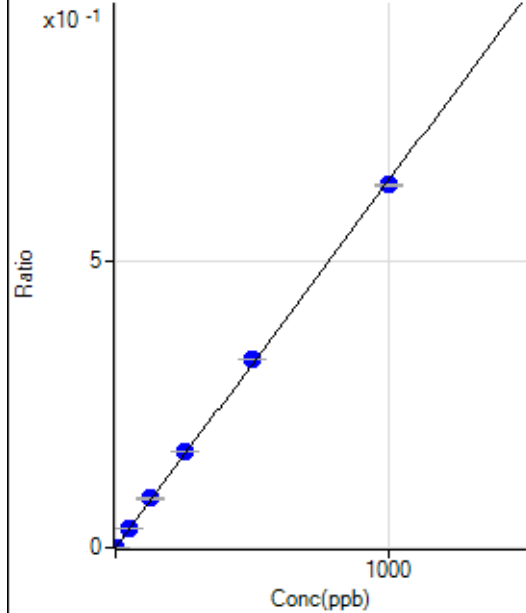


Calibration for 015ICSB.d

Batch Folder: D:\ICP-MS Data\P7060219 MS.b\
 Analysis File: P7060219 MS.batch.bin
 DA Date-Time: 2019-06-03 00:06:24
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-02 13:37:45
2			
3	005CALS.d	S02	2019-06-02 13:45:39
4	006CALS.d	S03	2019-06-02 13:49:35
5	007CALS.d	S04	2019-06-02 13:53:32
6	008CALS.d	S05	2019-06-02 13:57:25
7	009CALS.d	S06	2019-06-02 14:01:14
8	010CALS.d	S07	2019-06-02 14:05:03
9	011CALS.d	S08	2019-06-02 14:08:50

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	42.0
2	☐	0.100					
3	☐	1.000	1.032	1400.09	0.0007	P	2.2
4	☐	50.000	53.611	70574.09	0.0344	P	1.1
5	☐	125.000	135.370	171348.50	0.0869	P	3.8
6	☐	250.000	262.804	325919.66	0.1687	P	0.3
7	☐	500.000	512.886	626640.55	0.3292	P	0.5
8	☐	1000.000	988.879	1186180.88	0.6347	P	0.5
9	☐			363.35	0.0002	P	8.7

$$y = 6.4178\text{E-}004 * x + 1.3374\text{E-}005$$

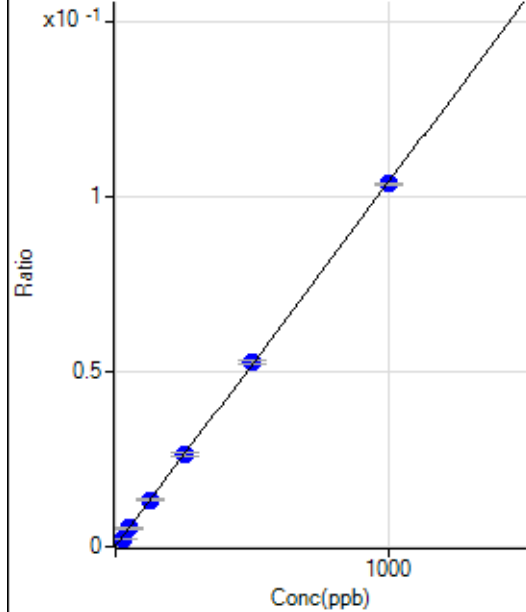
$$R = 0.9998$$

$$DL = 0.02623$$

$$BEC = 0.02084$$

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	183.34	0.0001	P	4.7
2	☐	2.500					
3	☐	25.000	22.509	5031.60	0.0024	P	1.5
4	☐	50.000	50.307	10898.75	0.0053	P	4.3
5	☐	125.000	128.244	26446.28	0.0134	P	4.9
6	☐	250.000	253.909	51148.28	0.0265	P	3.3
7	☐	500.000	506.337	100329.14	0.0527	P	1.5
8	☐	1000.000	995.496	193496.91	0.1035	P	0.8
9	☐			11502.03	0.0061	P	11.3

$$y = 1.0391\text{E-}004 * x + 8.8303\text{E-}005$$

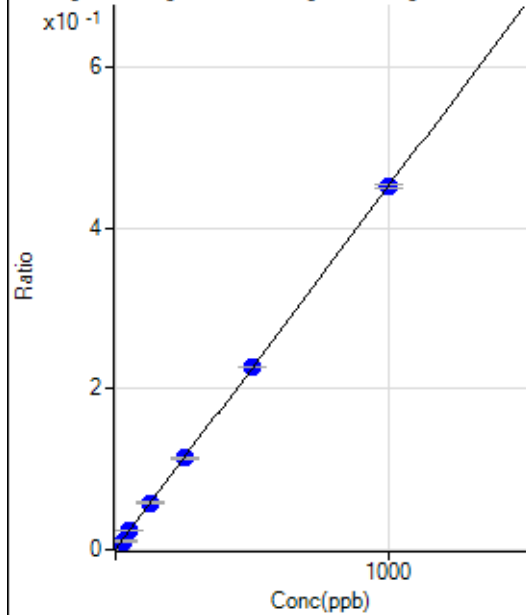
$$R = 0.9999$$

$$DL = 0.1211$$

$$BEC = 0.8498$$

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	658.38	0.0003	P	4.7
2	☐	2.500					
3	☐	25.000	22.932	22114.15	0.0107	P	4.7
4	☐	50.000	50.568	47450.47	0.0231	P	1.4
5	☐	125.000	128.143	114683.82	0.0582	P	4.3
6	☐	250.000	251.028	219548.33	0.1136	P	1.4
7	☐	500.000	502.721	432587.21	0.2272	P	0.4
8	☐	1000.000	998.013	842554.19	0.4508	P	0.9
9	☐			49423.97	0.0264	P	12.2

$$y = 4.5137\text{E-}004 * x + 3.1709\text{E-}004$$

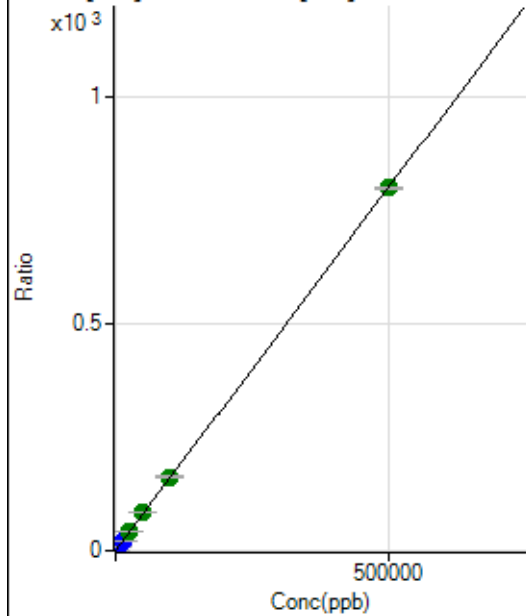
$$R = 1.0000$$

$$DL = 0.0989$$

$$BEC = 0.7025$$

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	1786.29	0.0111	P	2.3
2	☐	50.000					
3	☐	500.000	492.745	127381.40	0.8010	P	8.8
4	☐	5000.000	5202.440	1328713.65	8.3516	P	0.5
5	☐	12500.000	12966.075	3226240.22	20.7983	P	0.5
6	☐	25000.000	25932.410	6216715.98	41.5859	A	0.5
7	☐	50000.000	51988.773	12320011.13	83.3595	A	0.4
8	☐	100000.00	101776.47	24201919.46	163.1791	A	0.6
9	☐	500000.00	499385.53	126645207.0	800.6260	A	0.3

$$y = 0.0016 * x + 0.0111$$

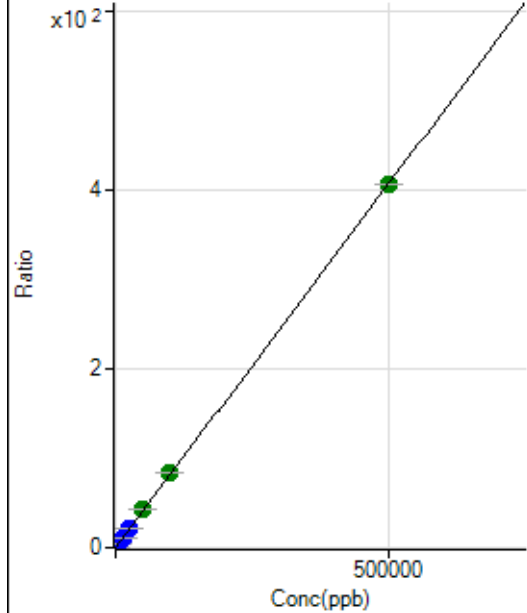
$$R = 1.0000$$

$$DL = 0.4756$$

$$BEC = 6.898$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	225.01	0.0014	P	20.7
2	☐	50.000					
3	☐	500.000	531.922	69065.32	0.4343	P	8.7
4	☐	5000.000	5398.381	699199.44	4.3947	P	0.4
5	☐	12500.000	13358.776	1686588.72	10.8730	P	1.0
6	☐	25000.000	26653.996	3242927.07	21.6930	P	0.2
7	☐	50000.000	53304.632	6411613.34	43.3818	A	0.2
8	☐	100000.00	103858.59	12536214.69	84.5237	A	0.4
9	☐	500000.00	498789.63	64210084.07	405.9269	A	0.2

$$y = 8.1382E-004 * x + 0.0014$$

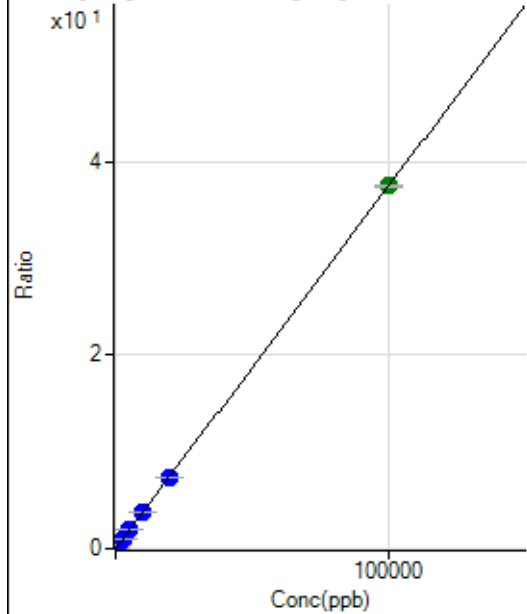
$$R = 1.0000$$

$$DL = 1.063$$

$$BEC = 1.712$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.45	0.0001	P	107.
2	☐	2.000					
3	☐	20.000	20.137	1219.54	0.0077	P	10.8
4	☐	1000.000	1034.990	61738.93	0.3881	P	1.1
5	☐	2500.000	2546.850	148101.79	0.9548	P	1.0
6	☐	5000.000	5081.445	284751.44	1.9048	P	0.3
7	☐	10000.000	10096.943	559358.59	3.7847	P	1.0
8	☐	20000.000	19588.221	1088990.53	7.3424	P	0.6
9	☐	100000.00	100067.06	5933083.73	37.5082	A	0.3

$$y = 3.7483E-004 * x + 1.2051E-004$$

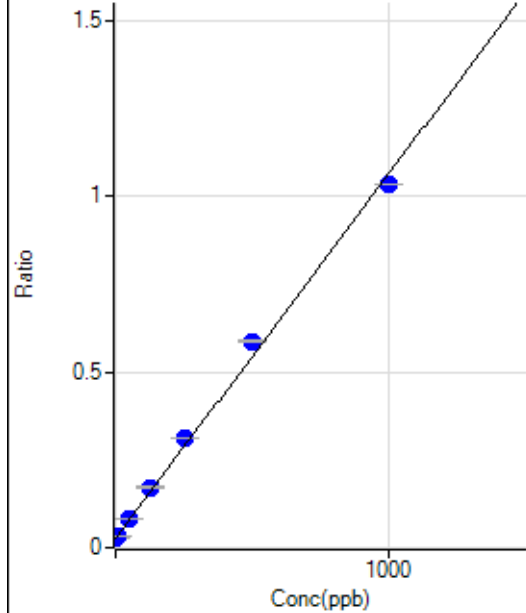
$$R = 1.0000$$

$$DL = 1.039$$

$$BEC = 0.3215$$

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	92242.73	0.0260	P	1.7
2	☐	1.000					
3	☐	10.000	8.354	123218.68	0.0347	P	1.0
4	☐	50.000	53.717	285758.45	0.0817	P	1.0
5	☐	125.000	139.920	574000.55	0.1710	P	4.3
6	☐	250.000	276.605	1024313.08	0.3127	P	1.0
7	☐	500.000	541.103	1905084.63	0.5869	P	0.6
8	☐	1000.000	970.763	3310185.79	1.0324	P	0.1
9	☐			441019.41	0.1359	P	2.1

$$y = 0.0010 * x + 0.0260$$

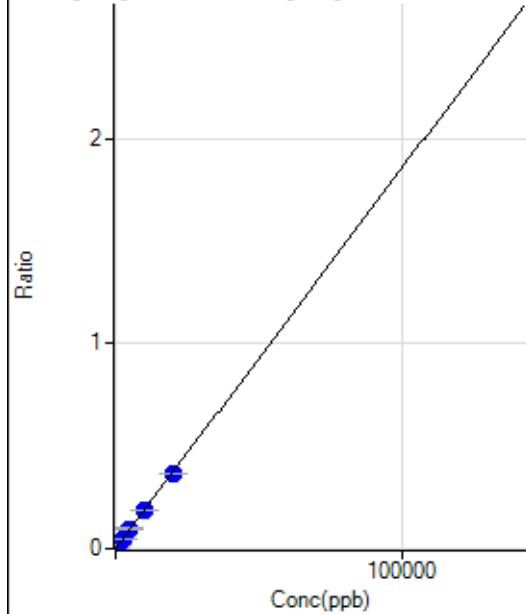
$$R = 0.9982$$

$$DL = 1.287$$

$$BEC = 25.07$$

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	-34.006	47.23	0.0003	P	56.7
2	☐	0.000					
3	☐	0.000	34.006	244.46	0.0016	P	30.8
4	☐	1000.000	1081.227	3336.63	0.0210	P	3.1
5	☐	2500.000	2535.923	7438.28	0.0480	P	2.1
6	☐	5000.000	5233.770	14646.65	0.0980	P	2.7
7	☐	10000.000	10116.382	27862.88	0.1885	P	1.5
8	☐	20000.000	19874.815	54801.97	0.3695	P	0.3
9	☐			94.45	0.0006	P	20.1

