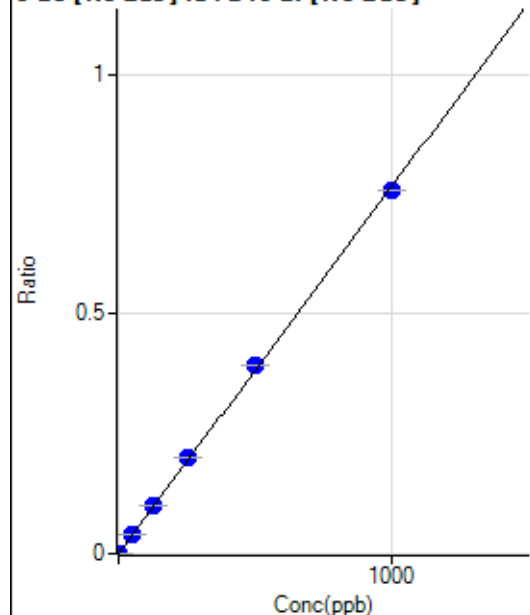


Batch Folder: D:\ICP-MS Data\P7051619-MS.b\
Analysis File: P7051619-MS.batch.bin
DA Date-Time: 2019-05-17 00:26:37
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-05-16 14:11:08
2			
3	005CALS.d	S02	2019-05-16 14:19:19
4	006CALS.d	S03	2019-05-16 14:23:15
5	007CALS.d	S04	2019-05-16 14:27:22
6	008CALS.d	S05	2019-05-16 14:31:16
7	009CALS.d	S06	2019-05-16 14:35:06
8	010CALS.d	S07	2019-05-16 14:38:54
9	011CALS.d	S08	2019-05-16 14:42:41

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	60.00	0.0000	P	5.6
2	☐	0.100					
3	☐	1.000	0.958	1829.03	0.0008	P	5.6
4	☐	50.000	53.474	97985.35	0.0409	P	1.1
5	☐	125.000	130.767	230696.24	0.1001	P	1.0
6	☐	250.000	262.835	434431.20	0.2011	P	0.6
7	☐	500.000	514.433	851346.09	0.3937	P	0.0
8	☐	1000.000	988.680	1608668.00	0.7565	P	0.2
9	☐			408.90	0.0002	P	15.7

$$y = 7.6517E-004 * x + 2.5427E-005$$

$$R = 0.9997$$

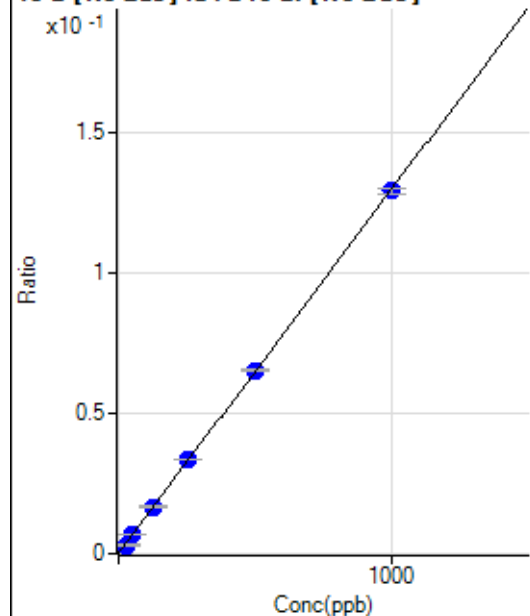
$$DL = 0.005574$$

$$BEC = 0.03323$$

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	277.79	0.0001	P	11.9
2	☐	2.500					
3	☐	25.000	22.792	7413.26	0.0031	P	3.1
4	☐	50.000	51.389	16234.35	0.0068	P	2.7
5	☐	125.000	128.008	38547.17	0.0167	P	1.4
6	☐	250.000	257.977	72535.16	0.0336	P	0.9
7	☐	500.000	503.373	141478.48	0.0654	P	1.6
8	☐	1000.000	995.929	274968.96	0.1293	P	1.4
9	☐			9745.19	0.0047	P	7.7

$$y = 1.2972E-004 * x + 1.1770E-004$$

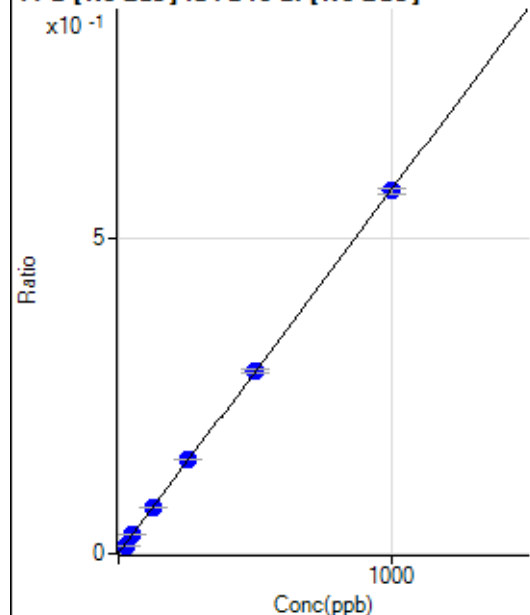
$$R = 0.9999$$

$$DL = 0.3252$$

$$BEC = 0.9073$$

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	1286.22	0.0005	P	11.9
2	☐	2.500					
3	☐	25.000	22.386	32513.57	0.0135	P	2.1
4	☐	50.000	51.475	72504.99	0.0303	P	0.9
5	☐	125.000	125.167	167998.68	0.0729	P	1.2
6	☐	250.000	257.764	322944.52	0.1495	P	1.2
7	☐	500.000	501.602	628205.08	0.2904	P	2.4
8	☐	1000.000	997.229	1226675.74	0.5769	P	1.9
9	☐			42867.54	0.0207	P	8.4

$$y = 5.7796\text{E-}004 * x + 5.4503\text{E-}004$$

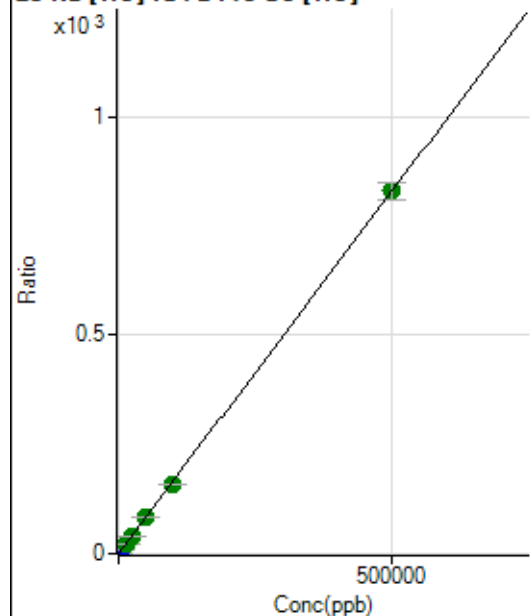
$$R = 1.0000$$

$$DL = 0.3378$$

$$BEC = 0.943$$

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	3792.31	0.0160	P	5.5
2	☐	50.000					
3	☐	500.000	431.457	178595.83	0.7310	P	0.8
4	☐	5000.000	4937.314	1940405.01	8.1985	P	0.5
5	☐	12500.000	12334.485	4526905.57	20.4576	A	0.4
6	☐	25000.000	24745.109	8871398.38	41.0254	A	0.7
7	☐	50000.000	49265.327	17587968.97	81.6620	A	0.4
8	☐	100000.00	95175.568	33760944.50	157.7478	A	0.6
9	☐	500000.00	501055.93	173571821.9	830.4021	A	4.9

$$y = 0.0017 * x + 0.0160$$

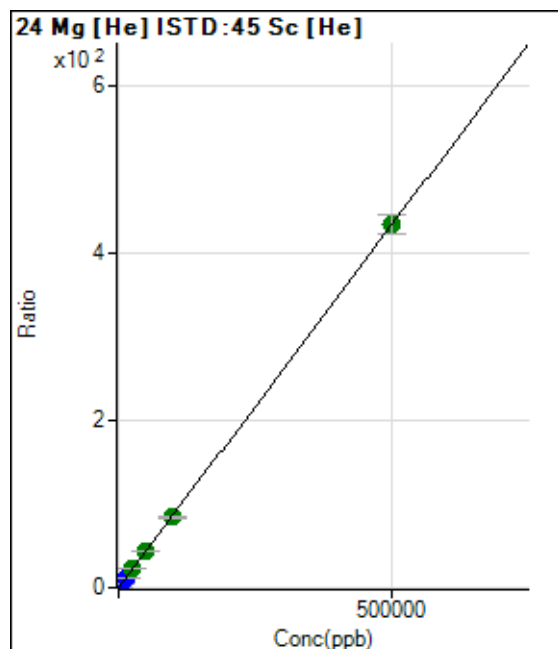
$$R = 0.9999$$

$$DL = 1.581$$

$$BEC = 9.642$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138.90	0.0006	P	23.1
2	☐	50.000					
3	☐	500.000	460.622	97569.37	0.3994	P	1.4
4	☐	5000.000	5081.294	1041319.50	4.3996	P	1.0
5	☐	12500.000	12703.315	2433742.74	10.9983	P	0.1
6	☐	25000.000	25373.699	4750278.71	21.9675	A	0.7
7	☐	50000.000	50090.265	9339782.67	43.3655	A	0.3
8	☐	100000.00	96894.436	17952843.81	83.8855	A	0.8
9	☐	500000.00	500587.54	90572839.52	433.3765	A	5.3

$$y = 8.6573E-004 * x + 5.8568E-004$$

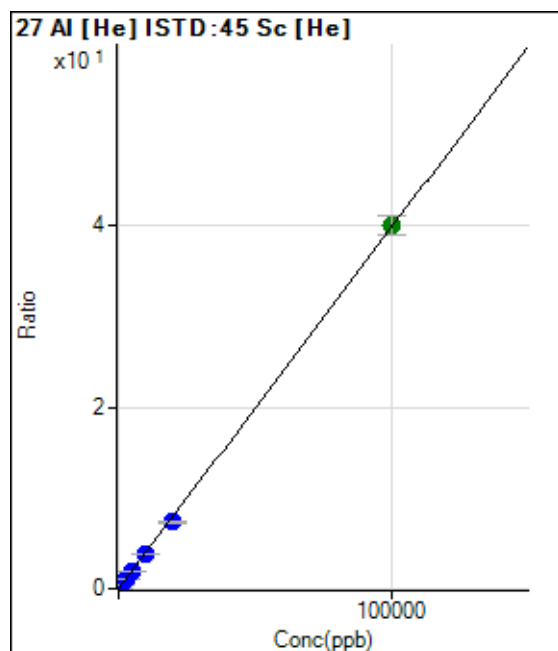
$$R = 1.0000$$

$$DL = 0.4693$$

$$BEC = 0.6765$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0001	P	33.6
2	☐	2.000					
3	☐	20.000	16.416	1622.37	0.0066	P	11.7
4	☐	1000.000	970.480	91429.38	0.3863	P	0.7
5	☐	2500.000	2433.432	214304.71	0.9684	P	0.9
6	☐	5000.000	4779.925	411335.40	1.9022	P	0.9
7	☐	10000.000	9410.932	806575.12	3.7450	P	0.7
8	☐	20000.000	18396.719	1566741.08	7.3208	P	1.2
9	☐	100000.00	100392.52	8348632.65	39.9496	A	5.4

$$y = 3.9793E-004 * x + 1.0544E-004$$

$$R = 0.9999$$

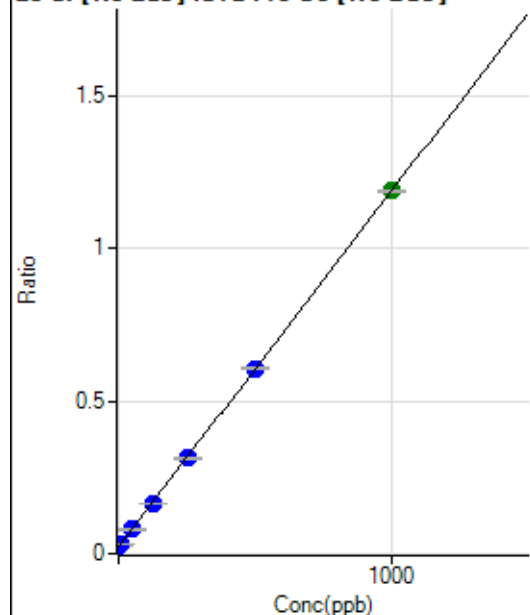
$$DL = 0.2668$$

$$BEC = 0.265$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	109017.67	0.0226	P	0.7
2	☐	1.000					
3	☐	10.000	6.894	154046.67	0.0307	P	0.7
4	☐	50.000	48.543	392949.62	0.0792	P	1.4
5	☐	125.000	120.109	768907.65	0.1625	P	1.9
6	☐	250.000	248.382	1371307.48	0.3120	P	1.2
7	☐	500.000	501.627	2674380.81	0.6070	P	1.3
8	☐	1000.000	1000.307	5154104.50	1.1879	A	0.8
9	☐			287500.43	0.0676	P	0.5

$$y = 0.0012 * x + 0.0226$$

$$R = 1.0000$$

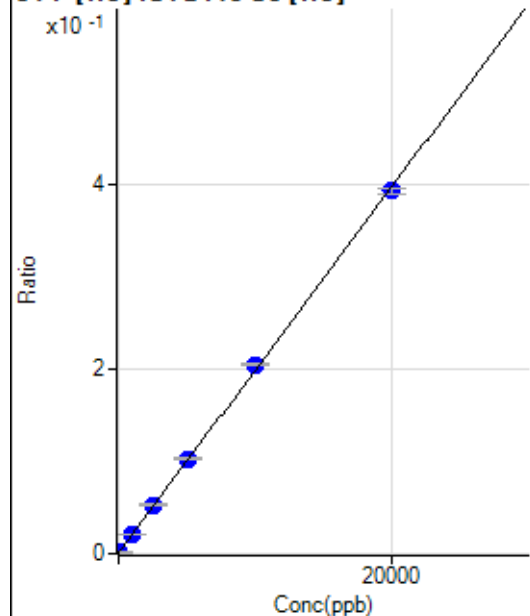
$$DL = 0.4046$$

$$BEC = 19.42$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-17.191	94.45	0.0004	P	71.4
2	☐	0.000					
3	☐	0.000	17.191	263.90	0.0011	P	17.1
4	☐	1000.000	1016.295	4945.47	0.0209	P	2.4
5	☐	2500.000	2631.082	11710.60	0.0529	P	1.8
6	☐	5000.000	5147.495	22236.76	0.1028	P	0.9
7	☐	10000.000	10289.649	44113.45	0.2048	P	1.0
8	☐	20000.000	19801.102	84206.48	0.3935	P	1.4
9	☐			125.01	0.0006	P	1.9

