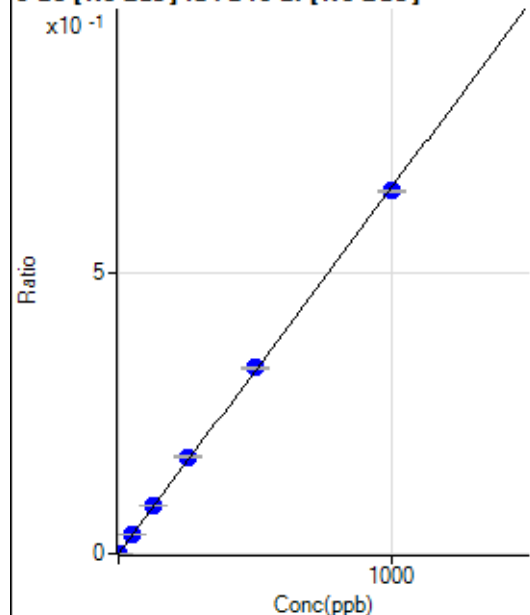


Batch Folder: D:\ICP-MS Data\P7121219MS1.b\
Analysis File: P7121219MS1.batch.bin
DA Date-Time: 2019-12-13 01:52:10
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-12 15:28:24
2	004CALS.d	S02	2019-12-12 15:32:01
3	005CALS.d	S03	2019-12-12 15:36:40
4	006CALS.d	S04	2019-12-12 15:40:52
5	007CALS.d	S05	2019-12-12 15:44:43
6	008CALS.d	S06	2019-12-12 15:48:31
7	009CALS.d	S07	2019-12-12 15:52:18
8	010CALS.d	S08	2019-12-12 15:56:06

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	18.9
2	☐	1.000	1.040	2779.96	0.0007	P	2.1
3	☐	50.000	52.682	134088.83	0.0344	P	0.6
4	☐	125.000	132.954	324149.67	0.0868	P	0.6
5	☐	250.000	264.861	629276.92	0.1730	P	0.4
6	☐	500.000	507.819	1187031.67	0.3316	P	1.2
7	☐	1000.000	991.247	2295100.51	0.6472	P	0.6
8	☐			322.23	0.0001	P	16.3

$$y = 6.5294\text{E-}004 * x + 1.9126\text{E-}005$$

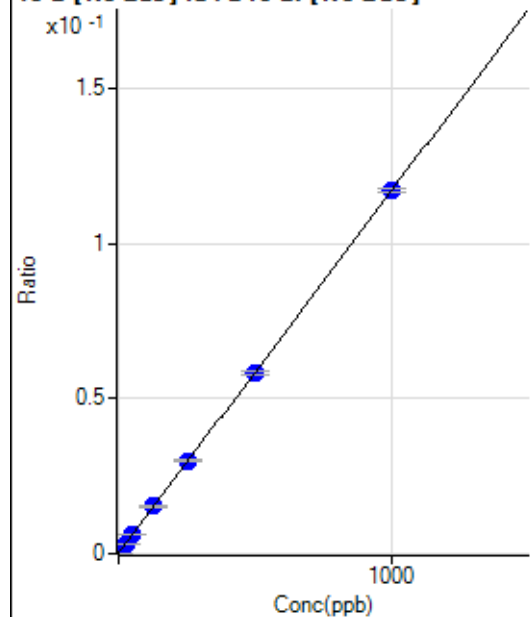
$$R = 0.9998$$

$$DL = 0.01665$$

$$BEC = 0.02929$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	533.36	0.0001	P	11.0
2	☐	25.000	24.222	11802.33	0.0030	P	3.5
3	☐	50.000	51.210	23852.94	0.0061	P	1.0
4	☐	125.000	129.827	57189.38	0.0153	P	2.5
5	☐	250.000	255.537	109251.57	0.0300	P	1.1
6	☐	500.000	496.230	208293.36	0.0582	P	2.3
7	☐	1000.000	999.856	415273.39	0.1171	P	1.2
8	☐			9378.26	0.0027	P	7.6

$$y = 1.1700\text{E-}004 * x + 1.3114\text{E-}004$$

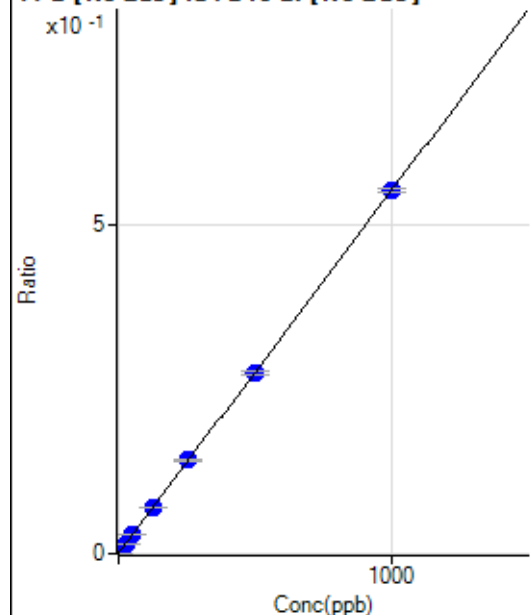
$$R = 1.0000$$

$$DL = 0.3696$$

$$BEC = 1.121$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2372.51	0.0006	P	6.0
2	☐	25.000	24.819	56804.99	0.0143	P	1.7
3	☐	50.000	50.181	110098.89	0.0283	P	1.0
4	☐	125.000	127.195	264069.49	0.0707	P	0.6
5	☐	250.000	257.613	519070.77	0.1427	P	1.8
6	☐	500.000	497.078	983508.42	0.2747	P	1.6
7	☐	1000.000	999.279	1956368.17	0.5517	P	1.2
8	☐			44291.00	0.0126	P	11.4

$$y = 5.5153\text{E-}004 * x + 5.8312\text{E-}004$$

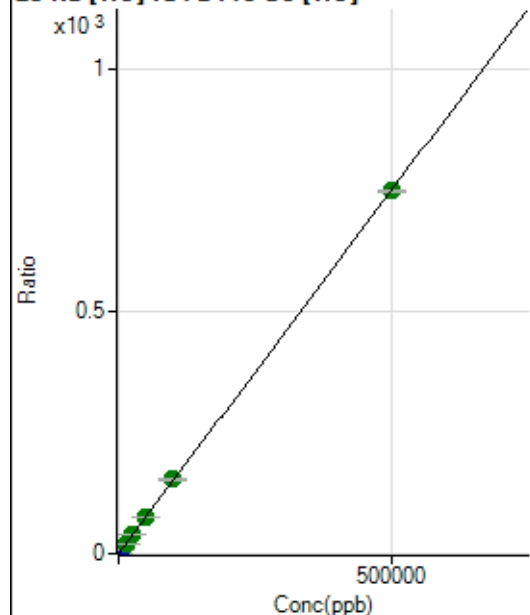
R = 1.0000

DL = 0.1913

BEC = 1.057

Weight: <None>

Min Conc: 0

23 Na [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10912.68	0.0267	P	3.7
2	☐	500.000	527.093	336001.69	0.8166	P	1.3
3	☐	5000.000	5298.674	3152536.16	7.9679	P	0.5
4	☐	12500.000	13383.034	7710123.26	20.0842	A	0.5
5	☐	25000.000	26900.935	15669422.75	40.3439	A	0.5
6	☐	50000.000	51481.527	30121056.23	77.1835	A	0.2
7	☐	100000.00	102768.30	59736827.03	154.0485	A	1.9
8	☐	500000.00	499178.05	295494762.1	748.1593	A	0.7

$$y = 0.0015 * x + 0.0267$$

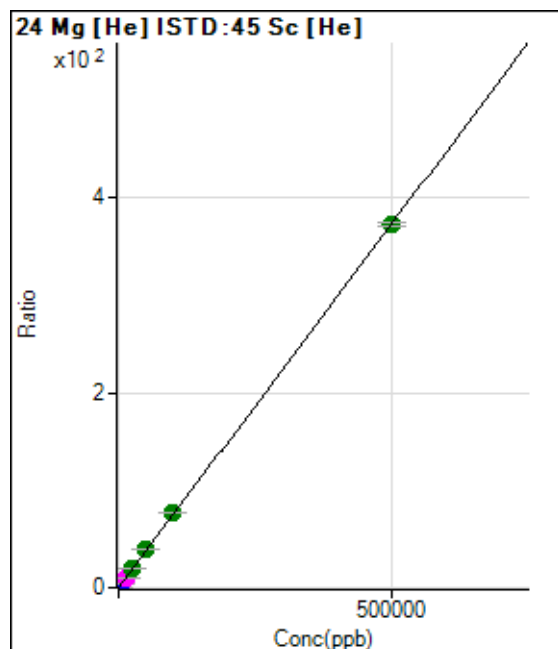
R = 1.0000

DL = 1.977

BEC = 17.79

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	358.35	0.0009	P	20.7
2	☐	500.000	551.713	169860.28	0.4128	P	1.7
3	☐	5000.000	5414.055	1599770.20	4.0434	P	0.7
4	☐	12500.000	13670.651	3918903.34	10.2083	M	0.6
5	☐	25000.000	27324.367	7924393.84	20.4031	A	0.8
6	☐	50000.000	52252.041	15226041.66	39.0159	A	0.6
7	☐	100000.00	103131.32	29860837.48	77.0058	A	1.9
8	☐	500000.00	498998.85	147154510.2	372.5879	A	1.0

$$y = 7.4667\text{E-}004 * x + 8.7598\text{E-}004$$

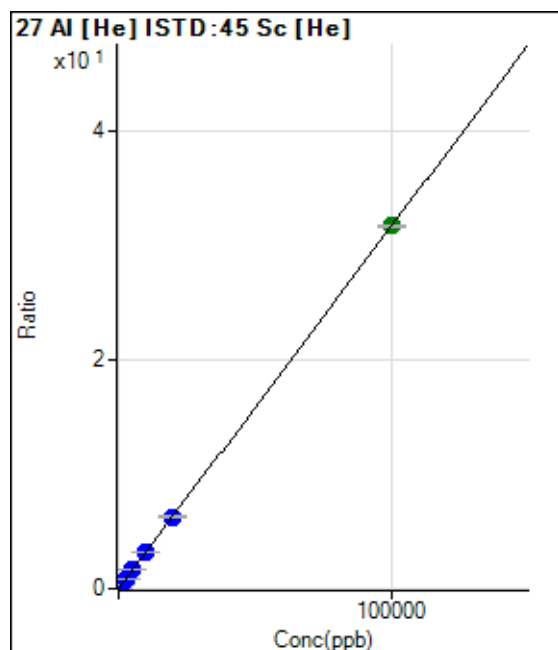
$$R = 1.0000$$

$$DL = 0.7273$$

$$BEC = 1.173$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	58.34	0.0001	P	13.4
2	☐	20.000	19.486	2597.55	0.0063	P	1.6
3	☐	1000.000	1029.268	129016.10	0.3261	P	0.9
4	☐	2500.000	2604.976	316749.64	0.8251	P	0.1
5	☐	5000.000	5169.365	635878.25	1.6372	P	0.8
6	☐	10000.000	9983.415	1233873.59	3.1617	P	0.3
7	☐	20000.000	19765.886	2427519.61	6.2597	P	1.6
8	☐	100000.00	100037.09	12512477.10	31.6803	A	0.7

$$y = 3.1668\text{E-}004 * x + 1.4242\text{E-}004$$

$$R = 1.0000$$

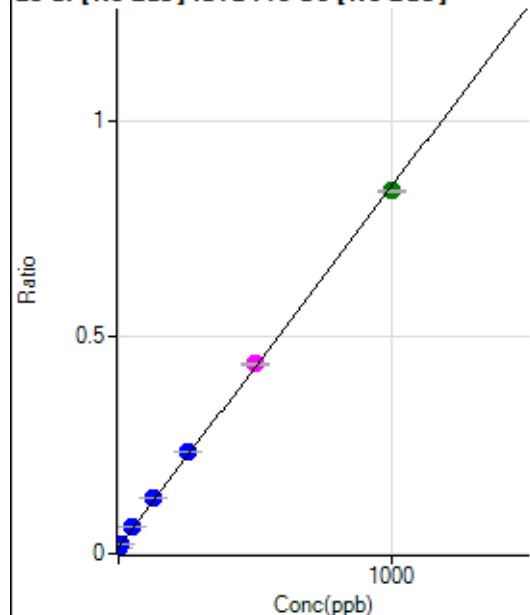
$$DL = 0.1814$$

$$BEC = 0.4497$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	141995.52	0.0141	P	1.4
2	☐	10.000	10.552	225878.03	0.0229	P	0.7
3	☐	50.000	56.624	592751.87	0.0612	P	0.8
4	☐	125.000	136.114	1179806.24	0.1275	P	0.2
5	☐	250.000	266.735	2160606.64	0.2363	P	0.9
6	☐	500.000	510.191	4014879.25	0.4391	M	1.0
7	☐	1000.000	988.995	7755442.62	0.8380	A	0.3
8	☐			1947085.44	0.2107	P	0.8

$$y = 8.3308\text{E-}004 * x + 0.0141$$

$$R = 0.9997$$

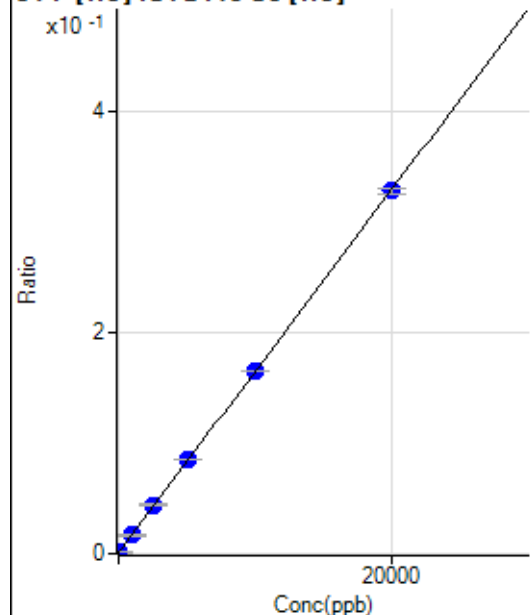
$$DL = 0.6961$$

$$BEC = 16.89$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-26.452	158.34	0.0004	P	18.5
2	☐	0.000	26.452	516.70	0.0013	P	9.2
3	☐	1000.000	982.157	6710.09	0.0170	P	5.1
4	☐	2500.000	2617.613	16829.47	0.0438	P	3.4
5	☐	5000.000	5112.848	32953.80	0.0848	P	0.7
6	☐	10000.000	10019.472	64576.64	0.1655	P	0.7
7	☐	20000.000	19948.243	127449.66	0.3286	P	1.5
8	☐			136.12	0.0003	P	11.3

$$y = 1.6433\text{E-}005 * x + 8.2167\text{E-}004$$

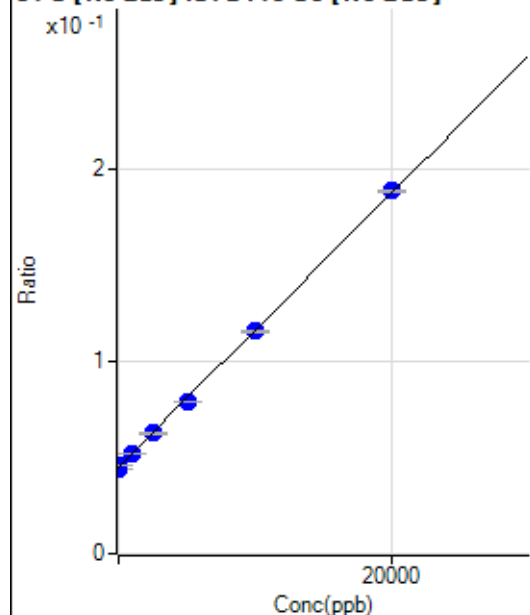
$$R = 1.0000$$

$$DL = 17.13$$

$$BEC = 50$$

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	-117.534	446912.96	0.0443	P	0.6
2	☐	0.000	117.534	454083.76	0.0460	P	0.3
3	☐	1000.000	969.316	503563.90	0.0520	P	0.2
4	☐	2500.000	2453.939	579500.81	0.0626	P	1.0
5	☐	5000.000	4738.940	721334.76	0.0789	P	0.2
6	☐	10000.000	9892.525	1057023.62	0.1156	P	0.5
7	☐	20000.000	20126.294	1744736.76	0.1885	P	0.6
8	☐			384057.80	0.0416	P	0.9

