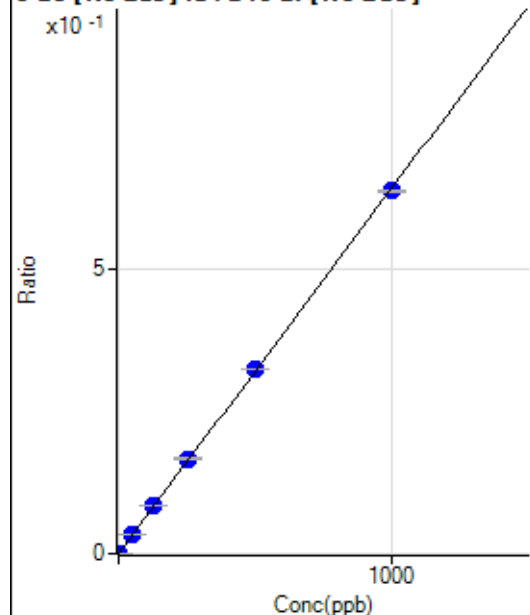


Batch Folder: D:\ICP-MS Data\P7062219 MS.b\
Analysis File: P7062219 MS.batch.bin
DA Date-Time: 2019-06-23 01:18:34
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-06-22 15:31:06
2	004CALS.d	S01	2019-06-22 15:34:42
3	005CALS.d	S02	2019-06-22 15:38:41
4	006CALS.d	S03	2019-06-22 15:42:38
5	007CALS.d	S04	2019-06-22 15:46:34
6	008CALS.d	S05	2019-06-22 15:50:29
7	009CALS.d	S06	2019-06-22 15:54:21
8	010CALS.d	S07	2019-06-22 15:58:10
9	011CALS.d	S08	2019-06-22 16:01:58

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.78	0.0000	P	24.8
2	☐	0.100	0.112	154.45	0.0001	P	13.4
3	☐	1.000	0.992	981.16	0.0007	P	2.2
4	☐	50.000	53.250	50117.96	0.0342	P	1.0
5	☐	125.000	132.019	118273.27	0.0847	P	0.2
6	☐	250.000	259.995	215996.31	0.1668	P	0.6
7	☐	500.000	505.648	410921.26	0.3243	P	0.2
8	☐	1000.000	993.637	776987.89	0.6373	P	0.3
9	☐			197.78	0.0002	P	18.8

$$y = 6.4139\text{E-}004 * x + 3.2797\text{E-}005$$

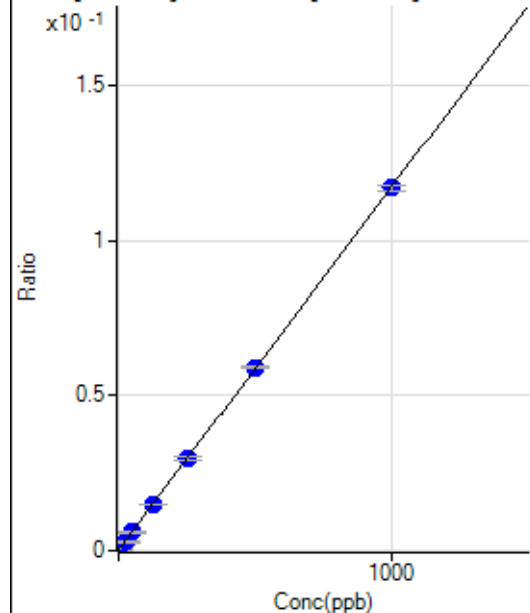
$$R = 0.9999$$

$$DL = 0.03808$$

$$BEC = 0.05113$$

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	352.79	0.0002	P	14.3
2	☐	2.500	2.176	733.38	0.0005	P	4.3
3	☐	25.000	21.997	4131.28	0.0028	P	7.4
4	☐	50.000	48.479	8672.26	0.0059	P	2.1
5	☐	125.000	123.534	20522.91	0.0147	P	0.7
6	☐	250.000	252.432	38561.12	0.0298	P	3.5
7	☐	500.000	503.687	74983.38	0.0592	P	1.4
8	☐	1000.000	997.884	142659.25	0.1170	P	1.3
9	☐			6651.74	0.0058	P	4.6

$$y = 1.1703\text{E-}004 * x + 2.4214\text{E-}004$$

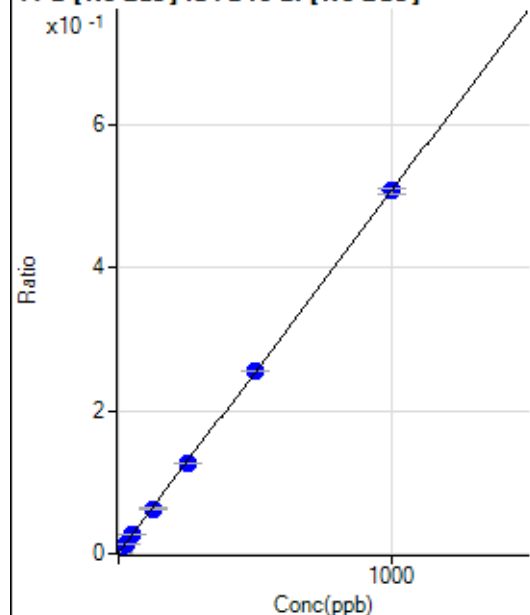
$$R = 1.0000$$

$$DL = 0.885$$

$$BEC = 2.069$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1527.91	0.0010	P	2.6
2	☐	2.500	2.124	3136.57	0.0021	P	5.1
3	☐	25.000	22.321	18133.65	0.0124	P	1.9
4	☐	50.000	49.468	38285.65	0.0261	P	2.3
5	☐	125.000	121.795	87631.94	0.0628	P	1.7
6	☐	250.000	246.683	163248.86	0.1261	P	1.2
7	☐	500.000	502.694	324061.84	0.2558	P	0.8
8	☐	1000.000	999.977	619047.16	0.5078	P	1.8
9	☐			28789.54	0.0251	P	6.9

$$y = 5.0676E-004 * x + 0.0010$$

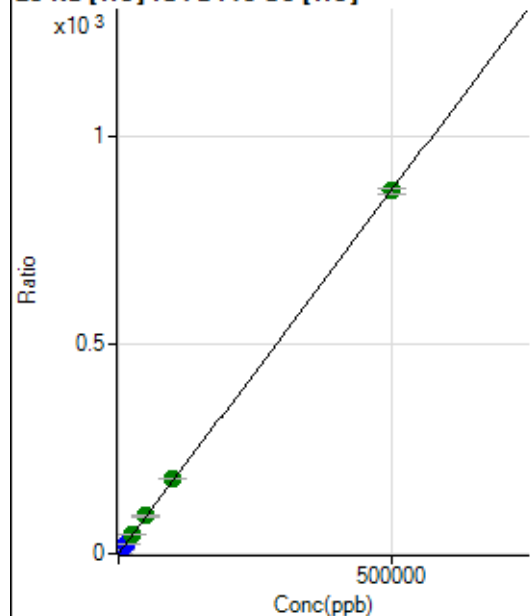
$$R = 1.0000$$

$$DL = 0.1613$$

$$BEC = 2.069$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2736.48	0.0250	P	3.3
2	☐	50.000	47.411	11807.80	0.1075	P	0.8
3	☐	500.000	483.999	95223.73	0.8677	P	1.5
4	☐	5000.000	5198.386	977731.62	9.0762	P	0.4
5	☐	12500.000	12898.998	2257645.38	22.4842	P	0.6
6	☐	25000.000	25966.180	4225255.48	45.2363	A	0.8
7	☐	50000.000	51601.916	8257414.51	89.8724	A	0.6
8	☐	100000.00	102388.67	16050137.51	178.3004	A	0.7
9	☐	500000.00	499301.82	76941656.58	869.3912	A	1.3

$$y = 0.0017 * x + 0.0250$$

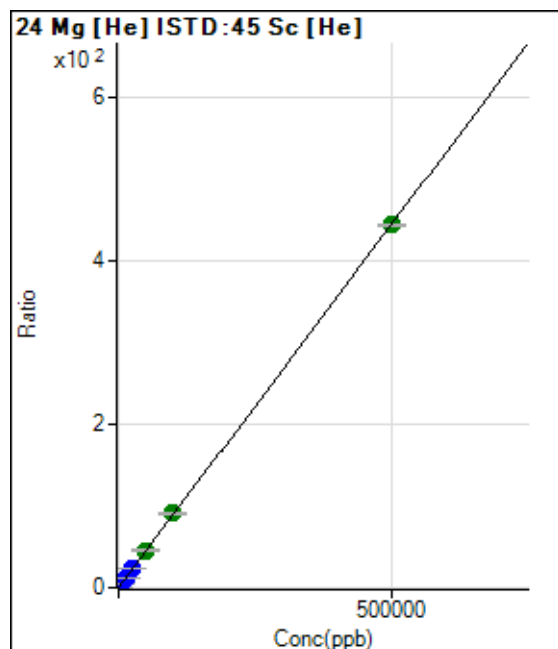
$$R = 1.0000$$

$$DL = 1.431$$

$$BEC = 14.34$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	247.23	0.0023	P	17.2
2	☐	50.000	50.422	5170.53	0.0471	P	0.7
3	☐	500.000	513.251	50324.41	0.4586	P	1.1
4	☐	5000.000	5266.590	504629.34	4.6844	P	0.9
5	☐	12500.000	13001.440	1160836.14	11.5609	P	0.5
6	☐	25000.000	25557.056	2122475.89	22.7233	P	0.6
7	☐	50000.000	51528.195	4209180.48	45.8124	A	0.8
8	☐	100000.00	102031.91	8165599.58	90.7117	A	0.4
9	☐	500000.00	499397.72	39294527.27	443.9820	A	0.8

$$y = 8.8903\text{E-}004 * x + 0.0023$$

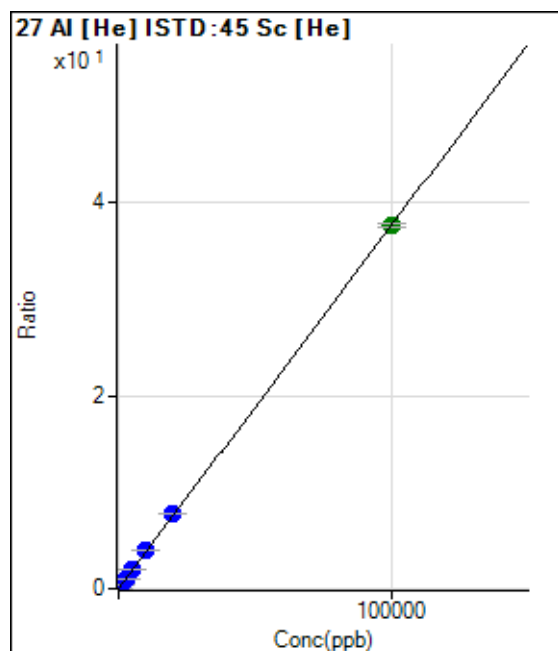
$$R = 1.0000$$

$$DL = 1.312$$

$$BEC = 2.538$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0002	P	34.1
2	☐	2.000	2.754	138.89	0.0013	P	27.8
3	☐	20.000	19.283	822.28	0.0075	P	14.2
4	☐	1000.000	1055.337	42870.88	0.3980	P	0.6
5	☐	2500.000	2673.480	101196.61	1.0078	P	0.8
6	☐	5000.000	5316.232	187172.88	2.0038	P	0.4
7	☐	10000.000	10391.216	359842.37	3.9165	P	1.0
8	☐	20000.000	20514.568	696009.03	7.7318	P	0.6
9	☐	100000.00	99837.263	3330111.68	37.6272	A	1.0

$$y = 3.7688\text{E-}004 * x + 2.2848\text{E-}004$$

$$R = 1.0000$$

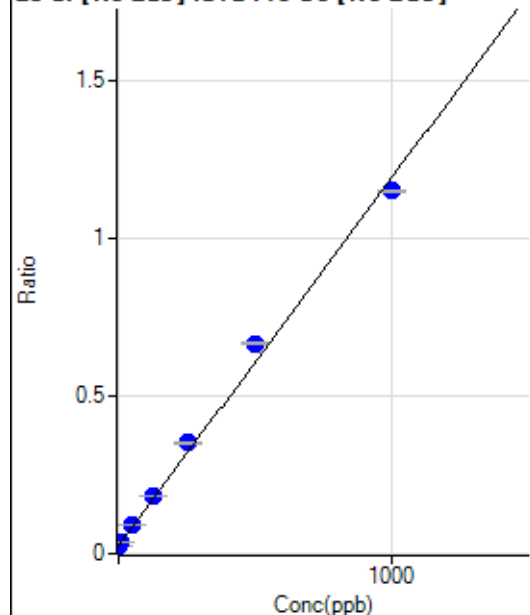
$$DL = 0.6197$$

$$BEC = 0.6062$$

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	53362.66	0.0249	P	0.1
2	☐	1.000	0.617	55849.77	0.0256	P	1.9
3	☐	10.000	8.630	75317.20	0.0349	P	0.7
4	☐	50.000	55.446	192823.95	0.0895	P	1.2
5	☐	125.000	135.821	377405.37	0.1832	P	0.9
6	☐	250.000	279.450	658931.38	0.3507	P	0.3
7	☐	500.000	551.064	1231506.93	0.6674	P	0.9
8	☐	1000.000	965.494	2055924.85	1.1506	P	0.6
9	☐			96826.47	0.0565	P	1.9

$$y = 0.0012 * x + 0.0249$$

$$R = 0.9975$$

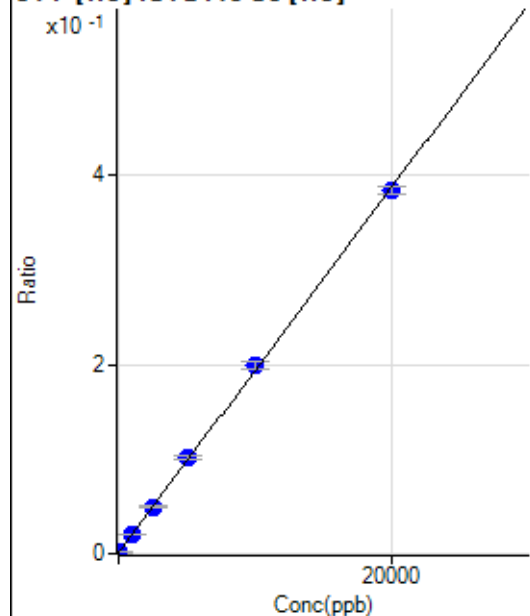
$$DL = 0.07739$$

$$BEC = 21.34$$

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	-21.341	52.78	0.0005	P	18.8
2	☐	0.000	-10.871	75.00	0.0007	P	45.2
3	☐	0.000	32.212	166.67	0.0015	P	29.9
4	☐	1000.000	990.053	2158.59	0.0200	P	4.3
5	☐	2500.000	2499.915	4942.66	0.0492	P	3.7
6	☐	5000.000	5231.812	9531.17	0.1021	P	4.6
7	☐	10000.000	10257.800	18300.76	0.1992	P	3.7
8	☐	20000.000	19813.655	34565.96	0.3840	P	2.0
9	☐			61.11	0.0007	P	41.4

$$y = 1.9336E-005 * x + 8.9460E-004$$

$$R = 0.9998$$

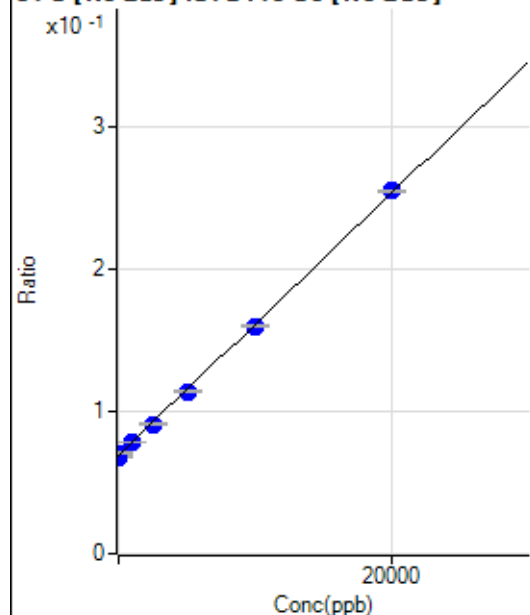
$$DL = 44.19$$

$$BEC = 46.27$$

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	15.473	149434.27	0.0697	P	0.6
2	☐	0.000	-147.688	148718.67	0.0682	P	1.8
3	☐	0.000	132.214	152490.29	0.0707	P	1.8
4	☐	1000.000	972.928	169082.18	0.0785	P	0.2
5	☐	2500.000	2355.741	187962.14	0.0912	P	0.4
6	☐	5000.000	4859.453	214842.67	0.1143	P	0.7
7	☐	10000.000	9807.337	295189.26	0.1600	P	0.6
8	☐	20000.000	20150.854	456273.93	0.2553	P	0.3
9	☐			110689.69	0.0646	P	1.6

