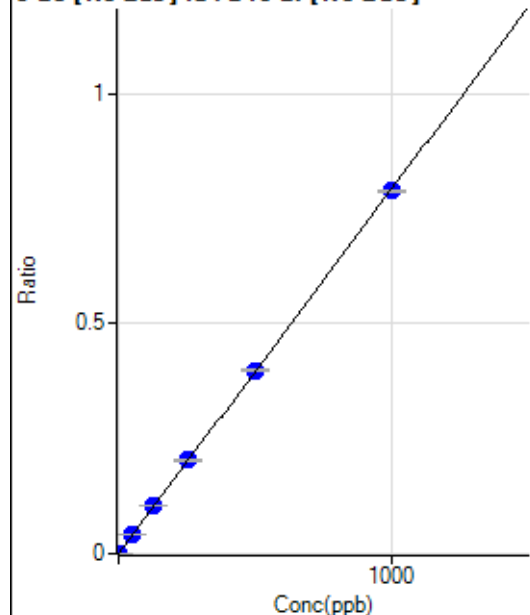


Batch Folder: D:\ICP-MS Data\P7102019MS.b\
Analysis File: P7102019MS.batch.bin
DA Date-Time: 2019-10-20 19:30:42
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-10-20 14:24:23
2	004CALS.d	S02	2019-10-20 14:27:59
3	005CALS.d	S03	2019-10-20 14:32:58
4	006CALS.d	S04	2019-10-20 14:37:03
5	007CALS.d	S05	2019-10-20 14:40:52
6	008CALS.d	S06	2019-10-20 14:44:38
7	009CALS.d	S07	2019-10-20 14:48:24
8	010CALS.d	S08	2019-10-20 14:52:11

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	71.11	0.0000	P	28.9
2	☐	1.000	1.073	3463.79	0.0009	P	0.6
3	☐	50.000	54.526	177007.87	0.0432	P	0.5
4	☐	125.000	130.617	438726.76	0.1035	P	1.1
5	☐	250.000	256.733	883063.00	0.2033	P	1.6
6	☐	500.000	503.708	1720157.01	0.3989	P	0.4
7	☐	1000.000	995.534	3265984.74	0.7884	P	0.4
8	☐			495.57	0.0001	P	19.0

$$y = 7.9195\text{E-}004 * x + 1.8157\text{E-}005$$

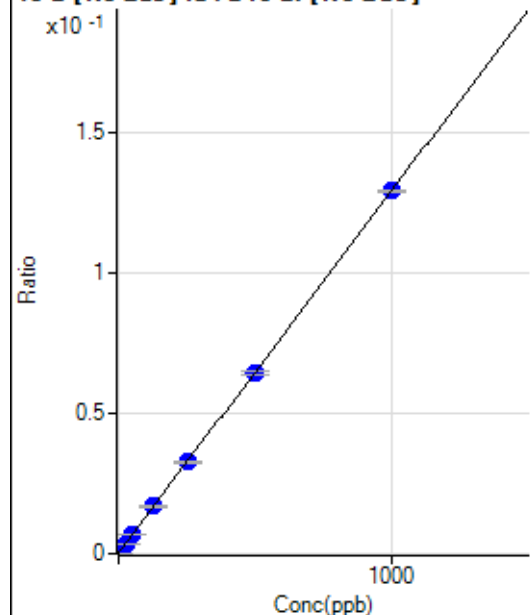
$$R = 1.0000$$

$$DL = 0.01989$$

$$BEC = 0.02293$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	972.30	0.0002	P	13.7
2	☐	25.000	26.600	14677.20	0.0037	P	2.6
3	☐	50.000	52.312	28650.39	0.0070	P	1.0
4	☐	125.000	128.460	71286.97	0.0168	P	2.2
5	☐	250.000	251.828	142070.78	0.0327	P	1.7
6	☐	500.000	497.963	277910.85	0.0644	P	2.1
7	☐	1000.000	999.973	535039.00	0.1292	P	0.5
8	☐			15550.19	0.0043	P	8.1

$$y = 1.2892\text{E-}004 * x + 2.4825\text{E-}004$$

$$R = 1.0000$$

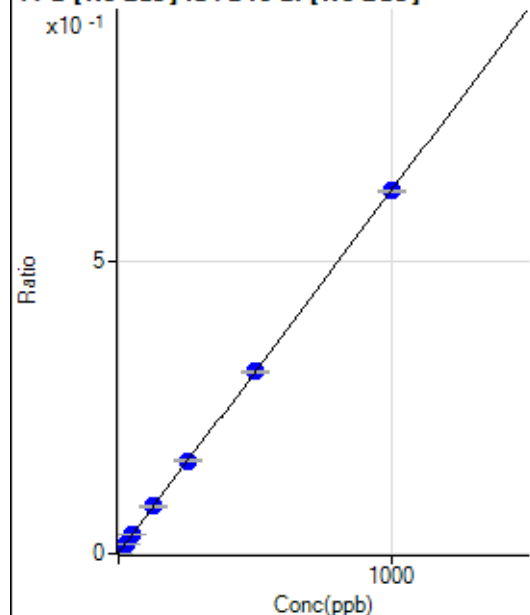
$$DL = 0.791$$

$$BEC = 1.926$$

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	4456.42	0.0011	P	3.3
2	☐	25.000	25.761	68283.40	0.0171	P	1.6
3	☐	50.000	52.714	138569.06	0.0338	P	1.9
4	☐	125.000	128.229	341999.35	0.0806	P	1.8
5	☐	250.000	253.811	688382.99	0.1585	P	2.2
6	☐	500.000	499.887	1341373.38	0.3111	P	0.7
7	☐	1000.000	998.545	2569334.87	0.6203	P	0.5
8	☐			76341.43	0.0212	P	7.5

$$y = 6.2002\text{E-}004 * x + 0.0011$$

$$R = 1.0000$$

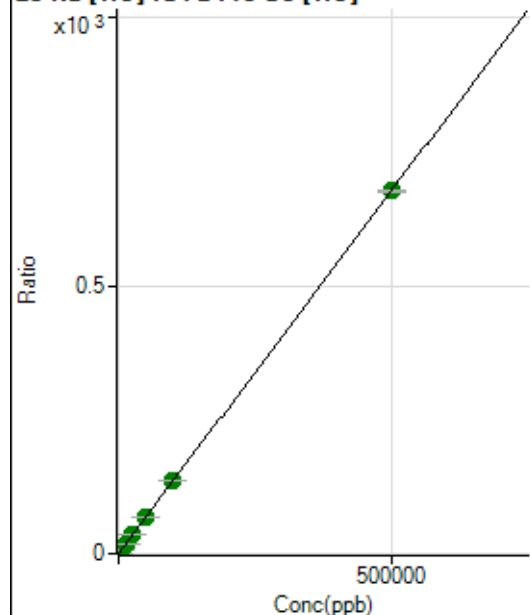
$$DL = 0.1838$$

$$BEC = 1.834$$

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	22231.15	0.0300	P	1.8
2	☐	500.000	480.011	507765.10	0.6802	P	1.7
3	☐	5000.000	5221.695	5039197.12	7.1030	A	0.7
4	☐	12500.000	13069.374	12156169.89	17.7329	A	0.7
5	☐	25000.000	26098.800	23739320.15	35.3817	A	0.3
6	☐	50000.000	51173.549	47673636.48	69.3462	A	0.8
7	☐	100000.00	99822.140	94327861.14	135.2422	A	0.6
8	☐	500000.00	499846.84	496502616.65	677.0878	A	0.3

$$y = 0.0014 * x + 0.0300$$

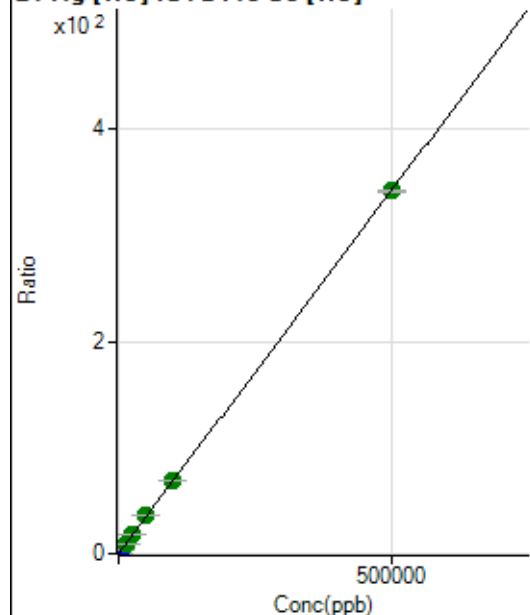
$$R = 1.0000$$

$$DL = 1.225$$

$$BEC = 22.18$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	658.38	0.0009	P	8.1
2	☐	500.000	498.182	255451.84	0.3422	P	3.5
3	☐	5000.000	5330.017	2591233.87	3.6525	P	0.1
4	☐	12500.000	13318.886	6255744.54	9.1257	A	0.7
5	☐	25000.000	26556.816	12207903.14	18.1950	A	0.4
6	☐	50000.000	52088.649	24533133.01	35.6868	A	0.8
7	☐	100000.00	100795.26	48164823.65	69.0557	A	0.3
8	☐	500000.00	499530.47	250958377.83	342.2290	A	0.8

$$y = 6.8510E-004 * x + 8.8963E-004$$

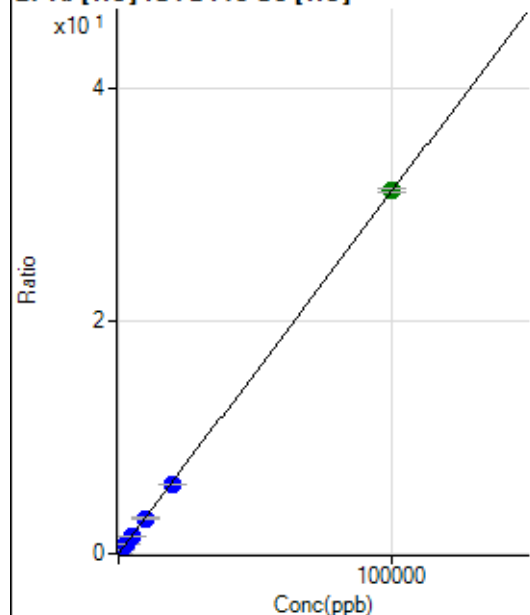
$$R = 1.0000$$

$$DL = 0.3159$$

$$BEC = 1.299$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	102.78	0.0001	P	28.0
2	☐	20.000	17.681	4214.67	0.0056	P	4.9
3	☐	1000.000	995.878	220157.62	0.3103	P	0.8
4	☐	2500.000	2485.734	530830.06	0.7744	P	1.4
5	☐	5000.000	4980.481	1040907.19	1.5514	P	0.4
6	☐	10000.000	9792.541	2096891.84	3.0502	P	0.9
7	☐	20000.000	19152.073	4160786.25	5.9654	P	0.5
8	☐	100000.00	100191.70	22883899.12	31.2065	A	0.9

$$y = 3.1147E-004 * x + 1.3875E-004$$

$$R = 1.0000$$

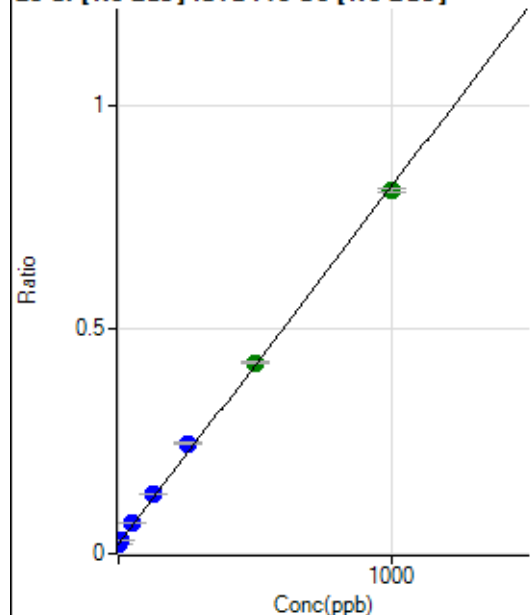
$$DL = 0.3749$$

$$BEC = 0.4455$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	321679.94	0.0221	P	0.4
2	☐	10.000	9.279	427976.64	0.0295	P	0.3
3	☐	50.000	55.957	956174.75	0.0667	P	0.4
4	☐	125.000	139.333	1862861.33	0.1331	P	1.0
5	☐	250.000	280.991	3444722.04	0.2459	P	0.8
6	☐	500.000	506.053	5940986.33	0.4251	A	0.6
7	☐	1000.000	987.143	11205400.95	0.8082	A	1.2
8	☐			792707.56	0.0591	P	0.6

$$y = 7.9626\text{E-}004 * x + 0.0221$$

$$R = 0.9994$$

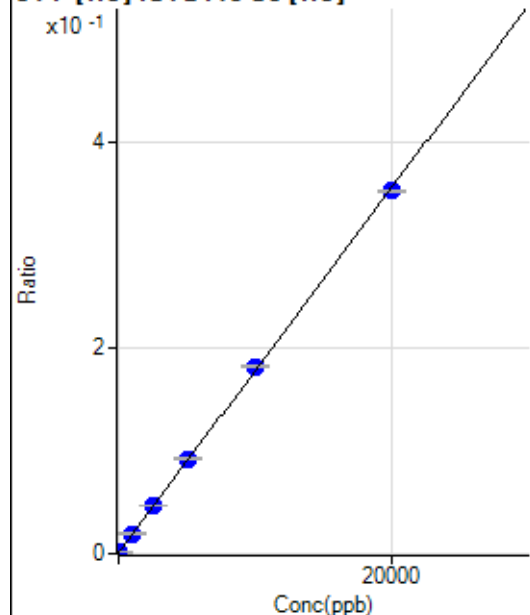
$$DL = 0.3489$$

$$BEC = 27.8$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-24.122	177.79	0.0002	P	19.5
2	☐	0.000	24.122	816.73	0.0011	P	13.8
3	☐	1000.000	1046.300	13617.91	0.0192	P	4.8
4	☐	2500.000	2570.926	31665.10	0.0462	P	0.3
5	☐	5000.000	5171.006	61881.87	0.0922	P	0.6
6	☐	10000.000	10205.689	124696.26	0.1814	P	0.9
7	☐	20000.000	19843.223	245538.97	0.3520	P	0.6
8	☐			227.79	0.0003	P	16.8

$$y = 1.7707\text{E-}005 * x + 6.6736\text{E-}004$$

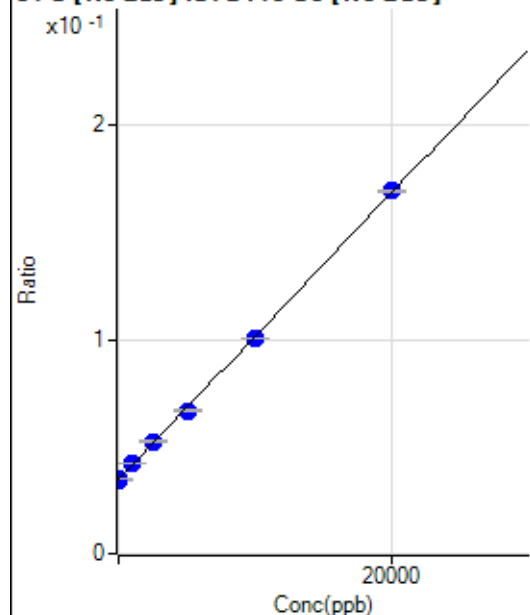
$$R = 0.9999$$

$$DL = 16.75$$

$$BEC = 37.69$$

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	-67.384	497682.14	0.0342	P	0.9
2	☐	0.000	67.384	509523.76	0.0351	P	0.7
3	☐	1000.000	1077.739	601072.88	0.0419	P	0.3
4	☐	2500.000	2655.149	734880.48	0.0525	P	1.2
5	☐	5000.000	4799.606	936900.81	0.0669	P	1.1
6	☐	10000.000	9831.576	1406062.26	0.1006	P	0.7
7	☐	20000.000	20111.030	2350348.66	0.1695	P	0.3
8	☐			400172.07	0.0298	P	0.9

