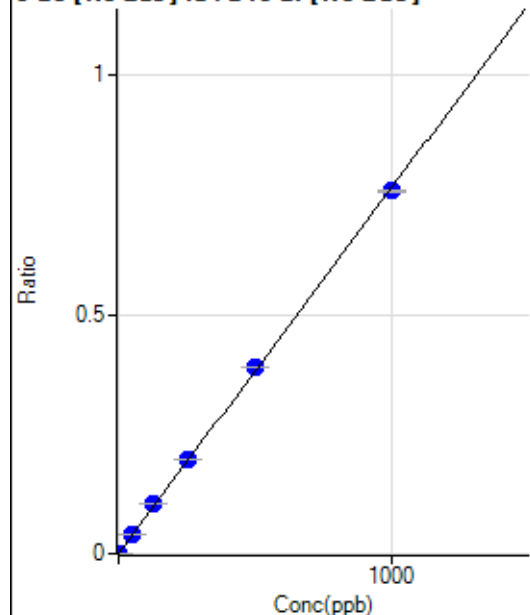


Calibration for 007CALS.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7030920MS1.b\
 Analysis File: P7030920MS1.batch.bin
 DA Date-Time: 2020-03-09 18:15:04
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-03-09 13:47:37
2	004CALS.d	S02	2020-03-09 13:51:09
3	005CALS.d	S03	2020-03-09 13:55:59
4	006CALS.d	S04	2020-03-09 14:00:34
5	007CALS.d	S05	2020-03-09 14:04:15
6	008CALS.d	S06	2020-03-09 14:07:50
7	009CALS.d	S07	2020-03-09 14:11:21
8	010CALS.d	S08	2020-03-09 14:14:51

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	90.74	0.0000	P	12.3
2	☐	1.000	1.033	3330.10	0.0008	P	5.4
3	☐	50.000	52.748	160766.98	0.0404	P	0.7
4	☐	125.000	134.845	404745.38	0.1031	P	0.8
5	☐	250.000	258.546	745542.39	0.1978	P	0.7
6	☐	500.000	509.435	1424793.19	0.3896	P	0.3
7	☐	1000.000	991.778	2687353.71	0.7585	P	0.9
8	☐			520.39	0.0002	P	7.5

$$y = 7.6478\text{E-}004 * x + 2.2100\text{E-}005$$

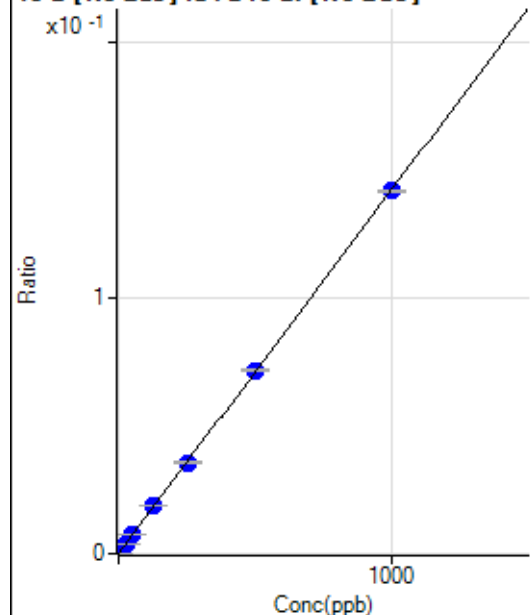
$$R = 0.9999$$

$$DL = 0.01068$$

$$BEC = 0.0289$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	386.13	0.0001	P	15.1
2	☐	25.000	24.096	14407.53	0.0035	P	1.9
3	☐	50.000	51.347	29382.29	0.0074	P	2.5
4	☐	125.000	129.437	72409.82	0.0185	P	0.5
5	☐	250.000	250.075	134086.27	0.0356	P	0.6
6	☐	500.000	503.607	261548.95	0.0715	P	1.3
7	☐	1000.000	997.579	501648.25	0.1416	P	0.6
8	☐			13337.03	0.0040	P	4.1

$$y = 1.4184\text{E-}004 * x + 9.4059\text{E-}005$$

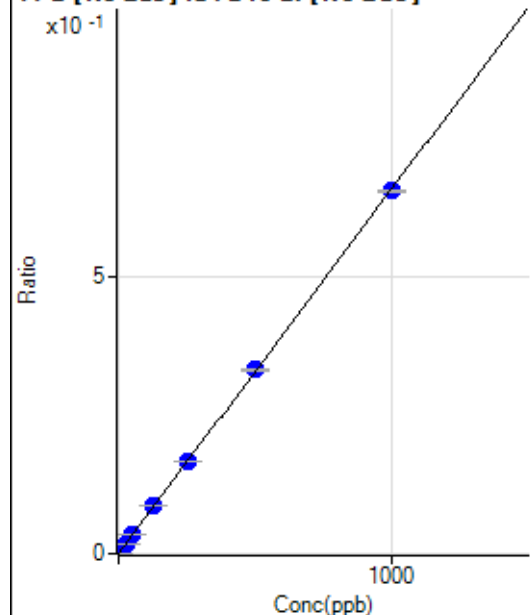
$$R = 1.0000$$

$$DL = 0.2996$$

$$BEC = 0.6631$$

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	1522.36	0.0004	P	12.3
2	☐	25.000	24.324	67359.40	0.0164	P	1.1
3	☐	50.000	51.651	137210.03	0.0344	P	0.5
4	☐	125.000	130.142	338368.10	0.0862	P	1.6
5	☐	250.000	252.703	629991.57	0.1671	P	0.7
6	☐	500.000	505.890	1221846.21	0.3341	P	1.0
7	☐	1000.000	995.671	2328732.41	0.6573	P	0.5
8	☐			61766.29	0.0184	P	6.0

$$y = 6.5976\text{E-}004 * x + 3.7096\text{E-}004$$

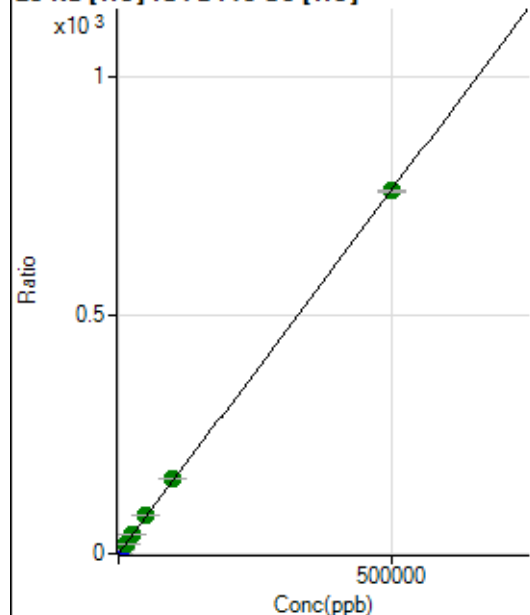
$$R = 1.0000$$

$$DL = 0.2079$$

$$BEC = 0.5623$$

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	12780.94	0.0346	P	2.2
2	☐	500.000	511.124	303163.83	0.8129	P	1.1
3	☐	5000.000	5275.489	2911300.30	8.0683	P	0.4
4	☐	12500.000	13459.525	7227076.38	20.5314	A	1.2
5	☐	25000.000	26550.683	13626596.49	40.4672	A	0.2
6	☐	50000.000	52823.514	26665343.13	80.4767	A	0.2
7	☐	100000.00	103161.25	53327504.66	157.1334	A	0.7
8	☐	500000.00	498981.11	259080755.7	759.9066	A	0.4

$$y = 0.0015 * x + 0.0346$$

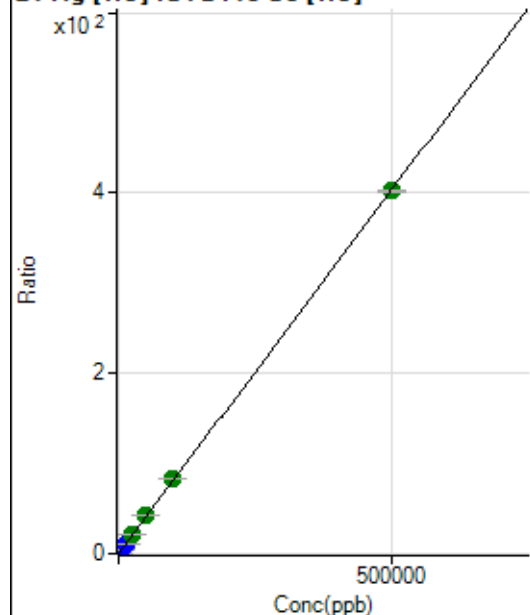
$$R = 1.0000$$

$$DL = 1.473$$

$$BEC = 22.7$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	188.90	0.0005	P	2.6
2	☐	500.000	526.490	158447.28	0.4249	P	1.9
3	☐	5000.000	5428.875	1579184.56	4.3765	P	0.2
4	☐	12500.000	13692.933	3885547.53	11.0379	P	0.6
5	☐	25000.000	26862.971	7291067.35	21.6538	A	1.9
6	☐	50000.000	53084.444	14178198.41	42.7899	A	0.7
7	☐	100000.00	103124.76	28212202.71	83.1256	A	0.5
8	☐	500000.00	498939.31	137119857.2	402.1773	A	0.4

$$y = 8.0606\text{E-}004 * x + 5.1082\text{E-}004$$

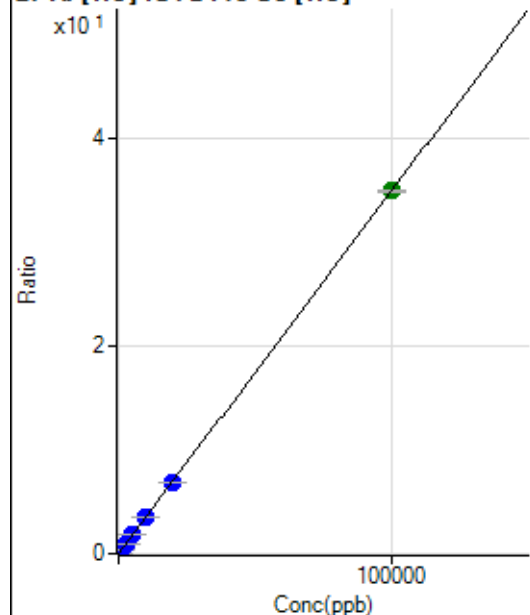
$$R = 1.0000$$

$$DL = 0.04944$$

$$BEC = 0.6337$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0002	P	38.6
2	☐	20.000	20.954	2797.61	0.0075	P	10.6
3	☐	1000.000	1029.715	129692.05	0.3594	P	1.7
4	☐	2500.000	2614.825	321201.04	0.9124	P	0.5
5	☐	5000.000	5132.794	603030.49	1.7908	P	0.2
6	☐	10000.000	10232.477	1182882.36	3.5700	P	0.4
7	☐	20000.000	19722.202	2335159.71	6.8806	P	0.2
8	☐	100000.00	100022.50	11897095.84	34.8947	A	0.4

$$y = 3.4887\text{E-}004 * x + 1.8783\text{E-}004$$

$$R = 1.0000$$

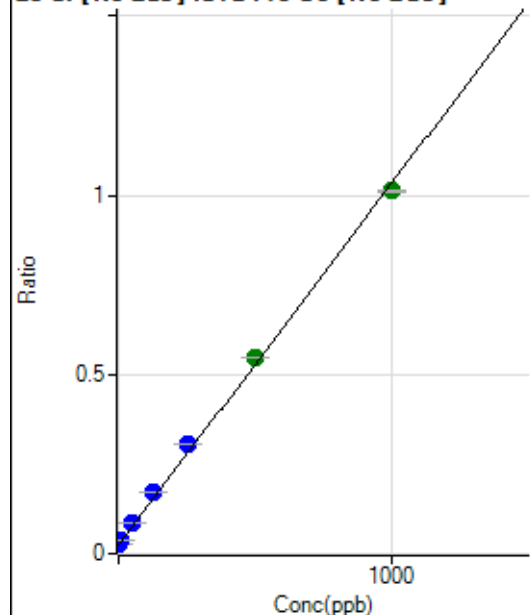
$$DL = 0.6233$$

$$BEC = 0.5384$$

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	261108.91	0.0245	P	1.2
2	☐	10.000	11.018	376506.73	0.0356	P	1.9
3	☐	50.000	58.600	852764.76	0.0835	P	0.6
4	☐	125.000	147.757	1735333.78	0.1733	P	0.5
5	☐	250.000	281.137	2989837.63	0.3077	P	0.3
6	☐	500.000	517.736	5208894.78	0.5461	A	0.4
7	☐	1000.000	980.063	9645443.27	1.0118	A	0.6
8	☐			614993.35	0.0659	P	1.2

$$y = 0.0010 * x + 0.0245$$

$$R = 0.9991$$

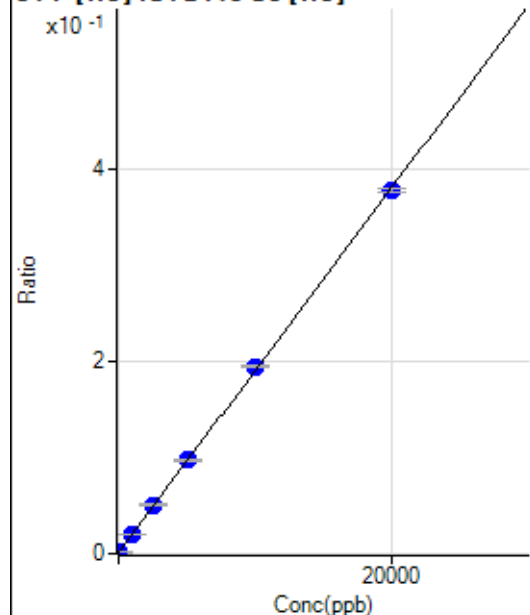
$$DL = 0.8529$$

$$BEC = 24.31$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-23.911	197.23	0.0005	P	11.8
2	☐	0.000	23.911	536.14	0.0014	P	6.7
3	☐	1000.000	1042.822	7474.42	0.0207	P	1.7
4	☐	2500.000	2618.133	17780.74	0.0505	P	2.8
5	☐	5000.000	5099.743	32817.66	0.0975	P	2.4
6	☐	10000.000	10219.966	64392.65	0.1943	P	0.9
7	☐	20000.000	19848.173	127777.10	0.3765	P	1.1
8	☐			308.35	0.0009	P	21.3

$$y = 1.8919E-005 * x + 9.8556E-004$$

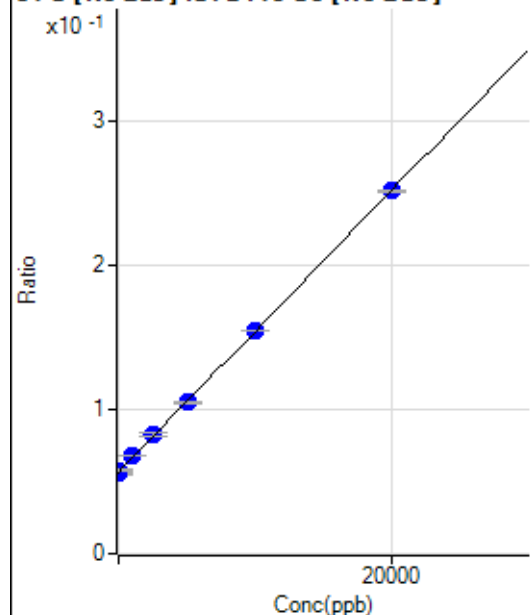
$$R = 0.9999$$

$$DL = 12.62$$

$$BEC = 52.09$$

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	-107.314	591366.15	0.0555	P	0.8
2	☐	0.000	107.314	608897.71	0.0576	P	1.9
3	☐	1000.000	1167.396	693249.30	0.0679	P	0.8
4	☐	2500.000	2669.918	826478.77	0.0826	P	1.8
5	☐	5000.000	4965.136	1019793.41	0.1050	P	1.1
6	☐	10000.000	10061.720	1475670.19	0.1547	P	0.2
7	☐	20000.000	19948.246	2394473.86	0.2512	P	0.3
8	☐			476003.18	0.0510	P	1.9

