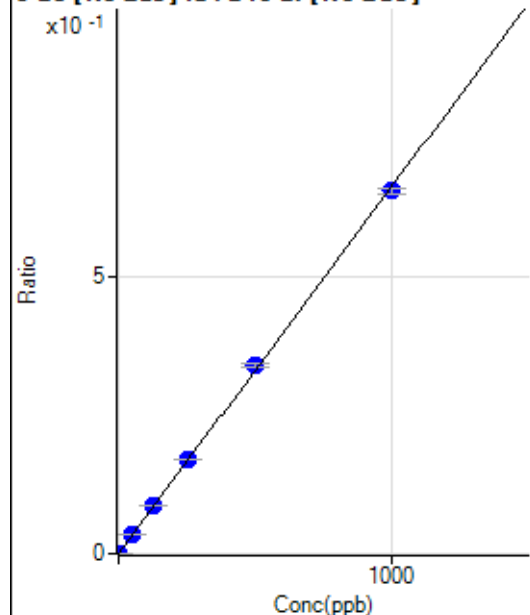


Batch Folder: D:\ICP-MS Data\1\DATA\P7031420P.b\
Analysis File: P7031420P.batch.bin
DA Date-Time: 2020-03-14 23:40:58
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2020-03-14 13:28:27
2	004CALS.d	S02	2020-03-14 13:31:59
3	006CALS.d	S03	2020-03-14 13:40:52
4	007CALS.d	S04	2020-03-14 13:45:13
5	008CALS.d	S05	2020-03-14 13:48:54
6	009CALS.d	S06	2020-03-14 13:52:27
7	010CALS.d	S07	2020-03-14 13:55:56
8	011CALS.d	S08	2020-03-14 13:59:26

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	53.70	0.0000	P	35.3
2	☐	1.000	1.049	4315.56	0.0007	P	5.7
3	☐	50.000	52.716	211362.44	0.0350	P	0.6
4	☐	125.000	132.284	523022.21	0.0879	P	1.0
5	☐	250.000	256.770	1013241.23	0.1706	P	0.3
6	☐	500.000	516.052	1935042.25	0.3428	P	2.0
7	☐	1000.000	989.235	3654560.59	0.6572	P	1.3
8	☐			813.01	0.0002	P	11.2

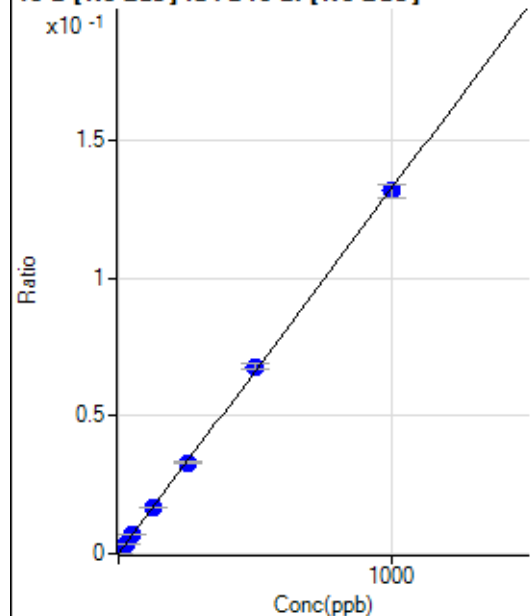
$$y = 6.6433\text{E-}004 * x + 8.7510\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.01396$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	444.47	0.0001	P	15.0
2	☐	25.000	24.299	20155.81	0.0033	P	1.2
3	☐	50.000	51.354	41527.65	0.0069	P	1.4
4	☐	125.000	128.037	101459.45	0.0170	P	0.6
5	☐	250.000	247.562	195387.49	0.0329	P	1.9
6	☐	500.000	512.459	383897.94	0.0680	P	2.6
7	☐	1000.000	993.950	733148.03	0.1319	P	3.4
8	☐			15450.12	0.0031	P	7.7

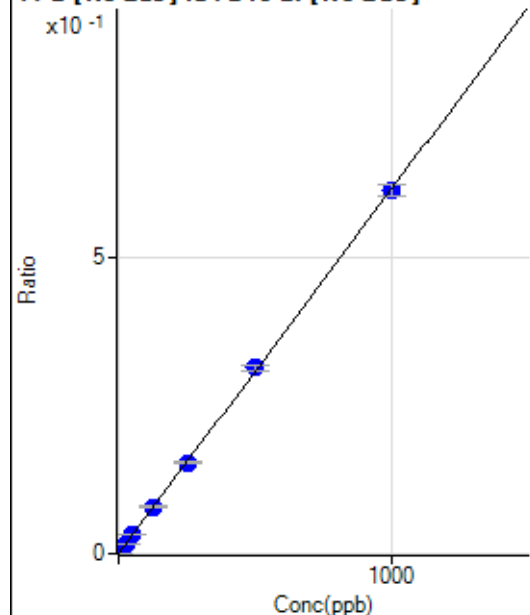
$$y = 1.3259\text{E-}004 * x + 7.2655\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.2474$$

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	2122.45	0.0003	P	4.7
2	☐	25.000	24.315	93836.71	0.0153	P	0.7
3	☐	50.000	52.170	196150.72	0.0325	P	2.2
4	☐	125.000	127.744	470748.17	0.0791	P	1.8
5	☐	250.000	248.818	913187.01	0.1538	P	1.3
6	☐	500.000	509.698	1775487.45	0.3146	P	2.9
7	☐	1000.000	995.012	3412849.30	0.6138	P	3.3
8	☐			72798.81	0.0146	P	7.4

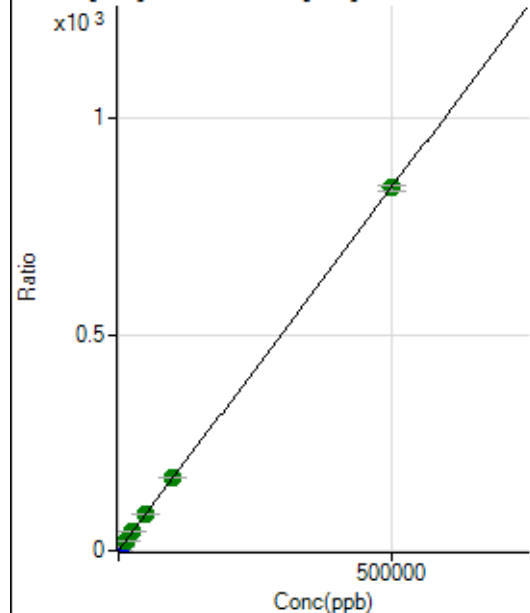
$$y = 6.1653E-004 * x + 3.4685E-004$$

$$R = 0.9999$$

$$DL = 0.08011$$

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	13965.29	0.0360	P	3.6
2	☐	500.000	508.544	346313.46	0.8897	P	1.3
3	☐	5000.000	5312.569	3426172.99	8.9551	P	1.1
4	☐	12500.000	13184.532	8316246.37	22.1710	A	1.3
5	☐	25000.000	26676.685	16382106.79	44.8225	A	3.5
6	☐	50000.000	50214.147	32369683.36	84.3388	A	4.6
7	☐	100000.00	101292.03	63475193.09	170.0917	A	1.0
8	☐	500000.00	499616.09	293768164.9	838.8242	A	1.2

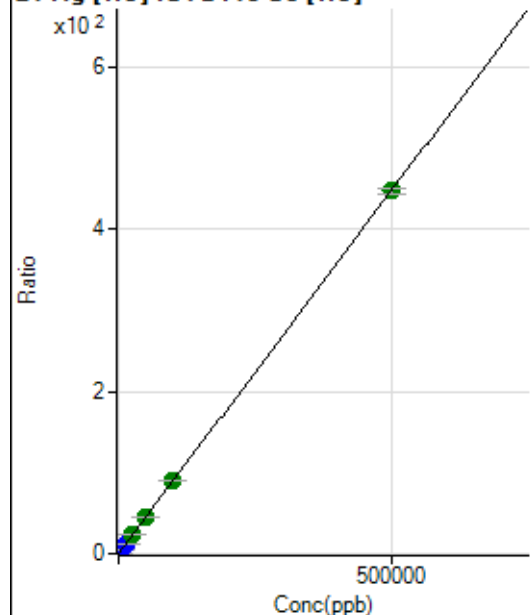
$$y = 0.0017 * x + 0.0360$$

$$R = 1.0000$$

$$DL = 2.292$$

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	202.79	0.0005	P	19.9
2	☐	500.000	515.090	179448.53	0.4611	P	3.3
3	☐	5000.000	5403.879	1848923.61	4.8325	P	1.1
4	☐	12500.000	13377.729	4487156.87	11.9625	P	0.5
5	☐	25000.000	27142.261	8869104.80	24.2704	A	4.2
6	☐	50000.000	50252.684	17249536.84	44.9351	A	4.0
7	☐	100000.00	101678.76	33930030.97	90.9190	A	0.5
8	☐	500000.00	499505.86	156424811.8	446.6455	A	1.5

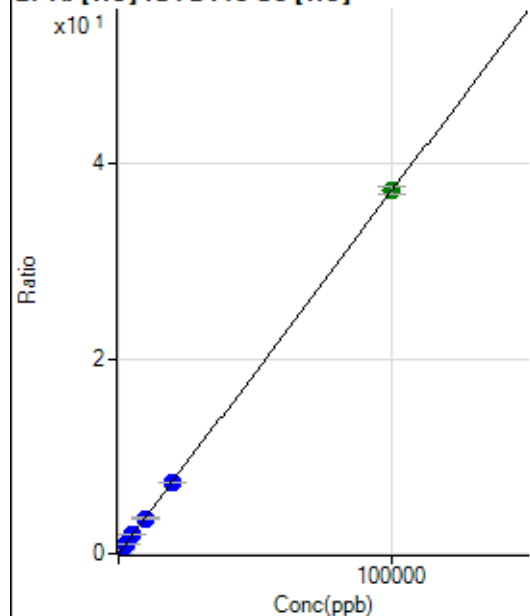
$$y = 8.9417E-004 * x + 5.2194E-004$$

$$R = 1.0000$$

$$DL = 0.3487$$

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	30.56	0.0001	P	83.5
2	☐	20.000	19.503	2853.18	0.0073	P	1.9
3	☐	1000.000	1035.822	147352.82	0.3851	P	1.4
4	☐	2500.000	2578.052	359523.04	0.9585	P	1.0
5	☐	5000.000	5191.422	705332.87	1.9300	P	3.8
6	☐	10000.000	9682.155	1381685.73	3.5994	P	4.1
7	☐	20000.000	19589.161	2717660.52	7.2823	P	0.2
8	☐	100000.00	100102.07	13031778.59	37.2128	A	2.3

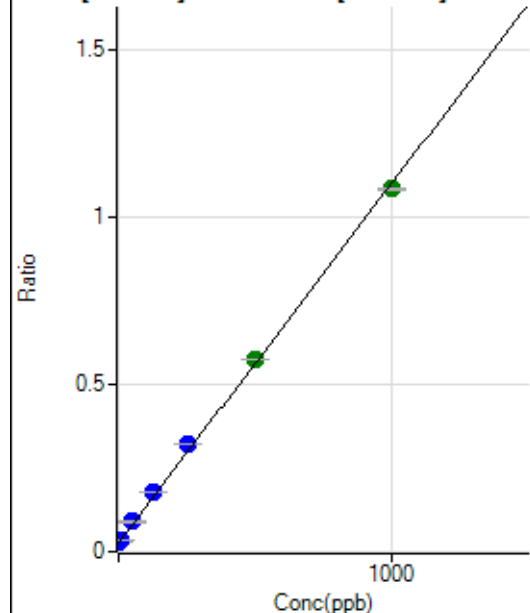
$$y = 3.7175E-004 * x + 7.8815E-005$$

$$R = 1.0000$$

$$DL = 0.5311$$

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	282321.04	0.0260	P	0.6
2	☐	10.000	9.587	404986.74	0.0363	P	0.9
3	☐	50.000	58.914	977073.86	0.0893	P	0.5
4	☐	125.000	142.110	1935095.25	0.1788	P	0.6
5	☐	250.000	276.326	3489638.88	0.3231	P	0.5
6	☐	500.000	510.750	6210593.06	0.5751	A	0.8
7	☐	1000.000	985.463	11609313.11	1.0854	A	0.4
8	☐			560693.49	0.0565	P	1.5

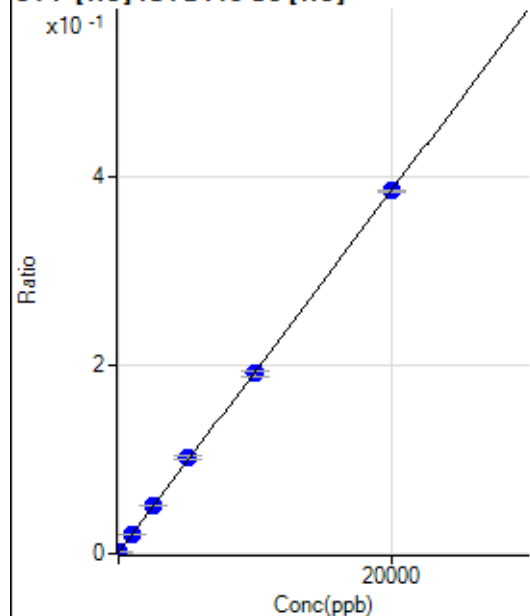
$$y = 0.0011 * x + 0.0260$$

$$R = 0.9995$$

$$DL = 0.4272$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-25.489	266.68	0.0007	P	25.4
2	☐	0.000	25.489	647.27	0.0017	P	9.3
3	☐	1000.000	981.078	7646.69	0.0200	P	1.1
4	☐	2500.000	2599.902	19138.02	0.0510	P	2.1
5	☐	5000.000	5249.952	37211.25	0.1018	P	4.3
6	☐	10000.000	9892.582	73272.64	0.1908	P	3.3
7	☐	20000.000	19979.679	143389.30	0.3842	P	0.2
8	☐			305.57	0.0009	P	8.9

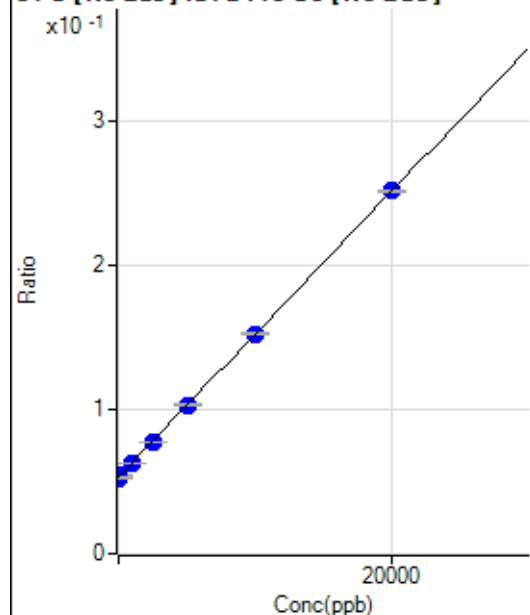
$$y = 1.9172E-005 * x + 0.0012$$

$$R = 0.9999$$

$$DL = 25.71$$

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	85.713	588254.60	0.0542	P	0.5
2	☐	0.000	-85.713	585449.57	0.0525	P	0.9
3	☐	1000.000	938.979	685026.84	0.0626	P	1.0
4	☐	2500.000	2424.472	837181.64	0.0773	P	0.8
5	☐	5000.000	5031.933	1114277.92	0.1032	P	0.8
6	☐	10000.000	9992.210	1644332.67	0.1523	P	0.8
7	☐	20000.000	20008.404	2689047.54	0.2514	P	0.5
8	☐			466932.67	0.0471	P	2.0