$$y = 6.7037\text{E-}006 * x + 0.0347$$

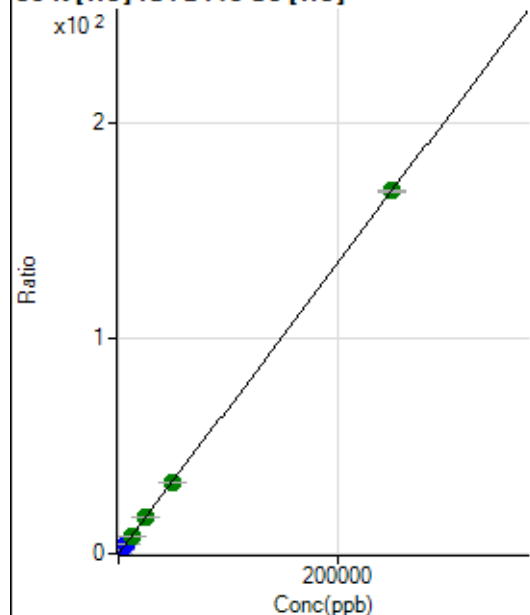
R = 0.9998

DL = 122.6

BEC = 5176

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	38626.25	0.0522	P	1.7
2	☐	500.000	473.370	276398.86	0.3703	P	1.5
3	☐	2500.000	2509.954	1233582.92	1.7388	P	0.2
4	☐	6250.000	6319.585	2946879.43	4.2988	P	0.8
5	☐	12500.000	12430.782	5639518.01	8.4053	A	0.1
6	☐	25000.000	24785.245	11485330.55	16.7071	A	1.2
7	☐	50000.000	48525.137	22779838.18	32.6596	A	0.4
8	☐	250000.00	250318.12	123383720.81	168.2583	A	0.5

$$y = 6.7197\text{E-}004 * x + 0.0522$$

R = 1.0000

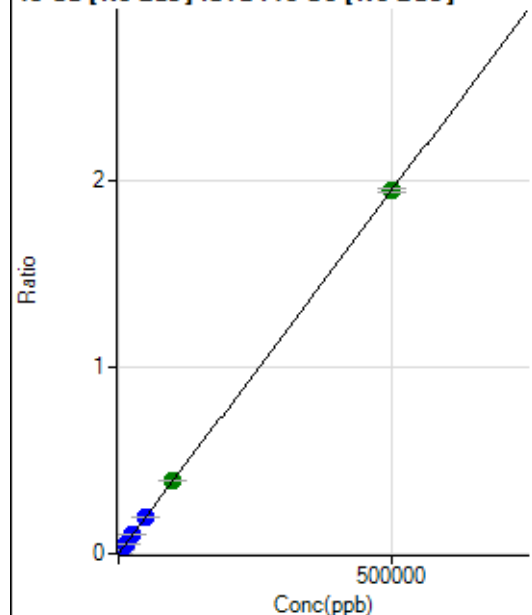
DL = 3.914

BEC = 77.66

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	250.01	0.0000	P	15.6
2	☐	500.000	480.503	27401.45	0.0019	P	1.6
3	☐	5000.000	5057.160	282877.51	0.0197	P	1.9
4	☐	12500.000	12804.446	698974.01	0.0499	P	0.1
5	☐	25000.000	25397.939	1387358.12	0.0990	P	0.5
6	☐	50000.000	50713.755	2763384.02	0.1977	P	0.5
7	☐	100000.00	100545.24	5434688.79	0.3920	A	1.1
8	☐	500000.00	499791.51	26142778.71	1.9484	A	0.9

$$y = 3.8983\text{E-}006 * x + 1.7208\text{E-}005$$

$$R = 1.0000$$

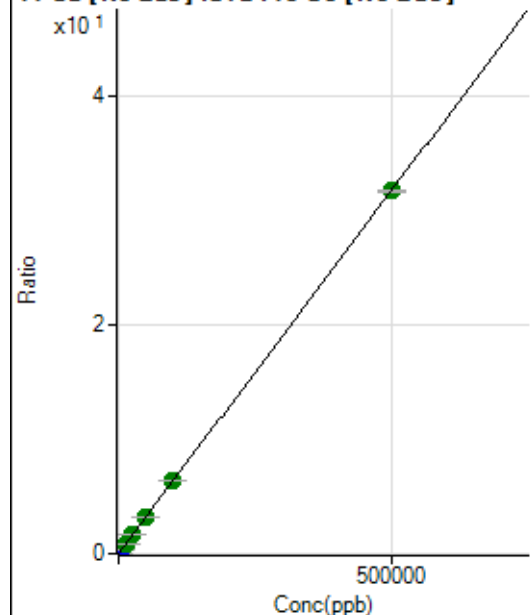
$$DL = 2.061$$

$$BEC = 4.414$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	15949.21	0.0011	P	1.1
2	☐	500.000	491.301	468012.31	0.0323	P	0.8
3	☐	5000.000	5124.886	4680092.38	0.3264	P	0.6
4	☐	12500.000	12883.218	11463735.85	0.8190	A	0.7
5	☐	25000.000	25476.589	22673977.42	1.6184	A	0.5
6	☐	50000.000	51084.921	45340625.67	3.2441	A	0.6
7	☐	100000.00	101214.10	89102449.21	6.4264	A	0.1
8	☐	500000.00	499614.03	425586470.62	31.7177	A	0.9

$$y = 6.3482\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

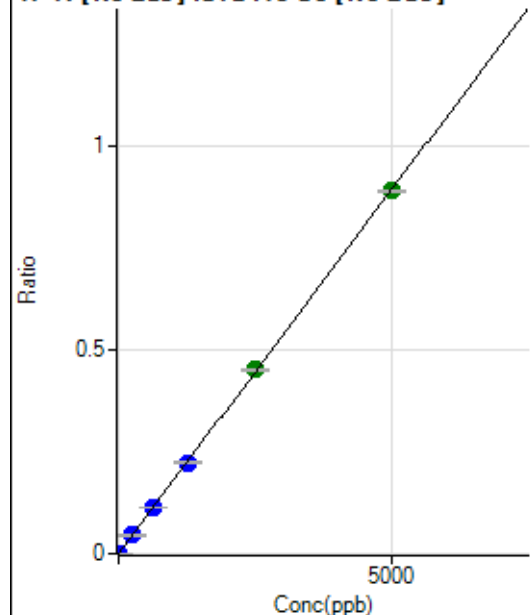
$$DL = 0.5769$$

$$BEC = 17.29$$

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	219.45	0.0000	P	27.3
2	☐	5.000	4.926	12975.61	0.0009	P	1.3
3	☐	250.000	251.464	644223.55	0.0449	P	1.1
4	☐	625.000	629.907	1575298.61	0.1125	P	0.3
5	☐	1250.000	1254.815	3140516.52	0.2242	P	0.5
6	☐	2500.000	2524.443	6302557.39	0.4510	A	0.7
7	☐	5000.000	4985.888	12348954.44	0.8906	A	0.8
8	☐			3033.76	0.0002	P	4.1

$$y = 1.7863E-004 * x + 1.5118E-005$$

$$R = 1.0000$$

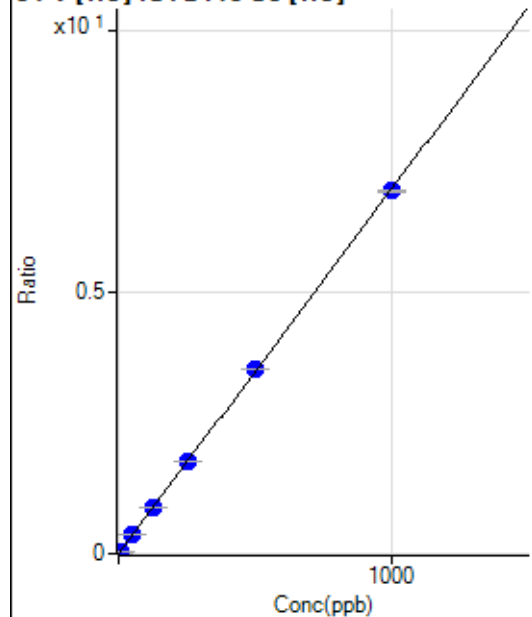
$$DL = 0.06919$$

$$BEC = 0.08463$$

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	26.67	0.0000	P	54.1
2	☐	5.000	4.902	25536.78	0.0342	P	2.0
3	☐	50.000	50.421	249408.52	0.3516	P	0.3
4	☐	125.000	126.713	605590.17	0.8834	P	1.1
5	☐	250.000	253.415	1185398.05	1.7667	P	0.3
6	☐	500.000	506.725	2428616.13	3.5327	P	0.5
7	☐	1000.000	995.549	4840852.12	6.9406	P	0.6
8	☐			1665.68	0.0023	P	4.0

$$y = 0.0070 * x + 3.5979E-005$$

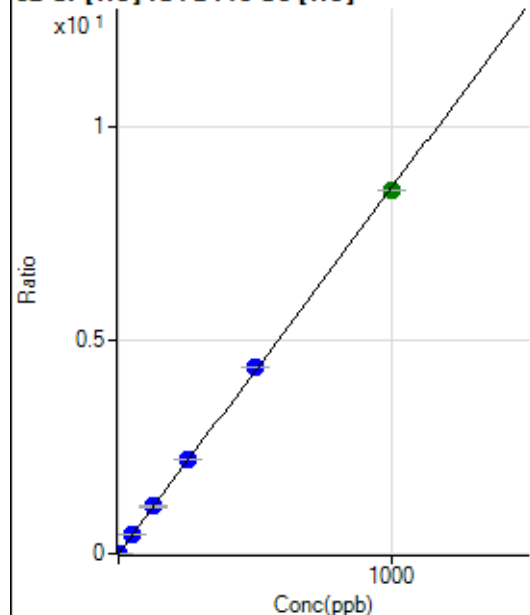
$$R = 1.0000$$

$$DL = 0.008371$$

$$BEC = 0.005161$$

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	1072.28	0.0014	P	2.2
2	☐	2.000	1.880	13086.01	0.0175	P	3.6
3	☐	50.000	51.546	313881.25	0.4424	P	0.8
4	☐	125.000	129.066	757900.57	1.1056	P	1.2
5	☐	250.000	257.192	1477259.32	2.2017	P	0.6
6	☐	500.000	511.010	3006437.94	4.3732	P	0.6
7	☐	1000.000	992.111	5920945.82	8.4890	A	0.0
8	☐			226398.00	0.3087	P	0.4

$$y = 0.0086 * x + 0.0014$$

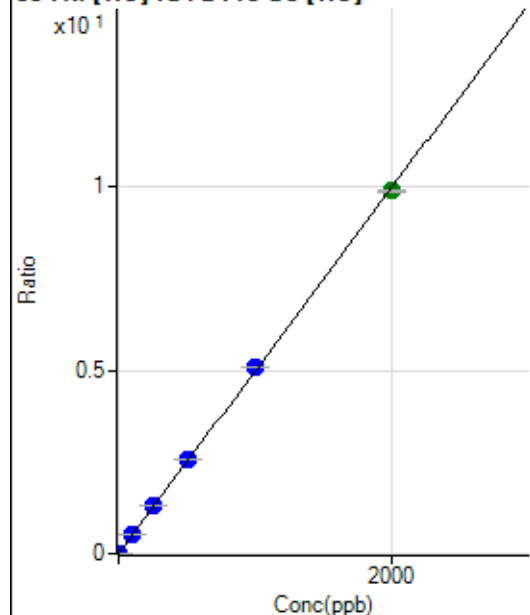
$$R = 0.9999$$

$$DL = 0.01101$$

$$BEC = 0.1693$$

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	68.89	0.0001	P	22.4
2	☐	1.000	0.986	3740.53	0.0050	P	0.3
3	☐	100.000	103.006	364693.49	0.5141	P	0.8
4	☐	250.000	259.509	887678.93	1.2949	P	1.1
5	☐	500.000	516.061	1727701.97	2.5750	P	0.1
6	☐	1000.000	1021.632	3504432.76	5.0976	P	0.4
7	☐	2000.000	1983.830	6903942.75	9.8985	A	0.5
8	☐			27028.41	0.0369	P	0.5

$$y = 0.0050 * x + 9.3020E-005$$

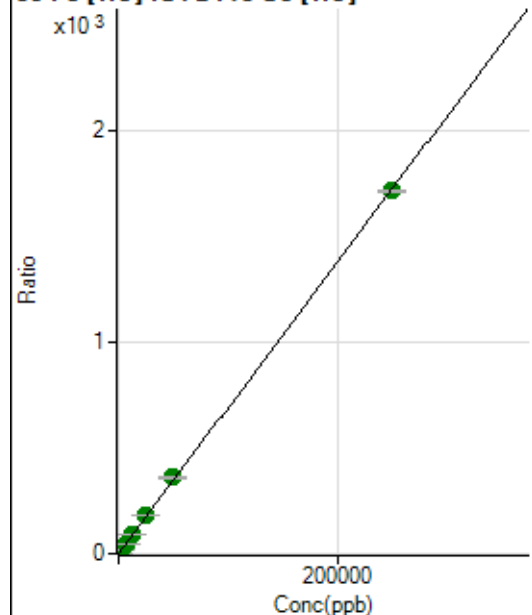
$$R = 0.9999$$

$$DL = 0.01255$$

$$BEC = 0.01864$$

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	8604.59	0.0116	P	1.4
2	☐	50.000	51.328	272458.77	0.3650	P	3.3
3	☐	2500.000	2732.651	13354490.69	18.8238	A	0.5
4	☐	6250.000	6867.461	32416378.04	47.2886	A	1.2
5	☐	12500.000	13613.194	62886441.22	93.7277	A	0.5
6	☐	25000.000	26969.147	127644951.93	185.6728	A	0.3
7	☐	50000.000	52208.609	250688898.19	359.4264	A	0.5
8	☐	250000.00	249287.94	1258437850.3	1,716.161	A	0.5

$$y = 0.0069 * x + 0.0116$$

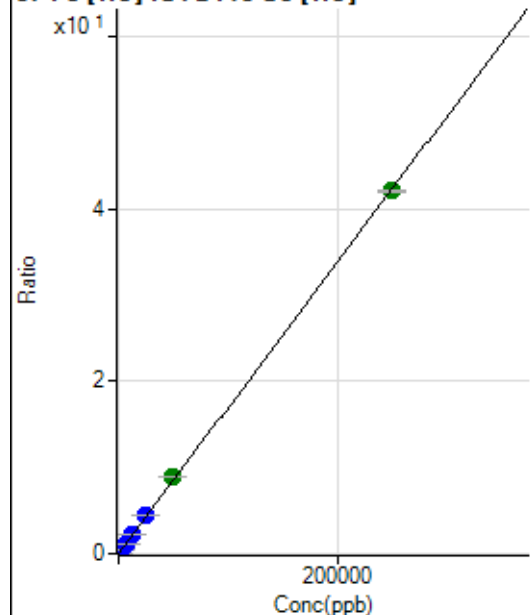
$$R = 0.9999$$

$$DL = 0.06968$$

$$BEC = 1.689$$

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	529.66	0.0007	P	19.0
2	☐	50.000	53.875	7333.53	0.0098	P	4.1
3	☐	2500.000	2745.941	329866.47	0.4650	P	0.8
4	☐	6250.000	6870.018	796669.94	1.1622	P	1.9
5	☐	12500.000	13620.818	1545557.95	2.3035	P	0.2
6	☐	25000.000	26957.481	3133705.34	4.5583	P	0.4
7	☐	50000.000	52413.964	6181111.37	8.8622	A	0.6
8	☐	250000.00	249247.45	30901412.96	42.1401	A	0.8