$$y = 9.7591\text{E-}006 * x + 0.0565$$

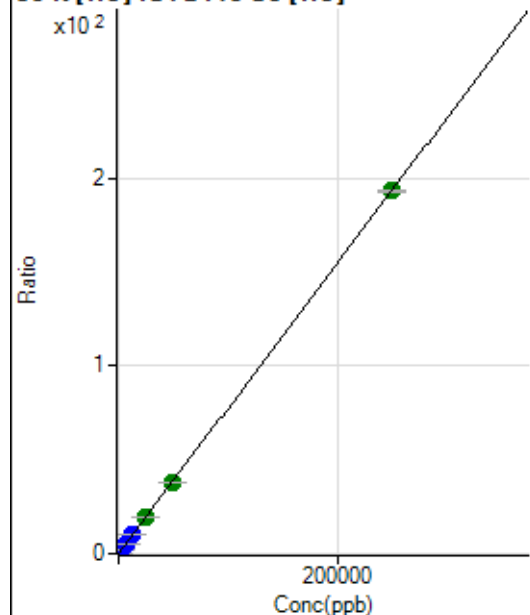
R = 0.9999

DL = 241

BEC = 5790

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	21288.18	0.0576	P	2.5
2	☐	500.000	499.586	165440.33	0.4436	P	0.6
3	☐	2500.000	2539.047	728756.86	2.0197	P	0.5
4	☐	6250.000	6479.976	1782951.64	5.0651	P	1.1
5	☐	12500.000	12744.354	3335602.64	9.9061	P	0.7
6	☐	25000.000	25248.624	6484055.70	19.5691	A	0.2
7	☐	50000.000	49081.219	12891789.00	37.9863	A	0.8
8	☐	250000.00	250140.53	65923183.42	193.3601	A	0.6

$$y = 7.7278\text{E-}004 * x + 0.0576$$

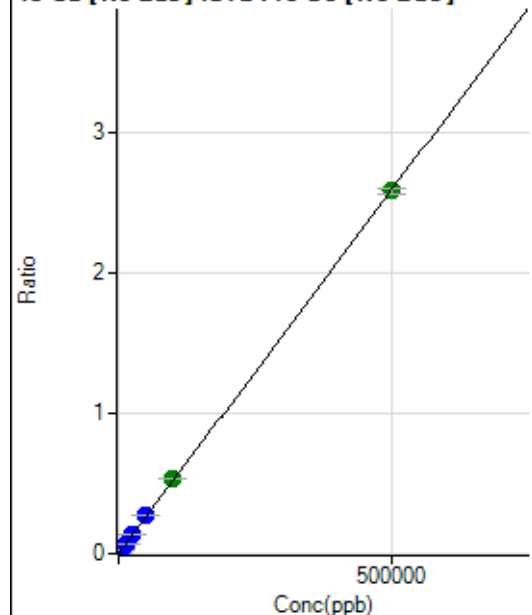
R = 1.0000

DL = 5.529

BEC = 74.49

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	425.03	0.0000	P	14.5
2	☐	500.000	518.144	28773.41	0.0027	P	1.7
3	☐	5000.000	5335.459	282073.44	0.0276	P	0.5
4	☐	12500.000	13712.513	710169.53	0.0709	P	0.9
5	☐	25000.000	26517.254	1332585.79	0.1371	P	0.1
6	☐	50000.000	53070.991	2617875.01	0.2744	P	0.4
7	☐	100000.00	103080.30	5081078.93	0.5330	A	0.8
8	☐	500000.00	498967.29	24083862.00	2.5799	A	1.5

$$y = 5.1704\text{E-}006 * x + 3.9886\text{E-}005$$

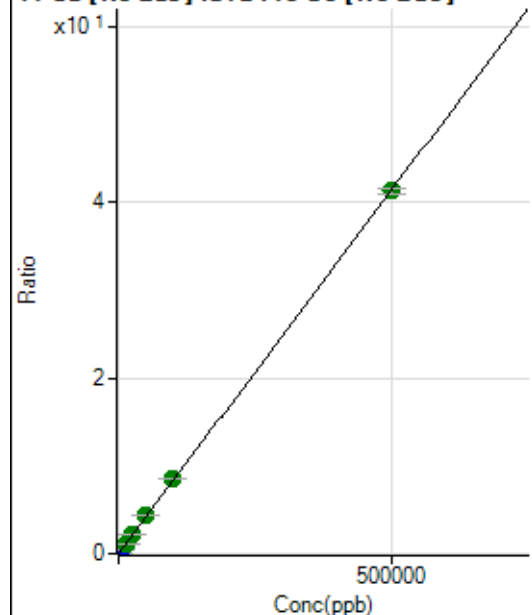
$$R = 1.0000$$

$$DL = 3.35$$

$$BEC = 7.714$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8386.07	0.0008	P	2.3
2	☐	500.000	510.782	455160.93	0.0430	P	1.9
3	☐	5000.000	5321.993	4501138.21	0.4408	P	0.3
4	☐	12500.000	13547.149	11221601.29	1.1210	A	1.2
5	☐	25000.000	26375.914	21198362.45	2.1817	A	0.8
6	☐	50000.000	52258.286	41226529.05	4.3218	A	0.4
7	☐	100000.00	103221.99	81372007.37	8.5358	A	0.5
8	☐	500000.00	499031.56	385194922.5	41.2639	A	1.4

$$y = 8.2686\text{E-}005 * x + 7.8650\text{E-}004$$

$$R = 1.0000$$

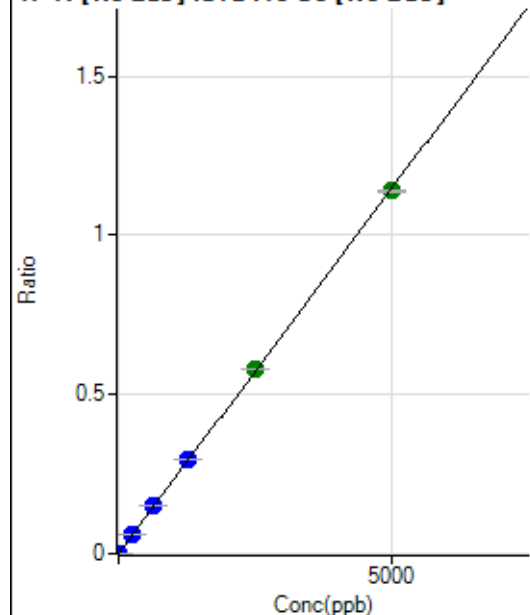
$$DL = 0.6503$$

$$BEC = 9.512$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	119.45	0.0000	P	31.0
2	☐	5.000	5.060	12391.81	0.0012	P	1.8
3	☐	250.000	257.012	601771.21	0.0589	P	0.3
4	☐	625.000	664.276	1524797.32	0.1523	P	0.8
5	☐	1250.000	1282.833	2857890.17	0.2941	P	0.5
6	☐	2500.000	2529.476	5532233.07	0.5800	A	0.3
7	☐	5000.000	4971.793	10866653.63	1.1399	A	0.2
8	☐			4131.41	0.0004	P	7.9

$$y = 2.2927E-004 * x + 1.1194E-005$$

R = 0.9999

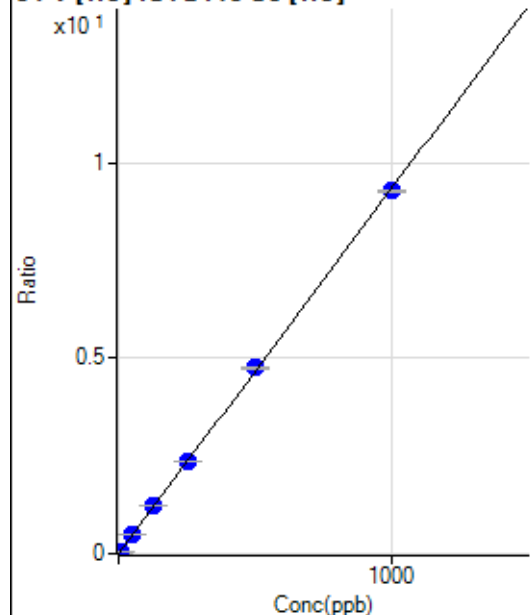
DL = 0.04546

BEC = 0.04883

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7.78	0.0000	P	89.4
2	☐	5.000	5.237	18268.15	0.0490	P	1.6
3	☐	50.000	50.653	170889.69	0.4736	P	0.9
4	☐	125.000	129.468	426111.95	1.2105	P	0.6
5	☐	250.000	254.300	800586.25	2.3776	P	0.8
6	☐	500.000	508.984	1576780.64	4.7588	P	0.5
7	☐	1000.000	993.840	3153557.28	9.2919	P	0.3
8	☐			1375.64	0.0040	P	0.5

$$y = 0.0093 * x + 2.1044E-005$$

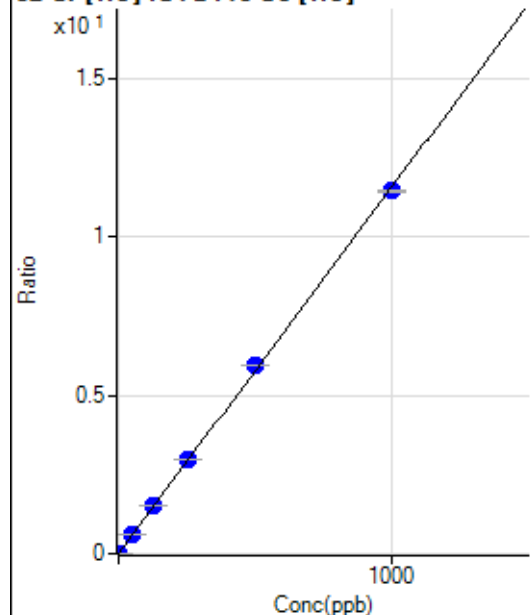
R = 0.9999

DL = 0.006034

BEC = 0.002251

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1290.08	0.0035	P	2.2
2	☐	2.000	2.014	9969.06	0.0267	P	1.8
3	☐	50.000	51.752	216836.50	0.6009	P	0.3
4	☐	125.000	131.475	535535.01	1.5213	P	0.5
5	☐	250.000	258.292	1005226.00	2.9853	P	0.9
6	☐	500.000	512.490	1961531.24	5.9199	P	0.1
7	☐	1000.000	990.785	3883114.66	11.4416	P	0.3
8	☐			101020.48	0.2963	P	1.5

$$y = 0.0115 * x + 0.0035$$

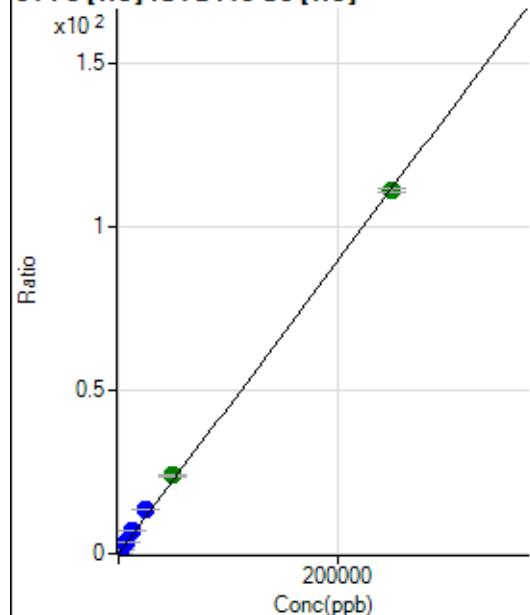
$$R = 0.9998$$

$$DL = 0.0195$$

$$BEC = 0.3022$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	550.59	0.0015	P	8.2
2	☐	50.000	63.041	11042.45	0.0296	P	5.3
3	☐	2500.000	3137.330	505384.11	1.4006	P	0.7
4	☐	6250.000	7958.419	1249923.03	3.5507	P	0.4
5	☐	12500.000	15655.169	2351398.74	6.9831	P	0.4
6	☐	25000.000	30790.990	4550377.51	13.7331	P	0.3
7	☐	50000.000	53444.378	8089630.65	23.8357	A	0.4
8	☐	250000.00	248525.18	37786558.15	110.8346	A	1.2

$$y = 4.4596E-004 * x + 0.0015$$

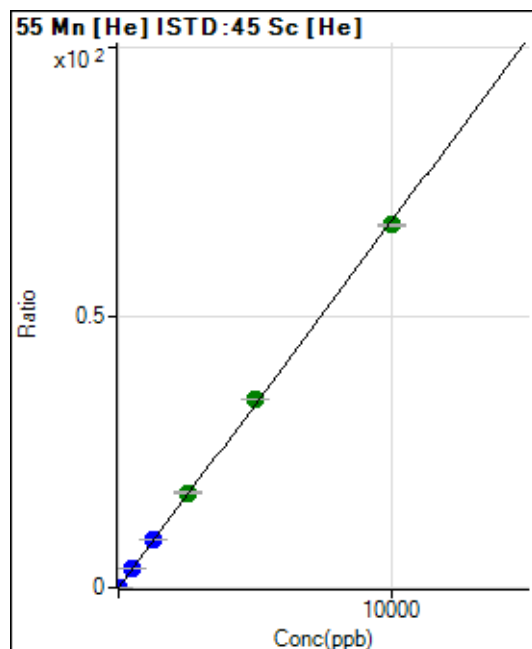
$$R = 0.9997$$

$$DL = 0.8242$$

$$BEC = 3.339$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0002	P	9.2
2	☐	1.000	1.049	2729.18	0.0073	P	3.4
3	☐	500.000	516.084	1261911.84	3.4973	P	0.3
4	☐	1250.000	1314.865	3136460.13	8.9099	P	0.5
5	☐	2500.000	2589.414	5908242.07	17.5464	A	0.8
6	☐	5000.000	5133.601	11526096.50	34.7861	A	0.2
7	☐	10000.000	9901.934	22771602.99	67.0969	A	0.6
8	☐			22881.31	0.0671	P	2.5

$$y = 0.0068 * x + 2.1036E-004$$

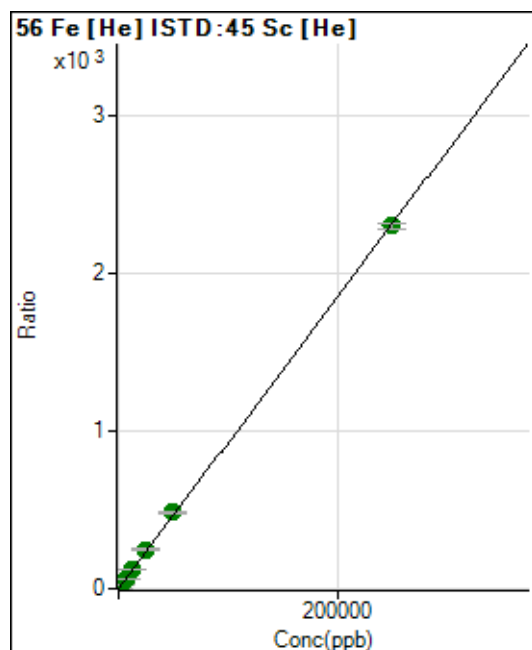
$$R = 0.9998$$

$$DL = 0.008553$$

$$BEC = 0.03104$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5567.89	0.0151	P	5.5
2	☐	50.000	56.164	198669.67	0.5327	P	1.1
3	☐	2500.000	2704.195	8999307.96	24.9408	A	0.9
4	☐	6250.000	6880.728	22332051.43	63.4378	A	0.2
5	☐	12500.000	13675.800	42449569.01	126.0711	A	1.6
6	☐	25000.000	27007.946	82491396.29	248.9595	A	1.0
7	☐	50000.000	52194.345	163281977.7	481.1139	A	0.2
8	☐	250000.00	249283.73	783403980.4	2,297.775	A	1.3

