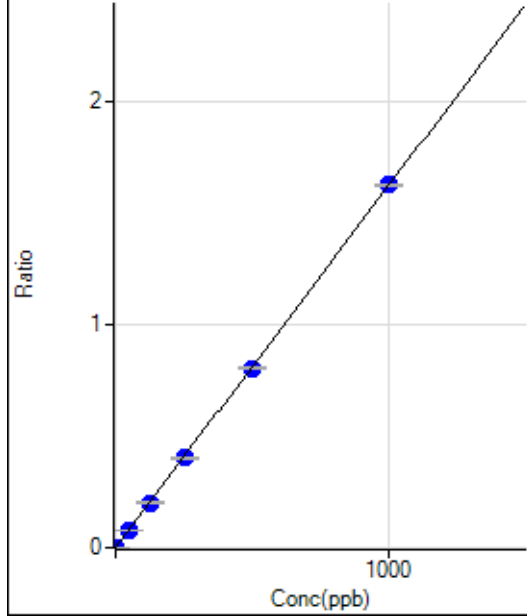


Batch Folder: D:\ICP-MS Data\P7101717-MS_#2 .b\
Analysis File: P7101717-MS_#2 .batch.bin
DA Date-Time: 2017-10-18 11:19:10
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB P7101717-MS #2.D	S00	2017-10-17 10:19:32
2	004CALS P7101717-MS #2.D	S01	2017-10-17 10:22:59
3	005CALS P7101717-MS #2.D	S02	2017-10-17 10:27:07
4	006CALS P7101717-MS #2.D	S03	2017-10-17 10:30:53
5	007CALS P7101717-MS #2.D	S04	2017-10-17 10:34:40
6	008CALS P7101717-MS #2.D	S05	2017-10-17 10:38:23
7	009CALS P7101717-MS #2.D	S06	2017-10-17 10:42:01
8	010CALS P7101717-MS #2.D	S07	2017-10-17 10:45:37
9	011CALS P7101717-MS #2.D	S08	2017-10-17 10:49:07

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	48.15	0.0001	P	16.7
2	☐	0.100	0.066	122.23	0.0002	P	12.6
3	☐	1.000	0.859	1009.32	0.0015	P	3.9
4	☐	50.000	49.789	56732.11	0.0808	P	0.8
5	☐	125.000	124.685	141290.57	0.2022	P	0.5
6	☐	250.000	247.411	280744.42	0.4012	P	1.3
7	☐	500.000	496.253	558266.69	0.8046	P	1.0
8	☐	1000.000	1002.571	1090760.73	1.6255	P	0.8
9	☐			220.38	0.0003	P	41.1

$$y = 0.0016 * x + 7.0704E-005$$

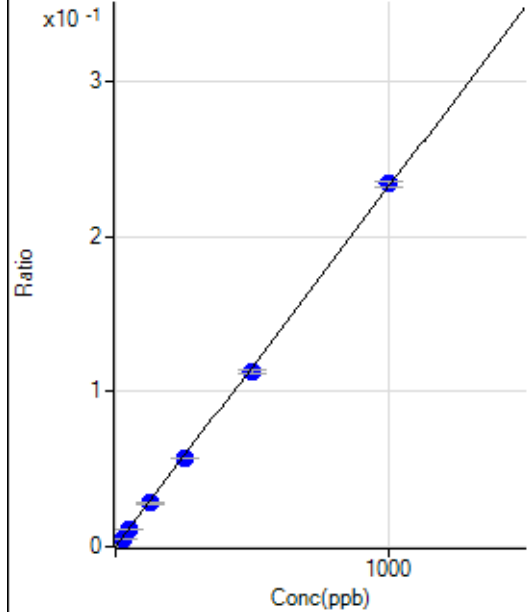
$$R = 1.0000$$

$$DL = 0.02188$$

$$BEC = 0.04361$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0001	P	10.7
2	☐	2.500	2.096	419.47	0.0006	P	17.5
3	☐	25.000	20.807	3411.64	0.0049	P	1.3
4	☐	50.000	49.703	8174.74	0.0116	P	1.5
5	☐	125.000	119.972	19515.94	0.0279	P	2.8
6	☐	250.000	245.543	39906.62	0.0570	P	0.9
7	☐	500.000	486.708	78347.45	0.1129	P	1.9
8	☐	1000.000	1008.510	156922.34	0.2338	P	1.8
9	☐			2855.94	0.0045	P	12.6

$$y = 2.3175E-004 * x + 1.2257E-004$$

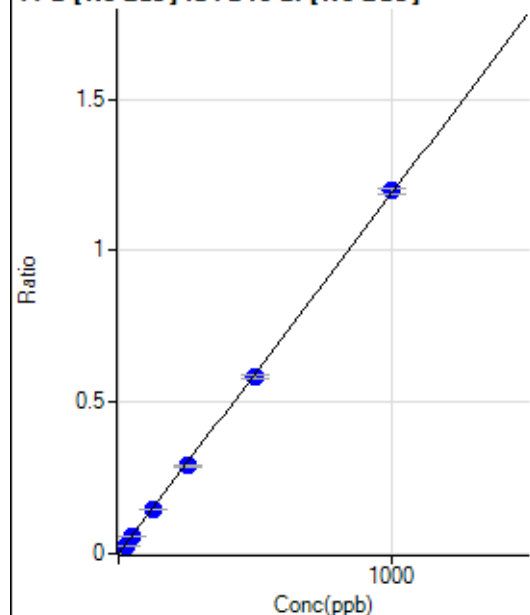
$$R = 0.9999$$

$$DL = 0.1699$$

$$BEC = 0.5289$$

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	408.35	0.0006	P	16.2
2	☐	2.500	1.780	1869.65	0.0027	P	1.5
3	☐	25.000	20.624	17316.14	0.0251	P	4.4
4	☐	50.000	48.450	40833.72	0.0582	P	2.7
5	☐	125.000	121.563	101298.80	0.1450	P	1.6
6	☐	250.000	243.009	202435.88	0.2893	P	1.5
7	☐	500.000	490.057	404312.09	0.5827	P	1.7
8	☐	1000.000	1007.337	803363.36	1.1972	P	1.4
9	☐			14624.22	0.0229	P	4.7

$$y = 0.0012 * x + 6.0048E-004$$

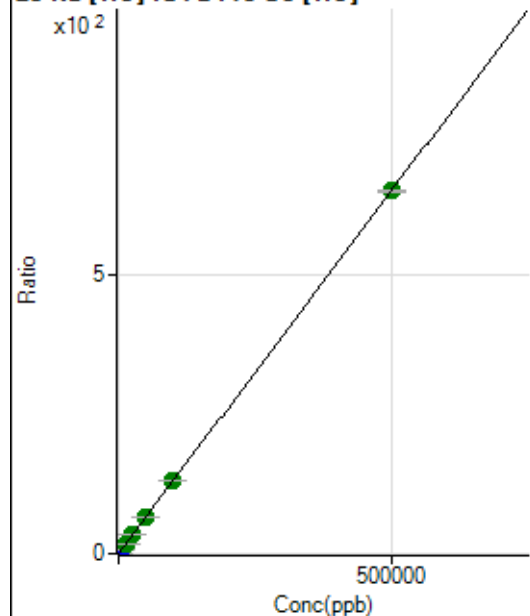
$$R = 0.9999$$

$$DL = 0.2458$$

$$BEC = 0.5055$$

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	16715.45	0.0710	P	1.5
2	☐	50.000	45.371	30832.52	0.1300	P	1.5
3	☐	500.000	460.524	156144.44	0.6700	P	1.0
4	☐	5000.000	5338.874	1634672.01	7.0155	P	0.6
5	☐	12500.000	12961.580	3955858.12	16.9306	A	0.6
6	☐	25000.000	25651.329	7889512.94	33.4367	A	0.5
7	☐	50000.000	50911.372	15810294.80	66.2934	A	0.8
8	☐	100000.00	100083.74	32252810.44	130.2539	A	1.5
9	☐	500000.00	499844.66	160300886.9	650.2389	A	0.8

$$y = 0.0013 * x + 0.0710$$

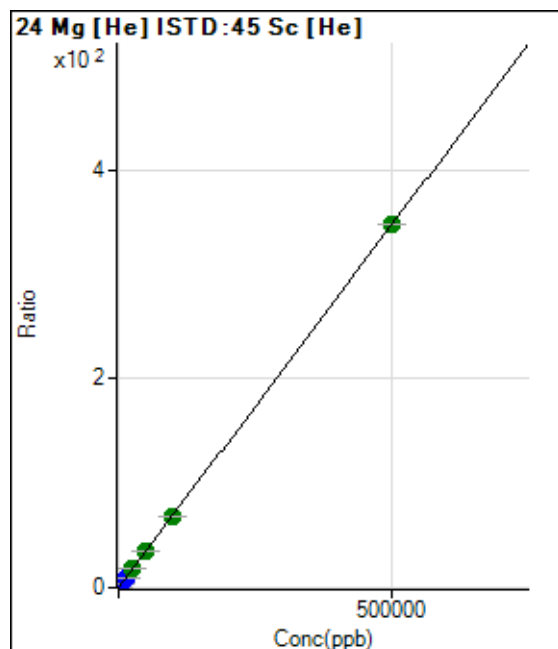
$$R = 1.0000$$

$$DL = 2.409$$

$$BEC = 54.56$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	197.23	0.0008	P	24.2
2	☐	50.000	44.643	7552.20	0.0318	P	4.8
3	☐	500.000	449.300	72930.40	0.3129	P	0.7
4	☐	5000.000	5177.050	838155.77	3.5971	P	0.4
5	☐	12500.000	12741.563	2068222.73	8.8518	P	0.6
6	☐	25000.000	25343.491	4154170.15	17.6057	A	0.3
7	☐	50000.000	49996.671	8282967.02	34.7310	A	1.2
8	☐	100000.00	97967.268	16851445.17	68.0538	A	0.9
9	☐	500000.00	500381.94	85693567.88	347.5912	A	0.0

$$y = 6.9465\text{E-}004 * x + 8.3720\text{E-}004$$

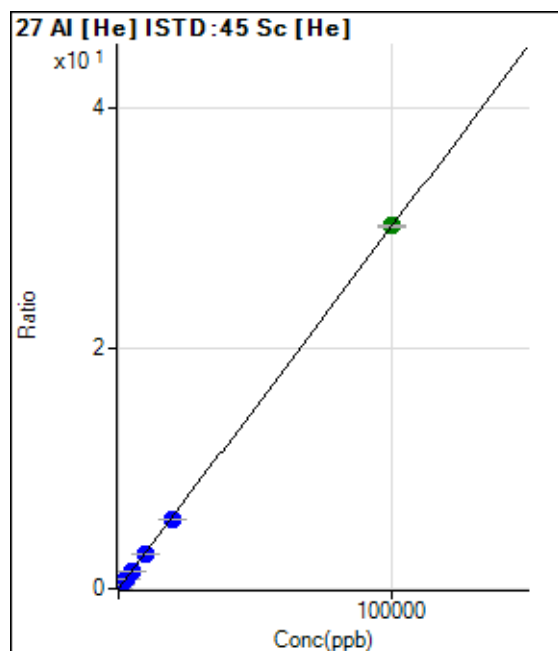
$$R = 1.0000$$

$$DL = 0.8749$$

$$BEC = 1.205$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0003	P	40.0
2	☐	2.000	1.858	194.45	0.0008	P	31.7
3	☐	20.000	16.021	1183.43	0.0051	P	6.8
4	☐	1000.000	983.745	68987.76	0.2961	P	0.6
5	☐	2500.000	2460.068	172900.31	0.7400	P	1.4
6	☐	5000.000	4840.523	343509.29	1.4558	P	0.6
7	☐	10000.000	9643.804	691684.92	2.9002	P	0.4
8	☐	20000.000	19012.399	1415760.02	5.7173	P	0.3
9	☐	100000.00	100242.27	7431192.87	30.1431	A	0.7

$$y = 3.0070\text{E-}004 * x + 2.6014\text{E-}004$$

$$R = 0.9999$$

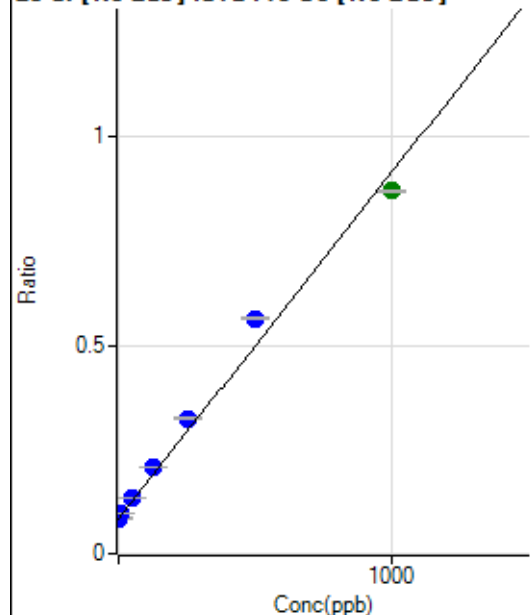
$$DL = 1.038$$

$$BEC = 0.8651$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	405773.05	0.0838	P	0.6
2	☐	1.000	4.713	411093.68	0.0877	P	0.2
3	☐	10.000	17.249	457596.72	0.0981	P	0.6
4	☐	50.000	61.379	631319.06	0.1348	P	0.4
5	☐	125.000	147.980	960962.96	0.2067	P	0.5
6	☐	250.000	290.620	1530141.15	0.3252	P	0.7
7	☐	500.000	578.590	2669895.50	0.5645	P	0.6
8	☐	1000.000	947.033	4164521.58	0.8707	A	0.4
9	☐			457040.68	0.0975	P	1.2

$$y = 8.3096E-004 * x + 0.0838$$

$$R = 0.9945$$

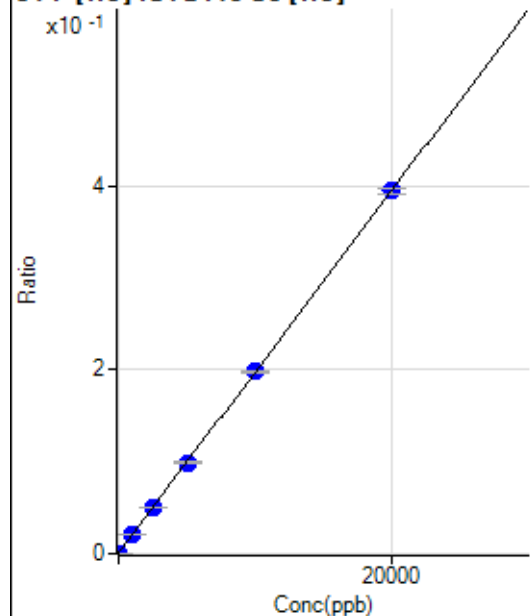
$$DL = 1.859$$

$$BEC = 100.8$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-6.650	141.68	0.0006	P	19.4
2	☐	0.000	5.687	200.01	0.0008	P	13.3
3	☐	0.000	0.963	175.01	0.0008	P	4.1
4	☐	1000.000	1005.440	4784.33	0.0205	P	3.1
5	☐	2500.000	2498.689	11668.91	0.0499	P	2.6
6	☐	5000.000	4999.784	23407.96	0.0992	P	3.0
7	☐	10000.000	10006.158	47175.62	0.1978	P	0.3
8	☐	20000.000	19996.867	97699.61	0.3946	P	1.2
9	☐			175.01	0.0007	P	4.1