$$y = 1.9834E-005 * x + 7.3882E-004$$

$$R = 0.9998$$

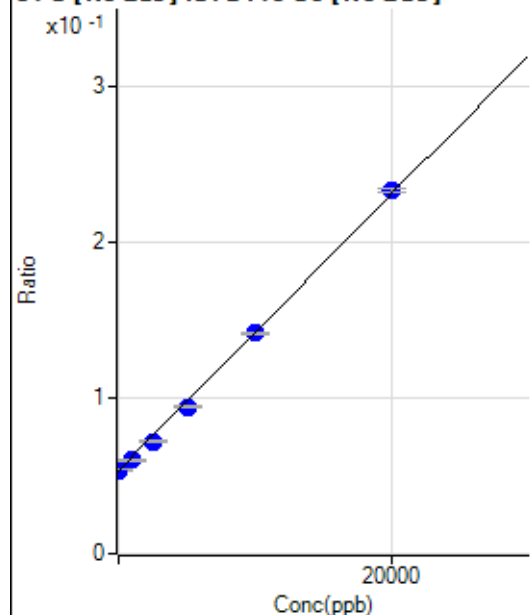
$$DL = 35.49$$

$$BEC = 37.25$$

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	-32.452	255871.93	0.0531	P	0.5
2	☐	0.000					
3	☐	0.000	32.452	269733.17	0.0537	P	0.2
4	☐	1000.000	733.141	297204.14	0.0599	P	2.9
5	☐	2500.000	2081.762	339914.42	0.0719	P	1.2
6	☐	5000.000	4574.259	412952.44	0.0939	P	0.8
7	☐	10000.000	9925.959	622935.51	0.1414	P	0.7
8	☐	20000.000	20209.078	1008920.75	0.2325	P	1.0
9	☐			214502.63	0.0505	P	1.6

$$y = 8.8649\text{E-}006 * x + 0.0534$$

$$R = 0.9996$$

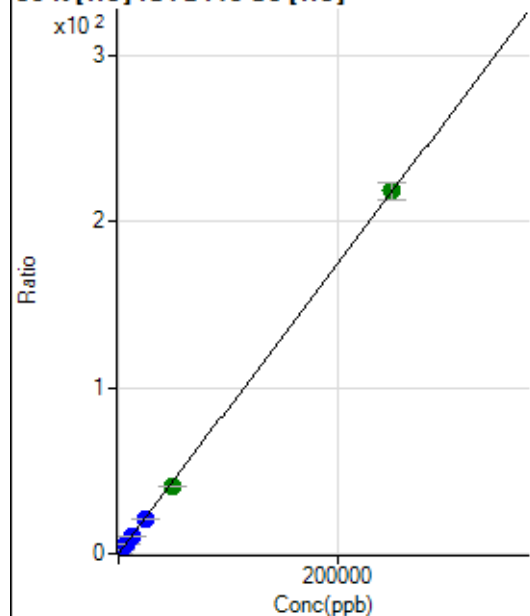
$$DL = 65.18$$

$$BEC = 6023$$

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	12705.92	0.0535	P	2.2
2	☐	50.000					
3	☐	500.000	428.425	104200.02	0.4265	P	0.1
4	☐	2500.000	2412.047	509620.29	2.1532	P	1.1
5	☐	6250.000	5989.685	1165621.17	5.2676	P	0.5
6	☐	12500.000	11883.881	2248599.83	10.3985	P	0.7
7	☐	25000.000	23747.109	4463721.15	20.7256	P	0.5
8	☐	50000.000	46290.439	8635532.31	40.3497	A	0.8
9	☐	250000.00	250905.53	45661946.85	218.4686	A	5.1

$$y = 8.7051\text{E-}004 * x + 0.0535$$

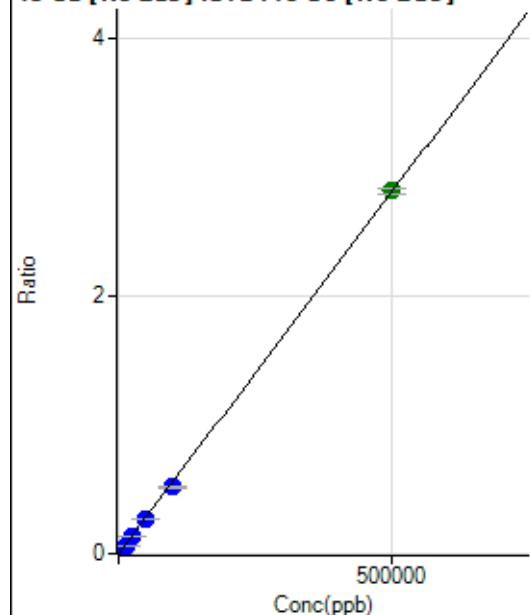
$$R = 0.9999$$

$$DL = 4.15$$

$$BEC = 61.51$$

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	105.56	0.0000	P	4.7
2	☐	50.000					
3	☐	500.000	399.502	11374.18	0.0023	P	3.6
4	☐	5000.000	4743.513	132189.16	0.0266	P	3.0
5	☐	12500.000	11527.313	306139.13	0.0647	P	0.4
6	☐	25000.000	23570.688	581458.13	0.1323	P	1.2
7	☐	50000.000	46799.736	1157130.56	0.2626	P	0.8
8	☐	100000.00	91911.078	2237724.88	0.5158	P	0.3
9	☐	500000.00	502036.25	11976821.88	2.8171	A	1.3

$$y = 5.6113E-006 * x + 2.1912E-005$$

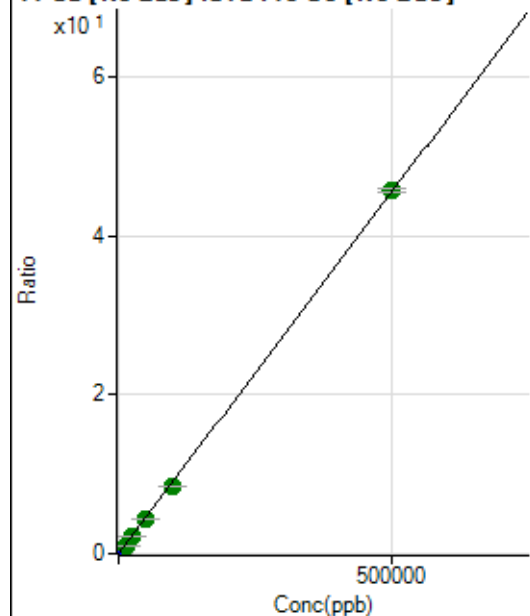
$$R = 0.9999$$

$$DL = 0.5553$$

$$BEC = 3.905$$

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	5195.69	0.0011	P	3.2
2	☐	50.000					
3	☐	500.000	409.420	192576.83	0.0383	P	0.6
4	☐	5000.000	4763.809	2156161.64	0.4345	P	2.2
5	☐	12500.000	11717.249	5048016.48	1.0671	A	1.8
6	☐	25000.000	23776.928	9513594.74	2.1644	A	1.1
7	☐	50000.000	47147.912	18904409.45	4.2907	A	0.5
8	☐	100000.00	92600.986	36558407.07	8.4262	A	0.5
9	☐	500000.00	501848.18	194124979.3	45.6606	A	1.2

$$y = 9.0983E-005 * x + 0.0011$$

$$R = 0.9999$$

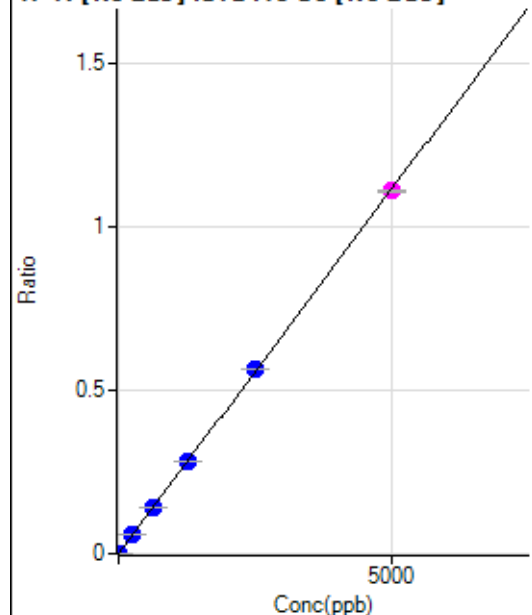
$$DL = 1.136$$

$$BEC = 11.85$$

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	61.11	0.0000	P	20.6
2	☐	0.500					
3	☐	5.000	4.617	5240.05	0.0010	P	5.2
4	☐	250.000	253.888	281166.37	0.0567	P	1.9
5	☐	625.000	626.091	660869.06	0.1397	P	1.5
6	☐	1250.000	1270.582	1246126.12	0.2835	P	0.9
7	☐	2500.000	2530.719	2487783.80	0.5646	P	0.3
8	☐	5000.000	4979.165	4819939.30	1.1109	M	0.4
9	☐			2411.41	0.0006	P	6.9

$$y = 2.2311\text{E-}004 * x + 1.2682\text{E-}005$$

$$R = 1.0000$$

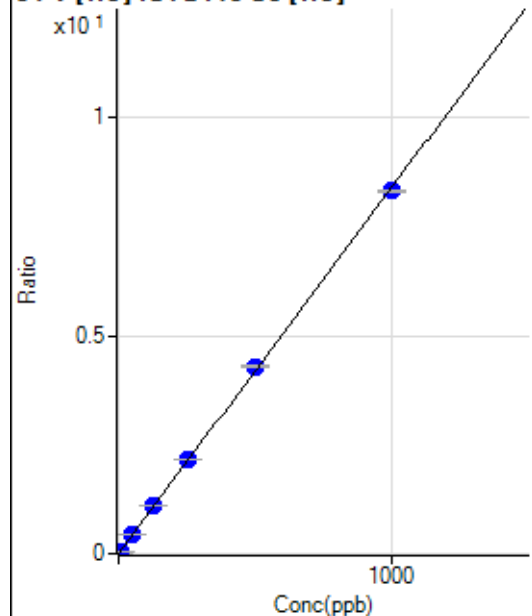
$$DL = 0.0352$$

$$BEC = 0.05684$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.67	0.0000	P	99.9
2	☐	0.500					
3	☐	5.000	4.948	10153.65	0.0416	P	1.0
4	☐	50.000	51.935	103187.41	0.4360	P	1.1
5	☐	125.000	129.518	240579.57	1.0872	P	0.5
6	☐	250.000	257.694	467760.44	2.1631	P	0.3
7	☐	500.000	511.767	925212.03	4.2958	P	0.3
8	☐	1000.000	991.532	1781287.44	8.3230	P	0.5
9	☐			406.68	0.0019	P	6.4

$$y = 0.0084 * x + 2.8160\text{E-}005$$

$$R = 0.9999$$

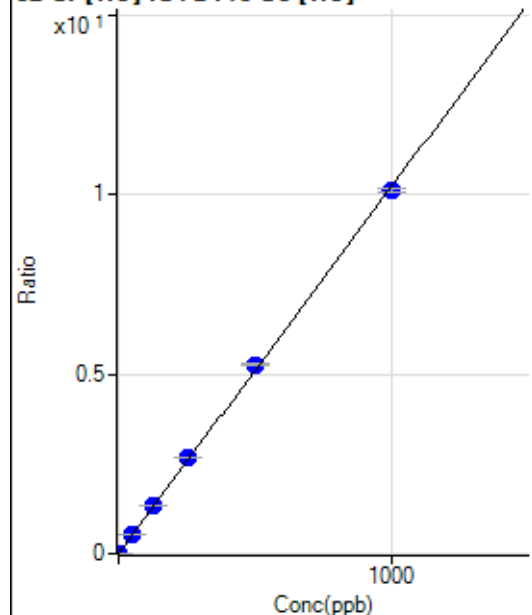
$$DL = 0.01005$$

$$BEC = 0.003355$$

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	594.47	0.0025	P	9.6
2	☐	0.200					
3	☐	2.000	1.784	5067.61	0.0207	P	0.5
4	☐	50.000	52.824	128426.59	0.5426	P	0.5
5	☐	125.000	130.446	295695.77	1.3363	P	0.2
6	☐	250.000	261.528	578782.56	2.6766	P	0.8
7	☐	500.000	515.451	1135633.69	5.2728	P	0.4
8	☐	1000.000	988.571	2163773.72	10.1104	P	1.0
9	☐			13721.02	0.0656	P	5.2

$$y = 0.0102 * x + 0.0025$$

$$R = 0.9997$$

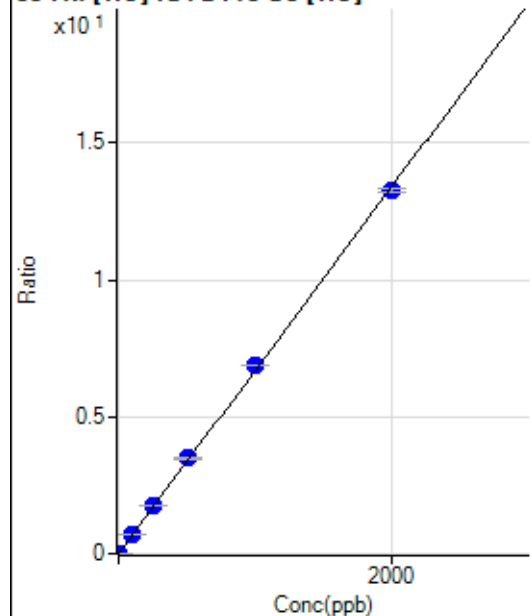
$$DL = 0.07067$$

$$BEC = 0.245$$

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	30.00	0.0001	P	50.6
2	☐	0.100					
3	☐	1.000	0.960	1601.23	0.0066	P	10.5
4	☐	100.000	104.364	165331.39	0.6985	P	0.7
5	☐	250.000	261.350	387050.59	1.7491	P	1.2
6	☐	500.000	520.965	753926.70	3.4865	P	0.8
7	☐	1000.000	1027.898	1481559.72	6.8790	P	0.6
8	☐	2000.000	1979.173	2834640.24	13.2451	P	1.0
9	☐			11513.58	0.0551	P	4.4

