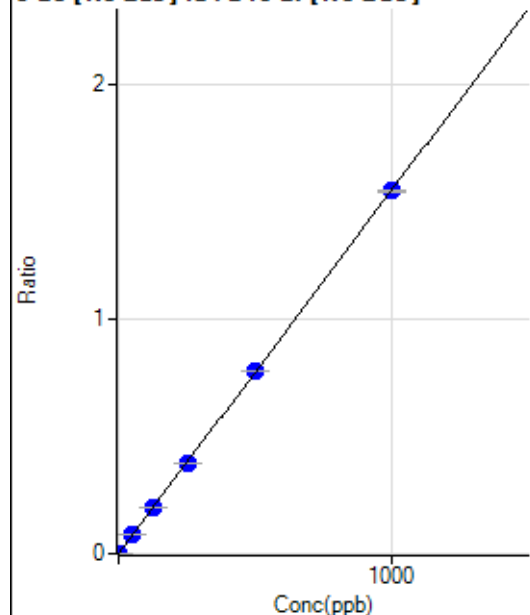


Calibration for 007CALS.d

Batch Folder: D:\ICP-MS Data\P7101017MS_#2.b\
 Analysis File: P7101017MS_#2.batch.bin
 DA Date-Time: 2017-10-10 17:20:54
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2017-10-10 14:27:40
2			
3	005CALS.d	S02	2017-10-10 14:35:44
4	006CALS.d	S03	2017-10-10 14:39:28
5	007CALS.d	S04	2017-10-10 14:43:25
6	008CALS.d	S05	2017-10-10 14:47:04
7	009CALS.d	S06	2017-10-10 14:50:38
8	010CALS.d	S07	2017-10-10 14:54:08
9	011CALS.d	S08	2017-10-10 14:57:35

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	111.11	0.0001	P	31.7
2	☐	0.100					
3	☐	1.000	0.942	1998.33	0.0015	P	0.5
4	☐	50.000	51.806	104358.49	0.0802	P	0.4
5	☐	125.000	128.014	261744.81	0.1980	P	0.6
6	☐	250.000	249.992	514479.55	0.3866	P	0.2
7	☐	500.000	501.190	1008343.82	0.7749	P	0.3
8	☐	1000.000	998.940	1961849.09	1.5444	P	0.3
9	☐			803.75	0.0007	P	33.7

$$y = 0.0015 * x + 8.6277E-005$$

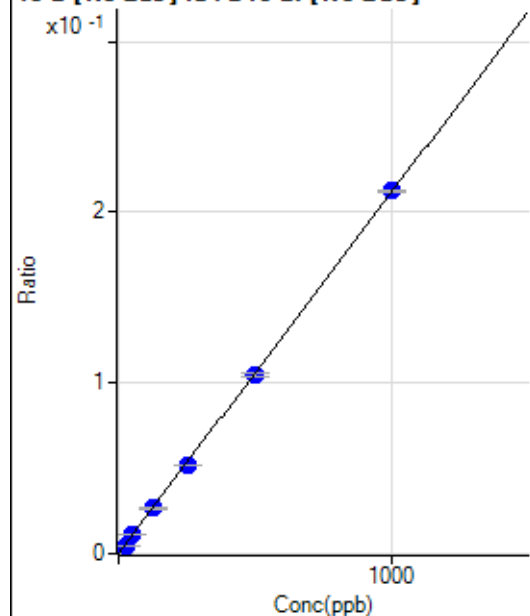
$$R = 1.0000$$

$$DL = 0.053$$

$$BEC = 0.05581$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	219.46	0.0002	P	20.8
2	☐	2.500					
3	☐	25.000	21.917	6229.32	0.0048	P	5.2
4	☐	50.000	50.867	14226.62	0.0109	P	0.8
5	☐	125.000	124.357	34999.67	0.0265	P	0.6
6	☐	250.000	245.350	69297.98	0.0521	P	0.6
7	☐	500.000	494.932	136446.17	0.1049	P	2.6
8	☐	1000.000	1003.811	269939.70	0.2125	P	0.3
9	☐			4906.56	0.0040	P	12.9

$$y = 2.1152E-004 * x + 1.7024E-004$$

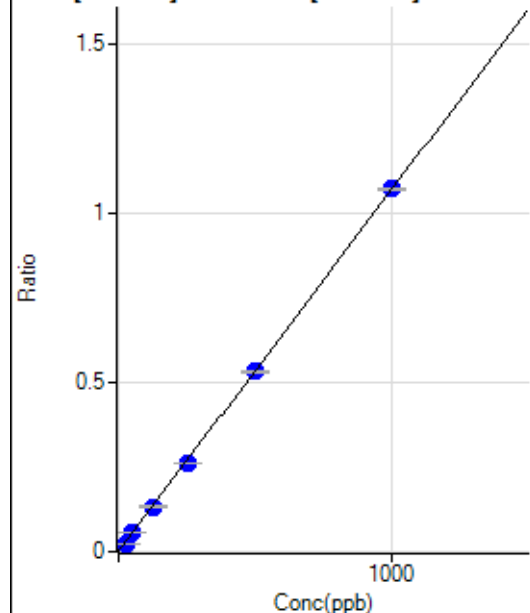
$$R = 1.0000$$

$$DL = 0.5033$$

$$BEC = 0.8048$$

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	1225.10	0.0010	P	4.0
2	☐	2.500					
3	☐	25.000	21.999	31720.23	0.0245	P	2.4
4	☐	50.000	50.628	71722.98	0.0551	P	1.4
5	☐	125.000	123.945	176529.17	0.1335	P	0.8
6	☐	250.000	245.999	351477.17	0.2641	P	0.4
7	☐	500.000	496.898	692870.47	0.5325	P	0.7
8	☐	1000.000	1002.727	1363716.33	1.0735	P	0.6
9	☐			24487.35	0.0199	P	9.3

$$y = 0.0011 * x + 9.5038E-004$$

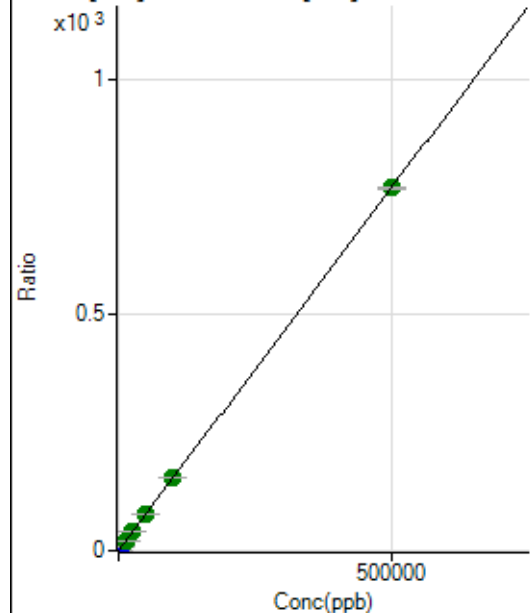
$$R = 1.0000$$

$$DL = 0.1054$$

$$BEC = 0.8885$$

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	32383.13	0.0938	P	1.8
2	☐	50.000					
3	☐	500.000	461.983	278171.48	0.8043	P	0.5
4	☐	5000.000	5291.309	2791895.03	8.2321	P	0.8
5	☐	12500.000	12927.112	6792737.56	19.9763	A	0.6
6	☐	25000.000	25563.538	13362744.57	39.4117	A	0.3
7	☐	50000.000	50638.108	26700449.90	77.9776	A	0.5
8	☐	100000.00	100234.64	53685452.59	154.2595	A	0.5
9	☐	500000.00	499847.53	274324250.5	768.8833	A	0.7

$$y = 0.0015 * x + 0.0938$$

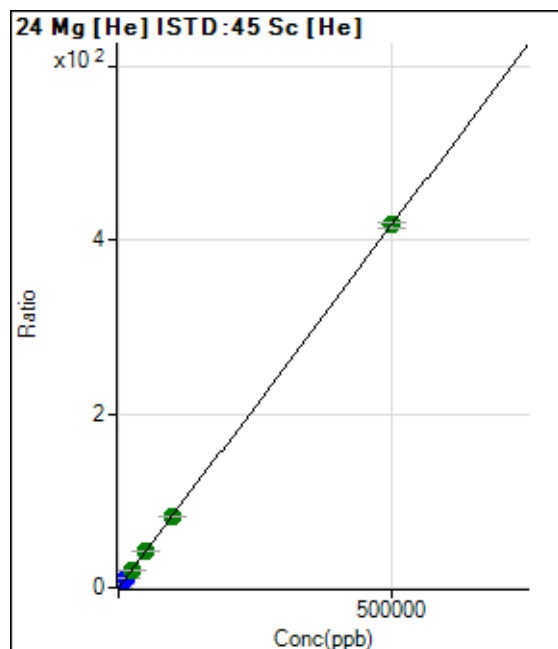
$$R = 1.0000$$

$$DL = 3.313$$

$$BEC = 60.98$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	330.57	0.0010	P	12.4
2	☐	50.000					
3	☐	500.000	453.578	131340.77	0.3798	P	1.0
4	☐	5000.000	5181.416	1467888.98	4.3282	P	0.9
5	☐	12500.000	12785.108	3631055.03	10.6783	P	0.7
6	☐	25000.000	25074.931	7100575.07	20.9421	A	0.4
7	☐	50000.000	49625.173	14191298.76	41.4451	A	0.3
8	☐	100000.00	97547.176	28351925.29	81.4668	A	0.5
9	☐	500000.00	500515.40	149129538.0	418.0028	A	1.2

$$y = 8.3514\text{E-}004 * x + 9.5717\text{E-}004$$

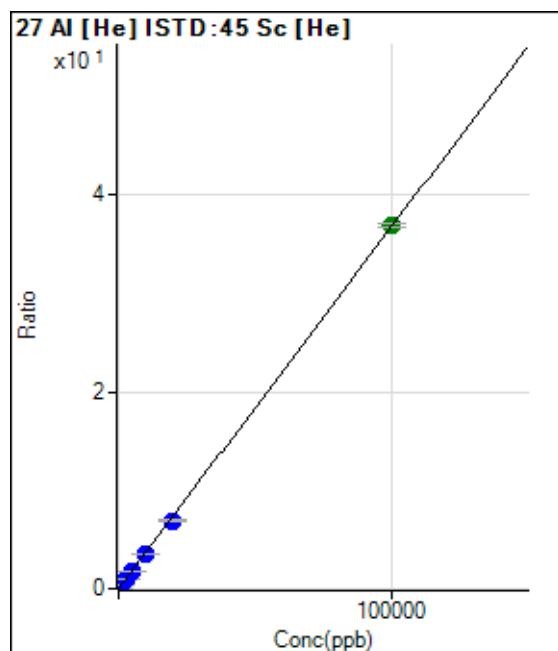
$$R = 1.0000$$

$$DL = 0.4257$$

$$BEC = 1.146$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	169.45	0.0005	P	19.8
2	☐	2.000					
3	☐	20.000	17.693	2416.96	0.0070	P	5.6
4	☐	1000.000	982.234	122534.43	0.3613	P	1.1
5	☐	2500.000	2447.084	305836.52	0.8994	P	0.2
6	☐	5000.000	4792.930	597128.46	1.7611	P	0.7
7	☐	10000.000	9573.338	1204320.59	3.5172	P	0.4
8	☐	20000.000	18841.176	2408886.27	6.9216	P	0.4
9	☐	100000.00	100286.28	13143905.59	36.8399	A	0.9

$$y = 3.6734\text{E-}004 * x + 4.9072\text{E-}004$$

$$R = 0.9999$$

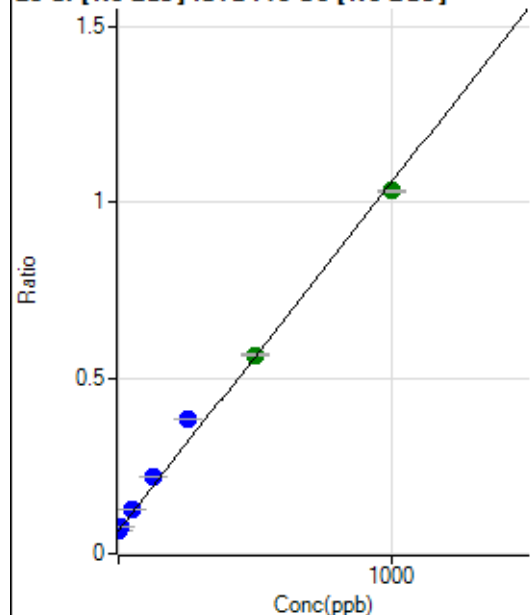
$$DL = 0.7923$$

$$BEC = 1.336$$

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	456572.99	0.0658	P	0.5
2	☐	1.000					
3	☐	10.000	12.202	557924.95	0.0778	P	0.6
4	☐	50.000	61.801	903640.25	0.1269	P	0.6
5	☐	125.000	156.580	1578113.27	0.2207	P	0.2
6	☐	250.000	319.721	2723957.05	0.3821	P	1.1
7	☐	500.000	504.551	4045248.40	0.5649	A	0.9
8	☐	1000.000	975.734	7340607.20	1.0310	A	0.7
9	☐			730917.76	0.1032	P	0.9

$$y = 9.8927\text{E-}004 * x + 0.0658$$

$$R = 0.9970$$

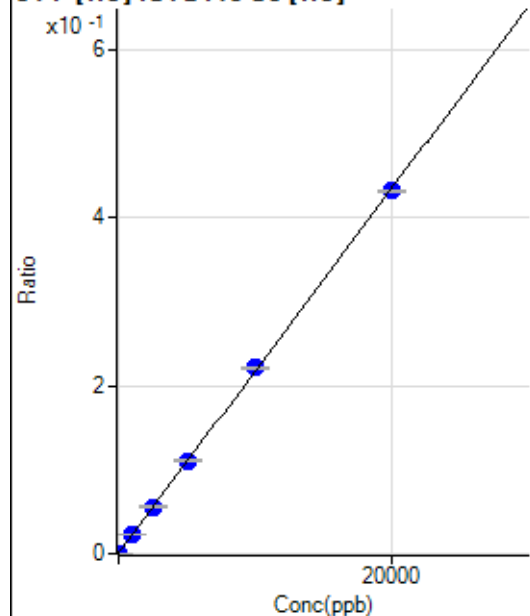
$$DL = 1.039$$

$$BEC = 66.48$$

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	-1.458	175.01	0.0005	P	20.7
2	☐	0.000					
3	☐	0.000	1.458	197.24	0.0006	P	21.3
4	☐	1000.000	1027.367	7735.63	0.0228	P	2.3
5	☐	2500.000	2547.841	18965.43	0.0558	P	2.7
6	☐	5000.000	5065.966	37417.46	0.1104	P	1.8
7	☐	10000.000	10186.363	75795.75	0.2214	P	1.4
8	☐	20000.000	19882.978	150197.31	0.4316	P	0.6
9	☐			247.24	0.0007	P	9.7