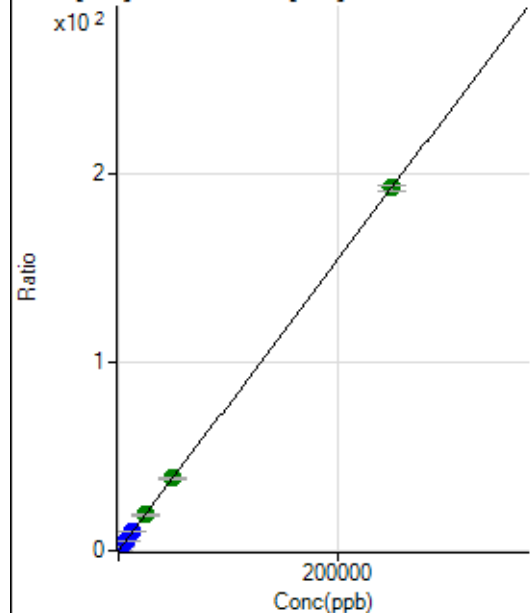
$$y = 9.8994\text{E-}006 * x + 0.0533$$

$$R = 1.0000$$

$$DL = 108.3$$

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	18492.72	0.0476	P	0.8
2	☐	500.000	502.577	169449.73	0.4353	P	0.7
3	☐	2500.000	2557.092	772965.60	2.0203	P	1.3
4	☐	6250.000	6407.047	1871911.20	4.9904	P	0.4
5	☐	12500.000	12955.588	3669806.29	10.0424	P	4.1
6	☐	25000.000	24501.066	7274591.05	18.9492	A	4.0
7	☐	50000.000	49723.516	14333434.35	38.4074	A	1.1
8	☐	250000.00	250077.90	67580411.93	192.9730	A	1.9

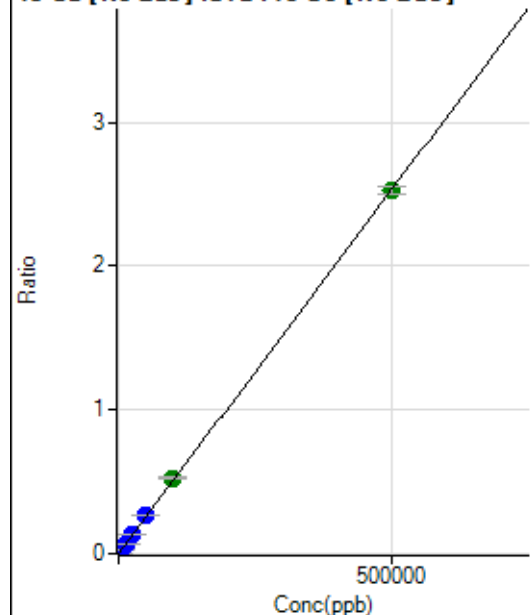
$$y = 7.7146\text{E-}004 * x + 0.0476$$

$$R = 1.0000$$

$$DL = 1.43$$

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	361.13	0.0000	P	21.5
2	☐	500.000	499.107	28534.09	0.0026	P	3.2
3	☐	5000.000	5400.623	299211.74	0.0274	P	1.4
4	☐	12500.000	13518.547	740791.17	0.0684	P	0.2
5	☐	25000.000	26747.215	1462336.28	0.1354	P	0.1
6	☐	50000.000	52928.696	2892764.21	0.2679	P	0.7
7	☐	100000.00	104374.39	5649373.04	0.5282	A	0.5
8	☐	500000.00	498715.42	25033735.80	2.5237	A	2.3

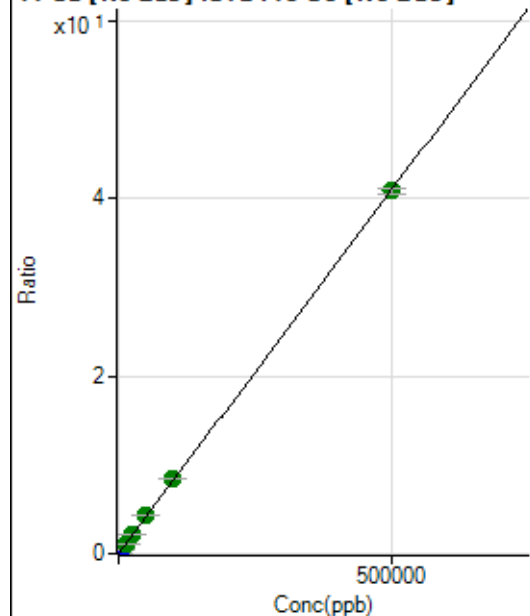
$$y = 5.0604\text{E-}006 * x + 3.3256\text{E-}005$$

$$R = 1.0000$$

$$DL = 4.235$$

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	8027.53	0.0007	P	2.8
2	☐	500.000	509.066	472541.68	0.0424	P	1.2
3	☐	5000.000	5335.004	4779710.18	0.4371	P	0.7
4	☐	12500.000	13173.447	11669611.55	1.0782	A	0.2
5	☐	25000.000	26482.606	23403116.32	2.1667	A	0.8
6	☐	50000.000	52019.795	45952236.79	4.2553	A	1.1
7	☐	100000.00	103996.89	90980579.12	8.5064	A	0.2
8	☐	500000.00	498904.31	404783764.6	40.8051	A	1.7

$$y = 8.1788\text{E-}005 * x + 7.3963\text{E-}004$$

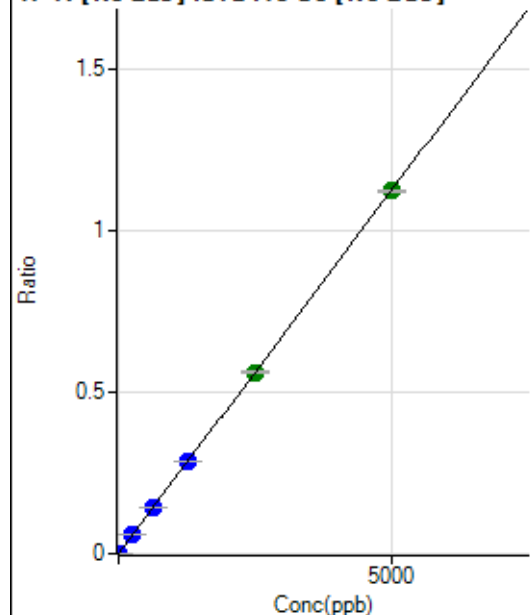
$$R = 1.0000$$

$$DL = 0.7703$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	163.90	0.0000	P	29.9
2	☐	5.000	4.972	12658.69	0.0011	P	2.6
3	☐	250.000	254.584	627393.23	0.0574	P	1.2
4	☐	625.000	638.643	1557531.92	0.1439	P	0.3
5	☐	1250.000	1268.105	3086188.83	0.2857	P	0.8
6	☐	2500.000	2500.459	6083771.18	0.5634	A	1.4
7	☐	5000.000	4993.310	12032605.22	1.1250	A	0.3
8	☐			4804.33	0.0005	P	17.9

$$y = 2.2530E-004 * x + 1.5101E-005$$

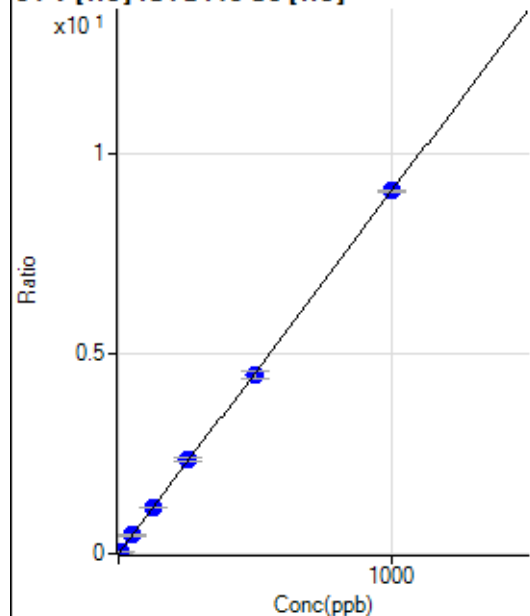
$$R = 1.0000$$

$$DL = 0.06002$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.45	0.0000	P	86.6
2	☐	5.000	5.079	17934.45	0.0461	P	2.9
3	☐	50.000	50.890	176607.35	0.4617	P	2.3
4	☐	125.000	128.108	435917.85	1.1621	P	0.5
5	☐	250.000	261.075	865426.75	2.3683	P	4.3
6	☐	500.000	491.610	1711680.27	4.4596	P	4.5
7	☐	1000.000	1000.993	3388663.91	9.0804	P	0.4
8	☐			1487.88	0.0043	P	6.6

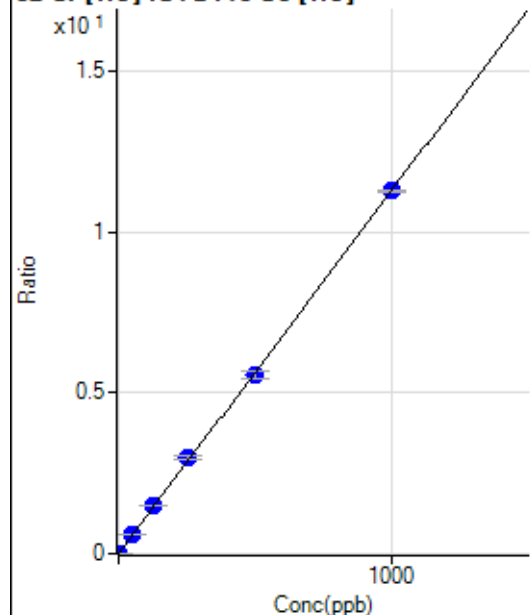
$$y = 0.0091 * x + 1.1472E-005$$

$$R = 0.9999$$

$$DL = 0.003286$$

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	580.02	0.0015	P	12.4
2	☐	2.000	2.012	9423.16	0.0242	P	3.6
3	☐	50.000	52.237	226295.23	0.5915	P	1.2
4	☐	125.000	130.187	552102.46	1.4719	P	0.8
5	☐	250.000	264.021	1090130.43	2.9834	P	4.6
6	☐	500.000	492.289	2134521.24	5.5616	P	4.7
7	☐	1000.000	999.590	4213703.24	11.2913	P	0.4
8	☐			103070.36	0.2943	P	1.4

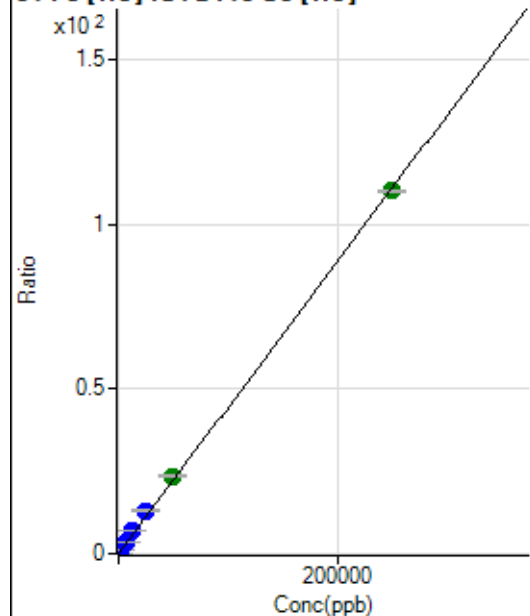
$$y = 0.0113 * x + 0.0015$$

$$R = 0.9998$$

$$DL = 0.0493$$

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	493.86	0.0013	P	11.5
2	☐	50.000	65.967	11870.58	0.0305	P	1.6
3	☐	2500.000	3107.650	527233.17	1.3781	P	1.7
4	☐	6250.000	7760.108	1290116.50	3.4394	P	0.8
5	☐	12500.000	15751.287	2550900.63	6.9799	P	3.7
6	☐	25000.000	29377.922	4996665.03	13.0171	P	4.2
7	☐	50000.000	53168.203	8791204.02	23.5574	A	1.2
8	☐	250000.00	248722.17	38593614.34	110.1973	A	0.8

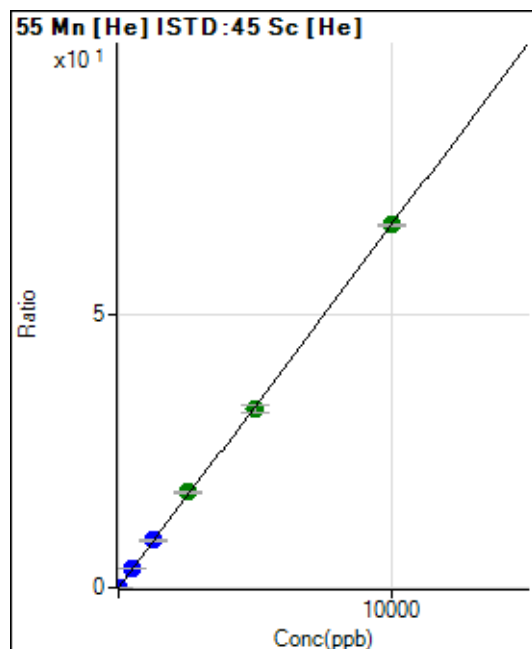
$$y = 4.4305E-004 * x + 0.0013$$

$$R = 0.9998$$

$$DL = 0.9879$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	107.78	0.0003	P	28.2
2	☐	1.000	1.031	2779.21	0.0071	P	3.3
3	☐	500.000	517.776	1318208.92	3.4455	P	1.3
4	☐	1250.000	1298.923	3242012.24	8.6431	P	0.8
5	☐	2500.000	2631.379	6400339.97	17.5090	A	2.8
6	☐	5000.000	4925.394	12579784.67	32.7730	A	4.3
7	☐	10000.000	9997.454	24824805.19	66.5216	A	0.4
8	☐			23616.98	0.0674	P	0.9

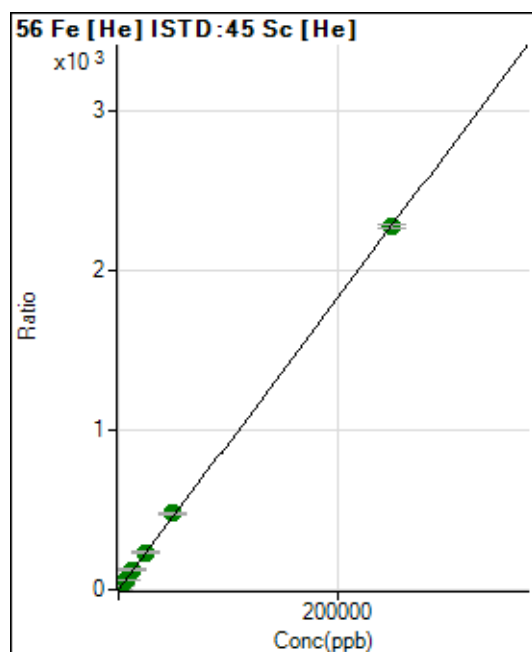
$$y = 0.0067 * x + 2.7759E-004$$

$$R = 0.9999$$

$$DL = 0.03533$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4674.95	0.0120	P	3.2
2	☐	50.000	55.680	202221.36	0.5196	P	2.8
3	☐	2500.000	2697.175	9410110.05	24.5982	A	2.3
4	☐	6250.000	6806.811	23278881.08	62.0597	A	0.3
5	☐	12500.000	13829.608	46068362.61	126.0762	A	4.6
6	☐	25000.000	25705.841	89941769.60	234.3343	A	4.5
7	☐	50000.000	52237.790	177704465.0	476.1869	A	0.5
8	☐	250000.00	249399.48	796189995.5	2,273.419	A	1.2

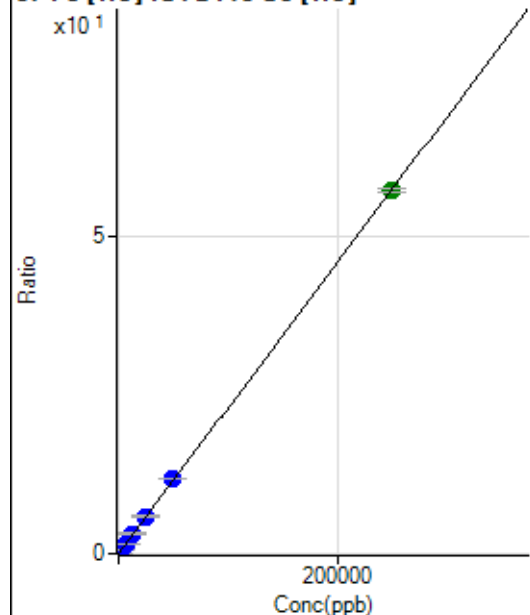
$$y = 0.0091 * x + 0.0120$$

$$R = 1.0000$$

$$DL = 0.1262$$

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	133.34	0.0003	P	26.1
2	☐	50.000	56.598	5184.39	0.0133	P	7.3
3	☐	2500.000	2696.211	236715.30	0.6187	P	1.7
4	☐	6250.000	6808.500	585869.75	1.5619	P	0.7
5	☐	12500.000	13716.136	1149693.20	3.1462	P	4.3
6	☐	25000.000	25740.749	2266326.47	5.9041	P	4.2
7	☐	50000.000	51502.153	4408203.54	11.8126	P	0.7
8	☐	250000.00	249548.76	20044740.26	57.2354	A	1.1

