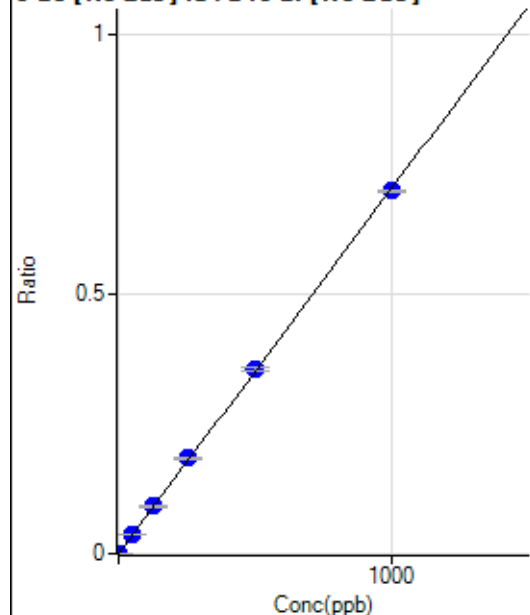


Calibration for 006CAL.S.d

Batch Folder: D:\ICP-MS Data\1\DATA\P7030620-MS.b\
 Analysis File: P7030620-MS.batch.bin
 DA Date-Time: 2020-03-06 19:56:43
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-03-06 12:54:32
2	004CAL.S.d	S02	2020-03-06 12:58:04
3	005CAL.S.d	S03	2020-03-06 13:02:44
4	007CAL.S.d	S04	2020-03-06 13:11:17
5	008CAL.S.d	S05	2020-03-06 13:14:58
6	009CAL.S.d	S06	2020-03-06 13:18:31
7	010CAL.S.d	S07	2020-03-06 13:22:00
8	011CAL.S.d	S08	2020-03-06 13:25:29

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	57.41	0.0000	P	30.7
2	☐	1.000	1.080	3707.96	0.0008	P	2.9
3	☐	50.000	53.639	174876.06	0.0377	P	1.4
4	☐	125.000	129.478	401837.10	0.0910	P	1.1
5	☐	250.000	260.980	757854.34	0.1834	P	0.9
6	☐	500.000	505.532	1463546.03	0.3553	P	1.7
7	☐	1000.000	993.747	2794194.53	0.6984	P	0.4
8	☐			453.73	0.0001	P	12.5

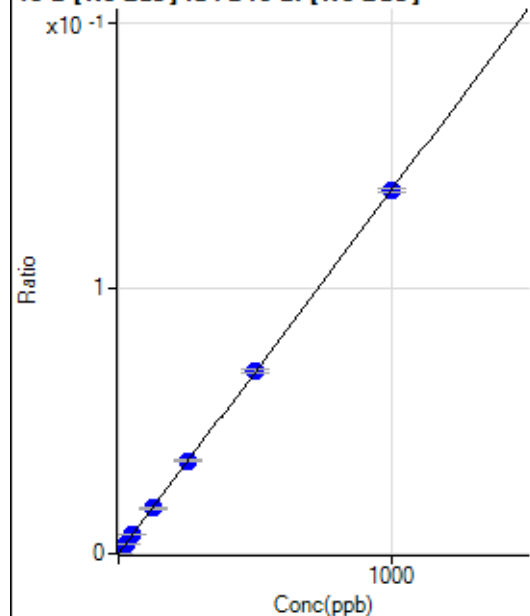
$$y = 7.0274E-004 * x + 1.2024E-005$$

$$R = 0.9999$$

$$DL = 0.01577$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	288.91	0.0001	P	9.0
2	☐	25.000	25.183	16904.59	0.0035	P	0.7
3	☐	50.000	52.463	33652.26	0.0073	P	3.0
4	☐	125.000	124.883	75894.04	0.0172	P	1.8
5	☐	250.000	254.711	144584.64	0.0350	P	2.0
6	☐	500.000	501.263	283455.72	0.0688	P	2.0
7	☐	1000.000	998.077	547952.63	0.1369	P	1.2
8	☐			12480.64	0.0033	P	6.5

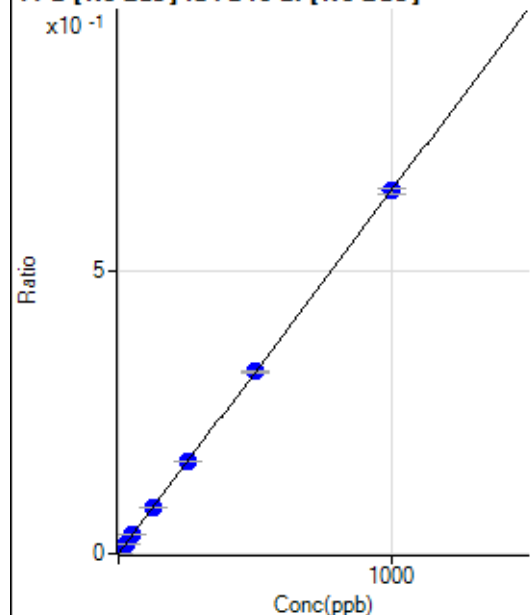
$$y = 1.3715E-004 * x + 6.0539E-005$$

$$R = 1.0000$$

$$DL = 0.1188$$

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	1452.91	0.0003	P	10.4
2	☐	25.000	25.589	80266.83	0.0167	P	2.7
3	☐	50.000	52.249	156642.39	0.0338	P	0.9
4	☐	125.000	124.508	353529.91	0.0801	P	0.4
5	☐	250.000	252.873	670562.51	0.1623	P	1.3
6	☐	500.000	500.368	1321810.10	0.3208	P	1.1
7	☐	1000.000	999.032	2561711.25	0.6403	P	1.5
8	☐			58818.77	0.0155	P	9.0

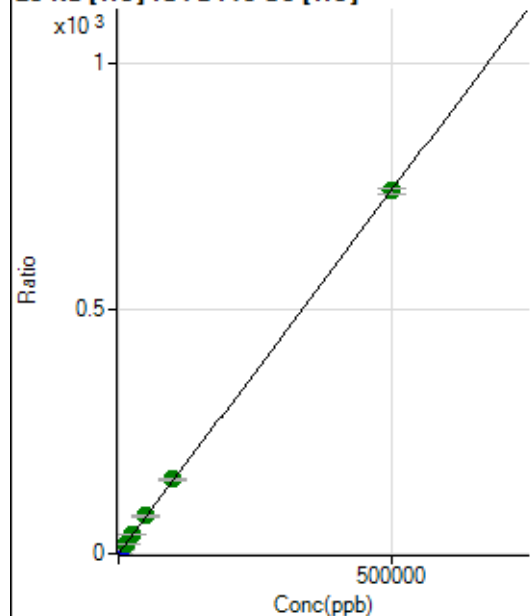
$$y = 6.4058E-004 * x + 3.0453E-004$$

$$R = 1.0000$$

$$DL = 0.1476$$

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	11752.28	0.0278	P	2.3
2	☐	500.000	534.532	345100.38	0.8202	P	1.1
3	☐	5000.000	5292.731	3104786.25	7.8733	P	0.1
4	☐	12500.000	13136.285	6987908.06	19.4997	A	1.3
5	☐	25000.000	25899.116	13486029.12	38.4181	A	1.0
6	☐	50000.000	52248.760	27265507.21	77.4761	A	4.3
7	☐	100000.00	101996.91	54491428.30	151.2178	A	0.7
8	☐	500000.00	499311.91	272665003.3	740.1574	A	1.7

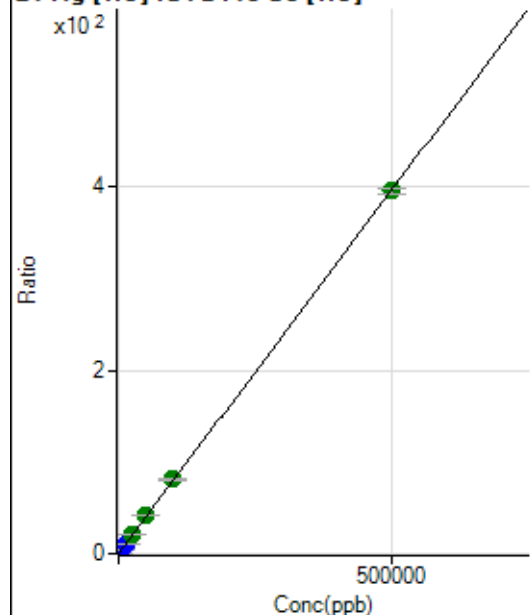
$$y = 0.0015 * x + 0.0278$$

$$R = 1.0000$$

$$DL = 1.28$$

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	105.56	0.0002	P	36.9
2	☐	500.000	544.444	181642.82	0.4317	P	1.2
3	☐	5000.000	5401.917	1688172.95	4.2810	P	0.4
4	☐	12500.000	13385.877	3801421.66	10.6078	P	1.1
5	☐	25000.000	26450.164	7357967.35	20.9605	A	0.4
6	☐	50000.000	52489.194	14641635.05	41.5949	A	3.2
7	☐	100000.00	101906.63	29099893.36	80.7554	A	0.6
8	☐	500000.00	499271.03	145749164.3	395.6439	A	1.8

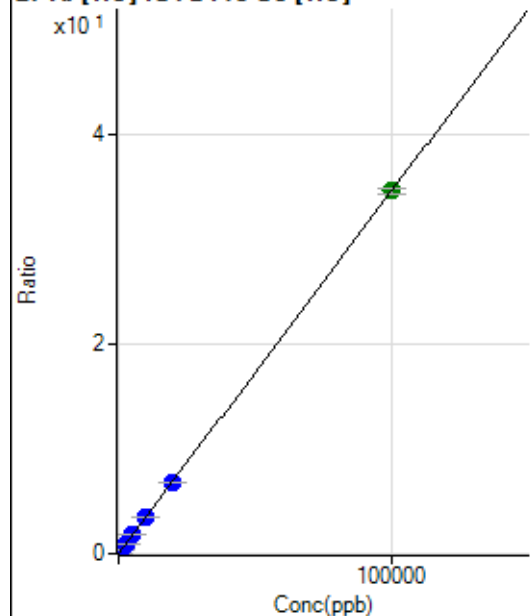
$$y = 7.9244\text{E-}004 * x + 2.4989\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.3492$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.01	0.0001	P	88.5
2	☐	20.000	22.279	3292.19	0.0078	P	1.2
3	☐	1000.000	1034.272	141121.36	0.3579	P	0.4
4	☐	2500.000	2592.739	321414.53	0.8969	P	1.1
5	☐	5000.000	5064.318	614939.57	1.7518	P	0.1
6	☐	10000.000	10120.770	1232102.63	3.5007	P	3.8
7	☐	20000.000	19649.612	2449102.66	6.7966	P	0.3
8	☐	100000.00	100052.12	12749157.84	34.6065	A	1.4

$$y = 3.4588\text{E-}004 * x + 1.1869\text{E-}004$$

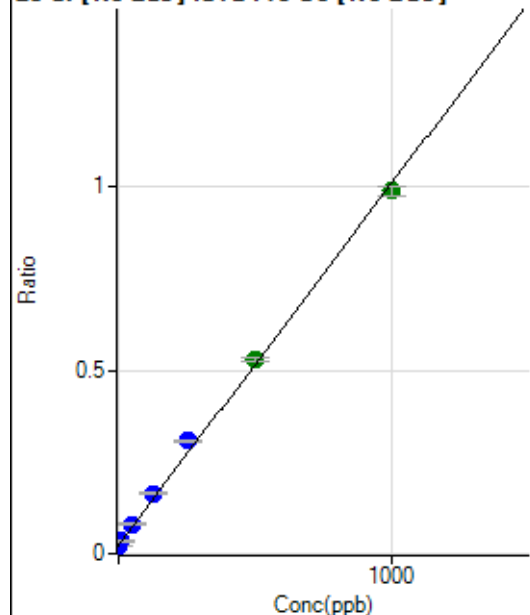
$$R = 1.0000$$

$$DL = 0.9112$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	265967.14	0.0233	P	0.2
2	☐	10.000	11.671	393066.07	0.0348	P	4.3
3	☐	50.000	58.821	878202.46	0.0812	P	1.5
4	☐	125.000	143.357	1679330.09	0.1645	P	1.8
5	☐	250.000	287.727	2966178.17	0.3067	P	0.4
6	☐	500.000	515.838	5350775.12	0.5314	A	2.0
7	☐	1000.000	979.897	9928699.62	0.9886	A	2.4
8	☐			637282.77	0.0660	P	0.5

$$y = 9.8516\text{E-}004 * x + 0.0233$$

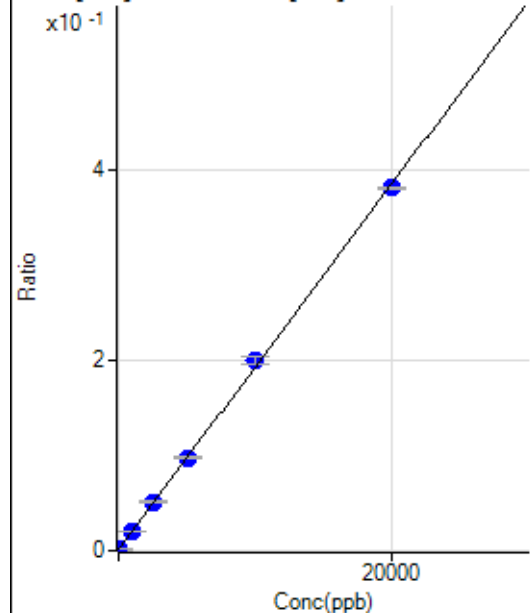
$$R = 0.9990$$

$$DL = 0.1431$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-31.623	219.45	0.0005	P	29.3
2	☐	0.000	31.623	727.83	0.0017	P	13.3
3	☐	1000.000	1019.055	8138.66	0.0206	P	2.7
4	☐	2500.000	2598.783	18236.81	0.0509	P	4.8
5	☐	5000.000	5036.406	34251.28	0.0976	P	0.9
6	☐	10000.000	10350.788	70165.51	0.1993	P	3.4
7	☐	20000.000	19802.204	137050.71	0.3803	P	0.3
8	☐			294.46	0.0008	P	15.3

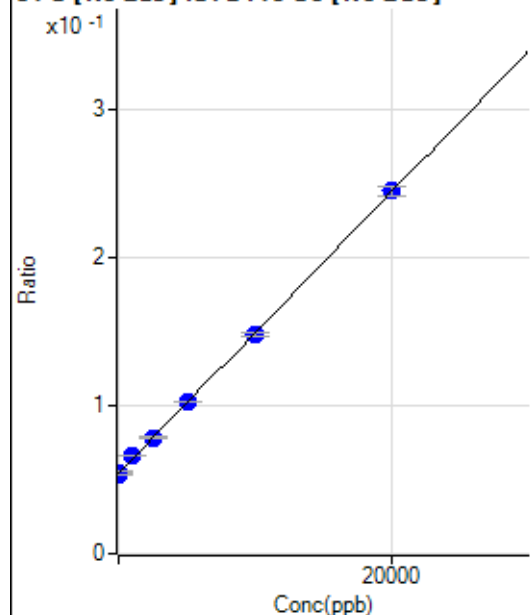
$$y = 1.9150\text{E-}005 * x + 0.0011$$

$$R = 0.9998$$

$$DL = 30.04$$

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	-70.211	613924.81	0.0537	P	1.3
2	☐	0.000	70.211	622383.89	0.0550	P	4.0
3	☐	1000.000	1234.007	715065.71	0.0661	P	0.9
4	☐	2500.000	2527.361	800826.34	0.0784	P	1.4
5	☐	5000.000	5084.996	994151.37	0.1028	P	0.8
6	☐	10000.000	9819.376	1489044.37	0.1479	P	2.0
7	☐	20000.000	20053.943	2464329.35	0.2454	P	2.5
8	☐			466500.49	0.0483	P	0.7

