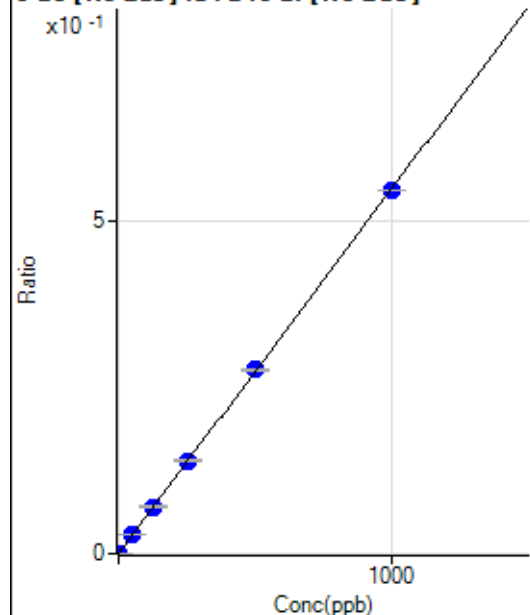


Batch Folder: D:\ICP-MS Data\P7122319MS.b\
Analysis File: P7122319MS.batch.bin
DA Date-Time: 2019-12-24 00:53:43
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-23 12:12:22
2	004CALS.d	S02	2019-12-23 12:16:00
3	005CALS.d	S03	2019-12-23 12:20:47
4	006CALS.d	S04	2019-12-23 12:25:04
5	007CALS.d	S05	2019-12-23 12:28:57
6	008CALS.d	S06	2019-12-23 12:32:48
7	009CALS.d	S07	2019-12-23 12:36:37
8	010CALS.d	S08	2019-12-23 12:40:27

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	62.97	0.0000	P	27.0
2	☐	1.000	1.030	3087.43	0.0006	P	4.3
3	☐	50.000	52.440	152772.27	0.0288	P	0.6
4	☐	125.000	128.915	362031.06	0.0707	P	2.0
5	☐	250.000	255.407	653572.94	0.1400	P	1.8
6	☐	500.000	505.706	1223191.12	0.2773	P	0.9
7	☐	1000.000	995.184	2393163.02	0.5457	P	0.1
8	☐			398.16	0.0001	P	4.1

$$y = 5.4829\text{E-}004 * x + 1.1472\text{E-}005$$

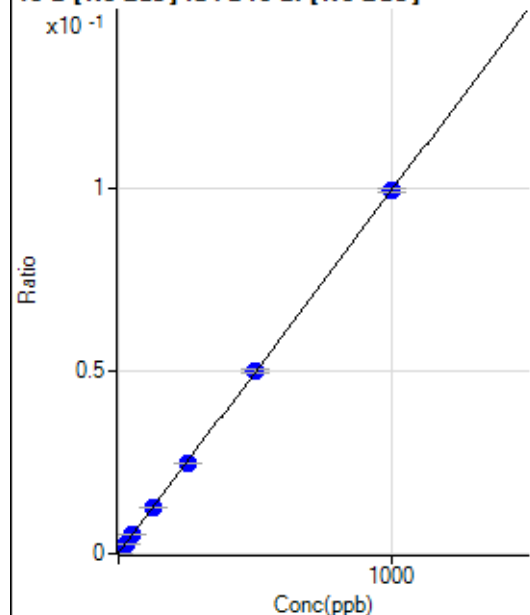
$$R = 1.0000$$

$$DL = 0.01697$$

$$BEC = 0.02092$$

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	502.81	0.0001	P	3.5
2	☐	25.000	24.923	13737.32	0.0026	P	5.2
3	☐	50.000	51.904	27832.07	0.0052	P	1.6
4	☐	125.000	124.929	63941.68	0.0125	P	1.2
5	☐	250.000	249.153	115771.33	0.0248	P	0.8
6	☐	500.000	502.432	220230.08	0.0499	P	2.5
7	☐	1000.000	998.911	435009.84	0.0992	P	1.2
8	☐			10012.06	0.0022	P	14.4

$$y = 9.9199\text{E-}005 * x + 9.1590\text{E-}005$$

$$R = 1.0000$$

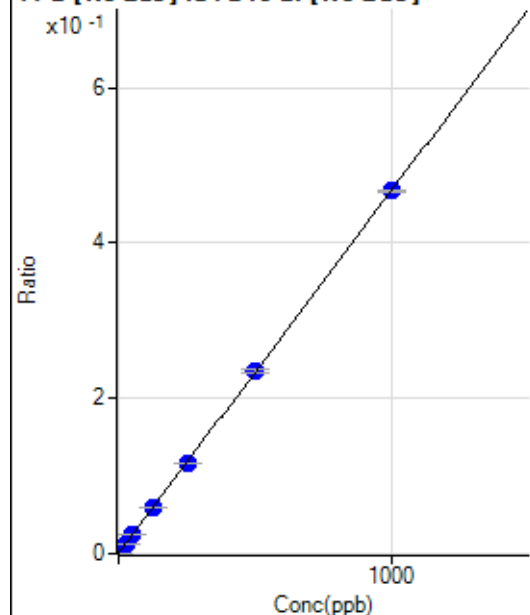
$$DL = 0.09812$$

$$BEC = 0.9233$$

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	2253.04	0.0004	P	11.5
2	☐	25.000	25.686	66500.21	0.0124	P	3.8
3	☐	50.000	51.163	129109.05	0.0243	P	1.3
4	☐	125.000	125.151	301503.58	0.0589	P	0.9
5	☐	250.000	249.538	545903.24	0.1170	P	0.4
6	☐	500.000	501.696	1035526.51	0.2348	P	1.5
7	☐	1000.000	999.173	2048806.90	0.4671	P	0.9
8	☐			48657.38	0.0106	P	10.2

$$y = 4.6711\text{E-}004 * x + 4.1040\text{E-}004$$

$$R = 1.0000$$

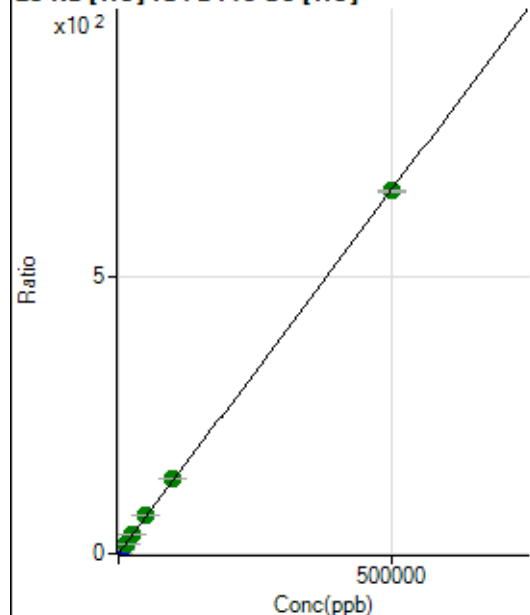
$$DL = 0.3025$$

$$BEC = 0.8786$$

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	12338.84	0.0266	P	5.7
2	☐	500.000	507.964	322841.10	0.6948	P	0.4
3	☐	5000.000	5157.745	3053214.22	6.8121	P	0.5
4	☐	12500.000	12724.120	7004145.99	16.7664	A	2.7
5	☐	25000.000	26262.975	12998397.08	34.5781	A	0.6
6	☐	50000.000	52653.753	25302855.25	69.2978	A	2.3
7	☐	100000.00	103846.22	51671594.56	136.6467	A	1.0
8	☐	500000.00	498895.04	274947550.5	656.3730	A	0.4

$$y = 0.0013 * x + 0.0266$$

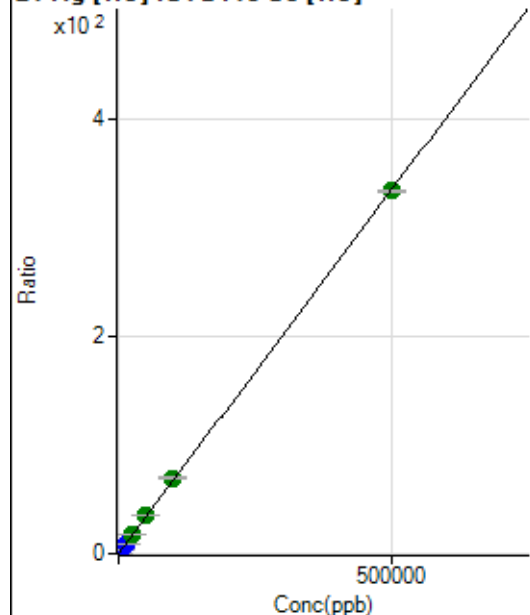
$$R = 1.0000$$

$$DL = 3.442$$

$$BEC = 20.18$$

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	177.79	0.0004	P	14.3
2	☐	500.000	527.939	164708.58	0.3545	P	1.8
3	☐	5000.000	5243.549	1576564.57	3.5175	P	0.4
4	☐	12500.000	12900.326	3614796.26	8.6534	P	2.8
5	☐	25000.000	26710.037	6735129.32	17.9163	A	0.3
6	☐	50000.000	53397.353	13078403.59	35.8171	A	2.0
7	☐	100000.00	104188.91	26426501.98	69.8859	A	1.1
8	☐	500000.00	498724.50	140128769.8	334.5235	A	0.5

$$y = 6.7076\text{E-}004 * x + 3.8259\text{E-}004$$

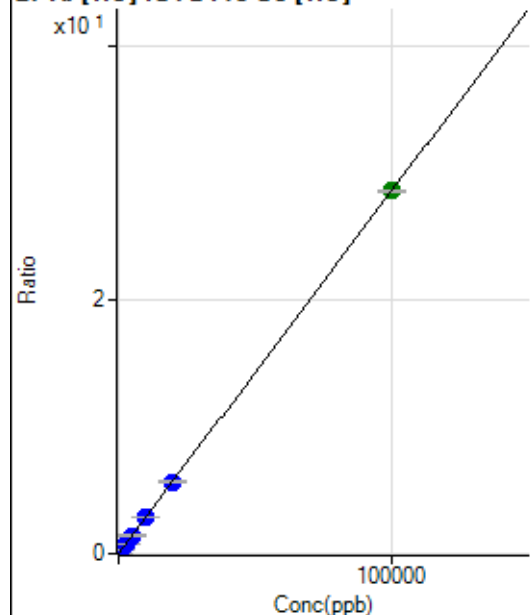
$$R = 0.9999$$

$$DL = 0.245$$

$$BEC = 0.5704$$

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	38.89	0.0001	P	44.8
2	☐	20.000	19.012	2558.67	0.0055	P	4.2
3	☐	1000.000	999.356	127817.42	0.2852	P	1.0
4	☐	2500.000	2461.024	293336.19	0.7022	P	2.8
5	☐	5000.000	5036.166	540138.70	1.4369	P	0.5
6	☐	10000.000	10072.654	1049281.64	2.8737	P	2.4
7	☐	20000.000	19783.650	2134289.03	5.6442	P	1.1
8	☐	100000.00	100035.17	11954883.43	28.5394	A	0.6

$$y = 2.8529\text{E-}004 * x + 8.3725\text{E-}005$$

$$R = 1.0000$$

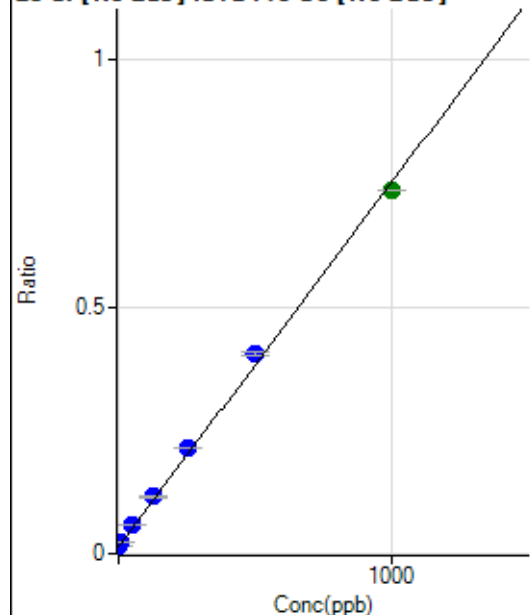
$$DL = 0.3941$$

$$BEC = 0.2935$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177136.32	0.0138	P	1.1
2	☐	10.000	11.690	277755.64	0.0224	P	2.3
3	☐	50.000	59.052	701039.72	0.0574	P	0.9
4	☐	125.000	137.495	1359638.21	0.1152	P	1.9
5	☐	250.000	271.582	2277674.72	0.2141	P	1.0
6	☐	500.000	530.596	4127112.42	0.4051	P	1.4
7	☐	1000.000	977.275	7595331.42	0.7345	A	0.0
8	☐			301487.14	0.0275	P	0.9

$$y = 7.3745\text{E-}004 * x + 0.0138$$

$$R = 0.9990$$

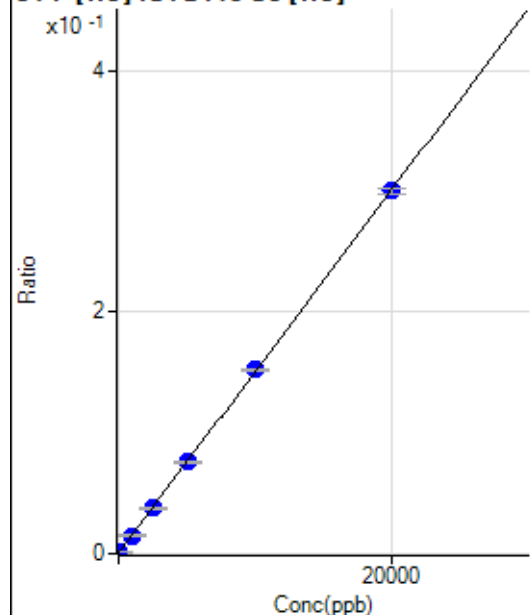
$$DL = 0.5921$$

$$BEC = 18.72$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-26.877	58.34	0.0001	P	37.7
2	☐	0.000	26.877	433.36	0.0009	P	13.2
3	☐	1000.000	965.289	6732.33	0.0150	P	4.3
4	☐	2500.000	2457.408	15639.30	0.0374	P	4.2
5	☐	5000.000	5024.219	28550.50	0.0760	P	1.9
6	☐	10000.000	10086.270	55490.27	0.1520	P	1.9
7	☐	20000.000	19957.870	113496.68	0.3002	P	1.8
8	☐			152.79	0.0004	P	28.4

