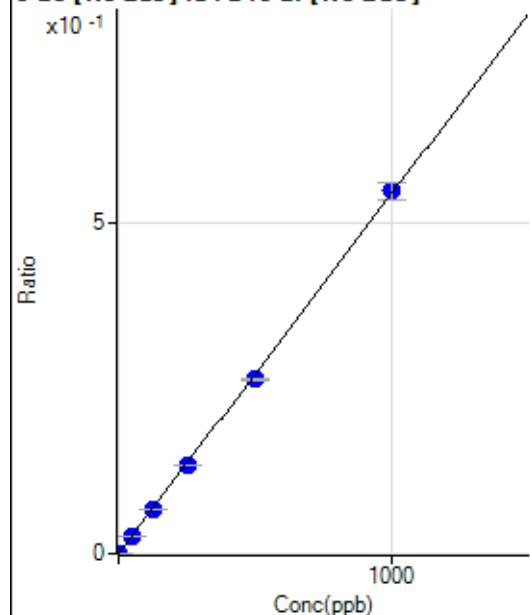


Batch Folder: D:\ICP-MS Data\P7061419 MS.b\
Analysis File: P7061419 MS.batch.bin
DA Date-Time: 2019-06-15 02:52:47
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-14 15:17:26
2	004CALS.d	S01	2019-06-14 15:21:02
3	005CALS.d	S02	2019-06-14 15:25:17
4	006CALS.d	S03	2019-06-14 15:29:13
5	007CALS.d	S04	2019-06-14 15:33:09
6	008CALS.d	S05	2019-06-14 15:37:03
7	009CALS.d	S06	2019-06-14 15:40:55
8	010CALS.d	S07	2019-06-14 15:44:44
9	011CALS.d	S08	2019-06-14 15:48:32

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.33	0.0000	P	24.5
2	☐	0.100	0.093	161.12	0.0001	P	7.4
3	☐	1.000	0.879	1022.27	0.0005	P	10.8
4	☐	50.000	49.326	54030.25	0.0269	P	1.1
5	☐	125.000	125.390	132223.23	0.0683	P	0.1
6	☐	250.000	247.128	239117.62	0.1346	P	0.6
7	☐	500.000	484.341	460728.03	0.2638	P	0.9
8	☐	1000.000	1008.533	912056.75	0.5493	P	4.9
9	☐			414.45	0.0002	P	11.5

$$y = 5.4460\text{E-}004 * x + 3.1890\text{E-}005$$

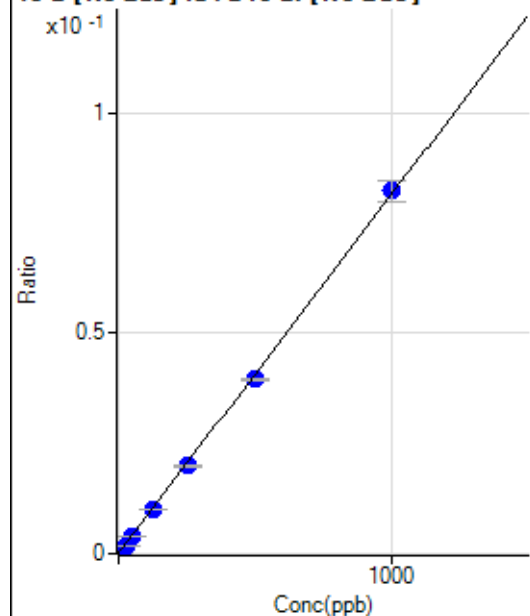
$$R = 0.9998$$

$$DL = 0.04303$$

$$BEC = 0.05856$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	205.57	0.0001	P	29.7
2	☐	2.500	2.346	572.26	0.0003	P	13.7
3	☐	25.000	22.187	3825.65	0.0019	P	2.7
4	☐	50.000	48.233	8099.71	0.0040	P	1.3
5	☐	125.000	121.060	19282.45	0.0100	P	2.1
6	☐	250.000	244.204	35511.96	0.0200	P	1.6
7	☐	500.000	484.092	69049.68	0.0395	P	1.3
8	☐	1000.000	1010.055	136735.96	0.0824	P	5.6
9	☐			8283.17	0.0047	P	8.8

$$y = 8.1444\text{E-}005 * x + 1.0351\text{E-}004$$

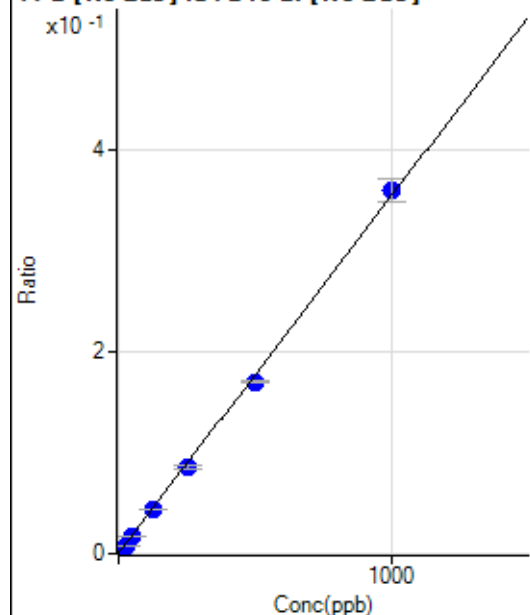
$$R = 0.9998$$

$$DL = 1.132$$

$$BEC = 1.271$$

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	891.73	0.0004	P	8.9
2	☐	2.500	2.325	2480.85	0.0013	P	4.8
3	☐	25.000	22.005	16531.76	0.0083	P	2.9
4	☐	50.000	47.683	34885.54	0.0174	P	2.3
5	☐	125.000	121.382	84214.98	0.0435	P	1.5
6	☐	250.000	240.879	152597.84	0.0859	P	2.5
7	☐	500.000	478.555	297350.25	0.1702	P	1.0
8	☐	1000.000	1013.646	597629.11	0.3601	P	6.3
9	☐			35729.47	0.0204	P	11.7

$$y = 3.5479\text{E-}004 * x + 4.4872\text{E-}004$$

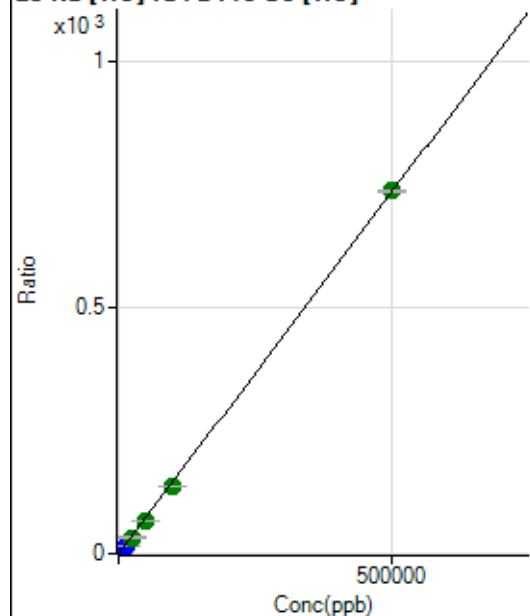
$$R = 0.9996$$

$$DL = 0.3385$$

$$BEC = 1.265$$

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	1758.51	0.0134	P	2.3
2	☐	50.000	41.129	9850.82	0.0739	P	2.5
3	☐	500.000	423.262	84951.37	0.6358	P	1.7
4	☐	5000.000	4607.390	884092.61	6.7885	P	0.9
5	☐	12500.000	11641.278	2120560.46	17.1317	P	0.5
6	☐	25000.000	22514.437	3883997.14	33.1206	A	2.2
7	☐	50000.000	45432.093	7691907.90	66.8207	A	0.4
8	☐	100000.00	92439.063	15307961.28	135.9438	A	0.3
9	☐	500000.00	502118.72	87174009.59	738.3722	A	0.7

$$y = 0.0015 * x + 0.0134$$

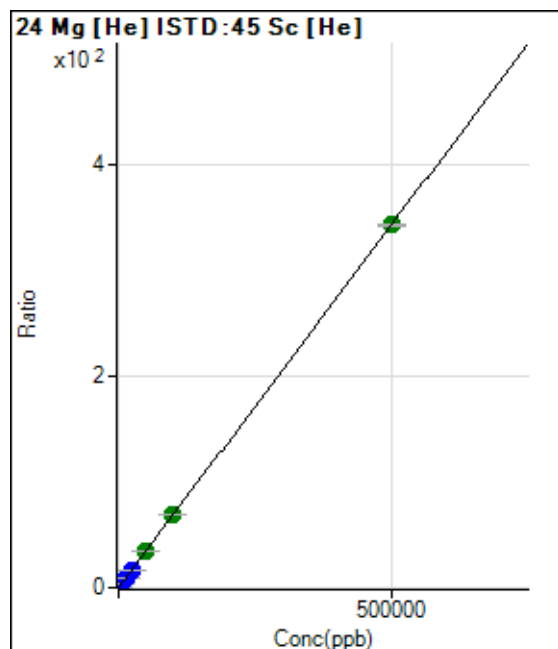
$$R = 0.9999$$

$$DL = 0.6173$$

$$BEC = 9.117$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0006	P	27.1
2	☐	50.000	49.274	4578.66	0.0343	P	1.3
3	☐	500.000	492.244	45135.48	0.3378	P	2.6
4	☐	5000.000	5115.132	456454.07	3.5048	P	0.4
5	☐	12500.000	12901.043	1094045.23	8.8387	P	0.5
6	☐	25000.000	24871.320	1998196.27	17.0391	P	2.2
7	☐	50000.000	49646.086	3915107.38	34.0114	A	0.4
8	☐	100000.00	100741.01	7771433.33	69.0148	A	0.4
9	☐	500000.00	499882.45	40430656.11	342.4530	A	0.8

$$y = 6.8507\text{E-}004 * x + 5.9314\text{E-}004$$

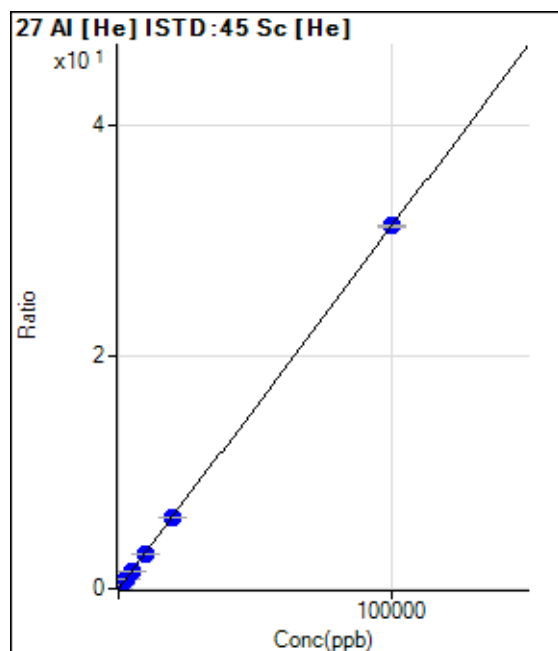
$$R = 1.0000$$

$$DL = 0.7037$$

$$BEC = 0.8658$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.55	0.0000	P	86.6
2	☐	2.000	1.727	77.78	0.0006	P	42.4
3	☐	20.000	18.861	791.72	0.0059	P	11.8
4	☐	1000.000	990.990	40282.92	0.3093	P	2.3
5	☐	2500.000	2512.437	97066.55	0.7842	P	1.6
6	☐	5000.000	4854.153	177672.70	1.5150	P	1.8
7	☐	10000.000	9612.499	345351.87	3.0001	P	0.7
8	☐	20000.000	19584.432	688282.86	6.1124	P	0.4
9	☐	100000.00	100128.93	3689597.78	31.2504	P	0.5

$$y = 3.1210\text{E-}004 * x + 4.2327\text{E-}005$$

$$R = 1.0000$$

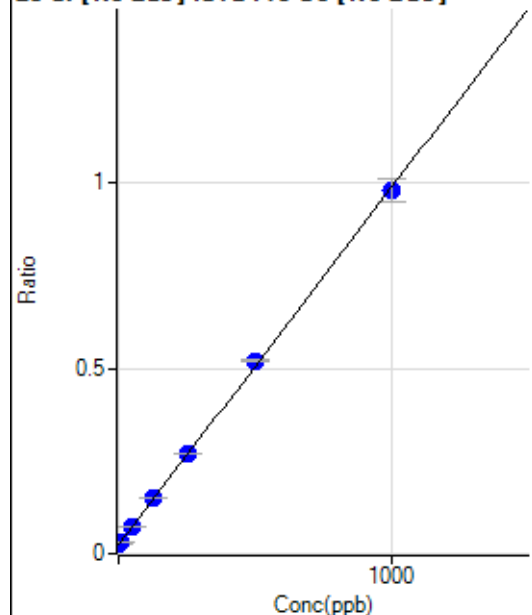
$$DL = 0.3524$$

$$BEC = 0.1356$$

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	71192.08	0.0237	P	1.0
2	☐	1.000	1.412	73400.10	0.0250	P	7.5
3	☐	10.000	8.339	96311.85	0.0317	P	0.4
4	☐	50.000	51.041	221105.56	0.0728	P	1.9
5	☐	125.000	130.389	435502.42	0.1493	P	0.4
6	☐	250.000	257.081	724672.32	0.2713	P	0.3
7	☐	500.000	513.941	1371417.36	0.5187	P	1.0
8	☐	1000.000	990.550	2432035.12	0.9778	P	6.2
9	☐			187613.76	0.0725	P	1.1

$$y = 9.6325E-004 * x + 0.0237$$

$$R = 0.9998$$

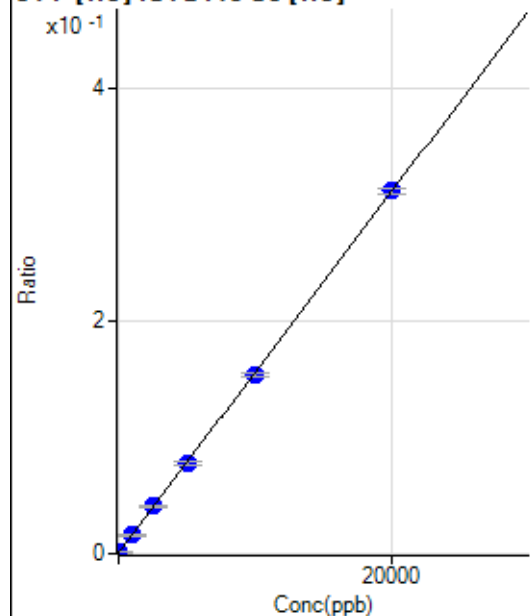
$$DL = 0.739$$

$$BEC = 24.56$$

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	-20.784	50.00	0.0004	P	60.1
2	☐	0.000	-11.758	69.45	0.0005	P	41.9
3	☐	0.000	32.542	161.12	0.0012	P	42.5
4	☐	1000.000	989.682	2089.12	0.0160	P	10.6
5	☐	2500.000	2598.052	5073.30	0.0410	P	4.6
6	☐	5000.000	4984.383	9142.07	0.0780	P	4.6
7	☐	10000.000	9881.004	17716.61	0.1539	P	1.8
8	☐	20000.000	20051.662	35089.42	0.3116	P	1.5
9	☐			63.89	0.0005	P	46.8

