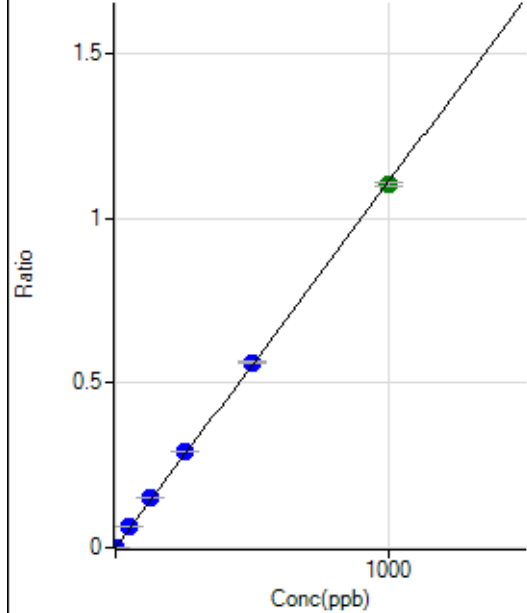


Batch Folder: D:\P8101017 MS .b\
Analysis File: P8101017 MS .batch.bin
DA Date-Time: 2017-10-10 16:37:26
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB P8101017 MS.D	S00	2017-10-10 11:23:30
2			
3	006CAL5 P8101017 MS.D	S02	2017-10-10 11:30:29
4	007CAL5 P8101017 MS.D	S03	2017-10-10 11:33:59
5	008CAL5 P8101017 MS.D	S04	2017-10-10 11:37:28
6	009CAL5 P8101017 MS.D	S05	2017-10-10 11:40:54
7	010CAL5 P8101017 MS.D	S06	2017-10-10 11:44:11
8	011CAL5 P8101017 MS.D	S07	2017-10-10 11:47:26
9	012CAL5 P8101017 MS.D	S08	2017-10-10 11:50:34

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	42.59	0.0000	P	48.7
2	☐	0.100					
3	☐	1.000	0.876	901.91	0.0010	P	1.9
4	☐	50.000	55.662	54609.36	0.0618	P	0.3
5	☐	125.000	137.573	138347.66	0.1528	P	2.1
6	☐	250.000	263.776	273998.60	0.2929	P	0.8
7	☐	500.000	505.428	551492.71	0.5611	P	1.2
8	☐	1000.000	991.988	1074615.68	1.1012	A	0.9
9	☐			212.97	0.0002	P	19.9

$$y = 0.0011 * x + 4.8621E-005$$

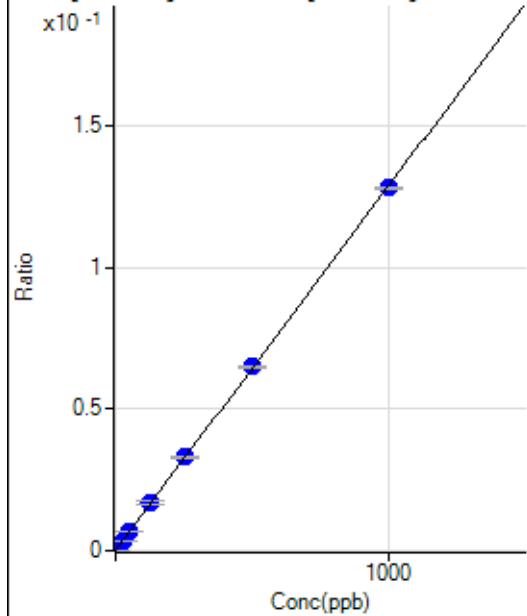
$$R = 0.9998$$

$$DL = 0.06397$$

$$BEC = 0.0438$$

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	86.11	0.0001	P	11.8
2	☐	2.500					
3	☐	25.000	23.871	2797.62	0.0032	P	3.4
4	☐	50.000	53.020	6104.34	0.0069	P	2.7
5	☐	125.000	131.503	15389.33	0.0170	P	5.2
6	☐	250.000	257.010	30995.47	0.0331	P	1.7
7	☐	500.000	504.409	63814.88	0.0649	P	1.2
8	☐	1000.000	995.107	124898.00	0.1280	P	0.7
9	☐			4495.33	0.0045	P	5.5

$$y = 1.2853E-004 * x + 9.8552E-005$$

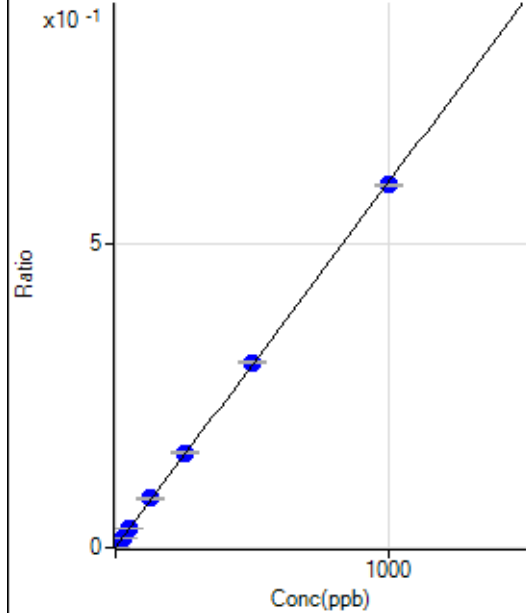
$$R = 0.9999$$

$$DL = 0.2705$$

$$BEC = 0.7668$$

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	344.46	0.0004	P	11.8
2	☐	2.500					
3	☐	25.000	24.194	13223.23	0.0150	P	6.2
4	☐	50.000	53.423	28760.51	0.0326	P	3.2
5	☐	125.000	133.838	73368.48	0.0810	P	2.1
6	☐	250.000	259.482	146589.26	0.1567	P	1.7
7	☐	500.000	506.668	300359.91	0.3056	P	1.2
8	☐	1000.000	993.039	584051.09	0.5985	P	0.7
9	☐			21177.54	0.0214	P	5.8

$$y = 6.0233\text{E-}004 * x + 3.9385\text{E-}004$$

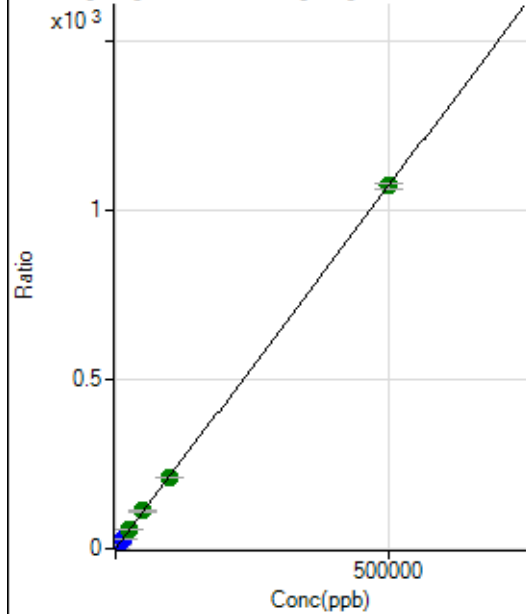
$$R = 0.9999$$

$$DL = 0.2318$$

$$BEC = 0.6539$$

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	11855.41	0.3479	P	4.8
2	☐	50.000					
3	☐	500.000	461.980	45933.71	1.3374	P	2.2
4	☐	5000.000	5171.077	381087.35	11.4241	P	1.7
5	☐	12500.000	12727.701	912267.56	27.6102	P	0.8
6	☐	25000.000	26015.608	1775402.23	56.0725	A	0.7
7	☐	50000.000	51626.736	3216901.48	110.9308	A	1.1
8	☐	100000.00	98651.121	6079742.45	211.6556	A	0.4
9	☐	500000.00	500048.95	32748588.23	1,071.437	A	1.4

$$y = 0.0021 * x + 0.3479$$

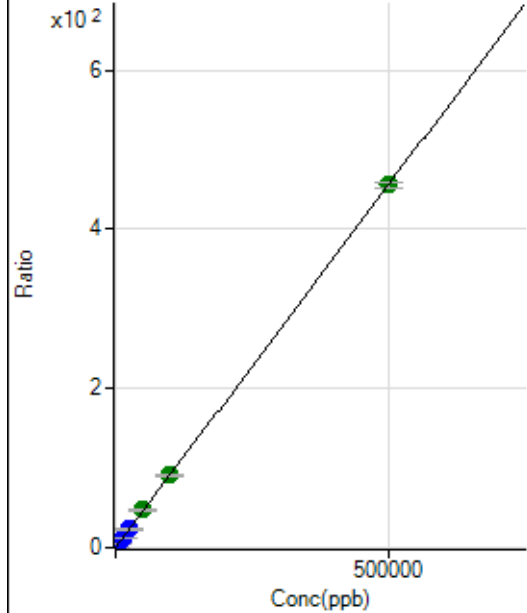
$$R = 1.0000$$

$$DL = 23.17$$

$$BEC = 162.4$$

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	86.12	0.0025	P	41.2
2	☐	50.000					
3	☐	500.000	456.613	14374.48	0.4187	P	5.3
4	☐	5000.000	5123.679	155861.78	4.6721	P	0.9
5	☐	12500.000	12627.696	380332.57	11.5109	P	1.0
6	☐	25000.000	25291.133	729898.89	23.0519	P	1.3
7	☐	50000.000	51738.190	1367540.60	47.1547	A	0.5
8	☐	100000.00	99600.390	2607349.34	90.7745	A	1.3
9	☐	500000.00	499887.16	13924612.12	455.5806	A	1.6

$$y = 9.1136\text{E-}004 * x + 0.0025$$

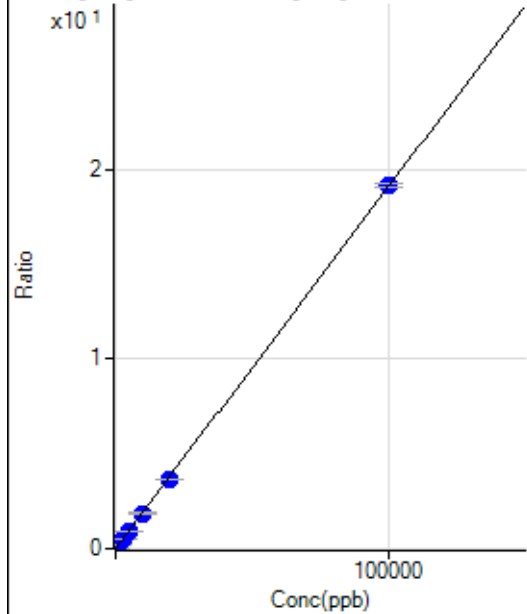
$$R = 1.0000$$

$$DL = 3.437$$

$$BEC = 2.779$$

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	27.78	0.0008	P	45.9
2	☐	2.000					
3	☐	20.000	18.680	150.01	0.0044	P	37.7
4	☐	1000.000	1020.675	6524.03	0.1956	P	5.3
5	☐	2500.000	2499.872	15792.62	0.4780	P	1.3
6	☐	5000.000	4910.932	29707.09	0.9382	P	1.6
7	☐	10000.000	9801.647	54276.96	1.8717	P	1.3
8	☐	20000.000	19119.356	104851.88	3.6502	P	0.4
9	☐	100000.00	100200.21	584612.46	19.1266	P	1.2

$$y = 1.9088\text{E-}004 * x + 8.1563\text{E-}004$$

$$R = 1.0000$$

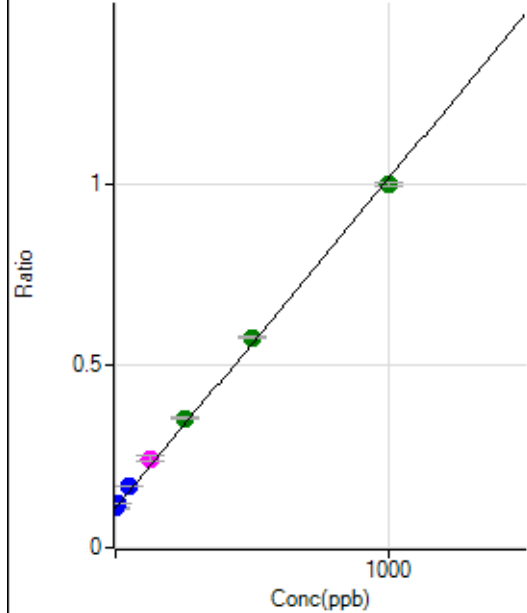
$$DL = 5.883$$

$$BEC = 4.273$$

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	412798.05	0.1088	P	1.0
2	☐	1.000					
3	☐	10.000	14.340	473242.20	0.1218	P	1.1
4	☐	50.000	66.694	643876.94	0.1692	P	0.7
5	☐	125.000	150.465	926281.63	0.2450	M	6.3
6	☐	250.000	273.149	1363310.18	0.3560	A	0.8
7	☐	500.000	518.571	2254909.34	0.5782	A	0.5
8	☐	1000.000	980.866	3783516.41	0.9966	A	1.1
9	☐			541498.18	0.1403	P	2.2

$$y = 9.0507\text{E-}004 * x + 0.1088$$

$$R = 0.9993$$

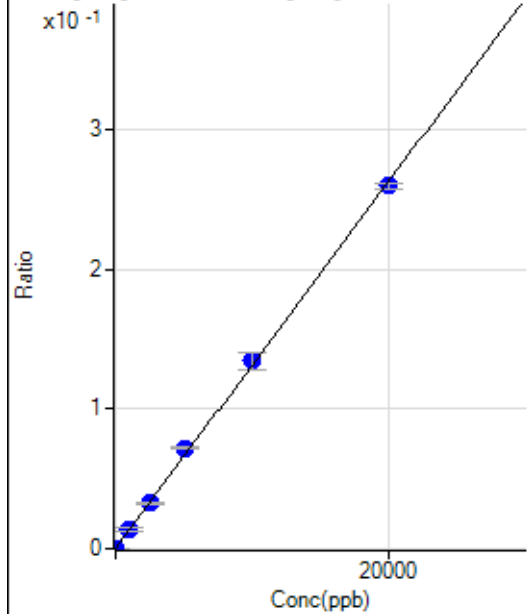
$$DL = 3.572$$

$$BEC = 120.2$$

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	9.319	8.33	0.0002	P	0.9
2	☐	0.000					
3	☐	0.000	-9.319	0.00	0.0000	P	
4	☐	1000.000	1005.813	444.47	0.0133	P	20.5
5	☐	2500.000	2491.501	1083.42	0.0328	P	4.5
6	☐	5000.000	5471.421	2275.28	0.0719	P	1.8
7	☐	10000.000	10220.482	3892.38	0.1341	P	8.8
8	☐	20000.000	19772.676	7449.54	0.2594	P	1.7
9	☐			16.67	0.0005	P	50.5