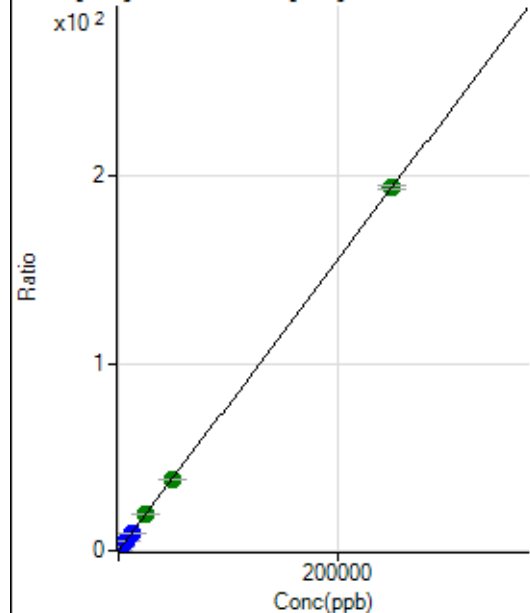
$$y = 9.5250\text{E-}006 * x + 0.0544$$

R = 0.9998

DL = 453.5

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	24437.64	0.0579	P	0.5
2	☐	500.000	526.184	195758.28	0.4652	P	0.0
3	☐	2500.000	2542.603	798967.97	2.0261	P	0.4
4	☐	6250.000	6278.250	1762379.01	4.9178	P	0.8
5	☐	12500.000	12444.716	3401890.35	9.6911	P	0.4
6	☐	25000.000	25147.367	6872807.53	19.5240	A	3.0
7	☐	50000.000	48994.177	13686867.84	37.9833	A	0.7
8	☐	250000.00	250188.00	71369301.60	193.7235	A	1.2

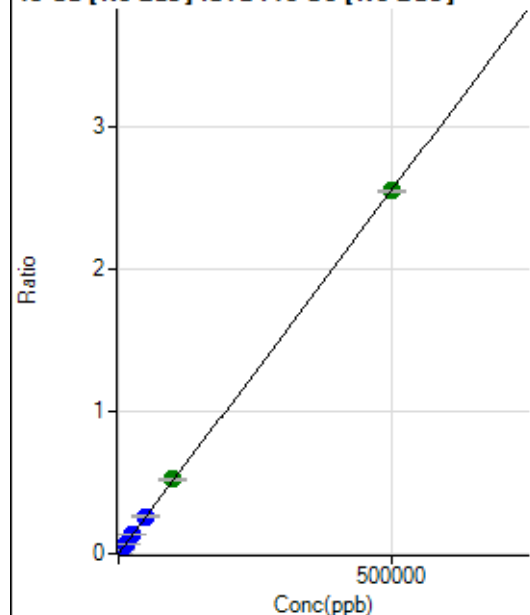
$$y = 7.7408\text{E-}004 * x + 0.0579$$

R = 1.0000

DL = 1.071

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	522.25	0.0000	P	14.1
2	☐	500.000	521.267	30615.95	0.0027	P	4.8
3	☐	5000.000	5276.916	291949.84	0.0270	P	1.4
4	☐	12500.000	13064.569	681679.29	0.0668	P	1.6
5	☐	25000.000	26480.956	1308355.70	0.1353	P	0.4
6	☐	50000.000	51227.992	2634846.61	0.2617	P	1.5
7	☐	100000.00	102116.68	5238105.63	0.5216	A	2.7
8	☐	500000.00	499362.91	24620231.28	2.5504	A	0.9

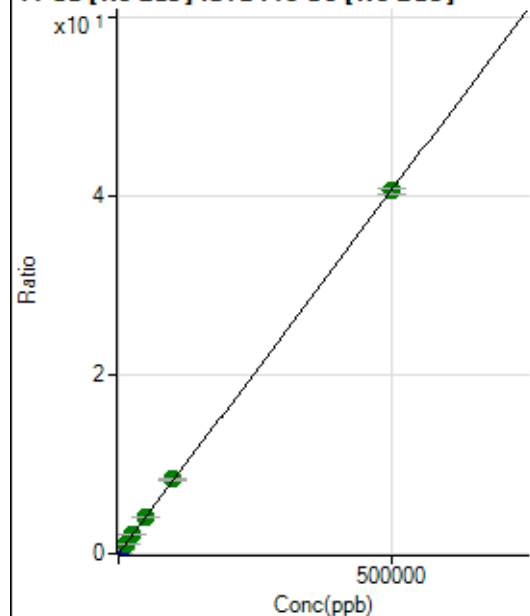
$$y = 5.1073\text{E-}006 * x + 4.5698\text{E-}005$$

$$R = 1.0000$$

$$DL = 3.772$$

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	7352.13	0.0006	P	5.7
2	☐	500.000	527.316	491662.37	0.0435	P	4.5
3	☐	5000.000	5263.173	4631166.90	0.4282	P	1.1
4	☐	12500.000	12934.419	10734563.26	1.0515	A	1.7
5	☐	25000.000	26443.846	20782328.24	2.1490	A	0.4
6	☐	50000.000	50939.000	41671147.11	4.1390	A	2.4
7	☐	100000.00	102564.31	83694906.73	8.3332	A	2.0
8	☐	500000.00	499307.52	391577103.1	40.5654	A	1.3

$$y = 8.1242\text{E-}005 * x + 6.4292\text{E-}004$$

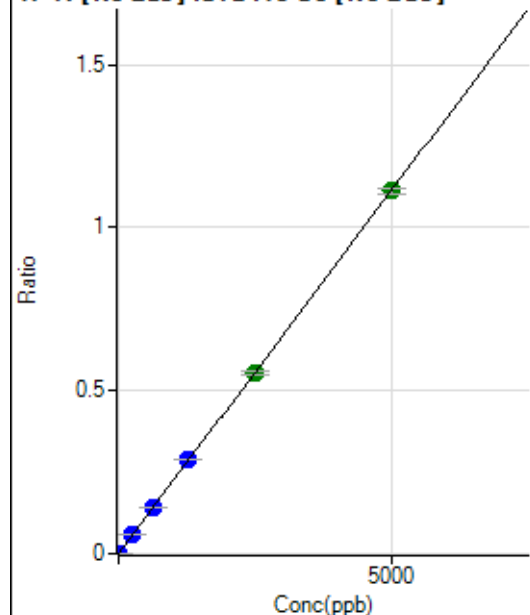
$$R = 1.0000$$

$$DL = 1.36$$

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	141.67	0.0000	P	17.9
2	☐	5.000	5.330	13576.15	0.0012	P	4.2
3	☐	250.000	260.699	628595.96	0.0581	P	1.0
4	☐	625.000	637.135	1450047.71	0.1420	P	1.4
5	☐	1250.000	1301.379	2805393.66	0.2901	P	0.7
6	☐	2500.000	2483.787	5574513.27	0.5537	A	1.9
7	☐	5000.000	4993.210	11180232.46	1.1130	A	1.3
8	☐			5447.71	0.0006	P	58.1

$$y = 2.2291E-004 * x + 1.2395E-005$$

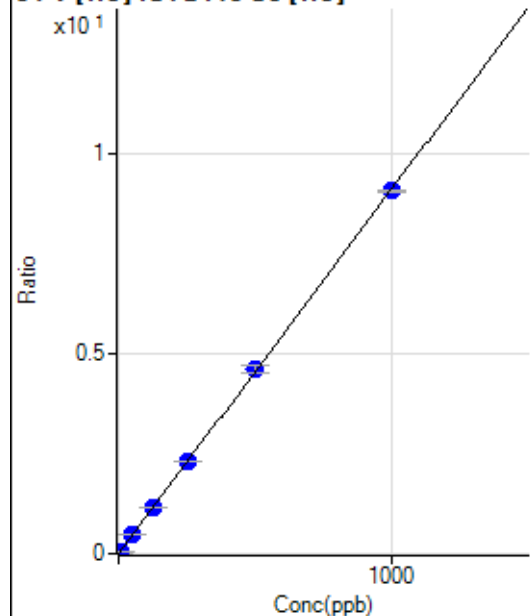
$$R = 0.9999$$

$$DL = 0.02981$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.56	0.0000	P	34.7
2	☐	5.000	5.445	20823.79	0.0495	P	0.8
3	☐	50.000	50.990	182721.54	0.4634	P	0.0
4	☐	125.000	127.341	414673.89	1.1571	P	1.1
5	☐	250.000	252.275	804700.34	2.2924	P	0.5
6	☐	500.000	506.368	1619584.72	4.6013	P	3.5
7	☐	1000.000	995.903	3261010.71	9.0496	P	0.4
8	☐			1677.90	0.0046	P	2.2

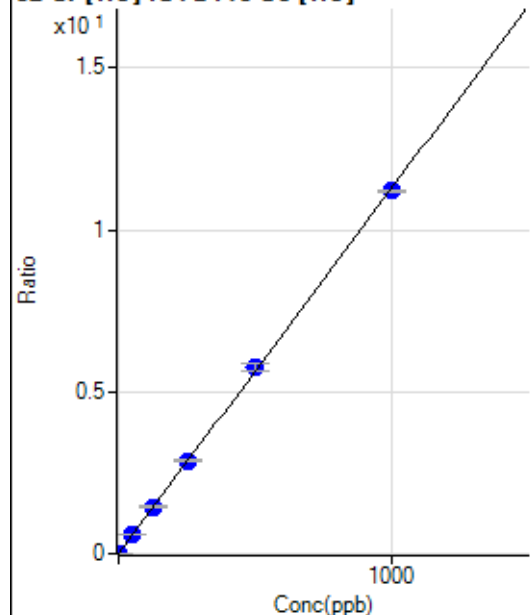
$$y = 0.0091 * x + 1.3166E-005$$

$$R = 1.0000$$

$$DL = 0.001508$$

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	1317.86	0.0031	P	1.4
2	☐	2.000	2.133	11433.46	0.0272	P	2.6
3	☐	50.000	51.840	231769.98	0.5877	P	0.3
4	☐	125.000	128.344	519784.42	1.4505	P	1.3
5	☐	250.000	254.926	1010253.87	2.8779	P	0.3
6	☐	500.000	509.810	2024514.47	5.7523	P	3.9
7	☐	1000.000	993.353	4037768.79	11.2052	P	0.7
8	☐			107799.18	0.2926	P	2.1

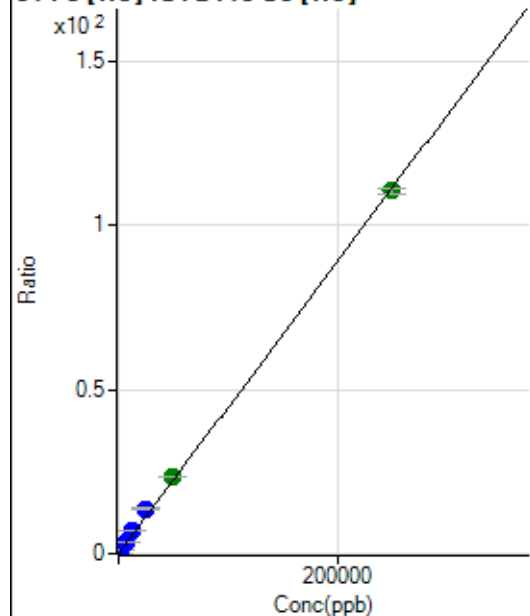
$$y = 0.0113 * x + 0.0031$$

$$R = 0.9999$$

$$DL = 0.01148$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	650.70	0.0015	P	10.8
2	☐	50.000	68.358	13430.16	0.0319	P	1.4
3	☐	2500.000	3101.630	544113.53	1.3798	P	0.9
4	☐	6250.000	7774.713	1238623.27	3.4564	P	1.3
5	☐	12500.000	15309.140	2388618.74	6.8045	P	0.2
6	☐	25000.000	30543.508	4777624.59	13.5742	P	3.8
7	☐	50000.000	52965.059	8481897.01	23.5378	A	0.9
8	☐	250000.00	248668.04	40708464.12	110.5028	A	1.7

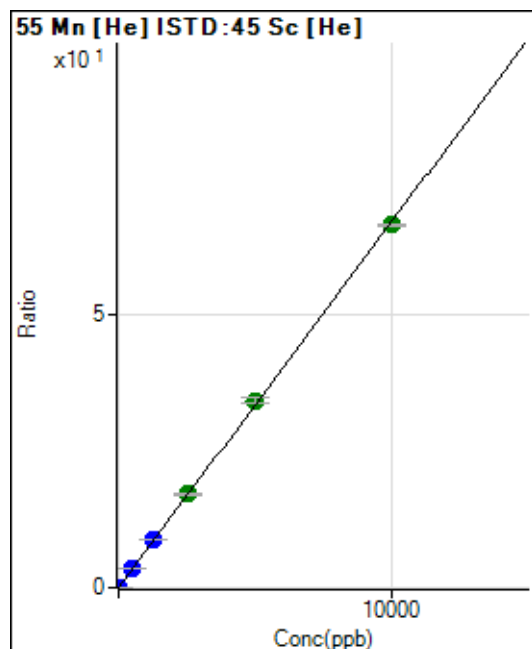
$$y = 4.4437E-004 * x + 0.0015$$

$$R = 0.9997$$

$$DL = 1.126$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	75.55	0.0002	P	5.1
2	☐	1.000	1.102	3185.96	0.0076	P	3.2
3	☐	500.000	519.248	1374079.13	3.4844	P	0.0
4	☐	1250.000	1299.331	3124505.54	8.7190	P	1.3
5	☐	2500.000	2554.958	6018230.26	17.1445	A	0.8
6	☐	5000.000	5120.868	12094164.13	34.3623	A	3.8
7	☐	10000.000	9918.698	23983083.81	66.5568	A	0.4
8	☐			24404.88	0.0662	P	1.8

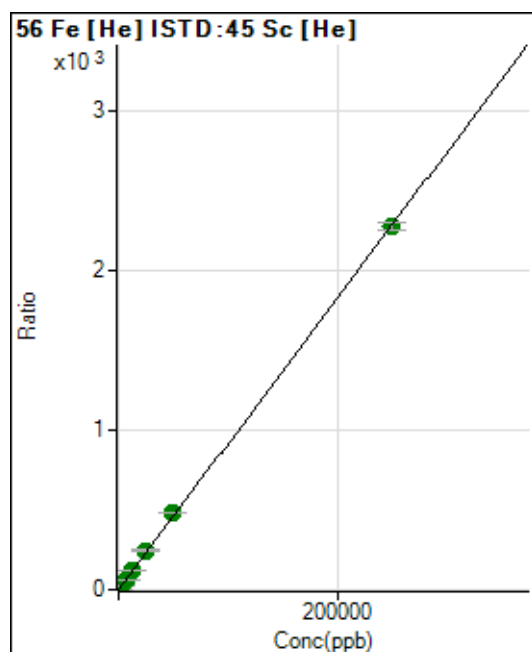
$$y = 0.0067 * x + 1.7902E-004$$

$$R = 0.9999$$

$$DL = 0.004111$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	5675.34	0.0134	P	1.3
2	☐	50.000	58.734	230911.36	0.5488	P	1.3
3	☐	2500.000	2701.342	9714911.21	24.6361	A	0.7
4	☐	6250.000	6807.981	22242827.12	62.0680	A	1.2
5	☐	12500.000	13566.488	43412052.82	123.6716	A	0.9
6	☐	25000.000	26986.582	86568704.71	245.9955	A	4.4
7	☐	50000.000	52453.092	172287850.1	478.1221	A	0.6
8	☐	250000.00	249241.43	836877752.0	2,271.842	A	2.1