$$y = 1.5505E-005 * x + 7.0349E-004$$

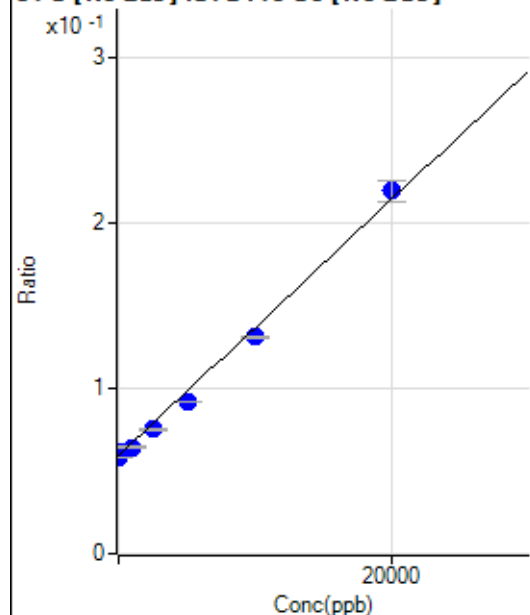
$$R = 1.0000$$

$$DL = 61.97$$

$$BEC = 45.37$$

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	-101.729	175986.36	0.0585	P	1.0
2	☐	0.000	226.632	178988.19	0.0610	P	8.2
3	☐	0.000	-124.903	177188.39	0.0583	P	1.0
4	☐	1000.000	631.633	194853.83	0.0642	P	1.9
5	☐	2500.000	2037.146	219003.20	0.0751	P	1.7
6	☐	5000.000	4220.300	245678.67	0.0920	P	0.6
7	☐	10000.000	9262.958	346438.03	0.1310	P	1.1
8	☐	20000.000	20639.721	545272.48	0.2192	P	5.7
9	☐			141460.08	0.0547	P	1.0

$$y = 7.7473\text{E-}006 * x + 0.0593$$

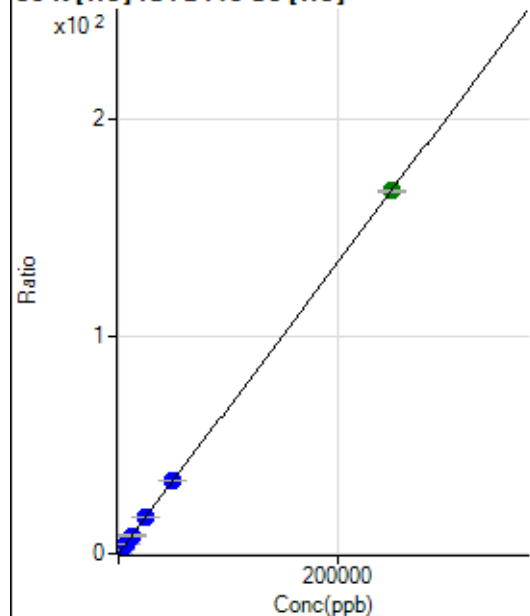
$$R = 0.9980$$

$$DL = 798$$

$$BEC = 7652$$

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	7157.57	0.0546	P	3.5
2	☐	50.000	46.476	11407.60	0.0856	P	4.7
3	☐	500.000	462.225	48513.46	0.3631	P	1.0
4	☐	2500.000	2573.271	230778.48	1.7720	P	0.8
5	☐	6250.000	6464.822	540834.11	4.3693	P	0.4
6	☐	12500.000	12499.252	984708.15	8.3968	P	2.0
7	☐	25000.000	24999.597	1926989.48	16.7398	P	0.3
8	☐	50000.000	50385.317	3792873.87	33.6828	P	0.2
9	☐	250000.00	249916.98	19699312.25	166.8544	A	0.7

$$y = 6.6742\text{E-}004 * x + 0.0546$$

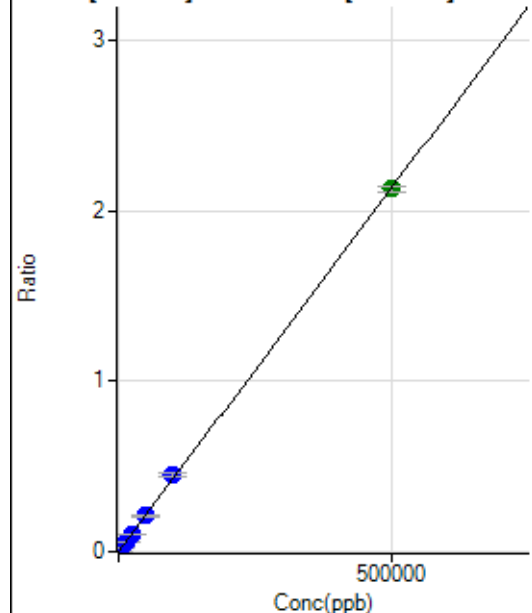
$$R = 1.0000$$

$$DL = 8.696$$

$$BEC = 81.76$$

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	61.11	0.0000	P	51.4
2	☐	50.000	47.240	650.04	0.0002	P	7.1
3	☐	500.000	443.071	5798.59	0.0019	P	2.6
4	☐	5000.000	4941.870	63988.85	0.0211	P	0.9
5	☐	12500.000	12499.859	155444.38	0.0533	P	0.6
6	☐	25000.000	24853.584	282894.25	0.1059	P	1.2
7	☐	50000.000	49176.486	553926.47	0.2095	P	1.4
8	☐	100000.00	105225.05	1115439.88	0.4483	P	5.4
9	☐	500000.00	499045.30	5498840.27	2.1262	A	1.8

$$y = 4.2604\text{E-}006 * x + 2.0280\text{E-}005$$

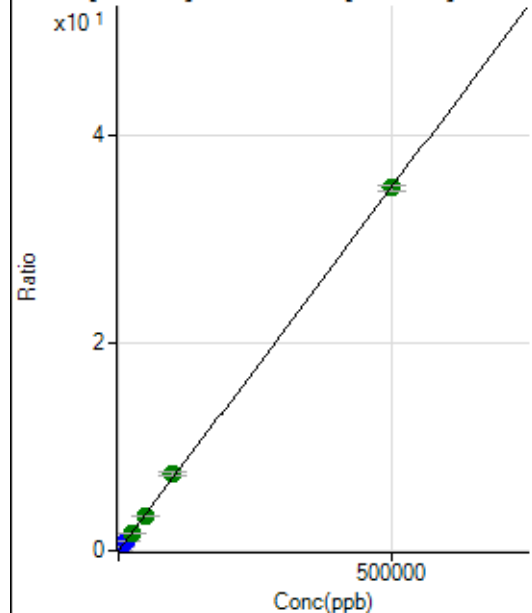
$$R = 0.9999$$

$$DL = 7.344$$

$$BEC = 4.76$$

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	2105.83	0.0007	P	6.9
2	☐	50.000	49.323	12174.91	0.0041	P	6.9
3	☐	500.000	463.345	100587.62	0.0331	P	1.5
4	☐	5000.000	4884.257	1039229.70	0.3423	P	0.2
5	☐	12500.000	12369.161	2525927.77	0.8657	P	0.6
6	☐	25000.000	24608.127	4598700.89	1.7216	A	0.7
7	☐	50000.000	48659.202	8998127.55	3.4036	A	1.1
8	☐	100000.00	104894.47	18251178.18	7.3364	A	5.7
9	☐	500000.00	499179.24	90286077.02	34.9101	A	1.9

$$y = 6.9934\text{E-}005 * x + 6.9982\text{E-}004$$

$$R = 0.9999$$

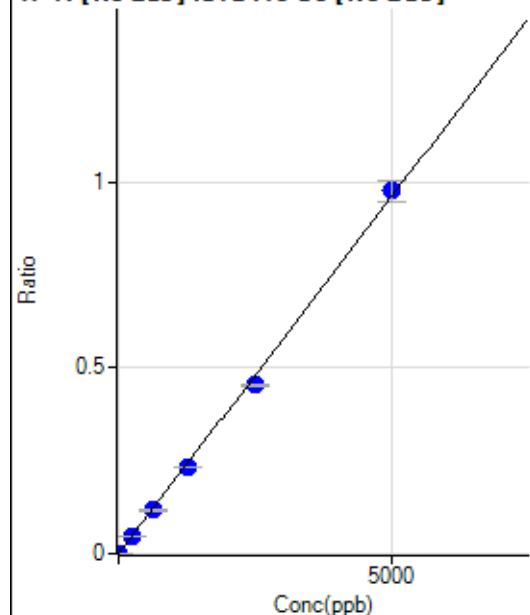
$$DL = 2.084$$

$$BEC = 10.01$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.56	0.0000	P	30.8
2	☐	0.500	0.507	316.68	0.0001	P	10.2
3	☐	5.000	4.590	2708.71	0.0009	P	6.1
4	☐	250.000	240.816	140384.64	0.0462	P	0.8
5	☐	625.000	606.577	339771.02	0.1165	P	0.7
6	☐	1250.000	1203.133	616944.11	0.2310	P	0.6
7	☐	2500.000	2360.937	1198186.69	0.4532	P	1.1
8	☐	5000.000	5084.011	2427810.19	0.9759	P	5.8
9	☐			1411.24	0.0005	P	9.1

$$y = 1.9196E-004 * x + 1.0144E-005$$

$$R = 0.9994$$

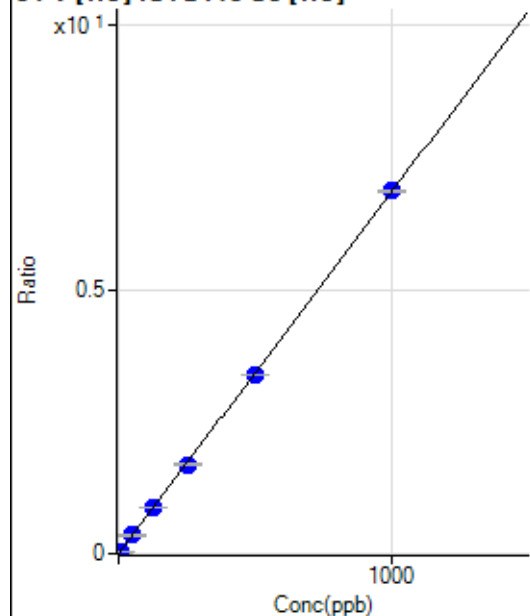
$$DL = 0.04891$$

$$BEC = 0.05284$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.501	456.68	0.0034	P	15.6
3	☐	5.000	5.023	4588.55	0.0343	P	2.8
4	☐	50.000	50.651	45105.51	0.3463	P	1.2
5	☐	125.000	127.176	107643.18	0.8696	P	0.5
6	☐	250.000	244.783	196287.50	1.6738	P	2.2
7	☐	500.000	495.215	389805.03	3.3863	P	0.2
8	☐	1000.000	1003.392	772602.43	6.8612	P	0.3
9	☐			252.23	0.0021	P	13.8

$$y = 0.0068 * x + 0.0000E+000$$

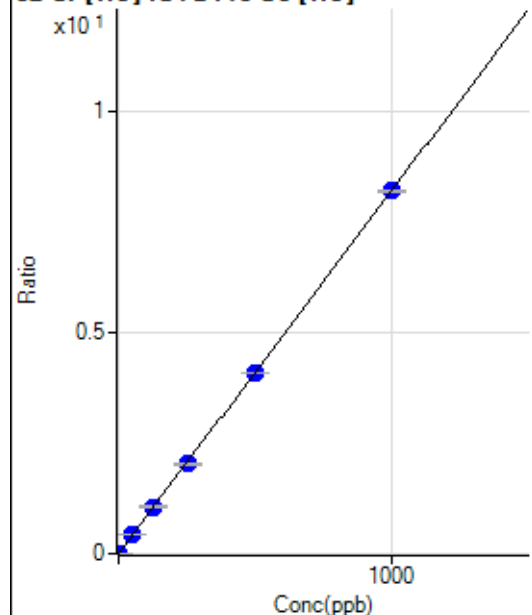
$$R = 1.0000$$

$$DL = 0$$

$$BEC = 0$$

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	288.90	0.0022	P	6.5
2	☐	0.200	0.235	551.13	0.0041	P	1.2
3	☐	2.000	1.915	2394.68	0.0179	P	3.3
4	☐	50.000	51.705	55533.03	0.4264	P	1.7
5	☐	125.000	128.959	131238.60	1.0603	P	1.4
6	☐	250.000	248.145	239017.19	2.0381	P	2.1
7	☐	500.000	499.688	472185.47	4.1020	P	0.4
8	☐	1000.000	1000.040	924169.49	8.2072	P	0.5
9	☐			15482.76	0.1311	P	2.0

$$y = 0.0082 * x + 0.0022$$

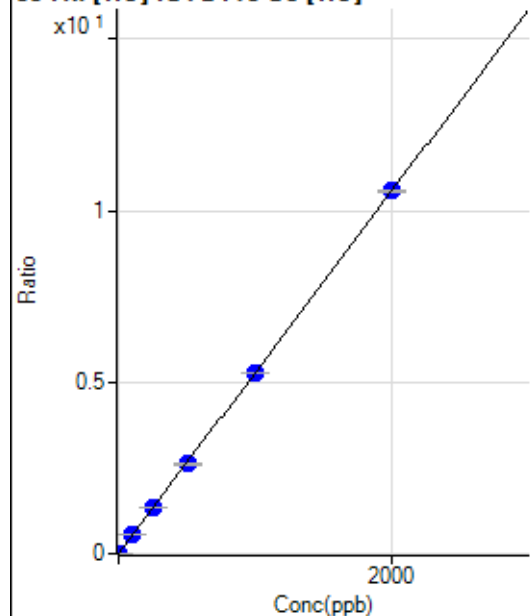
$$R = 1.0000$$

$$DL = 0.05237$$

$$BEC = 0.2685$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0002	P	56.9
2	☐	0.100	0.113	102.22	0.0008	P	26.6
3	☐	1.000	1.039	755.59	0.0057	P	5.3
4	☐	100.000	101.520	69810.20	0.5360	P	0.6
5	☐	250.000	254.629	166383.61	1.3442	P	0.9
6	☐	500.000	498.070	308318.57	2.6292	P	2.1
7	☐	1000.000	994.578	604325.54	5.2499	P	0.4
8	☐	2000.000	2002.539	1190274.88	10.5703	P	0.2
9	☐			5381.06	0.0456	P	2.2

$$y = 0.0053 * x + 1.6949E-004$$

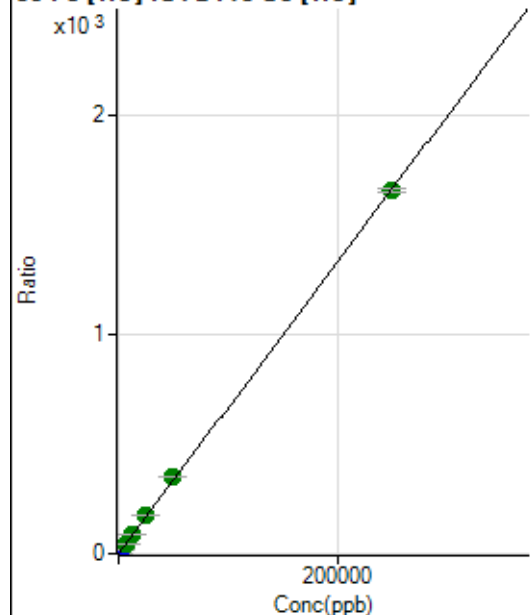
$$R = 1.0000$$

$$DL = 0.05482$$

$$BEC = 0.03211$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1477.89	0.0113	P	1.1
2	☐	5.000	5.483	6358.94	0.0477	P	0.5
3	☐	50.000	53.715	49195.57	0.3682	P	1.1
4	☐	2500.000	2702.859	2340416.95	17.9705	P	0.4
5	☐	6250.000	6693.197	5506279.35	44.4844	A	0.2
6	☐	12500.000	12977.420	10112918.05	86.2401	A	2.3
7	☐	25000.000	26035.093	19914420.58	173.0022	A	0.5
8	☐	50000.000	52782.338	39493805.51	350.7250	A	0.2
9	☐	250000.00	249303.04	195566267.3	1,656.512	A	1.0

