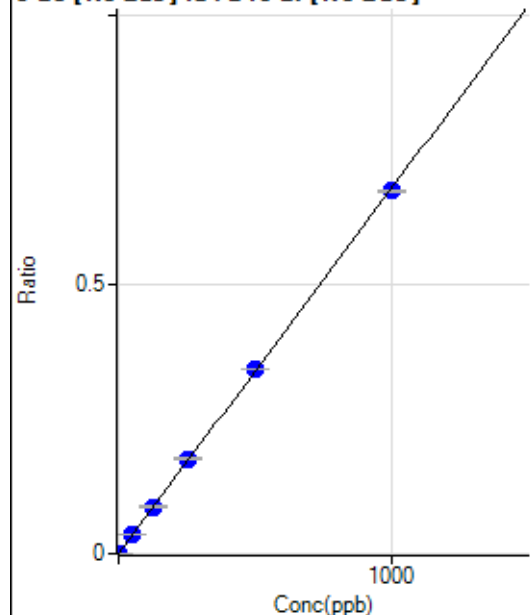


Batch Folder: D:\ICP-MS Data\P7080119IMS.b\
Analysis File: P7080119IMS.batch.bin
DA Date-Time: 2019-08-01 17:47:18
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-08-01 13:05:35
2	003CALS.d	S01	2019-08-01 13:09:12
3	004CALS.d	S02	2019-08-01 13:13:52
4	005CALS.d	S03	2019-08-01 13:17:48
5	006CALS.d	S04	2019-08-01 13:22:00
6	007CALS.d	S05	2019-08-01 13:25:50
7	008CALS.d	S06	2019-08-01 13:29:39
8	009CALS.d	S07	2019-08-01 13:33:26
9	010CALS.d	S08	2019-08-01 13:37:13

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.11	0.0000	P	31.1
2	☐	0.100	0.100	327.79	0.0001	P	4.3
3	☐	1.000	0.991	2445.79	0.0007	P	2.3
4	☐	50.000	52.984	124378.19	0.0360	P	0.4
5	☐	125.000	128.429	293706.17	0.0872	P	1.9
6	☐	250.000	260.269	557262.58	0.1766	P	0.3
7	☐	500.000	507.009	1051544.77	0.3441	P	0.3
8	☐	1000.000	993.351	2056773.81	0.6741	P	0.2
9	☐			438.90	0.0002	P	14.5

$$y = 6.7854\text{E-}004 * x + 2.7375\text{E-}005$$

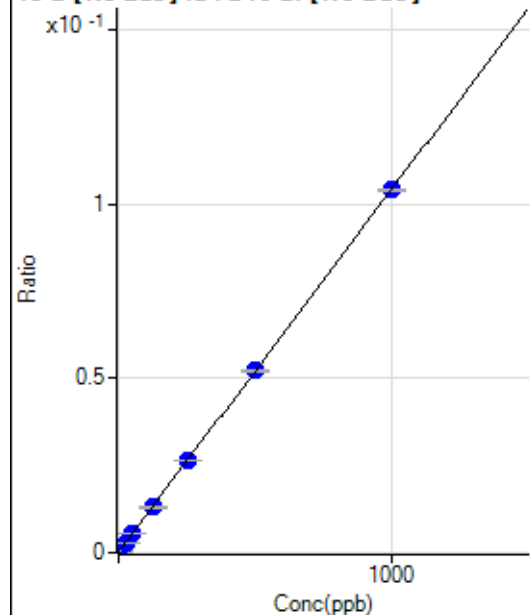
$$R = 0.9999$$

$$DL = 0.03761$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	641.71	0.0002	P	4.9
2	☐	2.500	2.339	1500.14	0.0004	P	9.7
3	☐	25.000	22.857	8986.34	0.0026	P	2.7
4	☐	50.000	50.852	18954.25	0.0055	P	1.8
5	☐	125.000	124.277	44204.47	0.0131	P	2.7
6	☐	250.000	254.027	83977.88	0.0266	P	1.0
7	☐	500.000	499.787	159495.78	0.0522	P	1.1
8	☐	1000.000	999.201	317754.54	0.1041	P	0.3
9	☐			16701.53	0.0058	P	6.1

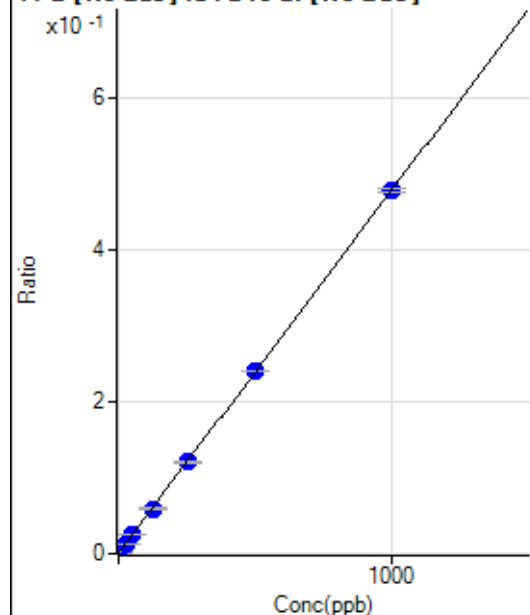
$$y = 1.0403\text{E-}004 * x + 1.9288\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2726$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3030.99	0.0009	P	0.8
2	☐	2.500	2.236	6804.58	0.0020	P	2.8
3	☐	25.000	23.346	42165.35	0.0121	P	2.3
4	☐	50.000	50.266	86159.40	0.0249	P	1.8
5	☐	125.000	122.131	199626.29	0.0593	P	2.8
6	☐	250.000	251.282	381573.97	0.1209	P	1.2
7	☐	500.000	501.910	735584.92	0.2407	P	0.3
8	☐	1000.000	999.112	1459125.87	0.4782	P	0.9
9	☐			74238.96	0.0256	P	6.4

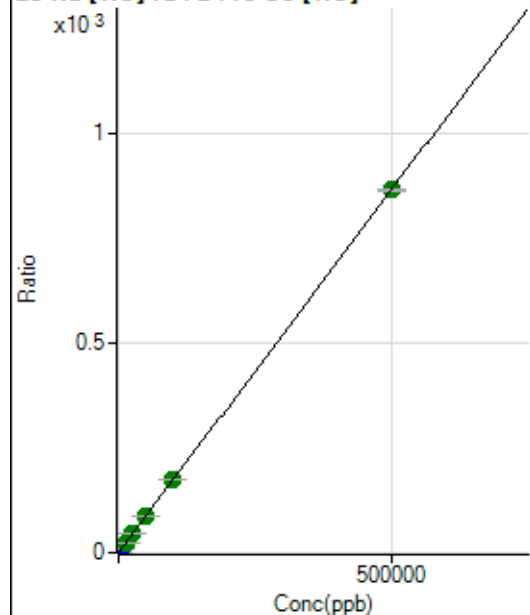
$$y = 4.7770\text{E-}004 * x + 9.1095\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.04329$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9614.59	0.0375	P	0.9
2	☐	50.000	46.731	31211.12	0.1183	P	1.8
3	☐	500.000	488.162	232810.43	0.8817	P	1.4
4	☐	5000.000	5078.541	2277922.55	8.8196	P	0.8
5	☐	12500.000	12866.542	5410709.80	22.2871	A	2.2
6	☐	25000.000	25366.927	10509580.79	43.9036	A	0.1
7	☐	50000.000	50467.802	20589516.09	87.3097	A	1.1
8	☐	100000.00	100667.82	40875093.97	174.1188	A	1.3
9	☐	500000.00	499791.37	193448577.9	864.3090	A	0.4

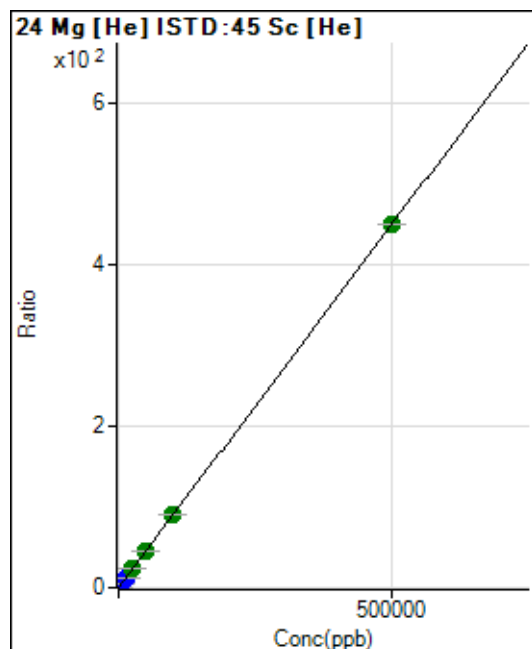
$$y = 0.0017 * x + 0.0375$$

$$R = 1.0000$$

$$DL = 0.6157$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.12	0.0005	P	11.7
2	☐	50.000	52.950	12716.96	0.0482	P	3.5
3	☐	500.000	512.220	121915.46	0.4617	P	0.7
4	☐	5000.000	5157.705	1199489.62	4.6443	P	0.9
5	☐	12500.000	13050.783	2852869.01	11.7510	P	2.0
6	☐	25000.000	25630.784	5524229.07	23.0775	A	0.3
7	☐	50000.000	50530.363	10729047.11	45.4962	A	1.0
8	☐	100000.00	100420.21	21225212.97	90.4151	A	1.4
9	☐	500000.00	499816.02	100721367.5	450.0162	A	0.1

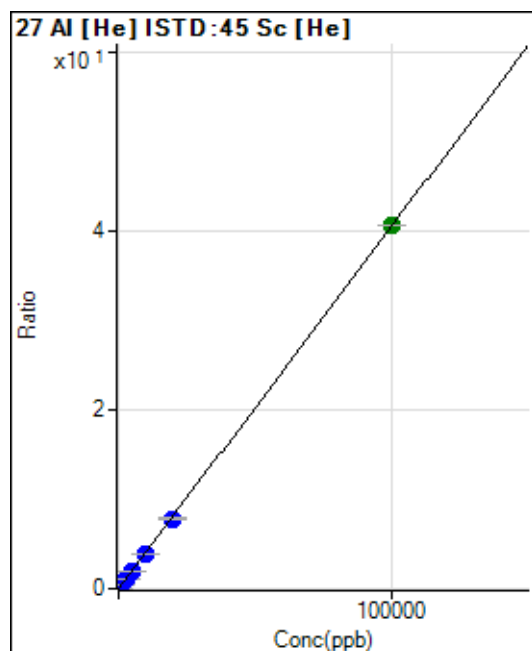
$$y = 9.0036\text{E-}004 * x + 5.3036\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2068$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0002	P	34.4
2	☒	2.000					
3	☐	20.000	20.102	2200.25	0.0083	P	2.1
4	☐	1000.000	999.358	104541.17	0.4048	P	1.2
5	☐	2500.000	2510.880	246834.35	1.0167	P	2.1
6	☐	5000.000	4964.063	481115.08	2.0099	P	0.4
7	☐	10000.000	9736.531	929584.29	3.9420	P	1.5
8	☐	20000.000	19341.552	1838271.09	7.8306	P	1.2
9	☐	100000.00	100159.56	9075671.38	40.5496	A	0.1

$$y = 4.0485\text{E-}004 * x + 1.9556\text{E-}004$$

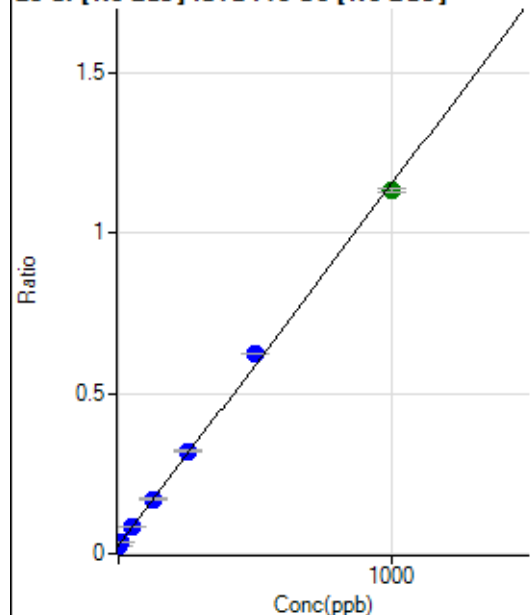
$$R = 1.0000$$

$$DL = 0.4979$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	151822.20	0.0250	P	0.8
2	☒	1.000					
3	☐	10.000	8.023	216982.06	0.0341	P	0.9
4	☐	50.000	52.123	527115.50	0.0839	P	0.8
5	☐	125.000	128.306	1035556.72	0.1699	P	2.4
6	☐	250.000	260.865	1831555.90	0.3196	P	1.3
7	☐	500.000	530.945	3508413.67	0.6246	P	0.6
8	☐	1000.000	981.312	6375217.11	1.1331	A	0.9
9	☐			392101.47	0.0730	P	1.0

$$y = 0.0011 * x + 0.0250$$

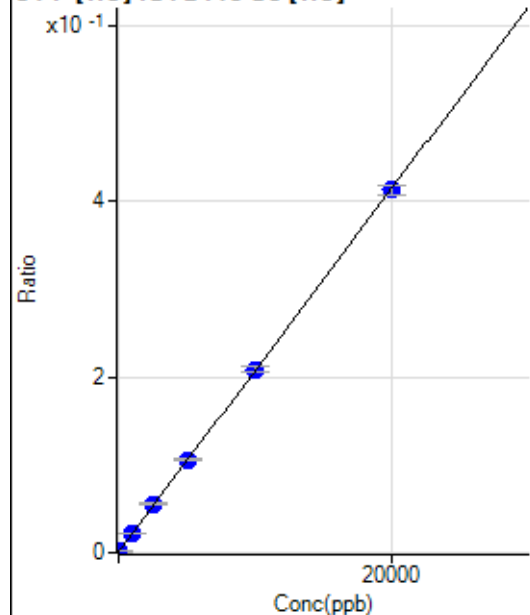
$$R = 0.9992$$

$$DL = 0.5182$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-24.531	47.22	0.0002	P	28.2
2	☒	0.000					
3	☐	0.000	24.531	316.68	0.0012	P	14.5
4	☐	1000.000	1007.649	5559.61	0.0215	P	2.3
5	☐	2500.000	2624.158	13337.07	0.0550	P	4.7
6	☐	5000.000	5091.205	25366.86	0.1060	P	1.4
7	☐	10000.000	10046.446	49143.33	0.2084	P	3.2
8	☐	20000.000	19938.073	96939.32	0.4130	P	2.4
9	☐			130.56	0.0006	P	3.7

$$y = 2.0677E-005 * x + 6.9190E-004$$

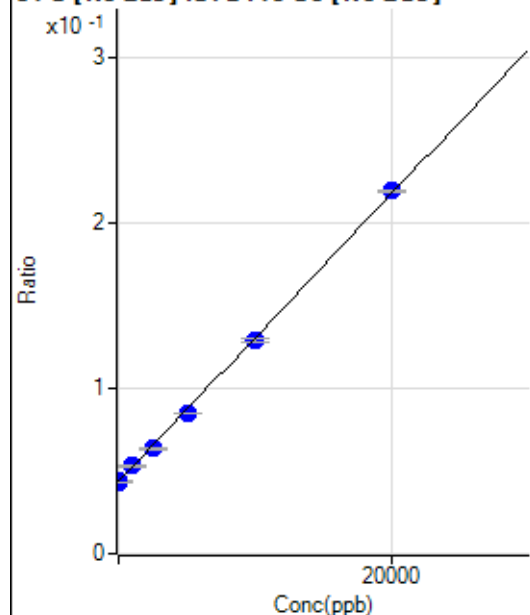
$$R = 1.0000$$

$$DL = 16.39$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	36.299	266596.71	0.0439	P	1.3
2	☒	0.000					
3	☐	0.000	-36.299	275699.44	0.0433	P	0.6
4	☐	1000.000	1073.731	332872.54	0.0530	P	0.9
5	☐	2500.000	2326.097	389347.11	0.0639	P	1.8
6	☐	5000.000	4763.351	487767.85	0.0851	P	0.2
7	☐	10000.000	9799.766	724481.04	0.1290	P	1.1
8	☐	20000.000	20177.331	1234302.32	0.2194	P	0.9
9	☐			210742.95	0.0392	P	0.5

$$y = 8.7113\text{E-}006 * x + 0.0436$$

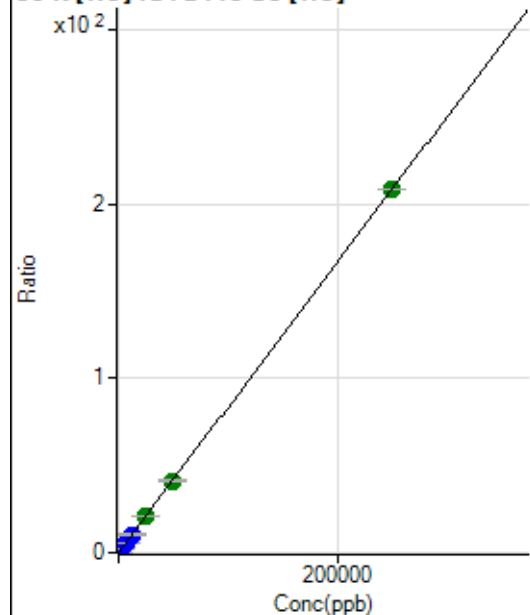
$$R = 0.9998$$

$$DL = 148.9$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15097.11	0.0589	P	2.7
2	☐	50.000	49.400	26391.00	0.1000	P	2.7
3	☐	500.000	495.443	124516.04	0.4716	P	0.2
4	☐	2500.000	2530.056	559537.71	2.1664	P	0.9
5	☐	6250.000	6355.635	1299739.26	5.3530	P	1.3
6	☐	12500.000	12514.958	2509521.10	10.4836	P	0.3
7	☐	25000.000	24636.437	4853444.33	20.5806	A	0.8
8	☐	50000.000	49484.629	9690326.78	41.2786	A	1.3
9	☐	250000.00	250135.75	46647472.22	208.4172	A	0.1

