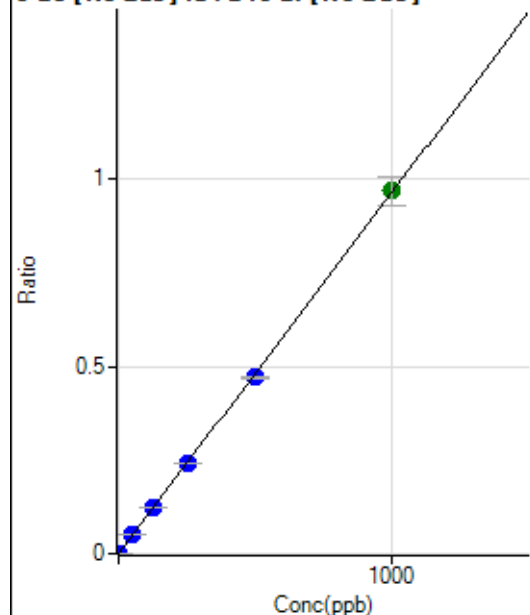


Batch Folder: D:\P8101317-MS.b\
Analysis File: P8101317-MS.batch.bin
DA Date-Time: 2017-10-13 14:14:58
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2017-10-13 13:46:34
2			
3	005CALS.d	S02	2017-10-13 13:53:41
4	006CALS.d	S03	2017-10-13 13:57:08
5	007CALS.d	S04	2017-10-13 14:00:34
6	008CALS.d	S05	2017-10-13 14:03:57
7	009CALS.d	S06	2017-10-13 14:07:13
8	010CALS.d	S07	2017-10-13 14:10:25
9	011CALS.d	S08	2017-10-13 14:13:32

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	33.34	0.0000	P	28.5
2	☐	0.100					
3	☐	1.000	0.877	977.84	0.0009	P	13.8
4	☐	50.000	51.947	56260.21	0.0501	P	2.3
5	☐	125.000	127.850	141045.45	0.1233	P	0.5
6	☐	250.000	250.435	292226.28	0.2415	P	1.9
7	☐	500.000	488.284	587021.89	0.4708	P	1.2
8	☐	1000.000	1005.296	1188888.00	0.9692	A	8.3
9	☐			320.38	0.0003	P	21.2

$$y = 9.6408\text{E-}004 * x + 2.9006\text{E-}005$$

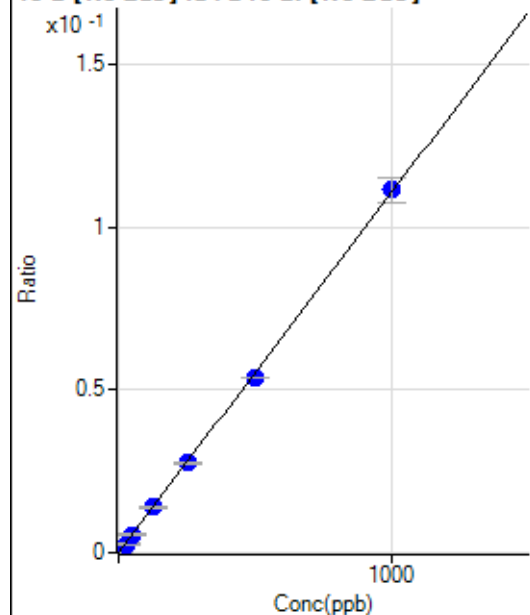
$$R = 0.9999$$

$$DL = 0.02571$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	69.45	0.0001	P	17.6
2	☐	2.500					
3	☐	25.000	23.383	2958.76	0.0026	P	2.2
4	☐	50.000	50.090	6290.52	0.0056	P	4.0
5	☐	125.000	125.465	15945.57	0.0139	P	3.4
6	☐	250.000	248.030	33284.14	0.0275	P	0.3
7	☐	500.000	486.516	67183.04	0.0539	P	0.4
8	☐	1000.000	1007.212	136837.98	0.1115	P	6.7
9	☐			5409.59	0.0043	P	10.3

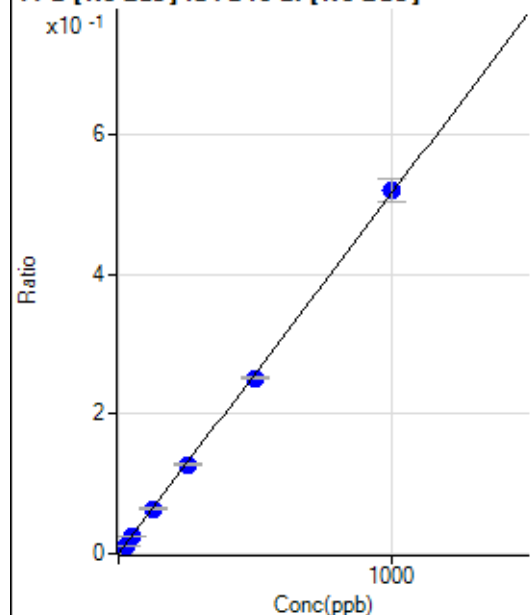
$$y = 1.1060\text{E-}004 * x + 6.0409\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.2885$$

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	280.57	0.0002	P	7.4
2	☐	2.500					
3	☐	25.000	22.042	12981.40	0.0116	P	2.8
4	☐	50.000	49.466	28921.72	0.0258	P	2.3
5	☐	125.000	124.311	73622.71	0.0643	P	2.8
6	☐	250.000	246.669	154251.37	0.1274	P	1.5
7	☐	500.000	487.319	313695.33	0.2515	P	0.8
8	☐	1000.000	1007.360	638112.66	0.5197	P	6.3
9	☐			24252.08	0.0193	P	8.8

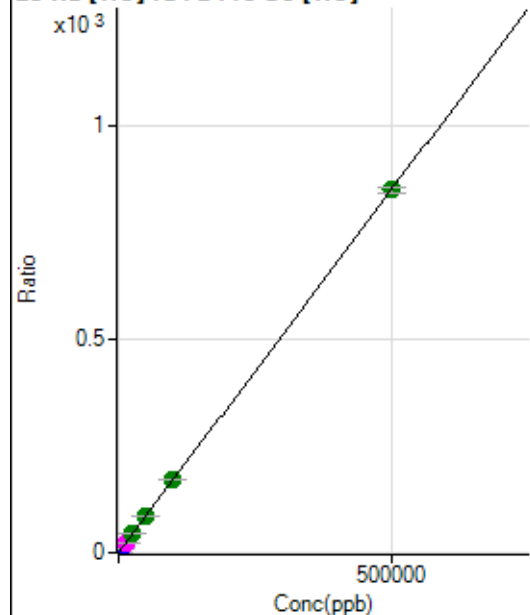
$$y = 5.1568\text{E-}004 * x + 2.4434\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.1049$$

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	8658.56	0.1828	P	2.2
2	☐	50.000					
3	☐	500.000	447.845	44069.30	0.9443	P	2.0
4	☐	5000.000	5090.610	411579.15	8.8381	P	1.2
5	☐	12500.000	12661.380	1029715.81	21.7102	M	1.2
6	☐	25000.000	25405.932	2056154.15	43.3789	A	0.7
7	☐	50000.000	50991.886	3789616.62	86.8810	A	1.3
8	☐	100000.00	100463.19	7169878.11	170.9939	A	0.5
9	☐	500000.00	499782.98	37677955.36	849.9314	A	1.3

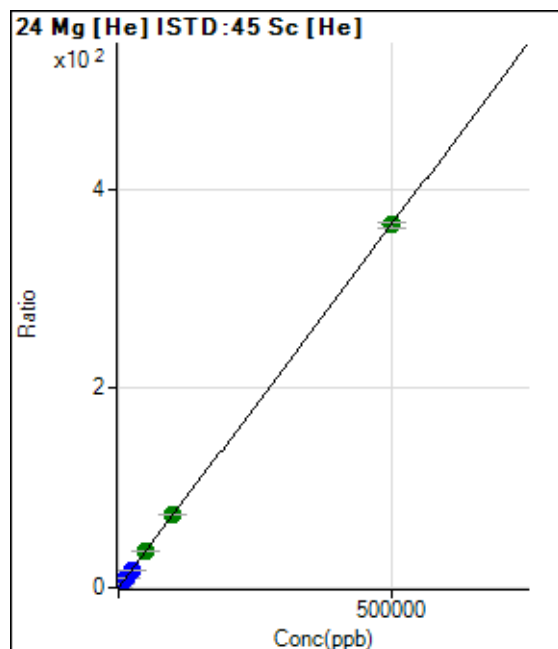
$$y = 0.0017 * x + 0.1828$$

$$R = 1.0000$$

$$DL = 6.965$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0020	P	27.0
2	☐	50.000					
3	☐	500.000	450.368	15431.20	0.3306	P	2.0
4	☐	5000.000	4967.824	168897.46	3.6269	P	1.5
5	☐	12500.000	12418.552	429885.32	9.0635	P	0.9
6	☐	25000.000	24813.923	858324.79	18.1081	P	0.3
7	☐	50000.000	51179.972	1628979.07	37.3468	A	1.5
8	☐	100000.00	101348.46	3100887.96	73.9535	A	0.6
9	☐	500000.00	499624.02	16161494.63	364.5657	A	1.3

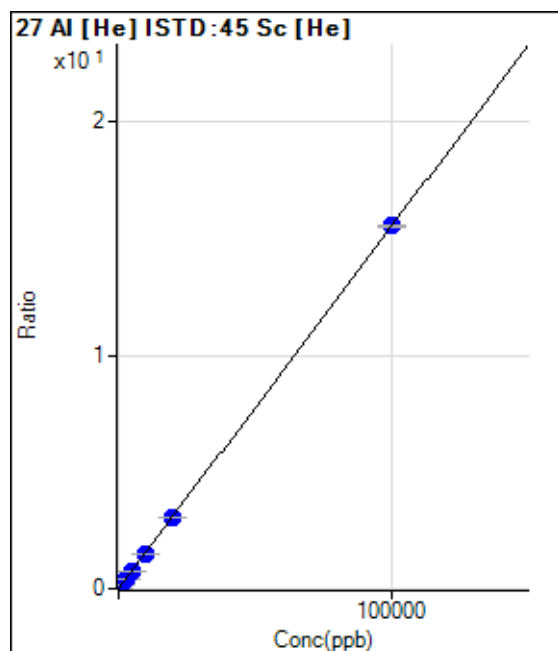
$$y = 7.2968\text{E-}004 * x + 0.0020$$

$$R = 1.0000$$

$$DL = 2.212$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0005	P	21.6
2	☐	2.000					
3	☐	20.000	21.553	177.79	0.0038	P	32.5
4	☐	1000.000	966.634	7010.34	0.1505	P	0.6
5	☐	2500.000	2445.490	18028.81	0.3801	P	1.0
6	☐	5000.000	4869.301	35851.93	0.7564	P	0.9
7	☐	10000.000	9690.228	65644.59	1.5048	P	2.2
8	☐	20000.000	19488.051	126873.71	3.0258	P	0.6
9	☐	100000.00	100141.59	689229.50	15.5466	P	0.7

$$y = 1.5524\text{E-}004 * x + 4.6933\text{E-}004$$

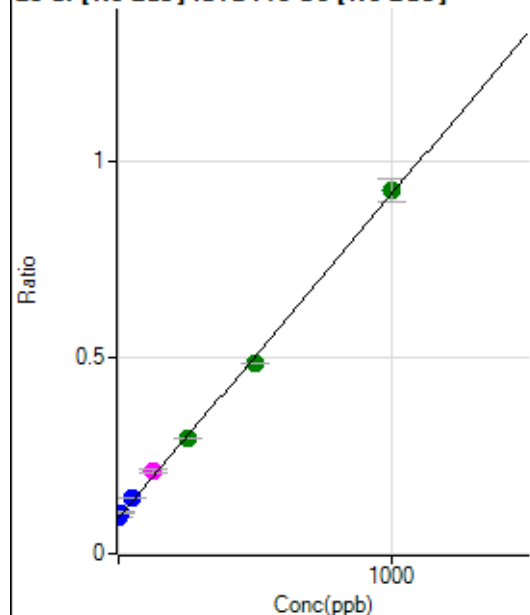
$$R = 1.0000$$

$$DL = 1.96$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	422552.39	0.0910	P	0.3
2	☐	1.000					
3	☐	10.000	16.593	479680.95	0.1046	P	1.2
4	☐	50.000	61.217	650650.27	0.1414	P	1.5
5	☐	125.000	144.964	962685.76	0.2104	M	6.7
6	☐	250.000	244.486	1391851.13	0.2923	A	0.6
7	☐	500.000	476.645	2316045.91	0.4835	A	0.7
8	☐	1000.000	1009.933	4245447.05	0.9228	A	6.5
9	☐			401759.78	0.0849	P	1.4

$$y = 8.2361\text{E-}004 * x + 0.0910$$

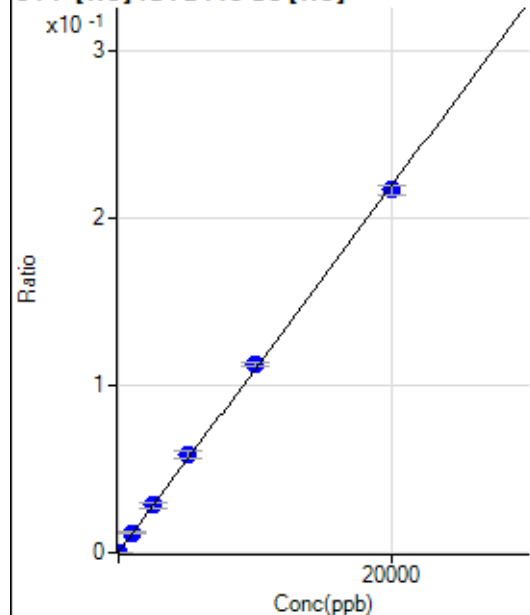
$$R = 0.9993$$

$$DL = 0.8377$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	2.560	13.89	0.0003	P	68.0
2	☐	0.000					
3	☐	0.000	-2.560	11.11	0.0002	P	113.
4	☐	1000.000	1042.000	544.48	0.0117	P	9.3
5	☐	2500.000	2565.004	1347.36	0.0284	P	10.4
6	☐	5000.000	5308.807	2772.64	0.0585	P	7.5
7	☐	10000.000	10274.487	4928.84	0.1130	P	2.5
8	☐	20000.000	19775.329	9106.08	0.2172	P	3.0
9	☐			16.67	0.0004	P	1.3

