conc: 0

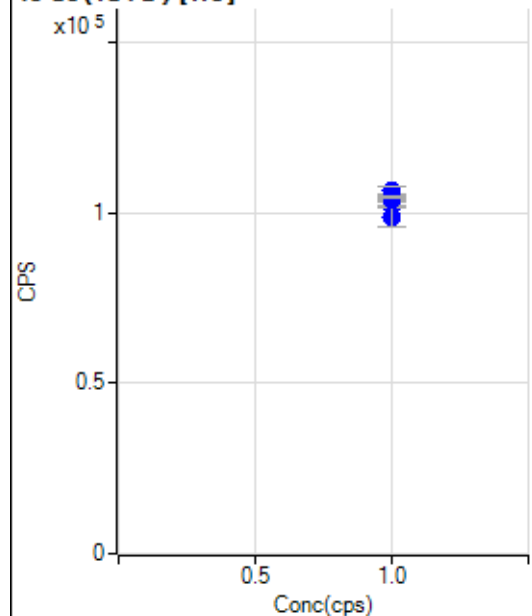
6 Li (ISTD) [No Gas]



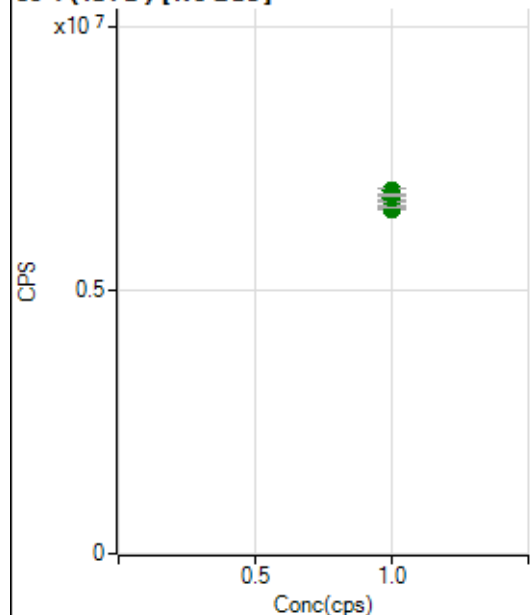
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1538669.14		A	0.6
2	☐	1.000		1532549.55		A	1.1
3	☐	1.000		1532307.13		A	1.0
4	☐	1.000		1557935.25		A	0.7
5	☐	1.000		1559106.56		A	2.8
6	☐	1.000		1573471.40		A	1.2
7	☐	1.000		1548220.79		A	0.2
8	☐	1.000		1549671.90		A	1.0
9	☐	1.000		1591064.72		A	2.2

45 Sc (ISTD) [No Gas]

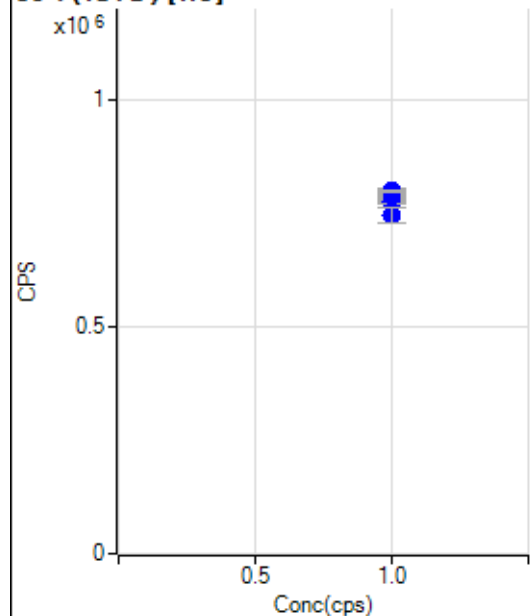
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2449000.33		A	1.1
2	☐	1.000		2432359.48		A	0.9
3	☐	1.000		2453183.71		A	1.2
4	☐	1.000		2528711.60		A	0.6
5	☐	1.000		2529397.22		A	1.5
6	☐	1.000		2531111.31		A	0.8
7	☐	1.000		2522517.53		A	1.8
8	☐	1.000		2571152.24		A	1.7
9	☐	1.000		2554858.84		A	0.8

