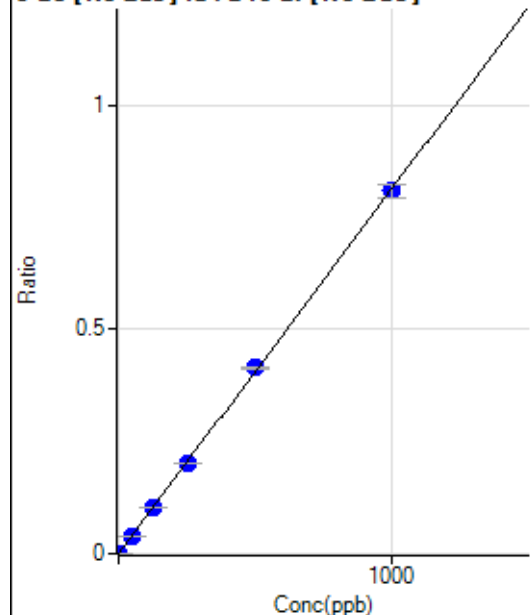


Calibration for 007CALS.d

Batch Folder: D:\Agilent\ICPMH\1\DATA\P8020520MS.b\
 Analysis File: P8020520MS.batch.bin
 DA Date-Time: 2020-02-05 11:24:04
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	S00	2020-02-05 10:12:50
2	006CALS.d	S02	2020-02-05 10:15:57
3	007CALS.d	S03	2020-02-05 10:19:01
4	008CALS.d	S04	2020-02-05 10:22:07
5	009CALS.d	S05	2020-02-05 10:25:09
6	010CALS.d	S06	2020-02-05 10:28:10
7	011CALS.d	S07	2020-02-05 10:31:08
8	012CALS.d	S08	2020-02-05 10:34:08

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	20.67	0.0000	P	6.4
2	☐	1.000	0.955	581.23	0.0008	P	6.9
3	☐	50.000	49.433	28759.60	0.0402	P	2.0
4	☐	125.000	124.605	71935.16	0.1013	P	0.3
5	☐	250.000	247.810	143963.25	0.2015	P	1.3
6	☐	500.000	509.690	301340.55	0.4144	P	0.5
7	☐	1000.000	995.780	605701.80	0.8096	P	3.6
8	☐			180.63	0.0003	P	12.9

$$y = 8.1303\text{E-}004 * x + 2.8302\text{E-}005$$

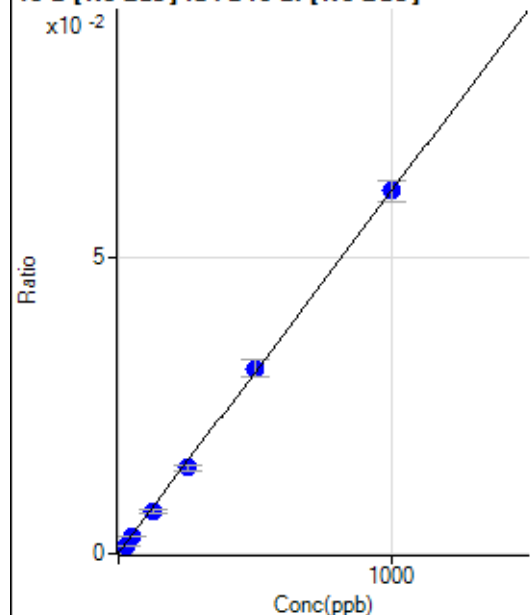
$$R = 0.9999$$

$$DL = 0.006644$$

$$BEC = 0.03481$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	85.98	0.0001	P	18.4
2	☐	25.000	20.303	979.18	0.0014	P	5.7
3	☐	50.000	45.787	2079.75	0.0029	P	7.7
4	☐	125.000	115.211	5067.88	0.0071	P	6.6
5	☐	250.000	234.962	10320.94	0.0144	P	6.8
6	☐	500.000	510.223	22693.68	0.0312	P	9.4
7	☐	1000.000	1000.200	45788.09	0.0611	P	5.6
8	☐			7984.61	0.0115	P	9.2

$$y = 6.0952\text{E-}005 * x + 1.1784\text{E-}004$$

$$R = 0.9998$$

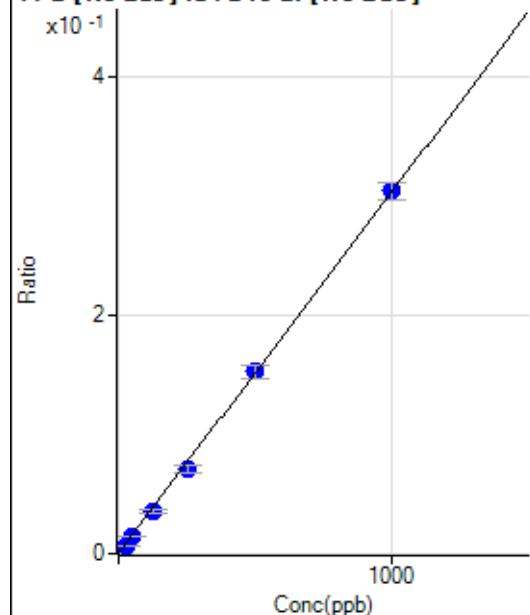
$$DL = 1.066$$

$$BEC = 1.933$$

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	331.27	0.0005	P	7.4
2	☐	25.000	20.151	4738.51	0.0066	P	9.7
3	☐	50.000	45.601	10204.87	0.0143	P	6.8
4	☐	125.000	116.695	25422.92	0.0358	P	7.7
5	☐	250.000	234.816	51190.13	0.0716	P	9.6
6	☐	500.000	503.115	111176.26	0.1529	P	7.5
7	☐	1000.000	1003.618	228300.82	0.3046	P	4.9
8	☐			39700.99	0.0572	P	8.5

$$y = 3.0305\text{E-}004 * x + 4.5366\text{E-}004$$

$$R = 0.9999$$

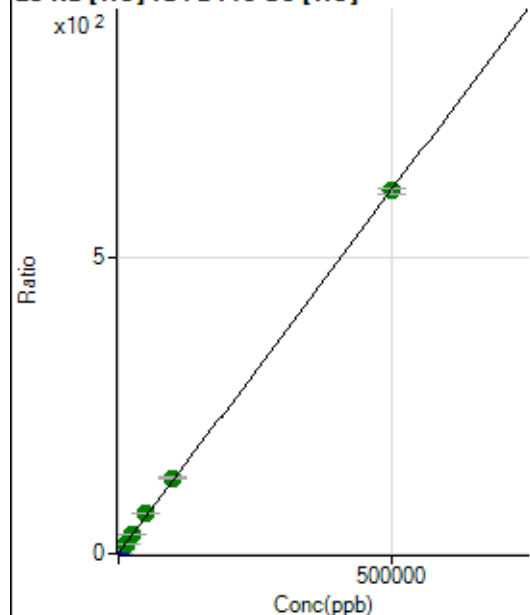
$$DL = 0.3328$$

$$BEC = 1.497$$

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	38376.00	0.4183	P	1.5
2	☐	500.000	522.167	96759.08	1.0574	P	2.3
3	☐	5000.000	5284.022	626675.38	6.8860	P	0.6
4	☐	12500.000	13195.398	1509260.49	16.5696	A	2.9
5	☐	25000.000	25960.482	2937738.96	32.1941	A	1.1
6	☐	50000.000	54070.676	6112116.54	66.6012	A	0.2
7	☐	100000.00	103615.84	12185128.57	127.2449	A	1.6
8	☐	500000.00	498801.49	53118831.74	610.9550	A	1.3

$$y = 0.0012 * x + 0.4183$$

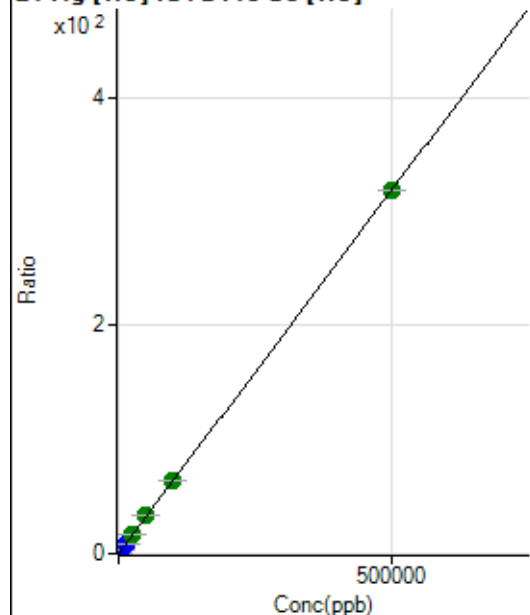
$$R = 0.9999$$

$$DL = 15.25$$

$$BEC = 341.7$$

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	336.13	0.0037	P	10.6
2	☐	500.000	533.071	31392.71	0.3431	P	3.7
3	☐	5000.000	5214.067	302477.41	3.3235	P	0.9
4	☐	12500.000	12952.446	751591.32	8.2505	P	1.5
5	☐	25000.000	25787.463	1498616.34	16.4226	A	0.5
6	☐	50000.000	53363.356	3118235.10	33.9803	A	1.4
7	☐	100000.00	100653.69	6137357.69	64.0902	A	1.9
8	☐	500000.00	499480.06	27650570.76	318.0244	A	0.1

$$y = 6.3670\text{E-}004 * x + 0.0037$$

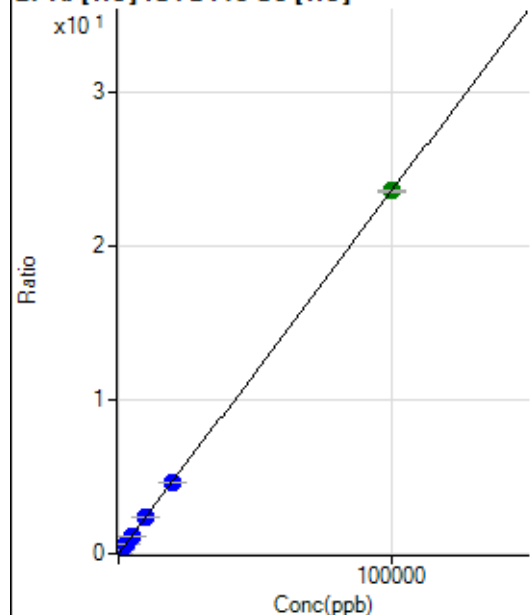
$$R = 1.0000$$

$$DL = 1.835$$

$$BEC = 5.756$$

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	542.24	0.0059	P	3.3
2	☐	20.000	18.122	931.15	0.0102	P	4.1
3	☐	1000.000	967.235	21256.76	0.2336	P	2.2
4	☐	2500.000	2500.060	54160.49	0.5945	P	1.0
5	☐	5000.000	4971.316	107338.40	1.1763	P	0.5
6	☐	10000.000	10247.260	221944.50	2.4184	P	1.0
7	☐	20000.000	19510.496	440445.29	4.5992	P	1.0
8	☐	100000.00	100074.93	2048920.16	23.5660	A	0.2

$$y = 2.3542\text{E-}004 * x + 0.0059$$

$$R = 1.0000$$

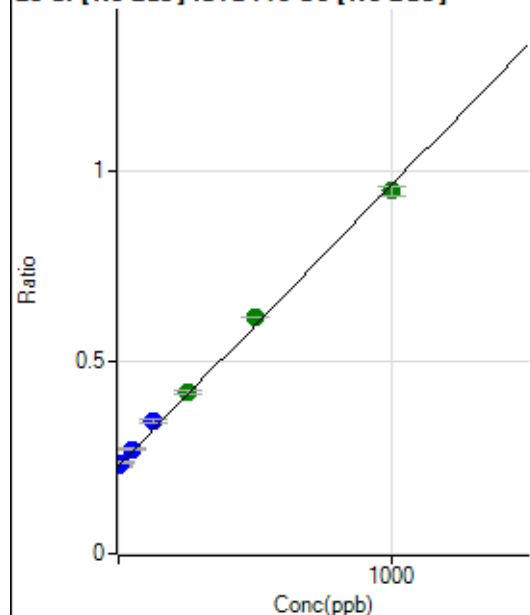
$$DL = 2.51$$

$$BEC = 25.1$$

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	563695.25	0.2301	P	1.5
2	☐	10.000	10.107	581765.17	0.2376	P	1.3
3	☐	50.000	58.835	682300.02	0.2733	P	1.2
4	☐	125.000	158.074	868751.06	0.3460	P	1.9
5	☐	250.000	262.420	1046980.43	0.4226	A	1.8
6	☐	500.000	528.514	1541464.34	0.6177	A	0.7
7	☐	1000.000	978.061	2420439.85	0.9473	A	2.8
8	☐			706646.50	0.2984	P	2.8

$$y = 7.3324\text{E-}004 * x + 0.2301$$

R = 0.9989

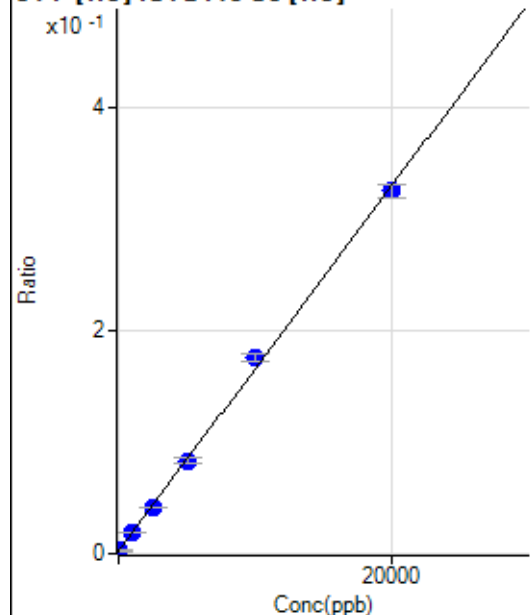
DL = 14.18

BEC = 313.9

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	-22.375	186.12	0.0020	P	18.7
2	☐	0.000	22.375	252.79	0.0028	P	14.0
3	☐	1000.000	1028.134	1750.15	0.0192	P	3.5
4	☐	2500.000	2387.672	3781.13	0.0415	P	3.6
5	☐	5000.000	4917.352	7566.07	0.0829	P	6.1
6	☐	10000.000	10586.792	16137.22	0.1758	P	4.2
7	☐	20000.000	19739.900	31186.92	0.3257	P	4.0
8	☐			177.78	0.0020	P	14.8