$$y = 1.5013\text{E-}005 * x + 5.2901\text{E-}004$$

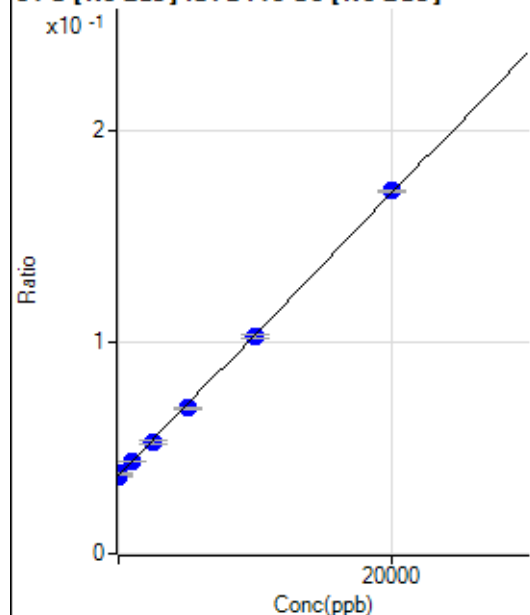
$$R = 1.0000$$

$$DL = 17.04$$

$$BEC = 35.24$$

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	-124.461	464449.87	0.0362	P	0.4
2	☐	0.000	124.461	468897.85	0.0379	P	2.8
3	☐	1000.000	999.184	534253.37	0.0437	P	0.3
4	☐	2500.000	2345.864	622034.06	0.0527	P	2.2
5	☐	5000.000	4773.970	733380.32	0.0689	P	1.6
6	☐	10000.000	9834.323	1046770.25	0.1027	P	1.5
7	☐	20000.000	20158.654	1775863.93	0.1717	P	0.3
8	☐			364471.77	0.0332	P	1.0

$$y = 6.6820\text{E-}006 * x + 0.0370$$

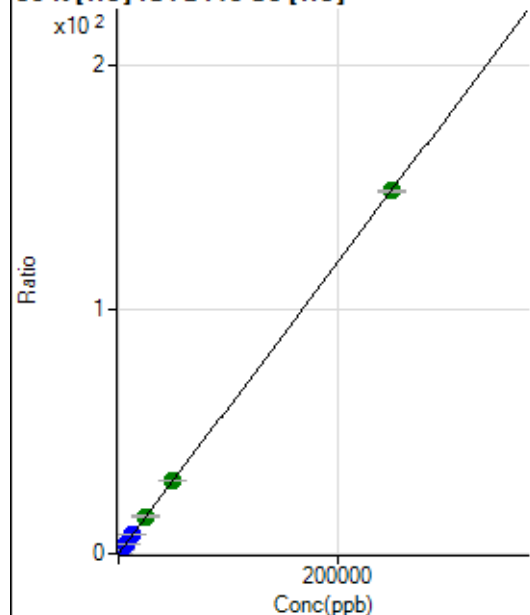
R = 0.9998

DL = 270.7

BEC = 5542

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	17905.86	0.0385	P	2.0
2	☐	500.000	501.968	156705.39	0.3373	P	0.4
3	☐	2500.000	2555.571	698885.51	1.5594	P	0.4
4	☐	6250.000	6213.450	1560810.79	3.7362	P	2.6
5	☐	12500.000	12664.227	2847613.71	7.5751	P	0.3
6	☐	25000.000	25612.952	5579509.89	15.2809	A	2.4
7	☐	50000.000	50544.489	11388924.47	30.1177	A	0.6
8	☐	250000.00	249821.95	62292486.81	148.7083	A	0.8

$$y = 5.9510\text{E-}004 * x + 0.0385$$

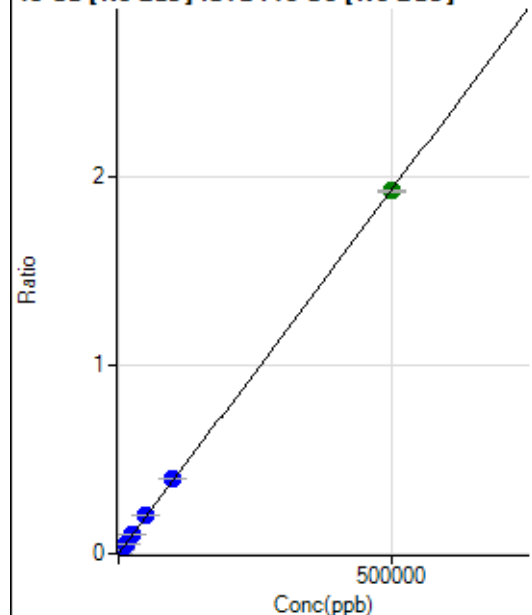
R = 1.0000

DL = 3.822

BEC = 64.75

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	280.57	0.0000	P	9.4
2	☐	500.000	518.994	25033.03	0.0020	P	4.4
3	☐	5000.000	5244.943	247280.76	0.0202	P	0.8
4	☐	12500.000	12866.803	585307.11	0.0496	P	2.7
5	☐	25000.000	26098.708	1070100.72	0.1006	P	1.0
6	☐	50000.000	52090.743	2045026.30	0.2007	P	1.5
7	☐	100000.00	103585.74	4127472.70	0.3991	P	0.3
8	☐	500000.00	499007.20	21088450.29	1.9227	A	0.5

$$y = 3.8530\text{E-}006 * x + 2.1866\text{E-}005$$

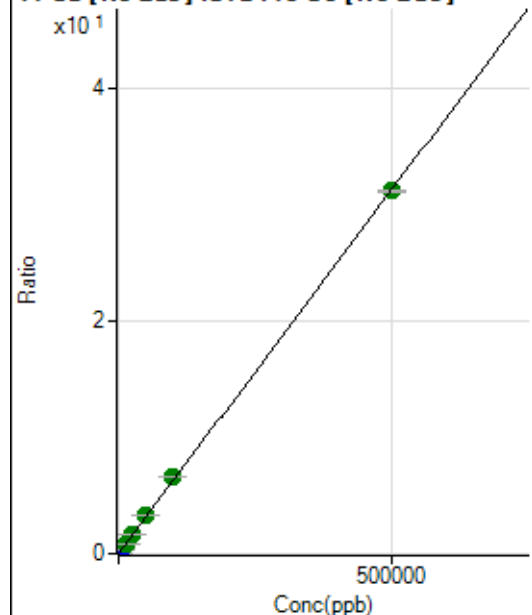
$$R = 1.0000$$

$$DL = 1.605$$

$$BEC = 5.675$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10946.76	0.0009	P	4.6
2	☐	500.000	521.436	414197.46	0.0334	P	2.9
3	☐	5000.000	5244.170	4017247.18	0.3287	P	0.6
4	☐	12500.000	12789.674	9444272.95	0.8003	A	2.9
5	☐	25000.000	26015.539	17310639.63	1.6270	A	1.0
6	☐	50000.000	52322.240	33330467.76	3.2714	A	1.4
7	☐	100000.00	104581.92	67609892.48	6.5381	A	0.2
8	☐	500000.00	498790.90	341978563.2	31.1796	A	0.5

$$y = 6.2509\text{E-}005 * x + 8.5328\text{E-}004$$

$$R = 0.9999$$

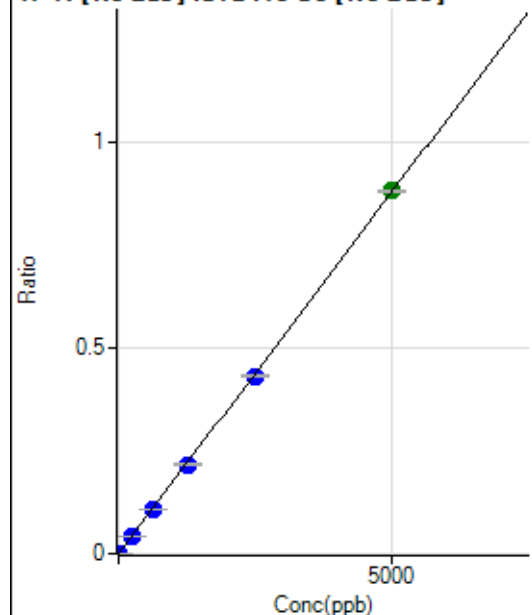
$$DL = 1.885$$

$$BEC = 13.65$$

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	97.22	0.0000	P	21.8
2	☐	5.000	5.324	11638.41	0.0009	P	5.1
3	☐	250.000	248.814	532810.85	0.0436	P	0.4
4	☐	625.000	610.726	1262438.58	0.1070	P	3.0
5	☐	1250.000	1234.282	2300222.06	0.2162	P	1.1
6	☐	2500.000	2461.783	4393236.99	0.4312	P	1.4
7	☐	5000.000	5024.881	9101707.41	0.8802	A	0.2
8	☐			3011.50	0.0003	P	27.9

$$y = 1.7516\text{E-}004 * x + 7.5802\text{E-}006$$

$$R = 0.9999$$

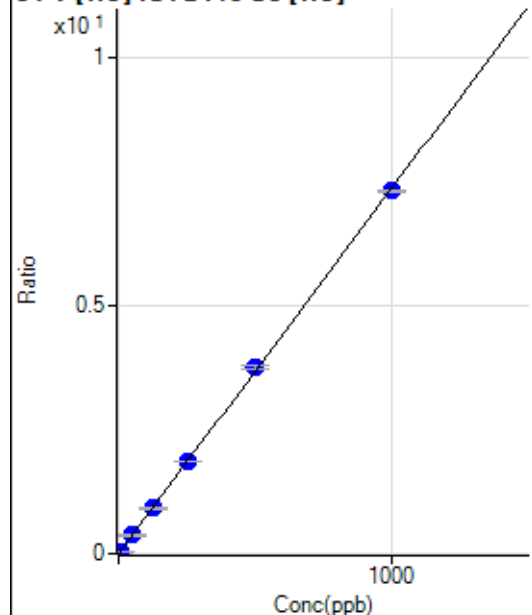
$$DL = 0.02824$$

$$BEC = 0.04328$$

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	6.67	0.0000	P	99.9
2	☐	5.000	5.247	17980.04	0.0387	P	1.6
3	☐	50.000	50.077	165454.93	0.3692	P	0.4
4	☐	125.000	123.982	381828.95	0.9139	P	2.3
5	☐	250.000	253.584	702693.44	1.8693	P	0.5
6	☐	500.000	510.568	1374207.43	3.7636	P	2.4
7	☐	1000.000	993.942	2770697.67	7.3268	P	0.3
8	☐			1093.39	0.0026	P	2.2

$$y = 0.0074 * x + 1.4345\text{E-}005$$

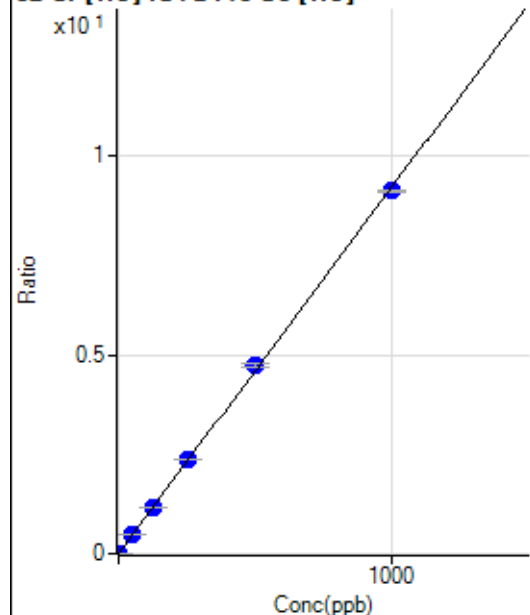
$$R = 0.9999$$

$$DL = 0.005831$$

$$BEC = 0.001946$$

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	1494.54	0.0032	P	3.2
2	☐	2.000	1.968	9904.55	0.0213	P	0.8
3	☐	50.000	51.034	211849.72	0.4727	P	0.4
4	☐	125.000	126.120	486006.04	1.1634	P	2.7
5	☐	250.000	257.097	890276.98	2.3682	P	0.1
6	☐	500.000	513.931	1727406.61	4.7308	P	2.1
7	☐	1000.000	991.069	3448740.64	9.1199	P	0.3
8	☐			99449.08	0.2374	P	0.3

$$y = 0.0092 * x + 0.0032$$

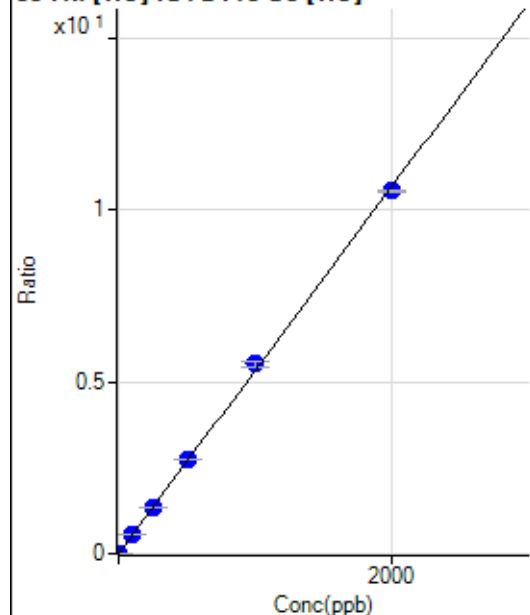
$$R = 0.9998$$

$$DL = 0.03327$$

$$BEC = 0.3496$$

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	44.44	0.0001	P	26.3
2	☐	1.000	1.062	2673.62	0.0058	P	2.5
3	☐	100.000	101.302	242016.75	0.5400	P	0.5
4	☐	250.000	251.243	559432.67	1.3391	P	2.4
5	☐	500.000	513.797	1029417.56	2.7384	P	0.2
6	☐	1000.000	1034.701	2013537.46	5.5145	P	2.3
7	☐	2000.000	1978.979	3988414.59	10.5471	P	0.4
8	☐			17476.16	0.0417	P	0.8

