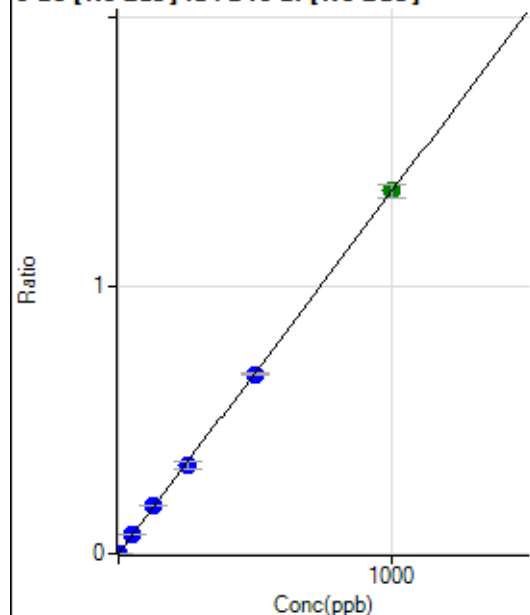


Batch Folder: D:\ICP-MS Data\P7101818 MS.b\
Analysis File: P7101818 MS.batch.bin
DA Date-Time: 2018-10-18 18:14:31
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-10-18 13:07:45
2			
3	005CALS.d	S02	2018-10-18 13:16:05
4	006CALS.d	S03	2018-10-18 13:20:15
5	007CALS.d	S04	2018-10-18 13:24:32
6	008CALS.d	S05	2018-10-18 13:28:40
7	009CALS.d	S06	2018-10-18 13:32:43
8	010CALS.d	S07	2018-10-18 13:36:44
9	011CALS.d	S08	2018-10-18 13:40:46

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	34.8
2	☐	0.100					
3	☐	1.000	1.000	3226.37	0.0014	P	3.9
4	☐	50.000	52.490	170305.15	0.0709	P	0.7
5	☐	125.000	130.709	420473.22	0.1765	P	0.4
6	☐	250.000	244.388	793828.98	0.3300	P	8.4
7	☐	500.000	496.593	1525268.13	0.6706	P	0.6
8	☐	1000.000	1002.268	2991093.90	1.3534	A	4.0
9	☐			451.87	0.0002	P	3.5

$$y = 0.0014 * x + 1.0998E-005$$

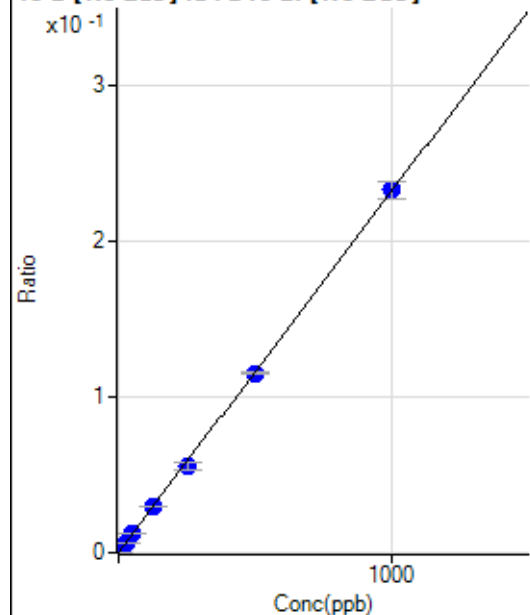
$$R = 0.9999$$

$$DL = 0.008501$$

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	447.25	0.0002	P	13.6
2	☐	2.500					
3	☐	25.000	24.375	13809.57	0.0058	P	2.9
4	☐	50.000	51.150	28889.52	0.0120	P	2.6
5	☐	125.000	125.538	69702.95	0.0293	P	1.6
6	☐	250.000	239.192	133743.04	0.0556	P	8.0
7	☐	500.000	497.121	262369.54	0.1153	P	1.6
8	☐	1000.000	1004.032	514428.40	0.2328	P	4.4
9	☐			10704.16	0.0050	P	6.3

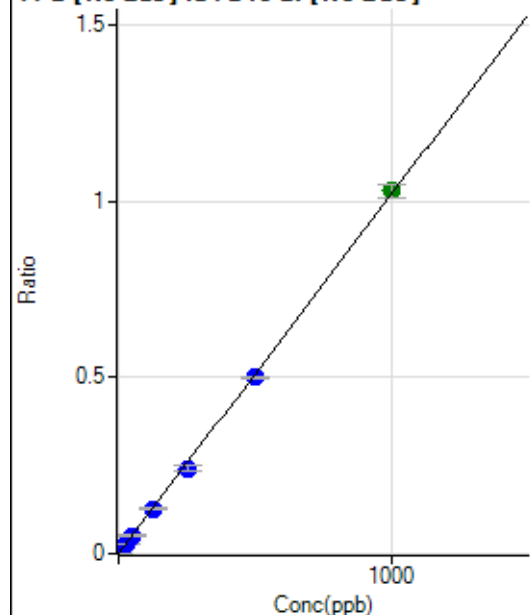
$$y = 2.3167E-004 * x + 1.7691E-004$$

$$R = 0.9999$$

$$DL = 0.3105$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2047.44	0.0008	P	3.5
2	☐	2.500					
3	☐	25.000	23.767	59386.77	0.0250	P	0.9
4	☐	50.000	49.937	124271.97	0.0517	P	1.3
5	☐	125.000	124.733	304904.71	0.1280	P	1.2
6	☐	250.000	235.869	580833.16	0.2413	P	7.2
7	☐	500.000	489.183	1136475.98	0.4996	P	1.2
8	☐	1000.000	1009.009	2275925.53	1.0297	A	3.6
9	☐			45488.86	0.0210	P	8.1

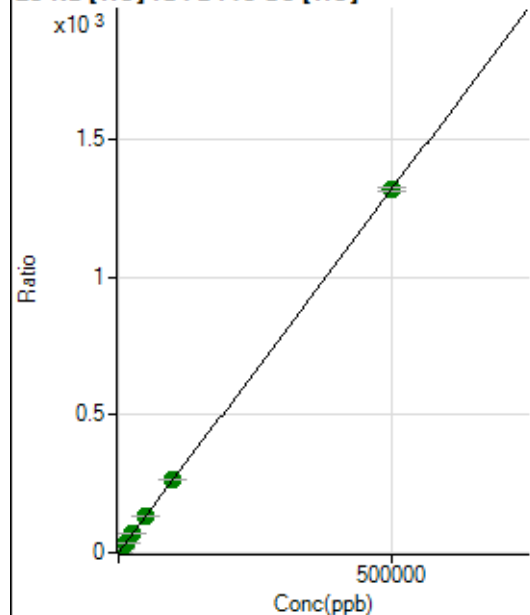
$$y = 0.0010 * x + 8.1015E-004$$

$$R = 0.9998$$

$$DL = 0.08274$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4317.46	0.0236	P	2.1
2	☐	50.000					
3	☐	500.000	531.100	266208.32	1.4239	P	0.6
4	☐	5000.000	5094.490	2535734.61	13.4558	A	1.2
5	☐	12500.000	12540.438	6289544.63	33.0879	A	1.4
6	☐	25000.000	26026.523	12499558.70	68.6455	A	1.7
7	☐	50000.000	50838.050	24993284.93	134.0640	A	1.1
8	☐	100000.00	100627.47	50486128.56	265.3395	A	0.2
9	☐	500000.00	499737.38	275653042.2	1,317.639	A	0.9

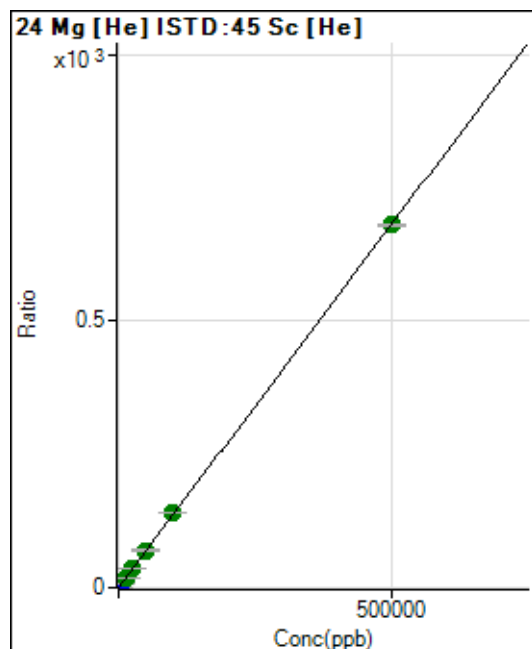
$$y = 0.0026 * x + 0.0236$$

$$R = 1.0000$$

$$DL = 0.5627$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0003	P	45.2
2	☐	50.000					
3	☐	500.000	535.937	136564.21	0.7304	P	0.6
4	☐	5000.000	5261.556	1350854.60	7.1682	P	1.2
5	☐	12500.000	12762.175	3304925.47	17.3865	A	1.5
6	☐	25000.000	26519.940	6578407.27	36.1290	A	2.1
7	☐	50000.000	51549.568	13092549.08	70.2274	A	0.9
8	☐	100000.00	102428.46	26550044.00	139.5407	A	0.5
9	☐	500000.00	499274.14	142298279.5	680.1718	A	0.8

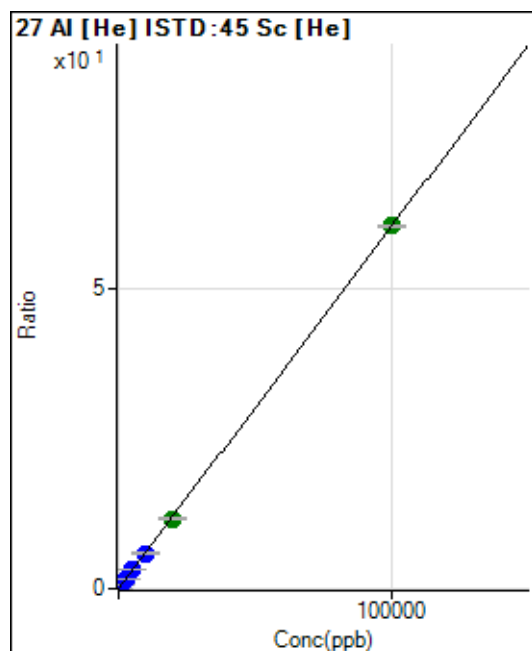
$$y = 0.0014 * x + 3.2068E-004$$

$$R = 1.0000$$

$$DL = 0.3195$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0002	P	50.6
2	☐	2.000					
3	☐	20.000	20.295	2328.05	0.0125	P	7.6
4	☐	1000.000	1023.121	116318.83	0.6172	P	1.4
5	☐	2500.000	2470.586	283262.37	1.4901	P	1.1
6	☐	5000.000	5094.742	559501.28	3.0727	P	1.6
7	☐	10000.000	9810.709	1103089.88	5.9167	P	0.5
8	☐	20000.000	19344.794	2219708.93	11.6663	A	0.7
9	☐	100000.00	100145.73	12635071.11	60.3944	A	0.7

$$y = 6.0306E-004 * x + 2.1357E-004$$

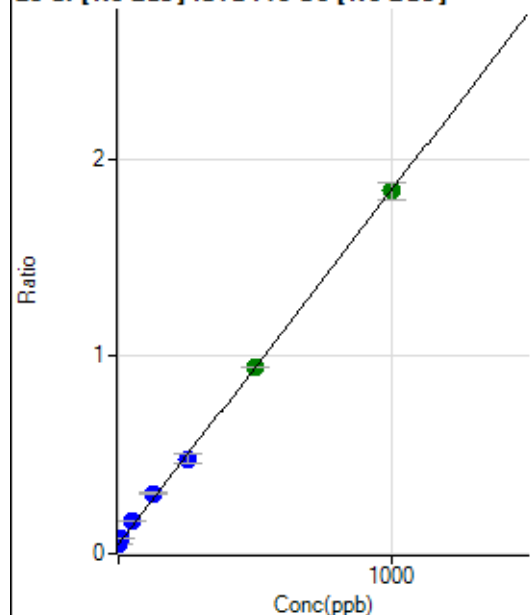
$$R = 1.0000$$

$$DL = 0.5373$$

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	190519.74	0.0476	P	0.5
2	☐	1.000					
3	☐	10.000	15.061	296082.24	0.0746	P	0.4
4	☐	50.000	64.185	646218.53	0.1627	P	0.6
5	☐	125.000	143.375	1213113.65	0.3047	P	1.6
6	☐	250.000	242.224	1951661.13	0.4819	P	8.7
7	☐	500.000	501.530	3675431.59	0.9468	A	0.5
8	☐	1000.000	998.122	7075232.80	1.8372	A	4.8
9	☐			352678.05	0.0874	P	0.9

$$y = 0.0018 * x + 0.0476$$

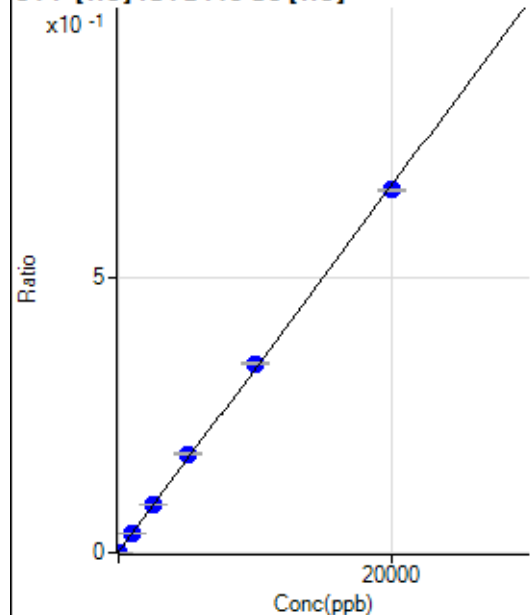
$$R = 0.9997$$

$$DL = 0.3835$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-1.683	252.79	0.0014	P	21.7
2	☐	0.000					
3	☐	0.000	1.683	277.79	0.0015	P	13.9
4	☐	1000.000	1035.551	6760.15	0.0359	P	2.9
5	☐	2500.000	2566.882	16501.36	0.0868	P	1.5
6	☐	5000.000	5326.210	32516.92	0.1786	P	2.1
7	☐	10000.000	10283.542	64032.49	0.3435	P	0.8
8	☐	20000.000	19766.539	125364.46	0.6589	P	0.7
9	☐			380.58	0.0018	P	6.5

$$y = 3.3260E-005 * x + 0.0014$$

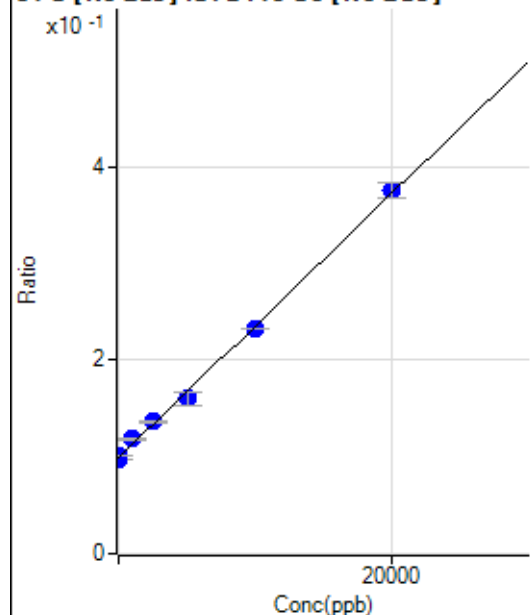
$$R = 0.9997$$

$$DL = 22.8$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-135.691	389045.49	0.0973	P	0.9
2	☐	0.000					
3	☐	0.000	135.691	400534.72	0.1010	P	0.9
4	☐	1000.000	1433.638	471359.25	0.1187	P	0.9
5	☐	2500.000	2765.886	544967.41	0.1369	P	1.3
6	☐	5000.000	4472.813	648970.85	0.1602	P	8.0
7	☐	10000.000	9758.852	901963.33	0.2324	P	0.2
8	☐	20000.000	20197.453	1443919.12	0.3749	P	4.3
9	☐			364446.72	0.0903	P	0.9

$$y = 1.3654E-005 * x + 0.0991$$

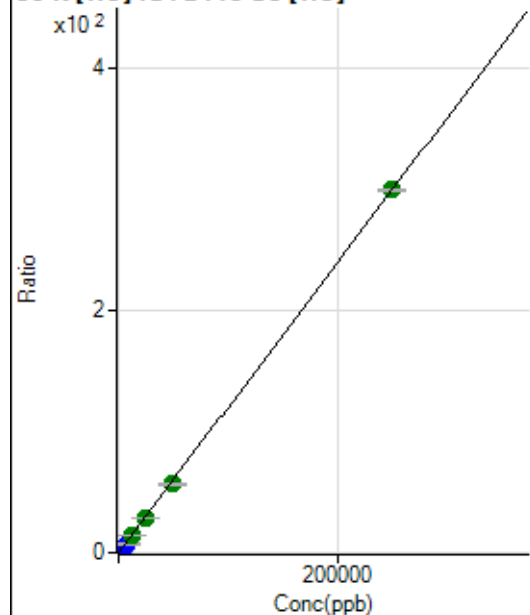
$$R = 0.9990$$

$$DL = 189.3$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16637.71	0.0907	P	2.7
2	☐	50.000					
3	☐	500.000	499.660	128426.06	0.6869	P	1.3
4	☐	2500.000	2471.185	572755.21	3.0392	P	0.8
5	☐	6250.000	5893.312	1353852.22	7.1224	P	1.5
6	☐	12500.000	12233.587	2674421.83	14.6873	A	1.6
7	☐	25000.000	23897.618	5332713.92	28.6043	A	1.0
8	☐	50000.000	47233.132	10740003.88	56.4471	A	0.6
9	☐	250000.00	250686.13	62598722.23	299.1978	A	0.8

