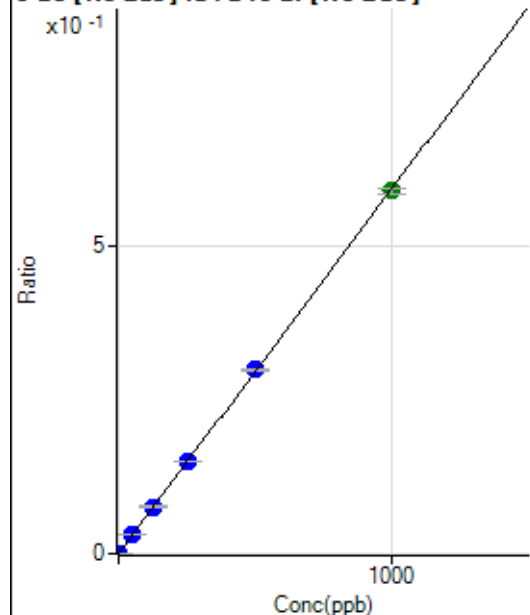


Batch Folder: D:\ICP-MS Data\P7102419 MS .b\
Analysis File: P7102419 MS .batch.bin
DA Date-Time: 2019-10-24 14:06:25
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-10-24 12:19:10
2			
3	005CAL.S.d	S02	2019-10-24 12:27:38
4	006CAL.S.d	S03	2019-10-24 12:31:32
5	007CAL.S.d	S04	2019-10-24 12:35:38
6	008CAL.S.d	S05	2019-10-24 12:39:24
7	009CAL.S.d	S06	2019-10-24 12:43:07
8	010CAL.S.d	S07	2019-10-24 12:46:51
9	011CAL.S.d	S08	2019-10-24 12:50:36

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	74.08	0.0000	P	53.1
2	☐	0.100					
3	☐	1.000	1.009	5143.61	0.0006	P	3.4
4	☐	50.000	51.295	259010.88	0.0305	P	0.7
5	☐	125.000	129.241	647289.22	0.0767	P	0.4
6	☐	250.000	255.668	1248881.51	0.1518	P	0.1
7	☐	500.000	504.840	2419497.51	0.2998	P	0.5
8	☐	1000.000	995.568	4703017.23	0.5911	A	1.4
9	☐			838.94	0.0001	P	6.9

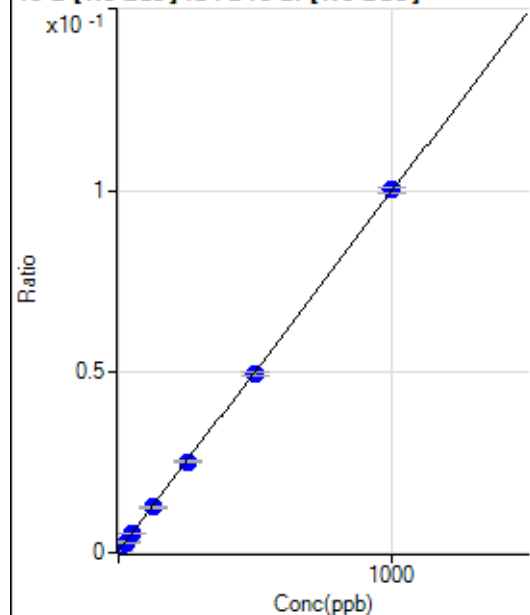
$$y = 5.9376\text{E-}004 * x + 8.5611\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.02295$$

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	3989.57	0.0005	P	8.0
2	☐	2.500					
3	☐	25.000	24.617	24573.62	0.0029	P	2.3
4	☐	50.000	48.818	45090.71	0.0053	P	2.8
5	☐	125.000	121.727	105705.26	0.0125	P	2.8
6	☐	250.000	247.300	205552.96	0.0250	P	1.9
7	☐	500.000	492.275	397793.41	0.0493	P	2.6
8	☐	1000.000	1005.015	796832.48	0.1001	P	1.8
9	☐			35829.71	0.0049	P	4.8

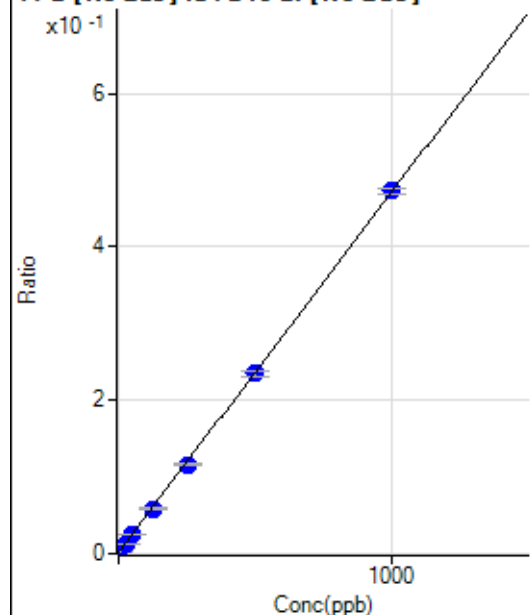
$$y = 9.9177\text{E-}005 * x + 4.6116\text{E-}004$$

$$R = 1.0000$$

$$DL = 1.122$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18069.86	0.0021	P	1.4
2	☐	2.500					
3	☐	25.000	24.232	113893.99	0.0135	P	3.1
4	☐	50.000	48.874	212641.27	0.0250	P	1.1
5	☐	125.000	120.494	494194.47	0.0586	P	2.4
6	☐	250.000	243.806	957773.24	0.1164	P	1.2
7	☐	500.000	495.779	1893579.88	0.2346	P	3.1
8	☐	1000.000	1004.298	3764668.92	0.4731	P	1.7
9	☐			167274.54	0.0228	P	5.2

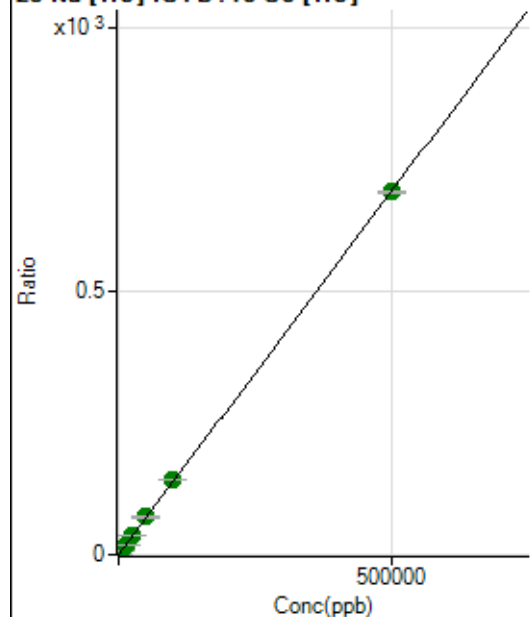
$$y = 4.6898\text{E-}004 * x + 0.0021$$

$$R = 1.0000$$

$$DL = 0.1867$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37313.89	0.0520	P	2.2
2	☐	50.000					
3	☐	500.000	525.429	556441.99	0.7780	P	0.9
4	☐	5000.000	5193.979	5153914.52	7.2288	A	0.6
5	☐	12500.000	12990.078	12753067.65	18.0012	A	0.6
6	☐	25000.000	26006.729	24951828.68	35.9871	A	0.8
7	☐	50000.000	51607.560	49409095.20	71.3613	A	0.6
8	☐	100000.00	102930.61	99731054.31	142.2775	A	0.4
9	☐	500000.00	499188.56	461947954.77	689.8114	A	0.4

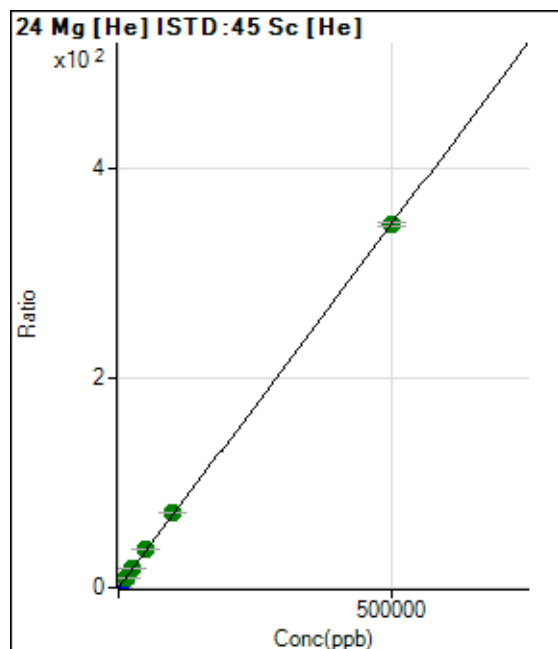
$$y = 0.0014 * x + 0.0520$$

$$R = 1.0000$$

$$DL = 2.537$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	386.13	0.0005	P	11.0
2	☐	50.000					
3	☐	500.000	557.361	276545.29	0.3867	P	0.6
4	☐	5000.000	5327.279	2631665.10	3.6911	P	0.2
5	☐	12500.000	13229.489	6493280.83	9.1655	A	0.6
6	☐	25000.000	26330.524	12647460.01	18.2414	A	0.6
7	☐	50000.000	52205.524	25040848.13	36.1667	A	0.8
8	☐	100000.00	103342.13	50182619.52	71.5923	A	0.5
9	☐	500000.00	499022.92	231497932.95	345.7060	A	1.0

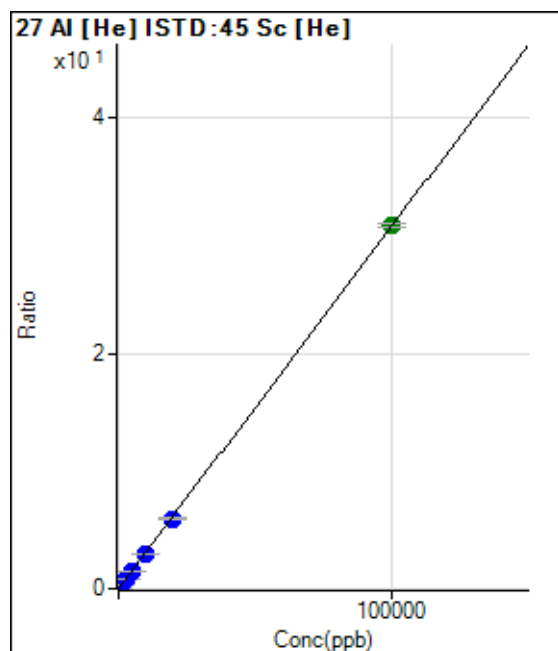
$$y = 6.9276\text{E-}004 * x + 5.3799\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.2569$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	91.67	0.0001	P	10.0
2	☐	2.000					
3	☐	20.000	19.797	4453.62	0.0062	P	9.0
4	☐	1000.000	1000.437	219873.83	0.3084	P	1.2
5	☐	2500.000	2455.261	536063.58	0.7567	P	0.8
6	☐	5000.000	4886.493	1044057.01	1.5058	P	0.4
7	☐	10000.000	9647.828	2058435.96	2.9730	P	0.5
8	☐	20000.000	19375.433	4184902.83	5.9704	P	1.2
9	☐	100000.00	100166.92	20668012.79	30.8653	A	1.0

$$y = 3.0814\text{E-}004 * x + 1.2779\text{E-}004$$

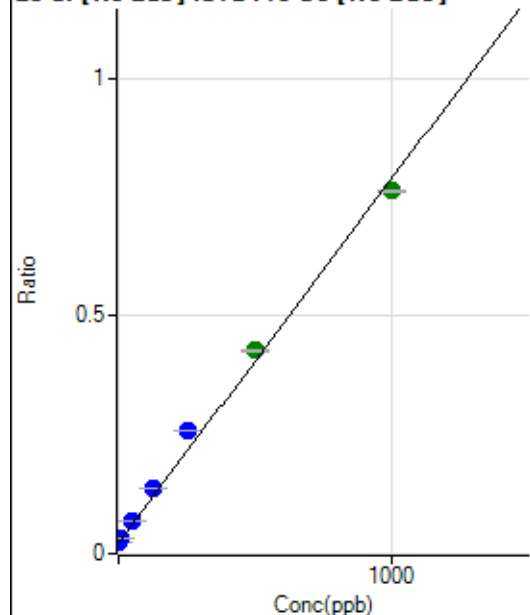
$$R = 1.0000$$

$$DL = 0.1242$$

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	374730.54	0.0227	P	0.3
2	☐	1.000					
3	☐	10.000	10.972	513780.92	0.0310	P	0.4
4	☐	50.000	62.335	1145878.17	0.0704	P	1.0
5	☐	125.000	150.104	2261463.09	0.1376	P	0.5
6	☐	250.000	307.779	4126468.49	0.2583	P	0.4
7	☐	500.000	529.395	6791202.06	0.4279	A	1.0
8	☐	1000.000	967.093	12131318.15	0.7630	A	0.8
9	☐			1131128.59	0.0740	P	1.7

$$y = 7.6555\text{E-}004 * x + 0.0227$$

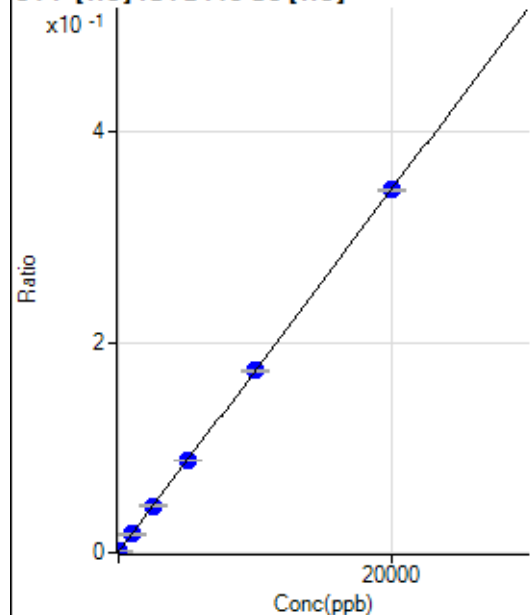
$$R = 0.9973$$

$$DL = 0.2408$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-24.831	222.23	0.0003	P	18.7
2	☐	0.000					
3	☐	0.000	24.831	833.39	0.0012	P	11.2
4	☐	1000.000	969.446	12436.24	0.0174	P	2.0
5	☐	2500.000	2545.347	31595.62	0.0446	P	2.1
6	☐	5000.000	5037.734	60704.98	0.0876	P	1.0
7	☐	10000.000	10017.353	120030.52	0.1734	P	1.4
8	☐	20000.000	19977.749	241834.18	0.3450	P	0.7
9	☐			350.02	0.0005	P	13.1