$$y = 1.6907E-004 * x + 7.1520E-004$$

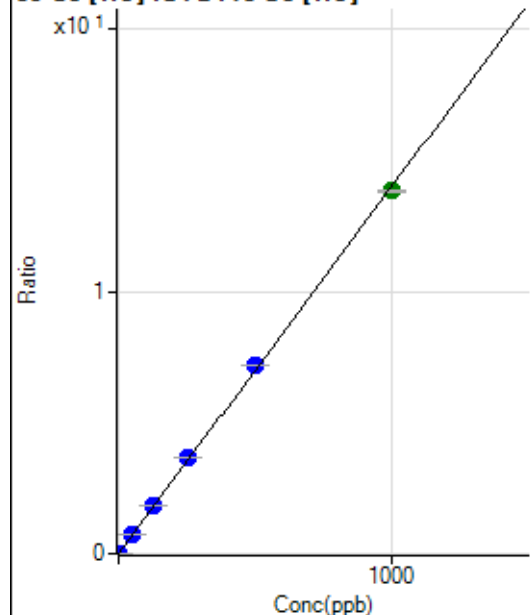
$$R = 0.9999$$

$$DL = 2.415$$

$$BEC = 4.23$$

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	140.00	0.0002	P	13.5
2	☐	1.000	0.950	10059.14	0.0135	P	2.5
3	☐	50.000	52.484	521105.96	0.7345	P	0.7
4	☐	125.000	130.950	1256082.51	1.8324	P	1.6
5	☐	250.000	260.604	2446581.07	3.6464	P	0.5
6	☐	500.000	514.947	4953325.14	7.2051	P	0.3
7	☐	1000.000	989.008	9651565.69	13.8380	A	0.5
8	☐			19481.99	0.0266	P	2.0

$$y = 0.0140 * x + 1.8920E-004$$

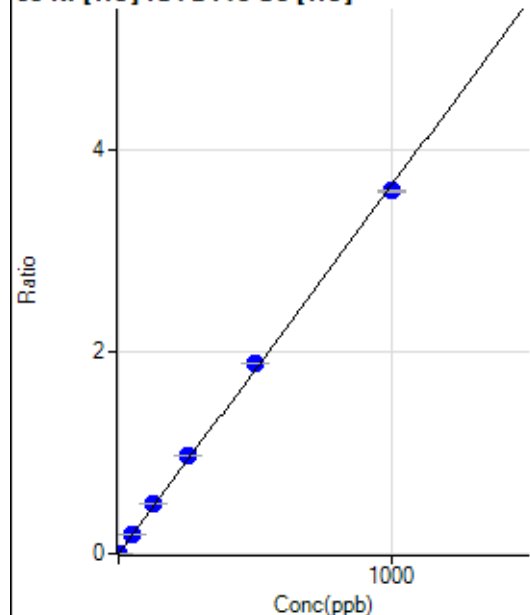
$$R = 0.9998$$

$$DL = 0.005459$$

$$BEC = 0.01352$$

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	56.67	0.0001	P	17.8
2	☐	1.000	0.978	2720.30	0.0036	P	1.6
3	☐	50.000	53.766	139240.73	0.1963	P	0.4
4	☐	125.000	134.572	336673.35	0.4911	P	0.7
5	☐	250.000	265.170	649259.41	0.9677	P	0.8
6	☐	500.000	518.500	1300747.53	1.8921	P	0.4
7	☐	1000.000	985.573	2508434.06	3.5964	P	0.5
8	☐			65234.35	0.0890	P	0.1

$$y = 0.0036 * x + 7.6583E-005$$

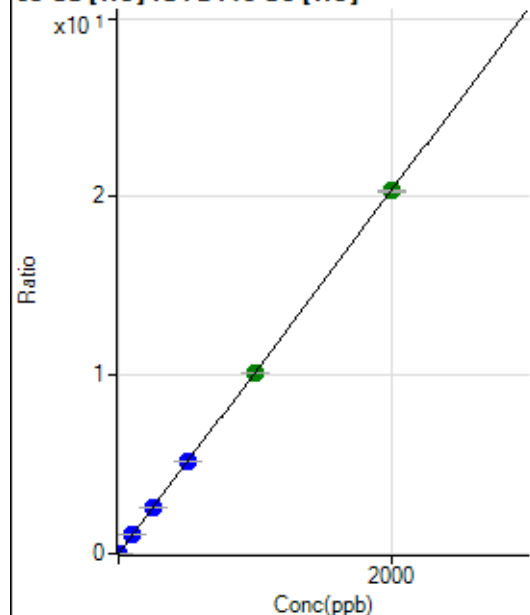
$$R = 0.9996$$

$$DL = 0.01119$$

$$BEC = 0.02099$$

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	1234.52	0.0017	P	10.2
2	☐	2.000	1.857	15358.27	0.0206	P	2.6
3	☐	100.000	103.055	745435.81	1.0507	P	0.7
4	☐	250.000	258.133	1802450.02	2.6294	P	0.9
5	☐	500.000	512.515	3501587.24	5.2189	P	0.2
6	☐	1000.000	995.677	6969091.91	10.1372	A	0.4
7	☐	2000.000	1997.863	14185909.65	20.3391	A	0.5
8	☐			23945.35	0.0327	P	0.7

$$y = 0.0102 * x + 0.0017$$

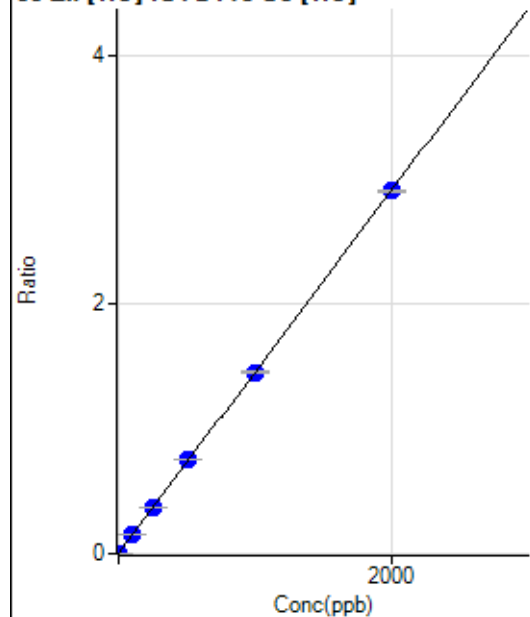
$$R = 1.0000$$

$$DL = 0.05025$$

$$BEC = 0.1638$$

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	1742.36	0.0024	P	6.0
2	☐	2.000	2.141	4086.20	0.0055	P	4.1
3	☐	100.000	105.889	111168.17	0.1567	P	0.6
4	☐	250.000	256.406	257814.27	0.3761	P	1.1
5	☐	500.000	513.102	503378.36	0.7503	P	0.3
6	☐	1000.000	997.445	1001118.07	1.4562	P	0.5
7	☐	2000.000	1996.907	2031765.66	2.9130	P	0.5
8	☐			21707.50	0.0296	P	1.9

$$y = 0.0015 * x + 0.0024$$

$$R = 1.0000$$

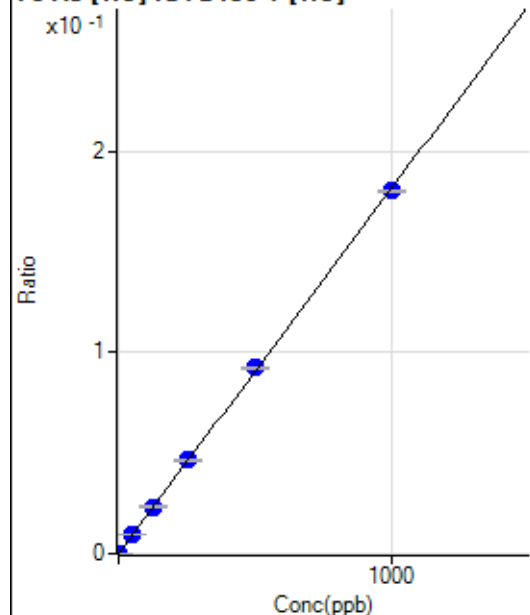
$$DL = 0.2896$$

$$BEC = 1.615$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.67	0.0000	P	33.4
2	☐	1.000	0.948	643.85	0.0002	P	0.8
3	☐	50.000	52.487	33185.97	0.0095	P	1.1
4	☐	125.000	128.908	79380.39	0.0234	P	0.9
5	☐	250.000	255.409	155093.09	0.0464	P	0.3
6	☐	500.000	509.200	315558.72	0.0925	P	0.6
7	☐	1000.000	993.435	615890.77	0.1804	P	0.2
8	☐			266.06	0.0001	P	14.3

$$y = 1.8157E-004 * x + 4.5996E-006$$

$$R = 0.9999$$

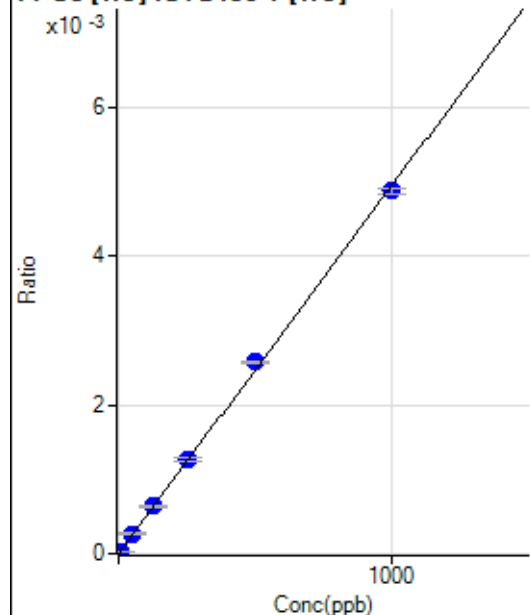
$$DL = 0.02535$$

$$BEC = 0.02533$$

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	0.00	0.0000	P	
2	☐	5.000	6.121	110.00	0.0000	P	6.6
3	☐	50.000	53.874	925.60	0.0003	P	9.2
4	☐	125.000	128.258	2146.86	0.0006	P	7.8
5	☐	250.000	257.393	4248.47	0.0013	P	3.2
6	☐	500.000	521.668	8788.36	0.0026	P	0.6
7	☐	1000.000	986.711	16630.83	0.0049	P	1.8
8	☐			17.78	0.0000	P	21.9

$$y = 4.9362E-006 * x + 0.0000E+000$$

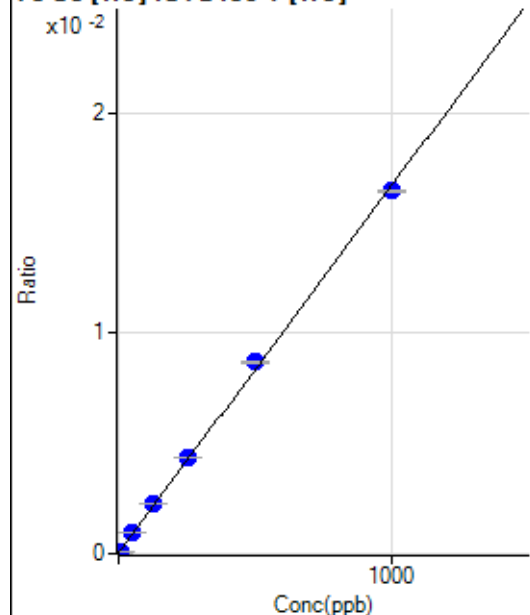
$$R = 0.9996$$

$$DL = 0$$

$$BEC = 0$$

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	129.63	0.0000	P	6.3
2	☐	5.000	5.308	452.48	0.0001	P	8.4
3	☐	50.000	53.492	3227.55	0.0009	P	2.3
4	☐	125.000	133.420	7663.81	0.0023	P	1.4
5	☐	250.000	259.607	14590.74	0.0044	P	1.1
6	☐	500.000	520.583	29738.50	0.0087	P	0.7
7	☐	1000.000	986.078	56245.51	0.0165	P	0.5
8	☐			154.94	0.0000	P	1.5

$$y = 1.6669\text{E-}005 * x + 3.5773\text{E-}005$$

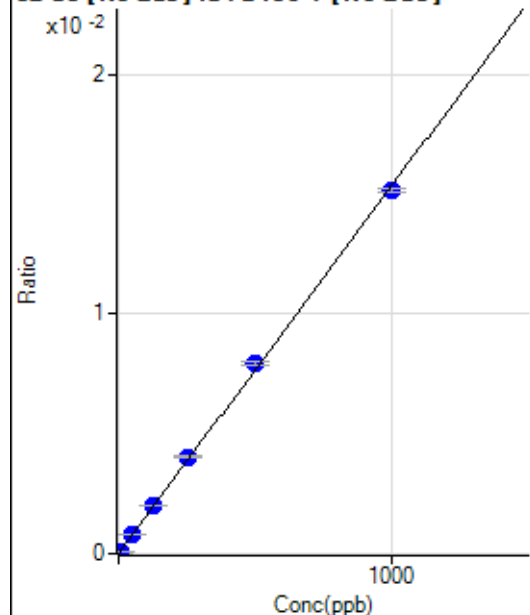
$$R = 0.9996$$

$$DL = 0.4066$$

$$BEC = 2.146$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	190.08	0.0000	P	114.
2	☐	5.000	5.430	2303.02	0.0001	P	9.1
3	☐	50.000	53.969	20932.55	0.0008	P	1.5
4	☐	125.000	132.230	49598.74	0.0020	P	0.7
5	☐	250.000	262.698	98821.13	0.0040	P	0.9
6	☐	500.000	517.853	196332.18	0.0079	P	1.1
7	☐	1000.000	986.795	370736.25	0.0151	P	1.0
8	☐			474.34	0.0000	P	20.7

$$y = 1.5333\text{E-}005 * x + 7.4503\text{E-}006$$

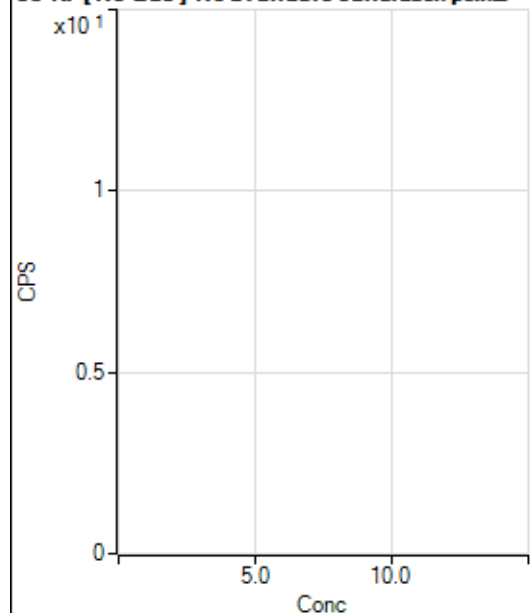
$$R = 0.9997$$

$$DL = 1.661$$

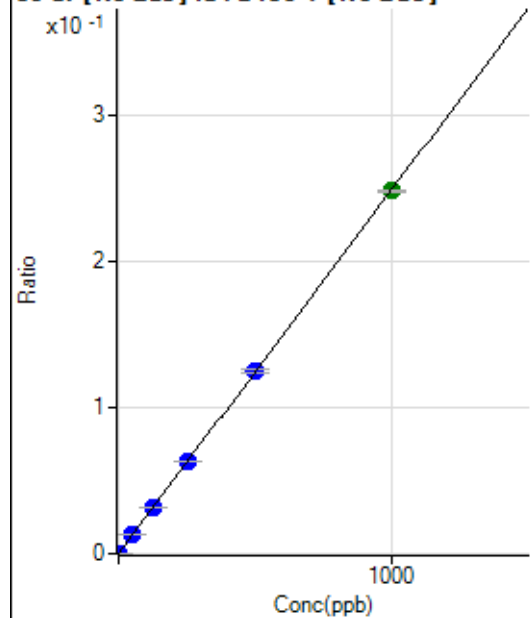
$$BEC = 0.4859$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2370.24		P	8.1
2	☐			2444.69		P	5.0
3	☐			2476.93		P	4.6
4	☐			2305.78		P	1.4
5	☐			2244.66		P	0.3
6	☐			2329.12		P	7.1
7	☐			2401.35		P	2.2
8	☐			2361.35		P	3.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3809.01	0.0001	P	5.4
2	☐	1.000	0.976	9964.97	0.0004	P	4.5
3	☐	50.000	50.858	321215.53	0.0128	P	0.6
4	☐	125.000	127.119	775062.42	0.0318	P	1.2
5	☐	250.000	254.603	1556062.53	0.0635	P	0.4
6	☐	500.000	502.117	3091938.24	0.1252	P	1.3
7	☐	1000.000	997.483	6086046.97	0.2485	A	0.2
8	☐			27449.32	0.0012	P	0.9

