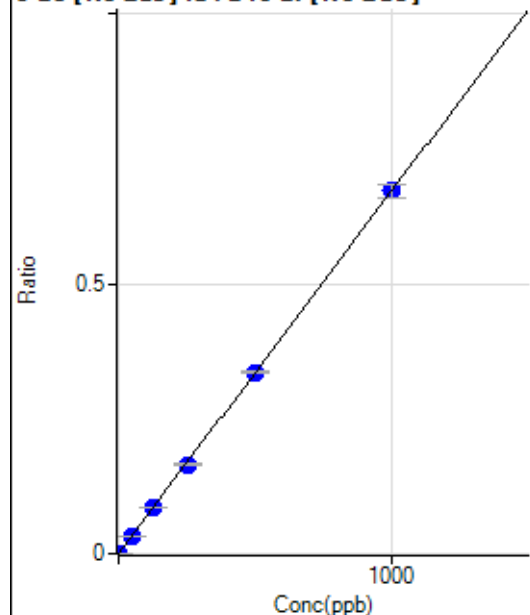


Calibration for 007CALS.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7071620-MS.b\
 Analysis File: P7071620-MS.batch.bin
 DA Date-Time: 2020-07-16 17:06:27
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-07-16 15:00:20
2	004CALS.d	S01	2020-07-16 15:04:04
3	005CALS.d	S02	2020-07-16 15:09:04
4	006CALS.d	S03	2020-07-16 15:13:11
5	007CALS.d	S04	2020-07-16 15:17:31
6	008CALS.d	S05	2020-07-16 15:21:24
7	009CALS.d	S06	2020-07-16 15:25:06
8	010CALS.d	S07	2020-07-16 15:28:42
9	011CALS.d	S08	2020-07-16 15:32:15

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	135.19	0.0000	P	20.4
2	☐	0.100	0.087	387.05	0.0001	P	11.5
3	☐	1.000	0.846	2641.04	0.0006	P	4.3
4	☐	50.000	49.144	141849.68	0.0330	P	0.9
5	☐	125.000	125.788	356400.04	0.0845	P	0.3
6	☐	250.000	246.619	691846.50	0.1656	P	0.4
7	☐	500.000	500.038	1383295.68	0.3358	P	0.7
8	☐	1000.000	1000.771	2754120.00	0.6720	P	3.8
9	☐			824.12	0.0002	P	9.6

$$y = 6.7143\text{E-}004 * x + 3.1405\text{E-}005$$

$$R = 1.0000$$

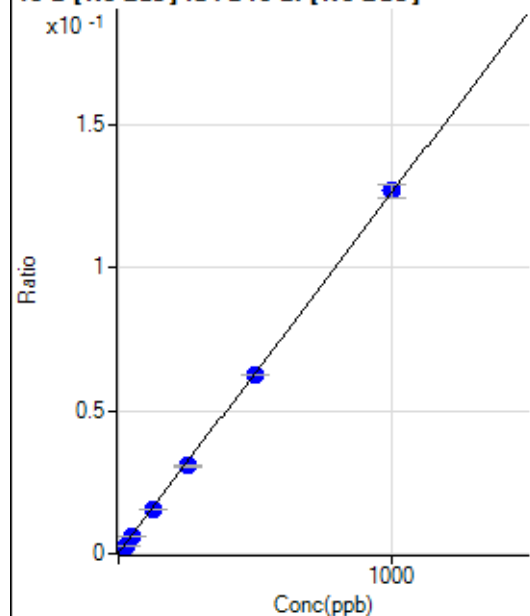
$$DL = 0.02859$$

$$BEC = 0.04677$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	986.18	0.0002	P	1.1
2	☐	2.500	2.127	2147.46	0.0005	P	11.5
3	☐	25.000	20.945	12625.19	0.0029	P	2.0
4	☐	50.000	47.161	26490.62	0.0062	P	2.0
5	☐	125.000	121.156	65333.46	0.0155	P	0.9
6	☐	250.000	241.533	128029.50	0.0306	P	0.9
7	☐	500.000	494.371	257461.34	0.0625	P	0.7
8	☐	1000.000	1005.656	520127.86	0.1269	P	3.4
9	☐			16626.39	0.0047	P	5.5

$$y = 1.2595\text{E-}004 * x + 2.2903\text{E-}004$$

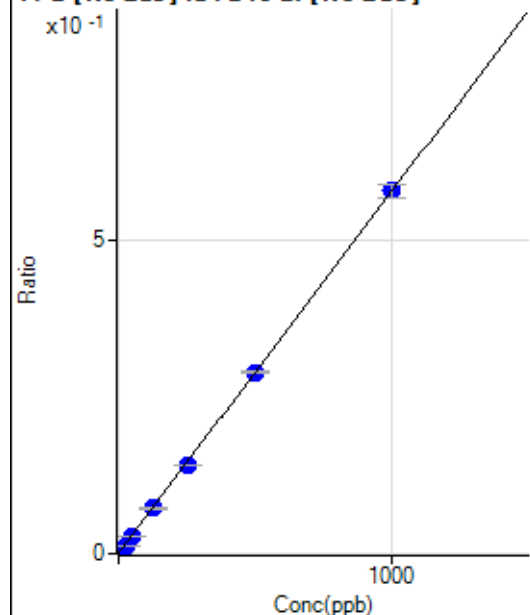
$$R = 0.9999$$

$$DL = 0.06029$$

$$BEC = 1.818$$

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	4784.28	0.0011	P	1.4
2	☐	2.500	2.145	10137.08	0.0023	P	2.3
3	☐	25.000	21.065	58274.37	0.0132	P	2.0
4	☐	50.000	47.751	122765.58	0.0286	P	1.5
5	☐	125.000	123.901	305412.26	0.0724	P	1.6
6	☐	250.000	243.153	589092.33	0.1410	P	0.5
7	☐	500.000	500.110	1190122.30	0.2889	P	0.5
8	☐	1000.000	1002.006	2367864.18	0.5777	P	3.5
9	☐			77692.29	0.0221	P	7.0

$$y = 5.7542\text{E-}004 * x + 0.0011$$

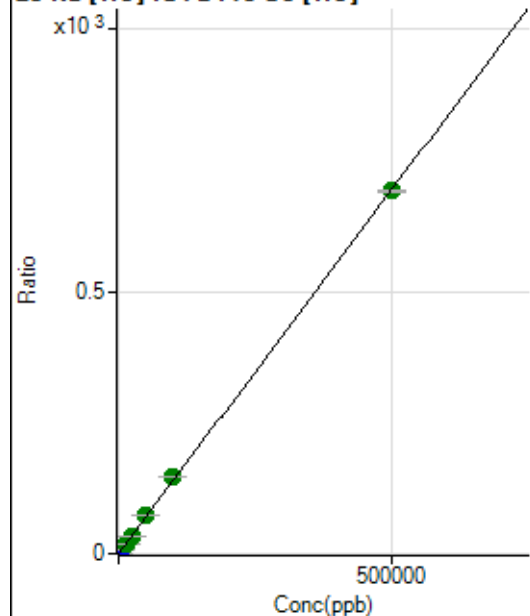
$$R = 1.0000$$

$$DL = 0.07969$$

$$BEC = 1.931$$

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	28554.74	0.0707	P	1.8
2	☐	5.000	42.564	54485.11	0.1297	P	0.8
3	☐	500.000	469.095	298704.97	0.7206	P	0.8
4	☐	5000.000	5164.958	2988255.17	7.2263	P	0.5
5	☐	12500.000	12777.403	7204334.56	17.7727	A	0.5
6	☐	25000.000	24982.310	13721722.70	34.6815	A	0.3
7	☐	50000.000	51781.970	28483627.66	71.8100	A	0.5
8	☐	100000.00	105056.91	55941665.81	145.6177	A	0.8
9	☐	500000.00	498802.75	245660299.7	691.1176	A	0.6

$$y = 0.0014 * x + 0.0707$$

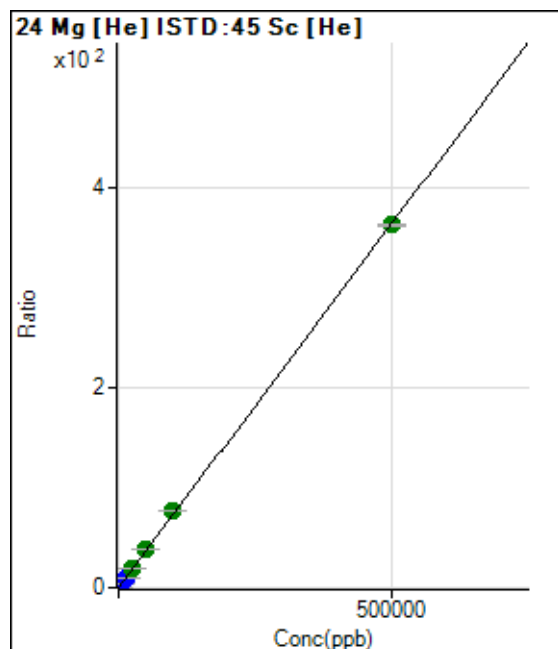
$$R = 0.9999$$

$$DL = 2.762$$

$$BEC = 51.04$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3241.06	0.0080	P	4.1
2	☐	5.000	43.405	16615.94	0.0395	P	1.9
3	☐	500.000	469.187	144571.09	0.3488	P	0.6
4	☐	5000.000	5278.171	1588434.13	3.8412	P	0.3
5	☐	12500.000	12982.100	3824889.81	9.4360	P	0.5
6	☐	25000.000	25428.647	7309696.07	18.4751	A	0.1
7	☐	50000.000	52318.536	15074198.33	38.0033	A	0.2
8	☐	100000.00	105421.49	29415033.69	76.5682	A	0.8
9	☐	500000.00	498647.61	128724550.8	362.1405	A	0.4

$$y = 7.2623\text{E-}004 * x + 0.0080$$

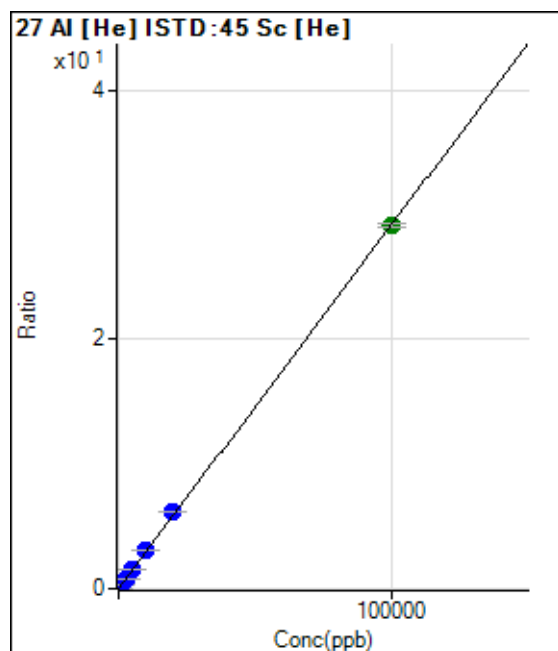
R = 0.9999

DL = 1.363

BEC = 11.05

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	218.63	0.0005	P	7.5
2	☐	2.000	1.198	374.60	0.0009	P	14.9
3	☐	20.000	17.770	2375.73	0.0057	P	1.6
4	☐	1000.000	1042.905	126173.31	0.3051	P	0.4
5	☐	2500.000	2631.552	311734.17	0.7691	P	0.9
6	☐	5000.000	5158.791	596295.63	1.5071	P	0.2
7	☐	10000.000	10546.583	1221936.49	3.0806	P	0.3
8	☐	20000.000	21108.918	2368501.39	6.1653	P	0.7
9	☐	100000.00	99711.901	10350874.65	29.1209	A	0.9

$$y = 2.9204\text{E-}004 * x + 5.4160\text{E-}004$$

R = 0.9999

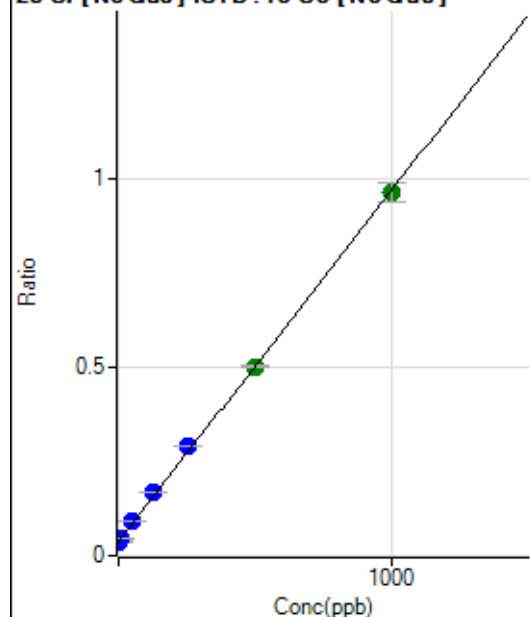
DL = 0.4155

BEC = 1.855

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	372668.28	0.0378	P	2.2
2	☐	1.000	1.116	378706.73	0.0388	P	0.6
3	☐	10.000	9.963	465099.09	0.0471	P	0.5
4	☐	50.000	56.867	886461.54	0.0909	P	0.4
5	☐	125.000	139.259	1637327.13	0.1678	P	0.6
6	☐	250.000	272.777	2765245.20	0.2924	P	0.4
7	☐	500.000	497.958	4690041.86	0.5026	A	0.6
8	☐	1000.000	993.201	8966878.33	0.9648	A	5.2
9	☐			510531.68	0.0633	P	3.4

$$y = 9.3336\text{E-}004 * x + 0.0378$$

$$R = 0.9997$$

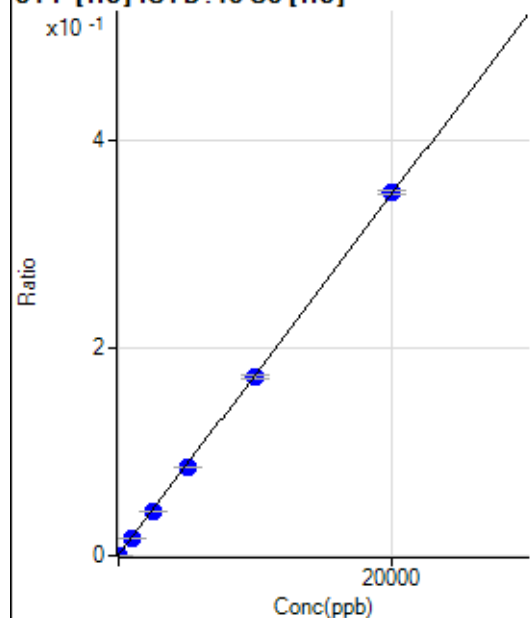
$$DL = 2.705$$

$$BEC = 40.49$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	2.393	158.34	0.0004	P	12.8
2	☐	0.000	-1.522	136.12	0.0003	P	30.2
3	☐	0.000	-0.870	138.89	0.0003	P	44.0
4	☐	1000.000	931.347	6846.28	0.0166	P	5.0
5	☐	2500.000	2455.197	17455.30	0.0431	P	2.1
6	☐	5000.000	4860.065	33594.26	0.0849	P	1.3
7	☐	10000.000	9914.846	68560.69	0.1729	P	2.6
8	☐	20000.000	20086.594	134392.21	0.3498	P	1.2
9	☐			252.79	0.0007	P	24.6

$$y = 1.7399\text{E-}005 * x + 3.5002\text{E-}004$$

$$R = 1.0000$$

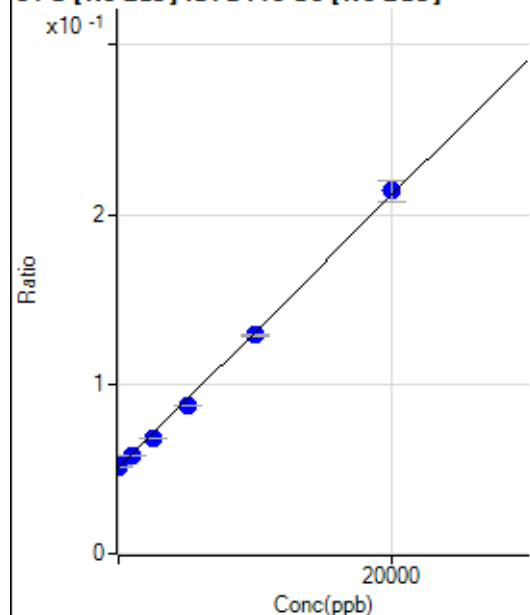
$$DL = 16.97$$

$$BEC = 20.12$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-14.787	506201.61	0.0513	P	2.3
2	☐	0.000	90.453	508783.55	0.0522	P	0.5
3	☐	0.000	-75.666	502177.02	0.0508	P	0.8
4	☐	1000.000	787.679	563203.47	0.0577	P	1.2
5	☐	2500.000	2108.516	666283.79	0.0683	P	0.2
6	☐	5000.000	4469.322	823786.83	0.0871	P	0.6
7	☐	10000.000	9682.249	1200928.49	0.1287	P	0.4
8	☐	20000.000	20351.096	1986559.09	0.2138	P	5.7
9	☐			416282.24	0.0516	P	2.2

