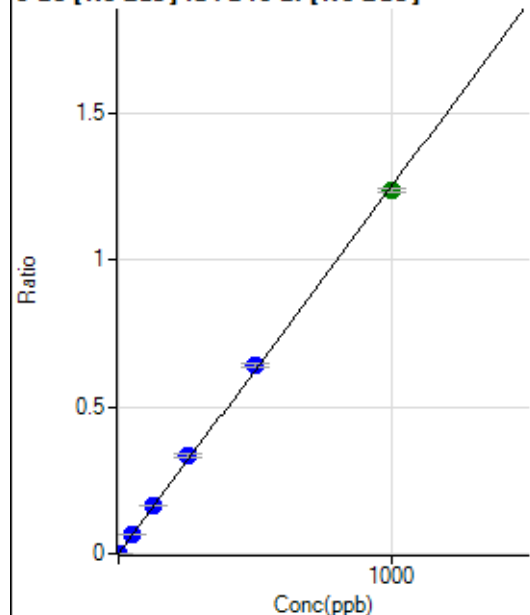


Batch Folder: D:\ICP-MS Data\P7022019 MS.b\
Analysis File: P7022019 MS.batch.bin
DA Date-Time: 2019-02-20 16:13:15
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2019-02-20 14:08:59
2			
3	006CALS.d	S02	2019-02-20 14:17:23
4	007CALS.d	S03	2019-02-20 14:21:18
5	008CALS.d	S04	2019-02-20 14:25:13
6	009CALS.d	S05	2019-02-20 14:29:01
7	010CALS.d	S06	2019-02-20 14:32:46
8	011CALS.d	S07	2019-02-20 14:36:33
9	012CALS.d	S08	2019-02-20 14:40:23

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	105.56	0.0000	P	15.6
2	☐	0.100					
3	☐	1.000	0.960	5620.01	0.0012	P	2.8
4	☐	50.000	53.222	301976.52	0.0665	P	0.7
5	☐	125.000	132.491	741421.71	0.1655	P	0.6
6	☐	250.000	268.091	1428593.45	0.3348	P	2.9
7	☐	500.000	512.842	2796285.38	0.6404	P	1.4
8	☐	1000.000	987.959	5351530.75	1.2336	A	1.1
9	☐			611.13	0.0002	P	1.9

$$y = 0.0012 * x + 2.2707E-005$$

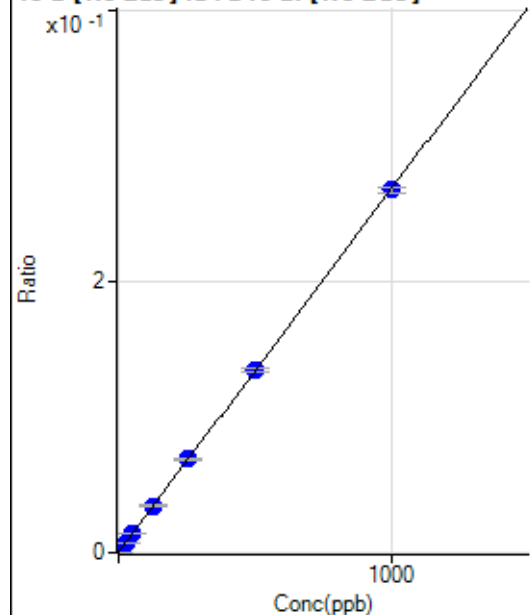
$$R = 0.9997$$

$$DL = 0.008485$$

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	1527.92	0.0003	P	5.4
2	☐	2.500					
3	☐	25.000	22.781	29585.46	0.0064	P	1.3
4	☐	50.000	50.572	62990.29	0.0139	P	1.5
5	☐	125.000	127.321	154199.79	0.0344	P	2.0
6	☐	250.000	257.548	295659.93	0.0693	P	2.1
7	☐	500.000	501.973	588196.41	0.1347	P	2.1
8	☐	1000.000	996.863	1159095.55	0.2672	P	1.7
9	☐			31197.19	0.0080	P	10.6

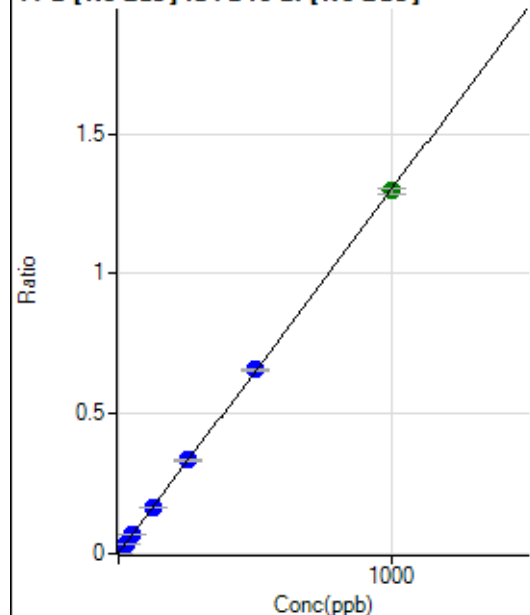
$$y = 2.6770E-004 * x + 3.2847E-004$$

$$R = 1.0000$$

$$DL = 0.2005$$

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	6918.52	0.0015	P	5.5
2	☐	2.500					
3	☐	25.000	23.126	145179.94	0.0315	P	1.7
4	☐	50.000	50.578	305322.46	0.0672	P	1.6
5	☐	125.000	126.416	742795.62	0.1658	P	2.0
6	☐	250.000	256.726	1430413.01	0.3351	P	1.3
7	☐	500.000	504.076	2866832.86	0.6565	P	1.7
8	☐	1000.000	996.121	5621956.25	1.2960	A	1.9
9	☐			152390.49	0.0391	P	8.8

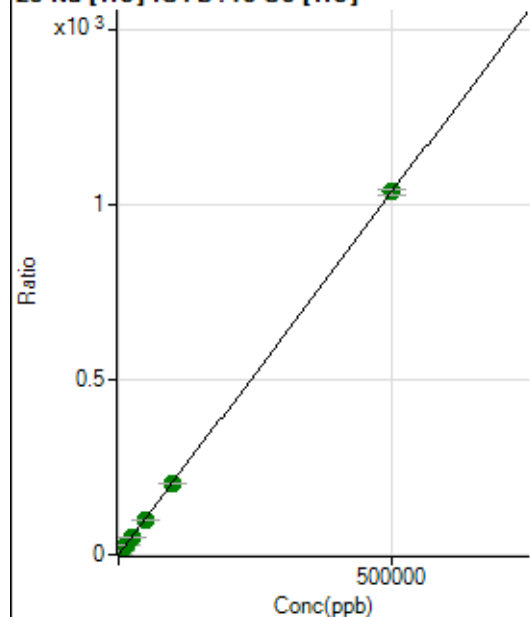
$$y = 0.0013 * x + 0.0015$$

$$R = 1.0000$$

$$DL = 0.1884$$

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	41530.58	0.0501	P	0.6
2	☐	50.000					
3	☐	500.000	454.918	813420.82	0.9931	P	0.7
4	☐	5000.000	4906.979	8169585.60	10.2216	A	0.4
5	☐	12500.000	12306.125	19992508.78	25.5590	A	0.8
6	☐	25000.000	24518.282	39657034.91	50.8730	A	0.3
7	☐	50000.000	48519.770	77946088.55	100.6247	A	0.9
8	☐	100000.00	97268.838	153837483.99	201.6746	A	0.4
9	☐	500000.00	500724.16	880316208.56	1,037.980	A	1.4

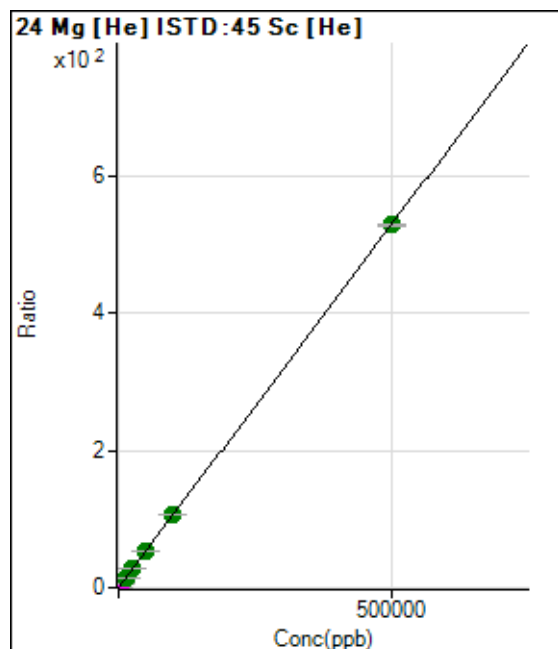
$$y = 0.0021 * x + 0.0501$$

$$R = 1.0000$$

$$DL = 0.4453$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	369.46	0.0004	P	19.6
2	☐	50.000					
3	☐	500.000	490.055	425093.81	0.5190	P	1.2
4	☐	5000.000	5187.772	4387493.20	5.4899	M	1.6
5	☐	12500.000	12935.929	10707598.85	13.6885	A	0.7
6	☐	25000.000	25615.565	21129262.45	27.1054	A	0.1
7	☐	50000.000	50688.548	41549008.57	53.6363	A	0.4
8	☐	100000.00	101231.35	81702919.19	107.1180	A	1.0
9	☐	500000.00	499641.33	448325060.02	528.6938	A	0.6

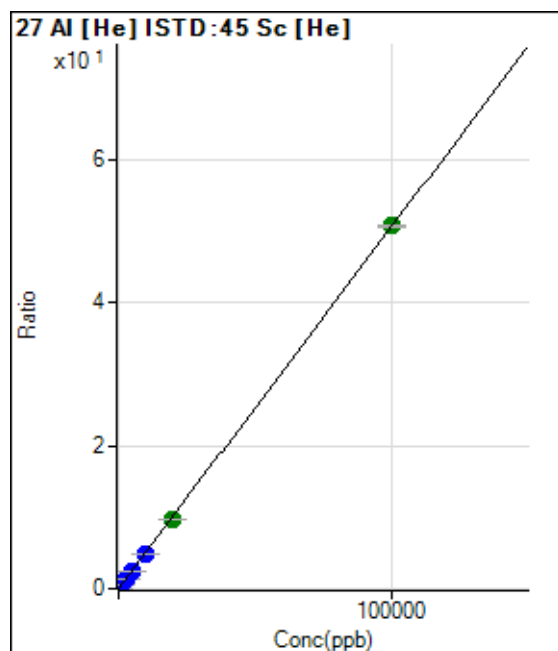
$$y = 0.0011 * x + 4.4619E-004$$

$$R = 1.0000$$

$$DL = 0.2477$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0002	P	16.8
2	☐	2.000					
3	☐	20.000	17.425	7352.12	0.0090	P	1.8
4	☐	1000.000	963.713	389923.23	0.4879	P	0.8
5	☐	2500.000	2425.100	960084.13	1.2274	P	1.4
6	☐	5000.000	4781.773	1886521.29	2.4201	P	1.2
7	☐	10000.000	9476.452	3714888.36	4.7959	P	1.1
8	☐	20000.000	19118.179	7380154.16	9.6753	A	0.7
9	☐	100000.00	100241.86	43020356.17	50.7296	A	0.2

$$y = 5.0607E-004 * x + 1.5768E-004$$

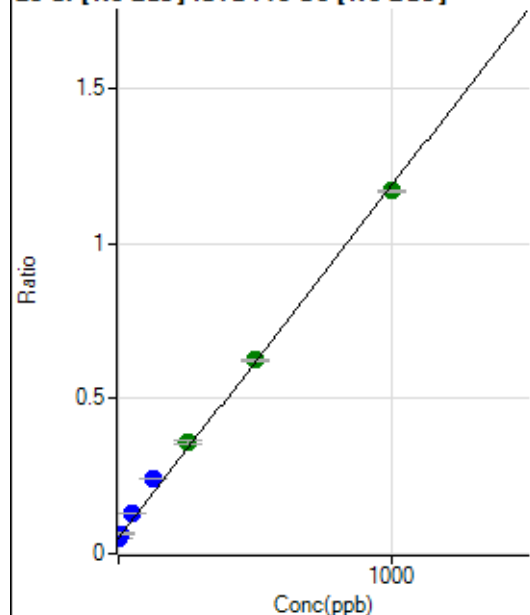
$$R = 1.0000$$

$$DL = 0.1567$$

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	635703.61	0.0504	P	0.6
2	☐	1.000					
3	☐	10.000	12.727	792984.11	0.0648	P	0.8
4	☐	50.000	69.160	1544768.84	0.1289	P	1.8
5	☐	125.000	167.562	2829231.88	0.2405	P	0.5
6	☐	250.000	271.725	4009245.05	0.3587	A	4.2
7	☐	500.000	505.509	7290691.92	0.6240	A	1.4
8	☐	1000.000	985.509	13452879.21	1.1686	A	0.6
9	☐			1357110.36	0.1186	P	1.2

$$y = 0.0011 * x + 0.0504$$

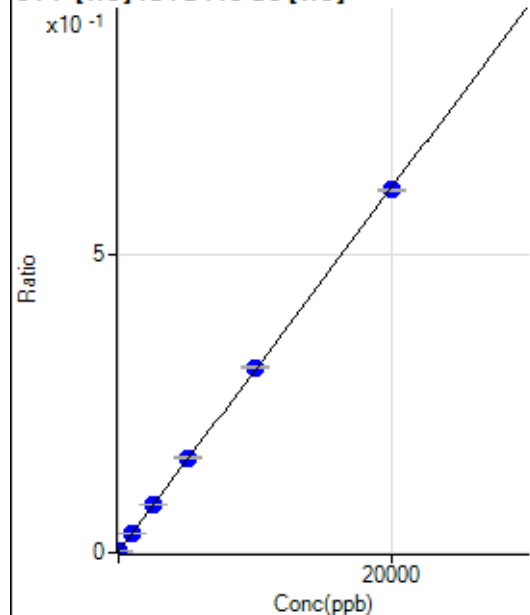
$$R = 0.9990$$

$$DL = 0.7858$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-26.200	605.59	0.0007	P	2.4
2	☐	0.000					
3	☐	0.000	26.200	1905.74	0.0023	P	8.6
4	☐	1000.000	1012.233	25859.29	0.0324	P	0.3
5	☐	2500.000	2587.387	62830.51	0.0803	P	1.0
6	☐	5000.000	5174.943	124041.46	0.1591	P	1.2
7	☐	10000.000	10127.510	240085.48	0.3099	P	0.8
8	☐	20000.000	19880.974	462999.69	0.6070	P	0.6
9	☐			938.96	0.0011	P	6.3

$$y = 3.0453E-005 * x + 0.0015$$

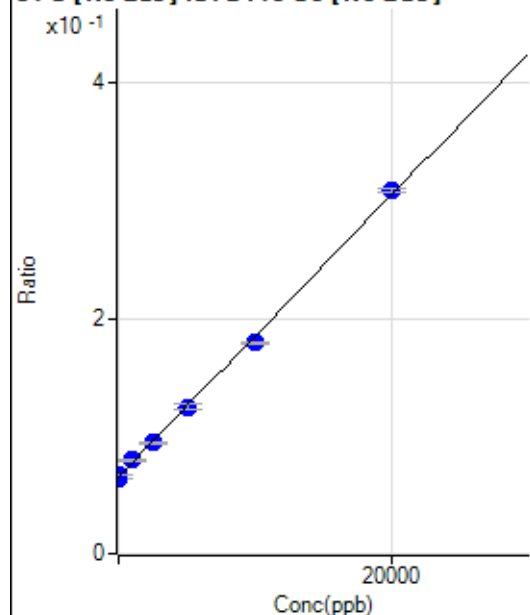
$$R = 0.9999$$

$$DL = 10.71$$

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	-154.622	801995.19	0.0636	P	0.3
2	☐	0.000					
3	☐	0.000	154.622	822972.45	0.0673	P	0.9
4	☐	1000.000	1159.689	951162.92	0.0793	P	0.8
5	☐	2500.000	2439.352	1113770.49	0.0947	P	1.4
6	☐	5000.000	4958.053	1395890.26	0.1249	P	4.6
7	☐	10000.000	9488.970	2094452.63	0.1792	P	1.0
8	☐	20000.000	20265.599	3551489.79	0.3085	P	1.1
9	☐			756285.22	0.0661	P	1.3

$$y = 1.1994\text{E-}005 * x + 0.0654$$

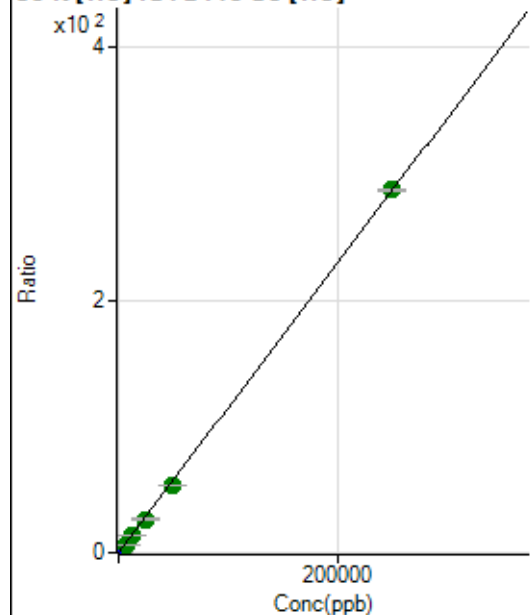
$$R = 0.9994$$

$$DL = 101.7$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	60552.10	0.0731	P	0.4
2	☐	50.000					
3	☐	500.000	432.518	465304.06	0.5681	P	0.2
4	☐	2500.000	2354.622	2212235.01	2.7679	P	0.5
5	☐	6250.000	5810.590	5259027.59	6.7232	A	0.8
6	☐	12500.000	11521.505	10335890.16	13.2592	A	0.6
7	☐	25000.000	23175.939	20602887.96	26.5975	A	0.8
8	☐	50000.000	46226.192	40412024.51	52.9781	A	0.9
9	☐	250000.00	250998.66	243659219.33	287.3363	A	0.5