$$y = 1.6380\text{E-}005 * x + 0.0024$$

R = 0.9993

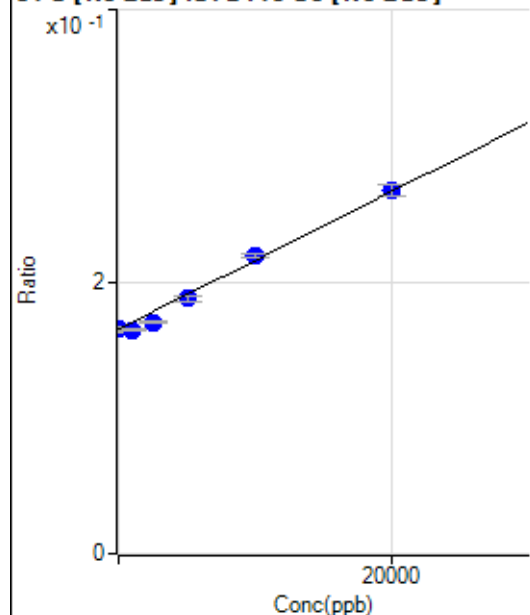
DL = 70.22

BEC = 146.3

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	84.265	405669.45	0.1656	P	1.6
2	☐	0.000	-84.265	403504.54	0.1648	P	2.1
3	☐	1000.000	-99.905	411200.50	0.1647	P	0.9
4	☐	2500.000	981.507	427225.92	0.1702	P	1.1
5	☐	5000.000	4376.637	464085.31	0.1873	P	1.9
6	☐	10000.000	10649.011	546658.16	0.2191	P	1.2
7	☐	20000.000	20076.142	681457.25	0.2667	P	3.3
8	☐			377173.02	0.1593	P	3.1

$$y = 5.0570\text{E-}006 * x + 0.1652$$

$$R = 0.9959$$

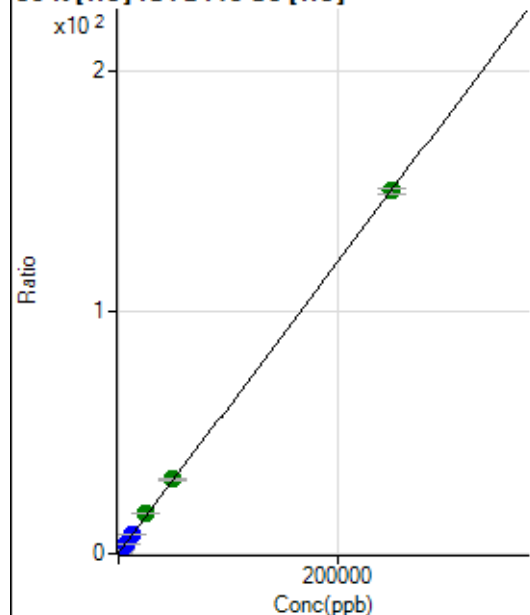
$$DL = 1798$$

$$BEC = 3.267\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25954.39	0.2829	P	1.6
2	☐	500.000	506.823	53742.45	0.5873	P	0.4
3	☐	2500.000	2571.913	166309.85	1.8276	P	1.0
4	☐	6250.000	6475.352	380048.12	4.1721	P	1.9
5	☐	12500.000	12884.431	731929.96	8.0215	P	1.7
6	☐	25000.000	26989.416	1513729.62	16.4932	A	0.8
7	☐	50000.000	51059.100	2964025.05	30.9499	A	2.2
8	☐	250000.00	249563.65	13057556.98	150.1756	A	1.3

$$y = 6.0062\text{E-}004 * x + 0.2829$$

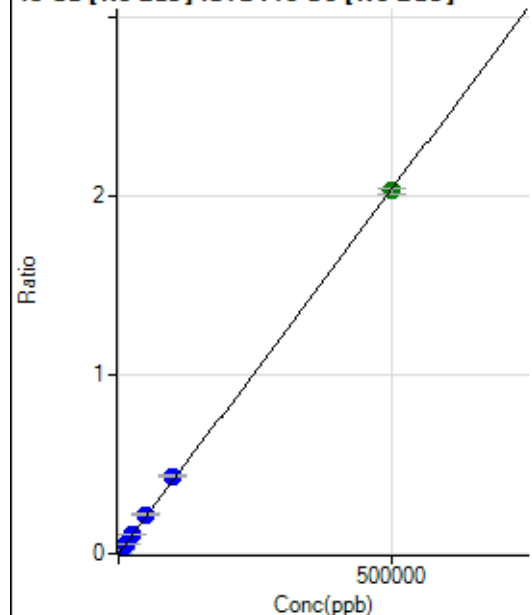
$$R = 1.0000$$

$$DL = 22.28$$

$$BEC = 470.9$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	572.25	0.0002	P	15.5
2	☐	500.000	498.043	5537.34	0.0023	P	3.8
3	☐	5000.000	5113.673	52552.27	0.0210	P	1.6
4	☐	12500.000	12896.085	132385.08	0.0527	P	0.7
5	☐	25000.000	25806.993	260862.87	0.1053	P	0.6
6	☐	50000.000	54024.012	549331.71	0.2201	P	2.2
7	☐	100000.00	106499.08	1108355.97	0.4337	P	2.2
8	☐	500000.00	498246.39	4804461.52	2.0283	A	1.6

$$y = 4.0705\text{E-}006 * x + 2.3343\text{E-}004$$

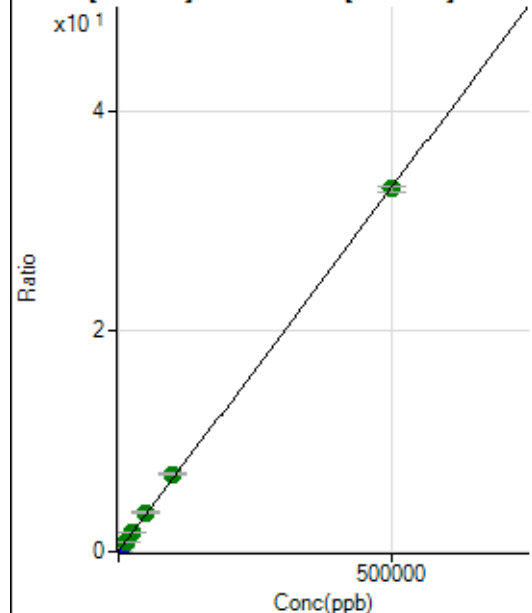
R = 0.9999

DL = 26.63

BEC = 57.35

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	66774.84	0.0273	P	1.6
2	☐	500.000	518.480	150490.16	0.0614	P	0.5
3	☐	5000.000	5227.906	928606.50	0.3719	P	0.7
4	☐	12500.000	13012.528	2222497.25	0.8851	A	0.3
5	☐	25000.000	25819.666	4285956.17	1.7295	A	0.6
6	☐	50000.000	53573.090	8882074.68	3.5592	A	1.2
7	☐	100000.00	105695.50	17874928.35	6.9955	A	2.5
8	☐	500000.00	498447.49	77901111.46	32.8886	A	1.7

$$y = 6.5927\text{E-}005 * x + 0.0273$$

R = 0.9999

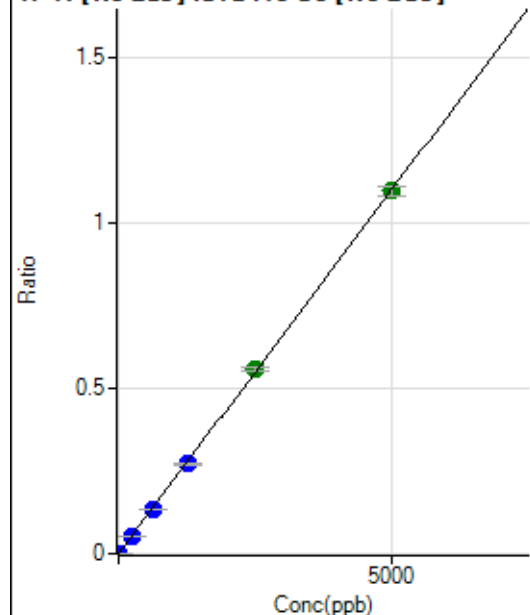
DL = 19.98

BEC = 413.5

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	922.27	0.0004	P	2.2
2	☐	10.000	4.772	3486.64	0.0014	P	4.9
3	☐	250.000	245.979	135779.21	0.0544	P	1.2
4	☐	625.000	615.299	340145.87	0.1355	P	0.4
5	☐	1250.000	1233.707	672049.13	0.2712	P	1.0
6	☐	2500.000	2532.221	1388450.33	0.5563	A	1.6
7	☐	5000.000	4989.387	2799951.19	1.0958	A	2.8
8	☐			1427.88	0.0006	P	4.0

$$y = 2.1956\text{E-}004 * x + 3.7640\text{E-}004$$

$$R = 1.0000$$

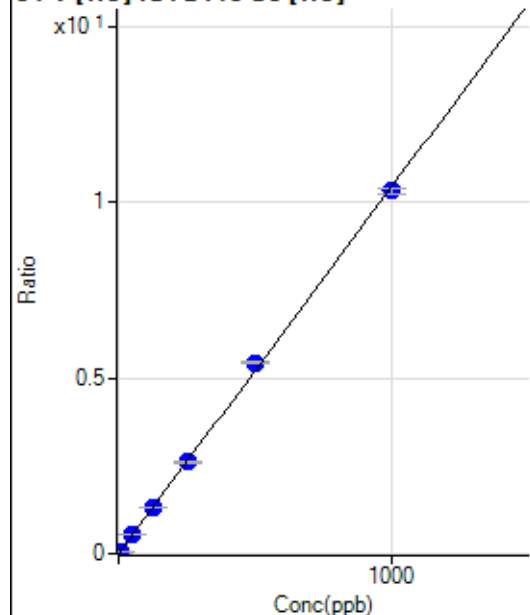
$$DL = 0.1136$$

$$BEC = 1.714$$

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	30.00	0.0003	P	39.1
2	☐	5.000	5.218	5006.48	0.0547	P	2.5
3	☐	50.000	50.130	47573.30	0.5228	P	0.6
4	☐	125.000	126.189	119831.66	1.3154	P	2.3
5	☐	250.000	249.195	237009.14	2.5974	P	2.0
6	☐	500.000	521.113	498402.40	5.4312	P	1.0
7	☐	1000.000	989.489	987565.49	10.3125	P	1.4
8	☐			383.34	0.0044	P	12.7

$$y = 0.0104 * x + 3.2742\text{E-}004$$

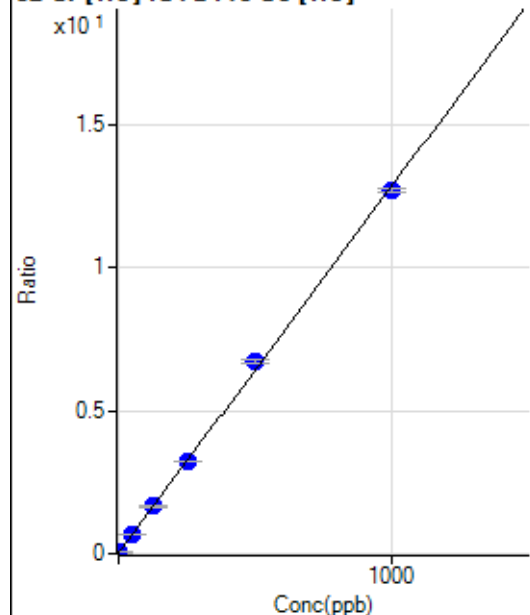
$$R = 0.9997$$

$$DL = 0.03688$$

$$BEC = 0.03142$$

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	1647.89	0.0180	P	4.4
2	☐	2.000	2.077	4081.73	0.0446	P	1.8
3	☐	50.000	50.846	60970.49	0.6701	P	2.0
4	☐	125.000	127.249	150311.87	1.6500	P	1.1
5	☐	250.000	251.186	295613.91	3.2395	P	0.3
6	☐	500.000	522.835	616986.37	6.7234	P	1.3
7	☐	1000.000	987.963	1215173.93	12.6887	P	1.1
8	☐			21693.23	0.2495	P	0.8

$$y = 0.0128 * x + 0.0180$$

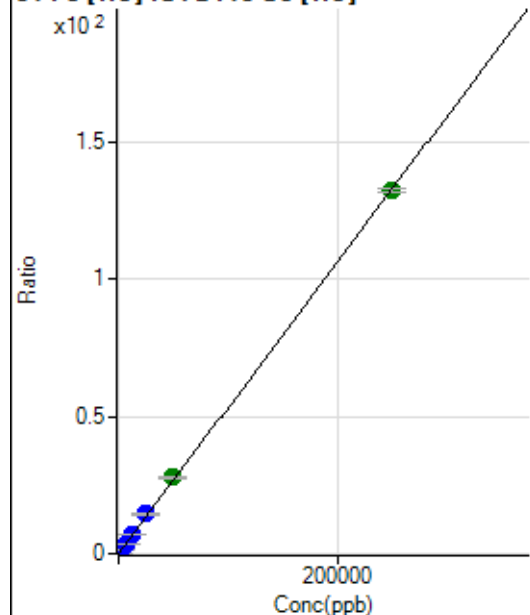
$$R = 0.9996$$

$$DL = 0.1839$$

$$BEC = 1.401$$

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	633.36	0.0069	P	8.8
2	☐	50.000	52.189	3161.52	0.0346	P	2.3
3	☐	2500.000	2637.355	127775.58	1.4040	P	0.4
4	☐	6250.000	6555.137	316977.25	3.4793	P	0.9
5	☐	12500.000	13099.252	633814.50	6.9459	P	1.4
6	☐	25000.000	27080.501	1317031.16	14.3521	P	1.1
7	☐	50000.000	52306.663	2653941.32	27.7150	A	1.9
8	☐	250000.00	249291.65	11482504.66	132.0627	A	1.0

$$y = 5.2972E-004 * x + 0.0069$$

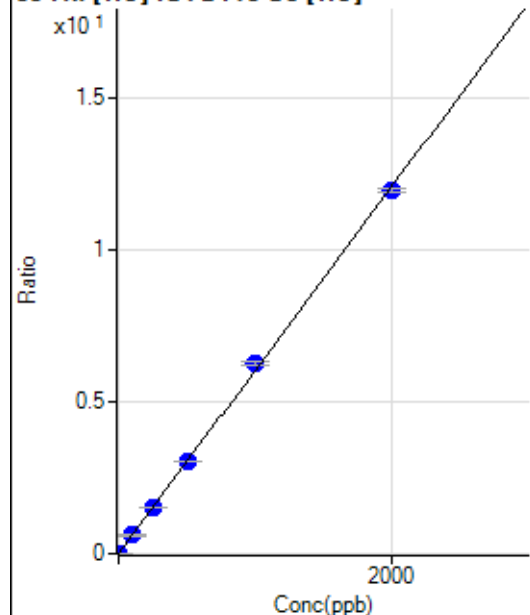
$$R = 0.9999$$

$$DL = 3.46$$

$$BEC = 13.03$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	101.11	0.0011	P	26.7
2	☐	1.000	1.074	693.36	0.0076	P	7.1
3	☐	100.000	100.467	55194.07	0.6066	P	2.5
4	☐	250.000	254.105	139608.02	1.5326	P	2.1
5	☐	500.000	503.188	276824.09	3.0338	P	2.0
6	☐	1000.000	1039.925	575259.09	6.2688	P	1.4
7	☐	2000.000	1978.704	1142195.59	11.9269	P	1.1
8	☐			5192.11	0.0597	P	2.3

