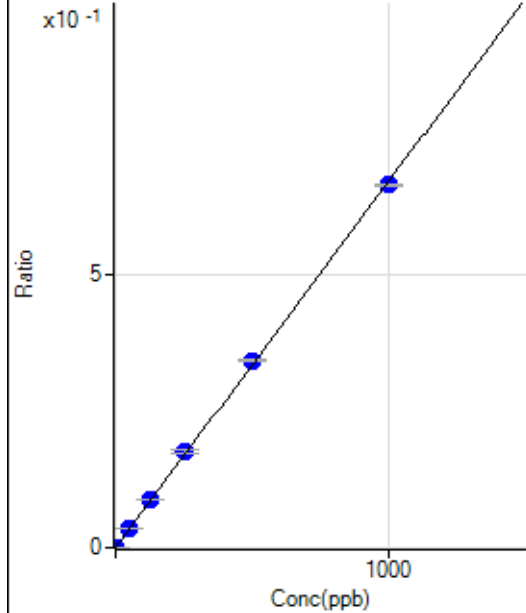


Batch Folder: D:\ICP-MS Data\P7093019 MS.b\
Analysis File: P7093019 MS.batch.bin
DA Date-Time: 2019-09-30 14:18:39
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-09-30 11:28:48
2	003CALS.d	S02	2019-09-30 11:32:23
3	004CALS.d	S03	2019-09-30 11:36:53
4	005CALS.d	S04	2019-09-30 11:40:50
5	006CALS.d	S05	2019-09-30 11:44:42
6	007CALS.d	S06	2019-09-30 11:48:32
7	008CALS.d	S07	2019-09-30 11:52:20
8	009CALS.d	S08	2019-09-30 12:22:35

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	54.44	0.0000	P	29.2
2	☐	1.000	1.062	2031.28	0.0007	P	2.8
3	☐	50.000	51.708	93786.09	0.0348	P	0.7
4	☐	125.000	129.784	215273.46	0.0872	P	0.5
5	☐	250.000	260.433	376106.33	0.1750	P	3.9
6	☐	500.000	510.694	710346.59	0.3431	P	0.7
7	☐	1000.000	991.361	1337527.64	0.6659	P	0.5
8	☐			132.22	0.0001	P	17.1

$$y = 6.7169\text{E-}004 * x + 2.0191\text{E-}005$$

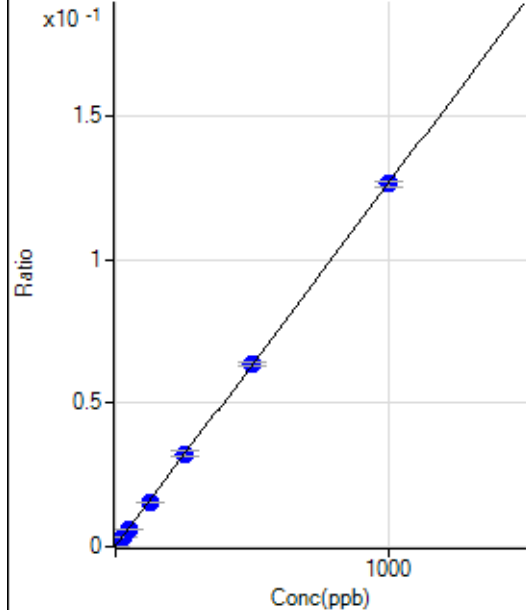
$$R = 0.9998$$

$$DL = 0.02637$$

$$BEC = 0.03006$$

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	469.47	0.0002	P	12.2
2	☐	25.000	24.893	9208.68	0.0033	P	3.8
3	☐	50.000	47.891	16834.92	0.0062	P	2.7
4	☐	125.000	121.899	38533.45	0.0156	P	0.6
5	☐	250.000	255.533	69886.85	0.0325	P	5.6
6	☐	500.000	501.970	131955.45	0.0637	P	2.4
7	☐	1000.000	998.127	254171.41	0.1265	P	1.5
8	☐			1530.70	0.0007	P	9.2

$$y = 1.2661\text{E-}004 * x + 1.7453\text{E-}004$$

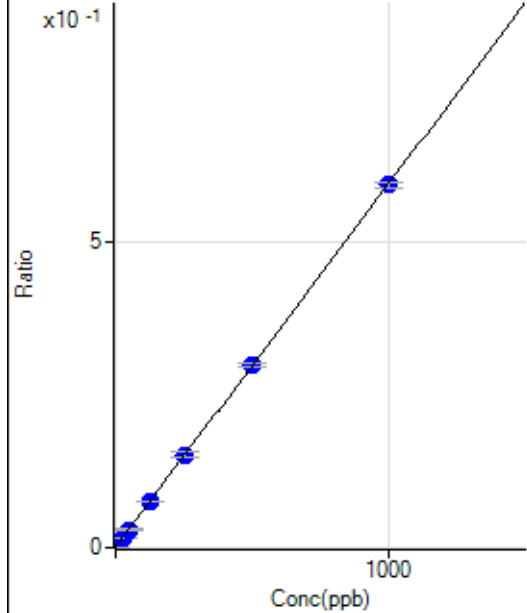
$$R = 1.0000$$

$$DL = 0.5037$$

$$BEC = 1.378$$

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	2333.60	0.0009	P	1.5
2	☐	25.000	25.044	43585.99	0.0157	P	1.0
3	☐	50.000	48.682	80377.53	0.0298	P	1.9
4	☐	125.000	124.227	184319.82	0.0747	P	1.7
5	☐	250.000	254.558	326700.78	0.1521	P	6.2
6	☐	500.000	502.807	620245.79	0.2996	P	1.8
7	☐	1000.000	997.619	1192038.19	0.5935	P	1.5
8	☐			7693.90	0.0035	P	3.2

$$y = 5.9403\text{E-}004 * x + 8.6692\text{E-}004$$

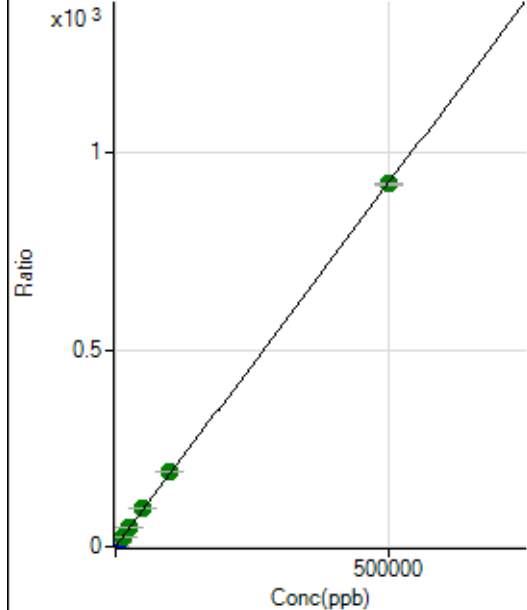
$$R = 1.0000$$

$$DL = 0.06437$$

$$BEC = 1.459$$

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	7780.09	0.0382	P	5.5
2	☐	500.000	533.210	209407.50	1.0221	P	1.2
3	☐	5000.000	5174.270	1864402.71	9.5856	P	0.5
4	☐	12500.000	13132.328	4241626.83	24.2695	A	1.4
5	☐	25000.000	25989.603	7545714.40	47.9933	A	1.8
6	☐	50000.000	52822.851	14931076.38	97.5050	A	1.3
7	☐	100000.00	103856.67	29181595.10	191.6707	A	0.2
8	☐	500000.00	498879.31	182486116.5	920.5519	A	0.7

$$y = 0.0018 * x + 0.0382$$

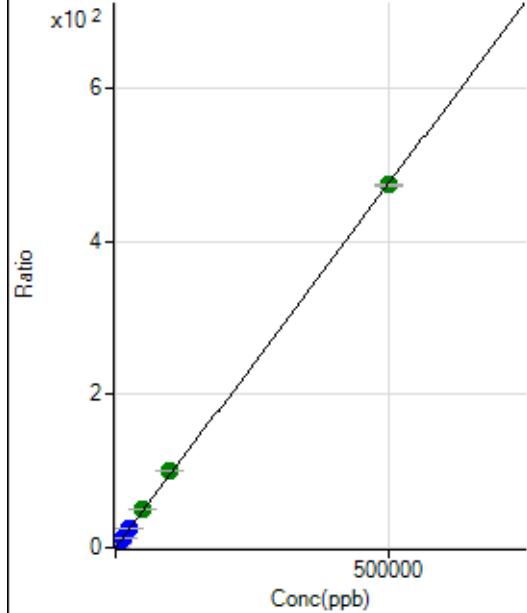
$$R = 1.0000$$

$$DL = 3.438$$

$$BEC = 20.73$$

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	219.45	0.0011	P	30.3
2	☐	500.000	565.261	110387.27	0.5388	P	0.7
3	☐	5000.000	5296.612	980170.96	5.0395	P	0.9
4	☐	12500.000	13310.379	2213208.97	12.6627	P	1.1
5	☐	25000.000	26312.675	3935773.79	25.0313	P	1.1
6	☐	50000.000	53706.329	7823635.77	51.0898	A	0.9
7	☐	100000.00	104936.57	15197748.78	99.8231	A	0.4
8	☐	500000.00	498553.12	94014660.43	474.2552	A	0.8

$$y = 9.5126\text{E-}004 * x + 0.0011$$

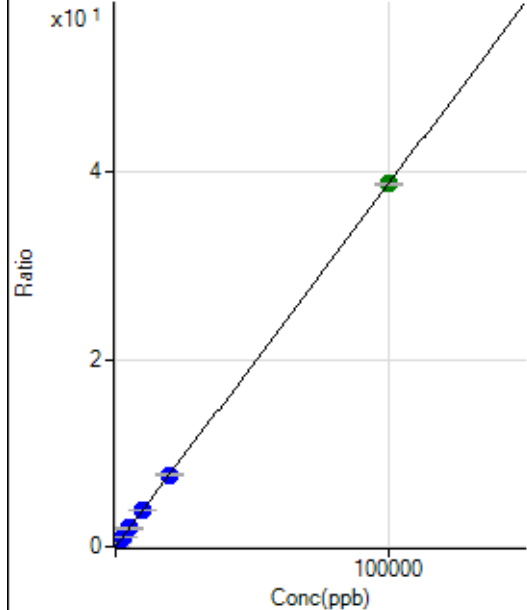
$$R = 0.9999$$

$$DL = 1.03$$

$$BEC = 1.132$$

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	25.00	0.0001	P	1.0
2	☐	20.000	20.202	1630.72	0.0080	P	5.3
3	☐	1000.000	1007.402	76001.26	0.3908	P	0.7
4	☐	2500.000	2556.186	173270.09	0.9913	P	0.9
5	☐	5000.000	5064.493	308777.87	1.9639	P	2.1
6	☐	10000.000	10172.067	604037.55	3.9445	P	0.5
7	☐	20000.000	19855.161	1172183.57	7.6992	P	0.6
8	☐	100000.00	100007.05	7687350.69	38.7789	A	0.8

$$y = 3.8776\text{E-}004 * x + 1.2289\text{E-}004$$

$$R = 1.0000$$

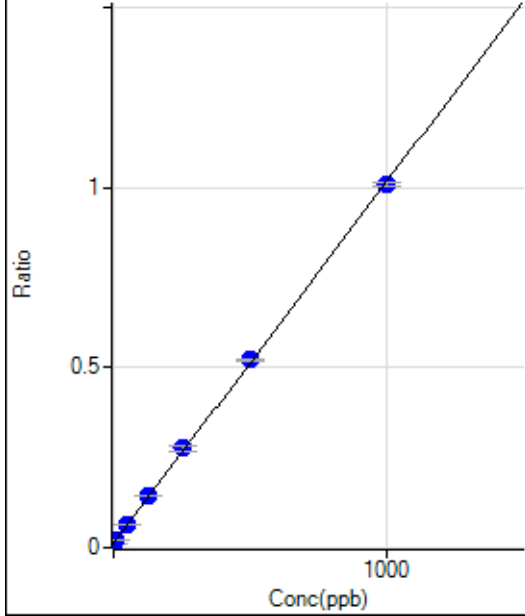
$$DL = 0.009508$$

$$BEC = 0.3169$$

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	66313.81	0.0128	P	1.3
2	☐	10.000	9.282	118430.27	0.0221	P	1.2
3	☐	50.000	52.099	336352.76	0.0650	P	0.7
4	☐	125.000	129.988	685388.45	0.1431	P	0.3
5	☐	250.000	261.945	1145356.69	0.2755	P	7.0
6	☐	500.000	507.793	2082499.09	0.5220	P	0.7
7	☐	1000.000	992.396	3956208.21	1.0080	P	1.0
8	☐			154546.26	0.0346	P	9.0

$$y = 0.0010 * x + 0.0128$$

$$R = 0.9999$$

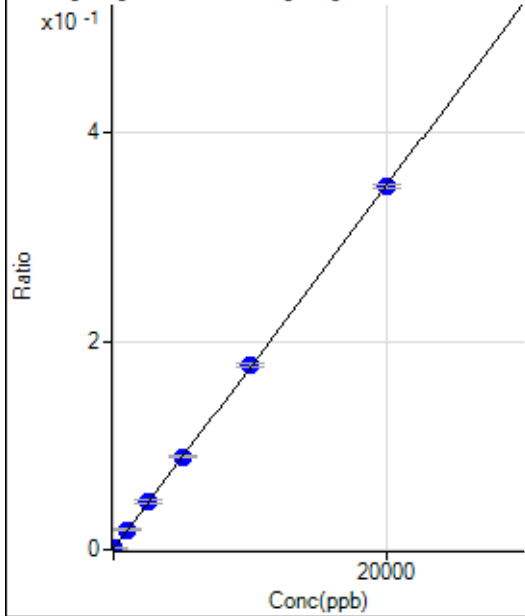
$$DL = 0.4856$$

$$BEC = 12.72$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-38.061	41.67	0.0002	P	19.5
2	☐	0.000	38.061	313.90	0.0015	P	29.6
3	☐	1000.000	1057.431	3758.97	0.0193	P	3.6
4	☐	2500.000	2583.684	8035.81	0.0460	P	7.2
5	☐	5000.000	5081.533	14079.39	0.0896	P	2.2
6	☐	10000.000	10091.132	27103.19	0.1770	P	1.8
7	☐	20000.000	19920.719	53061.92	0.3485	P	1.1
8	☐			125.01	0.0006	P	29.6

