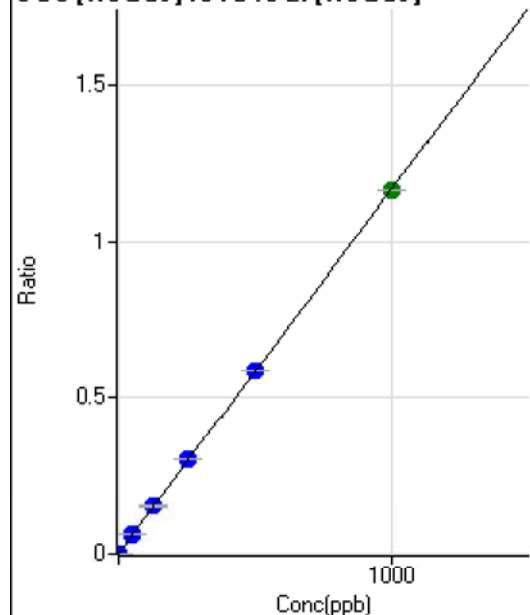


Calibration for 004CALS.d

Batch Folder: D:\ICP-MS Data\P7102218-MS.b\
 Analysis File: P7102218-MS.batch.bin
 DA Date-Time: 2018-10-23 00:01:30
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-10-22 12:43:48
2			
3	005CALS.d	S02	2018-10-22 12:52:07
4	006CALS.d	S03	2018-10-22 12:56:01
5	007CALS.d	S04	2018-10-22 13:00:12
6	008CALS.d	S05	2018-10-22 13:04:00
7	009CALS.d	S06	2018-10-22 13:07:44
8	010CALS.d	S07	2018-10-22 13:11:28
9	011CALS.d	S08	2018-10-22 13:15:14

9 Be [NoGas] ISTD:6 Li [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	33.34	0.0000	P	57.8
2	☐	0.100					
3	☐	1.000	1.050	5747.54	0.0012	P	3.4
4	☐	50.000	52.111	286868.65	0.0608	P	0.8
5	☐	125.000	130.080	710080.33	0.1518	P	1.3
6	☐	250.000	258.274	1375860.03	0.3014	P	0.3
7	☐	500.000	502.937	2612357.09	0.5868	P	0.3
8	☐	1000.000	995.722	5160630.03	1.1618	A	0.1
9	☐			713.00	0.0002	P	8.4

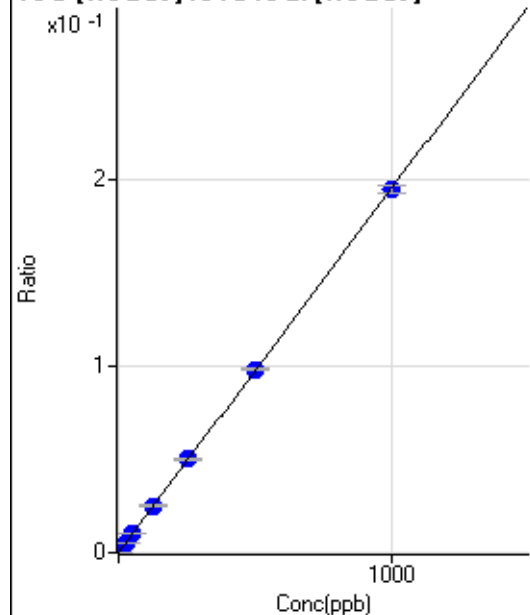
$$y = 0.0012 * x + 7.2199E-006$$

$$R = 1.0000$$

$$DL = 0.01074$$

Weight: <None>

Min Conc: 0

10 B [NoGas] ISTD:6 Li [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	402.80	0.0001	P	12.3
2	☐	2.500					
3	☐	25.000	24.927	23068.44	0.0049	P	2.5
4	☐	50.000	51.097	47422.86	0.0101	P	1.9
5	☐	125.000	128.732	117864.89	0.0252	P	2.2
6	☐	250.000	256.253	228574.57	0.0501	P	1.9
7	☐	500.000	503.290	437366.74	0.0982	P	1.4
8	☐	1000.000	996.272	863494.14	0.1944	P	2.0
9	☐			14107.14	0.0033	P	13.3

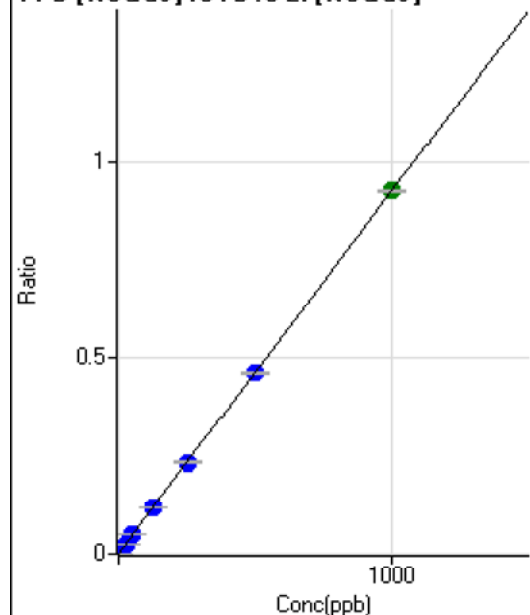
$$y = 1.9503E-004 * x + 8.7142E-005$$

$$R = 1.0000$$

$$DL = 0.1645$$

Weight: <None>

Min Conc: 0

11 B [NoGas] ISTD: 6 Li [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2189.14	0.0005	P	10.2
2	☐	2.500					
3	☐	25.000	24.375	107323.77	0.0230	P	0.9
4	☐	50.000	50.747	223696.14	0.0474	P	1.0
5	☐	125.000	126.778	550879.97	0.1178	P	0.9
6	☐	250.000	250.248	1059096.96	0.2320	P	1.6
7	☐	500.000	497.248	2049897.83	0.4605	P	1.3
8	☐	1000.000	1001.070	4115684.94	0.9265	A	0.9
9	☐			66659.59	0.0157	P	11.7