$$y = 1.3111\text{E-}005 * x + 1.2219\text{E-}004$$

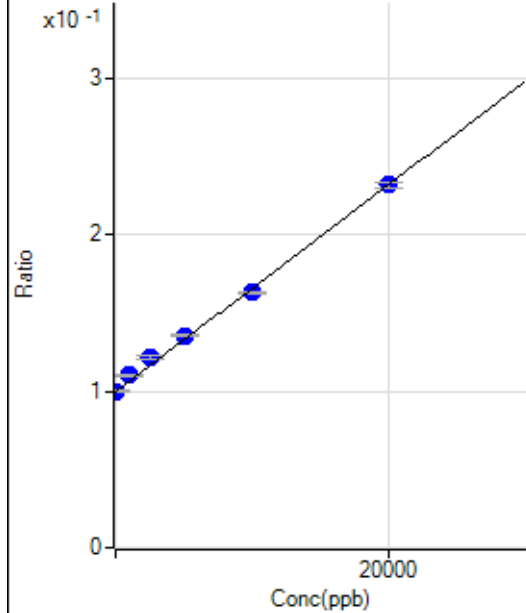
$$R = 0.9996$$

$$DL = 0.2635$$

$$BEC = 9.319$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-7.184	378234.15	0.0997	P	1.2
2	☐	0.000					
3	☐	0.000	7.184	387775.91	0.0998	P	1.3
4	☐	1000.000	1585.357	419655.37	0.1103	P	0.8
5	☐	2500.000	3312.528	460100.80	0.1217	P	2.0
6	☐	5000.000	5437.798	520001.85	0.1358	P	0.9
7	☐	10000.000	9592.346	637080.20	0.1633	P	0.6
8	☐	20000.000	19963.544	881174.87	0.2321	P	1.4
9	☐			356453.44	0.0923	P	1.4

$$y = 6.6299\text{E-}006 * x + 0.0998$$

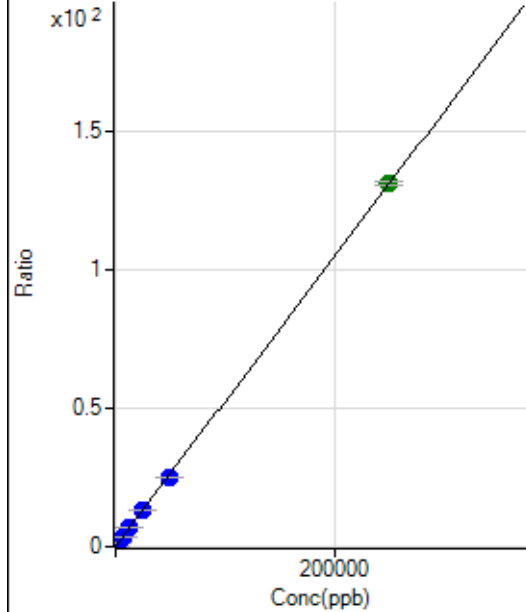
$$R = 0.9985$$

$$DL = 559.7$$

$$BEC = 1.505\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3136.60	0.0920	P	2.7
2	☐	50.000					
3	☐	500.000	447.870	11182.70	0.3256	P	2.5
4	☐	2500.000	2558.740	47587.10	1.4266	P	2.9
5	☐	6250.000	6331.431	112155.97	3.3944	P	1.4
6	☐	12500.000	12570.315	210512.46	6.6485	P	0.4
7	☐	25000.000	24619.948	375082.75	12.9334	P	0.6
8	☐	50000.000	47502.432	714351.03	24.8686	P	0.3
9	☐	250000.00	250531.48	3996974.01	130.7655	A	1.1

$$y = 5.2159\text{E-}004 * x + 0.0920$$

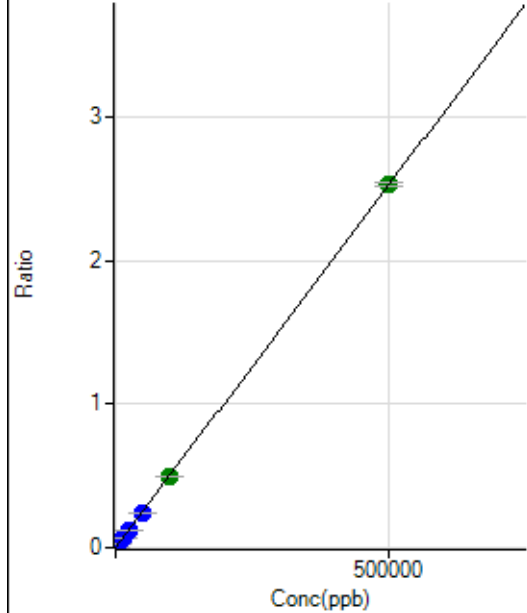
$$R = 0.9999$$

$$DL = 14.03$$

$$BEC = 176.4$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1939.12	0.0005	P	11.0
2	☐	50.000					
3	☐	500.000	415.498	10129.12	0.0026	P	4.9
4	☐	5000.000	4817.881	94456.58	0.0248	P	1.2
5	☐	12500.000	12218.164	234929.52	0.0622	P	3.0
6	☐	25000.000	24168.694	468873.63	0.1224	P	0.3
7	☐	50000.000	47769.785	941947.45	0.2415	P	0.7
8	☐	100000.00	97701.266	1873367.16	0.4934	A	1.1
9	☐	500000.00	500733.28	9755613.85	2.5268	A	0.9

$$y = 5.0452\text{E-}006 * x + 5.1141\text{E-}004$$

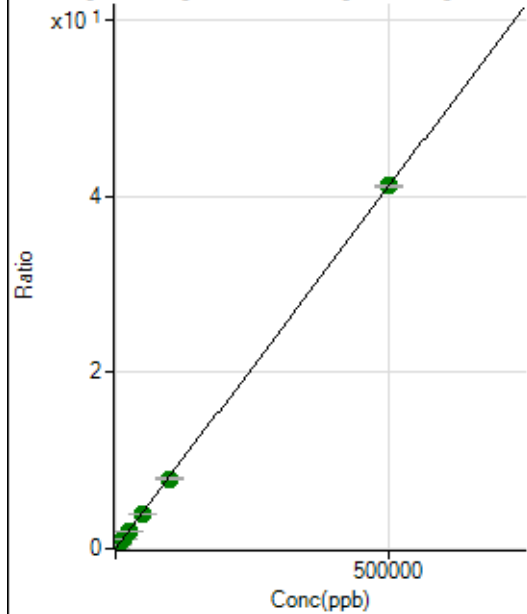
$$R = 1.0000$$

$$DL = 33.44$$

$$BEC = 101.4$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20660.42	0.0054	P	2.2
2	☐	50.000					
3	☐	500.000	440.350	161935.92	0.0417	P	1.3
4	☐	5000.000	4926.033	1563381.29	0.4107	A	0.7
5	☐	12500.000	12437.082	3888585.63	1.0287	A	2.4
6	☐	25000.000	24264.776	7664887.50	2.0018	A	1.5
7	☐	50000.000	48006.101	15425805.38	3.9552	A	0.5
8	☐	100000.00	96549.649	30179663.87	7.9491	A	1.3
9	☐	500000.00	500928.59	159139824.3	41.2196	A	0.9

$$y = 8.2275\text{E-}005 * x + 0.0054$$

$$R = 1.0000$$

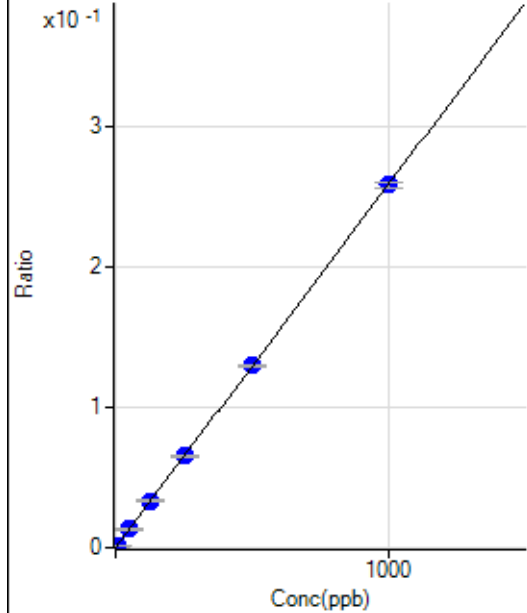
$$DL = 4.301$$

$$BEC = 66.2$$

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	166.67	0.0000	P	18.8
2	☐	0.500					
3	☐	5.000	4.369	4562.05	0.0012	P	6.7
4	☐	50.000	50.158	49541.49	0.0130	P	1.3
5	☐	125.000	129.397	126688.45	0.0335	P	1.4
6	☐	250.000	252.235	249970.35	0.0653	P	1.1
7	☐	500.000	500.522	505070.49	0.1295	P	0.6
8	☐	1000.000	998.626	980696.70	0.2583	P	1.7
9	☐			688.94	0.0002	P	8.8

$$y = 2.5864\text{E-}004 * x + 4.3974\text{E-}005$$

$$R = 1.0000$$

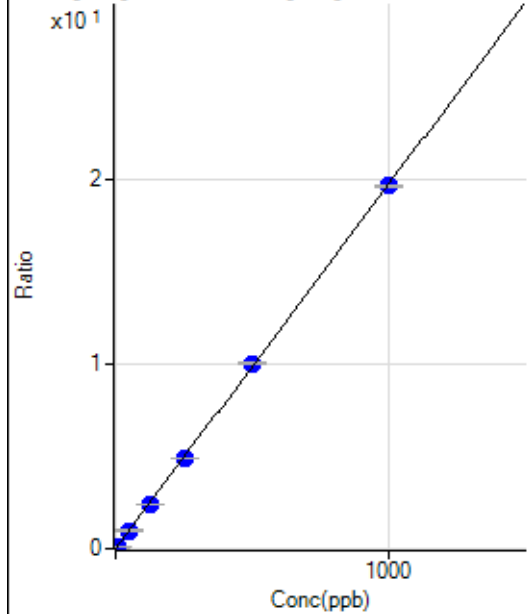
$$DL = 0.09573$$

$$BEC = 0.17$$

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	14.44	0.0004	P	57.3
2	☐	0.500					
3	☐	5.000	4.239	2883.69	0.0840	P	7.4
4	☐	50.000	49.614	32635.93	0.9784	P	2.5
5	☐	125.000	123.595	80511.93	2.4367	P	0.5
6	☐	250.000	248.754	155266.98	4.9038	P	0.2
7	☐	500.000	508.338	290600.94	10.0208	P	0.9
8	☐	1000.000	996.341	564152.38	19.6403	P	0.7
9	☐			144.45	0.0047	P	18.8

$$y = 0.0197 * x + 4.2219\text{E-}004$$

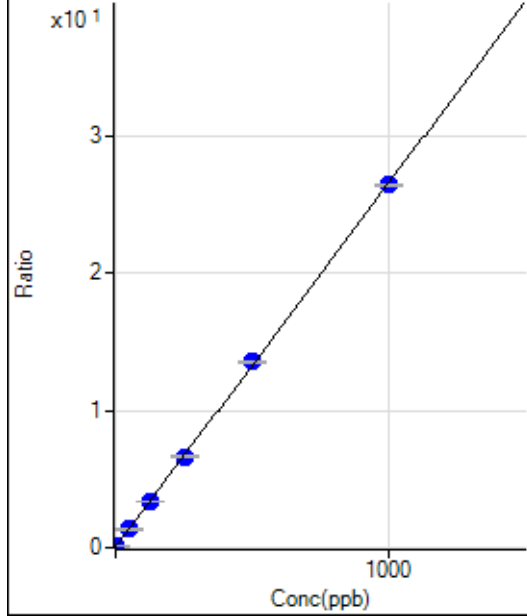
$$R = 0.9999$$

$$DL = 0.0368$$

$$BEC = 0.02142$$

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	857.82	0.0252	P	4.6
2	☐	0.200					
3	☐	2.000	1.861	2559.17	0.0745	P	4.8
4	☐	50.000	49.371	44508.53	1.3341	P	0.6
5	☐	125.000	123.672	109169.10	3.3040	P	0.3
6	☐	250.000	249.246	210035.35	6.6333	P	0.7
7	☐	500.000	509.013	392094.00	13.5205	P	0.8
8	☐	1000.000	995.880	759145.73	26.4286	P	0.5
9	☐			12193.23	0.3989	P	2.3

$$y = 0.0265 * x + 0.0252$$

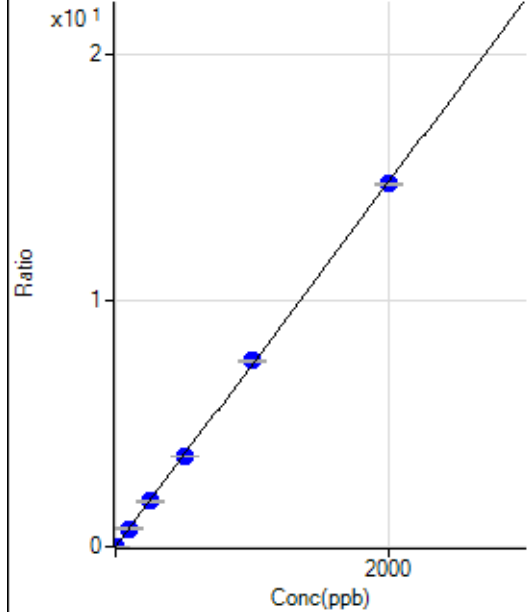
$$R = 0.9999$$

$$DL = 0.1315$$

$$BEC = 0.9494$$

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	30.00	0.0009	P	30.3
2	☐	0.100					
3	☐	1.000	1.009	286.68	0.0083	P	4.9
4	☐	100.000	99.971	24702.05	0.7405	P	1.3
5	☐	250.000	249.581	61036.05	1.8473	P	1.5
6	☐	500.000	495.907	116194.98	3.6697	P	0.8
7	☐	1000.000	1020.584	218995.66	7.5513	P	0.7
8	☐	2000.000	1990.785	423076.36	14.7289	P	0.6
9	☐			1689.02	0.0553	P	2.6

$$y = 0.0074 * x + 8.8137E-004$$

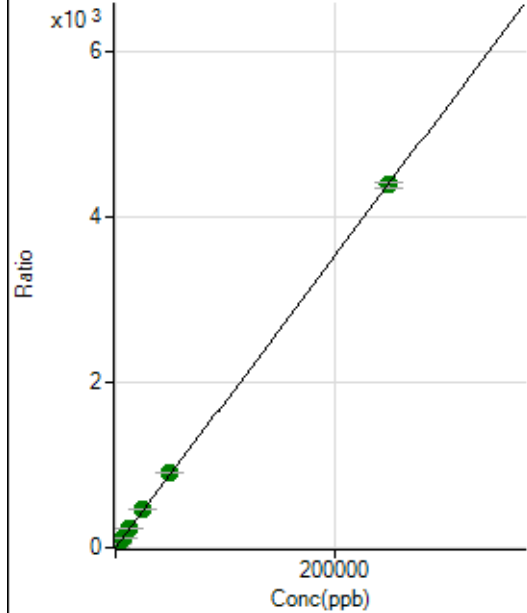
$$R = 0.9999$$

$$DL = 0.1082$$

$$BEC = 0.1191$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1907.60	0.0560	P	0.8
2	☐	5.000					
3	☐	50.000	45.386	29374.12	0.8553	P	1.8
4	☐	2500.000	2585.058	1520596.84	45.5823	A	1.4
5	☐	6250.000	6387.137	3718490.01	112.5421	A	0.4
6	☐	12500.000	12731.520	7101007.80	224.2753	A	0.4
7	☐	25000.000	26273.513	13420236.07	462.7682	A	1.1
8	☐	50000.000	51436.186	26022472.34	905.9171	A	0.4
9	☐	250000.00	249569.55	134343875.2	4,395.315	A	1.3