$$y = 0.0092 * x + 0.0151$$

$$R = 0.9999$$

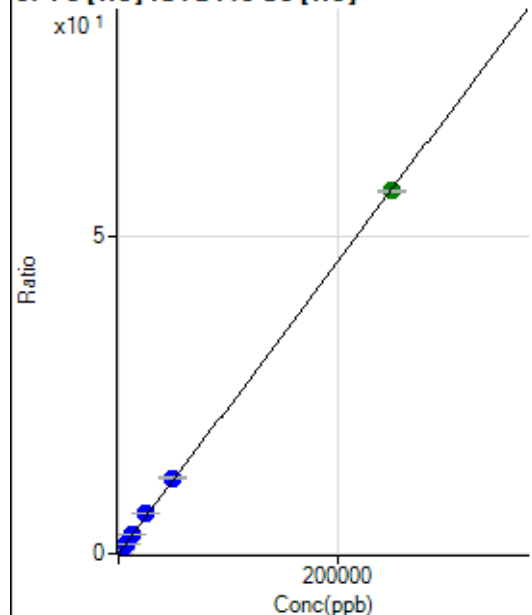
$$DL = 0.2703$$

$$BEC = 1.633$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	235.19	0.0006	P	1.7
2	☐	50.000	59.206	5310.38	0.0142	P	2.1
3	☐	2500.000	2734.815	226990.47	0.6291	P	0.6
4	☐	6250.000	6967.626	563858.36	1.6018	P	0.4
5	☐	12500.000	13727.482	1062405.42	3.1551	P	0.9
6	☐	25000.000	27128.910	2065828.09	6.2347	P	0.1
7	☐	50000.000	52179.685	4069632.79	11.9913	P	0.5
8	☐	250000.00	249269.50	19528986.09	57.2815	A	0.8

$$y = 2.2979\text{E-}004 * x + 6.3602\text{E-}004$$

$$R = 0.9999$$

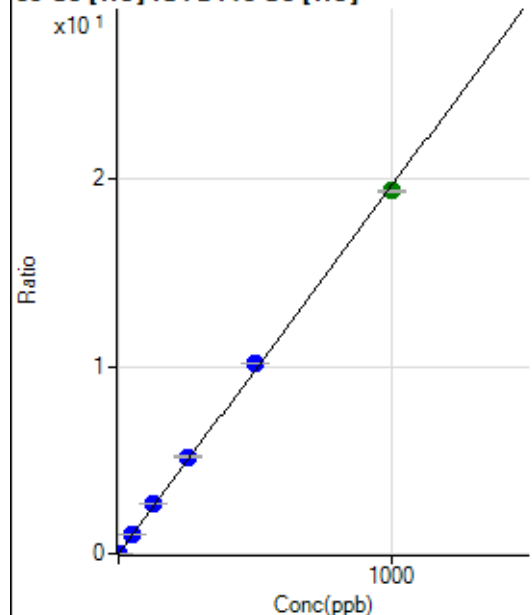
$$DL = 0.1446$$

$$BEC = 2.768$$

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	102.23	0.0003	P	4.9
2	☐	1.000	1.018	7557.63	0.0203	P	0.6
3	☐	50.000	53.379	378313.08	1.0485	P	0.3
4	☐	125.000	134.393	929057.84	2.6393	P	0.9
5	☐	250.000	263.264	1740796.61	5.1699	P	0.9
6	☐	500.000	516.529	3360841.27	10.1431	P	0.3
7	☐	1000.000	987.076	6578164.97	19.3830	A	0.6
8	☐			13030.41	0.0382	P	0.8

$$y = 0.0196 * x + 2.7643\text{E-}004$$

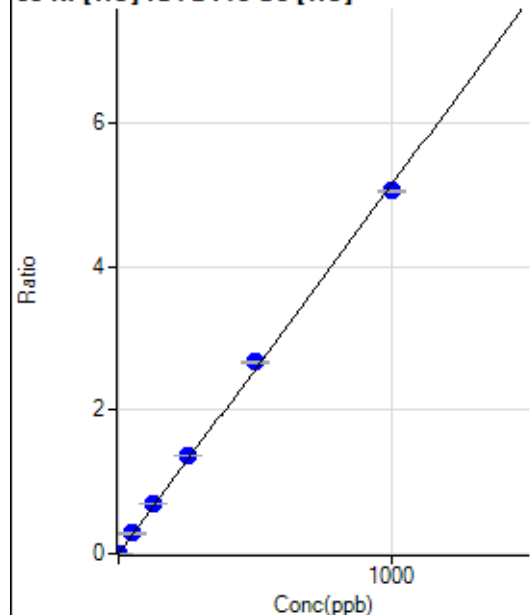
$$R = 0.9997$$

$$DL = 0.002058$$

$$BEC = 0.01408$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	96.67	0.0003	P	17.9
2	☐	1.000	1.183	2362.45	0.0063	P	3.9
3	☐	50.000	54.873	101725.53	0.2819	P	1.8
4	☐	125.000	136.661	247023.79	0.7017	P	0.7
5	☐	250.000	266.823	461267.18	1.3699	P	0.5
6	☐	500.000	520.245	884909.46	2.6707	P	0.5
7	☐	1000.000	983.970	1714235.55	5.0510	P	0.4
8	☐			28623.62	0.0840	P	2.3

$$y = 0.0051 * x + 2.6142E-004$$

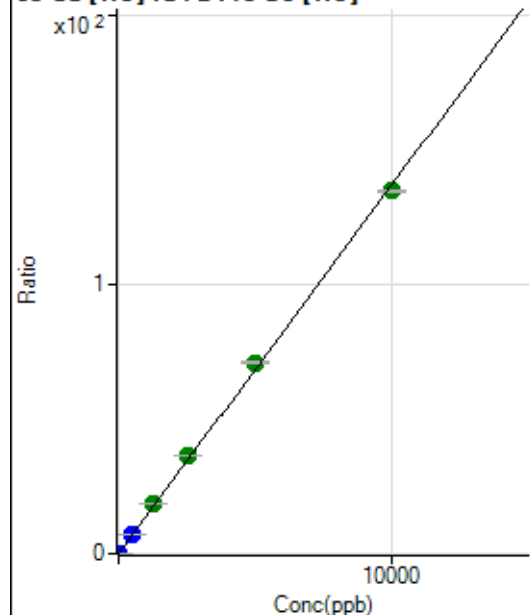
$$R = 0.9995$$

$$DL = 0.02741$$

$$BEC = 0.05093$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	873.38	0.0024	P	8.7
2	☐	2.000	2.111	11644.79	0.0312	P	2.3
3	☐	500.000	542.236	2676306.91	7.4171	P	0.2
4	☐	1250.000	1359.407	6544462.61	18.5914	A	0.7
5	☐	2500.000	2661.484	12255466.76	36.3965	A	1.0
6	☐	5000.000	5190.118	23516778.26	70.9740	A	1.1
7	☐	10000.000	9848.782	45707700.43	134.6784	A	0.3
8	☐			16235.83	0.0476	P	4.1

$$y = 0.0137 * x + 0.0024$$

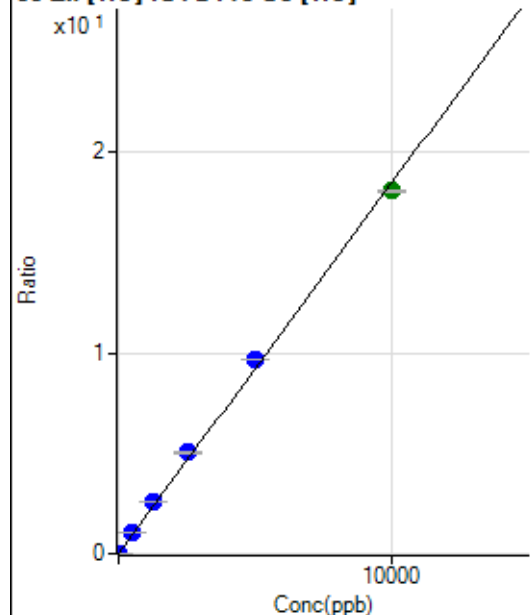
$$R = 0.9996$$

$$DL = 0.04491$$

$$BEC = 0.1728$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	791.73	0.0021	P	1.7
2	☐	2.000	1.899	2104.84	0.0056	P	3.2
3	☐	500.000	553.210	369062.43	1.0228	P	0.9
4	☐	1250.000	1403.838	912462.97	2.5922	P	1.2
5	☐	2500.000	2734.892	1699756.24	5.0480	P	0.8
6	☐	5000.000	5250.267	3210318.33	9.6888	P	0.3
7	☐	10000.000	9794.253	6133329.34	18.0724	A	0.8
8	☐			21365.44	0.0627	P	1.8

$$y = 0.0018 * x + 0.0021$$

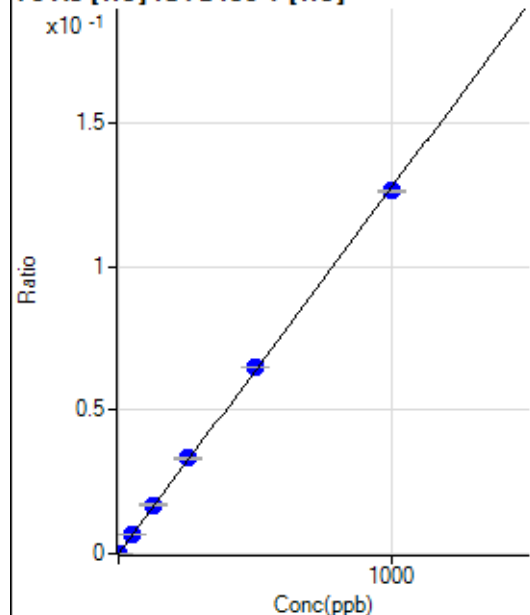
$$R = 0.9992$$

$$DL = 0.05891$$

$$BEC = 1.16$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.47	0.0000	P	114.6
2	☐	1.000	1.092	468.53	0.0001	P	5.5
3	☐	50.000	52.239	21880.73	0.0067	P	1.3
4	☐	125.000	133.746	54874.61	0.0171	P	1.1
5	☐	250.000	260.328	102983.49	0.0332	P	0.8
6	☐	500.000	510.460	198953.08	0.0652	P	0.4
7	☐	1000.000	990.982	389576.82	0.1265	P	0.5
8	☐			224.08	0.0001	P	17.5

$$y = 1.2764E-004 * x + 7.4839E-007$$

$$R = 0.9998$$

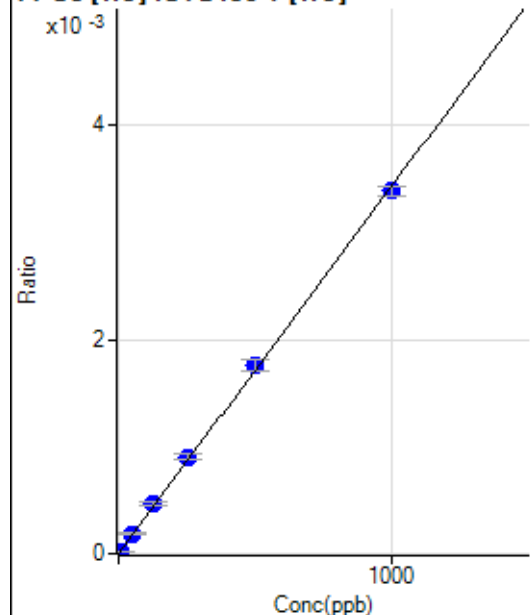
$$DL = 0.02016$$

$$BEC = 0.005863$$

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	6.792	77.78	0.0000	P	10.0
3	☐	50.000	53.203	597.80	0.0002	P	9.2
4	☐	125.000	135.542	1491.22	0.0005	P	8.2
5	☐	250.000	263.783	2799.20	0.0009	P	4.9
6	☐	500.000	513.887	5374.41	0.0018	P	5.4
7	☐	1000.000	988.124	10423.90	0.0034	P	2.8
8	☐			4.44	0.0000	P	43.9

$$y = 3.4249\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9997$$

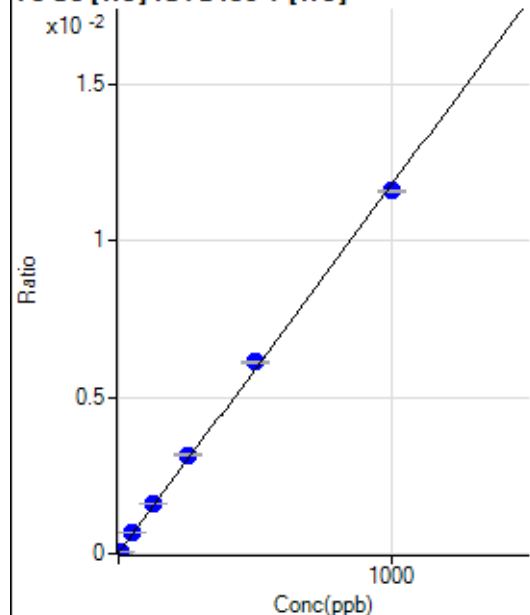
$$DL = 0$$

$$BEC = 0$$

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	51.23	0.0000	P	18.9
2	☐	5.000	5.958	286.43	0.0001	P	9.2
3	☐	50.000	56.304	2226.74	0.0007	P	1.1
4	☐	125.000	136.529	5218.88	0.0016	P	0.5
5	☐	250.000	267.173	9799.68	0.0032	P	1.7
6	☐	500.000	520.019	18748.62	0.0061	P	0.7
7	☐	1000.000	983.936	35737.79	0.0116	P	0.8
8	☐			69.14	0.0000	P	10.5

$$y = 1.1777\text{E-}005 * x + 1.5494\text{E-}005$$

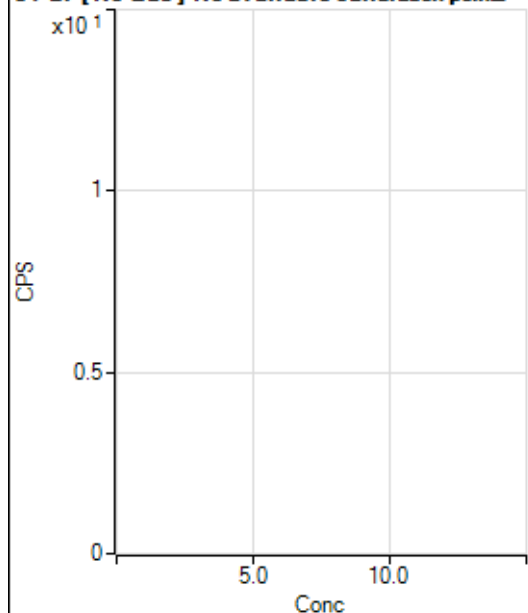
$$R = 0.9995$$

$$DL = 0.7467$$

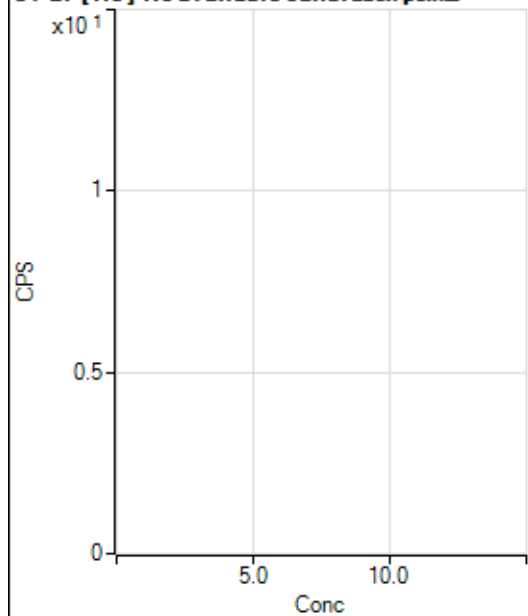
$$BEC = 1.316$$

Weight: <None>

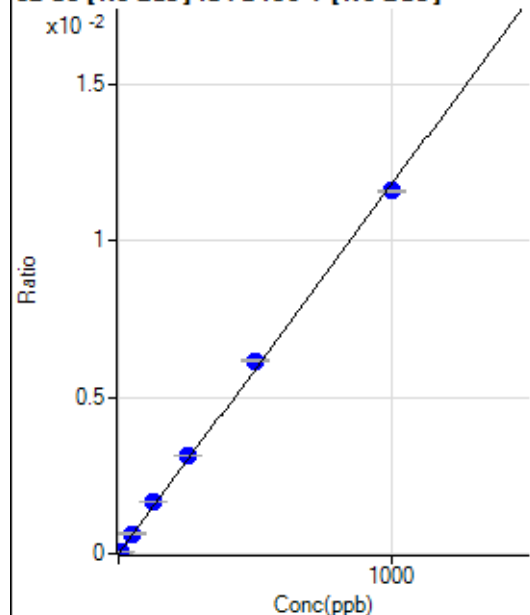
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			69823.24		P	1.6
2	☐			70078.01		P	1.3
3	☐			68988.71		P	1.2
4	☐			68163.18		P	0.1
5	☐			64054.38		P	0.6
6	☐			63685.09		P	1.3
7	☐			65904.62		P	0.8
8	☐			63390.57		P	1.9

