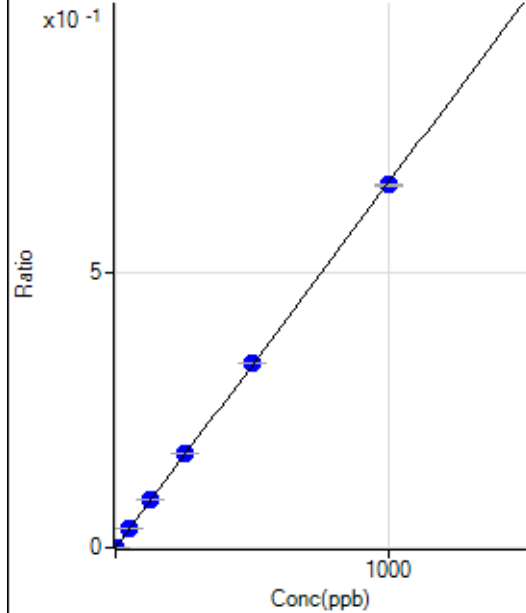


Batch Folder: D:\ICP-MS Data\P7090519.b\
Analysis File: P7090519 .batch.bin
DA Date-Time: 2019-09-06 11:25:14
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	029CALB P7090519.D	S00	2019-09-05 14:49:22
2	030CAL5 P7090519.D	S02	2019-09-05 14:52:58
3	031CAL5 P7090519.D	S03	2019-09-05 14:57:52
4	032CAL5 P7090519.D	S04	2019-09-05 15:02:03
5	033CAL5 P7090519.D	S05	2019-09-05 15:05:52
6	034CAL5 P7090519.D	S06	2019-09-05 15:09:39
7	035CAL5 P7090519.D	S07	2019-09-05 15:13:24
8	036CAL5 P7090519.D	S08	2019-09-05 15:17:12

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	73.33	0.0000	P	35.0
2	☐	1.000	1.026	2320.21	0.0007	P	2.5
3	☐	50.000	52.028	114685.67	0.0346	P	0.3
4	☐	125.000	129.883	284875.03	0.0864	P	0.7
5	☐	250.000	256.934	556266.71	0.1709	P	0.8
6	☐	500.000	507.251	1098066.08	0.3375	P	0.3
7	☐	1000.000	993.929	2139281.34	0.6612	P	0.3
8	☐			445.57	0.0001	P	9.7

$$y = 6.6522\text{E-}004 * x + 2.1395\text{E-}005$$

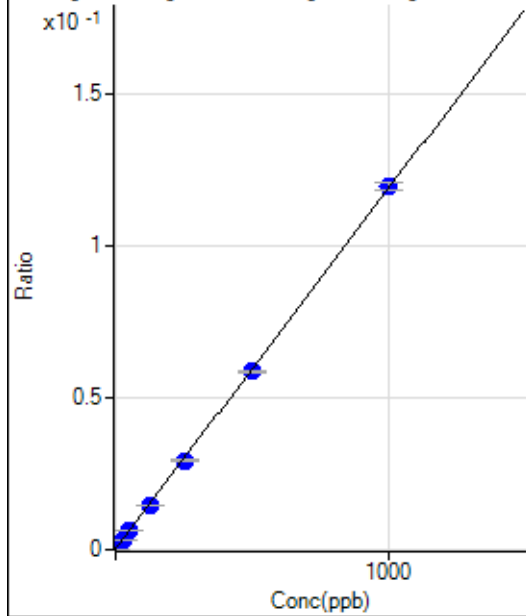
$$R = 0.9999$$

$$DL = 0.03378$$

$$BEC = 0.03216$$

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	547.26	0.0002	P	5.1
2	☐	25.000	24.084	9950.85	0.0030	P	4.0
3	☐	50.000	50.122	20244.78	0.0061	P	2.5
4	☐	125.000	122.879	48637.66	0.0148	P	1.3
5	☐	250.000	246.239	95710.39	0.0294	P	1.3
6	☐	500.000	492.485	190880.11	0.0587	P	2.0
7	☐	1000.000	1004.980	386786.97	0.1195	P	2.1
8	☐			17961.32	0.0059	P	7.2

$$y = 1.1879\text{E-}004 * x + 1.5882\text{E-}004$$

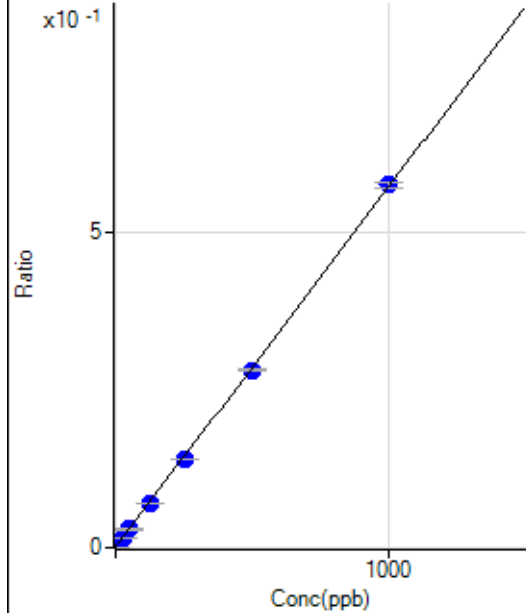
$$R = 0.9999$$

$$DL = 0.2034$$

$$BEC = 1.337$$

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	2344.73	0.0007	P	9.3
2	☐	25.000	24.096	47726.42	0.0145	P	2.2
3	☐	50.000	49.582	96309.85	0.0291	P	0.5
4	☐	125.000	122.076	232731.43	0.0706	P	1.7
5	☐	250.000	243.982	457029.83	0.1404	P	1.1
6	☐	500.000	492.016	919284.16	0.2825	P	1.1
7	☐	1000.000	1005.905	1866510.59	0.5769	P	1.8
8	☐			86965.03	0.0283	P	6.5

$$y = 5.7281\text{E-}004 * x + 6.8113\text{E-}004$$

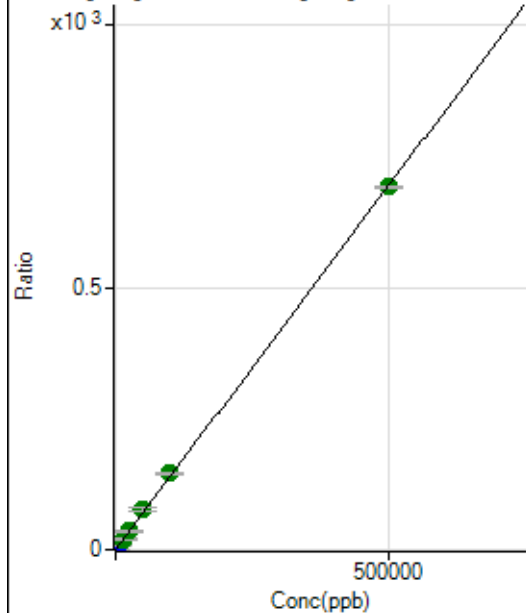
$$R = 0.9999$$

$$DL = 0.3315$$

$$BEC = 1.189$$

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	35994.35	0.0799	P	1.2
2	☐	500.000	525.959	364888.17	0.8100	P	0.3
3	☐	5000.000	5417.116	3431708.45	7.5993	P	0.2
4	☐	12500.000	14077.890	8395433.96	19.6211	A	5.9
5	☐	25000.000	25233.128	16751812.01	35.1053	A	10.7
6	☐	50000.000	54822.974	33816632.70	76.1782	A	9.2
7	☐	100000.00	104885.96	68462009.86	145.6694	A	1.2
8	☐	500000.00	498485.20	324706760.04	692.0142	A	0.8

$$y = 0.0014 * x + 0.0799$$

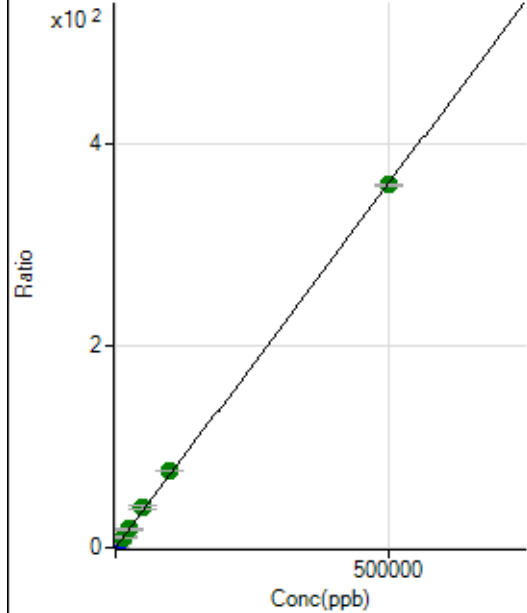
$$R = 0.9999$$

$$DL = 2.015$$

$$BEC = 57.56$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	444.47	0.0010	P	8.3
2	☐	500.000	557.462	181659.39	0.4033	P	0.6
3	☐	5000.000	5553.829	1810233.14	4.0087	P	0.5
4	☐	12500.000	14515.354	4482116.47	10.4754	A	5.9
5	☐	25000.000	25810.190	8886322.51	18.6258	A	11.0
6	☐	50000.000	55867.537	17893556.82	40.3153	A	9.5
7	☐	100000.00	105684.28	35843024.06	76.2634	A	0.9
8	☐	500000.00	498179.89	168681441.27	359.4905	A	0.7

$$y = 7.2161\text{E-}004 * x + 9.8637\text{E-}004$$

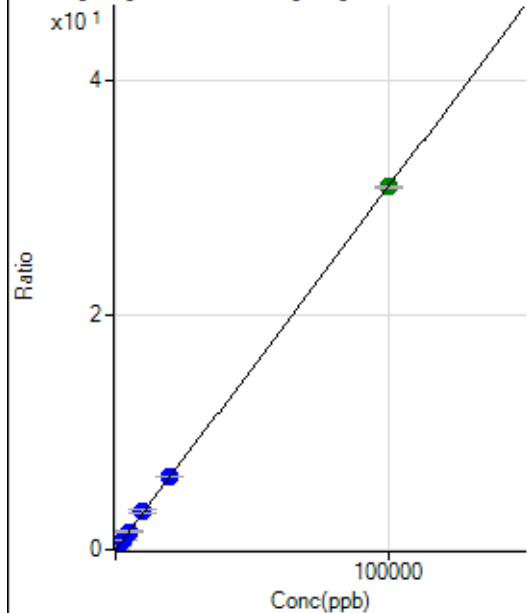
$$R = 0.9999$$

$$DL = 0.3407$$

$$BEC = 1.367$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	61.12	0.0001	P	21.5
2	☐	20.000	18.802	2686.46	0.0060	P	1.8
3	☐	1000.000	1042.917	146034.86	0.3234	P	1.1
4	☐	2500.000	2714.407	360052.77	0.8415	P	5.9
5	☐	5000.000	4836.302	715465.17	1.4992	P	10.6
6	☐	10000.000	10543.631	1449983.38	3.2682	P	10.2
7	☐	20000.000	20071.565	2924031.03	6.2214	P	0.7
8	☐	100000.00	99933.720	14534144.08	30.9750	A	0.4

$$y = 3.0995\text{E-}004 * x + 1.3580\text{E-}004$$

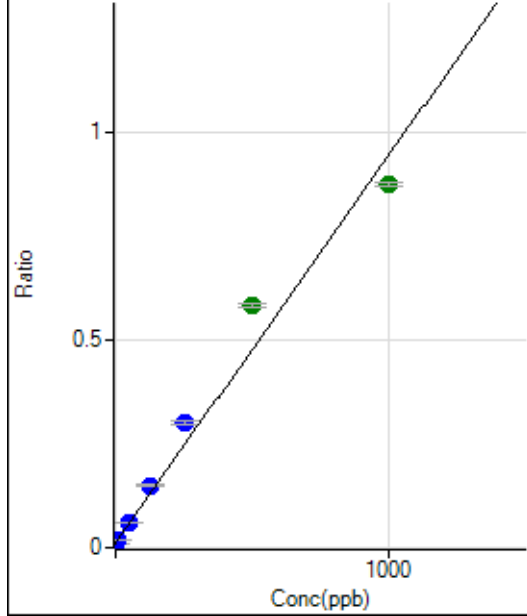
$$R = 1.0000$$

$$DL = 0.2822$$

$$BEC = 0.4381$$

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	108178.27	0.0109	P	4.2
2	☐	10.000	8.697	177880.85	0.0190	P	1.2
3	☐	50.000	53.657	573002.01	0.0609	P	2.0
4	☐	125.000	147.730	1407156.41	0.1486	P	2.6
5	☐	250.000	310.856	2844039.73	0.3006	P	1.7
6	☐	500.000	613.560	5592930.03	0.5827	A	0.9
7	☐	1000.000	924.995	8476642.29	0.8729	A	1.1
8	☐			218700.61	0.0229	P	2.4

$$y = 9.3188\text{E-}004 * x + 0.0109$$

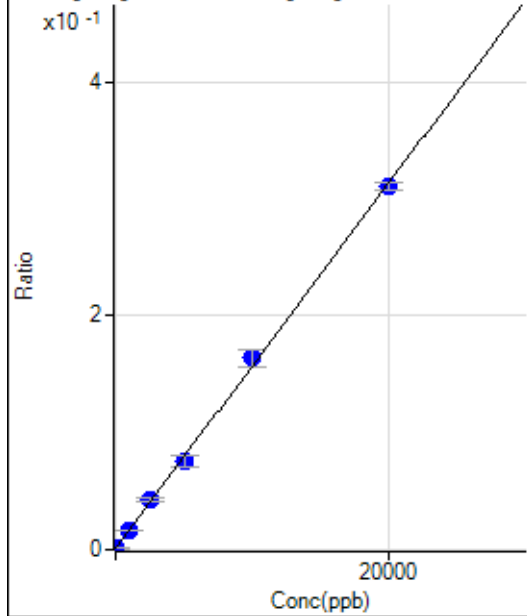
$$R = 0.9872$$

$$DL = 1.473$$

$$BEC = 11.74$$

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	-25.642	225.01	0.0005	P	9.3
2	☐	0.000	25.642	586.15	0.0013	P	6.9
3	☐	1000.000	1009.921	7535.52	0.0167	P	4.2
4	☐	2500.000	2682.762	18309.22	0.0428	P	8.6
5	☐	5000.000	4792.066	36161.27	0.0758	P	11.2
6	☐	10000.000	10439.287	72853.84	0.1641	P	8.8
7	☐	20000.000	19808.999	145938.57	0.3105	P	1.9
8	☐			308.35	0.0007	P	21.0