$$y = 1.7233\text{E-}005 * x + 7.3763\text{E-}004$$

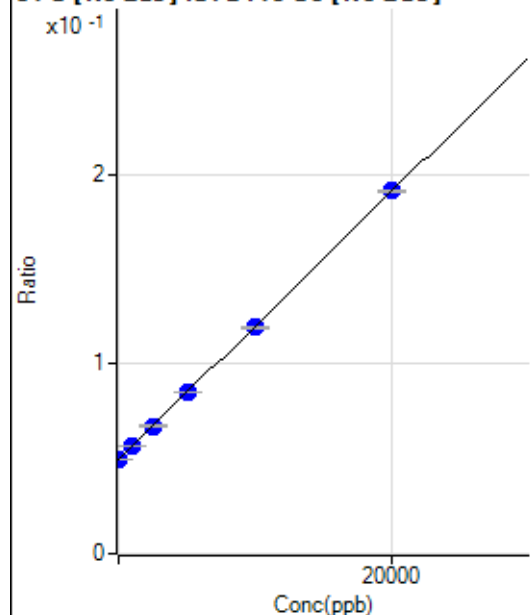
$$R = 1.0000$$

$$DL = 16.39$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	21.346	823548.02	0.0498	P	1.1
2	☐	0.000					
3	☐	0.000	-21.346	818716.90	0.0495	P	0.3
4	☐	1000.000	959.745	918570.18	0.0564	P	0.2
5	☐	2500.000	2481.099	1104045.98	0.0672	P	1.2
6	☐	5000.000	5057.992	1363955.14	0.0854	P	0.4
7	☐	10000.000	9881.139	1895609.68	0.1194	P	0.9
8	☐	20000.000	20049.308	3041411.48	0.1913	P	0.9
9	☐			621460.85	0.0406	P	1.4

$$y = 7.0659\text{E-}006 * x + 0.0496$$

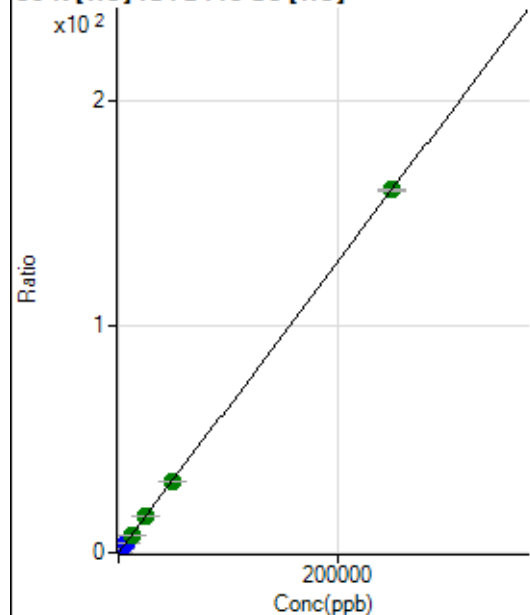
$$R = 1.0000$$

$$DL = 146.7$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38818.48	0.0541	P	2.8
2	☐	50.000					
3	☐	500.000	504.348	269997.96	0.3775	P	0.4
4	☐	2500.000	2496.930	1180093.29	1.6552	P	0.9
5	☐	6250.000	6229.233	2868103.04	4.0484	P	0.5
6	☐	12500.000	12347.964	5527219.18	7.9719	A	0.8
7	☐	25000.000	24576.692	10948787.75	15.8132	A	0.6
8	☐	50000.000	49122.665	22117072.02	31.5526	A	0.1
9	☐	250000.00	250225.94	107481651.01	160.5043	A	0.6

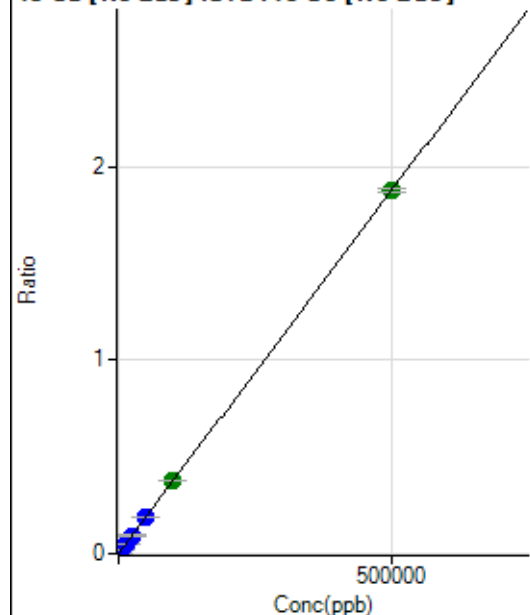
$$y = 6.4122\text{E-}004 * x + 0.0541$$

$$R = 1.0000$$

$$DL = 7.091$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.35	0.0000	P	7.9
2	☐	50.000					
3	☐	500.000	516.140	32344.75	0.0020	P	2.7
4	☐	5000.000	5061.246	309645.21	0.0190	P	0.4
5	☐	12500.000	12689.653	783362.38	0.0476	P	0.9
6	☐	25000.000	25130.717	1507418.56	0.0943	P	0.8
7	☐	50000.000	50271.008	2994957.34	0.1887	P	0.5
8	☐	100000.00	101228.50	6041757.73	0.3800	A	0.4
9	☐	500000.00	499715.29	28687276.34	1.8758	A	1.2

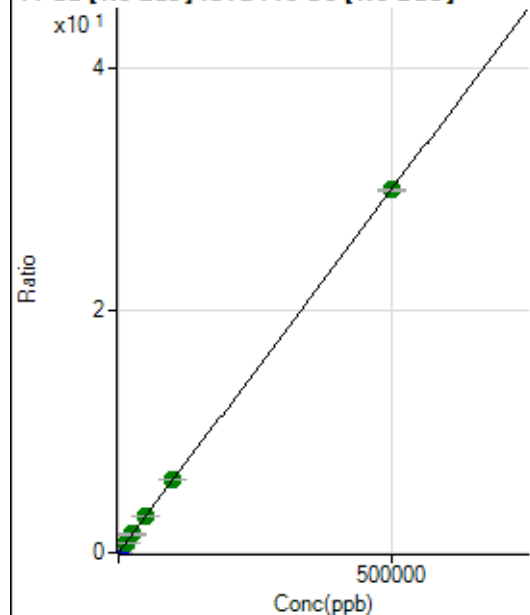
$$y = 3.7536\text{E-}006 * x + 1.7128\text{E-}005$$

$$R = 1.0000$$

$$DL = 1.084$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	26447.78	0.0016	P	1.4
2	☐	50.000					
3	☐	500.000	509.391	530849.42	0.0321	P	0.1
4	☐	5000.000	5148.821	5043276.24	0.3097	P	0.2
5	☐	12500.000	12685.728	12506216.60	0.7607	A	0.3
6	☐	25000.000	25172.282	24092566.34	1.5079	A	0.6
7	☐	50000.000	50265.502	47761917.73	3.0095	A	0.2
8	☐	100000.00	101082.32	96199217.43	6.0504	A	0.4
9	☐	500000.00	499742.23	457399471.34	29.9066	A	0.6

$$y = 5.9841\text{E-}005 * x + 0.0016$$

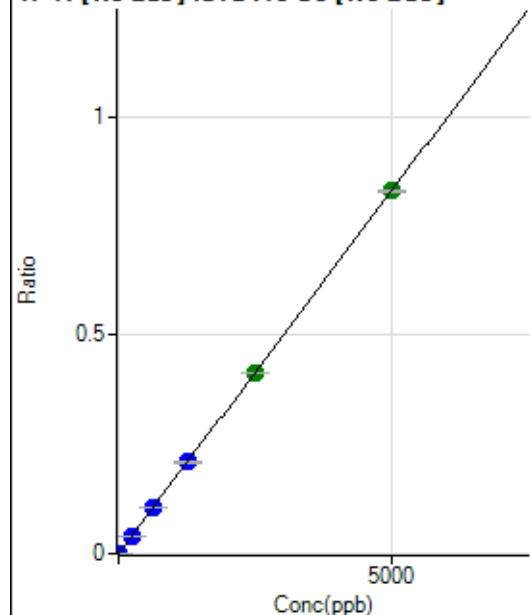
$$R = 1.0000$$

$$DL = 1.134$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	263.90	0.0000	P	10.9
2	☐	0.500					
3	☐	5.000	5.177	14485.48	0.0009	P	2.6
4	☐	250.000	250.786	678204.41	0.0416	P	0.7
5	☐	625.000	627.683	1713262.00	0.1042	P	0.8
6	☐	1250.000	1259.419	3340708.58	0.2091	P	0.7
7	☐	2500.000	2494.104	6571247.80	0.4141	A	0.5
8	☐	5000.000	5000.218	13197749.43	0.8301	A	0.8
9	☐			4264.71	0.0003	P	3.7

$$y = 1.6601\text{E-}004 * x + 1.5949\text{E-}005$$

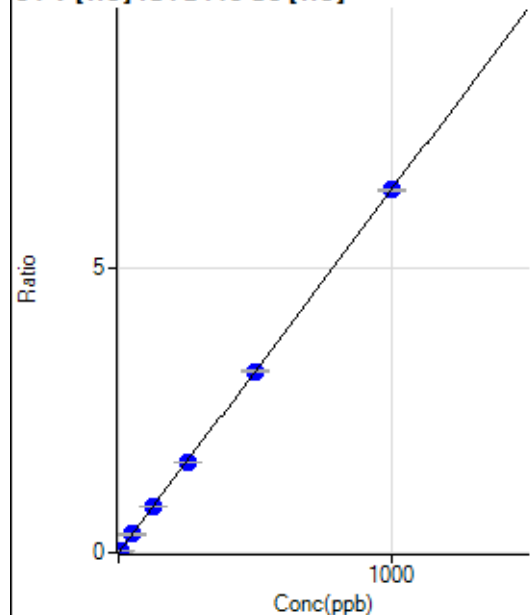
$$R = 1.0000$$

$$DL = 0.03144$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.22	0.0000	P	42.4
2	☐	0.500					
3	☐	5.000	5.376	24596.25	0.0344	P	2.0
4	☐	50.000	50.496	230219.19	0.3229	P	0.6
5	☐	125.000	125.420	568182.72	0.8020	P	0.8
6	☐	250.000	250.680	1111367.28	1.6029	P	0.6
7	☐	500.000	500.057	2213882.19	3.1975	P	0.6
8	☐	1000.000	999.722	4480893.82	6.3925	P	0.3
9	☐			1923.49	0.0029	P	3.7

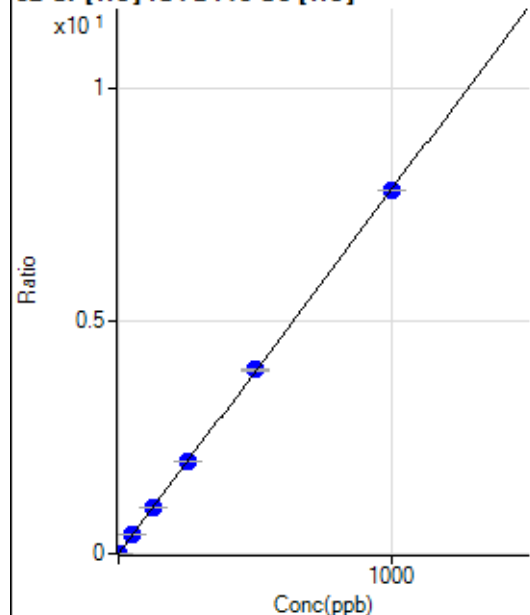
$$y = 0.0064 * x + 1.7069\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.003392$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1026.72	0.0014	P	6.2
2	☐	0.200					
3	☐	2.000	2.092	12711.17	0.0178	P	1.3
4	☐	50.000	51.226	286276.14	0.4015	P	0.5
5	☐	125.000	127.828	708330.97	0.9998	P	0.8
6	☐	250.000	253.667	1374667.18	1.9827	P	0.1
7	☐	500.000	504.460	2728998.95	3.9415	P	0.9
8	☐	1000.000	996.438	5456358.46	7.7841	P	0.2
9	☐			192024.46	0.2868	P	1.3

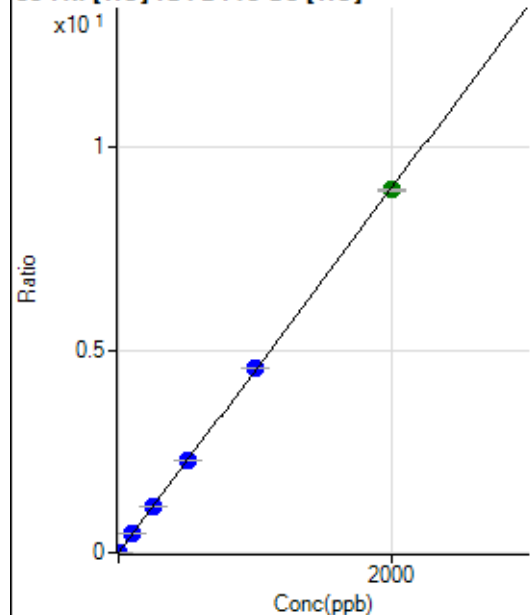
$$y = 0.0078 * x + 0.0014$$

$$R = 1.0000$$

$$DL = 0.03385$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	185.56	0.0003	P	17.2
2	☐	0.100					
3	☐	1.000	1.084	3670.53	0.0051	P	3.4
4	☐	100.000	102.927	330015.02	0.4629	P	0.3
5	☐	250.000	256.521	817007.29	1.1532	P	0.5
6	☐	500.000	508.892	1586000.62	2.2875	P	0.4
7	☐	1000.000	1013.419	3153829.99	4.5551	P	0.8
8	☐	2000.000	1990.106	6269970.18	8.9448	A	0.3
9	☐			23443.38	0.0350	P	2.1

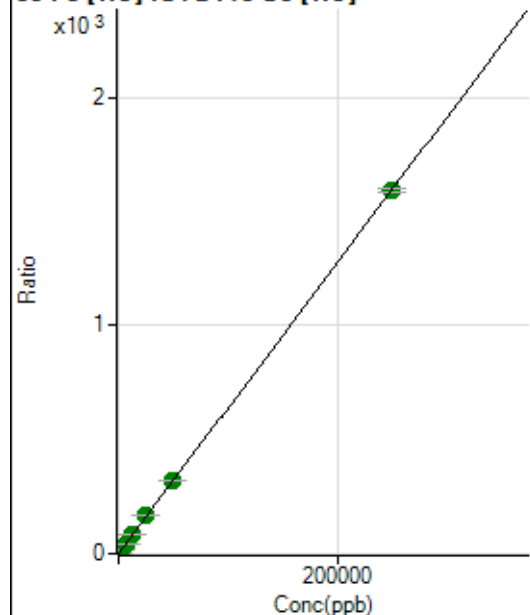
$$y = 0.0045 * x + 2.5855E-004$$

$$R = 1.0000$$

$$DL = 0.02975$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7872.70	0.0110	P	2.3
2	☐	5.000					
3	☐	50.000	56.039	263207.47	0.3680	P	0.4
4	☐	2500.000	2637.414	11988082.21	16.8147	A	0.9
5	☐	6250.000	6596.531	29783681.22	42.0393	A	0.5
6	☐	12500.000	13071.106	57747883.70	83.2906	A	0.2
7	☐	25000.000	25923.640	114365774.78	165.1776	A	0.5
8	☐	50000.000	50879.506	227234888.41	324.1782	A	0.2
9	☐	250000.00	249693.14	1065282171.9	1,590.874	A	1.0

