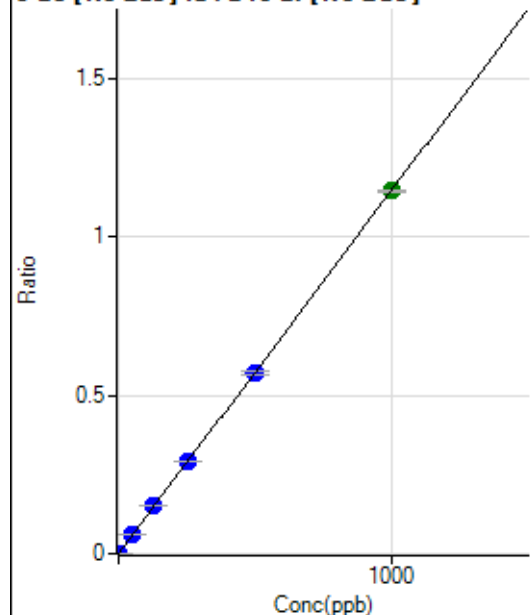


Batch Folder: D:\ICP-MS Data\P7111318 MS.b\
Analysis File: P7111318 MS.batch.bin
DA Date-Time: 2018-11-13 20:57:29
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-11-13 12:38:47
2			
3	005CAL.S.d	S02	2018-11-13 12:47:15
4	006CAL.S.d	S03	2018-11-13 12:51:08
5	007CAL.S.d	S04	2018-11-13 12:55:19
6	008CAL.S.d	S05	2018-11-13 12:59:07
7	009CAL.S.d	S06	2018-11-13 13:02:51
8	010CAL.S.d	S07	2018-11-13 13:06:35
9	011CAL.S.d	S08	2018-11-13 13:10:20

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37.04	0.0000	P	22.6
2	☐	0.100					
3	☐	1.000	1.053	5302.91	0.0012	P	3.5
4	☐	50.000	53.057	270350.11	0.0609	P	0.8
5	☐	125.000	130.397	640798.90	0.1496	P	0.5
6	☐	250.000	254.890	1182692.88	0.2925	P	0.5
7	☐	500.000	497.939	2284411.77	0.5714	P	2.0
8	☐	1000.000	998.981	4460429.85	1.1464	A	0.4
9	☐			631.51	0.0002	P	9.7

$$y = 0.0011 * x + 8.5405E-006$$

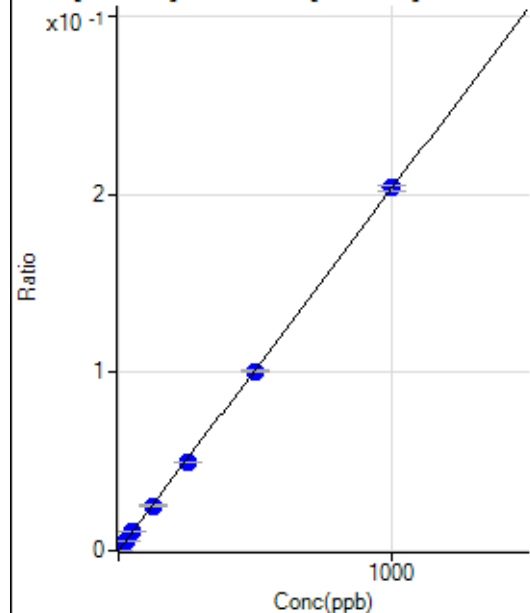
$$R = 1.0000$$

$$DL = 0.005051$$

$$BEC = 0.007442$$

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	430.58	0.0001	P	12.2
2	☐	2.500					
3	☐	25.000	24.420	22061.41	0.0051	P	2.0
4	☐	50.000	50.442	45954.10	0.0104	P	0.5
5	☐	125.000	124.222	108521.38	0.0253	P	1.4
6	☐	250.000	244.949	201669.18	0.0499	P	1.2
7	☐	500.000	496.405	403709.16	0.1010	P	1.7
8	☐	1000.000	1003.150	793645.10	0.2040	P	1.6
9	☐			15466.83	0.0038	P	7.9

$$y = 2.0322E-004 * x + 9.9355E-005$$

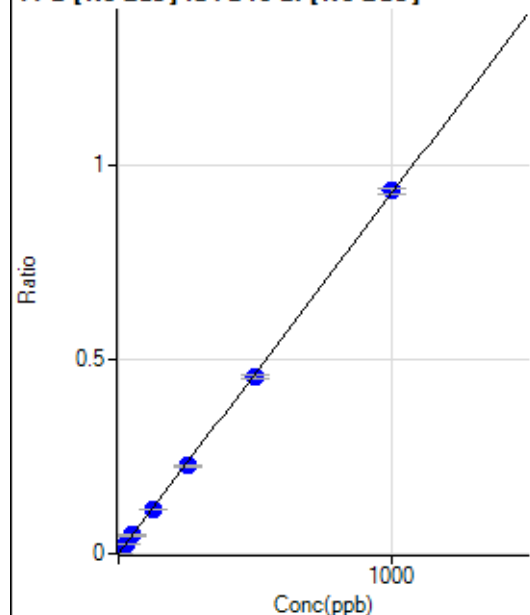
$$R = 1.0000$$

$$DL = 0.1788$$

$$BEC = 0.4889$$

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	2022.45	0.0005	P	7.0
2	☐	2.500					
3	☐	25.000	24.787	102021.51	0.0234	P	2.1
4	☐	50.000	50.480	209506.33	0.0472	P	1.5
5	☐	125.000	123.404	491065.52	0.1147	P	1.1
6	☐	250.000	243.141	911758.45	0.2255	P	1.5
7	☐	500.000	489.618	1813582.68	0.4536	P	2.1
8	☐	1000.000	1007.087	3628871.83	0.9326	P	1.3
9	☐			73198.28	0.0180	P	9.9

$$y = 9.2555\text{E-}004 * x + 4.6660\text{E-}004$$

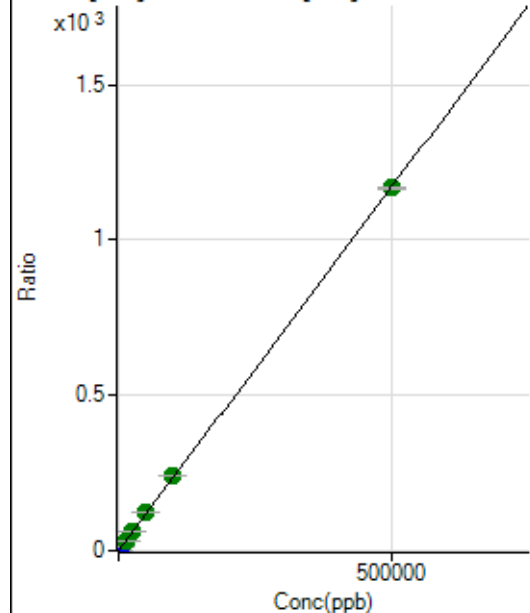
$$R = 0.9999$$

$$DL = 0.1054$$

$$BEC = 0.5041$$

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	9984.25	0.0284	P	2.6
2	☐	50.000					
3	☐	500.000	498.377	425699.26	1.1950	P	0.6
4	☐	5000.000	5102.408	4149200.79	11.9716	P	0.1
5	☐	12500.000	12759.264	9705577.82	29.8940	A	0.5
6	☐	25000.000	26000.709	18348697.80	60.8882	A	0.6
7	☐	50000.000	52948.278	37254196.32	123.9642	A	0.3
8	☐	100000.00	103436.79	76093385.04	242.1425	A	0.8
9	☐	500000.00	498960.27	427278634.55	1,167.942	A	0.6

$$y = 0.0023 * x + 0.0284$$

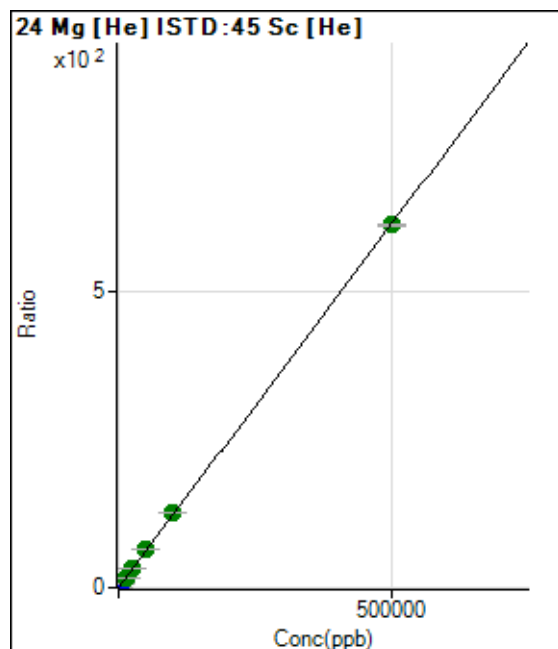
$$R = 1.0000$$

$$DL = 0.9418$$

$$BEC = 12.14$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0004	P	23.8
2	☐	50.000					
3	☐	500.000	506.693	222199.91	0.6237	P	0.4
4	☐	5000.000	5214.177	2223305.93	6.4149	P	0.1
5	☐	12500.000	12993.957	5189942.30	15.9855	A	0.5
6	☐	25000.000	26440.919	9801983.20	32.5280	A	1.0
7	☐	50000.000	53497.831	19778034.47	65.8134	A	0.2
8	☐	100000.00	103396.01	39972273.81	127.1982	A	0.6
9	☐	500000.00	498884.47	224523632.79	613.7281	A	0.7

$$y = 0.0012 * x + 3.7141E-004$$

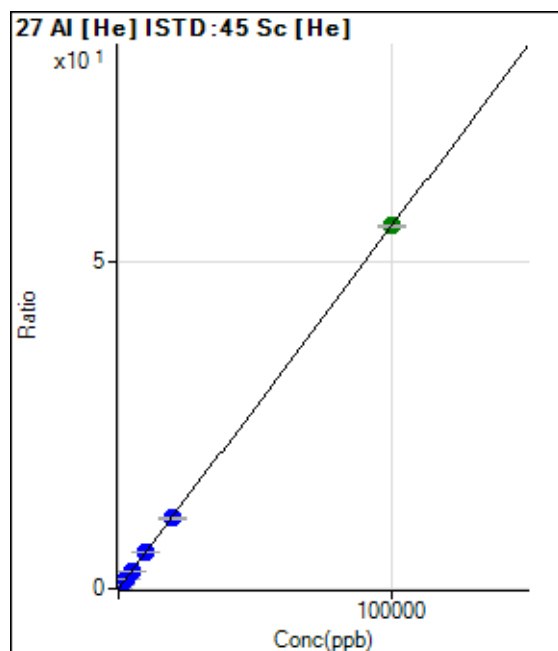
$$R = 1.0000$$

$$DL = 0.2158$$

$$BEC = 0.3019$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	488.92	0.0014	P	12.0
2	☐	2.000					
3	☐	20.000	16.401	3731.18	0.0105	P	3.9
4	☐	1000.000	982.091	188996.24	0.5453	P	0.3
5	☐	2500.000	2452.107	441369.78	1.3595	P	0.4
6	☐	5000.000	4957.154	827759.90	2.7468	P	0.8
7	☐	10000.000	10042.059	1671761.50	5.5630	P	0.5
8	☐	20000.000	19428.579	3381765.64	10.7616	P	1.2
9	☐	100000.00	100113.59	20285158.61	55.4479	A	0.5

$$y = 5.5384E-004 * x + 0.0014$$

$$R = 1.0000$$

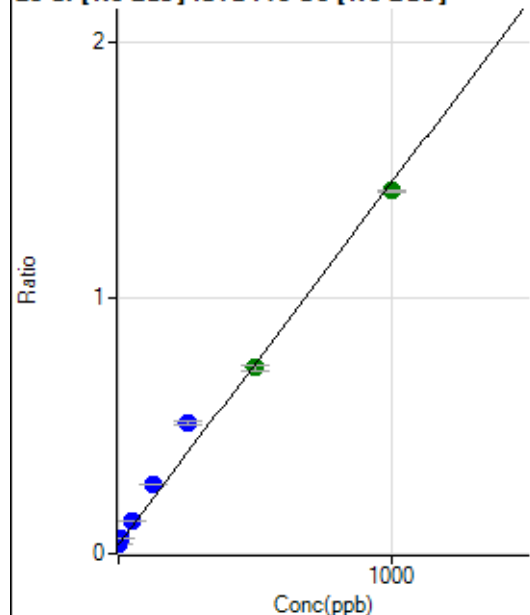
$$DL = 0.9061$$

$$BEC = 2.512$$

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	290656.51	0.0354	P	0.3
2	☐	1.000					
3	☐	10.000	16.521	485509.99	0.0588	P	0.6
4	☐	50.000	64.987	1053058.46	0.1273	P	0.6
5	☐	125.000	165.120	2110771.47	0.2689	P	1.4
6	☐	250.000	336.142	3673573.26	0.5107	P	2.1
7	☐	500.000	489.142	5216961.45	0.7270	A	2.8
8	☐	1000.000	978.064	10089455.78	1.4183	A	0.6
9	☐			774180.48	0.0948	P	2.0

$$y = 0.0014 * x + 0.0354$$

$$R = 0.9954$$

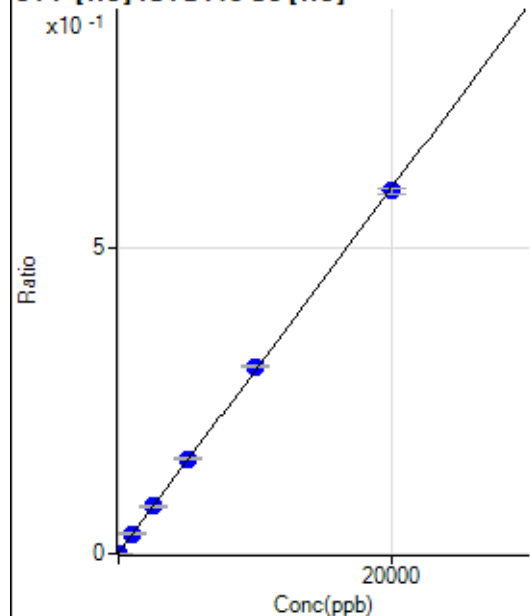
$$DL = 0.2078$$

$$BEC = 25.03$$

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	-6.016	408.36	0.0012	P	5.1
2	☐	0.000					
3	☐	0.000	6.016	541.70	0.0015	P	3.8
4	☐	1000.000	1056.533	11371.46	0.0328	P	1.8
5	☐	2500.000	2552.072	25113.68	0.0773	P	2.1
6	☐	5000.000	5129.555	46436.88	0.1541	P	2.1
7	☐	10000.000	10214.607	91832.59	0.3056	P	1.4
8	☐	20000.000	19850.972	186207.56	0.5926	P	1.4
9	☐			538.92	0.0015	P	4.2

$$y = 2.9783E-005 * x + 0.0013$$

$$R = 0.9999$$

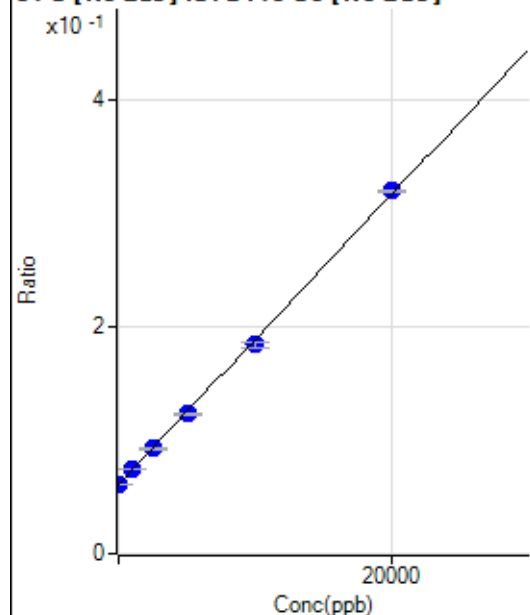
$$DL = 5.858$$

$$BEC = 45.03$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-18.651	499592.45	0.0608	P	0.4
2	☐	0.000					
3	☐	0.000	18.651	506662.59	0.0613	P	0.7
4	☐	1000.000	1036.714	614744.22	0.0743	P	0.7
5	☐	2500.000	2440.204	723934.24	0.0922	P	0.5
6	☐	5000.000	4827.354	882454.17	0.1227	P	0.6
7	☐	10000.000	9641.572	1320935.78	0.1841	P	2.5
8	☐	20000.000	20228.014	2269925.03	0.3191	P	0.8
9	☐			452636.93	0.0554	P	2.0