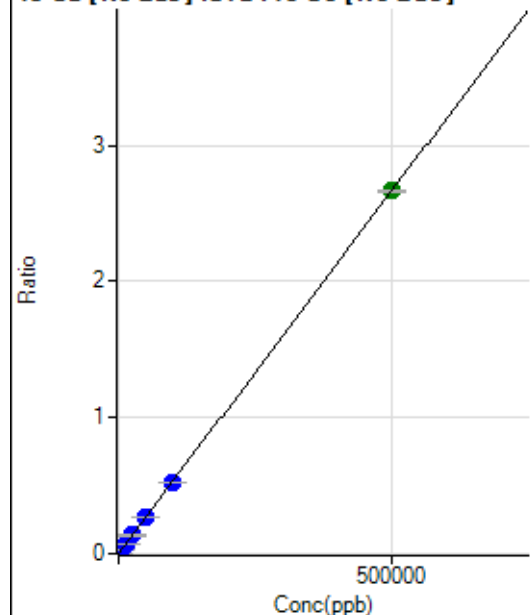
$$y = 8.3298\text{E-}004 * x + 0.0589$$

$$R = 1.0000$$

$$DL = 5.822$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	238.90	0.0000	P	14.9
2	☐	50.000	51.715	1972.45	0.0003	P	5.6
3	☐	500.000	470.675	16226.25	0.0025	P	0.7
4	☐	5000.000	5041.443	169119.63	0.0269	P	1.1
5	☐	12500.000	12381.531	402460.15	0.0660	P	2.2
6	☐	25000.000	25190.028	769659.32	0.1343	P	0.5
7	☐	50000.000	49766.692	1490110.98	0.2653	P	0.4
8	☐	100000.00	98489.455	2953529.95	0.5249	P	0.4
9	☐	500000.00	500318.51	14327262.47	2.6665	A	0.8

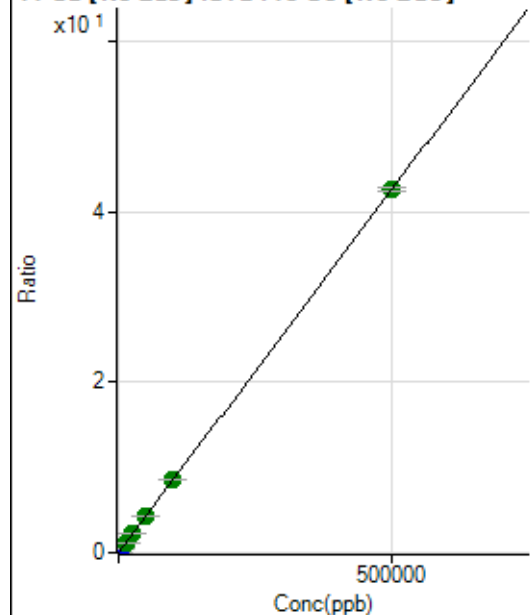
$$y = 5.3295E-006 * x + 3.9376E-005$$

$$R = 1.0000$$

$$DL = 3.306$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6682.42	0.0011	P	4.7
2	☐	50.000	52.630	34956.22	0.0056	P	1.0
3	☐	500.000	483.158	269062.49	0.0422	P	0.4
4	☐	5000.000	5097.611	2735518.75	0.4352	P	0.4
5	☐	12500.000	12360.861	6423935.65	1.0538	A	1.7
6	☐	25000.000	25283.009	12347451.66	2.1543	A	0.3
7	☐	50000.000	49882.133	23869903.48	4.2493	A	0.1
8	☐	100000.00	99788.773	47823060.79	8.4996	A	0.3
9	☐	500000.00	500042.40	228826224.5	42.5873	A	1.0

$$y = 8.5165E-005 * x + 0.0011$$

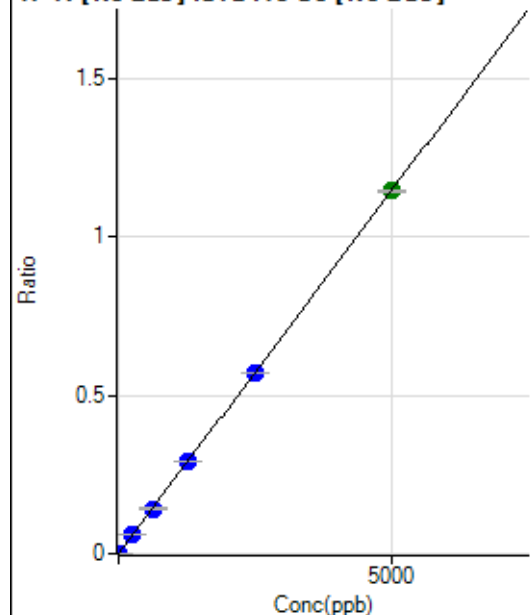
$$R = 1.0000$$

$$DL = 1.815$$

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	100.01	0.0000	P	44.3
2	☐	0.500	0.493	811.17	0.0001	P	4.4
3	☐	5.000	5.081	7527.25	0.0012	P	4.5
4	☐	250.000	255.070	367769.33	0.0585	P	1.3
5	☐	625.000	621.619	869219.46	0.1426	P	1.5
6	☐	1250.000	1266.841	1665375.69	0.2906	P	0.5
7	☐	2500.000	2495.879	3215705.59	0.5725	P	0.4
8	☐	5000.000	4998.019	6449680.44	1.1463	A	0.6
9	☐			2097.47	0.0004	P	4.6

$$y = 2.2935\text{E-}004 * x + 1.6481\text{E-}005$$

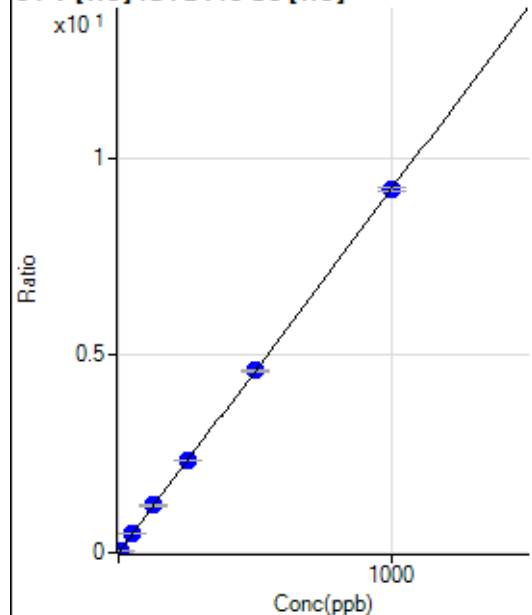
$$R = 1.0000$$

$$DL = 0.0954$$

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	6.67	0.0000	P	48.7
2	☐	0.500	0.517	1263.41	0.0048	P	8.6
3	☐	5.000	5.271	12815.73	0.0485	P	1.0
4	☐	50.000	50.913	121012.57	0.4685	P	0.4
5	☐	125.000	129.656	289674.62	1.1931	P	1.9
6	☐	250.000	253.481	558382.75	2.3326	P	0.5
7	☐	500.000	501.151	1087561.74	4.6117	P	0.9
8	☐	1000.000	997.925	2155815.04	9.1831	P	1.0
9	☐			501.13	0.0022	P	3.5

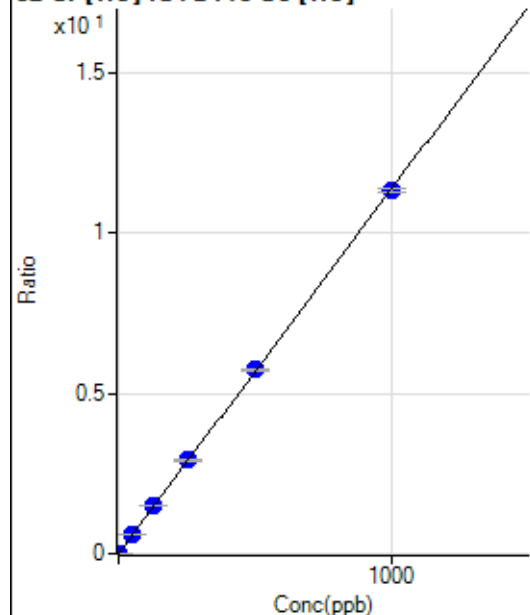
$$y = 0.0092 * x + 2.5882\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.004109$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	568.91	0.0022	P	2.6
2	☐	0.200	0.181	1126.73	0.0043	P	9.4
3	☐	2.000	1.989	6551.55	0.0248	P	1.0
4	☐	50.000	52.154	153580.99	0.5946	P	0.3
5	☐	125.000	131.230	362429.11	1.4929	P	2.2
6	☐	250.000	256.262	697326.19	2.9131	P	0.8
7	☐	500.000	505.147	1353713.89	5.7402	P	0.6
8	☐	1000.000	994.975	2653729.09	11.3042	P	1.2
9	☐			37862.06	0.1692	P	1.8

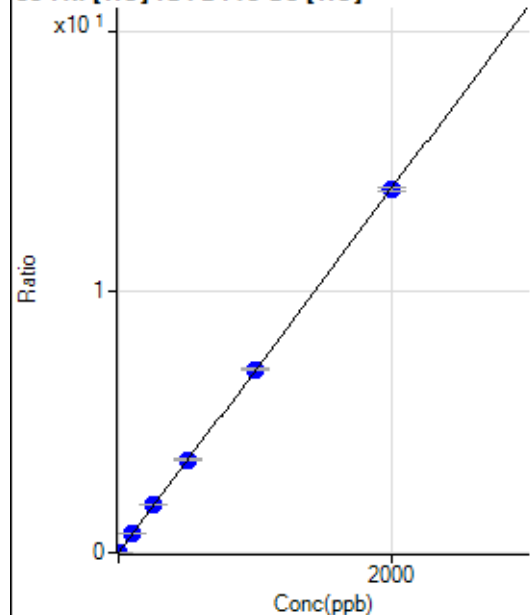
$$y = 0.0114 * x + 0.0022$$

$$R = 0.9999$$

$$DL = 0.01498$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.33	0.0003	P	6.3
2	☐	0.100	0.109	276.67	0.0010	P	18.3
3	☐	1.000	1.030	1975.72	0.0075	P	1.7
4	☐	100.000	102.419	184856.72	0.7157	P	0.3
5	☐	250.000	261.312	443236.38	1.8257	P	2.0
6	☐	500.000	511.633	855576.72	3.5743	P	0.9
7	☐	1000.000	1006.851	1658734.43	7.0337	P	0.8
8	☐	2000.000	1992.131	3266969.22	13.9164	P	1.2
9	☐			12161.86	0.0543	P	3.6

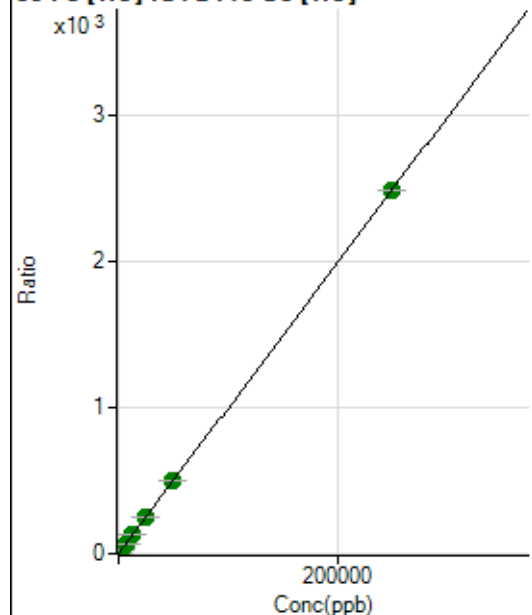
$$y = 0.0070 * x + 2.8578E-004$$

$$R = 1.0000$$

$$DL = 0.007715$$

Weight: <None>

Min Conc: 0

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

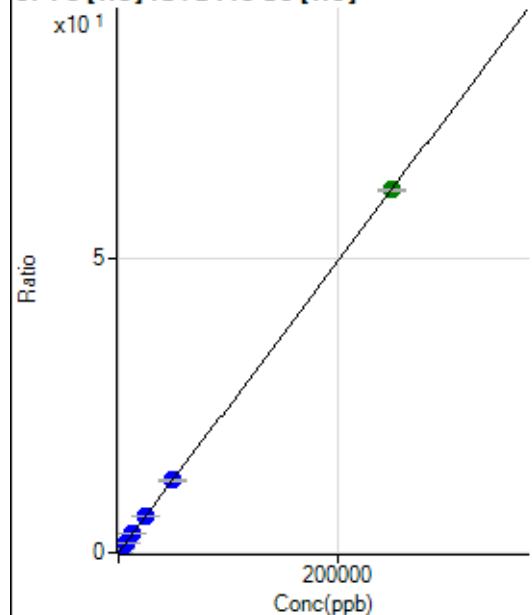
$$y = 0.0099 * x + 0.0136$$

$$R = 1.0000$$

$$DL = 0.2304$$

Weight: <None>

Min Conc: 0

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

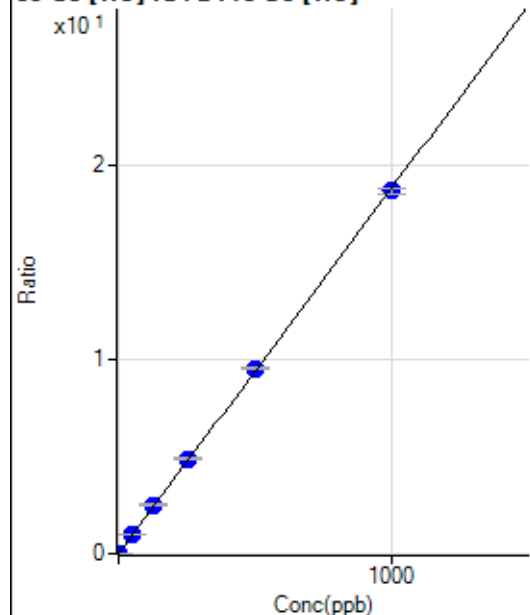
$$y = 2.4627E-004 * x + 6.8563E-004$$

$$R = 1.0000$$

$$DL = 1.77$$

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	90.00	0.0004	P	18.2
2	☐	0.100	0.096	571.13	0.0022	P	5.4
3	☐	1.000	1.000	5058.73	0.0192	P	3.0
4	☐	50.000	53.070	257813.54	0.9982	P	0.2
5	☐	125.000	133.045	607386.94	2.5019	P	2.3
6	☐	250.000	259.797	1169406.62	4.8852	P	0.7
7	☐	500.000	507.102	2248682.97	9.5352	P	0.6
8	☐	1000.000	992.841	4382468.86	18.6683	P	1.3
9	☐			49711.74	0.2221	P	0.5