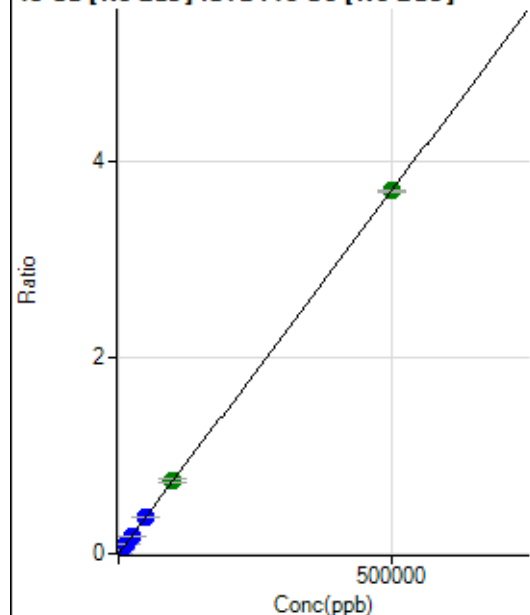
$$y = 0.0012 * x + 0.0907$$

$$R = 0.9999$$

$$DL = 6.099$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	28.4
2	☐	50.000					
3	☐	500.000	469.637	13929.28	0.0035	P	4.7
4	☐	5000.000	5163.820	152138.90	0.0383	P	1.5
5	☐	12500.000	12749.771	376396.92	0.0945	P	0.8
6	☐	25000.000	24005.329	720694.73	0.1780	P	8.7
7	☐	50000.000	49250.223	1417156.92	0.3651	P	0.6
8	☐	100000.00	100547.05	2870593.14	0.7453	A	4.3
9	☐	500000.00	500007.44	14952388.35	3.7060	A	0.4

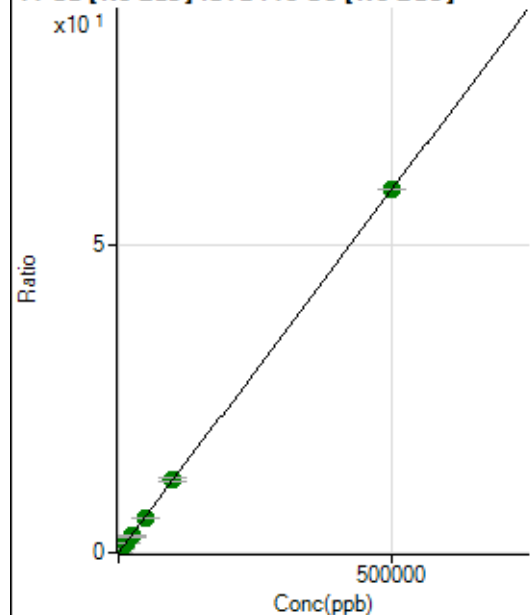
$$y = 7.4119\text{E-}006 * x + 2.9871\text{E-}005$$

$$R = 1.0000$$

$$DL = 3.432$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7396.72	0.0018	P	4.1
2	☐	50.000					
3	☐	500.000	485.586	233771.90	0.0589	P	1.0
4	☐	5000.000	4870.342	2281013.20	0.5743	A	0.3
5	☐	12500.000	12053.561	5648381.47	1.4186	A	0.9
6	☐	25000.000	23234.717	11062691.13	2.7328	A	9.5
7	☐	50000.000	48528.791	22148704.66	5.7057	A	0.4
8	☐	100000.00	100124.27	45330093.02	11.7701	A	4.6
9	☐	500000.00	500223.00	237213155.3	58.7961	A	0.1

$$y = 1.1754\text{E-}004 * x + 0.0018$$

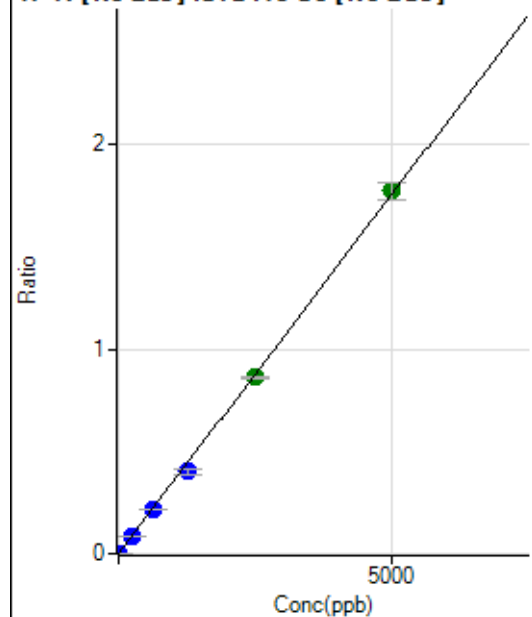
$$R = 1.0000$$

$$DL = 1.924$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	60.7
2	☐	0.500					
3	☐	5.000	4.975	6979.67	0.0018	P	3.2
4	☐	250.000	248.321	346138.04	0.0871	P	0.3
5	☐	625.000	609.328	851331.03	0.2138	P	1.4
6	☐	1250.000	1140.782	1621252.17	0.4003	P	8.6
7	☐	2500.000	2451.734	3339447.30	0.8603	A	1.0
8	☐	5000.000	5053.481	6828825.41	1.7732	A	4.8
9	☐			3125.46	0.0008	P	3.6

$$y = 3.5088\text{E-}004 * x + 1.3895\text{E-}005$$

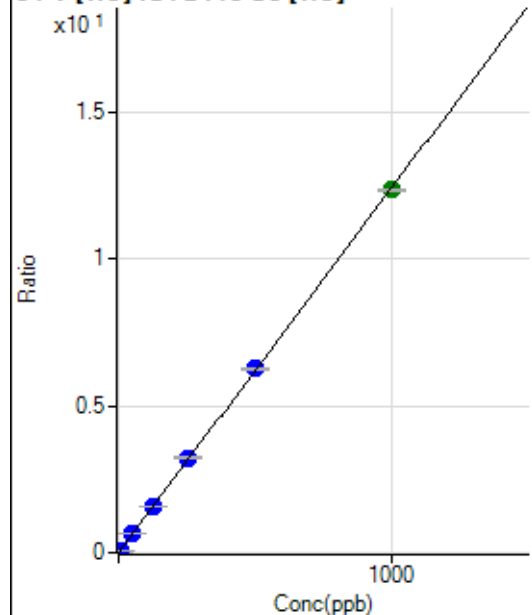
$$R = 0.9997$$

$$DL = 0.07207$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.55	0.0000	P	126.
2	☐	0.500					
3	☐	5.000	5.075	11778.18	0.0630	P	1.2
4	☐	50.000	51.327	120009.62	0.6368	P	1.2
5	☐	125.000	125.720	296490.88	1.5597	P	1.4
6	☐	250.000	259.627	586519.74	3.2210	P	1.5
7	☐	500.000	504.680	1167264.59	6.2612	P	1.2
8	☐	1000.000	995.097	2348926.13	12.3453	A	0.3
9	☐			1216.74	0.0058	P	0.7

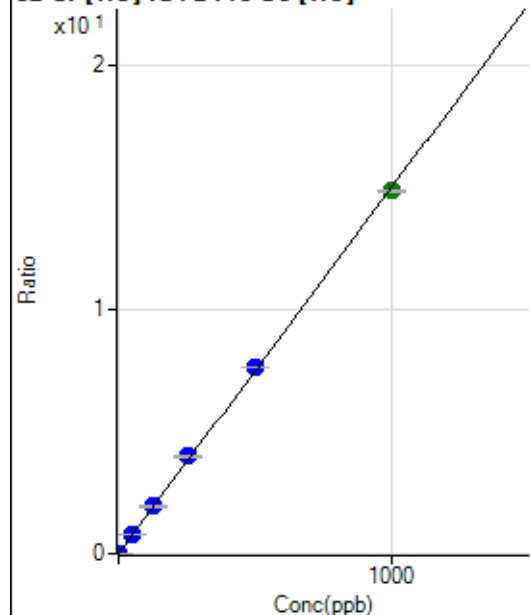
$$y = 0.0124 * x + 3.0966\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.009446$$

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	485.57	0.0027	P	19.0
2	☐	0.200					
3	☐	2.000	2.302	6957.29	0.0372	P	1.6
4	☐	50.000	53.171	150918.77	0.8009	P	2.2
5	☐	125.000	129.664	370497.85	1.9492	P	1.8
6	☐	250.000	265.672	726714.65	3.9909	P	1.5
7	☐	500.000	508.619	1424005.62	7.6380	P	0.6
8	☐	1000.000	991.030	2831140.90	14.8798	A	0.5
9	☐			138369.13	0.6614	P	1.4

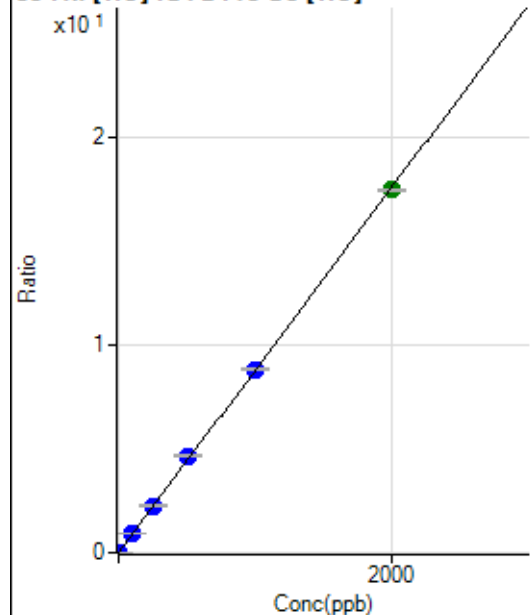
$$y = 0.0150 * x + 0.0027$$

$$R = 0.9998$$

$$DL = 0.1009$$

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	33.33	0.0002	P	26.2
2	☐	0.100					
3	☐	1.000	1.089	1817.92	0.0097	P	0.5
4	☐	100.000	106.271	175566.83	0.9316	P	1.1
5	☐	250.000	258.158	430126.50	2.2629	P	1.9
6	☐	500.000	529.899	845741.13	4.6447	P	1.7
7	☐	1000.000	1004.845	1642009.12	8.8075	P	1.1
8	☐	2000.000	1988.770	3316641.10	17.4315	A	0.4
9	☐			24387.08	0.1166	P	1.5

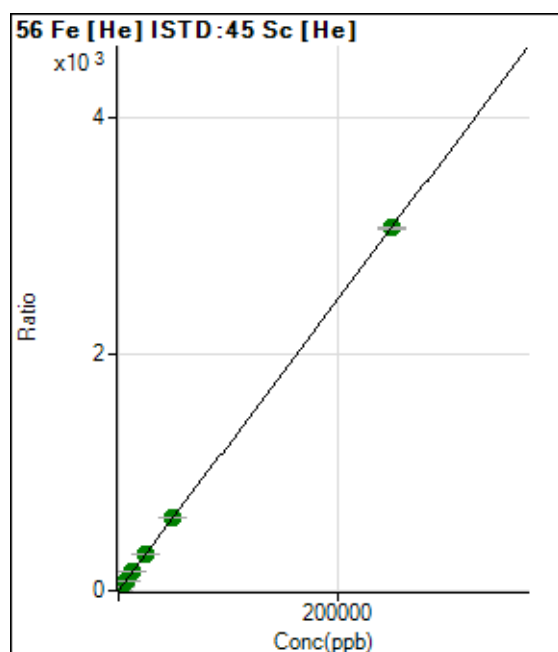
$$y = 0.0088 * x + 1.8188E-004$$

$$R = 0.9999$$

$$DL = 0.01631$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3676.50	0.0201	P	4.0
2	☐	5.000					
3	☐	50.000	54.519	128634.02	0.6880	P	1.1
4	☐	2500.000	2560.193	5915048.74	31.3872	A	1.1
5	☐	6250.000	6240.774	14537634.58	76.4811	A	1.7
6	☐	12500.000	12931.327	28851726.34	158.4527	A	1.9
7	☐	25000.000	25056.664	57233506.37	307.0105	A	1.5
8	☐	50000.000	50083.077	116753876.6	613.6302	A	0.6
9	☐	250000.00	249955.78	640724258.7	3,062.439	A	0.7

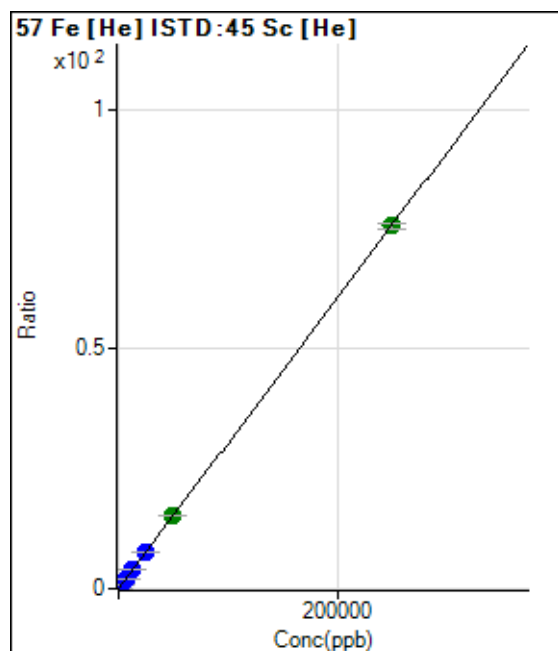
$$y = 0.0123 * x + 0.0201$$

$$R = 1.0000$$

$$DL = 0.1972$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	103.71	0.0006	P	28.6
2	☐	5.000					
3	☐	50.000	57.983	3389.38	0.0181	P	3.7
4	☐	2500.000	2661.754	152060.21	0.8069	P	1.2
5	☐	6250.000	6455.175	371799.33	1.9560	P	1.6
6	☐	12500.000	13306.433	734100.89	4.0314	P	1.2
7	☐	25000.000	25614.809	1446708.77	7.7598	P	0.8
8	☐	50000.000	50060.218	2885379.61	15.1648	A	0.3
9	☐	250000.00	249879.40	15836080.91	75.6941	A	1.2