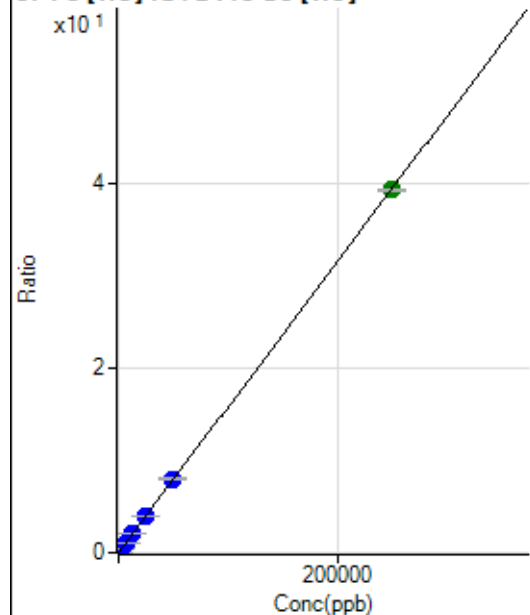
$$y = 0.0064 * x + 0.0110$$

$$R = 1.0000$$

$$DL = 0.1184$$

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	496.32	0.0007	P	6.5
2	☐	5.000					
3	☐	50.000	57.431	6946.30	0.0097	P	2.1
4	☐	2500.000	2636.963	295762.25	0.4148	P	1.0
5	☐	6250.000	6551.545	729452.59	1.0296	P	0.4
6	☐	12500.000	13049.697	1421467.28	2.0502	P	0.4
7	☐	25000.000	25575.911	2781544.77	4.0174	P	1.2
8	☐	50000.000	50881.203	5601801.75	7.9917	P	0.6
9	☐	250000.00	249729.77	26264173.97	39.2212	A	0.5

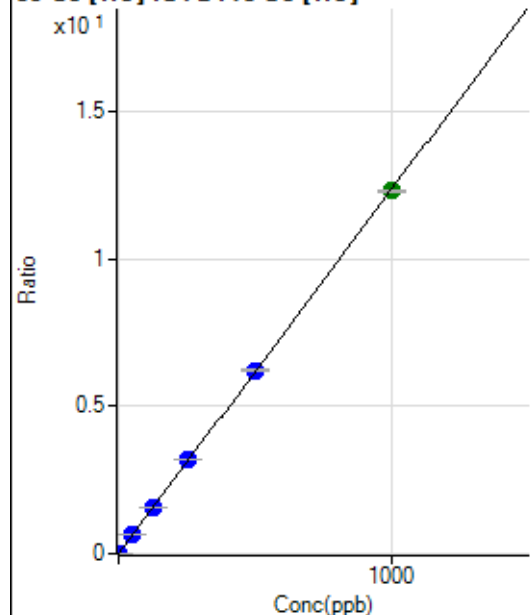
$$y = 1.5705E-004 * x + 6.9174E-004$$

$$R = 1.0000$$

$$DL = 0.8574$$

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	163.34	0.0002	P	11.1
2	☐	0.100					
3	☐	1.000	1.043	9387.59	0.0131	P	1.4
4	☐	50.000	52.065	459229.75	0.6441	P	0.1
5	☐	125.000	128.796	1128588.06	1.5930	P	0.4
6	☐	250.000	256.755	2201655.76	3.1755	P	0.5
7	☐	500.000	503.223	4308928.72	6.2236	P	1.5
8	☐	1000.000	996.122	8635238.83	12.3192	A	0.3
9	☐			17443.87	0.0260	P	0.5

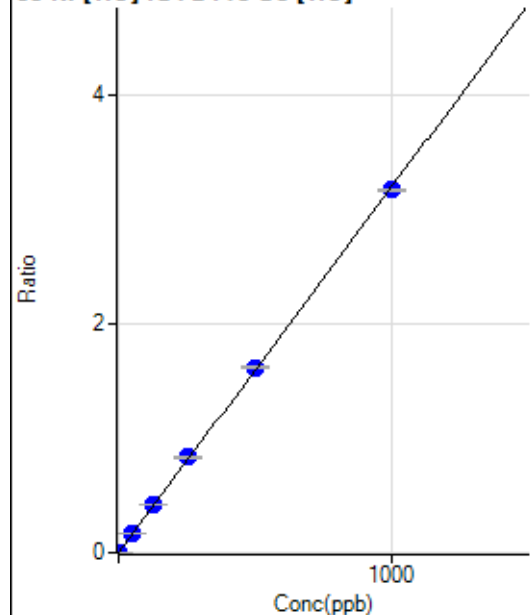
$$y = 0.0124 * x + 2.2771E-004$$

$$R = 1.0000$$

$$DL = 0.006131$$

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	45.56	0.0001	P	30.4
2	☐	0.100					
3	☐	1.000	1.127	2615.83	0.0037	P	3.6
4	☐	50.000	53.125	120857.85	0.1695	P	1.3
5	☐	125.000	131.670	297590.05	0.4201	P	0.8
6	☐	250.000	260.663	576509.07	0.8315	P	0.5
7	☐	500.000	507.591	1121044.80	1.6192	P	1.6
8	☐	1000.000	992.549	2219280.36	3.1661	P	0.5
9	☐			53668.12	0.0801	P	1.4

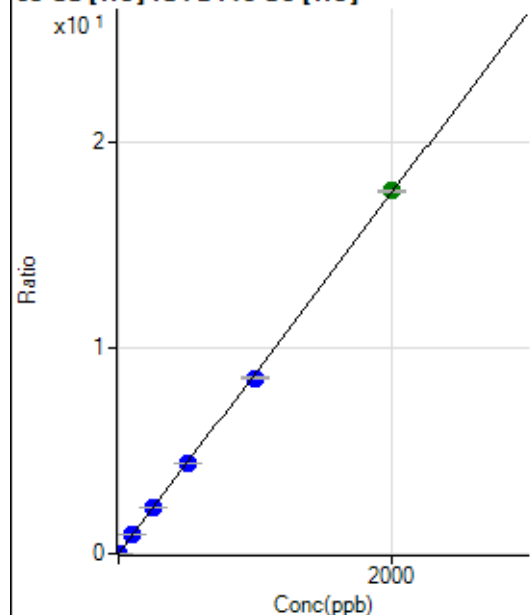
$$y = 0.0032 * x + 6.3486E-005$$

$$R = 0.9999$$

$$DL = 0.01818$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1192.29	0.0017	P	7.9
2	☐	0.200					
3	☐	2.000	2.092	14270.46	0.0200	P	1.4
4	☐	100.000	102.026	637137.30	0.8937	P	0.9
5	☐	250.000	252.250	1563607.65	2.2070	P	0.2
6	☐	500.000	500.161	3032968.22	4.3745	P	0.2
7	☐	1000.000	974.810	5901981.72	8.5243	P	1.0
8	☐	2000.000	2012.172	12332493.01	17.5938	A	0.2
9	☐			20809.44	0.0311	P	0.6

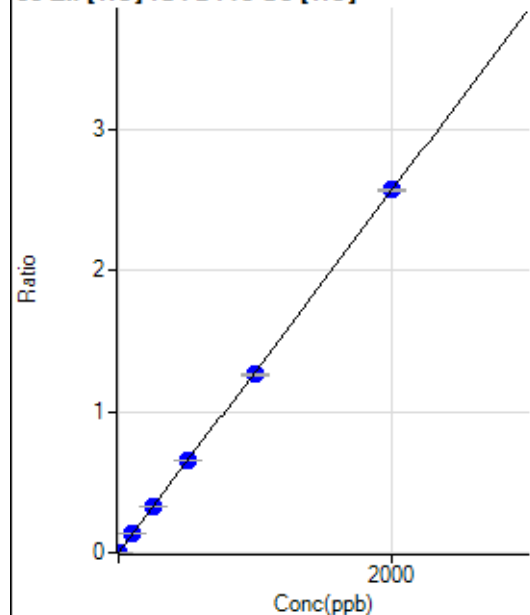
$$y = 0.0087 * x + 0.0017$$

$$R = 0.9999$$

$$DL = 0.04491$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	314.45	0.0004	P	11.1
2	☐	0.200					
3	☐	2.000	2.345	2463.58	0.0034	P	4.0
4	☐	100.000	103.641	95064.84	0.1333	P	0.4
5	☐	250.000	259.264	235833.58	0.3329	P	0.3
6	☐	500.000	509.596	453362.14	0.6539	P	0.3
7	☐	1000.000	983.954	873865.87	1.2621	P	1.3
8	☐	2000.000	2004.283	1801795.49	2.5705	P	0.3
9	☐			18325.06	0.0274	P	2.1

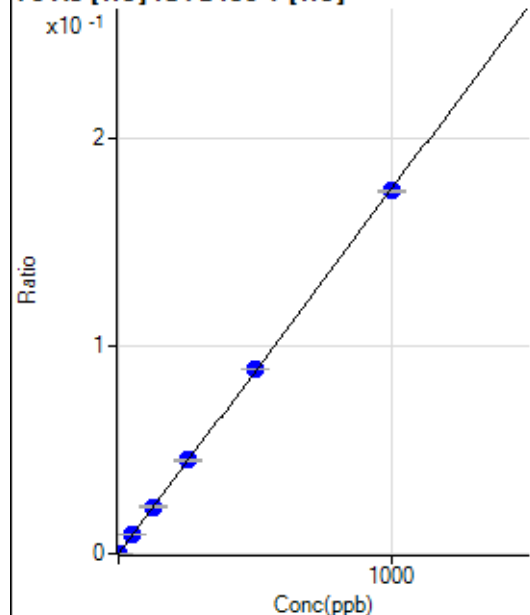
$$y = 0.0013 * x + 4.3795E-004$$

$$R = 0.9999$$

$$DL = 0.1139$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:89 Y [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17.28	0.0000	P	34.4
2	☐	0.100					
3	☐	1.000	0.985	565.45	0.0002	P	3.7
4	☐	50.000	51.427	28464.94	0.0090	P	0.4
5	☐	125.000	128.438	71003.10	0.0225	P	1.6
6	☐	250.000	255.753	138531.95	0.0448	P	0.6
7	☐	500.000	506.274	272932.14	0.0888	P	0.8
8	☐	1000.000	994.924	541313.43	0.1744	P	0.7
9	☐			243.83	0.0001	P	11.1

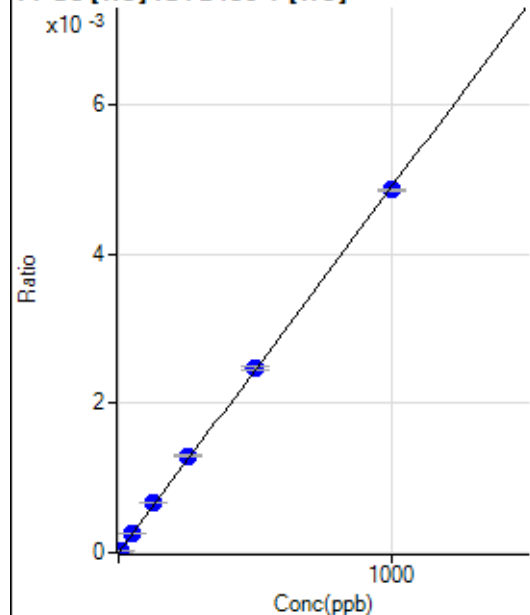
$$y = 1.7533\text{E-}004 * x + 5.5651\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.03273$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3.33	0.0000	P	0.4
2	☐	0.500					
3	☐	5.000	6.571	105.56	0.0000	P	6.5
4	☐	50.000	53.096	824.49	0.0003	P	5.1
5	☐	125.000	135.369	2095.74	0.0007	P	1.4
6	☐	250.000	265.018	4017.29	0.0013	P	2.8
7	☐	500.000	504.335	7605.45	0.0025	P	2.2
8	☐	1000.000	992.619	15104.76	0.0049	P	0.8
9	☐			6.66	0.0000	P	88.2

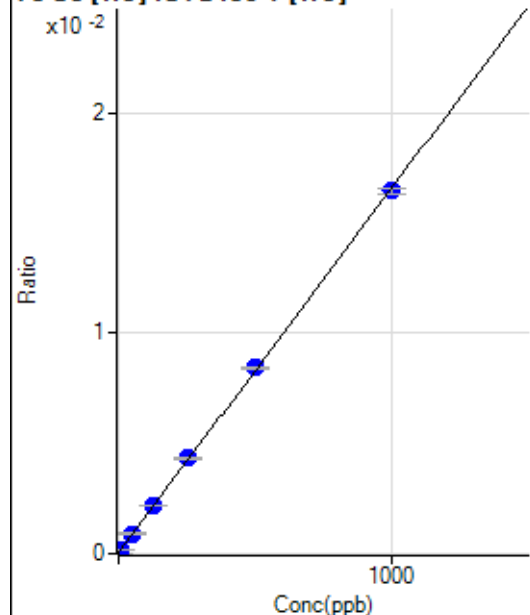
$$y = 4.9027\text{E-}006 * x + 1.0727\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.002774$$

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	129.63	0.0000	P	3.5
2	☐	0.500					
3	☐	5.000	5.641	427.79	0.0001	P	3.8
4	☐	50.000	52.181	2850.31	0.0009	P	2.8
5	☐	125.000	130.491	6925.16	0.0022	P	0.4
6	☐	250.000	260.328	13408.14	0.0043	P	2.0
7	☐	500.000	506.808	25860.09	0.0084	P	1.7
8	☐	1000.000	993.215	51023.27	0.0164	P	1.3
9	☐			143.22	0.0000	P	16.9