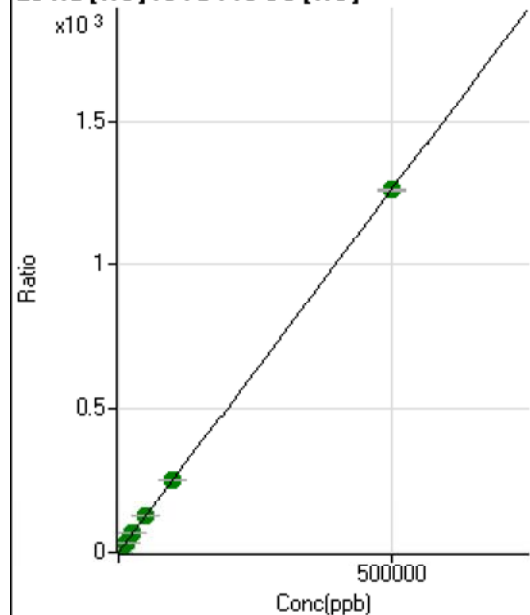
$$y = 9.2508\text{E-}004 * x + 4.7374\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.1563$$

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	11415.86	0.0317	P	4.5
2	☐	50.000					
3	☐	500.000	515.320	477306.71	1.3322	P	1.0
4	☐	5000.000	5138.471	4737483.92	13.0001	A	0.5
5	☐	12500.000	12789.697	11759243.93	32.3102	A	0.8
6	☐	25000.000	25647.737	23099502.08	64.7612	A	0.7
7	☐	50000.000	50270.421	44924766.63	126.9037	A	0.3
8	☐	100000.00	100275.91	89866171.45	253.1071	A	0.5
9	☐	500000.00	499876.74	479997377.40	1,261.615	A	0.3

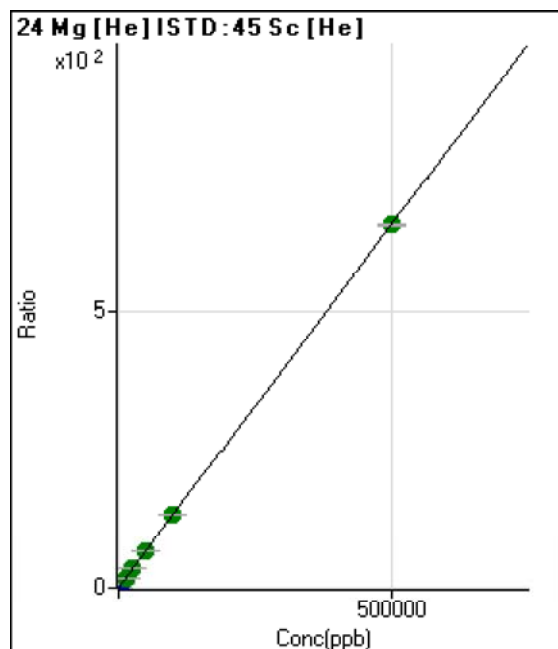
$$y = 0.0025 * x + 0.0317$$

$$R = 1.0000$$

$$DL = 1.688$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	155.56	0.0004	P	7.6
2	☐	50.000					
3	☐	500.000	527.455	247839.22	0.6917	P	0.7
4	☐	5000.000	5285.446	2524581.18	6.9277	P	0.6
5	☐	12500.000	13096.891	6247374.01	17.1656	A	0.9
6	☐	25000.000	26045.775	12175804.53	34.1368	A	1.1
7	☐	50000.000	51148.619	23731587.16	67.0372	A	0.5
8	☐	100000.00	101187.71	47086434.73	132.6199	A	0.6
9	☐	500000.00	499577.50	249109011.12	654.7607	A	0.3

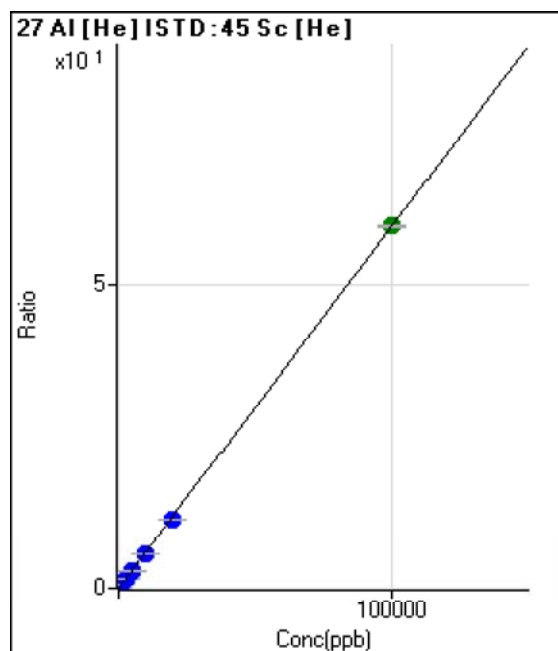
$$y = 0.0013 * x + 4.3126E-004$$

$$R = 1.0000$$

$$DL = 0.0754$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	91.67	0.0003	P	15.8
2	☐	2.000					
3	☐	20.000	20.148	4381.36	0.0122	P	4.2
4	☐	1000.000	996.517	215944.95	0.5926	P	0.2
5	☐	2500.000	2493.481	539501.66	1.4824	P	1.0
6	☐	5000.000	4960.590	1051791.53	2.9488	P	0.8
7	☐	10000.000	9684.105	2037798.62	5.7564	P	0.6
8	☐	20000.000	19255.337	4063630.52	11.4454	P	0.6
9	☐	100000.00	100182.69	22655115.61	59.5478	A	0.5

$$y = 5.9439E-004 * x + 2.5423E-004$$

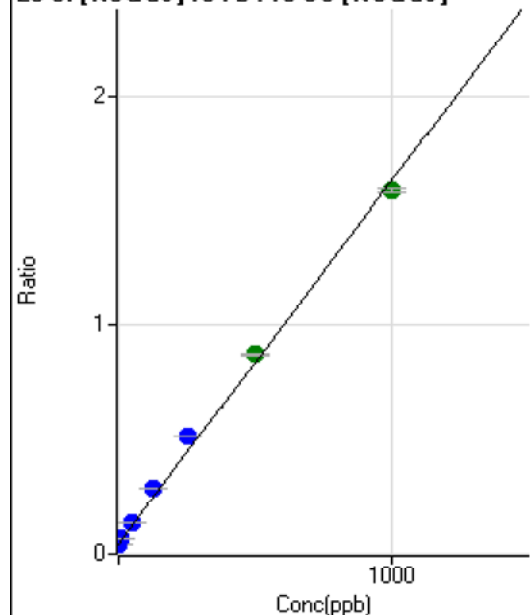
$$R = 1.0000$$

$$DL = 0.2031$$

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	351605.48	0.0426	P	0.7
2	☐	1.000					
3	☐	10.000	16.036	554251.60	0.0680	P	0.8
4	☐	50.000	59.828	1145288.57	0.1374	P	0.8
5	☐	125.000	151.892	2365067.48	0.2832	P	0.9
6	☐	250.000	297.216	4252946.75	0.5134	P	0.3
7	☐	500.000	522.819	7054795.38	0.8707	A	0.7
8	☐	1000.000	972.873	12944243.17	1.5835	A	0.9
9	☐			1184367.19	0.1427	P	1.9