45 Sc (ISTD) [He]

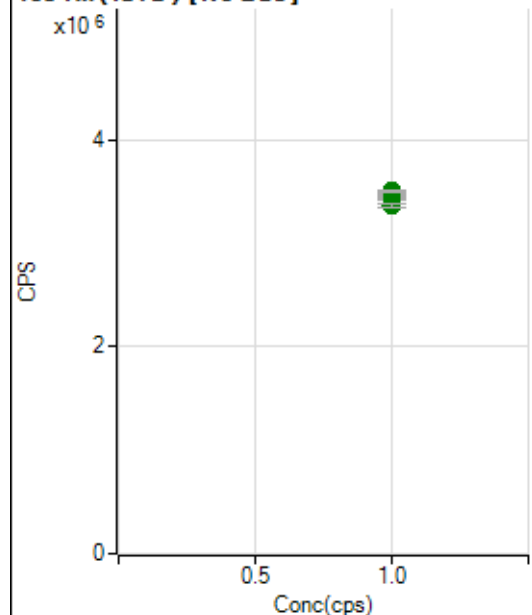
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		103029.23		P	1.4
2	☐	1.000		102074.76		P	0.2
3	☐	1.000		98593.87		P	5.8
4	☐	1.000		103814.76		P	1.0
5	☐	1.000		104269.01		P	0.8
6	☐	1.000		104321.60		P	0.6
7	☐	1.000		104768.25		P	0.1
8	☐	1.000		106384.53		P	2.2
9	☐	1.000		104691.79		P	0.4

89 Y (ISTD) [No Gas]

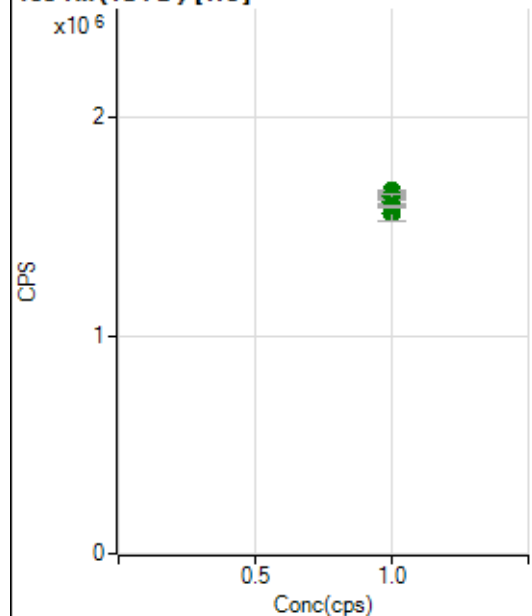
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6629981.77		A	1.4
2	☐	1.000		6550391.43		A	0.5
3	☐	1.000		6604279.69		A	0.4
4	☐	1.000		6753947.61		A	0.9
5	☐	1.000		6766389.20		A	1.0
6	☐	1.000		6792769.34		A	0.2
7	☐	1.000		6747130.32		A	1.8
8	☐	1.000		6897378.65		A	1.3
9	☐	1.000		6821617.19		A	0.6

89 Y (ISTD) [He]

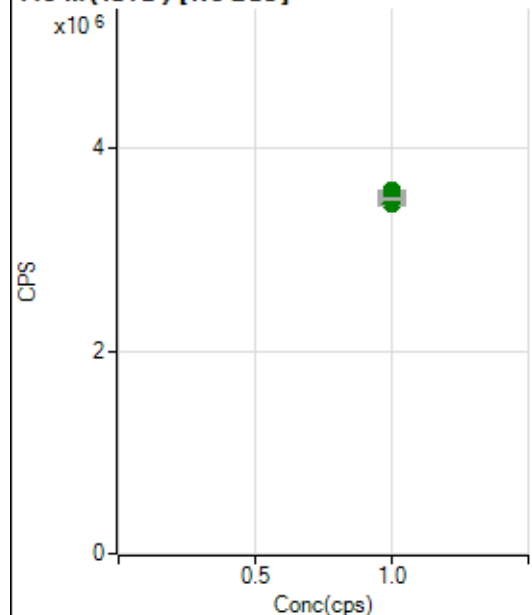
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		779367.74		P	1.2
2	☐	1.000		773634.46		P	1.1
3	☐	1.000		745804.16		P	4.6
4	☐	1.000		788690.90		P	1.1
5	☐	1.000		791339.45		P	1.0
6	☐	1.000		795846.55		P	0.7
7	☐	1.000		796549.16		P	0.7
8	☐	1.000		798408.98		P	1.2
9	☐	1.000		797331.16		P	0.9