$$y = 1.9694E-005 * x + 7.3186E-004$$

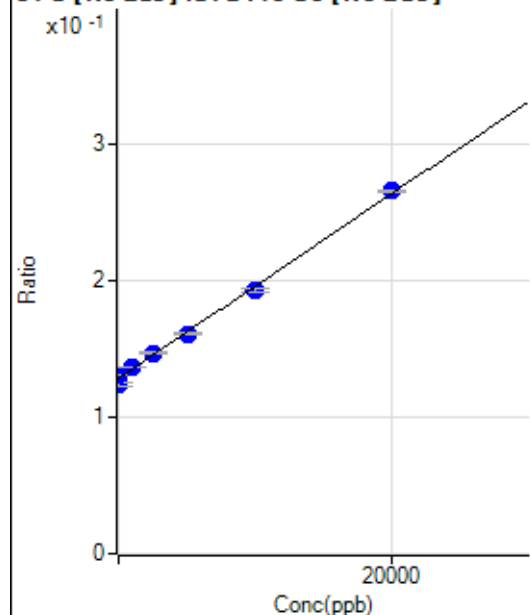
$$R = 1.0000$$

$$DL = 13.15$$

$$BEC = 37.16$$

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	-689.729	600544.20	0.1240	P	1.2
2	☐	0.000	363.075	614584.77	0.1311	P	0.7
3	☐	0.000	326.654	610313.83	0.1308	P	0.3
4	☐	1000.000	1208.465	640781.67	0.1368	P	0.8
5	☐	2500.000	2718.937	683254.45	0.1470	P	0.6
6	☐	5000.000	4752.747	756082.46	0.1607	P	1.0
7	☐	10000.000	9437.808	909633.86	0.1924	P	1.4
8	☐	20000.000	20305.119	1271035.86	0.2657	P	0.5
9	☐			591061.51	0.1261	P	0.9

$$y = 6.7535E-006 * x + 0.1286$$

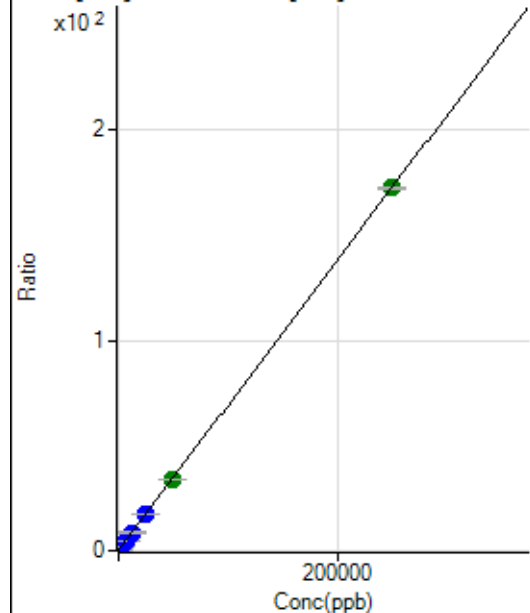
$$R = 0.9982$$

$$DL = 402.7$$

$$BEC = 1.904E+04$$

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	47657.90	0.2024	P	2.1
2	☐	50.000	33.442	53461.12	0.2254	P	1.1
3	☐	500.000	428.878	115953.55	0.4976	P	0.3
4	☐	2500.000	2487.017	446007.26	1.9141	P	0.5
5	☐	6250.000	6190.573	1042807.25	4.4631	P	0.9
6	☐	12500.000	12316.371	2047929.17	8.6793	P	0.5
7	☐	25000.000	24657.550	4095691.89	17.1732	P	0.7
8	☐	50000.000	48868.633	8378691.42	33.8368	A	0.7
9	☐	250000.00	250271.46	42516325.60	172.4544	A	0.4

$$y = 6.8826E-004 * x + 0.2024$$

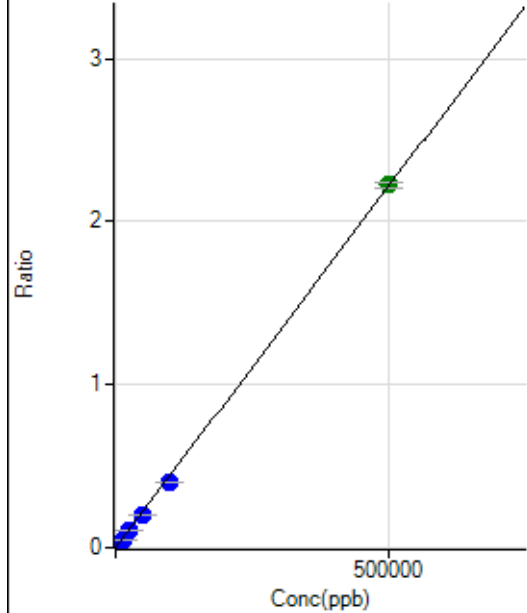
$$R = 1.0000$$

$$DL = 18.8$$

$$BEC = 294.1$$

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	383.35	0.0001	P	9.2
2	☐	50.000	41.405	1230.66	0.0003	P	12.8
3	☐	500.000	402.124	8675.09	0.0019	P	0.6
4	☐	5000.000	4593.125	95642.02	0.0204	P	0.3
5	☐	12500.000	11550.637	238095.09	0.0512	P	1.1
6	☐	25000.000	23078.357	481087.33	0.1023	P	1.4
7	☐	50000.000	46010.295	963732.00	0.2038	P	1.1
8	☐	100000.00	90822.754	1923691.08	0.4022	P	0.4
9	☐	500000.00	502358.40	10422461.78	2.2243	A	1.7

$$y = 4.4275\text{E-}006 * x + 7.9150\text{E-}005$$

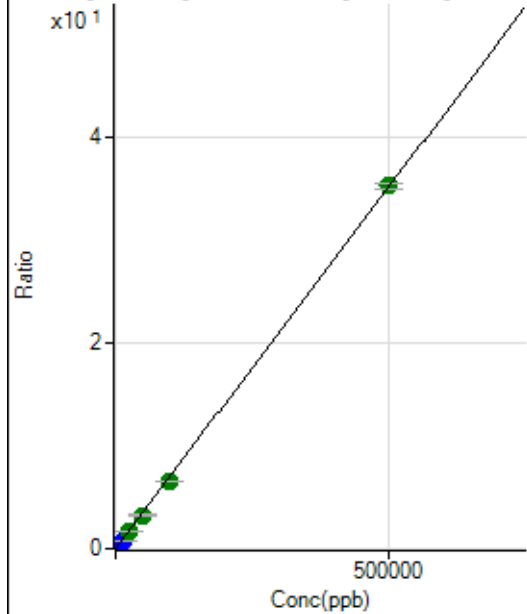
$$R = 0.9998$$

$$DL = 4.949$$

$$BEC = 17.88$$

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	61079.80	0.0126	P	2.2
2	☐	50.000	47.539	74783.89	0.0159	P	0.4
3	☐	500.000	416.051	195213.84	0.0418	P	0.2
4	☐	5000.000	4691.549	1603592.91	0.3423	P	0.3
5	☐	12500.000	11743.619	3894940.32	0.8379	P	0.6
6	☐	25000.000	23168.516	7718998.70	1.6407	A	1.3
7	☐	50000.000	46393.587	15477294.27	3.2728	A	1.1
8	☐	100000.00	92629.142	31193412.16	6.5219	A	0.6
9	☐	500000.00	501948.46	165345631.4	35.2858	A	1.8

$$y = 7.0273\text{E-}005 * x + 0.0126$$

$$R = 0.9999$$

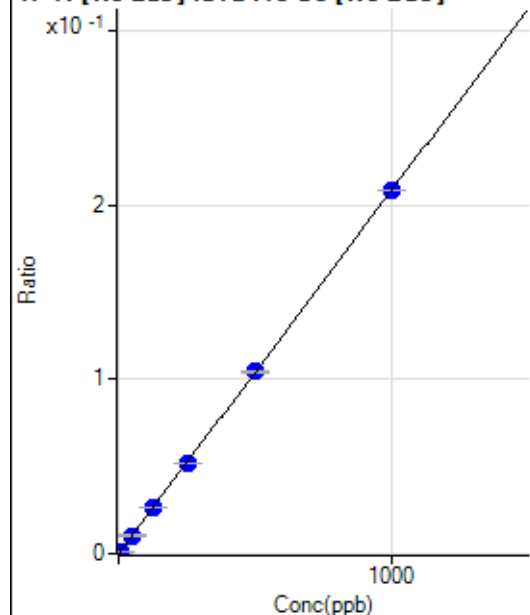
$$DL = 11.61$$

$$BEC = 179.4$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	202.79	0.0000	P	15.8
2	☐	0.500	0.382	569.48	0.0001	P	12.1
3	☐	5.000	4.291	4361.94	0.0009	P	1.4
4	☐	50.000	50.068	49018.65	0.0105	P	0.5
5	☐	125.000	125.592	121715.99	0.0262	P	0.7
6	☐	250.000	249.533	244552.66	0.0520	P	0.6
7	☐	500.000	502.108	494442.80	0.1046	P	1.2
8	☐	1000.000	998.989	994757.68	0.2080	P	0.0
9	☐			888.95	0.0002	P	3.8

$$y = 2.0815E-004 * x + 4.1866E-005$$

$$R = 1.0000$$

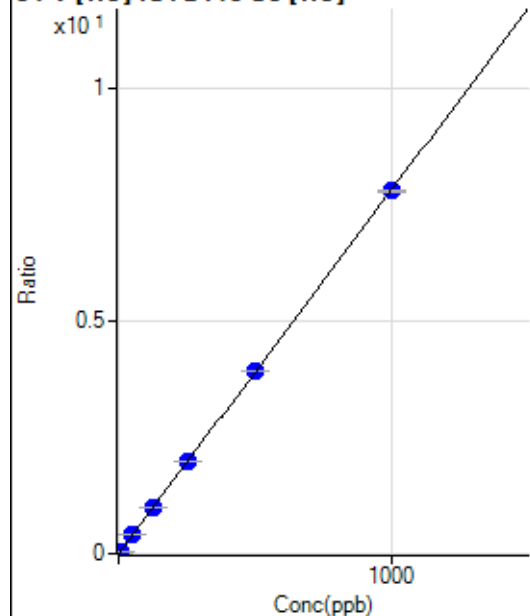
$$DL = 0.09532$$

$$BEC = 0.2011$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	20.00	0.0001	P	49.2
2	☐	0.500	0.416	792.26	0.0033	P	9.1
3	☐	5.000	4.408	8061.21	0.0346	P	0.7
4	☐	50.000	50.752	92590.76	0.3974	P	1.3
5	☐	125.000	126.266	230964.93	0.9885	P	0.4
6	☐	250.000	252.713	466800.67	1.9783	P	0.8
7	☐	500.000	503.222	939511.96	3.9393	P	0.3
8	☐	1000.000	997.518	1933598.34	7.8086	P	0.5
9	☐			357.79	0.0015	P	4.4

$$y = 0.0078 * x + 8.4673E-005$$

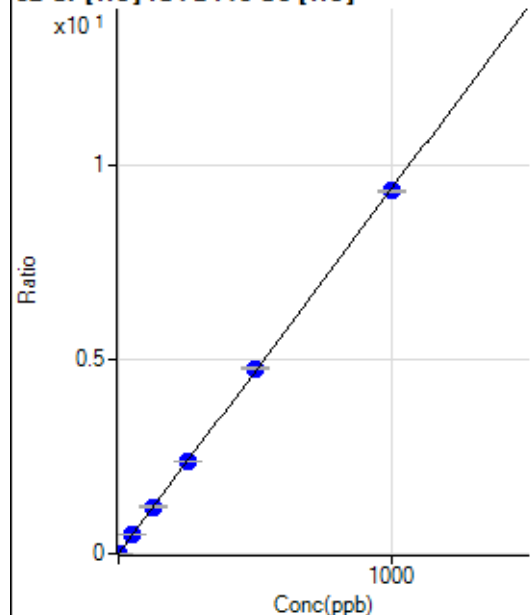
$$R = 1.0000$$

$$DL = 0.01595$$

$$BEC = 0.01082$$

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	985.61	0.0042	P	6.3
2	☐	0.200	0.175	1383.42	0.0058	P	9.0
3	☐	2.000	1.949	5245.46	0.0225	P	1.4
4	☐	50.000	52.052	115026.86	0.4937	P	0.2
5	☐	125.000	128.504	283318.60	1.2126	P	0.6
6	☐	250.000	254.262	565143.23	2.3951	P	0.4
7	☐	500.000	507.547	1139267.65	4.7769	P	0.4
8	☐	1000.000	994.620	2317002.39	9.3571	P	0.8
9	☐			35178.78	0.1427	P	1.3

$$y = 0.0094 * x + 0.0042$$

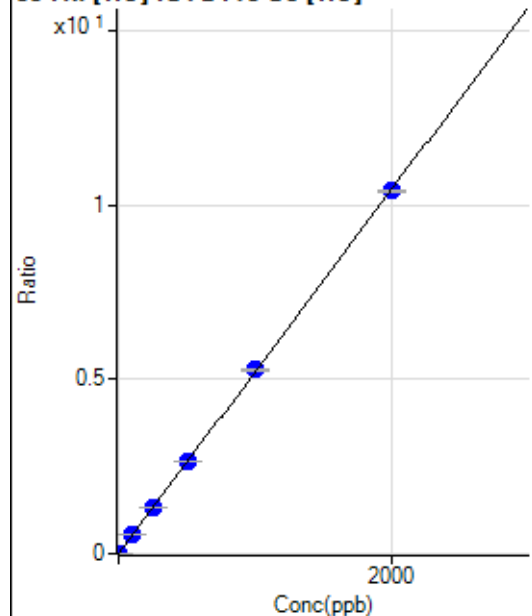
$$R = 0.9999$$

$$DL = 0.08403$$

$$BEC = 0.4452$$

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	75.56	0.0003	P	25.5
2	☐	0.100	0.103	203.34	0.0009	P	0.9
3	☐	1.000	0.884	1150.06	0.0049	P	2.6
4	☐	100.000	103.168	125538.63	0.5388	P	1.8
5	☐	250.000	253.942	309754.01	1.3257	P	0.5
6	☐	500.000	506.497	623837.72	2.6439	P	0.4
7	☐	1000.000	1009.436	1256585.32	5.2688	P	0.5
8	☐	2000.000	1993.007	2575880.29	10.4023	P	0.4
9	☐			10203.68	0.0414	P	3.1

$$y = 0.0052 * x + 3.2057E-004$$

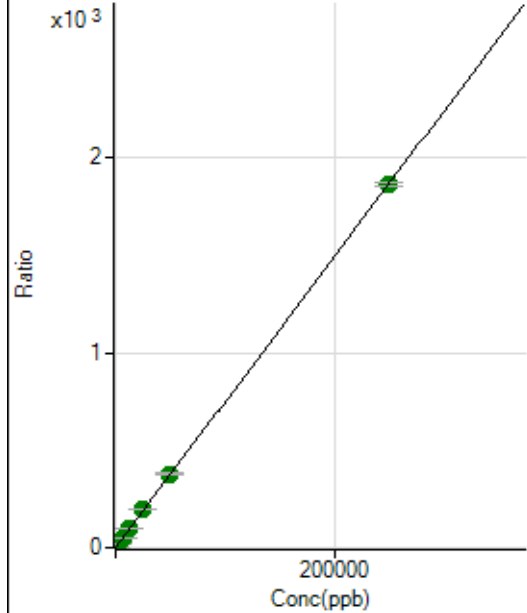
$$R = 1.0000$$

$$DL = 0.04697$$

$$BEC = 0.06142$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4560.08	0.0194	P	2.3
2	☐	5.000	4.566	12655.80	0.0534	P	2.4
3	☐	50.000	47.771	87404.08	0.3750	P	0.7
4	☐	2500.000	2659.650	4618773.43	19.8220	A	0.5
5	☐	6250.000	6582.190	11455514.26	49.0275	A	0.5
6	☐	12500.000	12991.429	22828499.35	96.7480	A	0.9
7	☐	25000.000	26003.909	46179078.81	193.6333	A	1.0
8	☐	50000.000	50940.498	93924296.54	379.3005	A	0.5
9	☐	250000.00	249677.03	458292391.7	1,859.007	A	1.0