$$y = 0.0060 * x + 0.0011$$

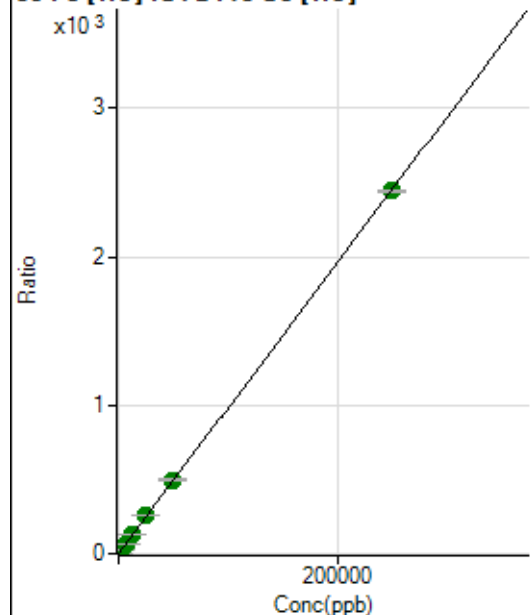
$$R = 0.9997$$

$$DL = 0.1465$$

$$BEC = 0.1829$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4078.43	0.0445	P	3.4
2	☐	50.000	54.114	52537.51	0.5741	P	0.8
3	☐	2500.000	2613.975	2332001.99	25.6293	A	2.3
4	☐	6250.000	6503.729	5803369.28	63.7010	A	1.0
5	☐	12500.000	12978.230	11594826.19	127.0714	A	1.6
6	☐	25000.000	26681.273	23969293.13	261.1926	A	1.0
7	☐	50000.000	50627.871	47456239.95	495.5746	A	1.7
8	☐	250000.00	249674.90	212469432.5	2,443.786	A	0.8

$$y = 0.0098 * x + 0.0445$$

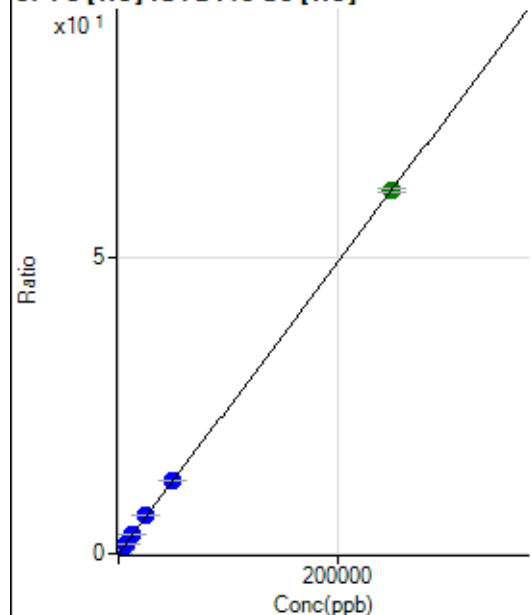
$$R = 1.0000$$

$$DL = 0.4626$$

$$BEC = 4.542$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	150.01	0.0016	P	6.7
2	☐	50.000	51.761	1311.20	0.0143	P	12.5
3	☐	2500.000	2584.738	57811.38	0.6353	P	1.7
4	☐	6250.000	6439.977	143977.44	1.5805	P	1.7
5	☐	12500.000	12837.255	287323.71	3.1489	P	1.8
6	☐	25000.000	26366.409	593356.78	6.4658	P	0.8
7	☐	50000.000	50124.780	1176952.02	12.2906	P	1.7
8	☐	250000.00	249815.94	5325236.98	61.2484	A	1.0

$$y = 2.4517\text{E-}004 * x + 0.0016$$

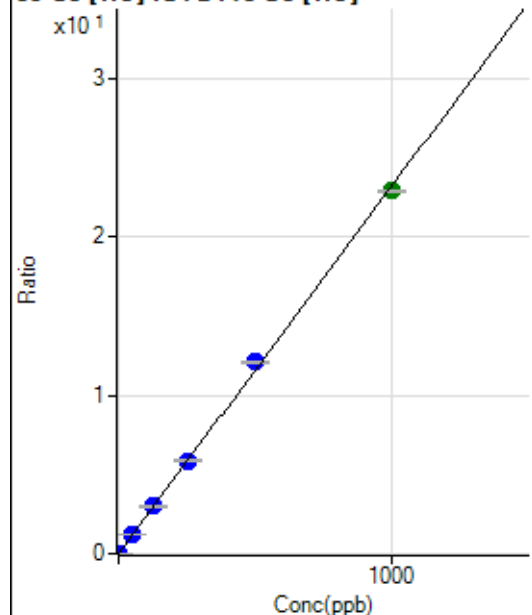
$$R = 1.0000$$

$$DL = 1.342$$

$$BEC = 6.67$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	54.45	0.0006	P	23.9
2	☐	1.000	0.980	2131.30	0.0233	P	2.4
3	☐	50.000	51.559	108667.82	1.1942	P	1.2
4	☐	125.000	128.584	271224.53	2.9773	P	1.5
5	☐	250.000	253.713	536010.45	5.8740	P	1.0
6	☐	500.000	521.108	1107095.82	12.0642	P	0.9
7	☐	1000.000	987.992	2190519.29	22.8725	A	0.7
8	☐			3512.70	0.0404	P	5.4

$$y = 0.0231 * x + 5.9265\text{E-}004$$

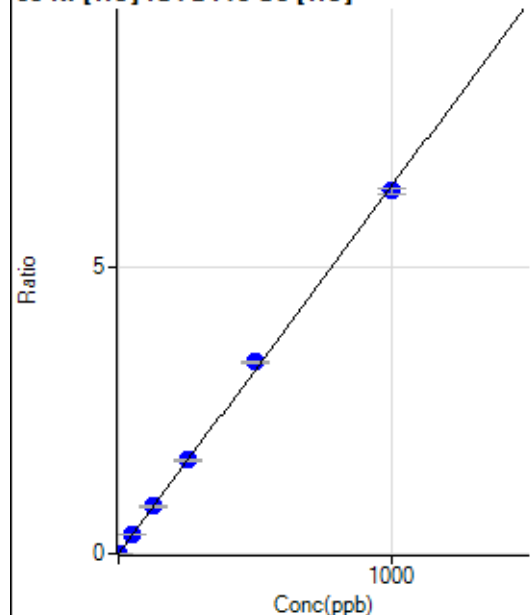
$$R = 0.9997$$

$$DL = 0.01832$$

$$BEC = 0.0256$$

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	133.34	0.0015	P	8.7
2	☐	1.000	1.132	795.59	0.0087	P	1.6
3	☐	50.000	51.992	30392.50	0.3340	P	2.7
4	☐	125.000	128.561	75047.79	0.8238	P	1.6
5	☐	250.000	253.763	148257.75	1.6247	P	0.9
6	☐	500.000	521.912	306512.27	3.3400	P	0.6
7	☐	1000.000	987.558	605098.01	6.3187	P	1.5
8	☐			7032.91	0.0809	P	1.0

$$y = 0.0064 * x + 0.0015$$

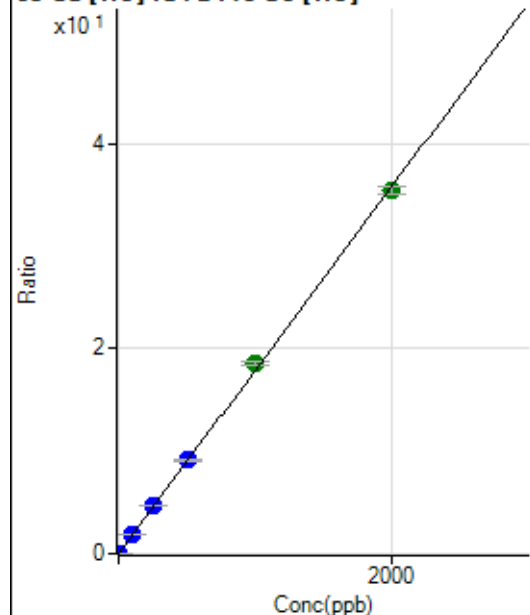
$$R = 0.9996$$

$$DL = 0.0594$$

$$BEC = 0.2271$$

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	167.78	0.0018	P	9.5
2	☐	2.000	2.039	3500.47	0.0383	P	3.8
3	☐	100.000	103.618	168621.32	1.8531	P	1.3
4	☐	250.000	259.796	423019.80	4.6433	P	0.9
5	☐	500.000	509.146	830181.75	9.0982	P	1.5
6	☐	1000.000	1035.587	1697991.16	18.5036	A	1.8
7	☐	2000.000	1978.515	3385115.16	35.3498	A	2.0
8	☐			8717.20	0.1003	P	1.5

$$y = 0.0179 * x + 0.0018$$

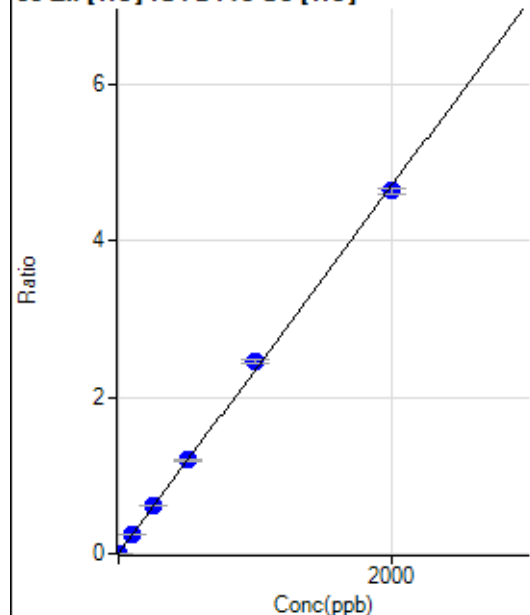
$$R = 0.9997$$

$$DL = 0.02906$$

$$BEC = 0.1023$$

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	148.89	0.0016	P	15.7
2	☐	5.000	2.224	626.69	0.0068	P	4.7
3	☐	100.000	104.657	22529.15	0.2476	P	1.4
4	☐	250.000	260.059	55826.14	0.6128	P	1.3
5	☐	500.000	509.903	109494.61	1.2000	P	1.3
6	☐	1000.000	1045.186	225550.37	2.4579	P	1.4
7	☐	2000.000	1973.448	444292.98	4.6395	P	1.4
8	☐			6248.09	0.0719	P	1.2

$$y = 0.0024 * x + 0.0016$$

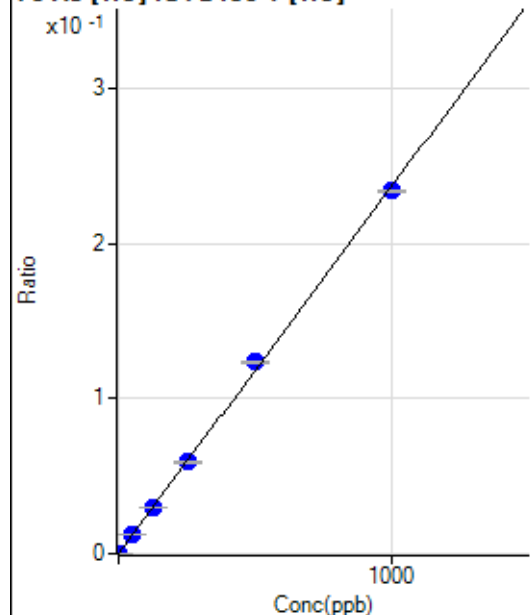
$$R = 0.9996$$

$$DL = 0.3252$$

$$BEC = 0.6905$$

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	4.00	0.0000	P	43.4
2	☐	1.000	0.944	158.35	0.0002	P	11.1
3	☐	50.000	49.872	8117.82	0.0118	P	0.3
4	☐	125.000	126.191	20652.12	0.0299	P	1.7
5	☐	250.000	249.950	40597.00	0.0592	P	0.9
6	☐	500.000	523.043	84830.37	0.1239	P	0.8
7	☐	1000.000	988.349	168714.14	0.2341	P	0.6
8	☐			87.68	0.0001	P	7.0

$$y = 2.3684E-004 * x + 5.8651E-006$$

$$R = 0.9996$$

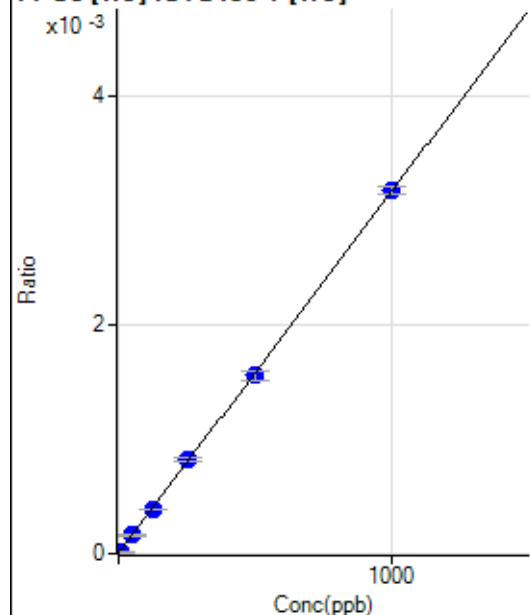
$$DL = 0.03224$$

$$BEC = 0.02476$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2.22	0.0000	P	173.
2	☐	5.000	2.536	7.78	0.0000	P	89.1
3	☐	50.000	50.184	111.11	0.0002	P	4.3
4	☐	125.000	121.706	267.78	0.0004	P	1.4
5	☐	250.000	260.726	566.69	0.0008	P	4.6
6	☐	500.000	491.784	1065.61	0.0016	P	5.0
7	☐	1000.000	1001.841	2282.43	0.0032	P	2.2
8	☐			3.33	0.0000	P	0.8