$$y = 2.1678\text{E-}005 * x + 5.3843\text{E-}004$$

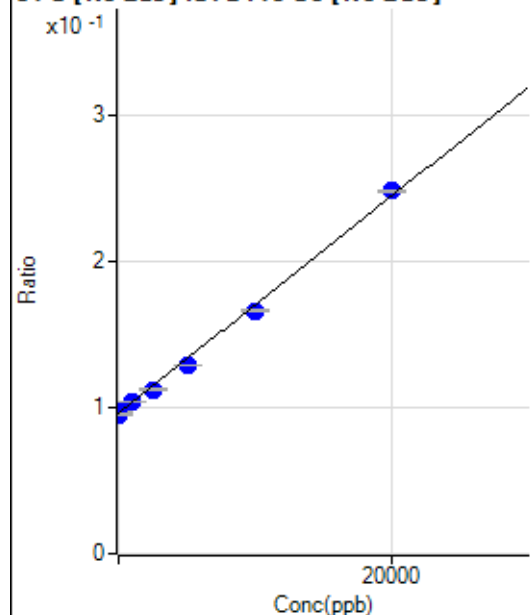
$$R = 0.9999$$

$$DL = 15.67$$

$$BEC = 24.84$$

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	131.352	674409.12	0.0971	P	0.5
2	☐	0.000					
3	☐	0.000	-131.352	682320.23	0.0952	P	1.0
4	☐	1000.000	1061.402	740934.47	0.1041	P	0.8
5	☐	2500.000	2181.115	803604.64	0.1124	P	0.3
6	☐	5000.000	4394.062	918381.06	0.1288	P	0.2
7	☐	10000.000	9451.580	1191317.76	0.1664	P	0.3
8	☐	20000.000	20462.485	1766648.07	0.2481	P	0.8
9	☐			647479.89	0.0914	P	1.5

$$y = 7.4267\text{E-}006 * x + 0.0962$$

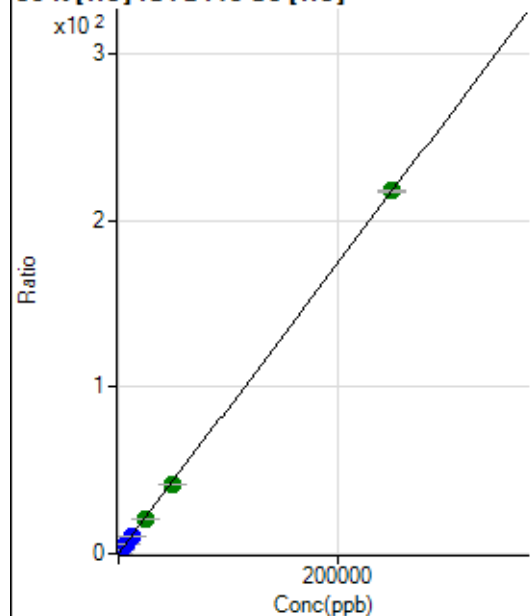
$$R = 0.9988$$

$$DL = 293.5$$

$$BEC = 1.295\text{E}+04$$

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	52111.82	0.1509	P	0.6
2	☐	50.000					
3	☐	500.000	439.564	184107.97	0.5324	P	0.6
4	☐	2500.000	2475.794	779801.55	2.2993	P	1.1
5	☐	6250.000	6127.738	1859463.19	5.4684	P	0.3
6	☐	12500.000	12152.338	3626672.13	10.6963	P	0.9
7	☐	25000.000	24215.353	7246867.78	21.1641	A	0.7
8	☐	50000.000	47673.036	14449736.78	41.5198	A	0.5
9	☐	250000.00	250564.66	77632830.21	217.5818	A	0.3

$$y = 8.6776\text{E-}004 * x + 0.1509$$

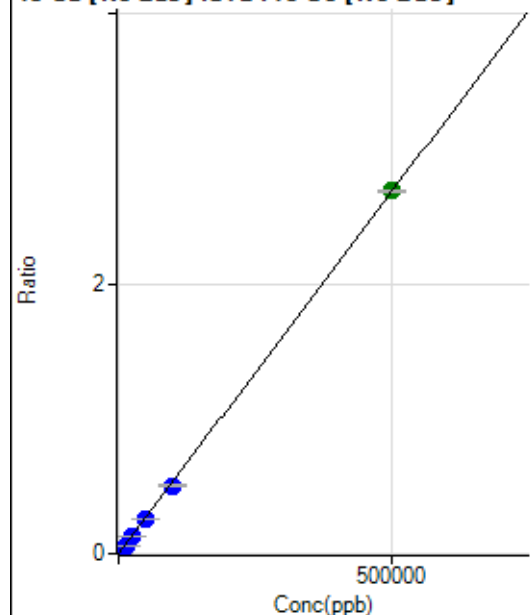
$$R = 1.0000$$

$$DL = 3.359$$

$$BEC = 173.9$$

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	786.17	0.0001	P	2.9
2	☐	50.000					
3	☐	500.000	421.036	16985.36	0.0024	P	4.0
4	☐	5000.000	4754.209	182268.70	0.0256	P	0.4
5	☐	12500.000	11896.906	456866.09	0.0639	P	0.4
6	☐	25000.000	23579.807	901973.01	0.1265	P	0.6
7	☐	50000.000	46793.385	1796977.60	0.2509	P	0.5
8	☐	100000.00	93992.304	3587863.45	0.5039	P	0.8
9	☐	500000.00	501610.82	19037325.42	2.6889	A	0.7

$$y = 5.3602\text{E-}006 * x + 1.1324\text{E-}004$$

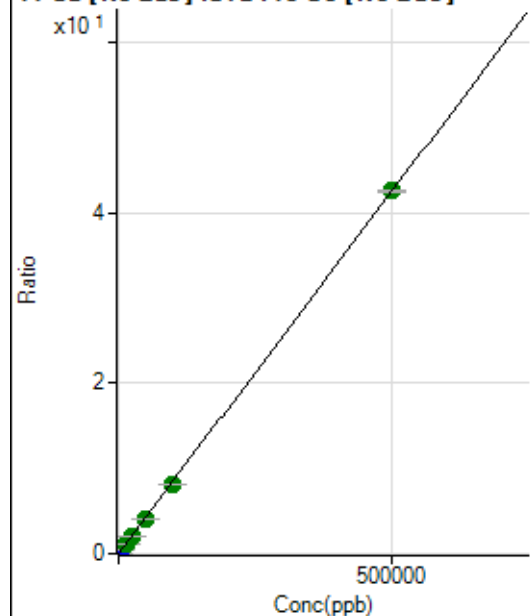
$$R = 0.9999$$

$$DL = 1.821$$

$$BEC = 21.13$$

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	77779.85	0.0112	P	0.9
2	☐	50.000					
3	☐	500.000	427.532	340219.56	0.0475	P	0.2
4	☐	5000.000	4861.378	3015701.74	0.4235	P	0.4
5	☐	12500.000	11986.285	7350430.63	1.0278	A	0.3
6	☐	25000.000	23919.025	14544237.82	2.0399	A	0.3
7	☐	50000.000	47565.185	28968801.00	4.0454	A	0.3
8	☐	100000.00	95324.599	57641359.62	8.0961	A	0.7
9	☐	500000.00	501246.91	301072359.5	42.5242	A	0.8

$$y = 8.4814\text{E-}005 * x + 0.0112$$

$$R = 0.9999$$

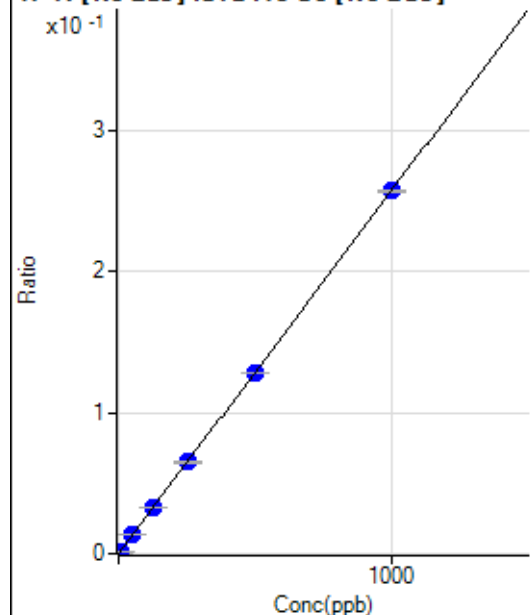
$$DL = 3.557$$

$$BEC = 132.1$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	211.13	0.0000	P	19.7
2	☐	0.500					
3	☐	5.000	4.263	8088.68	0.0011	P	1.8
4	☐	50.000	50.685	93174.48	0.0131	P	0.8
5	☐	125.000	127.613	235283.72	0.0329	P	0.3
6	☐	250.000	252.737	464343.97	0.0651	P	1.0
7	☐	500.000	498.882	920388.92	0.1285	P	0.1
8	☐	1000.000	999.517	1833155.16	0.2575	P	0.8
9	☐			1972.44	0.0003	P	14.5

$$y = 2.5757\text{E-}004 * x + 3.0419\text{E-}005$$

$$R = 1.0000$$

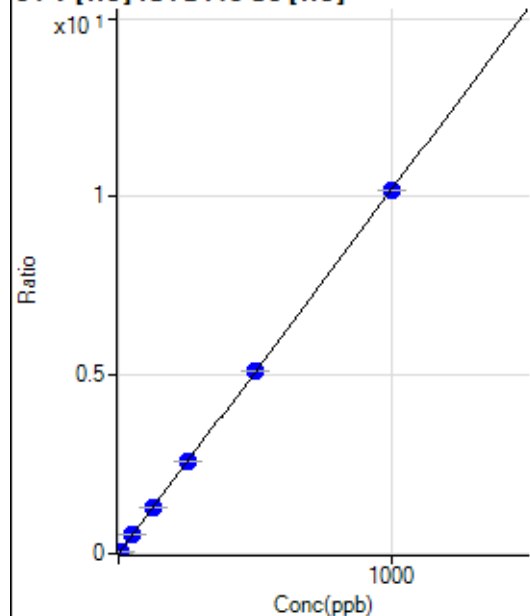
$$DL = 0.06972$$

$$BEC = 0.1181$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28.89	0.0001	P	40.3
2	☐	0.500					
3	☐	5.000	4.398	15535.03	0.0449	P	2.6
4	☐	50.000	50.935	176156.41	0.5194	P	0.1
5	☐	125.000	127.277	441278.15	1.2977	P	0.1
6	☐	250.000	251.665	869982.73	2.5659	P	0.1
7	☐	500.000	503.756	1758647.34	5.1361	P	0.3
8	☐	1000.000	997.377	3538933.07	10.1687	P	0.1
9	☐			778.92	0.0022	P	10.3

$$y = 0.0102 * x + 8.3601\text{E-}005$$

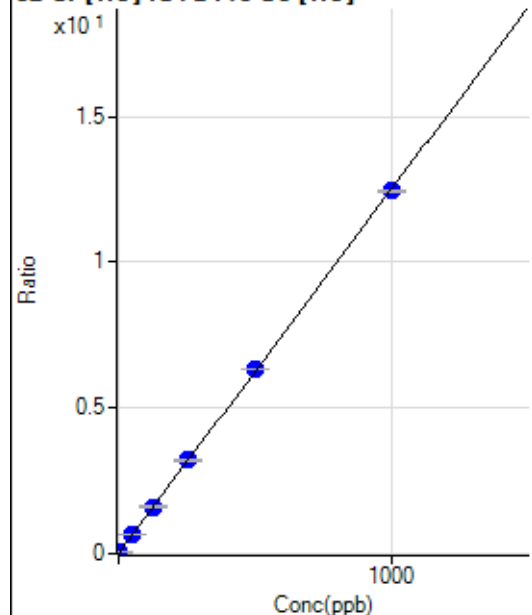
$$R = 1.0000$$

$$DL = 0.009902$$

$$BEC = 0.0082$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3410.44	0.0099	P	1.5
2	☐	0.200					
3	☐	2.000	2.044	12251.93	0.0354	P	1.6
4	☐	50.000	51.742	222689.60	0.6566	P	0.7
5	☐	125.000	128.566	549797.72	1.6168	P	0.6
6	☐	250.000	255.433	1085849.79	3.2026	P	0.2
7	☐	500.000	505.353	2166222.78	6.3264	P	0.3
8	☐	1000.000	995.433	4333574.00	12.4520	P	0.5
9	☐			65761.50	0.1843	P	1.7

$$y = 0.0125 * x + 0.0099$$

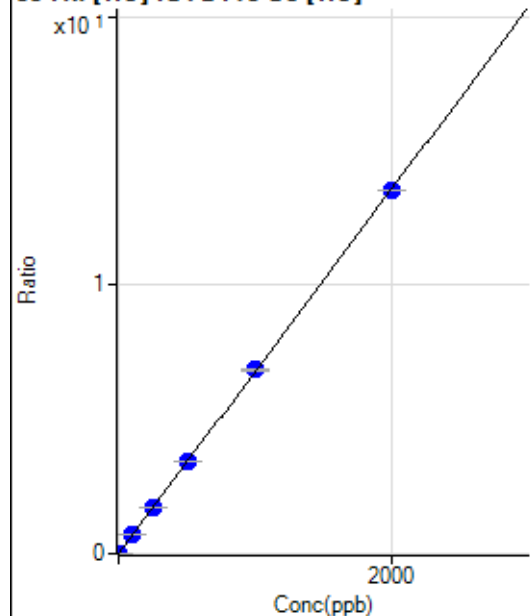
$$R = 1.0000$$

$$DL = 0.03443$$

$$BEC = 0.7903$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	138.89	0.0004	P	20.7
2	☐	0.100					
3	☐	1.000	1.006	2502.47	0.0072	P	4.0
4	☐	100.000	103.337	238151.45	0.7022	P	0.5
5	☐	250.000	257.236	594163.01	1.7473	P	0.4
6	☐	500.000	509.804	1174005.55	3.4625	P	0.6
7	☐	1000.000	1010.457	2349812.38	6.8625	P	0.7
8	☐	2000.000	1991.249	4706386.39	13.5232	P	0.1
9	☐			18933.51	0.0531	P	1.5

$$y = 0.0068 * x + 4.0243E-004$$

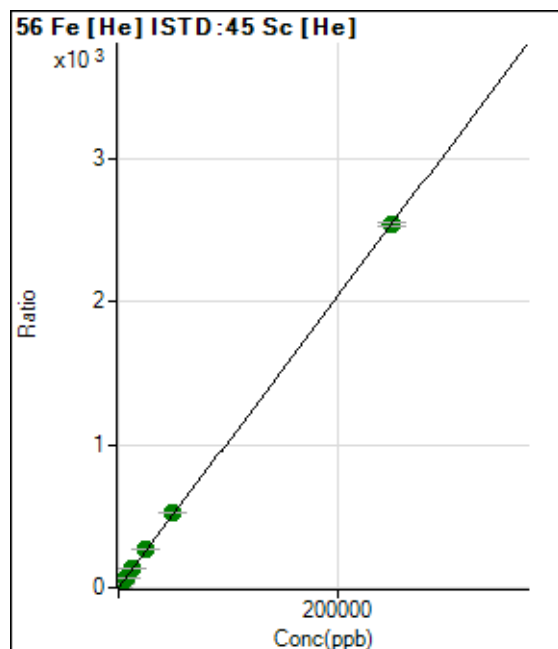
$$R = 1.0000$$

$$DL = 0.03684$$

$$BEC = 0.05926$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9047.47	0.0262	P	2.2
2	☐	5.000					
3	☐	50.000	48.142	178284.63	0.5155	P	1.3
4	☐	2500.000	2677.866	9239769.07	27.2436	A	0.8
5	☐	6250.000	6697.689	23156738.25	68.1004	A	1.2
6	☐	12500.000	13209.621	45530903.80	134.2866	A	0.5
7	☐	25000.000	26291.456	91509281.67	267.2483	A	0.1
8	☐	50000.000	51294.415	181448774.4	521.3743	A	0.2
9	☐	250000.00	249563.52	905000635.0	2,536.549	A	1.0