$$y = 0.0074 * x + 0.0194$$

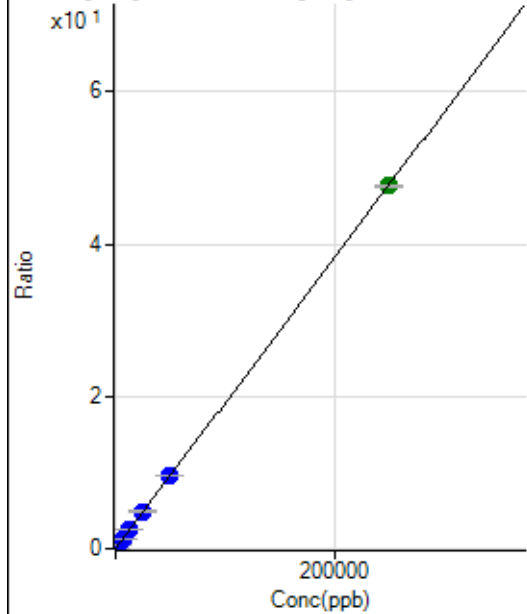
$$R = 1.0000$$

$$DL = 0.1782$$

$$BEC = 2.601$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	266.68	0.0011	P	18.8
2	☐	5.000	5.241	505.58	0.0021	P	4.0
3	☐	50.000	46.294	2320.61	0.0100	P	9.0
4	☐	2500.000	2625.468	116946.46	0.5019	P	0.9
5	☐	6250.000	6561.977	292698.14	1.2527	P	1.1
6	☐	12500.000	12951.972	583168.95	2.4715	P	0.4
7	☐	25000.000	25801.339	1173952.06	4.9223	P	0.4
8	☐	50000.000	50416.174	2381465.24	9.6172	P	0.8
9	☐	250000.00	249804.97	11746521.68	47.6474	A	0.5

$$y = 1.9073E-004 * x + 0.0011$$

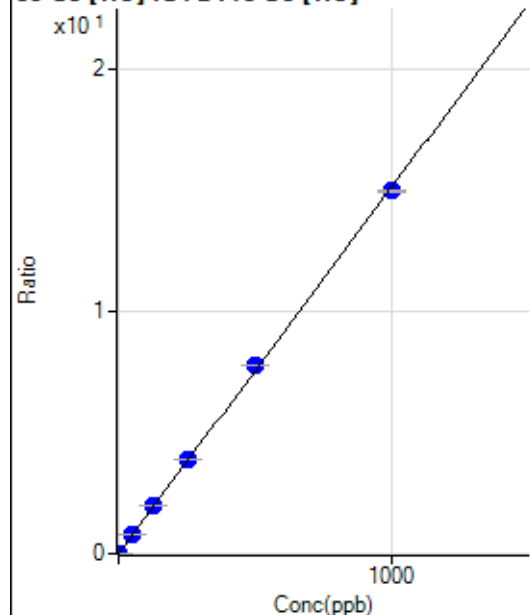
$$R = 1.0000$$

$$DL = 3.353$$

$$BEC = 5.934$$

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	74.44	0.0003	P	17.7
2	☐	0.100	0.092	404.45	0.0017	P	9.2
3	☐	1.000	0.921	3324.88	0.0143	P	3.4
4	☐	50.000	52.954	186860.27	0.8019	P	0.9
5	☐	125.000	131.336	464620.90	1.9885	P	0.7
6	☐	250.000	257.692	920546.21	3.9013	P	0.5
7	☐	500.000	513.478	1853946.00	7.7735	P	0.4
8	☐	1000.000	990.398	3712703.73	14.9932	P	0.7
9	☐			4507.43	0.0183	P	1.2

$$y = 0.0151 * x + 3.1645E-004$$

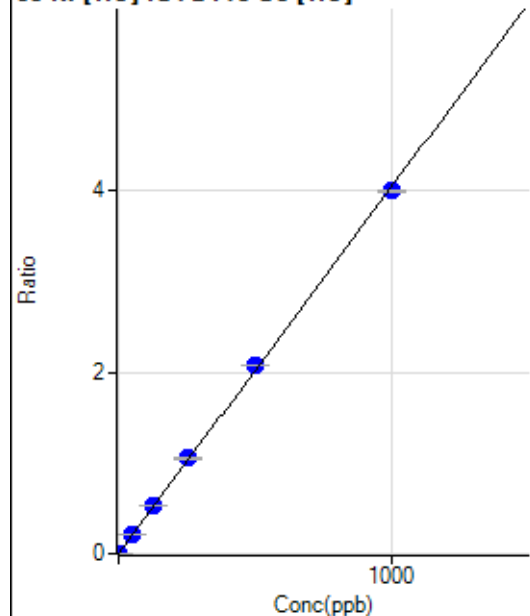
$$R = 0.9998$$

$$DL = 0.01112$$

$$BEC = 0.0209$$

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	128.89	0.0005	P	24.8
2	☐	0.100	0.108	233.34	0.0010	P	19.7
3	☐	1.000	1.077	1141.17	0.0049	P	8.9
4	☐	50.000	54.314	51250.49	0.2199	P	1.4
5	☐	125.000	131.982	124696.89	0.5337	P	0.4
6	☐	250.000	259.604	247567.10	1.0492	P	0.6
7	☐	500.000	514.786	496077.84	2.0800	P	0.4
8	☐	1000.000	989.117	989544.71	3.9961	P	0.3
9	☐			10026.90	0.0407	P	1.0

$$y = 0.0040 * x + 5.4808E-004$$

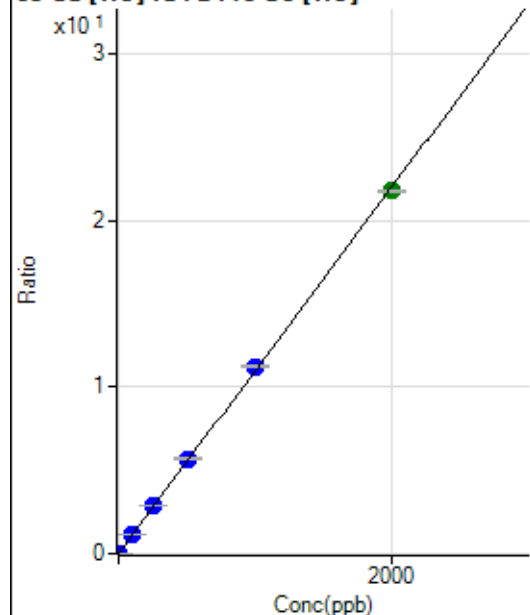
$$R = 0.9998$$

$$DL = 0.1011$$

$$BEC = 0.1357$$

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	1068.94	0.0045	P	3.8
2	☐	0.200	0.206	1612.34	0.0068	P	2.4
3	☐	2.000	1.871	5845.70	0.0251	P	5.6
4	☐	100.000	108.133	277719.14	1.1919	P	0.7
5	☐	250.000	265.272	681639.24	2.9173	P	0.5
6	☐	500.000	519.287	1346469.85	5.7065	P	0.3
7	☐	1000.000	1022.496	2678757.49	11.2319	P	0.4
8	☐	2000.000	1981.615	5389097.31	21.7634	A	0.7
9	☐			7970.05	0.0323	P	2.6

$$y = 0.0110 * x + 0.0045$$

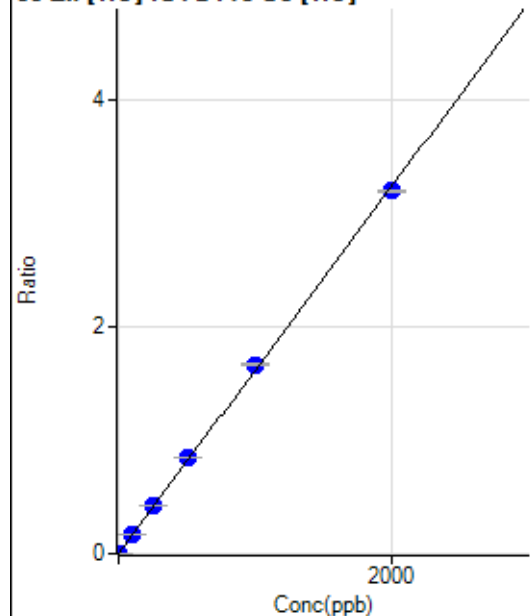
$$R = 0.9998$$

$$DL = 0.04741$$

$$BEC = 0.4133$$

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	226.67	0.0010	P	26.2
2	☐	0.200	0.152	286.68	0.0012	P	19.6
3	☐	2.000	1.894	937.82	0.0040	P	3.9
4	☐	100.000	105.693	40053.98	0.1719	P	1.0
5	☐	250.000	265.252	100459.46	0.4299	P	0.8
6	☐	500.000	521.694	199307.48	0.8447	P	0.2
7	☐	1000.000	1030.309	397643.23	1.6673	P	0.4
8	☐	2000.000	1977.231	792099.49	3.1987	P	0.6
9	☐			2536.93	0.0103	P	5.8

$$y = 0.0016 * x + 9.6091E-004$$

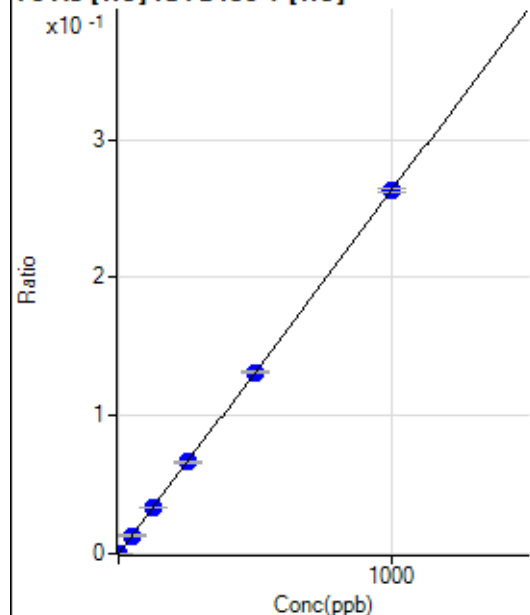
$$R = 0.9998$$

$$DL = 0.4671$$

$$BEC = 0.5942$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.17	0.0000	P	34.7
2	☐	0.100	0.067	27.16	0.0000	P	13.8
3	☐	1.000	0.883	280.87	0.0002	P	10.3
4	☐	50.000	50.016	15497.25	0.0132	P	1.5
5	☐	125.000	125.185	38786.12	0.0329	P	0.5
6	☐	250.000	251.817	78286.29	0.0662	P	0.7
7	☐	500.000	500.281	158891.31	0.1316	P	0.4
8	☐	1000.000	999.382	323147.74	0.2628	P	1.0
9	☐			140.74	0.0001	P	4.2

$$y = 2.6297\text{E-}004 * x + 5.2009\text{E-}006$$

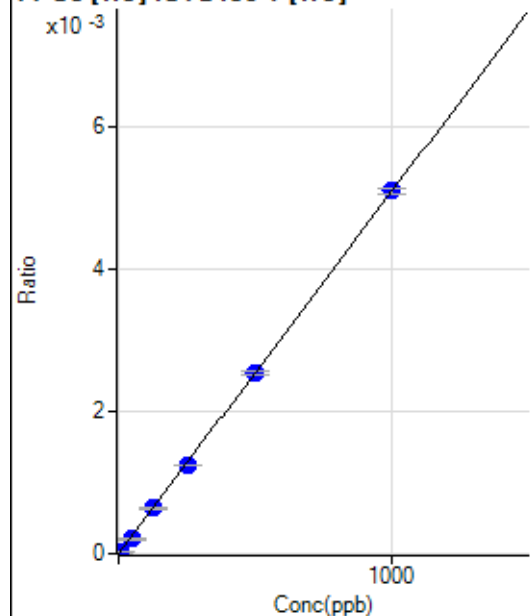
$$R = 1.0000$$

$$DL = 0.02061$$

$$BEC = 0.01978$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.555	3.33	0.0000	P	100.
3	☐	5.000	4.616	27.78	0.0000	P	37.8
4	☐	50.000	42.159	252.23	0.0002	P	14.3
5	☐	125.000	125.104	748.92	0.0006	P	7.5
6	☐	250.000	243.287	1461.21	0.0012	P	0.9
7	☐	500.000	498.387	3058.15	0.0025	P	1.8
8	☐	1000.000	1002.866	6265.89	0.0051	P	1.4
9	☐			5.55	0.0000	P	69.2

$$y = 5.0812\text{E-}006 * x + 0.0000\text{E+}000$$

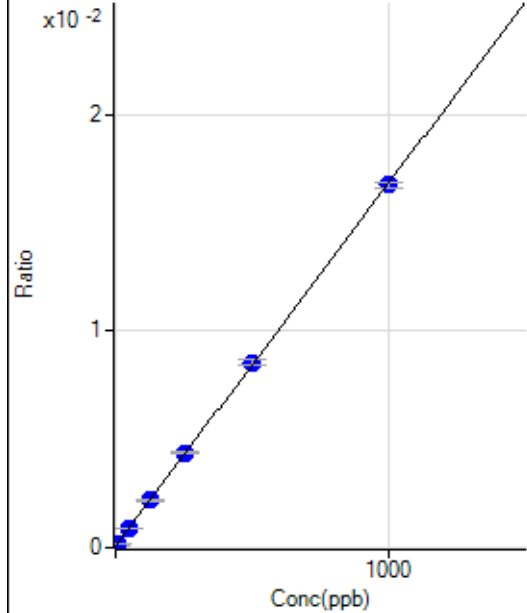
$$R = 1.0000$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	85.80	0.0001	P	25.8
2	☐	0.500	-0.210	81.48	0.0001	P	7.3
3	☐	5.000	3.943	163.58	0.0001	P	5.7
4	☐	50.000	50.018	1071.65	0.0009	P	2.6
5	☐	125.000	126.205	2574.94	0.0022	P	1.9
6	☐	250.000	256.529	5163.93	0.0044	P	2.7
7	☐	500.000	504.910	10300.02	0.0085	P	3.1
8	☐	1000.000	995.767	20593.69	0.0167	P	1.6
9	☐			103.09	0.0001	P	17.5

$$y = 1.6748\text{E-}005 * x + 7.2238\text{E-}005$$

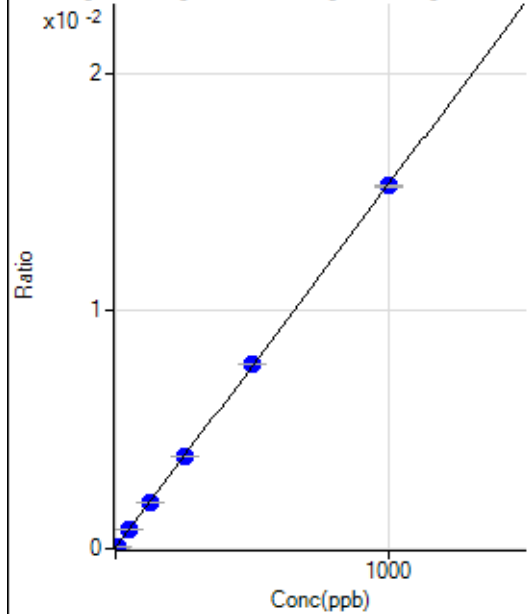
R = 1.0000

DL = 3.336

BEC = 4.313

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	313.02	0.0000	P	18.8
2	☐	0.500	-0.272	275.16	0.0000	P	17.3
3	☐	5.000	3.604	751.98	0.0001	P	3.5
4	☐	50.000	49.601	6421.03	0.0008	P	1.3
5	☐	125.000	124.649	15601.02	0.0019	P	0.4
6	☐	250.000	252.117	31452.84	0.0039	P	0.5
7	☐	500.000	507.117	63161.97	0.0078	P	0.2
8	☐	1000.000	995.984	125494.33	0.0152	P	0.2
9	☐			303.76	0.0000	P	11.8