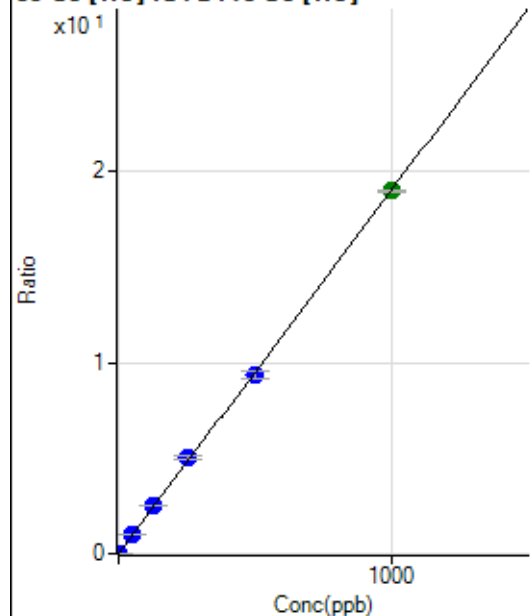
$$y = 2.2935E-004 * x + 3.4336E-004$$

$$R = 1.0000$$

$$DL = 1.171$$

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	76.67	0.0002	P	45.7
2	☐	1.000	1.027	7685.46	0.0197	P	1.8
3	☐	50.000	52.887	385137.81	1.0067	P	1.8
4	☐	125.000	132.204	943824.81	2.5162	P	0.4
5	☐	250.000	266.765	1855273.45	5.0770	P	4.2
6	☐	500.000	493.364	3603905.92	9.3895	P	4.4
7	☐	1000.000	998.082	7088536.77	18.9948	A	0.5
8	☐			13082.69	0.0374	P	2.6

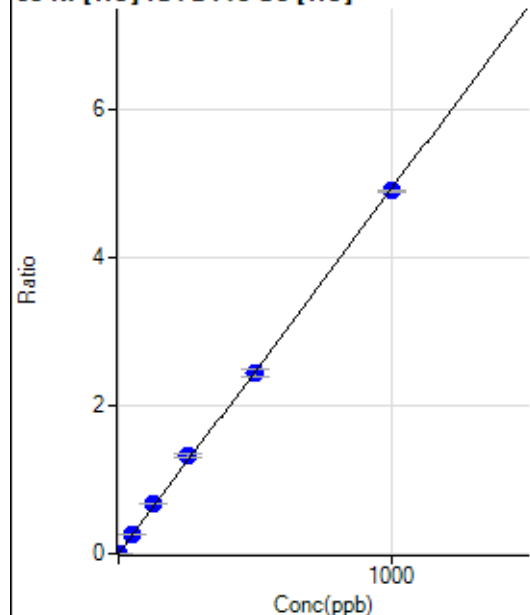
$$y = 0.0190 * x + 1.9757E-004$$

$$R = 0.9998$$

$$DL = 0.01422$$

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	85.56	0.0002	P	25.7
2	☐	1.000	1.221	2424.69	0.0062	P	7.7
3	☐	50.000	54.462	102707.73	0.2684	P	0.9
4	☐	125.000	135.488	250376.99	0.6675	P	0.6
5	☐	250.000	270.899	487614.27	1.3344	P	4.2
6	☐	500.000	497.140	939831.24	2.4486	P	4.4
7	☐	1000.000	994.671	1828155.20	4.8989	P	0.7
8	☐			28926.50	0.0826	P	0.6

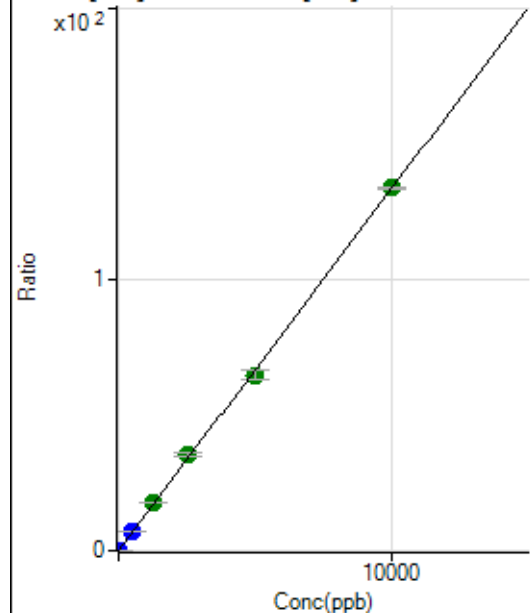
$$y = 0.0049 * x + 2.2043E-004$$

$$R = 0.9997$$

$$DL = 0.03445$$

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	698.92	0.0018	P	4.2
2	☐	2.000	2.097	11608.10	0.0298	P	2.6
3	☐	500.000	533.113	2726017.11	7.1251	P	1.2
4	☐	1250.000	1319.309	6613058.79	17.6301	A	0.6
5	☐	2500.000	2657.335	12977507.44	35.5085	A	3.6
6	☐	5000.000	4856.338	24904356.85	64.8910	A	4.8
7	☐	10000.000	10022.178	49974259.25	133.9158	A	0.8
8	☐			16756.45	0.0478	P	2.6

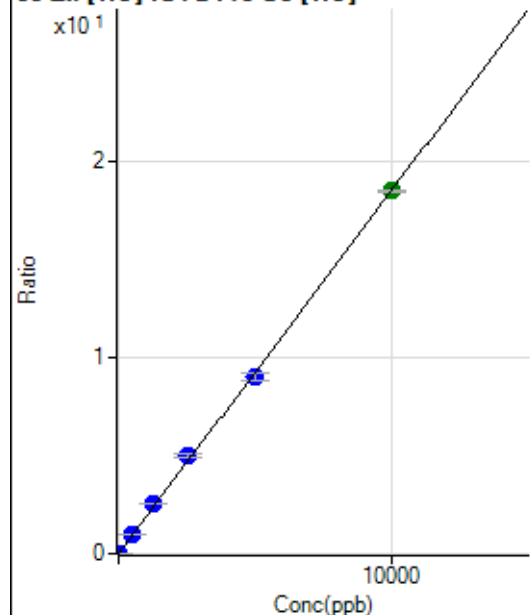
$$y = 0.0134 * x + 0.0018$$

$$R = 0.9997$$

$$DL = 0.01681$$

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	1031.16	0.0027	P	7.1
2	☐	2.000	2.015	2486.92	0.0064	P	3.3
3	☐	500.000	547.379	389256.43	1.0174	P	0.9
4	☐	1250.000	1365.635	950611.07	2.5343	P	0.1
5	☐	2500.000	2704.671	1833457.84	5.0165	P	3.6
6	☐	5000.000	4875.657	3470079.60	9.0411	P	4.5
7	☐	10000.000	9994.180	6914991.29	18.5297	A	0.5
8	☐			22683.33	0.0648	P	2.5

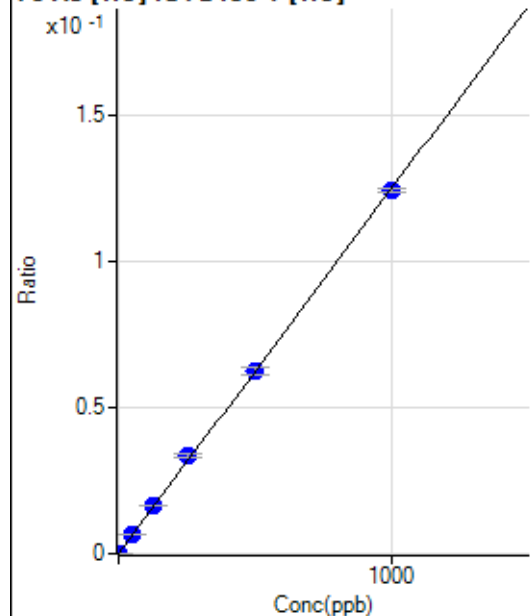
$$y = 0.0019 * x + 0.0027$$

$$R = 0.9996$$

$$DL = 0.3058$$

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	7.41	0.0000	P	100.0
2	☐	1.000	0.989	422.23	0.0001	P	3.7
3	☐	50.000	52.434	21644.57	0.0065	P	2.5
4	☐	125.000	131.932	53836.81	0.0165	P	1.4
5	☐	250.000	268.735	105981.49	0.0336	P	3.8
6	☐	500.000	501.200	207685.47	0.0626	P	4.2
7	☐	1000.000	993.728	400600.86	0.1241	P	1.1
8	☐			232.72	0.0001	P	11.3

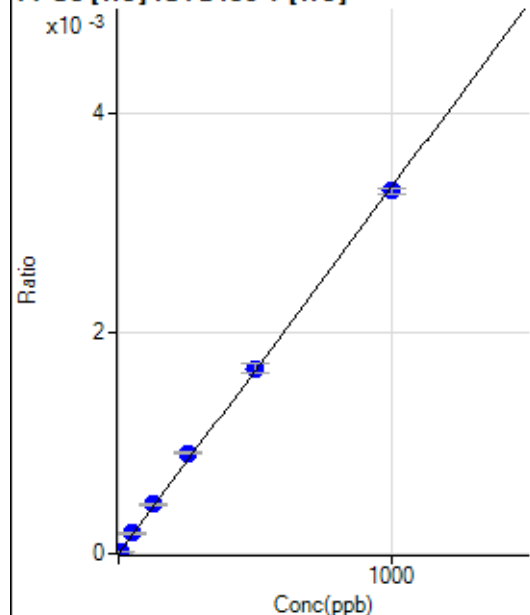
$$y = 1.2484E-004 * x + 2.2317E-006$$

$$R = 0.9998$$

$$DL = 0.05365$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.2
2	☐	5.000	6.869	77.78	0.0000	P	23.7
3	☐	50.000	55.904	615.58	0.0002	P	5.9
4	☐	125.000	134.701	1464.54	0.0004	P	3.0
5	☐	250.000	274.113	2881.44	0.0009	P	1.2
6	☐	500.000	505.354	5575.62	0.0017	P	5.4
7	☐	1000.000	989.777	10626.29	0.0033	P	1.6
8	☐			2.22	0.0000	P	173.2

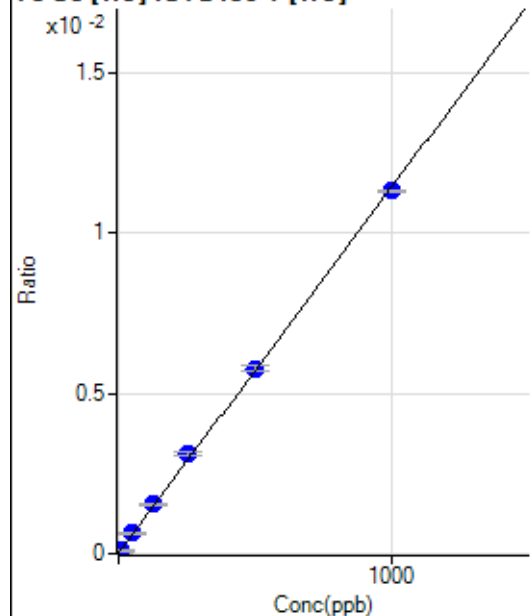
$$y = 3.3245\text{E-}006 * x + 3.3401\text{E-}007$$

$$R = 0.9997$$

$$DL = 0.5221$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	48.77	0.0000	P	35.3
2	☐	5.000	6.667	304.95	0.0001	P	6.5
3	☐	50.000	54.493	2106.97	0.0006	P	4.8
4	☐	125.000	133.071	5016.34	0.0015	P	2.3
5	☐	250.000	273.378	9913.33	0.0031	P	3.1
6	☐	500.000	504.941	19204.78	0.0058	P	2.6
7	☐	1000.000	990.443	36586.17	0.0113	P	0.6
8	☐			56.18	0.0000	P	16.2

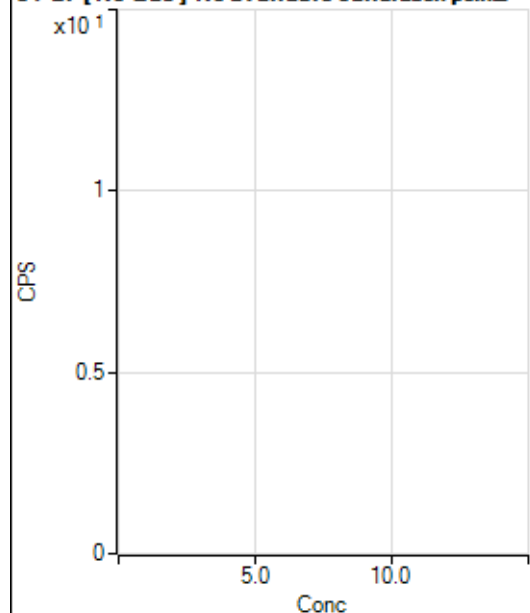
$$y = 1.1424\text{E-}005 * x + 1.4654\text{E-}005$$

$$R = 0.9997$$

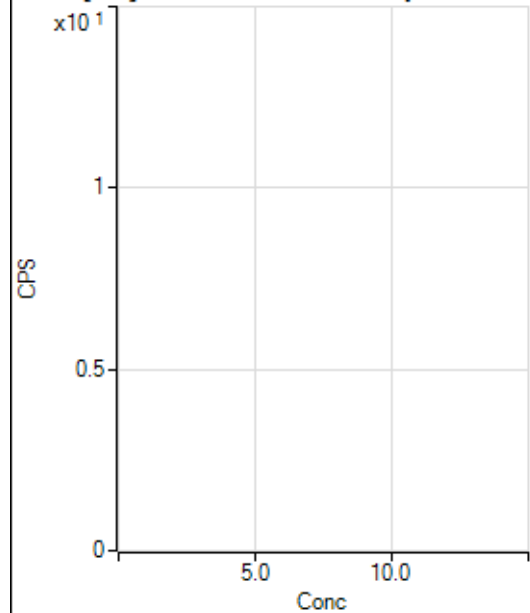
$$DL = 1.357$$

Weight: <None>

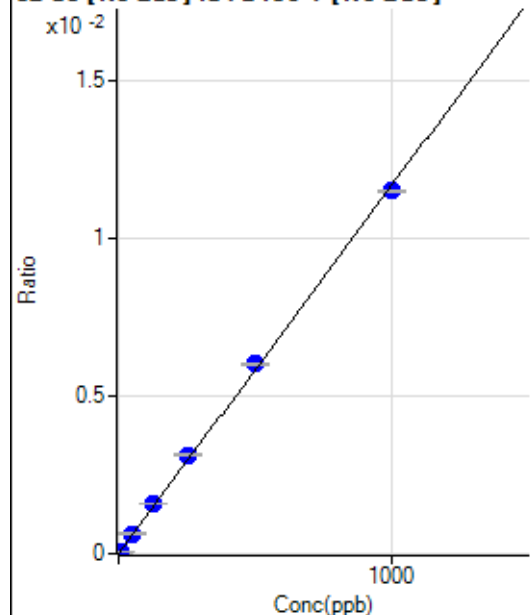
Min Conc: 0

81 Br [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			49515.63		P	2.6
2	☐			49180.99		P	1.1
3	☐			50413.43		P	1.6
4	☐			48903.10		P	2.2
5	☐			49904.26		P	0.3
6	☐			49619.81		P	0.7
7	☐			51956.93		P	1.6
8	☐			48538.34		P	1.4