$$y = 0.0067 * x + 1.2631E-004$$

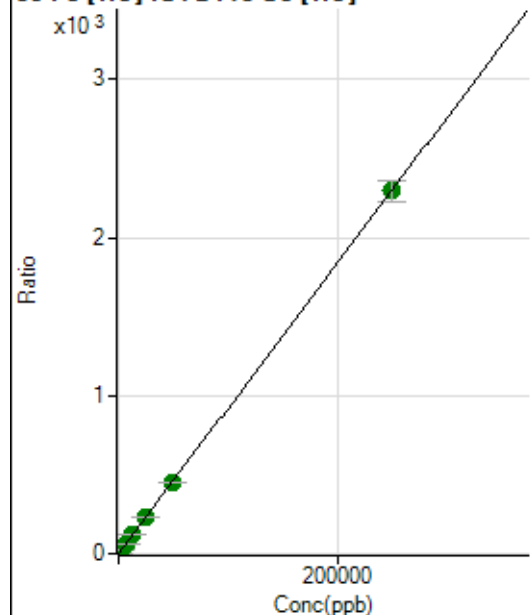
$$R = 0.9998$$

$$DL = 0.02867$$

$$BEC = 0.01887$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2817.02	0.0119	P	3.2
2	☐	5.000					
3	☐	50.000	48.613	111873.17	0.4579	P	0.8
4	☐	2500.000	2599.869	5648837.86	23.8666	A	1.7
5	☐	6250.000	6541.356	13284021.02	60.0312	A	0.9
6	☐	12500.000	13023.325	25842153.13	119.5057	A	0.5
7	☐	25000.000	25651.517	50693543.26	235.3740	A	0.2
8	☐	50000.000	49325.239	96861777.16	452.5892	A	0.8
9	☐	250000.00	250035.35	479419444.0	2,294.178	A	5.5

$$y = 0.0092 * x + 0.0119$$

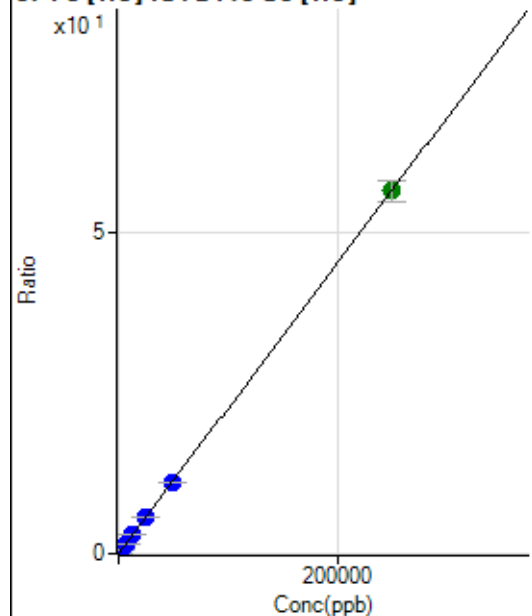
$$R = 1.0000$$

$$DL = 0.1255$$

$$BEC = 1.294$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	112.97	0.0005	P	5.3
2	☐	5.000					
3	☐	50.000	49.383	2841.10	0.0116	P	3.8
4	☐	2500.000	2611.896	139730.38	0.5904	P	1.4
5	☐	6250.000	6519.883	325949.41	1.4730	P	0.2
6	☐	12500.000	12928.045	631487.81	2.9203	P	0.4
7	☐	25000.000	25572.748	1244010.98	5.7761	P	0.8
8	☐	50000.000	49166.623	2376616.78	11.1047	P	0.6
9	☐	250000.00	250080.13	11801610.68	56.4810	A	5.8

$$y = 2.2585E-004 * x + 4.7601E-004$$

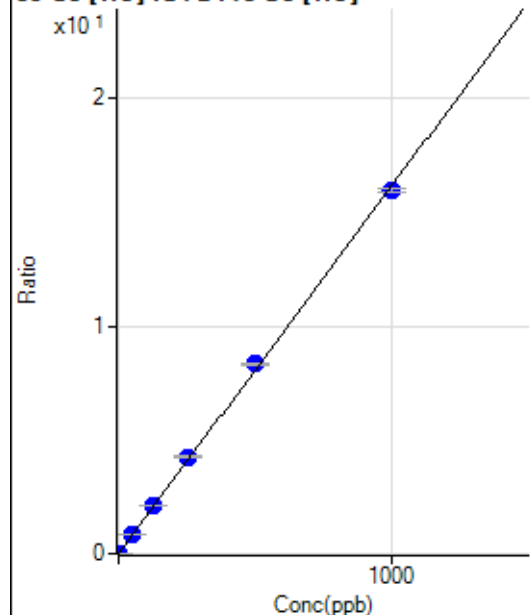
$$R = 1.0000$$

$$DL = 0.3351$$

$$BEC = 2.108$$

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	38.89	0.0002	P	26.5
2	☐	0.100					
3	☐	1.000	0.946	3768.33	0.0154	P	2.1
4	☐	50.000	53.793	205431.79	0.8680	P	1.2
5	☐	125.000	132.498	473022.40	2.1376	P	0.2
6	☐	250.000	263.379	918809.50	4.2490	P	0.8
7	☐	500.000	516.451	1794400.64	8.3316	P	0.4
8	☐	1000.000	987.303	3408685.37	15.9274	P	1.1
9	☐			39926.64	0.1912	P	7.3

$$y = 0.0161 * x + 1.6397E-004$$

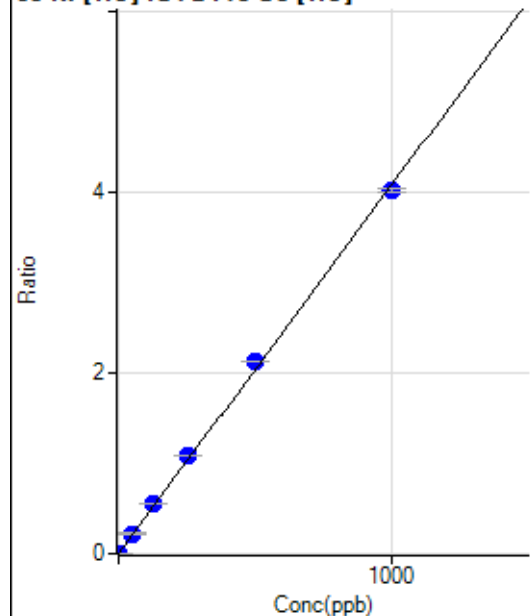
$$R = 0.9997$$

$$DL = 0.008088$$

$$BEC = 0.01016$$

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	42.22	0.0002	P	18.7
2	☐	0.100					
3	☐	1.000	1.016	1056.73	0.0043	P	2.7
4	☐	50.000	54.640	52829.44	0.2232	P	2.0
5	☐	125.000	134.730	121735.42	0.5501	P	0.1
6	☐	250.000	264.664	233651.85	1.0805	P	0.6
7	☐	500.000	520.556	457677.18	2.1250	P	0.1
8	☐	1000.000	984.608	860176.41	4.0192	P	1.0
9	☐			10043.59	0.0481	P	5.2

$$y = 0.0041 * x + 1.7805E-004$$

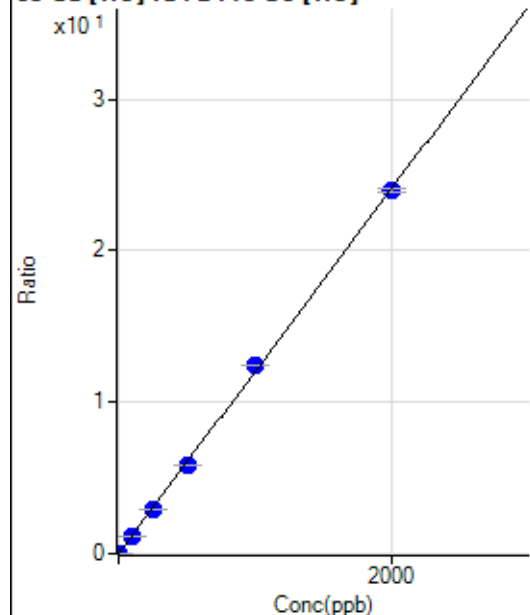
$$R = 0.9995$$

$$DL = 0.02444$$

$$BEC = 0.04362$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	456.68	0.0019	P	2.7
2	☐	0.200					
3	☐	2.000	1.743	5594.49	0.0229	P	2.1
4	☐	100.000	99.005	282399.53	1.1932	P	1.3
5	☐	250.000	244.243	650737.71	2.9407	P	0.5
6	☐	500.000	482.291	1255274.79	5.8050	P	0.6
7	☐	1000.000	1031.735	2674084.91	12.4160	P	0.2
8	☐	2000.000	1989.330	5123073.92	23.9380	P	1.1
9	☐			6357.04	0.0304	P	6.9

$$y = 0.0120 * x + 0.0019$$

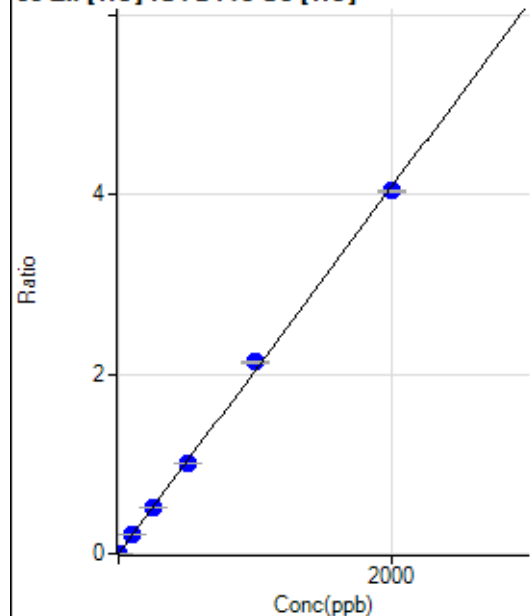
$$R = 0.9998$$

$$DL = 0.01299$$

$$BEC = 0.1599$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.78	0.0005	P	26.3
2	☐	0.200					
3	☐	2.000	1.818	1037.83	0.0042	P	9.2
4	☐	100.000	100.359	48600.72	0.2053	P	0.7
5	☐	250.000	250.029	113025.59	0.5108	P	0.5
6	☐	500.000	492.261	217343.99	1.0051	P	0.1
7	☐	1000.000	1045.501	459629.37	2.1341	P	0.4
8	☐	2000.000	1979.163	864498.68	4.0394	P	0.8
9	☐			8364.74	0.0401	P	8.2

$$y = 0.0020 * x + 5.3865E-004$$

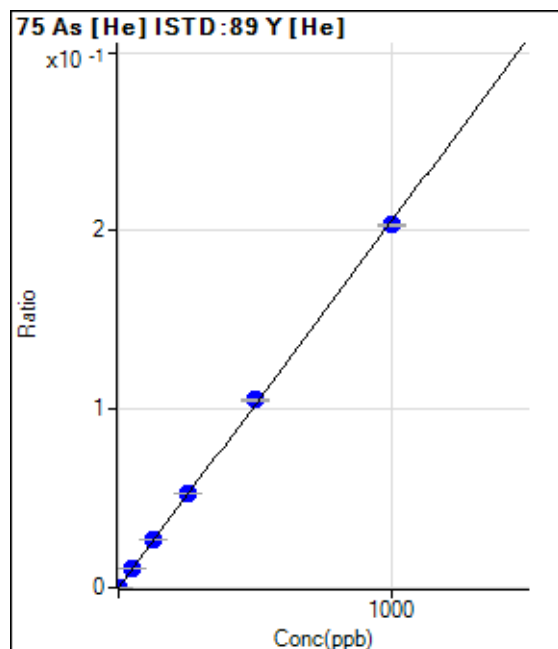
$$R = 0.9996$$

$$DL = 0.2086$$

$$BEC = 0.264$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.70	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	0.891	256.79	0.0002	P	18.1
4	☐	50.000	52.352	14538.83	0.0108	P	1.2
5	☐	125.000	131.243	34354.72	0.0270	P	0.5
6	☐	250.000	259.182	66408.01	0.0532	P	0.2
7	☐	500.000	512.678	130887.96	0.1053	P	0.7
8	☐	1000.000	990.467	247953.36	0.2034	P	0.5
9	☐			345.07	0.0003	P	10.7

$$y = 2.0535E-004 * x + 2.7425E-006$$

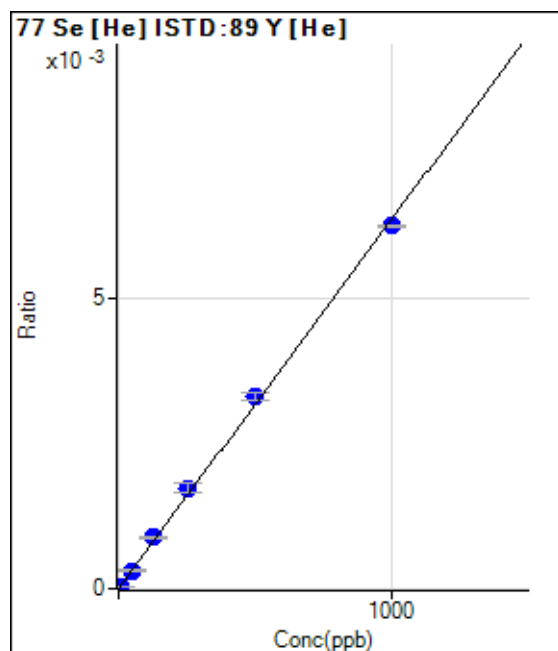
$$R = 0.9998$$

$$DL = 0.03471$$

$$BEC = 0.01335$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	4.691	41.11	0.0000	P	20.3
4	☐	50.000	49.023	420.01	0.0003	P	11.5
5	☐	125.000	139.817	1128.95	0.0009	P	3.9
6	☐	250.000	271.440	2145.75	0.0017	P	9.5
7	☐	500.000	519.481	4091.76	0.0033	P	4.3
8	☐	1000.000	983.098	7593.21	0.0062	P	0.5
9	☐			0.00	0.0000	P	

$$y = 6.3359E-006 * x + 0.0000E+000$$

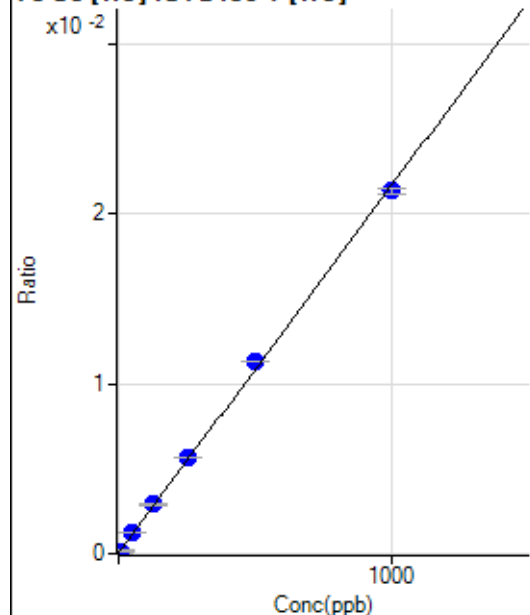
$$R = 0.9994$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.36	0.0000	P	22.2
2	☐	0.500					
3	☐	5.000	6.196	227.78	0.0002	P	9.2
4	☐	50.000	55.579	1667.39	0.0012	P	4.3
5	☐	125.000	132.499	3693.72	0.0029	P	1.2
6	☐	250.000	259.065	7032.62	0.0056	P	1.2
7	☐	500.000	521.892	14078.53	0.0113	P	0.7
8	☐	1000.000	985.565	26036.97	0.0214	P	1.7
9	☐			54.94	0.0000	P	25.1