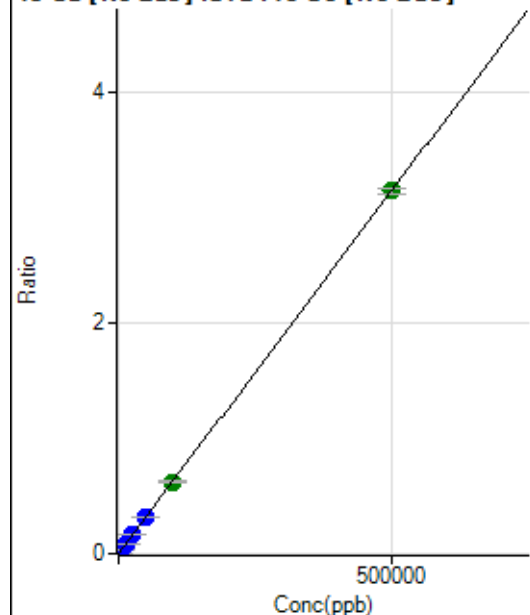
$$y = 0.0011 * x + 0.0731$$

$$R = 0.9999$$

$$DL = 0.8315$$

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	980.64	0.0001	P	12.0
2	☐	50.000					
3	☐	500.000	459.932	36253.72	0.0030	P	0.5
4	☐	5000.000	5090.154	383889.54	0.0320	P	0.6
5	☐	12500.000	12767.413	943407.06	0.0802	P	0.2
6	☐	25000.000	26114.668	1832779.68	0.1640	P	3.9
7	☐	50000.000	49825.480	3654635.41	0.3128	P	1.0
8	☐	100000.00	99230.965	7170053.72	0.6228	A	0.7
9	☐	500000.00	500107.97	35900773.72	3.1387	A	1.6

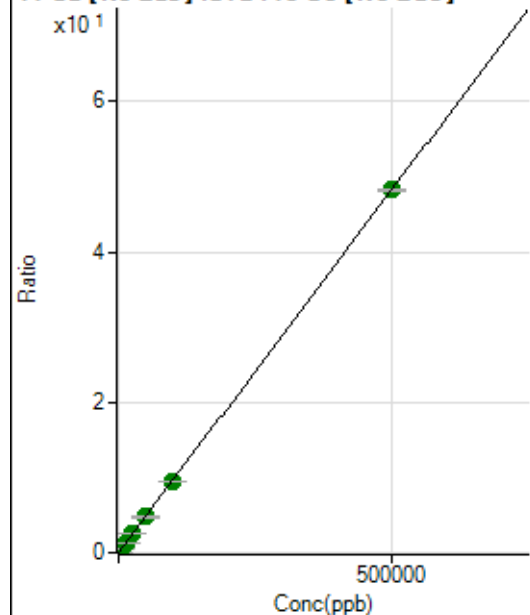
$$y = 6.2758\text{E-}006 * x + 7.7718\text{E-}005$$

$$R = 1.0000$$

$$DL = 4.474$$

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	167776.96	0.0133	P	0.3
2	☐	50.000					
3	☐	500.000	477.489	725451.96	0.0593	P	0.8
4	☐	5000.000	5006.911	5943903.69	0.4958	A	0.4
5	☐	12500.000	12550.579	14383176.02	1.2228	A	0.0
6	☐	25000.000	25710.822	27836365.90	2.4910	A	4.9
7	☐	50000.000	48967.230	55295308.87	4.7322	A	0.8
8	☐	100000.00	98792.786	109751763.56	9.5338	A	0.5
9	☐	500000.00	500307.86	551706440.11	48.2273	A	0.5

$$y = 9.6369\text{E-}005 * x + 0.0133$$

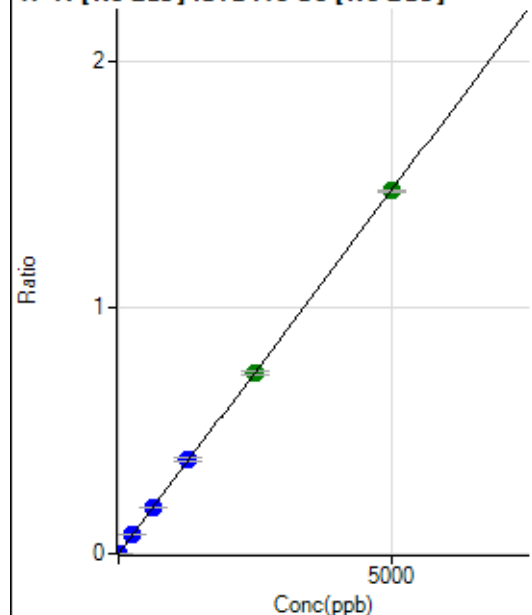
$$R = 1.0000$$

$$DL = 1.306$$

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	1458.47	0.0001	P	1.8
2	☐	0.500					
3	☐	5.000	4.678	18314.72	0.0015	P	1.5
4	☐	250.000	252.190	894282.12	0.0746	P	0.5
5	☐	625.000	633.649	2202536.75	0.1873	P	1.3
6	☐	1250.000	1304.708	4308782.43	0.3854	P	3.6
7	☐	2500.000	2484.885	8576490.90	0.7340	A	1.3
8	☐	5000.000	4992.690	16976134.23	1.4747	A	0.3
9	☐			6576.73	0.0006	P	0.6

$$y = 2.9534\text{E-}004 * x + 1.1563\text{E-}004$$

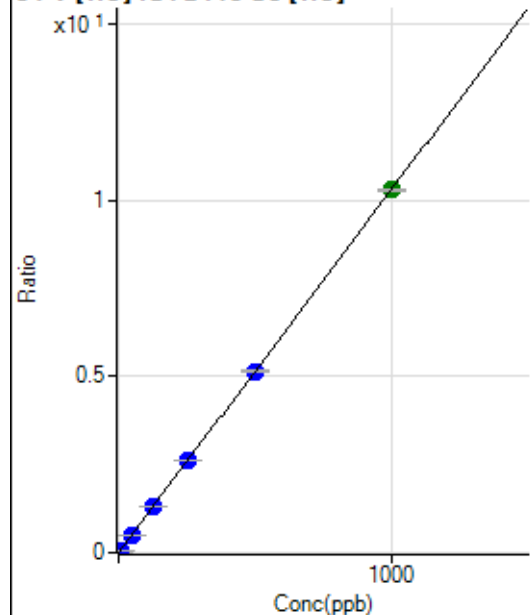
$$R = 0.9999$$

$$DL = 0.02148$$

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	13.33	0.0000	P	42.6
2	☐	0.500					
3	☐	5.000	4.797	40516.78	0.0495	P	1.7
4	☐	50.000	49.945	411508.21	0.5149	P	0.3
5	☐	125.000	126.206	1017634.64	1.3010	P	0.8
6	☐	250.000	252.462	2028661.34	2.6024	P	0.1
7	☐	500.000	500.292	3994939.80	5.1571	P	0.1
8	☐	1000.000	999.091	7855476.06	10.2988	A	0.4
9	☐			2196.86	0.0026	P	2.1

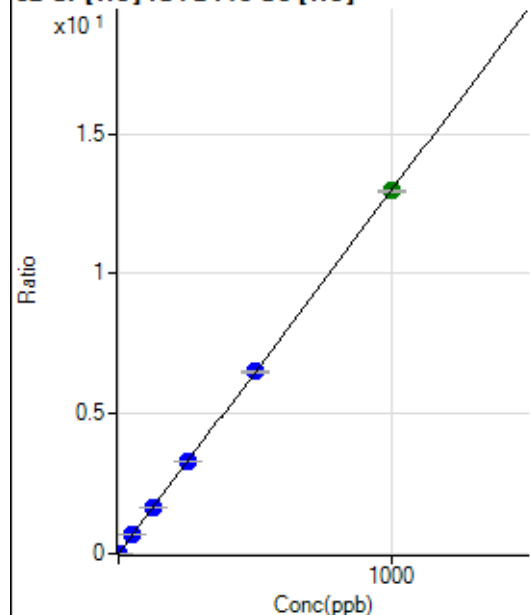
$$y = 0.0103 * x + 1.6060\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.00199$$

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	4707.51	0.0057	P	4.1
2	☐	0.200					
3	☐	2.000	1.872	24537.32	0.0300	P	1.8
4	☐	50.000	50.672	529774.47	0.6629	P	0.9
5	☐	125.000	127.196	1294770.15	1.6553	P	1.4
6	☐	250.000	253.120	2563485.52	3.2885	P	0.4
7	☐	500.000	500.378	5031395.58	6.4952	P	0.4
8	☐	1000.000	998.723	9884493.46	12.9584	A	0.2
9	☐			196630.06	0.2319	P	0.1

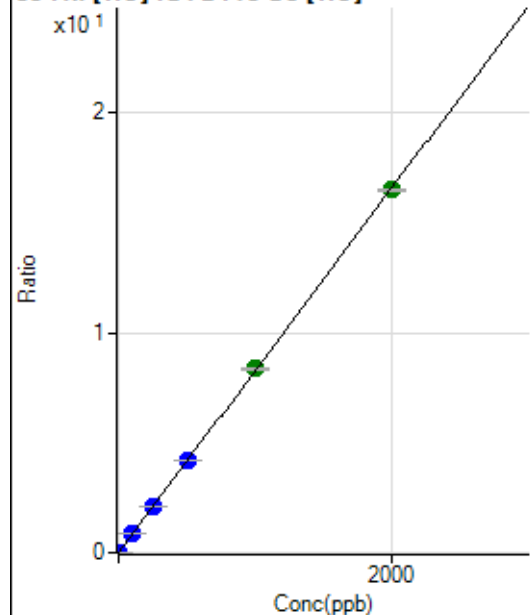
$$y = 0.0130 * x + 0.0057$$

$$R = 1.0000$$

$$DL = 0.05453$$

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	77.78	0.0001	P	9.1
2	☐	0.100					
3	☐	1.000	0.987	6775.00	0.0083	P	0.3
4	☐	100.000	101.790	674185.34	0.8435	P	0.5
5	☐	250.000	256.283	1661091.35	2.1237	P	1.6
6	☐	500.000	510.332	3296293.08	4.2287	P	0.6
7	☐	1000.000	1009.449	6478921.01	8.3644	A	1.4
8	☐	2000.000	1991.818	12588793.84	16.5044	A	0.5
9	☐			68416.22	0.0807	P	0.6

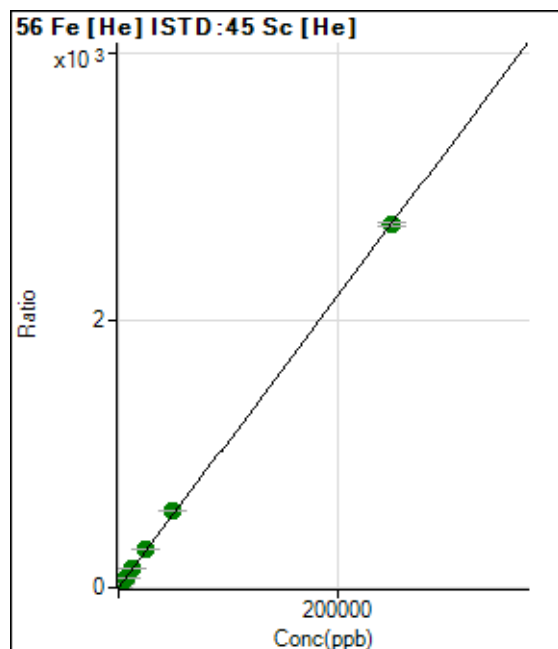
$$y = 0.0083 * x + 9.3870E-005$$

$$R = 1.0000$$

$$DL = 0.003106$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	17116.00	0.0207	P	1.9
2	☐	5.000					
3	☐	50.000	55.125	509093.67	0.6215	P	0.3
4	☐	2500.000	2692.085	23470608.63	29.3658	A	0.4
5	☐	6250.000	6786.525	57878334.17	73.9974	A	2.0
6	☐	12500.000	13383.771	113739149.76	145.9109	A	0.7
7	☐	25000.000	26540.536	224118323.53	289.3267	A	0.7
8	☐	50000.000	52368.521	435441224.55	570.8656	A	0.1
9	☐	250000.00	249312.71	2304412910.7	2,717.662	A	1.1

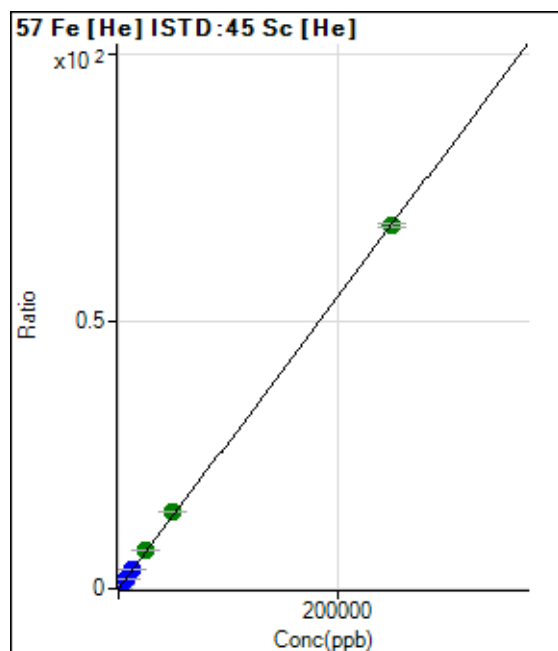
$$y = 0.0109 * x + 0.0207$$

$$R = 0.9999$$

$$DL = 0.1095$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	405.57	0.0005	P	13.7
2	☐	5.000					
3	☐	50.000	55.945	12880.04	0.0157	P	3.1
4	☐	2500.000	2694.139	586847.76	0.7342	P	0.7
5	☐	6250.000	6745.857	1437454.00	1.8377	P	0.9
6	☐	12500.000	13441.003	2853827.75	3.6610	P	0.3
7	☐	25000.000	26529.593	5596866.33	7.2256	A	1.3
8	☐	50000.000	52389.759	10883857.54	14.2684	A	0.7
9	☐	250000.00	249307.70	57578875.83	67.8974	A	1.0