81 Br [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.69		P	78.1
2	☐			43.38		P	35.3
3	☐			40.04		P	66.1
4	☐			46.71		P	81.1
5	☐			43.38		P	26.6
6	☐			33.37		P	75.5
7	☐			36.70		P	15.7
8	☐			40.04		P	25.0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-4.12	0.0000	P	-437.
2	☐	5.000	5.863	1975.55	0.0001	P	3.0
3	☐	50.000	54.575	18160.09	0.0006	P	1.5
4	☐	125.000	135.749	45468.33	0.0016	P	0.9
5	☐	250.000	267.190	88647.94	0.0031	P	1.5
6	☐	500.000	516.363	172401.81	0.0060	P	1.0
7	☐	1000.000	985.944	330253.32	0.0115	P	0.8
8	☐			288.65	0.0000	P	9.2

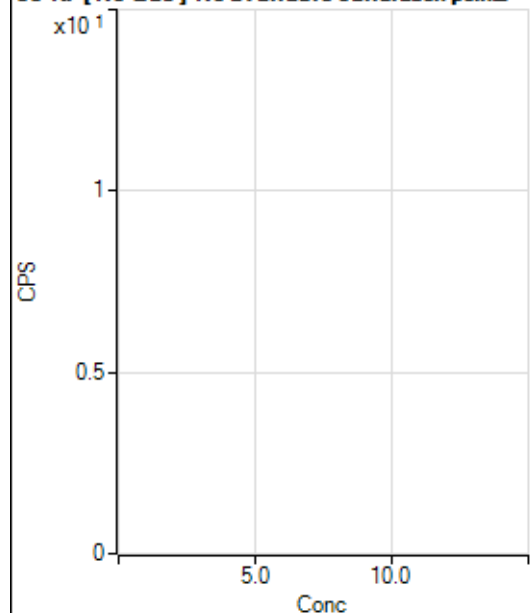
$$y = 1.1658\text{E-}005 * x - 1.4527\text{E-}007$$

R = 0.9996

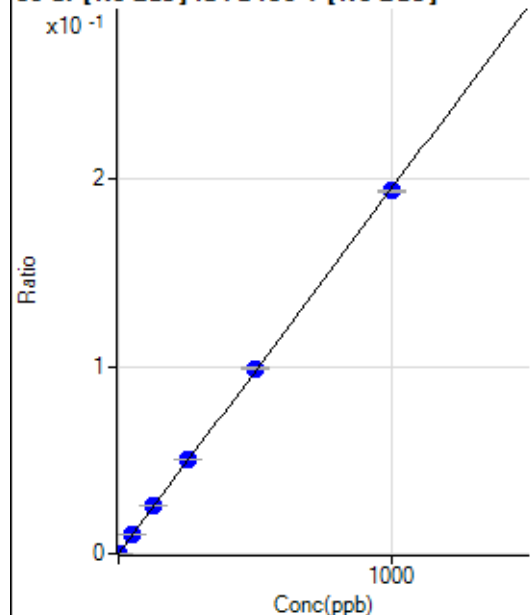
DL = 0.1636

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			422.23		P	6.9
2	☐			418.90		P	11.5
3	☐			360.01		P	3.3
4	☐			376.68		P	15.9
5	☐			396.68		P	7.3
6	☐			476.68		P	6.3
7	☐			503.35		P	14.5
8	☐			486.68		P	1.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	652.82	0.0000	P	12.2
2	☐	1.000	1.024	6457.32	0.0002	P	3.9
3	☐	50.000	52.108	290738.49	0.0102	P	0.4
4	☐	125.000	129.833	728100.51	0.0253	P	1.0
5	☐	250.000	256.768	1425691.70	0.0501	P	0.8
6	☐	500.000	507.440	2834514.47	0.0990	P	0.8
7	☐	1000.000	993.879	5569118.05	0.1938	P	0.5
8	☐			11958.25	0.0004	P	2.4

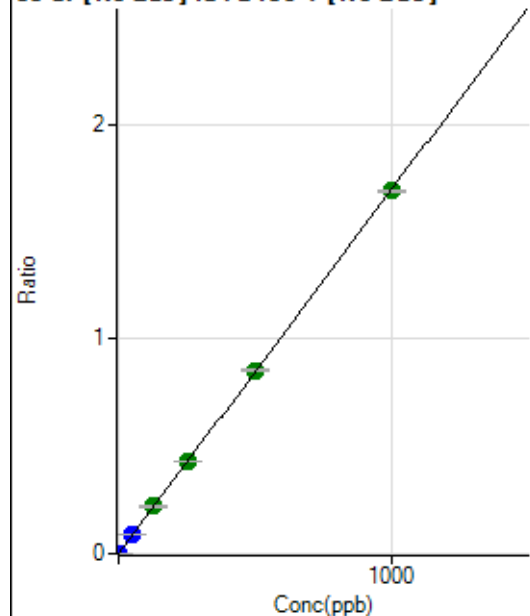
$$y = 1.9499E-004 * x + 2.3394E-005$$

$$R = 0.9999$$

$$DL = 0.04383$$

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	194.45	0.0000	P	13.8
2	☐	1.000	0.990	48853.51	0.0017	P	1.6
3	☐	50.000	51.886	2512576.23	0.0880	P	0.7
4	☐	125.000	129.611	6316854.31	0.2198	A	1.1
5	☐	250.000	253.813	12252247.15	0.4305	A	1.6
6	☐	500.000	504.009	24481764.43	0.8548	A	1.5
7	☐	1000.000	996.371	48558458.72	1.6899	A	0.4
8	☐			101833.13	0.0038	P	2.3

$$y = 0.0017 * x + 6.9710E-006$$

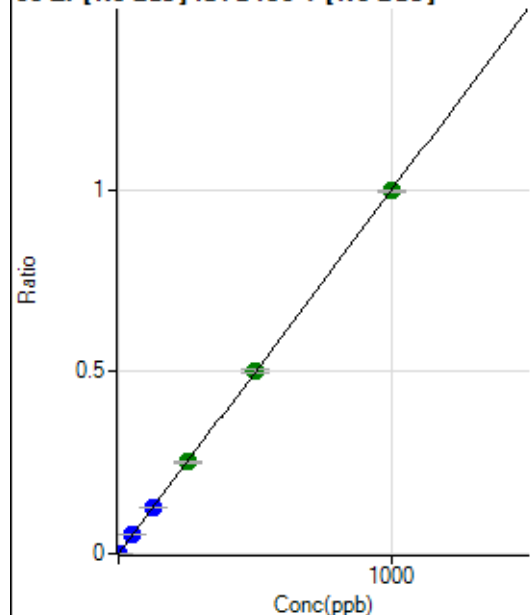
$$R = 1.0000$$

$$DL = 0.001703$$

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	1108.42	0.0000	P	13.1
2	☐	1.000	0.725	22156.80	0.0008	P	2.0
3	☐	50.000	50.474	1441732.05	0.0505	P	0.1
4	☐	125.000	128.464	3691317.88	0.1285	P	0.9
5	☐	250.000	252.276	7178971.26	0.2522	A	1.6
6	☐	500.000	502.021	14374436.26	0.5019	A	1.6
7	☐	1000.000	997.964	28667747.52	0.9977	A	0.4
8	☐			11074.15	0.0004	P	3.7

$$y = 9.9971\text{E-}004 * x + 3.9720\text{E-}005$$

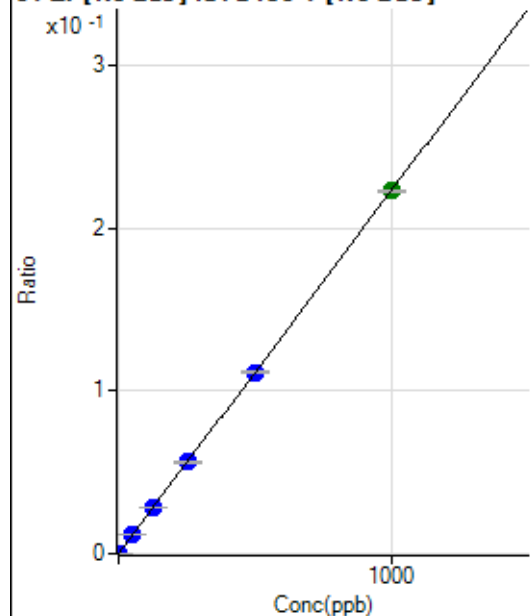
$$R = 1.0000$$

$$DL = 0.0156$$

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	236.12	0.0000	P	22.9
2	☐	1.000	0.680	4637.09	0.0002	P	8.2
3	☐	50.000	50.411	321240.13	0.0113	P	0.5
4	☐	125.000	128.252	822152.32	0.0286	P	1.6
5	☐	250.000	252.317	1601967.28	0.0563	P	1.2
6	☐	500.000	500.114	3194892.63	0.1116	P	1.1
7	☐	1000.000	998.937	6402194.76	0.2228	A	0.3
8	☐			2578.13	0.0001	P	2.8

$$y = 2.2304\text{E-}004 * x + 8.4626\text{E-}006$$

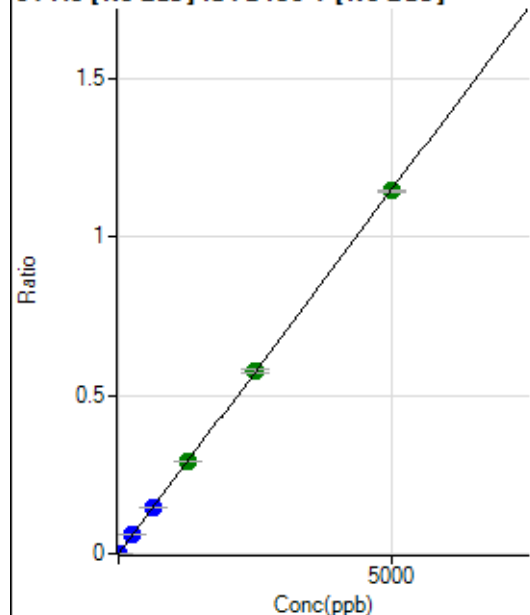
$$R = 1.0000$$

$$DL = 0.02604$$

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	463.92	0.0000	P	9.3
2	☐	5.000	4.619	31238.18	0.0011	P	1.2
3	☐	250.000	255.462	1676798.82	0.0587	P	0.7
4	☐	625.000	641.526	4237409.47	0.1475	P	0.6
5	☐	1250.000	1269.656	8306688.90	0.2918	A	1.2
6	☐	2500.000	2511.637	16533414.78	0.5773	A	1.8
7	☐	5000.000	4986.929	32936376.78	1.1463	A	0.3
8	☐			27020.79	0.0010	P	4.8

$$y = 2.2985E-004 * x + 1.6625E-005$$

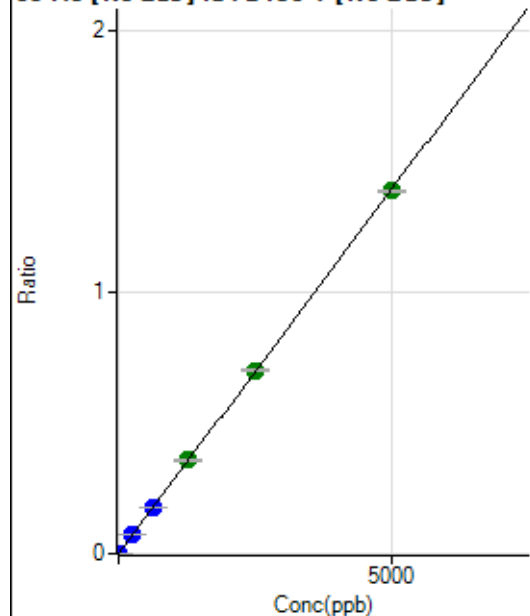
$$R = 1.0000$$

$$DL = 0.02028$$

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	94.45	0.0000	P	44.8
2	☐	5.000	5.094	41213.11	0.0014	P	1.2
3	☐	250.000	255.935	2036269.86	0.0713	P	1.0
4	☐	625.000	638.838	5115626.24	0.1780	P	0.4
5	☐	1250.000	1281.052	10160865.77	0.3570	A	1.4
6	☐	2500.000	2517.326	20092520.59	0.7015	A	1.3
7	☐	5000.000	4981.547	39889714.43	1.3883	A	0.2
8	☐			39059.85	0.0015	P	2.2

$$y = 2.7868E-004 * x + 3.3815E-006$$

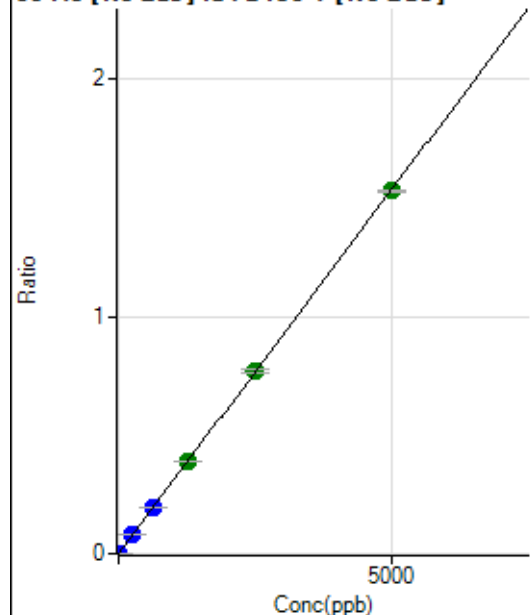
$$R = 1.0000$$

$$DL = 0.01629$$

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	197.23	0.0000	P	20.4
2	☐	5.000	5.071	45219.90	0.0016	P	1.7
3	☐	250.000	256.977	2248890.44	0.0788	P	0.6
4	☐	625.000	640.285	5639391.97	0.1963	P	0.5
5	☐	1250.000	1271.023	11088333.58	0.3896	A	1.4
6	☐	2500.000	2513.500	22063498.06	0.7704	A	1.9
7	☐	5000.000	4985.735	43909934.66	1.5282	A	0.8
8	☐			60236.73	0.0023	P	1.5

$$y = 3.0651E-004 * x + 7.0736E-006$$

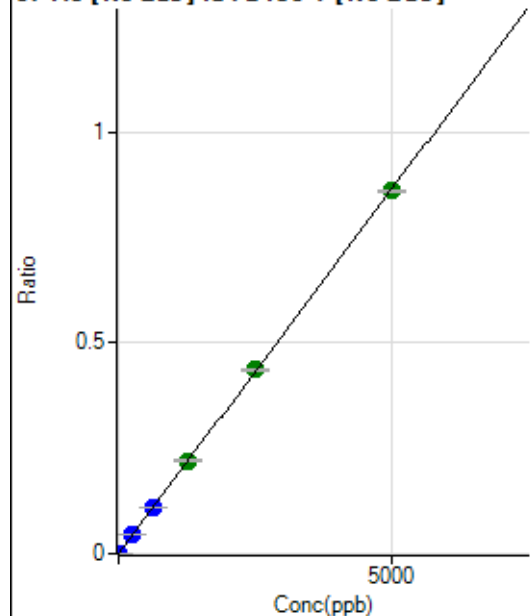
$$R = 1.0000$$

$$DL = 0.0141$$

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	66.67	0.0000	P	13.0
2	☐	5.000	5.081	25523.61	0.0009	P	1.3
3	☐	250.000	256.692	1267492.65	0.0444	P	1.0
4	☐	625.000	639.131	3176254.91	0.1105	P	0.9
5	☐	1250.000	1276.927	6285843.41	0.2209	A	1.2
6	☐	2500.000	2522.181	12492928.40	0.4362	A	1.5
7	☐	5000.000	4980.077	24748495.86	0.8613	A	0.6
8	☐			24174.20	0.0009	P	2.5