$$y = 1.5273\text{E-}005 * x + 3.8251\text{E-}005$$

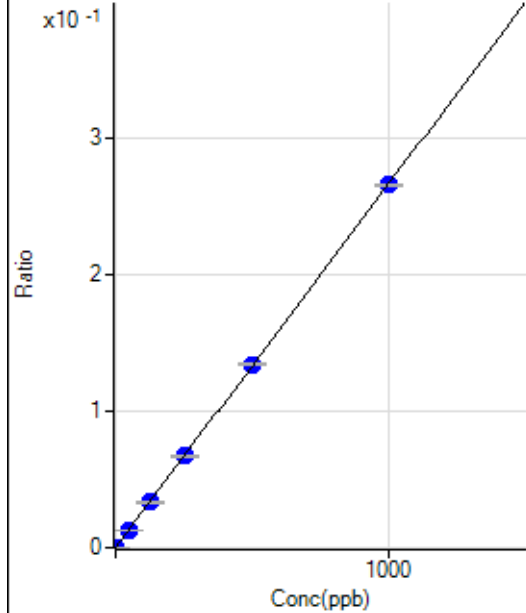
R = 1.0000

DL = 1.415

BEC = 2.505

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	927.85	0.0001	P	6.3
2	☐	0.100	0.043	1008.42	0.0001	P	7.1
3	☐	1.000	0.842	2725.37	0.0003	P	5.5
4	☐	50.000	49.349	107148.26	0.0133	P	0.6
5	☐	125.000	124.969	268738.34	0.0335	P	2.3
6	☐	250.000	250.940	542419.13	0.0671	P	0.5
7	☐	500.000	504.059	1092280.74	0.1346	P	0.5
8	☐	1000.000	997.772	2191662.53	0.2663	P	0.3
9	☐			77777.85	0.0098	P	0.8

$$y = 2.6680E-004 * x + 1.1348E-004$$

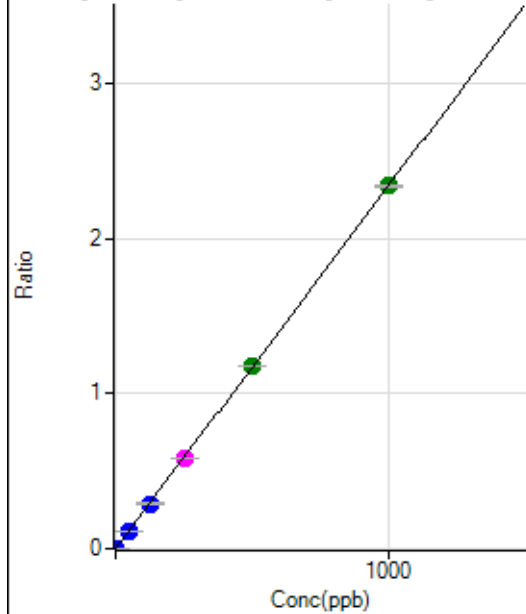
$$R = 1.0000$$

$$DL = 0.08027$$

$$BEC = 0.4253$$

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	188.90	0.0000	P	11.8
2	☐	0.100	0.096	1991.89	0.0002	P	1.7
3	☐	1.000	0.902	17208.19	0.0021	P	3.9
4	☐	50.000	49.919	943420.90	0.1169	P	0.7
5	☐	125.000	124.033	2333641.54	0.2905	P	0.9
6	☐	250.000	249.104	4718350.11	0.5834	M	0.8
7	☐	500.000	501.493	9530750.47	1.1744	A	0.3
8	☐	1000.000	999.602	19265401.12	2.3409	A	0.8
9	☐			671094.64	0.0845	P	1.4

$$y = 0.0023 * x + 2.3116E-005$$

$$R = 1.0000$$

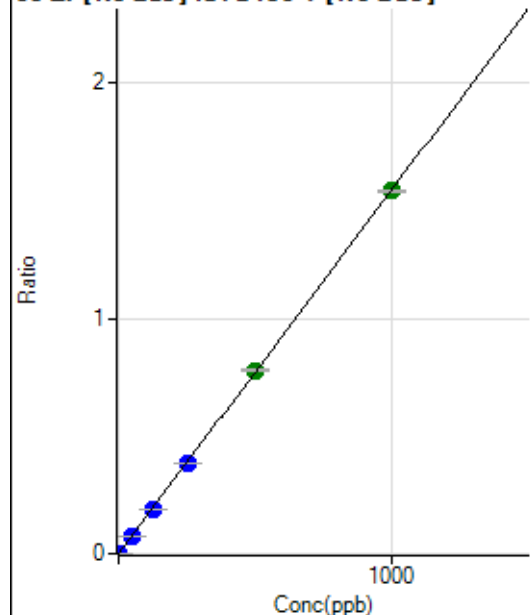
$$DL = 0.003503$$

$$BEC = 0.009871$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	502.81	0.0001	P	20.5
2	☐	0.100	0.077	1455.69	0.0002	P	2.0
3	☐	1.000	0.818	10676.59	0.0013	P	2.6
4	☐	50.000	48.914	609827.80	0.0756	P	0.5
5	☐	125.000	123.192	1528492.20	0.1903	P	0.5
6	☐	250.000	248.319	3101340.24	0.3834	P	0.4
7	☐	500.000	504.958	6327122.23	0.7797	A	0.7
8	☐	1000.000	998.222	12683446.46	1.5412	A	0.2
9	☐			2597.58	0.0003	P	6.1

$$y = 0.0015 * x + 6.1539E-005$$

$$R = 1.0000$$

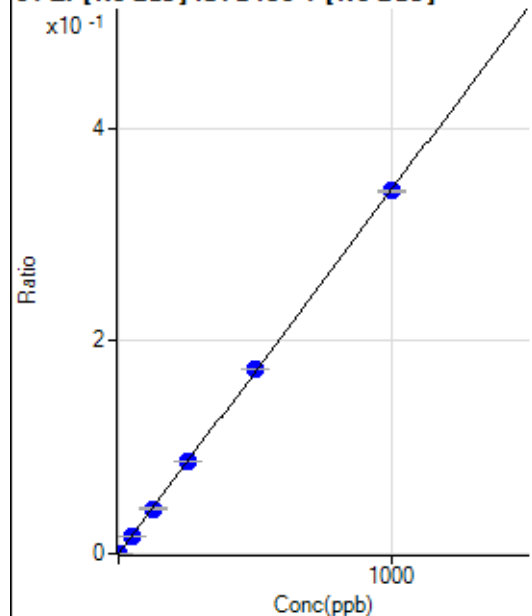
$$DL = 0.0245$$

$$BEC = 0.03986$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0000	P	12.7
2	☐	0.100	0.088	347.24	0.0000	P	15.1
3	☐	1.000	0.843	2428.09	0.0003	P	3.9
4	☐	50.000	49.185	135878.88	0.0168	P	0.9
5	☐	125.000	124.102	341212.42	0.0425	P	0.6
6	☐	250.000	252.251	698134.98	0.0863	P	0.5
7	☐	500.000	505.431	1403436.37	0.1729	P	0.3
8	☐	1000.000	996.875	2806753.21	0.3411	P	0.9
9	☐			686.16	0.0001	P	9.0

$$y = 3.4214E-004 * x + 1.2917E-005$$

$$R = 1.0000$$

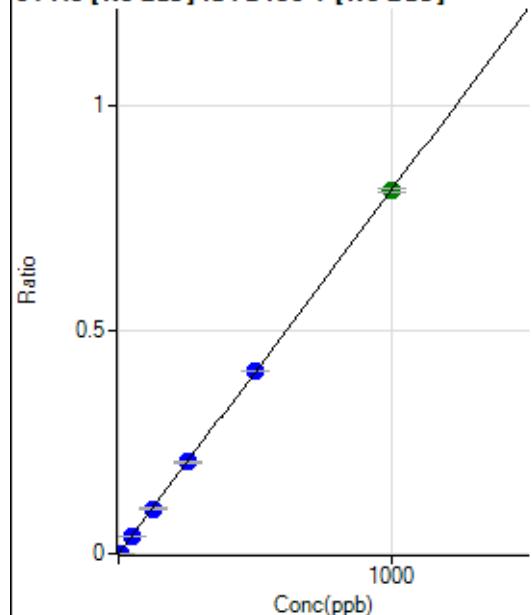
$$DL = 0.01438$$

$$BEC = 0.03775$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.34	0.0000	P	21.6
2	☐	0.500	0.193	1472.36	0.0002	P	2.4
3	☐	5.000	1.839	12244.70	0.0015	P	2.8
4	☐	50.000	49.562	325084.46	0.0403	P	0.2
5	☐	125.000	123.627	807044.92	0.1005	P	2.0
6	☐	250.000	251.387	1651958.64	0.2043	P	1.2
7	☐	500.000	503.692	3320965.40	0.4092	P	0.2
8	☐	1000.000	998.017	6672393.51	0.8108	A	0.9
9	☐			6535.11	0.0008	P	0.8

$$y = 8.1242\text{E-}004 * x + 2.5455\text{E-}005$$

$$R = 1.0000$$

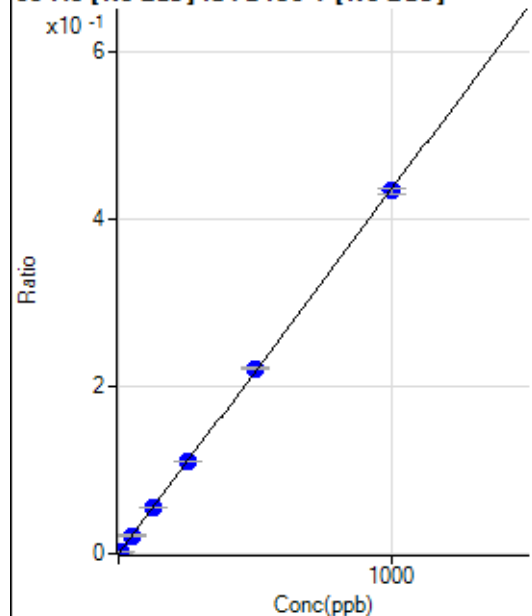
$$DL = 0.02031$$

$$BEC = 0.03133$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	66.5
2	☐	0.500	0.461	1652.95	0.0002	P	10.5
3	☐	5.000	4.379	15408.87	0.0019	P	2.1
4	☐	50.000	50.033	175836.11	0.0218	P	0.8
5	☐	125.000	124.862	436858.78	0.0544	P	0.7
6	☐	250.000	252.689	890019.39	0.1100	P	1.1
7	☐	500.000	507.534	1793631.81	0.2210	P	0.7
8	☐	1000.000	995.580	3567778.38	0.4336	P	1.3
9	☐			9456.33	0.0012	P	2.5

$$y = 4.3548\text{E-}004 * x + 4.4108\text{E-}006$$

$$R = 1.0000$$

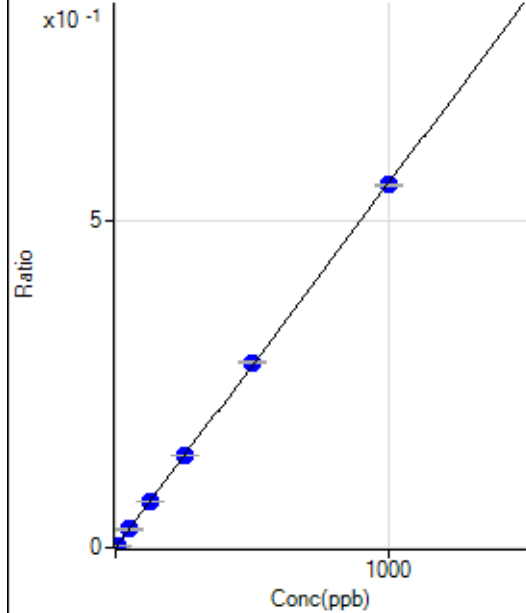
$$DL = 0.02022$$

$$BEC = 0.01013$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	172.23	0.0000	P	45.3
2	☐	0.500	0.402	1978.00	0.0002	P	4.1
3	☐	5.000	3.764	17077.55	0.0021	P	0.9
4	☐	50.000	50.193	225830.37	0.0280	P	0.8
5	☐	125.000	125.402	561485.18	0.0699	P	1.6
6	☐	250.000	252.464	1137921.90	0.1407	P	0.9
7	☐	500.000	507.266	2293934.19	0.2827	P	0.9
8	☐	1000.000	995.697	4565772.76	0.5548	P	0.7
9	☐			12455.86	0.0016	P	1.2

$$y = 5.5721\text{E-}004 * x + 2.1093\text{E-}005$$

$$R = 1.0000$$

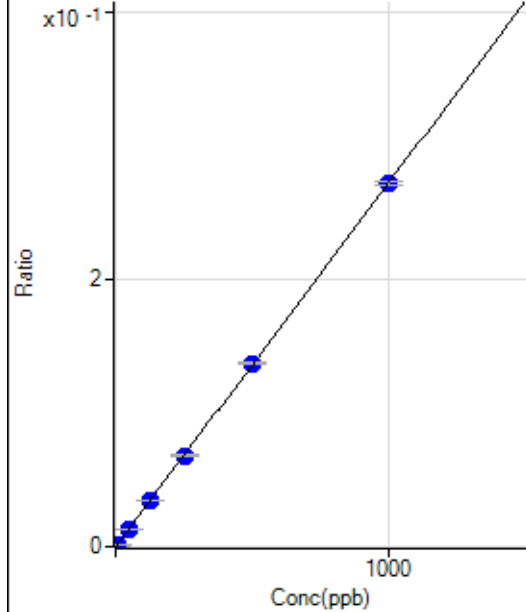
$$DL = 0.05148$$

$$BEC = 0.03786$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.34	0.0000	P	50.1
2	☐	0.500	0.432	980.63	0.0001	P	6.2
3	☐	5.000	4.229	9306.16	0.0012	P	2.3
4	☐	50.000	49.527	108723.93	0.0135	P	1.7
5	☐	125.000	124.719	272575.68	0.0339	P	0.3
6	☐	250.000	250.992	552187.09	0.0683	P	1.6
7	☐	500.000	504.010	1112552.38	0.1371	P	0.4
8	☐	1000.000	997.810	2233457.54	0.2714	P	0.9
9	☐			5731.95	0.0007	P	4.6

$$y = 2.7200\text{E-}004 * x + 4.0754\text{E-}006$$

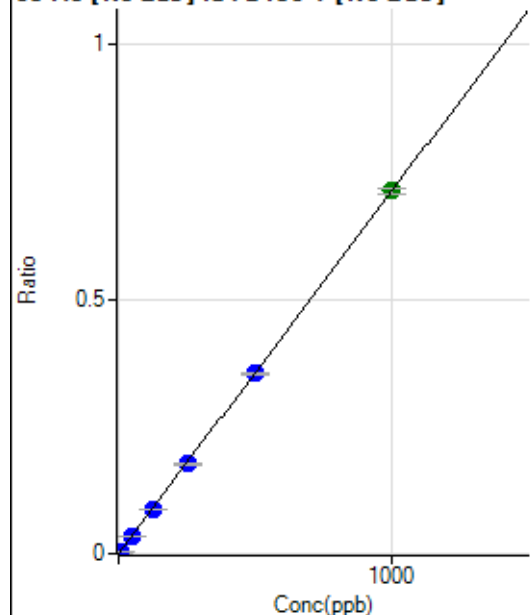
$$R = 1.0000$$

$$DL = 0.02253$$

$$BEC = 0.01498$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	33.3
2	☐	0.500	0.416	2450.33	0.0003	P	3.9
3	☐	5.000	4.262	24516.28	0.0030	P	1.5
4	☐	50.000	49.502	284371.58	0.0352	P	2.0
5	☐	125.000	123.076	703887.84	0.0876	P	1.3
6	☐	250.000	247.560	1425351.94	0.1762	P	0.7
7	☐	500.000	498.412	2879249.09	0.3548	P	0.9
8	☐	1000.000	1001.673	5867452.34	0.7131	A	1.4
9	☐			14958.35	0.0019	P	1.7