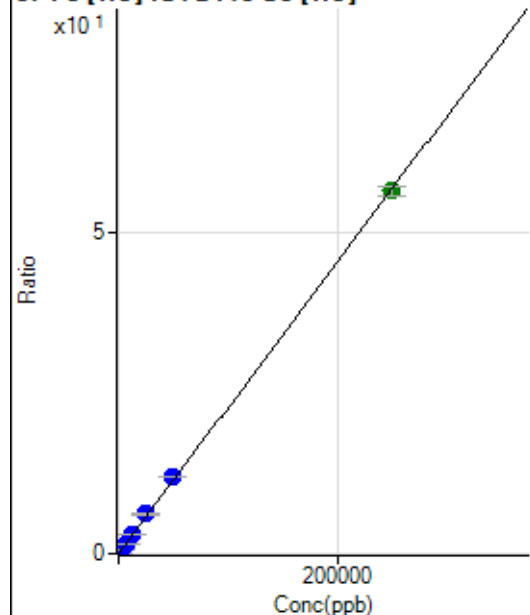
$$y = 0.0091 * x + 0.0134$$

$$R = 0.9999$$

$$DL = 0.05832$$

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	225.94	0.0005	P	11.0
2	☐	50.000	60.457	6003.24	0.0143	P	2.0
3	☐	2500.000	2734.633	245135.45	0.6216	P	1.0
4	☐	6250.000	6892.720	561208.17	1.5661	P	1.2
5	☐	12500.000	13646.013	1088152.48	3.0999	P	0.7
6	☐	25000.000	27262.316	2179711.49	6.1925	P	3.4
7	☐	50000.000	52871.814	4327374.46	12.0091	P	0.7
8	☐	250000.00	249123.68	20842775.00	56.5831	A	2.5

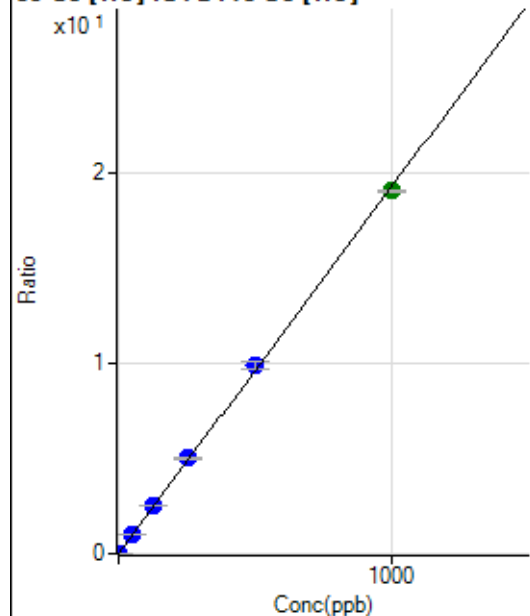
$$y = 2.2713\text{E-}004 * x + 5.3521\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.777$$

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	116.67	0.0003	P	38.8
2	☐	1.000	1.057	8680.46	0.0206	P	2.0
3	☐	50.000	53.022	402542.02	1.0208	P	0.3
4	☐	125.000	131.766	908928.12	2.5364	P	1.4
5	☐	250.000	260.110	1757507.89	5.0067	P	0.6
6	☐	500.000	514.692	3486612.07	9.9066	P	3.9
7	☐	1000.000	989.130	6860326.15	19.0382	A	0.2
8	☐			13900.07	0.0377	P	2.4

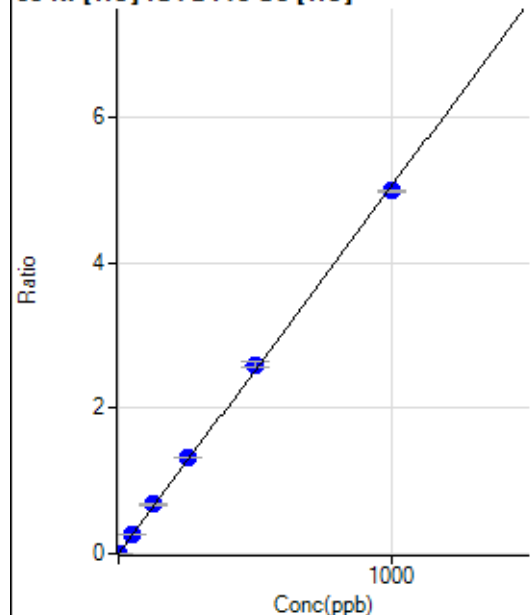
$$y = 0.0192 * x + 2.7671\text{E-}004$$

$$R = 0.9998$$

$$DL = 0.01674$$

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	115.56	0.0003	P	15.9
2	☐	1.000	1.236	2745.86	0.0065	P	1.0
3	☐	50.000	53.957	107752.11	0.2733	P	1.1
4	☐	125.000	134.014	243062.01	0.6783	P	1.4
5	☐	250.000	262.984	467128.92	1.3307	P	0.6
6	☐	500.000	515.280	917594.69	2.6071	P	3.9
7	☐	1000.000	987.789	1800847.44	4.9976	P	0.4
8	☐			30721.19	0.0834	P	0.9

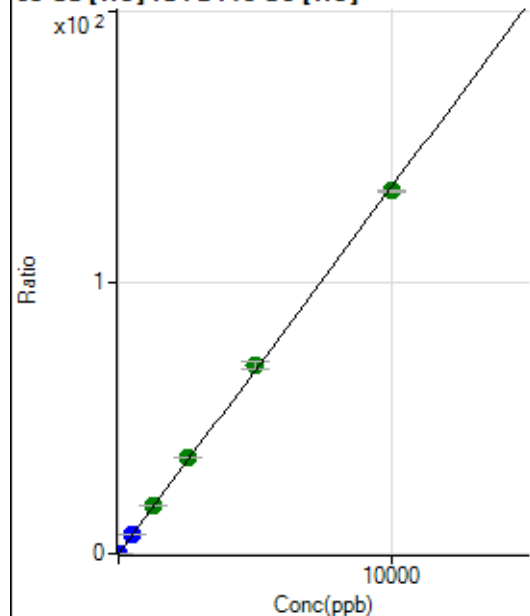
$$y = 0.0051 * x + 2.7383E-004$$

$$R = 0.9997$$

$$DL = 0.02589$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	812.26	0.0019	P	11.2
2	☐	2.000	2.220	13454.14	0.0320	P	1.8
3	☐	500.000	537.764	2870743.88	7.2799	P	0.4
4	☐	1250.000	1324.873	6426384.49	17.9324	A	1.4
5	☐	2500.000	2608.422	12392509.96	35.3035	A	0.8
6	☐	5000.000	5133.455	24452874.08	69.4766	A	3.8
7	☐	10000.000	9894.920	48256149.28	133.9169	A	0.2
8	☐			16928.88	0.0460	P	1.5

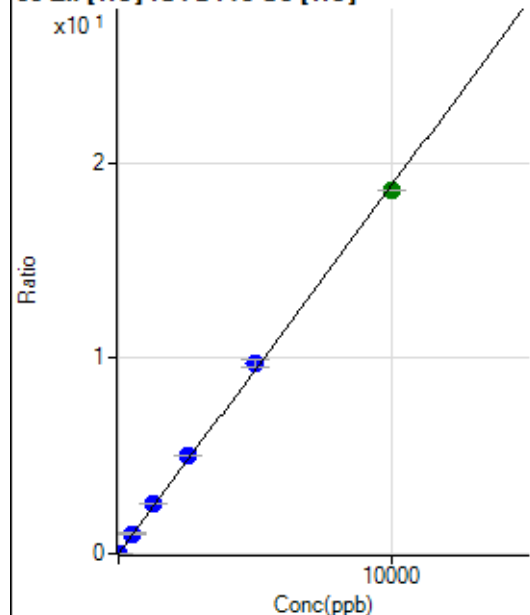
$$y = 0.0135 * x + 0.0019$$

$$R = 0.9998$$

$$DL = 0.04779$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	887.71	0.0021	P	4.3
2	☐	2.000	2.056	2513.86	0.0060	P	1.9
3	☐	500.000	546.061	406321.64	1.0304	P	0.9
4	☐	1250.000	1370.405	925523.12	2.5827	P	1.5
5	☐	2500.000	2675.959	1769623.72	5.0412	P	0.4
6	☐	5000.000	5159.798	3420612.60	9.7185	P	3.7
7	☐	10000.000	9858.758	6690583.71	18.5672	A	0.0
8	☐			26970.49	0.0732	P	2.1

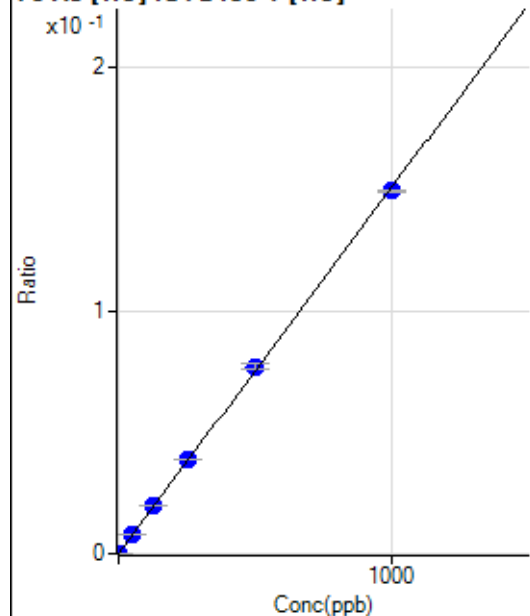
$$y = 0.0019 * x + 0.0021$$

$$R = 0.9996$$

$$DL = 0.1457$$

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	6.39	0.0000	P	16.9
2	☐	1.000	1.139	657.67	0.0002	P	2.4
3	☐	50.000	54.257	29769.85	0.0082	P	0.7
4	☐	125.000	131.912	67799.10	0.0199	P	1.4
5	☐	250.000	258.158	130884.68	0.0389	P	1.2
6	☐	500.000	511.134	259828.99	0.0770	P	2.6
7	☐	1000.000	991.316	510582.76	0.1493	P	0.5
8	☐			1784.21	0.0005	P	1.7

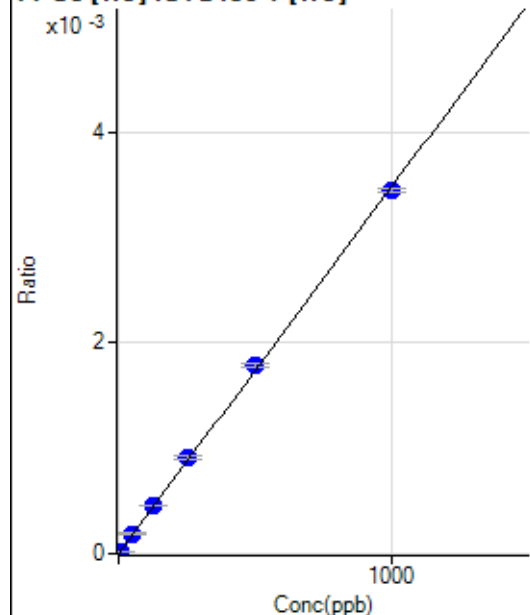
$$y = 1.5065E-004 * x + 1.6800E-006$$

$$R = 0.9999$$

$$DL = 0.005657$$

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	☐	5.000	5.975	78.89	0.0000	P	16.4
3	☐	50.000	54.253	686.70	0.0002	P	16.0
4	☐	125.000	133.278	1580.11	0.0005	P	0.5
5	☐	250.000	263.337	3079.27	0.0009	P	4.6
6	☐	500.000	511.963	6003.55	0.0018	P	2.2
7	☐	1000.000	989.432	11754.92	0.0034	P	1.1
8	☐			3.33	0.0000	P	100.

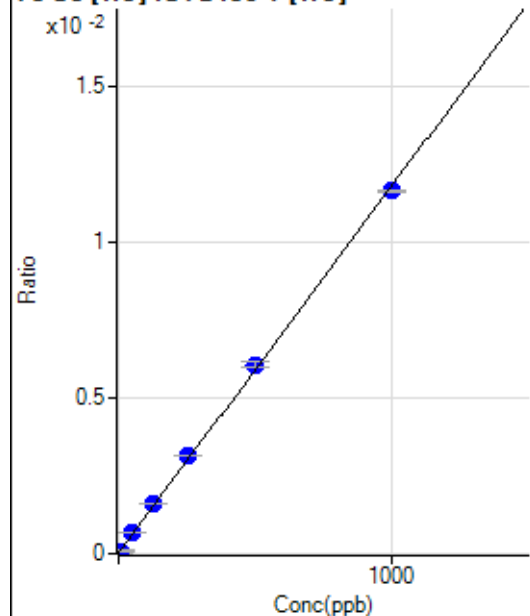
$$y = 3.4751\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 0.9998$$

$$DL = 0$$

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	84.57	0.0000	P	8.8
2	☐	5.000	5.819	343.83	0.0001	P	7.2
3	☐	50.000	54.936	2431.09	0.0007	P	4.0
4	☐	125.000	134.749	5476.39	0.0016	P	2.9
5	☐	250.000	264.345	10527.34	0.0031	P	0.6
6	☐	500.000	514.697	20480.57	0.0061	P	2.3
7	☐	1000.000	987.596	39745.72	0.0116	P	0.8
8	☐			80.25	0.0000	P	4.8

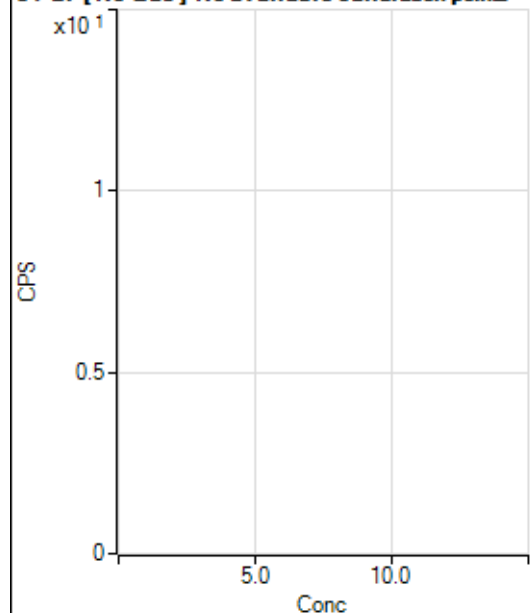
$$y = 1.1749\text{E-}005 * x + 2.2218\text{E-}005$$

$$R = 0.9997$$

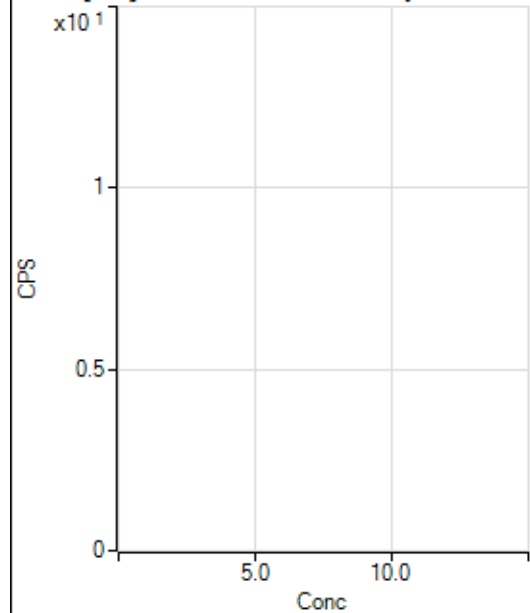
$$DL = 0.502$$

Weight: <None>

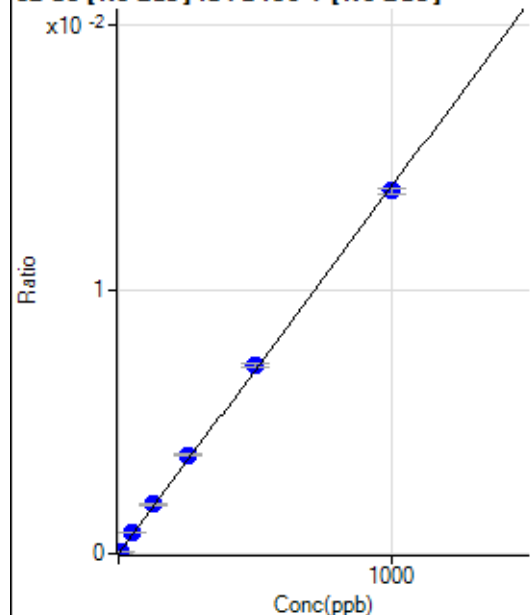
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			83389.24		P	1.7
2	☐			79919.46		P	1.4
3	☐			77654.16		P	0.3
4	☐			71369.18		P	1.1
5	☐			68968.28		P	2.5
6	☐			72019.08		P	0.8
7	☐			73981.36		P	2.3
8	☐			69796.23		P	2.4