$$y = 0.0053 * x + 9.5635E-005$$

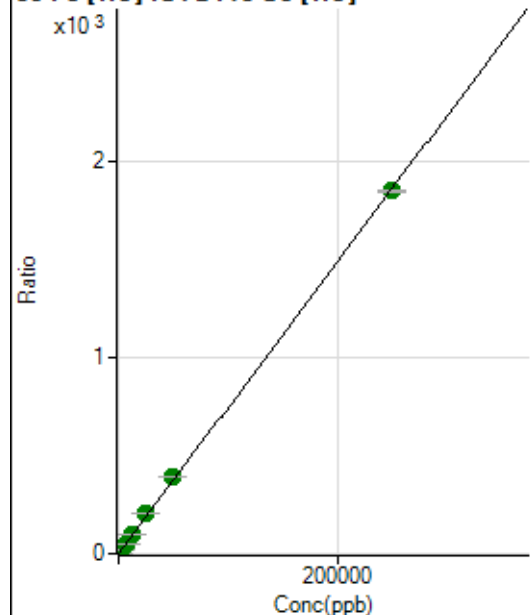
$$R = 0.9997$$

$$DL = 0.01416$$

$$BEC = 0.01794$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3965.47	0.0085	P	1.1
2	☐	50.000	55.938	196742.50	0.4234	P	1.1
3	☐	2500.000	2700.052	8980202.40	20.0361	A	0.9
4	☐	6250.000	6696.757	20756141.43	49.6816	A	2.3
5	☐	12500.000	13797.280	38474700.86	102.3495	A	0.5
6	☐	25000.000	27693.291	75003069.27	205.4228	A	2.6
7	☐	50000.000	53102.166	148950551.4	393.8925	A	0.7
8	☐	250000.00	249032.20	773759069.1	1,847.198	A	0.3

$$y = 0.0074 * x + 0.0085$$

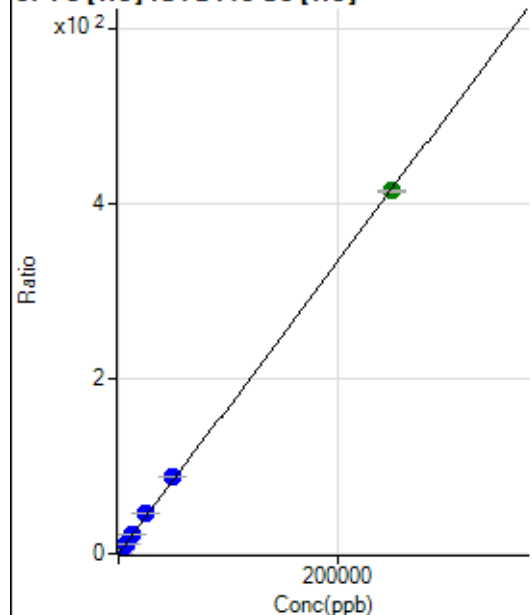
$$R = 0.9999$$

$$DL = 0.03678$$

$$BEC = 1.15$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	928.28	0.0020	P	3.9
2	☐	50.000	56.032	44282.80	0.0953	P	1.2
3	☐	2500.000	2701.176	2017082.67	4.5004	P	0.9
4	☐	6250.000	6700.770	4662859.85	11.1611	P	2.3
5	☐	12500.000	13804.619	8642862.39	22.9915	P	0.4
6	☐	25000.000	27700.751	16844156.37	46.1333	P	2.5
7	☐	50000.000	53185.316	33494324.96	88.5740	P	0.7
8	☐	250000.00	249014.34	173709322.5	414.6971	A	0.3

$$y = 0.0017 * x + 0.0020$$

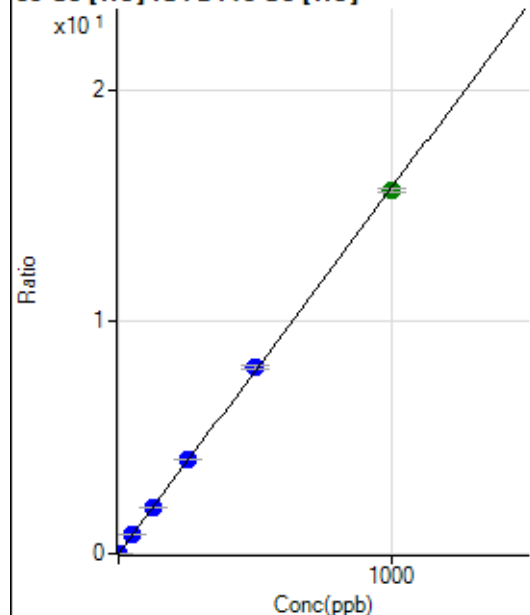
$$R = 0.9999$$

$$DL = 0.1405$$

$$BEC = 1.2$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	58.89	0.0001	P	6.5
2	☐	1.000	0.997	7365.29	0.0159	P	1.3
3	☐	50.000	51.519	364167.85	0.8125	P	0.2
4	☐	125.000	126.142	831042.64	1.9892	P	2.4
5	☐	250.000	257.946	1529099.02	4.0676	P	0.3
6	☐	500.000	511.665	2946022.91	8.0684	P	2.3
7	☐	1000.000	991.962	5914945.40	15.6420	A	0.9
8	☐			11313.40	0.0270	P	3.4

$$y = 0.0158 * x + 1.2673E-004$$

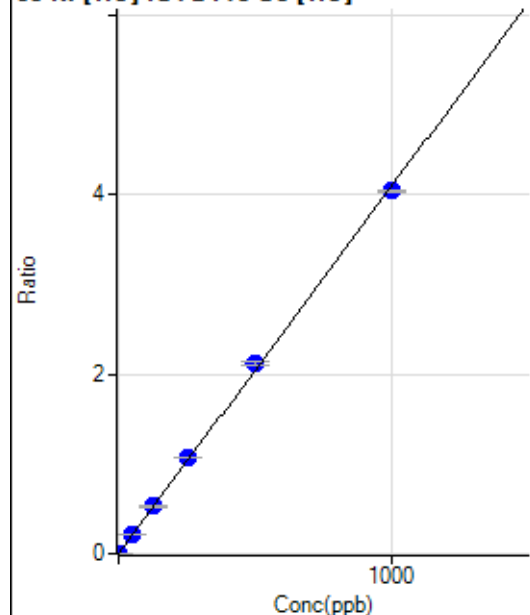
$$R = 0.9999$$

$$DL = 0.001561$$

$$BEC = 0.008037$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	75.56	0.0002	P	9.1
2	☐	1.000	1.024	2021.28	0.0044	P	6.6
3	☐	50.000	52.831	96886.17	0.2162	P	0.3
4	☐	125.000	129.043	220449.60	0.5278	P	3.3
5	☐	250.000	262.157	402985.02	1.0720	P	0.8
6	☐	500.000	517.173	772183.38	2.1147	P	1.9
7	☐	1000.000	987.728	1527197.49	4.0387	P	0.7
8	☐			30877.08	0.0737	P	0.4

$$y = 0.0041 * x + 1.6259E-004$$

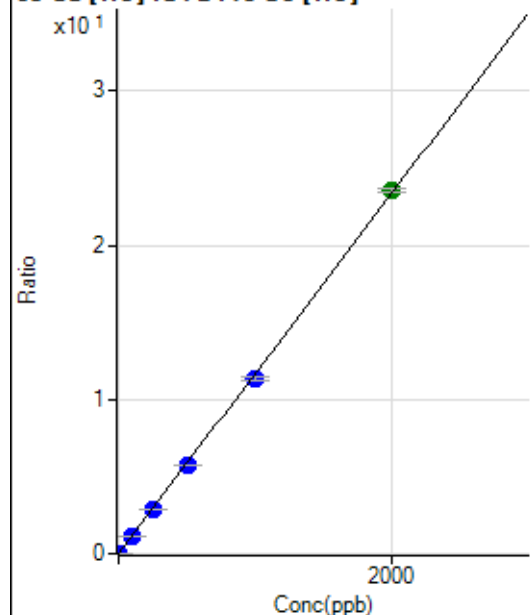
$$R = 0.9997$$

$$DL = 0.01086$$

$$BEC = 0.03976$$

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	701.14	0.0015	P	3.9
2	☐	2.000	1.994	11508.00	0.0248	P	3.0
3	☐	100.000	99.950	523354.12	1.1677	P	0.1
4	☐	250.000	245.041	1194900.05	2.8605	P	3.0
5	☐	500.000	494.893	2171198.91	5.7757	P	0.4
6	☐	1000.000	973.519	4148032.92	11.3601	P	2.1
7	☐	2000.000	2015.139	8891352.44	23.5134	A	1.0
8	☐			15893.28	0.0379	P	0.7

$$y = 0.0117 * x + 0.0015$$

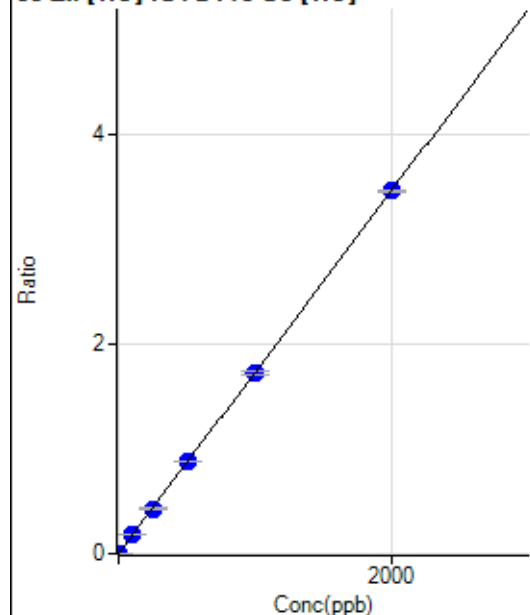
$$R = 0.9999$$

$$DL = 0.01529$$

$$BEC = 0.1293$$

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	911.15	0.0020	P	11.9
2	☐	2.000	2.017	2533.60	0.0055	P	2.6
3	☐	100.000	100.351	78752.00	0.1757	P	0.8
4	☐	250.000	247.068	179512.47	0.4297	P	2.7
5	☐	500.000	505.812	329930.34	0.8777	P	0.9
6	☐	1000.000	999.051	632293.32	1.7317	P	2.2
7	☐	2000.000	1999.370	1309742.63	3.4636	P	0.5
8	☐			18058.02	0.0431	P	1.7

$$y = 0.0017 * x + 0.0020$$

$$R = 1.0000$$

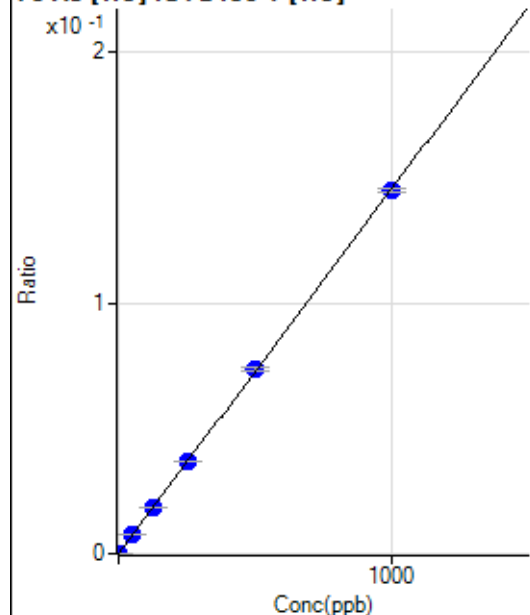
$$DL = 0.4046$$

$$BEC = 1.133$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.47	0.0000	P	86.6
2	☐	1.000	1.041	454.33	0.0002	P	3.4
3	☐	50.000	52.215	22113.77	0.0076	P	0.5
4	☐	125.000	126.633	51013.67	0.0184	P	2.7
5	☐	250.000	253.017	93847.62	0.0368	P	0.1
6	☐	500.000	507.387	183121.17	0.0738	P	1.8
7	☐	1000.000	995.237	368316.19	0.1448	P	0.9
8	☐			185.80	0.0001	P	4.5

$$y = 1.4547\text{E-}004 * x + 8.2957\text{E-}007$$

$$R = 1.0000$$

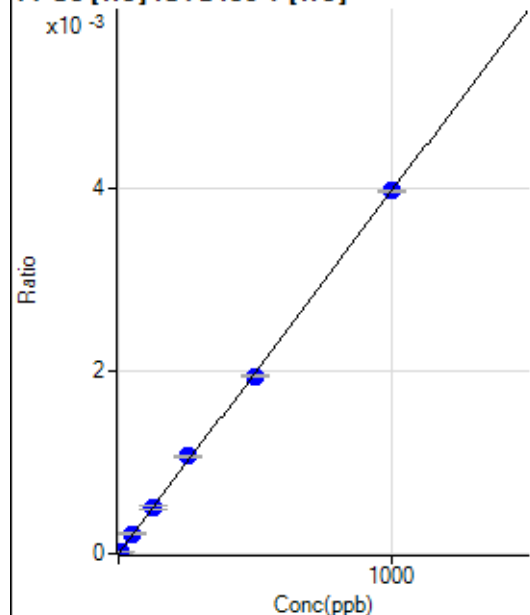
$$DL = 0.01482$$

$$BEC = 0.005703$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	5.000	5.163	62.22	0.0000	P	8.3
3	☐	50.000	55.533	642.25	0.0002	P	9.7
4	☐	125.000	127.353	1397.87	0.0005	P	10.9
5	☐	250.000	267.802	2708.08	0.0011	P	1.5
6	☐	500.000	488.864	4809.77	0.0019	P	1.4
7	☐	1000.000	1000.546	10093.67	0.0040	P	0.8
8	☐			10.00	0.0000	P	66.1

$$y = 3.9646\text{E-}006 * x + 3.7398\text{E-}007$$

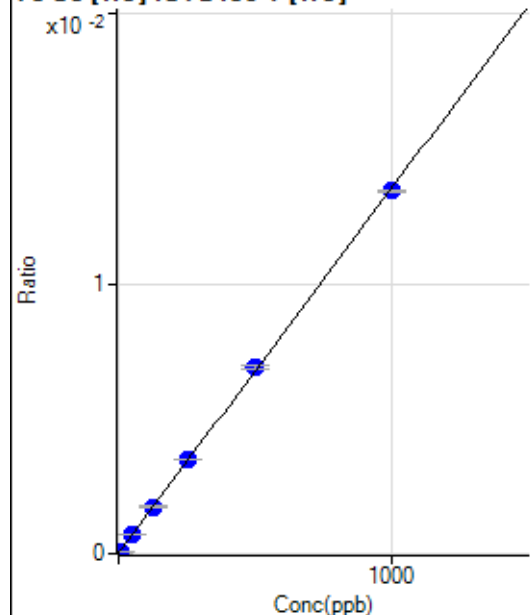
$$R = 0.9997$$

$$DL = 0.4902$$

$$BEC = 0.09433$$

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	59.88	0.0000	P	20.2
2	☐	5.000	5.701	290.13	0.0001	P	7.5
3	☐	50.000	50.388	2040.28	0.0007	P	2.1
4	☐	125.000	126.813	4800.83	0.0017	P	2.1
5	☐	250.000	256.577	8889.20	0.0035	P	0.6
6	☐	500.000	509.566	17129.95	0.0069	P	1.5
7	☐	1000.000	993.323	34193.32	0.0134	P	0.3
8	☐			69.14	0.0000	P	11.0

$$y = 1.3510\text{E-}005 * x + 2.0141\text{E-}005$$

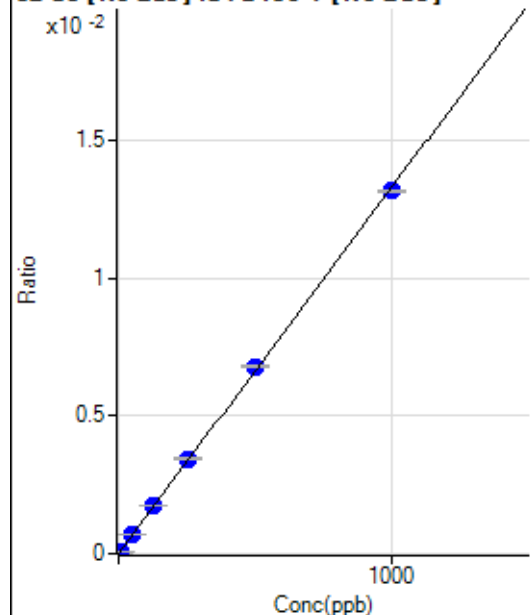
$$R = 0.9999$$

$$DL = 0.9046$$

$$BEC = 1.491$$

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	45.26	0.0000	P	71.5
2	☐	5.000	5.761	1956.04	0.0001	P	3.6
3	☐	50.000	52.905	17578.38	0.0007	P	0.7
4	☐	125.000	130.525	42689.01	0.0017	P	2.0
5	☐	250.000	258.885	78603.94	0.0034	P	1.2
6	☐	500.000	511.299	150056.44	0.0068	P	1.0
7	☐	1000.000	991.290	294141.71	0.0132	P	0.7
8	☐			290.30	0.0000	P	19.9

$$y = 1.3293\text{E-}005 * x + 1.7381\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.2807$$

