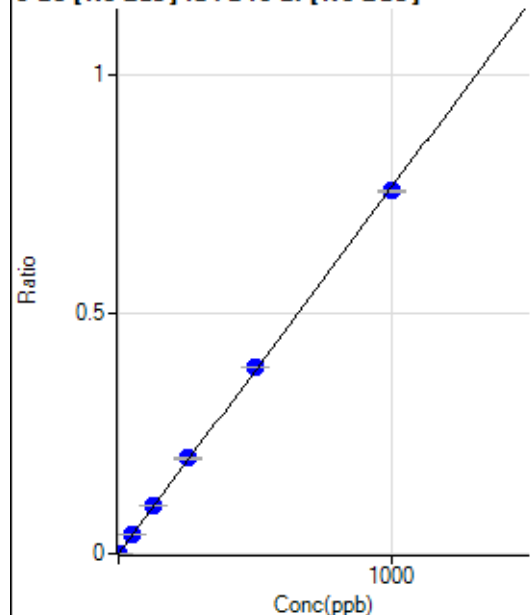


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\P7062819-MS.b\
 Analysis File: P7062819-MS.batch.bin
 DA Date-Time: 2019-06-28 23:56:31
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-28 13:52:53
2	004CALS.d	S01	2019-06-28 13:56:28
3	005CALS.d	S02	2019-06-28 14:00:28
4	006CALS.d	S03	2019-06-28 14:04:24
5	007CALS.d	S04	2019-06-28 14:08:21
6	008CALS.d	S05	2019-06-28 14:12:17
7	009CALS.d	S06	2019-06-28 14:16:11
8	010CALS.d	S07	2019-06-28 14:20:03
9	011CALS.d	S08	2019-06-28 14:23:54

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0000	P	60.1
2	☒	0.100		86.67	0.0001	P	7.4
3	☐	1.000	1.053	774.48	0.0008	P	6.2
4	☐	50.000	53.743	38365.23	0.0411	P	2.5
5	☐	125.000	132.619	89807.76	0.1014	P	1.0
6	☐	250.000	260.118	166978.67	0.1988	P	0.4
7	☐	500.000	511.000	322938.05	0.3904	P	0.3
8	☐	1000.000	990.831	597133.84	0.7570	P	0.6
9	☐			152.23	0.0002	P	19.5

$$y = 7.6401\text{E-}004 * x + 2.9871\text{E-}005$$

$$R = 0.9998$$

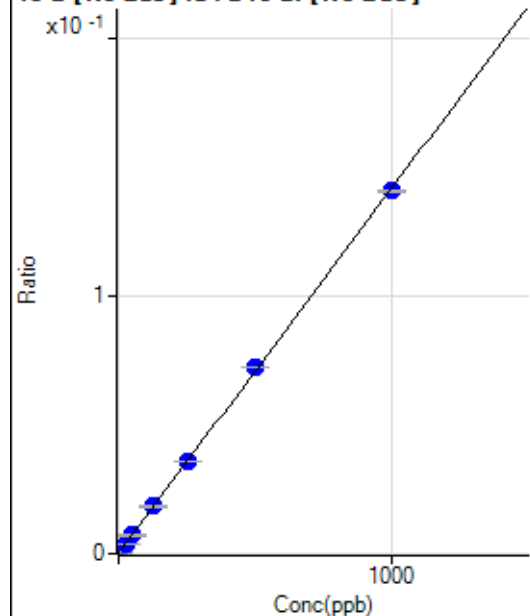
$$DL = 0.07053$$

$$BEC = 0.0391$$

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	119.45	0.0001	P	23.2
2	☒	2.500		416.69	0.0004	P	8.6
3	☐	25.000	23.476	3206.02	0.0035	P	1.8
4	☐	50.000	50.108	6754.55	0.0072	P	4.8
5	☐	125.000	128.369	16231.44	0.0183	P	5.7
6	☐	250.000	252.912	30222.79	0.0360	P	0.7
7	☐	500.000	510.489	59952.86	0.0725	P	0.7
8	☐	1000.000	993.639	111184.45	0.1410	P	0.7
9	☐			4639.77	0.0062	P	6.2

$$y = 1.4174\text{E-}004 * x + 1.2863\text{E-}004$$

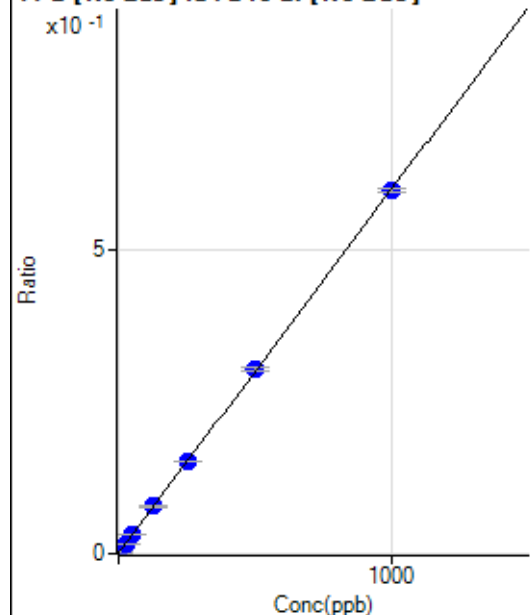
$$R = 0.9999$$

$$DL = 0.6306$$

$$BEC = 0.9075$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	688.93	0.0007	P	1.9
2	☒	2.500		1866.86	0.0020	P	4.8
3	☐	25.000	23.894	13951.40	0.0150	P	2.0
4	☐	50.000	49.892	28572.34	0.0306	P	1.1
5	☐	125.000	128.635	68862.67	0.0777	P	1.2
6	☐	250.000	253.457	128046.28	0.1524	P	0.8
7	☐	500.000	506.009	251079.55	0.3036	P	1.1
8	☐	1000.000	995.710	470555.97	0.5966	P	1.0
9	☐			20064.04	0.0267	P	7.0

$$y = 5.9844\text{E-}004 * x + 7.4111\text{E-}004$$

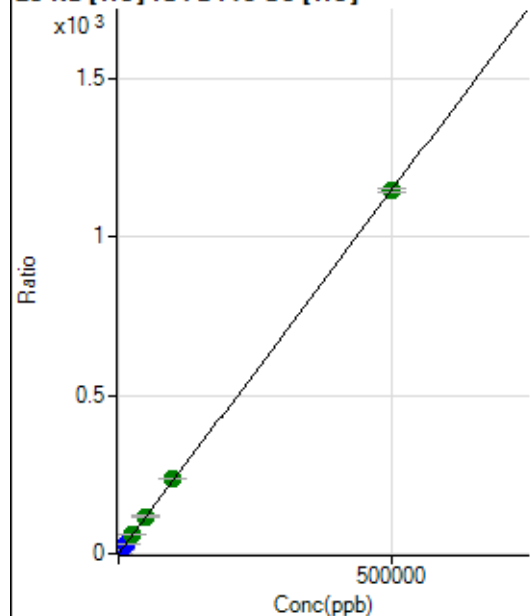
$$R = 1.0000$$

$$DL = 0.07207$$

$$BEC = 1.238$$

Weight: <None>

Min Conc: 0

23 Na [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1283.43	0.0215	P	1.2
2	☒	50.000		8083.05	0.1340	P	5.6
3	☐	500.000	497.111	70521.48	1.1601	P	2.8
4	☐	5000.000	5244.779	694819.54	12.0347	P	2.9
5	☐	12500.000	12807.507	1605906.40	29.3572	P	0.4
6	☐	25000.000	25757.528	3122332.88	59.0193	A	1.3
7	☐	50000.000	51520.321	6013237.33	118.0291	A	0.6
8	☐	100000.00	102832.40	11412078.21	235.5599	A	0.2
9	☐	500000.00	499233.47	55829858.19	1,143.519	A	0.9

$$y = 0.0023 * x + 0.0215$$

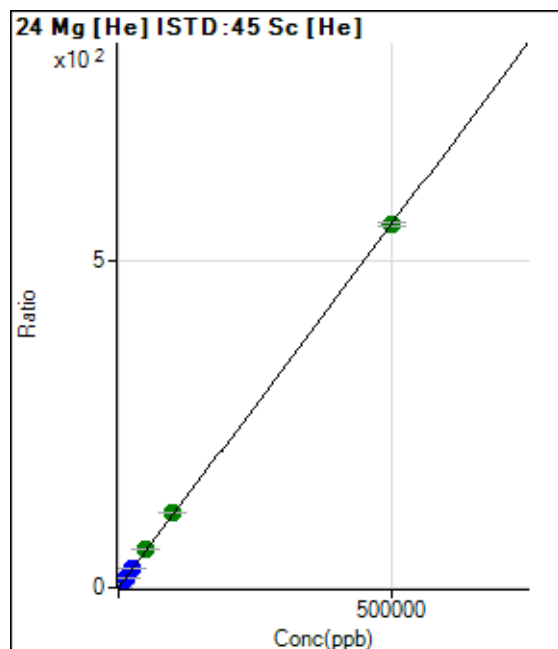
$$R = 1.0000$$

$$DL = 0.331$$

$$BEC = 9.373$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.23	0.0012	P	35.1
2	☒	50.000		3750.62	0.0622	P	7.3
3	☐	500.000	534.100	36280.86	0.5968	P	3.3
4	☐	5000.000	5485.373	353215.94	6.1186	P	3.4
5	☐	12500.000	13449.044	820523.38	14.9999	P	0.6
6	☐	25000.000	26252.133	1548954.16	29.2782	P	1.1
7	☐	50000.000	51859.550	2946611.16	57.8362	A	0.4
8	☐	100000.00	103494.48	5591776.56	115.4207	A	0.4
9	☐	500000.00	499023.92	27171002.34	556.5244	A	1.0

$$y = 0.0011 * x + 0.0012$$

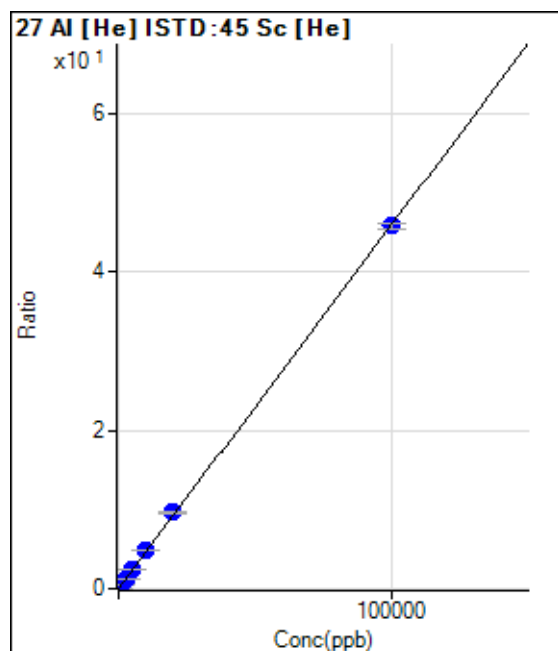
$$R = 1.0000$$

$$DL = 1.139$$

$$BEC = 1.083$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.05	0.0001	P	253.
2	☒	2.000		54.96	0.0009	P	38.8
3	☐	20.000	21.458	604.50	0.0099	P	21.8
4	☐	1000.000	1093.797	29023.28	0.5027	P	3.8
5	☐	2500.000	2671.459	67161.28	1.2278	P	0.9
6	☐	5000.000	5354.160	130178.67	2.4606	P	1.1
7	☐	10000.000	10607.546	248326.44	4.8749	P	1.6
8	☐	20000.000	20896.552	465255.78	9.6033	P	1.0
9	☐	100000.00	99737.002	2237776.01	45.8355	P	1.2

$$y = 4.5956E-004 * x + 6.7658E-005$$

$$R = 0.9999$$

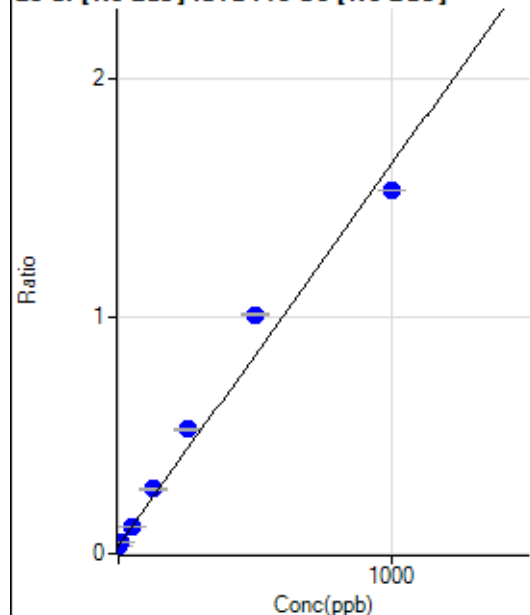
$$DL = 1.118$$

$$BEC = 0.1472$$

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	42152.25	0.0338	P	2.7
2	☒	1.000		43659.12	0.0351	P	1.0
3	☐	10.000	8.182	58222.48	0.0470	P	1.9
4	☐	50.000	49.527	140128.39	0.1134	P	1.0
5	☐	125.000	148.724	317209.58	0.2729	P	2.5
6	☐	250.000	305.114	565015.92	0.5242	P	1.9
7	☐	500.000	605.428	1069168.16	1.0069	P	0.6
8	☐	1000.000	930.584	1544157.98	1.5295	P	0.2
9	☐			63675.80	0.0665	P	2.2

$$y = 0.0016 * x + 0.0338$$

$$R = 0.9890$$

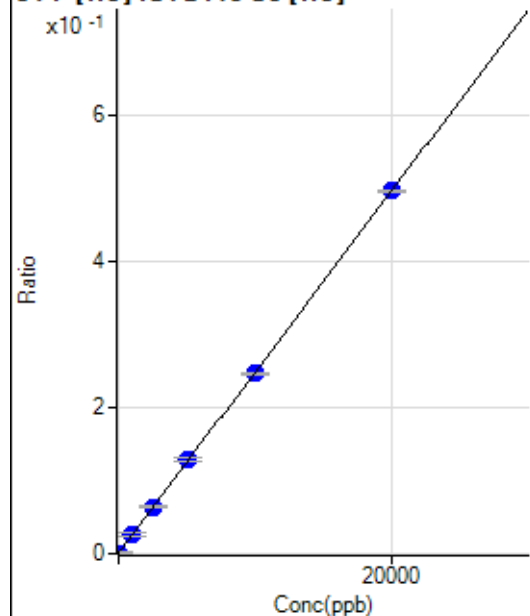
$$DL = 1.684$$

$$BEC = 21.05$$

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	-18.393	16.67	0.0003	P	100.
2	☒	0.000		33.33	0.0006	P	23.9
3	☐	0.000	18.393	72.23	0.0012	P	34.4
4	☐	1000.000	1031.906	1514.03	0.0263	P	15.1
5	☐	2500.000	2541.993	3483.86	0.0637	P	5.4
6	☐	5000.000	5161.943	6804.61	0.1286	P	3.1
7	☐	10000.000	9899.665	12527.96	0.2459	P	2.0
8	☐	20000.000	20002.837	24036.74	0.4962	P	0.7
9	☐			47.22	0.0010	P	9.3