$$y = 3.1580\text{E-}006 * x + 3.2642\text{E-}006$$

$$R = 0.9999$$

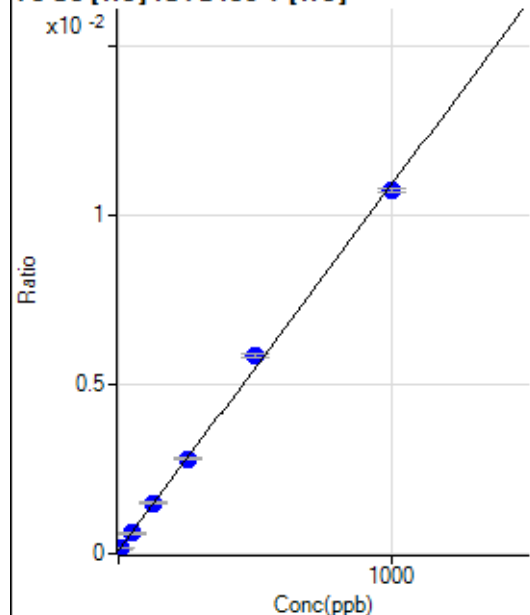
$$DL = 5.371$$

$$BEC = 1.034$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	63.68	0.0001	P	4.9
2	☐	5.000	6.193	110.68	0.0002	P	3.8
3	☐	50.000	48.189	422.05	0.0006	P	6.2
4	☐	125.000	130.527	1039.15	0.0015	P	2.4
5	☐	250.000	251.354	1926.66	0.0028	P	3.8
6	☐	500.000	531.292	3996.64	0.0058	P	2.1
7	☐	1000.000	983.409	7729.90	0.0107	P	0.9
8	☐			71.01	0.0001	P	12.0

$$y = 1.0810\text{E-}005 * x + 9.3332\text{E-}005$$

$$R = 0.9992$$

$$DL = 1.273$$

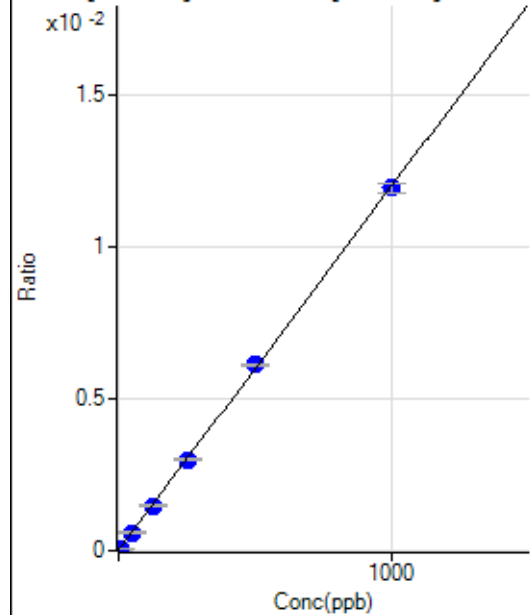
$$BEC = 8.634$$

Weight: <None>

Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2730.89		P	2.2
2	☐			2992.07		P	5.7
3	☐			2586.42		P	2.3
4	☐			2819.79		P	5.5
5	☐			2855.93		P	7.5
6	☐			2764.24		P	5.9
7	☐			2769.80		P	0.9
8	☐			3197.66		P	4.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	57.69	0.0000	P	84.3
2	☐	5.000	4.181	306.60	0.0001	P	26.6
3	☐	50.000	48.875	2987.61	0.0006	P	2.3
4	☐	125.000	122.703	7446.01	0.0015	P	2.2
5	☐	250.000	249.402	15001.20	0.0030	P	1.9
6	☐	500.000	509.678	30706.08	0.0061	P	0.7
7	☐	1000.000	995.658	61632.24	0.0119	P	2.3
8	☐			33.25	0.0000	P	306.

$$y = 1.1971\text{E-}005 * x + 1.1673\text{E-}005$$

$$R = 0.9999$$

$$DL = 2.466$$

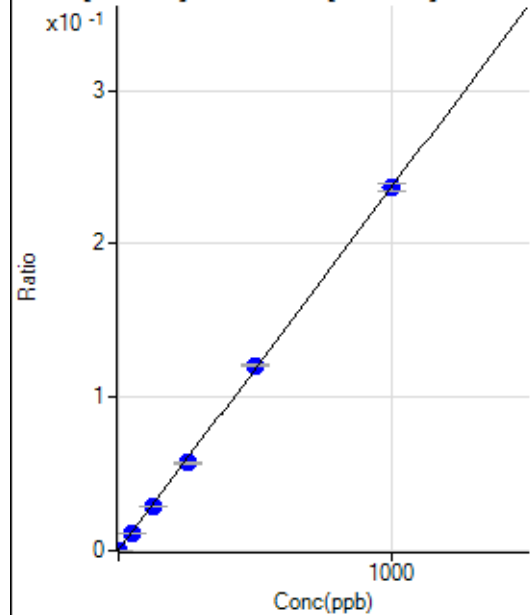
$$BEC = 0.9751$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			893.37		P	1.9
2	☐			922.26		P	1.2
3	☐			968.93		P	6.1
4	☐			917.81		P	8.3
5	☐			904.49		P	5.9
6	☐			997.82		P	0.8
7	☐			917.82		P	6.5
8	☐			917.82		P	10.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1430.66	0.0003	P	15.2
2	☐	1.000	0.907	2503.07	0.0005	P	2.5
3	☐	50.000	48.762	59220.33	0.0118	P	1.3
4	☐	125.000	121.506	146072.76	0.0290	P	0.3
5	☐	250.000	240.004	285746.43	0.0571	P	1.4
6	☐	500.000	509.708	607380.67	0.1209	P	0.4
7	☐	1000.000	998.144	1221840.36	0.2365	P	2.1
8	☐			4014.56	0.0008	P	6.7

$$y = 2.3666E-004 * x + 2.8804E-004$$

$$R = 0.9999$$

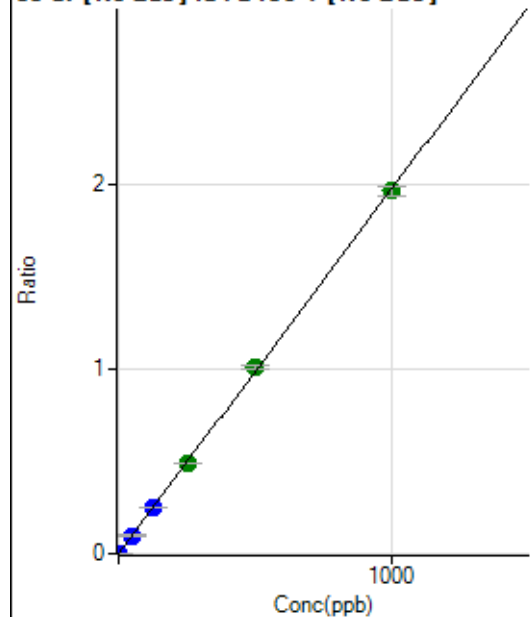
$$DL = 0.5537$$

$$BEC = 1.217$$

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	33.33	0.0000	P	0.9
2	☐	1.000	0.994	9828.73	0.0020	P	2.7
3	☐	50.000	50.060	495977.82	0.0991	P	0.4
4	☐	125.000	124.691	1240908.65	0.2467	P	0.5
5	☐	250.000	247.282	2449214.55	0.4893	A	1.3
6	☐	500.000	510.848	5077495.25	1.0108	A	1.7
7	☐	1000.000	995.291	10173623.93	1.9694	A	2.3
8	☐			21311.27	0.0044	P	3.3

$$y = 0.0020 * x + 6.7127E-006$$

$$R = 0.9999$$

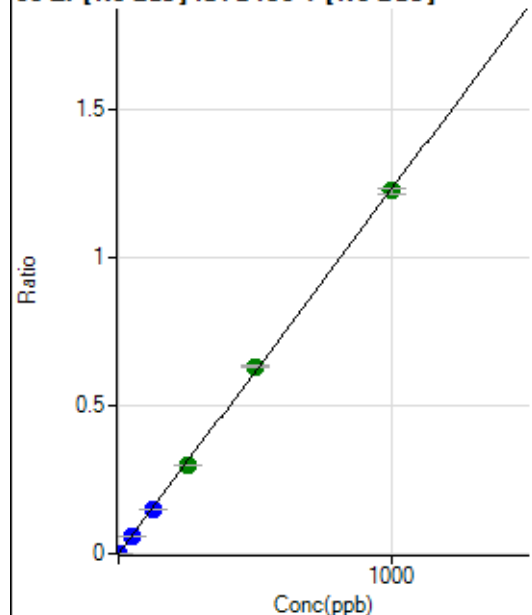
$$DL = 9.04E-05$$

$$BEC = 0.003393$$

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	277.79	0.0001	P	2.6
2	☐	1.000	0.908	5851.39	0.0012	P	6.0
3	☐	50.000	48.278	297898.12	0.0595	P	1.3
4	☐	125.000	120.662	747480.32	0.1486	P	0.9
5	☐	250.000	242.343	1494161.27	0.2984	A	0.7
6	☐	500.000	514.207	3180577.07	0.6332	A	1.2
7	☐	1000.000	995.439	6332422.80	1.2257	A	1.9
8	☐			2355.82	0.0005	P	3.5

$$y = 0.0012 * x + 5.5953E-005$$

$$R = 0.9998$$

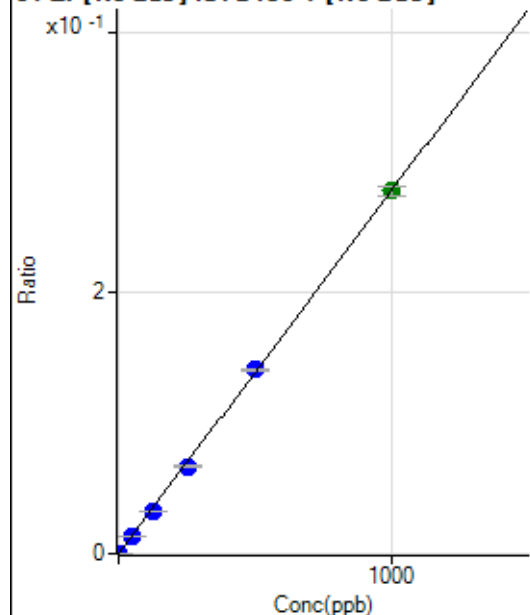
$$DL = 0.003583$$

$$BEC = 0.04544$$

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	66.67	0.0000	P	11.8
2	☐	1.000	0.959	1394.55	0.0003	P	2.6
3	☐	50.000	47.448	66123.83	0.0132	P	2.1
4	☐	125.000	117.526	164430.16	0.0327	P	0.8
5	☐	250.000	240.957	335508.33	0.0670	P	0.4
6	☐	500.000	507.334	708688.78	0.1411	P	0.6
7	☐	1000.000	999.656	1436068.67	0.2780	A	2.4
8	☐			491.69	0.0001	P	10.8

$$y = 2.7807E-004 * x + 1.3418E-005$$

$$R = 0.9999$$

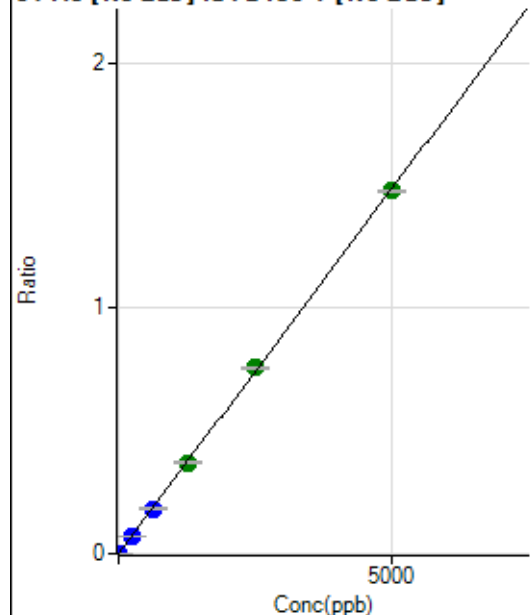
$$DL = 0.01704$$

$$BEC = 0.04826$$

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	102.78	0.0000	P	16.1
2	☐	10.000	5.038	7552.23	0.0015	P	3.6
3	☐	250.000	248.059	368814.03	0.0737	P	1.3
4	☐	625.000	619.670	925359.25	0.1840	P	0.9
5	☐	1250.000	1249.384	1856947.63	0.3709	A	0.8
6	☐	2500.000	2548.027	3799870.09	0.7565	A	0.8
7	☐	5000.000	4976.914	7634643.05	1.4776	A	0.9
8	☐			4403.61	0.0009	P	1.3

$$y = 2.9688E-004 * x + 2.0681E-005$$

$$R = 0.9999$$

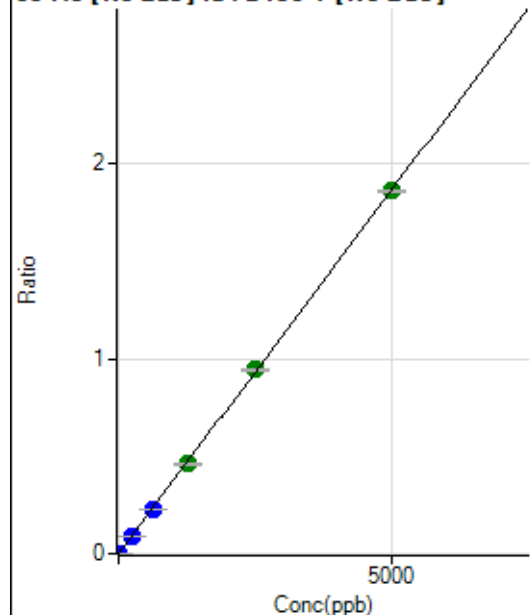
$$DL = 0.03365$$

$$BEC = 0.06966$$

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	72.22	0.0000	P	44.7
2	☐	10.000	4.906	9189.38	0.0018	P	2.0
3	☐	250.000	246.035	459615.56	0.0918	P	0.6
4	☐	625.000	615.929	1155714.02	0.2298	P	1.3
5	☐	1250.000	1231.724	2300117.67	0.4595	A	1.2
6	☐	2500.000	2531.903	4744508.96	0.9445	A	1.0
7	☐	5000.000	4989.960	9619340.84	1.8615	A	0.7
8	☐			6362.75	0.0013	P	4.2

$$y = 3.7305\text{E-}004 * x + 1.4583\text{E-}005$$

$$R = 1.0000$$

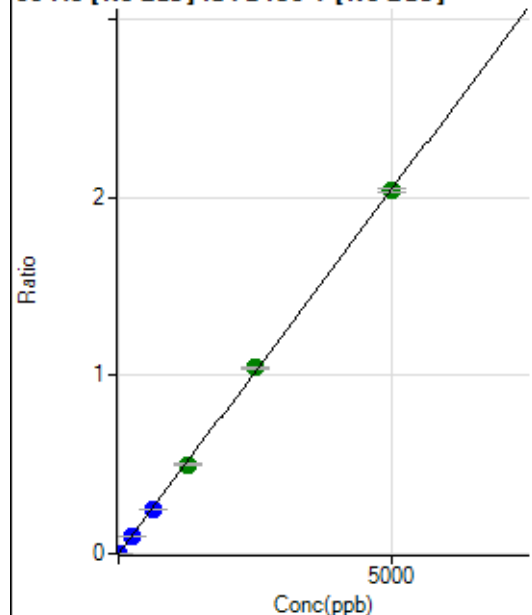
$$DL = 0.05239$$

$$BEC = 0.03909$$

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	77.78	0.0000	P	31.3
2	☐	10.000	5.151	10557.08	0.0021	P	3.3
3	☐	250.000	248.193	507848.72	0.1014	P	0.8
4	☐	625.000	616.216	1266444.15	0.2518	P	0.8
5	☐	1250.000	1219.449	2494052.70	0.4983	A	2.1
6	☐	2500.000	2553.221	5240676.12	1.0433	A	0.4
7	☐	5000.000	4982.225	10519222.63	2.0359	A	1.1
8	☐			7680.09	0.0016	P	3.7