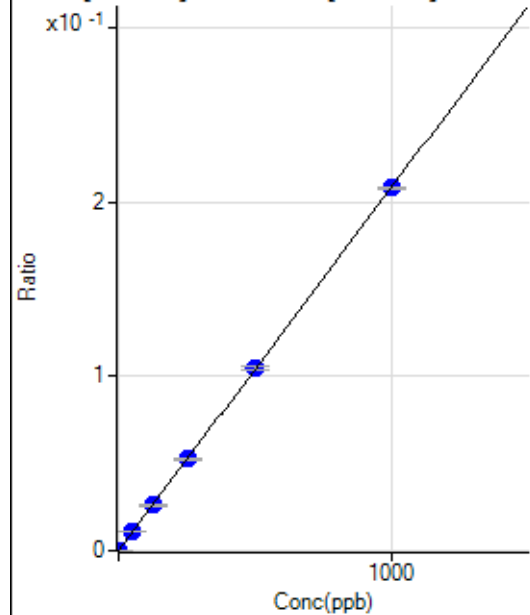
$$BEC = 0.1308$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			722.25		P	2.8
2	☐			768.92		P	3.3
3	☐			756.70		P	6.7
4	☐			606.69		P	4.1
5	☐			652.25		P	2.6
6	☐			634.47		P	5.7
7	☐			591.13		P	4.7
8	☐			675.58		P	11.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1191.77	0.0000	P	4.0
2	☐	1.000	1.066	6693.49	0.0003	P	2.3
3	☐	50.000	50.432	263225.38	0.0106	P	0.2
4	☐	125.000	124.956	641190.99	0.0261	P	2.6
5	☐	250.000	251.535	1197890.95	0.0525	P	1.7
6	☐	500.000	502.449	2312415.85	0.1048	P	1.3
7	☐	1000.000	998.376	4645308.91	0.2081	P	0.7
8	☐			10907.34	0.0005	P	1.3

$$y = 2.0842\text{E-}004 * x + 4.5698\text{E-}005$$

$$R = 1.0000$$

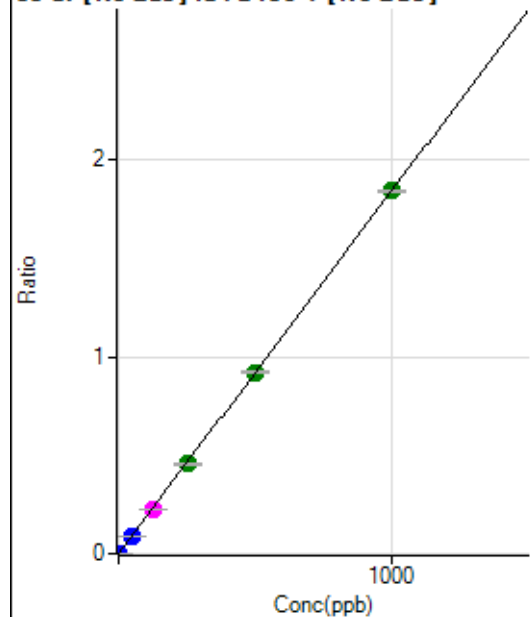
$$DL = 0.02624$$

$$BEC = 0.2193$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	180.57	0.0000	P	6.8
2	☐	1.000	1.021	47103.28	0.0019	P	5.4
3	☐	50.000	49.939	2292225.72	0.0919	P	0.2
4	☐	125.000	122.558	5544652.99	0.2256	M	2.5
5	☐	250.000	248.418	10439464.99	0.4573	A	1.6
6	☐	500.000	500.276	20326553.06	0.9209	A	0.8
7	☐	1000.000	1000.566	41107731.48	1.8418	A	0.3
8	☐			87734.79	0.0039	P	1.0

$$y = 0.0018 * x + 6.9223E-006$$

$$R = 1.0000$$

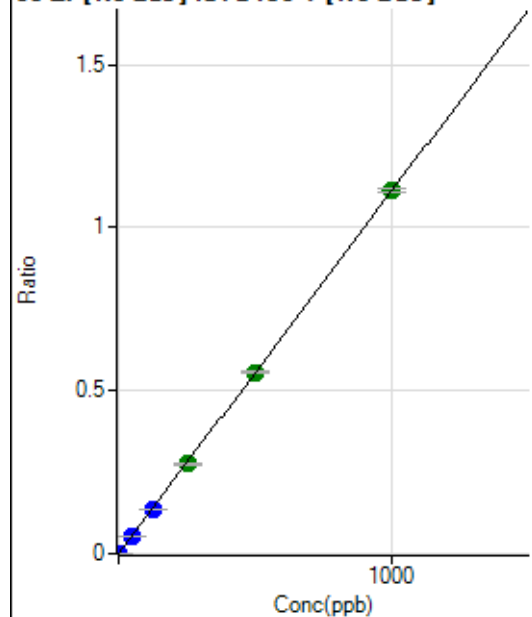
$$DL = 0.0007662$$

$$BEC = 0.003761$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1325.13	0.0001	P	7.2
2	☐	1.000	0.878	25643.34	0.0010	P	3.7
3	☐	50.000	49.739	1379829.33	0.0553	P	0.3
4	☐	125.000	122.866	3357691.63	0.1366	P	2.8
5	☐	250.000	247.902	6291880.65	0.2756	A	1.6
6	☐	500.000	499.210	12249100.36	0.5549	A	1.0
7	☐	1000.000	1001.200	24839732.85	1.1129	A	0.9
8	☐			7354.94	0.0003	P	3.2

$$y = 0.0011 * x + 5.0802E-005$$

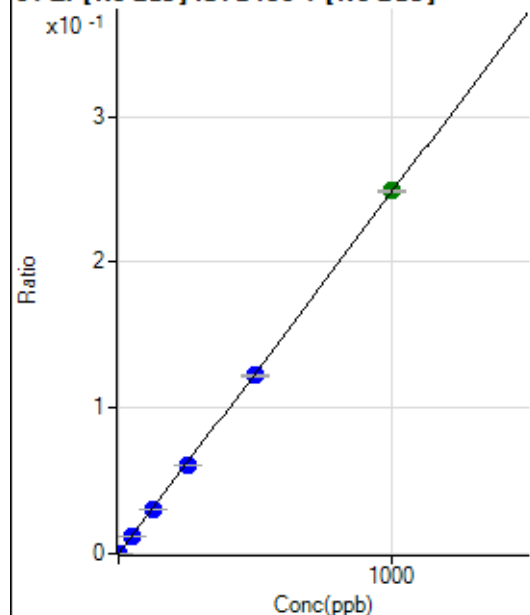
$$R = 1.0000$$

$$DL = 0.009908$$

$$BEC = 0.0457$$

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	311.13	0.0000	P	15.9
2	☐	1.000	0.855	5579.09	0.0002	P	7.9
3	☐	50.000	49.450	305636.53	0.0123	P	0.8
4	☐	125.000	122.991	748787.86	0.0305	P	2.9
5	☐	250.000	245.764	1389678.19	0.0609	P	1.2
6	☐	500.000	493.266	2696458.07	0.1222	P	0.9
7	☐	1000.000	1004.705	5553324.38	0.2488	A	0.7
8	☐			1566.81	0.0001	P	7.0

$$y = 2.4763\text{E-}004 * x + 1.1931\text{E-}005$$

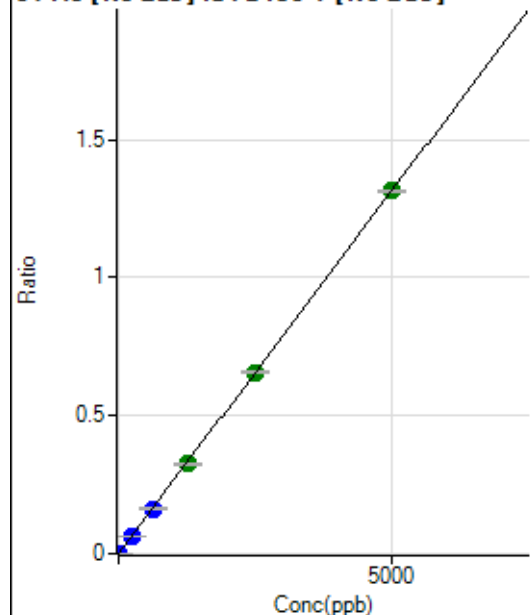
$$R = 1.0000$$

$$DL = 0.02297$$

$$BEC = 0.04818$$

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	491.69	0.0000	P	26.2
2	☐	5.000	5.045	33573.75	0.0013	P	2.8
3	☐	250.000	251.027	1644778.90	0.0660	P	0.5
4	☐	625.000	616.270	3979468.97	0.1619	P	2.4
5	☐	1250.000	1239.360	7433413.36	0.3256	A	1.5
6	☐	2500.000	2498.321	14487365.26	0.6563	A	1.0
7	☐	5000.000	5004.540	29344404.48	1.3147	A	0.4
8	☐			20601.65	0.0009	P	2.3

$$y = 2.6270\text{E-}004 * x + 1.8839\text{E-}005$$

$$R = 1.0000$$

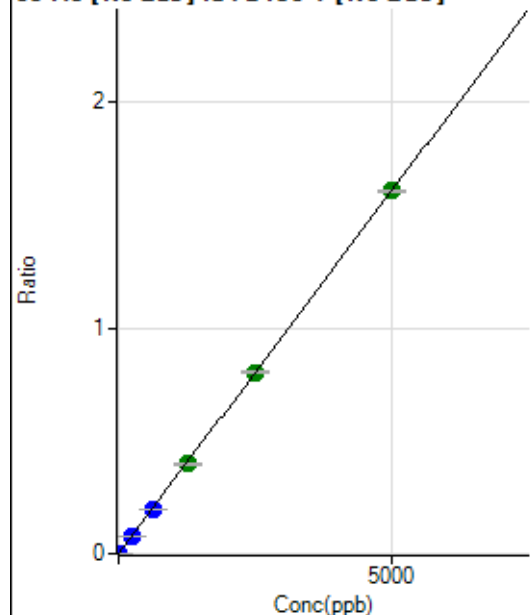
$$DL = 0.05639$$

$$BEC = 0.07171$$

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	36.11	0.0000	P	35.3
2	☐	5.000	5.351	42957.32	0.0017	P	2.4
3	☐	250.000	249.019	1994239.91	0.0800	P	0.4
4	☐	625.000	614.623	4851506.96	0.1974	P	2.7
5	☐	1250.000	1241.986	9106423.29	0.3989	A	2.2
6	☐	2500.000	2503.332	17746527.31	0.8040	A	1.1
7	☐	5000.000	5001.683	35854061.57	1.6064	A	0.9
8	☐			30475.07	0.0013	P	0.5

$$y = 3.2117\text{E-}004 * x + 1.3844\text{E-}006$$

$$R = 1.0000$$

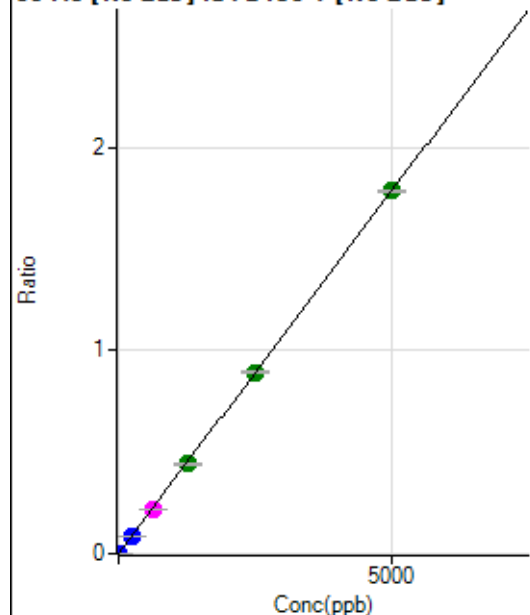
$$DL = 0.004565$$

$$BEC = 0.00431$$

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	172.23	0.0000	P	21.4
2	☐	5.000	5.338	47761.41	0.0019	P	3.5
3	☐	250.000	250.045	2226298.36	0.0893	P	0.4
4	☐	625.000	610.399	5356634.50	0.2180	M	2.5
5	☐	1250.000	1241.575	10120647.36	0.4433	A	1.8
6	☐	2500.000	2501.369	19714175.79	0.8931	A	0.8
7	☐	5000.000	5003.244	39872777.97	1.7864	A	0.6
8	☐			41475.40	0.0018	P	1.9