$$y = 7.1185\text{E-}004 * x + 7.8254\text{E-}006$$

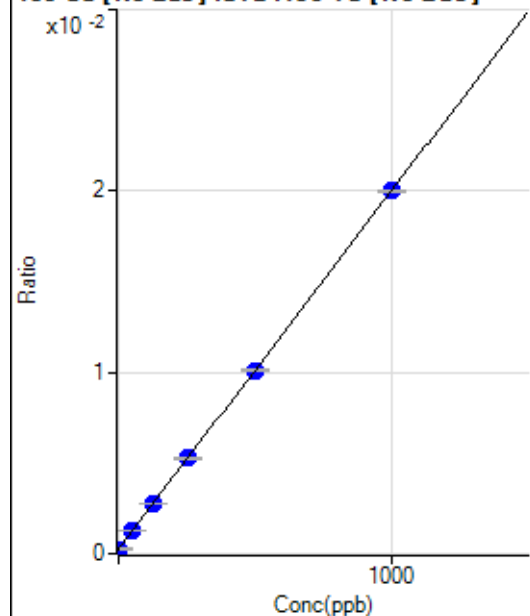
$$R = 1.0000$$

$$DL = 0.01099$$

$$BEC = 0.01099$$

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	2617.02	0.0003	P	1.9
2	☐	0.100	0.202	2639.26	0.0003	P	2.7
3	☐	1.000	0.219	2667.04	0.0003	P	2.6
4	☐	50.000	49.799	12631.14	0.0012	P	1.7
5	☐	125.000	126.053	27789.34	0.0027	P	1.6
6	☐	250.000	252.682	52841.44	0.0053	P	0.3
7	☐	500.000	498.839	103941.01	0.0101	P	1.5
8	☐	1000.000	999.789	204742.40	0.0200	P	0.5
9	☐			2536.45	0.0003	P	2.8

$$y = 1.9758\text{E-}005 * x + 2.5881\text{E-}004$$

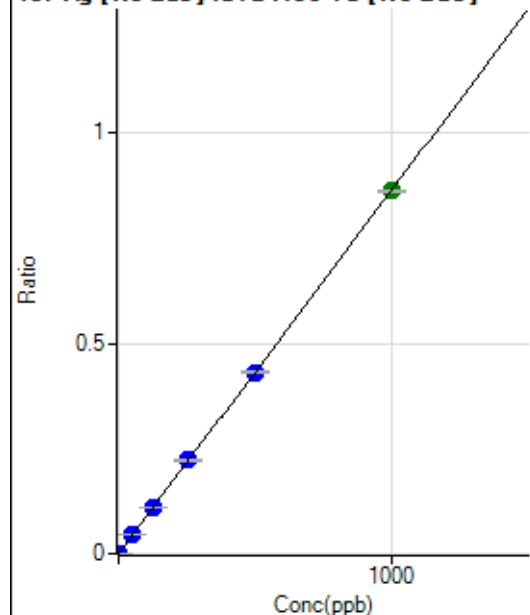
$$R = 1.0000$$

$$DL = 0.7286$$

$$BEC = 13.1$$

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	63.89	0.0000	P	48.8
2	☐	0.100	0.094	880.63	0.0001	P	6.4
3	☐	1.000	0.936	8263.85	0.0008	P	0.9
4	☐	50.000	51.258	450377.45	0.0443	P	2.7
5	☐	125.000	126.757	1107714.25	0.1096	P	0.9
6	☐	250.000	257.014	2235882.69	0.2222	P	0.4
7	☐	500.000	498.633	4429911.08	0.4311	P	0.7
8	☐	1000.000	998.648	8832703.41	0.8634	A	0.7
9	☐			1041.75	0.0001	P	16.3

$$y = 8.6453\text{E-}004 * x + 6.3076\text{E-}006$$

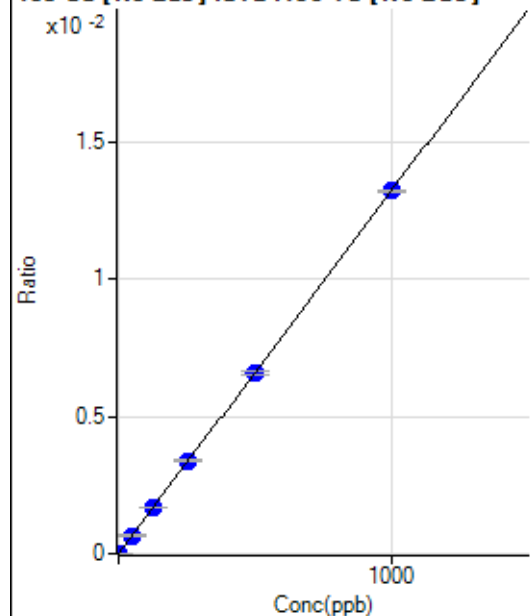
$$R = 1.0000$$

$$DL = 0.01069$$

$$BEC = 0.007296$$

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	5.56	0.0000	P	173.
2	☐	0.100	0.168	27.78	0.0000	P	52.4
3	☐	1.000	1.046	145.84	0.0000	P	11.4
4	☐	50.000	49.594	6675.31	0.0007	P	3.5
5	☐	125.000	127.397	17049.41	0.0017	P	1.6
6	☐	250.000	255.183	33991.07	0.0034	P	2.7
7	☐	500.000	497.376	67655.22	0.0066	P	1.6
8	☐	1000.000	999.737	135383.38	0.0132	P	0.5
9	☐			26.39	0.0000	P	64.0

$$y = 1.3236\text{E-}005 * x + 5.4647\text{E-}007$$

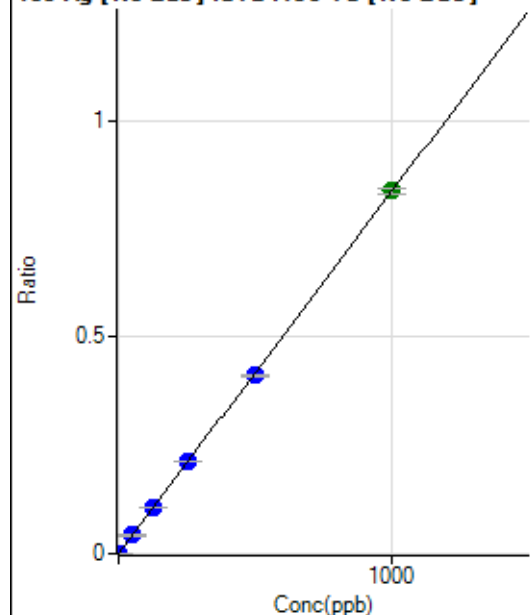
$$R = 1.0000$$

$$DL = 0.2145$$

$$BEC = 0.04129$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	24.4
2	☐	0.100	0.084	761.16	0.0001	P	6.2
3	☐	1.000	0.878	7485.63	0.0007	P	7.3
4	☐	50.000	50.833	431306.38	0.0424	P	1.6
5	☐	125.000	125.713	1060713.64	0.1049	P	0.6
6	☐	250.000	253.284	2127512.61	0.2114	P	0.2
7	☐	500.000	492.217	4222203.74	0.4109	P	0.6
8	☐	1000.000	1002.940	8564542.64	0.8372	A	1.3
9	☐			980.63	0.0001	P	10.5

$$y = 8.3473\text{E-}004 * x + 5.7647\text{E-}006$$

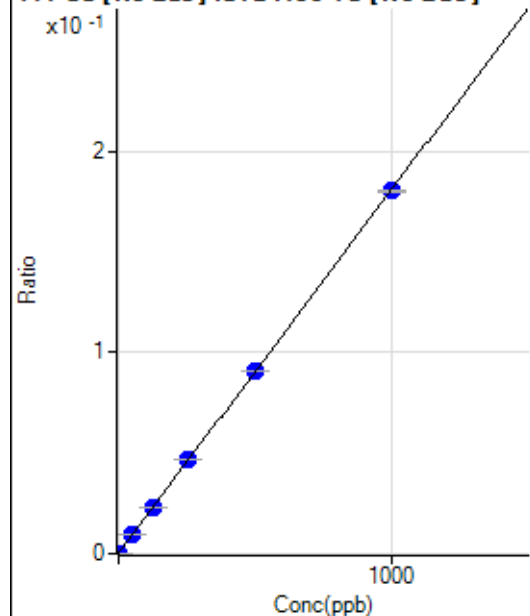
$$R = 1.0000$$

$$DL = 0.005051$$

$$BEC = 0.006906$$

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	1836.36	0.0002	P	2.0
2	☐	0.100	0.105	2014.16	0.0002	P	1.8
3	☐	1.000	0.820	3341.35	0.0003	P	1.2
4	☐	50.000	51.019	95475.38	0.0094	P	2.3
5	☐	125.000	127.367	234322.44	0.0232	P	0.1
6	☐	250.000	257.364	469512.82	0.0467	P	1.2
7	☐	500.000	502.148	933740.13	0.0909	P	0.5
8	☐	1000.000	996.738	1843408.84	0.1802	P	0.2
9	☐			1922.32	0.0002	P	1.5

$$y = 1.8059\text{E-}004 * x + 1.8161\text{E-}004$$

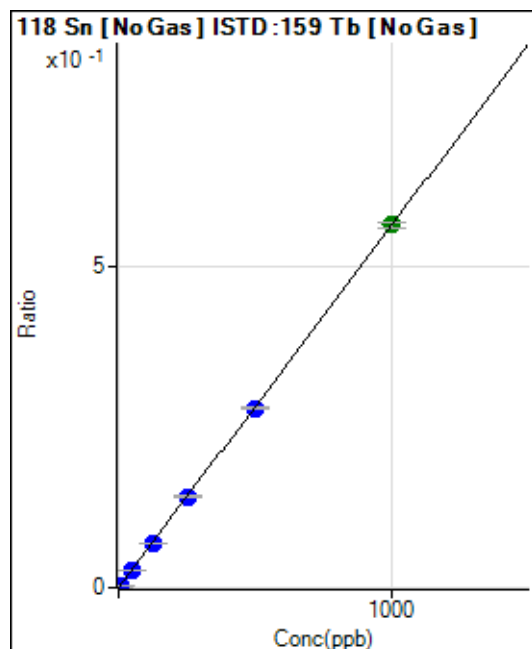
$$R = 1.0000$$

$$DL = 0.06092$$

$$BEC = 1.006$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	575.04	0.0001	P	10.9
2	☐	0.500	0.434	3033.79	0.0003	P	0.9
3	☐	5.000	4.238	24858.93	0.0025	P	2.7
4	☐	50.000	49.698	286087.93	0.0282	P	2.4
5	☐	125.000	123.600	706830.85	0.0699	P	1.4
6	☐	250.000	251.795	1432925.52	0.1424	P	1.1
7	☐	500.000	496.207	2883174.71	0.2806	P	0.4
8	☐	1000.000	1001.642	5793262.76	0.5663	A	1.7
9	☐			7227.16	0.0007	P	3.8

$$y = 5.6531\text{E-}004 * x + 5.6848\text{E-}005$$

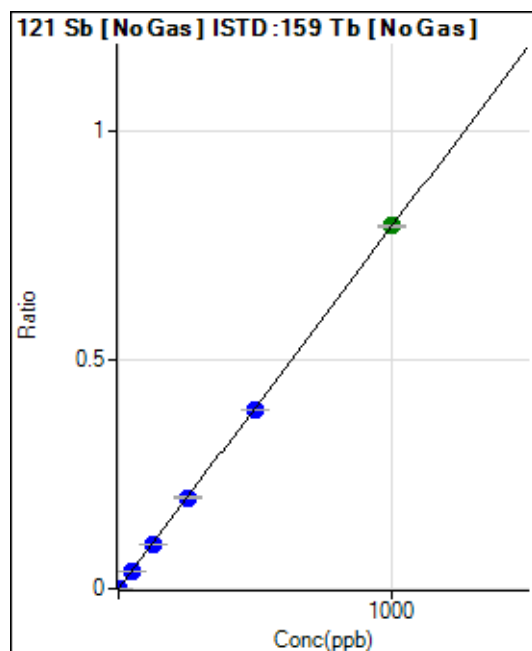
$$R = 1.0000$$

$$DL = 0.03299$$

$$BEC = 0.1006$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	14.6
2	☐	0.200	0.171	1411.25	0.0001	P	5.8
3	☐	2.000	1.770	14213.32	0.0014	P	2.9
4	☐	50.000	49.152	394222.21	0.0388	P	2.2
5	☐	125.000	122.939	980601.36	0.0970	P	1.0
6	☐	250.000	252.209	2002649.37	0.1990	P	1.0
7	☐	500.000	493.424	4001167.76	0.3894	P	0.1
8	☐	1000.000	1003.036	8097399.49	0.7915	A	0.6
9	☐			22023.68	0.0023	P	1.7

$$y = 7.8909\text{E-}004 * x + 5.7703\text{E-}006$$

$$R = 1.0000$$

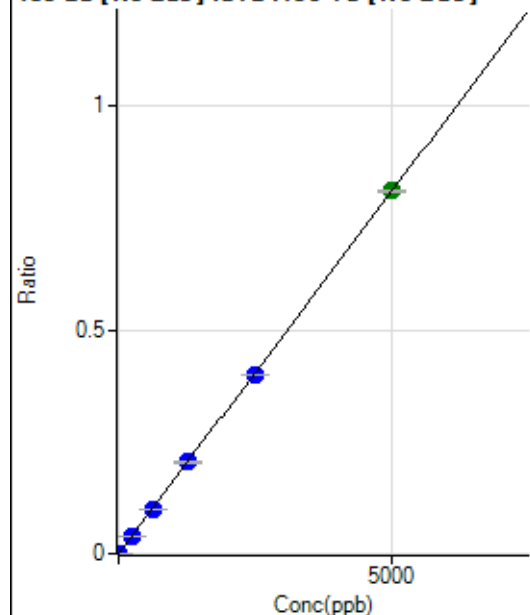
$$DL = 0.003196$$

$$BEC = 0.007313$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	69.45	0.0000	P	25.4
2	☐	1.000	0.855	1458.48	0.0001	P	6.6
3	☐	10.000	8.625	14210.50	0.0014	P	2.1
4	☐	250.000	247.132	406278.41	0.0400	P	2.6
5	☐	625.000	622.207	1017332.75	0.1007	P	0.3
6	☐	1250.000	1263.460	2056428.86	0.2044	P	1.0
7	☐	2500.000	2473.320	4111257.47	0.4001	P	0.4
8	☐	5000.000	5010.470	8291830.83	0.8105	A	0.2
9	☐			2464.21	0.0003	P	4.6

$$y = 1.6175E-004 * x + 6.8736E-006$$

$$R = 1.0000$$

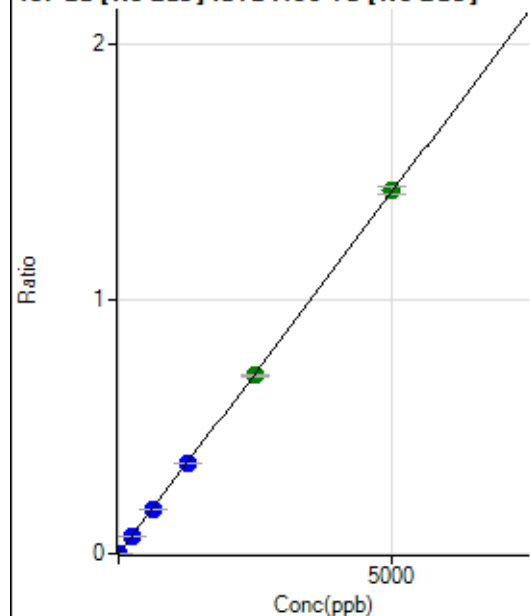
$$DL = 0.03243$$

$$BEC = 0.04249$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	16.2
2	☐	1.000	0.885	2614.27	0.0003	P	6.5
3	☐	10.000	8.386	24213.55	0.0024	P	0.3
4	☐	250.000	246.958	712407.64	0.0701	P	1.7
5	☐	625.000	615.213	1764851.17	0.1746	P	0.6
6	☐	1250.000	1244.833	3555035.10	0.3533	P	0.6
7	☐	2500.000	2463.766	7185452.94	0.6992	A	0.4
8	☐	5000.000	5020.787	14576686.44	1.4249	A	2.2
9	☐			4242.50	0.0004	P	2.3