$$y = 1.7295E-004 * x + 2.3911E-006$$

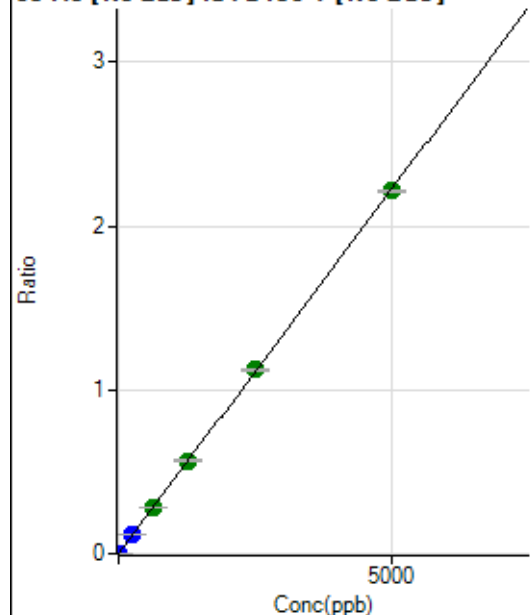
$$R = 1.0000$$

$$DL = 0.005399$$

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	152.79	0.0000	P	25.9
2	☐	5.000	5.153	66503.59	0.0023	P	0.4
3	☐	250.000	257.677	3270161.27	0.1145	P	0.7
4	☐	625.000	632.553	8079428.83	0.2812	A	0.6
5	☐	1250.000	1278.047	16169619.81	0.5681	A	1.1
6	☐	2500.000	2522.766	32118647.59	1.1214	A	1.1
7	☐	5000.000	4980.277	63610051.42	2.2138	A	0.3
8	☐			58911.57	0.0022	P	2.2

$$y = 4.4451\text{E-}004 * x + 5.4774\text{E-}006$$

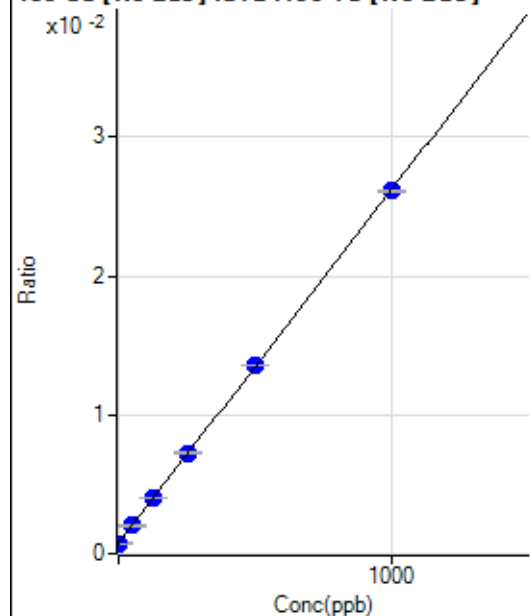
$$R = 1.0000$$

$$DL = 0.009556$$

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	15564.74	0.0008	P	2.7
2	☐	1.000	-0.580	15689.91	0.0007	P	0.3
3	☐	50.000	49.803	42782.13	0.0020	P	1.9
4	☐	125.000	127.430	84606.20	0.0040	P	1.7
5	☐	250.000	255.651	152827.58	0.0073	P	2.3
6	☐	500.000	503.169	283649.20	0.0136	P	0.6
7	☐	1000.000	996.710	551998.74	0.0261	P	0.6
8	☐			13518.07	0.0007	P	1.7

$$y = 2.5454\text{E-}005 * x + 7.5446\text{E-}004$$

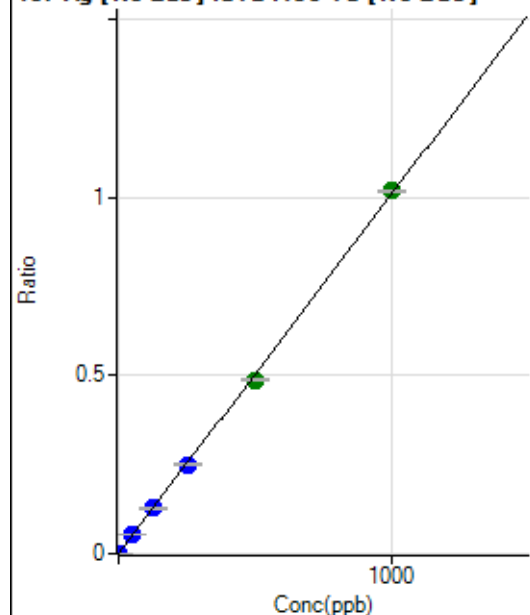
$$R = 1.0000$$

$$DL = 2.391$$

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	269.46	0.0000	P	13.5
2	☐	1.000	0.978	21247.30	0.0010	P	1.9
3	☐	50.000	51.311	1097291.24	0.0519	P	0.1
4	☐	125.000	126.464	2704637.45	0.1278	P	1.6
5	☐	250.000	248.579	5286976.90	0.2512	P	2.2
6	☐	500.000	482.082	10189444.06	0.4872	A	0.9
7	☐	1000.000	1009.066	21547076.52	1.0197	A	0.7
8	☐			5887.58	0.0003	P	3.3

$$y = 0.0010 * x + 1.3057E-005$$

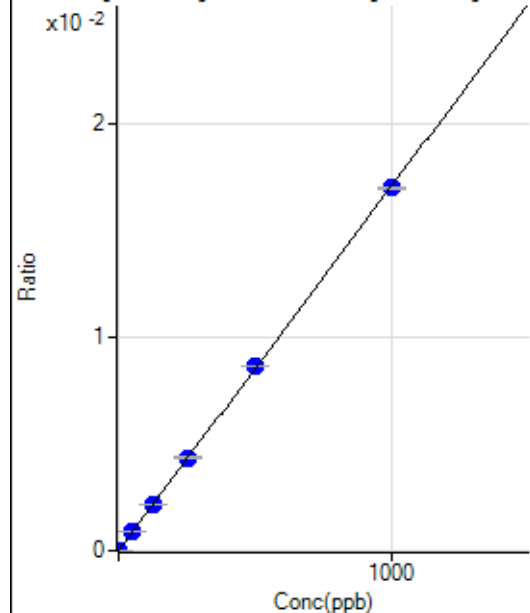
$$R = 0.9998$$

$$DL = 0.005238$$

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	38.2
2	☐	1.000	0.784	319.45	0.0000	P	10.4
3	☐	50.000	52.055	18840.57	0.0009	P	1.8
4	☐	125.000	127.982	46278.50	0.0022	P	1.4
5	☐	250.000	254.679	91559.95	0.0044	P	1.6
6	☐	500.000	505.747	180649.37	0.0086	P	0.5
7	☐	1000.000	995.481	359193.67	0.0170	P	0.4
8	☐			191.67	0.0000	P	12.0

$$y = 1.7075E-005 * x + 1.6817E-006$$

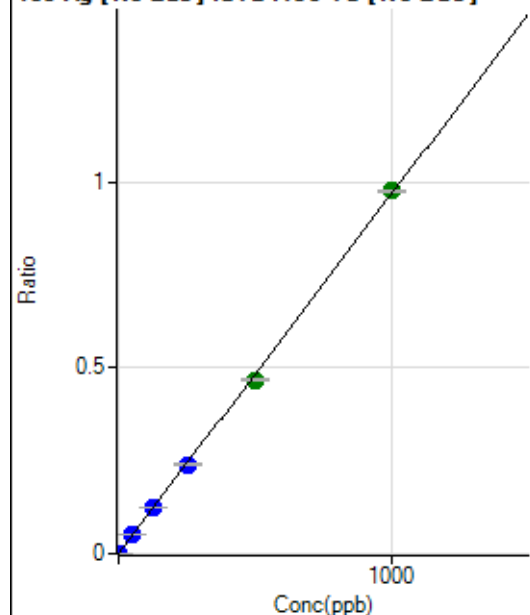
$$R = 1.0000$$

$$DL = 0.1129$$

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	63.89	0.0000	P	20.0
2	☐	1.000	0.999	20565.65	0.0010	P	2.0
3	☐	50.000	51.289	1049714.93	0.0496	P	0.2
4	☐	125.000	126.681	2593334.35	0.1225	P	0.7
5	☐	250.000	246.944	5027569.82	0.2389	P	1.4
6	☐	500.000	483.671	9785589.02	0.4679	A	0.7
7	☐	1000.000	1008.654	20616296.64	0.9757	A	0.6
8	☐			5473.49	0.0003	P	3.8

$$y = 9.6733\text{E-}004 * x + 3.0979\text{E-}006$$

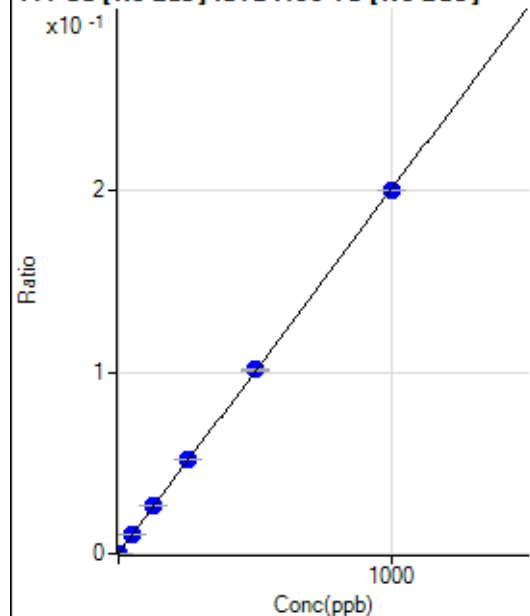
$$R = 0.9998$$

$$DL = 0.001926$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3106.69	0.0002	P	2.6
2	☐	1.000	1.002	7461.02	0.0004	P	0.6
3	☐	50.000	52.462	225918.91	0.0107	P	0.4
4	☐	125.000	129.941	555018.33	0.0262	P	0.9
5	☐	250.000	256.892	1088174.19	0.0517	P	1.2
6	☐	500.000	504.190	2119308.71	0.1013	P	0.6
7	☐	1000.000	995.441	4224108.16	0.1999	P	0.1
8	☐			3954.27	0.0002	P	1.1

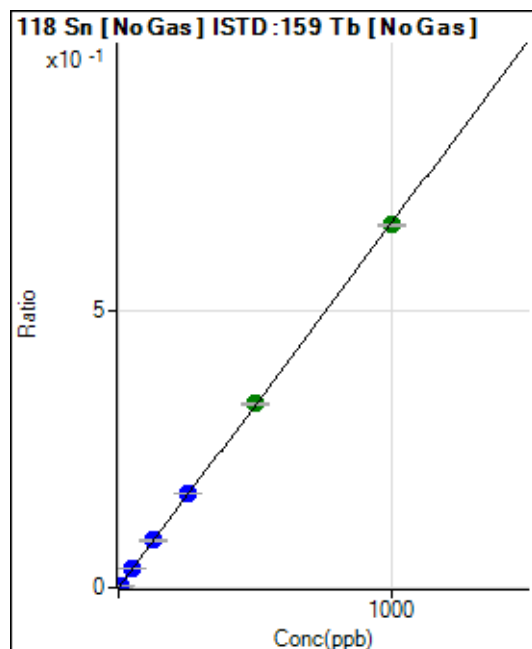
$$y = 2.0068\text{E-}004 * x + 1.5059\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.05753$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1130.65	0.0001	P	8.7
2	☐	5.000	4.962	70343.14	0.0033	P	1.6
3	☐	50.000	51.393	715786.85	0.0338	P	0.2
4	☐	125.000	129.556	1803018.55	0.0852	P	1.5
5	☐	250.000	257.469	3562746.26	0.1693	P	1.3
6	☐	500.000	505.338	6947762.74	0.3322	A	1.0
7	☐	1000.000	994.825	13817071.14	0.6539	A	0.4
8	☐			14313.41	0.0008	P	1.5

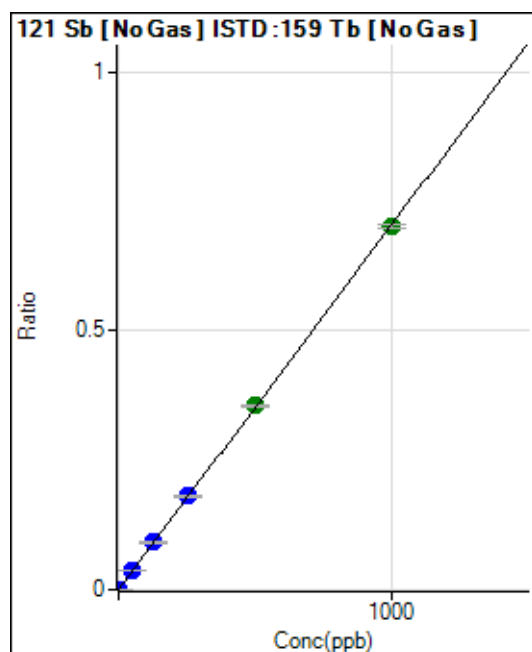
$$y = 6.5725\text{E-}004 * x + 5.4824\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.02185$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.56	0.0000	P	37.6
2	☐	2.000	1.958	29315.05	0.0014	P	1.9
3	☐	50.000	50.927	759056.79	0.0359	P	0.2
4	☐	125.000	129.477	1930143.82	0.0912	P	1.5
5	☐	250.000	256.129	3797473.31	0.1804	P	1.2
6	☐	500.000	506.070	7456194.52	0.3565	A	1.1
7	☐	1000.000	994.827	14807996.86	0.7008	A	0.9
8	☐			19917.74	0.0010	P	4.2

$$y = 7.0444\text{E-}004 * x + 2.6930\text{E-}006$$

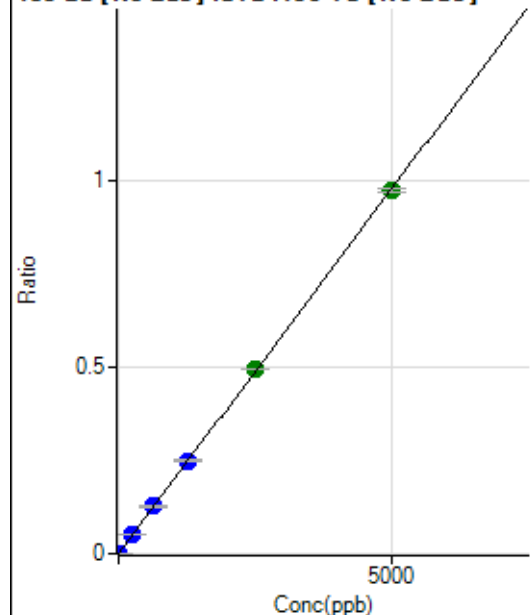
$$R = 0.9999$$

$$DL = 0.004315$$

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	50.00	0.0000	P	0.5
2	☐	10.000	10.101	41978.36	0.0020	P	1.9
3	☐	250.000	255.858	1059254.32	0.0501	P	0.6
4	☐	625.000	647.873	2682787.39	0.1268	P	0.9
5	☐	1250.000	1274.339	5248241.61	0.2494	P	0.8
6	☐	2500.000	2529.614	10352539.21	0.4950	A	0.7
7	☐	5000.000	4975.956	20573914.52	0.9737	A	1.0
8	☐			37813.65	0.0020	P	3.8

$$y = 1.9567E-004 * x + 2.4239E-006$$

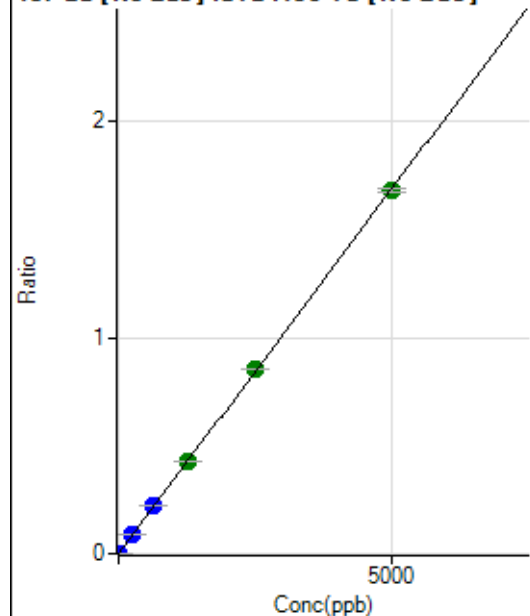
$$R = 1.0000$$

$$DL = 0.00018$$

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	47.23	0.0000	P	40.9
2	☐	10.000	10.119	72405.69	0.0034	P	1.1
3	☐	250.000	257.884	1839121.57	0.0869	P	0.7
4	☐	625.000	654.793	4670757.05	0.2207	P	1.1
5	☐	1250.000	1258.626	8929483.97	0.4243	A	0.5
6	☐	2500.000	2532.716	17855701.44	0.8537	A	0.4
7	☐	5000.000	4977.367	35451470.59	1.6778	A	1.0
8	☐			66116.34	0.0035	P	1.5