$$y = 3.5705\text{E-}004 * x + 6.5992\text{E-}006$$

$$R = 1.0000$$

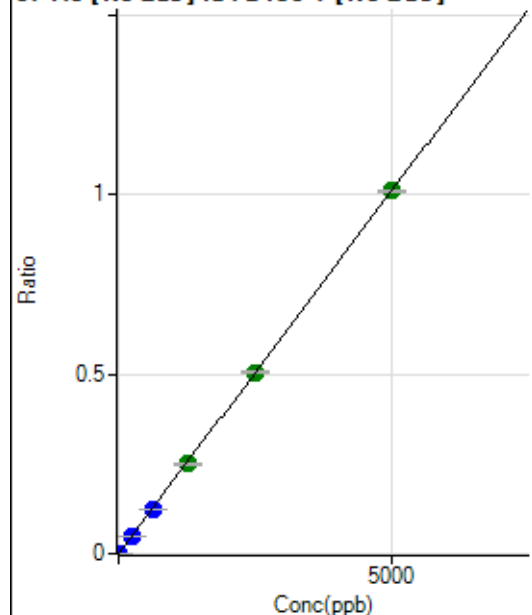
$$DL = 0.01185$$

$$BEC = 0.01848$$

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	36.11	0.0000	P	34.8
2	☐	5.000	5.239	26478.12	0.0011	P	4.3
3	☐	250.000	249.258	1256510.26	0.0504	P	0.2
4	☐	625.000	610.225	3032111.24	0.1234	P	2.3
5	☐	1250.000	1240.897	5727253.04	0.2509	A	1.4
6	☐	2500.000	2503.094	11169477.68	0.5060	A	1.1
7	☐	5000.000	5002.613	22573085.40	1.0114	A	0.4
8	☐			18854.85	0.0008	P	1.6

$$y = 2.0216\text{E-}004 * x + 1.3830\text{E-}006$$

$$R = 1.0000$$

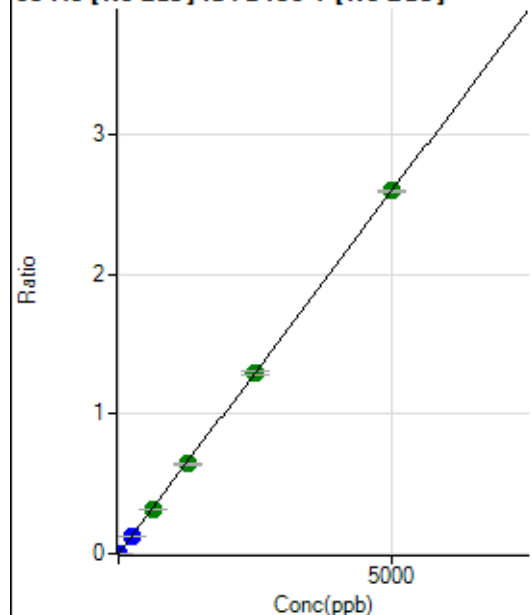
$$DL = 0.007134$$

$$BEC = 0.006841$$

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	72.23	0.0000	P	35.5
2	☐	5.000	5.386	69894.35	0.0028	P	3.1
3	☐	250.000	250.078	3236769.54	0.1298	P	0.9
4	☐	625.000	609.780	7778744.62	0.3165	A	2.9
5	☐	1250.000	1243.607	14736981.93	0.6455	A	1.7
6	☐	2500.000	2496.922	28607552.72	1.2961	A	1.3
7	☐	5000.000	5005.035	57986326.99	2.5980	A	0.3
8	☐			48505.75	0.0021	P	1.6

$$y = 5.1907\text{E-}004 * x + 2.7706\text{E-}006$$

$$R = 1.0000$$

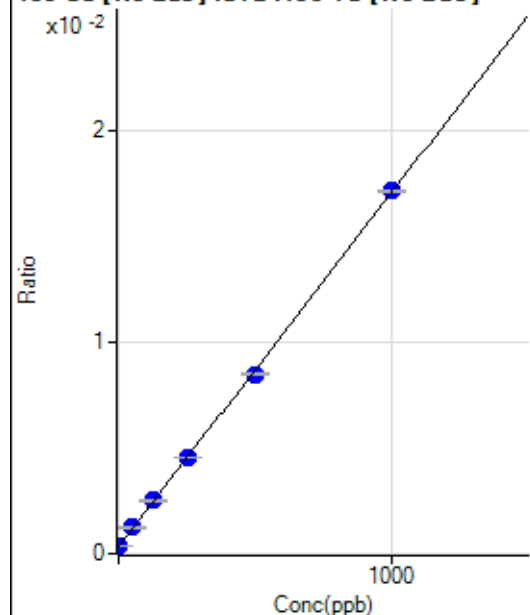
$$DL = 0.005692$$

$$BEC = 0.005338$$

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	9759.34	0.0003	P	0.8
2	☐	1.000	1.220	9931.68	0.0003	P	0.1
3	☐	50.000	54.006	35848.98	0.0012	P	0.8
4	☐	125.000	129.991	74297.68	0.0025	P	1.6
5	☐	250.000	252.226	130869.56	0.0045	P	1.8
6	☐	500.000	487.713	239624.25	0.0085	P	1.9
7	☐	1000.000	1004.762	484628.96	0.0171	P	0.4
8	☐			9264.48	0.0003	P	3.7

$$y = 1.6740\text{E-}005 * x + 3.2485\text{E-}004$$

$$R = 0.9999$$

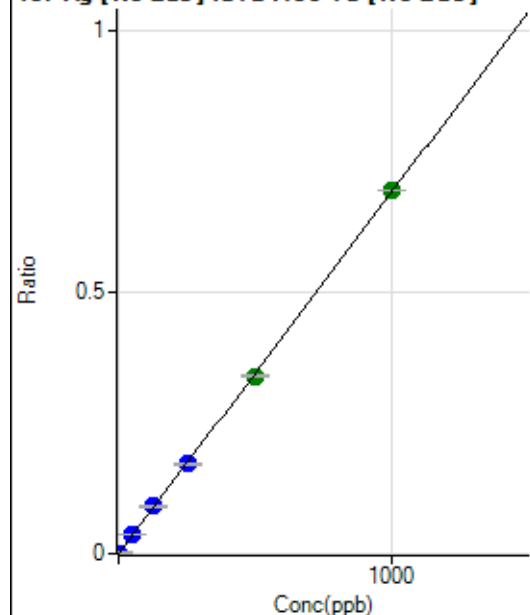
$$DL = 0.4592$$

$$BEC = 19.41$$

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	1047.30	0.0000	P	11.2
2	☐	1.000	2.459	49588.14	0.0017	P	40.8
3	☐	50.000	55.222	1112639.19	0.0381	P	1.2
4	☐	125.000	130.599	2677921.78	0.0902	P	2.8
5	☐	250.000	248.389	4934406.92	0.1714	P	1.3
6	☐	500.000	490.426	9554435.98	0.3385	A	1.3
7	☐	1000.000	1004.227	19589749.40	0.6930	A	0.2
8	☐			6007.07	0.0002	P	6.2

$$y = 6.9009\text{E-}004 * x + 3.4866\text{E-}005$$

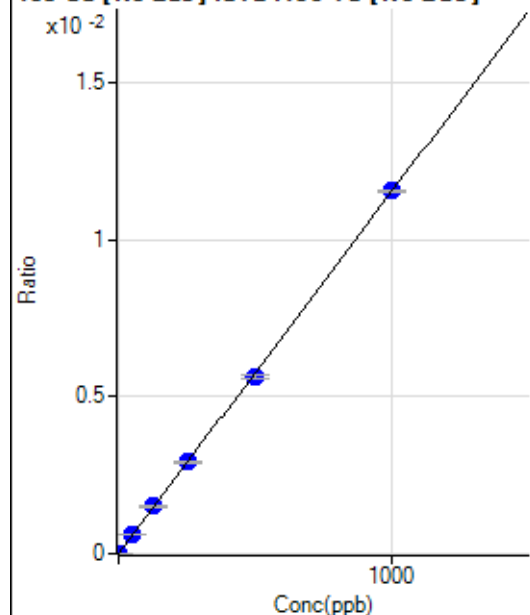
$$R = 0.9999$$

$$DL = 0.01693$$

$$BEC = 0.05052$$

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	25.00	0.0000	P	0.2
2	☐	1.000	1.163	408.35	0.0000	P	5.7
3	☐	50.000	54.344	18262.02	0.0006	P	1.4
4	☐	125.000	130.742	44712.43	0.0015	P	1.2
5	☐	250.000	253.617	83998.46	0.0029	P	1.0
6	☐	500.000	490.244	159211.76	0.0056	P	2.2
7	☐	1000.000	1003.039	326197.67	0.0115	P	0.8
8	☐			98.62	0.0000	P	9.0

$$y = 1.1504\text{E-}005 * x + 8.3216\text{E-}007$$

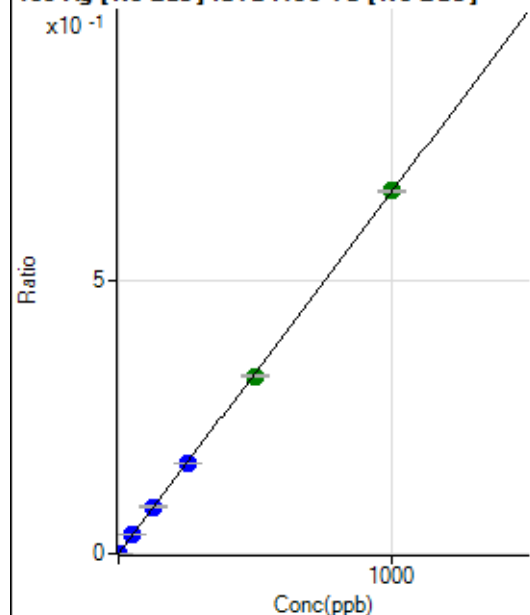
$$R = 0.9999$$

$$DL = 0.0005043$$

$$BEC = 0.07233$$

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	791.72	0.0000	P	12.0
2	☐	1.000	1.913	37211.05	0.0013	P	3.1
3	☐	50.000	54.912	1062693.68	0.0364	P	0.4
4	☐	125.000	130.020	2561119.48	0.0862	P	2.4
5	☐	250.000	249.269	4756865.73	0.1653	P	1.0
6	☐	500.000	491.603	9200428.77	0.3259	A	1.3
7	☐	1000.000	1003.507	18805401.29	0.6653	A	0.7
8	☐			5629.12	0.0002	P	4.5

$$y = 6.6294\text{E-}004 * x + 2.6349\text{E-}005$$

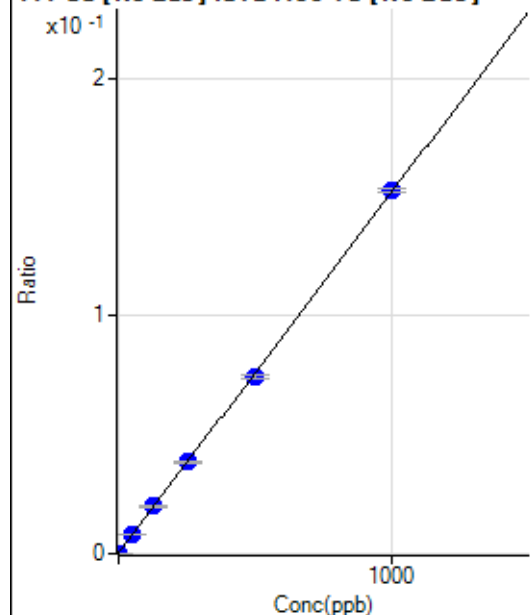
$$R = 0.9999$$

$$DL = 0.01426$$

$$BEC = 0.03975$$

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	6829.32	0.0002	P	0.7
2	☐	1.000	1.100	11335.26	0.0004	P	2.7
3	☐	50.000	54.019	245776.20	0.0084	P	0.9
4	☐	125.000	130.073	593111.23	0.0200	P	2.6
5	☐	250.000	251.875	1106695.29	0.0385	P	1.6
6	☐	500.000	488.903	2100876.06	0.0744	P	1.4
7	☐	1000.000	1004.245	4314475.04	0.1526	P	1.1
8	☐			7227.26	0.0003	P	2.9

$$y = 1.5177\text{E-}004 * x + 2.2732\text{E-}004$$

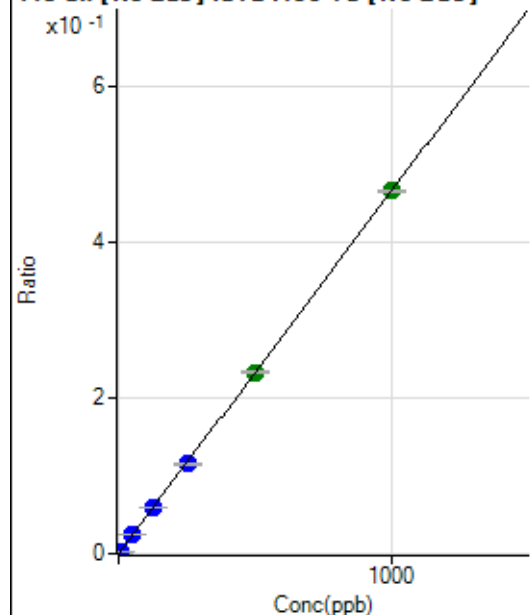
$$R = 0.9999$$

$$DL = 0.03132$$

$$BEC = 1.498$$

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	1844.64	0.0001	P	6.6
2	☐	5.000	5.529	75679.09	0.0026	P	4.5
3	☐	50.000	52.172	709691.04	0.0243	P	0.5
4	☐	125.000	126.605	1750871.46	0.0589	P	2.9
5	☐	250.000	248.106	3323086.12	0.1155	P	1.7
6	☐	500.000	499.767	6563722.50	0.2325	A	1.2
7	☐	1000.000	1000.278	13153080.59	0.4653	A	0.3
8	☐			8155.47	0.0003	P	3.4

$$y = 4.6514\text{E-}004 * x + 6.1397\text{E-}005$$

$$R = 1.0000$$

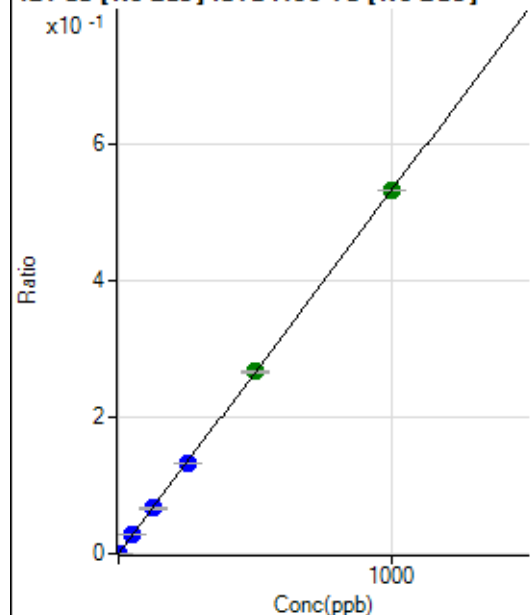
$$DL = 0.02625$$

$$BEC = 0.132$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	24.3
2	☐	2.000	2.068	31642.16	0.0011	P	5.1
3	☐	50.000	51.632	799951.67	0.0274	P	0.5
4	☐	125.000	126.638	1997368.90	0.0673	P	3.5
5	☐	250.000	249.317	3810807.25	0.1324	P	1.0
6	☐	500.000	501.073	7511687.41	0.2661	A	1.4
7	☐	1000.000	999.348	15001491.13	0.5307	A	0.1
8	☐			14572.13	0.0005	P	8.2