$$y = 1.7452E-005 * x + 8.6893E-004$$

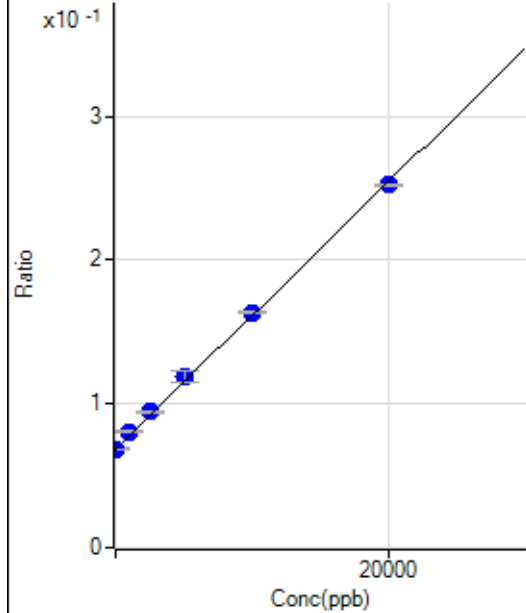
$$R = 1.0000$$

$$DL = 42.4$$

$$BEC = 49.79$$

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	-16.099	356142.75	0.0685	P	2.4
2	☐	0.000	16.099	369347.87	0.0688	P	0.1
3	☐	1000.000	1310.316	418274.65	0.0808	P	0.6
4	☐	2500.000	2770.778	452090.80	0.0944	P	1.7
5	☐	5000.000	5380.081	493461.58	0.1186	P	6.5
6	☐	10000.000	10197.721	651894.22	0.1634	P	0.7
7	☐	20000.000	19756.756	989891.05	0.2522	P	0.5
8	☐			362882.62	0.0812	P	3.2

$$y = 9.2909\text{E-}006 * x + 0.0687$$

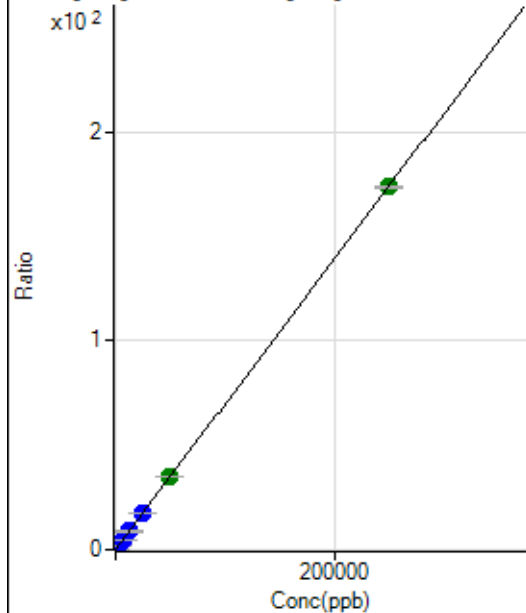
$$R = 0.9997$$

$$DL = 270.8$$

$$BEC = 7390$$

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	8722.36	0.0429	P	4.1
2	☐	500.000	532.290	84476.20	0.4123	P	0.7
3	☐	2500.000	2569.900	355266.77	1.8266	P	0.5
4	☐	6250.000	6399.699	783818.38	4.4847	P	0.8
5	☐	12500.000	12637.152	1385767.56	8.8140	P	2.0
6	☐	25000.000	25529.512	2719978.47	17.7622	P	0.8
7	☐	50000.000	50065.531	5296967.22	34.7919	A	0.4
8	☐	250000.00	249922.57	34397069.17	173.5069	A	0.3

$$y = 6.9407\text{E-}004 * x + 0.0429$$

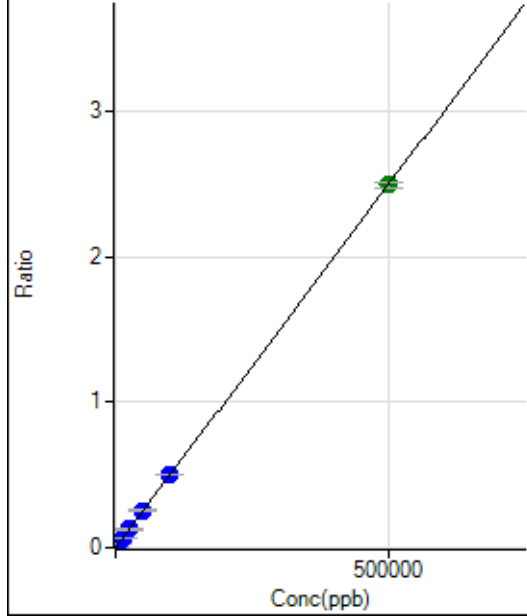
$$R = 1.0000$$

$$DL = 7.586$$

$$BEC = 61.76$$

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	41.67	0.0000	P	34.7
2	☐	500.000	513.019	13793.03	0.0026	P	1.3
3	☐	5000.000	4999.744	129224.52	0.0250	P	0.6
4	☐	12500.000	12683.416	303350.29	0.0633	P	0.5
5	☐	25000.000	26009.328	540107.76	0.1299	P	6.8
6	☐	50000.000	51573.104	1027400.34	0.2575	P	0.7
7	☐	100000.00	100777.02	1975060.51	0.5032	P	0.8
8	☐	500000.00	499632.22	11145682.37	2.4949	A	1.7

$$y = 4.9935\text{E-}006 * x + 8.0153\text{E-}006$$

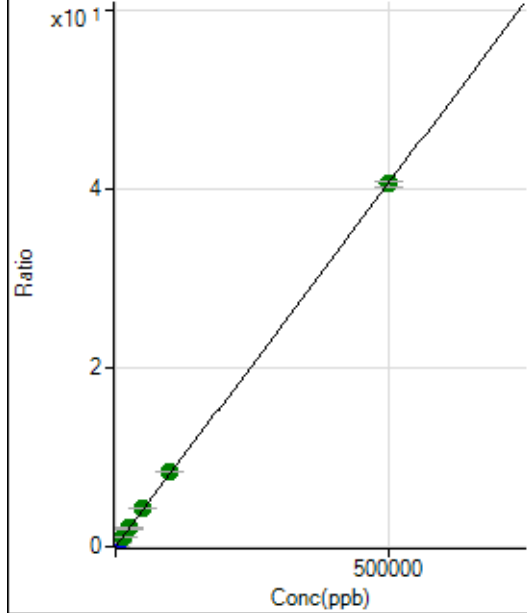
$$R = 1.0000$$

$$DL = 1.67$$

$$BEC = 1.605$$

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	4442.52	0.0009	P	3.9
2	☐	500.000	508.232	225880.26	0.0421	P	0.2
3	☐	5000.000	5010.768	2107683.90	0.4073	P	0.1
4	☐	12500.000	12704.842	4939750.63	1.0315	A	0.4
5	☐	25000.000	25910.986	8747266.25	2.1028	A	6.1
6	☐	50000.000	52049.440	16847934.06	4.2232	A	0.4
7	☐	100000.00	102407.89	32608166.00	8.3084	A	0.4
8	☐	500000.00	499262.69	180936851.2	40.5023	A	1.7

$$y = 8.1123\text{E-}005 * x + 8.5433\text{E-}004$$

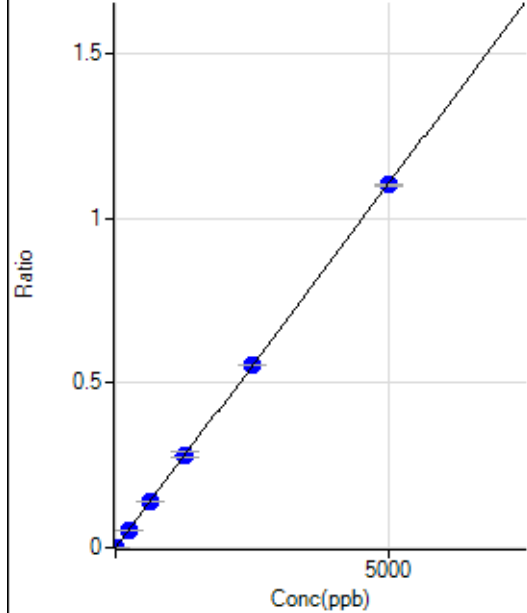
$$R = 1.0000$$

$$DL = 1.227$$

$$BEC = 10.53$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.78	0.0000	P	81.1
2	☐	5.000	5.314	6359.96	0.0012	P	4.4
3	☐	250.000	248.696	284528.86	0.0550	P	0.2
4	☐	625.000	630.088	667122.96	0.1393	P	0.9
5	☐	1250.000	1273.757	1171367.66	0.2816	P	6.1
6	☐	2500.000	2515.631	2218616.37	0.5561	P	0.5
7	☐	5000.000	4985.674	4325868.37	1.1022	P	0.6
8	☐			1422.35	0.0003	P	7.9

$$y = 2.2107\text{E-}004 * x + 1.0132\text{E-}005$$

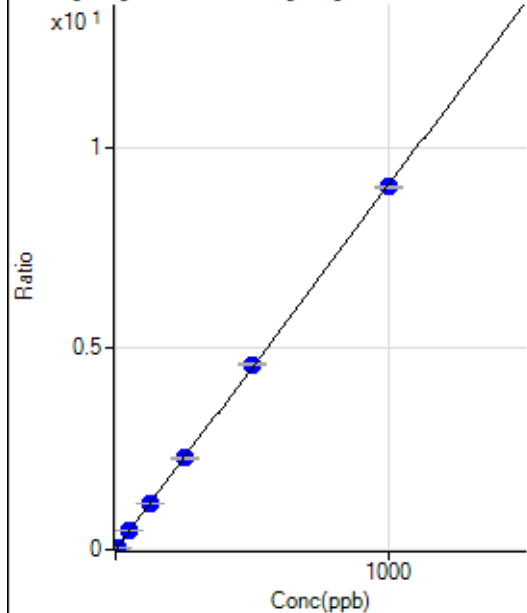
$$R = 1.0000$$

$$DL = 0.1116$$

$$BEC = 0.04583$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.55	0.0000	P	70.3
2	☐	5.000	5.583	10361.56	0.0506	P	1.9
3	☐	50.000	51.329	90398.29	0.4648	P	0.3
4	☐	125.000	128.547	203418.51	1.1639	P	0.9
5	☐	250.000	252.392	359296.39	2.2852	P	1.6
6	☐	500.000	507.292	703343.89	4.5931	P	0.9
7	☐	1000.000	995.243	1371889.03	9.0110	P	0.6
8	☐			510.02	0.0026	P	10.7

$$y = 0.0091 * x + 2.7411\text{E-}005$$

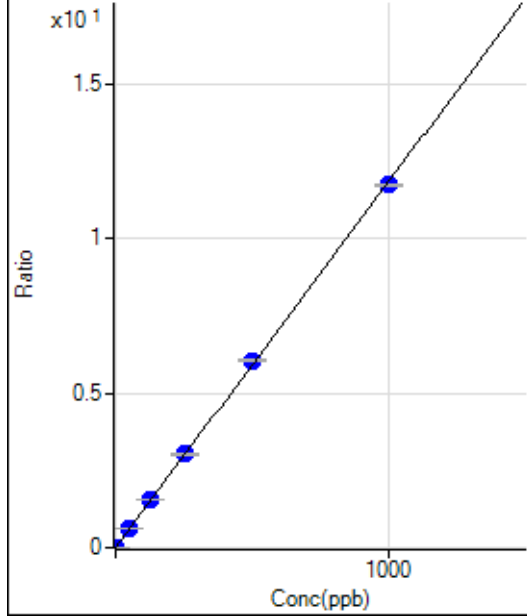
$$R = 1.0000$$

$$DL = 0.006387$$

$$BEC = 0.003028$$

Weight: <None>

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	404.46	0.0020	P	4.1
2	☐	2.000	2.149	5613.38	0.0274	P	2.0
3	☐	50.000	52.104	120206.95	0.6180	P	0.8
4	☐	125.000	129.914	268790.96	1.5380	P	1.5
5	☐	250.000	255.901	476032.35	3.0276	P	1.4
6	☐	500.000	511.811	926977.61	6.0533	P	0.7
7	☐	1000.000	991.900	1785809.65	11.7296	P	0.2
8	☐			74456.79	0.3756	P	1.1

$$y = 0.0118 * x + 0.0020$$

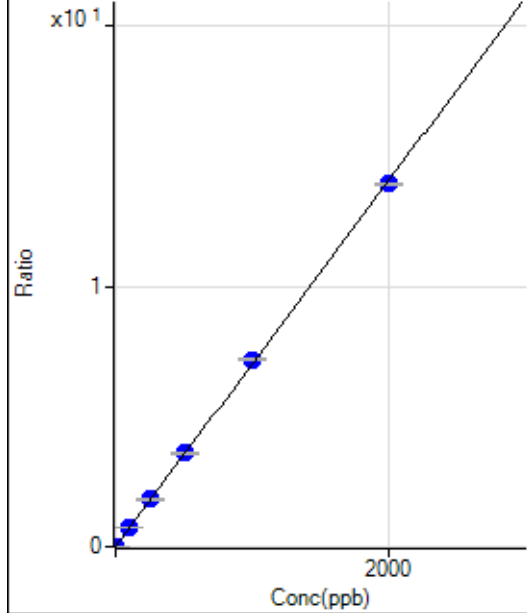
$$R = 0.9999$$

$$DL = 0.02078$$

$$BEC = 0.1681$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	32.22	0.0002	P	38.2
2	☐	1.000	1.134	1664.56	0.0081	P	5.0
3	☐	100.000	102.099	139570.87	0.7176	P	0.8
4	☐	250.000	259.711	318964.25	1.8251	P	1.7
5	☐	500.000	510.360	563882.36	3.5864	P	1.6
6	☐	1000.000	1024.653	1102617.07	7.2003	P	0.4
7	☐	2000.000	1983.765	2122277.73	13.9398	P	0.7
8	☐			9457.63	0.0477	P	3.7

$$y = 0.0070 * x + 1.5802E-004$$

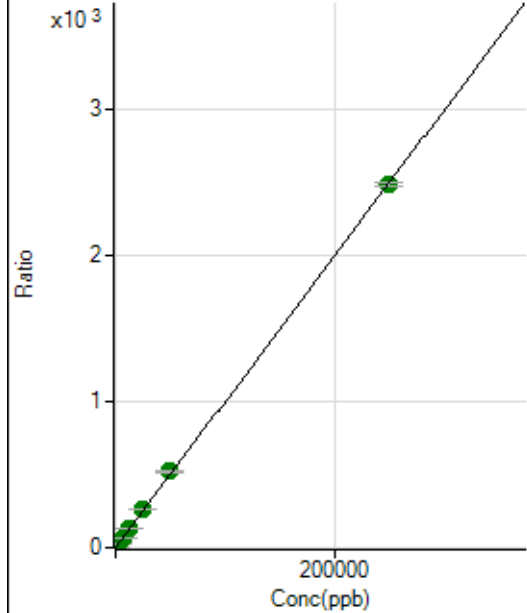
$$R = 0.9999$$

$$DL = 0.02579$$

$$BEC = 0.02249$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1364.92	0.0067	P	4.2
2	☐	50.000	59.865	123384.29	0.6023	P	2.2
3	☐	2500.000	2682.476	5191884.26	26.6935	A	0.5
4	☐	6250.000	6795.725	11817401.88	67.6144	A	1.2
5	☐	12500.000	13403.926	20968180.33	133.3564	A	1.3
6	☐	25000.000	26893.888	40973925.92	267.5621	A	0.4
7	☐	50000.000	52236.465	79120216.58	519.6841	A	0.6
8	☐	250000.00	249302.65	491674373.9	2,480.208	A	0.9