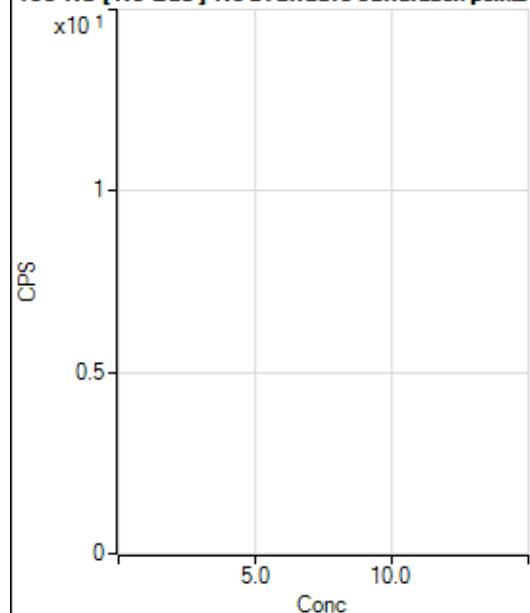
$$y = 3.3708E-004 * x + 2.2904E-006$$

$$R = 1.0000$$

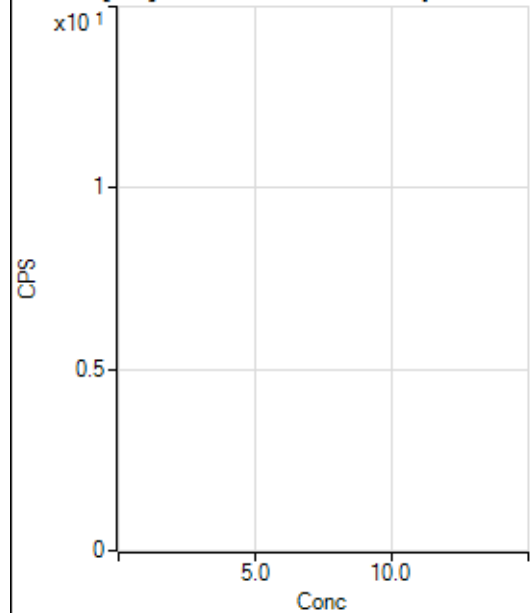
$$DL = 0.00833$$

Weight: <None>

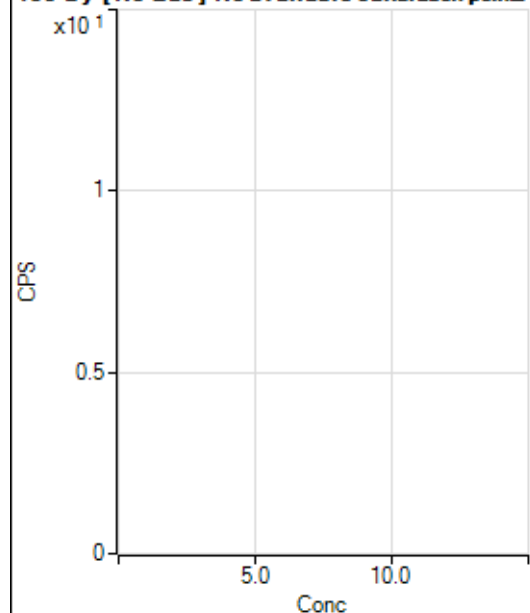
Min Conc: 0

150 Nd [No Gas] No available calibration points

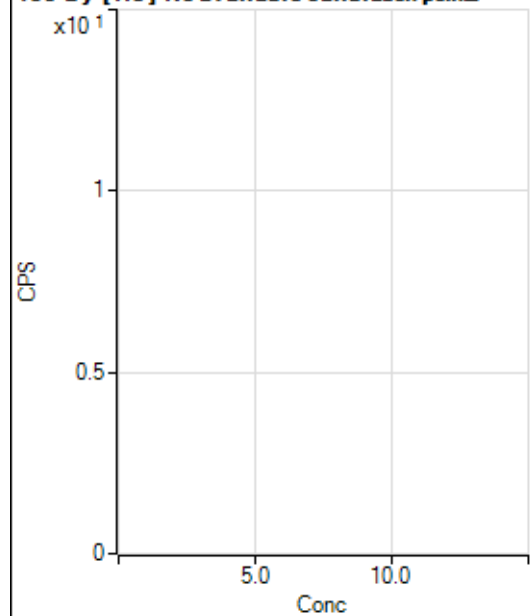
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.2
2	☐			15.55		P	24.8
3	☐			142.23		P	16.5
4	☐			335.57		P	9.2
5	☐			671.15		P	3.5
6	☐			1297.89		P	0.3
7	☐			2575.90		P	4.1
8	☐			206.67		P	26.4

150 Nd [He] No available calibration points

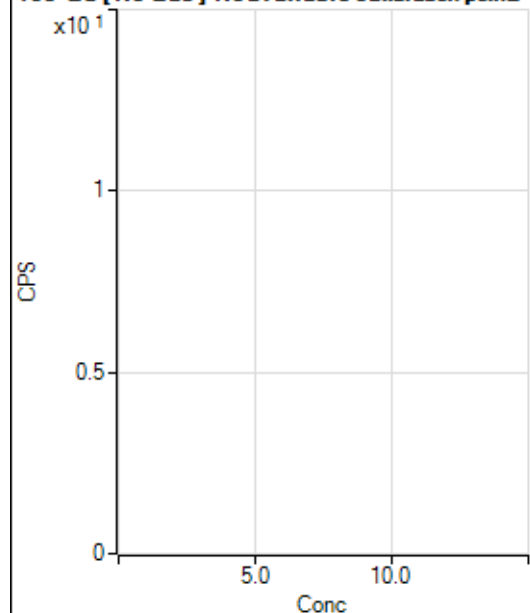
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			3.33		P	0.0
3	☐			13.34		P	43.3
4	☐			25.56		P	19.9
5	☐			45.55		P	51.4
6	☐			61.11		P	25.8
7	☐			160.00		P	15.7
8	☐			70.00		P	29.0

156 Dy [No Gas] No available calibration points

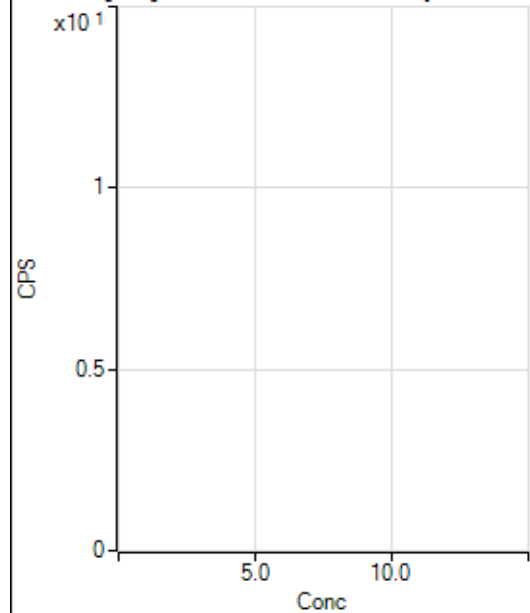
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	13.3
2	☐			41.67		P	34.7
3	☐			61.11		P	20.8
4	☐			91.67		P	63.6
5	☐			219.46		P	39.0
6	☐			338.91		P	9.9
7	☐			733.38		P	5.0
8	☐			1138.99		P	9.5

156 Dy [He] No available calibration points

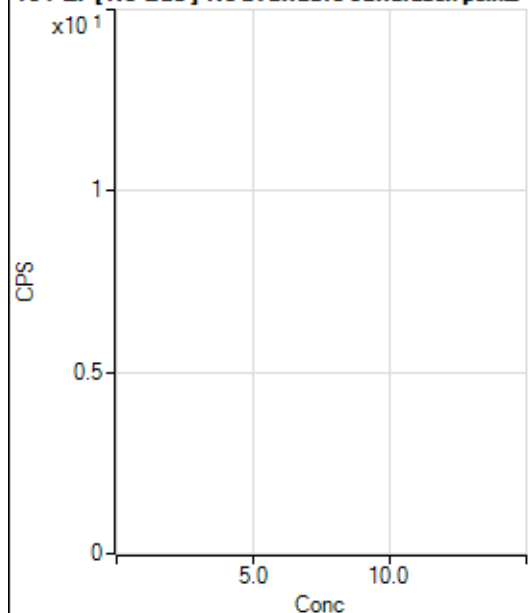
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			23.33		P	42.9
2	☐			22.22		P	60.6
3	☐			42.22		P	9.1
4	☐			68.89		P	14.0
5	☐			112.22		P	20.9
6	☐			238.90		P	3.5
7	☐			411.13		P	5.2
8	☐			502.24		P	12.6

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

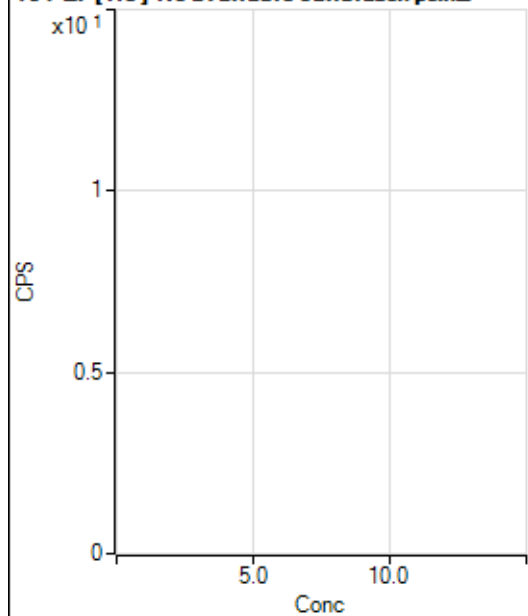
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			150.01		P	22.2
2	☐			111.12		P	15.6
3	☐			155.56		P	16.4
4	☐			130.56		P	18.4
5	☐			230.57		P	16.3
6	☐			225.01		P	12.8
7	☐			438.92		P	23.7
8	☐			1166.77		P	1.9

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			277.78		P	15.7
2	☐			296.68		P	5.1
3	☐			251.12		P	8.0
4	☐			275.56		P	12.9
5	☐			300.01		P	16.8
6	☐			347.79		P	16.9
7	☐			418.90		P	4.9
8	☐			843.37		P	7.7

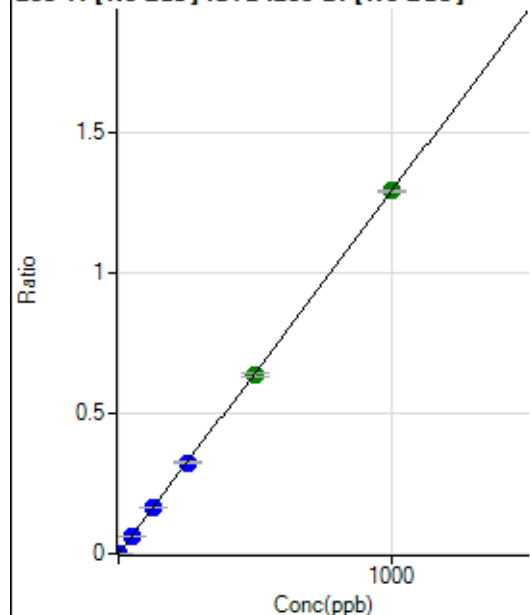
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			105.56		P	37.3
2	☐			83.34		P	10.0
3	☐			111.12		P	33.8
4	☐			86.11		P	49.7
5	☐			141.67		P	5.9
6	☐			147.23		P	26.8
7	☐			166.68		P	18.0
8	☐			225.01		P	23.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			52.22		P	25.8
2	☐			37.78		P	20.4
3	☐			36.67		P	48.1
4	☐			44.45		P	8.7
5	☐			50.00		P	24.0
6	☐			57.78		P	14.5
7	☐			77.78		P	33.3
8	☐			104.45		P	4.9

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	255.57	0.0000	P	10.3
2	☐	1.000	0.931	16310.62	0.0012	P	4.6
3	☐	50.000	49.650	840218.94	0.0640	P	0.2
4	☐	125.000	126.935	2132503.63	0.1636	P	0.2
5	☐	250.000	252.074	4158336.07	0.3250	P	0.7
6	☐	500.000	495.551	8017451.31	0.6388	A	2.3
7	☐	1000.000	1001.482	15657010.77	1.2910	A	0.8
8	☐			5512.53	0.0006	P	3.5

$$y = 0.0013 * x + 1.9746E-005$$

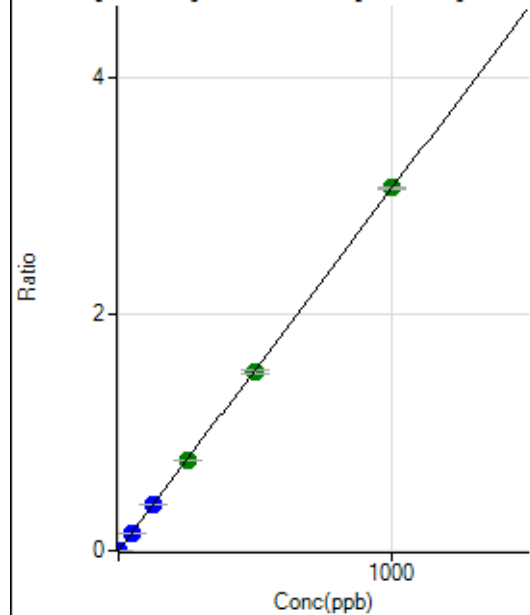
$$R = 1.0000$$

$$DL = 0.004744$$

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	563.93	0.0000	P	12.6
2	☐	1.000	0.967	40119.93	0.0030	P	2.3
3	☐	50.000	50.291	2017479.28	0.1537	P	0.4
4	☐	125.000	128.071	5100498.25	0.3914	P	0.7
5	☐	250.000	249.876	9771592.50	0.7636	A	1.1
6	☐	500.000	493.581	18931154.41	1.5083	A	2.0
7	☐	1000.000	1002.842	37167079.65	3.0645	A	0.9
8	☐			12673.29	0.0013	P	5.3

$$y = 0.0031 * x + 4.3569E-005$$

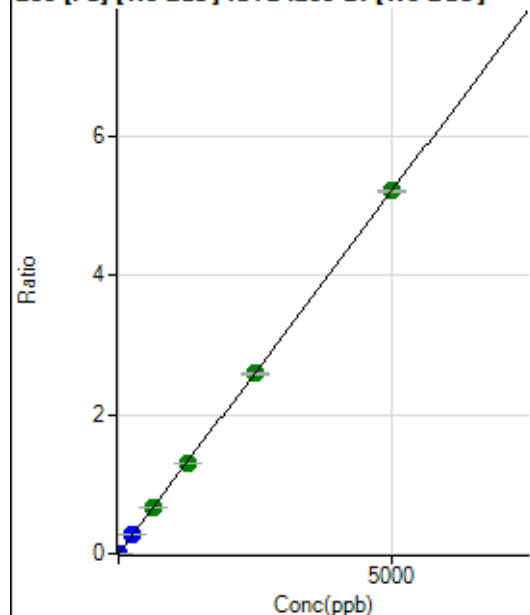
$$R = 1.0000$$

$$DL = 0.005409$$

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	781.53	0.0001	P	9.5
2	☐	1.000	0.957	14130.12	0.0011	P	2.2
3	☐	250.000	253.071	3457177.63	0.2634	P	0.5
4	☐	625.000	630.652	8553155.57	0.6564	A	0.9
5	☐	1250.000	1248.914	16632712.06	1.2998	A	0.9
6	☐	2500.000	2485.993	32474084.52	2.5871	A	1.0
7	☐	5000.000	5006.415	63187803.26	5.2100	A	0.9
8	☐			59910.69	0.0060	P	0.6