$$y = 5.3106\text{E-}004 * x + 3.0525\text{E-}006$$

$$R = 1.0000$$

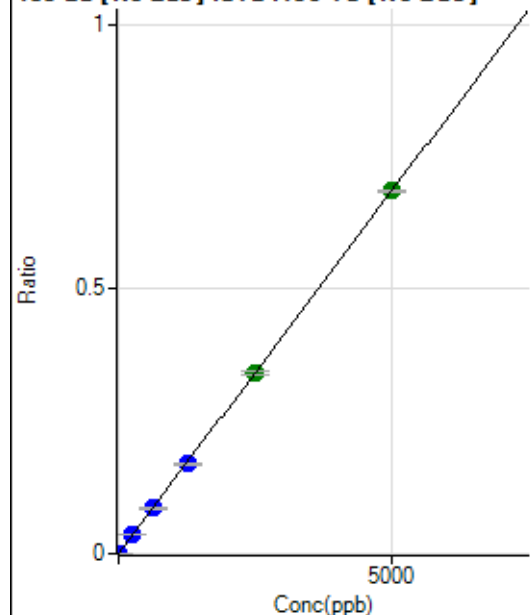
$$DL = 0.00419$$

$$BEC = 0.005748$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0000	P	28.4
2	☐	10.000	10.824	42699.81	0.0015	P	3.1
3	☐	250.000	259.093	1035813.46	0.0355	P	0.5
4	☐	625.000	629.425	2561936.69	0.0863	P	3.0
5	☐	1250.000	1235.357	4872551.28	0.1693	P	1.1
6	☐	2500.000	2493.520	9645758.46	0.3417	A	1.5
7	☐	5000.000	5005.891	19391179.77	0.6860	A	0.5
8	☐			3903.50	0.0001	P	1.5

$$y = 1.3704\text{E-}004 * x + 2.0342\text{E-}006$$

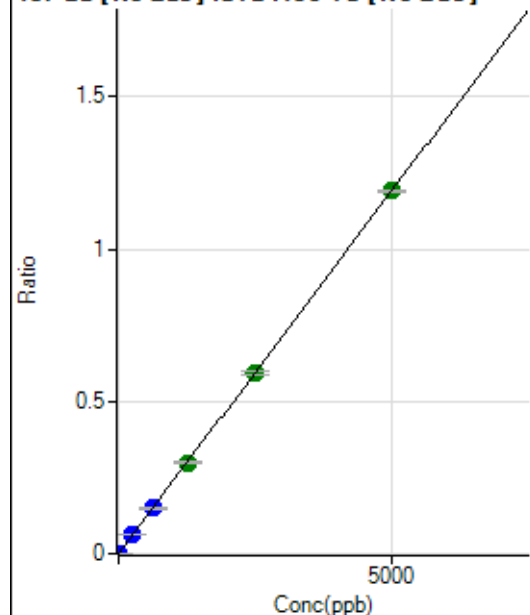
$$R = 1.0000$$

$$DL = 0.01263$$

$$BEC = 0.01484$$

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	44.45	0.0000	P	65.8
2	☐	10.000	10.822	74095.73	0.0026	P	2.5
3	☐	250.000	258.850	1797163.91	0.0616	P	1.2
4	☐	625.000	629.795	4452111.99	0.1499	P	2.9
5	☐	1250.000	1250.097	8563010.87	0.2975	A	1.7
6	☐	2500.000	2491.404	16737680.06	0.5930	A	1.7
7	☐	5000.000	5003.230	33659370.89	1.1908	A	0.5
8	☐			6512.91	0.0002	P	2.2

$$y = 2.3800E-004 * x + 1.4786E-006$$

$$R = 1.0000$$

$$DL = 0.01226$$

$$BEC = 0.006212$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.55		P	107.
2	☐			15.55		P	24.8
3	☐			111.11		P	25.0
4	☐			197.79		P	23.7
5	☐			400.02		P	18.9
6	☐			693.38		P	16.7
7	☐			1597.93		P	5.8
8	☐			237.79		P	20.3

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	33.3
2	☐			14.44		P	13.4
3	☐			12.22		P	103.
4	☐			17.78		P	39.0
5	☐			36.67		P	27.3
6	☐			61.11		P	17.5
7	☐			116.67		P	24.4
8	☐			77.78		P	22.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			52.78		P	24.1
2	☐			72.22		P	40.5
3	☐			69.45		P	18.3
4	☐			83.34		P	45.8
5	☐			116.67		P	18.9
6	☐			163.90		P	29.8
7	☐			350.02		P	14.3
8	☐			841.73		P	2.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			34.45		P	31.1
2	☐			27.78		P	30.2
3	☐			42.22		P	47.6
4	☐			66.67		P	21.8
5	☐			75.56		P	2.6
6	☐			163.34		P	17.4
7	☐			314.45		P	18.2
8	☐			320.01		P	6.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			183.34		P	16.4
2	☐			177.78		P	24.1
3	☐			211.13		P	2.3
4	☐			186.12		P	49.3
5	☐			211.12		P	4.6
6	☐			208.35		P	20.8
7	☐			272.24		P	7.7
8	☐			769.50		P	11.6

160 Gd [He] No available calibration points

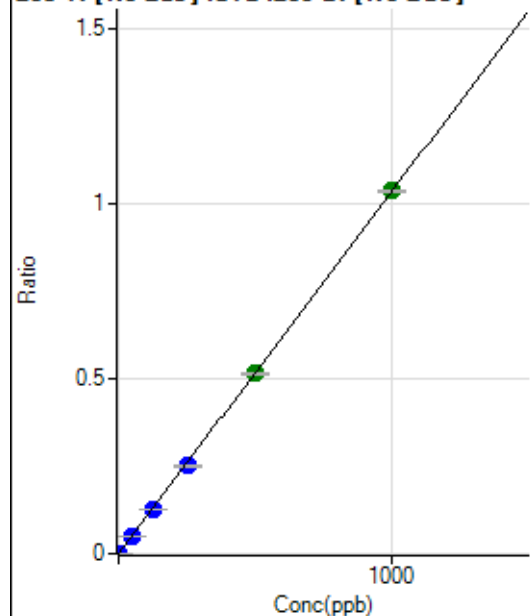
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			312.23		P	3.1
2	☐			335.56		P	11.1
3	☐			310.01		P	8.4
4	☐			342.23		P	13.8
5	☐			330.01		P	10.5
6	☐			328.90		P	2.1
7	☐			318.90		P	8.7
8	☐			660.03		P	7.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			161.12		P	31.6
2	☐			191.67		P	15.1
3	☐			158.34		P	15.8
4	☐			144.45		P	13.3
5	☐			133.34		P	6.2
6	☐			169.45		P	11.4
7	☐			152.79		P	13.7
8	☐			233.35		P	31.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			87.78		P	18.7
2	☐			96.67		P	21.5
3	☐			105.56		P	7.9
4	☐			85.56		P	29.8
5	☐			87.78		P	7.9
6	☐			83.34		P	24.3
7	☐			91.11		P	12.9
8	☐			114.45		P	21.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	736.17	0.0000	P	15.5
2	☐	1.000	0.955	18324.51	0.0010	P	3.0
3	☐	50.000	48.641	907921.86	0.0502	P	0.2
4	☐	125.000	121.085	2295474.79	0.1250	P	2.0
5	☐	250.000	242.235	4482110.04	0.2500	P	1.2
6	☐	500.000	498.392	8906505.93	0.5144	A	1.5
7	☐	1000.000	1003.303	17601436.68	1.0354	A	0.7
8	☐			7580.27	0.0005	P	2.0

$$y = 0.0010 * x + 3.8530E-005$$

$$R = 1.0000$$

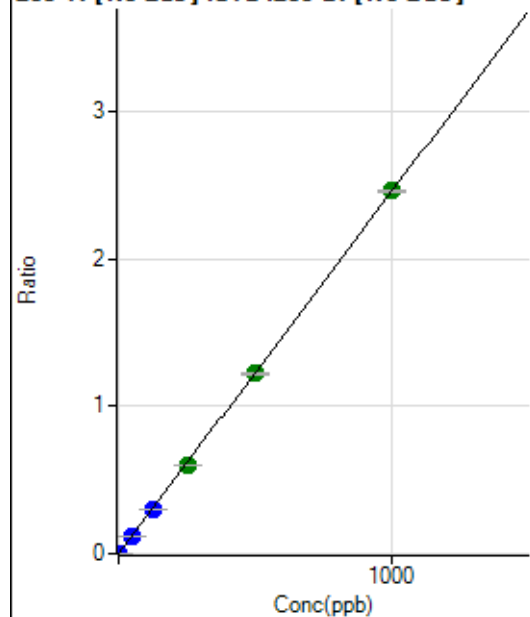
$$DL = 0.01733$$

$$BEC = 0.03734$$

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	1183.44	0.0001	P	10.3
2	☐	1.000	0.962	43394.33	0.0024	P	3.4
3	☐	50.000	48.821	2168753.22	0.1200	P	0.9
4	☐	125.000	121.939	5502534.54	0.2996	P	1.8
5	☐	250.000	244.293	10758973.85	0.6002	A	1.8
6	☐	500.000	497.790	21176307.59	1.2229	A	0.9
7	☐	1000.000	1002.973	41885011.70	2.4639	A	0.4
8	☐			17940.62	0.0012	P	2.2

$$y = 0.0025 * x + 6.1925E-005$$

$$R = 1.0000$$

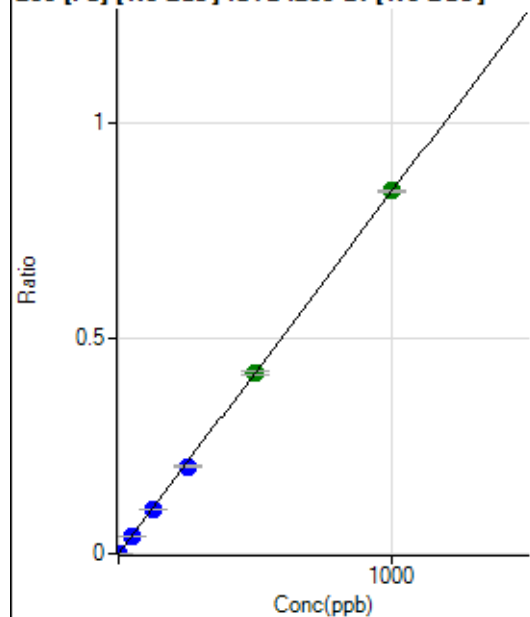
$$DL = 0.007761$$

$$BEC = 0.02521$$

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	1270.47	0.0001	P	4.8
2	☐	1.000	0.973	15802.36	0.0009	P	4.0
3	☐	50.000	48.697	740416.03	0.0410	P	0.3
4	☐	125.000	121.399	1873770.92	0.1020	P	1.8
5	☐	250.000	241.543	3637960.56	0.2029	P	1.5
6	☐	500.000	499.509	7265548.95	0.4196	A	1.3
7	☐	1000.000	1002.875	14319748.01	0.8424	A	0.3
8	☐			44647.46	0.0031	P	1.1

$$y = 8.3989E-004 * x + 6.6461E-005$$

$$R = 1.0000$$

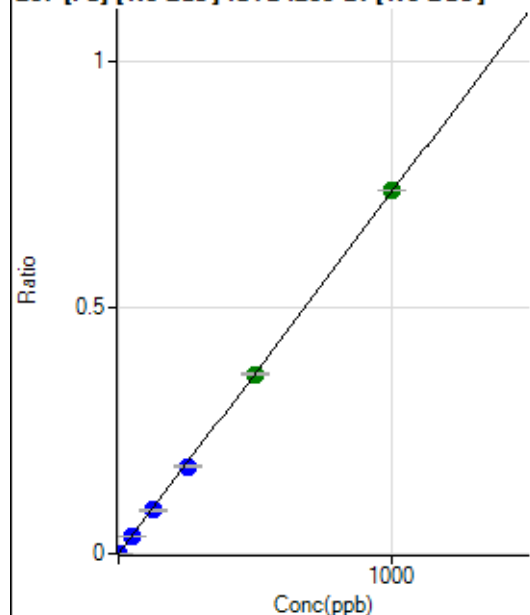
$$DL = 0.01149$$

$$BEC = 0.07913$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1313.07	0.0001	P	9.8
2	☐	1.000	0.952	13711.18	0.0008	P	2.9
3	☐	50.000	48.616	645240.36	0.0357	P	0.5
4	☐	125.000	120.141	1618417.02	0.0881	P	1.8
5	☐	250.000	240.956	3167101.95	0.1767	P	1.6
6	☐	500.000	497.073	6309711.89	0.3644	A	1.1
7	☐	1000.000	1004.401	12515371.00	0.7362	A	0.1
8	☐			39535.33	0.0027	P	0.9

$$y = 7.3293\text{E-}004 * x + 6.8658\text{E-}005$$

$$R = 0.9999$$

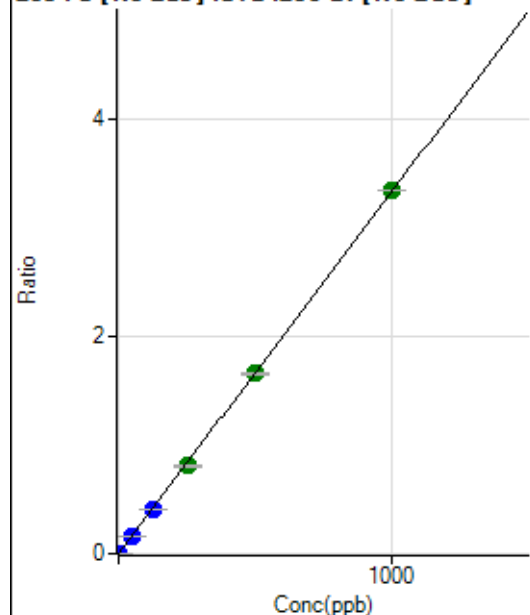
$$DL = 0.02742$$

$$BEC = 0.09368$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4861.58	0.0003	P	3.3
2	☐	1.000	0.966	62035.45	0.0035	P	2.2
3	☐	50.000	48.933	2946752.54	0.1630	P	0.4
4	☐	125.000	120.806	7385357.93	0.4021	P	1.9
5	☐	250.000	242.587	14471469.74	0.8073	A	1.8
6	☐	500.000	498.114	28699103.54	1.6573	A	0.9
7	☐	1000.000	1003.374	56747692.36	3.3382	A	0.0
8	☐			177583.55	0.0121	P	0.7