$$y = 2.4899E-004 * x + 1.4949E-004$$

$$R = 1.0000$$

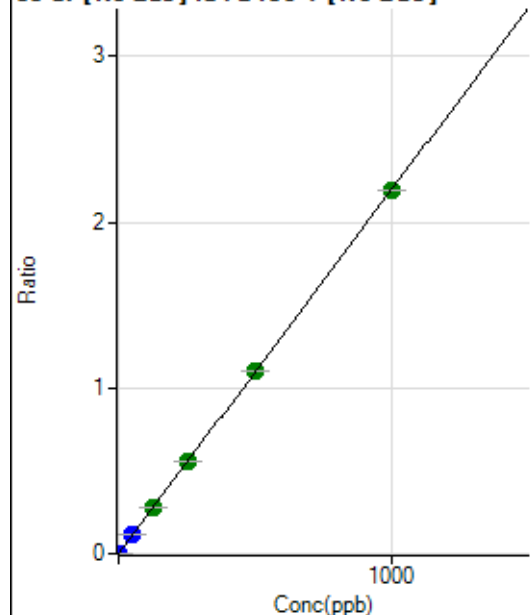
$$DL = 0.09654$$

$$BEC = 0.6004$$

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	263.91	0.0000	P	27.1
2	☐	1.000	0.982	55006.42	0.0022	P	1.0
3	☐	50.000	50.422	2775687.60	0.1107	P	0.7
4	☐	125.000	127.293	6812400.67	0.2795	A	0.2
5	☐	250.000	254.159	13665617.14	0.5580	A	0.3
6	☐	500.000	503.028	27282806.51	1.1044	A	0.2
7	☐	1000.000	997.139	53616347.03	2.1893	A	0.1
8	☐			210541.64	0.0090	P	0.8

$$y = 0.0022 * x + 1.0348E-005$$

$$R = 1.0000$$

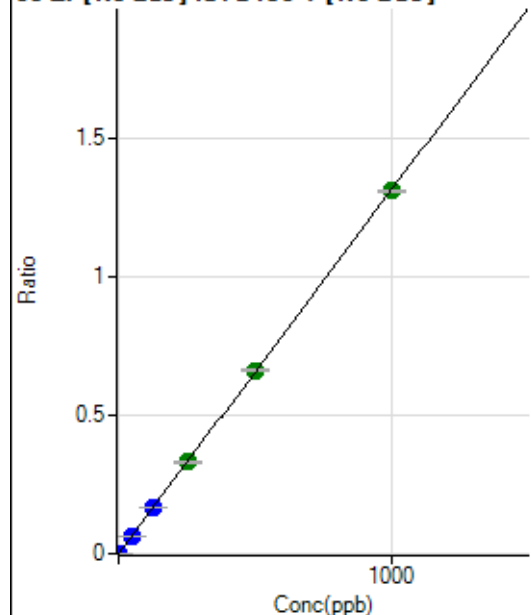
$$DL = 0.003837$$

$$BEC = 0.004713$$

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	1380.69	0.0001	P	2.7
2	☐	1.000	0.816	28548.88	0.0011	P	1.9
3	☐	50.000	49.690	1635072.52	0.0652	P	0.2
4	☐	125.000	126.872	4056398.01	0.1664	P	1.6
5	☐	250.000	251.571	8080393.41	0.3300	A	0.5
6	☐	500.000	503.987	16328098.28	0.6610	A	0.9
7	☐	1000.000	997.395	32034428.15	1.3081	A	0.4
8	☐			9923.27	0.0004	P	4.0

$$y = 0.0013 * x + 5.4189E-005$$

$$R = 1.0000$$

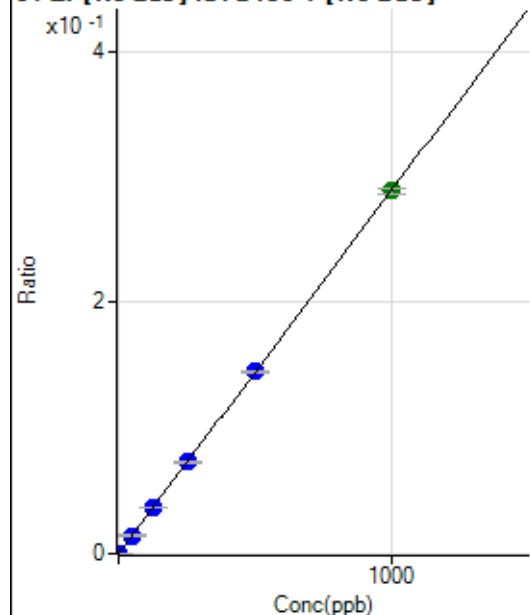
$$DL = 0.003302$$

$$BEC = 0.04132$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	305.57	0.0000	P	30.6
2	☐	1.000	0.823	6348.88	0.0003	P	0.1
3	☐	50.000	50.183	364405.61	0.0145	P	0.4
4	☐	125.000	126.922	895509.73	0.0367	P	1.8
5	☐	250.000	251.567	1783098.91	0.0728	P	1.2
6	☐	500.000	501.841	3587900.47	0.1452	P	0.9
7	☐	1000.000	998.439	7076704.76	0.2890	A	1.4
8	☐			2294.72	0.0001	P	1.6

$$y = 2.8940\text{E-}004 * x + 1.2000\text{E-}005$$

$$R = 1.0000$$

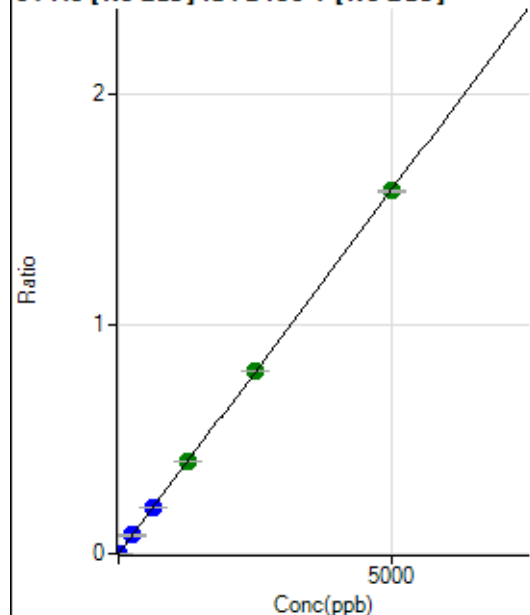
$$DL = 0.03802$$

$$BEC = 0.04147$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	944.52	0.0000	P	2.5
2	☐	5.000	4.654	38335.66	0.0015	P	1.6
3	☐	250.000	251.467	1996312.13	0.0796	P	1.1
4	☐	625.000	642.112	4954203.11	0.2033	P	1.1
5	☐	1250.000	1263.592	9794605.78	0.4000	A	0.3
6	☐	2500.000	2511.285	19634898.36	0.7949	A	0.7
7	☐	5000.000	4988.748	38669317.18	1.5790	A	0.5
8	☐			33000.29	0.0014	P	3.0

$$y = 3.1650\text{E-}004 * x + 3.7071\text{E-}005$$

$$R = 1.0000$$

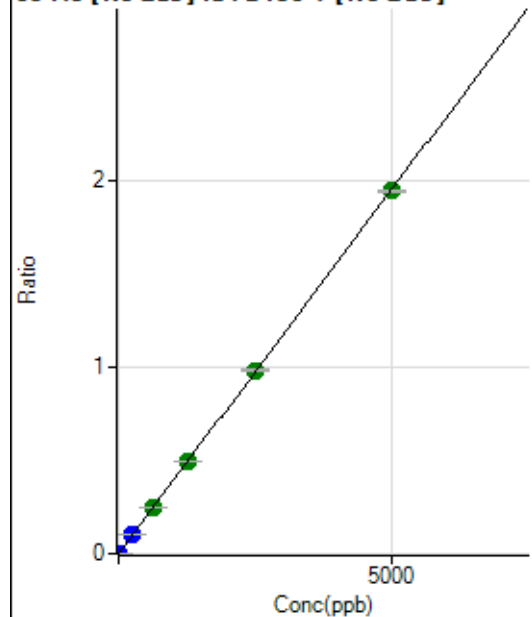
$$DL = 0.008659$$

$$BEC = 0.1171$$

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	716.71	0.0000	P	12.9
2	☐	5.000	4.887	49012.87	0.0019	P	1.4
3	☐	250.000	253.146	2471448.23	0.0986	P	0.7
4	☐	625.000	636.261	6037731.77	0.2477	A	1.1
5	☐	1250.000	1265.446	12065000.53	0.4927	A	0.1
6	☐	2500.000	2520.608	24241119.64	0.9813	A	0.5
7	☐	5000.000	4984.270	47521070.85	1.9404	A	0.2
8	☐			50573.81	0.0022	P	1.5

$$y = 3.8930E-004 * x + 2.8125E-005$$

$$R = 1.0000$$

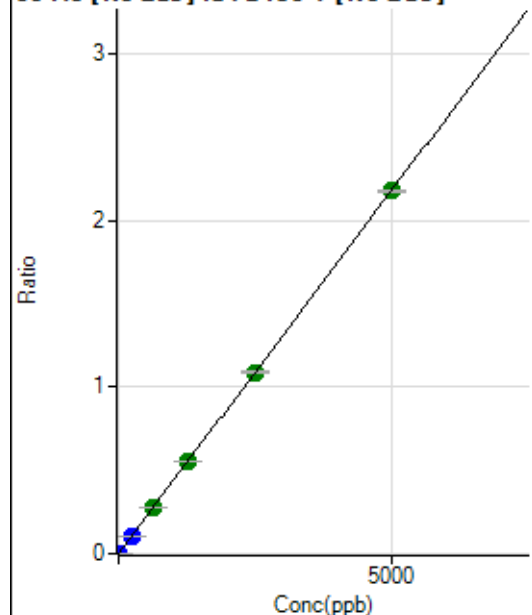
$$DL = 0.02801$$

$$BEC = 0.07224$$

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	891.73	0.0000	P	9.1
2	☐	5.000	4.776	53729.64	0.0021	P	0.2
3	☐	250.000	250.530	2737676.54	0.1092	P	0.6
4	☐	625.000	633.272	6725871.16	0.2760	A	1.7
5	☐	1250.000	1260.170	13447475.82	0.5491	A	0.1
6	☐	2500.000	2500.270	26913035.67	1.0895	A	0.4
7	☐	5000.000	4996.262	53316312.30	2.1770	A	0.2
8	☐			78332.28	0.0033	P	1.7

$$y = 4.3573E-004 * x + 3.5006E-005$$

$$R = 1.0000$$

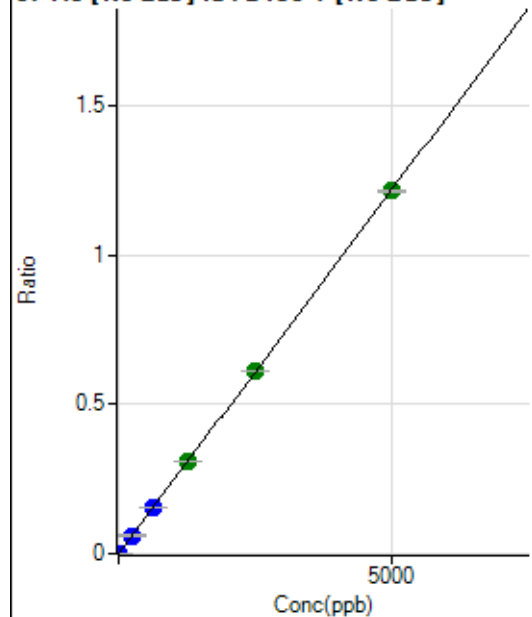
$$DL = 0.02196$$

$$BEC = 0.08034$$

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	477.81	0.0000	P	16.8
2	☐	5.000	4.872	30586.57	0.0012	P	1.0
3	☐	250.000	251.155	1533054.12	0.0612	P	1.1
4	☐	625.000	632.178	3750691.58	0.1539	P	1.3
5	☐	1250.000	1262.924	7528248.61	0.3074	A	0.2
6	☐	2500.000	2512.540	15107602.25	0.6116	A	0.8
7	☐	5000.000	4989.544	29742809.69	1.2145	A	0.2
8	☐			31279.69	0.0013	P	1.1

$$y = 2.4340\text{E-}004 * x + 1.8766\text{E-}005$$

$$R = 1.0000$$

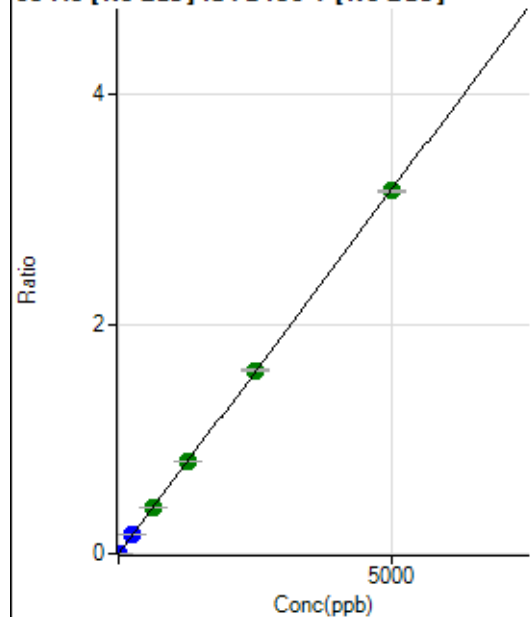
$$DL = 0.03886$$

$$BEC = 0.0771$$

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	1038.97	0.0000	P	4.2
2	☐	5.000	4.866	79390.97	0.0031	P	0.8
3	☐	250.000	252.281	4012504.86	0.1600	P	0.2
4	☐	625.000	634.448	9808293.01	0.4024	A	1.3
5	☐	1250.000	1265.186	19651134.99	0.8025	A	0.7
6	☐	2500.000	2521.202	39501098.80	1.5991	A	1.5
7	☐	5000.000	4984.308	77420669.79	3.1613	A	0.3
8	☐			80622.87	0.0034	P	1.8