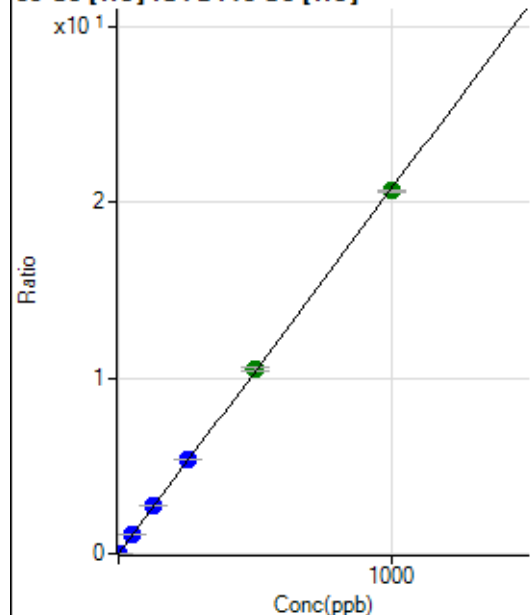
$$y = 2.7234E-004 * x + 4.8931E-004$$

$$R = 0.9999$$

$$DL = 0.7393$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	123.34	0.0001	P	21.2
2	☐	0.100					
3	☐	1.000	0.960	16451.65	0.0201	P	0.9
4	☐	50.000	52.189	866690.17	1.0844	P	0.8
5	☐	125.000	131.397	2135432.70	2.7300	P	0.7
6	☐	250.000	259.160	4196918.27	5.3843	P	1.1
7	☐	500.000	505.537	8135355.85	10.5029	A	1.4
8	☐	1000.000	994.033	15752624.35	20.6516	A	0.3
9	☐			194095.32	0.2289	P	1.0

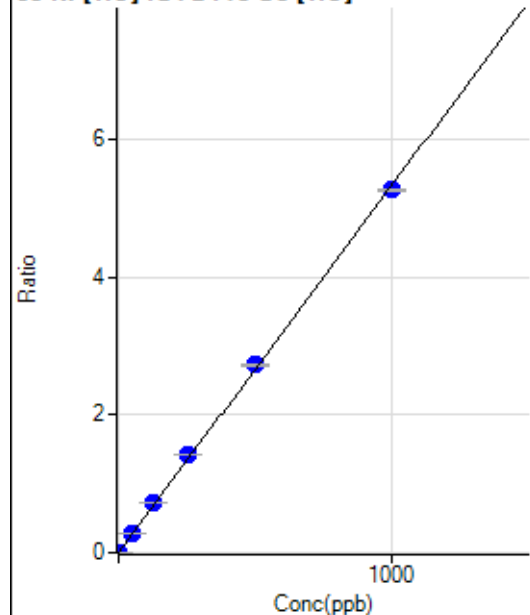
$$y = 0.0208 * x + 1.4885E-004$$

$$R = 0.9999$$

$$DL = 0.004549$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.89	0.0003	P	2.8
2	☐	0.100					
3	☐	1.000	1.072	4883.12	0.0060	P	1.9
4	☐	50.000	53.939	229698.38	0.2874	P	1.0
5	☐	125.000	135.717	565349.68	0.7228	P	1.1
6	☐	250.000	265.582	1102308.28	1.4141	P	0.6
7	☐	500.000	511.481	2109406.44	2.7232	P	1.0
8	☐	1000.000	988.827	4015724.35	5.2645	P	0.4
9	☐			82698.41	0.0975	P	0.2

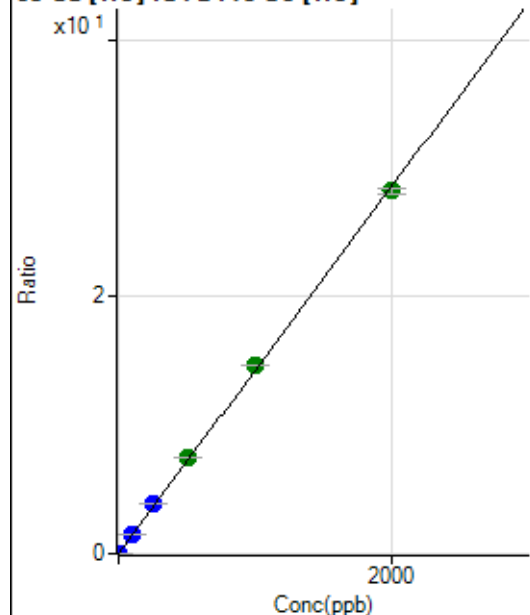
$$y = 0.0053 * x + 2.5205E-004$$

$$R = 0.9997$$

$$DL = 0.004006$$

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	2638.06	0.0032	P	3.5
2	☐	0.200					
3	☐	2.000	2.038	26455.26	0.0323	P	0.1
4	☐	100.000	108.478	1240849.57	1.5525	P	0.4
5	☐	250.000	270.692	3026675.33	3.8693	P	0.7
6	☐	500.000	526.765	5867107.76	7.5267	A	0.8
7	☐	1000.000	1026.031	11353860.94	14.6575	A	0.8
8	☐	2000.000	1977.283	21541261.63	28.2438	A	1.8
9	☐			36418.80	0.0429	P	0.7

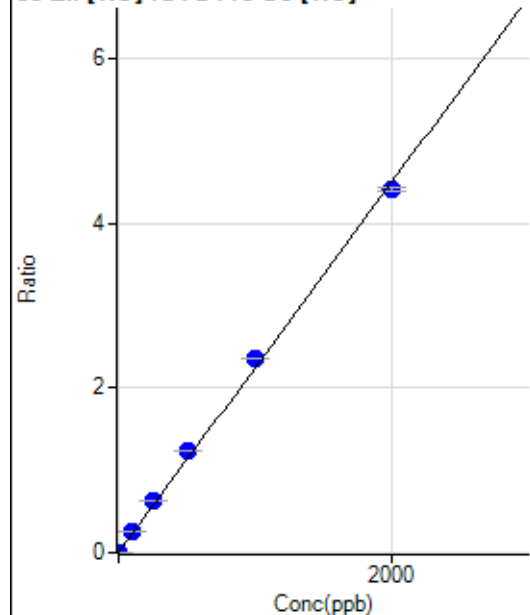
$$y = 0.0143 * x + 0.0032$$

$$R = 0.9997$$

$$DL = 0.02312$$

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	526.68	0.0006	P	6.9
2	☐	0.200					
3	☐	2.000	2.856	5774.57	0.0070	P	1.3
4	☐	100.000	115.838	208443.68	0.2608	P	1.2
5	☐	250.000	281.670	495345.03	0.6333	P	1.2
6	☐	500.000	546.038	956511.31	1.2270	P	0.2
7	☐	1000.000	1047.260	1822580.86	2.3528	P	0.4
8	☐	2000.000	1960.109	3358519.36	4.4031	P	0.9
9	☐			30427.51	0.0359	P	0.9

$$y = 0.0022 * x + 6.3561E-004$$

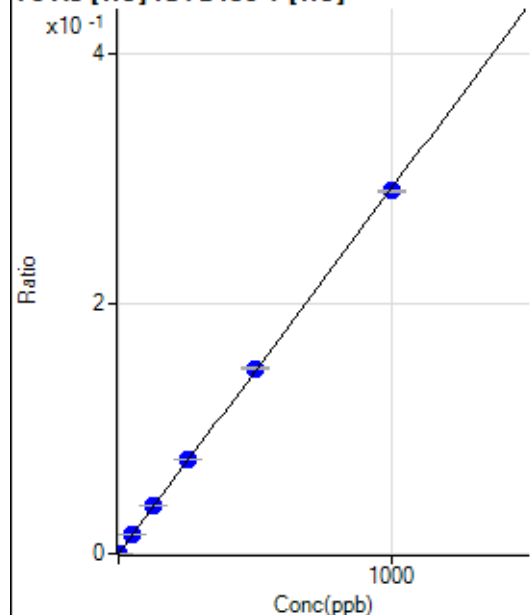
$$R = 0.9992$$

$$DL = 0.0584$$

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	19.75	0.0000	P	29.9
2	☐	0.100					
3	☐	1.000	0.971	1146.36	0.0003	P	1.8
4	☐	50.000	52.794	59496.93	0.0154	P	0.5
5	☐	125.000	130.541	146635.52	0.0382	P	0.5
6	☐	250.000	258.630	290623.69	0.0757	P	0.4
7	☐	500.000	507.716	561111.99	0.1485	P	0.9
8	☐	1000.000	993.153	1070329.71	0.2905	P	0.2
9	☐			1574.79	0.0004	P	2.2

$$y = 2.9251\text{E-}004 * x + 4.9284\text{E-}006$$

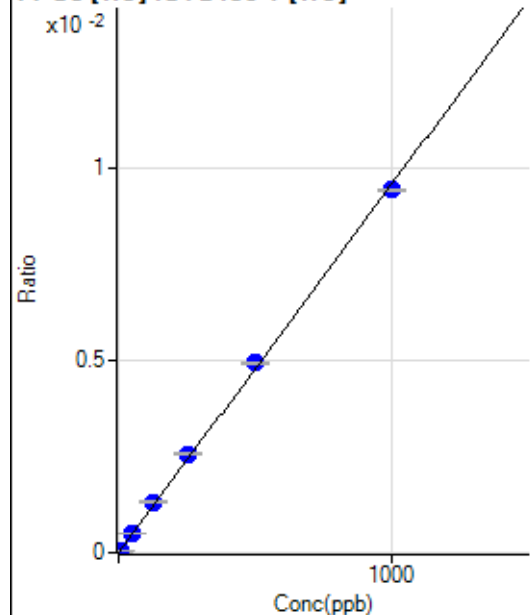
$$R = 0.9999$$

$$DL = 0.01511$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	5.189	197.78	0.0000	P	7.5
4	☐	50.000	53.494	1969.06	0.0005	P	2.8
5	☐	125.000	136.958	5024.28	0.0013	P	2.7
6	☐	250.000	268.398	9849.06	0.0026	P	1.3
7	☐	500.000	516.268	18632.24	0.0049	P	1.3
8	☐	1000.000	985.596	34686.13	0.0094	P	0.3
9	☐			15.55	0.0000	P	24.2

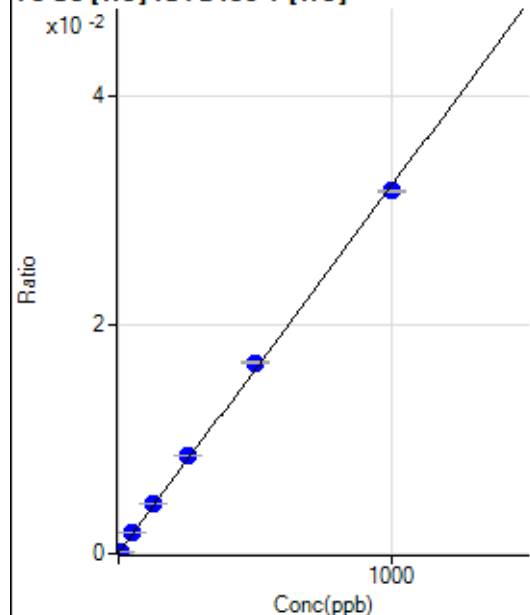
$$y = 9.5519\text{E-}006 * x + 2.7830\text{E-}007$$

$$R = 0.9996$$

$$DL = 0.1514$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	235.19	0.0001	P	5.5
2	☐	0.500					
3	☐	5.000	5.430	923.49	0.0002	P	2.5
4	☐	50.000	54.198	6915.29	0.0018	P	2.6
5	☐	125.000	134.108	16728.24	0.0044	P	2.3
6	☐	250.000	265.470	32905.21	0.0086	P	1.1
7	☐	500.000	517.363	62861.29	0.0166	P	1.0
8	☐	1000.000	986.100	116640.30	0.0317	P	0.3
9	☐			317.29	0.0001	P	5.3

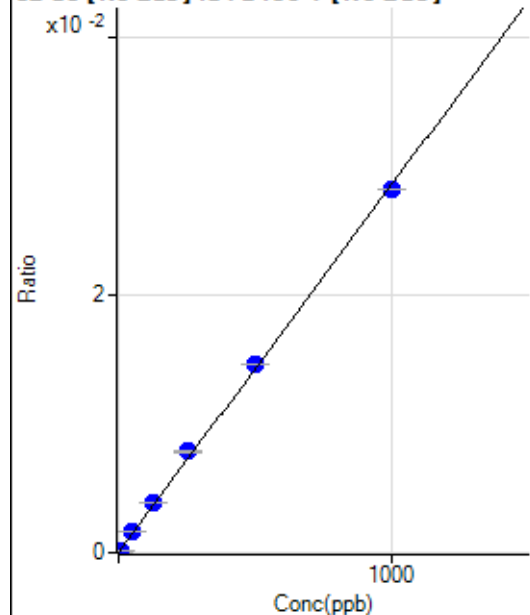
$$y = 3.2046\text{E-}005 * x + 5.8735\text{E-}005$$

$$R = 0.9996$$

$$DL = 0.301$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	392.06	0.0000	P	34.5
2	☐	0.500					
3	☐	5.000	5.321	3219.89	0.0002	P	2.3
4	☐	50.000	56.059	29896.77	0.0016	P	1.4
5	☐	125.000	136.553	71848.56	0.0039	P	0.9
6	☐	250.000	275.287	138608.87	0.0079	P	2.8
7	☐	500.000	510.930	265706.99	0.0146	P	0.5
8	☐	1000.000	986.465	505609.49	0.0282	P	0.1
9	☐			589.54	0.0000	P	27.9