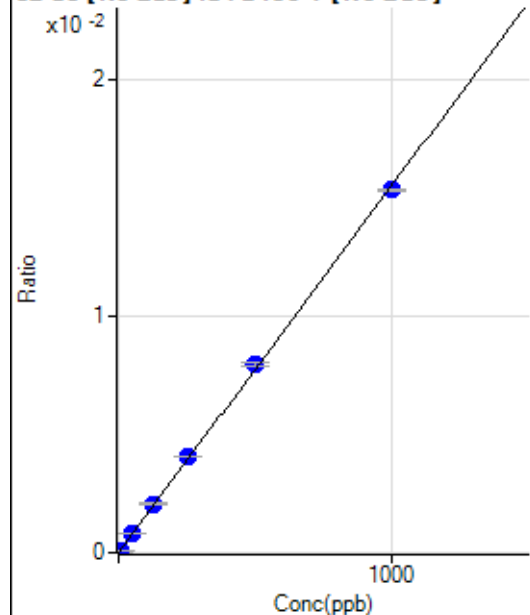
$$y = 1.6514\text{E-}005 * x + 4.1755\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.2647$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	55.66	0.0000	P	132.
2	☐	0.500					
3	☐	5.000	5.887	2263.97	0.0001	P	4.4
4	☐	50.000	53.056	19704.00	0.0008	P	1.1
5	☐	125.000	133.276	49841.75	0.0021	P	1.4
6	☐	250.000	261.114	96033.66	0.0040	P	0.5
7	☐	500.000	513.896	186704.91	0.0080	P	1.4
8	☐	1000.000	989.082	358576.56	0.0153	P	0.5
9	☐			437.05	0.0000	P	39.2

$$y = 1.5494\text{E-}005 * x + 2.3339\text{E-}006$$

$$R = 0.9998$$

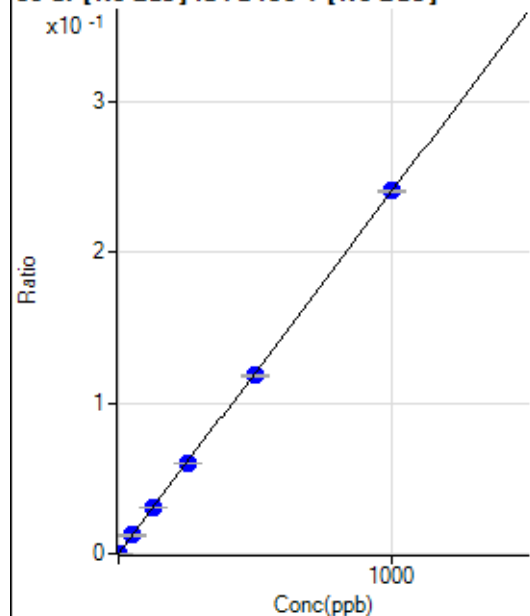
$$DL = 0.5986$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2345.79		P	3.1
2	☐						
3	☐			2293.56		P	6.3
4	☐			2265.77		P	2.1
5	☐			2306.89		P	1.1
6	☐			2222.43		P	4.8
7	☐			2273.55		P	3.9
8	☐			2176.87		P	2.0
9	☐			2214.65		P	4.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3686.74	0.0002	P	3.2
2	☐	0.100					
3	☐	1.000	0.957	9306.15	0.0004	P	3.4
4	☐	50.000	49.919	290207.65	0.0121	P	0.2
5	☐	125.000	125.806	732097.41	0.0304	P	0.4
6	☐	250.000	250.584	1431210.60	0.0603	P	0.1
7	☐	500.000	493.598	2782141.66	0.1187	P	1.0
8	☐	1000.000	1002.958	5638087.93	0.2410	P	0.7
9	☐			25451.14	0.0011	P	2.8

$$y = 2.4013E-004 * x + 1.5459E-004$$

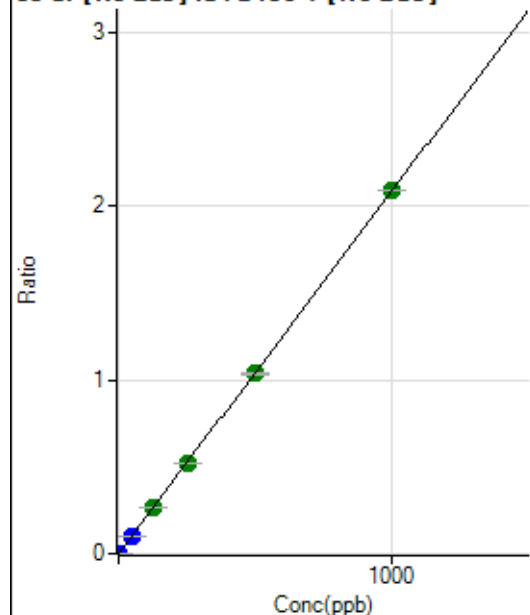
$$R = 1.0000$$

$$DL = 0.06173$$

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	291.68	0.0000	P	10.1
2	☐	0.100					
3	☐	1.000	0.994	50478.46	0.0021	P	1.0
4	☐	50.000	50.007	2493962.06	0.1043	P	0.5
5	☐	125.000	125.048	6290434.17	0.2609	A	0.2
6	☐	250.000	248.441	12296689.51	0.5183	A	0.3
7	☐	500.000	497.292	24321451.06	1.0375	A	0.7
8	☐	1000.000	1001.738	48893429.56	2.0899	A	0.2
9	☐			192821.39	0.0087	P	1.5

$$y = 0.0021 * x + 1.2229E-005$$

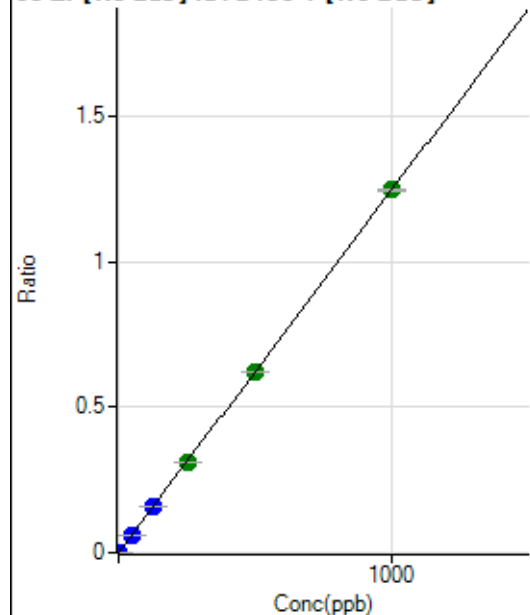
$$R = 1.0000$$

$$DL = 0.001772$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1569.60	0.0001	P	7.8
2	☐	0.100					
3	☐	1.000	0.907	28949.60	0.0012	P	2.9
4	☐	50.000	49.433	1473468.33	0.0616	P	0.5
5	☐	125.000	126.050	3787529.81	0.1571	P	0.7
6	☐	250.000	247.404	7313357.98	0.3083	A	0.3
7	☐	500.000	498.822	14568859.35	0.6215	A	0.6
8	☐	1000.000	1001.135	29178529.82	1.2472	A	0.4
9	☐			9881.55	0.0004	P	2.5

$$y = 0.0012 * x + 6.5826E-005$$

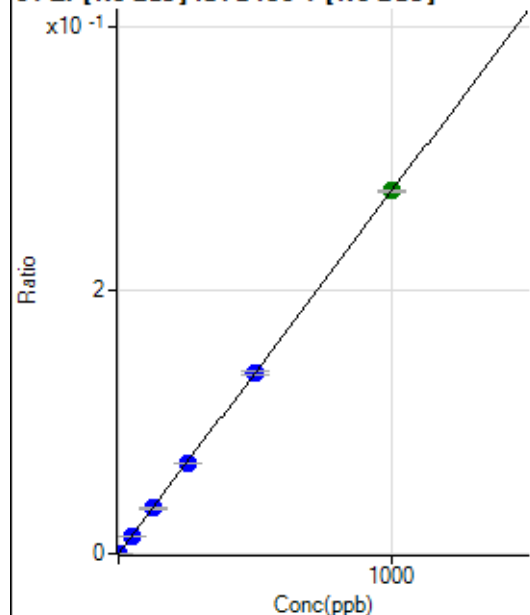
$$R = 1.0000$$

$$DL = 0.01229$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	280.57	0.0000	P	9.3
2	☐	0.100					
3	☐	1.000	0.896	6262.76	0.0003	P	2.2
4	☐	50.000	49.311	325089.82	0.0136	P	0.3
5	☐	125.000	125.333	833016.73	0.0346	P	1.4
6	☐	250.000	247.673	1619529.63	0.0683	P	0.5
7	☐	500.000	499.235	3225433.95	0.1376	P	1.4
8	☐	1000.000	1000.957	6453700.40	0.2759	A	0.3
9	☐			2383.65	0.0001	P	14.9

$$y = 2.7558\text{E-}004 * x + 1.1764\text{E-}005$$

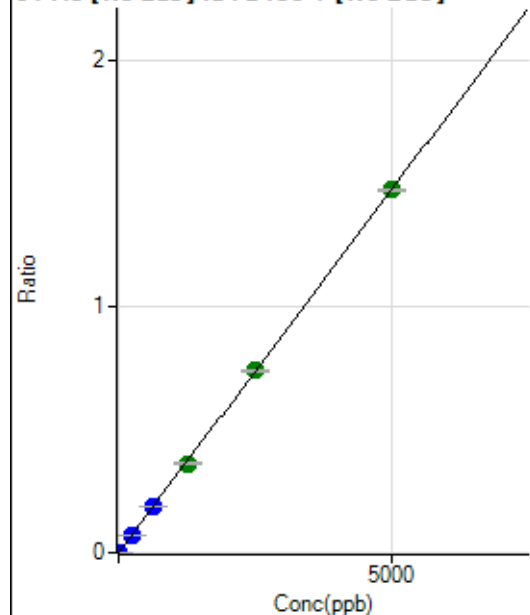
$$R = 1.0000$$

$$DL = 0.01195$$

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	591.70	0.0000	P	20.4
2	☐	0.500					
3	☐	5.000	4.887	35506.25	0.0015	P	0.9
4	☐	250.000	250.844	1769750.97	0.0740	P	0.7
5	☐	625.000	637.948	4539044.85	0.1883	P	1.1
6	☐	1250.000	1231.495	8621257.66	0.3634	A	0.6
7	☐	2500.000	2506.014	17335448.65	0.7395	A	1.2
8	☐	5000.000	4999.959	34516503.20	1.4754	A	0.3
9	☐			30452.98	0.0014	P	0.4

$$y = 2.9507\text{E-}004 * x + 2.4815\text{E-}005$$

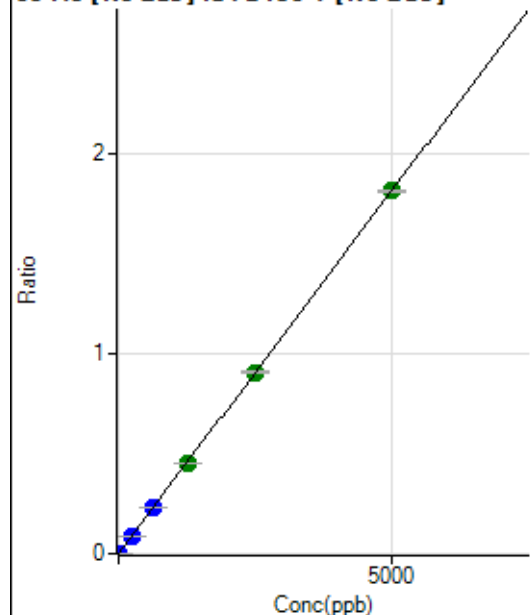
$$R = 1.0000$$

$$DL = 0.05151$$

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	147.23	0.0000	P	21.2
2	☐	0.500					
3	☐	5.000	5.099	44846.20	0.0019	P	0.3
4	☐	250.000	250.916	2172037.88	0.0909	P	0.8
5	☐	625.000	633.535	5531564.32	0.2294	P	1.2
6	☐	1250.000	1240.226	10655330.45	0.4491	A	0.3
7	☐	2500.000	2496.505	21194139.54	0.9041	A	1.2
8	☐	5000.000	5003.078	42387217.96	1.8118	A	0.3
9	☐			47058.89	0.0021	P	1.5

$$y = 3.6214\text{E-}004 * x + 6.1724\text{E-}006$$

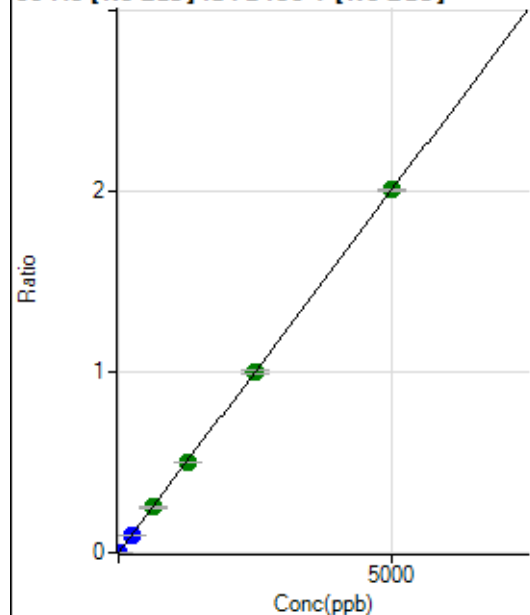
$$R = 1.0000$$

$$DL = 0.01086$$

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	297.24	0.0000	P	32.0
2	☐	0.500					
3	☐	5.000	5.027	49032.42	0.0020	P	0.9
4	☐	250.000	250.893	2401839.12	0.1005	P	0.6
5	☐	625.000	623.892	6024285.03	0.2499	A	0.7
6	☐	1250.000	1241.518	11795583.95	0.4972	A	0.5
7	☐	2500.000	2491.714	23392403.65	0.9979	A	1.5
8	☐	5000.000	5006.357	46904350.35	2.0049	A	0.6
9	☐			65520.93	0.0029	P	3.0

$$y = 4.0047\text{E-}004 * x + 1.2458\text{E-}005$$

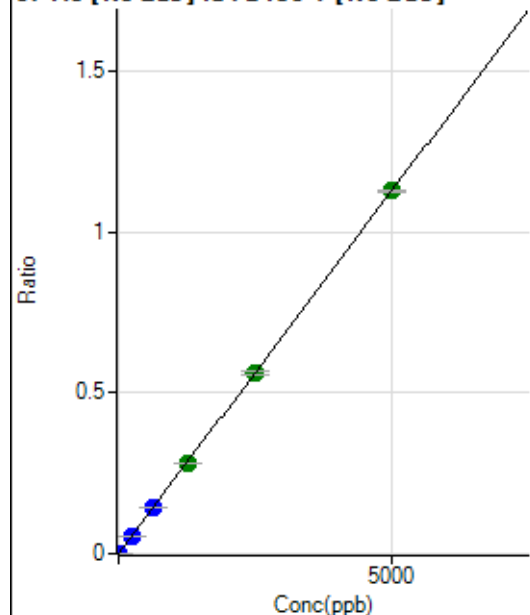
$$R = 1.0000$$

$$DL = 0.0299$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	113.89	0.0000	P	22.1
2	☐	0.500					
3	☐	5.000	4.994	27357.73	0.0011	P	1.6
4	☐	250.000	249.592	1344690.75	0.0563	P	0.9
5	☐	625.000	629.810	3422572.60	0.1420	P	0.6
6	☐	1250.000	1238.913	6624397.11	0.2792	A	0.8
7	☐	2500.000	2495.026	13182630.42	0.5623	A	1.5
8	☐	5000.000	5004.678	26388870.03	1.1280	A	0.3
9	☐			29211.37	0.0013	P	1.7