$$y = 6.3424\text{E-}004 * x + 4.0774\text{E-}005$$

$$R = 1.0000$$

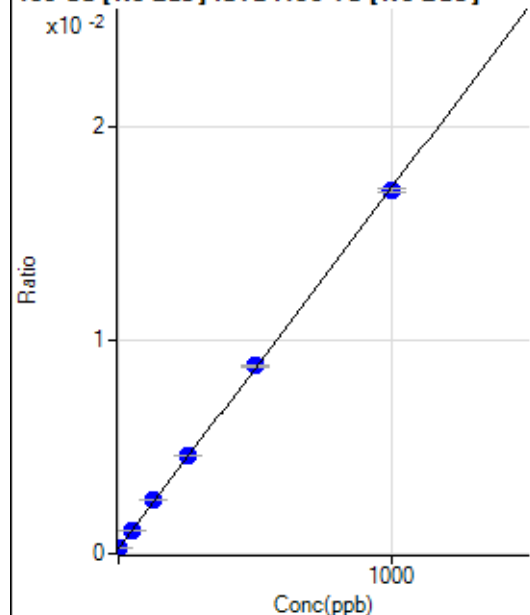
$$DL = 0.008071$$

$$BEC = 0.06429$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7994.25	0.0002	P	2.2
2	☐	1.000	0.965	8480.65	0.0003	P	0.7
3	☐	50.000	52.070	37277.96	0.0011	P	1.5
4	☐	125.000	133.709	81856.11	0.0025	P	0.2
5	☐	250.000	259.435	152507.79	0.0046	P	0.4
6	☐	500.000	508.267	294633.59	0.0088	P	0.9
7	☐	1000.000	992.316	566149.32	0.0170	P	1.0
8	☐			7858.07	0.0003	P	1.2

$$y = 1.6910\text{E-}005 * x + 2.3673\text{E-}004$$

R = 0.9999

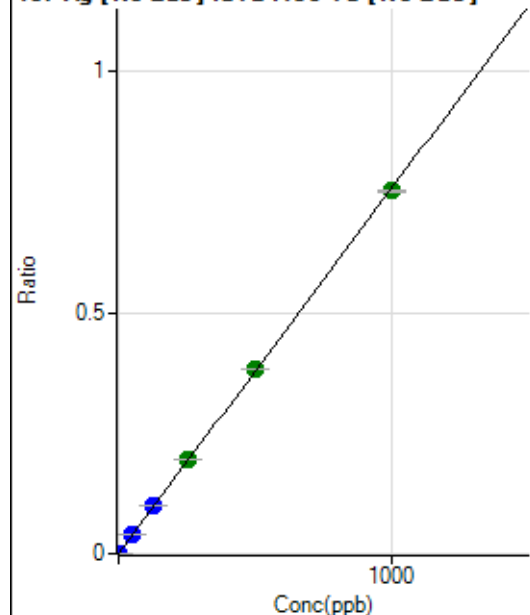
DL = 0.9429

BEC = 14

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	650.05	0.0000	P	2.6
2	☐	1.000	0.987	25693.71	0.0008	P	3.3
3	☐	50.000	53.164	1344522.37	0.0403	P	0.1
4	☐	125.000	131.835	3273793.80	0.0999	P	0.7
5	☐	250.000	260.053	6498738.95	0.1970	A	0.4
6	☐	500.000	505.887	12787083.88	0.3833	A	0.2
7	☐	1000.000	993.530	25043027.99	0.7527	A	0.5
8	☐			5184.51	0.0002	P	7.7

$$y = 7.5757\text{E-}004 * x + 1.9251\text{E-}005$$

R = 0.9999

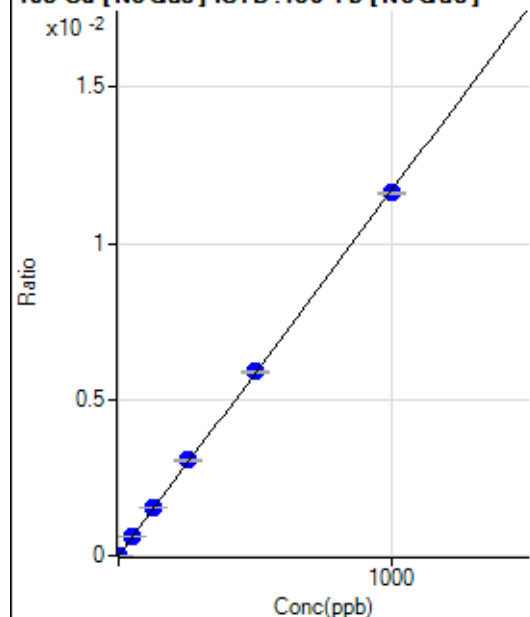
DL = 0.002011

BEC = 0.02541

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	31.95	0.0000	P	26.8
2	☐	1.000	0.947	402.79	0.0000	P	5.8
3	☐	50.000	53.103	20743.26	0.0006	P	1.3
4	☐	125.000	131.435	50381.30	0.0015	P	0.7
5	☐	250.000	261.267	100762.16	0.0031	P	0.5
6	☐	500.000	504.396	196744.57	0.0059	P	1.2
7	☐	1000.000	994.026	386624.66	0.0116	P	0.4
8	☐			126.39	0.0000	P	26.4

$$y = 1.1689\text{E-}005 * x + 9.4569\text{E-}007$$

$$R = 0.9999$$

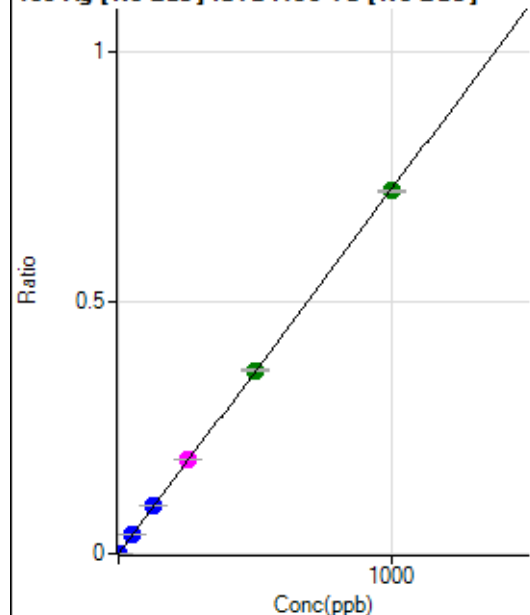
$$DL = 0.06513$$

$$BEC = 0.0809$$

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	550.04	0.0000	P	13.4
2	☐	1.000	1.008	25053.58	0.0007	P	1.8
3	☐	50.000	53.108	1285515.72	0.0385	P	1.0
4	☐	125.000	131.300	3120863.13	0.0952	P	0.3
5	☐	250.000	258.782	6190076.26	0.1877	M	0.8
6	☐	500.000	502.669	12161662.51	0.3645	A	0.7
7	☐	1000.000	995.527	24019121.20	0.7219	A	0.5
8	☐			4612.07	0.0001	P	3.5

$$y = 7.2514\text{E-}004 * x + 1.6281\text{E-}005$$

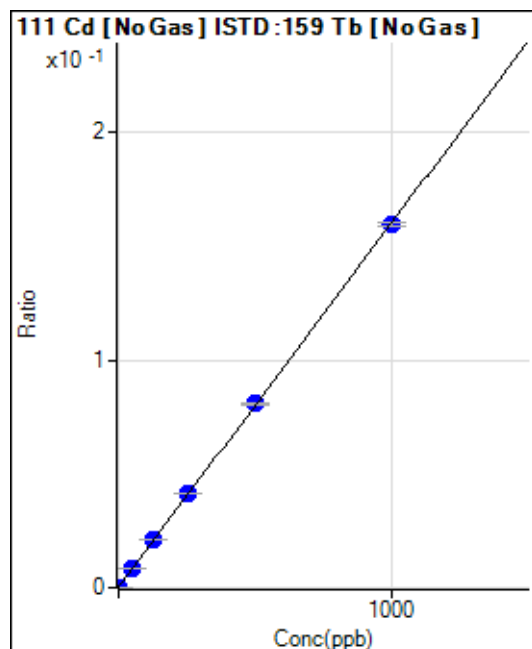
$$R = 0.9999$$

$$DL = 0.008996$$

$$BEC = 0.02245$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5636.12	0.0002	P	2.3
2	☐	1.000	1.039	11165.41	0.0003	P	2.2
3	☐	50.000	53.197	289713.15	0.0087	P	0.4
4	☐	125.000	130.643	690858.88	0.0211	P	0.5
5	☐	250.000	258.207	1368856.56	0.0415	P	0.3
6	☐	500.000	504.150	2698080.31	0.0809	P	1.0
7	☐	1000.000	995.008	5304929.83	0.1594	P	0.9
8	☐			6741.44	0.0002	P	3.4

$$y = 1.6008\text{E-}004 * x + 1.6690\text{E-}004$$

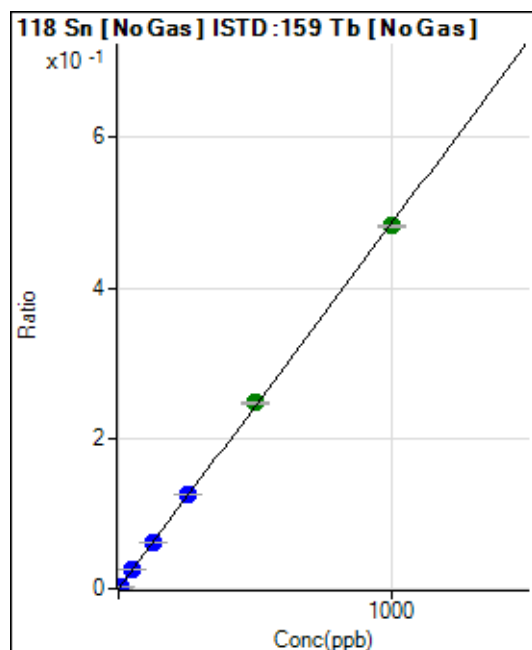
$$R = 0.9999$$

$$DL = 0.07315$$

$$BEC = 1.043$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1058.43	0.0000	P	1.5
2	☐	5.000	5.112	84230.30	0.0025	P	1.6
3	☐	50.000	51.833	840772.30	0.0252	P	0.6
4	☐	125.000	128.677	2048562.11	0.0625	P	0.2
5	☐	250.000	256.600	4110332.12	0.1246	P	0.7
6	☐	500.000	508.803	8243072.32	0.2471	A	0.4
7	☐	1000.000	993.396	16048676.57	0.4824	A	0.5
8	☐			8789.53	0.0003	P	5.2

$$y = 4.8553\text{E-}004 * x + 3.1346\text{E-}005$$

$$R = 0.9999$$

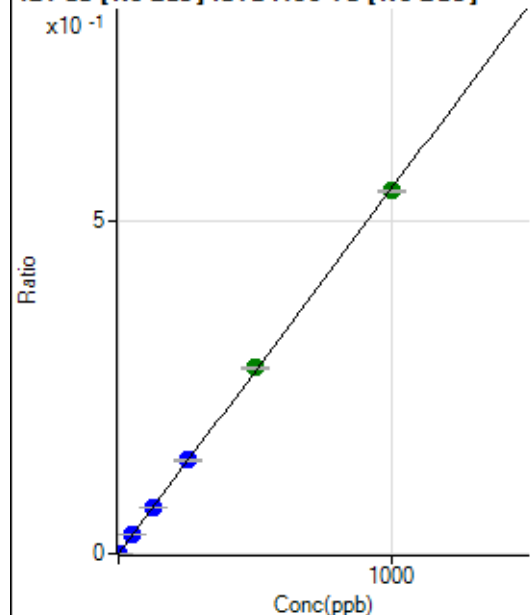
$$DL = 0.002885$$

$$BEC = 0.06456$$

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	377.80	0.0000	P	18.4
2	☐	2.000	1.923	35724.35	0.0011	P	0.9
3	☐	50.000	51.163	936699.68	0.0281	P	0.5
4	☐	125.000	128.138	2303665.48	0.0703	P	0.3
5	☐	250.000	255.515	4622821.37	0.1402	P	0.7
6	☐	500.000	508.644	9307952.73	0.2790	A	0.5
7	☐	1000.000	993.849	18137089.99	0.5451	A	0.5
8	☐			18396.06	0.0006	P	4.2

$$y = 5.4848\text{E-}004 * x + 1.1194\text{E-}005$$

$$R = 0.9999$$

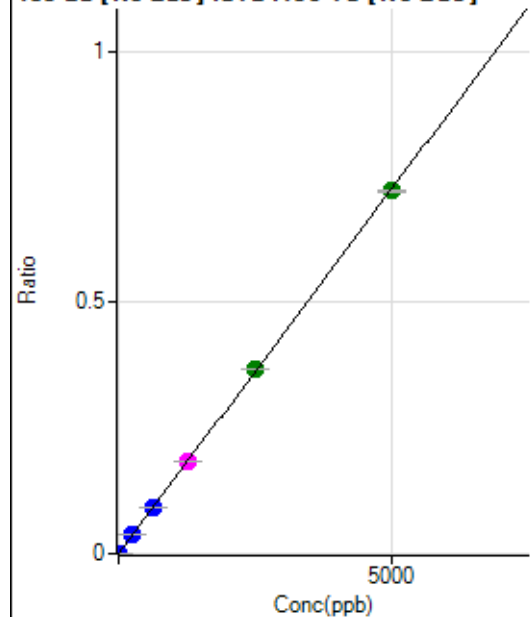
$$DL = 0.01126$$

$$BEC = 0.02041$$

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	77.78	0.0000	P	17.1
2	☐	10.000	10.139	49346.86	0.0015	P	1.2
3	☐	250.000	254.688	1232319.82	0.0369	P	0.4
4	☐	625.000	637.652	3030268.67	0.0925	P	0.3
5	☐	1250.000	1271.671	6082007.17	0.1844	M	1.0
6	☐	2500.000	2530.690	12242699.49	0.3670	A	0.6
7	☐	5000.000	4977.421	24013098.97	0.7217	A	0.6
8	☐			4442.57	0.0001	P	6.5

$$y = 1.4500\text{E-}004 * x + 2.3052\text{E-}006$$

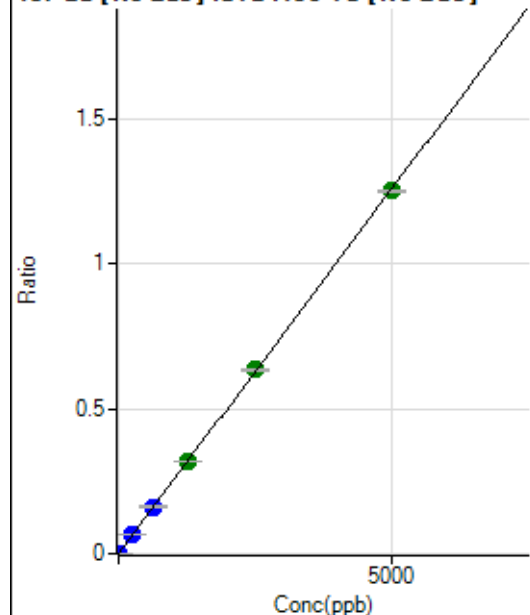
$$R = 1.0000$$

$$DL = 0.008167$$

$$BEC = 0.0159$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	122.23	0.0000	P	14.0
2	☐	10.000	10.159	85599.61	0.0026	P	1.4
3	☐	250.000	256.424	2148285.77	0.0644	P	0.3
4	☐	625.000	644.440	5302729.24	0.1618	P	0.8
5	☐	1250.000	1275.023	10558905.62	0.3201	A	0.2
6	☐	2500.000	2525.318	21152858.81	0.6340	A	1.0
7	☐	5000.000	4978.334	41585613.08	1.2499	A	0.9
8	☐			7902.57	0.0003	P	8.8