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			46.71		P	44.6
2	☐			50.05		P	34.6
3	☐			60.06		P	72.6
4	☐			36.70		P	68.6
5	☐			43.38		P	35.3
6	☐			26.69		P	57.3
7	☐			50.05		P	20.0
8	☐			43.38		P	35.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.12	0.0000	P	38.7
2	☐	5.000	5.851	2602.20	0.0001	P	6.3
3	☐	50.000	55.374	22624.88	0.0008	P	0.7
4	☐	125.000	133.838	53639.64	0.0019	P	1.2
5	☐	250.000	269.202	102083.74	0.0037	P	0.9
6	☐	500.000	511.076	201422.15	0.0071	P	2.2
7	☐	1000.000	988.284	389734.14	0.0137	P	1.9
8	☐			592.68	0.0000	P	4.0

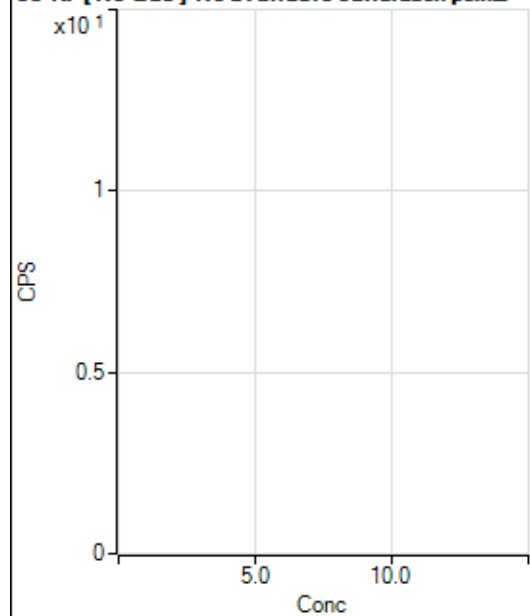
$$y = 1.3890E-005 * x + 4.1787E-006$$

$$R = 0.9997$$

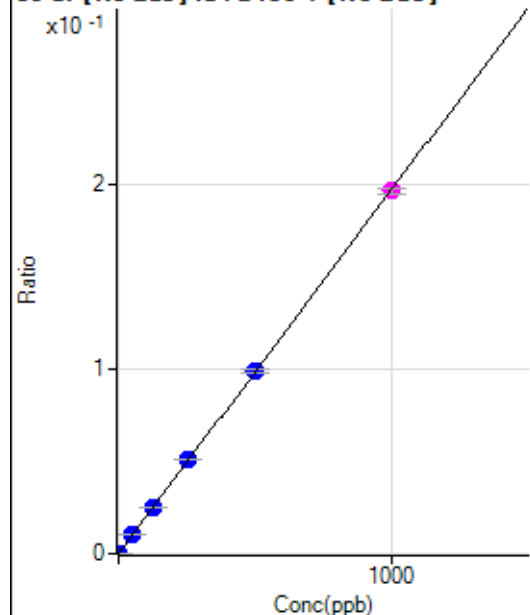
$$DL = 0.349$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			444.46		P	8.9
2	☐			436.68		P	3.1
3	☐			422.24		P	10.5
4	☐			397.79		P	3.4
5	☐			418.90		P	3.7
6	☐			407.79		P	5.4
7	☐			466.68		P	6.5
8	☐			501.13		P	6.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	752.83	0.0000	P	11.9
2	☐	1.000	1.027	6935.28	0.0002	P	2.7
3	☐	50.000	51.293	296910.46	0.0101	P	0.3
4	☐	125.000	125.900	716102.51	0.0249	P	1.4
5	☐	250.000	257.882	1388745.46	0.0509	P	0.5
6	☐	500.000	501.861	2809927.23	0.0991	P	1.4
7	☐	1000.000	996.922	5585733.81	0.1968	M	1.5
8	☐			12989.68	0.0005	P	1.9

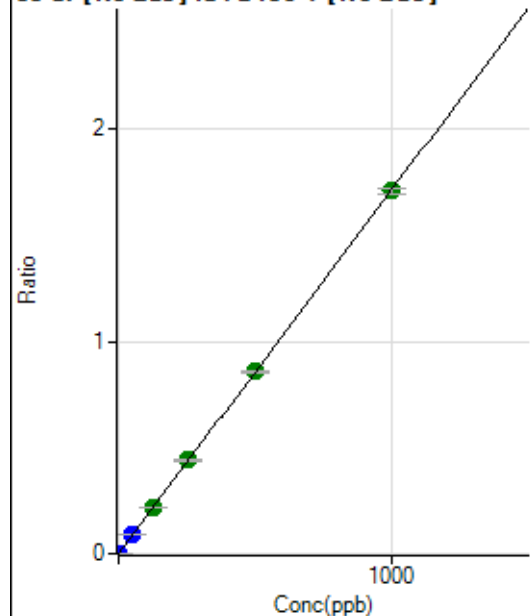
$$y = 1.9737E-004 * x + 2.4759E-005$$

$$R = 1.0000$$

$$DL = 0.0449$$

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	241.68	0.0000	P	22.9
2	☐	1.000	1.035	54183.90	0.0018	P	3.4
3	☐	50.000	51.762	2591511.93	0.0886	P	0.4
4	☐	125.000	125.509	6182829.00	0.2148	A	1.9
5	☐	250.000	258.026	12041506.87	0.4415	A	1.3
6	☐	500.000	499.960	24263084.57	0.8555	A	1.3
7	☐	1000.000	997.862	48466229.90	1.7074	A	1.4
8	☐			108340.03	0.0040	P	1.2

$$y = 0.0017 * x + 7.9509E-006$$

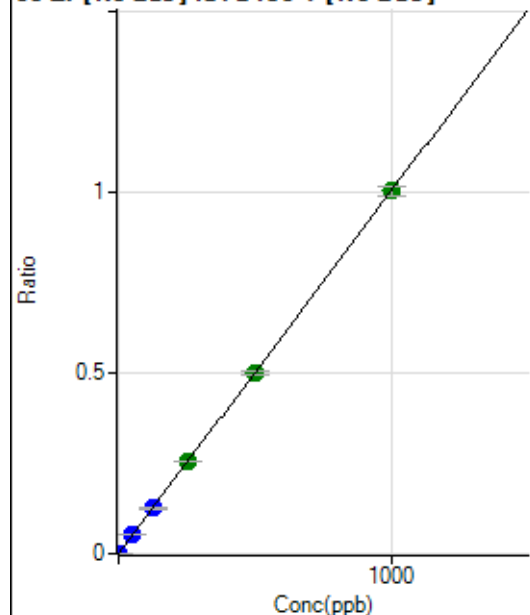
$$R = 1.0000$$

$$DL = 0.003196$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1280.67	0.0000	P	15.0
2	☐	1.000	0.787	25392.78	0.0008	P	1.7
3	☐	50.000	50.872	1496763.75	0.0512	P	0.5
4	☐	125.000	124.623	3606365.31	0.1253	P	1.3
5	☐	250.000	255.761	7009785.92	0.2570	A	0.4
6	☐	500.000	498.395	14203002.75	0.5008	A	2.1
7	☐	1000.000	999.366	28500633.27	1.0042	A	2.6
8	☐			11216.02	0.0004	P	6.9

$$y = 0.0010 * x + 4.2086E-005$$

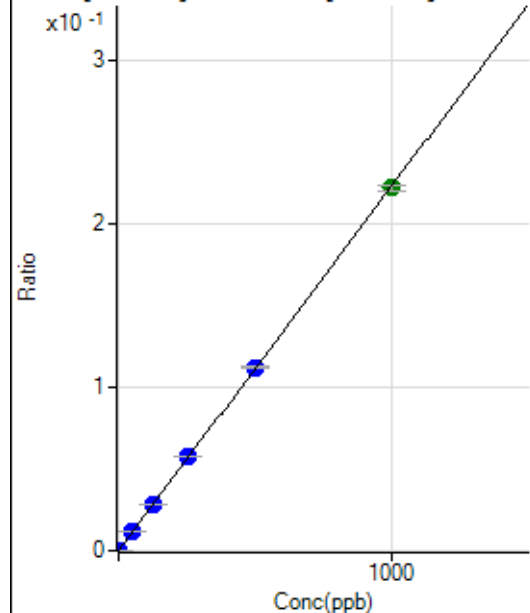
$$R = 1.0000$$

$$DL = 0.01885$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	247.23	0.0000	P	8.0
2	☐	1.000	0.810	5759.73	0.0002	P	2.8
3	☐	50.000	50.911	332710.85	0.0114	P	0.9
4	☐	125.000	126.036	810176.17	0.0281	P	1.1
5	☐	250.000	259.209	1578099.25	0.0579	P	0.0
6	☐	500.000	503.280	3186177.07	0.1123	P	1.6
7	☐	1000.000	995.883	6310076.62	0.2223	A	1.3
8	☐			2441.99	0.0001	P	8.2

$$y = 2.2321E-004 * x + 8.1266E-006$$

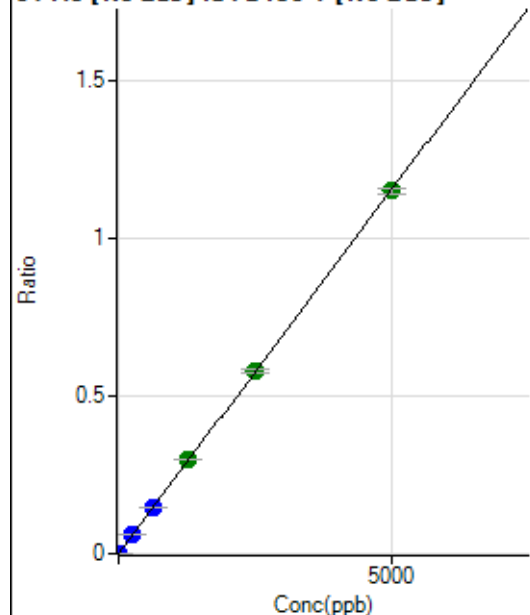
$$R = 0.9999$$

$$DL = 0.008719$$

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	480.59	0.0000	P	10.1
2	☐	5.000	4.988	35617.56	0.0012	P	2.4
3	☐	250.000	259.482	1754819.98	0.0600	P	1.4
4	☐	625.000	632.529	4208461.64	0.1462	P	2.0
5	☐	1250.000	1293.447	8151896.01	0.2989	A	0.2
6	☐	2500.000	2504.617	16414588.56	0.5788	A	1.8
7	☐	5000.000	4985.414	32701485.45	1.1521	A	1.6
8	☐			26280.67	0.0010	P	2.0

$$y = 2.3109\text{E-}004 * x + 1.5804\text{E-}005$$

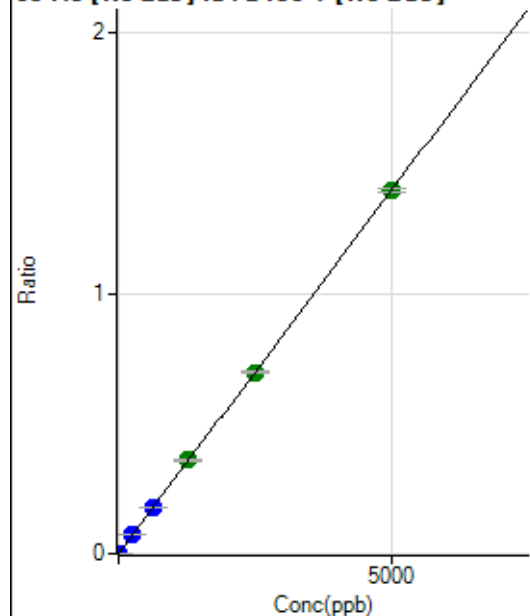
$$R = 1.0000$$

$$DL = 0.02068$$

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	58.33	0.0000	P	38.1
2	☐	5.000	5.402	46036.22	0.0015	P	2.8
3	☐	250.000	258.672	2113823.79	0.0722	P	1.3
4	☐	625.000	628.304	5051976.81	0.1755	P	2.0
5	☐	1250.000	1286.195	9796536.94	0.3592	A	0.8
6	☐	2500.000	2497.128	19779345.93	0.6974	A	1.8
7	☐	5000.000	4991.540	39574418.59	1.3941	A	1.2
8	☐			37193.88	0.0014	P	3.8

$$y = 2.7930\text{E-}004 * x + 1.9202\text{E-}006$$

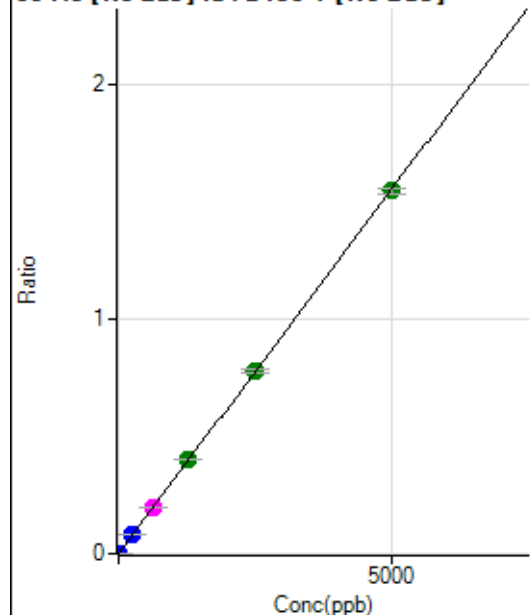
$$R = 1.0000$$

$$DL = 0.007857$$

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	280.57	0.0000	P	34.3
2	☐	5.000	5.330	50682.94	0.0017	P	4.0
3	☐	250.000	258.551	2348258.75	0.0803	P	0.6
4	☐	625.000	628.778	5618984.15	0.1952	M	1.9
5	☐	1250.000	1291.359	10931782.45	0.4008	A	0.3
6	☐	2500.000	2514.127	22130422.72	0.7804	A	2.3
7	☐	5000.000	4981.696	43891637.09	1.5463	A	1.8
8	☐			69874.62	0.0026	P	1.4

$$y = 3.1040\text{E-}004 * x + 9.2141\text{E-}006$$

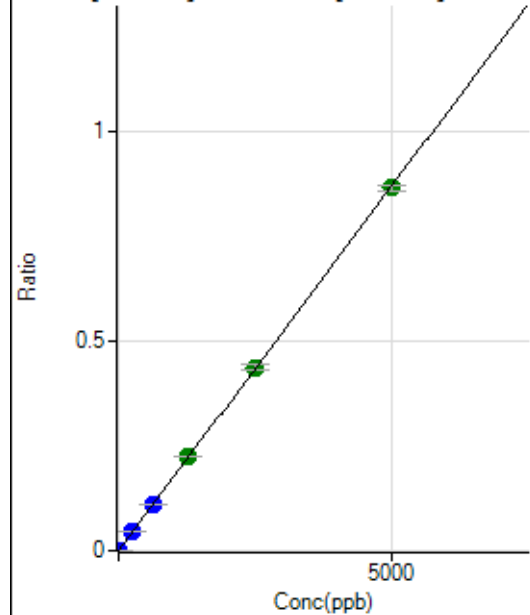
$$R = 1.0000$$

$$DL = 0.0305$$

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	32.5
2	☐	5.000	5.425	28785.37	0.0009	P	3.9
3	☐	250.000	260.290	1324630.56	0.0453	P	0.7
4	☐	625.000	632.228	3165889.98	0.1100	P	1.9
5	☐	1250.000	1291.632	6127007.91	0.2247	A	0.3
6	☐	2500.000	2519.190	12426106.88	0.4382	A	2.3
7	☐	5000.000	4978.579	24581513.05	0.8660	A	1.4
8	☐			23419.96	0.0009	P	1.1