$$y = 0.0099 * x + 0.0067$$

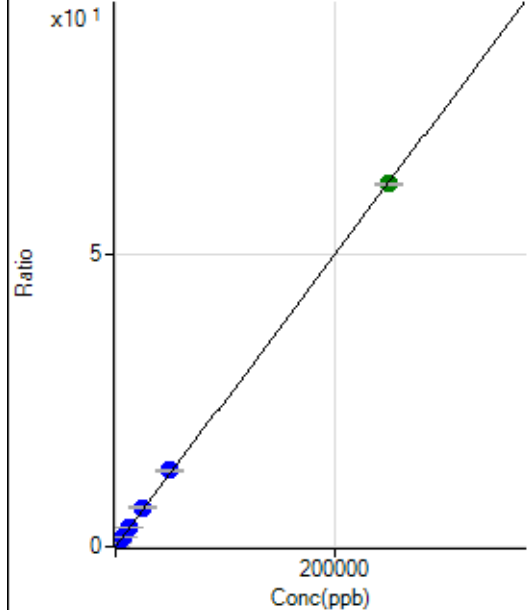
$$R = 0.9999$$

$$DL = 0.08541$$

$$BEC = 0.6742$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0002	P	41.0
2	☐	50.000	58.104	3018.92	0.0147	P	1.8
3	☐	2500.000	2718.243	131866.13	0.6780	P	1.3
4	☐	6250.000	6857.886	298878.73	1.7102	P	1.6
5	☐	12500.000	13494.044	529060.82	3.3648	P	1.2
6	☐	25000.000	26981.059	1030215.19	6.7276	P	0.9
7	☐	50000.000	52228.329	1982614.09	13.0226	P	1.2
8	☐	250000.00	249289.14	12321653.63	62.1570	A	0.8

$$y = 2.4934E-004 * x + 2.4627E-004$$

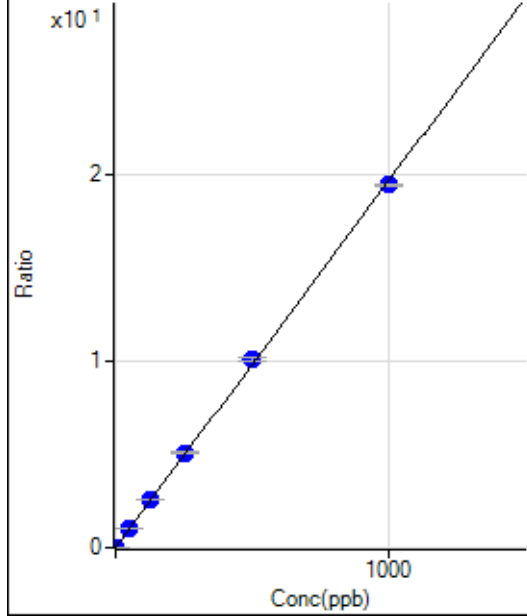
$$R = 0.9999$$

$$DL = 1.214$$

$$BEC = 0.9877$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	62.22	0.0003	P	47.3
2	☐	1.000	1.121	4568.57	0.0223	P	0.6
3	☐	50.000	53.208	203096.19	1.0442	P	0.9
4	☐	125.000	132.683	455016.53	2.6035	P	1.1
5	☐	250.000	259.047	799148.05	5.0826	P	1.4
6	☐	500.000	513.977	1544193.38	10.0842	P	1.1
7	☐	1000.000	989.629	2956050.20	19.4161	P	0.4
8	☐			45888.34	0.2315	P	1.2

$$y = 0.0196 * x + 3.0620E-004$$

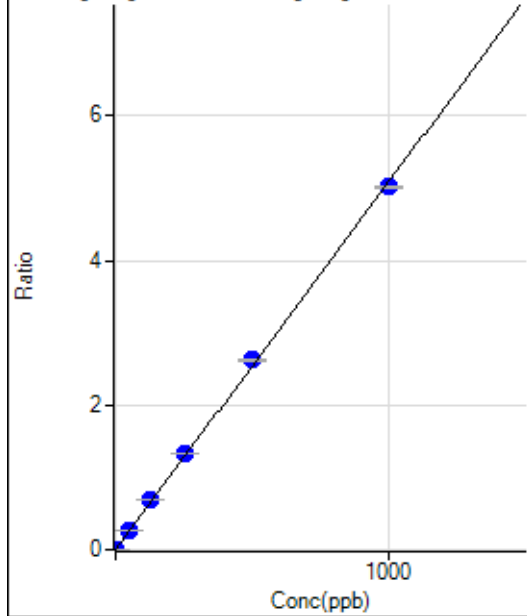
$$R = 0.9998$$

$$DL = 0.02213$$

$$BEC = 0.01561$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	93.34	0.0005	P	18.1
2	☐	1.000	1.134	1274.52	0.0062	P	1.3
3	☐	50.000	54.226	53662.29	0.2759	P	0.3
4	☐	125.000	134.989	119920.75	0.6861	P	0.8
5	☐	250.000	262.356	209603.77	1.3331	P	1.4
6	☐	500.000	516.037	401463.07	2.6217	P	0.7
7	☐	1000.000	987.433	763681.32	5.0161	P	0.7
8	☐			29392.98	0.1483	P	0.4

$$y = 0.0051 * x + 4.5839E-004$$

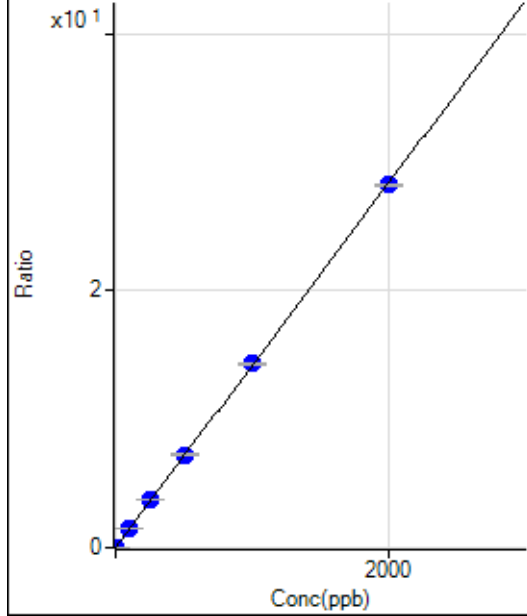
$$R = 0.9997$$

$$DL = 0.04907$$

$$BEC = 0.09024$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	625.58	0.0031	P	8.5
2	☐	2.000	2.198	7021.79	0.0343	P	0.9
3	☐	100.000	106.035	293281.23	1.5079	P	0.7
4	☐	250.000	263.178	653325.06	3.7380	P	1.2
5	☐	500.000	511.077	1140891.67	7.2561	P	1.4
6	☐	1000.000	1008.756	2192735.59	14.3191	P	0.7
7	☐	2000.000	1990.904	4302108.65	28.2574	P	0.5
8	☐			9337.54	0.0471	P	2.3

$$y = 0.0142 * x + 0.0031$$

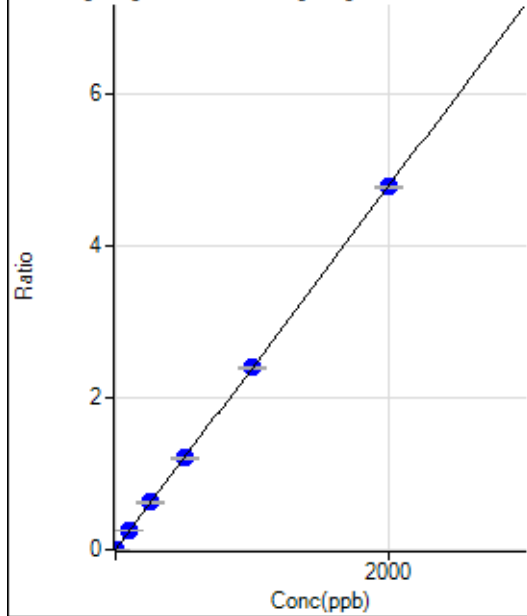
$$R = 1.0000$$

$$DL = 0.05546$$

$$BEC = 0.2168$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	194.45	0.0010	P	6.5
2	☐	2.000	2.073	1212.30	0.0059	P	4.1
3	☐	100.000	104.071	48630.85	0.2500	P	1.2
4	☐	250.000	260.844	109260.64	0.6252	P	1.6
5	☐	500.000	504.543	190002.88	1.2084	P	1.4
6	☐	1000.000	1001.745	367253.99	2.3983	P	1.0
7	☐	2000.000	1996.432	727549.08	4.7787	P	0.5
8	☐			9900.14	0.0499	P	1.5

$$y = 0.0024 * x + 9.5613E-004$$

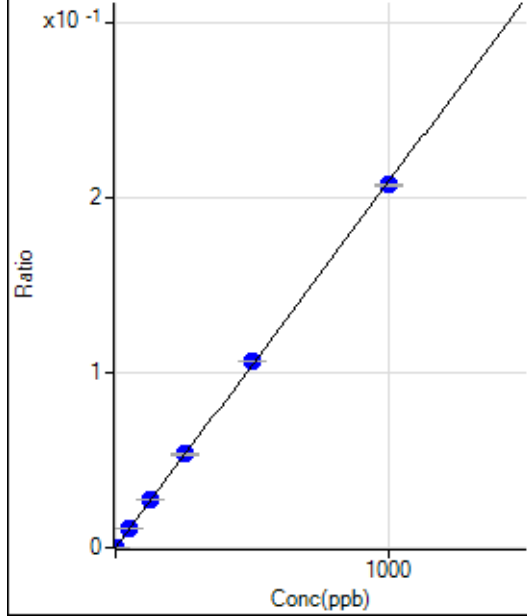
$$R = 1.0000$$

$$DL = 0.07787$$

$$BEC = 0.3995$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3.70	0.0000	P	100.2
2	☐	1.000	1.038	243.22	0.0002	P	1.1
3	☐	50.000	53.691	11757.29	0.0112	P	1.2
4	☐	125.000	131.175	26081.43	0.0274	P	0.2
5	☐	250.000	256.346	46212.05	0.0536	P	1.4
6	☐	500.000	511.154	90049.24	0.1069	P	0.3
7	☐	1000.000	991.880	172553.15	0.2074	P	0.4
8	☐			288.89	0.0003	P	7.2

$$y = 2.0909\text{E-}004 * x + 3.3925\text{E-}006$$

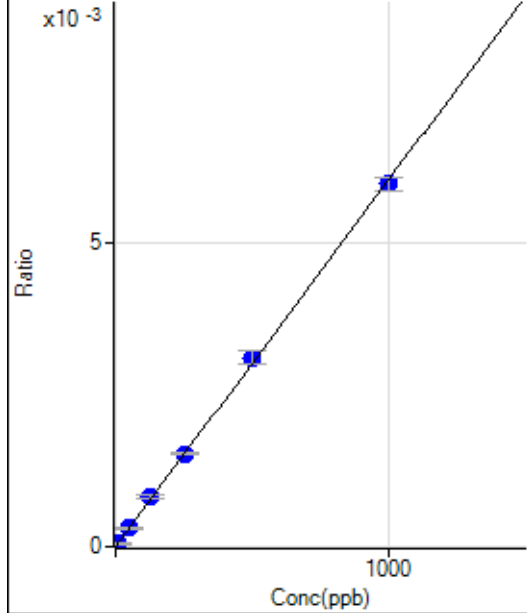
$$R = 0.9999$$

$$DL = 0.04876$$

$$BEC = 0.01622$$

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	0.00	0.0000	P	
2	☐	5.000	8.026	53.33	0.0000	P	19.1
3	☐	50.000	50.196	316.67	0.0003	P	12.8
4	☐	125.000	135.451	775.59	0.0008	P	6.4
5	☐	250.000	254.347	1321.19	0.0015	P	3.2
6	☐	500.000	515.916	2619.16	0.0031	P	6.6
7	☐	1000.000	989.624	4960.93	0.0060	P	3.4
8	☐			3.33	0.0000	P	99.9

$$y = 6.0256\text{E-}006 * x + 0.0000\text{E+}000$$

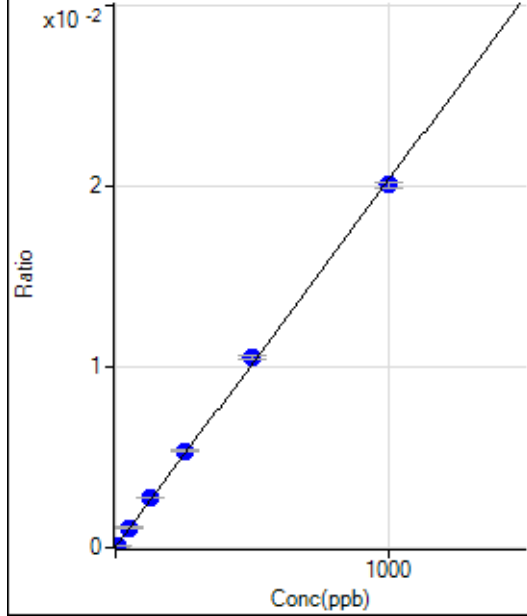
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

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	17.29	0.0000	P	5.9
2	☐	5.000	5.666	144.45	0.0001	P	11.9
3	☐	50.000	53.766	1160.55	0.0011	P	9.1
4	☐	125.000	135.122	2626.19	0.0028	P	2.8
5	☐	250.000	262.326	4610.03	0.0053	P	2.5
6	☐	500.000	516.896	8864.49	0.0105	P	1.3
7	☐	1000.000	987.013	16703.51	0.0201	P	1.7
8	☐			20.37	0.0000	P	9.3

$$y = 2.0325\text{E-}005 * x + 1.5802\text{E-}005$$

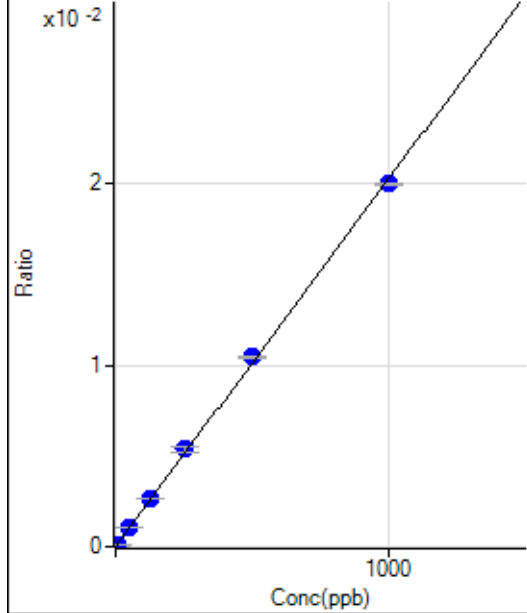
$$R = 0.9997$$

$$DL = 0.1382$$

$$BEC = 0.7774$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.55	0.0000	P	956.1
2	☐	5.000	5.931	1155.00	0.0001	P	8.5
3	☐	50.000	53.420	10069.51	0.0011	P	1.4
4	☐	125.000	132.259	23381.88	0.0027	P	0.9
5	☐	250.000	266.113	42139.19	0.0054	P	5.5
6	☐	500.000	515.922	79682.26	0.0105	P	0.8
7	☐	1000.000	986.928	149966.46	0.0200	P	0.3
8	☐			-62.49	0.0000	P	-134.