$$y = 0.0016 * x + 0.0426$$

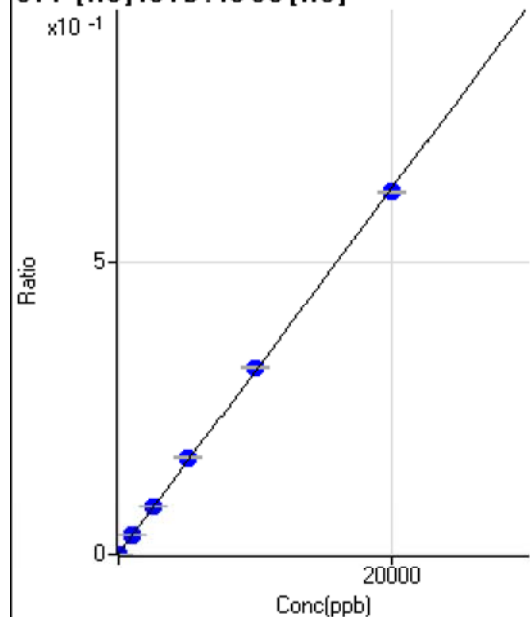
$$R = 0.9983$$

$$DL = 0.5915$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.058	238.90	0.0007	P	9.3
2	☐	0.000					
3	☐	0.000	-0.058	236.13	0.0007	P	9.1
4	☐	1000.000	1056.360	12299.97	0.0338	P	3.2
5	☐	2500.000	2632.472	30253.80	0.0831	P	1.7
6	☐	5000.000	5276.215	59185.10	0.1659	P	1.9
7	☐	10000.000	10185.282	113183.54	0.3197	P	1.0
8	☐	20000.000	19818.928	220664.34	0.6215	P	0.3
9	☐			369.46	0.0010	P	5.9

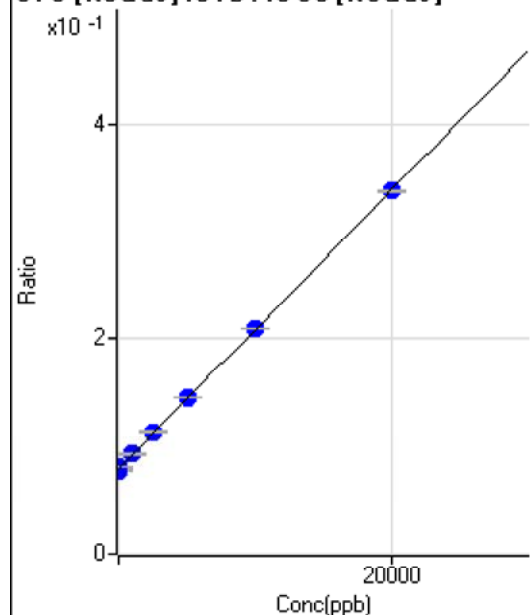
$$y = 3.1326E-005 * x + 6.6092E-004$$

$$R = 0.9998$$

$$DL = 5.841$$

Weight: <None>

Min Conc: 0

34 S [NoGas] ISTD:45 Sc [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-94.817	639794.29	0.0775	P	1.3
2	☐	0.000					
3	☐	0.000	94.817	651980.68	0.0800	P	0.6
4	☐	1000.000	1048.765	770342.87	0.0924	P	0.6
5	☐	2500.000	2666.617	947239.32	0.1134	P	0.9
6	☐	5000.000	5081.751	1199650.32	0.1448	P	0.8
7	☐	10000.000	10057.979	1697313.60	0.2095	P	0.6
8	☐	20000.000	19927.307	2760831.90	0.3377	P	0.7
9	☐			585652.63	0.0706	P	0.7

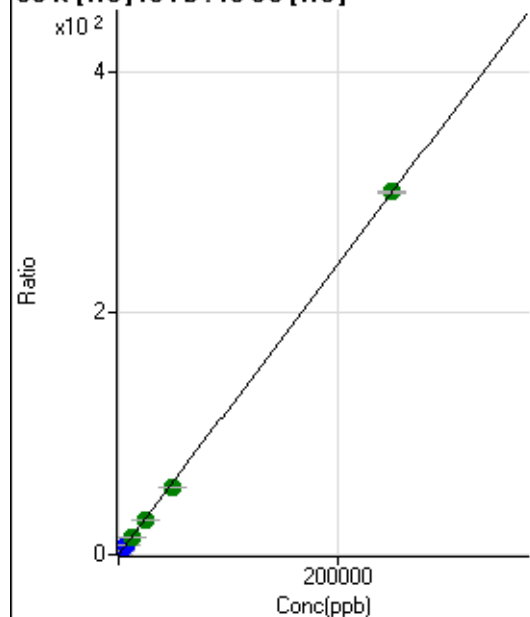
$$y = 1.2996\text{E-}005 * x + 0.0788$$

$$R = 0.9999$$

$$DL = 170.4$$

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	31731.85	0.0880	P	1.4
2	☐	50.000					
3	☐	500.000	481.184	238105.30	0.6646	P	0.7
4	☐	2500.000	2435.779	1095655.86	3.0066	P	0.4
5	☐	6250.000	6075.809	2681592.29	7.3681	P	0.6
6	☐	12500.000	11995.727	5158211.44	14.4615	A	0.7
7	☐	25000.000	23641.171	10059150.66	28.4152	A	1.1
8	☐	50000.000	46638.908	19872520.76	55.9714	A	0.4
9	☐	250000.00	250838.35	114389590.06	300.6463	A	0.6