$$y = 9.2212\text{E-}006 * x + 0.0695$$

$$R = 0.9998$$

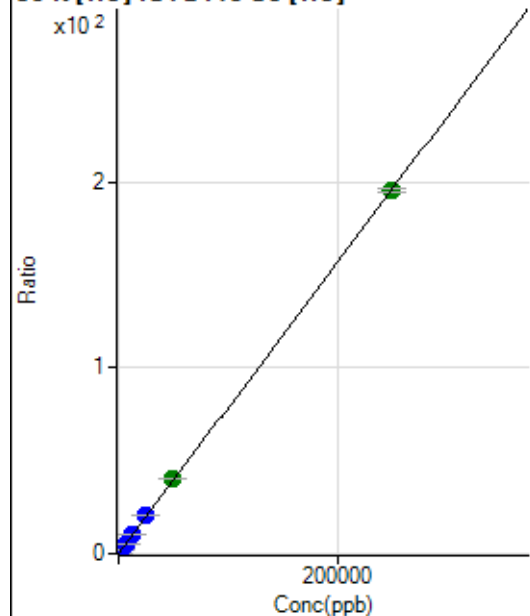
$$DL = 308.9$$

$$BEC = 7540$$

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	5743.00	0.0524	P	1.6
2	☐	50.000	47.246	9809.09	0.0893	P	1.6
3	☐	500.000	498.654	48513.48	0.4421	P	1.0
4	☐	2500.000	2679.656	231215.10	2.1463	P	0.8
5	☐	6250.000	6628.396	525332.04	5.2320	P	0.9
6	☐	12500.000	13303.439	975890.35	10.4481	P	0.8
7	☐	25000.000	26157.373	1882848.87	20.4925	P	0.5
8	☐	50000.000	51593.897	3633968.35	40.3692	A	0.4
9	☐	250000.00	249514.05	17260753.51	195.0294	A	0.9

$$y = 7.8143\text{E-}004 * x + 0.0524$$

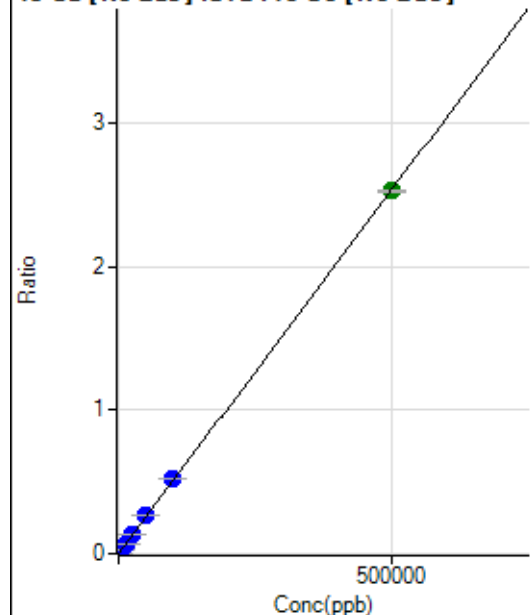
$$R = 1.0000$$

$$DL = 3.202$$

$$BEC = 67.05$$

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	27.78	0.0000	P	74.9
2	☐	50.000	58.435	675.04	0.0003	P	12.9
3	☐	500.000	480.355	5281.71	0.0024	P	3.2
4	☐	5000.000	5216.082	57030.09	0.0265	P	1.1
5	☐	12500.000	12947.051	135330.48	0.0657	P	0.4
6	☐	25000.000	26236.059	250133.03	0.1331	P	0.7
7	☐	50000.000	51920.872	486123.52	0.2634	P	0.5
8	☐	100000.00	104158.88	944294.57	0.5285	P	0.4
9	☐	500000.00	498901.01	4339049.62	2.5311	A	0.8

$$y = 5.0734\text{E-}006 * x + 1.2890\text{E-}005$$

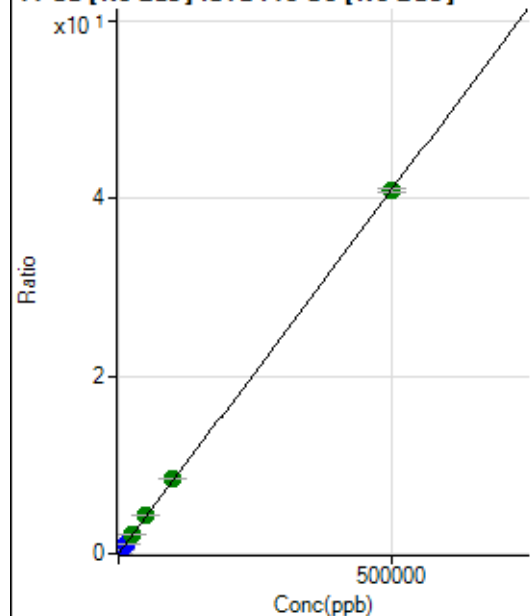
$$R = 1.0000$$

$$DL = 5.706$$

$$BEC = 2.541$$

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	1975.24	0.0009	P	5.2
2	☐	50.000	53.823	11618.91	0.0053	P	4.3
3	☐	500.000	497.036	89646.24	0.0416	P	1.2
4	☐	5000.000	5212.299	920608.31	0.4274	P	0.4
5	☐	12500.000	12736.972	2148623.40	1.0431	P	0.5
6	☐	25000.000	25927.318	3987891.76	2.1223	A	0.4
7	☐	50000.000	51761.320	7817169.36	4.2361	A	0.2
8	☐	100000.00	104237.29	15241967.01	8.5298	A	0.3
9	☐	500000.00	498921.99	69980747.40	40.8235	A	1.1

$$y = 8.1822\text{E-}005 * x + 9.2116\text{E-}004$$

$$R = 1.0000$$

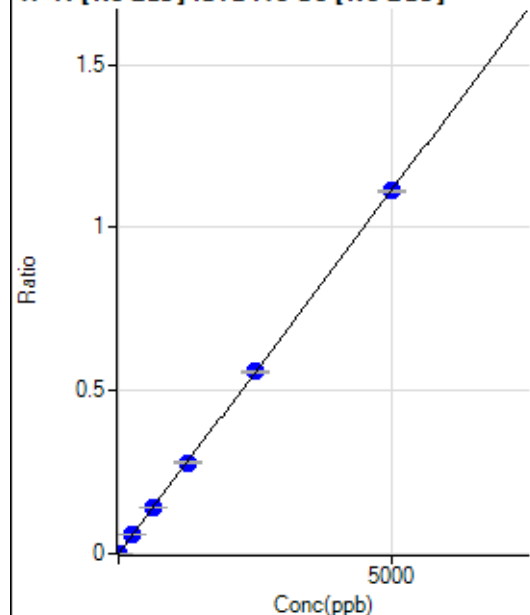
$$DL = 1.74$$

$$BEC = 11.26$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0000	P	33.0
2	☐	0.500	0.594	313.90	0.0001	P	9.6
3	☐	5.000	4.717	2289.17	0.0011	P	7.1
4	☐	250.000	252.614	121149.40	0.0562	P	0.5
5	☐	625.000	626.138	287119.22	0.1394	P	0.1
6	☐	1250.000	1257.683	526064.34	0.2800	P	0.5
7	☐	2500.000	2504.250	1028710.85	0.5575	P	0.2
8	☐	5000.000	4995.682	1987158.36	1.1121	P	0.5
9	☐			544.48	0.0003	P	15.7

$$y = 2.2260E-004 * x + 1.1642E-005$$

$$R = 1.0000$$

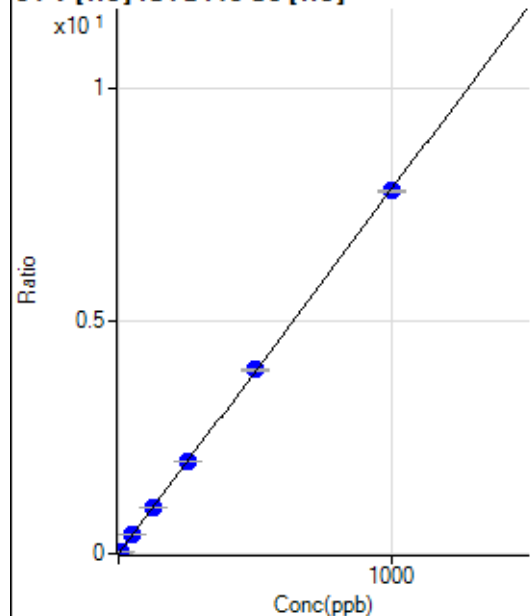
$$DL = 0.05174$$

$$BEC = 0.0523$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.55	0.0001	P	125.
2	☐	0.500	0.468	408.90	0.0037	P	5.3
3	☐	5.000	5.001	4309.58	0.0393	P	2.1
4	☐	50.000	51.202	43264.50	0.4016	P	0.6
5	☐	125.000	126.398	99543.77	0.9914	P	0.5
6	☐	250.000	254.726	186604.13	1.9978	P	0.9
7	☐	500.000	505.586	364329.37	3.9653	P	0.9
8	☐	1000.000	995.791	703014.31	7.8099	P	0.5
9	☐			117.78	0.0013	P	10.4

$$y = 0.0078 * x + 5.0992E-005$$

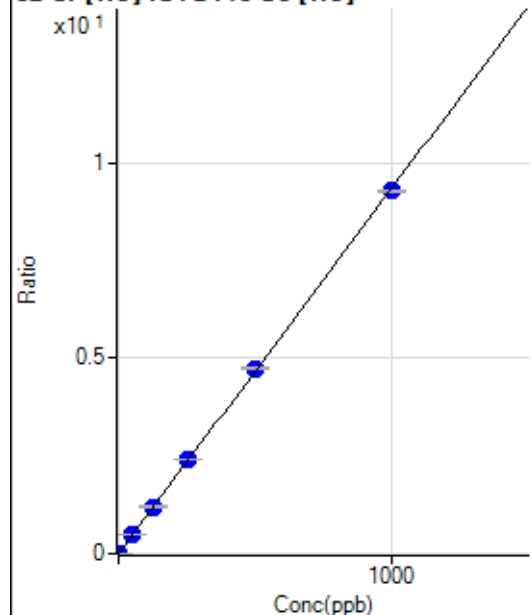
$$R = 1.0000$$

$$DL = 0.02442$$

$$BEC = 0.006502$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	268.90	0.0025	P	12.8
2	☐	0.200	0.200	474.46	0.0043	P	8.4
3	☐	2.000	1.944	2262.43	0.0206	P	6.2
4	☐	50.000	51.761	52363.78	0.4861	P	0.8
5	☐	125.000	128.305	120617.05	1.2013	P	1.0
6	☐	250.000	257.081	224593.91	2.4045	P	0.7
7	☐	500.000	507.806	436147.79	4.7472	P	1.1
8	☐	1000.000	993.826	836092.47	9.2883	P	0.6
9	☐			4613.01	0.0521	P	4.6

$$y = 0.0093 * x + 0.0025$$

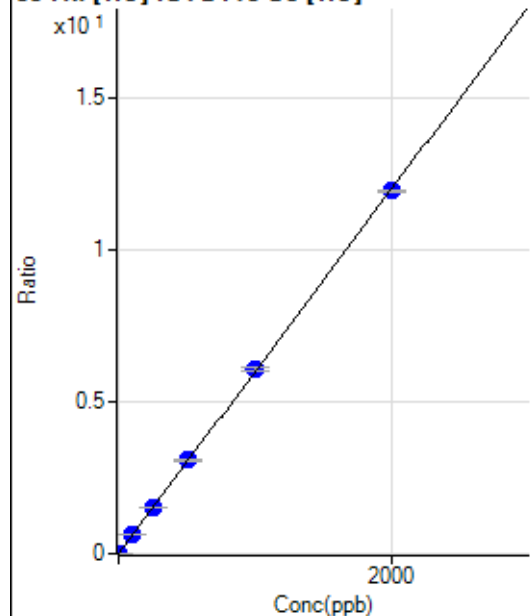
$$R = 0.9999$$

$$DL = 0.1011$$

$$BEC = 0.2626$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13.33	0.0001	P	0.8
2	☐	0.100	0.116	90.00	0.0008	P	0.9
3	☐	1.000	1.049	704.47	0.0064	P	1.4
4	☐	100.000	102.082	66043.03	0.6131	P	1.1
5	☐	250.000	253.973	153134.44	1.5251	P	0.5
6	☐	500.000	513.106	287779.03	3.0811	P	0.9
7	☐	1000.000	1011.070	557812.91	6.0711	P	1.4
8	☐	2000.000	1990.588	1075921.78	11.9525	P	0.3
9	☐			3736.09	0.0422	P	3.0

$$y = 0.0060 * x + 1.2161E-004$$

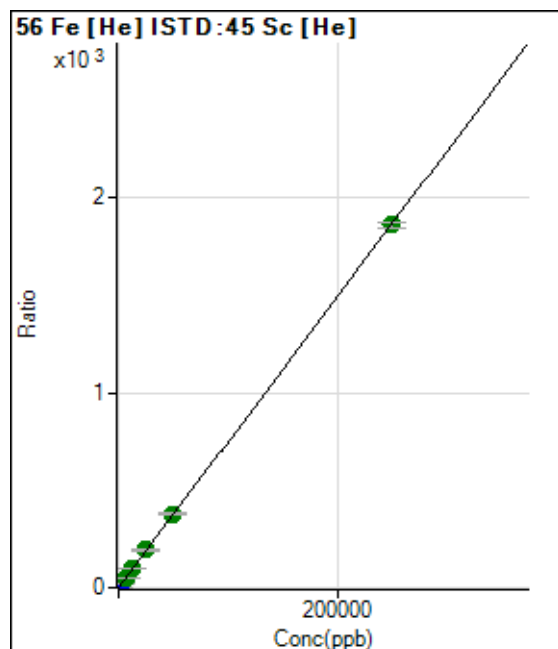
$$R = 1.0000$$

$$DL = 0.0004932$$

$$BEC = 0.02025$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1489.01	0.0136	P	6.2
2	☐	5.000	5.117	5677.17	0.0517	P	2.3
3	☐	50.000	54.588	46105.99	0.4201	P	1.4
4	☐	2500.000	2684.526	2155283.08	20.0074	P	0.3
5	☐	6250.000	6508.137	4868299.07	48.4848	A	0.7
6	☐	12500.000	13159.150	9155360.16	98.0201	A	1.0
7	☐	25000.000	25896.228	17721517.53	192.8832	A	1.0
8	☐	50000.000	50864.407	34102043.82	378.8409	A	0.5
9	☐	250000.00	249696.23	164579438.8	1,859.698	A	1.6

$$y = 0.0074 * x + 0.0136$$

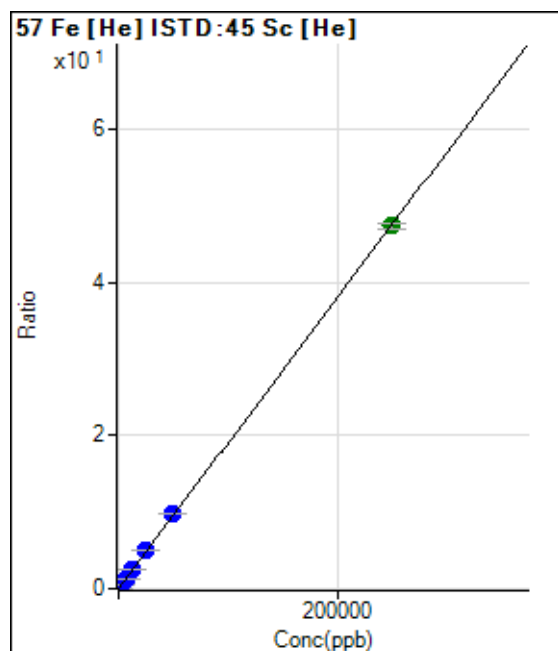
$$R = 1.0000$$

$$DL = 0.339$$

$$BEC = 1.824$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.70	0.0005	P	32.4
2	☐	5.000	3.625	129.63	0.0012	P	20.7
3	☐	50.000	52.628	1151.93	0.0105	P	5.7
4	☐	2500.000	2722.315	55798.94	0.5180	P	1.4
5	☐	6250.000	6624.462	126491.59	1.2597	P	0.4
6	☐	12500.000	13282.787	235895.20	2.5254	P	0.5
7	☐	25000.000	26089.552	455726.89	4.9599	P	1.2
8	☐	50000.000	51154.470	875372.79	9.7245	P	0.3
9	☐	250000.00	249609.42	4199277.99	47.4490	A	1.3