$$y = 0.0176 * x + 0.0560$$

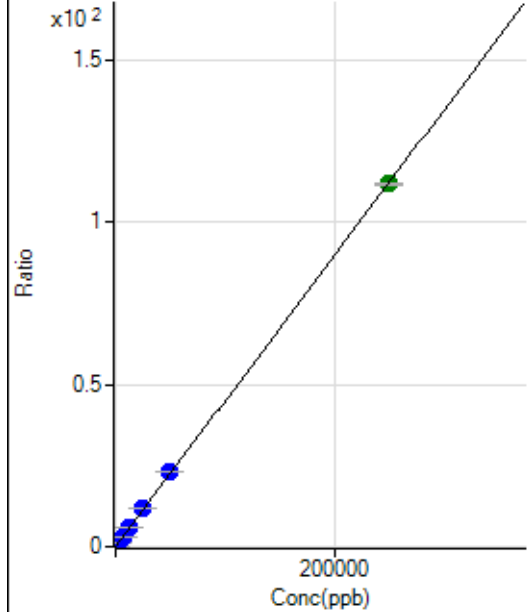
$$R = 1.0000$$

$$DL = 0.07312$$

$$BEC = 3.177$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	62.97	0.0018	P	20.3
2	☐	5.000					
3	☐	50.000	42.830	722.26	0.0210	P	4.0
4	☐	2500.000	2532.137	37900.16	1.1362	P	1.9
5	☐	6250.000	6283.165	93060.75	2.8166	P	1.5
6	☐	12500.000	12696.826	180152.00	5.6897	P	0.6
7	☐	25000.000	26230.550	340808.78	11.7525	P	1.2
8	☐	50000.000	51186.774	658720.00	22.9323	P	0.4
9	☐	250000.00	249628.60	3418211.48	111.8294	A	0.8

$$y = 4.4798E-004 * x + 0.0018$$

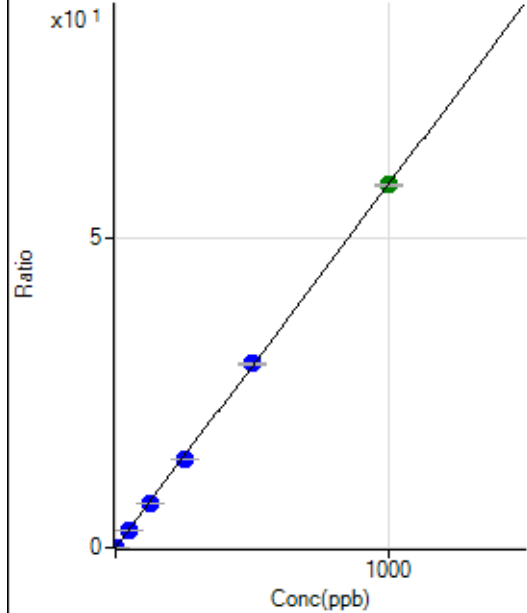
$$R = 1.0000$$

$$DL = 2.516$$

$$BEC = 4.123$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0018	P	18.4
2	☐	0.100					
3	☐	1.000	0.864	1800.15	0.0524	P	3.3
4	☐	50.000	48.617	95082.68	2.8502	P	1.2
5	☐	125.000	120.744	233801.07	7.0761	P	1.1
6	☐	250.000	245.310	455116.52	14.3744	P	0.6
7	☐	500.000	505.704	859314.93	29.6308	P	0.6
8	☐	1000.000	998.922	1681211.43	58.5283	A	0.2
9	☐			2115.76	0.0692	P	3.5

$$y = 0.0586 * x + 0.0018$$

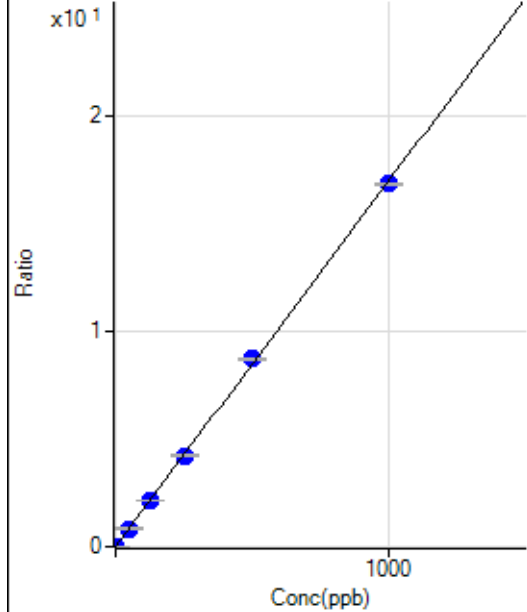
$$R = 1.0000$$

$$DL = 0.01656$$

$$BEC = 0.03001$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0023	P	24.5
2	☐	0.100					
3	☐	1.000	1.006	665.58	0.0194	P	2.1
4	☐	50.000	49.654	28124.12	0.8431	P	2.0
5	☐	125.000	124.329	69636.42	2.1076	P	0.8
6	☐	250.000	249.377	133773.98	4.2250	P	0.6
7	☐	500.000	514.751	252827.32	8.7184	P	1.1
8	☐	1000.000	992.882	482989.51	16.8144	P	0.3
9	☐			4986.54	0.1632	P	5.0

$$y = 0.0169 * x + 0.0023$$

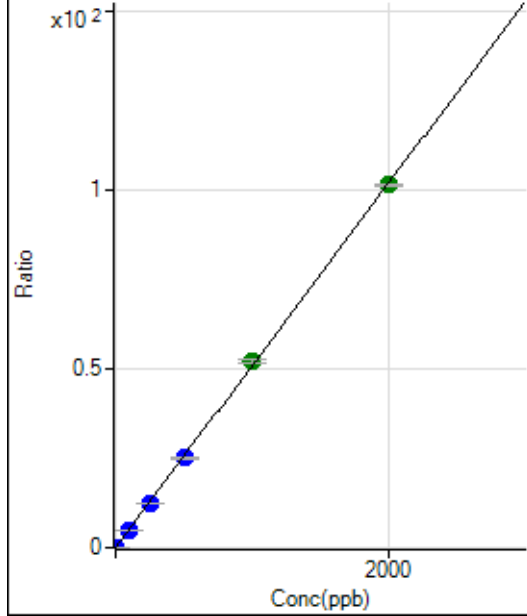
$$R = 0.9998$$

$$DL = 0.1017$$

$$BEC = 0.1385$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	124.45	0.0037	P	17.8
2	☐	0.200					
3	☐	2.000	1.728	3150.42	0.0917	P	4.7
4	☐	100.000	97.427	165776.18	4.9693	P	1.1
5	☐	250.000	243.633	410409.13	12.4210	P	0.9
6	☐	500.000	491.477	793239.64	25.0529	P	0.4
7	☐	1000.000	1022.460	1511276.71	52.1157	A	1.4
8	☐	2000.000	1991.826	2916171.31	101.5217	A	0.3
9	☐			3423.82	0.1120	P	5.1

$$y = 0.0510 * x + 0.0037$$

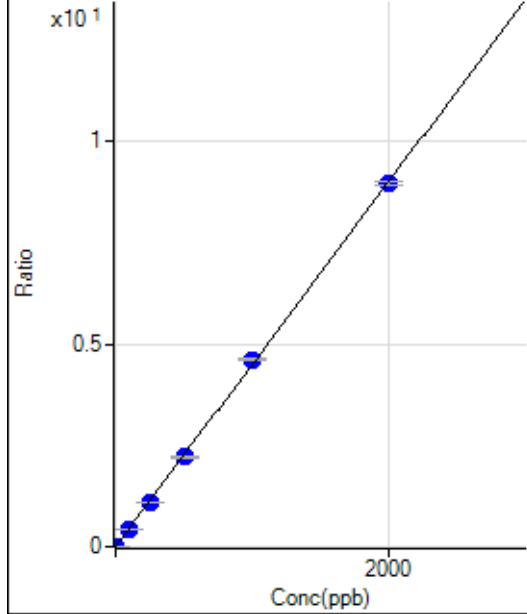
$$R = 0.9999$$

$$DL = 0.03835$$

$$BEC = 0.07169$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	101.11	0.0030	P	21.8
2	☐	0.200					
3	☐	2.000	1.860	388.90	0.0113	P	6.4
4	☐	100.000	97.675	14737.97	0.4419	P	2.9
5	☐	250.000	243.380	36231.91	1.0966	P	0.6
6	☐	500.000	490.783	69916.26	2.2082	P	0.8
7	☐	1000.000	1026.970	133909.44	4.6175	P	0.6
8	☐	2000.000	1989.763	256892.87	8.9436	P	1.2
9	☐			631.14	0.0206	P	5.3

$$y = 0.0045 * x + 0.0030$$

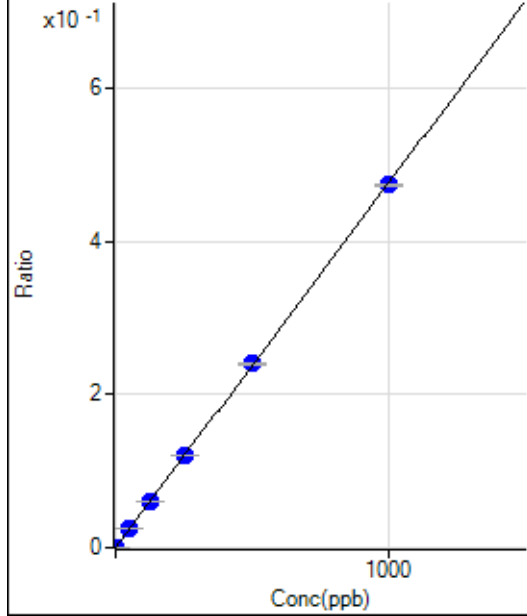
$$R = 0.9998$$

$$DL = 0.4317$$

$$BEC = 0.6608$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	3.09	0.0000	P	69.4
2	☐	0.100					
3	☐	1.000	1.009	113.58	0.0005	P	17.6
4	☐	50.000	51.022	5414.69	0.0243	P	2.6
5	☐	125.000	126.292	13276.21	0.0601	P	2.1
6	☐	250.000	254.326	25863.08	0.1211	P	0.4
7	☐	500.000	506.364	49402.06	0.2410	P	1.1
8	☐	1000.000	995.524	95257.27	0.4738	P	0.6
9	☐			34.57	0.0002	P	25.6

$$y = 4.7591\text{E-}004 * x + 1.3417\text{E-}005$$

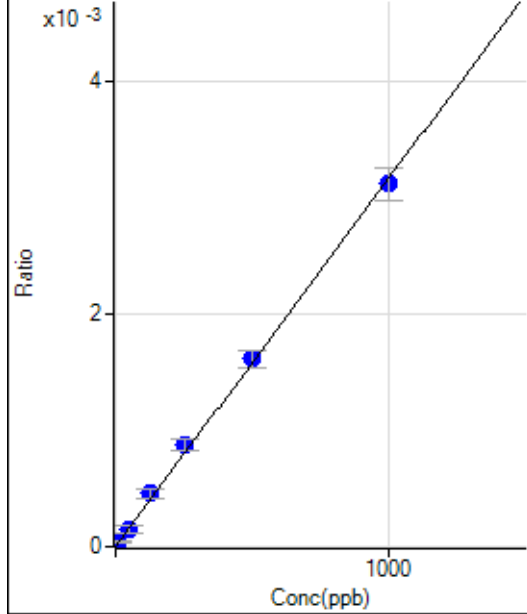
$$R = 1.0000$$

$$DL = 0.0587$$

$$BEC = 0.02819$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	10.694	7.78	0.0000	P	49.6
4	☐	50.000	48.898	34.44	0.0002	P	40.5
5	☐	125.000	144.615	101.11	0.0005	P	17.3
6	☐	250.000	274.601	185.56	0.0009	P	11.3
7	☐	500.000	510.820	331.12	0.0016	P	9.4
8	☐	1000.000	986.014	626.69	0.0031	P	9.2
9	☐			0.00	0.0000	P	

$$y = 3.1622\text{E-}006 * x + 0.0000\text{E+}000$$

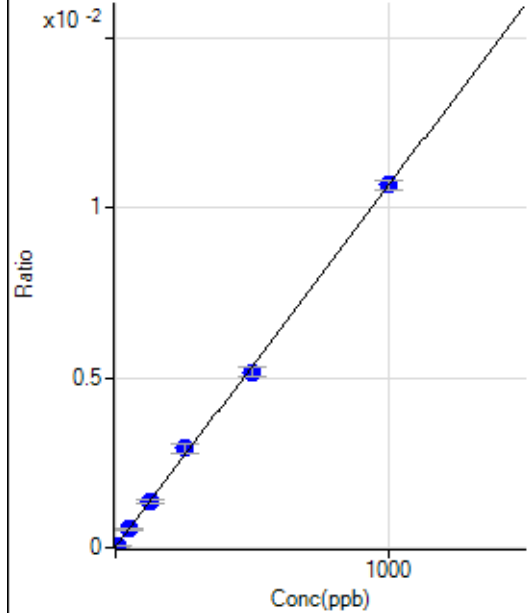
$$R = 0.9995$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.32	0.0000	P	65.6
2	☐	0.500					
3	☐	5.000	5.298	17.28	0.0001	P	22.5
4	☐	50.000	49.286	120.99	0.0005	P	18.0
5	☐	125.000	126.250	300.62	0.0014	P	7.8
6	☐	250.000	274.160	626.56	0.0029	P	9.9
7	☐	500.000	484.481	1059.93	0.0052	P	5.4
8	☐	1000.000	1001.598	2145.25	0.0107	P	2.3
9	☐			4.94	0.0000	P	58.0

$$y = 1.0635\text{E-}005 * x + 1.8786\text{E-}005$$

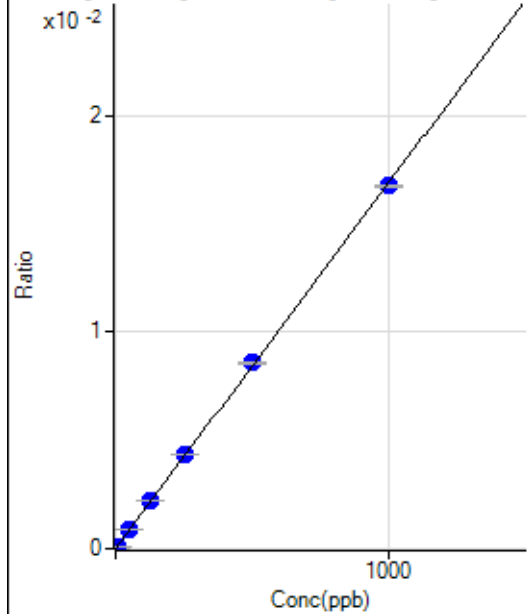
$$R = 0.9995$$

$$DL = 3.478$$

$$BEC = 1.766$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-37.33	0.0000	P	-131.
2	☐	0.500					
3	☐	5.000	4.950	544.39	0.0001	P	16.4
4	☐	50.000	52.433	5996.19	0.0009	P	1.6
5	☐	125.000	130.522	15063.57	0.0022	P	2.0
6	☐	250.000	256.210	30176.78	0.0043	P	0.4
7	☐	500.000	510.121	61665.66	0.0086	P	1.0
8	☐	1000.000	992.575	121345.91	0.0168	P	0.9
9	☐			85.59	0.0000	P	13.4