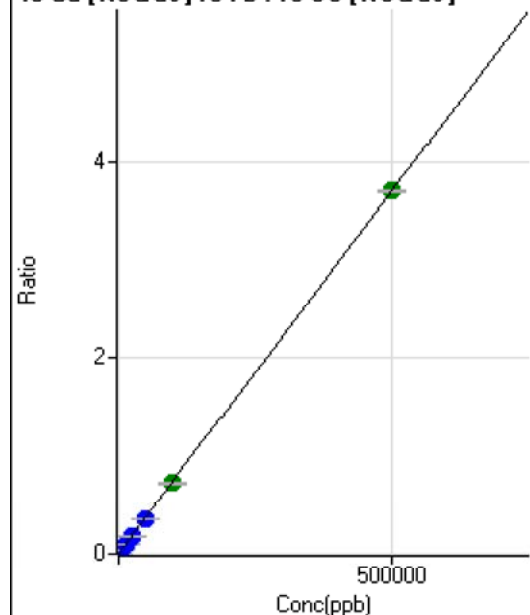
$$y = 0.0012 * x + 0.0880$$

$$R = 0.9999$$

$$DL = 3.175$$

Weight: <None>

Min Conc: 0

43 Ca [NoGas] ISTD:45 Sc [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	233.35	0.0000	P	19.7
2	☐	50.000					
3	☐	500.000	479.143	29090.68	0.0036	P	1.8
4	☐	5000.000	4934.194	304266.06	0.0365	P	1.1
5	☐	12500.000	12400.223	765634.44	0.0917	P	0.3
6	☐	25000.000	24597.925	1506290.30	0.1818	P	0.4
7	☐	50000.000	48374.447	2897008.31	0.3575	P	0.1
8	☐	100000.00	97147.690	5869138.45	0.7180	A	1.1
9	☐	500000.00	500756.29	30713927.42	3.7009	A	0.2

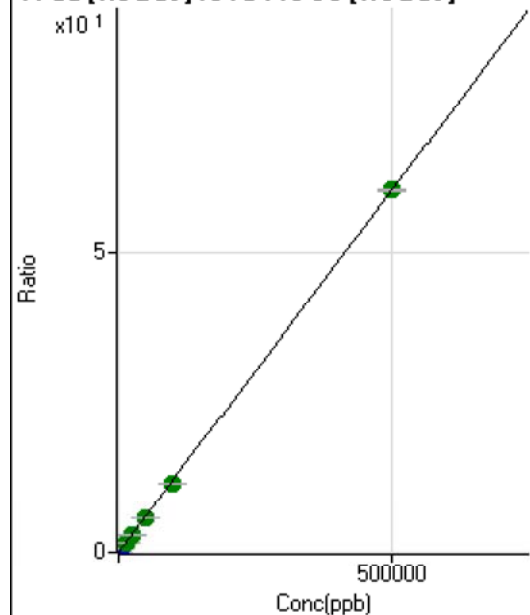
$$y = 7.3905\text{E-}006 * x + 2.8304\text{E-}005$$

$$R = 1.0000$$

$$DL = 2.26$$

Weight: <None>

Min Conc: 0

44 Ca [NoGas] ISTD:45 Sc [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	13815.66	0.0017	P	1.0
2	☐	50.000					
3	☐	500.000	478.574	484586.60	0.0595	P	0.6
4	☐	5000.000	4851.559	4897842.73	0.5875	P	1.0
5	☐	12500.000	12367.698	12485741.34	1.4950	A	0.1
6	☐	25000.000	24565.731	24586445.69	2.9678	A	0.6
7	☐	50000.000	48833.740	47788418.78	5.8980	A	0.4
8	☐	100000.00	96344.419	95105144.48	11.6345	A	0.7
9	☐	500000.00	500874.26	501902116.77	60.4782	A	0.3

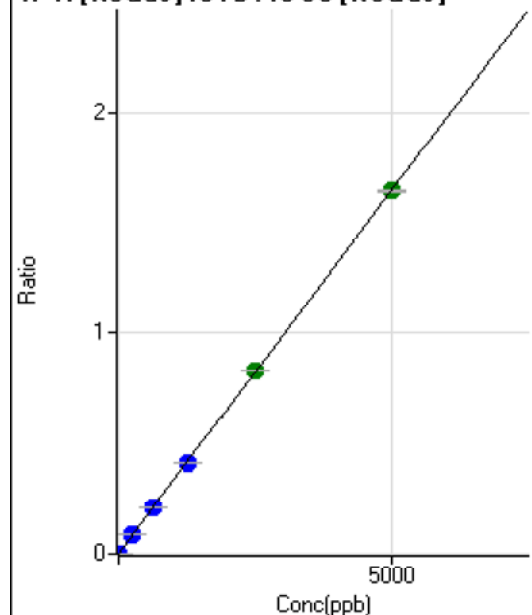
$$y = 1.2074\text{E-}004 * x + 0.0017$$

$$R = 1.0000$$

$$DL = 0.4139$$

Weight: <None>

Min Conc: 0

47 Ti [NoGas] ISTD: 45 Sc [NoGas]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	166.67	0.0000	P	7.9
2	☐	0.500					
3	☐	5.000	4.991	13584.52	0.0017	P	2.0
4	☐	250.000	253.275	696818.49	0.0836	P	1.3
5	☐	625.000	631.363	1739814.51	0.2083	P	0.4
6	☐	1250.000	1244.891	3402646.43	0.4107	P	0.2
7	☐	2500.000	2513.559	6719190.21	0.8293	A	0.3
8	☐	5000.000	4993.539	13466977.04	1.6474	A	0.4
9	☐			5576.28	0.0007	P	0.4

