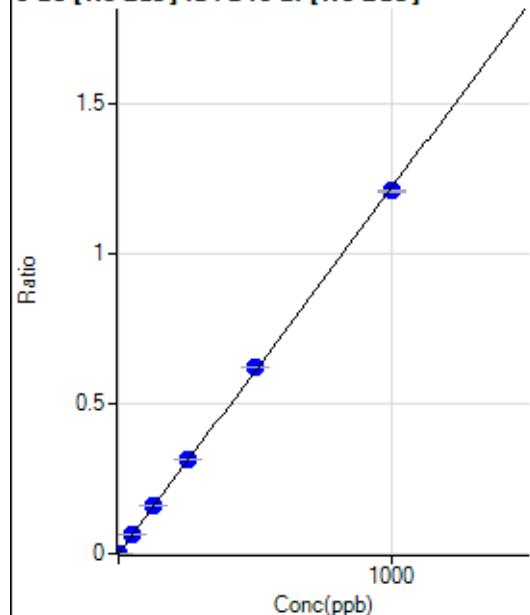


Batch Folder: D:\ICP-MS Data\P7050219 MS.b\
Analysis File: P7050219 MS.batch.bin
DA Date-Time: 2019-05-02 15:19:36
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-05-02 10:03:33
2			
3	005CALS.d	S02	2019-05-02 10:11:55
4	006CALS.d	S03	2019-05-02 10:15:51
5	007CALS.d	S04	2019-05-02 10:20:03
6	008CALS.d	S05	2019-05-02 10:23:52
7	009CALS.d	S06	2019-05-02 10:27:40
8	010CALS.d	S07	2019-05-02 10:31:26
9	011CALS.d	S08	2019-05-02 10:35:13

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28.89	0.0000	P	63.1
2	☐	0.100					
3	☐	1.000	0.995	3683.84	0.0012	P	3.0
4	☐	50.000	53.679	195510.25	0.0656	P	0.6
5	☐	125.000	133.047	451546.69	0.1625	P	0.4
6	☐	250.000	257.376	821091.86	0.3143	P	0.4
7	☐	500.000	510.058	1596305.96	0.6228	P	0.2
8	☐	1000.000	991.937	3059178.39	1.2112	P	0.3
9	☐			637.80	0.0003	P	18.3

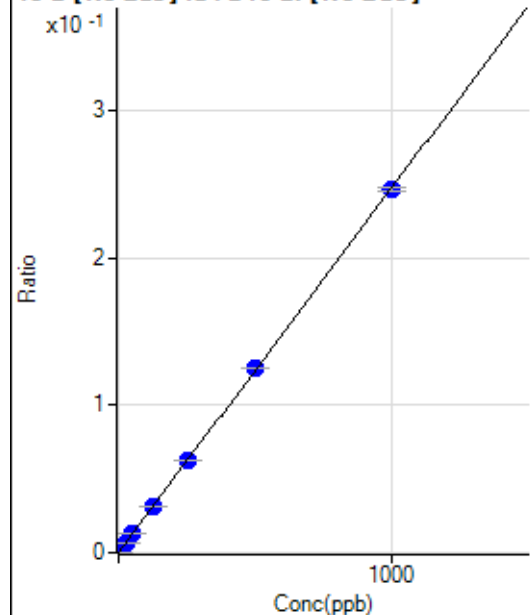
$$y = 0.0012 * x + 9.8064E-006$$

$$R = 0.9999$$

$$DL = 0.0152$$

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	402.80	0.0001	P	16.5
2	☐	2.500					
3	☐	25.000	24.511	18612.19	0.0062	P	0.1
4	☐	50.000	50.901	37904.26	0.0127	P	0.5
5	☐	125.000	127.903	88181.82	0.0317	P	0.8
6	☐	250.000	254.491	164577.80	0.0630	P	0.4
7	☐	500.000	506.383	320913.07	0.1252	P	0.7
8	☐	1000.000	995.290	621211.49	0.2460	P	1.2
9	☐			17346.77	0.0071	P	9.3

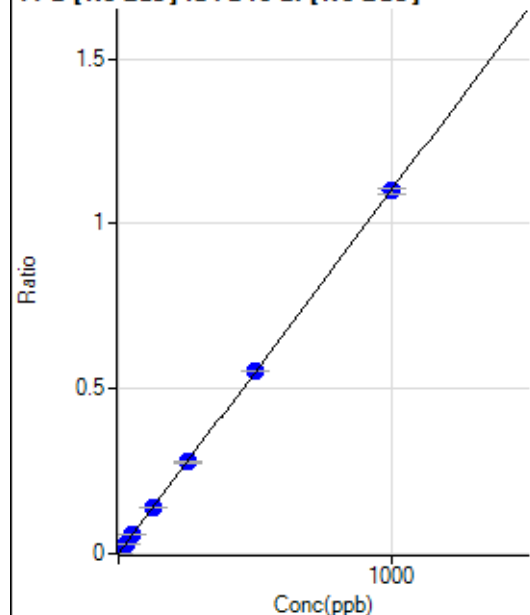
$$y = 2.4698E-004 * x + 1.3702E-004$$

$$R = 1.0000$$

$$DL = 0.2741$$

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	1691.83	0.0006	P	7.4
2	☐	2.500					
3	☐	25.000	24.356	82377.24	0.0274	P	0.2
4	☐	50.000	51.023	169316.19	0.0568	P	1.0
5	☐	125.000	127.139	390746.59	0.1406	P	1.4
6	☐	250.000	251.449	725045.75	0.2775	P	0.8
7	☐	500.000	502.478	1419899.27	0.5540	P	1.0
8	☐	1000.000	998.097	2777862.04	1.0998	P	1.3
9	☐			77430.28	0.0316	P	10.5

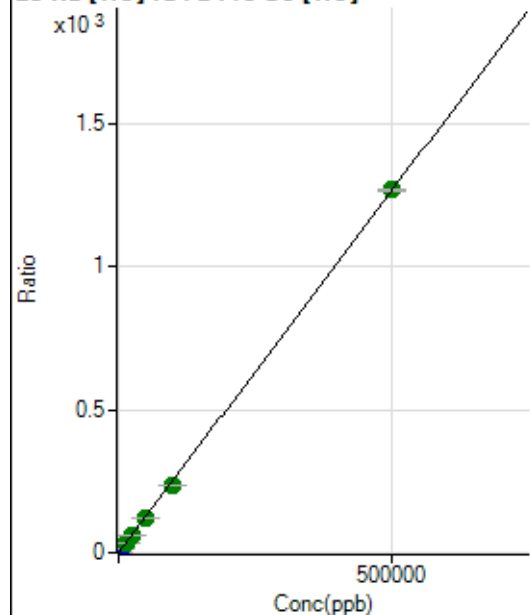
$$y = 0.0011 * x + 5.7539E-004$$

$$R = 1.0000$$

$$DL = 0.1155$$

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	3695.05	0.0126	P	7.4
2	☐	50.000					
3	☐	500.000	450.438	338754.45	1.1533	P	1.3
4	☐	5000.000	4822.251	3373385.08	12.2241	P	0.2
5	☐	12500.000	12150.624	7678012.76	30.7818	A	0.2
6	☐	25000.000	24161.059	14795253.28	61.1960	A	0.5
7	☐	50000.000	47890.783	29470673.92	121.2871	A	0.3
8	☐	100000.00	93076.937	58574124.23	235.7127	A	1.8
9	☐	500000.00	501648.04	341862646.5	1,270.343	A	0.5

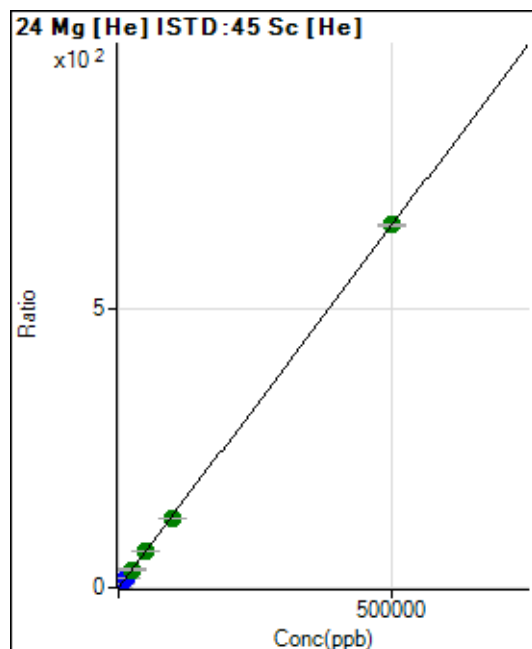
$$y = 0.0025 * x + 0.0126$$

$$R = 0.9999$$

$$DL = 1.107$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177.79	0.0006	P	28.4
2	☐	50.000					
3	☐	500.000	485.145	185511.20	0.6315	P	1.0
4	☐	5000.000	5058.148	1815474.61	6.5787	P	0.2
5	☐	12500.000	12773.818	4143765.50	16.6129	P	0.5
6	☐	25000.000	25188.595	7919832.56	32.7582	A	0.7
7	☐	50000.000	49561.987	15661532.82	64.4557	A	0.1
8	☐	100000.00	95800.374	30959967.71	124.5884	A	1.8
9	☐	500000.00	500866.88	175291731.6	651.3750	A	0.6

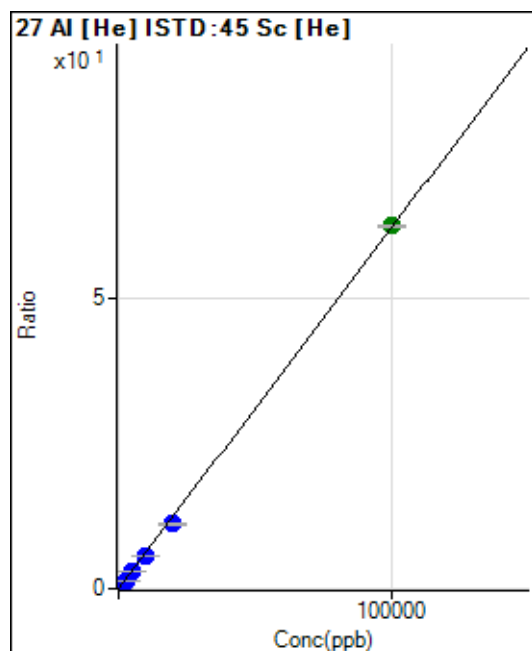
$$y = 0.0013 * x + 6.0710E-004$$

$$R = 1.0000$$

$$DL = 0.3971$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.55	0.0001	P	15.4
2	☐	2.000					
3	☐	20.000	17.932	3300.51	0.0112	P	4.5
4	☐	1000.000	943.973	161707.52	0.5860	P	0.5
5	☐	2500.000	2372.337	367285.44	1.4725	P	0.8
6	☐	5000.000	4683.724	702836.84	2.9071	P	0.5
7	☐	10000.000	9234.636	1392675.15	5.7316	P	0.1
8	☐	20000.000	17940.797	2767063.93	11.1351	P	1.8
9	☐	100000.00	100507.94	16787353.85	62.3807	A	0.6

$$y = 6.2065E-004 * x + 1.0426E-004$$

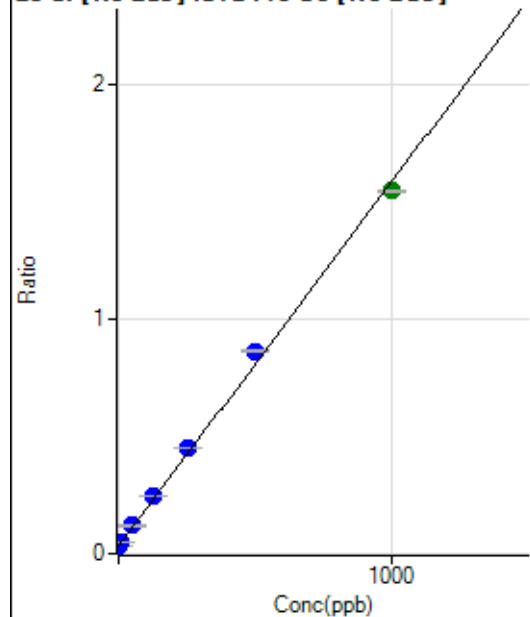
$$R = 0.9998$$

$$DL = 0.07783$$

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	200293.75	0.0323	P	0.2
2	☐	1.000					
3	☐	10.000	9.420	292866.77	0.0469	P	0.8
4	☐	50.000	55.923	717422.24	0.1191	P	0.8
5	☐	125.000	137.657	1367060.40	0.2460	P	1.0
6	☐	250.000	270.536	2361359.38	0.4523	P	0.7
7	☐	500.000	534.686	4494248.10	0.8624	P	0.7
8	☐	1000.000	975.651	8050817.80	1.5471	A	0.7
9	☐			323082.77	0.0624	P	3.0

$$y = 0.0016 * x + 0.0323$$

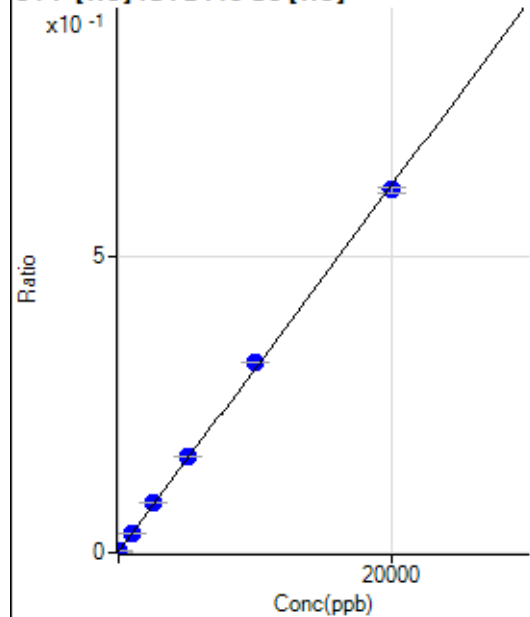
$$R = 0.9988$$

$$DL = 0.1373$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-30.830	222.24	0.0008	P	18.6
2	☐	0.000					
3	☐	0.000	30.830	783.39	0.0027	P	12.8
4	☐	1000.000	1026.324	9230.97	0.0335	P	2.4
5	☐	2500.000	2657.936	20932.03	0.0839	P	0.7
6	☐	5000.000	5229.659	39520.02	0.1635	P	0.5
7	☐	10000.000	10331.101	78054.46	0.3212	P	0.6
8	☐	20000.000	19755.977	152267.07	0.6127	P	1.7
9	☐			244.46	0.0009	P	13.9