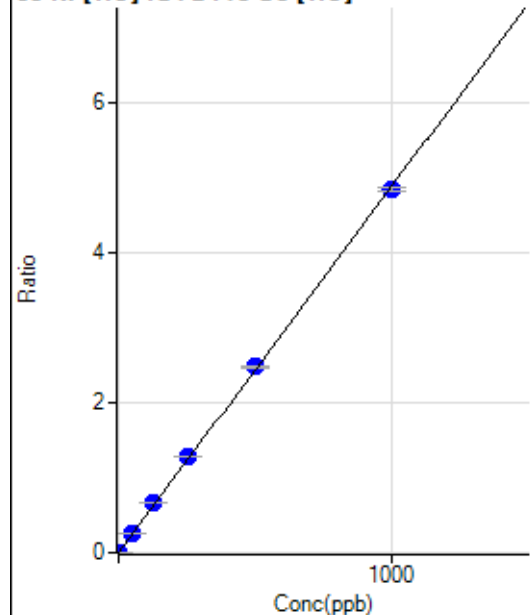
$$y = 0.0188 * x + 3.5158E-004$$

$$R = 0.9999$$

$$DL = 0.01023$$

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	0.0002	P	30.3
2	☐	0.100	0.101	188.90	0.0007	P	11.3
3	☐	1.000	1.057	1421.21	0.0054	P	2.6
4	☐	50.000	53.960	68140.84	0.2638	P	0.9
5	☐	125.000	135.949	161293.72	0.6644	P	2.2
6	☐	250.000	261.950	306392.97	1.2799	P	0.7
7	☐	500.000	508.526	585934.12	2.4846	P	0.9
8	☐	1000.000	991.183	1136836.52	4.8425	P	1.0
9	☐			18933.56	0.0846	P	1.2

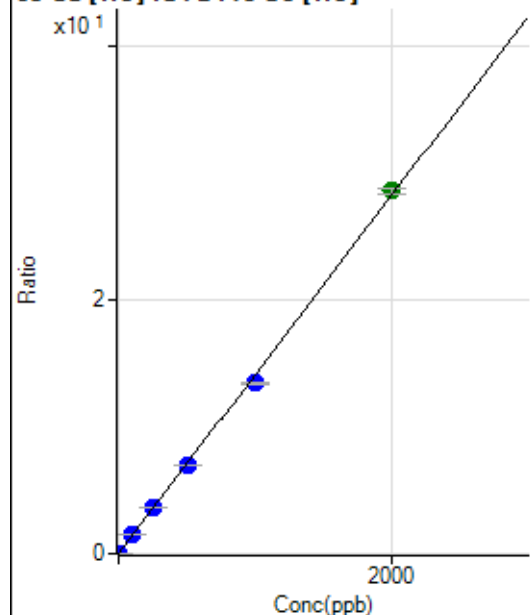
$$y = 0.0049 * x + 2.2058E-004$$

$$R = 0.9998$$

$$DL = 0.04106$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	997.83	0.0039	P	4.4
2	☐	0.200	0.197	1759.03	0.0067	P	6.5
3	☐	2.000	1.970	8359.19	0.0317	P	2.6
4	☐	100.000	101.936	372140.11	1.4409	P	0.1
5	☐	250.000	255.242	874499.98	3.6020	P	1.9
6	☐	500.000	494.225	1668674.80	6.9709	P	0.5
7	☐	1000.000	950.317	3160211.76	13.4003	P	0.7
8	☐	2000.000	2025.533	6703919.69	28.5574	A	1.4
9	☐			9158.54	0.0409	P	1.9

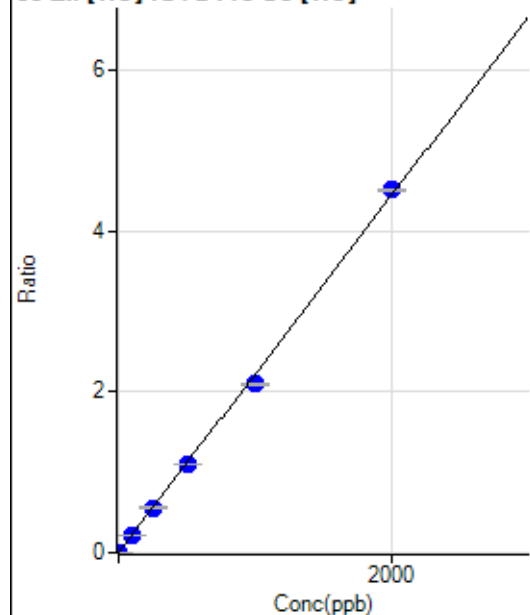
$$y = 0.0141 * x + 0.0039$$

$$R = 0.9996$$

$$DL = 0.03619$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	542.24	0.0021	P	3.5
2	☒	0.200					
3	☐	2.000	1.683	1546.78	0.0059	P	1.9
4	☐	100.000	99.676	57790.52	0.2237	P	1.1
5	☐	250.000	250.253	135614.84	0.5586	P	1.7
6	☐	500.000	489.420	261011.36	1.0904	P	0.1
7	☐	1000.000	942.652	494801.94	2.0982	P	0.9
8	☐	2000.000	2031.304	1060858.82	4.5188	P	0.8
9	☐			11659.22	0.0521	P	0.4

$$y = 0.0022 * x + 0.0021$$

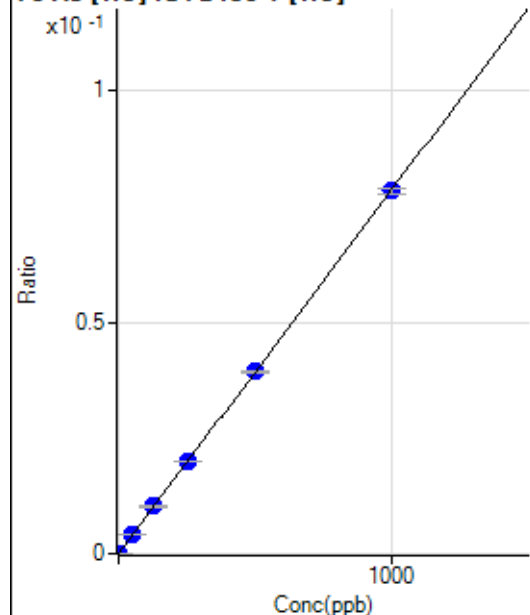
$$R = 0.9994$$

$$DL = 0.1012$$

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	9.88	0.0000	P	9.0
2	☐	0.100	0.073	34.57	0.0000	P	22.3
3	☐	1.000	1.048	359.27	0.0001	P	10.4
4	☐	50.000	52.445	17121.87	0.0041	P	0.7
5	☐	125.000	130.936	40902.43	0.0103	P	2.2
6	☐	250.000	254.782	78610.29	0.0200	P	0.6
7	☐	500.000	500.059	151541.76	0.0393	P	0.4
8	☐	1000.000	997.911	301889.71	0.0784	P	1.5
9	☐			386.43	0.0001	P	14.5

$$y = 7.8593\text{E-}005 * x + 2.3864\text{E-}006$$

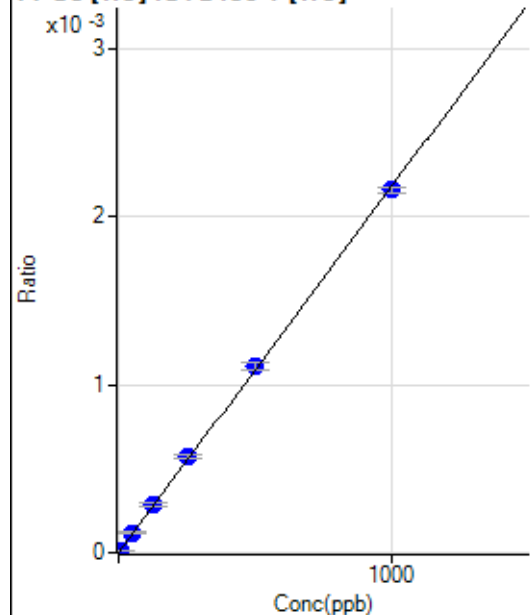
$$R = 1.0000$$

$$DL = 0.008221$$

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	☒	0.500					
3	☐	5.000	4.570	42.22	0.0000	P	4.6
4	☐	50.000	54.639	494.46	0.0001	P	12.8
5	☐	125.000	131.981	1142.29	0.0003	P	7.5
6	☐	250.000	263.178	2252.44	0.0006	P	4.3
7	☐	500.000	508.809	4276.26	0.0011	P	4.3
8	☐	1000.000	991.199	8315.85	0.0022	P	1.8
9	☐			2.22	0.0000	P	86.6

$$y = 2.1797\text{E-}006 * x + 0.0000\text{E+}000$$

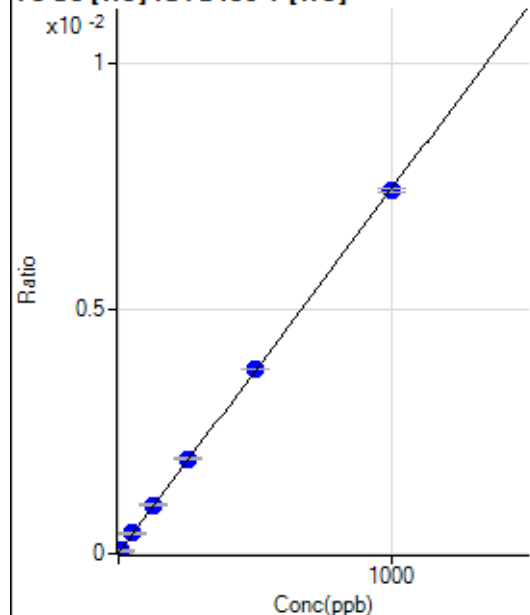
$$R = 0.9998$$

$$DL = 0$$

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	68.52	0.0000	P	17.8
2	☒	0.500					
3	☐	5.000	5.748	251.24	0.0001	P	12.8
4	☐	50.000	53.242	1709.99	0.0004	P	2.6
5	☐	125.000	130.944	3929.58	0.0010	P	3.3
6	☐	250.000	258.840	7609.46	0.0019	P	2.9
7	☐	500.000	505.357	14533.27	0.0038	P	0.8
8	☐	1000.000	994.203	28481.71	0.0074	P	1.2
9	☐			51.24	0.0000	P	17.4

$$y = 7.4257\text{E-}006 * x + 1.6573\text{E-}005$$

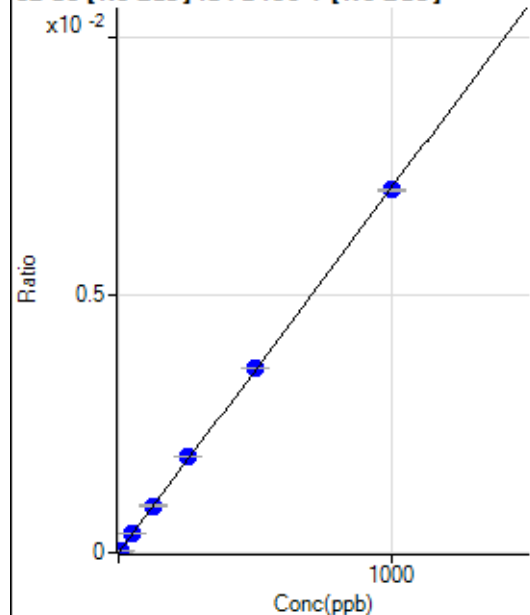
$$R = 0.9999$$

$$DL = 1.193$$

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	54.69	0.0000	P	115.
2	☐	0.500	0.535	170.45	0.0000	P	2.8
3	☐	5.000	5.351	1206.13	0.0000	P	4.7
4	☐	50.000	52.503	11292.35	0.0004	P	1.3
5	☐	125.000	128.257	27207.22	0.0009	P	1.8
6	☐	250.000	262.021	53209.51	0.0019	P	0.7
7	☐	500.000	503.955	100058.51	0.0036	P	0.2
8	☐	1000.000	994.483	199952.95	0.0070	P	0.6
9	☐			131.19	0.0000	P	31.2

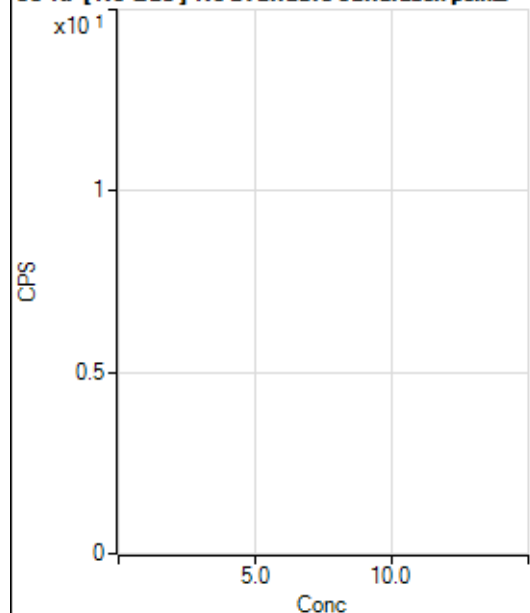
$$y = 7.0643\text{E-}006 * x + 1.8705\text{E-}006$$

$$R = 0.9999$$

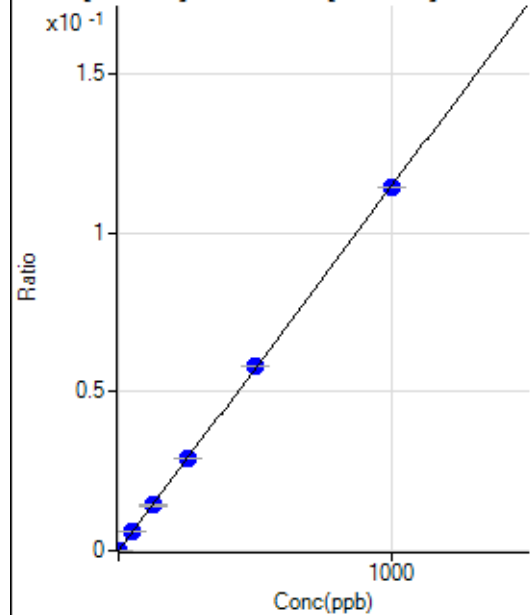
$$DL = 0.917$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			292.23		P	13.1
2	☐			293.34		P	NaN
3	☐			287.79		P	14.8
4	☐			322.23		P	24.5
5	☐			293.34		P	15.4
6	☐			297.79		P	13.0
7	☐			273.34		P	15.3
8	☐			283.34		P	8.2
9	☐			340.01		P	7.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	422.25	0.0000	P	19.0
2	☒	0.100					
3	☐	1.000	0.981	3856.23	0.0001	P	7.0
4	☐	50.000	51.979	181022.84	0.0060	P	1.2
5	☐	125.000	124.643	428807.83	0.0143	P	1.4
6	☐	250.000	254.987	840203.10	0.0293	P	0.4
7	☐	500.000	506.323	1631627.52	0.0581	P	0.5
8	☐	1000.000	995.538	3249169.74	0.1142	P	0.1
9	☐			13973.96	0.0005	P	3.5