$$y = 1.5630\text{E-}005 * x + 9.0013\text{E-}004$$

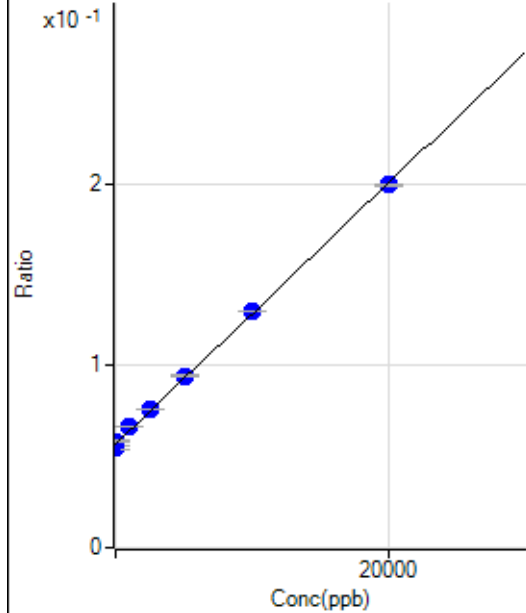
$$R = 0.9995$$

$$DL = 13.1$$

$$BEC = 57.59$$

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	-247.204	544327.24	0.0550	P	4.0
2	☐	0.000	247.204	547300.37	0.0586	P	0.9
3	☐	1000.000	1353.652	625729.17	0.0666	P	0.1
4	☐	2500.000	2675.222	720143.47	0.0761	P	0.4
5	☐	5000.000	5227.563	893072.41	0.0944	P	1.0
6	☐	10000.000	10150.352	1245794.84	0.1298	P	0.1
7	☐	20000.000	19828.348	1936076.22	0.1994	P	0.4
8	☐			517895.70	0.0543	P	0.7

$$y = 7.1900\text{E-}006 * x + 0.0568$$

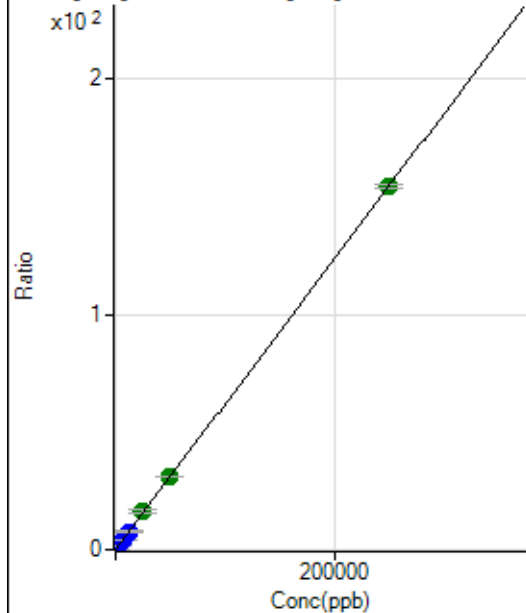
$$R = 0.9996$$

$$DL = 562.8$$

$$BEC = 7902$$

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	22534.50	0.0500	P	3.7
2	☐	500.000	501.750	161834.95	0.3592	P	1.2
3	☐	2500.000	2560.346	735123.35	1.6278	P	0.6
4	☐	6250.000	6687.856	1785193.83	4.1714	P	5.4
5	☐	12500.000	11946.393	3537518.87	7.4120	P	10.5
6	☐	25000.000	26149.823	7173377.76	16.1649	A	9.8
7	☐	50000.000	50115.975	14538854.15	30.9341	A	0.9
8	☐	250000.00	249877.95	72278192.59	154.0378	A	0.9

$$y = 6.1625\text{E-}004 * x + 0.0500$$

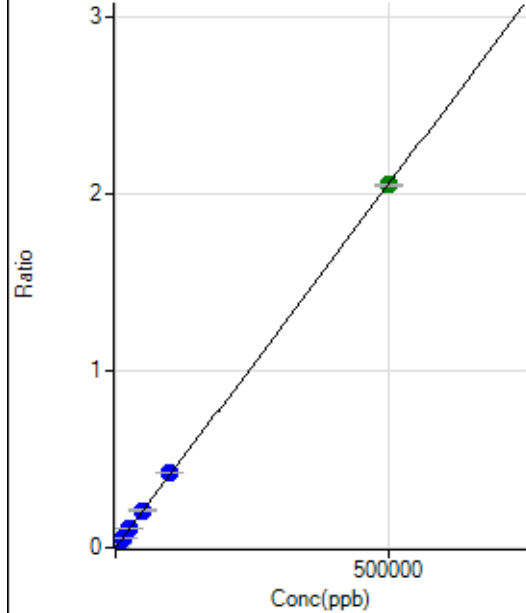
$$R = 1.0000$$

$$DL = 9.05$$

$$BEC = 81.19$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0000	P	32.3
2	☐	500.000	507.510	19577.44	0.0021	P	2.1
3	☐	5000.000	5320.564	205298.32	0.0218	P	1.7
4	☐	12500.000	13026.079	505991.24	0.0534	P	0.3
5	☐	25000.000	25925.855	1006003.17	0.1063	P	0.8
6	☐	50000.000	51544.412	2029020.06	0.2114	P	0.5
7	☐	100000.00	102802.68	4093991.59	0.4216	P	0.9
8	☐	500000.00	499222.36	19537400.44	2.0474	A	0.4

$$y = 4.1011\text{E-}006 * x + 1.4693\text{E-}005$$

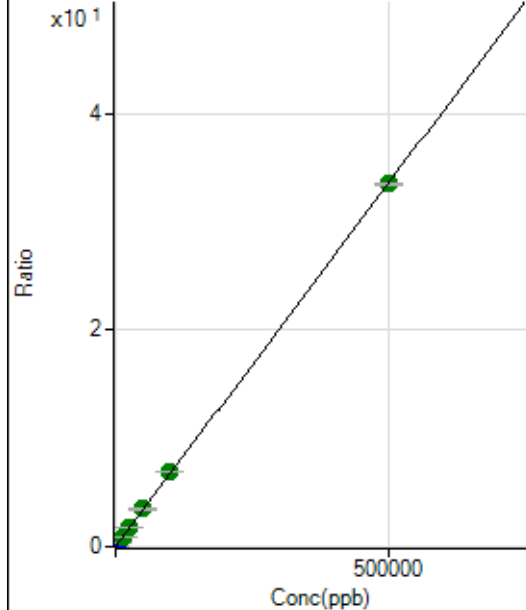
$$R = 1.0000$$

$$DL = 3.471$$

$$BEC = 3.583$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15957.21	0.0016	P	5.3
2	☐	500.000	507.712	333573.44	0.0357	P	0.6
3	☐	5000.000	5296.896	3359959.71	0.3574	P	0.9
4	☐	12500.000	13073.326	8329169.20	0.8796	A	0.1
5	☐	25000.000	26046.936	16564296.90	1.7509	A	0.6
6	☐	50000.000	51580.396	33262954.21	3.4658	A	0.6
7	☐	100000.00	103338.07	67407507.06	6.9418	A	0.4
8	☐	500000.00	499104.69	319883207.15	33.5216	A	0.2

$$y = 6.7160\text{E-}005 * x + 0.0016$$

$$R = 1.0000$$

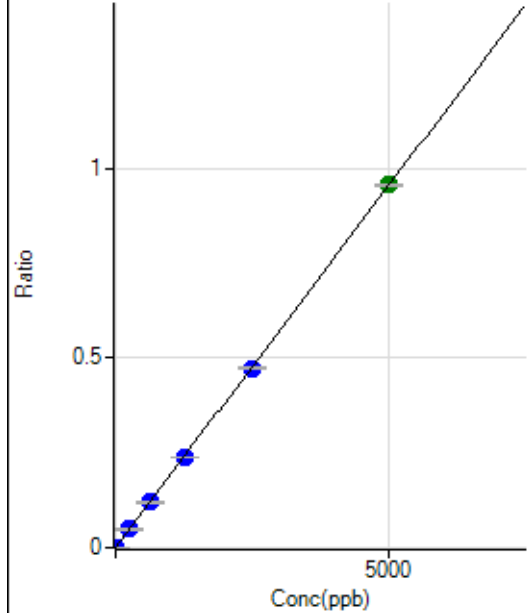
$$DL = 3.849$$

$$BEC = 24.04$$

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	136.12	0.0000	P	29.1
2	☐	5.000	4.981	9011.51	0.0010	P	2.6
3	☐	250.000	252.782	453911.19	0.0483	P	0.4
4	☐	625.000	626.216	1132253.98	0.1196	P	0.8
5	☐	1250.000	1239.502	2238956.80	0.2367	P	0.4
6	☐	2500.000	2478.784	4542233.57	0.4733	P	0.9
7	☐	5000.000	5012.942	9294004.99	0.9571	A	0.7
8	☐			2058.57	0.0002	P	9.7

$$y = 1.9093\text{E-}004 * x + 1.3744\text{E-}005$$

$$R = 1.0000$$

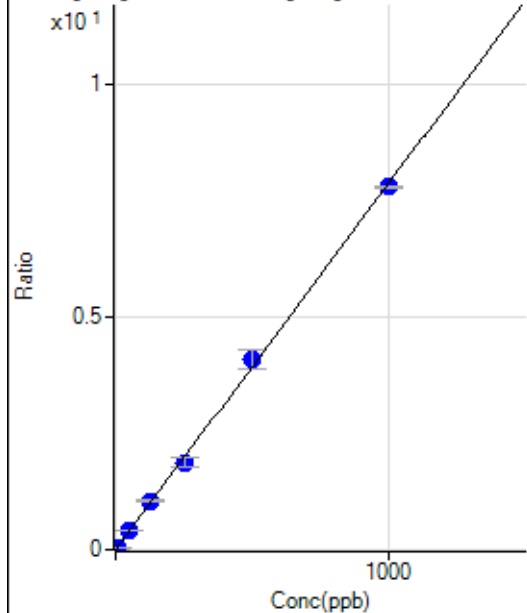
$$DL = 0.06283$$

$$BEC = 0.07199$$

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	10.00	0.0000	P	33.5
2	☐	5.000	5.190	18406.09	0.0409	P	1.5
3	☐	50.000	50.851	180681.16	0.4001	P	0.6
4	☐	125.000	133.339	448842.08	1.0491	P	6.2
5	☐	250.000	238.729	896493.73	1.8783	P	10.4
6	☐	500.000	521.186	1819552.47	4.1006	P	10.0
7	☐	1000.000	991.139	3665075.36	7.7981	P	0.8
8	☐			787.81	0.0017	P	9.6

$$y = 0.0079 * x + 2.2199\text{E-}005$$

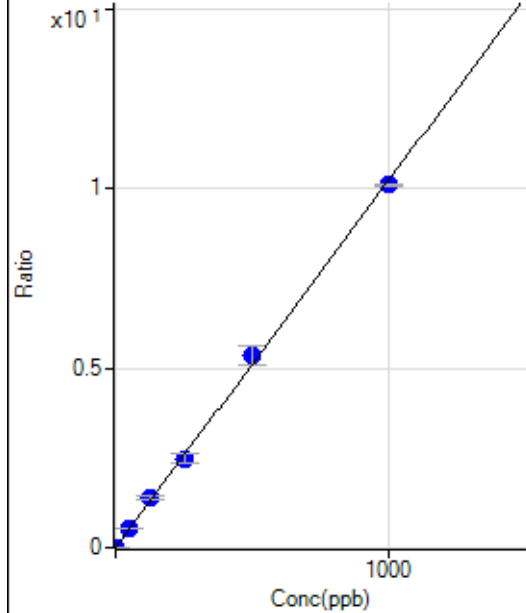
$$R = 0.9996$$

$$DL = 0.002833$$

$$BEC = 0.002822$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	860.04	0.0019	P	4.1
2	☐	2.000	1.997	10058.03	0.0223	P	2.7
3	☐	50.000	51.835	240172.92	0.5319	P	0.8
4	☐	125.000	135.445	593313.26	1.3867	P	6.1
5	☐	250.000	241.489	1179103.60	2.4708	P	10.7
6	☐	500.000	524.172	2378761.13	5.3609	P	10.0
7	☐	1000.000	988.644	4751479.89	10.1096	P	0.7
8	☐			133480.73	0.2845	P	0.7

$$y = 0.0102 * x + 0.0019$$

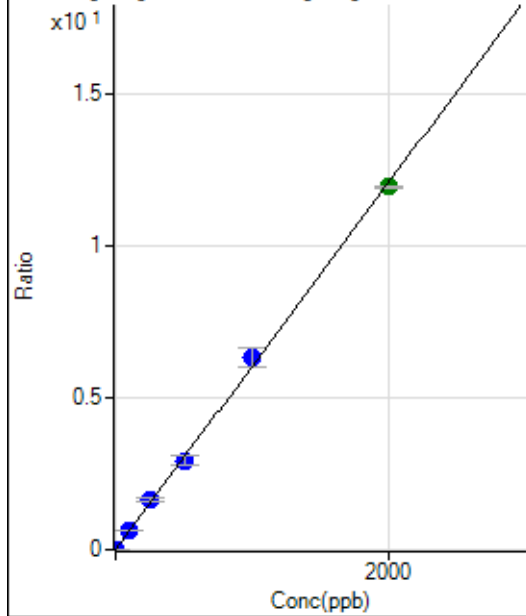
$$R = 0.9995$$

$$DL = 0.02276$$

$$BEC = 0.1867$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	620.02	0.0014	P	4.6
2	☐	1.000	0.896	3055.92	0.0068	P	5.8
3	☐	100.000	103.926	283777.69	0.6284	P	1.0
4	☐	250.000	271.891	702508.14	1.6418	P	6.0
5	☐	500.000	484.462	1395615.54	2.9244	P	10.6
6	☐	1000.000	1047.179	2804302.25	6.3196	P	9.9
7	☐	2000.000	1977.362	5608061.65	11.9319	A	0.4
8	☐			18520.78	0.0395	P	1.4

$$y = 0.0060 * x + 0.0014$$

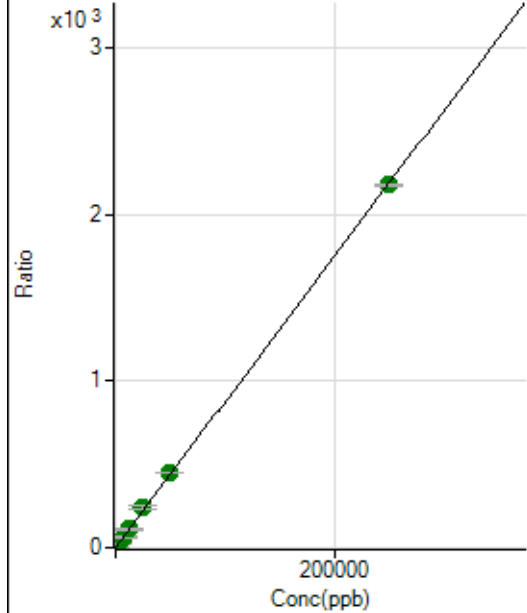
$$R = 0.9995$$

$$DL = 0.03148$$

$$BEC = 0.2282$$

Weight: <None>

Min Conc: 0

⁵⁶Fe [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2924.45	0.0065	P	3.7
2	☐	50.000	56.242	224202.07	0.4977	P	1.0
3	☐	2500.000	2737.669	10799837.16	23.9155	A	0.4
4	☐	6250.000	7164.410	26771142.03	62.5758	A	6.3
5	☐	12500.000	12747.276	53130408.13	111.3330	A	10.6
6	☐	25000.000	27441.623	106374813.49	239.6640	A	9.5
7	☐	50000.000	51710.241	212258728.82	451.6104	A	0.5
8	☐	250000.00	249376.18	1021913422.8	2,177.897	A	0.8