$$y = 7.9768\text{E-}006 * x + 0.0515$$

$$R = 0.9993$$

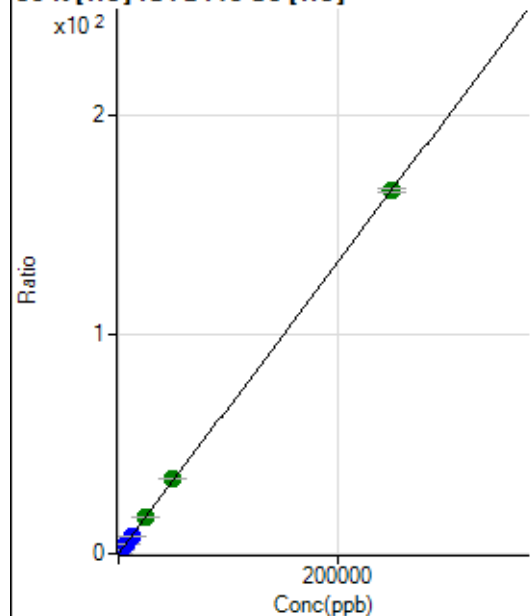
$$DL = 230.6$$

$$BEC = 6450$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24841.14	0.0615	P	1.2
2	☐	5.000	40.593	37149.49	0.0884	P	1.2
3	☐	500.000	441.874	146910.50	0.3544	P	0.9
4	☐	2500.000	2478.776	704878.59	1.7046	P	0.6
5	☐	6250.000	6252.868	1704950.23	4.2062	P	0.8
6	☐	12500.000	12145.798	3209671.69	8.1124	P	0.1
7	☐	25000.000	25342.102	6687348.14	16.8596	A	0.5
8	☐	50000.000	51083.804	13031789.04	33.9225	A	0.7
9	☐	250000.00	249766.99	58869228.87	165.6200	A	1.0

$$y = 6.6285\text{E-}004 * x + 0.0615$$

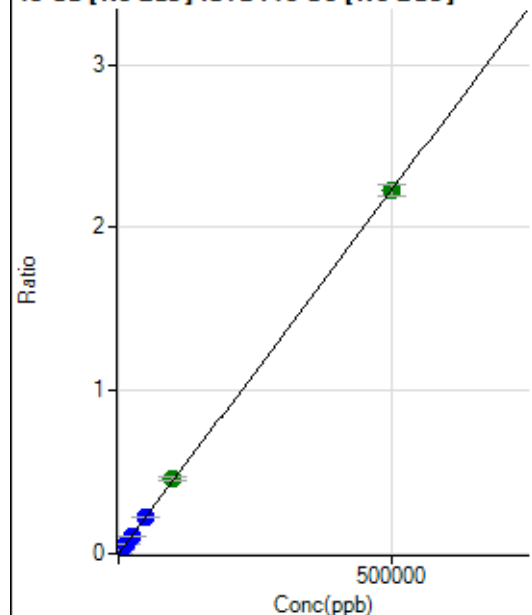
$$R = 1.0000$$

$$DL = 3.414$$

$$BEC = 92.8$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	610.56	0.0001	P	2.7
2	☐	5.000	44.411	2533.06	0.0003	P	3.5
3	☐	500.000	443.083	20110.32	0.0020	P	0.4
4	☐	5000.000	4929.275	214875.39	0.0220	P	0.5
5	☐	12500.000	12471.702	542973.48	0.0556	P	0.1
6	☐	25000.000	24965.210	1052701.60	0.1113	P	1.1
7	☐	50000.000	50456.210	2098822.50	0.2249	P	0.3
8	☐	100000.00	103555.39	4288859.79	0.4615	A	5.5
9	☐	500000.00	499246.51	17956066.19	2.2247	A	3.3

$$y = 4.4561\text{E-}006 * x + 6.1880\text{E-}005$$

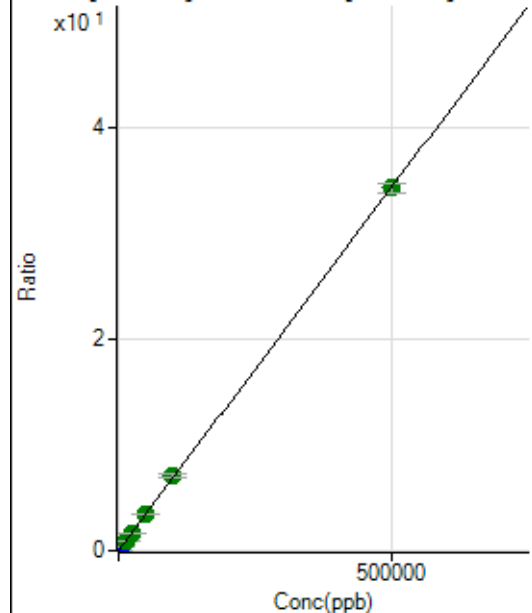
$$R = 1.0000$$

$$DL = 1.122$$

$$BEC = 13.89$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25440.78	0.0026	P	2.2
2	☐	5.000	46.621	56394.00	0.0058	P	0.5
3	☐	500.000	455.409	334490.62	0.0339	P	1.0
4	☐	5000.000	4943.566	3338536.47	0.3422	P	0.7
5	☐	12500.000	12240.642	8232747.51	0.8436	A	0.4
6	☐	25000.000	24508.214	15949826.01	1.6864	A	0.6
7	☐	50000.000	50434.559	32361696.92	3.4677	A	0.5
8	☐	100000.00	103221.71	65920452.39	7.0945	A	5.8
9	☐	500000.00	499343.88	276971119.2	34.3105	A	2.6

$$y = 6.8706\text{E-}005 * x + 0.0026$$

$$R = 1.0000$$

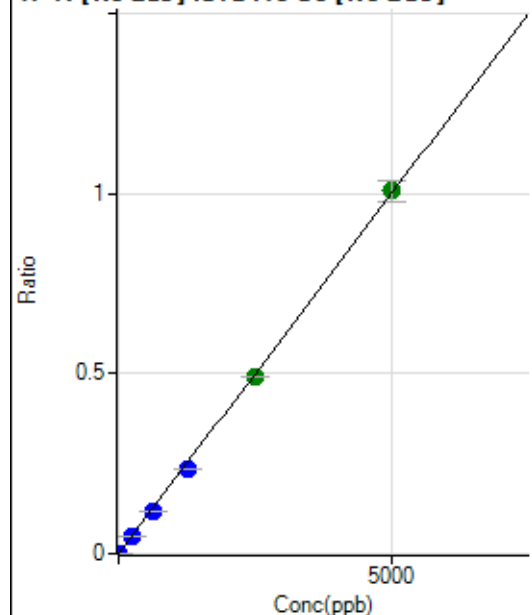
$$DL = 2.45$$

$$BEC = 37.55$$

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	297.24	0.0000	P	16.5
2	☐	0.500	0.455	1180.65	0.0001	P	11.8
3	☐	5.000	4.258	8711.25	0.0009	P	2.7
4	☐	250.000	234.716	458363.82	0.0470	P	0.3
5	☐	625.000	597.033	1165929.15	0.1195	P	0.0
6	☐	1250.000	1180.848	2234485.79	0.2363	P	0.5
7	☐	2500.000	2464.773	4601960.61	0.4931	A	0.4
8	☐	5000.000	5039.162	9368364.62	1.0081	A	5.5
9	☐			4020.16	0.0005	P	5.9

$$y = 2.0005E-004 * x + 3.0073E-005$$

$$R = 0.9999$$

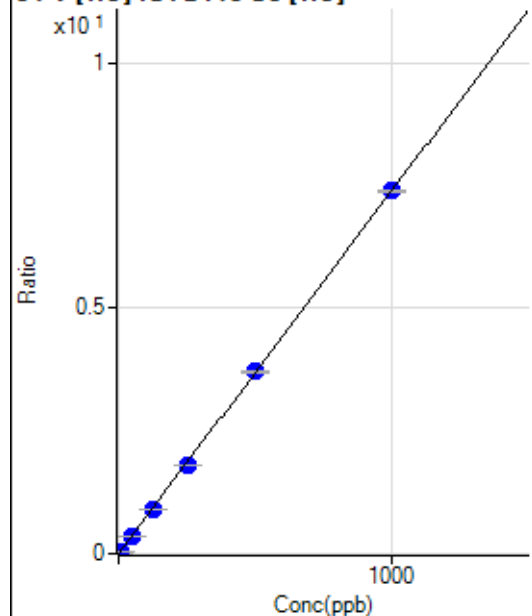
$$DL = 0.07455$$

$$BEC = 0.1503$$

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	54.45	0.0001	P	12.9
2	☐	0.500	0.424	1373.42	0.0033	P	3.3
3	☐	5.000	4.371	13440.73	0.0324	P	1.6
4	☐	50.000	48.720	148879.51	0.3600	P	0.9
5	☐	125.000	124.147	371782.51	0.9172	P	0.7
6	☐	250.000	244.155	713630.94	1.8037	P	0.5
7	☐	500.000	501.997	1470927.46	3.7084	P	0.7
8	☐	1000.000	1000.637	2839658.53	7.3918	P	0.4
9	☐			710.03	0.0020	P	9.8

$$y = 0.0074 * x + 1.3484E-004$$

$$R = 1.0000$$

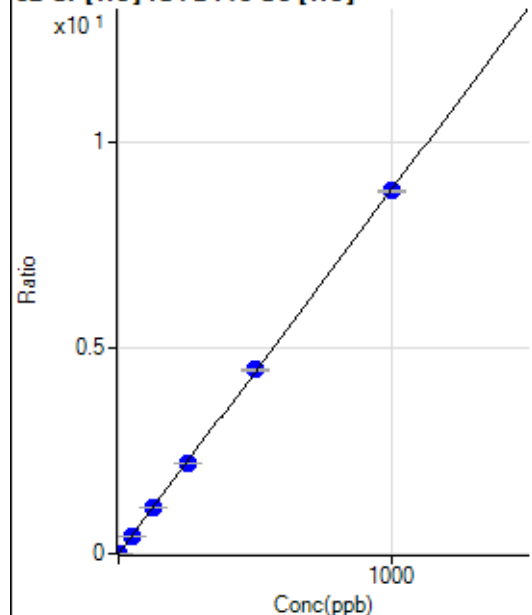
$$DL = 0.007069$$

$$BEC = 0.01825$$

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	586.69	0.0015	P	2.9
2	☐	0.200	0.169	1235.63	0.0029	P	7.7
3	☐	2.000	1.778	7107.37	0.0171	P	1.2
4	☐	50.000	49.909	182801.90	0.4421	P	0.6
5	☐	125.000	127.609	457224.64	1.1280	P	1.0
6	☐	250.000	249.022	870380.96	2.1999	P	0.0
7	☐	500.000	505.089	1769236.62	4.4605	P	0.8
8	☐	1000.000	997.379	3383148.67	8.8065	P	0.3
9	☐			5167.64	0.0145	P	2.4

$$y = 0.0088 * x + 0.0015$$

$$R = 1.0000$$

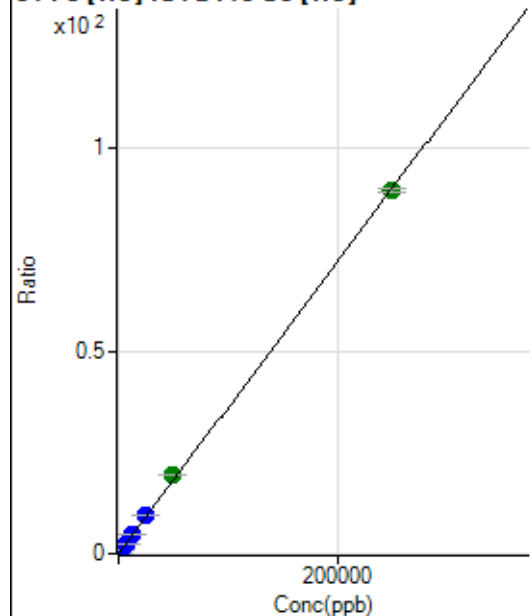
$$DL = 0.01417$$

$$BEC = 0.1646$$

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	1117.83	0.0028	P	5.9
2	☐	5.000	3.048	1623.11	0.0039	P	1.3
3	☐	50.000	47.482	8225.38	0.0198	P	1.2
4	☐	2500.000	2711.770	404442.99	0.9780	P	0.6
5	☐	6250.000	6868.112	1002376.83	2.4729	P	0.2
6	☐	12500.000	13322.798	1896854.78	4.7943	P	0.3
7	☐	25000.000	26512.949	3783266.51	9.5380	P	0.7
8	☐	50000.000	54045.985	7468345.42	19.4402	A	1.4
9	☐	250000.00	248980.79	31829478.38	89.5476	A	1.1

$$y = 3.5965E-004 * x + 0.0028$$

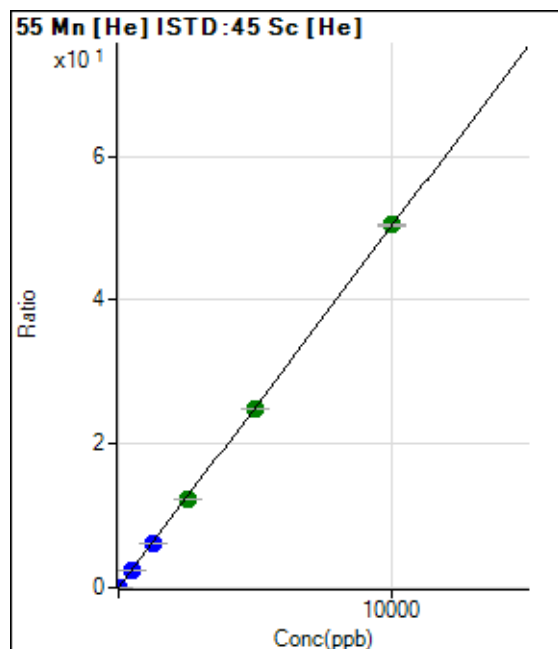
$$R = 0.9999$$

$$DL = 1.351$$

$$BEC = 7.692$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1098.95	0.0027	P	3.7
2	☒	0.100					
3	☐	1.000	0.728	2644.73	0.0064	P	2.7
4	☐	500.000	490.639	1020364.05	2.4675	P	0.5
5	☐	1250.000	1236.850	2519682.30	6.2161	P	0.6
6	☐	2500.000	2435.066	4841091.94	12.2354	A	0.7
7	☐	5000.000	4945.929	9856538.88	24.8489	A	0.3
8	☐	10000.000	10045.381	19387314.43	50.4664	A	0.7
9	☐			12317.54	0.0346	P	4.9

$$y = 0.0050 * x + 0.0027$$

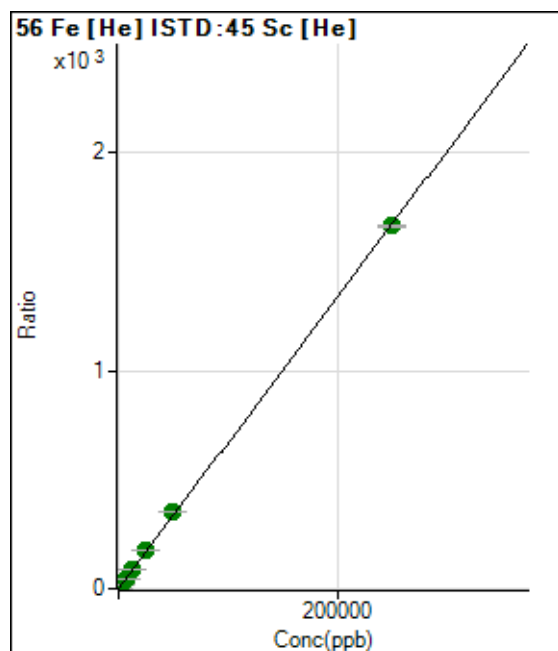
$$R = 1.0000$$

$$DL = 0.06064$$

$$BEC = 0.5418$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15268.96	0.0378	P	3.1
2	☐	5.000	2.903	24027.52	0.0572	P	1.5
3	☐	50.000	45.218	140799.34	0.3397	P	1.0
4	☐	2500.000	2569.530	7108726.52	17.1906	A	0.9
5	☐	6250.000	6533.157	17694304.72	43.6496	A	0.8
6	☐	12500.000	12899.742	34084400.66	86.1494	A	0.5
7	☐	25000.000	26500.738	70185899.16	176.9422	A	0.4
8	☐	50000.000	52968.181	135847988.5	353.6243	A	0.4
9	☐	250000.00	249228.53	591398809.9	1,663.750	A	0.4