$$y = 0.0102 * x + 0.0262$$

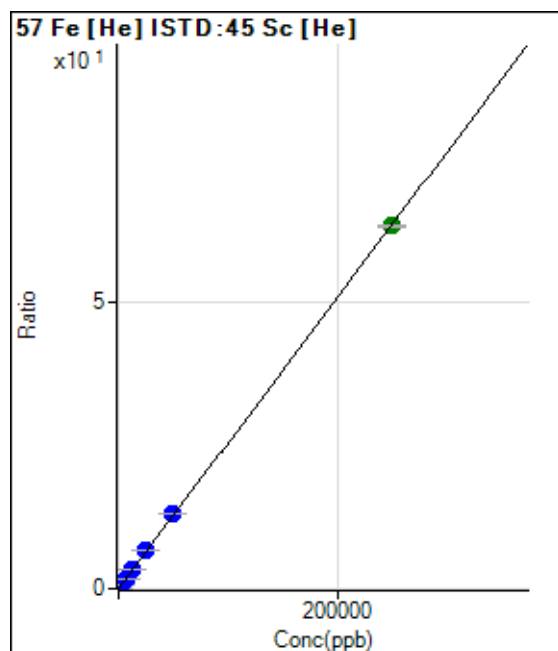
$$R = 1.0000$$

$$DL = 0.1719$$

$$BEC = 2.578$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	429.65	0.0012	P	11.4
2	☐	5.000					
3	☐	50.000	47.706	4619.38	0.0134	P	5.8
4	☐	2500.000	2667.945	230215.28	0.6788	P	0.8
5	☐	6250.000	6606.901	570976.16	1.6791	P	0.5
6	☐	12500.000	13086.187	1127246.08	3.3246	P	0.7
7	☐	25000.000	25923.987	2254769.41	6.5849	P	0.3
8	☐	50000.000	51015.303	4509392.00	12.9572	P	0.0
9	☐	250000.00	249664.63	22622986.16	63.4065	A	0.5

$$y = 2.5396E-004 * x + 0.0012$$

$$R = 1.0000$$

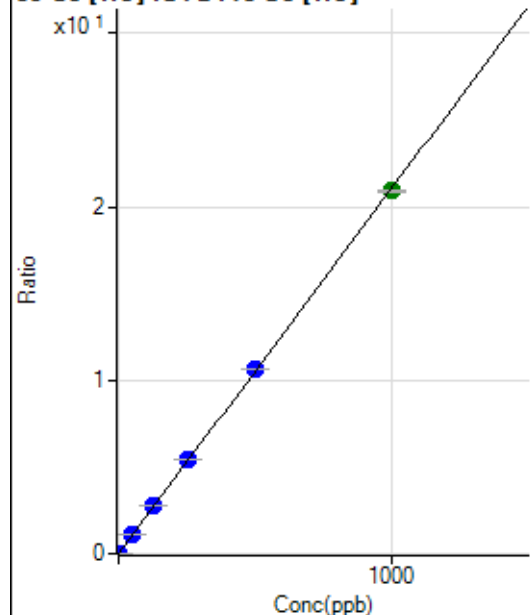
$$DL = 1.679$$

$$BEC = 4.899$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	128.89	0.0004	P	19.6
2	☐	0.100					
3	☐	1.000	0.953	7067.38	0.0204	P	2.0
4	☐	50.000	52.715	376297.79	1.1096	P	1.1
5	☐	125.000	130.213	931780.77	2.7402	P	0.6
6	☐	250.000	256.738	1831729.32	5.4024	P	0.3
7	☐	500.000	507.443	3656105.36	10.6775	P	0.3
8	☐	1000.000	993.807	7277488.92	20.9112	A	0.3
9	☐			8792.76	0.0246	P	0.8

$$y = 0.0210 * x + 3.7343E-004$$

$$R = 0.9999$$

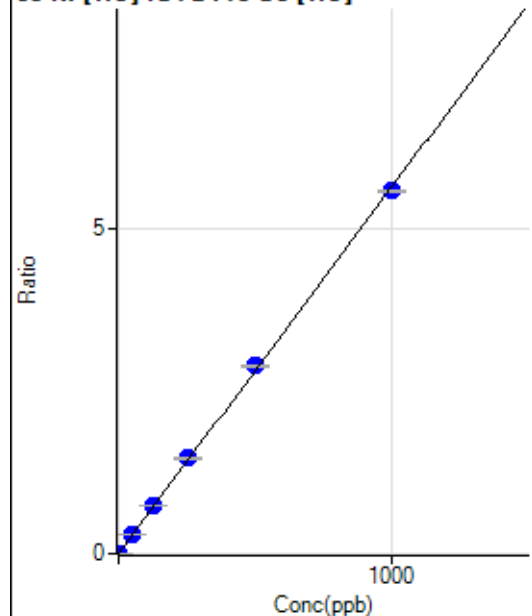
$$DL = 0.01045$$

$$BEC = 0.01775$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174.45	0.0005	P	12.9
2	☐	0.100					
3	☐	1.000	1.070	2265.77	0.0066	P	3.2
4	☐	50.000	53.613	102899.09	0.3034	P	2.2
5	☐	125.000	132.343	254441.26	0.7483	P	0.5
6	☐	250.000	260.004	498267.44	1.4696	P	0.6
7	☐	500.000	511.975	990677.42	2.8932	P	0.4
8	☐	1000.000	990.413	1947725.37	5.5965	P	0.7
9	☐			19674.49	0.0551	P	0.8

$$y = 0.0057 * x + 5.0532E-004$$

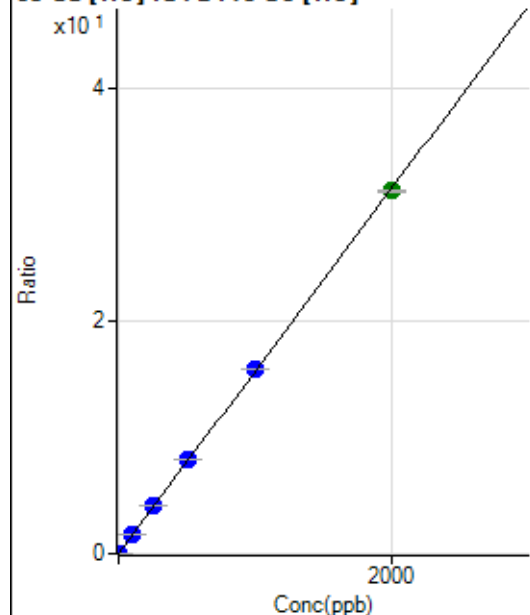
$$R = 0.9998$$

$$DL = 0.03458$$

$$BEC = 0.08943$$

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	1155.62	0.0033	P	1.8
2	☐	0.200					
3	☐	2.000	1.879	11360.11	0.0328	P	1.5
4	☐	100.000	106.483	568163.48	1.6753	P	1.2
5	☐	250.000	261.941	1399692.25	4.1163	P	0.7
6	☐	500.000	516.166	2749071.11	8.1080	P	0.2
7	☐	1000.000	1012.837	5446589.92	15.9066	P	0.7
8	☐	2000.000	1987.723	10863159.70	31.2140	A	0.6
9	☐			13570.91	0.0380	P	1.6

$$y = 0.0157 * x + 0.0033$$

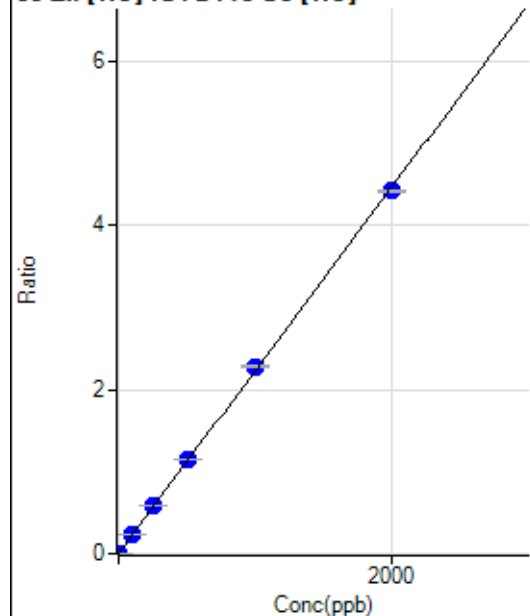
$$R = 0.9999$$

$$DL = 0.01177$$

$$BEC = 0.2131$$

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	558.91	0.0016	P	12.5
2	☐	0.200					
3	☐	2.000	1.935	2050.18	0.0059	P	1.3
4	☐	100.000	106.260	80819.95	0.2383	P	1.0
5	☐	250.000	262.656	199482.03	0.5866	P	0.3
6	☐	500.000	518.670	392244.59	1.1569	P	0.2
7	☐	1000.000	1023.467	781115.80	2.2812	P	0.4
8	☐	2000.000	1981.704	1536714.44	4.4155	P	0.4
9	☐			3973.95	0.0111	P	1.4

$$y = 0.0022 * x + 0.0016$$

$$R = 0.9998$$

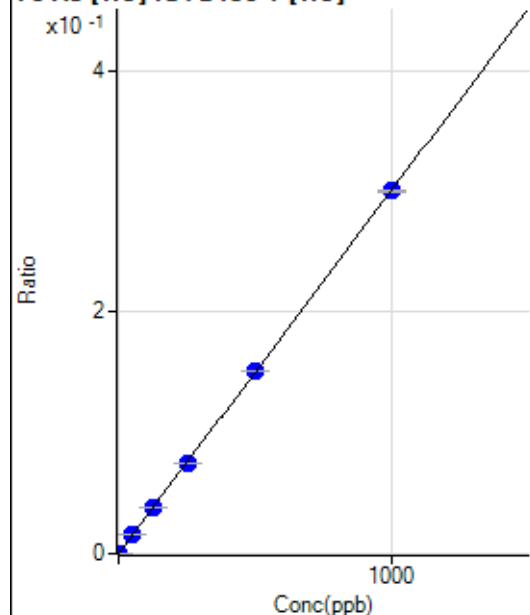
$$DL = 0.2735$$

$$BEC = 0.7266$$

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	17.28	0.0000	P	44.2
2	☐	0.100					
3	☐	1.000	0.831	487.05	0.0003	P	11.8
4	☐	50.000	50.561	28117.31	0.0152	P	0.6
5	☐	125.000	126.314	70267.93	0.0380	P	1.5
6	☐	250.000	250.294	139323.29	0.0752	P	0.5
7	☐	500.000	502.117	282393.09	0.1509	P	0.7
8	☐	1000.000	998.676	564744.82	0.3002	P	0.3
9	☐			319.76	0.0002	P	2.7

$$y = 3.0057\text{E-}004 * x + 9.2696\text{E-}006$$

$$R = 1.0000$$

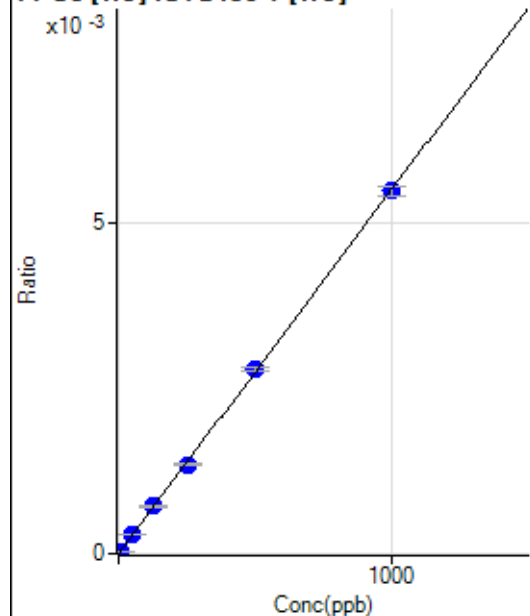
$$DL = 0.04094$$

$$BEC = 0.03084$$

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	5.163	53.33	0.0000	P	27.7
4	☐	50.000	53.421	543.35	0.0003	P	7.5
5	☐	125.000	129.820	1321.20	0.0007	P	2.6
6	☐	250.000	244.449	2489.15	0.0013	P	2.3
7	☐	500.000	506.787	5214.35	0.0028	P	2.3
8	☐	1000.000	997.220	10317.15	0.0055	P	2.5
9	☐			5.55	0.0000	P	125.

$$y = 5.4993\text{E-}006 * x + 0.0000\text{E+}000$$

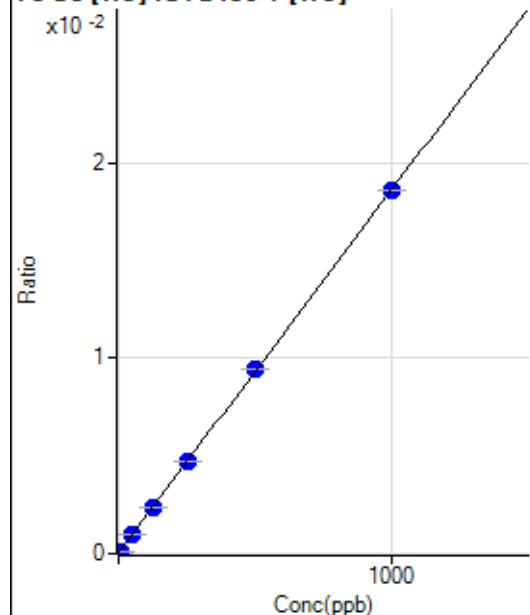
$$R = 0.9999$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	93.21	0.0001	P	19.7
2	☐	0.500					
3	☐	5.000	3.939	231.48	0.0001	P	10.0
4	☐	50.000	50.144	1814.33	0.0010	P	1.0
5	☐	125.000	125.455	4403.79	0.0024	P	1.5
6	☐	250.000	251.354	8736.03	0.0047	P	0.9
7	☐	500.000	504.274	17615.71	0.0094	P	0.2
8	☐	1000.000	997.466	34944.48	0.0186	P	0.2
9	☐			124.69	0.0001	P	7.4

$$y = 1.8572\text{E-}005 * x + 5.0010\text{E-}005$$

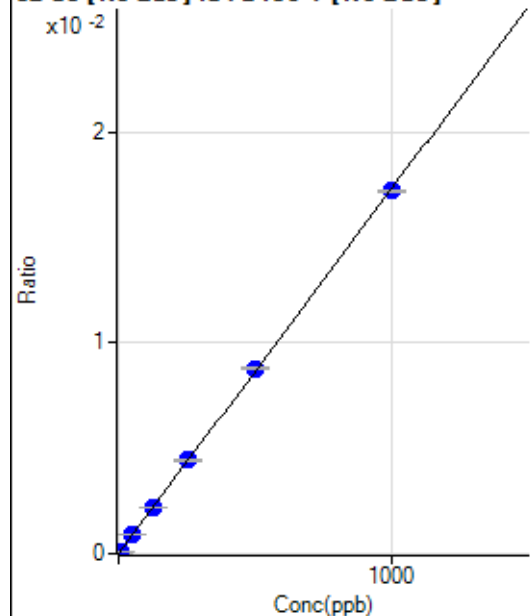
$$R = 1.0000$$

$$DL = 1.591$$

$$BEC = 2.693$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	85.68	0.0000	P	79.9
2	☐	0.500					
3	☐	5.000	4.454	1046.55	0.0001	P	8.9
4	☐	50.000	52.046	11274.42	0.0009	P	0.6
5	☐	125.000	128.291	27825.37	0.0022	P	0.6
6	☐	250.000	255.444	55284.88	0.0044	P	0.5
7	☐	500.000	506.789	110344.07	0.0088	P	1.0
8	☐	1000.000	994.734	216985.67	0.0172	P	0.9
9	☐			245.52	0.0000	P	27.3