$$y = 2.0259\text{E-}005 * x + 4.7438\text{E-}007$$

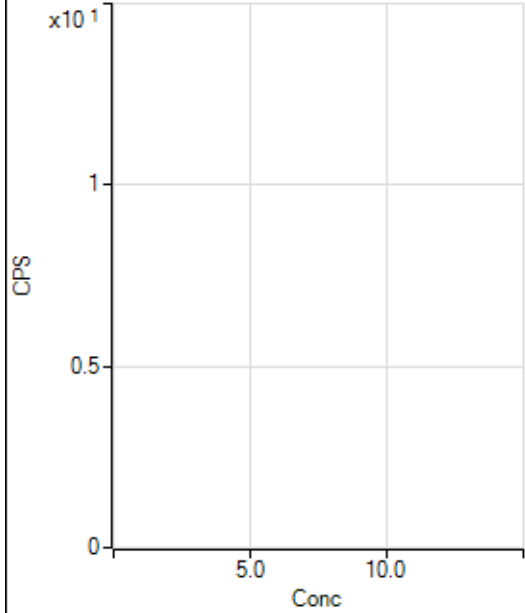
$$R = 0.9997$$

$$DL = 0.6717$$

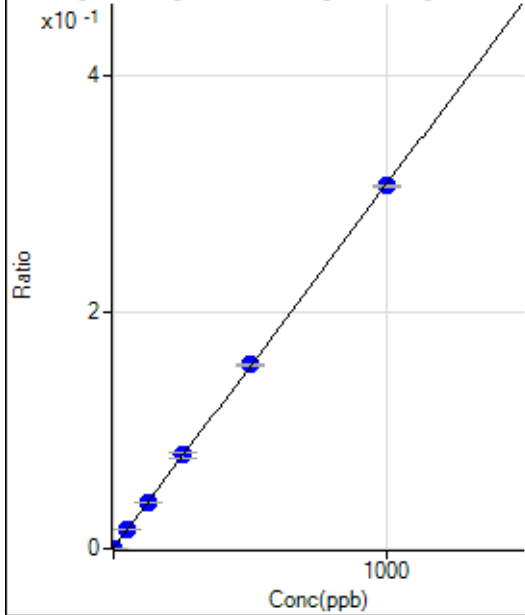
$$BEC = 0.02342$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1941.27		P	1.9
2	☐			1871.26		P	6.3
3	☐			1882.38		P	3.9
4	☐			1753.47		P	3.7
5	☐			1566.78		P	3.9
6	☐			1425.65		P	4.5
7	☐			1394.53		P	3.9
8	☐			1671.23		P	7.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3058.79	0.0003	P	4.6
2	☐	1.000	1.024	6132.08	0.0006	P	2.6
3	☐	50.000	50.339	147272.56	0.0158	P	0.3
4	☐	125.000	126.364	342523.53	0.0393	P	0.1
5	☐	250.000	256.583	620282.82	0.0794	P	5.8
6	☐	500.000	504.504	1187374.70	0.1558	P	1.0
7	☐	1000.000	995.915	2303782.06	0.3071	P	0.4
8	☐			12897.91	0.0016	P	4.3

$$y = 3.0808E-004 * x + 3.2503E-004$$

$$R = 1.0000$$

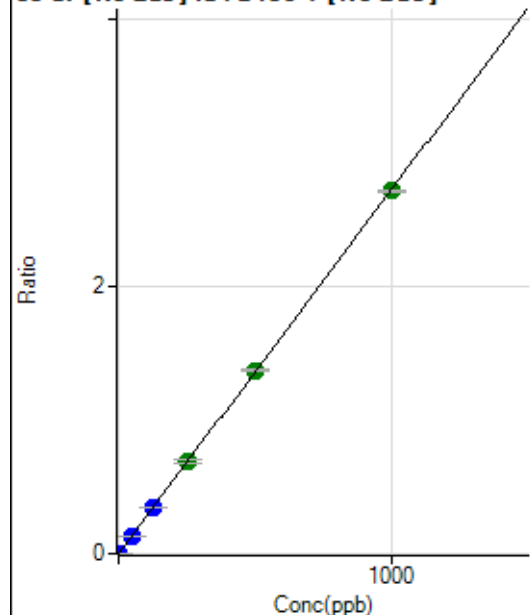
$$DL = 0.1455$$

$$BEC = 1.055$$

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	88.89	0.0000	P	19.4
2	☐	1.000	1.000	26171.94	0.0027	P	1.1
3	☐	50.000	49.628	1258087.83	0.1353	P	0.2
4	☐	125.000	125.142	2975935.83	0.3411	P	0.3
5	☐	250.000	254.410	5419310.89	0.6934	A	5.3
6	☐	500.000	504.351	10478636.78	1.3745	A	0.8
7	☐	1000.000	996.723	20374596.29	2.7164	A	0.6
8	☐			91460.24	0.0112	P	3.0

$$y = 0.0027 * x + 9.4430E-006$$

$$R = 1.0000$$

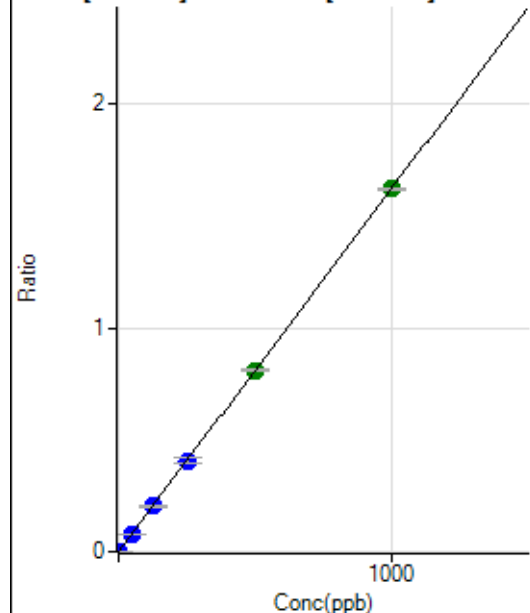
$$DL = 0.002021$$

$$BEC = 0.003465$$

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	791.72	0.0001	P	7.4
2	☐	1.000	0.890	14633.00	0.0015	P	2.1
3	☐	50.000	49.205	743762.96	0.0800	P	0.3
4	☐	125.000	124.723	1767378.64	0.2026	P	0.5
5	☐	250.000	250.551	3179642.24	0.4068	P	5.5
6	☐	500.000	500.551	6195521.62	0.8127	A	0.3
7	☐	1000.000	999.661	12172575.62	1.6229	A	0.6
8	☐			3247.72	0.0004	P	4.8

$$y = 0.0016 * x + 8.4137E-005$$

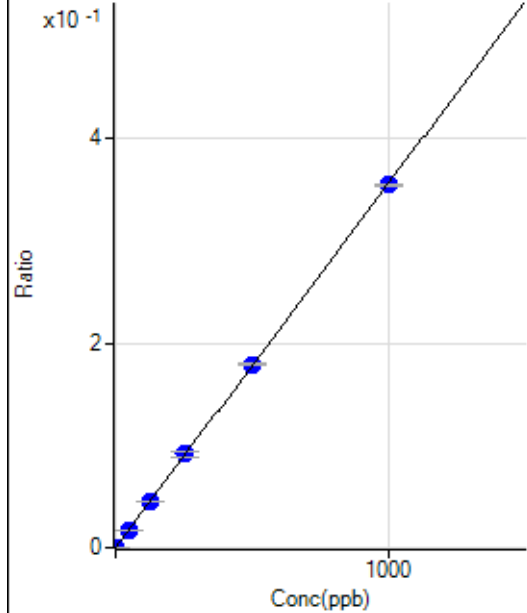
$$R = 1.0000$$

$$DL = 0.01146$$

$$BEC = 0.05183$$

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	125.00	0.0000	P	23.4
2	☐	1.000	0.929	3294.96	0.0003	P	1.4
3	☐	50.000	49.680	164723.83	0.0177	P	1.1
4	☐	125.000	127.881	397600.59	0.0456	P	0.4
5	☐	250.000	256.542	714272.12	0.0914	P	5.8
6	☐	500.000	503.769	1368259.22	0.1795	P	0.6
7	☐	1000.000	996.136	2661682.63	0.3549	P	0.6
8	☐			836.18	0.0001	P	13.4

$$y = 3.5623\text{E-}004 * x + 1.3270\text{E-}005$$

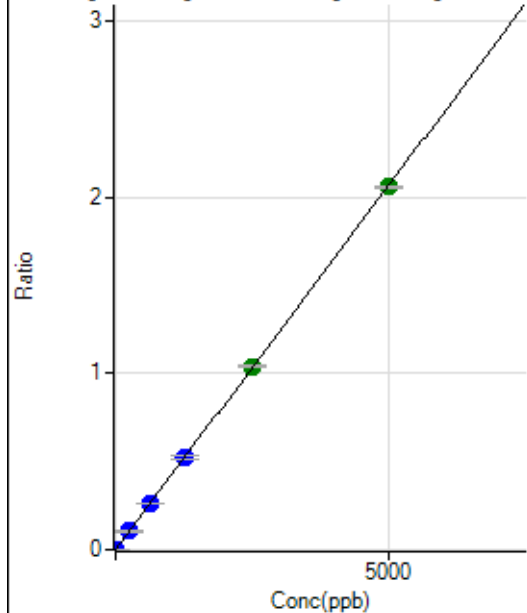
$$R = 1.0000$$

$$DL = 0.02619$$

$$BEC = 0.03725$$

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	344.46	0.0000	P	14.3
2	☐	5.000	4.953	19959.03	0.0021	P	1.0
3	☐	250.000	251.072	965787.83	0.1038	P	0.9
4	☐	625.000	630.791	2275826.70	0.2608	P	0.2
5	☐	1250.000	1269.184	4100780.95	0.5248	P	5.8
6	☐	2500.000	2521.469	7947496.79	1.0425	A	0.6
7	☐	5000.000	4983.692	15454494.09	2.0605	A	0.6
8	☐			11160.33	0.0014	P	6.8

$$y = 4.1344\text{E-}004 * x + 3.6604\text{E-}005$$

$$R = 1.0000$$

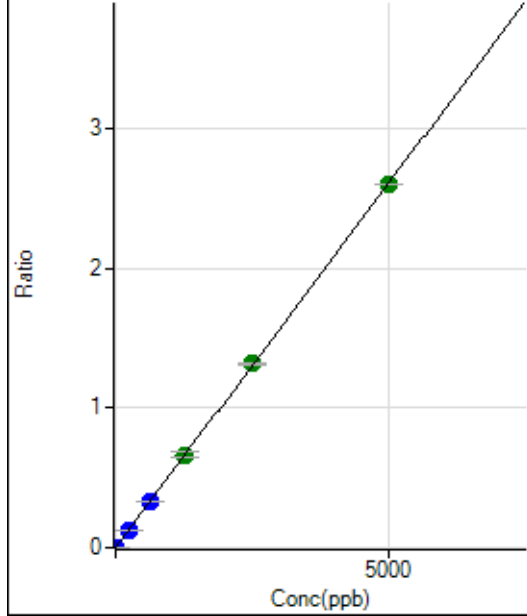
$$DL = 0.03808$$

$$BEC = 0.08854$$

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	55.56	0.0000	P	109.0
2	☐	5.000	5.061	25348.29	0.0026	P	1.1
3	☐	250.000	248.867	1208247.01	0.1299	P	0.4
4	☐	625.000	626.904	2855068.27	0.3272	P	0.6
5	☐	1250.000	1272.262	5189450.29	0.6641	A	5.8
6	☐	2500.000	2526.485	10053241.72	1.3187	A	0.7
7	☐	5000.000	4981.010	19500698.70	2.5999	A	0.1
8	☐			18342.92	0.0023	P	2.8

$$y = 5.2196\text{E-}004 * x + 5.9301\text{E-}006$$

$$R = 1.0000$$

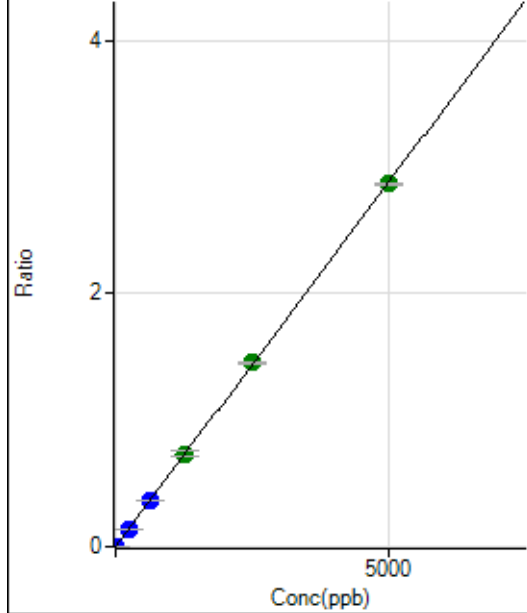
$$DL = 0.03715$$

$$BEC = 0.01136$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.78	0.0000	P	17.5
2	☐	5.000	5.056	27978.23	0.0029	P	2.0
3	☐	250.000	249.732	1337553.38	0.1438	P	0.4
4	☐	625.000	630.919	3169776.09	0.3633	P	0.7
5	☐	1250.000	1276.892	5745791.62	0.7352	A	5.8
6	☐	2500.000	2521.753	11069565.96	1.4520	A	0.6
7	☐	5000.000	4981.674	21515015.93	2.8685	A	0.6
8	☐			19547.42	0.0024	P	3.2