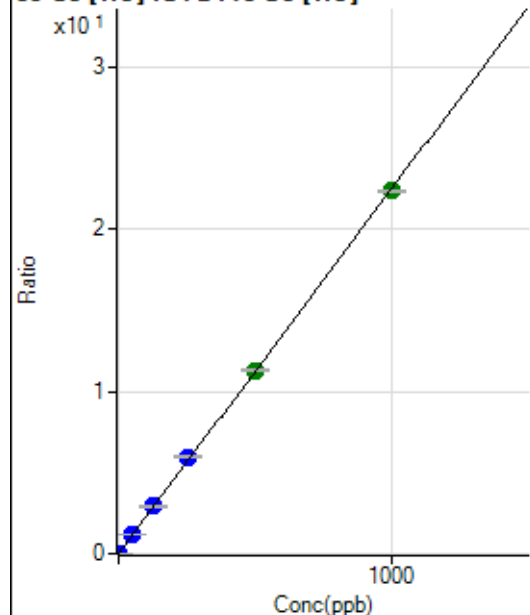
$$y = 3.0292E-004 * x + 5.6529E-004$$

$$R = 1.0000$$

$$DL = 1.604$$

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	80.00	0.0004	P	5.5
2	☐	0.100					
3	☐	1.000	1.112	4757.52	0.0254	P	5.4
4	☐	50.000	53.444	226608.28	1.2025	P	1.5
5	☐	125.000	129.228	552571.75	2.9070	P	1.6
6	☐	250.000	264.557	1083595.78	5.9508	P	1.4
7	☐	500.000	501.763	2104087.97	11.2859	A	0.7
8	☐	1000.000	994.778	4257168.79	22.3746	A	0.4
9	☐			14248.21	0.0681	P	2.6

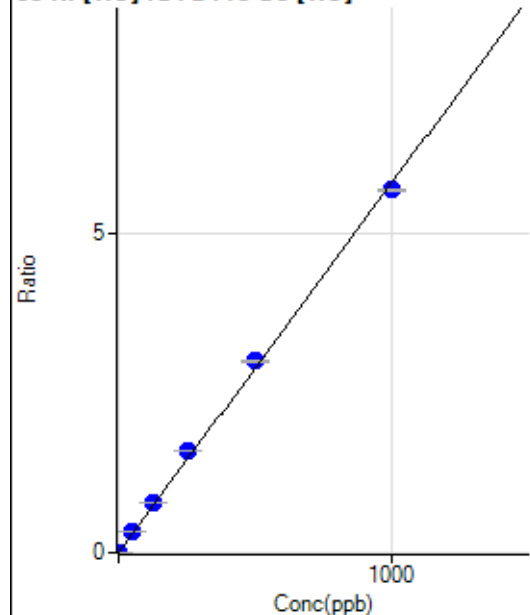
$$y = 0.0225 * x + 4.3670E-004$$

$$R = 0.9999$$

$$DL = 0.003175$$

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	36.67	0.0002	P	21.8
2	☐	0.100					
3	☐	1.000	1.173	1305.63	0.0070	P	5.6
4	☐	50.000	55.212	60220.96	0.3196	P	1.9
5	☐	125.000	134.456	147872.02	0.7779	P	1.6
6	☐	250.000	275.347	290069.54	1.5929	P	0.8
7	☐	500.000	519.955	560742.62	3.0077	P	0.8
8	☐	1000.000	982.243	1081058.70	5.6817	P	0.2
9	☐			35065.37	0.1676	P	0.9

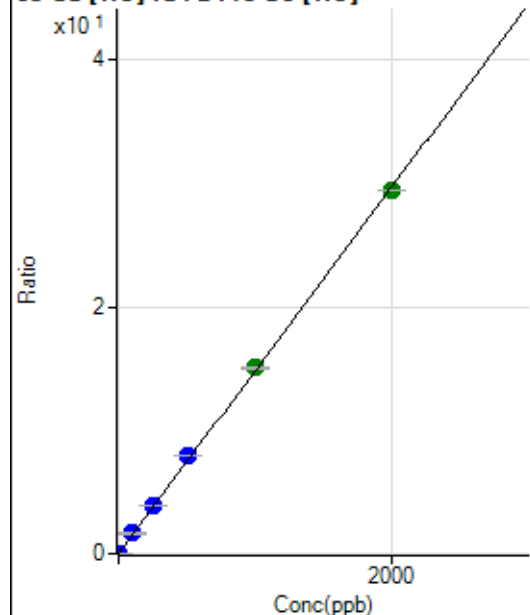
$$y = 0.0058 * x + 1.9940E-004$$

$$R = 0.9993$$

$$DL = 0.02255$$

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	218.89	0.0012	P	14.9
2	☐	0.200					
3	☐	2.000	2.278	6540.46	0.0350	P	1.7
4	☐	100.000	110.333	308630.04	1.6377	P	1.0
5	☐	250.000	264.760	746666.78	3.9282	P	1.8
6	☐	500.000	534.863	1444882.91	7.9344	P	0.9
7	☐	1000.000	1014.407	2805181.38	15.0471	A	1.2
8	☐	2000.000	1981.719	5592858.04	29.3945	A	0.1
9	☐			18016.79	0.0861	P	3.8

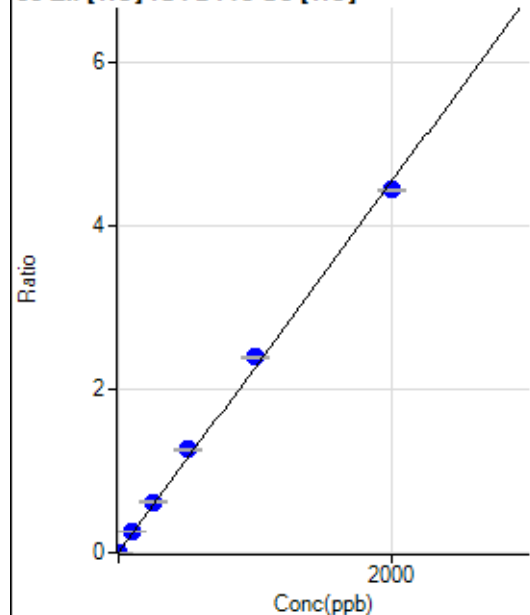
$$y = 0.0148 * x + 0.0012$$

$$R = 0.9998$$

$$DL = 0.03616$$

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	537.80	0.0029	P	10.5
2	☐	0.200					
3	☐	2.000	2.786	1731.24	0.0093	P	5.0
4	☐	100.000	113.426	49082.28	0.2605	P	1.5
5	☐	250.000	272.140	118002.67	0.6208	P	1.7
6	☐	500.000	554.407	229739.23	1.2616	P	1.5
7	☐	1000.000	1053.338	446405.45	2.3944	P	0.9
8	☐	2000.000	1956.290	845637.76	4.4444	P	0.3
9	☐			6431.52	0.0307	P	2.7

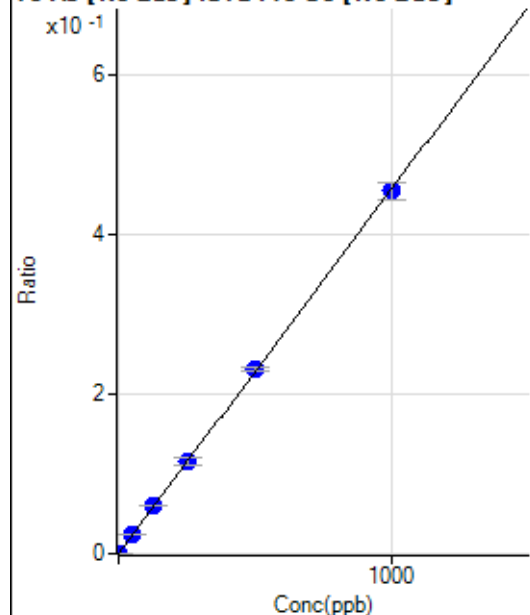
$$y = 0.0023 * x + 0.0029$$

$$R = 0.9990$$

$$DL = 0.4091$$

Weight: <None>

Min Conc: 0

75 As [No Gas] ISTD:45 Sc [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-488.31	-0.0001	P	-18.
2	☐	0.100					
3	☐	1.000	1.106	1526.39	0.0004	P	21.0
4	☐	50.000	53.103	96045.38	0.0242	P	3.6
5	☐	125.000	133.322	242500.26	0.0609	P	1.3
6	☐	250.000	251.137	465147.12	0.1148	P	8.5
7	☐	500.000	506.782	900030.97	0.2319	P	1.2
8	☐	1000.000	995.129	1753787.68	0.4554	P	4.8
9	☐			562.20	0.0001	P	24.6

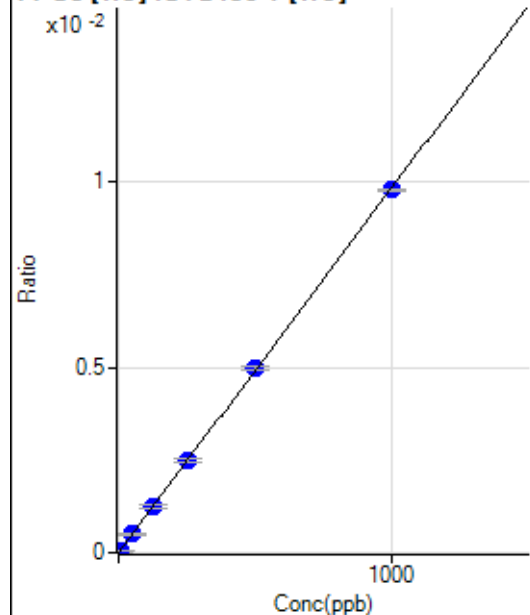
$$y = 4.5774\text{E-}004 * x - 1.2206\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.1445$$

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	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	5.469	45.55	0.0001	P	29.7
4	☐	50.000	50.217	418.90	0.0005	P	15.9
5	☐	125.000	128.634	1071.17	0.0013	P	7.8
6	☐	250.000	253.641	2041.29	0.0025	P	3.6
7	☐	500.000	506.528	4141.77	0.0050	P	1.4
8	☐	1000.000	995.358	8151.29	0.0098	P	0.6
9	☐			8.89	0.0000	P	79.4

$$y = 9.8434\text{E-}006 * x + 1.3481\text{E-}006$$

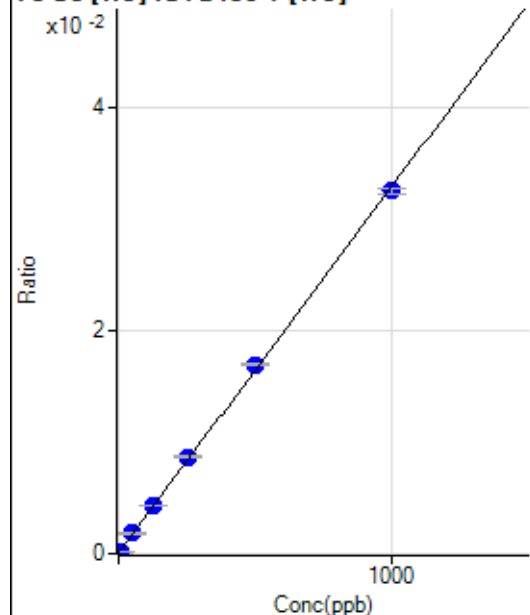
$$R = 1.0000$$

$$DL = 0.7117$$

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	44.44	0.0001	P	6.1
2	☐	0.500					
3	☐	5.000	5.499	194.45	0.0002	P	10.9
4	☐	50.000	54.154	1550.10	0.0018	P	3.8
5	☐	125.000	129.233	3636.90	0.0043	P	3.1
6	☐	250.000	263.359	7118.46	0.0087	P	0.8
7	☐	500.000	513.949	14072.96	0.0169	P	0.7
8	☐	1000.000	988.946	27085.80	0.0326	P	1.3
9	☐			59.26	0.0001	P	14.2

$$y = 3.2870\text{E-}005 * x + 5.4767\text{E-}005$$

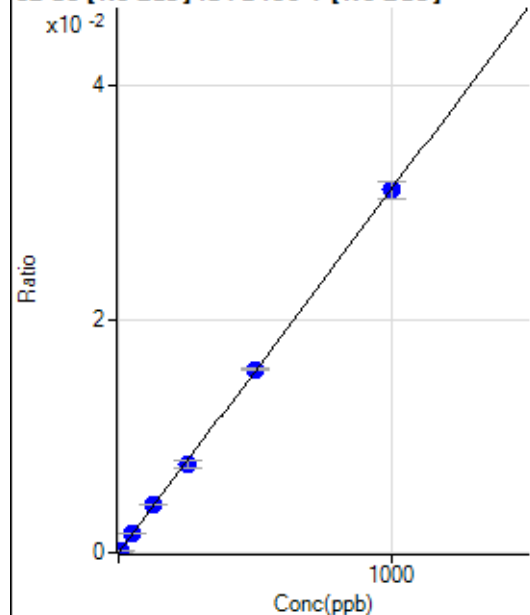
$$R = 0.9998$$

$$DL = 0.3025$$

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	23.20	0.0000	P	234.
2	☐	0.500					
3	☐	5.000	5.021	859.92	0.0002	P	7.9
4	☐	50.000	52.764	8838.06	0.0016	P	1.1
5	☐	125.000	131.226	22136.67	0.0041	P	1.2
6	☐	250.000	244.352	42356.46	0.0076	P	9.3
7	☐	500.000	505.047	83281.54	0.0157	P	1.1
8	☐	1000.000	997.972	164732.21	0.0311	P	5.0
9	☐			194.45	0.0000	P	51.1