$$y = 1.7289\text{E-}005 * x + 7.0363\text{E-}006$$

$$R = 0.9999$$

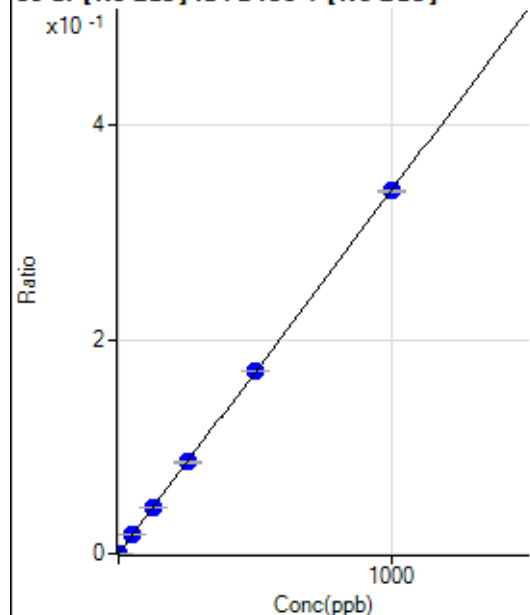
$$DL = 0.9754$$

$$BEC = 0.407$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1286.23	0.0001	P	4.0
2	☐	0.100					
3	☐	1.000	0.913	5173.39	0.0004	P	0.9
4	☐	50.000	51.061	216606.90	0.0174	P	0.3
5	☐	125.000	126.464	537676.65	0.0430	P	0.9
6	☐	250.000	251.387	1066839.75	0.0854	P	1.3
7	☐	500.000	501.631	2142220.30	0.1702	P	0.1
8	☐	1000.000	998.602	4272692.11	0.3388	P	0.5
9	☐			144255.99	0.0119	P	0.2

$$y = 3.3916\text{E-}004 * x + 1.0576\text{E-}004$$

$$R = 1.0000$$

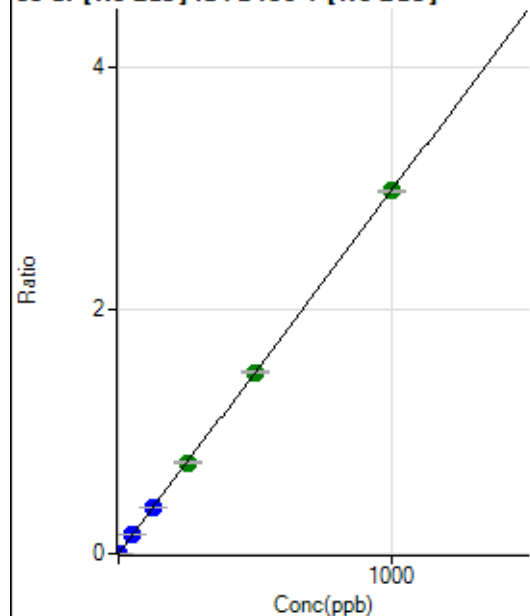
$$DL = 0.03726$$

$$BEC = 0.3118$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	808.39	0.0001	P	10.7
2	☐	0.100					
3	☐	1.000	0.902	34289.25	0.0028	P	0.6
4	☐	50.000	50.685	1878183.33	0.1511	P	0.1
5	☐	125.000	126.090	4698562.65	0.3757	P	1.2
6	☐	250.000	251.450	9363724.60	0.7492	A	0.6
7	☐	500.000	500.043	18747900.94	1.4899	A	0.7
8	☐	1000.000	999.445	37555318.20	2.9778	A	0.4
9	☐			1267263.91	0.1043	P	0.2

$$y = 0.0030 * x + 6.6468\text{E-}005$$

$$R = 1.0000$$

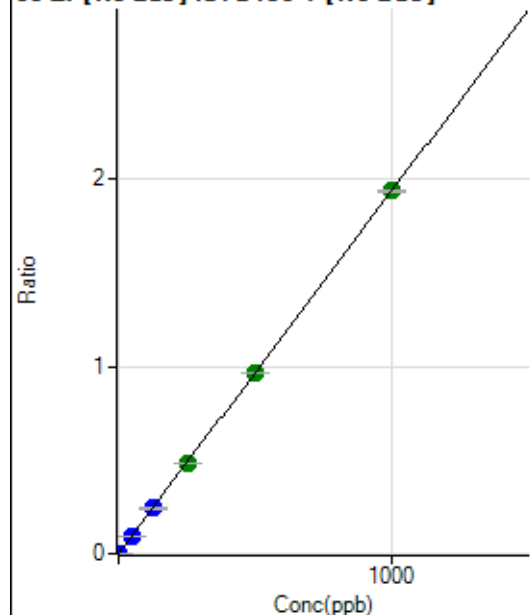
$$DL = 0.007166$$

$$BEC = 0.02231$$

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	844.51	0.0001	P	5.4
2	☐	0.100					
3	☐	1.000	0.771	19441.69	0.0016	P	2.0
4	☐	50.000	49.349	1187863.86	0.0955	P	0.2
5	☐	125.000	124.831	3021146.70	0.2416	P	0.8
6	☐	250.000	249.453	6033006.12	0.4827	A	0.2
7	☐	500.000	498.514	12137916.42	0.9646	A	0.7
8	☐	1000.000	1000.934	24424363.91	1.9367	A	0.8
9	☐			10246.02	0.0008	P	27.4

$$y = 0.0019 * x + 6.9440E-005$$

$$R = 1.0000$$

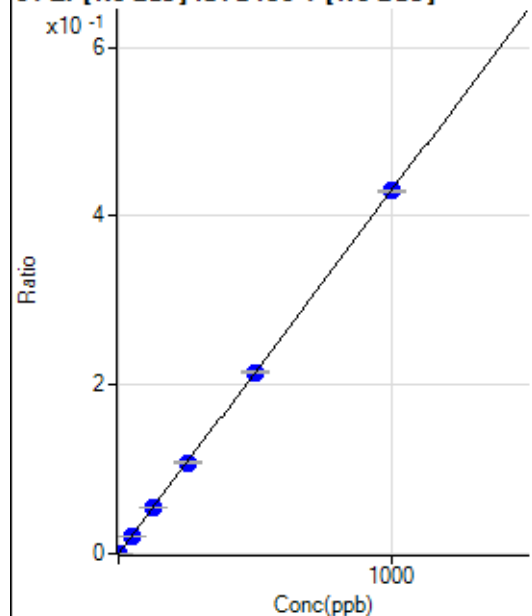
$$DL = 0.005764$$

$$BEC = 0.03589$$

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	213.90	0.0000	P	47.1
2	☐	0.100					
3	☐	1.000	0.785	4423.10	0.0004	P	2.8
4	☐	50.000	49.603	265451.66	0.0214	P	0.4
5	☐	125.000	125.452	674993.36	0.0540	P	0.5
6	☐	250.000	251.522	1352251.81	0.1082	P	0.7
7	☐	500.000	500.327	2708123.87	0.2152	P	0.8
8	☐	1000.000	999.420	5421503.94	0.4299	P	0.6
9	☐			2397.54	0.0002	P	27.8

$$y = 4.3011E-004 * x + 1.7632E-005$$

$$R = 1.0000$$

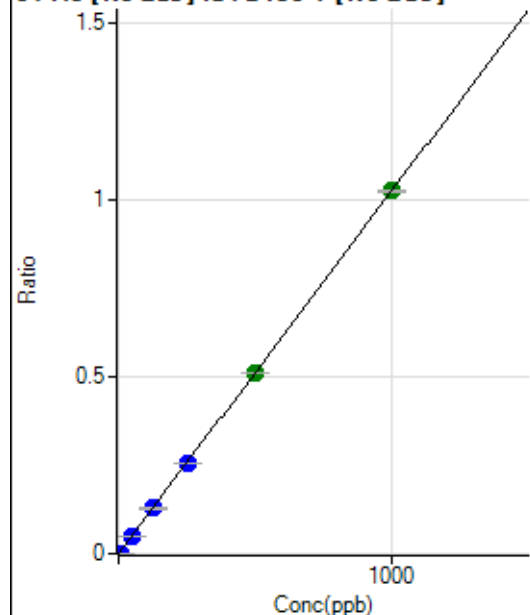
$$DL = 0.05787$$

$$BEC = 0.04099$$

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	358.36	0.0000	P	22.8
2	☐	0.500					
3	☐	5.000	1.909	24727.83	0.0020	P	0.6
4	☐	50.000	49.086	625897.65	0.0503	P	0.8
5	☐	125.000	124.775	1599836.45	0.1279	P	0.4
6	☐	250.000	249.671	3198845.93	0.2560	P	1.1
7	☐	500.000	498.396	6429187.64	0.5109	A	0.6
8	☐	1000.000	1000.973	12941112.88	1.0261	A	0.4
9	☐			15439.54	0.0013	P	7.3

$$y = 0.0010 * x + 2.9494E-005$$

$$R = 1.0000$$

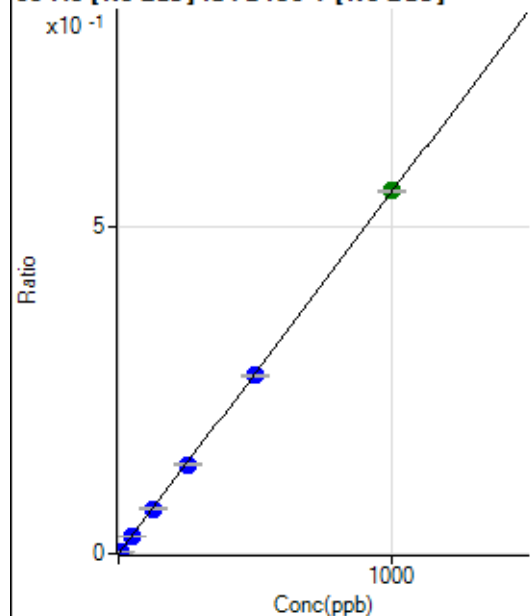
$$DL = 0.01971$$

$$BEC = 0.02877$$

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	158.34	0.0000	P	22.8
2	☐	0.500					
3	☐	5.000	4.340	30049.10	0.0024	P	0.6
4	☐	50.000	49.617	341354.97	0.0275	P	0.7
5	☐	125.000	124.865	863838.24	0.0691	P	1.4
6	☐	250.000	247.281	1709577.51	0.1368	P	0.8
7	☐	500.000	493.275	3433542.05	0.2729	P	0.5
8	☐	1000.000	1004.082	7004607.88	0.5554	A	0.4
9	☐			21113.55	0.0017	P	5.4

$$y = 5.5313E-004 * x + 1.3013E-005$$

$$R = 1.0000$$

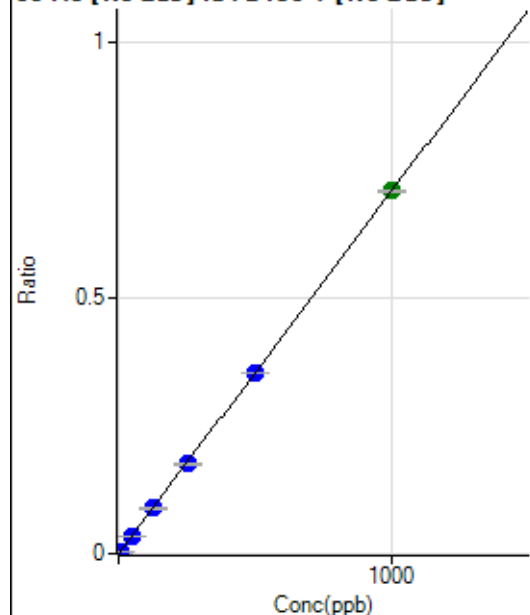
$$DL = 0.01607$$

$$BEC = 0.02353$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	261.13	0.0000	P	8.3
2	☐	0.500					
3	☐	5.000	3.758	33387.15	0.0027	P	2.1
4	☐	50.000	49.408	435102.67	0.0350	P	0.5
5	☐	125.000	124.704	1104222.15	0.0883	P	1.2
6	☐	250.000	247.541	2190290.46	0.1753	P	1.5
7	☐	500.000	498.926	4444877.53	0.3532	P	0.3
8	☐	1000.000	1001.225	8939498.81	0.7088	A	0.3
9	☐			27302.00	0.0022	P	3.9

$$y = 7.0793\text{E-}004 * x + 2.1470\text{E-}005$$

$$R = 1.0000$$

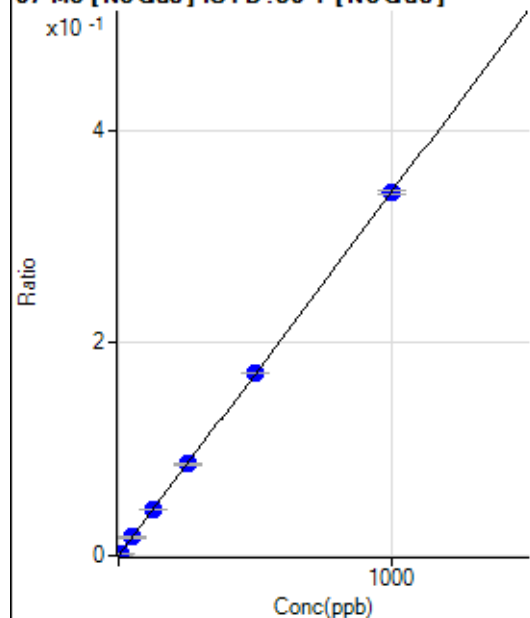
$$DL = 0.007595$$

$$BEC = 0.03033$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	147.23	0.0000	P	33.8
2	☐	0.500					
3	☐	5.000	4.456	19105.15	0.0015	P	1.7
4	☐	50.000	50.315	213868.56	0.0172	P	0.5
5	☐	125.000	125.467	536217.51	0.0429	P	1.0
6	☐	250.000	251.473	1073946.59	0.0859	P	0.9
7	☐	500.000	502.900	2162356.91	0.1718	P	0.5
8	☐	1000.000	998.110	4301003.61	0.3410	P	0.9
9	☐			13164.96	0.0011	P	5.9

$$y = 3.4167\text{E-}004 * x + 1.2076\text{E-}005$$

$$R = 1.0000$$

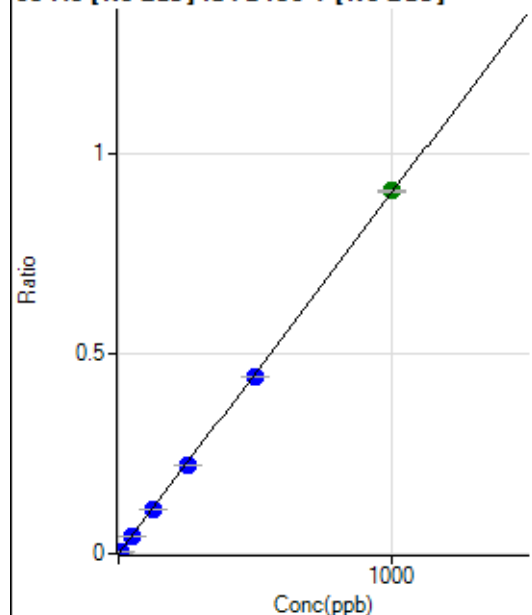
$$DL = 0.03581$$

$$BEC = 0.03534$$

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	200.01	0.0000	P	16.2
2	☐	0.500					
3	☐	5.000	4.233	47683.68	0.0038	P	3.0
4	☐	50.000	48.765	546378.84	0.0439	P	0.2
5	☐	125.000	122.123	1376037.92	0.1100	P	1.0
6	☐	250.000	244.716	2755511.69	0.2205	P	1.0
7	☐	500.000	491.368	5570740.14	0.4427	P	0.7
8	☐	1000.000	1006.063	11431048.61	0.9064	A	0.9
9	☐			32797.14	0.0027	P	3.9