$$y = 7.1251\text{E-}006 * x + 0.0451$$

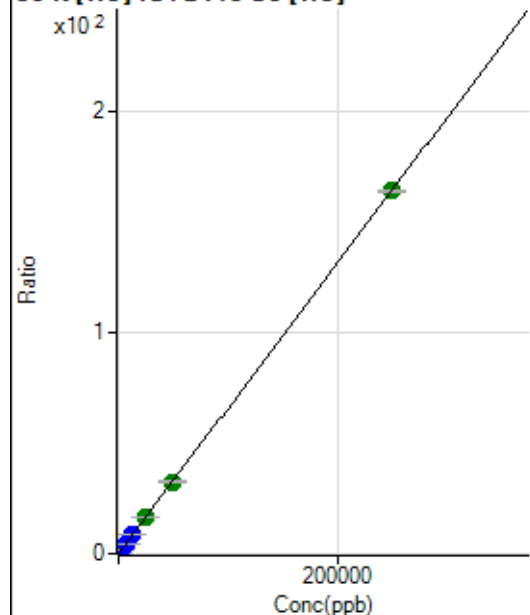
R = 0.9998

DL = 86.98

BEC = 6333

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	17636.10	0.0431	P	2.2
2	☐	500.000	514.019	156474.50	0.3803	P	1.3
3	☐	2500.000	2566.622	683273.98	1.7270	P	0.5
4	☐	6250.000	6470.879	1646317.65	4.2884	P	0.6
5	☐	12500.000	12803.789	3279334.64	8.4432	P	1.0
6	☐	25000.000	24897.127	6391207.17	16.3771	A	0.6
7	☐	50000.000	49636.623	12645165.30	32.6077	A	1.6
8	☐	250000.00	250061.55	64814993.81	164.0987	A	0.4

$$y = 6.5606\text{E-}004 * x + 0.0431$$

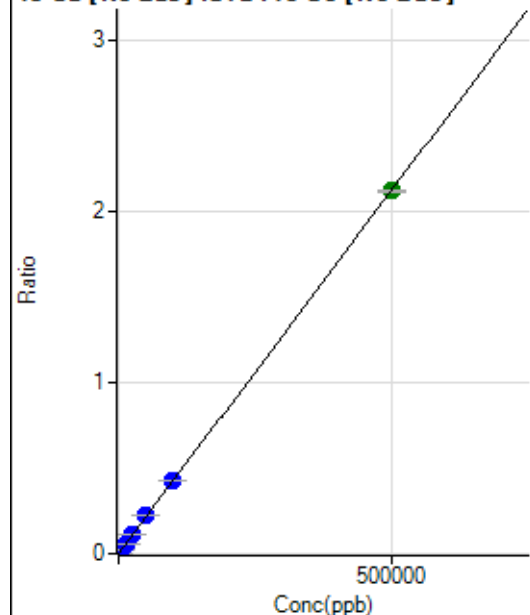
R = 1.0000

DL = 4.288

BEC = 65.68

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	388.91	0.0000	P	13.3
2	☐	500.000	507.772	21713.85	0.0022	P	1.7
3	☐	5000.000	5301.306	218549.66	0.0226	P	0.9
4	☐	12500.000	13519.074	532380.37	0.0575	P	1.3
5	☐	25000.000	26965.543	1048799.64	0.1147	P	0.3
6	☐	50000.000	51885.341	2017532.19	0.2207	P	0.6
7	☐	100000.00	101540.84	3996217.23	0.4318	P	0.6
8	☐	500000.00	499376.52	19623098.53	2.1234	A	0.8

$$y = 4.2520\text{E-}006 * x + 3.8570\text{E-}005$$

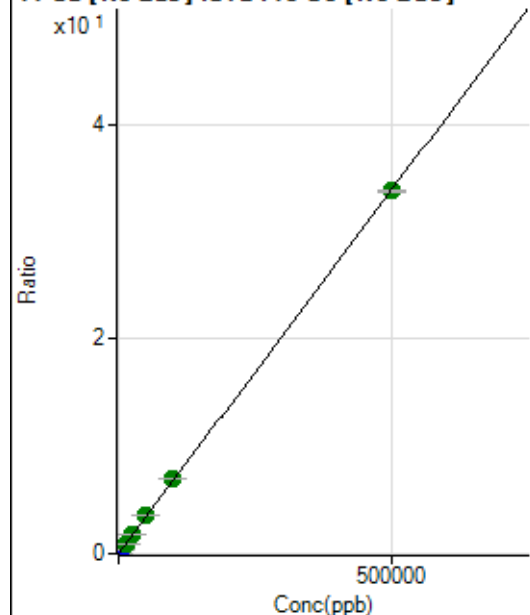
$$R = 1.0000$$

$$DL = 3.609$$

$$BEC = 9.071$$

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	11427.37	0.0011	P	2.0
2	☐	500.000	513.195	354791.18	0.0359	P	0.4
3	☐	5000.000	5287.574	3478973.73	0.3594	P	0.1
4	☐	12500.000	13383.283	8404298.63	0.9080	A	0.9
5	☐	25000.000	26825.886	16632541.69	1.8190	A	0.3
6	☐	50000.000	52057.471	32264268.08	3.5287	A	0.0
7	☐	100000.00	103552.93	64953610.48	7.0183	A	0.5
8	☐	500000.00	498967.40	312473673.6	33.8131	A	0.8

$$y = 6.7764\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

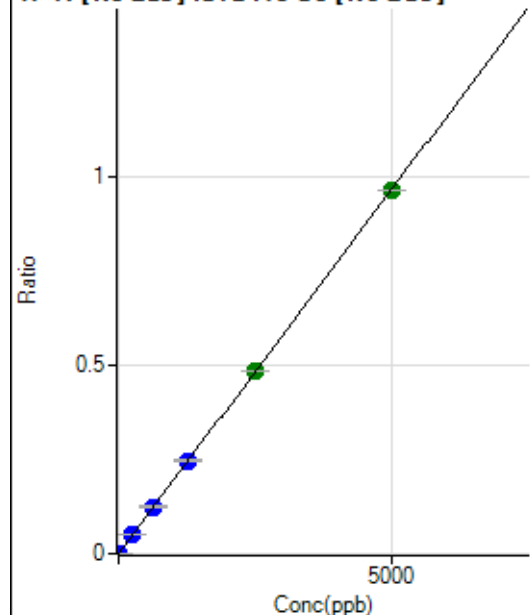
$$DL = 0.9875$$

$$BEC = 16.71$$

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	111.12	0.0000	P	17.7
2	☐	5.000	5.102	9839.75	0.0010	P	3.0
3	☐	250.000	252.714	472324.68	0.0488	P	0.3
4	☐	625.000	645.078	1152820.54	0.1245	P	0.7
5	☐	1250.000	1280.233	2260128.63	0.2472	P	0.6
6	☐	2500.000	2513.672	4437188.25	0.4853	A	0.1
7	☐	5000.000	4982.960	8903518.34	0.9620	A	0.1
8	☐			2472.53	0.0003	P	7.5

$$y = 1.9306\text{E-}004 * x + 1.0995\text{E-}005$$

$$R = 1.0000$$

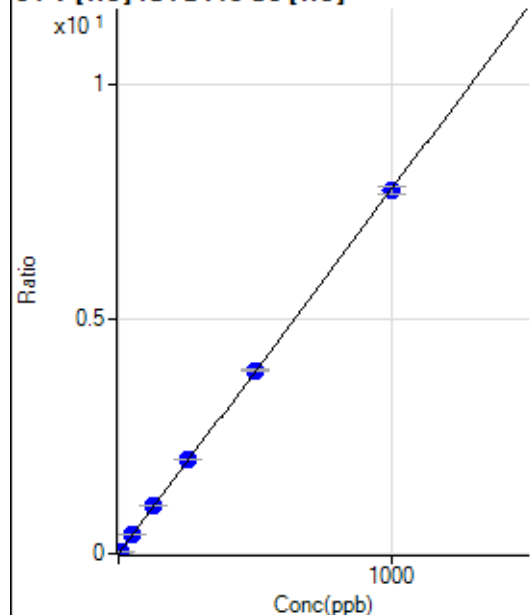
$$DL = 0.03028$$

$$BEC = 0.05695$$

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	12.22	0.0000	P	14.9
2	☐	5.000	5.313	17000.05	0.0413	P	1.3
3	☐	50.000	51.308	157746.34	0.3987	P	1.0
4	☐	125.000	130.012	387843.75	1.0103	P	0.3
5	☐	250.000	258.904	781395.91	2.0118	P	0.4
6	☐	500.000	502.895	1525011.63	3.9078	P	0.5
7	☐	1000.000	995.633	3000104.43	7.7366	P	2.0
8	☐			812.26	0.0021	P	1.4

$$y = 0.0078 * x + 2.9827\text{E-}005$$

$$R = 0.9999$$

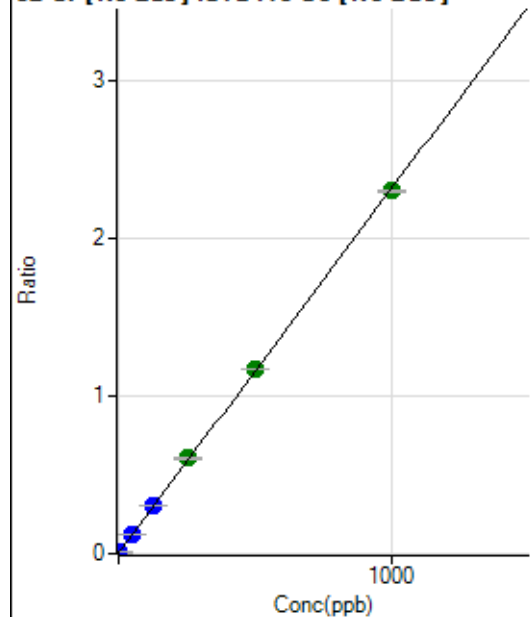
$$DL = 0.00172$$

$$BEC = 0.003839$$

Weight: <None>

Min Conc: 0

52 Cr [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28832.79	0.0029	P	0.8
2	☐	2.000	2.052	75133.58	0.0076	P	0.6
3	☐	50.000	51.896	1189577.96	0.1229	P	0.3
4	☐	125.000	132.047	2853710.69	0.3083	P	0.5
5	☐	250.000	260.318	5532413.53	0.6050	A	0.7
6	☐	500.000	505.387	10715234.70	1.1719	A	0.0
7	☐	1000.000	993.751	21300935.38	2.3016	A	0.6
8	☐			590808.93	0.0639	P	0.5

$$y = 0.0023 * x + 0.0029$$

$$R = 0.9999$$

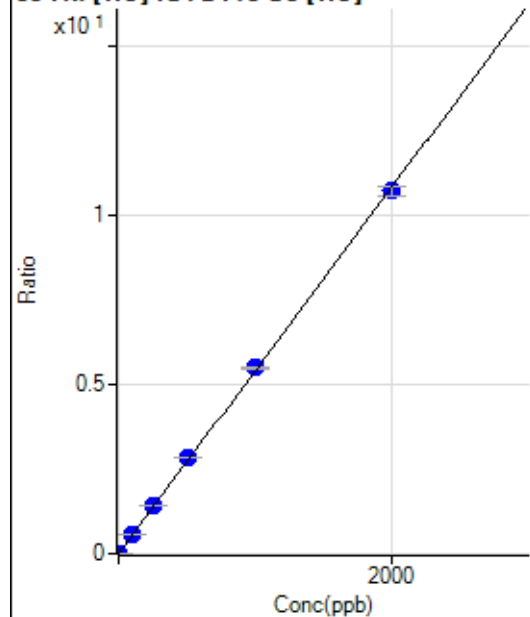
$$DL = 0.03036$$

$$BEC = 1.235$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	92.22	0.0002	P	29.7
2	☐	1.000	1.072	2478.03	0.0060	P	2.2
3	☐	100.000	105.605	226010.39	0.5712	P	0.8
4	☐	250.000	266.544	553373.81	1.4415	P	0.4
5	☐	500.000	527.854	1108632.92	2.8544	P	0.8
6	☐	1000.000	1017.216	2146576.96	5.5005	P	0.8
7	☐	2000.000	1982.080	4155744.35	10.7176	P	2.4
8	☐			14941.12	0.0378	P	2.2

$$y = 0.0054 * x + 2.2492E-004$$

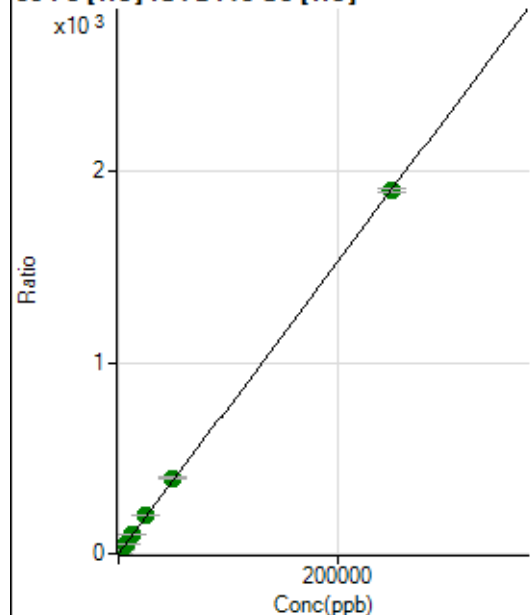
$$R = 0.9998$$

$$DL = 0.03704$$

$$BEC = 0.0416$$

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	4832.43	0.0118	P	4.6
2	☐	50.000	55.862	179721.21	0.4368	P	1.2
3	☐	2500.000	2727.211	8213656.26	20.7601	A	0.6
4	☐	6250.000	6930.801	20247023.60	52.7405	A	0.4
5	☐	12500.000	13770.214	40693644.89	104.7740	A	0.6
6	☐	25000.000	26542.162	78808259.17	201.9415	A	0.6
7	☐	50000.000	52143.546	153842133.0	396.7139	A	1.7
8	☐	250000.00	249334.27	749180750.0	1,896.918	A	1.0

$$y = 0.0076 * x + 0.0118$$

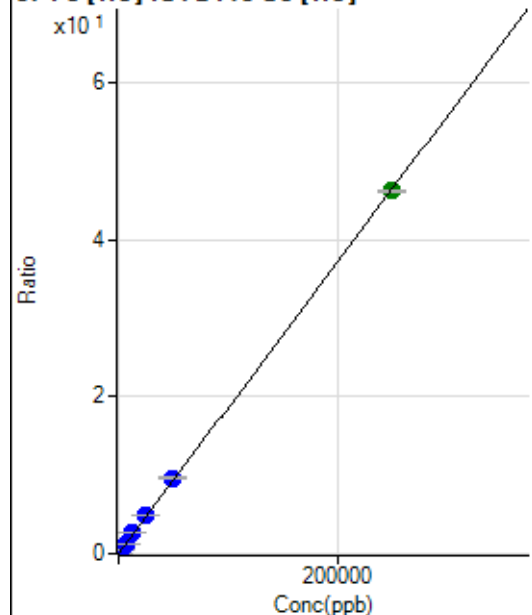
$$R = 0.9999$$

$$DL = 0.2145$$

$$BEC = 1.551$$

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	179.64	0.0004	P	10.1
2	☐	50.000	58.189	4611.96	0.0112	P	6.6
3	☐	2500.000	2771.561	203199.70	0.5136	P	0.2
4	☐	6250.000	7031.746	499958.27	1.3023	P	0.5
5	☐	12500.000	13929.361	1001830.59	2.5794	P	0.4
6	☐	25000.000	26640.553	1925025.33	4.9328	P	0.5
7	☐	50000.000	52089.762	3739731.10	9.6445	P	2.3
8	☐	250000.00	249324.26	18232236.06	46.1612	A	0.7