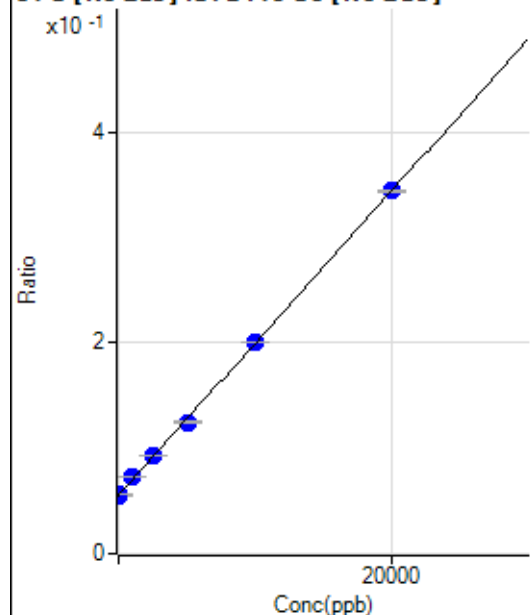
$$y = 3.0929E-005 * x + 0.0017$$

$$R = 0.9997$$

$$DL = 23.41$$

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	-59.474	338917.44	0.0547	P	0.8
2	☐	0.000					
3	☐	0.000	59.474	351903.09	0.0564	P	0.2
4	☐	1000.000	1189.435	437787.23	0.0727	P	0.7
5	☐	2500.000	2597.660	516773.85	0.0930	P	0.7
6	☐	5000.000	4800.234	651280.85	0.1248	P	1.2
7	☐	10000.000	10055.607	1044927.95	0.2005	P	0.4
8	☐	20000.000	20000.459	1789564.62	0.3439	P	0.5
9	☐			288920.14	0.0558	P	0.8

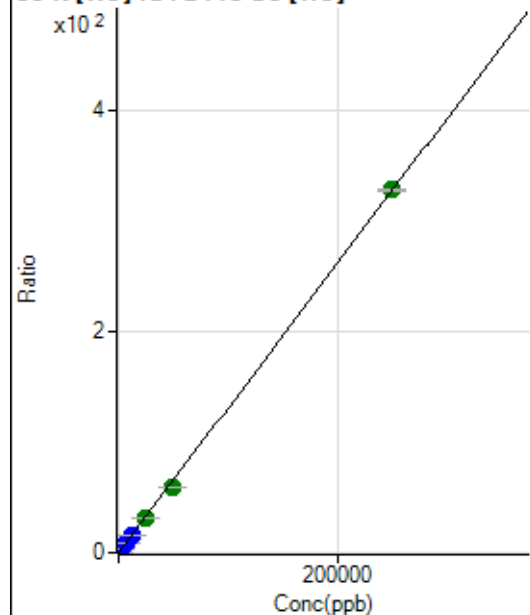
$$y = 1.4416\text{E-}005 * x + 0.0556$$

$$R = 0.9999$$

$$DL = 54.59$$

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	14354.75	0.0490	P	4.0
2	☐	50.000					
3	☐	500.000	460.726	191045.99	0.6504	P	0.6
4	☐	2500.000	2398.089	877366.68	3.1792	P	0.2
5	☐	6250.000	5994.581	1963940.89	7.8737	P	0.4
6	☐	12500.000	11954.109	3784315.32	15.6526	P	0.4
7	☐	25000.000	23452.552	7450195.91	30.6615	A	0.6
8	☐	50000.000	45377.132	14730373.42	59.2795	A	2.1
9	☐	250000.00	251114.09	88224656.83	327.8267	A	0.4

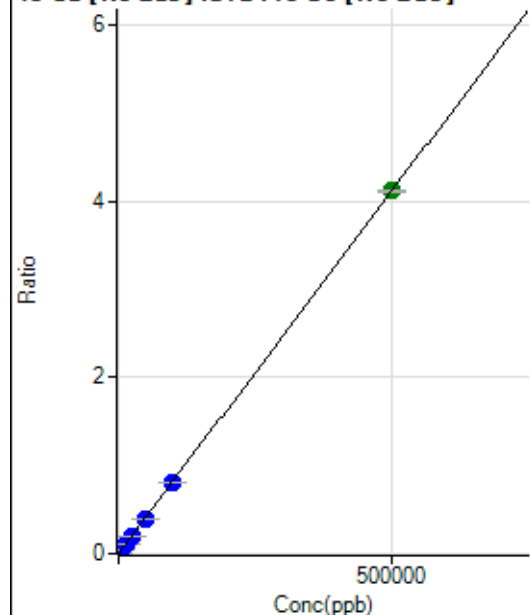
$$y = 0.0013 * x + 0.0490$$

$$R = 0.9998$$

$$DL = 4.557$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	219.45	0.0000	P	23.1
2	☐	50.000					
3	☐	500.000	450.467	23338.61	0.0037	P	1.7
4	☐	5000.000	4982.811	247052.43	0.0410	P	0.8
5	☐	12500.000	12444.107	569080.45	0.1024	P	0.5
6	☐	25000.000	24714.139	1061620.93	0.2034	P	0.3
7	☐	50000.000	48914.764	2097276.63	0.4025	P	0.2
8	☐	100000.00	97130.318	4158653.91	0.7991	P	0.2
9	☐	500000.00	500698.37	21319207.59	4.1194	A	0.5

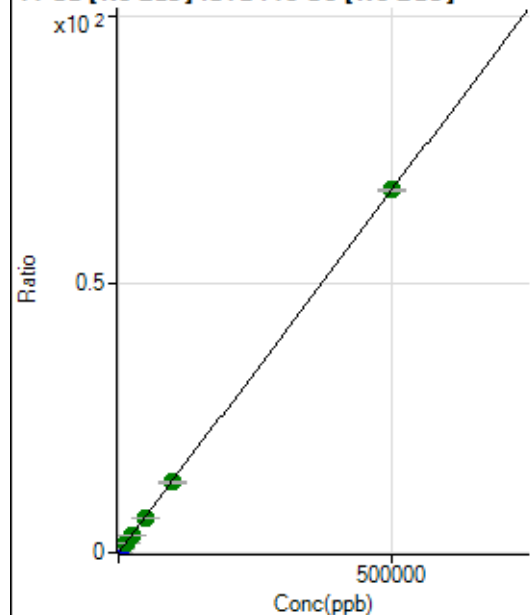
$$y = 8.2272\text{E-}006 * x + 3.5433\text{E-}005$$

$$R = 1.0000$$

$$DL = 2.985$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8950.74	0.0014	P	0.8
2	☐	50.000					
3	☐	500.000	451.506	389300.35	0.0624	P	0.4
4	☐	5000.000	4985.091	4061686.38	0.6745	P	0.2
5	☐	12500.000	12446.363	9346759.93	1.6820	A	0.2
6	☐	25000.000	24691.560	17411650.91	3.3353	A	0.2
7	☐	50000.000	48860.851	34386519.17	6.5987	A	0.3
8	☐	100000.00	96877.929	68077933.47	13.0821	A	0.0
9	☐	500000.00	500755.29	349934549.4	67.6143	A	0.6

$$y = 1.3502\text{E-}004 * x + 0.0014$$

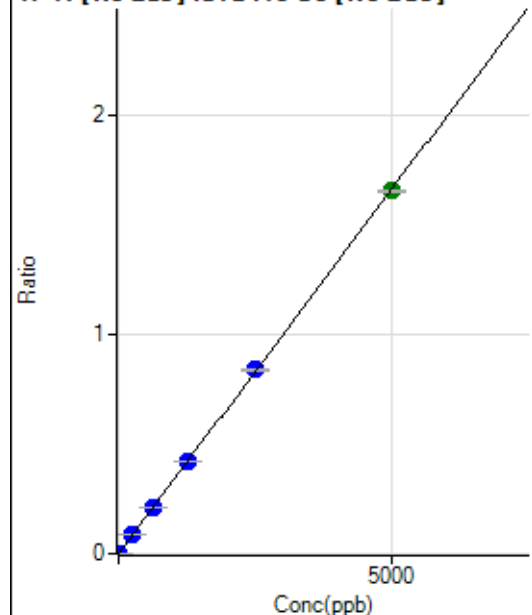
$$R = 1.0000$$

$$DL = 0.2561$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	169.45	0.0000	P	14.3
2	☐	0.500					
3	☐	5.000	5.136	10837.79	0.0017	P	4.9
4	☐	250.000	256.443	514300.18	0.0854	P	0.2
5	☐	625.000	641.121	1186367.73	0.2135	P	0.3
6	☐	1250.000	1266.928	2202236.68	0.4219	P	0.1
7	☐	2500.000	2524.776	4380734.82	0.8407	P	0.4
8	☐	5000.000	4981.043	8630598.63	1.6585	A	0.3
9	☐			5520.72	0.0011	P	2.9

$$y = 3.3295E-004 * x + 2.7350E-005$$

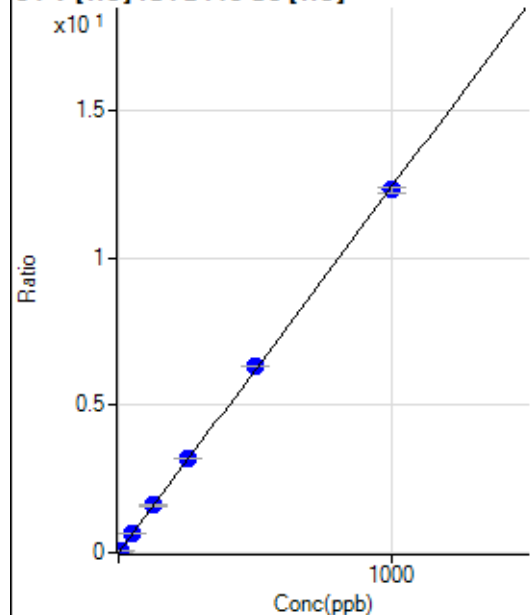
$$R = 1.0000$$

$$DL = 0.03522$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7.78	0.0000	P	89.1
2	☐	0.500					
3	☐	5.000	5.233	19043.62	0.0648	P	1.0
4	☐	50.000	51.584	176289.90	0.6388	P	0.3
5	☐	125.000	129.041	398576.30	1.5979	P	0.5
6	☐	250.000	256.888	769092.50	3.1811	P	0.2
7	☐	500.000	510.032	1534598.29	6.3158	P	0.5
8	☐	1000.000	992.676	3054632.38	12.2924	P	1.9
9	☐			890.04	0.0033	P	13.8

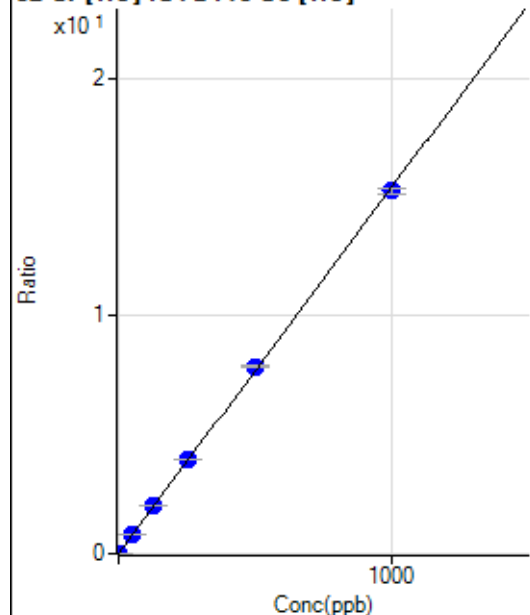
$$y = 0.0124 * x + 2.6541E-005$$

$$R = 0.9999$$

$$DL = 0.005728$$

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	998.94	0.0034	P	3.9
2	☐	0.200					
3	☐	2.000	2.034	10192.56	0.0347	P	1.6
4	☐	50.000	52.219	222659.21	0.8068	P	0.3
5	☐	125.000	130.888	503149.51	2.0172	P	0.3
6	☐	250.000	259.002	964252.89	3.9883	P	0.1
7	☐	500.000	511.457	1912840.98	7.8724	P	0.3
8	☐	1000.000	991.174	3790365.05	15.2531	P	1.9
9	☐			13620.93	0.0506	P	2.8

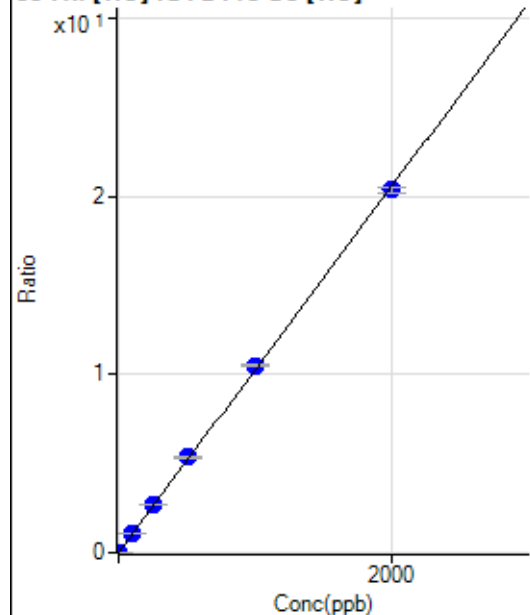
$$y = 0.0154 * x + 0.0034$$

$$R = 0.9998$$

$$DL = 0.02626$$

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	64.44	0.0002	P	11.6
2	☐	0.100					
3	☐	1.000	0.969	2991.46	0.0102	P	4.8
4	☐	100.000	103.632	294211.34	1.0661	P	0.6
5	☐	250.000	260.741	668952.90	2.6819	P	0.5
6	☐	500.000	520.085	1293284.60	5.3493	P	0.5
7	☐	1000.000	1023.065	2556693.61	10.5224	P	0.9
8	☐	2000.000	1981.922	5065458.85	20.3842	P	1.8
9	☐			13920.08	0.0517	P	3.5

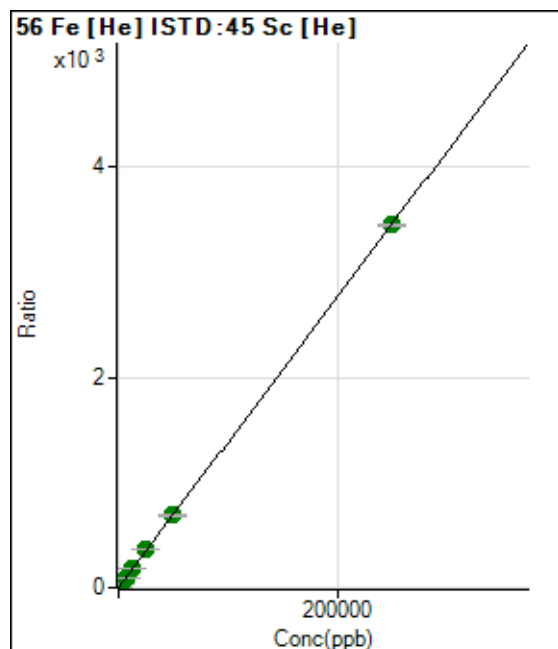
$$y = 0.0103 * x + 2.1994E-004$$

$$R = 0.9998$$

$$DL = 0.007471$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5888.38	0.0201	P	1.2
2	☐	5.000					
3	☐	50.000	52.851	220314.58	0.7500	P	0.7
4	☐	2500.000	2646.724	10093150.92	36.5738	A	0.3
5	☐	6250.000	6687.163	23041666.49	92.3761	A	0.3
6	☐	12500.000	13199.639	44078617.65	182.3195	A	0.7
7	☐	25000.000	25993.205	87232613.99	359.0107	A	0.1
8	☐	50000.000	49884.764	171206229.7	688.9755	A	2.0
9	☐	250000.00	249876.34	928734450.3	3,451.047	A	0.6