$$y = 4.0862\text{E-}004 * x + 1.5680\text{E-}005$$

$$R = 0.9999$$

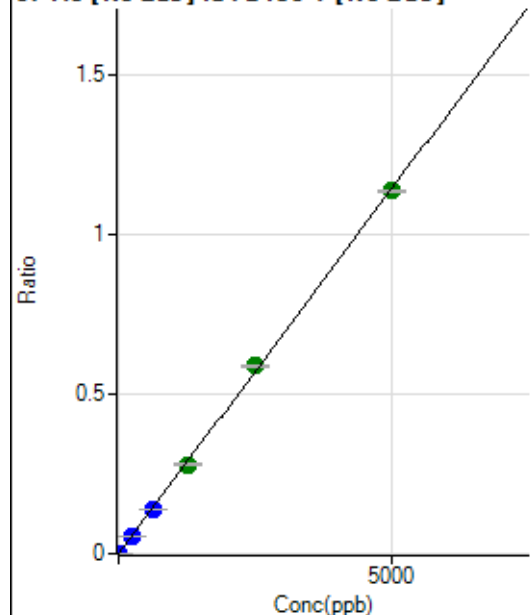
$$DL = 0.03602$$

$$BEC = 0.03837$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.45	0.0000	P	25.7
2	☐	10.000	4.931	5629.07	0.0011	P	1.9
3	☐	250.000	247.035	282519.33	0.0564	P	0.7
4	☐	625.000	612.513	703599.93	0.1399	P	1.5
5	☐	1250.000	1219.132	1393662.44	0.2785	A	2.2
6	☐	2500.000	2570.560	2949190.95	0.5871	A	0.9
7	☐	5000.000	4974.156	5870970.40	1.1361	A	0.3
8	☐			3922.88	0.0008	P	2.9

$$y = 2.2840\text{E-}004 * x + 3.9223\text{E-}006$$

$$R = 0.9998$$

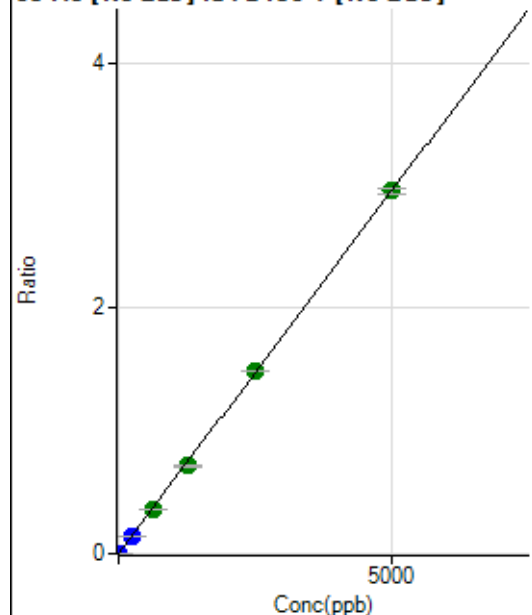
$$DL = 0.01324$$

$$BEC = 0.01717$$

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	88.89	0.0000	P	28.4
2	☐	10.000	5.116	15147.51	0.0030	P	1.7
3	☐	250.000	246.463	729442.86	0.1457	P	1.2
4	☐	625.000	612.110	1819609.41	0.3618	A	2.1
5	☐	1250.000	1212.299	3586419.65	0.7166	A	2.3
6	☐	2500.000	2517.473	7474426.64	1.4880	A	0.9
7	☐	5000.000	5002.487	15276310.41	2.9568	A	1.6
8	☐			9709.21	0.0020	P	2.7

$$y = 5.9107\text{E-}004 * x + 1.7898\text{E-}005$$

$$R = 1.0000$$

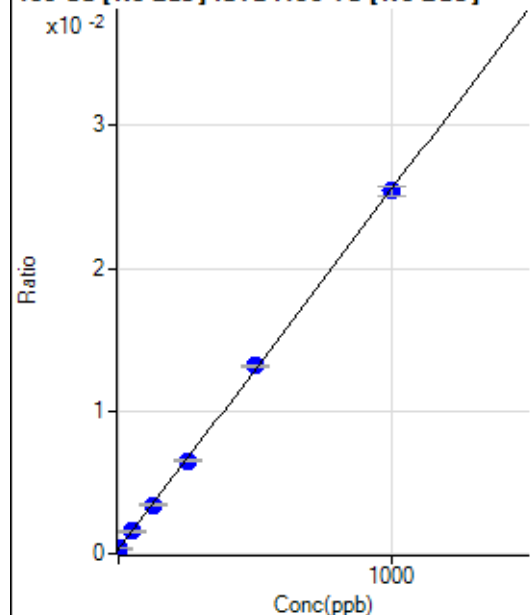
$$DL = 0.02578$$

$$BEC = 0.03028$$

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	1075.07	0.0003	P	1.5
2	☐	1.000	2.304	1283.43	0.0004	P	10.3
3	☐	50.000	50.382	5604.08	0.0016	P	4.6
4	☐	125.000	123.176	12158.41	0.0034	P	3.5
5	☐	250.000	246.237	23295.22	0.0065	P	2.6
6	☐	500.000	510.305	47036.49	0.0132	P	1.4
7	☐	1000.000	995.996	92518.04	0.0254	P	2.9
8	☐			1272.33	0.0004	P	11.4

$$y = 2.5222\text{E-}005 * x + 3.0293\text{E-}004$$

$$R = 0.9999$$

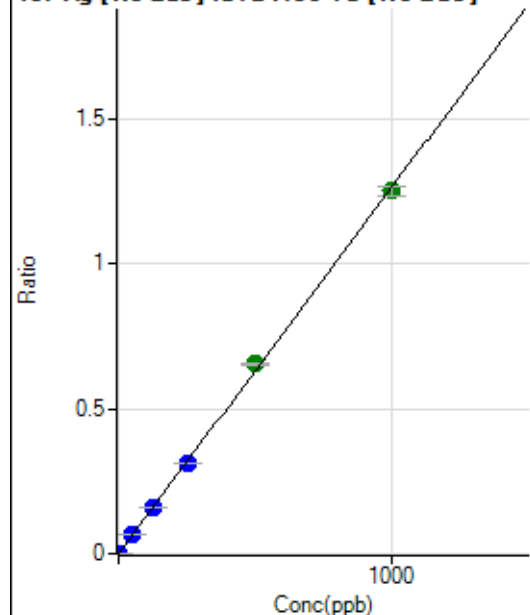
$$DL = 0.5568$$

$$BEC = 12.01$$

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	19.44	0.0000	P	65.1
2	☐	1.000	1.034	4659.24	0.0013	P	3.7
3	☐	50.000	50.926	228949.72	0.0643	P	1.8
4	☐	125.000	125.763	566127.61	0.1588	P	0.9
5	☐	250.000	247.835	1118987.65	0.3128	P	1.1
6	☐	500.000	518.129	2335185.62	0.6540	A	0.2
7	☐	1000.000	991.335	4553676.45	1.2514	A	2.8
8	☐			1727.94	0.0005	P	3.5

$$y = 0.0013 * x + 5.4672\text{E-}006$$

$$R = 0.9998$$

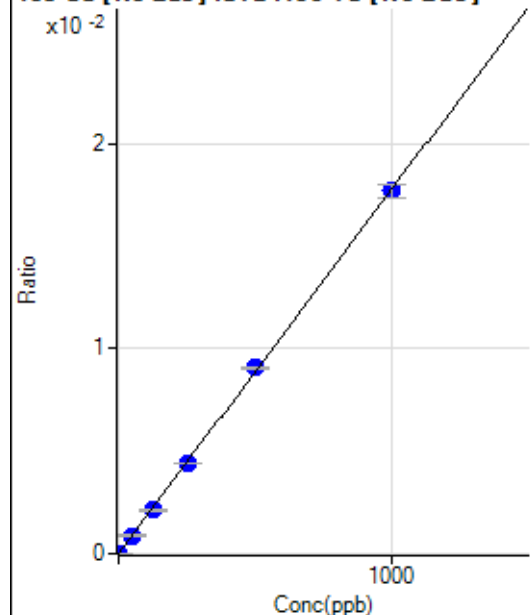
$$DL = 0.008457$$

$$BEC = 0.004331$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12.50	0.0000	P	33.1
2	☐	1.000	0.682	55.56	0.0000	P	3.5
3	☐	50.000	49.461	3136.51	0.0009	P	7.7
4	☐	125.000	120.818	7656.38	0.0021	P	4.0
5	☐	250.000	246.638	15664.58	0.0044	P	0.7
6	☐	500.000	509.813	32305.83	0.0090	P	1.2
7	☐	1000.000	996.484	64331.03	0.0177	P	4.0
8	☐			33.33	0.0000	P	12.4

$$y = 1.7742\text{E-}005 * x + 3.5194\text{E-}006$$

$$R = 0.9999$$

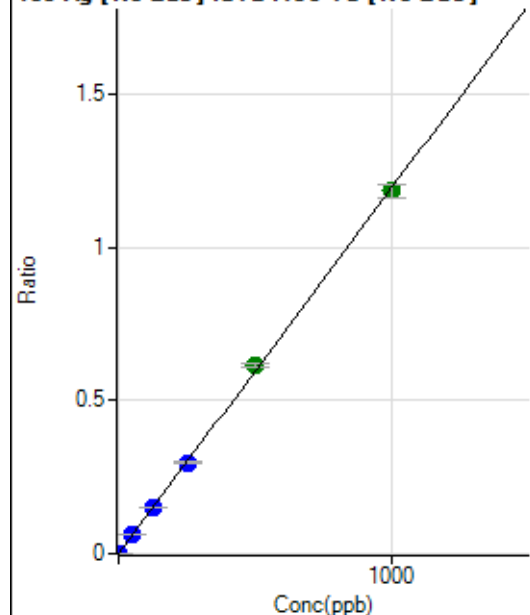
$$DL = 0.197$$

$$BEC = 0.1984$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	100.
2	☐	1.000	1.014	4311.90	0.0012	P	3.4
3	☐	50.000	50.848	216180.25	0.0607	P	1.3
4	☐	125.000	126.107	536784.19	0.1505	P	2.0
5	☐	250.000	248.580	1061356.70	0.2967	P	1.2
6	☐	500.000	514.912	2194392.43	0.6147	A	1.6
7	☐	1000.000	992.718	4311198.92	1.1850	A	3.9
8	☐			1533.46	0.0004	P	9.1

$$y = 0.0012 * x + 2.3562\text{E-}006$$

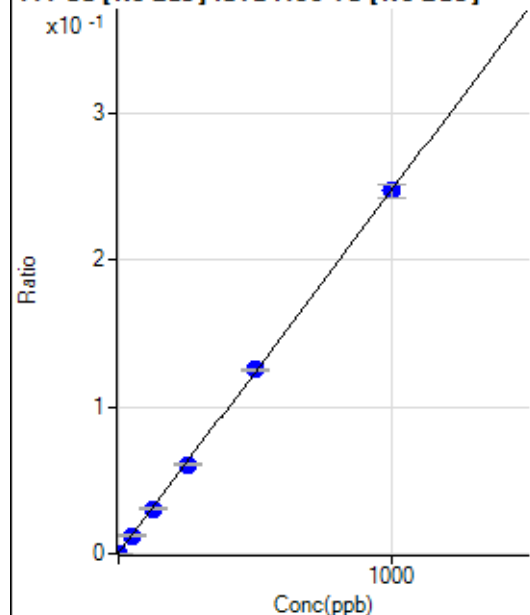
$$R = 0.9998$$

$$DL = 0.005937$$

$$BEC = 0.001974$$

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	757.69	0.0002	P	0.9
2	☐	1.000	1.080	1708.16	0.0005	P	5.5
3	☐	50.000	49.204	44044.90	0.0124	P	1.5
4	☐	125.000	123.575	109615.56	0.0307	P	0.4
5	☐	250.000	243.872	216215.33	0.0605	P	2.1
6	☐	500.000	506.360	447325.21	0.1253	P	0.6
7	☐	1000.000	998.570	898207.76	0.2469	P	3.5
8	☐			1207.58	0.0004	P	11.7

$$y = 2.4701\text{E-}004 * x + 2.1350\text{E-}004$$

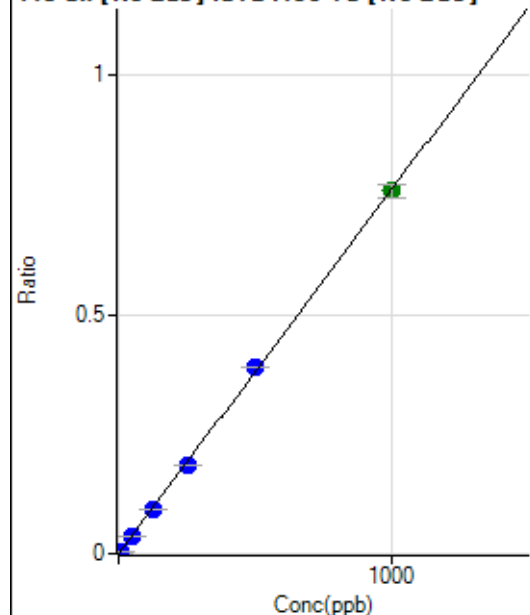
$$R = 1.0000$$

$$DL = 0.0226$$

$$BEC = 0.8643$$

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	208.34	0.0001	P	6.5
2	☐	5.000	4.939	13584.83	0.0038	P	3.5
3	☐	50.000	48.936	132932.78	0.0373	P	1.2
4	☐	125.000	122.167	331963.73	0.0931	P	2.0
5	☐	250.000	243.017	662182.40	0.1851	P	0.6
6	☐	500.000	510.928	1389466.45	0.3892	P	0.4
7	☐	1000.000	996.690	2761690.12	0.7591	A	3.8
8	☐			3900.66	0.0011	P	10.5