$$y = 1.1469E-004 * x + 1.4413E-005$$

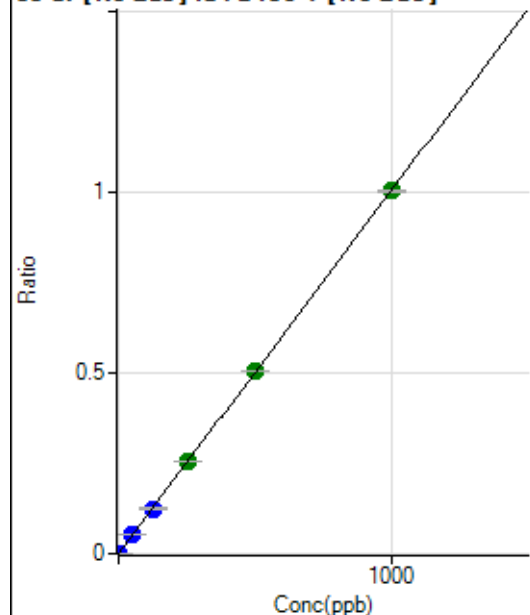
$$R = 1.0000$$

$$DL = 0.07178$$

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	316.68	0.0000	P	11.3
2	☐	0.100	0.113	3745.11	0.0001	P	2.8
3	☐	1.000	0.985	30444.27	0.0010	P	2.2
4	☐	50.000	51.305	1563474.63	0.0516	P	0.8
5	☐	125.000	123.962	3736348.22	0.1247	P	1.8
6	☐	250.000	252.417	7290681.93	0.2539	A	0.5
7	☐	500.000	501.795	14177587.64	0.5047	A	0.4
8	☐	1000.000	998.563	28577561.40	1.0043	A	0.2
9	☐			116215.77	0.0044	P	2.2

$$y = 0.0010 * x + 1.0810E-005$$

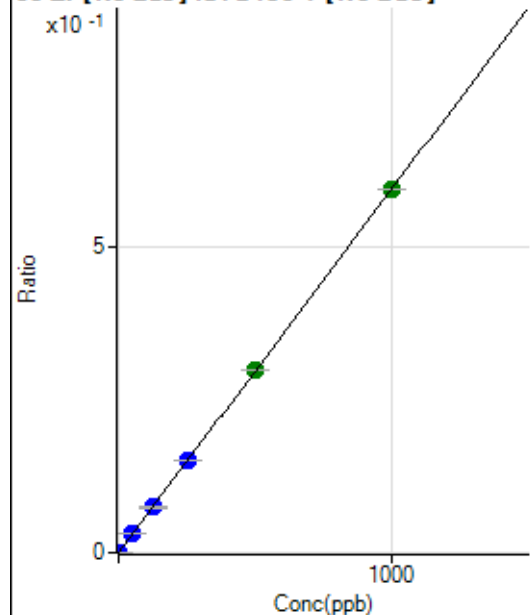
$$R = 1.0000$$

$$DL = 0.003643$$

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	916.73	0.0000	P	3.7
2	☐	0.100	0.085	2461.45	0.0001	P	5.5
3	☐	1.000	0.923	17614.24	0.0006	P	1.9
4	☐	50.000	50.663	912100.61	0.0301	P	0.3
5	☐	125.000	124.378	2213558.32	0.0739	P	2.2
6	☐	250.000	252.599	4307411.82	0.1500	P	0.2
7	☐	500.000	501.654	8366914.42	0.2979	A	0.4
8	☐	1000.000	998.568	16869505.93	0.5929	A	0.2
9	☐			5681.97	0.0002	P	12.3

$$y = 5.9369E-004 * x + 3.1296E-005$$

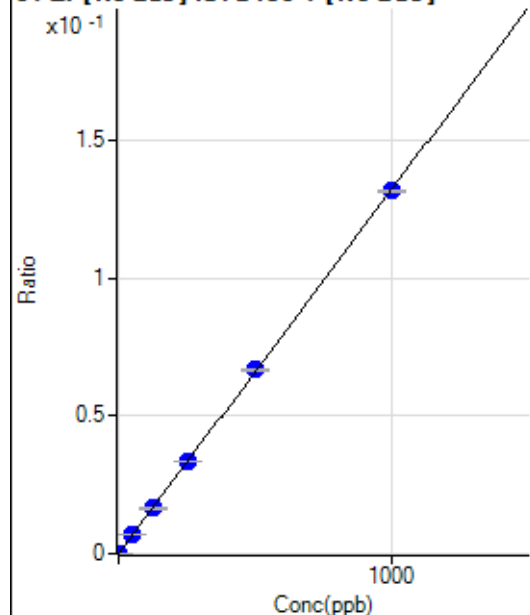
$$R = 1.0000$$

$$DL = 0.005926$$

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	230.57	0.0000	P	5.7
2	☒	0.100					
3	☐	1.000	0.902	3864.55	0.0001	P	2.5
4	☐	50.000	51.117	204973.14	0.0068	P	1.2
5	☐	125.000	124.965	495338.18	0.0165	P	2.0
6	☐	250.000	253.407	962367.36	0.0335	P	0.9
7	☐	500.000	504.728	1874821.03	0.0667	P	0.2
8	☐	1000.000	996.733	3750093.84	0.1318	P	0.5
9	☐			1169.54	0.0000	P	13.8

$$y = 1.3222\text{E-}004 * x + 7.8723\text{E-}006$$

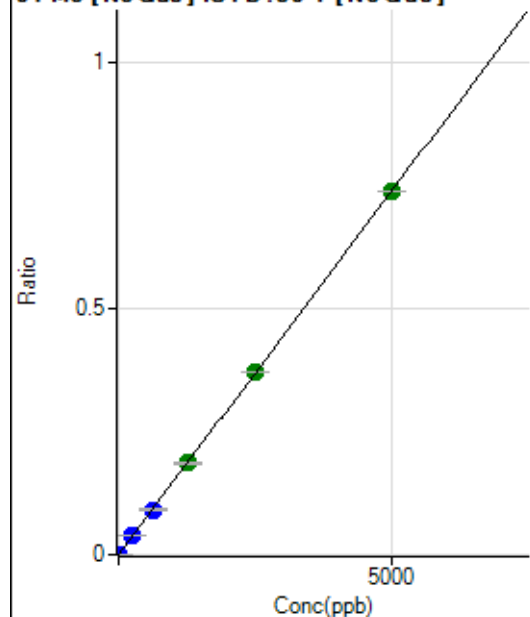
$$R = 1.0000$$

$$DL = 0.01027$$

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	441.70	0.0000	P	6.7
2	☐	0.500	0.420	2322.51	0.0001	P	5.4
3	☐	5.000	4.704	21553.14	0.0007	P	1.0
4	☐	250.000	253.700	1134263.04	0.0374	P	0.6
5	☐	625.000	619.166	2737693.64	0.0914	P	1.7
6	☐	1250.000	1257.899	5329565.61	0.1856	A	0.3
7	☐	2500.000	2513.562	10417154.31	0.3708	A	0.3
8	☐	5000.000	4991.789	20954970.78	0.7364	A	0.1
9	☐			11027.02	0.0004	P	11.9

$$y = 1.4753\text{E-}004 * x + 1.5079\text{E-}005$$

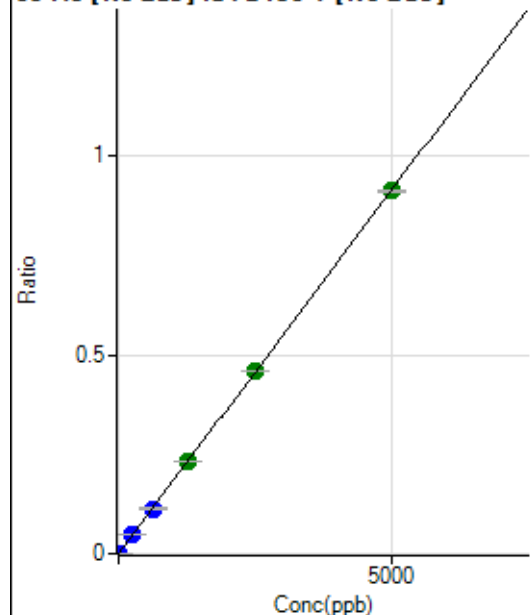
$$R = 1.0000$$

$$DL = 0.02066$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.56	0.0000	P	16.4
2	☐	0.500	0.461	2703.14	0.0001	P	7.5
3	☐	5.000	4.680	26146.86	0.0009	P	2.8
4	☐	250.000	255.606	1414432.74	0.0467	P	0.4
5	☐	625.000	619.713	3391909.88	0.1132	P	2.1
6	☐	1250.000	1264.786	6634173.33	0.2310	A	0.2
7	☐	2500.000	2510.998	12883379.98	0.4586	A	0.6
8	☐	5000.000	4991.186	25940226.10	0.9116	A	0.4
9	☐			15776.00	0.0006	P	3.7

$$y = 1.8265E-004 * x + 5.3114E-006$$

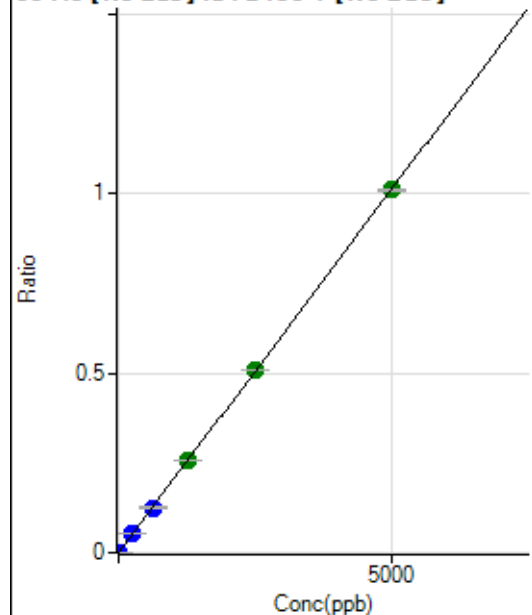
$$R = 1.0000$$

$$DL = 0.01433$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.34	0.0000	P	18.2
2	☐	0.500	0.457	3003.23	0.0001	P	8.4
3	☐	5.000	4.819	29862.69	0.0010	P	1.8
4	☐	250.000	256.347	1571629.42	0.0519	P	0.5
5	☐	625.000	621.679	3769893.74	0.1258	P	2.0
6	☐	1250.000	1262.739	7338075.86	0.2555	A	0.3
7	☐	2500.000	2505.189	14240721.85	0.5070	A	0.2
8	☐	5000.000	4994.319	28757274.95	1.0106	A	0.6
9	☐			24747.28	0.0009	P	7.3

$$y = 2.0236E-004 * x + 7.1117E-006$$

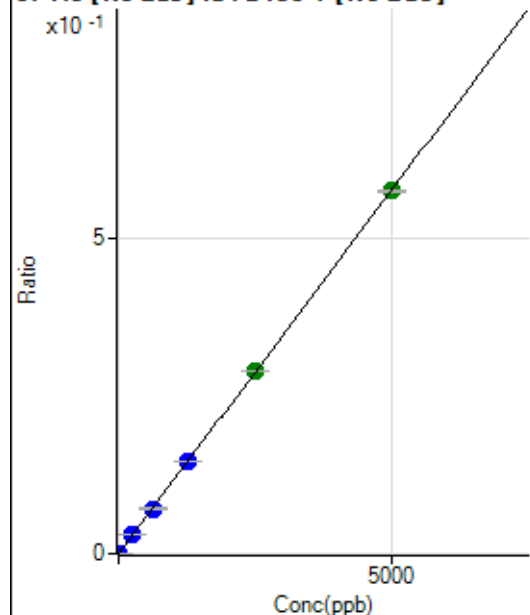
$$R = 1.0000$$

$$DL = 0.01915$$

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	75.00	0.0000	P	22.3
2	☐	0.500	0.477	1733.52	0.0001	P	7.5
3	☐	5.000	4.683	16443.43	0.0005	P	1.8
4	☐	250.000	254.230	885310.90	0.0292	P	0.5
5	☐	625.000	619.453	2133633.51	0.0712	P	2.2
6	☐	1250.000	1267.240	4183012.21	0.1457	P	0.4
7	☐	2500.000	2507.537	8096605.47	0.2882	A	0.2
8	☐	5000.000	4992.404	16328554.53	0.5738	A	0.6
9	☐			9539.71	0.0004	P	8.4

$$y = 1.1494\text{E-}004 * x + 2.5611\text{E-}006$$

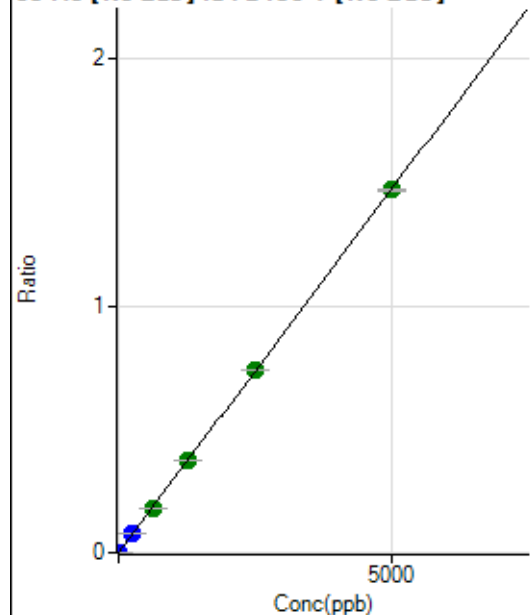
$$R = 1.0000$$

$$DL = 0.01491$$

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	222.23	0.0000	P	23.9
2	☐	0.500	0.469	4398.11	0.0001	P	4.1
3	☐	5.000	4.754	42770.75	0.0014	P	2.1
4	☐	250.000	254.594	2270193.67	0.0749	P	0.2
5	☐	625.000	615.365	5427553.94	0.1811	A	1.8
6	☐	1250.000	1265.228	10693947.55	0.3724	A	0.8
7	☐	2500.000	2511.834	20767529.98	0.7393	A	0.3
8	☐	5000.000	4991.251	41801069.34	1.4691	A	0.3
9	☐			24274.44	0.0009	P	8.9

$$y = 2.9433\text{E-}004 * x + 7.5845\text{E-}006$$

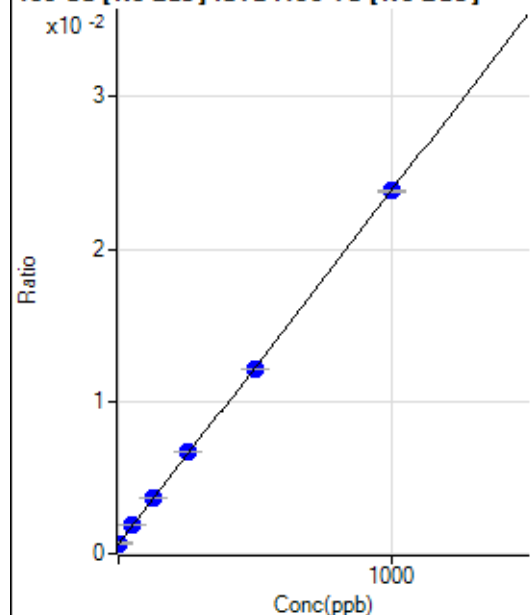
$$R = 1.0000$$

$$DL = 0.01846$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8216.62	0.0006	P	0.7
2	☒	0.100					
3	☐	1.000	2.193	9217.32	0.0007	P	2.7
4	☐	50.000	55.919	25880.11	0.0019	P	2.0
5	☐	125.000	130.631	49857.97	0.0037	P	0.6
6	☐	250.000	259.556	89403.99	0.0067	P	0.6
7	☐	500.000	495.144	160955.23	0.0121	P	0.5
8	☐	1000.000	999.038	324751.56	0.0238	P	0.3
9	☐			8155.48	0.0007	P	1.1