$$y = 0.0066 * x + 0.0113$$

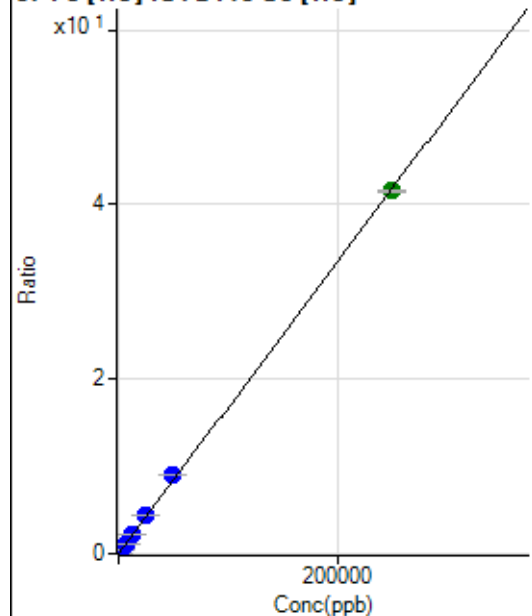
$$R = 0.9999$$

$$DL = 0.05719$$

$$BEC = 1.696$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	64.82	0.0005	P	34.7
2	☐	5.000	5.697	192.60	0.0014	P	14.5
3	☐	50.000	54.930	1290.84	0.0097	P	4.0
4	☐	2500.000	2737.432	59563.71	0.4573	P	0.8
5	☐	6250.000	6807.643	140685.77	1.1366	P	0.8
6	☐	12500.000	13297.265	260277.24	2.2196	P	2.4
7	☐	25000.000	26469.431	508547.28	4.4178	P	0.8
8	☐	50000.000	53728.617	1009715.59	8.9669	P	0.6
9	☐	250000.00	249051.15	4906984.60	41.5631	A	0.9

$$y = 1.6688E-004 * x + 4.9422E-004$$

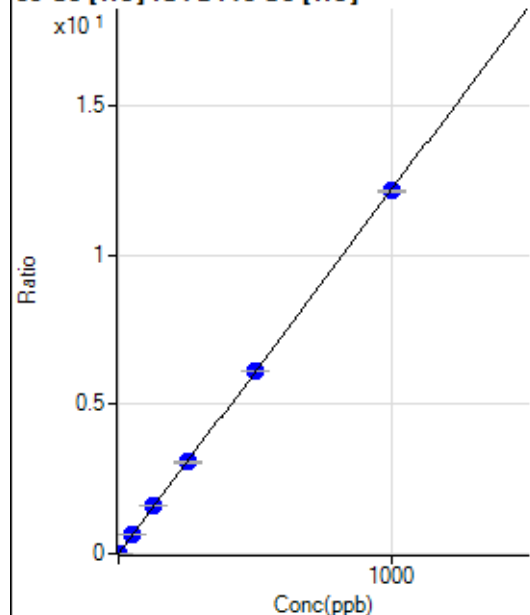
$$R = 0.9999$$

$$DL = 3.085$$

$$BEC = 2.961$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	26.67	0.0002	P	62.4
2	☐	0.100	0.100	190.00	0.0014	P	14.2
3	☐	1.000	0.965	1597.89	0.0120	P	1.7
4	☐	50.000	52.712	83640.12	0.6422	P	0.6
5	☐	125.000	130.872	197328.22	1.5942	P	0.3
6	☐	250.000	252.498	360643.98	3.0755	P	2.5
7	☐	500.000	503.443	705874.56	6.1320	P	0.2
8	☐	1000.000	996.784	1367097.58	12.1407	P	0.7
9	☐			17112.38	0.1449	P	1.6

$$y = 0.0122 * x + 2.0321E-004$$

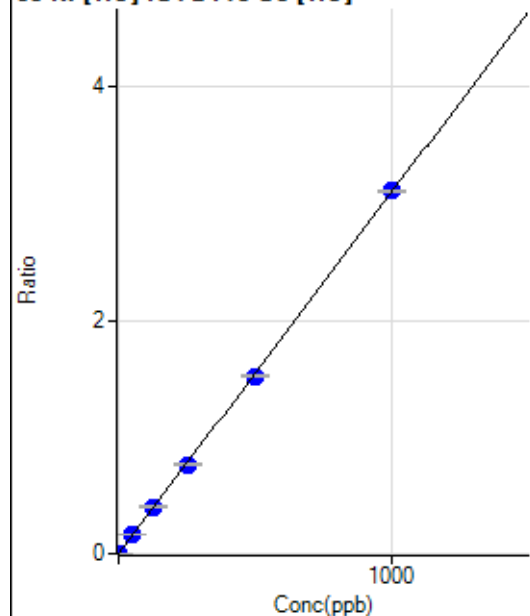
$$R = 1.0000$$

$$DL = 0.03122$$

$$BEC = 0.01668$$

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	40.00	0.0003	P	16.5
2	☐	0.100	0.157	105.56	0.0008	P	11.0
3	☐	1.000	1.014	460.01	0.0034	P	15.7
4	☐	50.000	52.405	21160.97	0.1625	P	1.8
5	☐	125.000	130.277	49943.68	0.4035	P	1.8
6	☐	250.000	246.804	89603.75	0.7641	P	2.5
7	☐	500.000	491.801	175241.54	1.5224	P	0.5
8	☐	1000.000	1004.119	349965.63	3.1079	P	0.6
9	☐			6435.96	0.0545	P	1.0

$$y = 0.0031 * x + 3.0491E-004$$

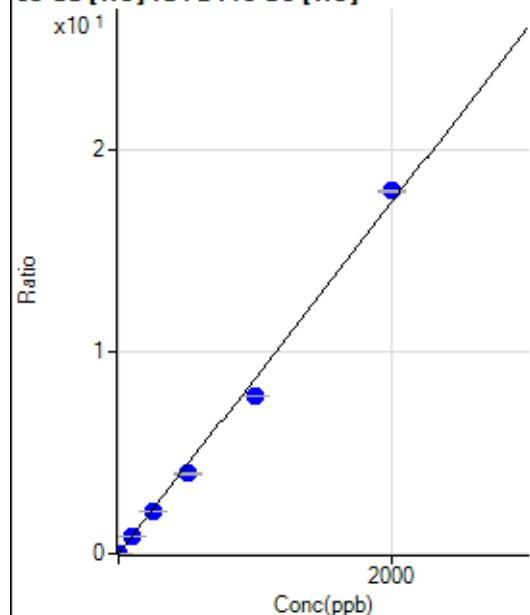
$$R = 0.9999$$

$$DL = 0.04884$$

$$BEC = 0.09852$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	165.56	0.0013	P	27.1
2	☐	0.200	0.147	338.90	0.0025	P	13.9
3	☐	2.000	1.817	2283.55	0.0171	P	4.6
4	☐	100.000	95.147	108103.95	0.8301	P	1.0
5	☐	250.000	236.300	254943.50	2.0596	P	0.3
6	☐	500.000	454.785	464663.16	3.9628	P	2.9
7	☐	1000.000	893.829	896425.15	7.7873	P	0.3
8	☐	2000.000	2066.344	2026993.60	18.0010	P	0.5
9	☐			2905.89	0.0246	P	0.3

$$y = 0.0087 * x + 0.0013$$

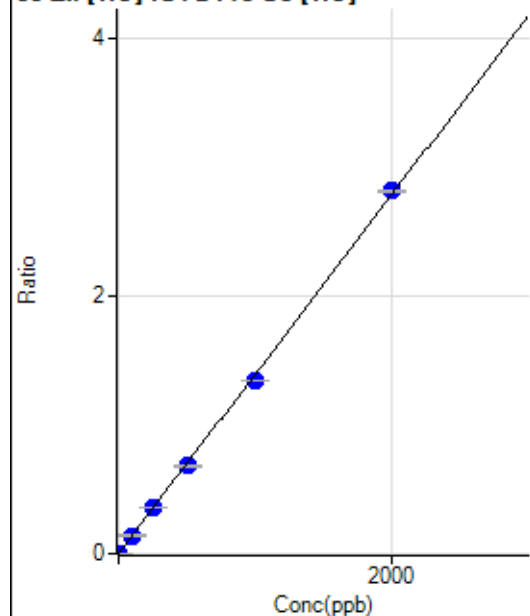
$$R = 0.9978$$

$$DL = 0.1176$$

$$BEC = 0.1449$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	104.45	0.0008	P	6.5
2	☐	0.200	0.087	122.23	0.0009	P	15.1
3	☐	2.000	1.890	457.79	0.0034	P	8.7
4	☐	100.000	101.042	18422.94	0.1415	P	1.4
5	☐	250.000	253.216	43733.19	0.3533	P	0.3
6	☐	500.000	487.688	79703.76	0.6797	P	2.7
7	☐	1000.000	959.723	153893.85	1.3369	P	0.0
8	☐	2000.000	2022.763	317184.56	2.8168	P	0.6
9	☐			4339.59	0.0368	P	1.9

$$y = 0.0014 * x + 7.9625E-004$$

$$R = 0.9997$$

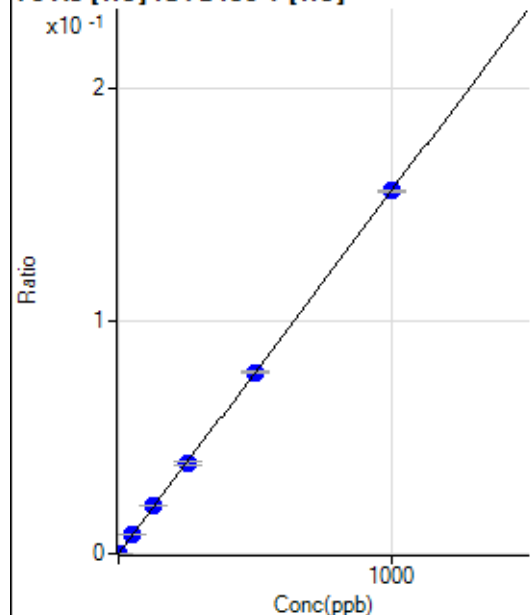
$$DL = 0.1118$$

$$BEC = 0.572$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.94	0.0000	P	57.3
2	☐	0.100	0.075	13.58	0.0000	P	55.8
3	☐	1.000	0.921	109.88	0.0002	P	22.9
4	☐	50.000	51.618	5788.23	0.0081	P	1.7
5	☐	125.000	130.990	13973.46	0.0205	P	0.8
6	☐	250.000	249.360	25624.48	0.0389	P	2.6
7	☐	500.000	498.904	50497.74	0.0779	P	1.0
8	☐	1000.000	999.878	99455.88	0.1561	P	0.4
9	☐			163.59	0.0003	P	10.4

$$y = 1.5608\text{E-}004 * x + 6.8536\text{E-}006$$

$$R = 1.0000$$

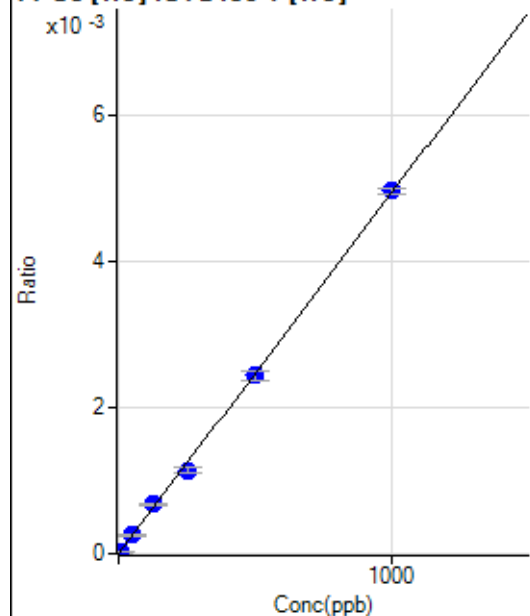
$$DL = 0.07545$$

$$BEC = 0.04391$$

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	1.556	5.56	0.0000	P	92.4
3	☐	5.000	6.471	23.33	0.0000	P	14.5
4	☐	50.000	51.969	184.45	0.0003	P	10.3
5	☐	125.000	136.526	461.13	0.0007	P	4.7
6	☐	250.000	230.504	750.03	0.0011	P	6.1
7	☐	500.000	494.533	1585.67	0.0024	P	5.4
8	☐	1000.000	1006.060	3169.29	0.0050	P	1.5
9	☐			1.11	0.0000	P	173.2

$$y = 4.9434\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9997$$

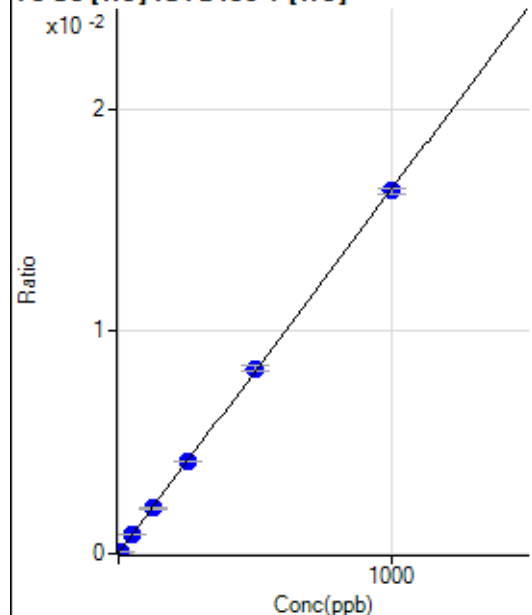
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	18.52	0.0000	P	17.0
2	☐	0.500	0.864	29.01	0.0000	P	8.2
3	☐	5.000	4.998	78.39	0.0001	P	26.0
4	☐	50.000	51.038	617.30	0.0009	P	1.9
5	☐	125.000	124.622	1409.34	0.0021	P	3.7
6	☐	250.000	251.768	2726.82	0.0041	P	0.7
7	☐	500.000	507.651	5396.72	0.0083	P	2.7
8	☐	1000.000	995.728	10388.35	0.0163	P	1.8
9	☐			21.60	0.0000	P	47.4