$$y = 1.6903\text{E-}005 * x - 5.3726\text{E-}006$$

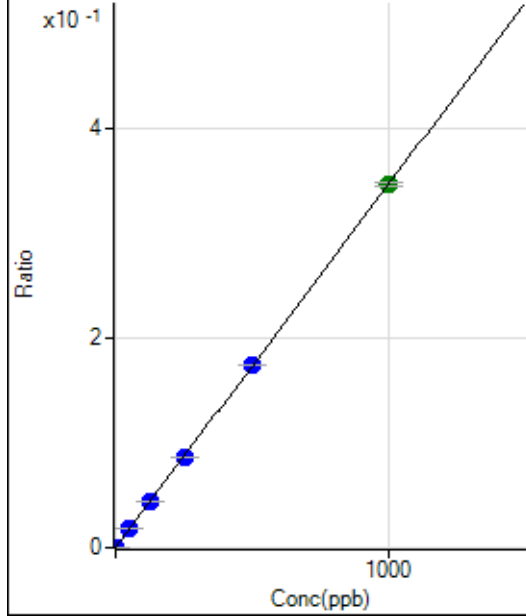
$$R = 0.9999$$

$$DL = 1.251$$

$$BEC = -0.3178$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	636.15	0.0001	P	14.2
2	☐	0.100					
3	☐	1.000	0.955	2942.13	0.0004	P	6.6
4	☐	50.000	50.573	120075.20	0.0176	P	0.5
5	☐	125.000	127.866	304305.73	0.0445	P	1.0
6	☐	250.000	250.601	607334.69	0.0871	P	0.4
7	☐	500.000	501.812	1246768.75	0.1742	P	0.6
8	☐	1000.000	998.557	2507715.81	0.3466	A	1.0
9	☐			85562.06	0.0120	P	1.9

$$y = 3.4701\text{E-}004 * x + 9.1800\text{E-}005$$

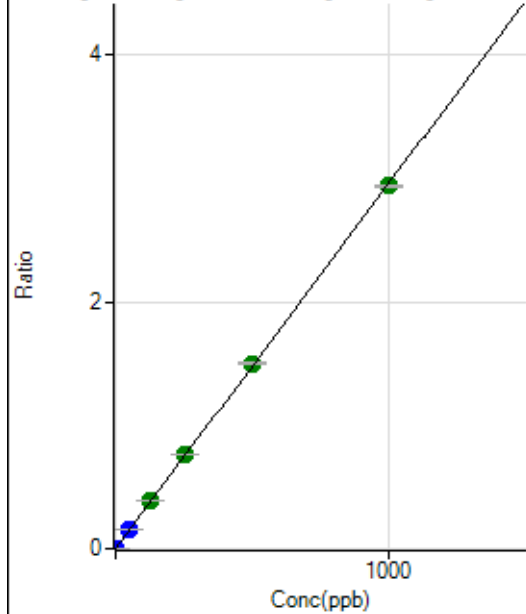
$$R = 1.0000$$

$$DL = 0.1127$$

$$BEC = 0.2645$$

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	613.94	0.0001	P	13.9
2	☐	0.100					
3	☐	1.000	0.924	19617.62	0.0028	P	2.7
4	☐	50.000	51.268	1032623.34	0.1517	P	0.7
5	☐	125.000	131.219	2656501.99	0.3882	A	2.1
6	☐	250.000	256.546	5294172.82	0.7588	A	0.5
7	☐	500.000	506.629	10722917.77	1.4985	A	0.9
8	☐	1000.000	994.208	21273929.29	2.9405	A	0.9
9	☐			736397.73	0.1035	P	0.7

$$y = 0.0030 * x + 8.8580\text{E-}005$$

$$R = 0.9999$$

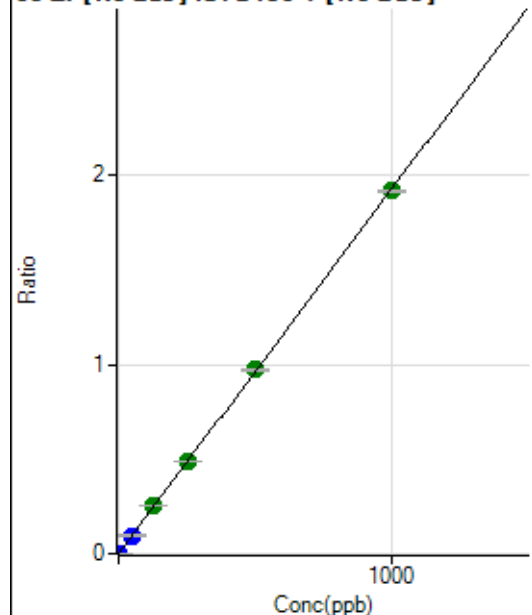
$$DL = 0.01246$$

$$BEC = 0.02995$$

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	466.69	0.0001	P	25.8
2	☐	0.100					
3	☐	1.000	0.898	12478.48	0.0018	P	0.7
4	☐	50.000	50.040	655629.30	0.0963	P	0.4
5	☐	125.000	130.735	1721615.08	0.2516	A	1.4
6	☐	250.000	253.201	3398537.49	0.4871	A	0.3
7	☐	500.000	505.414	6957773.24	0.9723	A	0.6
8	☐	1000.000	995.774	13858867.32	1.9156	A	0.8
9	☐			2091.94	0.0003	P	3.9

$$y = 0.0019 * x + 6.7266E-005$$

$$R = 1.0000$$

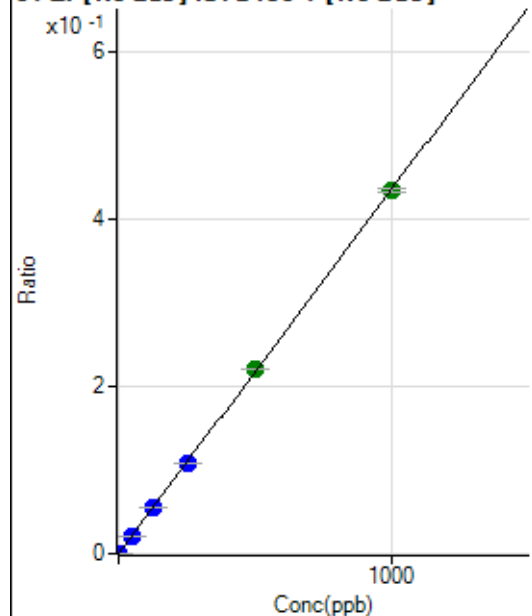
$$DL = 0.02708$$

$$BEC = 0.03497$$

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	91.67	0.0000	P	24.5
2	☐	0.100					
3	☐	1.000	0.865	2705.96	0.0004	P	1.6
4	☐	50.000	49.702	147160.02	0.0216	P	0.5
5	☐	125.000	126.488	376398.62	0.0550	P	2.3
6	☐	250.000	248.963	755185.82	0.1082	P	0.4
7	☐	500.000	507.627	1579325.23	0.2207	A	0.3
8	☐	1000.000	996.275	3133611.29	0.4331	A	1.2
9	☐			522.29	0.0001	P	23.9

$$y = 4.3473E-004 * x + 1.3231E-005$$

$$R = 1.0000$$

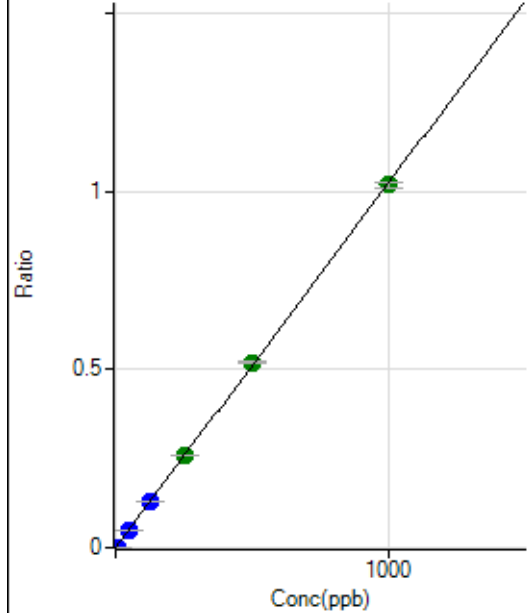
$$DL = 0.02234$$

$$BEC = 0.03044$$

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	172.23	0.0000	P	38.8
2	☐	0.500					
3	☐	5.000	1.950	14043.90	0.0020	P	2.3
4	☐	50.000	49.849	347341.16	0.0510	P	0.8
5	☐	125.000	126.986	889410.09	0.1300	P	1.6
6	☐	250.000	253.694	1811191.08	0.2596	A	0.3
7	☐	500.000	507.851	3718646.22	0.5197	A	1.0
8	☐	1000.000	994.925	7365191.48	1.0180	A	1.4
9	☐			6107.20	0.0009	P	4.9

$$y = 0.0010 * x + 2.4836E-005$$

$$R = 0.9999$$

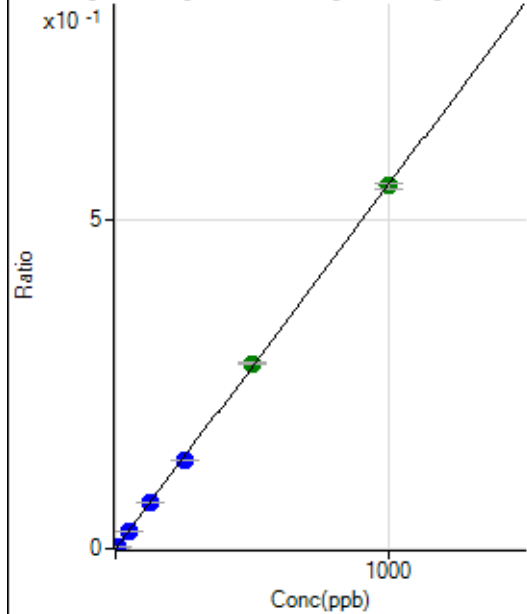
$$DL = 0.02826$$

$$BEC = 0.02427$$

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	38.89	0.0000	P	53.9
2	☐	0.500					
3	☐	5.000	4.511	17412.02	0.0025	P	2.3
4	☐	50.000	49.401	186346.16	0.0274	P	0.4
5	☐	125.000	125.059	474296.54	0.0693	P	0.6
6	☐	250.000	245.156	947723.33	0.1358	P	0.2
7	☐	500.000	508.675	2016925.42	0.2819	A	1.3
8	☐	1000.000	996.898	3996251.70	0.5524	A	1.4
9	☐			8769.90	0.0012	P	0.4

$$y = 5.5408E-004 * x + 5.6061E-006$$

$$R = 0.9999$$

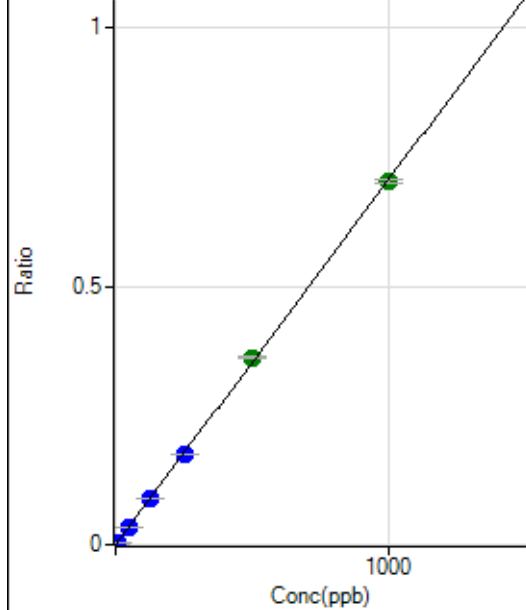
$$DL = 0.01636$$

$$BEC = 0.01012$$

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	94.45	0.0000	P	13.7
2	☐	0.500					
3	☐	5.000	3.837	18925.13	0.0027	P	2.0
4	☐	50.000	49.799	239374.93	0.0352	P	0.3
5	☐	125.000	125.447	606183.11	0.0886	P	1.3
6	☐	250.000	248.294	1222968.46	0.1753	P	0.3
7	☐	500.000	511.834	2585791.38	0.3613	A	1.0
8	☐	1000.000	994.470	5079342.52	0.7021	A	0.9
9	☐			12041.93	0.0017	P	2.8

$$y = 7.0594\text{E-}004 * x + 1.3627\text{E-}005$$

$$R = 0.9999$$

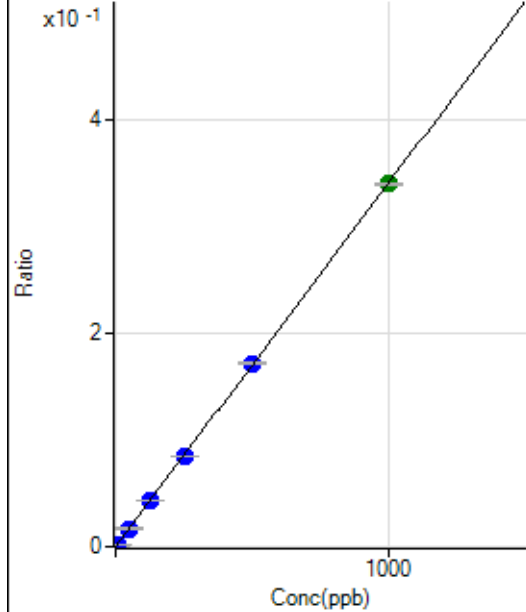
$$DL = 0.00796$$

$$BEC = 0.0193$$

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	66.67	0.0000	P	33.1
2	☐	0.500					
3	☐	5.000	4.455	10610.16	0.0015	P	1.2
4	☐	50.000	50.204	116399.13	0.0171	P	0.9
5	☐	125.000	126.553	294930.53	0.0431	P	1.1
6	☐	250.000	248.500	590278.14	0.0846	P	0.4
7	☐	500.000	504.405	1228890.40	0.1717	P	0.6
8	☐	1000.000	997.971	2458093.09	0.3398	A	0.6
9	☐			5568.08	0.0008	P	5.4

$$y = 3.4043\text{E-}004 * x + 9.6166\text{E-}006$$

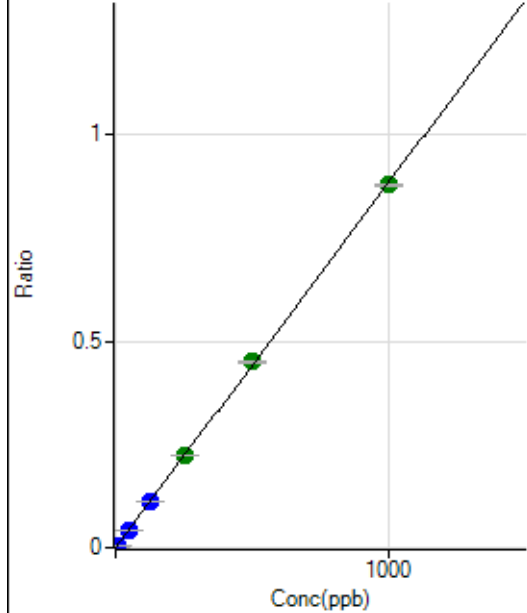
$$R = 1.0000$$

$$DL = 0.02807$$

$$BEC = 0.02825$$

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	50.00	0.0000	P	44.2
2	☐	0.500					
3	☐	5.000	4.469	27492.68	0.0040	P	2.5
4	☐	50.000	49.834	299694.16	0.0440	P	0.4
5	☐	125.000	125.314	757665.81	0.1107	P	1.9
6	☐	250.000	253.639	1563265.08	0.2241	A	0.4
7	☐	500.000	509.694	3222090.13	0.4503	A	1.3
8	☐	1000.000	994.215	6354423.67	0.8783	A	0.5
9	☐			14397.04	0.0020	P	0.8