$$y = 5.7580\text{E-}004 * x + 1.0929\text{E-}005$$

$$R = 1.0000$$

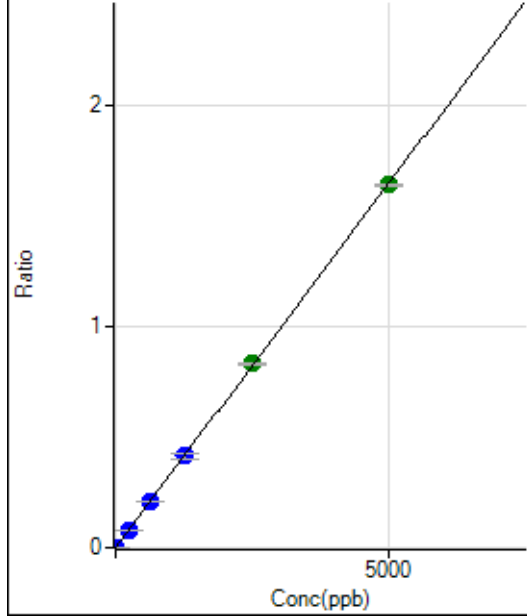
$$DL = 0.009982$$

$$BEC = 0.01898$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0000	P	36.9
2	☐	5.000	5.084	16042.90	0.0017	P	1.5
3	☐	250.000	247.995	757919.25	0.0815	P	0.3
4	☐	625.000	626.416	1795819.18	0.2058	P	0.5
5	☐	1250.000	1260.223	3235311.49	0.4141	P	6.1
6	☐	2500.000	2527.273	6330218.41	0.8304	A	0.8
7	☐	5000.000	4983.731	12281858.87	1.6375	A	0.4
8	☐			11360.50	0.0014	P	3.6

$$y = 3.2856\text{E-}004 * x + 5.0200\text{E-}006$$

$$R = 1.0000$$

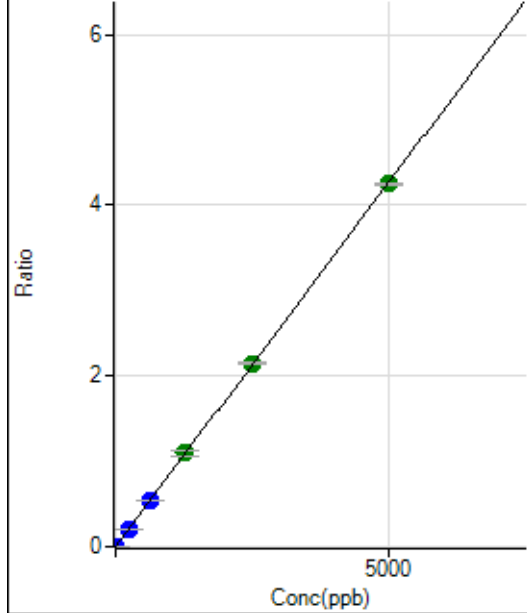
$$DL = 0.0169$$

$$BEC = 0.01528$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.01	0.0000	P	13.9
2	☐	5.000	5.134	41999.32	0.0044	P	1.8
3	☐	250.000	249.481	1977736.42	0.2126	P	0.2
4	☐	625.000	626.351	4657704.62	0.5338	P	0.6
5	☐	1250.000	1281.757	8536072.76	1.0924	A	6.0
6	☐	2500.000	2513.641	16331558.18	2.1423	A	1.0
7	☐	5000.000	4985.097	31866989.60	4.2486	A	0.3
8	☐			28885.92	0.0035	P	3.5

$$y = 8.5226\text{E-}004 * x + 1.0619\text{E-}005$$

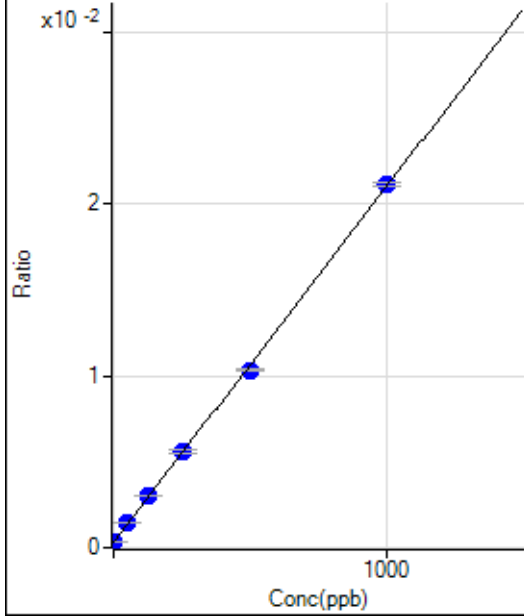
$$R = 1.0000$$

$$DL = 0.005193$$

$$BEC = 0.01246$$

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	4570.36	0.0003	P	1.6
2	☐	1.000	1.643	5206.74	0.0003	P	3.6
3	☐	50.000	54.928	21820.38	0.0014	P	3.0
4	☐	125.000	129.498	43921.76	0.0030	P	1.0
5	☐	250.000	256.295	77207.77	0.0056	P	4.4
6	☐	500.000	485.312	142293.78	0.0104	P	0.6
7	☐	1000.000	1004.961	287139.63	0.0211	P	1.2
8	☐			4181.36	0.0003	P	8.6

$$y = 2.0722\text{E-}005 * x + 2.9957\text{E-}004$$

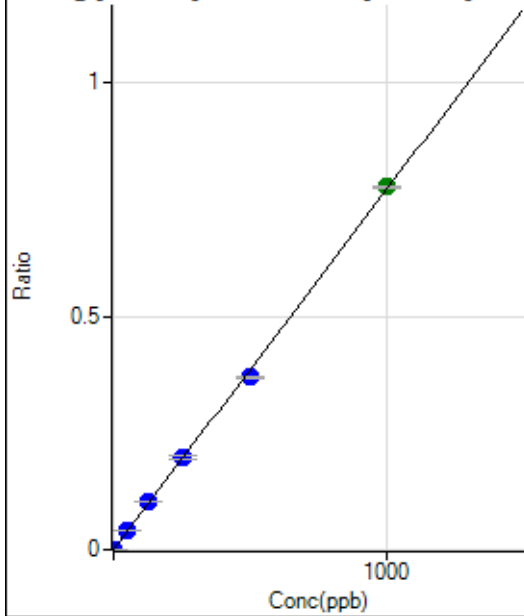
$$R = 0.9998$$

$$DL = 0.7108$$

$$BEC = 14.46$$

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	130.56	0.0000	P	10.5
2	☐	1.000	1.128	13723.89	0.0009	P	1.3
3	☐	50.000	55.799	653722.30	0.0431	P	0.6
4	☐	125.000	134.348	1527007.33	0.1037	P	0.4
5	☐	250.000	257.485	2734458.87	0.1988	P	5.1
6	☐	500.000	478.582	5075881.93	0.3694	P	0.5
7	☐	1000.000	1007.379	10569950.06	0.7776	A	0.7
8	☐			1544.60	0.0001	P	9.3

$$y = 7.7190\text{E-}004 * x + 8.5618\text{E-}006$$

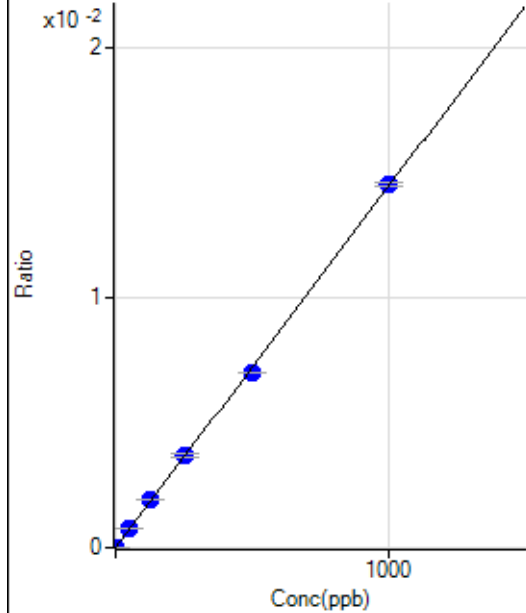
$$R = 0.9996$$

$$DL = 0.003487$$

$$BEC = 0.01109$$

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	11.11	0.0000	P	43.0
2	☐	1.000	1.064	251.39	0.0000	P	18.7
3	☐	50.000	53.619	11773.16	0.0008	P	2.3
4	☐	125.000	133.786	28488.64	0.0019	P	1.2
5	☐	250.000	256.828	51105.93	0.0037	P	4.3
6	☐	500.000	485.737	96495.17	0.0070	P	0.3
7	☐	1000.000	1004.145	197334.39	0.0145	P	1.1
8	☐			47.22	0.0000	P	5.5

$$y = 1.4457\text{E-}005 * x + 7.2755\text{E-}007$$

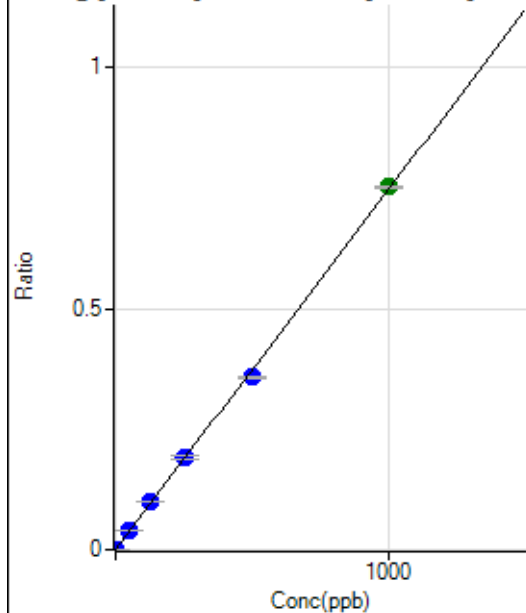
$$R = 0.9998$$

$$DL = 0.0649$$

$$BEC = 0.05033$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	43.5
2	☐	1.000	1.099	12870.28	0.0008	P	1.0
3	☐	50.000	55.435	628493.73	0.0414	P	1.2
4	☐	125.000	134.496	1479485.17	0.1005	P	0.4
5	☐	250.000	256.039	2631549.26	0.1913	P	5.2
6	☐	500.000	478.798	4914807.88	0.3577	P	0.5
7	☐	1000.000	1007.633	10232822.45	0.7528	A	0.5
8	☐			1341.78	0.0001	P	8.3

$$y = 7.4709\text{E-}004 * x + 3.2693\text{E-}006$$

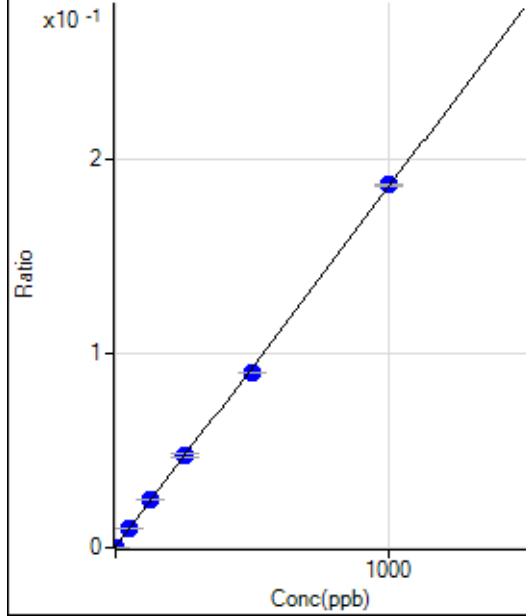
$$R = 0.9996$$

$$DL = 0.005716$$

$$BEC = 0.004376$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3219.26	0.0002	P	1.8
2	☐	1.000	1.127	6560.80	0.0004	P	2.3
3	☐	50.000	53.670	154543.50	0.0102	P	0.1
4	☐	125.000	130.142	359166.89	0.0244	P	0.6
5	☐	250.000	254.213	652739.03	0.0474	P	5.2
6	☐	500.000	485.222	1241720.18	0.0904	P	0.4
7	☐	1000.000	1005.509	2542610.30	0.1871	P	0.7
8	☐			3153.63	0.0002	P	9.0

$$y = 1.8582\text{E-}004 * x + 2.1101\text{E-}004$$

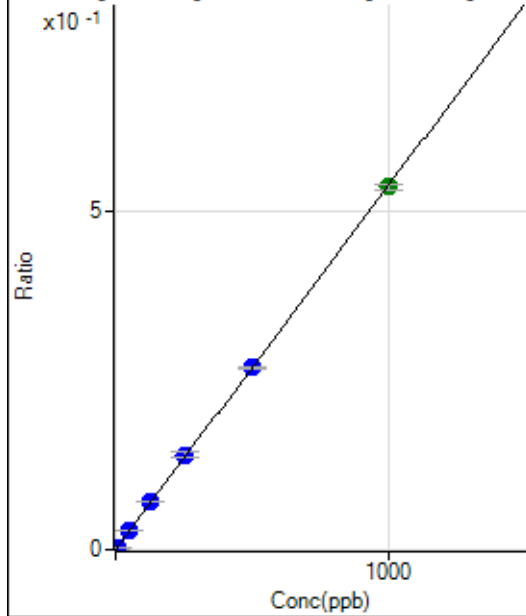
$$R = 0.9998$$

$$DL = 0.06165$$

$$BEC = 1.136$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	575.04	0.0000	P	3.5
2	☐	5.000	5.703	48395.51	0.0031	P	2.1
3	☐	50.000	53.625	437686.54	0.0288	P	0.2
4	☐	125.000	132.904	1051648.80	0.0714	P	0.5
5	☐	250.000	260.632	1926102.89	0.1400	P	5.6
6	☐	500.000	499.890	3689792.01	0.2685	P	0.5
7	☐	1000.000	996.224	7274064.75	0.5352	A	1.3
8	☐			2547.56	0.0002	P	3.7

$$y = 5.3714\text{E-}004 * x + 3.7688\text{E-}005$$

$$R = 0.9999$$

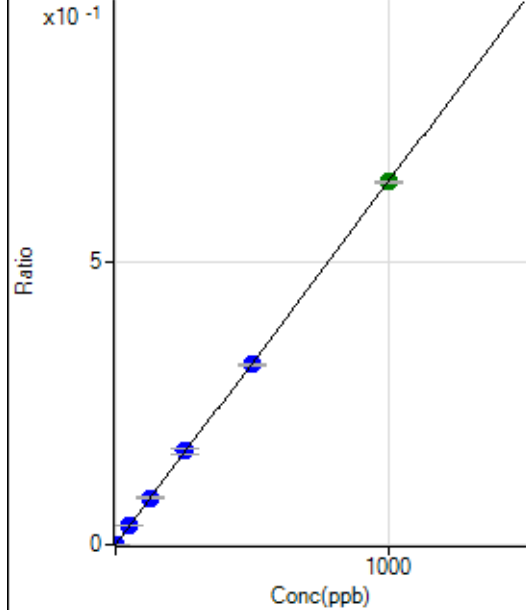
$$DL = 0.007381$$

$$BEC = 0.07016$$

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	66.67	0.0000	P	12.3
2	☐	2.000	2.070	20788.39	0.0013	P	5.0
3	☐	50.000	52.507	511206.58	0.0337	P	1.4
4	☐	125.000	129.684	1225012.89	0.0832	P	0.7
5	☐	250.000	257.400	2271470.00	0.1651	P	5.4
6	☐	500.000	496.889	4379827.40	0.3188	P	0.8
7	☐	1000.000	998.994	8711532.40	0.6409	A	0.7
8	☐			10329.24	0.0007	P	4.9

