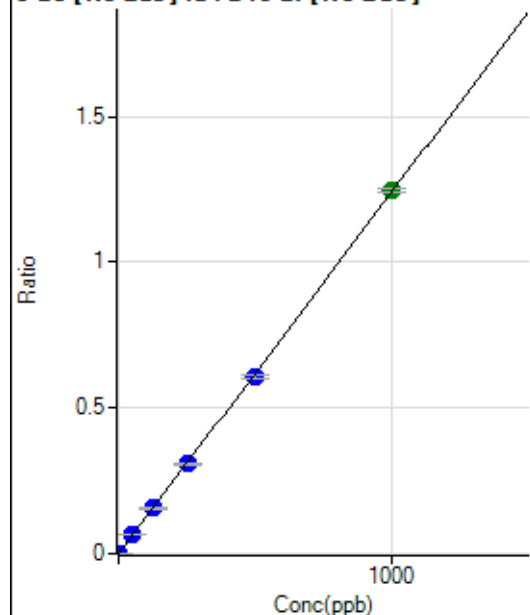


Batch Folder: D:\P811118-MS.b\
Analysis File: P811118-MS.batch.bin
DA Date-Time: 2018-11-14 22:32:13
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-11-14 12:49:22
2			
3	005CAL.S.d	S02	2018-11-14 12:56:38
4	006CAL.S.d	S03	2018-11-14 13:00:26
5	007CAL.S.d	S04	2018-11-14 13:04:14
6	008CAL.S.d	S05	2018-11-14 13:07:55
7	009CAL.S.d	S06	2018-11-14 13:11:30
8	010CAL.S.d	S07	2018-11-14 13:14:58
9	011CAL.S.d	S08	2018-11-14 13:18:21

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	81.48	0.0001	P	21.6
2	☐	0.100					
3	☐	1.000	0.999	1255.65	0.0013	P	5.0
4	☐	50.000	50.810	60508.87	0.0630	P	1.0
5	☐	125.000	125.399	149544.67	0.1555	P	1.3
6	☐	250.000	248.690	307538.05	0.3082	P	2.0
7	☐	500.000	490.929	609931.69	0.6083	P	2.1
8	☐	1000.000	1004.772	1202575.45	1.2450	A	1.0
9	☐			348.16	0.0004	P	7.9

$$y = 0.0012 * x + 8.4740E-005$$

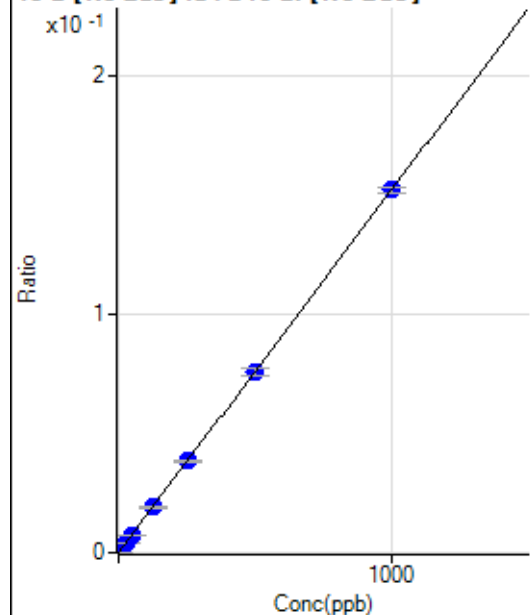
$$R = 0.9999$$

$$DL = 0.04423$$

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	58.34	0.0001	P	29.1
2	☐	2.500					
3	☐	25.000	25.523	3742.32	0.0039	P	4.7
4	☐	50.000	48.846	7193.79	0.0075	P	4.6
5	☐	125.000	125.247	18401.48	0.0191	P	2.8
6	☐	250.000	252.616	38410.77	0.0385	P	2.6
7	☐	500.000	498.270	76054.96	0.0759	P	3.8
8	☐	1000.000	1000.225	147064.58	0.1522	P	1.4
9	☐			2519.78	0.0025	P	10.4

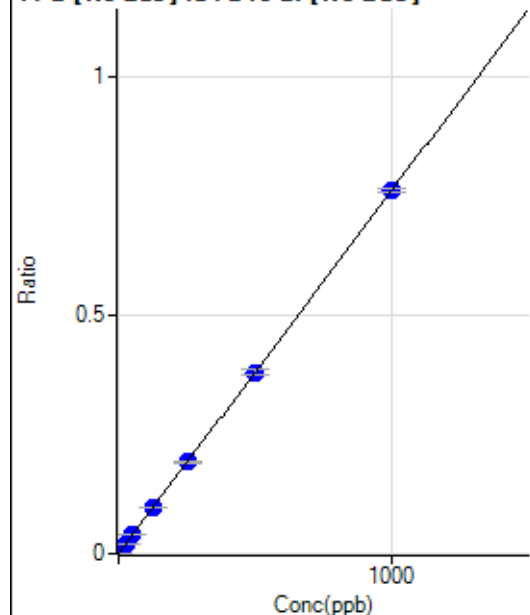
$$y = 1.5214E-004 * x + 6.0744E-005$$

$$R = 1.0000$$

$$DL = 0.3485$$

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	336.13	0.0004	P	16.7
2	☐	2.500					
3	☐	25.000	26.006	19132.86	0.0202	P	1.7
4	☐	50.000	51.152	37731.15	0.0393	P	1.3
5	☐	125.000	126.811	93244.17	0.0969	P	2.2
6	☐	250.000	252.460	192251.84	0.1926	P	0.9
7	☐	500.000	498.607	381032.77	0.3801	P	3.4
8	☐	1000.000	999.772	735815.79	0.7618	P	1.0
9	☐			12269.61	0.0124	P	6.3

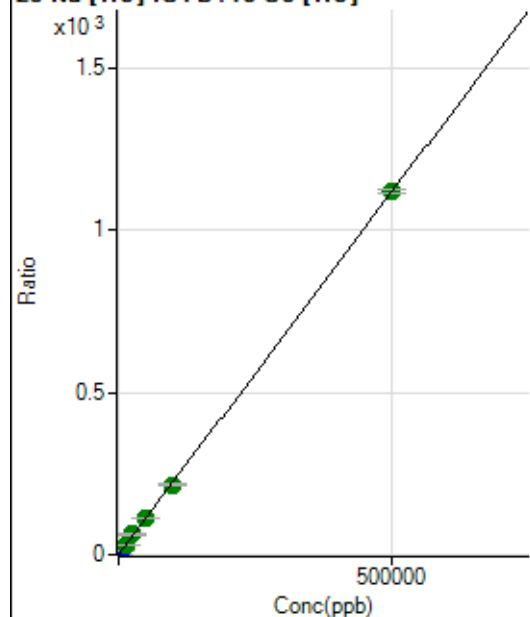
$$y = 7.6161\text{E-}004 * x + 3.5015\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2303$$

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	7657.96	0.1862	P	3.8
2	☐	50.000					
3	☐	500.000	516.518	54441.16	1.3408	P	2.2
4	☐	5000.000	5209.057	471775.04	11.8296	P	1.2
5	☐	12500.000	13228.679	1171909.84	29.7553	A	0.9
6	☐	25000.000	27807.905	2336319.48	62.3431	A	7.9
7	☐	50000.000	49941.762	4501856.61	111.8171	A	0.7
8	☐	100000.00	96442.476	8678601.67	215.7565	A	1.3
9	☐	500000.00	500556.60	45294029.49	1,119.040	A	1.1

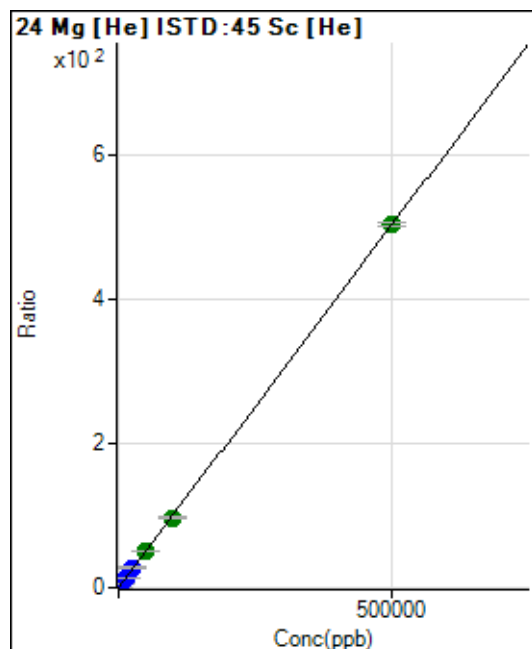
$$y = 0.0022 * x + 0.1862$$

$$R = 0.9999$$

$$DL = 9.573$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	202.79	0.0049	P	19.2
2	☐	50.000					
3	☐	500.000	511.755	21047.01	0.5184	P	2.1
4	☐	5000.000	5181.841	207543.22	5.2042	P	1.4
5	☐	12500.000	13048.040	515826.88	13.0969	P	0.9
6	☐	25000.000	27415.026	1031240.78	27.5122	P	7.5
7	☐	50000.000	50396.949	2035997.64	50.5714	A	0.9
8	☐	100000.00	96607.788	3898911.41	96.9376	A	2.0
9	☐	500000.00	500502.46	20326626.84	502.1906	A	1.0

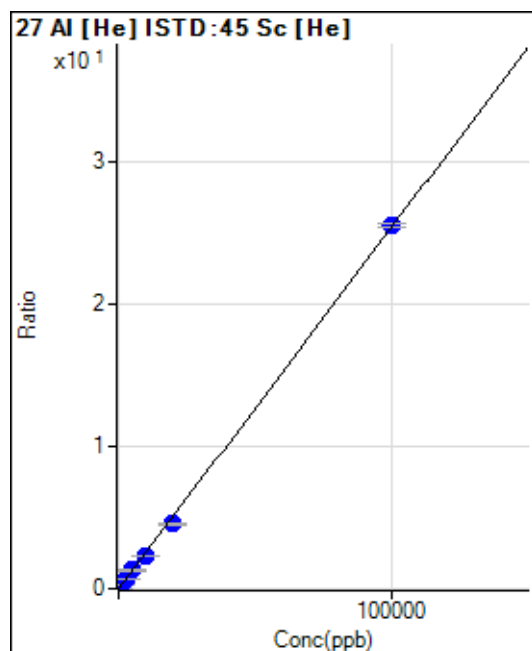
$$y = 0.0010 * x + 0.0049$$

$$R = 1.0000$$

$$DL = 2.841$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	32.51	0.0008	P	43.3
2	☐	2.000					
3	☐	20.000	20.327	241.73	0.0059	P	16.5
4	☐	1000.000	968.696	9820.95	0.2462	P	0.7
5	☐	2500.000	2451.013	24489.73	0.6218	P	1.8
6	☐	5000.000	5095.090	48409.75	1.2918	P	7.9
7	☐	10000.000	9277.985	94682.54	2.3516	P	0.6
8	☐	20000.000	18023.215	183699.82	4.5675	P	2.1
9	☐	100000.00	100464.34	1030363.45	25.4563	P	1.1

$$y = 2.5338E-004 * x + 7.9579E-004$$

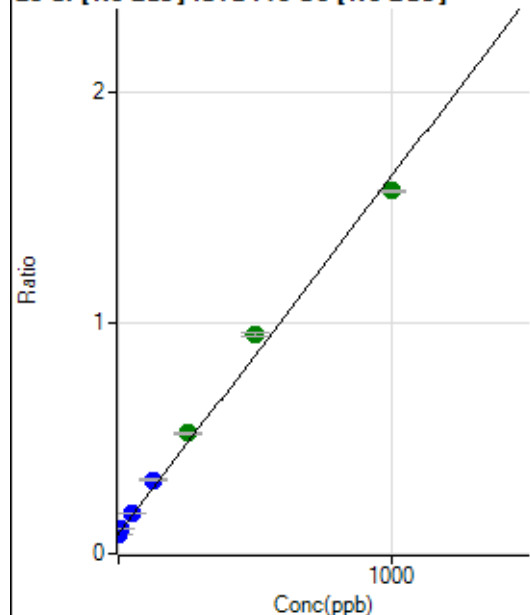
$$R = 0.9998$$

$$DL = 4.078$$

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	253386.42	0.0862	P	0.3
2	☐	1.000					
3	☐	10.000	14.290	314062.56	0.1083	P	0.8
4	☐	50.000	58.285	518086.20	0.1763	P	1.5
5	☐	125.000	151.233	937584.54	0.3200	P	0.6
6	☐	250.000	280.504	1572659.72	0.5198	A	2.2
7	☐	500.000	558.884	2889762.07	0.9502	A	2.0
8	☐	1000.000	959.196	4617600.84	1.5691	A	0.2
9	☐			655544.63	0.2154	P	3.4

$$y = 0.0015 * x + 0.0862$$

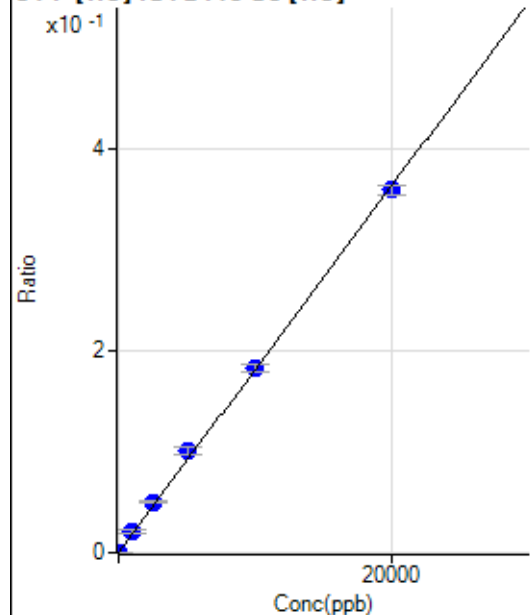
$$R = 0.9967$$

$$DL = 0.5357$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	1.876	5.55	0.0001	P	86.7
2	☐	0.000					
3	☐	0.000	-1.876	2.78	0.0001	P	173.
4	☐	1000.000	1144.221	830.61	0.0208	P	11.3
5	☐	2500.000	2764.486	1978.00	0.0502	P	3.3
6	☐	5000.000	5534.612	3764.56	0.1004	P	7.6
7	☐	10000.000	10064.990	7349.45	0.1826	P	4.5
8	☐	20000.000	19793.580	14435.67	0.3589	P	2.3
9	☐			11.11	0.0003	P	113.