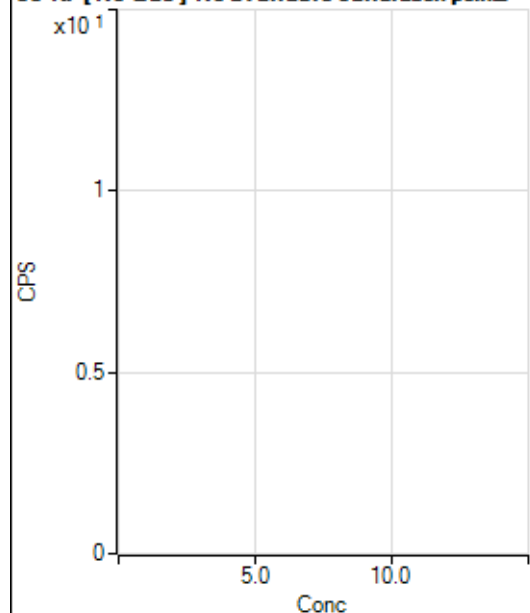
$$y = 2.8544\text{E-}005 * x + 2.0229\text{E-}005$$

$$R = 0.9995$$

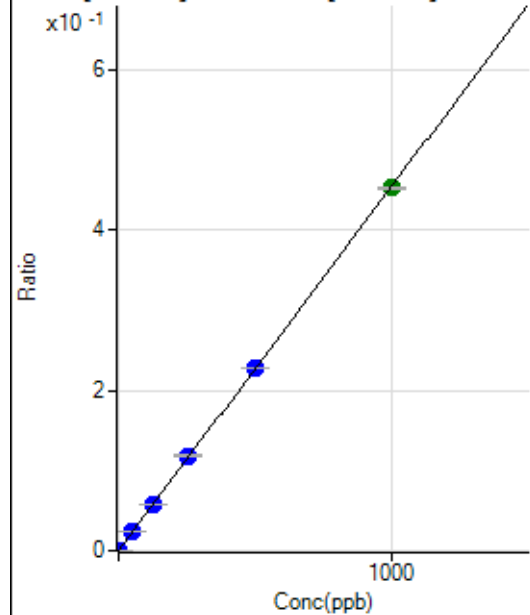
$$DL = 0.7339$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			1835.71		P	5.5
2	☐						
3	☐			1783.47		P	5.6
4	☐			1780.14		P	2.9
5	☐			1699.02		P	4.0
6	☐			1789.03		P	2.1
7	☐			1702.35		P	6.6
8	☐			1715.69		P	2.1
9	☐			1797.92		P	6.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2953.21	0.0002	P	6.7
2	☐	0.100					
3	☐	1.000	0.774	9411.80	0.0005	P	3.2
4	☐	50.000	50.912	428620.01	0.0232	P	0.9
5	☐	125.000	126.790	1056764.32	0.0576	P	1.7
6	☐	250.000	260.219	2078079.49	0.1181	P	2.8
7	☐	500.000	501.224	4136455.78	0.2274	P	0.5
8	☐	1000.000	996.564	8108282.12	0.4519	A	0.6
9	☐			33398.16	0.0019	P	0.7

$$y = 4.5330E-004 * x + 1.5221E-004$$

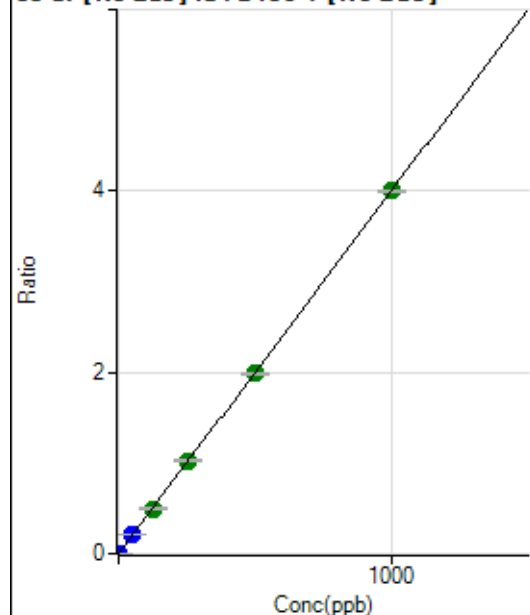
$$R = 0.9999$$

$$DL = 0.06747$$

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	152.78	0.0000	P	21.2
2	☐	0.100					
3	☐	1.000	0.795	59666.74	0.0032	P	1.1
4	☐	50.000	50.651	3741152.38	0.2028	P	0.8
5	☐	125.000	124.125	9111801.94	0.4969	A	0.9
6	☐	250.000	256.545	18068165.34	1.0270	A	3.0
7	☐	500.000	497.330	36218816.43	1.9908	A	1.0
8	☐	1000.000	999.776	71811291.88	4.0021	A	0.2
9	☐			268707.56	0.0154	P	1.0

$$y = 0.0040 * x + 7.8801E-006$$

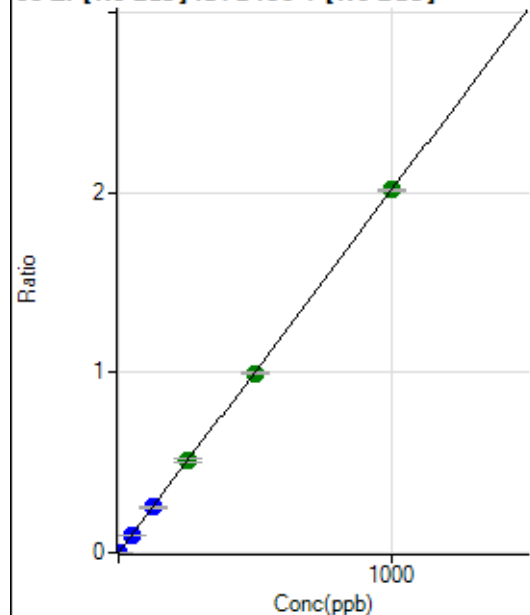
$$R = 1.0000$$

$$DL = 0.001251$$

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	1639.05	0.0001	P	2.6
2	☐	0.100					
3	☐	1.000	0.914	36038.12	0.0019	P	0.7
4	☐	50.000	49.989	1860629.77	0.1008	P	1.1
5	☐	125.000	125.142	4627050.62	0.2523	P	0.8
6	☐	250.000	255.407	9056855.58	0.5149	A	4.3
7	☐	500.000	495.272	18163166.90	0.9984	A	0.9
8	☐	1000.000	1000.995	36203731.36	2.0177	A	0.3
9	☐			13581.99	0.0008	P	0.3

$$y = 0.0020 * x + 8.4447E-005$$

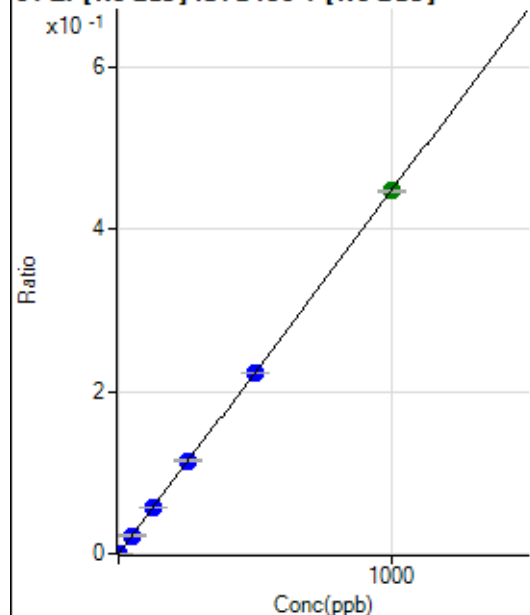
$$R = 1.0000$$

$$DL = 0.003317$$

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	338.91	0.0000	P	3.2
2	☐	0.100					
3	☐	1.000	0.921	8049.86	0.0004	P	2.9
4	☐	50.000	49.707	411268.55	0.0223	P	2.6
5	☐	125.000	125.078	1028049.91	0.0561	P	0.8
6	☐	250.000	256.555	2022638.13	0.1150	P	3.6
7	☐	500.000	497.835	4058798.18	0.2231	P	0.7
8	☐	1000.000	999.449	8035653.48	0.4479	A	0.6
9	☐			2969.87	0.0002	P	4.0

$$y = 4.4808\text{E-}004 * x + 1.7462\text{E-}005$$

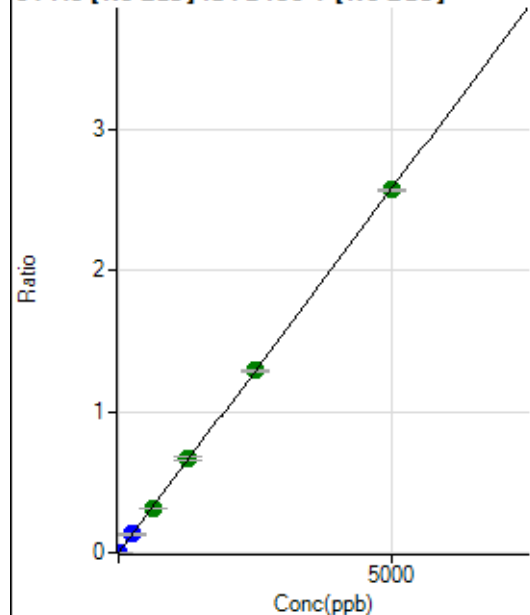
$$R = 1.0000$$

$$DL = 0.003705$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	500.03	0.0000	P	5.1
2	☐	0.500					
3	☐	5.000	4.641	45228.54	0.0024	P	0.9
4	☐	250.000	251.969	2396313.73	0.1299	P	0.7
5	☐	625.000	618.655	5846961.63	0.3188	A	0.5
6	☐	1250.000	1291.458	11709230.64	0.6656	A	3.4
7	☐	2500.000	2506.506	23500441.50	1.2918	A	1.1
8	☐	5000.000	4987.077	46114789.22	2.5701	A	0.5
9	☐			31778.17	0.0018	P	2.2

$$y = 5.1535\text{E-}004 * x + 2.5760\text{E-}005$$

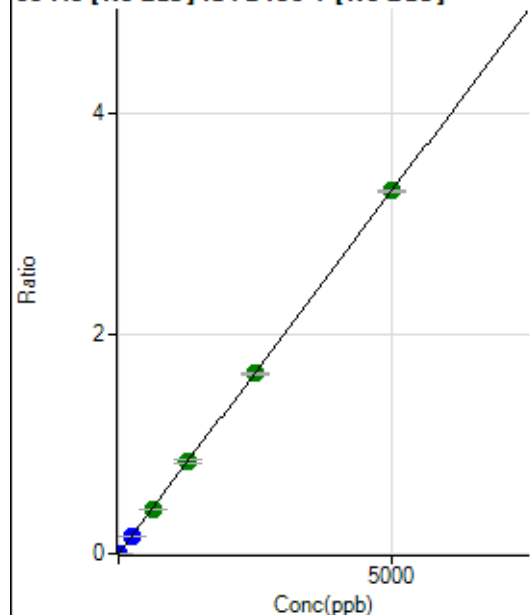
$$R = 1.0000$$

$$DL = 0.007579$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.90	0.0000	P	10.3
2	☐	0.500					
3	☐	5.000	4.487	55431.01	0.0030	P	2.0
4	☐	250.000	249.003	3027543.95	0.1641	P	2.1
5	☐	625.000	619.125	7481825.86	0.4080	A	0.2
6	☐	1250.000	1274.587	14777560.05	0.8399	A	3.0
7	☐	2500.000	2480.179	29734351.36	1.6344	A	1.1
8	☐	5000.000	5004.549	59173338.13	3.2979	A	0.7
9	☐			46975.96	0.0027	P	2.6

$$y = 6.5899\text{E-}004 * x + 5.8653\text{E-}006$$

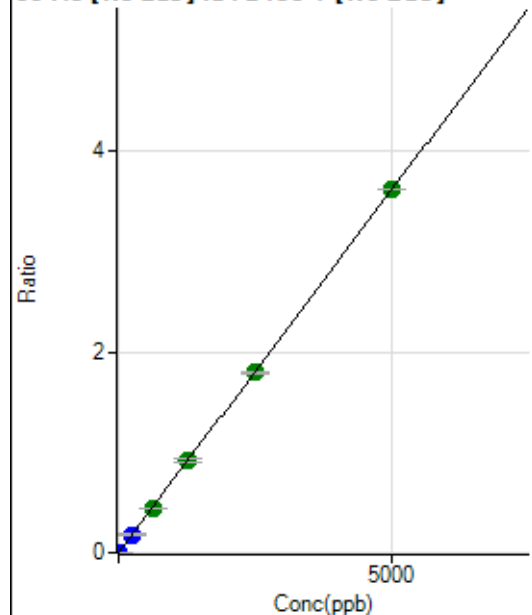
$$R = 1.0000$$

$$DL = 0.002754$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	250.02	0.0000	P	9.1
2	☐	0.500					
3	☐	5.000	4.443	60373.17	0.0032	P	1.3
4	☐	250.000	250.834	3347780.89	0.1814	P	1.2
5	☐	625.000	620.372	8228993.41	0.4487	A	0.8
6	☐	1250.000	1277.313	16254086.82	0.9239	A	3.5
7	☐	2500.000	2482.751	32671867.40	1.7959	A	1.0
8	☐	5000.000	5002.334	64924822.98	3.6184	A	0.2
9	☐			66654.00	0.0038	P	2.5

$$y = 7.2333\text{E-}004 * x + 1.2876\text{E-}005$$

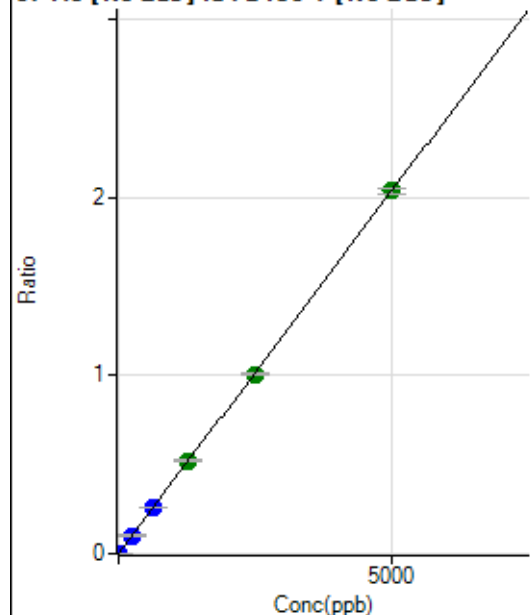
$$R = 1.0000$$

$$DL = 0.004869$$

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	44.45	0.0000	P	29.4
2	☐	0.500					
3	☐	5.000	4.564	34815.75	0.0019	P	2.0
4	☐	250.000	250.287	1880413.84	0.1019	P	1.6
5	☐	625.000	629.684	4702022.15	0.2564	P	0.5
6	☐	1250.000	1281.963	9185139.70	0.5220	A	2.4
7	☐	2500.000	2476.673	18346944.16	1.0085	A	1.5
8	☐	5000.000	5003.074	36552929.98	2.0373	A	1.5
9	☐			28231.75	0.0016	P	5.7

$$y = 4.0720\text{E-}004 * x + 2.2933\text{E-}006$$

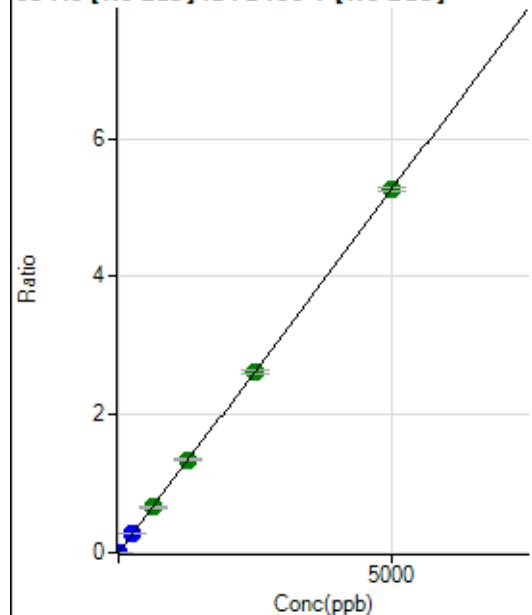
$$R = 1.0000$$

$$DL = 0.004972$$

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	100.01	0.0000	P	29.8
2	☐	0.500					
3	☐	5.000	4.463	87955.45	0.0047	P	1.4
4	☐	250.000	253.570	4923044.08	0.2668	P	0.9
5	☐	625.000	622.746	12016546.10	0.6553	A	0.1
6	☐	1250.000	1280.847	23713603.31	1.3478	A	2.7
7	☐	2500.000	2489.061	47646988.91	2.6191	A	1.6
8	☐	5000.000	4997.861	94359532.66	5.2590	A	1.0
9	☐			71898.67	0.0041	P	4.3

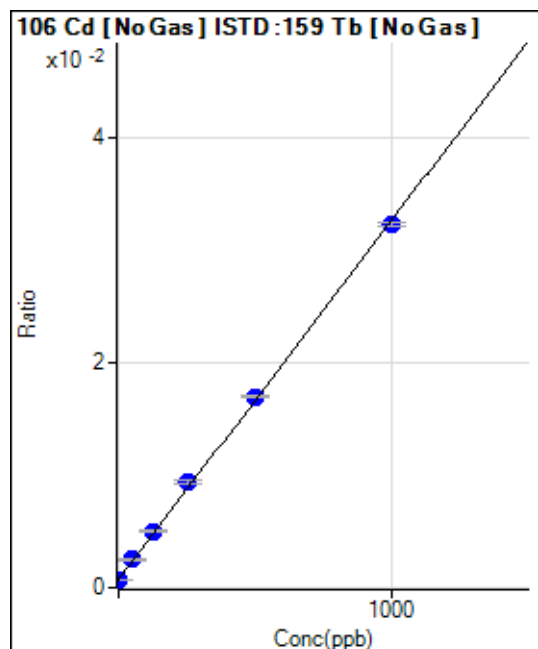
$$y = 0.0011 * x + 5.1617\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.004383$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16371.27	0.0007	P	1.7
2	☐	0.100					
3	☐	1.000	0.901	16513.08	0.0007	P	1.2
4	☐	50.000	55.440	54796.23	0.0025	P	2.7
5	☐	125.000	135.031	111194.03	0.0050	P	1.1
6	☐	250.000	271.212	200527.86	0.0094	P	2.6
7	☐	500.000	510.384	373915.18	0.0170	P	0.3
8	☐	1000.000	987.980	704617.36	0.0322	P	0.9
9	☐			15233.81	0.0008	P	1.3