$$y = 1.8545E-005 * x + 9.2298E-004$$

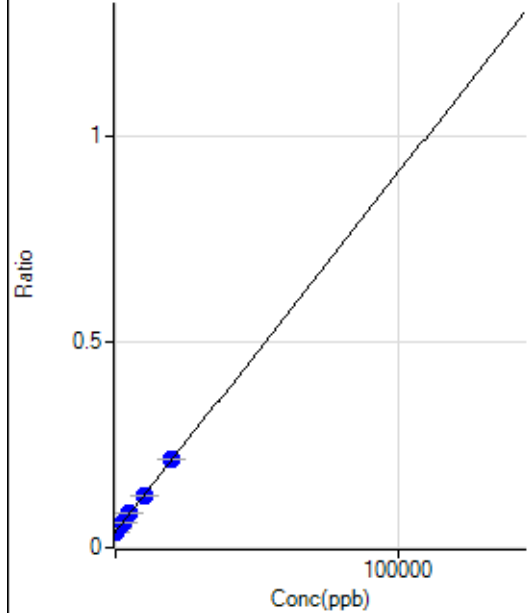
$$R = 0.9999$$

$$DL = 52.04$$

$$BEC = 49.77$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-76.773	134275.71	0.0378	P	1.1
2	☐	0.000					
3	☐	0.000	76.773	139312.90	0.0392	P	0.2
4	☐	1000.000	1067.856	167391.33	0.0478	P	0.4
5	☐	2500.000	2615.211	206065.92	0.0614	P	2.6
6	☐	5000.000	4975.574	268664.71	0.0820	P	0.7
7	☐	10000.000	10008.204	409143.54	0.1261	P	0.3
8	☐	20000.000	19984.211	683993.69	0.2133	P	0.8
9	☐			117015.18	0.0360	P	2.3

$$y = 8.7479\text{E-}006 * x + 0.0385$$

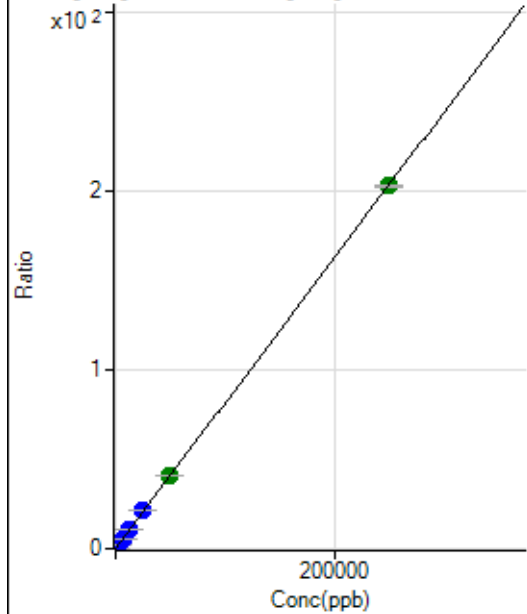
$$R = 1.0000$$

$$DL = 83.44$$

$$BEC = 4401$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7049.21	0.0437	P	5.6
2	☐	50.000					
3	☐	500.000	496.333	71006.44	0.4465	P	8.7
4	☐	2500.000	2618.356	345093.85	2.1691	P	0.7
5	☐	6250.000	6482.469	823016.30	5.3057	P	0.7
6	☐	12500.000	13054.241	1590619.25	10.6402	P	0.6
7	☐	25000.000	25997.373	3125347.75	21.1465	P	0.3
8	☐	50000.000	50363.848	6069973.14	40.9255	A	0.2
9	☐	250000.00	249792.79	32080838.91	202.8081	A	0.5

$$y = 8.1173\text{E-}004 * x + 0.0437$$

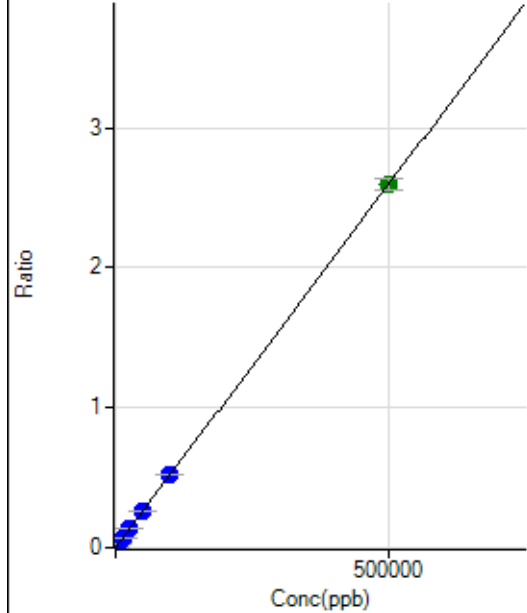
$$R = 1.0000$$

$$DL = 9.098$$

$$BEC = 53.77$$

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	77.78	0.0000	P	5.9
2	☐	50.000					
3	☐	500.000	484.486	9014.23	0.0025	P	2.8
4	☐	5000.000	5147.544	93480.58	0.0267	P	0.9
5	☐	12500.000	13059.624	227379.62	0.0678	P	4.4
6	☐	25000.000	25658.373	435922.99	0.1331	P	0.6
7	☐	50000.000	50716.958	853811.71	0.2631	P	0.9
8	☐	100000.00	101436.76	1686938.56	0.5261	P	0.2
9	☐	500000.00	499592.58	8408995.67	2.5911	A	3.2

$$y = 5.1864\text{E-}006 * x + 2.1912\text{E-}005$$

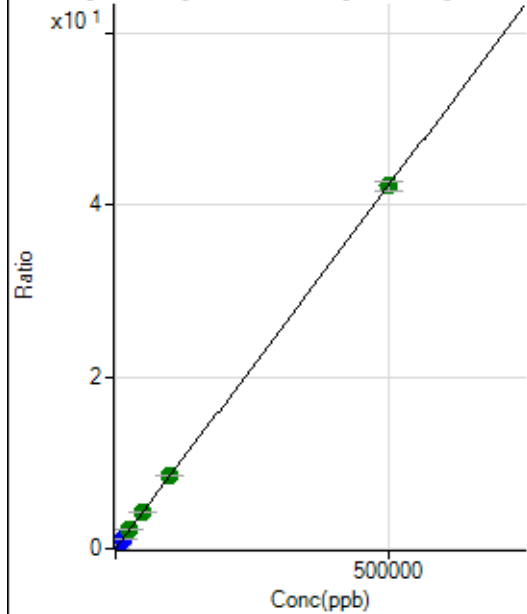
$$R = 1.0000$$

$$DL = 0.7454$$

$$BEC = 4.225$$

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	4014.72	0.0011	P	3.0
2	☐	50.000					
3	☐	500.000	477.439	147627.40	0.0415	P	1.0
4	☐	5000.000	5085.725	1508924.24	0.4313	P	0.3
5	☐	12500.000	12991.655	3691811.15	1.1000	P	3.9
6	☐	25000.000	25360.468	7029227.50	2.1462	A	0.3
7	☐	50000.000	50427.399	13847503.43	4.2664	A	0.6
8	☐	100000.00	100747.79	27326858.60	8.5226	A	0.1
9	☐	500000.00	499776.55	137194354.4	42.2734	A	3.0

$$y = 8.4582\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

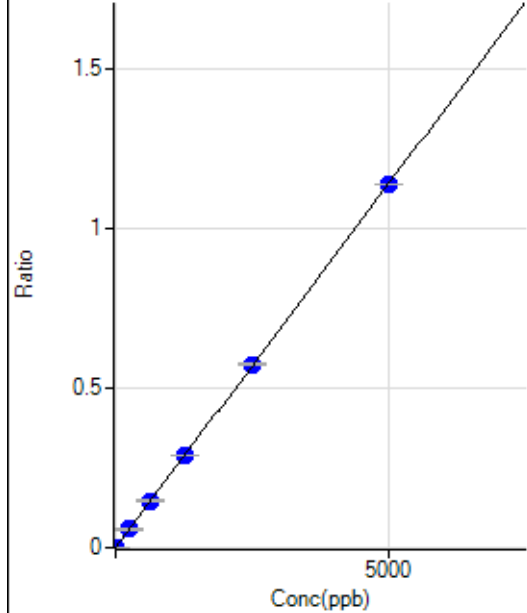
$$DL = 1.189$$

$$BEC = 13.37$$

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	80.56	0.0000	P	41.9
2	☐	0.500					
3	☐	5.000	5.027	4156.29	0.0012	P	5.9
4	☐	250.000	251.234	200466.93	0.0573	P	0.7
5	☐	625.000	643.714	492624.03	0.1468	P	3.8
6	☐	1250.000	1262.172	942519.41	0.2878	P	0.2
7	☐	2500.000	2514.514	1860685.20	0.5733	P	0.8
8	☐	5000.000	4987.299	3645763.06	1.1370	P	0.1
9	☐			1866.87	0.0006	P	2.4

$$y = 2.2798E-004 * x + 2.2698E-005$$

$$R = 1.0000$$

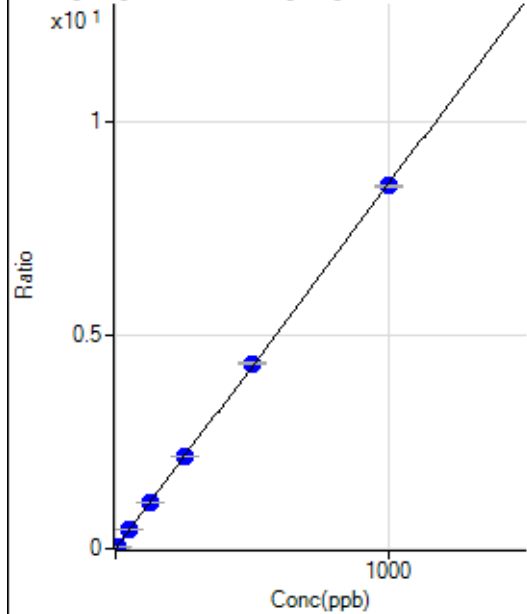
$$DL = 0.1252$$

$$BEC = 0.09956$$

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	4.45	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	5.137	6999.53	0.0440	P	8.2
4	☐	50.000	51.554	70215.08	0.4413	P	1.0
5	☐	125.000	127.018	168665.37	1.0873	P	0.6
6	☐	250.000	253.814	324801.31	2.1727	P	0.5
7	☐	500.000	508.015	642717.73	4.3487	P	0.5
8	☐	1000.000	994.708	1262898.51	8.5149	P	0.5
9	☐			303.34	0.0019	P	12.0

$$y = 0.0086 * x + 2.7578E-005$$

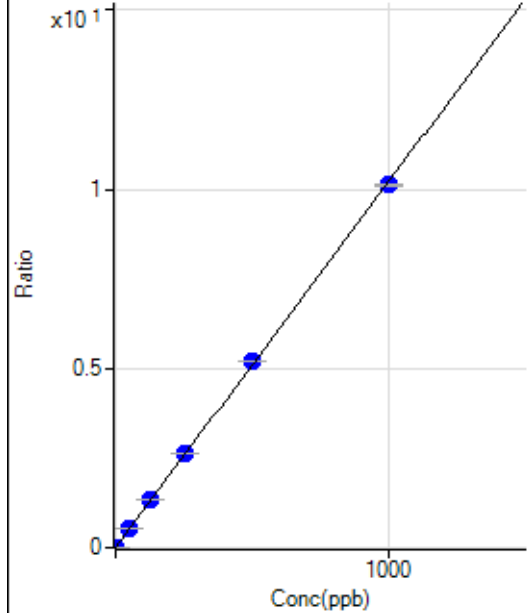
$$R = 0.9999$$

$$DL = 0.00837$$

$$BEC = 0.003222$$

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	411.12	0.0025	P	11.3
2	☐	0.200					
3	☐	2.000	1.979	3617.16	0.0227	P	8.2
4	☐	50.000	52.084	84948.27	0.5339	P	0.9
5	☐	125.000	129.445	205260.51	1.3232	P	0.9
6	☐	250.000	257.075	392479.58	2.6254	P	0.4
7	☐	500.000	511.146	771138.68	5.2177	P	0.5
8	☐	1000.000	991.999	1501534.63	10.1237	P	0.3
9	☐			11634.74	0.0736	P	1.2

$$y = 0.0102 * x + 0.0025$$

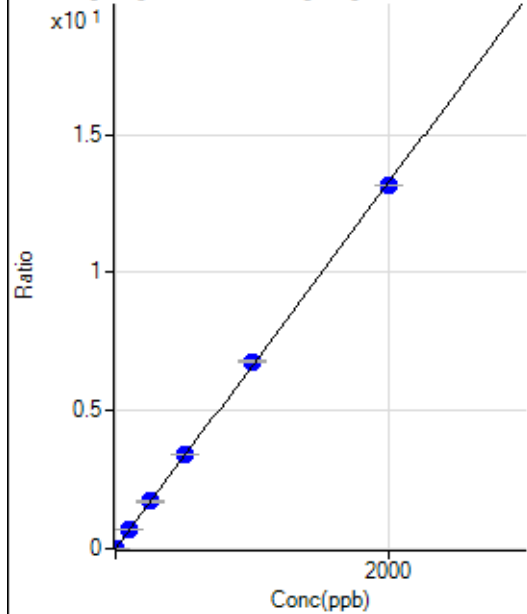
$$R = 0.9999$$

$$DL = 0.08424$$

$$BEC = 0.2495$$

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	33.33	0.0002	P	43.6
2	☐	0.100					
3	☐	1.000	1.030	1117.84	0.0070	P	10.6
4	☐	100.000	103.931	109568.42	0.6887	P	0.2
5	☐	250.000	257.558	264693.09	1.7064	P	0.4
6	☐	500.000	515.066	510102.04	3.4122	P	0.7
7	☐	1000.000	1024.453	1003022.72	6.7866	P	0.6
8	☐	2000.000	1982.865	1948236.17	13.1354	P	0.1
9	☐			8018.96	0.0507	P	2.4

$$y = 0.0066 * x + 2.0642E-004$$

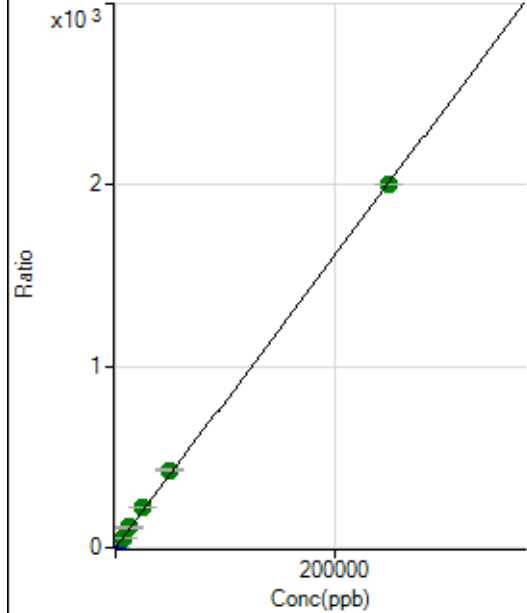
$$R = 0.9999$$

$$DL = 0.0408$$

$$BEC = 0.03116$$

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	1635.32	0.0101	P	0.8
2	☐	5.000					
3	☐	50.000	58.430	76228.96	0.4796	P	9.8
4	☐	2500.000	2843.490	3636902.66	22.8595	P	0.4
5	☐	6250.000	6909.406	8614184.91	55.5320	A	0.4
6	☐	12500.000	13871.117	16664322.60	111.4741	A	0.6
7	☐	25000.000	27443.942	32594480.36	220.5410	A	0.5
8	☐	50000.000	53424.400	63672773.18	429.3119	A	0.8
9	☐	250000.00	248982.24	316481603.3	2,000.753	A	0.2