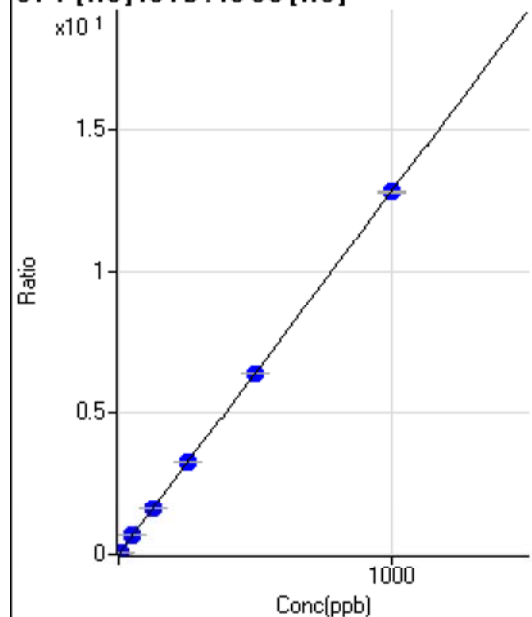
$$y = 3.2991\text{E-}004 * x + 2.0189\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.01447$$

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	8.89	0.0000	P	57.6
2	☐	0.500					
3	☐	5.000	5.085	23340.90	0.0651	P	1.0
4	☐	50.000	51.453	240115.03	0.6589	P	0.2
5	☐	125.000	127.877	595983.14	1.6375	P	0.4
6	☐	250.000	254.582	1162801.47	3.2600	P	0.8
7	☐	500.000	498.494	2259776.32	6.3834	P	0.1
8	☐	1000.000	999.175	4542790.45	12.7948	P	0.2
9	☐			2255.77	0.0059	P	6.2

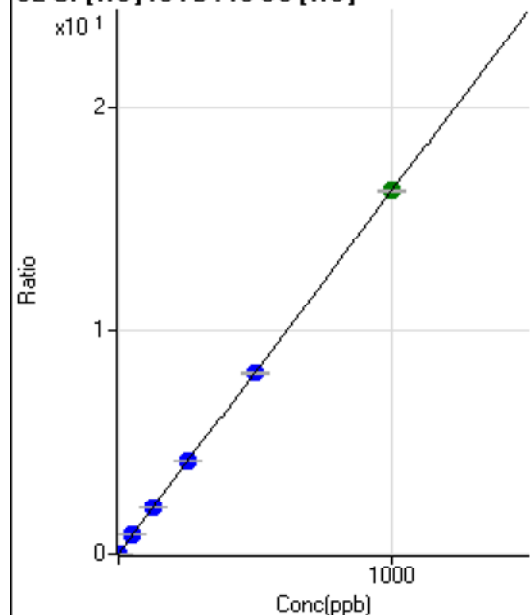
$$y = 0.0128 * x + 2.4668\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.003329$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	990.05	0.0027	P	4.0
2	☐	0.200					
3	☐	2.000	2.185	13716.57	0.0383	P	1.7
4	☐	50.000	51.477	306107.54	0.8400	P	0.4
5	☐	125.000	128.735	763042.01	2.0966	P	0.2
6	☐	250.000	254.248	1475930.06	4.1380	P	1.0
7	☐	500.000	495.883	2856141.90	8.0680	P	0.3
8	☐	1000.000	1000.455	5778197.62	16.2747	A	0.7
9	☐			252255.27	0.6631	P	1.3

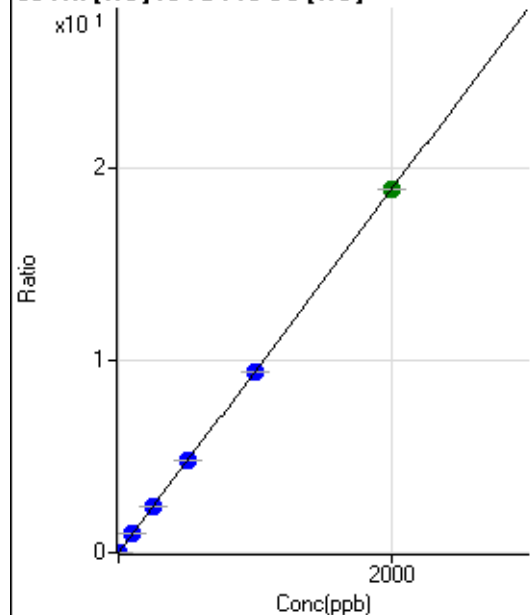
$$y = 0.0163 * x + 0.0027$$

$$R = 1.0000$$

$$DL = 0.0203$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	86.67	0.0002	P	24.5
2	☐	0.100					
3	☐	1.000	1.104	3822.78	0.0107	P	4.7
4	☐	100.000	102.862	354409.50	0.9725	P	0.5
5	☐	250.000	257.374	885495.06	2.4330	P	0.3
6	☐	500.000	510.930	1722669.51	4.8297	P	0.9
7	☐	1000.000	994.570	3328114.12	9.4013	P	0.2
8	☐	2000.000	1998.917	6708562.61	18.8947	A	0.2
9	☐			43603.57	0.1146	P	0.4

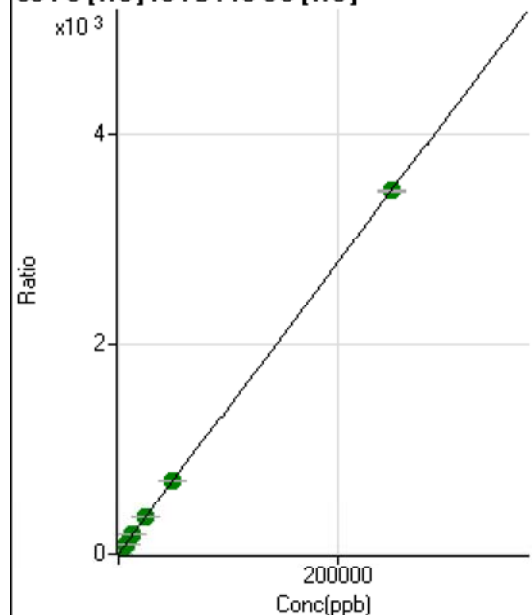
$$y = 0.0095 * x + 2.4055E-004$$

$$R = 1.0000$$

$$DL = 0.01869$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7118.60	0.0197	P	1.3
2	☐	5.000					
3	☐	50.000	51.944	265324.28	0.7405	P	0.3
4	☐	2500.000	2590.008	13104066.26	35.9588	A	0.1
5	☐	6250.000	6495.493	32810521.10	90.1515	A	0.3
6	☐	12500.000	12886.195	63784491.71	178.8293	A	1.1
7	☐	25000.000	25215.244	123869770.36	349.9078	A	0.3
8	☐	50000.000	50700.154	249787979.66	703.5378	A	0.5
9	☐	250000.00	249812.09	1318836710.9	3,466.425	A	0.3