$$y = 2.3199\text{E-}005 * x + 6.3940\text{E-}004$$

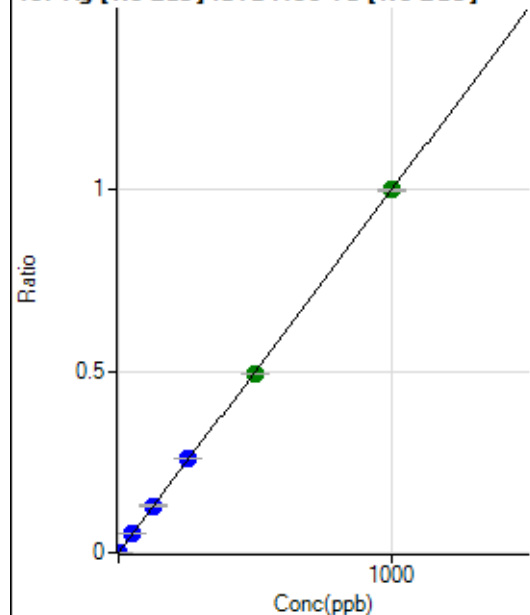
$$R = 0.9999$$

$$DL = 0.5802$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	191.68	0.0000	P	27.3
2	☐	0.100	0.104	1575.16	0.0001	P	6.1
3	☐	1.000	1.047	14160.38	0.0011	P	1.2
4	☐	50.000	55.320	738654.44	0.0553	P	1.1
5	☐	125.000	129.882	1762441.99	0.1298	P	1.9
6	☐	250.000	257.815	3456844.00	0.2575	P	0.4
7	☐	500.000	493.411	6542213.77	0.4929	A	0.5
8	☐	1000.000	1000.464	13626918.71	0.9994	A	0.6
9	☐			1697.40	0.0001	P	18.9

$$y = 9.9891\text{E-}004 * x + 1.4936\text{E-}005$$

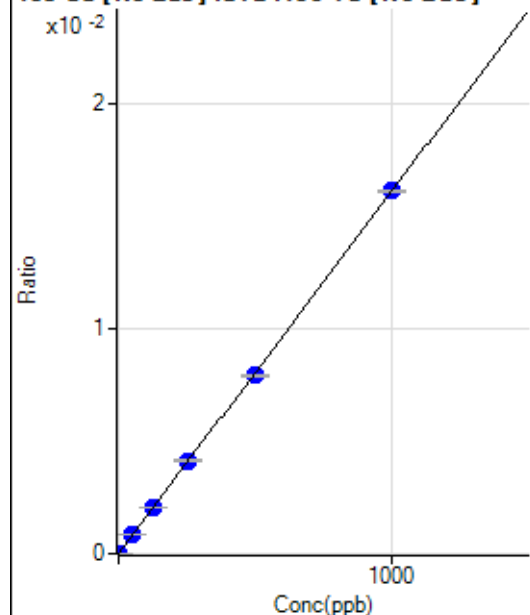
$$R = 0.9999$$

$$DL = 0.01225$$

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	13.89	0.0000	P	34.9
2	☐	0.100	0.101	36.11	0.0000	P	23.4
3	☐	1.000	1.005	230.57	0.0000	P	27.5
4	☐	50.000	54.158	11668.92	0.0009	P	2.2
5	☐	125.000	128.093	28032.15	0.0021	P	2.1
6	☐	250.000	256.722	55501.59	0.0041	P	0.7
7	☐	500.000	491.796	105128.00	0.0079	P	0.8
8	☐	1000.000	1001.827	219980.21	0.0161	P	0.7
9	☐			84.73	0.0000	P	32.7

$$y = 1.6103\text{E-}005 * x + 1.0817\text{E-}006$$

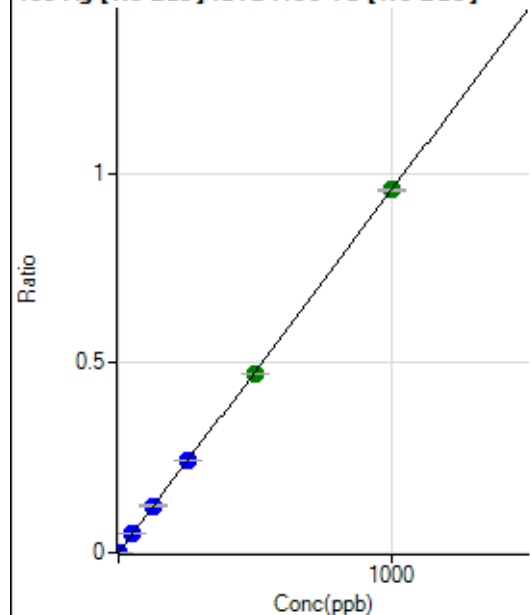
$$R = 0.9999$$

$$DL = 0.07037$$

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	66.67	0.0000	P	11.9
2	☐	0.100	0.106	1416.80	0.0001	P	2.3
3	☐	1.000	1.050	13459.70	0.0010	P	0.7
4	☐	50.000	54.965	701557.85	0.0525	P	0.3
5	☐	125.000	129.543	1680611.06	0.1237	P	1.3
6	☐	250.000	255.723	3278039.40	0.2442	P	0.6
7	☐	500.000	494.088	6263373.66	0.4719	A	0.7
8	☐	1000.000	1000.709	13031480.85	0.9557	A	0.8
9	☐			1605.73	0.0001	P	31.8

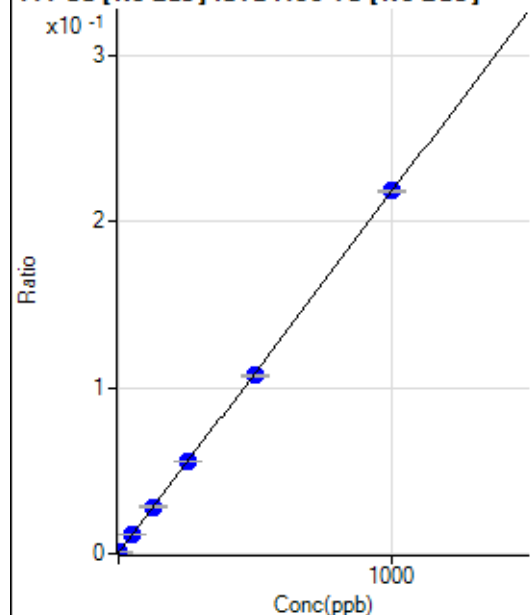
$$y = 9.5504\text{E-}004 * x + 5.1854\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.001937$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5775.24	0.0004	P	0.9
2	☒	0.100					
3	☐	1.000	1.052	9052.17	0.0007	P	1.8
4	☐	50.000	53.557	161447.51	0.0121	P	0.2
5	☐	125.000	128.045	383840.78	0.0283	P	2.0
6	☐	250.000	254.116	746810.46	0.0556	P	0.5
7	☐	500.000	491.327	1422385.11	0.1072	P	0.5
8	☐	1000.000	1002.749	2975735.73	0.2182	P	0.5
9	☐			6163.44	0.0005	P	3.3

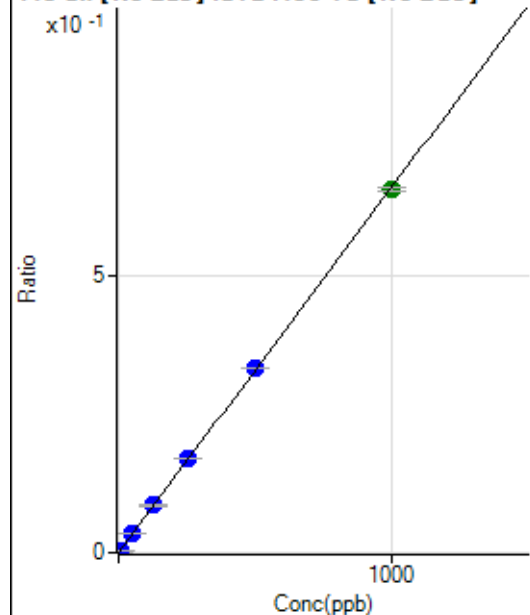
$$y = 2.1719\text{E-}004 * x + 4.4942\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.05739$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	936.19	0.0001	P	13.8
2	☐	0.500	0.543	5726.38	0.0004	P	3.9
3	☐	5.000	5.144	46271.53	0.0035	P	0.8
4	☐	50.000	54.008	476990.57	0.0357	P	0.6
5	☐	125.000	129.141	1157951.67	0.0852	P	1.8
6	☐	250.000	258.746	2291523.73	0.1707	P	0.4
7	☐	500.000	506.869	4438330.18	0.3344	P	0.2
8	☐	1000.000	993.661	8937015.39	0.6554	A	0.9
9	☐			4989.99	0.0004	P	6.9

$$y = 6.5956\text{E-}004 * x + 7.2855\text{E-}005$$

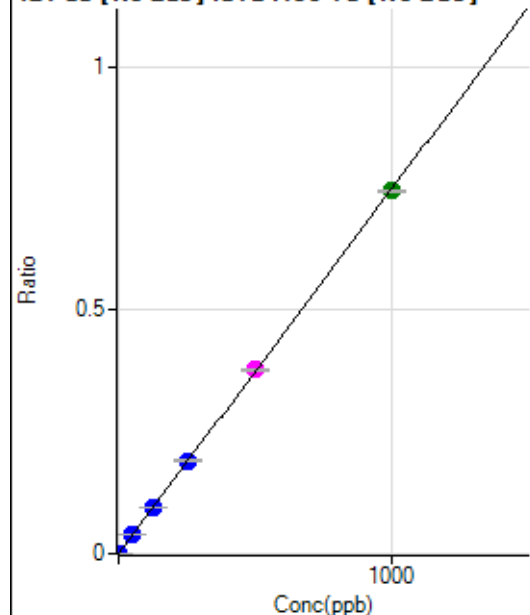
$$R = 0.9999$$

$$DL = 0.04574$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	26.2
2	☐	0.200	0.206	2189.16	0.0002	P	3.1
3	☐	2.000	1.919	19319.62	0.0014	P	3.0
4	☐	50.000	52.752	527950.89	0.0395	P	0.4
5	☐	125.000	127.991	1301793.04	0.0958	P	2.0
6	☐	250.000	255.897	2571721.93	0.1916	P	0.7
7	☐	500.000	504.881	5017727.67	0.3780	M	1.3
8	☐	1000.000	995.574	10164250.32	0.7454	A	0.4
9	☐			15372.97	0.0012	P	3.5

$$y = 7.4873\text{E-}004 * x + 1.0168\text{E-}005$$

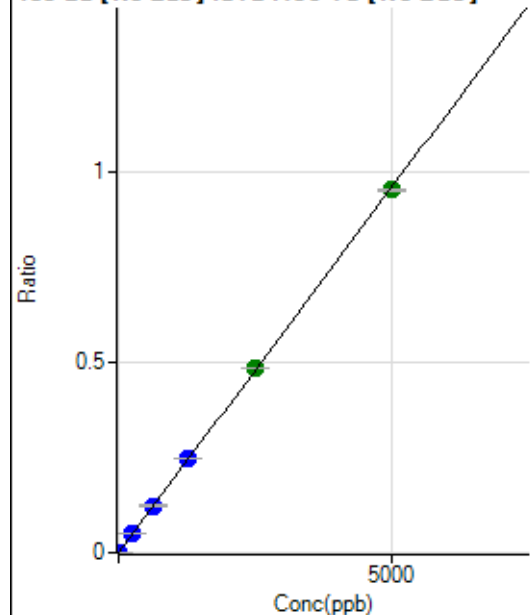
$$R = 1.0000$$

$$DL = 0.01066$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	25.7
2	☐	1.000	1.012	2617.04	0.0002	P	2.4
3	☐	10.000	10.115	25964.04	0.0019	P	1.2
4	☐	250.000	267.536	686408.28	0.0514	P	0.4
5	☐	625.000	644.277	1680173.89	0.1237	P	1.7
6	☐	1250.000	1289.203	3322006.02	0.2475	P	0.9
7	☐	2500.000	2534.413	6458325.62	0.4866	A	0.4
8	☐	5000.000	4969.706	13009948.81	0.9541	A	0.5
9	☐			2680.95	0.0002	P	23.8

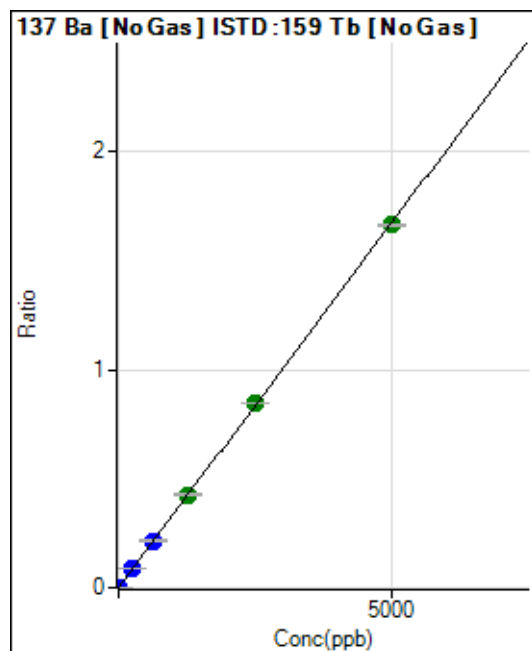
$$y = 1.9198\text{E-}004 * x + 2.5970\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.01044$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	44.45	0.0000	P	10.4
2	☐	1.000	1.038	4659.29	0.0004	P	5.8
3	☐	10.000	10.325	46177.85	0.0035	P	0.6
4	☐	250.000	265.834	1188717.93	0.0890	P	1.2
5	☐	625.000	641.534	2915753.80	0.2147	P	1.8
6	☐	1250.000	1277.053	5735321.01	0.4273	A	0.9
7	☐	2500.000	2529.939	11236195.13	0.8465	A	0.4
8	☐	5000.000	4975.408	22699825.85	1.6648	A	0.6
9	☐			4628.82	0.0004	P	15.3