$$y = 0.0087 * x + 0.0065$$

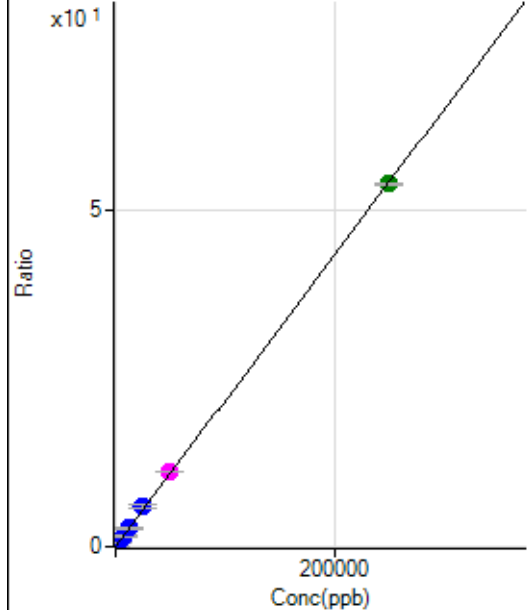
$$R = 0.9999$$

$$DL = 0.08195$$

$$BEC = 0.7435$$

Weight: <None>

Min Conc: 0

⁵⁷Fe [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.11	0.0002	P	4.3
2	☐	50.000	57.488	5699.40	0.0127	P	1.9
3	☐	2500.000	2748.547	267949.00	0.5934	P	0.8
4	☐	6250.000	7161.008	661345.00	1.5455	P	5.7
5	☐	12500.000	12727.868	1310726.36	2.7468	P	10.7
6	☐	25000.000	27550.349	2638297.74	5.9453	P	9.8
7	☐	50000.000	51942.388	5268095.95	11.2089	M	0.9
8	☐	250000.00	249319.83	25244507.74	53.8010	A	0.8

$$y = 2.1579E-004 * x + 2.4661E-004$$

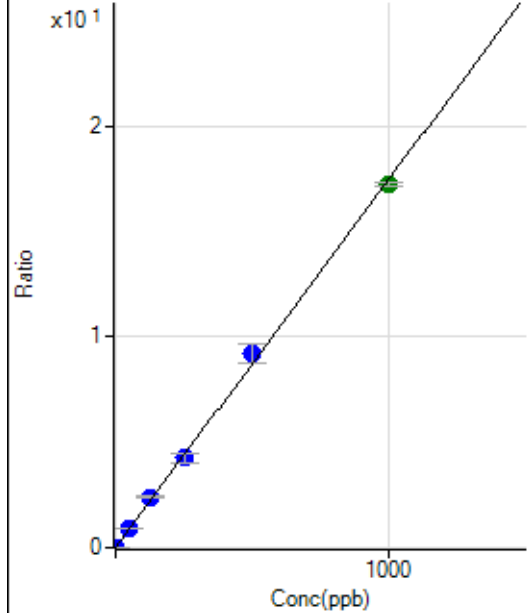
$$R = 0.9999$$

$$DL = 0.146$$

$$BEC = 1.143$$

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	150.00	0.0003	P	16.9
2	☐	1.000	1.023	8192.39	0.0182	P	2.2
3	☐	50.000	52.989	417966.06	0.9256	P	0.5
4	☐	125.000	137.722	1029232.02	2.4051	P	5.5
5	☐	250.000	243.619	2030348.87	4.2541	P	10.5
6	☐	500.000	527.044	4083600.91	9.2029	P	10.0
7	☐	1000.000	986.333	8094369.67	17.2224	A	0.9
8	☐			94470.23	0.2013	P	0.4

$$y = 0.0175 * x + 3.3282E-004$$

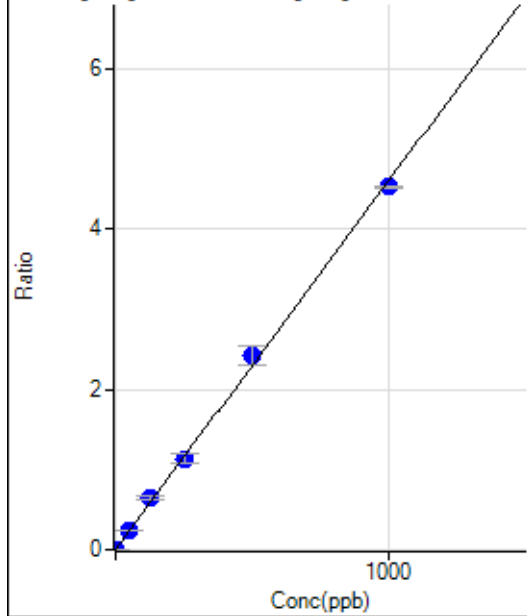
$$R = 0.9994$$

$$DL = 0.009692$$

$$BEC = 0.01906$$

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	157.78	0.0004	P	9.8
2	☐	1.000	1.102	2440.25	0.0054	P	3.9
3	☐	50.000	54.228	112758.10	0.2497	P	0.6
4	☐	125.000	139.919	275439.57	0.6437	P	5.8
5	☐	250.000	247.704	543887.48	1.1393	P	10.2
6	☐	500.000	528.386	1078238.89	2.4299	P	9.9
7	☐	1000.000	984.304	2127308.68	4.5262	P	0.7
8	☐			56061.34	0.1195	P	0.5

$$y = 0.0046 * x + 3.5021E-004$$

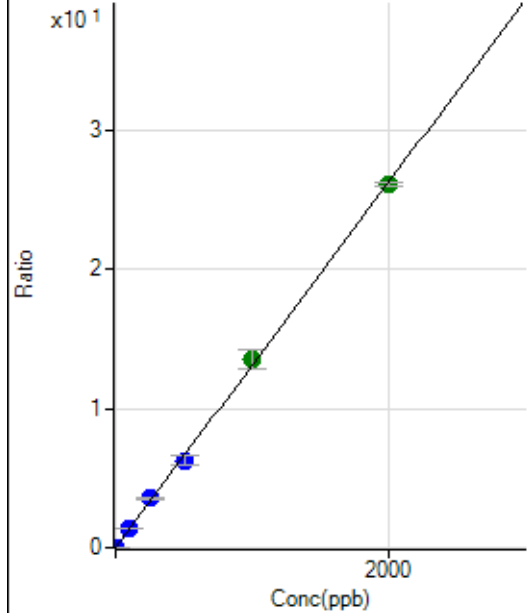
$$R = 0.9993$$

$$DL = 0.02242$$

$$BEC = 0.07616$$

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	1243.41	0.0028	P	3.7
2	☐	2.000	2.024	13193.90	0.0293	P	0.4
3	☐	100.000	104.144	617775.83	1.3680	P	0.7
4	☐	250.000	271.017	1521595.73	3.5556	P	5.6
5	☐	500.000	477.961	2991738.74	6.2686	P	10.5
6	☐	1000.000	1031.476	6002305.68	13.5248	A	9.7
7	☐	2000.000	1986.938	12243335.65	26.0504	A	1.0
8	☐			18102.51	0.0386	P	0.9

$$y = 0.0131 * x + 0.0028$$

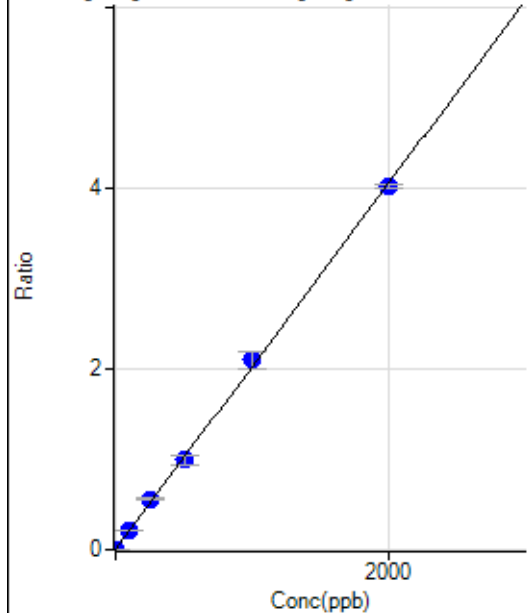
$$R = 0.9997$$

$$DL = 0.02315$$

$$BEC = 0.2105$$

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	1127.84	0.0025	P	5.5
2	☐	2.000	2.152	3093.72	0.0069	P	1.9
3	☐	100.000	108.718	100686.30	0.2230	P	0.3
4	☐	250.000	276.544	241039.50	0.5633	P	5.7
5	☐	500.000	491.133	476344.93	0.9984	P	11.0
6	☐	1000.000	1034.263	931976.50	2.0998	P	9.5
7	☐	2000.000	1981.331	1889464.92	4.0203	P	1.1
8	☐			15518.46	0.0331	P	1.4

$$y = 0.0020 * x + 0.0025$$

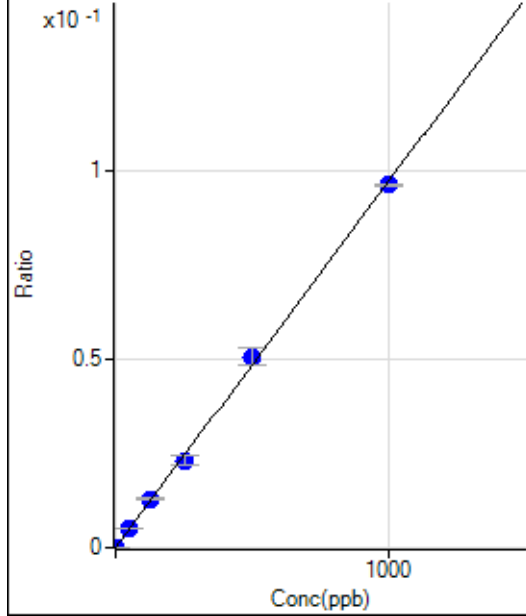
$$R = 0.9997$$

$$DL = 0.2028$$

$$BEC = 1.234$$

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	13.58	0.0000	P	44.1
2	☐	1.000	0.899	450.63	0.0001	P	0.7
3	☐	50.000	51.239	24974.60	0.0050	P	0.9
4	☐	125.000	132.603	61330.49	0.0129	P	5.4
5	☐	250.000	237.581	122354.76	0.0231	P	10.5
6	☐	500.000	522.125	247267.43	0.0507	P	9.0
7	☐	1000.000	991.030	493530.21	0.0963	P	0.3
8	☐			700.64	0.0001	P	2.6

$$y = 9.7141\text{E-}005 * x + 2.7193\text{E-}006$$

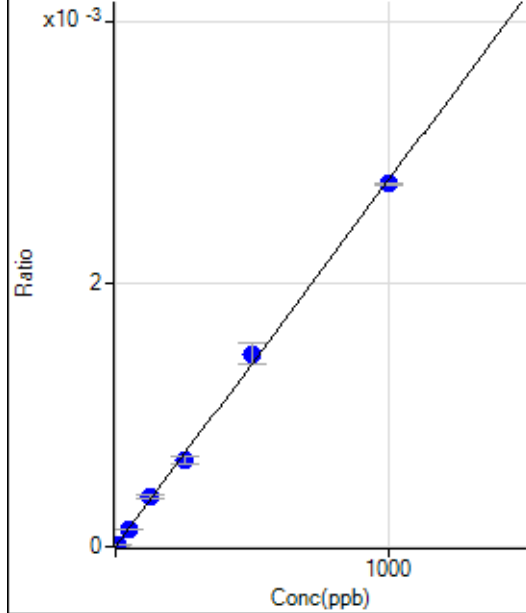
$$R = 0.9995$$

$$DL = 0.03708$$

$$BEC = 0.02799$$

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	1.11	0.0000	P	173.
2	☐	5.000	5.173	73.33	0.0000	P	7.4
3	☐	50.000	48.612	681.14	0.0001	P	4.3
4	☐	125.000	136.381	1809.03	0.0004	P	11.0
5	☐	250.000	235.218	3481.59	0.0007	P	9.7
6	☐	500.000	525.151	7135.20	0.0015	P	11.0
7	☐	1000.000	989.766	14156.00	0.0028	P	0.5
8	☐			8.89	0.0000	P	56.9

$$y = 2.7897\text{E-}006 * x + 2.2135\text{E-}007$$

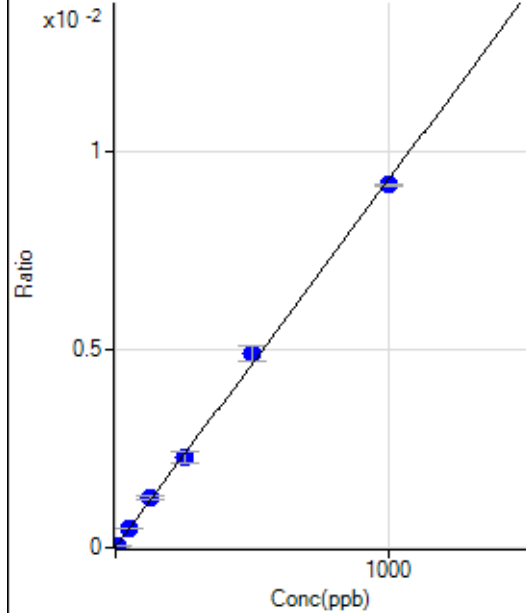
$$R = 0.9993$$

$$DL = 0.4123$$

$$BEC = 0.07934$$

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	38.27	0.0000	P	10.1
2	☐	5.000	5.335	285.81	0.0001	P	7.6
3	☐	50.000	50.863	2402.07	0.0005	P	3.0
4	☐	125.000	135.616	6018.58	0.0013	P	5.2
5	☐	250.000	245.118	12070.52	0.0023	P	11.7
6	☐	500.000	526.737	23843.09	0.0049	P	8.1
7	☐	1000.000	986.480	46900.82	0.0091	P	0.8
8	☐			61.11	0.0000	P	16.4

$$y = 9.2663\text{E-}006 * x + 7.6586\text{E-}006$$

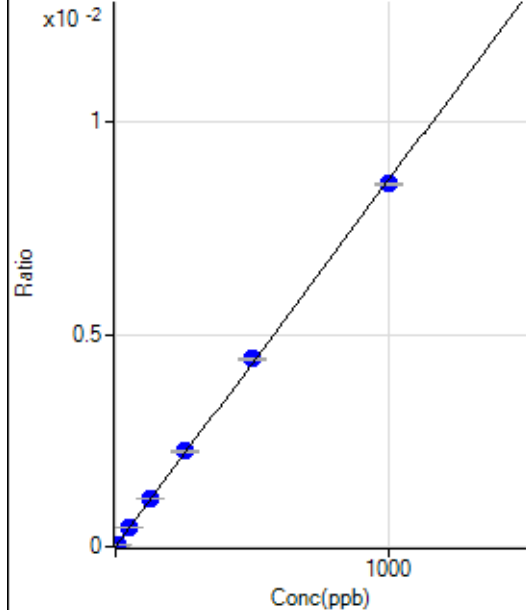
$$R = 0.9994$$

$$DL = 0.2514$$

$$BEC = 0.8265$$

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	59.79	0.0000	P	125.
2	☐	5.000	5.437	1771.72	0.0000	P	2.6
3	☐	50.000	53.452	17094.01	0.0005	P	0.8
4	☐	125.000	133.078	42628.02	0.0012	P	0.7
5	☐	250.000	260.026	83175.13	0.0022	P	0.9
6	☐	500.000	512.960	165496.54	0.0044	P	0.6
7	☐	1000.000	989.829	321503.42	0.0085	P	0.3
8	☐			112.84	0.0000	P	86.4