$$y = 1.9009E-004 * x + 4.9075E-004$$

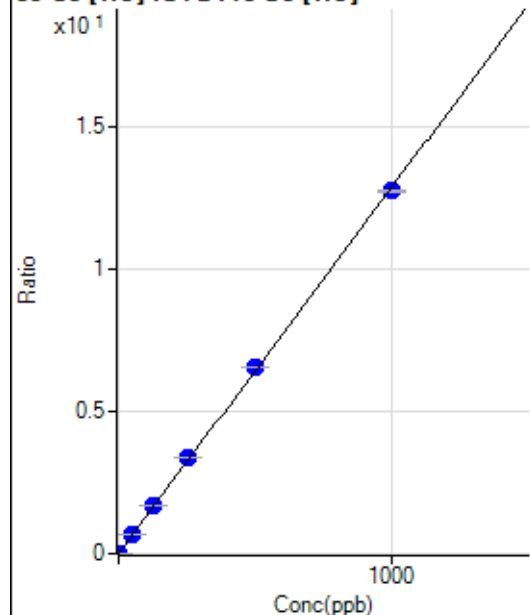
$$R = 1.0000$$

$$DL = 2.509$$

$$BEC = 2.582$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	28.89	0.0003	P	55.3
2	☐	0.100	0.100	171.11	0.0016	P	13.5
3	☐	1.000	0.990	1428.98	0.0130	P	5.2
4	☐	50.000	53.379	74124.88	0.6881	P	0.4
5	☐	125.000	131.577	170267.01	1.6957	P	0.7
6	☐	250.000	260.917	314069.07	3.3624	P	0.5
7	☐	500.000	509.862	603669.84	6.5702	P	0.9
8	☐	1000.000	991.349	1149903.65	12.7746	P	0.6
9	☐			13270.63	0.1500	P	3.0

$$y = 0.0129 * x + 2.6430E-004$$

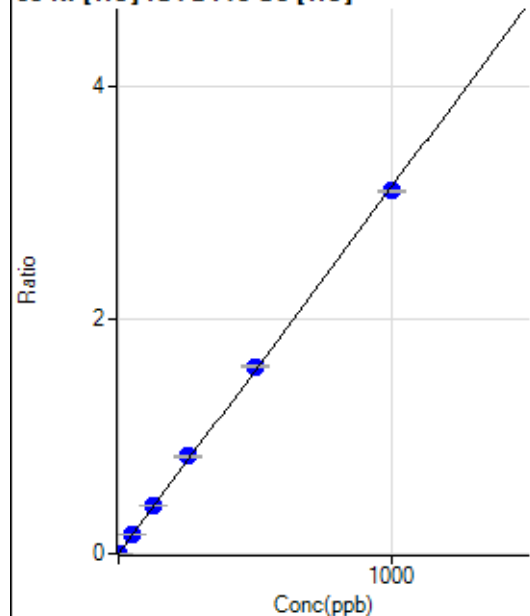
$$R = 0.9999$$

$$DL = 0.03403$$

$$BEC = 0.02051$$

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	27.78	0.0003	P	30.0
2	☐	0.100	0.097	61.11	0.0006	P	38.1
3	☐	1.000	1.143	421.13	0.0038	P	12.1
4	☐	50.000	53.436	18082.43	0.1679	P	2.4
5	☐	125.000	131.962	41583.46	0.4142	P	1.3
6	☐	250.000	265.629	77855.30	0.8334	P	0.8
7	☐	500.000	510.683	147189.99	1.6020	P	1.2
8	☐	1000.000	989.709	279449.02	3.1045	P	0.8
9	☐			3183.73	0.0360	P	0.5

$$y = 0.0031 * x + 2.5327E-004$$

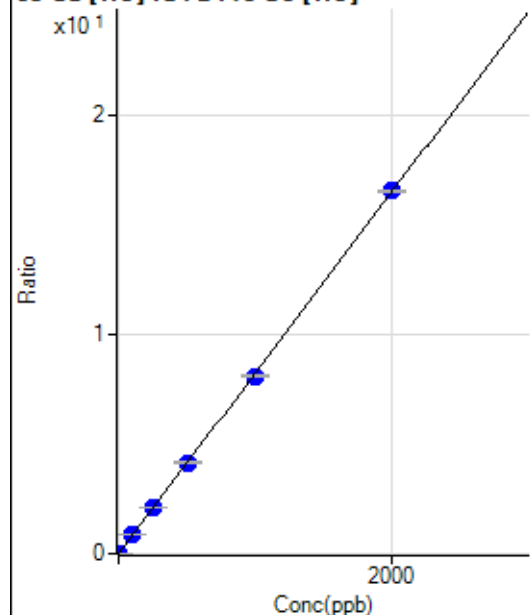
$$R = 0.9998$$

$$DL = 0.07268$$

$$BEC = 0.08075$$

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	146.67	0.0013	P	22.0
2	☐	0.200	0.188	316.67	0.0029	P	10.9
3	☐	2.000	2.021	1974.61	0.0180	P	3.6
4	☐	100.000	103.443	91944.96	0.8535	P	0.4
5	☐	250.000	254.639	210773.01	2.0991	P	0.7
6	☐	500.000	505.032	388732.27	4.1619	P	1.0
7	☐	1000.000	979.483	741513.43	8.0705	P	1.0
8	☐	2000.000	2008.248	1489388.00	16.5457	P	0.5
9	☐			1555.66	0.0176	P	5.0

$$y = 0.0082 * x + 0.0013$$

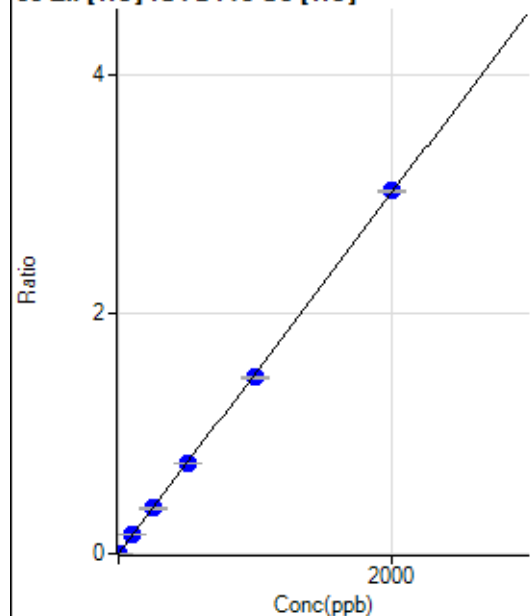
$$R = 0.9999$$

$$DL = 0.1073$$

$$BEC = 0.1625$$

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	68.89	0.0006	P	11.2
2	☐	0.200	0.249	110.00	0.0010	P	19.0
3	☐	2.000	1.797	365.57	0.0033	P	6.6
4	☐	100.000	102.190	16629.66	0.1544	P	1.8
5	☐	250.000	250.319	37876.84	0.3772	P	0.9
6	☐	500.000	502.228	70638.75	0.7562	P	0.1
7	☐	1000.000	975.446	134895.95	1.4682	P	0.9
8	☐	2000.000	2011.571	272479.01	3.0270	P	0.3
9	☐			2192.42	0.0248	P	6.2

$$y = 0.0015 * x + 6.2845E-004$$

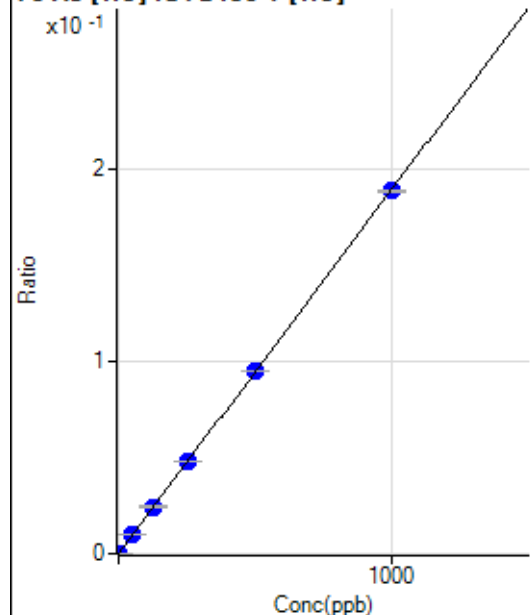
$$R = 0.9999$$

$$DL = 0.1405$$

$$BEC = 0.4177$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.56	0.0000	P	66.4
2	☐	0.100	0.106	16.05	0.0000	P	28.9
3	☐	1.000	0.995	103.09	0.0002	P	14.3
4	☐	50.000	52.828	5105.87	0.0100	P	0.6
5	☐	125.000	128.895	11705.40	0.0244	P	1.2
6	☐	250.000	254.738	21959.81	0.0483	P	0.9
7	☐	500.000	502.137	42672.89	0.0952	P	0.9
8	☐	1000.000	997.118	82420.55	0.1890	P	0.3
9	☐			93.83	0.0002	P	7.7

$$y = 1.8956E-004 * x + 1.0717E-005$$

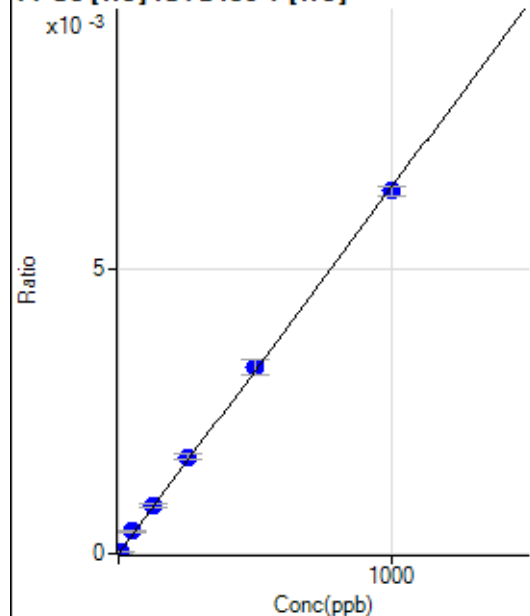
$$R = 1.0000$$

$$DL = 0.1126$$

$$BEC = 0.05654$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.663	2.22	0.0000	P	86.6
3	☐	5.000	4.370	14.45	0.0000	P	75.3
4	☐	50.000	60.831	198.89	0.0004	P	7.5
5	☐	125.000	132.334	406.68	0.0008	P	7.1
6	☐	250.000	264.265	771.15	0.0017	P	5.1
7	☐	500.000	509.630	1466.77	0.0033	P	9.0
8	☐	1000.000	990.163	2771.43	0.0064	P	2.4
9	☐			0.00	0.0000	P	

$$y = 6.4194E-006 * x + 0.0000E+000$$

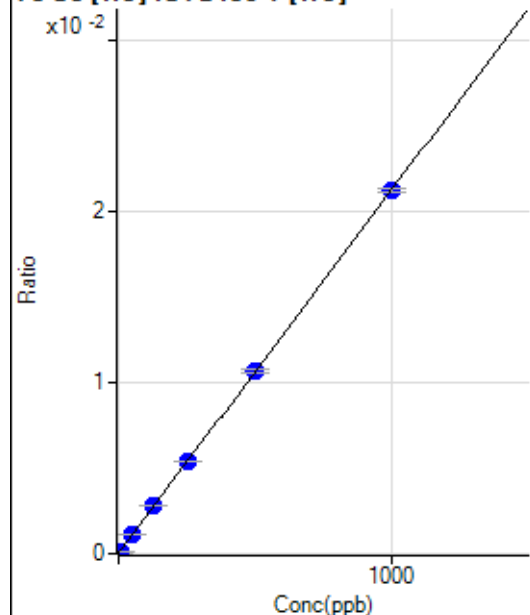
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

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	16.05	0.0000	P	37.6
2	☐	0.500	0.654	23.46	0.0000	P	43.7
3	☐	5.000	5.880	80.86	0.0002	P	11.7
4	☐	50.000	52.427	583.35	0.0011	P	4.0
5	☐	125.000	131.551	1353.78	0.0028	P	2.1
6	☐	250.000	253.734	2465.66	0.0054	P	1.1
7	☐	500.000	500.639	4784.16	0.0107	P	2.1
8	☐	1000.000	997.803	9259.80	0.0212	P	1.0
9	☐			12.96	0.0000	P	14.0

$$y = 2.1252\text{E-}005 * x + 3.1119\text{E-}005$$

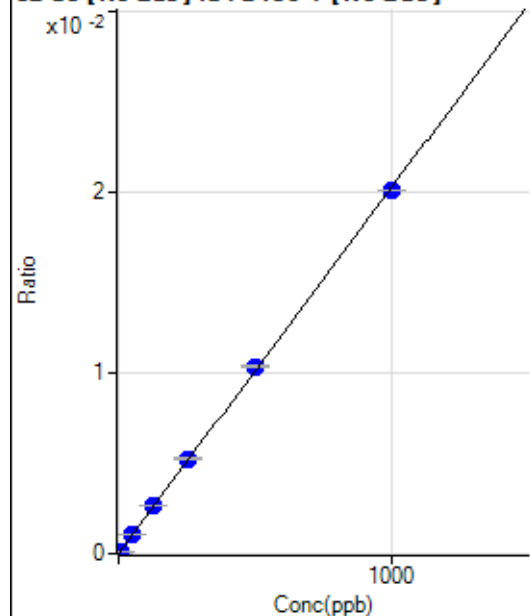
$$R = 1.0000$$

$$DL = 1.652$$

$$BEC = 1.464$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	26.09	0.0000	P	84.5
2	☐	0.500	0.315	45.92	0.0000	P	1.5
3	☐	5.000	4.887	325.15	0.0001	P	1.5
4	☐	50.000	52.140	3232.29	0.0011	P	1.9
5	☐	125.000	130.096	7704.27	0.0026	P	1.2
6	☐	250.000	258.273	14483.87	0.0052	P	1.6
7	☐	500.000	511.896	28191.09	0.0104	P	0.2
8	☐	1000.000	991.241	53454.68	0.0201	P	0.2
9	☐			26.38	0.0000	P	31.9