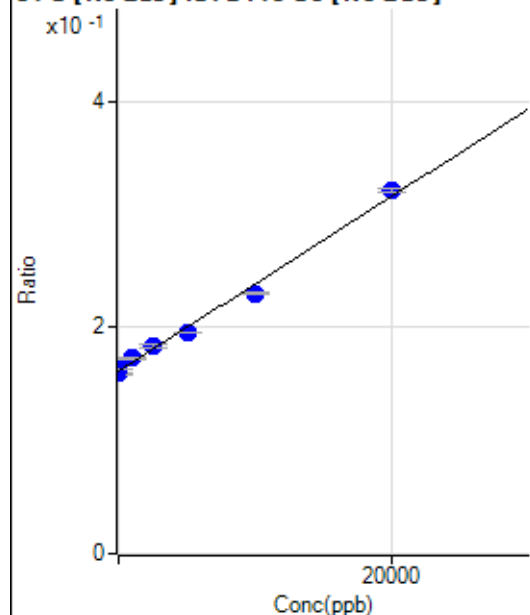
$$y = 1.8128E-005 * x + 1.0167E-004$$

$$R = 0.9996$$

$$DL = 19.43$$

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	-273.047	468288.23	0.1593	P	0.9
2	☐	0.000					
3	☐	0.000	273.047	474267.90	0.1635	P	0.4
4	☐	1000.000	1468.818	507708.62	0.1728	P	0.4
5	☐	2500.000	2861.828	537616.74	0.1835	P	1.8
6	☐	5000.000	4420.317	591697.24	0.1956	P	0.7
7	☐	10000.000	8918.031	700571.00	0.2303	P	0.5
8	☐	20000.000	20617.236	943962.52	0.3208	P	0.9
9	☐			419984.76	0.1381	P	2.0

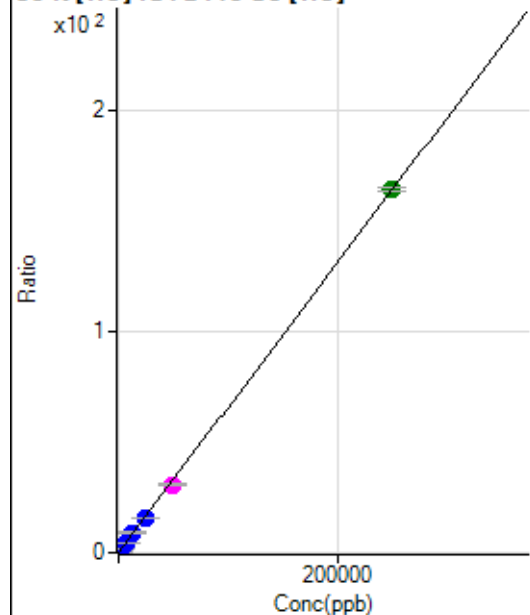
$$y = 7.7309\text{E-}006 * x + 0.1614$$

$$R = 0.9963$$

$$DL = 390.7$$

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	5195.62	0.1265	P	7.4
2	☐	50.000					
3	☐	500.000	506.135	18579.77	0.4576	P	1.4
4	☐	2500.000	2507.086	70457.39	1.7667	P	0.9
5	☐	6250.000	6372.501	169175.86	4.2955	P	1.1
6	☐	12500.000	13267.763	330061.79	8.8065	P	7.7
7	☐	25000.000	24224.744	643139.21	15.9747	P	1.1
8	☐	50000.000	46851.445	1238048.74	30.7775	M	0.8
9	☐	250000.00	250665.70	6642771.93	164.1164	A	1.0

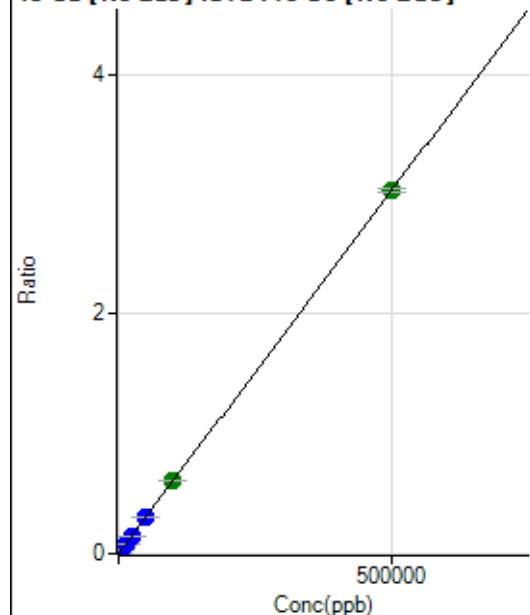
$$y = 6.5422\text{E-}004 * x + 0.1265$$

$$R = 0.9999$$

$$DL = 42.69$$

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	344.46	0.0001	P	8.3
2	☐	50.000					
3	☐	500.000	514.451	9381.27	0.0032	P	2.2
4	☐	5000.000	4981.527	89051.30	0.0303	P	1.1
5	☐	12500.000	12477.161	221843.77	0.0757	P	0.5
6	☐	25000.000	24985.959	458394.14	0.1515	P	0.5
7	☐	50000.000	49337.562	909583.32	0.2991	P	0.9
8	☐	100000.00	101447.76	1809362.11	0.6148	A	0.3
9	☐	500000.00	499778.13	9214412.36	3.0285	A	0.9

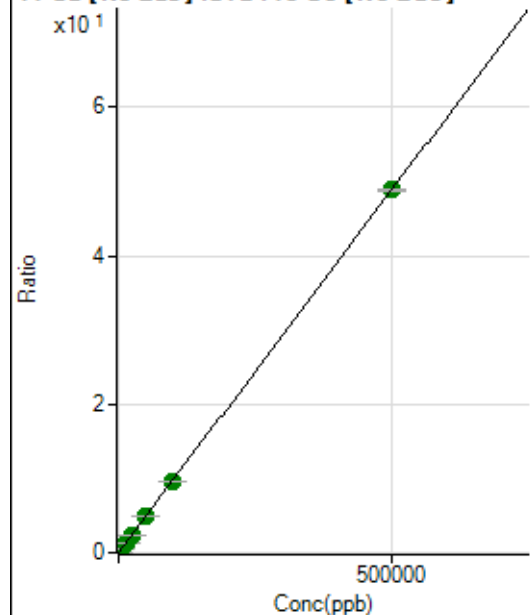
$$y = 6.0594\text{E-}006 * x + 1.1723\text{E-}004$$

$$R = 1.0000$$

$$DL = 4.828$$

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	22123.82	0.0075	P	1.4
2	☐	50.000					
3	☐	500.000	503.354	164341.60	0.0567	P	1.3
4	☐	5000.000	5079.100	1479237.30	0.5033	A	0.4
5	☐	12500.000	12610.373	3628320.83	1.2385	A	1.0
6	☐	25000.000	24612.843	7291464.75	2.4101	A	0.3
7	☐	50000.000	49259.580	14647261.27	4.8160	A	0.7
8	☐	100000.00	98555.650	28333883.96	9.6281	A	0.5
9	☐	500000.00	500378.71	148640485.2	48.8524	A	0.7

$$y = 9.7616\text{E-}005 * x + 0.0075$$

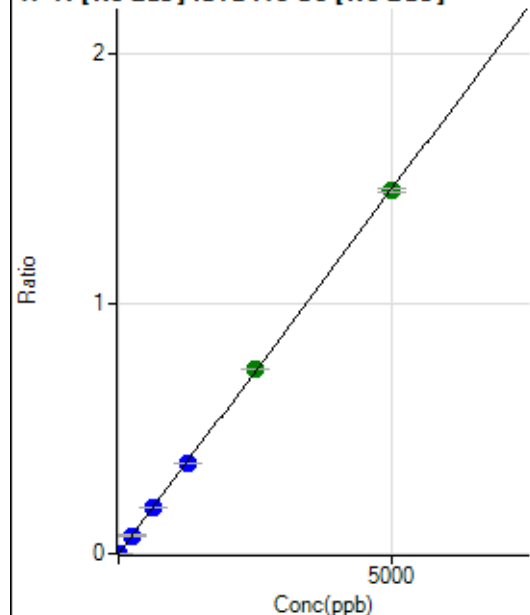
$$R = 1.0000$$

$$DL = 3.193$$

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	138.90	0.0000	P	31.8
2	☐	0.500					
3	☐	5.000	5.042	4395.35	0.0015	P	4.4
4	☐	250.000	250.338	214373.58	0.0729	P	1.4
5	☐	625.000	628.884	536677.42	0.1832	P	0.8
6	☐	1250.000	1250.087	1101478.77	0.3641	P	0.2
7	☐	2500.000	2541.289	2250973.01	0.7401	A	0.4
8	☐	5000.000	4978.831	4266500.05	1.4499	A	1.2
9	☐			1344.57	0.0004	P	9.8

$$y = 2.9121\text{E-}004 * x + 4.7132\text{E-}005$$

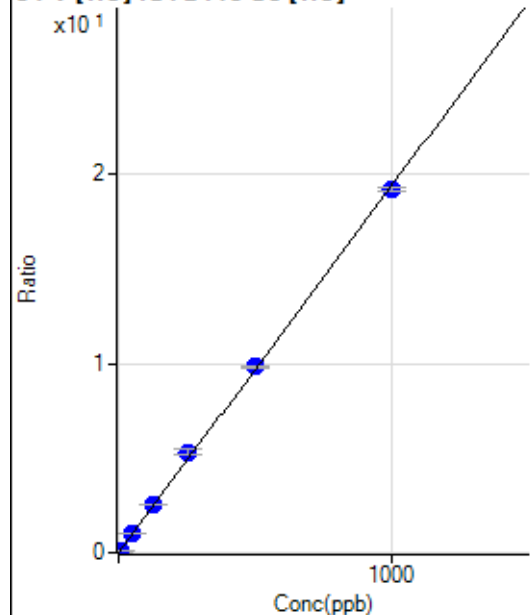
$$R = 0.9999$$

$$DL = 0.1545$$

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	13.33	0.0003	P	65.5
2	☐	0.500					
3	☐	5.000	5.107	4031.76	0.0993	P	5.6
4	☐	50.000	51.903	40140.90	1.0066	P	1.9
5	☐	125.000	130.890	99956.81	2.5379	P	1.1
6	☐	250.000	274.785	199736.51	5.3277	P	7.1
7	☐	500.000	507.719	396299.63	9.8437	P	1.1
8	☐	1000.000	989.112	771369.46	19.1766	P	1.1
9	☐			375.57	0.0093	P	6.6

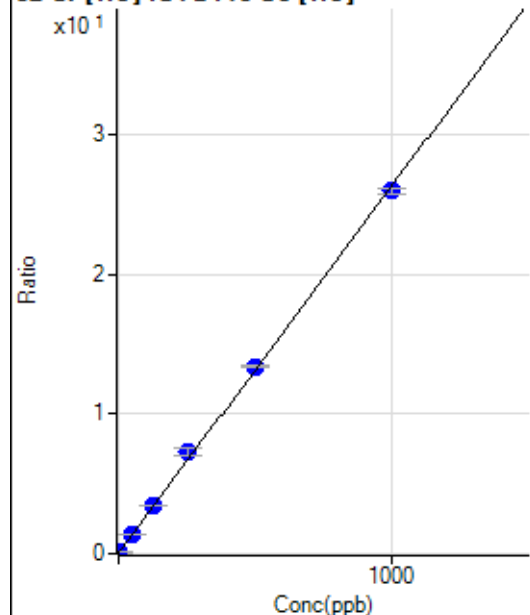
$$y = 0.0194 * x + 3.2114\text{E-}004$$

$$R = 0.9996$$

$$DL = 0.03254$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	968.94	0.0236	P	8.0
2	☐	0.200					
3	☐	2.000	2.277	3387.14	0.0834	P	3.9
4	☐	50.000	52.073	55482.94	1.3912	P	1.0
5	☐	125.000	132.378	137861.31	3.5003	P	0.5
6	☐	250.000	277.212	273665.06	7.3041	P	8.3
7	☐	500.000	508.787	538925.38	13.3860	P	0.8
8	☐	1000.000	987.777	1044433.30	25.9660	P	1.4
9	☐			51804.54	1.2798	P	1.1

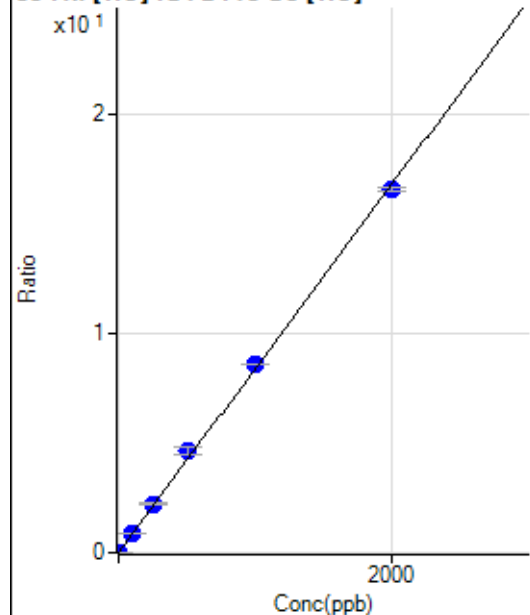
$$y = 0.0263 * x + 0.0236$$

$$R = 0.9995$$

$$DL = 0.2151$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0012	P	29.4
2	☐	0.100					
3	☐	1.000	0.989	386.68	0.0095	P	5.6
4	☐	100.000	104.721	35133.17	0.8811	P	2.7
5	☐	250.000	265.068	87760.15	2.2283	P	1.1
6	☐	500.000	556.930	175384.59	4.6805	P	8.2
7	☐	1000.000	1023.561	346280.52	8.6010	P	0.8
8	☐	2000.000	1971.867	666454.78	16.5686	P	1.1
9	☐			4789.79	0.1184	P	4.1

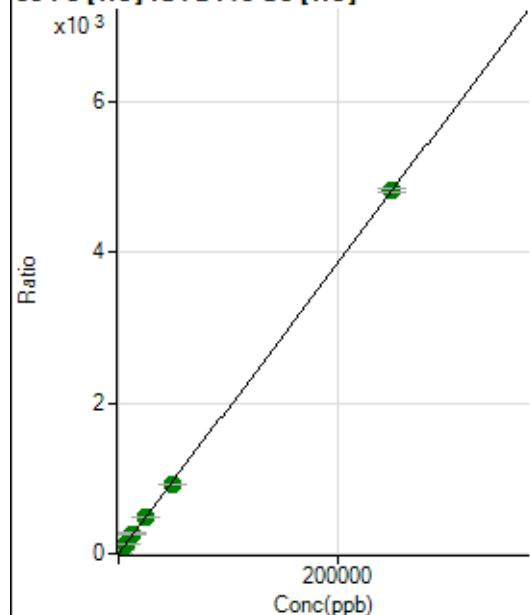
$$y = 0.0084 * x + 0.0012$$

$$R = 0.9994$$

$$DL = 0.1271$$

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	2228.03	0.0542	P	6.6
2	☐	5.000					
3	☐	50.000	51.559	42498.50	1.0469	P	3.0
4	☐	2500.000	2567.493	1973424.87	49.4865	A	1.9
5	☐	6250.000	6446.627	4890537.90	124.1721	A	0.7
6	☐	12500.000	13459.117	9714667.92	259.1846	A	7.6
7	☐	25000.000	24678.967	19131681.68	475.2020	A	0.8
8	☐	50000.000	47859.412	37063804.07	921.4984	A	1.7
9	☐	250000.00	250406.67	195142322.8	4,821.170	A	0.9

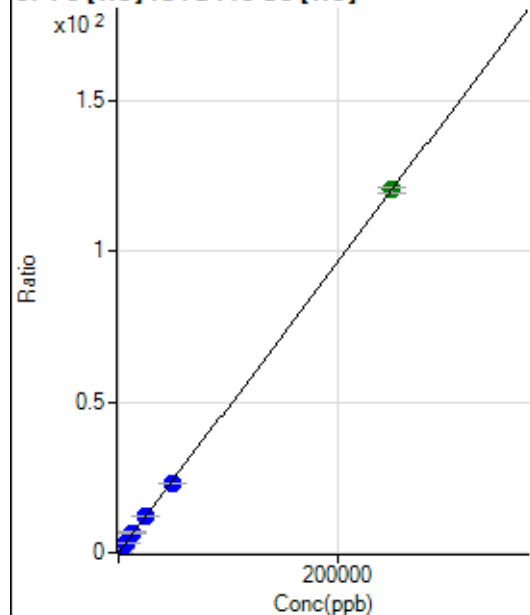
$$y = 0.0193 * x + 0.0542$$

$$R = 0.9999$$

$$DL = 0.5539$$

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	79.63	0.0019	P	16.2
2	☐	5.000					
3	☐	50.000	49.926	1053.77	0.0260	P	11.2
4	☐	2500.000	2544.900	48926.92	1.2269	P	1.9
5	☐	6250.000	6421.397	121813.04	3.0929	P	1.3
6	☐	12500.000	13489.451	243506.68	6.4950	P	7.0
7	☐	25000.000	24831.849	481301.02	11.9547	P	0.7
8	☐	50000.000	47840.361	926390.18	23.0297	P	0.9
9	☐	250000.00	250394.53	4878241.49	120.5286	A	1.4