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			40.04		P	50.0
2	☐			43.38		P	26.6
3	☐			33.37		P	62.4
4	☐			60.06		P	57.7
5	☐			50.05		P	34.6
6	☐			63.40		P	9.1
7	☐			43.38		P	13.3
8	☐			66.74		P	62.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.93	0.0000	P	1254.
2	☐	5.000	5.571	1942.17	0.0001	P	4.7
3	☐	50.000	54.616	18530.50	0.0006	P	0.6
4	☐	125.000	139.238	47127.36	0.0016	P	0.6
5	☐	250.000	265.876	88884.46	0.0031	P	0.6
6	☐	500.000	521.775	171812.13	0.0062	P	1.1
7	☐	1000.000	983.130	324195.05	0.0116	P	0.6
8	☐			386.31	0.0000	P	35.7

$$y = 1.1800\text{E-}005 * x + 6.5809\text{E-}008$$

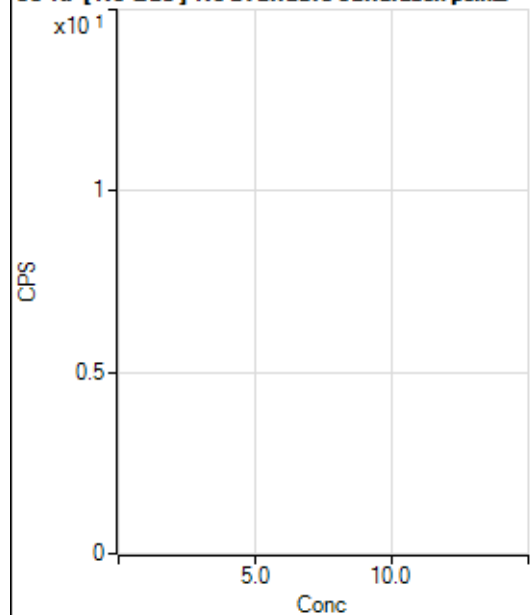
$$R = 0.9995$$

$$DL = 0.2099$$

$$BEC = 0.005577$$

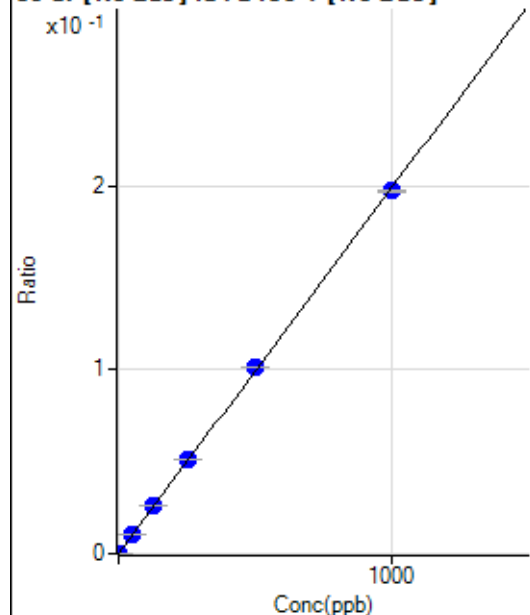
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			432.24		P	11.2
2	☐			466.68		P	7.5
3	☐			436.68		P	3.1
4	☐			411.12		P	3.7
5	☐			394.45		P	3.5
6	☐			421.13		P	6.4
7	☐			407.79		P	9.0
8	☐			510.02		P	20.5

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	752.83	0.0000	P	7.3
2	☐	1.000	0.951	6334.99	0.0002	P	0.8
3	☐	50.000	51.269	293844.12	0.0102	P	0.1
4	☐	125.000	132.992	759257.13	0.0265	P	0.6
5	☐	250.000	256.146	1443726.31	0.0510	P	0.8
6	☐	500.000	509.605	2828592.88	0.1014	P	0.7
7	☐	1000.000	992.599	5516689.84	0.1974	P	0.6
8	☐			12111.11	0.0005	P	1.2

$$y = 1.9885E-004 * x + 2.5513E-005$$

$$R = 0.9999$$

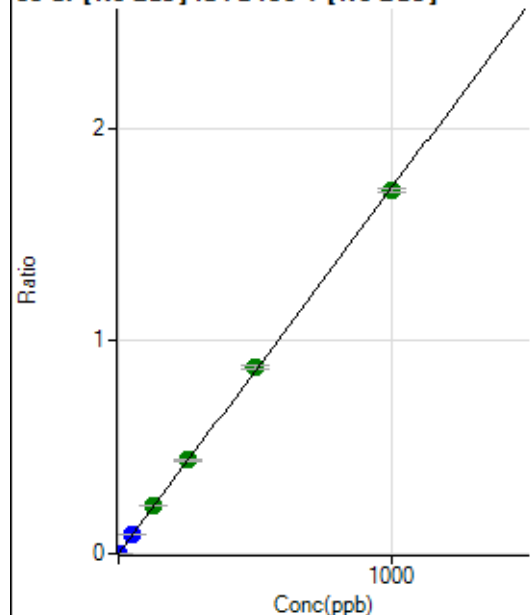
$$DL = 0.02799$$

$$BEC = 0.1283$$

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	463.92	0.0000	P	7.6
2	☐	1.000	1.004	51407.35	0.0017	P	1.3
3	☐	50.000	51.858	2563426.64	0.0892	P	0.6
4	☐	125.000	131.644	6491278.79	0.2263	A	1.1
5	☐	250.000	255.379	12437489.86	0.4390	A	1.0
6	☐	500.000	510.997	24512629.37	0.8784	A	1.5
7	☐	1000.000	992.233	47666685.10	1.7057	A	0.9
8	☐			101052.03	0.0038	P	0.4

$$y = 0.0017 * x + 1.5710E-005$$

$$R = 0.9999$$

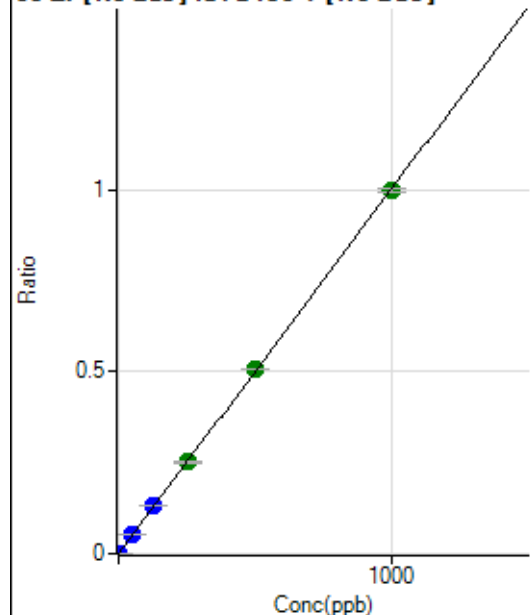
$$DL = 0.002084$$

$$BEC = 0.009139$$

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	1247.33	0.0000	P	4.7
2	☐	1.000	0.713	22337.60	0.0008	P	2.4
3	☐	50.000	50.738	1461966.40	0.0508	P	0.2
4	☐	125.000	132.711	3813028.78	0.1329	P	0.6
5	☐	250.000	251.835	7145494.08	0.2522	A	1.2
6	☐	500.000	507.249	14176207.44	0.5080	A	0.5
7	☐	1000.000	994.916	27842801.32	0.9963	A	1.1
8	☐			10181.87	0.0004	P	1.1

$$y = 0.0010 * x + 4.2246E-005$$

$$R = 0.9999$$

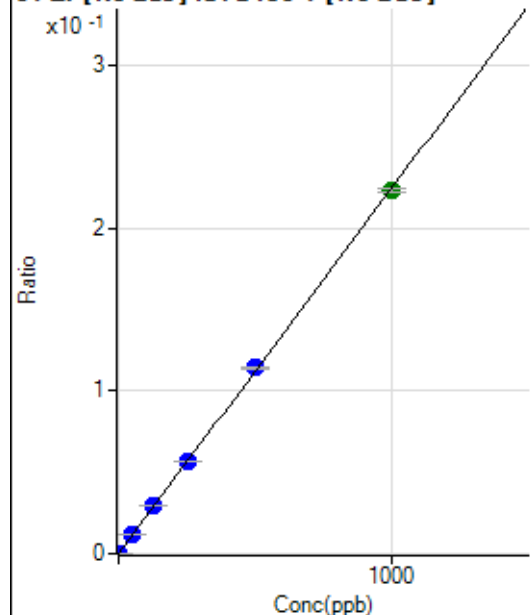
$$DL = 0.005982$$

$$BEC = 0.04219$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	250.01	0.0000	P	19.5
2	☐	1.000	0.707	4939.94	0.0002	P	5.3
3	☐	50.000	50.625	327184.25	0.0114	P	0.2
4	☐	125.000	132.224	852119.49	0.0297	P	0.9
5	☐	250.000	253.897	1616011.26	0.0570	P	0.2
6	☐	500.000	509.366	3193136.29	0.1144	P	0.7
7	☐	1000.000	993.409	6236062.99	0.2231	A	1.1
8	☐			2269.73	0.0001	P	7.8

$$y = 2.2462E-004 * x + 8.4613E-006$$

$$R = 0.9999$$

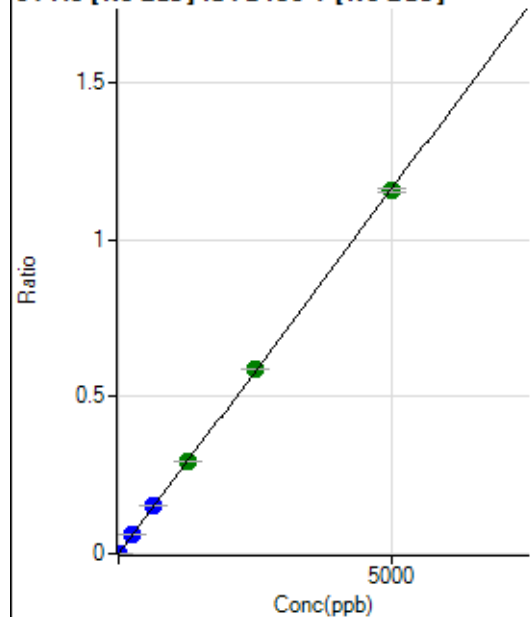
$$DL = 0.02204$$

$$BEC = 0.03767$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	438.91	0.0000	P	15.9
2	☐	5.000	4.634	32251.25	0.0011	P	2.4
3	☐	250.000	255.818	1710536.34	0.0595	P	0.5
4	☐	625.000	659.529	4398739.51	0.1534	P	1.0
5	☐	1250.000	1265.004	8333200.97	0.2941	A	0.7
6	☐	2500.000	2534.727	16446927.97	0.5894	A	0.7
7	☐	5000.000	4974.279	32321345.86	1.1566	A	1.1
8	☐			24758.46	0.0009	P	3.3

$$y = 2.3251E-004 * x + 1.4862E-005$$

R = 0.9999

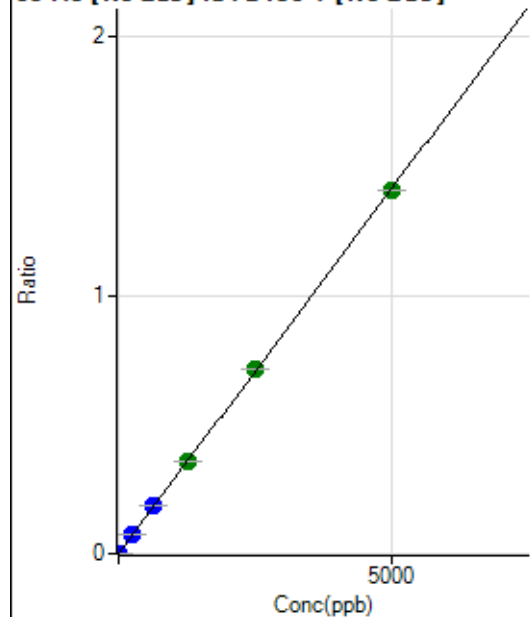
DL = 0.03043

BEC = 0.06392

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	58.34	0.0000	P	13.9
2	☐	5.000	5.115	42664.79	0.0014	P	1.0
3	☐	250.000	255.553	2072871.31	0.0721	P	0.6
4	☐	625.000	656.216	5310108.71	0.1851	P	1.0
5	☐	1250.000	1263.982	10102857.34	0.3566	A	0.4
6	☐	2500.000	2538.455	19985845.06	0.7161	A	0.3
7	☐	5000.000	4973.097	39209445.67	1.4030	A	0.1
8	☐			35495.05	0.0013	P	0.6

$$y = 2.8212E-004 * x + 1.9757E-006$$

R = 0.9999

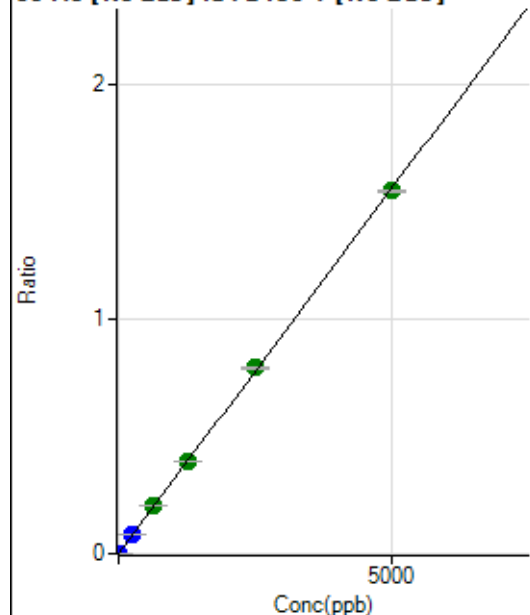
DL = 0.00293

BEC = 0.007003

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	202.79	0.0000	P	7.2
2	☐	5.000	5.132	47385.18	0.0016	P	0.7
3	☐	250.000	255.755	2289800.27	0.0796	P	0.7
4	☐	625.000	651.460	5818413.32	0.2029	A	1.0
5	☐	1250.000	1258.252	11100349.73	0.3918	A	0.1
6	☐	2500.000	2546.791	22129339.90	0.7930	A	1.6
7	☐	5000.000	4970.946	43256505.83	1.5478	A	0.8
8	☐			63871.68	0.0024	P	0.7

$$y = 3.1138\text{E-}004 * x + 6.8725\text{E-}006$$

$$R = 0.9999$$

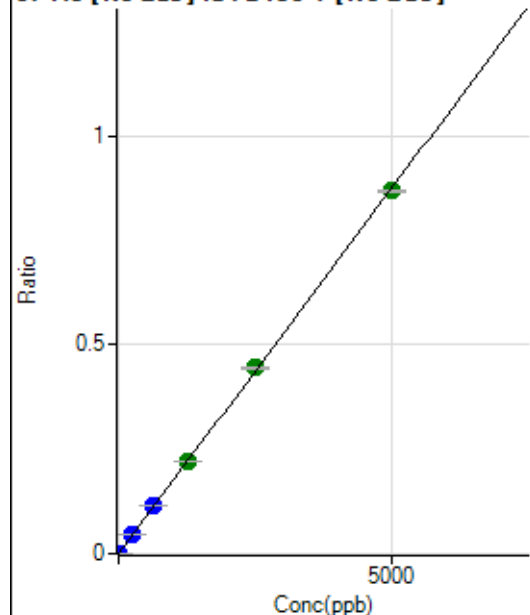
$$DL = 0.004762$$

$$BEC = 0.02207$$

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	41.67	0.0000	P	0.9
2	☐	5.000	5.118	26464.22	0.0009	P	0.8
3	☐	250.000	257.214	1293161.27	0.0450	P	0.7
4	☐	625.000	656.992	3295140.70	0.1149	P	1.0
5	☐	1250.000	1265.113	6267476.61	0.2212	A	0.8
6	☐	2500.000	2546.434	12425729.36	0.4453	A	1.0
7	☐	5000.000	4968.645	24280298.11	0.8688	A	0.5
8	☐			21898.13	0.0008	P	2.3