$$y = 6.4153\text{E-}004 * x + 4.3696\text{E-}006$$

$$R = 1.0000$$

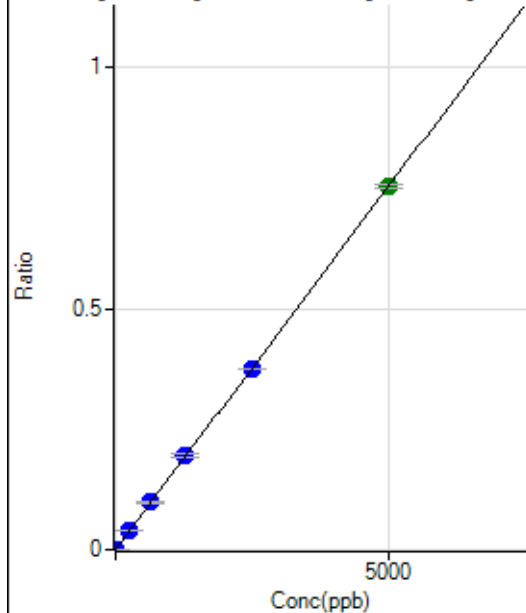
$$DL = 0.002522$$

$$BEC = 0.006811$$

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	26.3
2	☐	10.000	11.122	26228.29	0.0017	P	3.3
3	☐	250.000	263.270	601795.63	0.0397	P	0.4
4	☐	625.000	649.803	1441083.72	0.0979	P	1.1
5	☐	1250.000	1292.729	2678291.68	0.1947	P	5.4
6	☐	2500.000	2488.140	5149036.40	0.3748	P	0.4
7	☐	5000.000	4991.482	10218887.82	0.7518	A	1.1
8	☐			1347.35	0.0001	P	4.2

$$y = 1.5061\text{E-}004 * x + 5.0913\text{E-}006$$

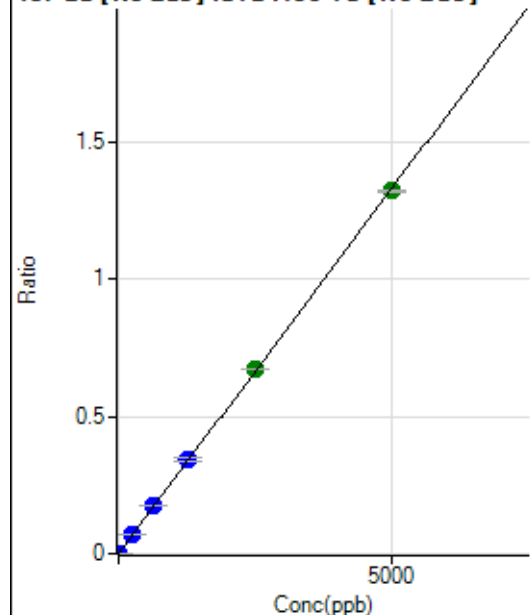
$$R = 1.0000$$

$$DL = 0.02663$$

$$BEC = 0.0338$$

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	41.67	0.0000	P	34.9
2	☐	10.000	11.183	46459.43	0.0030	P	2.4
3	☐	250.000	261.557	1055593.18	0.0696	P	0.7
4	☐	625.000	650.564	2547419.31	0.1730	P	0.1
5	☐	1250.000	1292.455	4727622.89	0.3437	P	5.7
6	☐	2500.000	2523.615	9221327.46	0.6711	A	0.5
7	☐	5000.000	4973.803	17980472.63	1.3228	A	0.4
8	☐			2319.73	0.0002	P	4.6

$$y = 2.6594E-004 * x + 2.7331E-006$$

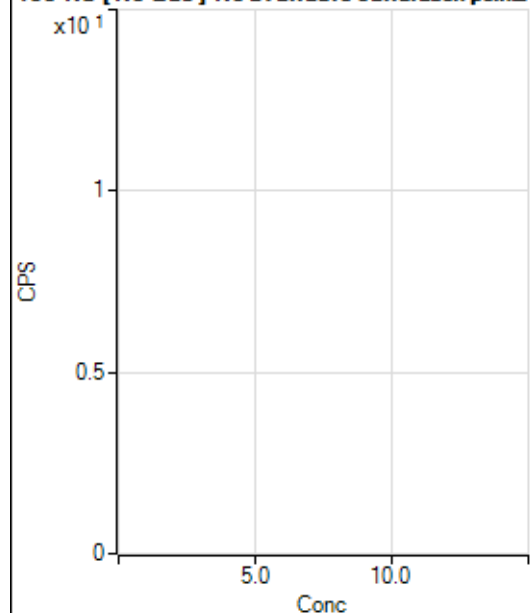
$$R = 0.9999$$

$$DL = 0.01076$$

$$BEC = 0.01028$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.56		P	65.5
2	☐			15.56		P	107.9
3	☐			55.56		P	54.1
4	☐			151.12		P	9.2
5	☐			244.45		P	4.2
6	☐			615.59		P	9.5
7	☐			868.95		P	7.0
8	☐			131.12		P	29.8

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	65.5
2	☐			13.33		P	50.0
3	☐			20.00		P	16.7
4	☐			23.33		P	37.8
5	☐			24.45		P	15.8
6	☐			75.56		P	16.7
7	☐			50.00		P	30.6
8	☐			53.34		P	21.6

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	32.7
2	☐			13.89		P	34.7
3	☐			19.44		P	89.2
4	☐			61.12		P	7.9
5	☐			77.78		P	27.0
6	☐			172.23		P	5.6
7	☐			161.12		P	34.4
8	☐			63.89		P	15.1

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			28.89		P	13.3
2	☐			31.11		P	12.4
3	☐			42.22		P	38.9
4	☐			36.67		P	36.4
5	☐			63.33		P	13.9
6	☐			106.67		P	3.1
7	☐			130.00		P	6.8
8	☐			40.00		P	8.3

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.00		P	33.3
2	☐			111.12		P	35.4
3	☐			83.34		P	43.6
4	☐			83.34		P	20.0
5	☐			69.45		P	55.4
6	☐			186.12		P	14.4
7	☐			105.56		P	35.6
8	☐			111.12		P	35.4

160 Gd [He] No available calibration points

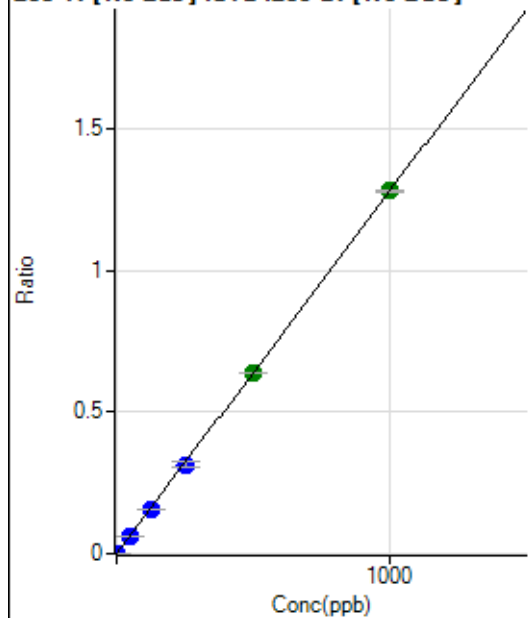
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			221.11		P	17.9
2	☐			175.56		P	13.7
3	☐			160.00		P	12.7
4	☐			146.67		P	24.1
5	☐			135.56		P	24.6
6	☐			172.23		P	12.9
7	☐			154.45		P	3.3
8	☐			177.78		P	29.1

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			77.78		P	22.3
2	☐			66.67		P	12.5
3	☐			88.89		P	51.6
4	☐			69.45		P	36.7
5	☐			97.23		P	51.7
6	☐			111.12		P	37.0
7	☐			105.56		P	12.1
8	☐			100.00		P	0.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			76.67		P	31.4
2	☐			71.11		P	7.2
3	☐			73.33		P	16.4
4	☐			56.67		P	21.2
5	☐			72.22		P	14.8
6	☐			77.78		P	21.6
7	☐			66.67		P	27.8
8	☐			58.89		P	6.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	741.73	0.0001	P	9.4
2	☐	1.000	1.004	15159.23	0.0014	P	1.0
3	☐	50.000	47.649	669485.36	0.0610	P	1.1
4	☐	125.000	122.343	1651727.15	0.1566	P	0.7
5	☐	250.000	245.861	3123444.32	0.3147	P	5.5
6	☐	500.000	499.954	6262221.88	0.6398	A	0.5
7	☐	1000.000	1001.507	12157449.93	1.2816	A	0.5
8	☐			2289.20	0.0003	P	7.2

$$y = 0.0013 * x + 6.7342E-005$$

$$R = 1.0000$$

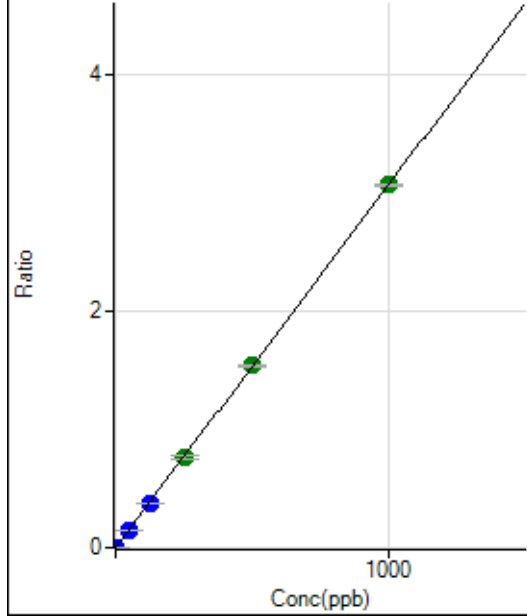
$$DL = 0.01479$$

$$BEC = 0.05263$$

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	961.20	0.0001	P	10.7
2	☐	1.000	1.002	35470.53	0.0032	P	0.3
3	☐	50.000	48.062	1619597.19	0.1477	P	0.7
4	☐	125.000	121.670	3940918.79	0.3737	P	0.6
5	☐	250.000	249.527	7606148.95	0.7663	A	5.5
6	☐	500.000	501.242	15064967.35	1.5391	A	1.1
7	☐	1000.000	1000.010	29128966.28	3.0706	A	0.3
8	☐			4764.92	0.0005	P	1.6

$$y = 0.0031 * x + 8.7292E-005$$

$$R = 1.0000$$

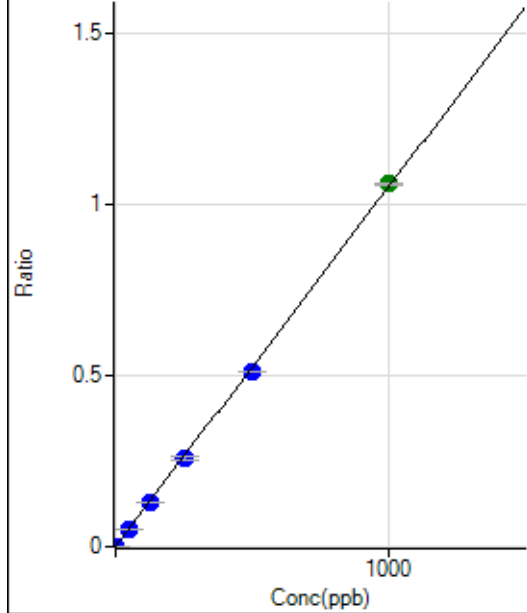
$$DL = 0.009133$$

$$BEC = 0.02843$$

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	1229.72	0.0001	P	4.9
2	☐	1.000	1.012	13179.10	0.0012	P	3.4
3	☐	50.000	48.115	555991.76	0.0507	P	0.6
4	☐	125.000	121.376	1346809.38	0.1277	P	0.5
5	☐	250.000	246.315	2571426.45	0.2590	P	5.4
6	☐	500.000	485.483	4996232.00	0.5105	P	0.6
7	☐	1000.000	1008.727	10060214.11	1.0605	A	0.2
8	☐			8571.49	0.0010	P	1.7

$$y = 0.0011 * x + 1.1162E-004$$

$$R = 0.9998$$

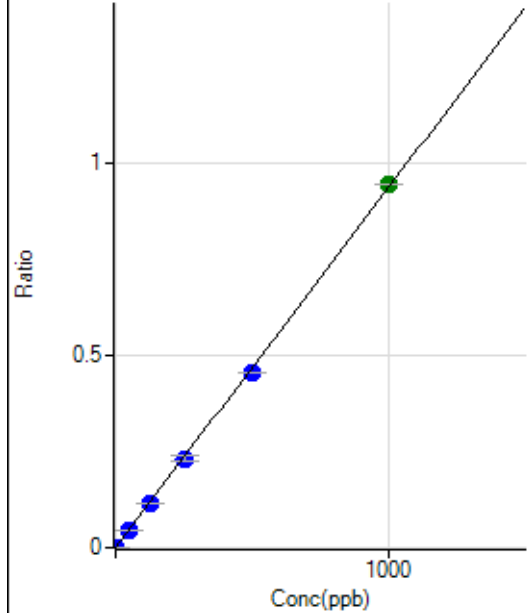
$$DL = 0.01573$$

$$BEC = 0.1062$$

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	1177.86	0.0001	P	4.0
2	☐	1.000	0.971	11395.92	0.0010	P	0.6
3	☐	50.000	48.315	497358.01	0.0453	P	0.3
4	☐	125.000	122.116	1206967.26	0.1144	P	0.5
5	☐	250.000	248.120	2307085.64	0.2324	P	5.5
6	☐	500.000	486.673	4461031.87	0.4558	P	0.0
7	☐	1000.000	1007.579	8950440.71	0.9435	A	0.1
8	☐			7700.57	0.0009	P	4.0