$$y = 1.2756\text{E-}005 * x + 0.0611$$

$$R = 0.9997$$

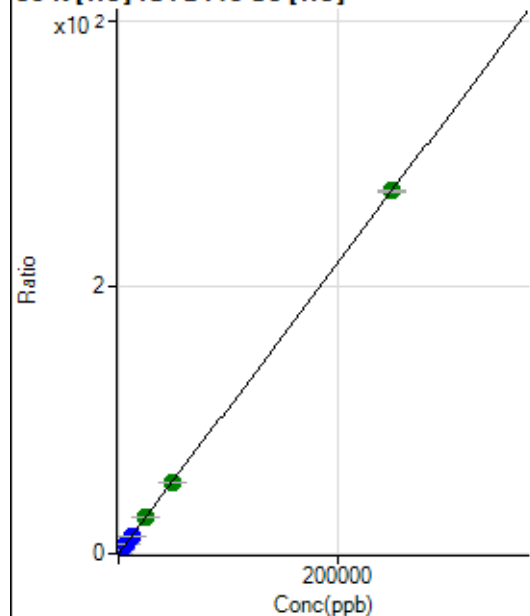
$$DL = 80.65$$

$$BEC = 4788$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	23321.94	0.0664	P	2.4
2	☐	50.000					
3	☐	500.000	490.938	213917.36	0.6005	P	1.0
4	☐	2500.000	2454.553	948528.96	2.7368	P	0.7
5	☐	6250.000	6064.832	2163723.60	6.6646	P	0.5
6	☐	12500.000	12174.021	4011316.02	13.3111	P	0.6
7	☐	25000.000	24738.485	8107991.67	26.9806	A	0.5
8	☐	50000.000	48547.751	16618976.76	52.8838	A	0.4
9	☐	250000.00	250338.00	99665326.53	272.4213	A	0.3

$$y = 0.0011 * x + 0.0664$$

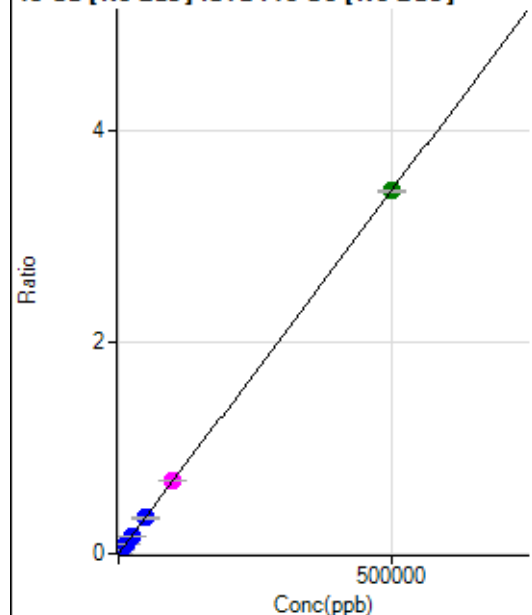
$$R = 1.0000$$

$$DL = 4.363$$

$$BEC = 61.01$$

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	358.36	0.0000	P	21.1
2	☐	50.000					
3	☐	500.000	472.598	27117.45	0.0033	P	1.5
4	☐	5000.000	5002.234	283900.46	0.0343	P	1.4
5	☐	12500.000	12360.165	665193.41	0.0847	P	0.8
6	☐	25000.000	24741.567	1219849.76	0.1696	P	0.7
7	☐	50000.000	49102.328	2414426.09	0.3365	P	2.8
8	☐	100000.00	100945.00	4920196.38	0.6916	M	0.4
9	☐	500000.00	499917.19	27976706.53	3.4251	A	0.4

$$y = 6.8513\text{E-}006 * x + 4.3651\text{E-}005$$

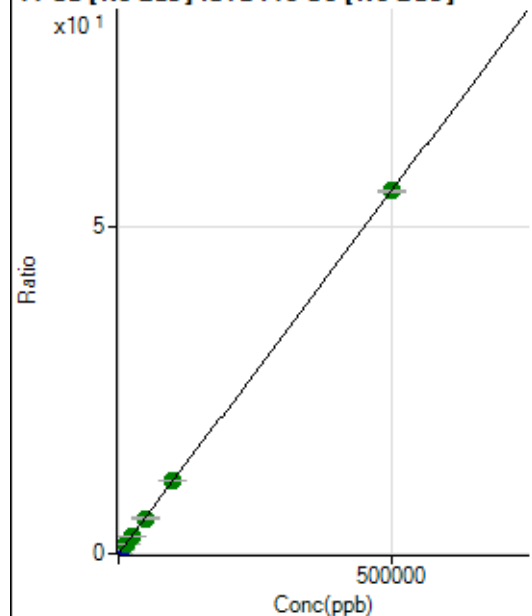
$$R = 1.0000$$

$$DL = 4.038$$

$$BEC = 6.371$$

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	13772.17	0.0017	P	3.4
2	☐	50.000					
3	☐	500.000	480.854	454347.85	0.0550	P	0.7
4	☐	5000.000	4928.992	4534763.38	0.5481	P	0.2
5	☐	12500.000	12314.812	10731509.61	1.3669	A	0.6
6	☐	25000.000	24699.778	19712608.60	2.7399	A	0.3
7	☐	50000.000	48922.400	38932769.62	5.4251	A	2.5
8	☐	100000.00	100562.51	79316135.10	11.1499	A	0.1
9	☐	500000.00	500015.62	452785610.12	55.4326	A	0.4

$$y = 1.1086\text{E-}004 * x + 0.0017$$

$$R = 1.0000$$

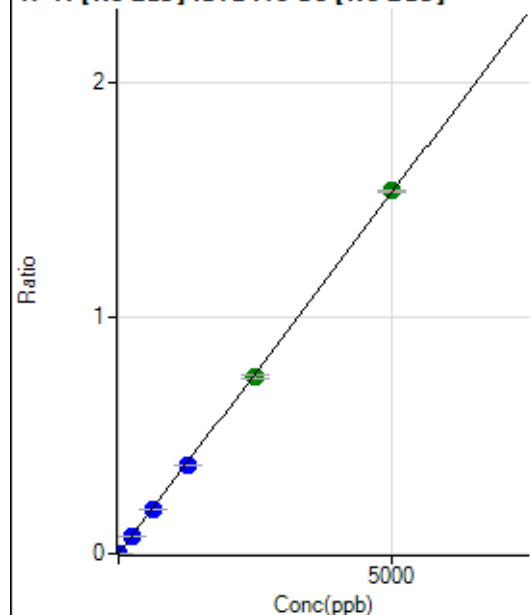
$$DL = 1.541$$

$$BEC = 15.13$$

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	66.67	0.0000	P	12.5
2	☐	0.500					
3	☐	5.000	5.083	12917.27	0.0016	P	3.7
4	☐	250.000	249.540	631753.92	0.0764	P	0.4
5	☐	625.000	615.354	1478254.22	0.1883	P	0.5
6	☐	1250.000	1232.628	2713407.61	0.3771	P	0.5
7	☐	2500.000	2453.691	5387749.77	0.7507	A	2.4
8	☐	5000.000	5028.726	10945193.73	1.5386	A	0.3
9	☐			5970.88	0.0007	P	3.3

$$y = 3.0596E-004 * x + 8.1190E-006$$

$$R = 0.9999$$

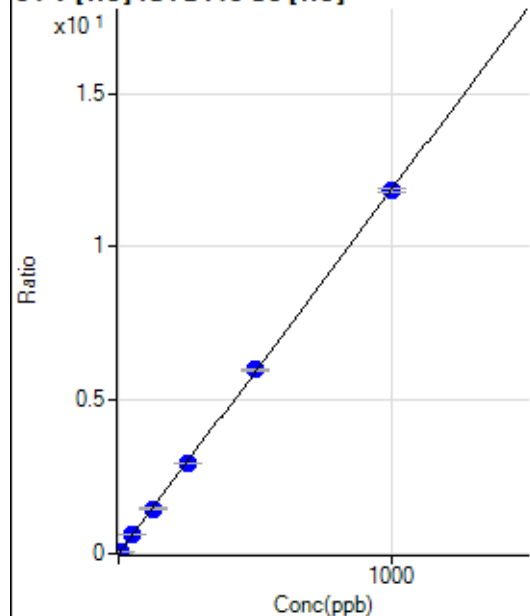
$$DL = 0.009952$$

$$BEC = 0.02654$$

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	7.78	0.0000	P	89.3
2	☐	0.500					
3	☐	5.000	4.877	20606.81	0.0578	P	2.5
4	☐	50.000	50.399	207107.25	0.5976	P	0.4
5	☐	125.000	124.093	477662.32	1.4713	P	0.3
6	☐	250.000	249.922	892934.55	2.9631	P	0.8
7	☐	500.000	506.260	1803740.44	6.0023	P	0.7
8	☐	1000.000	996.984	3714489.04	11.8203	P	1.0
9	☐			1999.06	0.0055	P	3.1

$$y = 0.0119 * x + 2.2100E-005$$

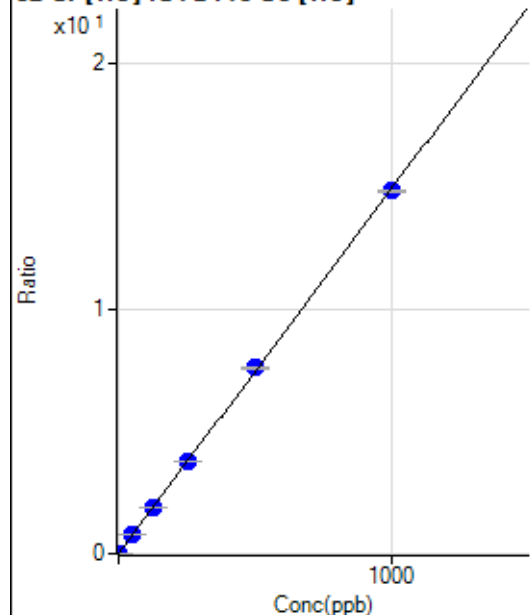
$$R = 1.0000$$

$$DL = 0.004992$$

$$BEC = 0.001864$$

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	756.70	0.0022	P	1.1
2	☐	0.200					
3	☐	2.000	2.211	12505.48	0.0351	P	3.3
4	☐	50.000	50.932	263821.45	0.7612	P	0.7
5	☐	125.000	125.560	608208.35	1.8734	P	0.5
6	☐	250.000	253.217	1137813.05	3.7758	P	1.0
7	☐	500.000	509.100	2280597.50	7.5893	P	1.0
8	☐	1000.000	994.529	4658330.24	14.8236	P	0.8
9	☐			243108.35	0.6646	P	1.0

$$y = 0.0149 * x + 0.0022$$

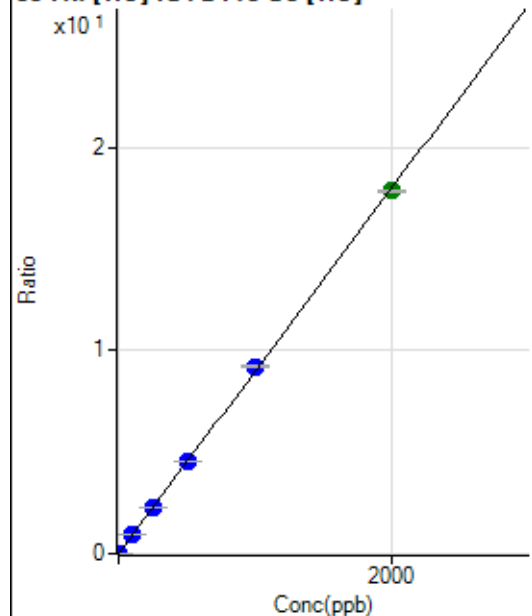
$$R = 0.9999$$

$$DL = 0.004746$$

$$BEC = 0.1445$$

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	131.12	0.0004	P	8.1
2	☐	0.100					
3	☐	1.000	1.052	3501.59	0.0098	P	3.8
4	☐	100.000	101.845	317464.96	0.9160	P	0.3
5	☐	250.000	251.401	733898.83	2.2605	P	0.3
6	☐	500.000	507.319	1374537.67	4.5612	P	0.6
7	☐	1000.000	1023.309	2764660.24	9.2000	P	0.9
8	☐	2000.000	1986.248	5611642.76	17.8570	A	0.5
9	☐			44915.17	0.1228	P	0.4

$$y = 0.0090 * x + 3.7316E-004$$

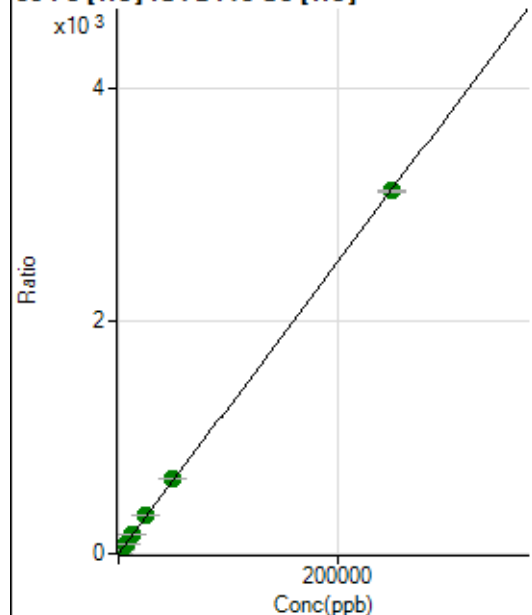
$$R = 0.9999$$

$$DL = 0.01012$$

$$BEC = 0.04151$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6140.37	0.0175	P	1.1
2	☐	5.000					
3	☐	50.000	52.871	241876.18	0.6790	P	0.9
4	☐	2500.000	2638.583	11447604.42	33.0294	A	0.1
5	☐	6250.000	6513.076	26461437.17	81.5040	A	0.3
6	☐	12500.000	13182.997	49708900.65	164.9528	A	0.6
7	☐	25000.000	26683.064	100324758.73	333.8551	A	1.0
8	☐	50000.000	51717.935	203344508.25	647.0717	A	0.5
9	☐	250000.00	249445.99	1141726144.0	3,120.890	A	0.8

$$y = 0.0125 * x + 0.0175$$

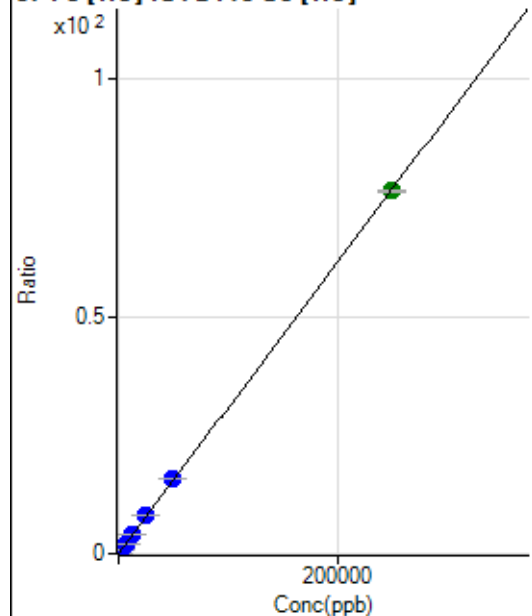
$$R = 1.0000$$

$$DL = 0.04674$$

$$BEC = 1.397$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	183.34	0.0005	P	6.3
2	☐	5.000					
3	☐	50.000	54.773	6168.14	0.0173	P	4.2
4	☐	2500.000	2670.568	284015.06	0.8194	P	0.5
5	☐	6250.000	6575.745	654831.21	2.0170	P	0.3
6	☐	12500.000	13226.218	1222350.85	4.0563	P	0.9
7	☐	25000.000	26646.382	2455597.77	8.1716	P	0.9
8	☐	50000.000	51672.321	4979595.54	15.8458	P	0.7
9	☐	250000.00	249454.73	27985253.87	76.4957	A	0.5