$$y = 1.0968\text{E-}005 * x + 2.6364\text{E-}004$$

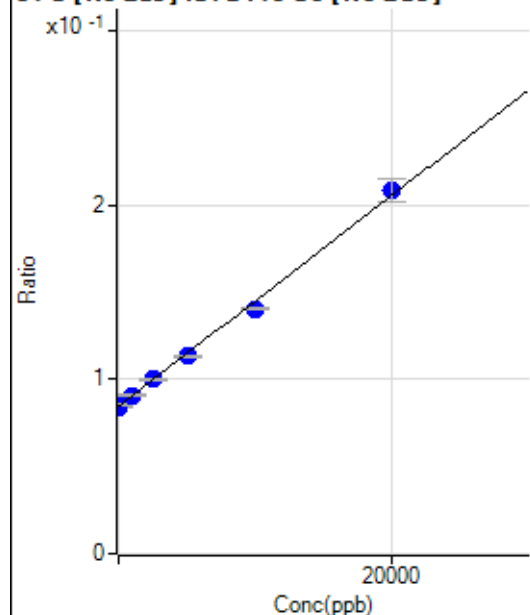
$$R = 0.9997$$

$$DL = 63.63$$

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	-148.437	389448.01	0.0838	P	0.2
2	☐	0.000					
3	☐	0.000	148.437	392605.46	0.0856	P	0.7
4	☐	1000.000	1004.098	417971.21	0.0908	P	0.8
5	☐	2500.000	2550.675	458505.14	0.1002	P	0.4
6	☐	5000.000	4709.890	539251.58	0.1133	P	0.6
7	☐	10000.000	9267.627	674628.08	0.1409	P	1.3
8	☐	20000.000	20432.175	959061.72	0.2085	P	6.4
9	☐			385174.95	0.0814	P	1.4

$$y = 6.0546\text{E-}006 * x + 0.0847$$

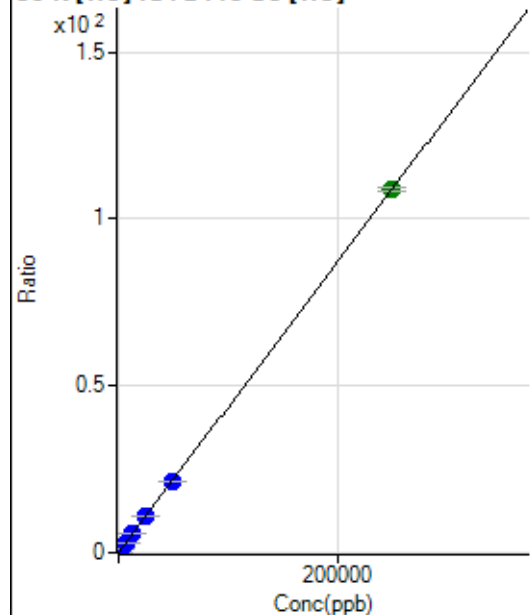
$$R = 0.9988$$

$$DL = 196.8$$

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	3275.51	0.0692	P	6.9
2	☐	50.000					
3	☐	500.000	479.249	12939.80	0.2773	P	4.7
4	☐	2500.000	2564.631	55092.39	1.1830	P	1.5
5	☐	6250.000	6514.000	137468.55	2.8984	P	1.2
6	☐	12500.000	12747.399	265709.42	5.6057	P	0.1
7	☐	25000.000	25168.680	479885.73	11.0006	P	0.2
8	☐	50000.000	49264.818	900087.21	21.4662	P	0.3
9	☐	250000.00	250110.59	4818881.27	108.6990	A	0.9

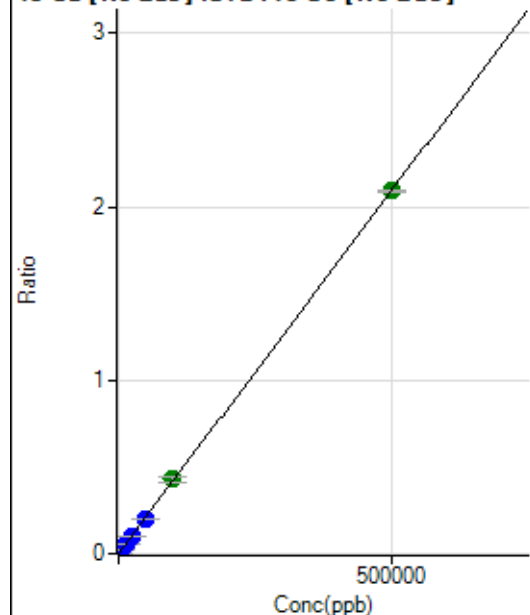
$$y = 4.3433\text{E-}004 * x + 0.0692$$

$$R = 1.0000$$

$$DL = 32.75$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2069.69	0.0004	P	8.0
2	☐	50.000					
3	☐	500.000	418.601	10070.76	0.0022	P	2.1
4	☐	5000.000	4737.058	93256.74	0.0203	P	1.2
5	☐	12500.000	11995.951	231726.48	0.0506	P	0.5
6	☐	25000.000	23715.304	474526.10	0.0997	P	0.3
7	☐	50000.000	47975.207	963500.90	0.2012	P	0.9
8	☐	100000.00	102285.68	1970271.60	0.4284	A	7.3
9	☐	500000.00	499824.88	9898235.55	2.0916	A	0.4

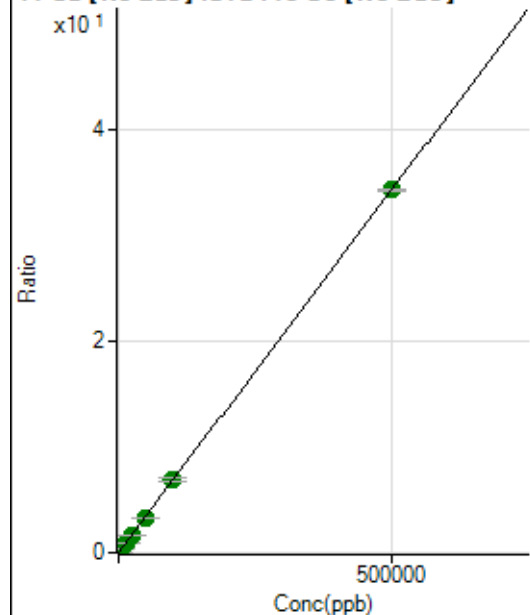
$$y = 4.1837\text{E-}006 * x + 4.4559\text{E-}004$$

$$R = 1.0000$$

$$DL = 25.45$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17611.78	0.0038	P	1.8
2	☐	50.000					
3	☐	500.000	439.654	155671.70	0.0340	P	0.9
4	☐	5000.000	4822.463	1540161.93	0.3347	A	1.3
5	☐	12500.000	12048.367	3800632.98	0.8305	A	0.8
6	☐	25000.000	23682.257	7754610.42	1.6287	A	0.3
7	☐	50000.000	47840.943	15740595.14	3.2863	A	1.0
8	☐	100000.00	100300.70	31683236.47	6.8857	A	6.2
9	☐	500000.00	500234.77	162443996.6	34.3261	A	0.5

$$y = 6.8612\text{E-}005 * x + 0.0038$$

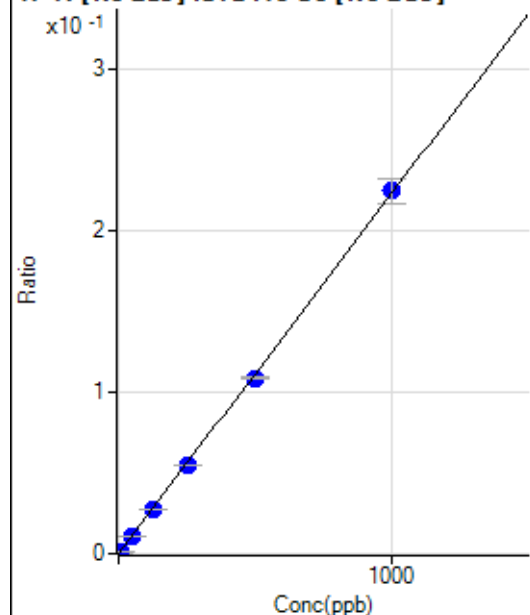
$$R = 1.0000$$

$$DL = 2.912$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	138.90	0.0000	P	19.3
2	☐	0.500					
3	☐	5.000	4.486	4714.90	0.0010	P	4.3
4	☐	50.000	49.279	50609.17	0.0110	P	1.4
5	☐	125.000	124.296	126742.10	0.0277	P	0.5
6	☐	250.000	244.021	258730.90	0.0543	P	0.6
7	☐	500.000	487.304	519592.71	0.1085	P	1.5
8	☐	1000.000	1007.969	1032134.79	0.2244	P	6.8
9	☐			675.05	0.0001	P	8.7

$$y = 2.2256E-004 * x + 2.9905E-005$$

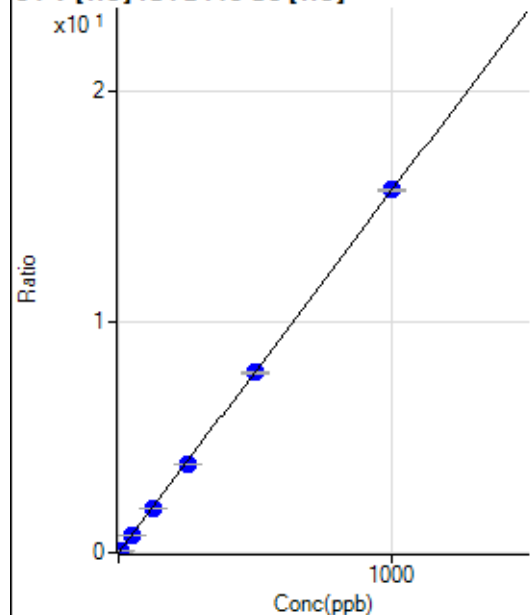
$$R = 0.9999$$

$$DL = 0.07791$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	4.45	0.0001	P	86.6
2	☐	0.500					
3	☐	5.000	4.392	3212.64	0.0689	P	4.5
4	☐	50.000	49.129	35834.83	0.7694	P	1.2
5	☐	125.000	121.707	90404.01	1.9060	P	0.5
6	☐	250.000	243.032	180400.05	3.8059	P	0.1
7	☐	500.000	498.269	340353.11	7.8029	P	1.3
8	☐	1000.000	1003.066	658637.22	15.7079	P	0.3
9	☐			106.67	0.0024	P	30.8

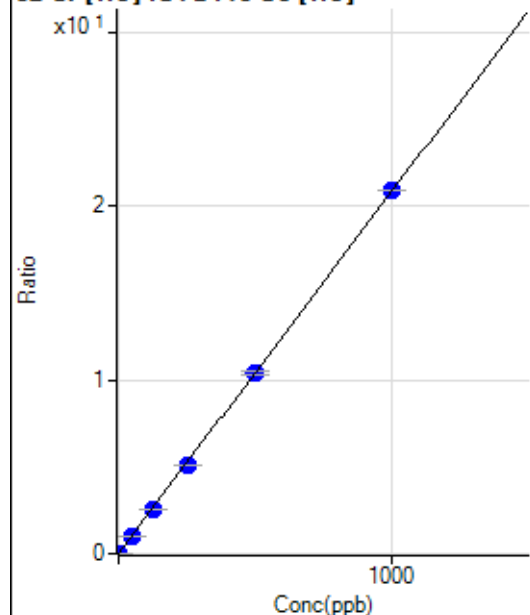
$$y = 0.0157 * x + 9.3871E-005$$

$$R = 1.0000$$

$$DL = 0.01558$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	643.36	0.0136	P	7.7
2	☐	0.200					
3	☐	2.000	1.815	2398.02	0.0514	P	3.7
4	☐	50.000	48.850	48025.74	1.0313	P	1.7
5	☐	125.000	123.320	122499.12	2.5827	P	0.9
6	☐	250.000	242.885	240470.77	5.0735	P	1.0
7	☐	500.000	498.719	453767.94	10.4032	P	1.4
8	☐	1000.000	1002.687	876435.22	20.9022	P	0.1
9	☐			13799.20	0.3113	P	1.2

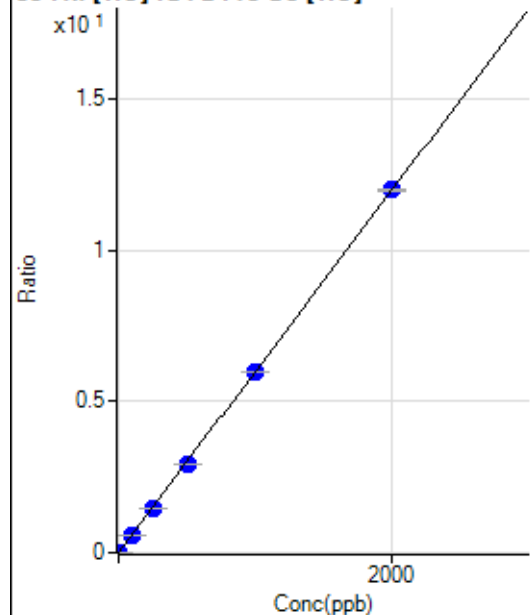
$$y = 0.0208 * x + 0.0136$$

$$R = 1.0000$$

$$DL = 0.1515$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	34.45	0.0007	P	10.2
2	☐	0.100					
3	☐	1.000	1.041	324.46	0.0069	P	15.5
4	☐	100.000	99.041	27599.70	0.5926	P	0.7
5	☐	250.000	246.555	69922.87	1.4742	P	1.6
6	☐	500.000	489.397	138659.63	2.9256	P	1.5
7	☐	1000.000	997.738	260140.78	5.9636	P	0.7
8	☐	2000.000	2004.260	502287.33	11.9790	P	0.5
9	☐			1999.07	0.0451	P	5.6