$$y = 2.4767E-005 * x + 7.3512E-004$$

$$R = 0.9999$$

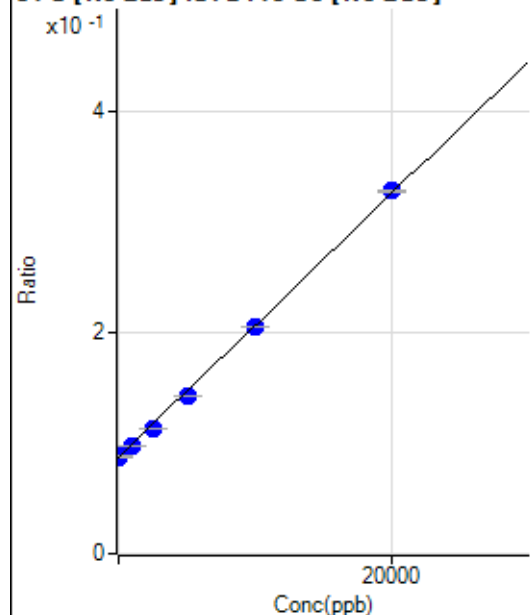
$$DL = 41.83$$

$$BEC = 29.68$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-80.069	107695.98	0.0864	P	0.8
2	☒	0.000		108823.43	0.0875	P	1.9
3	☐	0.000	80.069	109480.43	0.0883	P	2.0
4	☐	1000.000	854.122	120562.55	0.0976	P	0.9
5	☐	2500.000	2171.161	131732.74	0.1133	P	0.6
6	☐	5000.000	4686.220	154439.51	0.1433	P	0.3
7	☐	10000.000	9892.258	218106.30	0.2054	P	0.3
8	☐	20000.000	20180.715	331292.13	0.3281	P	0.3
9	☐			82980.83	0.0866	P	1.4

$$y = 1.1930E-005 * x + 0.0874$$

$$R = 0.9998$$

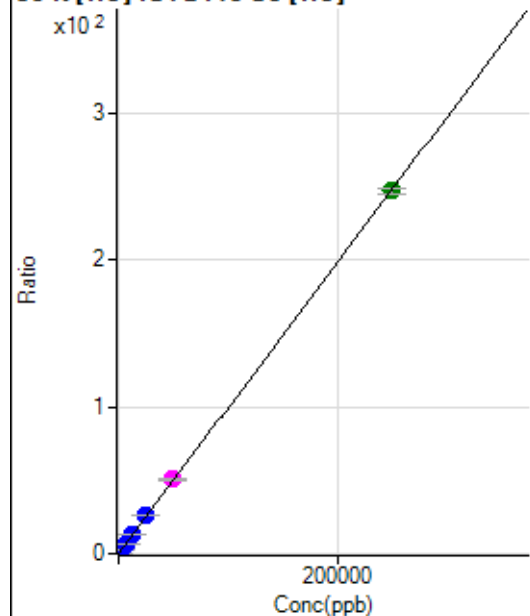
$$DL = 300.5$$

$$BEC = 7325$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3745.06	0.0627	P	6.3
2	☒	50.000		6626.77	0.1098	P	3.9
3	☐	500.000	503.927	34098.28	0.5609	P	1.4
4	☐	2500.000	2741.205	160067.90	2.7727	P	3.3
5	☐	6250.000	6641.278	362595.04	6.6285	P	0.5
6	☐	12500.000	13334.317	700746.30	13.2456	P	1.3
7	☐	25000.000	26255.551	1325566.86	26.0201	P	1.1
8	☐	50000.000	51032.327	2447343.24	50.5156	M	1.0
9	☐	250000.00	249614.06	12051310.34	246.8426	A	1.2

$$y = 9.8865E-004 * x + 0.0627$$

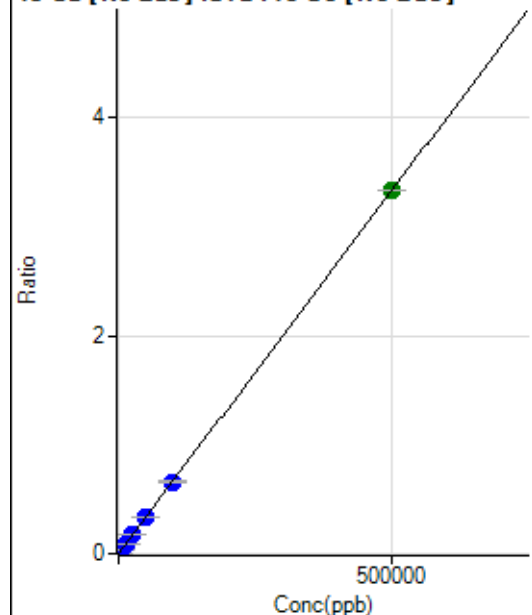
$$R = 1.0000$$

$$DL = 12.06$$

$$BEC = 63.39$$

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	38.89	0.0000	P	53.6
2	☒	50.000		416.69	0.0003	P	25.1
3	☐	500.000	472.450	3934.01	0.0032	P	5.6
4	☐	5000.000	4999.315	41127.35	0.0333	P	0.7
5	☐	12500.000	12774.702	98870.60	0.0850	P	1.1
6	☐	25000.000	25404.079	182185.27	0.1690	P	0.4
7	☐	50000.000	50237.102	354922.59	0.3343	P	0.2
8	☐	100000.00	99177.333	666179.72	0.6599	P	0.5
9	☐	500000.00	500113.78	3187582.84	3.3273	A	0.1

$$y = 6.6529\text{E-}006 * x + 3.1135\text{E-}005$$

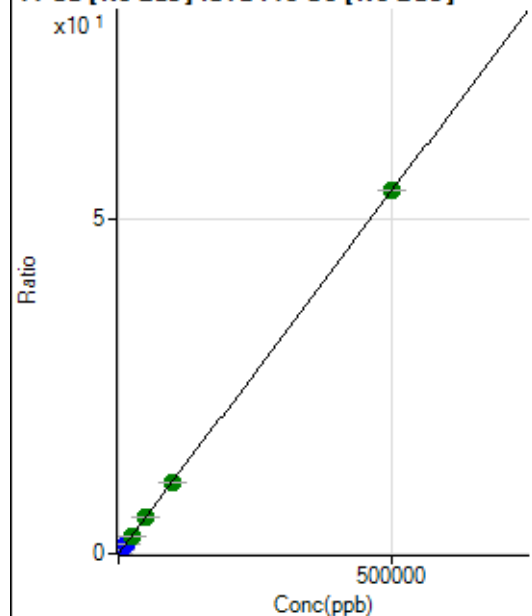
$$R = 1.0000$$

$$DL = 7.526$$

$$BEC = 4.68$$

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	1041.75	0.0008	P	16.0
2	☒	50.000		7288.17	0.0059	P	1.3
3	☐	500.000	479.817	65551.38	0.0529	P	1.4
4	☐	5000.000	4926.000	661218.16	0.5353	P	1.3
5	☐	12500.000	12388.122	1563649.35	1.3448	P	0.9
6	☐	25000.000	24850.506	2906484.18	2.6969	A	0.8
7	☐	50000.000	49621.763	5717179.55	5.3843	A	0.4
8	☐	100000.00	98440.061	10783092.86	10.6806	A	0.4
9	☐	500000.00	500360.84	52005985.19	54.2850	A	0.1

$$y = 1.0849\text{E-}004 * x + 8.3671\text{E-}004$$

$$R = 1.0000$$

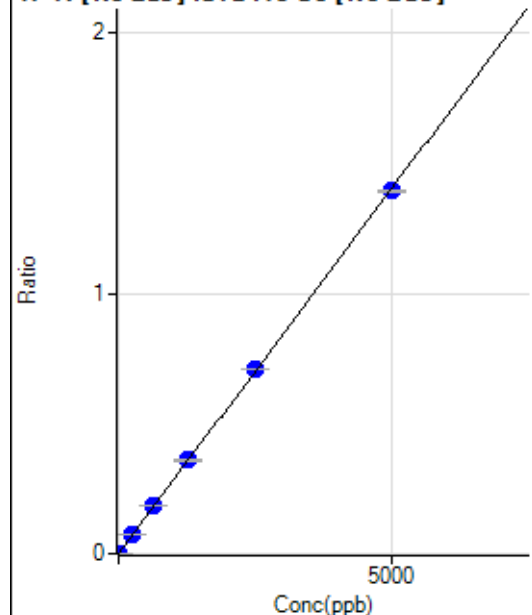
$$DL = 3.712$$

$$BEC = 7.712$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	30.56	0.0000	P	42.4
2	☒	0.500		163.90	0.0001	P	43.5
3	☐	5.000	5.056	1783.51	0.0014	P	14.8
4	☐	250.000	254.064	87939.23	0.0712	P	1.9
5	☐	625.000	648.522	211249.71	0.1817	P	0.6
6	☐	1250.000	1282.254	387120.31	0.3592	P	0.8
7	☐	2500.000	2531.701	753020.79	0.7092	P	0.3
8	☐	5000.000	4972.943	1406377.67	1.3930	P	0.7
9	☐			488.92	0.0005	P	9.7

$$y = 2.8011E-004 * x + 2.4585E-005$$

$$R = 0.9999$$

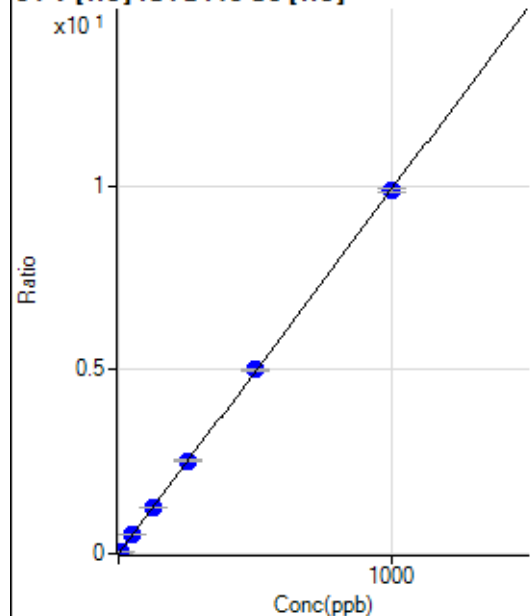
$$DL = 0.1116$$

$$BEC = 0.08777$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2.22	0.0000	P	173.
2	☒	0.500		306.67	0.0051	P	9.6
3	☐	5.000	5.034	3033.69	0.0499	P	3.5
4	☐	50.000	52.707	30128.68	0.5220	P	3.8
5	☐	125.000	127.917	69292.77	1.2667	P	0.4
6	☐	250.000	253.965	133042.69	2.5149	P	1.8
7	☐	500.000	504.847	254674.27	4.9992	P	1.3
8	☐	1000.000	996.085	477870.47	9.8637	P	1.2
9	☐			68.89	0.0014	P	28.8

$$y = 0.0099 * x + 3.7171E-005$$

$$R = 1.0000$$

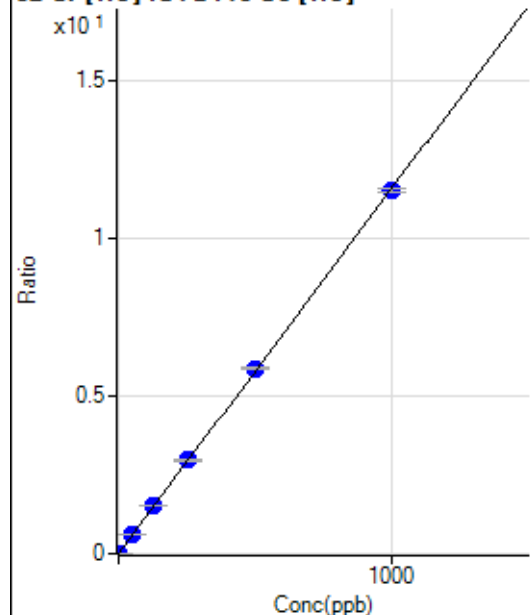
$$DL = 0.0195$$

$$BEC = 0.003754$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	192.23	0.0032	P	6.8
2	☒	0.200		295.56	0.0049	P	8.0
3	☐	2.000	1.953	1567.89	0.0258	P	9.2
4	☐	50.000	53.148	35618.62	0.6171	P	4.3
5	☐	125.000	129.322	81893.32	1.4970	P	0.1
6	☐	250.000	256.933	157182.26	2.9711	P	1.4
7	☐	500.000	506.671	298336.48	5.8559	P	1.2
8	☐	1000.000	994.234	556544.45	11.4879	P	1.0
9	☐			3652.73	0.0748	P	2.4

$$y = 0.0116 * x + 0.0032$$

$$R = 0.9999$$

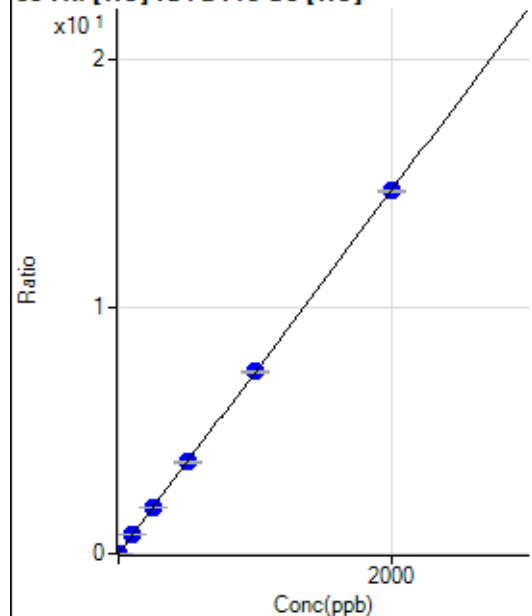
$$DL = 0.05698$$

$$BEC = 0.2785$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0002	P	66.2
2	☒	0.100		52.22	0.0009	P	2.7
3	☐	1.000	1.069	488.91	0.0080	P	5.4
4	☐	100.000	103.862	44143.97	0.7650	P	5.1
5	☐	250.000	253.135	101975.66	1.8642	P	0.6
6	☐	500.000	504.301	196468.74	3.7137	P	1.5
7	☐	1000.000	1002.826	376227.18	7.3847	P	0.8
8	☐	2000.000	1996.927	712400.36	14.7051	P	0.7
9	☐			2025.73	0.0415	P	1.0