$$y = 2.8380E-004 * x + 9.0699E-006$$

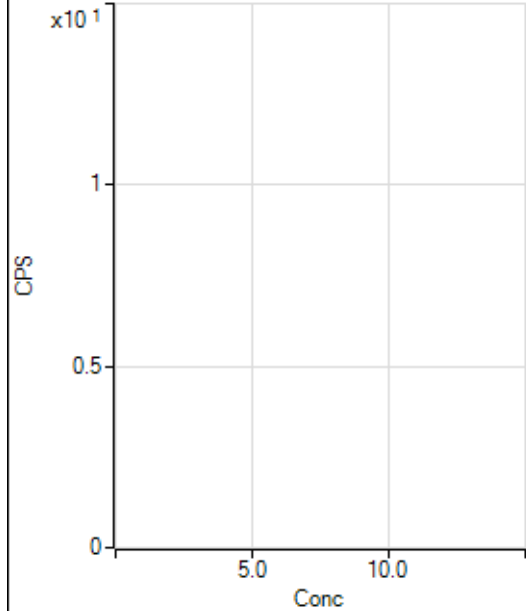
$$R = 1.0000$$

$$DL = 0.01555$$

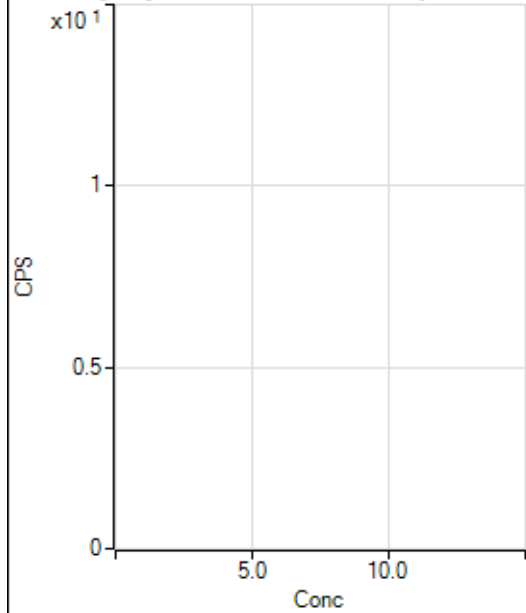
$$BEC = 0.03196$$

Weight: <None>

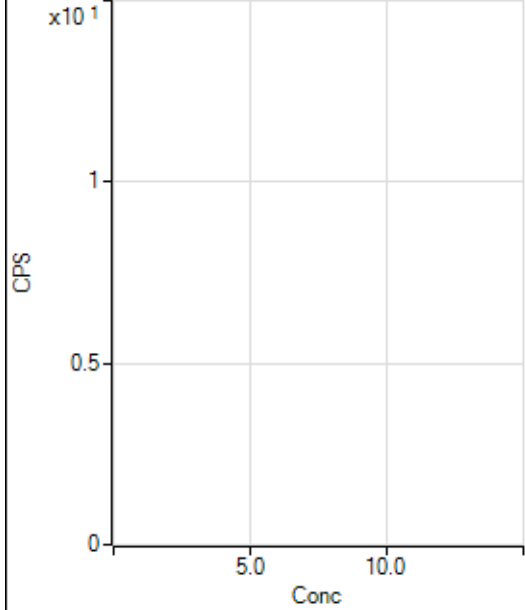
Min Conc: 0

150 Nd [No Gas] No available calibration points

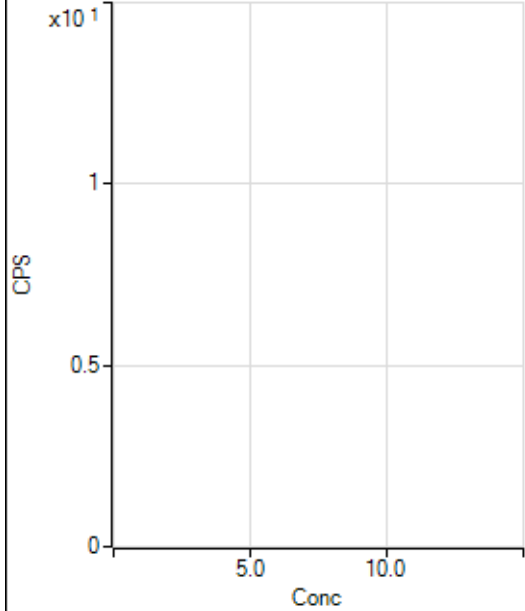
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			8.89		P	43.3
3	☐			6.67		P	100.
4	☐			35.56		P	21.6
5	☐			66.67		P	20.0
6	☐			131.11		P	10.6
7	☐			264.46		P	6.3
8	☐			446.69		P	26.5
9	☐			95.56		P	28.2

150 Nd [He] No available calibration points

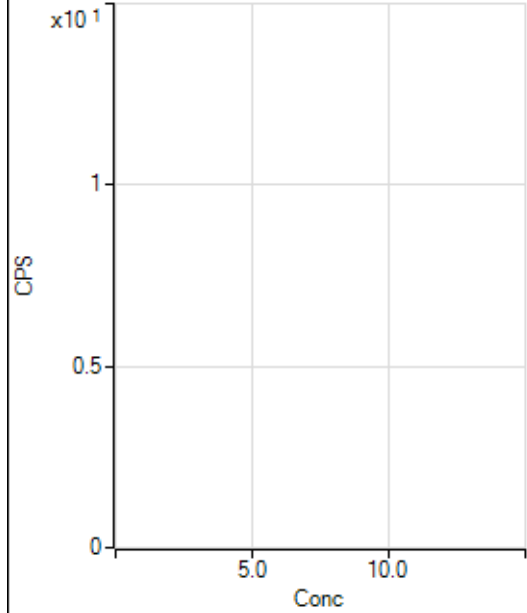
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			1.11		P	173.
4	☐			5.56		P	34.7
5	☐			6.67		P	100.
6	☐			15.56		P	32.7
7	☐			35.56		P	14.3
8	☐			56.67		P	11.8
9	☐			23.33		P	51.5

156 Dy [No Gas] No available calibration points

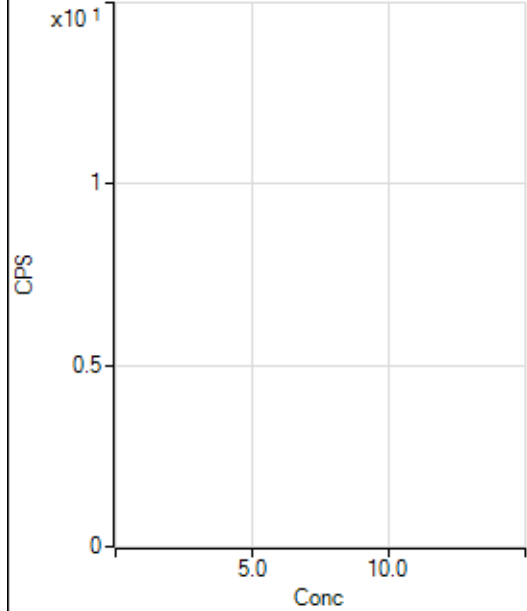
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	114.
2	☐			11.11		P	43.3
3	☐			13.89		P	69.3
4	☐			27.78		P	45.8
5	☐			19.44		P	89.2
6	☐			61.12		P	34.3
7	☐			91.67		P	15.7
8	☐			152.79		P	19.2
9	☐			72.22		P	48.0

156 Dy [He] No available calibration points

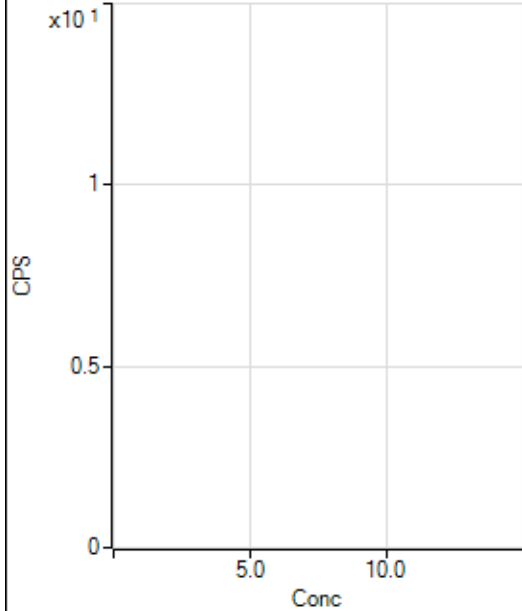
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐			1.11		P	173.
3	☐			3.33		P	100.
4	☐			3.33		P	0.0
5	☐			10.00		P	33.3
6	☐			22.22		P	8.7
7	☐			51.11		P	29.4
8	☐			57.78		P	12.0
9	☐			31.11		P	40.6

160 Gd [No Gas] Noavailable calibration poin_

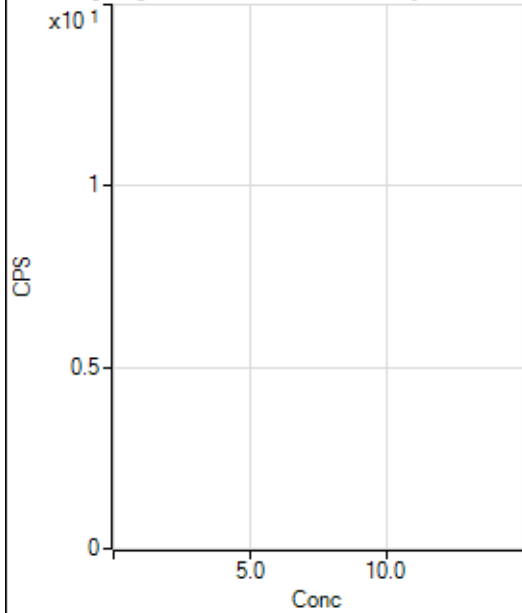
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.11		P	41.7
2	☐			61.11		P	47.9
3	☐			77.78		P	22.3
4	☐			94.45		P	45.3
5	☐			66.67		P	37.5
6	☐			83.34		P	34.6
7	☐			119.45		P	21.3
8	☐			219.46		P	24.4
9	☐			102.78		P	16.9

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			57.78		P	29.0
2	☐			65.56		P	7.8
3	☐			61.11		P	30.0
4	☐			61.11		P	17.5
5	☐			57.78		P	28.5
6	☐			74.45		P	22.1
7	☐			81.11		P	11.9
8	☐			105.56		P	24.5
9	☐			80.00		P	12.5

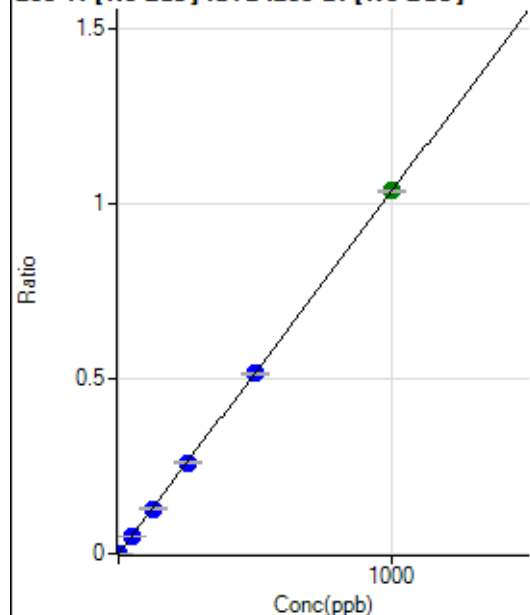
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	41.7
2	☐			36.11		P	26.7
3	☐			58.34		P	24.7
4	☐			41.67		P	34.6
5	☐			38.89		P	44.6
6	☐			44.45		P	65.8
7	☐			33.34		P	43.3
8	☐			63.89		P	37.7
9	☐			55.56		P	48.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	66.7
2	☐			20.00		P	16.7
3	☐			17.78		P	47.2
4	☐			17.78		P	21.7
5	☐			11.11		P	45.8
6	☐			10.00		P	0.0
7	☐			22.22		P	75.5
8	☐			25.56		P	19.9
9	☐			23.34		P	24.7

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	21.9
2	☐	0.100	0.093	672.27	0.0001	P	15.8
3	☐	1.000	0.879	5804.31	0.0009	P	4.2
4	☐	50.000	49.105	323834.25	0.0508	P	1.3
5	☐	125.000	124.547	806822.58	0.1289	P	0.4
6	☐	250.000	250.084	1623206.18	0.2589	P	2.1
7	☐	500.000	496.813	3229097.08	0.5143	P	0.9
8	☐	1000.000	1001.674	6392449.88	1.0370	A	0.4
9	☐			2630.95	0.0005	P	11.2

$$y = 0.0010 * x + 1.0391E-005$$

$$R = 1.0000$$

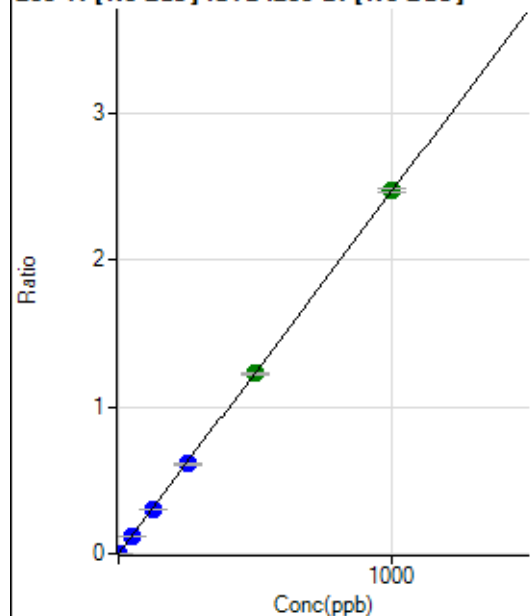
$$DL = 0.006584$$

$$BEC = 0.01004$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	191.68	0.0000	P	35.7
2	☐	0.100	0.088	1566.83	0.0002	P	7.3
3	☐	1.000	0.880	13888.35	0.0022	P	1.6
4	☐	50.000	49.009	770697.84	0.1210	P	1.2
5	☐	125.000	123.461	1907112.52	0.3048	P	0.7
6	☐	250.000	248.679	3848832.42	0.6139	P	2.0
7	☐	500.000	497.085	7703769.79	1.2271	A	1.4
8	☐	1000.000	1002.030	15247265.45	2.4735	A	1.0
9	☐			5962.70	0.0011	P	4.7

$$y = 0.0025 * x + 2.9868E-005$$

$$R = 1.0000$$

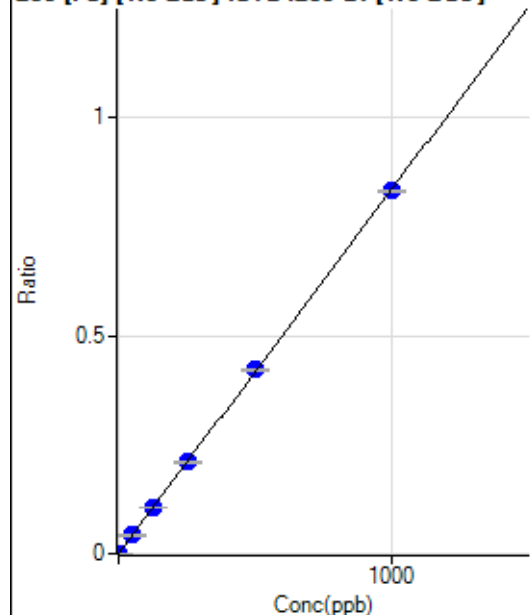
$$DL = 0.01296$$

$$BEC = 0.0121$$

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	607.44	0.0001	P	2.8
2	☐	0.100	0.075	998.22	0.0002	P	4.6
3	☐	1.000	0.887	5264.15	0.0008	P	4.6
4	☐	50.000	50.110	266875.77	0.0419	P	0.5
5	☐	125.000	125.832	657485.70	0.1051	P	0.6
6	☐	250.000	252.895	1323470.68	0.2111	P	1.8
7	☐	500.000	505.113	2646407.58	0.4215	P	1.0
8	☐	1000.000	996.610	5126359.37	0.8316	P	0.3
9	☐			5966.31	0.0011	P	1.8