$$y = 1.7394\text{E-}004 * x + 1.2780\text{E-}006$$

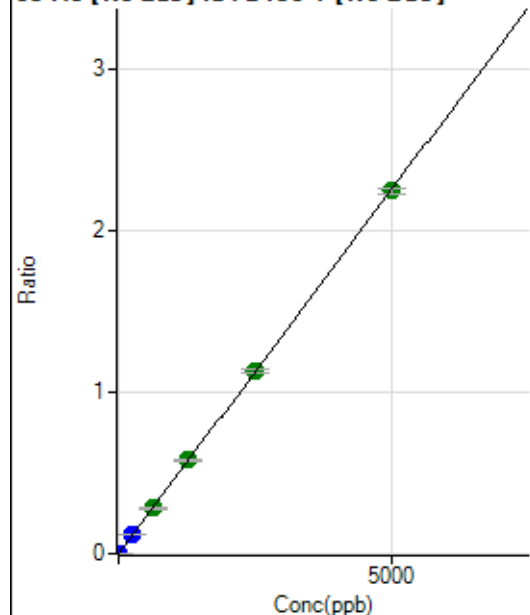
$$R = 1.0000$$

$$DL = 0.007154$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.79	0.0000	P	4.8
2	☐	5.000	5.325	73163.34	0.0024	P	4.3
3	☐	250.000	258.534	3406650.12	0.1164	P	0.8
4	☐	625.000	623.735	8086917.46	0.2809	A	2.4
5	☐	1250.000	1284.313	15774135.25	0.5784	A	1.2
6	☐	2500.000	2516.445	32140396.55	1.1333	A	1.9
7	☐	5000.000	4982.930	63701405.59	2.2442	A	1.5
8	☐			57946.33	0.0021	P	2.5

$$y = 4.5037\text{E-}004 * x + 3.3797\text{E-}006$$

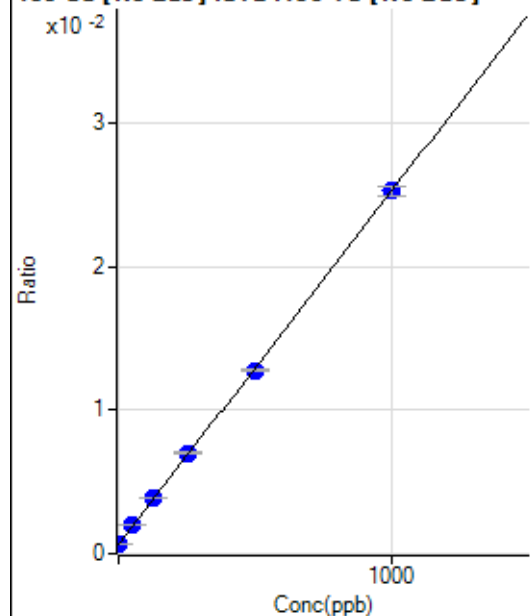
$$R = 1.0000$$

$$DL = 0.001079$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14535.78	0.0006	P	4.1
2	☐	1.000	0.461	14788.93	0.0007	P	3.9
3	☐	50.000	55.385	43888.25	0.0020	P	0.4
4	☐	125.000	131.312	84187.09	0.0039	P	1.4
5	☐	250.000	257.934	147910.84	0.0070	P	1.6
6	☐	500.000	492.927	283200.63	0.0128	P	1.6
7	☐	1000.000	1000.495	551260.48	0.0253	P	2.3
8	☐			12937.02	0.0007	P	2.2

$$y = 2.4668\text{E-}005 * x + 6.4229\text{E-}004$$

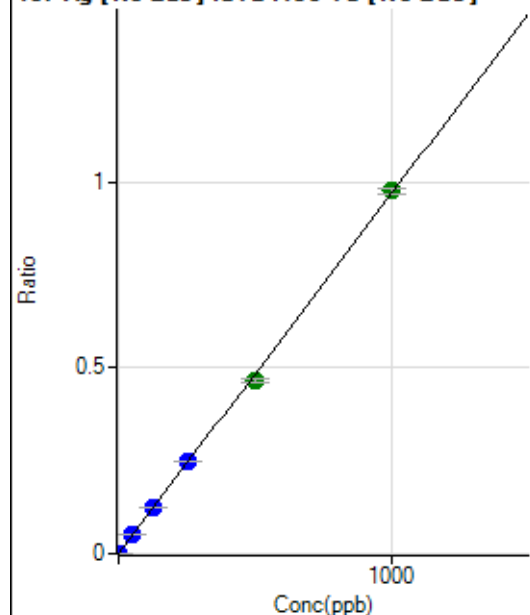
$$R = 0.9999$$

$$DL = 3.205$$

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	241.68	0.0000	P	0.8
2	☐	1.000	1.009	22282.13	0.0010	P	4.9
3	☐	50.000	54.956	1162382.69	0.0532	P	1.2
4	☐	125.000	130.205	2733433.96	0.1260	P	0.9
5	☐	250.000	256.320	5238288.18	0.2481	P	1.2
6	☐	500.000	479.180	10259364.12	0.4638	A	1.9
7	☐	1000.000	1007.932	21240398.39	0.9755	A	1.3
8	☐			6062.69	0.0003	P	0.6

$$y = 9.6786\text{E-}004 * x + 1.0677\text{E-}005$$

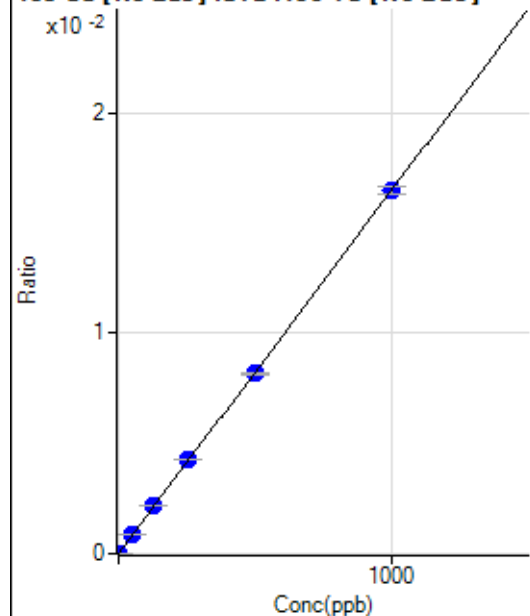
$$R = 0.9996$$

$$DL = 0.0002661$$

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	34.72	0.0000	P	31.0
2	☐	1.000	1.121	452.79	0.0000	P	8.4
3	☐	50.000	55.109	19876.73	0.0009	P	0.5
4	☐	125.000	131.008	46853.95	0.0022	P	1.4
5	☐	250.000	258.760	90066.33	0.0043	P	0.8
6	☐	500.000	495.803	180777.10	0.0082	P	1.1
7	☐	1000.000	998.902	358368.97	0.0165	P	2.2
8	☐			143.06	0.0000	P	6.2

$$y = 1.6478\text{E-}005 * x + 1.5360\text{E-}006$$

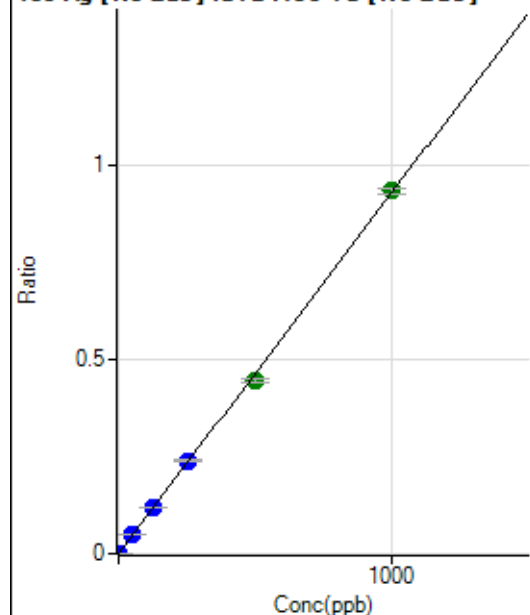
$$R = 0.9999$$

$$DL = 0.08655$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0000	P	38.5
2	☐	1.000	0.999	20974.59	0.0009	P	6.7
3	☐	50.000	54.441	1103854.29	0.0505	P	2.0
4	☐	125.000	129.827	2613114.45	0.1205	P	1.3
5	☐	250.000	257.066	5036940.48	0.2386	P	2.2
6	☐	500.000	481.638	9887788.42	0.4470	A	2.0
7	☐	1000.000	1006.589	20339187.78	0.9342	A	1.4
8	☐			5887.56	0.0003	P	2.0

$$y = 9.2805E-004 * x + 1.9595E-006$$

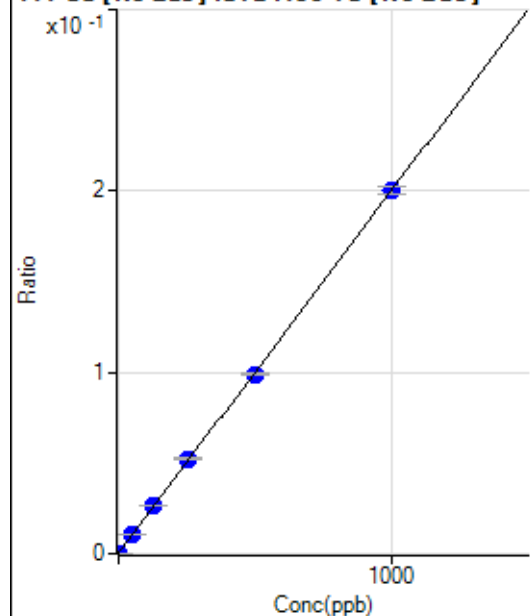
$$R = 0.9997$$

$$DL = 0.002436$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5805.29	0.0003	P	4.0
2	☐	1.000	1.049	10535.68	0.0005	P	1.5
3	☐	50.000	54.032	241637.70	0.0111	P	1.2
4	☐	125.000	131.617	576281.81	0.0266	P	1.1
5	☐	250.000	261.183	1107986.99	0.0525	P	1.5
6	☐	500.000	493.519	2188481.79	0.0989	P	1.6
7	☐	1000.000	999.416	4355691.84	0.2001	P	2.0
8	☐			6241.41	0.0003	P	1.4

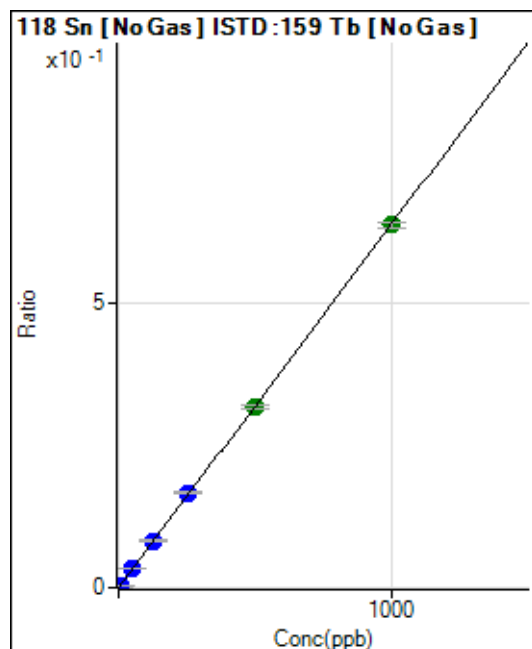
$$y = 1.9994E-004 * x + 2.5652E-004$$

$$R = 0.9999$$

$$DL = 0.1545$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1344.61	0.0001	P	12.6
2	☐	5.000	5.368	78823.93	0.0035	P	4.0
3	☐	50.000	52.966	741065.29	0.0339	P	0.6
4	☐	125.000	129.185	1792175.91	0.0826	P	1.4
5	☐	250.000	260.431	3516044.70	0.1665	P	1.8
6	☐	500.000	497.723	7039252.85	0.3182	A	1.6
7	☐	1000.000	997.858	13888945.62	0.6379	A	1.4
8	☐			14085.40	0.0007	P	1.6

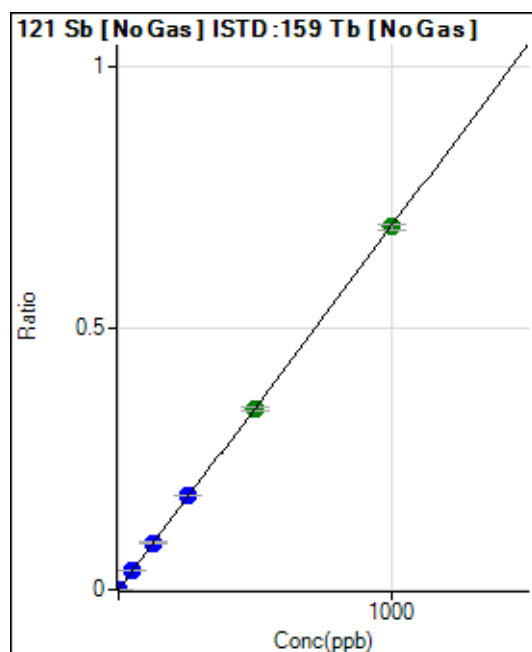
$$y = 6.3921\text{E-}004 * x + 5.9421\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.0352$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.22	0.0000	P	28.9
2	☐	2.000	2.092	32870.03	0.0015	P	5.3
3	☐	50.000	52.200	792071.90	0.0363	P	1.0
4	☐	125.000	129.058	1943727.04	0.0896	P	1.1
5	☐	250.000	260.346	3817427.82	0.1808	P	0.8
6	☐	500.000	498.262	7653495.40	0.3460	A	2.2
7	☐	1000.000	997.665	15082628.46	0.6928	A	1.9
8	☐			19856.37	0.0010	P	7.2

$$y = 6.9441\text{E-}004 * x + 3.1906\text{E-}006$$

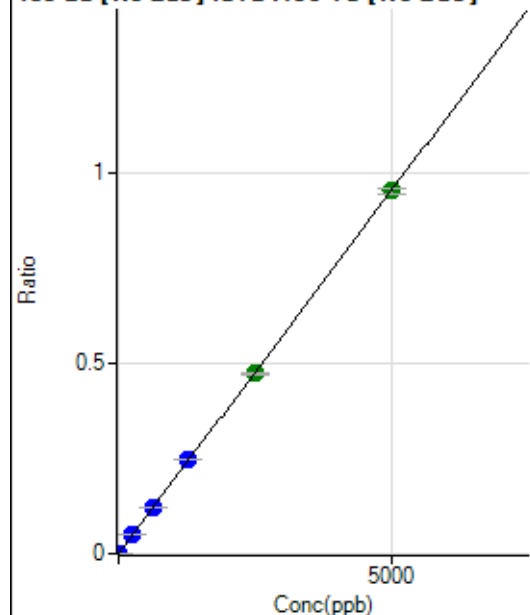
$$R = 0.9999$$

$$DL = 0.003984$$

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	75.00	0.0000	P	11.9
2	☐	10.000	10.714	46189.05	0.0020	P	2.9
3	☐	250.000	264.892	1103026.77	0.0505	P	1.1
4	☐	625.000	645.879	2669580.09	0.1231	P	0.7
5	☐	1250.000	1300.195	5232078.42	0.2478	P	0.6
6	☐	2500.000	2477.584	10444639.73	0.4722	A	1.8
7	☐	5000.000	4995.303	20724874.77	0.9519	A	1.8
8	☐			38036.19	0.0019	P	1.0

$$y = 1.9057E-004 * x + 3.3154E-006$$

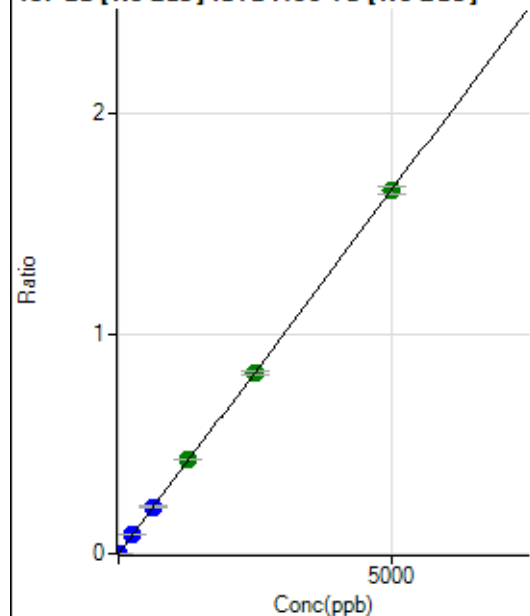
$$R = 0.9999$$

$$DL = 0.0062$$

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	77.78	0.0000	P	47.9
2	☐	10.000	10.763	80338.16	0.0036	P	4.0
3	☐	250.000	265.496	1915787.37	0.0877	P	0.7
4	☐	625.000	646.468	4630177.88	0.2135	P	1.0
5	☐	1250.000	1291.430	9005349.68	0.4265	A	0.4
6	☐	2500.000	2489.536	18186337.39	0.8221	A	1.8
7	☐	5000.000	4991.415	35883399.76	1.6483	A	2.2
8	☐			67059.64	0.0034	P	1.8