$$y = 0.0067 * x + 0.0378$$

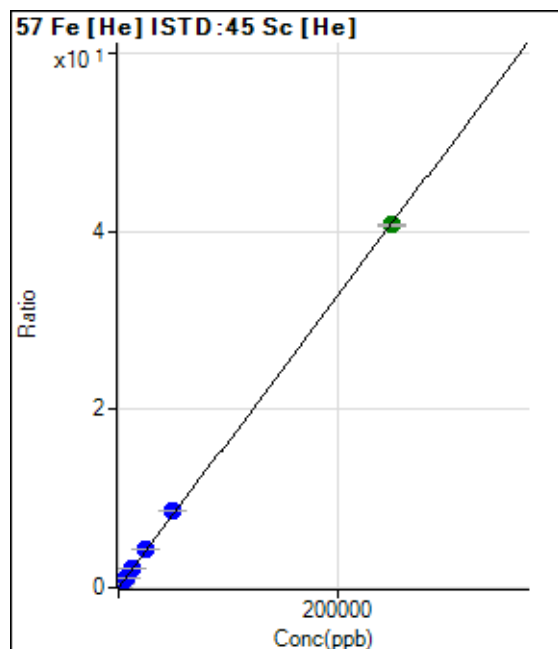
$$R = 0.9999$$

$$DL = 0.5352$$

$$BEC = 5.664$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	492.58	0.0012	P	6.2
2	☐	5.000	3.219	733.88	0.0017	P	2.7
3	☐	50.000	46.910	3687.76	0.0089	P	2.9
4	☐	2500.000	2654.991	180172.78	0.4357	P	0.7
5	☐	6250.000	6764.703	449229.38	1.1082	P	0.7
6	☐	12500.000	13154.363	852189.29	2.1539	P	0.3
7	☐	25000.000	26760.022	1737494.72	4.3804	P	0.6
8	☐	50000.000	52708.327	3314081.62	8.6268	P	0.1
9	☐	250000.00	249235.19	14497973.09	40.7879	A	0.8

$$y = 1.6365E-004 * x + 0.0012$$

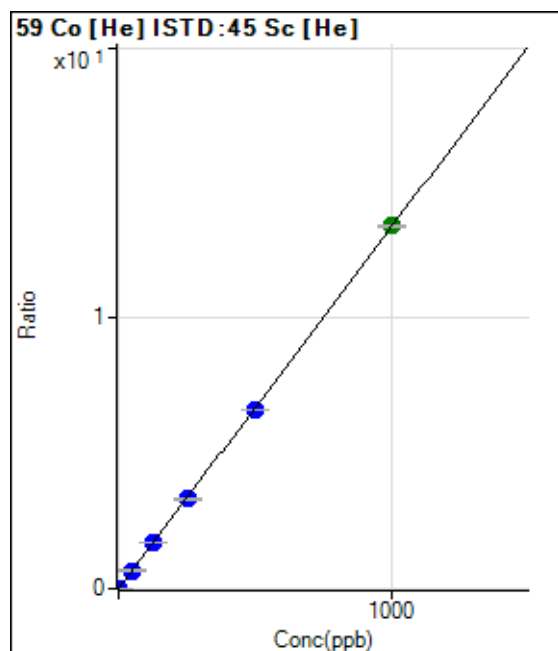
$$R = 0.9999$$

$$DL = 1.397$$

$$BEC = 7.453$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	145.56	0.0004	P	7.7
2	☐	0.100	0.080	598.91	0.0014	P	5.3
3	☐	1.000	0.918	5233.24	0.0126	P	1.7
4	☐	50.000	50.409	278685.06	0.6739	P	0.9
5	☐	125.000	127.551	691014.56	1.7047	P	0.4
6	☐	250.000	247.283	1307476.54	3.3046	P	0.4
7	☐	500.000	494.251	2619726.07	6.6046	P	0.7
8	☐	1000.000	1003.215	5149843.50	13.4055	A	0.7
9	☐			7753.27	0.0218	P	1.6

$$y = 0.0134 * x + 3.6049E-004$$

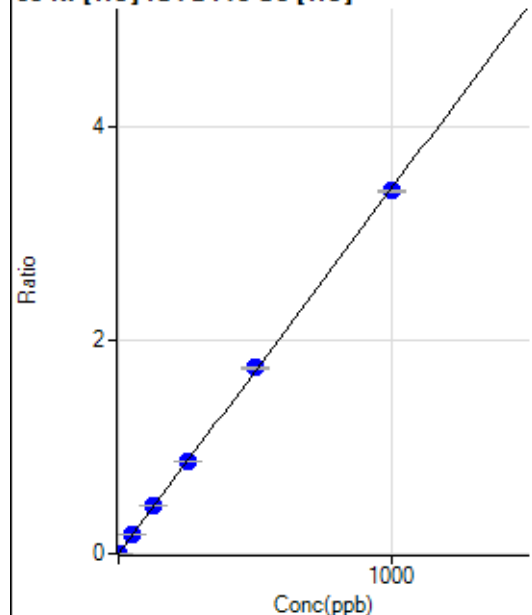
$$R = 1.0000$$

$$DL = 0.006249$$

$$BEC = 0.02698$$

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	191.12	0.0005	P	3.6
2	☐	0.100	0.077	310.01	0.0007	P	7.1
3	☐	1.000	0.930	1516.77	0.0037	P	1.7
4	☐	50.000	51.856	73645.85	0.1781	P	0.1
5	☐	125.000	130.990	182058.65	0.4491	P	0.6
6	☐	250.000	253.838	344185.82	0.8699	P	0.7
7	☐	500.000	509.425	692306.12	1.7454	P	0.5
8	☐	1000.000	993.487	1307460.33	3.4034	P	0.4
9	☐			1910.16	0.0054	P	1.4

$$y = 0.0034 * x + 4.7313E-004$$

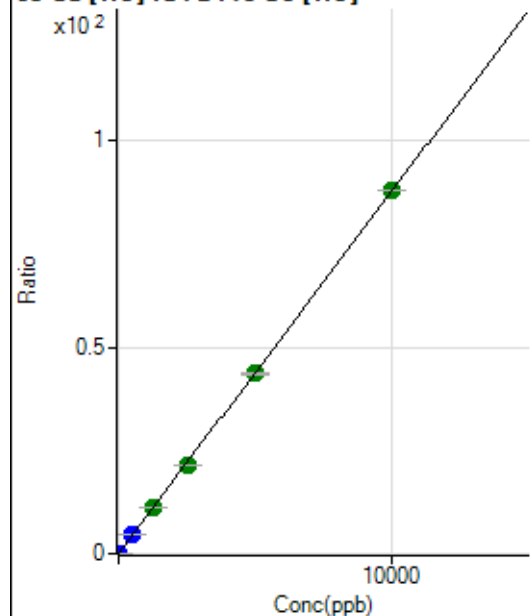
$$R = 0.9999$$

$$DL = 0.01489$$

$$BEC = 0.1381$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	976.71	0.0024	P	4.5
2	☐	0.200	0.136	1516.77	0.0036	P	3.4
3	☐	2.000	2.053	8460.32	0.0204	P	1.4
4	☐	500.000	506.950	1838050.08	4.4449	P	0.6
5	☐	1250.000	1255.981	4462595.04	11.0087	A	0.6
6	☐	2500.000	2458.373	8524368.21	21.5454	A	0.2
7	☐	5000.000	4980.173	17311336.13	43.6442	A	0.9
8	☐	10000.000	10019.225	33730101.72	87.8019	A	0.1
9	☐			7463.13	0.0210	P	3.1

$$y = 0.0088 * x + 0.0024$$

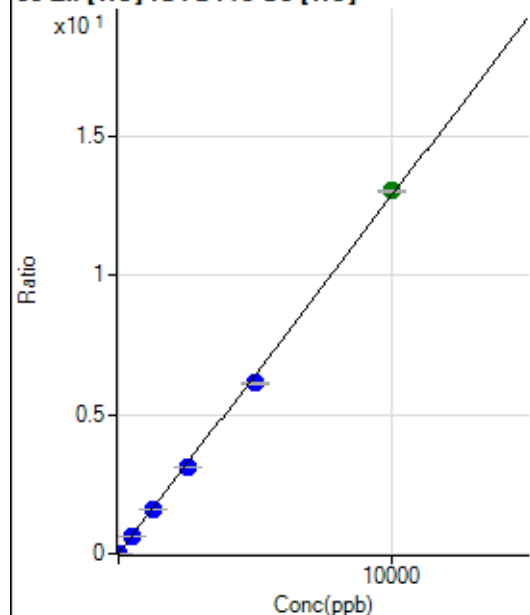
$$R = 1.0000$$

$$DL = 0.03733$$

$$BEC = 0.276$$

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	734.48	0.0018	P	5.2
2	☐	0.200	0.155	847.82	0.0020	P	12.7
3	☐	2.000	1.892	1761.25	0.0042	P	3.6
4	☐	500.000	491.013	261668.56	0.6328	P	0.1
5	☐	1250.000	1239.199	646229.45	1.5942	P	0.7
6	☐	2500.000	2404.742	1223320.33	3.0919	P	0.1
7	☐	5000.000	4771.409	2432668.87	6.1331	P	1.0
8	☐	10000.000	10139.910	5006251.38	13.0316	A	0.7
9	☐			8212.43	0.0231	P	2.5

$$y = 0.0013 * x + 0.0018$$

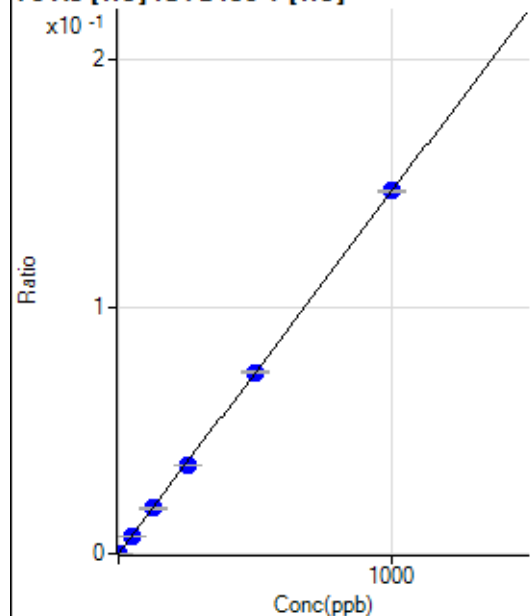
$$R = 0.9996$$

$$DL = 0.2223$$

$$BEC = 1.415$$

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	29.63	0.0000	P	16.7
2	☐	0.100	0.060	50.62	0.0000	P	14.6
3	☐	1.000	0.866	314.20	0.0001	P	2.9
4	☐	50.000	48.812	16047.81	0.0072	P	1.1
5	☐	125.000	125.095	40394.15	0.0184	P	1.0
6	☐	250.000	244.506	77154.94	0.0359	P	1.1
7	☐	500.000	499.299	159208.40	0.0733	P	1.0
8	☐	1000.000	1001.771	309321.69	0.1471	P	0.6
9	☐			152.47	0.0001	P	28.0

$$y = 1.4680E-004 * x + 1.3612E-005$$

$$R = 1.0000$$

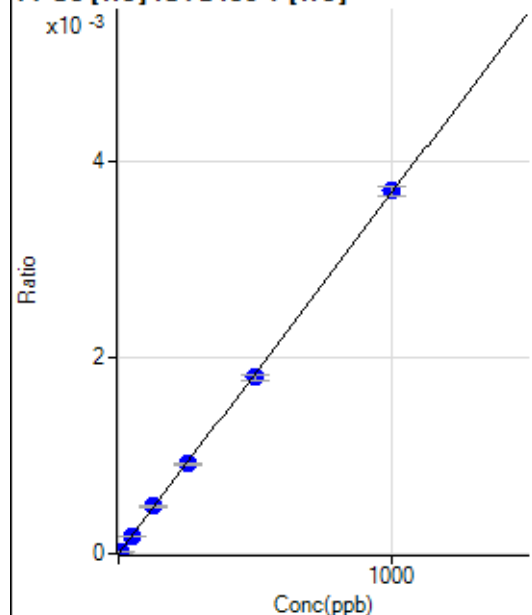
$$DL = 0.04651$$

$$BEC = 0.09272$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.936	7.78	0.0000	P	89.1
3	☐	5.000	6.236	51.11	0.0000	P	14.0
4	☐	50.000	47.894	393.34	0.0002	P	6.6
5	☐	125.000	131.544	1062.28	0.0005	P	3.0
6	☐	250.000	249.179	1966.83	0.0009	P	3.0
7	☐	500.000	487.781	3891.70	0.0018	P	2.5
8	☐	1000.000	1005.596	7769.99	0.0037	P	2.7
9	☐			4.44	0.0000	P	44.2

$$y = 3.6738\text{E-}006 * x + 0.0000\text{E}+000$$

$$R = 0.9999$$

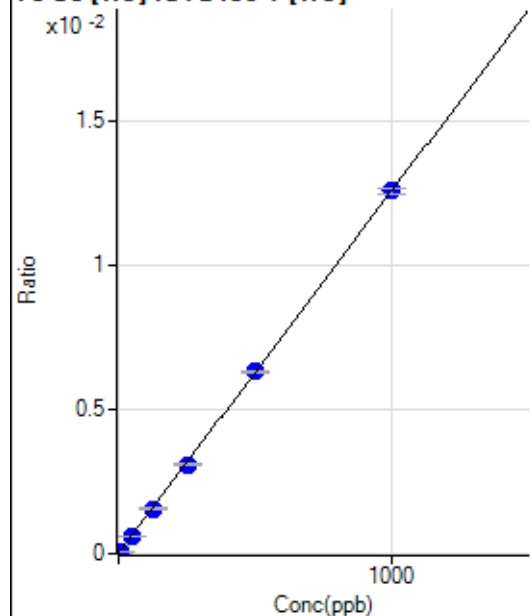
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	39.51	0.0000	P	23.8
2	☐	0.500	0.429	53.09	0.0000	P	23.5
3	☐	5.000	4.366	162.97	0.0001	P	9.1
4	☐	50.000	47.801	1383.41	0.0006	P	2.9
5	☐	125.000	123.346	3447.36	0.0016	P	2.2
6	☐	250.000	244.730	6647.87	0.0031	P	1.5
7	☐	500.000	501.075	13713.95	0.0063	P	1.4
8	☐	1000.000	1001.100	26497.65	0.0126	P	1.3
9	☐			51.85	0.0000	P	25.8

$$y = 1.2567\text{E-}005 * x + 1.8142\text{E-}005$$

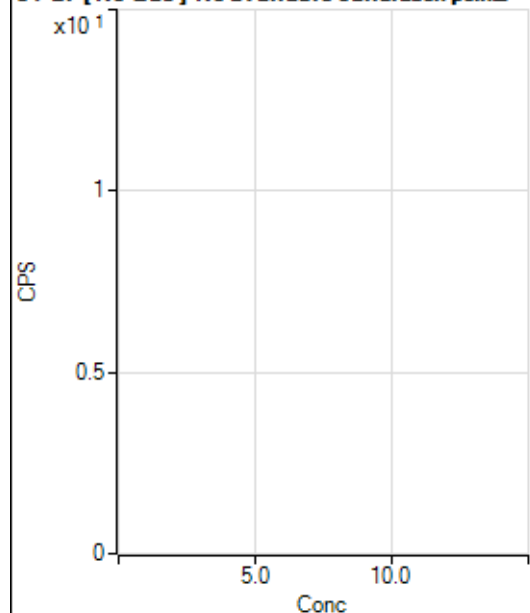
$$R = 1.0000$$

$$DL = 1.032$$

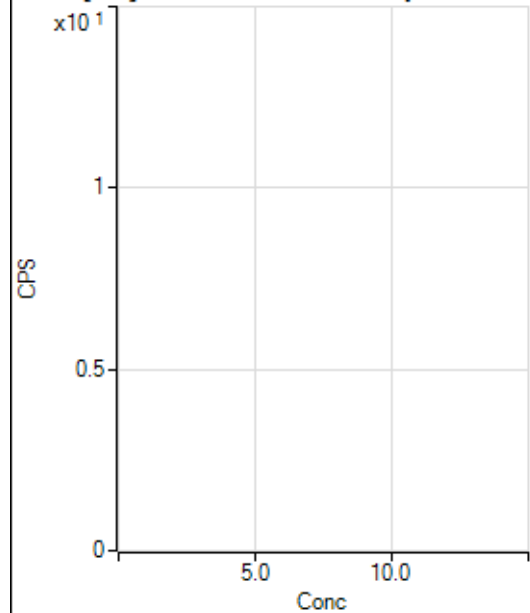
$$BEC = 1.444$$

Weight: <None>

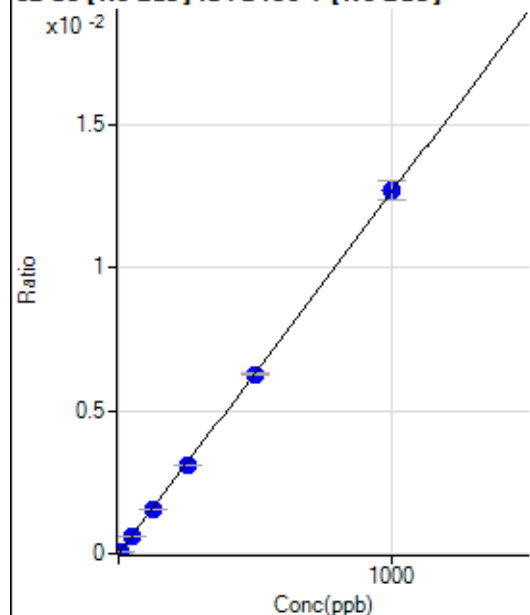
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			35714.18		P	2.9
2	☐			35650.78		P	1.8
3	☐			35253.12		P	2.0
4	☐			34520.42		P	1.8
5	☐			33547.07		P	1.2
6	☐			34122.41		P	1.7
7	☐			32921.77		P	1.9
8	☐			31794.54		P	2.2
9	☐			29203.30		P	0.9