$$y = 1.8514E-004 * x + 4.3891E-004$$

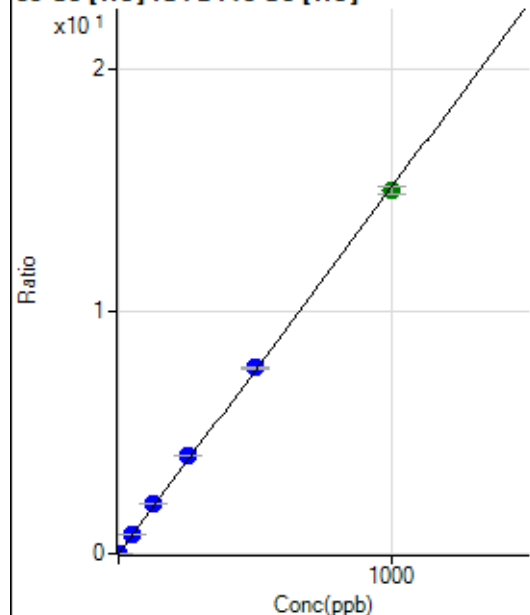
$$R = 0.9999$$

$$DL = 0.7181$$

$$BEC = 2.371$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	92.23	0.0002	P	6.5
2	☐	1.000	1.036	6549.34	0.0159	P	2.1
3	☐	50.000	53.708	321843.59	0.8134	P	0.4
4	☐	125.000	134.813	783716.55	2.0415	P	0.2
5	☐	250.000	268.018	1576303.75	4.0584	P	0.7
6	☐	500.000	507.634	2999680.93	7.6865	P	1.0
7	☐	1000.000	990.267	5814053.18	14.9942	A	2.3
8	☐			10686.24	0.0270	P	2.2

$$y = 0.0151 * x + 2.2541E-004$$

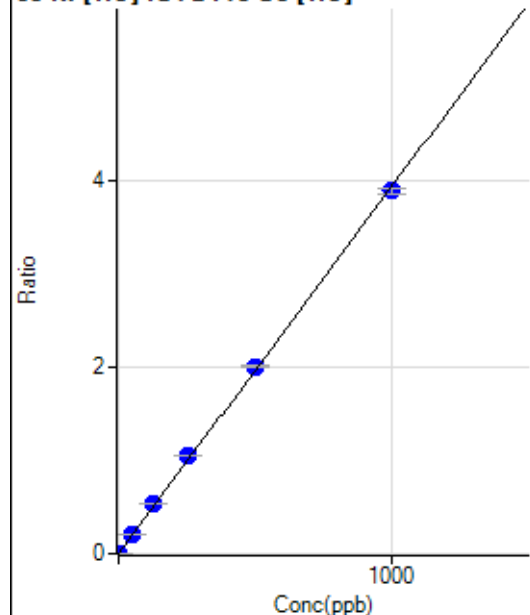
$$R = 0.9998$$

$$DL = 0.002902$$

$$BEC = 0.01489$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	67.78	0.0002	P	14.6
2	☐	1.000	1.104	1859.04	0.0045	P	0.9
3	☐	50.000	54.478	85054.78	0.2150	P	1.0
4	☐	125.000	135.886	205754.03	0.5360	P	0.5
5	☐	250.000	267.628	409912.69	1.0554	P	0.9
6	☐	500.000	510.080	784968.97	2.0114	P	1.1
7	☐	1000.000	988.968	1512255.85	3.8997	P	1.9
8	☐			29218.18	0.0740	P	0.4

$$y = 0.0039 * x + 1.6540E-004$$

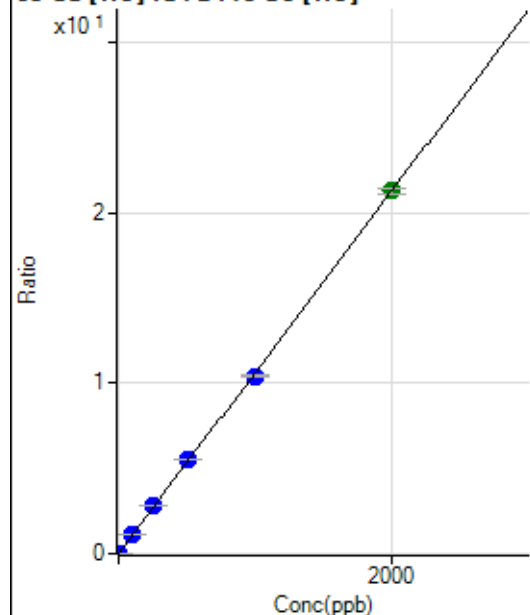
$$R = 0.9997$$

$$DL = 0.01842$$

$$BEC = 0.04195$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	988.94	0.0024	P	2.3
2	☐	2.000	2.017	9813.42	0.0239	P	1.9
3	☐	100.000	106.372	448230.06	1.1329	P	0.1
4	☐	250.000	266.436	1087956.15	2.8340	P	0.3
5	☐	500.000	519.331	2144608.61	5.5216	P	0.3
6	☐	1000.000	980.443	4067264.11	10.4221	P	1.0
7	☐	2000.000	2002.573	8253792.79	21.2848	A	1.9
8	☐			12751.25	0.0323	P	2.5

$$y = 0.0106 * x + 0.0024$$

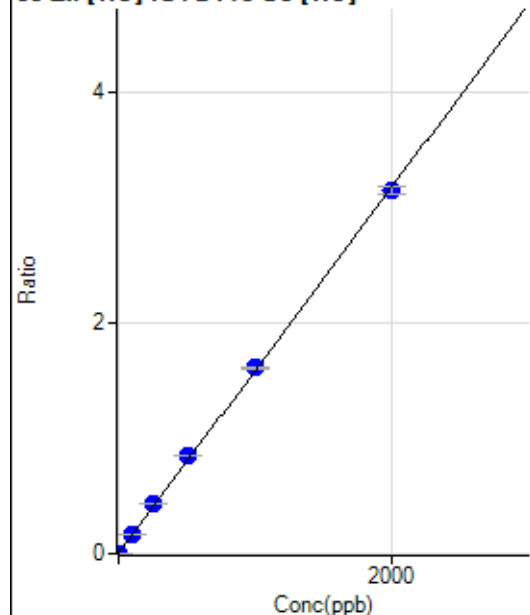
$$R = 0.9999$$

$$DL = 0.0154$$

$$BEC = 0.2273$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1285.64	0.0031	P	4.8
2	☐	2.000	1.519	2281.32	0.0055	P	2.5
3	☐	100.000	106.528	67942.82	0.1717	P	1.3
4	☐	250.000	273.022	167077.33	0.4352	P	0.5
5	☐	500.000	535.036	330085.71	0.8499	P	0.9
6	☐	1000.000	1013.470	627134.57	1.6070	P	0.6
7	☐	2000.000	1981.303	1217022.46	3.1386	P	2.2
8	☐			15982.26	0.0405	P	2.1

$$y = 0.0016 * x + 0.0031$$

$$R = 0.9998$$

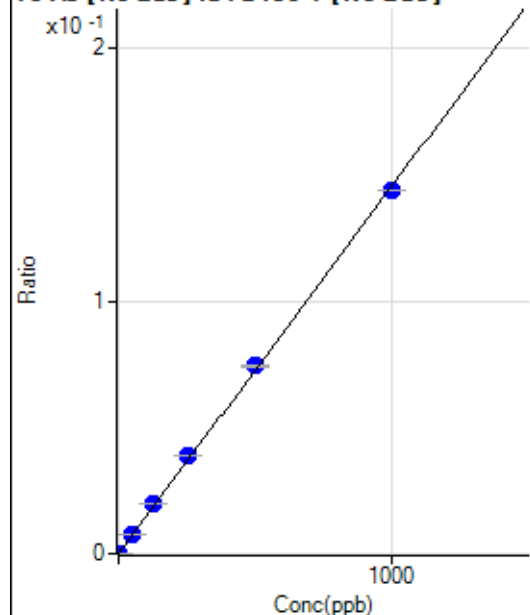
$$DL = 0.2877$$

$$BEC = 1.985$$

Weight: <None>

Min Conc: 0

75 As [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-1857.37	-0.0001	P	-9.4
2	☐	1.000	0.908	717.53	0.0000	P	36.5
3	☐	50.000	53.626	145128.79	0.0077	P	1.1
4	☐	125.000	134.873	359325.77	0.0195	P	0.6
5	☐	250.000	266.293	708930.51	0.0386	P	1.0
6	☐	500.000	511.403	1358309.07	0.0742	P	0.6
7	☐	1000.000	988.810	2633727.39	0.1436	P	0.1
8	☐			-1110.79	-0.0001	P	-7.7

$$y = 1.4530E-004 * x - 9.4433E-005$$

$$R = 0.9997$$

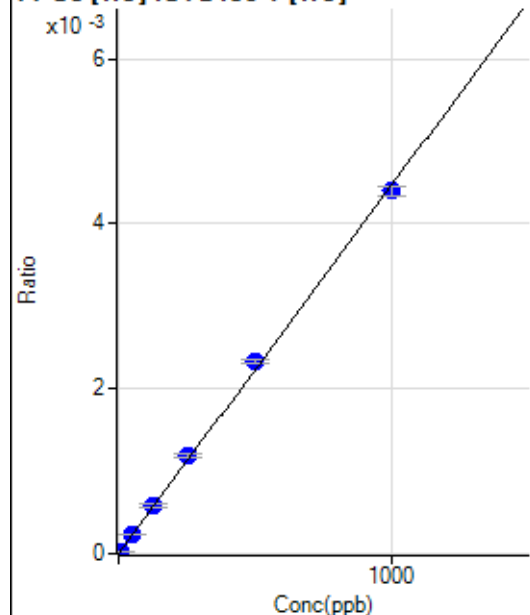
$$DL = 0.1839$$

$$BEC = -0.6499$$

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	☐	5.000	6.663	71.11	0.0000	P	16.7
3	☐	50.000	51.961	538.91	0.0002	P	4.2
4	☐	125.000	129.317	1304.53	0.0006	P	9.5
5	☐	250.000	264.340	2710.30	0.0012	P	4.0
6	☐	500.000	521.398	5384.41	0.0023	P	1.7
7	☐	1000.000	985.070	9975.77	0.0044	P	2.9
8	☐			6.67	0.0000	P	1.4

$$y = 4.4663E-006 * x + 0.0000E+000$$

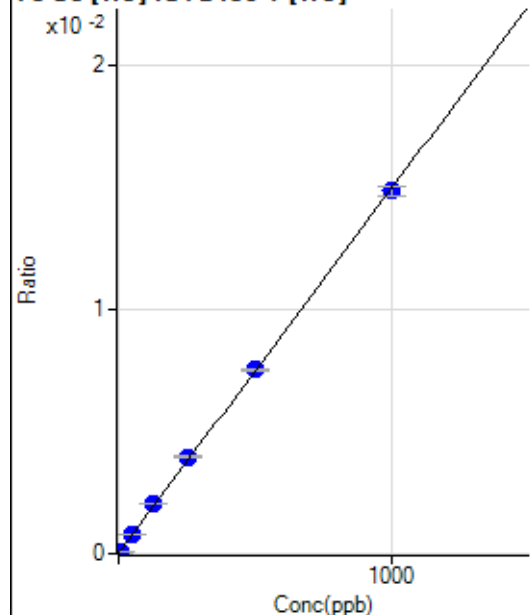
$$R = 0.9995$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.47	0.0000	P	26.1
2	☐	5.000	6.073	269.76	0.0001	P	3.1
3	☐	50.000	52.721	1881.00	0.0008	P	0.6
4	☐	125.000	134.600	4593.97	0.0020	P	1.8
5	☐	250.000	264.273	9117.74	0.0040	P	1.9
6	☐	500.000	503.337	17448.24	0.0075	P	1.0
7	☐	1000.000	993.422	33718.74	0.0149	P	2.7
8	☐			75.93	0.0000	P	9.5

$$y = 1.4946\text{E-}005 * x + 2.2085\text{E-}005$$

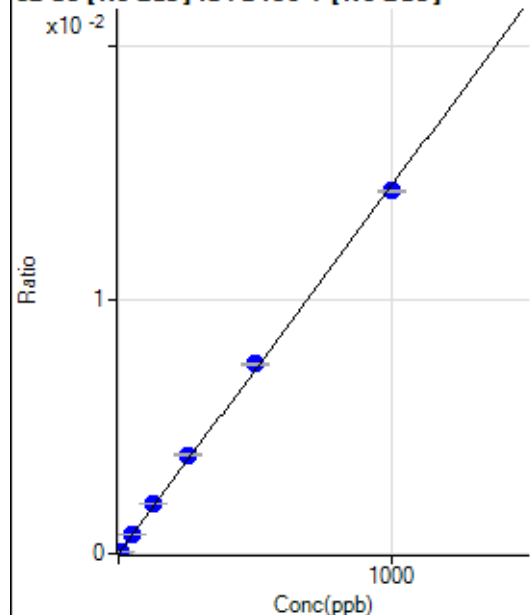
$$R = 0.9999$$

$$DL = 1.159$$

$$BEC = 1.478$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	21.35	0.0000	P	50.5
2	☐	5.000	5.575	1569.49	0.0001	P	5.6
3	☐	50.000	53.928	14755.95	0.0008	P	1.3
4	☐	125.000	136.800	36548.20	0.0020	P	0.4
5	☐	250.000	268.625	71518.13	0.0039	P	0.8
6	☐	500.000	515.084	136644.43	0.0075	P	1.1
7	☐	1000.000	986.128	262175.69	0.0143	P	0.6
8	☐			178.48	0.0000	P	53.6

$$y = 1.4492\text{E-}005 * x + 1.0897\text{E-}006$$

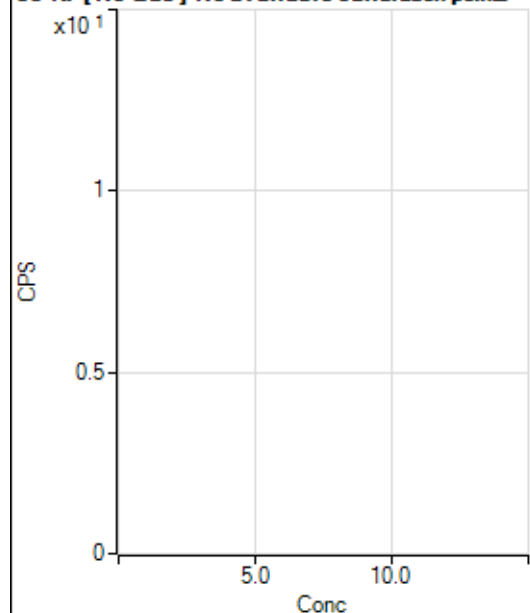
$$R = 0.9996$$

$$DL = 0.114$$

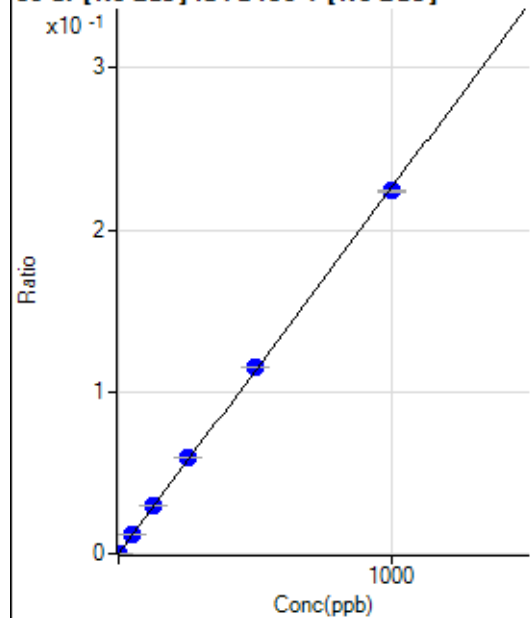
$$BEC = 0.07519$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			925.60		P	0.7
2	☐			986.72		P	2.8
3	☐			945.60		P	5.5
4	☐			936.71		P	5.4
5	☐			930.05		P	3.6
6	☐			916.71		P	1.6
7	☐			923.38		P	2.7
8	☐			998.94		P	9.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1461.25	0.0001	P	6.8
2	☐	1.000	1.023	5854.23	0.0003	P	4.1
3	☐	50.000	52.151	223480.19	0.0119	P	1.1
4	☐	125.000	132.796	554010.37	0.0301	P	0.1
5	☐	250.000	262.278	1089334.48	0.0593	P	0.7
6	☐	500.000	508.590	2103895.29	0.1149	P	0.2
7	☐	1000.000	991.553	4109429.26	0.2240	P	0.5
8	☐			17875.58	0.0010	P	0.2