$$y = 3.0665E-004 * x + 5.2185E-004$$

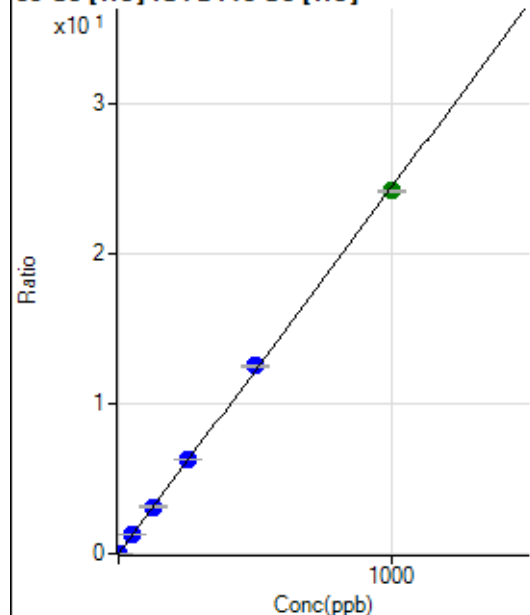
$$R = 1.0000$$

$$DL = 0.3194$$

$$BEC = 1.702$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	147.78	0.0004	P	14.8
2	☐	0.100					
3	☐	1.000	1.071	9468.74	0.0266	P	1.5
4	☐	50.000	52.772	447104.92	1.2900	P	0.2
5	☐	125.000	128.495	1019598.60	3.1405	P	0.6
6	☐	250.000	257.937	1899584.76	6.3037	P	0.9
7	☐	500.000	513.969	3774445.85	12.5604	P	0.9
8	☐	1000.000	990.456	7606337.87	24.2044	A	0.4
9	☐			107904.04	0.2950	P	1.3

$$y = 0.0244 * x + 4.2074E-004$$

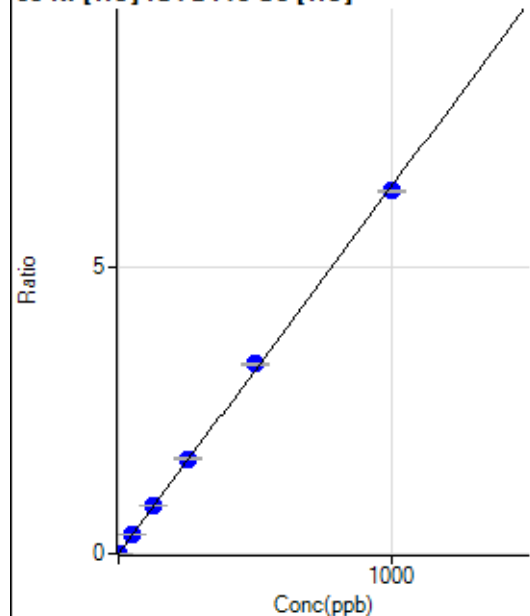
$$R = 0.9998$$

$$DL = 0.007646$$

$$BEC = 0.01722$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	148.89	0.0004	P	16.2
2	☐	0.100					
3	☐	1.000	1.135	2745.86	0.0077	P	2.5
4	☐	50.000	53.538	119281.68	0.3442	P	0.3
5	☐	125.000	130.119	271371.71	0.8358	P	0.9
6	☐	250.000	258.584	500407.64	1.6606	P	1.2
7	☐	500.000	517.661	998882.03	3.3240	P	0.8
8	☐	1000.000	988.207	1993968.29	6.3451	P	0.7
9	☐			84088.20	0.2299	P	1.5

$$y = 0.0064 * x + 4.2392E-004$$

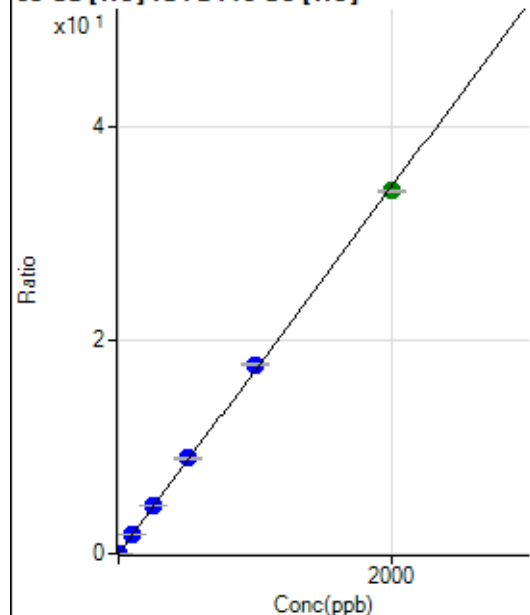
$$R = 0.9997$$

$$DL = 0.03211$$

$$BEC = 0.06603$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	407.79	0.0012	P	14.0
2	☐	0.200					
3	☐	2.000	2.187	13794.47	0.0387	P	1.3
4	☐	100.000	107.639	641058.48	1.8496	P	0.3
5	☐	250.000	261.994	1461092.05	4.5003	P	0.5
6	☐	500.000	521.040	2696651.00	8.9489	P	1.1
7	☐	1000.000	1030.411	5317974.82	17.6962	P	0.4
8	☐	2000.000	1977.653	10673045.67	33.9630	A	0.4
9	☐			28463.40	0.0778	P	1.6

$$y = 0.0172 * x + 0.0012$$

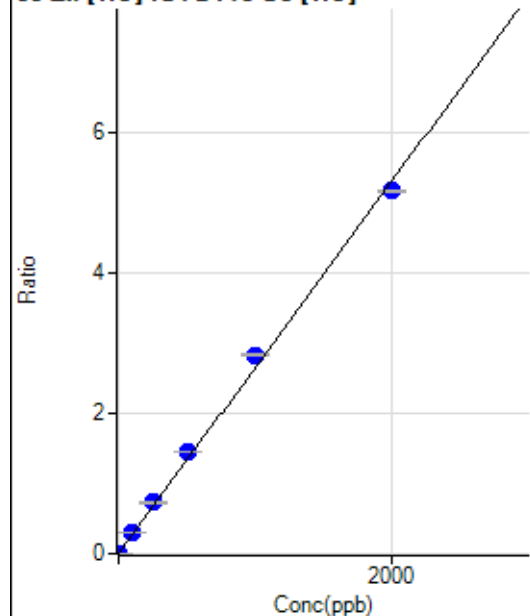
$$R = 0.9998$$

$$DL = 0.02846$$

$$BEC = 0.0676$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	437.79	0.0012	P	7.8
2	☐	0.200					
3	☐	2.000	2.476	2779.20	0.0078	P	2.8
4	☐	100.000	111.424	102661.97	0.2962	P	0.7
5	☐	250.000	273.575	235531.62	0.7255	P	0.4
6	☐	500.000	545.479	435518.74	1.4453	P	1.0
7	☐	1000.000	1069.599	851259.42	2.8327	P	0.7
8	☐	2000.000	1950.312	1622889.64	5.1642	P	0.5
9	☐			15523.99	0.0424	P	2.1

$$y = 0.0026 * x + 0.0012$$

$$R = 0.9988$$

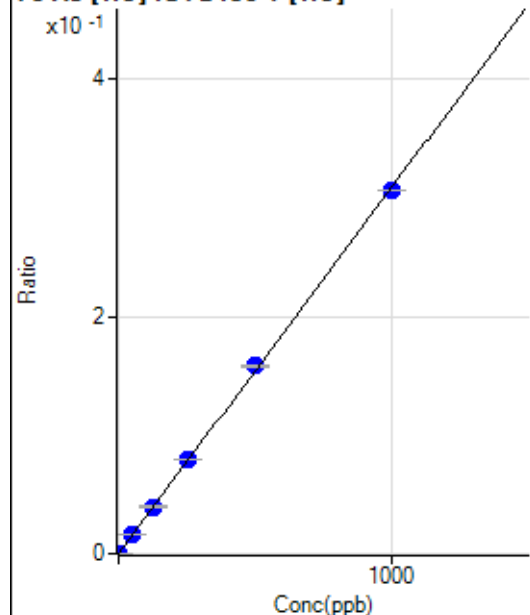
$$DL = 0.1108$$

$$BEC = 0.4706$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.56	0.0000	P	32.7
2	☐	0.100					
3	☐	1.000	1.051	619.77	0.0003	P	7.0
4	☐	50.000	52.027	29635.14	0.0160	P	0.5
5	☐	125.000	128.504	67957.04	0.0396	P	0.6
6	☐	250.000	255.643	126493.97	0.0788	P	0.2
7	☐	500.000	513.244	250513.50	0.1582	P	0.4
8	☐	1000.000	991.428	503402.88	0.3056	P	0.0
9	☐			890.16	0.0005	P	1.1

$$y = 3.0819\text{E-}004 * x + 2.9683\text{E-}006$$

$$R = 0.9999$$

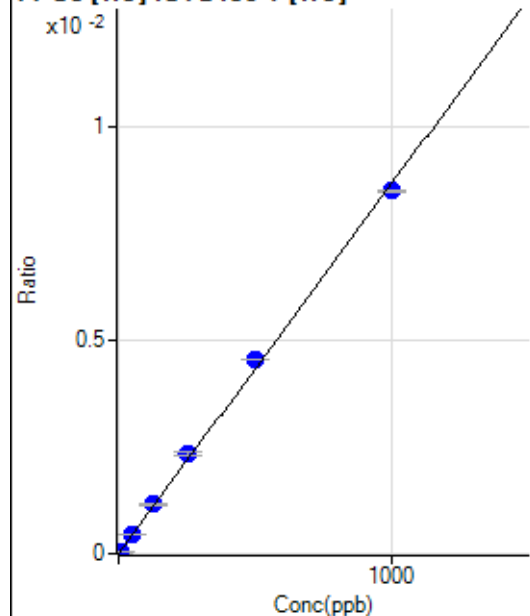
$$DL = 0.009455$$

$$BEC = 0.009631$$

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	2.22	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	5.351	90.00	0.0000	P	8.6
4	☐	50.000	52.665	843.37	0.0005	P	3.6
5	☐	125.000	133.361	1980.17	0.0012	P	4.1
6	☐	250.000	270.023	3748.32	0.0023	P	3.1
7	☐	500.000	525.636	7197.45	0.0045	P	0.4
8	☐	1000.000	980.996	13971.38	0.0085	P	0.8
9	☐			8.89	0.0000	P	57.1

$$y = 8.6437\text{E-}006 * x + 1.1914\text{E-}006$$

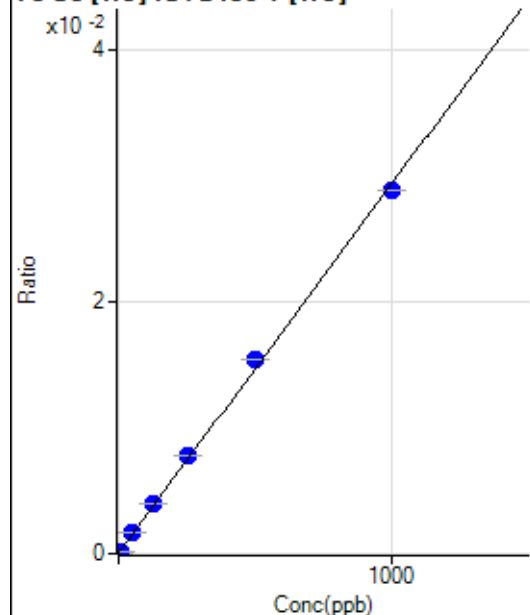
$$R = 0.9993$$

$$DL = 0.3581$$

$$BEC = 0.1378$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	85.80	0.0000	P	32.2
2	☐	0.500					
3	☐	5.000	5.398	387.66	0.0002	P	12.7
4	☐	50.000	55.033	3070.11	0.0017	P	2.5
5	☐	125.000	134.779	6866.49	0.0040	P	1.8
6	☐	250.000	265.578	12588.86	0.0078	P	0.7
7	☐	500.000	526.210	24533.72	0.0155	P	0.4
8	☐	1000.000	981.524	47539.28	0.0289	P	0.2
9	☐			114.20	0.0001	P	7.7

$$y = 2.9352E-005 * x + 4.5997E-005$$

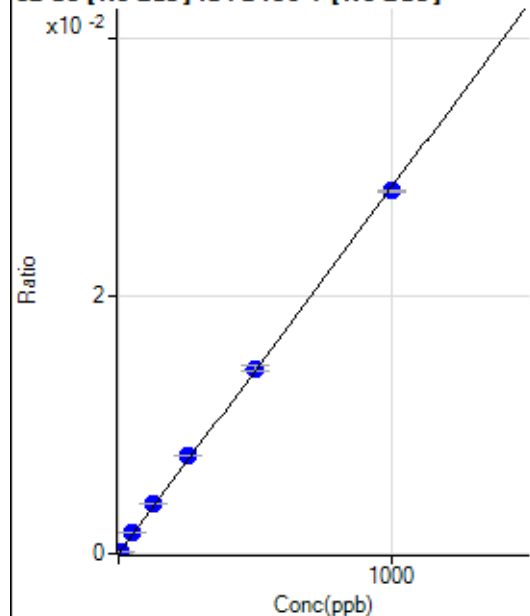
$$R = 0.9993$$

$$DL = 1.513$$

$$BEC = 1.567$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	110.74	0.0000	P	21.6
2	☐	0.500					
3	☐	5.000	5.248	2100.25	0.0002	P	1.5
4	☐	50.000	55.326	21152.32	0.0016	P	0.8
5	☐	125.000	136.637	49446.25	0.0039	P	1.3
6	☐	250.000	267.520	90111.29	0.0076	P	0.8
7	☐	500.000	506.149	170786.81	0.0144	P	2.3
8	☐	1000.000	990.823	329798.15	0.0282	P	0.2
9	☐			365.08	0.0000	P	7.0

$$y = 2.8418E-005 * x + 8.4286E-006$$

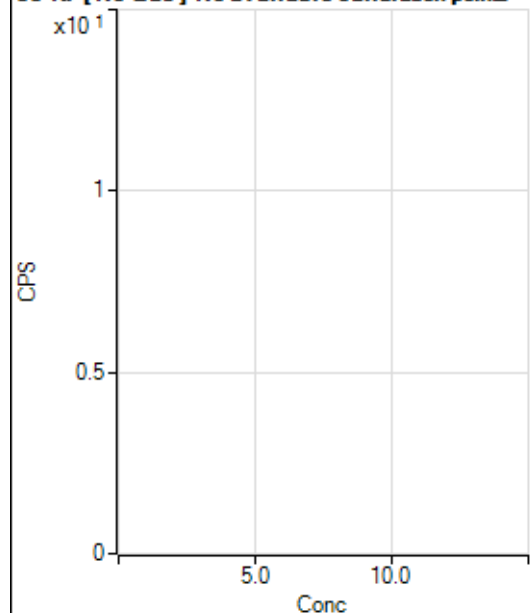
$$R = 0.9998$$

$$DL = 0.1921$$

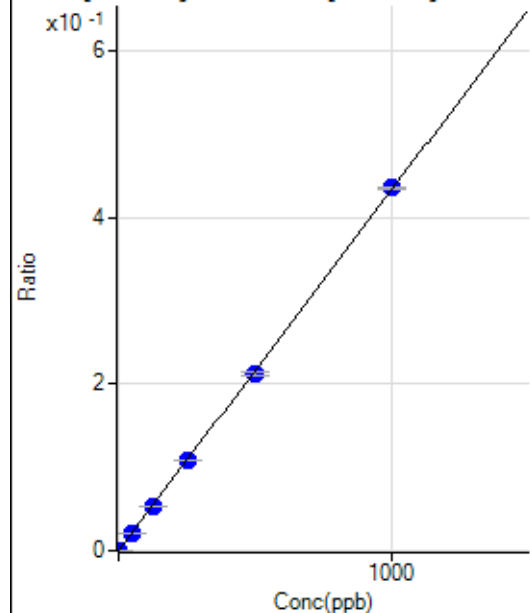
$$BEC = 0.2966$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			930.05		P	5.1
2	☐						
3	☐			992.28		P	0.7
4	☐			883.38		P	5.2
5	☐			885.60		P	3.0
6	☐			807.81		P	7.4
7	☐			800.04		P	9.4
8	☐			800.03		P	5.4
9	☐			996.72		P	6.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1461.25	0.0001	P	4.3
2	☐	0.100					
3	☐	1.000	1.037	7474.46	0.0006	P	5.9
4	☐	50.000	49.915	290981.04	0.0217	P	0.4
5	☐	125.000	124.276	685854.92	0.0540	P	0.9
6	☐	250.000	248.454	1276275.15	0.1078	P	0.2
7	☐	500.000	490.107	2521791.42	0.2125	P	2.9
8	☐	1000.000	1005.428	5103552.37	0.4359	P	0.6
9	☐			27655.25	0.0021	P	0.3