$$y = 8.3431\text{E-}004 * x + 9.4653\text{E-}005$$

$$R = 1.0000$$

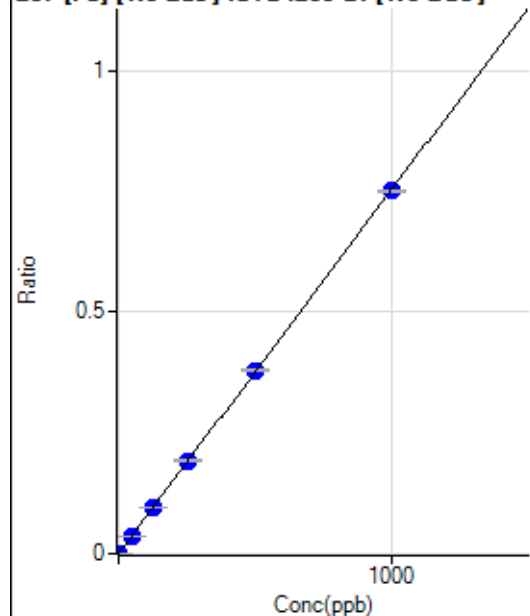
$$DL = 0.009438$$

$$BEC = 0.1135$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	507.43	0.0001	P	11.2
2	☐	0.100	0.090	931.54	0.0001	P	11.4
3	☐	1.000	0.864	4599.07	0.0007	P	4.3
4	☐	50.000	49.863	239518.60	0.0376	P	0.1
5	☐	125.000	126.214	594863.68	0.0951	P	1.0
6	☐	250.000	254.531	1201519.28	0.1916	P	2.1
7	☐	500.000	503.392	2379109.54	0.3789	P	0.9
8	☐	1000.000	997.027	4626232.86	0.7505	P	0.5
9	☐			4778.77	0.0009	P	5.4

$$y = 7.5262\text{E-}004 * x + 7.9094\text{E-}005$$

$$R = 1.0000$$

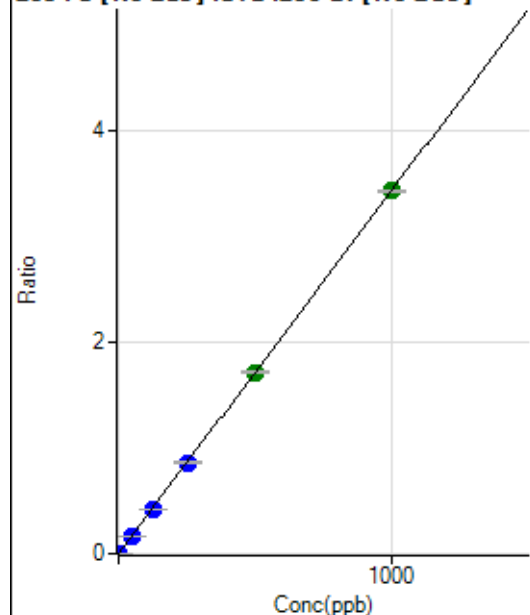
$$DL = 0.0354$$

$$BEC = 0.1051$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2329.77	0.0004	P	8.7
2	☐	0.100	0.084	4115.19	0.0006	P	4.7
3	☐	1.000	0.881	21385.19	0.0034	P	2.3
4	☐	50.000	49.313	1081165.25	0.1698	P	0.2
5	☐	125.000	123.957	2666526.77	0.4262	P	0.6
6	☐	250.000	250.081	5388146.94	0.8594	P	1.9
7	☐	500.000	500.694	10800492.89	1.7203	A	0.5
8	☐	1000.000	999.798	21173259.03	3.4347	A	0.5
9	☐			22860.18	0.0043	P	2.1

$$y = 0.0034 * x + 3.6307E-004$$

$$R = 1.0000$$

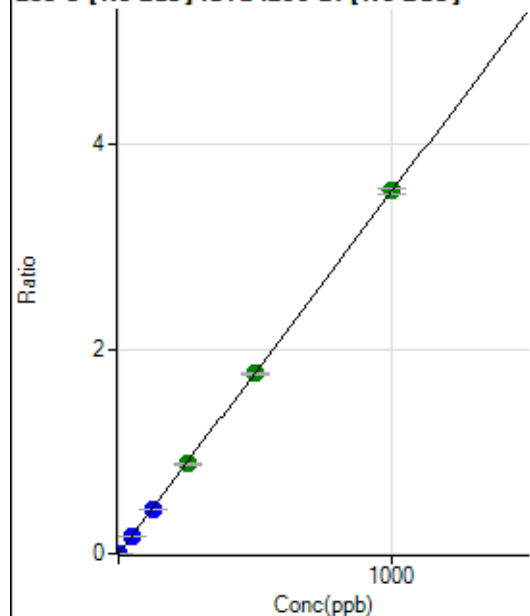
$$DL = 0.02771$$

$$BEC = 0.1057$$

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	177.79	0.0000	P	11.8
2	☐	0.100	0.082	2003.02	0.0003	P	4.6
3	☐	1.000	0.843	18978.40	0.0030	P	1.9
4	☐	50.000	47.934	1079445.39	0.1695	P	0.8
5	☐	125.000	121.386	2685245.89	0.4292	P	1.4
6	☐	250.000	247.258	5480363.19	0.8741	A	2.2
7	☐	500.000	497.222	11036359.97	1.7578	A	0.4
8	☐	1000.000	1002.630	21848230.70	3.5445	A	1.5
9	☐			1850.22	0.0003	P	7.8

$$y = 0.0035 * x + 2.7701E-005$$

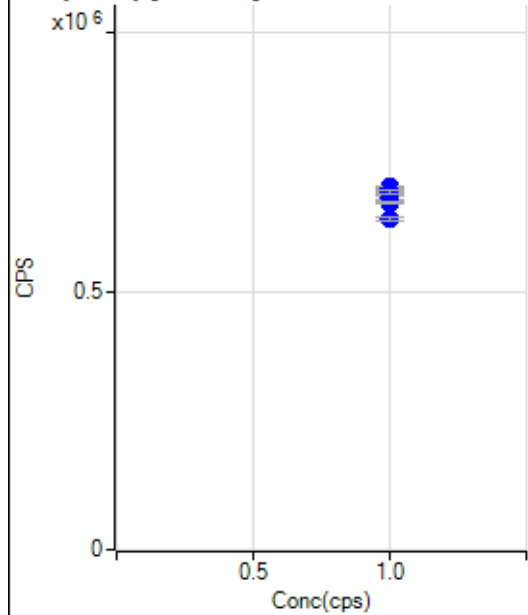
$$R = 1.0000$$

$$DL = 0.00278$$

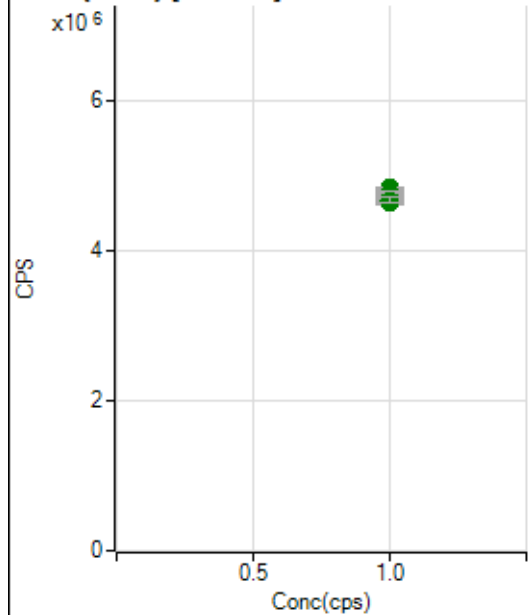
$$BEC = 0.007836$$

Weight: <None>

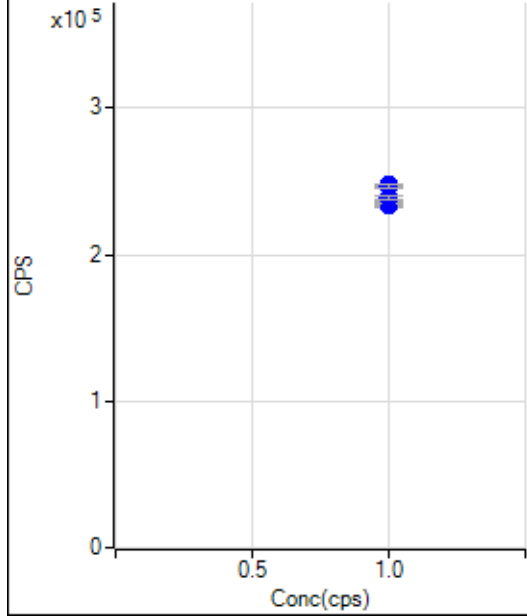
Min Conc: 0

6 Li (ISTD) [No Gas]

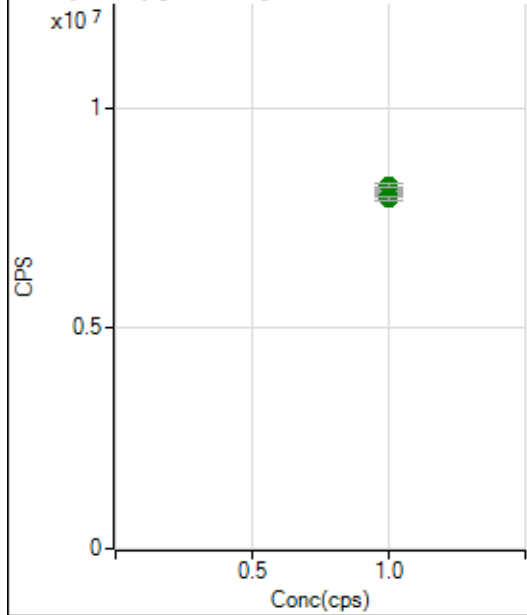
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		680268.00		P	1.0
2	☐	1.000		688817.32		P	1.0
3	☐	1.000		689965.20		P	0.3
4	☐	1.000		702236.04		P	0.8
5	☐	1.000		698695.04		P	1.3
6	☐	1.000		699796.26		P	0.5
7	☐	1.000		693864.96		P	1.0
8	☐	1.000		671041.09		P	0.3
9	☐	1.000		638807.74		P	1.1

45 Sc (ISTD) [No Gas]

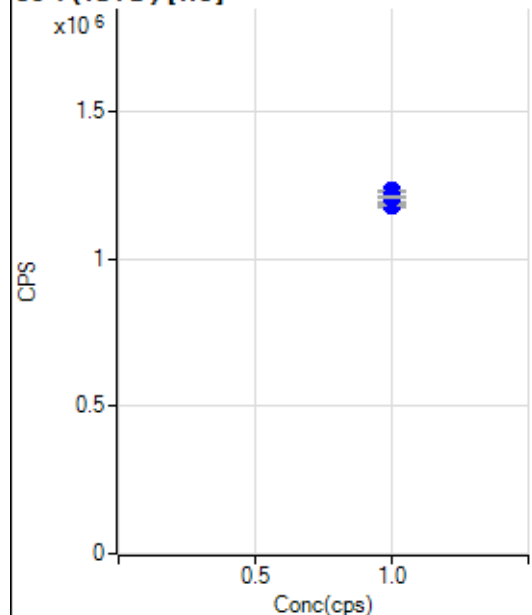
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4844942.25		A	0.8
2	☐	1.000		4689061.48		A	0.3
3	☐	1.000		4665161.26		A	0.1
4	☐	1.000		4684866.21		A	0.4
5	☐	1.000		4648694.59		A	0.7
6	☐	1.000		4704648.19		A	0.5
7	☐	1.000		4729520.07		A	1.4
8	☐	1.000		4782997.20		A	0.7
9	☐	1.000		4686460.04		A	1.3

45 Sc (ISTD) [He]

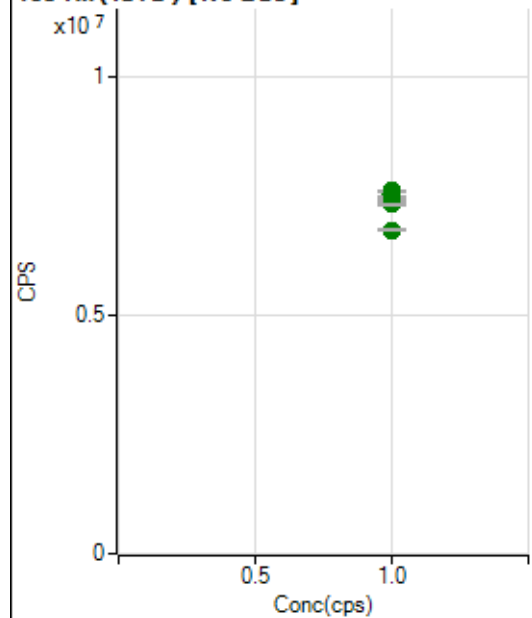
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		235496.25		P	1.0
2	☐	1.000		237175.45		P	0.8
3	☐	1.000		233043.48		P	0.7
4	☐	1.000		233011.59		P	0.2
5	☐	1.000		233652.99		P	0.2
6	☐	1.000		235954.32		P	0.4
7	☐	1.000		238501.17		P	0.9
8	☐	1.000		247628.80		P	0.6
9	☐	1.000		246535.69		P	0.7

89 Y (ISTD) [No Gas]

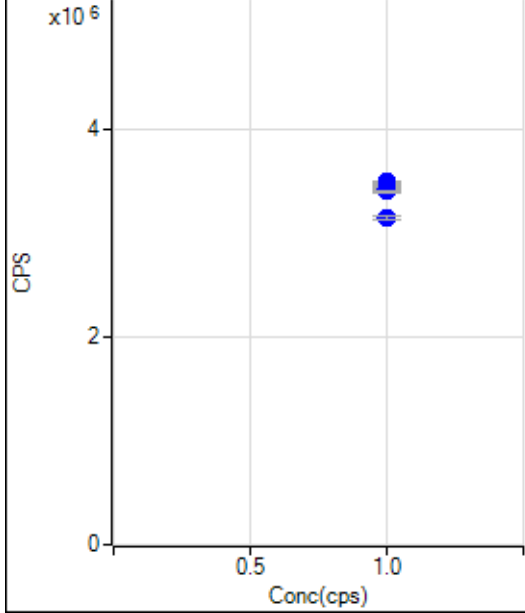
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8176989.53		A	0.8
2	☐	1.000		8065570.78		A	0.7
3	☐	1.000		8060557.10		A	0.4
4	☐	1.000		8068520.78		A	0.4
5	☐	1.000		8033816.48		A	0.9
6	☐	1.000		8088014.53		A	0.6
7	☐	1.000		8115079.74		A	0.2
8	☐	1.000		8229364.88		A	0.9
9	☐	1.000		7940757.94		A	0.7

89 Y(ISTD) [He]

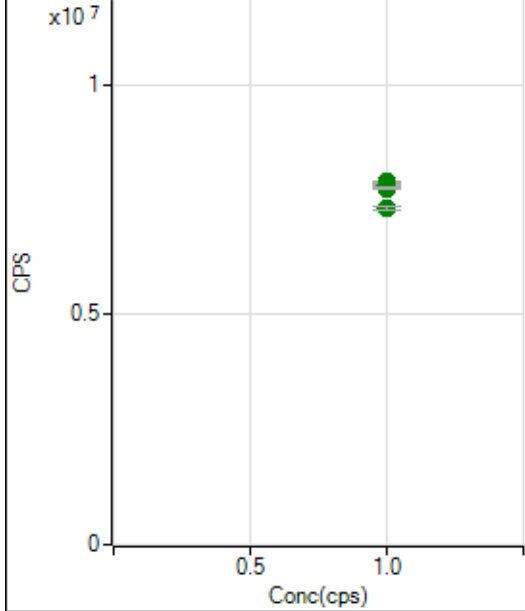
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1187124.92		P	0.7
2	☐	1.000		1185983.79		P	0.5
3	☐	1.000		1182604.44		P	1.4
4	☐	1.000		1177814.21		P	0.6
5	☐	1.000		1178009.43		P	0.3
6	☐	1.000		1182078.40		P	0.7
7	☐	1.000		1207733.18		P	0.8
8	☐	1.000		1229587.80		P	0.4
9	☐	1.000		1210379.43		P	0.6