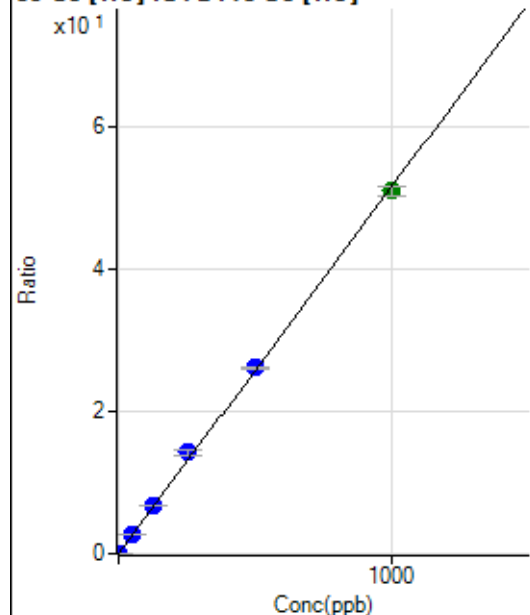
$$y = 4.8135E-004 * x + 0.0019$$

$$R = 0.9999$$

$$DL = 1.949$$

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	74.45	0.0018	P	21.5
2	☐	0.100					
3	☐	1.000	1.050	2269.11	0.0559	P	2.2
4	☐	50.000	51.764	106349.87	2.6669	P	2.2
5	☐	125.000	131.126	265972.38	6.7530	P	0.7
6	☐	250.000	275.614	532004.28	14.1922	P	7.3
7	☐	500.000	506.864	1050710.61	26.0984	P	1.0
8	☐	1000.000	989.310	2048615.21	50.9378	A	2.4
9	☐			26683.52	0.6592	P	0.2

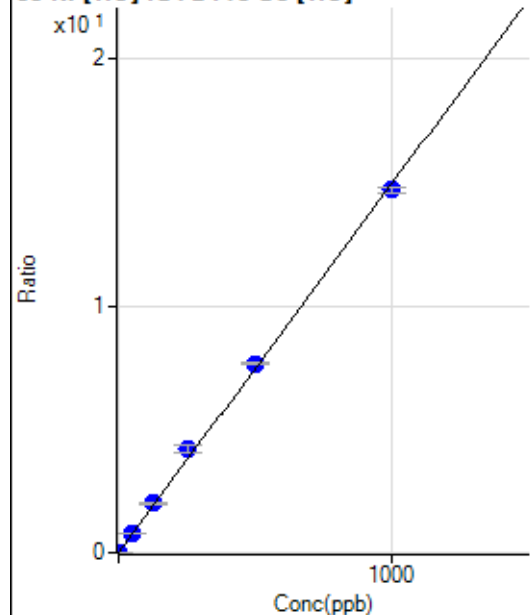
$$y = 0.0515 * x + 0.0018$$

$$R = 0.9996$$

$$DL = 0.02269$$

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	100.00	0.0024	P	10.9
2	☐	0.100					
3	☐	1.000	1.188	818.93	0.0202	P	8.6
4	☐	50.000	52.703	31453.44	0.7887	P	0.7
5	☐	125.000	133.059	78277.57	1.9874	P	0.3
6	☐	250.000	280.093	156698.16	4.1809	P	7.7
7	☐	500.000	513.674	308615.96	7.6655	P	0.7
8	☐	1000.000	984.497	590848.73	14.6893	P	1.4
9	☐			24109.97	0.5956	P	0.4

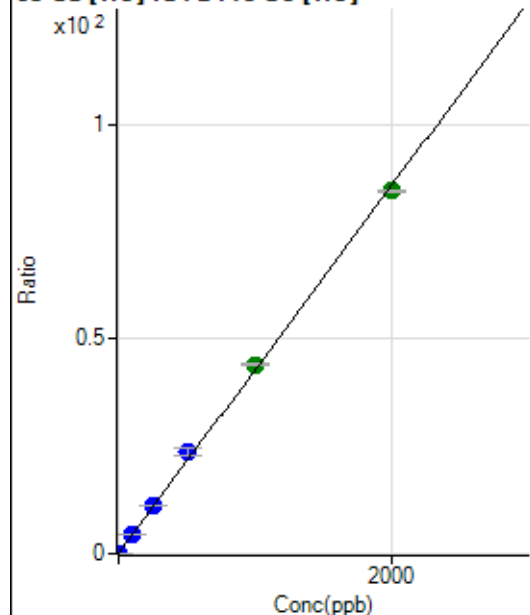
$$y = 0.0149 * x + 0.0024$$

$$R = 0.9993$$

$$DL = 0.0532$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1495.66	0.0364	P	3.4
2	☐	0.200					
3	☐	2.000	2.138	5193.28	0.1279	P	3.2
4	☐	100.000	104.103	179110.70	4.4913	P	1.5
5	☐	250.000	263.764	445975.80	11.3237	P	1.3
6	☐	500.000	552.641	887640.50	23.6856	P	7.9
7	☐	1000.000	1025.934	1769006.71	43.9393	A	0.8
8	☐	2000.000	1971.947	3395947.80	84.4222	A	0.8
9	☐			9616.81	0.2377	P	3.7

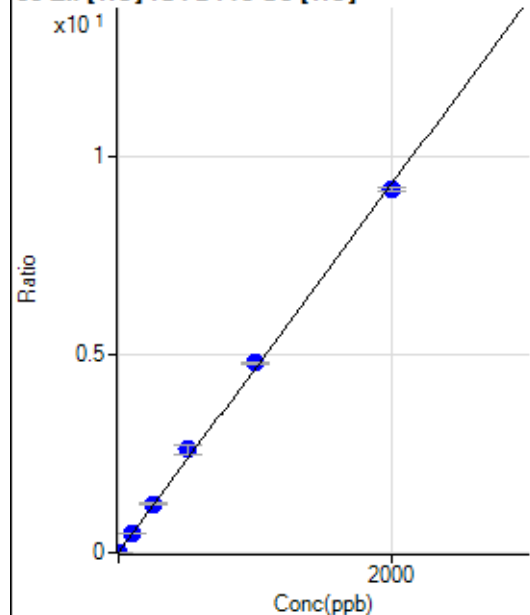
$$y = 0.0428 * x + 0.0364$$

$$R = 0.9995$$

$$DL = 0.08638$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	184.45	0.0045	P	17.3
2	☐	0.200					
3	☐	2.000	2.467	647.80	0.0159	P	6.8
4	☐	100.000	104.931	19595.19	0.4914	P	2.8
5	☐	250.000	264.742	48558.23	1.2328	P	0.7
6	☐	500.000	557.972	97190.85	2.5934	P	7.9
7	☐	1000.000	1028.108	192226.14	4.7747	P	1.1
8	☐	2000.000	1969.363	367737.17	9.1419	P	0.9
9	☐			3526.08	0.0871	P	3.3

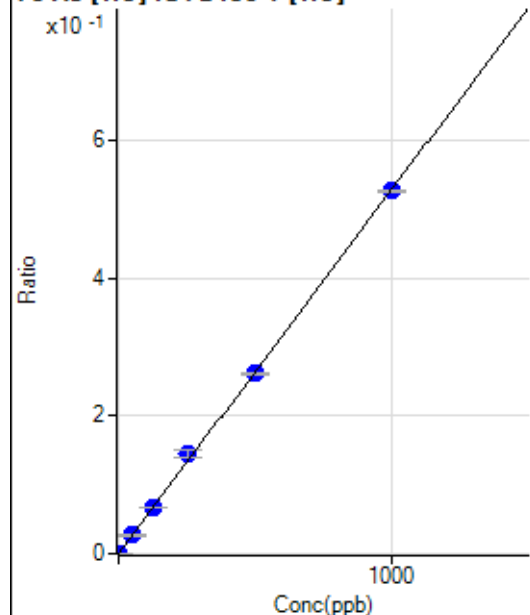
$$y = 0.0046 * x + 0.0045$$

$$R = 0.9994$$

$$DL = 0.5026$$

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	2.47	0.0000	P	114.
2	☐	0.100					
3	☐	1.000	1.038	140.74	0.0006	P	15.4
4	☐	50.000	50.488	6623.87	0.0267	P	2.3
5	☐	125.000	125.466	16633.55	0.0663	P	1.0
6	☐	250.000	272.831	34212.01	0.1442	P	7.3
7	☐	500.000	494.198	67164.59	0.2611	P	0.2
8	☐	1000.000	997.111	130456.11	0.5268	P	0.3
9	☐			225.32	0.0008	P	16.8

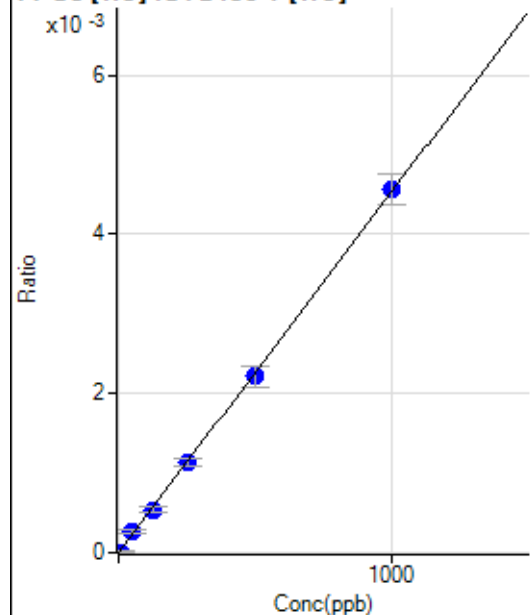
$$y = 5.2836\text{E-}004 * x + 9.6888\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.06299$$

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	1.933	2.22	0.0000	P	86.6
4	☐	50.000	59.225	66.66	0.0003	P	16.8
5	☐	125.000	118.309	134.45	0.0005	P	13.2
6	☐	250.000	250.827	270.01	0.0011	P	10.2
7	☐	500.000	488.133	568.91	0.0022	P	13.0
8	☐	1000.000	1006.117	1128.96	0.0046	P	8.4
9	☐			2.22	0.0000	P	173.

$$y = 4.5316\text{E-}006 * x + 0.0000\text{E+}000$$

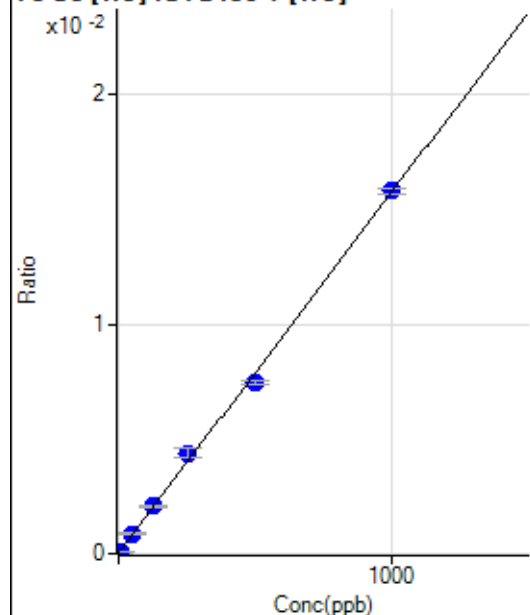
$$R = 0.9998$$

$$DL = 0$$

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	5.56	0.0000	P	33.2
2	☐	0.500					
3	☐	5.000	4.073	21.61	0.0001	P	33.4
4	☐	50.000	52.889	211.73	0.0009	P	7.8
5	☐	125.000	129.296	515.45	0.0021	P	2.9
6	☐	250.000	278.210	1042.65	0.0044	P	8.4
7	☐	500.000	474.651	1924.85	0.0075	P	2.8
8	☐	1000.000	1004.945	3917.26	0.0158	P	1.7
9	☐			4.94	0.0000	P	77.7

$$y = 1.5720\text{E-}005 * x + 2.1797\text{E-}005$$

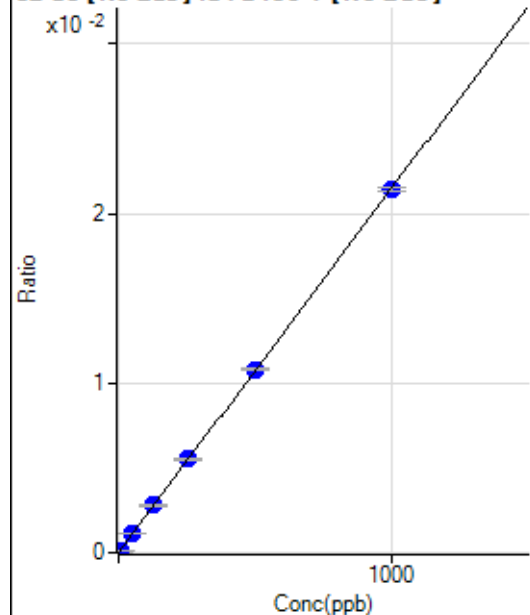
$$R = 0.9991$$

$$DL = 1.383$$

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	49.13	0.0000	P	77.1
2	☐	0.500					
3	☐	5.000	5.246	564.62	0.0001	P	2.3
4	☐	50.000	50.023	5052.62	0.0011	P	1.1
5	☐	125.000	129.293	12827.14	0.0028	P	1.4
6	☐	250.000	257.306	26744.22	0.0055	P	1.6
7	☐	500.000	503.099	53518.47	0.0108	P	1.2
8	☐	1000.000	996.085	103422.07	0.0214	P	0.9
9	☐			106.50	0.0000	P	112.