$$y = 9.0092\text{E-}004 * x + 1.6432\text{E-}005$$

$$R = 0.9999$$

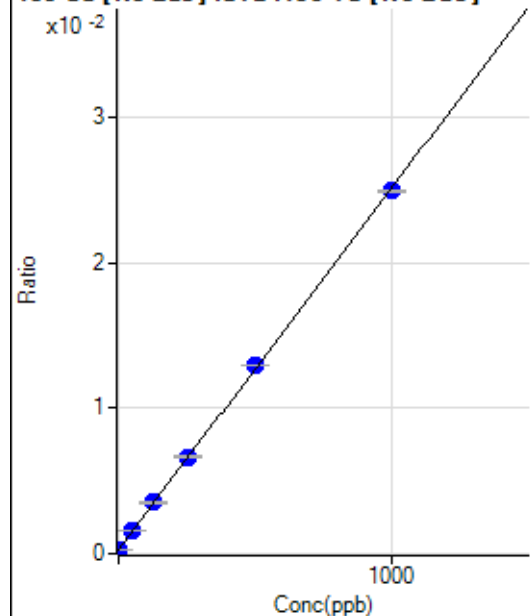
$$DL = 0.008862$$

$$BEC = 0.01824$$

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	4148.01	0.0003	P	1.1
2	☐	0.100					
3	☐	1.000	1.252	4637.08	0.0003	P	2.2
4	☐	50.000	51.666	23247.62	0.0016	P	0.7
5	☐	125.000	129.745	53320.63	0.0035	P	0.5
6	☐	250.000	256.706	102088.53	0.0067	P	0.7
7	☐	500.000	509.765	199510.03	0.0130	P	0.5
8	☐	1000.000	992.764	385398.94	0.0250	P	0.5
9	☐			4275.84	0.0003	P	0.7

$$y = 2.4871\text{E-}005 * x + 2.8135\text{E-}004$$

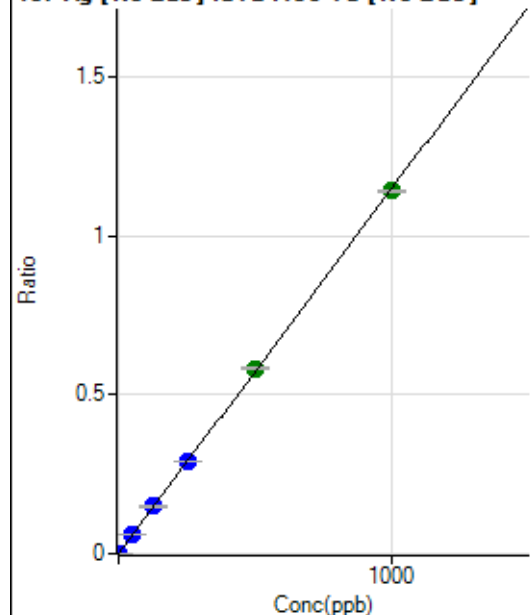
$$R = 0.9999$$

$$DL = 0.3725$$

$$BEC = 11.31$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	4.9
2	☐	0.100					
3	☐	1.000	0.951	16315.58	0.0011	P	1.0
4	☐	50.000	52.454	894652.02	0.0603	P	0.8
5	☐	125.000	129.253	2257497.88	0.1485	P	0.2
6	☐	250.000	253.482	4460850.75	0.2913	P	0.6
7	☐	500.000	507.676	8980713.22	0.5834	A	0.4
8	☐	1000.000	994.637	17638859.94	1.1429	A	0.6
9	☐			6087.81	0.0004	P	36.3

$$y = 0.0011 * x + 6.4055E-006$$

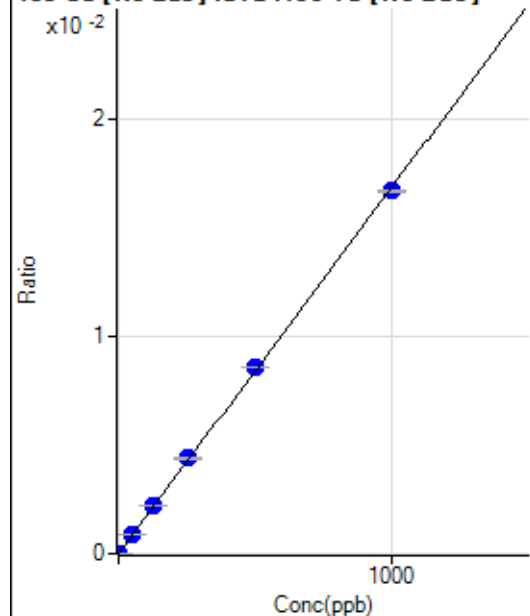
$$R = 0.9999$$

$$DL = 0.0008202$$

$$BEC = 0.005574$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.95	0.0000	P	69.9
2	☐	0.100					
3	☐	1.000	0.940	241.67	0.0000	P	22.1
4	☐	50.000	53.408	13331.56	0.0009	P	3.3
5	☐	125.000	130.367	33318.66	0.0022	P	0.5
6	☐	250.000	260.152	66988.16	0.0044	P	1.1
7	☐	500.000	510.643	132166.03	0.0086	P	0.1
8	☐	1000.000	991.299	257209.38	0.0167	P	0.6
9	☐			93.06	0.0000	P	20.9

$$y = 1.6812E-005 * x + 4.7251E-007$$

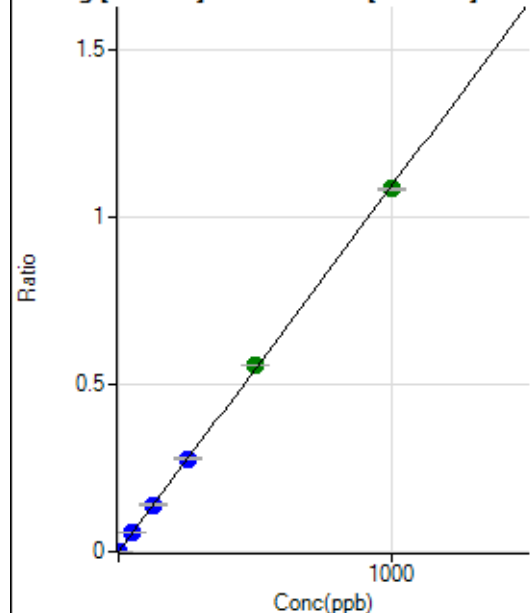
$$R = 0.9999$$

$$DL = 0.05893$$

$$BEC = 0.02811$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	28.4
2	☐	0.100					
3	☐	1.000	0.949	15456.26	0.0010	P	1.5
4	☐	50.000	52.607	853170.05	0.0575	P	0.4
5	☐	125.000	128.878	2140341.50	0.1408	P	0.6
6	☐	250.000	254.562	4259736.47	0.2782	P	1.0
7	☐	500.000	510.740	8591121.20	0.5581	A	0.2
8	☐	1000.000	992.875	16742919.30	1.0849	A	0.3
9	☐			5601.42	0.0004	P	30.1

$$y = 0.0011 * x + 3.9560E-006$$

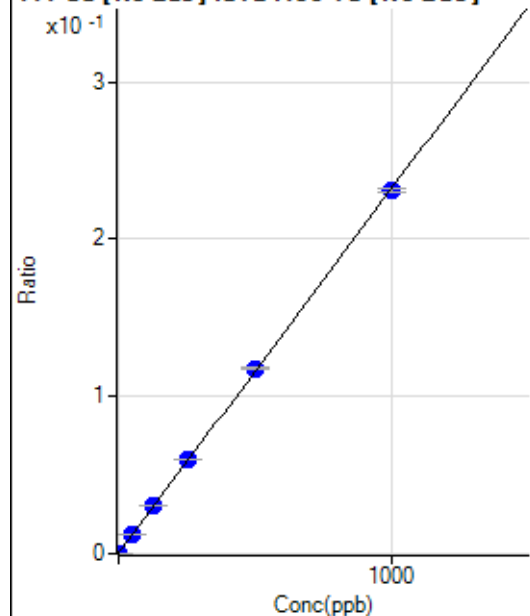
$$R = 0.9999$$

$$DL = 0.003081$$

$$BEC = 0.00362$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2936.25	0.0002	P	1.0
2	☐	0.100					
3	☐	1.000	0.978	6321.66	0.0004	P	1.6
4	☐	50.000	52.794	184663.29	0.0124	P	0.1
5	☐	125.000	129.672	460071.62	0.0303	P	0.2
6	☐	250.000	256.032	912333.42	0.0596	P	0.6
7	☐	500.000	507.400	1814457.47	0.1179	P	0.5
8	☐	1000.000	994.069	3560692.84	0.2307	P	1.0
9	☐			3918.29	0.0003	P	8.8

$$y = 2.3190E-004 * x + 1.9916E-004$$

$$R = 0.9999$$

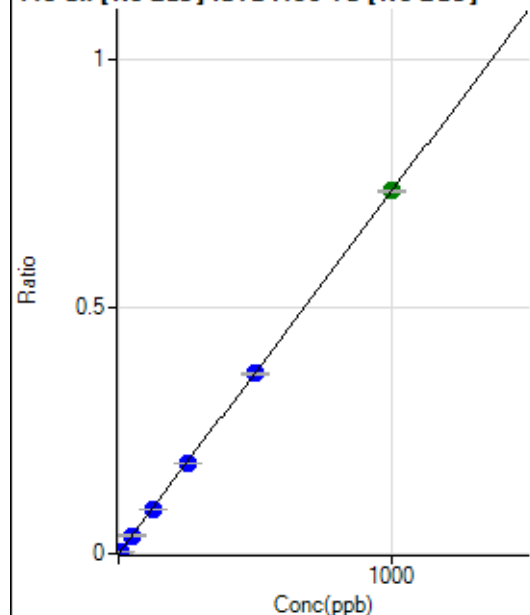
$$DL = 0.02701$$

$$BEC = 0.8588$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1005.64	0.0001	P	5.3
2	☐	0.500					
3	☐	5.000	4.387	48810.84	0.0033	P	2.5
4	☐	50.000	50.283	548954.60	0.0370	P	0.9
5	☐	125.000	124.099	1385943.56	0.0912	P	0.4
6	☐	250.000	249.181	2803040.64	0.1830	P	0.5
7	☐	500.000	497.500	5624441.31	0.3654	P	0.8
8	☐	1000.000	1001.556	11350400.52	0.7355	A	0.5
9	☐			16802.48	0.0012	P	8.9

$$y = 7.3426\text{E-}004 * x + 6.8222\text{E-}005$$

$$R = 1.0000$$

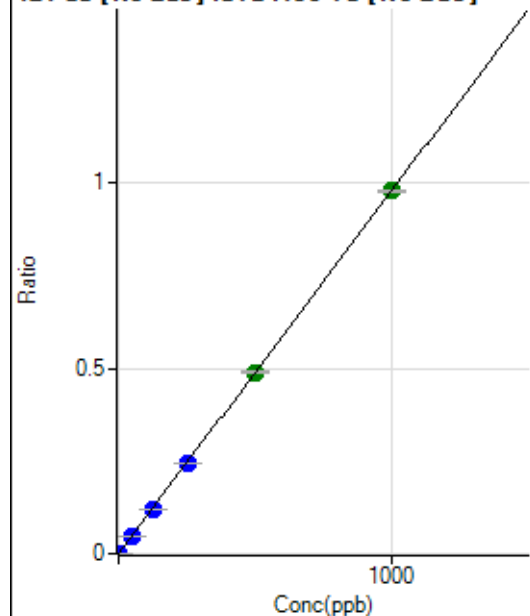
$$DL = 0.01491$$

$$BEC = 0.09291$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	413.91	0.0000	P	5.9
2	☐	0.200					
3	☐	2.000	1.739	25649.37	0.0017	P	1.5
4	☐	50.000	49.559	719417.18	0.0485	P	1.5
5	☐	125.000	124.006	1842884.16	0.1213	P	0.7
6	☐	250.000	249.312	3732896.35	0.2437	P	0.8
7	☐	500.000	500.489	7532169.09	0.4893	A	0.6
8	☐	1000.000	1000.074	15088215.44	0.9777	A	0.7
9	☐			42710.73	0.0029	P	7.1

$$y = 9.7758\text{E-}004 * x + 2.8072\text{E-}005$$

$$R = 1.0000$$

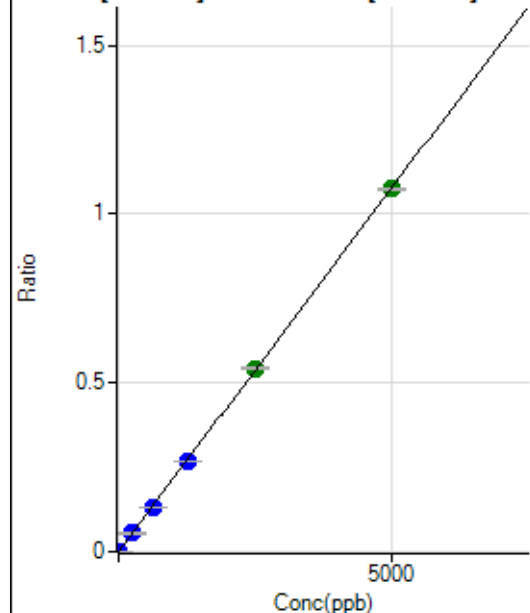
$$DL = 0.005113$$

$$BEC = 0.02872$$

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	102.79	0.0000	P	20.4
2	☐	1.000					
3	☐	10.000	8.753	28051.64	0.0019	P	3.1
4	☐	250.000	251.999	804947.23	0.0542	P	0.7
5	☐	625.000	618.452	2022825.26	0.1331	P	0.7
6	☐	1250.000	1246.518	4108122.62	0.2682	P	0.3
7	☐	2500.000	2520.121	8348288.47	0.5423	A	1.0
8	☐	5000.000	4991.531	16576954.54	1.0741	A	0.8
9	☐			7913.81	0.0005	P	26.5

$$y = 2.1519\text{E-}004 * x + 6.9720\text{E-}006$$

$$R = 1.0000$$

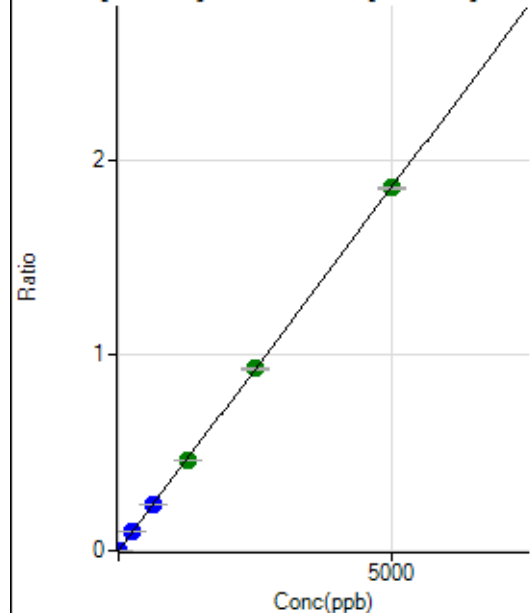
$$DL = 0.01981$$

$$BEC = 0.0324$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.56	0.0000	P	3.4
2	☐	1.000					
3	☐	10.000	8.997	49748.38	0.0034	P	2.6
4	☐	250.000	255.629	1409517.80	0.0950	P	0.3
5	☐	625.000	631.914	3567931.55	0.2348	P	0.3
6	☐	1250.000	1249.546	7108661.10	0.4642	A	0.9
7	☐	2500.000	2508.578	14344964.90	0.9319	A	1.3
8	☐	5000.000	4994.681	28633908.63	1.8554	A	0.8
9	☐			13779.79	0.0010	P	19.7