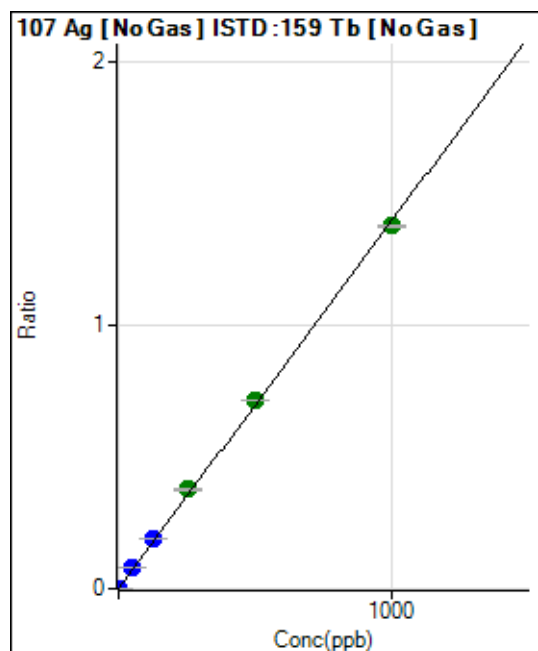
$$y = 3.1911\text{E-}005 * x + 7.1763\text{E-}004$$

$$R = 0.9997$$

$$DL = 1.122$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	263.90	0.0000	P	21.2
2	☐	0.100					
3	☐	1.000	1.183	36802.03	0.0017	P	1.6
4	☐	50.000	55.460	1707418.77	0.0775	P	1.2
5	☐	125.000	136.851	4228979.13	0.1912	P	0.5
6	☐	250.000	269.507	8054749.05	0.3765	A	2.8
7	☐	500.000	512.548	15743581.08	0.7160	A	0.4
8	☐	1000.000	987.095	30131305.19	1.3788	A	0.3
9	☐			2667.04	0.0001	P	8.3

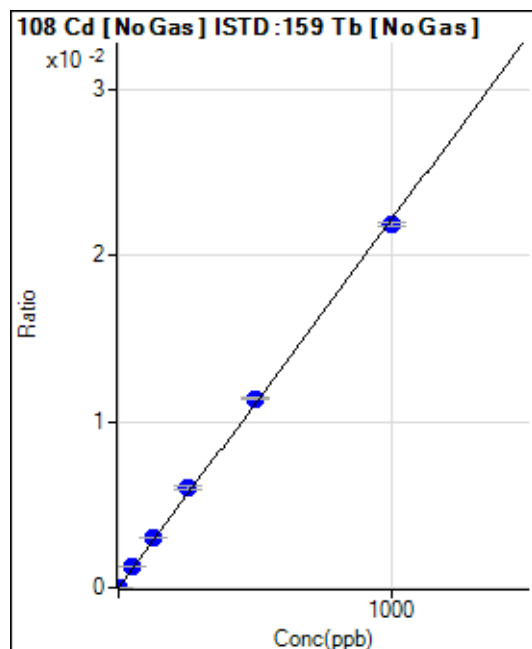
$$y = 0.0014 * x + 1.1563\text{E-}005$$

$$R = 0.9996$$

$$DL = 0.005256$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	37.50	0.0000	P	28.9
2	☐	0.100					
3	☐	1.000	1.060	555.58	0.0000	P	2.2
4	☐	50.000	55.010	26868.93	0.0012	P	0.6
5	☐	125.000	135.196	66231.07	0.0030	P	1.5
6	☐	250.000	272.961	129291.37	0.0060	P	3.0
7	☐	500.000	514.077	250249.72	0.0114	P	0.8
8	☐	1000.000	985.696	476817.82	0.0218	P	1.0
9	☐			144.45	0.0000	P	19.5

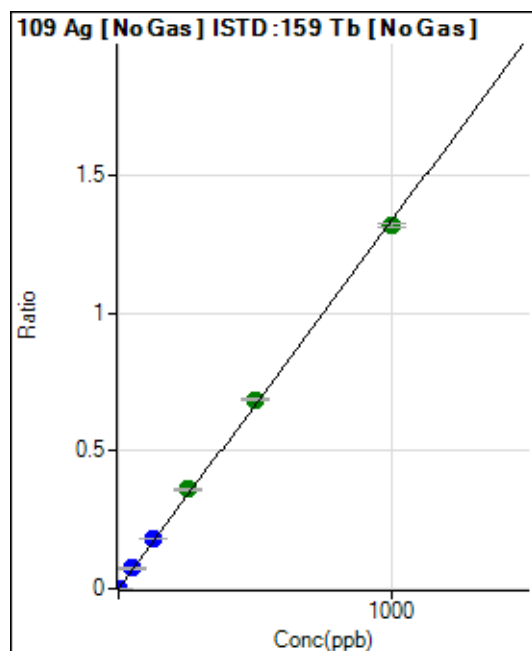
$$y = 2.2134\text{E-}005 * x + 1.6420\text{E-}006$$

$$R = 0.9995$$

$$DL = 0.0643$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	12.6
2	☐	0.100					
3	☐	1.000	1.176	34805.15	0.0016	P	0.2
4	☐	50.000	55.166	1620999.46	0.0736	P	1.0
5	☐	125.000	136.662	4030978.91	0.1822	P	0.9
6	☐	250.000	269.634	7690704.51	0.3595	A	3.4
7	☐	500.000	513.570	15057234.54	0.6848	A	1.0
8	☐	1000.000	986.591	28744831.20	1.3154	A	1.0
9	☐			2386.41	0.0001	P	2.8

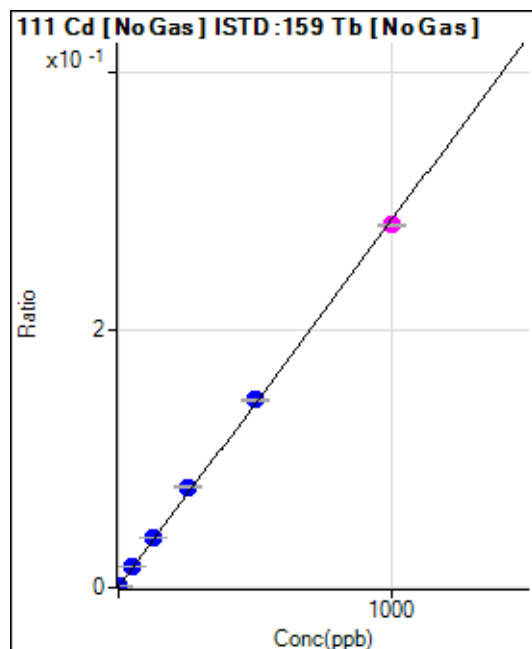
$$y = 0.0013 * x + 5.7205\text{E-}006$$

$$R = 0.9996$$

$$DL = 0.001624$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11482.24	0.0005	P	1.7
2	☐	0.100					
3	☐	1.000	0.964	17202.22	0.0008	P	0.7
4	☐	50.000	55.088	356404.12	0.0162	P	0.3
5	☐	125.000	134.554	857808.41	0.0388	P	1.0
6	☐	250.000	273.029	1672225.63	0.0782	P	3.1
7	☐	500.000	510.748	3205574.29	0.1458	P	0.9
8	☐	1000.000	987.420	6148586.80	0.2814	M	0.4
9	☐			11433.44	0.0006	P	2.1

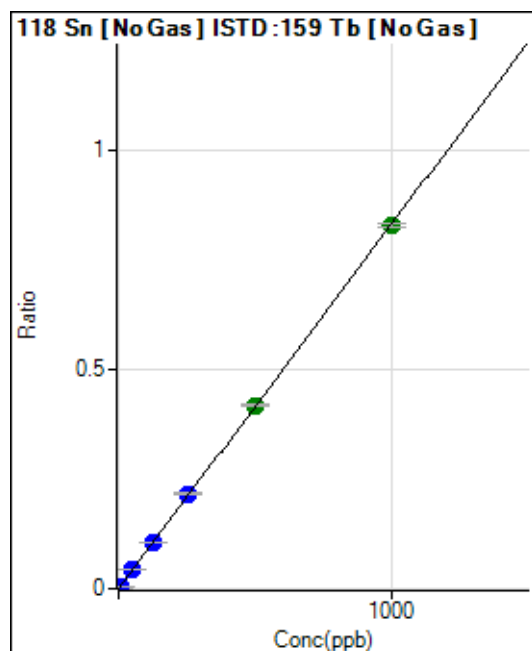
$$y = 2.8444\text{E-}004 * x + 5.0332\text{E-}004$$

$$R = 0.9996$$

$$DL = 0.09037$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	958.41	0.0000	P	5.8
2	☐	0.500					
3	☐	5.000	4.933	91475.80	0.0041	P	1.3
4	☐	50.000	52.102	953386.78	0.0433	P	1.5
5	☐	125.000	128.279	2354970.63	0.1065	P	0.6
6	☐	250.000	260.719	4627857.66	0.2163	P	3.3
7	☐	500.000	502.869	9174252.98	0.4172	A	0.7
8	☐	1000.000	995.371	18044580.96	0.8258	A	1.1
9	☐			14822.26	0.0007	P	0.6

$$y = 8.2957\text{E-}004 * x + 4.2002\text{E-}005$$

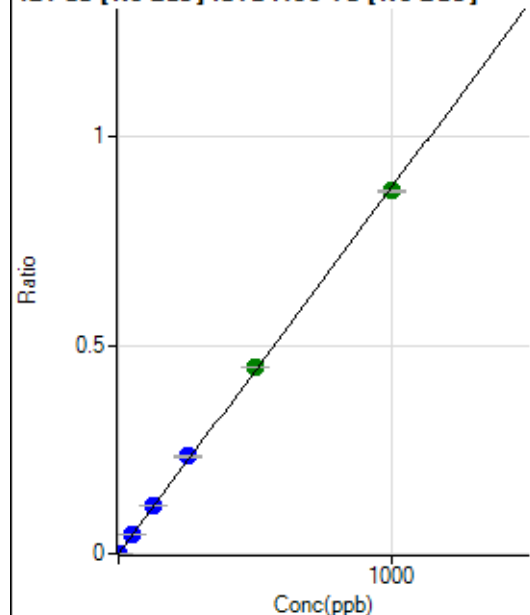
$$R = 0.9999$$

$$DL = 0.008884$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.12	0.0000	P	22.2
2	☐	0.200					
3	☐	2.000	1.873	36537.65	0.0017	P	1.8
4	☐	50.000	52.443	1015940.63	0.0461	P	0.4
5	☐	125.000	129.100	2510384.02	0.1135	P	0.4
6	☐	250.000	265.543	4993173.25	0.2334	P	3.5
7	☐	500.000	508.927	9836691.02	0.4473	A	0.8
8	☐	1000.000	991.016	19035751.29	0.8711	A	0.3
9	☐			21041.65	0.0010	P	1.9

$$y = 8.7898E-004 * x + 4.8762E-006$$

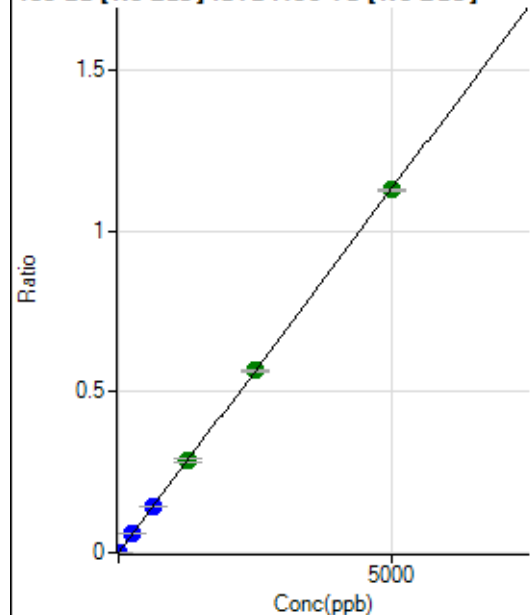
$$R = 0.9998$$

$$DL = 0.003701$$

Weight: <None>

Min Conc: 0

135 Ba [No Gas] ISTD : 159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33.34	0.0000	P	90.1
2	☐	1.000					
3	☐	10.000	9.733	48784.37	0.0022	P	4.1
4	☐	250.000	257.459	1284846.80	0.0583	P	1.0
5	☐	625.000	642.803	3220241.65	0.1456	P	1.3
6	☐	1250.000	1280.982	6204635.51	0.2901	A	4.2
7	☐	2500.000	2507.147	12484071.29	0.5678	A	1.2
8	☐	5000.000	4986.083	24674060.27	1.1291	A	0.3
9	☐			4120.24	0.0002	P	7.2

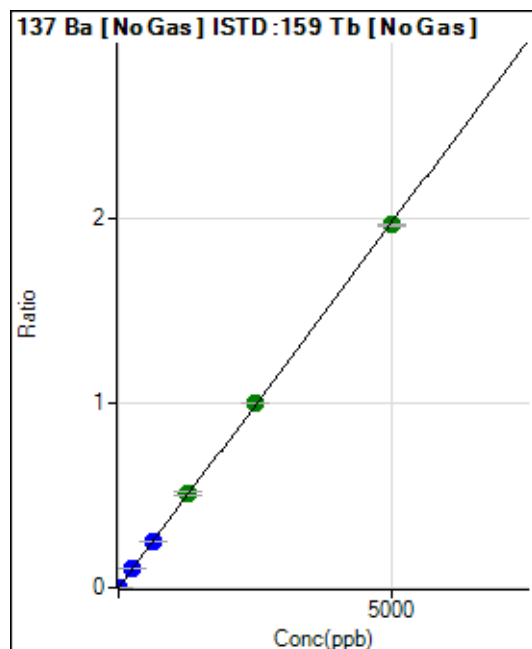
$$y = 2.2645E-004 * x + 1.4668E-006$$

$$R = 1.0000$$

$$DL = 0.0175$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.78	0.0000	P	8.4
2	☐	1.000					
3	☐	10.000	9.466	82744.06	0.0037	P	1.0
4	☐	250.000	257.423	2239803.89	0.1016	P	1.6
5	☐	625.000	641.565	5603724.91	0.2533	P	1.1
6	☐	1250.000	1290.782	10901893.91	0.5096	A	3.6
7	☐	2500.000	2530.177	21966921.15	0.9990	A	0.3
8	☐	5000.000	4972.275	42900596.10	1.9632	A	0.5
9	☐			7441.19	0.0004	P	5.7