$$y = 7.6156\text{E-}004 * x + 5.8696\text{E-}005$$

$$R = 0.9999$$

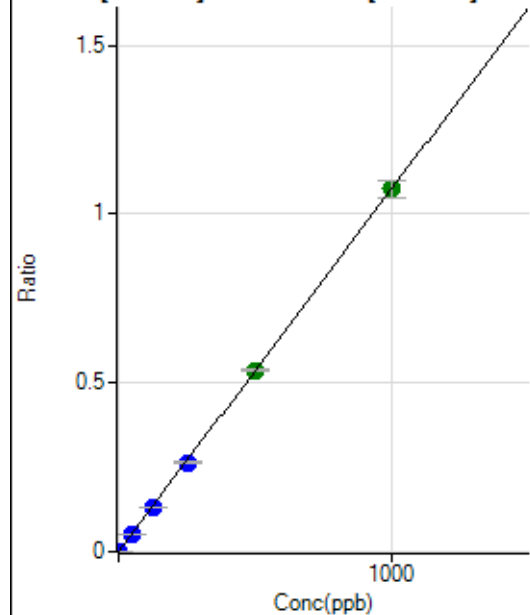
$$DL = 0.01511$$

$$BEC = 0.07707$$

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	19.45	0.0000	P	25.3
2	☐	2.000	1.893	7252.14	0.0020	P	6.3
3	☐	50.000	49.016	187532.44	0.0527	P	1.1
4	☐	125.000	124.026	475085.28	0.1332	P	0.8
5	☐	250.000	245.977	945050.22	0.2642	P	1.0
6	☐	500.000	501.110	1921709.33	0.5383	A	1.0
7	☐	1000.000	1000.622	3909634.94	1.0748	A	4.5
8	☐			2514.18	0.0007	P	4.6

$$y = 0.0011 * x + 5.4842E-006$$

$$R = 1.0000$$

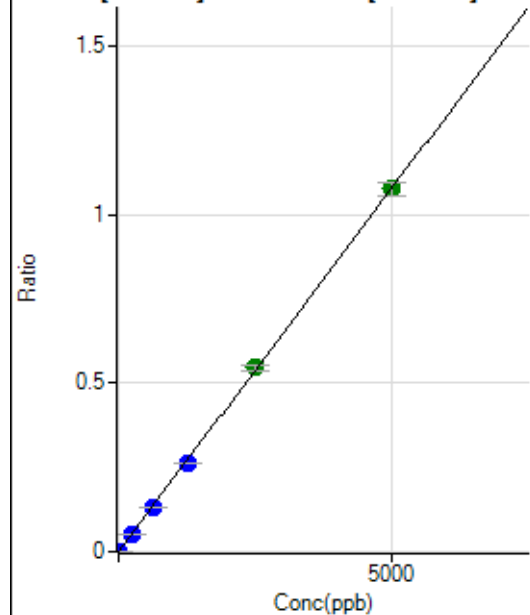
$$DL = 0.003872$$

$$BEC = 0.005106$$

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	86.6
2	☐	10.000	9.746	7491.14	0.0021	P	4.0
3	☐	250.000	246.512	189348.73	0.0532	P	1.1
4	☐	625.000	612.832	471278.62	0.1322	P	1.7
5	☐	1250.000	1210.828	934005.51	0.2611	P	0.8
6	☐	2500.000	2529.379	1947338.58	0.5455	A	2.5
7	☐	5000.000	4996.800	3920533.07	1.0776	A	3.7
8	☐			7329.92	0.0021	P	4.5

$$y = 2.1566E-004 * x + 4.6827E-006$$

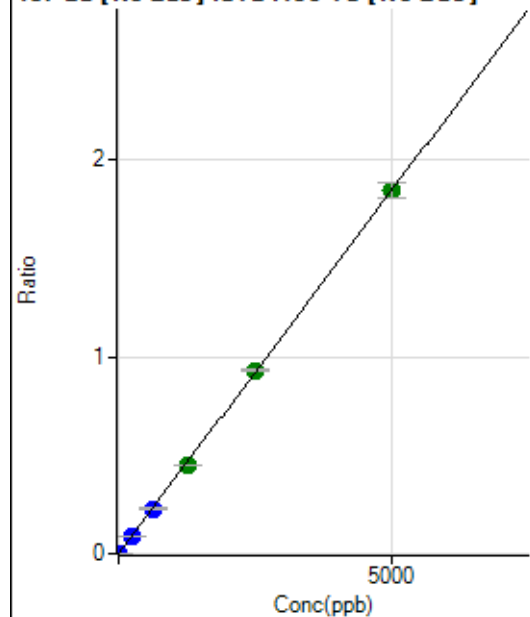
$$R = 0.9999$$

$$DL = 0.05641$$

$$BEC = 0.02171$$

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	25.00	0.0000	P	57.6
2	☐	10.000	9.531	12520.05	0.0035	P	1.2
3	☐	250.000	245.391	322164.22	0.0905	P	0.9
4	☐	625.000	618.651	813121.14	0.2280	P	2.1
5	☐	1250.000	1212.516	1598613.88	0.4469	A	0.7
6	☐	2500.000	2525.860	3323841.13	0.9310	A	1.4
7	☐	5000.000	4997.466	6700931.75	1.8420	A	4.2
8	☐			12369.84	0.0036	P	4.5

$$y = 3.6859E-004 * x + 7.0423E-006$$

$$R = 1.0000$$

$$DL = 0.03302$$

$$BEC = 0.01911$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			2.22		P	173.
3	☐			8.89		P	86.6
4	☐			15.55		P	24.8
5	☐			48.89		P	20.8
6	☐			93.33		P	18.9
7	☐			133.34		P	17.3
8	☐			46.67		P	74.2

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			3.33		P	0.0
5	☐			7.78		P	49.5
6	☐			13.34		P	43.3
7	☐			23.34		P	49.5
8	☐			26.67		P	45.1

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐			16.66		P	86.6
3	☐			11.11		P	114.
4	☐			22.22		P	86.6
5	☐			13.89		P	69.3
6	☐			47.22		P	10.2
7	☐			55.56		P	8.7
8	☐			183.34		P	25.3

156 Dy [He] No available calibration points

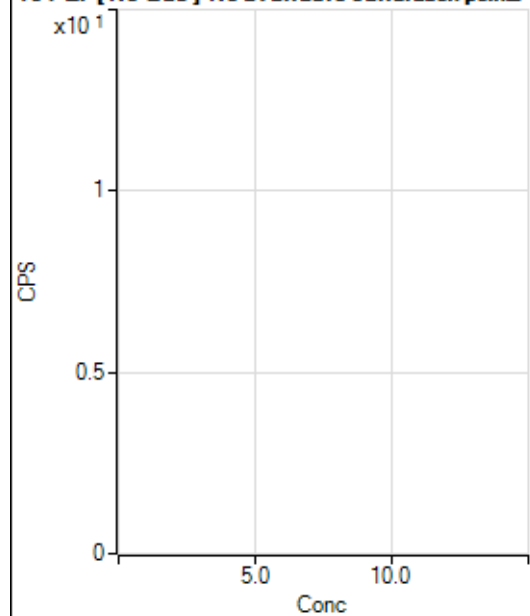
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			4.44		P	114.
3	☐			8.89		P	43.3
4	☐			6.67		P	50.0
5	☐			11.11		P	17.3
6	☐			23.33		P	24.7
7	☐			28.89		P	35.2
8	☐			115.56		P	8.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	24.7
2	☐			47.22		P	27.0
3	☐			33.33		P	43.3
4	☐			44.45		P	10.8
5	☐			58.33		P	28.6
6	☐			61.11		P	28.4
7	☐			58.33		P	71.4
8	☐			194.45		P	13.1

160 Gd [He] No available calibration points

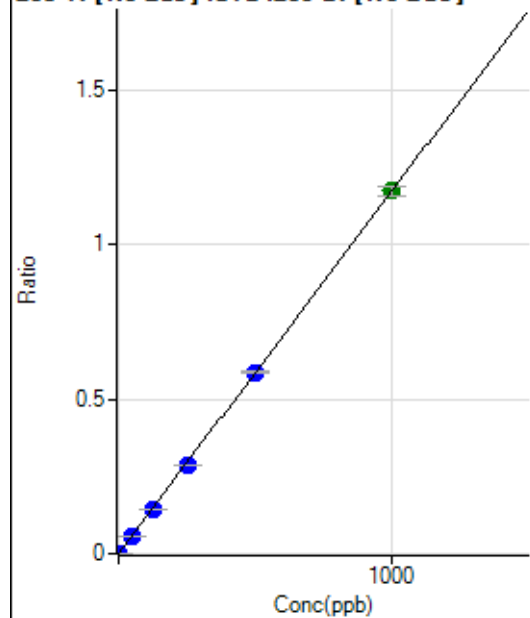
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			20.00		P	0.0
2	☐			16.67		P	52.9
3	☐			3.33		P	0.0
4	☐			28.89		P	13.3
5	☐			17.78		P	28.6
6	☐			33.33		P	26.4
7	☐			45.56		P	33.0
8	☐			151.11		P	14.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	21.6
2	☐			11.11		P	114.
3	☐			13.89		P	69.3
4	☐			25.00		P	57.7
5	☐			8.33		P	100.
6	☐			30.56		P	41.7
7	☐			19.45		P	24.7
8	☐			44.44		P	28.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	66.1
2	☐			8.89		P	57.3
3	☐			5.55		P	69.3
4	☐			4.45		P	86.6
5	☐			6.67		P	50.0
6	☐			12.22		P	15.7
7	☐			12.22		P	68.7
8	☐			22.22		P	67.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	27.78	0.0000	P	75.6
2	☐	1.000	0.899	1961.32	0.0011	P	8.2
3	☐	50.000	48.044	103667.57	0.0563	P	3.7
4	☐	125.000	121.793	260647.64	0.1426	P	1.2
5	☐	250.000	243.521	519848.26	0.2851	P	0.0
6	☐	500.000	500.586	1065998.46	0.5860	P	1.0
7	☐	1000.000	1001.826	2168996.92	1.1728	A	2.4
8	☐			1350.12	0.0008	P	8.7

$$y = 0.0012 * x + 1.5358E-005$$

$$R = 1.0000$$

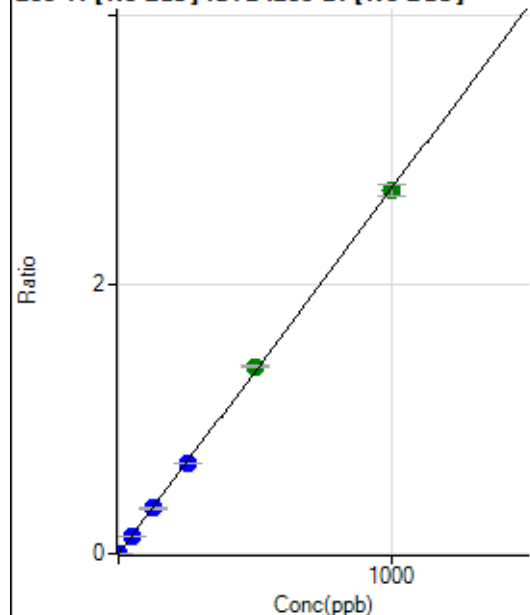
$$DL = 0.02975$$

$$BEC = 0.01312$$

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	36.11	0.0000	P	47.4
2	☐	1.000	0.943	4731.56	0.0026	P	4.8
3	☐	50.000	49.186	245809.19	0.1334	P	2.4
4	☐	125.000	124.241	615707.80	0.3369	P	1.6
5	☐	250.000	247.605	1224093.20	0.6713	P	0.6
6	☐	500.000	512.977	2529844.39	1.3908	A	1.3
7	☐	1000.000	994.246	4984693.86	2.6957	A	3.1
8	☐			2969.87	0.0018	P	7.7

$$y = 0.0027 * x + 1.9867E-005$$

$$R = 0.9999$$

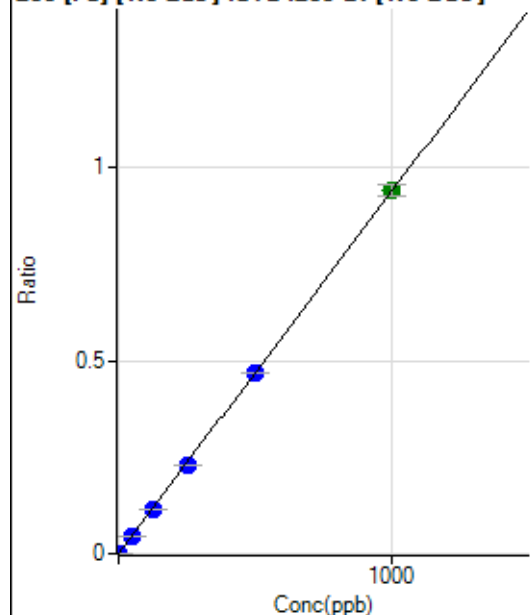
$$DL = 0.01043$$

$$BEC = 0.007327$$

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	87.04	0.0000	P	34.2
2	☐	1.000	1.016	1837.20	0.0010	P	4.4
3	☐	50.000	48.627	84091.30	0.0456	P	2.2
4	☐	125.000	122.056	209200.37	0.1145	P	1.2
5	☐	250.000	243.054	415492.82	0.2279	P	0.5
6	☐	500.000	499.715	852103.69	0.4685	P	0.9
7	☐	1000.000	1002.316	1737287.68	0.9396	A	3.1
8	☐			7461.52	0.0046	P	2.1

$$y = 9.3734E-004 * x + 4.7907E-005$$

$$R = 1.0000$$

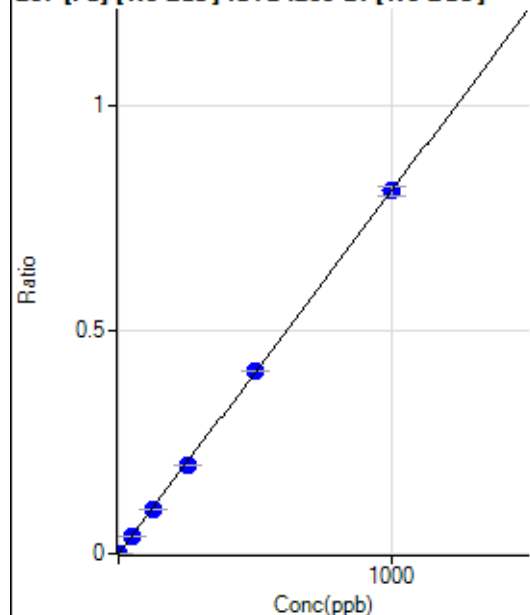
$$DL = 0.05243$$

$$BEC = 0.05111$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	74.08	0.0000	P	46.6
2	☐	1.000	1.002	1568.64	0.0009	P	3.8
3	☐	50.000	48.625	72758.98	0.0395	P	3.1
4	☐	125.000	122.198	181240.64	0.0992	P	1.0
5	☐	250.000	243.469	360156.88	0.1975	P	0.4
6	☐	500.000	503.890	743577.93	0.4088	P	0.5
7	☐	1000.000	1000.107	1500123.67	0.8113	P	2.9
8	☐			6681.48	0.0041	P	2.8