$$y = 4.3340\text{E-}004 * x + 1.1120\text{E-}004$$

$$R = 0.9999$$

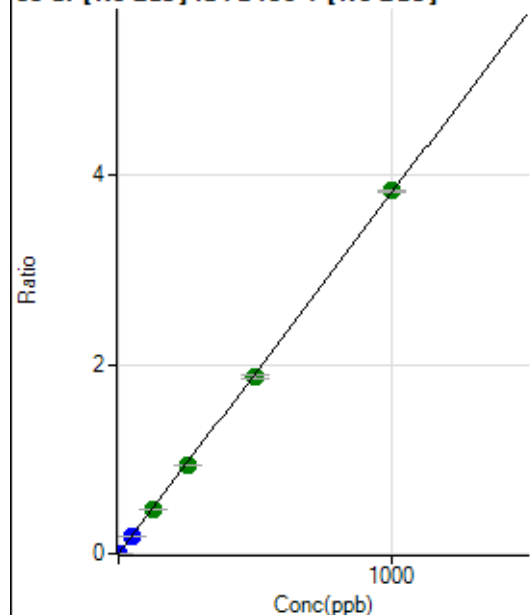
$$DL = 0.03322$$

$$BEC = 0.2566$$

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	330.57	0.0000	P	20.1
2	☐	0.100					
3	☐	1.000	0.983	50219.59	0.0038	P	0.4
4	☐	50.000	49.526	2524590.12	0.1887	P	0.6
5	☐	125.000	123.213	5963661.37	0.4693	A	0.0
6	☐	250.000	246.703	11125807.45	0.9397	A	0.2
7	☐	500.000	490.243	22157516.47	1.8672	A	2.6
8	☐	1000.000	1005.950	44863845.45	3.8315	A	0.3
9	☐			232929.25	0.0177	P	1.6

$$y = 0.0038 * x + 2.5153E-005$$

$$R = 0.9999$$

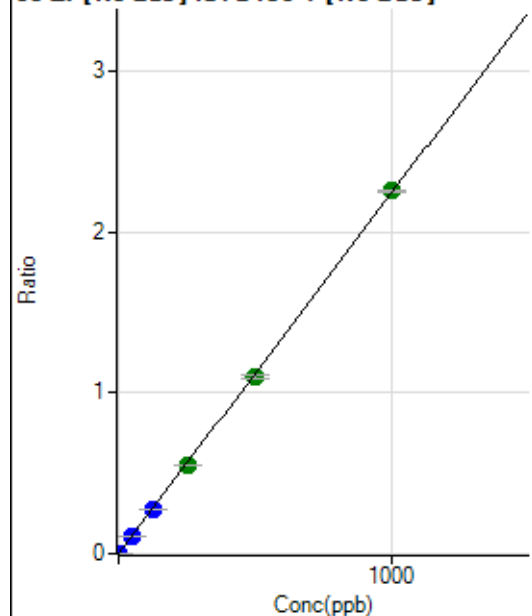
$$DL = 0.003984$$

$$BEC = 0.006604$$

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	908.40	0.0001	P	12.6
2	☐	0.100					
3	☐	1.000	0.996	30680.92	0.0023	P	0.8
4	☐	50.000	49.191	1475998.35	0.1103	P	0.1
5	☐	125.000	123.654	3521799.69	0.2772	P	0.1
6	☐	250.000	246.609	6543910.30	0.5527	A	0.6
7	☐	500.000	489.689	13022345.00	1.0974	A	2.2
8	☐	1000.000	1006.212	26401644.69	2.2548	A	0.5
9	☐			13584.74	0.0010	P	1.5

$$y = 0.0022 * x + 6.9123E-005$$

$$R = 0.9999$$

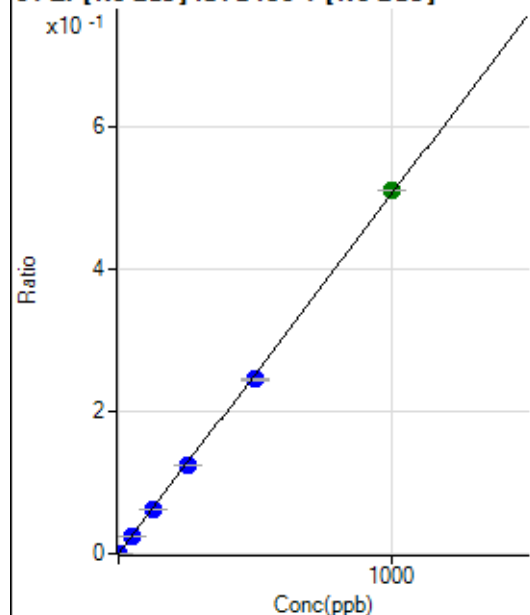
$$DL = 0.01165$$

$$BEC = 0.03085$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.78	0.0000	P	22.0
2	☐	0.100					
3	☐	1.000	0.980	6751.88	0.0005	P	4.2
4	☐	50.000	49.076	331855.01	0.0248	P	0.4
5	☐	125.000	122.517	786449.43	0.0619	P	0.7
6	☐	250.000	245.432	1467876.35	0.1240	P	0.1
7	☐	500.000	484.509	2904238.76	0.2447	P	1.9
8	☐	1000.000	1009.244	5968809.16	0.5098	A	0.0
9	☐			3203.30	0.0002	P	2.4

$$y = 5.0507\text{E-}004 * x + 1.1625\text{E-}005$$

$$R = 0.9998$$

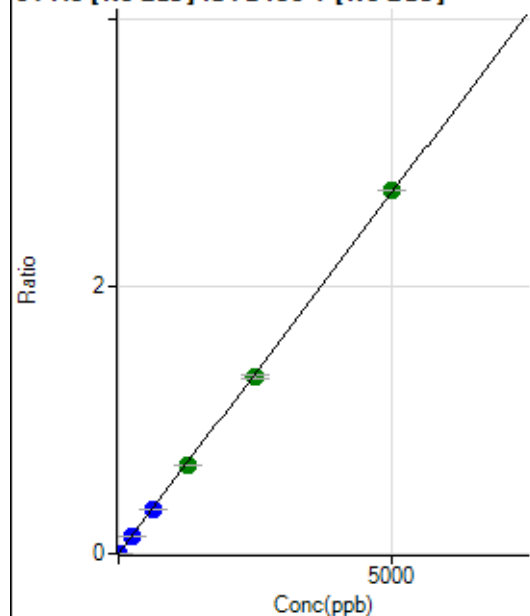
$$DL = 0.01516$$

$$BEC = 0.02302$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	244.46	0.0000	P	13.0
2	☐	0.500					
3	☐	5.000	4.932	35770.89	0.0027	P	1.2
4	☐	250.000	247.550	1789983.85	0.1338	P	0.6
5	☐	625.000	617.527	4239668.50	0.3336	P	0.4
6	☐	1250.000	1231.324	7876947.48	0.6653	A	0.1
7	☐	2500.000	2448.091	15695468.41	1.3226	A	2.3
8	☐	5000.000	5031.680	31831183.70	2.7185	A	0.1
9	☐			43520.35	0.0033	P	1.3

$$y = 5.4027\text{E-}004 * x + 1.8605\text{E-}005$$

$$R = 0.9999$$

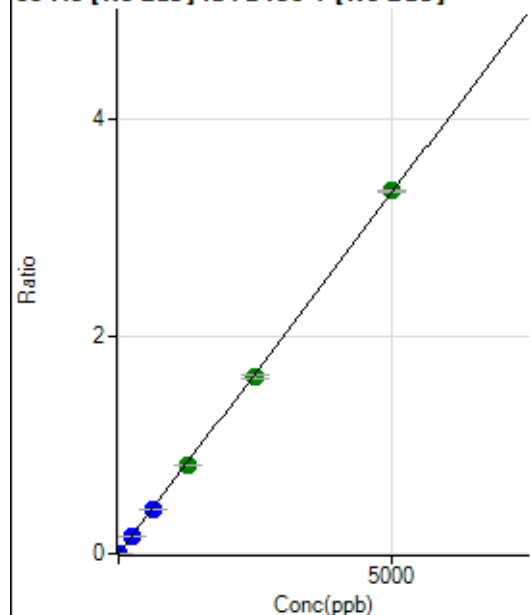
$$DL = 0.01344$$

$$BEC = 0.03444$$

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	33.33	0.0000	P	74.9
2	☐	0.500					
3	☐	5.000	4.905	43433.83	0.0033	P	0.9
4	☐	250.000	247.682	2200122.03	0.1644	P	0.4
5	☐	625.000	618.969	5220813.27	0.4109	P	0.7
6	☐	1250.000	1235.551	9710804.90	0.8201	A	0.1
7	☐	2500.000	2450.062	19298739.15	1.6263	A	2.5
8	☐	5000.000	5029.451	39091531.08	3.3385	A	0.3
9	☐			69474.94	0.0053	P	1.8

$$y = 6.6379\text{E-}004 * x + 2.5354\text{E-}006$$

$$R = 0.9999$$

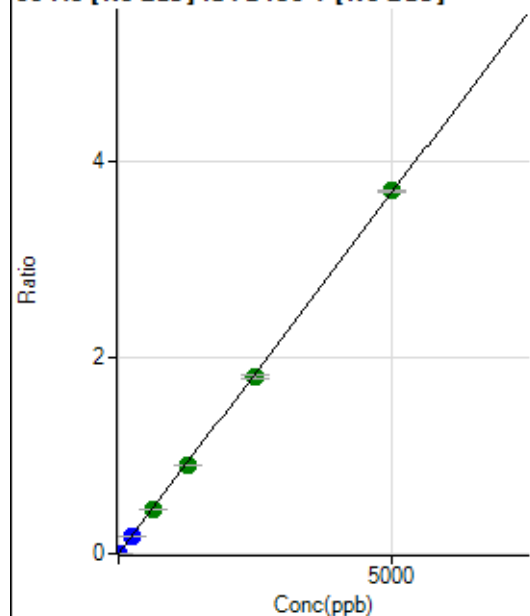
$$DL = 0.008586$$

$$BEC = 0.00382$$

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	119.45	0.0000	P	54.2
2	☐	0.500					
3	☐	5.000	4.918	48393.91	0.0036	P	0.9
4	☐	250.000	245.491	2418830.07	0.1808	P	0.5
5	☐	625.000	612.871	5733963.71	0.4512	A	0.4
6	☐	1250.000	1234.481	10761810.05	0.9089	A	0.3
7	☐	2500.000	2448.752	21394918.18	1.8029	A	2.3
8	☐	5000.000	5031.245	43375855.14	3.7043	A	0.5
9	☐			86162.73	0.0065	P	1.9

$$y = 7.3626\text{E-}004 * x + 9.0910\text{E-}006$$

$$R = 0.9999$$

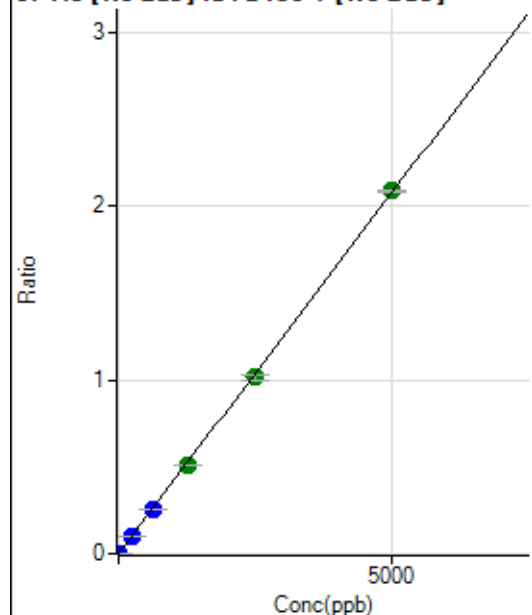
$$DL = 0.02009$$

$$BEC = 0.01235$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	36.11	0.0000	P	70.4
2	☐	0.500					
3	☐	5.000	4.927	27252.08	0.0020	P	0.7
4	☐	250.000	244.825	1357512.37	0.1014	P	0.1
5	☐	625.000	615.159	3238877.07	0.2549	P	0.2
6	☐	1250.000	1236.029	6063898.88	0.5121	A	0.2
7	☐	2500.000	2442.579	12009751.48	1.0121	A	2.4
8	☐	5000.000	5033.692	24422042.73	2.0857	A	0.4
9	☐			42787.44	0.0032	P	3.0

$$y = 4.1434\text{E-}004 * x + 2.7472\text{E-}006$$

$$R = 0.9999$$

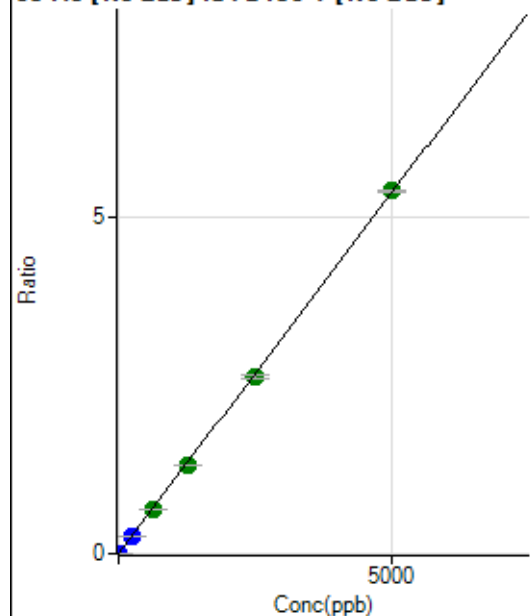
$$DL = 0.01401$$

$$BEC = 0.00663$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33.34	0.0000	P	66.2
2	☐	0.500					
3	☐	5.000	4.857	69333.09	0.0052	P	1.3
4	☐	250.000	245.446	3515388.84	0.2627	P	0.6
5	☐	625.000	611.835	8321113.99	0.6548	A	0.3
6	☐	1250.000	1235.460	15656561.12	1.3223	A	0.1
7	☐	2500.000	2447.442	31084422.92	2.6195	A	2.4
8	☐	5000.000	5031.788	63060670.16	5.3855	A	0.3
9	☐			109014.71	0.0083	P	1.5