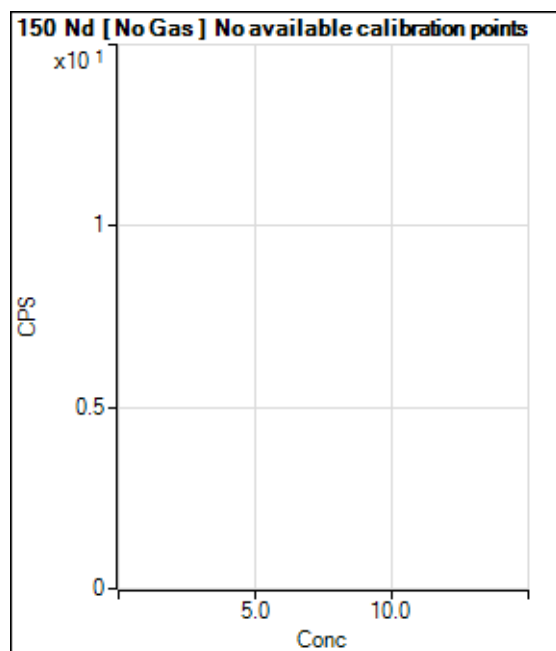
$$y = 3.9483E-004 * x + 2.3128E-006$$

$$R = 0.9999$$

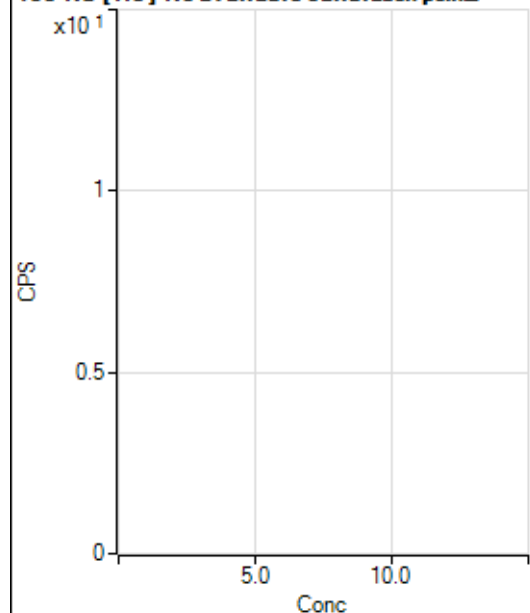
$$DL = 0.001476$$

Weight: <None>

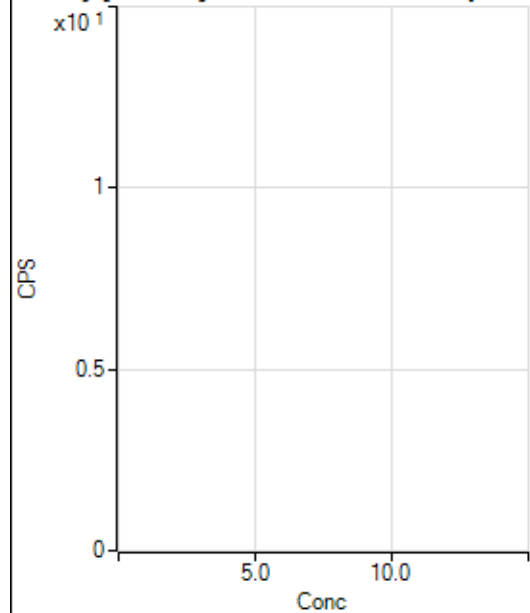
Min Conc: 0



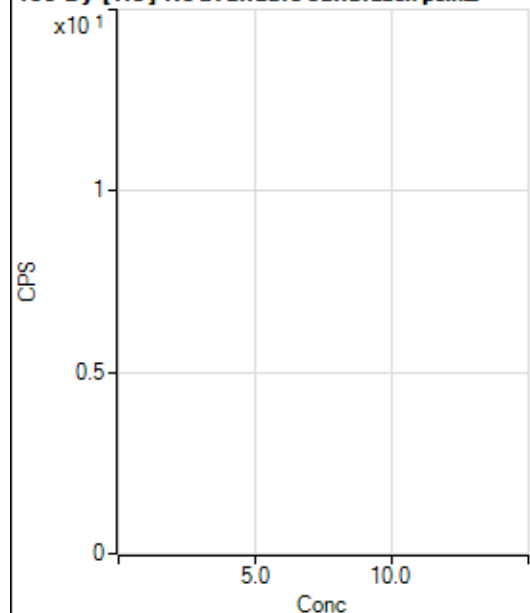
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			6.67		P	0.0
4	☐			120.00		P	16.7
5	☐			284.46		P	14.9
6	☐			548.92		P	12.9
7	☐			984.52		P	9.7
8	☐			2011.34		P	3.5
9	☐			442.24		P	8.3

150 Nd [He] No available calibration points

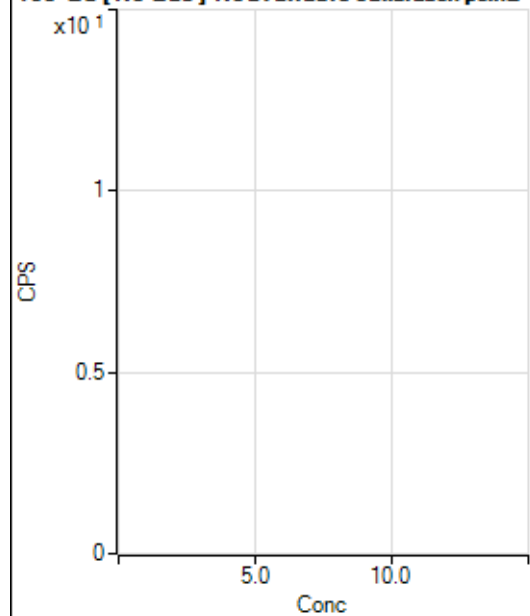
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.
4	☐			15.56		P	53.9
5	☐			43.33		P	30.8
6	☐			78.89		P	19.1
7	☐			147.78		P	24.9
8	☐			217.78		P	23.4
9	☐			206.67		P	10.1

156 Dy [No Gas] No available calibration points

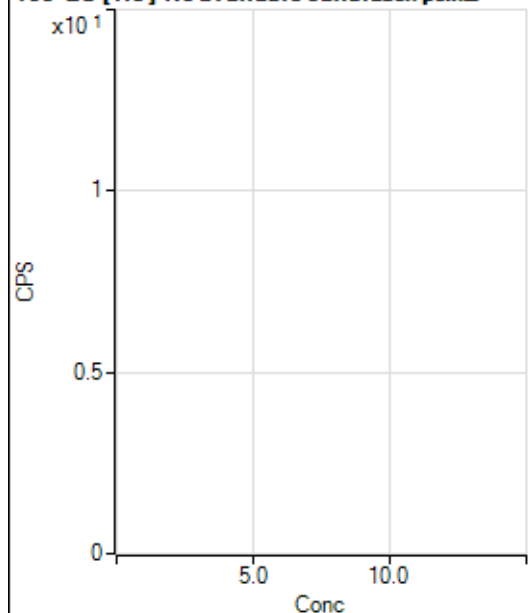
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐						
3	☐			16.67		P	50.0
4	☐			55.56		P	67.6
5	☐			52.78		P	59.8
6	☐			180.56		P	11.6
7	☐			263.90		P	24.5
8	☐			480.59		P	8.7
9	☐			263.90		P	11.1

156 Dy [He] No available calibration points

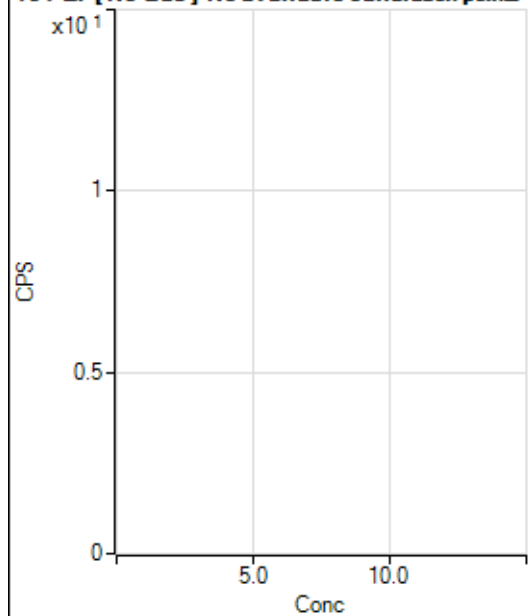
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	65.5
2	☐						
3	☐			12.22		P	41.7
4	☐			28.89		P	13.3
5	☐			84.45		P	2.3
6	☐			137.78		P	13.8
7	☐			281.12		P	13.0
8	☐			530.02		P	5.8
9	☐			130.00		P	13.6

160 Gd [No Gas] Noavailable calibration poin_

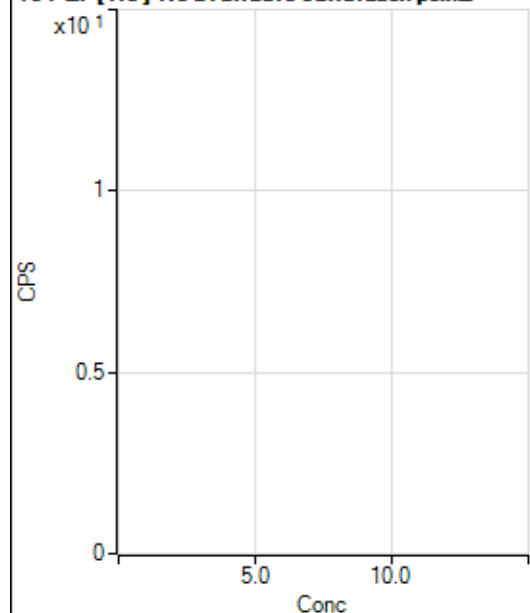
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			233.35		P	12.9
2	☐						
3	☐			180.56		P	19.2
4	☐			277.80		P	4.6
5	☐			272.24		P	12.7
6	☐			219.46		P	2.2
7	☐			316.68		P	13.9
8	☐			291.68		P	15.9
9	☐			322.24		P	27.2

160 Gd [He] No available calibration points

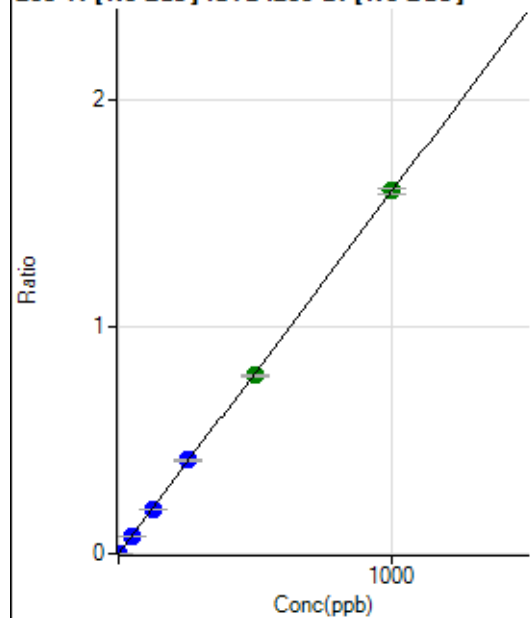
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			421.12		P	9.2
2	☐						
3	☐			438.90		P	6.5
4	☐			426.68		P	4.1
5	☐			452.24		P	7.4
6	☐			445.57		P	3.0
7	☐			451.13		P	10.8
8	☐			458.90		P	2.3
9	☐			521.13		P	9.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	12.5
2	☐						
3	☐			86.11		P	14.8
4	☐			100.01		P	8.3
5	☐			72.23		P	24.0
6	☐			88.89		P	10.8
7	☐			72.23		P	43.7
8	☐			113.89		P	11.2
9	☐			161.12		P	13.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			37.78		P	13.5
2	☐						
3	☐			50.00		P	13.3
4	☐			47.78		P	29.0
5	☐			58.89		P	22.9
6	☐			53.33		P	33.1
7	☐			63.33		P	21.1
8	☐			57.78		P	24.0
9	☐			75.56		P	19.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	588.93	0.0000	P	13.2
2	☐	0.100					
3	☐	1.000	0.835	19314.94	0.0014	P	0.4
4	☐	50.000	49.007	1090266.95	0.0782	P	1.7
5	☐	125.000	123.331	2717131.74	0.1968	P	0.7
6	☐	250.000	258.003	5414477.99	0.4117	P	2.5
7	☐	500.000	491.892	10465726.88	0.7849	A	0.9
8	☐	1000.000	1002.312	20609512.44	1.5992	A	1.8
9	☐			4559.31	0.0004	P	8.0

$$y = 0.0016 * x + 4.0496E-005$$

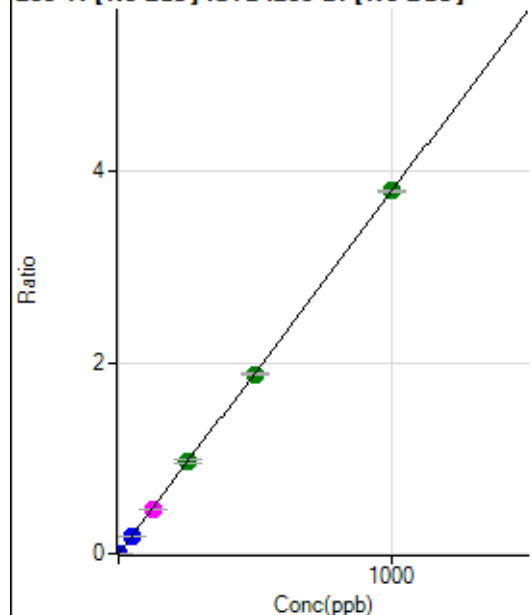
$$R = 0.9999$$

$$DL = 0.01002$$

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	1472.37	0.0001	P	2.5
2	☐	0.100					
3	☐	1.000	0.867	47659.14	0.0034	P	1.7
4	☐	50.000	49.091	2595709.41	0.1863	P	0.9
5	☐	125.000	122.430	6410031.22	0.4643	M	0.9
6	☐	250.000	253.534	12643438.13	0.9615	A	3.2
7	☐	500.000	495.631	25062149.17	1.8795	A	1.0
8	☐	1000.000	1001.668	48950168.80	3.7983	A	0.8
9	☐			11041.20	0.0011	P	4.5

$$y = 0.0038 * x + 1.0123E-004$$

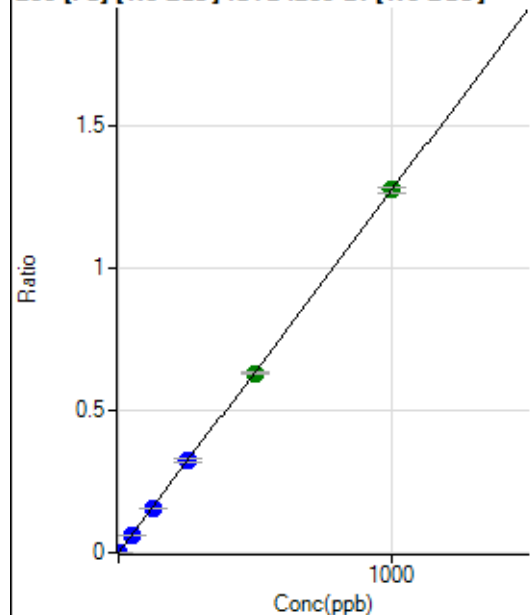
$$R = 1.0000$$

$$DL = 0.001984$$

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	838.94	0.0001	P	2.9
2	☐	0.100					
3	☐	1.000	0.868	16384.56	0.0012	P	1.9
4	☐	50.000	48.911	869975.76	0.0624	P	2.3
5	☐	125.000	122.458	2156543.89	0.1562	P	0.6
6	☐	250.000	255.710	4288662.02	0.3261	P	3.1
7	☐	500.000	494.885	8415458.12	0.6311	A	0.7
8	☐	1000.000	1001.502	16458502.57	1.2771	A	1.3
9	☐			23319.07	0.0022	P	2.0