$$y = 8.6348\text{E-}006 * x + 1.5875\text{E-}006$$

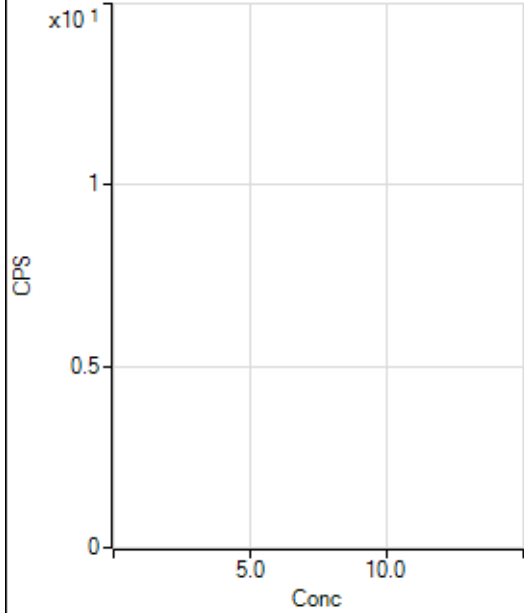
$$R = 0.9998$$

$$DL = 0.6906$$

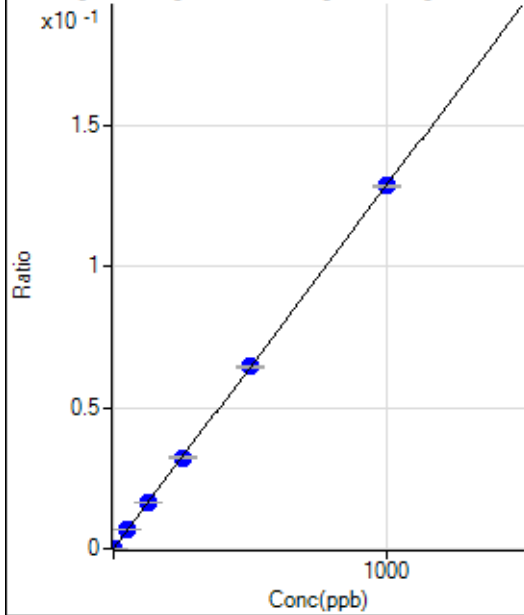
$$BEC = 0.1838$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			323.34		P	21.5
2	☐			370.01		P	9.5
3	☐			410.01		P	9.9
4	☐			330.01		P	2.7
5	☐			366.68		P	7.4
6	☐			377.79		P	10.5
7	☐			356.68		P	14.1
8	☐			415.57		P	17.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	555.59	0.0000	P	22.6
2	☐	1.000	1.049	5451.28	0.0001	P	2.5
3	☐	50.000	51.251	243965.49	0.0066	P	0.4
4	☐	125.000	126.936	605693.52	0.0163	P	0.5
5	☐	250.000	251.401	1198178.18	0.0324	P	0.3
6	☐	500.000	500.702	2407218.28	0.0644	P	0.2
7	☐	1000.000	998.994	4835434.09	0.1286	P	0.8
8	☐			19269.28	0.0005	P	0.8

$$y = 1.2869E-004 * x + 1.4375E-005$$

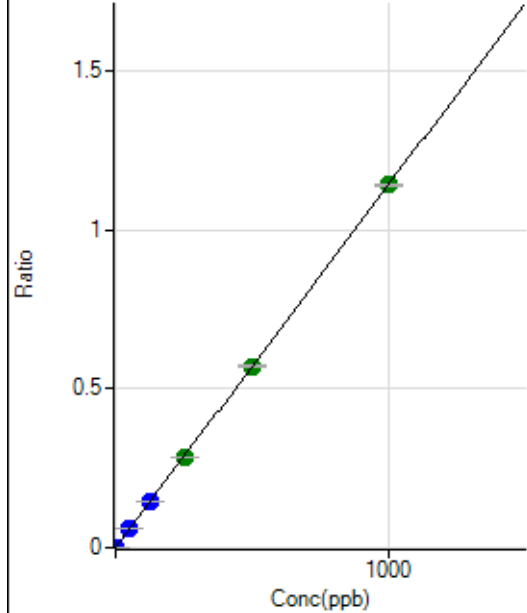
$$R = 1.0000$$

$$DL = 0.07585$$

$$BEC = 0.1117$$

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	208.35	0.0000	P	8.6
2	☐	1.000	0.999	41820.69	0.0011	P	0.9
3	☐	50.000	50.839	2141165.89	0.0580	P	1.0
4	☐	125.000	125.990	5325679.07	0.1438	P	0.1
5	☐	250.000	250.266	10570834.01	0.2856	A	0.3
6	☐	500.000	500.018	21308923.04	0.5705	A	0.4
7	☐	1000.000	999.759	42901474.23	1.1407	A	0.4
8	☐			166550.14	0.0046	P	0.7

$$y = 0.0011 * x + 5.3425E-006$$

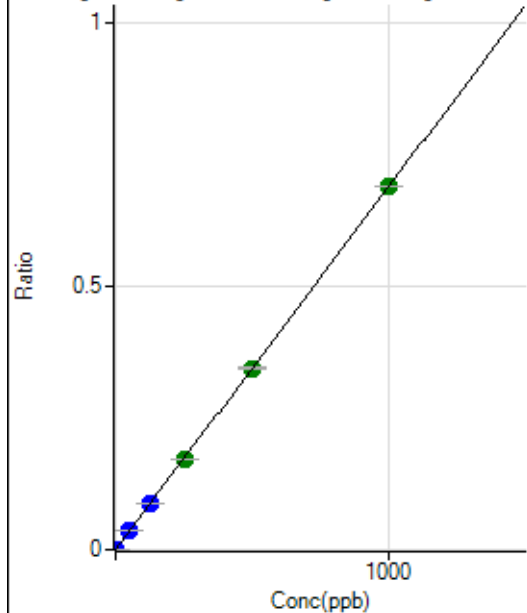
$$R = 1.0000$$

$$DL = 0.001214$$

$$BEC = 0.004682$$

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	1755.74	0.0000	P	2.7
2	☐	1.000	0.880	23795.59	0.0007	P	2.2
3	☐	50.000	50.414	1284336.11	0.0348	P	0.4
4	☐	125.000	126.058	3220752.50	0.0869	P	0.2
5	☐	250.000	249.607	6371044.11	0.1721	A	0.3
6	☐	500.000	499.848	12870849.16	0.3446	A	0.5
7	☐	1000.000	1000.021	25927341.90	0.6894	A	0.2
8	☐			7732.96	0.0002	P	0.6

$$y = 6.8932E-004 * x + 4.5137E-005$$

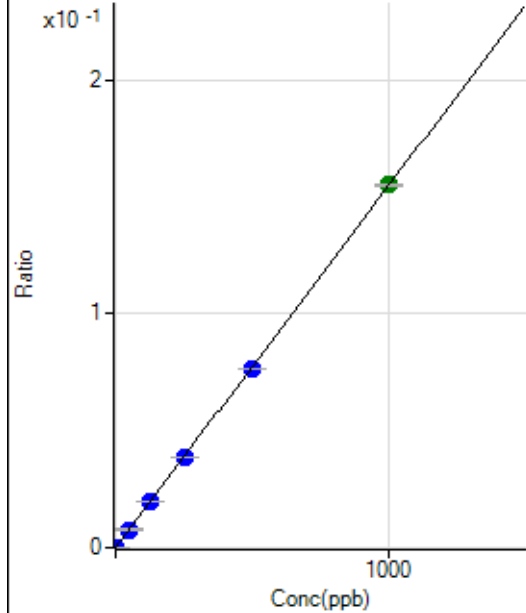
$$R = 1.0000$$

$$DL = 0.005316$$

$$BEC = 0.06548$$

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	330.57	0.0000	P	29.4
2	☐	1.000	0.881	5281.77	0.0001	P	7.3
3	☐	50.000	50.452	288090.00	0.0078	P	1.0
4	☐	125.000	125.329	717812.91	0.0194	P	0.5
5	☐	250.000	248.351	1421039.87	0.0384	P	0.4
6	☐	500.000	494.530	2854706.36	0.0764	P	0.2
7	☐	1000.000	1003.084	5830325.61	0.1550	A	0.2
8	☐			1686.28	0.0000	P	3.6

$$y = 1.5454\text{E-}004 * x + 8.5798\text{E-}006$$

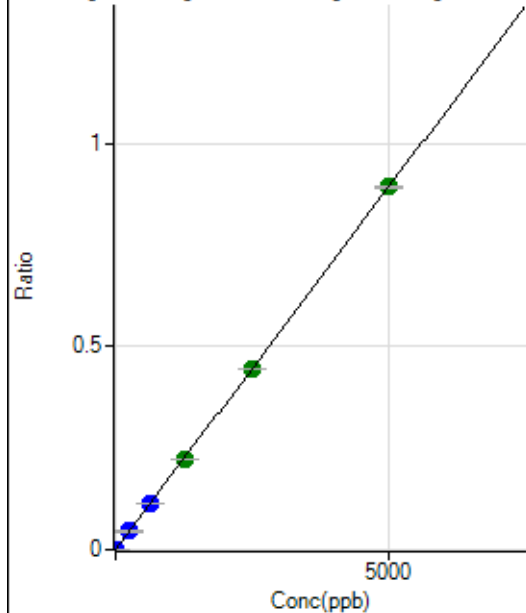
$$R = 1.0000$$

$$DL = 0.04896$$

$$BEC = 0.05552$$

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	675.05	0.0000	P	5.6
2	☐	5.000	4.736	31466.11	0.0009	P	0.9
3	☐	250.000	252.425	1662514.39	0.0450	P	0.4
4	☐	625.000	628.867	4156176.92	0.1122	P	0.5
5	☐	1250.000	1246.491	8231324.66	0.2224	A	0.3
6	☐	2500.000	2490.515	16593249.16	0.4443	A	0.5
7	☐	5000.000	5005.016	33576608.74	0.8928	A	0.2
8	☐			23470.24	0.0006	P	1.5

$$y = 1.7837\text{E-}004 * x + 1.7335\text{E-}005$$

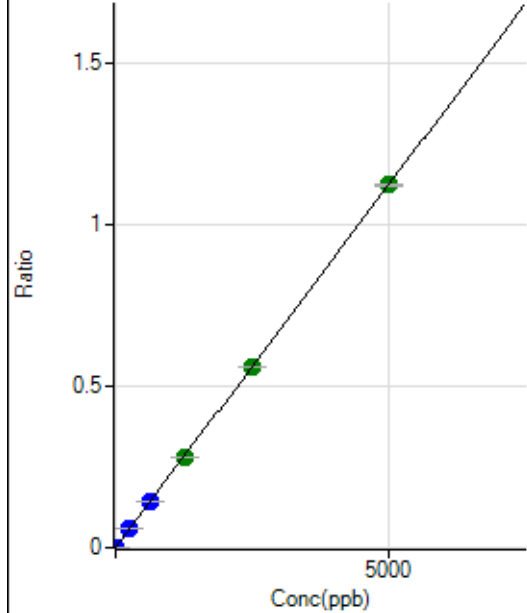
$$R = 1.0000$$

$$DL = 0.0162$$

$$BEC = 0.09719$$

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	169.45	0.0000	P	10.8
2	☐	5.000	4.872	40021.08	0.0011	P	1.2
3	☐	250.000	252.750	2091448.55	0.0567	P	0.4
4	☐	625.000	629.655	5229267.52	0.1412	P	0.6
5	☐	1250.000	1245.268	10334086.17	0.2792	A	0.3
6	☐	2500.000	2496.490	20903381.02	0.5597	A	0.4
7	☐	5000.000	5002.219	42173742.61	1.1214	A	0.3
8	☐			37152.24	0.0010	P	2.3

$$y = 2.2417E-004 * x + 4.3432E-006$$

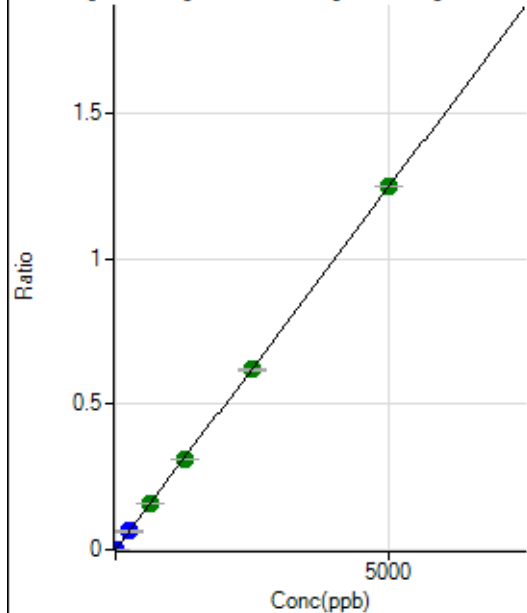
$$R = 1.0000$$

$$DL = 0.006292$$

$$BEC = 0.01937$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	288.91	0.0000	P	9.7
2	☐	5.000	4.838	44289.21	0.0012	P	1.0
3	☐	250.000	252.975	2327456.50	0.0631	P	0.9
4	☐	625.000	626.426	5784309.81	0.1561	A	0.2
5	☐	1250.000	1245.372	11490742.10	0.3104	A	0.2
6	☐	2500.000	2488.450	23166093.58	0.6202	A	0.7
7	☐	5000.000	5006.605	46931518.76	1.2479	A	0.1
8	☐			40946.00	0.0011	P	3.4

$$y = 2.4924E-004 * x + 7.4072E-006$$

$$R = 1.0000$$

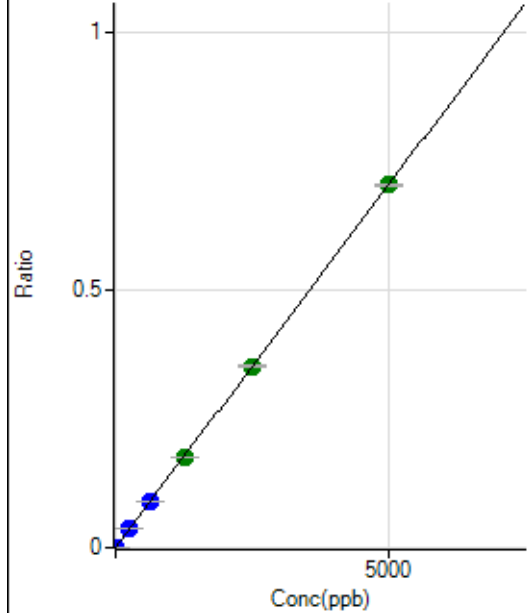
$$DL = 0.008614$$

$$BEC = 0.02972$$

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	136.12	0.0000	P	16.0
2	☐	5.000	4.886	25223.20	0.0007	P	3.5
3	☐	250.000	253.971	1319151.70	0.0357	P	0.8
4	☐	625.000	627.950	3273544.39	0.0884	P	0.3
5	☐	1250.000	1246.764	6494513.99	0.1754	A	0.3
6	☐	2500.000	2500.037	13139579.63	0.3518	A	0.5
7	☐	5000.000	5000.223	26461922.99	0.7036	A	0.4
8	☐			23114.01	0.0006	P	1.5