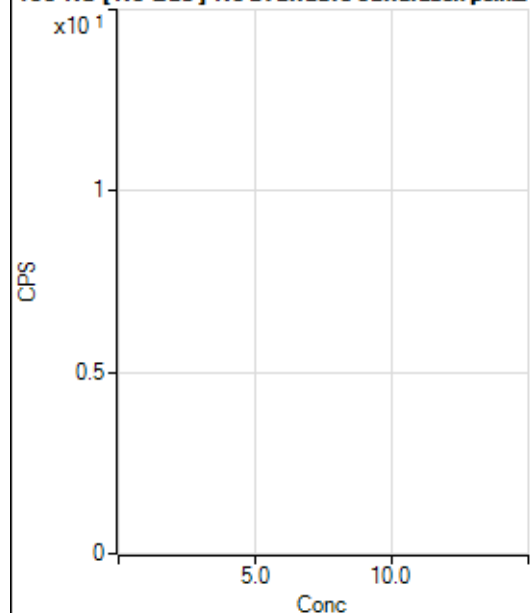
$$y = 3.3023E-004 * x + 3.4297E-006$$

$$R = 1.0000$$

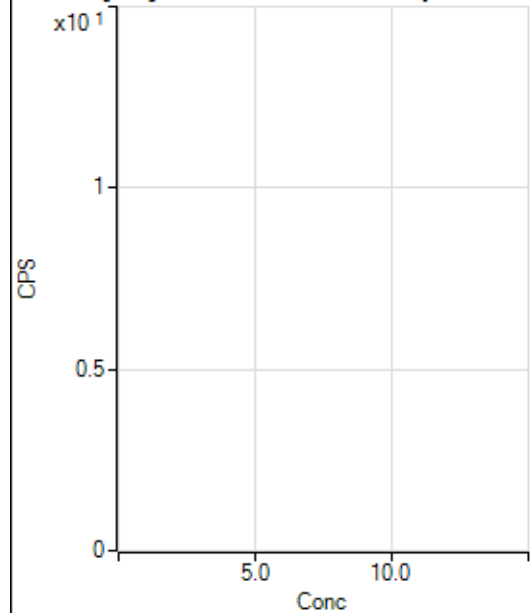
$$DL = 0.01493$$

Weight: <None>

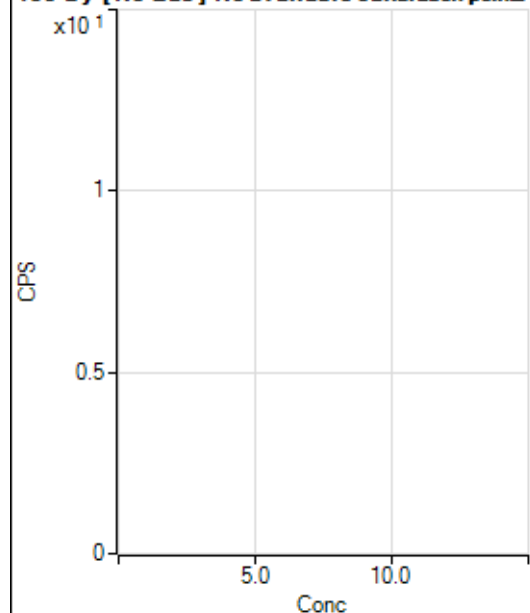
Min Conc: 0

150 Nd [No Gas] No available calibration points

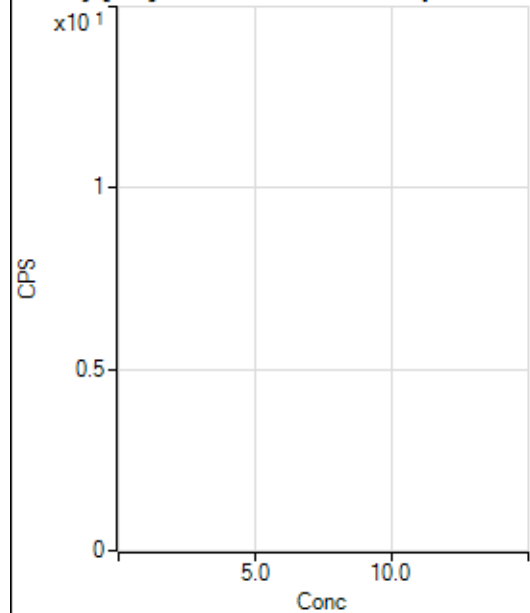
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			11.11		P	124.
3	☐			166.68		P	6.9
4	☐			362.24		P	19.3
5	☐			697.82		P	5.4
6	☐			1457.91		P	6.5
7	☐			2629.23		P	2.9
8	☐			262.24		P	21.6

150 Nd [He] No available calibration points

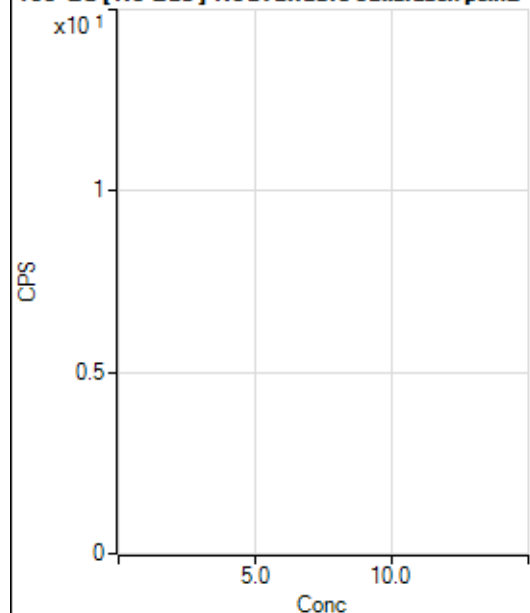
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.45		P	86.6
2	☐			5.56		P	91.6
3	☐			10.00		P	88.2
4	☐			26.67		P	25.0
5	☐			50.00		P	13.3
6	☐			100.00		P	14.5
7	☐			181.12		P	23.7
8	☐			86.67		P	19.2

156 Dy [No Gas] No available calibration points

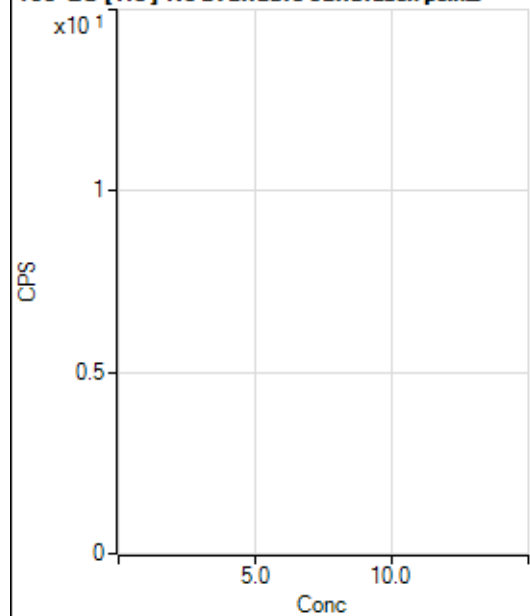
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐			38.89		P	32.7
3	☐			75.00		P	40.1
4	☐			80.56		P	26.0
5	☐			175.01		P	20.8
6	☐			300.02		P	19.4
7	☐			633.38		P	5.7
8	☐			1163.99		P	16.1

156 Dy [He] No available calibration points

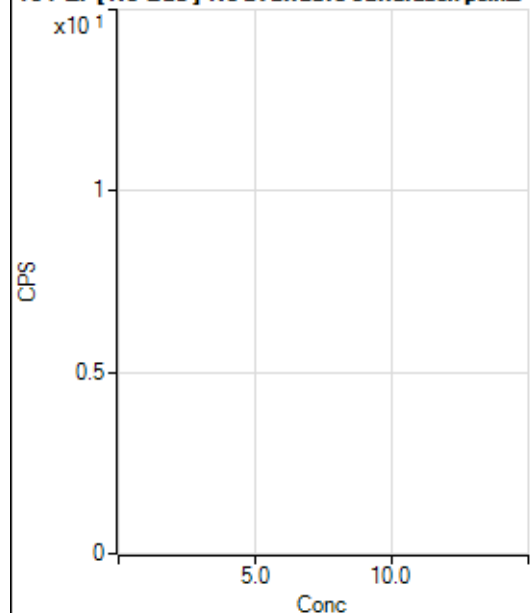
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	50.0
2	☐			15.56		P	32.7
3	☐			31.11		P	32.7
4	☐			78.89		P	20.8
5	☐			137.78		P	22.5
6	☐			235.56		P	13.7
7	☐			457.79		P	4.8
8	☐			590.02		P	2.0

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

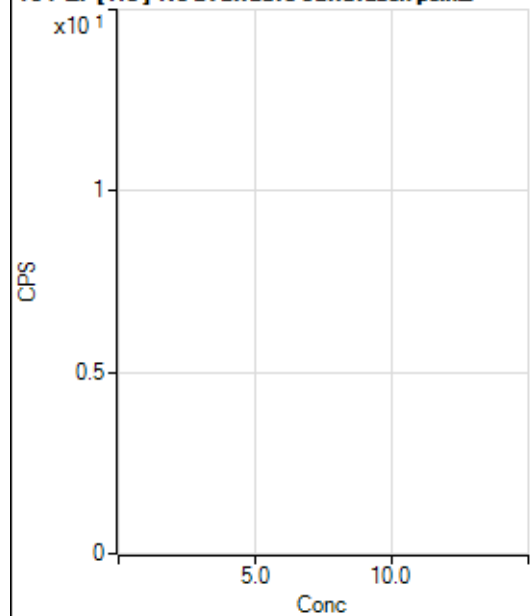
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			155.56		P	24.2
2	☐			155.56		P	35.7
3	☐			180.57		P	7.0
4	☐			183.34		P	7.9
5	☐			236.12		P	28.3
6	☐			325.02		P	5.1
7	☐			394.47		P	6.5
8	☐			1289.01		P	5.3

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			380.01		P	10.0
2	☐			387.79		P	3.6
3	☐			381.13		P	8.9
4	☐			338.90		P	10.4
5	☐			377.79		P	13.5
6	☐			436.68		P	17.5
7	☐			481.13		P	15.2
8	☐			911.16		P	4.2

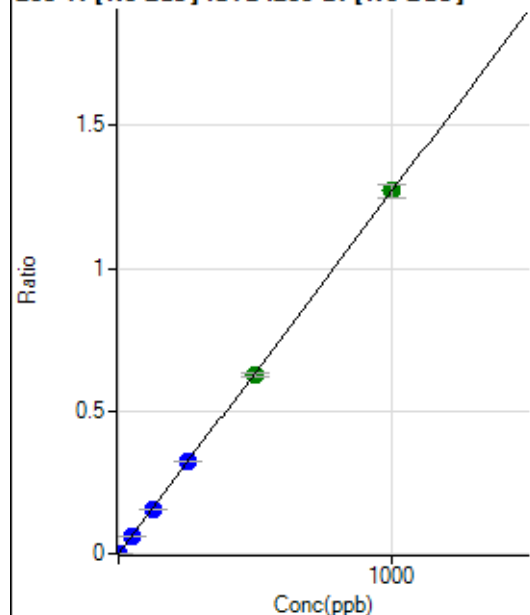
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			108.34		P	35.3
2	☐			88.89		P	39.0
3	☐			130.56		P	42.5
4	☐			113.89		P	25.7
5	☐			122.23		P	33.6
6	☐			138.89		P	30.2
7	☐			177.79		P	15.1
8	☐			297.24		P	14.4

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			42.22		P	16.4
2	☐			46.67		P	25.8
3	☐			53.33		P	16.5
4	☐			48.89		P	41.1
5	☐			47.78		P	24.5
6	☐			43.33		P	20.4
7	☐			70.00		P	40.7
8	☐			100.00		P	26.5

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	194.46	0.0000	P	29.4
2	☐	1.000	1.005	17818.37	0.0013	P	3.8
3	☐	50.000	49.893	857070.11	0.0633	P	1.3
4	☐	125.000	122.953	2109457.49	0.1560	P	0.8
5	☐	250.000	254.989	4182050.83	0.3235	P	0.4
6	☐	500.000	492.966	8246099.23	0.6253	A	2.2
7	☐	1000.000	1002.531	16004443.24	1.2717	A	3.6
8	☐			5345.77	0.0005	P	7.3

$$y = 0.0013 * x + 1.3992E-005$$

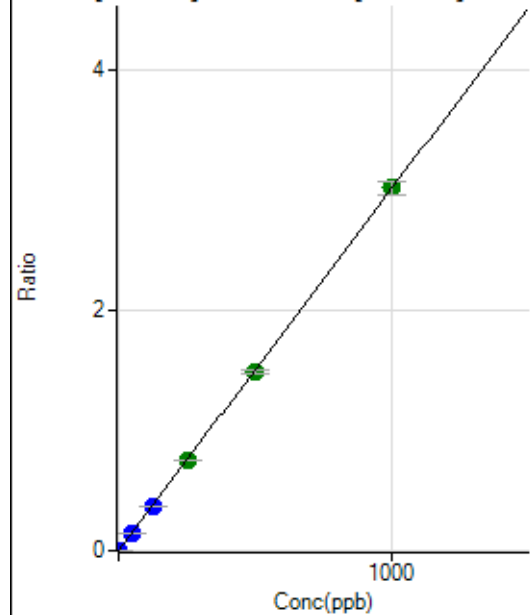
$$R = 0.9999$$

$$DL = 0.009729$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	569.48	0.0000	P	3.7
2	☐	1.000	1.010	42625.05	0.0031	P	4.8
3	☐	50.000	50.147	2046763.83	0.1512	P	0.9
4	☐	125.000	124.074	5057407.45	0.3740	P	0.2
5	☐	250.000	251.473	9798920.27	0.7579	A	0.5
6	☐	500.000	493.091	19596626.48	1.4861	A	2.1
7	☐	1000.000	1003.195	38050388.35	3.0234	A	3.4
8	☐			12598.07	0.0012	P	3.0

$$y = 0.0030 * x + 4.0959E-005$$

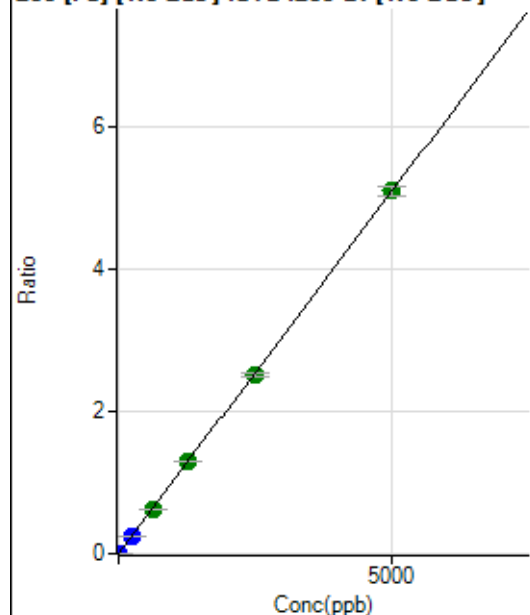
$$R = 1.0000$$

$$DL = 0.001524$$

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	661.15	0.0000	P	3.3
2	☐	1.000	0.997	14697.37	0.0011	P	5.7
3	☐	250.000	250.024	3449102.68	0.2548	P	1.1
4	☐	625.000	611.537	8425568.13	0.6230	A	1.2
5	☐	1250.000	1262.811	16632885.79	1.2865	A	0.1
6	☐	2500.000	2473.390	33226104.91	2.5197	A	2.5
7	☐	5000.000	5011.784	64266926.44	5.1056	A	2.7
8	☐			58469.36	0.0057	P	1.2