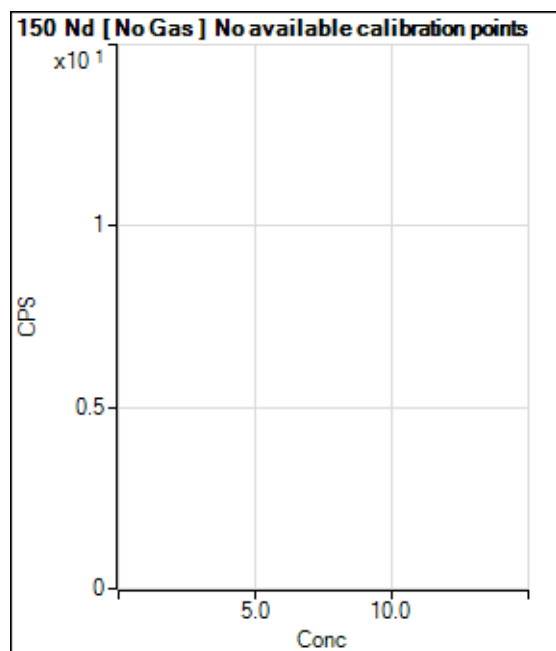
$$y = 3.3460E-004 * x + 3.4577E-006$$

$$R = 1.0000$$

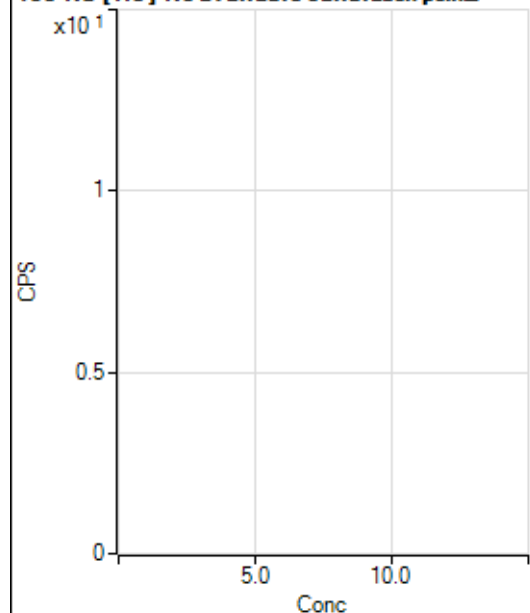
$$DL = 0.003217$$

Weight: <None>

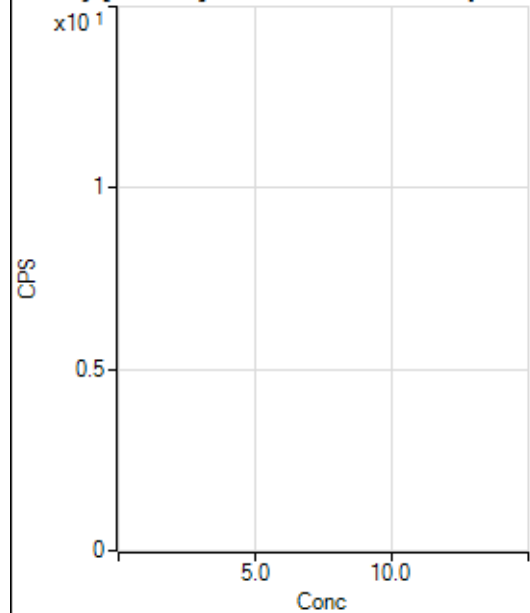
Min Conc: 0



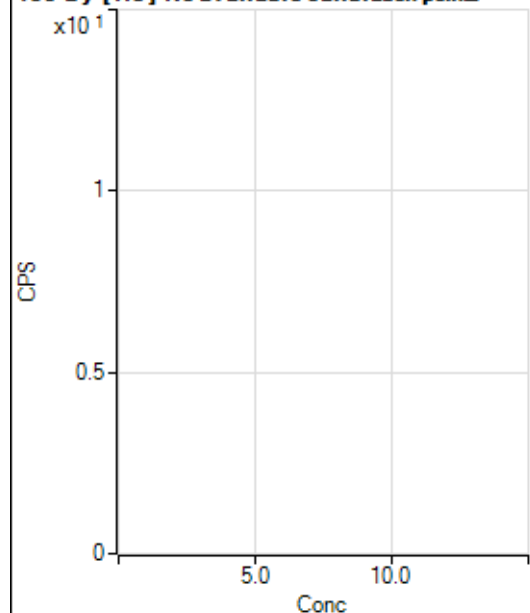
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	43.3
2	☐			11.11		P	34.6
3	☐			8.89		P	114.
4	☐			53.34		P	12.5
5	☐			108.90		P	30.8
6	☐			262.23		P	28.3
7	☐			415.57		P	10.2
8	☐			862.29		P	10.9
9	☐			224.45		P	9.5

150 Nd [He] No available calibration points

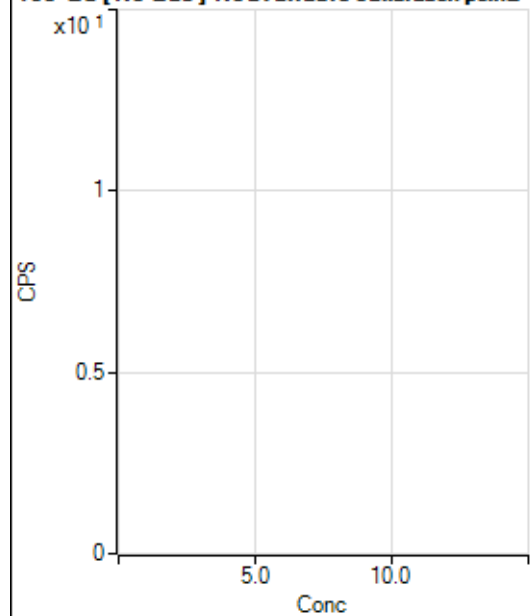
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	25.0
2	☐			11.11		P	62.5
3	☐			5.56		P	34.7
4	☐			13.33		P	25.0
5	☐			17.78		P	47.2
6	☐			28.89		P	24.0
7	☐			46.67		P	24.7
8	☐			88.89		P	10.8
9	☐			93.34		P	17.9

156 Dy [No Gas] No available calibration points

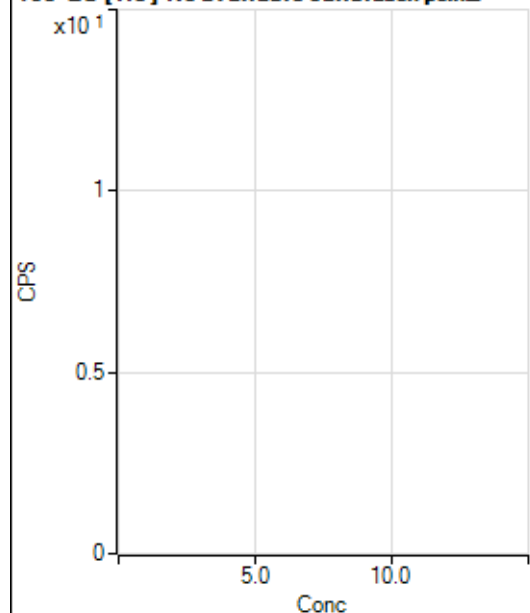
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐			11.11		P	86.6
3	☐			16.67		P	86.6
4	☐			33.33		P	0.0
5	☐			41.67		P	72.1
6	☐			66.67		P	12.5
7	☐			105.56		P	24.1
8	☐			183.34		P	31.8
9	☐			125.01		P	11.5

156 Dy [He] No available calibration points

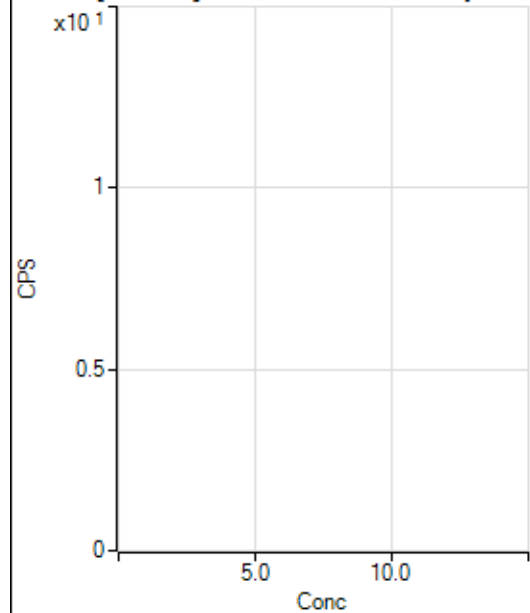
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			21.11		P	24.1
2	☐			16.67		P	40.0
3	☐			16.67		P	20.0
4	☐			38.89		P	40.5
5	☐			55.56		P	13.9
6	☐			95.56		P	30.1
7	☐			135.56		P	16.7
8	☐			252.23		P	23.5
9	☐			65.56		P	30.6

160 Gd [No Gas] Noavailable calibration poin_

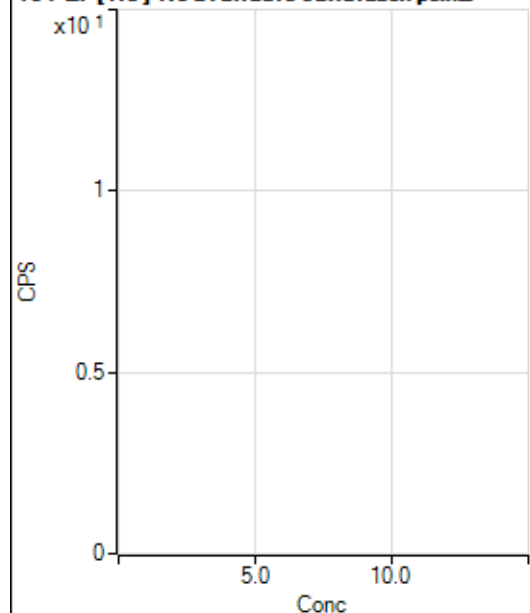
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.12		P	7.9
2	☐			41.67		P	52.9
3	☐			83.34		P	69.3
4	☐			83.34		P	26.5
5	☐			105.56		P	12.1
6	☐			69.45		P	50.0
7	☐			77.78		P	34.4
8	☐			111.12		P	26.3
9	☐			158.34		P	26.3

160 Gd [He] No available calibration points

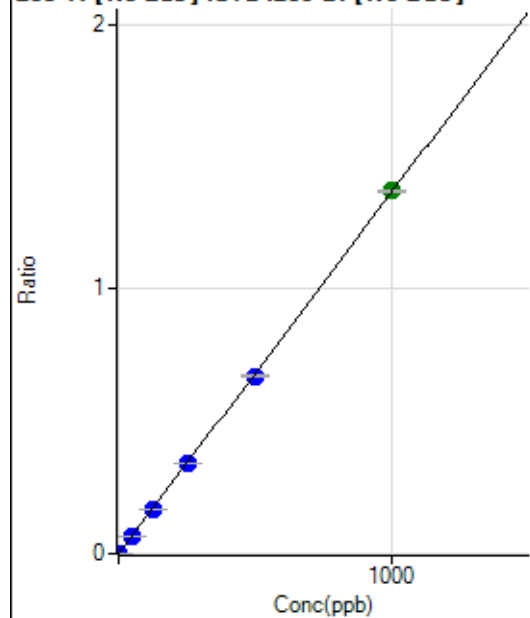
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			230.01		P	2.9
2	☐			204.45		P	9.3
3	☐			210.00		P	5.7
4	☐			248.90		P	4.7
5	☐			212.23		P	11.4
6	☐			212.23		P	18.6
7	☐			203.34		P	1.6
8	☐			201.12		P	7.7
9	☐			232.23		P	8.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.12		P	7.9
2	☐			58.34		P	42.9
3	☐			72.23		P	35.3
4	☐			72.23		P	17.6
5	☐			69.45		P	38.6
6	☐			61.11		P	41.7
7	☐			58.34		P	24.7
8	☐			102.78		P	40.0
9	☐			97.23		P	17.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			63.33		P	15.8
2	☐			58.89		P	34.1
3	☐			78.89		P	21.7
4	☐			68.89		P	26.6
5	☐			48.89		P	28.4
6	☐			71.11		P	25.8
7	☐			71.11		P	11.8
8	☐			63.33		P	34.5
9	☐			76.67		P	4.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	644.49	0.0001	P	7.8
2	☐	0.100	0.095	1683.51	0.0002	P	11.6
3	☐	1.000	0.897	10537.98	0.0013	P	1.5
4	☐	50.000	49.673	544566.07	0.0678	P	1.0
5	☐	125.000	121.898	1364625.71	0.1663	P	2.5
6	☐	250.000	249.401	2757980.42	0.3401	P	0.3
7	☐	500.000	491.238	5347514.62	0.6698	P	0.7
8	☐	1000.000	1004.935	10975143.82	1.3701	A	0.3
9	☐			3033.82	0.0005	P	15.9

$$y = 0.0014 * x + 8.2151E-005$$

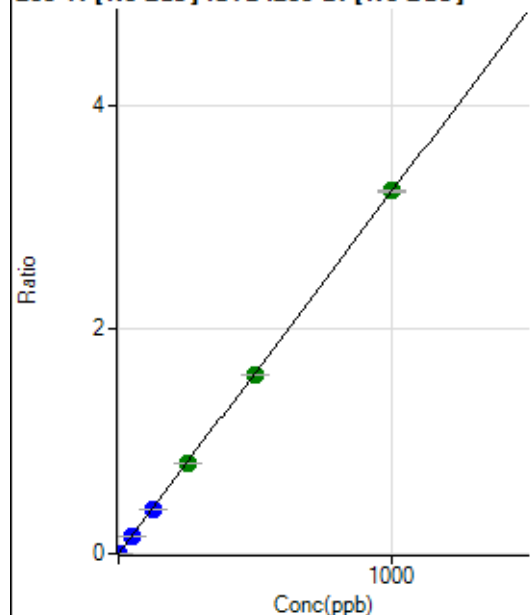
$$R = 0.9999$$

$$DL = 0.01416$$

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	958.42	0.0001	P	10.2
2	☐	0.100	0.086	3183.86	0.0004	P	5.4
3	☐	1.000	0.910	24687.62	0.0031	P	1.9
4	☐	50.000	49.990	1296801.13	0.1615	P	0.8
5	☐	125.000	122.118	3235678.80	0.3942	P	2.3
6	☐	250.000	249.075	6519650.84	0.8040	A	0.6
7	☐	500.000	495.603	12771083.27	1.5996	A	0.5
8	☐	1000.000	1002.791	25924488.60	3.2365	A	0.5
9	☐			6821.59	0.0010	P	19.6

$$y = 0.0032 * x + 1.2218E-004$$

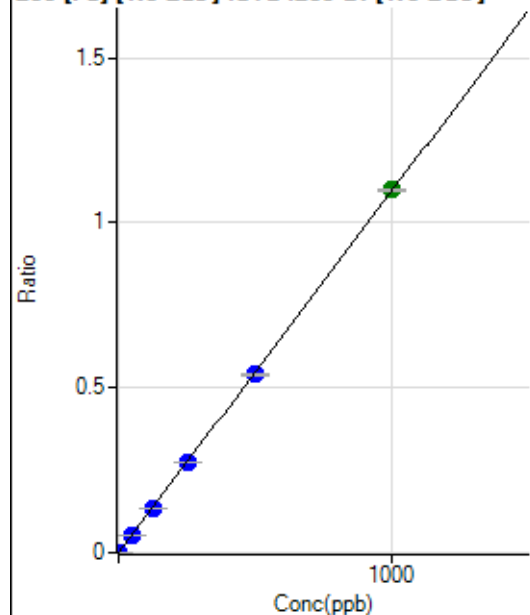
$$R = 1.0000$$

$$DL = 0.01164$$

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	883.39	0.0001	P	7.7
2	☐	0.100	0.072	1524.21	0.0002	P	7.7
3	☐	1.000	0.870	8597.46	0.0011	P	3.7
4	☐	50.000	49.780	438907.21	0.0546	P	0.8
5	☐	125.000	121.987	1097767.47	0.1337	P	1.9
6	☐	250.000	250.823	2229127.29	0.2749	P	0.6
7	☐	500.000	492.333	4306895.15	0.5395	P	1.0
8	☐	1000.000	1004.015	8811101.30	1.1000	A	0.3
9	☐			7494.92	0.0011	P	5.5

$$y = 0.0011 * x + 1.1261E-004$$

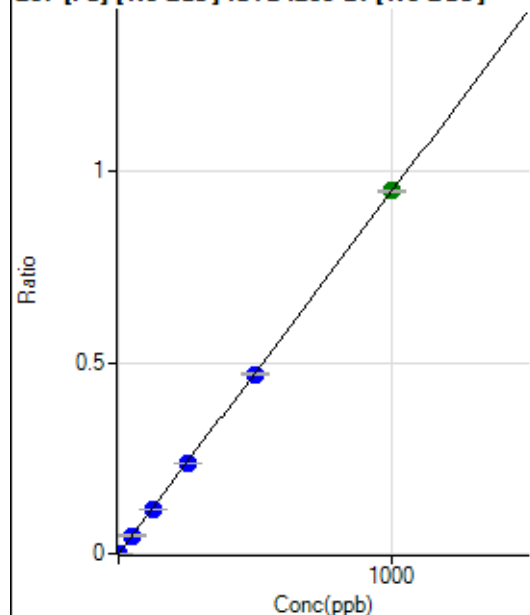
$$R = 1.0000$$

$$DL = 0.02368$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	796.34	0.0001	P	10.6
2	☐	0.100	0.094	1518.65	0.0002	P	9.8
3	☐	1.000	0.917	7830.30	0.0010	P	1.0
4	☐	50.000	50.148	382222.13	0.0476	P	1.2
5	☐	125.000	122.437	952496.50	0.1160	P	1.2
6	☐	250.000	251.380	1931180.87	0.2381	P	0.1
7	☐	500.000	495.483	3746708.73	0.4693	P	0.9
8	☐	1000.000	1002.227	7602727.54	0.9491	A	0.6
9	☐			6386.93	0.0010	P	5.0

$$y = 9.4693\text{E-}004 * x + 1.0143\text{E-}004$$

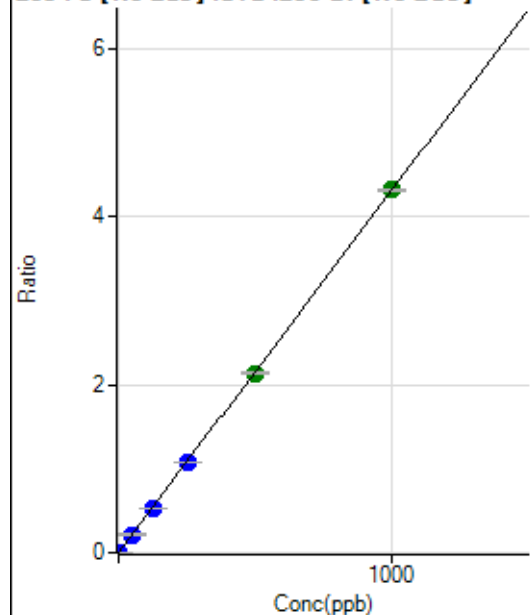
$$R = 1.0000$$

$$DL = 0.03415$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2852.04	0.0004	P	0.9
2	☐	0.100	0.089	5945.12	0.0007	P	4.0
3	☐	1.000	0.911	34648.15	0.0043	P	0.9
4	☐	50.000	50.172	1741113.96	0.2168	P	0.9
5	☐	125.000	122.297	4332840.27	0.5279	P	1.6
6	☐	250.000	250.738	8773525.60	1.0819	P	0.2
7	☐	500.000	496.277	17093628.97	2.1410	A	0.7
8	☐	1000.000	1002.006	34623271.49	4.3224	A	0.3
9	☐			28757.30	0.0043	P	4.4