$$y = 2.0224\text{E-}005 * x + 8.6300\text{E-}006$$

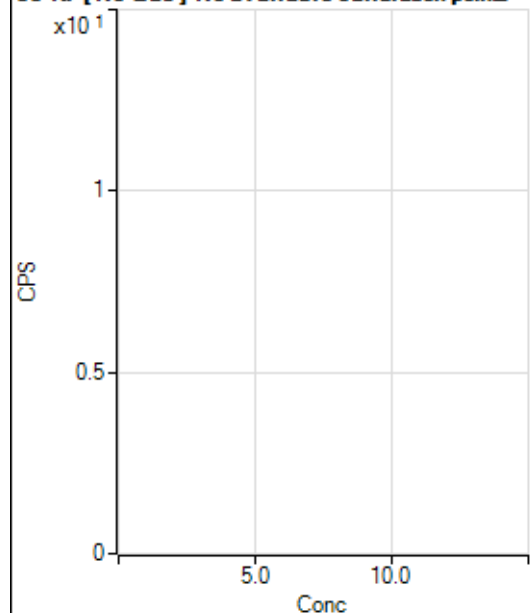
$$R = 0.9999$$

$$DL = 1.082$$

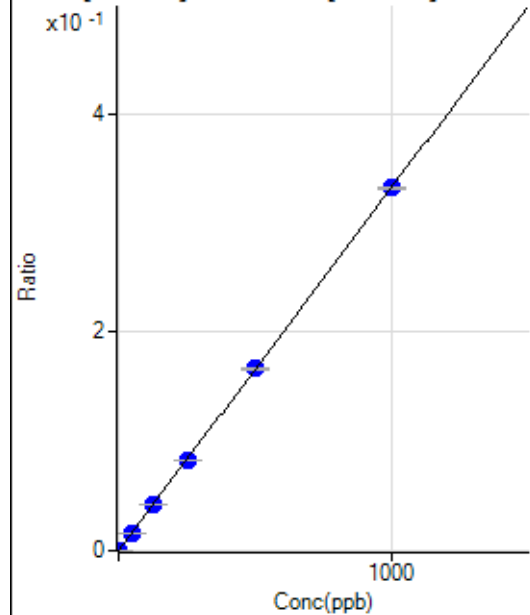
$$BEC = 0.4267$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.56		P	2.6
2	☐			80.00		P	26.0
3	☐			74.44		P	15.7
4	☐			83.33		P	28.0
5	☐			82.22		P	26.1
6	☐			55.56		P	36.2
7	☐			57.78		P	17.6
8	☐			71.11		P	23.6
9	☐			74.44		P	2.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	138.90	0.0000	P	30.6
2	☐	0.100	0.089	230.57	0.0001	P	7.8
3	☐	1.000	0.891	1033.42	0.0003	P	6.4
4	☐	50.000	49.225	49812.15	0.0164	P	0.4
5	☐	125.000	125.948	122128.79	0.0418	P	0.9
6	☐	250.000	249.104	229003.02	0.0827	P	0.2
7	☐	500.000	501.558	453055.64	0.1665	P	0.7
8	☐	1000.000	999.365	884173.47	0.3317	P	0.3
9	☐			3386.67	0.0013	P	6.7

$$y = 3.3189\text{E-}004 * x + 4.5876\text{E-}005$$

$$R = 1.0000$$

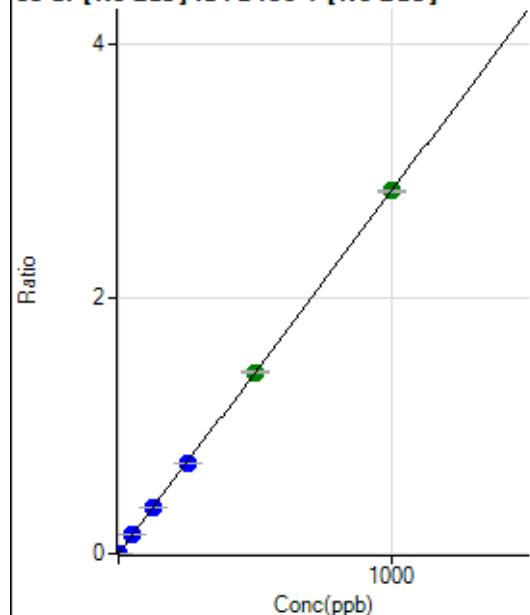
$$DL = 0.1269$$

$$BEC = 0.1382$$

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	27.78	0.0000	P	95.8
2	☐	0.100	0.089	800.06	0.0003	P	2.8
3	☐	1.000	0.940	8122.08	0.0027	P	3.2
4	☐	50.000	50.711	439070.30	0.1444	P	0.5
5	☐	125.000	125.795	1045437.90	0.3582	P	0.4
6	☐	250.000	247.968	1954746.33	0.7061	P	0.3
7	☐	500.000	500.717	3879359.72	1.4258	A	0.5
8	☐	1000.000	1000.014	7589784.03	2.8475	A	0.3
9	☐			28877.09	0.0114	P	2.2

$$y = 0.0028 * x + 9.1240E-006$$

$$R = 1.0000$$

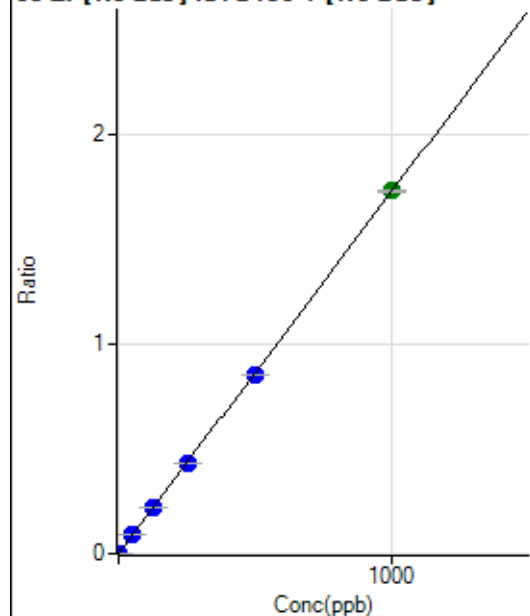
$$DL = 0.00921$$

$$BEC = 0.003204$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	222.23	0.0001	P	2.9
2	☐	0.100	0.106	786.17	0.0003	P	11.9
3	☐	1.000	0.952	5195.59	0.0017	P	3.0
4	☐	50.000	51.137	268765.34	0.0884	P	0.7
5	☐	125.000	126.537	638085.00	0.2186	P	0.2
6	☐	250.000	250.379	1197440.28	0.4325	P	0.4
7	☐	500.000	494.395	2323641.76	0.8540	P	0.2
8	☐	1000.000	1002.459	4615170.16	1.7315	A	0.6
9	☐			4020.19	0.0016	P	7.3

$$y = 0.0017 * x + 7.3337E-005$$

$$R = 1.0000$$

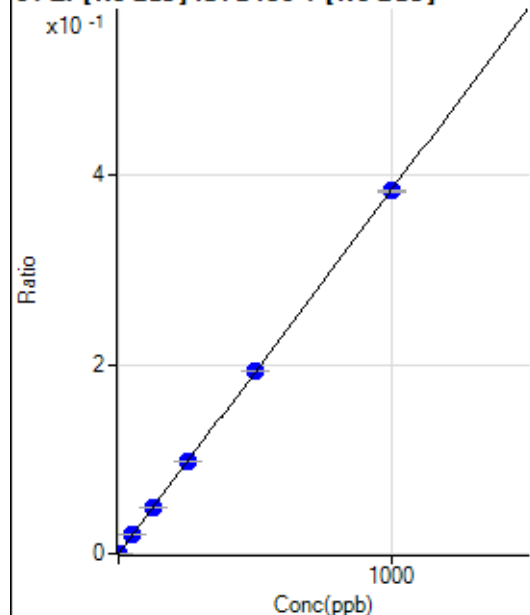
$$DL = 0.003652$$

$$BEC = 0.04246$$

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	63.89	0.0000	P	19.5
2	☐	0.100	0.084	163.90	0.0001	P	33.8
3	☐	1.000	0.881	1088.98	0.0004	P	5.7
4	☐	50.000	50.905	59574.23	0.0196	P	1.0
5	☐	125.000	126.374	141877.51	0.0486	P	0.7
6	☐	250.000	252.883	269237.16	0.0973	P	0.7
7	☐	500.000	502.437	525677.23	0.1932	P	0.5
8	☐	1000.000	997.844	1022645.74	0.3837	P	0.4
9	☐			966.75	0.0004	P	11.2

$$y = 3.8449\text{E-}004 * x + 2.1069\text{E-}005$$

$$R = 1.0000$$

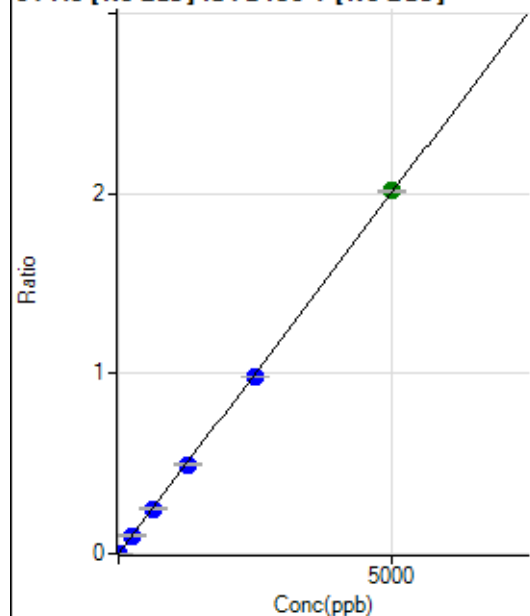
$$DL = 0.03201$$

$$BEC = 0.0548$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	100.00	0.0000	P	8.3
2	☐	0.500	0.477	686.15	0.0002	P	11.7
3	☐	5.000	4.742	5848.68	0.0019	P	2.7
4	☐	250.000	252.939	308274.50	0.1014	P	1.1
5	☐	625.000	625.848	732069.61	0.2508	P	0.6
6	☐	1250.000	1238.615	1374218.55	0.4964	P	0.4
7	☐	2500.000	2450.534	2671988.06	0.9820	P	0.3
8	☐	5000.000	5027.327	5369720.39	2.0146	A	0.3
9	☐			3025.45	0.0012	P	8.1

$$y = 4.0073\text{E-}004 * x + 3.2995\text{E-}005$$

$$R = 0.9999$$

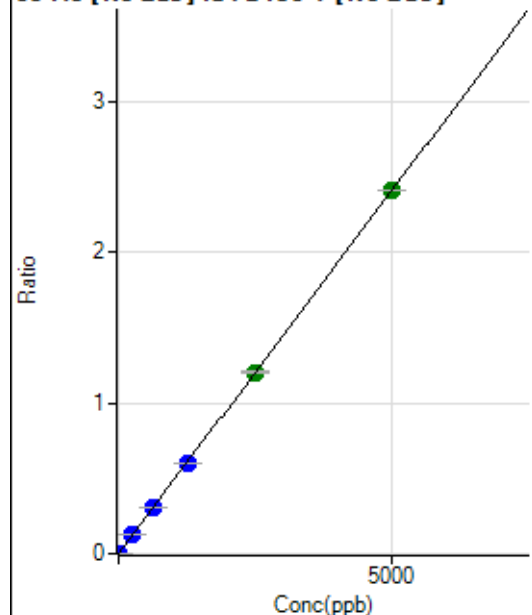
$$DL = 0.02042$$

$$BEC = 0.08234$$

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	50.00	0.0000	P	71.9
2	☐	0.500	0.494	777.83	0.0003	P	7.6
3	☐	5.000	5.097	7474.48	0.0025	P	3.3
4	☐	250.000	256.989	376215.76	0.1237	P	0.3
5	☐	625.000	630.259	885637.48	0.3034	P	0.6
6	☐	1250.000	1242.594	1656154.74	0.5982	P	0.2
7	☐	2500.000	2497.939	3272065.77	1.2026	A	0.9
8	☐	5000.000	5001.875	6418346.85	2.4081	A	0.1
9	☐			2625.35	0.0010	P	2.0

$$y = 4.8143\text{E-}004 * x + 1.6443\text{E-}005$$

$$R = 1.0000$$

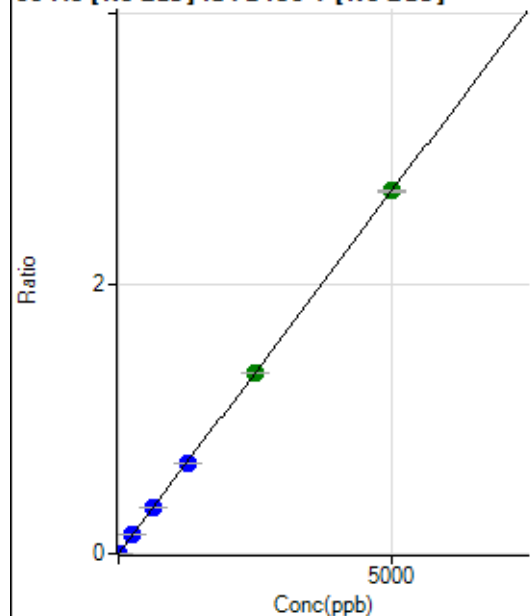
$$DL = 0.07368$$

$$BEC = 0.03416$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	26.4
2	☐	0.500	0.542	955.63	0.0003	P	12.9
3	☐	5.000	4.964	8127.63	0.0027	P	1.8
4	☐	250.000	254.249	415029.99	0.1365	P	0.4
5	☐	625.000	628.588	984875.35	0.3375	P	0.1
6	☐	1250.000	1236.395	1837412.98	0.6637	P	0.3
7	☐	2500.000	2494.820	3643950.51	1.3393	A	0.5
8	☐	5000.000	5005.330	7161590.53	2.6869	A	0.3
9	☐			3592.27	0.0014	P	2.7

$$y = 5.3681\text{E-}004 * x + 2.1055\text{E-}005$$

$$R = 1.0000$$

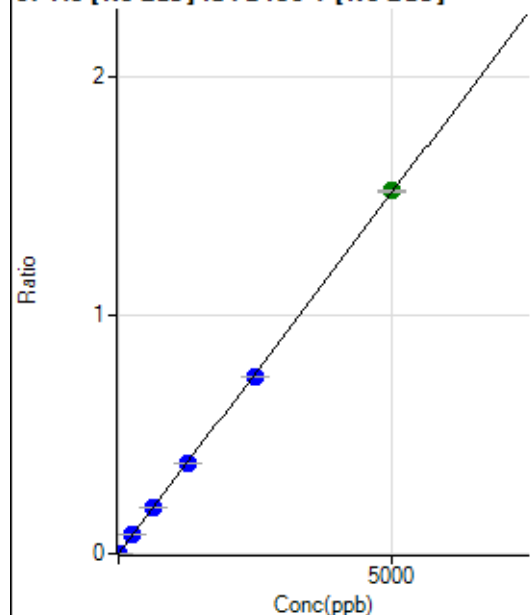
$$DL = 0.03104$$

$$BEC = 0.03922$$

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	33.33	0.0000	P	25.2
2	☐	0.500	0.459	458.36	0.0001	P	3.1
3	☐	5.000	5.048	4648.16	0.0015	P	7.1
4	☐	250.000	254.316	233632.41	0.0768	P	0.3
5	☐	625.000	629.843	555374.11	0.1903	P	0.3
6	☐	1250.000	1249.662	1045174.75	0.3775	P	0.3
7	☐	2500.000	2445.195	2009936.51	0.7387	P	0.6
8	☐	5000.000	5026.666	4047627.00	1.5186	A	0.2
9	☐			1455.69	0.0006	P	5.5

$$y = 3.0211\text{E-}004 * x + 1.1001\text{E-}005$$

$$R = 0.9999$$

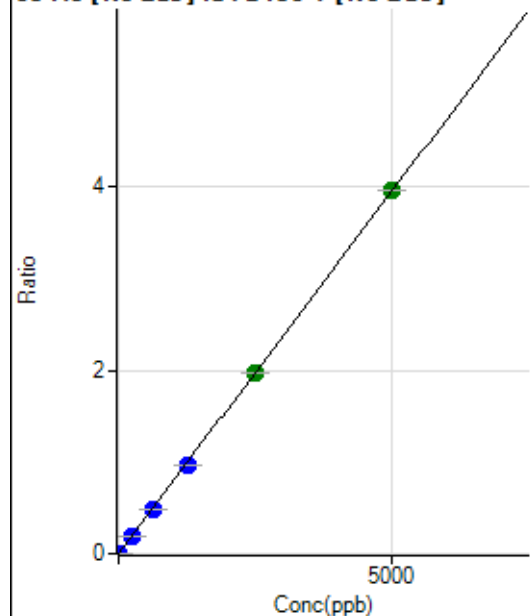
$$DL = 0.02758$$

$$BEC = 0.03642$$

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	27.78	0.0000	P	69.8
2	☐	0.500	0.516	1272.33	0.0004	P	0.8
3	☐	5.000	4.877	11663.61	0.0039	P	4.2
4	☐	250.000	250.826	601287.67	0.1978	P	0.3
5	☐	625.000	620.562	1427973.24	0.4893	P	0.6
6	☐	1250.000	1213.445	2648544.81	0.9567	P	0.2
7	☐	2500.000	2493.601	5349161.19	1.9660	A	0.4
8	☐	5000.000	5012.852	10534118.55	3.9522	A	0.2
9	☐			3959.06	0.0016	P	2.7