$$y = 0.0074 * x + 1.6674E-004$$

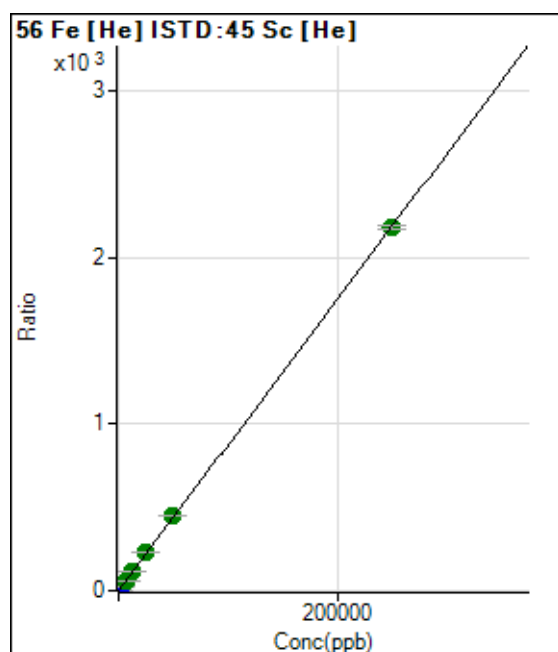
$$R = 1.0000$$

$$DL = 0.04497$$

$$BEC = 0.02264$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	679.67	0.0114	P	10.1
2	☒	5.000		3630.17	0.0602	P	0.8
3	☐	50.000	57.347	31144.59	0.5123	P	2.5
4	☐	2500.000	2812.251	1418725.34	24.5777	P	3.7
5	☐	6250.000	6667.367	3186638.32	58.2540	A	0.7
6	☐	12500.000	13311.092	6152133.41	116.2902	A	1.4
7	☐	25000.000	26439.188	11766776.65	230.9704	A	1.0
8	☐	50000.000	51815.156	21928912.99	452.6417	A	0.5
9	☐	250000.00	249438.93	106382477.3	2,178.980	A	1.2

$$y = 0.0087 * x + 0.0114$$

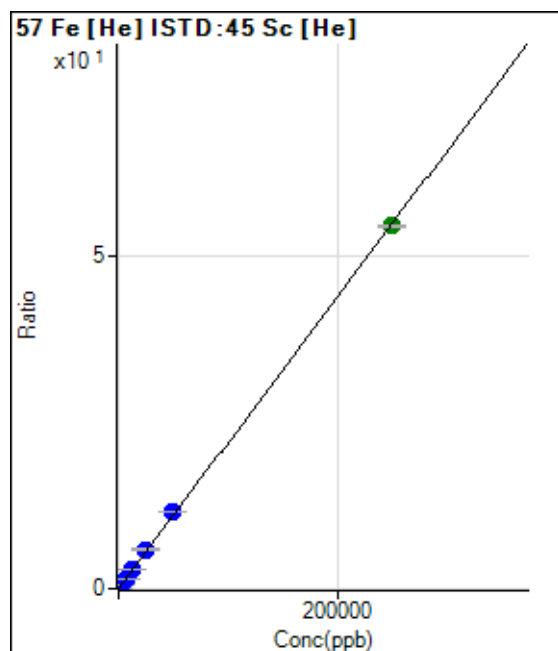
$$R = 1.0000$$

$$DL = 0.3949$$

$$BEC = 1.302$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	24.08	0.0004	P	81.1
2	☒	5.000		101.86	0.0017	P	16.3
3	☐	50.000	61.884	850.05	0.0140	P	5.8
4	☐	2500.000	2857.022	36219.20	0.6273	P	3.0
5	☐	6250.000	6855.463	82312.99	1.5048	P	1.4
6	☐	12500.000	13624.333	158185.08	2.9901	P	1.6
7	☐	25000.000	27046.606	302388.79	5.9355	P	0.6
8	☐	50000.000	52939.178	562829.42	11.6173	P	0.6
9	☐	250000.00	249132.57	2669147.71	54.6698	A	0.9

$$y = 2.1944E-004 * x + 4.0198E-004$$

$$R = 0.9999$$

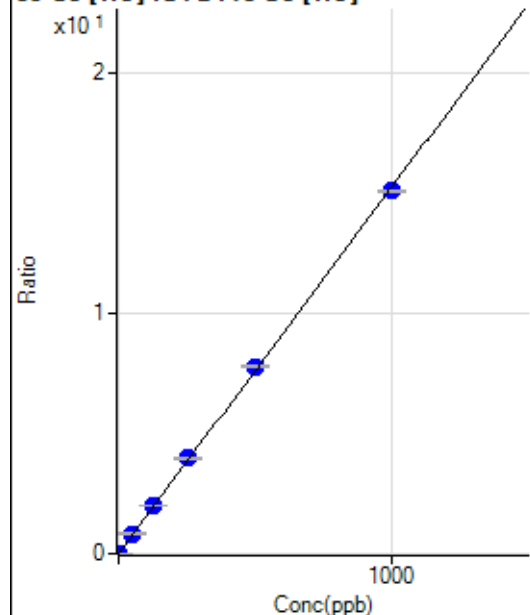
$$DL = 4.456$$

$$BEC = 1.832$$

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	6.67	0.0001	P	99.8
2	☐	0.100	0.113	111.11	0.0018	P	10.3
3	☐	1.000	0.941	878.93	0.0145	P	2.7
4	☐	50.000	54.476	47972.74	0.8310	P	3.3
5	☐	125.000	132.051	110177.36	2.0141	P	0.2
6	☐	250.000	261.000	210599.84	3.9808	P	1.2
7	☐	500.000	510.854	396958.72	7.7915	P	0.7
8	☐	1000.000	990.718	732037.54	15.1101	P	0.7
9	☐			8605.95	0.1763	P	2.5

$$y = 0.0153 * x + 1.1097E-004$$

$$R = 0.9998$$

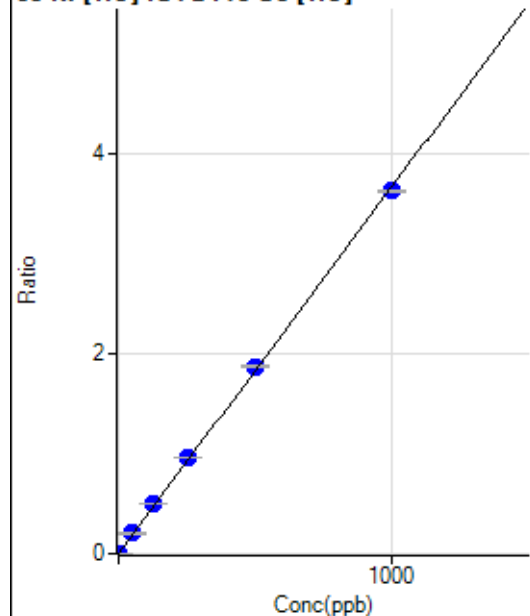
$$DL = 0.02178$$

$$BEC = 0.007276$$

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	18.89	0.0003	P	44.1
2	☒	0.100		42.22	0.0007	P	37.3
3	☐	1.000	1.066	256.67	0.0042	P	20.0
4	☐	50.000	55.954	11864.94	0.2055	P	3.4
5	☐	125.000	134.873	27077.39	0.4950	P	0.7
6	☐	250.000	262.145	50884.69	0.9618	P	1.1
7	☐	500.000	510.462	95394.07	1.8725	P	1.5
8	☐	1000.000	990.201	175961.54	3.6320	P	0.5
9	☐			2199.09	0.0450	P	1.5

$$y = 0.0037 * x + 3.1577E-004$$

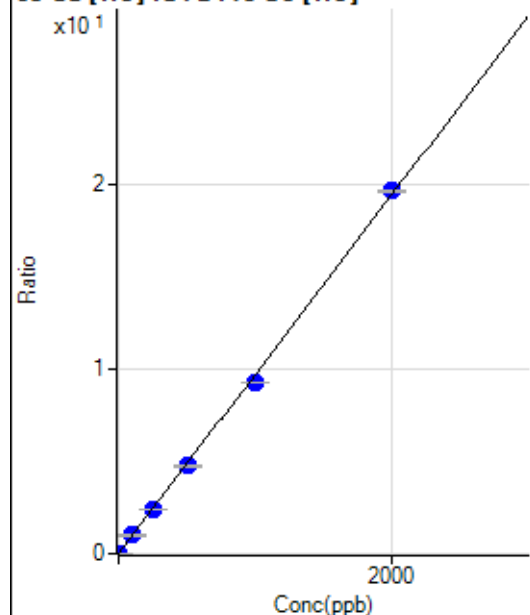
$$R = 0.9998$$

$$DL = 0.1138$$

$$BEC = 0.0861$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	84.44	0.0014	P	11.5
2	☒	0.200		215.56	0.0036	P	9.9
3	☐	2.000	2.031	1283.41	0.0211	P	6.1
4	☐	100.000	103.523	58017.87	1.0052	P	4.3
5	☐	250.000	250.728	133063.39	2.4325	P	0.6
6	☐	500.000	490.648	251756.72	4.7588	P	1.5
7	☐	1000.000	956.269	472449.30	9.2736	P	0.7
8	☐	2000.000	2023.936	950813.96	19.6259	P	0.7
9	☐			1080.06	0.0221	P	2.8

$$y = 0.0097 * x + 0.0014$$

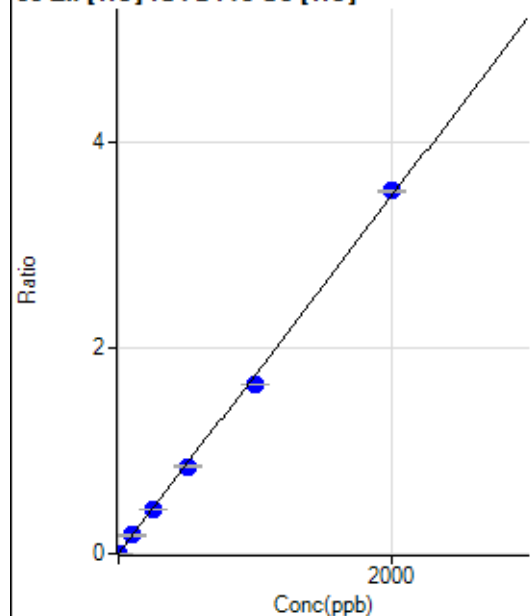
$$R = 0.9996$$

$$DL = 0.05014$$

$$BEC = 0.1457$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0007	P	16.7
2	☒	0.200		101.12	0.0017	P	14.4
3	☐	2.000	1.916	247.78	0.0041	P	8.2
4	☐	100.000	104.178	10505.03	0.1820	P	4.8
5	☐	250.000	244.249	23292.07	0.4258	P	1.6
6	☐	500.000	487.596	44930.12	0.8493	P	1.0
7	☐	1000.000	948.307	84110.44	1.6510	P	0.7
8	☐	2000.000	2029.458	171133.26	3.5324	P	0.2
9	☐			1216.74	0.0249	P	4.8

$$y = 0.0017 * x + 7.4295E-004$$

$$R = 0.9995$$

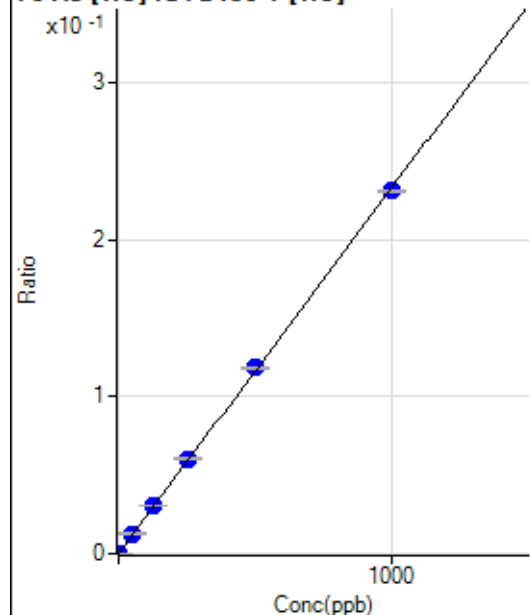
$$DL = 0.2133$$

$$BEC = 0.4269$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.23	0.0000	P	86.6
2	☒	0.100		6.79	0.0000	P	30.8
3	☐	1.000	0.960	61.73	0.0002	P	32.7
4	☐	50.000	54.963	3321.40	0.0128	P	5.9
5	☐	125.000	131.002	7498.29	0.0305	P	2.4
6	☐	250.000	259.635	14527.07	0.0604	P	1.2
7	☐	500.000	508.540	27441.34	0.1183	P	0.7
8	☐	1000.000	992.323	51535.25	0.2309	P	0.5
9	☐			63.58	0.0003	P	29.2

$$y = 2.3268\text{E-}004 * x + 4.5983\text{E-}006$$

$$R = 0.9999$$

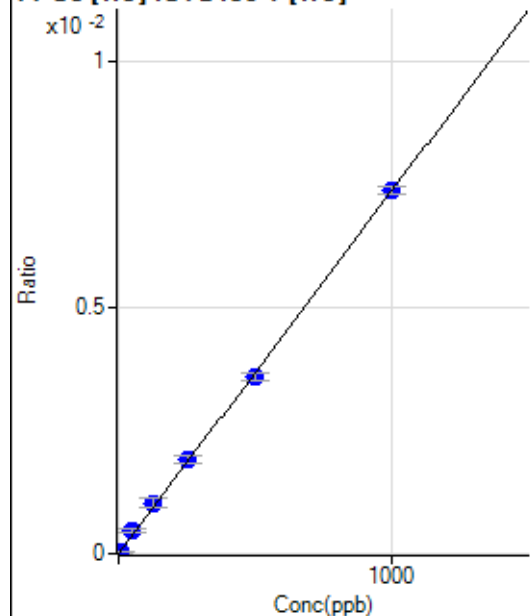
$$DL = 0.05135$$

$$BEC = 0.01976$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☒	0.500		2.22	0.0000	P	86.6
3	☐	5.000	5.577	11.11	0.0000	P	34.7
4	☐	50.000	61.884	118.89	0.0005	P	18.3
5	☐	125.000	139.296	252.23	0.0010	P	19.1
6	☐	250.000	258.726	457.79	0.0019	P	8.4
7	☐	500.000	489.000	834.48	0.0036	P	4.5
8	☐	1000.000	1000.934	1644.57	0.0074	P	2.1
9	☐			1.11	0.0000	P	173.