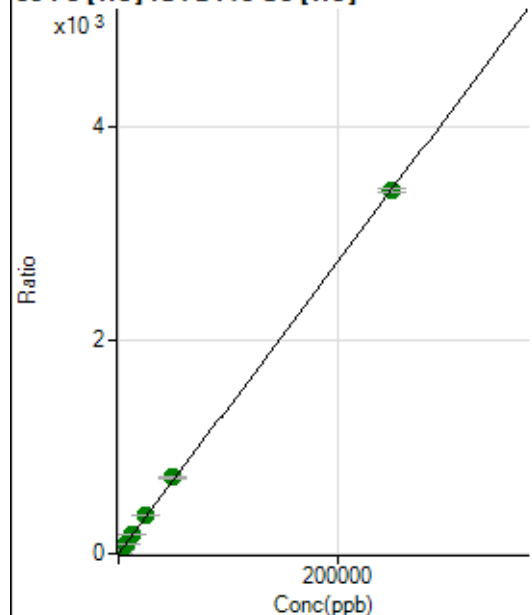
$$y = 0.0060 * x + 7.2697E-004$$

$$R = 1.0000$$

$$DL = 0.03724$$

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	1876.63	0.0397	P	19.1
2	☐	5.000					
3	☐	50.000	46.191	31241.02	0.6695	P	2.0
4	☐	2500.000	2609.274	1658719.60	35.6171	A	0.6
5	☐	6250.000	6434.377	4163007.96	87.7724	A	1.3
6	☐	12500.000	12605.680	8148572.17	171.9182	A	0.7
7	☐	25000.000	26119.897	15537059.03	356.1846	A	1.0
8	☐	50000.000	52344.894	29928607.84	713.7625	A	1.0
9	☐	250000.00	249408.04	150759664.4	3,400.719	A	1.1

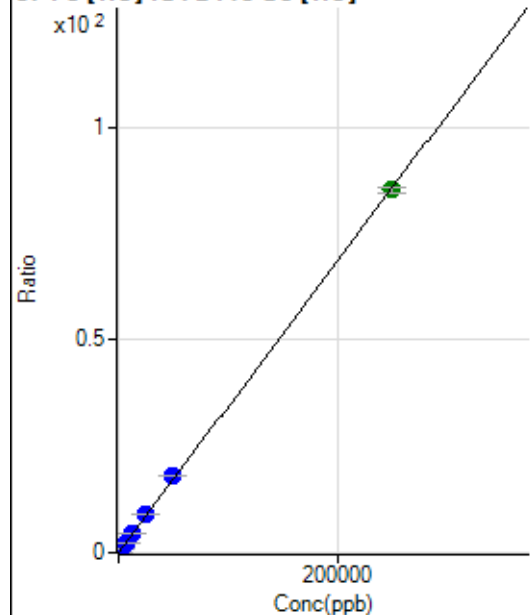
$$y = 0.0136 * x + 0.0397$$

$$R = 0.9999$$

$$DL = 1.668$$

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	64.81	0.0014	P	8.7
2	☐	5.000					
3	☐	50.000	48.361	835.23	0.0179	P	13.4
4	☐	2500.000	2560.032	40877.30	0.8777	P	0.7
5	☐	6250.000	6379.298	103642.32	2.1852	P	1.4
6	☐	12500.000	12764.658	207175.98	4.3711	P	1.4
7	☐	25000.000	26441.971	394902.10	9.0533	P	1.1
8	☐	50000.000	53091.368	762131.42	18.1762	P	0.4
9	☐	250000.00	249220.46	3782051.21	85.3171	A	1.6

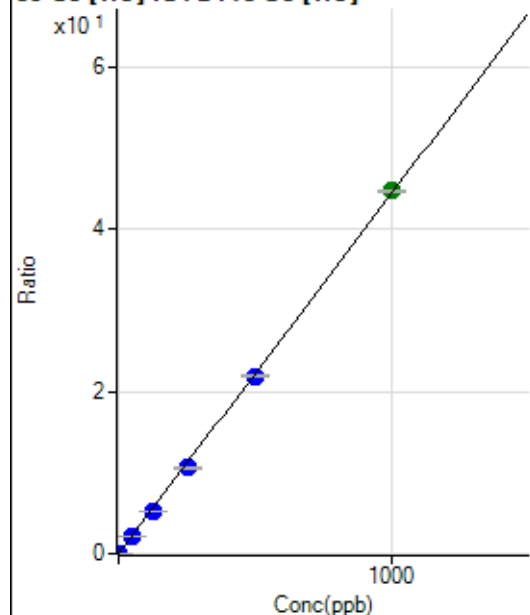
$$y = 3.4233E-004 * x + 0.0014$$

$$R = 0.9999$$

$$DL = 1.041$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	73.34	0.0015	P	15.7
2	☐	0.100					
3	☐	1.000	0.884	1905.72	0.0408	P	3.9
4	☐	50.000	48.010	99377.87	2.1340	P	1.6
5	☐	125.000	119.373	251563.25	5.3039	P	1.1
6	☐	250.000	238.479	502151.97	10.5943	P	0.8
7	☐	500.000	492.606	954488.44	21.8821	P	1.1
8	☐	1000.000	1007.380	1876260.22	44.7473	A	0.6
9	☐			2140.20	0.0483	P	5.7

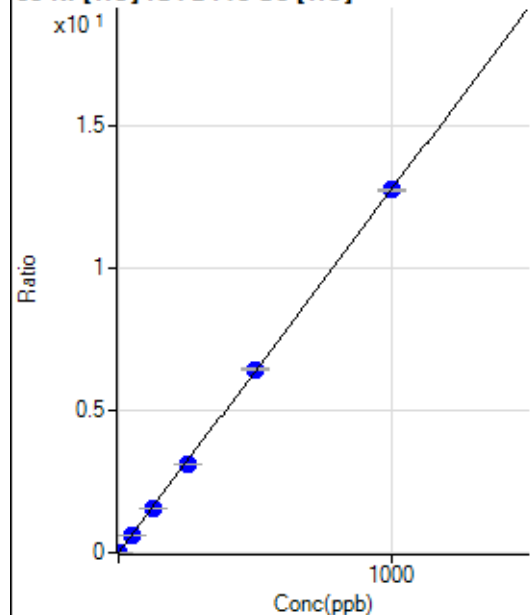
$$y = 0.0444 * x + 0.0015$$

$$R = 0.9999$$

$$DL = 0.01644$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0015	P	5.8
2	☐	0.100					
3	☐	1.000	0.958	640.03	0.0137	P	5.6
4	☐	50.000	49.411	29370.01	0.6306	P	0.0
5	☐	125.000	123.164	74450.03	1.5697	P	1.1
6	☐	250.000	242.806	146598.46	3.0929	P	1.1
7	☐	500.000	505.675	280909.81	6.4398	P	1.1
8	☐	1000.000	999.220	533506.26	12.7236	P	0.2
9	☐			5584.55	0.1260	P	4.8

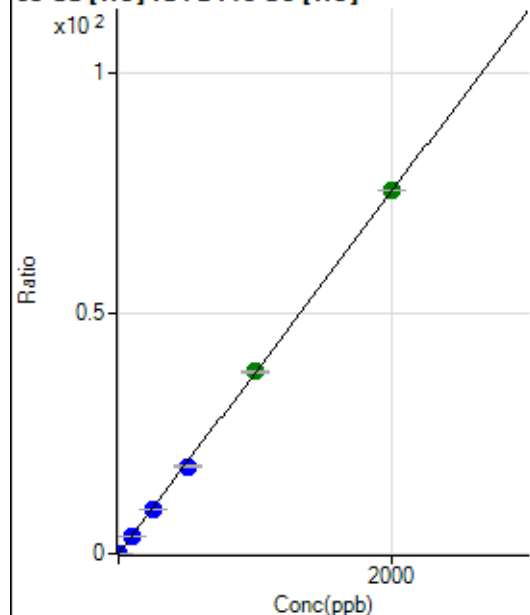
$$y = 0.0127 * x + 0.0015$$

$$R = 0.9999$$

$$DL = 0.02091$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	114.45	0.0024	P	8.2
2	☐	0.200					
3	☐	2.000	1.756	3203.76	0.0687	P	3.6
4	☐	100.000	97.378	171170.56	3.6756	P	1.1
5	☐	250.000	241.412	432029.39	9.1086	P	0.6
6	☐	500.000	481.649	861200.14	18.1704	P	1.5
7	☐	1000.000	1004.566	1653043.10	37.8950	A	0.8
8	☐	2000.000	2003.510	3168910.23	75.5756	A	0.1
9	☐			3685.01	0.0831	P	2.6

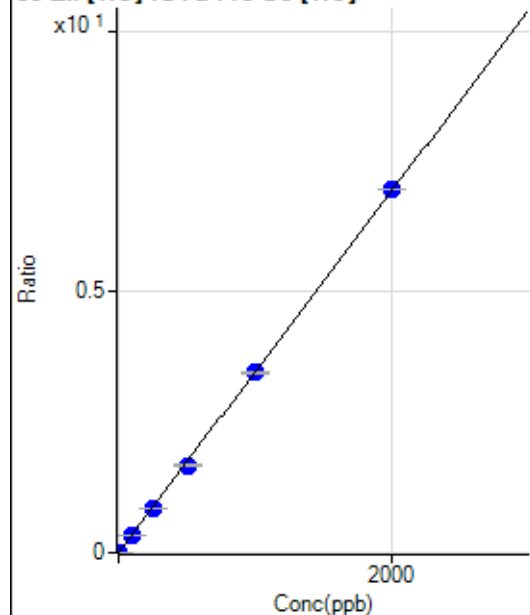
$$y = 0.0377 * x + 0.0024$$

$$R = 0.9999$$

$$DL = 0.01585$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	95.56	0.0020	P	13.2
2	☐	0.200					
3	☐	2.000	2.301	466.68	0.0100	P	5.7
4	☐	100.000	97.374	15810.34	0.3395	P	1.4
5	☐	250.000	245.352	40425.48	0.8523	P	1.8
6	☐	500.000	481.933	79254.83	1.6723	P	2.3
7	☐	1000.000	995.885	150641.98	3.4535	P	0.9
8	☐	2000.000	2007.286	291782.27	6.9587	P	0.1
9	☐			744.48	0.0168	P	5.0

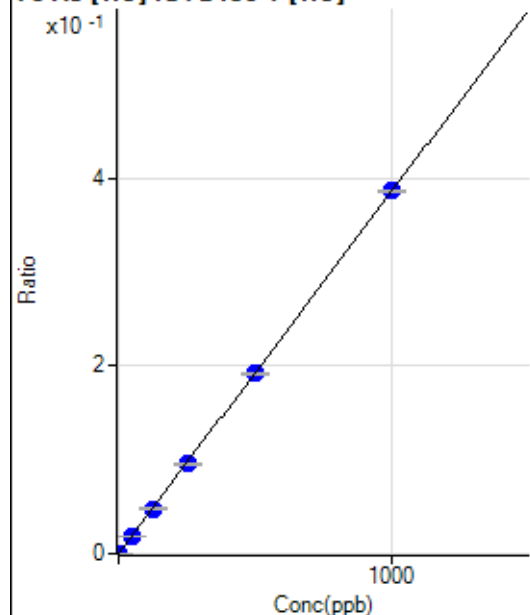
$$y = 0.0035 * x + 0.0020$$

$$R = 1.0000$$

$$DL = 0.2308$$

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	99.6
2	☐	0.100					
3	☐	1.000	0.840	108.03	0.0003	P	10.7
4	☐	50.000	49.711	6000.73	0.0192	P	1.3
5	☐	125.000	123.790	15147.28	0.0478	P	1.9
6	☐	250.000	247.883	30075.29	0.0957	P	1.2
7	☐	500.000	497.502	56886.10	0.1921	P	1.5
8	☐	1000.000	1001.944	110506.35	0.3869	P	0.4
9	☐			41.98	0.0001	P	20.6

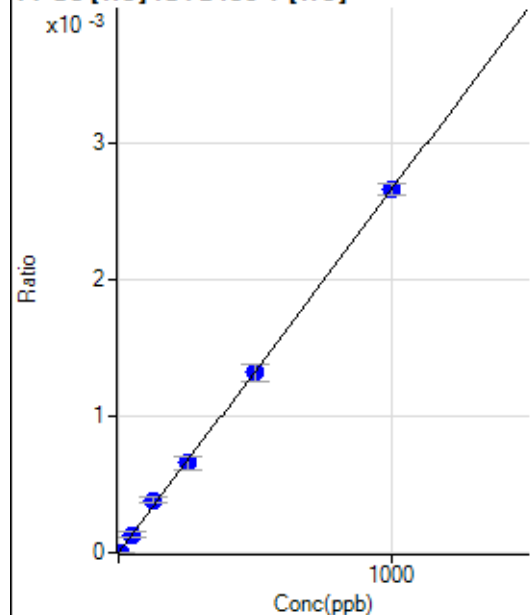
$$y = 3.8611\text{E-}004 * x + 1.7198\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.133$$

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					
3	☐	5.000	1.324	1.11	0.0000	P	173.
4	☐	50.000	49.556	41.11	0.0001	P	32.5
5	☐	125.000	144.095	121.11	0.0004	P	11.1
6	☐	250.000	247.840	206.67	0.0007	P	15.6
7	☐	500.000	497.273	391.12	0.0013	P	9.3
8	☐	1000.000	999.557	757.81	0.0027	P	3.2
9	☐			0.00	0.0000	P	

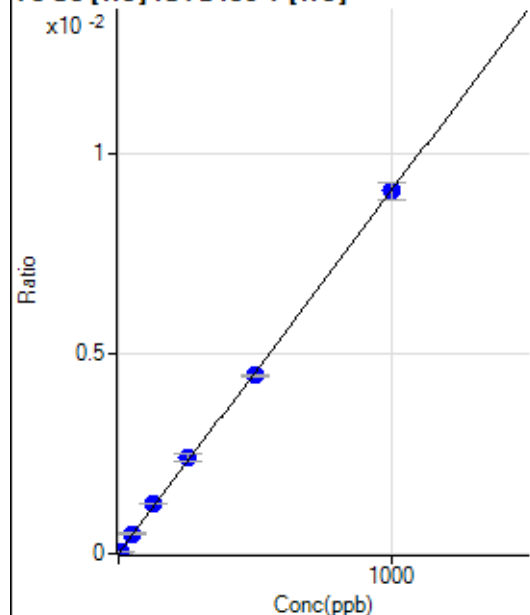
$$y = 2.6544\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9998$$

$$DL = 0$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1.85	0.0000	P	100.
2	☐	0.500					
3	☐	5.000	4.550	14.82	0.0000	P	22.4
4	☐	50.000	53.474	153.09	0.0005	P	9.1
5	☐	125.000	137.938	397.54	0.0013	P	2.6
6	☐	250.000	263.011	750.03	0.0024	P	7.5
7	☐	500.000	491.042	1318.60	0.0045	P	1.6
8	☐	1000.000	999.438	2586.69	0.0091	P	5.0
9	☐			0.62	0.0000	P	173.