$$y = 3.7147\text{E-}004 * x + 1.0552\text{E-}005$$

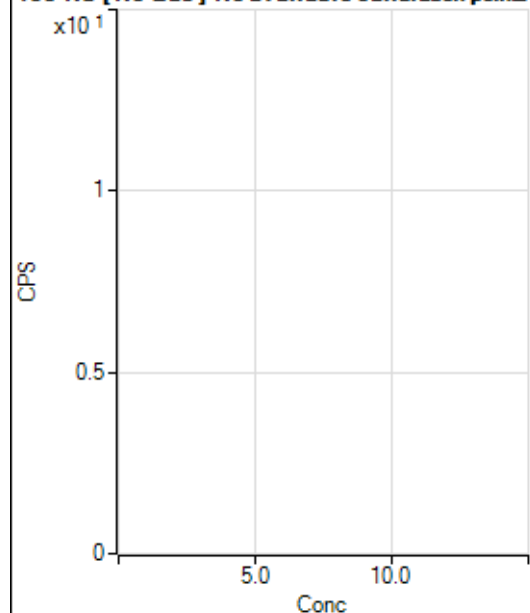
$$R = 1.0000$$

$$DL = 0.00286$$

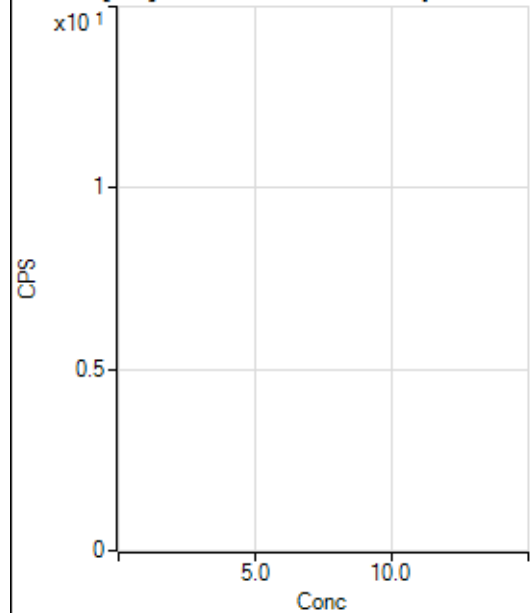
$$BEC = 0.02841$$

Weight: <None>

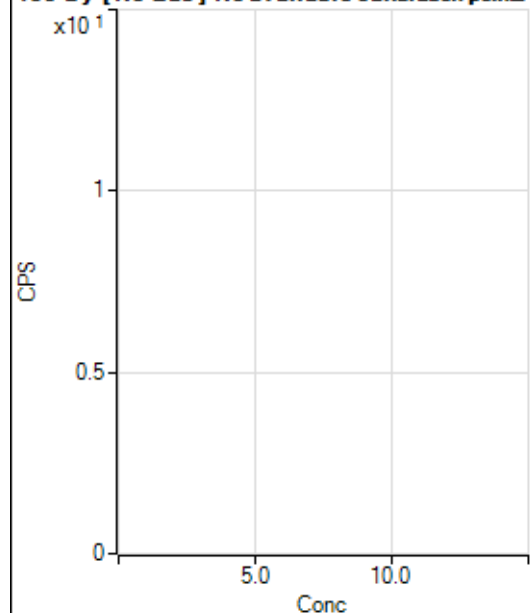
Min Conc: 0

150 Nd [No Gas] No available calibration points

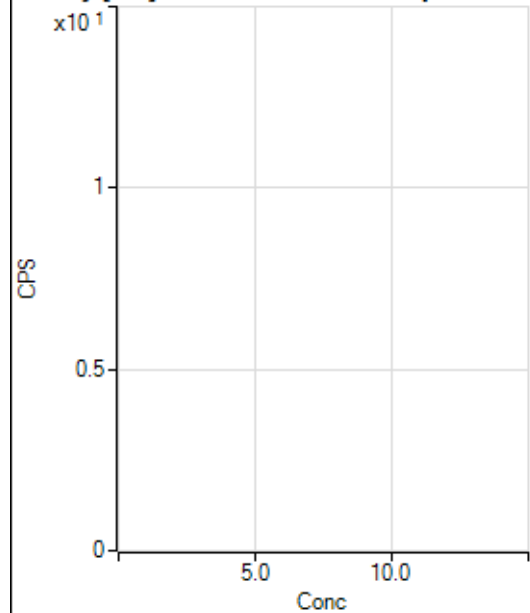
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	100.
2	☐						
3	☐			15.56		P	65.5
4	☐			46.67		P	62.3
5	☐			137.78		P	10.1
6	☐			220.01		P	10.9
7	☐			495.58		P	8.8
8	☐			888.96		P	7.0
9	☐			151.12		P	5.1

150 Nd [He] No available calibration points

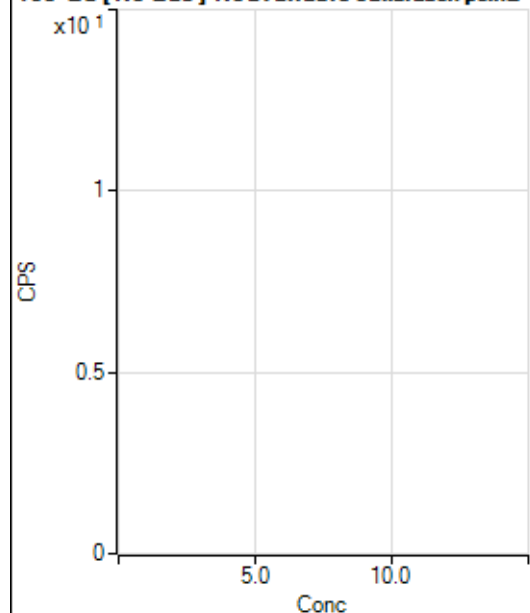
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			1.11		P	173.
4	☐			4.44		P	114.
5	☐			7.78		P	99.0
6	☐			31.11		P	27.0
7	☐			48.89		P	37.5
8	☐			125.56		P	7.7
9	☐			73.34		P	16.4

156 Dy [No Gas] No available calibration points

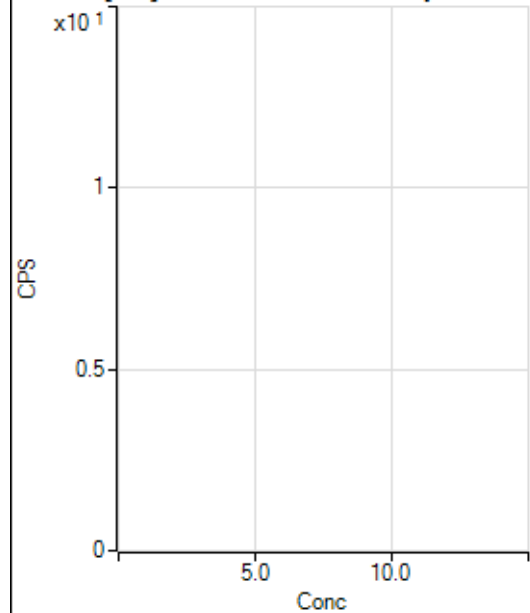
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	NaN
2	☐						
3	☐			8.33		P	0.0
4	☐			33.33		P	25.0
5	☐			27.78		P	45.8
6	☐			72.23		P	46.6
7	☐			155.56		P	45.6
8	☐			252.79		P	21.9
9	☐			108.34		P	13.3

156 Dy [He] No available calibration points

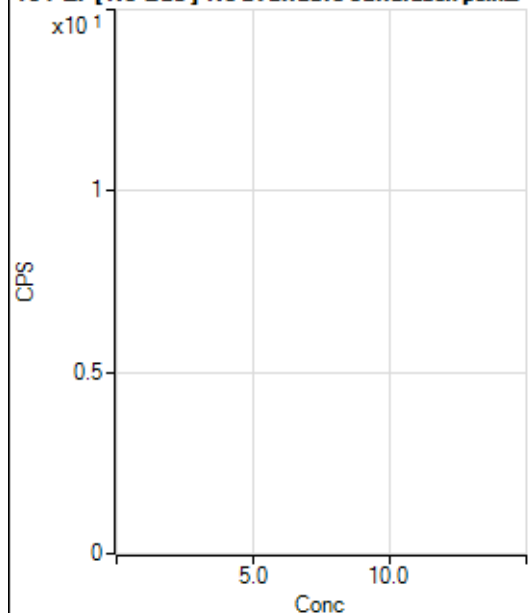
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	114.
2	☐						
3	☐			10.00		P	57.8
4	☐			14.44		P	35.3
5	☐			22.22		P	22.9
6	☐			37.78		P	50.2
7	☐			84.45		P	19.9
8	☐			150.00		P	19.4
9	☐			83.34		P	25.0

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

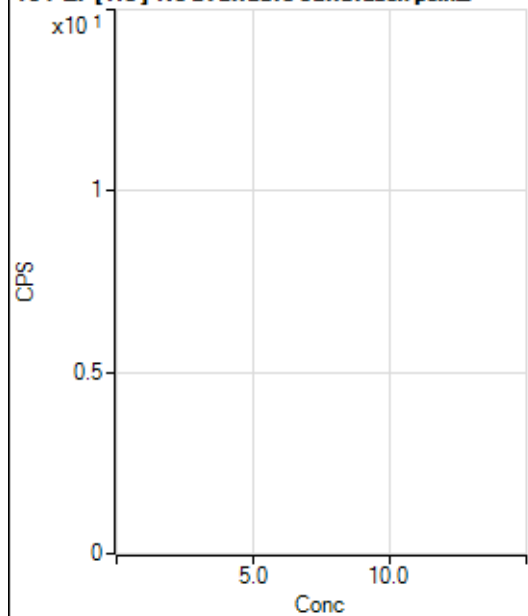
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			163.90		P	22.9
2	☐						
3	☐			141.67		P	41.2
4	☐			119.45		P	17.6
5	☐			130.56		P	25.8
6	☐			163.90		P	15.5
7	☐			216.68		P	13.9
8	☐			286.13		P	7.3
9	☐			238.90		P	26.2

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			133.34		P	9.0
2	☐						
3	☐			125.56		P	3.1
4	☐			110.00		P	15.7
5	☐			130.01		P	11.7
6	☐			160.00		P	11.6
7	☐			182.23		P	19.0
8	☐			235.56		P	2.9
9	☐			184.45		P	18.5

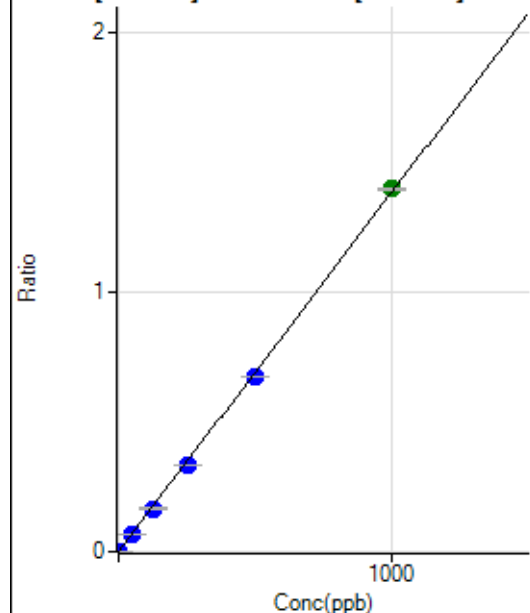
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			47.22		P	62.0
2	☐						
3	☐			86.11		P	55.0
4	☐			61.11		P	41.7
5	☐			50.00		P	44.1
6	☐			50.00		P	16.7
7	☐			41.67		P	40.0
8	☐			100.01		P	30.0
9	☐			94.45		P	10.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.66		P	34.6
2	☐						
3	☐			31.11		P	22.3
4	☐			32.22		P	31.6
5	☐			25.56		P	49.4
6	☐			33.33		P	26.5
7	☐			33.33		P	50.0
8	☐			56.67		P	21.2
9	☐			52.22		P	13.3

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	222.23	0.0000	P	4.6
2	☐	0.100					
3	☐	1.000	0.850	10607.45	0.0012	P	1.5
4	☐	50.000	47.790	582733.22	0.0662	P	1.0
5	☐	125.000	120.173	1483936.60	0.1664	P	0.9
6	☐	250.000	240.003	2983177.84	0.3323	P	0.7
7	☐	500.000	485.518	6005432.34	0.6722	P	0.3
8	☐	1000.000	1010.454	12271427.79	1.3989	A	0.7
9	☐			7405.26	0.0010	P	21.6

$$y = 0.0014 * x + 2.5418E-005$$

$$R = 0.9998$$

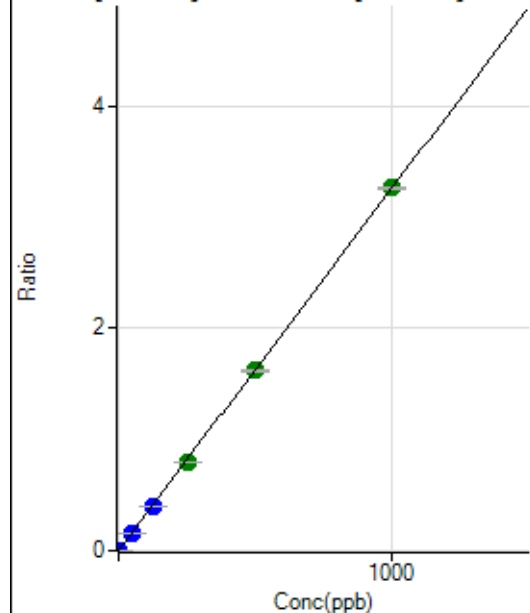
$$DL = 0.002553$$

$$BEC = 0.01836$$

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	516.70	0.0001	P	8.4
2	☐	0.100					
3	☐	1.000	0.875	25623.04	0.0029	P	1.2
4	☐	50.000	48.565	1391407.52	0.1580	P	1.3
5	☐	125.000	122.251	3547041.77	0.3977	P	0.8
6	☐	250.000	244.133	7130197.82	0.7942	A	0.3
7	☐	500.000	498.602	14490205.19	1.6219	A	1.0
8	☐	1000.000	1002.581	28608838.14	3.2613	A	0.6
9	☐			17662.85	0.0023	P	19.7

$$y = 0.0033 * x + 5.9121E-005$$

$$R = 1.0000$$

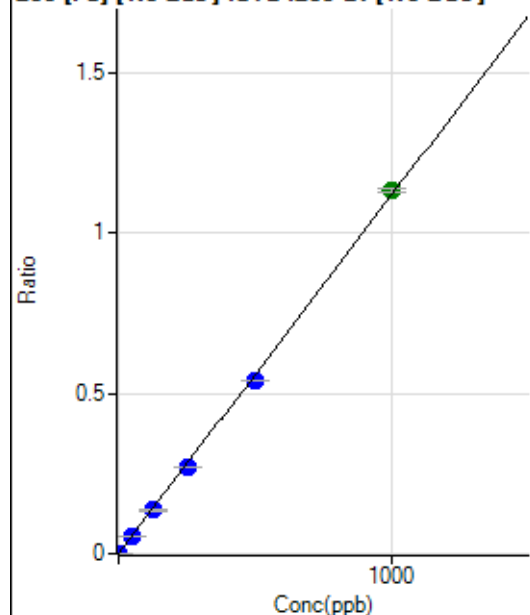
$$DL = 0.004604$$

$$BEC = 0.01818$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1398.26	0.0002	P	14.5
2	☐	0.100					
3	☐	1.000	0.854	9816.88	0.0011	P	4.8
4	☐	50.000	48.150	474652.25	0.0539	P	1.1
5	☐	125.000	120.952	1205565.43	0.1352	P	1.0
6	☐	250.000	241.568	2422430.61	0.2698	P	0.8
7	☐	500.000	481.627	4804797.24	0.5378	P	0.5
8	☐	1000.000	1011.893	9910218.63	1.1297	A	1.1
9	☐			12543.39	0.0016	P	9.0