103 Rh (ISTD) [No Gas]

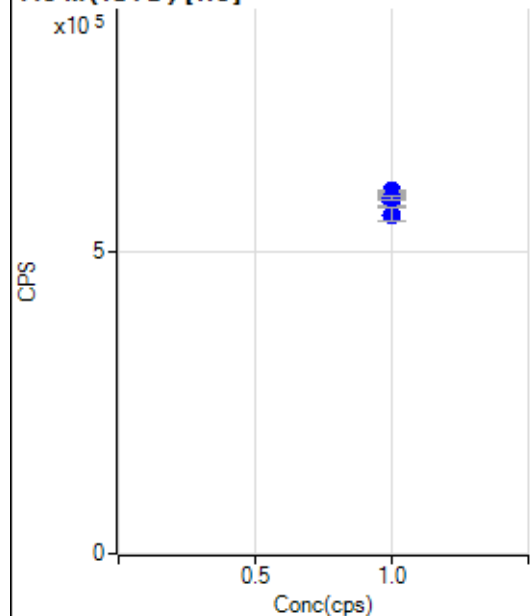
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3432294.61		A	0.7
2	☐	1.000		3447615.79		A	0.7
3	☐	1.000		3463167.13		A	1.2
4	☐	1.000		3505320.08		A	0.7
5	☐	1.000		3470333.89		A	1.4
6	☐	1.000		3499264.57		A	0.5
7	☐	1.000		3483006.11		A	0.7
8	☐	1.000		3498282.46		A	0.7
9	☐	1.000		3361059.37		A	0.7

103 Rh (ISTD) [He]

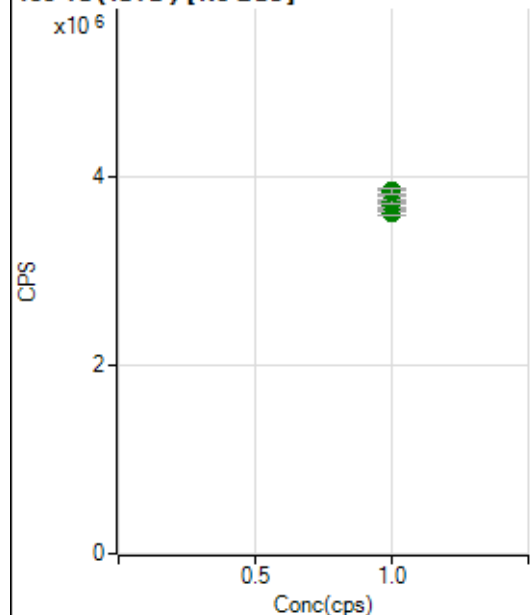
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1614505.55		A	1.7
2	☐	1.000		1610389.53		A	1.3
3	☐	1.000		1555971.31		A	4.2
4	☐	1.000		1645611.26		A	0.9
5	☐	1.000		1653437.36		A	1.7
6	☐	1.000		1662464.05		A	0.7
7	☐	1.000		1637055.13		A	0.7
8	☐	1.000		1636126.09		A	1.4
9	☐	1.000		1591561.52		A	0.9