$$y = 1.7486\text{E-}004 * x + 1.4117\text{E-}006$$

$$R = 0.9999$$

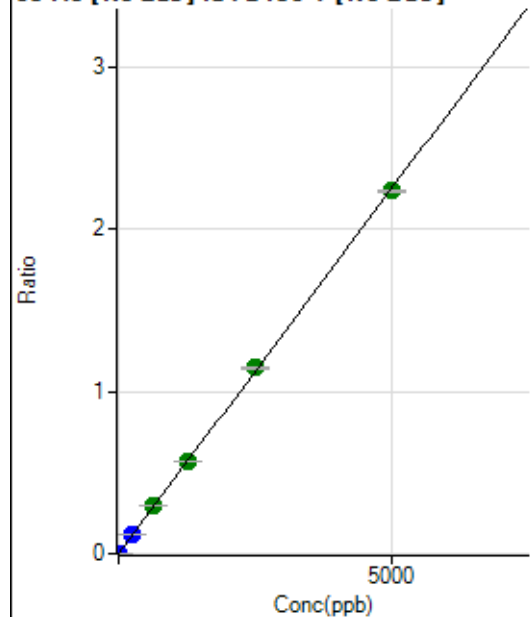
$$DL = 0.0002179$$

$$BEC = 0.008073$$

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	111.12	0.0000	P	33.0
2	☐	5.000	5.205	69154.83	0.0023	P	0.2
3	☐	250.000	255.561	3300930.43	0.1148	P	0.7
4	☐	625.000	649.312	8366864.25	0.2917	A	0.6
5	☐	1250.000	1265.251	16103517.72	0.5684	A	0.6
6	☐	2500.000	2544.218	31897285.09	1.1430	A	0.5
7	☐	5000.000	4970.761	62408030.56	2.2331	A	0.5
8	☐			54452.33	0.0021	P	0.5

$$y = 4.4924\text{E-}004 * x + 3.7569\text{E-}006$$

$$R = 0.9999$$

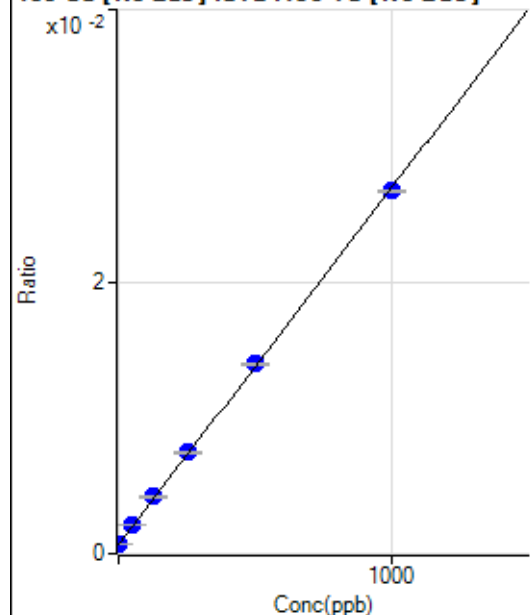
$$DL = 0.008285$$

$$BEC = 0.008363$$

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	13367.96	0.0007	P	2.9
2	☐	1.000	1.673	14129.83	0.0007	P	1.1
3	☐	50.000	54.921	41938.26	0.0021	P	1.1
4	☐	125.000	135.115	84888.12	0.0042	P	1.4
5	☐	250.000	258.751	150310.58	0.0074	P	1.2
6	☐	500.000	508.489	279580.41	0.0140	P	0.9
7	☐	1000.000	992.057	527309.13	0.0267	P	0.8
8	☐			12486.64	0.0007	P	0.8

$$y = 2.6265\text{E-}005 * x + 6.5355\text{E-}004$$

$$R = 0.9999$$

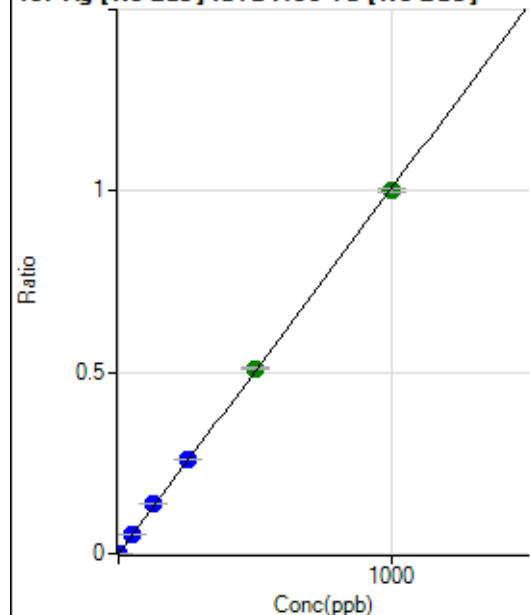
$$DL = 2.192$$

$$BEC = 24.88$$

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	219.46	0.0000	P	26.8
2	☐	1.000	1.026	21163.80	0.0010	P	1.4
3	☐	50.000	54.377	1096512.30	0.0548	P	1.6
4	☐	125.000	136.331	2775561.48	0.1374	P	0.2
5	☐	250.000	257.579	5237810.14	0.2596	P	0.7
6	☐	500.000	506.605	10189020.54	0.5105	A	1.0
7	☐	1000.000	993.167	19759365.20	1.0009	A	0.9
8	☐			5634.69	0.0003	P	4.2

$$y = 0.0010 * x + 1.0733E-005$$

$$R = 0.9999$$

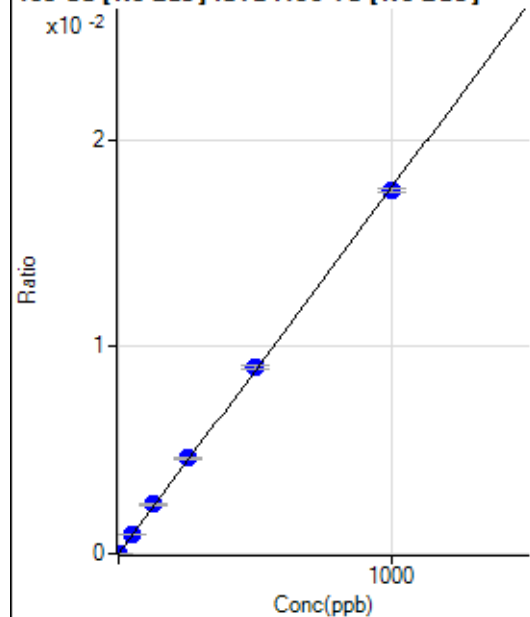
$$DL = 0.008572$$

$$BEC = 0.01065$$

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	30.55	0.0000	P	16.0
2	☐	1.000	1.063	411.13	0.0000	P	17.5
3	☐	50.000	54.271	19220.23	0.0010	P	1.8
4	☐	125.000	134.952	48208.47	0.0024	P	2.1
5	☐	250.000	261.195	93174.81	0.0046	P	1.6
6	☐	500.000	509.512	179745.50	0.0090	P	1.4
7	☐	1000.000	990.988	345813.09	0.0175	P	1.1
8	☐			140.28	0.0000	P	11.9

$$y = 1.7674E-005 * x + 1.4942E-006$$

$$R = 0.9998$$

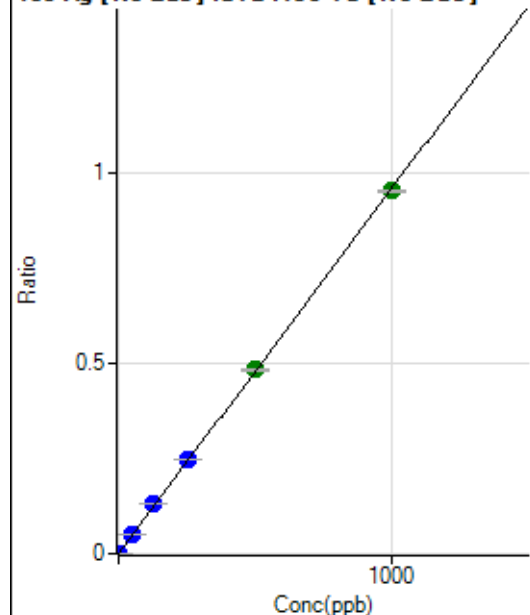
$$DL = 0.04068$$

$$BEC = 0.08454$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	16.8
2	☐	1.000	0.997	19436.29	0.0010	P	1.6
3	☐	50.000	54.693	1050017.34	0.0525	P	0.9
4	☐	125.000	136.567	2647130.87	0.1310	P	1.0
5	☐	250.000	257.430	4984371.73	0.2470	P	0.7
6	☐	500.000	503.961	9651786.50	0.4836	A	0.3
7	☐	1000.000	994.481	18839793.82	0.9543	A	0.6
8	☐			5209.52	0.0003	P	3.8

$$y = 9.5956\text{E-}004 * x + 2.4450\text{E-}006$$

$$R = 0.9999$$

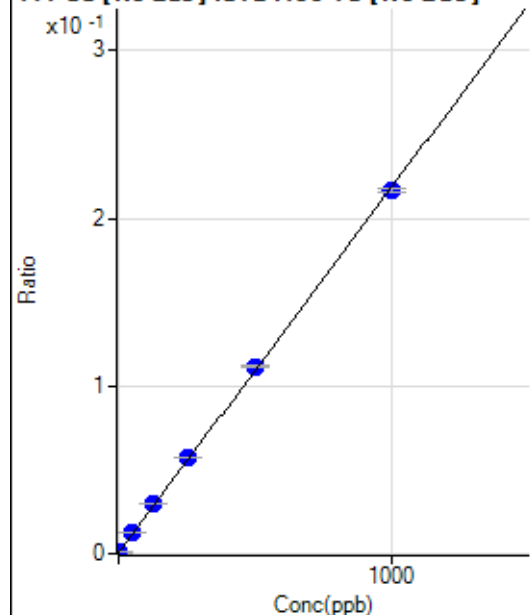
$$DL = 0.001286$$

$$BEC = 0.002548$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9354.24	0.0005	P	2.9
2	☐	1.000	1.087	14062.21	0.0007	P	1.1
3	☐	50.000	54.244	245631.43	0.0123	P	1.4
4	☐	125.000	136.040	608080.34	0.0301	P	1.0
5	☐	250.000	259.651	1150968.00	0.0570	P	0.4
6	☐	500.000	510.826	2230722.50	0.1118	P	1.0
7	☐	1000.000	990.582	4270616.38	0.2163	P	1.0
8	☐			9643.89	0.0005	P	0.7

$$y = 2.1792\text{E-}004 * x + 4.5732\text{E-}004$$

$$R = 0.9998$$

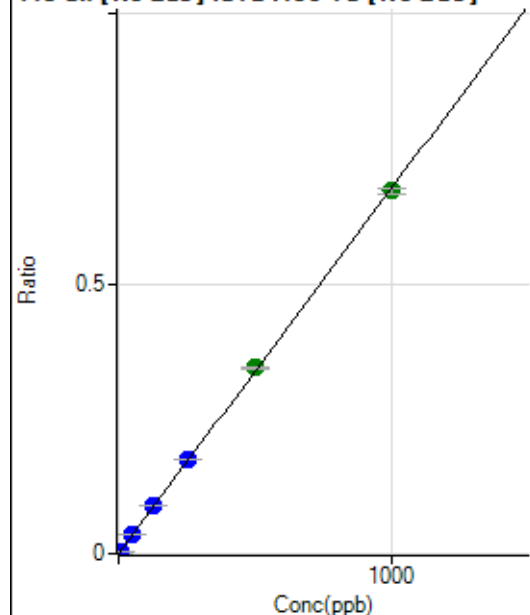
$$DL = 0.1802$$

$$BEC = 2.099$$

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	1591.83	0.0001	P	12.8
2	☐	5.000	5.128	71881.47	0.0035	P	0.7
3	☐	50.000	52.099	707017.02	0.0353	P	0.7
4	☐	125.000	133.253	1823351.34	0.0903	P	0.8
5	☐	250.000	256.438	3503778.03	0.1736	P	0.5
6	☐	500.000	508.216	6866428.97	0.3440	A	0.6
7	☐	1000.000	993.145	13271199.95	0.6722	A	1.5
8	☐			13309.61	0.0007	P	4.4

$$y = 6.7680E-004 * x + 7.7821E-005$$

$$R = 0.9999$$

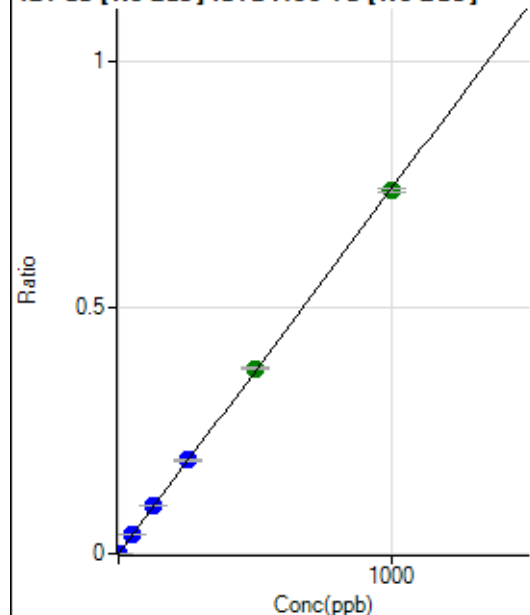
$$DL = 0.04406$$

$$BEC = 0.115$$

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	69.45	0.0000	P	6.9
2	☐	2.000	1.991	29932.90	0.0015	P	2.2
3	☐	50.000	51.677	765656.82	0.0383	P	1.0
4	☐	125.000	132.518	1982317.53	0.0981	P	0.9
5	☐	250.000	255.969	3824746.22	0.1895	P	0.5
6	☐	500.000	507.035	7493421.52	0.3755	A	0.7
7	☐	1000.000	993.966	14530996.86	0.7360	A	1.0
8	☐			18910.72	0.0010	P	8.6

$$y = 7.4050E-004 * x + 3.3950E-006$$

$$R = 0.9999$$

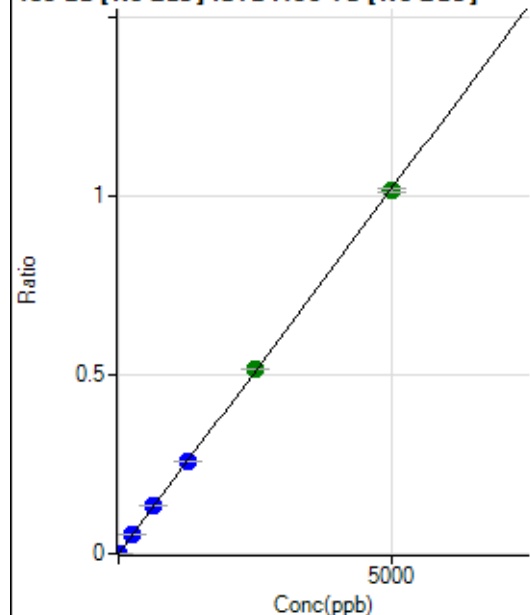
$$DL = 0.0009539$$

$$BEC = 0.004585$$

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	86.11	0.0000	P	10.9
2	☐	10.000	10.182	42098.02	0.0021	P	2.5
3	☐	250.000	259.788	1058803.79	0.0529	P	0.8
4	☐	625.000	661.647	2722499.28	0.1348	P	1.3
5	☐	1250.000	1269.441	5217679.07	0.2586	P	0.8
6	☐	2500.000	2538.482	10320271.67	0.5171	A	0.3
7	☐	5000.000	4970.828	19990141.94	1.0125	A	1.0
8	☐			35774.94	0.0020	P	1.1