$$y = 2.5107E-004 * x + 3.6191E-006$$

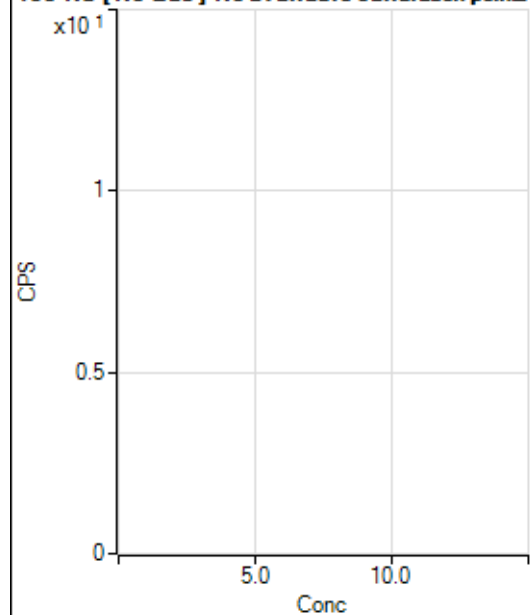
$$R = 1.0000$$

$$DL = 0.006043$$

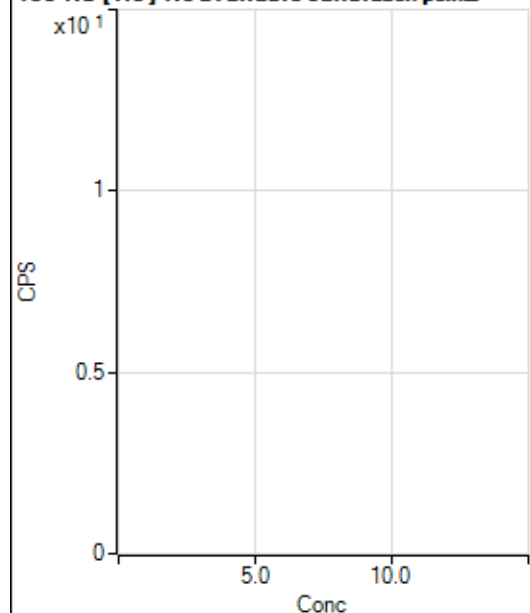
$$BEC = 0.01441$$

Weight: <None>

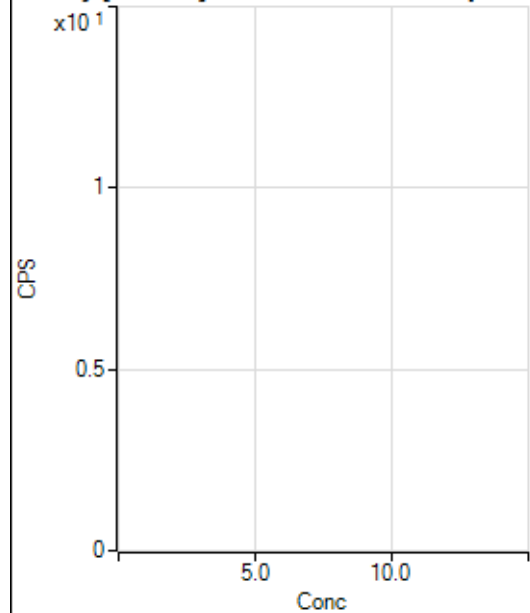
Min Conc: 0

150 Nd [No Gas] No available calibration points

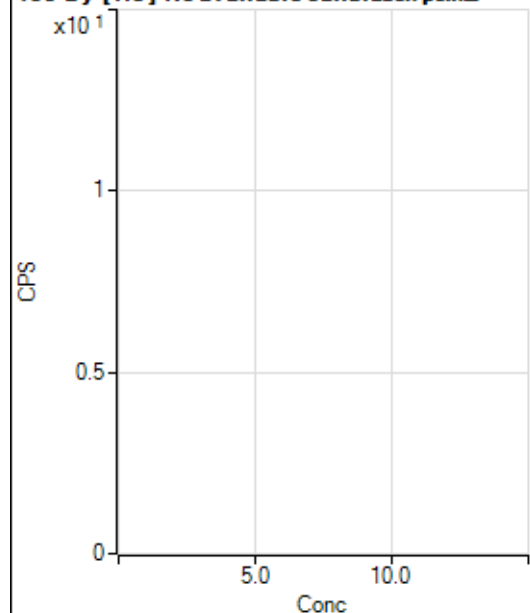
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			13.34		P	86.6
2	☐			15.56		P	89.2
3	☐			100.00		P	40.6
4	☐			197.79		P	14.0
5	☐			371.13		P	10.4
6	☐			851.17		P	17.2
7	☐			1384.56		P	7.7
8	☐			215.57		P	21.1

150 Nd [He] No available calibration points

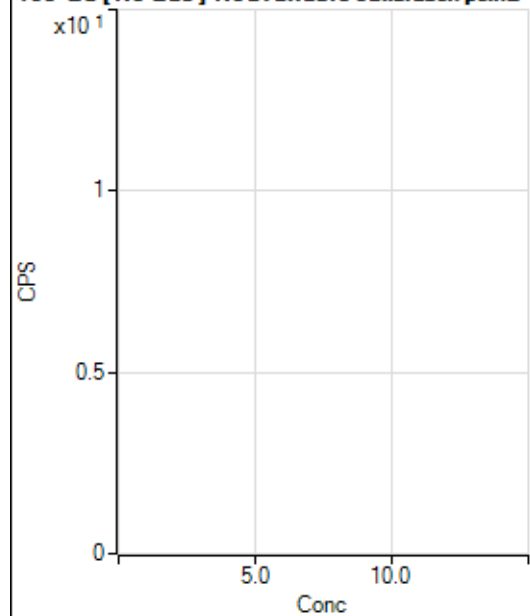
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	49.5
2	☐			7.78		P	49.5
3	☐			10.00		P	33.3
4	☐			23.34		P	24.7
5	☐			50.00		P	0.0
6	☐			82.22		P	16.4
7	☐			137.78		P	24.8
8	☐			62.22		P	25.3

156 Dy [No Gas] No available calibration points

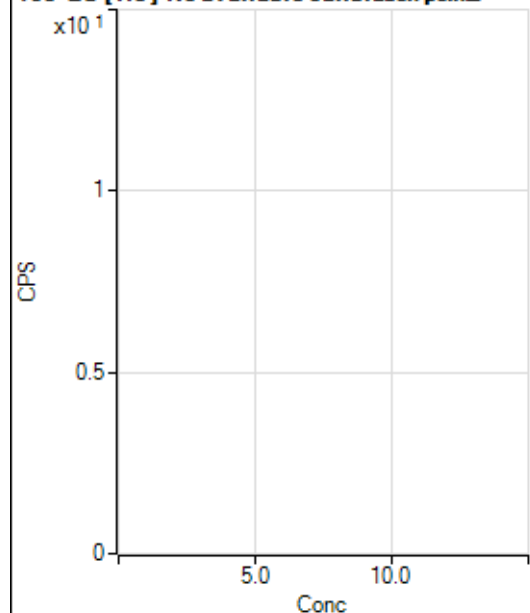
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	84.6
2	☐			44.45		P	47.2
3	☐			63.89		P	7.5
4	☐			77.78		P	43.3
5	☐			102.78		P	4.7
6	☐			205.57		P	23.8
7	☐			391.69		P	9.8
8	☐			122.23		P	27.6

156 Dy [He] No available calibration points

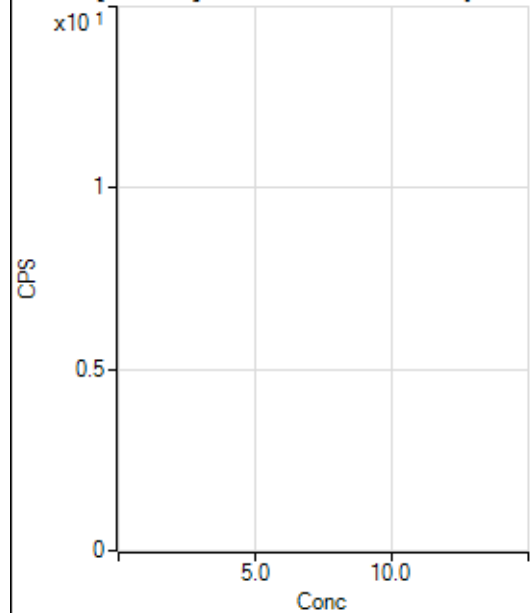
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.00		P	50.9
2	☐			36.67		P	18.2
3	☐			56.67		P	56.7
4	☐			77.78		P	2.5
5	☐			116.67		P	2.9
6	☐			210.01		P	12.0
7	☐			388.90		P	8.7
8	☐			64.45		P	24.4

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

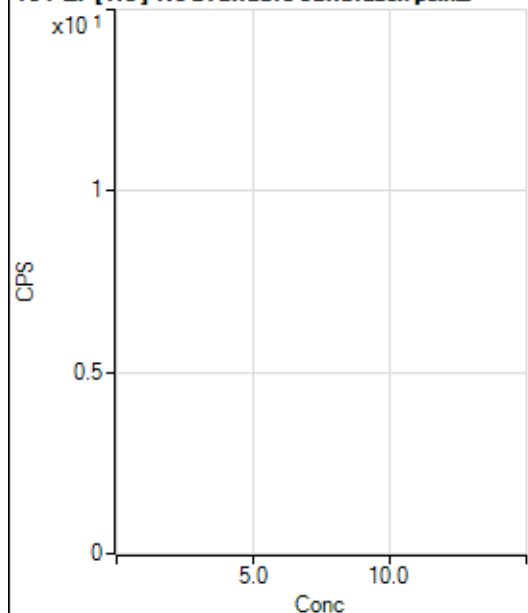
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			166.67		P	18.0
2	☐			172.23		P	34.3
3	☐			177.79		P	18.9
4	☐			186.12		P	9.3
5	☐			202.79		P	22.6
6	☐			227.79		P	25.7
7	☐			250.01		P	5.8
8	☐			266.68		P	16.5

160 Gd [He] No available calibration points

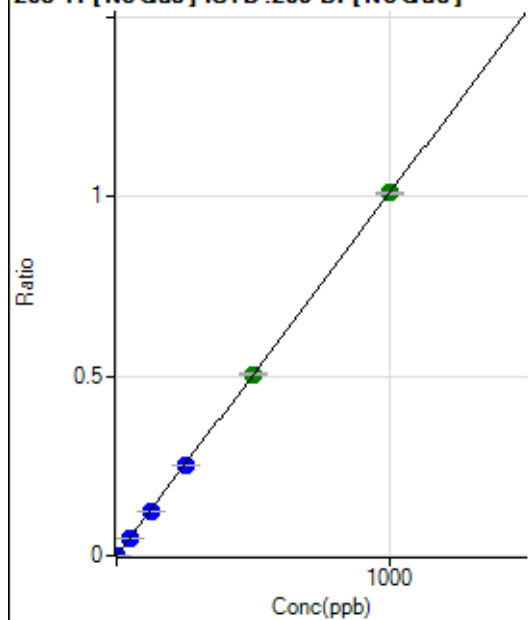
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			431.12		P	3.5
2	☐			492.24		P	8.5
3	☐			501.13		P	5.2
4	☐			418.91		P	1.2
5	☐			457.79		P	15.0
6	☐			466.69		P	8.0
7	☐			492.24		P	2.7
8	☐			452.24		P	3.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			177.79		P	23.1
2	☐			147.23		P	11.8
3	☐			169.45		P	36.9
4	☐			191.68		P	27.2
5	☐			172.23		P	43.4
6	☐			194.45		P	24.4
7	☐			186.12		P	18.1
8	☐			169.45		P	30.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			92.22		P	14.6
2	☐			81.11		P	27.4
3	☐			98.89		P	21.9
4	☐			78.89		P	19.1
5	☐			86.67		P	13.3
6	☐			123.34		P	24.0
7	☐			125.56		P	8.5
8	☐			93.34		P	27.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1077.87	0.0000	P	11.3
2	☐	1.000	0.919	21468.22	0.0010	P	0.5
3	☐	50.000	48.157	1059760.61	0.0486	P	1.2
4	☐	125.000	123.237	2630207.90	0.1243	P	0.7
5	☐	250.000	248.976	5320991.44	0.2511	P	0.9
6	☐	500.000	499.225	10623929.84	0.5035	A	1.2
7	☐	1000.000	1000.956	20597550.63	1.0095	A	0.8
8	☐			5334.66	0.0003	P	7.1

$$y = 0.0010 * x + 4.9905E-005$$

$$R = 1.0000$$

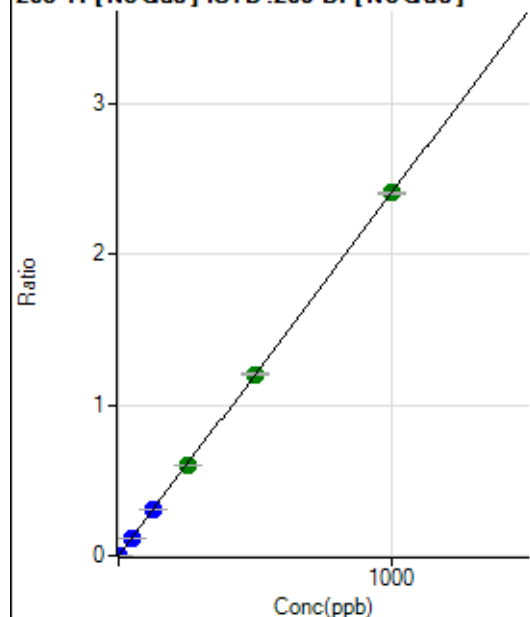
$$DL = 0.01679$$

$$BEC = 0.04949$$

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	2250.31	0.0001	P	6.8
2	☐	1.000	0.922	51157.91	0.0023	P	2.1
3	☐	50.000	48.687	2559827.44	0.1174	P	0.7
4	☐	125.000	126.047	6428122.28	0.3039	P	0.8
5	☐	250.000	249.243	12728453.06	0.6008	A	0.7
6	☐	500.000	499.467	25398429.04	1.2038	A	1.5
7	☐	1000.000	1000.390	49191775.06	2.4109	A	0.5
8	☐			12531.57	0.0007	P	9.0

$$y = 0.0024 * x + 1.0418E-004$$

$$R = 1.0000$$

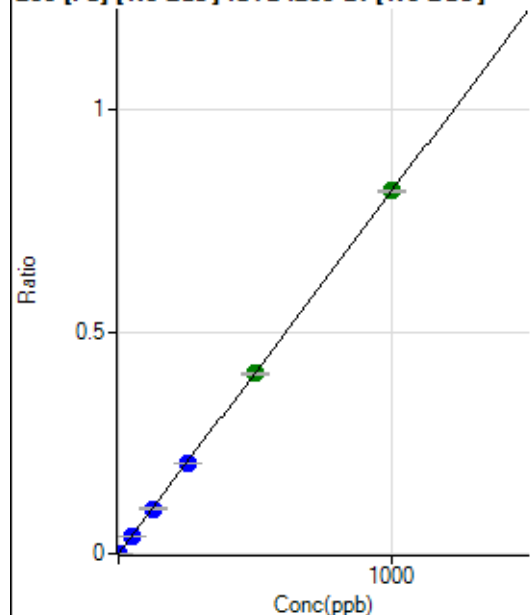
$$DL = 0.008791$$

$$BEC = 0.04323$$

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	1142.68	0.0001	P	2.7
2	☐	1.000	0.902	17365.46	0.0008	P	1.3
3	☐	50.000	48.460	864126.77	0.0396	P	0.8
4	☐	125.000	124.656	2155481.76	0.1019	P	0.2
5	☐	250.000	248.456	4301641.53	0.2030	P	1.0
6	☐	500.000	497.979	8584825.31	0.4069	A	1.4
7	☐	1000.000	1001.516	16695056.51	0.8182	A	0.8
8	☐			38677.04	0.0022	P	0.8