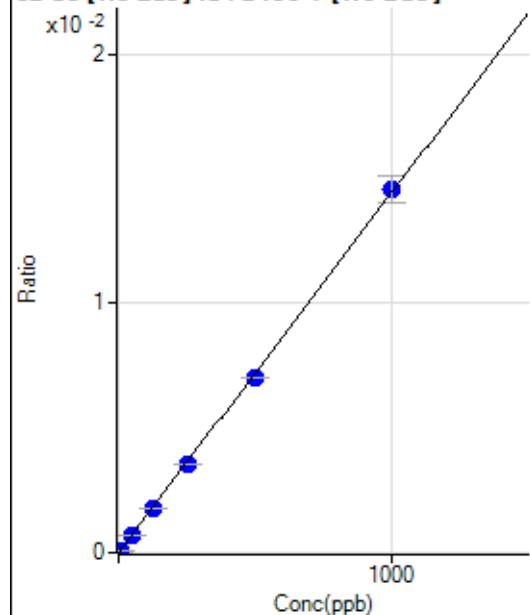
$$y = 9.0547\text{E-}006 * x + 5.7119\text{E-}006$$

$$R = 0.9998$$

$$DL = 1.894$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	12.26	0.0000	P	426.
2	☐	0.500					
3	☐	5.000	4.405	549.66	0.0001	P	10.4
4	☐	50.000	49.148	6010.94	0.0007	P	2.4
5	☐	125.000	122.608	15018.91	0.0018	P	0.7
6	☐	250.000	246.306	31063.52	0.0036	P	0.6
7	☐	500.000	485.323	62020.24	0.0070	P	0.4
8	☐	1000.000	1008.607	123826.86	0.0145	P	7.5
9	☐			68.07	0.0000	P	94.7

$$y = 1.4417\text{E-}005 * x + 1.4251\text{E-}006$$

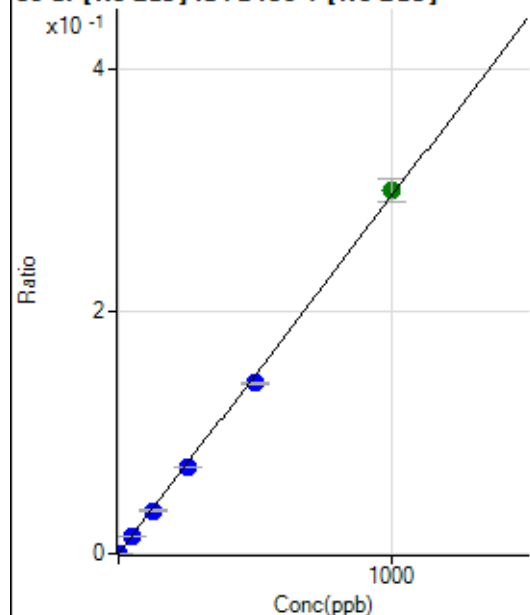
$$R = 0.9998$$

$$DL = 1.266$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	608.37	0.0001	P	3.5
2	☐	0.100					
3	☐	1.000	0.814	2628.16	0.0003	P	5.1
4	☐	50.000	47.656	119545.59	0.0141	P	0.9
5	☐	125.000	120.784	302886.22	0.0357	P	0.8
6	☐	250.000	240.850	621452.51	0.0711	P	0.7
7	☐	500.000	476.402	1245157.24	0.1405	P	0.8
8	☐	1000.000	1014.731	2548870.24	0.2992	A	6.4
9	☐			85475.39	0.0098	P	0.3

$$y = 2.9479\text{E-}004 * x + 7.0813\text{E-}005$$

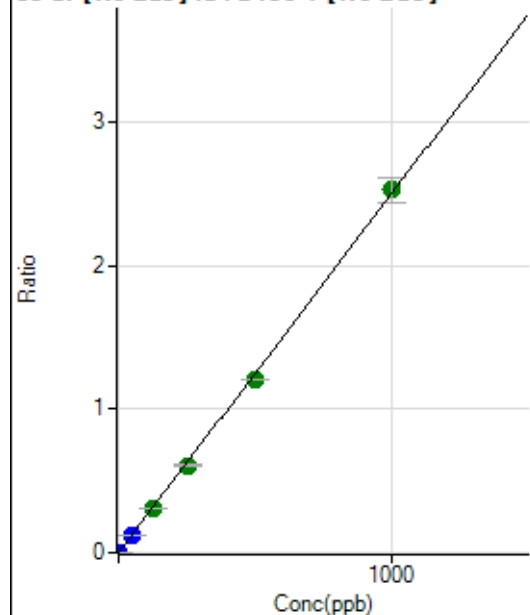
$$R = 0.9995$$

$$DL = 0.0252$$

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	400.02	0.0000	P	5.4
2	☐	0.100					
3	☐	1.000	0.927	20023.74	0.0024	P	1.3
4	☐	50.000	48.995	1038136.91	0.1226	P	1.1
5	☐	125.000	123.988	2633664.05	0.3102	A	0.8
6	☐	250.000	243.706	5331641.18	0.6097	A	0.9
7	☐	500.000	481.757	10680786.61	1.2052	A	0.7
8	☐	1000.000	1010.872	21539779.48	2.5289	A	6.8
9	☐			734569.44	0.0845	P	0.3

$$y = 0.0025 * x + 4.6561\text{E-}005$$

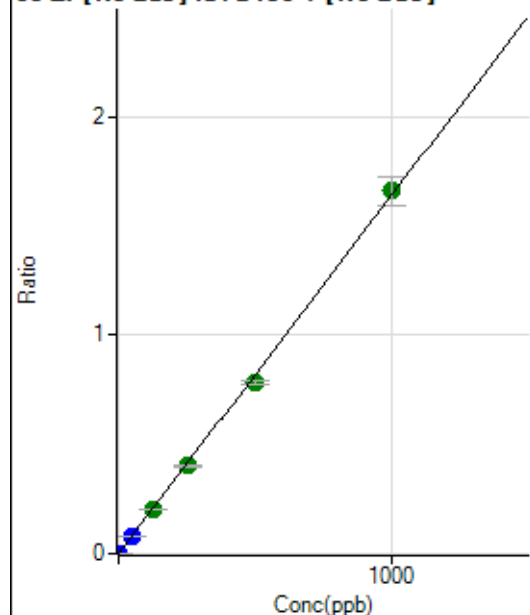
$$R = 0.9997$$

$$DL = 0.003019$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	497.25	0.0001	P	9.3
2	☐	0.100					
3	☐	1.000	0.825	11936.28	0.0014	P	6.2
4	☐	50.000	47.752	663240.93	0.0783	P	0.8
5	☐	125.000	121.518	1691636.38	0.1993	A	0.3
6	☐	250.000	244.561	3505895.26	0.4009	A	1.1
7	☐	500.000	478.739	6954516.30	0.7848	A	1.6
8	☐	1000.000	1012.538	14131580.35	1.6598	A	7.7
9	☐			2075.67	0.0002	P	12.7

$$y = 0.0016 * x + 5.7884E-005$$

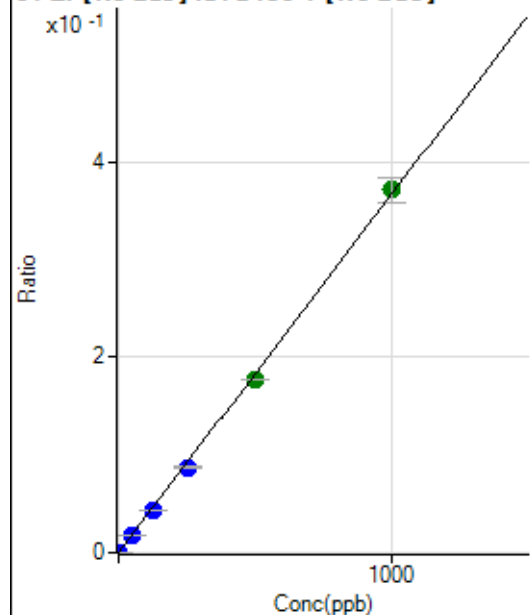
$$R = 0.9997$$

$$DL = 0.009867$$

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	125.00	0.0000	P	35.4
2	☐	0.100					
3	☐	1.000	0.813	2644.83	0.0003	P	4.5
4	☐	50.000	47.300	146823.25	0.0173	P	1.4
5	☐	125.000	118.696	369248.85	0.0435	P	1.0
6	☐	250.000	238.578	764322.27	0.0874	P	1.0
7	☐	500.000	482.362	1565998.56	0.1767	A	0.7
8	☐	1000.000	1012.597	3159000.94	0.3709	A	7.1
9	☐			436.14	0.0001	P	16.5

$$y = 3.6632E-004 * x + 1.4555E-005$$

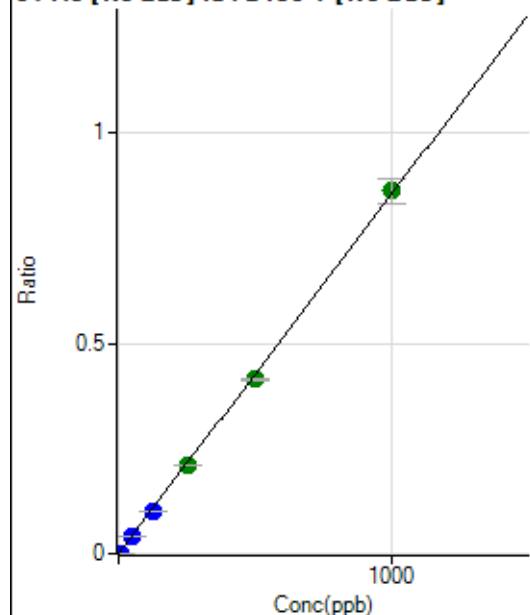
$$R = 0.9997$$

$$DL = 0.04216$$

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	183.35	0.0000	P	37.1
2	☐	0.500					
3	☐	5.000	1.896	13885.50	0.0016	P	1.6
4	☐	50.000	47.539	344048.30	0.0406	P	0.9
5	☐	125.000	118.945	862874.56	0.1016	P	0.8
6	☐	250.000	245.105	1831200.54	0.2094	A	1.1
7	☐	500.000	485.623	3676746.39	0.4149	A	1.3
8	☐	1000.000	1009.308	7343093.65	0.8623	A	7.2
9	☐			5706.99	0.0007	P	4.0

$$y = 8.5433\text{E-}004 * x + 2.1336\text{E-}005$$

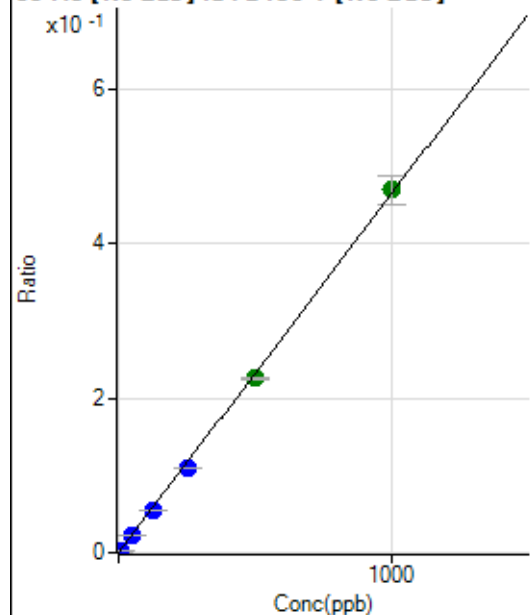
$$R = 0.9998$$

$$DL = 0.0278$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	13.4
2	☐	0.500					
3	☐	5.000	4.250	16722.13	0.0020	P	2.1
4	☐	50.000	46.954	184506.25	0.0218	P	0.9
5	☐	125.000	118.844	468204.98	0.0551	P	0.4
6	☐	250.000	237.500	963676.83	0.1102	P	0.6
7	☐	500.000	486.235	1999369.86	0.2256	A	1.4
8	☐	1000.000	1010.933	3992979.39	0.4691	A	8.2
9	☐			9317.48	0.0011	P	3.9

$$y = 4.6401\text{E-}004 * x + 4.2036\text{E-}006$$

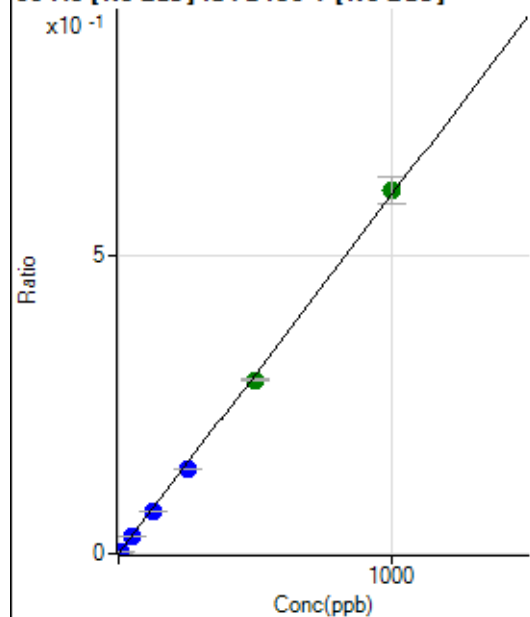
$$R = 0.9998$$

$$DL = 0.003651$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	28.5
2	☐	0.500					
3	☐	5.000	3.667	18677.43	0.0022	P	4.4
4	☐	50.000	47.183	239824.50	0.0283	P	1.3
5	☐	125.000	117.959	601113.23	0.0708	P	0.8
6	☐	250.000	237.833	1248283.05	0.1428	P	0.5
7	☐	500.000	484.711	2578137.04	0.2909	A	1.2
8	☐	1000.000	1011.714	5170233.23	0.6072	A	7.6
9	☐			12903.85	0.0015	P	3.7

$$y = 6.0021\text{E-}004 * x + 6.7893\text{E-}006$$

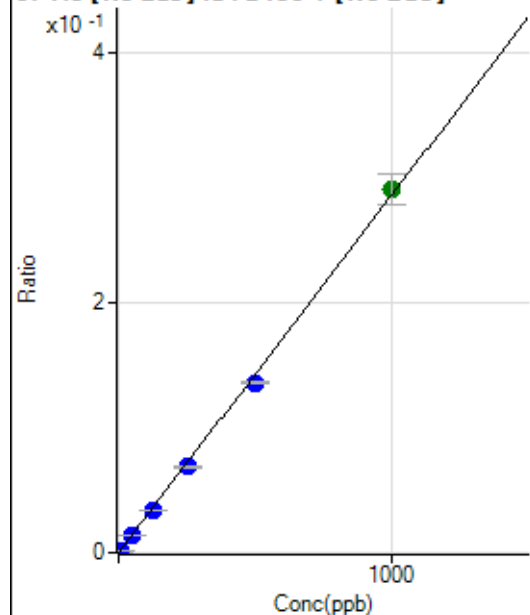
$$R = 0.9998$$

$$DL = 0.009662$$

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	50.00	0.0000	P	50.1
2	☐	0.500					
3	☐	5.000	4.360	10571.26	0.0012	P	1.9
4	☐	50.000	47.973	115891.87	0.0137	P	1.1
5	☐	125.000	119.211	288682.43	0.0340	P	1.6
6	☐	250.000	239.754	597971.77	0.0684	P	0.9
7	☐	500.000	474.983	1200540.87	0.1355	P	1.1
8	☐	1000.000	1015.898	2466128.90	0.2897	A	8.4
9	☐			5787.62	0.0007	P	2.5