115 In (ISTD) [No Gas]

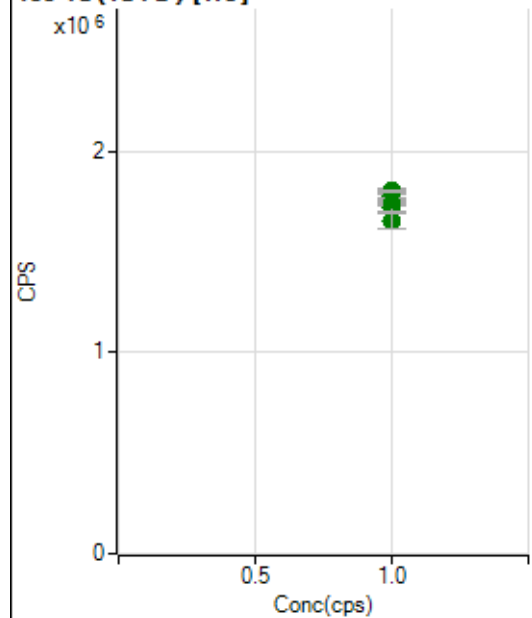
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3466901.78		A	1.1
2	☐	1.000		3452540.29		A	1.4
3	☐	1.000		3483028.52		A	1.2
4	☐	1.000		3578039.79		A	0.6
5	☐	1.000		3521180.26		A	2.2
6	☐	1.000		3578163.60		A	0.4
7	☐	1.000		3492322.94		A	1.5
8	☐	1.000		3546694.50		A	0.4
9	☐	1.000		3504754.34		A	0.6

115 In (ISTD) [He]

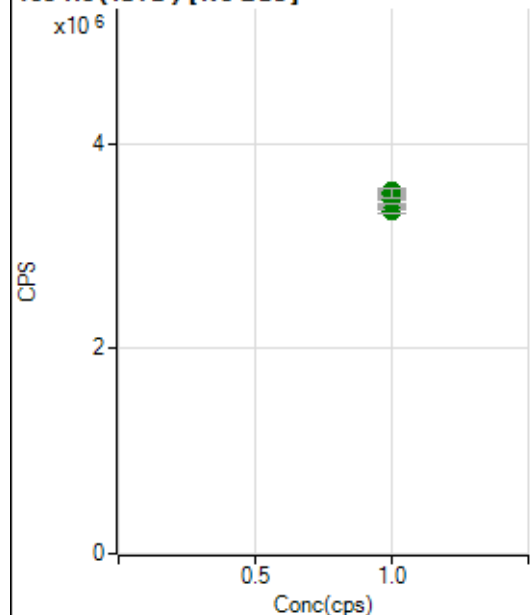
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		586038.05		P	0.8
2	☐	1.000		580687.66		P	1.5
3	☐	1.000		560688.83		P	4.4
4	☐	1.000		592318.05		P	0.9
5	☐	1.000		595044.71		P	0.4
6	☐	1.000		599611.64		P	0.7
7	☐	1.000		592025.12		P	1.2
8	☐	1.000		592096.65		P	1.4
9	☐	1.000		587057.02		P	1.1

159 Tb (ISTD) [No Gas]

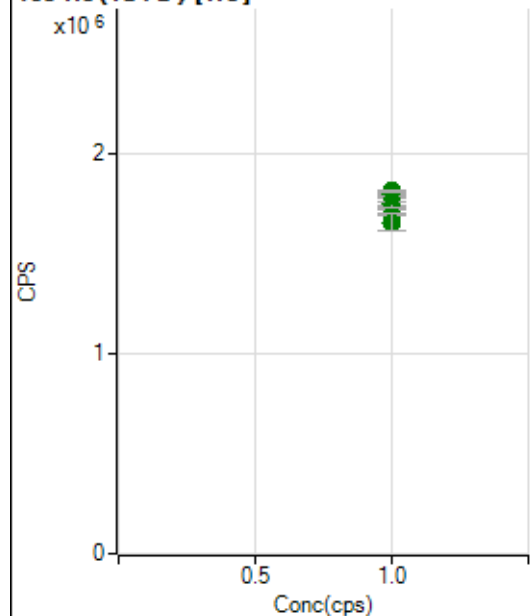
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3651620.33		A	0.3
2	☐	1.000		3603941.20		A	1.2
3	☐	1.000		3691156.47		A	1.0
4	☐	1.000		3734874.21		A	1.2
5	☐	1.000		3722817.34		A	1.0
6	☐	1.000		3807572.44		A	0.5
7	☐	1.000		3731508.59		A	1.0
8	☐	1.000		3827885.57		A	1.5
9	☐	1.000		3846983.41		A	1.4