$$y = 7.8842\text{E-}004 * x + 9.1864\text{E-}006$$

$$R = 1.0000$$

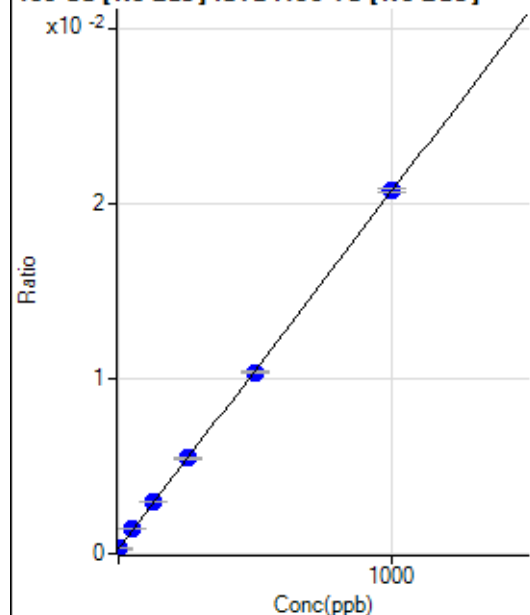
$$DL = 0.02439$$

$$BEC = 0.01165$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1130.66	0.0003	P	6.6
2	☐	0.100	0.970	1208.43	0.0003	P	12.0
3	☐	1.000	2.266	1308.45	0.0003	P	5.8
4	☐	50.000	54.506	5706.94	0.0014	P	1.3
5	☐	125.000	131.592	12016.60	0.0030	P	0.5
6	☐	250.000	253.187	21722.95	0.0055	P	0.9
7	☐	500.000	493.442	41366.70	0.0104	P	1.2
8	☐	1000.000	1001.432	82680.07	0.0208	P	1.2
9	☐			1050.08	0.0003	P	6.7

$$y = 2.0453\text{E-}005 * x + 2.7606\text{E-}004$$

$$R = 0.9999$$

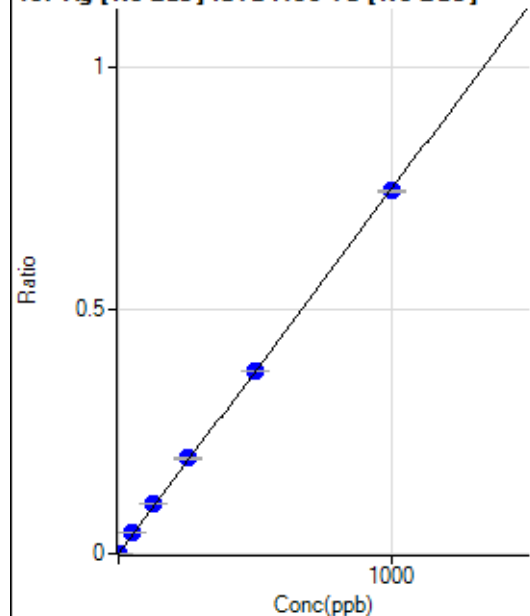
$$DL = 2.669$$

$$BEC = 13.5$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.44	0.0000	P	96.1
2	☐	0.100	0.058	222.23	0.0001	P	16.6
3	☐	1.000	0.822	2542.00	0.0006	P	6.6
4	☐	50.000	57.608	176936.63	0.0431	P	0.5
5	☐	125.000	137.240	415966.93	0.1027	P	1.4
6	☐	250.000	261.392	779137.23	0.1956	P	1.0
7	☐	500.000	500.392	1494163.07	0.3745	P	0.3
8	☐	1000.000	995.046	2966141.36	0.7447	P	0.5
9	☐			319.46	0.0001	P	12.8

$$y = 7.4840\text{E-}004 * x + 1.0844\text{E-}005$$

$$R = 0.9999$$

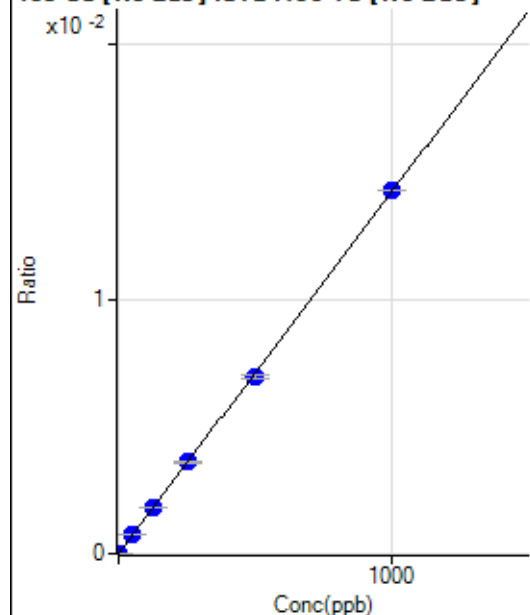
$$DL = 0.04177$$

$$BEC = 0.01449$$

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	8.34	0.0000	P	86.7
2	☐	0.100	-0.048	5.55	0.0000	P	86.6
3	☐	1.000	1.012	66.67	0.0000	P	18.4
4	☐	50.000	54.230	3169.86	0.0008	P	5.3
5	☐	125.000	128.037	7375.67	0.0018	P	2.2
6	☐	250.000	253.997	14382.51	0.0036	P	2.3
7	☐	500.000	489.665	27767.76	0.0070	P	1.6
8	☐	1000.000	1003.577	56807.92	0.0143	P	0.2
9	☐			12.50	0.0000	P	33.5

$$y = 1.4210\text{E-}005 * x + 2.0372\text{E-}006$$

$$R = 0.9999$$

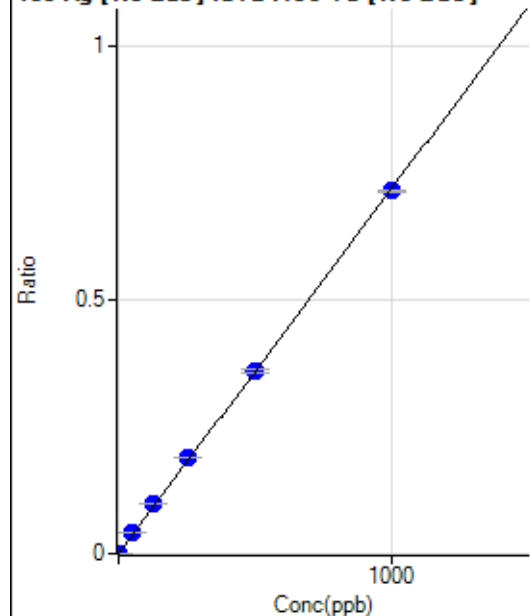
$$DL = 0.373$$

$$BEC = 0.1434$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0000	P	57.3
2	☐	0.100	0.087	277.79	0.0001	P	7.4
3	☐	1.000	0.819	2408.65	0.0006	P	4.0
4	☐	50.000	57.334	168851.15	0.0412	P	0.7
5	☐	125.000	137.920	400838.76	0.0990	P	1.6
6	☐	250.000	261.937	748677.94	0.1880	P	0.3
7	☐	500.000	501.086	1434796.35	0.3596	P	1.3
8	☐	1000.000	994.491	2842797.13	0.7137	P	0.4
9	☐			263.90	0.0001	P	9.7

$$y = 7.1768\text{E-}004 * x + 5.4273\text{E-}006$$

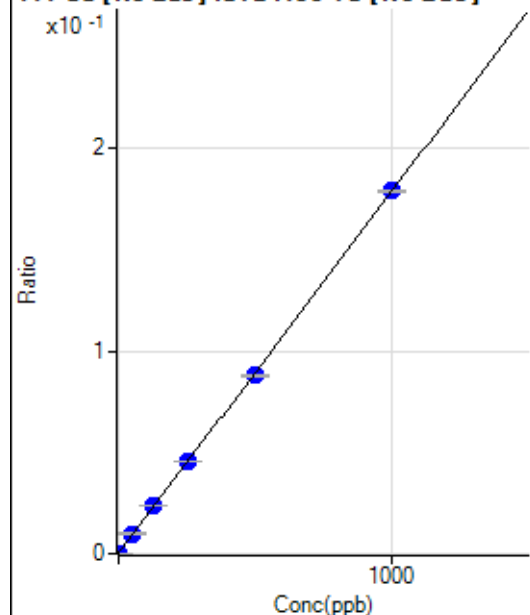
$$R = 0.9999$$

$$DL = 0.013$$

$$BEC = 0.007562$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	789.79	0.0002	P	6.9
2	☐	0.100	0.172	912.86	0.0002	P	12.2
3	☐	1.000	1.061	1551.22	0.0004	P	5.5
4	☐	50.000	54.569	40742.32	0.0099	P	0.8
5	☐	125.000	131.481	95786.33	0.0237	P	1.3
6	☐	250.000	254.551	181657.15	0.0456	P	0.3
7	☐	500.000	491.612	350757.17	0.0879	P	0.6
8	☐	1000.000	1002.018	712918.19	0.1790	P	0.3
9	☐			811.03	0.0002	P	6.1

$$y = 1.7844\text{E-}004 * x + 1.9283\text{E-}004$$

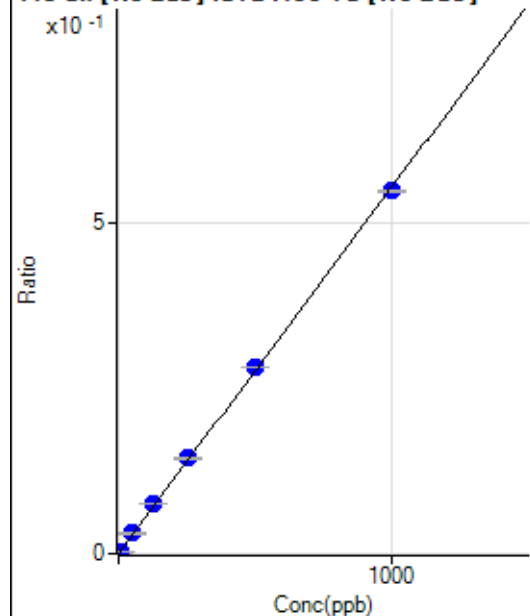
$$R = 0.9999$$

$$DL = 0.2246$$

$$BEC = 1.081$$

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	275.02	0.0001	P	13.4
2	☐	0.500	0.537	1491.81	0.0004	P	4.8
3	☐	5.000	5.311	12236.34	0.0030	P	3.6
4	☐	50.000	55.058	125668.94	0.0306	P	1.0
5	☐	125.000	134.540	302680.69	0.0747	P	0.4
6	☐	250.000	260.583	576331.86	0.1447	P	1.0
7	☐	500.000	510.271	1130331.58	0.2833	P	0.2
8	☐	1000.000	990.772	2190753.19	0.5500	P	0.7
9	☐			1141.77	0.0003	P	9.4

$$y = 5.5508\text{E-}004 * x + 6.7156\text{E-}005$$

$$R = 0.9998$$

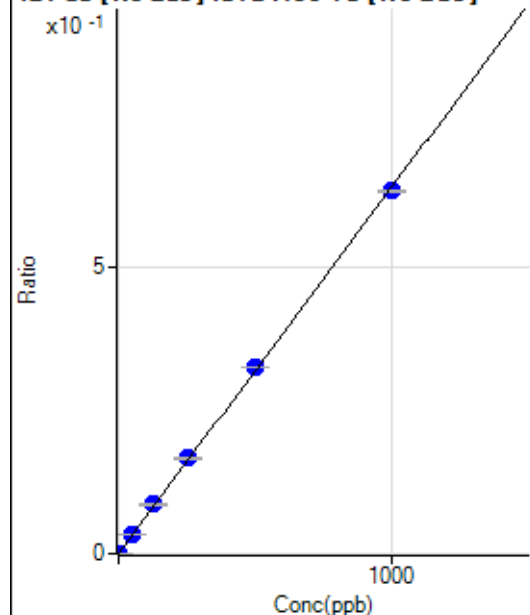
$$DL = 0.04854$$

$$BEC = 0.121$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.33	0.0000	P	50.0
2	☐	0.200	0.199	552.82	0.0001	P	7.2
3	☐	2.000	1.925	5020.55	0.0012	P	3.7
4	☐	50.000	54.125	141792.63	0.0346	P	1.3
5	☐	125.000	134.059	346566.01	0.0856	P	0.2
6	☐	250.000	259.952	660904.18	0.1659	P	0.7
7	☐	500.000	510.837	1301073.57	0.3261	P	0.0
8	☐	1000.000	990.755	2519102.62	0.6325	P	0.4
9	☐			3222.73	0.0009	P	3.7

$$y = 6.3835E-004 * x + 8.1361E-006$$

$$R = 0.9998$$

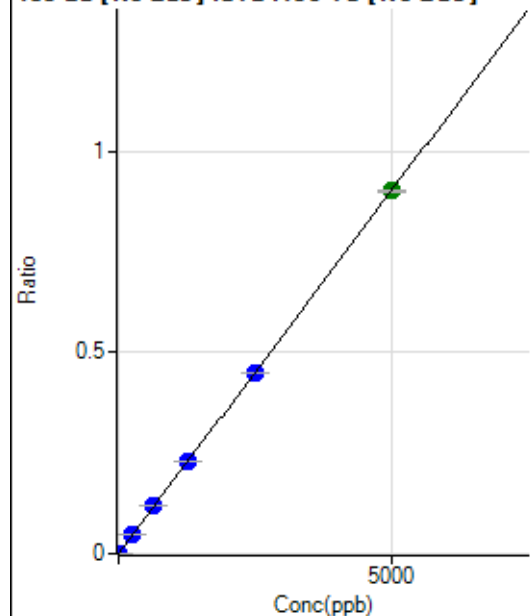
$$DL = 0.0191$$

$$BEC = 0.01275$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	50.0
2	☐	1.000	0.980	738.94	0.0002	P	9.6
3	☐	10.000	9.949	7304.97	0.0018	P	2.2
4	☐	250.000	265.816	196899.75	0.0480	P	0.8
5	☐	625.000	650.530	475550.71	0.1174	P	0.3
6	☐	1250.000	1263.871	908650.40	0.2282	P	0.9
7	☐	2500.000	2490.310	1793594.79	0.4496	P	0.3
8	☐	5000.000	4997.395	3593185.97	0.9021	A	0.4
9	☐			605.59	0.0002	P	21.0

$$y = 1.8052E-004 * x + 4.0681E-006$$

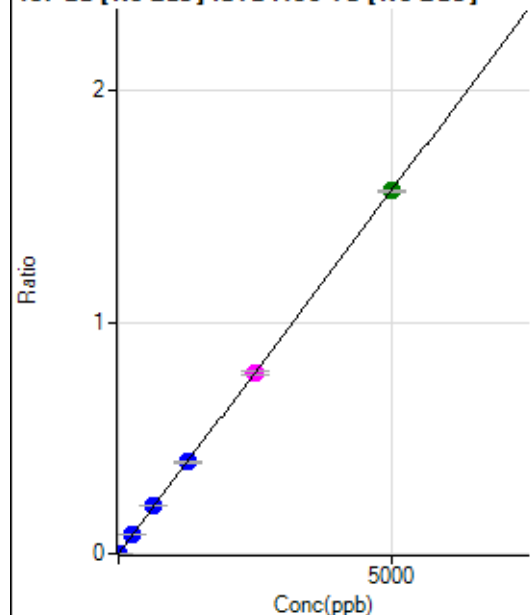
$$R = 1.0000$$

$$DL = 0.03379$$

$$BEC = 0.02254$$

Weight: <None>

Min Conc: 0

¹³⁷Ba [No Gas] ISTD : ¹⁵⁹Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8.33	0.0000	P	0.2
2	☐	1.000	1.016	1308.45	0.0003	P	9.6
3	☐	10.000	9.933	12650.67	0.0031	P	1.2
4	☐	250.000	267.562	344315.32	0.0839	P	0.2
5	☐	625.000	653.012	829345.87	0.2048	P	0.8
6	☐	1250.000	1262.630	1577110.21	0.3960	P	0.9
7	☐	2500.000	2491.579	3117843.04	0.7814	M	1.3
8	☐	5000.000	4996.673	6241944.50	1.5671	A	0.2
9	☐			950.07	0.0003	P	6.8