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.08		P	25.0
2	☐			56.72		P	56.7
3	☐			83.42		P	13.9
4	☐			76.75		P	19.9
5	☐			20.02		P	86.6
6	☐			66.74		P	37.8
7	☐			73.41		P	20.8
8	☐			70.08		P	65.5
9	☐			100.11		P	26.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10.45	0.0000	P	404.
2	☐	0.500	0.468	115.55	0.0000	P	45.2
3	☐	5.000	4.558	1041.79	0.0001	P	9.6
4	☐	50.000	48.598	10807.37	0.0006	P	1.6
5	☐	125.000	123.192	27622.87	0.0016	P	0.3
6	☐	250.000	243.754	53625.70	0.0031	P	0.5
7	☐	500.000	495.849	108139.65	0.0063	P	1.3
8	☐	1000.000	1003.935	218775.60	0.0127	P	5.3
9	☐			131.85	0.0000	P	37.4

$$y = 1.2618E-005 * x + 5.9000E-007$$

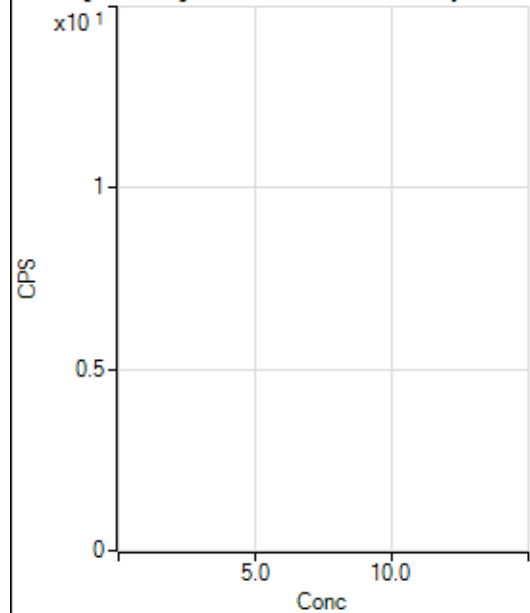
$$R = 1.0000$$

$$DL = 0.5676$$

$$BEC = 0.04676$$

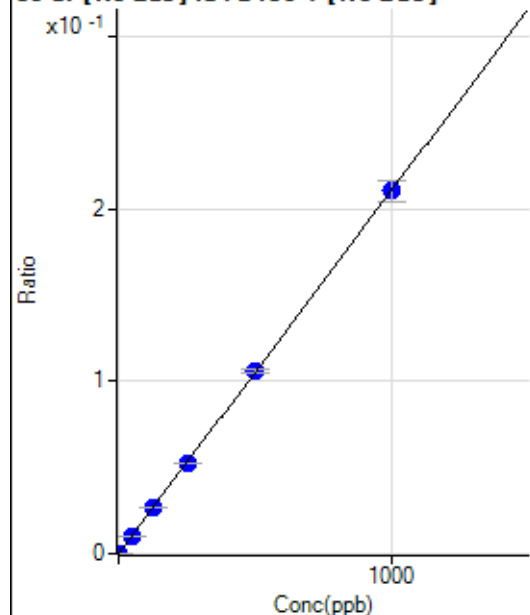
Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			297.79		P	9.4
2	☐			284.45		P	4.9
3	☐			275.56		P	12.9
4	☐			294.45		P	10.5
5	☐			297.79		P	14.1
6	☐			328.89		P	14.4
7	☐			300.01		P	21.7
8	☐			327.79		P	7.2
9	☐			397.79		P	14.7

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	558.37	0.0000	P	12.0
2	☐	0.100	0.096	911.18	0.0001	P	1.5
3	☐	1.000	0.880	3878.46	0.0002	P	1.5
4	☐	50.000	49.731	185096.11	0.0105	P	0.3
5	☐	125.000	125.321	469702.99	0.0264	P	1.4
6	☐	250.000	249.132	915825.45	0.0525	P	1.0
7	☐	500.000	502.516	1830859.00	0.1059	P	1.2
8	☐	1000.000	998.932	3635941.88	0.2106	P	5.6
9	☐			18601.58	0.0013	P	5.3

$$y = 2.1076E-004 * x + 3.0828E-005$$

$$R = 1.0000$$

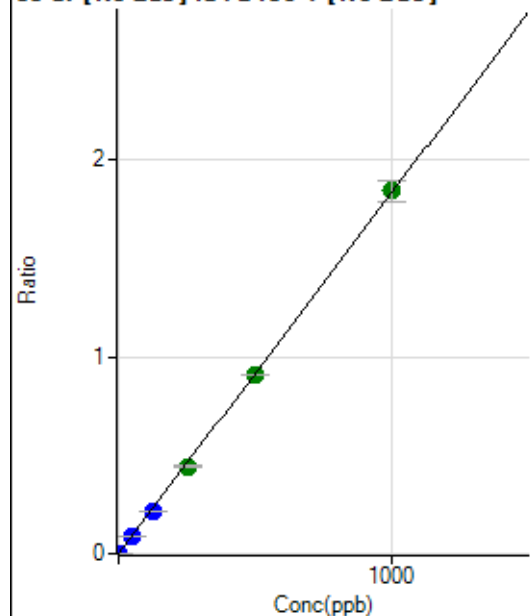
$$DL = 0.05274$$

$$BEC = 0.1463$$

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	733.39	0.0000	P	14.1
2	☐	0.100	0.086	3520.02	0.0002	P	0.4
3	☐	1.000	0.899	30302.33	0.0017	P	1.5
4	☐	50.000	48.267	1560400.88	0.0886	P	0.3
5	☐	125.000	118.246	3855336.11	0.2170	P	0.7
6	☐	250.000	241.483	7725902.52	0.4432	A	1.0
7	☐	500.000	495.522	15717236.81	0.9094	A	0.6
8	☐	1000.000	1005.299	31852571.89	1.8450	A	6.1
9	☐			157552.37	0.0108	P	3.6

$$y = 0.0018 * x + 4.0517E-005$$

$$R = 0.9999$$

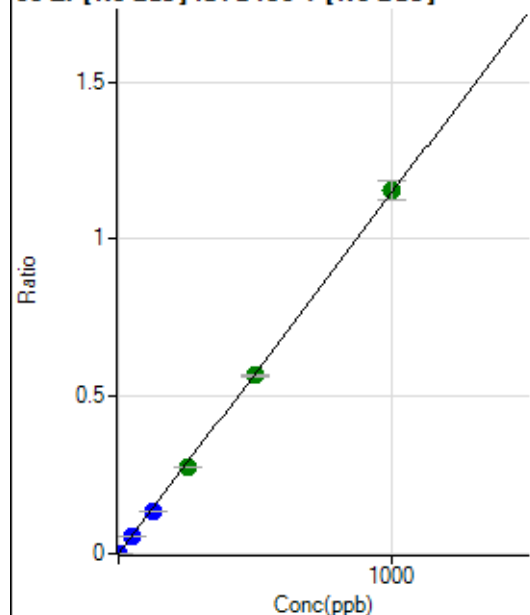
$$DL = 0.00936$$

$$BEC = 0.02208$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1205.66	0.0001	P	16.0
2	☐	0.100	0.083	2878.19	0.0002	P	8.9
3	☐	1.000	0.791	17436.25	0.0010	P	2.0
4	☐	50.000	46.978	948697.44	0.0539	P	1.1
5	☐	125.000	118.958	2421713.96	0.1363	P	0.7
6	☐	250.000	238.579	4765210.18	0.2734	A	0.7
7	☐	500.000	494.829	9797454.65	0.5669	A	0.7
8	☐	1000.000	1006.347	19909242.46	1.1529	A	5.3
9	☐			8689.08	0.0006	P	10.1

$$y = 0.0011 * x + 6.6380E-005$$

$$R = 0.9999$$

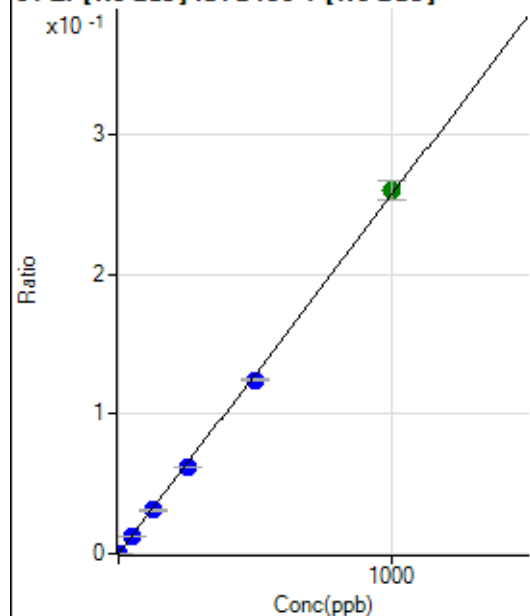
$$DL = 0.02779$$

$$BEC = 0.05795$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	255.57	0.0000	P	9.7
2	☐	0.100	0.074	591.70	0.0000	P	19.5
3	☐	1.000	0.796	3917.36	0.0002	P	4.2
4	☐	50.000	47.399	214512.22	0.0122	P	0.4
5	☐	125.000	121.002	552031.53	0.0311	P	1.1
6	☐	250.000	239.553	1072288.52	0.0615	P	0.8
7	☐	500.000	483.828	2146840.28	0.1242	P	1.3
8	☐	1000.000	1011.328	4484024.88	0.2597	A	5.3
9	☐			1852.98	0.0001	P	11.0

$$y = 2.5673E-004 * x + 1.4109E-005$$

$$R = 0.9998$$

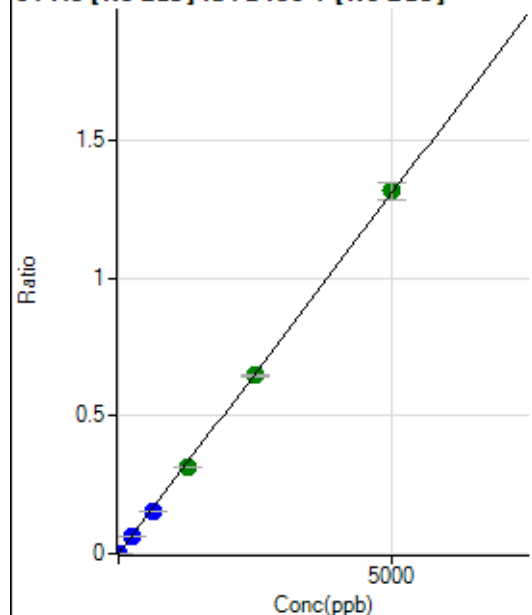
$$DL = 0.01601$$

$$BEC = 0.05496$$

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	694.49	0.0000	P	9.3
2	☐	0.500	0.419	2633.68	0.0001	P	5.8
3	☐	5.000	4.441	21511.29	0.0012	P	0.9
4	☐	250.000	236.074	1087677.50	0.0618	P	1.1
5	☐	625.000	591.526	2748403.82	0.1547	P	0.8
6	☐	1250.000	1194.165	5444347.34	0.3123	A	0.8
7	☐	2500.000	2468.361	11156198.77	0.6455	A	1.2
8	☐	5000.000	5034.660	22740047.56	1.3167	A	5.0
9	☐			10198.53	0.0007	P	8.9

$$y = 2.6151E-004 * x + 3.8309E-005$$

$$R = 0.9999$$

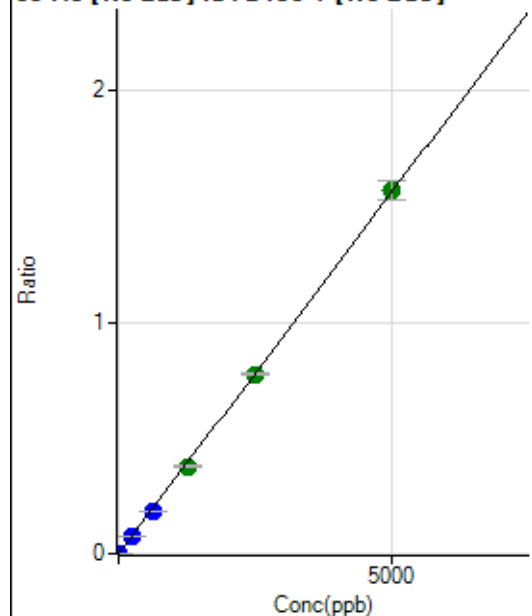
$$DL = 0.04069$$

$$BEC = 0.1465$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	530.59	0.0000	P	31.3
2	☐	0.500	0.420	2855.96	0.0002	P	8.2
3	☐	5.000	4.588	26199.82	0.0015	P	1.4
4	☐	250.000	238.235	1309394.99	0.0744	P	0.4
5	☐	625.000	592.298	3283332.56	0.1848	P	0.8
6	☐	1250.000	1203.290	6545416.73	0.3755	A	1.6
7	☐	2500.000	2483.031	13390671.22	0.7748	A	0.9
8	☐	5000.000	5024.838	27077729.42	1.5679	A	5.2
9	☐			11635.78	0.0008	P	7.7

$$y = 3.1203E-004 * x + 2.9376E-005$$

$$R = 0.9999$$

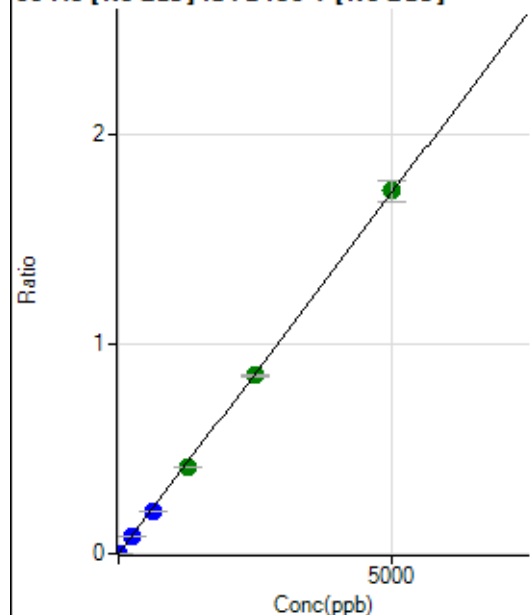
$$DL = 0.08847$$

$$BEC = 0.09415$$

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	675.05	0.0000	P	2.5
2	☐	0.500	0.428	3286.64	0.0002	P	1.3
3	☐	5.000	4.558	28802.07	0.0016	P	2.2
4	☐	250.000	238.303	1444987.36	0.0821	P	0.3
5	☐	625.000	589.832	3607014.58	0.2031	P	1.1
6	☐	1250.000	1198.202	7190259.02	0.4125	A	1.2
7	☐	2500.000	2471.605	14703674.29	0.8508	A	1.1
8	☐	5000.000	5032.128	29912289.90	1.7322	A	5.5
9	☐			24112.97	0.0016	P	2.8

$$y = 3.4422\text{E-}004 * x + 3.7231\text{E-}005$$

$$R = 0.9999$$

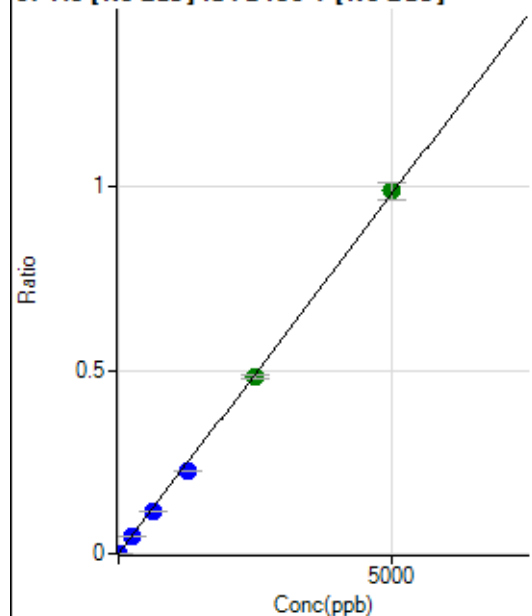
$$DL = 0.008082$$

$$BEC = 0.1082$$

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	250.02	0.0000	P	19.9
2	☐	0.500	0.447	1805.74	0.0001	P	4.3
3	☐	5.000	4.566	16296.01	0.0009	P	1.7
4	☐	250.000	237.986	821507.61	0.0467	P	0.1
5	☐	625.000	592.331	2062267.93	0.1161	P	1.2
6	☐	1250.000	1148.103	3922565.76	0.2250	P	1.0
7	☐	2500.000	2466.934	8355213.38	0.4835	A	2.0
8	☐	5000.000	5046.692	17082689.79	0.9891	A	5.0
9	☐			7065.94	0.0005	P	10.9