$$y = 1.6346E-005 * x + 2.5704E-005$$

$$R = 1.0000$$

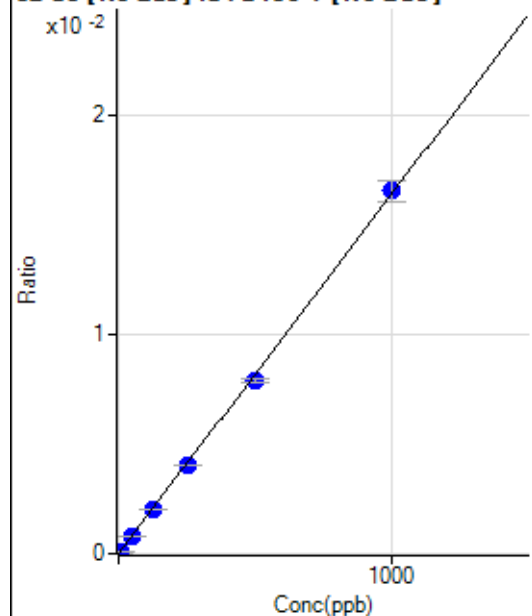
$$DL = 0.8$$

$$BEC = 1.573$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.60	0.0000	P	1979.
2	☐	0.500	0.325	25.64	0.0000	P	17.9
3	☐	5.000	5.519	421.45	0.0001	P	7.6
4	☐	50.000	49.625	3797.71	0.0008	P	2.4
5	☐	125.000	124.324	9192.85	0.0020	P	2.0
6	☐	250.000	245.843	17133.76	0.0040	P	0.5
7	☐	500.000	482.848	33498.10	0.0079	P	1.7
8	☐	1000.000	1009.716	66593.10	0.0165	P	5.7
9	☐			50.57	0.0000	P	77.2

$$y = 1.6389E-005 * x + 3.6507E-007$$

$$R = 0.9998$$

$$DL = 1.323$$

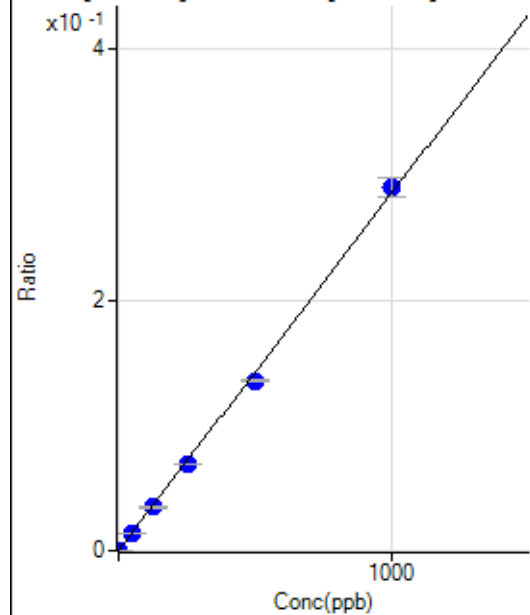
$$BEC = 0.02227$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			125.56		P	32.4
2	☐			134.45		P	11.7
3	☐			107.78		P	18.9
4	☐			130.00		P	13.6
5	☐			112.23		P	4.5
6	☐			122.23		P	15.0
7	☐			111.12		P	12.1
8	☐			106.67		P	20.5
9	☐			125.56		P	12.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	188.90	0.0000	P	20.0
2	☐	0.100	0.105	322.24	0.0001	P	14.1
3	☐	1.000	0.974	1480.70	0.0003	P	7.6
4	☐	50.000	47.362	63247.90	0.0136	P	0.9
5	☐	125.000	121.168	156077.16	0.0346	P	1.1
6	☐	250.000	241.925	293579.80	0.0690	P	0.8
7	☐	500.000	474.486	573109.84	0.1354	P	1.2
8	☐	1000.000	1015.387	1165803.79	0.2897	P	5.3
9	☐			5240.06	0.0013	P	4.8

$$y = 2.8523E-004 * x + 4.1181E-005$$

$$R = 0.9995$$

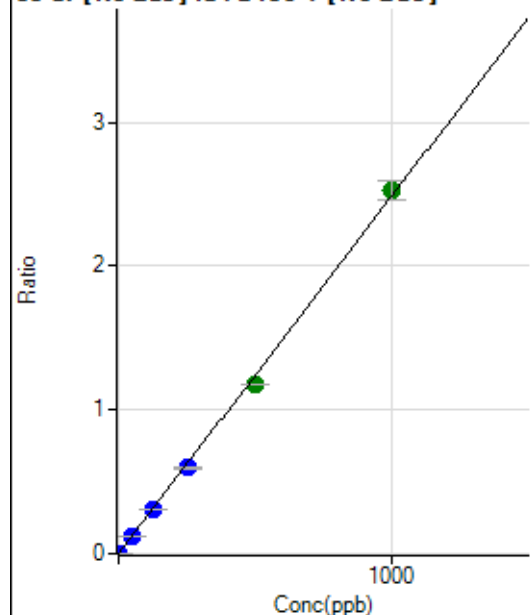
$$DL = 0.08684$$

$$BEC = 0.1444$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.11	0.0000	P	35.7
2	☐	0.100	0.098	1138.99	0.0003	P	14.1
3	☐	1.000	0.883	10209.53	0.0022	P	2.1
4	☐	50.000	47.954	556067.21	0.1191	P	0.3
5	☐	125.000	122.138	1368658.46	0.3034	P	0.4
6	☐	250.000	240.248	2537691.29	0.5968	P	0.9
7	☐	500.000	474.238	4987379.67	1.1781	A	0.5
8	☐	1000.000	1015.779	10155298.58	2.5234	A	5.4
9	☐			43856.74	0.0108	P	2.7

$$y = 0.0025 * x + 7.8833E-006$$

$$R = 0.9995$$

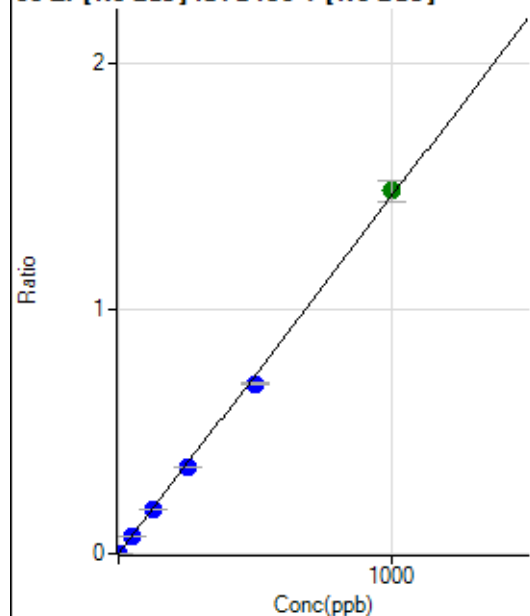
$$DL = 0.003402$$

$$BEC = 0.003173$$

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	311.13	0.0001	P	20.5
2	☐	0.100	0.080	836.18	0.0002	P	4.9
3	☐	1.000	0.838	5990.38	0.0013	P	2.3
4	☐	50.000	47.461	323642.04	0.0693	P	0.2
5	☐	125.000	121.731	801723.91	0.1777	P	0.3
6	☐	250.000	241.501	1498998.98	0.3525	P	0.9
7	☐	500.000	474.281	2930554.93	0.6923	P	1.0
8	☐	1000.000	1015.520	5964830.43	1.4822	A	5.6
9	☐			2678.14	0.0007	P	5.3

$$y = 0.0015 * x + 6.7828E-005$$

$$R = 0.9995$$

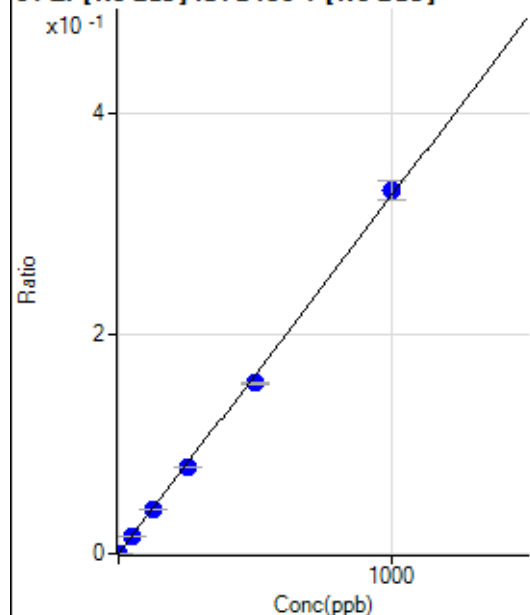
$$DL = 0.02864$$

$$BEC = 0.04647$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.45	0.0000	P	11.3
2	☐	0.100	0.096	186.12	0.0000	P	14.6
3	☐	1.000	0.863	1347.35	0.0003	P	4.9
4	☐	50.000	47.784	72592.47	0.0156	P	0.6
5	☐	125.000	122.626	179964.00	0.0399	P	0.3
6	☐	250.000	242.789	335825.36	0.0790	P	1.1
7	☐	500.000	477.300	657243.06	0.1553	P	0.9
8	☐	1000.000	1013.560	1326891.73	0.3297	P	5.3
9	☐			597.26	0.0001	P	8.6

$$y = 3.2527\text{E-}004 * x + 9.6968\text{E-}006$$

$$R = 0.9996$$

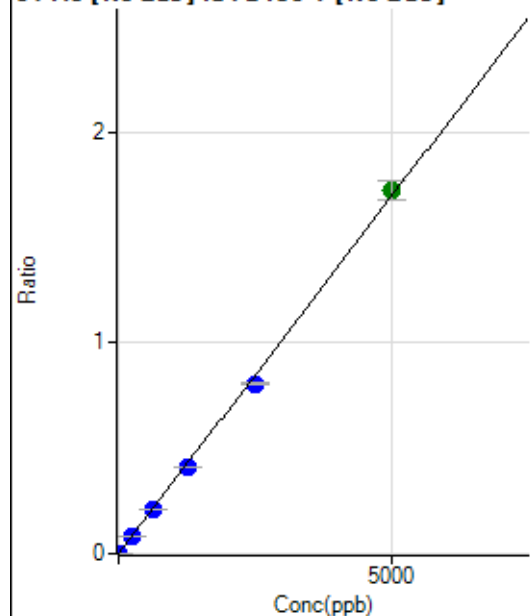
$$DL = 0.01013$$

$$BEC = 0.02981$$

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	105.56	0.0000	P	8.8
2	☐	0.500	0.474	827.84	0.0002	P	12.5
3	☐	5.000	4.525	7229.90	0.0016	P	1.8
4	☐	250.000	240.427	380803.80	0.0816	P	0.8
5	☐	625.000	613.748	939294.52	0.2082	P	0.1
6	☐	1250.000	1210.157	1745698.89	0.4106	P	0.7
7	☐	2500.000	2370.594	3404352.77	0.8042	P	1.2
8	☐	5000.000	5076.549	6931533.84	1.7222	A	5.2
9	☐			5020.55	0.0012	P	5.4

$$y = 3.3925\text{E-}004 * x + 2.3018\text{E-}005$$

$$R = 0.9995$$

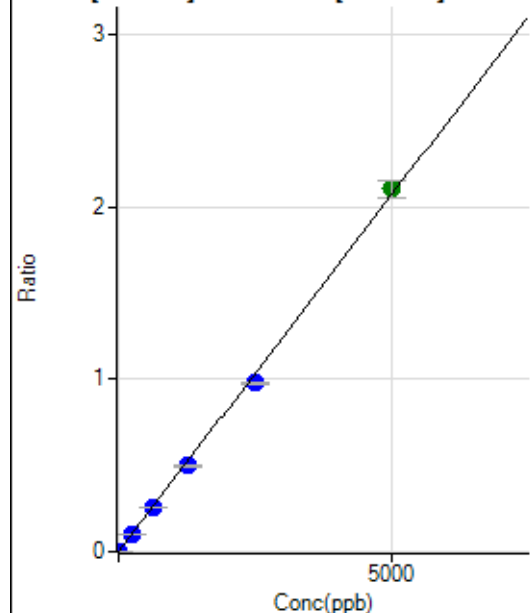
$$DL = 0.01793$$

$$BEC = 0.06785$$

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	30.56	0.0000	P	32.0
2	☐	0.500	0.438	847.28	0.0002	P	9.9
3	☐	5.000	4.769	9186.63	0.0020	P	2.0
4	☐	250.000	239.587	462708.32	0.0991	P	0.2
5	☐	625.000	609.627	1137768.11	0.2522	P	0.2
6	☐	1250.000	1203.085	2116479.09	0.4978	P	1.0
7	☐	2500.000	2358.393	4130656.08	0.9758	P	0.9
8	☐	5000.000	5084.975	8468206.09	2.1039	A	5.0
9	☐			6965.89	0.0017	P	4.4

$$y = 4.1374\text{E-}004 * x + 6.6709\text{E-}006$$

$$R = 0.9994$$

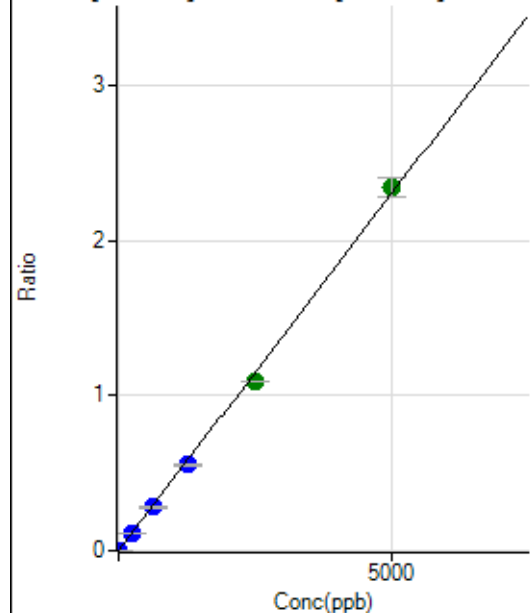
$$DL = 0.01549$$

$$BEC = 0.01612$$

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	66.67	0.0000	P	0.5
2	☐	0.500	0.476	1055.65	0.0002	P	8.6
3	☐	5.000	4.687	10090.05	0.0022	P	1.7
4	☐	250.000	237.027	509852.26	0.1092	P	0.5
5	☐	625.000	606.830	1261313.61	0.2796	P	0.9
6	☐	1250.000	1198.783	2348753.80	0.5524	P	0.8
7	☐	2500.000	2367.595	4618321.33	1.0910	A	0.7
8	☐	5000.000	5081.927	9424622.95	2.3417	A	5.2
9	☐			9484.09	0.0023	P	6.0

$$y = 4.6078\text{E-}004 * x + 1.4540\text{E-}005$$

$$R = 0.9995$$

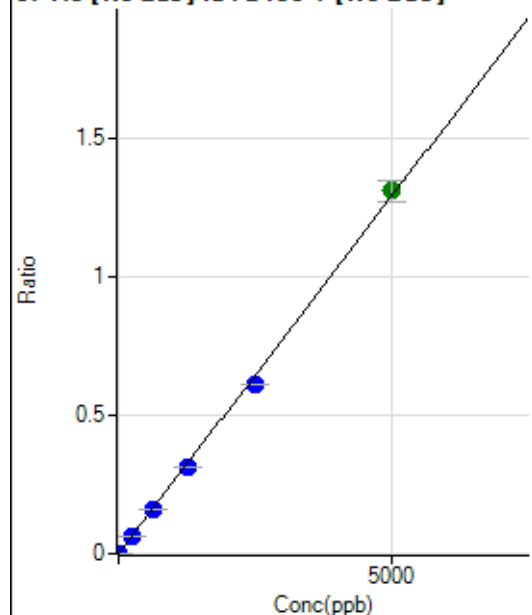
$$DL = 0.0004573$$

$$BEC = 0.03156$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.67	0.0000	P	49.9
2	☐	0.500	0.507	608.37	0.0001	P	6.6
3	☐	5.000	4.691	5637.46	0.0012	P	1.2
4	☐	250.000	240.219	289507.42	0.0620	P	0.2
5	☐	625.000	615.092	716374.10	0.1588	P	0.2
6	☐	1250.000	1214.388	1333190.58	0.3135	P	0.7
7	☐	2500.000	2363.715	2583577.53	0.6103	P	0.6
8	☐	5000.000	5078.774	5277001.90	1.3113	A	5.6
9	☐			4378.64	0.0011	P	5.8