$$y = 0.0080 * x + 0.0101$$

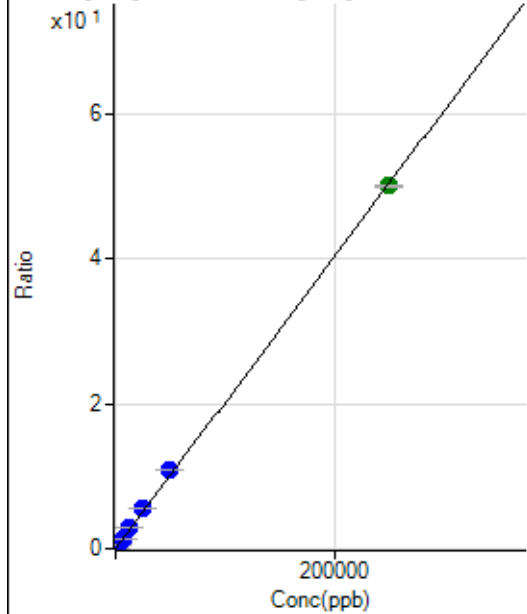
$$R = 0.9999$$

$$DL = 0.02928$$

$$BEC = 1.26$$

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	72.22	0.0004	P	27.0
2	☐	5.000					
3	☐	50.000	60.785	2015.00	0.0127	P	12.0
4	☐	2500.000	2856.475	91576.57	0.5756	P	0.6
5	☐	6250.000	6992.023	218447.43	1.4083	P	0.8
6	☐	12500.000	14054.147	423088.44	2.8302	P	0.6
7	☐	25000.000	27750.772	825849.90	5.5879	P	0.8
8	☐	50000.000	53758.786	1605437.58	10.8245	P	0.6
9	☐	250000.00	248873.34	7926512.39	50.1098	A	0.5

$$y = 2.0134E-004 * x + 4.4741E-004$$

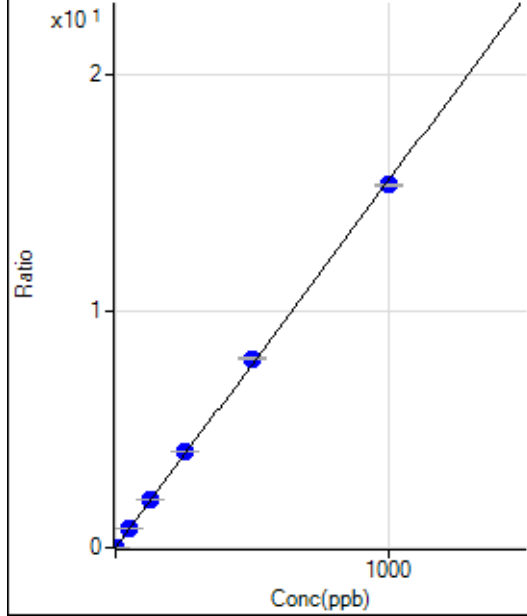
$$R = 0.9998$$

$$DL = 1.799$$

$$BEC = 2.222$$

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	54.44	0.0003	P	27.9
2	☐	0.100					
3	☐	1.000	1.015	2555.82	0.0161	P	7.5
4	☐	50.000	53.616	132246.99	0.8312	P	0.2
5	☐	125.000	131.647	316519.65	2.0405	P	0.3
6	☐	250.000	261.340	605493.36	4.0503	P	0.6
7	☐	500.000	515.076	1179769.35	7.9824	P	0.5
8	☐	1000.000	988.615	2272339.46	15.3209	P	0.3
9	☐			27338.91	0.1728	P	0.4

$$y = 0.0155 * x + 3.3730E-004$$

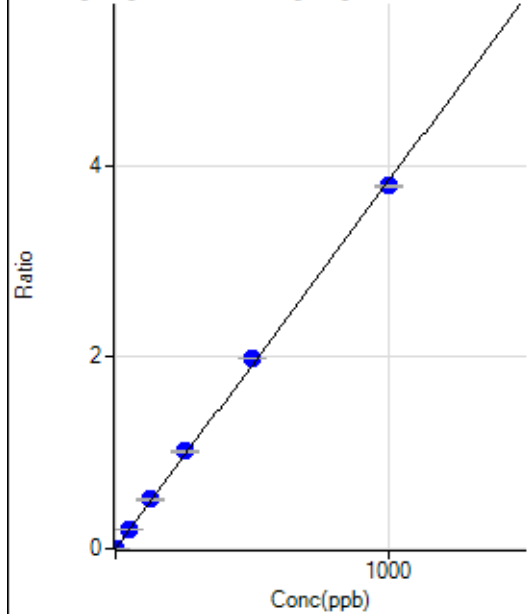
$$R = 0.9998$$

$$DL = 0.01824$$

$$BEC = 0.02177$$

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	36.67	0.0002	P	9.4
2	☐	0.100					
3	☐	1.000	1.068	685.58	0.0043	P	14.1
4	☐	50.000	54.383	33199.96	0.2087	P	0.8
5	☐	125.000	133.747	79554.26	0.5129	P	1.6
6	☐	250.000	264.424	151548.77	1.0138	P	0.2
7	☐	500.000	516.105	292403.69	1.9784	P	0.1
8	☐	1000.000	987.029	561147.00	3.7835	P	0.5
9	☐			7118.49	0.0450	P	3.8

$$y = 0.0038 * x + 2.2707E-004$$

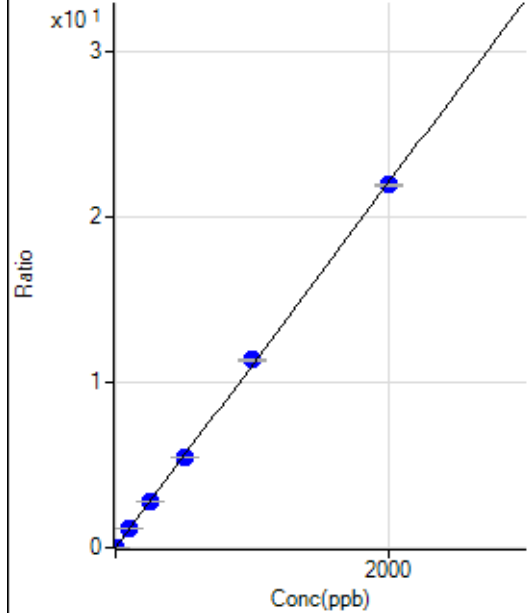
$$R = 0.9997$$

$$DL = 0.01677$$

$$BEC = 0.05924$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	308.90	0.0019	P	10.6
2	☐	0.200					
3	☐	2.000	1.944	3699.42	0.0233	P	13.5
4	☐	100.000	101.643	178438.55	1.1216	P	0.7
5	☐	250.000	249.049	425854.50	2.7454	P	0.8
6	☐	500.000	490.980	808813.24	5.4104	P	0.1
7	☐	1000.000	1029.160	1675781.52	11.3388	P	0.9
8	☐	2000.000	1987.712	3247834.54	21.8980	P	0.3
9	☐			4022.84	0.0254	P	1.8

$$y = 0.0110 * x + 0.0019$$

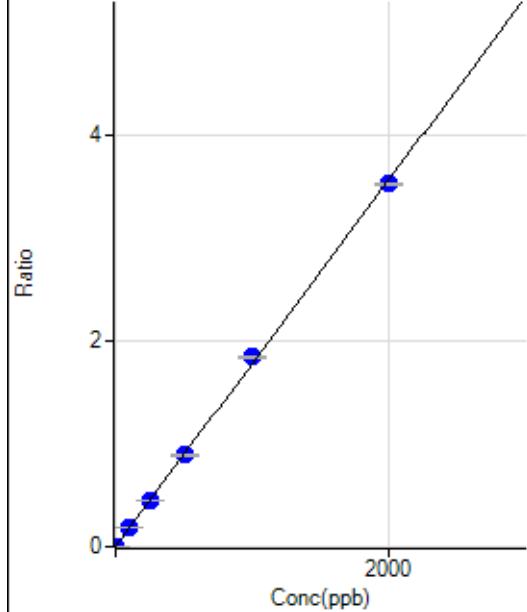
$$R = 0.9998$$

$$DL = 0.05514$$

$$BEC = 0.1736$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	188.89	0.0012	P	11.5
2	☐	0.200					
3	☐	2.000	2.067	767.81	0.0048	P	16.1
4	☐	100.000	101.808	29010.05	0.1823	P	1.0
5	☐	250.000	250.572	69346.92	0.4471	P	0.9
6	☐	500.000	498.637	132821.60	0.8885	P	0.7
7	☐	1000.000	1038.410	273269.48	1.8490	P	1.0
8	☐	2000.000	1980.974	523010.47	3.5263	P	0.4
9	☐			4140.65	0.0262	P	1.8

$$y = 0.0018 * x + 0.0012$$

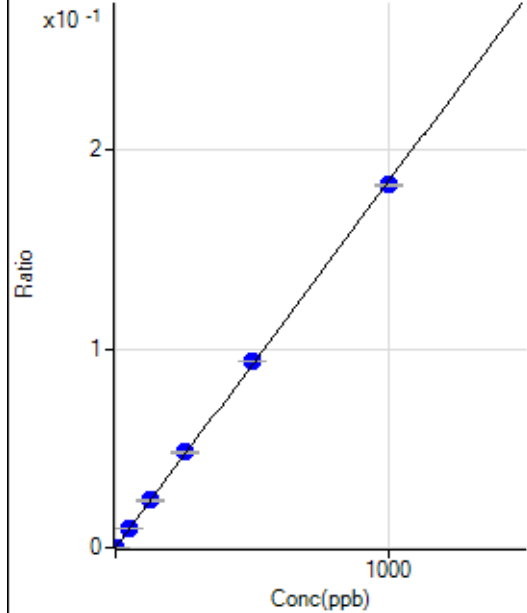
$$R = 0.9997$$

$$DL = 0.2273$$

$$BEC = 0.6574$$

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	2.47	0.0000	P	43.4
2	☐	0.100					
3	☐	1.000	0.936	161.73	0.0002	P	3.9
4	☐	50.000	52.298	8941.07	0.0096	P	0.8
5	☐	125.000	129.021	21638.38	0.0237	P	0.9
6	☐	250.000	261.352	42163.96	0.0481	P	1.5
7	☐	500.000	510.975	82317.44	0.0940	P	0.2
8	☐	1000.000	991.057	158191.47	0.1823	P	0.3
9	☐			230.87	0.0003	P	15.6

$$y = 1.8398\text{E-}004 * x + 2.6095\text{E-}006$$

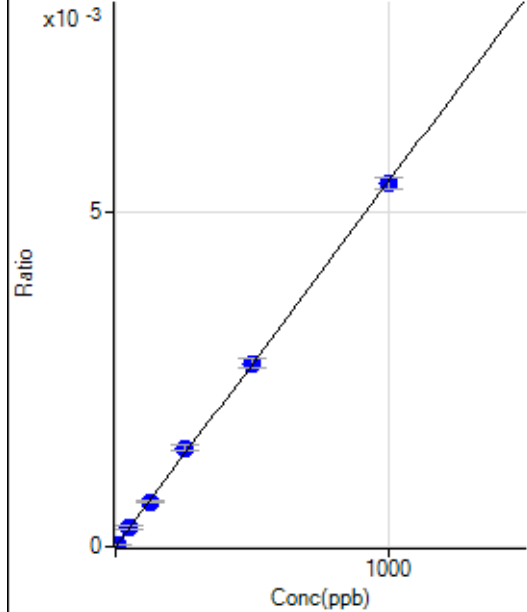
$$R = 0.9998$$

$$DL = 0.01845$$

$$BEC = 0.01418$$

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					
3	☐	5.000	5.250	26.67	0.0000	P	15.8
4	☐	50.000	52.744	266.68	0.0003	P	11.5
5	☐	125.000	122.740	608.91	0.0007	P	2.3
6	☐	250.000	269.310	1285.63	0.0015	P	5.6
7	☐	500.000	503.032	2398.02	0.0027	P	4.9
8	☐	1000.000	993.800	4693.07	0.0054	P	3.2
9	☐			1.11	0.0000	P	173.

$$y = 5.4430\text{E-}006 * x + 0.0000\text{E+}000$$

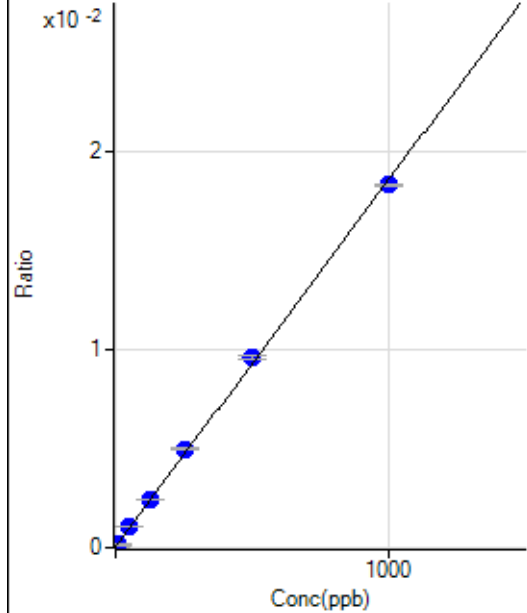
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34.57	0.0000	P	13.8
2	☐	0.500					
3	☐	5.000	5.977	136.42	0.0001	P	12.4
4	☐	50.000	54.839	978.43	0.0011	P	4.5
5	☐	125.000	129.312	2218.71	0.0024	P	3.1
6	☐	250.000	266.388	4363.04	0.0050	P	1.8
7	☐	500.000	516.679	8420.41	0.0096	P	1.8
8	☐	1000.000	986.778	15905.07	0.0183	P	0.3
9	☐			32.10	0.0000	P	46.0

$$y = 1.8541\text{E-}005 * x + 3.6577\text{E-}005$$

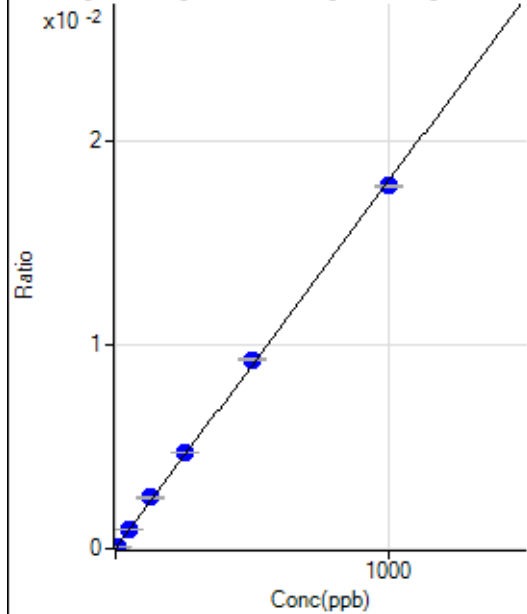
$$R = 0.9996$$

$$DL = 0.8159$$

$$BEC = 1.973$$

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	56.09	0.0000	P	20.8
2	☐	0.500					
3	☐	5.000	5.270	610.51	0.0001	P	3.6
4	☐	50.000	52.902	5577.83	0.0010	P	2.0
5	☐	125.000	138.485	13924.71	0.0025	P	4.0
6	☐	250.000	262.839	26286.30	0.0048	P	0.4
7	☐	500.000	515.023	51585.78	0.0093	P	1.4
8	☐	1000.000	987.446	97922.51	0.0178	P	0.4
9	☐			60.62	0.0000	P	75.1

$$y = 1.8047\text{E-}005 * x + 9.2935\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.3215$$