$$y = 2.1640\text{E-}005 * x + 3.0640\text{E-}005$$

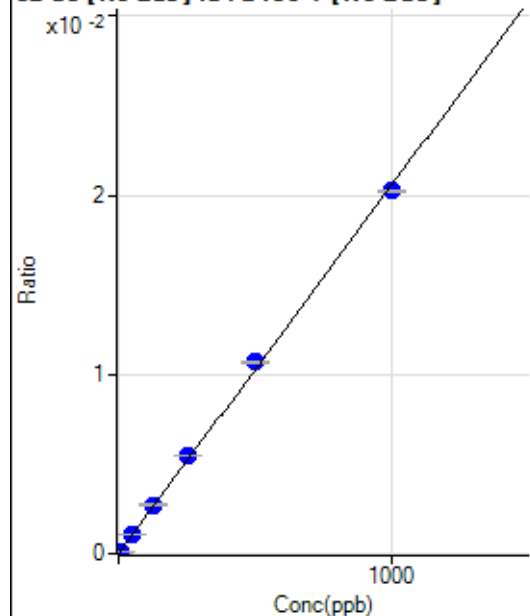
$$R = 0.9996$$

$$DL = 0.9418$$

$$BEC = 1.416$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	104.77	0.0000	P	46.3
2	☐	0.500					
3	☐	5.000	5.154	1001.66	0.0001	P	4.8
4	☐	50.000	53.059	9294.82	0.0011	P	2.7
5	☐	125.000	132.144	22163.95	0.0027	P	1.9
6	☐	250.000	265.994	41965.02	0.0055	P	1.7
7	☐	500.000	519.647	82157.97	0.0107	P	1.0
8	☐	1000.000	985.131	154128.98	0.0202	P	0.7
9	☐			93.54	0.0000	P	32.2

$$y = 2.0528\text{E-}005 * x + 1.2743\text{E-}005$$

$$R = 0.9996$$

$$DL = 0.8619$$

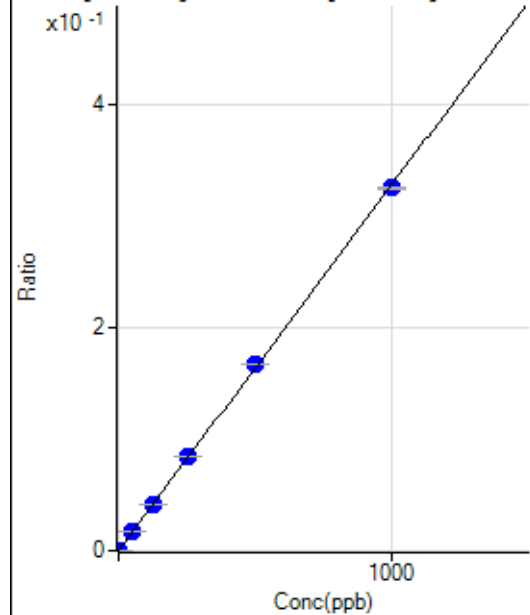
$$BEC = 0.6207$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			302.23		P	12.1
2	☐						
3	☐			325.57		P	6.6
4	☐			302.23		P	14.0
5	☐			311.12		P	15.5
6	☐			288.90		P	11.8
7	☐			290.01		P	13.0
8	☐			268.90		P	13.8
9	☐			345.57		P	6.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	480.58	0.0001	P	22.2
2	☐	0.100					
3	☐	1.000	0.928	3061.58	0.0004	P	2.5
4	☐	50.000	50.767	140724.81	0.0167	P	2.9
5	☐	125.000	125.963	335933.65	0.0413	P	0.9
6	☐	250.000	257.453	646957.44	0.0844	P	0.4
7	☐	500.000	511.306	1288529.47	0.1675	P	0.4
8	☐	1000.000	992.325	2475739.12	0.3250	P	0.2
9	☐			11410.57	0.0016	P	1.1

$$y = 3.2749E-004 * x + 5.8457E-005$$

$$R = 0.9999$$

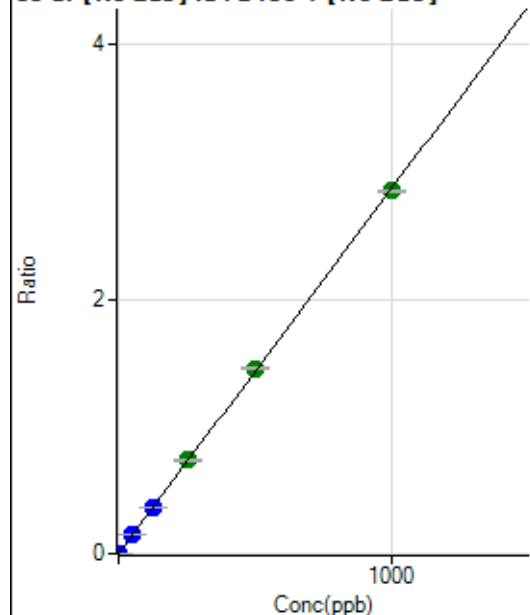
$$DL = 0.1191$$

$$BEC = 0.1785$$

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	66.67	0.0000	P	12.5
2	☐	0.100					
3	☐	1.000	0.894	21736.64	0.0026	P	1.0
4	☐	50.000	51.189	1239353.33	0.1469	P	1.9
5	☐	125.000	127.169	2967644.25	0.3650	P	1.7
6	☐	250.000	256.001	5633654.47	0.7347	A	0.8
7	☐	500.000	508.085	11217067.18	1.4582	A	0.2
8	☐	1000.000	994.127	21731489.03	2.8531	A	0.4
9	☐			95226.52	0.0132	P	0.9

$$y = 0.0029 * x + 8.1062E-006$$

$$R = 0.9999$$

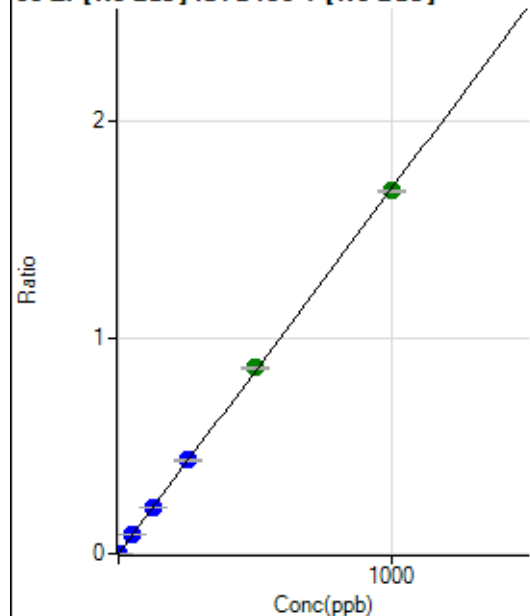
$$DL = 0.001058$$

$$BEC = 0.002825$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	636.16	0.0001	P	0.3
2	☐	0.100					
3	☐	1.000	0.859	12917.45	0.0015	P	0.6
4	☐	50.000	50.503	720805.37	0.0854	P	1.7
5	☐	125.000	125.577	1726607.37	0.2123	P	1.7
6	☐	250.000	256.006	3318680.28	0.4328	P	1.3
7	☐	500.000	508.668	6614739.86	0.8599	A	0.3
8	☐	1000.000	994.067	12799128.93	1.6804	A	0.5
9	☐			4311.95	0.0006	P	2.7

$$y = 0.0017 * x + 7.7347E-005$$

$$R = 0.9999$$

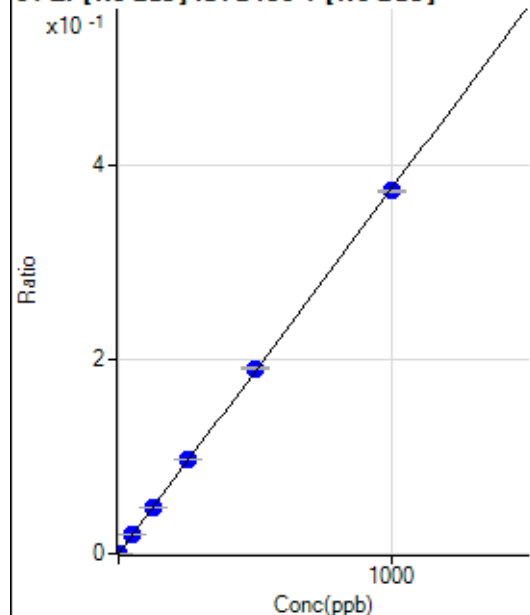
$$DL = 0.0003597$$

$$BEC = 0.04576$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	152.79	0.0000	P	13.8
2	☐	0.100					
3	☐	1.000	0.901	3011.57	0.0004	P	2.9
4	☐	50.000	50.723	160631.21	0.0190	P	2.6
5	☐	125.000	126.055	384536.32	0.0473	P	2.3
6	☐	250.000	257.711	741260.49	0.0967	P	1.4
7	☐	500.000	507.421	1464078.16	0.1903	P	0.6
8	☐	1000.000	994.194	2840292.84	0.3729	P	0.2
9	☐			1025.08	0.0001	P	6.1

$$y = 3.7505E-004 * x + 1.8577E-005$$

$$R = 0.9999$$

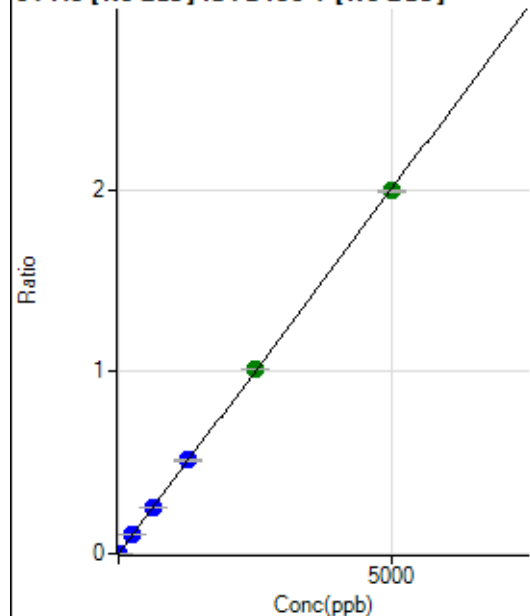
$$DL = 0.02046$$

$$BEC = 0.04953$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	286.12	0.0000	P	9.6
2	☐	0.500					
3	☐	5.000	4.672	16095.80	0.0019	P	3.2
4	☐	250.000	253.525	856405.56	0.1015	P	2.4
5	☐	625.000	628.080	2044762.74	0.2515	P	1.5
6	☐	1250.000	1282.422	3936693.75	0.5134	P	1.0
7	☐	2500.000	2534.462	7804942.36	1.0146	A	0.4
8	☐	5000.000	4974.102	15166897.56	1.9913	A	0.4
9	☐			9489.63	0.0013	P	7.3

$$y = 4.0032E-004 * x + 3.4794E-005$$

$$R = 0.9999$$

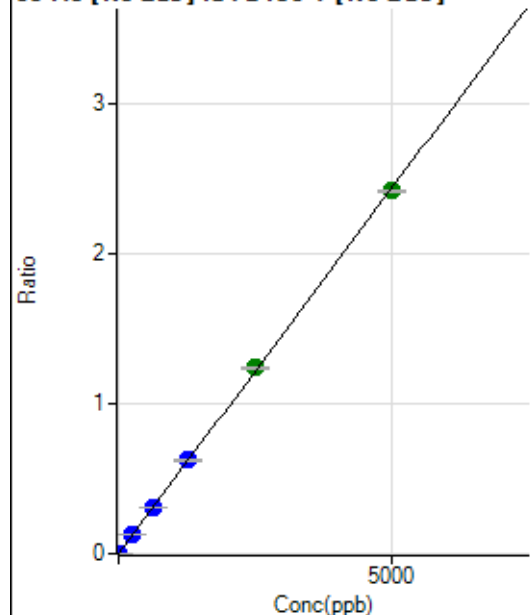
$$DL = 0.02512$$

$$BEC = 0.08692$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	50.00	0.0000	P	0.5
2	☐	0.500					
3	☐	5.000	4.661	19185.85	0.0023	P	1.3
4	☐	250.000	253.612	1039613.47	0.1232	P	2.3
5	☐	625.000	629.461	2487004.81	0.3059	P	2.1
6	☐	1250.000	1282.367	4778244.60	0.6232	P	0.8
7	☐	2500.000	2544.710	9512279.20	1.2366	A	0.3
8	☐	5000.000	4968.815	18390905.97	2.4145	A	0.4
9	☐			13787.81	0.0019	P	5.3

$$y = 4.8594E-004 * x + 6.0794E-006$$

$$R = 0.9999$$

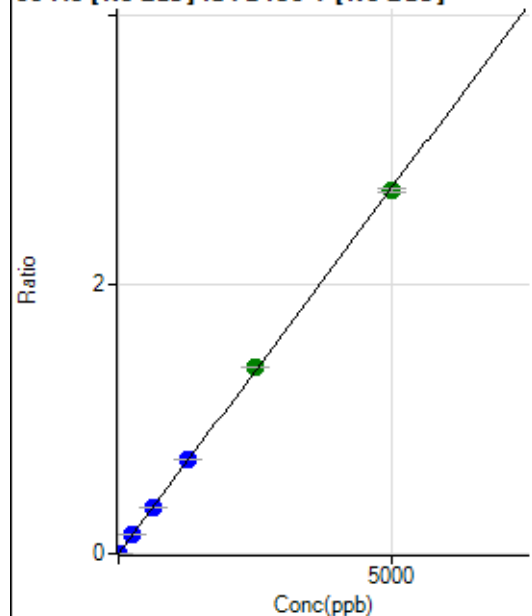
$$DL = 0.0001891$$

$$BEC = 0.01251$$

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	119.45	0.0000	P	32.1
2	☐	0.500					
3	☐	5.000	4.680	21578.16	0.0026	P	1.7
4	☐	250.000	254.871	1166890.36	0.1383	P	2.4
5	☐	625.000	629.509	2778260.96	0.3417	P	1.3
6	☐	1250.000	1288.251	5360925.94	0.6992	P	1.1
7	☐	2500.000	2553.832	10661578.89	1.3860	A	0.8
8	☐	5000.000	4962.714	20514055.67	2.6933	A	0.9
9	☐			19071.83	0.0027	P	1.2