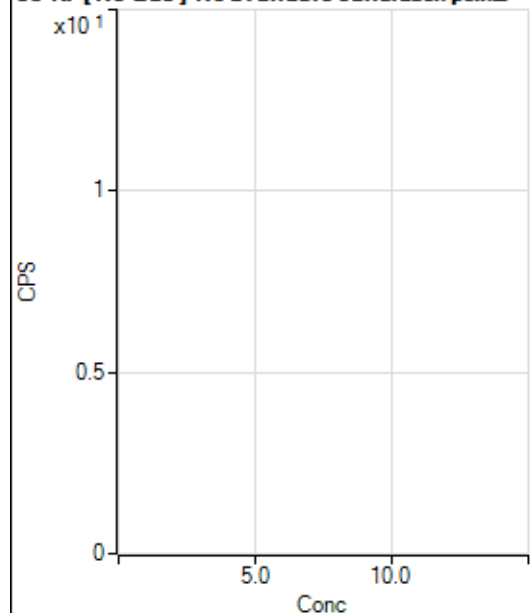
$$y = 3.1167\text{E-}005 * x + 4.2296\text{E-}006$$

$$R = 0.9999$$

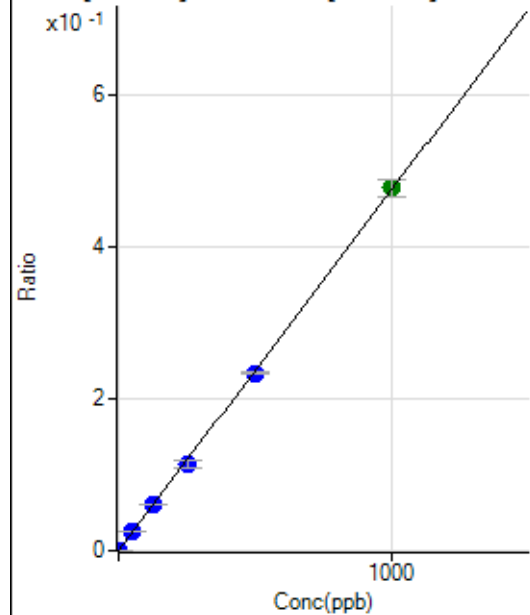
$$DL = 0.9563$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			275.56		P	14.3
2	☐						
3	☐			283.34		P	7.3
4	☐			308.90		P	8.1
5	☐			303.34		P	15.5
6	☐			290.01		P	11.3
7	☐			303.34		P	2.9
8	☐			315.56		P	15.6
9	☐			316.68		P	15.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	408.36	0.0001	P	17.4
2	☐	0.100					
3	☐	1.000	1.041	3044.89	0.0006	P	2.0
4	☐	50.000	51.353	131112.60	0.0245	P	0.3
5	☐	125.000	127.334	327293.07	0.0605	P	2.2
6	☐	250.000	239.664	632773.93	0.1139	P	9.8
7	☐	500.000	492.485	1237299.46	0.2339	P	0.5
8	☐	1000.000	1005.982	2530143.26	0.4777	A	4.7
9	☐			14371.52	0.0026	P	1.4

$$y = 4.7483E-004 * x + 7.4605E-005$$

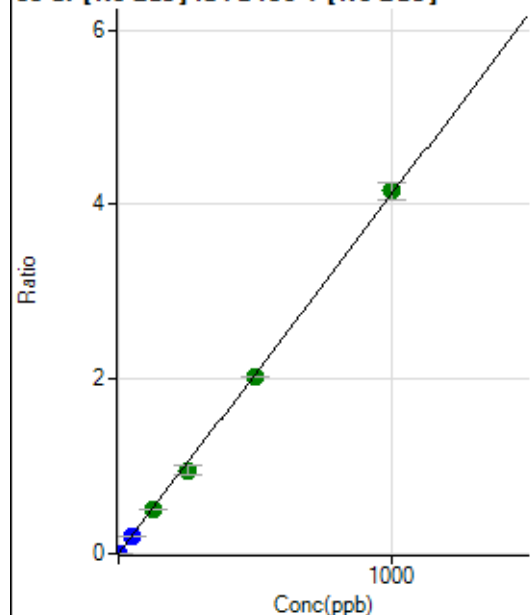
$$R = 0.9999$$

$$DL = 0.08208$$

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	130.56	0.0000	P	19.6
2	☐	0.100					
3	☐	1.000	1.010	22362.60	0.0042	P	1.1
4	☐	50.000	50.083	1104445.53	0.2060	P	0.6
5	☐	125.000	121.134	2694303.41	0.4983	A	1.1
6	☐	250.000	231.906	5299779.59	0.9539	A	10.1
7	☐	500.000	490.120	10663723.42	2.0161	A	0.1
8	☐	1000.000	1009.943	22001781.22	4.1543	A	4.7
9	☐			117598.59	0.0217	P	1.8

$$y = 0.0041 * x + 2.3858E-005$$

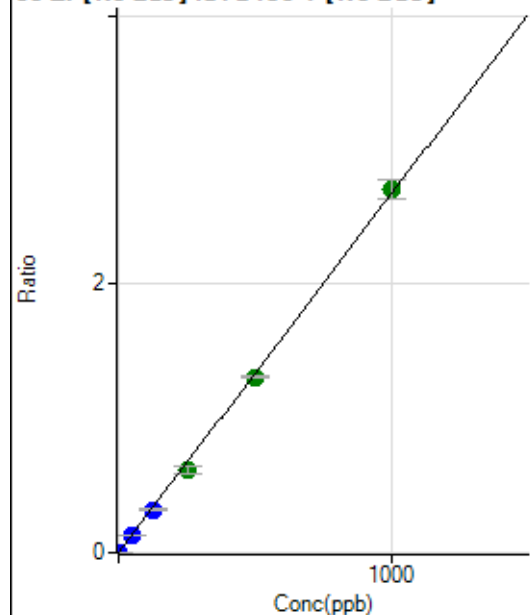
$$R = 0.9997$$

$$DL = 0.003415$$

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	458.36	0.0001	P	15.5
2	☐	0.100					
3	☐	1.000	0.992	14630.22	0.0027	P	1.6
4	☐	50.000	49.572	710606.55	0.1326	P	0.3
5	☐	125.000	120.123	1736240.66	0.3211	P	0.9
6	☐	250.000	231.358	3434532.67	0.6184	A	10.6
7	☐	500.000	489.494	6919685.57	1.3082	A	0.3
8	☐	1000.000	1010.545	14300586.95	2.7007	A	5.2
9	☐			8708.55	0.0016	P	1.3

$$y = 0.0027 * x + 8.3740E-005$$

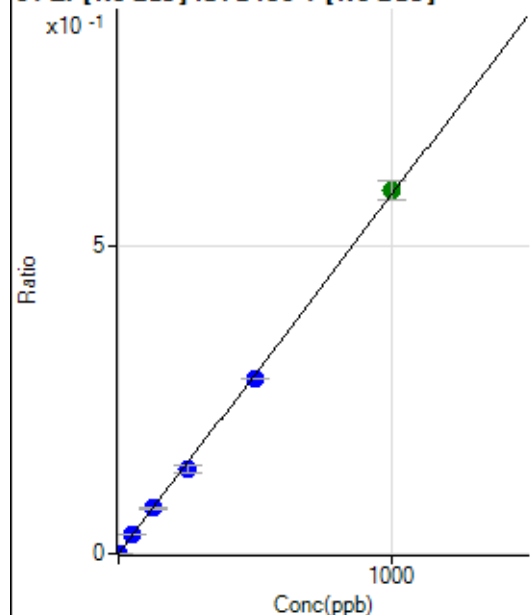
$$R = 0.9997$$

$$DL = 0.01458$$

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	72.23	0.0000	P	46.7
2	☐	0.100					
3	☐	1.000	1.006	3203.27	0.0006	P	2.7
4	☐	50.000	51.157	159675.21	0.0298	P	1.0
5	☐	125.000	126.387	397793.81	0.0736	P	1.1
6	☐	250.000	234.324	758208.88	0.1364	P	9.2
7	☐	500.000	486.181	1496741.81	0.2830	P	0.5
8	☐	1000.000	1010.597	3114501.63	0.5882	A	5.2
9	☐			1777.96	0.0003	P	4.6

$$y = 5.8200\text{E-}004 * x + 1.3196\text{E-}005$$

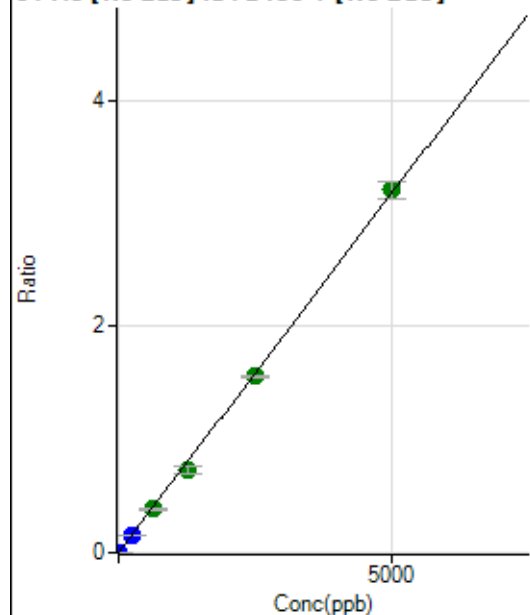
$$R = 0.9997$$

$$DL = 0.03174$$

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	180.57	0.0000	P	17.5
2	☐	0.500					
3	☐	5.000	5.058	17347.28	0.0032	P	2.5
4	☐	250.000	250.008	850390.16	0.1586	P	0.6
5	☐	625.000	603.402	2069935.35	0.3828	A	1.5
6	☐	1250.000	1153.894	4067344.49	0.7321	A	10.0
7	☐	2500.000	2449.999	8221465.46	1.5543	A	0.6
8	☐	5000.000	5051.726	16972016.70	3.2049	A	4.9
9	☐			21564.16	0.0040	P	0.0

$$y = 6.3441\text{E-}004 * x + 3.2993\text{E-}005$$

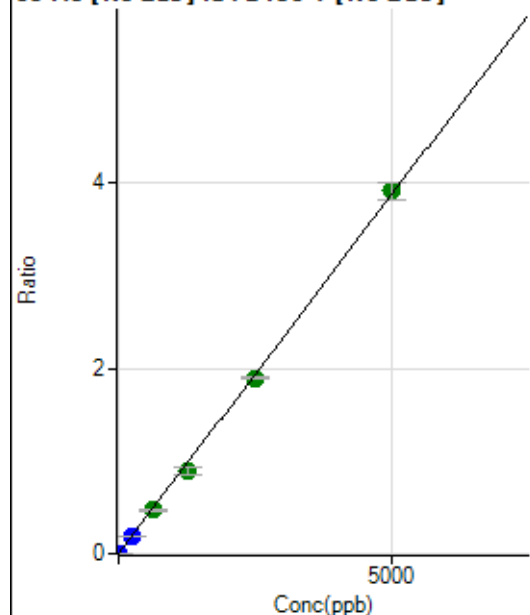
$$R = 0.9997$$

$$DL = 0.02737$$

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	36.11	0.0000	P	58.1
2	☐	0.500					
3	☐	5.000	4.944	20526.44	0.0038	P	1.3
4	☐	250.000	251.013	1042350.19	0.1944	P	0.9
5	☐	625.000	602.971	2525590.53	0.4671	A	0.8
6	☐	1250.000	1155.519	4973674.29	0.8951	A	9.9
7	☐	2500.000	2445.768	10021118.97	1.8946	A	0.5
8	☐	5000.000	5053.439	20731788.66	3.9146	A	4.6
9	☐			32201.05	0.0059	P	1.3

$$y = 7.7463\text{E-}004 * x + 6.6007\text{E-}006$$

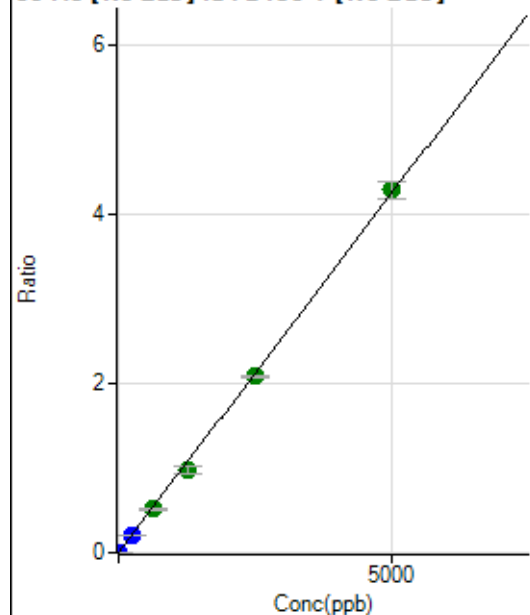
$$R = 0.9997$$

$$DL = 0.01486$$

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	88.89	0.0000	P	28.7
2	☐	0.500					
3	☐	5.000	4.940	22510.23	0.0042	P	0.7
4	☐	250.000	249.395	1134310.42	0.2116	P	0.2
5	☐	625.000	604.371	2772587.35	0.5128	A	0.9
6	☐	1250.000	1154.337	5442101.12	0.9794	A	9.8
7	☐	2500.000	2452.651	11006418.74	2.0808	A	0.6
8	☐	5000.000	5050.199	22689294.78	4.2846	A	4.9
9	☐			40174.01	0.0074	P	1.1

$$y = 8.4840\text{E-}004 * x + 1.6241\text{E-}005$$

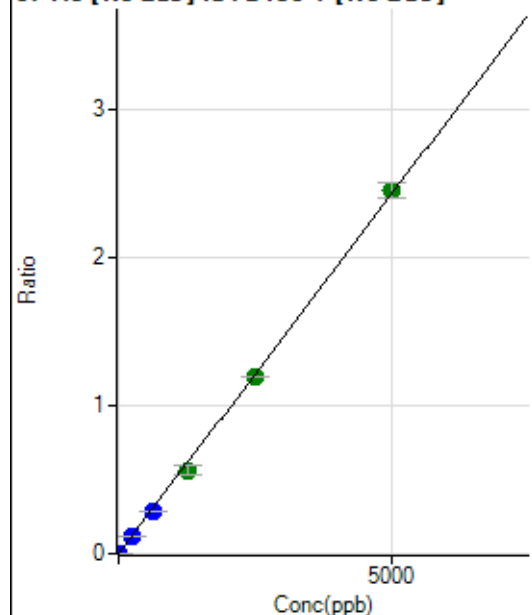
$$R = 0.9997$$

$$DL = 0.01646$$

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	12.5
2	☐	0.500					
3	☐	5.000	4.710	12278.01	0.0023	P	0.9
4	☐	250.000	249.895	650577.16	0.1214	P	0.1
5	☐	625.000	595.668	1564061.42	0.2893	P	1.8
6	☐	1250.000	1161.531	3133868.26	0.5641	A	10.1
7	☐	2500.000	2457.646	6312960.43	1.1935	A	0.5
8	☐	5000.000	5046.966	12981309.49	2.4510	A	4.4
9	☐			19616.95	0.0036	P	3.1

$$y = 4.8563E-004 * x + 7.1062E-006$$

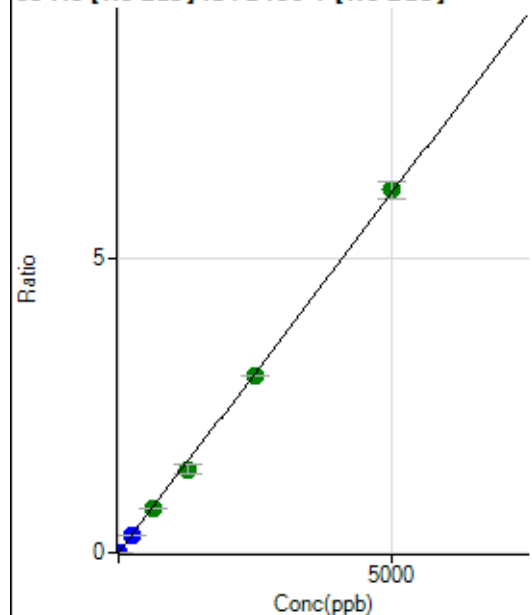
$$R = 0.9998$$

$$DL = 0.005495$$

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	72.23	0.0000	P	54.4
2	☐	0.500					
3	☐	5.000	5.008	32824.82	0.0061	P	1.7
4	☐	250.000	249.313	1633874.77	0.3048	P	0.7
5	☐	625.000	605.866	4004850.18	0.7407	A	1.2
6	☐	1250.000	1159.354	7874668.15	1.4173	A	10.0
7	☐	2500.000	2456.109	15881801.75	3.0026	A	0.2
8	☐	5000.000	5047.033	32677677.47	6.1700	A	4.5
9	☐			50401.11	0.0093	P	1.1

$$y = 0.0012 * x + 1.3189E-005$$

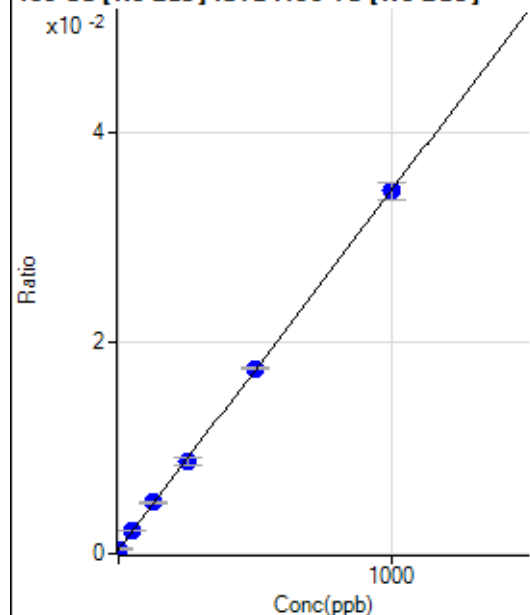
$$R = 0.9998$$

$$DL = 0.0176$$

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	2608.69	0.0004	P	12.5
2	☐	0.100					
3	☐	1.000	1.498	2850.41	0.0004	P	3.0
4	☐	50.000	54.771	14535.76	0.0023	P	1.3
5	☐	125.000	130.999	31547.11	0.0049	P	1.2
6	☐	250.000	245.374	59090.20	0.0088	P	7.4
7	☐	500.000	503.720	113574.03	0.0175	P	1.2
8	☐	1000.000	998.307	222594.93	0.0344	P	4.8
9	☐			2669.81	0.0004	P	5.1