$$y = 0.0013 * x + 5.7664E-005$$

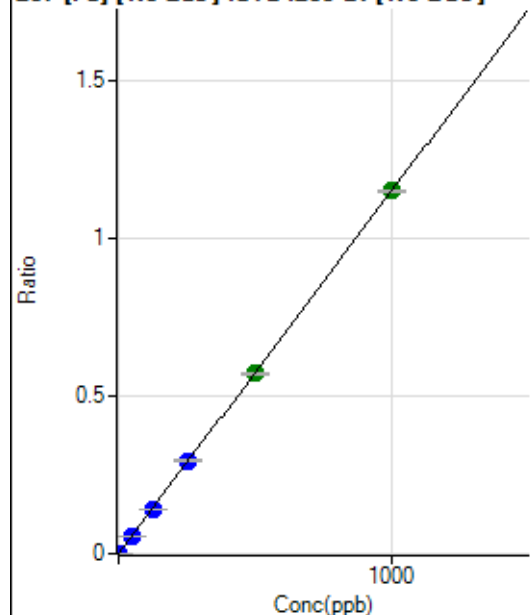
$$R = 1.0000$$

$$DL = 0.003996$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	698.19	0.0000	P	1.2
2	☐	0.100					
3	☐	1.000	0.867	14684.42	0.0010	P	2.2
4	☐	50.000	48.929	783878.18	0.0562	P	1.1
5	☐	125.000	122.017	1935354.34	0.1402	P	0.5
6	☐	250.000	256.013	3867664.24	0.2941	P	2.9
7	☐	500.000	496.950	7611528.47	0.5708	A	0.6
8	☐	1000.000	1000.448	14808699.41	1.1491	A	0.5
9	☐			19438.77	0.0019	P	1.3

$$y = 0.0011 * x + 4.7999E-005$$

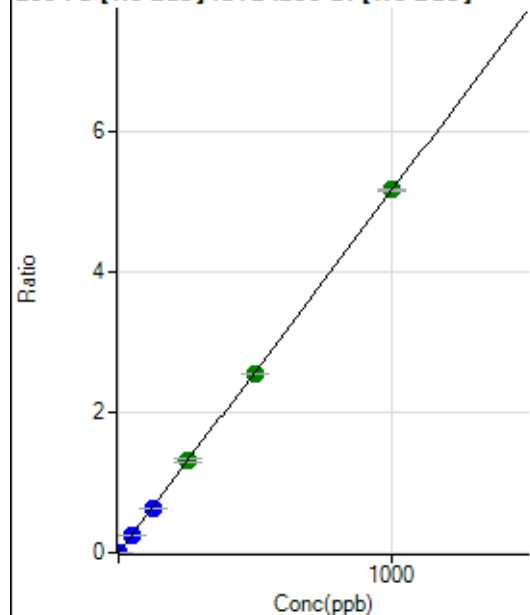
$$R = 1.0000$$

$$DL = 0.001499$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3365.09	0.0002	P	7.5
2	☐	0.100					
3	☐	1.000	0.870	66362.73	0.0047	P	0.6
4	☐	50.000	49.246	3540758.50	0.2541	P	0.8
5	☐	125.000	122.858	8745469.51	0.6335	P	0.4
6	☐	250.000	254.337	17242335.48	1.3112	A	3.1
7	☐	500.000	493.958	33952912.45	2.5462	A	0.4
8	☐	1000.000	1002.242	66577878.69	5.1661	A	0.4
9	☐			90397.51	0.0087	P	0.4

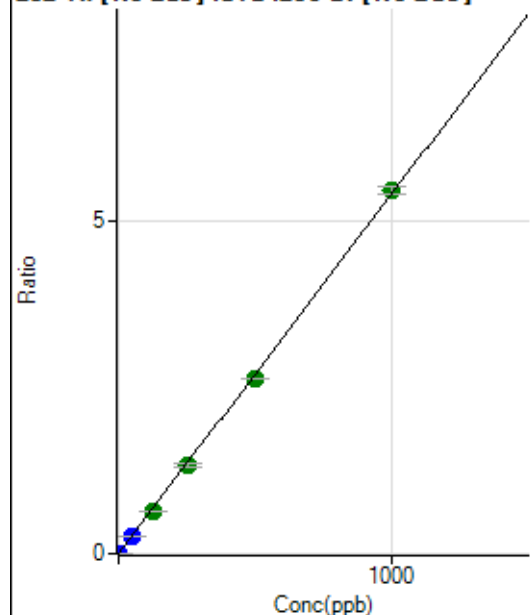
$$y = 0.0052 * x + 2.3124E-004$$

$$R = 1.0000$$

$$DL = 0.01014$$

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	688.93	0.0000	P	5.6
2	☐	0.100					
3	☐	1.000	0.803	61581.97	0.0044	P	2.1
4	☐	50.000	46.530	3497627.94	0.2510	P	0.4
5	☐	125.000	117.107	8718438.51	0.6316	A	0.7
6	☐	250.000	245.438	17403627.01	1.3236	A	3.8
7	☐	500.000	486.783	35004198.47	2.6250	A	0.4
8	☐	1000.000	1008.909	70109646.01	5.4406	A	2.0
9	☐			11631.42	0.0011	P	7.0

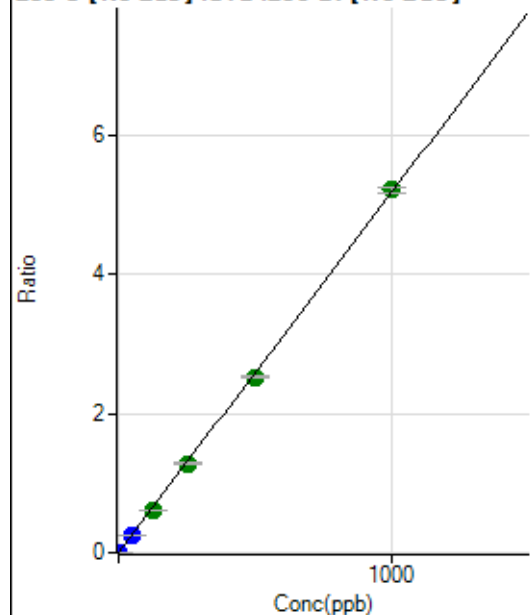
$$y = 0.0054 * x + 4.7371E-005$$

$$R = 0.9998$$

$$DL = 0.001463$$

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	41.67	0.0000	P	69.3
2	☐	0.100					
3	☐	1.000	0.845	61426.52	0.0044	P	1.5
4	☐	50.000	46.991	3383024.68	0.2428	P	1.6
5	☐	125.000	117.131	8352889.69	0.6051	A	0.8
6	☐	250.000	247.491	16813080.24	1.2785	A	3.3
7	☐	500.000	488.422	33645085.47	2.5231	A	0.1
8	☐	1000.000	1007.550	67073298.72	5.2049	A	1.8
9	☐			7149.56	0.0007	P	9.2

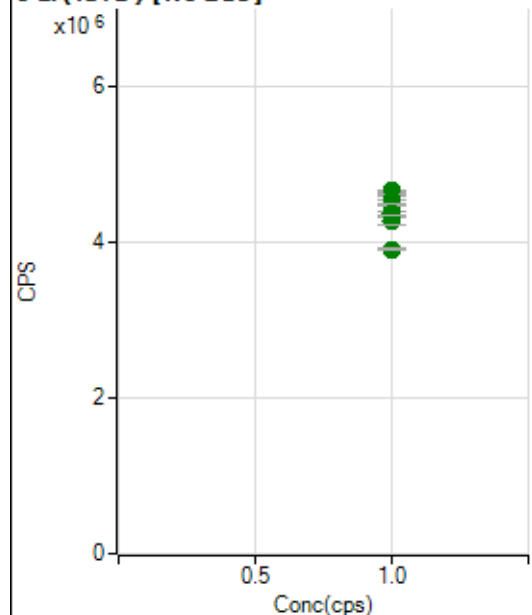
$$y = 0.0052 * x + 2.8641E-006$$

$$R = 0.9999$$

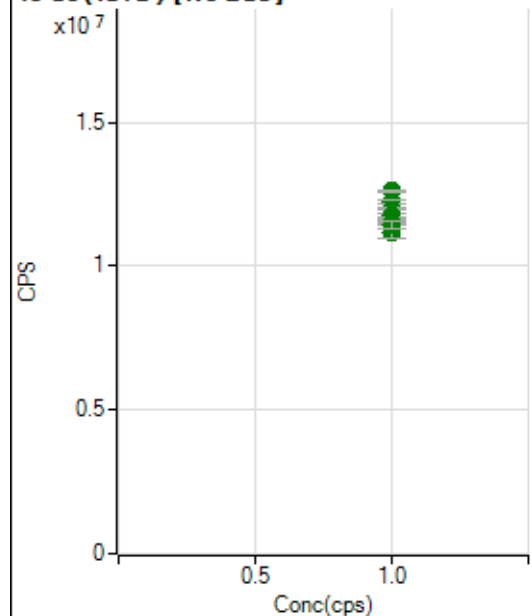
$$DL = 0.001152$$

Weight: <None>

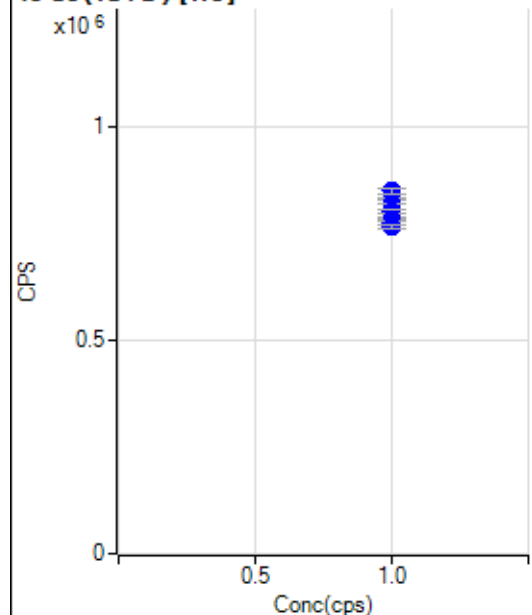
Min Conc: 0

6 Li (ISTD) [No Gas]

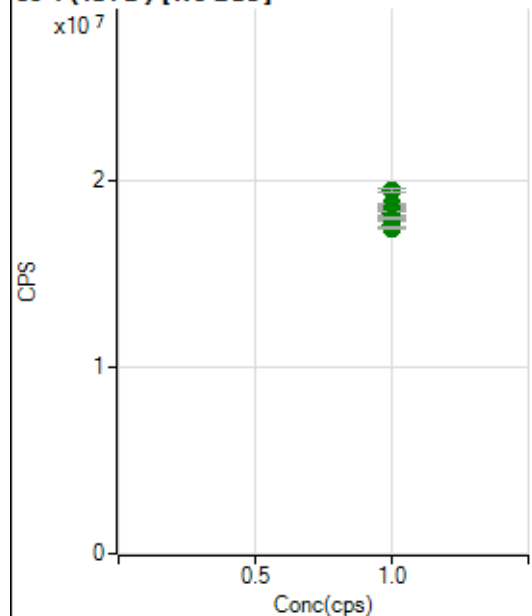
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4651933.87		A	0.8
2	☐	1.000					
3	☐	1.000		4603353.37		A	0.4
4	☐	1.000		4542514.74		A	0.0
5	☐	1.000		4481105.58		A	0.5
6	☐	1.000		4269431.62		A	2.6
7	☐	1.000		4366847.61		A	0.7
8	☐	1.000		4338128.58		A	0.5
9	☐	1.000		3900619.83		A	0.4

45 Sc (ISTD) [No Gas]

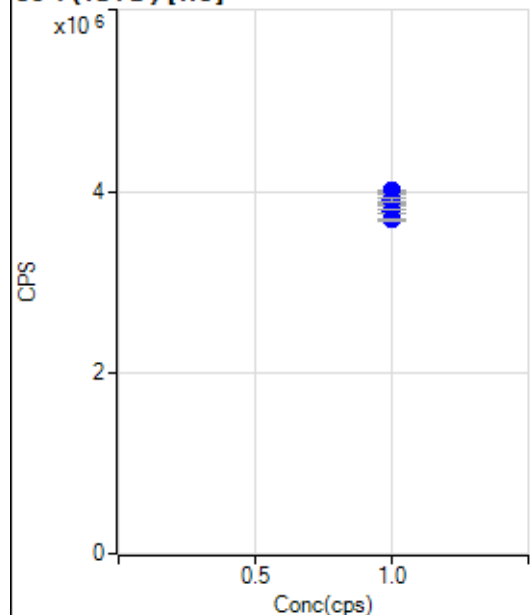
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12614188.74		A	0.4
2	☐	1.000					
3	☐	1.000		12230905.83		A	0.9
4	☐	1.000		11988452.35		A	0.9
5	☐	1.000		11762676.48		A	0.7
6	☐	1.000		11189423.25		A	4.0
7	☐	1.000		11685075.87		A	0.7
8	☐	1.000		11511902.52		A	0.2
9	☐	1.000		11440440.27		A	2.0

45 Sc (ISTD) [He]

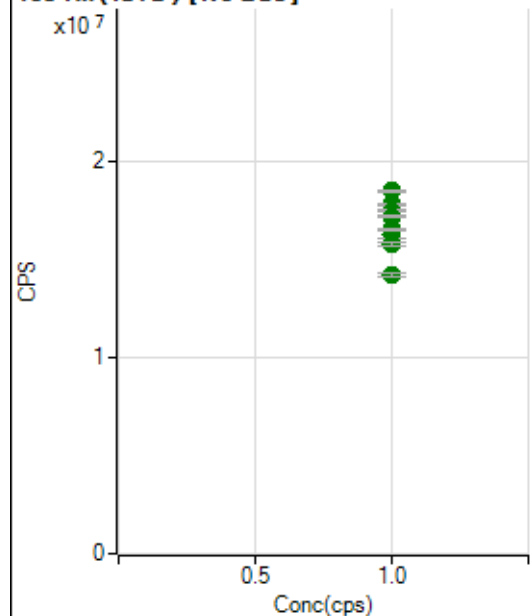
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		828708.74		P	0.7
2	☐	1.000					
3	☐	1.000		819085.65		P	0.3
4	☐	1.000		799264.57		P	0.9
5	☐	1.000		782243.71		P	0.7
6	☐	1.000		779525.18		P	0.9
7	☐	1.000		774652.47		P	1.0
8	☐	1.000		762780.61		P	1.1
9	☐	1.000		848015.51		P	1.4

89 Y (ISTD) [No Gas]

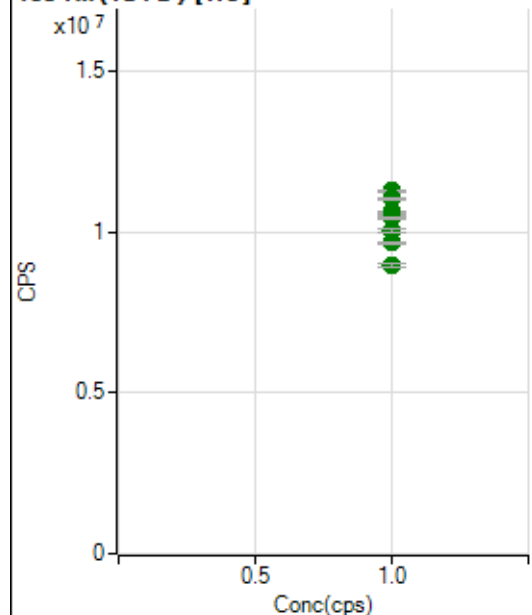
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		19406793.46		A	0.9
2	☐	1.000					
3	☐	1.000		18710313.75		A	0.6
4	☐	1.000		18450939.87		A	0.5
5	☐	1.000		18337793.89		A	0.2
6	☐	1.000		17602546.13		A	2.5
7	☐	1.000		18194182.09		A	1.1
8	☐	1.000		17943222.79		A	0.9
9	☐	1.000		17414700.02		A	0.7