$$y = 8.8340\text{E-}004 * x + 7.2126\text{E-}006$$

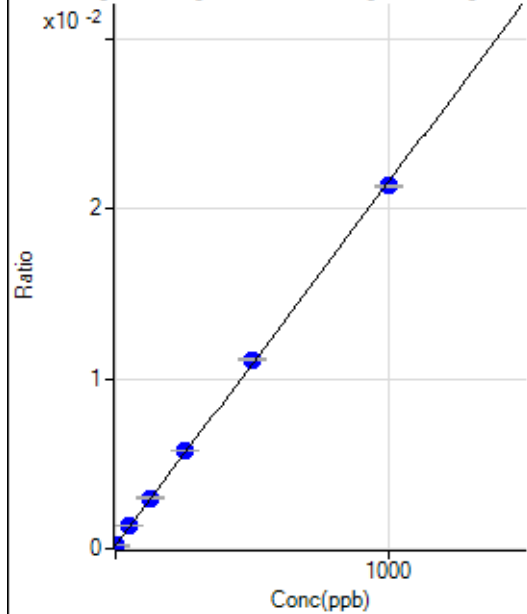
$$R = 0.9999$$

$$DL = 0.01082$$

$$BEC = 0.008165$$

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	1450.14	0.0002	P	9.7
2	☐	0.100					
3	☐	1.000	1.069	1677.97	0.0002	P	3.1
4	☐	50.000	56.100	11480.49	0.0014	P	3.7
5	☐	125.000	131.369	25449.86	0.0030	P	1.3
6	☐	250.000	263.669	50846.77	0.0058	P	0.2
7	☐	500.000	511.919	104077.99	0.0111	P	1.2
8	☐	1000.000	989.522	205093.85	0.0213	P	0.3
9	☐			1441.81	0.0002	P	3.6

$$y = 2.1394\text{E-}005 * x + 1.7392\text{E-}004$$

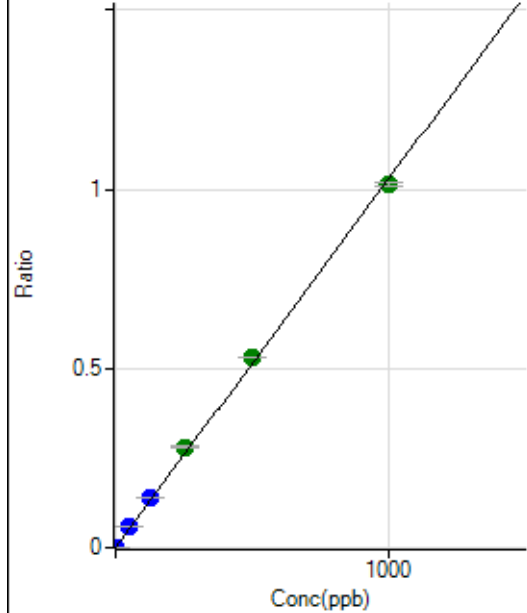
$$R = 0.9998$$

$$DL = 2.354$$

$$BEC = 8.129$$

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	47.22	0.0000	P	43.6
2	☐	0.100					
3	☐	1.000	0.999	8806.02	0.0010	P	2.9
4	☐	50.000	55.560	477198.10	0.0571	P	1.0
5	☐	125.000	136.851	1199481.49	0.1407	P	1.3
6	☐	250.000	273.490	2458287.60	0.2811	A	1.3
7	☐	500.000	516.128	4963288.61	0.5306	A	0.7
8	☐	1000.000	984.304	9722190.76	1.0118	A	1.2
9	☐			1022.31	0.0001	P	20.3

$$y = 0.0010 * x + 5.6498E-006$$

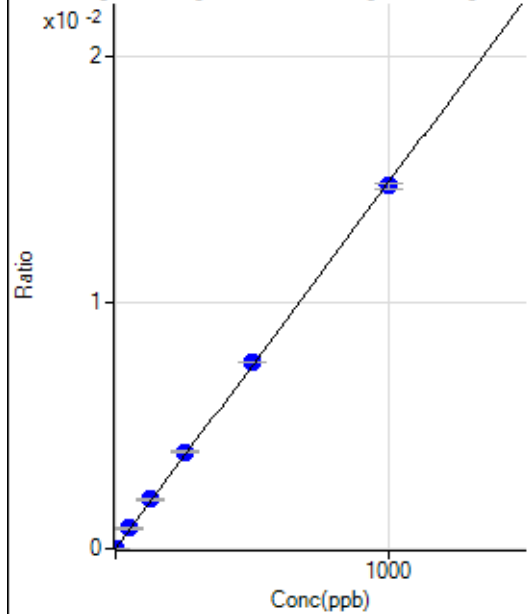
$$R = 0.9995$$

$$DL = 0.007184$$

$$BEC = 0.005496$$

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	6.94	0.0000	P	91.9
2	☐	0.100					
3	☐	1.000	1.038	138.89	0.0000	P	11.3
4	☐	50.000	55.227	6874.12	0.0008	P	1.9
5	☐	125.000	134.519	17077.78	0.0020	P	1.0
6	☐	250.000	263.566	34309.11	0.0039	P	1.6
7	☐	500.000	508.785	70844.89	0.0076	P	0.6
8	☐	1000.000	990.765	141695.01	0.0147	P	1.4
9	☐			22.22	0.0000	P	47.7

$$y = 1.4883E-005 * x + 8.3850E-007$$

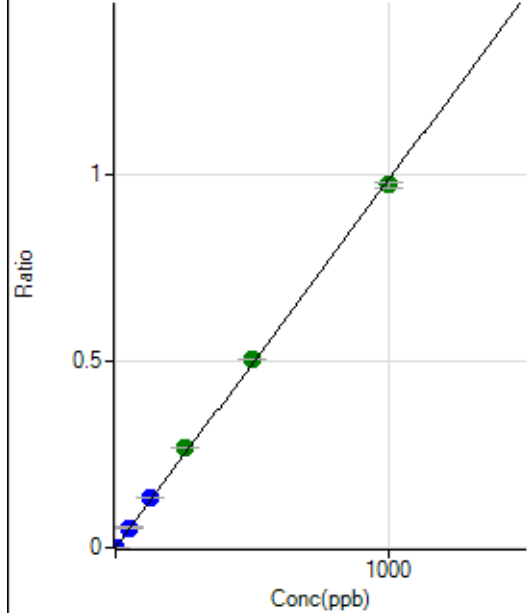
$$R = 0.9998$$

$$DL = 0.1553$$

$$BEC = 0.05634$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	1.0
2	☐	0.100					
3	☐	1.000	1.002	8478.07	0.0010	P	6.8
4	☐	50.000	54.893	451951.12	0.0541	P	1.2
5	☐	125.000	136.405	1146030.71	0.1344	P	1.6
6	☐	250.000	271.246	2337152.59	0.2673	A	0.7
7	☐	500.000	513.026	4729042.16	0.5055	A	0.5
8	☐	1000.000	986.505	9340165.31	0.9721	A	1.6
9	☐			944.52	0.0001	P	5.9

$$y = 9.8538\text{E-}004 * x + 7.0013\text{E-}006$$

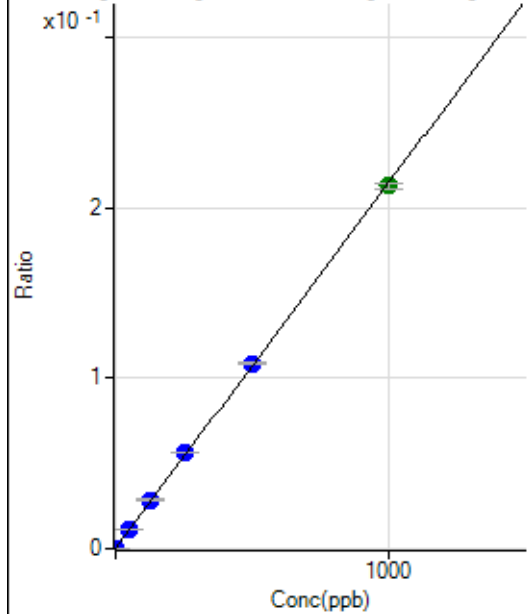
$$R = 0.9996$$

$$DL = 0.0002229$$

$$BEC = 0.007105$$

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	1028.30	0.0001	P	9.6
2	☐	0.100					
3	☐	1.000	0.949	2785.84	0.0003	P	1.2
4	☐	50.000	53.999	97714.33	0.0117	P	0.2
5	☐	125.000	133.550	245097.65	0.0287	P	0.6
6	☐	250.000	262.454	492911.54	0.0564	P	0.5
7	☐	500.000	506.552	1016697.96	0.1087	P	0.9
8	☐	1000.000	992.342	2044649.16	0.2128	A	1.4
9	☐			1163.16	0.0001	P	0.3

$$y = 2.1432\text{E-}004 * x + 1.2333\text{E-}004$$

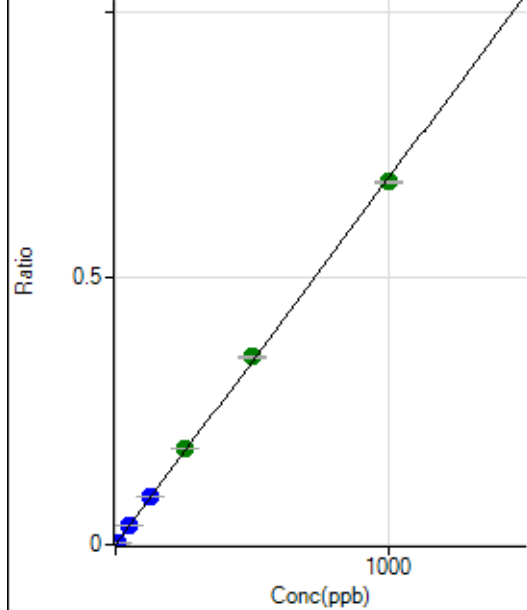
$$R = 0.9999$$

$$DL = 0.1656$$

$$BEC = 0.5754$$

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	741.72	0.0001	P	14.7
2	☐	0.500					
3	☐	5.000	4.655	28055.49	0.0033	P	2.8
4	☐	50.000	52.551	302688.96	0.0362	P	1.9
5	☐	125.000	132.263	776357.39	0.0911	P	1.0
6	☐	250.000	261.880	1575616.39	0.1802	A	1.6
7	☐	500.000	511.967	3294684.14	0.3522	A	0.6
8	☐	1000.000	990.013	6543332.79	0.6810	A	0.7
9	☐			7293.98	0.0008	P	3.6

$$y = 6.8776E-004 * x + 8.8995E-005$$

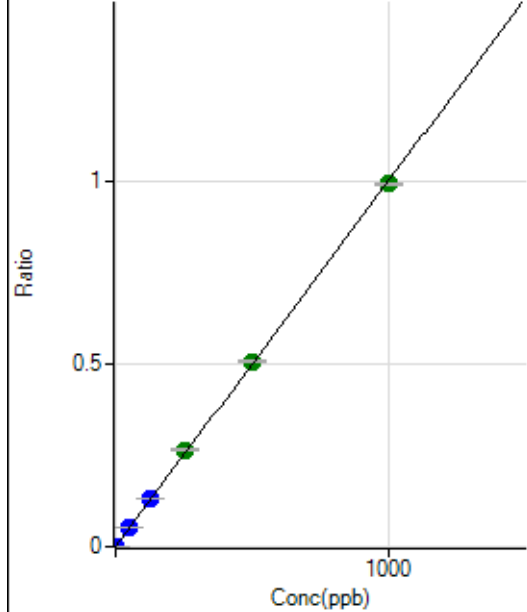
$$R = 0.9998$$

$$DL = 0.05693$$

$$BEC = 0.1294$$

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	77.78	0.0000	P	24.8
2	☐	0.200					
3	☐	2.000	1.919	16488.65	0.0019	P	2.6
4	☐	50.000	52.832	442781.53	0.0530	P	0.6
5	☐	125.000	132.109	1129816.38	0.1325	P	1.3
6	☐	250.000	264.742	2321855.89	0.2655	A	1.3
7	☐	500.000	506.395	4751353.32	0.5079	A	0.8
8	☐	1000.000	992.087	9561290.93	0.9951	A	0.6
9	☐			11327.52	0.0012	P	0.9

$$y = 0.0010 * x + 9.3349E-006$$

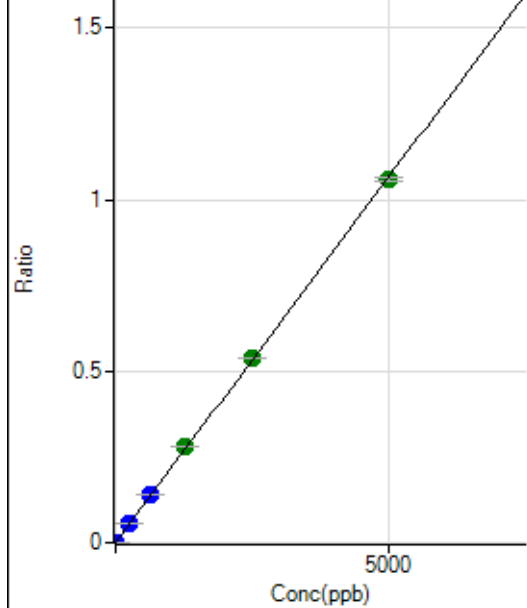
$$R = 0.9998$$

$$DL = 0.006918$$

$$BEC = 0.009307$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0000	P	38.7
2	☐	1.000					
3	☐	10.000	9.462	17228.52	0.0020	P	2.2
4	☐	250.000	260.667	463849.04	0.0555	P	0.4
5	☐	625.000	656.983	1192990.95	0.1399	P	1.7
6	☐	1250.000	1322.572	2463012.53	0.2817	A	0.7
7	☐	2500.000	2526.201	5033018.17	0.5380	A	0.2
8	☐	5000.000	4964.226	10158828.44	1.0573	A	0.9
9	☐			2655.95	0.0003	P	5.3

$$y = 2.1298\text{E-}004 * x + 5.3303\text{E-}006$$

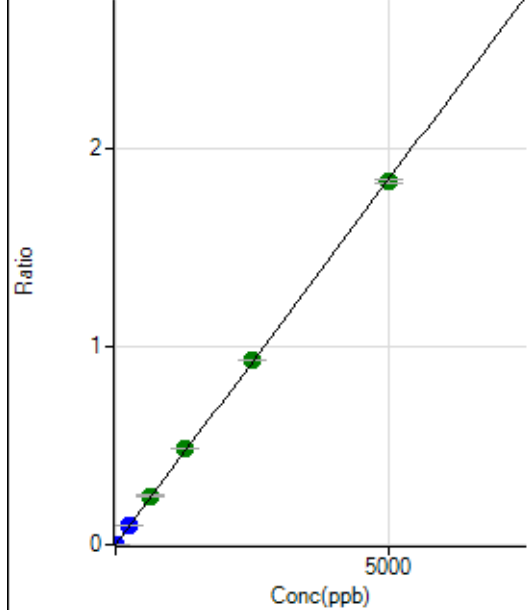
$$R = 0.9999$$

$$DL = 0.02906$$

$$BEC = 0.02503$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.00	0.0000	P	43.8
2	☐	1.000					
3	☐	10.000	9.356	29561.83	0.0035	P	1.7
4	☐	250.000	263.165	812661.23	0.0973	P	1.0
5	☐	625.000	669.009	2108179.99	0.2473	A	1.6
6	☐	1250.000	1315.316	4250738.94	0.4861	A	1.0
7	☐	2500.000	2519.052	8709406.44	0.9310	A	0.3
8	☐	5000.000	4967.987	17642484.25	1.8361	A	1.1
9	☐			4712.17	0.0005	P	6.6