$$y = 2.0370\text{E-}004 * x + 4.2088\text{E-}006$$

$$R = 0.9999$$

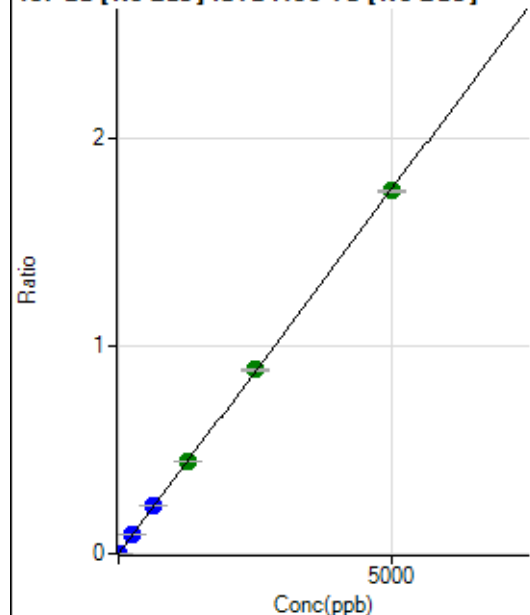
$$DL = 0.006739$$

$$BEC = 0.02066$$

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	97.23	0.0000	P	49.7
2	☐	10.000	10.296	73349.88	0.0036	P	0.6
3	☐	250.000	258.948	1819547.76	0.0909	P	0.6
4	☐	625.000	660.093	4682918.68	0.2318	P	0.8
5	☐	1250.000	1266.560	8975094.30	0.4448	A	0.9
6	☐	2500.000	2523.737	17689143.10	0.8863	A	0.7
7	☐	5000.000	4979.157	34523259.80	1.7486	A	0.5
8	☐			62884.94	0.0035	P	0.5

$$y = 3.5119\text{E-}004 * x + 4.7585\text{E-}006$$

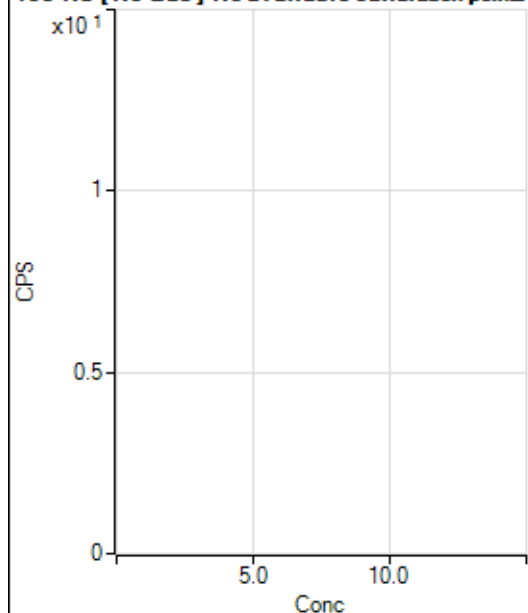
$$R = 1.0000$$

$$DL = 0.02019$$

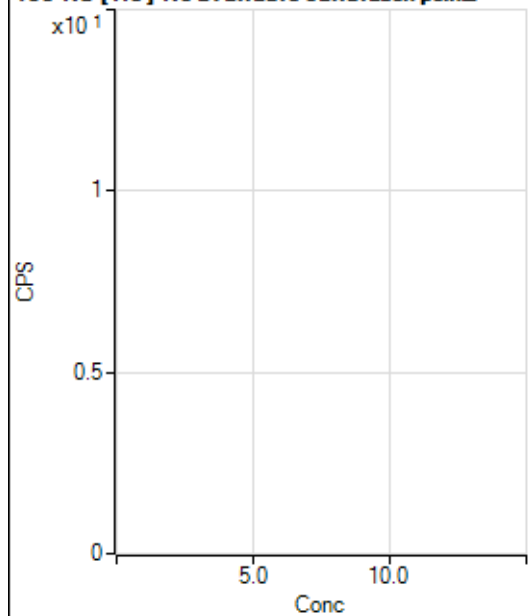
$$BEC = 0.01355$$

Weight: <None>

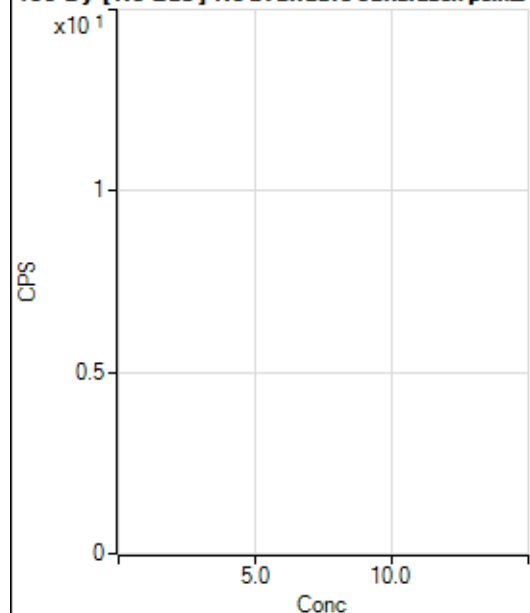
Min Conc: 0

150 Nd [No Gas] No available calibration points

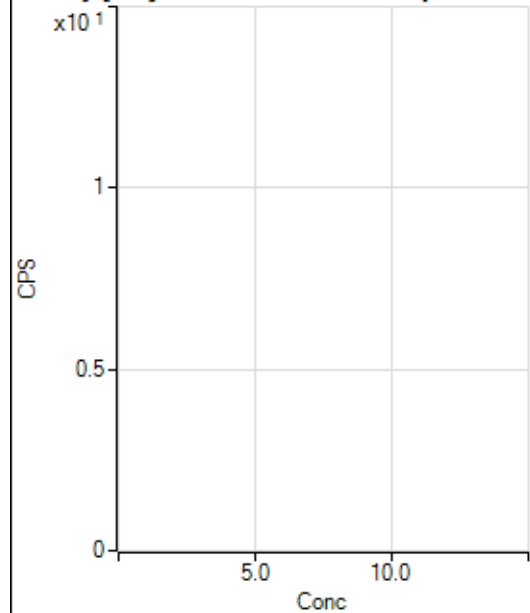
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	173.2
2	☐			20.00		P	33.4
3	☐			148.89		P	33.6
4	☐			335.57		P	9.8
5	☐			708.93		P	10.9
6	☐			1317.89		P	5.2
7	☐			2624.78		P	0.5
8	☐			213.34		P	23.6

150 Nd [He] No available calibration points

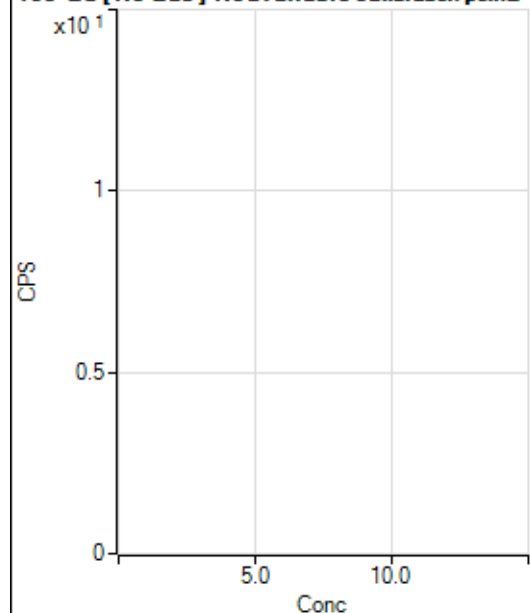
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐			1.11		P	173.2
3	☐			10.00		P	66.7
4	☐			20.00		P	28.9
5	☐			44.44		P	37.0
6	☐			70.00		P	4.8
7	☐			173.34		P	12.6
8	☐			63.33		P	13.9

156 Dy [No Gas] No available calibration points

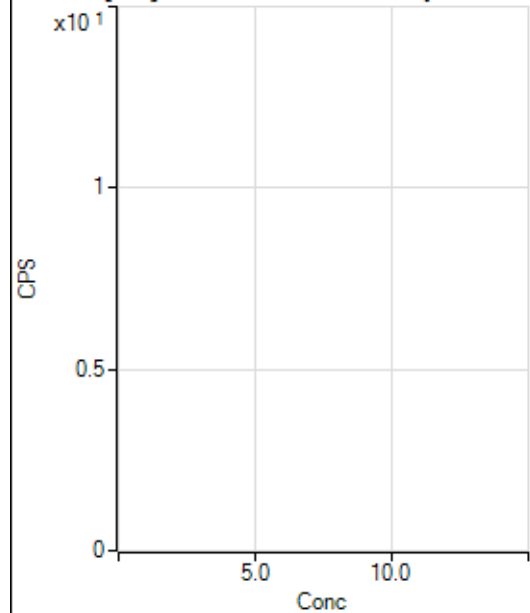
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	0.0
2	☐			13.89		P	91.6
3	☐			50.00		P	28.9
4	☐			122.23		P	15.7
5	☐			163.90		P	20.5
6	☐			344.46		P	13.3
7	☐			572.26		P	6.6
8	☐			1005.64		P	12.1

156 Dy [He] No available calibration points

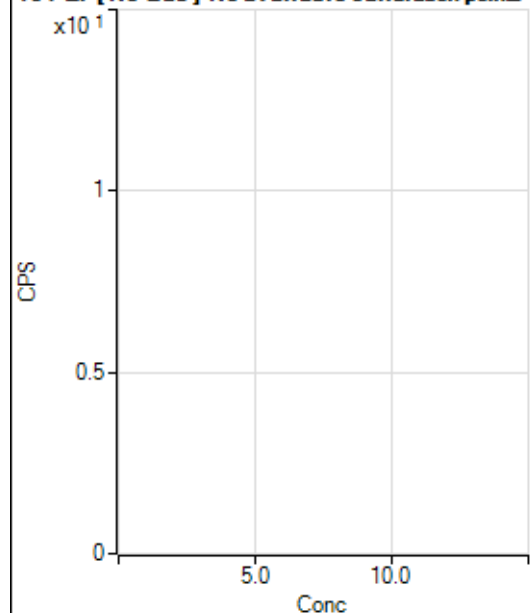
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	21.6
2	☐			14.45		P	26.7
3	☐			28.89		P	46.6
4	☐			62.22		P	32.7
5	☐			131.11		P	8.9
6	☐			217.78		P	13.0
7	☐			412.24		P	3.6
8	☐			515.57		P	9.7

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

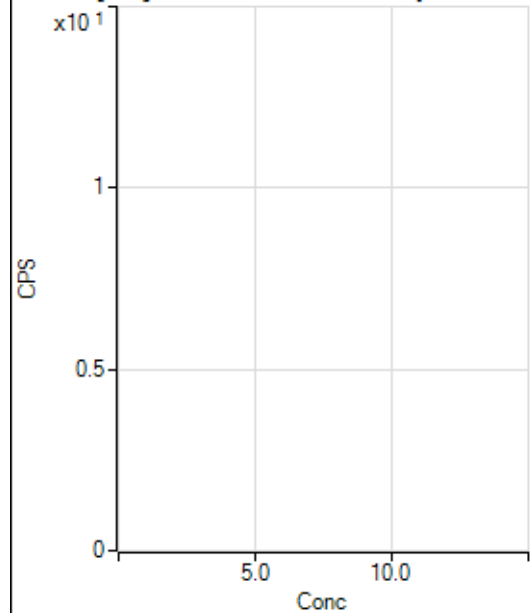
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			150.01		P	30.9
2	☐			113.89		P	18.4
3	☐			180.57		P	14.8
4	☐			136.12		P	3.5
5	☐			216.68		P	40.5
6	☐			236.12		P	7.3
7	☐			394.47		P	15.3
8	☐			1264.00		P	7.1

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			331.12		P	17.0
2	☐			327.79		P	2.6
3	☐			317.79		P	6.3
4	☐			352.24		P	6.7
5	☐			337.79		P	11.0
6	☐			345.56		P	18.4
7	☐			373.35		P	13.9
8	☐			818.93		P	5.8

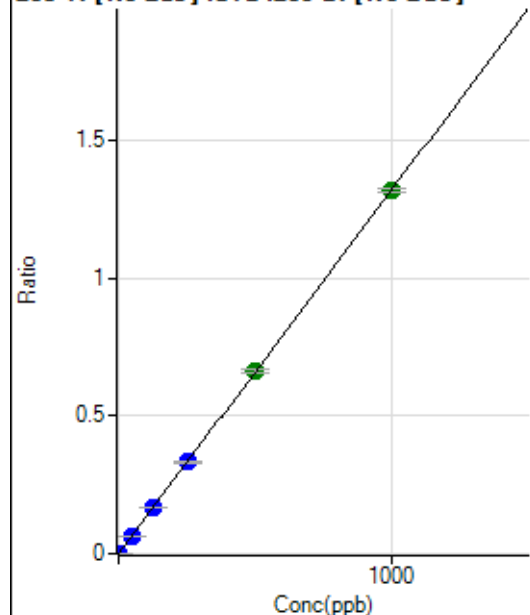
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			102.78		P	18.7
2	☐			111.12		P	31.2
3	☐			88.90		P	10.8
4	☐			122.23		P	32.2
5	☐			116.67		P	31.1
6	☐			111.12		P	37.0
7	☐			144.45		P	14.5
8	☐			300.02		P	22.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			35.56		P	23.6
2	☐			38.89		P	21.6
3	☐			53.33		P	6.3
4	☐			32.22		P	51.0
5	☐			31.11		P	16.4
6	☐			48.89		P	23.9
7	☐			70.00		P	39.0
8	☐			85.56		P	2.2

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	313.91	0.0000	P	7.5
2	☐	1.000	0.942	15579.24	0.0013	P	2.7
3	☐	50.000	49.418	782985.74	0.0651	P	0.4
4	☐	125.000	128.582	2042510.35	0.1694	P	1.2
5	☐	250.000	251.735	3966170.40	0.3316	P	0.5
6	☐	500.000	502.121	7739811.55	0.6615	A	1.4
7	☐	1000.000	998.087	14744679.67	1.3148	A	1.1
8	☐			4478.75	0.0005	P	4.9

$$y = 0.0013 * x + 2.5085E-005$$

$$R = 1.0000$$

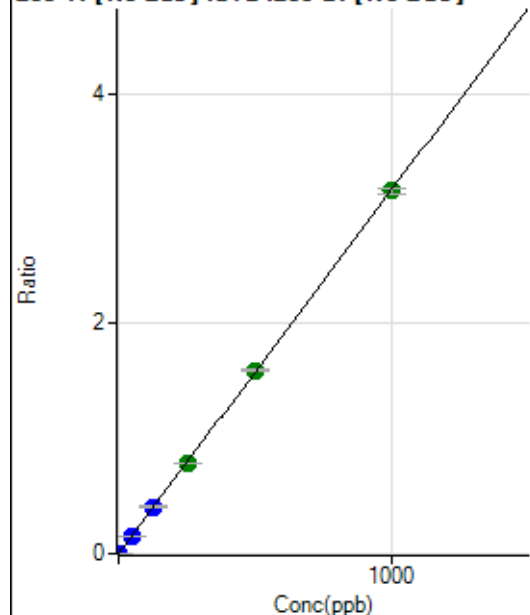
$$DL = 0.004312$$

$$BEC = 0.01904$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	772.28	0.0001	P	9.9
2	☐	1.000	0.945	37515.22	0.0030	P	1.3
3	☐	50.000	49.720	1890605.12	0.1573	P	0.8
4	☐	125.000	129.151	4923874.68	0.4084	P	0.9
5	☐	250.000	249.694	9441543.35	0.7895	A	0.4
6	☐	500.000	503.581	18629986.18	1.5921	A	1.0
7	☐	1000.000	997.781	35375899.75	3.1546	A	1.5
8	☐			10632.47	0.0012	P	3.8

$$y = 0.0032 * x + 6.1736E-005$$

$$R = 1.0000$$

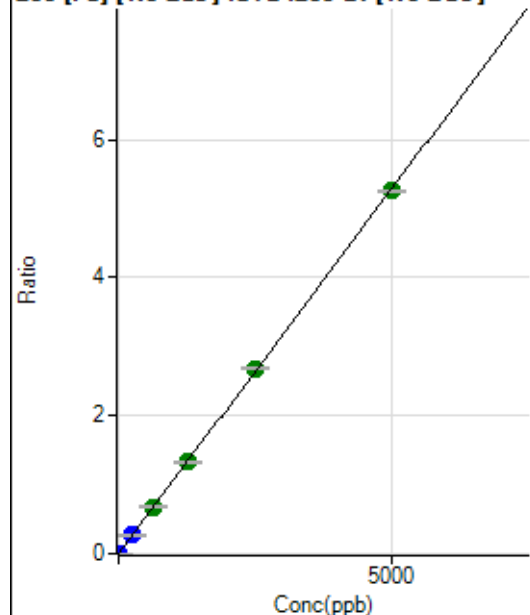
$$DL = 0.005785$$

$$BEC = 0.01953$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	798.19	0.0001	P	8.3
2	☐	1.000	0.969	13383.08	0.0011	P	1.8
3	☐	250.000	251.114	3191307.34	0.2654	P	0.9
4	☐	625.000	644.343	8211038.09	0.6810	A	0.7
5	☐	1250.000	1255.119	15864811.81	1.3265	A	1.0
6	☐	2500.000	2540.359	31414362.51	2.6847	A	0.6
7	☐	5000.000	4976.068	58980351.78	5.2588	A	0.8
8	☐			53121.28	0.0058	P	0.2