$$y = 5.4271E-004 * x + 1.4518E-005$$

$$R = 0.9999$$

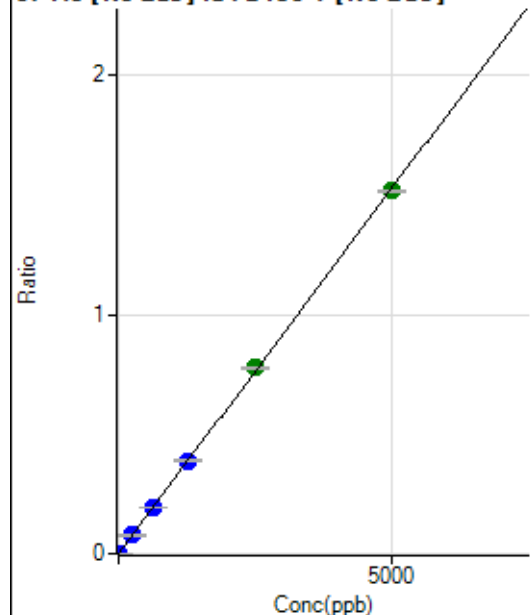
$$DL = 0.02575$$

$$BEC = 0.02675$$

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	38.89	0.0000	P	65.8
2	☐	0.500					
3	☐	5.000	4.590	11883.18	0.0014	P	1.8
4	☐	250.000	252.083	649399.88	0.0770	P	2.3
5	☐	625.000	625.837	1554001.77	0.1911	P	1.9
6	☐	1250.000	1277.340	2991009.55	0.3901	P	1.2
7	☐	2500.000	2543.530	5975055.65	0.7768	A	0.5
8	☐	5000.000	4971.191	11563195.22	1.5181	A	0.2
9	☐			8461.20	0.0012	P	3.3

$$y = 3.0538\text{E-}004 * x + 4.7372\text{E-}006$$

$$R = 0.9999$$

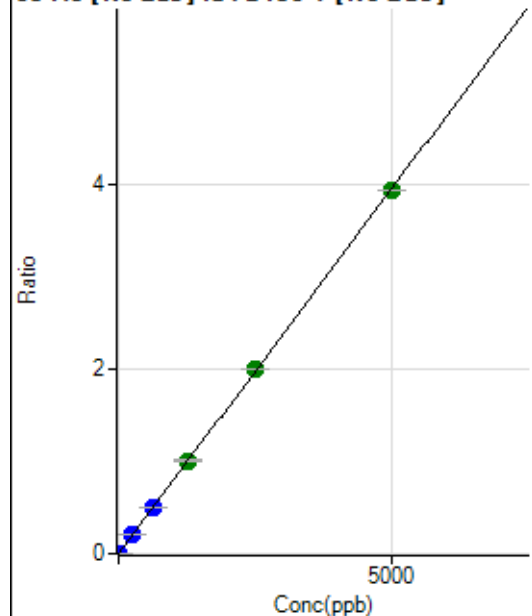
$$DL = 0.0306$$

$$BEC = 0.01551$$

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	83.34	0.0000	P	10.5
2	☐	0.500					
3	☐	5.000	4.706	31446.79	0.0037	P	2.2
4	☐	250.000	253.589	1687535.89	0.2000	P	1.8
5	☐	625.000	629.938	4040201.52	0.4969	P	2.2
6	☐	1250.000	1277.170	7724971.01	1.0075	A	1.0
7	☐	2500.000	2536.620	15392236.11	2.0009	A	0.3
8	☐	5000.000	4974.101	29885920.81	3.9237	A	0.1
9	☐			21241.57	0.0030	P	4.9

$$y = 7.8882\text{E-}004 * x + 1.0136\text{E-}005$$

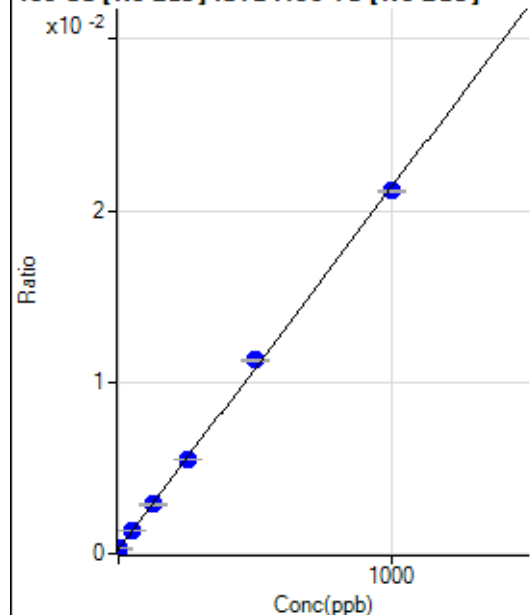
$$R = 0.9999$$

$$DL = 0.00403$$

$$BEC = 0.01285$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3244.97	0.0003	P	1.1
2	☐	0.100					
3	☐	1.000	1.746	3736.76	0.0003	P	4.6
4	☐	50.000	50.488	16780.05	0.0013	P	1.8
5	☐	125.000	123.978	35759.99	0.0029	P	2.0
6	☐	250.000	246.422	65968.33	0.0055	P	0.6
7	☐	500.000	522.082	137074.35	0.0113	P	0.7
8	☐	1000.000	989.956	254551.62	0.0211	P	0.9
9	☐			2955.98	0.0003	P	6.4

$$y = 2.1096E-005 * x + 2.6372E-004$$

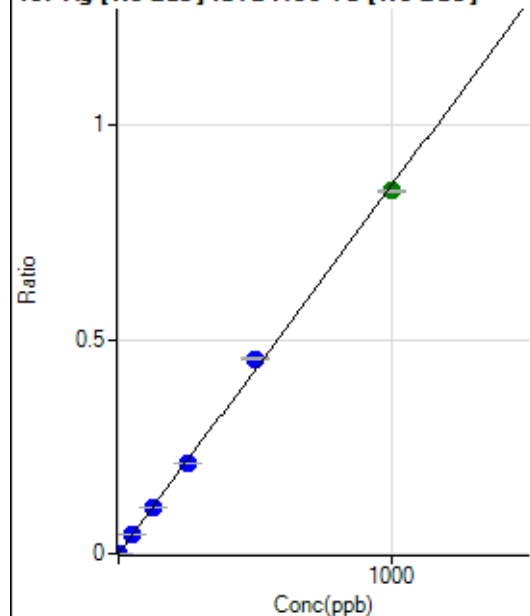
$$R = 0.9996$$

$$DL = 0.4306$$

$$BEC = 12.5$$

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	88.89	0.0000	P	27.4
2	☐	0.100					
3	☐	1.000	1.008	10849.05	0.0009	P	1.2
4	☐	50.000	52.064	564421.29	0.0447	P	1.5
5	☐	125.000	126.825	1352315.61	0.1089	P	1.5
6	☐	250.000	245.858	2548967.42	0.2111	P	0.5
7	☐	500.000	529.663	5526585.41	0.4547	P	0.8
8	☐	1000.000	985.873	10186894.32	0.8463	A	0.6
9	☐			3153.26	0.0003	P	3.5

$$y = 8.5844E-004 * x + 7.2279E-006$$

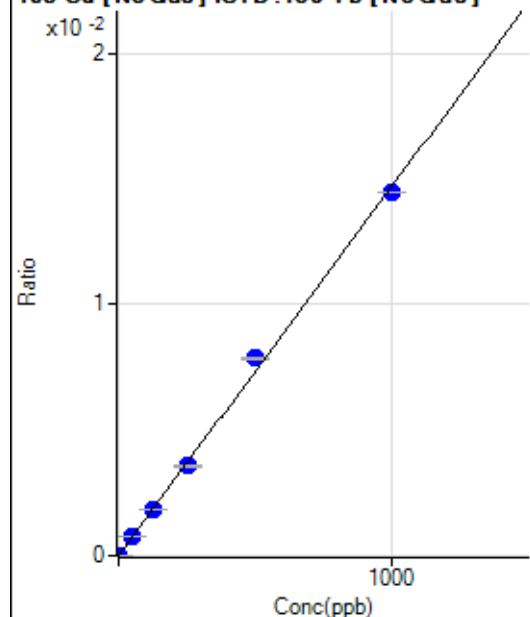
$$R = 0.9993$$

$$DL = 0.006923$$

$$BEC = 0.00842$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.56	0.0000	P	114.
2	☐	0.100					
3	☐	1.000	0.905	170.84	0.0000	P	3.4
4	☐	50.000	51.777	9602.04	0.0008	P	3.0
5	☐	125.000	125.165	22827.03	0.0018	P	2.7
6	☐	250.000	244.211	43305.20	0.0036	P	1.7
7	☐	500.000	535.039	95478.57	0.0079	P	0.4
8	☐	1000.000	983.818	173859.26	0.0144	P	0.2
9	☐			44.44	0.0000	P	15.0

$$y = 1.4681\text{E-}005 * x + 4.5301\text{E-}007$$

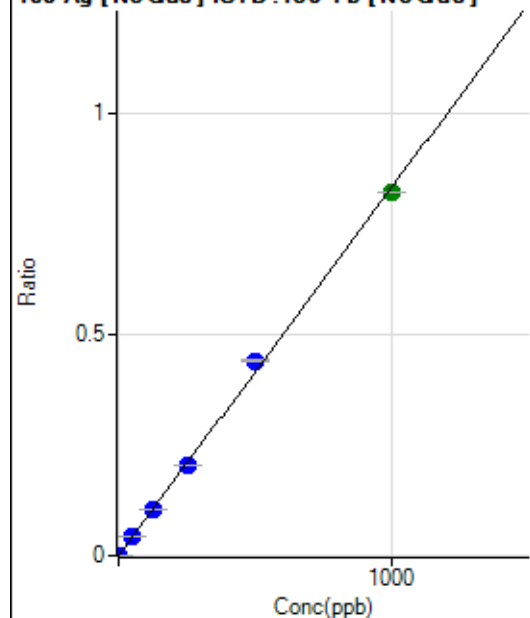
$$R = 0.9991$$

$$DL = 0.1061$$

$$BEC = 0.03086$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	49.6
2	☐	0.100					
3	☐	1.000	1.025	10659.97	0.0009	P	1.2
4	☐	50.000	52.137	548163.93	0.0434	P	1.0
5	☐	125.000	125.042	1293134.12	0.1041	P	1.1
6	☐	250.000	244.725	2460724.56	0.2038	P	0.4
7	☐	500.000	529.834	5361669.22	0.4411	P	0.5
8	☐	1000.000	986.290	9884127.91	0.8212	A	0.2
9	☐			3103.27	0.0003	P	7.8

$$y = 8.3256\text{E-}004 * x + 4.0583\text{E-}006$$

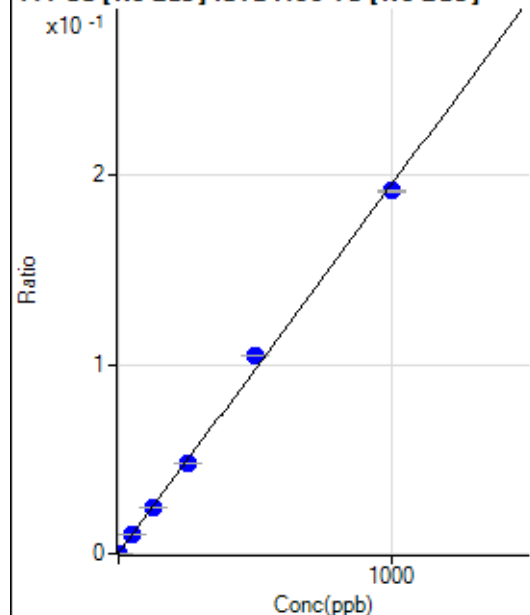
$$R = 0.9993$$

$$DL = 0.007253$$

$$BEC = 0.004874$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2280.09	0.0002	P	1.2
2	☐	0.100					
3	☐	1.000	0.935	4568.57	0.0004	P	3.8
4	☐	50.000	50.769	127279.06	0.0101	P	2.4
5	☐	125.000	123.906	302265.95	0.0243	P	1.8
6	☐	250.000	244.096	576852.88	0.0478	P	0.5
7	☐	500.000	535.960	1272031.47	0.1047	P	0.5
8	☐	1000.000	983.594	2309945.69	0.1919	P	0.5
9	☐			2456.14	0.0002	P	4.4

$$y = 1.9492\text{E-}004 * x + 1.8530\text{E-}004$$

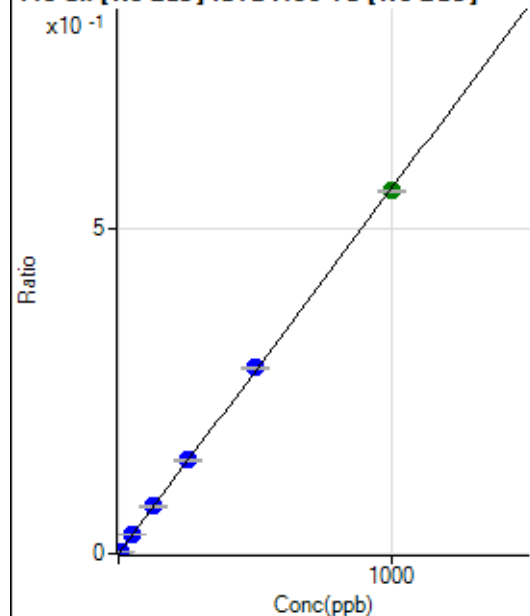
$$R = 0.9990$$

$$DL = 0.03379$$

$$BEC = 0.9506$$

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	466.70	0.0000	P	12.7
2	☐	0.500					
3	☐	5.000	4.847	34278.90	0.0028	P	1.1
4	☐	50.000	52.582	372943.06	0.0295	P	2.3
5	☐	125.000	129.167	900606.13	0.0725	P	1.1
6	☐	250.000	255.473	1731515.66	0.1434	P	0.6
7	☐	500.000	508.563	3468528.20	0.2854	P	0.7
8	☐	1000.000	993.701	6711201.54	0.5576	A	0.7
9	☐			6226.59	0.0006	P	1.5

$$y = 5.6105\text{E-}004 * x + 3.7937\text{E-}005$$

$$R = 0.9999$$

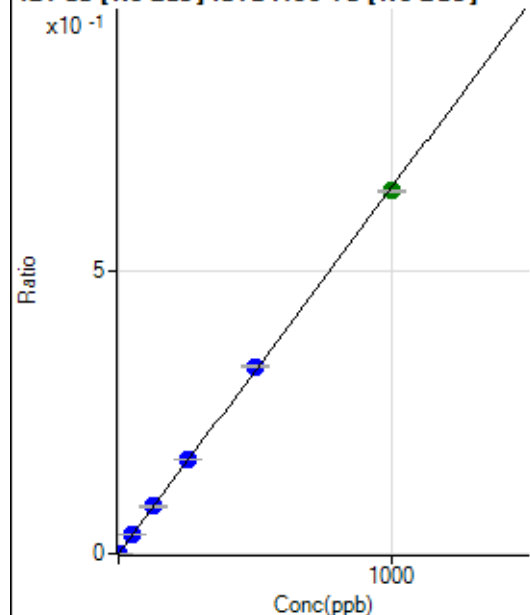
$$DL = 0.02577$$

$$BEC = 0.06762$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	52.78	0.0000	P	24.4
2	☐	0.200					
3	☐	2.000	1.822	14719.41	0.0012	P	0.3
4	☐	50.000	52.386	428279.62	0.0339	P	1.7
5	☐	125.000	129.031	1037603.83	0.0835	P	1.6
6	☐	250.000	259.130	2026175.26	0.1678	P	0.3
7	☐	500.000	511.395	4024307.99	0.3311	P	0.7
8	☐	1000.000	991.397	7726061.46	0.6419	A	0.2
9	☐			10665.56	0.0010	P	1.3