159 Tb (ISTD) [He]

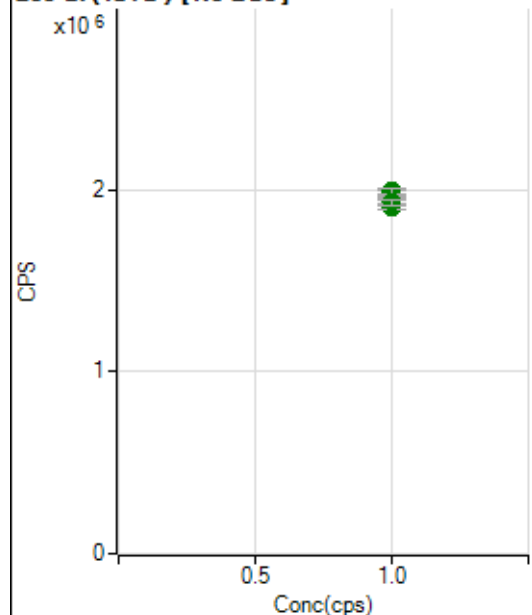
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1750748.97		A	2.1
2	☐	1.000		1722289.05		A	2.1
3	☐	1.000		1652402.35		A	4.7
4	☐	1.000		1761376.52		A	1.0
5	☐	1.000		1770508.24		A	1.6
6	☐	1.000		1798639.51		A	0.8
7	☐	1.000		1778593.10		A	1.7
8	☐	1.000		1802908.93		A	1.7
9	☐	1.000		1800417.75		A	1.0

165 Ho (ISTD) [No Gas]

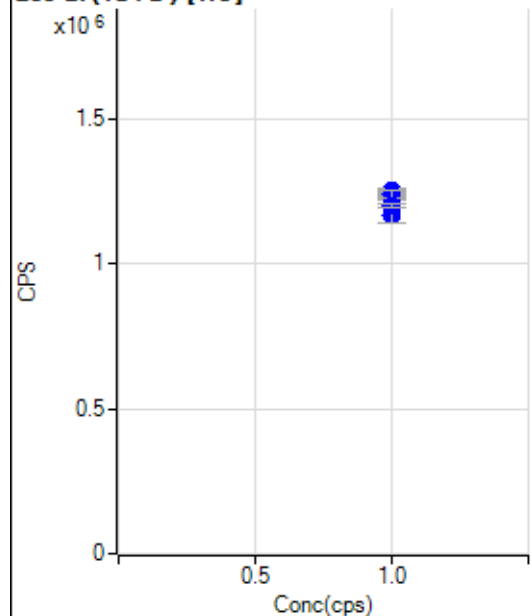
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3391723.34		A	1.2
2	☐	1.000		3343724.40		A	0.7
3	☐	1.000		3414224.53		A	0.5
4	☐	1.000		3455559.84		A	0.6
5	☐	1.000		3451026.34		A	2.3
6	☐	1.000		3469172.08		A	2.7
7	☐	1.000		3516132.59		A	1.1
8	☐	1.000		3541244.74		A	0.5
9	☐	1.000		3520553.38		A	2.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1719709.95		A	1.9
2	☐	1.000		1703722.44		A	1.5
3	☐	1.000		1654565.52		A	5.3
4	☐	1.000		1743142.11		A	1.4
5	☐	1.000		1785227.60		A	1.3
6	☐	1.000		1792486.22		A	0.8
7	☐	1.000		1782423.53		A	0.6
8	☐	1.000		1795938.48		A	1.2
9	☐	1.000		1810988.05		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1940916.67		A	1.7
2	☐	1.000		1903233.43		A	1.3
3	☐	1.000		1966150.96		A	1.3
4	☐	1.000		1958589.59		A	1.0
5	☐	1.000		1970523.56		A	2.4
6	☐	1.000		1981341.32		A	1.4
7	☐	1.000		1959228.41		A	0.7
8	☐	1.000		1993310.20		A	1.3
9	☐	1.000		1930621.07		A	1.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1219741.23		P	1.6
2	☐	1.000		1206242.05		P	2.1
3	☐	1.000		1167645.42		P	5.0
4	☐	1.000		1230399.17		P	0.7
5	☐	1.000		1246191.51		P	0.9
6	☐	1.000		1252039.16		P	0.9
7	☐	1.000		1242788.24		P	0.7
8	☐	1.000		1239735.55		P	1.9
9	☐	1.000		1198173.22		P	1.1