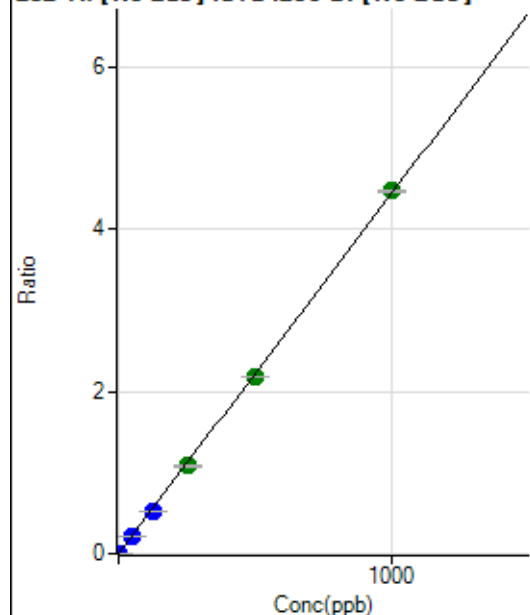
$$y = 0.0043 * x + 3.6344\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.002185$$

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	2237.30	0.0003	P	1.9
2	☐	0.100	0.079	5051.13	0.0006	P	5.7
3	☐	1.000	0.825	31843.40	0.0039	P	1.1
4	☐	50.000	47.355	1690091.50	0.2104	P	1.1
5	☐	125.000	116.547	4247226.43	0.5175	P	1.8
6	☐	250.000	242.939	8744376.12	1.0783	A	0.9
7	☐	500.000	491.273	17407689.28	2.1803	A	0.3
8	☐	1000.000	1007.318	35807560.06	4.4702	A	0.3
9	☐			9846.68	0.0015	P	9.7

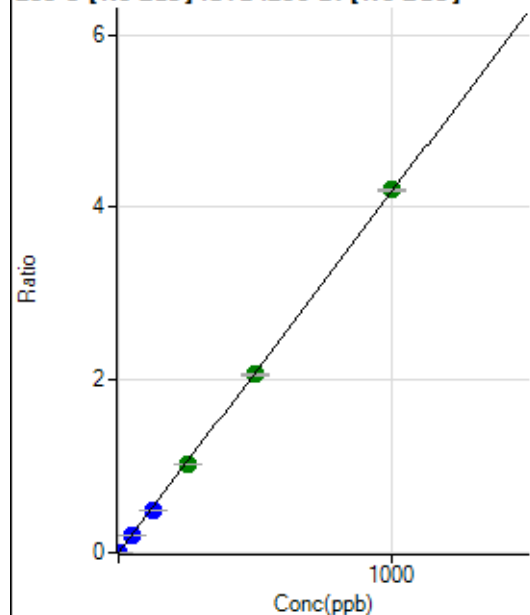
$$y = 0.0044 * x + 2.8511E-004$$

$$R = 0.9999$$

$$DL = 0.003612$$

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	2475.35	0.0003	P	6.2
2	☐	0.100	0.082	5251.30	0.0007	P	5.2
3	☐	1.000	0.854	31361.57	0.0039	P	0.9
4	☐	50.000	47.422	1593693.43	0.1984	P	1.2
5	☐	125.000	116.999	4014172.64	0.4891	P	2.2
6	☐	250.000	243.856	8263732.04	1.0190	A	0.3
7	☐	500.000	493.228	16453650.02	2.0608	A	0.3
8	☐	1000.000	1006.051	33667885.48	4.2031	A	0.3
9	☐			6821.62	0.0010	P	16.4

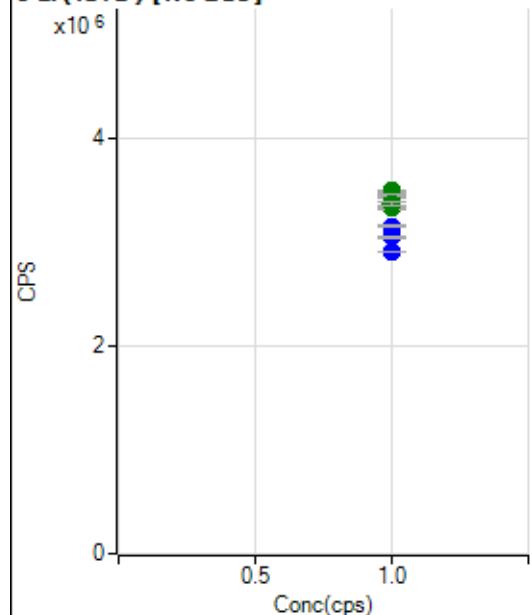
$$y = 0.0042 * x + 3.1544E-004$$

$$R = 0.9999$$

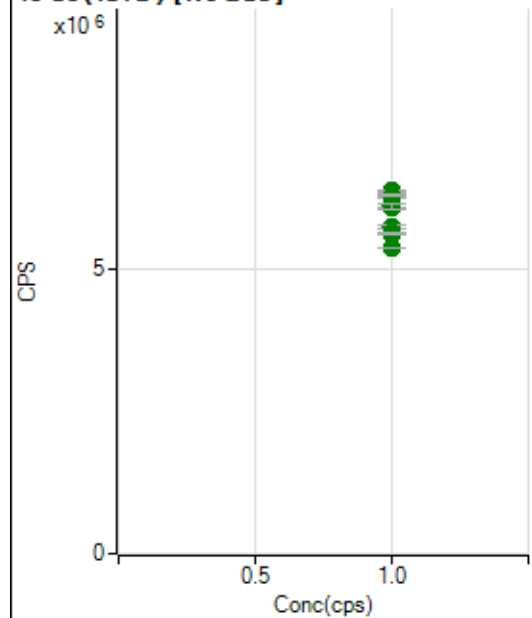
$$DL = 0.01397$$

Weight: <None>

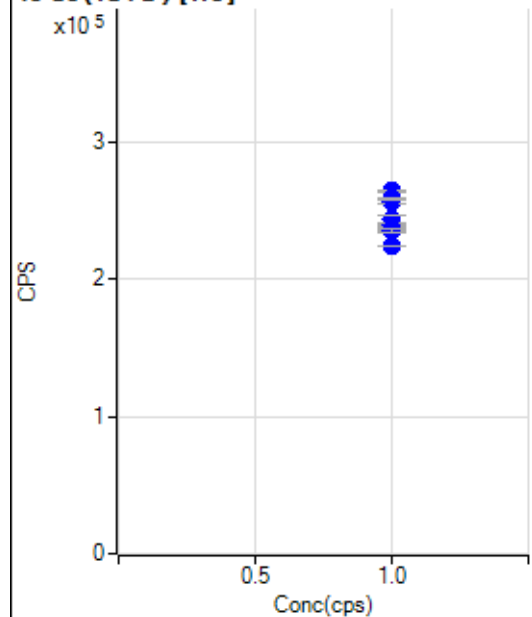
Min Conc: 0

6 Li (ISTD) [No Gas]

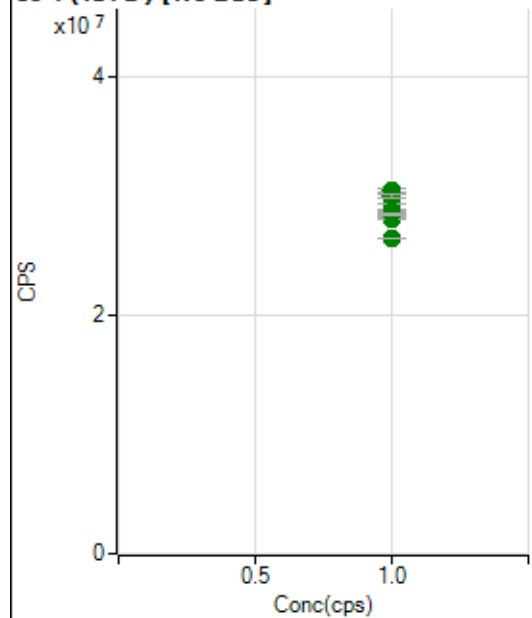
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3327328.83		A	0.5
2	☐	1.000		3438492.53		A	0.6
3	☐	1.000		3495528.13		A	0.5
4	☐	1.000		3456979.29		A	0.2
5	☐	1.000		3369916.84		A	1.5
6	☐	1.000		3155007.05		P	0.6
7	☐	1.000		3056345.46		P	0.5
8	☐	1.000		3051363.64		P	0.3
9	☐	1.000		2902229.34		P	0.1

45 Sc (ISTD) [No Gas]

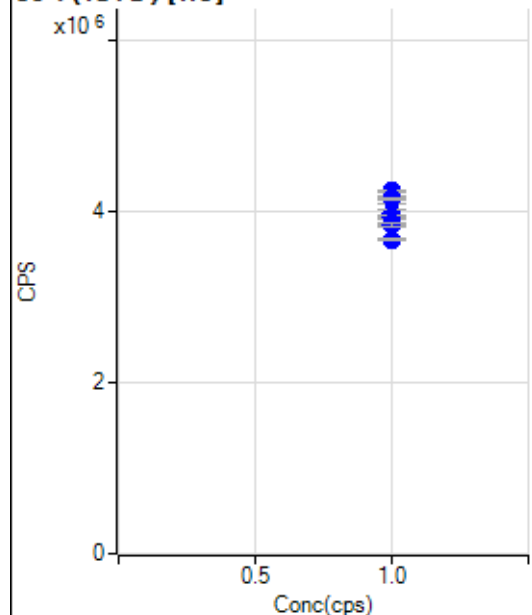
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6069773.01		A	0.5
2	☐	1.000		6261000.53		A	0.5
3	☐	1.000		6368550.80		A	0.6
4	☐	1.000		6285043.80		A	0.5
5	☐	1.000		6097197.66		A	2.0
6	☐	1.000		5731540.80		A	0.9
7	☐	1.000		5617361.24		A	0.6
8	☐	1.000		5626583.28		A	0.8
9	☐	1.000		5373185.10		A	0.3

45 Sc (ISTD) [He]

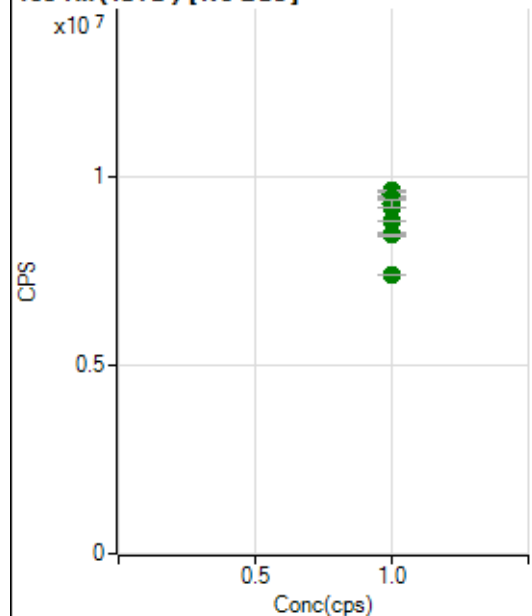
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		256445.25		P	1.5
2	☐	1.000		263857.63		P	0.7
3	☐	1.000		264044.47		P	0.7
4	☐	1.000		258275.62		P	0.6
5	☐	1.000		242855.97		P	2.4
6	☐	1.000		239380.36		P	0.9
7	☐	1.000		235840.24		P	1.1
8	☐	1.000		234774.39		P	1.0
9	☐	1.000		223817.24		P	0.5

89 Y (ISTD) [No Gas]

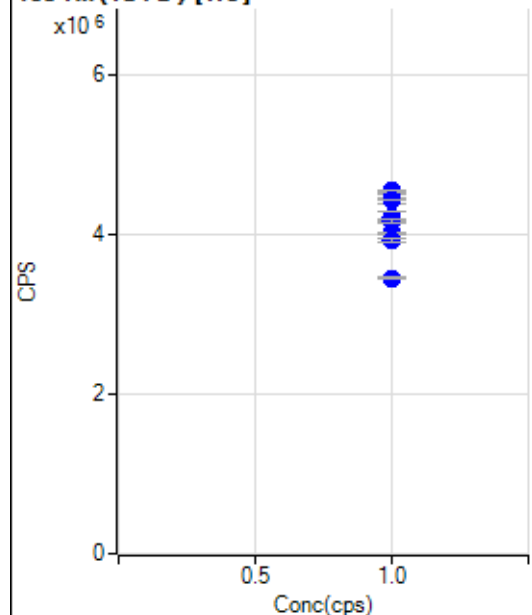
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		29290803.45		A	0.2
2	☐	1.000		30177961.77		A	0.6
3	☐	1.000		30401089.27		A	0.9
4	☐	1.000		30292968.99		A	0.1
5	☐	1.000		29971264.00		A	1.5
6	☐	1.000		28717003.74		A	0.4
7	☐	1.000		28090830.69		A	0.5
8	☐	1.000		28454180.41		A	0.2
9	☐	1.000		26440693.49		A	0.2

