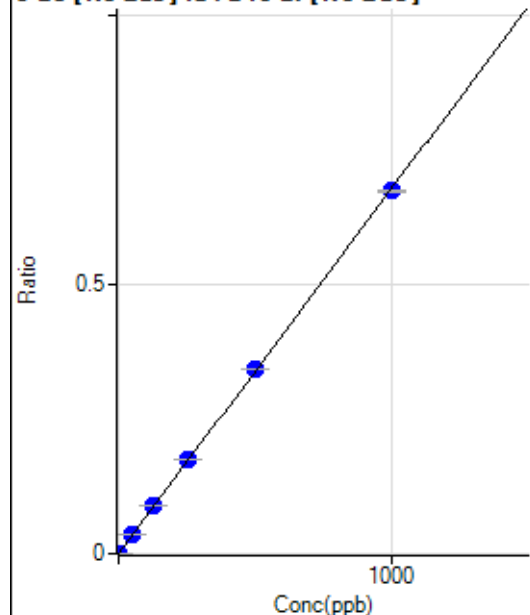


Batch Folder: D:\ICP-MS Data\1\DATA\P7071720 MS.b\
Analysis File: P7071720 MS.batch.bin
DA Date-Time: 2020-07-17 23:52:52
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-07-17 12:07:41
2	004CALS.d	S01	2020-07-17 12:11:27
3	005CALS.d	S02	2020-07-17 12:15:54
4	006CALS.d	S03	2020-07-17 12:20:02
5	007CALS.d	S04	2020-07-17 12:24:08
6	008CALS.d	S05	2020-07-17 12:28:03
7	009CALS.d	S06	2020-07-17 12:31:48
8	010CALS.d	S07	2020-07-17 12:35:27
9	011CALS.d	S08	2020-07-17 12:39:03

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	96.30	0.0000	P	3.8
2	☐	0.100	0.091	316.68	0.0001	P	18.0
3	☐	1.000	0.965	2303.94	0.0007	P	18.4
4	☐	50.000	51.634	121444.25	0.0351	P	1.1
5	☐	125.000	130.784	311938.88	0.0888	P	0.6
6	☐	250.000	258.287	612920.77	0.1754	P	0.4
7	☐	500.000	505.741	1188365.86	0.3434	P	0.9
8	☐	1000.000	994.253	2335929.36	0.6750	P	0.3
9	☐			583.36	0.0002	P	20.6

$$y = 6.7885E-004 * x + 2.7603E-005$$

$$R = 0.9999$$

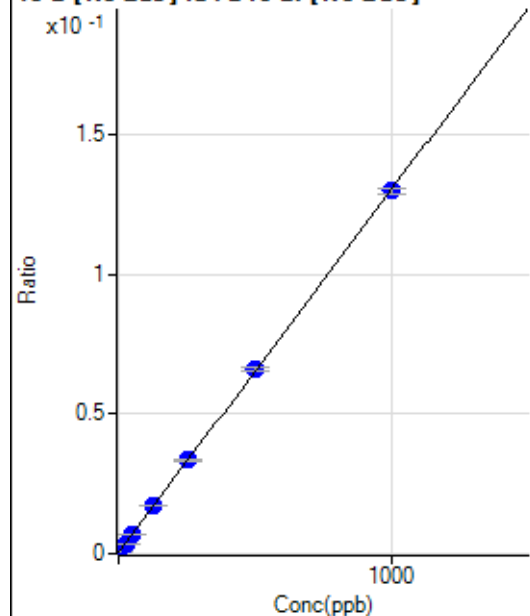
$$DL = 0.004694$$

$$BEC = 0.04066$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1433.46	0.0004	P	4.3
2	☐	2.500	1.933	2336.38	0.0007	P	8.4
3	☐	25.000	23.464	11704.89	0.0035	P	13.2
4	☐	50.000	50.350	24061.48	0.0070	P	2.0
5	☐	125.000	127.942	59810.62	0.0170	P	1.9
6	☐	250.000	254.931	117167.77	0.0335	P	1.5
7	☐	500.000	504.375	228125.20	0.0659	P	2.2
8	☐	1000.000	996.234	449196.75	0.1298	P	1.9
9	☐			14969.06	0.0050	P	4.8

$$y = 1.2988E-004 * x + 4.1077E-004$$

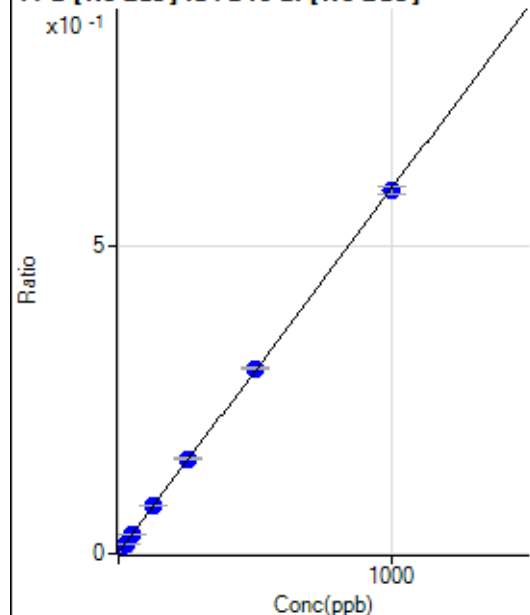
$$R = 1.0000$$

$$DL = 0.409$$

$$BEC = 3.163$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6348.77	0.0018	P	6.2
2	☐	2.500	2.104	10832.06	0.0031	P	2.3
3	☐	25.000	23.083	52522.84	0.0155	P	12.0
4	☐	50.000	50.882	110711.93	0.0320	P	0.8
5	☐	125.000	129.420	275842.67	0.0785	P	1.1
6	☐	250.000	257.955	540806.40	0.1547	P	1.1
7	☐	500.000	506.879	1046078.63	0.3023	P	1.9
8	☐	1000.000	994.024	2045304.08	0.5910	P	2.1
9	☐			69826.14	0.0234	P	5.8

$$y = 5.9275E-004 * x + 0.0018$$

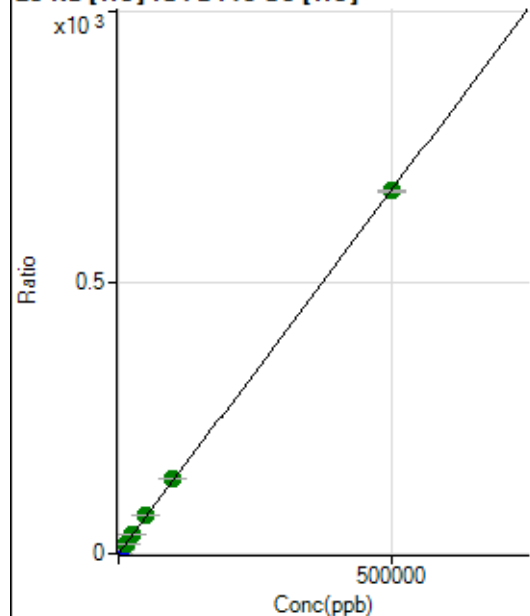
$$R = 0.9999$$

$$DL = 0.5744$$

$$BEC = 3.07$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	17863.78	0.0559	P	1.8
2	☐	5.000	50.181	39241.14	0.1231	P	0.4
3	☐	500.000	494.236	228543.88	0.7180	P	0.4
4	☐	5000.000	5343.032	2357945.23	7.2138	P	1.2
5	☐	12500.000	13363.779	5864249.87	17.9590	A	0.2
6	☐	25000.000	26485.843	11392462.13	35.5383	A	0.6
7	☐	50000.000	51880.570	22369341.72	69.5590	A	0.2
8	☐	100000.00	103183.01	44521354.58	138.2877	A	0.3
9	☐	500000.00	499076.02	202686958.5	668.6562	A	0.2

$$y = 0.0013 * x + 0.0559$$

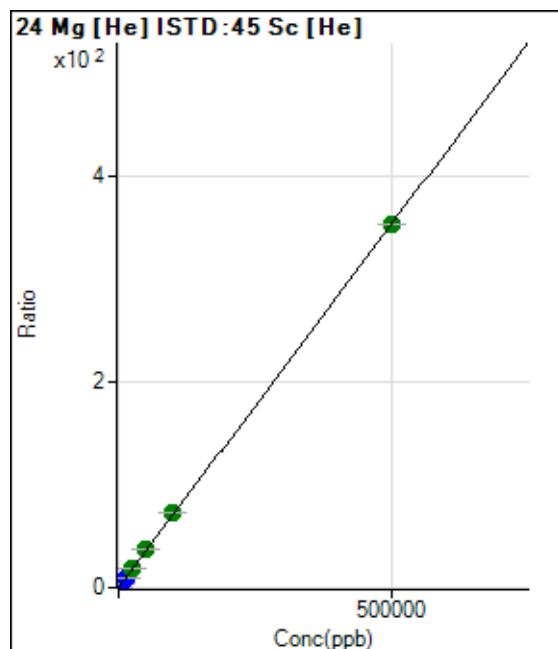
$$R = 1.0000$$

$$DL = 2.215$$

$$BEC = 41.71$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1711.77	0.0054	P	0.6
2	☐	5.000	50.850	13152.54	0.0413	P	2.7
3	☐	500.000	492.589	112445.06	0.3533	P	0.4
4	☐	5000.000	5442.823	1258240.87	3.8494	P	1.3
5	☐	12500.000	13577.164	3133015.23	9.5945	P	0.5
6	☐	25000.000	26807.762	6070882.12	18.9388	A	0.9
7	☐	50000.000	52175.705	11852095.10	36.8553	A	0.7
8	☐	100000.00	103154.70	23457104.63	72.8601	A	0.3
9	☐	500000.00	499029.75	106838386.1	352.4537	A	0.1

$$y = 7.0627\text{E-}004 * x + 0.0054$$

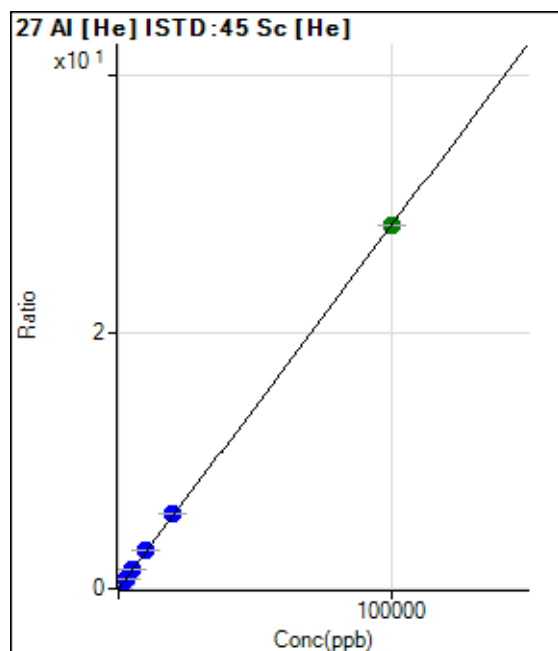
$$R = 1.0000$$

$$DL = 0.1259$$

$$BEC = 7.58$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	79.98	0.0003	P	15.8
2	☐	2.000	2.390	295.95	0.0009	P	10.7
3	☐	20.000	19.818	1867.76	0.0059	P	2.3
4	☐	1000.000	1065.182	98764.21	0.3022	P	1.6
5	☐	2500.000	2732.645	253002.43	0.7748	P	0.5
6	☐	5000.000	5356.573	486774.67	1.5185	P	0.7
7	☐	10000.000	10423.027	950146.18	2.9546	P	0.5
8	☐	20000.000	20482.051	1869176.75	5.8057	P	0.9
9	☐	100000.00	99836.991	8578027.94	28.2984	A	0.1

$$y = 2.8344\text{E-}004 * x + 2.5033\text{E-}004$$

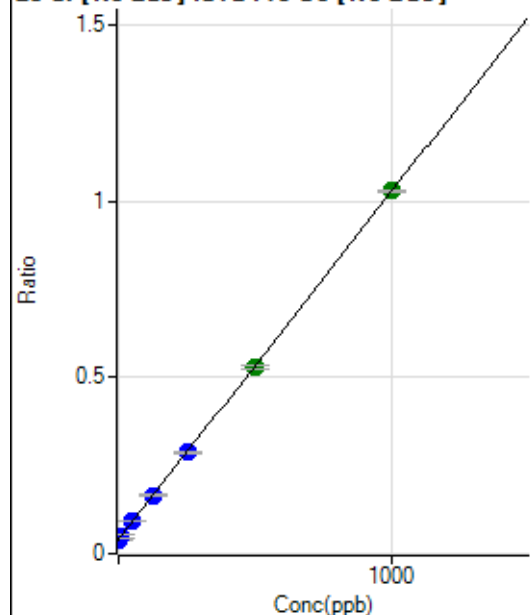
$$R = 1.0000$$

$$DL = 0.4179$$

$$BEC = 0.8832$$

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	332824.61	0.0406	P	1.0
2	☐	1.000	0.466	340064.17	0.0411	P	0.9
3	☐	10.000	9.834	397512.73	0.0503	P	17.5
4	☐	50.000	50.767	756888.81	0.0908	P	0.5
5	☐	125.000	127.073	1383059.80	0.1662	P	0.5
6	☐	250.000	249.194	2362092.15	0.2869	P	0.9
7	☐	500.000	496.637	4388560.91	0.5314	A	1.7
8	☐	1000.000	1001.588	8702476.23	1.0305	A	0.7
9	☐			1134485.54	0.1517	P	1.8

$$y = 9.8835E-004 * x + 0.0406$$

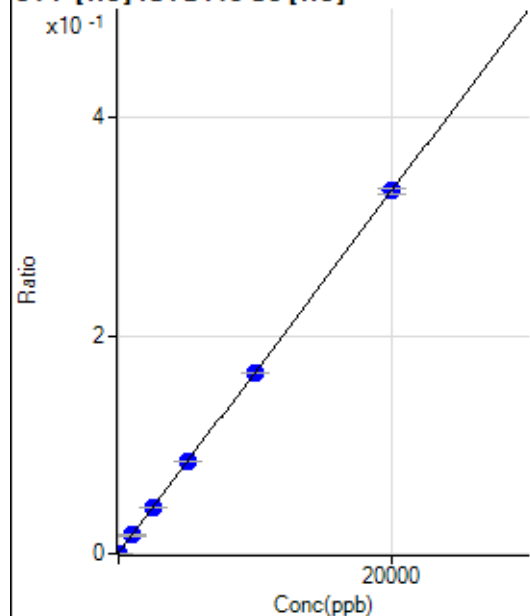
$$R = 1.0000$$

$$DL = 1.241$$

$$BEC = 41.08$$

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	-1.633	141.67	0.0004	P	19.8
2	☐	0.000	-1.045	144.45	0.0005	P	33.2
3	☐	0.000	2.678	163.90	0.0005	P	24.6
4	☐	1000.000	988.361	5531.79	0.0169	P	7.9
5	☐	2500.000	2535.576	13920.86	0.0426	P	2.9
6	☐	5000.000	5067.634	27167.21	0.0848	P	1.2
7	☐	10000.000	9949.026	53363.20	0.1659	P	0.8
8	☐	20000.000	20004.713	107270.66	0.3332	P	1.6
9	☐			172.23	0.0006	P	22.1

$$y = 1.6632E-005 * x + 4.6986E-004$$

$$R = 1.0000$$

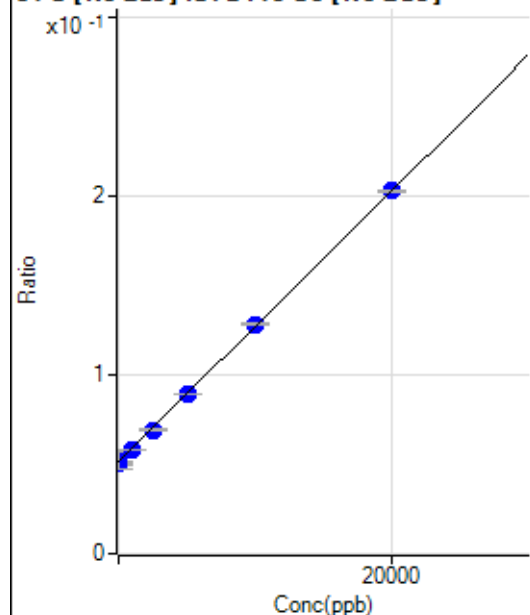
$$DL = 21.89$$

$$BEC = 28.25$$

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	-87.378	414551.23	0.0506	P	2.5
2	☐	0.000	-36.777	422040.51	0.0510	P	1.0
3	☐	0.000	124.155	412523.35	0.0522	P	17.1
4	☐	1000.000	853.993	481277.62	0.0577	P	0.2
5	☐	2500.000	2364.223	575768.19	0.0692	P	0.5
6	☐	5000.000	4978.950	733088.82	0.0890	P	0.4
7	☐	10000.000	10126.423	1058078.06	0.1281	P	0.7
8	☐	20000.000	19966.324	1712766.81	0.2028	P	0.8
9	☐			373123.16	0.0499	P	1.9