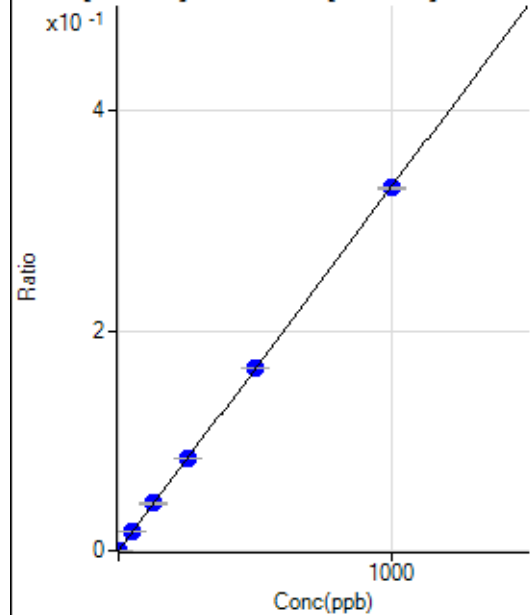
$$BEC = 0.515$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			156.67		P	7.7
2	☐						
3	☐			138.89		P	9.7
4	☐			156.67		P	28.6
5	☐			131.11		P	15.3
6	☐			137.78		P	16.1
7	☐			124.45		P	17.2
8	☐			161.11		P	6.3
9	☐			178.89		P	14.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	255.57	0.0000	P	19.3
2	☐	0.100					
3	☐	1.000	0.967	2116.92	0.0004	P	5.2
4	☐	50.000	50.869	97546.53	0.0169	P	0.4
5	☐	125.000	130.059	238897.36	0.0430	P	4.2
6	☐	250.000	253.902	464478.07	0.0840	P	0.7
7	☐	500.000	502.510	921375.41	0.1662	P	0.4
8	☐	1000.000	997.094	1810654.23	0.3297	P	0.5
9	☐			8035.89	0.0015	P	4.6

$$y = 3.3060\text{E-}004 * x + 4.2332\text{E-}005$$

$$R = 1.0000$$

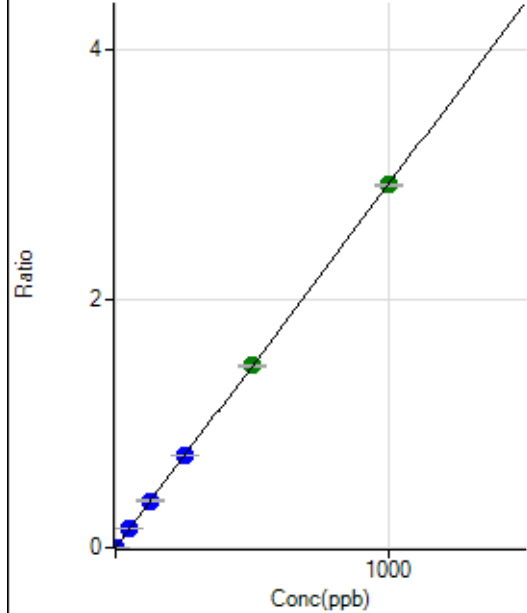
$$DL = 0.074$$

$$BEC = 0.128$$

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	86.11	0.0000	P	31.6
2	☐	0.100					
3	☐	1.000	0.916	15731.48	0.0027	P	0.4
4	☐	50.000	50.460	852995.21	0.1474	P	0.7
5	☐	125.000	129.502	2099948.66	0.3783	P	4.4
6	☐	250.000	253.241	4091839.67	0.7398	P	0.5
7	☐	500.000	500.208	8102661.29	1.4613	A	0.7
8	☐	1000.000	998.500	16020878.83	2.9170	A	0.2
9	☐			66276.10	0.0125	P	2.0

$$y = 0.0029 * x + 1.4283E-005$$

$$R = 1.0000$$

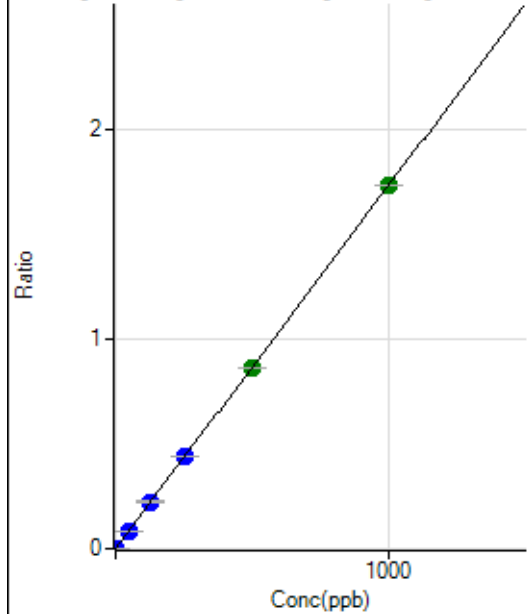
$$DL = 0.004639$$

$$BEC = 0.004889$$

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	527.81	0.0001	P	14.1
2	☐	0.100					
3	☐	1.000	0.863	9245.06	0.0016	P	4.2
4	☐	50.000	49.816	499495.44	0.0863	P	0.5
5	☐	125.000	128.951	1239650.54	0.2233	P	4.2
6	☐	250.000	251.764	2411142.31	0.4360	P	0.1
7	☐	500.000	499.834	4798628.54	0.8654	A	0.1
8	☐	1000.000	999.158	9500759.85	1.7299	A	0.1
9	☐			3269.95	0.0006	P	1.6

$$y = 0.0017 * x + 8.7416E-005$$

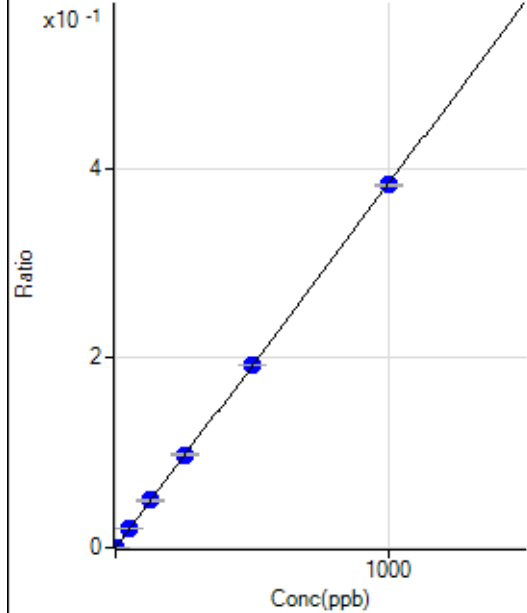
$$R = 1.0000$$

$$DL = 0.02142$$

$$BEC = 0.05049$$

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	86.12	0.0000	P	15.0
2	☐	0.100					
3	☐	1.000	0.855	2003.00	0.0003	P	2.4
4	☐	50.000	50.503	112218.19	0.0194	P	0.1
5	☐	125.000	130.937	278983.66	0.0503	P	4.2
6	☐	250.000	256.182	543818.01	0.0983	P	0.2
7	☐	500.000	501.648	1067532.45	0.1925	P	0.4
8	☐	1000.000	996.864	2101139.83	0.3826	P	0.3
9	☐			736.16	0.0001	P	12.4

$$y = 3.8376E-004 * x + 1.4273E-005$$

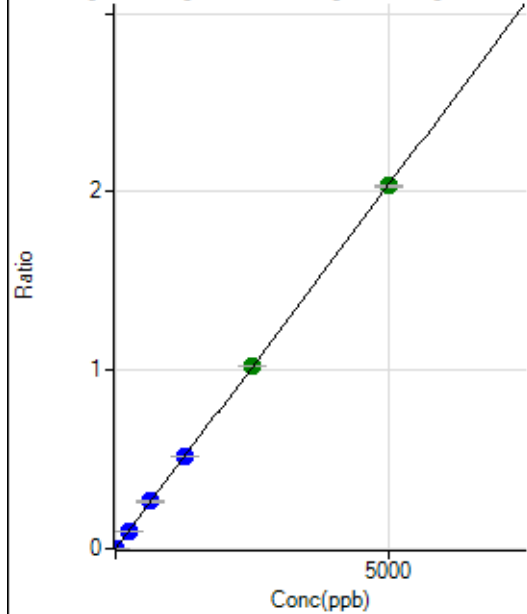
$$R = 1.0000$$

$$DL = 0.01669$$

$$BEC = 0.03719$$

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	133.34	0.0000	P	35.1
2	☐	0.500					
3	☐	5.000	4.784	11532.85	0.0020	P	1.8
4	☐	250.000	250.651	591264.82	0.1022	P	0.1
5	☐	625.000	649.599	1469911.26	0.2648	P	4.0
6	☐	1250.000	1266.057	2854365.51	0.5161	P	0.2
7	☐	2500.000	2508.863	5670583.55	1.0227	A	0.1
8	☐	5000.000	4988.447	11167734.36	2.0334	A	0.2
9	☐			6259.98	0.0012	P	14.7

$$y = 4.0762E-004 * x + 2.2106E-005$$

$$R = 1.0000$$

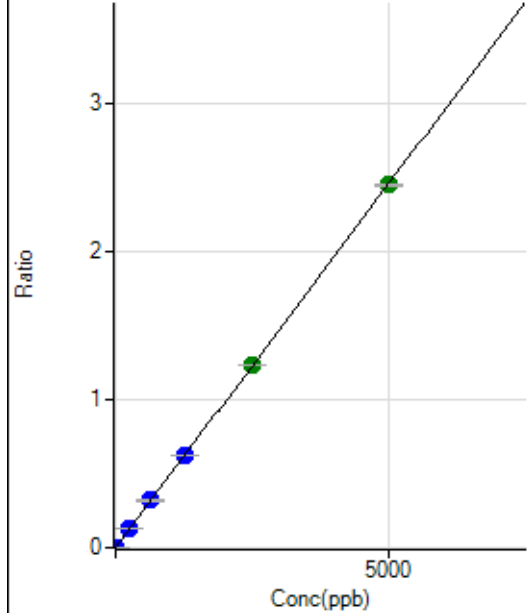
$$DL = 0.05705$$

$$BEC = 0.05423$$

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	16.67	0.0000	P	49.6
2	☐	0.500					
3	☐	5.000	4.945	14213.14	0.0024	P	2.3
4	☐	250.000	253.455	719915.21	0.1244	P	0.3
5	☐	625.000	651.170	1774456.90	0.3197	P	4.0
6	☐	1250.000	1269.470	3446797.38	0.6232	P	0.3
7	☐	2500.000	2508.294	6827643.38	1.2314	A	0.5
8	☐	5000.000	4987.542	13447353.08	2.4485	A	0.3
9	☐			8855.89	0.0017	P	5.4

$$y = 4.9091\text{E-}004 * x + 2.7591\text{E-}006$$

$$R = 1.0000$$

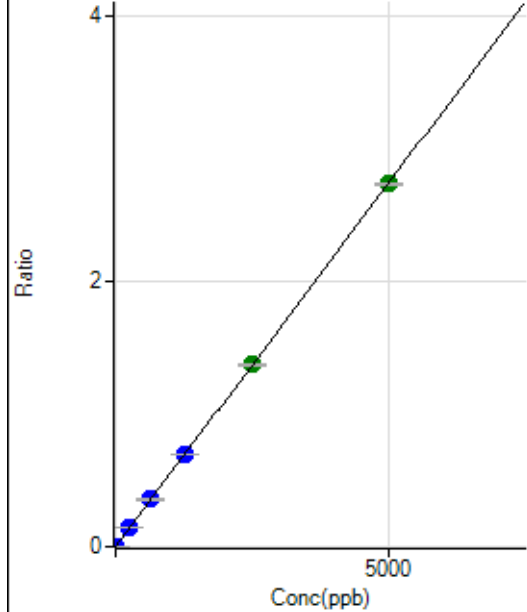
$$DL = 0.008367$$

$$BEC = 0.00562$$

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	63.89	0.0000	P	39.8
2	☐	0.500					
3	☐	5.000	4.815	15500.62	0.0027	P	2.0
4	☐	250.000	253.803	805170.29	0.1392	P	0.2
5	☐	625.000	650.140	1978559.72	0.3565	P	4.2
6	☐	1250.000	1266.582	3840732.90	0.6944	P	0.2
7	☐	2500.000	2500.793	7602538.45	1.3711	A	0.3
8	☐	5000.000	4992.126	15032086.45	2.7370	A	0.3
9	☐			11805.38	0.0022	P	9.5

$$y = 5.4826\text{E-}004 * x + 1.0583\text{E-}005$$

$$R = 1.0000$$

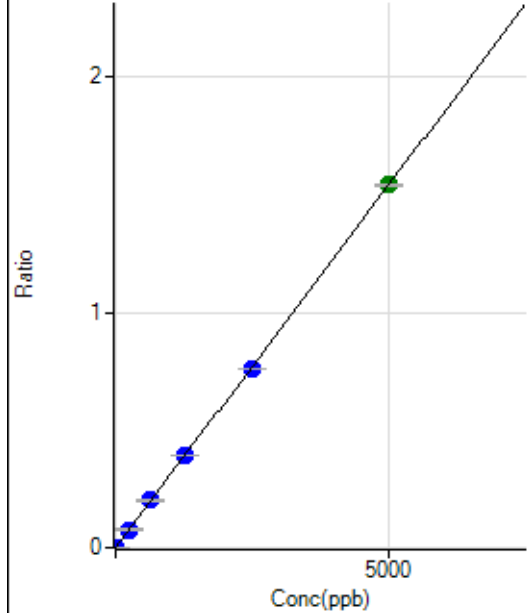
$$DL = 0.02303$$

$$BEC = 0.0193$$

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	13.89	0.0000	P	35.0
2	☐	0.500					
3	☐	5.000	4.785	8636.30	0.0015	P	6.0
4	☐	250.000	251.674	448743.17	0.0776	P	0.8
5	☐	625.000	650.615	1112916.83	0.2005	P	4.0
6	☐	1250.000	1269.974	2164515.48	0.3914	P	0.4
7	☐	2500.000	2472.590	4224869.24	0.7620	P	0.4
8	☐	5000.000	5005.426	8471446.80	1.5425	A	0.4
9	☐			5053.84	0.0010	P	10.4