$$y = 1.9599\text{E-}004 * x + 1.3817\text{E-}005$$

$$R = 0.9997$$

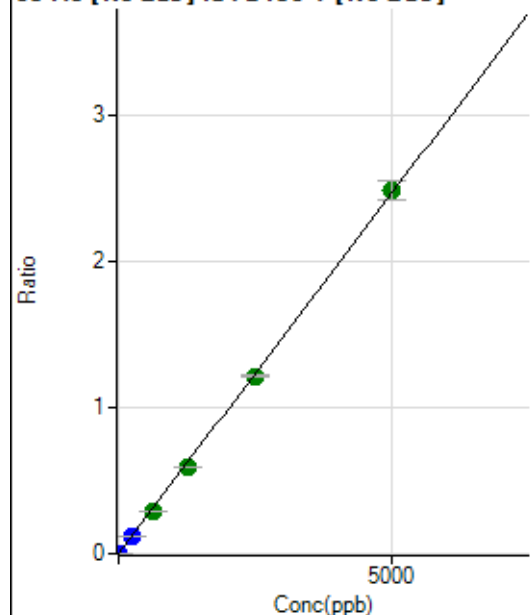
$$DL = 0.04201$$

$$BEC = 0.0705$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	797.28	0.0000	P	12.4
2	☐	0.500	0.453	4762.08	0.0003	P	2.6
3	☐	5.000	4.657	41957.13	0.0023	P	1.7
4	☐	250.000	238.037	2066970.92	0.1174	P	0.7
5	☐	625.000	592.428	5188413.05	0.2921	A	1.2
6	☐	1250.000	1202.826	10337268.64	0.5930	A	1.1
7	☐	2500.000	2461.182	20968902.55	1.2134	A	1.1
8	☐	5000.000	5035.873	42871298.87	2.4826	A	5.5
9	☐			17408.62	0.0012	P	10.1

$$y = 4.9298\text{E-}004 * x + 4.3956\text{E-}005$$

$$R = 0.9999$$

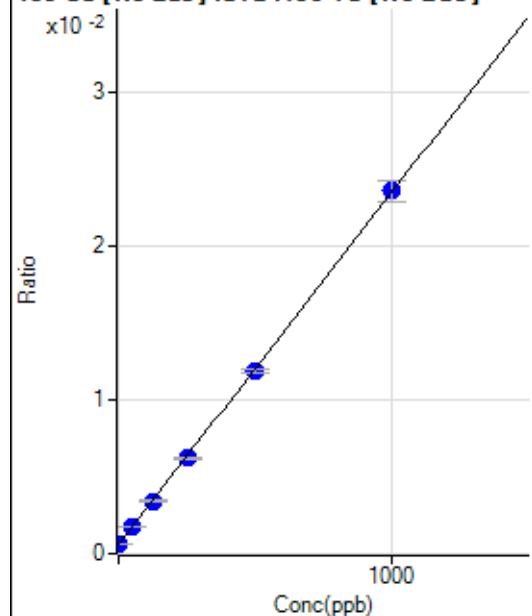
$$DL = 0.03319$$

$$BEC = 0.08916$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8669.66	0.0006	P	2.8
2	☐	0.100	1.411	8908.67	0.0006	P	2.5
3	☐	1.000	1.994	9197.79	0.0006	P	4.4
4	☐	50.000	50.809	24497.03	0.0018	P	2.4
5	☐	125.000	123.811	48511.81	0.0034	P	3.1
6	☐	250.000	244.467	86748.65	0.0062	P	1.1
7	☐	500.000	493.471	165809.38	0.0119	P	1.5
8	☐	1000.000	1004.755	329327.47	0.0235	P	5.7
9	☐			7730.21	0.0007	P	3.5

$$y = 2.2836\text{E-}005 * x + 6.0337\text{E-}004$$

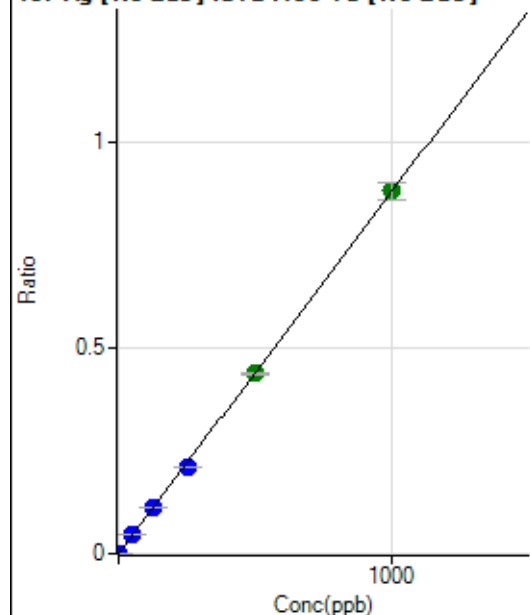
$$R = 0.9999$$

$$DL = 2.209$$

$$BEC = 26.42$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	272.24	0.0000	P	7.8
2	☐	0.100	0.094	1427.90	0.0001	P	5.9
3	☐	1.000	0.930	11872.12	0.0008	P	5.3
4	☐	50.000	51.239	626727.08	0.0451	P	0.5
5	☐	125.000	126.153	1570764.25	0.1111	P	0.9
6	☐	250.000	240.398	2967413.35	0.2116	P	0.6
7	☐	500.000	497.978	6122000.05	0.4383	A	1.6
8	☐	1000.000	1003.206	12353866.07	0.8831	A	4.9
9	☐			3864.58	0.0003	P	6.6

$$y = 8.8021\text{E-}004 * x + 1.8920\text{E-}005$$

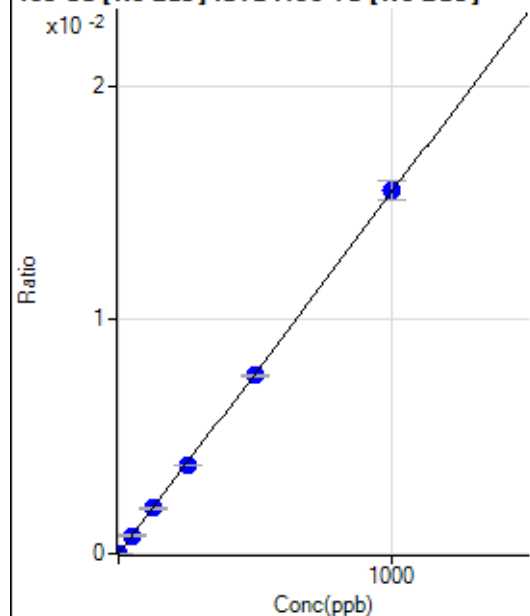
$$R = 0.9999$$

$$DL = 0.00503$$

$$BEC = 0.0215$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.44	0.0000	P	48.3
2	☐	0.100	0.131	47.22	0.0000	P	13.5
3	☐	1.000	0.706	173.61	0.0000	P	17.4
4	☐	50.000	49.907	10729.26	0.0008	P	2.5
5	☐	125.000	125.973	27542.33	0.0019	P	2.9
6	☐	250.000	245.865	53286.04	0.0038	P	1.3
7	☐	500.000	492.522	106301.68	0.0076	P	1.1
8	☐	1000.000	1004.656	217145.98	0.0155	P	5.4
9	☐			201.39	0.0000	P	11.5

$$y = 1.5451\text{E-}005 * x + 1.3433\text{E-}006$$

$$R = 0.9999$$

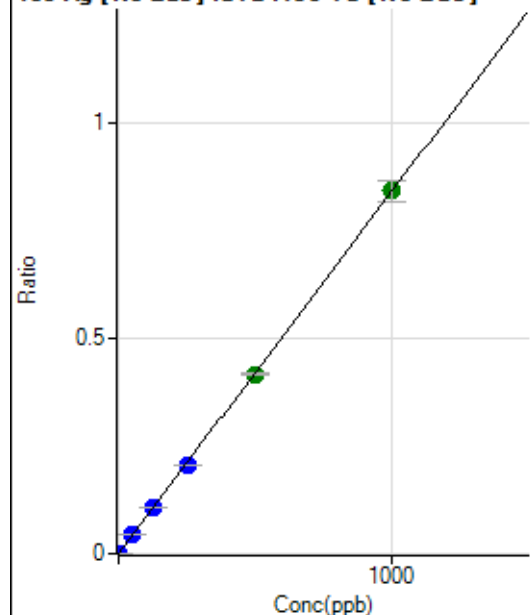
$$DL = 0.1259$$

$$BEC = 0.08694$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.90	0.0000	P	5.0
2	☐	0.100	0.095	1280.66	0.0001	P	4.2
3	☐	1.000	0.929	11235.51	0.0008	P	4.0
4	☐	50.000	51.629	603228.28	0.0434	P	0.1
5	☐	125.000	126.914	1509689.00	0.1067	P	0.8
6	☐	250.000	243.272	2868899.74	0.2046	P	0.4
7	☐	500.000	496.940	5836463.19	0.4179	A	1.7
8	☐	1000.000	1002.891	11796823.18	0.8434	A	5.6
9	☐			3581.16	0.0003	P	12.4

$$y = 8.4094\text{E-}004 * x + 1.1402\text{E-}005$$

$$R = 1.0000$$

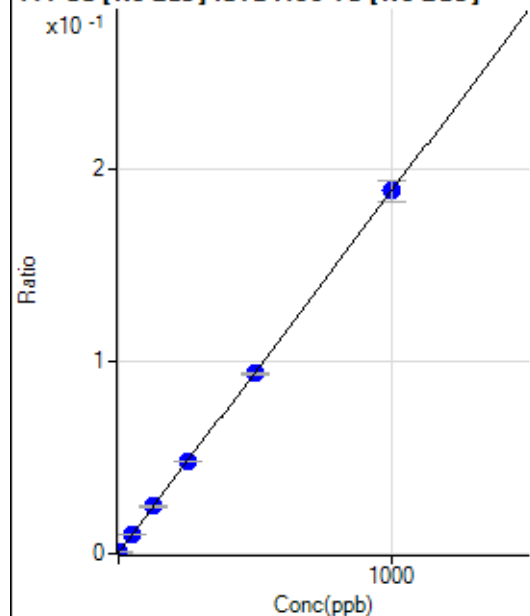
$$DL = 0.002023$$

$$BEC = 0.01356$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6087.10	0.0004	P	2.9
2	☐	0.100	0.192	6443.30	0.0005	P	2.5
3	☐	1.000	0.941	8510.20	0.0006	P	4.3
4	☐	50.000	51.107	139256.58	0.0100	P	0.9
5	☐	125.000	128.148	346509.55	0.0245	P	1.0
6	☐	250.000	251.501	668535.11	0.0477	P	0.7
7	☐	500.000	496.468	1308664.31	0.0937	P	1.1
8	☐	1000.000	1000.942	2636237.19	0.1885	P	5.6
9	☐			6339.68	0.0005	P	4.1

$$y = 1.8788\text{E-}004 * x + 4.2364\text{E-}004$$

$$R = 1.0000$$

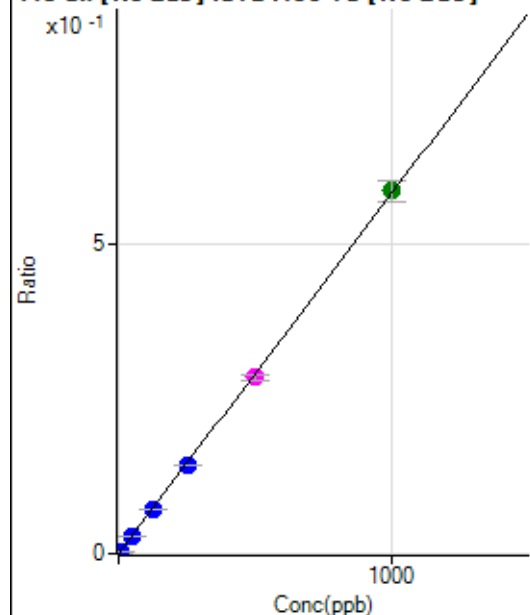
$$DL = 0.1984$$

$$BEC = 2.255$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	844.50	0.0001	P	8.2
2	☐	0.500	0.487	4803.82	0.0003	P	3.3
3	☐	5.000	4.432	37461.92	0.0026	P	1.6
4	☐	50.000	49.896	404950.56	0.0292	P	0.7
5	☐	125.000	124.151	1024720.16	0.0725	P	1.2
6	☐	250.000	243.316	1990387.28	0.1419	P	0.2
7	☐	500.000	488.648	3979532.21	0.2850	M	3.5
8	☐	1000.000	1007.461	8217682.30	0.5875	A	5.5
9	☐			4167.47	0.0004	P	7.0

$$y = 5.8311\text{E-}004 * x + 5.8827\text{E-}005$$

$$R = 0.9999$$

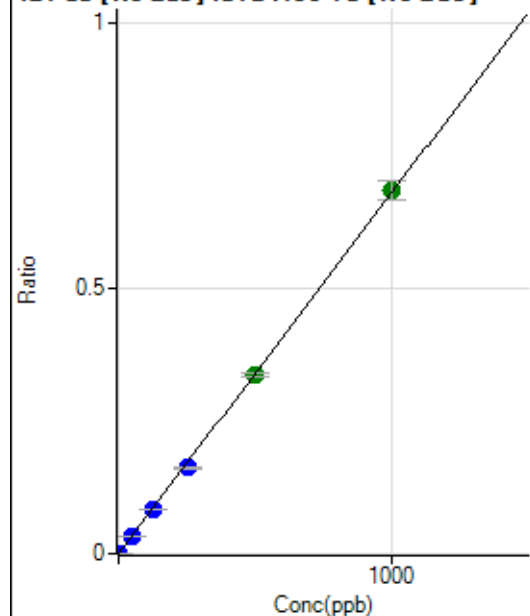
$$DL = 0.02496$$

$$BEC = 0.1009$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.56	0.0000	P	14.3
2	☐	0.200	0.166	1758.52	0.0001	P	1.8
3	☐	2.000	1.698	16568.68	0.0012	P	0.7
4	☐	50.000	48.401	457907.90	0.0330	P	0.5
5	☐	125.000	121.250	1167721.44	0.0826	P	1.2
6	☐	250.000	237.166	2264484.77	0.1615	P	0.3
7	☐	500.000	496.669	4722760.74	0.3382	A	1.8
8	☐	1000.000	1005.423	9575152.73	0.6845	A	5.4
9	☐			19244.44	0.0016	P	3.6

$$y = 6.8084\text{E-}004 * x + 1.2539\text{E-}005$$

$$R = 0.9999$$

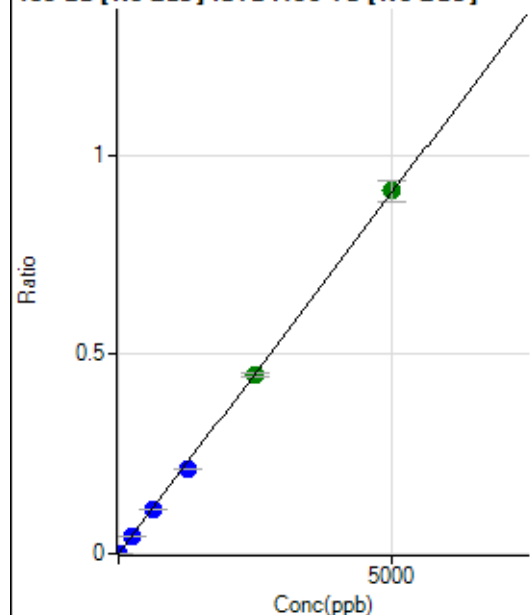
$$DL = 0.007913$$

$$BEC = 0.01842$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	186.12	0.0000	P	21.0
2	☐	1.000	0.893	2447.53	0.0002	P	1.4
3	☐	10.000	8.589	22218.47	0.0016	P	3.5
4	☐	250.000	242.762	610569.33	0.0440	P	1.0
5	☐	625.000	605.653	1550784.47	0.1096	P	0.8
6	☐	1250.000	1181.479	2999175.39	0.2139	P	0.1
7	☐	2500.000	2485.322	6282870.84	0.4499	A	2.1
8	☐	5000.000	5027.252	12726696.55	0.9100	A	5.9
9	☐			20543.66	0.0017	P	2.2