$$y = 3.6959\text{E-}004 * x + 8.9868\text{E-}006$$

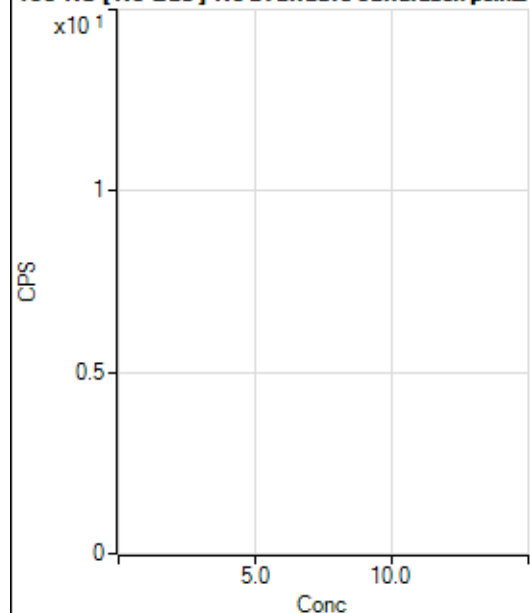
$$R = 0.9999$$

$$DL = 0.03192$$

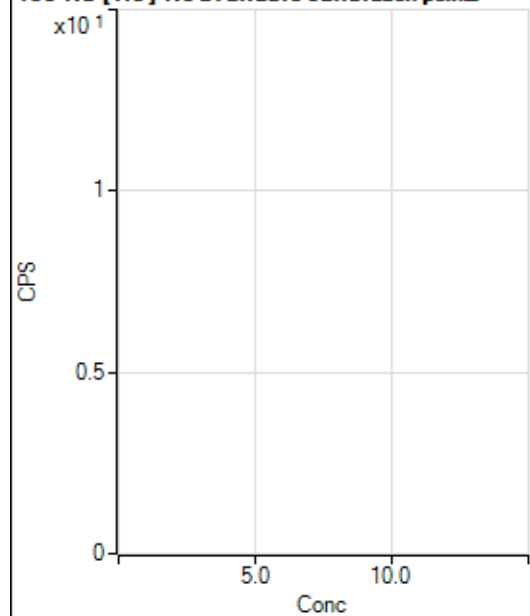
$$BEC = 0.02432$$

Weight: <None>

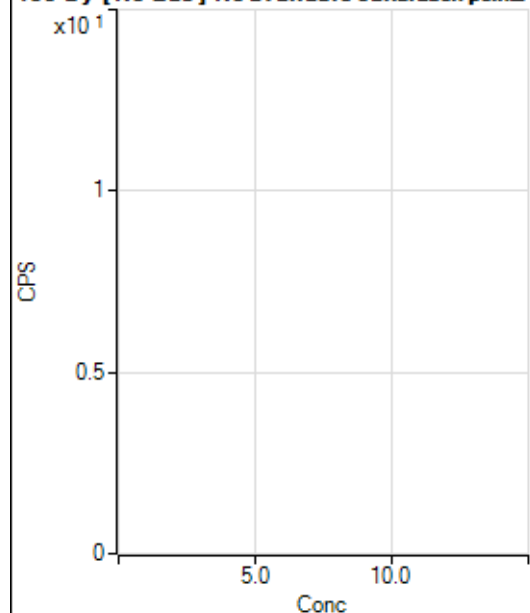
Min Conc: 0

150 Nd [No Gas] No available calibration points

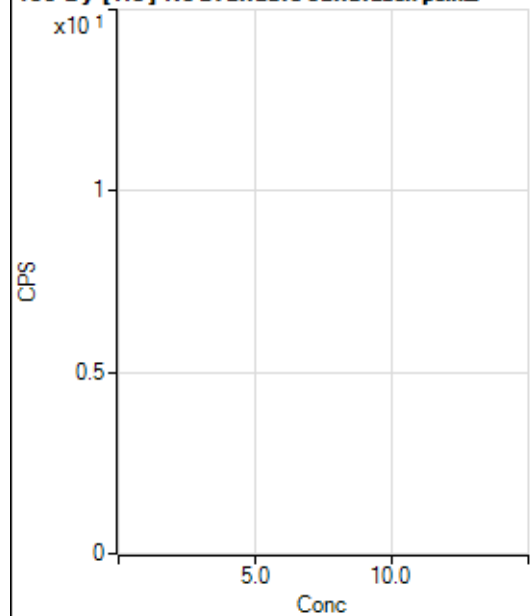
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	173.2
2	☐						
3	☐			11.11		P	124.9
4	☐			31.11		P	65.5
5	☐			46.67		P	65.5
6	☐			120.01		P	14.7
7	☐			188.90		P	26.5
8	☐			388.91		P	18.8
9	☐			97.78		P	20.8

150 Nd [He] No available calibration points

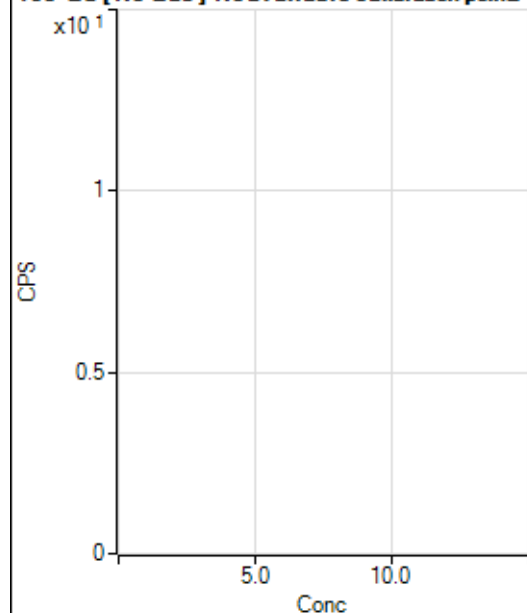
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			2.22		P	86.6
6	☐			6.67		P	50.0
7	☐			4.45		P	86.6
8	☐			7.78		P	89.2
9	☐			18.89		P	44.4

156 Dy [No Gas] No available calibration points

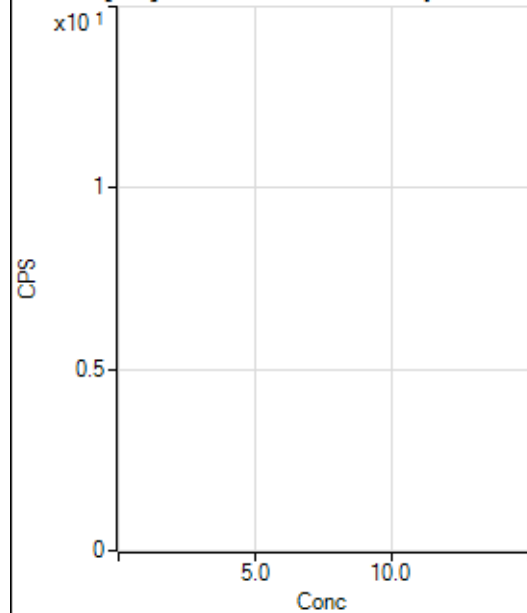
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	24.7
2	☐						
3	☐			13.89		P	91.6
4	☐			19.44		P	65.5
5	☐			30.56		P	31.5
6	☐			63.89		P	27.2
7	☐			102.78		P	23.4
8	☐			141.67		P	21.2
9	☐			61.12		P	34.3

156 Dy [He] No available calibration points

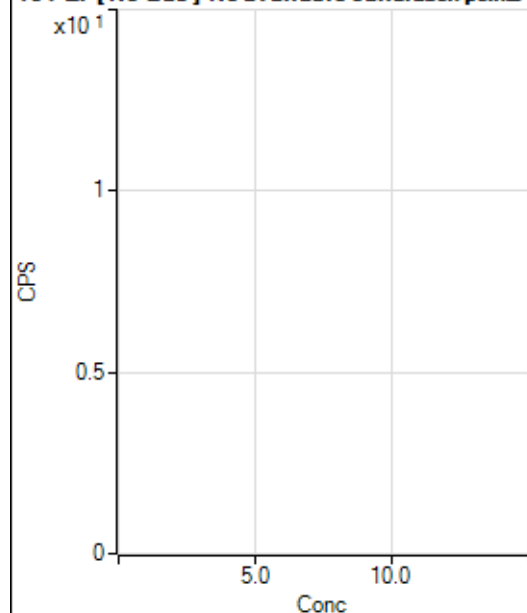
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.2
2	☐						
3	☐			2.22		P	173.2
4	☐			2.22		P	173.2
5	☐			1.11		P	173.2
6	☐			4.44		P	43.4
7	☐			10.00		P	33.3
8	☐			6.67		P	50.0
9	☐			7.78		P	49.5

160 Gd [No Gas] Noavailable calibration poin_

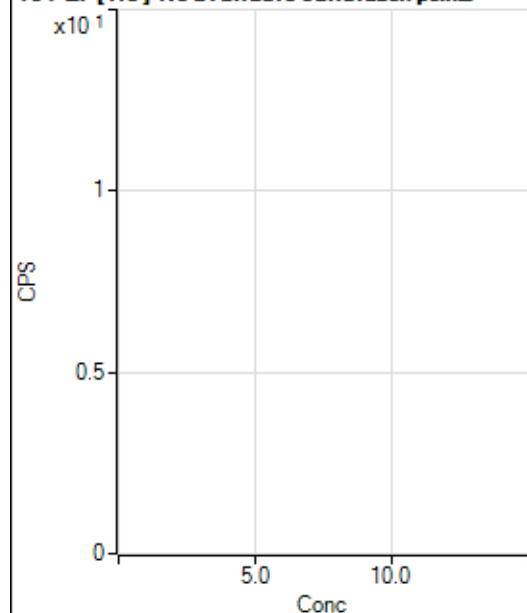
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	44.6
2	☐						
3	☐			69.45		P	34.6
4	☐			52.78		P	24.1
5	☐			69.45		P	38.6
6	☐			77.78		P	34.4
7	☐			116.67		P	18.9
8	☐			122.23		P	10.4
9	☐			111.12		P	30.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	57.3
2	☐						
3	☐			13.33		P	50.0
4	☐			7.78		P	65.5
5	☐			5.56		P	34.7
6	☐			7.78		P	65.5
7	☐			15.56		P	65.5
8	☐			17.78		P	47.2
9	☐			14.44		P	13.4

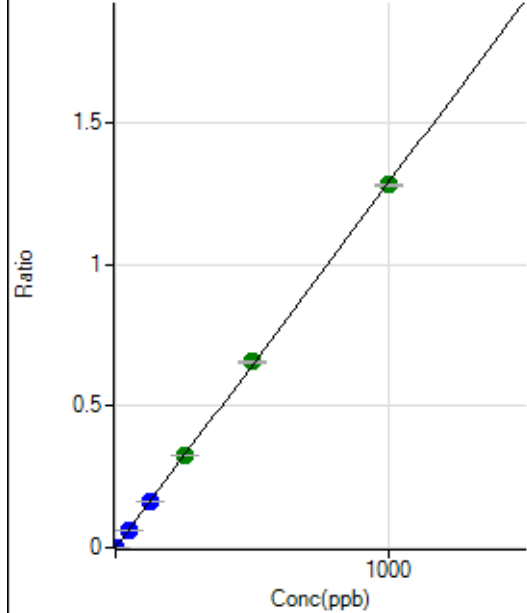
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	17.3
2	☐						
3	☐			50.00		P	60.1
4	☐			27.78		P	34.6
5	☐			30.56		P	31.5
6	☐			41.67		P	20.0
7	☐			50.00		P	28.9
8	☐			55.56		P	45.8
9	☐			55.56		P	22.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.1
2	☐						
3	☐			11.11		P	34.6
4	☐			3.33		P	100.1
5	☐			7.78		P	24.7
6	☐			3.33		P	100.1
7	☐			8.89		P	21.6
8	☐			8.89		P	43.3
9	☐			6.67		P	86.6

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	18.6
2	☐	0.100					
3	☐	1.000	0.900	6110.10	0.0012	P	6.7
4	☐	50.000	48.961	325008.13	0.0632	P	1.4
5	☐	125.000	125.526	846063.39	0.1620	P	1.0
6	☐	250.000	253.532	1780489.82	0.3271	A	1.3
7	☐	500.000	509.902	3871825.87	0.6579	A	1.5
8	☐	1000.000	994.152	7787898.79	1.2826	A	0.8
9	☐			2539.26	0.0005	P	6.6

$$y = 0.0013 * x + 1.7936E-005$$

$$R = 0.9999$$

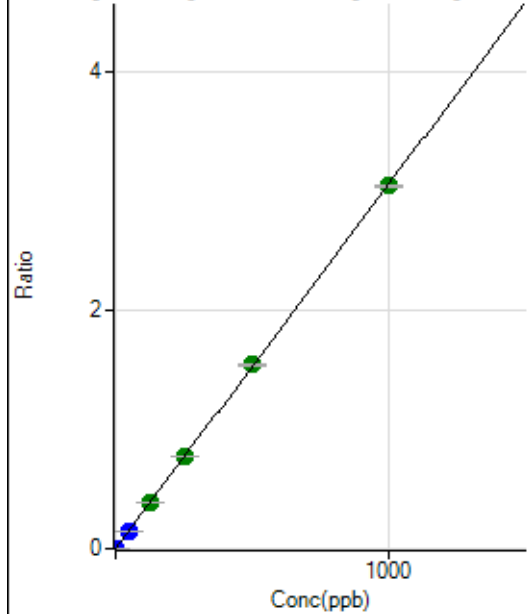
$$DL = 0.007753$$

$$BEC = 0.0139$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	241.68	0.0000	P	6.3
2	☐	0.100					
3	☐	1.000	0.913	14673.01	0.0028	P	1.7
4	☐	50.000	49.617	778648.78	0.1514	P	1.7
5	☐	125.000	128.097	2041011.03	0.3907	A	1.9
6	☐	250.000	253.204	4203807.69	0.7723	A	1.2
7	☐	500.000	505.088	9067199.86	1.5406	A	1.1
8	☐	1000.000	996.287	18450641.21	3.0387	A	0.7
9	☐			6349.12	0.0012	P	6.2

$$y = 0.0031 * x + 4.7268E-005$$

$$R = 1.0000$$

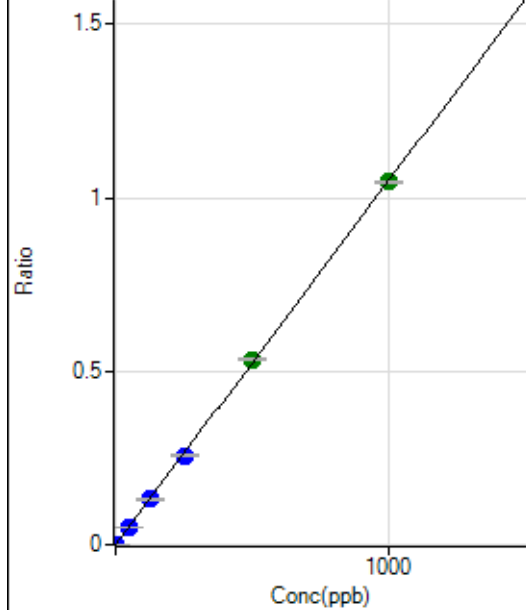
$$DL = 0.002914$$

$$BEC = 0.0155$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	525.95	0.0001	P	24.4
2	☐	0.100					
3	☐	1.000	0.897	5405.03	0.0010	P	5.7
4	☐	50.000	49.306	266522.89	0.0518	P	1.3
5	☐	125.000	124.607	683199.97	0.1308	P	1.3
6	☐	250.000	245.507	1402125.86	0.2576	P	0.7
7	☐	500.000	507.755	3134840.90	0.5326	A	1.2
8	☐	1000.000	997.330	6351718.37	1.0461	A	0.6
9	☐			6889.09	0.0012	P	1.3