$$y = 8.1113\text{E-}004 * x + 4.0961\text{E-}005$$

$$R = 1.0000$$

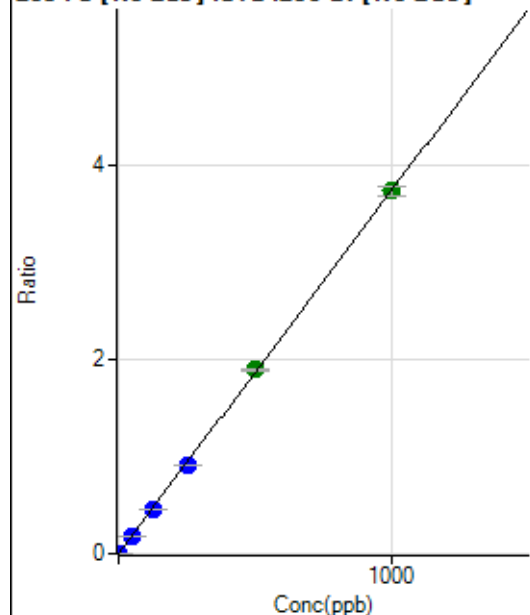
$$DL = 0.07058$$

$$BEC = 0.0505$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	355.56	0.0002	P	11.6
2	☐	1.000	0.972	7021.22	0.0038	P	1.6
3	☐	50.000	48.540	334048.50	0.1812	P	2.0
4	☐	125.000	121.512	828783.58	0.4534	P	0.9
5	☐	250.000	242.124	1647047.50	0.9033	P	0.4
6	☐	500.000	506.015	3433787.34	1.8876	A	0.4
7	☐	1000.000	999.471	6893916.21	3.7282	A	3.0
8	☐			30027.01	0.0186	P	1.5

$$y = 0.0037 * x + 1.9620\text{E-}004$$

$$R = 0.9999$$

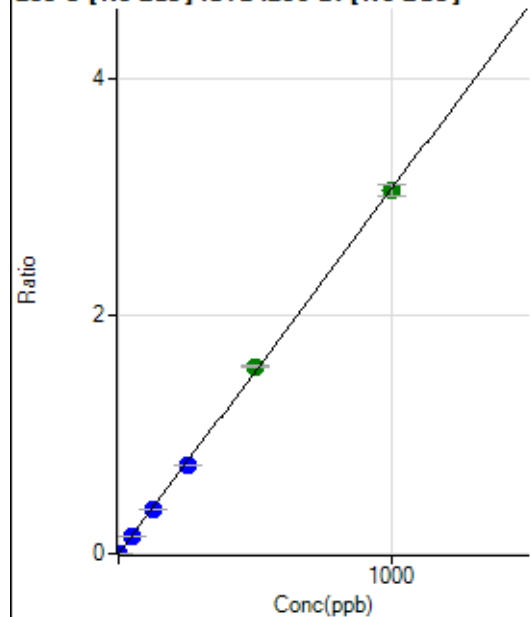
$$DL = 0.0183$$

$$BEC = 0.0526$$

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	19.44	0.0000	P	66.1
2	☐	1.000	0.952	5384.64	0.0029	P	6.2
3	☐	50.000	48.254	272849.70	0.1480	P	1.9
4	☐	125.000	121.706	682449.78	0.3734	P	0.9
5	☐	250.000	244.362	1366894.87	0.7497	P	0.7
6	☐	500.000	513.688	2866432.42	1.5759	A	1.5
7	☐	1000.000	995.065	5644244.66	3.0526	A	3.3
8	☐			1230.65	0.0008	P	12.5

$$y = 0.0031 * x + 1.0763E-005$$

$$R = 0.9998$$

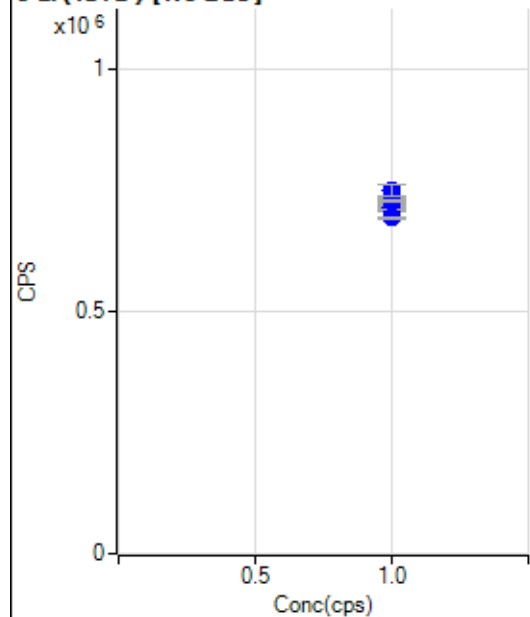
$$DL = 0.00696$$

$$BEC = 0.003508$$

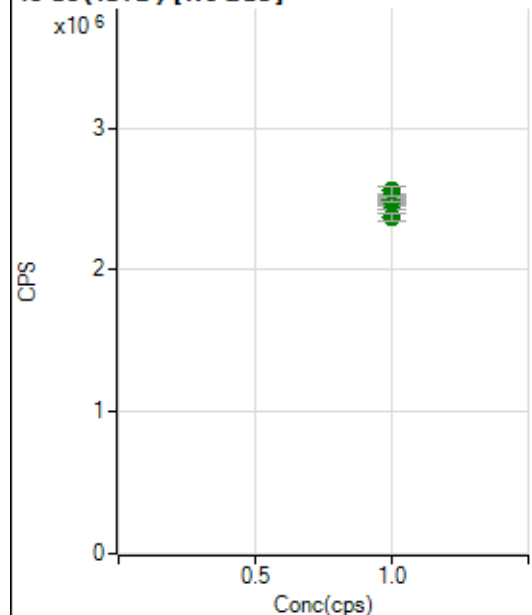
Weight: <None>

Min Conc: 0

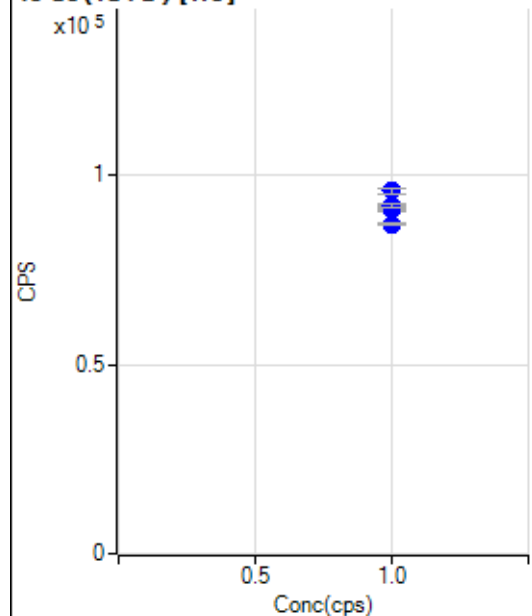
6 Li (ISTD) [No Gas]



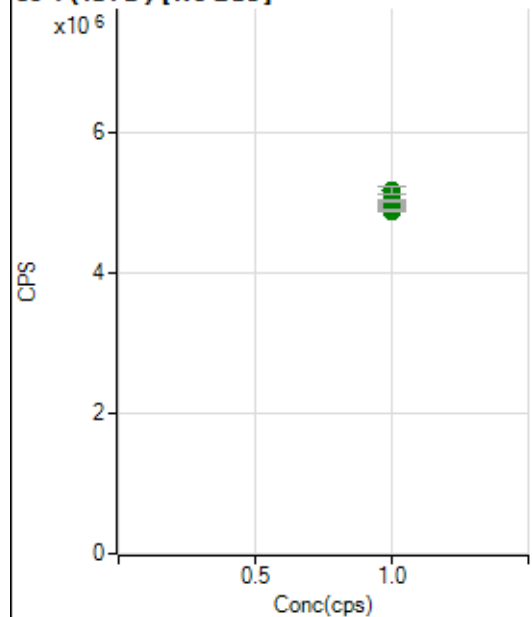
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		730453.66		P	0.9
2	☐	1.000		722721.42		P	1.3
3	☐	1.000		715129.02		P	0.6
4	☐	1.000		709862.14		P	0.5
5	☐	1.000		714537.59		P	1.7
6	☐	1.000		727129.01		P	0.4
7	☐	1.000		748725.24		P	3.4
8	☐	1.000		693502.18		P	0.6

45 Sc (ISTD) [No Gas]

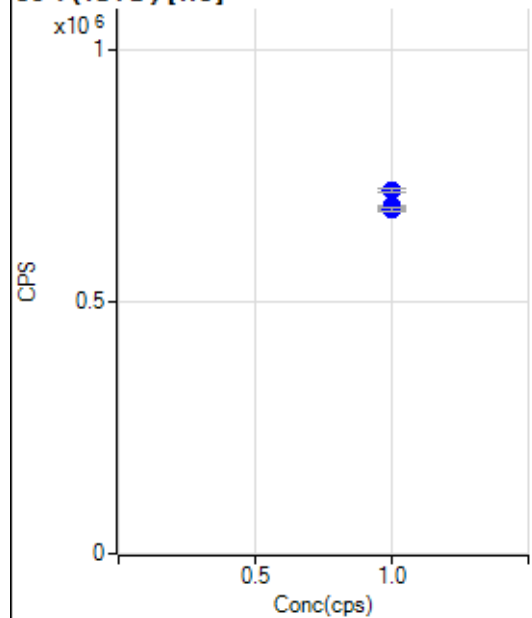
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2449702.27		A	1.6
2	☐	1.000		2449275.03		A	1.4
3	☐	1.000		2496884.76		A	1.1
4	☐	1.000		2510888.14		A	1.3
5	☐	1.000		2477963.58		A	2.1
6	☐	1.000		2495698.45		A	0.9
7	☐	1.000		2556275.26		A	2.5
8	☐	1.000		2369272.55		A	2.4

45 Sc (ISTD) [He]

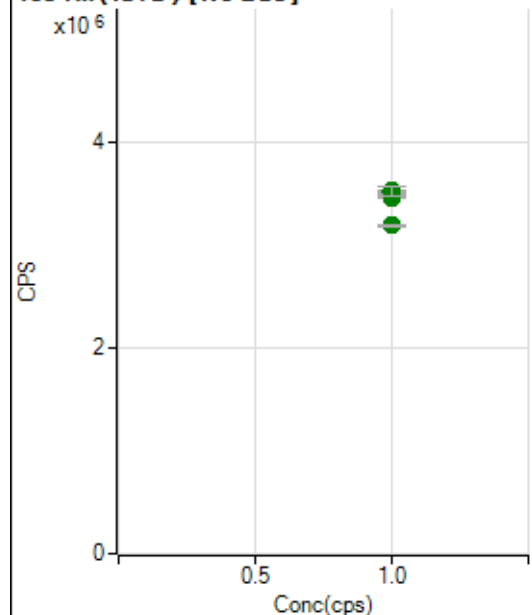
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		91751.75		P	0.8
2	☐	1.000		91514.10		P	0.8
3	☐	1.000		91007.09		P	1.4
4	☐	1.000		91110.93		P	1.6
5	☐	1.000		91255.33		P	0.9
6	☐	1.000		91773.15		P	1.1
7	☐	1.000		95776.64		P	1.6
8	☐	1.000		86944.55		P	0.6

89 Y (ISTD) [No Gas]

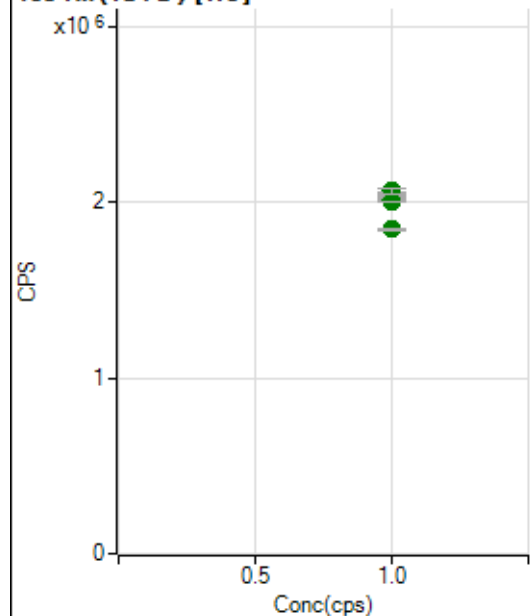
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4965448.61		A	0.9
2	☐	1.000		4980184.44		A	1.4
3	☐	1.000		5006934.51		A	0.6
4	☐	1.000		5029374.58		A	0.4
5	☐	1.000		5006198.54		A	1.8
6	☐	1.000		5023121.18		A	0.1
7	☐	1.000		5167631.03		A	2.2
8	☐	1.000		4880321.63		A	0.4

89 Y (ISTD) [He]

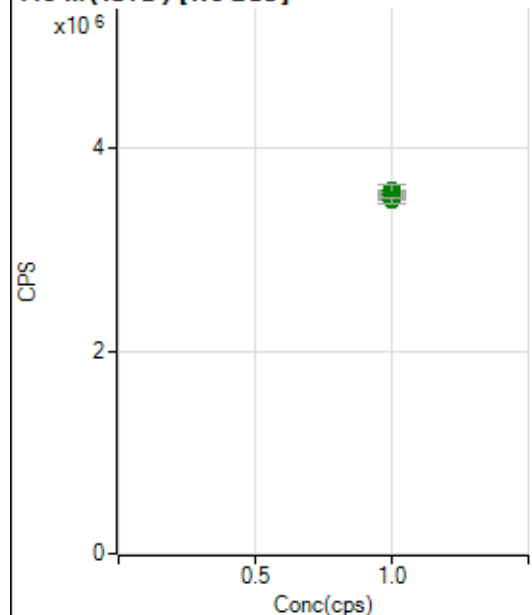
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		682288.01		P	0.2
2	☐	1.000		690560.28		P	0.4
3	☐	1.000		686928.34		P	0.6
4	☐	1.000		690827.25		P	0.6
5	☐	1.000		685772.16		P	1.4
6	☐	1.000		684768.11		P	0.3
7	☐	1.000		720760.30		P	1.0
8	☐	1.000		683137.45		P	0.8