$$y = 2.2538\text{E-}004 * x + 4.7744\text{E-}006$$

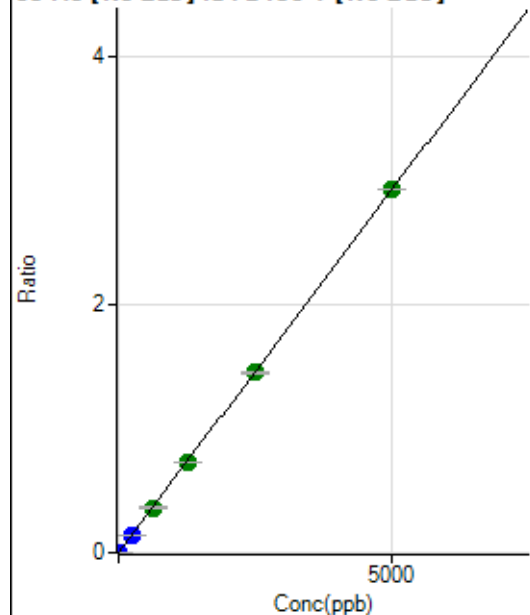
$$R = 1.0000$$

$$DL = 0.01406$$

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	283.35	0.0000	P	24.3
2	☐	0.500					
3	☐	5.000	5.047	71546.88	0.0030	P	0.6
4	☐	250.000	250.548	3493055.59	0.1461	P	0.5
5	☐	625.000	623.508	8768389.00	0.3637	A	0.6
6	☐	1250.000	1244.065	17214100.73	0.7256	A	0.3
7	☐	2500.000	2490.374	34050224.03	1.4525	A	0.9
8	☐	5000.000	5006.456	68312795.28	2.9200	A	0.2
9	☐			72459.47	0.0033	P	0.2

$$y = 5.8324\text{E-}004 * x + 1.1886\text{E-}005$$

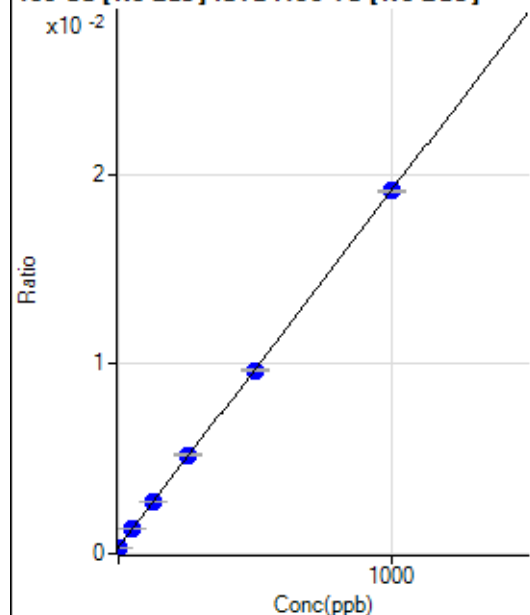
$$R = 1.0000$$

$$DL = 0.01487$$

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	9208.92	0.0003	P	0.8
2	☐	0.100					
3	☐	1.000	0.215	9422.92	0.0003	P	2.3
4	☐	50.000	52.267	36266.76	0.0013	P	1.3
5	☐	125.000	128.462	76711.05	0.0028	P	1.1
6	☐	250.000	258.203	143230.06	0.0052	P	2.1
7	☐	500.000	496.524	265260.92	0.0097	P	1.1
8	☐	1000.000	999.142	520390.45	0.0191	P	0.6
9	☐			8530.73	0.0003	P	2.8

$$y = 1.8787\text{E-}005 * x + 3.3897\text{E-}004$$

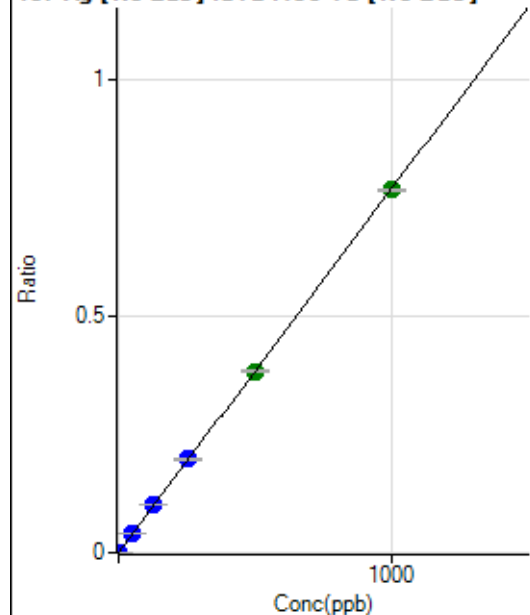
$$R = 1.0000$$

$$DL = 0.4145$$

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	238.90	0.0000	P	36.6
2	☐	0.100					
3	☐	1.000	1.035	22123.56	0.0008	P	1.4
4	☐	50.000	53.792	1136959.23	0.0414	P	0.8
5	☐	125.000	131.791	2827664.71	0.1015	P	0.5
6	☐	250.000	257.650	5473788.88	0.1983	P	1.5
7	☐	500.000	499.354	10547051.80	0.3844	A	0.2
8	☐	1000.000	997.372	20906868.87	0.7677	A	0.6
9	☐			4853.83	0.0002	P	5.1

$$y = 7.6976\text{E-}004 * x + 8.7910\text{E-}006$$

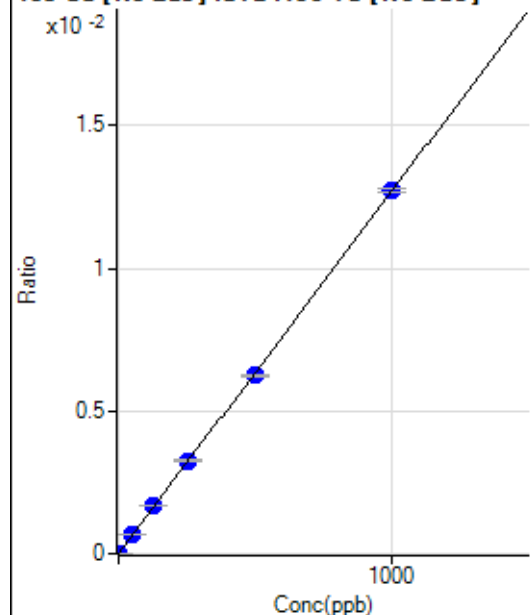
$$R = 1.0000$$

$$DL = 0.01254$$

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	44.44	0.0000	P	13.9
2	☐	0.100					
3	☐	1.000	0.992	390.29	0.0000	P	11.0
4	☐	50.000	52.952	18480.37	0.0007	P	1.4
5	☐	125.000	131.325	46463.79	0.0017	P	0.7
6	☐	250.000	256.410	89789.69	0.0033	P	1.1
7	☐	500.000	491.177	170959.96	0.0062	P	0.6
8	☐	1000.000	1001.870	346037.90	0.0127	P	1.0
9	☐			101.39	0.0000	P	25.6

$$y = 1.2682\text{E-}005 * x + 1.6354\text{E-}006$$

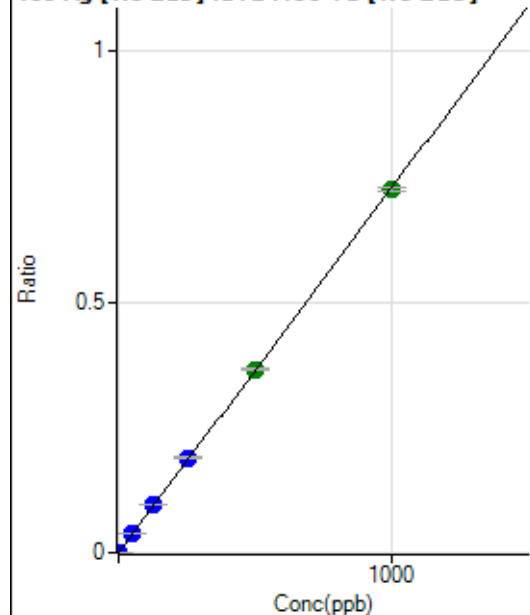
$$R = 0.9999$$

$$DL = 0.05396$$

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	91.67	0.0000	P	9.2
2	☐	0.100					
3	☐	1.000	1.019	20459.84	0.0007	P	0.8
4	☐	50.000	53.884	1076105.67	0.0392	P	0.7
5	☐	125.000	132.694	2690218.12	0.0965	P	0.5
6	☐	250.000	260.678	5233313.18	0.1896	P	1.2
7	☐	500.000	502.484	10029159.95	0.3655	A	0.8
8	☐	1000.000	994.932	19707469.89	0.7237	A	1.0
9	☐			4539.83	0.0002	P	1.6

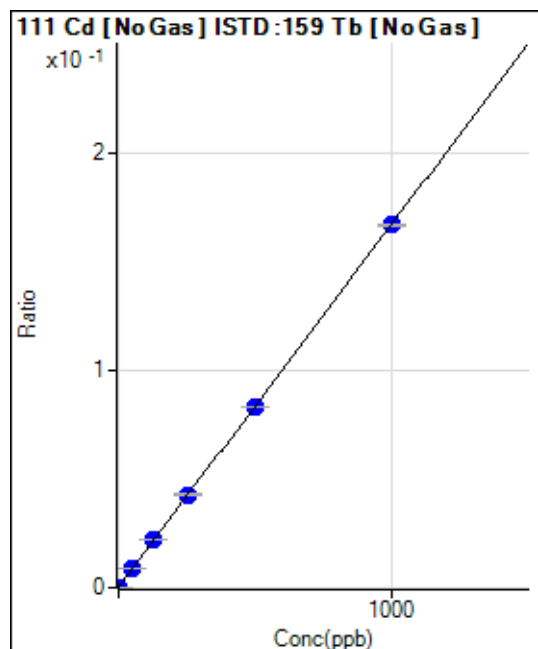
$$y = 7.2739\text{E-}004 * x + 3.3747\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.001287$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6459.58	0.0002	P	0.8
2	☐	0.100					
3	☐	1.000	0.962	10948.70	0.0004	P	2.0
4	☐	50.000	52.450	247304.11	0.0090	P	0.7
5	☐	125.000	129.696	611073.19	0.0219	P	1.0
6	☐	250.000	254.913	1182977.13	0.0429	P	1.3
7	☐	500.000	498.303	2292871.29	0.0836	P	0.5
8	☐	1000.000	998.911	4555073.62	0.1673	P	0.6
9	☐			7158.95	0.0003	P	2.8

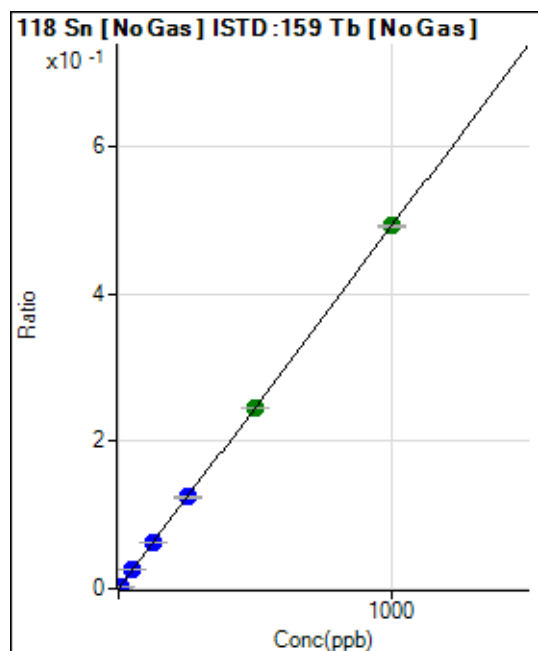
$$y = 1.6722\text{E-}004 * x + 2.3777\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.03401$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1807.46	0.0001	P	47.6
2	☐	0.500					
3	☐	5.000	5.241	72618.91	0.0026	P	1.4
4	☐	50.000	51.115	691841.95	0.0252	P	0.7
5	☐	125.000	127.518	1749434.76	0.0628	P	0.7
6	☐	250.000	252.059	3422579.07	0.1240	P	0.9
7	☐	500.000	496.358	6698686.78	0.2441	A	0.1
8	☐	1000.000	1000.935	13404704.82	0.4922	A	0.4
9	☐			7652.39	0.0003	P	1.9

$$y = 4.9172\text{E-}004 * x + 6.6539\text{E-}005$$

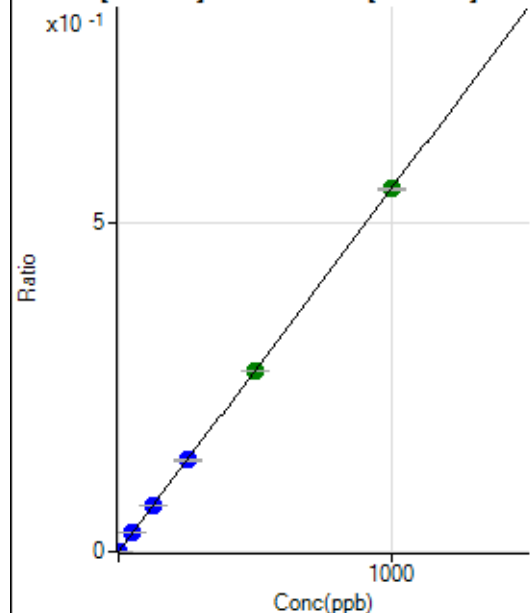
$$R = 1.0000$$

$$DL = 0.1933$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	169.45	0.0000	P	18.6
2	☐	0.200					
3	☐	2.000	2.002	30614.77	0.0011	P	1.4
4	☐	50.000	50.649	769665.00	0.0280	P	0.9
5	☐	125.000	126.902	1957499.16	0.0702	P	0.4
6	☐	250.000	251.924	3847870.05	0.1394	P	1.3
7	☐	500.000	499.388	7583281.16	0.2764	A	0.4
8	☐	1000.000	999.555	15063631.59	0.5532	A	0.2
9	☐			14897.43	0.0006	P	4.6

$$y = 5.5340\text{E-}004 * x + 6.2373\text{E-}006$$

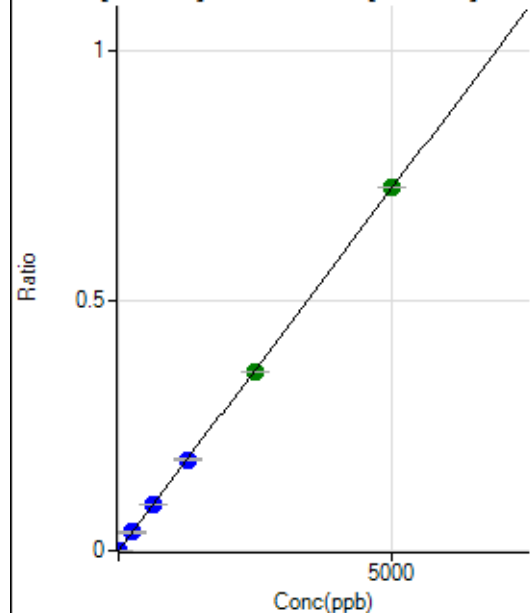
$$R = 1.0000$$

$$DL = 0.006293$$

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	55.56	0.0000	P	43.6
2	☐	1.000					
3	☐	10.000	10.477	41750.02	0.0015	P	0.4
4	☐	250.000	253.431	1007946.42	0.0367	P	0.9
5	☐	625.000	630.640	2546216.79	0.0914	P	0.5
6	☐	1250.000	1253.317	5010706.53	0.1816	P	1.8
7	☐	2500.000	2468.861	9813418.79	0.3576	A	0.4
8	☐	5000.000	5013.863	19778899.23	0.7263	A	0.2
9	☐			4267.50	0.0002	P	2.9