$$y = 0.0011 * x + 6.3801E-005$$

$$R = 0.9999$$

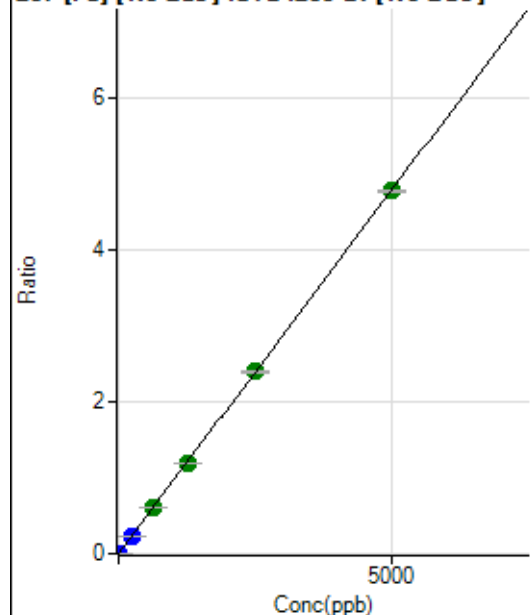
$$DL = 0.01501$$

$$BEC = 0.06037$$

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	698.19	0.0001	P	5.6
2	☐	1.000	0.930	11638.79	0.0009	P	1.9
3	☐	250.000	249.138	2867858.37	0.2385	P	0.6
4	☐	625.000	640.863	7397491.78	0.6135	A	0.5
5	☐	1250.000	1248.424	14292523.93	1.1951	A	0.3
6	☐	2500.000	2512.892	28146568.92	2.4054	A	1.1
7	☐	5000.000	4992.008	53588456.75	4.7784	A	0.8
8	☐			48453.52	0.0053	P	1.0

$$y = 9.5721E-004 * x + 5.5803E-005$$

$$R = 1.0000$$

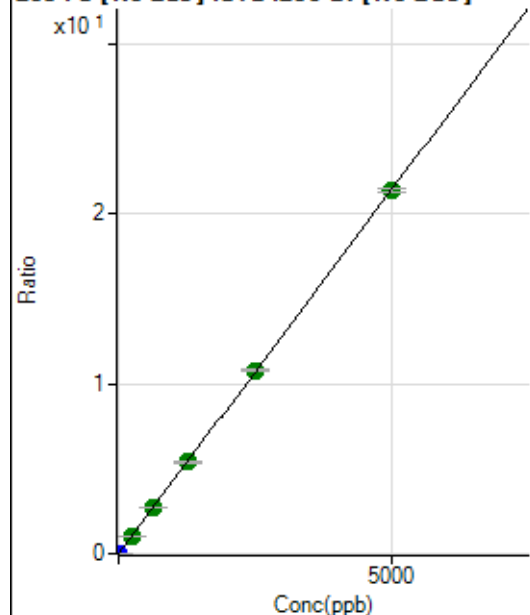
$$DL = 0.009813$$

$$BEC = 0.0583$$

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	3218.77	0.0003	P	4.7
2	☐	1.000	0.963	53877.76	0.0044	P	0.7
3	☐	250.000	248.947	12806771.82	1.0652	A	1.0
4	☐	625.000	641.852	33110630.83	2.7460	A	0.6
5	☐	1250.000	1255.424	64234265.68	5.3708	A	0.8
6	☐	2500.000	2520.632	126175257.4	10.7832	A	1.2
7	☐	5000.000	4986.274	239215968.7	21.3310	A	0.9
8	☐			216560.87	0.0238	P	0.7

$$y = 0.0043 * x + 2.5725E-004$$

$$R = 1.0000$$

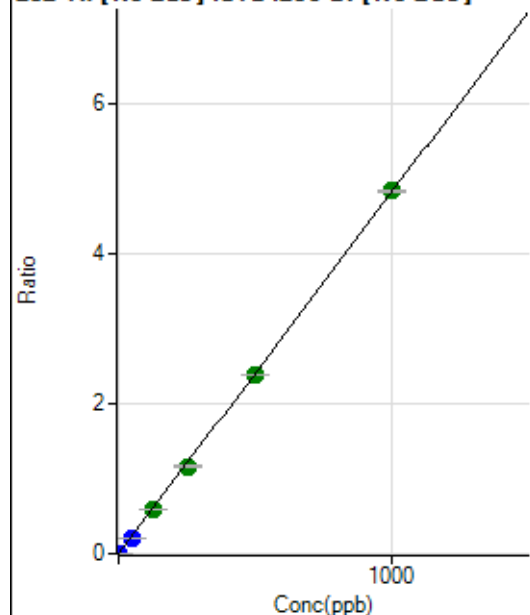
$$DL = 0.00842$$

$$BEC = 0.06014$$

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	568.55	0.0000	P	1.6
2	☐	1.000	0.595	35799.72	0.0029	P	3.2
3	☐	50.000	44.391	2567982.12	0.2136	P	1.1
4	☐	125.000	121.610	7053491.94	0.5851	A	1.5
5	☐	250.000	241.671	13903819.75	1.1626	A	0.7
6	☐	500.000	496.852	27968695.76	2.3902	A	0.2
7	☐	1000.000	1004.361	54187826.21	4.8317	A	0.3
8	☐			15509.64	0.0017	P	4.2

$$y = 0.0048 * x + 4.5445E-005$$

$$R = 1.0000$$

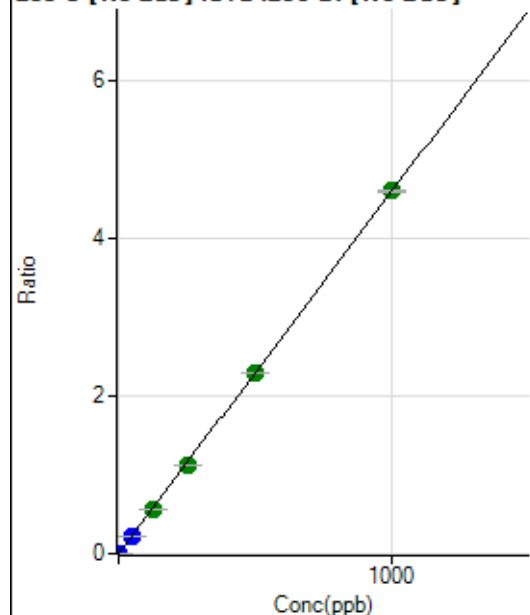
$$DL = 0.0004507$$

$$BEC = 0.009447$$

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	141.67	0.0000	P	69.4
2	☐	1.000	0.840	47491.32	0.0039	P	1.4
3	☐	50.000	45.387	2500309.80	0.2080	P	0.5
4	☐	125.000	123.179	6803883.79	0.5644	A	1.9
5	☐	250.000	243.812	13358964.97	1.1171	A	1.1
6	☐	500.000	499.229	26765341.92	2.2874	A	0.4
7	☐	1000.000	1002.391	51508398.38	4.5927	A	0.3
8	☐			7419.15	0.0008	P	4.3

$$y = 0.0046 * x + 1.1311E-005$$

$$R = 1.0000$$

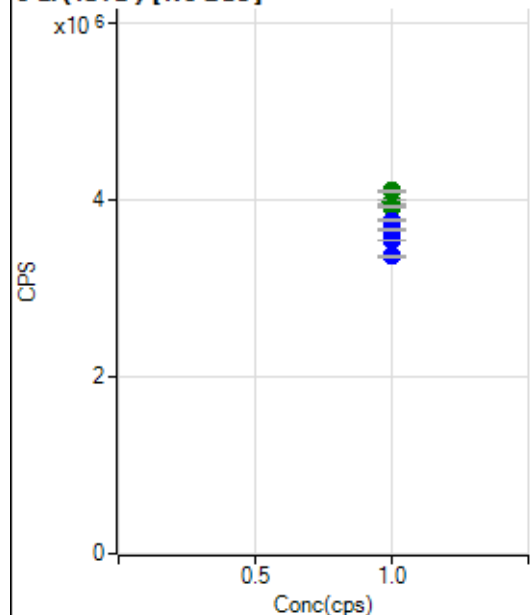
$$DL = 0.00514$$

$$BEC = 0.002469$$

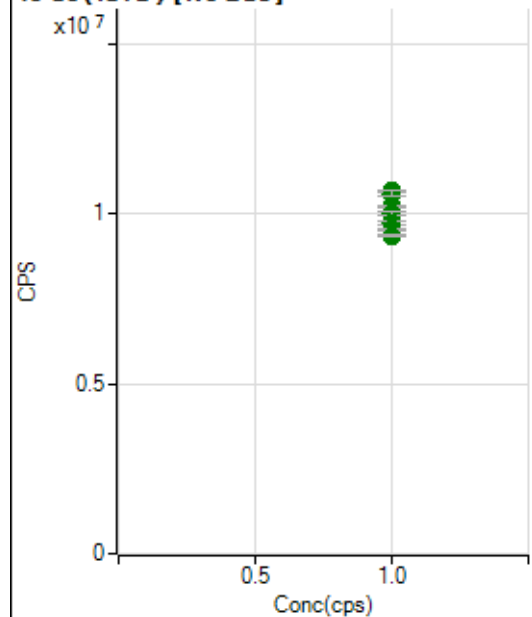
Weight: <None>

Min Conc: 0

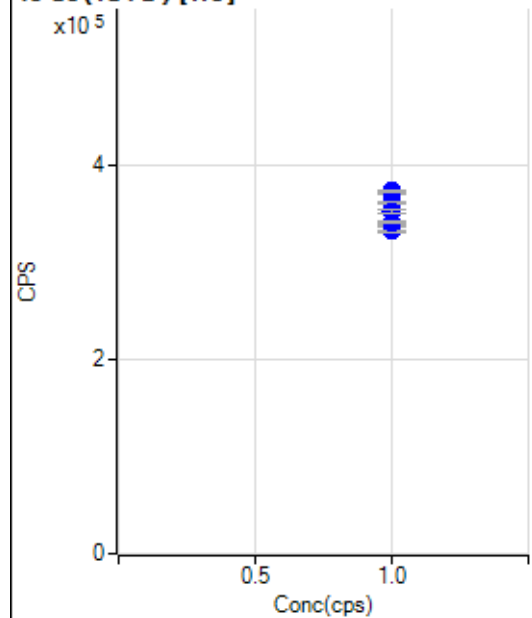
6 Li (ISTD) [No Gas]



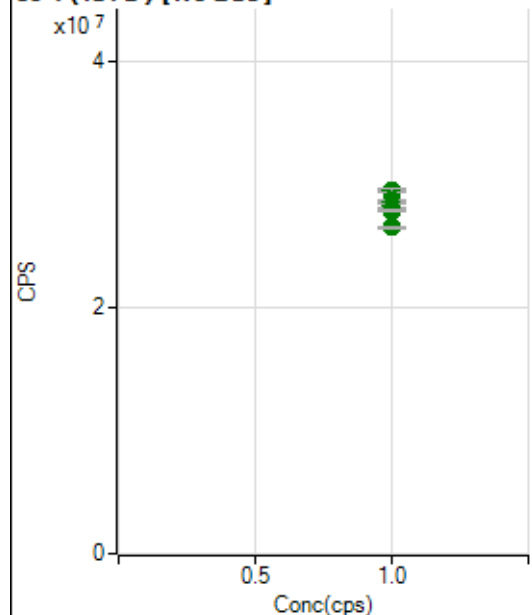
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4104398.13		A	0.5
2	☐	1.000		4102569.42		A	0.4
3	☐	1.000		3983208.41		A	0.7
4	☐	1.000		3923989.98		A	0.5
5	☐	1.000		3770203.45		P	0.8
6	☐	1.000		3656847.62		P	0.6
7	☐	1.000		3542997.76		P	0.4
8	☐	1.000		3361950.51		P	0.5

45 Sc (ISTD) [No Gas]

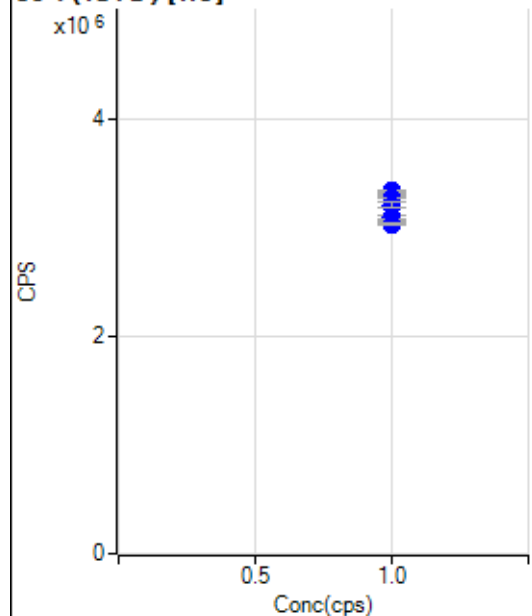
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		10663717.27		A	0.8
2	☐	1.000		10582359.43		A	1.8
3	☐	1.000		10210417.91		A	0.6
4	☐	1.000		10011532.98		A	1.1
5	☐	1.000		9716627.36		A	1.0
6	☐	1.000		9539028.82		A	0.4
7	☐	1.000		9532891.04		A	0.3
8	☐	1.000		9335546.11		A	0.7

45 Sc (ISTD) [He]

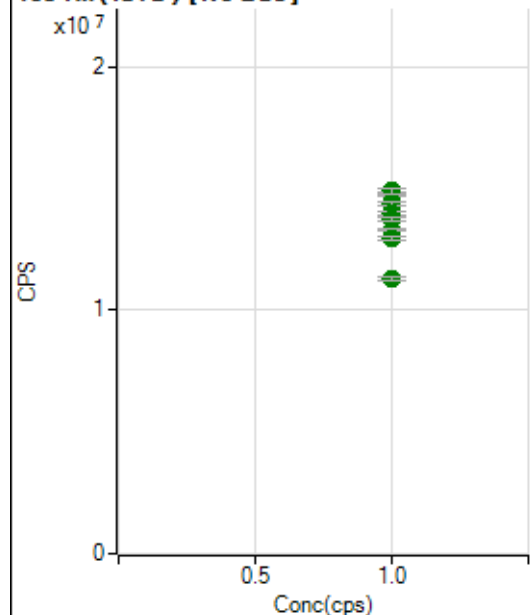
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		369805.50		P	0.4
2	☐	1.000		372925.10		P	0.8
3	☐	1.000		360830.30		P	0.2
4	☐	1.000		352034.81		P	1.2
5	☐	1.000		336731.58		P	0.6
6	☐	1.000		331342.39		P	0.2
7	☐	1.000		339385.91		P	0.6
8	☐	1.000		340947.57		P	1.0

89 Y (ISTD) [No Gas]

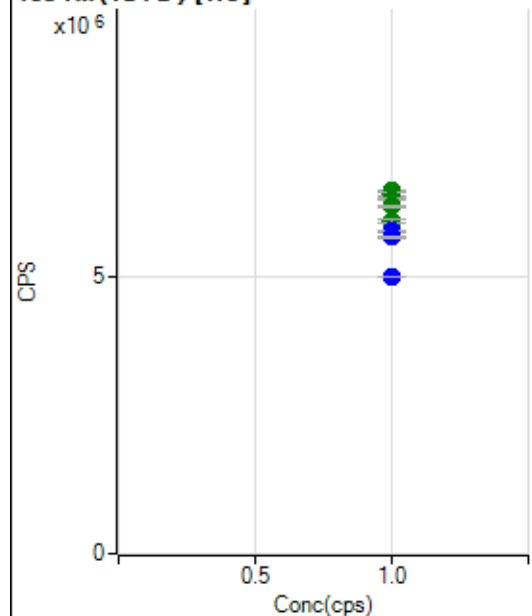
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		29520106.78		A	0.9
2	☐	1.000		29525364.28		A	1.0
3	☐	1.000		28750980.40		A	0.2
4	☐	1.000		28683904.02		A	1.0
5	☐	1.000		28331949.30		A	1.0
6	☐	1.000		27907467.64		A	0.9
7	☐	1.000		27946858.19		A	0.6
8	☐	1.000		26530996.83		A	0.2