$$y = 7.5922\text{E-}006 * x + 0.0512$$

R = 0.9999

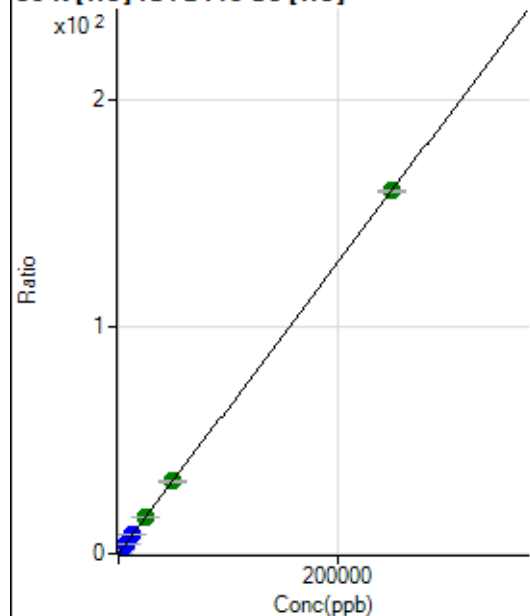
DL = 1405

BEC = 6748

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	18554.60	0.0580	P	1.1
2	☐	5.000	47.831	28239.83	0.0886	P	1.6
3	☐	500.000	462.592	112548.22	0.3536	P	0.2
4	☐	2500.000	2544.587	550359.49	1.6837	P	1.0
5	☐	6250.000	6446.880	1363884.15	4.1768	P	0.3
6	☐	12500.000	12565.185	2591920.26	8.0856	P	0.3
7	☐	25000.000	25051.672	5165589.79	16.0629	A	0.6
8	☐	50000.000	49689.307	10238864.47	31.8033	A	0.7
9	☐	250000.00	250048.41	48444174.22	159.8080	A	0.7

$$y = 6.3888\text{E-}004 * x + 0.0580$$

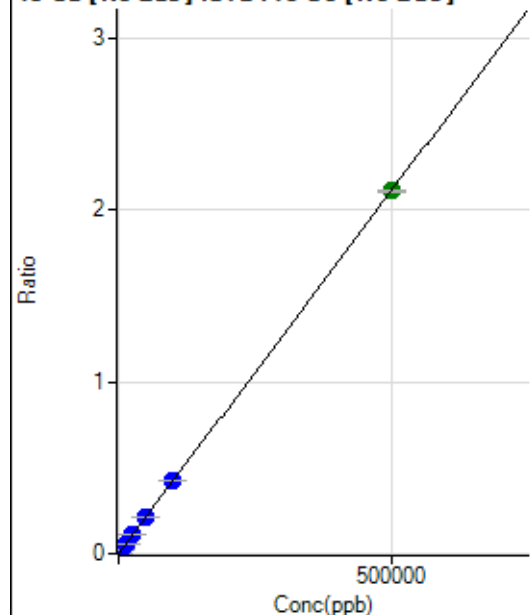
R = 1.0000

DL = 3.124

BEC = 90.84

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	405.26	0.0000	P	10.2
2	☐	5.000	52.616	2250.41	0.0003	P	3.3
3	☐	500.000	492.487	16820.92	0.0021	P	17.7
4	☐	5000.000	5258.194	185616.51	0.0223	P	0.3
5	☐	12500.000	13381.177	470812.70	0.0566	P	0.6
6	☐	25000.000	26387.561	918163.54	0.1115	P	0.7
7	☐	50000.000	51365.688	1792331.12	0.2170	P	0.9
8	☐	100000.00	100345.43	3580001.42	0.4239	P	0.4
9	☐	500000.00	499700.36	15782983.21	2.1109	A	0.2

$$y = 4.2242\text{E-}006 * x + 4.9415\text{E-}005$$

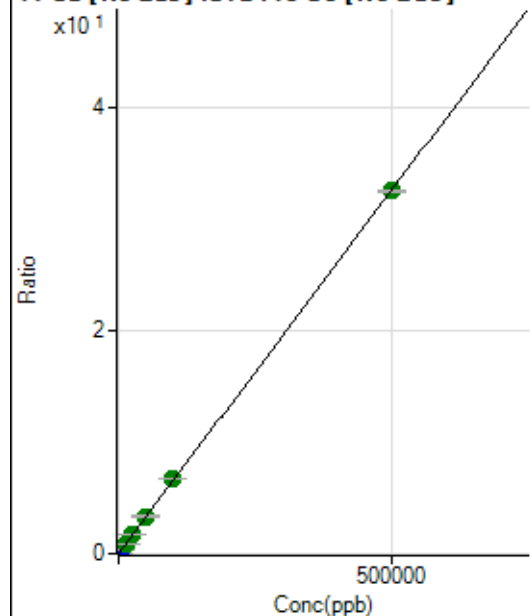
$$R = 1.0000$$

$$DL = 3.562$$

$$BEC = 11.7$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22901.88	0.0028	P	0.3
2	☐	5.000	53.569	51990.28	0.0063	P	0.8
3	☐	500.000	513.074	285364.95	0.0362	P	18.4
4	☐	5000.000	5306.503	2900769.65	0.3479	P	0.1
5	☐	12500.000	13147.579	7138835.33	0.8578	A	0.2
6	☐	25000.000	25977.214	13932396.72	1.6922	A	0.7
7	☐	50000.000	51421.808	27640928.23	3.3469	A	0.9
8	☐	100000.00	102292.98	56203147.51	6.6552	A	0.3
9	☐	500000.00	499331.09	242820235.9	32.4756	A	0.6

$$y = 6.5033\text{E-}005 * x + 0.0028$$

$$R = 1.0000$$

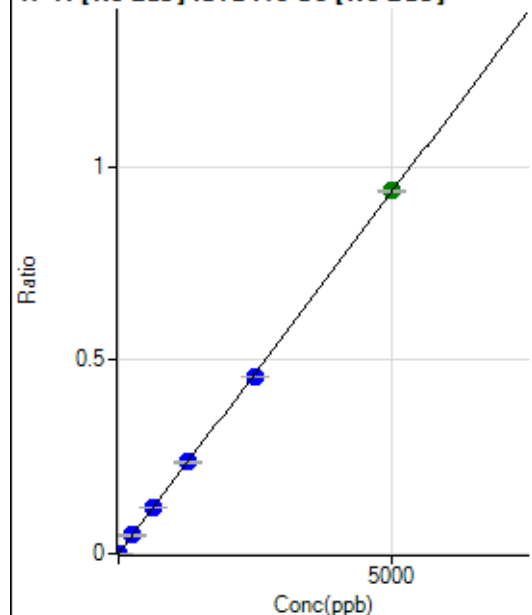
$$DL = 0.4427$$

$$BEC = 42.95$$

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	169.45	0.0000	P	13.4
2	☐	0.500	0.480	913.96	0.0001	P	16.0
3	☐	5.000	4.770	7210.39	0.0009	P	16.0
4	☐	250.000	253.150	394079.92	0.0473	P	0.7
5	☐	625.000	644.985	1001856.50	0.1204	P	0.3
6	☐	1250.000	1264.884	1943670.44	0.2361	P	0.3
7	☐	2500.000	2447.654	3772341.93	0.4568	P	1.0
8	☐	5000.000	5019.797	7911090.97	0.9368	A	0.6
9	☐			2825.37	0.0004	P	4.3

$$y = 1.8662\text{E-}004 * x + 2.0689\text{E-}005$$

$$R = 0.9999$$

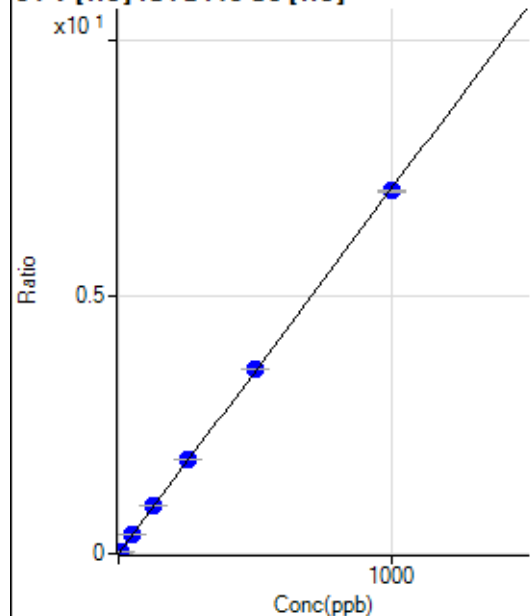
$$DL = 0.04473$$

$$BEC = 0.1109$$

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	17.78	0.0001	P	61.1
2	☐	0.500	0.471	1085.61	0.0034	P	5.0
3	☐	5.000	4.755	10777.41	0.0339	P	1.9
4	☐	50.000	50.858	118180.59	0.3616	P	1.4
5	☐	125.000	131.526	305299.38	0.9350	P	0.1
6	☐	250.000	260.122	592743.52	1.8491	P	0.2
7	☐	500.000	505.165	1154773.48	3.5909	P	0.3
8	☐	1000.000	994.030	2274786.65	7.0658	P	0.3
9	☐			541.13	0.0018	P	2.7

$$y = 0.0071 * x + 5.5755\text{E-}005$$

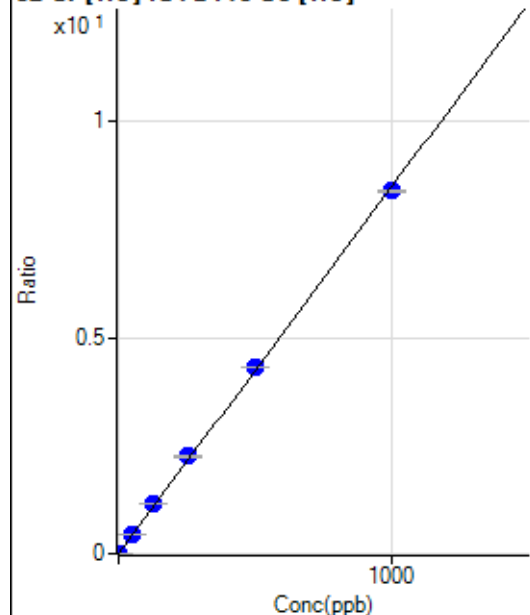
$$R = 0.9999$$

$$DL = 0.01437$$

$$BEC = 0.007844$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	407.79	0.0013	P	10.1
2	☐	0.200	0.202	952.27	0.0030	P	1.4
3	☐	2.000	1.981	5756.77	0.0181	P	3.6
4	☐	50.000	53.128	147791.62	0.4521	P	1.2
5	☐	125.000	134.615	373448.28	1.1437	P	0.1
6	☐	250.000	264.849	720895.24	2.2489	P	0.8
7	☐	500.000	510.734	1394265.60	4.3356	P	0.2
8	☐	1000.000	989.562	2704042.98	8.3992	P	0.4
9	☐			4321.81	0.0143	P	3.2

$$y = 0.0085 * x + 0.0013$$

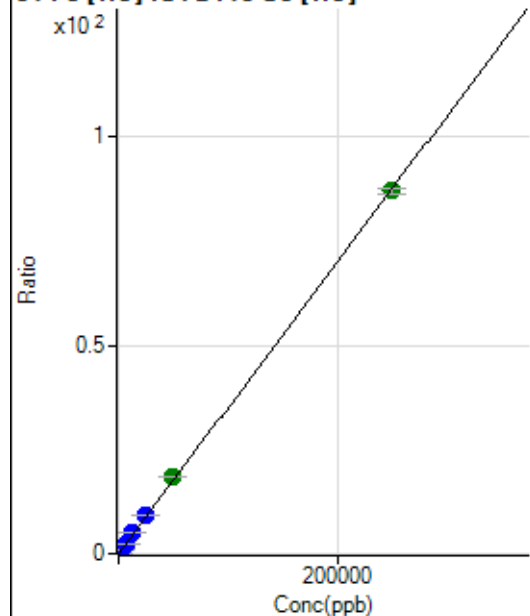
$$R = 0.9998$$

$$DL = 0.04568$$

$$BEC = 0.1503$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	633.22	0.0020	P	1.3
2	☐	5.000	5.715	1267.81	0.0040	P	5.2
3	☐	50.000	53.347	6566.87	0.0206	P	2.6
4	☐	2500.000	2845.422	325808.74	0.9968	P	1.2
5	☐	6250.000	7185.216	820889.23	2.5140	P	0.2
6	☐	12500.000	14064.429	1576821.79	4.9190	P	0.6
7	☐	25000.000	26618.514	2993324.46	9.3080	P	0.2
8	☐	50000.000	53137.312	5981525.33	18.5792	A	0.5
9	☐	250000.00	249105.62	26397620.60	87.0912	A	1.7

$$y = 3.4961E-004 * x + 0.0020$$

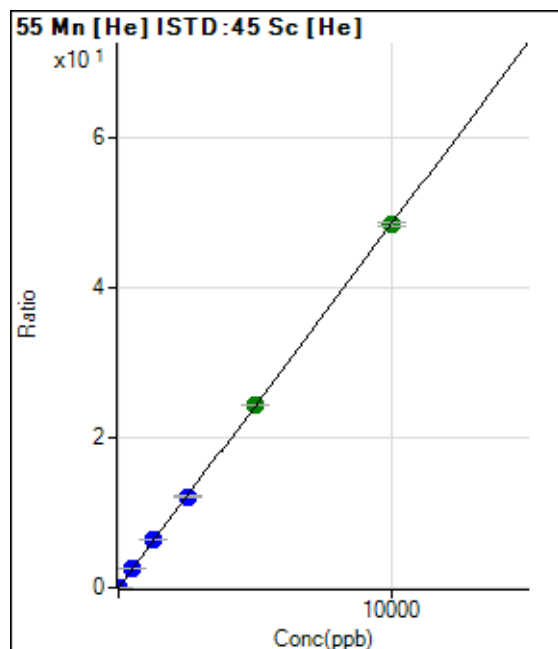
$$R = 0.9999$$

$$DL = 0.2212$$

$$BEC = 5.665$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1415.65	0.0044	P	5.8
2	☒	0.100					
3	☐	1.000	1.144	3178.18	0.0100	P	1.5
4	☐	500.000	518.138	823880.66	2.5206	P	1.5
5	☐	1250.000	1303.619	2068658.10	6.3351	P	0.3
6	☐	2500.000	2509.712	3908310.19	12.1922	P	0.4
7	☐	5000.000	5035.113	7864834.68	24.4562	A	0.4
8	☐	10000.000	9972.406	15593145.32	48.4330	A	1.1
9	☐			9880.10	0.0326	P	2.7