$$y = 0.0011 * x + 2.5374\text{E-}006$$

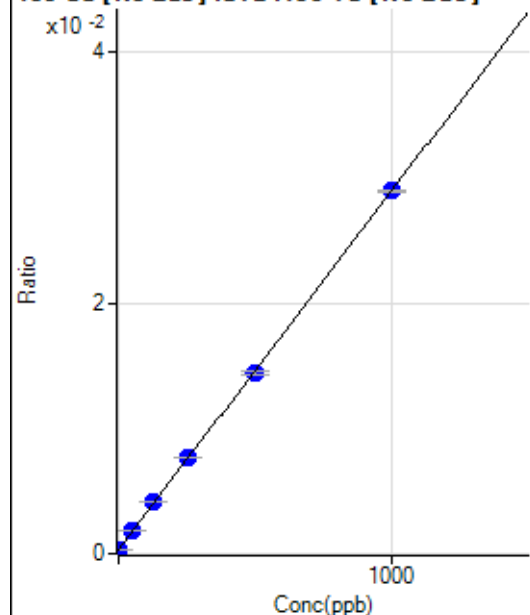
$$R = 0.9999$$

$$DL = 0.004709$$

$$BEC = 0.002371$$

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	5890.34	0.0003	P	4.4
2	☐	0.100					
3	☐	1.000	0.636	6287.79	0.0003	P	3.1
4	☐	50.000	54.351	34649.01	0.0019	P	1.7
5	☐	125.000	134.017	74191.73	0.0042	P	0.6
6	☐	250.000	257.123	131438.49	0.0077	P	0.2
7	☐	500.000	492.961	250634.12	0.0144	P	3.0
8	☐	1000.000	1000.395	493681.23	0.0289	P	0.2
9	☐			5759.76	0.0003	P	6.5

$$y = 2.8598\text{E-}005 * x + 3.2983\text{E-}004$$

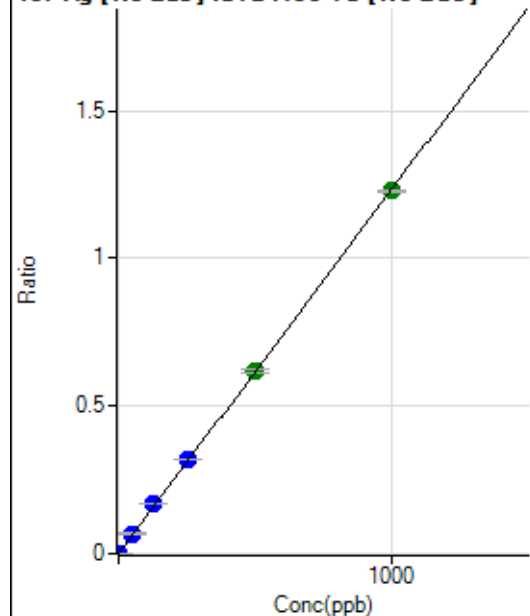
$$R = 0.9999$$

$$DL = 1.519$$

$$BEC = 11.53$$

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	46.6
2	☐	0.100					
3	☐	1.000	1.096	24522.12	0.0014	P	2.3
4	☐	50.000	55.406	1255498.10	0.0683	P	0.7
5	☐	125.000	134.994	2964717.27	0.1663	P	0.4
6	☐	250.000	256.985	5416918.22	0.3166	P	0.3
7	☐	500.000	500.115	10705430.71	0.6162	A	2.3
8	☐	1000.000	996.677	20949793.70	1.2280	A	0.5
9	☐			2575.35	0.0001	P	2.5

$$y = 0.0012 * x + 6.6913\text{E-}006$$

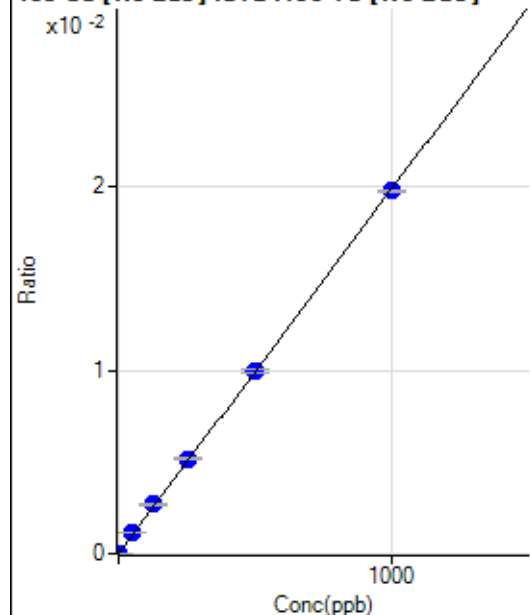
$$R = 0.9999$$

$$DL = 0.007587$$

$$BEC = 0.005431$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	20.83	0.0000	P	20.1
2	☐	0.100					
3	☐	1.000	1.091	412.52	0.0000	P	9.4
4	☐	50.000	55.779	20399.63	0.0011	P	0.6
5	☐	125.000	134.544	47662.13	0.0027	P	1.0
6	☐	250.000	260.494	88548.04	0.0052	P	1.1
7	☐	500.000	500.545	172780.90	0.0099	P	2.2
8	☐	1000.000	995.622	337435.54	0.0198	P	0.5
9	☐			116.67	0.0000	P	9.6

$$y = 1.9866E-005 * x + 1.1668E-006$$

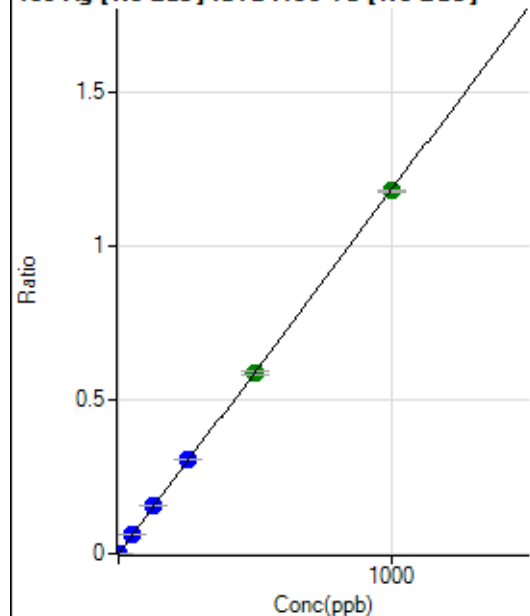
$$R = 0.9999$$

$$DL = 0.03544$$

$$BEC = 0.05874$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	75.00	0.0000	P	19.3
2	☐	0.100					
3	☐	1.000	1.102	23662.36	0.0013	P	2.6
4	☐	50.000	55.237	1202941.48	0.0654	P	0.3
5	☐	125.000	134.604	2841086.67	0.1594	P	0.1
6	☐	250.000	258.565	5237877.38	0.3062	P	0.6
7	☐	500.000	499.081	10267606.83	0.5910	A	2.2
8	☐	1000.000	996.856	20138020.94	1.1804	A	0.6
9	☐			2408.65	0.0001	P	2.7

$$y = 0.0012 * x + 4.2005E-006$$

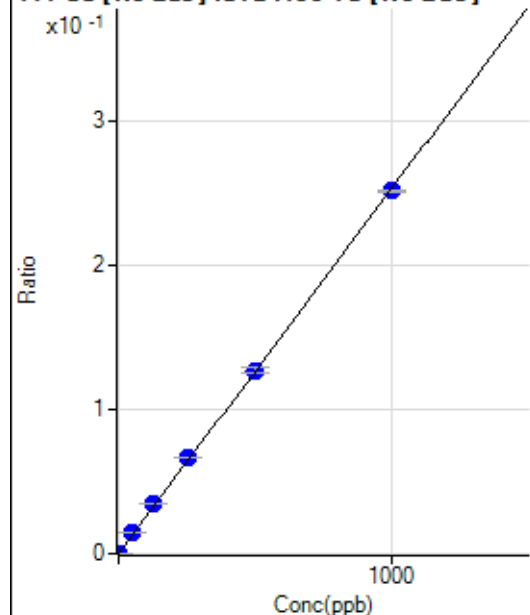
$$R = 0.9999$$

$$DL = 0.002059$$

$$BEC = 0.003547$$

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	1769.18	0.0001	P	5.1
2	☐	0.100					
3	☐	1.000	1.057	6620.80	0.0004	P	0.5
4	☐	50.000	55.505	260073.77	0.0141	P	0.7
5	☐	125.000	135.971	614947.34	0.0345	P	0.5
6	☐	250.000	262.507	1137889.36	0.0665	P	0.4
7	☐	500.000	501.460	2205787.37	0.1270	P	2.9
8	☐	1000.000	994.497	4294196.08	0.2517	P	0.3
9	☐			2674.10	0.0001	P	4.4

$$y = 2.5301\text{E-}004 * x + 9.9064\text{E-}005$$

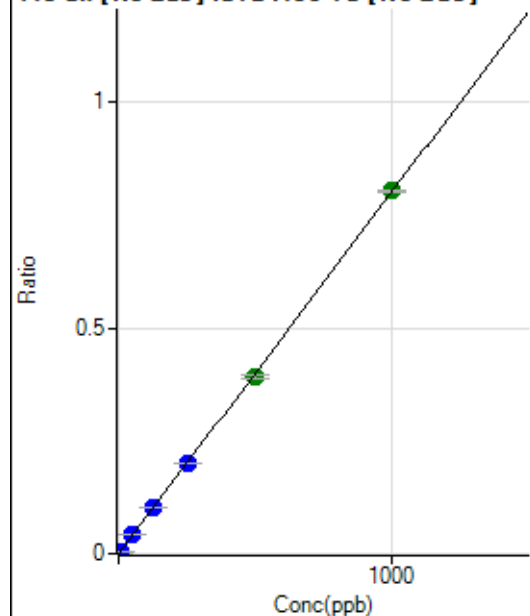
$$R = 0.9999$$

$$DL = 0.06009$$

$$BEC = 0.3915$$

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	875.07	0.0000	P	11.3
2	☐	0.500					
3	☐	5.000	5.213	76156.47	0.0042	P	0.3
4	☐	50.000	51.969	764787.69	0.0416	P	1.2
5	☐	125.000	127.293	1814424.39	0.1018	P	0.7
6	☐	250.000	249.118	3407274.99	0.1992	P	0.9
7	☐	500.000	490.633	6814083.66	0.3922	A	2.5
8	☐	1000.000	1004.518	13698421.49	0.8030	A	0.4
9	☐			20087.29	0.0011	P	2.2

$$y = 7.9931\text{E-}004 * x + 4.9006\text{E-}005$$

$$R = 0.9999$$

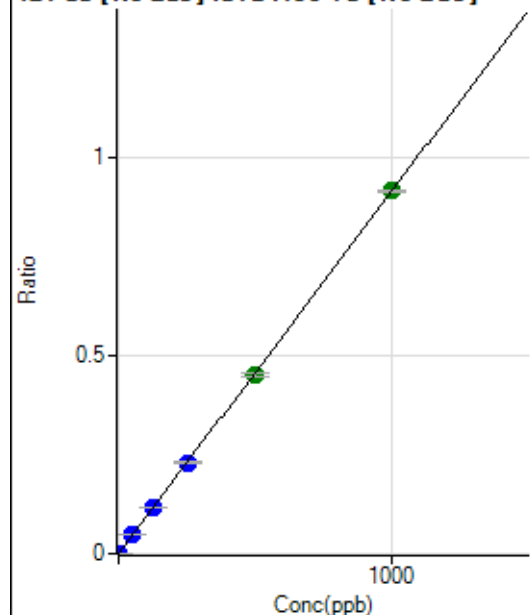
$$DL = 0.02086$$

$$BEC = 0.06131$$

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	141.68	0.0000	P	26.8
2	☐	0.200					
3	☐	2.000	2.005	33173.29	0.0018	P	1.3
4	☐	50.000	52.095	873907.65	0.0475	P	1.2
5	☐	125.000	128.688	2092243.10	0.1174	P	0.0
6	☐	250.000	251.652	3926606.16	0.2295	P	1.3
7	☐	500.000	494.321	7832846.01	0.4509	A	2.7
8	☐	1000.000	1001.861	15589020.31	0.9138	A	0.2
9	☐			26211.41	0.0014	P	2.8

$$y = 9.1208\text{E-}004 * x + 7.9314\text{E-}006$$

$$R = 1.0000$$

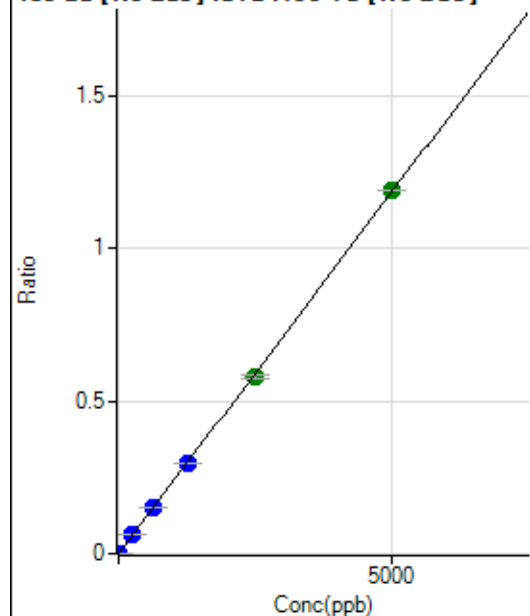
$$DL = 0.006989$$

$$BEC = 0.008696$$

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	69.45	0.0000	P	25.0
2	☐	1.000					
3	☐	10.000	10.008	42861.41	0.0024	P	0.7
4	☐	250.000	256.536	1116630.25	0.0607	P	0.5
5	☐	625.000	634.995	2678860.17	0.1503	P	0.5
6	☐	1250.000	1246.468	5046813.18	0.2950	P	0.8
7	☐	2500.000	2451.689	10081394.93	0.5803	A	2.2
8	☐	5000.000	5023.462	20282924.24	1.1889	A	0.1
9	☐			5226.22	0.0003	P	2.9

$$y = 2.3668\text{E-}004 * x + 3.8886\text{E-}006$$

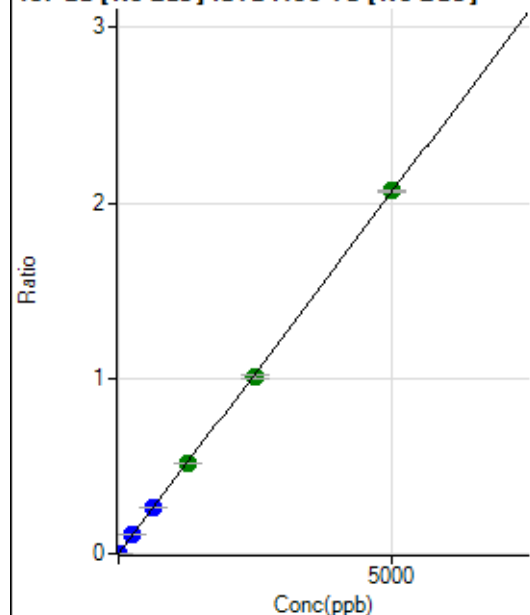
$$R = 0.9999$$

$$DL = 0.01231$$

$$BEC = 0.01643$$

Weight: <None>

Min Conc: 0

¹³⁷Ba [No Gas] ISTD : ¹⁵⁹Tb [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0000	P	25.9
2	☐	1.000					
3	☐	10.000	9.947	74128.72	0.0041	P	0.8
4	☐	250.000	256.265	1940921.85	0.1055	P	0.6
5	☐	625.000	637.356	4678651.19	0.2625	P	0.2
6	☐	1250.000	1242.634	8754871.21	0.5118	A	0.2
7	☐	2500.000	2451.868	17543096.40	1.0098	A	2.3
8	☐	5000.000	5024.050	35296312.60	2.0691	A	0.5
9	☐			8725.33	0.0005	P	0.8