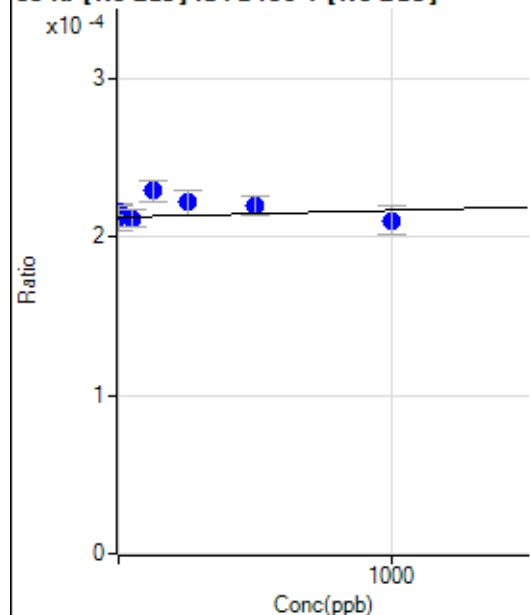
$$y = 2.1461\text{E-}005 * x + 1.0711\text{E-}005$$

$$R = 1.0000$$

$$DL = 1.155$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] ISTD:89 Y [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	964.50	0.0002	P	7.9
2	☐	0.100					
3	☐	1.000	937.929	992.27	0.0002	P	2.7
4	☐	50.000	-164.467	987.83	0.0002	P	4.6
5	☐	125.000	3870.000	1055.62	0.0002	P	5.8
6	☐	250.000	2131.673	1072.28	0.0002	P	7.6
7	☐	500.000	1614.104	1087.84	0.0002	P	5.4
8	☐	1000.000	-485.809	1017.83	0.0002	P	8.7
9	☐			1062.28	0.0002	P	9.2

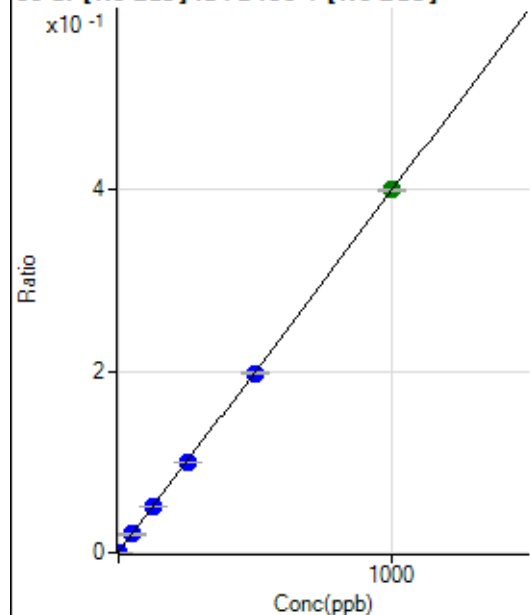
$$y = 4.2702\text{E-}009 * x + 2.1269\text{E-}004$$

$$R = -0.2490$$

$$DL = 1.181\text{E+}04$$

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	1586.29	0.0003	P	11.6
2	☐	0.100					
3	☐	1.000	0.941	3317.24	0.0007	P	7.3
4	☐	50.000	49.821	94003.58	0.0202	P	0.8
5	☐	125.000	126.292	233008.94	0.0506	P	0.9
6	☐	250.000	249.476	481535.18	0.0996	P	0.7
7	☐	500.000	494.474	975977.83	0.1971	P	1.1
8	☐	1000.000	1002.741	1930917.08	0.3993	A	0.6
9	☐			10940.98	0.0022	P	2.2

$$y = 3.9787\text{E-}004 * x + 3.4970\text{E-}004$$

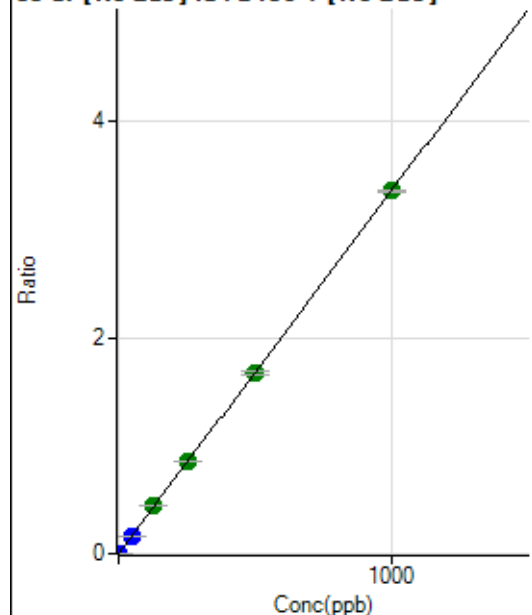
$$R = 1.0000$$

$$DL = 0.305$$

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	141.68	0.0000	P	11.8
2	☐	0.100					
3	☐	1.000	1.057	16410.57	0.0036	P	3.0
4	☐	50.000	50.217	786456.45	0.1688	P	0.4
5	☐	125.000	129.901	2010146.05	0.4365	A	0.1
6	☐	250.000	252.397	4100217.76	0.8481	A	0.2
7	☐	500.000	498.507	8294704.87	1.6751	A	1.6
8	☐	1000.000	999.524	16240824.50	3.3585	A	0.7
9	☐			78076.85	0.0159	P	1.0

$$y = 0.0034 * x + 3.1252E-005$$

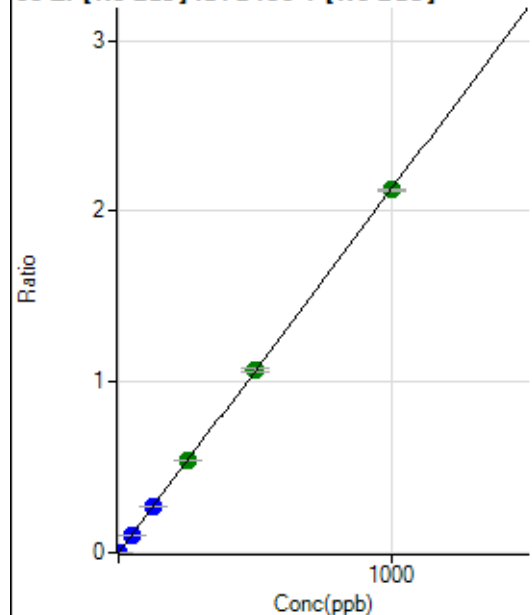
$$R = 1.0000$$

$$DL = 0.003302$$

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	294.46	0.0001	P	5.1
2	☐	0.100					
3	☐	1.000	1.087	10896.49	0.0024	P	1.2
4	☐	50.000	49.563	492147.70	0.1056	P	0.6
5	☐	125.000	126.894	1244712.71	0.2703	P	0.8
6	☐	250.000	254.757	2622935.67	0.5426	A	1.0
7	☐	500.000	502.204	5296352.46	1.0695	A	1.1
8	☐	1000.000	997.494	10272391.38	2.1243	A	0.3
9	☐			5220.69	0.0011	P	6.6

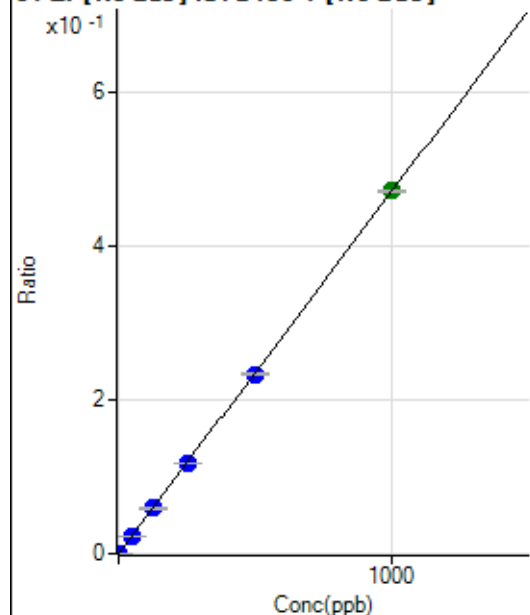
$$y = 0.0021 * x + 6.4816E-005$$

$$R = 1.0000$$

$$DL = 0.004639$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	47.22	0.0000	P	38.8
2	☐	0.100					
3	☐	1.000	1.014	2233.63	0.0005	P	7.0
4	☐	50.000	48.673	106894.91	0.0229	P	0.2
5	☐	125.000	124.997	271204.17	0.0589	P	0.6
6	☐	250.000	248.523	566022.88	0.1171	P	0.6
7	☐	500.000	496.019	1157156.78	0.2337	P	0.8
8	☐	1000.000	1002.426	2283406.43	0.4722	A	0.8
9	☐			1077.87	0.0002	P	9.5

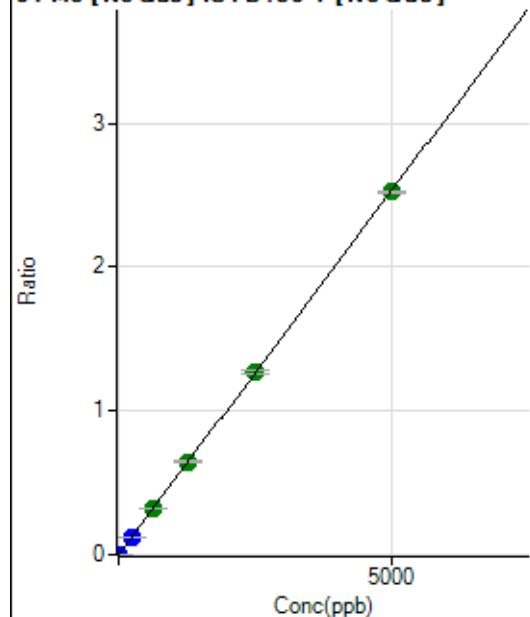
$$y = 4.7106\text{E-}004 * x + 1.0449\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.02581$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	161.12	0.0000	P	24.3
2	☐	0.500					
3	☐	5.000	5.191	12186.54	0.0027	P	0.4
4	☐	250.000	249.441	588121.32	0.1262	P	0.7
5	☐	625.000	642.054	1495712.10	0.3248	A	0.6
6	☐	1250.000	1276.440	3121147.53	0.6457	A	1.5
7	☐	2500.000	2513.236	6295211.56	1.2713	A	1.4
8	☐	5000.000	4984.668	12192492.46	2.5213	A	0.4
9	☐			15898.71	0.0032	P	1.5

$$y = 5.0581\text{E-}004 * x + 3.5492\text{E-}005$$

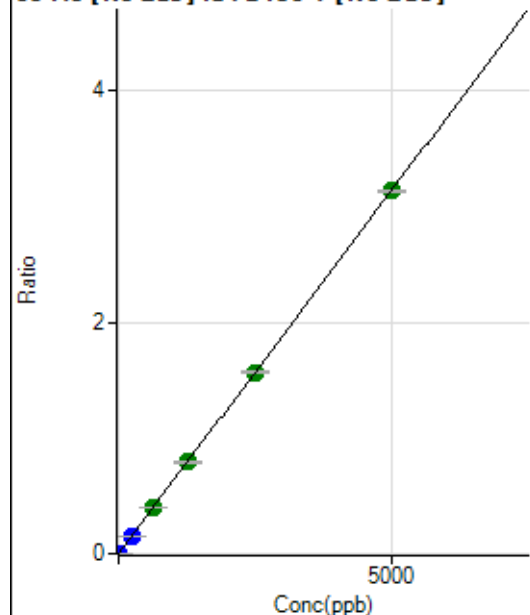
$$R = 1.0000$$

$$DL = 0.05107$$

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	52.78	0.0000	P	31.2
2	☐	0.500					
3	☐	5.000	5.054	14575.06	0.0032	P	2.0
4	☐	250.000	245.096	716813.77	0.1538	P	0.6
5	☐	625.000	642.103	1855698.22	0.4030	A	0.7
6	☐	1250.000	1260.301	3823347.00	0.7909	A	1.2
7	☐	2500.000	2499.044	7766259.89	1.5683	A	1.0
8	☐	5000.000	4996.010	15160679.16	3.1353	A	0.7
9	☐			24656.62	0.0050	P	1.9

$$y = 6.2755E-004 * x + 1.1575E-005$$

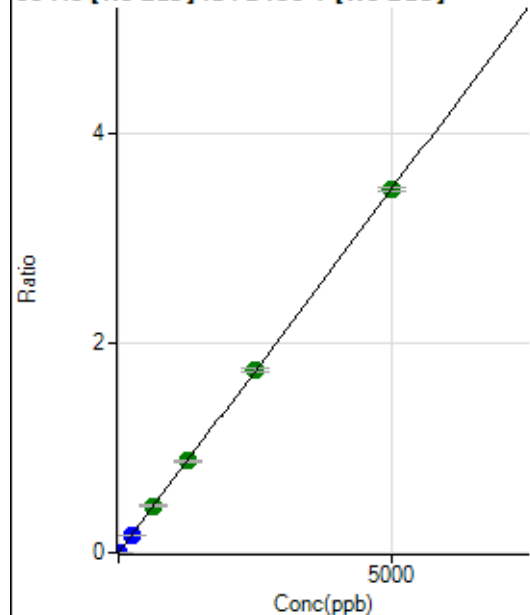
$$R = 1.0000$$

$$DL = 0.01725$$

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	94.45	0.0000	P	29.8
2	☐	0.500					
3	☐	5.000	5.050	16143.50	0.0035	P	2.3
4	☐	250.000	245.819	795147.21	0.1706	P	0.7
5	☐	625.000	643.518	2056942.88	0.4467	A	1.7
6	☐	1250.000	1261.790	4233427.09	0.8758	A	1.7
7	☐	2500.000	2509.090	8623533.53	1.7415	A	1.5
8	☐	5000.000	4990.402	16747880.93	3.4636	A	1.2
9	☐			27854.47	0.0057	P	1.7

$$y = 6.9405E-004 * x + 2.0770E-005$$

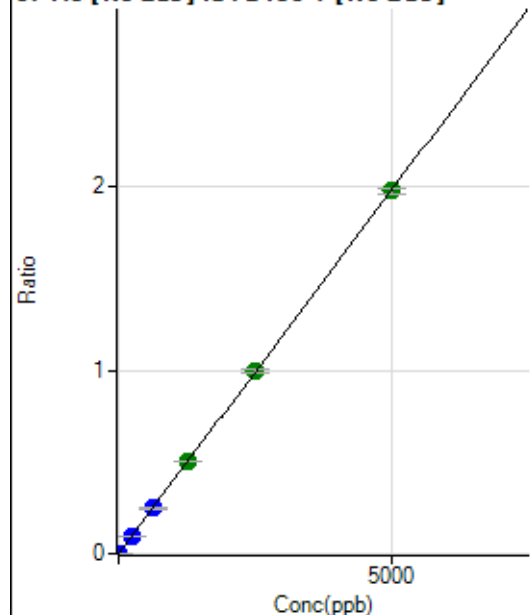
$$R = 1.0000$$

$$DL = 0.02675$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	38.89	0.0000	P	12.9
2	☐	0.500					
3	☐	5.000	5.078	9259.15	0.0020	P	0.9
4	☐	250.000	241.563	446313.47	0.0958	P	0.2
5	☐	625.000	621.896	1135431.88	0.2466	P	1.5
6	☐	1250.000	1274.799	2443101.60	0.5054	A	1.2
7	☐	2500.000	2507.367	4922260.70	0.9940	A	1.8
8	☐	5000.000	4990.926	9567161.67	1.9786	A	1.5
9	☐			14995.03	0.0031	P	2.7

$$y = 3.9644\text{E-}004 * x + 8.5710\text{E-}006$$

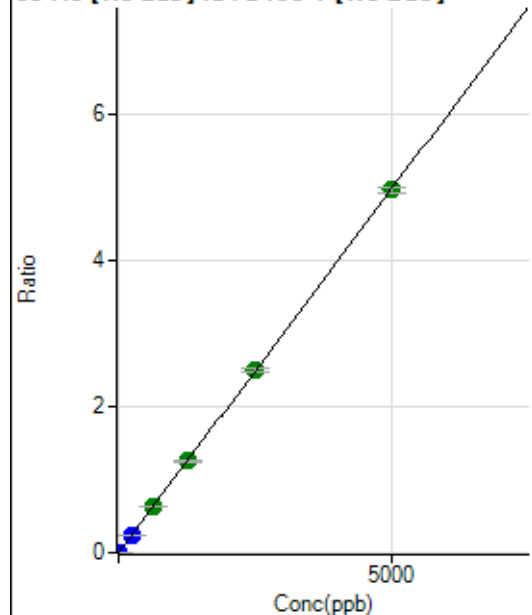
$$R = 1.0000$$

$$DL = 0.008346$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	83.34	0.0000	P	12.1
2	☐	0.500					
3	☐	5.000	5.048	23106.71	0.0050	P	3.0
4	☐	250.000	245.679	1139976.45	0.2446	P	0.6
5	☐	625.000	644.319	2954343.38	0.6415	A	1.0
6	☐	1250.000	1257.907	6054205.47	1.2525	A	1.7
7	☐	2500.000	2512.057	12385363.21	2.5012	A	1.6
8	☐	5000.000	4989.796	24022880.23	4.9681	A	1.3
9	☐			38210.61	0.0078	P	1.0