$$y = 0.0011 * x + 1.5983E-004$$

$$R = 0.9997$$

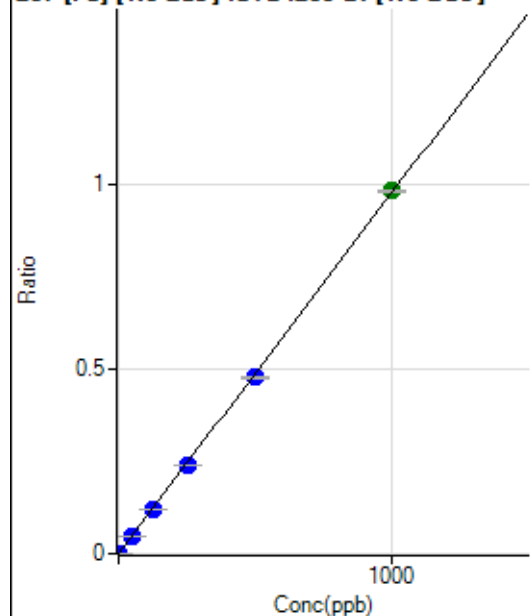
$$DL = 0.06232$$

$$BEC = 0.1432$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1314.92	0.0002	P	2.3
2	☐	0.100					
3	☐	1.000	0.872	8849.54	0.0010	P	2.7
4	☐	50.000	48.785	421519.25	0.0479	P	0.8
5	☐	125.000	122.531	1070409.69	0.1200	P	0.3
6	☐	250.000	244.540	2149090.99	0.2394	P	0.4
7	☐	500.000	490.001	4284005.30	0.4795	P	0.8
8	☐	1000.000	1006.734	8640597.36	0.9850	A	0.5
9	☐			10706.48	0.0014	P	5.8

$$y = 9.7826E-004 * x + 1.5046E-004$$

$$R = 0.9999$$

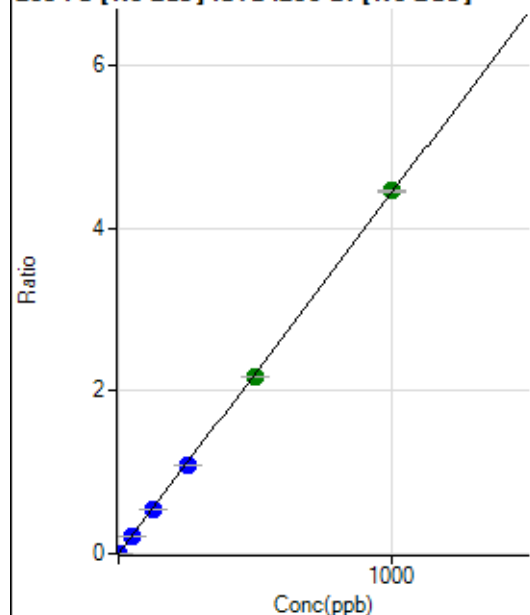
$$DL = 0.01066$$

$$BEC = 0.1538$$

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	5665.44	0.0006	P	3.8
2	☐	0.100					
3	☐	1.000	0.878	39980.45	0.0045	P	2.1
4	☐	50.000	48.514	1897110.37	0.2155	P	0.9
5	☐	125.000	121.864	4818486.29	0.5403	P	0.2
6	☐	250.000	244.595	9729461.30	1.0837	P	0.7
7	☐	500.000	491.572	19453173.15	2.1773	A	0.5
8	☐	1000.000	1006.032	39083388.90	4.4554	A	0.5
9	☐			48895.80	0.0064	P	6.7

$$y = 0.0044 * x + 6.4814E-004$$

$$R = 0.9999$$

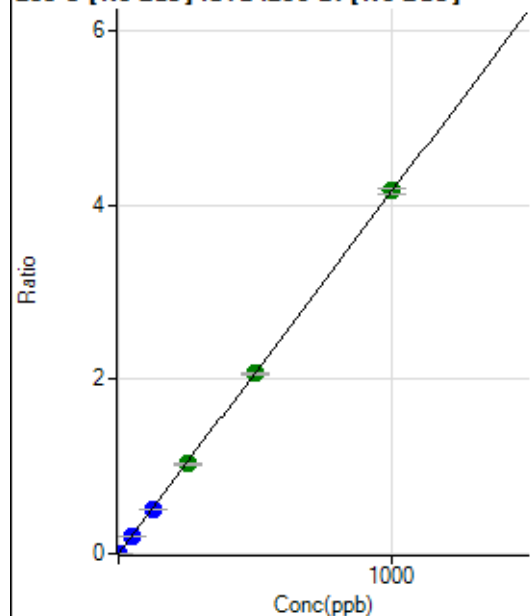
$$DL = 0.01651$$

$$BEC = 0.1464$$

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	136.12	0.0000	P	2.6
2	☐	0.100					
3	☐	1.000	0.807	29660.15	0.0034	P	1.2
4	☐	50.000	47.381	1731488.95	0.1967	P	0.5
5	☐	125.000	119.987	4441303.36	0.4980	P	0.6
6	☐	250.000	247.417	9218944.91	1.0268	A	0.4
7	☐	500.000	497.407	18443651.97	2.0644	A	0.7
8	☐	1000.000	1002.700	36504635.54	4.1614	A	1.3
9	☐			10038.09	0.0013	P	35.9

$$y = 0.0042 * x + 1.5571E-005$$

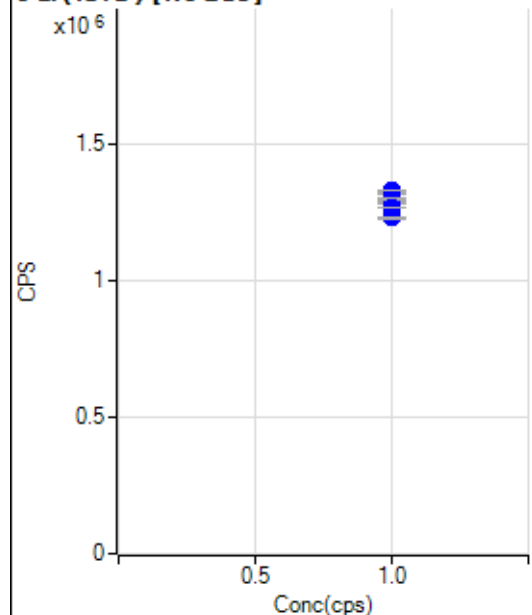
$$R = 1.0000$$

$$DL = 0.0002891$$

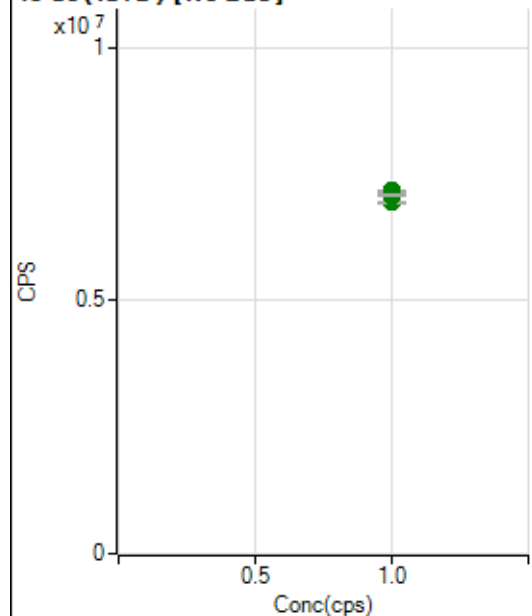
$$BEC = 0.003752$$

Weight: <None>

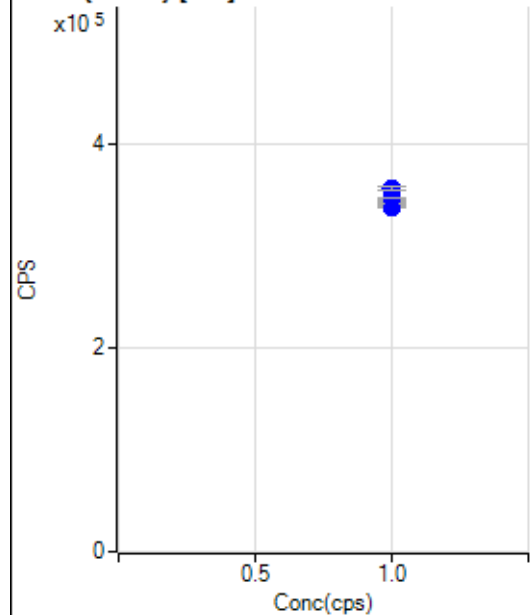
Min Conc: 0

6 Li (ISTD) [No Gas]

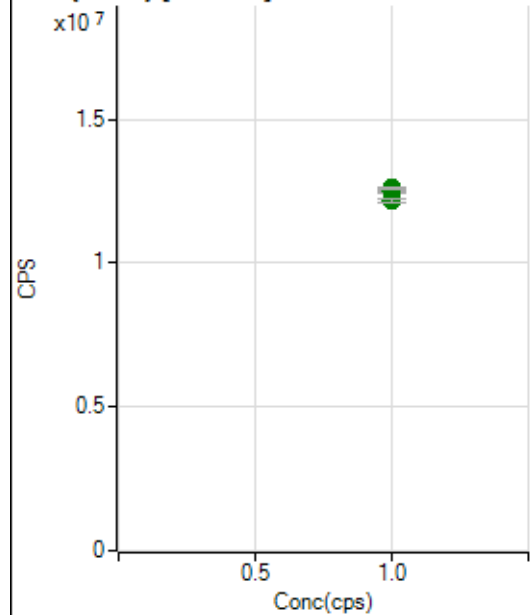
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1289142.70		P	0.6
2	☐	1.000					
3	☐	1.000		1295844.99		P	0.7
4	☐	1.000		1301616.25		P	0.4
5	☐	1.000		1322018.99		P	0.3
6	☐	1.000		1330923.28		P	0.1
7	☐	1.000		1301264.22		P	0.2
8	☐	1.000		1270310.42		P	0.2
9	☐	1.000		1232814.26		P	0.5

45 Sc (ISTD) [No Gas]

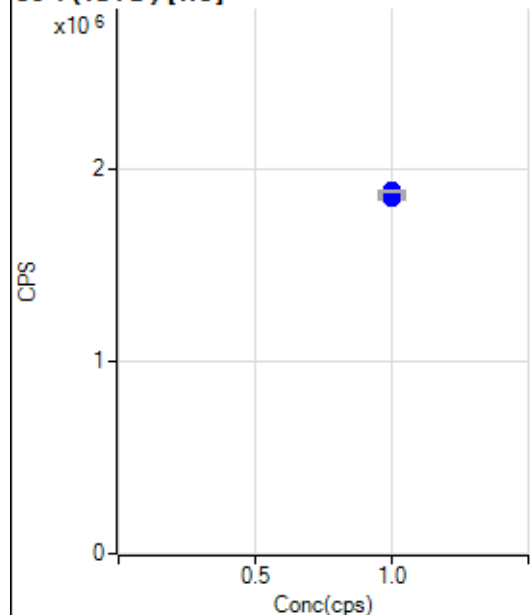
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6942224.72		A	0.4
2	☐	1.000					
3	☐	1.000		7167870.73		A	0.7
4	☐	1.000		7120669.08		A	0.4
5	☐	1.000		7151524.29		A	0.1
6	☐	1.000		7130044.34		A	0.7
7	☐	1.000		7160973.16		A	0.5
8	☐	1.000		7119918.91		A	0.8
9	☐	1.000		7080122.90		A	0.3

45 Sc (ISTD) [He]

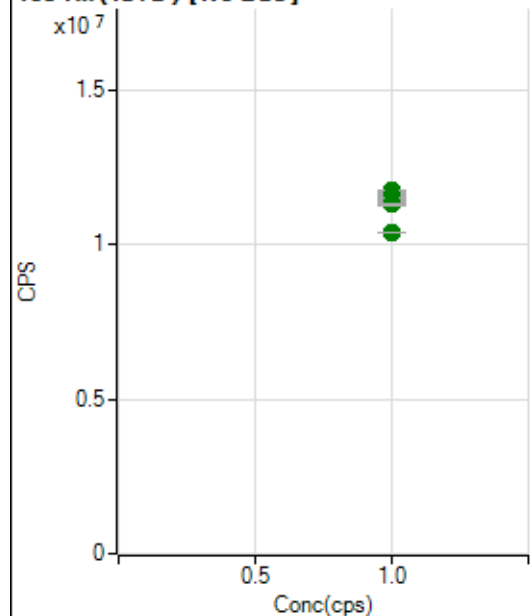
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		345277.93		P	0.3
2	☐	1.000					
3	☐	1.000		345838.02		P	0.6
4	☐	1.000		339164.43		P	0.9
5	☐	1.000		340042.21		P	0.2
6	☐	1.000		339055.59		P	0.2
7	☐	1.000		342413.21		P	0.3
8	☐	1.000		348022.60		P	0.5
9	☐	1.000		356794.34		P	1.2

89 Y (ISTD) [No Gas]

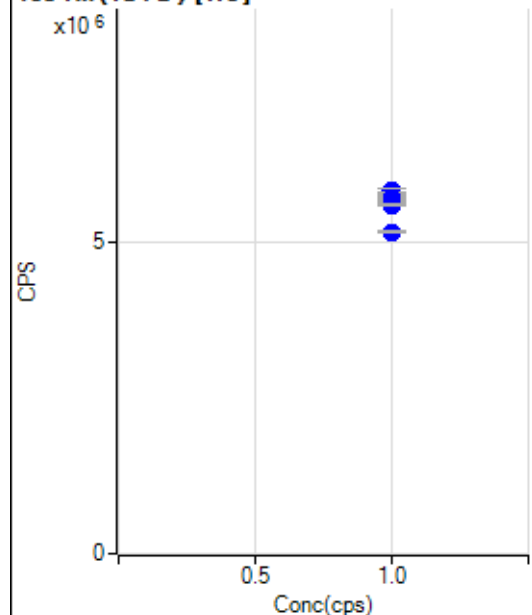
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12165049.26		A	1.0
2	☐	1.000					
3	☐	1.000		12450318.29		A	0.6
4	☐	1.000		12431938.84		A	0.1
5	☐	1.000		12505521.06		A	0.7
6	☐	1.000		12498095.09		A	0.8
7	☐	1.000		12583714.12		A	0.6
8	☐	1.000		12611913.01		A	0.7
9	☐	1.000		12153752.32		A	0.9