$$y = 8.1695E-004 * x + 5.2883E-005$$

$$R = 1.0000$$

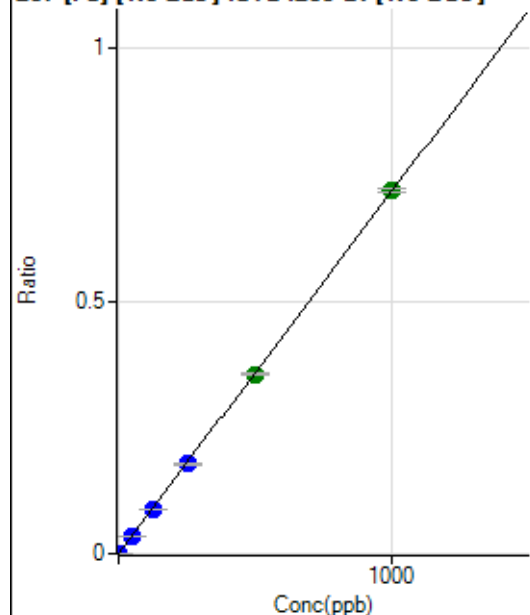
$$DL = 0.005269$$

$$BEC = 0.06473$$

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	1066.74	0.0000	P	8.6
2	☐	1.000	0.920	15566.87	0.0007	P	0.6
3	☐	50.000	49.072	766985.86	0.0352	P	0.2
4	☐	125.000	123.486	1871501.45	0.0885	P	0.3
5	☐	250.000	247.576	3756817.74	0.1773	P	1.1
6	☐	500.000	496.715	7505311.57	0.3557	A	0.7
7	☐	1000.000	1002.484	14646462.60	0.7178	A	1.1
8	☐			34940.85	0.0020	P	1.1

$$y = 7.1601\text{E-}004 * x + 4.9373\text{E-}005$$

$$R = 1.0000$$

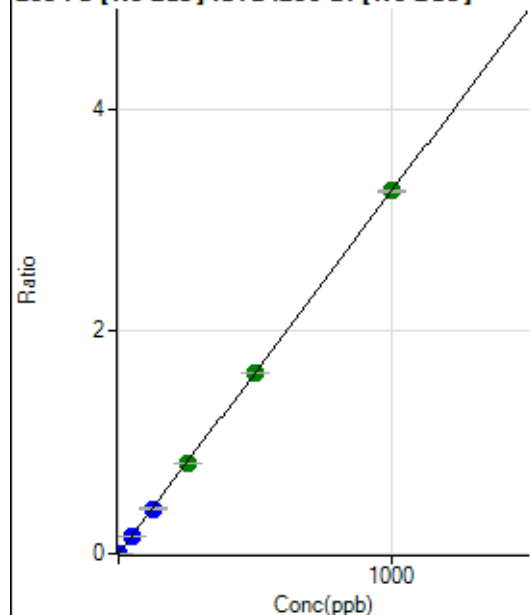
$$DL = 0.01779$$

$$BEC = 0.06896$$

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	4157.78	0.0002	P	4.8
2	☐	1.000	0.916	69951.13	0.0032	P	0.4
3	☐	50.000	49.043	3493074.97	0.1602	P	0.5
4	☐	125.000	124.531	8601791.12	0.4066	P	0.4
5	☐	250.000	248.538	17189416.88	0.8113	A	0.9
6	☐	500.000	499.133	34375235.89	1.6291	A	0.6
7	☐	1000.000	1000.905	66652220.35	3.2667	A	0.6
8	☐			156721.01	0.0090	P	0.8

$$y = 0.0033 * x + 1.9245\text{E-}004$$

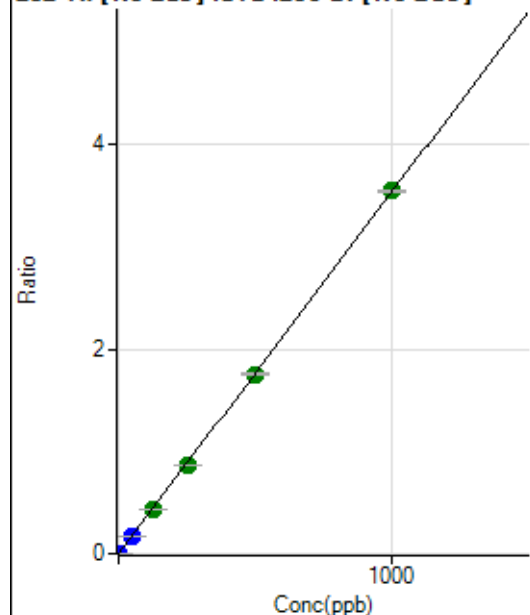
$$R = 1.0000$$

$$DL = 0.00856$$

$$BEC = 0.05897$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2372.51	0.0001	P	3.0
2	☐	1.000	0.758	61246.97	0.0028	P	2.2
3	☐	50.000	46.648	3591478.35	0.1648	P	0.5
4	☐	125.000	120.604	9007285.68	0.4258	A	1.2
5	☐	250.000	244.856	18313404.46	0.8644	A	0.9
6	☐	500.000	495.655	36915836.47	1.7496	A	0.9
7	☐	1000.000	1004.176	72320395.14	3.5445	A	0.4
8	☐			16707.41	0.0010	P	7.8

$$y = 0.0035 * x + 1.0980E-004$$

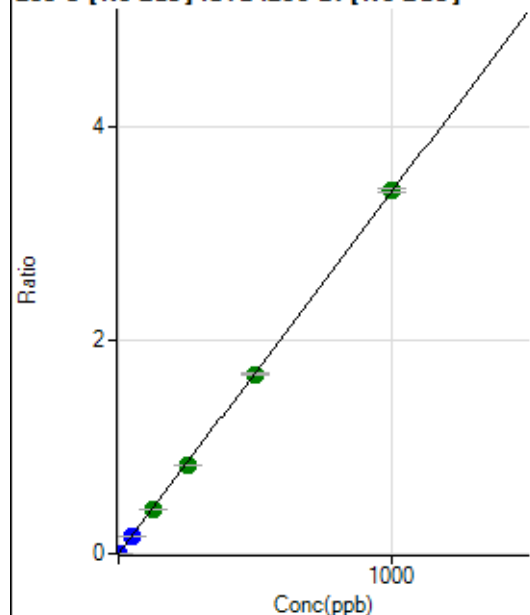
$$R = 1.0000$$

$$DL = 0.00283$$

$$BEC = 0.03111$$

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	2139.17	0.0001	P	0.3
2	☐	1.000	0.870	66987.87	0.0030	P	2.0
3	☐	50.000	47.328	3497180.92	0.1604	P	0.3
4	☐	125.000	121.468	8706957.14	0.4116	A	1.2
5	☐	250.000	245.589	17629760.11	0.8321	A	0.7
6	☐	500.000	496.720	35506717.11	1.6828	A	1.3
7	☐	1000.000	1003.318	69352299.46	3.3990	A	1.0
8	☐			9123.04	0.0005	P	7.4

$$y = 0.0034 * x + 9.9008E-005$$

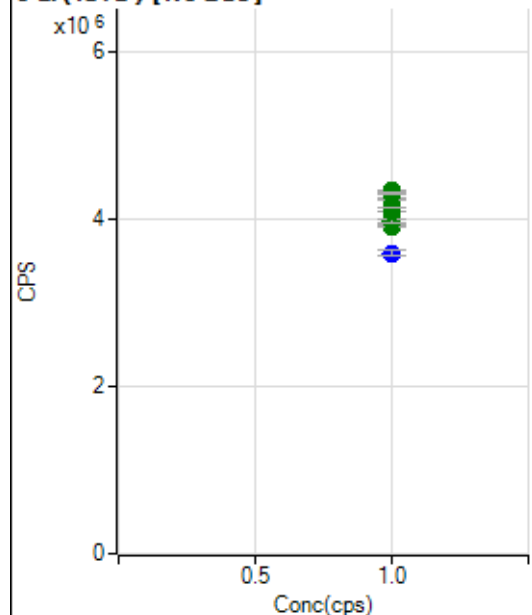
$$R = 1.0000$$

$$DL = 0.0002632$$

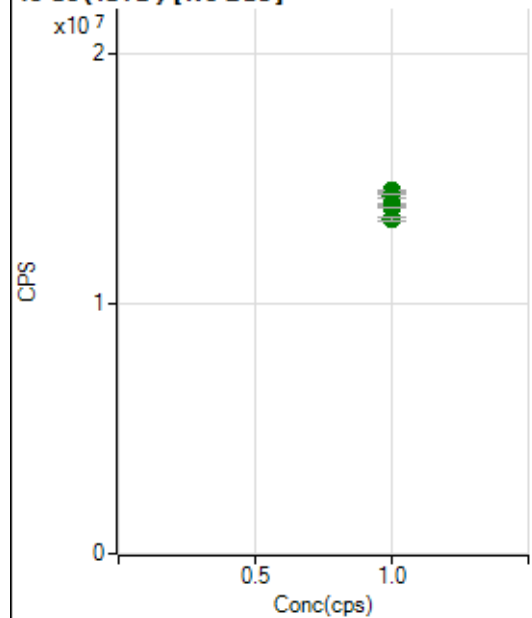
$$BEC = 0.02923$$

Weight: <None>

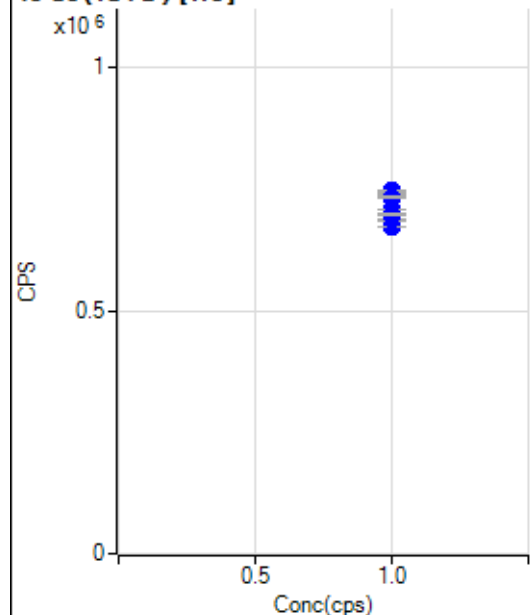
Min Conc: 0

6 Li (ISTD) [No Gas]

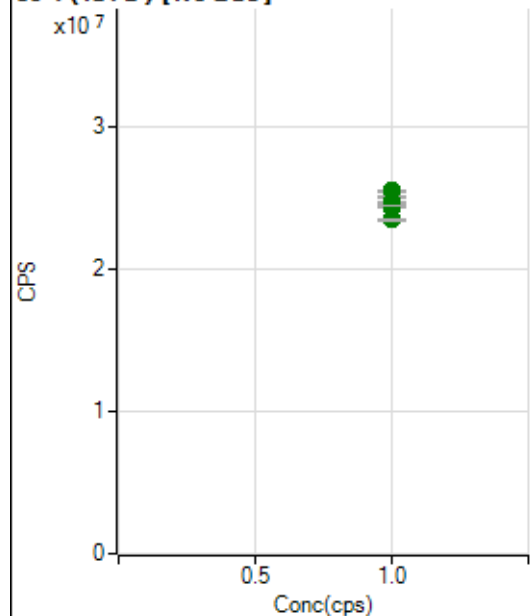
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3918165.22		A	0.4
2	☐	1.000		3991442.23		A	1.2
3	☐	1.000		4097404.57		A	0.5
4	☐	1.000		4240706.73		A	0.5
5	☐	1.000		4343181.31		A	0.7
6	☐	1.000		4312016.96		A	0.7
7	☐	1.000		4142385.02		A	0.1
8	☐	1.000		3597701.81		P	2.1

45 Sc (ISTD) [No Gas]

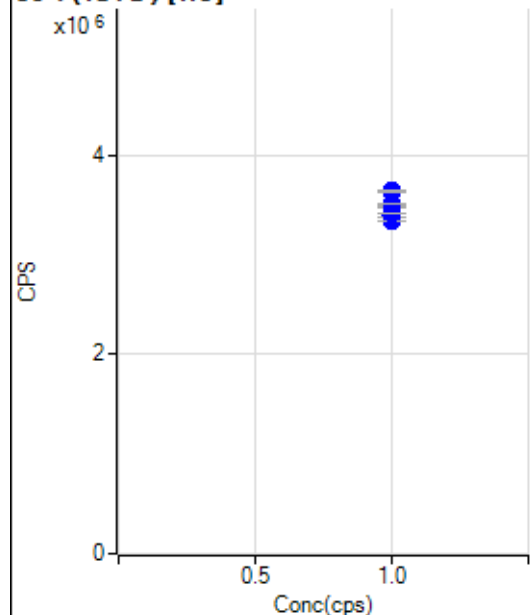
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14532748.07		A	0.6
2	☐	1.000		14496053.10		A	0.5
3	☐	1.000		14337357.96		A	0.7
4	☐	1.000		13998171.49		A	0.2
5	☐	1.000		14009896.67		A	0.4
6	☐	1.000		13976256.74		A	0.5
7	☐	1.000		13865042.67		A	0.4
8	☐	1.000		13418635.11		A	1.1

45 Sc (ISTD) [He]

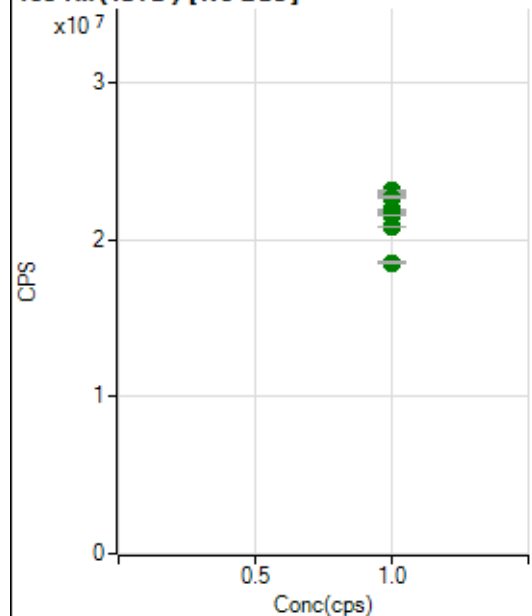
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		740137.01		P	0.5
2	☐	1.000		746432.85		P	0.5
3	☐	1.000		709444.79		P	0.2
4	☐	1.000		685531.39		P	0.6
5	☐	1.000		670948.70		P	0.1
6	☐	1.000		687477.94		P	0.6
7	☐	1.000		697482.16		P	0.6
8	☐	1.000		733293.37		P	0.3

89 Y (ISTD) [No Gas]

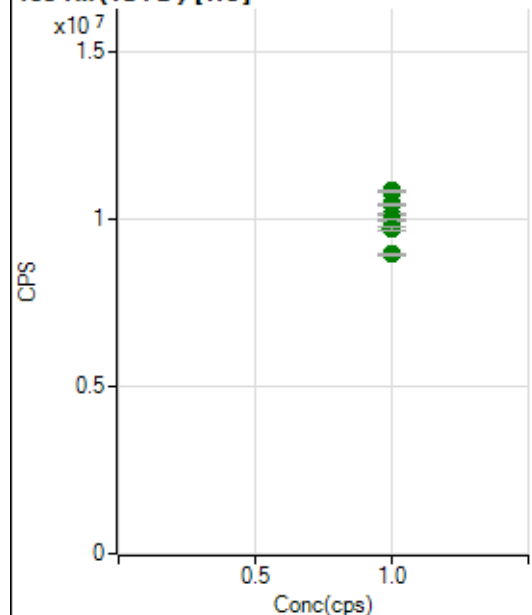
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		25477414.34		A	0.6
2	☐	1.000		25389535.46		A	0.4
3	☐	1.000		25070683.52		A	0.3
4	☐	1.000		24374240.75		A	0.9
5	☐	1.000		24488933.80		A	0.7
6	☐	1.000		24702895.74		A	0.5
7	☐	1.000		24490181.02		A	0.1
8	☐	1.000		23462274.10		A	0.9