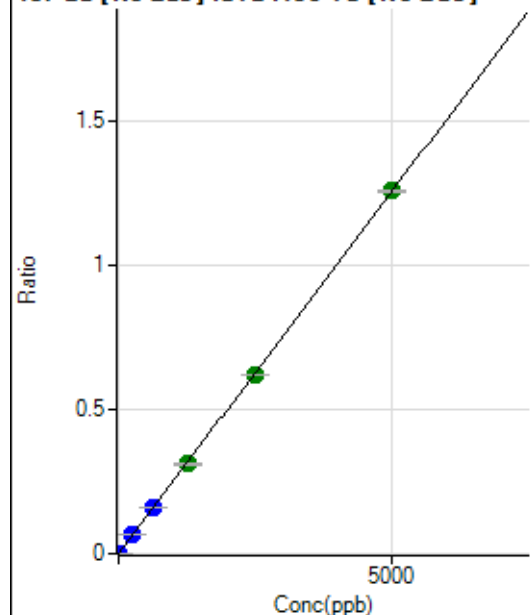
$$y = 1.4486\text{E-}004 * x + 2.0470\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.0185$$

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	119.45	0.0000	P	7.8
2	☐	1.000					
3	☐	10.000	10.398	71588.52	0.0026	P	2.3
4	☐	250.000	253.487	1741340.12	0.0634	P	0.5
5	☐	625.000	636.404	4438074.41	0.1592	P	0.7
6	☐	1250.000	1238.067	8549433.09	0.3098	A	1.5
7	☐	2500.000	2469.829	16956637.53	0.6180	A	0.6
8	☐	5000.000	5016.468	34179791.04	1.2552	A	0.6
9	☐			7724.70	0.0003	P	1.5

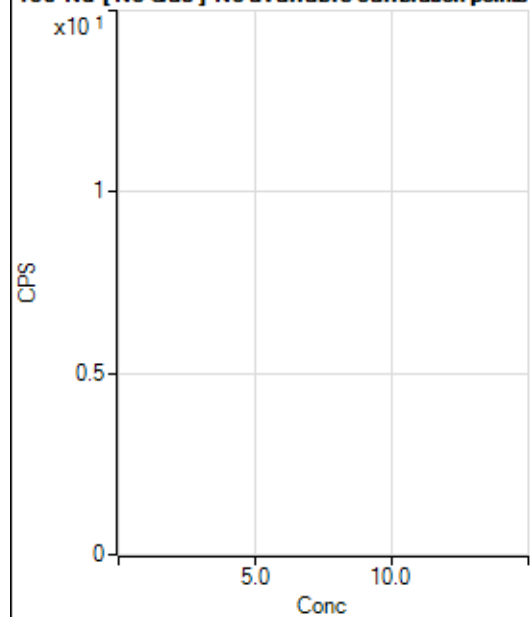
$$y = 2.5021\text{E-}004 * x + 4.3963\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.004095$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			6.67		P	100.
2	☐						
3	☐			15.56		P	65.5
4	☐			86.67		P	26.6
5	☐			208.90		P	14.4
6	☐			368.91		P	13.7
7	☐			702.26		P	12.6
8	☐			1333.45		P	6.9
9	☐			146.67		P	25.3

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	96.4
2	☐						
3	☐			8.89		P	57.3
4	☐			7.78		P	24.7
5	☐			30.00		P	22.2
6	☐			40.00		P	30.0
7	☐			56.67		P	20.4
8	☐			117.78		P	20.1
9	☐			76.67		P	8.7

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	48.0
2	☐						
3	☐			47.23		P	62.0
4	☐			50.00		P	60.1
5	☐			80.56		P	57.0
6	☐			91.67		P	41.7
7	☐			175.01		P	17.2
8	☐			355.58		P	23.5
9	☐			100.01		P	30.0

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			28.89		P	53.3
2	☐						
3	☐			34.45		P	45.7
4	☐			50.00		P	26.7
5	☐			75.55		P	14.2
6	☐			80.00		P	37.0
7	☐			172.22		P	11.8
8	☐			333.34		P	4.0
9	☐			64.45		P	20.9

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			180.56		P	16.2
2	☐						
3	☐			208.35		P	12.0
4	☐			180.57		P	14.8
5	☐			155.56		P	26.4
6	☐			205.57		P	9.4
7	☐			194.45		P	4.9
8	☐			319.47		P	29.1
9	☐			172.23		P	14.8

160 Gd [He] No available calibration points

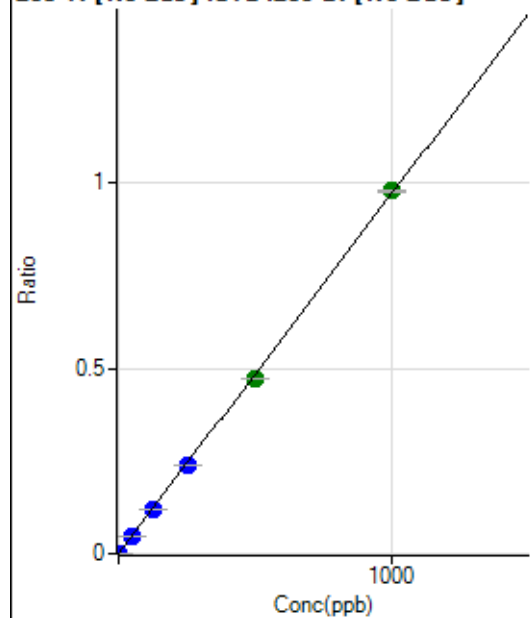
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			348.90		P	2.2
2	☐						
3	☐			405.57		P	7.9
4	☐			341.12		P	15.9
5	☐			378.90		P	4.5
6	☐			392.24		P	4.7
7	☐			335.57		P	2.1
8	☐			364.46		P	8.5
9	☐			402.24		P	7.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			205.56		P	42.6
2	☐						
3	☐			141.67		P	25.6
4	☐			147.23		P	31.2
5	☐			175.01		P	21.8
6	☐			197.24		P	17.1
7	☐			141.67		P	27.0
8	☐			200.01		P	23.2
9	☐			177.79		P	10.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			81.11		P	8.6
2	☐						
3	☐			75.56		P	30.0
4	☐			85.56		P	16.2
5	☐			85.56		P	23.5
6	☐			88.89		P	18.5
7	☐			76.67		P	19.0
8	☐			98.89		P	20.6
9	☐			112.23		P	19.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	677.83	0.0000	P	6.0
2	☐	0.100					
3	☐	1.000	0.939	15921.36	0.0010	P	1.2
4	☐	50.000	47.847	774984.98	0.0464	P	0.4
5	☐	125.000	121.822	1967101.56	0.1182	P	1.1
6	☐	250.000	243.682	3858497.79	0.2363	P	0.4
7	☐	500.000	486.977	7623059.29	0.4722	A	0.3
8	☐	1000.000	1008.596	15142876.73	0.9780	A	0.3
9	☐			4817.77	0.0004	P	4.8

$$y = 9.6959E-004 * x + 4.1082E-005$$

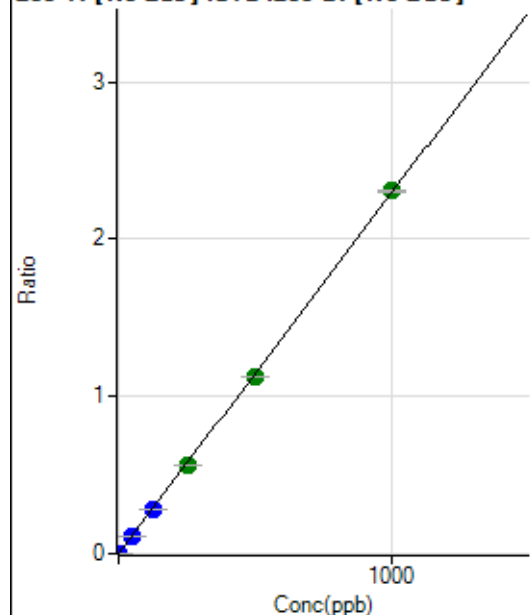
$$R = 0.9999$$

$$DL = 0.007622$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1086.21	0.0001	P	14.6
2	☐	0.100					
3	☐	1.000	0.956	37779.72	0.0023	P	1.9
4	☐	50.000	48.818	1868073.72	0.1119	P	0.9
5	☐	125.000	124.442	4748167.46	0.2852	P	1.3
6	☐	250.000	244.984	9166839.27	0.5614	A	0.7
7	☐	500.000	490.131	18132004.92	1.1232	A	0.4
8	☐	1000.000	1006.317	35706027.19	2.3060	A	0.2
9	☐			10885.50	0.0008	P	2.8

$$y = 0.0023 * x + 6.5803E-005$$

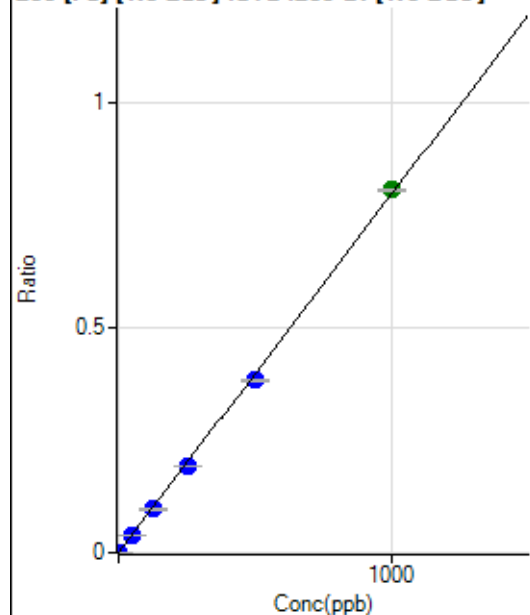
$$R = 0.9999$$

$$DL = 0.01254$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1016.74	0.0001	P	10.6
2	☐	0.100					
3	☐	1.000	0.937	13512.73	0.0008	P	1.7
4	☐	50.000	47.640	634118.50	0.0380	P	1.7
5	☐	125.000	121.059	1605647.04	0.0965	P	1.7
6	☐	250.000	241.877	3145540.00	0.1927	P	1.0
7	☐	500.000	480.703	6179904.88	0.3828	P	0.6
8	☐	1000.000	1012.290	12481720.30	0.8061	A	0.8
9	☐			28963.50	0.0022	P	1.4

$$y = 7.9623E-004 * x + 6.1592E-005$$

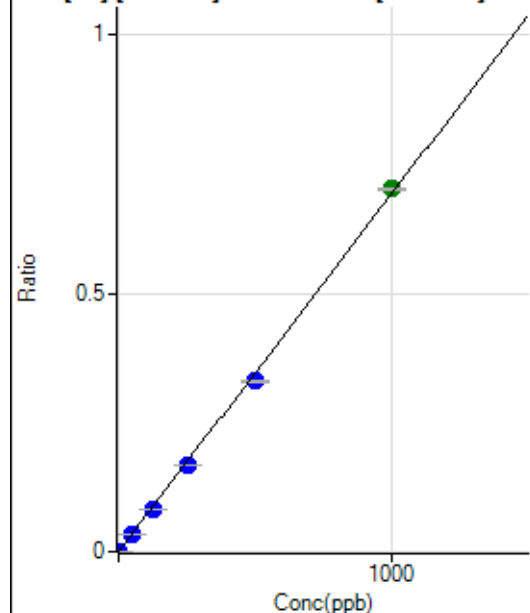
$$R = 0.9997$$

$$DL = 0.0246$$

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	1031.55	0.0001	P	5.4
2	☐	0.100					
3	☐	1.000	0.931	11837.10	0.0007	P	2.3
4	☐	50.000	47.423	548874.39	0.0329	P	1.3
5	☐	125.000	120.201	1386150.38	0.0833	P	0.7
6	☐	250.000	240.797	2722348.12	0.1667	P	0.7
7	☐	500.000	477.345	5334719.62	0.3305	P	0.7
8	☐	1000.000	1014.357	10872470.50	0.7022	A	0.5
9	☐			26350.74	0.0020	P	1.9

$$y = 6.9216E-004 * x + 6.2512E-005$$

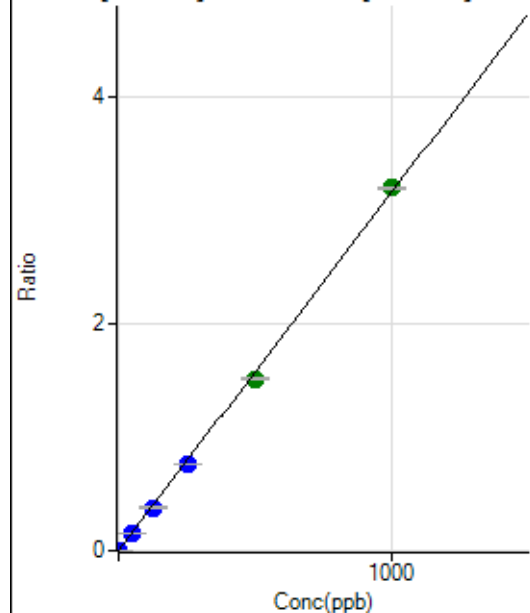
$$R = 0.9996$$

$$DL = 0.01455$$

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	3802.16	0.0002	P	4.4
2	☐	0.100					
3	☐	1.000	0.932	53062.59	0.0032	P	0.6
4	☐	50.000	47.695	2513897.06	0.1506	P	1.0
5	☐	125.000	120.640	6336927.01	0.3806	P	0.8
6	☐	250.000	241.631	12444122.53	0.7621	P	0.6
7	☐	500.000	479.629	24418082.66	1.5126	A	0.7
8	☐	1000.000	1012.938	49460234.68	3.1942	A	0.2
9	☐			117024.45	0.0088	P	1.2