103 Rh(ISTD) [No Gas]

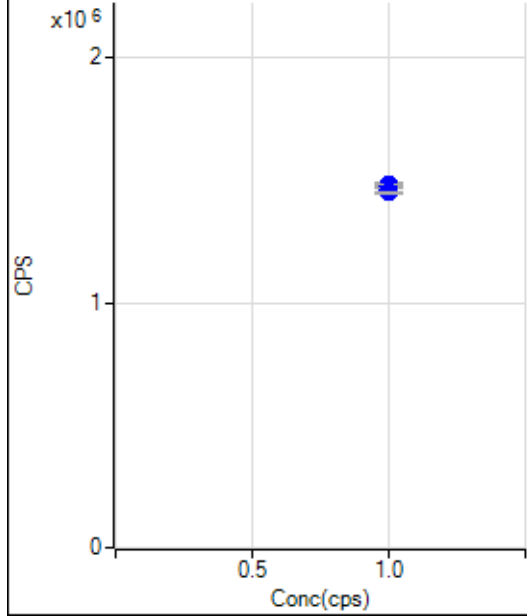
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7592585.76		A	0.8
2	☐	1.000		7475873.17		A	0.8
3	☐	1.000		7520519.26		A	0.9
4	☐	1.000		7483094.18		A	0.5
5	☐	1.000		7436728.81		A	1.1
6	☐	1.000		7435360.32		A	0.1
7	☐	1.000		7365044.17		A	0.2
8	☐	1.000		7312919.17		A	0.3
9	☐	1.000		6780308.40		A	0.5

103 Rh (ISTD) [He]

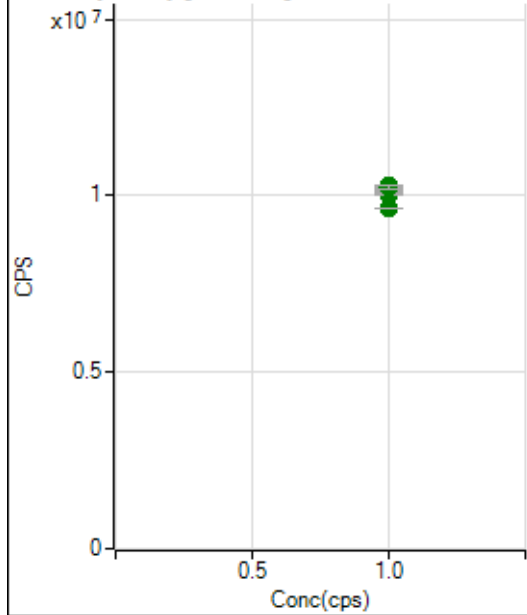
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3487328.49		P	0.6
2	☐	1.000		3501348.42		P	0.8
3	☐	1.000		3459299.08		P	0.6
4	☐	1.000		3469797.66		P	0.4
5	☐	1.000		3446805.92		P	0.6
6	☐	1.000		3427202.14		P	0.6
7	☐	1.000		3437184.08		P	1.3
8	☐	1.000		3407236.34		P	0.2
9	☐	1.000		3160245.54		P	1.1

115 In (ISTD) [No Gas]

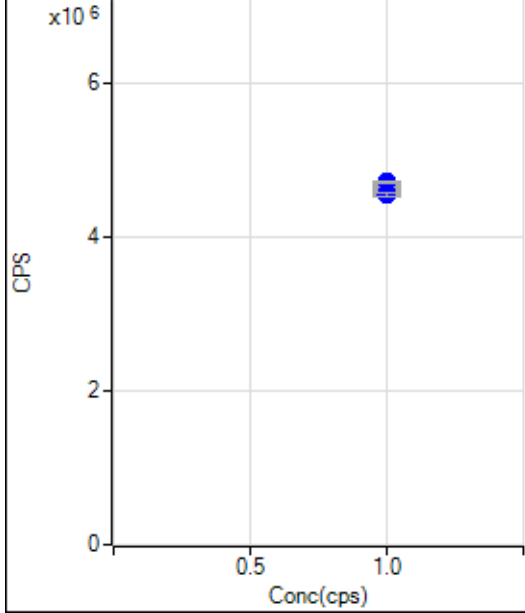
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7865802.00		A	0.8
2	☐	1.000		7788729.31		A	0.5
3	☐	1.000		7789753.22		A	1.0
4	☐	1.000		7893730.39		A	0.5
5	☐	1.000		7831935.97		A	0.7
6	☐	1.000		7837666.59		A	0.9
7	☐	1.000		7754571.18		A	0.3
8	☐	1.000		7765460.89		A	0.4
9	☐	1.000		7325951.11		A	0.7

115 In (ISTD) [He]

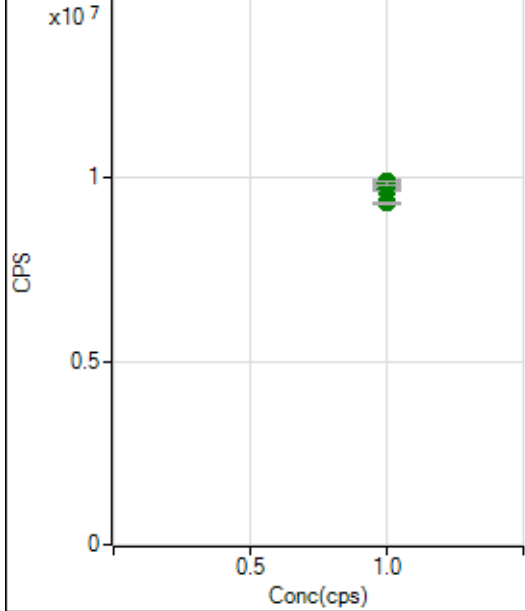
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1481547.97		P	1.2
2	☐	1.000		1476479.40		P	0.8
3	☐	1.000		1462269.30		P	1.9
4	☐	1.000		1475541.63		P	0.6
5	☐	1.000		1476256.32		P	0.8
6	☐	1.000		1471053.26		P	0.4
7	☐	1.000		1474601.50		P	1.3
8	☐	1.000		1476497.46		P	0.6
9	☐	1.000		1449232.57		P	1.0

159 Tb (ISTD) [No Gas]

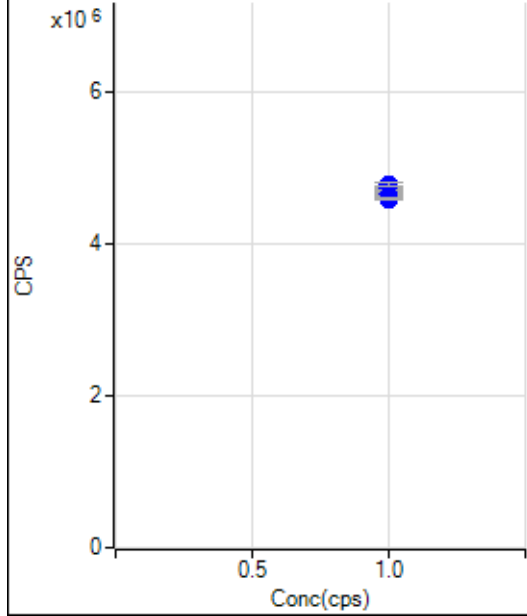
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10112348.39		A	0.5
2	☐	1.000		10042476.52		A	0.6
3	☐	1.000		10135591.30		A	0.2
4	☐	1.000		10165568.39		A	2.1
5	☐	1.000		10107561.66		A	0.2
6	☐	1.000		10062496.59		A	0.6
7	☐	1.000		10276262.07		A	0.4
8	☐	1.000		10230883.32		A	1.0
9	☐	1.000		9641428.67		A	0.4

159 Tb (ISTD) [He]

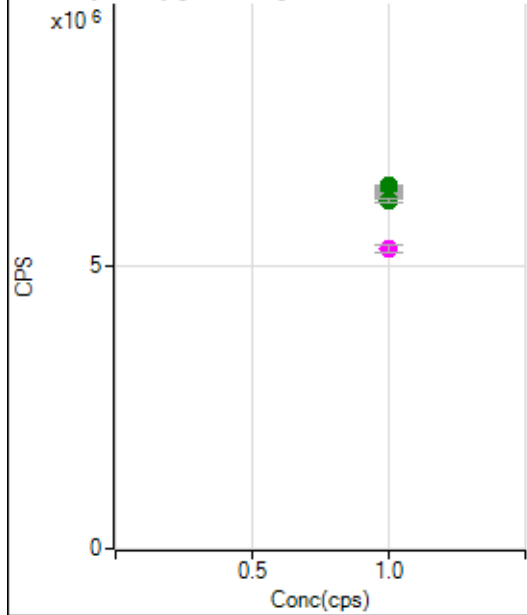
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4599729.34		P	0.9
2	☐	1.000		4619351.07		P	0.5
3	☐	1.000		4570613.30		P	1.2
4	☐	1.000		4654178.96		P	0.3
5	☐	1.000		4652741.39		P	0.6
6	☐	1.000		4668748.40		P	0.4
7	☐	1.000		4692887.33		P	2.0
8	☐	1.000		4719782.91		P	0.5
9	☐	1.000		4546387.64		P	1.3

165 Ho (ISTD) [No Gas]

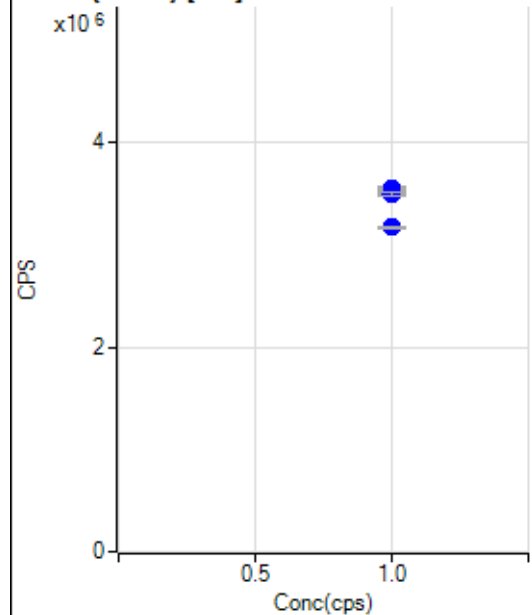
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9891075.74		A	0.9
2	☐	1.000		9723540.15		A	0.6
3	☐	1.000		9645351.34		A	0.5
4	☐	1.000		9797194.49		A	1.0
5	☐	1.000		9689345.61		A	0.9
6	☐	1.000		9824413.41		A	0.3
7	☐	1.000		9854224.00		A	1.1
8	☐	1.000		9855893.36		A	0.6
9	☐	1.000		9315883.11		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4637453.09		P	1.1
2	☐	1.000		4661918.02		P	0.3
3	☐	1.000		4608412.12		P	0.9
4	☐	1.000		4658627.64		P	0.6
5	☐	1.000		4664230.66		P	0.9
6	☐	1.000		4706865.24		P	0.8
7	☐	1.000		4731865.70		P	1.1
8	☐	1.000		4774991.11		P	1.0
9	☐	1.000		4591093.20		P	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6418071.57		A	0.5
2	☐	1.000		6332878.38		A	0.7
3	☐	1.000		6306679.35		A	0.5
4	☐	1.000		6369037.19		A	0.2
5	☐	1.000		6257114.63		A	0.3
6	☐	1.000		6270911.85		A	1.6
7	☐	1.000		6278534.49		A	0.7
8	☐	1.000		6164724.63		A	1.2
9	☐	1.000		5312452.52		M	2.6

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3537643.31		P	0.8
2	☐	1.000		3547705.89		P	0.2
3	☐	1.000		3506749.32		P	0.8
4	☐	1.000		3544948.70		P	1.2
5	☐	1.000		3539770.02		P	1.0
6	☐	1.000		3518820.05		P	1.0
7	☐	1.000		3510240.57		P	0.2
8	☐	1.000		3498462.87		P	1.1
9	☐	1.000		3170313.43		P	0.2

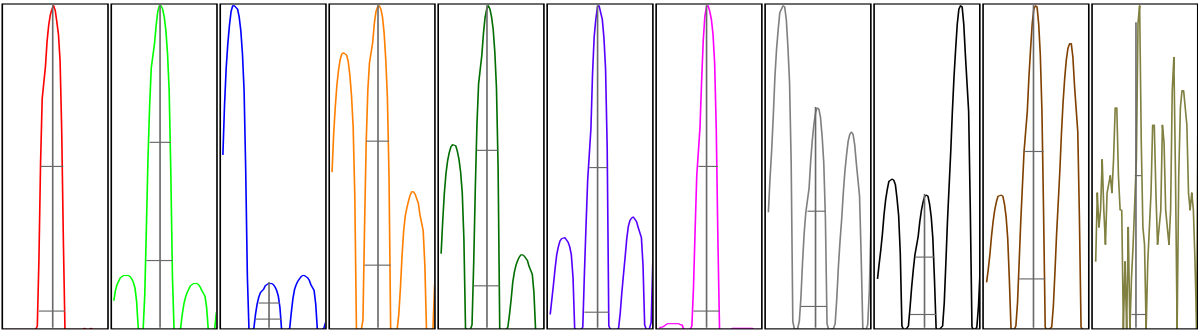
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7101717-MS_#2.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	4136	1.13	5.00		
24	249092	1.36	5.00		
25	36407	1.01	5.00		
26	42012	1.28	5.00		
59	51760	1.59	5.00		
113	21105	1.11	5.00		
115	427722	1.08	5.00		
206	18643	1.33	5.00		
207	17210	1.70	5.00		
208	39579	1.26	5.00		
220	0	23.21			

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
9	4143	4132	4098	4095	4210
24	246945	251086	246254	254117	247056
25	36107	36868	36088	36733	36239
26	41579	42385	41517	42759	41823
59	50588	52352	51634	52718	51509
113	20866	20882	21379	21296	21103
115	428493	420043	431489	431080	427505
206	18551	18281	18853	18641	18891
207	17311	16869	17404	16935	17532
208	39632	38949	40069	39203	40043
220	0	0	0	0	1

Integration Time [sec] = 0.1



Mass	Peak	Axis	Axis	Axis	Width-X%	Width-X%	Width-
	Height	(Actual)	(Required)	(Flag)	(Actual)	(Required)	X% (Flag)
9	7072	8.95	8.9 - 9.1		0.779	0.900	
24	412745	23.90	23.9 - 24.1		0.767	0.900	
25	58877	24.90	24.9 - 25.1		0.744	0.900	
26	68780	25.90	25.9 - 26.1		0.749	0.900	
59	87711	58.90	58.9 - 59.1		0.756	0.900	
113	39556	112.95	112.9 - 113.1		0.732	0.900	
115	791898	114.95	114.9 - 115.1		0.772	0.900	
206	34226	205.95	205.9 - 206.1		0.762	0.900	
207	30490	206.95	206.9 - 207.1		0.754	0.900	
208	73616	207.95	207.9 - 208.1		0.749	0.900	
220	1	219.75	-		0.426		

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	10.0	V	Deflect	13.6	V
Extract 2	-235.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-95	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	14440	0.40	
89	6602	0.30	
205	16203	0.25	

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
59	14508	14431	14362	14484	14413
89	6632	6591	6591	6613	6585
205	16181	16225	16235	16144	16232

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	10.0	V	Deflect	2.6	V
Extract 2	-240.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-110	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			