$$y = 9.9565\text{E-}004 * x + 1.8388\text{E-}005$$

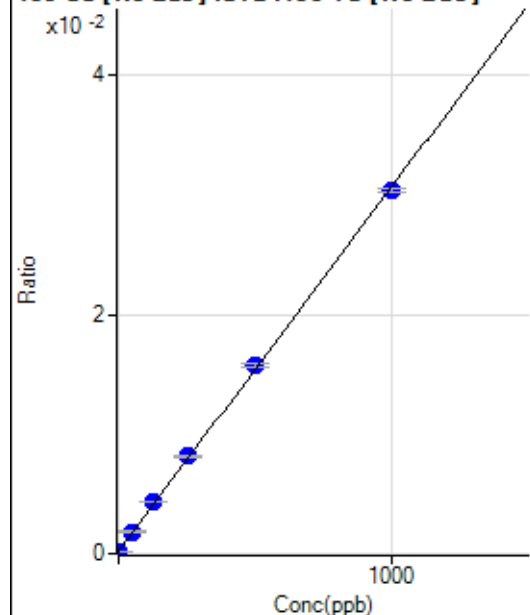
$$R = 1.0000$$

$$DL = 0.006716$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1002.86	0.0002	P	10.9
2	☐	0.100					
3	☐	1.000	0.147	1019.53	0.0002	P	8.1
4	☐	50.000	53.817	9020.11	0.0018	P	0.5
5	☐	125.000	134.723	21275.86	0.0043	P	2.1
6	☐	250.000	261.725	43080.92	0.0082	P	2.4
7	☐	500.000	512.324	86949.23	0.0158	P	1.9
8	☐	1000.000	989.502	164867.96	0.0304	P	0.9
9	☐			1205.68	0.0002	P	9.4

$$y = 3.0475E-005 * x + 2.0975E-004$$

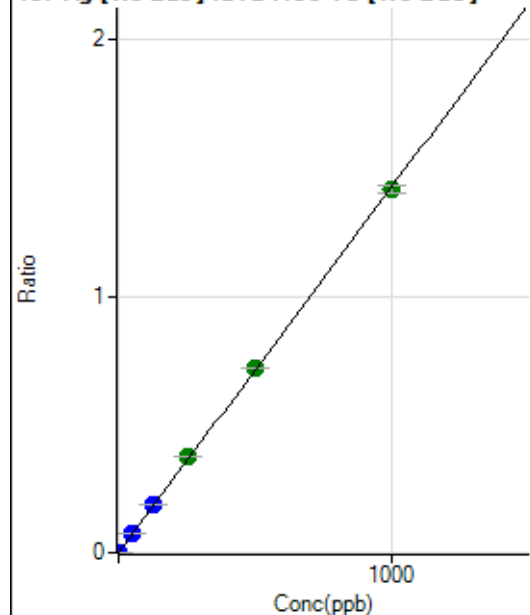
$$R = 0.9998$$

$$DL = 2.25$$

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	800.08	0.0002	P	112.
2	☐	0.100					
3	☐	1.000	1.078	8116.70	0.0017	P	6.9
4	☐	50.000	52.869	368078.92	0.0755	P	1.9
5	☐	125.000	132.590	932119.96	0.1891	P	1.1
6	☐	250.000	262.424	1968759.59	0.3741	A	1.1
7	☐	500.000	505.766	3960792.10	0.7208	A	0.4
8	☐	1000.000	992.919	7680471.44	1.4148	A	2.0
9	☐			84580.94	0.0152	P	74.0

$$y = 0.0014 * x + 1.6951E-004$$

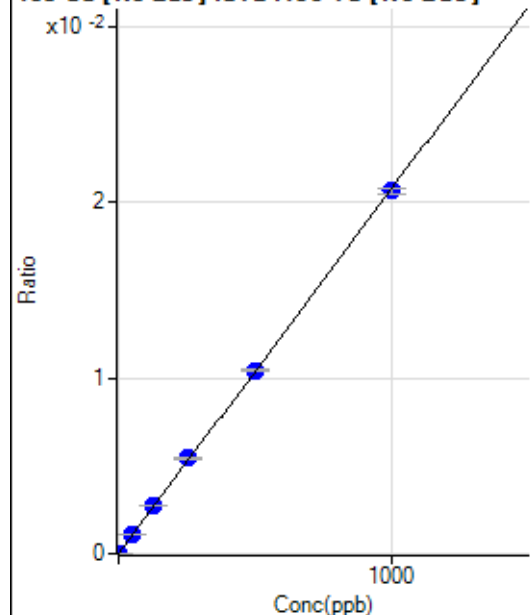
$$R = 0.9999$$

$$DL = 0.4024$$

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	8.33	0.0000	P	49.2
2	☐	0.100					
3	☐	1.000	1.196	126.39	0.0000	P	20.1
4	☐	50.000	53.546	5430.38	0.0011	P	0.7
5	☐	125.000	132.203	13541.78	0.0027	P	1.3
6	☐	250.000	260.905	28526.26	0.0054	P	0.6
7	☐	500.000	503.252	57435.91	0.0105	P	1.3
8	☐	1000.000	994.570	112132.29	0.0207	P	1.2
9	☐			40.28	0.0000	P	31.4

$$y = 2.0765E-005 * x + 1.7420E-006$$

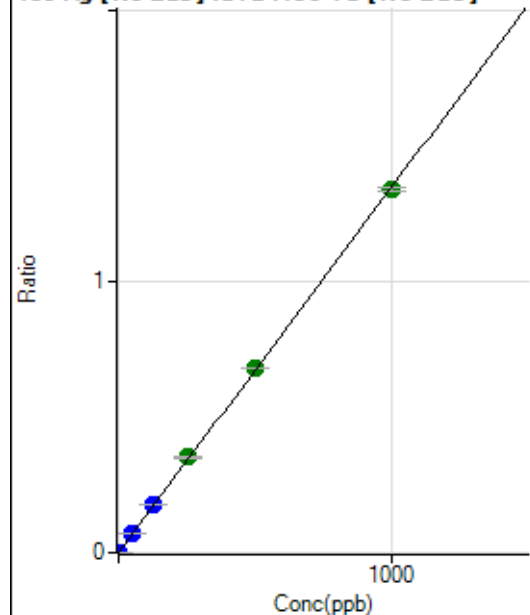
$$R = 0.9999$$

$$DL = 0.1237$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	700.06	0.0001	P	94.3
2	☐	0.100					
3	☐	1.000	1.076	7616.44	0.0016	P	12.9
4	☐	50.000	52.471	345851.42	0.0709	P	1.7
5	☐	125.000	132.611	882754.63	0.1791	P	0.3
6	☐	250.000	262.741	1866249.61	0.3546	A	2.2
7	☐	500.000	505.222	3746303.73	0.6817	A	0.7
8	☐	1000.000	993.128	7274735.67	1.3400	A	1.2
9	☐			80837.25	0.0146	P	75.0

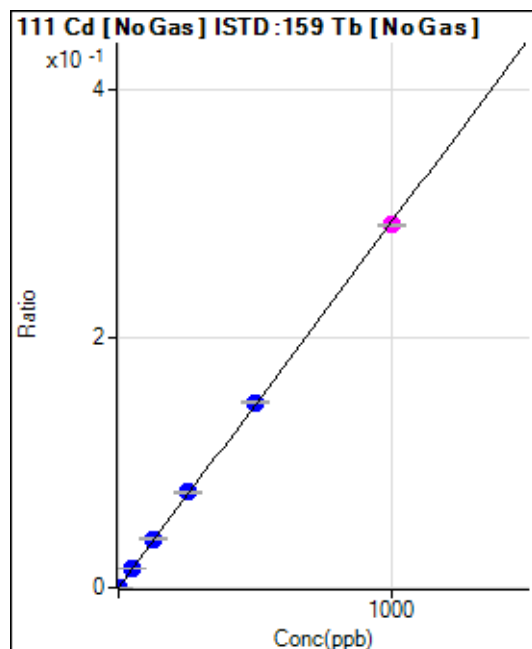
$$y = 0.0013 * x + 1.4804E-004$$

$$R = 0.9999$$

$$DL = 0.3103$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	705.89	0.0001	P	10.6
2	☐	0.100					
3	☐	1.000	1.052	2168.37	0.0005	P	4.4
4	☐	50.000	53.075	76502.62	0.0157	P	0.6
5	☐	125.000	133.123	192898.15	0.0391	P	1.0
6	☐	250.000	261.373	403584.65	0.0767	P	2.1
7	☐	500.000	506.629	816043.38	0.1485	P	0.5
8	☐	1000.000	992.673	1579068.33	0.2908	M	0.3
9	☐			1124.12	0.0002	P	9.0

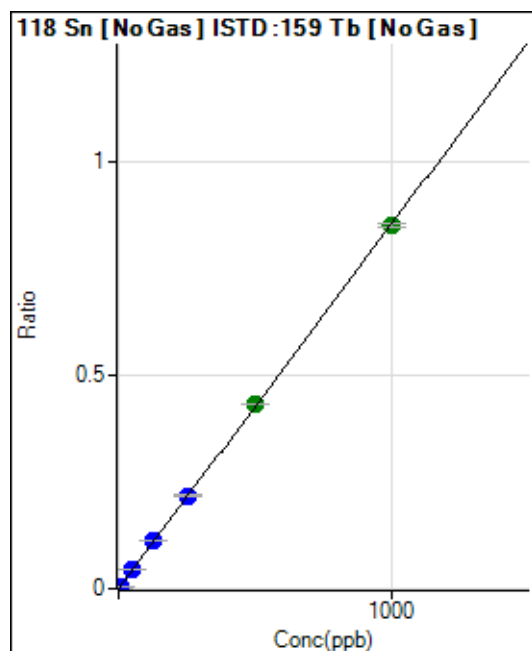
$$y = 2.9282\text{E-}004 * x + 1.4765\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.161$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	450.03	0.0001	P	10.6
2	☐	0.500					
3	☐	5.000	5.326	22127.37	0.0047	P	1.8
4	☐	50.000	51.387	214883.72	0.0441	P	1.1
5	☐	125.000	129.744	547900.04	0.1111	P	0.7
6	☐	250.000	255.139	1149671.80	0.2184	P	1.4
7	☐	500.000	506.035	2380327.27	0.4331	A	0.1
8	☐	1000.000	995.033	4623757.35	0.8516	A	1.0
9	☐			6407.42	0.0012	P	5.2

$$y = 8.5578\text{E-}004 * x + 9.4269\text{E-}005$$

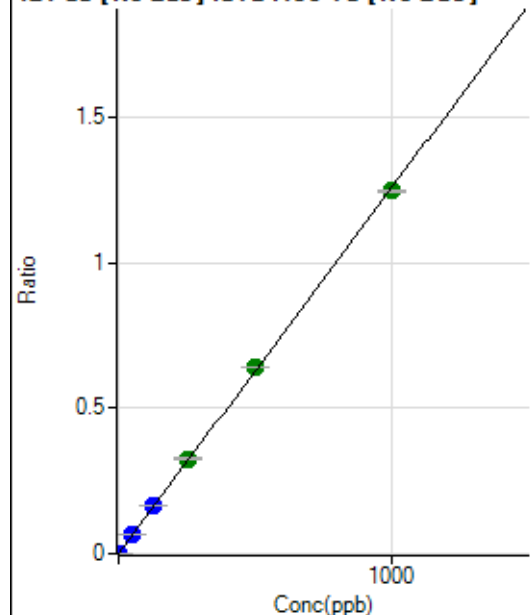
$$R = 1.0000$$

$$DL = 0.03488$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	127.79	0.0000	P	15.7
2	☐	0.200					
3	☐	2.000	2.073	12523.02	0.0026	P	3.0
4	☐	50.000	51.059	313066.08	0.0642	P	0.8
5	☐	125.000	129.550	802935.77	0.1629	P	0.8
6	☐	250.000	259.540	1717142.53	0.3263	A	1.6
7	☐	500.000	509.360	3518614.49	0.6403	A	0.3
8	☐	1000.000	992.313	6772869.38	1.2473	A	0.2
9	☐			11758.42	0.0021	P	3.5

$$y = 0.0013 * x + 2.6737E-005$$

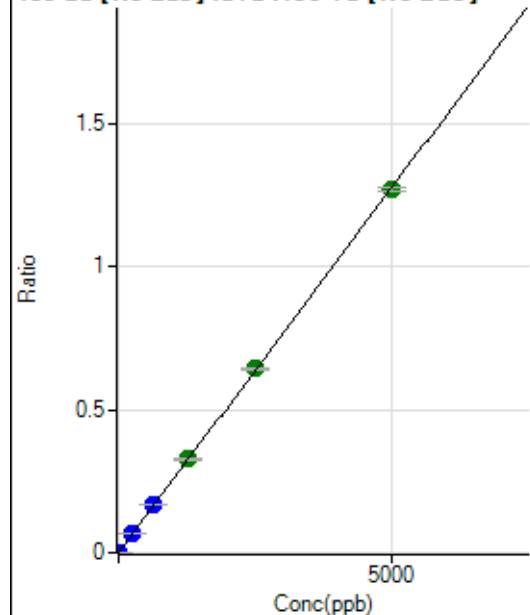
$$R = 0.9999$$

$$DL = 0.01$$

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	16.67	0.0000	P	49.2
2	☐	1.000					
3	☐	10.000	10.581	12834.64	0.0027	P	3.4
4	☐	250.000	255.851	317733.95	0.0652	P	1.5
5	☐	625.000	649.472	815578.28	0.1654	P	0.2
6	☐	1250.000	1285.006	1722534.15	0.3273	A	1.7
7	☐	2500.000	2526.932	3536685.76	0.6436	A	1.3
8	☐	5000.000	4974.430	6878518.30	1.2670	A	1.2
9	☐			1500.16	0.0003	P	5.2

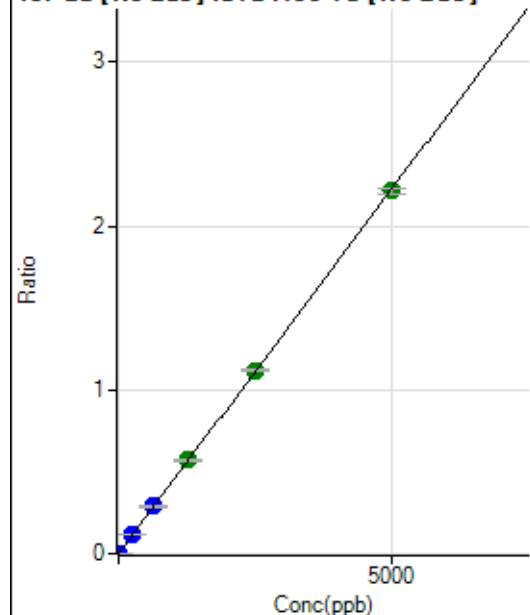
$$y = 2.5470E-004 * x + 3.4840E-006$$

$$R = 0.9999$$

$$DL = 0.02018$$

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	36.11	0.0000	P	12.1
2	☐	1.000					
3	☐	10.000	10.168	21535.14	0.0045	P	1.0
4	☐	250.000	255.002	552695.67	0.1134	P	1.0
5	☐	625.000	647.156	1418300.87	0.2877	P	0.5
6	☐	1250.000	1285.711	3007777.50	0.5715	A	2.0
7	☐	2500.000	2517.632	6149691.63	1.1191	A	0.7
8	☐	5000.000	4979.236	12014838.20	2.2132	A	1.9
9	☐			2675.40	0.0005	P	4.7