$$y = 0.0049 * x + 0.0044$$

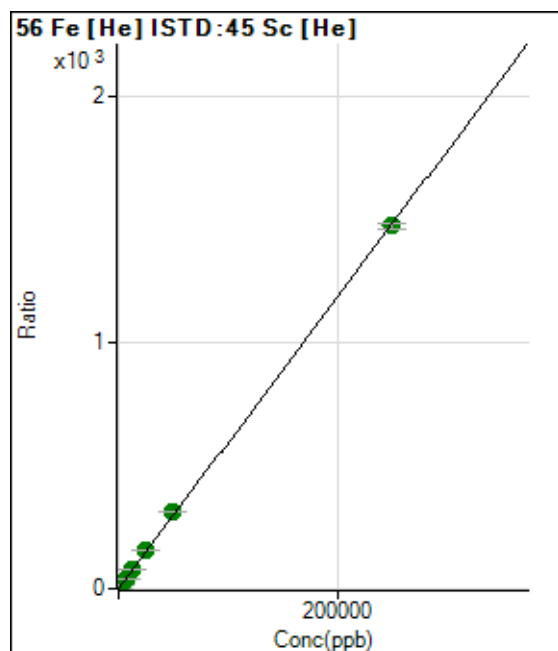
$$R = 1.0000$$

$$DL = 0.1599$$

$$BEC = 0.9117$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7331.09	0.0229	P	2.9
2	☐	5.000	6.625	19808.13	0.0621	P	1.3
3	☐	50.000	56.365	113486.80	0.3565	P	0.4
4	☐	2500.000	2719.068	5267374.27	16.1158	A	1.8
5	☐	6250.000	6928.999	13397938.80	41.0323	A	0.5
6	☐	12500.000	13709.792	26017067.39	81.1646	A	1.1
7	☐	25000.000	26719.817	50863591.92	158.1646	A	0.6
8	☐	50000.000	52631.184	100293539.3	311.5214	A	0.4
9	☐	250000.00	249222.12	447093163.8	1,475.048	A	1.7

$$y = 0.0059 * x + 0.0229$$

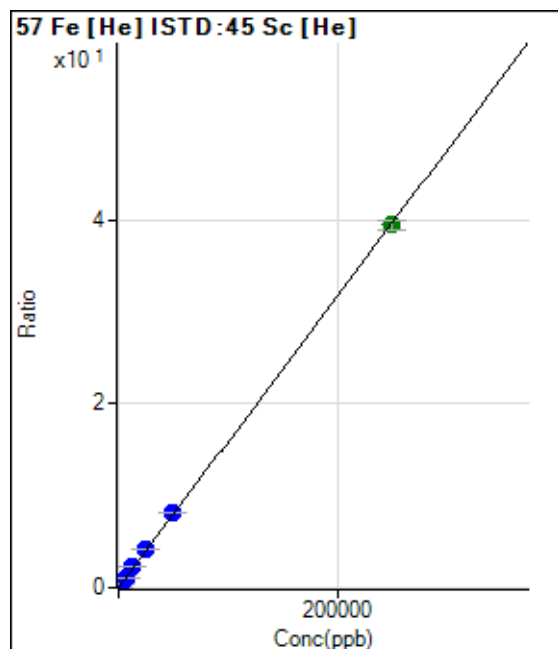
$$R = 0.9999$$

$$DL = 0.3359$$

$$BEC = 3.875$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	221.96	0.0007	P	7.9
2	☐	5.000	6.132	530.58	0.0017	P	2.9
3	☐	50.000	52.790	2880.40	0.0090	P	3.5
4	☐	2500.000	2817.372	145983.73	0.4466	P	1.4
5	☐	6250.000	7137.433	369104.93	1.1304	P	0.3
6	☐	12500.000	13968.639	708946.31	2.2116	P	0.7
7	☐	25000.000	26854.814	1367143.85	4.2512	P	0.1
8	☐	50000.000	51977.071	2648791.53	8.2276	P	0.7
9	☐	250000.00	249320.31	11960962.00	39.4629	A	2.4

$$y = 1.5828\text{E-}004 * x + 6.9397\text{E-}004$$

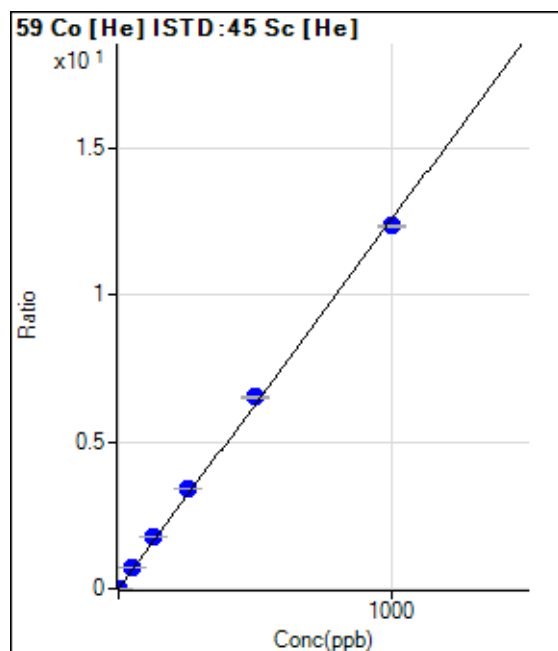
$$R = 0.9999$$

$$DL = 1.043$$

$$BEC = 4.384$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	106.67	0.0003	P	5.6
2	☐	0.100	0.113	560.02	0.0018	P	8.7
3	☐	1.000	1.014	4159.55	0.0131	P	0.9
4	☐	50.000	55.458	227814.74	0.6970	P	1.2
5	☐	125.000	139.632	572844.65	1.7543	P	0.0
6	☐	250.000	270.933	1091059.47	3.4037	P	0.7
7	☐	500.000	518.860	2096107.05	6.5180	P	0.5
8	☐	1000.000	983.235	3976400.50	12.3513	P	0.2
9	☐			6162.50	0.0203	P	0.5

$$y = 0.0126 * x + 3.3365\text{E-}004$$

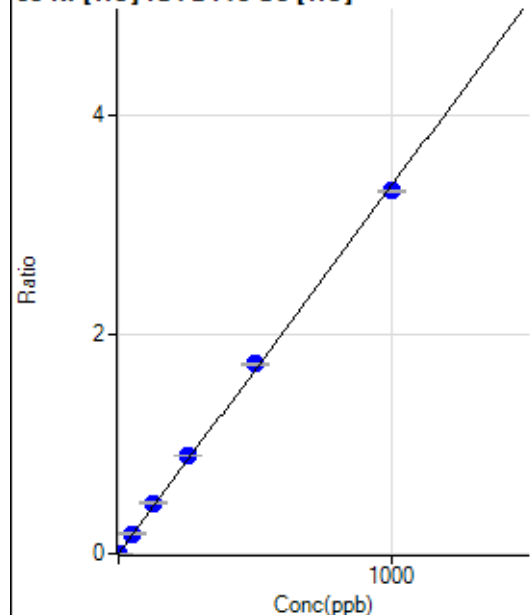
$$R = 0.9994$$

$$DL = 0.004475$$

$$BEC = 0.02656$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	193.34	0.0006	P	5.4
2	☐	0.100	0.128	330.01	0.0010	P	5.9
3	☐	1.000	1.027	1288.96	0.0040	P	3.3
4	☐	50.000	54.515	59963.19	0.1834	P	0.8
5	☐	125.000	138.173	151521.01	0.4640	P	0.8
6	☐	250.000	267.807	288112.63	0.8988	P	0.6
7	☐	500.000	514.888	555526.39	1.7275	P	0.4
8	☐	1000.000	986.232	1065094.34	3.3083	P	0.5
9	☐			1644.57	0.0054	P	3.1

$$y = 0.0034 * x + 6.0459E-004$$

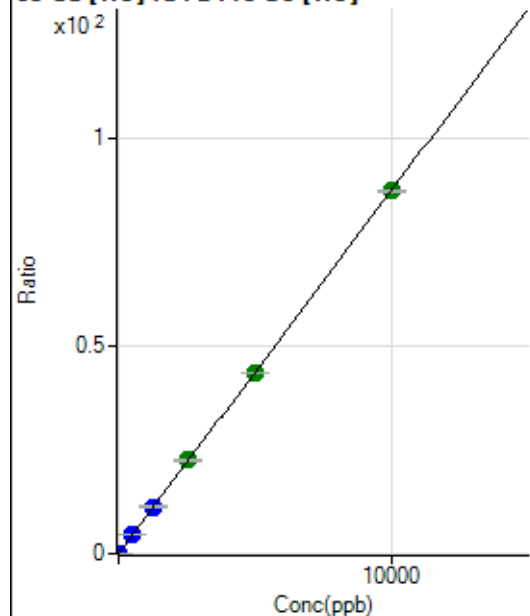
$$R = 0.9996$$

$$DL = 0.02921$$

$$BEC = 0.1803$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	532.24	0.0017	P	3.4
2	☐	0.200	0.245	1213.41	0.0038	P	10.3
3	☐	2.000	2.326	7011.79	0.0220	P	1.5
4	☐	500.000	530.456	1518362.11	4.6452	P	1.1
5	☐	1250.000	1295.522	3703721.12	11.3425	P	0.9
6	☐	2500.000	2576.870	7231239.75	22.5592	A	1.4
7	☐	5000.000	4976.885	14011034.38	43.5685	A	0.3
8	☐	10000.000	9985.127	28141242.36	87.4099	A	0.8
9	☐			5705.64	0.0188	P	6.9

$$y = 0.0088 * x + 0.0017$$

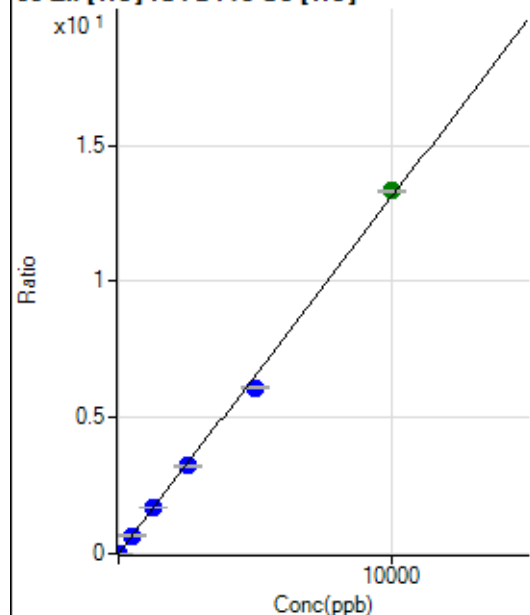
$$R = 1.0000$$

$$DL = 0.01963$$

$$BEC = 0.1902$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	574.46	0.0018	P	4.1
2	☒	0.200					
3	☐	2.000	2.010	1410.09	0.0044	P	5.0
4	☐	500.000	507.502	217876.39	0.6666	P	1.6
5	☐	1250.000	1270.467	544005.24	1.6660	P	0.2
6	☐	2500.000	2457.034	1032304.82	3.2204	P	0.6
7	☐	5000.000	4661.452	1964253.51	6.1080	P	0.3
8	☐	10000.000	10177.082	4292520.28	13.3331	A	0.3
9	☐			4555.23	0.0150	P	2.9

$$y = 0.0013 * x + 0.0018$$

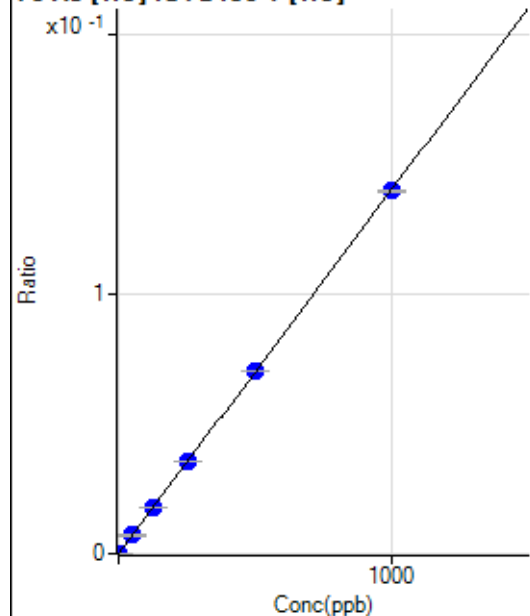
$$R = 0.9991$$

$$DL = 0.1699$$

$$BEC = 1.372$$

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	17.90	0.0000	P	23.8
2	☒	0.100					
3	☐	1.000	0.892	241.98	0.0001	P	5.3
4	☐	50.000	50.296	12958.32	0.0071	P	1.1
5	☐	125.000	128.283	32937.31	0.0180	P	0.7
6	☐	250.000	253.431	63551.14	0.0355	P	1.6
7	☐	500.000	502.729	125268.80	0.0705	P	0.8
8	☐	1000.000	997.353	249606.10	0.1399	P	0.7
9	☐			120.99	0.0001	P	12.7

$$y = 1.4022E-004 * x + 9.9670E-006$$

$$R = 1.0000$$

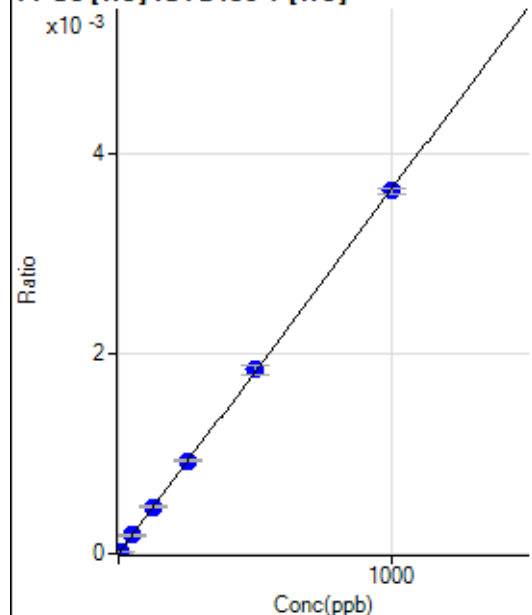
$$DL = 0.05074$$

$$BEC = 0.07108$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.680	4.44	0.0000	P	44.4
3	☐	5.000	4.443	28.89	0.0000	P	57.3
4	☐	50.000	50.912	340.01	0.0002	P	5.8
5	☐	125.000	129.072	860.04	0.0005	P	3.7
6	☐	250.000	255.220	1661.23	0.0009	P	1.7
7	☐	500.000	504.503	3263.75	0.0018	P	5.4
8	☐	1000.000	995.892	6470.43	0.0036	P	1.7
9	☐			0.00	0.0000	P	

$$y = 3.6405E-006 * x + 0.0000E+000$$

$$R = 1.0000$$

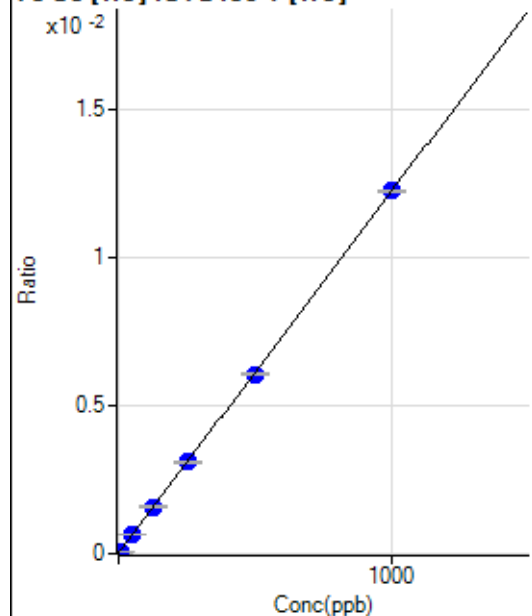
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	37.66	0.0000	P	20.7
2	☐	0.500	1.007	59.88	0.0000	P	4.0
3	☐	5.000	4.623	138.89	0.0001	P	2.7
4	☐	50.000	50.740	1176.60	0.0006	P	2.9
5	☐	125.000	127.889	2899.08	0.0016	P	1.5
6	☐	250.000	252.039	5544.93	0.0031	P	2.6
7	☐	500.000	495.237	10792.96	0.0061	P	0.8
8	☐	1000.000	1001.475	21884.45	0.0123	P	0.6
9	☐			45.06	0.0000	P	25.5

$$y = 1.2223E-005 * x + 2.0980E-005$$

$$R = 1.0000$$

$$DL = 1.067$$

$$BEC = 1.716$$

Weight: <None>

Min Conc: 0

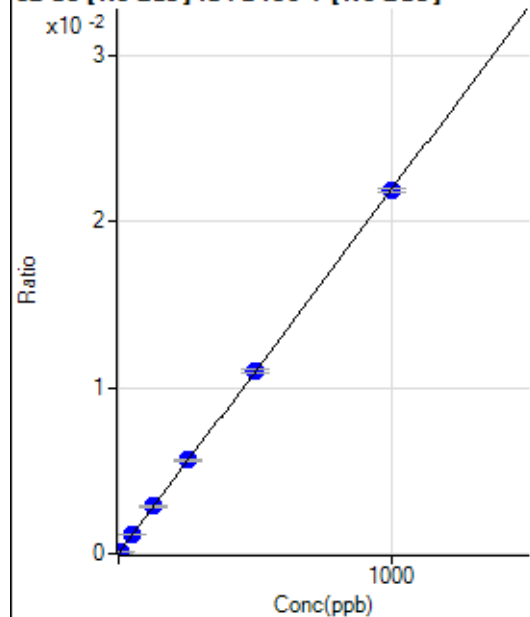
81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33533.70		P	1.2
2	☐			33419.85		P	1.8
3	☐			33396.40		P	3.1
4	☐			34714.28		P	2.3
5	☐			33938.21		P	2.7
6	☐			34088.82		P	5.1
7	☐			33072.30		P	1.7
8	☐			32908.16		P	0.4
9	☐			30671.07		P	1.3