$$y = 4.1183\text{E-}004 * x + 6.8450\text{E-}006$$

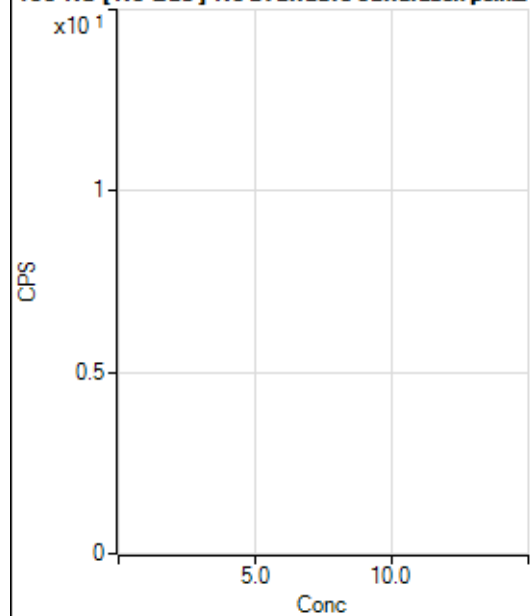
$$R = 0.9999$$

$$DL = 0.0129$$

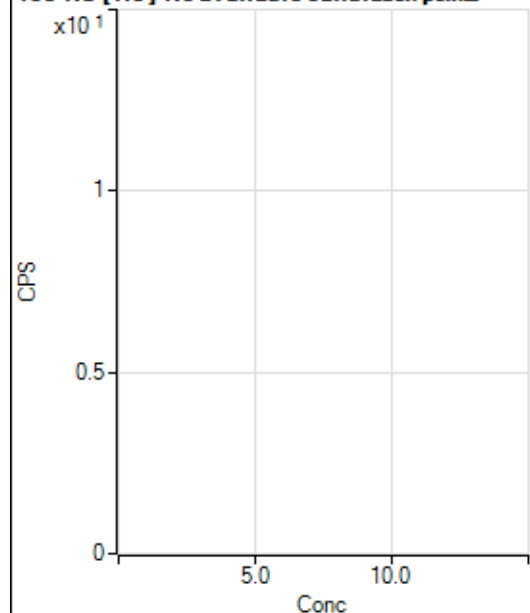
$$BEC = 0.01662$$

Weight: <None>

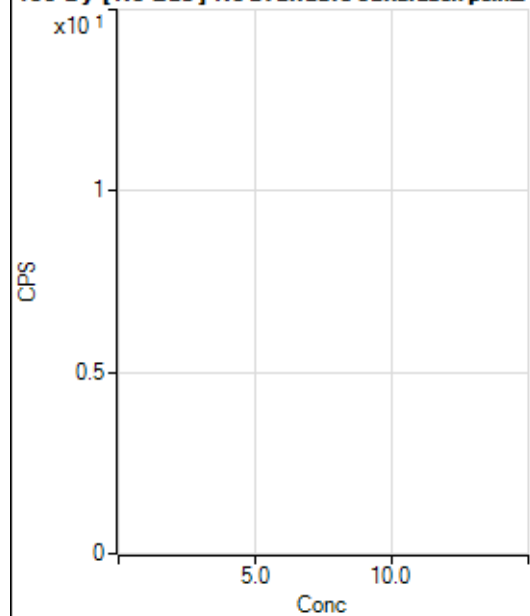
Min Conc: 0

¹⁵⁰Nd [No Gas] No available calibration points

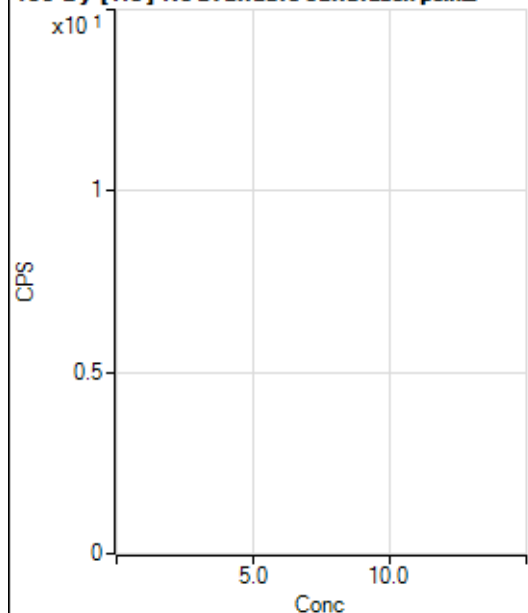
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			11.11		P	69.3
2	☐						
3	☐			2.22		P	173.
4	☐			95.56		P	49.5
5	☐			191.12		P	7.3
6	☐			420.02		P	4.2
7	☐			828.95		P	13.8
8	☐			1422.36		P	6.4
9	☐			373.35		P	24.5

150 Nd [He] No available calibration points

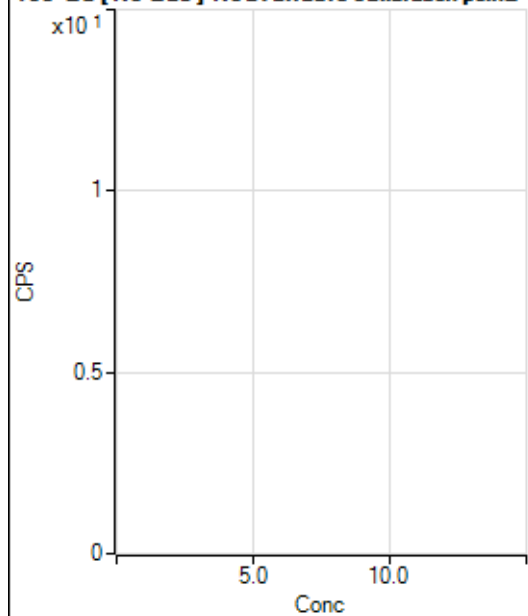
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			0.00		P	
4	☐			12.22		P	56.8
5	☐			23.33		P	37.8
6	☐			44.44		P	28.4
7	☐			62.22		P	27.0
8	☐			130.01		P	23.5
9	☐			135.56		P	37.2

156 Dy [No Gas] No available calibration points

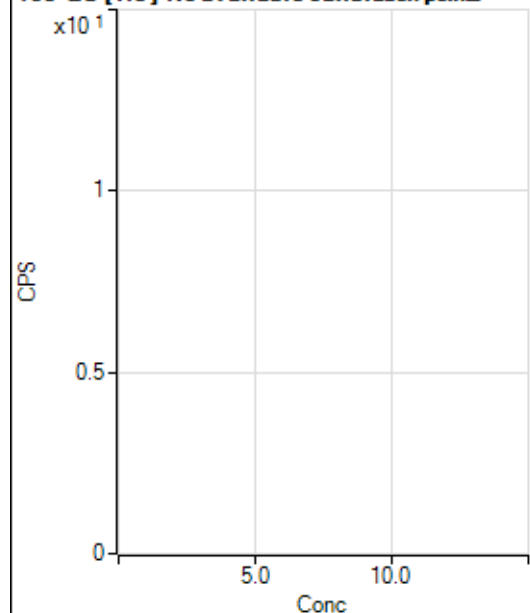
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			286.13		P	27.1
2	☐						
3	☐			50.00		P	28.9
4	☐			66.67		P	25.0
5	☐			122.23		P	10.4
6	☐			111.12		P	8.7
7	☐			200.01		P	28.9
8	☐			302.80		P	13.9
9	☐			219.46		P	30.7

156 Dy [He] No available calibration points

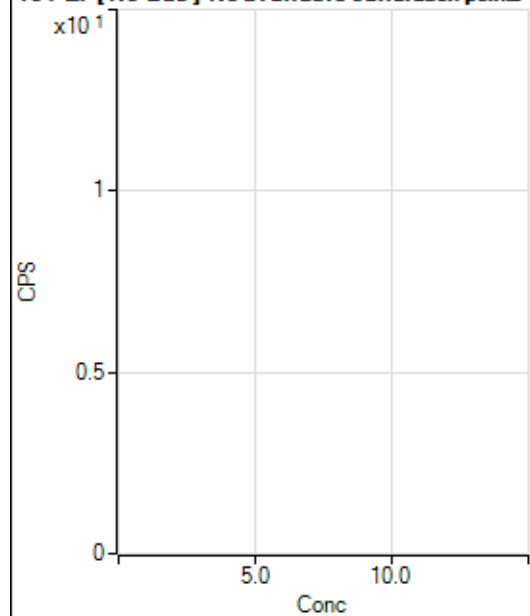
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	33.3
2	☐						
3	☐			3.33		P	0.0
4	☐			17.78		P	28.6
5	☐			44.44		P	22.9
6	☐			70.00		P	12.6
7	☐			165.56		P	14.8
8	☐			250.01		P	11.9
9	☐			106.67		P	11.3

160 Gd [No Gas] Noavailable calibration poin_

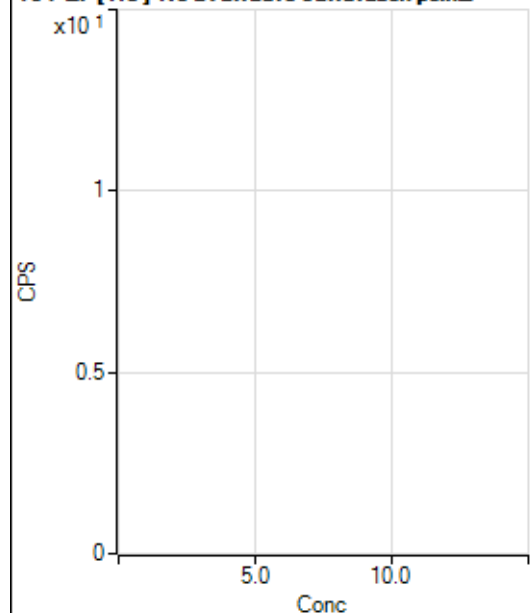
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			163.90		P	28.9
2	☐						
3	☐			141.67		P	21.2
4	☐			111.11		P	24.1
5	☐			163.90		P	26.1
6	☐			127.79		P	43.4
7	☐			158.34		P	9.1
8	☐			166.68		P	36.1
9	☐			280.57		P	14.0

160 Gd [He] No available calibration points

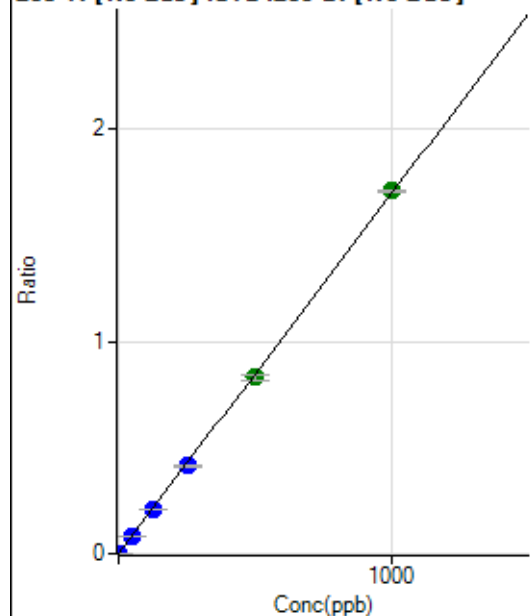
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			241.12		P	28.8
2	☐						
3	☐			227.78		P	13.1
4	☐			212.22		P	14.3
5	☐			190.00		P	23.7
6	☐			180.00		P	4.9
7	☐			197.79		P	27.0
8	☐			181.11		P	4.2
9	☐			266.67		P	11.9

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	40.0
2	☐						
3	☐			86.12		P	40.3
4	☐			38.89		P	32.7
5	☐			94.45		P	20.4
6	☐			63.89		P	19.9
7	☐			94.45		P	50.2
8	☐			69.45		P	36.7
9	☐			147.23		P	41.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			25.56		P	54.3
2	☐						
3	☐			43.33		P	35.3
4	☐			28.89		P	17.6
5	☐			23.33		P	24.7
6	☐			33.33		P	26.5
7	☐			43.33		P	15.4
8	☐			38.89		P	34.6
9	☐			60.00		P	30.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.11	0.0000	P	53.2
2	☐	0.100					
3	☐	1.000	0.959	20669.59	0.0016	P	1.0
4	☐	50.000	48.226	1044240.26	0.0817	P	0.8
5	☐	125.000	121.082	2544941.61	0.2052	P	0.2
6	☐	250.000	243.070	4943137.31	0.4120	P	0.6
7	☐	500.000	488.834	9880033.12	0.8285	A	2.7
8	☐	1000.000	1007.894	19505916.23	1.7082	A	0.7
9	☐			8364.11	0.0008	P	5.4

$$y = 0.0017 * x + 6.8176E-006$$

$$R = 0.9999$$

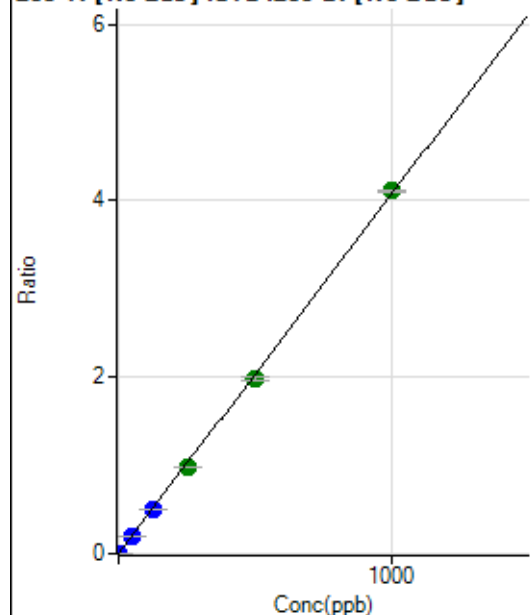
$$DL = 0.006416$$

$$BEC = 0.004023$$

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	225.01	0.0000	P	10.9
2	☐	0.100					
3	☐	1.000	0.954	49487.49	0.0039	P	0.9
4	☐	50.000	48.411	2519509.33	0.1972	P	0.6
5	☐	125.000	121.440	6134922.18	0.4947	P	0.2
6	☐	250.000	241.428	11801101.92	0.9835	A	0.2
7	☐	500.000	487.132	23663127.61	1.9844	A	3.0
8	☐	1000.000	1009.102	46939682.65	4.1106	A	0.5
9	☐			20141.01	0.0019	P	2.7

$$y = 0.0041 * x + 1.7828E-005$$

$$R = 0.9998$$

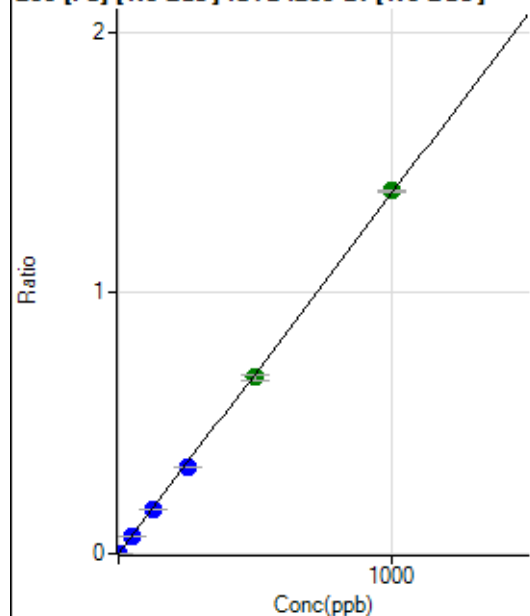
$$DL = 0.001427$$

$$BEC = 0.004377$$

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	624.11	0.0000	P	15.1
2	☐	0.100					
3	☐	1.000	0.941	17096.53	0.0013	P	0.6
4	☐	50.000	48.314	853261.35	0.0668	P	0.3
5	☐	125.000	121.607	2083875.41	0.1680	P	0.2
6	☐	250.000	241.549	4004368.55	0.3337	P	0.7
7	☐	500.000	489.462	8063522.46	0.6762	A	3.0
8	☐	1000.000	1007.890	15899696.30	1.3924	A	0.7
9	☐			20946.59	0.0019	P	0.6