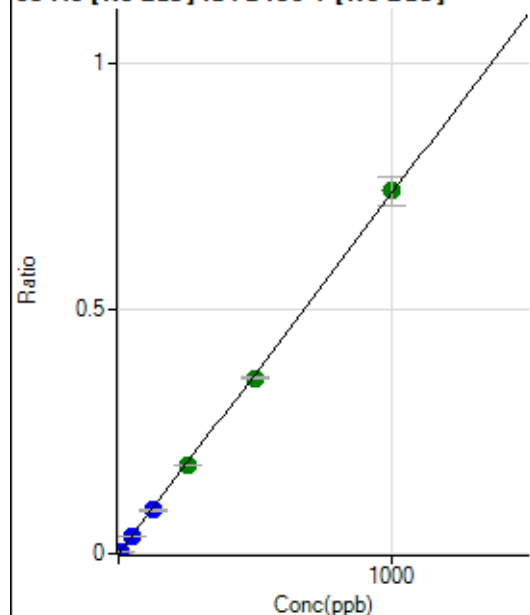
$$y = 2.8521\text{E-}004 * x + 5.8208\text{E-}006$$

$$R = 0.9995$$

$$DL = 0.03065$$

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	25.00	0.0000	P	33.2
2	☐	0.500					
3	☐	5.000	4.344	27019.29	0.0032	P	0.9
4	☐	50.000	47.903	297831.47	0.0352	P	2.2
5	☐	125.000	120.601	751827.61	0.0886	P	1.5
6	☐	250.000	245.319	1575233.90	0.1801	A	0.2
7	☐	500.000	487.702	3173560.94	0.3581	A	1.5
8	☐	1000.000	1007.977	6301573.41	0.7402	A	7.8
9	☐			14972.80	0.0017	P	2.0

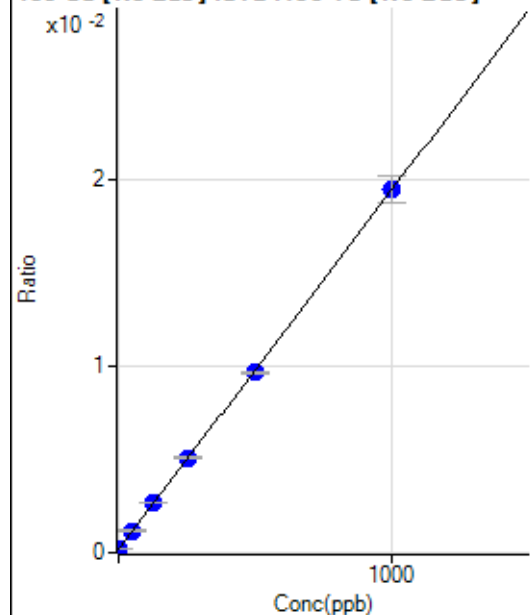
$$y = 7.3431\text{E-}004 * x + 2.9096\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.003948$$

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	1650.18	0.0002	P	8.0
2	☐	0.100					
3	☐	1.000	0.176	1650.18	0.0002	P	5.4
4	☐	50.000	52.778	11483.20	0.0012	P	2.1
5	☐	125.000	129.838	26248.73	0.0027	P	1.2
6	☐	250.000	255.793	52542.36	0.0051	P	0.4
7	☐	500.000	493.138	103626.68	0.0097	P	0.8
8	☐	1000.000	1001.240	206644.59	0.0195	P	7.4
9	☐			1844.66	0.0002	P	5.9

$$y = 1.9284\text{E-}005 * x + 1.6796\text{E-}004$$

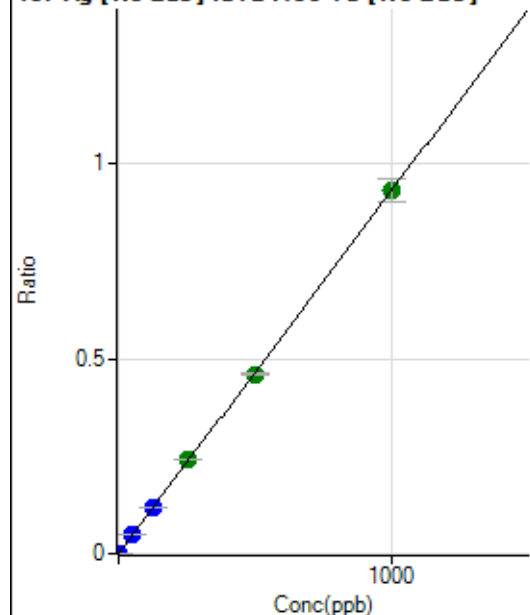
$$R = 0.9999$$

$$DL = 2.088$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	52.78	0.0000	P	24.5
2	☐	0.100					
3	☐	1.000	0.976	8814.38	0.0009	P	0.2
4	☐	50.000	51.980	468907.33	0.0484	P	2.0
5	☐	125.000	129.226	1182829.94	0.1204	P	0.8
6	☐	250.000	260.408	2499097.17	0.2426	A	0.7
7	☐	500.000	494.769	4935753.15	0.4609	A	0.7
8	☐	1000.000	999.386	9883470.45	0.9311	A	6.2
9	☐			1022.31	0.0001	P	4.3

$$y = 9.3162\text{E-}004 * x + 5.3762\text{E-}006$$

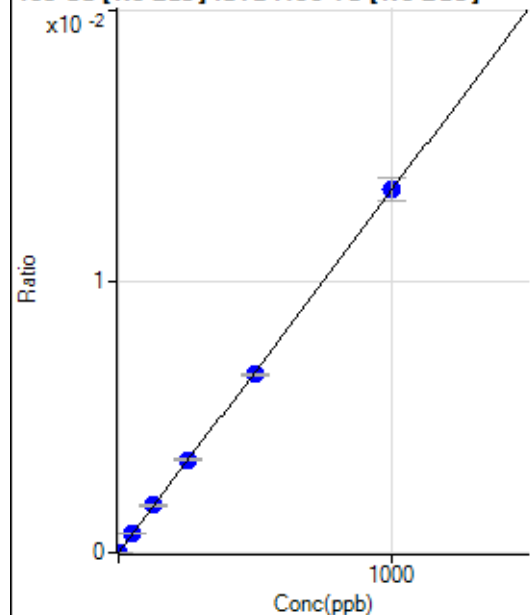
$$R = 0.9999$$

$$DL = 0.00424$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	11.11	0.0000	P	94.5
2	☐	0.100					
3	☐	1.000	0.898	126.39	0.0000	P	9.0
4	☐	50.000	51.282	6635.11	0.0007	P	1.0
5	☐	125.000	130.187	17072.17	0.0017	P	2.1
6	☐	250.000	257.091	35338.26	0.0034	P	1.0
7	☐	500.000	492.018	70289.32	0.0066	P	1.1
8	☐	1000.000	1001.506	141808.38	0.0134	P	6.5
9	☐			30.56	0.0000	P	8.2

$$y = 1.3339\text{E-}005 * x + 1.1343\text{E-}006$$

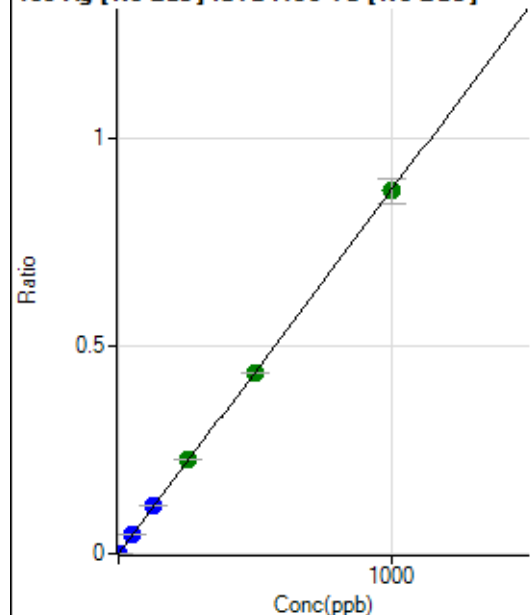
$$R = 0.9999$$

$$DL = 0.2411$$

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	38.89	0.0000	P	25.2
2	☐	0.100					
3	☐	1.000	0.966	8183.38	0.0008	P	3.5
4	☐	50.000	52.608	446034.59	0.0461	P	1.5
5	☐	125.000	130.673	1124113.31	0.1144	P	0.4
6	☐	250.000	261.700	2360399.79	0.2291	A	0.1
7	☐	500.000	496.884	4658532.88	0.4351	A	0.9
8	☐	1000.000	997.794	9272252.90	0.8736	A	6.7
9	☐			911.18	0.0001	P	8.3

$$y = 8.7556\text{E-}004 * x + 3.9617\text{E-}006$$

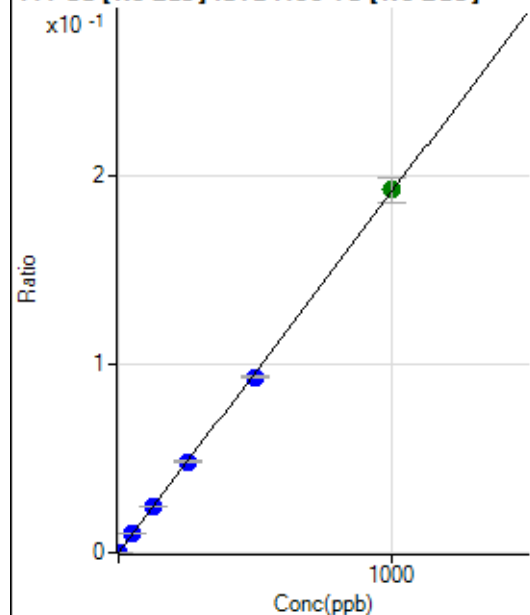
$$R = 0.9999$$

$$DL = 0.003421$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1162.63	0.0001	P	8.1
2	☐	0.100					
3	☐	1.000	0.871	2741.80	0.0003	P	2.9
4	☐	50.000	51.746	96850.00	0.0100	P	1.7
5	☐	125.000	128.152	241660.20	0.0246	P	0.6
6	☐	250.000	252.424	497902.10	0.0483	P	0.4
7	☐	500.000	485.930	995175.55	0.0929	P	0.8
8	☐	1000.000	1005.948	2040310.98	0.1923	A	7.0
9	☐			1393.49	0.0001	P	4.7

$$y = 1.9101\text{E-}004 * x + 1.1834\text{E-}004$$

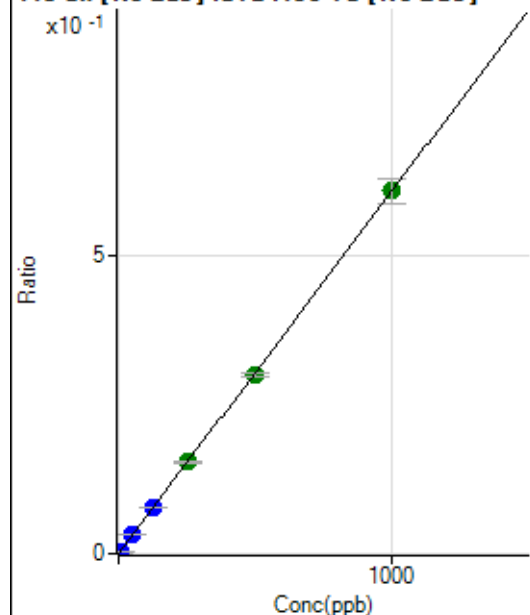
$$R = 0.9998$$

$$DL = 0.1499$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	772.28	0.0001	P	7.8
2	☐	0.500					
3	☐	5.000	4.654	28013.54	0.0029	P	1.7
4	☐	50.000	51.290	302654.01	0.0313	P	2.3
5	☐	125.000	127.521	762440.64	0.0776	P	1.3
6	☐	250.000	252.752	1583684.40	0.1537	A	1.3
7	☐	500.000	494.051	3217009.17	0.3004	A	1.4
8	☐	1000.000	1001.908	6465151.23	0.6092	A	6.9
9	☐			6093.32	0.0006	P	4.9

$$y = 6.0796\text{E-}004 * x + 7.8606\text{E-}005$$

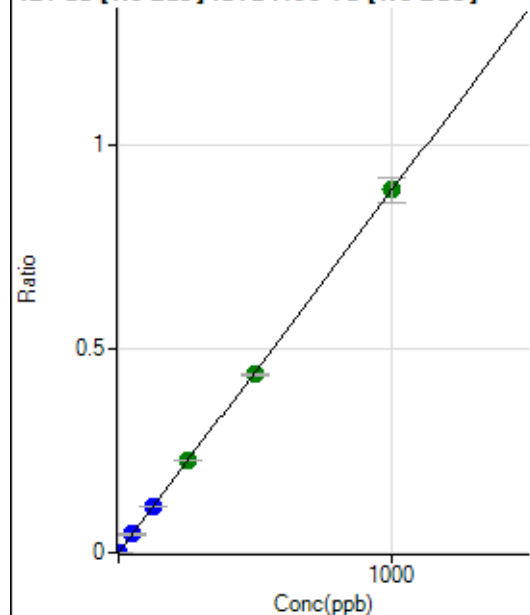
$$R = 1.0000$$

$$DL = 0.03008$$

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	36.11	0.0000	P	48.2
2	☐	0.200					
3	☐	2.000	1.892	16235.48	0.0017	P	1.0
4	☐	50.000	50.667	436137.93	0.0450	P	2.1
5	☐	125.000	127.049	1109662.24	0.1129	P	0.9
6	☐	250.000	254.282	2328598.36	0.2261	A	0.8
7	☐	500.000	492.249	4685720.89	0.4376	A	1.1
8	☐	1000.000	1002.516	9458194.83	0.8912	A	6.8
9	☐			10671.38	0.0010	P	7.3