$$y = 0.0033 * x + 2.5421\text{E-}004$$

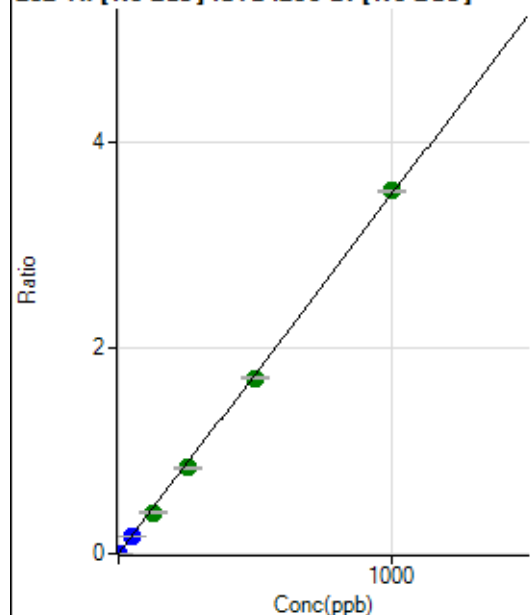
$$R = 1.0000$$

$$DL = 0.007471$$

$$BEC = 0.07642$$

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	2522.54	0.0001	P	6.2
2	☐	1.000	0.789	51671.49	0.0029	P	1.1
3	☐	50.000	45.914	2902572.08	0.1606	P	0.3
4	☐	125.000	114.688	7363540.50	0.4010	A	1.9
5	☐	250.000	238.365	14936258.67	0.8332	A	1.6
6	☐	500.000	488.157	29545487.70	1.7062	A	0.8
7	☐	1000.000	1010.324	60027162.92	3.5311	A	0.5
8	☐			13266.36	0.0009	P	1.5

$$y = 0.0035 * x + 1.3194E-004$$

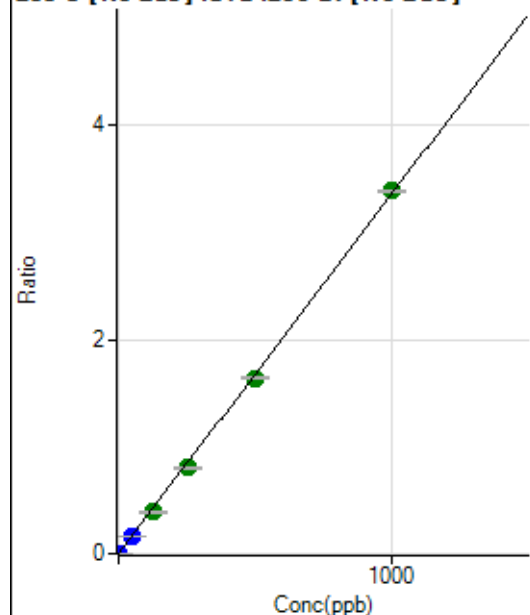
$$R = 0.9998$$

$$DL = 0.007066$$

$$BEC = 0.03775$$

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	2472.59	0.0001	P	2.0
2	☐	1.000	0.902	56402.68	0.0032	P	3.2
3	☐	50.000	46.891	2843961.11	0.1574	P	0.4
4	☐	125.000	115.058	7087034.32	0.3859	A	2.2
5	☐	250.000	238.517	14338555.35	0.7999	A	1.8
6	☐	500.000	489.463	28420882.23	1.6413	A	0.9
7	☐	1000.000	1009.537	57544140.18	3.3851	A	0.9
8	☐			9359.34	0.0006	P	2.9

$$y = 0.0034 * x + 1.2930E-004$$

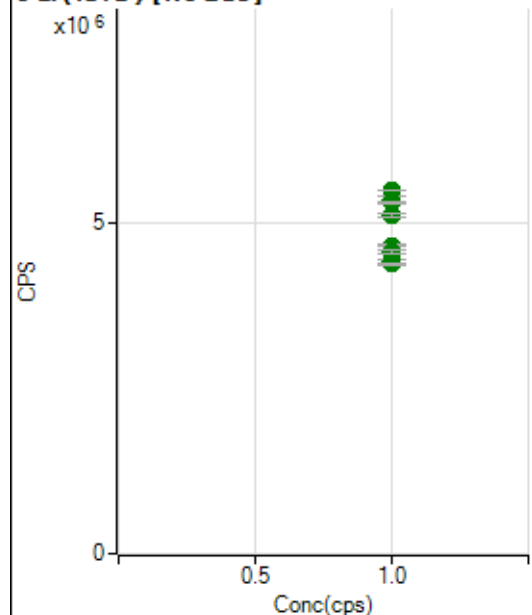
$$R = 0.9998$$

$$DL = 0.002259$$

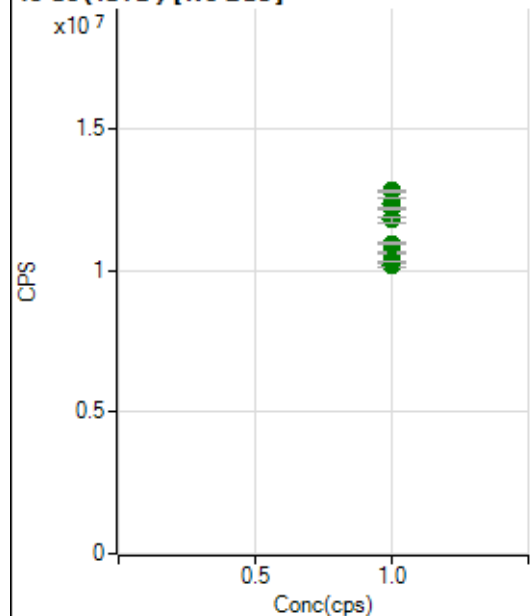
$$BEC = 0.03856$$

Weight: <None>

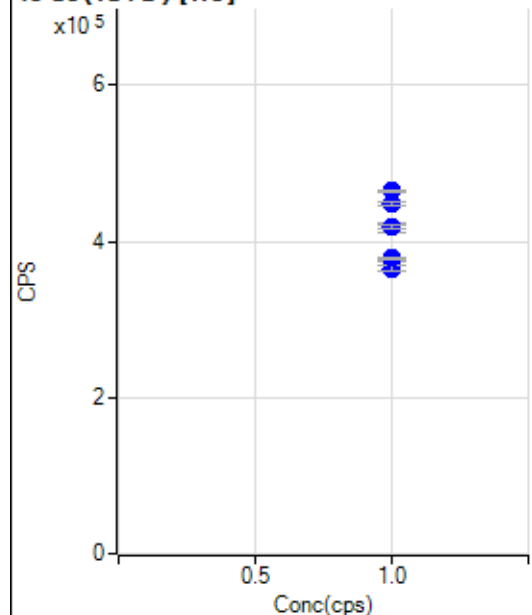
Min Conc: 0

6 Li (ISTD) [No Gas]

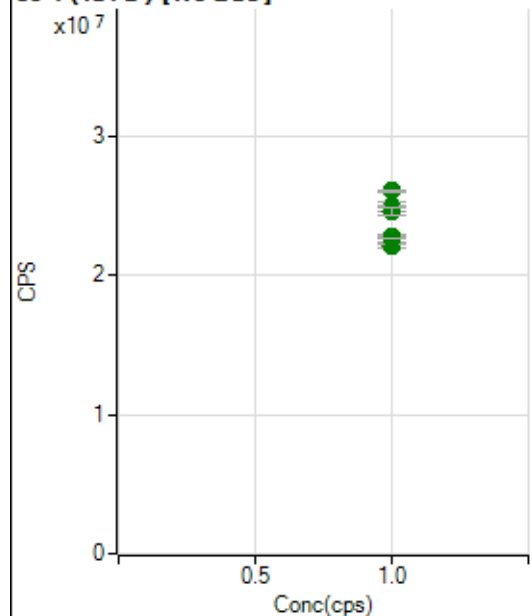
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5489870.75		A	0.1
2	☐	1.000		5362223.43		A	2.4
3	☐	1.000		5311267.56		A	0.4
4	☐	1.000		5121899.23		A	1.2
5	☐	1.000		4666943.16		A	0.6
6	☐	1.000		4411736.74		A	1.6
7	☐	1.000		4385826.39		A	0.4
8	☐	1.000		4577934.13		A	1.1

45 Sc (ISTD) [No Gas]

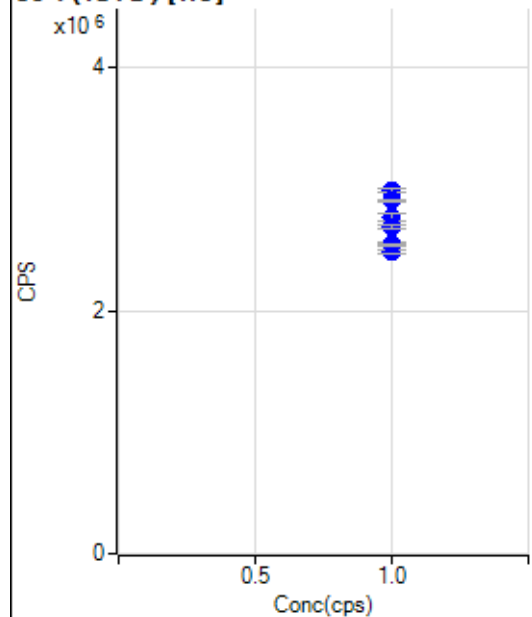
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12830009.05		A	0.3
2	☐	1.000		12390009.13		A	2.7
3	☐	1.000		12223203.74		A	0.4
4	☐	1.000		11805296.36		A	2.1
5	☐	1.000		10639235.22		A	0.3
6	☐	1.000		10189750.66		A	1.8
7	☐	1.000		10340887.90		A	0.3
8	☐	1.000		10967860.84		A	0.8

45 Sc (ISTD) [He]

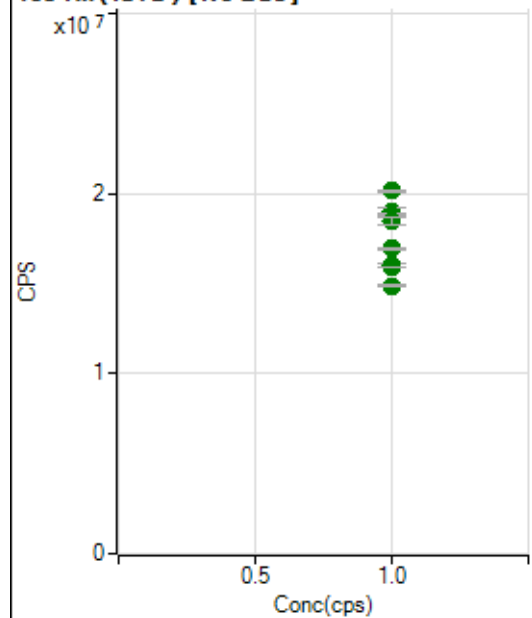
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		464693.92		P	0.1
2	☐	1.000		464640.89		P	0.6
3	☐	1.000		448196.60		P	0.8
4	☐	1.000		417982.66		P	3.2
5	☐	1.000		375928.48		P	1.2
6	☐	1.000		365246.33		P	2.1
7	☐	1.000		378159.00		P	0.8
8	☐	1.000		418881.20		P	1.1

89 Y (ISTD) [No Gas]

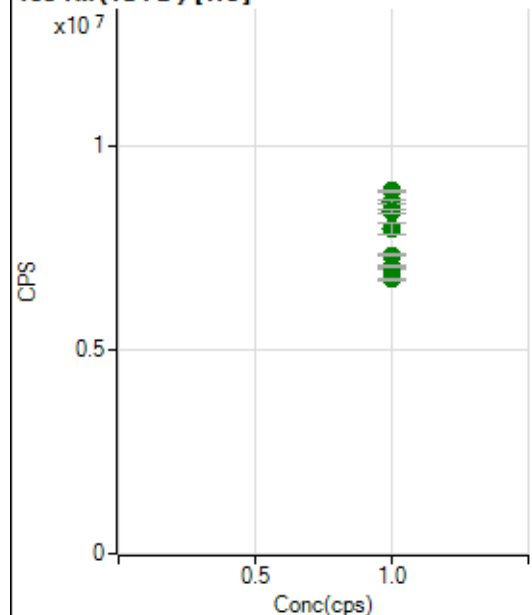
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		26081847.67		A	0.5
2	☐	1.000		24988208.79		A	2.8
3	☐	1.000		24934626.29		A	0.4
4	☐	1.000		24586739.08		A	2.3
5	☐	1.000		22831036.60		A	0.7
6	☐	1.000		22074698.28		A	1.4
7	☐	1.000		22319996.89		A	0.4
8	☐	1.000		22676800.22		A	0.4

89 Y (ISTD) [He]

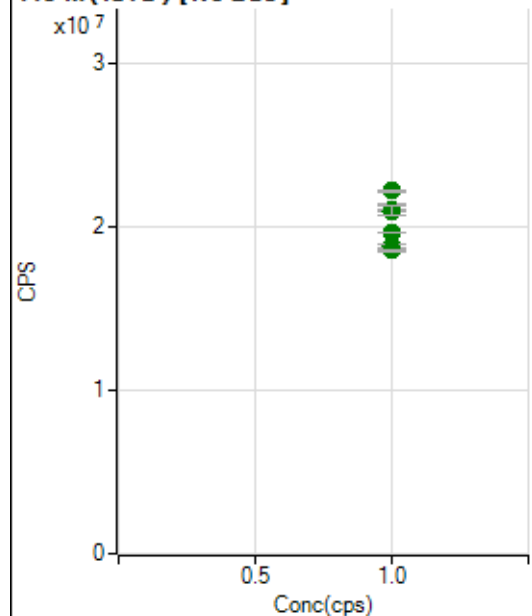
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2973219.12		P	0.2
2	☐	1.000		2985499.19		P	1.1
3	☐	1.000		2911142.84		P	0.6
4	☐	1.000		2770545.48		P	2.6
5	☐	1.000		2549779.82		P	1.1
6	☐	1.000		2481429.56		P	1.3
7	☐	1.000		2544201.49		P	0.8
8	☐	1.000		2694737.53		P	1.2