$$y = 2.2586E-004 * x + 7.4198E-005$$

$$R = 0.9998$$

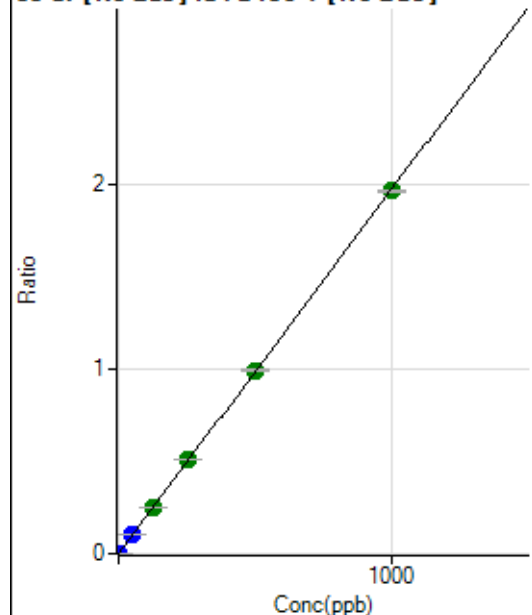
$$DL = 0.06718$$

$$BEC = 0.3285$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	300.02	0.0000	P	1.4
2	☐	1.000	1.019	38914.87	0.0020	P	1.5
3	☐	50.000	51.286	1912433.98	0.1014	P	0.4
4	☐	125.000	128.653	4687836.34	0.2544	A	0.3
5	☐	250.000	257.755	9361122.08	0.5097	A	0.4
6	☐	500.000	503.191	18212788.08	0.9950	A	0.6
7	☐	1000.000	995.945	36125606.36	1.9694	A	0.2
8	☐			146207.25	0.0082	P	1.4

$$y = 0.0020 * x + 1.5244E-005$$

$$R = 1.0000$$

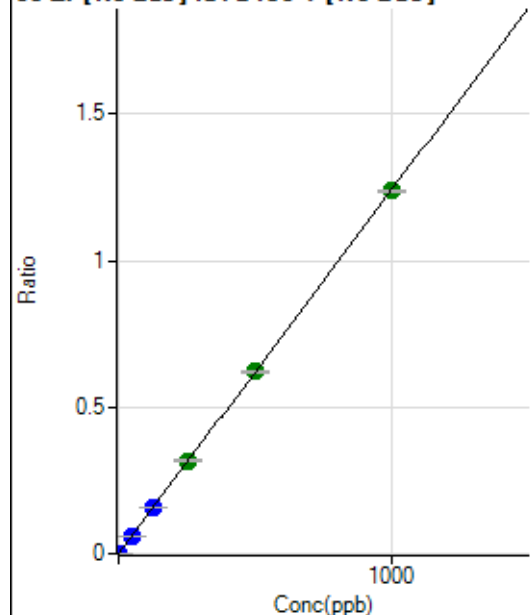
$$DL = 0.0003326$$

$$BEC = 0.007709$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1077.86	0.0001	P	6.3
2	☐	1.000	0.877	21909.23	0.0011	P	2.3
3	☐	50.000	49.882	1167948.44	0.0619	P	0.3
4	☐	125.000	127.774	2921867.47	0.1586	P	0.5
5	☐	250.000	256.409	5843715.76	0.3182	A	0.4
6	☐	500.000	500.574	11368435.67	0.6211	A	0.6
7	☐	1000.000	997.770	22709101.55	1.2380	A	0.3
8	☐			6204.39	0.0003	P	3.7

$$y = 0.0012 * x + 5.4726E-005$$

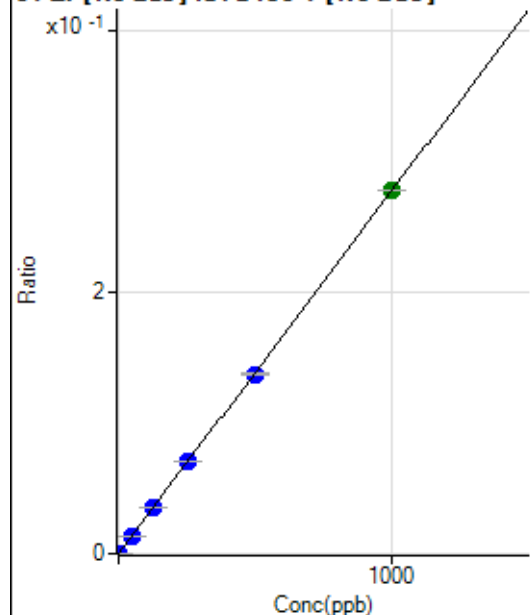
$$R = 1.0000$$

$$DL = 0.008313$$

$$BEC = 0.04411$$

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	238.90	0.0000	P	10.0
2	☐	1.000	0.899	5014.99	0.0003	P	4.7
3	☐	50.000	50.039	262110.66	0.0139	P	0.6
4	☐	125.000	128.577	657809.13	0.0357	P	0.4
5	☐	250.000	254.299	1296614.35	0.0706	P	0.8
6	☐	500.000	494.908	2514632.93	0.1374	P	1.1
7	☐	1000.000	1001.022	5097155.76	0.2779	A	0.2
8	☐			1447.36	0.0001	P	11.7

$$y = 2.7758\text{E-}004 * x + 1.2132\text{E-}005$$

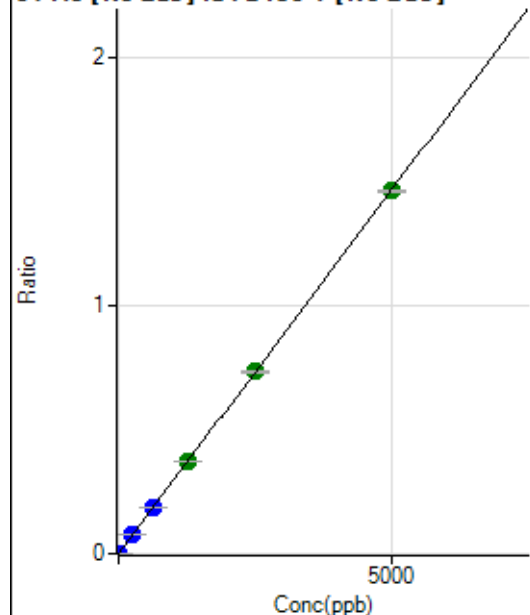
$$R = 1.0000$$

$$DL = 0.01309$$

$$BEC = 0.04371$$

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	452.81	0.0000	P	25.0
2	☐	5.000	5.009	28601.71	0.0015	P	0.6
3	☐	250.000	252.737	1397981.79	0.0741	P	0.4
4	☐	625.000	639.129	3453853.03	0.1875	P	1.0
5	☐	1250.000	1275.030	6868074.46	0.3740	A	0.5
6	☐	2500.000	2505.008	13446886.93	0.7347	A	0.7
7	☐	5000.000	4989.336	26842013.10	1.4633	A	0.4
8	☐			19519.56	0.0011	P	1.7

$$y = 2.9328\text{E-}004 * x + 2.3023\text{E-}005$$

$$R = 1.0000$$

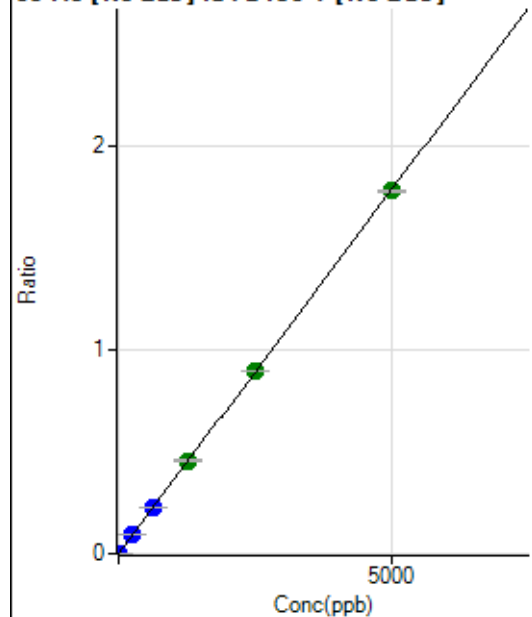
$$DL = 0.05879$$

$$BEC = 0.0785$$

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	125.00	0.0000	P	27.8
2	☐	5.000	5.283	36310.98	0.0019	P	0.9
3	☐	250.000	253.470	1707676.17	0.0906	P	0.9
4	☐	625.000	636.433	4189786.86	0.2274	P	0.8
5	☐	1250.000	1279.877	8398493.42	0.4573	A	1.1
6	☐	2500.000	2508.272	16403280.57	0.8962	A	0.8
7	☐	5000.000	4986.792	32685269.48	1.7818	A	0.8
8	☐			30269.13	0.0017	P	1.1

$$y = 3.5730E-004 * x + 6.3372E-006$$

$$R = 1.0000$$

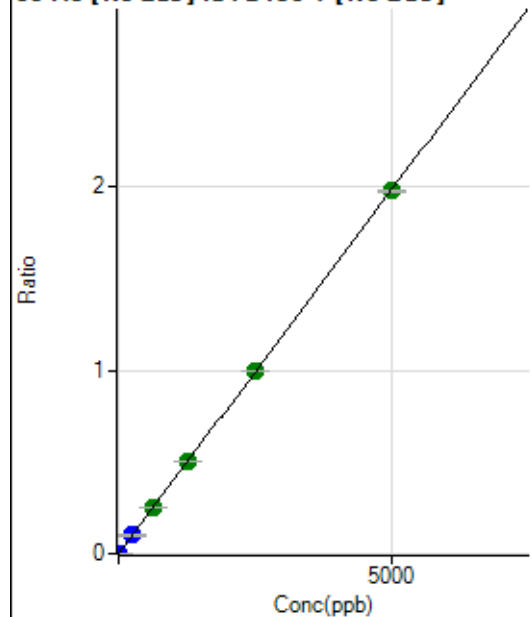
$$DL = 0.01482$$

$$BEC = 0.01774$$

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	219.46	0.0000	P	12.5
2	☐	5.000	5.247	40110.10	0.0021	P	1.2
3	☐	250.000	251.991	1884947.68	0.1000	P	0.9
4	☐	625.000	637.248	4657883.22	0.2528	A	0.3
5	☐	1250.000	1274.753	9287416.62	0.5057	A	0.5
6	☐	2500.000	2509.924	18223895.89	0.9957	A	0.7
7	☐	5000.000	4987.219	36291588.31	1.9784	A	0.7
8	☐			39670.25	0.0022	P	3.6

$$y = 3.9669E-004 * x + 1.1157E-005$$

$$R = 1.0000$$

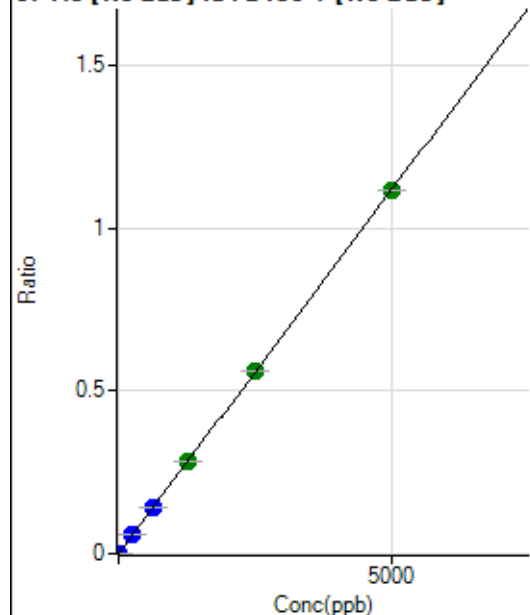
$$DL = 0.01053$$

$$BEC = 0.02813$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	32.6
2	☐	5.000	5.287	22757.85	0.0012	P	2.3
3	☐	250.000	253.211	1067965.48	0.0566	P	0.7
4	☐	625.000	640.416	2639514.47	0.1433	P	0.2
5	☐	1250.000	1279.141	5254866.44	0.2861	A	0.4
6	☐	2500.000	2506.219	10260561.77	0.5606	A	0.6
7	☐	5000.000	4987.517	20464039.00	1.1156	A	0.1
8	☐			17850.84	0.0010	P	1.8

$$y = 2.2368\text{E-}004 * x + 4.6570\text{E-}006$$

$$R = 1.0000$$

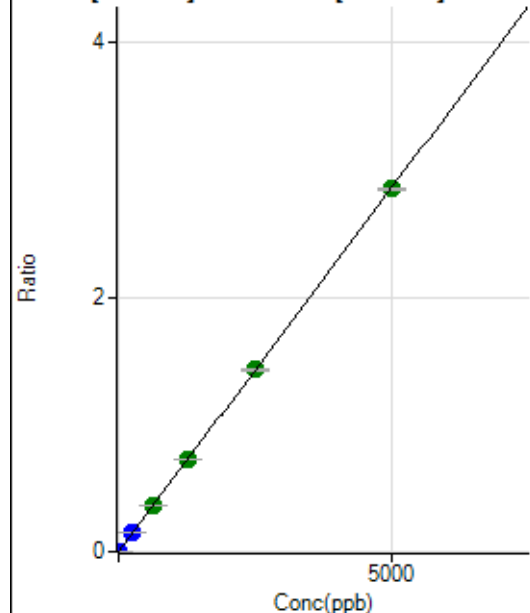
$$DL = 0.02034$$

$$BEC = 0.02082$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	213.90	0.0000	P	3.4
2	☐	5.000	5.298	58225.38	0.0030	P	0.8
3	☐	250.000	252.745	2722184.52	0.1444	P	0.7
4	☐	625.000	636.648	6700793.46	0.3637	A	0.4
5	☐	1250.000	1274.474	13370115.84	0.7280	A	0.5
6	☐	2500.000	2506.893	26208470.20	1.4319	A	0.7
7	☐	5000.000	4988.841	52270130.68	2.8496	A	0.8
8	☐			45852.79	0.0026	P	2.2