$$y = 7.3620\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9998$$

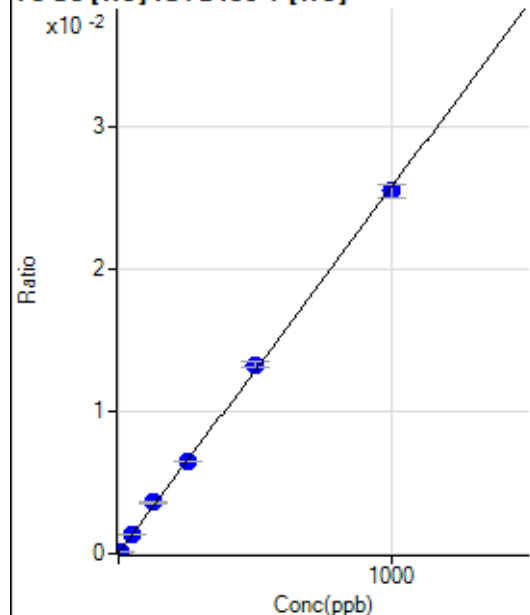
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.03	0.0000	P	14.0
2	☒	0.500		14.82	0.0001	P	43.5
3	☐	5.000	5.659	47.53	0.0002	P	25.5
4	☐	50.000	52.942	362.35	0.0014	P	2.6
5	☐	125.000	139.337	889.54	0.0036	P	2.5
6	☐	250.000	251.297	1562.45	0.0065	P	1.8
7	☐	500.000	515.884	3087.39	0.0133	P	2.2
8	☐	1000.000	989.791	5694.37	0.0255	P	3.4
9	☐			9.26	0.0000	P	35.0

$$y = 2.5740\text{E-}005 * x + 3.0059\text{E-}005$$

$$R = 0.9997$$

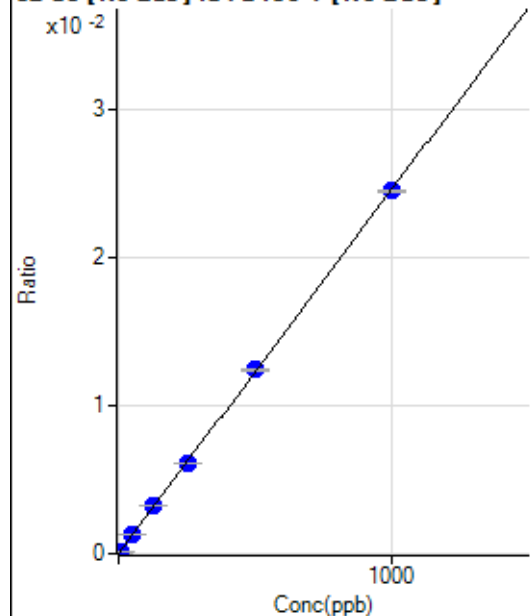
$$DL = 0.4913$$

$$BEC = 1.168$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21.77	0.0000	P	86.3
2	☒	0.500		19.75	0.0000	P	63.0
3	☐	5.000	5.080	227.16	0.0001	P	1.4
4	☐	50.000	51.973	2138.99	0.0013	P	2.2
5	☐	125.000	129.782	5067.60	0.0032	P	0.8
6	☐	250.000	249.048	9304.42	0.0061	P	1.3
7	☐	500.000	505.058	18461.24	0.0124	P	0.4
8	☐	1000.000	997.012	34818.50	0.0245	P	0.8
9	☐			8.89	0.0000	P	217.

$$y = 2.4554\text{E-}005 * x + 1.3057\text{E-}005$$

$$R = 1.0000$$

$$DL = 1.376$$

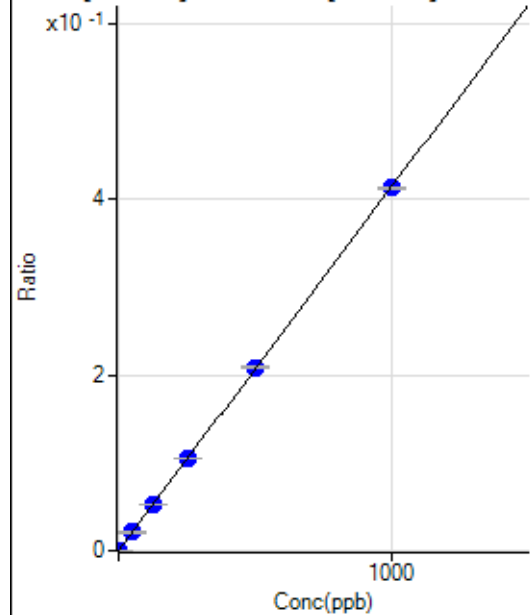
$$BEC = 0.5318$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			47.78		P	14.5
2	☒			66.67		P	21.8
3	☐			55.56		P	18.3
4	☐			45.56		P	25.7
5	☐			66.67		P	0.0
6	☐			56.67		P	20.4
7	☐			55.55		P	28.4
8	☐			53.33		P	16.5
9	☐			57.78		P	27.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	77.78	0.0000	P	47.9
2	☒	0.100		188.90	0.0001	P	30.2
3	☐	1.000	0.970	738.94	0.0004	P	2.8
4	☐	50.000	50.513	34781.88	0.0210	P	2.0
5	☐	125.000	128.646	84439.02	0.0533	P	0.7
6	☐	250.000	252.041	158527.27	0.1044	P	0.2
7	☐	500.000	503.526	310135.82	0.2086	P	0.7
8	☐	1000.000	997.245	587108.85	0.4130	P	0.8
9	☐			2416.97	0.0018	P	0.2

$$y = 4.1410E-004 * x + 4.6705E-005$$

$$R = 1.0000$$

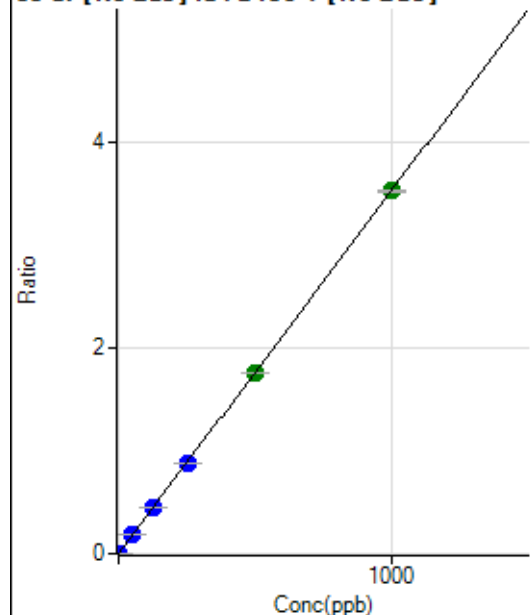
$$DL = 0.1622$$

$$BEC = 0.1128$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	77.5
2	☒	0.100		613.93	0.0004	P	16.1
3	☐	1.000	0.968	5654.09	0.0034	P	5.4
4	☐	50.000	51.082	298982.19	0.1802	P	1.5
5	☐	125.000	128.366	717170.27	0.4528	P	0.5
6	☐	250.000	250.438	1341311.12	0.8835	P	0.4
7	☐	500.000	499.628	2621045.61	1.7625	A	0.2
8	☐	1000.000	999.602	5012739.87	3.5263	A	0.6
9	☐			19566.81	0.0146	P	2.2

$$y = 0.0035 * x + 1.3326E-005$$

$$R = 1.0000$$

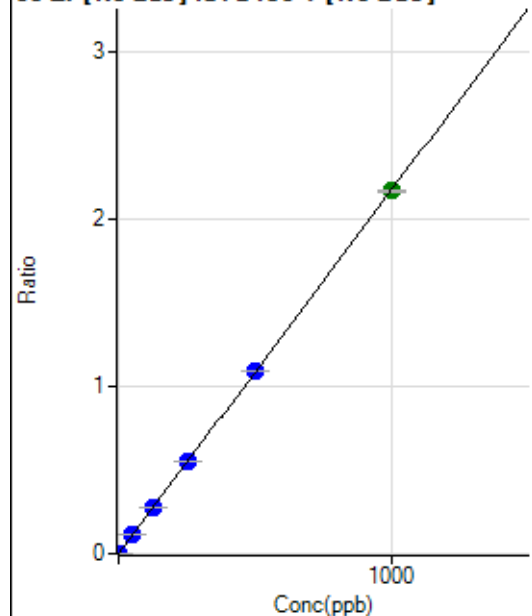
$$DL = 0.008779$$

$$BEC = 0.003778$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	163.90	0.0001	P	33.8
2	☒	0.100		519.47	0.0003	P	3.8
3	☐	1.000	0.944	3545.04	0.0021	P	5.8
4	☐	50.000	50.968	183757.00	0.1108	P	2.0
5	☐	125.000	128.989	443701.89	0.2802	P	0.2
6	☐	250.000	252.483	832431.49	0.5483	P	0.6
7	☐	500.000	502.091	1621295.88	1.0903	P	0.4
8	☐	1000.000	997.787	3079816.63	2.1665	A	0.4
9	☐			788.94	0.0006	P	8.7

$$y = 0.0022 * x + 9.8675E-005$$

$$R = 1.0000$$

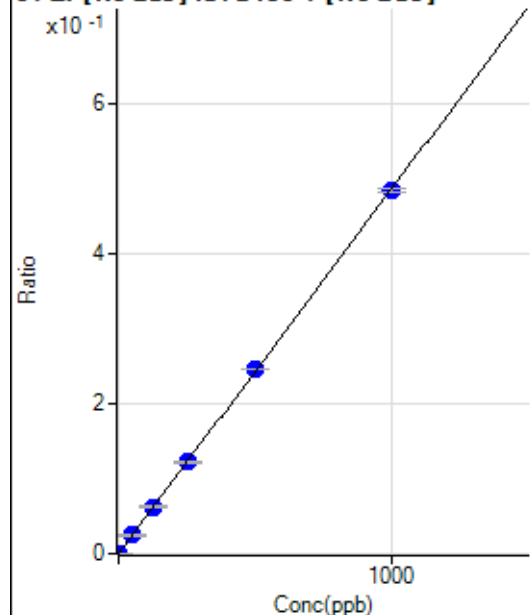
$$DL = 0.0461$$

$$BEC = 0.04545$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	33.9
2	☒	0.100		147.23	0.0001	P	35.7
3	☐	1.000	1.072	886.17	0.0005	P	11.3
4	☐	50.000	50.322	40603.02	0.0245	P	2.5
5	☐	125.000	129.142	99419.15	0.0628	P	1.3
6	☐	250.000	251.676	185734.35	0.1223	P	1.1
7	☐	500.000	507.772	367010.83	0.2468	P	0.3
8	☐	1000.000	995.161	687573.73	0.4837	P	0.9
9	☐			166.68	0.0001	P	6.0

$$y = 4.8601\text{E-}004 * x + 1.6647\text{E-}005$$

$$R = 0.9999$$

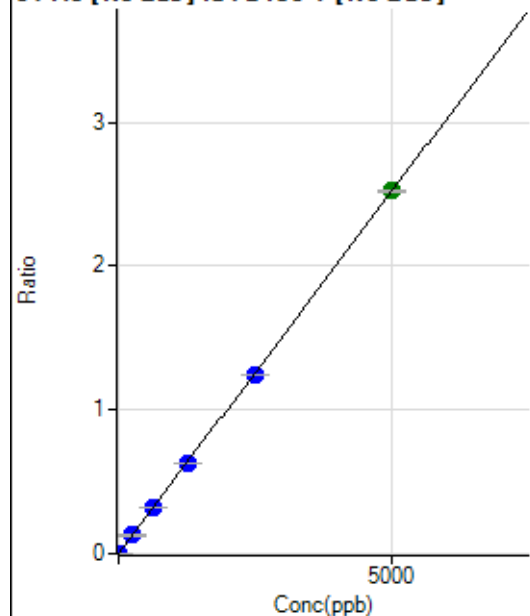
$$DL = 0.03482$$

$$BEC = 0.03425$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0001	P	39.6
2	☐	0.500	0.462	483.36	0.0003	P	11.7
3	☐	5.000	4.906	4164.65	0.0025	P	1.4
4	☐	250.000	253.267	211633.22	0.1276	P	1.6
5	☐	625.000	637.111	508073.94	0.3208	P	0.2
6	☐	1250.000	1247.253	953419.86	0.6280	P	0.3
7	☐	2500.000	2478.828	1855914.25	1.2480	P	0.2
8	☐	5000.000	5009.595	3585364.49	2.5221	A	0.8
9	☐			1386.23	0.0010	P	11.2

$$y = 5.0345\text{E-}004 * x + 5.6738\text{E-}005$$

$$R = 1.0000$$

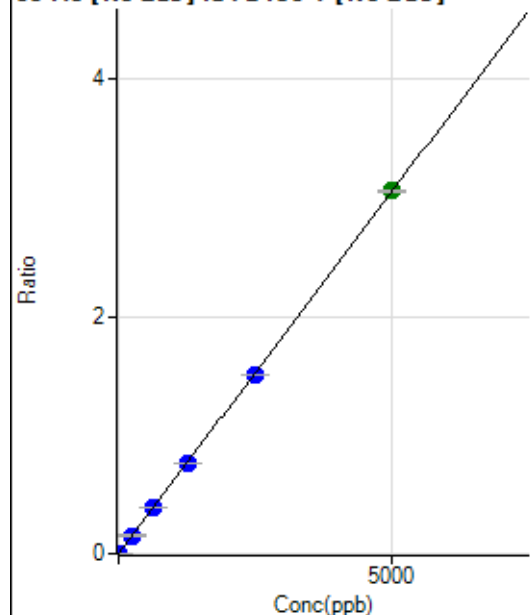
$$DL = 0.1338$$

$$BEC = 0.1127$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	49.4
2	☐	0.500	0.497	522.25	0.0003	P	6.4
3	☐	5.000	5.424	5465.17	0.0033	P	4.0
4	☐	250.000	252.384	255152.55	0.1538	P	2.0
5	☐	625.000	641.573	619150.79	0.3910	P	1.2
6	☐	1250.000	1243.345	1150249.22	0.7576	P	0.7
7	☐	2500.000	2465.153	2233816.56	1.5022	P	0.3
8	☐	5000.000	5016.896	4345858.04	3.0571	A	0.6
9	☐			1708.51	0.0013	P	5.3

$$y = 6.0935E-004 * x + 9.9814E-006$$

$$R = 1.0000$$

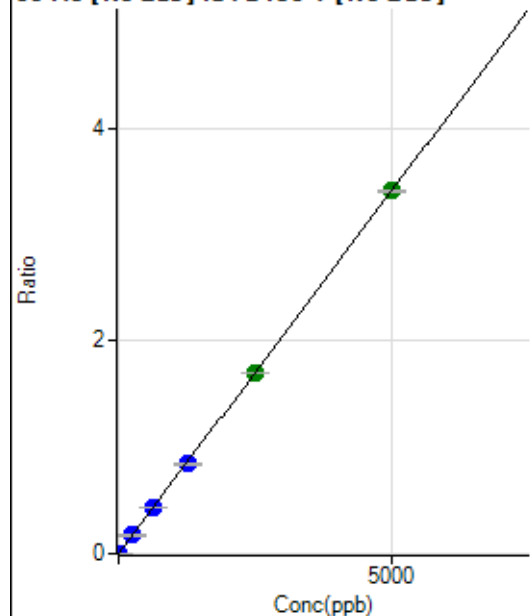
$$DL = 0.02426$$

$$BEC = 0.01638$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	66.3
2	☐	0.500	0.478	569.48	0.0003	P	19.2
3	☐	5.000	5.185	5851.42	0.0036	P	2.8
4	☐	250.000	252.933	286151.63	0.1725	P	1.1
5	☐	625.000	640.196	691325.42	0.4365	P	0.9
6	☐	1250.000	1236.234	1279733.51	0.8429	P	0.6
7	☐	2500.000	2498.287	2533147.65	1.7034	A	0.2
8	☐	5000.000	5002.252	4848579.71	3.4107	A	0.5
9	☐			2575.34	0.0019	P	7.8