89 Y(ISTD) [He]

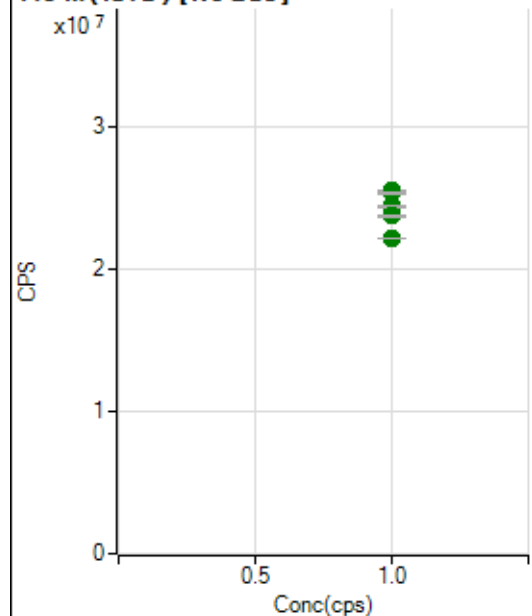
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3623890.57		P	0.1
2	☐	1.000		3641604.81		P	0.6
3	☐	1.000		3480426.72		P	0.8
4	☐	1.000		3391013.18		P	1.1
5	☐	1.000		3343983.35		P	0.2
6	☐	1.000		3412881.44		P	0.0
7	☐	1.000		3414344.78		P	0.4
8	☐	1.000		3507887.62		P	0.2

103 Rh(ISTD) [No Gas]

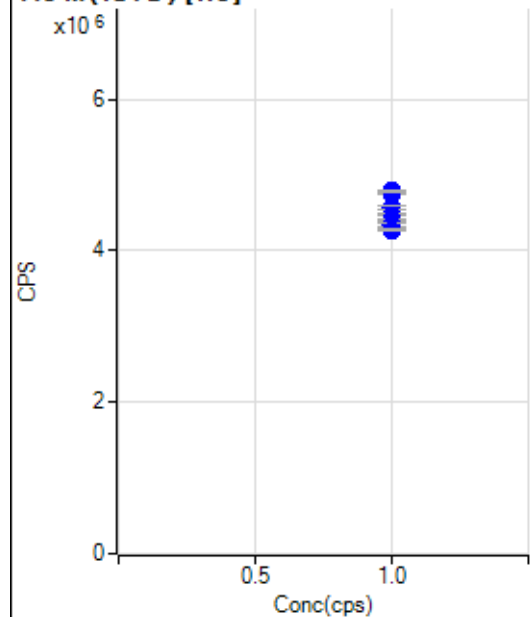
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		22978509.02		A	0.6
2	☐	1.000		23119793.75		A	0.3
3	☐	1.000		22714003.46		A	0.2
4	☐	1.000		21940912.99		A	0.0
5	☐	1.000		21773853.09		A	0.7
6	☐	1.000		21586192.32		A	0.3
7	☐	1.000		20789536.05		A	0.0
8	☐	1.000		18557171.77		A	0.9

103 Rh (ISTD) [He]

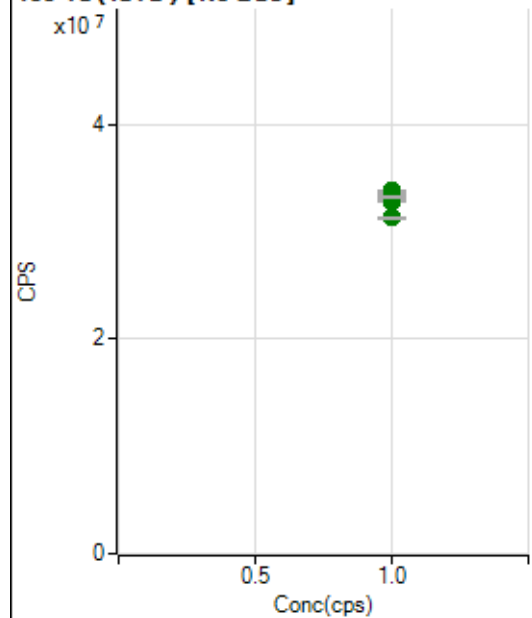
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		10818966.64		A	0.4
2	☐	1.000		10848087.20		A	0.3
3	☐	1.000		10448251.30		A	0.5
4	☐	1.000		10138021.65		A	0.6
5	☐	1.000		9983890.13		A	0.2
6	☐	1.000		9965225.83		A	0.5
7	☐	1.000		9716935.41		A	0.7
8	☐	1.000		8959365.00		A	0.4

115 In (ISTD) [No Gas]

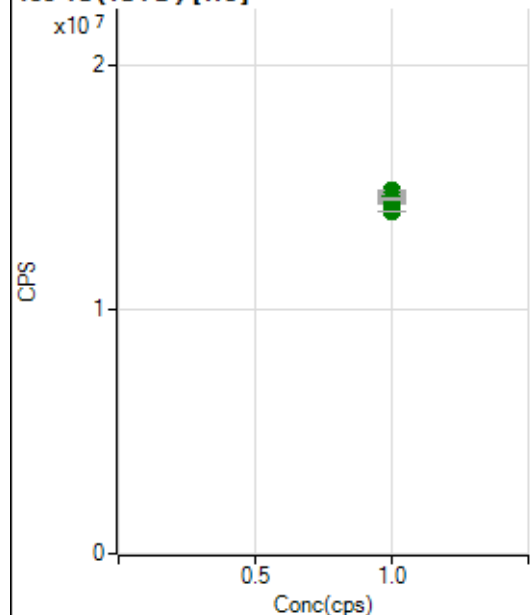
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		25455286.13		A	0.5
2	☐	1.000		25466062.73		A	0.5
3	☐	1.000		25326230.03		A	0.5
4	☐	1.000		24351566.03		A	0.3
5	☐	1.000		24384724.45		A	0.0
6	☐	1.000		24304443.79		A	0.6
7	☐	1.000		23698155.47		A	0.2
8	☐	1.000		22121767.77		A	0.5

115 In (ISTD) [He]

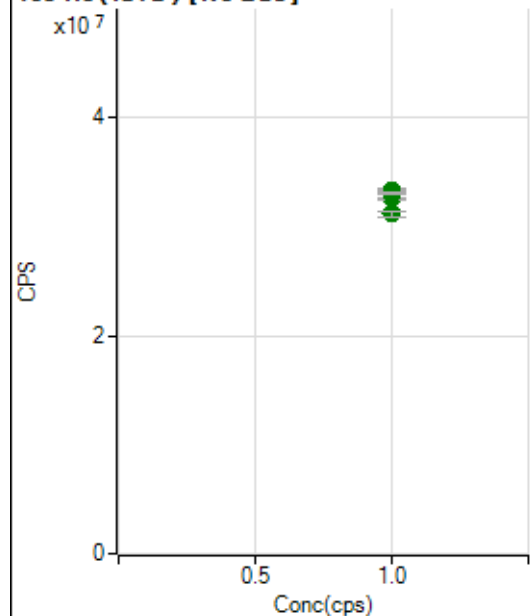
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4749222.54		P	0.2
2	☐	1.000		4788890.56		P	0.3
3	☐	1.000		4575117.78		P	1.0
4	☐	1.000		4475568.43		P	0.7
5	☐	1.000		4402332.53		P	0.7
6	☐	1.000		4409175.36		P	0.5
7	☐	1.000		4333320.20		P	0.9
8	☐	1.000		4276401.17		P	0.6

159 Tb (ISTD) [No Gas]

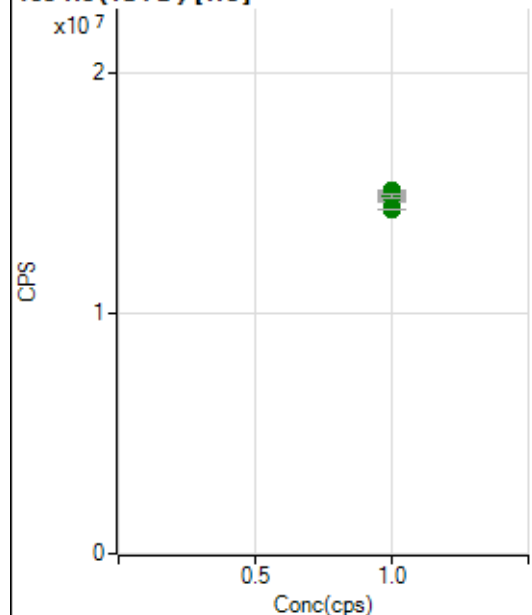
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		33768203.94		A	0.8
2	☐	1.000		33514509.78		A	0.1
3	☐	1.000		33367135.06		A	0.2
4	☐	1.000		32772902.84		A	0.2
5	☐	1.000		32984152.84		A	0.4
6	☐	1.000		33363854.78		A	0.7
7	☐	1.000		33271942.00		A	0.5
8	☐	1.000		31259180.09		A	0.6

159 Tb (ISTD) [He]

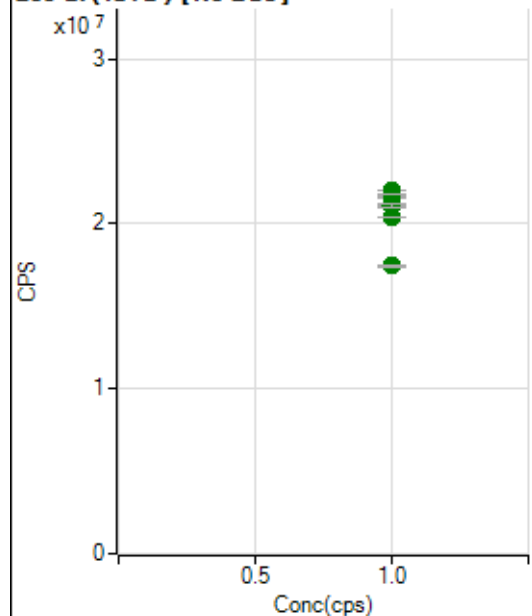
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14718552.00		A	0.5
2	☐	1.000		14858018.95		A	0.4
3	☐	1.000		14538718.54		A	1.2
4	☐	1.000		14382789.92		A	0.8
5	☐	1.000		14353161.87		A	0.2
6	☐	1.000		14612603.67		A	1.1
7	☐	1.000		14526337.00		A	0.6
8	☐	1.000		14035963.82		A	0.3

165 Ho (ISTD) [No Gas]

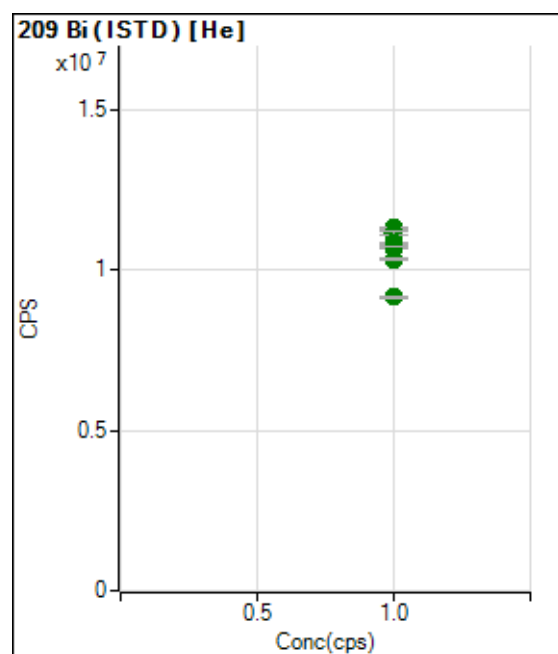
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		33253343.11		A	1.0
2	☐	1.000		33207625.74		A	0.3
3	☐	1.000		32977236.50		A	0.6
4	☐	1.000		32573054.89		A	0.6
5	☐	1.000		32978739.62		A	0.6
6	☐	1.000		33134413.24		A	0.7
7	☐	1.000		33111252.82		A	0.4
8	☐	1.000		31130946.53		A	1.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15065746.03		A	0.4
2	☐	1.000		15117033.11		A	0.9
3	☐	1.000		14850884.78		A	0.6
4	☐	1.000		14697365.89		A	0.7
5	☐	1.000		14714346.86		A	0.2
6	☐	1.000		14984130.47		A	0.6
7	☐	1.000		14898290.61		A	0.7
8	☐	1.000		14348939.65		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		21605787.73		A	0.5
2	☐	1.000		21989338.84		A	0.1
3	☐	1.000		21798413.84		A	0.3
4	☐	1.000		21155006.35		A	0.5
5	☐	1.000		21188046.35		A	0.6
6	☐	1.000		21100874.13		A	0.8
7	☐	1.000		20403751.78		A	0.2
8	☐	1.000		17442383.07		A	1.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11296914.00		A	0.2
2	☐	1.000		11315477.61		A	0.2
3	☐	1.000		11148987.20		A	1.1
4	☐	1.000		10830214.28		A	0.2
5	☐	1.000		10703145.95		A	0.3
6	☐	1.000		10742815.81		A	0.4
7	☐	1.000		10338829.64		A	0.6
8	☐	1.000		9153912.30		A	0.7

US EPA Tune Check Sample Report

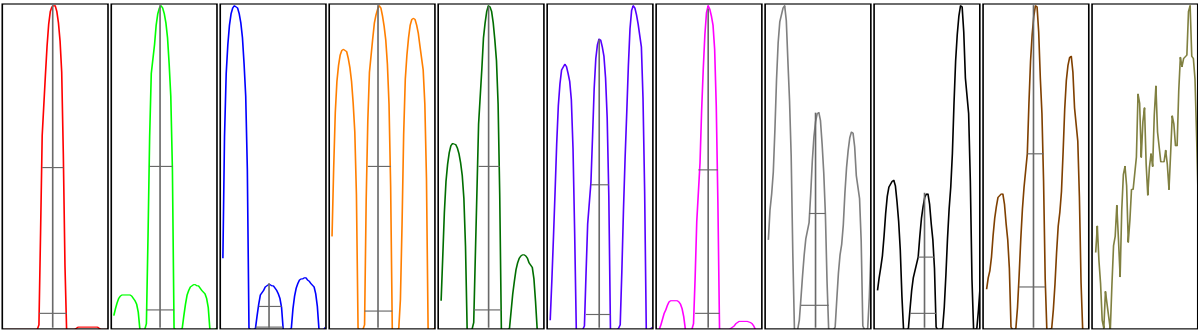
Batch Folder D:\ICP-MS Data\P7102019MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	17087	1.13	5.00	
24	1011540	0.61	5.00	
25	138896	0.24	5.00	
26	162962	0.47	5.00	
59	183633	0.20	5.00	
113	25504	0.70	5.00	
115	306978	1.24	5.00	
206	73581	0.24	5.00	
207	68922	0.24	5.00	
208	159626	0.46	5.00	
220	79	3.56		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16773	17085	17180	17288	17106
24	1006225	1009955	1022140	1009334	1010047
25	138621	138825	139356	139115	138561
26	162207	163647	163467	162036	163453
59	184127	183875	183362	183589	183212
113	25667	25652	25570	25353	25275
115	310454	309364	309286	303865	301919
206	73457	73761	73712	73641	73333
207	68784	69146	68958	68992	68729
208	159298	160351	158697	159392	160391
220	77	75	79	82	81

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	28654	8.95	8.9 - 9.1		0.781	0.900	
24	1615273	23.90	23.9 - 24.1		0.787	0.900	
25	222513	24.90	24.9 - 25.1		0.788	0.900	
26	257193	25.90	25.9 - 26.1		0.788	0.900	
59	308675	58.95	58.9 - 59.1		0.784	0.900	
113	47724	113.00	112.9 - 113.1		0.734	0.900	
115	585273	115.00	114.9 - 115.1		0.733	0.900	
206	142958	205.95	205.9 - 206.1		0.790	0.900	
207	130492	206.95	206.9 - 207.1		0.748	0.900	
208	311811	207.95	207.9 - 208.1		0.776	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.0	V	Deflect	13.6	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	51323	0.30	
89	43683	0.14	
205	55541	0.37	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	51291	51471	51478	51255	51121
89	43719	43630	43777	43647	43640
205	55501	55598	55870	55370	55366

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.3	V	Deflect	2.0	V
Extract 2	-175.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-80	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			