$$y = 5.7119\text{E-}004 * x + 1.0870\text{E-}005$$

$$R = 1.0000$$

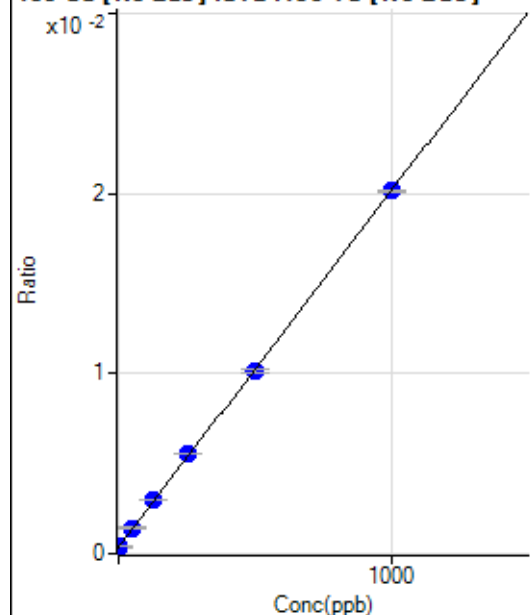
$$DL = 0.001958$$

$$BEC = 0.01903$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7719.05	0.0004	P	3.0
2	☐	1.000	2.581	8600.16	0.0004	P	1.6
3	☐	50.000	54.736	30453.17	0.0014	P	1.1
4	☐	125.000	133.362	62829.09	0.0030	P	0.4
5	☐	250.000	261.276	117039.25	0.0055	P	0.6
6	☐	500.000	493.608	213781.68	0.0101	P	1.3
7	☐	1000.000	999.093	425078.37	0.0201	P	0.9
8	☐			7933.12	0.0004	P	1.8

$$y = 1.9806\text{E-}005 * x + 3.5319\text{E-}004$$

$$R = 0.9999$$

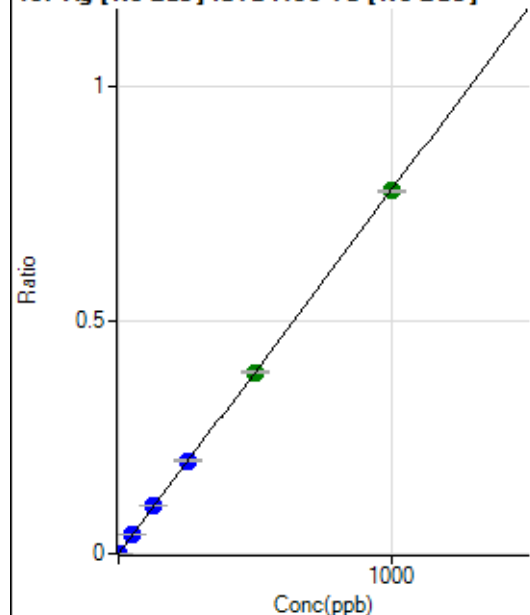
$$DL = 1.605$$

$$BEC = 17.83$$

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	225.01	0.0000	P	6.3
2	☐	1.000	2.571	42821.34	0.0020	P	0.9
3	☐	50.000	53.971	890950.81	0.0421	P	0.8
4	☐	125.000	133.538	2182675.68	0.1040	P	0.8
5	☐	250.000	255.834	4219370.53	0.1993	P	0.7
6	☐	500.000	499.412	8210819.89	0.3891	A	0.7
7	☐	1000.000	997.568	16401033.35	0.7771	A	0.2
8	☐			1730.74	0.0001	P	7.8

$$y = 7.7900\text{E-}004 * x + 1.0292\text{E-}005$$

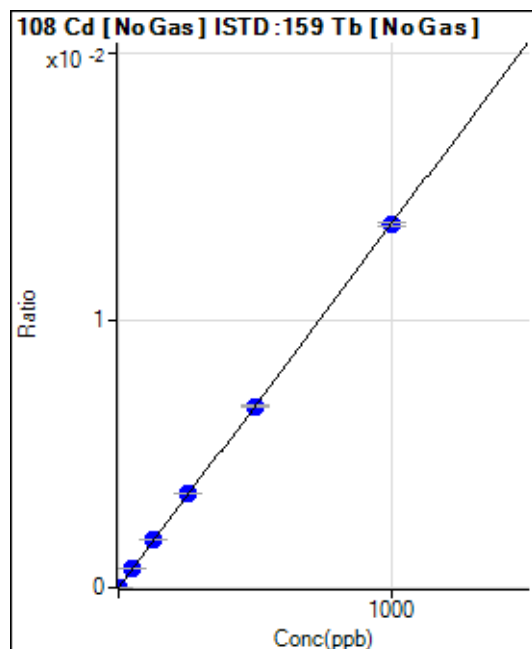
$$R = 1.0000$$

$$DL = 0.002517$$

$$BEC = 0.01321$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18.06	0.0000	P	36.1
2	☐	1.000	1.010	309.73	0.0000	P	8.7
3	☐	50.000	53.044	15294.62	0.0007	P	3.6
4	☐	125.000	133.711	38151.49	0.0018	P	1.1
5	☐	250.000	259.217	74617.36	0.0035	P	1.2
6	☐	500.000	498.784	143116.98	0.0068	P	0.6
7	☐	1000.000	997.063	286056.78	0.0136	P	0.9
8	☐			101.39	0.0000	P	12.7

$$y = 1.3593\text{E-}005 * x + 8.2772\text{E-}007$$

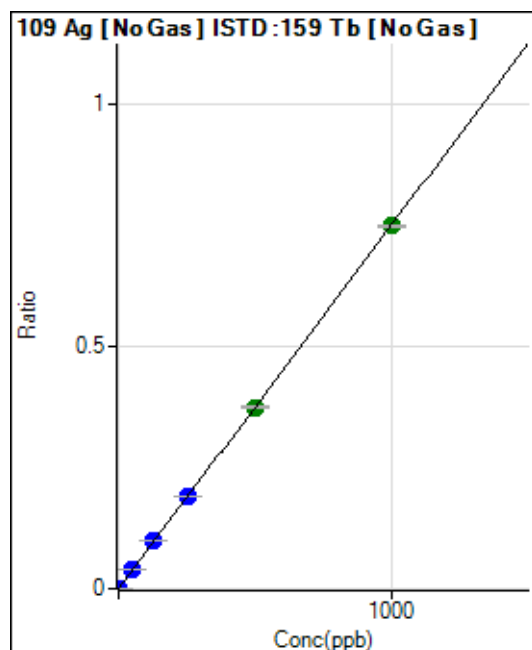
$$R = 0.9999$$

$$DL = 0.06596$$

$$BEC = 0.06089$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	20.4
2	☐	1.000	2.563	41046.81	0.0019	P	0.4
3	☐	50.000	53.859	857987.90	0.0405	P	0.1
4	☐	125.000	133.699	2108935.11	0.1005	P	1.0
5	☐	250.000	254.980	4058675.96	0.1917	P	0.2
6	☐	500.000	499.564	7927169.88	0.3756	A	0.4
7	☐	1000.000	997.691	15830942.54	0.7501	A	0.6
8	☐			1525.14	0.0001	P	4.2

$$y = 7.5185\text{E-}004 * x + 2.9253\text{E-}006$$

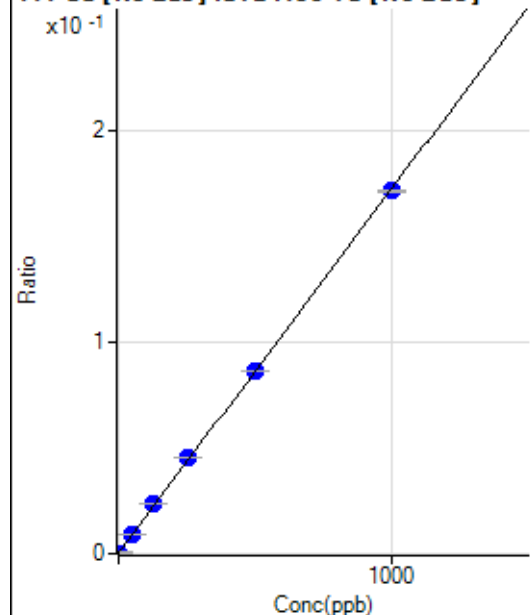
$$R = 1.0000$$

$$DL = 0.002378$$

$$BEC = 0.003891$$

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	5421.25	0.0002	P	2.8
2	☐	1.000	1.185	9619.18	0.0005	P	1.7
3	☐	50.000	53.847	201815.53	0.0095	P	0.3
4	☐	125.000	135.690	495694.35	0.0236	P	0.5
5	☐	250.000	262.817	963936.70	0.0455	P	0.8
6	☐	500.000	500.728	1826060.93	0.0865	P	0.2
7	☐	1000.000	994.903	3622981.07	0.1717	P	0.6
8	☐			6203.07	0.0003	P	1.4

$$y = 1.7229\text{E-}004 * x + 2.4806\text{E-}004$$

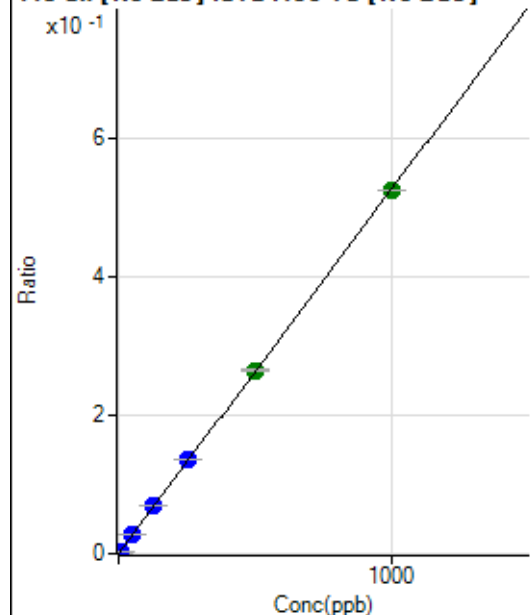
$$R = 0.9999$$

$$DL = 0.1195$$

$$BEC = 1.44$$

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	1950.21	0.0001	P	13.8
2	☐	5.000	5.409	62338.94	0.0029	P	2.0
3	☐	50.000	52.063	581317.54	0.0274	P	0.4
4	☐	125.000	131.949	1456078.98	0.0694	P	0.4
5	☐	250.000	256.916	2858997.52	0.1350	P	0.4
6	☐	500.000	503.374	5582482.07	0.2645	A	0.5
7	☐	1000.000	995.610	11039689.31	0.5231	A	0.1
8	☐			6376.72	0.0003	P	3.1

$$y = 5.2530\text{E-}004 * x + 8.9159\text{E-}005$$

$$R = 1.0000$$

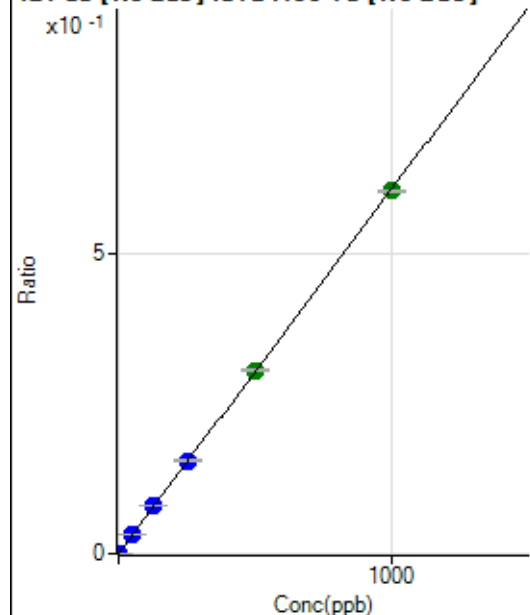
$$DL = 0.0705$$

$$BEC = 0.1697$$

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	263.90	0.0000	P	24.9
2	☐	2.000	2.008	26119.46	0.0012	P	1.4
3	☐	50.000	51.299	658409.66	0.0311	P	0.4
4	☐	125.000	131.016	1664764.49	0.0794	P	0.7
5	☐	250.000	255.867	3280504.82	0.1550	P	0.5
6	☐	500.000	503.798	6439017.16	0.3051	A	0.5
7	☐	1000.000	995.817	12727206.27	0.6030	A	0.2
8	☐			14043.69	0.0007	P	7.5

$$y = 6.0557\text{E-}004 * x + 1.2091\text{E-}005$$

$$R = 1.0000$$

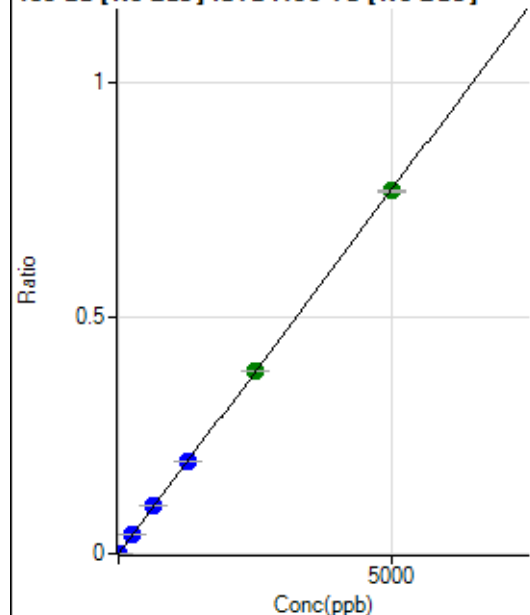
$$DL = 0.01494$$

$$BEC = 0.01997$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	75.00	0.0000	P	50.5
2	☐	10.000	10.391	34170.60	0.0016	P	2.8
3	☐	250.000	259.820	849294.45	0.0401	P	0.3
4	☐	625.000	652.548	2112193.04	0.1007	P	0.4
5	☐	1250.000	1269.436	4146111.77	0.1958	P	0.6
6	☐	2500.000	2514.231	8186228.92	0.3879	A	0.3
7	☐	5000.000	4984.091	16227497.41	0.7689	A	0.6
8	☐			2703.15	0.0001	P	2.0

$$y = 1.5427\text{E-}004 * x + 3.4285\text{E-}006$$

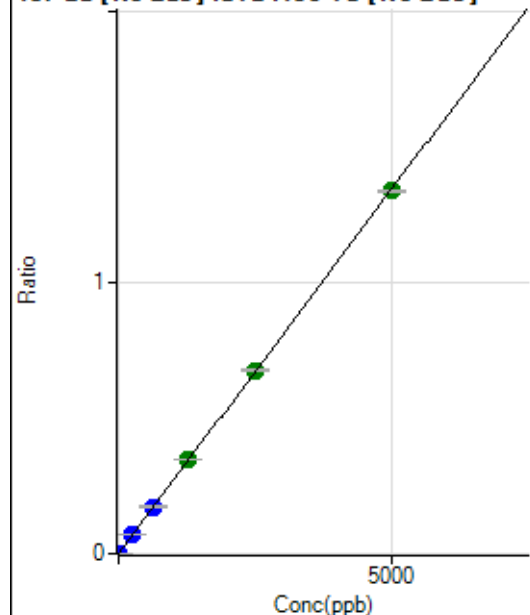
$$R = 1.0000$$

$$DL = 0.03364$$

$$BEC = 0.02222$$

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	119.45	0.0000	P	44.6
2	☐	10.000	10.480	60013.87	0.0028	P	1.0
3	☐	250.000	258.591	1472231.14	0.0695	P	0.8
4	☐	625.000	646.033	3641973.13	0.1736	P	0.7
5	☐	1250.000	1287.635	7324405.89	0.3460	A	0.9
6	☐	2500.000	2516.881	14272780.70	0.6763	A	0.6
7	☐	5000.000	4979.091	28235738.83	1.3379	A	0.3
8	☐			4631.54	0.0002	P	7.2