$$y = 6.8184E-004 * x + 1.4961E-005$$

$$R = 1.0000$$

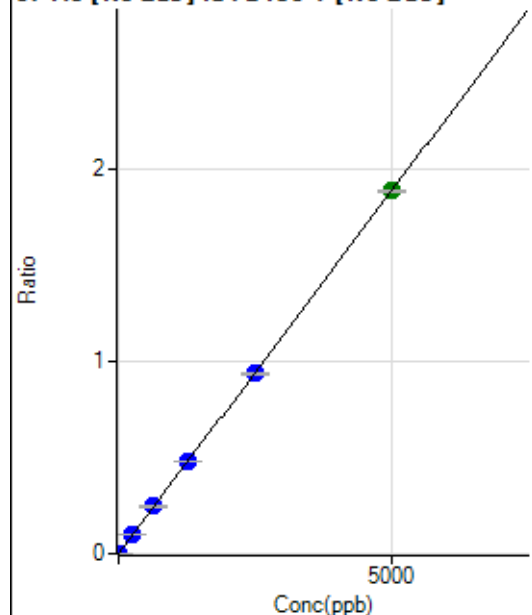
$$DL = 0.04364$$

$$BEC = 0.02194$$

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	0.00	0.0000	P	
2	☐	0.500	0.471	297.24	0.0002	P	30.6
3	☐	5.000	5.359	3339.42	0.0020	P	3.8
4	☐	250.000	253.439	158854.73	0.0957	P	0.9
5	☐	625.000	649.573	388645.88	0.2454	P	0.7
6	☐	1250.000	1262.215	723953.89	0.4768	P	0.2
7	☐	2500.000	2484.524	1395784.11	0.9386	P	0.7
8	☐	5000.000	5001.441	2686050.02	1.8895	A	0.4
9	☐			1002.86	0.0007	P	6.5

$$y = 3.7778\text{E-}004 * x + 0.0000\text{E+}000$$

$$R = 1.0000$$

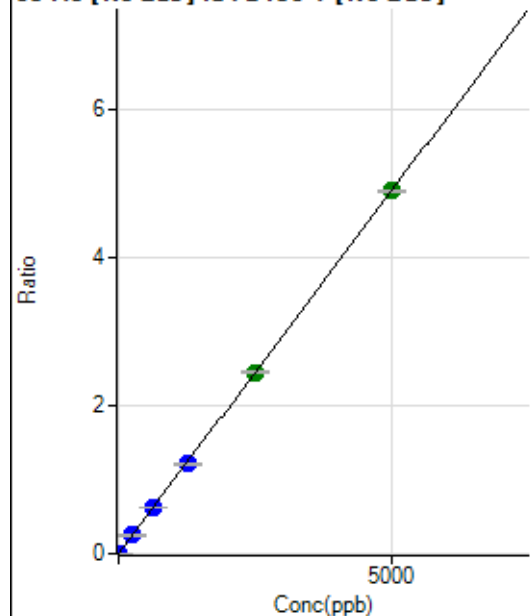
$$DL = 0$$

$$BEC = 0$$

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	22.22	0.0000	P	58.0
2	☐	0.500	0.504	847.29	0.0005	P	7.9
3	☐	5.000	5.185	8388.90	0.0051	P	3.4
4	☐	250.000	252.198	409675.75	0.2469	P	1.2
5	☐	625.000	640.015	992392.86	0.6266	P	0.5
6	☐	1250.000	1234.778	1835398.98	1.2089	P	0.5
7	☐	2500.000	2504.100	3645827.64	2.4517	A	0.2
8	☐	5000.000	4999.769	6958797.46	4.8951	A	0.4
9	☐			2586.46	0.0019	P	3.9

$$y = 9.7906\text{E-}004 * x + 1.3390\text{E-}005$$

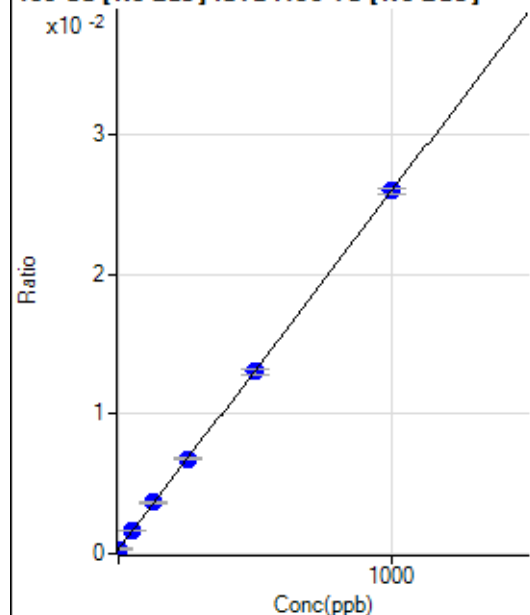
$$R = 1.0000$$

$$DL = 0.02378$$

$$BEC = 0.01368$$

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	647.27	0.0003	P	17.1
2	☒	0.100		627.82	0.0003	P	2.7
3	☐	1.000	1.370	716.71	0.0003	P	5.4
4	☐	50.000	53.107	3503.36	0.0017	P	1.3
5	☐	125.000	130.813	7646.83	0.0037	P	5.2
6	☐	250.000	253.190	14088.04	0.0068	P	1.3
7	☐	500.000	495.419	27196.40	0.0130	P	2.4
8	☐	1000.000	1000.611	53145.34	0.0260	P	1.8
9	☐			472.25	0.0003	P	8.3

$$y = 2.5694E-005 * x + 3.0770E-004$$

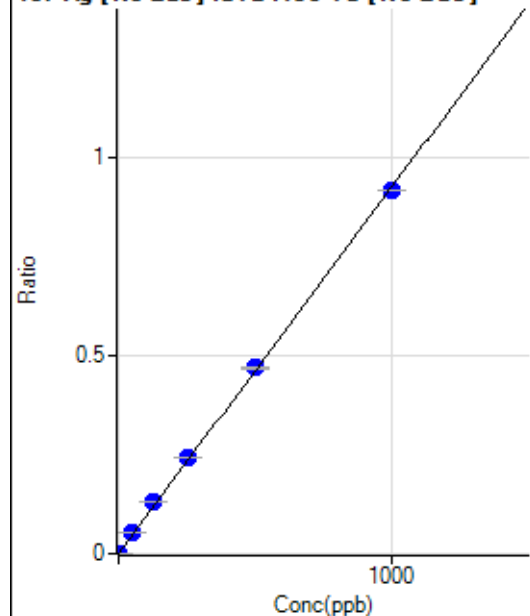
$$R = 1.0000$$

$$DL = 6.158$$

$$BEC = 11.98$$

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	22.22	0.0000	P	22.1
2	☒	0.100		211.12	0.0001	P	9.3
3	☐	1.000	1.025	2003.00	0.0010	P	8.8
4	☐	50.000	58.254	112930.36	0.0539	P	1.4
5	☐	125.000	141.456	272782.52	0.1309	P	1.2
6	☐	250.000	263.948	505042.13	0.2442	P	0.2
7	☐	500.000	506.763	978228.48	0.4689	P	0.5
8	☐	1000.000	990.662	1872339.60	0.9167	P	0.1
9	☐			141.67	0.0001	P	4.8

$$y = 9.2530E-004 * x + 1.0564E-005$$

$$R = 0.9998$$

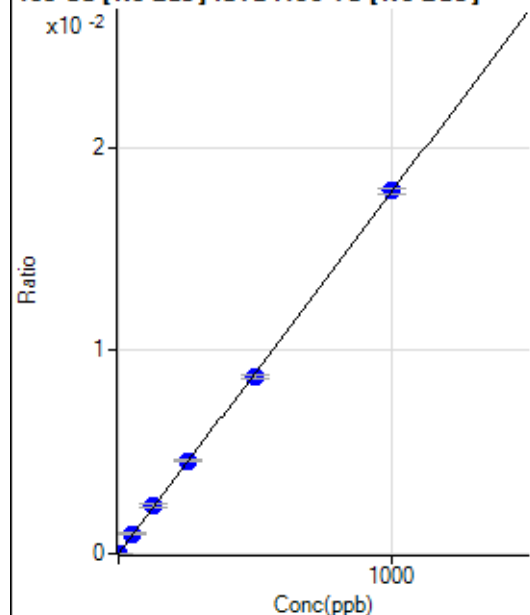
$$DL = 0.00757$$

$$BEC = 0.01142$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.78	0.0000	P	86.6
2	☒	0.100		1.39	0.0000	P	173.
3	☐	1.000	1.010	40.28	0.0000	P	7.5
4	☐	50.000	55.006	2054.36	0.0010	P	4.8
5	☐	125.000	132.352	4916.23	0.0024	P	5.1
6	☐	250.000	255.805	9422.74	0.0046	P	2.1
7	☐	500.000	488.043	18134.04	0.0087	P	1.7
8	☐	1000.000	1003.358	36498.58	0.0179	P	1.4
9	☐			12.50	0.0000	P	1.1

$$y = 1.7809\text{E-}005 * x + 1.3222\text{E-}006$$

$$R = 0.9998$$

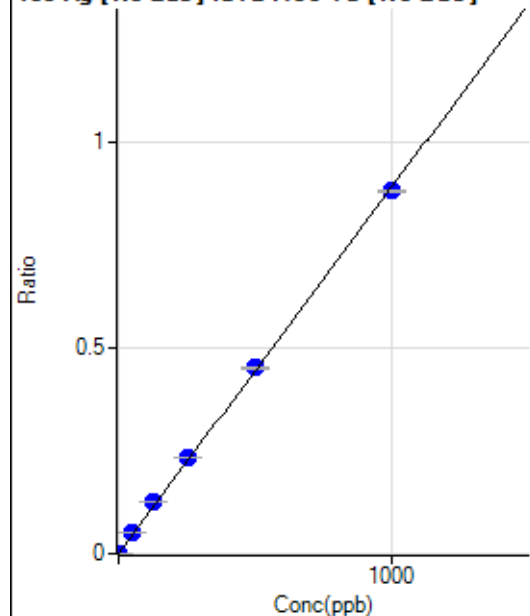
$$DL = 0.1929$$

$$BEC = 0.07425$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	99.6
2	☒	0.100		202.79	0.0001	P	13.1
3	☐	1.000	1.129	2103.02	0.0010	P	11.7
4	☐	50.000	58.813	109591.60	0.0523	P	1.7
5	☐	125.000	141.423	262173.76	0.1258	P	0.9
6	☐	250.000	262.924	483627.72	0.2339	P	0.3
7	☐	500.000	506.879	940631.42	0.4509	P	0.1
8	☐	1000.000	990.836	1800226.84	0.8814	P	0.5
9	☐			133.34	0.0001	P	10.8

$$y = 8.8954\text{E-}004 * x + 3.9626\text{E-}006$$

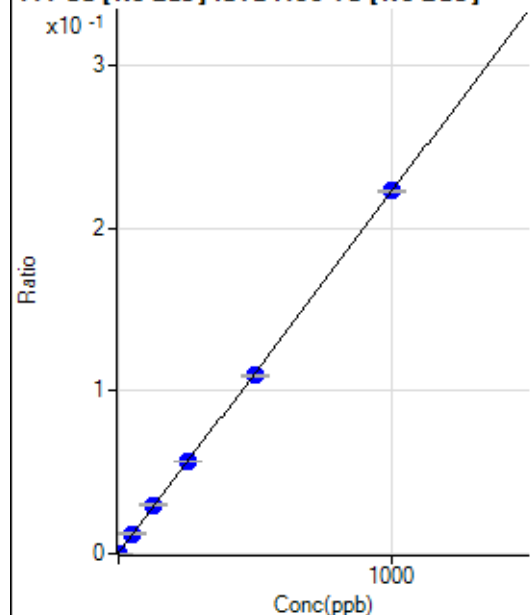
$$R = 0.9998$$

$$DL = 0.01332$$

$$BEC = 0.004455$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	451.14	0.0002	P	17.1
2	☒	0.100		498.22	0.0002	P	1.9
3	☐	1.000	1.033	927.69	0.0004	P	6.6
4	☐	50.000	54.475	25801.58	0.0123	P	2.2
5	☐	125.000	134.141	62563.10	0.0300	P	1.0
6	☐	250.000	254.118	117193.48	0.0567	P	0.2
7	☐	500.000	491.539	228279.27	0.1094	P	0.6
8	☐	1000.000	1001.834	455083.88	0.2228	P	0.9
9	☐			389.88	0.0002	P	9.6

$$y = 2.2218\text{E-}004 * x + 2.1446\text{E-}004$$

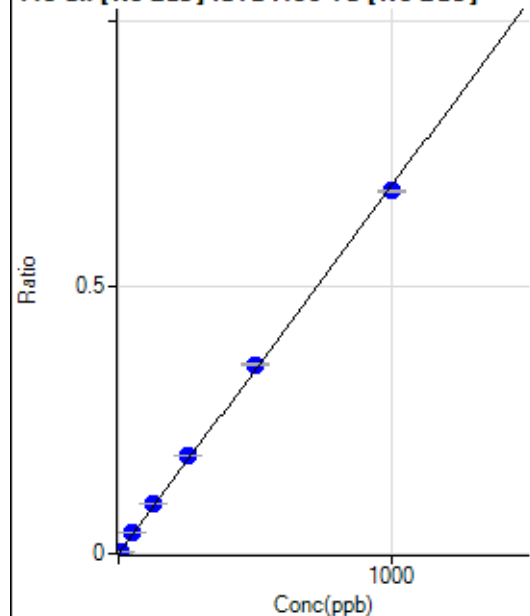
$$R = 0.9999$$

$$DL = 0.495$$

$$BEC = 0.9652$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0001	P	21.3
2	☒	0.500		875.07	0.0004	P	15.8
3	☐	5.000	5.411	7910.87	0.0038	P	4.2
4	☐	50.000	56.624	81910.76	0.0391	P	1.6
5	☐	125.000	137.414	197587.44	0.0948	P	1.4
6	☐	250.000	264.996	377983.35	0.1828	P	0.4
7	☐	500.000	515.018	741012.17	0.3552	P	0.2
8	☐	1000.000	986.857	1390183.44	0.6806	P	0.5
9	☐			513.92	0.0003	P	24.1

$$y = 6.8958\text{E-}004 * x + 5.7992\text{E-}005$$

$$R = 0.9997$$

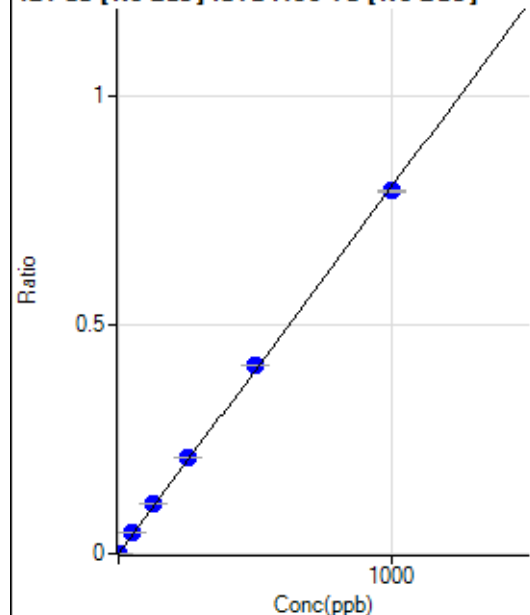
$$DL = 0.05375$$

$$BEC = 0.0841$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	125.
2	☒	0.200		313.91	0.0001	P	8.5
3	☐	2.000	1.990	3350.54	0.0016	P	4.4
4	☐	50.000	55.399	93169.50	0.0445	P	1.1
5	☐	125.000	136.077	227675.21	0.1092	P	0.8
6	☐	250.000	262.617	435948.11	0.2108	P	0.9
7	☐	500.000	511.801	857120.85	0.4109	P	0.2
8	☐	1000.000	989.291	1622135.84	0.7942	P	0.2
9	☐			2208.60	0.0012	P	4.6