89 Y(ISTD) [He]

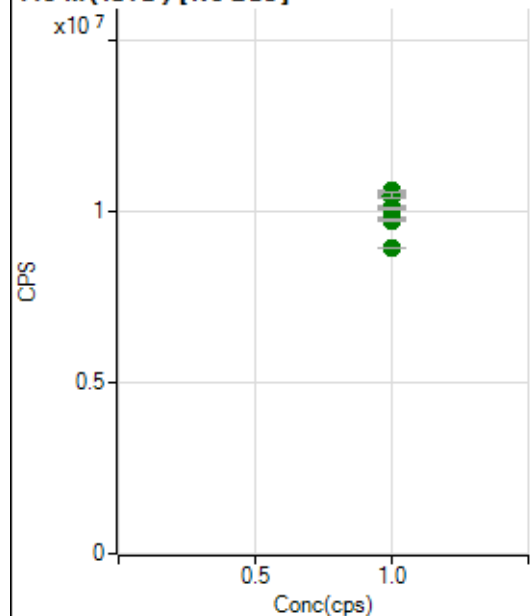
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4134529.24		P	1.8
2	☐	1.000		4240009.80		P	0.5
3	☐	1.000		4238401.64		P	0.5
4	☐	1.000		4151576.75		P	0.6
5	☐	1.000		3974998.55		P	2.2
6	☐	1.000		3925435.57		P	1.1
7	☐	1.000		3855696.30		P	0.7
8	☐	1.000		3849558.31		P	1.3
9	☐	1.000		3673484.42		P	0.8

103 Rh(ISTD) [No Gas]

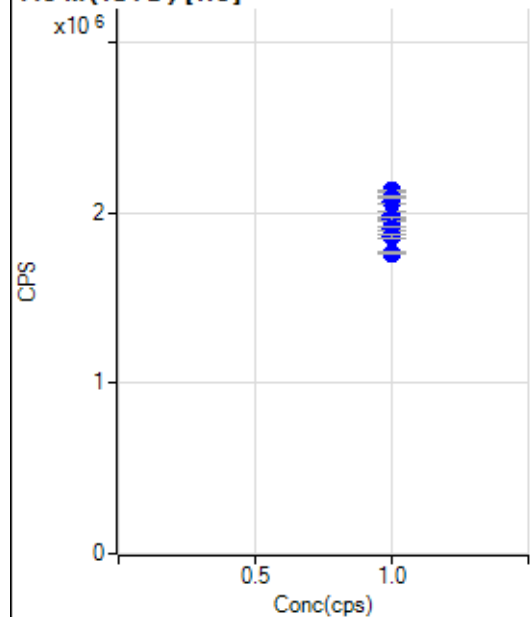
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9173437.18		A	0.5
2	☐	1.000		9522631.03		A	0.7
3	☐	1.000		9614365.23		A	0.5
4	☐	1.000		9421055.25		A	0.4
5	☐	1.000		9263633.97		A	1.9
6	☐	1.000		8817995.94		A	0.3
7	☐	1.000		8483796.98		A	0.4
8	☐	1.000		8456538.47		A	0.6
9	☐	1.000		7377933.67		A	0.4

103 Rh (ISTD) [He]

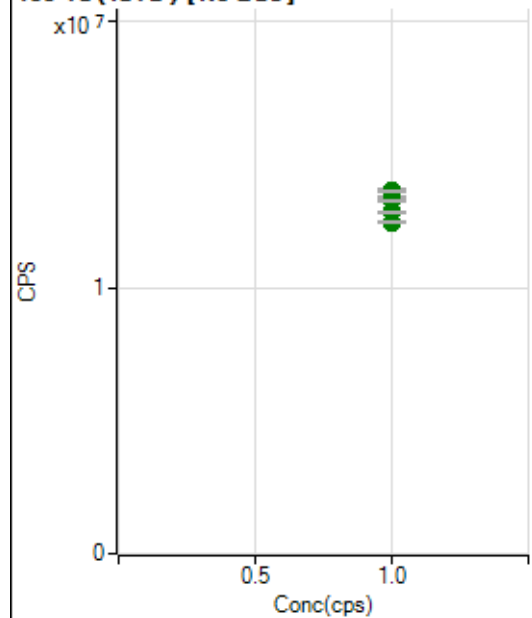
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4434020.49		P	1.8
2	☐	1.000		4530656.22		P	0.7
3	☐	1.000		4552655.17		P	0.3
4	☐	1.000		4439493.96		P	0.1
5	☐	1.000		4234833.13		P	2.4
6	☐	1.000		4166055.29		P	1.2
7	☐	1.000		4022361.57		P	0.7
8	☐	1.000		3932940.12		P	1.4
9	☐	1.000		3458906.20		P	0.7

115 In (ISTD) [No Gas]

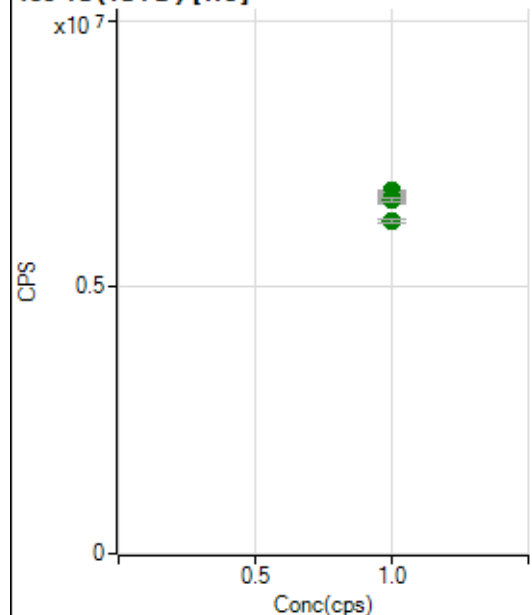
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10156762.39		A	0.6
2	☐	1.000		10527405.98		A	0.6
3	☐	1.000		10618464.11		A	0.4
4	☐	1.000		10456674.46		A	0.6
5	☐	1.000		10484051.99		A	1.5
6	☐	1.000		10100973.11		A	0.2
7	☐	1.000		9811508.64		A	0.3
8	☐	1.000		9761591.26		A	0.4
9	☐	1.000		8934369.58		A	0.1

115 In (ISTD) [He]

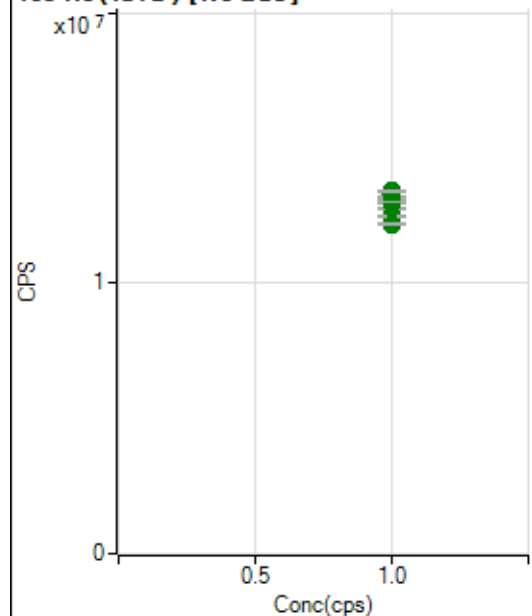
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2070201.60		P	1.9
2	☐	1.000		2121536.07		P	0.4
3	☐	1.000		2129286.29		P	0.7
4	☐	1.000		2093126.73		P	0.7
5	☐	1.000		1988017.36		P	2.1
6	☐	1.000		1968466.89		P	1.2
7	☐	1.000		1907832.06		P	1.0
8	☐	1.000		1864380.01		P	1.2
9	☐	1.000		1764108.87		P	1.0

159 Tb (ISTD) [No Gas]

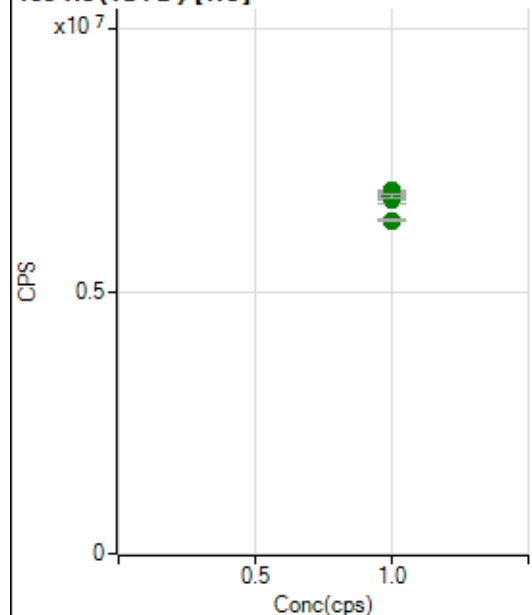
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12850972.45		A	0.8
2	☐	1.000		13289577.86		A	0.6
3	☐	1.000		13352811.19		A	0.3
4	☐	1.000		13363201.47		A	0.3
5	☐	1.000		13585557.71		A	1.6
6	☐	1.000		13422012.85		A	0.4
7	☐	1.000		13273205.64		A	0.2
8	☐	1.000		13635676.19		A	0.9
9	☐	1.000		12456057.59		A	0.2

159 Tb (ISTD) [He]

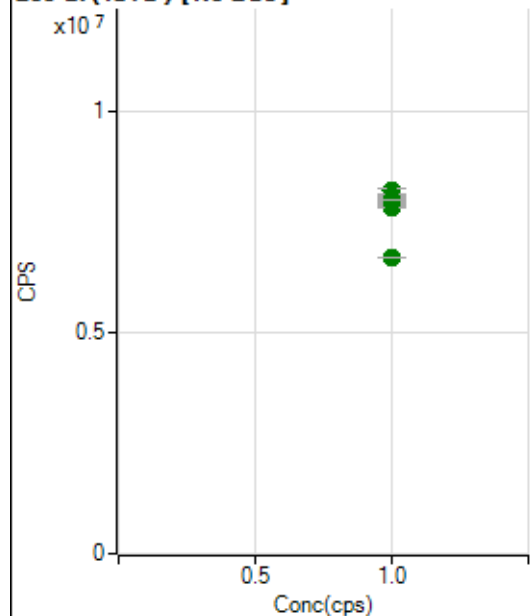
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6672961.50		A	2.0
2	☐	1.000		6754175.18		A	0.7
3	☐	1.000		6802601.98		A	0.5
4	☐	1.000		6765660.80		A	0.9
5	☐	1.000		6639933.30		A	2.0
6	☐	1.000		6672691.43		A	0.9
7	☐	1.000		6620621.92		A	1.0
8	☐	1.000		6629580.94		A	1.2
9	☐	1.000		6231342.54		A	0.9

165 Ho (ISTD) [No Gas]

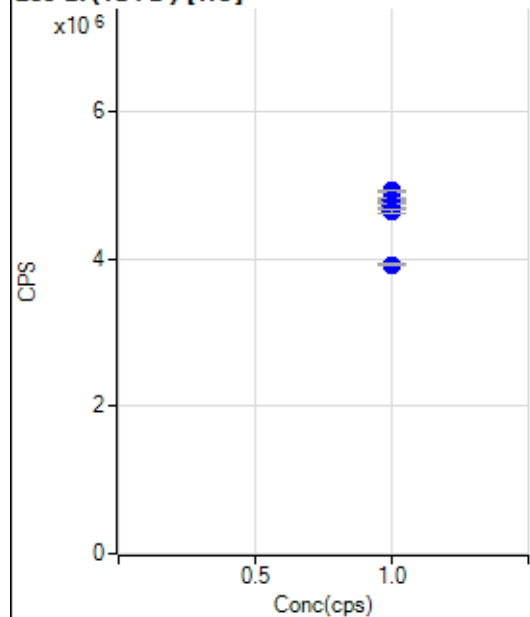
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12489838.73		A	0.6
2	☐	1.000		12780906.62		A	0.6
3	☐	1.000		12984184.40		A	0.3
4	☐	1.000		12958530.85		A	0.3
5	☐	1.000		13322316.10		A	1.6
6	☐	1.000		13124218.87		A	0.2
7	☐	1.000		13014999.42		A	0.4
8	☐	1.000		13426208.37		A	0.7
9	☐	1.000		12194170.41		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6754394.69		A	2.1
2	☐	1.000		6856815.31		A	0.8
3	☐	1.000		6921462.33		A	0.6
4	☐	1.000		6875587.47		A	0.4
5	☐	1.000		6752108.30		A	2.5
6	☐	1.000		6801424.34		A	0.8
7	☐	1.000		6770625.59		A	0.9
8	☐	1.000		6819116.91		A	0.7
9	☐	1.000		6361040.95		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7847221.20		A	0.8
2	☐	1.000		7964783.49		A	0.9
3	☐	1.000		8072555.02		A	1.0
4	☐	1.000		8032049.05		A	0.7
5	☐	1.000		8209211.54		A	1.4
6	☐	1.000		8109388.91		A	0.2
7	☐	1.000		7984037.17		A	0.9
8	☐	1.000		8010203.91		A	0.3
9	☐	1.000		6706200.25		A	0.2

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4800871.28		P	1.3
2	☐	1.000		4916334.27		P	0.4
3	☐	1.000		4916758.96		P	0.8
4	☐	1.000		4914235.76		P	0.6
5	☐	1.000		4762345.42		P	1.3
6	☐	1.000		4789251.70		P	1.1
7	☐	1.000		4717542.67		P	1.0
8	☐	1.000		4636561.60		P	1.3
9	☐	1.000		3921050.91		P	0.6

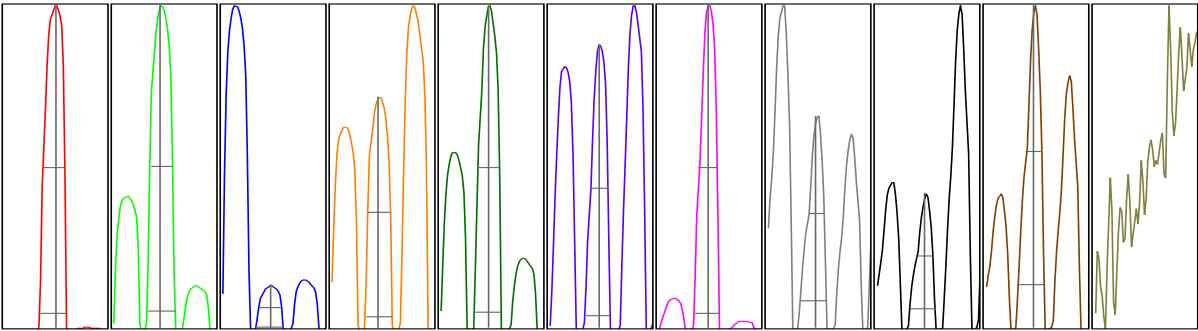
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7080119IMS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	10602	1.78	5.00	
24	148985	1.54	5.00	
25	20002	1.61	5.00	
26	22688	1.71	5.00	
59	84753	1.59	5.00	
113	11514	1.40	5.00	
115	139026	1.63	5.00	
206	31647	1.72	5.00	
207	30122	1.74	5.00	
208	68100	1.61	5.00	
220	129	7.18		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10575	10604	10541	10903	10385
24	148242	149614	148367	152471	146232
25	19902	20067	19909	20503	19630
26	22526	22787	22608	23284	22233
59	84207	84912	84546	86882	83220
113	11461	11484	11525	11771	11330
115	138344	139155	138154	142753	136721
206	31415	31727	31455	32536	31100
207	29850	30196	29908	30992	29662
208	67510	67988	67706	70010	67284
220	118	133	139	134	121

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	17322	9.05	8.9 - 9.1		0.779	0.900	
24	239915	23.90	23.9 - 24.1		0.822	0.900	
25	31960	24.95	24.9 - 25.1		0.787	0.900	
26	36717	25.90	25.9 - 26.1		0.785	0.900	
59	144500	58.95	58.9 - 59.1		0.781	0.900	
113	22509	113.00	112.9 - 113.1		0.732	0.900	
115	269172	115.00	114.9 - 115.1		0.729	0.900	
206	63104	205.95	205.9 - 206.1		0.754	0.900	
207	58144	206.95	206.9 - 207.1		0.730	0.900	
208	139397	207.95	207.9 - 208.1		0.747	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	7.5	V	Deflect	13.6	V
Extract 2	-105.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	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	150	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	20940	0.45	
89	39296	0.29	
205	28442	0.60	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	21004	21061	20816	20904	20914
89	39372	39436	39177	39317	39179
205	28435	28481	28159	28533	28603

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	2.2	V
Extract 2	-90.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-45	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			