103 Rh (ISTD) [No Gas]

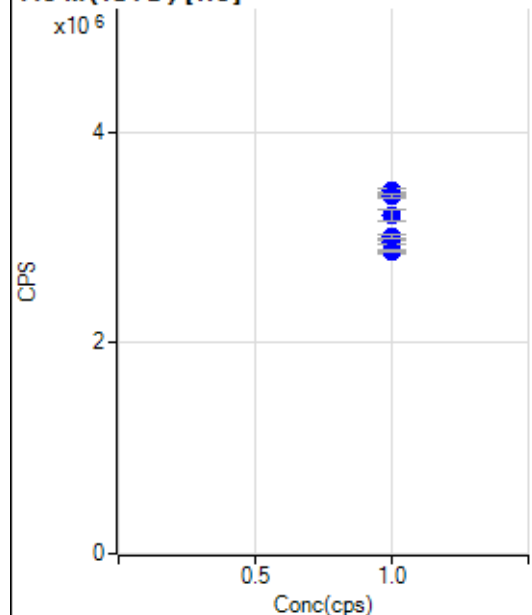
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20177281.88		A	0.2
2	☐	1.000		18994151.64		A	2.7
3	☐	1.000		18874312.92		A	0.4
4	☐	1.000		18537810.14		A	2.3
5	☐	1.000		16990913.05		A	0.5
6	☐	1.000		16060112.51		A	1.0
7	☐	1.000		15931231.78		A	0.5
8	☐	1.000		14876439.22		A	0.9

103 Rh (ISTD) [He]

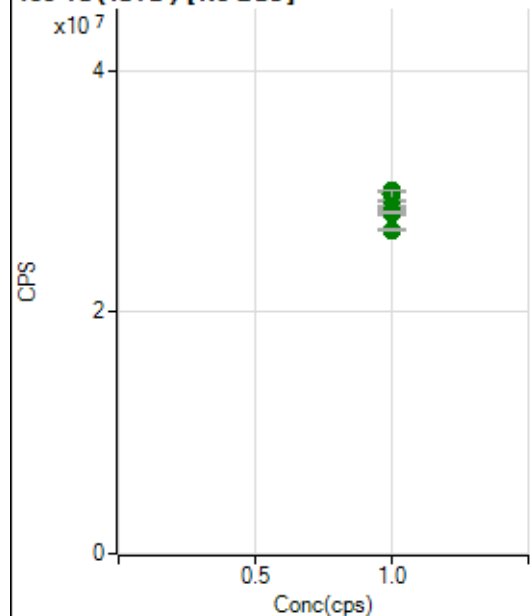
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8911801.26		A	0.5
2	☐	1.000		8651884.80		A	1.3
3	☐	1.000		8420287.23		A	0.9
4	☐	1.000		7995048.70		A	3.4
5	☐	1.000		7336411.35		A	0.8
6	☐	1.000		7011344.41		A	1.1
7	☐	1.000		7056689.69		A	0.4
8	☐	1.000		6746900.80		A	0.9

115 In (ISTD) [No Gas]

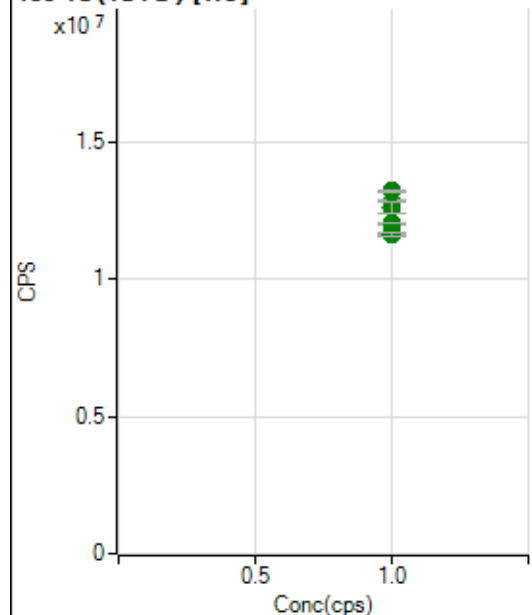
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		22168960.29		A	0.6
2	☐	1.000		21049748.41		A	3.2
3	☐	1.000		20957555.75		A	0.7
4	☐	1.000		20944334.78		A	2.7
5	☐	1.000		19608701.86		A	0.2
6	☐	1.000		18789131.90		A	0.8
7	☐	1.000		18614949.28		A	0.3
8	☐	1.000		18557216.88		A	0.7

115 In (ISTD) [He]

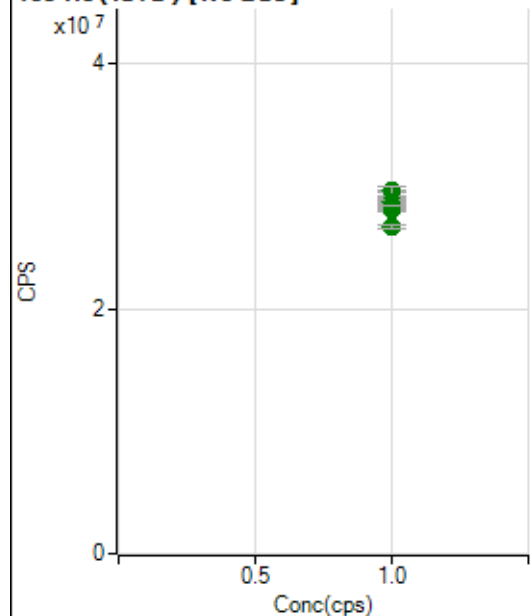
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3405233.89		P	0.6
2	☐	1.000		3439714.14		P	1.0
3	☐	1.000		3387471.09		P	0.9
4	☐	1.000		3211781.88		P	3.4
5	☐	1.000		2960995.02		P	1.1
6	☐	1.000		2862469.22		P	1.5
7	☐	1.000		2868885.79		P	0.7
8	☐	1.000		3003610.96		P	1.1

159 Tb (ISTD) [No Gas]

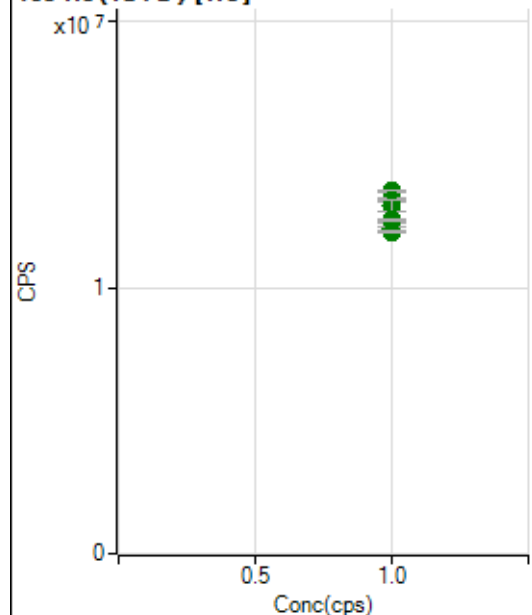
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		30042437.05		A	0.2
2	☐	1.000		28764591.52		A	2.9
3	☐	1.000		29171216.79		A	0.3
4	☐	1.000		29716330.39		A	2.7
5	☐	1.000		28782633.74		A	0.7
6	☐	1.000		28231927.64		A	1.6
7	☐	1.000		28266272.64		A	0.2
8	☐	1.000		26794242.66		A	0.4

159 Tb (ISTD) [He]

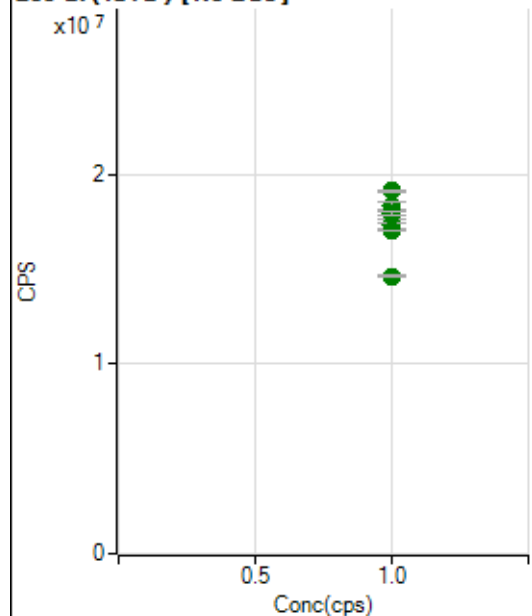
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13206089.52		A	0.7
2	☐	1.000		12819610.50		A	0.6
3	☐	1.000		12840862.31		A	0.3
4	☐	1.000		12605634.12		A	2.9
5	☐	1.000		11978936.91		A	0.3
6	☐	1.000		11656414.27		A	1.1
7	☐	1.000		12033760.10		A	0.3
8	☐	1.000		11621895.80		A	1.1

165 Ho (ISTD) [No Gas]

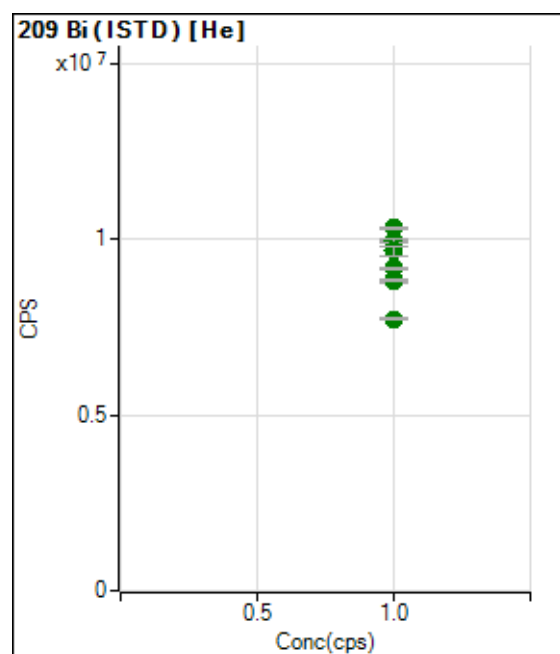
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		29614525.32		A	0.5
2	☐	1.000		28348949.25		A	2.7
3	☐	1.000		28992001.00		A	0.3
4	☐	1.000		29621351.01		A	2.3
5	☐	1.000		28753570.78		A	1.0
6	☐	1.000		28180991.25		A	0.6
7	☐	1.000		28376382.23		A	0.2
8	☐	1.000		26719130.63		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13646607.44		A	0.3
2	☐	1.000		13251144.53		A	0.6
3	☐	1.000		13310056.33		A	0.6
4	☐	1.000		13121748.14		A	3.3
5	☐	1.000		12495133.43		A	0.5
6	☐	1.000		12225043.43		A	1.4
7	☐	1.000		12557051.62		A	0.4
8	☐	1.000		12083874.54		A	0.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		19120882.35		A	0.8
2	☐	1.000		17896041.82		A	2.7
3	☐	1.000		18073646.67		A	0.3
4	☐	1.000		18370752.50		A	2.5
5	☐	1.000		17929038.21		A	1.3
6	☐	1.000		17318031.27		A	1.7
7	☐	1.000		16999441.55		A	0.0
8	☐	1.000		14632492.14		A	1.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10324849.71		A	0.5
2	☐	1.000		9955427.35		A	0.6
3	☐	1.000		9954964.99		A	1.2
4	☐	1.000		9667186.59		A	2.7
5	☐	1.000		9182211.39		A	0.6
6	☐	1.000		8813653.55		A	1.3
7	☐	1.000		8838972.16		A	0.2
8	☐	1.000		7733958.77		A	0.9

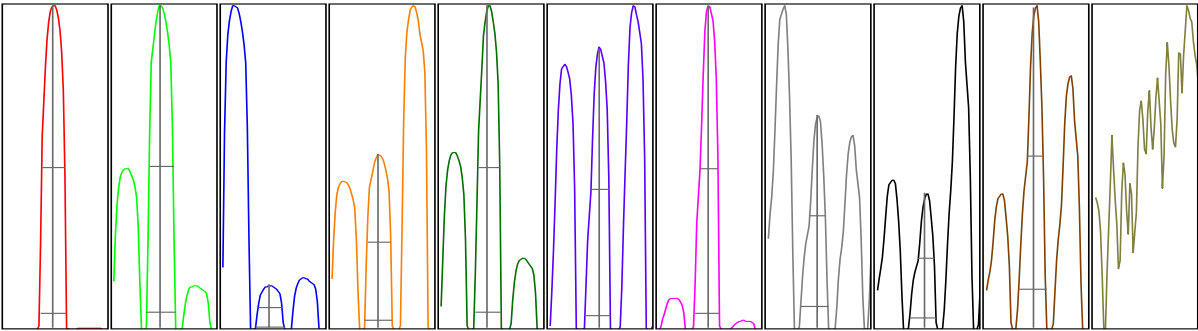
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7122319MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	15228	1.84	5.00	
24	186636	1.53	5.00	
25	25096	1.73	5.00	
26	29317	1.52	5.00	
59	145067	1.78	5.00	
113	20359	1.64	5.00	
115	237907	1.43	5.00	
206	56722	1.12	5.00	
207	53303	1.93	5.00	
208	123054	1.67	5.00	
220	111	2.87		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15406	15307	15443	15236	14749
24	188020	188303	188304	186914	181640
25	25345	25272	25412	25101	24348
26	29530	29531	29675	29290	28557
59	146404	146438	146552	145419	140522
113	20550	20525	20558	20387	19776
115	238268	239837	240559	238851	232020
206	56783	56575	57134	57385	55732
207	53114	54060	54048	53702	51591
208	122671	124546	124705	123681	119667
220	107	109	110	113	115

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	24138	8.95	8.9 - 9.1		0.787	0.900	
24	285084	23.90	23.9 - 24.1		0.832	0.900	
25	38407	24.90	24.9 - 25.1		0.823	0.900	
26	45154	25.90	25.9 - 26.1		0.790	0.900	
59	241908	58.90	58.9 - 59.1		0.781	0.900	
113	37767	113.00	112.9 - 113.1		0.731	0.900	
115	445497	115.00	114.9 - 115.1		0.730	0.900	
206	111712	206.00	205.9 - 206.1		0.786	0.900	
207	101280	206.95	206.9 - 207.1		0.758	0.900	
208	240362	207.95	207.9 - 208.1		0.779	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	6.9	V	Deflect	13.2	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination	5.0	V
He Flow	0.0	mL/min	OctP RF	170	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	34489	0.67	
89	11206	1.00	
205	48012	0.60	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	34840	34511	34522	34337	34233
89	11230	11311	11298	11146	11044
205	48135	48165	48165	48097	47497

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	7.1	V	Deflect	2.2	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	V	Cell Exit	-60	V			

Cell Parameters

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