89 Y (ISTD) [He]

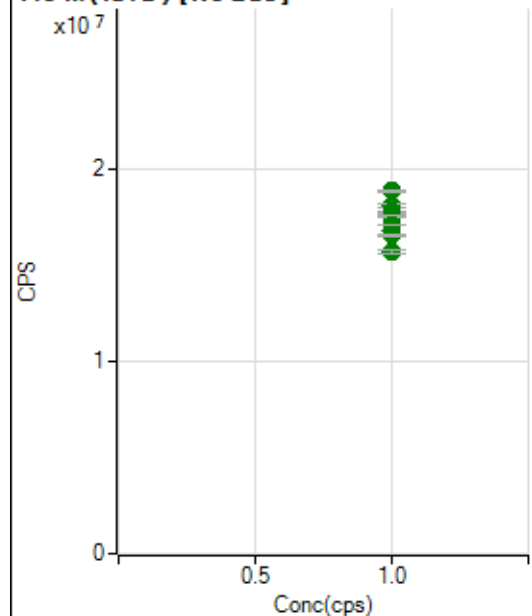
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4004711.40		P	0.4
2	☐	1.000					
3	☐	1.000		3967378.07		P	0.4
4	☐	1.000		3851588.94		P	0.6
5	☐	1.000		3839735.46		P	0.4
6	☐	1.000		3841371.47		P	0.3
7	☐	1.000		3778290.43		P	0.9
8	☐	1.000		3684260.99		P	1.1
9	☐	1.000		3900597.13		P	0.9

103 Rh (ISTD) [No Gas]

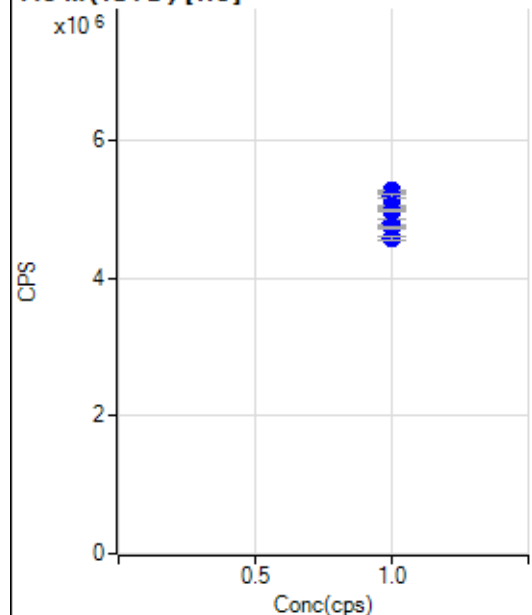
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18453546.42		A	0.7
2	☐	1.000					
3	☐	1.000		17758322.27		A	0.6
4	☐	1.000		17453470.36		A	0.6
5	☐	1.000		17153717.05		A	0.5
6	☐	1.000		16223722.41		A	2.7
7	☐	1.000		16482372.07		A	0.5
8	☐	1.000		15761232.64		A	1.0
9	☐	1.000		14203490.94		A	1.7

103 Rh (ISTD) [He]

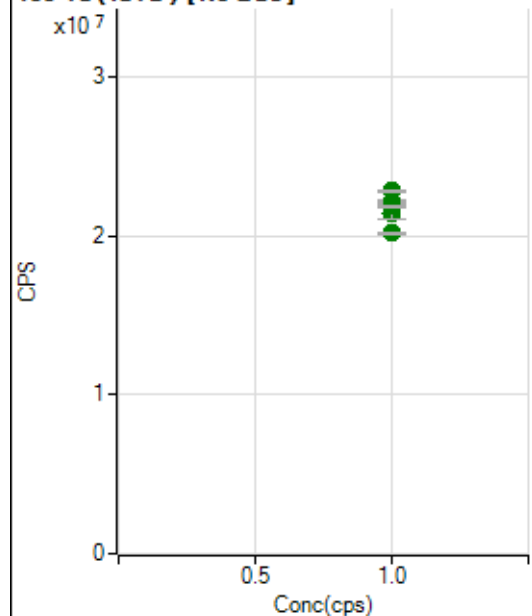
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11279758.86		A	0.4
2	☐	1.000					
3	☐	1.000		11044517.61		A	0.6
4	☐	1.000		10631978.87		A	0.1
5	☐	1.000		10539627.07		A	0.7
6	☐	1.000		10442118.11		A	0.3
7	☐	1.000		10034976.93		A	1.1
8	☐	1.000		9662735.83		A	0.9
9	☐	1.000		8983894.31		A	1.1

115 In (ISTD) [No Gas]

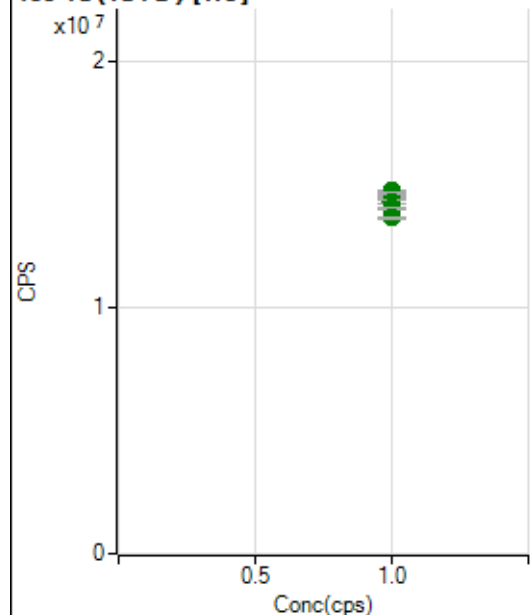
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		18840680.33		A	0.4
2	☐	1.000					
3	☐	1.000		18097891.36		A	0.8
4	☐	1.000		17745103.89		A	0.8
5	☐	1.000		17547410.87		A	0.7
6	☐	1.000		16802889.67		A	2.9
7	☐	1.000		17073012.36		A	0.3
8	☐	1.000		16534525.66		A	0.2
9	☐	1.000		15680458.73		A	0.9

115 In (ISTD) [He]

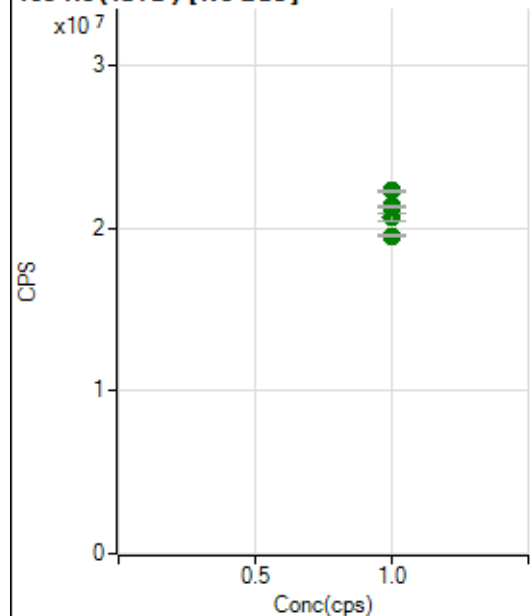
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5264864.78		P	0.2
2	☐	1.000					
3	☐	1.000		5191915.40		P	0.7
4	☐	1.000		5026411.32		P	0.5
5	☐	1.000		5040971.51		P	0.1
6	☐	1.000		4974637.31		P	0.8
7	☐	1.000		4813342.73		P	1.5
8	☐	1.000		4571755.98		P	1.4
9	☐	1.000		4733172.12		P	1.0

159 Tb (ISTD) [No Gas]

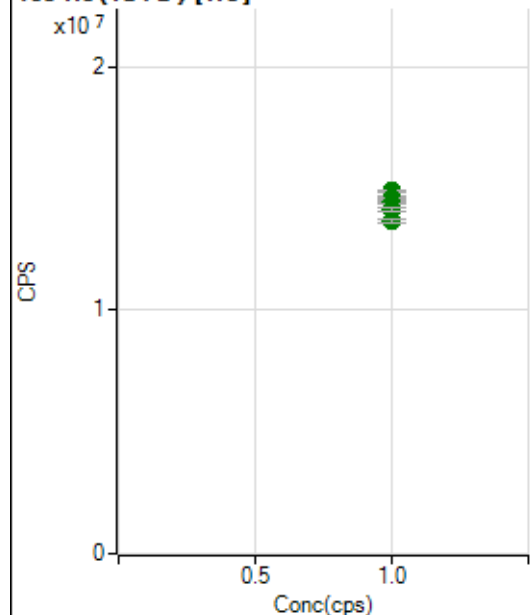
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22811881.60		A	0.7
2	☐	1.000					
3	☐	1.000		22124094.11		A	0.8
4	☐	1.000		22037606.06		A	0.6
5	☐	1.000		22121393.84		A	0.3
6	☐	1.000		21407413.71		A	3.1
7	☐	1.000		21989341.89		A	0.5
8	☐	1.000		21852654.40		A	0.5
9	☐	1.000		20166454.14		A	0.8

159 Tb (ISTD) [He]

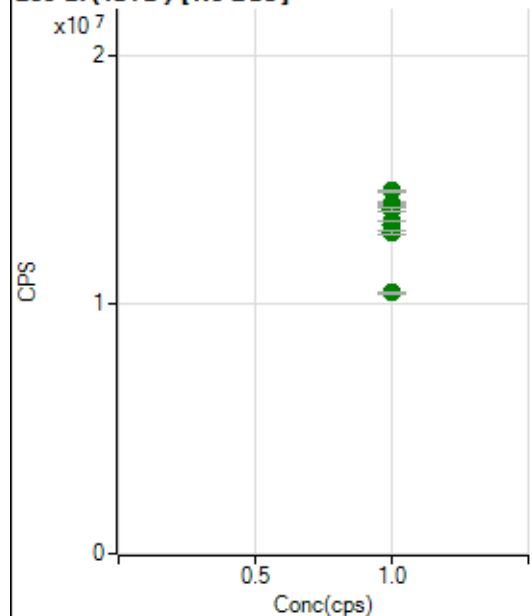
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14728641.03		A	0.6
2	☐	1.000					
3	☐	1.000		14572887.00		A	0.2
4	☐	1.000		14440722.01		A	0.4
5	☐	1.000		14442275.89		A	0.1
6	☐	1.000		14632671.17		A	0.9
7	☐	1.000		14262494.93		A	1.0
8	☐	1.000		14015719.65		A	0.8
9	☐	1.000		13635076.88		A	0.5

165 Ho (ISTD) [No Gas]

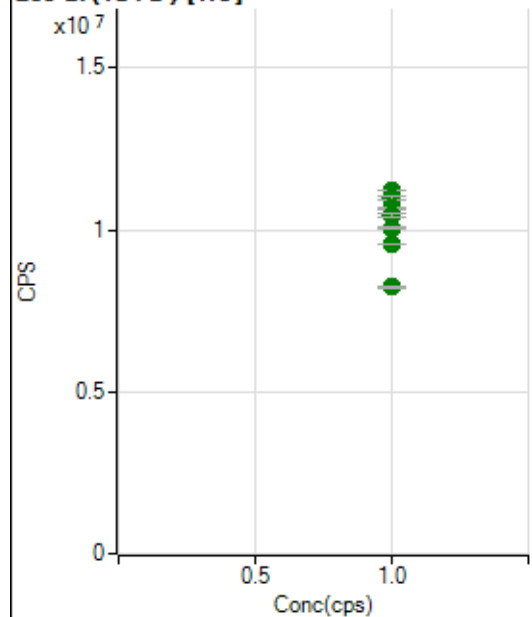
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22304692.17		A	0.8
2	☐	1.000					
3	☐	1.000		21300444.92		A	0.2
4	☐	1.000		21341910.55		A	0.9
5	☐	1.000		21387882.25		A	0.3
6	☐	1.000		20691251.85		A	2.7
7	☐	1.000		21371737.28		A	0.5
8	☐	1.000		21310953.25		A	0.7
9	☐	1.000		19533322.66		A	0.7

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14898710.33		A	0.2
2	☐	1.000					
3	☐	1.000		14619895.89		A	0.5
4	☐	1.000		14413225.76		A	0.7
5	☐	1.000		14466840.20		A	0.9
6	☐	1.000		14566248.39		A	0.3
7	☐	1.000		14375456.87		A	0.5
8	☐	1.000		14109206.32		A	1.2
9	☐	1.000		13669587.16		A	1.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14546674.92		A	0.8
2	☐	1.000					
3	☐	1.000		14066803.40		A	0.9
4	☐	1.000		13936910.90		A	0.5
5	☐	1.000		13805208.27		A	1.0
6	☐	1.000		13157481.47		A	2.7
7	☐	1.000		13334652.03		A	0.2
8	☐	1.000		12887833.28		A	0.9
9	☐	1.000		10449158.94		A	0.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11200474.14		A	0.1
2	☐	1.000					
3	☐	1.000		10971944.42		A	0.9
4	☐	1.000		10683004.98		A	0.6
5	☐	1.000		10639523.31		A	0.3
6	☐	1.000		10449200.54		A	0.6
7	☐	1.000		10038790.96		A	0.5
8	☐	1.000		9564551.59		A	0.3
9	☐	1.000		8226552.51		A	1.3

US EPA Tune Check Sample Report

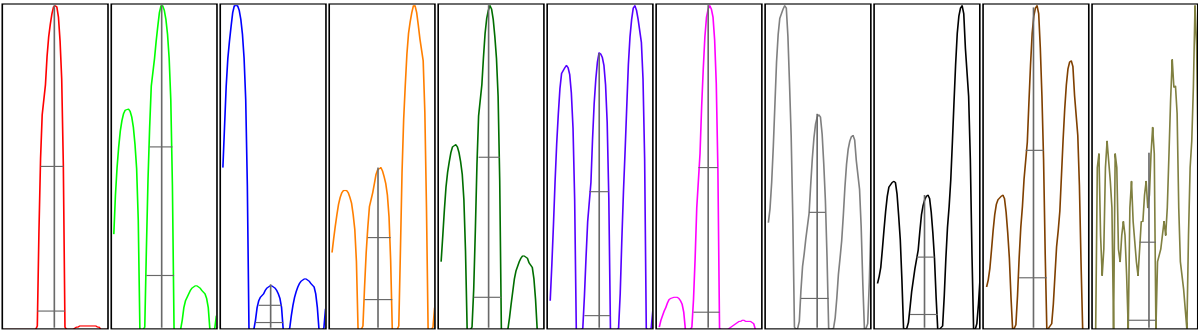
Batch Folder D:\ICP-MS Data\P7022019 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	25281	1.54	5.00	
24	268507	1.71	5.00	
25	37356	1.53	5.00	
26	43183	1.74	5.00	
59	235894	1.76	5.00	
113	26884	1.39	5.00	
115	313934	2.00	5.00	
206	67042	1.50	5.00	
207	63669	1.46	5.00	
208	145286	1.47	5.00	
220	0	25.91		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	25527	25377	24593	25437	25473
24	270763	270136	260422	269553	271661
25	37319	37802	36384	37621	37654
26	43456	43622	41878	43230	43728
59	237793	237675	228472	237568	237962
113	26956	27114	26227	27093	27029
115	317317	316577	302747	317050	315980
206	67480	67978	65345	67017	67389
207	64195	64301	62032	63864	63950
208	146831	146911	141670	145368	145648
220	0	1	1	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	41203	9.00	8.9 - 9.1		0.788	0.900	
24	427778	23.95	23.9 - 24.1		0.798	0.900	
25	57274	24.95	24.9 - 25.1		0.800	0.900	
26	66444	25.90	25.9 - 26.1		0.796	0.900	
59	392643	58.95	58.9 - 59.1		0.800	0.900	
113	49240	113.00	112.9 - 113.1		0.774	0.900	
115	578635	115.00	114.9 - 115.1		0.768	0.900	
206	124072	206.00	205.9 - 206.1		0.793	0.900	
207	111015	206.95	206.9 - 207.1		0.797	0.900	
208	268015	207.95	207.9 - 208.1		0.791	0.900	
220	1	220.15	-		0.794		

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	6.7	V	Deflect	13.0	V
Extract 2	-165.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-90	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	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	78540	4.72	
89	70004	4.77	
205	80154	2.67	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	78755	78373	83439	73020	79112
89	70054	70051	74513	65085	70318
205	79858	80181	82880	76949	80904

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.6	V	Deflect	1.4	V
Extract 2	-180.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-85	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			