$$y = 6.4742\text{E-}004 * x + 4.2905\text{E-}006$$

$$R = 0.9999$$

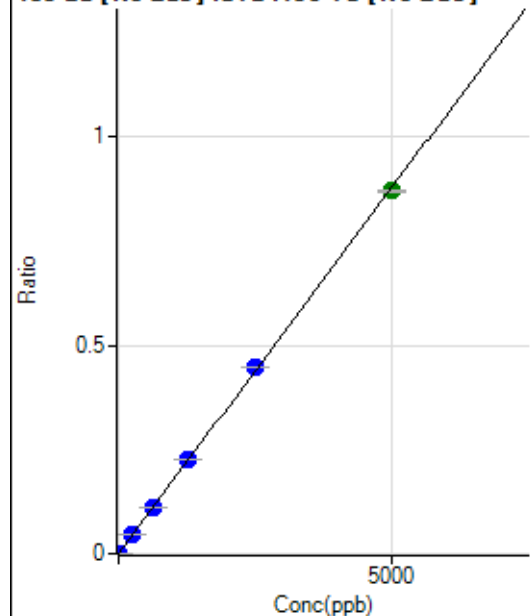
$$DL = 0.004841$$

$$BEC = 0.006627$$

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	19.44	0.0000	P	65.0
2	☐	1.000					
3	☐	10.000	9.710	21180.93	0.0017	P	2.1
4	☐	250.000	261.407	578530.11	0.0458	P	1.6
5	☐	625.000	640.947	1395416.25	0.1123	P	0.9
6	☐	1250.000	1289.914	2730483.52	0.2261	P	0.6
7	☐	2500.000	2553.563	5440153.25	0.4476	P	0.0
8	☐	5000.000	4960.677	10465666.73	0.8695	A	0.5
9	☐			2186.39	0.0002	P	7.3

$$y = 1.7527\text{E-}004 * x + 1.5772\text{E-}006$$

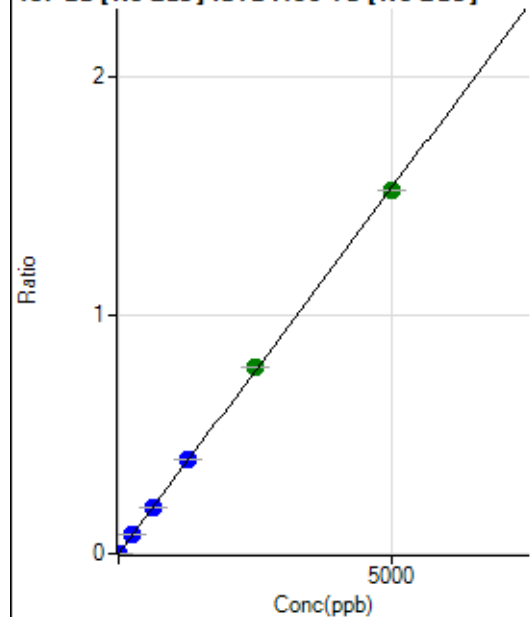
$$R = 0.9999$$

$$DL = 0.01755$$

$$BEC = 0.008998$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	36.11	0.0000	P	35.5
2	☐	1.000					
3	☐	10.000	9.743	37212.05	0.0030	P	1.9
4	☐	250.000	260.958	1011258.11	0.0801	P	2.0
5	☐	625.000	639.646	2438500.77	0.1963	P	1.0
6	☐	1250.000	1289.887	4781084.48	0.3959	P	0.3
7	☐	2500.000	2552.483	9521851.86	0.7834	A	0.3
8	☐	5000.000	4961.409	18328877.67	1.5227	A	0.2
9	☐			3764.55	0.0003	P	5.7

$$y = 3.0691E-004 * x + 2.9357E-006$$

$$R = 0.9999$$

$$DL = 0.01019$$

$$BEC = 0.009565$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			62.22		P	27.0
5	☐			117.78		P	18.2
6	☐			262.24		P	10.6
7	☐			462.25		P	7.4
8	☐			926.73		P	11.2
9	☐			148.90		P	10.3

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			2.22		P	86.6
4	☐			6.67		P	50.0
5	☐			23.33		P	24.7
6	☐			38.89		P	13.1
7	☐			82.22		P	18.3
8	☐			93.33		P	12.4
9	☐			75.56		P	9.2

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	50.0
2	☐						
3	☐			13.89		P	91.6
4	☐			25.00		P	57.7
5	☐			47.22		P	53.9
6	☐			63.89		P	54.3
7	☐			105.56		P	24.1
8	☐			183.34		P	24.1
9	☐			80.56		P	41.8

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			6.67		P	50.0
4	☐			20.00		P	28.9
5	☐			30.00		P	22.2
6	☐			54.45		P	30.8
7	☐			115.56		P	24.9
8	☐			215.56		P	5.0
9	☐			64.44		P	14.9

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			55.56		P	17.3
2	☐						
3	☐			47.23		P	40.8
4	☐			44.45		P	39.0
5	☐			30.55		P	68.6
6	☐			94.45		P	25.5
7	☐			91.67		P	45.5
8	☐			88.89		P	23.6
9	☐			94.45		P	39.8

160 Gd [He] No available calibration points

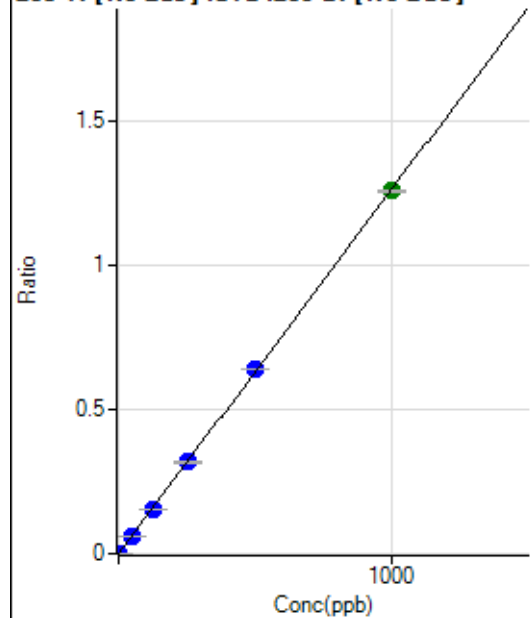
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			168.89		P	8.2
2	☐						
3	☐			170.01		P	12.2
4	☐			142.23		P	22.2
5	☐			161.12		P	12.1
6	☐			130.00		P	22.2
7	☐			172.23		P	6.8
8	☐			190.00		P	7.6
9	☐			170.00		P	18.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	28.7
2	☐						
3	☐			44.45		P	28.7
4	☐			25.00		P	57.7
5	☐			66.67		P	37.5
6	☐			33.34		P	66.1
7	☐			55.56		P	31.2
8	☐			47.22		P	44.4
9	☐			77.78		P	22.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.45		P	26.7
2	☐						
3	☐			10.00		P	0.0
4	☐			23.33		P	51.5
5	☐			14.44		P	13.4
6	☐			14.45		P	48.0
7	☐			35.56		P	5.4
8	☐			25.56		P	30.1
9	☐			32.22		P	41.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	213.90	0.0000	P	16.4
2	☐	0.100					
3	☐	1.000	0.837	9514.94	0.0011	P	3.4
4	☐	50.000	49.452	552715.76	0.0626	P	1.2
5	☐	125.000	123.118	1364048.28	0.1557	P	1.1
6	☐	250.000	251.967	2702838.82	0.3186	P	0.9
7	☐	500.000	506.746	5396848.73	0.6408	P	0.3
8	☐	1000.000	996.398	10345500.93	1.2599	A	0.3
9	☐			2222.52	0.0003	P	11.2

$$y = 0.0013 * x + 2.4254E-005$$

$$R = 1.0000$$

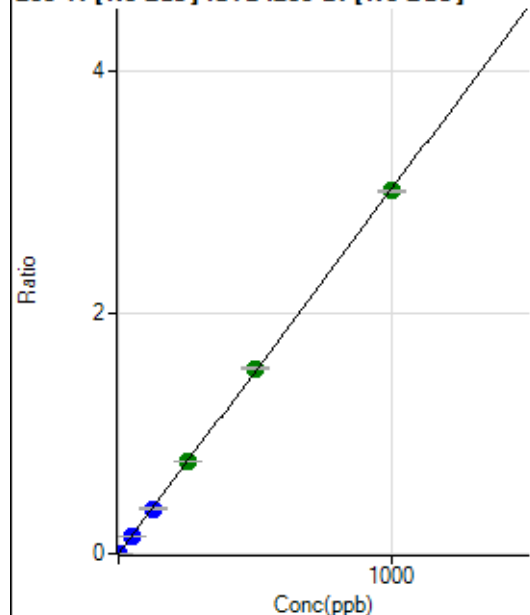
$$DL = 0.009422$$

$$BEC = 0.01918$$

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	472.25	0.0001	P	12.1
2	☐	0.100					
3	☐	1.000	0.852	23137.58	0.0026	P	0.8
4	☐	50.000	49.685	1328508.34	0.1504	P	1.2
5	☐	125.000	123.912	3284202.81	0.3749	P	1.7
6	☐	250.000	252.795	6487597.19	0.7648	A	0.7
7	☐	500.000	508.172	12947825.03	1.5374	A	0.4
8	☐	1000.000	995.367	24725222.43	3.0112	A	0.4
9	☐			5340.18	0.0008	P	12.0

$$y = 0.0030 * x + 5.3554E-005$$

$$R = 0.9999$$

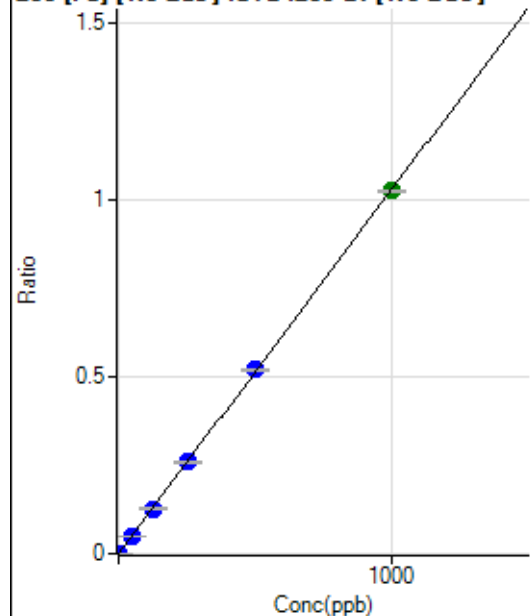
$$DL = 0.006448$$

$$BEC = 0.0177$$

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	407.43	0.0000	P	5.6
2	☐	0.100					
3	☐	1.000	0.846	8048.96	0.0009	P	0.6
4	☐	50.000	49.773	452583.22	0.0512	P	1.5
5	☐	125.000	123.559	1113251.16	0.1271	P	2.2
6	☐	250.000	251.901	2197445.71	0.2591	P	1.1
7	☐	500.000	505.467	4377545.50	0.5198	P	0.6
8	☐	1000.000	996.983	8417604.93	1.0252	A	0.5
9	☐			10302.41	0.0015	P	1.8

$$y = 0.0010 * x + 4.6190E-005$$

$$R = 1.0000$$

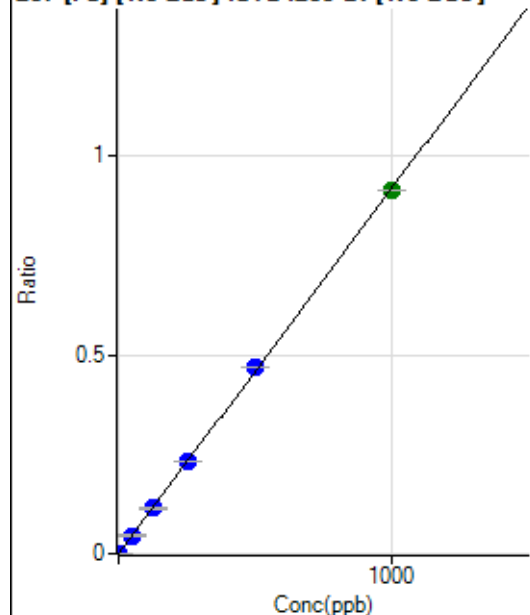
$$DL = 0.007587$$

$$BEC = 0.04492$$

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	368.54	0.0000	P	13.6
2	☐	0.100					
3	☐	1.000	0.833	7085.39	0.0008	P	3.7
4	☐	50.000	49.931	404990.00	0.0458	P	2.1
5	☐	125.000	123.826	995213.75	0.1136	P	2.2
6	☐	250.000	253.819	1975152.47	0.2328	P	1.3
7	☐	500.000	509.808	3938564.53	0.4676	P	0.5
8	☐	1000.000	994.292	7488707.63	0.9120	A	0.1
9	☐			8349.16	0.0012	P	4.1

$$y = 9.1721\text{E-}004 * x + 4.1799\text{E-}005$$

$$R = 0.9999$$

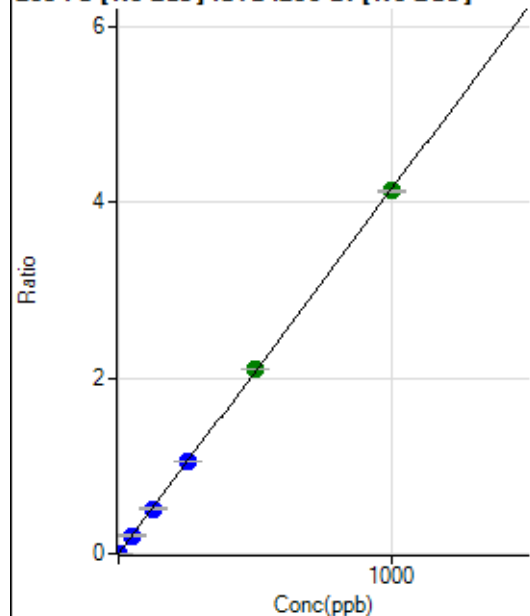
$$DL = 0.01853$$

$$BEC = 0.04557$$

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	1638.98	0.0002	P	9.6
2	☐	0.100					
3	☐	1.000	0.845	32418.21	0.0037	P	0.7
4	☐	50.000	49.877	1827112.30	0.2068	P	2.2
5	☐	125.000	123.836	4495355.35	0.5132	P	2.0
6	☐	250.000	254.597	8948214.15	1.0549	P	1.0
7	☐	500.000	506.646	17678316.25	2.0990	A	0.4
8	☐	1000.000	995.679	33869881.02	4.1249	A	0.3
9	☐			39217.91	0.0056	P	0.8