$$y = 2.5819\text{E-}004 * x + 3.6358\text{E-}006$$

$$R = 0.9995$$

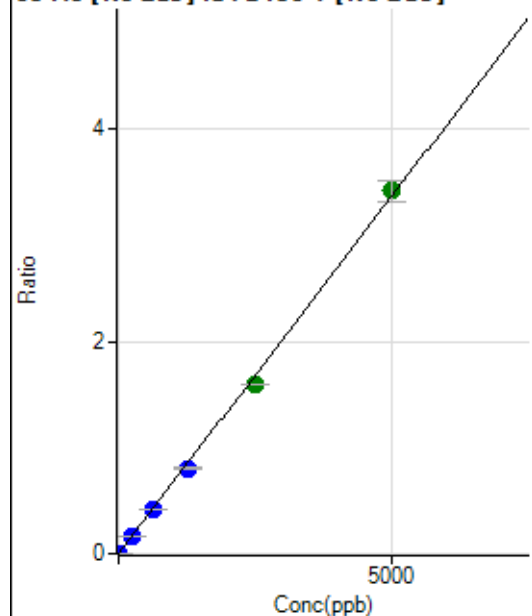
$$DL = 0.02109$$

$$BEC = 0.01408$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	58.33	0.0000	P	51.2
2	☐	0.500	0.515	1614.04	0.0004	P	17.8
3	☐	5.000	4.680	14663.64	0.0032	P	1.8
4	☐	250.000	238.339	748182.82	0.1603	P	0.5
5	☐	625.000	608.877	1847007.44	0.4095	P	0.9
6	☐	1250.000	1196.658	3421777.77	0.8048	P	0.7
7	☐	2500.000	2370.995	6749944.42	1.5945	A	0.6
8	☐	5000.000	5080.437	13748868.89	3.4166	A	5.6
9	☐			11088.05	0.0027	P	4.8

$$y = 6.7249\text{E-}004 * x + 1.2714\text{E-}005$$

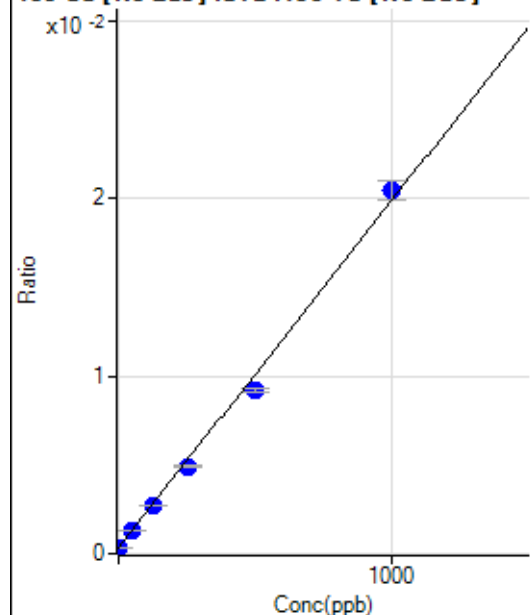
$$R = 0.9995$$

$$DL = 0.02905$$

$$BEC = 0.01891$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2066.90	0.0003	P	7.2
2	☐	0.100	-0.335	1975.21	0.0003	P	6.4
3	☐	1.000	-0.129	2041.90	0.0003	P	0.6
4	☐	50.000	47.056	7669.09	0.0013	P	2.0
5	☐	125.000	119.906	16081.96	0.0027	P	1.0
6	☐	250.000	232.999	28688.18	0.0049	P	1.9
7	☐	500.000	453.243	54842.90	0.0092	P	1.9
8	☐	1000.000	1028.414	116585.13	0.0204	P	5.1
9	☐			1830.77	0.0003	P	6.1

$$y = 1.9518\text{E-}005 * x + 3.4440\text{E-}004$$

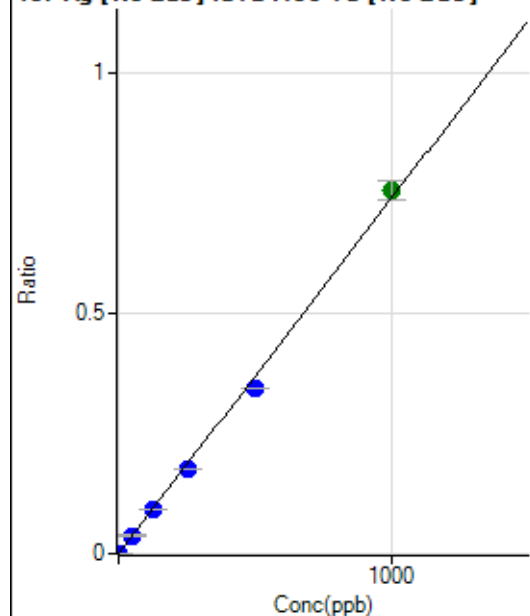
$$R = 0.9984$$

$$DL = 3.826$$

$$BEC = 17.64$$

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	61.12	0.0000	P	8.4
2	☐	0.100	0.103	508.36	0.0001	P	10.7
3	☐	1.000	0.991	4445.30	0.0007	P	2.1
4	☐	50.000	51.251	230536.11	0.0380	P	1.1
5	☐	125.000	126.522	561263.62	0.0937	P	0.8
6	☐	250.000	238.691	1036579.73	0.1768	P	0.5
7	☐	500.000	463.387	2047772.72	0.3431	P	0.3
8	☐	1000.000	1020.881	4316241.98	0.7560	A	5.4
9	☐			838.95	0.0001	P	20.8

$$y = 7.4048\text{E-}004 * x + 1.0185\text{E-}005$$

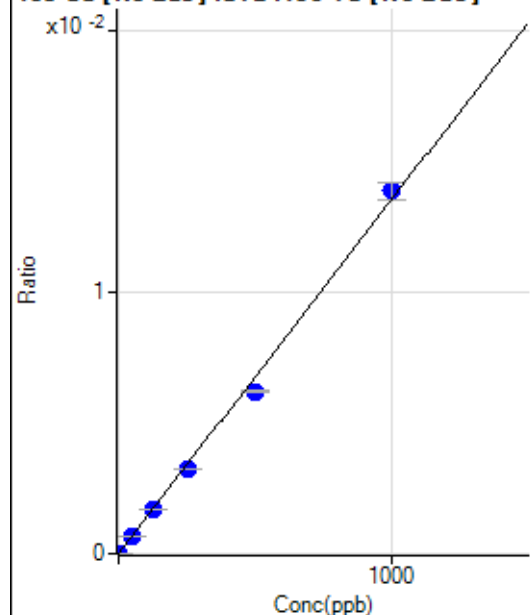
$$R = 0.9990$$

$$DL = 0.003457$$

$$BEC = 0.01376$$

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	4.17	0.0000	P	100.0
2	☐	0.100	0.261	25.00	0.0000	P	69.0
3	☐	1.000	1.032	87.50	0.0000	P	9.1
4	☐	50.000	47.476	3903.39	0.0006	P	3.2
5	☐	125.000	124.511	10091.25	0.0017	P	1.5
6	☐	250.000	237.299	18825.26	0.0032	P	0.8
7	☐	500.000	456.671	36860.54	0.0062	P	1.3
8	☐	1000.000	1025.027	79172.41	0.0139	P	4.8
9	☐			23.61	0.0000	P	52.8

$$y = 1.3524\text{E-}005 * x + 6.9235\text{E-}007$$

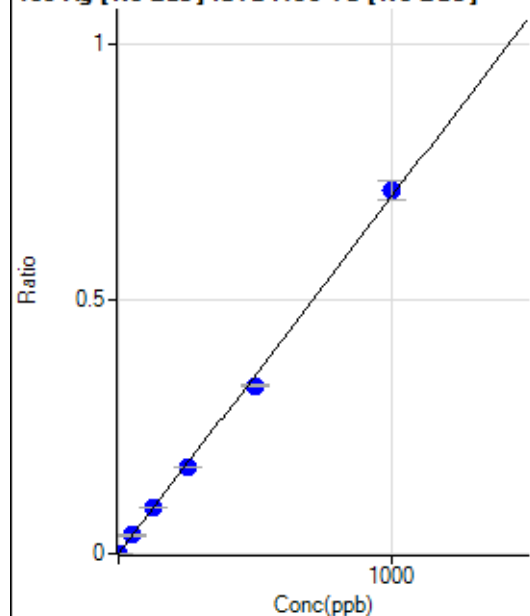
$$R = 0.9986$$

$$DL = 0.1536$$

$$BEC = 0.05119$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.89	0.0000	P	32.4
2	☐	0.100	0.102	452.81	0.0001	P	18.5
3	☐	1.000	1.017	4298.08	0.0007	P	1.8
4	☐	50.000	51.243	218242.35	0.0359	P	0.7
5	☐	125.000	128.054	537901.43	0.0898	P	0.6
6	☐	250.000	241.883	994660.08	0.1696	P	0.8
7	☐	500.000	470.119	1967112.72	0.3296	P	0.7
8	☐	1000.000	1016.526	4069747.70	0.7128	P	5.3
9	☐			858.40	0.0002	P	6.5

$$y = 7.0118\text{E-}004 * x + 6.4732\text{E-}006$$

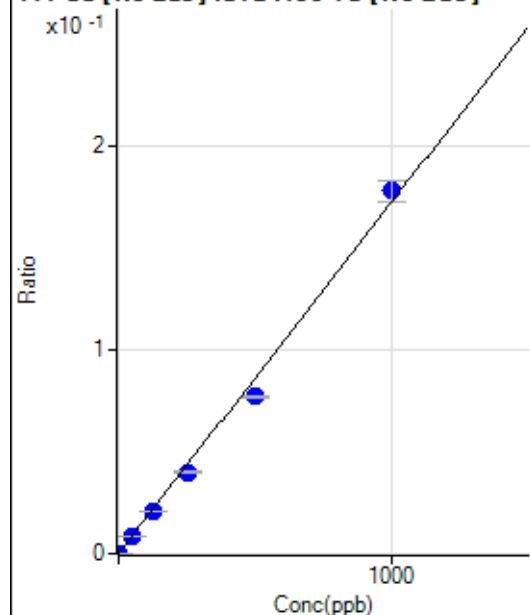
$$R = 0.9993$$

$$DL = 0.008971$$

$$BEC = 0.009232$$

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	1446.70	0.0002	P	7.6
2	☐	0.100	0.052	1462.37	0.0003	P	5.4
3	☐	1.000	0.867	2332.02	0.0004	P	1.7
4	☐	50.000	48.269	51952.45	0.0086	P	0.5
5	☐	125.000	120.937	126222.01	0.0211	P	0.7
6	☐	250.000	231.173	234913.65	0.0401	P	0.8
7	☐	500.000	445.305	459115.33	0.0769	P	0.9
8	☐	1000.000	1032.649	1016628.83	0.1781	P	6.1
9	☐			1528.91	0.0003	P	3.5

$$y = 1.7224\text{E-}004 * x + 2.4106\text{E-}004$$

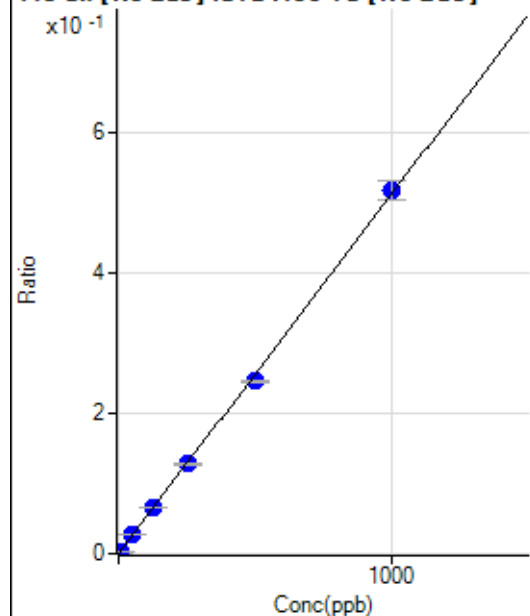
$$R = 0.9978$$

$$DL = 0.3173$$

$$BEC = 1.4$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	425.03	0.0001	P	3.6
2	☐	0.500	0.522	1972.45	0.0003	P	9.9
3	☐	5.000	5.013	15756.62	0.0026	P	2.0
4	☐	50.000	51.646	161047.85	0.0265	P	0.7
5	☐	125.000	129.617	398040.01	0.0664	P	0.1
6	☐	250.000	250.213	751833.48	0.1282	P	1.2
7	☐	500.000	479.779	1466552.47	0.2458	P	0.9
8	☐	1000.000	1009.398	2951701.15	0.5170	P	5.4
9	☐			2703.16	0.0005	P	10.2

$$y = 5.1210\text{E-}004 * x + 7.0819\text{E-}005$$

$$R = 0.9997$$

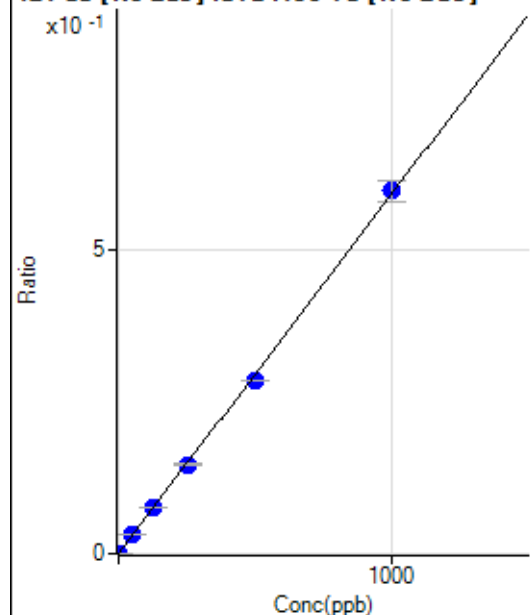
$$DL = 0.01508$$

$$BEC = 0.1383$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.89	0.0000	P	32.4
2	☐	0.200	0.197	716.71	0.0001	P	8.7
3	☐	2.000	1.851	6574.03	0.0011	P	3.1
4	☐	50.000	51.110	183540.17	0.0302	P	0.9
5	☐	125.000	128.350	454572.45	0.0759	P	0.3
6	☐	250.000	247.666	858685.45	0.1464	P	0.9
7	☐	500.000	481.240	1697770.22	0.2845	P	0.8
8	☐	1000.000	1009.490	3407258.28	0.5968	P	5.6
9	☐			5195.64	0.0009	P	3.2