$$y = 2.6869E-004 * x + 5.4640E-006$$

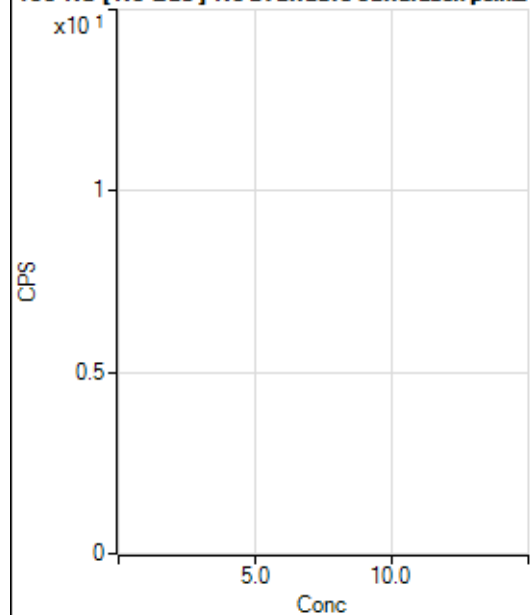
$$R = 1.0000$$

$$DL = 0.02724$$

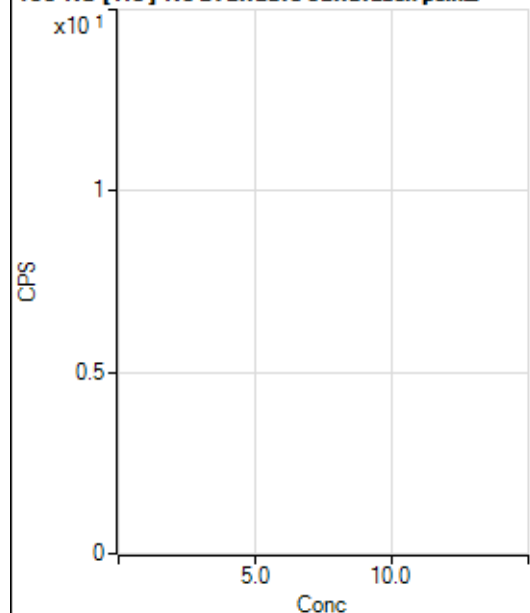
$$BEC = 0.02034$$

Weight: <None>

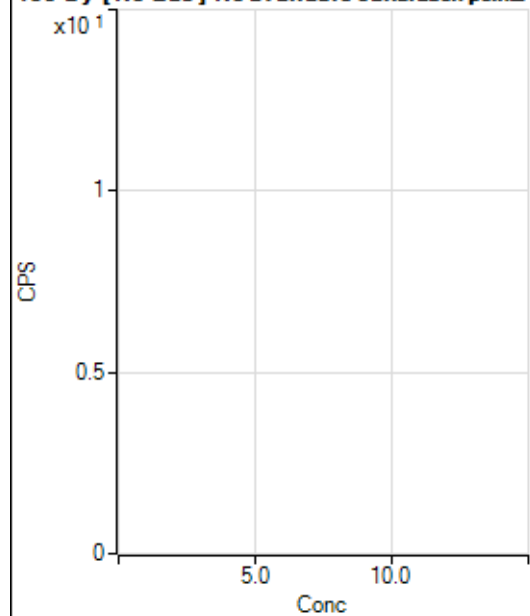
Min Conc: 0

150 Nd [No Gas] No available calibration points

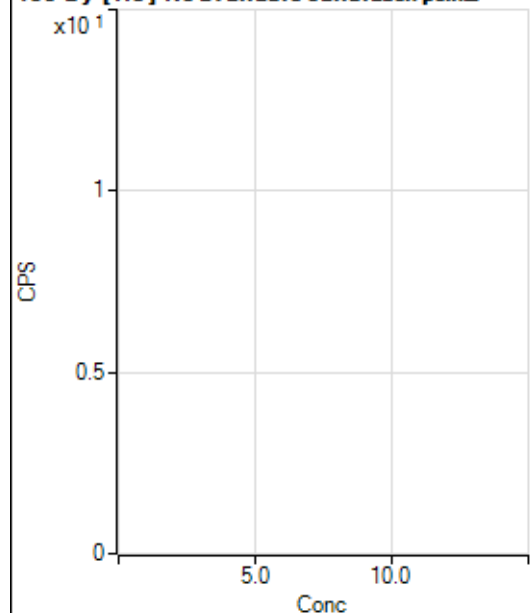
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			11.11		P	91.7
2	☐			8.89		P	86.6
3	☐			62.23		P	22.3
4	☐			182.23		P	18.4
5	☐			346.68		P	10.2
6	☐			660.04		P	4.4
7	☐			1233.43		P	4.8
8	☐			128.89		P	3.0

150 Nd [He] No available calibration points

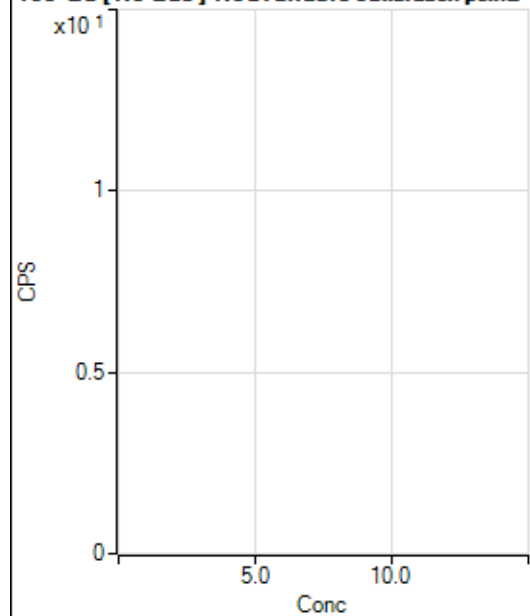
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	114.
2	☐			8.89		P	21.6
3	☐			12.22		P	31.5
4	☐			25.56		P	49.4
5	☐			41.11		P	46.8
6	☐			57.78		P	12.0
7	☐			106.67		P	14.3
8	☐			65.55		P	16.3

156 Dy [No Gas] No available calibration points

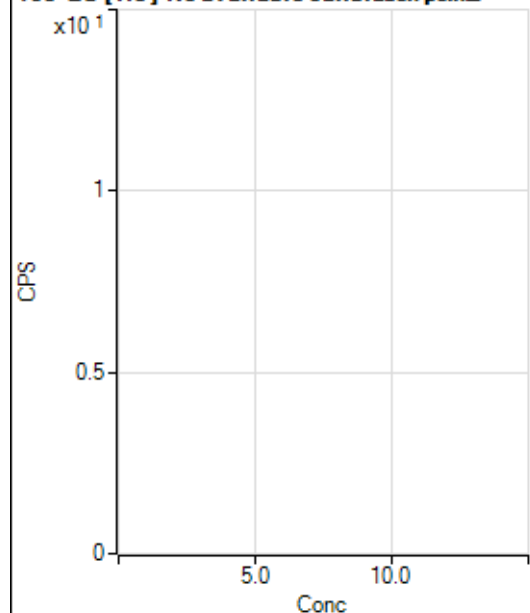
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐			41.67		P	91.7
3	☐			33.34		P	43.3
4	☐			80.56		P	31.6
5	☐			100.01		P	28.9
6	☐			141.67		P	17.6
7	☐			308.35		P	18.7
8	☐			105.56		P	4.6

156 Dy [He] No available calibration points

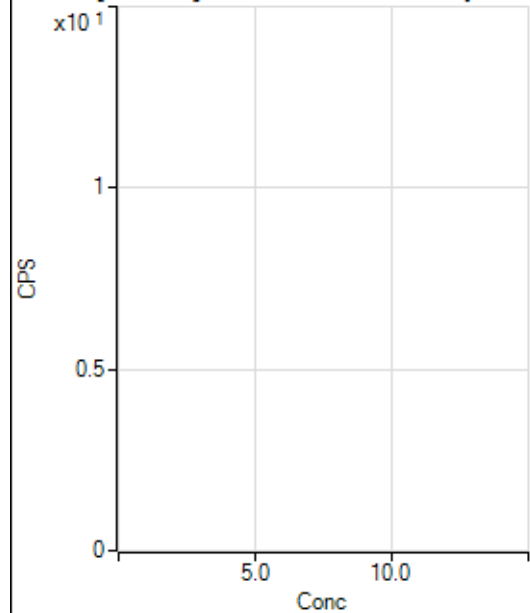
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			28.89		P	17.6
2	☐			36.67		P	9.1
3	☐			40.00		P	36.3
4	☐			62.22		P	8.2
5	☐			103.34		P	6.4
6	☐			166.67		P	12.5
7	☐			344.45		P	5.0
8	☐			55.56		P	3.5

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

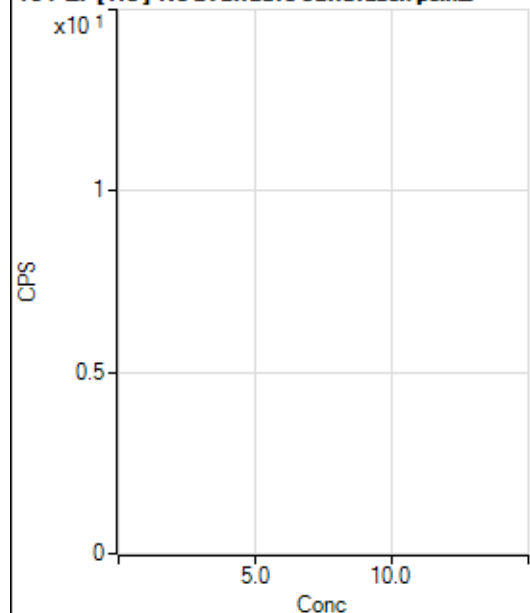
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			122.23		P	28.4
2	☐			147.23		P	14.2
3	☐			166.67		P	10.0
4	☐			163.90		P	24.0
5	☐			161.12		P	11.9
6	☐			205.57		P	33.8
7	☐			227.79		P	14.8
8	☐			175.01		P	9.5

160 Gd [He] No available calibration points

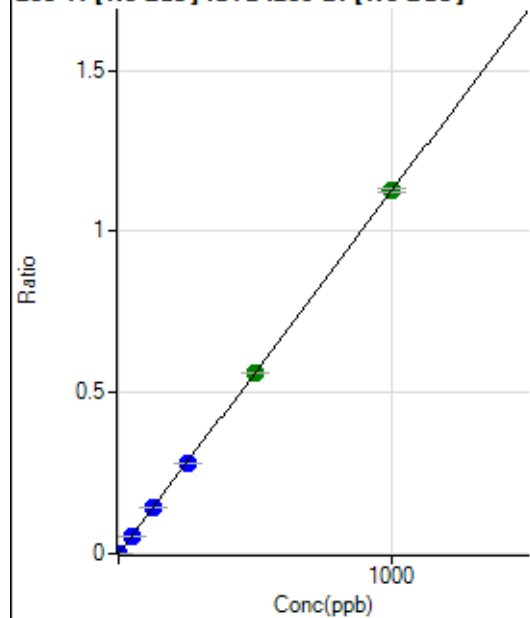
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			338.90		P	4.6
2	☐			298.90		P	17.4
3	☐			275.56		P	21.1
4	☐			302.23		P	10.2
5	☐			342.23		P	18.5
6	☐			312.23		P	9.9
7	☐			257.78		P	8.6
8	☐			316.68		P	7.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			116.67		P	14.3
2	☐			119.45		P	21.3
3	☐			122.23		P	3.9
4	☐			147.23		P	25.5
5	☐			147.23		P	8.6
6	☐			116.67		P	24.7
7	☐			177.79		P	13.5
8	☐			163.90		P	32.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.00		P	22.1
2	☐			57.78		P	13.3
3	☐			85.56		P	4.5
4	☐			71.11		P	7.2
5	☐			77.78		P	15.0
6	☐			92.23		P	11.0
7	☐			112.23		P	13.7
8	☐			91.11		P	15.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	855.62	0.0001	P	7.8
2	☐	1.000	0.946	14358.28	0.0011	P	4.1
3	☐	50.000	49.271	701281.59	0.0555	P	0.4
4	☐	125.000	126.893	1778146.68	0.1427	P	0.9
5	☐	250.000	248.609	3472943.30	0.2796	P	1.2
6	☐	500.000	498.578	6810918.99	0.5607	A	0.5
7	☐	1000.000	1000.859	13337684.85	1.1255	A	1.0
8	☐			2967.14	0.0003	P	4.1

$$y = 0.0011 * x + 6.5215E-005$$

$$R = 1.0000$$

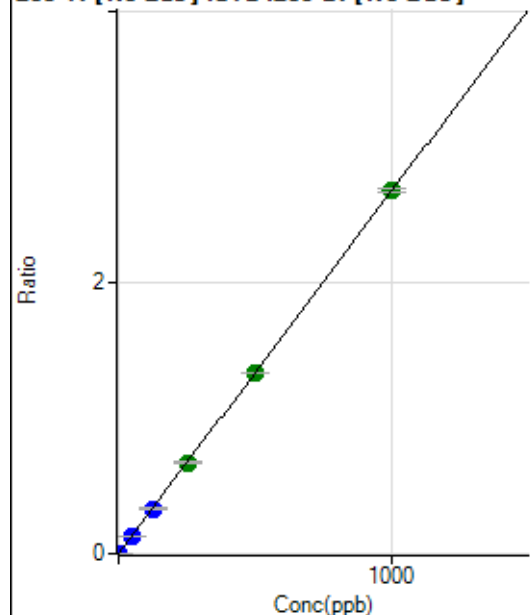
$$DL = 0.01362$$

$$BEC = 0.058$$

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	1177.88	0.0001	P	0.8
2	☐	1.000	0.968	34047.50	0.0027	P	2.4
3	☐	50.000	49.454	1671345.73	0.1322	P	0.5
4	☐	125.000	124.330	4138199.79	0.3322	P	0.7
5	☐	250.000	251.712	8352235.78	0.6725	A	0.9
6	☐	500.000	498.001	16160322.06	1.3304	A	0.3
7	☐	1000.000	1000.683	31678968.42	2.6732	A	1.1
8	☐			6560.29	0.0007	P	11.6

$$y = 0.0027 * x + 8.9815E-005$$

$$R = 1.0000$$

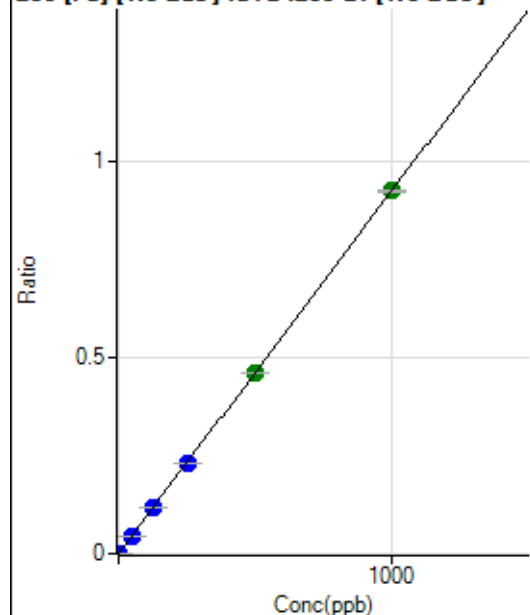
$$DL = 0.0007903$$

$$BEC = 0.03362$$

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	1648.30	0.0001	P	1.0
2	☐	1.000	0.926	12476.50	0.0010	P	0.7
3	☐	50.000	49.208	575955.70	0.0456	P	0.7
4	☐	125.000	126.413	1455342.23	0.1168	P	0.7
5	☐	250.000	248.088	2846433.48	0.2292	P	0.9
6	☐	500.000	498.759	5594872.58	0.4606	A	0.6
7	☐	1000.000	1000.962	10953122.35	0.9242	A	0.4
8	☐			37378.87	0.0037	P	0.5