$$y = 1.4071\text{E-}004 * x + 3.4922\text{E-}006$$

$$R = 1.0000$$

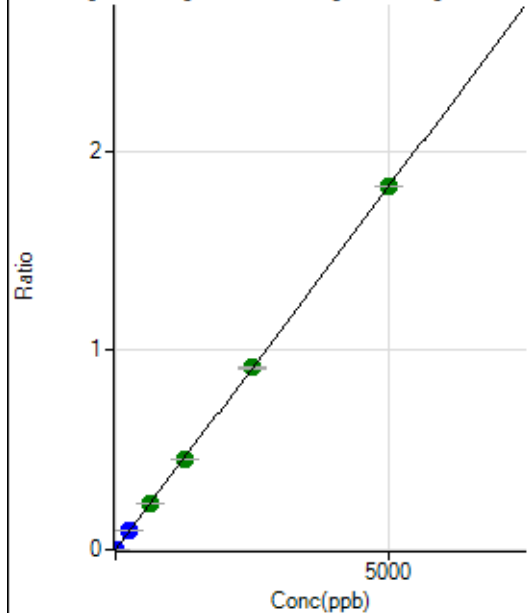
$$DL = 0.01192$$

$$BEC = 0.02482$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	266.68	0.0000	P	22.5
2	☐	5.000	4.823	64387.60	0.0018	P	0.9
3	☐	250.000	253.397	3407321.08	0.0923	P	0.6
4	☐	625.000	628.720	8484918.68	0.2290	A	0.2
5	☐	1250.000	1244.877	16787607.67	0.4535	A	0.4
6	☐	2500.000	2504.942	34082628.19	0.9125	A	0.2
7	☐	5000.000	4998.175	68477954.31	1.8207	A	0.2
8	☐			59637.44	0.0016	P	4.9

$$y = 3.6428\text{E-}004 * x + 6.8152\text{E-}006$$

$$R = 1.0000$$

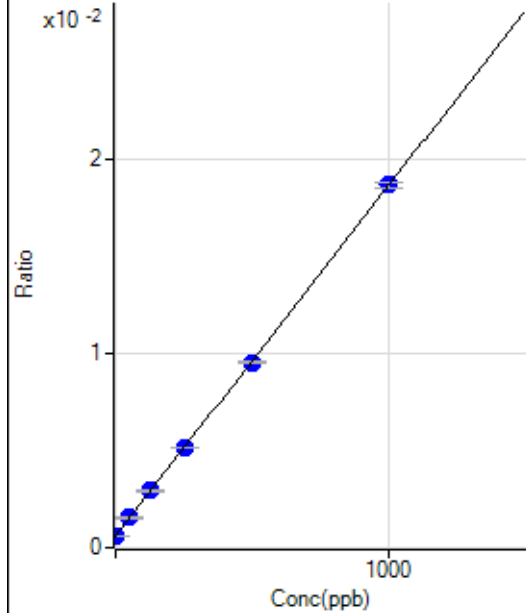
$$DL = 0.01265$$

$$BEC = 0.01871$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19748.00	0.0006	P	1.2
2	☐	1.000	0.440	18907.73	0.0006	P	2.0
3	☐	50.000	51.427	47489.03	0.0015	P	0.8
4	☐	125.000	128.231	91153.51	0.0029	P	0.3
5	☐	250.000	249.789	159046.74	0.0051	P	0.2
6	☐	500.000	495.073	298819.77	0.0095	P	0.7
7	☐	1000.000	1002.041	585729.33	0.0187	P	1.4
8	☐			18123.41	0.0006	P	2.5

$$y = 1.8023\text{E-}005 * x + 6.0785\text{E-}004$$

$$R = 1.0000$$

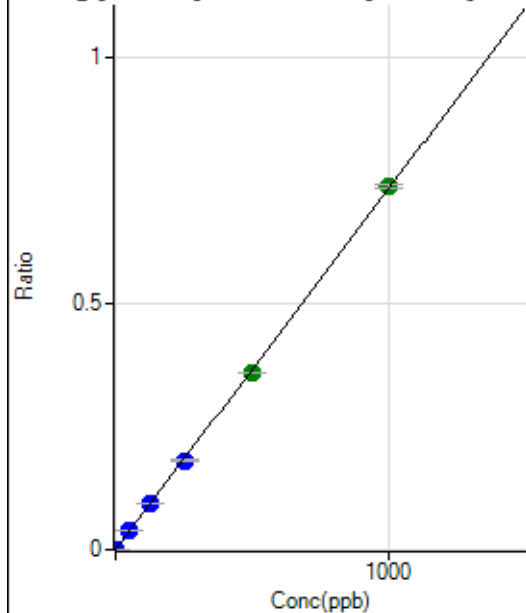
$$DL = 1.262$$

$$BEC = 33.73$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	383.36	0.0000	P	6.8
2	☐	1.000	0.954	21826.07	0.0007	P	1.4
3	☐	50.000	51.572	1169755.02	0.0378	P	0.8
4	☐	125.000	126.969	2905906.77	0.0931	P	0.6
5	☐	250.000	247.633	5648549.48	0.1815	P	0.8
6	☐	500.000	490.235	11264115.09	0.3593	A	0.8
7	☐	1000.000	1005.150	23112473.43	0.7366	A	0.9
8	☐			2489.21	0.0001	P	2.0

$$y = 7.3282\text{E-}004 * x + 1.1807\text{E-}005$$

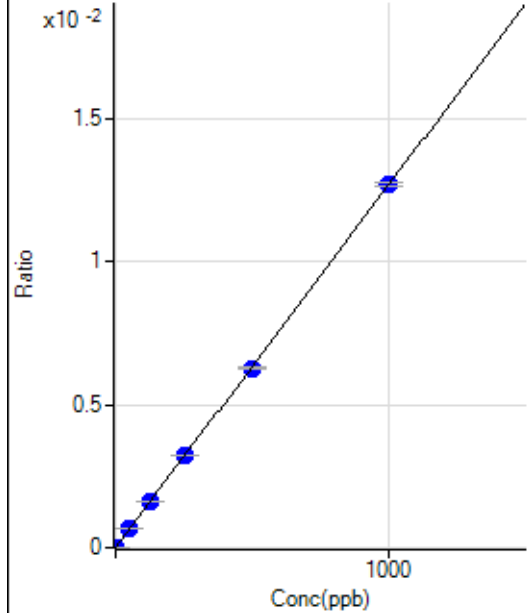
$$R = 0.9999$$

$$DL = 0.003269$$

$$BEC = 0.01611$$

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	45.83	0.0000	P	13.5
2	☐	1.000	1.163	495.85	0.0000	P	10.7
3	☐	50.000	52.277	20534.62	0.0007	P	1.8
4	☐	125.000	129.667	51334.61	0.0016	P	0.2
5	☐	250.000	253.127	99838.68	0.0032	P	0.6
6	☐	500.000	495.610	196874.95	0.0063	P	1.1
7	☐	1000.000	1000.716	397775.78	0.0127	P	1.0
8	☐			127.78	0.0000	P	11.6

$$y = 1.2667\text{E-}005 * x + 1.4172\text{E-}006$$

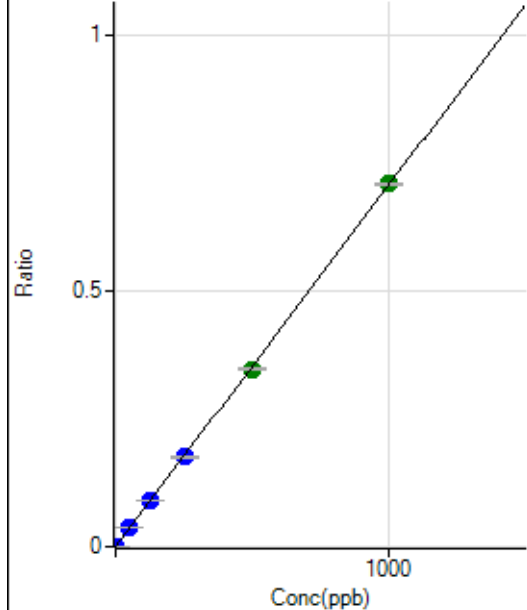
$$R = 1.0000$$

$$DL = 0.04546$$

$$BEC = 0.1119$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	133.34	0.0000	P	40.7
2	☐	1.000	0.943	20590.74	0.0007	P	1.5
3	☐	50.000	51.204	1120150.41	0.0362	P	1.4
4	☐	125.000	126.585	2794602.71	0.0895	P	0.3
5	☐	250.000	247.834	5453219.74	0.1752	P	0.6
6	☐	500.000	491.824	10901355.36	0.3477	A	0.7
7	☐	1000.000	1004.371	22279231.06	0.7100	A	0.5
8	☐			2228.05	0.0001	P	6.9

$$y = 7.0694\text{E-}004 * x + 4.1337\text{E-}006$$

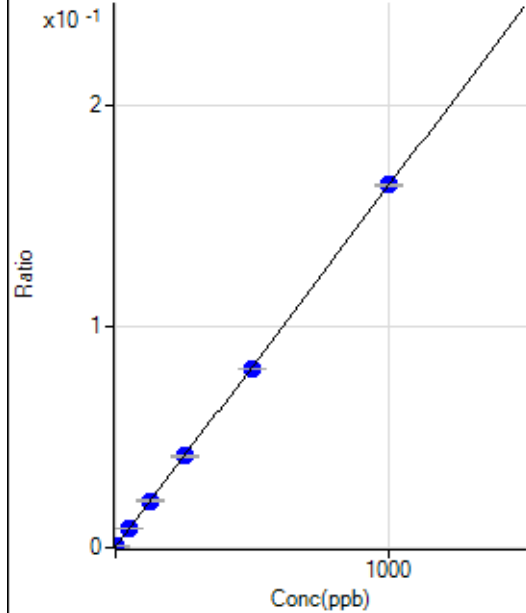
$$R = 0.9999$$

$$DL = 0.007144$$

$$BEC = 0.005847$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13845.69	0.0004	P	1.3
2	☐	1.000	0.950	17844.83	0.0006	P	1.5
3	☐	50.000	51.987	275718.93	0.0089	P	1.2
4	☐	125.000	127.849	664921.75	0.0213	P	0.6
5	☐	250.000	251.208	1289382.46	0.0414	P	0.6
6	☐	500.000	491.997	2531072.19	0.0807	P	0.2
7	☐	1000.000	1003.244	5151211.21	0.1642	P	0.7
8	☐			13338.64	0.0005	P	2.5

$$y = 1.6321\text{E-}004 * x + 4.2619\text{E-}004$$

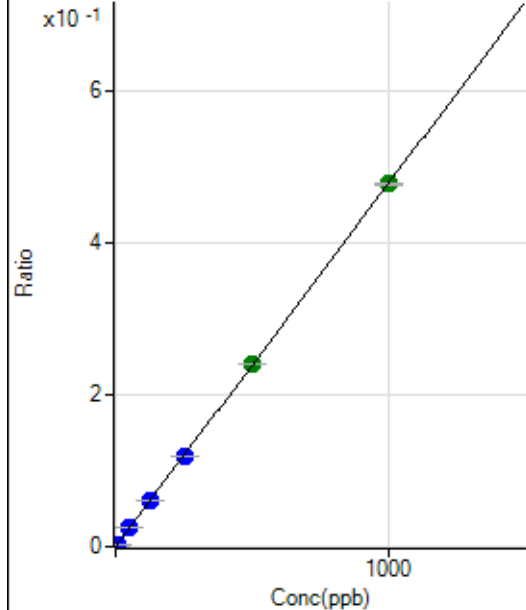
$$R = 0.9999$$

$$DL = 0.1039$$

$$BEC = 2.611$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1389.02	0.0000	P	5.9
2	☐	5.000	5.110	76477.31	0.0025	P	1.0
3	☐	50.000	50.916	755951.08	0.0244	P	1.4
4	☐	125.000	126.374	1891673.72	0.0606	P	0.1
5	☐	250.000	249.059	3714413.10	0.1193	P	1.1
6	☐	500.000	502.172	7543243.66	0.2406	A	0.6
7	☐	1000.000	998.931	15015292.70	0.4785	A	0.8
8	☐			7196.63	0.0002	P	2.4

$$y = 4.7901\text{E-}004 * x + 4.2848\text{E-}005$$

$$R = 1.0000$$

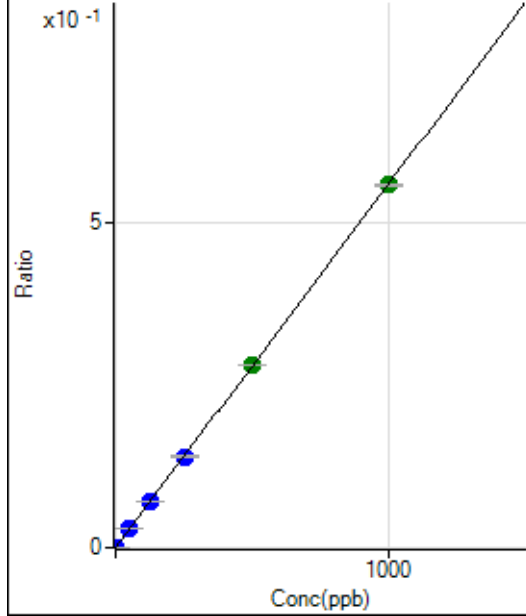
$$DL = 0.01585$$

$$BEC = 0.08945$$

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	141.67	0.0000	P	23.5
2	☐	2.000	1.979	34134.19	0.0011	P	1.6
3	☐	50.000	51.199	886811.85	0.0287	P	0.5
4	☐	125.000	126.535	2211757.54	0.0708	P	0.6
5	☐	250.000	251.012	4372888.51	0.1405	P	0.8
6	☐	500.000	502.794	8823582.14	0.2814	A	0.8
7	☐	1000.000	998.098	17529179.04	0.5587	A	0.6
8	☐			24775.56	0.0008	P	4.1