$$y = 0.0010 * x + 6.0355E-005$$

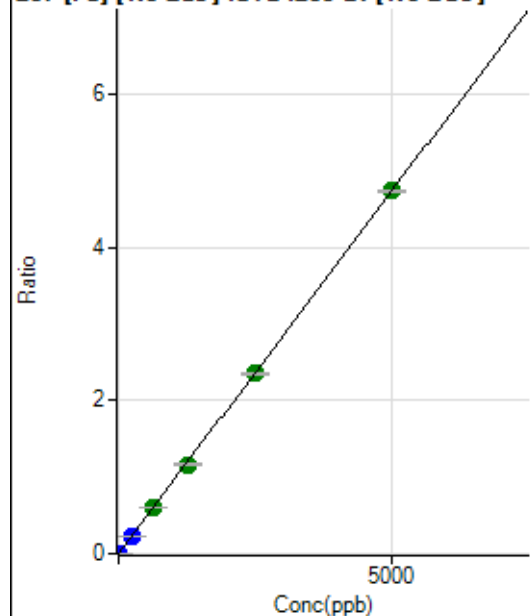
$$R = 1.0000$$

$$DL = 0.01659$$

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	646.33	0.0000	P	6.2
2	☐	1.000	0.922	12322.73	0.0009	P	3.5
3	☐	250.000	251.183	3118040.84	0.2376	P	0.4
4	☐	625.000	634.940	7825061.81	0.6005	A	0.1
5	☐	1250.000	1233.054	14922158.09	1.1661	A	0.6
6	☐	2500.000	2490.533	29562583.76	2.3552	A	1.1
7	☐	5000.000	5007.668	57432891.56	4.7355	A	0.9
8	☐			54104.72	0.0055	P	1.7

$$y = 9.4564E-004 * x + 4.9919E-005$$

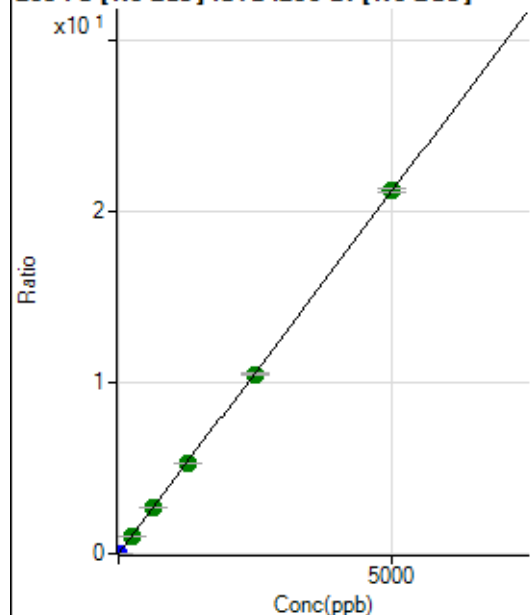
$$R = 1.0000$$

$$DL = 0.009779$$

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	3139.14	0.0002	P	4.4
2	☐	1.000	0.944	56697.02	0.0042	P	2.0
3	☐	250.000	250.176	13903795.13	1.0594	A	0.4
4	☐	625.000	631.269	34830540.94	2.6728	A	0.6
5	☐	1250.000	1243.641	67379354.05	5.2654	A	1.0
6	☐	2500.000	2481.509	131866630.4	10.5062	A	1.6
7	☐	5000.000	5010.042	257251285.8	21.2112	A	1.0
8	☐			243272.81	0.0245	P	0.6

$$y = 0.0042 * x + 2.4245E-004$$

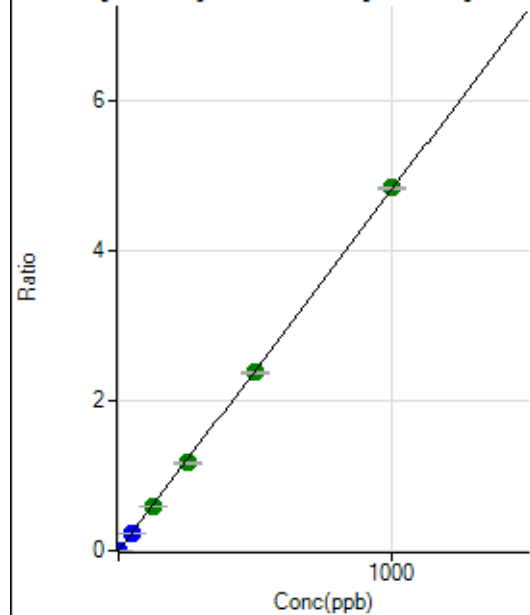
$$R = 1.0000$$

$$DL = 0.007551$$

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	1755.74	0.0001	P	6.8
2	☐	1.000	0.626	42086.64	0.0031	P	2.9
3	☐	50.000	46.426	2934636.64	0.2236	P	0.6
4	☐	125.000	120.847	7582180.09	0.5818	A	0.3
5	☐	250.000	242.947	14966426.72	1.1696	A	1.3
6	☐	500.000	493.543	29823380.99	2.3758	A	1.1
7	☐	1000.000	1005.690	58713470.76	4.8411	A	0.5
8	☐			21245.57	0.0021	P	1.7

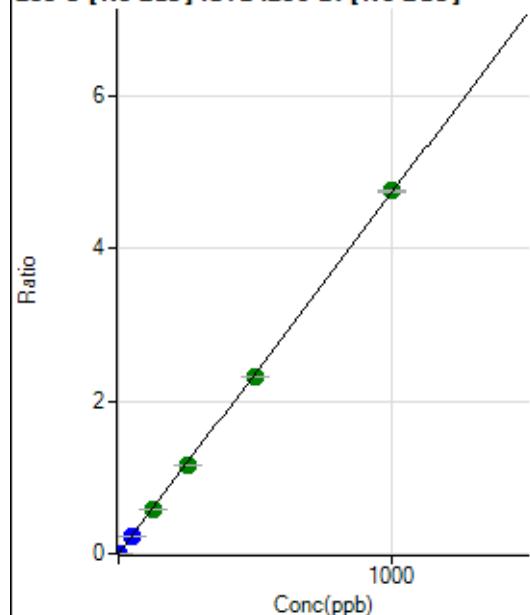
$$y = 0.0048 * x + 1.3563E-004$$

$$R = 0.9999$$

$$DL = 0.00576$$

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	33.34	0.0000	P	43.4
2	☐	1.000	0.892	56398.02	0.0042	P	4.1
3	☐	50.000	48.296	2994720.12	0.2282	P	0.9
4	☐	125.000	121.988	7510842.01	0.5764	A	0.4
5	☐	250.000	245.386	14836246.68	1.1594	A	1.3
6	☐	500.000	491.769	29166668.01	2.3235	A	0.4
7	☐	1000.000	1005.731	57632138.79	4.7518	A	0.2
8	☐			12373.03	0.0012	P	4.8

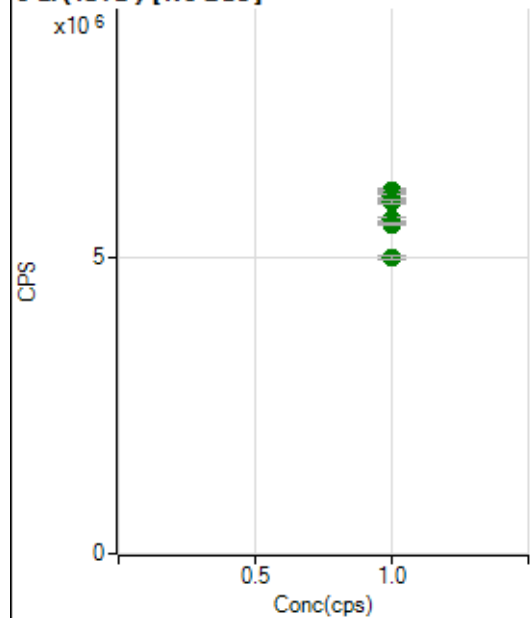
$$y = 0.0047 * x + 2.5761E-006$$

$$R = 0.9999$$

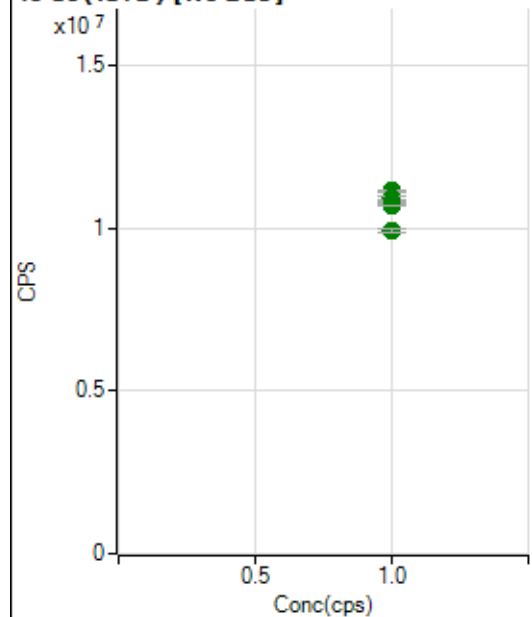
$$DL = 0.0007096$$

Weight: <None>

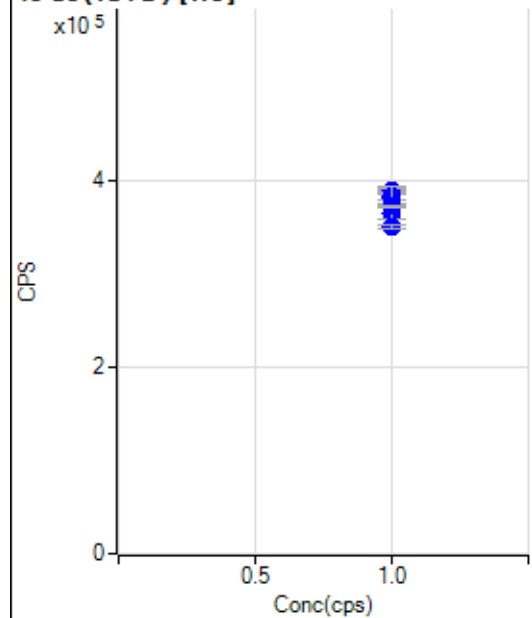
Min Conc: 0

6 Li (ISTD) [No Gas]

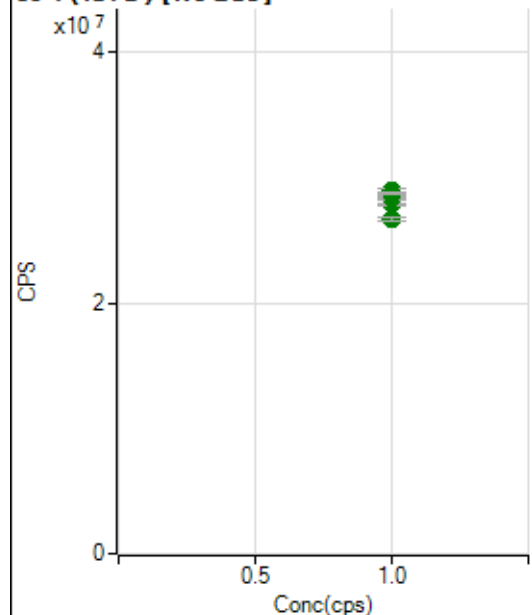
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		6121035.95		A	1.1
2	☐	1.000		6118104.21		A	0.5
3	☐	1.000		6034072.96		A	1.0
4	☐	1.000		5951304.77		A	0.8
5	☐	1.000		5939752.41		A	0.7
6	☐	1.000		5645261.86		A	1.4
7	☐	1.000		5561375.40		A	1.0
8	☐	1.000		4981178.78		A	1.3

45 Sc (ISTD) [No Gas]

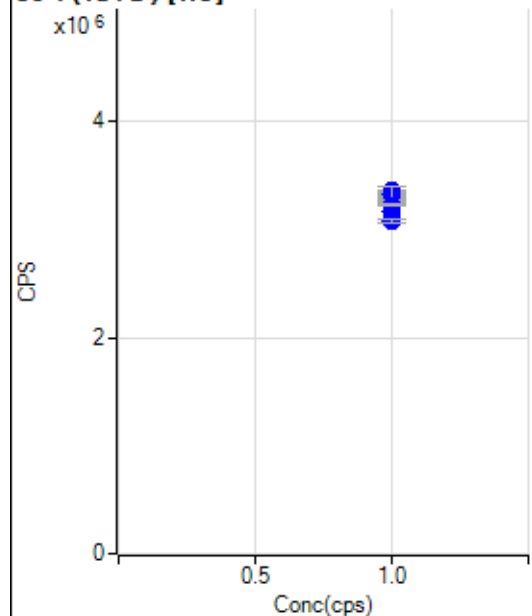
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10854162.20		A	0.3
2	☐	1.000		11151930.53		A	0.8
3	☐	1.000		10936060.11		A	1.0
4	☐	1.000		10823609.14		A	0.3
5	☐	1.000		10801422.34		A	0.2
6	☐	1.000		10799326.23		A	0.8
7	☐	1.000		10695565.12		A	0.4
8	☐	1.000		9921445.55		A	1.3

45 Sc (ISTD) [He]

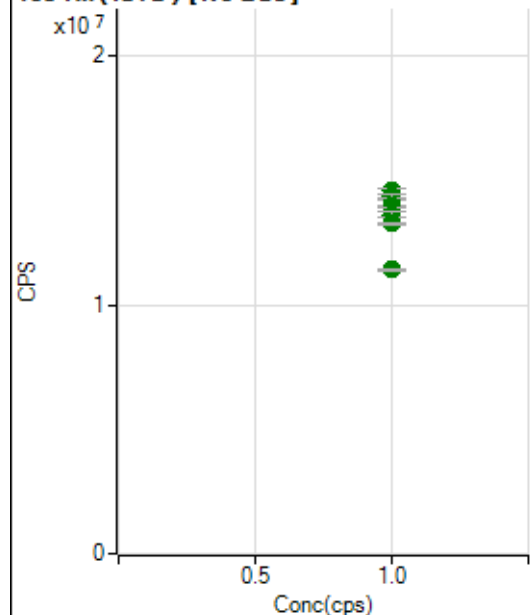
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		388357.37		P	0.3
2	☐	1.000		389256.11		P	1.0
3	☐	1.000		382640.90		P	1.5
4	☐	1.000		375106.18		P	0.5
5	☐	1.000		365781.27		P	3.5
6	☐	1.000		384349.16		P	4.6
7	☐	1.000		373188.21		P	0.6
8	☐	1.000		350249.39		P	1.4

89 Y (ISTD) [No Gas]

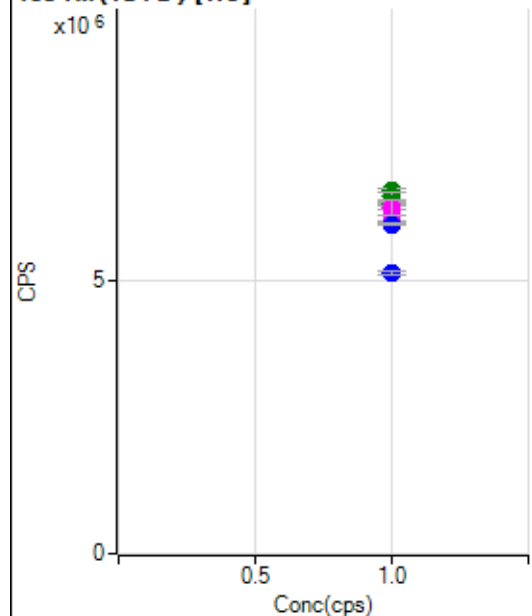
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		27895432.64		A	0.5
2	☐	1.000		28966069.01		A	1.0
3	☐	1.000		28549500.41		A	0.5
4	☐	1.000		28734311.52		A	0.6
5	☐	1.000		28464784.02		A	1.3
6	☐	1.000		28643109.57		A	1.5
7	☐	1.000		28733737.63		A	0.5
8	☐	1.000		26698157.38		A	1.2