$$y = 9.2323E-004 * x + 1.2569E-004$$

$$R = 1.0000$$

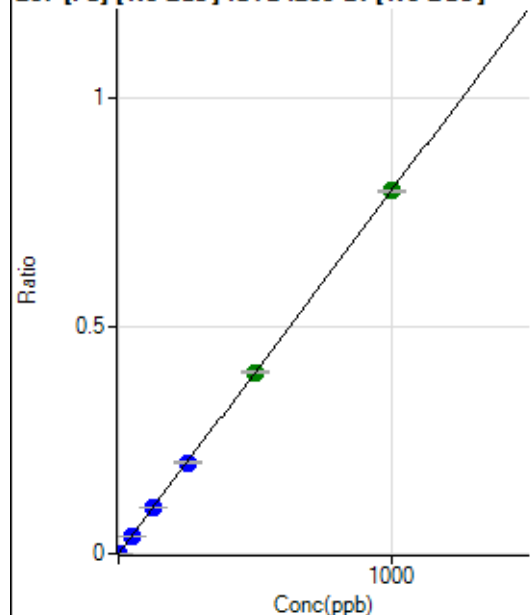
$$DL = 0.004086$$

$$BEC = 0.1361$$

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	1448.27	0.0001	P	8.5
2	☐	1.000	0.928	10823.25	0.0009	P	0.2
3	☐	50.000	49.552	500791.86	0.0396	P	1.7
4	☐	125.000	126.626	1258795.75	0.1011	P	0.3
5	☐	250.000	250.835	2485039.93	0.2001	P	0.9
6	☐	500.000	499.725	4840339.17	0.3985	A	0.4
7	☐	1000.000	999.748	9446187.71	0.7971	A	0.2
8	☐			32560.94	0.0033	P	2.4

$$y = 7.9717E-004 * x + 1.1046E-004$$

$$R = 1.0000$$

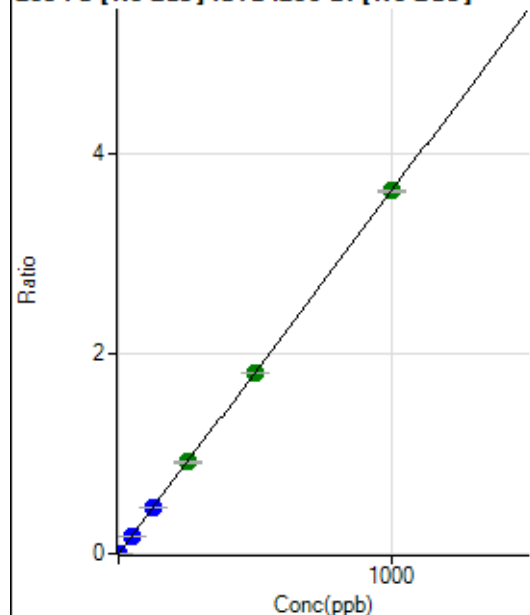
$$DL = 0.03519$$

$$BEC = 0.1386$$

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	6009.93	0.0005	P	2.6
2	☐	1.000	0.940	49273.86	0.0039	P	0.8
3	☐	50.000	49.705	2289052.55	0.1811	P	1.1
4	☐	125.000	126.234	5719002.57	0.4591	P	0.6
5	☐	250.000	251.706	11365000.11	0.9150	A	0.5
6	☐	500.000	499.070	22031837.36	1.8138	A	0.6
7	☐	1000.000	999.899	43060212.19	3.6335	A	0.2
8	☐			147402.26	0.0147	P	1.1

$$y = 0.0036 * x + 4.5823E-004$$

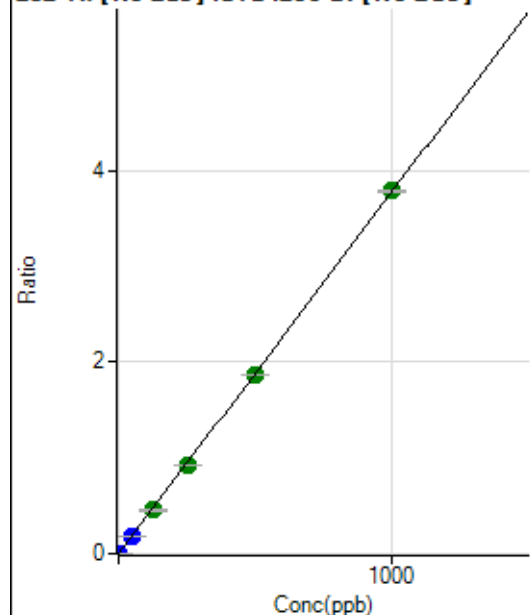
$$R = 1.0000$$

$$DL = 0.009744$$

$$BEC = 0.1261$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2365.11	0.0002	P	1.3
2	☐	1.000	0.845	42836.18	0.0034	P	2.4
3	☐	50.000	46.391	2213570.17	0.1751	P	0.8
4	☐	125.000	120.021	5639194.63	0.4527	A	0.5
5	☐	250.000	246.275	11534870.51	0.9287	A	0.3
6	☐	500.000	494.554	22651479.67	1.8647	A	0.3
7	☐	1000.000	1004.457	44881372.30	3.7872	A	0.6
8	☐			10343.26	0.0010	P	0.9

$$y = 0.0038 * x + 1.8037E-004$$

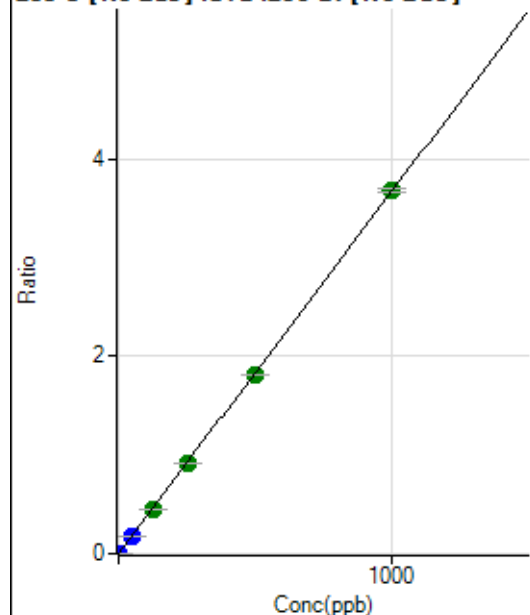
$$R = 1.0000$$

$$DL = 0.001805$$

$$BEC = 0.04784$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2403.10	0.0002	P	9.2
2	☐	1.000	0.921	45328.23	0.0036	P	1.8
3	☐	50.000	47.555	2209288.64	0.1747	P	1.3
4	☐	125.000	121.357	5551619.61	0.4457	A	0.2
5	☐	250.000	250.892	11441138.80	0.9211	A	0.4
6	☐	500.000	495.134	22080166.29	1.8177	A	0.7
7	☐	1000.000	1002.788	43625028.75	3.6812	A	0.9
8	☐			5209.59	0.0005	P	10.3

$$y = 0.0037 * x + 1.8333E-004$$

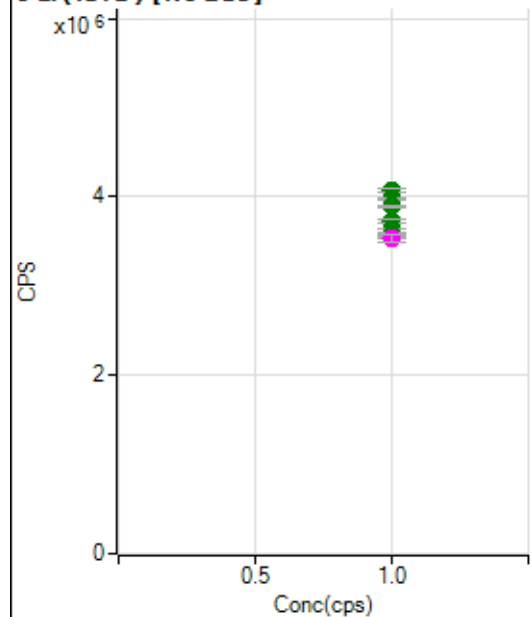
$$R = 1.0000$$

$$DL = 0.01384$$

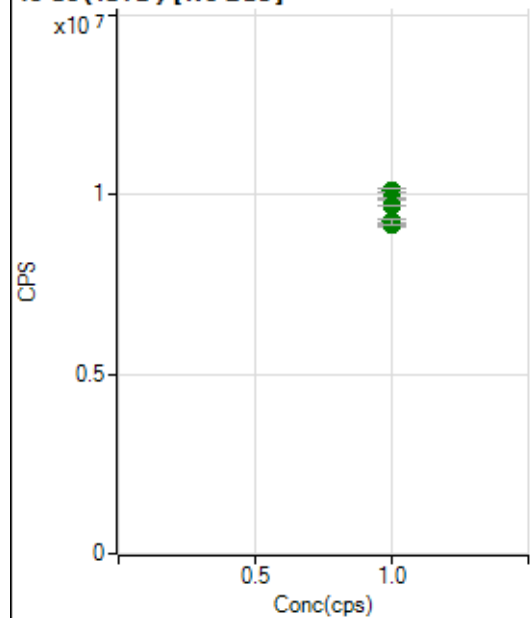
$$BEC = 0.04994$$

Weight: <None>

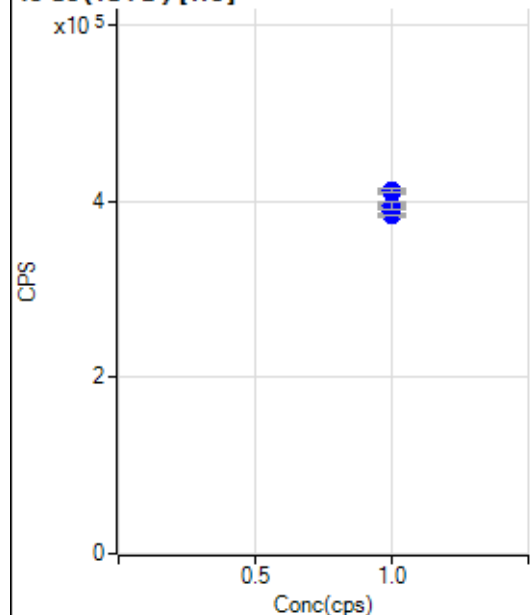
Min Conc: 0

6 Li (ISTD) [No Gas]

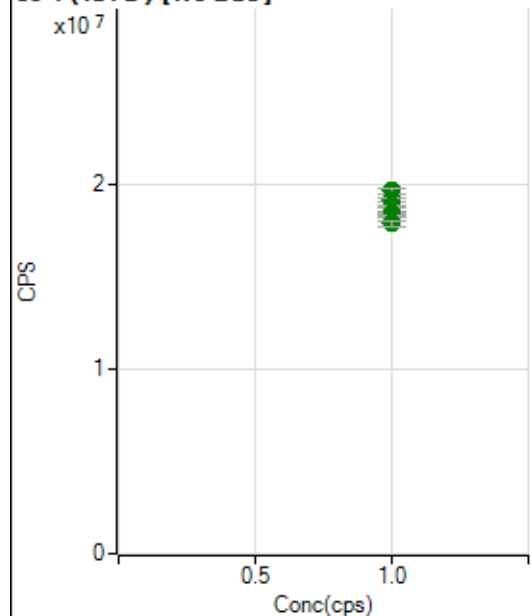
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4067450.25		A	1.2
2	☐	1.000		3980220.15		A	0.5
3	☐	1.000		3896041.47		A	0.4
4	☐	1.000		3733348.07		A	1.3
5	☐	1.000		3638333.18		A	0.2
6	☐	1.000		3579992.38		A	0.7
7	☐	1.000		3545931.06		A	0.3
8	☐	1.000		3534545.16		M	2.4

45 Sc (ISTD) [No Gas]

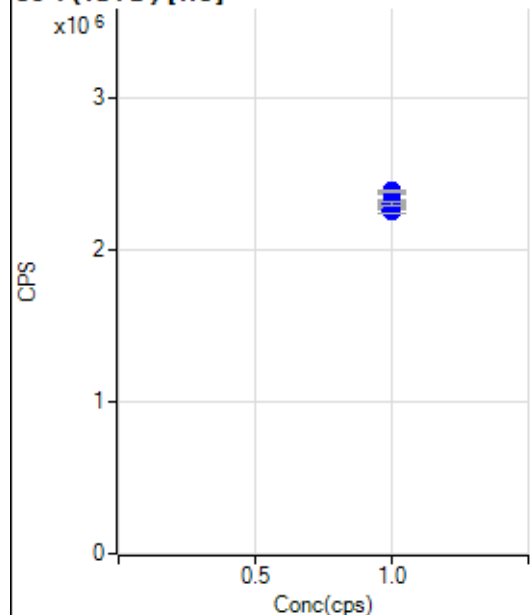
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10092657.78		A	1.1
2	☐	1.000		9880523.66		A	0.2
3	☐	1.000		9678927.65		A	0.4
4	☐	1.000		9256127.64		A	1.3
5	☐	1.000		9144096.82		A	0.6
6	☐	1.000		9143262.44		A	0.4
7	☐	1.000		9255050.64		A	0.8
8	☐	1.000		9241112.01		A	1.9

45 Sc (ISTD) [He]

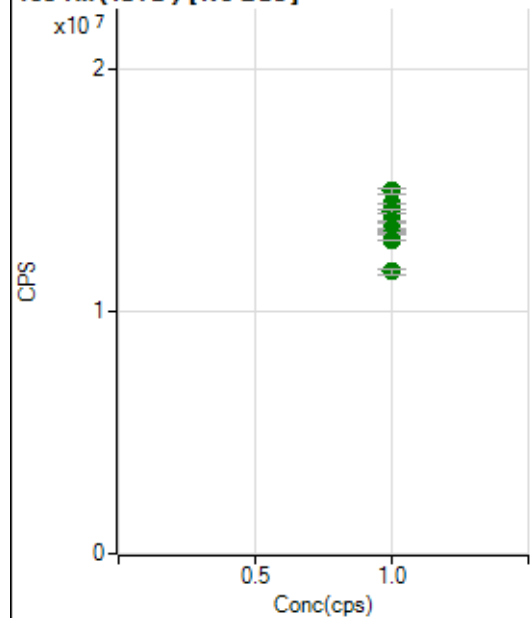
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		409338.01		P	1.2
2	☐	1.000		411457.29		P	0.9
3	☐	1.000		395655.66		P	0.7
4	☐	1.000		383893.06		P	0.6
5	☐	1.000		388410.78		P	1.2
6	☐	1.000		390252.46		P	0.0
7	☐	1.000		387900.38		P	2.5
8	☐	1.000		394993.64		P	1.8

89 Y (ISTD) [No Gas]

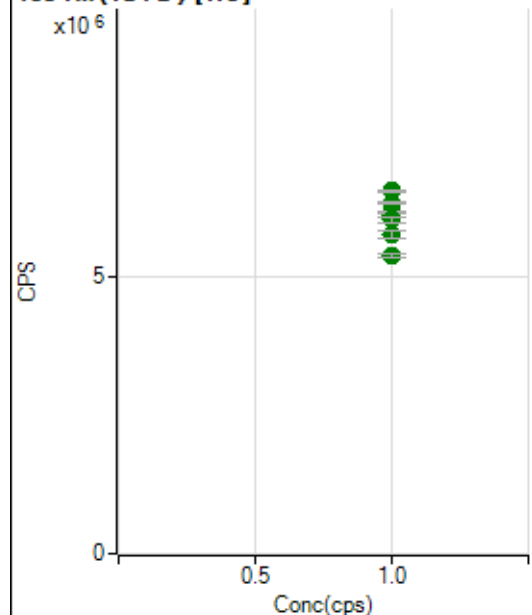
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19684134.71		A	1.4
2	☐	1.000		19170148.33		A	0.9
3	☐	1.000		18855103.89		A	0.6
4	☐	1.000		18425468.47		A	1.2
5	☐	1.000		18366282.22		A	0.9
6	☐	1.000		18303735.14		A	0.9
7	☐	1.000		18343572.09		A	0.6
8	☐	1.000		17904819.59		A	1.8