89 Y (ISTD) [He]

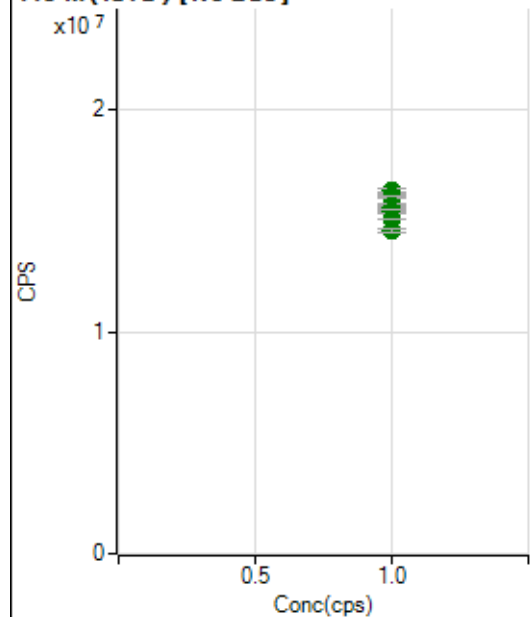
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3308331.27		P	0.5
2	☐	1.000		3343880.71		P	0.4
3	☐	1.000		3281290.33		P	0.4
4	☐	1.000		3214670.13		P	1.4
5	☐	1.000		3099474.74		P	1.1
6	☐	1.000		3053589.92		P	0.0
7	☐	1.000		3080022.11		P	0.8
8	☐	1.000		3035512.90		P	0.5

103 Rh (ISTD) [No Gas]

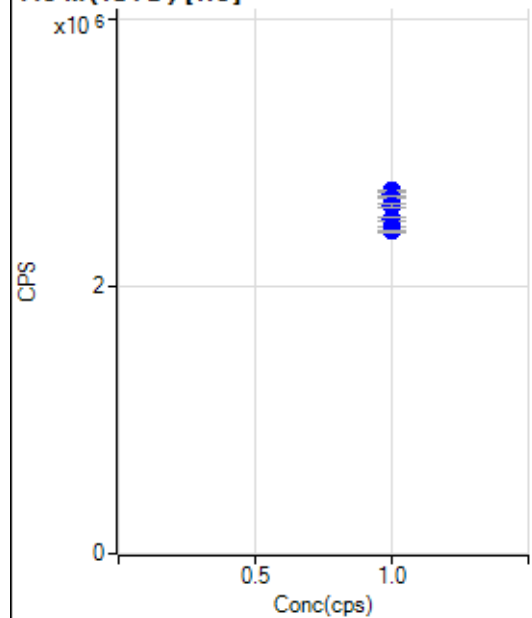
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		14765851.59		A	1.2
2	☐	1.000		14911582.42		A	1.4
3	☐	1.000		14382681.31		A	0.9
4	☐	1.000		14018580.49		A	1.0
5	☐	1.000		13734840.21		A	1.2
6	☐	1.000		13291352.30		A	0.6
7	☐	1.000		12945183.83		A	1.4
8	☐	1.000		11281400.11		A	1.1

103 Rh (ISTD) [He]

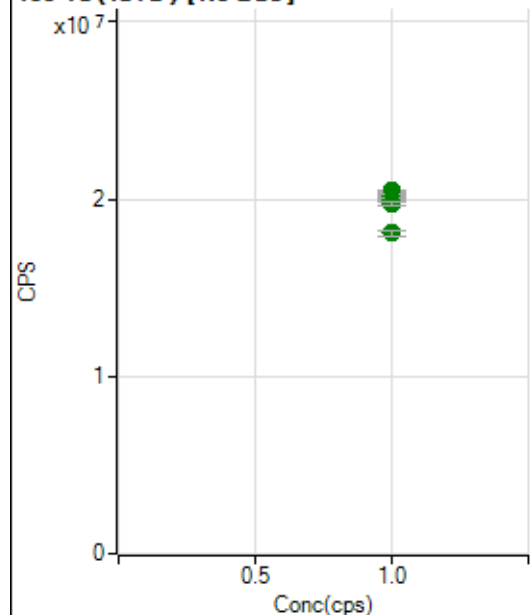
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		6548600.53		A	0.6
2	☐	1.000		6503390.04		A	1.1
3	☐	1.000		6403911.85		A	1.0
4	☐	1.000		6265381.37		A	1.0
5	☐	1.000		6000530.46		A	1.1
6	☐	1.000		5823752.35		P	0.4
7	☐	1.000		5710424.98		P	0.7
8	☐	1.000		5002318.36		P	0.1

115 In (ISTD) [No Gas]

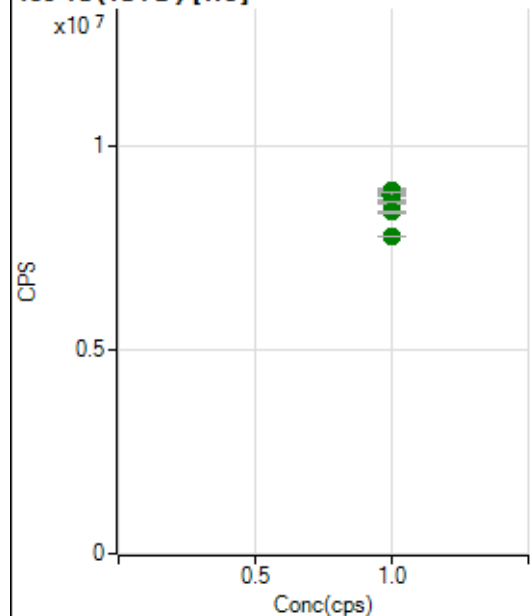
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16156090.64		A	1.3
2	☐	1.000		16356143.70		A	1.4
3	☐	1.000		16104541.46		A	0.6
4	☐	1.000		15683821.93		A	0.6
5	☐	1.000		15580952.84		A	2.0
6	☐	1.000		15413543.96		A	1.0
7	☐	1.000		15098325.77		A	0.2
8	☐	1.000		14548197.39		A	0.9

115 In (ISTD) [He]

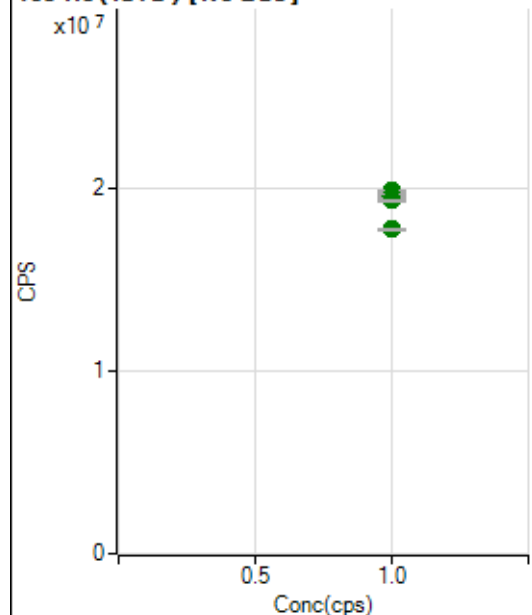
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2691957.78		P	0.8
2	☐	1.000		2716794.18		P	0.6
3	☐	1.000		2670641.50		P	0.1
4	☐	1.000		2610623.34		P	1.0
5	☐	1.000		2504951.61		P	1.2
6	☐	1.000		2445543.78		P	0.4
7	☐	1.000		2417595.79		P	0.7
8	☐	1.000		2417141.75		P	0.5

159 Tb (ISTD) [No Gas]

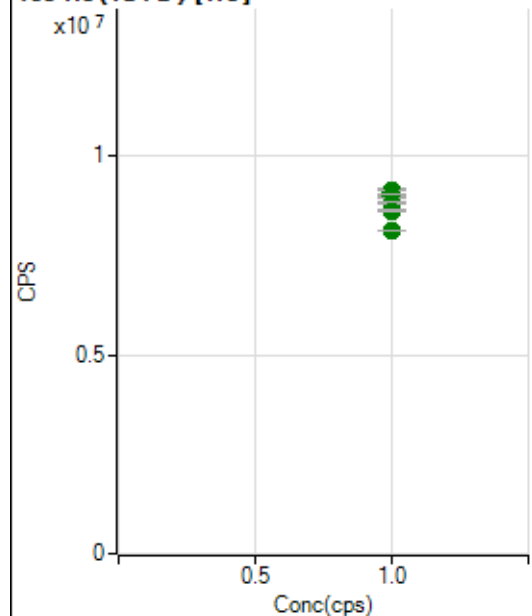
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20455615.39		A	0.4
2	☐	1.000		20258290.12		A	0.8
3	☐	1.000		20007734.42		A	0.9
4	☐	1.000		20201275.81		A	1.0
5	☐	1.000		20178847.76		A	1.2
6	☐	1.000		19958986.65		A	1.3
7	☐	1.000		19743020.54		A	0.8
8	☐	1.000		18088649.45		A	1.7

159 Tb (ISTD) [He]

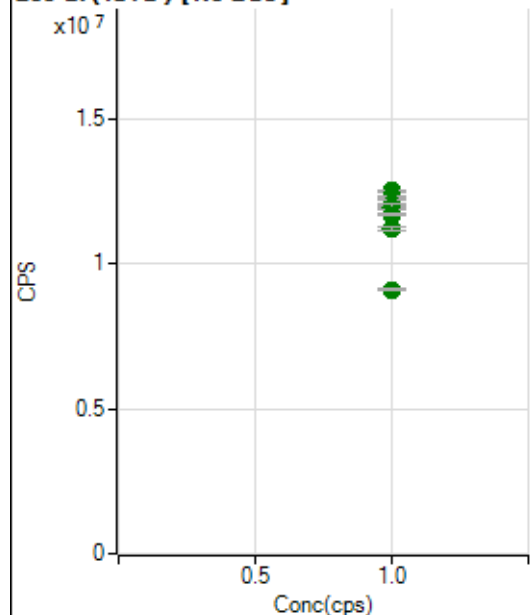
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8911539.94		A	1.4
2	☐	1.000		8896231.60		A	1.2
3	☐	1.000		8819923.62		A	0.9
4	☐	1.000		8784770.01		A	2.1
5	☐	1.000		8617106.68		A	0.5
6	☐	1.000		8391975.85		A	0.2
7	☐	1.000		8390540.29		A	0.4
8	☐	1.000		7792851.97		A	0.3

165 Ho (ISTD) [No Gas]

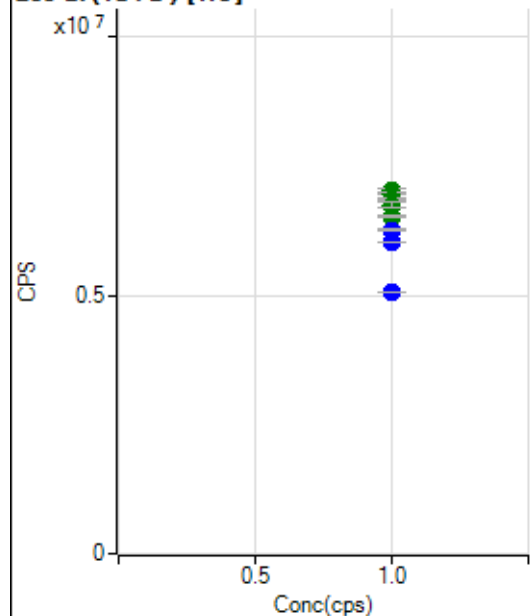
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		19867744.01		A	0.6
2	☐	1.000		19767889.85		A	0.8
3	☐	1.000		19481759.01		A	0.6
4	☐	1.000		19724199.98		A	1.4
5	☐	1.000		19692364.15		A	1.7
6	☐	1.000		19616504.01		A	1.0
7	☐	1.000		19361614.57		A	0.5
8	☐	1.000		17758106.68		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		9116153.06		A	1.3
2	☐	1.000		9074128.20		A	0.9
3	☐	1.000		9004753.27		A	0.6
4	☐	1.000		8986923.62		A	1.1
5	☐	1.000		8808608.34		A	0.9
6	☐	1.000		8623182.58		A	0.9
7	☐	1.000		8624757.44		A	0.4
8	☐	1.000		8110840.02		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12510113.84		A	0.6
2	☐	1.000		12305932.04		A	0.5
3	☐	1.000		12023212.74		A	0.8
4	☐	1.000		12058158.85		A	1.9
5	☐	1.000		11959409.68		A	1.3
6	☐	1.000		11701318.44		A	0.6
7	☐	1.000		11215375.39		A	1.4
8	☐	1.000		9116843.75		A	0.9

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7016635.31		A	1.5
2	☐	1.000		6947437.46		A	1.7
3	☐	1.000		6846719.07		A	0.6
4	☐	1.000		6746876.29		A	1.6
5	☐	1.000		6512682.19		A	0.6
6	☐	1.000		6262562.48		P	0.2
7	☐	1.000		6020612.20		P	0.1
8	☐	1.000		5059813.71		P	0.2

US EPA Tune Check Sample Report

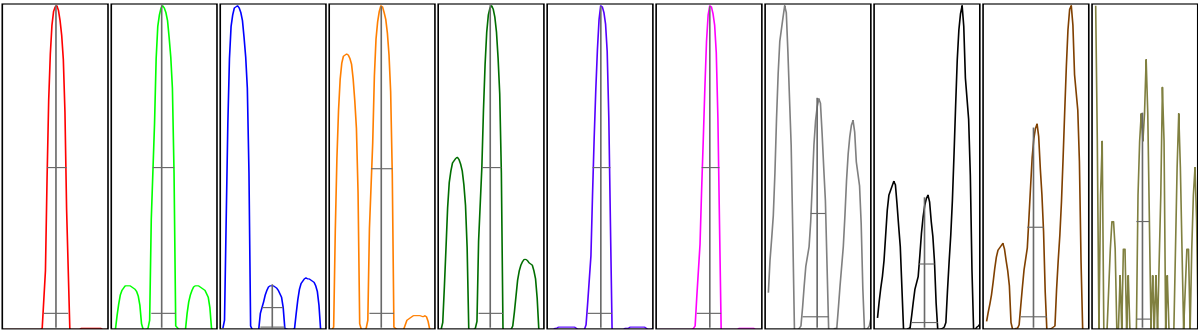
Batch Folder D:\ICP-MS Data\1\DATA\P7030920MS1.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	15220	0.51	5.00	
24	197889	0.43	5.00	
25	26547	0.32	5.00	
26	30776	0.28	5.00	
59	164410	0.23	5.00	
113	10406	0.43	5.00	
115	238462	0.57	5.00	
206	50694	0.52	5.00	
207	46643	0.61	5.00	
208	110054	0.70	5.00	
220	0	19.44		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15302	15302	15180	15178	15136
24	198855	198122	198486	196981	197004
25	26661	26535	26589	26437	26511
26	30873	30811	30825	30701	30669
59	164538	164407	164843	164437	163823
113	10365	10406	10450	10358	10450
115	239121	238419	240191	238108	236473
206	50411	50707	51055	50474	50824
207	46436	46542	47118	46427	46690
208	108906	110601	110817	110263	109682
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	27744	9.05	8.9 - 9.1		0.730	0.900	
24	333724	23.95	23.9 - 24.1		0.742	0.900	
25	44705	25.00	24.9 - 25.1		0.741	0.900	
26	52589	26.00	25.9 - 26.1		0.741	0.900	
59	290737	59.00	58.9 - 59.1		0.740	0.900	
113	21310	113.05	112.9 - 113.1		0.716	0.900	
115	484223	115.05	114.9 - 115.1		0.720	0.900	
206	111015	206.00	205.9 - 206.1		0.763	0.900	
207	98183	206.95	206.9 - 207.1		0.764	0.900	
208	236585	207.95	207.9 - 208.1		0.764	0.900	
220	0	219.95	-		0.441		

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	8.6	V	Deflect	11.8	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	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	36259	0.88	
89	69719	0.79	
205	39722	0.75	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	36180	36828	36062	36099	36128
89	69746	70655	69394	69485	69313
205	39867	40180	39469	39524	39571

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.5	V	Deflect	1.2	V
Extract 2	-145.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	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			