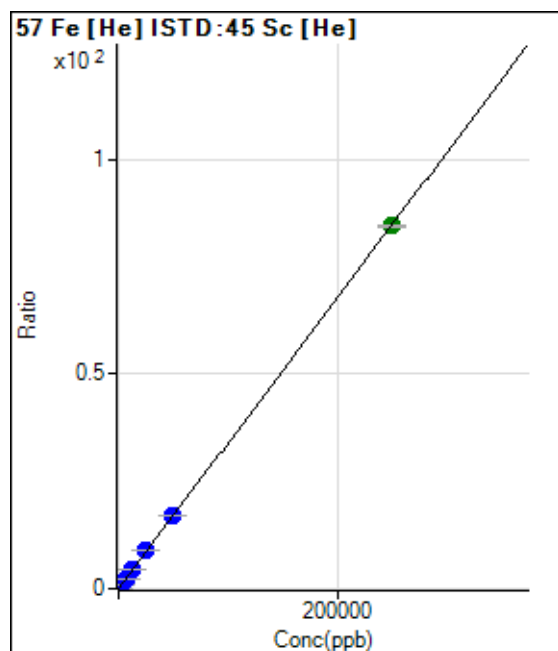
$$y = 0.0138 * x + 0.0201$$

$$R = 1.0000$$

$$DL = 0.05041$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	138.89	0.0005	P	26.6
2	☐	5.000					
3	☐	50.000	54.571	5562.32	0.0189	P	3.2
4	☐	2500.000	2648.904	247419.49	0.8966	P	0.6
5	☐	6250.000	6697.953	565297.13	2.2663	P	0.4
6	☐	12500.000	13281.251	1086356.17	4.4934	P	0.7
7	☐	25000.000	26013.327	2138372.70	8.8006	P	0.0
8	☐	50000.000	50416.575	4238359.88	17.0560	P	1.9
9	☐	250000.00	249763.60	22737983.84	84.4935	A	0.5

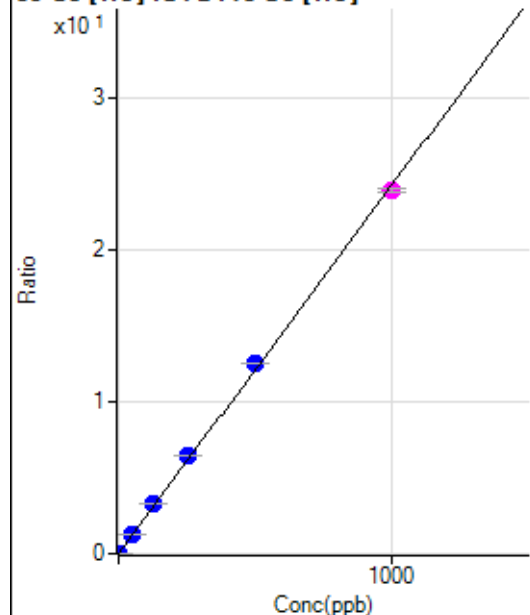
$$y = 3.3829E-004 * x + 4.7442E-004$$

$$R = 1.0000$$

$$DL = 1.117$$

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	77.78	0.0003	P	6.9
2	☐	0.100					
3	☐	1.000	1.040	7489.80	0.0255	P	3.2
4	☐	50.000	54.386	364177.77	1.3197	P	0.4
5	☐	125.000	134.597	814545.24	3.2656	P	0.6
6	☐	250.000	264.481	1551343.26	6.4166	P	0.5
7	☐	500.000	518.584	3056996.66	12.5813	P	0.2
8	☐	1000.000	985.669	5942796.93	23.9129	M	1.1
9	☐			74749.27	0.2778	P	1.0

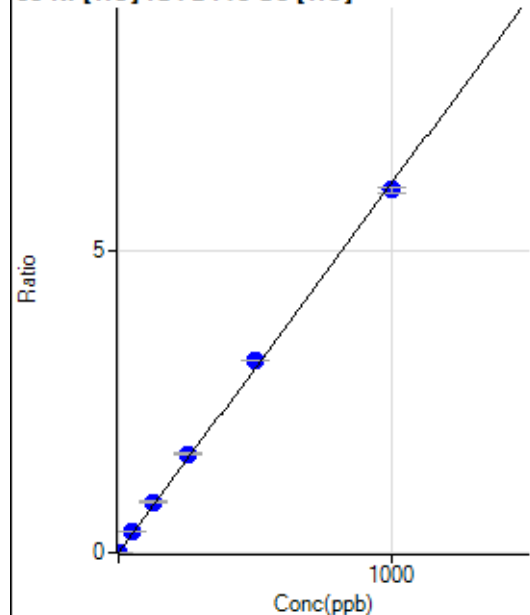
$$y = 0.0243 * x + 2.6555E-004$$

$$R = 0.9996$$

$$DL = 0.002269$$

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	84.45	0.0003	P	8.8
2	☐	0.100					
3	☐	1.000	1.110	2077.96	0.0071	P	2.3
4	☐	50.000	55.637	93926.09	0.3404	P	0.4
5	☐	125.000	137.651	209930.71	0.8416	P	0.7
6	☐	250.000	267.981	396076.72	1.6382	P	0.4
7	☐	500.000	521.832	775065.37	3.1898	P	0.4
8	☐	1000.000	982.726	1492798.03	6.0069	P	1.3
9	☐			16426.06	0.0610	P	0.8

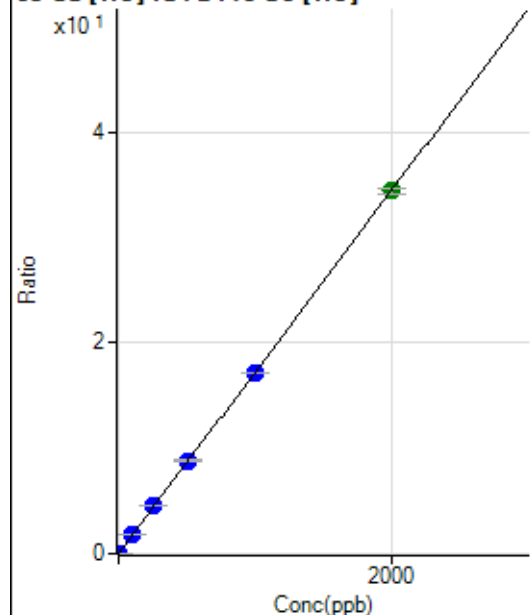
$$y = 0.0061 * x + 2.8822E-004$$

$$R = 0.9994$$

$$DL = 0.01249$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	723.36	0.0025	P	5.4
2	☐	0.200					
3	☐	2.000	2.025	10964.25	0.0373	P	1.0
4	☐	100.000	106.036	504471.32	1.8280	P	0.0
5	☐	250.000	262.604	1128297.29	4.5235	P	0.8
6	☐	500.000	512.924	2135559.24	8.8331	P	0.6
7	☐	1000.000	993.108	4155023.55	17.1002	P	0.1
8	☐	2000.000	1998.338	8549931.75	34.4065	A	1.8
9	☐			8152.39	0.0303	P	3.0

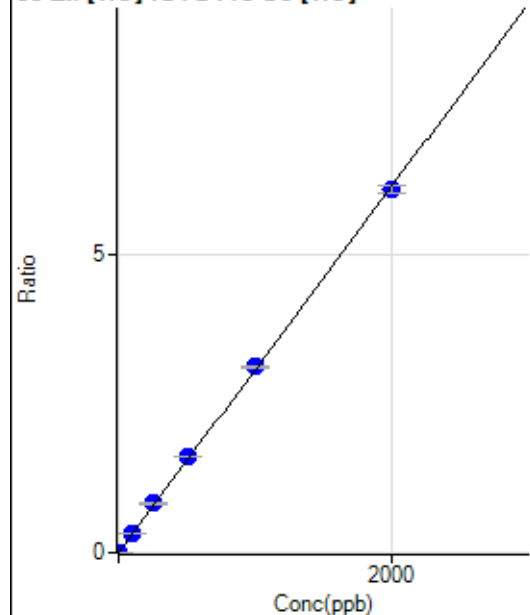
$$y = 0.0172 * x + 0.0025$$

$$R = 1.0000$$

$$DL = 0.02334$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	624.47	0.0021	P	10.1
2	☐	0.200					
3	☐	2.000	1.975	2403.57	0.0082	P	1.9
4	☐	100.000	105.677	89962.49	0.3260	P	0.5
5	☐	250.000	268.092	205464.26	0.8237	P	0.6
6	☐	500.000	526.840	390871.35	1.6167	P	0.4
7	☐	1000.000	1016.222	757242.03	3.1165	P	0.6
8	☐	2000.000	1982.634	1510401.17	6.0782	P	2.0
9	☐			12673.44	0.0471	P	1.4

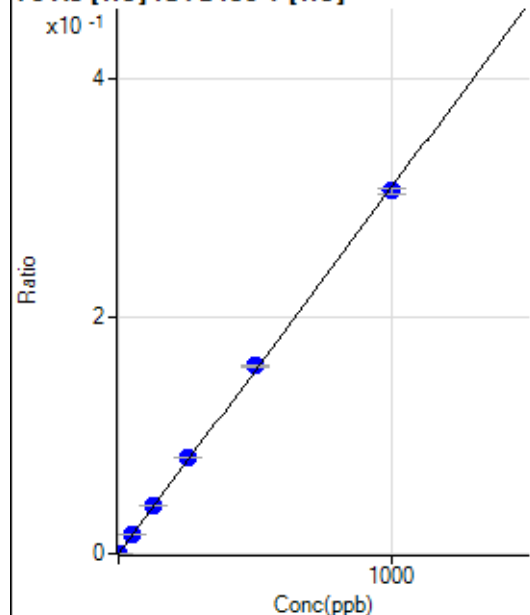
$$y = 0.0031 * x + 0.0021$$

$$R = 0.9998$$

$$DL = 0.2104$$

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	3.70	0.0000	P	50.4
2	☐	0.100					
3	☐	1.000	0.967	498.16	0.0003	P	1.5
4	☐	50.000	53.516	25805.01	0.0165	P	0.4
5	☐	125.000	131.443	58457.54	0.0406	P	1.0
6	☐	250.000	261.091	113109.97	0.0806	P	0.9
7	☐	500.000	511.900	222866.70	0.1580	P	0.4
8	☐	1000.000	990.296	431958.22	0.3057	P	1.4
9	☐			640.76	0.0004	P	6.6

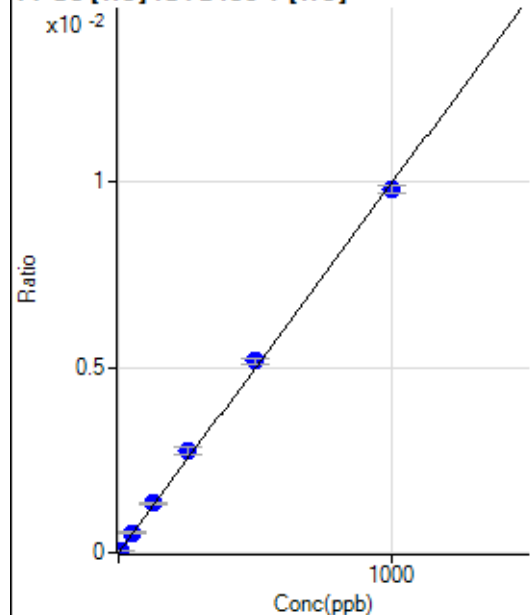
$$y = 3.0872\text{E-}004 * x + 2.2366\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.01096$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	5.794	95.56	0.0001	P	12.6
4	☐	50.000	53.053	824.48	0.0005	P	8.9
5	☐	125.000	134.820	1933.50	0.0013	P	3.0
6	☐	250.000	276.723	3865.02	0.0028	P	6.9
7	☐	500.000	518.592	7279.72	0.0052	P	2.3
8	☐	1000.000	982.639	13818.97	0.0098	P	2.1
9	☐			6.67	0.0000	P	132.0

$$y = 9.9540\text{E-}006 * x + 0.0000\text{E+}000$$

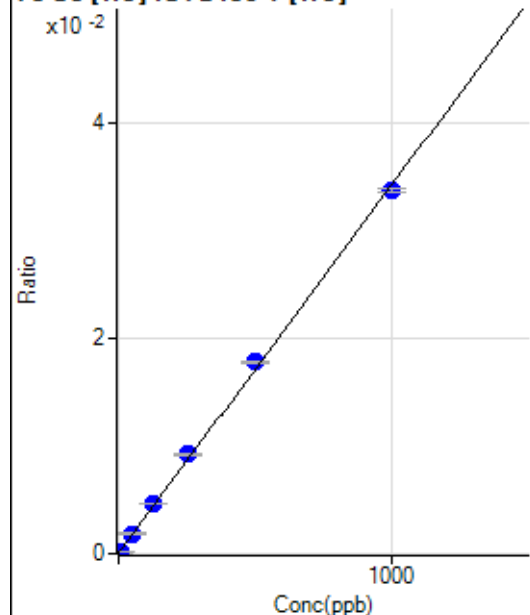
$$R = 0.9993$$

$$DL = 0$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.23	0.0000	P	18.2
2	☐	0.500					
3	☐	5.000	5.325	372.85	0.0002	P	2.4
4	☐	50.000	53.404	2912.05	0.0019	P	2.7
5	☐	125.000	133.924	6641.70	0.0046	P	2.7
6	☐	250.000	268.157	12893.47	0.0092	P	1.3
7	☐	500.000	518.811	25012.35	0.0177	P	0.4
8	☐	1000.000	984.768	47511.94	0.0336	P	1.2
9	☐			69.14	0.0000	P	7.8