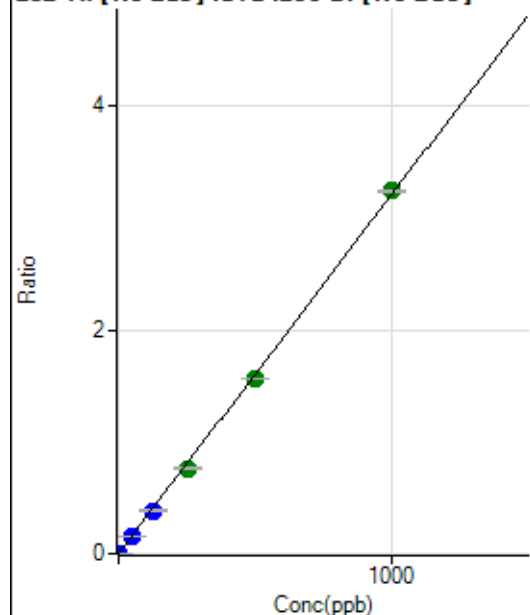
$$y = 0.0032 * x + 2.3040E-004$$

$$R = 0.9997$$

$$DL = 0.009675$$

Weight: <None>

Min Conc: 0

²³²Th [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2750.37	0.0002	P	6.9
2	☐	0.100					
3	☐	1.000	0.827	47189.67	0.0028	P	1.3
4	☐	50.000	46.633	2500204.08	0.1498	P	0.3
5	☐	125.000	120.225	6425482.84	0.3859	P	0.5
6	☐	250.000	238.290	12487440.67	0.7648	A	0.5
7	☐	500.000	485.961	25176035.98	1.5595	A	0.2
8	☐	1000.000	1010.712	50219753.90	3.2433	A	0.4
9	☐			14124.75	0.0011	P	2.2

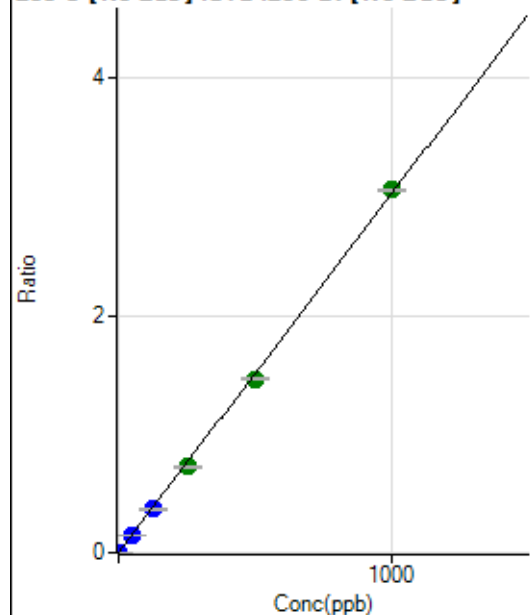
$$y = 0.0032 * x + 1.6665E-004$$

$$R = 0.9998$$

$$DL = 0.01082$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2686.52	0.0002	P	6.1
2	☐	0.100					
3	☐	1.000	0.922	49426.75	0.0030	P	0.4
4	☐	50.000	47.583	2405903.94	0.1442	P	0.1
5	☐	125.000	120.614	6079138.33	0.3651	P	0.7
6	☐	250.000	239.594	11840597.92	0.7252	A	1.3
7	☐	500.000	484.305	23661520.49	1.4657	A	0.7
8	☐	1000.000	1011.118	47378499.67	3.0598	A	0.3
9	☐			8842.36	0.0007	P	4.2

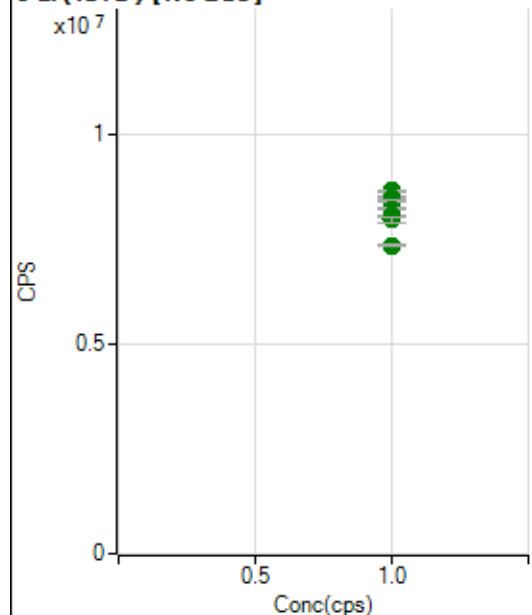
$$y = 0.0030 * x + 1.6282E-004$$

$$R = 0.9998$$

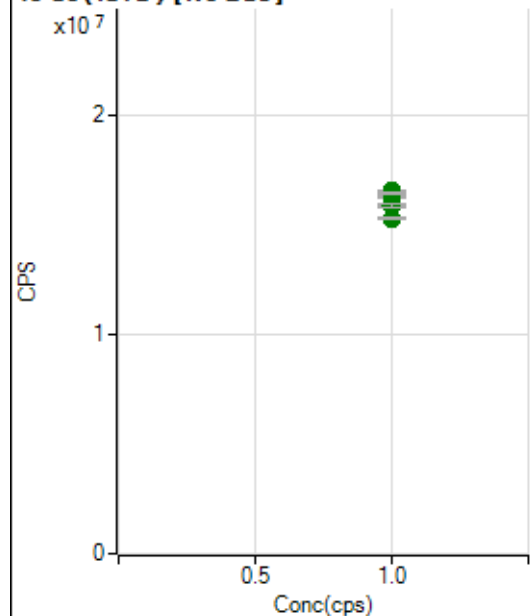
$$DL = 0.009771$$

Weight: <None>

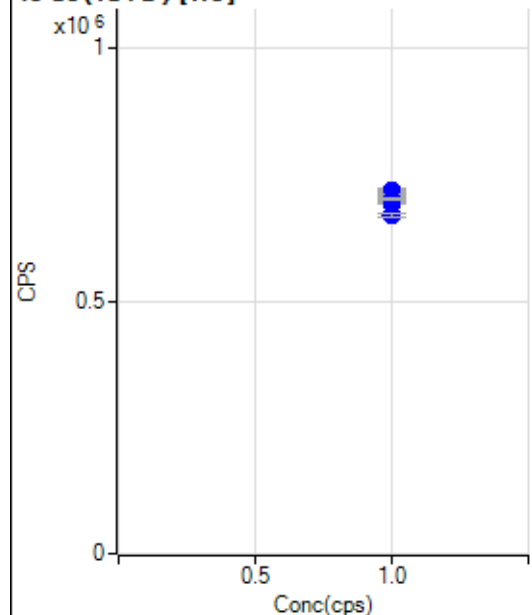
Min Conc: 0

6 Li (ISTD) [No Gas]

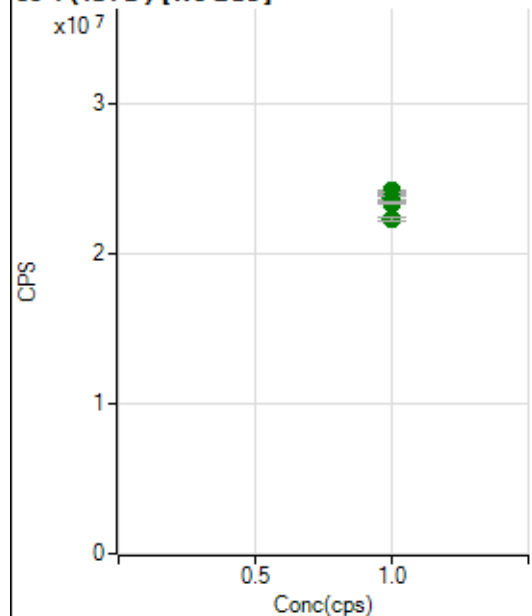
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8650406.75		A	0.3
2	☐	1.000					
3	☐	1.000		8467088.42		A	0.7
4	☐	1.000		8502134.11		A	0.7
5	☐	1.000		8434230.15		A	0.5
6	☐	1.000		8226446.54		A	0.3
7	☐	1.000		8071426.41		A	0.2
8	☐	1.000		7956864.68		A	1.4
9	☐	1.000		7348422.11		A	0.5

45 Sc (ISTD) [No Gas]

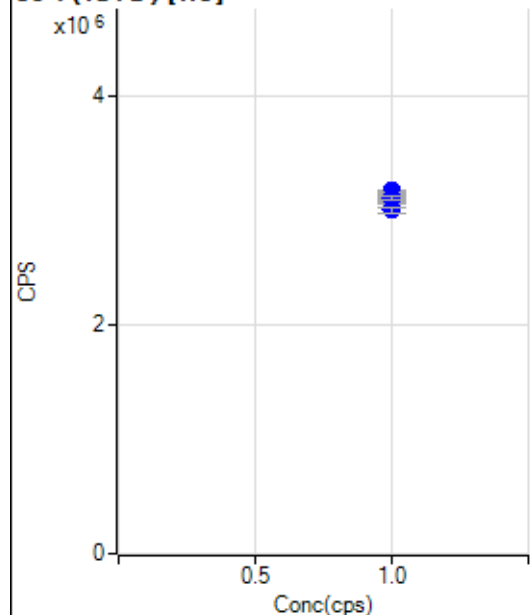
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16544330.92		A	0.2
2	☐	1.000					
3	☐	1.000		16547218.60		A	0.6
4	☐	1.000		16284032.83		A	0.5
5	☐	1.000		16439786.48		A	0.5
6	☐	1.000		15977399.49		A	0.2
7	☐	1.000		15870309.04		A	0.6
8	☐	1.000		15899841.85		A	1.0
9	☐	1.000		15294795.83		A	0.9

45 Sc (ISTD) [He]

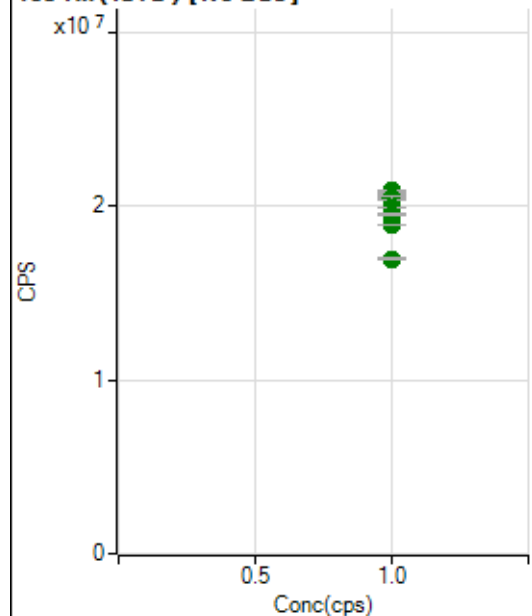
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		717758.86		P	0.9
2	☐	1.000					
3	☐	1.000		715234.84		P	0.6
4	☐	1.000		712973.13		P	0.5
5	☐	1.000		708461.72		P	0.7
6	☐	1.000		693333.67		P	0.6
7	☐	1.000		692391.13		P	0.5
8	☐	1.000		700958.97		P	0.5
9	☐	1.000		669667.27		P	1.1

89 Y (ISTD) [No Gas]

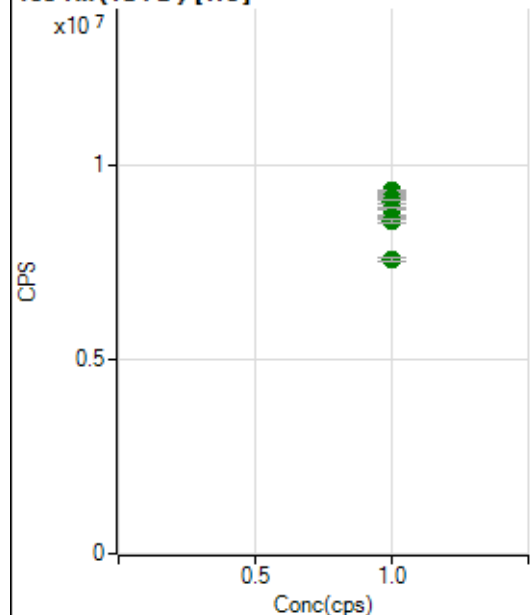
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		23847168.53		A	0.2
2	☐	1.000					
3	☐	1.000		24205387.14		A	0.6
4	☐	1.000		23901862.15		A	0.2
5	☐	1.000		24110844.64		A	0.6
6	☐	1.000		23724219.93		A	0.7
7	☐	1.000		23443099.37		A	0.6
8	☐	1.000		23394999.37		A	0.3
9	☐	1.000		22284284.39		A	1.0

89 Y(ISTD) [He]

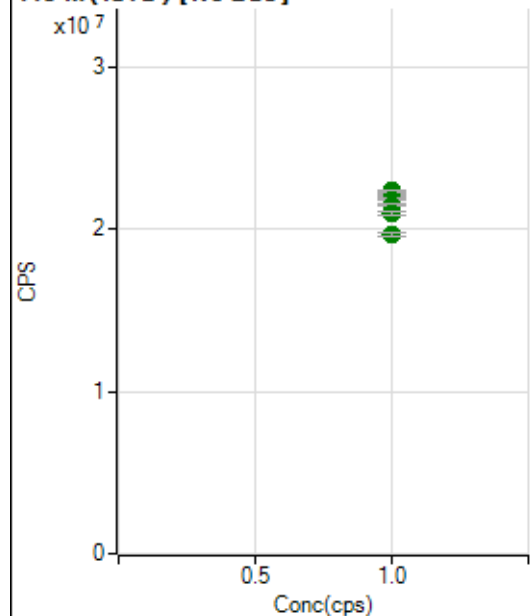
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3104404.71		P	0.4
2	☐	1.000					
3	☐	1.000		3171070.09		P	0.5
4	☐	1.000		3155002.83		P	0.7
5	☐	1.000		3152537.90		P	0.9
6	☐	1.000		3089046.34		P	0.5
7	☐	1.000		3074667.66		P	0.6
8	☐	1.000		3103208.11		P	1.0
9	☐	1.000		3001313.18		P	1.5