$$y = 0.0010 * x + 1.0278E-004$$

$$R = 0.9999$$

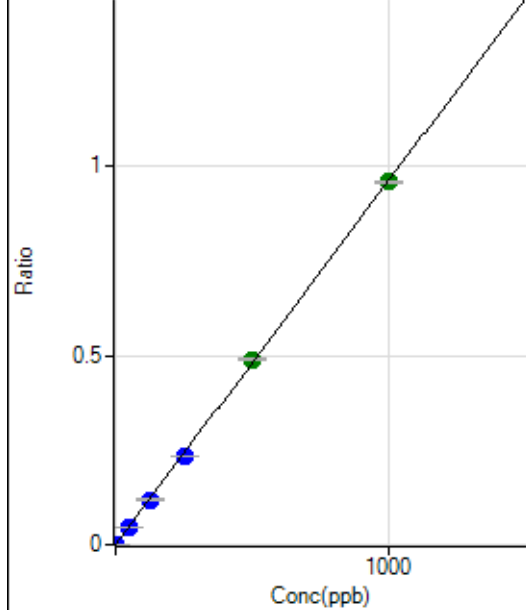
$$DL = 0.07169$$

$$BEC = 0.098$$

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	440.76	0.0001	P	9.3
2	☐	0.100					
3	☐	1.000	0.891	4888.12	0.0009	P	4.2
4	☐	50.000	48.626	241222.73	0.0469	P	0.7
5	☐	125.000	123.682	622343.19	0.1191	P	1.5
6	☐	250.000	244.305	1280556.06	0.2353	P	0.5
7	☐	500.000	509.148	2885100.21	0.4902	A	1.0
8	☐	1000.000	997.083	5828338.38	0.9599	A	0.6
9	☐			6038.67	0.0011	P	1.0

$$y = 9.6260E-004 * x + 8.6167E-005$$

$$R = 0.9999$$

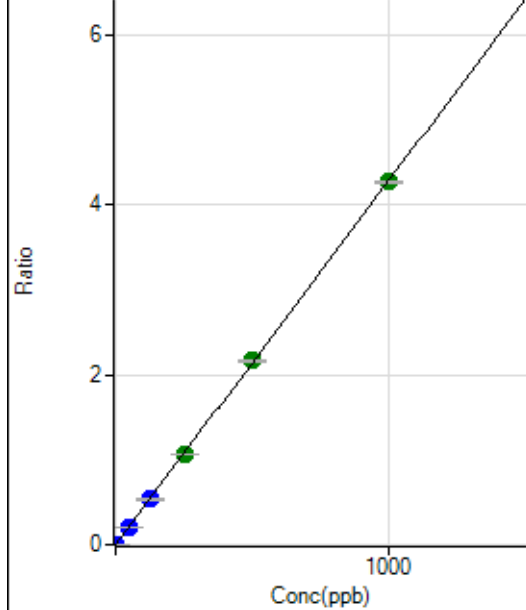
$$DL = 0.02497$$

$$BEC = 0.08952$$

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	2118.66	0.0004	P	7.1
2	☐	0.100					
3	☐	1.000	0.896	22019.26	0.0042	P	1.6
4	☐	50.000	49.091	1082884.03	0.2105	P	0.6
5	☐	125.000	124.774	2791552.56	0.5344	P	1.6
6	☐	250.000	248.589	5793465.09	1.0643	A	0.4
7	☐	500.000	505.646	12739709.60	2.1645	A	0.6
8	☐	1000.000	997.603	25926944.33	4.2699	A	0.5
9	☐			27378.96	0.0050	P	0.4

$$y = 0.0043 * x + 4.1426E-004$$

$$R = 1.0000$$

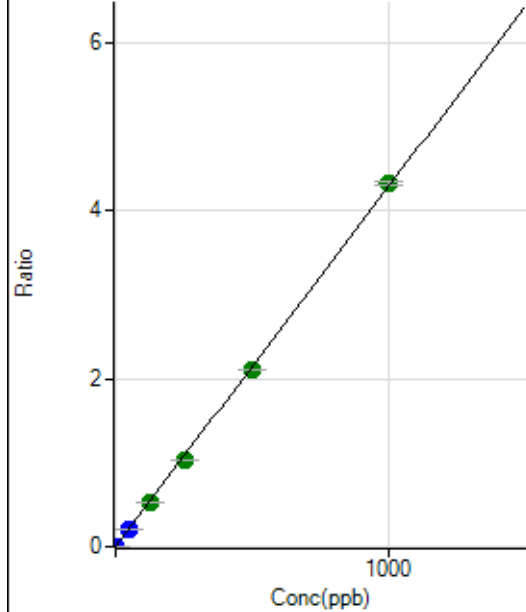
$$DL = 0.02056$$

$$BEC = 0.09679$$

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	94.45	0.0000	P	4.6
2	☐	0.100					
3	☐	1.000	0.835	18648.05	0.0036	P	2.5
4	☐	50.000	46.846	1033887.02	0.2010	P	1.1
5	☐	125.000	122.414	2743234.72	0.5252	A	2.2
6	☐	250.000	242.121	5654275.60	1.0388	A	0.6
7	☐	500.000	490.424	12384881.87	2.1040	A	0.3
8	☐	1000.000	1007.239	26238003.19	4.3212	A	1.0
9	☐			1886.34	0.0003	P	7.6

$$y = 0.0043 * x + 1.8467E-005$$

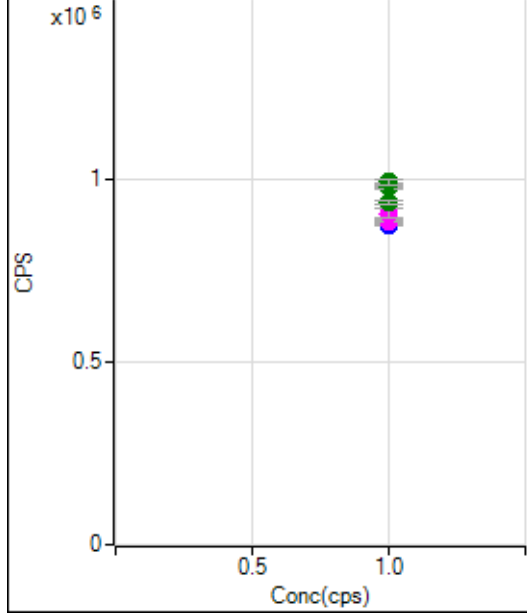
$$R = 0.9999$$

$$DL = 0.0005947$$

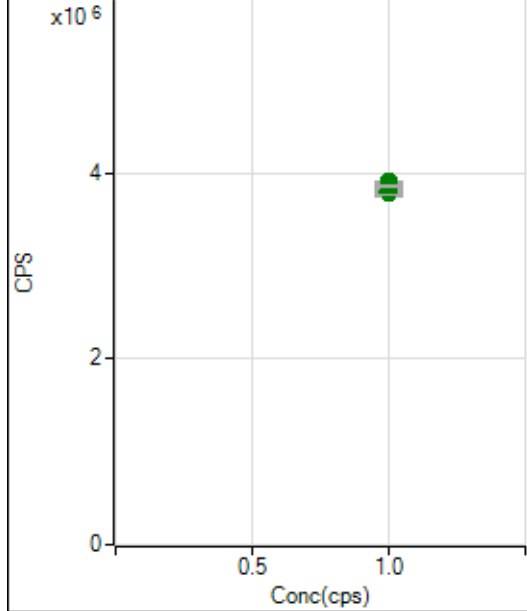
$$BEC = 0.004305$$

Weight: <None>

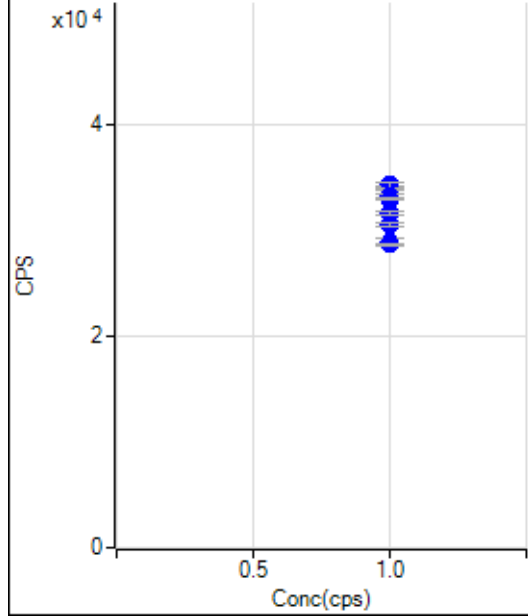
Min Conc: 0

6 Li (ISTD) [No Gas]

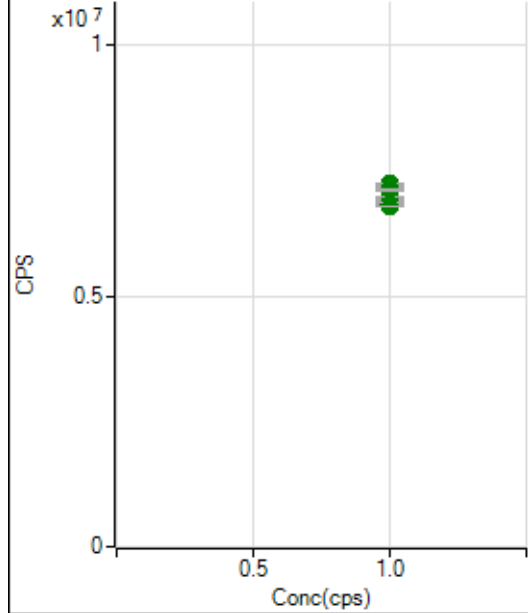
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		874213.83		P	0.6
2	☐	1.000					
3	☐	1.000		883554.55		P	0.5
4	☐	1.000		883088.21		M	0.6
5	☐	1.000		905931.78		M	2.5
6	☐	1.000		935607.00		A	0.7
7	☐	1.000		982927.19		A	1.2
8	☐	1.000		975760.67		A	1.1
9	☐	1.000		991537.41		A	1.8

45 Sc (ISTD) [No Gas]

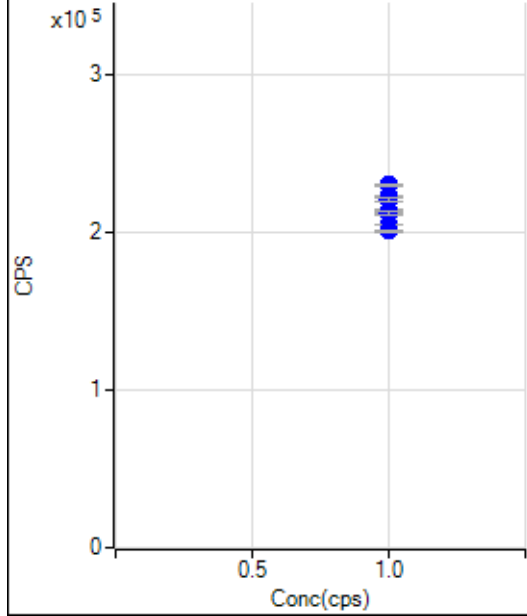
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3793785.76		A	0.8
2	☐	1.000					
3	☐	1.000		3885988.24		A	1.4
4	☐	1.000		3806105.29		A	1.0
5	☐	1.000		3781023.91		A	1.6
6	☐	1.000		3829271.70		A	1.0
7	☐	1.000		3900164.41		A	0.3
8	☐	1.000		3796958.38		A	1.6
9	☐	1.000		3860827.08		A	0.3

45 Sc (ISTD) [He]

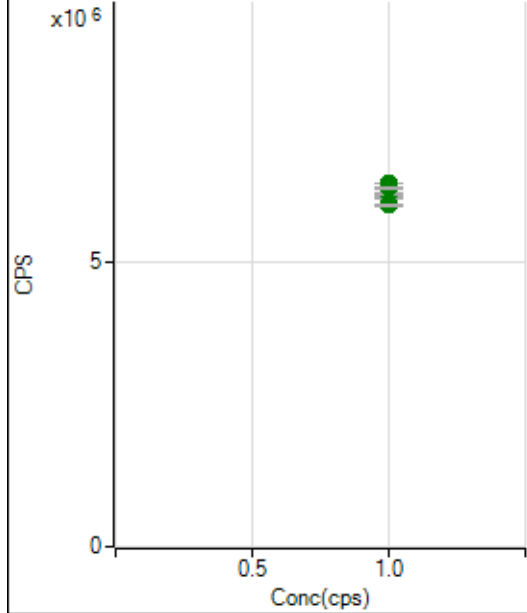
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		34089.21		P	0.9
2	☐	1.000					
3	☐	1.000		34348.82		P	1.3
4	☐	1.000		33363.11		P	1.3
5	☐	1.000		33041.20		P	0.3
6	☐	1.000		31662.50		P	0.8
7	☐	1.000		29002.34		P	1.5
8	☐	1.000		28725.08		P	0.7
9	☐	1.000		30567.82		P	1.0

89 Y (ISTD) [No Gas]

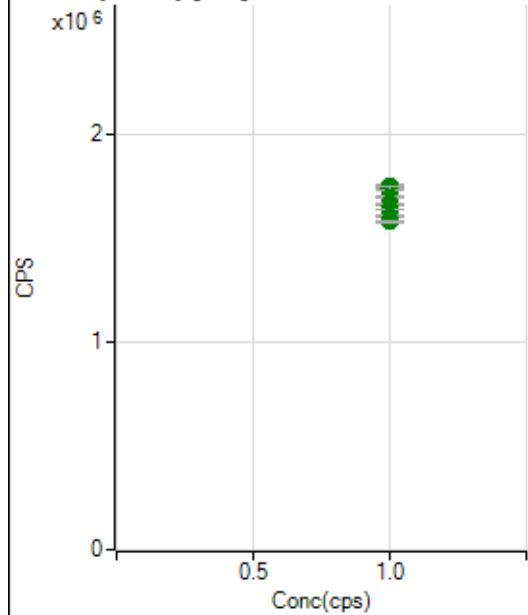
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6932791.77		A	0.5
2	☐	1.000					
3	☐	1.000		6951210.45		A	0.3
4	☐	1.000		6806512.47		A	0.5
5	☐	1.000		6844606.98		A	1.1
6	☐	1.000		6976679.62		A	0.4
7	☐	1.000		7156223.09		A	0.6
8	☐	1.000		7235101.42		A	0.6
9	☐	1.000		7114977.05		A	0.2

89 Y(ISTD) [He]

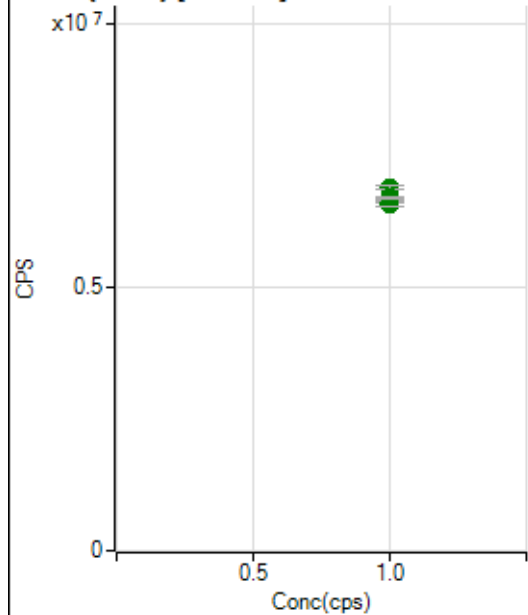
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		230066.99		P	0.1
2	☐	1.000					
3	☐	1.000		230140.71		P	0.3
4	☐	1.000		222875.22		P	0.2
5	☐	1.000		220867.67		P	1.1
6	☐	1.000		213661.55		P	1.3
7	☐	1.000		204991.69		P	0.3
8	☐	1.000		201054.67		P	0.5
9	☐	1.000		212327.71		P	1.1