$$y = 3.4102\text{E-}005 * x + 4.3586\text{E-}005$$

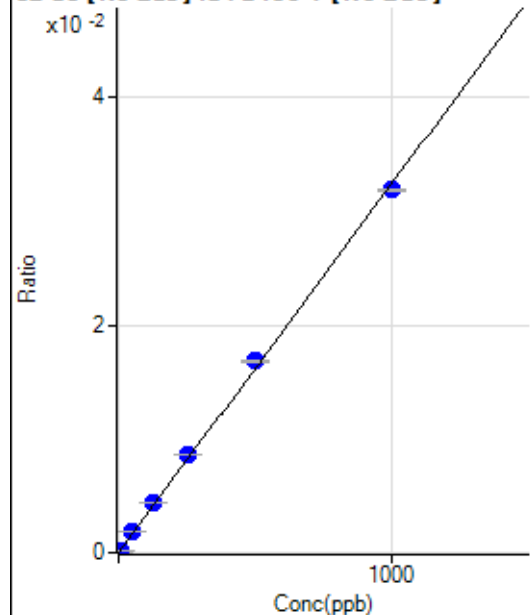
$$R = 0.9995$$

$$DL = 0.696$$

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	-4.65	0.0000	P	-280.
2	☐	0.500					
3	☐	5.000	5.575	1832.85	0.0002	P	4.9
4	☐	50.000	55.168	17589.26	0.0018	P	1.0
5	☐	125.000	136.720	40919.79	0.0044	P	0.5
6	☐	250.000	266.173	76853.42	0.0086	P	0.2
7	☐	500.000	519.997	150144.36	0.0168	P	0.4
8	☐	1000.000	984.232	282174.80	0.0319	P	0.3
9	☐			184.07	0.0000	P	24.4

$$y = 3.2377\text{E-}005 * x - 4.8233\text{E-}007$$

$$R = 0.9995$$

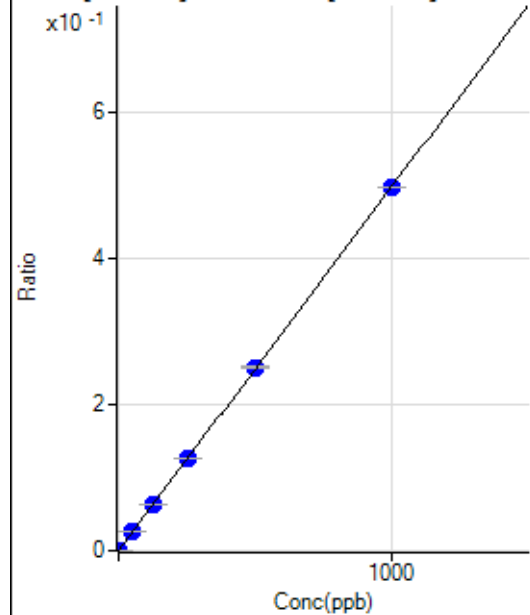
$$DL = 0.1252$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			465.57		P	4.7
2	☐						
3	☐			431.12		P	6.3
4	☐			421.13		P	14.3
5	☐			405.57		P	12.6
6	☐			355.57		P	6.8
7	☐			408.90		P	11.1
8	☐			384.45		P	3.6
9	☐			467.80		P	14.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	786.17	0.0001	P	9.6
2	☐	0.100					
3	☐	1.000	0.937	5565.19	0.0005	P	2.5
4	☐	50.000	51.145	251545.86	0.0255	P	0.3
5	☐	125.000	127.690	588324.89	0.0636	P	0.9
6	☐	250.000	252.553	1121797.11	0.1258	P	0.8
7	☐	500.000	502.656	2232002.05	0.2503	P	0.9
8	☐	1000.000	997.640	4397790.85	0.4966	P	0.2
9	☐			19271.89	0.0023	P	1.2

$$y = 4.9773E-004 * x + 8.0279E-005$$

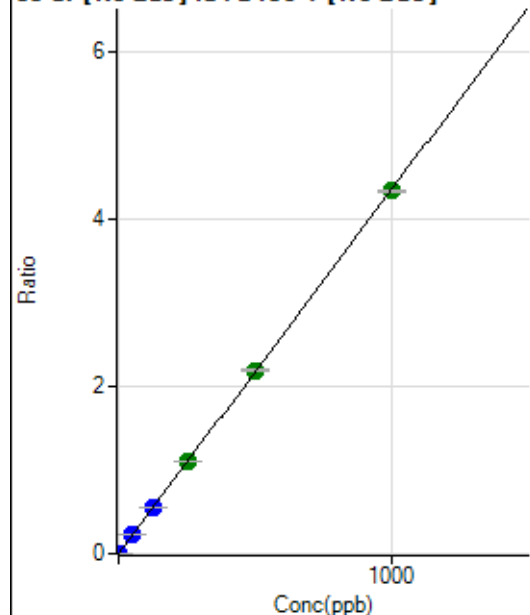
$$R = 1.0000$$

$$DL = 0.04657$$

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	183.34	0.0000	P	26.6
2	☐	0.100					
3	☐	1.000	0.940	41906.64	0.0041	P	1.0
4	☐	50.000	50.967	2188968.28	0.2222	P	0.1
5	☐	125.000	128.831	5193116.48	0.5617	P	0.7
6	☐	250.000	253.154	9843569.93	1.1037	A	0.3
7	☐	500.000	504.164	19603512.77	2.1981	A	0.3
8	☐	1000.000	996.602	38475888.36	4.3451	A	0.3
9	☐			161032.54	0.0190	P	0.9

$$y = 0.0044 * x + 1.8689E-005$$

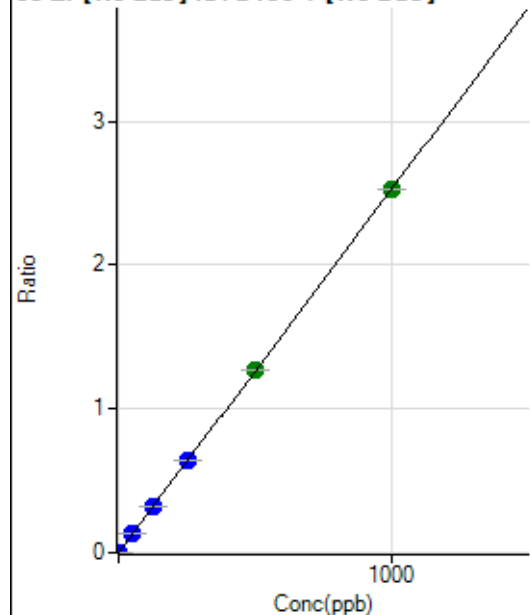
$$R = 1.0000$$

$$DL = 0.003414$$

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	586.15	0.0001	P	10.8
2	☐	0.100					
3	☐	1.000	0.918	24215.79	0.0024	P	2.0
4	☐	50.000	50.604	1259025.61	0.1278	P	0.5
5	☐	125.000	127.621	2979272.01	0.3223	P	0.3
6	☐	250.000	251.943	5673324.61	0.6361	P	0.4
7	☐	500.000	500.868	11278151.99	1.2646	A	0.2
8	☐	1000.000	998.723	22328324.46	2.5215	A	0.1
9	☐			7880.25	0.0009	P	8.3

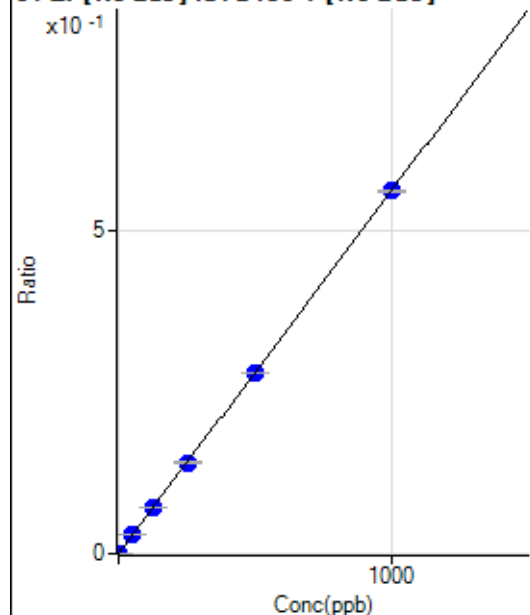
$$y = 0.0025 * x + 5.9853E-005$$

$$R = 1.0000$$

$$DL = 0.007675$$

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	133.34	0.0000	P	16.1
2	☐	0.100					
3	☐	1.000	0.914	5356.82	0.0005	P	6.7
4	☐	50.000	50.836	280812.84	0.0285	P	0.5
5	☐	125.000	128.164	664267.41	0.0719	P	0.4
6	☐	250.000	251.383	1256780.93	0.1409	P	0.7
7	☐	500.000	499.434	2496806.83	0.2800	P	0.3
8	☐	1000.000	999.500	4961174.02	0.5603	P	0.2
9	☐			1766.86	0.0002	P	12.5

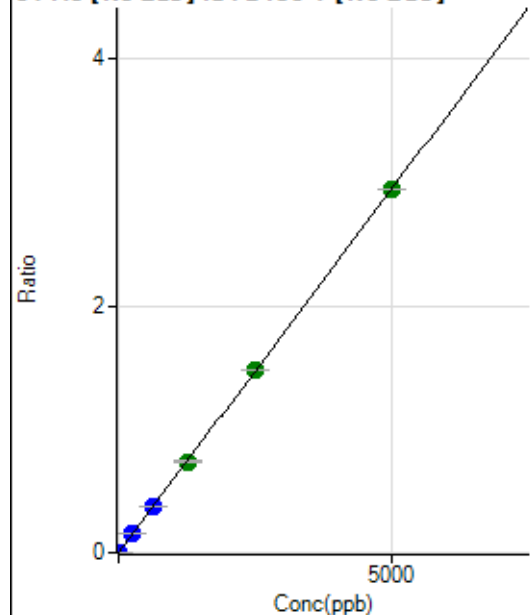
$$y = 5.6053\text{E-}004 * x + 1.3602\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.01171$$

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	191.67	0.0000	P	15.9
2	☐	0.500					
3	☐	5.000	4.880	29461.82	0.0029	P	1.4
4	☐	250.000	255.628	1483005.03	0.1506	P	1.0
5	☐	625.000	646.063	3517586.58	0.3805	P	0.6
6	☐	1250.000	1254.112	6586817.59	0.7386	A	0.9
7	☐	2500.000	2510.732	13186769.57	1.4786	A	0.4
8	☐	5000.000	4990.692	26025711.35	2.9391	A	0.1
9	☐			14343.85	0.0017	P	7.9

$$y = 5.8891\text{E-}004 * x + 1.9565\text{E-}005$$

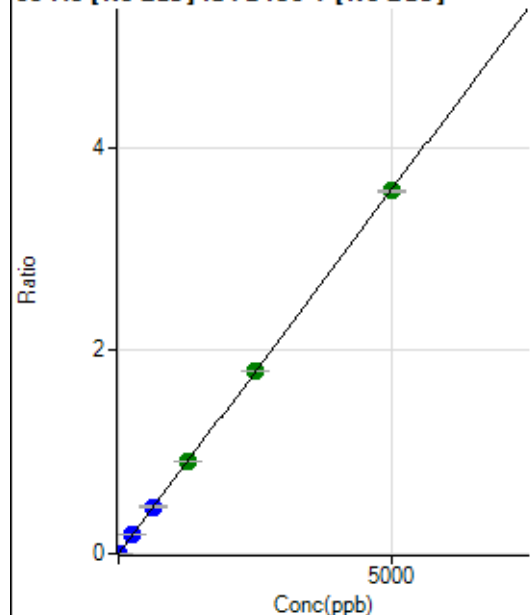
$$R = 1.0000$$

$$DL = 0.01582$$

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	80.56	0.0000	P	36.4
2	☐	0.500					
3	☐	5.000	4.958	36280.33	0.0036	P	0.8
4	☐	250.000	256.205	1809508.20	0.1837	P	0.2
5	☐	625.000	646.391	4284784.04	0.4635	P	0.6
6	☐	1250.000	1260.608	8060839.42	0.9038	A	0.5
7	☐	2500.000	2517.846	16100067.37	1.8053	A	0.4
8	☐	5000.000	4985.441	31652489.59	3.5745	A	0.3
9	☐			20679.69	0.0024	P	9.6

$$y = 7.1699\text{E-}004 * x + 8.2191\text{E-}006$$

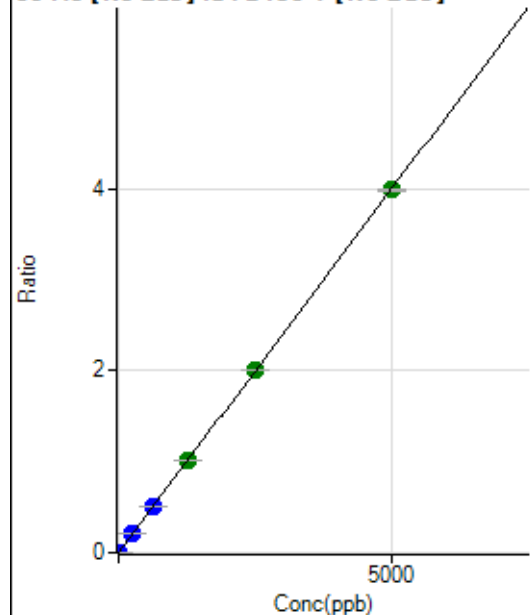
$$R = 1.0000$$

$$DL = 0.01251$$

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	144.45	0.0000	P	34.1
2	☐	0.500					
3	☐	5.000	5.027	41096.15	0.0040	P	2.3
4	☐	250.000	256.634	2022186.55	0.2053	P	0.4
5	☐	625.000	645.094	4770639.30	0.5160	P	0.7
6	☐	1250.000	1259.186	8982882.58	1.0072	A	0.3
7	☐	2500.000	2512.486	17923541.72	2.0097	A	0.2
8	☐	5000.000	4988.617	35335046.97	3.9904	A	0.3
9	☐			30467.03	0.0036	P	6.5

$$y = 7.9989\text{E-}004 * x + 1.4750\text{E-}005$$

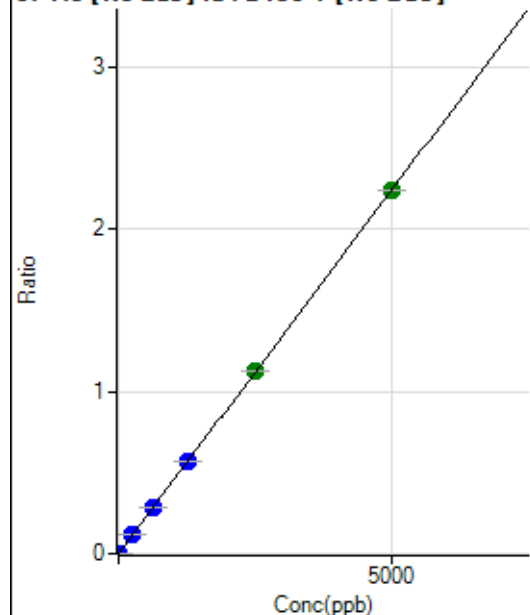
$$R = 1.0000$$

$$DL = 0.01887$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.89	0.0000	P	7.1
2	☐	0.500					
3	☐	5.000	4.973	22771.76	0.0022	P	2.5
4	☐	250.000	255.029	1126396.16	0.1144	P	0.3
5	☐	625.000	641.185	2657874.49	0.2875	P	0.7
6	☐	1250.000	1261.639	5045079.54	0.5657	P	0.2
7	☐	2500.000	2505.003	10016893.11	1.1232	A	0.3
8	☐	5000.000	4992.314	19821341.59	2.2384	A	0.1
9	☐			11813.69	0.0014	P	9.3