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			56.72		P	10.2
2	☐			40.04		P	25.0
3	☐			63.40		P	24.1
4	☐			40.04		P	NaN
5	☐			70.07		P	14.3
6	☐			46.71		P	49.5
7	☐			56.72		P	27.0
8	☐			36.70		P	41.7
9	☐			100.10		P	45.8

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.40	0.0000	P	11.4
2	☒	0.500					
3	☐	5.000	4.641	1750.73	0.0001	P	17.8
4	☐	50.000	52.137	17883.81	0.0012	P	2.6
5	☐	125.000	130.052	44466.76	0.0029	P	2.3
6	☐	250.000	256.024	86251.55	0.0056	P	0.5
7	☐	500.000	502.559	168293.52	0.0110	P	1.8
8	☐	1000.000	996.478	342984.33	0.0218	P	1.0
9	☐			428.13	0.0000	P	2.9

$$y = 2.1880\text{E-}005 * x + 1.6508\text{E-}005$$

$$R = 1.0000$$

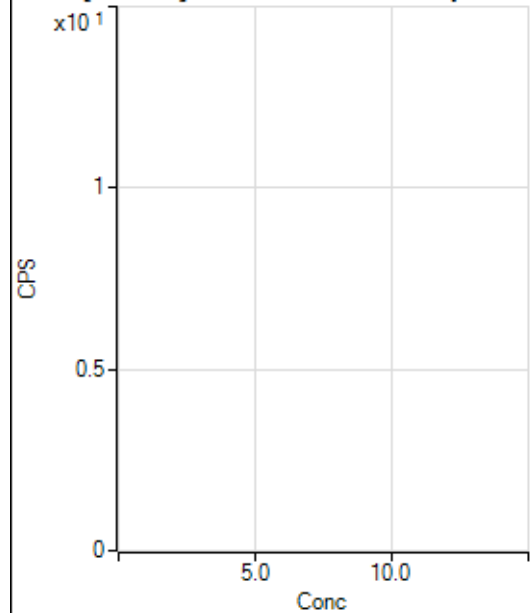
$$DL = 0.257$$

$$BEC = 0.7545$$

Weight: <None>

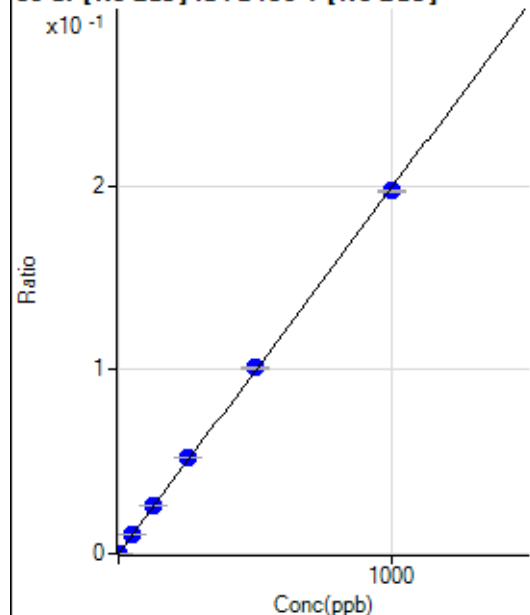
Min Conc: 0

83 Kr [No Gas] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			244.45		P	14.3
2	☐			215.56		P	11.6
3	☐			230.01		P	3.8
4	☐			238.89		P	7.0
5	☐			207.78		P	20.4
6	☐			273.34		P	7.4
7	☐			238.90		P	13.4
8	☐			268.89		P	5.0
9	☐			300.01		P	7.3

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	369.46	0.0000	P	3.1
2	☐	0.100	0.134	786.17	0.0001	P	8.1
3	☐	1.000	1.007	3325.53	0.0002	P	19.5
4	☐	50.000	52.671	162400.59	0.0105	P	0.8
5	☐	125.000	132.135	408991.98	0.0263	P	0.2
6	☐	250.000	261.402	799153.35	0.0521	P	0.5
7	☐	500.000	508.203	1546370.67	0.1012	P	1.5
8	☐	1000.000	992.023	3104474.27	0.1975	P	0.5
9	☐			16081.78	0.0012	P	0.8

$$y = 1.9905E-004 * x + 2.4371E-005$$

$$R = 0.9999$$

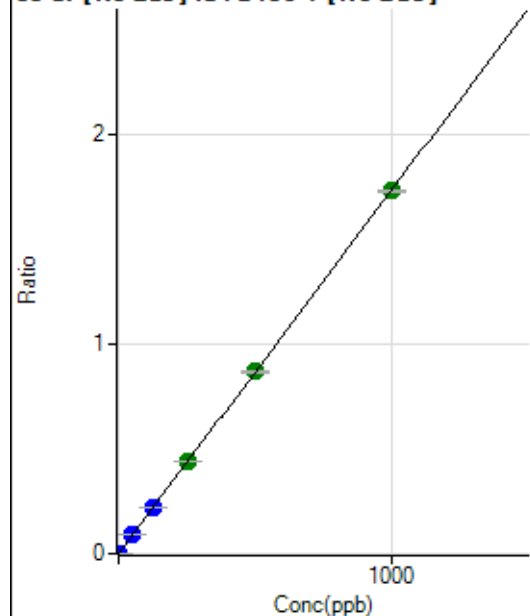
$$DL = 0.01139$$

$$BEC = 0.1224$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	322.24	0.0000	P	24.4
2	☐	0.100	0.109	3239.40	0.0002	P	7.0
3	☐	1.000	0.995	25868.66	0.0017	P	19.1
4	☐	50.000	50.801	1362264.08	0.0881	P	0.4
5	☐	125.000	125.538	3383675.90	0.2178	P	0.3
6	☐	250.000	252.826	6733440.08	0.4386	A	0.3
7	☐	500.000	501.653	13301081.03	0.8703	A	1.2
8	☐	1000.000	998.360	27226906.86	1.7319	A	0.3
9	☐			133454.64	0.0098	P	0.7

$$y = 0.0017 * x + 2.1267E-005$$

$$R = 1.0000$$

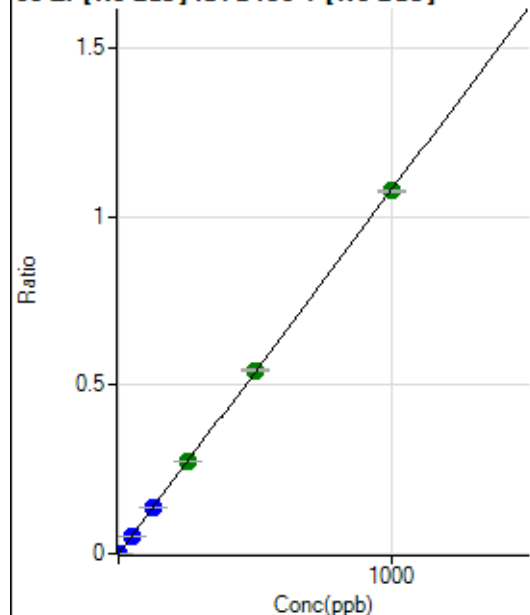
$$DL = 0.008969$$

$$BEC = 0.01226$$

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	883.40	0.0001	P	10.3
2	☐	0.100	0.097	2508.67	0.0002	P	0.9
3	☐	1.000	0.884	15000.03	0.0010	P	17.2
4	☐	50.000	49.541	826380.36	0.0535	P	0.7
5	☐	125.000	126.536	2120498.53	0.1365	P	0.5
6	☐	250.000	254.741	4217459.42	0.2747	A	0.6
7	☐	500.000	502.768	8285970.32	0.5422	A	1.2
8	☐	1000.000	997.262	16903728.85	1.0753	A	0.7
9	☐			6504.51	0.0005	P	5.9

$$y = 0.0011 * x + 5.8286E-005$$

$$R = 1.0000$$

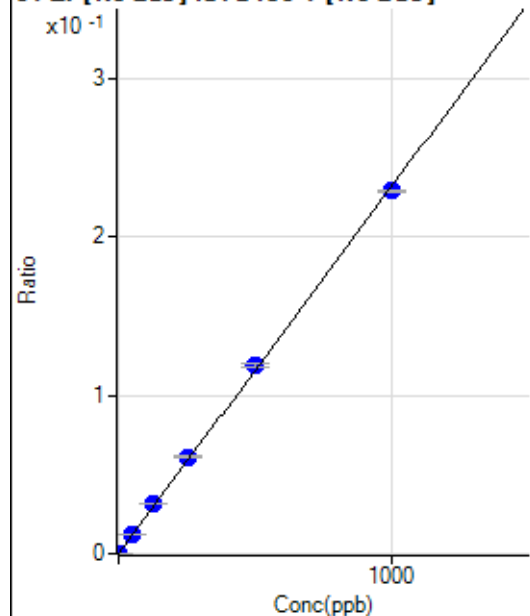
$$DL = 0.01677$$

$$BEC = 0.05406$$

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	158.34	0.0000	P	41.9
2	☐	0.100	0.101	522.26	0.0000	P	7.3
3	☐	1.000	0.928	3353.30	0.0002	P	16.4
4	☐	50.000	52.035	186737.04	0.0121	P	1.0
5	☐	125.000	133.936	482944.52	0.0311	P	0.6
6	☐	250.000	264.098	940845.37	0.0613	P	0.6
7	☐	500.000	513.727	1821924.39	0.1192	P	1.2
8	☐	1000.000	988.393	3605170.70	0.2293	P	0.6
9	☐			1375.12	0.0001	P	1.9

$$y = 2.3202E-004 * x + 1.0465E-005$$

$$R = 0.9997$$

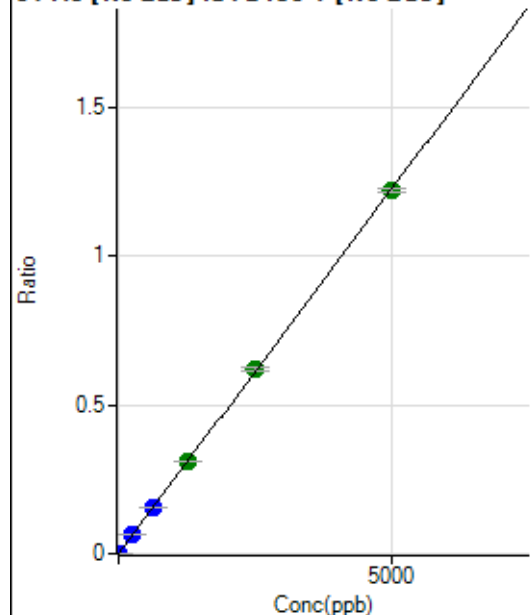
$$DL = 0.05676$$

$$BEC = 0.04511$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	330.57	0.0000	P	12.7
2	☐	0.500	0.489	2180.81	0.0001	P	9.7
3	☐	5.000	4.785	17672.60	0.0012	P	18.3
4	☐	250.000	252.490	955314.28	0.0618	P	0.9
5	☐	625.000	635.272	2415771.69	0.1555	P	0.7
6	☐	1250.000	1271.486	4777578.40	0.3112	A	0.9
7	☐	2500.000	2530.005	9463605.07	0.6192	A	1.5
8	☐	5000.000	4978.218	19153249.91	1.2184	A	1.1
9	☐			7946.93	0.0006	P	3.4

$$y = 2.4475E-004 * x + 2.1817E-005$$

$$R = 1.0000$$

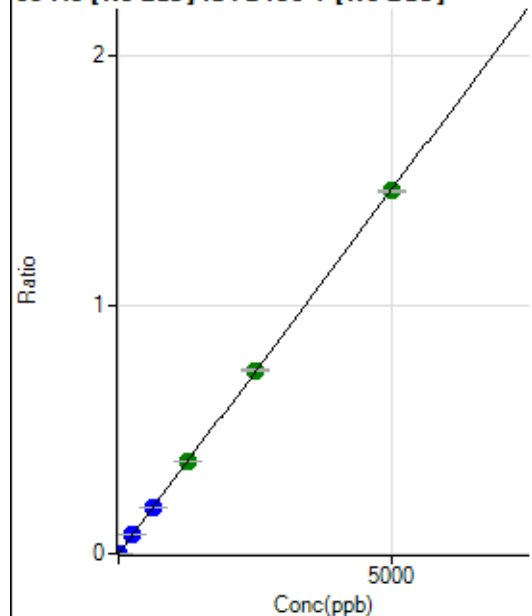
$$DL = 0.03397$$

$$BEC = 0.08914$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	19.7
2	☐	0.500	0.505	2394.75	0.0002	P	3.4
3	☐	5.000	5.210	22727.14	0.0015	P	17.8
4	☐	250.000	253.804	1148496.65	0.0743	P	0.3
5	☐	625.000	630.324	2867176.89	0.1846	P	0.4
6	☐	1250.000	1266.408	5692222.78	0.3708	A	0.8
7	☐	2500.000	2519.954	11276775.34	0.7378	A	1.2
8	☐	5000.000	4985.065	22944081.59	1.4595	A	0.5
9	☐			9103.23	0.0007	P	2.9

$$y = 2.9278E-004 * x + 7.7028E-006$$

$$R = 1.0000$$

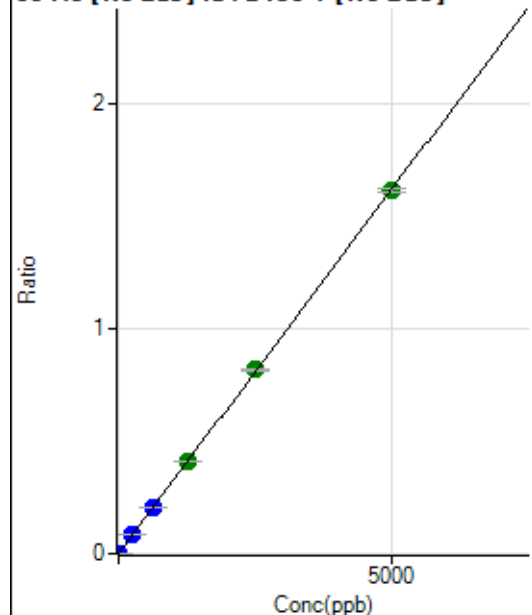
$$DL = 0.01555$$

$$BEC = 0.02631$$

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	238.90	0.0000	P	20.9
2	☐	0.500	0.485	2661.47	0.0002	P	8.8
3	☐	5.000	5.121	24825.17	0.0017	P	16.8
4	☐	250.000	253.601	1268494.88	0.0821	P	0.6
5	☐	625.000	629.332	3164165.74	0.2037	P	0.1
6	☐	1250.000	1274.671	6332681.61	0.4125	A	0.9
7	☐	2500.000	2522.449	12475448.19	0.8163	A	1.5
8	☐	5000.000	4981.886	25344053.00	1.6122	A	0.9
9	☐			21146.91	0.0016	P	1.3