$$y = 5.9119\text{E-}004 * x + 6.4729\text{E-}006$$

$$R = 0.9997$$

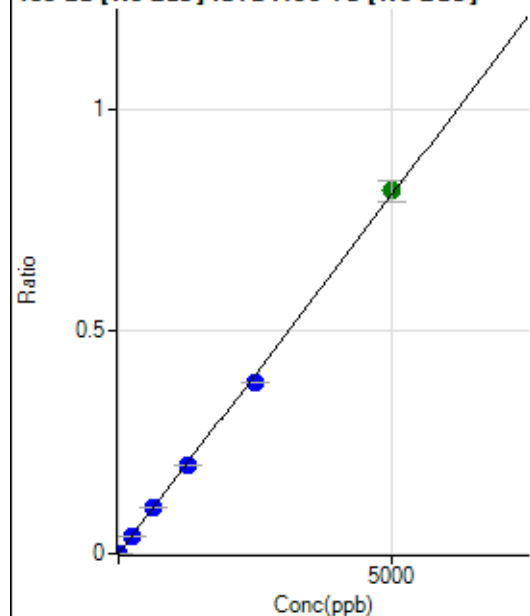
$$DL = 0.01063$$

$$BEC = 0.01095$$

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	16.67	0.0000	P	49.7
2	☐	1.000	1.008	966.74	0.0002	P	3.2
3	☐	10.000	9.683	9334.08	0.0016	P	2.1
4	☐	250.000	253.536	248068.82	0.0408	P	0.8
5	☐	625.000	634.629	612462.30	0.1022	P	0.1
6	☐	1250.000	1231.840	1163809.81	0.1985	P	1.0
7	☐	2500.000	2386.353	2294192.48	0.3845	P	0.7
8	☐	5000.000	5059.984	4653235.17	0.8152	A	6.1
9	☐			1594.60	0.0003	P	8.3

$$y = 1.6110\text{E-}004 * x + 2.7728\text{E-}006$$

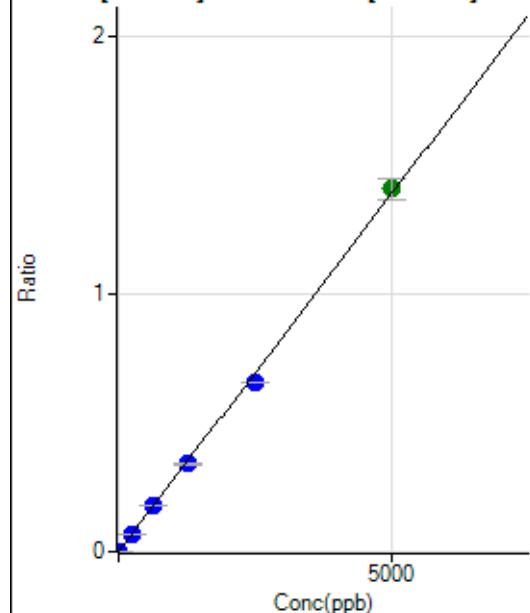
$$R = 0.9996$$

$$DL = 0.02567$$

$$BEC = 0.01721$$

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	8.33	0.0000	P	100.3
2	☐	1.000	1.027	1675.17	0.0003	P	7.9
3	☐	10.000	9.626	15970.88	0.0027	P	2.4
4	☐	250.000	252.892	426430.91	0.0702	P	0.6
5	☐	625.000	638.691	1062259.42	0.1773	P	0.9
6	☐	1250.000	1227.161	1998127.45	0.3407	P	1.0
7	☐	2500.000	2368.015	3923443.45	0.6575	P	0.8
8	☐	5000.000	5069.847	8036381.35	1.4077	A	5.7
9	☐			3103.28	0.0005	P	10.0

$$y = 2.7765E-004 * x + 1.3922E-006$$

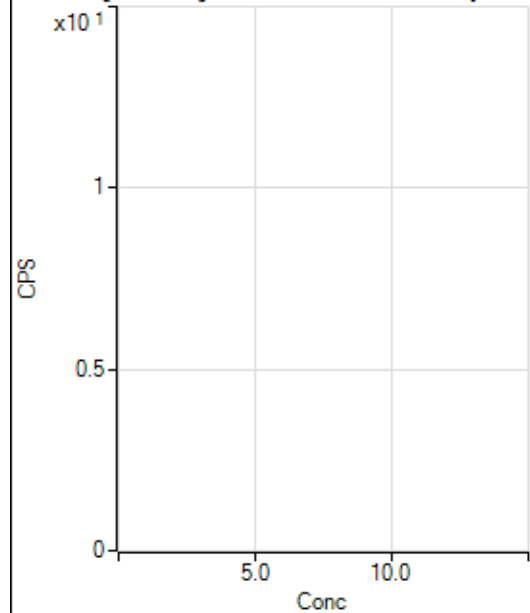
$$R = 0.9995$$

$$DL = 0.01509$$

$$BEC = 0.005014$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			0.00		P	
2	☐			2.22		P	173.2
3	☐			0.00		P	
4	☐			31.11		P	32.7
5	☐			57.78		P	6.7
6	☐			131.11		P	10.6
7	☐			251.12		P	5.5
8	☐			431.14		P	15.0
9	☐			75.56		P	27.0

150 Nd [He] No available calibration points

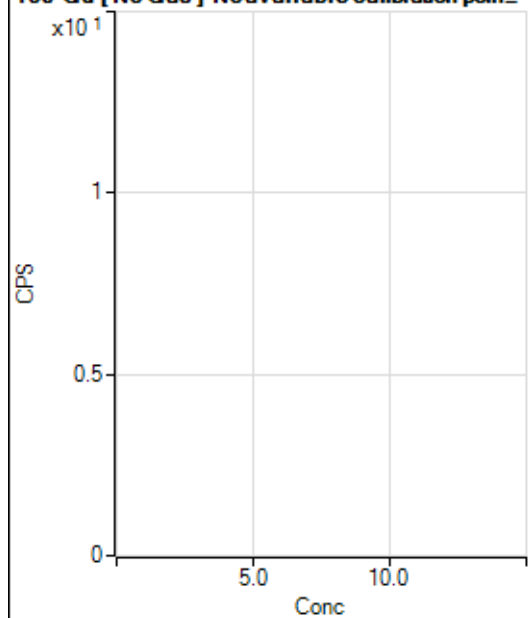
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			6.67		P	132.3
4	☐			0.00		P	
5	☐			8.89		P	21.6
6	☐			17.78		P	10.8
7	☐			22.22		P	60.6
8	☐			46.67		P	37.1
9	☐			45.55		P	8.5

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	173.2
2	☐			0.00		P	
3	☐			2.78		P	173.2
4	☐			22.22		P	21.6
5	☐			16.67		P	NaN
6	☐			27.78		P	17.3
7	☐			38.89		P	44.6
8	☐			80.56		P	21.5
9	☐			36.12		P	58.1

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐			1.11		P	173.2
3	☐			2.22		P	86.6
4	☐			7.78		P	65.5
5	☐			20.00		P	60.1
6	☐			31.11		P	12.4
7	☐			63.33		P	27.9
8	☐			112.23		P	28.2
9	☐			27.78		P	36.7

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐			22.22		P	57.3
3	☐			19.44		P	89.2
4	☐			27.78		P	17.3
5	☐			19.45		P	65.5
6	☐			25.00		P	88.2
7	☐			41.67		P	20.0
8	☐			44.44		P	21.7
9	☐			38.89		P	49.5

160 Gd [He] No available calibration points

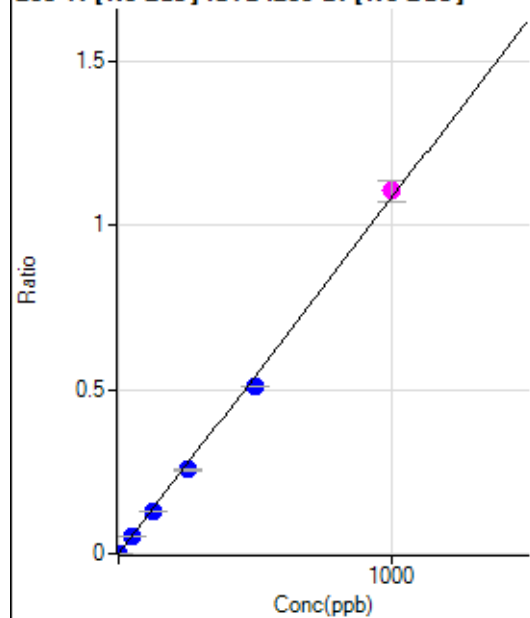
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			105.56		P	1.8
2	☐			121.11		P	11.5
3	☐			122.22		P	12.9
4	☐			112.22		P	6.2
5	☐			133.34		P	8.7
6	☐			110.00		P	3.0
7	☐			143.34		P	11.6
8	☐			102.23		P	8.2
9	☐			118.89		P	3.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.44		P	65.5
2	☐			22.22		P	78.1
3	☐			25.00		P	88.2
4	☐			16.67		P	50.0
5	☐			22.22		P	78.1
6	☐			13.89		P	34.7
7	☐			16.66		P	86.6
8	☐			25.00		P	57.7
9	☐			38.89		P	44.6

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			10.00		P	57.8
2	☐			7.78		P	89.2
3	☐			16.67		P	80.0
4	☐			13.33		P	43.3
5	☐			13.33		P	43.3
6	☐			13.33		P	25.0
7	☐			7.78		P	99.0
8	☐			11.11		P	69.3
9	☐			23.33		P	24.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	58.34	0.0000	P	0.7
2	☐	0.100	0.101	491.70	0.0001	P	3.8
3	☐	1.000	0.889	3981.34	0.0010	P	9.1
4	☐	50.000	47.067	210107.17	0.0510	P	1.2
5	☐	125.000	119.368	528542.71	0.1294	P	0.3
6	☐	250.000	235.777	1030226.90	0.2555	P	0.6
7	☐	500.000	469.116	2048545.73	0.5083	P	0.4
8	☐	1000.000	1019.849	4160612.46	1.1051	M	5.7
9	☐			1808.54	0.0005	P	10.8

$$y = 0.0011 * x + 1.4213E-005$$

$$R = 0.9992$$

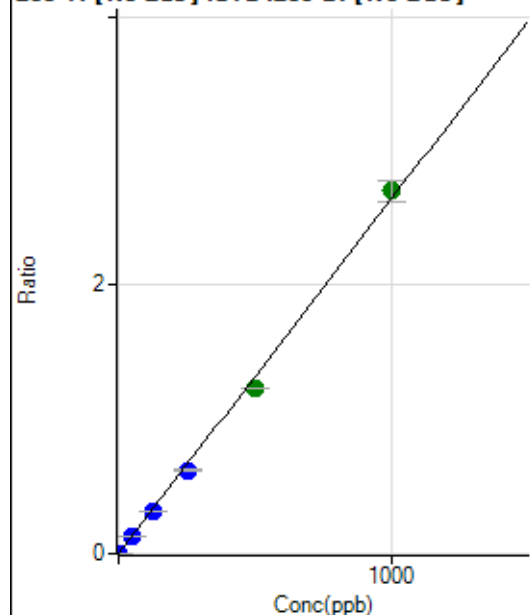
$$DL = 0.0002843$$

$$BEC = 0.01312$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	225.01	0.0001	P	22.3
2	☐	0.100	0.083	1088.98	0.0003	P	9.4
3	☐	1.000	0.861	9498.28	0.0023	P	4.3
4	☐	50.000	46.909	511167.30	0.1241	P	1.0
5	☐	125.000	119.397	1290349.74	0.3158	P	0.7
6	☐	250.000	235.315	2509552.88	0.6224	P	0.6
7	☐	500.000	464.820	4953977.37	1.2293	A	0.2
8	☐	1000.000	1022.116	10177065.25	2.7031	A	5.7
9	☐			4434.29	0.0013	P	11.4

$$y = 0.0026 * x + 5.4817E-005$$

$$R = 0.9990$$

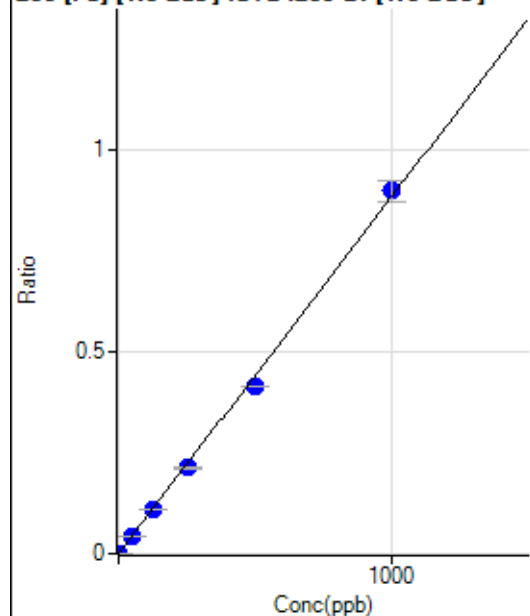
$$DL = 0.01387$$

$$BEC = 0.02073$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	446.32	0.0001	P	16.9
2	☐	0.100	0.077	703.75	0.0002	P	6.0
3	☐	1.000	0.882	3619.11	0.0009	P	4.6
4	☐	50.000	47.910	175009.86	0.0425	P	0.3
5	☐	125.000	121.803	440708.08	0.1079	P	0.3
6	☐	250.000	240.201	857289.05	0.2126	P	0.5
7	☐	500.000	471.441	1681143.95	0.4172	P	0.0
8	☐	1000.000	1017.233	3388616.57	0.9000	P	5.6
9	☐			6083.06	0.0018	P	7.1

$$y = 8.8465E-004 * x + 1.0872E-004$$

$$R = 0.9994$$

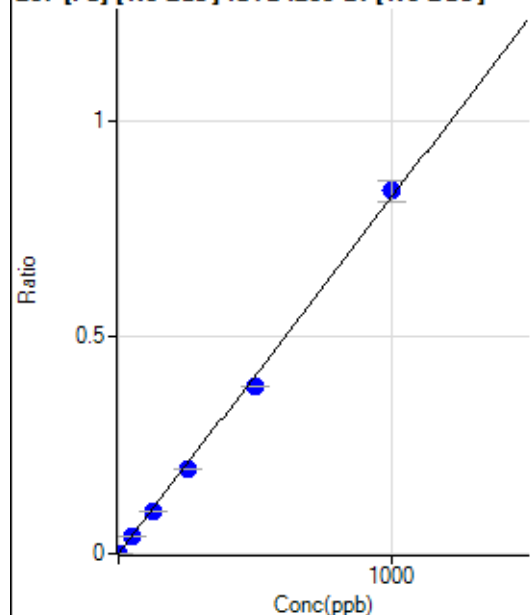
$$DL = 0.0623$$

$$BEC = 0.1229$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	351.87	0.0001	P	5.8
2	☐	0.100	0.074	587.07	0.0001	P	7.5
3	☐	1.000	0.818	3089.34	0.0008	P	5.6
4	☐	50.000	47.382	160854.67	0.0391	P	0.8
5	☐	125.000	120.067	403818.53	0.0988	P	0.8
6	☐	250.000	238.180	790259.92	0.1960	P	0.4
7	☐	500.000	471.114	1561809.12	0.3876	P	0.2
8	☐	1000.000	1018.146	3152853.43	0.8375	P	5.9
9	☐			5110.39	0.0015	P	5.5