$$y = 4.4837E-004 * x + 6.5196E-006$$

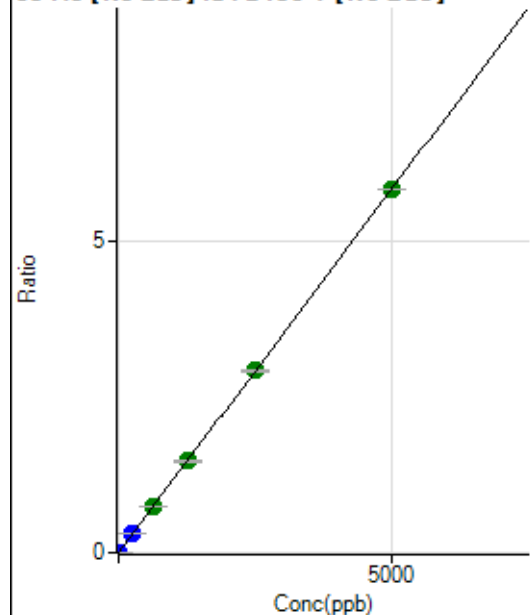
$$R = 1.0000$$

$$DL = 0.003092$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	172.23	0.0000	P	32.9
2	☐	0.500					
3	☐	5.000	5.005	59647.60	0.0059	P	1.2
4	☐	250.000	254.112	2920907.07	0.2965	P	0.9
5	☐	625.000	640.123	6905633.92	0.7470	A	0.6
6	☐	1250.000	1258.316	13095507.32	1.4684	A	0.3
7	☐	2500.000	2507.290	26093247.63	2.9258	A	0.7
8	☐	5000.000	4992.180	51584504.97	5.8254	A	0.2
9	☐			30155.36	0.0036	P	10.4

$$y = 0.0012 * x + 1.7604E-005$$

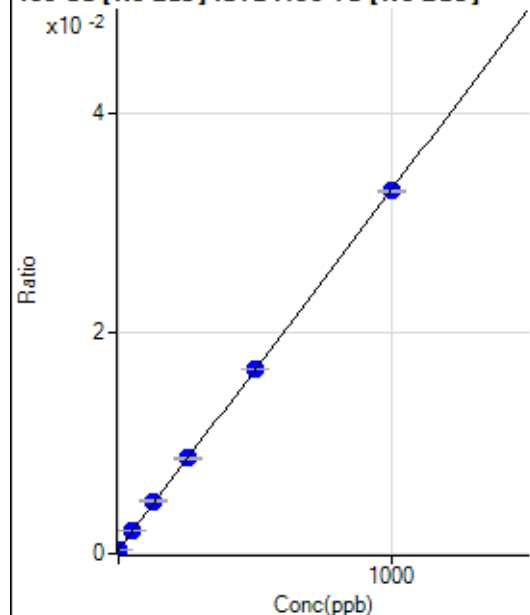
$$R = 1.0000$$

$$DL = 0.01487$$

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	4392.54	0.0003	P	7.4
2	☐	0.100					
3	☐	1.000	-0.233	4495.35	0.0003	P	6.7
4	☐	50.000	55.625	29345.07	0.0022	P	1.7
5	☐	125.000	136.022	62898.78	0.0048	P	2.3
6	☐	250.000	254.363	114174.62	0.0086	P	0.7
7	☐	500.000	501.645	223171.94	0.0167	P	0.7
8	☐	1000.000	996.429	439303.30	0.0329	P	0.8
9	☐			3611.75	0.0003	P	3.8

$$y = 3.2673\text{E-}005 * x + 3.3451\text{E-}004$$

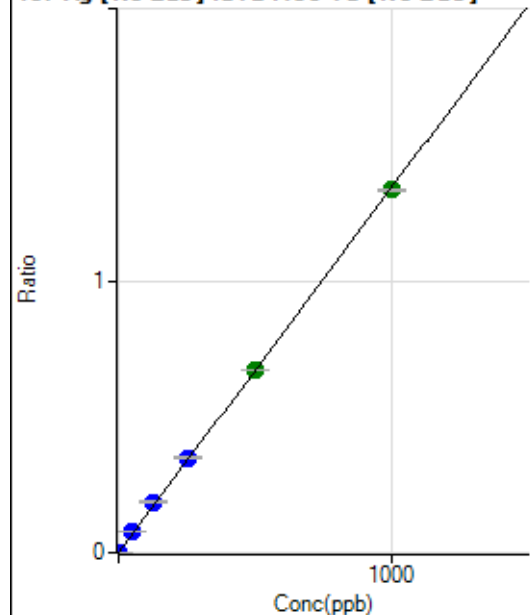
$$R = 0.9999$$

$$DL = 2.263$$

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	200.01	0.0000	P	15.4
2	☐	0.100					
3	☐	1.000	1.011	18877.17	0.0014	P	3.0
4	☐	50.000	57.822	1058397.62	0.0776	P	0.9
5	☐	125.000	139.239	2459763.77	0.1869	P	0.6
6	☐	250.000	260.610	4619245.50	0.3498	P	0.7
7	☐	500.000	501.948	8989483.79	0.6737	A	0.3
8	☐	1000.000	994.203	17822153.18	1.3343	A	0.5
9	☐			2372.52	0.0002	P	16.9

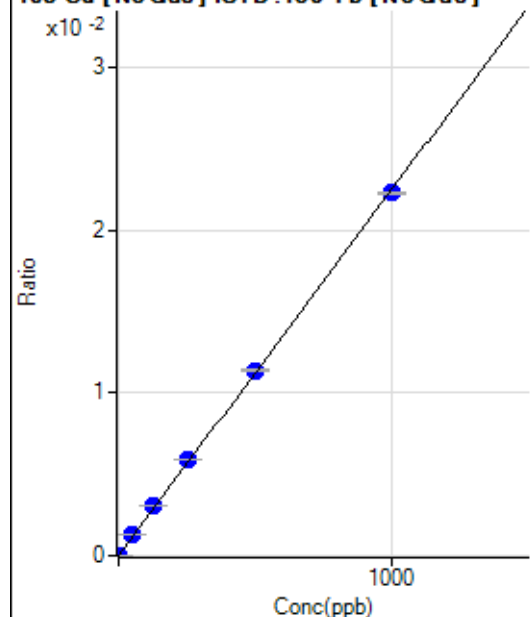
$$y = 0.0013 * x + 1.5245\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.005265$$

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	20.84	0.0000	P	69.3
2	☐	0.100					
3	☐	1.000	1.094	359.74	0.0000	P	7.8
4	☐	50.000	56.895	17454.09	0.0013	P	2.2
5	☐	125.000	138.778	41059.69	0.0031	P	0.5
6	☐	250.000	262.131	77801.19	0.0059	P	0.7
7	☐	500.000	506.201	151789.41	0.0114	P	0.4
8	☐	1000.000	991.800	297667.78	0.0223	P	0.8
9	☐			104.17	0.0000	P	34.1

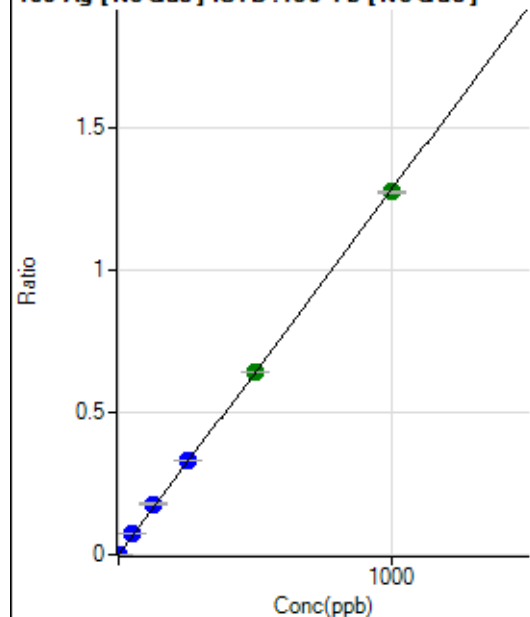
$$y = 2.2469E-005 * x + 1.5870E-006$$

$$R = 0.9998$$

$$DL = 0.1468$$

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	158.34	0.0000	P	30.1
2	☐	0.100					
3	☐	1.000	1.046	18590.67	0.0014	P	1.0
4	☐	50.000	57.306	1000871.00	0.0734	P	0.5
5	☐	125.000	139.265	2347543.93	0.1784	P	1.1
6	☐	250.000	260.321	4402835.43	0.3334	P	0.2
7	☐	500.000	501.669	8572970.42	0.6425	A	0.2
8	☐	1000.000	994.437	17009664.09	1.2735	A	0.7
9	☐			2344.74	0.0002	P	3.9

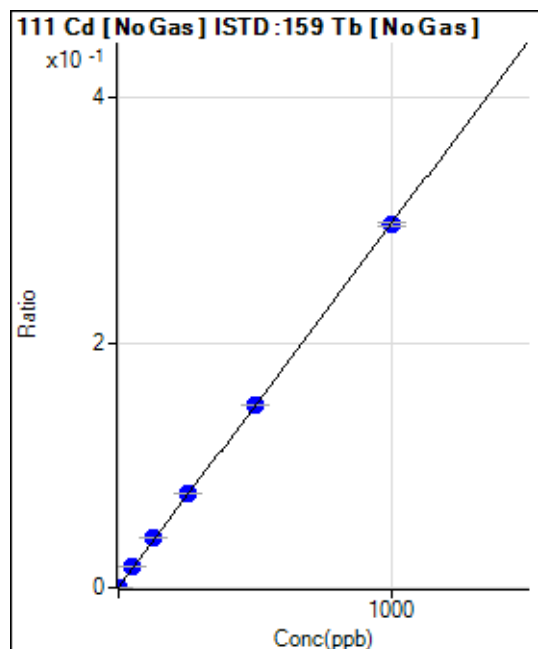
$$y = 0.0013 * x + 1.2074E-005$$

$$R = 0.9999$$

$$DL = 0.008527$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3065.75	0.0002	P	7.8
2	☐	0.100					
3	☐	1.000	0.922	6974.77	0.0005	P	3.3
4	☐	50.000	55.724	228842.10	0.0168	P	0.3
5	☐	125.000	137.174	539253.63	0.0410	P	1.0
6	☐	250.000	257.137	1011538.80	0.0766	P	0.4
7	☐	500.000	500.466	1986343.43	0.1489	P	0.2
8	☐	1000.000	996.175	3954419.22	0.2961	P	0.9
9	☐			3285.91	0.0003	P	4.7

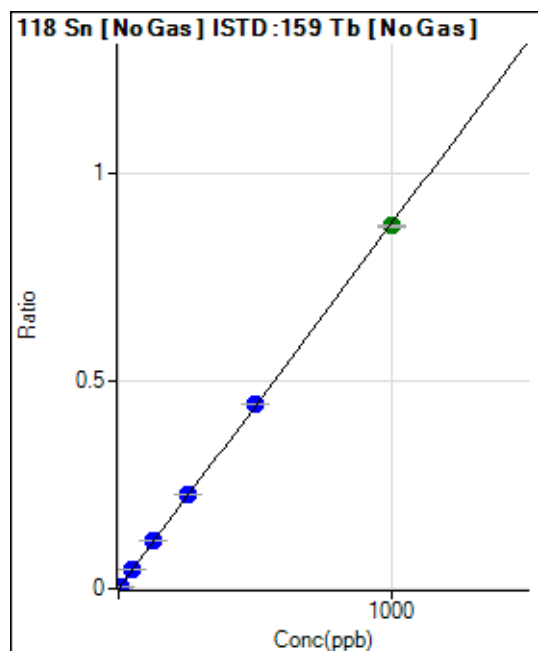
$$y = 2.9697\text{E-}004 * x + 2.3347\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.183$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1427.93	0.0001	P	11.3
2	☐	0.500					
3	☐	5.000	5.400	66692.27	0.0048	P	0.3
4	☐	50.000	53.967	647456.50	0.0475	P	0.3
5	☐	125.000	133.526	1544156.24	0.1173	P	0.9
6	☐	250.000	256.748	2977773.81	0.2255	P	0.5
7	☐	500.000	506.003	5928393.58	0.4443	P	0.4
8	☐	1000.000	994.046	11656056.08	0.8727	A	0.5
9	☐			6221.06	0.0005	P	1.8

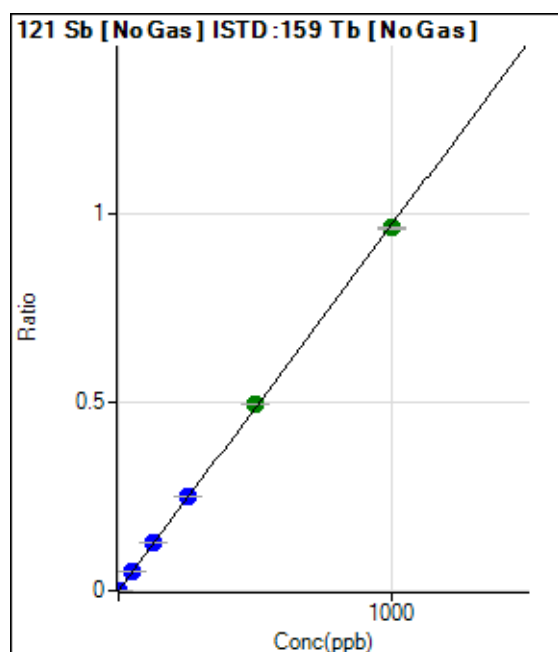
$$y = 8.7781\text{E-}004 * x + 1.0882\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.04221$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	5.3
2	☐	0.200					
3	☐	2.000	1.887	25276.39	0.0018	P	3.6
4	☐	50.000	52.949	700094.73	0.0513	P	0.5
5	☐	125.000	132.843	1695198.19	0.1288	P	0.3
6	☐	250.000	257.639	3298679.93	0.2498	P	0.7
7	☐	500.000	509.265	6588265.21	0.4937	A	0.6
8	☐	1000.000	992.330	12849703.58	0.9621	A	0.6
9	☐			18309.74	0.0015	P	2.1