$$y = 3.2360\text{E-}004 * x + 1.5769\text{E-}005$$

$$R = 1.0000$$

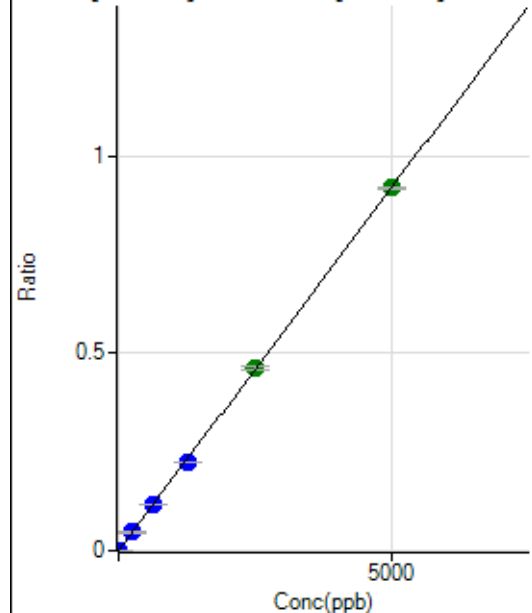
$$DL = 0.03062$$

$$BEC = 0.04873$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.56	0.0000	P	25.4
2	☐	0.500	0.519	1550.15	0.0001	P	4.1
3	☐	5.000	5.012	13740.41	0.0009	P	17.1
4	☐	250.000	252.594	717398.30	0.0464	P	0.8
5	☐	625.000	633.940	1809877.08	0.1165	P	0.1
6	☐	1250.000	1216.235	3431063.18	0.2235	P	0.8
7	☐	2500.000	2516.546	7067639.83	0.4624	A	1.4
8	☐	5000.000	4998.921	14440136.61	0.9186	A	0.8
9	☐			5462.38	0.0004	P	1.6

$$y = 1.8376\text{E-}004 * x + 5.3069\text{E-}006$$

$$R = 1.0000$$

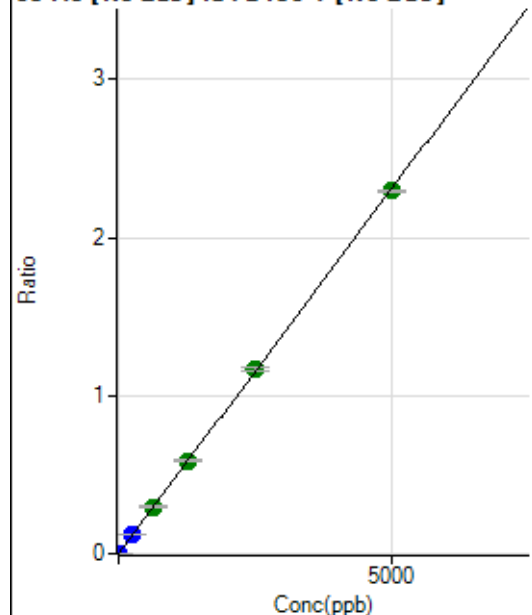
$$DL = 0.02202$$

$$BEC = 0.02888$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	188.90	0.0000	P	18.2
2	☐	0.500	0.552	4114.64	0.0003	P	1.4
3	☐	5.000	5.231	35943.51	0.0024	P	18.3
4	☐	250.000	253.288	1806352.93	0.1169	P	0.5
5	☐	625.000	643.339	4611995.33	0.2969	A	0.8
6	☐	1250.000	1272.280	9012380.58	0.5871	A	1.2
7	☐	2500.000	2535.939	17883931.30	1.1702	A	1.5
8	☐	5000.000	4974.003	36079399.42	2.2951	A	0.5
9	☐			13342.85	0.0010	P	6.4

$$y = 4.6143\text{E-}004 * x + 1.2466\text{E-}005$$

$$R = 0.9999$$

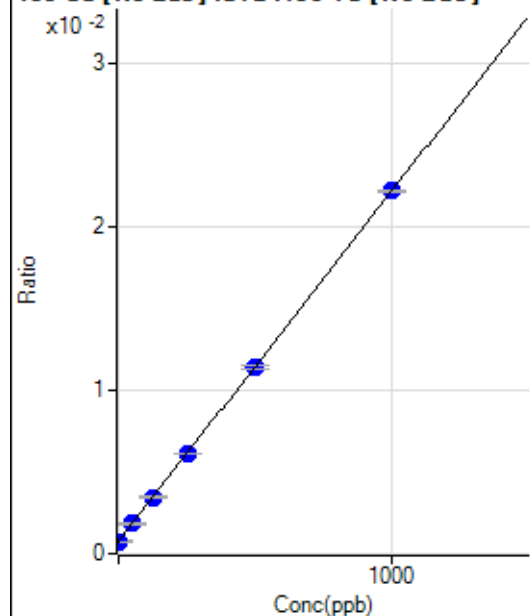
$$DL = 0.01477$$

$$BEC = 0.02702$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9500.77	0.0008	P	3.3
2	☐	0.100	-0.310	9450.73	0.0008	P	0.7
3	☐	1.000	-0.255	9233.97	0.0008	P	1.8
4	☐	50.000	50.437	23077.89	0.0018	P	3.6
5	☐	125.000	126.167	43938.35	0.0035	P	0.8
6	☐	250.000	249.277	76431.62	0.0061	P	0.9
7	☐	500.000	497.328	142317.01	0.0114	P	2.1
8	☐	1000.000	1001.351	281756.71	0.0222	P	0.5
9	☐			7171.53	0.0007	P	2.3

$$y = 2.1392\text{E-}005 * x + 7.5954\text{E-}004$$

$$R = 1.0000$$

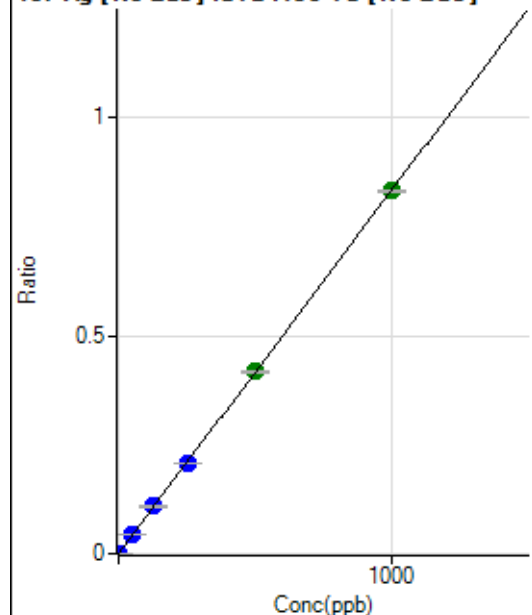
$$DL = 3.499$$

$$BEC = 35.51$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	20.0
2	☐	0.100	0.096	1119.54	0.0001	P	7.8
3	☐	1.000	1.010	10212.39	0.0009	P	18.2
4	☐	50.000	52.412	548381.69	0.0437	P	0.5
5	☐	125.000	130.127	1377455.16	0.1084	P	1.6
6	☐	250.000	248.246	2595088.45	0.2068	P	0.1
7	☐	500.000	501.620	5219006.15	0.4180	A	1.2
8	☐	1000.000	998.867	10571968.90	0.8323	A	0.5
9	☐			2967.11	0.0003	P	2.6

$$y = 8.3320\text{E-}004 * x + 9.5324\text{E-}006$$

$$R = 1.0000$$

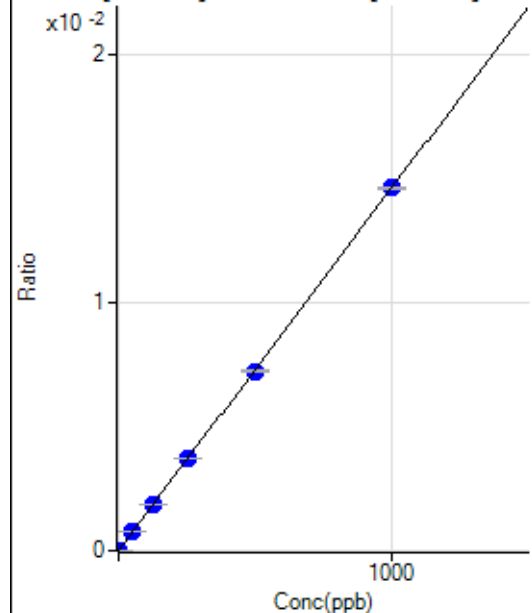
$$DL = 0.006872$$

$$BEC = 0.01144$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.83	0.0000	P	19.3
2	☐	0.100	0.114	41.67	0.0000	P	47.7
3	☐	1.000	0.904	180.56	0.0000	P	11.3
4	☐	50.000	51.126	9407.47	0.0007	P	1.6
5	☐	125.000	127.920	23785.50	0.0019	P	2.8
6	☐	250.000	254.970	46800.92	0.0037	P	1.2
7	☐	500.000	495.029	90412.50	0.0072	P	1.6
8	☐	1000.000	1000.822	185939.22	0.0146	P	0.7
9	☐			195.84	0.0000	P	8.8

$$y = 1.4624\text{E-}005 * x + 1.6646\text{E-}006$$

$$R = 1.0000$$

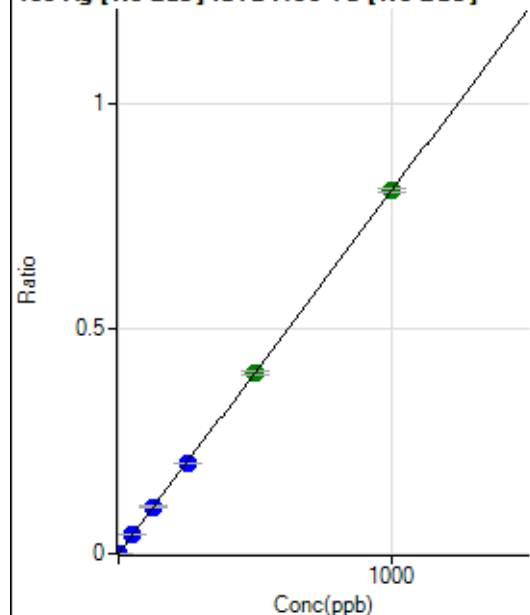
$$DL = 0.06598$$

$$BEC = 0.1138$$

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	55.56	0.0000	P	59.5
2	☐	0.100	0.090	966.74	0.0001	P	5.3
3	☐	1.000	0.968	9431.26	0.0008	P	17.1
4	☐	50.000	52.991	536488.18	0.0427	P	1.0
5	☐	125.000	129.331	1324924.30	0.1043	P	0.9
6	☐	250.000	248.762	2516595.50	0.2006	P	1.2
7	☐	500.000	499.300	5026299.72	0.4026	A	2.5
8	☐	1000.000	999.969	10242661.95	0.8063	A	1.2
9	☐			2775.39	0.0003	P	3.0

$$y = 8.0634\text{E-}004 * x + 4.4177\text{E-}006$$

$$R = 1.0000$$

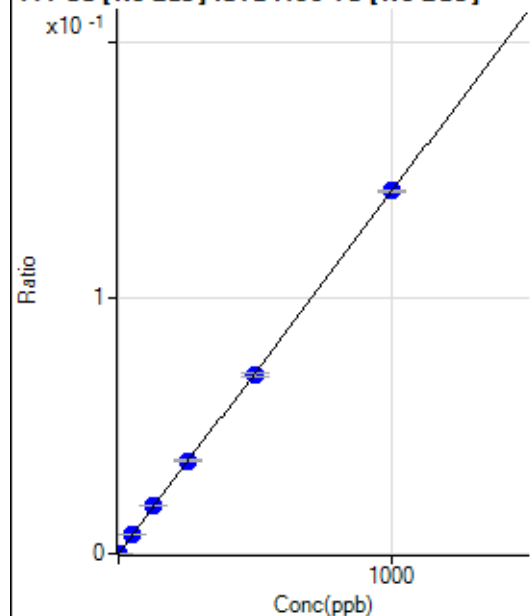
$$DL = 0.009777$$

$$BEC = 0.005479$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	957.90	0.0001	P	2.8
2	☐	0.100	0.084	1110.91	0.0001	P	3.1
3	☐	1.000	0.847	2372.50	0.0002	P	13.9
4	☐	50.000	52.654	94637.01	0.0075	P	0.5
5	☐	125.000	130.727	236306.29	0.0186	P	1.5
6	☐	250.000	256.579	457111.37	0.0364	P	0.5
7	☐	500.000	491.389	870324.38	0.0697	P	2.1
8	☐	1000.000	1001.813	1804293.92	0.1420	P	0.3
9	☐			1393.71	0.0001	P	5.8

$$y = 1.4171\text{E-}004 * x + 7.6576\text{E-}005$$

$$R = 0.9999$$

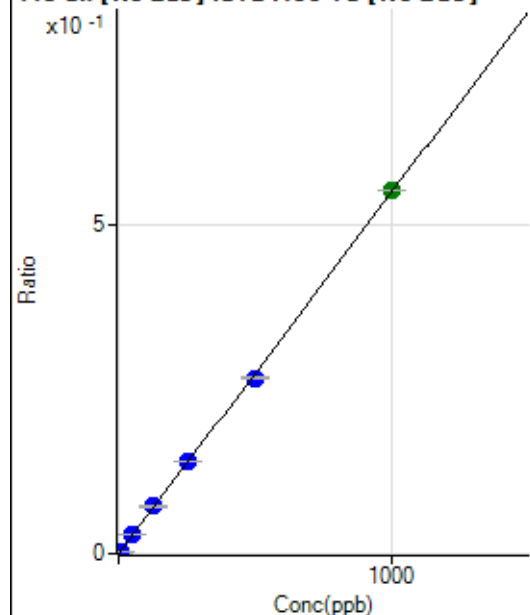
$$DL = 0.04611$$

$$BEC = 0.5404$$

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	800.06	0.0001	P	3.4
2	☐	0.500	0.479	4103.55	0.0003	P	1.0
3	☐	5.000	4.802	32410.51	0.0027	P	18.7
4	☐	50.000	51.945	359126.16	0.0286	P	1.7
5	☐	125.000	130.442	911389.30	0.0717	P	1.2
6	☐	250.000	254.674	1756449.71	0.1400	P	0.7
7	☐	500.000	486.705	3340156.87	0.2675	P	1.3
8	☐	1000.000	1004.702	7013699.64	0.5521	A	0.0
9	☐			3031.02	0.0003	P	1.6

$$y = 5.4948\text{E-}004 * x + 6.3947\text{E-}005$$

$$R = 0.9999$$

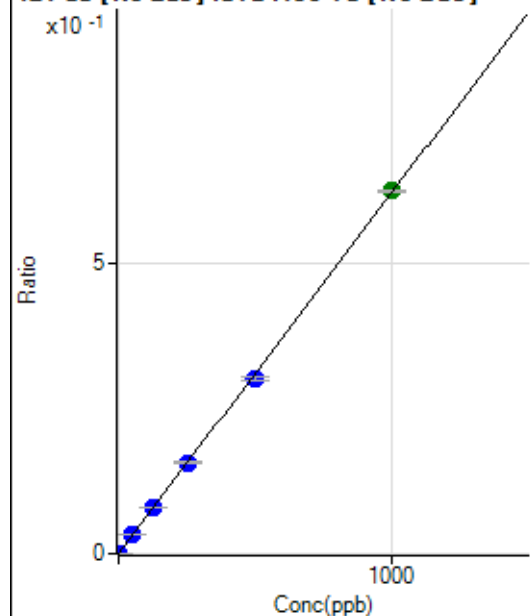
$$DL = 0.01195$$

$$BEC = 0.1164$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	49.6
2	☐	0.200	0.186	1530.70	0.0001	P	7.8
3	☐	2.000	1.947	14588.61	0.0012	P	18.5
4	☐	50.000	51.473	401700.58	0.0320	P	1.4
5	☐	125.000	129.640	1023680.25	0.0806	P	1.0
6	☐	250.000	253.219	1974525.76	0.1574	P	0.8
7	☐	500.000	485.328	3766267.66	0.3016	P	1.7
8	☐	1000.000	1005.878	7941305.30	0.6252	A	0.8
9	☐			11555.25	0.0011	P	2.9