89 Y (ISTD) [He]

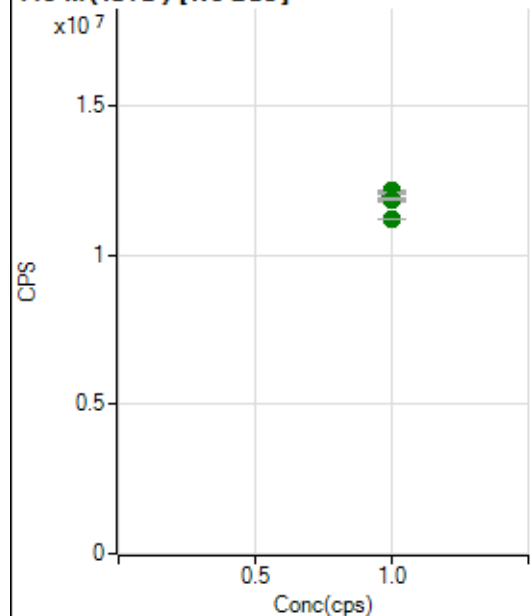
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1862947.44		P	0.5
2	☐	1.000					
3	☐	1.000		1879875.11		P	0.4
4	☐	1.000		1849029.66		P	0.6
5	☐	1.000		1850441.14		P	0.7
6	☐	1.000		1851673.90		P	0.5
7	☐	1.000		1871000.95		P	0.2
8	☐	1.000		1881314.47		P	0.3
9	☐	1.000		1888290.28		P	0.6

103 Rh (ISTD) [No Gas]

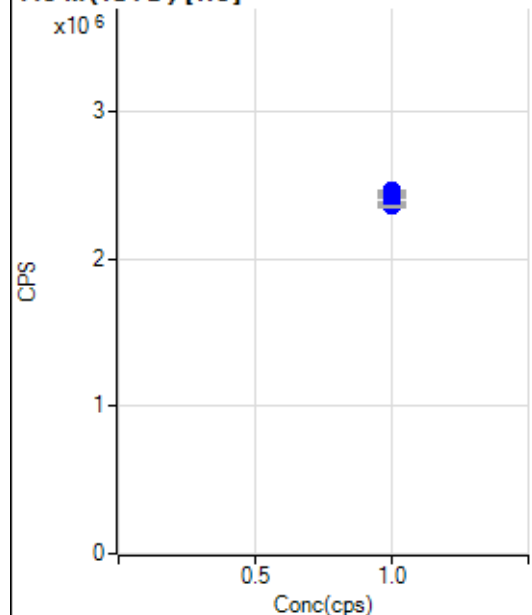
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11430877.08		A	0.5
2	☐	1.000					
3	☐	1.000		11732561.89		A	0.6
4	☐	1.000		11569734.11		A	0.7
5	☐	1.000		11564400.52		A	0.4
6	☐	1.000		11525197.13		A	0.6
7	☐	1.000		11463392.18		A	0.9
8	☐	1.000		11289896.95		A	0.5
9	☐	1.000		10391016.64		A	0.4

103 Rh (ISTD) [He]

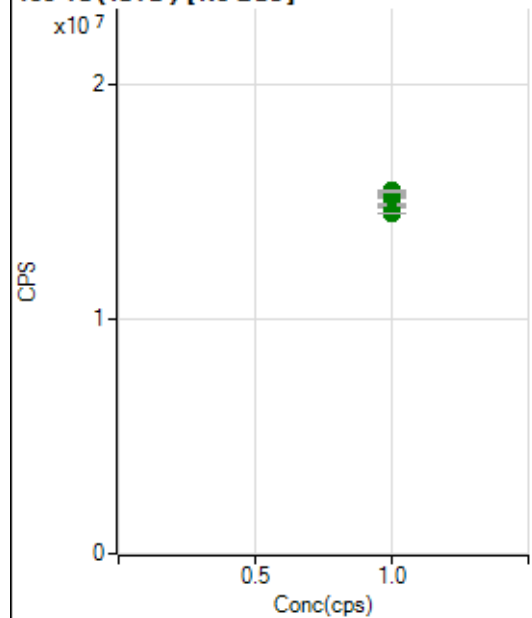
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5764907.07		P	0.3
2	☐	1.000					
3	☐	1.000		5810299.78		P	1.0
4	☐	1.000		5694923.80		P	0.2
5	☐	1.000		5702126.02		P	0.5
6	☐	1.000		5661323.11		P	0.2
7	☐	1.000		5623158.67		P	0.1
8	☐	1.000		5583423.39		P	0.7
9	☐	1.000		5144602.46		P	0.6

115 In (ISTD) [No Gas]

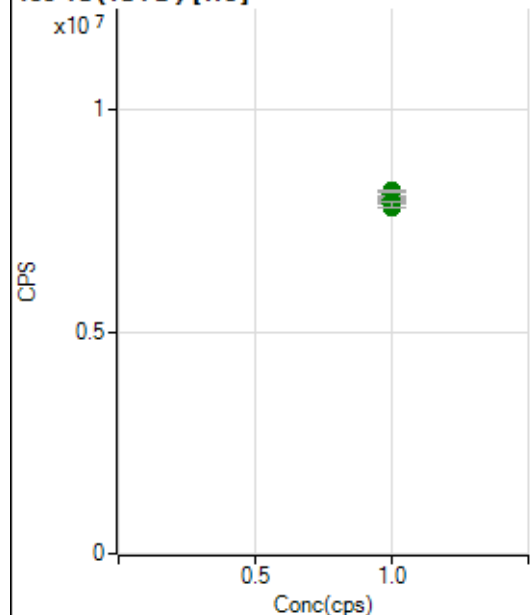
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11871426.88		A	0.9
2	☐	1.000					
3	☐	1.000		12077182.62		A	0.3
4	☐	1.000		11999538.28		A	1.1
5	☐	1.000		12059445.37		A	0.3
6	☐	1.000		12148312.41		A	0.6
7	☐	1.000		12073385.20		A	0.2
8	☐	1.000		11879195.23		A	0.6
9	☐	1.000		11204909.11		A	0.5

115 In (ISTD) [He]

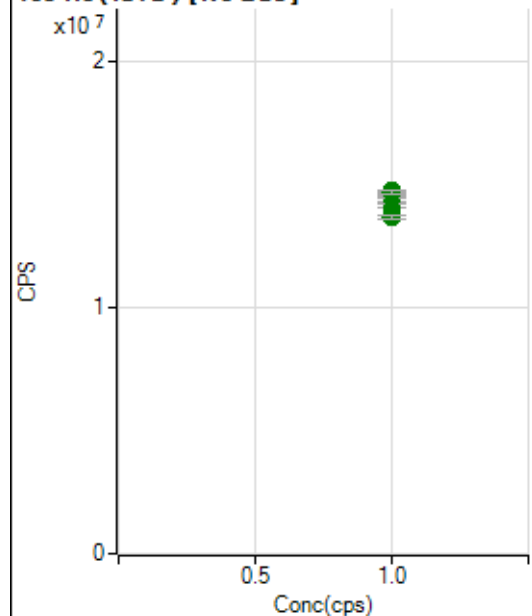
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2453184.51		P	0.3
2	☐	1.000					
3	☐	1.000		2463439.28		P	0.7
4	☐	1.000		2426782.87		P	0.1
5	☐	1.000		2435418.84		P	0.1
6	☐	1.000		2418027.75		P	0.4
7	☐	1.000		2412562.11		P	0.2
8	☐	1.000		2387903.83		P	0.5
9	☐	1.000		2360475.41		P	0.7

159 Tb (ISTD) [No Gas]

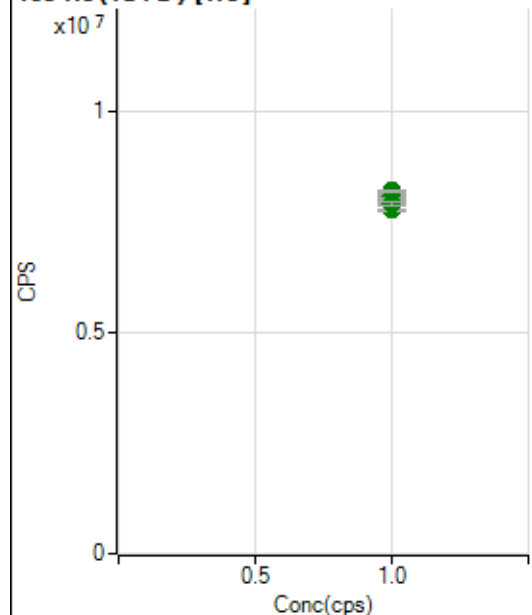
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14743879.78		A	0.6
2	☐	1.000					
3	☐	1.000		14841563.80		A	1.1
4	☐	1.000		14841629.78		A	0.6
5	☐	1.000		15198882.00		A	0.4
6	☐	1.000		15314729.91		A	0.4
7	☐	1.000		15394286.16		A	0.6
8	☐	1.000		15433029.77		A	0.4
9	☐	1.000		14483610.76		A	0.4

159 Tb (ISTD) [He]

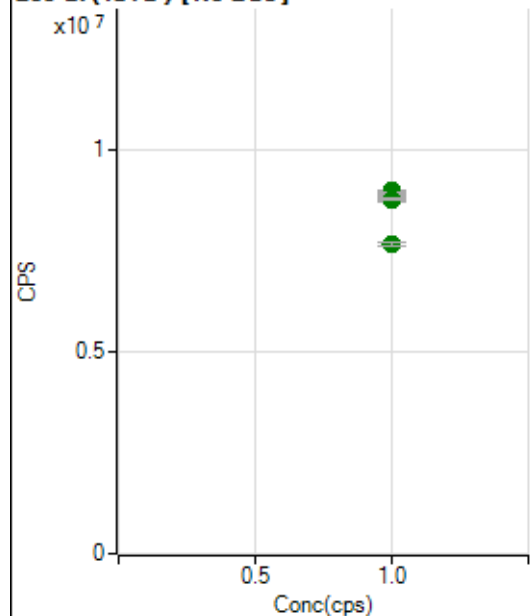
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7794159.54		A	0.4
2	☐	1.000					
3	☐	1.000		7947188.98		A	0.3
4	☐	1.000		7905582.31		A	0.8
5	☐	1.000		7979448.70		A	0.9
6	☐	1.000		8025983.98		A	0.2
7	☐	1.000		8101959.18		A	0.9
8	☐	1.000		8170640.09		A	0.8
9	☐	1.000		7868669.26		A	1.4

165 Ho (ISTD) [No Gas]

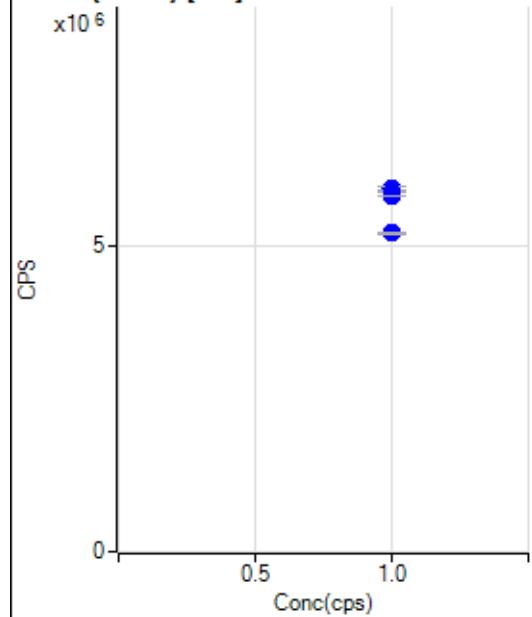
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14091219.24		A	0.1
2	☐	1.000					
3	☐	1.000		14321580.35		A	0.3
4	☐	1.000		14246514.55		A	0.2
5	☐	1.000		14501540.26		A	0.4
6	☐	1.000		14695709.53		A	0.2
7	☐	1.000		14768385.92		A	0.1
8	☐	1.000		14731602.59		A	0.9
9	☐	1.000		13713933.12		A	1.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7753418.01		A	0.5
2	☐	1.000					
3	☐	1.000		7963378.56		A	0.5
4	☐	1.000		7901263.84		A	0.6
5	☐	1.000		8015362.73		A	1.2
6	☐	1.000		8083974.05		A	0.8
7	☐	1.000		8087031.68		A	1.1
8	☐	1.000		8194847.73		A	0.2
9	☐	1.000		7909092.66		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8740334.52		A	1.1
2	☐	1.000					
3	☐	1.000		8819316.47		A	1.2
4	☐	1.000		8804811.47		A	0.5
5	☐	1.000		8918861.46		A	1.0
6	☐	1.000		8978046.19		A	0.6
7	☐	1.000		8934241.19		A	0.6
8	☐	1.000		8772248.06		A	0.3
9	☐	1.000		7661140.30		A	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5873106.61		P	0.5
2	☐	1.000					
3	☐	1.000		5915409.71		P	0.9
4	☐	1.000		5873831.30		P	0.3
5	☐	1.000		5873045.12		P	0.4
6	☐	1.000		5874837.83		P	0.4
7	☐	1.000		5858461.44		P	0.2
8	☐	1.000		5803733.11		P	0.1
9	☐	1.000		5194672.18		P	0.5

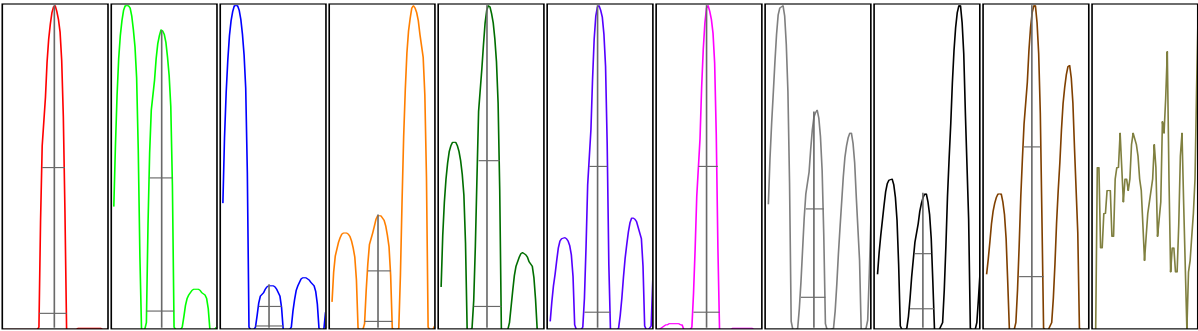
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7101017MS_#2.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	8187	0.79	5.00		
24	79351	0.63	5.00		
25	10862	0.84	5.00		
26	13063	0.81	5.00		
59	110152	0.52	5.00		
113	41996	0.49	5.00		
115	819959	0.43	5.00		
206	33570	0.50	5.00		
207	31889	0.45	5.00		
208	71895	0.51	5.00		
220	1	28.38			

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
9	8222	8191	8248	8198	8078
24	79701	79690	79612	79222	78530
25	10934	10911	10868	10893	10704
26	13214	13107	13066	12991	12940
59	110668	110544	110300	110010	109236
113	42096	41893	42199	42108	41686
115	818564	821370	822815	822657	814389
206	33735	33505	33716	33570	33324
207	31849	31815	32078	31989	31715
208	71702	71775	72296	72252	71450
220	0	1	1	1	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	13466	9.00	8.9 - 9.1		0.786	0.900	
24	126470	23.95	23.9 - 24.1		0.789	0.900	
25	17173	24.90	24.9 - 25.1		0.789	0.900	
26	20382	25.90	25.9 - 26.1		0.789	0.900	
59	183847	58.90	58.9 - 59.1		0.802	0.900	
113	79848	112.95	112.9 - 113.1		0.761	0.900	
115	1561390	114.95	114.9 - 115.1		0.767	0.900	
206	64448	205.90	205.9 - 206.1		0.714	0.900	
207	58266	206.90	206.9 - 207.1		0.707	0.900	
208	139298	207.90	207.9 - 208.1		0.710	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.7	V	Deflect	14.0	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-120	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	180	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	29665	3.49	
89	13082	3.43	
205	34093	3.48	

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
59	27835	30145	29885	30117	30345
89	12294	13275	13169	13254	13417
205	31980	34781	34461	34633	34611

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	10.5	V	Deflect	3.2	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-120	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			