$$y = 8.0276\text{E-}004 * x + 6.5747\text{E-}006$$

$$R = 0.9998$$

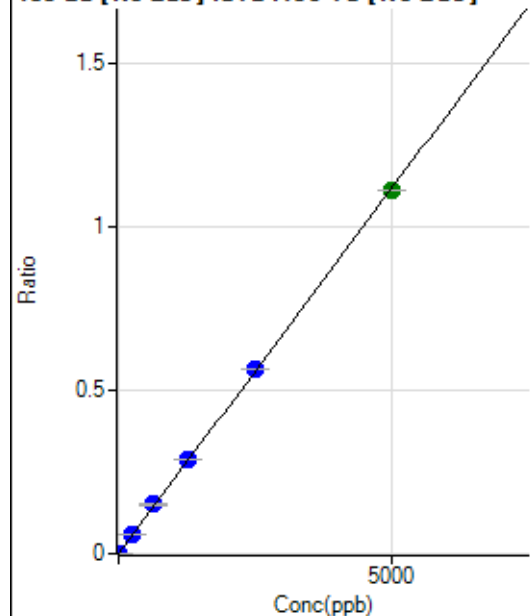
$$DL = 0.03072$$

$$BEC = 0.00819$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.78	0.0000	P	173.
2	☒	1.000		563.92	0.0003	P	6.7
3	☐	10.000	10.733	5009.48	0.0024	P	6.4
4	☐	250.000	273.098	127642.50	0.0609	P	1.9
5	☐	625.000	674.247	313526.25	0.1505	P	1.6
6	☐	1250.000	1292.696	596468.08	0.2885	P	0.2
7	☐	2500.000	2525.047	1175426.58	0.5634	P	0.3
8	☐	5000.000	4969.490	2265020.73	1.1089	A	0.1
9	☐			313.91	0.0002	P	13.6

$$y = 2.2314\text{E-}004 * x + 1.3306\text{E-}006$$

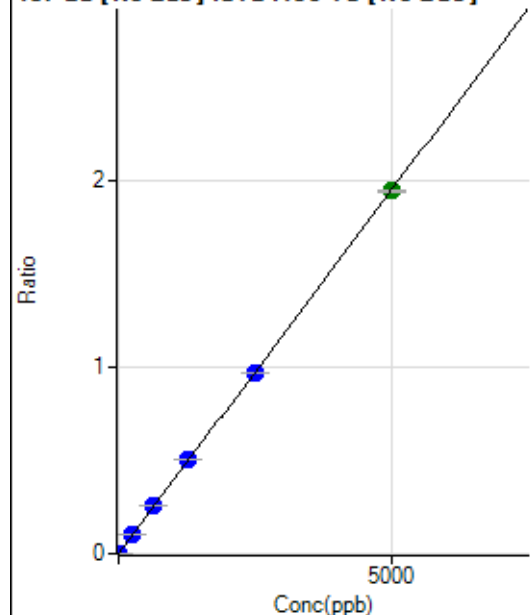
$$R = 0.9999$$

$$DL = 0.03099$$

$$BEC = 0.005963$$

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	2.78	0.0000	P	173.
2	☒	1.000		791.72	0.0004	P	4.3
3	☐	10.000	10.672	8694.71	0.0042	P	1.6
4	☐	250.000	273.196	223129.98	0.1065	P	1.1
5	☐	625.000	668.603	543279.77	0.2607	P	0.9
6	☐	1250.000	1286.187	1036972.70	0.5015	P	0.4
7	☐	2500.000	2489.879	2025241.89	0.9708	P	0.6
8	☐	5000.000	4989.402	3973387.02	1.9454	A	0.5
9	☐			544.48	0.0003	P	16.9

$$y = 3.8990E-004 * x + 1.3306E-006$$

$$R = 0.9999$$

$$DL = 0.01773$$

$$BEC = 0.003413$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			4.45		P	86.6
4	☐			24.45		P	68.6
5	☐			15.56		P	49.5
6	☐			42.23		P	32.9
7	☐			117.78		P	16.3
8	☐			246.68		P	18.9
9	☐			26.66		P	43.3

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.
3	☐			0.00		P	
4	☐			2.22		P	173.
5	☐			7.78		P	24.7
6	☐			12.22		P	15.7
7	☐			17.78		P	21.7
8	☐			22.22		P	8.7
9	☐			10.00		P	66.7

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐			2.78		P	173.
3	☐			0.00		P	
4	☐			2.78		P	173.
5	☐			2.78		P	173.
6	☐			13.89		P	34.7
7	☐			19.45		P	24.7
8	☐			38.89		P	86.6
9	☐			22.22		P	21.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			0.00		P	
3	☐			1.11		P	173.
4	☐			4.44		P	43.4
5	☐			8.89		P	57.3
6	☐			12.22		P	15.7
7	☐			20.00		P	28.9
8	☐			58.89		P	22.9
9	☐			8.89		P	78.1

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	57.3
2	☐			11.11		P	86.6
3	☐			13.89		P	34.7
4	☐			11.11		P	114.
5	☐			0.00		P	
6	☐			13.89		P	34.7
7	☐			8.33		P	100.
8	☐			19.45		P	24.7
9	☐			30.56		P	41.7

160 Gd [He] No available calibration points

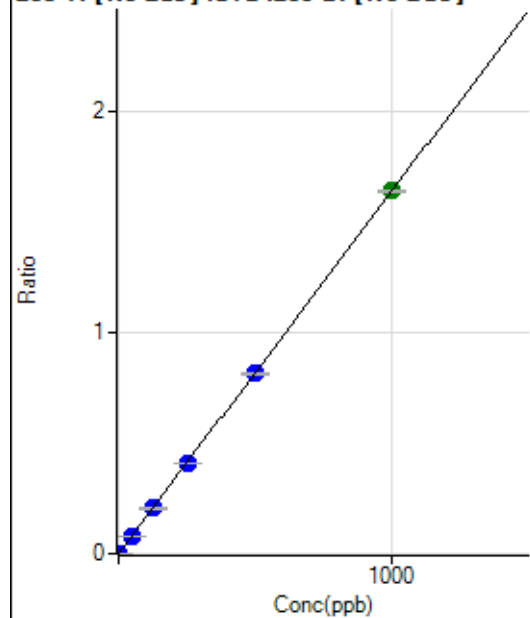
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.66		P	57.3
2	☐			34.44		P	22.3
3	☐			36.66		P	41.7
4	☐			32.22		P	31.6
5	☐			32.22		P	15.8
6	☐			25.55		P	61.6
7	☐			37.78		P	27.0
8	☐			33.33		P	40.0
9	☐			35.55		P	37.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐			11.11		P	43.3
3	☐			13.89		P	91.6
4	☐			8.33		P	100.
5	☐			5.55		P	86.6
6	☐			8.33		P	100.
7	☐			5.55		P	86.6
8	☐			8.33		P	173.
9	☐			8.33		P	100.

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐			4.45		P	86.6
3	☐			4.44		P	114.
4	☐			1.11		P	173.
5	☐			5.55		P	124.
6	☐			5.55		P	69.3
7	☐			1.11		P	173.
8	☐			3.33		P	0.0
9	☐			4.44		P	114.

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	11.11	0.0000	P	86.6
2	☒	0.100		205.57	0.0002	P	16.8
3	☐	1.000	0.914	2014.13	0.0015	P	6.7
4	☐	50.000	49.337	110040.75	0.0809	P	1.5
5	☐	125.000	125.308	273427.63	0.2054	P	1.0
6	☐	250.000	249.713	542820.15	0.4093	P	1.3
7	☐	500.000	496.567	1068724.74	0.8140	P	0.4
8	☐	1000.000	1001.783	2062430.34	1.6421	A	0.6
9	☐			516.70	0.0005	P	19.4

$$y = 0.0016 * x + 8.2183E-006$$

$$R = 1.0000$$

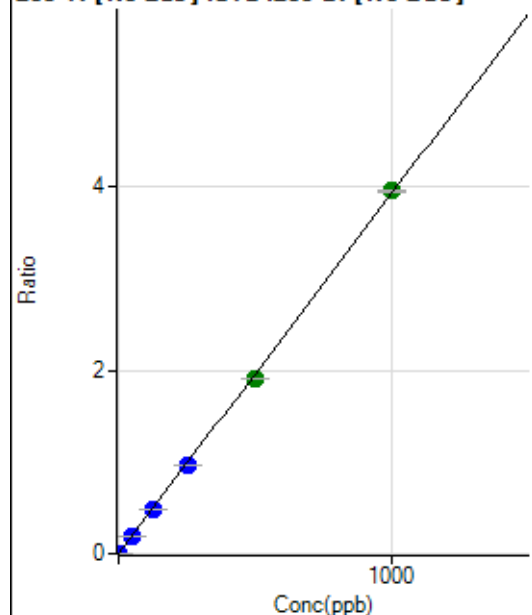
$$DL = 0.01303$$

$$BEC = 0.005014$$

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	50.00	0.0000	P	15.9
2	☒	0.100		536.15	0.0004	P	8.8
3	☐	1.000	0.928	4920.57	0.0037	P	3.3
4	☐	50.000	49.086	262359.56	0.1928	P	0.5
5	☐	125.000	124.125	648978.79	0.4875	P	0.6
6	☐	250.000	244.935	1275763.22	0.9620	P	0.5
7	☐	500.000	486.894	2510787.82	1.9123	A	0.1
8	☐	1000.000	1007.974	4972103.32	3.9588	A	0.7
9	☐			1175.10	0.0011	P	9.9

$$y = 0.0039 * x + 3.6808E-005$$

$$R = 0.9999$$

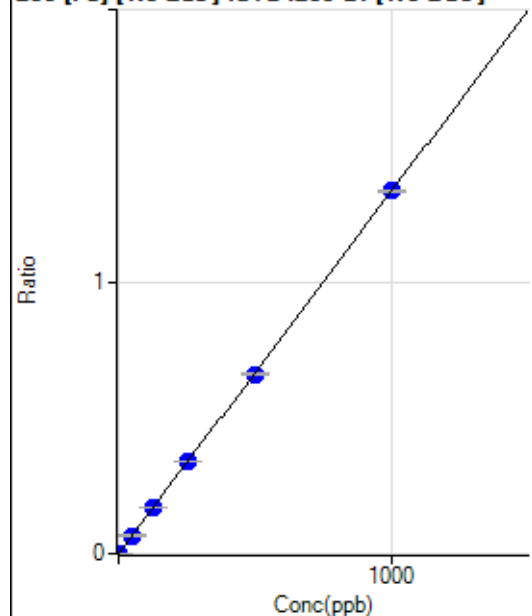
$$DL = 0.004464$$

$$BEC = 0.009372$$

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	114.82	0.0001	P	24.0
2	☒	0.100		294.46	0.0002	P	27.6
3	☐	1.000	0.979	1859.44	0.0014	P	9.1
4	☐	50.000	50.322	91462.77	0.0672	P	1.6
5	☐	125.000	127.674	226869.49	0.1704	P	0.8
6	☐	250.000	253.068	447891.25	0.3377	P	0.1
7	☐	500.000	495.857	868752.01	0.6617	P	0.2
8	☐	1000.000	1000.954	1677438.32	1.3356	P	0.8
9	☐			1383.45	0.0013	P	2.3

$$y = 0.0013 * x + 8.4736E-005$$

$$R = 1.0000$$

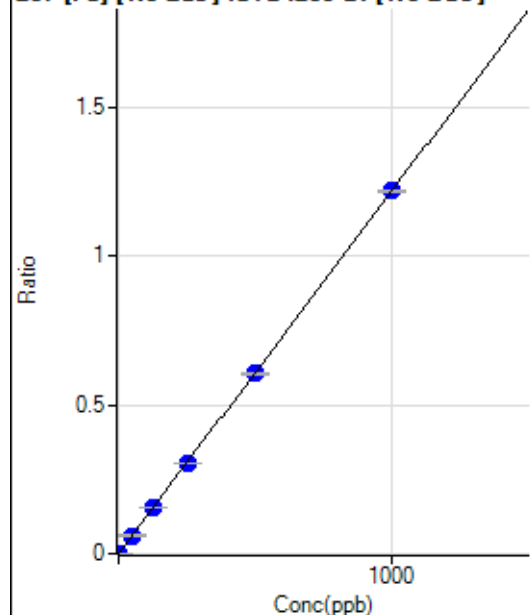
$$DL = 0.04571$$

$$BEC = 0.06351$$

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	96.30	0.0001	P	9.9
2	☒	0.100		246.31	0.0002	P	12.6
3	☐	1.000	0.954	1648.29	0.0012	P	3.4
4	☐	50.000	50.014	82974.79	0.0610	P	1.7
5	☐	125.000	126.715	205535.81	0.1544	P	1.2
6	☐	250.000	250.095	404049.38	0.3047	P	1.2
7	☐	500.000	496.405	793922.88	0.6047	P	0.8
8	☐	1000.000	1001.558	1532184.94	1.2200	P	0.7
9	☐			1148.23	0.0011	P	2.8

$$y = 0.0012 * x + 7.1001E-005$$

$$R = 1.0000$$

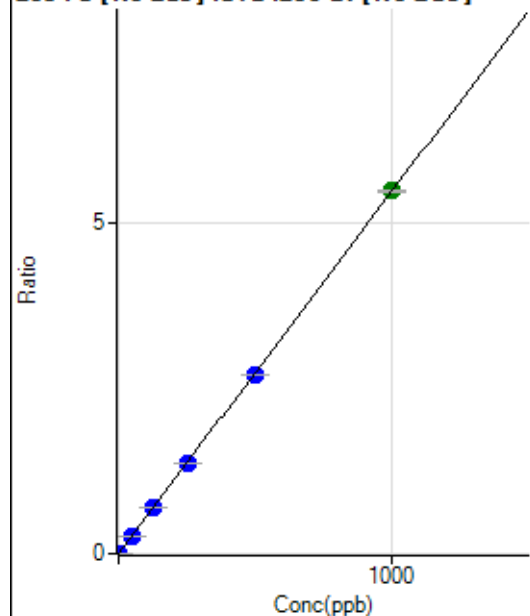
$$DL = 0.01731$$

$$BEC = 0.05829$$

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	442.61	0.0003	P	12.1
2	☒	0.100		1116.72	0.0008	P	7.2
3	☐	1.000	0.959	7430.66	0.0056	P	4.1
4	☐	50.000	49.903	370758.31	0.2725	P	1.3
5	☐	125.000	126.750	920672.82	0.6916	P	0.9
6	☐	250.000	249.908	1808044.93	1.3634	P	0.4
7	☐	500.000	493.662	3535573.57	2.6929	P	0.5
8	☐	1000.000	1002.978	6870969.64	5.4708	A	0.6
9	☐			5363.55	0.0050	P	3.2