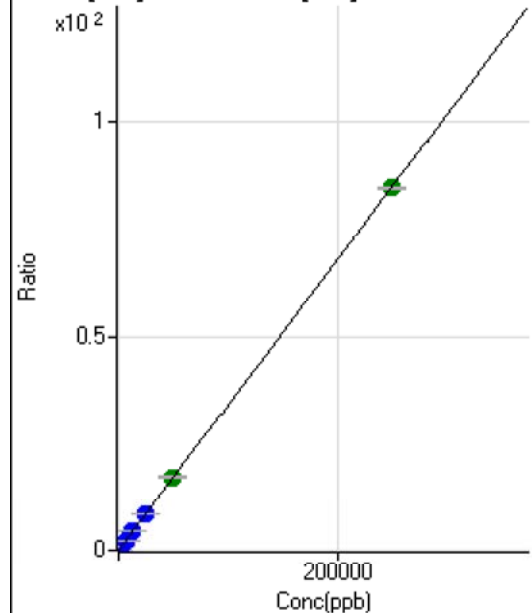
$$y = 0.0139 * x + 0.0197$$

$$R = 1.0000$$

$$DL = 0.05696$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	196.30	0.0005	P	9.2
2	☐	5.000					
3	☐	50.000	53.896	6746.19	0.0188	P	3.5
4	☐	2500.000	2603.390	321965.32	0.8835	P	0.7
5	☐	6250.000	6505.253	803184.25	2.2068	P	0.5
6	☐	12500.000	12878.187	1558098.43	4.3683	P	0.8
7	☐	25000.000	25044.139	3007076.48	8.4944	P	0.7
8	☐	50000.000	50856.602	6124151.12	17.2489	A	0.7
9	☐	250000.00	249797.94	32230945.86	84.7213	A	0.8

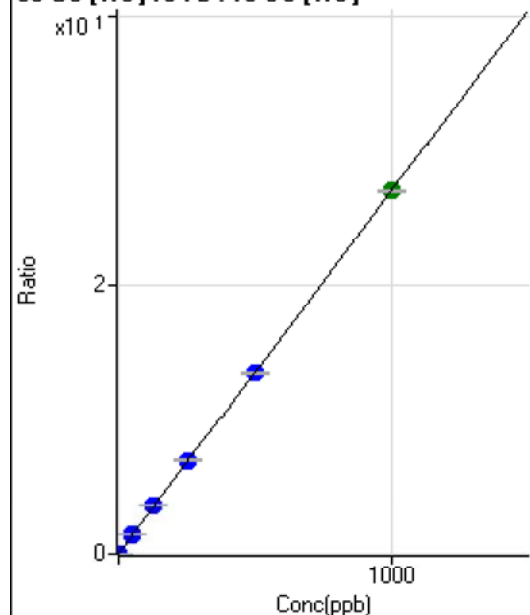
$$y = 3.3916E-004 * x + 5.4455E-004$$

$$R = 1.0000$$

$$DL = 0.4417$$

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	116.67	0.0003	P	10.8
2	☐	0.100					
3	☐	1.000	1.066	10424.97	0.0291	P	1.3
4	☐	50.000	52.154	513049.79	1.4079	P	0.7
5	☐	125.000	130.024	1277253.71	3.5094	P	0.3
6	☐	250.000	256.655	2470722.83	6.9269	P	0.8
7	☐	500.000	495.983	4738732.15	13.3860	P	0.3
8	☐	1000.000	999.609	9578453.33	26.9778	A	0.2
9	☐			18108.03	0.0476	P	0.9

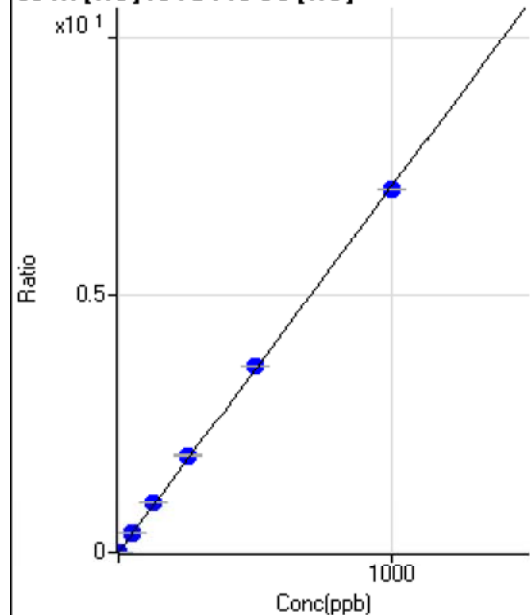
$$y = 0.0270 * x + 3.2366E-004$$

$$R = 1.0000$$

$$DL = 0.003888$$

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	98.89	0.0003	P	7.9
2	☐	0.100					
3	☐	1.000	1.162	3060.38	0.0085	P	5.8
4	☐	50.000	54.007	140190.03	0.3847	P	1.5
5	☐	125.000	134.474	348462.06	0.9574	P	0.1
6	☐	250.000	264.239	670930.17	1.8811	P	1.6
7	☐	500.000	508.693	1281898.09	3.6211	P	0.4
8	☐	1000.000	990.709	2503831.58	7.0520	P	0.0
9	☐			71120.48	0.1869	P	0.8

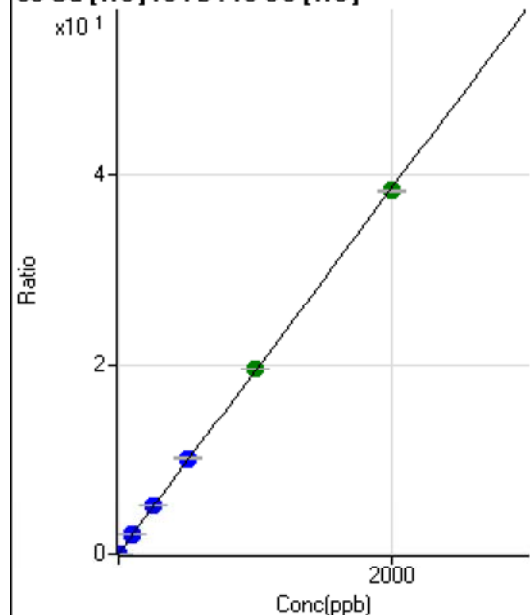
$$y = 0.0071 * x + 2.7426E-004$$

$$R = 0.9998$$

$$DL = 0.009116$$

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	578.91	0.0016	P	6.5
2	☐	0.200					
3	☐	2.000	2.214	15892.15	0.0444	P	2.8
4	☐	100.000	107.422	756537.02	2.0760	P	0.5
5	☐	250.000	265.960	1869786.64	5.1375	P	0.1
6	☐	500.000	519.492	3578722.86	10.0334	P	1.0
7	☐	1000.000	1012.725	6923721.98	19.5581	A	0.4
8	☐	2000.000	1986.398	13619868.13	38.3605	A	0.2
9	☐			39072.28	0.1027	P	1.6