$$y = 8.8898\text{E-}004 * x + 3.6803\text{E-}006$$

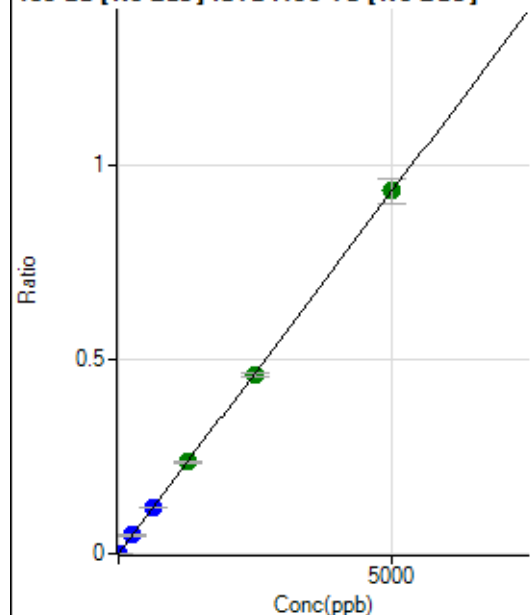
$$R = 0.9999$$

$$DL = 0.005983$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	36.11	0.0000	P	92.9
2	☐	1.000					
3	☐	10.000	9.237	16611.10	0.0017	P	3.5
4	☐	250.000	253.625	457484.84	0.0472	P	1.7
5	☐	625.000	630.602	1154120.48	0.1175	P	0.6
6	☐	1250.000	1266.084	2429492.68	0.2358	A	0.7
7	☐	2500.000	2464.704	4915951.02	0.4591	A	1.9
8	☐	5000.000	5012.747	9908788.24	0.9338	A	7.1
9	☐			2483.70	0.0002	P	6.1

$$y = 1.8628\text{E-}004 * x + 3.6679\text{E-}006$$

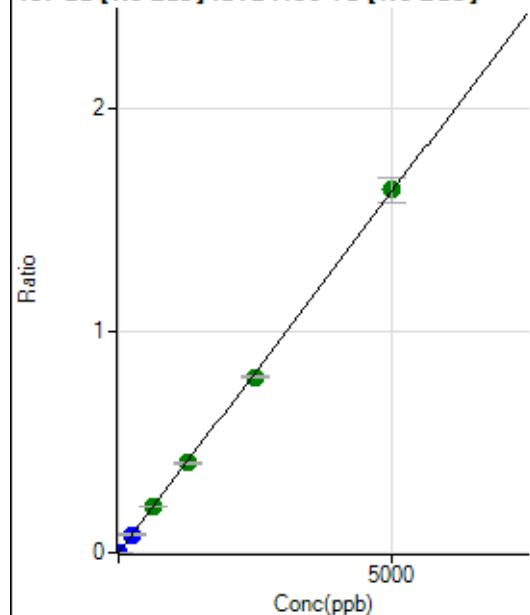
$$R = 1.0000$$

$$DL = 0.05487$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	61.11	0.0000	P	15.8
2	☐	1.000					
3	☐	10.000	9.133	28645.86	0.0030	P	3.2
4	☐	250.000	252.163	793340.58	0.0819	P	1.9
5	☐	625.000	635.185	2027683.94	0.2064	A	1.2
6	☐	1250.000	1245.100	4167421.10	0.4046	A	1.3
7	☐	2500.000	2433.782	8467678.92	0.7908	A	0.8
8	☐	5000.000	5032.954	17354709.07	1.6353	A	6.9
9	☐			4717.73	0.0004	P	4.4

$$y = 3.2492\text{E-}004 * x + 6.2220\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.009066$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.56		P	65.5
2	☐						
3	☐			13.33		P	50.0
4	☐			24.44		P	31.5
5	☐			53.34		P	33.1
6	☐			95.56		P	24.5
7	☐			171.12		P	9.8
8	☐			424.47		P	20.7
9	☐			86.67		P	30.8

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	☐			0.00		P	
5	☐			3.33		P	100.
6	☐			6.67		P	50.0
7	☐			10.00		P	33.3
8	☐			11.11		P	91.7
9	☐			13.33		P	25.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐						
3	☐			11.11		P	43.3
4	☐			5.56		P	173.
5	☐			38.89		P	32.7
6	☐			66.67		P	21.6
7	☐			83.34		P	17.3
8	☐			125.01		P	26.7
9	☐			75.00		P	38.5

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			1.11		P	173.
4	☐			1.11		P	173.
5	☐			1.11		P	173.
6	☐			7.78		P	65.5
7	☐			10.00		P	33.3
8	☐			12.22		P	56.8
9	☐			8.89		P	21.6

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

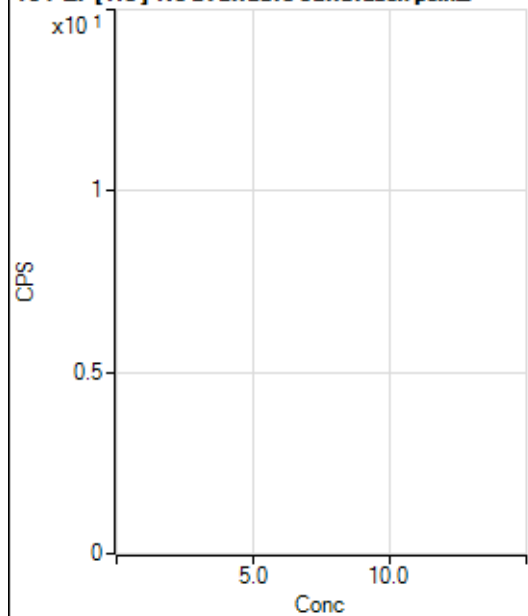
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			58.34		P	28.6
2	☐						
3	☐			72.23		P	43.7
4	☐			52.78		P	9.1
5	☐			77.78		P	34.4
6	☐			80.56		P	36.3
7	☐			80.56		P	15.8
8	☐			94.45		P	31.0
9	☐			158.34		P	32.9

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	43.3
2	☐						
3	☐			10.00		P	66.7
4	☐			10.00		P	88.2
5	☐			13.33		P	25.0
6	☐			13.33		P	50.0
7	☐			16.67		P	NaN
8	☐			17.78		P	75.8
9	☐			22.22		P	8.7

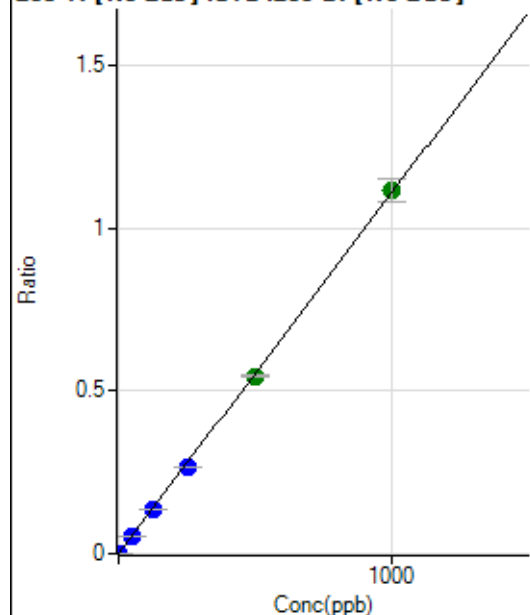
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	39.0
2	☐						
3	☐			52.78		P	32.9
4	☐			50.00		P	57.7
5	☐			44.45		P	54.1
6	☐			50.00		P	50.0
7	☐			69.45		P	81.7
8	☐			55.56		P	8.7
9	☐			77.78		P	6.2

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	24.7
2	☐						
3	☐			11.11		P	34.6
4	☐			7.78		P	89.2
5	☐			6.66		P	86.6
6	☐			3.33		P	100.
7	☐			12.22		P	83.3
8	☐			13.33		P	43.3
9	☐			17.78		P	39.0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	108.34	0.0000	P	20.3
2	☐	0.100					
3	☐	1.000	0.851	5340.24	0.0010	P	7.0
4	☐	50.000	48.227	298488.52	0.0534	P	1.3
5	☐	125.000	120.901	762377.56	0.1339	P	1.1
6	☐	250.000	241.327	1607541.22	0.2672	P	0.6
7	☐	500.000	493.132	3419951.25	0.5460	A	0.7
8	☐	1000.000	1006.204	7078584.27	1.1140	A	6.3
9	☐			2511.49	0.0004	P	7.3

$$y = 0.0011 * x + 1.9107E-005$$

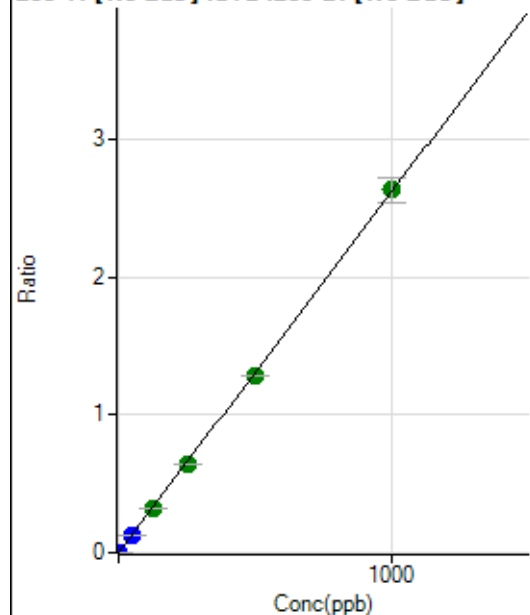
$$R = 0.9999$$

$$DL = 0.01051$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	150.01	0.0000	P	19.2
2	☐	0.100					
3	☐	1.000	0.908	13340.95	0.0024	P	2.1
4	☐	50.000	48.635	711084.83	0.1272	P	1.3
5	☐	125.000	122.600	1826440.84	0.3207	A	1.5
6	☐	250.000	245.654	3866097.40	0.6426	A	0.6
7	☐	500.000	490.410	8035736.81	1.2828	A	0.4
8	☐	1000.000	1006.250	16722898.64	2.6320	A	6.6
9	☐			6162.90	0.0010	P	5.7

$$y = 0.0026 * x + 2.6457E-005$$

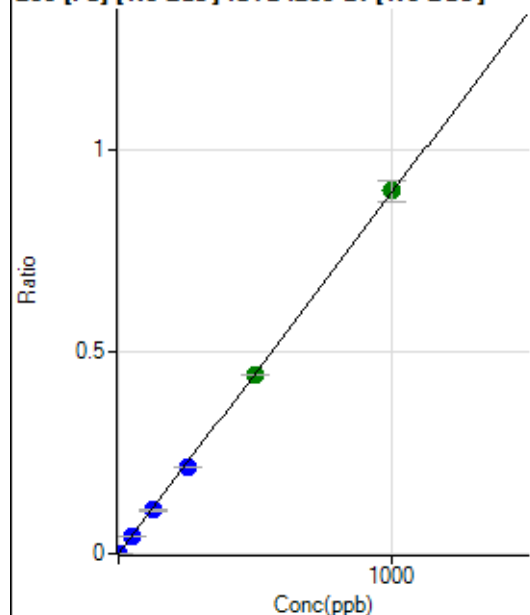
$$R = 0.9999$$

$$DL = 0.005826$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	403.73	0.0001	P	13.7
2	☐	0.100					
3	☐	1.000	0.866	4695.45	0.0008	P	1.7
4	☐	50.000	48.318	241867.42	0.0433	P	1.6
5	☐	125.000	119.953	611314.36	0.1073	P	0.6
6	☐	250.000	239.317	1287979.69	0.2141	P	0.5
7	☐	500.000	495.641	2776943.44	0.4433	A	0.2
8	☐	1000.000	1005.565	5714715.98	0.8993	A	6.1
9	☐			6453.70	0.0011	P	1.6

$$y = 8.9423\text{E-}004 * x + 7.1203\text{E-}005$$

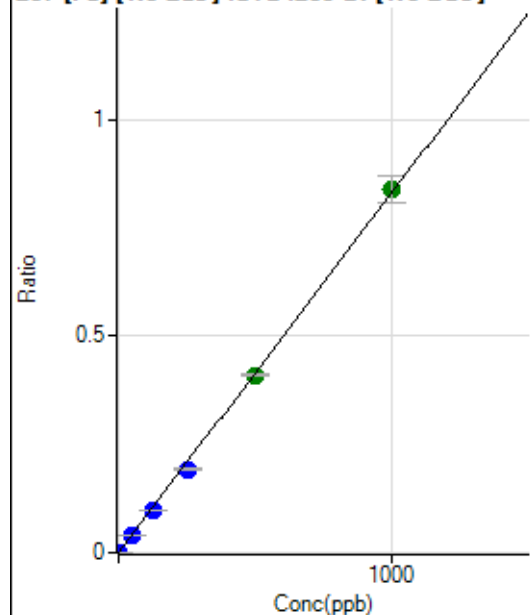
$$R = 0.9999$$

$$DL = 0.03274$$

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	396.32	0.0001	P	3.2
2	☐	0.100					
3	☐	1.000	0.836	4243.45	0.0008	P	1.7
4	☐	50.000	46.906	218018.84	0.0390	P	1.5
5	☐	125.000	117.122	554178.22	0.0973	P	1.1
6	☐	250.000	232.306	1160777.79	0.1929	P	0.5
7	☐	500.000	493.456	2566754.14	0.4097	A	0.8
8	☐	1000.000	1008.835	5319986.64	0.8376	A	7.4
9	☐			5436.51	0.0009	P	1.7