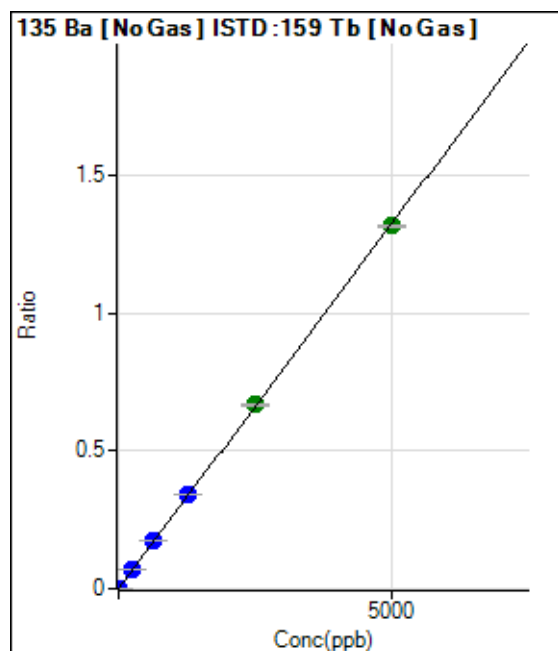
$$y = 9.6949\text{E-}004 * x + 8.4642\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.001392$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.23	0.0000	P	71.3
2	☐	1.000					
3	☐	10.000	10.125	36889.03	0.0027	P	1.3
4	☐	250.000	265.254	956977.18	0.0702	P	0.4
5	☐	625.000	661.872	2304686.10	0.1751	P	0.1
6	☐	1250.000	1282.890	4482232.83	0.3394	P	0.3
7	☐	2500.000	2524.123	8910714.96	0.6678	A	0.8
8	☐	5000.000	4974.344	17577609.94	1.3160	A	0.2
9	☐			3331.13	0.0003	P	8.5

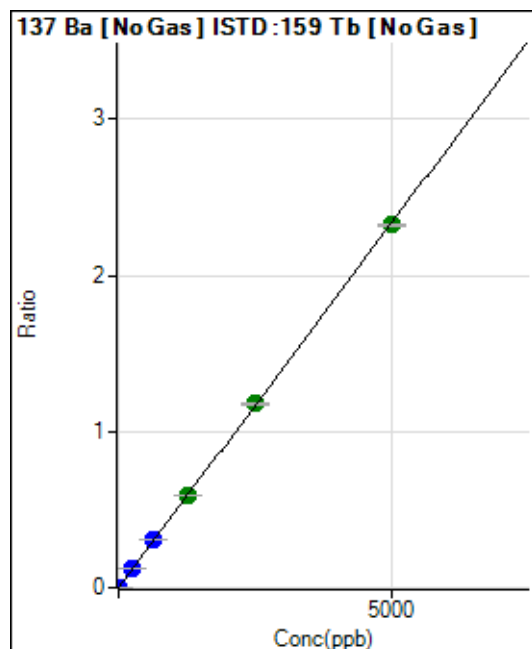
$$y = 2.6456\text{E-}004 * x + 3.5891\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.02903$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	52.78	0.0000	P	10.1
2	☐	1.000					
3	☐	10.000	10.256	65923.54	0.0048	P	0.8
4	☐	250.000	265.114	1688354.18	0.1238	P	0.4
5	☐	625.000	661.560	4066295.10	0.3090	P	0.4
6	☐	1250.000	1269.802	7831411.20	0.5930	A	0.5
7	☐	2500.000	2527.957	15753402.43	1.1806	A	0.8
8	☐	5000.000	4975.745	31037375.00	2.3237	A	0.2
9	☐			6015.45	0.0005	P	8.2

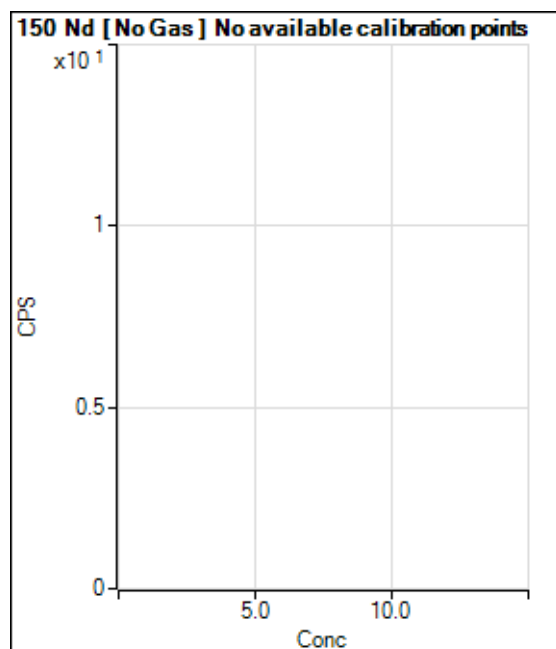
$$y = 4.6701\text{E-}004 * x + 4.0217\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.002614$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			4.44		P	173.2
4	☐			84.45		P	16.4
5	☐			197.79		P	10.3
6	☐			411.13		P	14.7
7	☐			757.82		P	6.7
8	☐			1613.49		P	7.7
9	☐			364.46		P	13.5

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	173.2
4	☐			8.89		P	108.3
5	☐			25.56		P	54.3
6	☐			47.78		P	24.5
7	☐			100.00		P	20.0
8	☐			158.89		P	3.2
9	☐			177.78		P	15.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.89		P	34.7
2	☐						
3	☐			27.78		P	45.8
4	☐			19.45		P	24.7
5	☐			61.11		P	20.8
6	☐			116.67		P	31.1
7	☐			119.45		P	52.8
8	☐			283.35		P	13.5
9	☐			152.78		P	11.4

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	50.0
2	☐						
3	☐			7.78		P	137.8
4	☐			16.67		P	20.0
5	☐			38.89		P	30.1
6	☐			94.45		P	19.4
7	☐			173.34		P	13.9
8	☐			318.90		P	10.3
9	☐			98.89		P	12.8

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			83.34		P	0.0
2	☐						
3	☐			61.11		P	20.8
4	☐			63.89		P	15.1
5	☐			69.45		P	25.0
6	☐			91.67		P	63.6
7	☐			66.67		P	45.1
8	☐			130.56		P	28.8
9	☐			200.01		P	4.2

160 Gd [He] No available calibration points

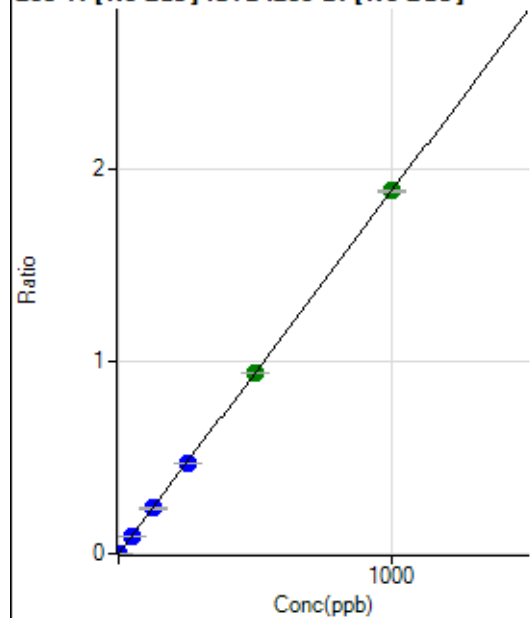
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			213.34		P	9.8
2	☐						
3	☐			180.00		P	3.7
4	☐			187.78		P	9.1
5	☐			171.11		P	10.7
6	☐			182.23		P	10.7
7	☐			174.45		P	16.7
8	☐			205.56		P	12.2
9	☐			255.56		P	8.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			33.33		P	25.0
2	☐						
3	☐			30.56		P	128.9
4	☐			41.67		P	52.9
5	☐			41.67		P	40.0
6	☐			52.78		P	36.5
7	☐			36.11		P	35.3
8	☐			33.33		P	50.0
9	☐			50.00		P	28.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			23.33		P	51.5
2	☐						
3	☐			23.33		P	NaN
4	☐			17.78		P	21.7
5	☐			21.11		P	55.4
6	☐			32.22		P	46.6
7	☐			21.11		P	65.7
8	☐			40.00		P	30.0
9	☐			51.11		P	24.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	44.45	0.0000	P	54.6
2	☐	0.100					
3	☐	1.000	0.929	16802.93	0.0018	P	1.9
4	☐	50.000	49.240	875148.15	0.0930	P	0.9
5	☐	125.000	124.795	2163151.85	0.2356	P	0.8
6	☐	250.000	249.149	4290621.88	0.4704	P	0.7
7	☐	500.000	498.339	8556764.86	0.9408	A	0.4
8	☐	1000.000	1001.107	16702956.97	1.8899	A	0.6
9	☐			2833.77	0.0004	P	8.9

$$y = 0.0019 * x + 4.9355E-006$$

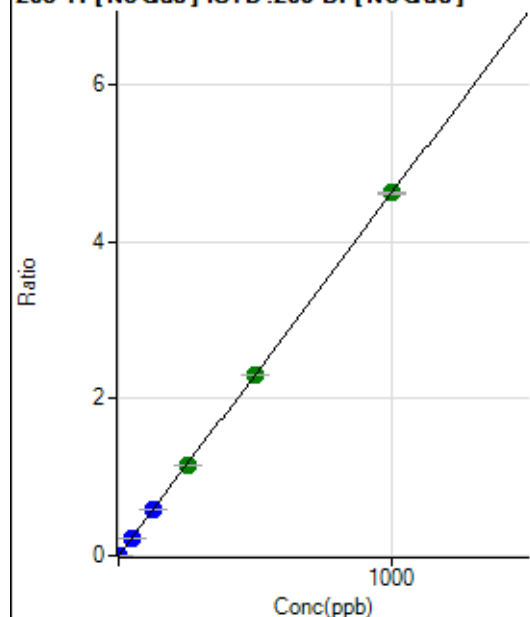
$$R = 1.0000$$

$$DL = 0.004281$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	202.79	0.0000	P	19.7
2	☐	0.100					
3	☐	1.000	0.884	39225.61	0.0041	P	2.5
4	☐	50.000	49.076	2134720.51	0.2268	P	0.6
5	☐	125.000	125.946	5342845.30	0.5819	P	0.3
6	☐	250.000	247.788	10443277.40	1.1448	A	0.3
7	☐	500.000	498.861	20962786.23	2.3048	A	0.3
8	☐	1000.000	1001.051	40874552.65	4.6249	A	0.7
9	☐			7049.44	0.0010	P	9.4

$$y = 0.0046 * x + 2.2408E-005$$

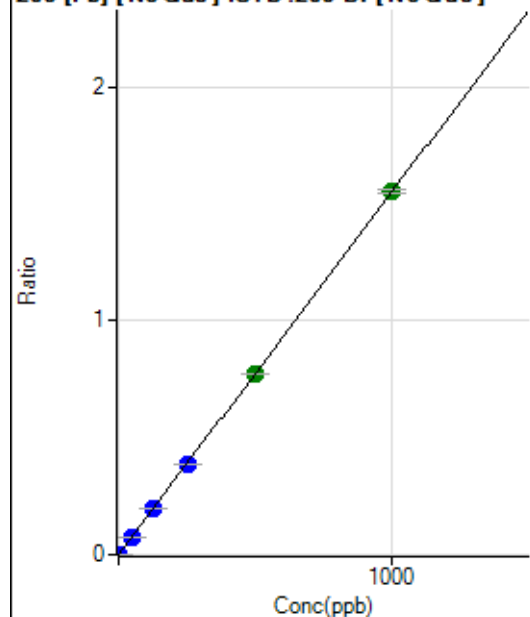
$$R = 1.0000$$

$$DL = 0.002862$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	566.70	0.0001	P	14.7
2	☐	0.100					
3	☐	1.000	0.899	13896.50	0.0015	P	2.8
4	☐	50.000	49.207	718035.58	0.0763	P	0.5
5	☐	125.000	124.897	1776618.76	0.1935	P	0.1
6	☐	250.000	247.687	3499803.84	0.3837	P	0.6
7	☐	500.000	498.334	7020186.67	0.7718	A	0.6
8	☐	1000.000	1001.464	13707945.22	1.5511	A	0.9
9	☐			13210.59	0.0018	P	4.0

$$y = 0.0015 * x + 6.2721E-005$$

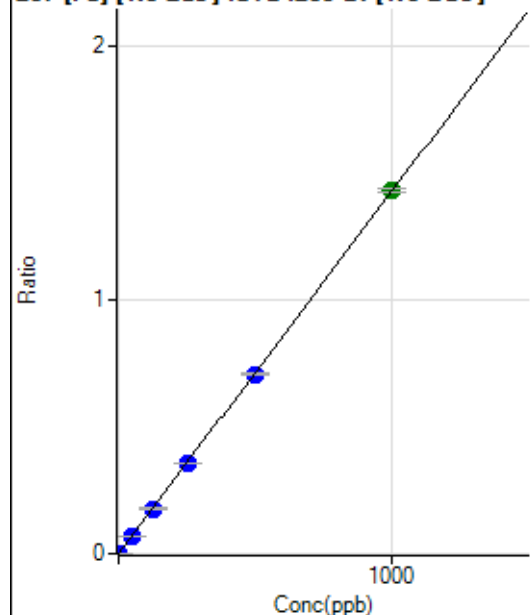
$$R = 1.0000$$

$$DL = 0.01786$$

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	527.80	0.0001	P	5.6
2	☐	0.100					
3	☐	1.000	0.881	12552.50	0.0013	P	3.1
4	☐	50.000	49.295	661425.74	0.0703	P	0.7
5	☐	125.000	124.800	1632360.83	0.1778	P	0.3
6	☐	250.000	248.488	3228520.64	0.3539	P	0.9
7	☐	500.000	496.362	6429655.47	0.7069	P	0.7
8	☐	1000.000	1002.257	12614595.65	1.4274	A	1.2
9	☐			11193.91	0.0015	P	3.0

$$y = 0.0014 * x + 5.8427E-005$$

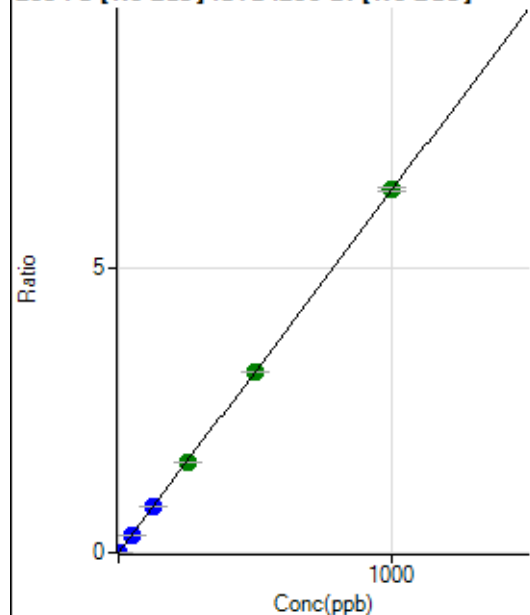
$$R = 1.0000$$

$$DL = 0.00686$$

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	2359.41	0.0003	P	3.0
2	☐	0.100					
3	☐	1.000	0.895	57056.99	0.0060	P	1.2
4	☐	50.000	49.418	2971909.09	0.3157	P	0.7
5	☐	125.000	125.866	7378795.01	0.8036	P	0.1
6	☐	250.000	247.740	14426989.07	1.5815	A	0.4
7	☐	500.000	497.584	28888769.10	3.1762	A	0.3
8	☐	1000.000	1001.694	56507510.06	6.3939	A	0.9
9	☐			52312.10	0.0071	P	2.3