$$y = 6.2151\text{E-}004 * x + 6.2225\text{E-}006$$

$$R = 0.9998$$

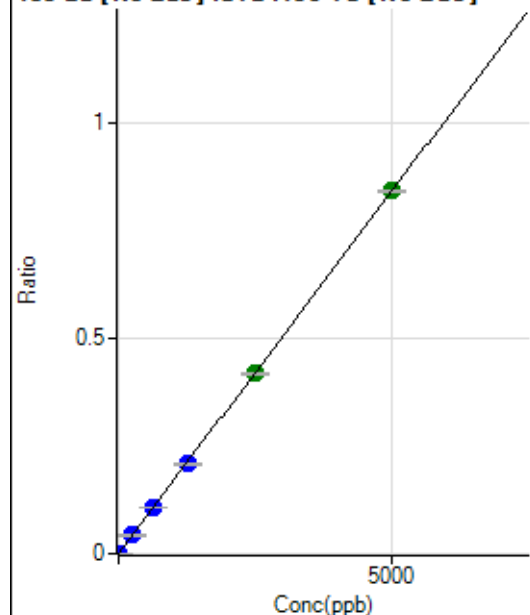
$$DL = 0.0149$$

$$BEC = 0.01001$$

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	111.12	0.0000	P	22.8
2	☐	1.000	0.919	2053.01	0.0002	P	4.6
3	☐	10.000	9.562	19431.04	0.0016	P	18.3
4	☐	250.000	255.164	539725.35	0.0430	P	2.4
5	☐	625.000	636.759	1362899.96	0.1073	P	0.5
6	☐	1250.000	1237.597	2615766.44	0.2085	P	0.7
7	☐	2500.000	2485.022	5227517.56	0.4186	A	1.2
8	☐	5000.000	5008.862	10718896.86	0.8438	A	0.9
9	☐			16735.79	0.0015	P	3.4

$$y = 1.6846\text{E-}004 * x + 8.8674\text{E-}006$$

$$R = 1.0000$$

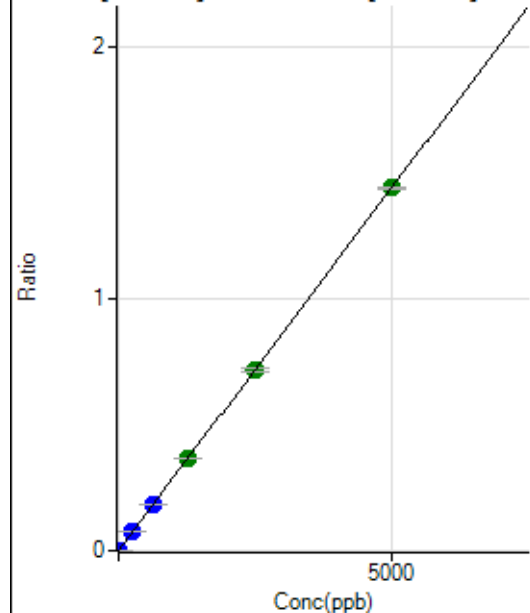
$$DL = 0.03597$$

$$BEC = 0.05264$$

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	141.67	0.0000	P	4.5
2	☐	1.000	0.970	3647.87	0.0003	P	4.0
3	☐	10.000	9.649	33466.26	0.0028	P	18.6
4	☐	250.000	257.147	929961.16	0.0741	P	1.4
5	☐	625.000	635.557	2325769.15	0.1831	P	0.5
6	☐	1250.000	1271.926	4596277.88	0.3664	A	0.9
7	☐	2500.000	2481.854	8924513.22	0.7148	A	2.3
8	☐	5000.000	5001.915	18300521.76	1.4407	A	0.8
9	☐			30089.09	0.0028	P	1.6

$$y = 2.8803\text{E-}004 * x + 1.1322\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.005279$$

$$BEC = 0.03931$$

Weight: <None>

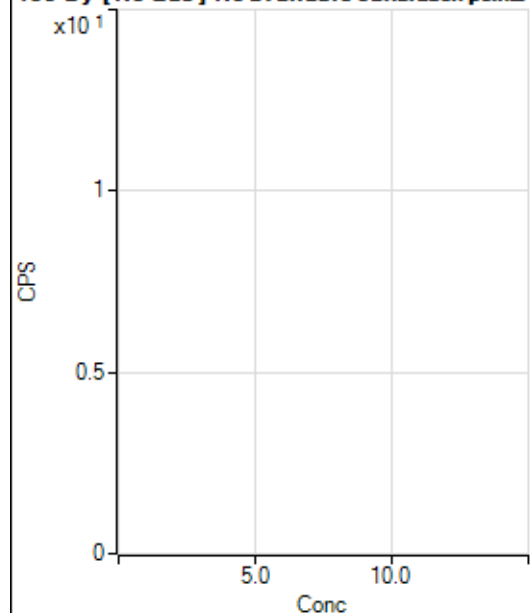
Min Conc: 0

150 Nd [No Gas] No available calibration points

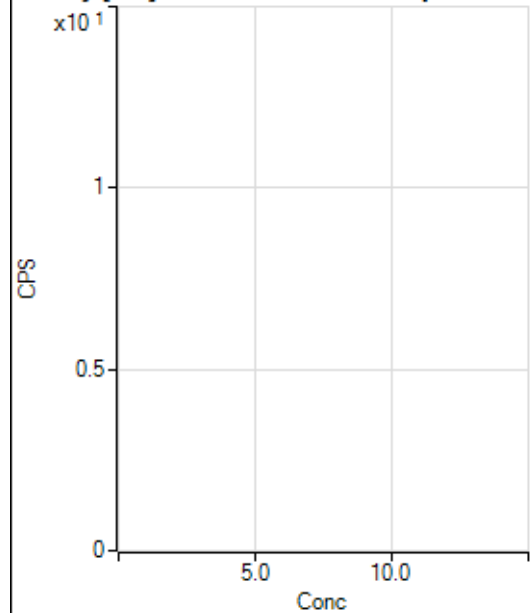
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	114.
2	☐			6.67		P	100.
3	☐			17.78		P	21.7
4	☐			62.23		P	16.4
5	☐			157.79		P	10.6
6	☐			328.90		P	14.4
7	☐			622.26		P	11.4
8	☐			1215.65		P	1.7
9	☐			40.00		P	16.7

150 Nd [He] No available calibration points

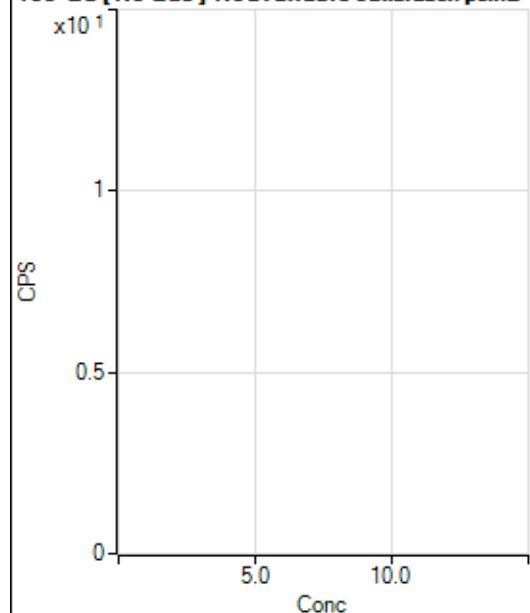
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			2.22		P	173.
4	☐			13.33		P	66.1
5	☐			13.33		P	66.2
6	☐			31.11		P	34.4
7	☐			31.11		P	16.4
8	☐			85.56		P	6.0
9	☐			11.11		P	45.8

156 Dy [No Gas] No available calibration points

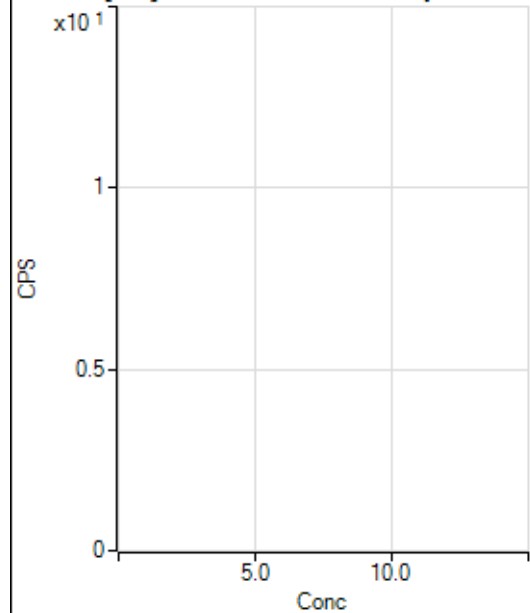
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	0.0
2	☐			61.11		P	56.8
3	☐			52.78		P	59.8
4	☐			72.22		P	6.7
5	☐			75.00		P	50.9
6	☐			105.56		P	36.5
7	☐			250.01		P	34.8
8	☐			441.69		P	6.8
9	☐			519.48		P	6.5

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	34.6
2	☐			12.22		P	56.8
3	☐			15.56		P	12.4
4	☐			23.33		P	14.3
5	☐			42.22		P	32.9
6	☐			56.67		P	25.6
7	☐			123.34		P	9.4
8	☐			222.23		P	12.5
9	☐			274.45		P	7.1

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

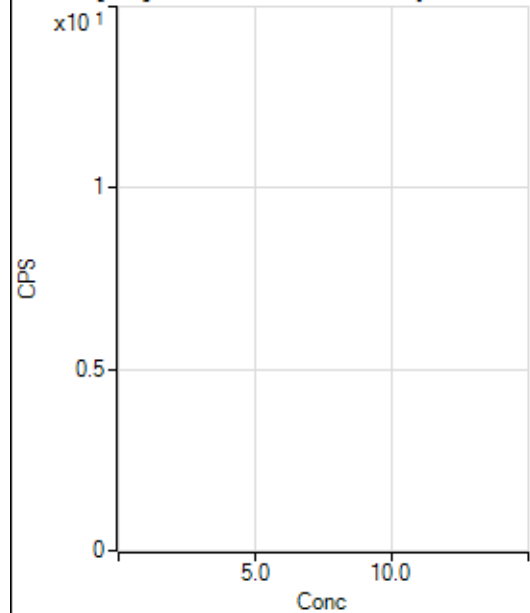
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			144.45		P	31.8
2	☐			111.12		P	34.6
3	☐			116.67		P	24.7
4	☐			133.34		P	25.0
5	☐			105.56		P	22.8
6	☐			169.45		P	12.4
7	☐			197.23		P	23.3
8	☐			325.02		P	8.9
9	☐			647.27		P	15.0

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			163.34		P	25.6
2	☐			146.67		P	20.2
3	☐			143.34		P	15.2
4	☐			155.56		P	15.0
5	☐			188.89		P	3.7
6	☐			185.56		P	9.2
7	☐			191.11		P	9.6
8	☐			228.89		P	11.7
9	☐			471.13		P	6.6

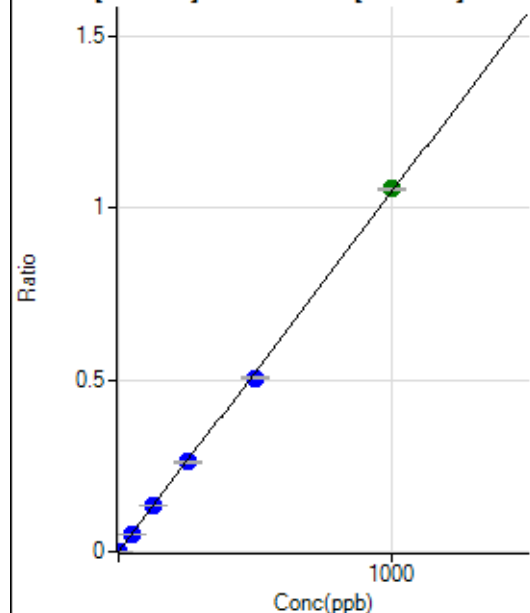
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	33.1
2	☐			47.22		P	44.4
3	☐			66.67		P	50.0
4	☐			72.23		P	59.2
5	☐			69.45		P	6.9
6	☐			52.78		P	32.9
7	☐			80.56		P	6.0
8	☐			119.45		P	17.6
9	☐			133.34		P	6.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.56		P	30.1
2	☐			24.44		P	7.9
3	☐			17.78		P	65.8
4	☐			27.78		P	27.7
5	☐			40.00		P	16.7
6	☐			34.44		P	55.0
7	☐			34.44		P	36.6
8	☐			35.56		P	5.4
9	☐			61.11		P	20.6

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125.01	0.0000	P	28.9
2	☐	0.100	0.086	788.95	0.0001	P	9.6
3	☐	1.000	0.893	6752.00	0.0010	P	16.2
4	☐	50.000	49.872	382433.95	0.0522	P	0.8
5	☐	125.000	126.664	964014.15	0.1325	P	0.6
6	☐	250.000	248.961	1855165.43	0.2603	P	0.5
7	☐	500.000	482.248	3483970.56	0.5043	P	1.3
8	☐	1000.000	1008.935	7252391.05	1.0550	A	0.8
9	☐			1333.46	0.0002	P	5.5

$$y = 0.0010 * x + 1.6924E-005$$

$$R = 0.9998$$

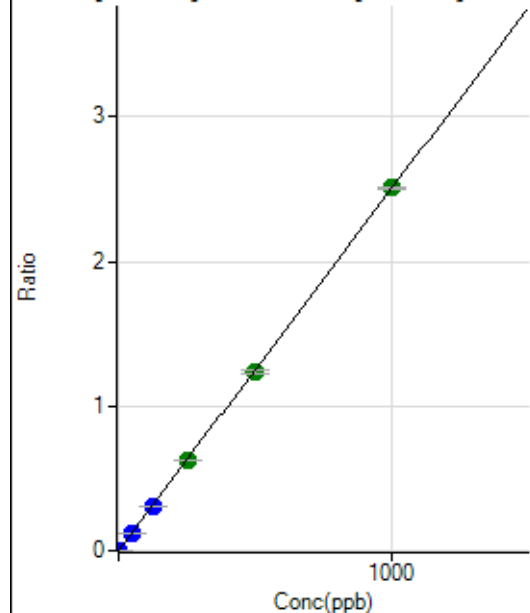
$$DL = 0.01401$$

$$BEC = 0.01619$$

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	347.25	0.0000	P	23.3
2	☐	0.100	0.096	2136.37	0.0003	P	5.4
3	☐	1.000	0.938	17003.16	0.0024	P	15.2
4	☐	50.000	49.489	907532.46	0.1238	P	1.0
5	☐	125.000	123.753	2252408.62	0.3095	P	0.1
6	☐	250.000	250.921	4471362.25	0.6275	A	0.4
7	☐	500.000	494.346	8540443.68	1.2362	A	1.5
8	☐	1000.000	1002.778	17237322.43	2.5075	A	0.8
9	☐			3439.51	0.0006	P	3.5

$$y = 0.0025 * x + 4.7020E-005$$

$$R = 1.0000$$

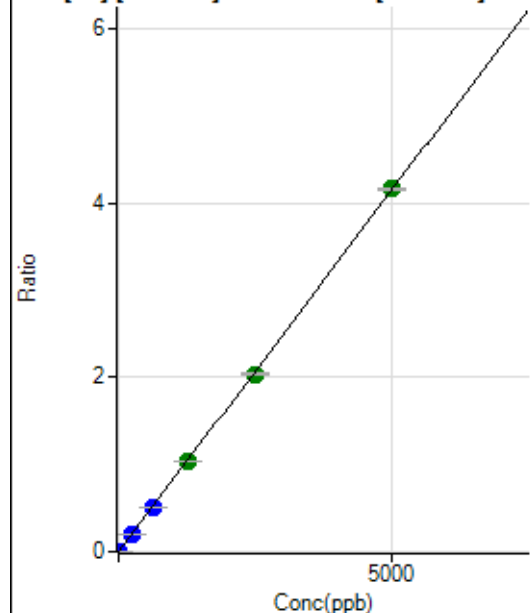
$$DL = 0.01315$$

$$BEC = 0.0188$$

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	464.84	0.0001	P	8.2
2	☐	0.100	0.107	1126.00	0.0002	P	12.5
3	☐	1.000	0.962	6073.80	0.0009	P	20.7
4	☐	250.000	249.687	1516609.55	0.2069	P	1.4
5	☐	625.000	615.949	3713534.84	0.5103	P	0.4
6	☐	1250.000	1250.780	7382717.82	1.0361	A	1.3
7	☐	2500.000	2454.581	14047319.07	2.0332	A	1.0
8	☐	5000.000	5023.662	28607007.82	4.1612	A	0.3
9	☐			7624.62	0.0014	P	3.3