$$y = 8.3021\text{E-}004 * x + 6.9901\text{E-}005$$

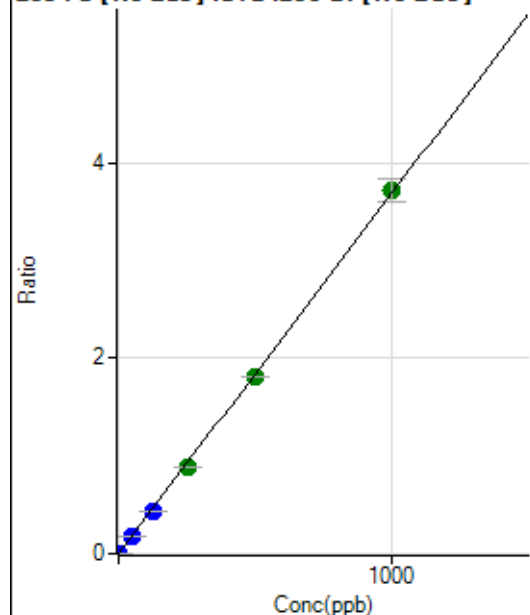
$$R = 0.9998$$

$$DL = 0.008073$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1600.09	0.0003	P	7.1
2	☐	0.100					
3	☐	1.000	0.867	19278.62	0.0035	P	2.0
4	☐	50.000	47.520	978790.08	0.1751	P	1.3
5	☐	125.000	118.453	2483943.03	0.4362	P	1.2
6	☐	250.000	239.588	5305918.30	0.8819	A	0.6
7	☐	500.000	490.638	11311453.49	1.8057	A	0.5
8	☐	1000.000	1008.227	23574252.78	3.7102	A	6.4
9	☐			25273.52	0.0042	P	2.7

$$y = 0.0037 * x + 2.8221E-004$$

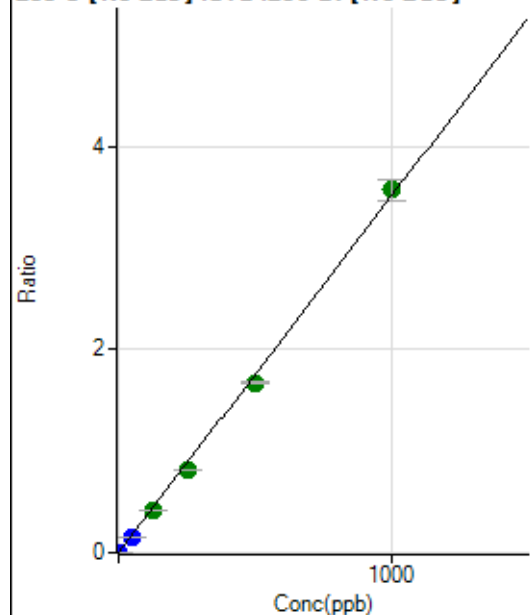
$$R = 0.9999$$

$$DL = 0.01631$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	116.68	0.0000	P	12.4
2	☐	0.100					
3	☐	1.000	0.807	15849.78	0.0029	P	0.6
4	☐	50.000	45.393	891131.09	0.1595	P	1.4
5	☐	125.000	117.320	2347042.44	0.4121	A	0.4
6	☐	250.000	232.925	4922383.75	0.8181	A	0.4
7	☐	500.000	476.773	10490442.51	1.6746	A	0.8
8	☐	1000.000	1017.073	22700464.22	3.5723	A	6.2
9	☐			1316.80	0.0002	P	10.1

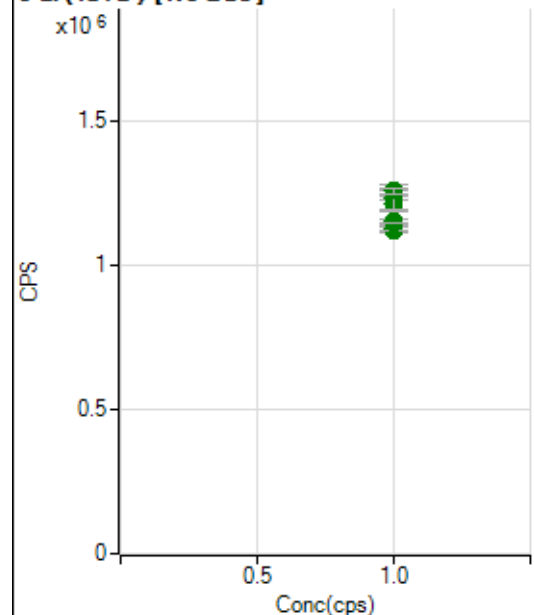
$$y = 0.0035 * x + 2.0580E-005$$

$$R = 0.9995$$

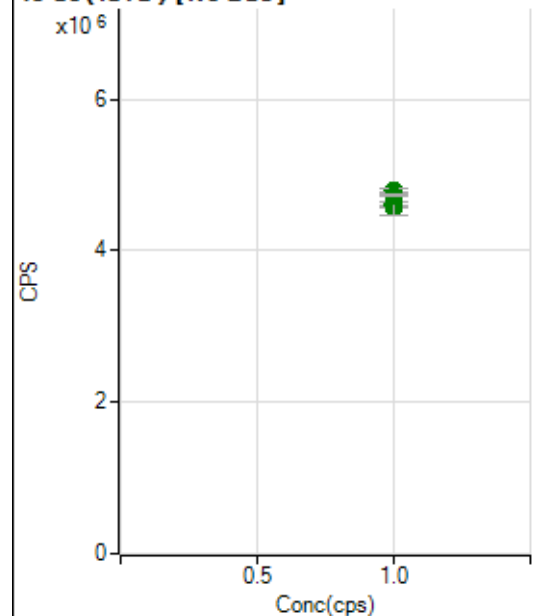
$$DL = 0.002181$$

Weight: <None>

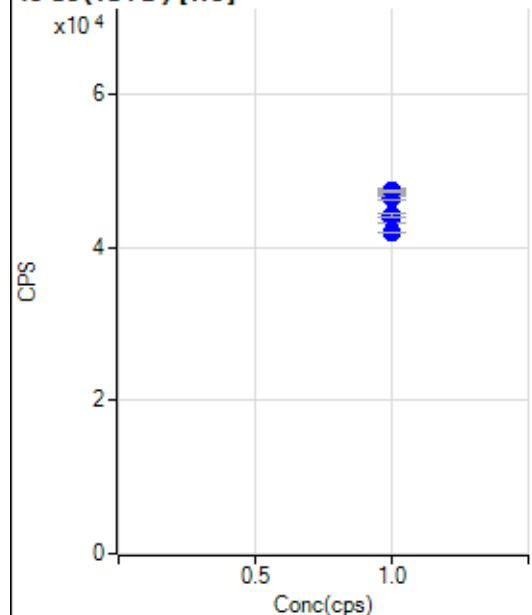
Min Conc: 0

6 Li (ISTD) [No Gas]

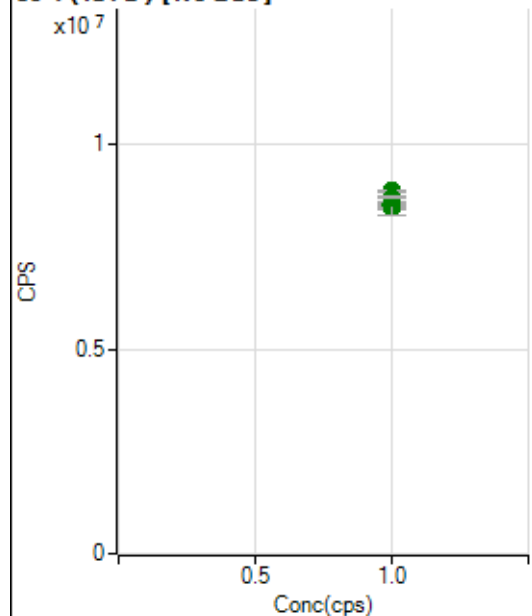
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1148659.88		A	1.5
2	☐	1.000					
3	☐	1.000		1118018.27		A	0.6
4	☐	1.000		1122904.39		A	1.1
5	☐	1.000		1144061.08		A	0.3
6	☐	1.000		1210581.41		A	2.7
7	☐	1.000		1247094.48		A	1.6
8	☐	1.000		1231630.61		A	7.4
9	☐	1.000		1256074.96		A	1.4

45 Sc (ISTD) [No Gas]

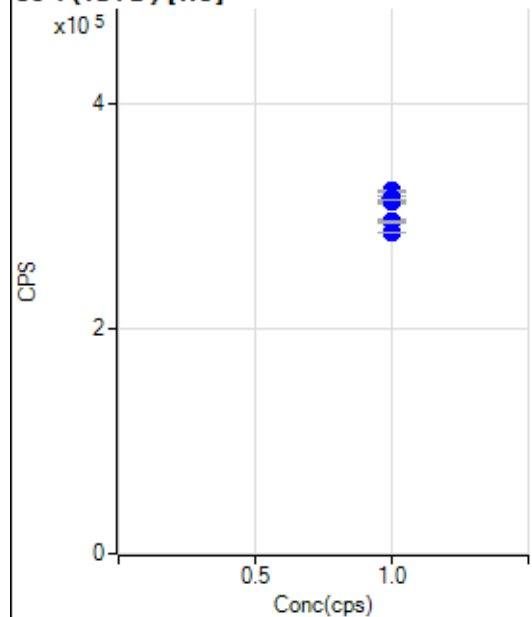
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4644911.09		A	0.0
2	☐	1.000					
3	☐	1.000		4584392.16		A	0.5
4	☐	1.000		4602492.25		A	1.6
5	☐	1.000		4576553.40		A	0.1
6	☐	1.000		4761253.62		A	0.3
7	☐	1.000		4790031.01		A	1.2
8	☐	1.000		4612768.03		A	6.0
9	☐	1.000		4732504.97		A	0.9

45 Sc (ISTD) [He]

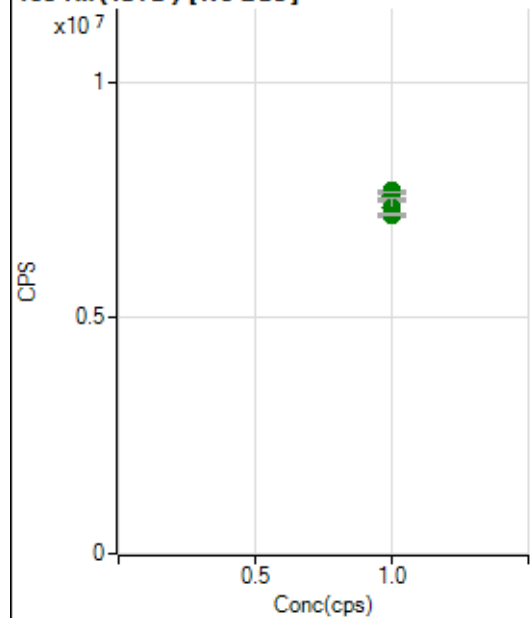
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		47350.74		P	1.3
2	☐	1.000					
3	☐	1.000		46675.27		P	1.8
4	☐	1.000		46572.71		P	1.0
5	☐	1.000		47432.20		P	0.6
6	☐	1.000		47399.80		P	0.9
7	☐	1.000		43624.35		P	1.6
8	☐	1.000		41930.28		P	0.3
9	☐	1.000		44335.50		P	1.3

89 Y (ISTD) [No Gas]

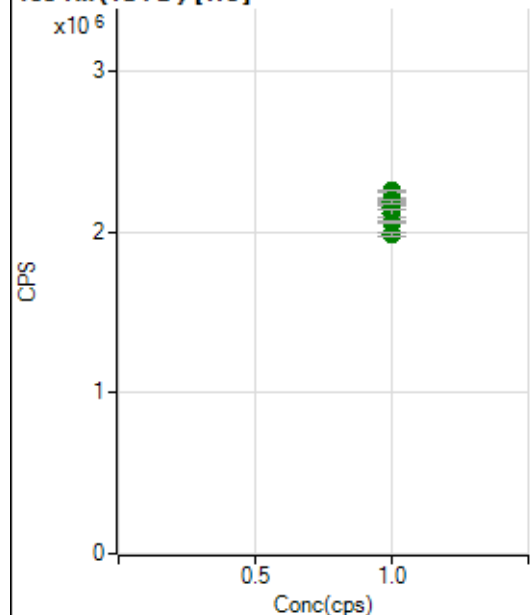
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8591024.38		A	0.1
2	☐	1.000					
3	☐	1.000		8462747.72		A	1.0
4	☐	1.000		8467140.36		A	0.8
5	☐	1.000		8489938.55		A	0.9
6	☐	1.000		8744287.30		A	0.3
7	☐	1.000		8862222.16		A	0.9
8	☐	1.000		8542565.29		A	6.6
9	☐	1.000		8698323.48		A	0.6

89 Y(ISTD) [He]

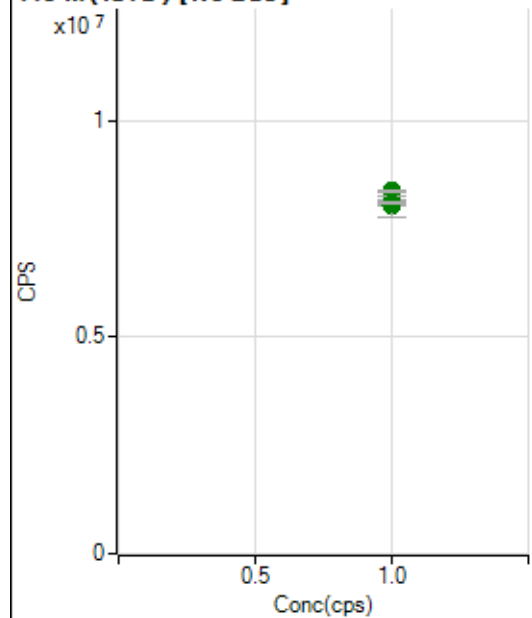
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		322842.26		P	0.6
2	☐	1.000					
3	☐	1.000		316272.64		P	0.9
4	☐	1.000		312372.19		P	0.6
5	☐	1.000		316821.36		P	0.7
6	☐	1.000		314176.50		P	0.1
7	☐	1.000		296159.01		P	1.5
8	☐	1.000		285639.99		P	0.4
9	☐	1.000		295454.95		P	0.9