$$y = 3.0816E-004 * x + 2.3044E-006$$

$$R = 1.0000$$

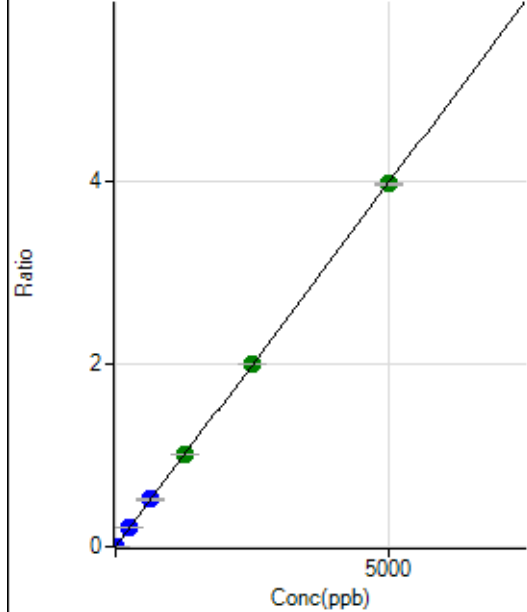
$$DL = 0.007859$$

$$BEC = 0.007478$$

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	30.56	0.0000	P	57.3
2	☐	0.500					
3	☐	5.000	4.902	22866.33	0.0039	P	1.8
4	☐	250.000	252.126	1162165.98	0.2009	P	0.2
5	☐	625.000	650.567	2876969.96	0.5183	P	3.9
6	☐	1250.000	1265.501	5575965.45	1.0082	A	0.4
7	☐	2500.000	2509.613	11085739.57	1.9993	A	0.4
8	☐	5000.000	4988.016	21824188.51	3.9737	A	0.5
9	☐			13590.32	0.0026	P	9.5

$$y = 7.9666E-004 * x + 5.0742E-006$$

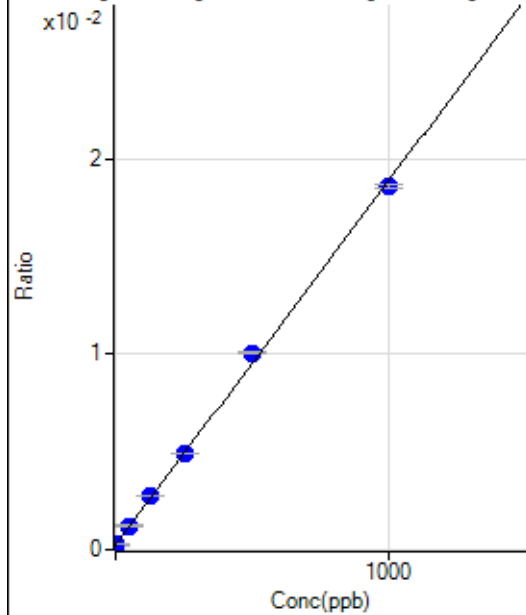
$$R = 1.0000$$

$$DL = 0.01095$$

$$BEC = 0.006369$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2150.26	0.0002	P	8.5
2	☐	0.100					
3	☐	1.000	2.674	2480.88	0.0003	P	7.9
4	☐	50.000	53.026	10532.08	0.0012	P	0.8
5	☐	125.000	134.842	23094.57	0.0028	P	2.4
6	☐	250.000	252.523	42222.28	0.0049	P	0.7
7	☐	500.000	528.471	87173.08	0.0101	P	1.3
8	☐	1000.000	983.751	161450.81	0.0186	P	1.0
9	☐			1794.63	0.0002	P	6.9

$$y = 1.8650\text{E-}005 * x + 2.3983\text{E-}004$$

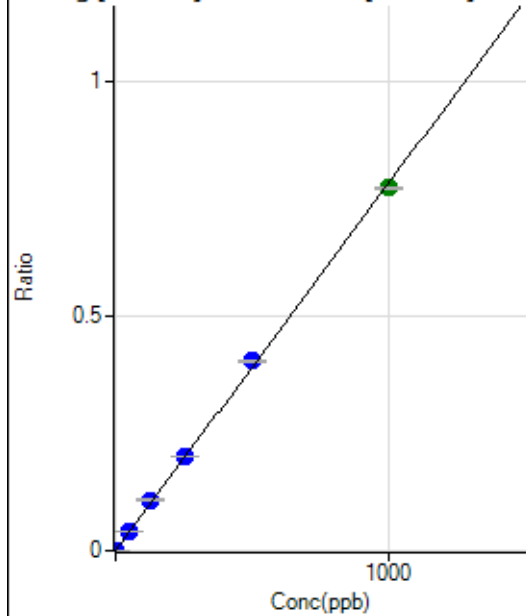
$$R = 0.9994$$

$$DL = 3.28$$

$$BEC = 12.86$$

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	58.34	0.0000	P	25.2
2	☐	0.100					
3	☐	1.000	0.912	6154.40	0.0007	P	0.9
4	☐	50.000	54.569	365400.33	0.0426	P	1.3
5	☐	125.000	136.577	894143.18	0.1067	P	4.0
6	☐	250.000	257.489	1715843.61	0.2011	P	0.7
7	☐	500.000	516.575	3484239.01	0.4035	P	0.7
8	☐	1000.000	988.165	6704931.31	0.7719	A	0.2
9	☐			780.61	0.0001	P	15.0

$$y = 7.8111\text{E-}004 * x + 6.5119\text{E-}006$$

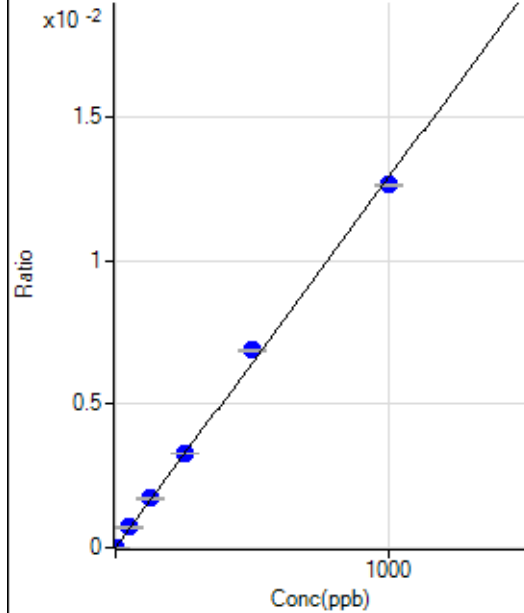
$$R = 0.9997$$

$$DL = 0.006302$$

$$BEC = 0.008337$$

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	6.95	0.0000	P	69.8
2	☐	0.100					
3	☐	1.000	0.835	98.62	0.0000	P	17.2
4	☐	50.000	54.881	6062.52	0.0007	P	1.5
5	☐	125.000	133.874	14445.12	0.0017	P	5.5
6	☐	250.000	254.679	27975.05	0.0033	P	1.9
7	☐	500.000	533.493	59309.87	0.0069	P	0.7
8	☐	1000.000	980.731	109677.19	0.0126	P	0.4
9	☐			36.11	0.0000	P	36.1

$$y = 1.2873\text{E-}005 * x + 7.7666\text{E-}007$$

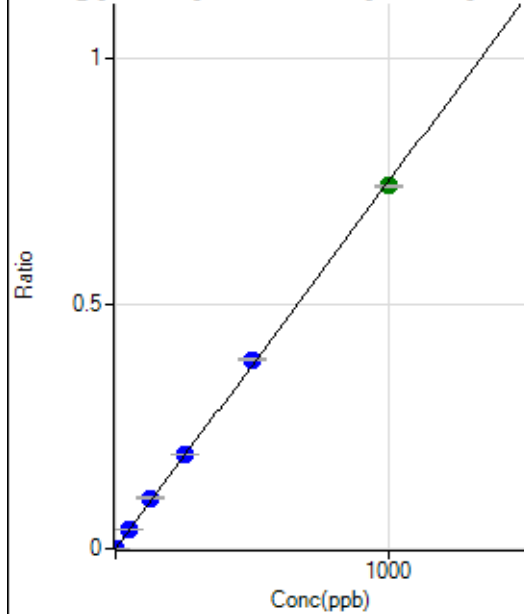
$$R = 0.9991$$

$$DL = 0.1264$$

$$BEC = 0.06033$$

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	27.78	0.0000	P	45.9
2	☐	0.100					
3	☐	1.000	0.910	5868.14	0.0007	P	2.1
4	☐	50.000	54.357	349177.18	0.0407	P	1.4
5	☐	125.000	136.515	857510.54	0.1023	P	3.6
6	☐	250.000	257.665	1647276.31	0.1931	P	1.0
7	☐	500.000	515.959	3338766.18	0.3867	P	0.9
8	☐	1000.000	988.447	6434553.88	0.7408	A	0.2
9	☐			708.38	0.0001	P	20.1

$$y = 7.4941\text{E-}004 * x + 3.1003\text{E-}006$$

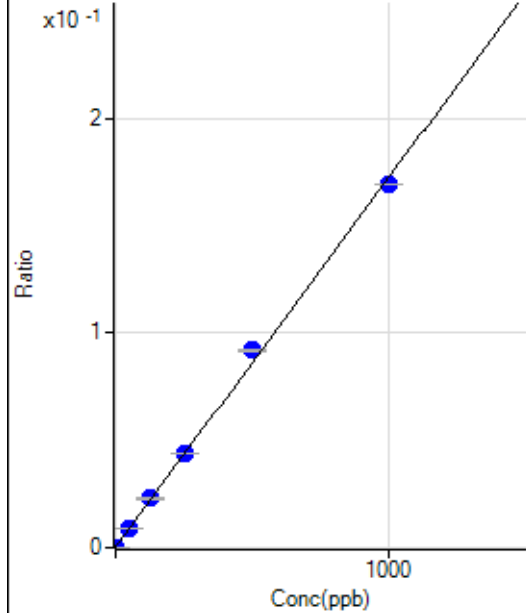
$$R = 0.9997$$

$$DL = 0.005699$$

$$BEC = 0.004137$$

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	1501.71	0.0002	P	8.5
2	☐	0.100					
3	☐	1.000	1.134	3105.19	0.0004	P	5.1
4	☐	50.000	52.677	79117.68	0.0092	P	0.9
5	☐	125.000	133.741	194254.10	0.0232	P	3.7
6	☐	250.000	254.620	375133.72	0.0440	P	0.1
7	☐	500.000	532.744	792879.90	0.0918	P	0.4
8	☐	1000.000	981.247	1467908.07	0.1690	P	0.1
9	☐			1450.41	0.0002	P	8.1

$$y = 1.7204\text{E-}004 * x + 1.6750\text{E-}004$$

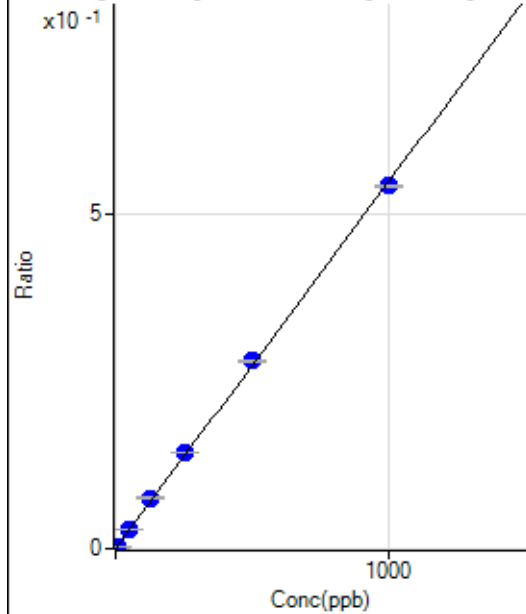
$$R = 0.9992$$

$$DL = 0.2473$$

$$BEC = 0.9736$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	291.68	0.0000	P	8.1
2	☐	0.500					
3	☐	5.000	5.205	24700.23	0.0029	P	1.2
4	☐	50.000	53.726	252644.91	0.0295	P	0.7
5	☐	125.000	136.842	628688.97	0.0750	P	4.5
6	☐	250.000	262.227	1226202.00	0.1437	P	0.6
7	☐	500.000	511.762	2421924.95	0.2805	P	1.1
8	☐	1000.000	989.395	4710043.03	0.5422	P	0.6
9	☐			3867.34	0.0005	P	3.9

$$y = 5.4802\text{E-}004 * x + 3.2539\text{E-}005$$

$$R = 0.9998$$

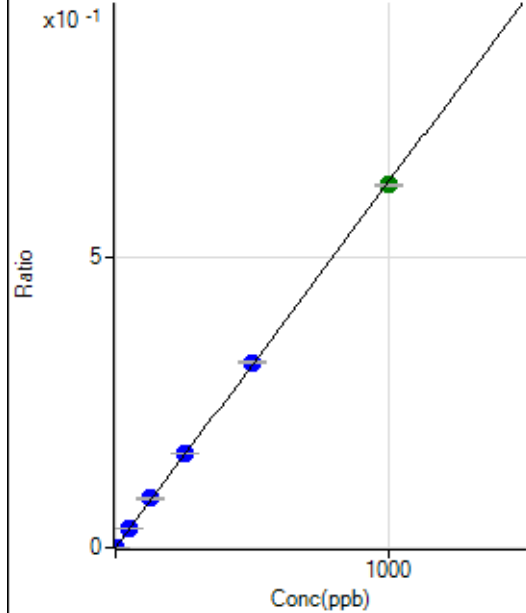
$$DL = 0.01451$$

$$BEC = 0.05938$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	34.3
2	☐	0.200					
3	☐	2.000	1.911	10290.32	0.0012	P	1.0
4	☐	50.000	53.168	286331.90	0.0334	P	0.2
5	☐	125.000	135.885	715462.51	0.0854	P	4.2
6	☐	250.000	259.502	1390848.14	0.1630	P	0.2
7	☐	500.000	507.334	2752246.07	0.3187	P	0.8
8	☐	1000.000	992.439	5415998.43	0.6235	A	0.7
9	☐			7591.27	0.0009	P	4.5