$$y = 3.4041\text{E-}005 * x + 3.9790\text{E-}004$$

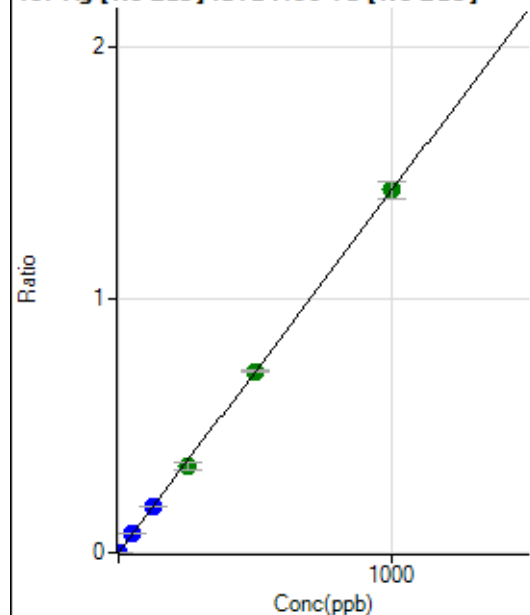
$$R = 1.0000$$

$$DL = 4.377$$

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	72.22	0.0000	P	29.1
2	☐	0.100					
3	☐	1.000	1.048	9586.94	0.0015	P	3.3
4	☐	50.000	53.008	487331.34	0.0759	P	0.3
5	☐	125.000	129.548	1203926.20	0.1854	P	0.6
6	☐	250.000	240.527	2321511.66	0.3441	A	9.1
7	☐	500.000	499.634	4627437.99	0.7149	A	0.9
8	☐	1000.000	1001.833	9279831.80	1.4334	A	4.9
9	☐			1647.39	0.0003	P	9.7

$$y = 0.0014 * x + 1.1017\text{E-}005$$

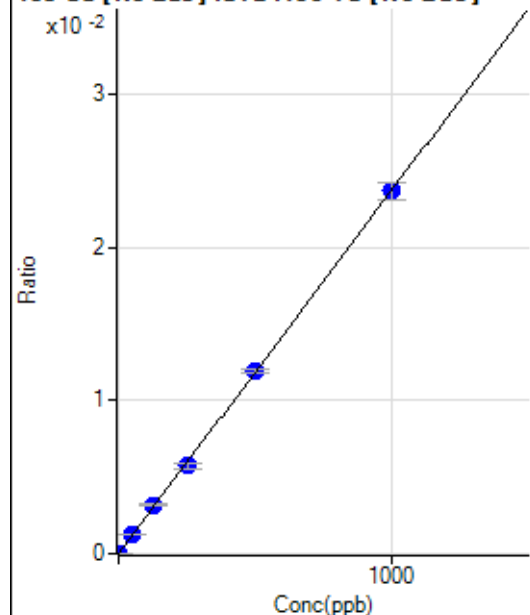
$$R = 0.9999$$

$$DL = 0.006718$$

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	0.00	0.0000	P	
2	☐	0.100					
3	☐	1.000	1.005	151.39	0.0000	P	3.0
4	☐	50.000	53.371	8131.66	0.0013	P	4.0
5	☐	125.000	134.139	20662.61	0.0032	P	2.1
6	☐	250.000	241.579	38675.13	0.0057	P	8.0
7	☐	500.000	503.191	77256.37	0.0119	P	1.6
8	☐	1000.000	999.199	153439.70	0.0237	P	4.8
9	☐			45.83	0.0000	P	17.8

$$y = 2.3718\text{E-}005 * x + 0.0000\text{E+}000$$

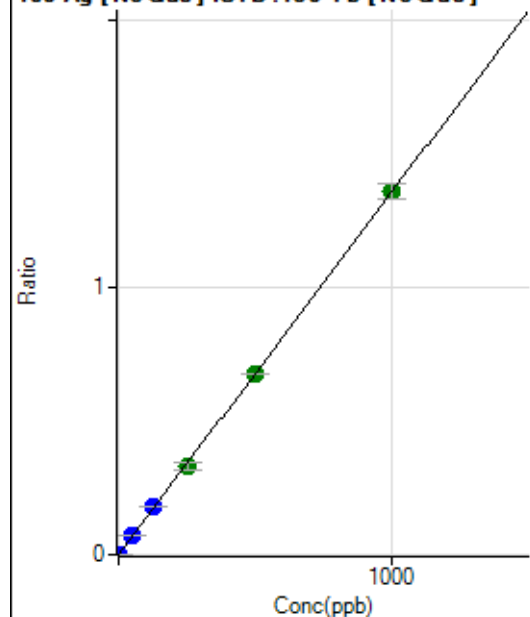
$$R = 0.9999$$

$$DL = 0$$

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	50.00	0.0000	P	16.6
2	☐	0.100					
3	☐	1.000	1.070	9267.28	0.0015	P	1.5
4	☐	50.000	54.399	474428.88	0.0738	P	0.4
5	☐	125.000	131.408	1158530.66	0.1784	P	0.6
6	☐	250.000	242.007	2216130.54	0.3285	A	8.9
7	☐	500.000	499.074	4385095.19	0.6774	A	0.9
8	☐	1000.000	1001.440	8801934.57	1.3593	A	4.2
9	☐			1400.13	0.0002	P	4.9

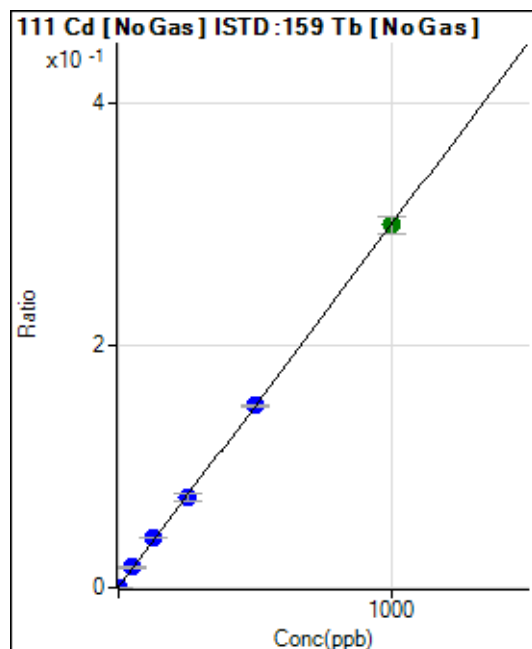
$$y = 0.0014 * x + 7.6264\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.0028$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1828.86	0.0003	P	12.6
2	☐	0.100					
3	☐	1.000	1.117	3895.05	0.0006	P	2.2
4	☐	50.000	54.911	107407.85	0.0167	P	1.1
5	☐	125.000	135.612	265497.49	0.0409	P	1.4
6	☐	250.000	247.403	501908.55	0.0743	P	7.8
7	☐	500.000	501.691	974092.45	0.1505	P	0.9
8	☐	1000.000	998.232	1936733.34	0.2991	A	4.7
9	☐			2250.69	0.0003	P	2.8

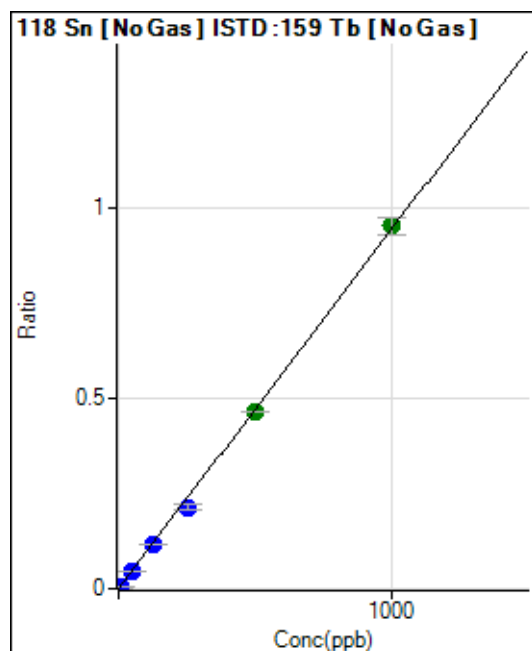
$$y = 2.9939\text{E-}004 * x + 2.7896\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.3513$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	461.14	0.0001	P	11.0
2	☐	0.500					
3	☐	5.000	4.860	29518.07	0.0046	P	1.5
4	☐	50.000	50.409	305520.99	0.0476	P	0.7
5	☐	125.000	123.902	758512.86	0.1168	P	0.7
6	☐	250.000	226.756	1442078.29	0.2137	P	8.3
7	☐	500.000	491.918	3000079.23	0.4635	A	0.8
8	☐	1000.000	1009.969	6159926.09	0.9515	A	4.8
9	☐			8922.64	0.0014	P	5.0

$$y = 9.4200\text{E-}004 * x + 7.0333\text{E-}005$$

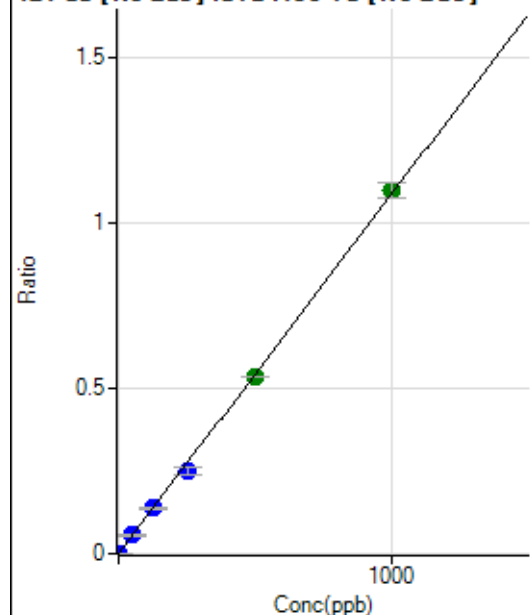
$$R = 0.9996$$

$$DL = 0.02466$$

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	27.78	0.0000	P	45.7
2	☐	0.200					
3	☐	2.000	1.998	13810.07	0.0022	P	3.6
4	☐	50.000	50.854	355055.39	0.0553	P	0.7
5	☐	125.000	126.037	889518.24	0.1370	P	1.6
6	☐	250.000	228.825	1678241.34	0.2487	P	8.2
7	☐	500.000	492.239	3462441.87	0.5349	A	0.8
8	☐	1000.000	1009.002	7099309.27	1.0964	A	4.4
9	☐			10470.99	0.0016	P	2.3

$$y = 0.0011 * x + 4.2358E-006$$

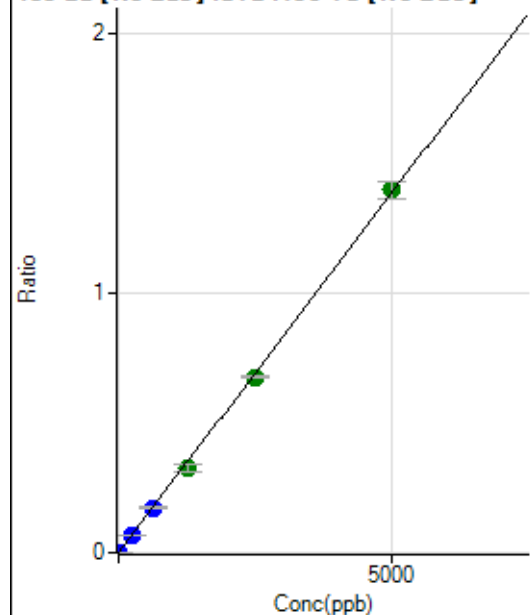
$$R = 0.9997$$

$$DL = 0.005347$$

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	11.11	0.0000	P	43.3
2	☐	1.000					
3	☐	10.000	9.866	17328.04	0.0027	P	0.8
4	☐	250.000	253.317	449899.59	0.0700	P	0.6
5	☐	625.000	624.614	1121411.90	0.1727	P	1.3
6	☐	1250.000	1168.859	2179743.48	0.3231	A	9.0
7	☐	2500.000	2446.229	4377310.73	0.6762	A	0.5
8	☐	5000.000	5047.053	9033404.63	1.3952	A	4.5
9	☐			2667.04	0.0004	P	7.4

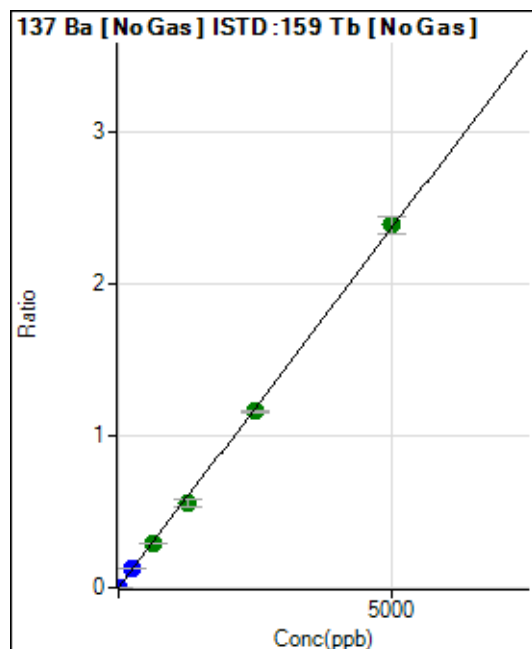
$$y = 2.7643E-004 * x + 1.6945E-006$$

$$R = 0.9998$$

$$DL = 0.00797$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	38.89	0.0000	P	24.7
2	☐	1.000					
3	☐	10.000	9.751	29276.11	0.0046	P	1.7
4	☐	250.000	255.791	776091.54	0.1208	P	0.7
5	☐	625.000	616.073	1889603.13	0.2909	A	1.0
6	☐	1250.000	1170.779	3729986.72	0.5529	A	8.9
7	☐	2500.000	2448.052	7483714.58	1.1561	A	0.4
8	☐	5000.000	5046.606	15429176.21	2.3832	A	4.8
9	☐			4912.20	0.0008	P	8.6