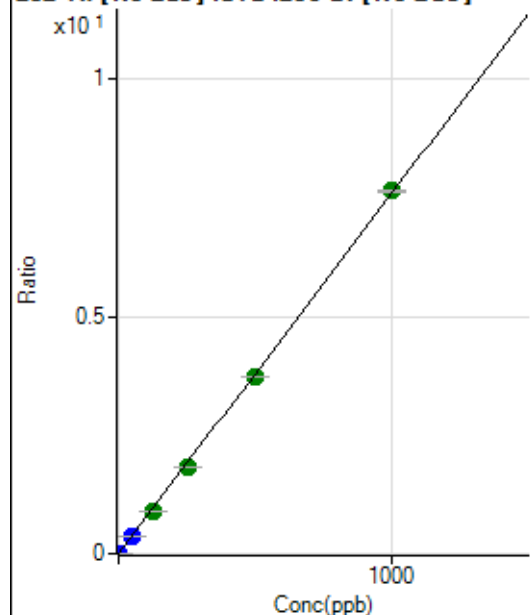
$$y = 0.0064 * x + 2.6112E-004$$

$$R = 1.0000$$

$$DL = 0.00368$$

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	129.63	0.0000	P	10.4
2	☐	0.100					
3	☐	1.000	0.790	57468.90	0.0060	P	1.6
4	☐	50.000	45.696	3266060.00	0.3469	P	0.7
5	☐	125.000	118.633	8269575.13	0.9007	A	0.3
6	☐	250.000	240.152	16631405.93	1.8232	A	0.7
7	☐	500.000	491.160	33914532.70	3.7288	A	0.3
8	☐	1000.000	1007.893	67625553.83	7.6517	A	0.2
9	☐			30651.79	0.0042	P	14.4

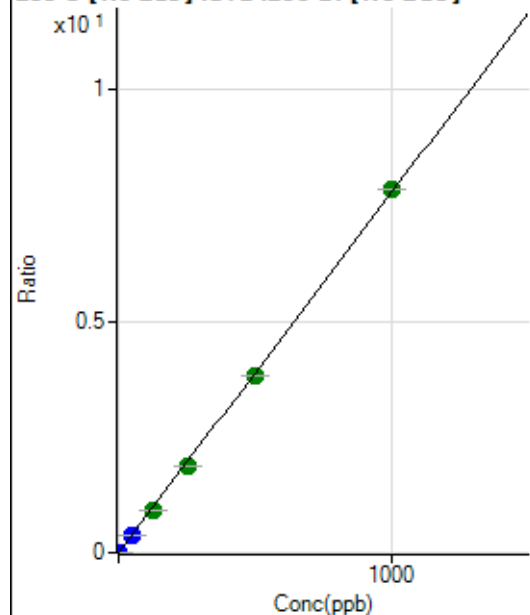
$$y = 0.0076 * x + 1.4341E-005$$

$$R = 0.9999$$

$$DL = 0.0005913$$

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	91.67	0.0000	P	17.1
2	☐	0.100					
3	☐	1.000	0.818	60892.82	0.0064	P	0.8
4	☐	50.000	46.056	3372773.64	0.3583	P	0.8
5	☐	125.000	119.152	8510293.77	0.9269	A	0.1
6	☐	250.000	240.140	17040184.76	1.8680	A	0.7
7	☐	500.000	490.705	34717782.03	3.8171	A	0.1
8	☐	1000.000	1008.041	69301694.60	7.8414	A	0.0
9	☐			8872.91	0.0012	P	18.3

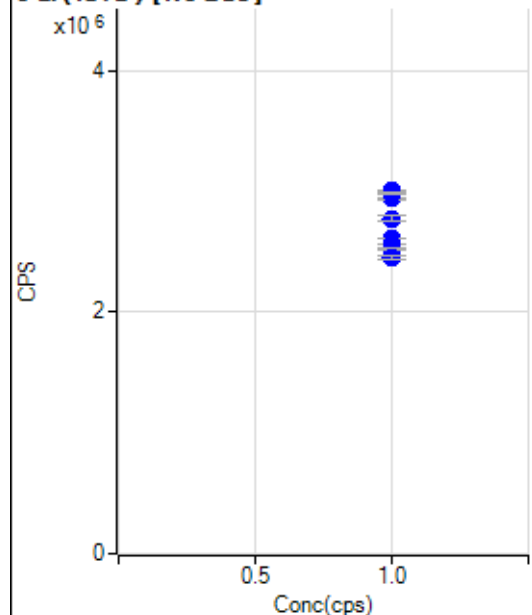
$$y = 0.0078 * x + 1.0131E-005$$

$$R = 0.9999$$

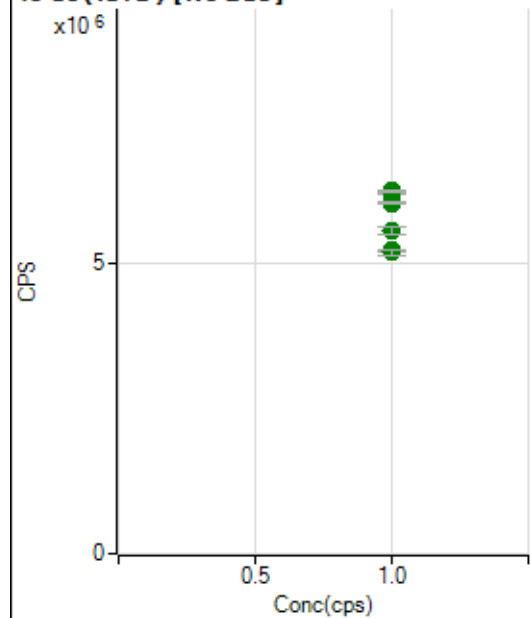
$$DL = 0.0006691$$

Weight: <None>

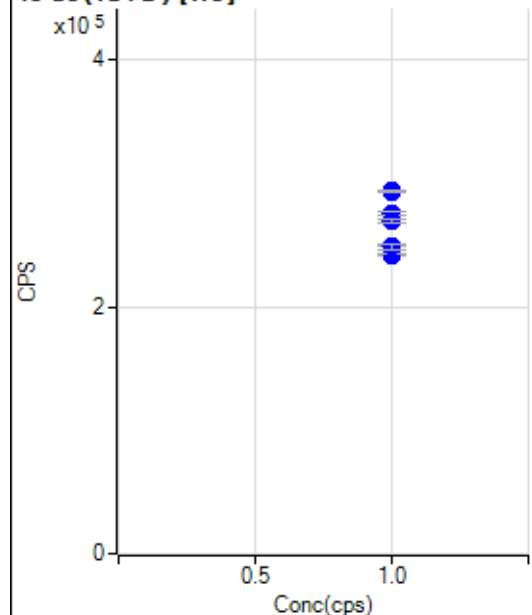
Min Conc: 0

6 Li (ISTD) [No Gas]

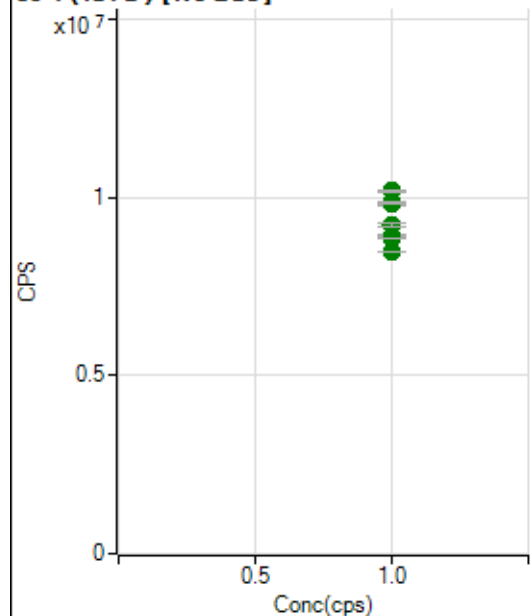
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2940917.63		P	0.4
2	☐	1.000					
3	☐	1.000		3006443.40		P	0.5
4	☐	1.000		2982564.54		P	0.6
5	☐	1.000		2779492.45		P	1.5
6	☐	1.000		2612679.55		P	0.1
7	☐	1.000		2563099.77		P	0.3
8	☐	1.000		2525802.21		P	0.6
9	☐	1.000		2455122.62		P	1.0

45 Sc (ISTD) [No Gas]

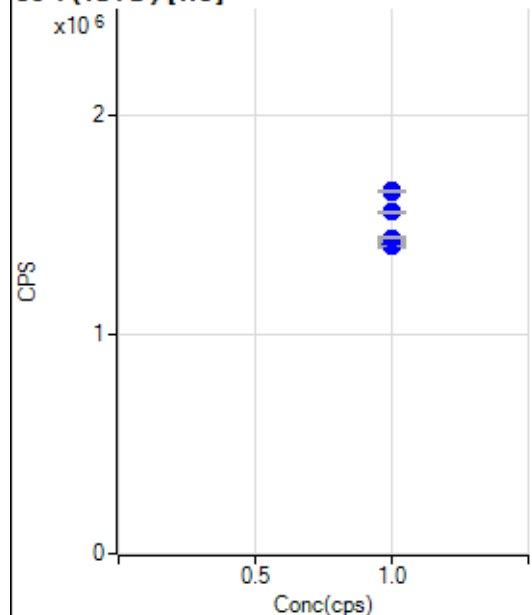
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6196379.22		A	0.6
2	☐	1.000					
3	☐	1.000		6238041.02		A	0.4
4	☐	1.000		6021460.90		A	0.6
5	☐	1.000		5556946.39		A	2.0
6	☐	1.000		5220355.59		A	0.3
7	☐	1.000		5211087.44		A	0.2
8	☐	1.000		5203904.80		A	0.3
9	☐	1.000		5175516.96		A	1.3

45 Sc (ISTD) [He]

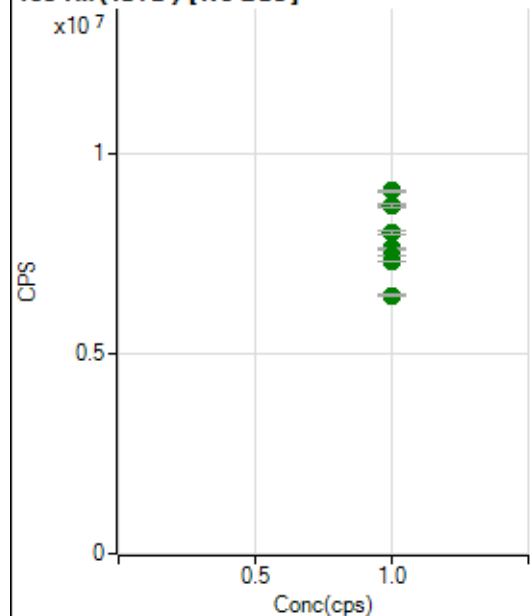
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		292941.46		P	0.4
2	☐	1.000					
3	☐	1.000		293749.36		P	0.6
4	☐	1.000		275965.76		P	1.0
5	☐	1.000		249433.66		P	0.5
6	☐	1.000		241772.41		P	0.6
7	☐	1.000		242981.27		P	0.4
8	☐	1.000		248551.31		P	1.8
9	☐	1.000		269117.99		P	1.1

89 Y (ISTD) [No Gas]

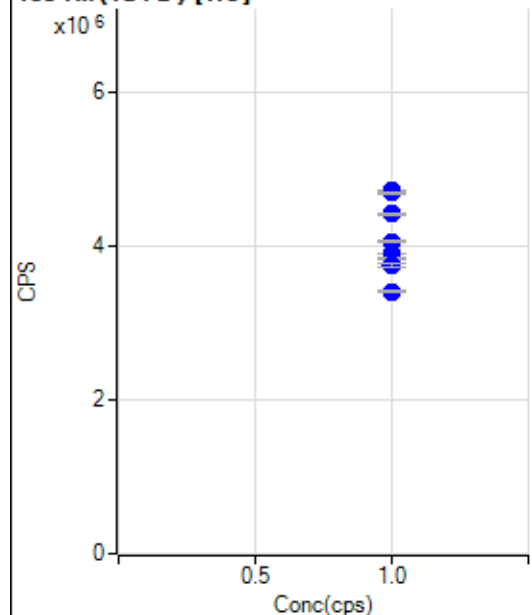
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9798278.74		A	0.8
2	☐	1.000					
3	☐	1.000		10182812.70		A	0.3
4	☐	1.000		9850170.48		A	0.5
5	☐	1.000		9244775.35		A	1.2
6	☐	1.000		8918477.43		A	0.4
7	☐	1.000		8918389.45		A	0.1
8	☐	1.000		8855084.24		A	0.1
9	☐	1.000		8468216.06		A	0.5

89 Y(ISTD) [He]

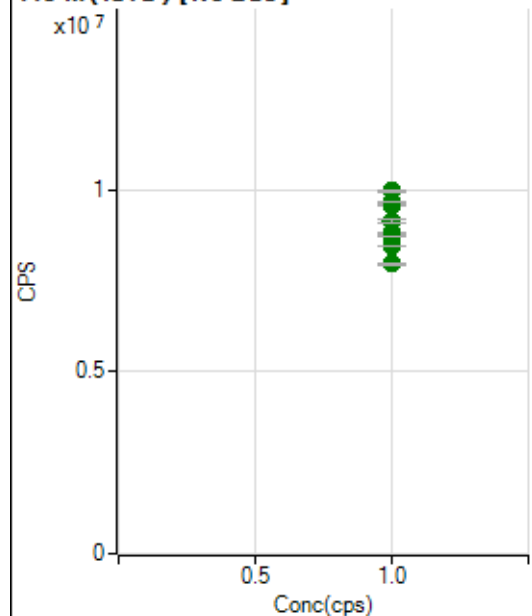
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1657822.75		P	0.4
2	☐	1.000					
3	☐	1.000		1655973.33		P	0.6
4	☐	1.000		1561689.89		P	0.7
5	☐	1.000		1440585.43		P	0.7
6	☐	1.000		1403296.87		P	0.5
7	☐	1.000		1410243.47		P	0.0
8	☐	1.000		1413081.56		P	1.3
9	☐	1.000		1442986.07		P	0.6