$$y = 8.2245E-004 * x + 8.5703E-005$$

$$R = 0.9993$$

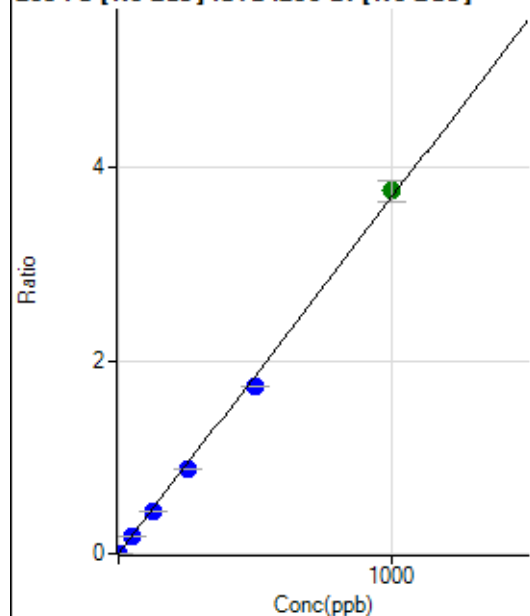
$$DL = 0.01825$$

$$BEC = 0.1042$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1751.95	0.0004	P	7.4
2	☐	0.100	0.072	2748.35	0.0007	P	3.1
3	☐	1.000	0.848	14468.31	0.0036	P	0.4
4	☐	50.000	47.415	721394.14	0.1752	P	0.6
5	☐	125.000	120.695	1819026.34	0.4452	P	0.4
6	☐	250.000	238.600	3547196.23	0.8797	P	0.5
7	☐	500.000	469.409	6972567.79	1.7302	P	0.3
8	☐	1000.000	1018.813	14137674.33	3.7548	A	5.6
9	☐			23936.92	0.0069	P	5.1

$$y = 0.0037 * x + 4.2676E-004$$

$$R = 0.9993$$

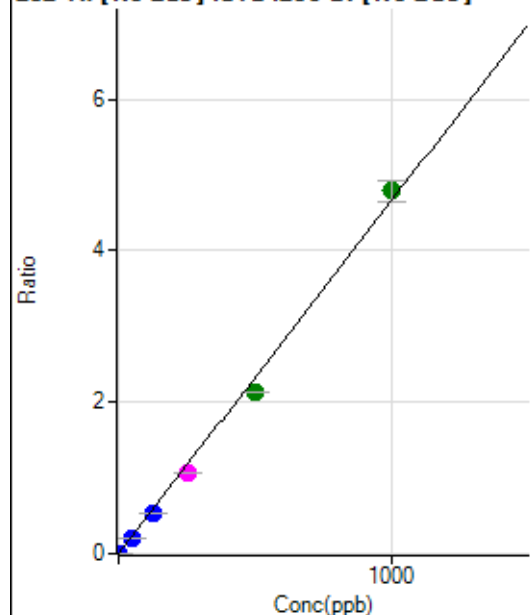
$$DL = 0.02573$$

$$BEC = 0.1158$$

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	201.86	0.0000	P	23.9
2	☐	0.100	0.077	1622.37	0.0004	P	11.6
3	☐	1.000	0.800	15374.24	0.0038	P	0.7
4	☐	50.000	44.325	851026.19	0.2066	P	0.3
5	☐	125.000	114.655	2183472.34	0.5344	P	0.8
6	☐	250.000	228.136	4287572.55	1.0633	M	0.4
7	☐	500.000	458.629	8613726.29	2.1375	A	0.6
8	☐	1000.000	1027.729	18031067.99	4.7899	A	6.1
9	☐			5225.28	0.0015	P	11.0

$$y = 0.0047 * x + 4.9224E-005$$

$$R = 0.9986$$

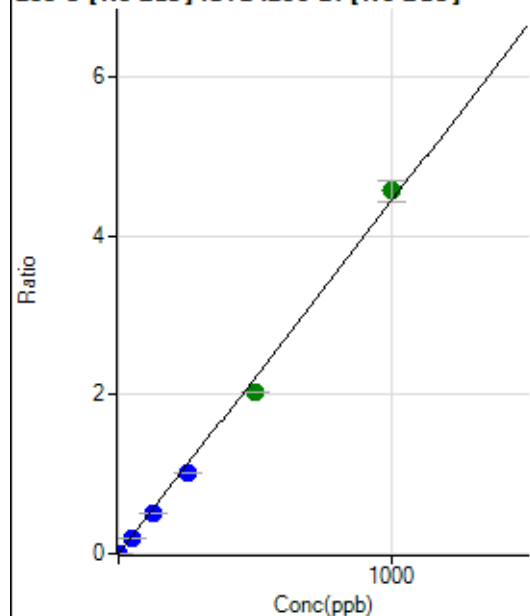
$$DL = 0.007588$$

$$BEC = 0.01056$$

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	41.67	0.0000	P	40.5
2	☐	0.100	0.088	1589.05	0.0004	P	9.3
3	☐	1.000	0.845	15301.31	0.0038	P	1.0
4	☐	50.000	44.152	806623.43	0.1958	P	0.3
5	☐	125.000	114.526	2075619.97	0.5080	P	0.8
6	☐	250.000	227.500	4069084.16	1.0091	P	0.7
7	☐	500.000	457.108	8170532.13	2.0275	A	0.5
8	☐	1000.000	1028.673	17177146.74	4.5627	A	5.9
9	☐			4050.81	0.0012	P	16.1

$$y = 0.0044 * x + 1.0169E-005$$

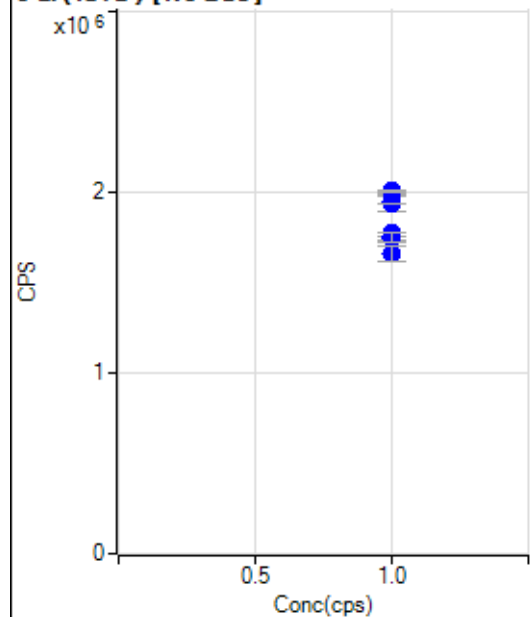
$$R = 0.9985$$

$$DL = 0.002783$$

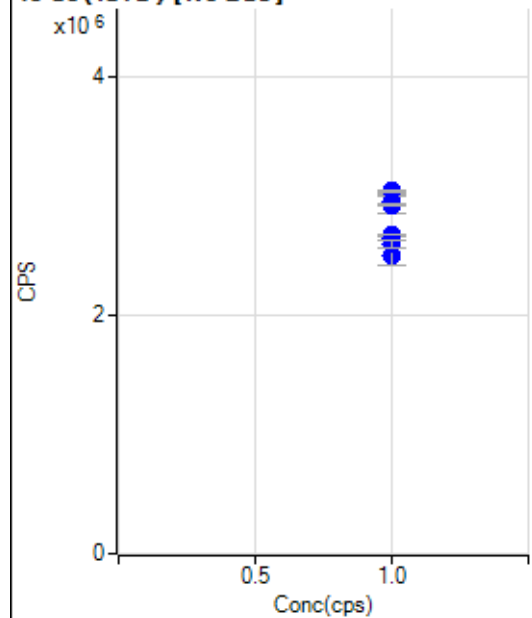
$$BEC = 0.002293$$

Weight: <None>

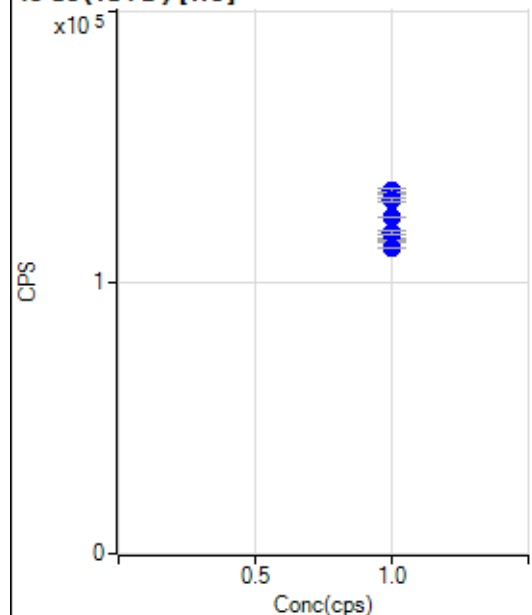
Min Conc: 0

6 Li (ISTD) [No Gas]

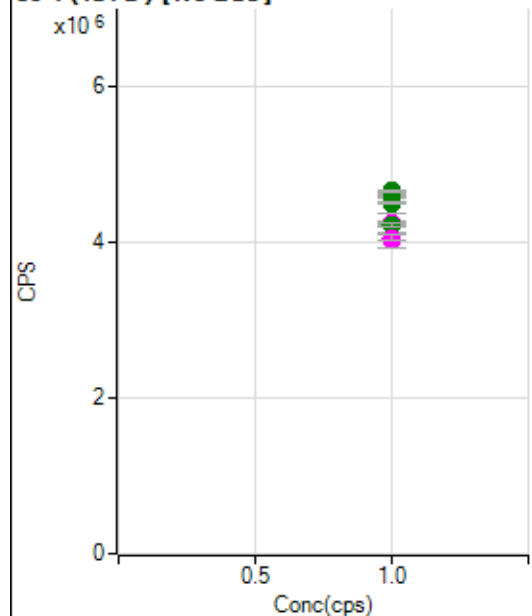
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1987160.21		P	0.4
2	☐	1.000		1951057.38		P	6.2
3	☐	1.000		2002444.98		P	0.5
4	☐	1.000		2008902.65		P	0.3
5	☐	1.000		1935363.18		P	0.1
6	☐	1.000		1776259.91		P	0.1
7	☐	1.000		1746607.44		P	1.3
8	☐	1.000		1663166.28		P	5.0
9	☐	1.000		1751785.56		P	2.7

45 Sc (ISTD) [No Gas]

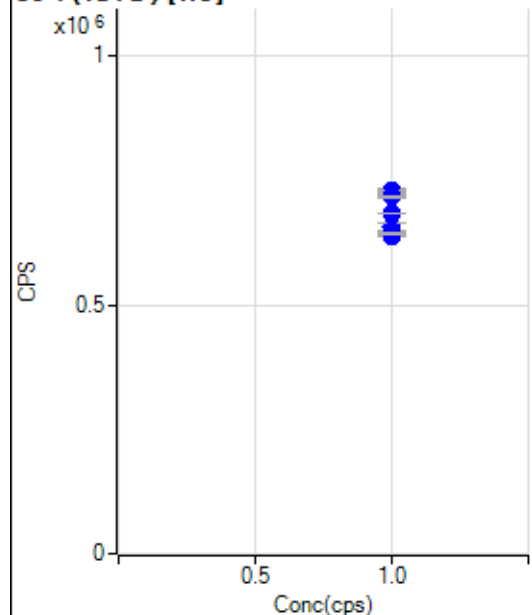
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3008788.43		P	0.6
2	☐	1.000		2943339.47		P	6.7
3	☐	1.000		3038773.33		P	0.7
4	☐	1.000		3036230.84		P	0.5
5	☐	1.000		2917768.79		P	0.5
6	☐	1.000		2671161.08		P	0.5
7	☐	1.000		2644051.45		P	1.9
8	☐	1.000		2493146.91		P	5.7
9	☐	1.000		2587051.53		P	2.6

45 Sc (ISTD) [He]

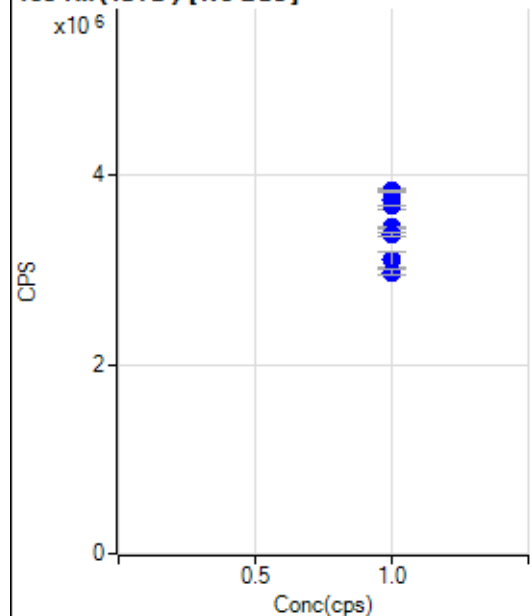
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		131166.13		P	0.2
2	☐	1.000		133313.28		P	1.6
3	☐	1.000		133629.16		P	1.1
4	☐	1.000		130239.28		P	0.7
5	☐	1.000		123780.31		P	0.2
6	☐	1.000		117306.83		P	2.4
7	☐	1.000		115114.12		P	1.0
8	☐	1.000		112605.87		P	0.3
9	☐	1.000		118069.81		P	1.4

89 Y (ISTD) [No Gas]

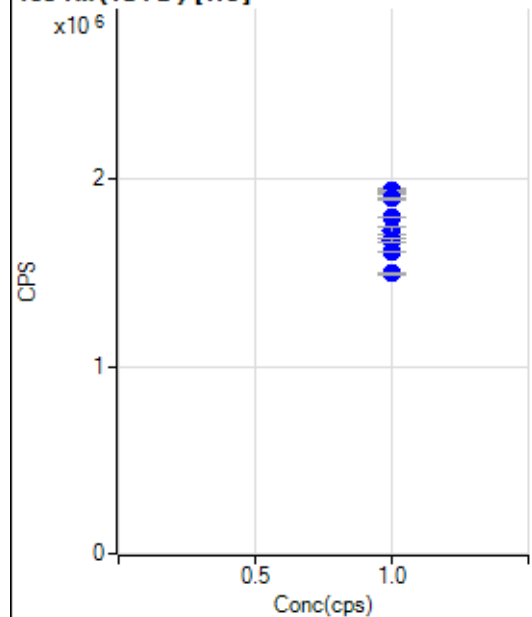
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4585270.90		A	0.5
2	☐	1.000		4530814.90		A	6.7
3	☐	1.000		4640372.74		A	0.3
4	☐	1.000		4667520.17		A	0.4
5	☐	1.000		4510766.32		A	0.5
6	☐	1.000		4252082.12		M	0.7
7	☐	1.000		4233547.09		A	1.6
8	☐	1.000		4032127.96		M	5.3
9	☐	1.000		4059788.24		M	1.9

89 Y (ISTD) [He]

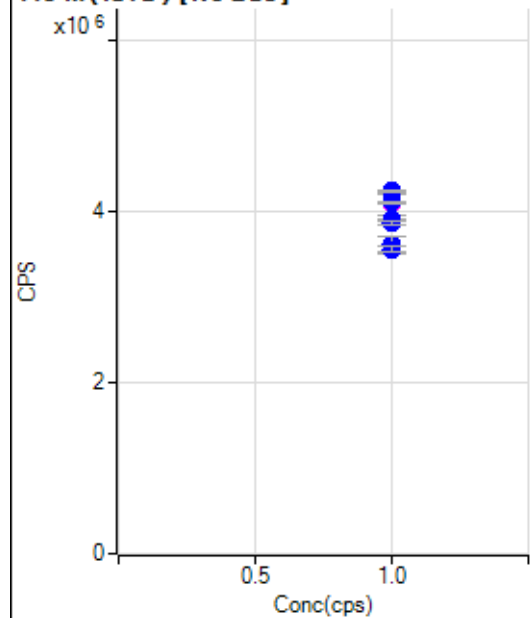
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		720244.54		P	0.3
2	☐	1.000		727978.30		P	1.7
3	☐	1.000		729528.79		P	0.3
4	☐	1.000		717818.44		P	0.3
5	☐	1.000		683241.04		P	0.1
6	☐	1.000		658545.22		P	2.5
7	☐	1.000		648431.79		P	0.8
8	☐	1.000		637257.78		P	0.2
9	☐	1.000		643662.91		P	0.9