$$y = 1.8102\text{E-}004 * x + 1.2988\text{E-}005$$

$$R = 0.9999$$

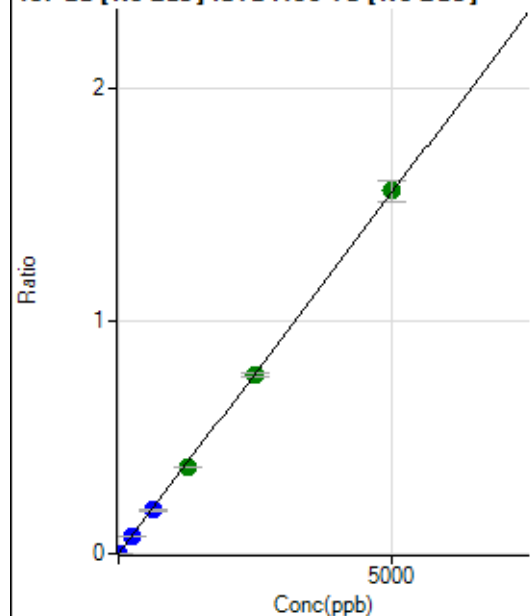
$$DL = 0.0451$$

$$BEC = 0.07175$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	286.13	0.0000	P	16.8
2	☐	1.000	0.918	4264.73	0.0003	P	3.1
3	☐	10.000	8.893	39315.13	0.0028	P	1.7
4	☐	250.000	244.986	1054068.40	0.0759	P	0.6
5	☐	625.000	603.657	2644015.38	0.1870	P	1.7
6	☐	1250.000	1204.740	5231856.41	0.3731	A	0.9
7	☐	2500.000	2475.393	10705693.56	0.7666	A	2.0
8	☐	5000.000	5026.539	21770862.99	1.5566	A	5.7
9	☐			35877.70	0.0030	P	3.6

$$y = 3.0967\text{E-}004 * x + 1.9859\text{E-}005$$

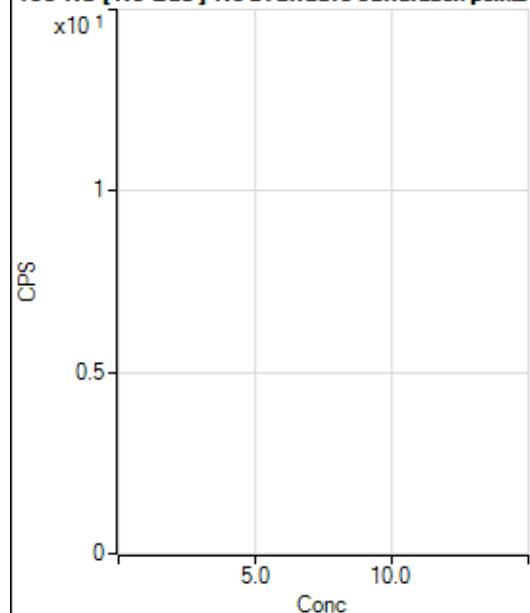
$$R = 0.9999$$

$$DL = 0.03229$$

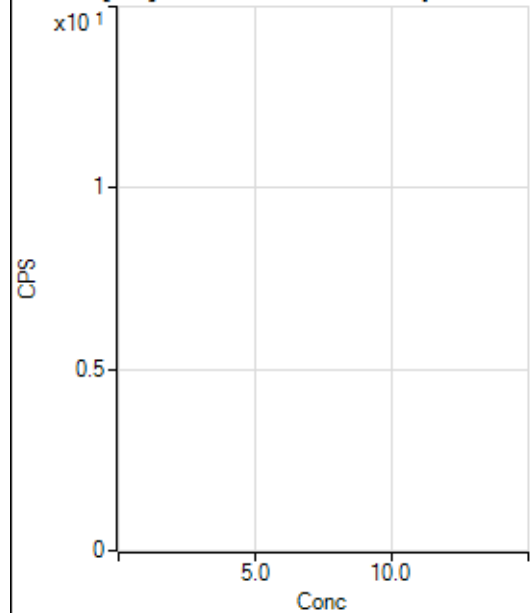
$$BEC = 0.06413$$

Weight: <None>

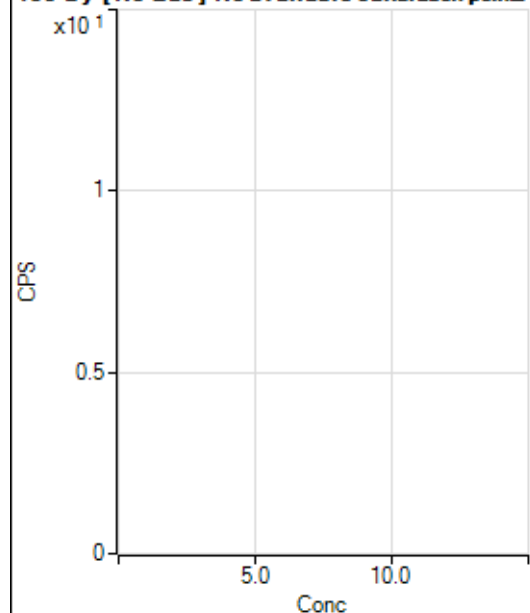
Min Conc: 0

150 Nd [No Gas] No available calibration points

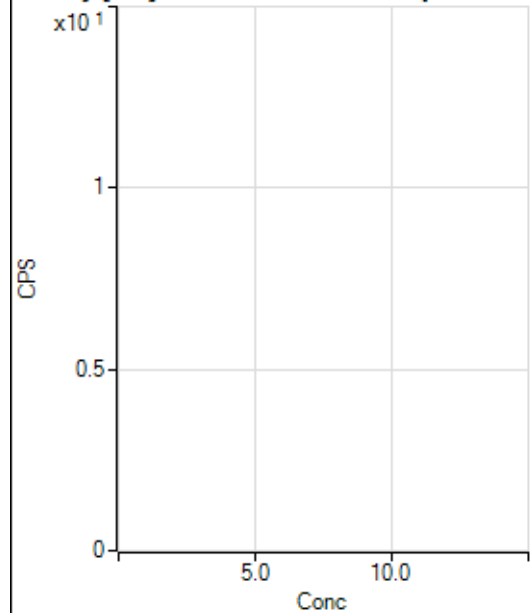
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			17.78		P	21.7
2	☐			8.89		P	86.6
3	☐			17.78		P	94.4
4	☐			84.45		P	24.1
5	☐			200.01		P	16.7
6	☐			317.79		P	5.3
7	☐			715.60		P	15.1
8	☐			1349.00		P	15.0
9	☐			51.12		P	7.5

150 Nd [He] No available calibration points

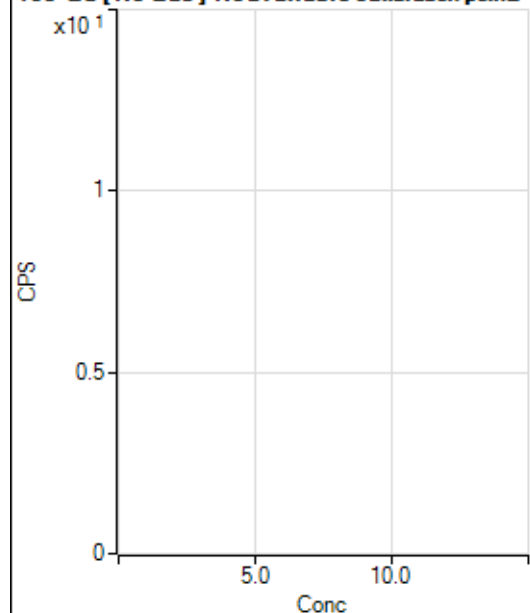
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			2.22		P	86.6
3	☐			0.00		P	
4	☐			6.67		P	50.0
5	☐			13.34		P	43.3
6	☐			34.44		P	24.3
7	☐			54.45		P	12.7
8	☐			98.89		P	3.9
9	☐			6.67		P	0.0

156 Dy [No Gas] No available calibration points

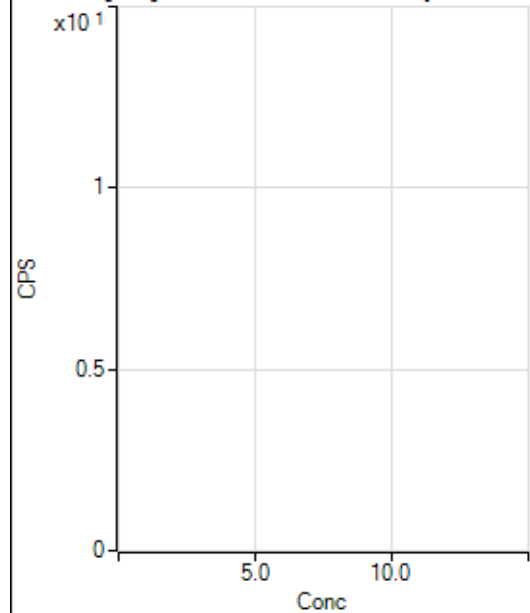
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	12.4
2	☐			25.00		P	66.7
3	☐			25.00		P	33.3
4	☐			61.11		P	43.8
5	☐			63.89		P	30.1
6	☐			116.67		P	12.4
7	☐			180.56		P	19.2
8	☐			375.02		P	21.2
9	☐			655.60		P	5.3

156 Dy [He] No available calibration points

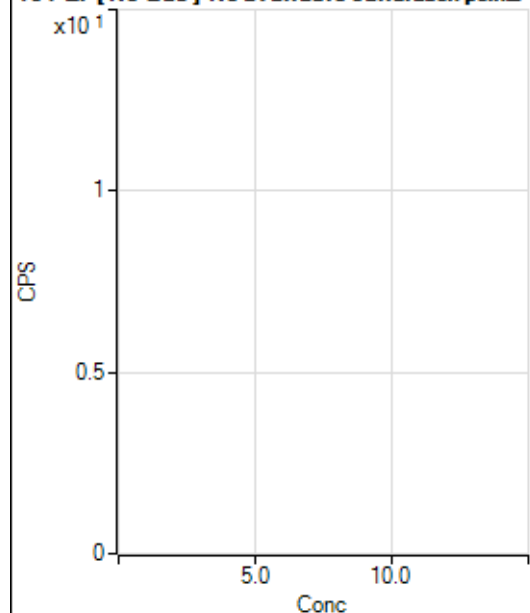
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	45.8
2	☐			8.89		P	43.3
3	☐			10.00		P	33.3
4	☐			24.44		P	7.9
5	☐			52.22		P	7.4
6	☐			70.00		P	19.0
7	☐			151.11		P	1.3
8	☐			273.34		P	8.8
9	☐			320.01		P	13.5

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

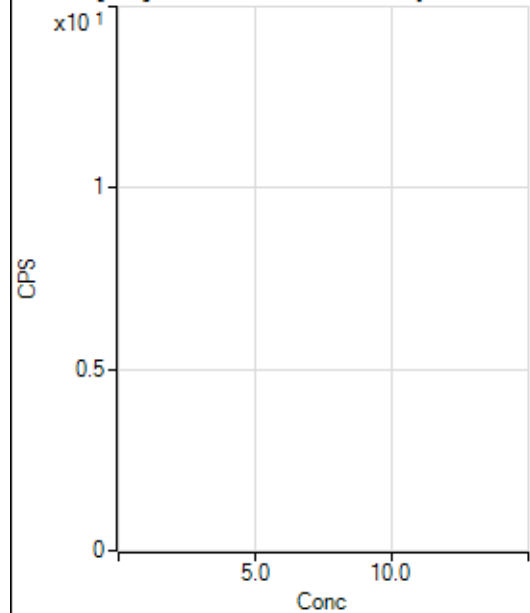
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			80.56		P	26.0
2	☐			75.00		P	29.4
3	☐			102.78		P	26.1
4	☐			108.34		P	20.4
5	☐			119.45		P	10.7
6	☐			147.23		P	14.2
7	☐			163.90		P	25.1
8	☐			266.68		P	32.6
9	☐			744.50		P	9.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			192.23		P	24.3
2	☐			204.45		P	14.8
3	☐			174.45		P	7.7
4	☐			175.56		P	17.9
5	☐			205.56		P	13.5
6	☐			214.45		P	7.3
7	☐			234.45		P	6.6
8	☐			226.67		P	1.5
9	☐			517.80		P	5.5

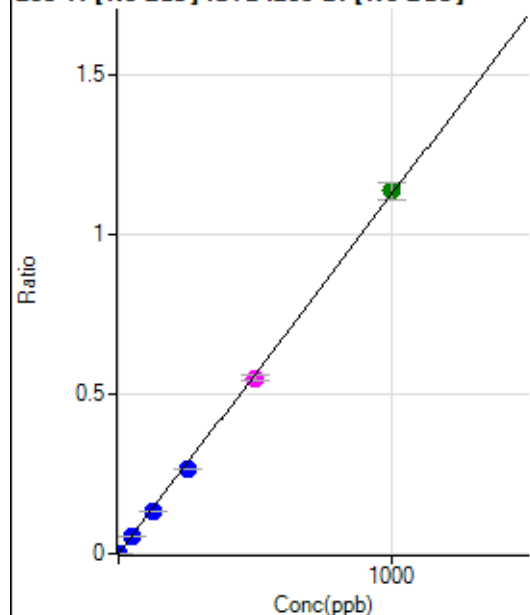
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			63.89		P	49.4
2	☐			50.00		P	44.1
3	☐			38.89		P	24.7
4	☐			75.00		P	33.3
5	☐			105.56		P	35.6
6	☐			88.90		P	37.9
7	☐			91.67		P	9.1
8	☐			133.34		P	16.5
9	☐			152.78		P	17.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	22.9
2	☐			17.78		P	39.0
3	☐			38.89		P	21.6
4	☐			42.22		P	52.6
5	☐			35.55		P	19.5
6	☐			26.67		P	12.5
7	☐			41.11		P	9.4
8	☐			43.33		P	35.3
9	☐			53.33		P	31.2

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	183.34	0.0000	P	13.2
2	☐	0.100	0.089	972.30	0.0001	P	9.7
3	☐	1.000	0.858	7858.22	0.0010	P	2.5
4	☐	50.000	46.843	410116.40	0.0527	P	0.7
5	☐	125.000	119.167	1042584.78	0.1339	P	0.4
6	☐	250.000	234.296	2024237.76	0.2633	P	0.9
7	☐	500.000	489.024	4114546.58	0.5495	M	3.1
8	☐	1000.000	1010.301	8367439.34	1.1352	A	4.4
9	☐			2022.46	0.0004	P	2.4

$$y = 0.0011 * x + 2.2664E-005$$

$$R = 0.9998$$

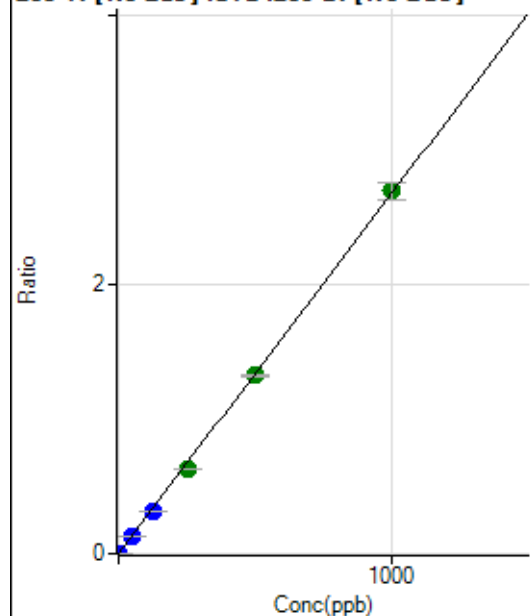
$$DL = 0.00796$$

$$BEC = 0.02017$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	561.15	0.0001	P	20.4
2	☐	0.100	0.080	2255.85	0.0003	P	5.1
3	☐	1.000	0.842	18505.19	0.0023	P	1.2
4	☐	50.000	46.549	970704.07	0.1246	P	0.2
5	☐	125.000	117.318	2444538.73	0.3140	P	0.6
6	☐	250.000	236.002	4856004.88	0.6316	A	1.1
7	☐	500.000	494.802	9915565.50	1.3241	A	0.8
8	☐	1000.000	1007.231	19865766.94	2.6954	A	4.7
9	☐			4826.06	0.0008	P	5.2

$$y = 0.0027 * x + 6.9457E-005$$

$$R = 0.9999$$

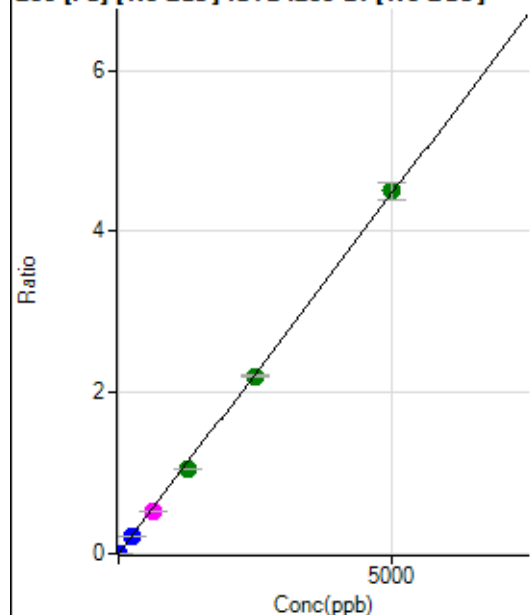
$$DL = 0.01588$$

$$BEC = 0.02596$$

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	707.45	0.0001	P	6.5
2	☐	0.100	0.064	1151.94	0.0001	P	10.3
3	☐	1.000	0.840	6675.92	0.0008	P	2.6
4	☐	250.000	232.971	1621153.70	0.2081	P	0.6
5	☐	625.000	586.787	4080172.08	0.5241	M	1.9
6	☐	1250.000	1180.953	8109369.39	1.0548	A	0.5
7	☐	2500.000	2460.656	16456031.96	2.1976	A	1.0
8	☐	5000.000	5042.562	33190968.80	4.5035	A	4.8
9	☐			10565.59	0.0019	P	8.1