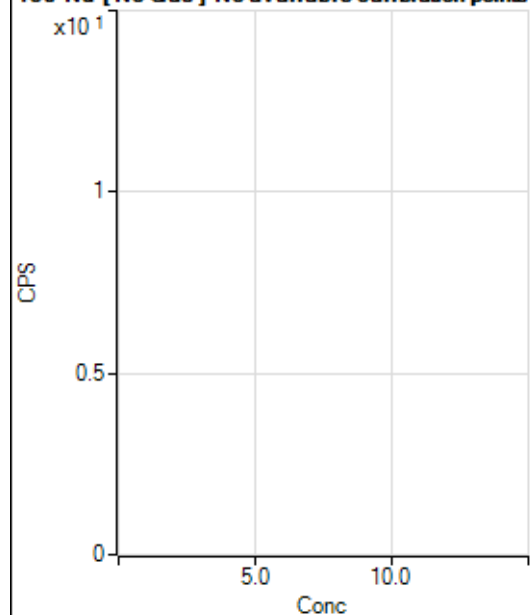
$$y = 4.4449\text{E-}004 * x + 7.5536\text{E-}006$$

$$R = 1.0000$$

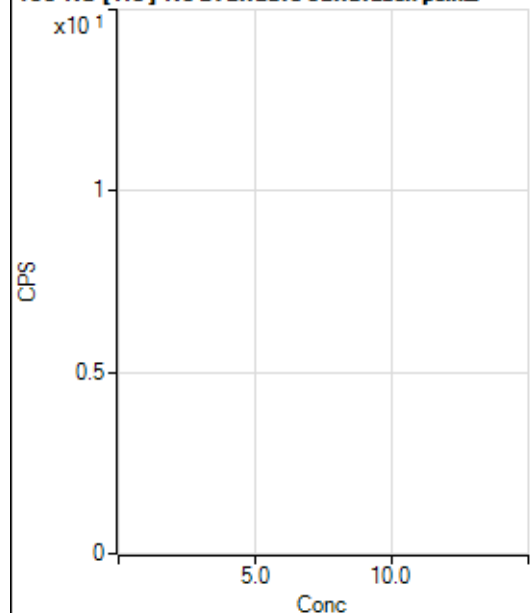
$$DL = 0.006167$$

Weight: <None>

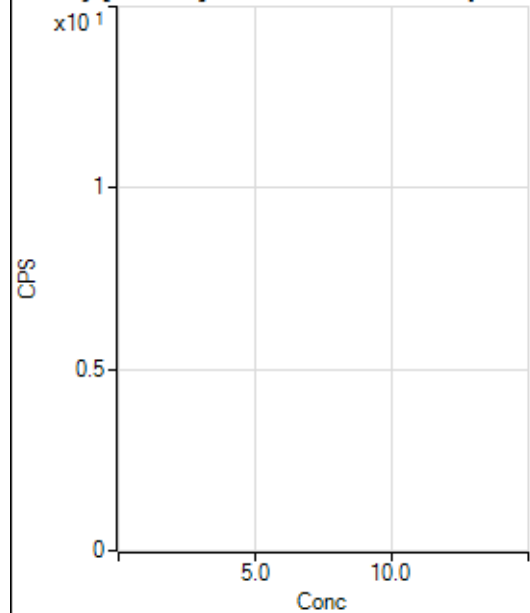
Min Conc: 0

150 Nd [No Gas] No available calibration points

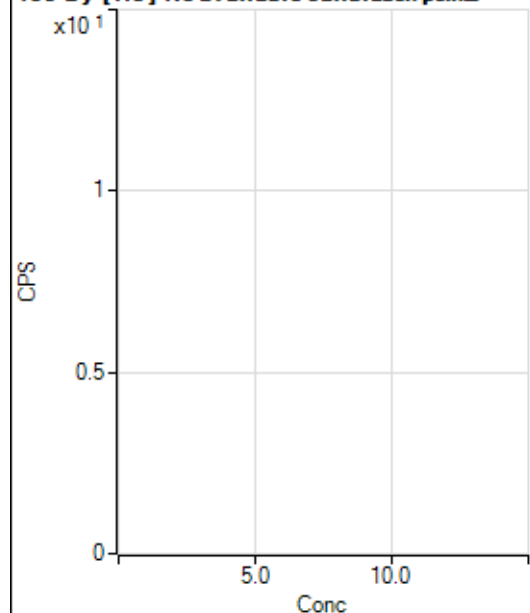
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			6.67		P	173.
4	☐			13.33		P	50.0
5	☐			26.67		P	43.3
6	☐			84.45		P	16.4
7	☐			155.56		P	32.2
8	☐			233.34		P	40.5
9	☐			91.12		P	33.8

150 Nd [He] No available calibration points

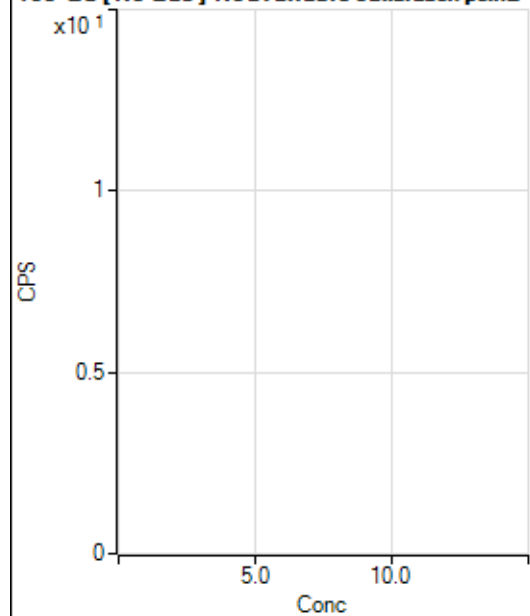
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			0.00		P	
6	☐			0.00		P	
7	☐			5.56		P	34.7
8	☐			13.33		P	109.
9	☐			27.78		P	36.7

156 Dy [No Gas] No available calibration points

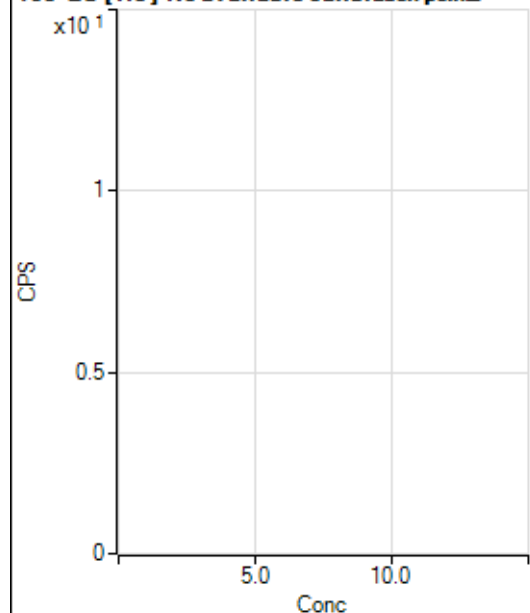
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	69.3
2	☐						
3	☐			11.11		P	114.
4	☐			19.44		P	99.0
5	☐			27.78		P	17.3
6	☐			30.56		P	78.7
7	☐			33.34		P	86.6
8	☐			97.23		P	4.9
9	☐			55.56		P	31.2

156 Dy [He] No available calibration points

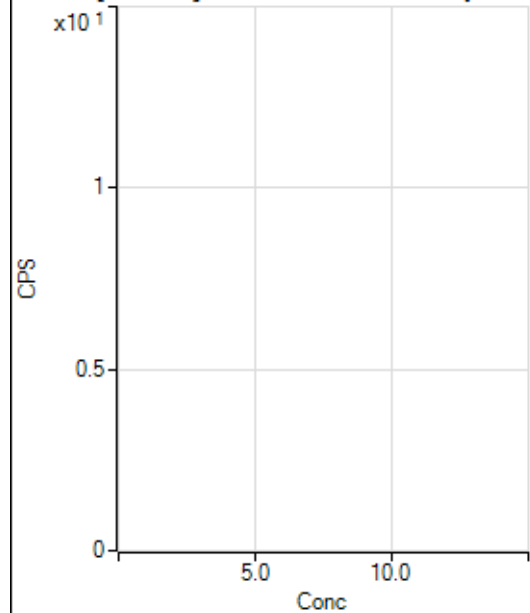
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.
5	☐			3.33		P	100.
6	☐			1.11		P	173.
7	☐			11.11		P	62.5
8	☐			5.55		P	69.3
9	☐			11.11		P	34.6

160 Gd [No Gas] Noavailable calibration poin_

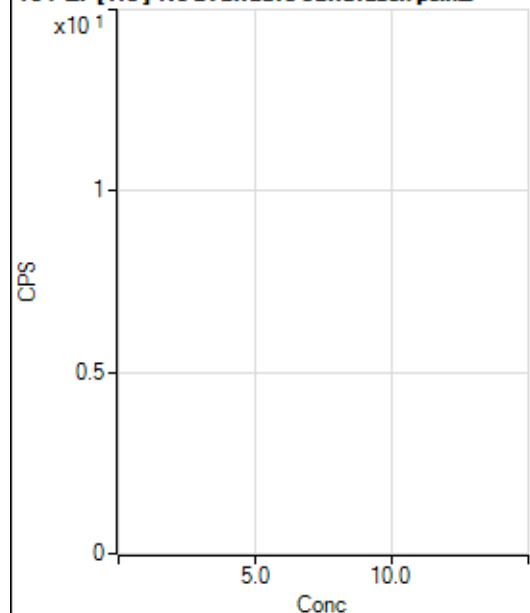
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	52.9
2	☐						
3	☐			13.89		P	34.7
4	☐			44.45		P	47.2
5	☐			27.78		P	105.
6	☐			33.33		P	43.3
7	☐			58.34		P	42.9
8	☐			55.56		P	31.2
9	☐			125.01		P	6.7

160 Gd [He] No available calibration points

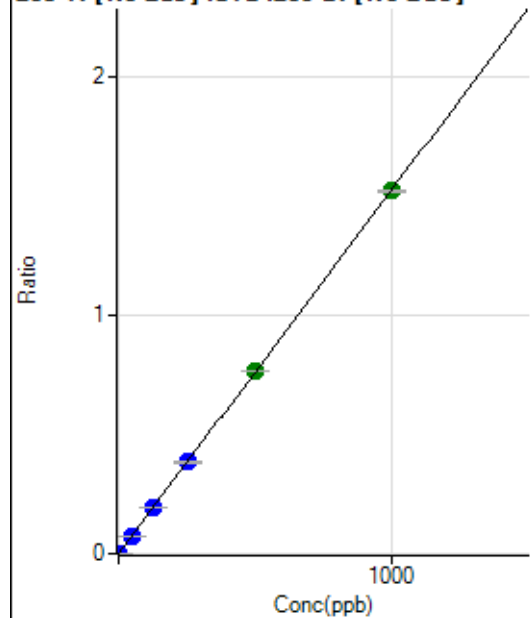
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	17.3
2	☐						
3	☐			8.89		P	94.4
4	☐			10.00		P	88.2
5	☐			4.44		P	43.4
6	☐			8.89		P	21.6
7	☐			8.89		P	78.1
8	☐			12.22		P	63.0
9	☐			27.78		P	30.2

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐						
3	☐			41.67		P	20.0
4	☐			22.22		P	21.6
5	☐			22.22		P	78.1
6	☐			19.44		P	89.2
7	☐			33.34		P	43.3
8	☐			30.56		P	56.8
9	☐			30.56		P	78.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	34.6
2	☐						
3	☐			2.22		P	173.
4	☐			4.44		P	114.
5	☐			6.67		P	50.0
6	☐			4.44		P	114.
7	☐			7.78		P	49.5
8	☐			1.11		P	173.
9	☐			5.56		P	91.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	63.89	0.0000	P	40.7
2	☐	0.100					
3	☐	1.000	1.035	4484.32	0.0016	P	5.6
4	☐	50.000	49.352	217861.13	0.0752	P	0.9
5	☐	125.000	125.375	565518.22	0.1911	P	0.8
6	☐	250.000	251.619	1208304.48	0.3835	P	0.5
7	☐	500.000	503.149	2563391.03	0.7668	A	0.5
8	☐	1000.000	998.006	5019409.14	1.5210	A	0.8
9	☐			2350.33	0.0007	P	7.6

$$y = 0.0015 * x + 2.2187E-005$$

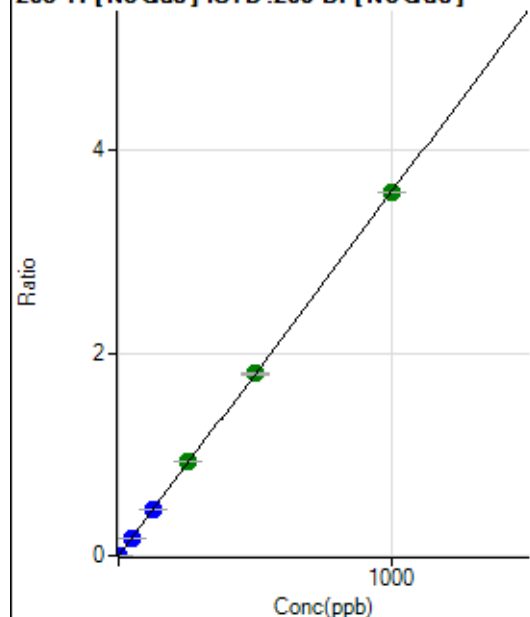
$$R = 1.0000$$

$$DL = 0.01776$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	122.23	0.0000	P	35.4
2	☐	0.100					
3	☐	1.000	1.029	10471.44	0.0037	P	4.4
4	☐	50.000	49.681	516706.24	0.1784	P	1.0
5	☐	125.000	127.127	1350998.23	0.4565	P	0.6
6	☐	250.000	257.960	2918588.17	0.9263	A	0.4
7	☐	500.000	500.475	6007480.82	1.7971	A	0.5
8	☐	1000.000	997.522	11820145.49	3.5819	A	0.1
9	☐			5548.71	0.0018	P	3.4

$$y = 0.0036 * x + 4.2388E-005$$

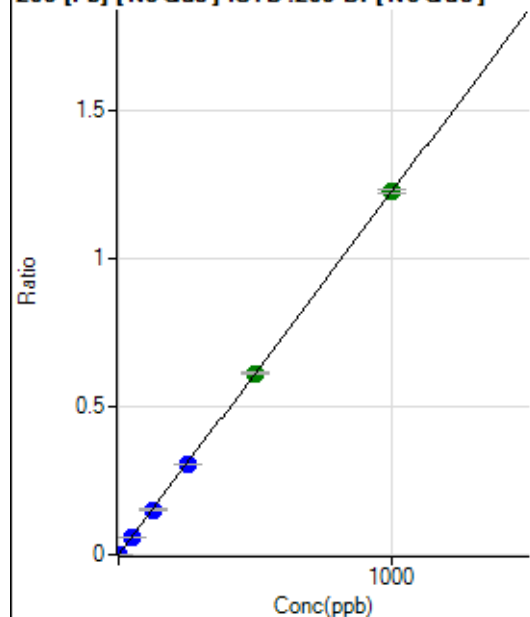
$$R = 1.0000$$

$$DL = 0.01254$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	314.83	0.0001	P	15.4
2	☐	0.100					
3	☐	1.000	0.996	3721.03	0.0013	P	2.7
4	☐	50.000	48.886	173446.23	0.0599	P	1.2
5	☐	125.000	124.377	450459.71	0.1522	P	1.0
6	☐	250.000	248.349	957348.15	0.3039	P	1.1
7	☐	500.000	500.746	2047727.95	0.6126	A	0.9
8	☐	1000.000	1000.173	4037235.19	1.2234	A	0.9
9	☐			5977.53	0.0019	P	1.7