$$y = 6.2826\text{E-}004 * x + 1.5471\text{E-}006$$

$$R = 0.9999$$

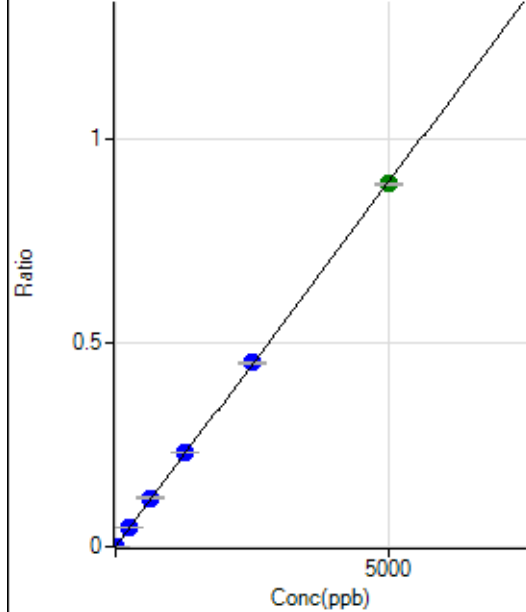
$$DL = 0.002532$$

$$BEC = 0.002463$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	49.9
2	☐	1.000					
3	☐	10.000	10.051	15417.46	0.0018	P	3.1
4	☐	250.000	260.966	400388.48	0.0467	P	0.7
5	☐	625.000	668.533	1002853.63	0.1197	P	4.1
6	☐	1250.000	1283.373	1959654.12	0.2297	P	0.3
7	☐	2500.000	2518.902	3893079.08	0.4509	P	0.8
8	☐	5000.000	4976.216	7736973.18	0.8907	A	0.3
9	☐			1591.83	0.0002	P	16.8

$$y = 1.7899\text{E-}004 * x + 1.8569\text{E-}006$$

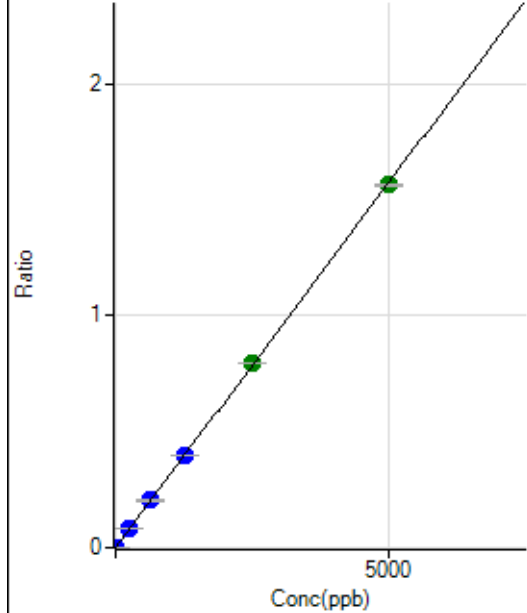
$$R = 0.9999$$

$$DL = 0.01554$$

$$BEC = 0.01037$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	22.22	0.0000	P	57.6
2	☐	1.000					
3	☐	10.000	9.958	26829.49	0.0031	P	2.3
4	☐	250.000	260.040	700858.61	0.0818	P	1.5
5	☐	625.000	658.218	1734670.94	0.2070	P	3.8
6	☐	1250.000	1275.088	3420364.27	0.4009	P	0.4
7	☐	2500.000	2529.221	6867161.26	0.7953	A	0.6
8	☐	5000.000	4974.463	13587040.58	1.5642	A	0.3
9	☐			2881.00	0.0004	P	12.6

$$y = 3.1444\text{E-}004 * x + 2.4799\text{E-}006$$

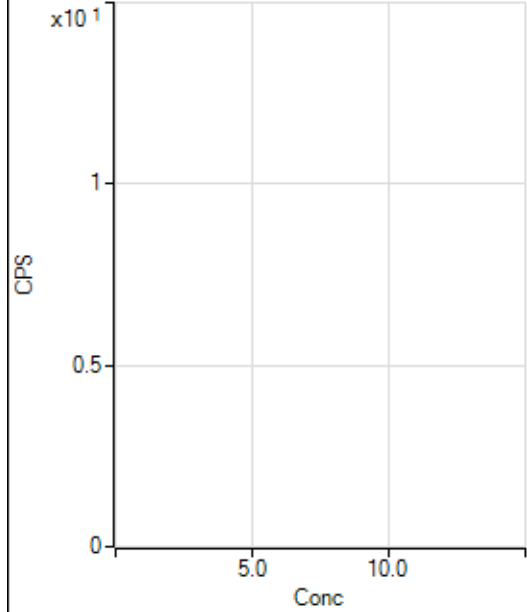
$$R = 0.9999$$

$$DL = 0.01362$$

$$BEC = 0.007887$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			4.44		P	173.
4	☐			26.67		P	43.3
5	☐			62.22		P	32.7
6	☐			131.11		P	28.9
7	☐			311.13		P	19.2
8	☐			546.70		P	10.6
9	☐			144.45		P	10.7

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			5.56		P	34.7
5	☐			8.89		P	108.
6	☐			22.22		P	22.9
7	☐			30.00		P	29.4
8	☐			68.89		P	37.0
9	☐			66.67		P	10.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			5.56		P	173.
4	☐			5.55		P	86.6
5	☐			22.22		P	78.1
6	☐			22.22		P	94.4
7	☐			38.89		P	53.9
8	☐			111.12		P	21.7
9	☐			58.34		P	14.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			1.11		P	173.
4	☐			11.11		P	62.5
5	☐			23.33		P	28.6
6	☐			51.11		P	18.8
7	☐			101.11		P	9.5
8	☐			145.56		P	5.8
9	☐			41.11		P	48.9

160 Gd [No Gas] Noavailable calibration poin_

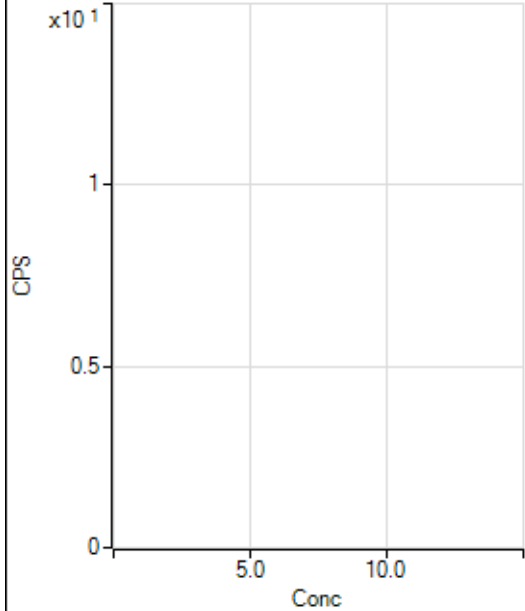
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.34		P	90.1
2	☐						
3	☐			36.11		P	74.2
4	☐			33.34		P	25.0
5	☐			27.78		P	45.8
6	☐			47.22		P	27.0
7	☐			52.78		P	50.8
8	☐			44.44		P	60.3
9	☐			83.34		P	0.0

160 Gd [He] No available calibration points

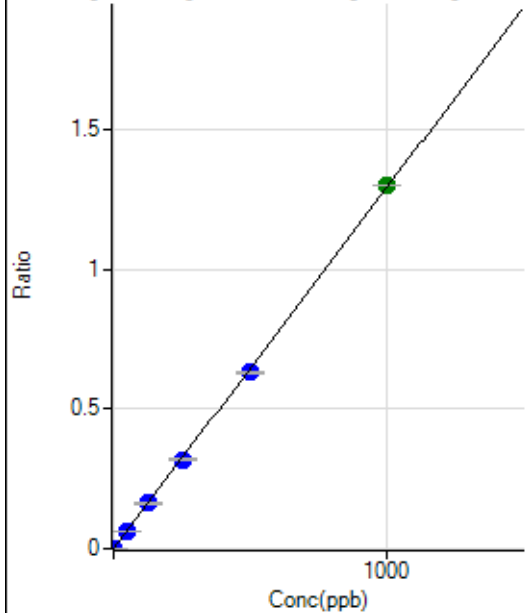
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			134.45		P	15.1
2	☐						
3	☐			128.89		P	20.9
4	☐			117.78		P	17.3
5	☐			158.89		P	17.6
6	☐			115.56		P	13.0
7	☐			140.00		P	13.3
8	☐			132.22		P	16.0
9	☐			151.12		P	13.5

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	68.9
2	☐						
3	☐			30.55		P	68.6
4	☐			16.67		P	NaN
5	☐			16.67		P	100.
6	☐			38.89		P	53.9
7	☐			25.00		P	88.2
8	☐			33.34		P	66.1
9	☐			47.23		P	56.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			12.22		P	15.7
2	☐						
3	☐			10.00		P	33.3
4	☐			11.11		P	17.3
5	☐			16.67		P	40.0
6	☐			14.44		P	58.1
7	☐			16.67		P	NaN
8	☐			25.56		P	7.5
9	☐			23.33		P	51.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	97.23	0.0000	P	25.8
2	☐	0.100					
3	☐	1.000	0.883	6965.98	0.0012	P	3.4
4	☐	50.000	49.057	379288.19	0.0633	P	0.4
5	☐	125.000	125.817	950147.36	0.1624	P	3.8
6	☐	250.000	247.460	1895501.47	0.3193	P	1.3
7	☐	500.000	489.765	3759699.52	0.6320	P	0.9
8	☐	1000.000	1005.698	7567525.17	1.2977	A	0.0
9	☐			2150.28	0.0004	P	5.6

$$y = 0.0013 * x + 1.5458E-005$$

$$R = 0.9999$$

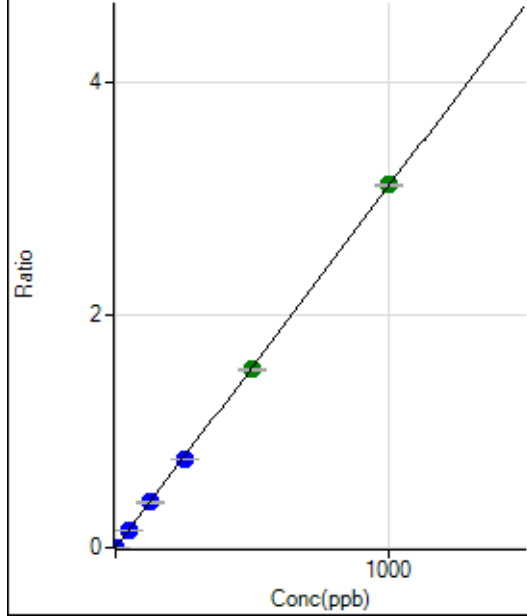
$$DL = 0.00929$$

$$BEC = 0.01198$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	230.57	0.0000	P	29.2
2	☐	0.100					
3	☐	1.000	0.897	17047.76	0.0028	P	0.3
4	☐	50.000	48.848	909827.13	0.1519	P	0.5
5	☐	125.000	125.521	2283780.37	0.3902	P	3.5
6	☐	250.000	246.417	4547369.11	0.7660	P	0.4
7	☐	500.000	493.625	9128754.98	1.5345	A	0.8
8	☐	1000.000	1004.076	18201165.16	3.1212	A	0.6
9	☐			5112.31	0.0010	P	12.8

$$y = 0.0031 * x + 3.6664E-005$$

$$R = 1.0000$$

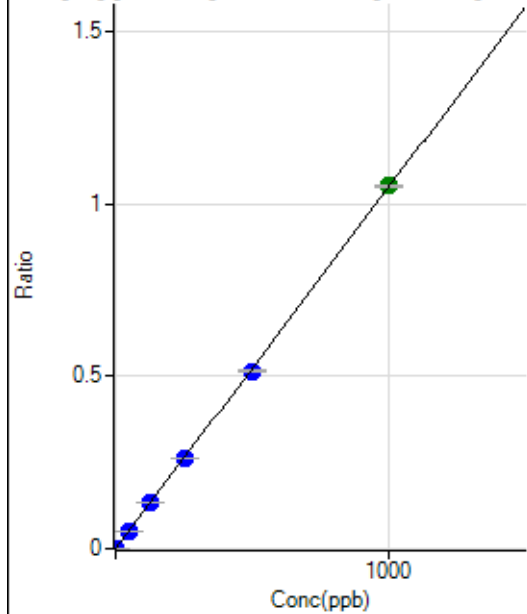
$$DL = 0.01033$$

$$BEC = 0.01179$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	281.49	0.0000	P	7.6
2	☐	0.100					
3	☐	1.000	0.912	6036.71	0.0010	P	3.7
4	☐	50.000	49.675	312367.96	0.0521	P	0.1
5	☐	125.000	127.502	782939.31	0.1338	P	3.3
6	☐	250.000	249.085	1551125.05	0.2613	P	0.3
7	☐	500.000	491.052	3064116.56	0.5151	P	1.2
8	☐	1000.000	1004.406	6143335.96	1.0535	A	0.4
9	☐			6644.43	0.0013	P	4.8

$$y = 0.0010 * x + 4.4800E-005$$

$$R = 0.9999$$

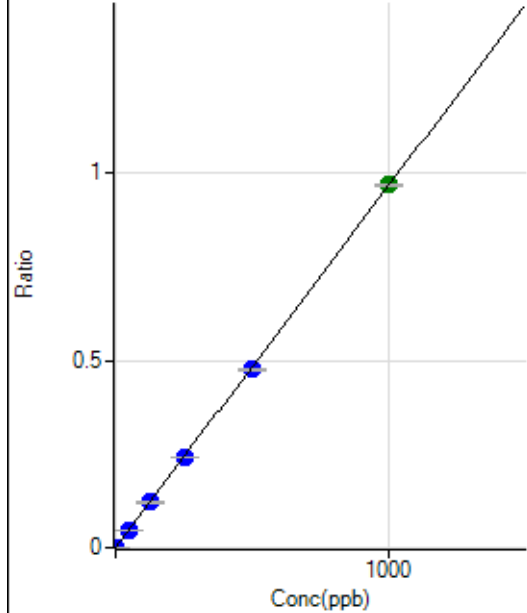
$$DL = 0.009754$$

$$BEC = 0.04272$$

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	270.38	0.0000	P	1.8
2	☐	0.100					
3	☐	1.000	0.883	5399.39	0.0009	P	1.7
4	☐	50.000	49.941	289099.31	0.0483	P	0.5
5	☐	125.000	127.127	718510.81	0.1228	P	4.0
6	☐	250.000	251.038	1439100.48	0.2424	P	0.2
7	☐	500.000	493.310	2833691.47	0.4763	P	1.1
8	☐	1000.000	1002.823	5646469.05	0.9683	A	0.3
9	☐			5831.08	0.0012	P	8.9

$$y = 9.6549\text{E-}004 * x + 4.3019\text{E-}005$$

$$R = 1.0000$$

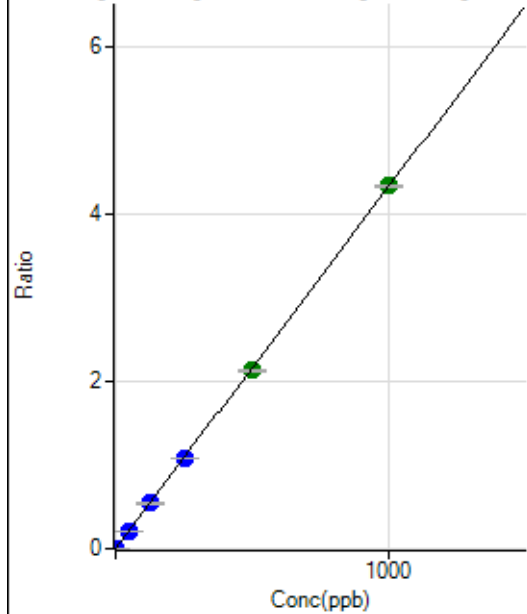
$$DL = 0.002357$$

$$BEC = 0.04456$$

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	1120.42	0.0002	P	5.6
2	☐	0.100					
3	☐	1.000	0.898	24515.05	0.0041	P	1.6
4	☐	50.000	49.505	1283984.50	0.2143	P	0.3
5	☐	125.000	127.137	3219674.37	0.5502	P	4.0
6	☐	250.000	249.724	6414255.99	1.0805	P	0.5
7	☐	500.000	494.037	12715767.85	2.1374	A	1.0
8	☐	1000.000	1002.808	25299891.42	4.3384	A	0.3
9	☐			26705.69	0.0054	P	5.4