$$y = 0.0014 * x + 4.9470E-005$$

$$R = 0.9999$$

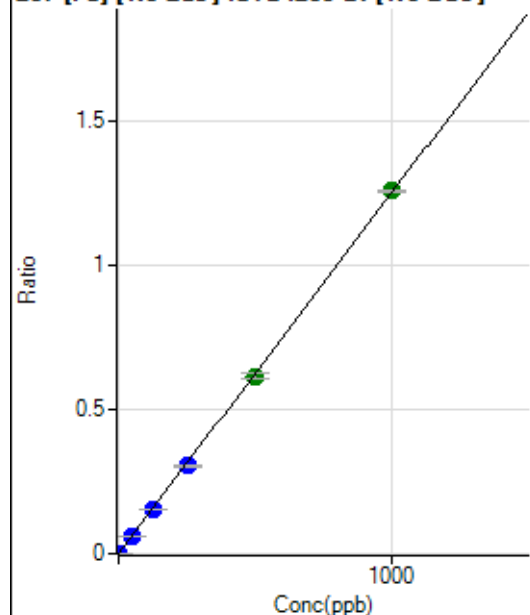
$$DL = 0.01621$$

$$BEC = 0.03581$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	594.48	0.0000	P	5.4
2	☐	0.100					
3	☐	1.000	0.963	15830.19	0.0012	P	0.2
4	☐	50.000	48.579	775367.11	0.0607	P	0.2
5	☐	125.000	121.800	1886247.93	0.1521	P	0.3
6	☐	250.000	243.574	3649164.70	0.3041	P	1.0
7	☐	500.000	491.993	7324708.26	0.6143	A	3.2
8	☐	1000.000	1006.081	14343068.73	1.2560	A	0.8
9	☐			17775.22	0.0016	P	2.3

$$y = 0.0012 * x + 4.7105E-005$$

$$R = 0.9999$$

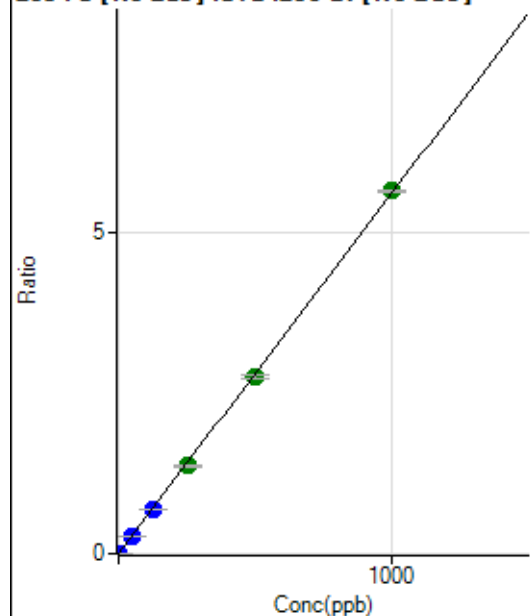
$$DL = 0.00607$$

$$BEC = 0.03773$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2705.75	0.0002	P	5.7
2	☐	0.100					
3	☐	1.000	0.960	70890.74	0.0056	P	0.2
4	☐	50.000	48.475	3475005.37	0.2720	P	0.2
5	☐	125.000	122.183	8498444.74	0.6853	P	0.3
6	☐	250.000	242.929	16346403.99	1.3623	A	0.7
7	☐	500.000	490.143	32776217.22	2.7485	A	2.7
8	☐	1000.000	1007.124	64485486.63	5.6472	A	0.4
9	☐			82484.81	0.0076	P	0.9

$$y = 0.0056 * x + 2.1444E-004$$

$$R = 0.9999$$

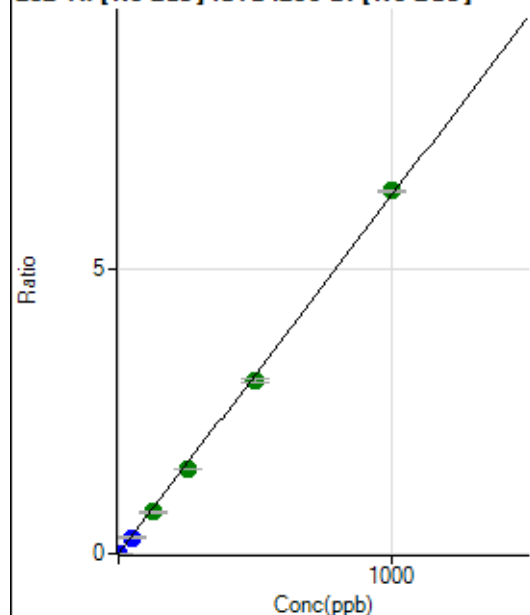
$$DL = 0.006594$$

$$BEC = 0.03824$$

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	70.37	0.0000	P	27.9
2	☐	0.100					
3	☐	1.000	0.905	72015.94	0.0057	P	0.6
4	☐	50.000	45.594	3656506.79	0.2862	P	0.5
5	☐	125.000	115.604	8999526.47	0.7257	A	0.6
6	☐	250.000	237.493	17889225.63	1.4909	A	0.4
7	☐	500.000	483.029	36159873.96	3.0322	A	2.8
8	☐	1000.000	1013.007	72615879.40	6.3592	A	0.4
9	☐			12773.30	0.0012	P	10.3

$$y = 0.0063 * x + 5.5784E-006$$

$$R = 0.9997$$

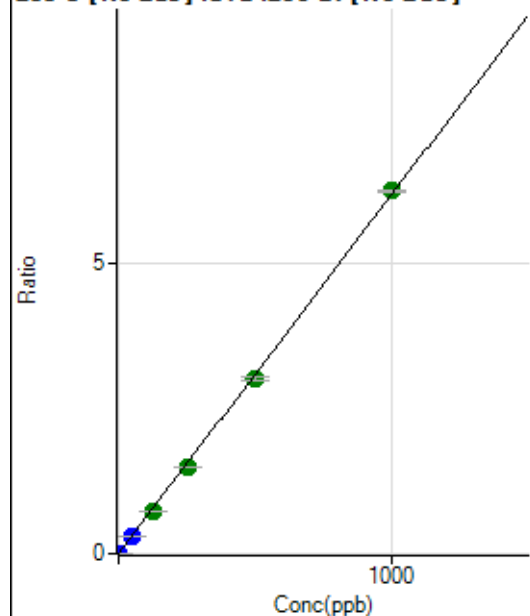
$$DL = 0.0007446$$

$$BEC = 0.0008886$$

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	94.45	0.0000	P	10.3
2	☐	0.100					
3	☐	1.000	0.891	69943.81	0.0055	P	1.0
4	☐	50.000	45.925	3628723.74	0.2840	P	0.3
5	☐	125.000	116.449	8931496.90	0.7202	A	0.2
6	☐	250.000	239.146	17747644.67	1.4791	A	0.2
7	☐	500.000	486.521	35883870.25	3.0090	A	2.6
8	☐	1000.000	1010.726	71381343.26	6.2511	A	0.2
9	☐			12862.43	0.0012	P	8.0

$$y = 0.0062 * x + 7.4854E-006$$

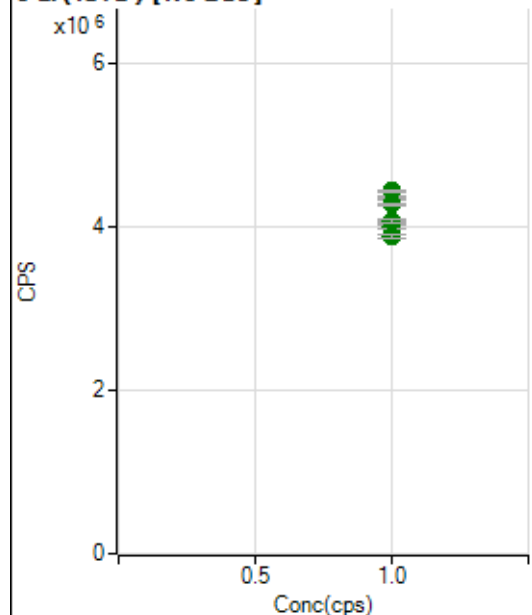
$$R = 0.9998$$

$$DL = 0.0003733$$

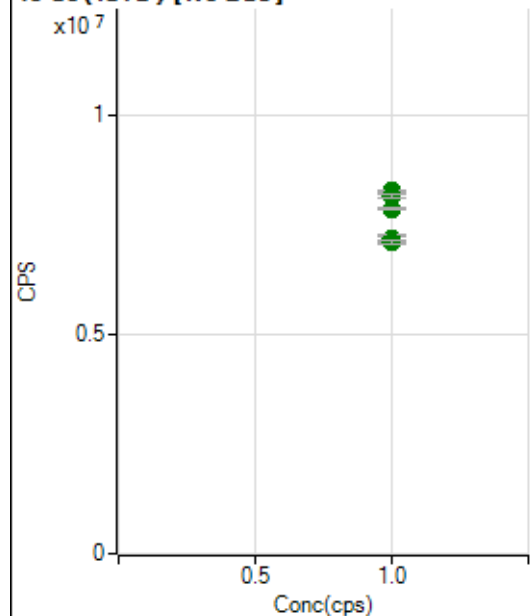
$$BEC = 0.00121$$

Weight: <None>

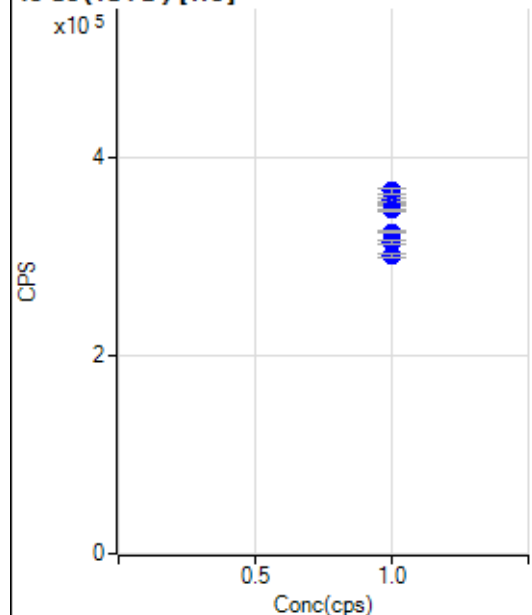
Min Conc: 0

6 Li (ISTD) [No Gas]

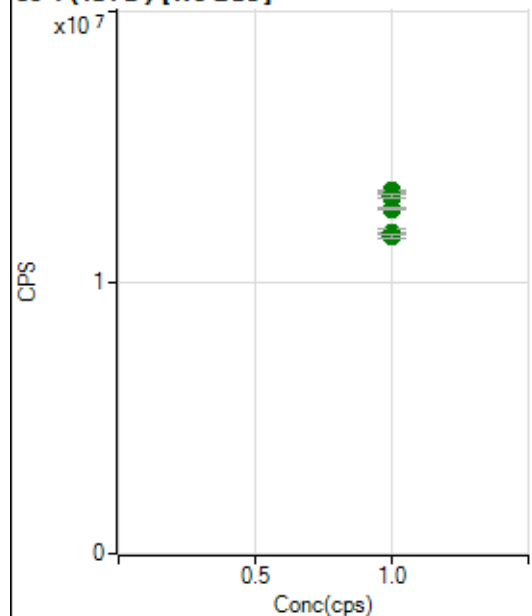
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4335149.31		A	0.4
2	☐	1.000					
3	☐	1.000		4358130.42		A	0.6
4	☐	1.000		4439879.90		A	0.6
5	☐	1.000		4282140.28		A	0.6
6	☐	1.000		4043432.16		A	0.9
7	☐	1.000		3998435.39		A	1.1
8	☐	1.000		3890885.08		A	1.2
9	☐	1.000		4075187.37		A	1.3

45 Sc (ISTD) [No Gas]

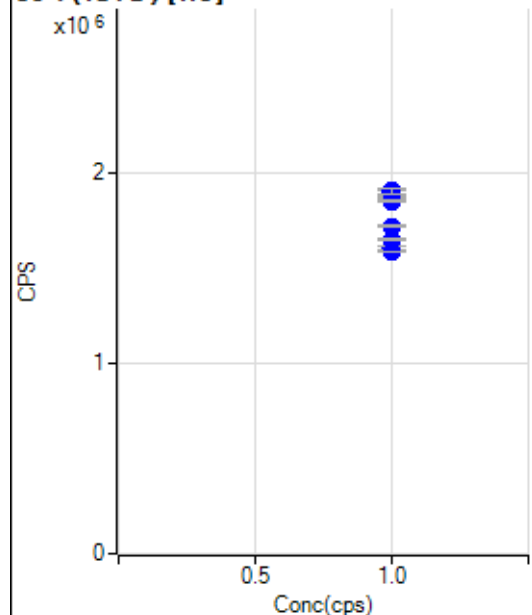
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8211750.96		A	0.2
2	☐	1.000					
3	☐	1.000		8263553.22		A	0.7
4	☐	1.000		8273647.67		A	0.4
5	☐	1.000		7851278.30		A	0.6
6	☐	1.000		7194691.65		A	1.0
7	☐	1.000		7179041.05		A	2.2
8	☐	1.000		7113592.52		A	1.1
9	☐	1.000		8168242.80		A	1.0

45 Sc (ISTD) [He]

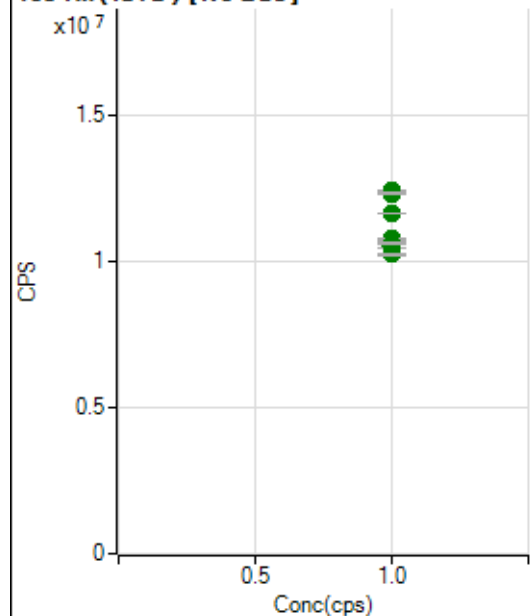
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		351358.02		P	0.4
2	☐	1.000					
3	☐	1.000		356260.99		P	1.1
4	☐	1.000		346588.18		P	0.4
5	☐	1.000		324661.01		P	0.6
6	☐	1.000		301366.95		P	1.3
7	☐	1.000		300519.89		P	0.9
8	☐	1.000		314260.05		P	0.7
9	☐	1.000		365864.09		P	1.8

89 Y (ISTD) [No Gas]

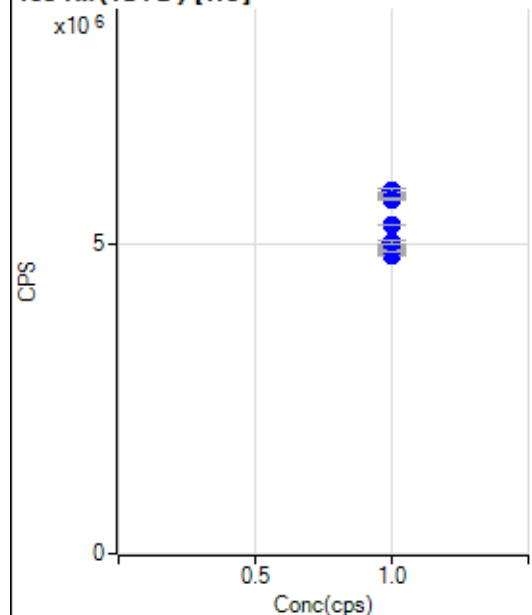
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13140613.97		A	0.1
2	☐	1.000					
3	☐	1.000		13330226.47		A	0.2
4	☐	1.000		13382044.94		A	0.5
5	☐	1.000		12707145.50		A	0.5
6	☐	1.000		11840342.05		A	0.6
7	☐	1.000		11869950.66		A	1.7
8	☐	1.000		11709199.96		A	1.0
9	☐	1.000		13170657.31		A	1.1