$$y = 0.0012 * x + 1.0916E-004$$

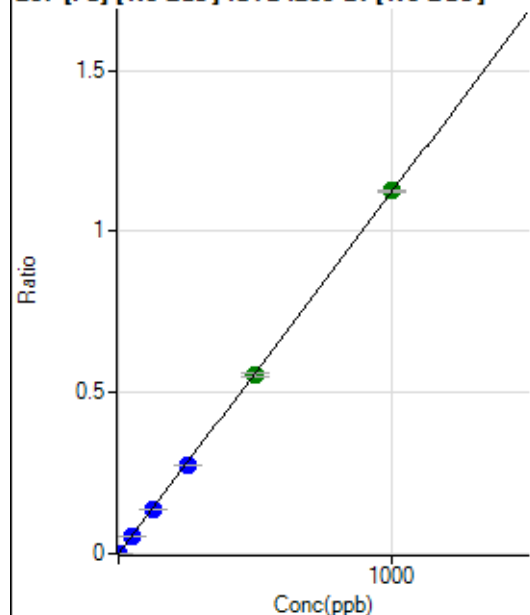
$$R = 1.0000$$

$$DL = 0.04126$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	268.53	0.0001	P	17.0
2	☐	0.100					
3	☐	1.000	1.032	3502.46	0.0012	P	1.4
4	☐	50.000	48.507	157745.25	0.0545	P	1.1
5	☐	125.000	123.976	411530.24	0.1391	P	1.5
6	☐	250.000	245.241	866526.39	0.2750	P	1.0
7	☐	500.000	495.355	1856793.15	0.5554	A	1.6
8	☐	1000.000	1003.715	3713751.82	1.1254	A	0.4
9	☐			5280.91	0.0017	P	5.9

$$y = 0.0011 * x + 9.2991E-005$$

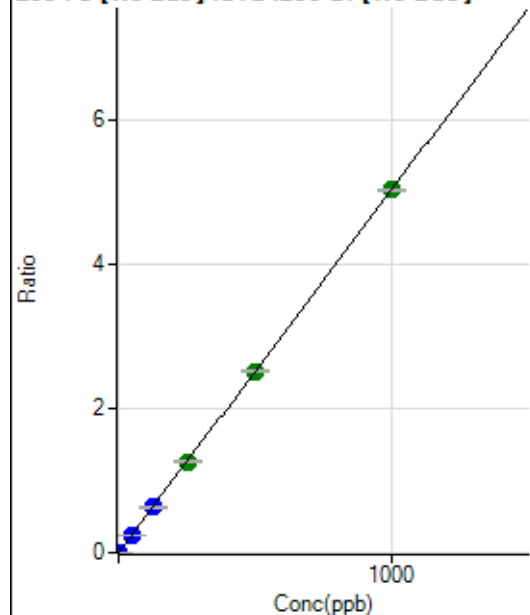
$$R = 1.0000$$

$$DL = 0.04233$$

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	1275.99	0.0004	P	11.2
2	☐	0.100					
3	☐	1.000	1.005	15400.45	0.0055	P	3.6
4	☐	50.000	48.772	711046.01	0.2455	P	0.7
5	☐	125.000	124.557	1853634.78	0.6264	P	0.9
6	☐	250.000	250.438	3966744.80	1.2590	A	1.0
7	☐	500.000	499.919	8400249.86	2.5128	A	1.1
8	☐	1000.000	1000.048	16586864.47	5.0263	A	0.4
9	☐			24139.38	0.0077	P	2.1

$$y = 0.0050 * x + 4.4236E-004$$

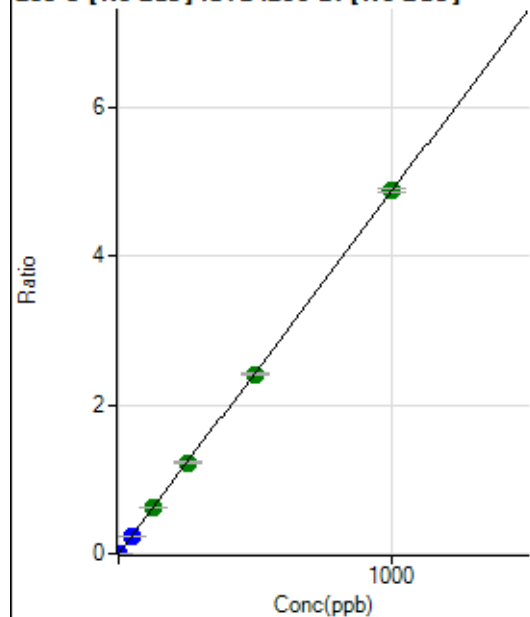
$$R = 1.0000$$

$$DL = 0.02958$$

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	25.00	0.0000	P	34.1
2	☐	0.100					
3	☐	1.000	1.018	13930.64	0.0050	P	0.2
4	☐	50.000	47.882	675753.66	0.2334	P	1.1
5	☐	125.000	125.861	1815290.69	0.6134	A	0.7
6	☐	250.000	252.156	3872273.44	1.2289	A	0.5
7	☐	500.000	495.638	8074613.63	2.4156	A	1.1
8	☐	1000.000	1001.640	16109194.28	4.8816	A	1.2
9	☐			2736.55	0.0009	P	1.9

$$y = 0.0049 * x + 8.6781E-006$$

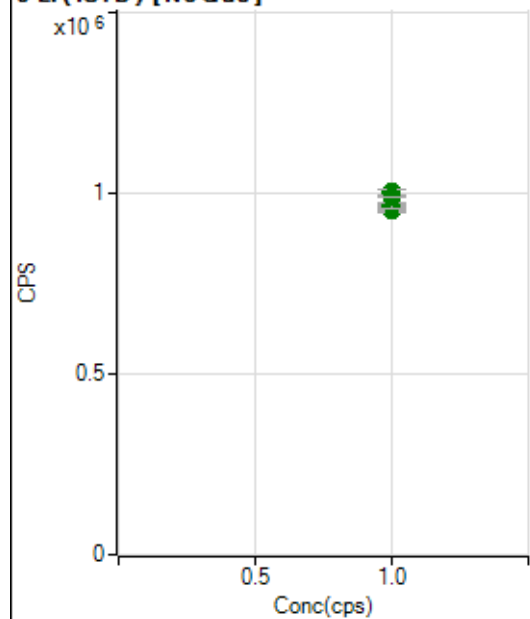
$$R = 1.0000$$

$$DL = 0.001821$$

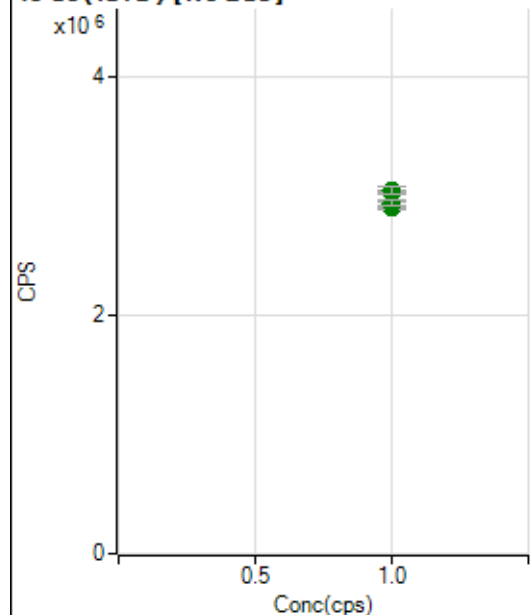
Weight: <None>

Min Conc: 0

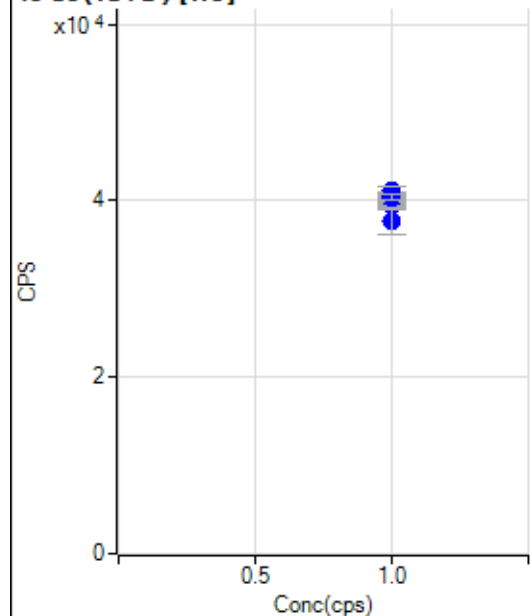
6 Li (ISTD) [No Gas]



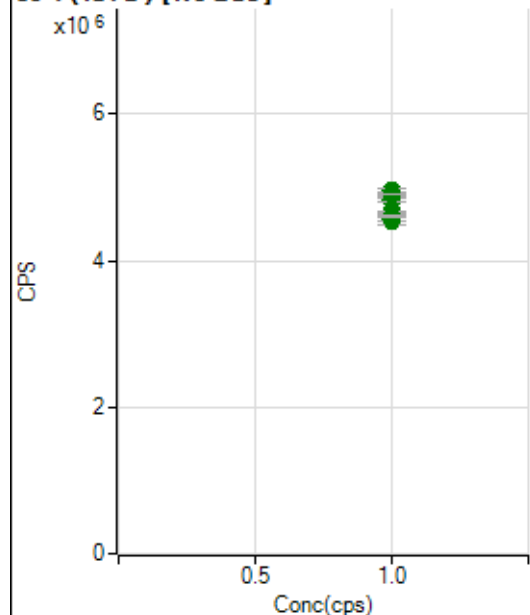
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		961099.97		A	1.1
2	☐	1.000					
3	☐	1.000		949135.59		A	1.0
4	☐	1.000		959926.12		A	0.8
5	☐	1.000		962140.32		A	2.7
6	☐	1.000		998123.99		A	2.3
7	☐	1.000		1002860.76		A	1.7
8	☐	1.000		965910.61		A	1.4
9	☐	1.000		989623.54		A	0.2

45 Sc (ISTD) [No Gas]

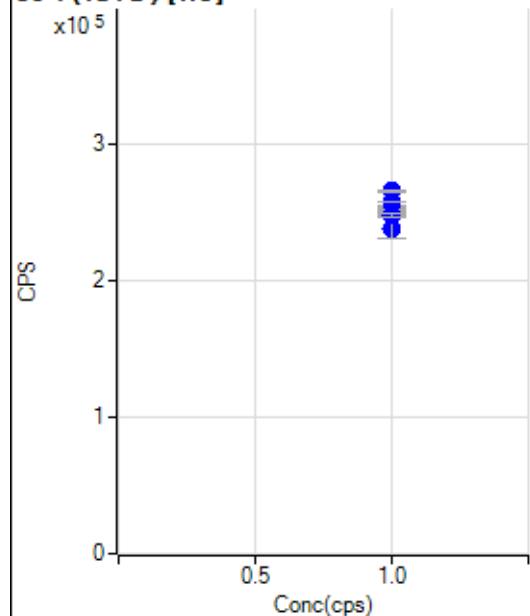
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2940000.00		A	1.1
2	☐	1.000					
3	☐	1.000		2900528.43		A	0.4
4	☐	1.000		2938928.19		A	0.9
5	☐	1.000		2929834.25		A	1.4
6	☐	1.000		3025371.66		A	0.5
7	☐	1.000		3041469.90		A	0.8
8	☐	1.000		2942830.84		A	1.3
9	☐	1.000		3042932.29		A	2.1

45 Sc (ISTD) [He]

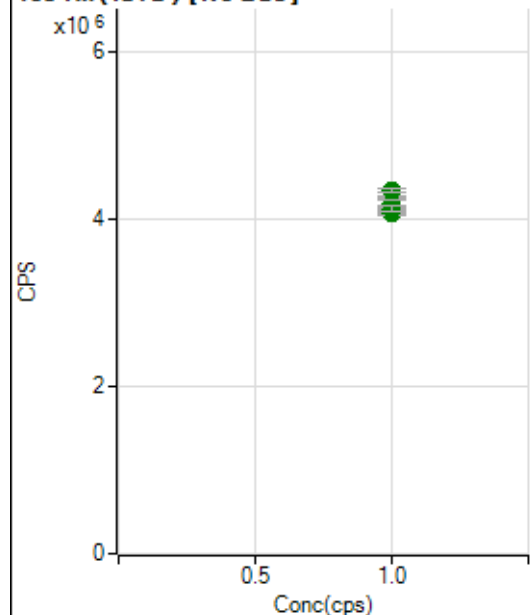
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		41120.14		P	2.4
2	☐	1.000					
3	☐	1.000		40607.62		P	1.8
4	☐	1.000		39884.48		P	1.3
5	☐	1.000		39386.41		P	0.7
6	☐	1.000		37619.68		P	7.3
7	☐	1.000		40262.20		P	1.0
8	☐	1.000		40229.91		P	1.9
9	☐	1.000		40480.64		P	1.8

89 Y (ISTD) [No Gas]

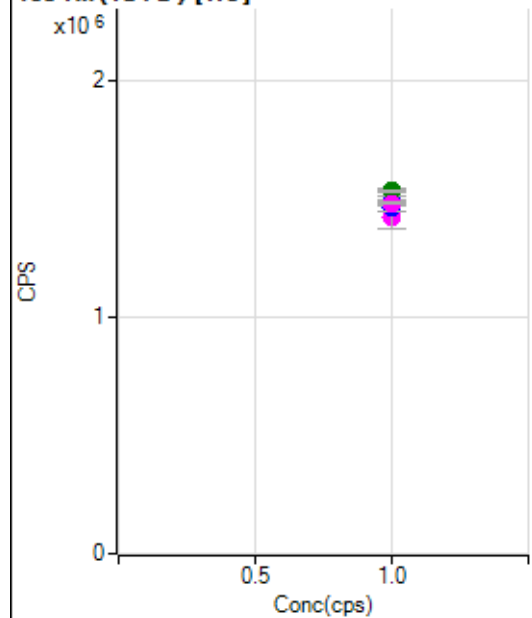
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4539940.07		A	2.1
2	☐	1.000					
3	☐	1.000		4579697.22		A	1.2
4	☐	1.000		4660035.49		A	0.1
5	☐	1.000		4605049.51		A	0.3
6	☐	1.000		4834563.26		A	1.3
7	☐	1.000		4952399.79		A	1.0
8	☐	1.000		4835906.15		A	1.6
9	☐	1.000		4911916.53		A	0.3

89 Y (ISTD) [He]

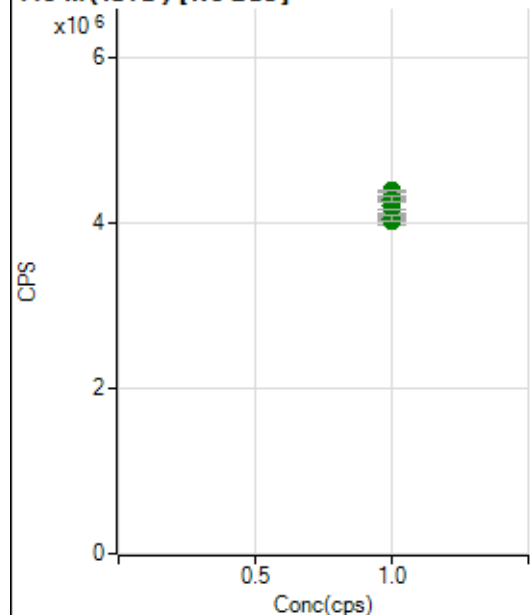
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		254834.54		P	0.2
2	☐	1.000					
3	☐	1.000		252240.52		P	0.9
4	☐	1.000		248240.08		P	0.8
5	☐	1.000		250884.30		P	0.5
6	☐	1.000		238090.15		P	6.7
7	☐	1.000		257213.81		P	0.1
8	☐	1.000		247622.12		P	1.1
9	☐	1.000		265263.36		P	0.8