$$y = 9.3629\text{E-}004 * x + 1.0689\text{E-}004$$

$$R = 0.9999$$

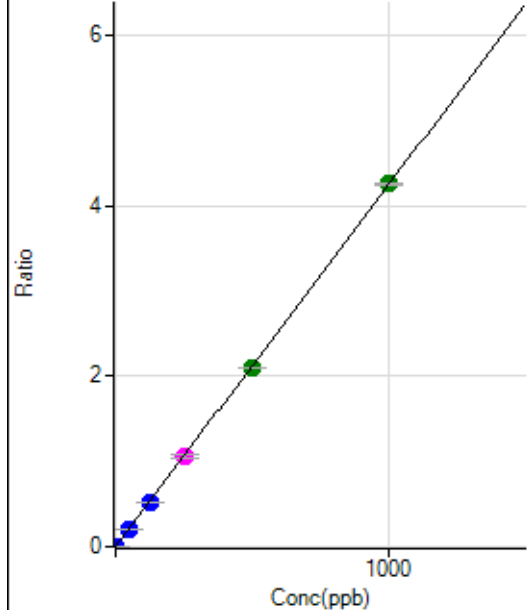
$$DL = 0.01364$$

$$BEC = 0.1142$$

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	4359.64	0.0004	P	0.2
2	☐	1.000	0.984	51337.63	0.0046	P	0.3
3	☐	50.000	48.395	2259867.81	0.2060	P	0.2
4	☐	125.000	122.235	5481881.68	0.5198	P	0.6
5	☐	250.000	248.974	10506265.80	1.0583	M	5.2
6	☐	500.000	494.909	20586910.76	2.1033	A	0.2
7	☐	1000.000	1003.228	40442833.31	4.2632	A	0.2
8	☐			34640.72	0.0040	P	2.1

$$y = 0.0042 * x + 3.9571\text{E-}004$$

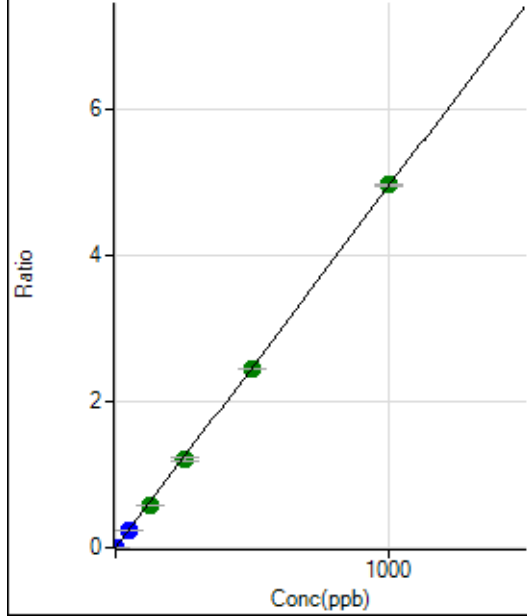
$$R = 1.0000$$

$$DL = 0.0006394$$

$$BEC = 0.09313$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2639.23	0.0002	P	2.9
2	☐	1.000	0.776	45744.92	0.0041	P	3.0
3	☐	50.000	45.302	2462369.47	0.2245	P	0.3
4	☐	125.000	117.785	6151773.11	0.5833	A	0.6
5	☐	250.000	244.036	11994450.27	1.2083	A	5.3
6	☐	500.000	495.944	24031970.68	2.4553	A	0.5
7	☐	1000.000	1004.656	47180812.17	4.9735	A	0.5
8	☐			6588.87	0.0008	P	5.2

$$y = 0.0050 * x + 2.3957E-004$$

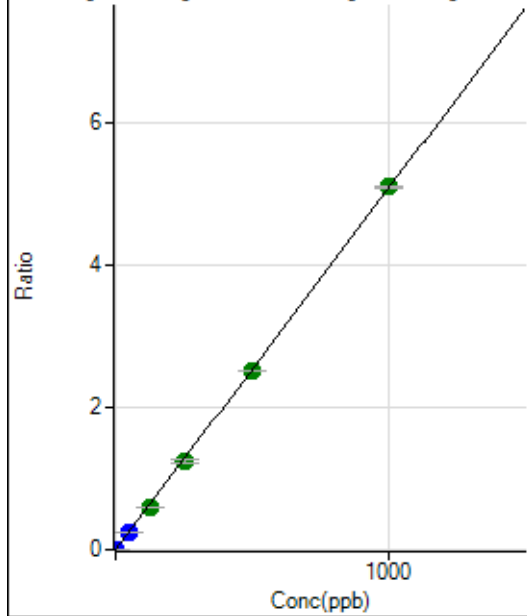
$$R = 1.0000$$

$$DL = 0.00423$$

$$BEC = 0.0484$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3475.63	0.0003	P	5.5
2	☐	1.000	0.916	55801.25	0.0050	P	2.3
3	☐	50.000	45.855	2562463.66	0.2336	P	0.5
4	☐	125.000	117.868	6328037.42	0.6000	A	0.6
5	☐	250.000	244.609	12357446.98	1.2449	A	5.4
6	☐	500.000	496.230	24715158.19	2.5251	A	0.6
7	☐	1000.000	1004.332	48477764.97	5.1102	A	0.5
8	☐			5067.88	0.0006	P	1.3

$$y = 0.0051 * x + 3.1541E-004$$

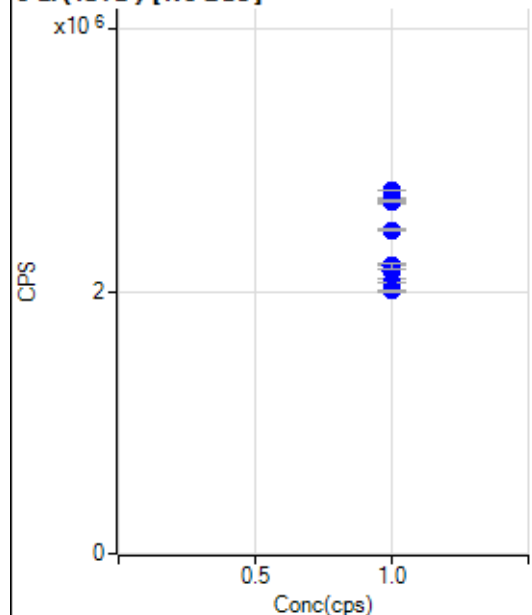
$$R = 1.0000$$

$$DL = 0.01028$$

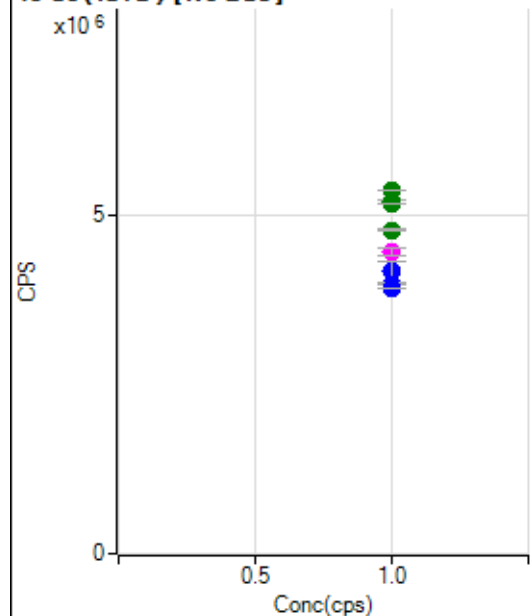
$$BEC = 0.06199$$

Weight: <None>

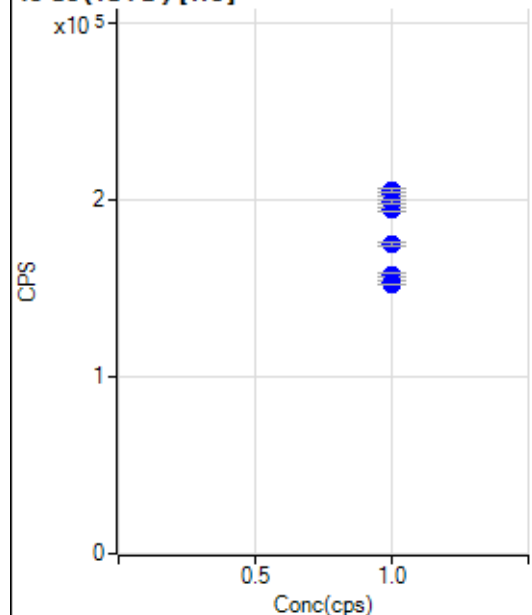
Min Conc: 0

6 Li (ISTD) [No Gas]

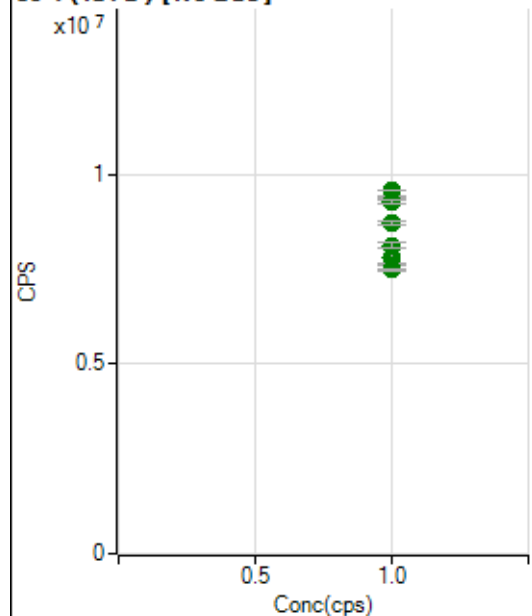
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2692181.71		P	1.3
2	☐	1.000		2768407.32		P	0.1
3	☐	1.000		2698722.01		P	0.5
4	☐	1.000		2468858.52		P	0.7
5	☐	1.000		2152486.98		P	4.9
6	☐	1.000		2070673.96		P	0.4
7	☐	1.000		2008602.26		P	0.6
8	☐	1.000		2197813.31		P	1.8

45 Sc (ISTD) [No Gas]

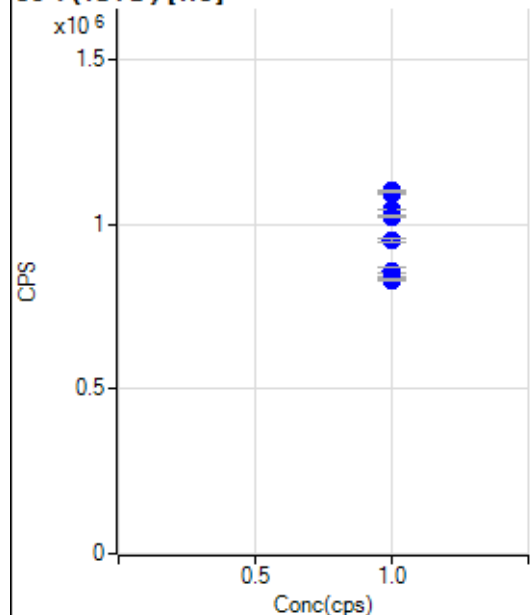
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5199185.14		A	1.3
2	☐	1.000		5367432.80		A	0.2
3	☐	1.000		5174252.29		A	0.2
4	☐	1.000		4788949.85		A	0.6
5	☐	1.000		4171791.58		P	7.1
6	☐	1.000		3989357.34		P	0.5
7	☐	1.000		3924722.13		P	0.4
8	☐	1.000		4468002.70		M	2.9

45 Sc (ISTD) [He]

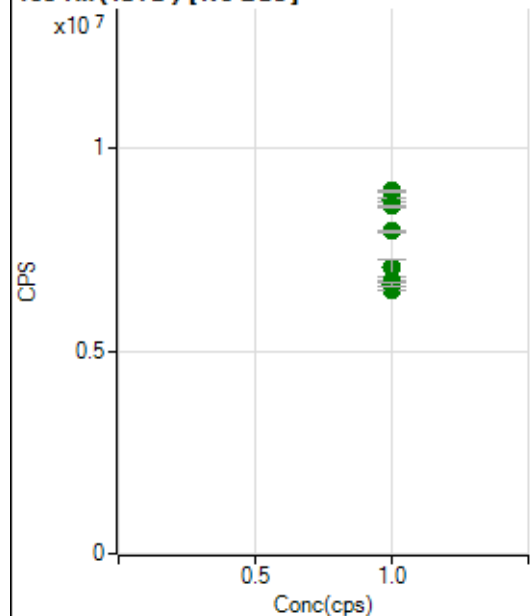
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		203453.26		P	1.0
2	☐	1.000		204889.96		P	0.9
3	☐	1.000		194504.45		P	0.7
4	☐	1.000		174789.58		P	1.7
5	☐	1.000		157250.65		P	1.4
6	☐	1.000		153139.32		P	0.8
7	☐	1.000		152248.66		P	0.4
8	☐	1.000		198245.29		P	1.1

89 Y (ISTD) [No Gas]

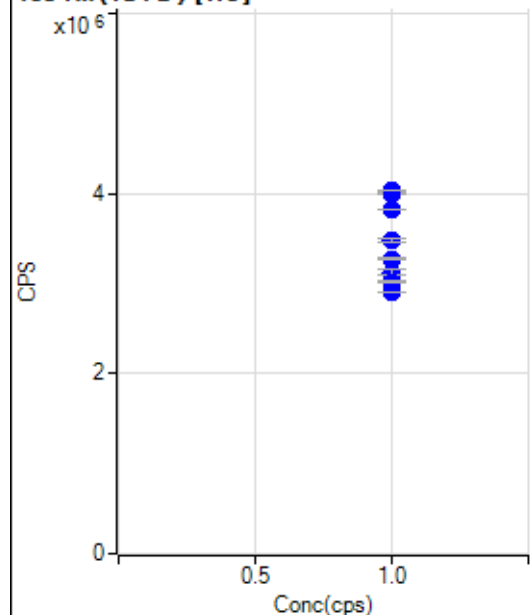
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9412334.51		A	0.7
2	☐	1.000		9574768.81		A	0.1
3	☐	1.000		9301224.16		A	0.9
4	☐	1.000		8725453.62		A	1.0
5	☐	1.000		7832874.60		A	6.1
6	☐	1.000		7623606.62		A	0.5
7	☐	1.000		7500588.57		A	0.6
8	☐	1.000		8144093.14		A	2.2

89 Y (ISTD) [He]

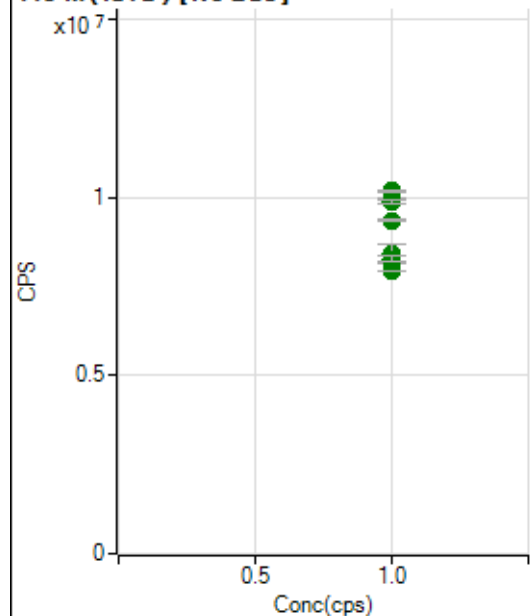
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1093869.81		P	0.3
2	☐	1.000		1103272.71		P	0.7
3	☐	1.000		1046991.71		P	0.2
4	☐	1.000		950782.24		P	1.3
5	☐	1.000		862223.40		P	1.5
6	☐	1.000		842510.94		P	0.3
7	☐	1.000		831998.85		P	0.3
8	☐	1.000		1025816.50		P	0.3