$$y = 8.9307\text{E-}004 * x + 8.7509\text{E-}005$$

$$R = 0.9998$$

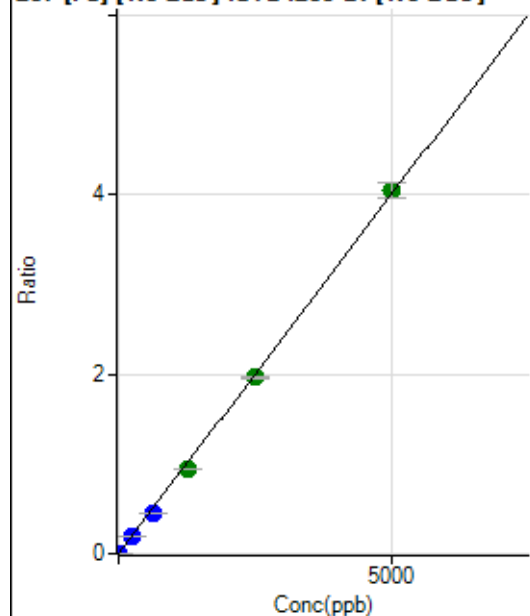
$$DL = 0.01912$$

$$BEC = 0.09799$$

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	590.77	0.0001	P	12.5
2	☐	0.100	0.057	942.66	0.0001	P	12.1
3	☐	1.000	0.805	5721.76	0.0007	P	1.0
4	☐	250.000	230.395	1437627.78	0.1846	P	1.0
5	☐	625.000	571.627	3564377.94	0.4579	P	0.8
6	☐	1250.000	1174.741	7233639.45	0.9409	A	0.5
7	☐	2500.000	2454.527	14719923.02	1.9658	A	0.9
8	☐	5000.000	5049.203	29805663.17	4.0437	A	4.4
9	☐			8932.88	0.0016	P	7.9

$$y = 8.0084\text{E-}004 * x + 7.3103\text{E-}005$$

$$R = 0.9998$$

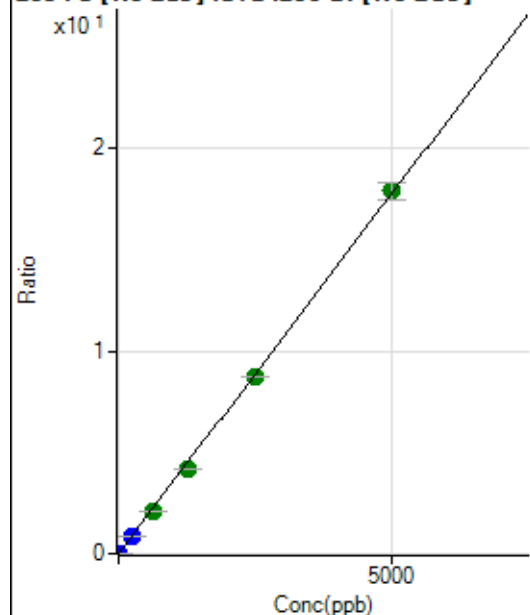
$$DL = 0.03436$$

$$BEC = 0.09128$$

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	2705.75	0.0003	P	14.0
2	☐	0.100	0.057	4280.03	0.0005	P	1.1
3	☐	1.000	0.840	26416.60	0.0033	P	1.8
4	☐	250.000	231.626	6404925.10	0.8224	P	0.6
5	☐	625.000	582.133	16085727.06	2.0663	A	1.2
6	☐	1250.000	1175.730	32083078.32	4.1729	A	0.6
7	☐	2500.000	2462.902	65455705.28	8.7410	A	0.3
8	☐	5000.000	5043.394	131928719.6	17.8990	A	4.5
9	☐			41116.65	0.0072	P	8.8

$$y = 0.0035 * x + 3.3494E-004$$

$$R = 0.9998$$

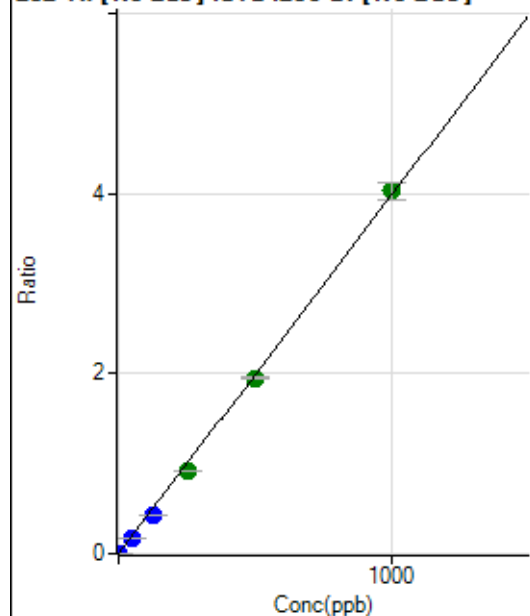
$$DL = 0.03968$$

$$BEC = 0.09438$$

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	1320.48	0.0002	P	4.5
2	☐	0.100	-0.013	894.50	0.0001	P	5.9
3	☐	1.000	-0.019	694.49	0.0001	P	11.1
4	☐	50.000	42.143	1307474.61	0.1679	P	0.4
5	☐	125.000	106.592	3303513.15	0.4243	P	1.4
6	☐	250.000	230.639	7057654.21	0.9180	A	0.1
7	☐	500.000	490.608	14621966.76	1.9525	A	0.7
8	☐	1000.000	1012.231	29687583.53	4.0283	A	5.0
9	☐			9972.72	0.0017	P	15.1

$$y = 0.0040 * x + 1.6335E-004$$

$$R = 0.9996$$

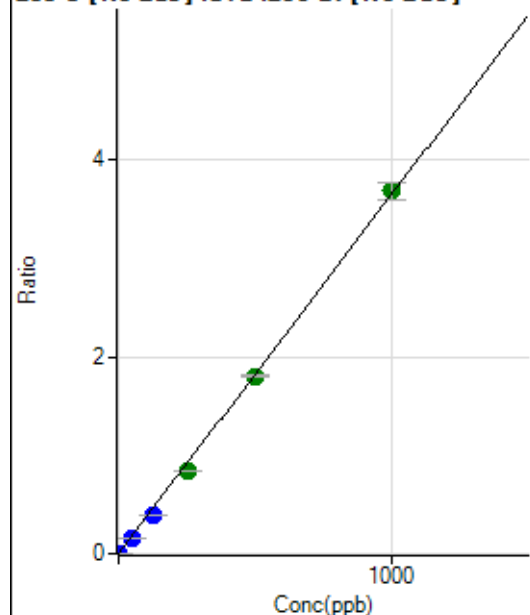
$$DL = 0.005511$$

$$BEC = 0.04105$$

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	419.47	0.0001	P	2.0
2	☐	0.100	0.073	2522.58	0.0003	P	4.5
3	☐	1.000	0.764	22649.09	0.0028	P	2.1
4	☐	50.000	42.599	1212184.15	0.1556	P	0.7
5	☐	125.000	107.789	3065148.16	0.3937	P	1.5
6	☐	250.000	231.419	6498662.69	0.8453	A	0.4
7	☐	500.000	493.706	13503952.74	1.8032	A	1.0
8	☐	1000.000	1010.314	27195860.85	3.6900	A	4.8
9	☐			5882.22	0.0010	P	11.5

$$y = 0.0037 * x + 5.1846E-005$$

$$R = 0.9997$$

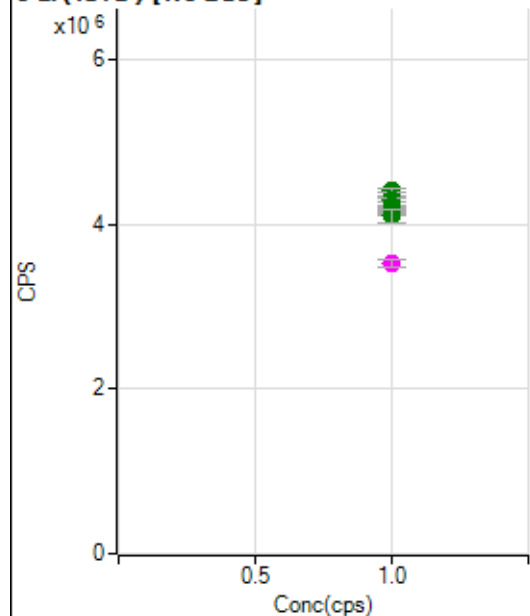
$$DL = 0.0008551$$

$$BEC = 0.0142$$

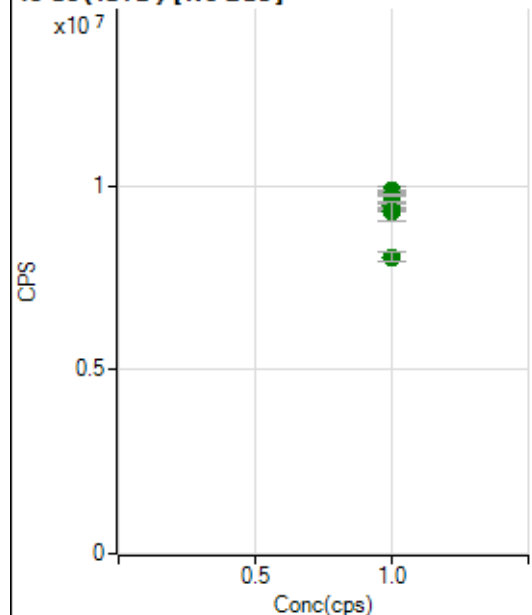
Weight: <None>

Min Conc: 0

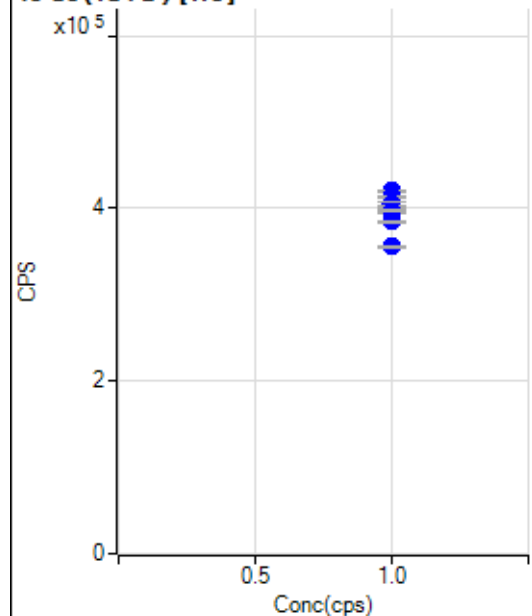
6 Li (ISTD) [No Gas]



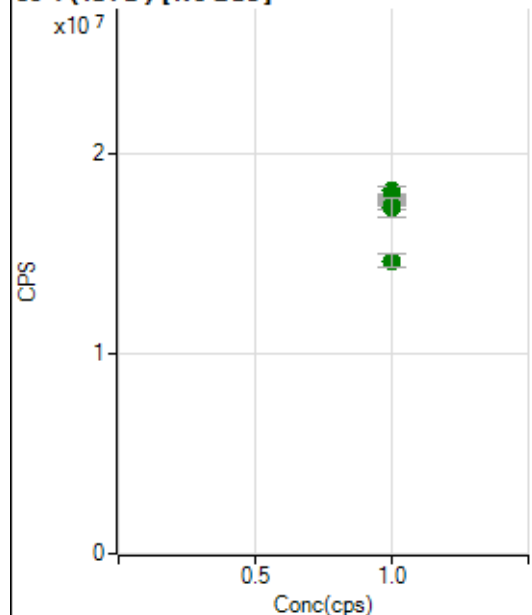
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4305773.86		A	1.2
2	☐	1.000		4322685.60		A	0.2
3	☐	1.000		4403712.26		A	1.1
4	☐	1.000		4294674.14		A	0.8
5	☐	1.000		4218285.53		A	0.5
6	☐	1.000		4177291.05		A	0.6
7	☐	1.000		4119764.91		A	0.2
8	☐	1.000		4102758.59		A	4.1
9	☐	1.000		3525582.83		M	2.7

45 Sc (ISTD) [No Gas]

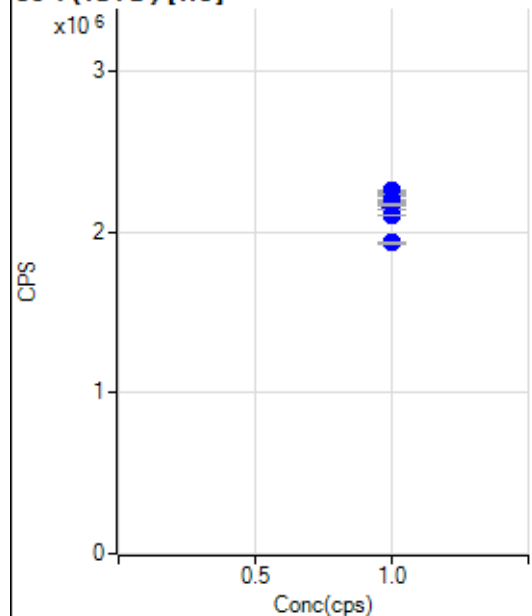
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9864692.77		A	2.9
2	☐	1.000		9751534.37		A	0.3
3	☐	1.000		9876103.95		A	0.5
4	☐	1.000		9755213.54		A	0.6
5	☐	1.000		9759250.06		A	0.1
6	☐	1.000		9457592.85		A	1.2
7	☐	1.000		9332404.24		A	0.8
8	☐	1.000		9312321.67		A	5.7
9	☐	1.000		8077191.41		A	3.5

45 Sc (ISTD) [He]

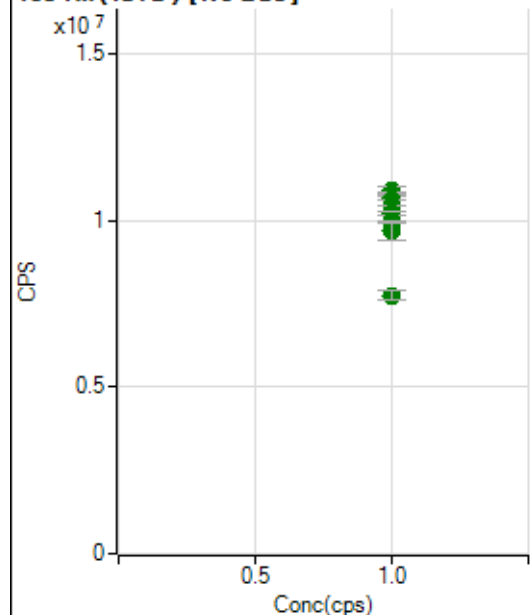
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		403882.00		P	1.3
2	☐	1.000		420164.19		P	0.7
3	☐	1.000		414524.16		P	0.2
4	☐	1.000		413529.76		P	0.5
5	☐	1.000		405357.15		P	0.9
6	☐	1.000		395650.67		P	0.6
7	☐	1.000		396656.08		P	0.5
8	☐	1.000		384161.84		P	0.3
9	☐	1.000		355459.79		P	0.7

89 Y (ISTD) [No Gas]

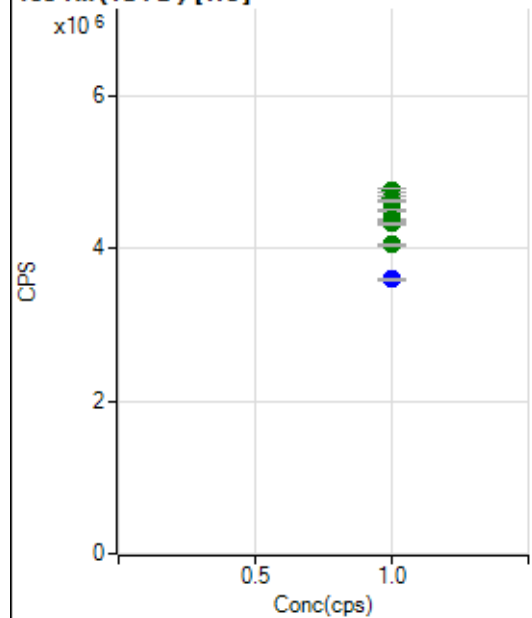
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18135169.73		A	2.4
2	☐	1.000		17807880.15		A	0.4
3	☐	1.000		17932772.23		A	0.7
4	☐	1.000		17607802.66		A	0.5
5	☐	1.000		17763126.40		A	0.5
6	☐	1.000		17431589.60		A	0.2
7	☐	1.000		17282956.69		A	1.0
8	☐	1.000		17301023.91		A	5.2
9	☐	1.000		14633002.56		A	4.3