103 Rh (ISTD) [No Gas]

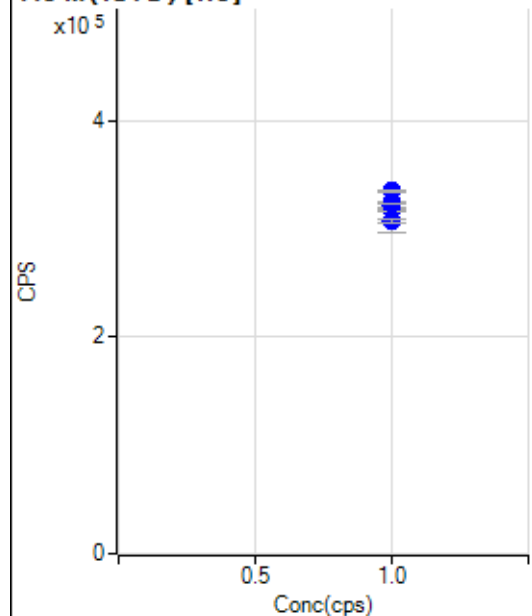
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4076937.20		A	1.4
2	☐	1.000					
3	☐	1.000		4075247.49		A	0.5
4	☐	1.000		4099912.68		A	0.8
5	☐	1.000		4073222.01		A	1.3
6	☐	1.000		4267749.31		A	0.4
7	☐	1.000		4344426.53		A	0.9
8	☐	1.000		4187813.77		A	2.4
9	☐	1.000		4132302.39		A	1.3

103 Rh (ISTD) [He]

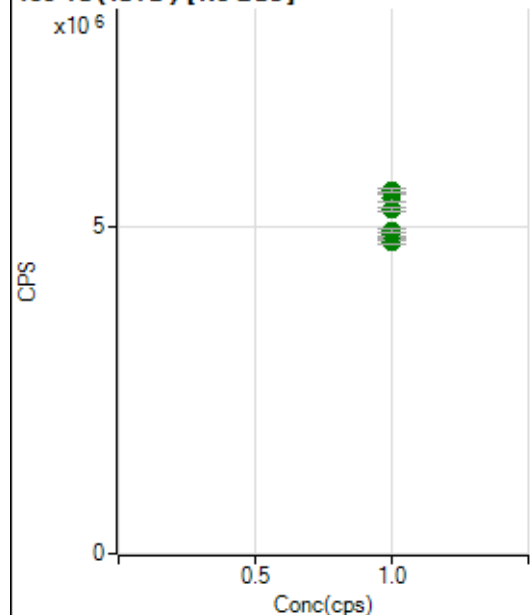
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1527229.41		M	2.2
2	☐	1.000					
3	☐	1.000		1486765.04		P	0.6
4	☐	1.000		1472151.56		P	0.5
5	☐	1.000		1483227.01		P	0.4
6	☐	1.000		1420039.91		M	6.7
7	☐	1.000		1532040.33		A	0.8
8	☐	1.000		1458124.06		P	1.4
9	☐	1.000		1480000.41		M	0.4

115 In (ISTD) [No Gas]

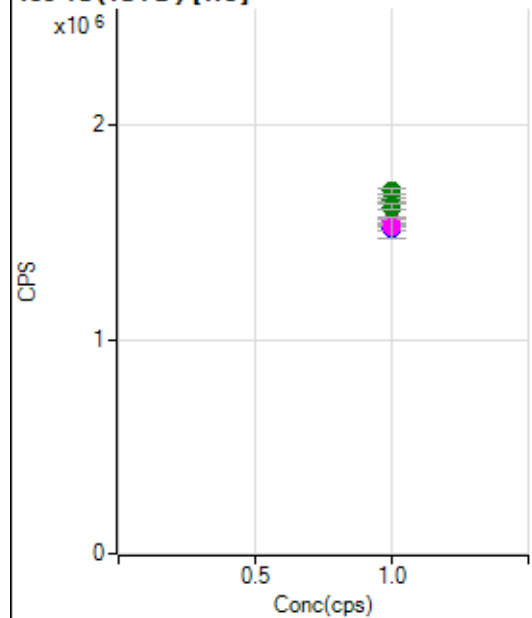
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4034818.95		A	2.2
2	☐	1.000					
3	☐	1.000		4032693.20		A	0.7
4	☐	1.000		4086614.93		A	1.5
5	☐	1.000		4053132.24		A	1.8
6	☐	1.000		4294177.51		A	1.1
7	☐	1.000		4390608.87		A	0.7
8	☐	1.000		4220161.39		A	2.1
9	☐	1.000		4293264.55		A	1.6

115 In (ISTD) [He]

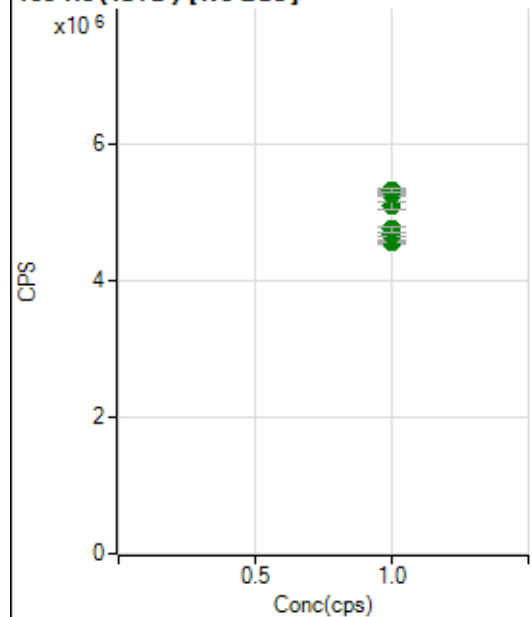
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		324144.80		P	1.0
2	☐	1.000					
3	☐	1.000		321355.07		P	0.7
4	☐	1.000		318765.02		P	0.5
5	☐	1.000		321087.04		P	0.9
6	☐	1.000		306409.15		P	6.0
7	☐	1.000		323430.15		P	0.4
8	☐	1.000		306535.28		P	1.2
9	☐	1.000		335097.57		P	0.4

159 Tb (ISTD) [No Gas]

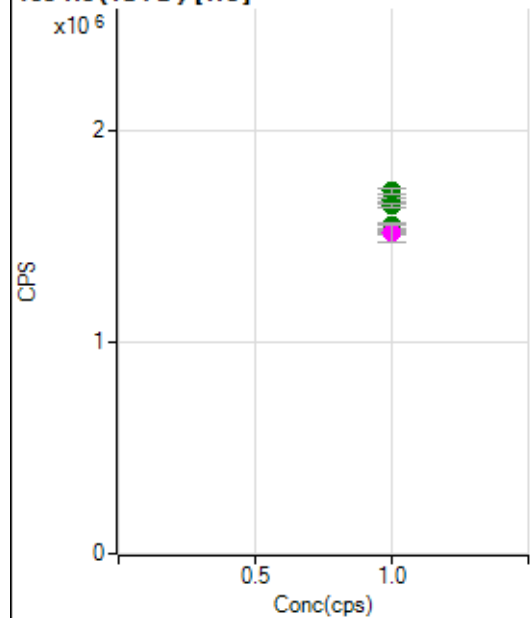
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4776695.07		A	1.6
2	☐	1.000					
3	☐	1.000		4756566.84		A	0.9
4	☐	1.000		4876109.27		A	1.0
5	☐	1.000		4930361.98		A	1.4
6	☐	1.000		5263821.69		A	1.3
7	☐	1.000		5495442.14		A	0.6
8	☐	1.000		5429948.95		A	2.0
9	☐	1.000		5541315.33		A	1.2

159 Tb (ISTD) [He]

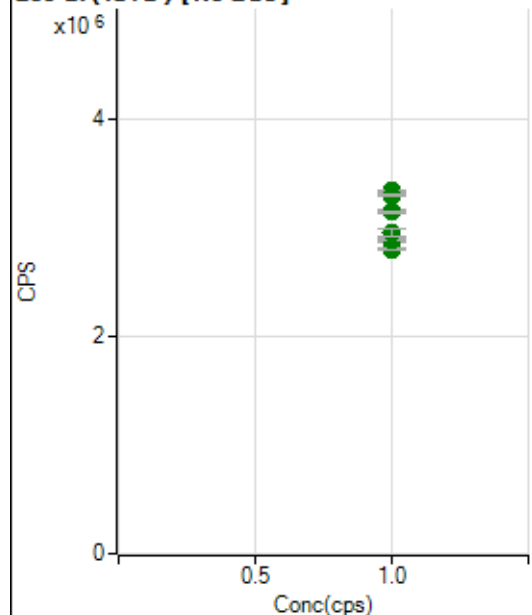
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1531923.05		A	0.8
2	☐	1.000					
3	☐	1.000		1514528.78		M	1.2
4	☐	1.000		1516816.54		P	1.1
5	☐	1.000		1557352.84		M	1.2
6	☐	1.000		1523897.10		M	6.6
7	☐	1.000		1652997.63		A	1.1
8	☐	1.000		1618801.42		A	1.6
9	☐	1.000		1694743.92		A	1.3

165 Ho (ISTD) [No Gas]

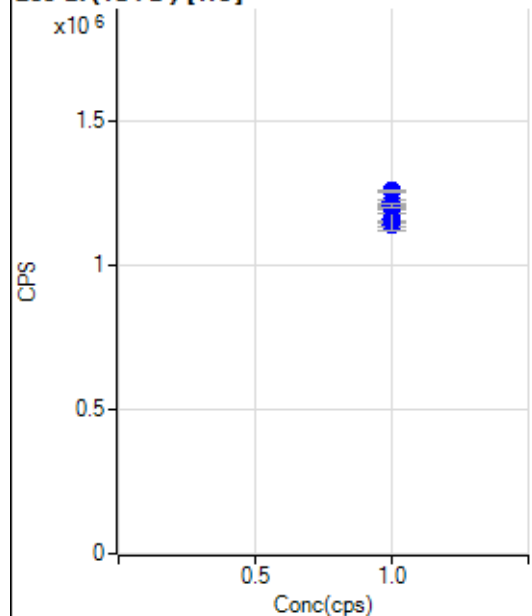
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4551542.64		A	1.0
2	☐	1.000					
3	☐	1.000		4569121.85		A	0.1
4	☐	1.000		4658263.04		A	1.0
5	☐	1.000		4739096.24		A	2.2
6	☐	1.000		5090892.91		A	2.0
7	☐	1.000		5295234.88		A	1.1
8	☐	1.000		5257985.15		A	0.5
9	☐	1.000		5305866.05		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1527295.20		P	0.8
2	☐	1.000					
3	☐	1.000		1515074.30		M	1.2
4	☐	1.000		1532435.17		M	0.9
5	☐	1.000		1559882.72		A	1.0
6	☐	1.000		1517628.42		M	5.5
7	☐	1.000		1677085.60		A	0.9
8	☐	1.000		1645869.92		A	1.4
9	☐	1.000		1716755.72		A	1.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2886040.79		A	0.8
2	☐	1.000					
3	☐	1.000		2802875.72		A	0.7
4	☐	1.000		2895773.29		A	0.7
5	☐	1.000		2959439.75		A	1.9
6	☐	1.000		3150843.15		A	1.1
7	☐	1.000		3342927.69		A	0.7
8	☐	1.000		3300004.92		A	0.6
9	☐	1.000		3150100.51		A	0.7

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1151675.31		P	0.3
2	☐	1.000					
3	☐	1.000		1138534.33		P	0.9
4	☐	1.000		1152561.44		P	0.3
5	☐	1.000		1176948.65		P	0.2
6	☐	1.000		1155403.55		P	6.2
7	☐	1.000		1255809.26		P	0.3
8	☐	1.000		1216372.55		P	1.4
9	☐	1.000		1204228.56		P	0.7

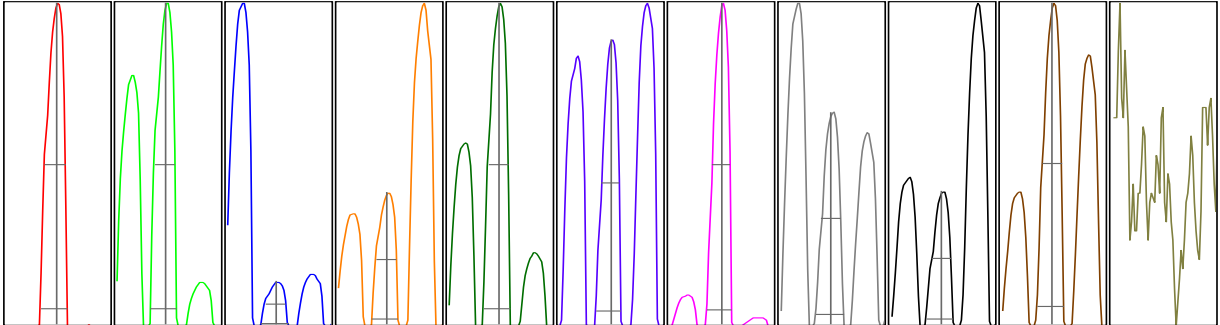
US EPA Tune Check Sample Report

Batch Folder D:\P811118-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	4567	0.84	5.00	
24	41595	0.97	5.00	
25	5780	0.95	5.00	
26	6791	0.92	5.00	
59	45551	0.83	5.00	
113	5377	0.72	5.00	
115	64106	1.08	5.00	
206	13292	0.79	5.00	
207	11930	1.17	5.00	
208	28371	1.30	5.00	
220	1	13.14		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	4509	4553	4574	4587	4610
24	40972	41549	41602	41775	42075
25	5697	5784	5777	5790	5852
26	6688	6798	6792	6824	6853
59	45037	45636	45413	45581	46085
113	5339	5362	5351	5405	5430
115	63348	63980	63657	64440	65105
206	13118	13288	13348	13311	13396
207	11737	11884	11909	12014	12107
208	27862	28235	28374	28522	28863
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	8142	9.00	8.9 - 9.1		0.778	0.900	
24	74669	23.95	23.9 - 24.1		0.739	0.900	
25	10192	24.95	24.9 - 25.1		0.757	0.900	
26	11982	25.95	25.9 - 26.1		0.739	0.900	
59	81463	59.00	58.9 - 59.1		0.775	0.900	
113	10502	113.05	112.9 - 113.1		0.723	0.900	
115	125253	115.05	114.9 - 115.1		0.709	0.900	
206	24413	206.00	205.9 - 206.1		0.804	0.900	
207	22147	207.00	206.9 - 207.1		0.778	0.900	
208	53325	208.00	207.9 - 208.1		0.767	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
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	10.0	V	Deflect	16.0	V
Extract 2	-245.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-105	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	7619	0.74	
89	2353	0.72	
205	8911	0.63	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	7670	7675	7594	7616	7539
89	2370	2369	2353	2334	2337
205	8979	8867	8923	8945	8841

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	10.0	V	Deflect	1.6	V
Extract 2	-245.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-105	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			