$$y = 5.5971\text{E-}004 * x + 4.3384\text{E-}006$$

$$R = 1.0000$$

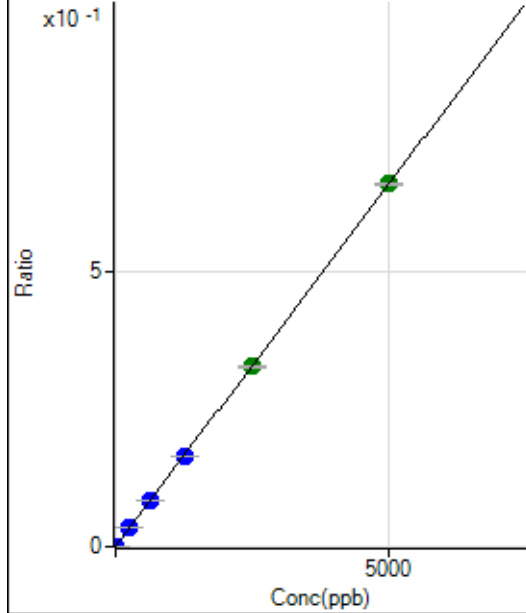
$$DL = 0.005459$$

$$BEC = 0.007751$$

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	47.22	0.0000	P	31.3
2	☐	10.000	10.184	41312.52	0.0013	P	1.2
3	☐	250.000	255.354	1042829.78	0.0337	P	0.7
4	☐	625.000	629.512	2594508.61	0.0831	P	0.1
5	☐	1250.000	1243.523	5108073.86	0.1641	P	0.9
6	☐	2500.000	2482.800	10273848.32	0.3277	A	0.8
7	☐	5000.000	5009.387	20745054.46	0.6611	A	0.6
8	☐			2497.55	0.0001	P	4.8

$$y = 1.3198\text{E-}004 * x + 1.4389\text{E-}006$$

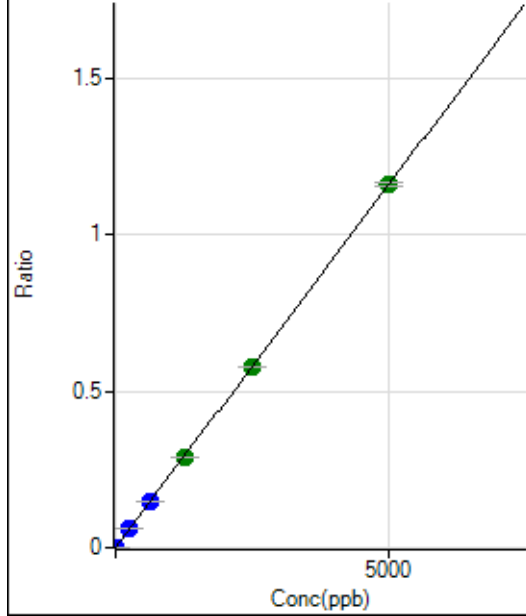
$$R = 1.0000$$

$$DL = 0.01024$$

$$BEC = 0.0109$$

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	52.78	0.0000	P	30.1
2	☐	10.000	10.047	71459.67	0.0023	P	0.5
3	☐	250.000	254.507	1823021.27	0.0589	P	1.1
4	☐	625.000	631.483	4564980.35	0.1462	P	0.6
5	☐	1250.000	1250.859	9012600.90	0.2896	A	0.6
6	☐	2500.000	2495.126	18110004.40	0.5776	A	0.6
7	☐	5000.000	5001.186	36326454.28	1.1577	A	0.9
8	☐			4564.82	0.0002	P	2.8

$$y = 2.3149E-004 * x + 1.6154E-006$$

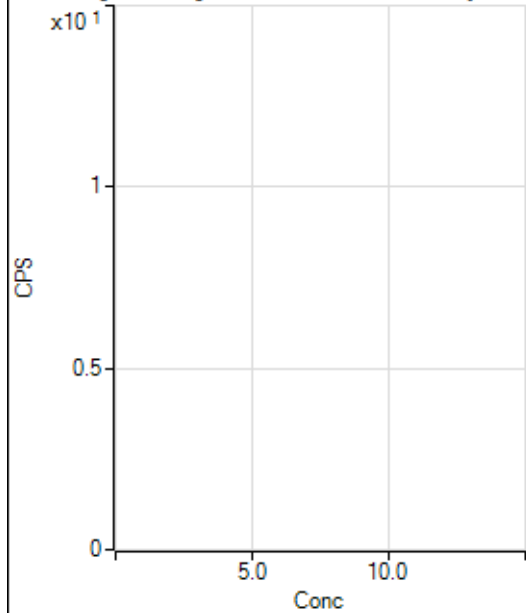
$$R = 1.0000$$

$$DL = 0.006292$$

$$BEC = 0.006978$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			2.22		P	173.
2	☐			15.56		P	49.5
3	☐			95.56		P	22.4
4	☐			213.34		P	19.5
5	☐			460.02		P	11.5
6	☐			911.17		P	1.8
7	☐			1615.71		P	2.8
8	☐			177.78		P	25.5

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			14.44		P	58.1
2	☐			3.33		P	100.
3	☐			14.45		P	93.2
4	☐			21.11		P	55.4
5	☐			31.11		P	52.9
6	☐			77.78		P	27.2
7	☐			140.00		P	25.2
8	☐			65.55		P	16.3

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	12.4
2	☐			13.89		P	91.6
3	☐			50.00		P	16.7
4	☐			86.12		P	34.0
5	☐			91.67		P	15.7
6	☐			213.90		P	16.2
7	☐			344.47		P	6.1
8	☐			83.34		P	52.0

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	45.8
2	☐			16.67		P	52.9
3	☐			33.33		P	10.0
4	☐			47.78		P	17.6
5	☐			106.67		P	5.4
6	☐			156.67		P	25.1
7	☐			330.01		P	8.0
8	☐			44.45		P	24.1

160 Gd [No Gas] Noavailable calibration poin_

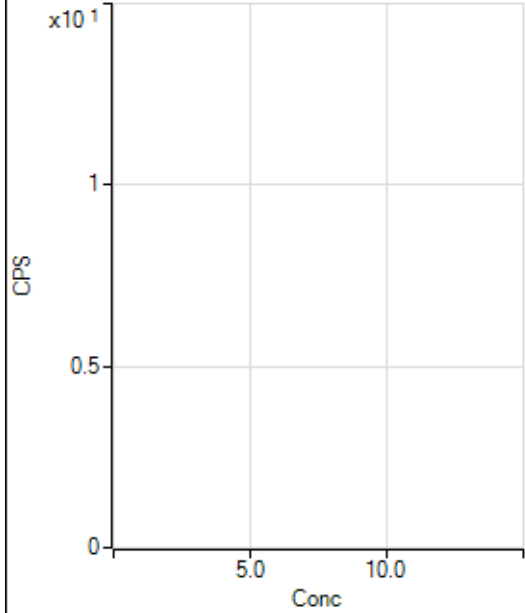
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			286.13		P	13.8
2	☐			202.79		P	34.2
3	☐			236.13		P	13.4
4	☐			188.90		P	15.5
5	☐			219.46		P	13.3
6	☐			225.01		P	9.8
7	☐			275.02		P	13.9
8	☐			241.68		P	17.2

160 Gd [He] No available calibration points

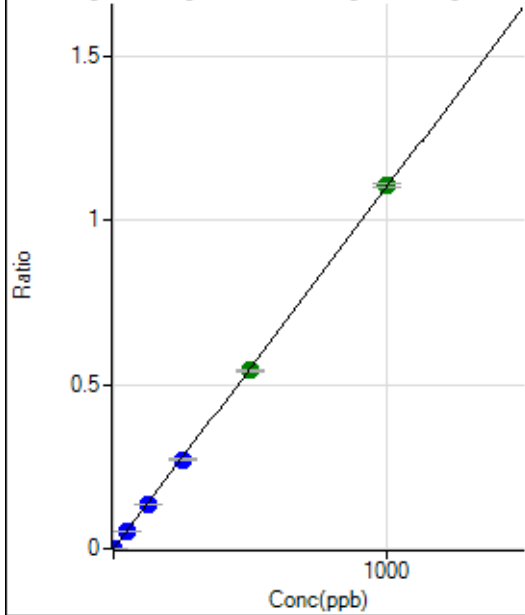
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			357.79		P	4.3
2	☐			352.24		P	5.7
3	☐			361.12		P	7.9
4	☐			347.79		P	9.1
5	☐			396.68		P	26.9
6	☐			366.68		P	7.9
7	☐			390.01		P	6.8
8	☐			392.24		P	7.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			111.12		P	45.8
2	☐			105.56		P	4.6
3	☐			105.56		P	31.9
4	☐			122.23		P	14.2
5	☐			105.56		P	25.4
6	☐			116.67		P	12.4
7	☐			158.34		P	15.8
8	☐			105.56		P	27.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			73.34		P	28.4
2	☐			74.45		P	24.7
3	☐			67.78		P	15.0
4	☐			81.11		P	18.5
5	☐			76.67		P	42.8
6	☐			94.45		P	5.4
7	☐			84.45		P	13.9
8	☐			64.45		P	16.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	972.31	0.0000	P	5.1
2	☐	1.000	0.972	24019.73	0.0011	P	1.1
3	☐	50.000	49.486	1179614.12	0.0545	P	2.0
4	☐	125.000	123.561	2950048.09	0.1360	P	0.7
5	☐	250.000	246.056	5807212.63	0.2708	P	1.2
6	☐	500.000	494.117	11569879.08	0.5437	A	0.9
7	☐	1000.000	1004.133	22794646.86	1.1048	A	1.0
8	☐			6246.19	0.0004	P	3.3

$$y = 0.0011 * x + 4.2430E-005$$

$$R = 1.0000$$

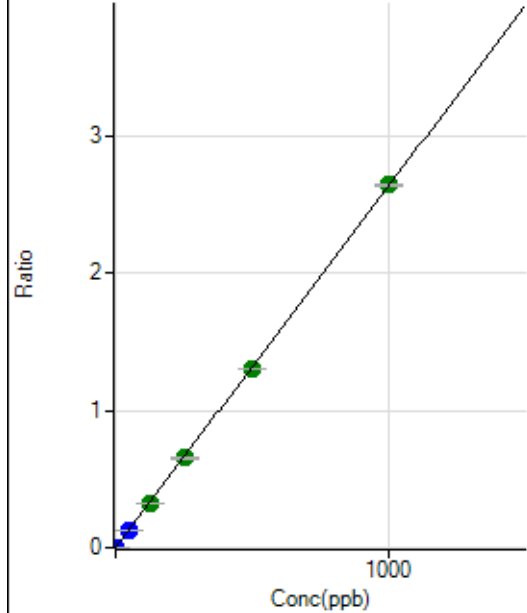
$$DL = 0.00587$$

$$BEC = 0.03857$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1625.18	0.0001	P	4.1
2	☐	1.000	0.954	55751.04	0.0026	P	0.6
3	☐	50.000	50.022	2852055.79	0.1317	P	1.6
4	☐	125.000	124.027	7083780.28	0.3265	A	0.7
5	☐	250.000	247.594	13979691.81	0.6518	A	0.8
6	☐	500.000	494.492	27700862.07	1.3016	A	0.8
7	☐	1000.000	1003.476	54498892.19	2.6414	A	0.8
8	☐			14519.61	0.0008	P	3.0

$$y = 0.0026 * x + 7.0902E-005$$

$$R = 1.0000$$

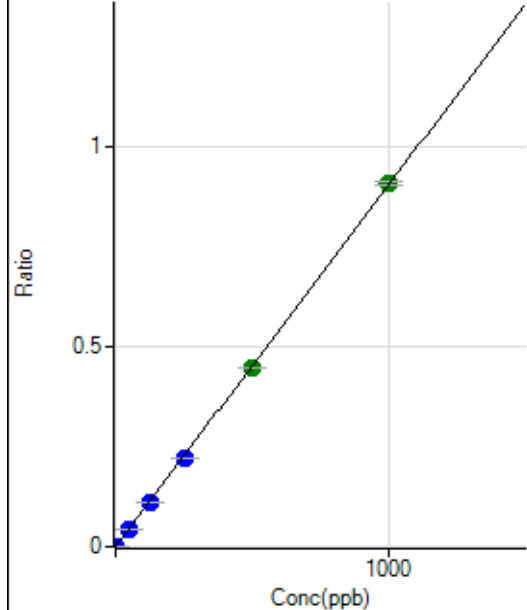
$$DL = 0.003276$$

$$BEC = 0.02694$$

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	1398.27	0.0001	P	11.0
2	☐	1.000	0.965	20117.54	0.0009	P	0.9
3	☐	50.000	49.754	972752.10	0.0449	P	1.4
4	☐	125.000	123.409	2415774.19	0.1114	P	0.4
5	☐	250.000	245.902	4757787.38	0.2218	P	0.9
6	☐	500.000	495.625	9513471.05	0.4470	A	0.6
7	☐	1000.000	1003.423	18672108.06	0.9050	A	1.1
8	☐			8971.79	0.0005	P	0.5

$$y = 9.0183E-004 * x + 6.1121E-005$$

$$R = 1.0000$$

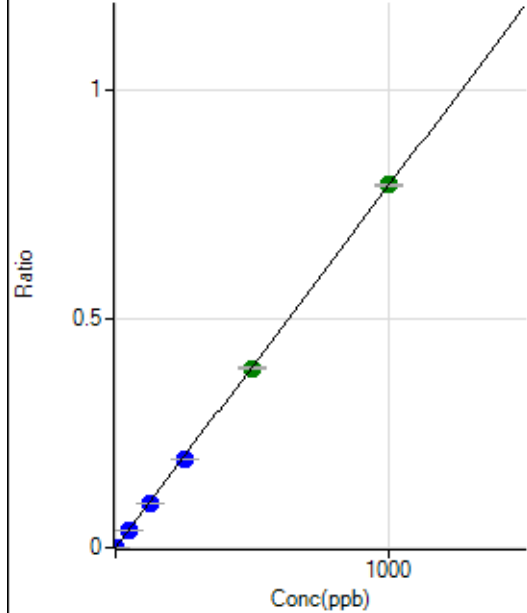
$$DL = 0.02228$$

$$BEC = 0.06777$$

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	1272.32	0.0001	P	5.4
2	☐	1.000	0.953	17450.74	0.0008	P	1.3
3	☐	50.000	49.766	852084.13	0.0394	P	1.1
4	☐	125.000	123.700	2120412.98	0.0977	P	0.9
5	☐	250.000	245.414	4158076.22	0.1939	P	0.7
6	☐	500.000	496.886	8351880.39	0.3924	A	0.8
7	☐	1000.000	1002.878	16342000.83	0.7920	A	0.7
8	☐			7772.85	0.0004	P	4.1