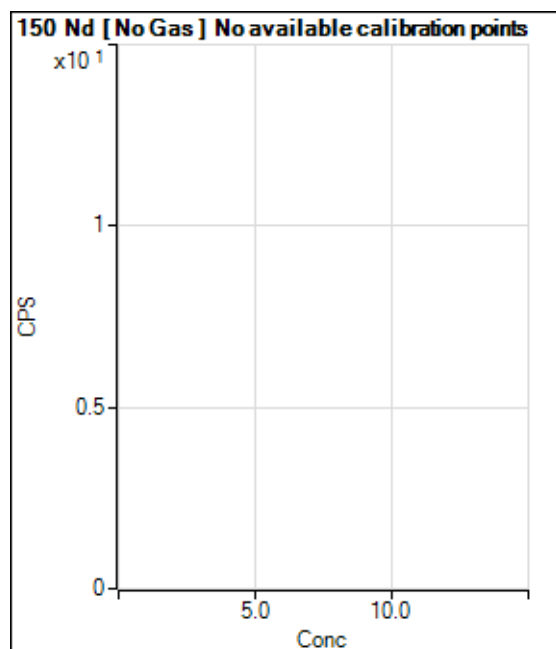
$$y = 4.7224\text{E-}004 * x + 5.9312\text{E-}006$$

$$R = 0.9998$$

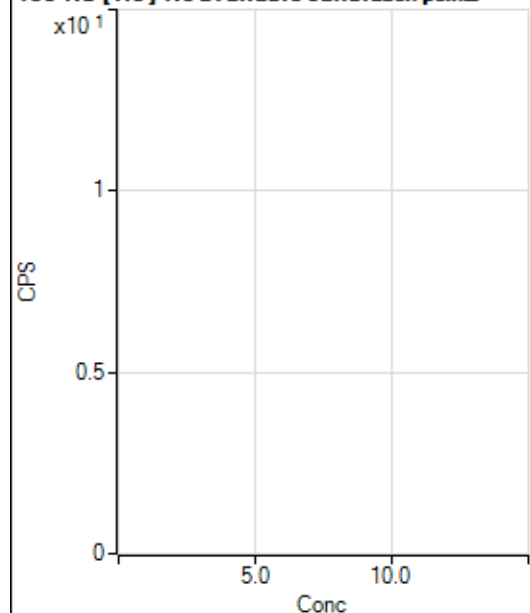
$$DL = 0.009324$$

Weight: <None>

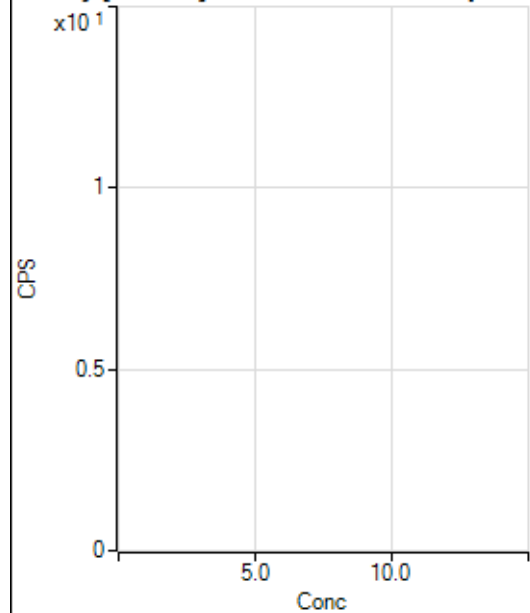
Min Conc: 0



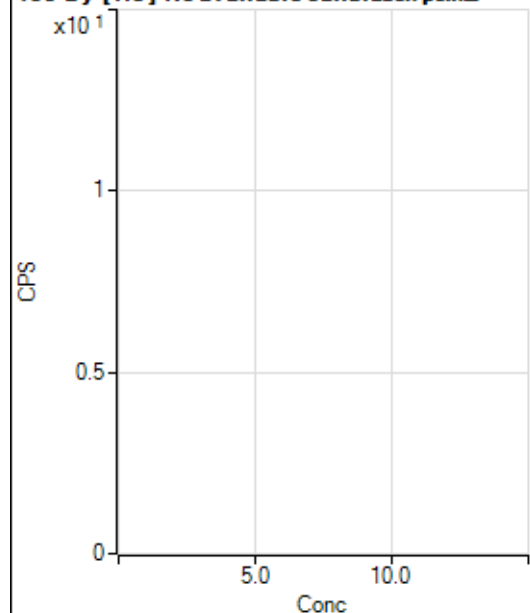
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			4.45		P	86.6
4	☐			35.56		P	10.8
5	☐			84.45		P	50.1
6	☐			144.45		P	14.8
7	☐			382.24		P	9.6
8	☐			702.26		P	6.0
9	☐			140.01		P	21.8

150 Nd [He] No available calibration points

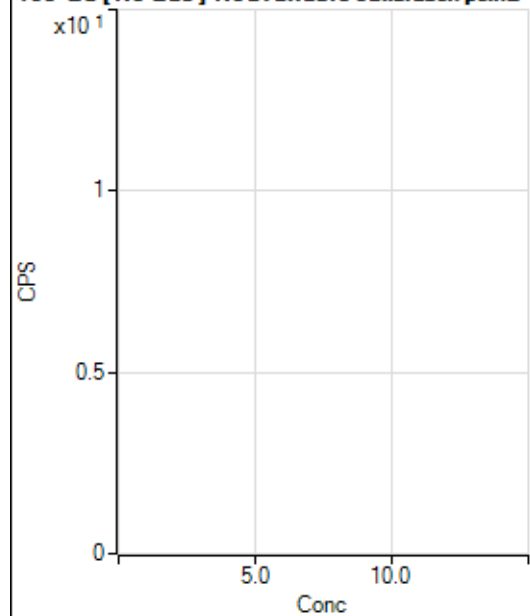
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			3.33		P	0.0
4	☐			5.56		P	91.6
5	☐			16.67		P	34.6
6	☐			10.00		P	57.8
7	☐			32.22		P	15.8
8	☐			62.22		P	15.5
9	☐			52.22		P	9.7

156 Dy [No Gas] No available calibration points

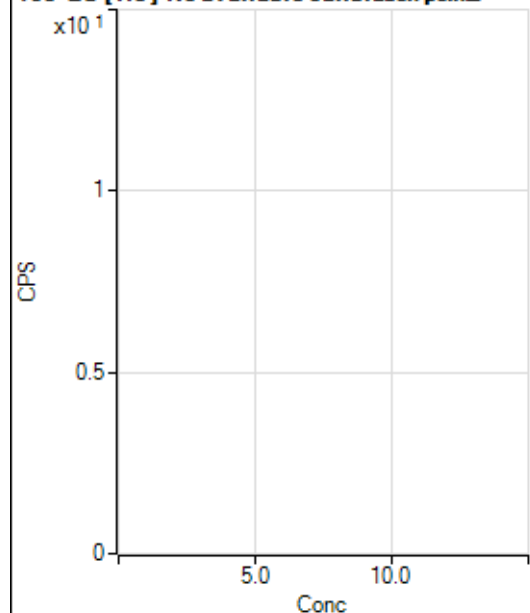
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	173.
2	☐						
3	☐			2.78		P	173.
4	☐			13.89		P	34.7
5	☐			25.00		P	0.0
6	☐			36.11		P	48.0
7	☐			72.22		P	46.6
8	☐			144.45		P	8.8
9	☐			102.78		P	56.9

156 Dy [He] No available calibration points

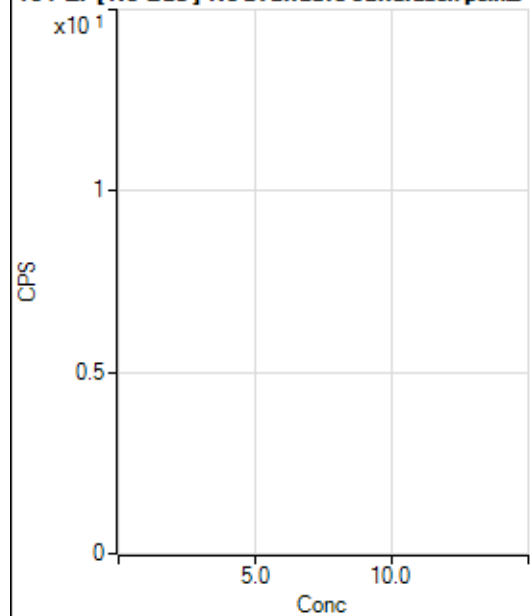
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			2.22		P	86.6
4	☐			1.11		P	173.
5	☐			16.67		P	40.0
6	☐			23.33		P	37.8
7	☐			64.44		P	23.3
8	☐			128.89		P	21.7
9	☐			36.67		P	27.3

160 Gd [No Gas] Noavailable calibration poin_

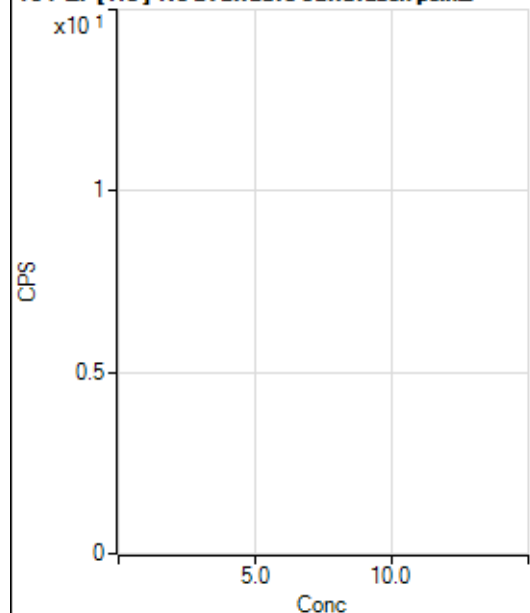
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			58.33		P	51.5
2	☐						
3	☐			19.44		P	65.5
4	☐			50.00		P	16.7
5	☐			66.67		P	66.1
6	☐			83.34		P	36.1
7	☐			86.11		P	31.1
8	☐			94.45		P	35.7
9	☐			136.12		P	12.7

160 Gd [He] No available calibration points

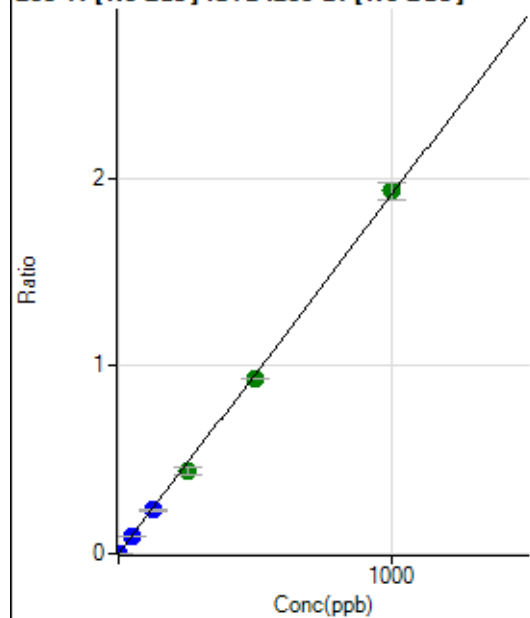
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			85.56		P	27.6
2	☐						
3	☐			107.78		P	23.2
4	☐			107.78		P	23.2
5	☐			115.56		P	13.6
6	☐			106.67		P	17.4
7	☐			118.89		P	28.8
8	☐			112.22		P	20.9
9	☐			126.67		P	23.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	120.
2	☐						
3	☐			30.56		P	83.3
4	☐			16.67		P	NaN
5	☐			27.78		P	45.8
6	☐			22.22		P	57.3
7	☐			22.22		P	21.6
8	☐			38.89		P	65.5
9	☐			58.34		P	57.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	17.3
2	☐						
3	☐			16.66		P	34.6
4	☐			6.66		P	86.6
5	☐			11.11		P	62.5
6	☐			12.22		P	15.7
7	☐			18.89		P	27.0
8	☐			17.78		P	43.3
9	☐			21.11		P	9.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	19.44	0.0000	P	66.0
2	☐	0.100					
3	☐	1.000	0.918	6829.84	0.0018	P	1.9
4	☐	50.000	48.495	359834.76	0.0927	P	0.9
5	☐	125.000	121.204	904517.24	0.2316	P	1.3
6	☐	250.000	229.893	1757699.84	0.4392	A	9.3
7	☐	500.000	489.416	3535927.69	0.9351	A	0.3
8	☐	1000.000	1010.868	7195115.79	1.9314	A	4.7
9	☐			2039.14	0.0006	P	1.3

$$y = 0.0019 * x + 4.8738E-006$$

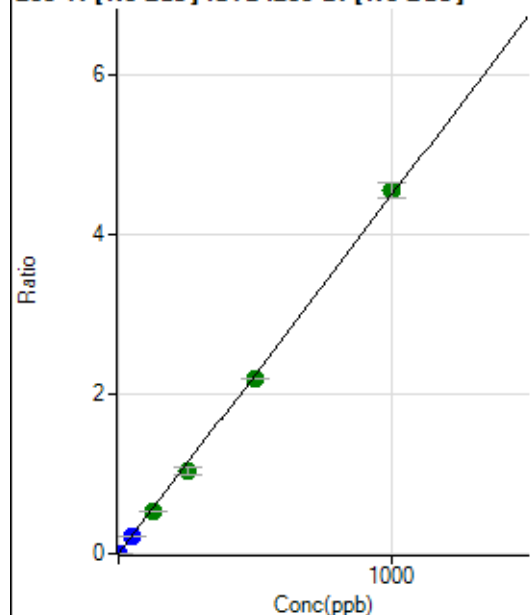
$$R = 0.9997$$

$$DL = 0.005052$$

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	47.23	0.0000	P	40.4
2	☐	0.100					
3	☐	1.000	0.950	16627.65	0.0043	P	1.7
4	☐	50.000	48.869	852367.52	0.2195	P	1.9
5	☐	125.000	118.868	2085371.57	0.5339	A	0.7
6	☐	250.000	229.521	4124376.52	1.0309	A	9.6
7	☐	500.000	487.767	8283832.91	2.1907	A	0.3
8	☐	1000.000	1012.059	16935034.75	4.5454	A	4.3
9	☐			4767.73	0.0014	P	2.0

$$y = 0.0045 * x + 1.1783E-005$$

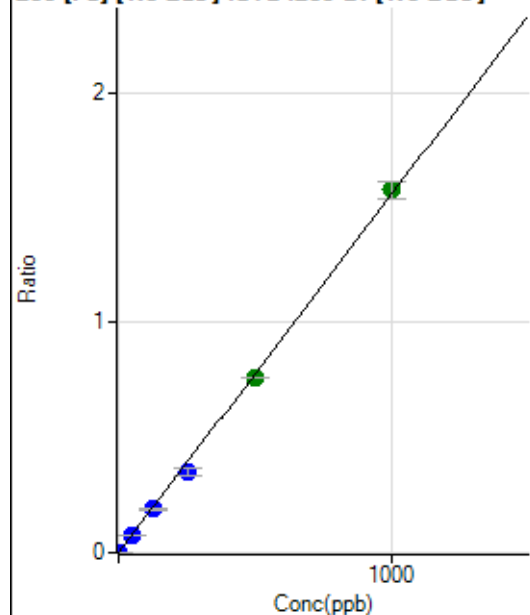
$$R = 0.9997$$

$$DL = 0.003179$$

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	118.52	0.0000	P	10.5
2	☐	0.100					
3	☐	1.000	0.943	5818.10	0.0015	P	2.2
4	☐	50.000	49.571	299803.41	0.0772	P	1.7
5	☐	125.000	121.263	737508.02	0.1888	P	0.9
6	☐	250.000	224.037	1396243.83	0.3488	P	8.8
7	☐	500.000	488.399	2875309.73	0.7604	A	0.2
8	☐	1000.000	1012.780	5874273.28	1.5768	A	4.6
9	☐			12734.15	0.0037	P	1.7

$$y = 0.0016 * x + 2.9633E-005$$

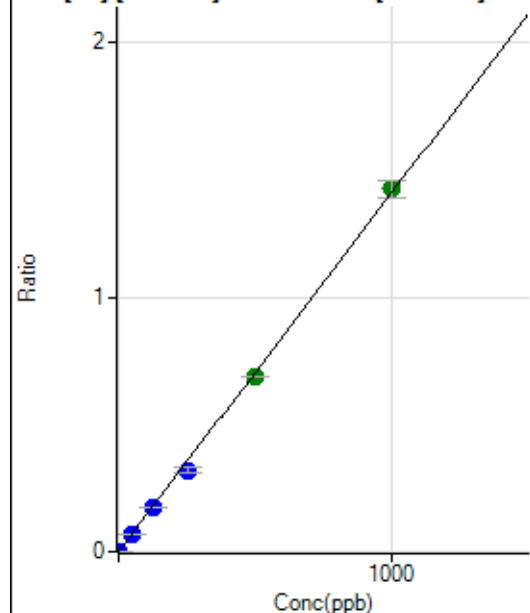
$$R = 0.9995$$

$$DL = 0.005995$$

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	79.63	0.0000	P	28.2
2	☐	0.100					
3	☐	1.000	0.959	5325.30	0.0014	P	3.3
4	☐	50.000	49.885	273007.43	0.0703	P	1.8
5	☐	125.000	122.949	676670.31	0.1732	P	1.2
6	☐	250.000	227.542	1283261.13	0.3206	P	8.9
7	☐	500.000	488.182	2600912.18	0.6878	A	0.3
8	☐	1000.000	1011.786	5310184.90	1.4255	A	5.0
9	☐			11275.42	0.0033	P	2.1

$$y = 0.0014 * x + 1.9869E-005$$

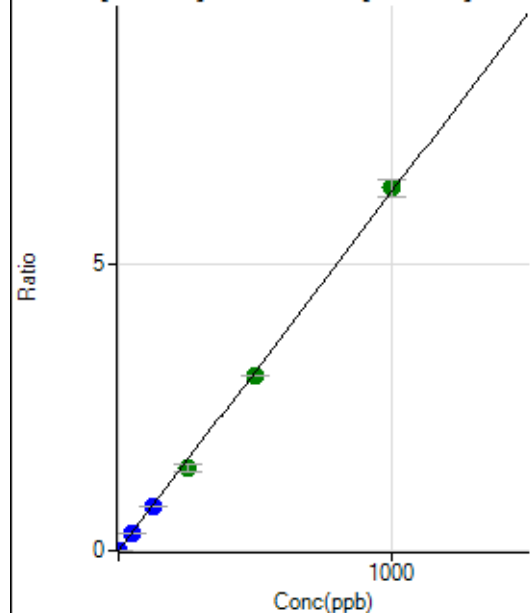
$$R = 0.9996$$

$$DL = 0.01194$$

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	388.90	0.0001	P	3.0
2	☐	0.100					
3	☐	1.000	0.970	23986.95	0.0062	P	0.4
4	☐	50.000	49.893	1214865.59	0.3128	P	1.3
5	☐	125.000	122.335	2995606.55	0.7669	P	0.9
6	☐	250.000	228.073	5721101.92	1.4297	A	9.3
7	☐	500.000	487.727	11560866.21	3.0573	A	0.3
8	☐	1000.000	1011.957	23629845.84	6.3433	A	4.9
9	☐			51104.28	0.0148	P	1.6