$$y = 0.0041 * x + 1.8588\text{E-}004$$

$$R = 1.0000$$

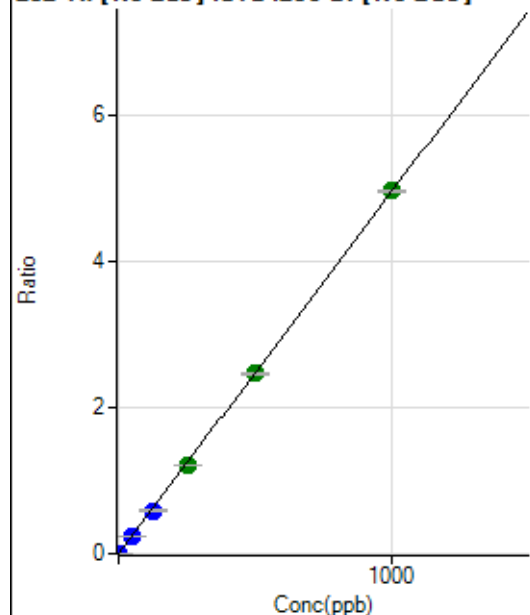
$$DL = 0.0129$$

$$BEC = 0.04487$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	142.60	0.0000	P	12.8
2	☐	0.100					
3	☐	1.000	0.777	33983.49	0.0039	P	0.9
4	☐	50.000	46.772	2047574.96	0.2317	P	1.4
5	☐	125.000	118.673	5150543.98	0.5880	P	1.8
6	☐	250.000	246.046	10340967.36	1.2190	A	0.7
7	☐	500.000	497.497	20758964.35	2.4648	A	0.5
8	☐	1000.000	1003.193	40810908.32	4.9702	A	0.3
9	☐			6885.35	0.0010	P	7.9

$$y = 0.0050 * x + 1.6170E-005$$

$$R = 1.0000$$

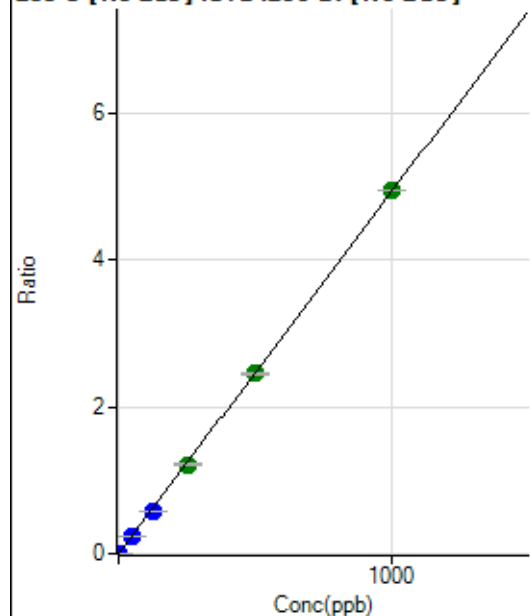
$$DL = 0.001249$$

$$BEC = 0.003264$$

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	111.12	0.0000	P	45.4
2	☐	0.100					
3	☐	1.000	0.795	34490.99	0.0039	P	1.5
4	☐	50.000	46.994	2043683.20	0.2313	P	1.4
5	☐	125.000	118.373	5103637.66	0.5826	P	1.7
6	☐	250.000	246.774	10302637.91	1.2146	A	1.5
7	☐	500.000	497.205	20609919.91	2.4471	A	0.6
8	☐	1000.000	1003.183	40541987.71	4.9374	A	0.1
9	☐			4670.51	0.0007	P	11.6

$$y = 0.0049 * x + 1.2577E-005$$

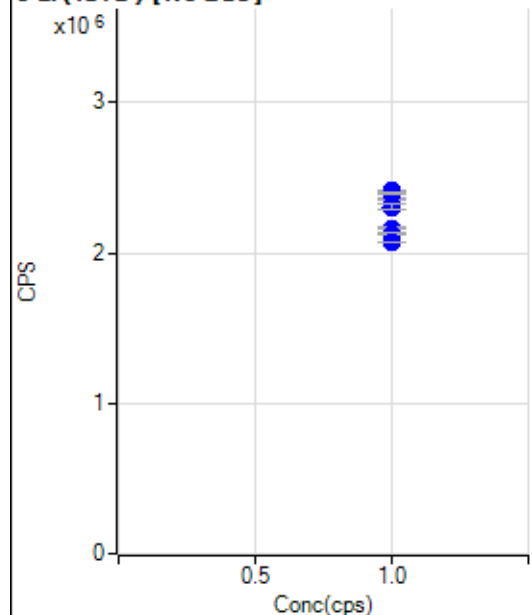
$$R = 1.0000$$

$$DL = 0.00348$$

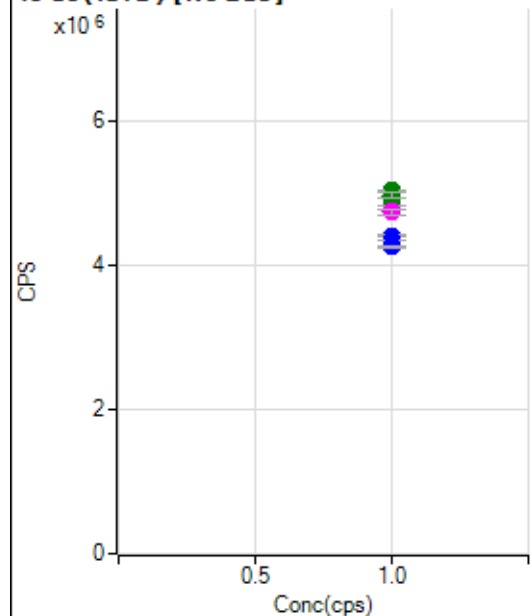
$$BEC = 0.002555$$

Weight: <None>

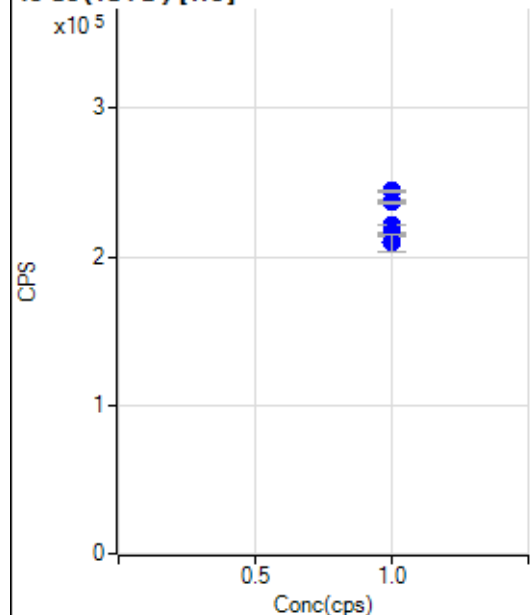
Min Conc: 0

6 Li (ISTD) [No Gas]

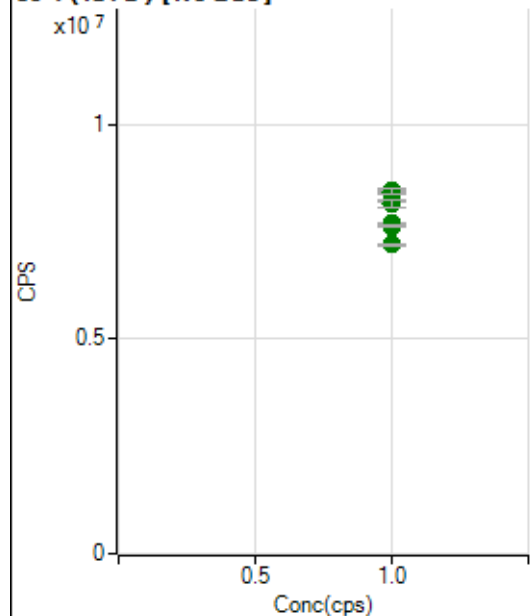
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2359840.29		P	0.2
2	☐	1.000					
3	☐	1.000		2411208.98		P	0.7
4	☐	1.000		2393352.84		P	0.8
5	☐	1.000		2305295.12		P	1.9
6	☐	1.000		2159872.98		P	0.1
7	☐	1.000		2162687.00		P	0.6
8	☐	1.000		2126386.00		P	0.5
9	☐	1.000		2068435.67		P	0.3

45 Sc (ISTD) [No Gas]

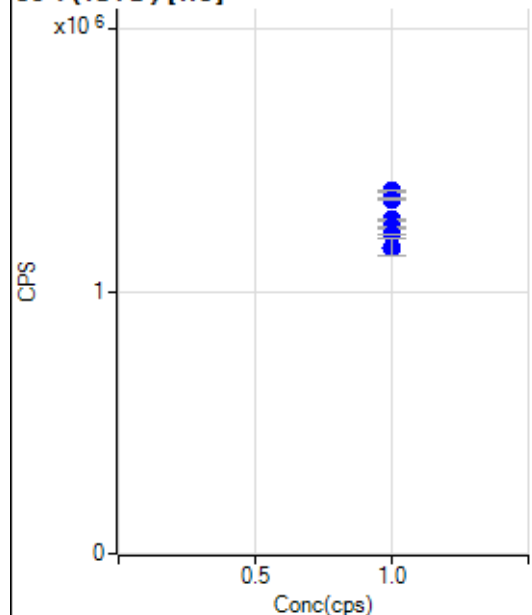
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4817849.33		A	0.2
2	☐	1.000					
3	☐	1.000		5024416.04		A	0.6
4	☐	1.000		4963716.30		A	1.9
5	☐	1.000		4731556.88		M	2.0
6	☐	1.000		4395721.71		P	0.6
7	☐	1.000		4405968.11		P	0.7
8	☐	1.000		4338641.59		P	0.4
9	☐	1.000		4251683.30		P	0.6

45 Sc (ISTD) [He]

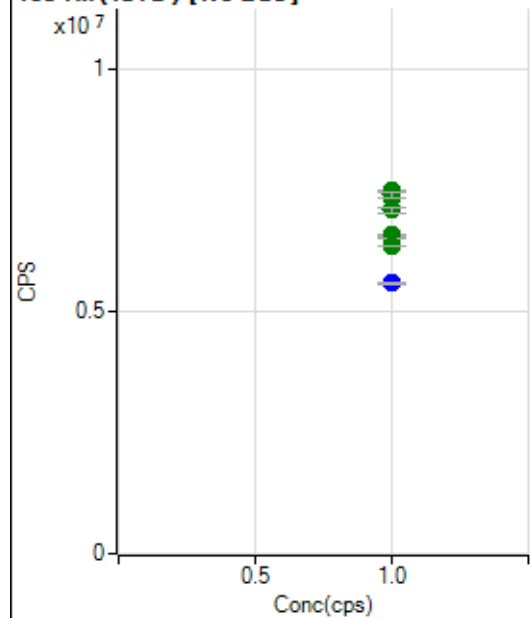
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		237287.35		P	0.5
2	☐	1.000					
3	☐	1.000		244318.27		P	0.6
4	☐	1.000		236680.82		P	0.4
5	☐	1.000		221283.23		P	0.3
6	☐	1.000		216243.32		P	0.2
7	☐	1.000		215374.21		P	0.2
8	☐	1.000		214023.69		P	0.6
9	☐	1.000		209385.07		P	5.4

89 Y (ISTD) [No Gas]

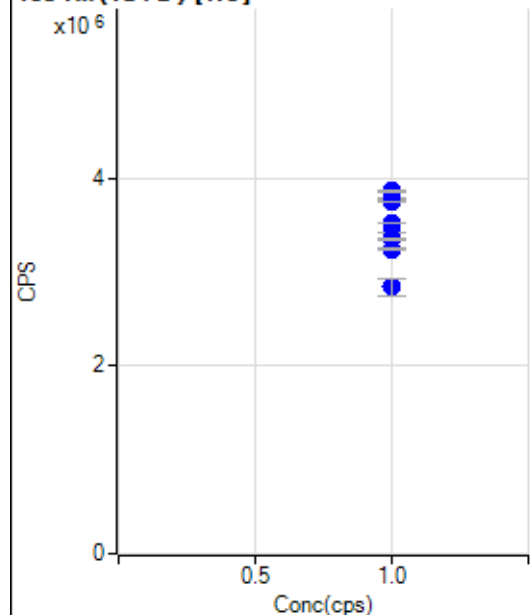
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8224691.68		A	0.5
2	☐	1.000					
3	☐	1.000		8447989.52		A	0.5
4	☐	1.000		8437477.79		A	1.7
5	☐	1.000		8133168.56		A	2.3
6	☐	1.000		7668113.98		A	0.7
7	☐	1.000		7692498.08		A	0.6
8	☐	1.000		7616849.26		A	0.5
9	☐	1.000		7195598.50		A	0.4

89 Y(ISTD) [He]

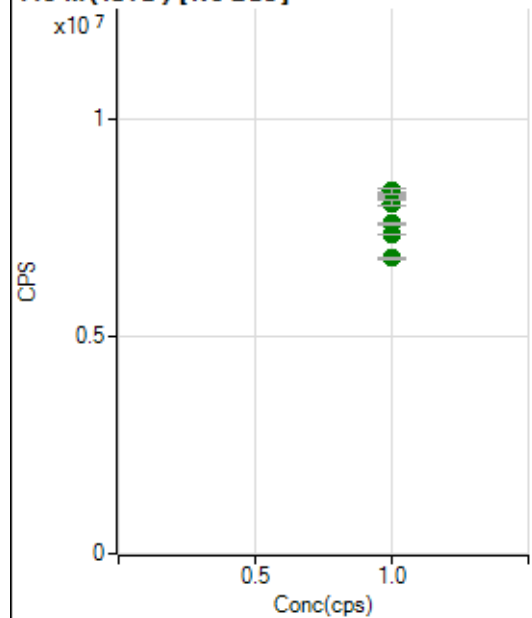
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1350030.71		P	0.1
2	☐	1.000					
3	☐	1.000		1383003.10		P	0.2
4	☐	1.000		1351989.02		P	0.3
5	☐	1.000		1274589.88		P	0.6
6	☐	1.000		1247652.26		P	0.2
7	☐	1.000		1243216.70		P	0.2
8	☐	1.000		1219053.86		P	0.2
9	☐	1.000		1168385.64		P	5.8