$$y = 8.2830E-004 * x + 6.2967E-005$$

$$R = 0.9999$$

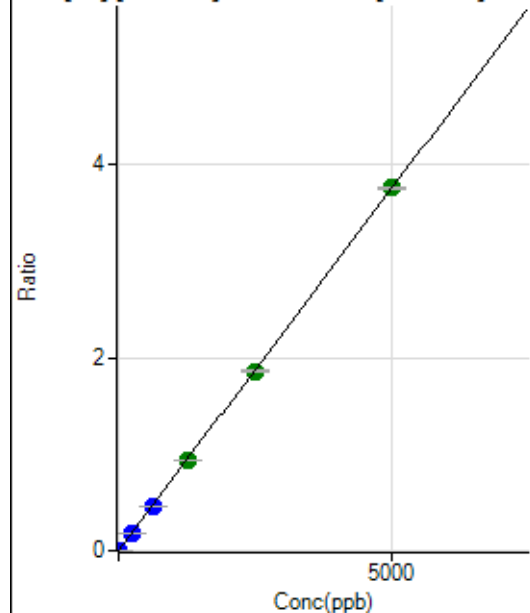
$$DL = 0.01877$$

$$BEC = 0.07602$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	457.43	0.0001	P	5.8
2	☐	0.100	0.098	1005.62	0.0001	P	7.7
3	☐	1.000	0.966	5582.81	0.0008	P	15.4
4	☐	250.000	249.663	1371968.94	0.1871	P	1.2
5	☐	625.000	619.492	3378937.20	0.4643	P	0.3
6	☐	1250.000	1254.253	6697871.39	0.9399	A	0.8
7	☐	2500.000	2476.498	12821987.67	1.8558	A	0.8
8	☐	5000.000	5011.393	25817120.48	3.7554	A	0.4
9	☐			6553.65	0.0012	P	4.2

$$y = 7.4935E-004 * x + 6.1954E-005$$

$$R = 1.0000$$

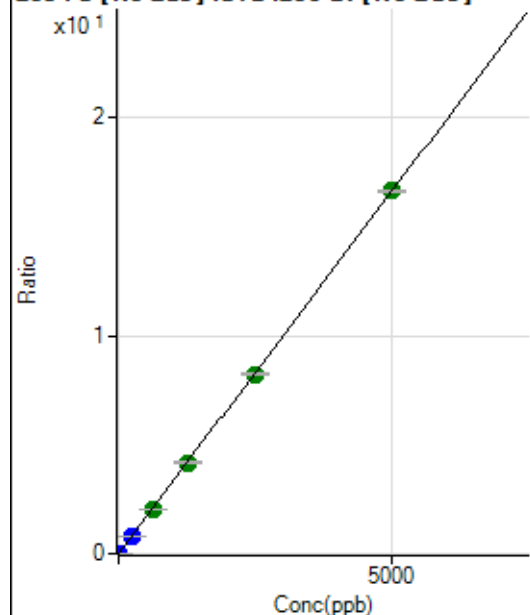
$$DL = 0.0145$$

$$BEC = 0.08268$$

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	1951.96	0.0003	P	1.7
2	☐	0.100	0.110	4678.25	0.0006	P	6.3
3	☐	1.000	0.981	24998.78	0.0035	P	16.8
4	☐	250.000	249.843	6089392.48	0.8306	P	1.1
5	☐	625.000	622.435	15057518.39	2.0690	A	0.5
6	☐	1250.000	1258.106	29798770.69	4.1817	A	0.7
7	☐	2500.000	2474.037	56811905.33	8.2229	A	1.1
8	☐	5000.000	5011.284	114502656.4	16.6557	A	0.3
9	☐			30221.74	0.0055	P	4.3

$$y = 0.0033 * x + 2.6440E-004$$

$$R = 1.0000$$

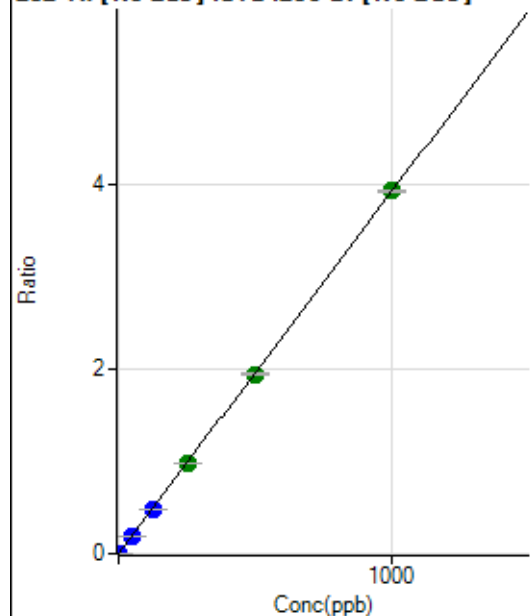
$$DL = 0.00416$$

$$BEC = 0.07955$$

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	709.30	0.0001	P	16.5
2	☐	0.100	0.004	838.94	0.0001	P	6.1
3	☐	1.000	0.000	688.93	0.0001	P	9.0
4	☐	50.000	47.536	1369396.59	0.1868	P	0.9
5	☐	125.000	119.870	3427040.70	0.4709	P	0.2
6	☐	250.000	248.107	6944564.28	0.9745	A	0.6
7	☐	500.000	496.405	13470572.99	1.9497	A	1.4
8	☐	1000.000	1003.036	27083521.67	3.9395	A	0.8
9	☐			7930.42	0.0015	P	3.4

$$y = 0.0039 * x + 9.6100E-005$$

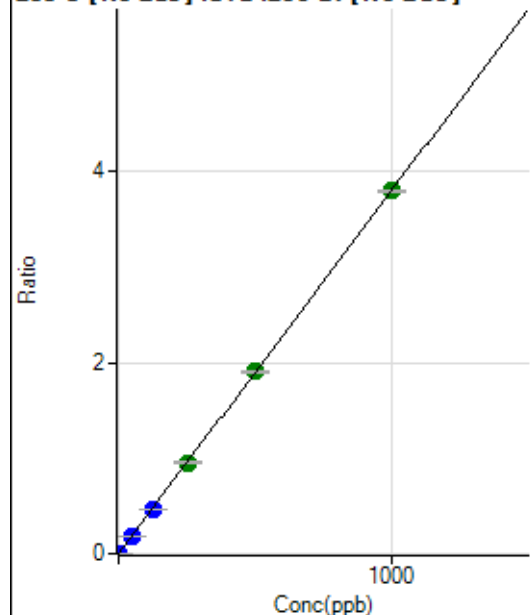
$$R = 1.0000$$

$$DL = 0.01214$$

$$BEC = 0.02447$$

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	116.67	0.0000	P	14.5
2	☐	0.100	0.096	2833.77	0.0004	P	3.1
3	☐	1.000	0.921	24960.85	0.0035	P	16.4
4	☐	50.000	48.665	1356341.92	0.1850	P	1.5
5	☐	125.000	122.410	3386766.74	0.4654	P	0.4
6	☐	250.000	250.574	6787925.24	0.9526	A	1.0
7	☐	500.000	501.012	13159090.05	1.9046	A	1.6
8	☐	1000.000	999.741	26127787.57	3.8005	A	0.8
9	☐			4662.17	0.0009	P	6.6

$$y = 0.0038 * x + 1.5806E-005$$

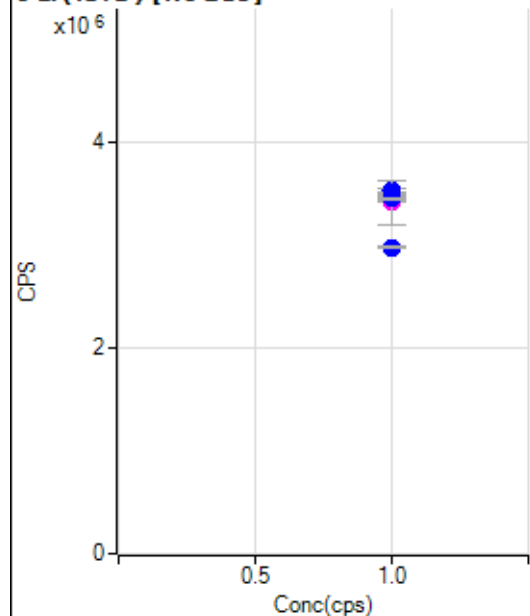
$$R = 1.0000$$

$$DL = 0.001804$$

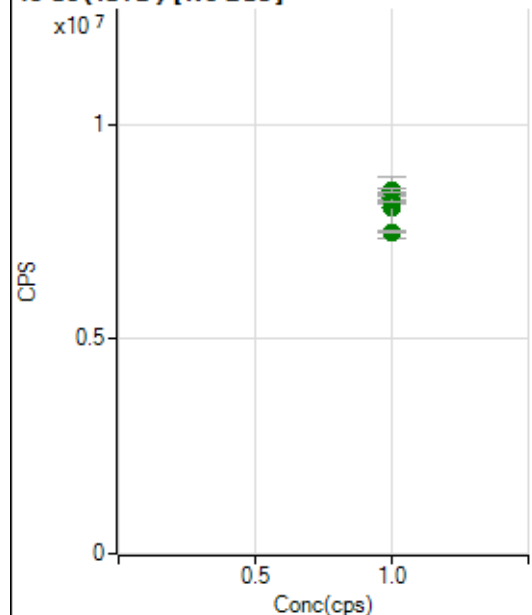
$$BEC = 0.004158$$

Weight: <None>

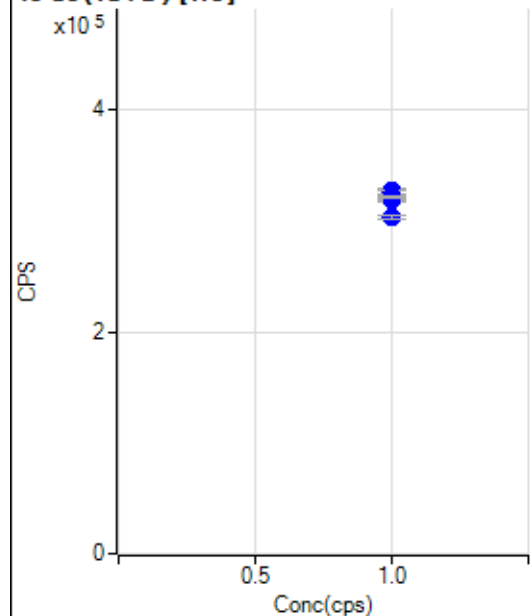
Min Conc: 0

6 Li (ISTD) [No Gas]

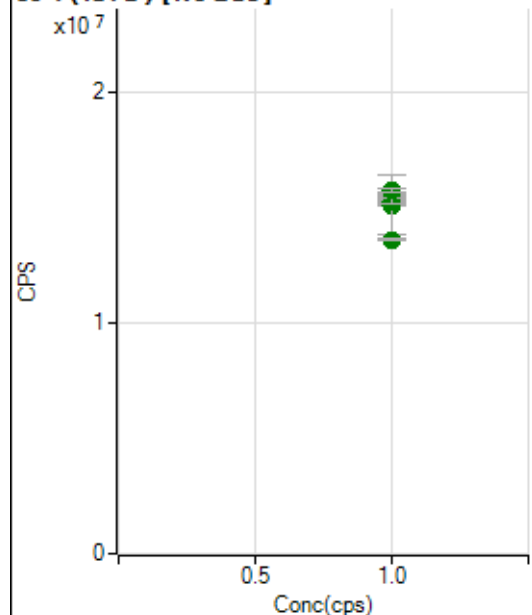
	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3489222.27		P	0.5
2	☐	1.000		3532829.32		P	1.2
3	☐	1.000		3423002.90		M	12.7
4	☐	1.000		3461976.23		P	0.3
5	☐	1.000		3512436.93		P	0.1
6	☐	1.000		3495151.51		P	0.6
7	☐	1.000		3461398.00		P	1.6
8	☐	1.000		3460758.56		P	0.5
9	☐	1.000		2984655.76		P	1.0

45 Sc (ISTD) [No Gas]

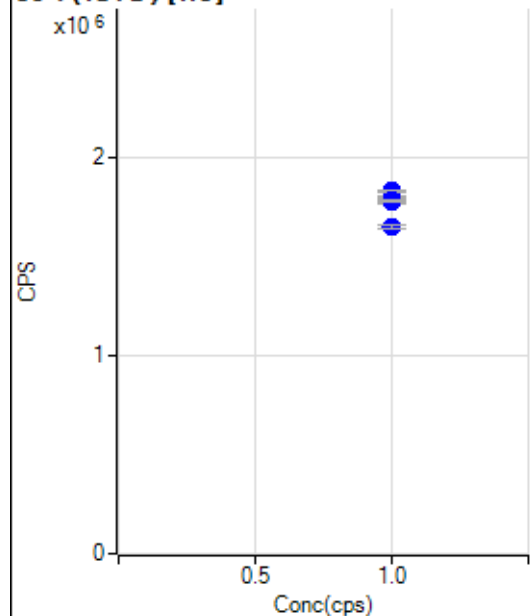
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8198808.21		A	1.2
2	☐	1.000		8282990.71		A	1.2
3	☐	1.000		8065850.29		A	17.6
4	☐	1.000		8338237.86		A	0.3
5	☐	1.000		8322138.42		A	0.2
6	☐	1.000		8233520.92		A	0.0
7	☐	1.000		8259172.66		A	1.5
8	☐	1.000		8445050.98		A	1.0
9	☐	1.000		7477028.36		A	0.6

45 Sc (ISTD) [He]

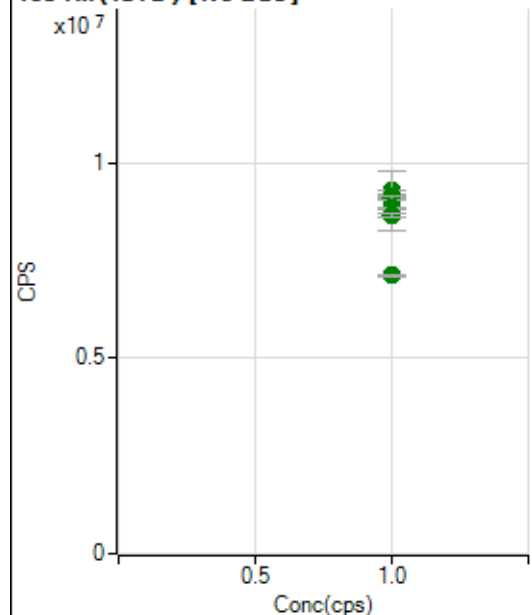
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		319722.71		P	0.8
2	☐	1.000		318786.73		P	1.5
3	☐	1.000		318314.79		P	0.6
4	☐	1.000		326905.16		P	1.6
5	☐	1.000		326532.05		P	1.1
6	☐	1.000		320562.11		P	0.6
7	☐	1.000		321586.72		P	0.3
8	☐	1.000		321943.57		P	0.5
9	☐	1.000		303128.50		P	0.8

89 Y (ISTD) [No Gas]

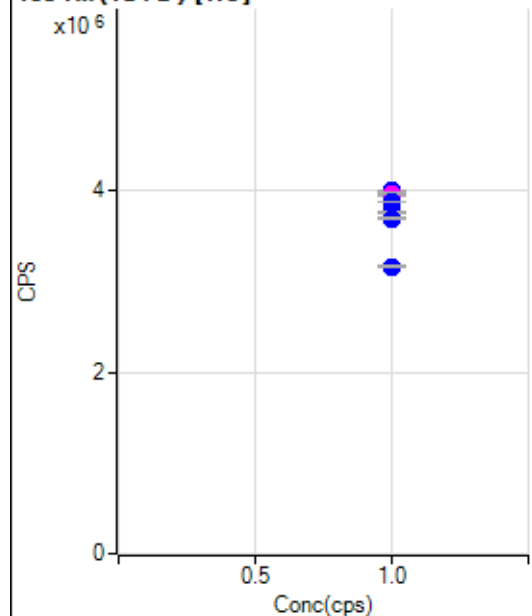
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15161813.38		A	0.8
2	☐	1.000		15401038.94		A	0.9
3	☐	1.000		15121596.03		A	16.7
4	☐	1.000		15454184.22		A	0.5
5	☐	1.000		15535696.44		A	0.5
6	☐	1.000		15351737.27		A	0.4
7	☐	1.000		15285463.38		A	1.8
8	☐	1.000		15720508.80		A	1.2
9	☐	1.000		13606101.74		A	0.9