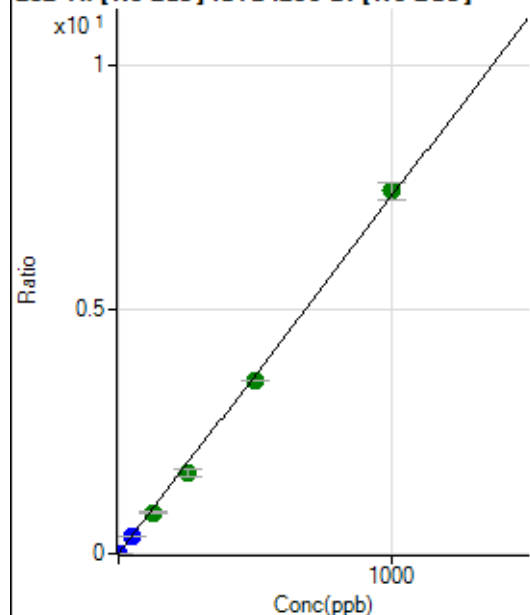
$$y = 0.0063 * x + 9.7165E-005$$

$$R = 0.9996$$

$$DL = 0.001392$$

Weight: <None>

Min Conc: 0

²³²Th [No Gas] ISTD :²⁰⁹Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	35.19	0.0000	P	33.5
2	☐	0.100					
3	☐	1.000	0.927	26425.37	0.0068	P	0.9
4	☐	50.000	46.995	1337166.71	0.3443	P	1.0
5	☐	125.000	115.499	3305495.47	0.8463	A	0.9
6	☐	250.000	226.446	6639363.63	1.6591	A	9.3
7	☐	500.000	483.643	13399708.75	3.5436	A	0.2
8	☐	1000.000	1015.405	27713775.16	7.4397	A	5.0
9	☐			7217.00	0.0021	P	6.3

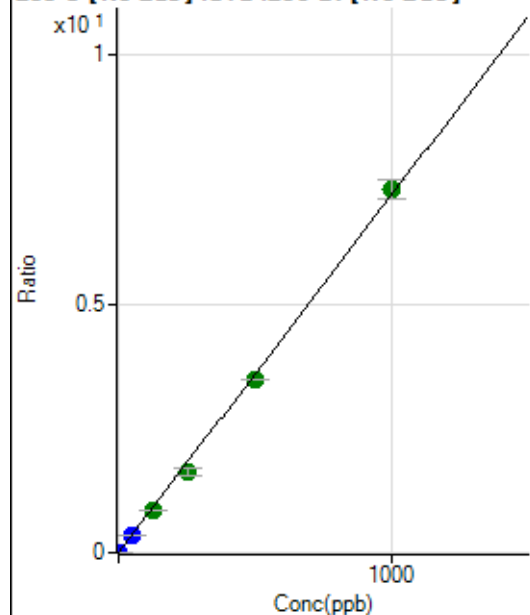
$$y = 0.0073 * x + 8.8079E-006$$

$$R = 0.9995$$

$$DL = 0.001208$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD :²⁰⁹Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	47.23	0.0000	P	71.8
2	☐	0.100					
3	☐	1.000	0.954	26697.62	0.0069	P	0.8
4	☐	50.000	47.532	1328090.95	0.3420	P	0.8
5	☐	125.000	116.263	3267436.40	0.8365	A	0.6
6	☐	250.000	226.054	6508236.78	1.6264	A	9.3
7	☐	500.000	485.689	13213920.61	3.4945	A	0.1
8	☐	1000.000	1014.357	27184297.83	7.2981	A	5.2
9	☐			5971.04	0.0017	P	0.7

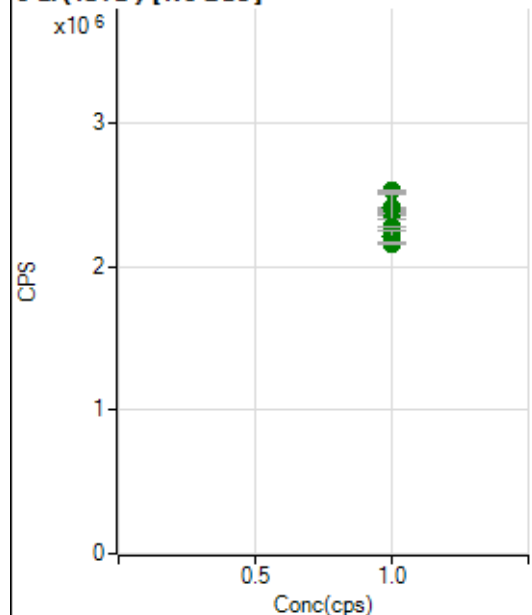
$$y = 0.0072 * x + 1.1842E-005$$

$$R = 0.9995$$

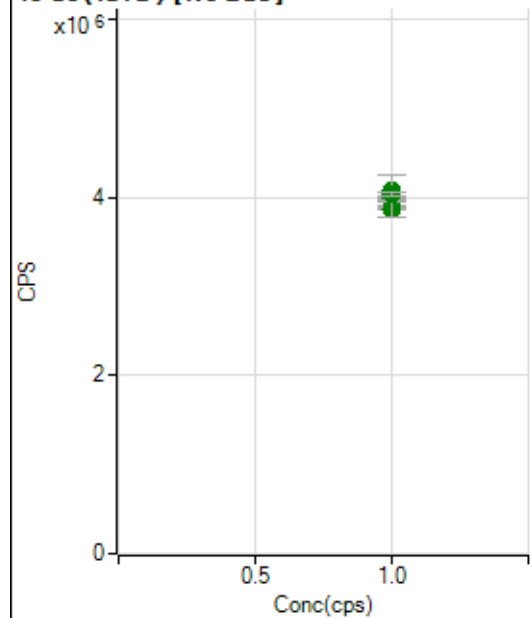
$$DL = 0.003546$$

Weight: <None>

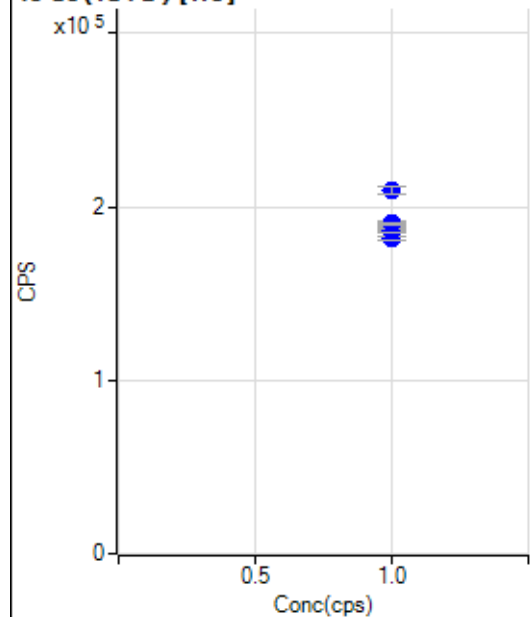
Min Conc: 0

6 Li (ISTD) [No Gas]

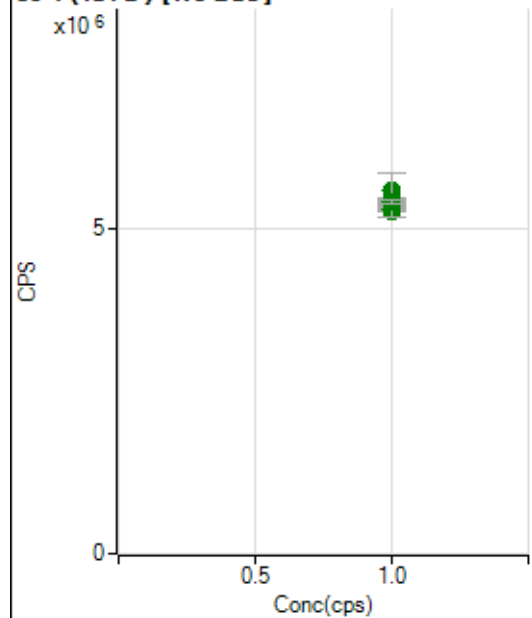
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2527060.03		A	0.5
2	☐	1.000					
3	☐	1.000		2371297.34		A	0.8
4	☐	1.000		2402464.34		A	0.8
5	☐	1.000		2382165.81		A	0.7
6	☐	1.000		2415543.73		A	7.5
7	☐	1.000		2274593.61		A	0.4
8	☐	1.000		2212027.71		A	3.3
9	☐	1.000		2161674.52		A	0.6

45 Sc (ISTD) [No Gas]

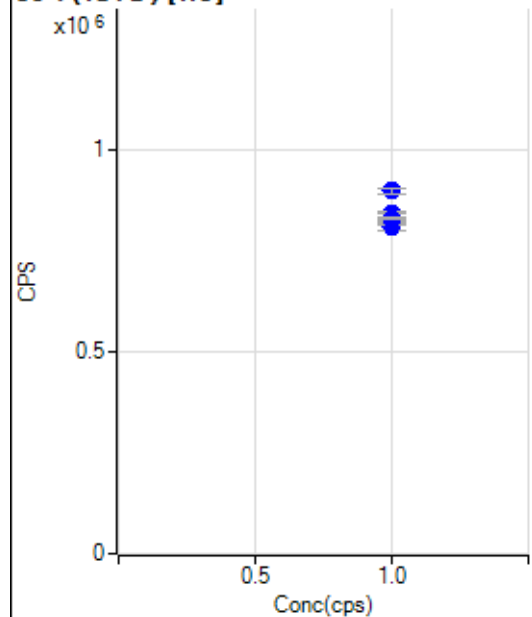
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4000466.89		A	0.2
2	☐	1.000					
3	☐	1.000		3967524.52		A	0.7
4	☐	1.000		3971892.84		A	0.8
5	☐	1.000		3981975.35		A	1.1
6	☐	1.000		4070038.76		A	8.5
7	☐	1.000		3881850.00		A	0.5
8	☐	1.000		3856253.38		A	4.2
9	☐	1.000		4034533.34		A	1.2

45 Sc (ISTD) [He]

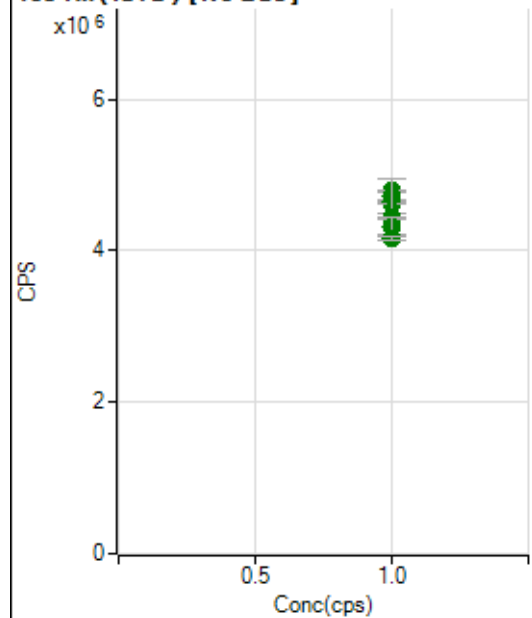
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		183319.24		P	2.6
2	☐	1.000					
3	☐	1.000		186963.19		P	0.2
4	☐	1.000		188458.87		P	0.6
5	☐	1.000		190112.56		P	1.5
6	☐	1.000		182120.00		P	1.5
7	☐	1.000		186444.42		P	1.2
8	☐	1.000		190269.41		P	0.4
9	☐	1.000		209226.19		P	2.0

89 Y (ISTD) [No Gas]

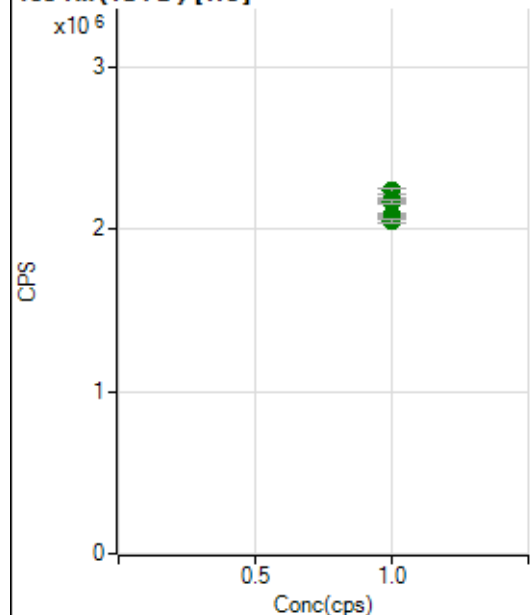
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5473351.93		A	0.1
2	☐	1.000					
3	☐	1.000		5350669.65		A	0.3
4	☐	1.000		5360553.32		A	0.5
5	☐	1.000		5407486.31		A	1.3
6	☐	1.000		5592797.69		A	9.8
7	☐	1.000		5289338.95		A	0.3
8	☐	1.000		5303201.45		A	4.4
9	☐	1.000		5423832.63		A	1.1