$$y = 3.1364\text{E-}004 * x + 2.0338\text{E-}006$$

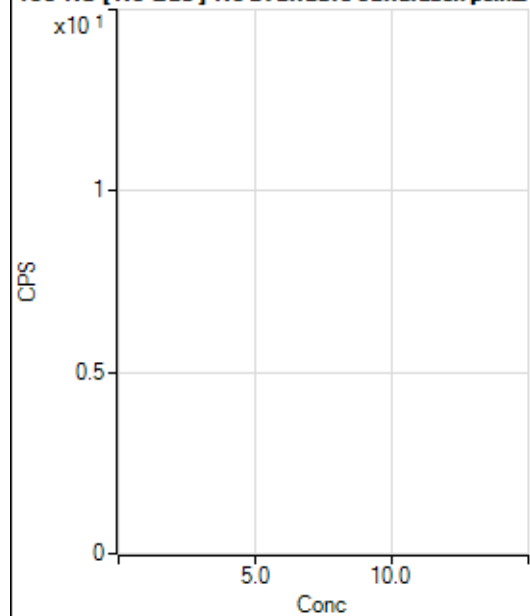
$$R = 1.0000$$

$$DL = 3.264\text{E-}05$$

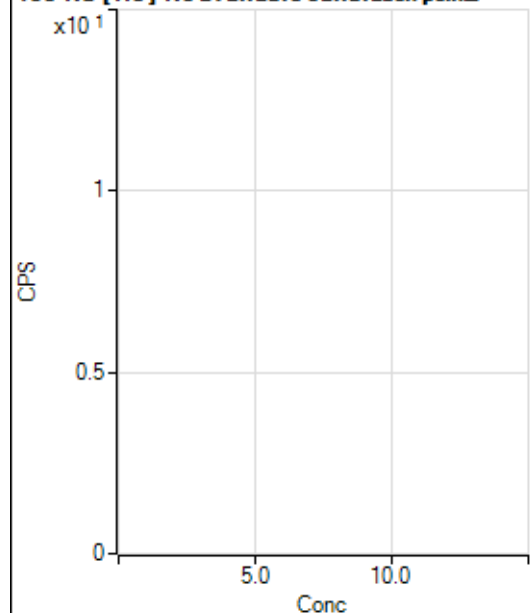
$$BEC = 0.006485$$

Weight: <None>

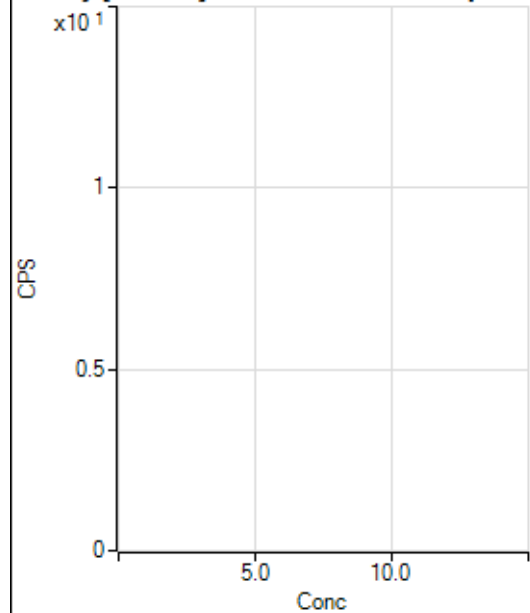
Min Conc: 0

¹⁵⁰Nd [No Gas] No available calibration points

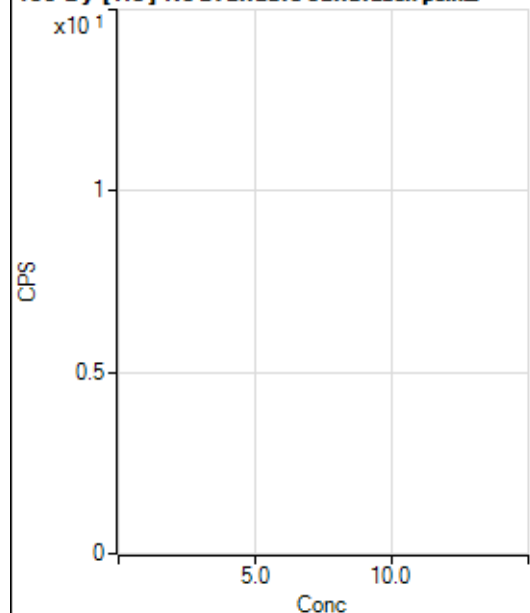
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			22.22		P	34.7
5	☐			51.11		P	52.7
6	☐			57.78		P	35.2
7	☐			166.67		P	12.0
8	☐			273.35		P	12.9
9	☐			71.11		P	10.8

150 Nd [He] No available calibration points

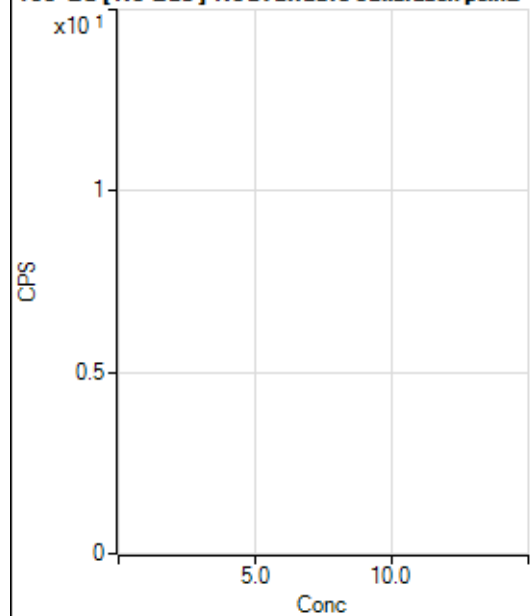
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			0.00		P	
3	☐			0.00		P	
4	☐			2.22		P	86.6
5	☐			6.67		P	50.0
6	☐			13.33		P	43.3
7	☐			25.56		P	7.5
8	☐			43.33		P	20.3
9	☐			18.89		P	27.0

156 Dy [No Gas] No available calibration points

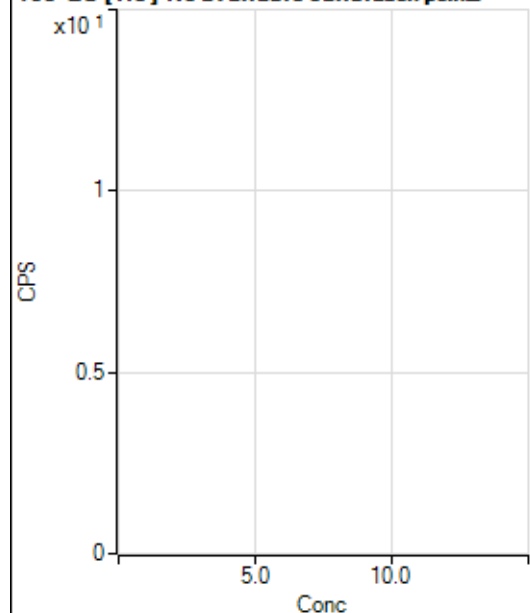
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐			2.78		P	173.
3	☐			0.00		P	
4	☐			5.56		P	173.
5	☐			13.89		P	34.7
6	☐			16.66		P	86.6
7	☐			41.67		P	20.0
8	☐			50.00		P	44.1
9	☐			27.78		P	34.6

156 Dy [He] No available calibration points

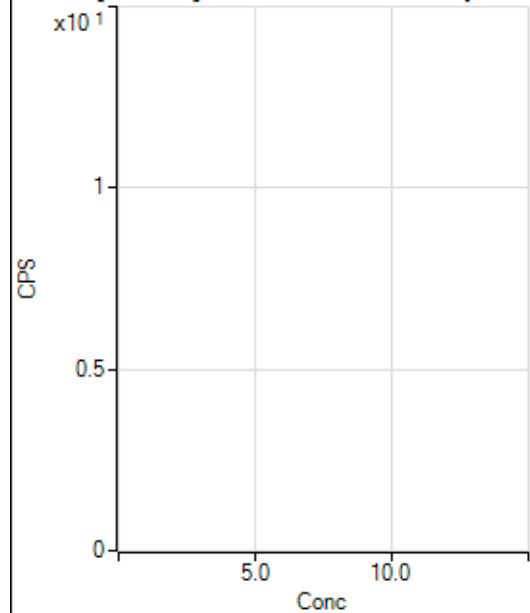
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			3.33		P	100.
3	☐			2.22		P	86.6
4	☐			4.44		P	114.
5	☐			4.44		P	43.4
6	☐			27.78		P	6.9
7	☐			35.55		P	37.9
8	☐			61.11		P	3.1
9	☐			20.00		P	16.7

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

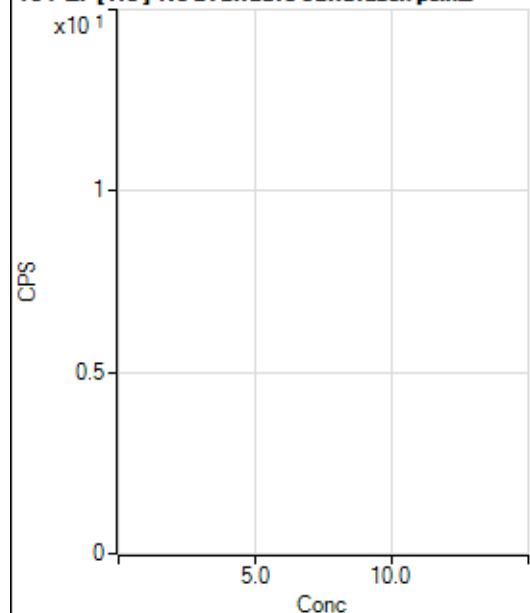
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	100.
2	☐			27.78		P	17.3
3	☐			0.00		P	
4	☐			27.78		P	34.6
5	☐			19.44		P	49.5
6	☐			19.45		P	24.7
7	☐			16.67		P	50.0
8	☐			19.45		P	24.7
9	☐			13.89		P	91.6

160 Gd [He] No available calibration points

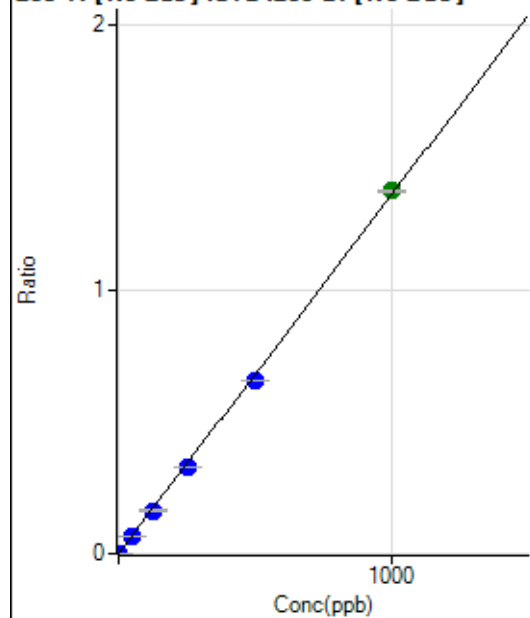
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			51.11		P	35.9
2	☐			52.22		P	14.7
3	☐			46.66		P	32.7
4	☐			68.89		P	12.2
5	☐			53.33		P	21.7
6	☐			53.33		P	22.5
7	☐			52.22		P	18.4
8	☐			61.11		P	11.4
9	☐			58.89		P	28.5

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	86.6
2	☐			16.67		P	50.0
3	☐			16.67		P	50.0
4	☐			5.55		P	86.6
5	☐			13.89		P	69.3
6	☐			5.55		P	86.6
7	☐			36.11		P	35.3
8	☐			11.11		P	173.
9	☐			8.33		P	0.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	50.0
2	☐			5.56		P	34.7
3	☐			13.33		P	25.0
4	☐			6.67		P	0.0
5	☐			13.33		P	66.1
6	☐			5.55		P	69.3
7	☐			2.22		P	173.
8	☐			12.22		P	41.7
9	☐			3.33		P	0.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	44.44	0.0000	P	42.1
2	☐	0.100	0.094	388.91	0.0001	P	10.6
3	☐	1.000	0.909	3328.33	0.0013	P	2.9
4	☐	50.000	48.657	178337.62	0.0662	P	0.4
5	☐	125.000	120.405	435741.90	0.1637	P	0.4
6	☐	250.000	241.404	864202.33	0.3282	P	0.4
7	☐	500.000	483.384	1698887.32	0.6571	P	0.6
8	☐	1000.000	1011.098	3470594.74	1.3745	A	0.2
9	☐			691.72	0.0003	P	18.9

$$y = 0.0014 * x + 1.6490E-005$$

$$R = 0.9998$$

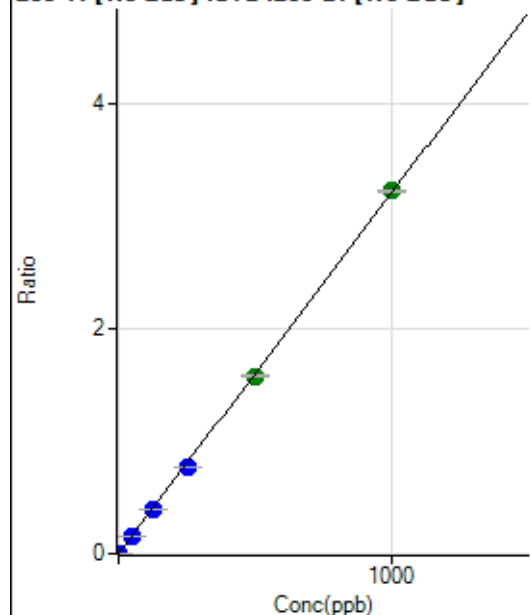
$$DL = 0.01532$$

$$BEC = 0.01213$$

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	133.34	0.0000	P	15.4
2	☐	0.100	0.099	991.76	0.0004	P	1.5
3	☐	1.000	0.912	7905.46	0.0030	P	5.5
4	☐	50.000	49.278	426268.90	0.1581	P	0.5
5	☐	125.000	122.696	1047925.54	0.3937	P	0.9
6	☐	250.000	241.855	2043292.67	0.7759	P	0.2
7	☐	500.000	492.897	4088217.97	1.5813	A	0.7
8	☐	1000.000	1005.912	8148338.72	3.2271	A	0.2
9	☐			1527.93	0.0007	P	12.3

$$y = 0.0032 * x + 4.9569E-005$$

$$R = 0.9999$$

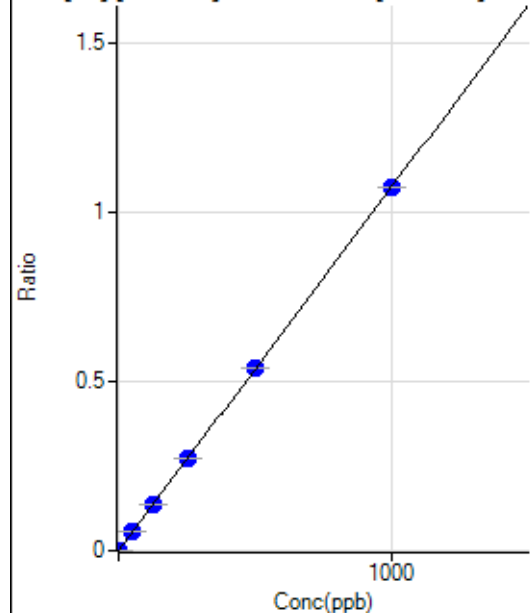
$$DL = 0.007139$$

$$BEC = 0.01545$$

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	148.16	0.0001	P	1.9
2	☐	0.100	0.122	501.88	0.0002	P	10.9
3	☐	1.000	0.961	2883.73	0.0011	P	7.2
4	☐	50.000	50.788	146999.11	0.0545	P	0.7
5	☐	125.000	127.230	363443.98	0.1365	P	1.0
6	☐	250.000	253.329	715728.71	0.2718	P	0.4
7	☐	500.000	501.990	1392277.89	0.5385	P	0.2
8	☐	1000.000	997.854	2702818.81	1.0704	P	0.1
9	☐			2370.65	0.0011	P	1.7