103 Rh(ISTD) [No Gas]

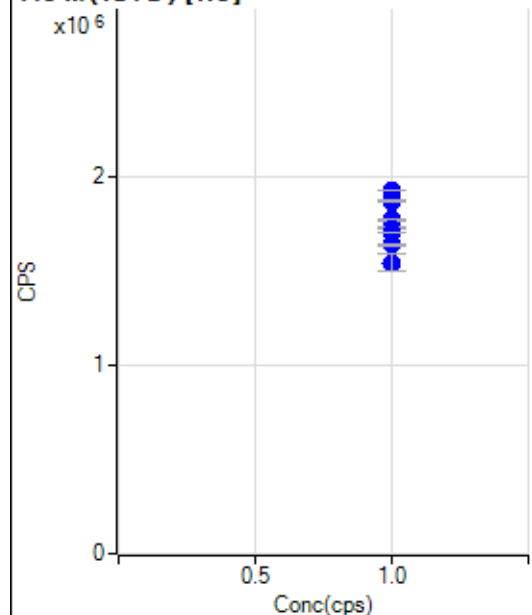
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7343383.76		A	0.3
2	☐	1.000					
3	☐	1.000		7492996.35		A	0.6
4	☐	1.000		7419233.24		A	1.8
5	☐	1.000		7098091.48		A	1.6
6	☐	1.000		6586211.17		A	0.5
7	☐	1.000		6515220.68		A	0.4
8	☐	1.000		6343780.66		A	0.1
9	☐	1.000		5591929.73		P	0.8

103 Rh (ISTD) [He]

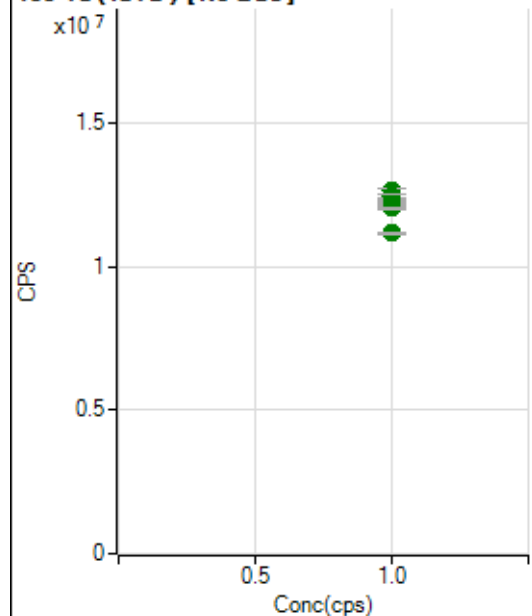
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3776192.58		P	0.4
2	☐	1.000					
3	☐	1.000		3863059.04		P	0.3
4	☐	1.000		3743572.72		P	0.2
5	☐	1.000		3520108.18		P	0.4
6	☐	1.000		3422405.37		P	0.1
7	☐	1.000		3353862.73		P	0.6
8	☐	1.000		3237994.09		P	0.5
9	☐	1.000		2837239.58		P	6.1

115 In (ISTD) [No Gas]

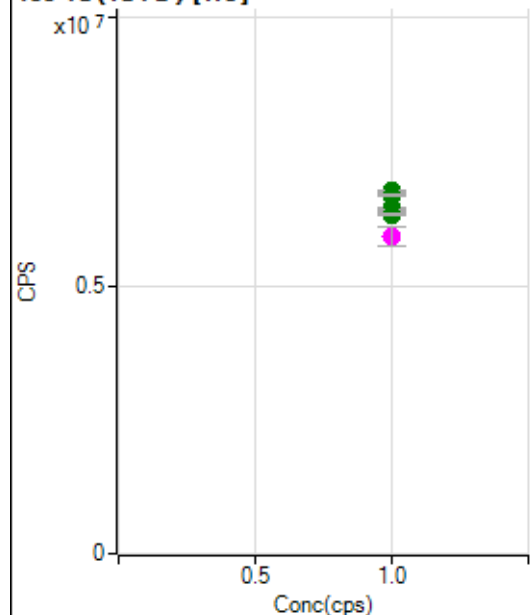
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8209643.46		A	0.1
2	☐	1.000					
3	☐	1.000		8355230.50		A	1.0
4	☐	1.000		8351023.14		A	1.7
5	☐	1.000		8076788.58		A	2.0
6	☐	1.000		7606807.38		A	0.8
7	☐	1.000		7597641.73		A	0.4
8	☐	1.000		7351285.42		A	0.4
9	☐	1.000		6805403.26		A	0.7

115 In (ISTD) [He]

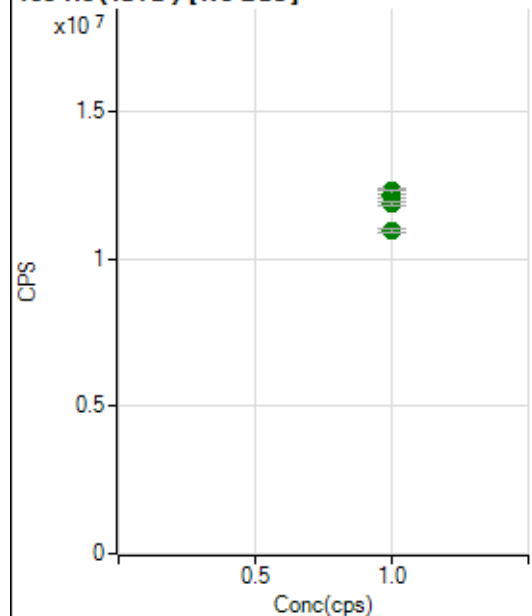
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1874569.16		P	0.4
2	☐	1.000					
3	☐	1.000		1923268.70		P	0.0
4	☐	1.000		1869865.67		P	0.6
5	☐	1.000		1770984.98		P	0.4
6	☐	1.000		1727329.48		P	0.5
7	☐	1.000		1700399.49		P	0.3
8	☐	1.000		1639151.30		P	0.6
9	☐	1.000		1540613.28		P	6.0

159 Tb (ISTD) [No Gas]

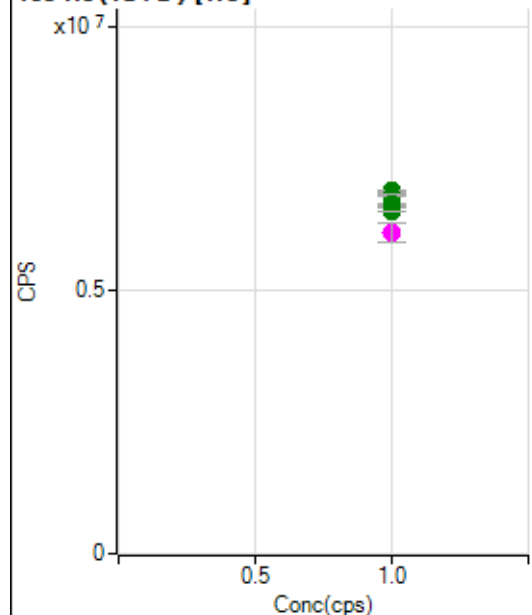
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12305180.23		A	0.5
2	☐	1.000					
3	☐	1.000		12432275.65		A	1.0
4	☐	1.000		12628491.62		A	1.6
5	☐	1.000		12422310.37		A	1.6
6	☐	1.000		12076987.60		A	0.2
7	☐	1.000		12154768.57		A	0.5
8	☐	1.000		12036950.51		A	0.5
9	☐	1.000		11169790.94		A	0.7

159 Tb (ISTD) [He]

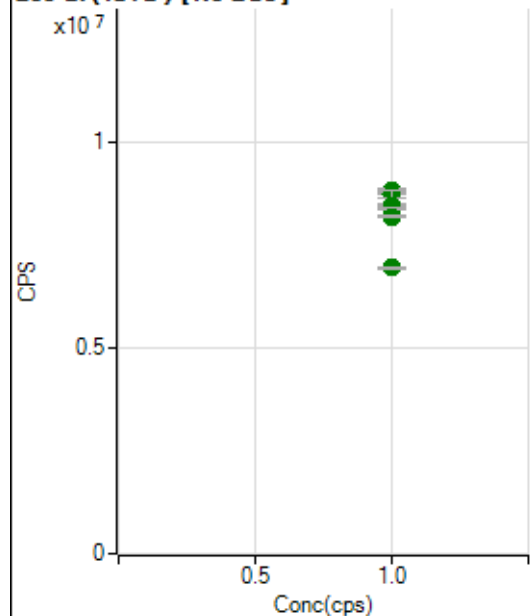
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6694721.84		A	0.2
2	☐	1.000					
3	☐	1.000		6772713.51		A	0.4
4	☐	1.000		6694109.28		A	0.7
5	☐	1.000		6473071.50		A	0.1
6	☐	1.000		6409991.85		A	0.4
7	☐	1.000		6416485.88		A	0.1
8	☐	1.000		6329271.36		A	0.9
9	☐	1.000		5927347.76		M	5.8

165 Ho (ISTD) [No Gas]

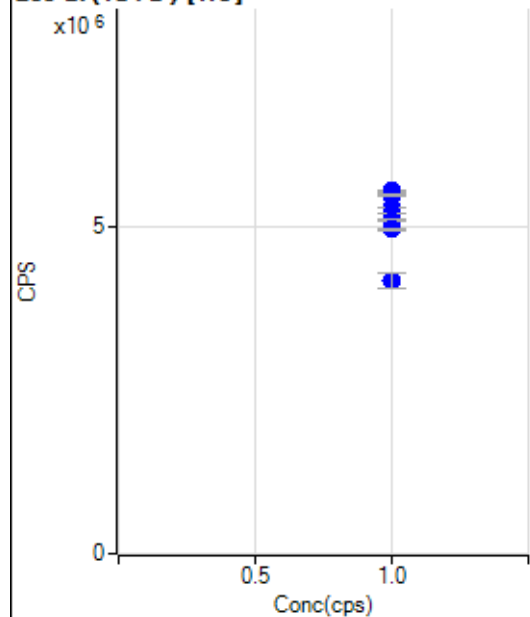
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12083443.15		A	0.4
2	☐	1.000					
3	☐	1.000		12133889.07		A	0.8
4	☐	1.000		12323205.05		A	1.6
5	☐	1.000		12214843.41		A	1.9
6	☐	1.000		11877844.53		A	1.1
7	☐	1.000		11933876.83		A	0.2
8	☐	1.000		11881722.23		A	0.8
9	☐	1.000		10967888.18		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6849035.31		A	0.3
2	☐	1.000					
3	☐	1.000		6882163.72		A	0.1
4	☐	1.000		6800424.13		A	0.2
5	☐	1.000		6633934.55		A	0.4
6	☐	1.000		6583360.53		A	0.3
7	☐	1.000		6553923.79		A	0.2
8	☐	1.000		6483001.09		A	0.2
9	☐	1.000		6077110.74		M	6.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8821218.06		A	0.7
2	☐	1.000					
3	☐	1.000		8790944.45		A	0.4
4	☐	1.000		8836480.84		A	1.2
5	☐	1.000		8761592.23		A	1.7
6	☐	1.000		8483006.47		A	0.6
7	☐	1.000		8422285.78		A	0.6
8	☐	1.000		8211143.00		A	0.5
9	☐	1.000		6965016.28		A	0.9

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5468608.81		P	0.5
2	☐	1.000					
3	☐	1.000		5538642.62		P	0.4
4	☐	1.000		5481672.63		P	0.8
5	☐	1.000		5282246.90		P	0.5
6	☐	1.000		5201522.25		P	0.3
7	☐	1.000		5088693.92		P	0.4
8	☐	1.000		4949446.04		P	0.2
9	☐	1.000		4170811.36		P	5.9

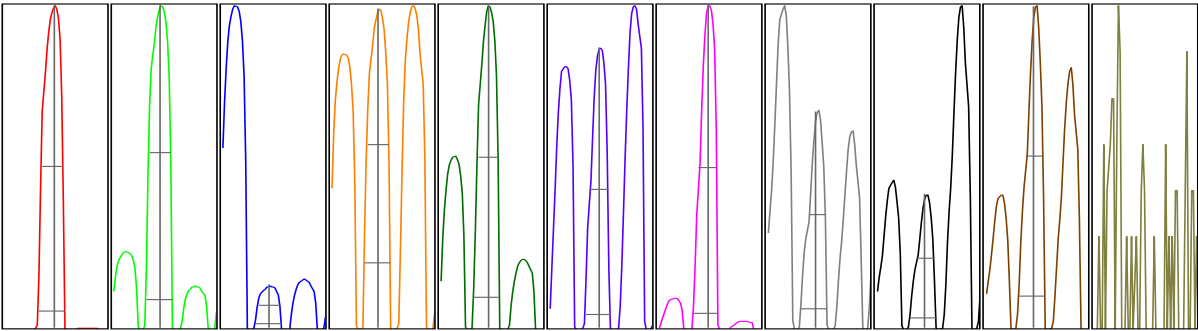
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7051619-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	8584	0.91	5.00	
24	163453	1.15	5.00	
25	22544	0.93	5.00	
26	25606	0.82	5.00	
59	64626	1.23	5.00	
113	9563	1.40	5.00	
115	114699	0.71	5.00	
206	35245	0.23	5.00	
207	32444	0.51	5.00	
208	76832	0.26	5.00	
220	0	69.72		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8678	8643	8576	8528	8492
24	166146	164344	163039	162544	161193
25	22875	22562	22551	22393	22339
26	25901	25706	25566	25512	25344
59	65669	65115	64431	64319	63593
113	9774	9601	9526	9490	9423
115	115978	114650	114714	114402	113750
206	35378	35242	35156	35210	35240
207	32703	32339	32415	32486	32280
208	77057	76781	76847	76954	76521
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	14462	9.00	8.9 - 9.1		0.779	0.900	
24	267668	23.90	23.9 - 24.1		0.768	0.900	
25	35636	24.90	24.9 - 25.1		0.753	0.900	
26	41438	25.90	25.9 - 26.1		0.746	0.900	
59	112173	58.95	58.9 - 59.1		0.752	0.900	
113	18750	113.00	112.9 - 113.1		0.729	0.900	
115	226110	115.00	114.9 - 115.1		0.711	0.900	
206	69327	205.95	205.9 - 206.1		0.752	0.900	
207	63194	206.95	206.9 - 207.1		0.751	0.900	
208	152211	207.95	207.9 - 208.1		0.757	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	8.1	V	Deflect	14.0	V
Extract 2	-110.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	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	190	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	16871	0.42	
89	69753	0.14	
205	31437	0.64	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	16883	16825	16961	16907	16778
89	69685	69829	69874	69740	69634
205	31410	31424	31778	31283	31288

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.4	V	Deflect	2.0	V
Extract 2	-100.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	190	V			