89 Y (ISTD) [He]

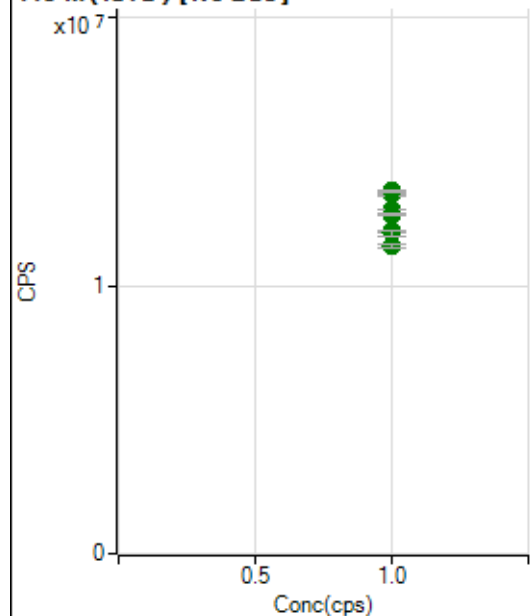
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1868822.04		P	0.9
2	☐	1.000					
3	☐	1.000		1895643.41		P	1.2
4	☐	1.000		1847918.41		P	0.3
5	☐	1.000		1715833.55		P	0.6
6	☐	1.000		1605479.72		P	1.0
7	☐	1.000		1583720.37		P	0.3
8	☐	1.000		1647519.72		P	0.9
9	☐	1.000		1901643.01		P	1.7

103 Rh (ISTD) [No Gas]

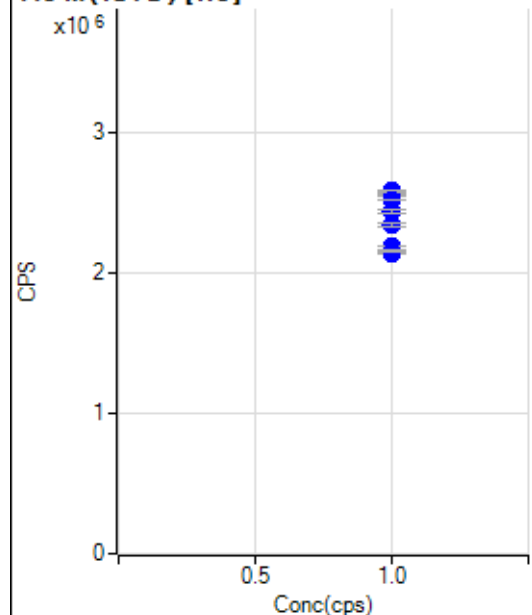
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12328166.34		A	0.5
2	☐	1.000					
3	☐	1.000		12426630.14		A	0.3
4	☐	1.000		12364827.19		A	0.7
5	☐	1.000		11668953.82		A	0.2
6	☐	1.000		10781191.30		A	0.4
7	☐	1.000		10554404.49		A	1.8
8	☐	1.000		10242733.48		A	0.8
9	☐	1.000		10617361.26		A	0.4

103 Rh (ISTD) [He]

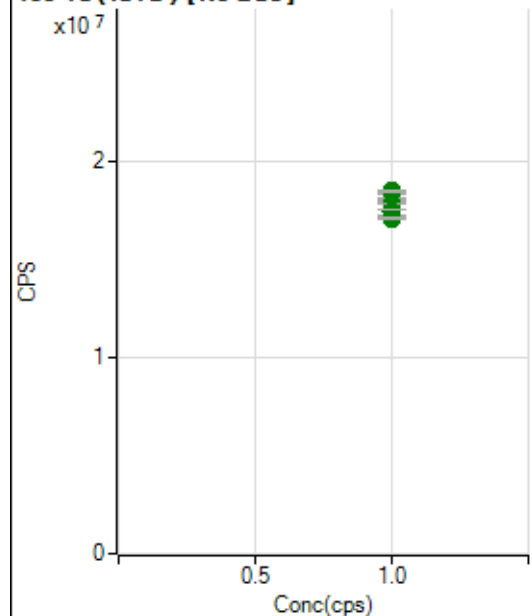
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5777332.90		P	0.3
2	☐	1.000					
3	☐	1.000		5852788.87		P	0.9
4	☐	1.000		5711047.06		P	0.5
5	☐	1.000		5308893.39		P	0.4
6	☐	1.000		4936916.87		P	0.5
7	☐	1.000		4816210.63		P	0.7
8	☐	1.000		4888015.48		P	1.0
9	☐	1.000		5035166.03		P	1.1

115 In (ISTD) [No Gas]

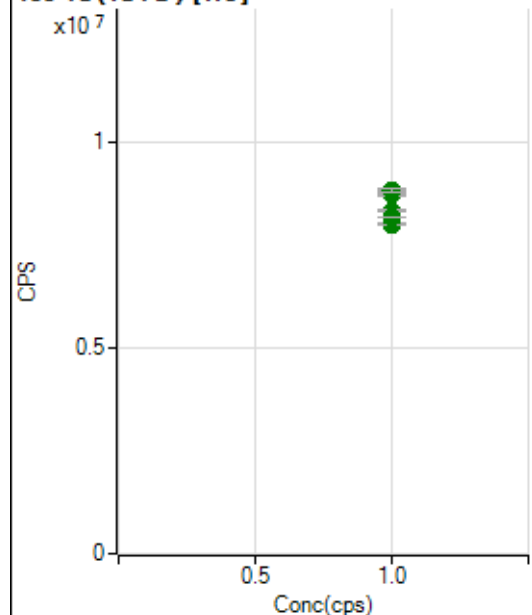
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		13400261.02		A	0.1
2	☐	1.000					
3	☐	1.000		13388672.70		A	0.2
4	☐	1.000		13540066.04		A	0.2
5	☐	1.000		12828046.05		A	0.2
6	☐	1.000		12025352.75		A	0.6
7	☐	1.000		11954015.00		A	1.8
8	☐	1.000		11478899.88		A	0.7
9	☐	1.000		12656378.09		A	0.5

115 In (ISTD) [He]

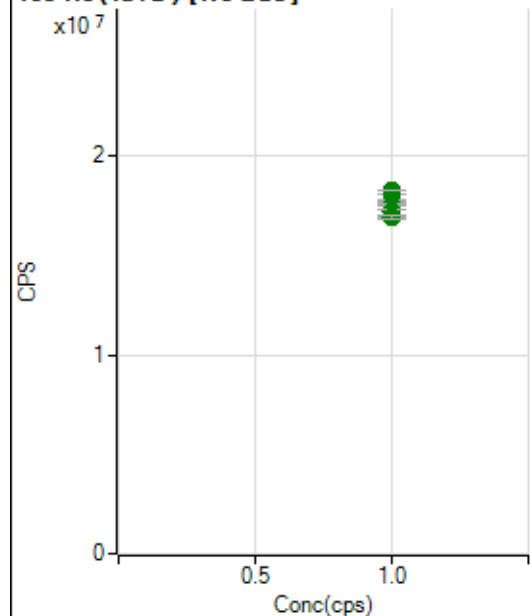
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2554620.02		P	0.5
2	☐	1.000					
3	☐	1.000		2579414.87		P	0.6
4	☐	1.000		2518389.00		P	0.2
5	☐	1.000		2338387.85		P	0.7
6	☐	1.000		2188461.03		P	0.3
7	☐	1.000		2135707.85		P	0.6
8	☐	1.000		2151131.05		P	0.7
9	☐	1.000		2433337.83		P	1.4

159 Tb (ISTD) [No Gas]

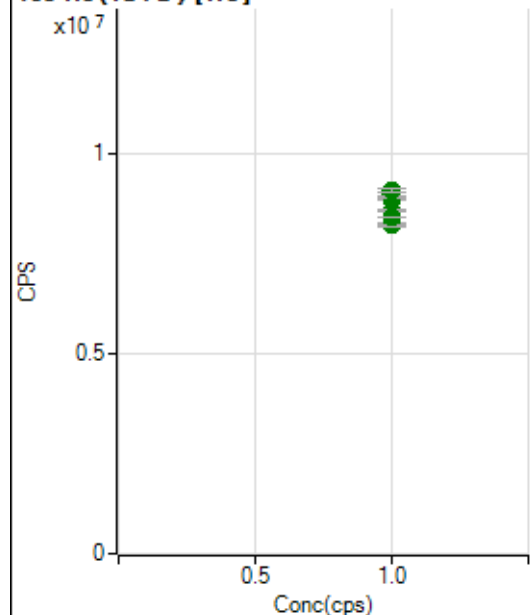
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17857945.01		A	0.2
2	☐	1.000					
3	☐	1.000		18066219.46		A	0.6
4	☐	1.000		18390191.11		A	0.7
5	☐	1.000		17824237.37		A	0.2
6	☐	1.000		17107581.96		A	0.7
7	☐	1.000		17378249.32		A	1.8
8	☐	1.000		17059600.44		A	0.8
9	☐	1.000		18469901.53		A	0.3

159 Tb (ISTD) [He]

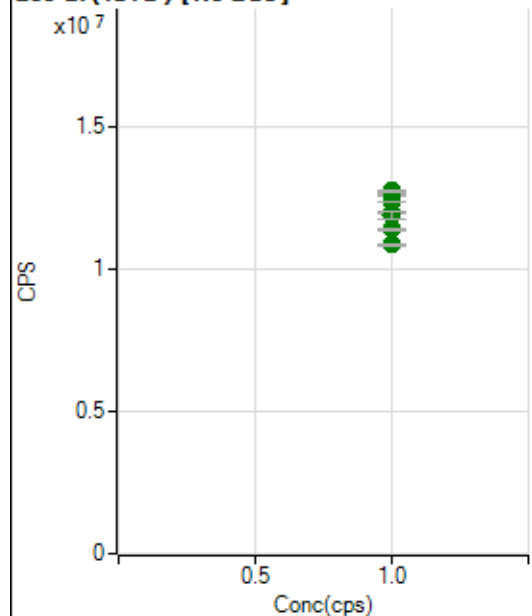
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8724776.88		A	0.5
2	☐	1.000					
3	☐	1.000		8811775.15		A	0.4
4	☐	1.000		8724708.76		A	0.5
5	☐	1.000		8337832.86		A	0.8
6	☐	1.000		8030144.67		A	0.6
7	☐	1.000		7987837.10		A	0.2
8	☐	1.000		8192766.68		A	0.2
9	☐	1.000		8817068.90		A	0.9

165 Ho (ISTD) [No Gas]

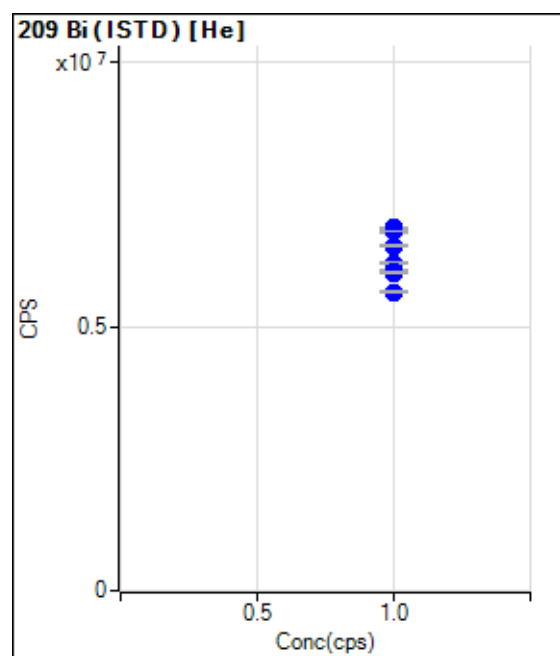
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17655219.84		A	0.3
2	☐	1.000					
3	☐	1.000		17742184.42		A	0.6
4	☐	1.000		18041305.26		A	0.1
5	☐	1.000		17529200.74		A	0.3
6	☐	1.000		16966536.49		A	0.6
7	☐	1.000		17189833.20		A	1.8
8	☐	1.000		16889075.55		A	1.1
9	☐	1.000		18238127.49		A	0.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8841832.65		A	0.0
2	☐	1.000					
3	☐	1.000		8987435.08		A	0.6
4	☐	1.000		8911337.09		A	0.5
5	☐	1.000		8569963.27		A	0.6
6	☐	1.000		8252024.18		A	0.5
7	☐	1.000		8194529.67		A	0.2
8	☐	1.000		8417662.79		A	0.3
9	☐	1.000		9066284.45		A	0.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12619154.54		A	0.3
2	☐	1.000					
3	☐	1.000		12670848.15		A	0.6
4	☐	1.000		12775151.61		A	0.2
5	☐	1.000		12401054.54		A	0.3
6	☐	1.000		11999151.90		A	0.6
7	☐	1.000		11929755.10		A	2.1
8	☐	1.000		11418915.94		A	0.6
9	☐	1.000		10872239.98		A	0.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6798344.97		M	0.8
2	☐	1.000					
3	☐	1.000		6862413.99		P	0.8
4	☐	1.000		6801278.44		P	0.3
5	☐	1.000		6516972.82		P	0.6
6	☐	1.000		6197481.92		P	0.6
7	☐	1.000		6042008.59		P	0.5
8	☐	1.000		6017704.14		P	1.0
9	☐	1.000		5646970.20		P	0.6

US EPA Tune Check Sample Report

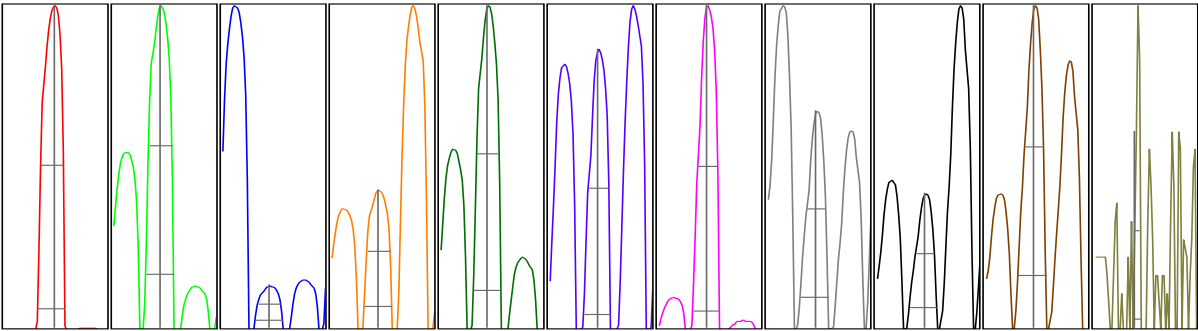
Batch Folder D:\ICP-MS Data\P7111318 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	24208	0.35	5.00	
24	182508	0.53	5.00	
25	24686	0.51	5.00	
26	29928	0.34	5.00	
59	166876	0.67	5.00	
113	22464	0.58	5.00	
115	262621	0.79	5.00	
206	72678	0.42	5.00	
207	69952	0.49	5.00	
208	158047	0.52	5.00	
220	0	15.97		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	24282	24288	24231	24144	24095
24	182781	183884	182703	181733	181439
25	24706	24856	24690	24505	24670
26	30012	30056	29899	29821	29851
59	167787	168046	167116	165891	165538
113	22577	22572	22499	22401	22269
115	263677	264881	263712	260668	260168
206	72805	73132	72612	72368	72473
207	70109	70443	69910	69758	69541
208	158125	159375	157753	157141	157841
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	38852	9.00	8.9 - 9.1		0.787	0.900	
24	282405	23.90	23.9 - 24.1		0.808	0.900	
25	37764	24.90	24.9 - 25.1		0.791	0.900	
26	43529	25.90	25.9 - 26.1		0.800	0.900	
59	269707	58.90	58.9 - 59.1		0.800	0.900	
113	39534	112.95	112.9 - 113.1		0.776	0.900	
115	466139	114.95	114.9 - 115.1		0.777	0.900	
206	126723	205.95	205.9 - 206.1		0.806	0.900	
207	115137	206.95	206.9 - 207.1		0.801	0.900	
208	275650	207.95	207.9 - 208.1		0.806	0.900	
220	1	219.70	-		0.196		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	6.5	V	Deflect	13.8	V
Extract 2	-115.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	40686	3.62	
89	21888	3.54	
205	59320	2.34	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	40600	41278	42653	38615	40285
89	21809	22175	22923	20785	21749
205	59142	59955	61067	57265	59169

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	6.8	V	Deflect	1.8	V
Extract 2	-105.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			