89 Y (ISTD) [He]

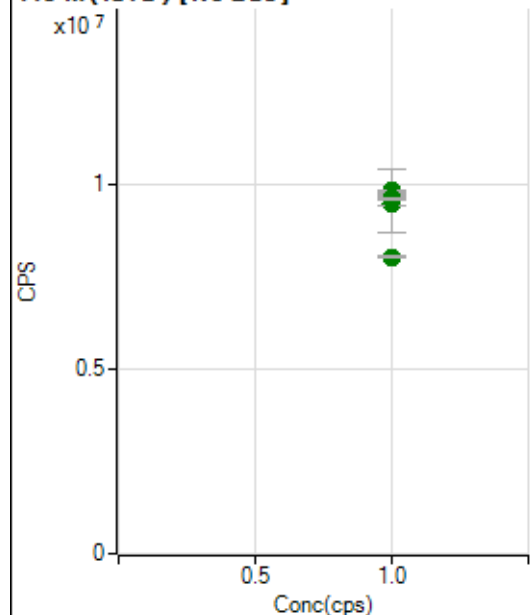
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1795563.65		P	0.5
2	☐	1.000		1798817.21		P	0.8
3	☐	1.000		1792173.96		P	0.9
4	☐	1.000		1834902.54		P	0.7
5	☐	1.000		1830119.09		P	0.5
6	☐	1.000		1787904.06		P	0.5
7	☐	1.000		1776830.16		P	0.3
8	☐	1.000		1784727.91		P	0.2
9	☐	1.000		1654626.88		P	0.9

103 Rh (ISTD) [No Gas]

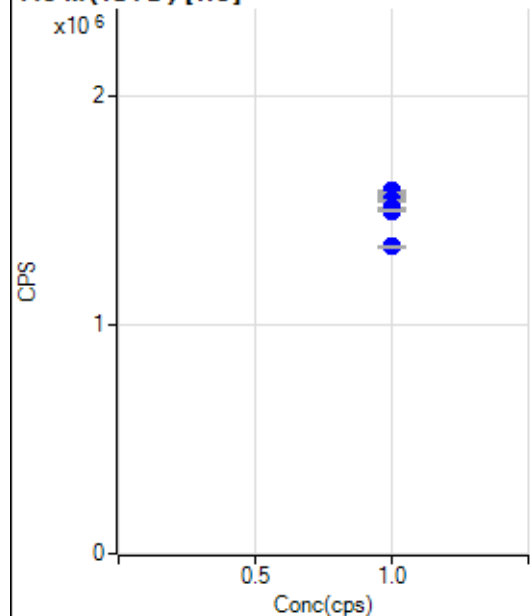
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9170567.36		A	0.2
2	☐	1.000		9293450.14		A	0.1
3	☐	1.000		9056923.34		A	17.0
4	☐	1.000		9169934.93		A	0.9
5	☐	1.000		9116683.20		A	0.6
6	☐	1.000		8853547.23		A	0.4
7	☐	1.000		8682938.20		A	0.9
8	☐	1.000		8658270.57		A	0.9
9	☐	1.000		7127285.03		A	0.9

103 Rh (ISTD) [He]

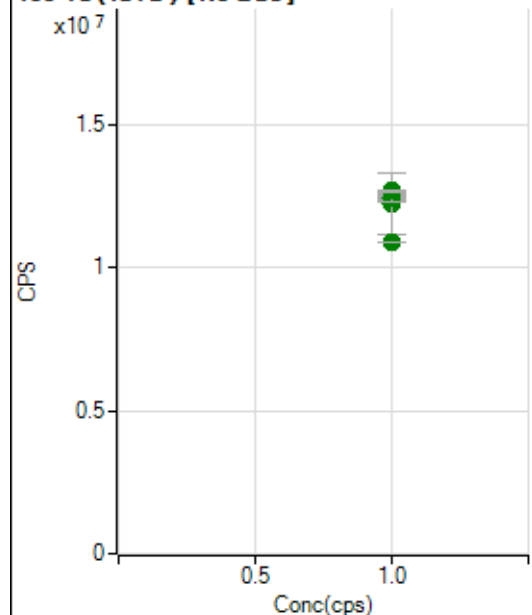
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3954726.16		M	0.9
2	☐	1.000		3995041.50		P	0.3
3	☐	1.000		3964020.43		M	0.1
4	☐	1.000		3946154.35		A	0.7
5	☐	1.000		3966682.48		M	0.8
6	☐	1.000		3873381.72		P	0.3
7	☐	1.000		3768458.31		P	0.6
8	☐	1.000		3689723.87		P	0.4
9	☐	1.000		3163896.59		P	0.4

115 In (ISTD) [No Gas]

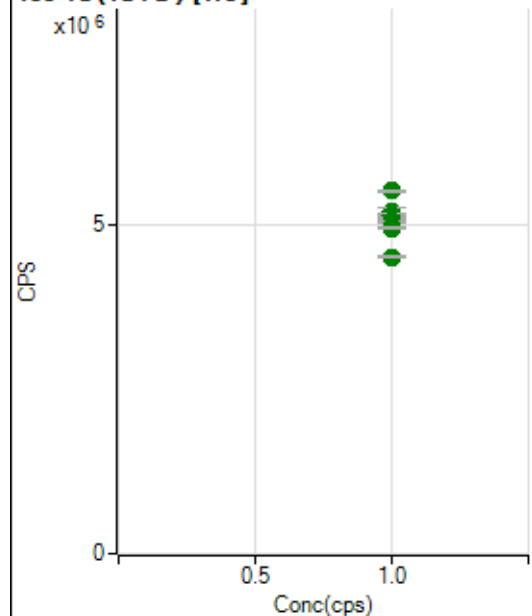
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9717244.09		A	0.9
2	☐	1.000		9718768.97		A	2.2
3	☐	1.000		9553559.09		A	18.1
4	☐	1.000		9729036.03		A	0.2
5	☐	1.000		9813079.04		A	0.3
6	☐	1.000		9639582.69		A	0.4
7	☐	1.000		9488751.48		A	1.9
8	☐	1.000		9594589.37		A	0.9
9	☐	1.000		8027991.62		A	0.5

115 In (ISTD) [He]

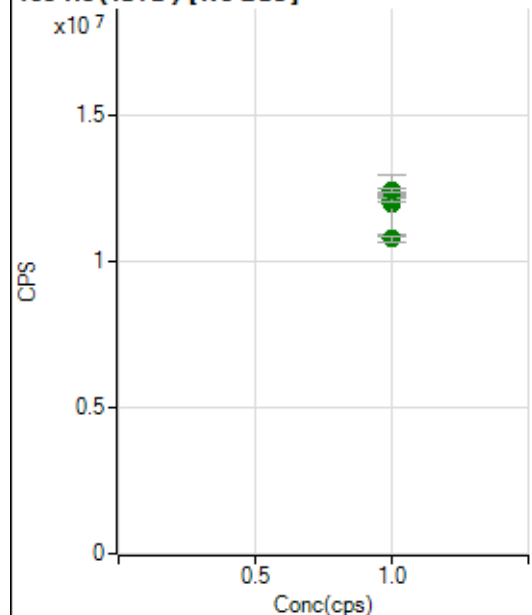
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1563532.44		P	0.3
2	☐	1.000		1566799.19		P	0.6
3	☐	1.000		1559016.34		P	0.8
4	☐	1.000		1587202.71		P	0.8
5	☐	1.000		1580815.49		P	0.5
6	☐	1.000		1544661.58		P	0.4
7	☐	1.000		1514882.11		P	0.2
8	☐	1.000		1499390.09		P	0.4
9	☐	1.000		1343154.87		P	0.9

159 Tb (ISTD) [No Gas]

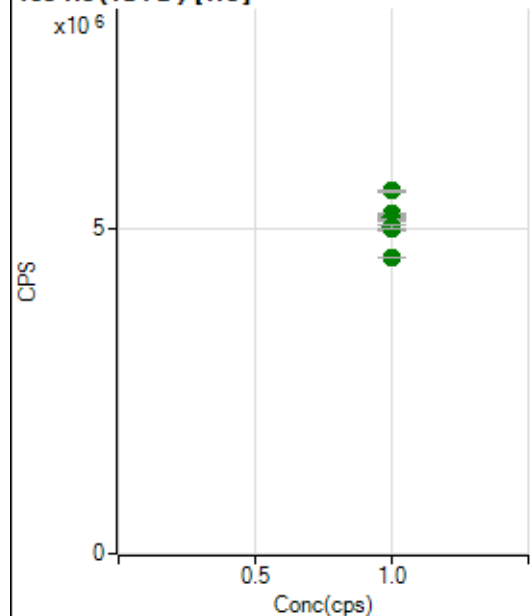
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12507463.98		A	1.4
2	☐	1.000		12551413.43		A	1.8
3	☐	1.000		12255407.80		A	17.3
4	☐	1.000		12555105.51		A	0.9
5	☐	1.000		12704786.90		A	0.9
6	☐	1.000		12545968.84		A	0.2
7	☐	1.000		12489505.09		A	2.6
8	☐	1.000		12703058.70		A	0.8
9	☐	1.000		10918761.78		A	0.3

159 Tb (ISTD) [He]

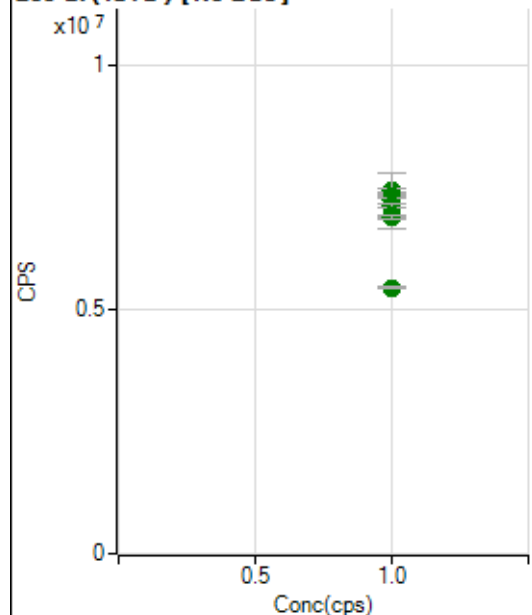
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5509189.19		A	0.6
2	☐	1.000		5097920.65		A	1.2
3	☐	1.000		5065311.94		A	0.3
4	☐	1.000		5208112.74		A	1.3
5	☐	1.000		5144932.43		A	1.0
6	☐	1.000		5041392.11		A	0.3
7	☐	1.000		4952888.88		A	1.0
8	☐	1.000		4945941.14		A	0.8
9	☐	1.000		4505093.96		A	0.5

165 Ho (ISTD) [No Gas]

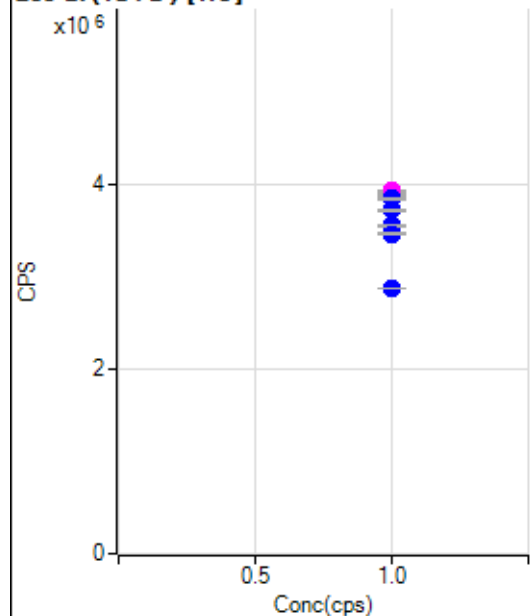
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12094885.65		A	0.8
2	☐	1.000		12236350.51		A	1.4
3	☐	1.000		11948572.46		A	17.0
4	☐	1.000		12252978.85		A	1.3
5	☐	1.000		12214915.37		A	0.5
6	☐	1.000		12190540.23		A	0.8
7	☐	1.000		12095235.24		A	1.0
8	☐	1.000		12412260.51		A	1.1
9	☐	1.000		10758911.16		A	1.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5571689.43		A	0.7
2	☐	1.000		5125766.94		A	1.1
3	☐	1.000		5157977.25		A	1.6
4	☐	1.000		5218870.34		A	0.3
5	☐	1.000		5215269.33		A	0.7
6	☐	1.000		5128008.19		A	0.8
7	☐	1.000		4979762.22		A	0.6
8	☐	1.000		5013024.26		A	0.9
9	☐	1.000		4545339.31		A	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7382596.21		A	0.3
2	☐	1.000		7421674.47		A	1.0
3	☐	1.000		7222298.37		A	15.8
4	☐	1.000		7331377.53		A	0.8
5	☐	1.000		7277841.77		A	0.5
6	☐	1.000		7126189.76		A	1.2
7	☐	1.000		6909060.80		A	0.3
8	☐	1.000		6874683.37		A	0.9
9	☐	1.000		5445505.86		A	1.3

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3925038.55		M	0.3
2	☐	1.000		3862398.21		M	0.4
3	☐	1.000		3875680.91		P	0.4
4	☐	1.000		3885360.95		M	0.3
5	☐	1.000		3839464.14		P	0.4
6	☐	1.000		3718387.62		P	0.7
7	☐	1.000		3547473.14		P	0.3
8	☐	1.000		3459752.10		P	0.7
9	☐	1.000		2872156.10		P	0.5

US EPA Tune Check Sample Report

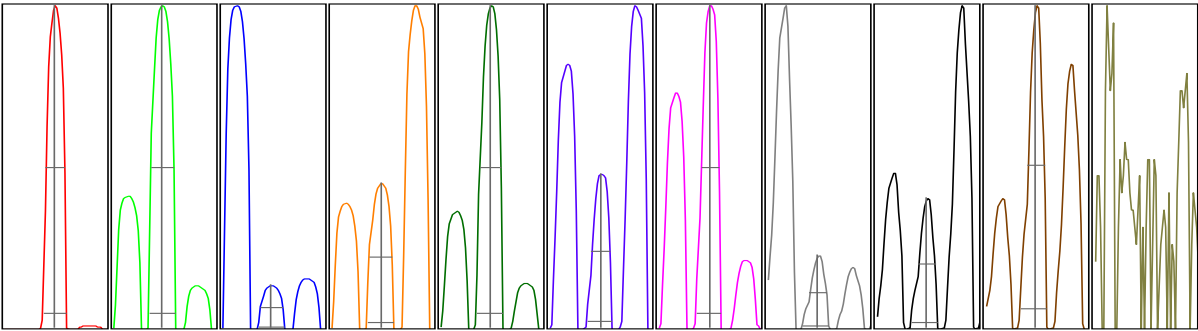
Batch Folder D:\ICP-MS Data\1\DATA\P7071720 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	9575	0.75	5.00	
24	136063	0.45	5.00	
25	17963	0.34	5.00	
26	21115	0.54	5.00	
59	63699	0.49	5.00	
113	10352	1.03	5.00	
115	29308	0.58	5.00	
206	12328	0.69	5.00	
207	10290	1.05	5.00	
208	25380	0.75	5.00	
220	0	24.16		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9520	9520	9529	9659	9648
24	135970	135255	136095	136987	136009
25	17906	17909	17952	18051	17996
26	21001	21088	21029	21278	21180
59	63579	63440	63707	64225	63546
113	10307	10277	10244	10466	10467
115	29523	29173	29101	29387	29358
206	12284	12235	12407	12431	12285
207	10161	10231	10283	10451	10321
208	25214	25253	25327	25689	25417
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	17630	9.00	8.9 - 9.1		0.692	0.900	
24	215387	23.95	23.9 - 24.1		0.787	0.900	
25	29210	24.95	24.9 - 25.1		0.782	0.900	
26	33820	26.00	25.9 - 26.1		0.787	0.900	
59	107610	59.00	58.9 - 59.1		0.783	0.900	
113	19314	113.05	112.9 - 113.1		0.733	0.900	
115	55015	115.05	114.9 - 115.1		0.732	0.900	
206	24816	206.00	205.9 - 206.1		0.769	0.900	
207	20787	207.00	206.9 - 207.1		0.777	0.900	
208	51537	208.00	207.9 - 208.1		0.775	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	0.76	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.3	V	Deflect	13.0	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	190	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	14840	0.15	
89	41786	0.44	
205	30478	0.16	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	14805	14859	14854	14847	14838
89	41499	41875	41928	41928	41700
205	30436	30487	30525	30522	30418

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.76	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.6	V	Deflect	2.2	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	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			