103 Rh(ISTD) [No Gas]

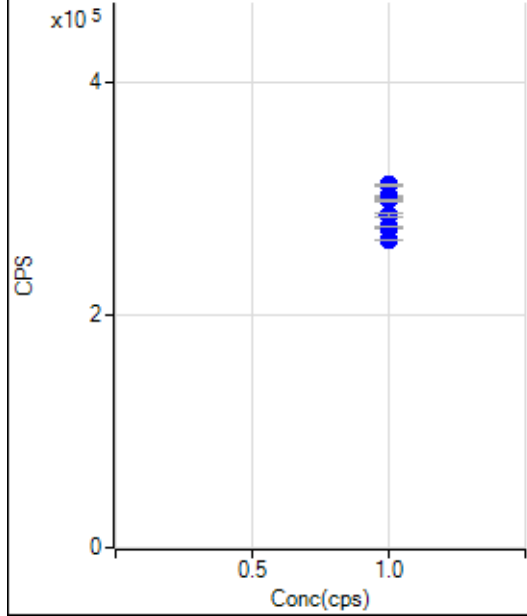
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6307523.97		A	0.4
2	☐	1.000					
3	☐	1.000		6329407.52		A	0.4
4	☐	1.000		6143773.10		A	0.7
5	☐	1.000		6143793.85		A	0.8
6	☐	1.000		6211619.28		A	0.7
7	☐	1.000		6383738.34		A	0.1
8	☐	1.000		6318620.89		A	0.7
9	☐	1.000		6017660.51		A	0.6

103 Rh (ISTD) [He]

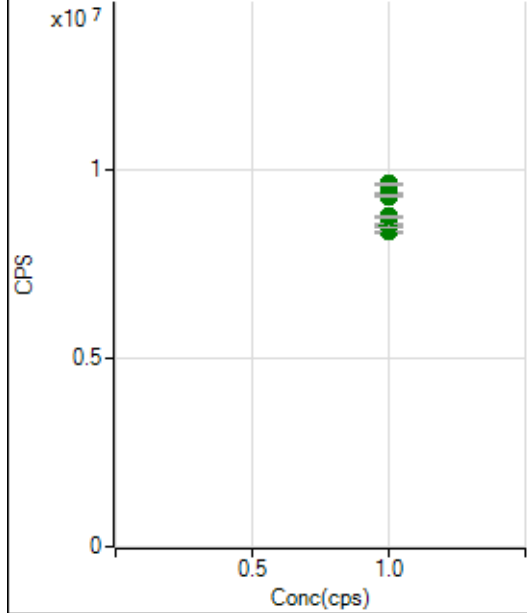
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1750683.32		A	1.0
2	☐	1.000					
3	☐	1.000		1748163.83		A	1.1
4	☐	1.000		1700636.48		A	0.1
5	☐	1.000		1699205.03		A	0.6
6	☐	1.000		1665685.62		A	0.4
7	☐	1.000		1641167.77		A	0.4
8	☐	1.000		1608228.28		A	0.8
9	☐	1.000		1582324.54		A	0.3

115 In (ISTD) [No Gas]

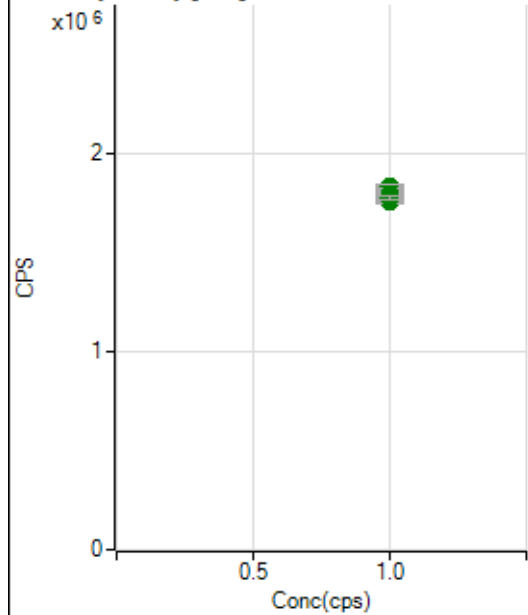
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6688530.65		A	0.6
2	☐	1.000					
3	☐	1.000		6716632.26		A	0.3
4	☐	1.000		6573390.56		A	1.4
5	☐	1.000		6615884.10		A	1.8
6	☐	1.000		6716379.15		A	0.7
7	☐	1.000		6869090.28		A	0.4
8	☐	1.000		6896796.86		A	0.9
9	☐	1.000		6714417.60		A	0.4

115 In (ISTD) [He]

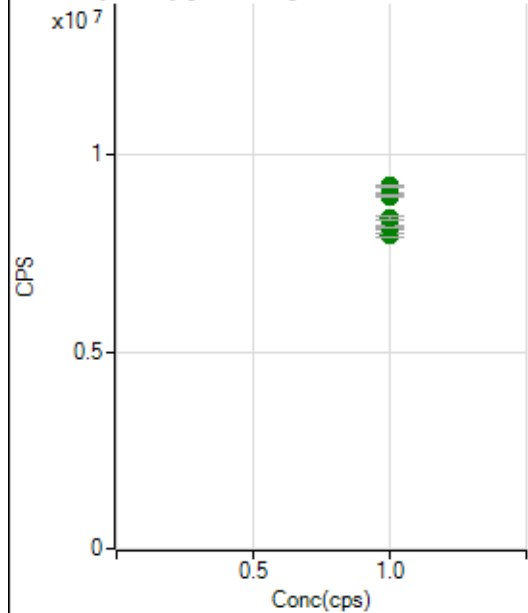
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		312167.24		P	0.8
2	☐	1.000					
3	☐	1.000		311893.08		P	0.6
4	☐	1.000		302077.42		P	0.3
5	☐	1.000		299135.03		P	0.5
6	☐	1.000		286620.50		P	1.1
7	☐	1.000		274672.76		P	0.6
8	☐	1.000		264629.82		P	0.3
9	☐	1.000		276550.81		P	0.2

159 Tb (ISTD) [No Gas]

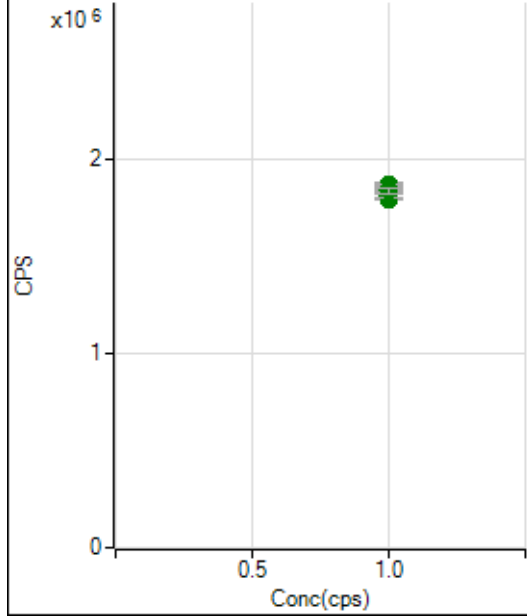
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8333345.15		A	1.0
2	☐	1.000					
3	☐	1.000		8526988.97		A	0.3
4	☐	1.000		8354439.25		A	0.2
5	☐	1.000		8526882.86		A	1.1
6	☐	1.000		8744110.57		A	0.5
7	☐	1.000		9354599.24		A	0.2
8	☐	1.000		9608858.19		A	0.6
9	☐	1.000		9282276.46		A	0.6

159 Tb (ISTD) [He]

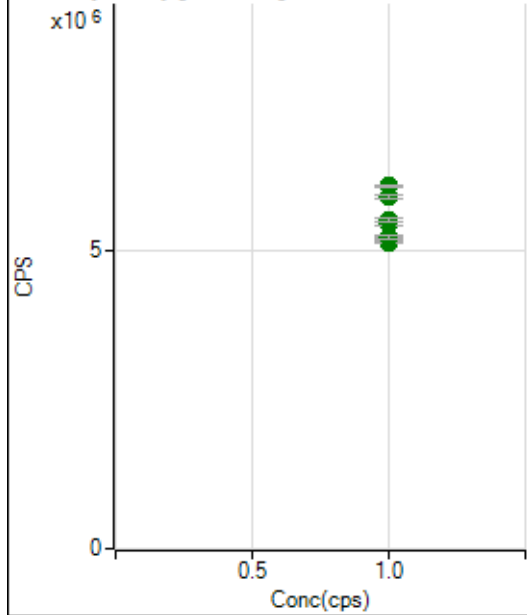
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1820806.95		A	1.2
2	☐	1.000					
3	☐	1.000		1829782.78		A	1.1
4	☐	1.000		1798523.83		A	0.5
5	☐	1.000		1781427.65		A	0.5
6	☐	1.000		1755124.92		A	1.0
7	☐	1.000		1754734.24		A	0.8
8	☐	1.000		1752804.26		A	0.3
9	☐	1.000		1772832.46		A	1.2

165 Ho (ISTD) [No Gas]

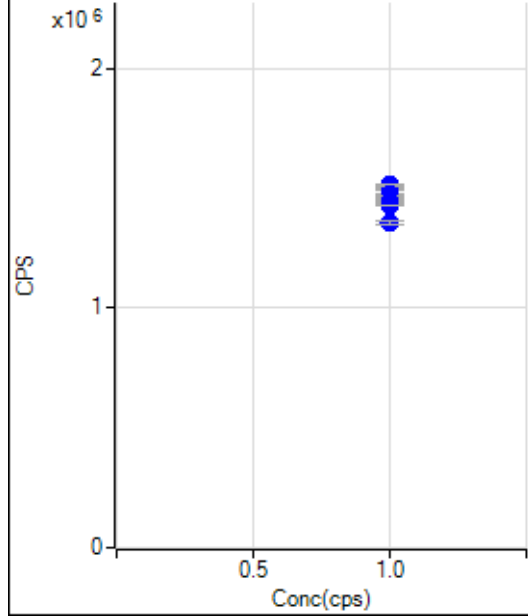
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8007327.61		A	0.4
2	☐	1.000					
3	☐	1.000		8103778.48		A	0.4
4	☐	1.000		7956467.71		A	0.9
5	☐	1.000		8165625.01		A	0.8
6	☐	1.000		8393978.75		A	0.8
7	☐	1.000		9013313.91		A	0.7
8	☐	1.000		9209284.41		A	0.9
9	☐	1.000		8948227.02		A	0.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1864316.12		A	1.2
2	☐	1.000					
3	☐	1.000		1866710.51		A	0.5
4	☐	1.000		1841436.59		A	0.3
5	☐	1.000		1825873.08		A	0.6
6	☐	1.000		1795092.47		A	0.2
7	☐	1.000		1800953.51		A	0.4
8	☐	1.000		1812110.17		A	1.1
9	☐	1.000		1835997.82		A	1.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5113705.03		A	0.5
2	☐	1.000					
3	☐	1.000		5181311.69		A	0.6
4	☐	1.000		5144064.54		A	0.6
5	☐	1.000		5224145.30		A	1.2
6	☐	1.000		5443439.78		A	0.9
7	☐	1.000		5886149.01		A	1.3
8	☐	1.000		6071994.91		A	0.7
9	☐	1.000		5514957.77		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1500913.10		P	0.4
2	☐	1.000					
3	☐	1.000		1515144.79		P	0.2
4	☐	1.000		1478021.61		P	0.3
5	☐	1.000		1468398.28		P	0.4
6	☐	1.000		1444630.27		P	0.8
7	☐	1.000		1441079.96		P	0.2
8	☐	1.000		1429812.84		P	0.2
9	☐	1.000		1356458.47		P	0.8

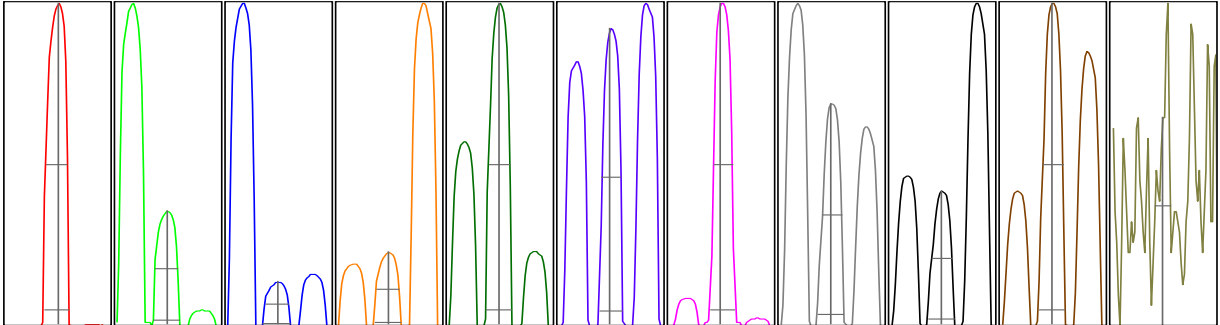
US EPA Tune Check Sample Report

Batch Folder D:\P8101017 MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]					
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)	
9	5172	1.44	5.00		
24	28355	0.68	5.00		
25	3980	0.68	5.00		
26	4583	1.14	5.00		
59	65912	1.93	5.00		
113	8762	0.70	5.00		
115	111214	1.50	5.00		
206	24234	2.32	5.00		
207	22068	2.16	5.00		
208	53055	1.70	5.00		
220	2	19.94			

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5209	5226	5059	5233	5135
24	28413	28559	28248	28478	28074
25	3985	4022	3977	3970	3948
26	4565	4651	4606	4509	4585
59	64532	67191	66679	64552	66607
113	8793	8677	8842	8764	8736
115	113111	109276	112417	111532	109732
206	24395	23952	24821	24596	23408
207	22089	21974	22586	22362	21329
208	53354	53188	53825	53411	51495
220	2	1	2	2	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	8492	9.05	8.9 - 9.1		0.741	0.900	
24	46175	24.00	23.9 - 24.1		0.743	0.900	
25	6281	25.00	24.9 - 25.1		0.788	0.900	
26	7389	26.00	25.9 - 26.1		0.785	0.900	
59	110471	59.00	58.9 - 59.1		0.741	0.900	
113	15957	113.00	112.9 - 113.1		0.690	0.900	
115	201903	115.00	114.9 - 115.1		0.733	0.900	
206	43485	206.00	205.9 - 206.1		0.771	0.900	
207	38866	207.00	206.9 - 207.1		0.779	0.900	
208	93445	208.00	207.9 - 208.1		0.777	0.900	
220	2	220.00	-				

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	14.0	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-100	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	8617	0.18	
89	1785	0.67	
205	12282	0.47	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	8604	8623	8633	8626	8596
89	1797	1786	1766	1783	1792
205	12357	12262	12299	12292	12200

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.7	V	Deflect	2.4	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-100	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	5.0	mL/min	OctP RF	200	V			