$$y = 0.0055 * x + 3.2624E-004$$

$$R = 1.0000$$

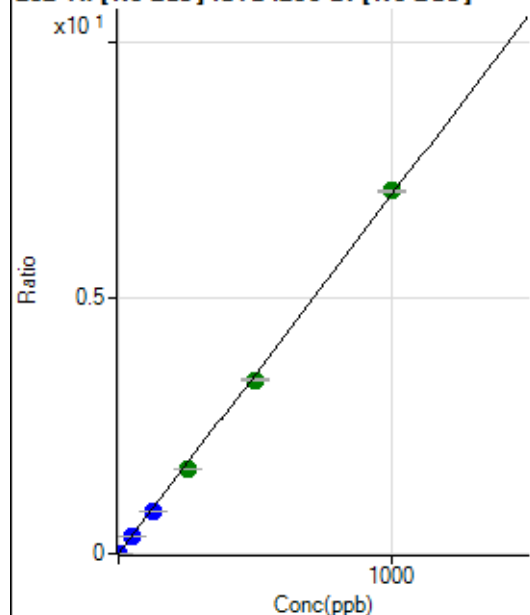
$$DL = 0.02163$$

$$BEC = 0.05981$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	31.48	0.0000	P	45.3
2	☒	0.100		796.35	0.0006	P	11.8
3	☐	1.000	0.852	8017.49	0.0060	P	3.7
4	☐	50.000	46.697	445325.54	0.3273	P	1.6
5	☐	125.000	120.087	1120462.26	0.8417	P	0.7
6	☐	250.000	237.483	2207401.62	1.6645	A	0.8
7	☐	500.000	484.292	4456718.62	3.3944	A	0.5
8	☐	1000.000	1011.763	8906432.38	7.0915	A	0.6
9	☐			1183.43	0.0011	P	3.3

$$y = 0.0070 * x + 2.3261E-005$$

$$R = 0.9997$$

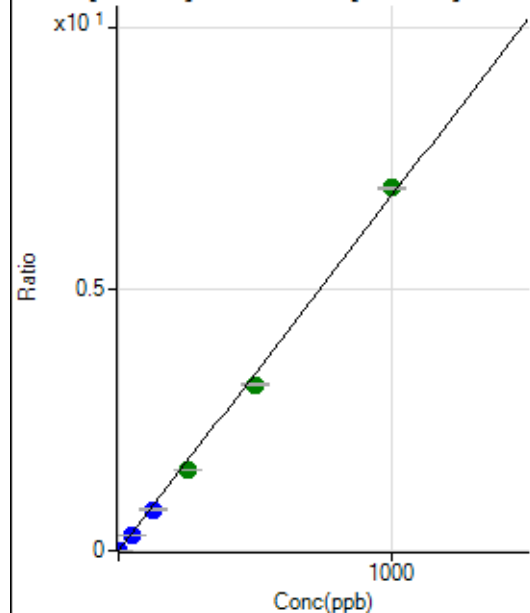
$$DL = 0.004507$$

$$BEC = 0.003319$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	35.0
2	☒	0.100		794.50	0.0006	P	12.3
3	☐	1.000	0.926	8405.85	0.0063	P	2.1
4	☐	50.000	45.378	418360.26	0.3075	P	0.9
5	☐	125.000	116.459	1050385.28	0.7891	P	0.9
6	☐	250.000	229.042	2058065.97	1.5519	A	0.5
7	☐	500.000	467.753	4161184.86	3.1693	A	0.6
8	☐	1000.000	1022.662	8702788.83	6.9292	A	0.4
9	☐			647.27	0.0006	P	8.6

$$y = 0.0068 * x + 1.0245E-005$$

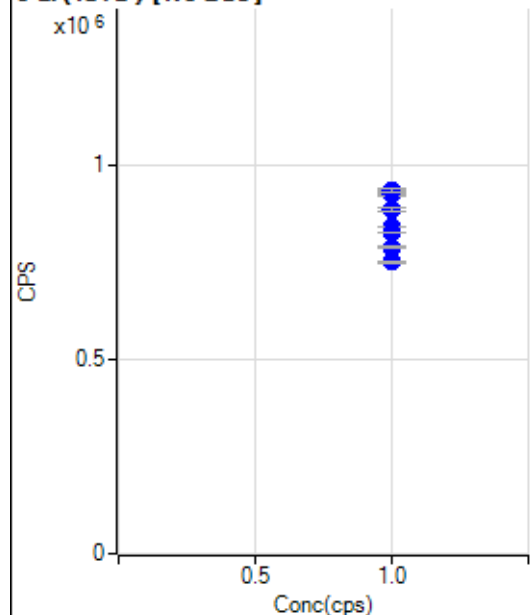
$$R = 0.9990$$

$$DL = 0.001588$$

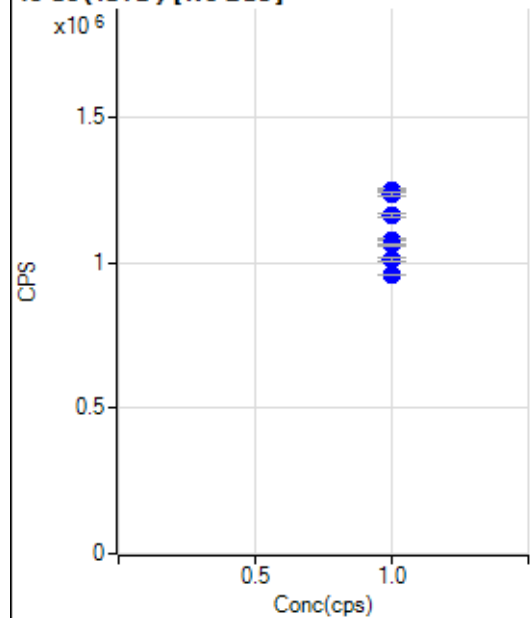
$$BEC = 0.001512$$

Weight: <None>

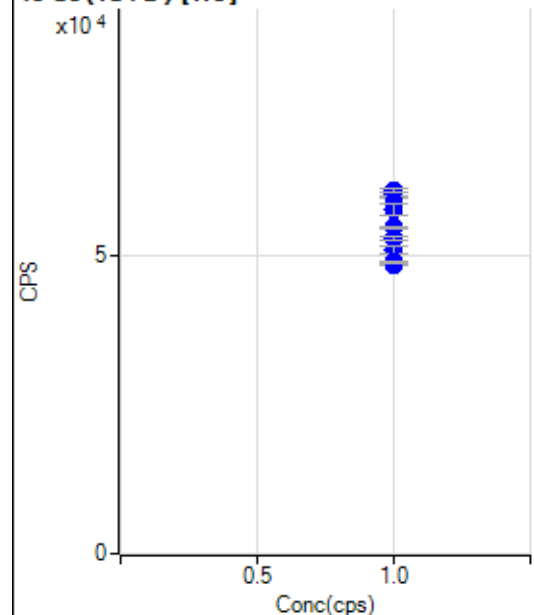
Min Conc: 0

6 Li (ISTD) [No Gas]

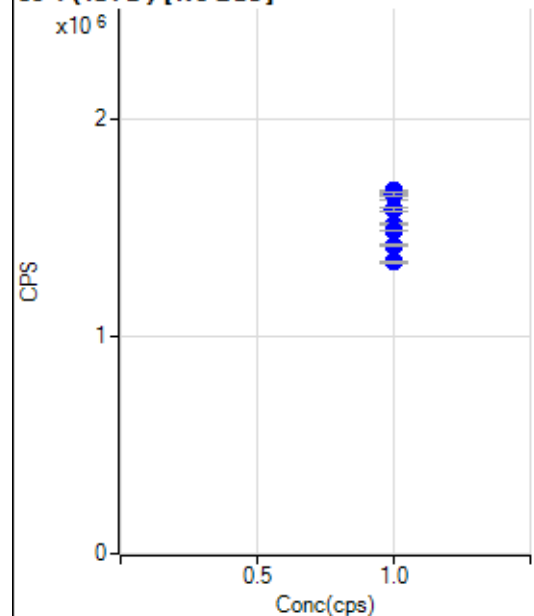
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		929612.12		P	0.7
2	☐	1.000		934262.30		P	0.6
3	☐	1.000		927771.17		P	1.4
4	☐	1.000		933826.32		P	1.1
5	☐	1.000		886075.10		P	1.2
6	☐	1.000		840085.89		P	0.2
7	☐	1.000		827116.79		P	0.2
8	☐	1.000		788755.82		P	0.8
9	☐	1.000		751390.75		P	0.3

45 Sc (ISTD) [No Gas]

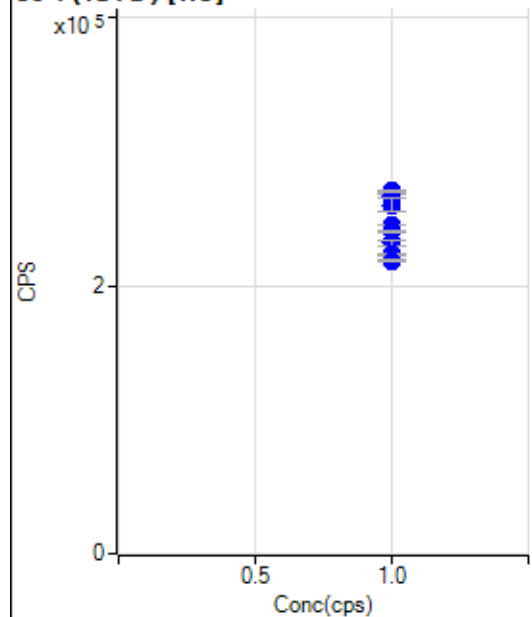
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1246020.35		P	1.0
2	☐	1.000		1243488.17		P	0.4
3	☐	1.000		1239543.03		P	2.0
4	☐	1.000		1235436.47		P	1.1
5	☐	1.000		1162818.80		P	1.6
6	☐	1.000		1077761.46		P	0.7
7	☐	1.000		1061835.02		P	0.5
8	☐	1.000		1009579.71		P	0.8
9	☐	1.000		958020.57		P	0.5

45 Sc (ISTD) [He]

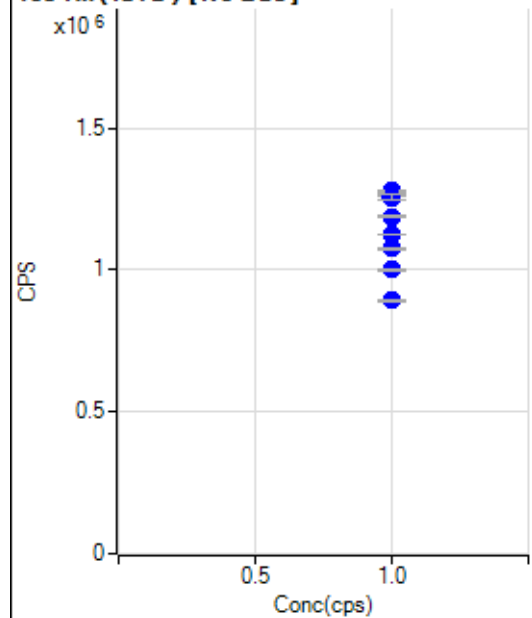
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		59779.98		P	0.7
2	☐	1.000		60330.00		P	1.1
3	☐	1.000		60800.86		P	1.1
4	☐	1.000		57771.30		P	3.3
5	☐	1.000		54702.91		P	0.6
6	☐	1.000		52908.53		P	1.1
7	☐	1.000		50950.75		P	2.3
8	☐	1.000		48446.74		P	0.5
9	☐	1.000		48825.81		P	1.0

89 Y (ISTD) [No Gas]

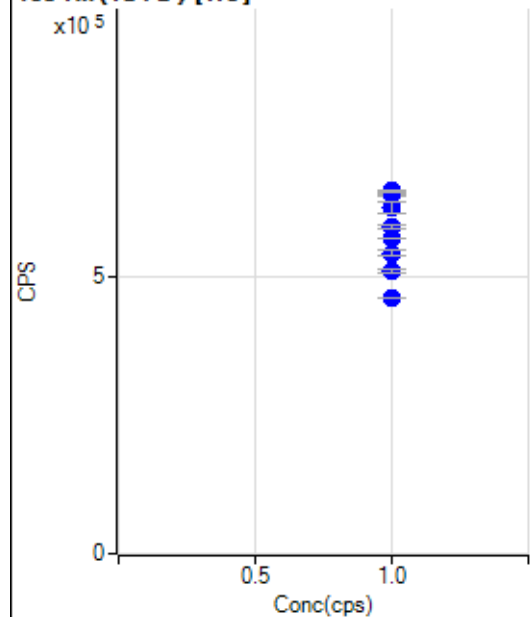
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1664777.42		P	1.0
2	☐	1.000		1671052.06		P	0.4
3	☐	1.000		1648666.49		P	1.9
4	☐	1.000		1659228.38		P	1.2
5	☐	1.000		1583711.56		P	1.1
6	☐	1.000		1518222.55		P	0.4
7	☐	1.000		1487083.24		P	0.3
8	☐	1.000		1421567.83		P	1.0
9	☐	1.000		1342162.36		P	1.0

89 Y(ISTD) [He]

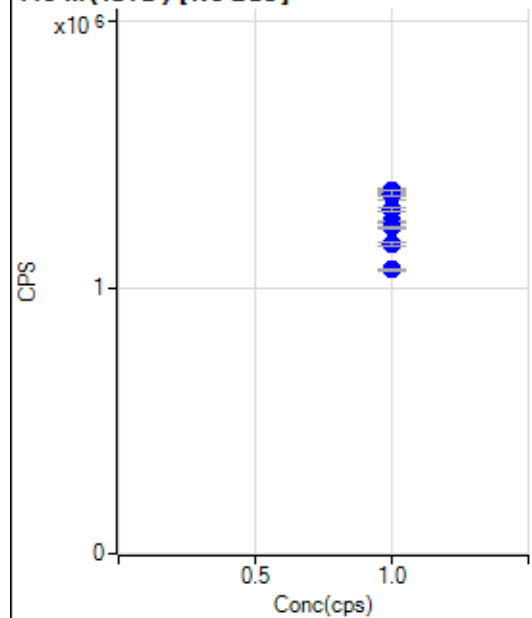
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		267199.99		P	0.9
2	☐	1.000		269296.05		P	0.9
3	☐	1.000		270653.20		P	0.4
4	☐	1.000		260005.94		P	3.9
5	☐	1.000		245960.83		P	0.0
6	☐	1.000		240465.08		P	1.0
7	☐	1.000		231929.12		P	2.1
8	☐	1.000		223204.45		P	1.0
9	☐	1.000		218605.82		P	0.6