$$y = 0.0010 * x + 4.7547E-005$$

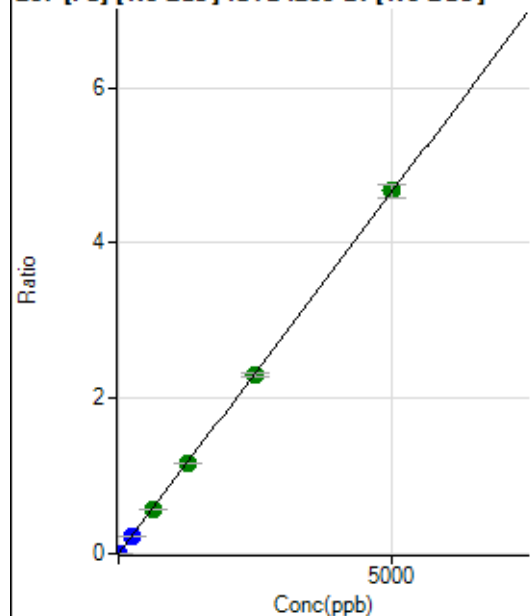
$$R = 1.0000$$

$$DL = 0.004621$$

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	663.00	0.0000	P	11.2
2	☐	1.000	0.976	13208.79	0.0010	P	6.1
3	☐	250.000	249.127	3137905.97	0.2318	P	1.0
4	☐	625.000	609.873	7671636.16	0.5673	A	1.2
5	☐	1250.000	1251.593	15050599.64	1.1641	A	0.8
6	☐	2500.000	2464.739	30230202.76	2.2925	A	2.0
7	☐	5000.000	5019.167	58751485.57	4.6683	A	3.4
8	☐			52661.94	0.0051	P	0.9

$$y = 9.3009E-004 * x + 4.7676E-005$$

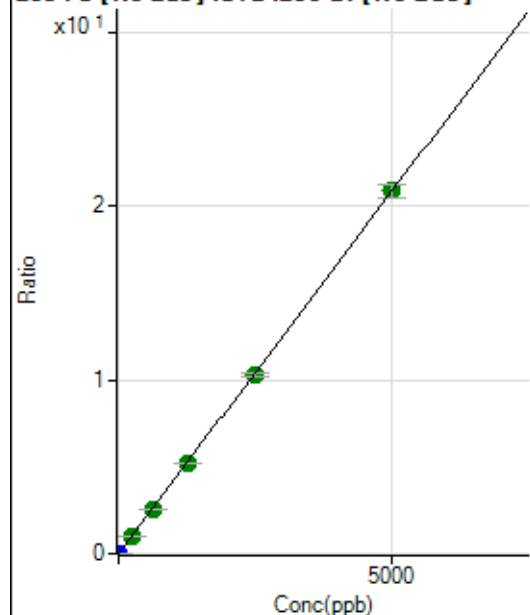
$$R = 1.0000$$

$$DL = 0.01719$$

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	2974.29	0.0002	P	3.3
2	☐	1.000	0.984	59594.62	0.0043	P	5.3
3	☐	250.000	246.997	13926323.58	1.0286	A	1.1
4	☐	625.000	609.637	34328977.39	2.5384	A	0.7
5	☐	1250.000	1257.718	67705582.31	5.2367	A	0.2
6	☐	2500.000	2470.582	135643379.6	10.2865	A	2.2
7	☐	5000.000	5014.850	262777560.5	20.8796	A	3.4
8	☐			238226.07	0.0231	P	0.6

$$y = 0.0042 * x + 2.1391E-004$$

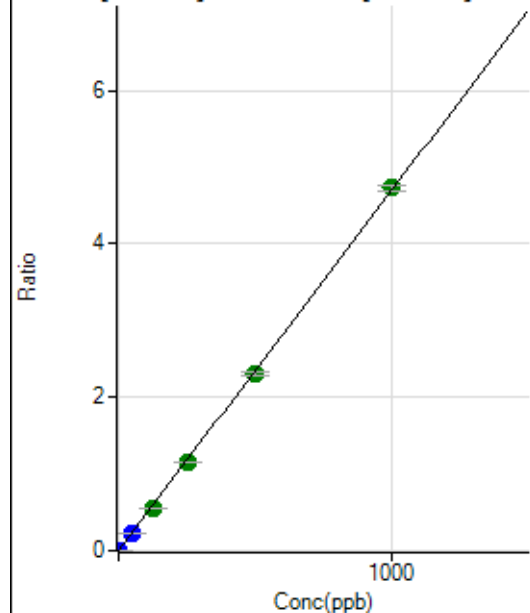
$$R = 1.0000$$

$$DL = 0.005042$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	653.74	0.0000	P	5.6
2	☐	1.000	0.684	45098.44	0.0033	P	2.3
3	☐	50.000	46.133	2933048.68	0.2166	P	0.5
4	☐	125.000	116.830	7417571.81	0.5485	A	1.3
5	☐	250.000	246.141	14939631.58	1.1555	A	0.3
6	☐	500.000	489.468	30301159.47	2.2978	A	1.9
7	☐	1000.000	1007.446	59547491.61	4.7294	A	1.7
8	☐			16709.26	0.0016	P	5.0

$$y = 0.0047 * x + 4.7013E-005$$

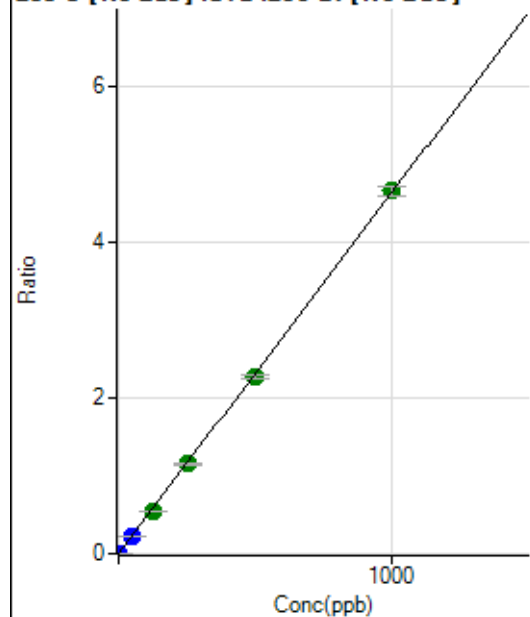
$$R = 0.9999$$

$$DL = 0.001696$$

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	202.79	0.0000	P	36.2
2	☐	1.000	0.932	59799.29	0.0043	P	3.4
3	☐	50.000	47.700	2988354.12	0.2207	P	0.6
4	☐	125.000	118.467	7412690.27	0.5481	A	0.6
5	☐	250.000	247.905	14829223.77	1.1470	A	0.6
6	☐	500.000	491.343	29977811.43	2.2733	A	2.0
7	☐	1000.000	1005.784	58583718.67	4.6535	A	2.3
8	☐			9987.55	0.0010	P	0.5

$$y = 0.0046 * x + 1.4594E-005$$

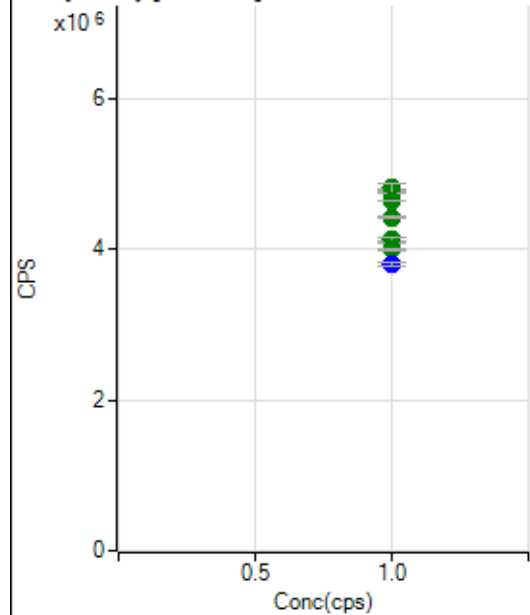
$$R = 0.9999$$

$$DL = 0.003421$$

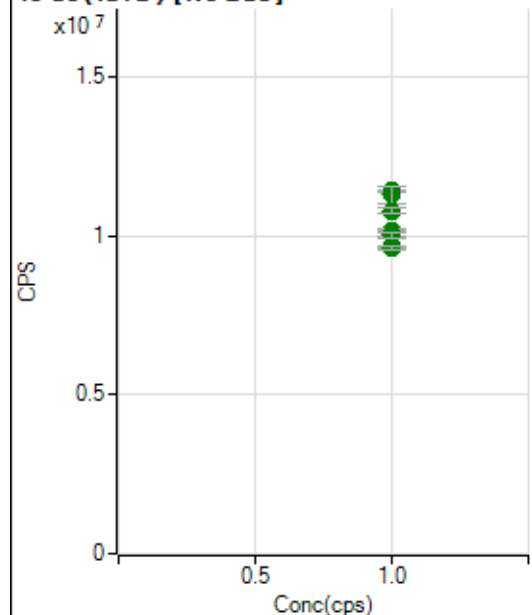
Weight: <None>

Min Conc: 0

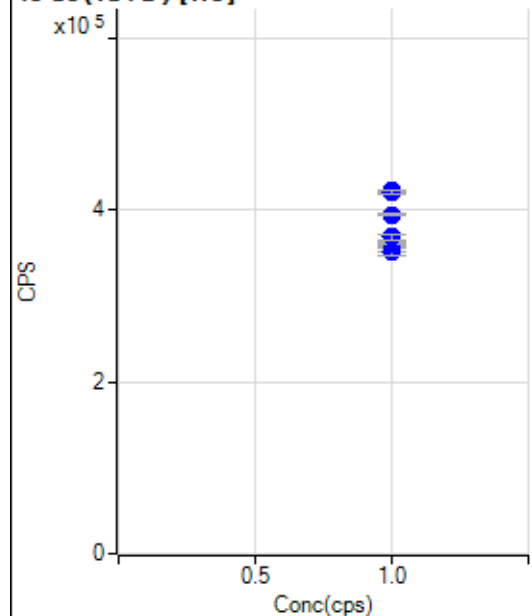
6 Li (ISTD) [No Gas]



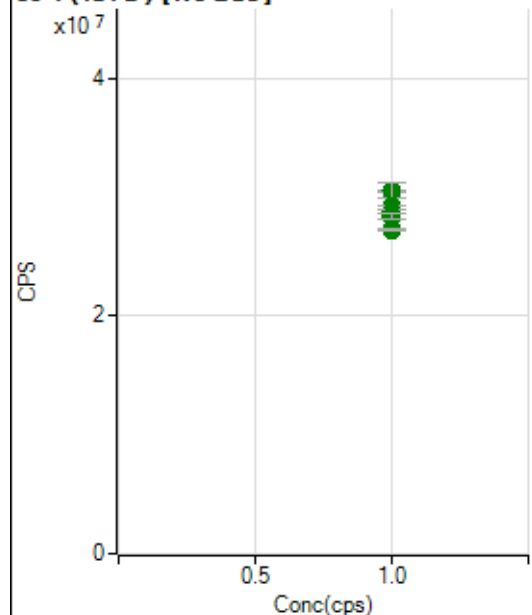
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		4771338.44		A	0.4
2	☐	1.000		4809599.13		A	2.6
3	☐	1.000		4638017.19		A	0.3
4	☐	1.000		4415788.86		A	0.7
5	☐	1.000		4132281.26		A	1.3
6	☐	1.000		4120280.39		A	1.6
7	☐	1.000		4001178.38		A	0.7
8	☐	1.000		3807330.60		P	1.3

45 Sc (ISTD) [No Gas]

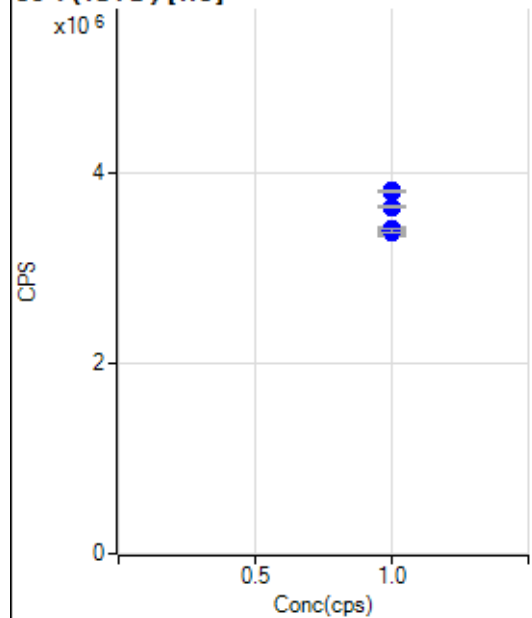
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11433504.97		A	0.5
2	☐	1.000		11323060.39		A	4.8
3	☐	1.000		10815772.41		A	1.7
4	☐	1.000		10210090.96		A	0.9
5	☐	1.000		9670751.32		A	0.6
6	☐	1.000		10070747.21		A	1.9
7	☐	1.000		10046222.56		A	2.0
8	☐	1.000		9653842.29		A	1.1

45 Sc (ISTD) [He]

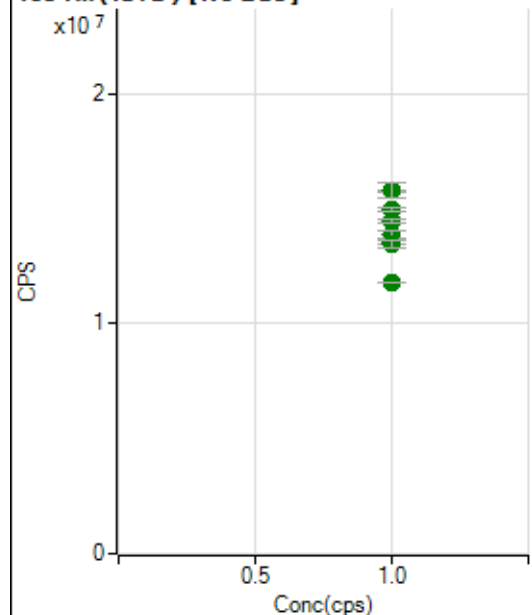
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		422041.36		P	0.4
2	☐	1.000		420792.97		P	1.2
3	☐	1.000		394346.64		P	0.6
4	☐	1.000		358386.95		P	1.0
5	☐	1.000		351035.85		P	0.5
6	☐	1.000		352259.10		P	3.4
7	☐	1.000		360344.49		P	0.5
8	☐	1.000		368456.63		P	1.7

89 Y (ISTD) [No Gas]

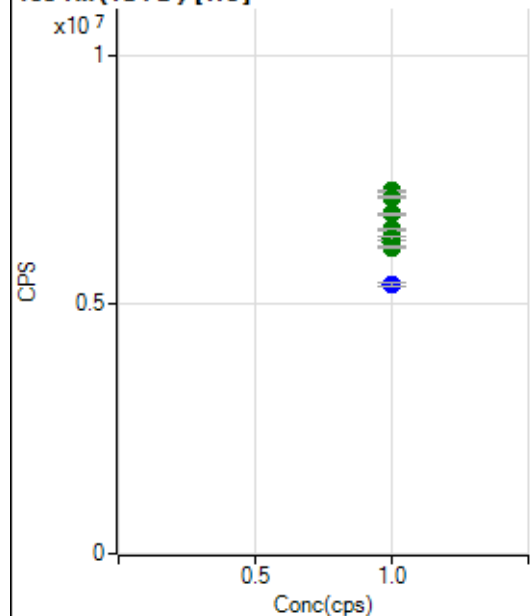
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		30414543.71		A	0.5
2	☐	1.000		30499684.54		A	4.2
3	☐	1.000		29257077.62		A	0.4
4	☐	1.000		28793217.63		A	1.3
5	☐	1.000		27271682.65		A	0.7
6	☐	1.000		28366707.91		A	2.0
7	☐	1.000		28390209.85		A	1.9
8	☐	1.000		27233275.15		A	0.9