$$y = 7.8971\text{E-}004 * x + 5.5539\text{E-}005$$

$$R = 1.0000$$

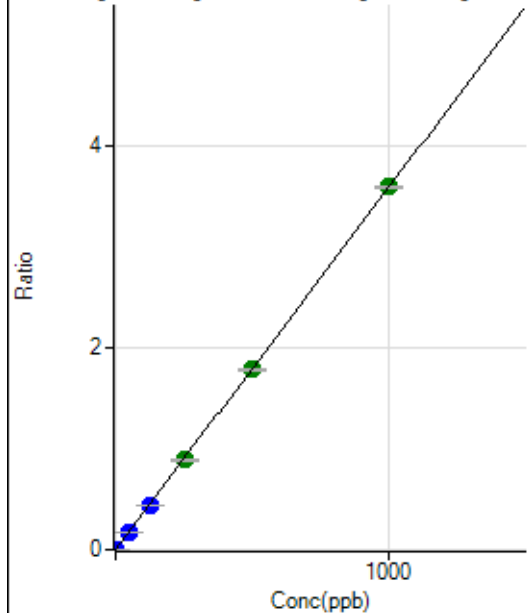
$$DL = 0.01139$$

$$BEC = 0.07033$$

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	4998.66	0.0002	P	9.7
2	☐	1.000	0.959	79057.59	0.0037	P	0.2
3	☐	50.000	50.028	3892658.98	0.1798	P	1.2
4	☐	125.000	124.445	9695642.55	0.4469	P	0.5
5	☐	250.000	247.049	19025386.86	0.8870	A	0.7
6	☐	500.000	497.408	38002276.20	1.7857	A	0.5
7	☐	1000.000	1002.102	74223248.18	3.5973	A	0.7
8	☐			34942.74	0.0020	P	0.6

$$y = 0.0036 * x + 2.1847\text{E-}004$$

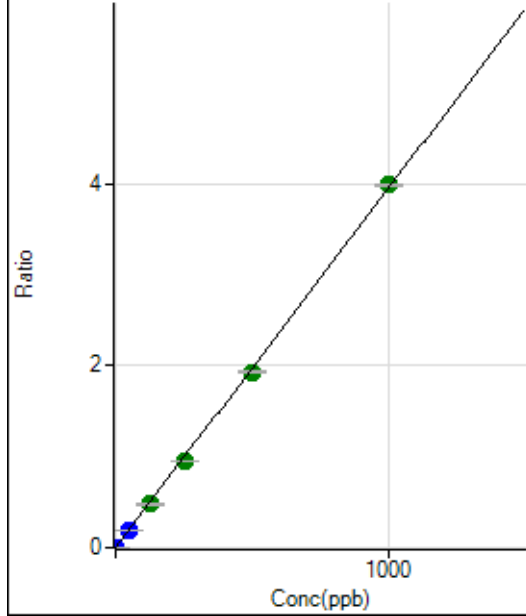
$$R = 1.0000$$

$$DL = 0.01766$$

$$BEC = 0.06086$$

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	2891.14	0.0001	P	3.7
2	☐	1.000	0.821	72888.32	0.0034	P	2.0
3	☐	50.000	47.647	4082987.42	0.1886	P	1.3
4	☐	125.000	120.444	10338042.59	0.4765	A	0.7
5	☐	250.000	240.833	20435644.67	0.9527	A	0.1
6	☐	500.000	487.840	41067038.88	1.9297	A	1.2
7	☐	1000.000	1009.059	82354975.92	3.9914	A	0.4
8	☐			15986.13	0.0009	P	2.3

$$y = 0.0040 * x + 1.2611E-004$$

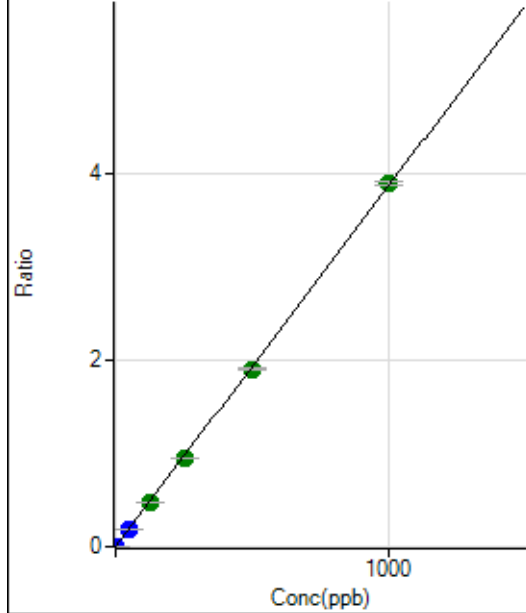
$$R = 0.9998$$

$$DL = 0.003548$$

$$BEC = 0.03188$$

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	3345.03	0.0001	P	11.9
2	☐	1.000	0.906	78685.62	0.0036	P	1.1
3	☐	50.000	48.137	4025596.36	0.1859	P	1.0
4	☐	125.000	121.082	10141402.48	0.4675	A	1.2
5	☐	250.000	243.680	20176874.93	0.9407	A	0.4
6	☐	500.000	492.371	40445108.54	1.9005	A	0.9
7	☐	1000.000	1005.977	80114802.49	3.8828	A	1.0
8	☐			7936.14	0.0004	P	3.4

$$y = 0.0039 * x + 1.4620E-004$$

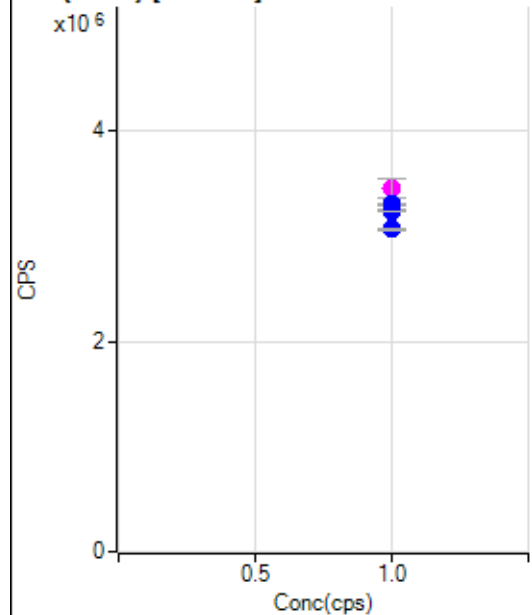
$$R = 0.9999$$

$$DL = 0.0135$$

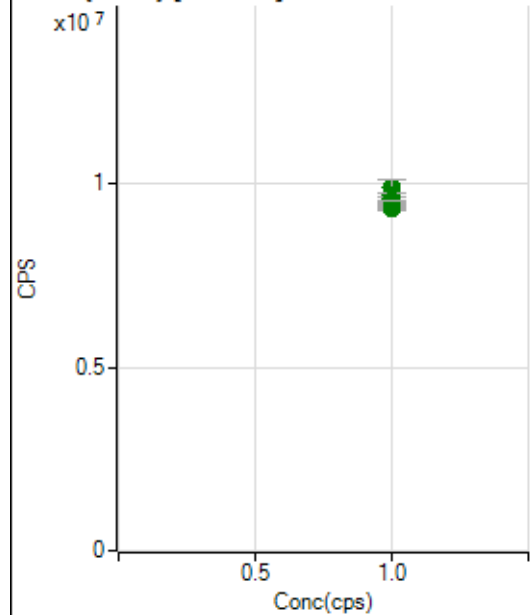
$$BEC = 0.03788$$

Weight: <None>

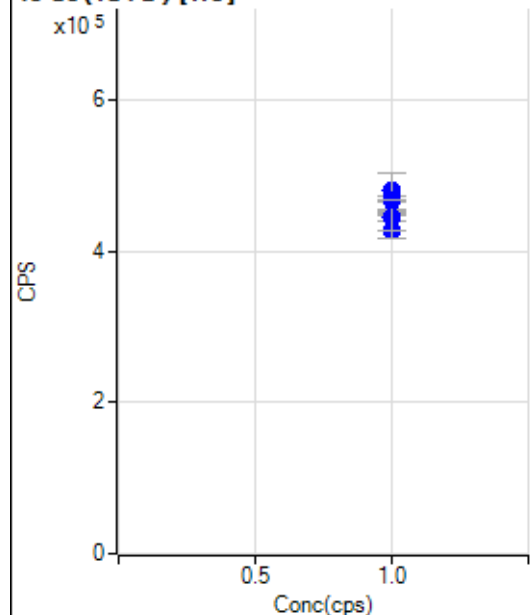
Min Conc: 0

6 Li (ISTD) [No Gas]

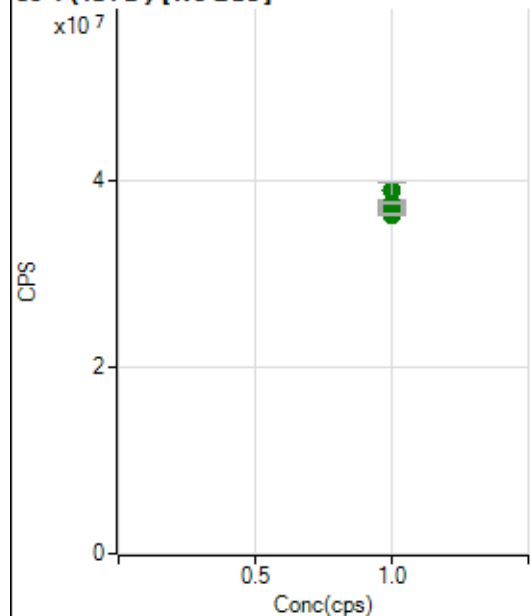
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3451409.53		M	5.3
2	☐	1.000		3295218.75		P	0.1
3	☐	1.000		3311619.54		P	0.5
4	☐	1.000		3296284.67		P	0.3
5	☐	1.000		3254283.33		P	0.5
6	☐	1.000		3254002.03		P	0.4
7	☐	1.000		3235473.38		P	0.3
8	☐	1.000		3067499.10		P	0.4

45 Sc (ISTD) [No Gas]

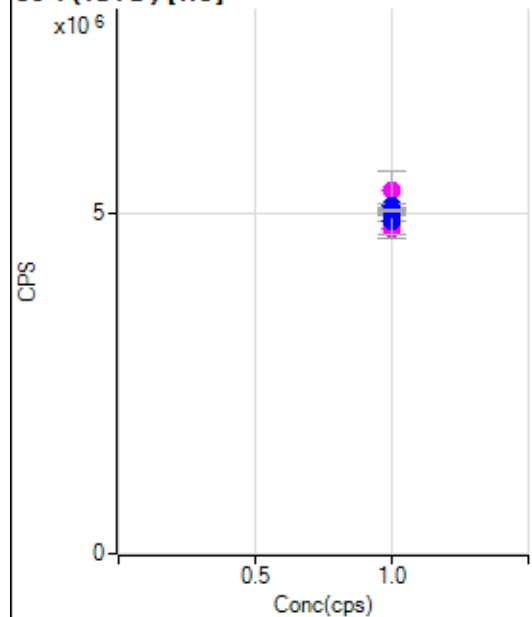
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9901157.34		A	4.6
2	☐	1.000		9340704.03		A	0.6
3	☐	1.000		9402345.61		A	0.1
4	☐	1.000		9469041.79		A	0.0
5	☐	1.000		9460519.31		A	0.7
6	☐	1.000		9597838.06		A	0.7
7	☐	1.000		9710442.84		A	0.6
8	☐	1.000		9542599.43		A	0.3

45 Sc (ISTD) [He]

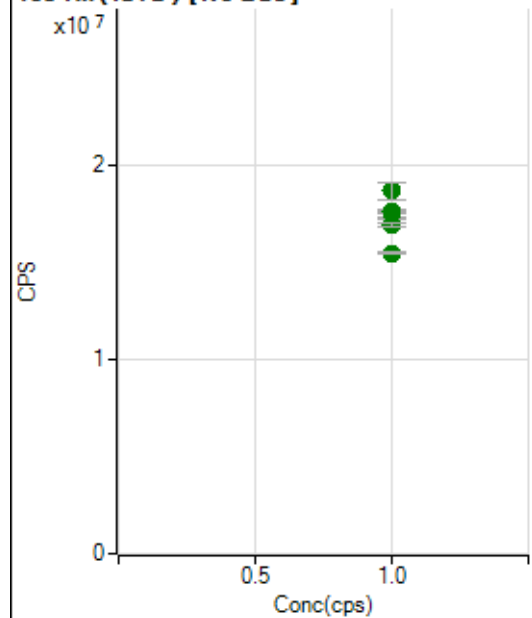
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		450479.40		P	0.9
2	☐	1.000		450492.74		P	0.5
3	☐	1.000		451586.62		P	0.4
4	☐	1.000		428799.61		P	5.5
5	☐	1.000		480643.97		P	10.1
6	☐	1.000		446322.69		P	8.8
7	☐	1.000		470021.53		P	1.1
8	☐	1.000		469225.30		P	0.2

89 Y (ISTD) [No Gas]

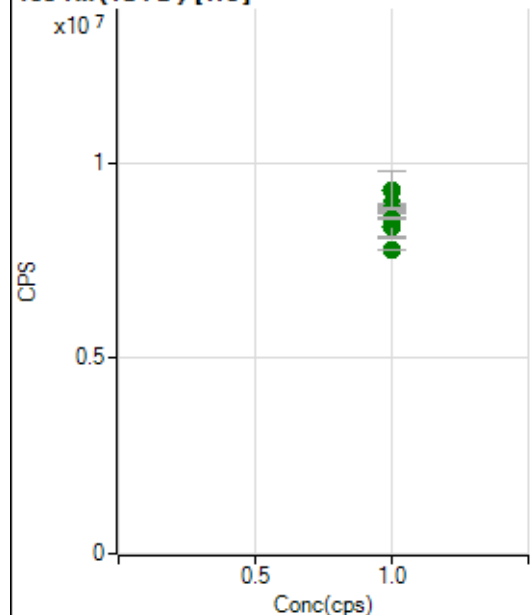
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		38887400.81		A	5.1
2	☐	1.000		36501654.46		A	0.6
3	☐	1.000		36909768.62		A	0.4
4	☐	1.000		37045931.11		A	0.1
5	☐	1.000		37018435.84		A	0.1
6	☐	1.000		37350346.67		A	0.4
7	☐	1.000		37609660.00		A	0.8
8	☐	1.000		36311073.35		A	0.7

89 Y(ISTD) [He]

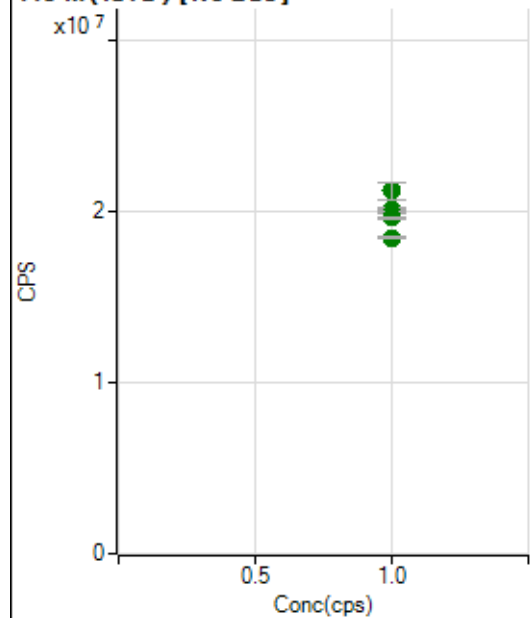
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4997768.30		P	0.3
2	☐	1.000		5004083.96		P	0.7
3	☐	1.000		5014921.84		P	0.3
4	☐	1.000		4769514.79		M	5.6
5	☐	1.000		5339946.52		M	10.5
6	☐	1.000		4898995.10		P	8.2
7	☐	1.000		5126448.88		P	0.7
8	☐	1.000		5058302.56		P	0.7