89 Y(ISTD) [He]

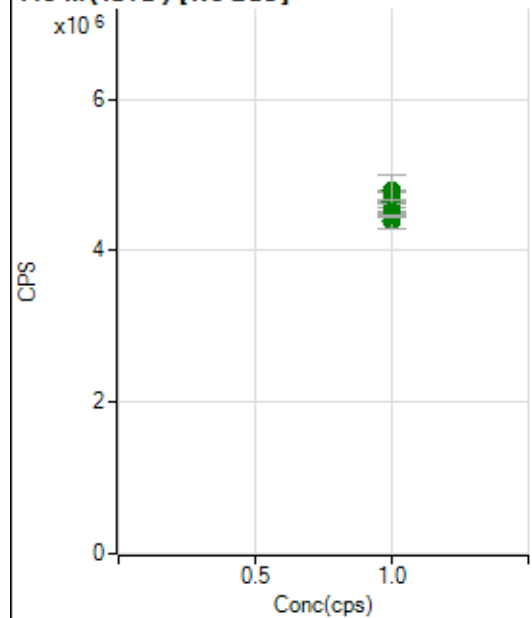
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		811208.27		P	2.0
2	☐	1.000					
3	☐	1.000		825679.36		P	0.1
4	☐	1.000		844826.56		P	0.4
5	☐	1.000		845402.69		P	0.8
6	☐	1.000		817148.54		P	0.1
7	☐	1.000		830375.49		P	1.1
8	☐	1.000		831836.50		P	0.3
9	☐	1.000		900036.97		P	1.8

103 Rh(ISTD) [No Gas]

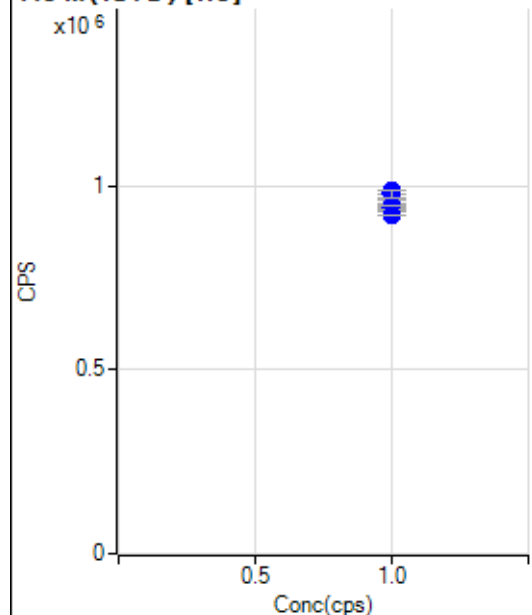
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4787303.02		A	0.3
2	☐	1.000					
3	☐	1.000		4665225.32		A	0.5
4	☐	1.000		4628865.25		A	0.8
5	☐	1.000		4637614.30		A	0.9
6	☐	1.000		4726377.54		A	9.5
7	☐	1.000		4430432.26		A	0.5
8	☐	1.000		4322017.28		A	4.9
9	☐	1.000		4171095.10		A	1.1

103 Rh (ISTD) [He]

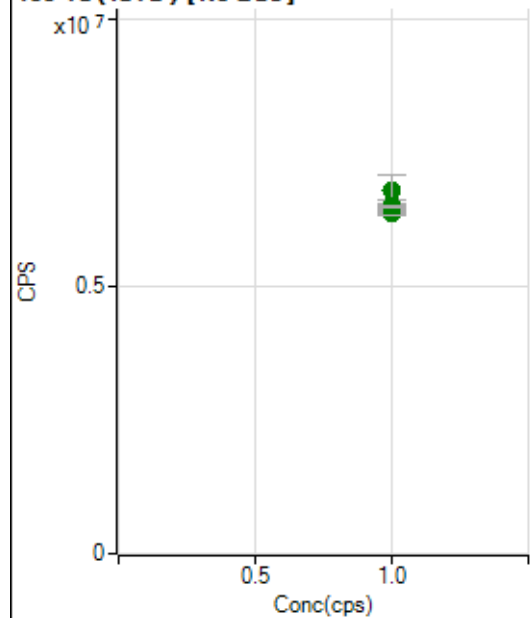
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2234407.57		A	1.6
2	☐	1.000					
3	☐	1.000		2184364.93		A	0.4
4	☐	1.000		2177617.36		A	0.6
5	☐	1.000		2170264.24		A	0.9
6	☐	1.000		2087970.46		A	0.2
7	☐	1.000		2084164.76		A	0.5
8	☐	1.000		2075792.71		A	0.2
9	☐	1.000		2046750.54		A	1.5

115 In (ISTD) [No Gas]

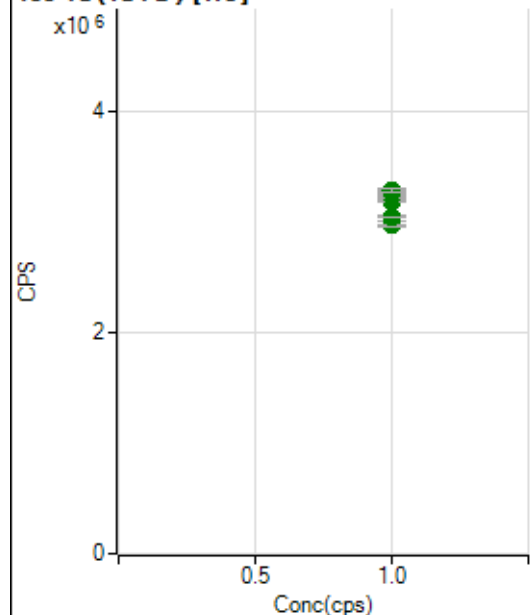
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4786439.87		A	0.2
2	☐	1.000					
3	☐	1.000		4642694.72		A	0.2
4	☐	1.000		4643100.66		A	0.4
5	☐	1.000		4655456.29		A	1.0
6	☐	1.000		4790770.10		A	9.3
7	☐	1.000		4509263.87		A	0.7
8	☐	1.000		4397456.16		A	4.6
9	☐	1.000		4466972.47		A	0.7

115 In (ISTD) [He]

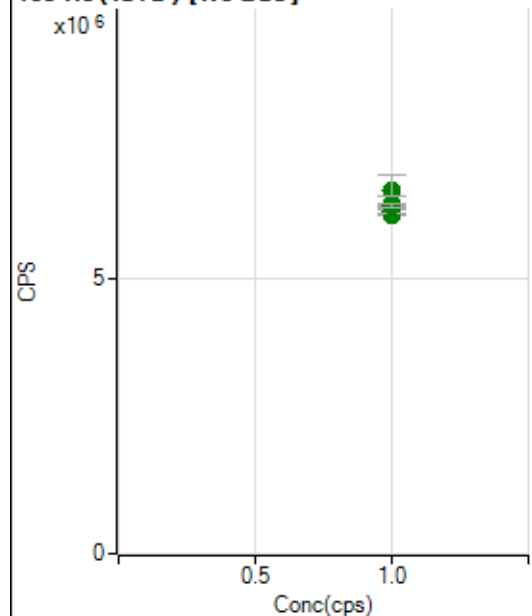
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		941954.13		P	2.3
2	☐	1.000					
3	☐	1.000		962980.34		P	0.2
4	☐	1.000		985936.73		P	0.2
5	☐	1.000		982660.75		P	1.1
6	☐	1.000		946331.40		P	0.7
7	☐	1.000		941298.39		P	1.3
8	☐	1.000		920388.73		P	0.4
9	☐	1.000		976146.62		P	2.2

159 Tb (ISTD) [No Gas]

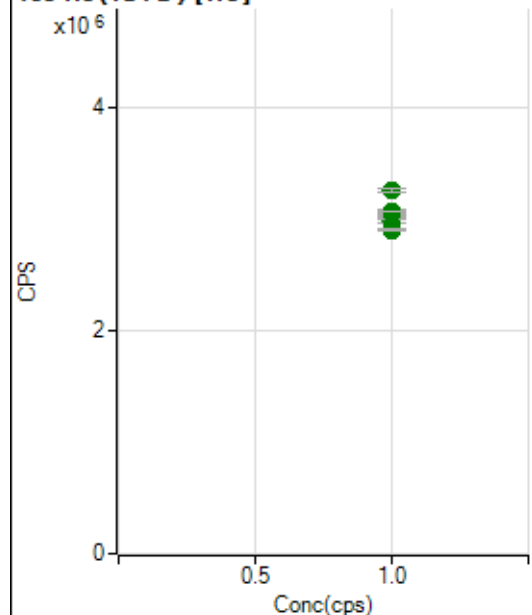
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6556277.27		A	0.1
2	☐	1.000					
3	☐	1.000		6349841.22		A	0.5
4	☐	1.000		6424749.14		A	0.7
5	☐	1.000		6495121.36		A	0.7
6	☐	1.000		6781664.41		A	8.8
7	☐	1.000		6473408.38		A	0.8
8	☐	1.000		6483315.53		A	4.4
9	☐	1.000		6490451.02		A	0.6

159 Tb (ISTD) [He]

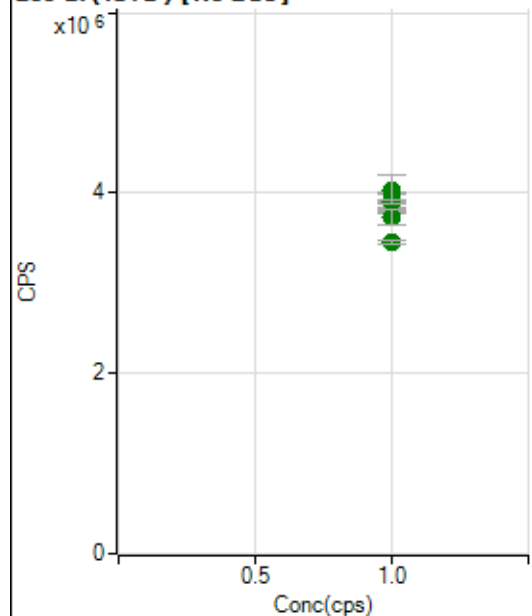
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3036486.66		A	1.4
2	☐	1.000					
3	☐	1.000		2967322.91		A	0.4
4	☐	1.000		3047507.73		A	0.4
5	☐	1.000		3270527.97		A	0.8
6	☐	1.000		3189197.35		A	0.2
7	☐	1.000		3227892.70		A	0.1
8	☐	1.000		3275069.12		A	0.3
9	☐	1.000		3282722.76		A	1.1

165 Ho (ISTD) [No Gas]

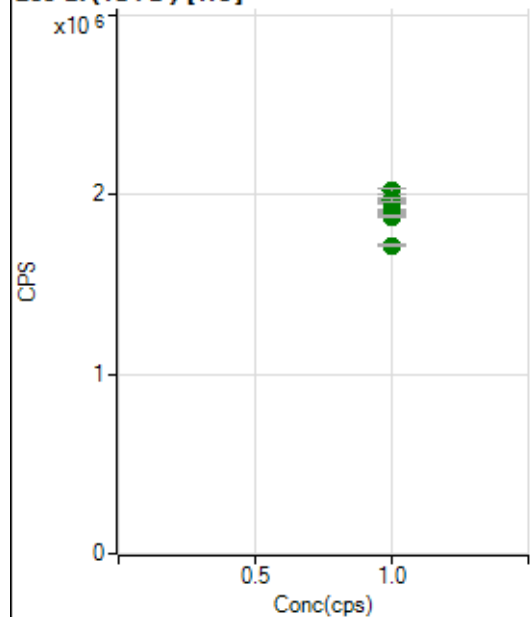
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6328453.66		A	0.3
2	☐	1.000					
3	☐	1.000		6160777.83		A	0.3
4	☐	1.000		6224037.90		A	1.1
5	☐	1.000		6346078.66		A	0.6
6	☐	1.000		6586360.52		A	8.8
7	☐	1.000		6294521.15		A	0.6
8	☐	1.000		6336718.15		A	4.9
9	☐	1.000		6309937.99		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2991119.61		A	1.6
2	☐	1.000					
3	☐	1.000		2908371.59		A	0.2
4	☐	1.000		3012096.48		A	0.6
5	☐	1.000		3081746.83		A	1.0
6	☐	1.000		3014802.63		A	0.5
7	☐	1.000		3053898.32		A	0.6
8	☐	1.000		3078672.87		A	0.2
9	☐	1.000		3257600.79		A	1.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4001889.21		A	0.8
2	☐	1.000					
3	☐	1.000		3884820.22		A	0.2
4	☐	1.000		3883471.19		A	0.5
5	☐	1.000		3906216.16		A	0.9
6	☐	1.000		4023973.24		A	8.9
7	☐	1.000		3781377.58		A	0.5
8	☐	1.000		3730481.16		A	4.5
9	☐	1.000		3458638.21		A	1.1

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2020419.61		A	1.8
2	☐	1.000					
3	☐	1.000		1952945.34		A	0.6
4	☐	1.000		1959461.55		A	0.6
5	☐	1.000		1967697.31		A	1.2
6	☐	1.000		1908278.58		A	0.4
7	☐	1.000		1890580.23		A	0.3
8	☐	1.000		1875068.48		A	0.5
9	☐	1.000		1718128.15		A	0.2

US EPA Tune Check Sample Report

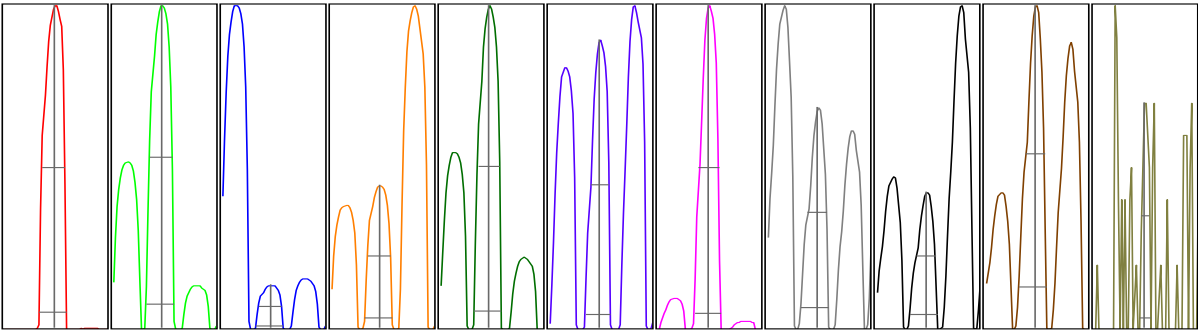
Batch Folder D:\ICP-MS Data\P7101818 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	16399	0.35	5.00	
24	104223	0.28	5.00	
25	14303	0.91	5.00	
26	16492	0.27	5.00	
59	80239	0.28	5.00	
113	9101	0.58	5.00	
115	104951	1.22	5.00	
206	26274	0.48	5.00	
207	24488	0.46	5.00	
208	55618	0.47	5.00	
220	0	42.13		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16461	16404	16326	16444	16358
24	104052	103869	104386	104626	104184
25	14127	14239	14313	14363	14474
26	16488	16417	16522	16500	16532
59	80322	80212	80374	79864	80421
113	9147	9153	9111	9057	9037
115	106873	105376	104307	103451	104748
206	26292	26160	26237	26200	26483
207	24318	24569	24466	24475	24612
208	55365	55711	55396	55616	56001
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	25945	9.00	8.9 - 9.1		0.789	0.900	
24	164590	23.95	23.9 - 24.1		0.815	0.900	
25	22380	24.95	24.9 - 25.1		0.790	0.900	
26	25856	25.95	25.9 - 26.1		0.792	0.900	
59	131742	58.95	58.9 - 59.1		0.786	0.900	
113	16855	113.00	112.9 - 113.1		0.734	0.900	
115	194075	115.00	114.9 - 115.1		0.776	0.900	
206	47453	206.00	205.9 - 206.1		0.801	0.900	
207	42632	207.00	206.9 - 207.1		0.799	0.900	
208	100866	208.00	207.9 - 208.1		0.796	0.900	
220	0	220.00	-		0.341		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.1	V	Deflect	15.0	V
Extract 2	-150.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-80	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	20860	0.55	
89	11524	0.84	
205	21358	0.46	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	20895	20972	20734	20954	20743
89	11645	11584	11474	11523	11396
205	21473	21405	21384	21310	21215

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.6	V	Deflect	2.6	V
Extract 2	-120.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			