$$y = 0.0011 * x + 5.5137E-005$$

$$R = 1.0000$$

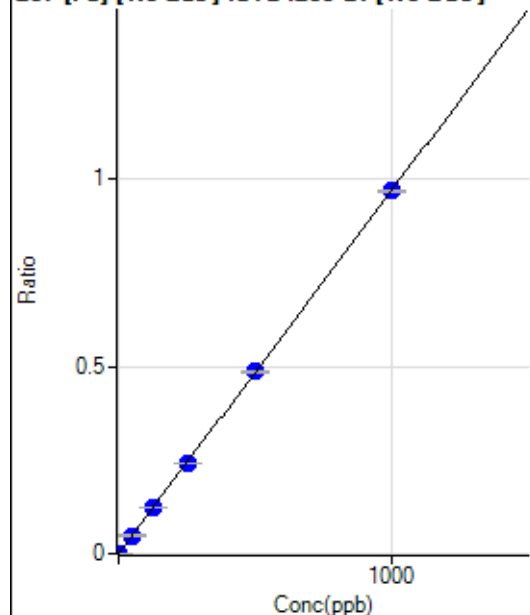
$$DL = 0.002881$$

$$BEC = 0.0514$$

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	166.67	0.0001	P	10.1
2	☐	0.100	0.090	401.87	0.0001	P	10.8
3	☐	1.000	0.906	2498.46	0.0009	P	4.5
4	☐	50.000	50.262	131522.12	0.0488	P	0.2
5	☐	125.000	124.821	322308.98	0.1211	P	0.5
6	☐	250.000	249.635	637516.02	0.2421	P	0.3
7	☐	500.000	501.111	1256234.04	0.4859	P	0.4
8	☐	1000.000	999.545	2447126.79	0.9692	P	0.4
9	☐			1976.13	0.0009	P	1.7

$$y = 9.6954\text{E-}004 * x + 6.2032\text{E-}005$$

$$R = 1.0000$$

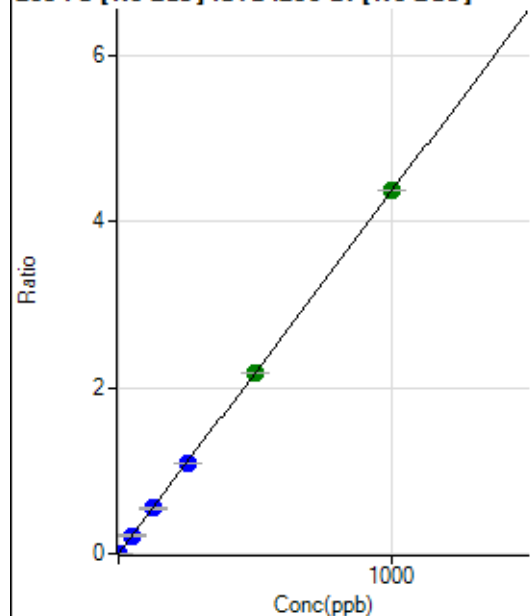
$$DL = 0.01938$$

$$BEC = 0.06398$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	718.55	0.0003	P	11.3
2	☐	0.100	0.095	1835.29	0.0007	P	4.3
3	☐	1.000	0.914	11289.22	0.0042	P	1.6
4	☐	50.000	50.305	591471.93	0.2194	P	0.2
5	☐	125.000	124.692	1446775.82	0.5435	P	0.3
6	☐	250.000	248.465	2851212.83	1.0827	P	0.2
7	☐	500.000	498.063	5610511.68	2.1702	A	0.7
8	☐	1000.000	1001.375	11016165.35	4.3629	A	0.1
9	☐			9081.11	0.0041	P	2.7

$$y = 0.0044 * x + 2.6741\text{E-}004$$

$$R = 1.0000$$

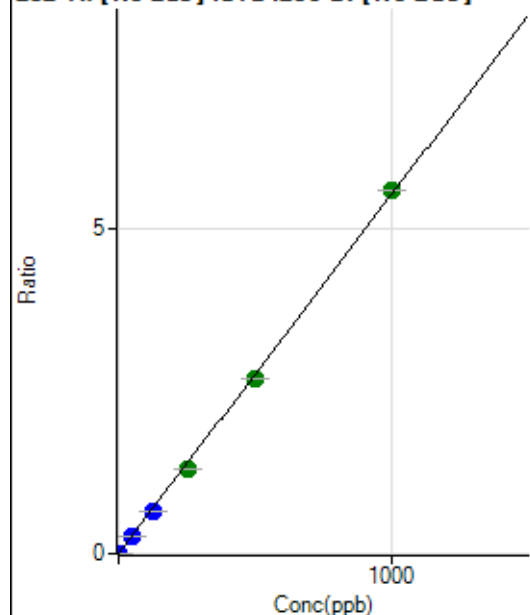
$$DL = 0.02074$$

$$BEC = 0.06138$$

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	90.75	0.0000	P	18.5
2	☐	0.100	0.079	1261.21	0.0005	P	11.1
3	☐	1.000	0.837	12345.15	0.0046	P	2.1
4	☐	50.000	46.331	688151.69	0.2553	P	1.0
5	☐	125.000	116.375	1706829.90	0.6412	P	0.6
6	☐	250.000	237.278	3442618.33	1.3073	A	0.4
7	☐	500.000	488.109	6952650.97	2.6893	A	0.5
8	☐	1000.000	1010.388	14055885.15	5.5668	A	0.1
9	☐			2792.99	0.0013	P	8.2

$$y = 0.0055 * x + 3.3727E-005$$

$$R = 0.9998$$

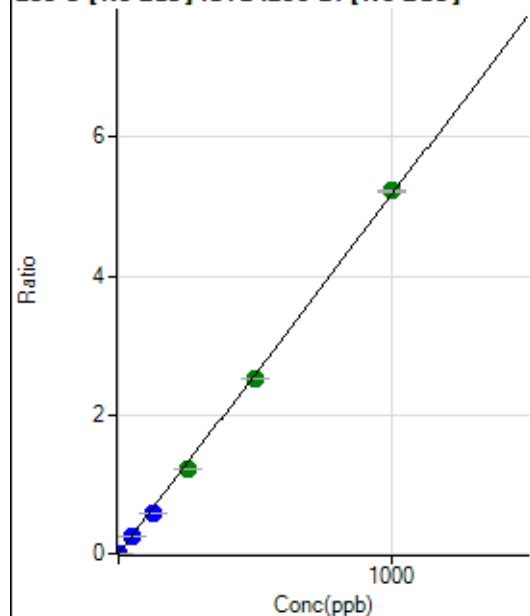
$$DL = 0.003403$$

$$BEC = 0.006122$$

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	122.23	0.0000	P	43.5
2	☐	0.100	0.082	1264.02	0.0005	P	4.5
3	☐	1.000	0.866	12011.68	0.0045	P	1.0
4	☐	50.000	45.775	637834.11	0.2366	P	0.4
5	☐	125.000	113.912	1567273.60	0.5888	P	1.0
6	☐	250.000	236.230	3215176.87	1.2210	A	0.2
7	☐	500.000	488.191	6523280.14	2.5232	A	0.2
8	☐	1000.000	1010.944	13192693.00	5.2250	A	0.3
9	☐			1239.01	0.0006	P	12.0

$$y = 0.0052 * x + 4.5368E-005$$

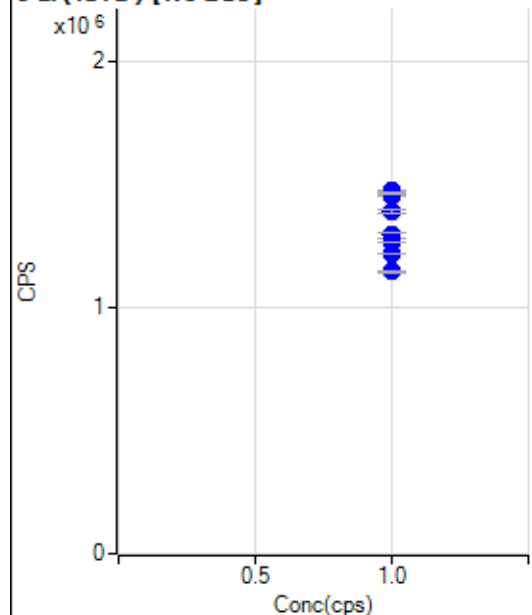
$$R = 0.9998$$

$$DL = 0.01144$$

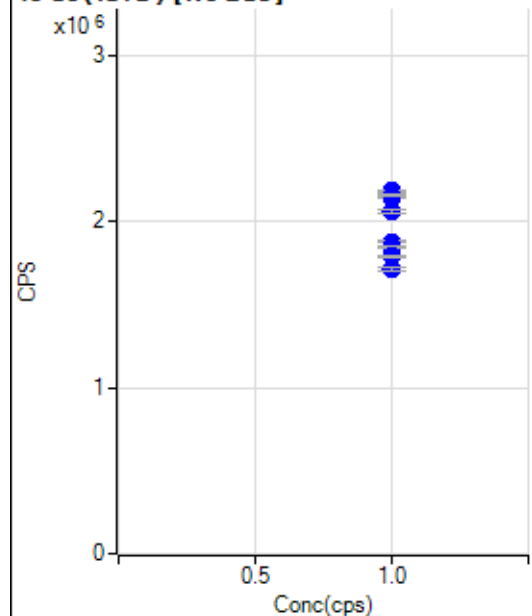
$$BEC = 0.008778$$

Weight: <None>

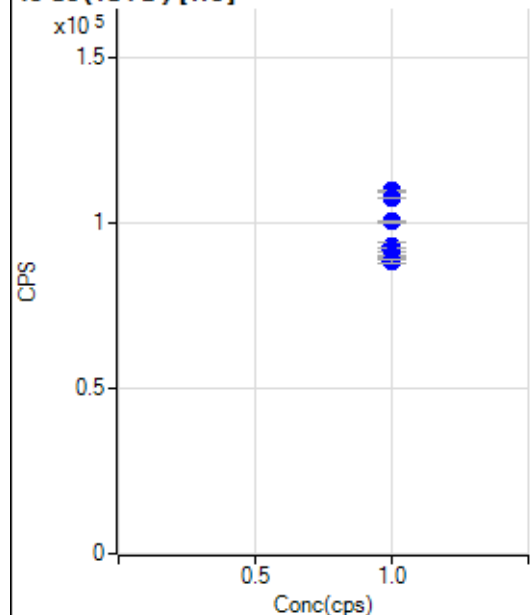
Min Conc: 0

6 Li (ISTD) [No Gas]

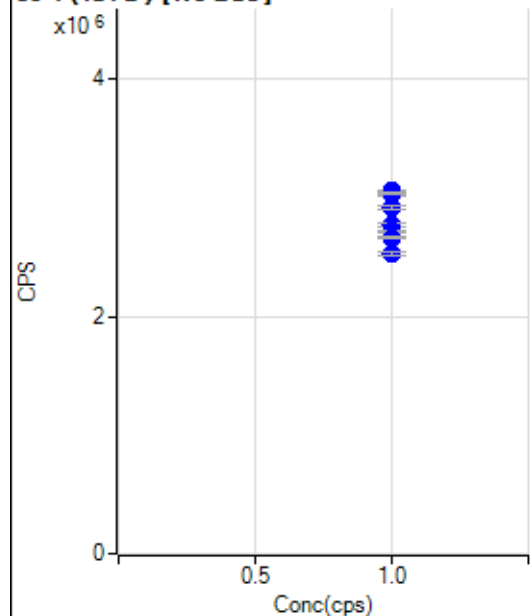
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1457490.81		P	0.5
2	☐	1.000		1476190.59		P	0.7
3	☐	1.000		1467078.13		P	0.6
4	☐	1.000		1465997.23		P	0.2
5	☐	1.000		1396258.64		P	1.2
6	☐	1.000		1295058.37		P	1.3
7	☐	1.000		1266904.46		P	0.2
8	☐	1.000		1219106.54		P	0.2
9	☐	1.000		1146357.80		P	0.9

45 Sc (ISTD) [No Gas]

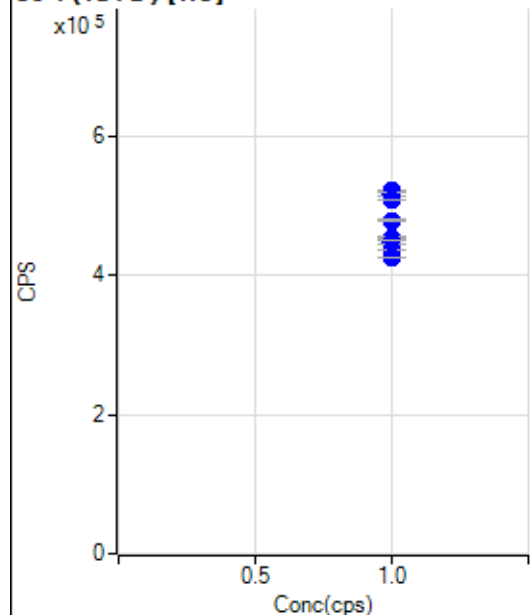
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2144888.52		P	1.0
2	☐	1.000		2181825.66		P	0.3
3	☐	1.000		2155612.14		P	0.7
4	☐	1.000		2153978.02		P	0.6
5	☐	1.000		2059839.37		P	1.1
6	☐	1.000		1878983.75		P	0.8
7	☐	1.000		1845363.93		P	0.4
8	☐	1.000		1786920.16		P	0.2
9	☐	1.000		1714372.09		P	1.2

45 Sc (ISTD) [He]

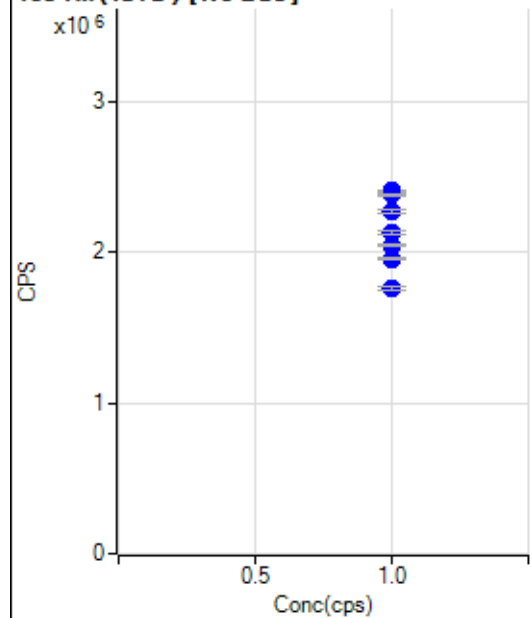
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		109619.46		P	0.8
2	☐	1.000		109820.76		P	0.9
3	☐	1.000		109742.43		P	0.5
4	☐	1.000		107724.53		P	0.1
5	☐	1.000		100412.90		P	0.9
6	☐	1.000		93410.93		P	1.4
7	☐	1.000		91883.70		P	1.3
8	☐	1.000		90017.73		P	0.8
9	☐	1.000		88510.13		P	1.3

89 Y (ISTD) [No Gas]

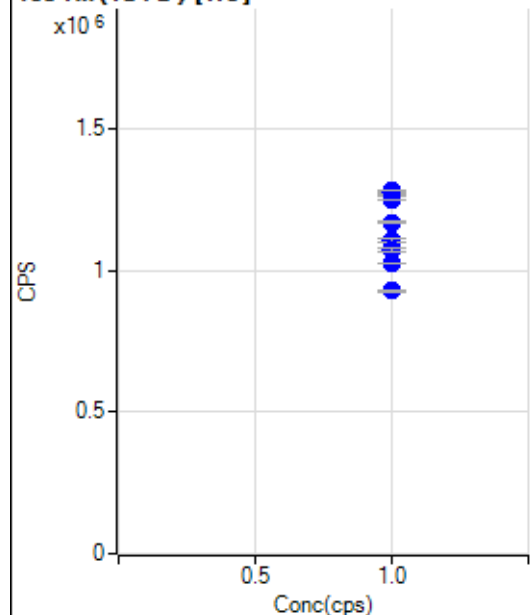
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3030716.90		P	0.7
2	☐	1.000		3060787.87		P	0.3
3	☐	1.000		3025743.50		P	0.8
4	☐	1.000		3040431.41		P	0.4
5	☐	1.000		2918567.84		P	0.9
6	☐	1.000		2768384.72		P	1.2
7	☐	1.000		2720859.72		P	0.4
8	☐	1.000		2665368.24		P	0.4
9	☐	1.000		2536988.24		P	1.1