103 Rh(ISTD) [No Gas]

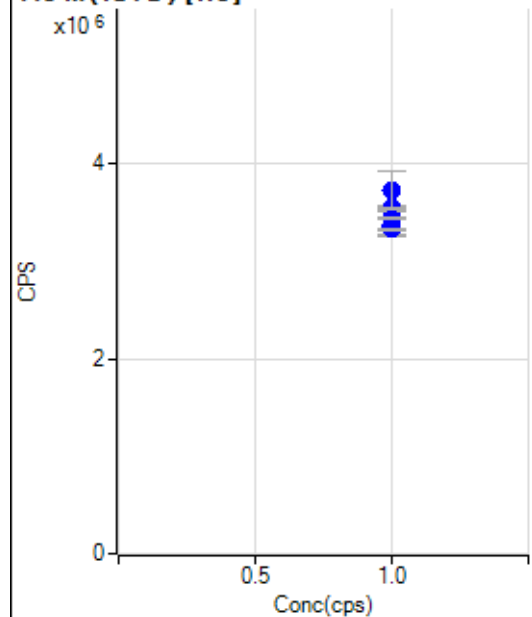
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18698089.31		A	5.0
2	☐	1.000		17576150.22		A	0.6
3	☐	1.000		17640177.13		A	1.0
4	☐	1.000		17556896.57		A	0.2
5	☐	1.000		17296285.97		A	0.8
6	☐	1.000		17262700.21		A	0.2
7	☐	1.000		16965993.78		A	1.0
8	☐	1.000		15471141.67		A	0.6

103 Rh (ISTD) [He]

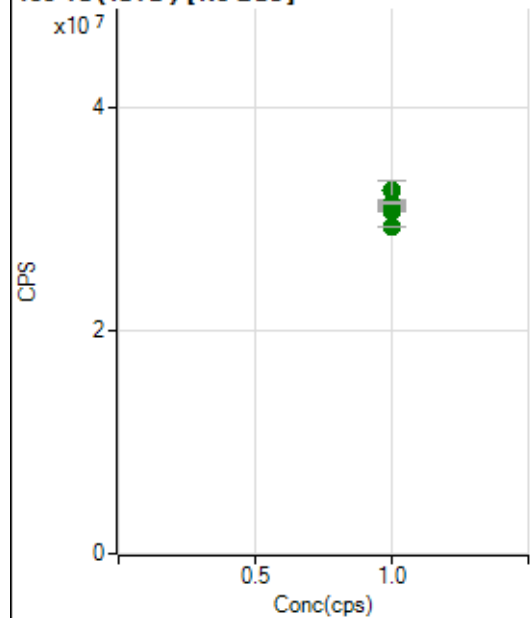
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8950025.00		A	0.7
2	☐	1.000		8839340.63		A	0.6
3	☐	1.000		8839973.48		A	0.6
4	☐	1.000		8374090.50		A	5.8
5	☐	1.000		9293256.39		A	10.9
6	☐	1.000		8397282.79		A	7.3
7	☐	1.000		8582477.58		A	0.5
8	☐	1.000		7780832.80		A	0.4

115 In (ISTD) [No Gas]

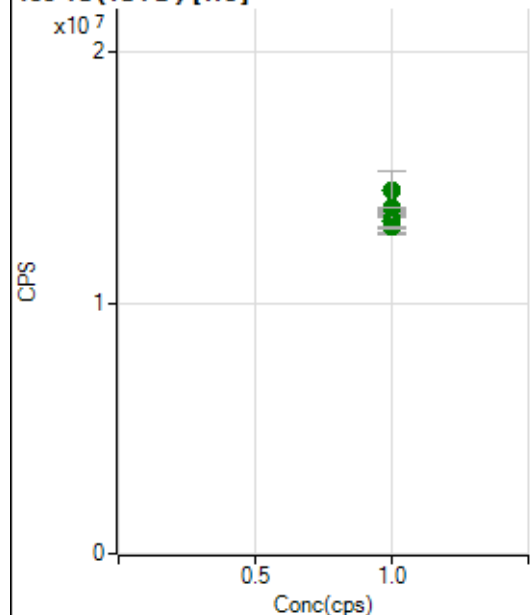
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		21161249.96		A	4.9
2	☐	1.000		19972176.28		A	0.2
3	☐	1.000		20076395.28		A	0.6
4	☐	1.000		20130457.93		A	0.5
5	☐	1.000		19904428.41		A	0.5
6	☐	1.000		19864251.64		A	0.5
7	☐	1.000		19575989.20		A	0.6
8	☐	1.000		18447889.21		A	0.5

115 In (ISTD) [He]

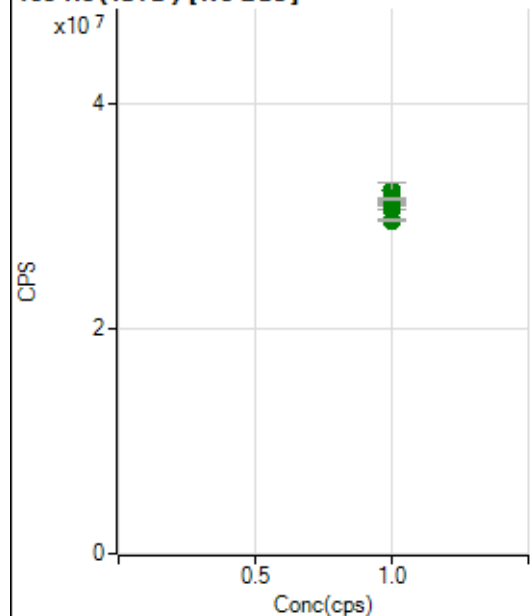
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3530701.70		P	0.6
2	☐	1.000		3547669.70		P	1.1
3	☐	1.000		3540375.92		P	0.3
4	☐	1.000		3352517.75		P	5.2
5	☐	1.000		3720632.00		P	11.2
6	☐	1.000		3380311.52		P	7.5
7	☐	1.000		3433659.54		P	0.6
8	☐	1.000		3330106.06		P	0.6

159 Tb (ISTD) [No Gas]

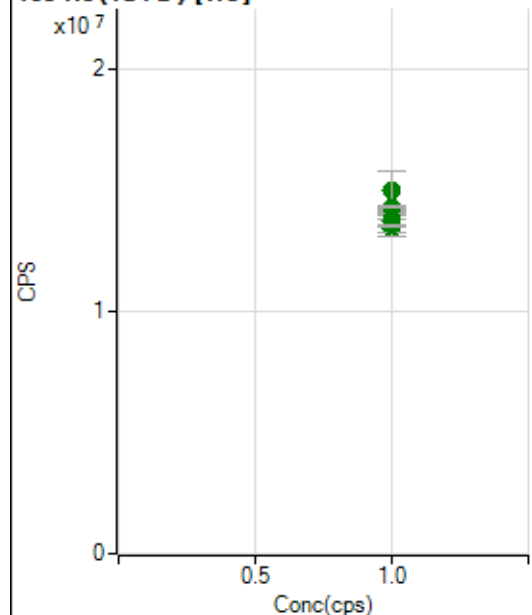
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		32484049.51		A	5.2
2	☐	1.000		30704761.49		A	0.6
3	☐	1.000		30942103.15		A	0.6
4	☐	1.000		31227552.87		A	0.3
5	☐	1.000		31125186.20		A	0.7
6	☐	1.000		31353598.42		A	0.2
7	☐	1.000		31378243.70		A	0.7
8	☐	1.000		29327474.01		A	0.2

159 Tb (ISTD) [He]

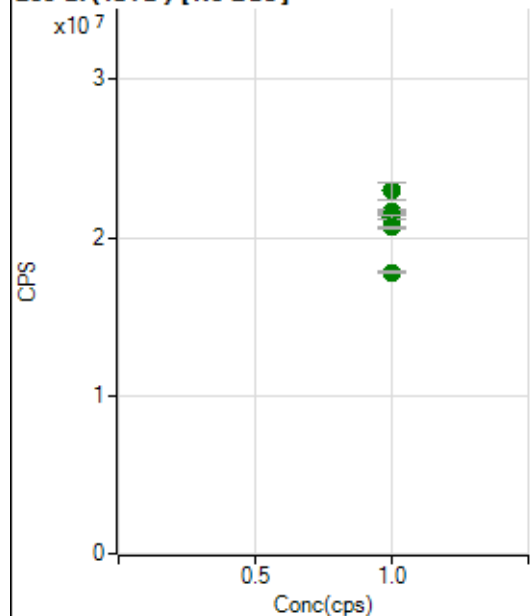
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		13602745.21		A	1.0
2	☐	1.000		13475479.38		A	0.7
3	☐	1.000		13564366.60		A	0.4
4	☐	1.000		13047099.95		A	5.2
5	☐	1.000		14464946.17		A	10.7
6	☐	1.000		13295030.64		A	7.8
7	☐	1.000		13779619.24		A	0.1
8	☐	1.000		13002367.45		A	0.7

165 Ho (ISTD) [No Gas]

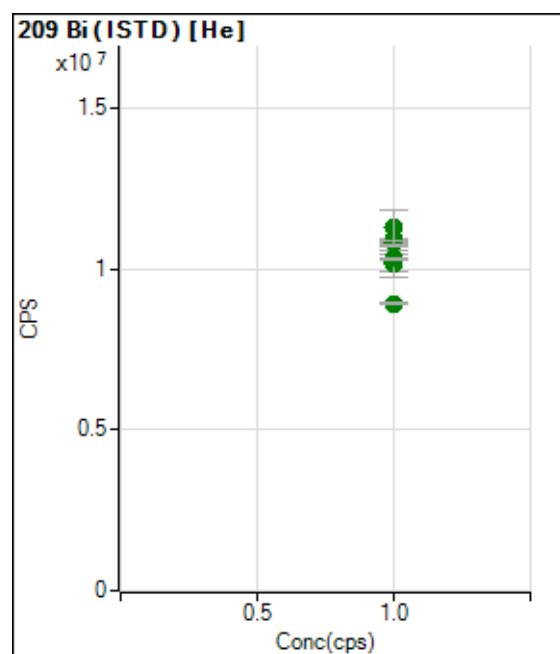
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		32197036.14		A	4.1
2	☐	1.000		30560354.50		A	0.3
3	☐	1.000		30930354.51		A	0.7
4	☐	1.000		31158188.54		A	0.5
5	☐	1.000		31275782.30		A	0.7
6	☐	1.000		31544443.41		A	0.4
7	☐	1.000		31449395.84		A	0.4
8	☐	1.000		29559468.72		A	0.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14124333.54		A	0.6
2	☐	1.000		13999476.74		A	0.2
3	☐	1.000		14086596.32		A	0.2
4	☐	1.000		13472757.85		A	5.0
5	☐	1.000		14999857.14		A	11.2
6	☐	1.000		13753197.43		A	7.4
7	☐	1.000		14335146.73		A	0.8
8	☐	1.000		13565471.33		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		22945173.82		A	4.5
2	☐	1.000		21598156.48		A	0.4
3	☐	1.000		21651322.04		A	0.6
4	☐	1.000		21694714.26		A	0.6
5	☐	1.000		21449698.15		A	0.9
6	☐	1.000		21281893.85		A	0.6
7	☐	1.000		20633365.80		A	0.5
8	☐	1.000		17811259.60		A	0.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10923593.87		A	0.5
2	☐	1.000		10846410.25		A	0.7
3	☐	1.000		10842826.85		A	0.9
4	☐	1.000		10221545.96		A	5.1
5	☐	1.000		11289142.12		A	10.4
6	☐	1.000		10164976.17		A	7.9
7	☐	1.000		10327298.32		A	0.3
8	☐	1.000		8925802.30		A	0.5

US EPA Tune Check Sample Report

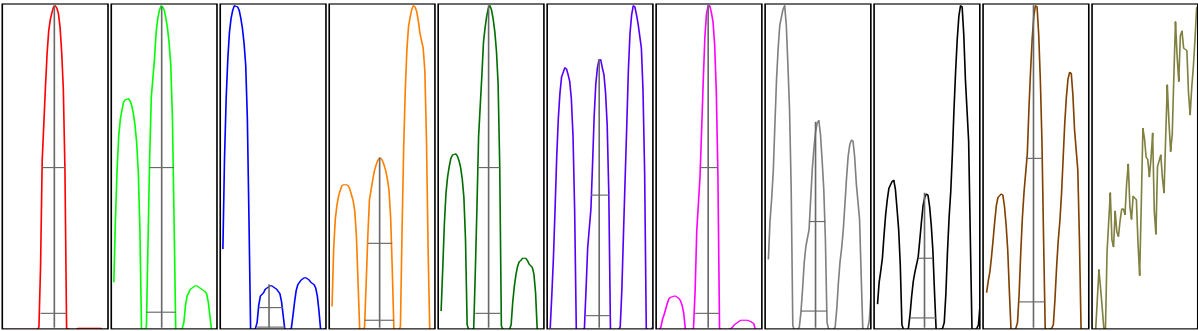
Batch Folder D:\ICP-MS Data\P7090519.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	12089	0.82	5.00	
24	167696	0.83	5.00	
25	22564	0.84	5.00	
26	26823	0.58	5.00	
59	147654	0.86	5.00	
113	23680	1.05	5.00	
115	273253	1.08	5.00	
206	79382	0.70	5.00	
207	72897	0.47	5.00	
208	171527	0.93	5.00	
220	116	2.73		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	12072	12090	12248	11977	12059
24	167242	167515	169883	166052	167788
25	22393	22548	22875	22436	22568
26	26783	26770	27100	26731	26730
59	147503	147281	149757	146336	147390
113	23636	23643	24106	23489	23525
115	273724	272702	278064	270774	271002
206	79220	79431	80226	78670	79365
207	72450	73161	73249	73003	72624
208	170105	171461	174067	170231	171770
220	117	115	111	119	118

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	19609	9.00	8.9 - 9.1		0.784	0.900	
24	259098	23.95	23.9 - 24.1		0.833	0.900	
25	34843	24.90	24.9 - 25.1		0.826	0.900	
26	40995	25.95	25.9 - 26.1		0.834	0.900	
59	248027	58.95	58.9 - 59.1		0.782	0.900	
113	45317	113.00	112.9 - 113.1		0.729	0.900	
115	527315	115.00	114.9 - 115.1		0.725	0.900	
206	162240	205.95	205.9 - 206.1		0.742	0.900	
207	148656	206.95	206.9 - 207.1		0.747	0.900	
208	355945	207.95	207.9 - 208.1		0.747	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.1	V	Deflect	12.4	V
Extract 2	-170.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-85	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	42172	2.33	
89	51259	2.37	
205	64730	1.98	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	42782	42610	40449	42271	42746
89	52097	51729	49139	51391	51939
205	65376	65280	62492	64844	65656

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	7.4	V	Deflect	1.4	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-85	V	Cell Exit	-60	V			

Cell Parameters

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