103 Rh (ISTD) [No Gas]

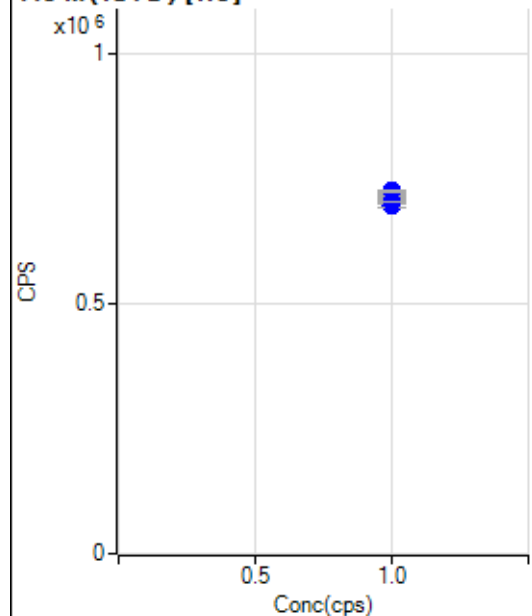
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3522210.71		A	0.8
2	☐	1.000		3513077.90		A	0.5
3	☐	1.000		3525667.79		A	0.9
4	☐	1.000		3522975.86		A	1.0
5	☐	1.000		3469588.36		A	0.9
6	☐	1.000		3489808.24		A	1.0
7	☐	1.000		3530523.26		A	2.8
8	☐	1.000		3194101.55		A	0.8

103 Rh (ISTD) [He]

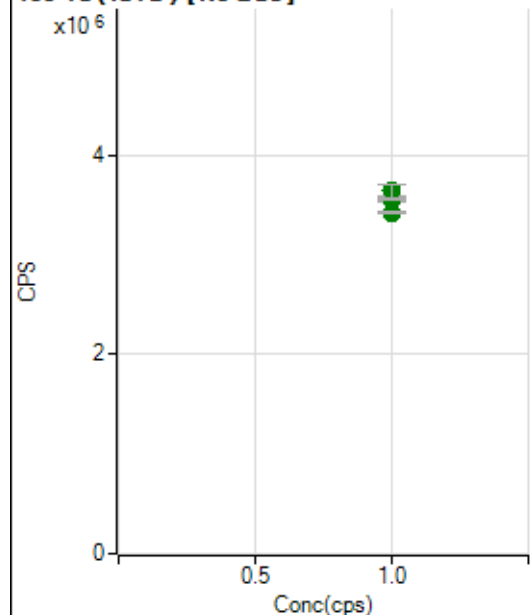
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2007962.40		A	0.8
2	☐	1.000		2039721.46		A	1.3
3	☐	1.000		2018773.48		A	0.1
4	☐	1.000		2054106.22		A	0.5
5	☐	1.000		2017596.33		A	1.4
6	☐	1.000		2004919.73		A	0.4
7	☐	1.000		2065066.27		A	1.5
8	☐	1.000		1845774.00		A	0.5

115 In (ISTD) [No Gas]

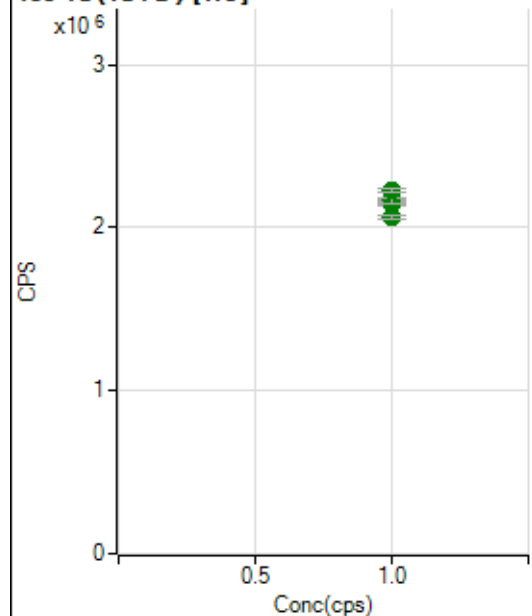
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3523420.47		A	0.7
2	☐	1.000		3536430.46		A	0.7
3	☐	1.000		3547444.05		A	0.6
4	☐	1.000		3561109.88		A	1.2
5	☐	1.000		3548584.28		A	0.9
6	☐	1.000		3515188.64		A	1.6
7	☐	1.000		3584860.75		A	3.4
8	☐	1.000		3495608.61		A	1.6

115 In (ISTD) [He]

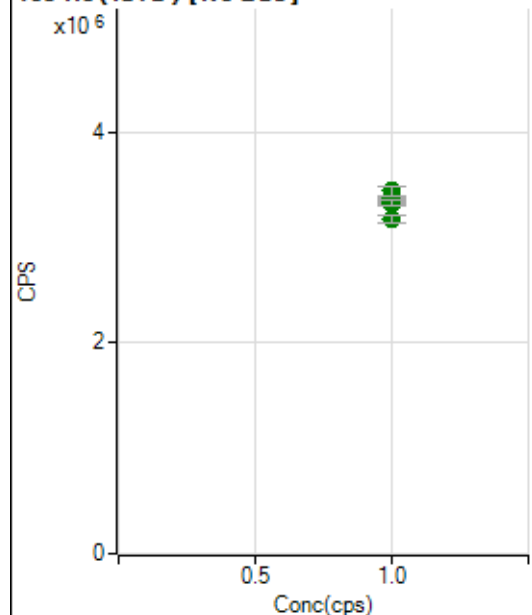
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		706234.70		P	0.2
2	☐	1.000		715008.61		P	0.7
3	☐	1.000		710506.06		P	0.5
4	☐	1.000		715247.09		P	0.8
5	☐	1.000		712620.10		P	0.7
6	☐	1.000		695837.73		P	1.0
7	☐	1.000		725225.93		P	0.7
8	☐	1.000		702515.69		P	0.2

159 Tb (ISTD) [No Gas]

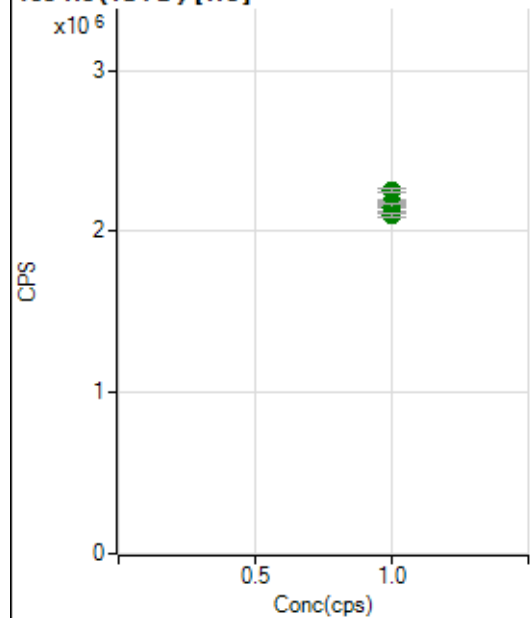
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3548963.59		A	0.5
2	☐	1.000		3556555.05		A	0.9
3	☐	1.000		3561770.92		A	1.5
4	☐	1.000		3566157.62		A	0.9
5	☐	1.000		3576930.40		A	0.7
6	☐	1.000		3570362.06		A	0.8
7	☐	1.000		3641237.65		A	3.4
8	☐	1.000		3423636.20		A	0.7

159 Tb (ISTD) [He]

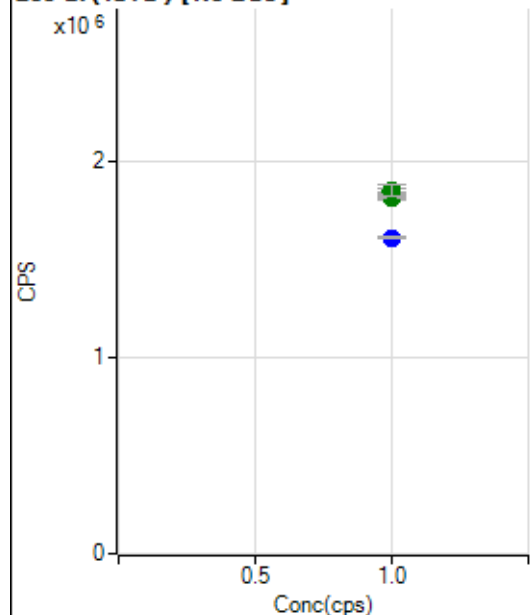
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2153662.69		A	1.6
2	☐	1.000		2155301.43		A	1.0
3	☐	1.000		2152182.83		A	0.1
4	☐	1.000		2151932.66		A	1.9
5	☐	1.000		2146980.78		A	0.2
6	☐	1.000		2166957.38		A	1.8
7	☐	1.000		2225472.28		A	1.0
8	☐	1.000		2062636.86		A	0.8

165 Ho (ISTD) [No Gas]

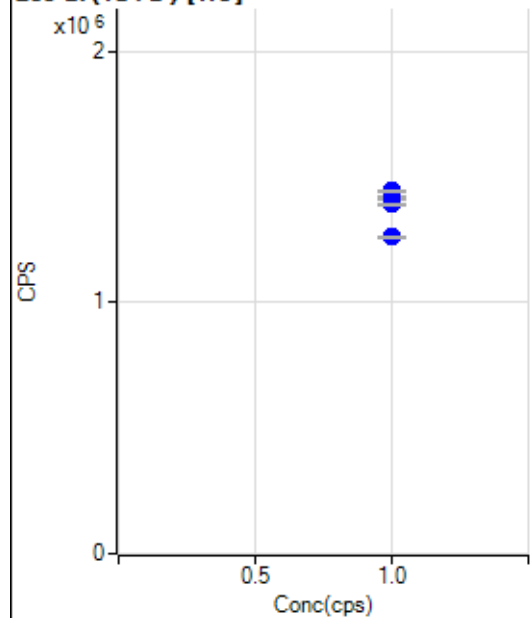
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3329851.12		A	0.9
2	☐	1.000		3328758.93		A	1.2
3	☐	1.000		3365329.68		A	0.7
4	☐	1.000		3380555.72		A	1.1
5	☐	1.000		3356633.17		A	2.0
6	☐	1.000		3323885.19		A	1.5
7	☐	1.000		3441113.49		A	2.7
8	☐	1.000		3171401.42		A	2.0

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2172894.08		A	0.3
2	☐	1.000		2182802.83		A	0.7
3	☐	1.000		2157198.74		A	0.7
4	☐	1.000		2178357.57		A	2.1
5	☐	1.000		2180082.24		A	0.3
6	☐	1.000		2151666.05		A	2.2
7	☐	1.000		2251224.10		A	1.2
8	☐	1.000		2101030.77		A	1.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1813177.20		A	0.9
2	☐	1.000		1836498.57		A	1.0
3	☐	1.000		1843482.54		A	1.9
4	☐	1.000		1827868.65		A	0.8
5	☐	1.000		1823367.05		A	0.9
6	☐	1.000		1819076.33		A	1.0
7	☐	1.000		1850236.95		A	3.1
8	☐	1.000		1611945.10		P	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1409499.58		P	0.3
2	☐	1.000		1417771.73		P	0.6
3	☐	1.000		1412978.31		P	0.4
4	☐	1.000		1410661.44		P	0.6
5	☐	1.000		1409474.65		P	0.5
6	☐	1.000		1392606.82		P	0.5
7	☐	1.000		1445349.14		P	0.4
8	☐	1.000		1262387.99		P	0.5

US EPA Tune Check Report

Operator Name ICPMS
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\P8020520MS.b
Acq. Date-Time 2020-02-05 09:51:06
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		2630	26297.04			0.530	5.000
24		40233	402325.59			0.615	5.000
25		5664	56635.71			1.077	5.000
26		6763	67632.73			0.849	5.000
59		30346	303464.23			0.887	5.000
113		3048	30478.92			1.003	5.000
115		37482	374818.41			0.991	5.000
206		5709	57088.70			1.453	5.000
207		5132	51323.13			1.573	5.000
208		12091	120907.79			1.439	5.000
220		1	8.00			10.825	

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

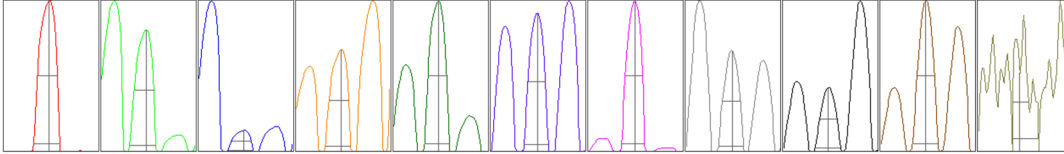
Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	2610	2641	2637	2620	2640
24	40090	40117	39978	40574	40405
25	5706	5575	5637	5669	5731
26	6820	6716	6689	6794	6798
59	30402	29975	30179	30633	30543
113	3068	2998	3039	3066	3068
115	38008	36963	37527	37418	37492
206	5746	5565	5722	5734	5777
207	5139	5020	5089	5190	5223
208	12140	11808	12062	12180	12263

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	4401.97	8.95	8.90 - 9.10	
24	69450.23	23.95	23.90 - 24.10	
25	9352.14	24.95	24.90 - 25.10	
26	11202.39	25.95	25.90 - 26.10	
59	53698.49	58.95	58.90 - 59.10	
113	5845.06	113.00	112.90 - 113.10	
115	72097.24	115.00	114.90 - 115.10	
206	10594.20	206.00	205.90 - 206.10	
207	9641.31	206.95	206.90 - 207.10	
208	22905.31	207.95	207.90 - 208.10	
220	0.80	219.85	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.64	0.824	0.900	
24	0.63	0.824	0.900	
25	0.64	0.787	0.900	
26	0.63	0.794	0.900	
59	0.59	0.785	0.900	
113	0.54	0.770	0.900	
115	0.55	0.729	0.900	
206	0.56	0.787	0.900	
207	0.55	0.815	0.900	
208	0.55	0.812	0.900	
220	0.51	0.830		

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode HMI Nebulizer Gas 0.50 L/min Dilution Gas 0.45 L/min

US EPA Tune Check Report

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 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	11.6 V	Deflect	15.0 V
Extract 2	-250.0 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	150 V		

QP Parameters

Mass Gain	123	Axis Gain	0.9993	QP Bias	-4.0 V
Mass Offset	123	Axis Offset	-0.05		

Hardware Settings

Torch

Torch H	0.4 mm	Torch V	0.1 mm
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EM

Discriminator	3.9 mV	Analog HV	2168 V	Pulse HV	1119 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		8136	81359.69			0.972	
89		6780	67800.69			0.803	
205		6991	69911.09			0.845	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	8196	8140	8073	8042	8229
89	6828	6781	6791	6689	6812
205	7074	7024	6955	6923	6980

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	HMI	Nebulizer Gas	0.50 L/min	Dilution Gas	0.45 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 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	11.6 V	Deflect	5.0 V
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US EPA Tune Check Report

Extract 2	-250.0 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	123	Axis Gain	0.9993	QP Bias	-13.0 V
Mass Offset	123	Axis Offset	-0.05		
Hardware Settings					
Torch					
Torch H	0.4 mm	Torch V	0.1 mm		
EM					
Discriminator	3.9 mV	Analog HV	2168 V	Pulse HV	1119 V