89 Y(ISTD) [He]

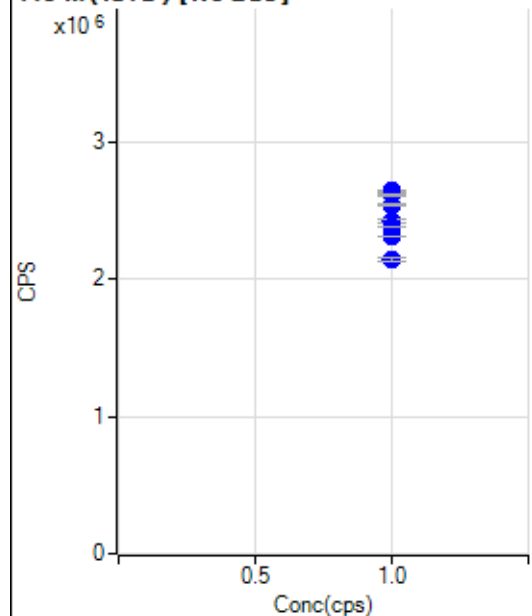
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		516497.28		P	1.2
2	☐	1.000		521465.57		P	0.2
3	☐	1.000		517716.71		P	1.1
4	☐	1.000		509317.66		P	0.1
5	☐	1.000		478878.76		P	0.7
6	☐	1.000		454633.01		P	1.1
7	☐	1.000		448252.11		P	1.4
8	☐	1.000		436028.70		P	0.2
9	☐	1.000		425873.77		P	0.3

103 Rh(ISTD) [No Gas]

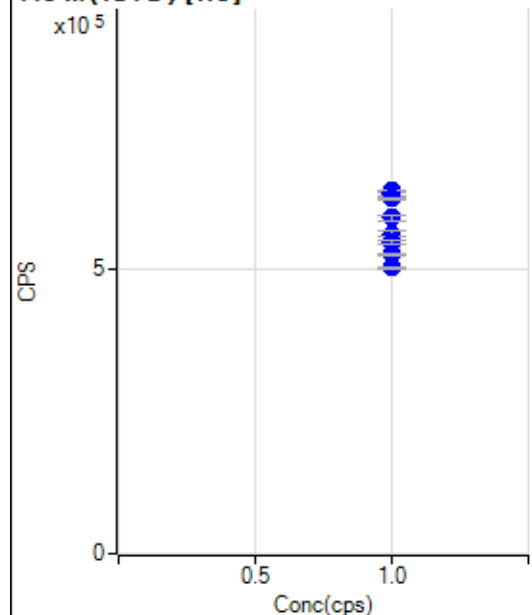
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2392656.13		P	1.2
2	☐	1.000		2408971.82		P	0.5
3	☐	1.000		2393598.38		P	1.2
4	☐	1.000		2385242.33		P	0.7
5	☐	1.000		2276170.34		P	1.0
6	☐	1.000		2128257.54		P	1.2
7	☐	1.000		2047585.75		P	0.2
8	☐	1.000		1959165.63		P	0.7
9	☐	1.000		1764601.75		P	1.6

103 Rh (ISTD) [He]

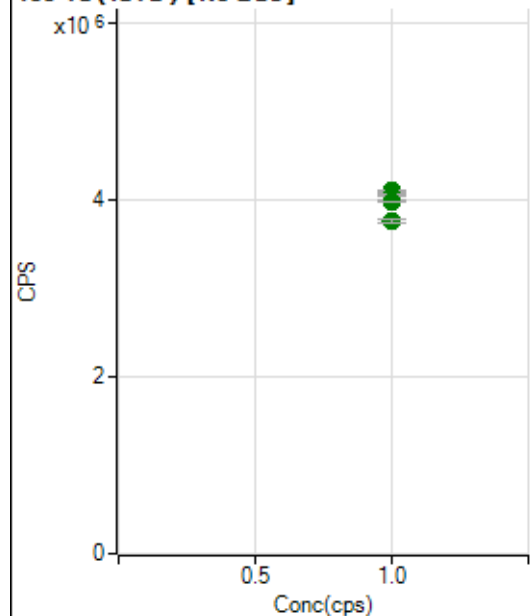
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1271764.00		P	0.7
2	☐	1.000		1280264.09		P	0.3
3	☐	1.000		1272808.20		P	1.2
4	☐	1.000		1248333.26		P	0.2
5	☐	1.000		1168901.04		P	0.7
6	☐	1.000		1104862.12		P	1.0
7	☐	1.000		1071761.73		P	1.1
8	☐	1.000		1025327.40		P	0.1
9	☐	1.000		927178.31		P	0.3

115 In (ISTD) [No Gas]

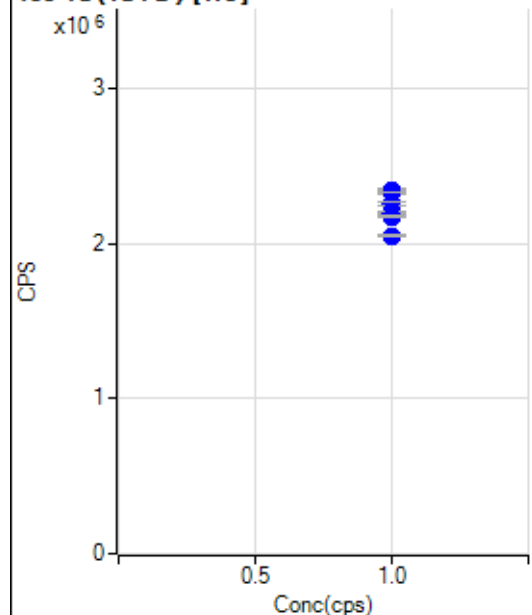
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2613950.72		P	0.5
2	☐	1.000		2638697.76		P	0.7
3	☐	1.000		2608901.60		P	0.6
4	☐	1.000		2610694.80		P	0.6
5	☐	1.000		2532441.32		P	0.6
6	☐	1.000		2417026.73		P	0.9
7	☐	1.000		2377883.50		P	0.1
8	☐	1.000		2302946.58		P	0.2
9	☐	1.000		2143496.69		P	1.3

115 In (ISTD) [He]

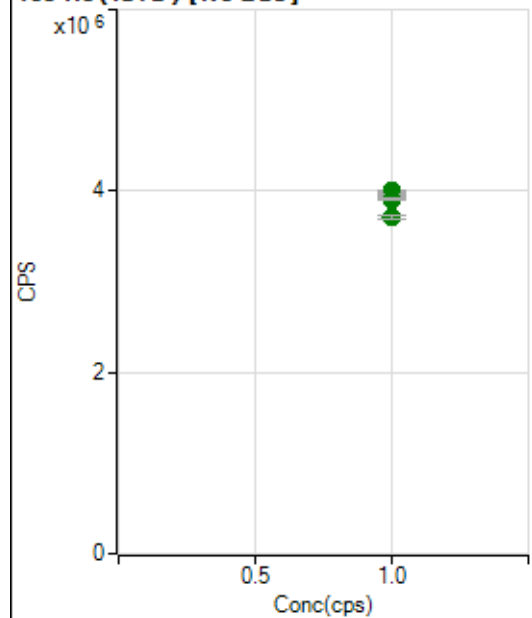
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		632230.57		P	1.0
2	☐	1.000		636590.78		P	0.4
3	☐	1.000		632741.05		P	1.8
4	☐	1.000		623170.22		P	0.3
5	☐	1.000		588806.08		P	1.3
6	☐	1.000		561102.94		P	1.7
7	☐	1.000		546187.09		P	1.3
8	☐	1.000		525209.53		P	0.4
9	☐	1.000		501412.05		P	0.7

159 Tb (ISTD) [No Gas]

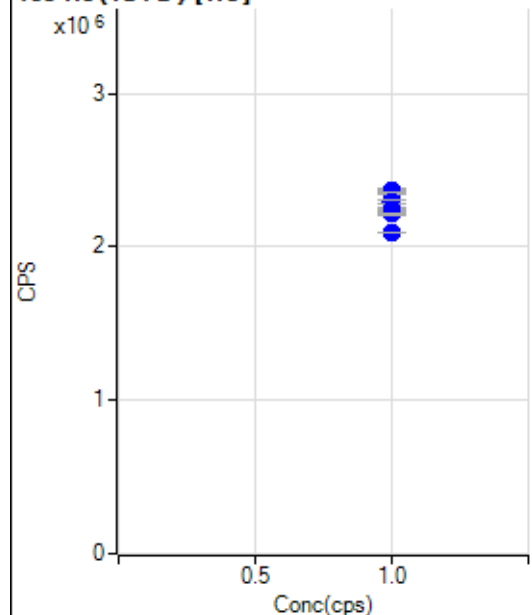
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4095737.44		A	0.2
2	☐	1.000		4082378.03		A	0.5
3	☐	1.000		4058393.90		A	0.5
4	☐	1.000		4102973.59		A	0.4
5	☐	1.000		4049378.31		A	0.4
6	☐	1.000		3982468.21		A	0.5
7	☐	1.000		3989757.65		A	0.4
8	☐	1.000		3983050.05		A	0.4
9	☐	1.000		3754846.75		A	1.2

159 Tb (ISTD) [He]

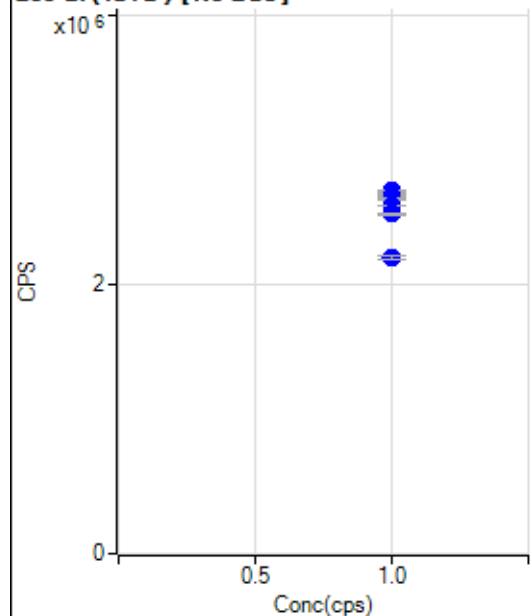
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2338135.73		P	0.9
2	☐	1.000		2337663.59		P	0.2
3	☐	1.000		2329450.30		P	0.6
4	☐	1.000		2330082.31		P	0.3
5	☐	1.000		2255527.09		P	0.9
6	☐	1.000		2201023.77		P	0.9
7	☐	1.000		2193680.06		P	0.9
8	☐	1.000		2171859.39		P	0.6
9	☐	1.000		2047156.55		P	0.5

165 Ho (ISTD) [No Gas]

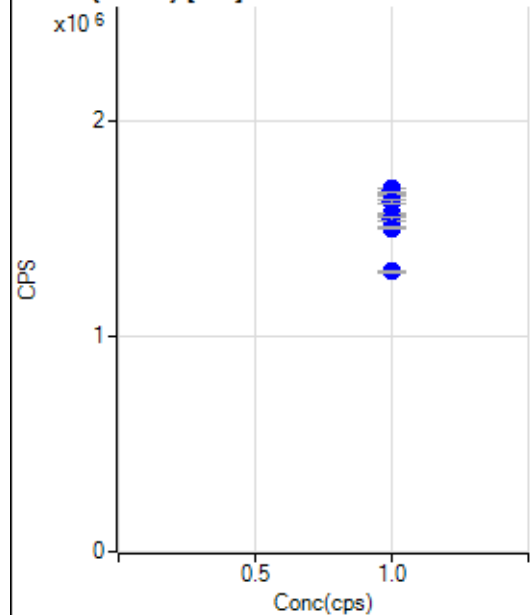
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3995404.69		A	0.7
2	☐	1.000		3983600.44		A	0.5
3	☐	1.000		3954034.55		A	0.6
4	☐	1.000		4000377.83		A	0.7
5	☐	1.000		3957032.12		A	0.7
6	☐	1.000		3909277.87		A	0.9
7	☐	1.000		3904916.62		A	0.1
8	☐	1.000		3908510.94		A	0.4
9	☐	1.000		3705777.17		A	1.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2365373.31		P	1.3
2	☐	1.000		2361072.67		P	0.3
3	☐	1.000		2349511.13		P	0.6
4	☐	1.000		2348571.23		P	0.5
5	☐	1.000		2294320.75		P	0.9
6	☐	1.000		2243131.18		P	0.9
7	☐	1.000		2236580.80		P	1.0
8	☐	1.000		2216164.95		P	0.8
9	☐	1.000		2093390.70		P	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2687046.16		P	1.1
2	☐	1.000		2695334.33		P	0.6
3	☐	1.000		2656889.55		P	0.5
4	☐	1.000		2695512.79		P	0.2
5	☐	1.000		2661912.97		P	0.2
6	☐	1.000		2633307.69		P	0.7
7	☐	1.000		2585329.79		P	0.3
8	☐	1.000		2524959.13		P	0.4
9	☐	1.000		2204756.68		P	1.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1682042.44		P	1.0
2	☐	1.000		1687754.44		P	0.1
3	☐	1.000		1664158.90		P	1.5
4	☐	1.000		1670645.46		P	0.4
5	☐	1.000		1625953.69		P	1.1
6	☐	1.000		1572098.38		P	0.8
7	☐	1.000		1544830.80		P	1.3
8	☐	1.000		1505921.12		P	0.4
9	☐	1.000		1301963.17		P	0.4

US EPA Tune Check Sample Report

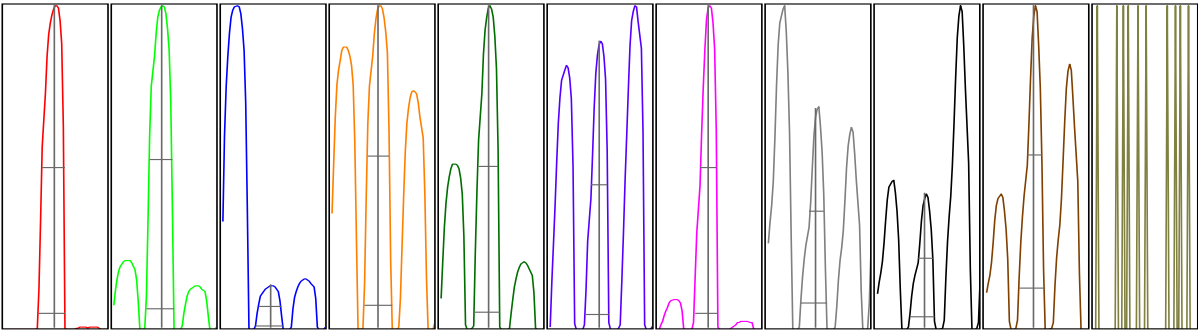
Batch Folder D:\ICP-MS Data\P7062219 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	4633	0.56	5.00	
24	108783	0.11	5.00	
25	14644	0.38	5.00	
26	16559	0.26	5.00	
59	23118	0.17	5.00	
113	3078	0.45	5.00	
115	37180	0.24	5.00	
206	11480	0.48	5.00	
207	10831	0.54	5.00	
208	25116	0.35	5.00	
220	0	136.93		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	4610	4655	4666	4623	4612
24	108784	108821	108788	108589	108933
25	14556	14645	14682	14637	14699
26	16510	16556	16552	16546	16629
59	23109	23158	23066	23100	23155
113	3072	3102	3070	3069	3079
115	37184	37074	37108	37264	37269
206	11388	11496	11515	11472	11530
207	10761	10892	10886	10788	10829
208	24979	25110	25208	25176	25109
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	7652	9.00	8.9 - 9.1		0.776	0.900	
24	175534	23.95	23.9 - 24.1		0.810	0.900	
25	23631	24.95	24.9 - 25.1		0.785	0.900	
26	27099	25.90	25.9 - 26.1		0.806	0.900	
59	41327	58.95	58.9 - 59.1		0.736	0.900	
113	6289	113.00	112.9 - 113.1		0.683	0.900	
115	76252	115.00	114.9 - 115.1		0.686	0.900	
206	24636	205.95	205.9 - 206.1		0.735	0.900	
207	22548	206.95	206.9 - 207.1		0.708	0.900	
208	53816	207.95	207.9 - 208.1		0.727	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.1	V	Deflect	13.6	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	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	6126	0.31	
89	12548	0.29	
205	10314	0.63	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	6145	6139	6122	6129	6096
89	12529	12574	12577	12568	12495
205	10365	10325	10350	10330	10201

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.4	V	Deflect	1.2	V
Extract 2	-95.0	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	190	V			