89 Y (ISTD) [He]

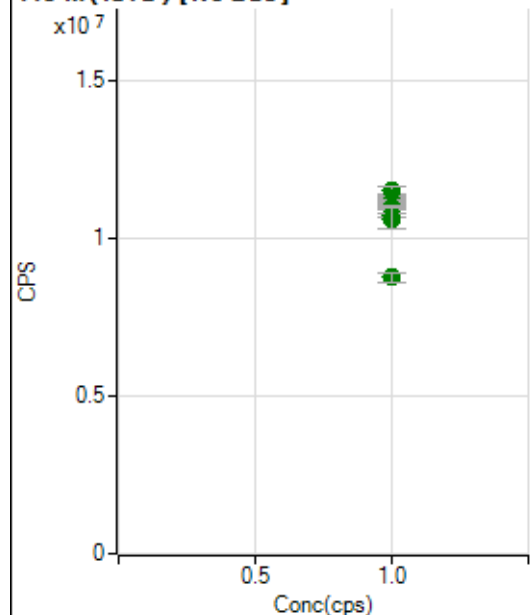
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2176986.03		P	0.2
2	☐	1.000		2256270.64		P	0.4
3	☐	1.000		2231932.81		P	0.5
4	☐	1.000		2235292.09		P	0.3
5	☐	1.000		2198041.18		P	0.7
6	☐	1.000		2148806.27		P	1.1
7	☐	1.000		2171740.61		P	0.8
8	☐	1.000		2103091.81		P	0.4
9	☐	1.000		1933452.87		P	0.8

103 Rh (ISTD) [No Gas]

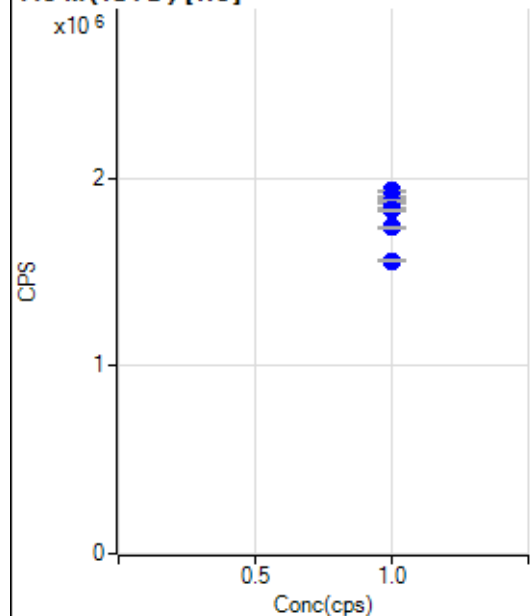
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10891999.35		A	2.2
2	☐	1.000		10664400.60		A	0.9
3	☐	1.000		10819742.76		A	0.2
4	☐	1.000		10601166.92		A	0.1
5	☐	1.000		10442317.07		A	0.4
6	☐	1.000		10227289.99		A	0.9
7	☐	1.000		9961073.26		A	0.1
8	☐	1.000		9678847.08		A	5.4
9	☐	1.000		7754350.72		A	3.8

103 Rh (ISTD) [He]

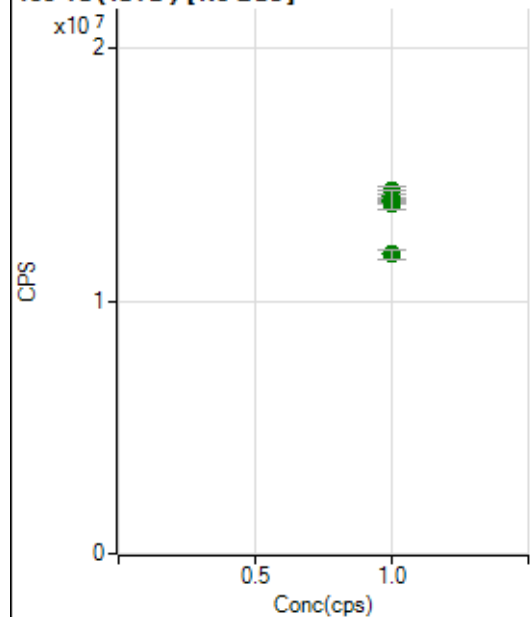
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4666746.87		A	1.4
2	☐	1.000		4757088.82		A	1.0
3	☐	1.000		4655240.21		A	1.3
4	☐	1.000		4625228.85		A	0.9
5	☐	1.000		4493558.13		A	0.6
6	☐	1.000		4376875.56		A	0.9
7	☐	1.000		4326797.16		A	1.0
8	☐	1.000		4050468.76		A	0.9
9	☐	1.000		3595302.06		P	0.7

115 In (ISTD) [No Gas]

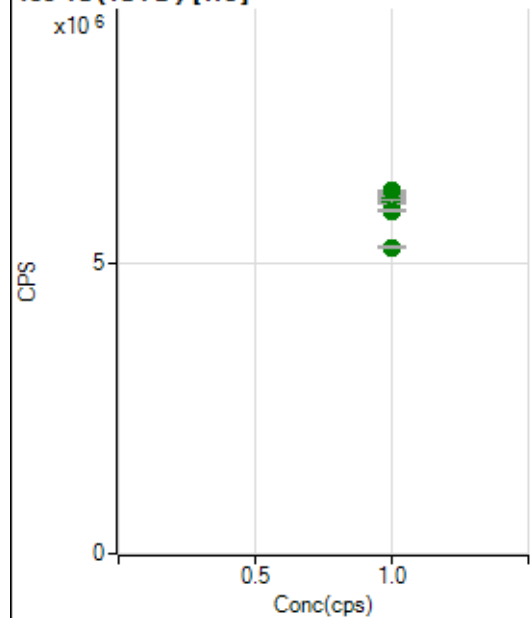
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11487778.14		A	2.1
2	☐	1.000		11251300.05		A	1.1
3	☐	1.000		11288279.39		A	0.7
4	☐	1.000		11068229.78		A	0.4
5	☐	1.000		11164063.42		A	0.6
6	☐	1.000		10949112.36		A	0.9
7	☐	1.000		10706302.71		A	1.4
8	☐	1.000		10599106.92		A	6.3
9	☐	1.000		8743453.81		A	3.8

115 In (ISTD) [He]

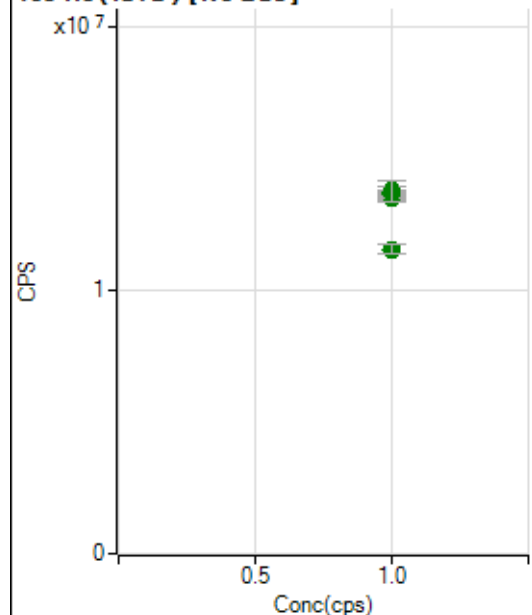
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1869967.86		P	0.6
2	☐	1.000		1930664.25		P	0.6
3	☐	1.000		1898117.70		P	0.4
4	☐	1.000		1901037.92		P	0.4
5	☐	1.000		1876045.28		P	0.6
6	☐	1.000		1828168.12		P	1.0
7	☐	1.000		1826943.52		P	0.7
8	☐	1.000		1737570.15		P	0.6
9	☐	1.000		1558782.80		P	0.6

159 Tb (ISTD) [No Gas]

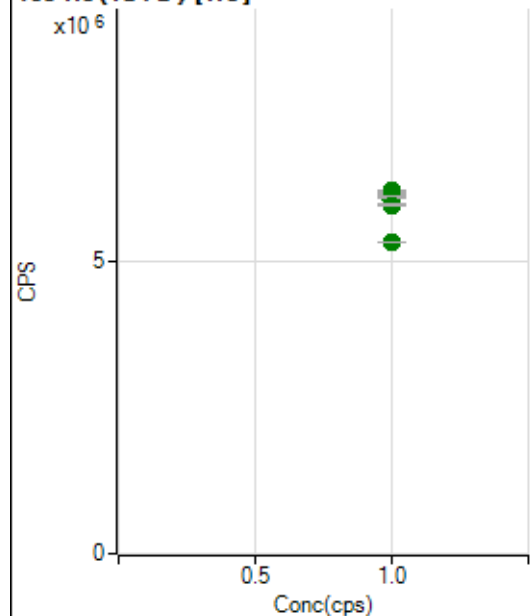
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14372660.76		A	2.2
2	☐	1.000		14016675.07		A	0.4
3	☐	1.000		14175323.12		A	1.2
4	☐	1.000		13890220.21		A	0.1
5	☐	1.000		14144502.98		A	1.3
6	☐	1.000		14022670.21		A	1.0
7	☐	1.000		13968172.29		A	1.5
8	☐	1.000		14016124.23		A	5.7
9	☐	1.000		11860439.13		A	3.2

159 Tb (ISTD) [He]

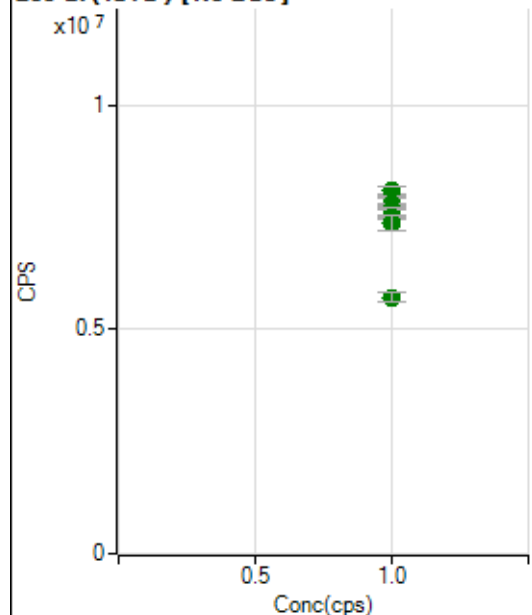
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6236302.82		A	0.3
2	☐	1.000		6206950.53		A	0.6
3	☐	1.000		6155058.24		A	0.4
4	☐	1.000		6129114.29		A	0.1
5	☐	1.000		6099278.24		A	1.2
6	☐	1.000		6047163.04		A	0.8
7	☐	1.000		6048529.56		A	1.5
8	☐	1.000		5898295.40		A	0.3
9	☐	1.000		5261806.31		A	0.7

165 Ho (ISTD) [No Gas]

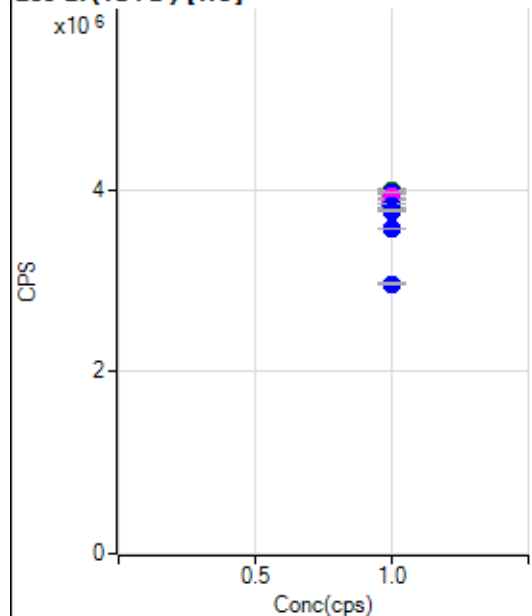
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13782246.74		A	2.3
2	☐	1.000		13549863.27		A	1.1
3	☐	1.000		13651774.38		A	1.0
4	☐	1.000		13596267.16		A	0.5
5	☐	1.000		13725902.02		A	0.9
6	☐	1.000		13647649.38		A	1.0
7	☐	1.000		13556597.02		A	0.6
8	☐	1.000		13761179.10		A	5.8
9	☐	1.000		11574490.52		A	3.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6145686.16		A	1.2
2	☐	1.000		6224991.37		A	0.4
3	☐	1.000		6165056.64		A	0.5
4	☐	1.000		6173102.75		A	0.6
5	☐	1.000		6112197.06		A	0.3
6	☐	1.000		6055759.70		A	1.7
7	☐	1.000		6133244.56		A	0.6
8	☐	1.000		5984776.09		A	0.6
9	☐	1.000		5345184.29		A	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8088297.73		A	2.1
2	☐	1.000		7953621.41		A	0.6
3	☐	1.000		7967742.38		A	0.4
4	☐	1.000		7788528.56		A	0.2
5	☐	1.000		7785242.94		A	0.8
6	☐	1.000		7688247.18		A	0.6
7	☐	1.000		7488469.82		A	0.9
8	☐	1.000		7380091.00		A	4.2
9	☐	1.000		5713365.26		A	3.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3960080.95		M	1.0
2	☐	1.000		3986490.53		A	1.0
3	☐	1.000		3981860.43		P	0.4
4	☐	1.000		3939112.79		M	1.3
5	☐	1.000		3872739.14		M	1.0
6	☐	1.000		3819969.77		P	1.1
7	☐	1.000		3767010.67		P	0.3
8	☐	1.000		3571075.57		P	0.1
9	☐	1.000		2961538.57		P	0.8

US EPA Tune Check Sample Report

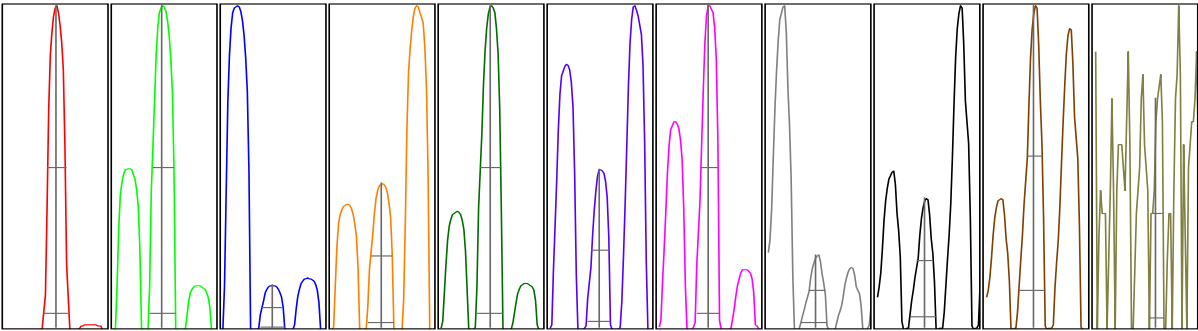
Batch Folder D:\ICP-MS Data\1\DATA\P7071620-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	9639	1.60	5.00	
24	135285	1.39	5.00	
25	18109	1.75	5.00	
26	21367	1.73	5.00	
59	63204	1.63	5.00	
113	10436	1.73	5.00	
115	33110	4.77	5.00	
206	11705	1.64	5.00	
207	10012	1.72	5.00	
208	23786	1.62	5.00	
220	0	39.51		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9444	9734	9846	9584	9588
24	132447	136450	137410	134912	135209
25	17622	18284	18463	18032	18146
26	20794	21609	21762	21331	21341
59	61648	63744	64439	63110	63078
113	10417	10574	10662	10277	10250
115	34376	34588	33709	31779	31096
206	11439	11742	11977	11689	11681
207	9782	10033	10256	9943	10046
208	23225	23833	24307	23733	23833
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	18738	9.05	8.9 - 9.1		0.715	0.900	
24	224215	23.95	23.9 - 24.1		0.776	0.900	
25	30354	25.00	24.9 - 25.1		0.741	0.900	
26	35514	26.00	25.9 - 26.1		0.779	0.900	
59	109570	59.00	58.9 - 59.1		0.776	0.900	
113	20232	113.00	112.9 - 113.1		0.690	0.900	
115	63935	115.00	114.9 - 115.1		0.690	0.900	
206	23972	205.95	205.9 - 206.1		0.743	0.900	
207	19980	206.95	206.9 - 207.1		0.744	0.900	
208	49372	207.95	207.9 - 208.1		0.743	0.900	
220	1	220.35	-		0.392		

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	0.76	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	6.7	V	Deflect	13.4	V
Extract 2	-150.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	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	15086	2.72	
89	41622	2.61	
205	25573	2.02	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	15248	14941	15301	15495	14445
89	41890	41286	42392	42630	39909
205	25921	25589	25651	25999	24704

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.76	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	6.7	V	Deflect	1.8	V
Extract 2	-145.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	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			