103 Rh (ISTD) [No Gas]

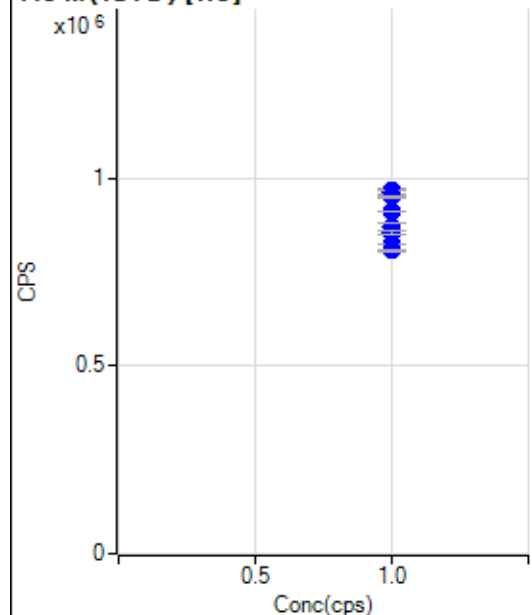
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3840227.04		P	0.5
2	☐	1.000		3755345.70		P	6.3
3	☐	1.000		3838747.70		P	1.0
4	☐	1.000		3834799.09		P	0.9
5	☐	1.000		3686375.00		P	0.3
6	☐	1.000		3453337.49		P	0.6
7	☐	1.000		3372954.72		P	1.2
8	☐	1.000		3115747.53		P	5.6
9	☐	1.000		2974728.95		P	2.1

103 Rh (ISTD) [He]

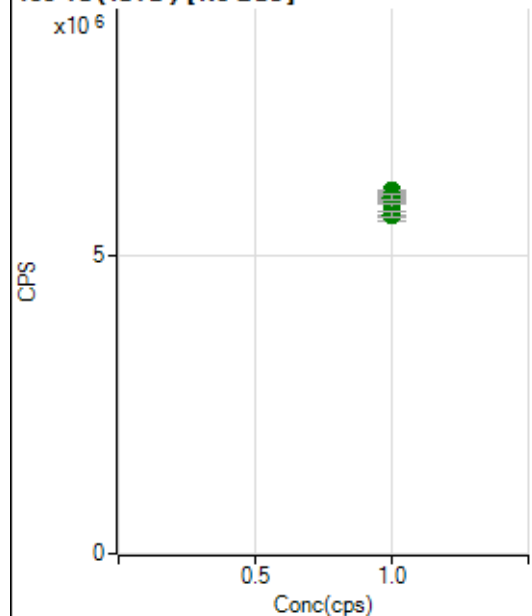
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1919919.37		P	0.2
2	☐	1.000		1932105.06		P	1.5
3	☐	1.000		1935687.39		P	0.6
4	☐	1.000		1893565.28		P	0.4
5	☐	1.000		1795478.90		P	0.3
6	☐	1.000		1720647.23		P	2.3
7	☐	1.000		1674976.34		P	1.0
8	☐	1.000		1609372.16		P	0.1
9	☐	1.000		1495263.10		P	0.7

115 In (ISTD) [No Gas]

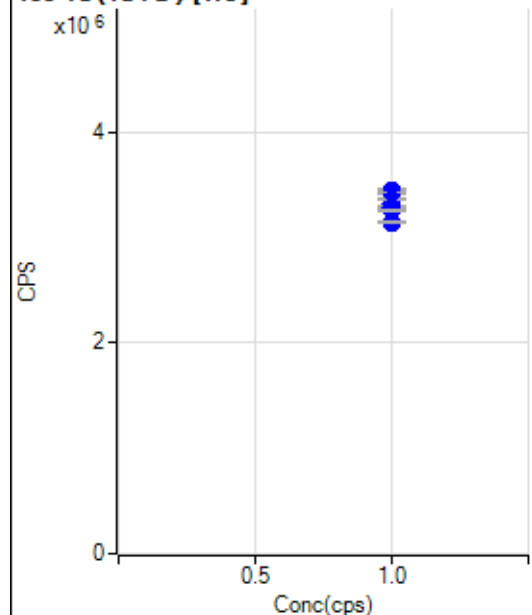
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4215672.26		P	0.2
2	☐	1.000		4079826.04		M	6.3
3	☐	1.000		4205199.07		P	0.6
4	☐	1.000		4234194.38		P	0.3
5	☐	1.000		4098886.65		P	0.4
6	☐	1.000		3898987.95		P	0.6
7	☐	1.000		3866530.88		P	1.3
8	☐	1.000		3604553.53		P	5.6
9	☐	1.000		3550058.43		P	1.8

115 In (ISTD) [He]

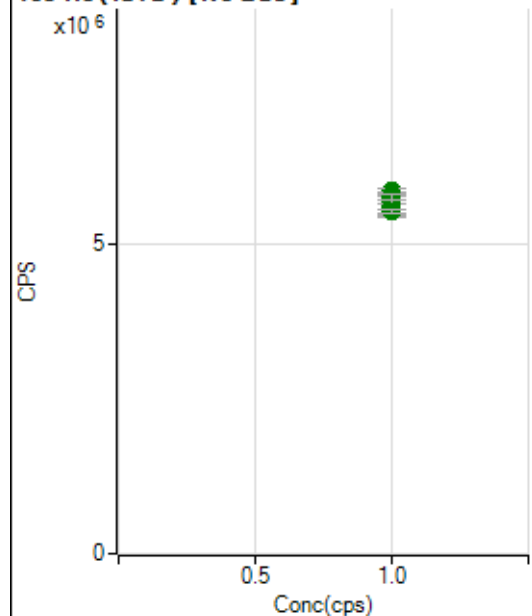
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		954099.57		P	0.2
2	☐	1.000		964046.22		P	1.6
3	☐	1.000		965625.37		P	0.1
4	☐	1.000		949455.62		P	0.2
5	☐	1.000		908944.77		P	0.1
6	☐	1.000		869956.56		P	2.3
7	☐	1.000		854560.23		P	0.7
8	☐	1.000		823183.00		P	0.3
9	☐	1.000		807072.70		P	0.6

159 Tb (ISTD) [No Gas]

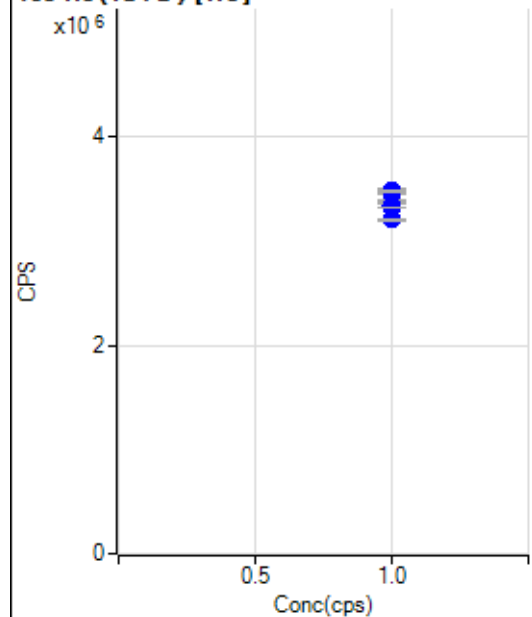
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		6002006.02		A	0.5
2	☐	1.000		5859843.46		A	6.5
3	☐	1.000		5972673.80		A	0.4
4	☐	1.000		6072941.30		A	0.2
5	☐	1.000		5990265.60		A	0.4
6	☐	1.000		5864567.48		A	0.6
7	☐	1.000		5967766.09		A	1.4
8	☐	1.000		5720583.84		A	5.4
9	☐	1.000		5675898.25		A	1.6

159 Tb (ISTD) [He]

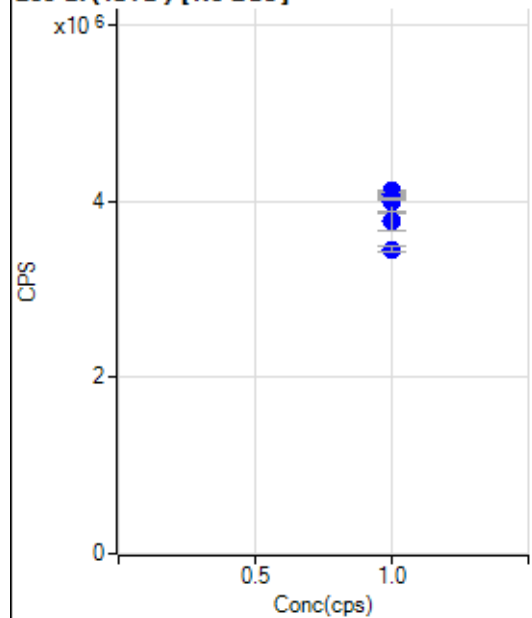
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		3434527.14		P	0.6
2	☐	1.000		3444102.21		P	1.6
3	☐	1.000		3442962.03		P	0.8
4	☐	1.000		3436078.56		P	0.2
5	☐	1.000		3364848.53		P	0.4
6	☐	1.000		3316587.90		P	2.2
7	☐	1.000		3281733.94		P	1.2
8	☐	1.000		3258862.48		P	0.2
9	☐	1.000		3145365.79		P	0.6

165 Ho (ISTD) [No Gas]

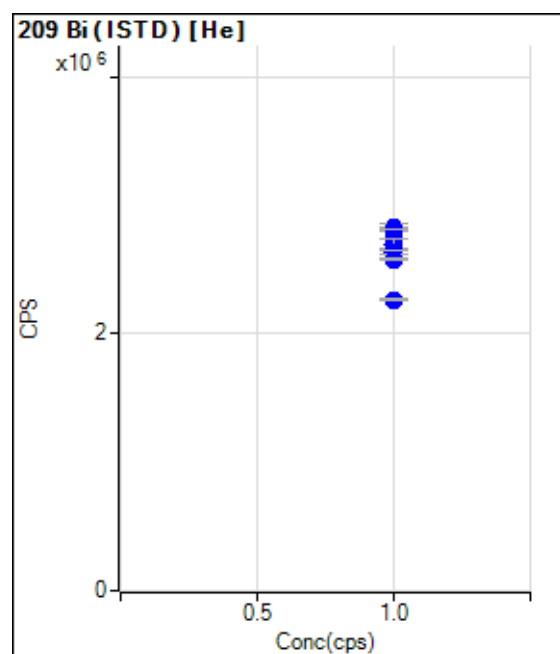
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		5805615.93		A	0.7
2	☐	1.000		5630372.09		A	6.2
3	☐	1.000		5736390.67		A	0.7
4	☐	1.000		5853134.38		A	0.9
5	☐	1.000		5796061.24		A	0.6
6	☐	1.000		5677524.91		A	0.7
7	☐	1.000		5755971.79		A	1.5
8	☐	1.000		5570430.64		A	4.8
9	☐	1.000		5524932.59		A	1.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3463696.27		P	0.3
2	☐	1.000		3478697.00		P	1.8
3	☐	1.000		3465946.86		P	0.7
4	☐	1.000		3478697.17		P	0.4
5	☐	1.000		3382971.55		P	0.3
6	☐	1.000		3359087.03		P	2.3
7	☐	1.000		3341321.44		P	1.2
8	☐	1.000		3319225.02		P	0.1
9	☐	1.000		3203080.47		P	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4104832.16		M	0.7
2	☐	1.000		3986626.09		P	6.5
3	☐	1.000		4071668.45		P	0.5
4	☐	1.000		4118614.00		P	0.3
5	☐	1.000		4085934.04		P	0.7
6	☐	1.000		4032427.20		P	0.7
7	☐	1.000		4029885.43		P	0.8
8	☐	1.000		3772865.98		P	5.5
9	☐	1.000		3459605.16		P	1.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2822115.30		P	0.4
2	☐	1.000		2820195.62		P	2.2
3	☐	1.000		2817292.61		P	0.7
4	☐	1.000		2811163.27		P	0.2
5	☐	1.000		2733336.73		P	0.2
6	☐	1.000		2697652.04		P	2.5
7	☐	1.000		2638778.31		P	1.1
8	☐	1.000		2576589.25		P	0.4
9	☐	1.000		2264128.77		P	0.6

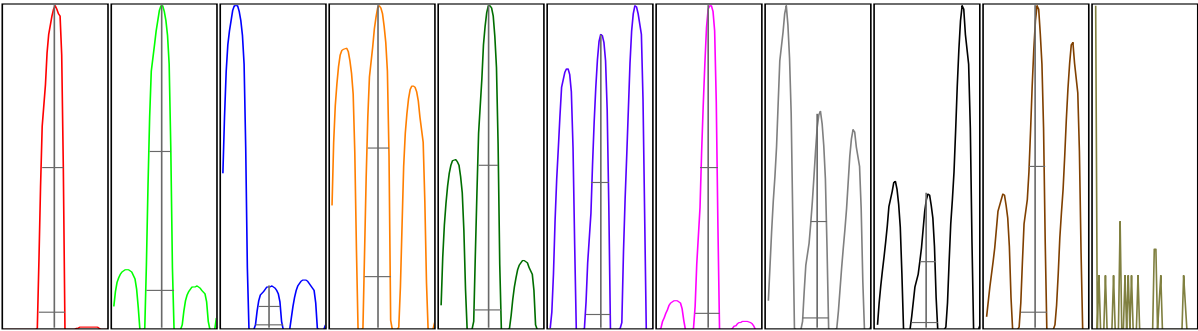
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7061419 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5642	1.23	5.00	
24	124803	0.94	5.00	
25	17303	1.04	5.00	
26	19087	1.15	5.00	
59	31997	1.00	5.00	
113	4596	1.41	5.00	
115	55311	1.70	5.00	
206	15337	1.39	5.00	
207	13924	1.28	5.00	
208	33338	1.25	5.00	
220	0	141.42		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5636	5529	5651	5683	5711
24	124863	122807	125083	125556	125707
25	17297	16993	17385	17417	17420
26	19088	18711	19152	19224	19259
59	31967	31465	32067	32260	32225
113	4703	4556	4598	4588	4535
115	56884	54948	55386	54906	54430
206	15136	15076	15461	15505	15507
207	13814	13663	14048	14017	14077
208	33017	32774	33532	33711	33655
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	9280	9.00	8.9 - 9.1		0.783	0.900	
24	204857	23.95	23.9 - 24.1		0.788	0.900	
25	27230	24.90	24.9 - 25.1		0.777	0.900	
26	31418	25.90	25.9 - 26.1		0.753	0.900	
59	56440	58.95	58.9 - 59.1		0.776	0.900	
113	9291	113.05	112.9 - 113.1		0.717	0.900	
115	114823	115.00	114.9 - 115.1		0.707	0.900	
206	32224	206.00	205.9 - 206.1		0.738	0.900	
207	29881	207.00	206.9 - 207.1		0.763	0.900	
208	71211	208.00	207.9 - 208.1		0.759	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.7	V	Deflect	13.6	V
Extract 2	-95.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	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	130	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	7746	0.87	
89	16241	0.70	
205	14967	0.62	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	7814	7822	7682	7722	7693
89	16354	16350	16161	16099	16244
205	14947	15021	14852	14921	15092

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	8.3	V	Deflect	1.8	V
Extract 2	-100.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	V	Cell Exit	-60	V			

Cell Parameters

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