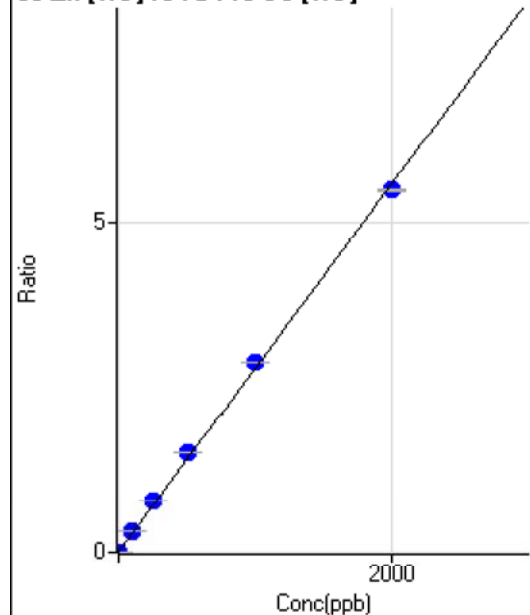
$$y = 0.0193 * x + 0.0016$$

$$R = 0.9999$$

$$DL = 0.01628$$

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	1507.88	0.0042	P	4.5
2	☐	0.200					
3	☐	2.000	2.632	4119.54	0.0115	P	1.9
4	☐	100.000	111.443	114403.78	0.3139	P	0.6
5	☐	250.000	276.117	280839.57	0.7716	P	0.3
6	☐	500.000	540.195	537022.83	1.5056	P	1.4
7	☐	1000.000	1034.414	1019297.15	2.8793	P	0.3
8	☐	2000.000	1968.907	1944503.35	5.4767	P	0.3
9	☐			72343.87	0.1903	P	5.4

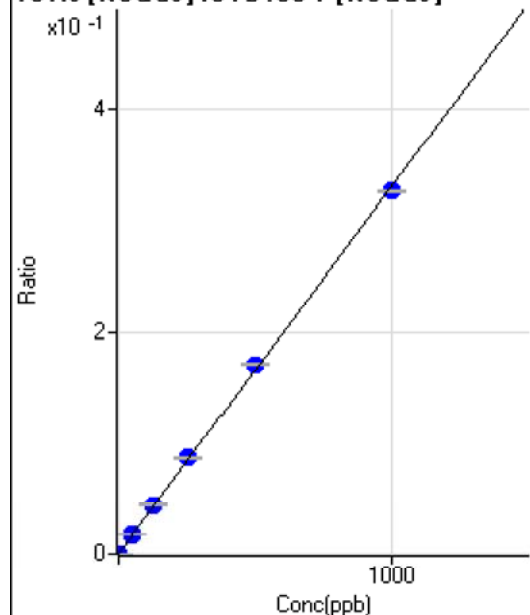
$$y = 0.0028 * x + 0.0042$$

$$R = 0.9995$$

$$DL = 0.2035$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-1099.69	-0.0001	P	-16.
2	☐	0.100					
3	☐	1.000	1.078	3482.88	0.0003	P	3.8
4	☐	50.000	53.583	230680.37	0.0176	P	1.6
5	☐	125.000	133.423	580361.95	0.0441	P	1.2
6	☐	250.000	260.876	1126244.95	0.0862	P	1.4
7	☐	500.000	515.318	2185127.17	0.1705	P	0.6
8	☐	1000.000	988.390	4221745.58	0.3270	P	0.3
9	☐			475.28	0.0000	P	36.9

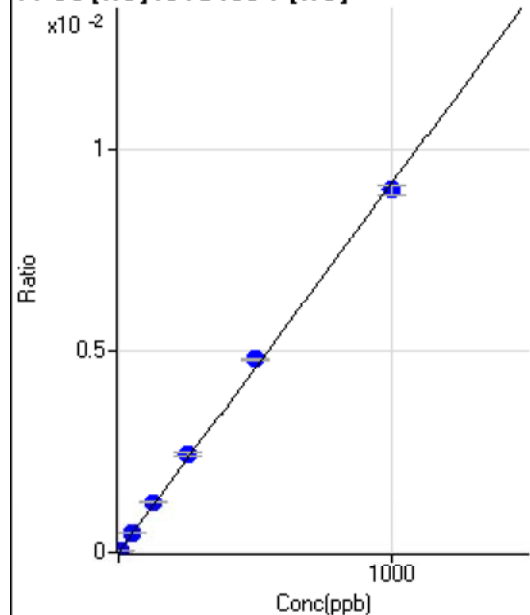
$$y = 3.3094E-004 * x - 8.4307E-005$$

$$R = 0.9997$$

$$DL = 0.1264$$

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	2.22	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	5.834	97.78	0.0001	P	25.6
4	☐	50.000	51.475	861.15	0.0005	P	6.3
5	☐	125.000	136.244	2284.66	0.0012	P	3.4
6	☐	250.000	265.223	4364.06	0.0024	P	3.3
7	☐	500.000	523.972	8452.59	0.0048	P	1.2
8	☐	1000.000	982.725	15972.34	0.0090	P	3.0
9	☐			7.78	0.0000	P	26.4