103 Rh(ISTD) [No Gas]

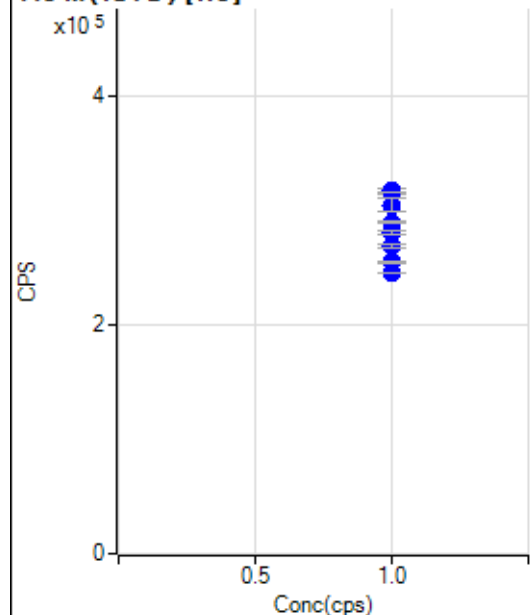
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1271692.80		P	1.3
2	☐	1.000		1278308.19		P	0.6
3	☐	1.000		1260114.42		P	2.2
4	☐	1.000		1256569.52		P	1.2
5	☐	1.000		1187040.82		P	0.6
6	☐	1.000		1124881.71		P	0.4
7	☐	1.000		1075724.67		P	0.4
8	☐	1.000		999581.60		P	0.8
9	☐	1.000		892948.72		P	0.7

103 Rh (ISTD) [He]

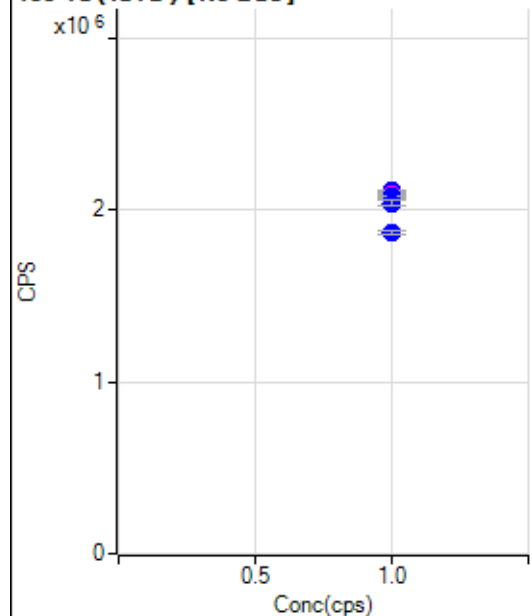
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		647839.91		P	0.7
2	☐	1.000		651491.25		P	1.0
3	☐	1.000		654232.91		P	0.3
4	☐	1.000		624905.40		P	3.4
5	☐	1.000		588609.00		P	0.9
6	☐	1.000		569986.91		P	0.1
7	☐	1.000		542479.49		P	2.2
8	☐	1.000		509875.93		P	0.9
9	☐	1.000		460533.08		P	0.3

115 In (ISTD) [No Gas]

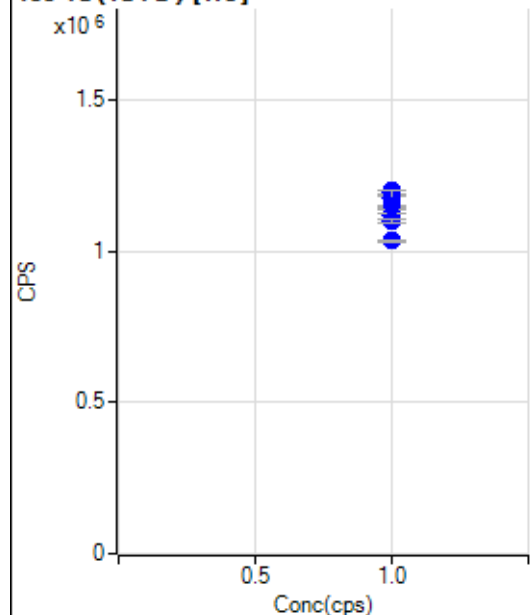
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1362852.73		P	1.3
2	☐	1.000		1363394.38		P	0.1
3	☐	1.000		1345431.95		P	2.3
4	☐	1.000		1354712.41		P	1.6
5	☐	1.000		1295508.10		P	1.0
6	☐	1.000		1247851.69		P	0.5
7	☐	1.000		1226429.87		P	0.4
8	☐	1.000		1160683.50		P	1.1
9	☐	1.000		1066071.13		P	0.6

115 In (ISTD) [He]

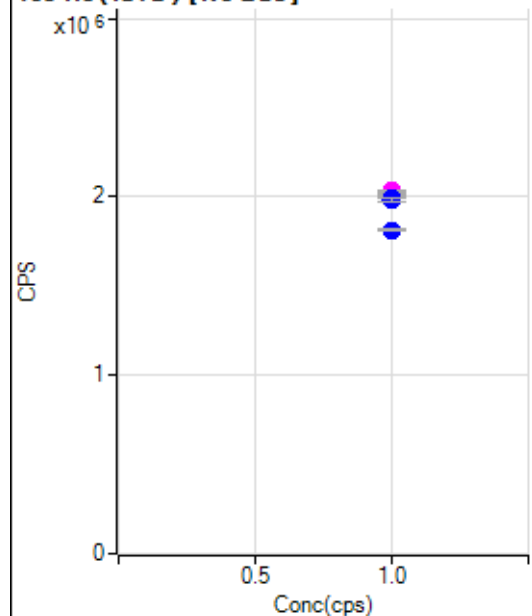
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		314620.60		P	0.4
2	☐	1.000		317303.02		P	1.0
3	☐	1.000		316318.19		P	0.1
4	☐	1.000		305065.18		P	4.0
5	☐	1.000		289756.10		P	0.4
6	☐	1.000		280962.87		P	1.1
7	☐	1.000		269585.93		P	1.5
8	☐	1.000		254801.57		P	1.1
9	☐	1.000		245963.26		P	0.3

159 Tb (ISTD) [No Gas]

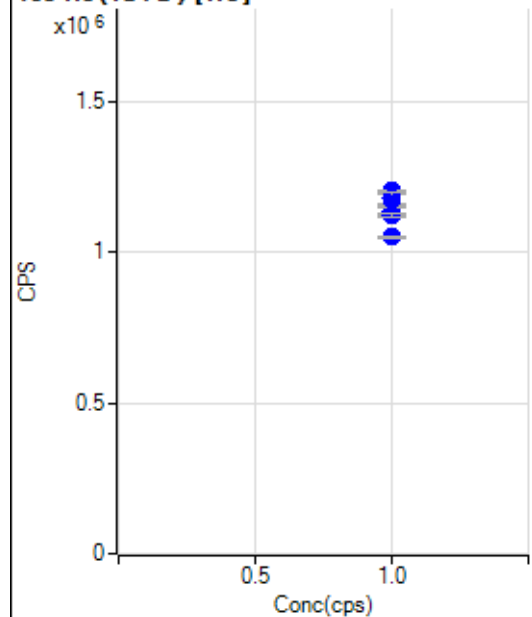
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2105474.95		P	0.8
2	☐	1.000		2112826.36		P	0.6
3	☐	1.000		2088705.44		P	2.2
4	☐	1.000		2094946.41		M	1.6
5	☐	1.000		2084044.26		P	0.9
6	☐	1.000		2067804.95		P	0.0
7	☐	1.000		2086156.30		P	0.1
8	☐	1.000		2042565.16		P	1.3
9	☐	1.000		1871259.37		P	1.1

159 Tb (ISTD) [He]

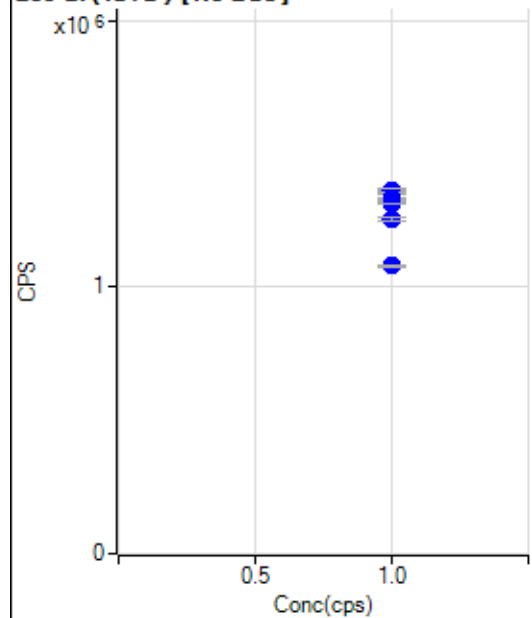
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1187139.48		P	0.4
2	☐	1.000		1194630.04		P	0.7
3	☐	1.000		1199693.26		P	0.1
4	☐	1.000		1176104.73		P	4.0
5	☐	1.000		1149828.85		P	0.7
6	☐	1.000		1138638.65		P	0.4
7	☐	1.000		1117694.62		P	1.5
8	☐	1.000		1102911.53		P	1.1
9	☐	1.000		1033420.89		P	0.1

165 Ho (ISTD) [No Gas]

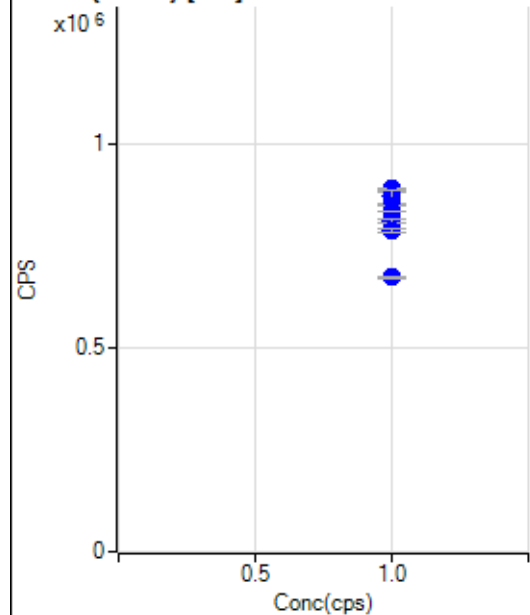
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2021851.43		P	1.4
2	☐	1.000		2014163.76		P	0.6
3	☐	1.000		1993048.29		P	2.7
4	☐	1.000		2032712.87		M	0.8
5	☐	1.000		1993162.33		P	0.5
6	☐	1.000		1998514.93		P	0.2
7	☐	1.000		1996990.91		P	0.2
8	☐	1.000		1981821.35		P	1.4
9	☐	1.000		1813864.08		P	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1198543.25		P	0.2
2	☐	1.000		1196346.03		P	0.9
3	☐	1.000		1204146.84		P	0.1
4	☐	1.000		1181487.12		P	3.5
5	☐	1.000		1162264.14		P	0.3
6	☐	1.000		1149489.77		P	0.5
7	☐	1.000		1136254.19		P	1.8
8	☐	1.000		1124939.78		P	1.1
9	☐	1.000		1049994.36		P	0.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1357263.66		P	1.1
2	☐	1.000		1350730.36		P	0.3
3	☐	1.000		1337364.27		P	1.9
4	☐	1.000		1360662.51		P	1.0
5	☐	1.000		1331169.96		P	0.6
6	☐	1.000		1326165.55		P	0.6
7	☐	1.000		1312961.56		P	0.3
8	☐	1.000		1255988.41		P	1.1
9	☐	1.000		1078385.49		P	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		882554.47		P	0.2
2	☐	1.000		889261.91		P	0.9
3	☐	1.000		887158.28		P	0.4
4	☐	1.000		870055.28		P	3.6
5	☐	1.000		847650.71		P	0.3
6	☐	1.000		833760.79		P	0.2
7	☐	1.000		809467.98		P	1.2
8	☐	1.000		786255.13		P	1.4
9	☐	1.000		672897.28		P	0.4

US EPA Tune Check Sample Report

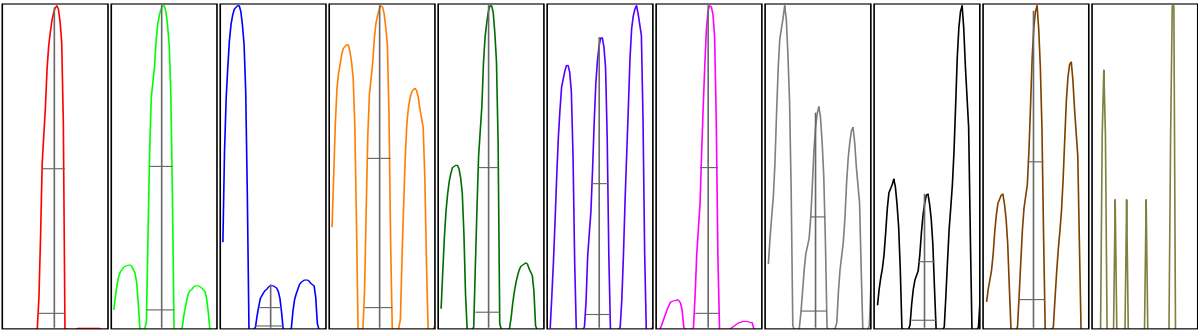
Batch Folder D:\ICP-MS Data\P7062819-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	3549	1.02	5.00	
24	79015	1.39	5.00	
25	10668	1.43	5.00	
26	11995	1.28	5.00	
59	15661	1.47	5.00	
113	1970	0.98	5.00	
115	23848	1.41	5.00	
206	6705	0.97	5.00	
207	6263	1.24	5.00	
208	14689	1.21	5.00	
220	0	223.61		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	3540	3611	3544	3515	3538
24	79211	80821	78724	78154	78166
25	10718	10909	10608	10583	10522
26	12064	12232	11886	11871	11920
59	15730	16034	15514	15478	15551
113	1967	2000	1977	1950	1959
115	23878	24413	23686	23705	23557
206	6712	6810	6698	6639	6667
207	6255	6391	6249	6182	6236
208	14669	14980	14697	14511	14590
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	5962	9.00	8.9 - 9.1		0.771	0.900	
24	128523	23.95	23.9 - 24.1		0.786	0.900	
25	17303	24.95	24.9 - 25.1		0.786	0.900	
26	19691	25.95	25.9 - 26.1		0.810	0.900	
59	28499	58.95	58.9 - 59.1		0.734	0.900	
113	4115	113.00	112.9 - 113.1		0.715	0.900	
115	50354	115.00	114.9 - 115.1		0.717	0.900	
206	14346	205.95	205.9 - 206.1		0.738	0.900	
207	13253	206.95	206.9 - 207.1		0.729	0.900	
208	31441	207.95	207.9 - 208.1		0.738	0.900	
220	0	219.90	-		0.050		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.5	V	Deflect	14.2	V
Extract 2	-85.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-50	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	150	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	3892	0.77	
89	7990	0.81	
205	6172	0.53	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	3931	3886	3913	3857	3873
89	8070	8024	7984	7895	7977
205	6216	6182	6181	6133	6146

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	7.7	V	Deflect	1.4	V
Extract 2	-90.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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			