89 Y (ISTD) [He]

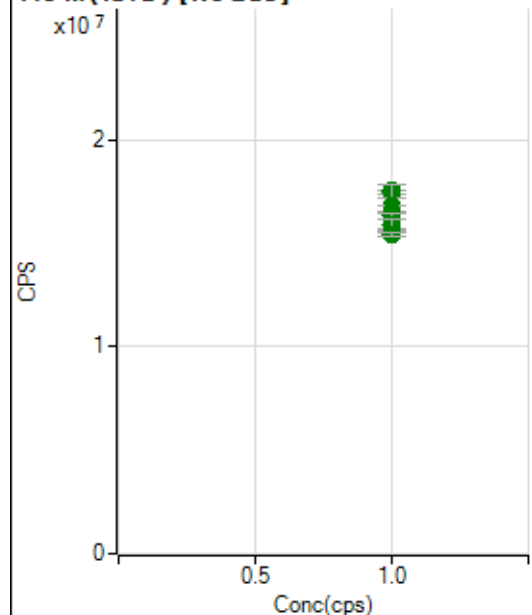
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3806154.18		P	0.1
2	☐	1.000		3796655.81		P	0.7
3	☐	1.000		3641382.69		P	0.3
4	☐	1.000		3411715.02		P	0.9
5	☐	1.000		3365597.03		P	1.3
6	☐	1.000		3375734.29		P	2.6
7	☐	1.000		3418837.69		P	0.4
8	☐	1.000		3384534.01		P	1.3

103 Rh (ISTD) [No Gas]

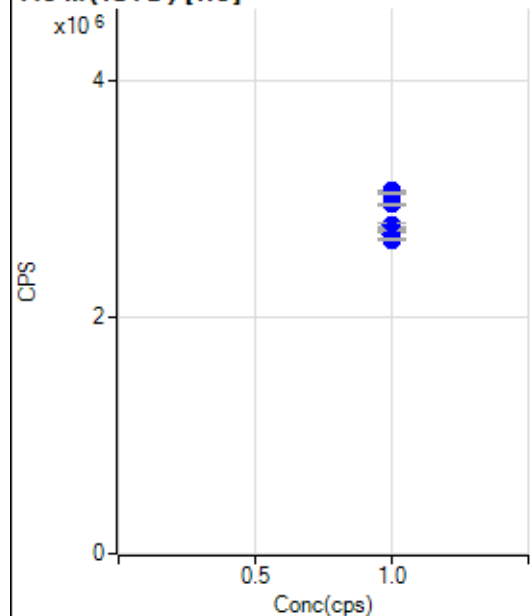
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15752403.24		A	0.5
2	☐	1.000		15761439.90		A	4.4
3	☐	1.000		14974147.69		A	1.1
4	☐	1.000		14436916.59		A	0.9
5	☐	1.000		13556453.97		A	1.2
6	☐	1.000		13878874.24		A	2.4
7	☐	1.000		13437626.88		A	2.2
8	☐	1.000		11780032.60		A	0.7

103 Rh (ISTD) [He]

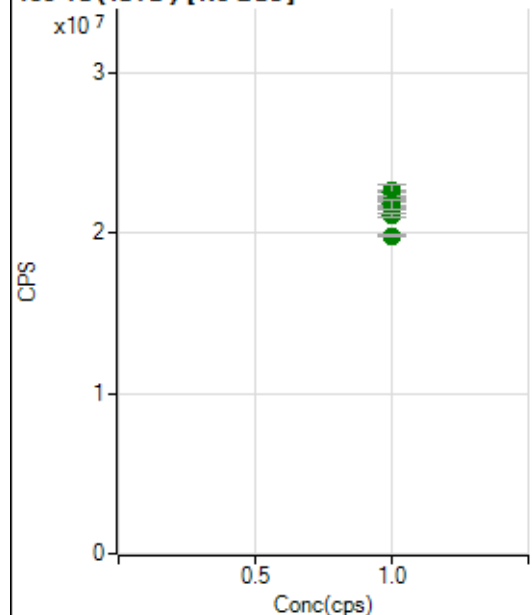
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7278688.15		A	0.4
2	☐	1.000		7143812.88		A	0.5
3	☐	1.000		6819018.37		A	0.6
4	☐	1.000		6503766.64		A	0.7
5	☐	1.000		6338886.22		A	1.4
6	☐	1.000		6250550.05		A	3.7
7	☐	1.000		6139849.49		A	0.5
8	☐	1.000		5402994.64		P	1.4

115 In (ISTD) [No Gas]

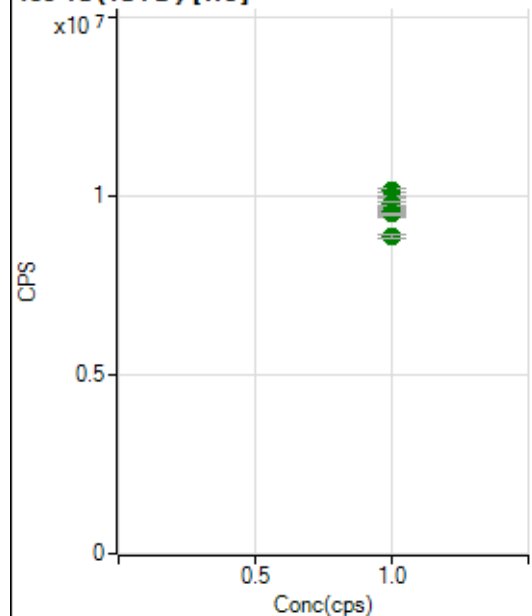
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17473843.05		A	0.9
2	☐	1.000		17511150.97		A	3.9
3	☐	1.000		16811319.78		A	0.4
4	☐	1.000		16479282.86		A	0.8
5	☐	1.000		15682400.91		A	0.2
6	☐	1.000		16322174.74		A	1.8
7	☐	1.000		15889256.30		A	3.3
8	☐	1.000		15438556.14		A	1.4

115 In (ISTD) [He]

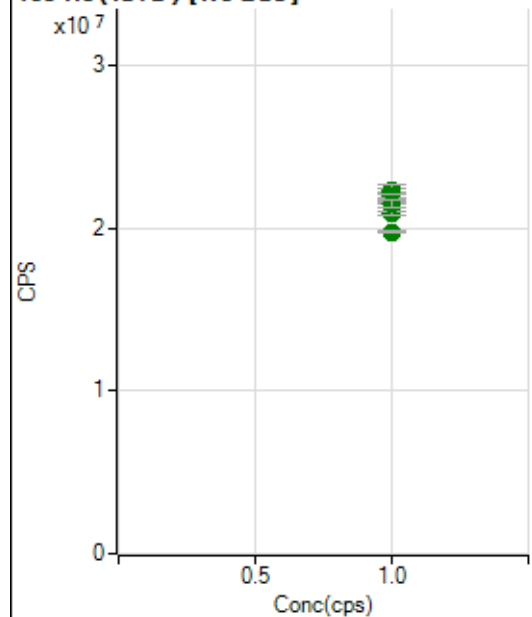
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3073889.33		P	0.4
2	☐	1.000		3052272.80		P	0.5
3	☐	1.000		2957684.29		P	0.2
4	☐	1.000		2779584.28		P	1.2
5	☐	1.000		2734307.19		P	1.3
6	☐	1.000		2698896.09		P	2.7
7	☐	1.000		2663194.15		P	0.3
8	☐	1.000		2664690.33		P	1.0

159 Tb (ISTD) [No Gas]

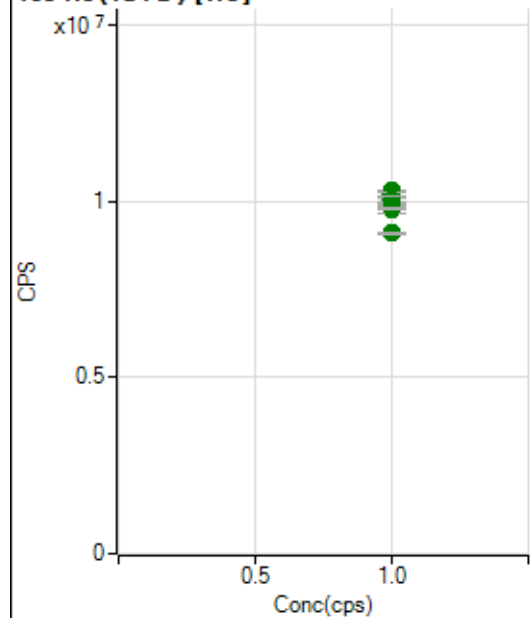
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		22636072.16		A	0.8
2	☐	1.000		22603367.72		A	3.8
3	☐	1.000		21851488.29		A	1.5
4	☐	1.000		21689200.93		A	0.7
5	☐	1.000		21116495.93		A	1.3
6	☐	1.000		22125339.95		A	1.6
7	☐	1.000		21777077.31		A	2.4
8	☐	1.000		19854594.70		A	0.2

159 Tb (ISTD) [He]

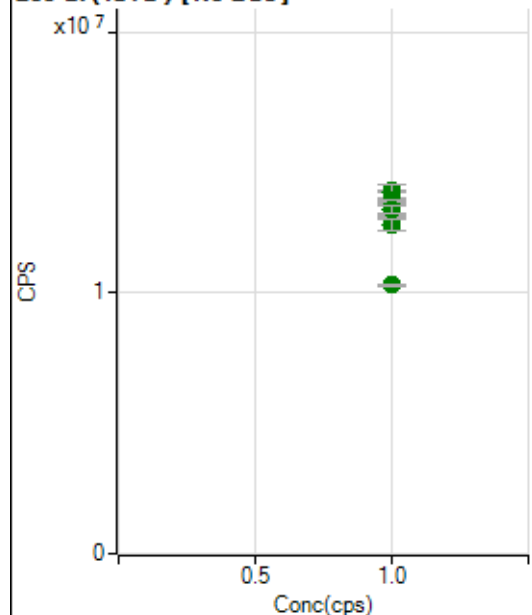
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10125235.68		A	1.0
2	☐	1.000		9968938.74		A	0.7
3	☐	1.000		9772500.89		A	1.4
4	☐	1.000		9571498.60		A	1.5
5	☐	1.000		9573901.25		A	0.9
6	☐	1.000		9545033.19		A	3.8
7	☐	1.000		9475037.43		A	0.7
8	☐	1.000		8848988.89		A	1.4

165 Ho (ISTD) [No Gas]

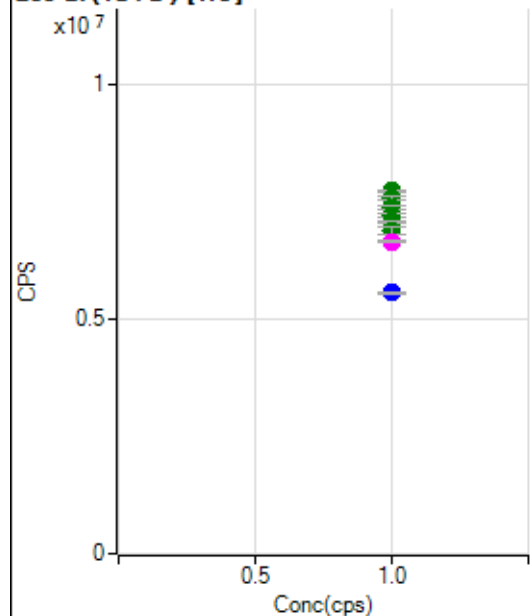
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		22296443.28		A	1.0
2	☐	1.000		22189700.23		A	4.3
3	☐	1.000		21700119.40		A	1.2
4	☐	1.000		21528463.29		A	0.4
5	☐	1.000		20928532.61		A	1.4
6	☐	1.000		21981091.90		A	1.2
7	☐	1.000		21483764.68		A	2.3
8	☐	1.000		19766573.32		A	0.8

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10286478.04		A	0.8
2	☐	1.000		10182318.95		A	1.7
3	☐	1.000		10054743.81		A	1.5
4	☐	1.000		9857762.35		A	1.7
5	☐	1.000		9820425.90		A	0.6
6	☐	1.000		9786324.99		A	2.7
7	☐	1.000		9801513.88		A	0.7
8	☐	1.000		9090567.85		A	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13903883.54		A	0.4
2	☐	1.000		13841982.99		A	4.6
3	☐	1.000		13540494.38		A	1.4
4	☐	1.000		13523787.02		A	0.3
5	☐	1.000		12928891.61		A	0.5
6	☐	1.000		13189881.05		A	1.8
7	☐	1.000		12595480.64		A	3.6
8	☐	1.000		10305906.23		A	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7740322.24		A	0.4
2	☐	1.000		7604307.18		A	1.2
3	☐	1.000		7386272.04		A	1.1
4	☐	1.000		7218280.38		A	1.6
5	☐	1.000		7077773.44		A	0.6
6	☐	1.000		6907696.98		A	2.3
7	☐	1.000		6657008.23		M	0.6
8	☐	1.000		5562561.17		P	1.3

US EPA Tune Check Sample Report

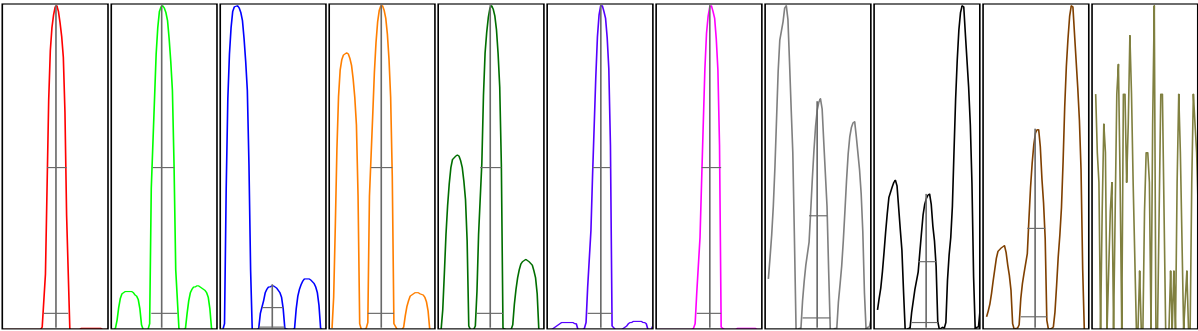
Batch Folder D:\ICP-MS Data\1\DATA\P7030620-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	16074	2.48	5.00	
24	229138	1.94	5.00	
25	30235	1.92	5.00	
26	35172	2.06	5.00	
59	175439	1.88	5.00	
113	12134	3.62	5.00	
115	275304	3.78	5.00	
206	59422	1.81	5.00	
207	54448	2.07	5.00	
208	128632	1.91	5.00	
220	0	43.85		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16448	16340	15427	16035	16121
24	233150	231748	221661	229789	229343
25	30824	30557	29293	30310	30189
26	35975	35375	33989	35306	35215
59	177820	177746	169792	175965	175872
113	12736	12367	11574	11957	12035
115	289764	280207	261765	272011	272772
206	60307	60048	57606	59816	59334
207	55592	54866	52577	54795	54412
208	130959	130272	124638	128744	128549
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	29505	9.05	8.9 - 9.1		0.730	0.900	
24	377534	23.95	23.9 - 24.1		0.782	0.900	
25	50387	25.00	24.9 - 25.1		0.745	0.900	
26	59189	26.00	25.9 - 26.1		0.743	0.900	
59	303472	59.00	58.9 - 59.1		0.777	0.900	
113	22801	113.05	112.9 - 113.1		0.734	0.900	
115	519136	115.05	114.9 - 115.1		0.729	0.900	
206	116242	206.00	205.9 - 206.1		0.820	0.900	
207	105906	207.00	206.9 - 207.1		0.787	0.900	
208	255152	208.00	207.9 - 208.1		0.783	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.5	V	Deflect	12.8	V
Extract 2	-125.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	40741	0.64	
89	82421	0.79	
205	46533	0.86	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	40794	40291	40900	40945	40777
89	82110	81462	82699	83133	82701
205	46777	45862	46662	46872	46492

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	9.0	V	Deflect	1.0	V
Extract 2	-145.0	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			