103 Rh(ISTD) [No Gas]

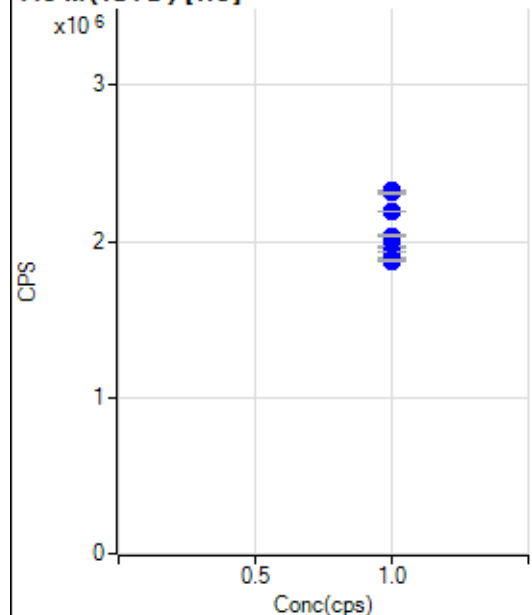
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8715855.32		A	0.2
2	☐	1.000					
3	☐	1.000		9082140.65		A	0.3
4	☐	1.000		8718945.68		A	0.8
5	☐	1.000		8058243.15		A	1.3
6	☐	1.000		7645629.94		A	0.8
7	☐	1.000		7466296.17		A	0.2
8	☐	1.000		7300008.32		A	0.1
9	☐	1.000		6468422.37		A	0.6

103 Rh (ISTD) [He]

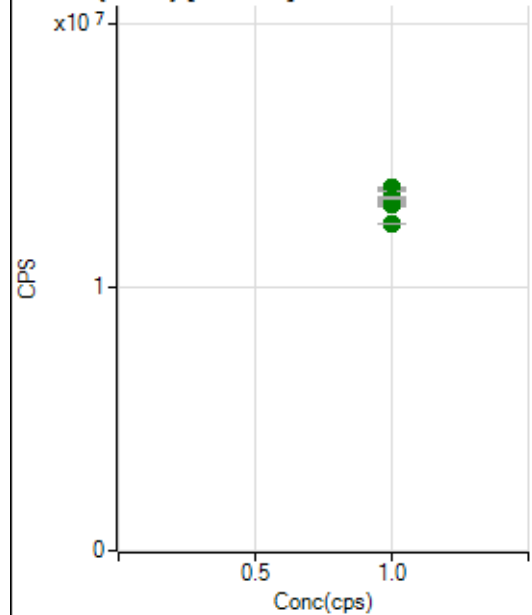
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4716486.04		P	0.7
2	☐	1.000					
3	☐	1.000		4692299.31		P	0.3
4	☐	1.000		4418828.61		P	0.5
5	☐	1.000		4057585.39		P	0.3
6	☐	1.000		3899101.99		P	0.4
7	☐	1.000		3838490.64		P	0.2
8	☐	1.000		3748378.97		P	1.6
9	☐	1.000		3406162.17		P	0.7

115 In (ISTD) [No Gas]

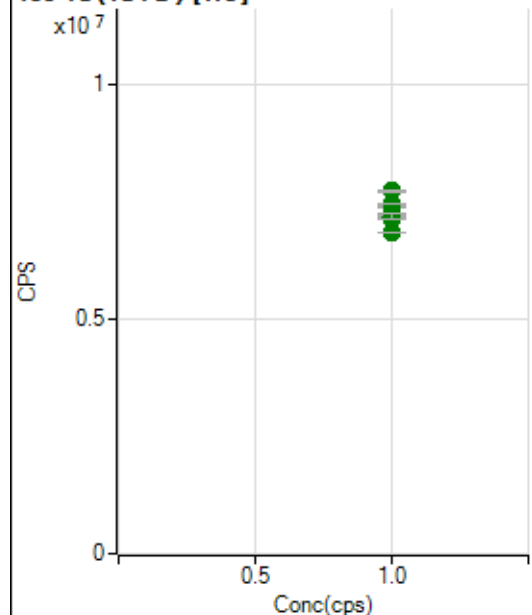
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9575193.46		A	0.5
2	☐	1.000					
3	☐	1.000		9978943.50		A	0.8
4	☐	1.000		9678213.07		A	0.2
5	☐	1.000		9130669.45		A	1.0
6	☐	1.000		8824082.09		A	0.5
7	☐	1.000		8715774.49		A	0.3
8	☐	1.000		8478728.06		A	0.2
9	☐	1.000		7964808.92		A	0.5

115 In (ISTD) [He]

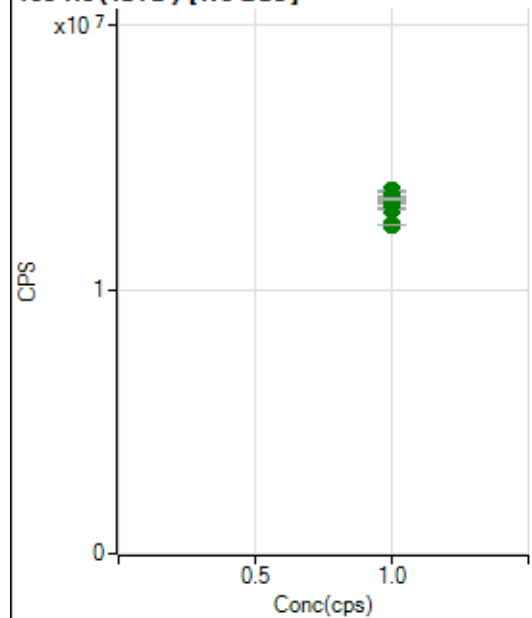
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2324334.85		P	0.8
2	☐	1.000					
3	☐	1.000		2311573.76		P	0.3
4	☐	1.000		2193045.15		P	0.3
5	☐	1.000		2036573.28		P	0.3
6	☐	1.000		1968867.35		P	0.5
7	☐	1.000		1933998.30		P	0.4
8	☐	1.000		1887103.12		P	1.2
9	☐	1.000		1876809.73		P	0.6

159 Tb (ISTD) [No Gas]

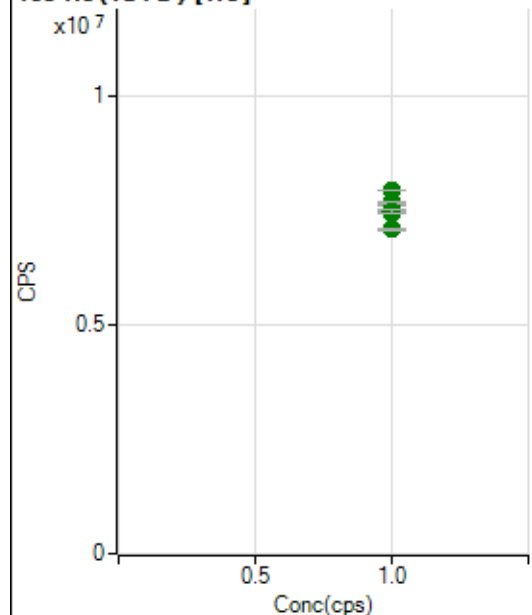
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13132477.58		A	1.1
2	☐	1.000					
3	☐	1.000		13752799.93		A	0.3
4	☐	1.000		13636054.24		A	0.3
5	☐	1.000		13161442.17		A	1.0
6	☐	1.000		13206214.25		A	0.4
7	☐	1.000		13343838.69		A	0.3
8	☐	1.000		13356573.55		A	0.4
9	☐	1.000		12408539.26		A	0.1

159 Tb (ISTD) [He]

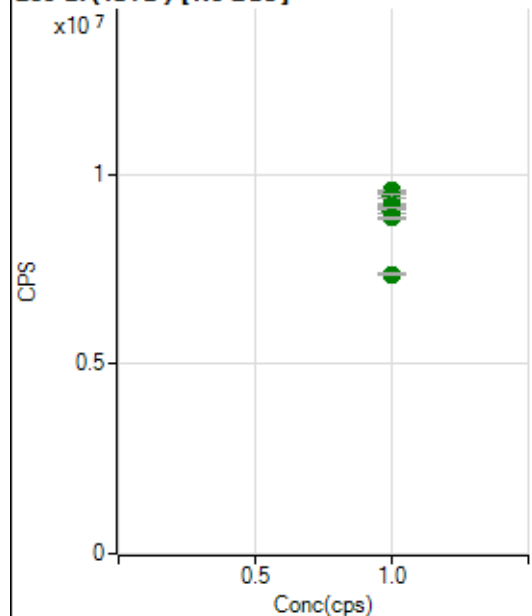
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7386783.64		A	0.5
2	☐	1.000					
3	☐	1.000		7737680.58		A	0.4
4	☐	1.000		7453948.92		A	0.3
5	☐	1.000		7179233.36		A	0.6
6	☐	1.000		7137604.89		A	0.3
7	☐	1.000		7201809.13		A	0.4
8	☐	1.000		7191843.71		A	1.9
9	☐	1.000		6859491.91		A	0.2

165 Ho (ISTD) [No Gas]

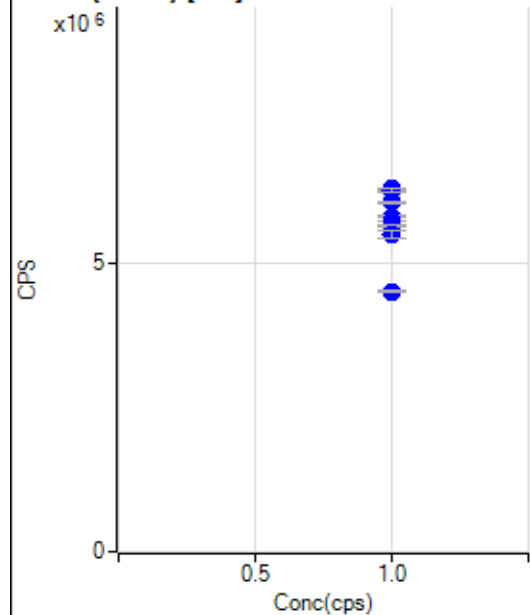
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13041783.28		A	0.8
2	☐	1.000					
3	☐	1.000		13730885.90		A	0.4
4	☐	1.000		13534014.28		A	0.6
5	☐	1.000		13269706.11		A	0.9
6	☐	1.000		13264075.30		A	0.2
7	☐	1.000		13459061.15		A	0.2
8	☐	1.000		13407212.02		A	0.3
9	☐	1.000		12419705.31		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7601001.00		A	0.5
2	☐	1.000					
3	☐	1.000		7921057.10		A	0.1
4	☐	1.000		7663018.64		A	0.4
5	☐	1.000		7421218.50		A	0.1
6	☐	1.000		7426863.08		A	0.3
7	☐	1.000		7493601.14		A	0.2
8	☐	1.000		7468617.46		A	1.4
9	☐	1.000		7082460.31		A	0.4

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9037030.91		A	1.1
2	☐	1.000					
3	☐	1.000		9555237.08		A	0.3
4	☐	1.000		9414426.73		A	0.7
5	☐	1.000		9181774.93		A	0.6
6	☐	1.000		9122280.28		A	0.5
7	☐	1.000		9095314.24		A	0.1
8	☐	1.000		8837973.69		A	0.4
9	☐	1.000		7347966.14		A	0.6

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6281966.92		P	0.5
2	☐	1.000					
3	☐	1.000		6251766.02		P	0.9
4	☐	1.000		6049433.87		P	0.5
5	☐	1.000		5810045.61		P	0.5
6	☐	1.000		5720505.19		P	0.2
7	☐	1.000		5644917.80		P	0.3
8	☐	1.000		5488592.14		P	2.2
9	☐	1.000		4501631.11		P	0.5

US EPA Tune Check Sample Report

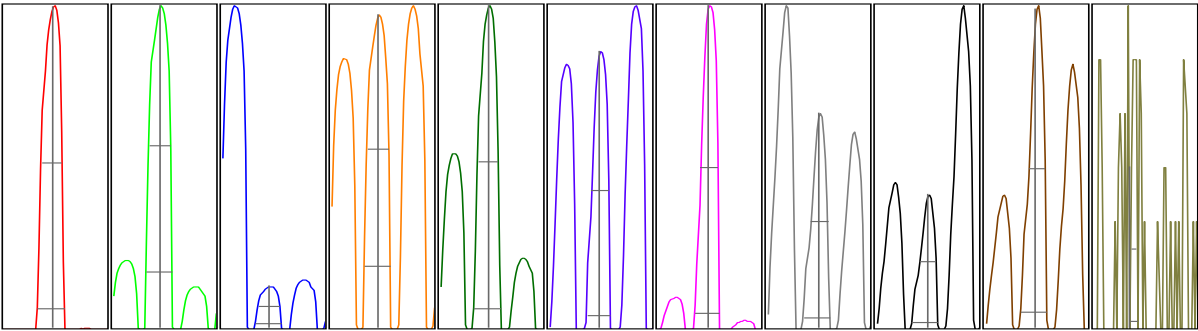
Batch Folder D:\ICP-MS Data\P7050219 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	14849	1.46	5.00	
24	286940	1.54	5.00	
25	38835	1.57	5.00	
26	44674	1.51	5.00	
59	109580	1.60	5.00	
113	15267	1.48	5.00	
115	182398	1.13	5.00	
206	49695	0.94	5.00	
207	45485	0.99	5.00	
208	108695	0.90	5.00	
220	0	93.54		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	15106	14919	14930	14529	14762
24	291304	288906	289573	280416	284501
25	39321	39139	39281	37902	38534
26	45186	45222	44993	43669	44297
59	111329	110419	110612	107112	108426
113	15478	15353	15403	14909	15190
115	184250	183409	183420	179062	181851
206	50013	49791	49940	48871	49857
207	45535	45784	45679	44700	45724
208	109371	109147	108961	106968	109025
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	25357	8.95	8.9 - 9.1		0.788	0.900	
24	469438	23.90	23.9 - 24.1		0.751	0.900	
25	62230	24.90	24.9 - 25.1		0.752	0.900	
26	72368	25.90	25.9 - 26.1		0.748	0.900	
59	192225	58.95	58.9 - 59.1		0.785	0.900	
113	30017	113.00	112.9 - 113.1		0.689	0.900	
115	356216	115.00	114.9 - 115.1		0.713	0.900	
206	100833	206.05	205.9 - 206.1		0.782	0.900	
207	92344	207.05	206.9 - 207.1		0.746	0.900	
208	219351	208.00	207.9 - 208.1		0.756	0.900	
220	0	219.60	-		0.196		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.0	V	Deflect	14.0	V
Extract 2	-100.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	27823	0.45	
89	112114	0.28	
205	49110	0.44	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	27924	27862	27947	27664	27720
89	112440	112033	112418	111720	111960
205	49200	49046	49259	48763	49281

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.5	V	Deflect	2.0	V
Extract 2	-110.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	V	Cell Exit	-60	V			

Cell Parameters

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