89 Y(ISTD) [He]

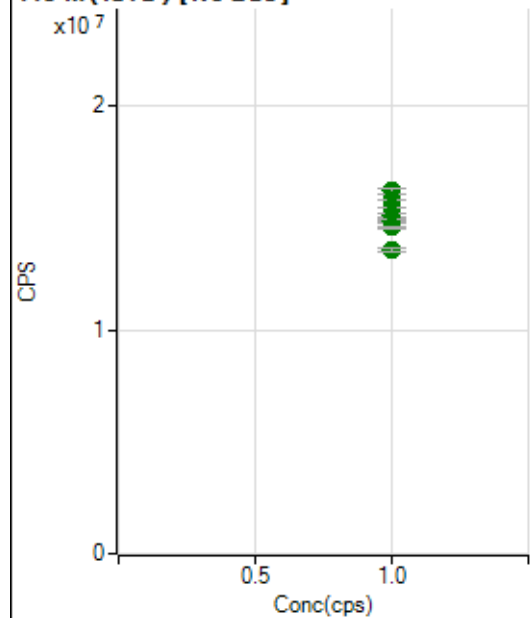
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2374360.76		P	0.6
2	☐	1.000		2390224.56		P	0.3
3	☐	1.000		2322147.95		P	0.7
4	☐	1.000		2259073.27		P	1.2
5	☐	1.000		2295860.97		P	1.1
6	☐	1.000		2312394.37		P	1.3
7	☐	1.000		2268583.63		P	2.7
8	☐	1.000		2307724.22		P	1.4

103 Rh(ISTD) [No Gas]

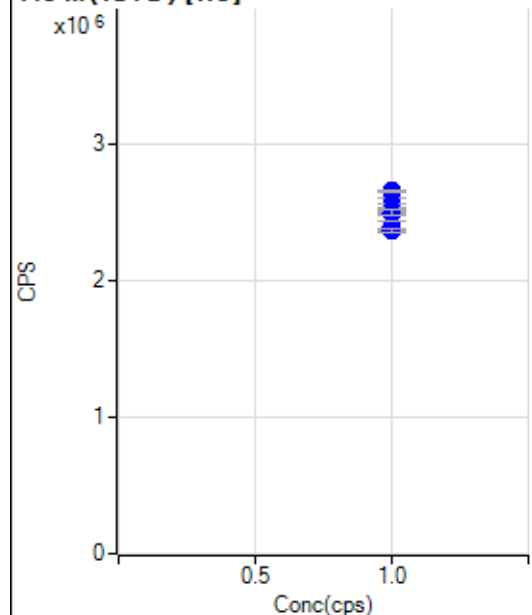
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14982926.72		A	1.4
2	☐	1.000		14477812.13		A	0.1
3	☐	1.000		14119603.27		A	0.8
4	☐	1.000		13699787.28		A	0.6
5	☐	1.000		13401562.45		A	0.4
6	☐	1.000		13216477.73		A	1.1
7	☐	1.000		12966221.99		A	0.3
8	☐	1.000		11643527.78		A	1.9

103 Rh (ISTD) [He]

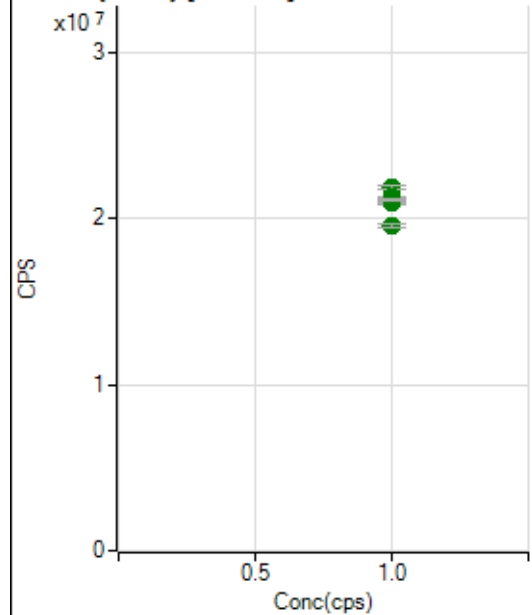
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6340062.61		A	0.2
2	☐	1.000		6554445.73		A	0.5
3	☐	1.000		6328769.56		A	0.4
4	☐	1.000		6126219.70		A	1.2
5	☐	1.000		6151981.79		A	0.7
6	☐	1.000		6034961.30		A	1.5
7	☐	1.000		5759618.53		A	2.8
8	☐	1.000		5382909.16		A	0.9

115 In (ISTD) [No Gas]

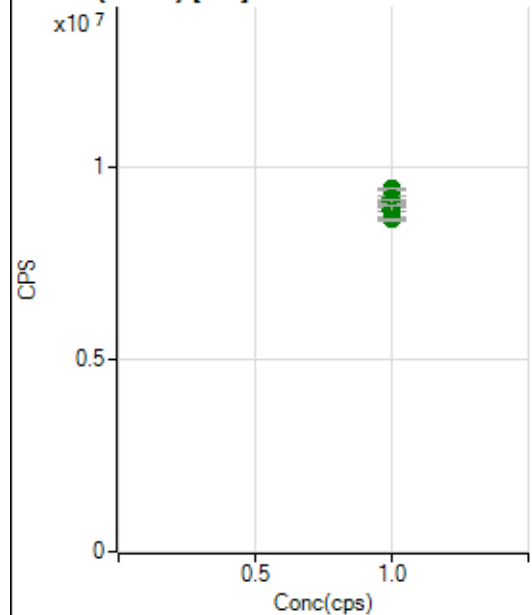
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16201472.76		A	1.2
2	☐	1.000		15803234.27		A	0.2
3	☐	1.000		15460135.67		A	0.1
4	☐	1.000		15072819.89		A	1.2
5	☐	1.000		14947057.33		A	0.9
6	☐	1.000		14856249.00		A	0.8
7	☐	1.000		14571413.40		A	0.8
8	☐	1.000		13588450.63		A	1.6

115 In (ISTD) [He]

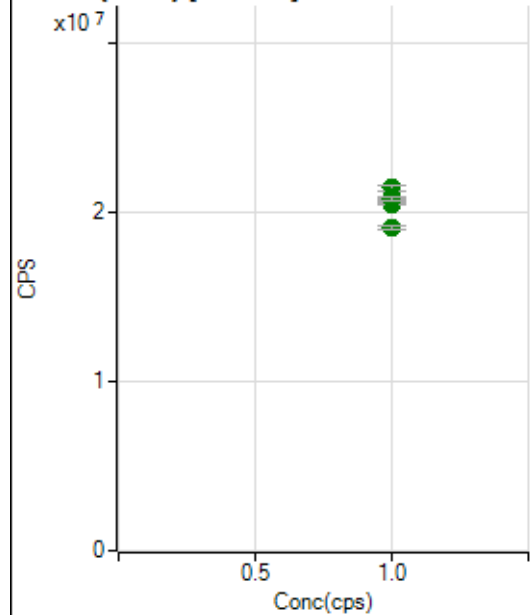
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2600343.16		P	0.2
2	☐	1.000		2655474.40		P	0.7
3	☐	1.000		2560592.61		P	0.4
4	☐	1.000		2493661.86		P	0.8
5	☐	1.000		2512606.86		P	1.8
6	☐	1.000		2497078.66		P	1.4
7	☐	1.000		2399752.70		P	2.8
8	☐	1.000		2366232.24		P	1.5

159 Tb (ISTD) [No Gas]

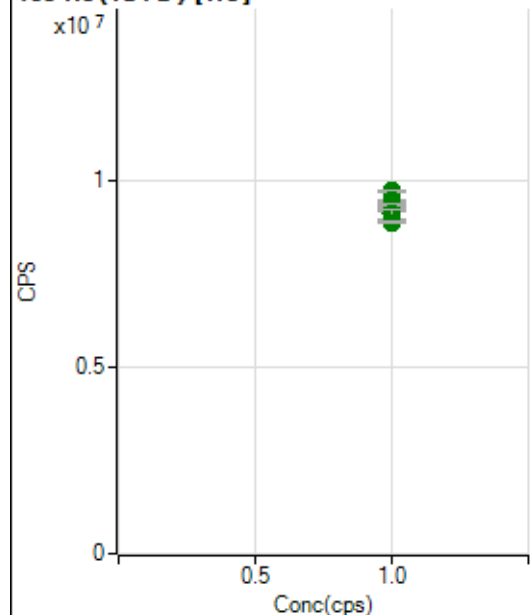
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		21852278.56		A	1.1
2	☐	1.000		21270418.71		A	0.5
3	☐	1.000		21186667.19		A	0.6
4	☐	1.000		20981156.91		A	1.5
5	☐	1.000		21170791.63		A	0.9
6	☐	1.000		21105545.24		A	0.9
7	☐	1.000		21104982.47		A	0.5
8	☐	1.000		19550573.32		A	1.1

159 Tb (ISTD) [He]

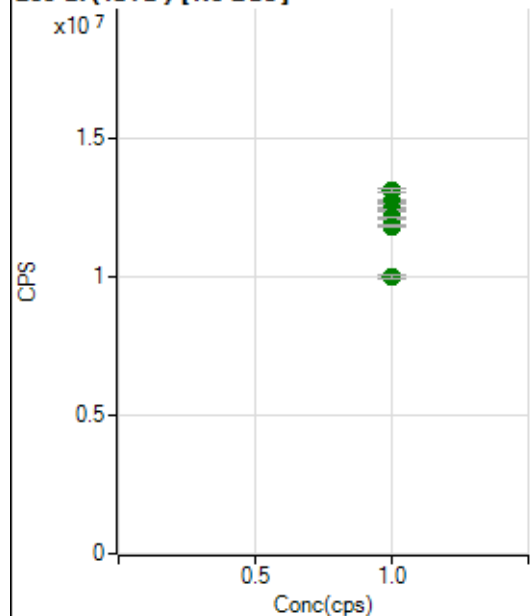
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9444620.07		A	0.5
2	☐	1.000		9212738.47		A	0.7
3	☐	1.000		9031396.18		A	0.4
4	☐	1.000		8916275.77		A	1.1
5	☐	1.000		9089912.43		A	0.4
6	☐	1.000		9111023.34		A	0.8
7	☐	1.000		8879349.52		A	3.3
8	☐	1.000		8638878.14		A	0.4

165 Ho (ISTD) [No Gas]

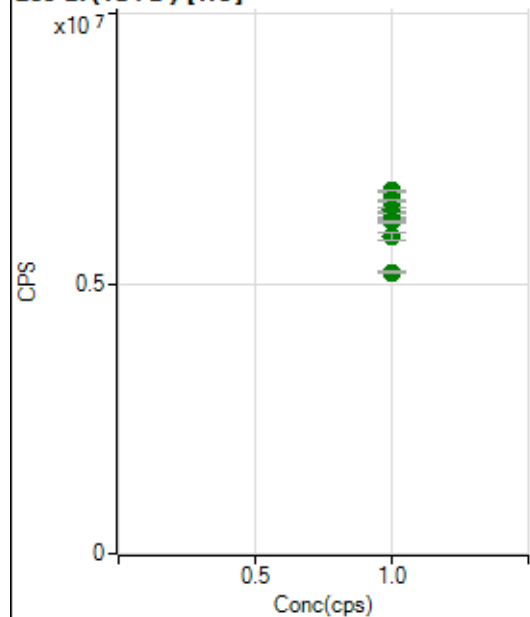
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		21444175.83		A	1.4
2	☐	1.000		20873050.12		A	0.8
3	☐	1.000		20766283.97		A	0.2
4	☐	1.000		20502224.42		A	0.9
5	☐	1.000		20799442.65		A	0.6
6	☐	1.000		20778167.82		A	0.7
7	☐	1.000		20804674.94		A	0.9
8	☐	1.000		19144729.77		A	1.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9722811.32		A	0.8
2	☐	1.000		9482277.57		A	0.2
3	☐	1.000		9296332.36		A	0.6
4	☐	1.000		9195300.42		A	0.9
5	☐	1.000		9385313.47		A	0.6
6	☐	1.000		9357990.62		A	0.3
7	☐	1.000		9108615.84		A	2.8
8	☐	1.000		8881599.52		A	0.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13113910.64		A	1.1
2	☐	1.000		12725244.12		A	0.6
3	☐	1.000		12643113.42		A	0.4
4	☐	1.000		12457095.65		A	1.0
5	☐	1.000		12420738.56		A	0.8
6	☐	1.000		12147433.29		A	0.8
7	☐	1.000		11851119.82		A	0.5
8	☐	1.000		10016612.21		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6715861.78		A	0.9
2	☐	1.000		6537454.00		A	0.4
3	☐	1.000		6371963.44		A	0.6
4	☐	1.000		6208227.75		A	0.8
5	☐	1.000		6301691.71		A	0.4
6	☐	1.000		6140457.97		A	0.4
7	☐	1.000		5872169.22		A	2.6
8	☐	1.000		5206153.15		A	0.9

US EPA Tune Check Sample Report

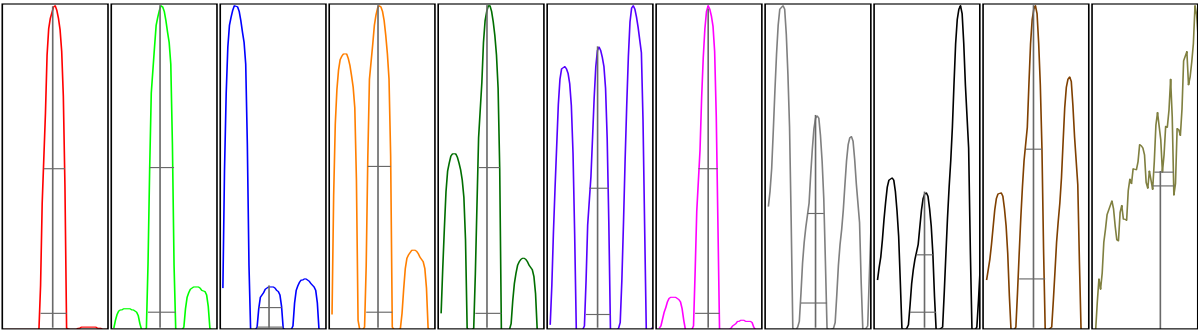
Batch Folder D:\ICP-MS Data\P7121219MS1.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	13916	0.79	5.00	
24	1454124	1.08	5.00	
25	190494	1.02	5.00	
26	223701	0.87	5.00	
59	131388	0.93	5.00	
113	18404	0.96	5.00	
115	212482	1.22	5.00	
206	51651	0.79	5.00	
207	49467	0.68	5.00	
208	111455	0.87	5.00	
220	114	5.75		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	14019	14015	13941	13836	13771
24	1471593	1466520	1455650	1442031	1434828
25	192674	192198	190485	188386	188726
26	225570	225658	223796	221521	221959
59	132666	132454	131481	129885	130453
113	18614	18547	18391	18264	18205
115	215258	214995	212023	210754	209381
206	52092	51976	51724	51321	51141
207	49439	49868	49744	49097	49189
208	112434	112395	111488	110336	110623
220	104	112	118	121	114

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	23220	8.95	8.9 - 9.1		0.776	0.900	
24	2315560	23.90	23.9 - 24.1		0.825	0.900	
25	305501	24.90	24.9 - 25.1		0.750	0.900	
26	358640	25.90	25.9 - 26.1		0.783	0.900	
59	221670	58.90	58.9 - 59.1		0.781	0.900	
113	35274	112.95	112.9 - 113.1		0.731	0.900	
115	402997	115.00	114.9 - 115.1		0.731	0.900	
206	101210	205.95	205.9 - 206.1		0.749	0.900	
207	91765	206.95	206.9 - 207.1		0.744	0.900	
208	216734	207.95	207.9 - 208.1		0.750	0.900	
220	113	220.45	-		0.587		

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	7.4	V	Deflect	13.2	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	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 (Mean)	RSD% (Actual)	RSD% (Required)
59	32533	1.92	
89	455766	2.08	
205	39785	1.25	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	32846	31433	32947	32786	32654
89	459688	438937	460233	461815	458159
205	39769	38929	40053	40079	40093

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	6.6	V	Deflect	1.8	V
Extract 2	-115.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			