US EPA Tune Check Report

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\P8121820MS.b
Acq. Date-Time 2020-12-18 13:51:19
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		2408	24080.57			1.417	5.000
24		26236	262357.91			2.064	5.000
25		3481	34806.42			1.410	5.000
26		3996	39958.12			2.056	5.000
59		4231	42311.81			2.466	5.000
113		1876	18757.86			1.923	5.000
115		6628	66284.74			1.447	5.000
206		1834	18339.90			2.166	5.000
207		1531	15313.99			2.499	5.000
208		3735	37347.93			2.574	5.000
220		1	11.10			17.562	

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

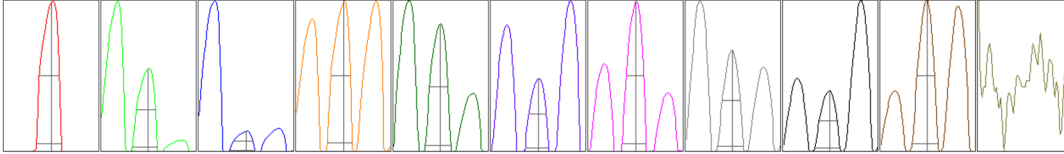
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	2354	2421	2408	2448	2409
24	25275	26505	26488	26361	26551
25	3398	3492	3530	3486	3498
26	3859	3993	4055	4063	4009
59	4047	4282	4300	4267	4260
113	1814	1899	1889	1902	1876
115	6492	6724	6712	6632	6582
206	1766	1834	1868	1856	1846
207	1465	1536	1540	1559	1556
208	3564	3768	3774	3770	3798

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	1

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	4122.11	9.05	8.90 - 9.10	
24	45773.13	24.00	23.90 - 24.10	
25	6129.56	25.05	24.90 - 25.10	
26	6962.43	26.05	25.90 - 26.10	
59	7703.29	59.00	58.90 - 59.10	
113	3589.03	113.05	112.90 - 113.10	
115	12724.84	115.05	114.90 - 115.10	
206	3395.40	206.00	205.90 - 206.10	
207	2825.75	207.00	206.90 - 207.10	
208	7032.35	208.00	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.62	0.787	0.900	
24	0.61	0.786	0.900	
25	0.60	0.786	0.900	
26	0.62	0.786	0.900	
59	0.57	0.811	0.900	
113	0.54	0.734	0.900	
115	0.54	0.766	0.900	
206	0.57	0.816	0.900	
207	0.56	0.785	0.900	
208	0.55	0.819	0.900	
220				

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode HMI Nebulizer Gas 0.52 L/min Dilution Gas 0.46 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	10.3 V	Deflect	15.0 V
Extract 2	-230.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-120 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	180 V		

QP Parameters

Mass Gain	122	Axis Gain	0.9990	QP Bias	-4.0 V
Mass Offset	123	Axis Offset	0.00		

Hardware Settings

Torch

Torch H	0.6 mm	Torch V	-0.3 mm
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EM

Discriminator	3.9 mV	Analog HV	2183 V	Pulse HV	1350 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		1021	10208.90			1.152	
89		33371	333710.77			1.336	
205		1743	17427.16			1.375	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	1032	1008	1008	1029	1028
89	33423	33051	32795	33758	33828
205	1733	1728	1716	1766	1770

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	HMI	Nebulizer Gas	0.52 L/min	Dilution Gas	0.46 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	10.3 V	Deflect	4.2 V
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US EPA Tune Check Report

Extract 2	-230.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-120 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	122	Axis Gain	0.9990	QP Bias	-13.0 V
Mass Offset	123	Axis Offset	0.00		
Hardware Settings					
Torch					
Torch H	0.6 mm	Torch V	-0.3 mm		
EM					
Discriminator	3.9 mV	Analog HV	2183 V	Pulse HV	1350 V