89 Y (ISTD) [He]

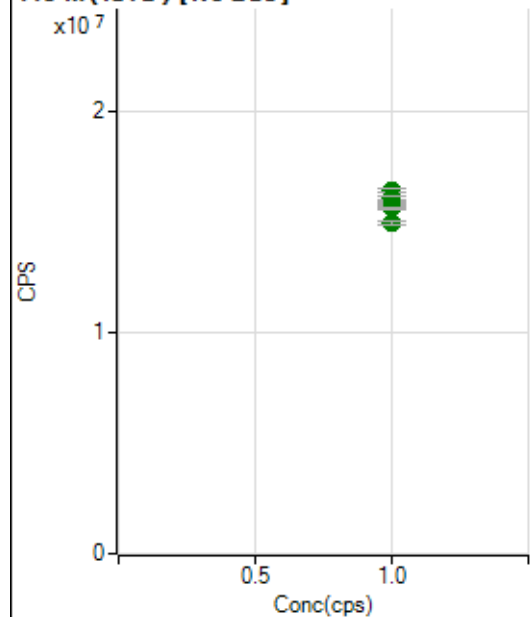
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3329208.14		P	0.5
2	☐	1.000		3357993.94		P	0.5
3	☐	1.000		3305872.73		P	0.8
4	☐	1.000		3268449.53		P	0.8
5	☐	1.000		3161716.00		P	3.6
6	☐	1.000		3323070.44		P	4.2
7	☐	1.000		3229266.90		P	0.7
8	☐	1.000		3078585.79		P	1.4

103 Rh (ISTD) [No Gas]

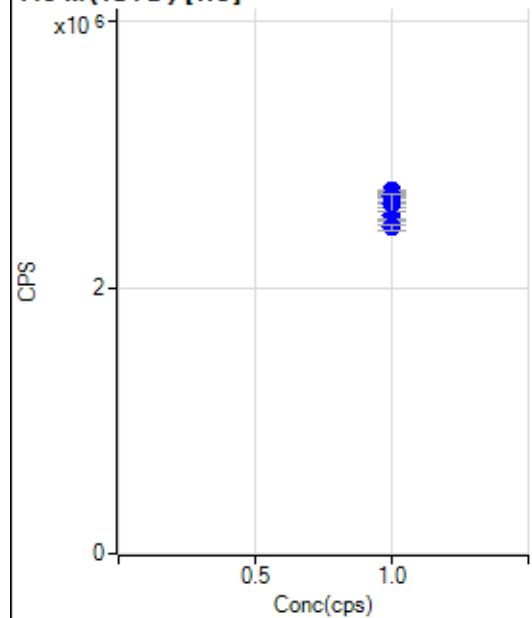
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14260183.54		A	0.2
2	☐	1.000		14580981.31		A	1.4
3	☐	1.000		14371385.76		A	0.8
4	☐	1.000		14021226.46		A	0.0
5	☐	1.000		13927578.96		A	0.3
6	☐	1.000		13618259.24		A	1.7
7	☐	1.000		13277092.30		A	0.6
8	☐	1.000		11406742.75		A	1.2

103 Rh (ISTD) [He]

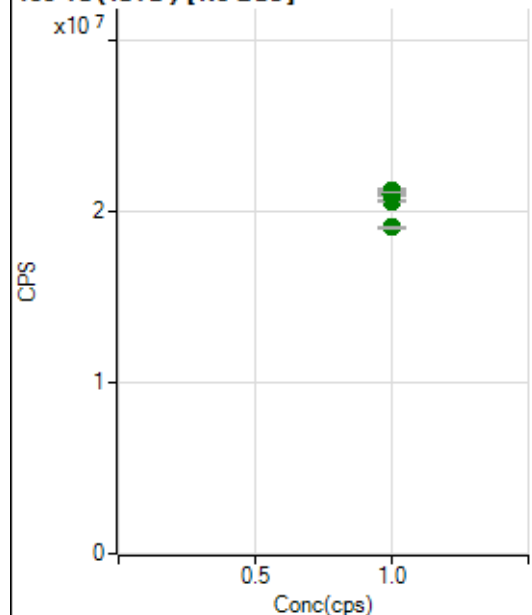
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6420424.63		A	1.4
2	☐	1.000		6623925.94		A	1.0
3	☐	1.000		6526586.92		A	2.0
4	☐	1.000		6392970.46		A	0.9
5	☐	1.000		6171529.77		M	3.2
6	☐	1.000		6323017.82		M	4.2
7	☐	1.000		6019452.83		P	0.4
8	☐	1.000		5123633.33		P	1.8

115 In (ISTD) [No Gas]

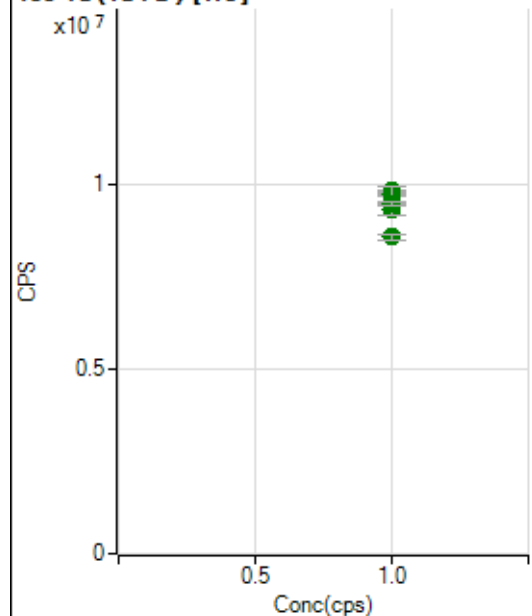
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15902800.90		A	0.7
2	☐	1.000		16409391.70		A	1.1
3	☐	1.000		16108046.90		A	0.9
4	☐	1.000		15956829.49		A	0.7
5	☐	1.000		16048514.72		A	1.2
6	☐	1.000		15709465.97		A	0.3
7	☐	1.000		15620569.34		A	0.2
8	☐	1.000		14993373.26		A	1.2

115 In (ISTD) [He]

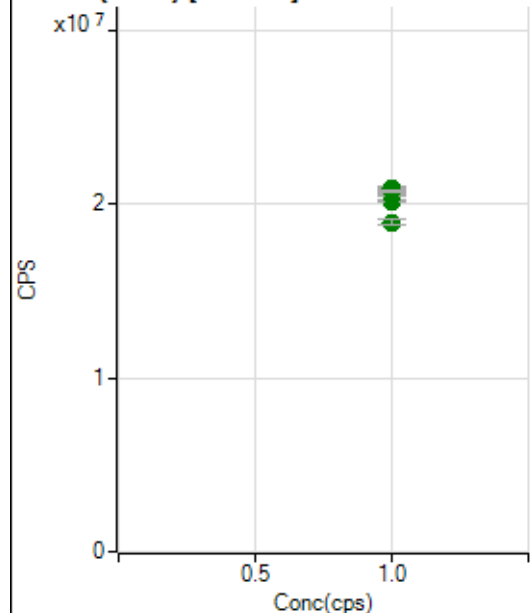
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2694872.96		P	0.6
2	☐	1.000		2728494.76		P	0.8
3	☐	1.000		2692489.29		P	1.1
4	☐	1.000		2640491.24		P	0.6
5	☐	1.000		2547305.39		P	3.9
6	☐	1.000		2639045.54		P	4.6
7	☐	1.000		2511641.14		P	0.6
8	☐	1.000		2452585.20		P	1.6

159 Tb (ISTD) [No Gas]

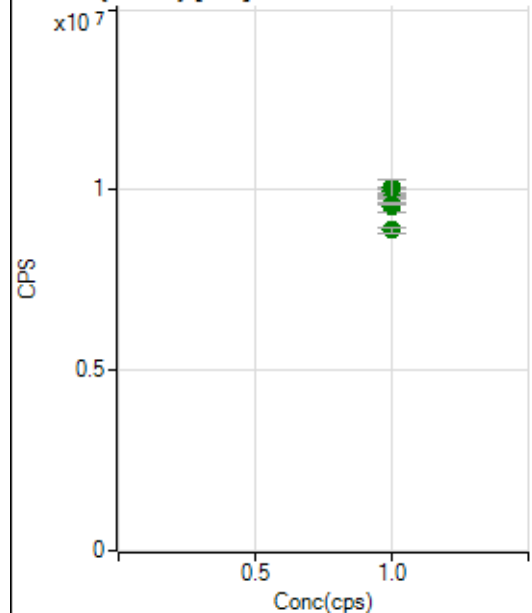
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20628586.64		A	0.5
2	☐	1.000		21211502.32		A	1.0
3	☐	1.000		21156534.55		A	0.2
4	☐	1.000		21163414.82		A	1.3
5	☐	1.000		21047939.13		A	0.8
6	☐	1.000		20915003.44		A	0.1
7	☐	1.000		21129865.52		A	0.4
8	☐	1.000		19073787.08		A	1.0

159 Tb (ISTD) [He]

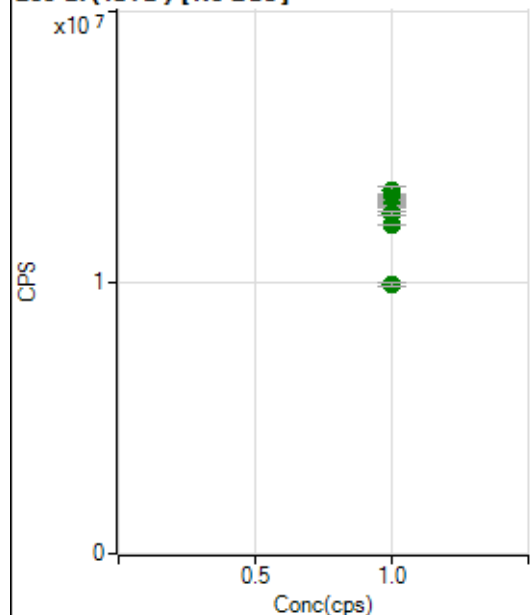
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9480622.64		A	0.5
2	☐	1.000		9810704.30		A	0.5
3	☐	1.000		9737652.28		A	0.4
4	☐	1.000		9705811.18		A	1.0
5	☐	1.000		9298399.79		A	3.7
6	☐	1.000		9729473.61		A	4.3
7	☐	1.000		9468549.37		A	1.4
8	☐	1.000		8556050.84		A	1.5

165 Ho (ISTD) [No Gas]

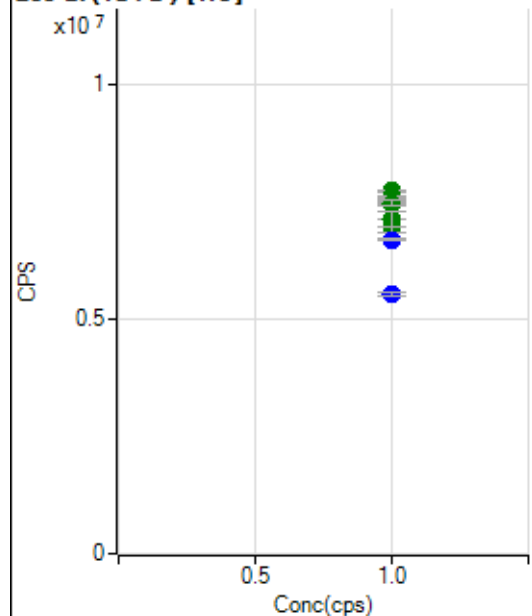
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20203083.59		A	0.3
2	☐	1.000		20827287.47		A	0.9
3	☐	1.000		20640533.58		A	0.8
4	☐	1.000		20889129.55		A	1.1
5	☐	1.000		20698041.36		A	1.0
6	☐	1.000		20522373.03		A	0.8
7	☐	1.000		20773037.05		A	0.6
8	☐	1.000		18978214.86		A	1.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9843938.40		A	0.3
2	☐	1.000		10036791.80		A	0.4
3	☐	1.000		10053503.32		A	0.4
4	☐	1.000		9964884.09		A	1.5
5	☐	1.000		9567667.64		A	3.6
6	☐	1.000		10057764.99		A	5.1
7	☐	1.000		9616138.88		A	0.3
8	☐	1.000		8878634.66		A	1.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12946192.72		A	0.4
2	☐	1.000		13375931.88		A	2.2
3	☐	1.000		13124261.05		A	0.5
4	☐	1.000		13031397.72		A	0.2
5	☐	1.000		12797133.70		A	0.8
6	☐	1.000		12552917.03		A	1.2
7	☐	1.000		12128412.74		A	0.5
8	☐	1.000		9918533.88		A	1.0

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7468739.89		A	0.6
2	☐	1.000		7735934.05		A	0.7
3	☐	1.000		7622642.59		A	0.5
4	☐	1.000		7477042.87		A	1.7
5	☐	1.000		6989639.96		A	4.1
6	☐	1.000		7140847.95		A	4.4
7	☐	1.000		6696792.68		P	0.3
8	☐	1.000		5529986.86		P	1.1

US EPA Tune Check Sample Report

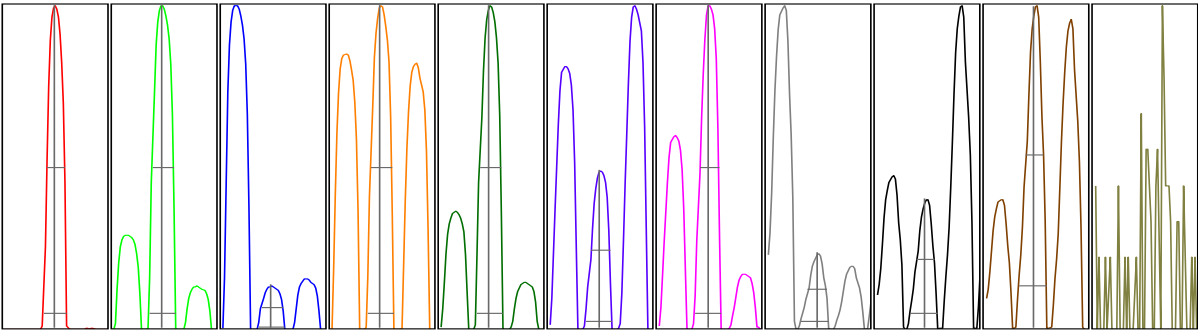
Batch Folder D:\ICP-MS Data\1\DATA\P7031420P.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	17947	0.37	5.00	
24	239321	0.66	5.00	
25	32325	0.80	5.00	
26	36681	0.63	5.00	
59	125066	0.83	5.00	
113	23352	0.55	5.00	
115	79793	1.17	5.00	
206	33087	0.41	5.00	
207	28745	0.80	5.00	
208	68941	0.60	5.00	
220	0	67.71		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	17984	17869	17905	17936	18041
24	238474	236970	240102	240131	240926
25	32165	32111	32400	32202	32746
26	36489	36408	36931	36705	36872
59	124392	123877	125791	124841	126432
113	23214	23271	23493	23293	23487
115	78381	79454	80207	80067	80857
206	33044	32911	33138	33057	33284
207	28505	28501	28877	29002	28839
208	68473	68561	69275	69011	69387
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	34405	9.00	8.9 - 9.1		0.687	0.900	
24	400800	23.95	23.9 - 24.1		0.779	0.900	
25	53376	24.95	24.9 - 25.1		0.780	0.900	
26	62590	25.95	25.9 - 26.1		0.778	0.900	
59	212146	58.95	58.9 - 59.1		0.784	0.900	
113	42964	113.00	112.9 - 113.1		0.778	0.900	
115	146407	115.00	114.9 - 115.1		0.772	0.900	
206	61429	206.00	205.9 - 206.1		0.799	0.900	
207	51815	206.95	206.9 - 207.1		0.790	0.900	
208	128310	207.95	207.9 - 208.1		0.800	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	7.3	V	Deflect	11.8	V
Extract 2	-100.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-46	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	27860	3.58	
89	81816	3.69	
205	86044	2.38	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	28499	28432	26109	28027	28233
89	83718	83701	76531	82287	82841
205	87795	87136	82662	85624	87004

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	8.0	V	Deflect	1.0	V
Extract 2	-110.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	V	Cell Exit	-60	V			

Cell Parameters

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