$$y = 0.0043 * x + 1.7821\text{E-}004$$

$$R = 1.0000$$

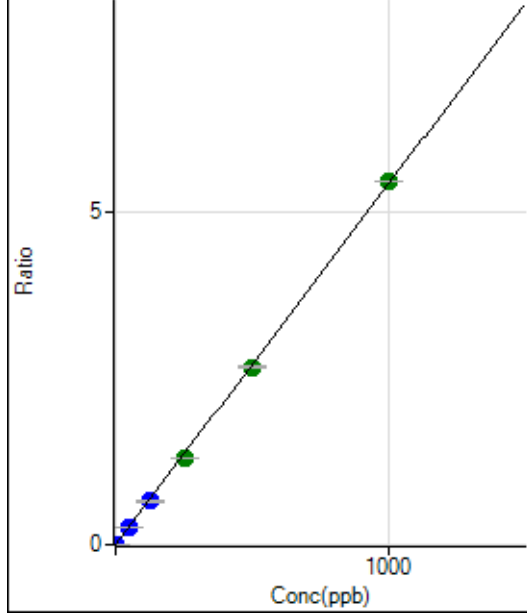
$$DL = 0.006898$$

$$BEC = 0.04119$$

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	64.82	0.0000	P	21.4
2	☐	0.100					
3	☐	1.000	0.822	26954.20	0.0045	P	0.8
4	☐	50.000	46.943	1525817.51	0.2547	P	0.4
5	☐	125.000	121.918	3870889.15	0.6615	P	4.2
6	☐	250.000	241.508	7778847.63	1.3104	A	0.4
7	☐	500.000	492.416	15894460.89	2.6717	A	0.8
8	☐	1000.000	1006.453	31844860.90	5.4608	A	0.1
9	☐			10204.34	0.0021	P	19.3

$$y = 0.0054 * x + 1.0311E-005$$

$$R = 0.9999$$

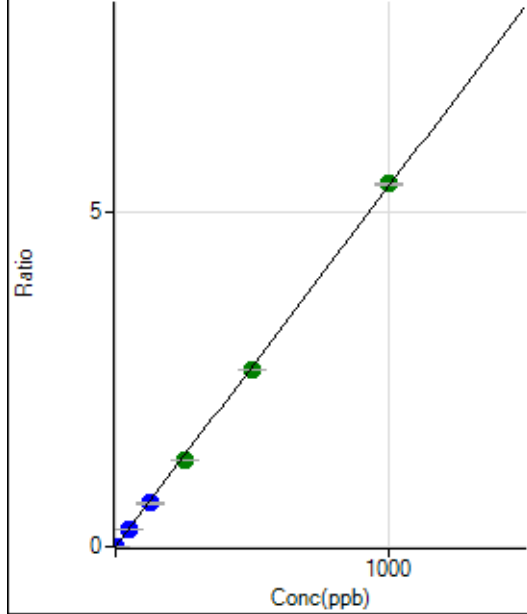
$$DL = 0.001221$$

$$BEC = 0.0019$$

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	72.22	0.0000	P	28.4
2	☐	0.100					
3	☐	1.000	0.861	27967.18	0.0046	P	1.9
4	☐	50.000	47.180	1519015.22	0.2536	P	0.5
5	☐	125.000	122.305	3846809.33	0.6573	P	3.8
6	☐	250.000	240.890	7685491.14	1.2946	A	0.5
7	☐	500.000	491.508	15714967.36	2.6415	A	0.7
8	☐	1000.000	1007.001	31560179.18	5.4120	A	0.3
9	☐			3839.67	0.0008	P	24.4

$$y = 0.0054 * x + 1.1475E-005$$

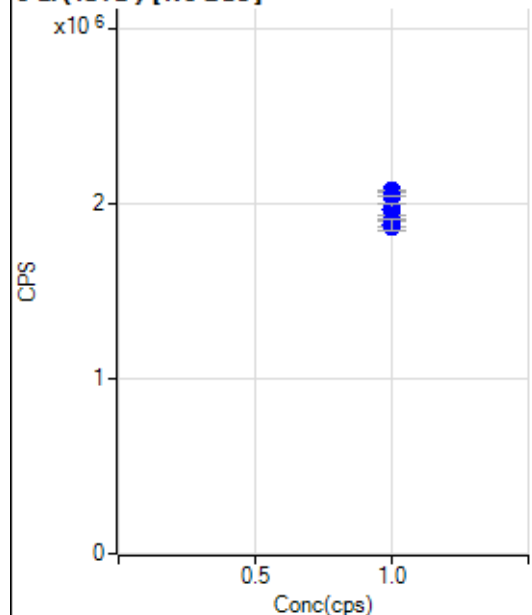
$$R = 0.9999$$

$$DL = 0.001821$$

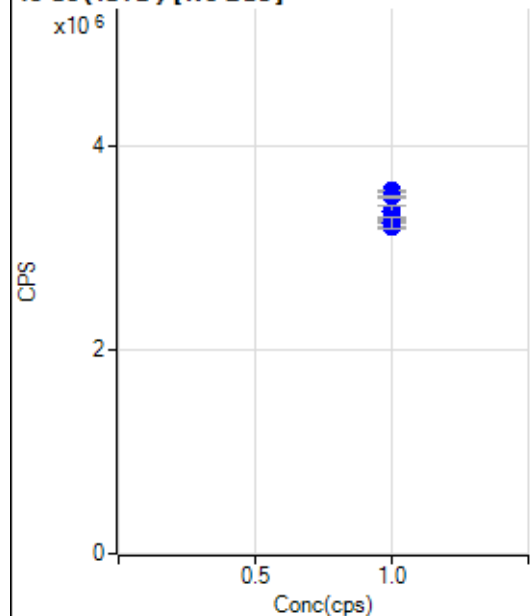
$$BEC = 0.002135$$

Weight: <None>

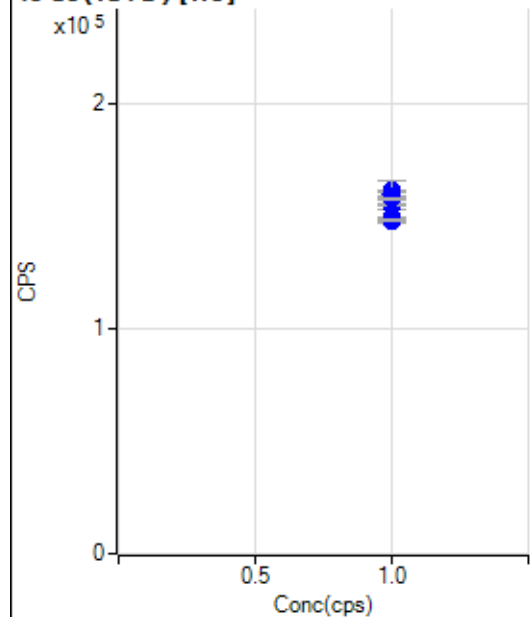
Min Conc: 0

6 Li (ISTD) [No Gas]

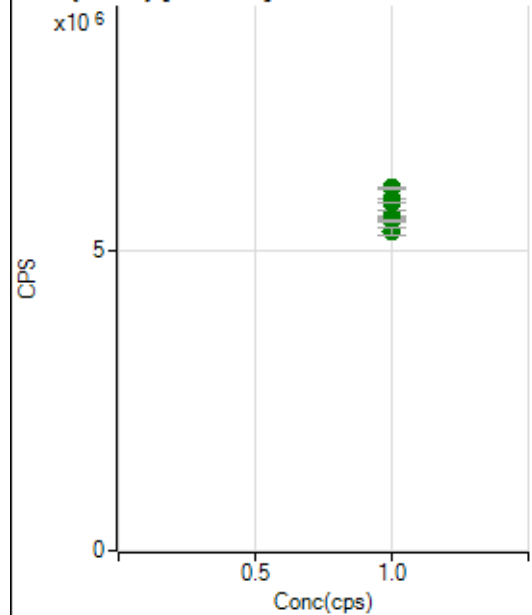
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2076421.99		P	0.2
2	☐	1.000					
3	☐	1.000		2073056.48		P	0.2
4	☐	1.000		2050403.08		P	0.0
5	☐	1.000		1973608.55		P	3.2
6	☐	1.000		1932234.47		P	0.1
7	☐	1.000		1903713.77		P	0.5
8	☐	1.000		1869039.30		P	0.4
9	☐	1.000		1880520.70		P	3.5

45 Sc (ISTD) [No Gas]

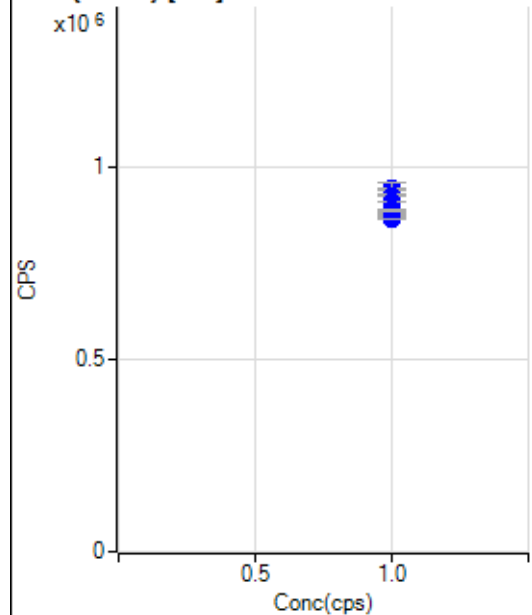
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3549271.56		P	0.3
2	☐	1.000					
3	☐	1.000		3556120.35		P	0.4
4	☐	1.000		3498601.47		P	0.1
5	☐	1.000		3359103.46		P	3.4
6	☐	1.000		3275234.12		P	0.1
7	☐	1.000		3245775.46		P	0.5
8	☐	1.000		3206399.18		P	0.4
9	☐	1.000		3247772.01		P	3.6

45 Sc (ISTD) [He]

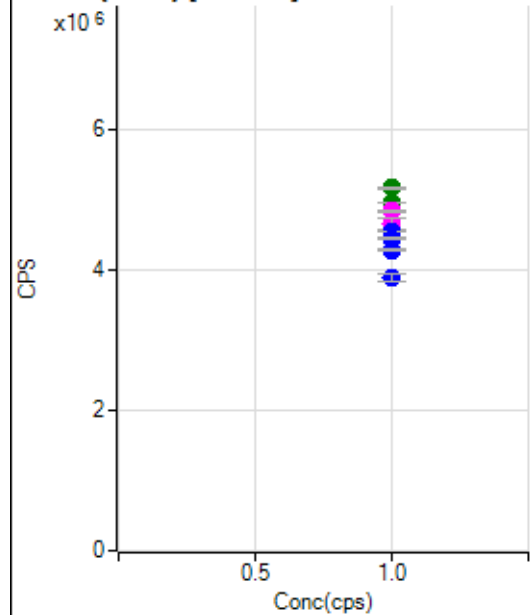
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		161511.12		P	0.3
2	☐	1.000					
3	☐	1.000		159777.51		P	8.2
4	☐	1.000		159099.22		P	0.5
5	☐	1.000		155124.13		P	0.8
6	☐	1.000		149492.51		P	0.4
7	☐	1.000		147795.82		P	0.5
8	☐	1.000		148318.67		P	0.7
9	☐	1.000		158181.70		P	0.3

89 Y (ISTD) [No Gas]

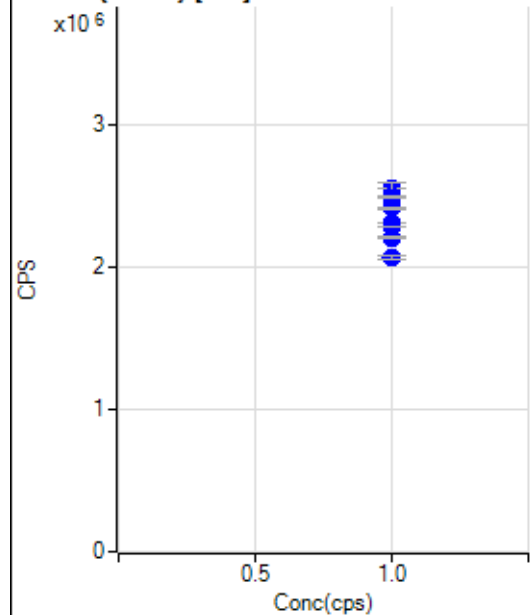
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6034726.23		A	0.6
2	☐	1.000					
3	☐	1.000		5848385.95		A	0.3
4	☐	1.000		5785850.05		A	0.3
5	☐	1.000		5556000.82		A	3.5
6	☐	1.000		5530769.98		A	0.2
7	☐	1.000		5544872.77		A	0.6
8	☐	1.000		5492198.25		A	0.6
9	☐	1.000		5308011.65		A	2.5

89 Y(ISTD) [He]

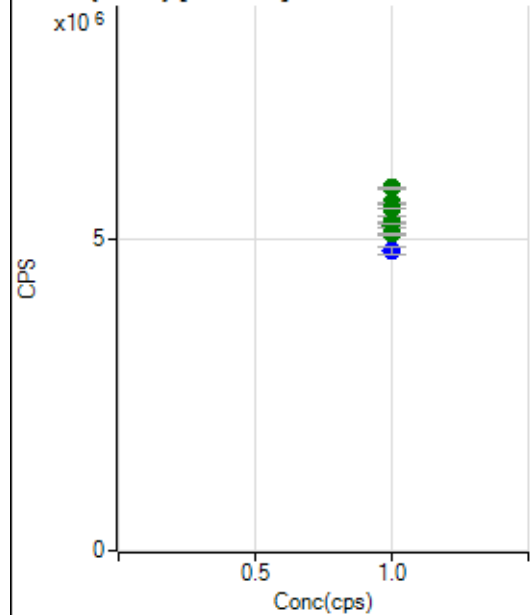
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		945391.89		P	0.3
2	☐	1.000					
3	☐	1.000		927135.18		P	7.6
4	☐	1.000		928985.31		P	0.7
5	☐	1.000		911489.36		P	0.3
6	☐	1.000		876919.52		P	0.7
7	☐	1.000		875637.08		P	0.7
8	☐	1.000		867605.03		P	0.4
9	☐	1.000		889860.13		P	0.9