103 Rh (ISTD) [No Gas]

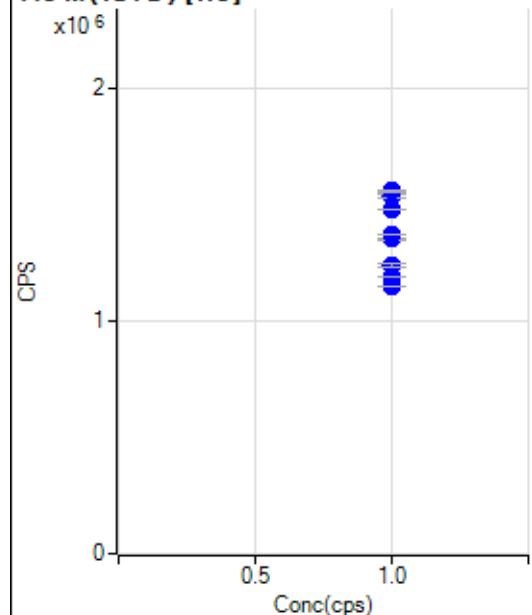
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8751655.75		A	0.8
2	☐	1.000		8961505.24		A	0.4
3	☐	1.000		8584107.22		A	0.4
4	☐	1.000		7965529.00		A	0.4
5	☐	1.000		7055579.24		A	5.8
6	☐	1.000		6741492.68		A	0.1
7	☐	1.000		6509297.59		A	0.3
8	☐	1.000		6666982.66		A	1.6

103 Rh (ISTD) [He]

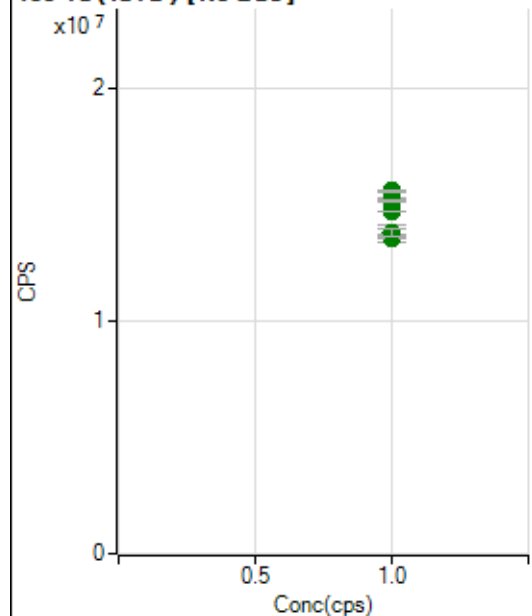
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4003716.57		P	0.3
2	☐	1.000		4029866.02		P	0.1
3	☐	1.000		3823585.50		P	0.3
4	☐	1.000		3485427.21		P	0.8
5	☐	1.000		3126939.92		P	1.6
6	☐	1.000		3016639.99		P	0.5
7	☐	1.000		2912005.55		P	0.2
8	☐	1.000		3272052.62		P	0.6

115 In (ISTD) [No Gas]

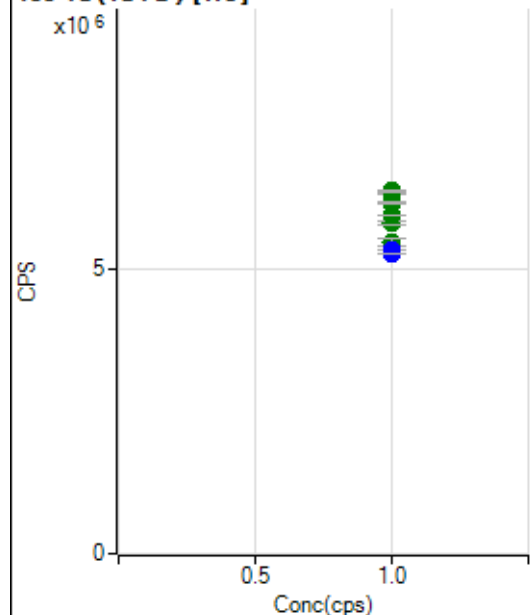
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9996278.49		A	0.4
2	☐	1.000		10190268.64		A	0.3
3	☐	1.000		9884091.15		A	0.7
4	☐	1.000		9368162.97		A	0.8
5	☐	1.000		8443018.34		A	6.6
6	☐	1.000		8228243.76		A	0.1
7	☐	1.000		7948825.85		A	0.1
8	☐	1.000		8277880.27		A	2.2

115 In (ISTD) [He]

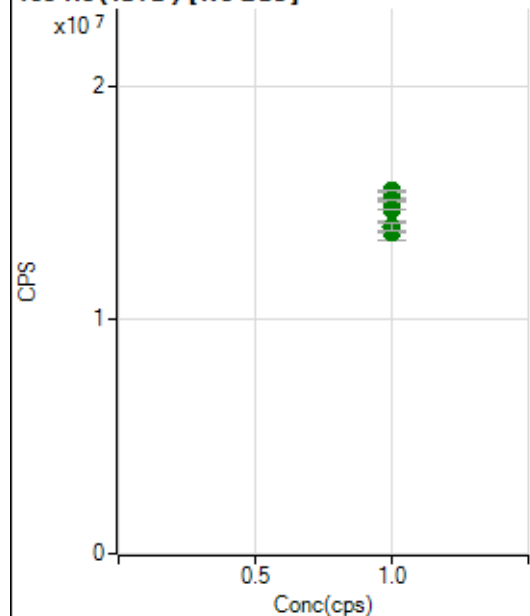
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1541688.94		P	0.9
2	☐	1.000		1561808.10		P	0.4
3	☐	1.000		1483783.43		P	0.1
4	☐	1.000		1354362.51		P	0.8
5	☐	1.000		1240088.91		P	1.3
6	☐	1.000		1193792.72		P	0.1
7	☐	1.000		1151265.26		P	0.3
8	☐	1.000		1374076.37		P	0.4

159 Tb (ISTD) [No Gas]

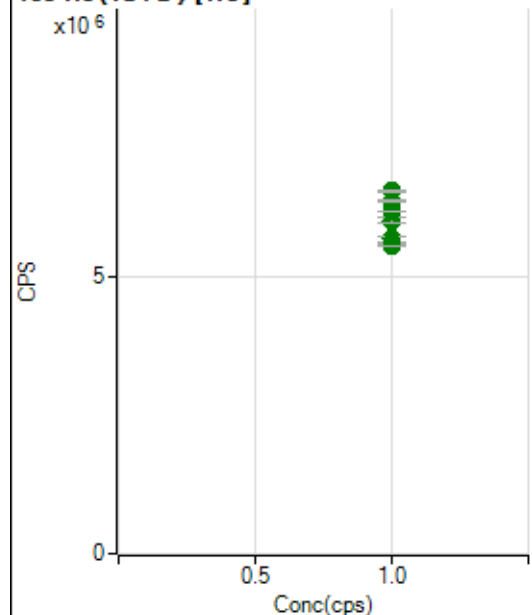
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15257012.97		A	0.9
2	☐	1.000		15608151.71		A	0.5
3	☐	1.000		15175176.30		A	0.8
4	☐	1.000		14723518.95		A	0.3
5	☐	1.000		13783492.43		A	5.6
6	☐	1.000		13739818.41		A	0.3
7	☐	1.000		13593438.83		A	0.8
8	☐	1.000		13844254.94		A	2.4

159 Tb (ISTD) [He]

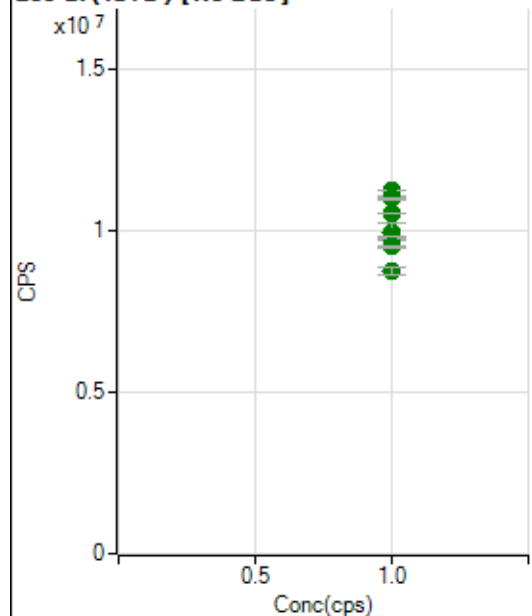
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6327584.00		A	0.3
2	☐	1.000		6367226.02		A	0.5
3	☐	1.000		6145115.74		A	0.6
4	☐	1.000		5794764.77		A	1.0
5	☐	1.000		5462216.83		A	2.2
6	☐	1.000		5332676.94		P	0.2
7	☐	1.000		5260227.14		P	0.3
8	☐	1.000		5938984.01		A	0.4

165 Ho (ISTD) [No Gas]

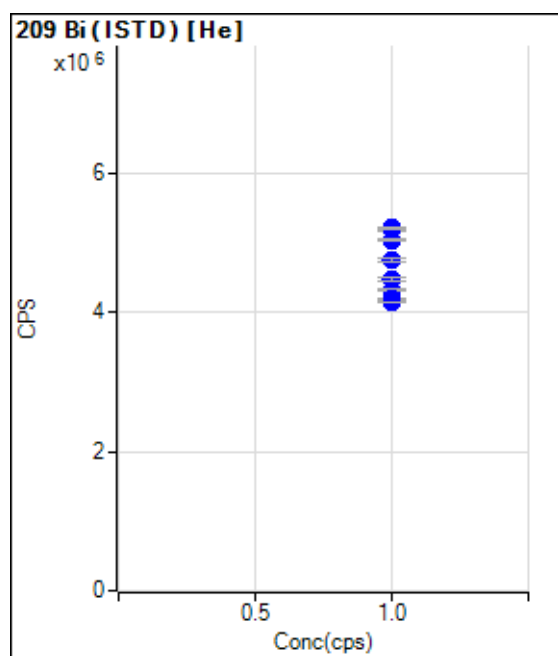
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15181965.27		A	0.9
2	☐	1.000		15514039.76		A	0.5
3	☐	1.000		15096172.39		A	0.5
4	☐	1.000		14701597.03		A	0.3
5	☐	1.000		13819012.55		A	5.5
6	☐	1.000		13795525.48		A	0.3
7	☐	1.000		13710820.79		A	0.2
8	☐	1.000		13954299.62		A	2.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6541329.35		A	0.2
2	☐	1.000		6546661.71		A	0.2
3	☐	1.000		6364001.50		A	0.3
4	☐	1.000		6016009.77		A	1.4
5	☐	1.000		5678735.40		A	2.1
6	☐	1.000		5614011.10		A	0.6
7	☐	1.000		5544269.08		A	0.2
8	☐	1.000		6187821.85		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11017303.58		A	0.8
2	☐	1.000		11214279.42		A	0.1
3	☐	1.000		10968535.67		A	0.3
4	☐	1.000		10546515.47		A	0.1
5	☐	1.000		9945616.73		A	5.3
6	☐	1.000		9787832.36		A	0.2
7	☐	1.000		9486494.17		A	0.3
8	☐	1.000		8721147.23		A	2.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5199223.22		P	0.8
2	☐	1.000		5215027.94		P	0.3
3	☐	1.000		5039705.41		P	0.5
4	☐	1.000		4747868.19		P	0.9
5	☐	1.000		4466682.19		P	1.3
6	☐	1.000		4325125.00		P	0.4
7	☐	1.000		4189923.79		P	0.3
8	☐	1.000		4138453.34		P	0.1

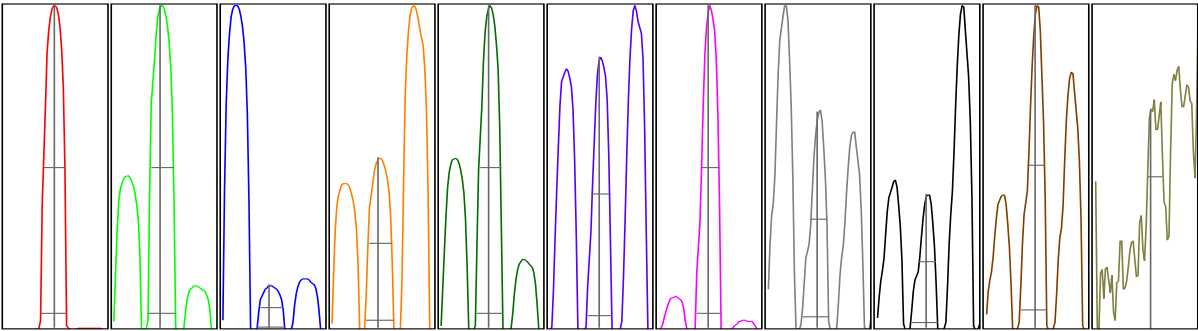
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7093019 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	9905	1.38	5.00	
24	114937	1.52	5.00	
25	15479	1.30	5.00	
26	18245	1.62	5.00	
59	85521	1.43	5.00	
113	13366	1.20	5.00	
115	157139	1.14	5.00	
206	48739	0.88	5.00	
207	44472	1.01	5.00	
208	106987	0.80	5.00	
220	130	1.48		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10059	10012	9897	9843	9715
24	116945	116322	115008	113607	112803
25	15663	15662	15512	15363	15194
26	18533	18435	18369	18081	17809
59	86931	86230	85762	84922	83760
113	13568	13475	13326	13305	13154
115	158799	158564	157606	156253	154476
206	48501	49090	49129	48862	48114
207	44467	44623	45039	44437	43795
208	106824	107757	107463	107321	105570
220	131	133	128	130	128

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	16414	9.00	8.9 - 9.1		0.743	0.900	
24	180606	23.90	23.9 - 24.1		0.791	0.900	
25	24289	24.90	24.9 - 25.1		0.792	0.900	
26	28426	25.90	25.9 - 26.1		0.831	0.900	
59	144951	58.95	58.9 - 59.1		0.784	0.900	
113	25967	113.00	112.9 - 113.1		0.729	0.900	
115	302520	115.00	114.9 - 115.1		0.730	0.900	
206	97844	206.00	205.9 - 206.1		0.771	0.900	
207	88836	207.00	206.9 - 207.1		0.775	0.900	
208	213191	208.00	207.9 - 208.1		0.776	0.900	
220	135	220.20	-				

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	6.3	V	Deflect	11.8	V
Extract 2	-115.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	160	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	20863	0.40	
89	26478	0.67	
205	38538	0.40	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	20959	20945	20778	20825	20807
89	26729	26550	26258	26383	26471
205	38784	38589	38468	38384	38465

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	6.4	V	Deflect	1.2	V
Extract 2	-135.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	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			