103 Rh(ISTD) [No Gas]

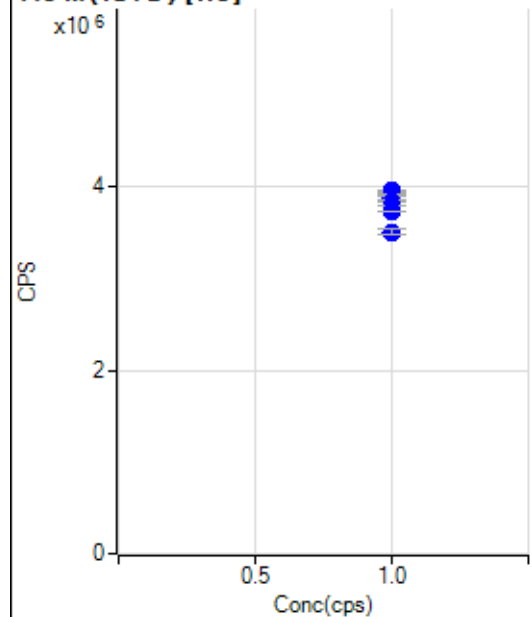
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		20635587.79		A	0.4
2	☐	1.000					
3	☐	1.000		20893258.28		A	0.5
4	☐	1.000		20493703.41		A	0.4
5	☐	1.000		20527636.92		A	0.9
6	☐	1.000		19941338.29		A	0.3
7	☐	1.000		19530856.34		A	0.6
8	☐	1.000		18944681.67		A	0.3
9	☐	1.000		16963458.71		A	0.6

103 Rh (ISTD) [He]

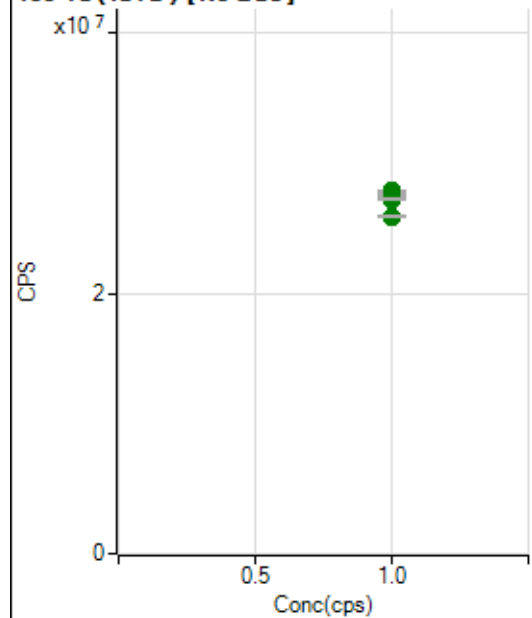
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9276598.61		A	0.2
2	☐	1.000					
3	☐	1.000		9340722.36		A	0.3
4	☐	1.000		9180729.10		A	0.8
5	☐	1.000		9060880.07		A	0.6
6	☐	1.000		8879517.78		A	0.7
7	☐	1.000		8678309.32		A	0.3
8	☐	1.000		8549150.50		A	1.1
9	☐	1.000		7573816.00		A	0.8

115 In (ISTD) [No Gas]

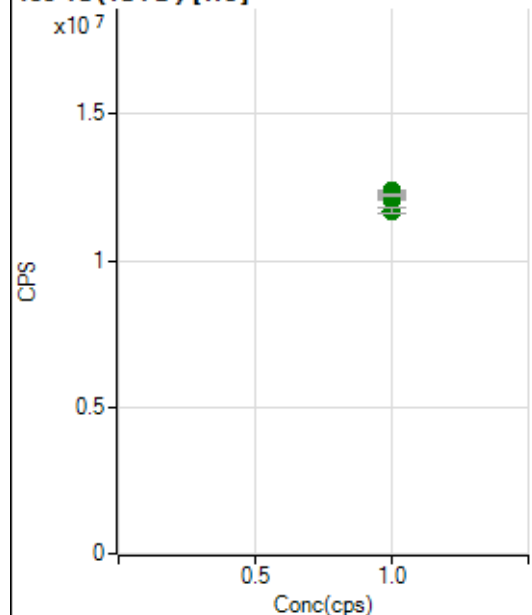
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22122842.94		A	0.9
2	☐	1.000					
3	☐	1.000		22333060.90		A	0.6
4	☐	1.000		22270525.37		A	0.7
5	☐	1.000		22391475.55		A	0.7
6	☐	1.000		21890337.54		A	0.5
7	☐	1.000		21523013.49		A	0.5
8	☐	1.000		21003494.72		A	0.8
9	☐	1.000		19669397.99		A	1.4

115 In (ISTD) [He]

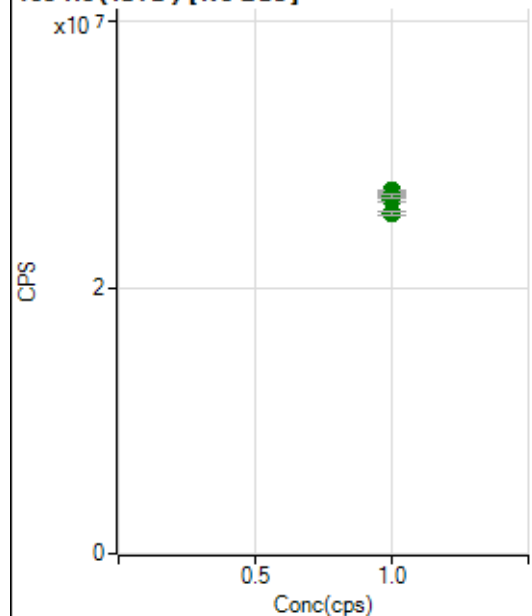
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3888538.79		P	0.8
2	☐	1.000					
3	☐	1.000		3956395.72		P	0.1
4	☐	1.000		3960547.37		P	0.6
5	☐	1.000		3917320.98		P	0.6
6	☐	1.000		3843977.27		P	0.5
7	☐	1.000		3807332.97		P	0.1
8	☐	1.000		3734909.62		P	0.4
9	☐	1.000		3513026.68		P	1.6

159 Tb (ISTD) [No Gas]

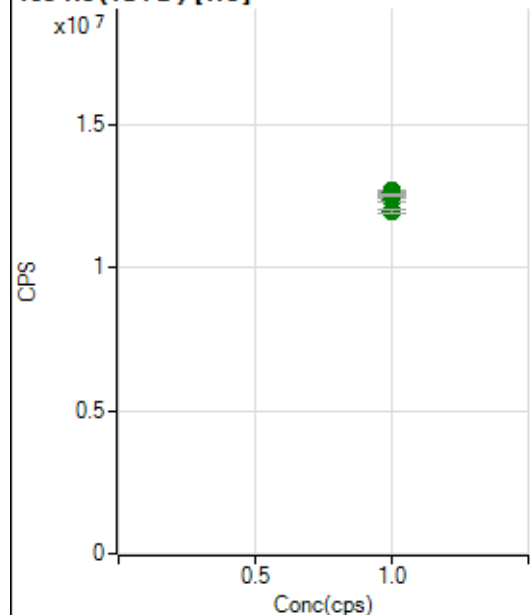
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		27166903.21		A	0.4
2	☐	1.000					
3	☐	1.000		27471496.54		A	0.4
4	☐	1.000		27453781.26		A	0.8
5	☐	1.000		27871081.25		A	0.2
6	☐	1.000		27600179.87		A	0.6
7	☐	1.000		27438543.20		A	0.5
8	☐	1.000		27231604.87		A	0.3
9	☐	1.000		25924219.34		A	1.0

159 Tb (ISTD) [He]

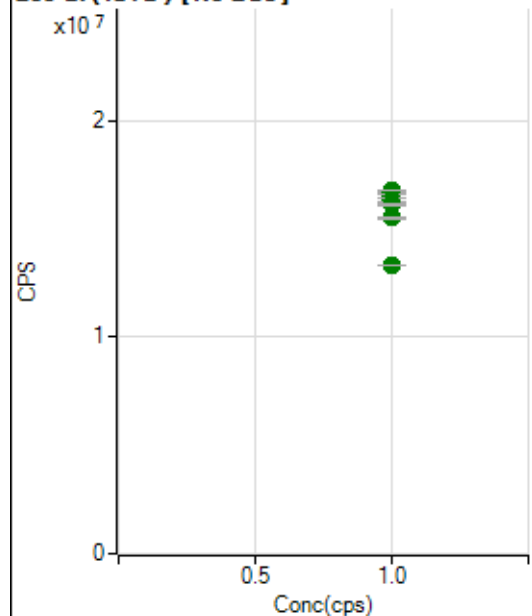
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12101931.63		A	0.6
2	☐	1.000					
3	☐	1.000		12375436.34		A	0.6
4	☐	1.000		12293196.76		A	0.5
5	☐	1.000		12365213.70		A	1.0
6	☐	1.000		12165488.85		A	0.5
7	☐	1.000		12256542.73		A	0.4
8	☐	1.000		12231613.43		A	0.6
9	☐	1.000		11694834.97		A	1.4

165 Ho (ISTD) [No Gas]

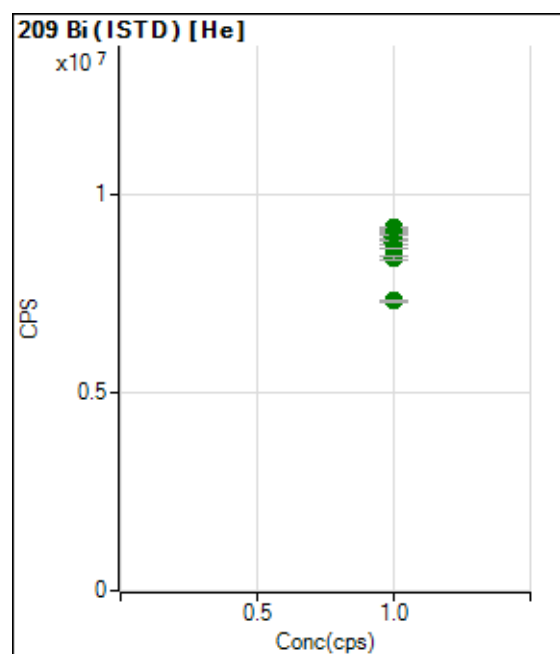
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		26558246.08		A	0.8
2	☐	1.000					
3	☐	1.000		26959250.60		A	1.1
4	☐	1.000		27053026.65		A	0.4
5	☐	1.000		27258614.50		A	0.2
6	☐	1.000		27156206.86		A	0.5
7	☐	1.000		27210467.28		A	0.2
8	☐	1.000		26884142.61		A	0.8
9	☐	1.000		25615908.21		A	1.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12362474.26		A	0.8
2	☐	1.000					
3	☐	1.000		12559102.87		A	1.1
4	☐	1.000		12689500.92		A	0.7
5	☐	1.000		12641295.51		A	1.1
6	☐	1.000		12556336.20		A	0.5
7	☐	1.000		12549562.87		A	0.3
8	☐	1.000		12539184.54		A	0.3
9	☐	1.000		12001299.54		A	1.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		16499378.64		A	0.7
2	☐	1.000					
3	☐	1.000		16738490.58		A	0.4
4	☐	1.000		16690114.34		A	0.4
5	☐	1.000		16649277.25		A	1.2
6	☐	1.000		16328123.79		A	0.7
7	☐	1.000		16143387.68		A	0.5
8	☐	1.000		15484119.07		A	0.5
9	☐	1.000		13337755.91		A	0.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9035590.56		A	0.5
2	☐	1.000					
3	☐	1.000		9141278.13		A	0.7
4	☐	1.000		8989619.52		A	0.5
5	☐	1.000		8907041.19		A	1.2
6	☐	1.000		8767489.80		A	0.9
7	☐	1.000		8617224.59		A	0.3
8	☐	1.000		8387534.67		A	1.0
9	☐	1.000		7293548.64		A	1.1

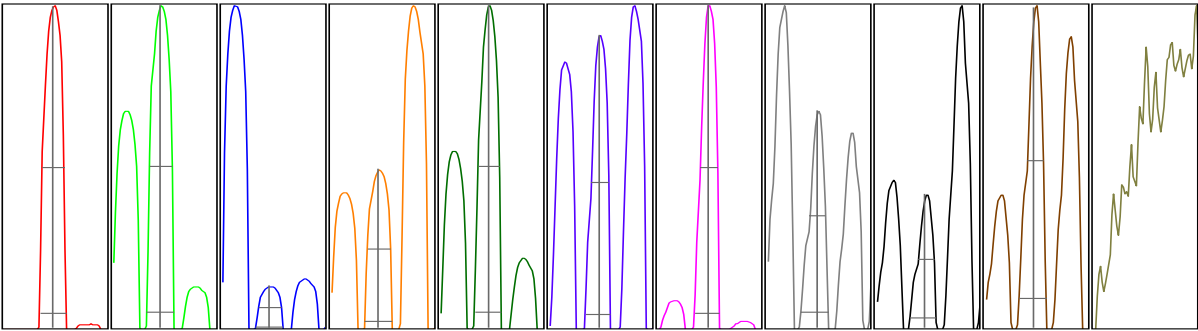
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7102419 MS .b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	25623	0.75	5.00	
24	249808	0.82	5.00	
25	33513	0.69	5.00	
26	39748	0.88	5.00	
59	177395	0.72	5.00	
113	21066	0.98	5.00	
115	255693	1.94	5.00	
206	50965	0.87	5.00	
207	46945	0.55	5.00	
208	111371	0.76	5.00	
220	102	4.25		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	25333	25544	25672	25737	25830
24	247001	250679	248982	249866	252513
25	33150	33410	33693	33671	33641
26	39194	39619	39888	39991	40049
59	175398	177393	177858	177400	178926
113	21237	21316	21034	20834	20909
115	263205	257886	254464	251713	251197
206	50543	50549	51084	51616	51032
207	46581	46782	47063	47082	47217
208	109962	111686	111294	111723	112188
220	97	101	100	101	109

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	43058	8.95	8.9 - 9.1		0.781	0.900	
24	404143	23.90	23.9 - 24.1		0.785	0.900	
25	53684	24.90	24.9 - 25.1		0.786	0.900	
26	62554	25.90	25.9 - 26.1		0.788	0.900	
59	302940	58.95	58.9 - 59.1		0.781	0.900	
113	40323	113.00	112.9 - 113.1		0.728	0.900	
115	496086	115.00	114.9 - 115.1		0.723	0.900	
206	102487	206.00	205.9 - 206.1		0.787	0.900	
207	91876	206.95	206.9 - 207.1		0.750	0.900	
208	220292	207.95	207.9 - 208.1		0.782	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	6.5	V	Deflect	13.0	V
Extract 2	-160.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-75	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	44907	0.85	
89	34699	0.45	
205	42099	0.36	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	44621	44763	44741	45577	44834
89	34653	34643	34690	34960	34548
205	42007	42112	42171	42298	41905

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	6.4	V	Deflect	1.6	V
Extract 2	-155.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-75	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			