103 Rh(ISTD) [No Gas]

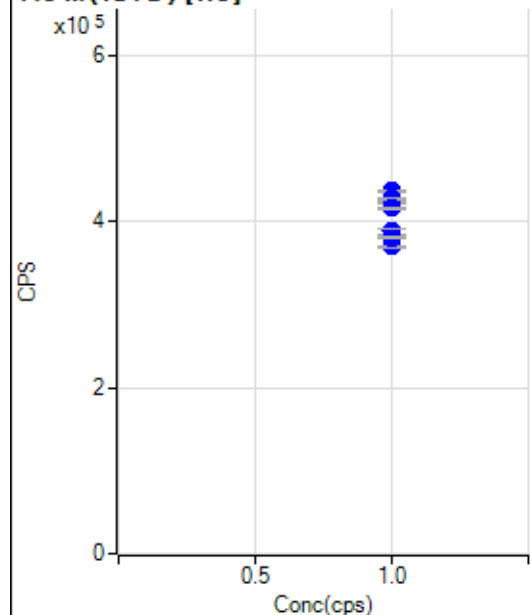
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7642591.92		A	0.4
2	☐	1.000					
3	☐	1.000		7578391.75		A	0.7
4	☐	1.000		7481466.92		A	1.1
5	☐	1.000		7474590.01		A	1.0
6	☐	1.000		7686383.85		A	0.3
7	☐	1.000		7666339.41		A	0.0
8	☐	1.000		7327918.83		A	5.9
9	☐	1.000		7188190.70		A	0.6

103 Rh (ISTD) [He]

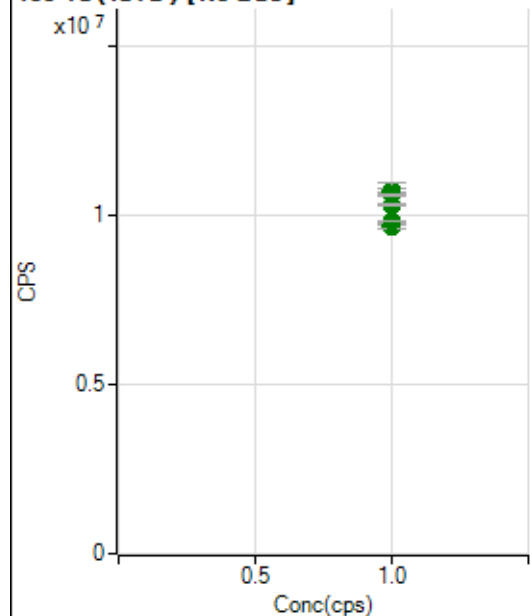
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2254208.51		A	0.3
2	☐	1.000					
3	☐	1.000		2178078.07		A	0.7
4	☐	1.000		2151018.63		A	0.9
5	☐	1.000		2192667.66		A	1.4
6	☐	1.000		2185377.64		A	0.7
7	☐	1.000		2114833.51		A	1.8
8	☐	1.000		2059204.71		A	0.4
9	☐	1.000		1985244.05		A	1.6

115 In (ISTD) [No Gas]

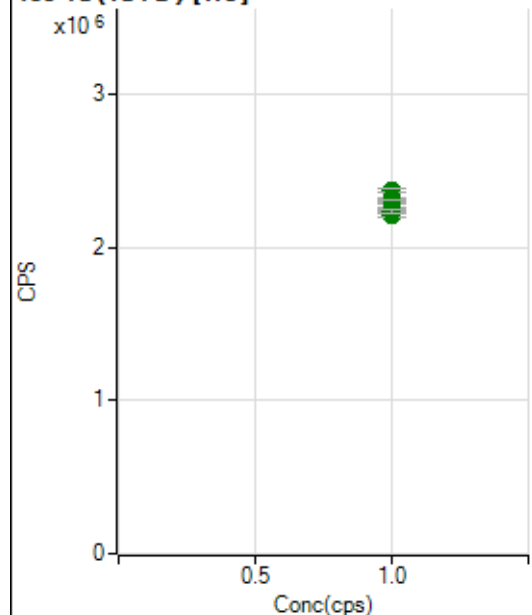
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8254029.17		A	0.3
2	☐	1.000					
3	☐	1.000		8146477.77		A	0.8
4	☐	1.000		8084023.26		A	1.0
5	☐	1.000		8081153.63		A	0.4
6	☐	1.000		8362311.49		A	0.0
7	☐	1.000		8369704.55		A	0.3
8	☐	1.000		8018992.03		A	5.9
9	☐	1.000		8084909.51		A	0.6

115 In (ISTD) [He]

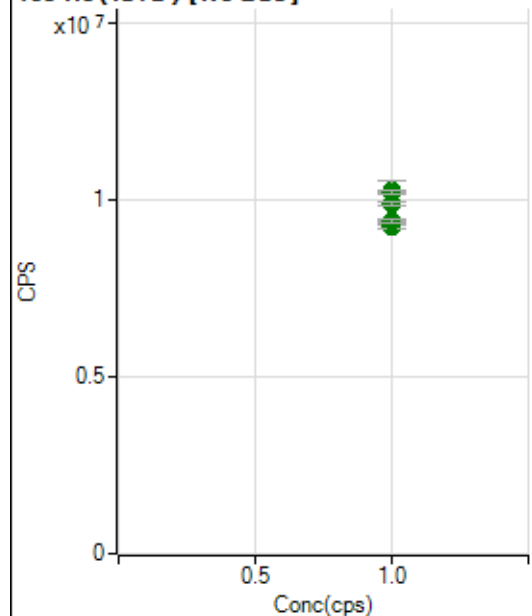
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		437063.58		P	0.3
2	☐	1.000					
3	☐	1.000		427804.52		P	0.3
4	☐	1.000		422148.13		P	0.3
5	☐	1.000		427074.96		P	0.6
6	☐	1.000		416074.69		P	0.3
7	☐	1.000		388282.36		P	1.9
8	☐	1.000		369849.06		P	0.5
9	☐	1.000		380447.53		P	0.7

159 Tb (ISTD) [No Gas]

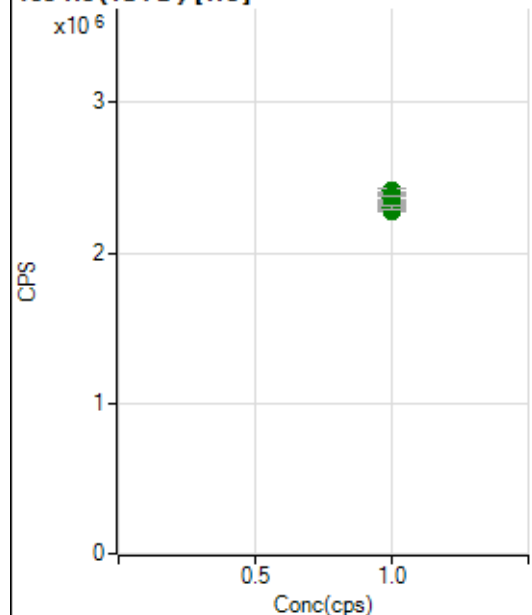
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9822559.30		A	0.5
2	☐	1.000					
3	☐	1.000		9634520.97		A	1.2
4	☐	1.000		9684363.47		A	1.8
5	☐	1.000		9824813.81		A	0.4
6	☐	1.000		10301179.43		A	0.3
7	☐	1.000		10708384.42		A	0.9
8	☐	1.000		10643000.61		A	6.3
9	☐	1.000		10594299.35		A	0.4

159 Tb (ISTD) [He]

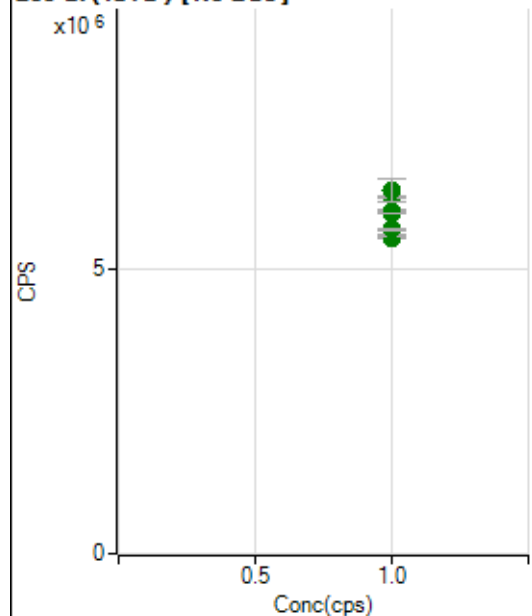
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2371713.00		A	1.1
2	☐	1.000					
3	☐	1.000		2292489.43		A	0.8
4	☐	1.000		2288423.18		A	0.4
5	☐	1.000		2326316.23		A	0.4
6	☐	1.000		2309799.48		A	0.2
7	☐	1.000		2253774.05		A	1.0
8	☐	1.000		2215705.19		A	1.7
9	☐	1.000		2236147.62		A	1.0

165 Ho (ISTD) [No Gas]

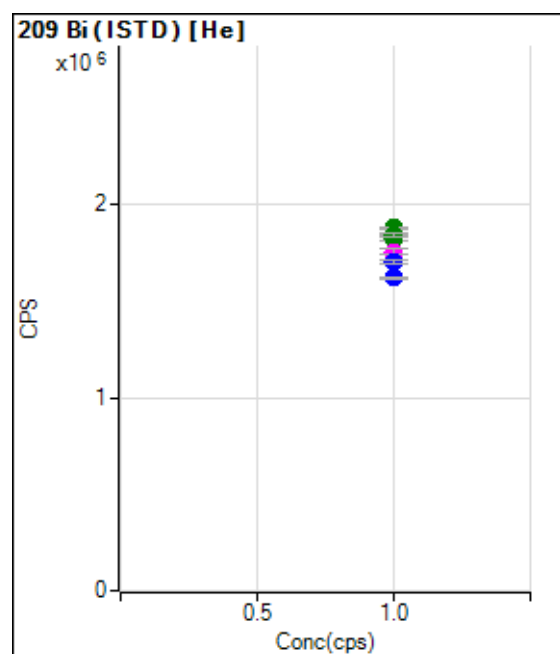
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9400584.06		A	1.1
2	☐	1.000					
3	☐	1.000		9217220.43		A	0.9
4	☐	1.000		9276964.79		A	2.2
5	☐	1.000		9383351.51		A	0.9
6	☐	1.000		9872619.32		A	0.9
7	☐	1.000		10239262.56		A	0.6
8	☐	1.000		10232188.08		A	6.2
9	☐	1.000		10191155.87		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2413095.38		A	0.9
2	☐	1.000					
3	☐	1.000		2358603.71		A	1.3
4	☐	1.000		2333164.50		A	0.5
5	☐	1.000		2371135.52		A	1.3
6	☐	1.000		2381653.38		A	0.3
7	☐	1.000		2295547.68		A	1.0
8	☐	1.000		2278916.06		A	0.5
9	☐	1.000		2298355.26		A	0.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5669605.82		A	0.1
2	☐	1.000					
3	☐	1.000		5553976.45		A	0.5
4	☐	1.000		5589071.51		A	1.0
5	☐	1.000		5695517.55		A	1.0
6	☐	1.000		6016576.65		A	0.5
7	☐	1.000		6264384.98		A	0.8
8	☐	1.000		6371093.24		A	6.3
9	☐	1.000		5981958.38		A	0.2



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1880230.98		A	0.6
2	☐	1.000					
3	☐	1.000		1833391.26		A	0.2
4	☐	1.000		1823666.12		A	0.6
5	☐	1.000		1838617.02		A	1.0
6	☐	1.000		1841142.21		A	1.0
7	☐	1.000		1756048.53		M	1.7
8	☐	1.000		1703843.39		P	0.8
9	☐	1.000		1622243.15		P	0.4

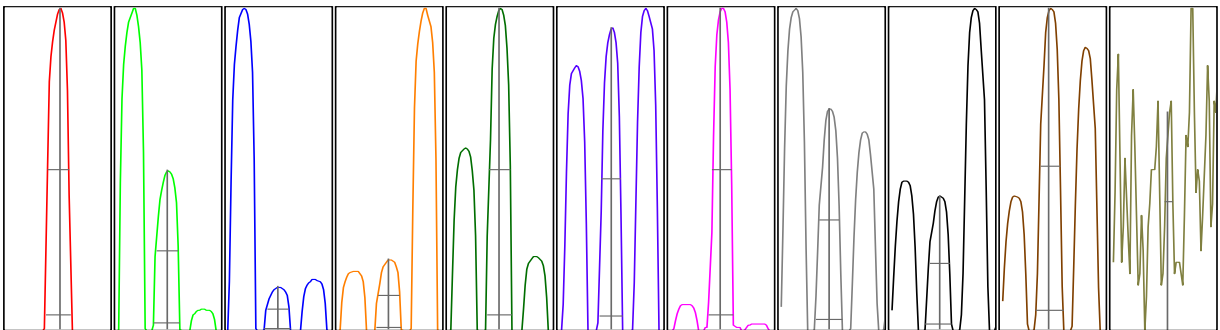
US EPA Tune Check Sample Report

Batch Folder D:\P8101317-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5345	0.88	5.00	
24	27834	0.85	5.00	
25	3777	1.30	5.00	
26	4391	1.03	5.00	
59	63173	1.24	5.00	
113	8332	1.22	5.00	
115	107448	2.03	5.00	
206	20834	0.92	5.00	
207	18852	0.89	5.00	
208	44538	1.08	5.00	
220	1	23.89		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5369	5375	5392	5283	5308
24	27990	27988	27968	27440	27787
25	3820	3802	3802	3697	3764
26	4434	4422	4413	4339	4345
59	63804	63628	63670	61972	62791
113	8409	8413	8392	8193	8256
115	109708	109120	107539	104212	106662
206	20866	20954	20961	20499	20888
207	18845	18857	19016	18580	18962
208	44245	44894	44972	43843	44735
220	1	1	2	2	2

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	8761	9.10	8.9 - 9.1		0.740	0.900	
24	45381	24.00	23.9 - 24.1		0.744	0.900	
25	6087	25.00	24.9 - 25.1		0.743	0.900	
26	7227	26.00	25.9 - 26.1		0.740	0.900	
59	106755	59.00	58.9 - 59.1		0.737	0.900	
113	15414	113.05	112.9 - 113.1		0.690	0.900	
115	196578	115.00	114.9 - 115.1		0.721	0.900	
206	37282	205.95	205.9 - 206.1		0.774	0.900	
207	33445	206.95	206.9 - 207.1		0.740	0.900	
208	80341	207.90	207.9 - 208.1		0.770	0.900	
220	2	220.15	-				

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.0	V	Deflect	13.6	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-100	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	8774	0.59	
89	2052	1.69	
205	11397	0.86	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	8839	8821	8749	8731	8730
89	2104	2071	2025	2026	2034
205	11553	11389	11415	11320	11309

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.0	V	Deflect	1.6	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-100	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	5.0	mL/min	OctP RF	200	V			