103 Rh(ISTD) [No Gas]

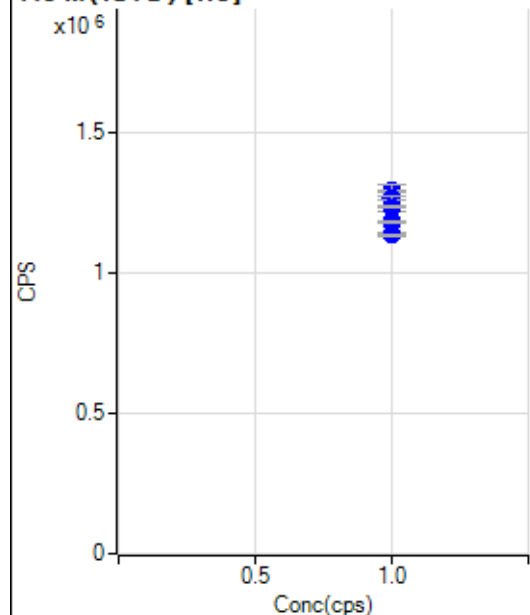
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5160402.07		A	0.4
2	☐	1.000					
3	☐	1.000		4953491.00		A	0.2
4	☐	1.000		4838729.23		M	0.5
5	☐	1.000		4647859.30		M	3.8
6	☐	1.000		4543458.57		P	0.1
7	☐	1.000		4444213.08		P	1.2
8	☐	1.000		4276283.65		P	0.9
9	☐	1.000		3891617.19		P	2.7

103 Rh (ISTD) [He]

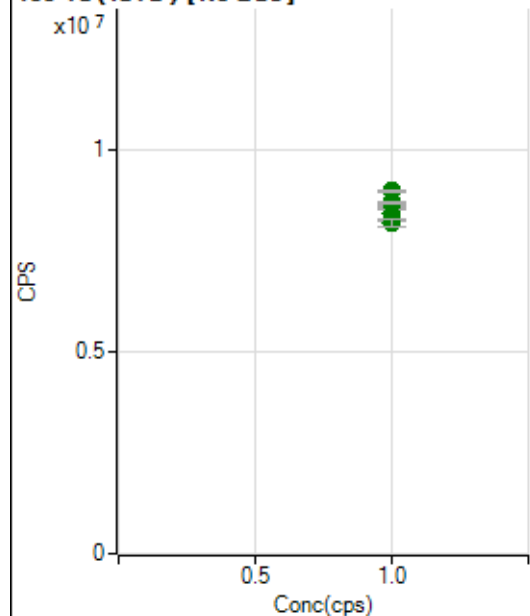
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2551460.36		P	0.0
2	☐	1.000					
3	☐	1.000		2499899.77		P	7.8
4	☐	1.000		2494239.27		P	0.5
5	☐	1.000		2416717.79		P	0.3
6	☐	1.000		2311809.88		P	0.3
7	☐	1.000		2282877.72		P	0.3
8	☐	1.000		2210245.97		P	0.5
9	☐	1.000		2070722.69		P	0.8

115 In (ISTD) [No Gas]

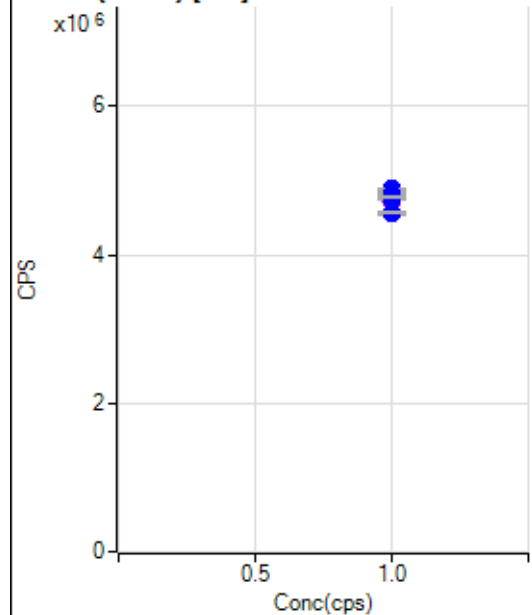
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5823893.81		A	0.3
2	☐	1.000					
3	☐	1.000		5573812.68		A	0.6
4	☐	1.000		5485892.84		A	0.2
5	☐	1.000		5281455.15		A	3.5
6	☐	1.000		5257386.41		A	0.3
7	☐	1.000		5217284.23		A	0.7
8	☐	1.000		5084629.92		A	0.6
9	☐	1.000		4814725.18		P	2.7

115 In (ISTD) [He]

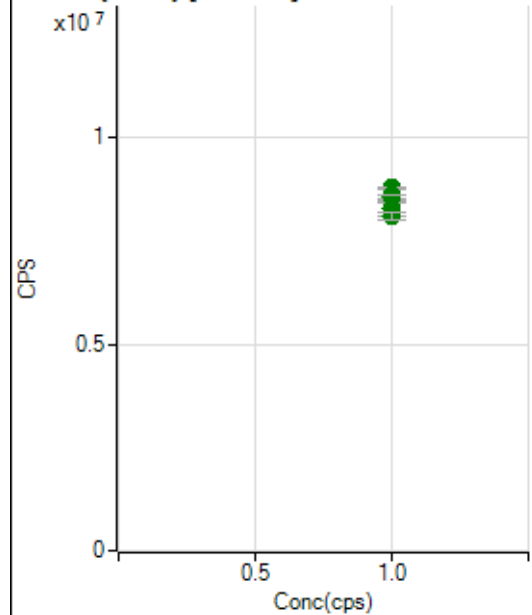
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1292560.80		P	0.2
2	☐	1.000					
3	☐	1.000		1267242.18		P	8.0
4	☐	1.000		1266443.14		P	0.7
5	☐	1.000		1234914.75		P	0.3
6	☐	1.000		1186178.31		P	0.1
7	☐	1.000		1179429.93		P	0.5
8	☐	1.000		1137278.09		P	0.6
9	☐	1.000		1134031.54		P	1.0

159 Tb (ISTD) [No Gas]

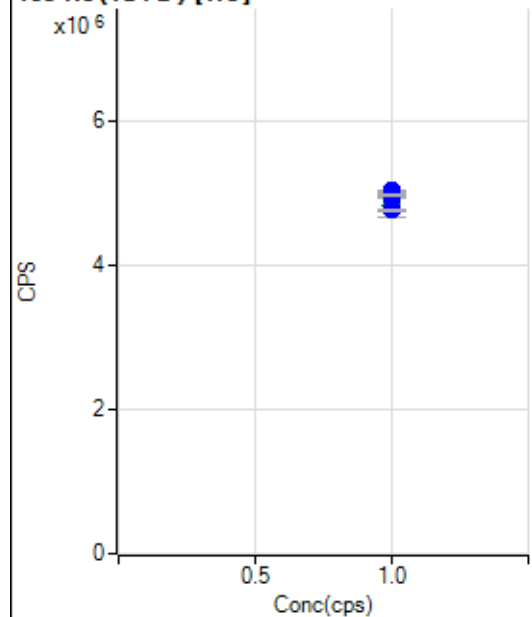
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8966895.63		A	0.6
2	☐	1.000					
3	☐	1.000		8561668.90		A	0.4
4	☐	1.000		8571587.58		A	0.5
5	☐	1.000		8388733.49		A	3.5
6	☐	1.000		8530954.73		A	0.3
7	☐	1.000		8635002.44		A	0.5
8	☐	1.000		8686608.41		A	0.8
9	☐	1.000		8165736.06		A	2.5

159 Tb (ISTD) [He]

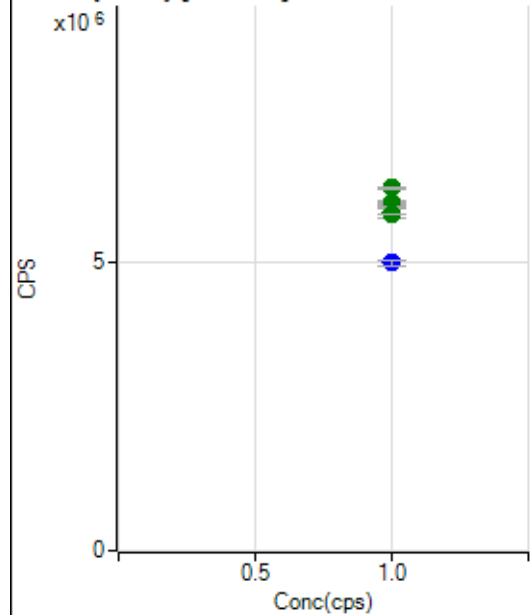
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4888703.71		P	0.5
2	☐	1.000					
3	☐	1.000		4724887.74		M	7.5
4	☐	1.000		4884075.83		P	0.7
5	☐	1.000		4829282.46		P	0.4
6	☐	1.000		4745603.99		P	0.4
7	☐	1.000		4794790.35		P	0.3
8	☐	1.000		4776752.43		P	0.4
9	☐	1.000		4571284.55		P	0.2

165 Ho (ISTD) [No Gas]

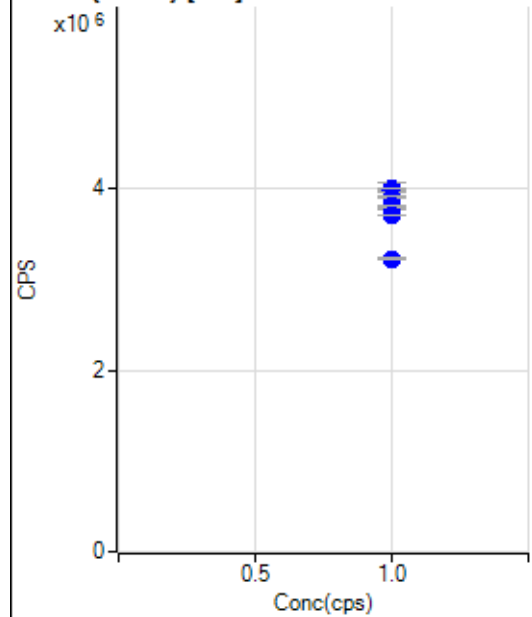
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8785104.62		A	0.8
2	☐	1.000					
3	☐	1.000		8464016.94		A	0.3
4	☐	1.000		8431327.45		A	0.5
5	☐	1.000		8298218.68		A	4.2
6	☐	1.000		8447284.13		A	0.5
7	☐	1.000		8561795.85		A	0.9
8	☐	1.000		8624165.47		A	0.3
9	☐	1.000		8104386.12		A	2.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5023697.32		P	0.2
2	☐	1.000					
3	☐	1.000		4831682.22		A	7.6
4	☐	1.000		5012480.00		P	0.6
5	☐	1.000		4977617.88		P	0.8
6	☐	1.000		4926788.08		P	0.2
7	☐	1.000		4966778.78		P	0.4
8	☐	1.000		4963217.18		P	0.8
9	☐	1.000		4753461.18		P	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6285534.70		A	0.7
2	☐	1.000					
3	☐	1.000		6031419.36		A	0.6
4	☐	1.000		5990449.98		A	0.6
5	☐	1.000		5857440.40		A	3.6
6	☐	1.000		5936426.93		A	0.6
7	☐	1.000		5949392.83		A	0.9
8	☐	1.000		5831568.32		A	0.4
9	☐	1.000		4981300.76		P	2.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3994933.97		P	0.3
2	☐	1.000					
3	☐	1.000		3917421.54		P	7.9
4	☐	1.000		3974544.87		P	1.0
5	☐	1.000		3901287.10		P	0.7
6	☐	1.000		3817681.82		P	0.2
7	☐	1.000		3794538.03		P	0.4
8	☐	1.000		3706139.70		P	0.5
9	☐	1.000		3221506.93		P	0.5

US EPA Tune Check Sample Report

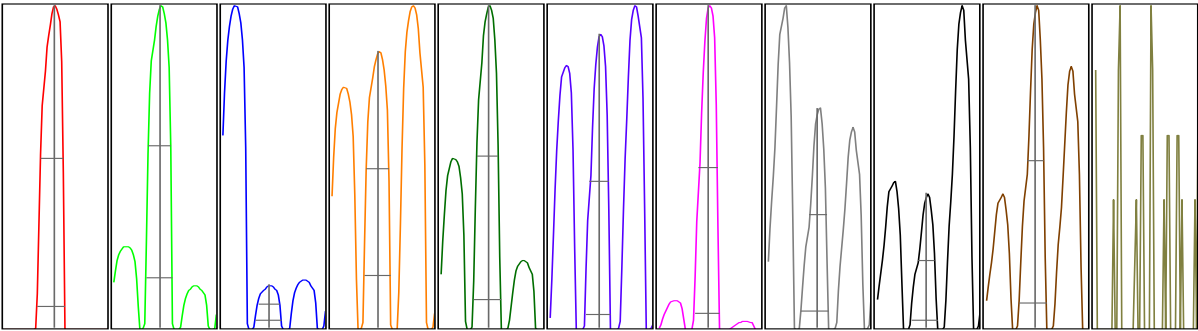
Batch Folder D:\ICP-MS Data\P7060219 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	7636	0.89	5.00	
24	120010	0.69	5.00	
25	16463	0.85	5.00	
26	19050	1.03	5.00	
59	51433	0.70	5.00	
113	7428	0.67	5.00	
115	89488	0.93	5.00	
206	27028	1.28	5.00	
207	24743	1.20	5.00	
208	58830	0.89	5.00	
220	0	81.44		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	7604	7730	7554	7674	7617
24	119388	121181	119059	120288	120133
25	16316	16644	16329	16543	16481
26	18859	19298	18850	19177	19066
59	51111	51920	51048	51569	51519
113	7351	7466	7423	7477	7422
115	88579	90508	88683	89858	89813
206	26646	27402	26682	27136	27272
207	24338	25039	24545	24987	24809
208	58320	59412	58256	59215	58948
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	12244	9.00	8.9 - 9.1		0.811	0.900	
24	193559	23.90	23.9 - 24.1		0.759	0.900	
25	25953	24.90	24.9 - 25.1		0.755	0.900	
26	29848	25.90	25.9 - 26.1		0.754	0.900	
59	86633	58.95	58.9 - 59.1		0.799	0.900	
113	14032	113.00	112.9 - 113.1		0.734	0.900	
115	173618	115.00	114.9 - 115.1		0.734	0.900	
206	53096	206.00	205.9 - 206.1		0.789	0.900	
207	48713	207.00	206.9 - 207.1		0.775	0.900	
208	116580	208.00	207.9 - 208.1		0.788	0.900	
220	0	219.80	-		0.175		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.1	V	Deflect	14.4	V
Extract 2	-95.0	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	13143	0.33	
89	27327	0.81	
205	26410	0.39	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	13191	13075	13135	13153	13162
89	27297	27092	27182	27406	27660
205	26390	26314	26397	26367	26584

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	8.5	V	Deflect	2.0	V
Extract 2	-105.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			