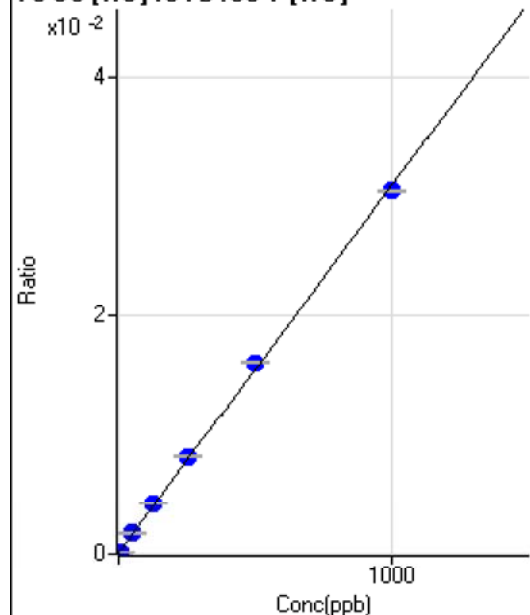
$$y = 9.1280E-006 * x + 1.2198E-006$$

$$R = 0.9994$$

$$DL = 0.3472$$

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	74.69	0.0000	P	4.9
2	☐	0.500					
3	☐	5.000	5.201	361.12	0.0002	P	7.4
4	☐	50.000	53.972	3111.48	0.0017	P	1.4
5	☐	125.000	135.483	7728.04	0.0042	P	0.6
6	☐	250.000	262.951	14658.73	0.0081	P	2.1
7	☐	500.000	518.093	28247.24	0.0160	P	1.1
8	☐	1000.000	986.206	54118.17	0.0304	P	0.8
9	☐			126.55	0.0001	P	9.4

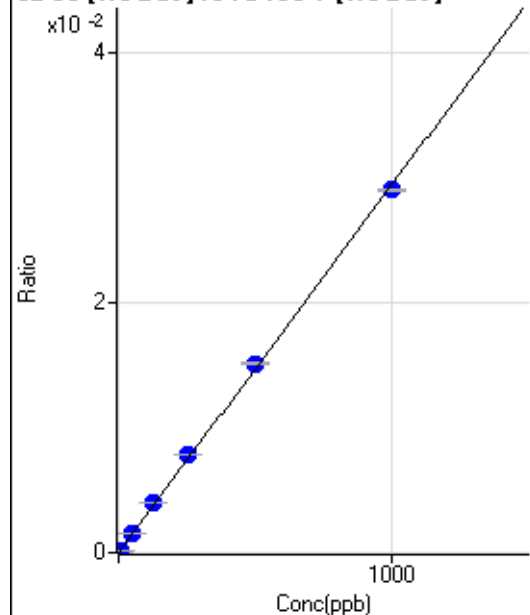
$$y = 3.0780\text{E-}005 * x + 4.1111\text{E-}005$$

$$R = 0.9996$$

$$DL = 0.1965$$

Weight: <None>

Min Conc: 0

82 Se [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.51	0.0000	P	23.2
2	☐	0.500					
3	☐	5.000	5.201	2028.76	0.0002	P	2.2
4	☐	50.000	53.640	20719.32	0.0016	P	2.5
5	☐	125.000	134.435	52207.62	0.0040	P	1.0
6	☐	250.000	265.211	102061.53	0.0078	P	0.7
7	☐	500.000	515.104	194529.48	0.0152	P	0.3
8	☐	1000.000	987.283	375411.42	0.0291	P	0.3
9	☐			286.64	0.0000	P	2.9

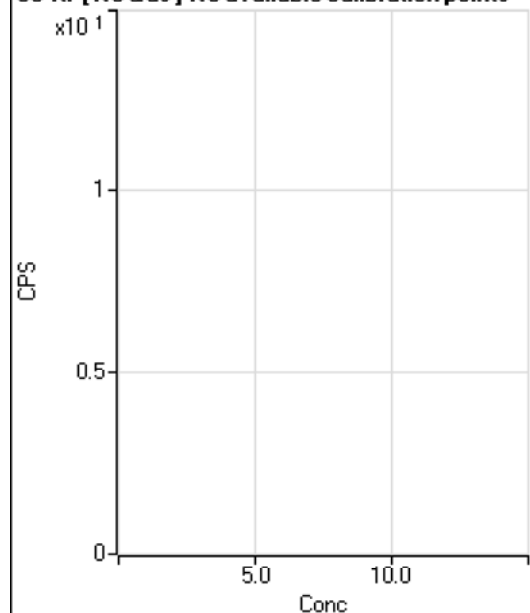
$$y = 2.9448\text{E-}005 * x + 5.5548\text{E-}006$$

$$R = 0.9997$$

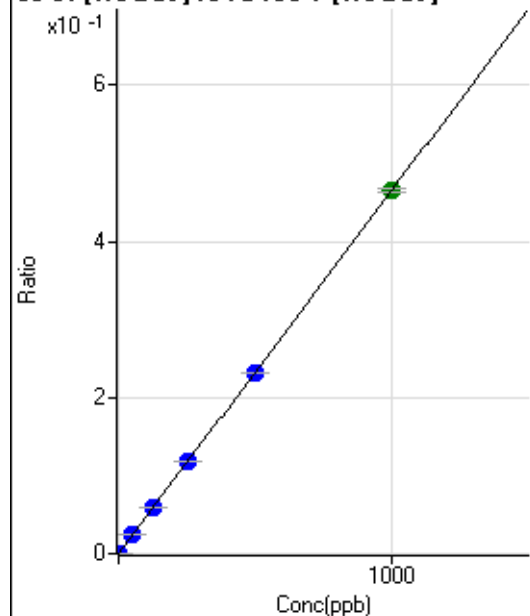
$$DL = 0.131$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			648.91		P	4.6
2	☐						
3	☐			701.14		P	1.5
4	☐			694.47		P	6.5
5	☐			654.47		P	9.0
6	☐			724.47		P	9.3
7	☐			760.03		P	6.8
8	☐			714.47		P	2.6
9	☐			816.70		P	4.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1094.53	0.0001	P	16.8
2	☐	0.100					
3	☐	1.000	1.031	7196.57	0.0006	P	2.5
4	☐	50.000	51.036	311095.70	0.0238	P	0.5
5	☐	125.000	126.645	776139.03	0.0589	P	0.3
6	☐	250.000	253.547	1539724.75	0.1179	P	0.6
7	☐	500.000	498.149	2968605.73	0.2316	P	0.4
8	☐	1000.000	999.781	5998607.95	0.4647	A	1.0
9	☐			32367.97	0.0025	P	1.9

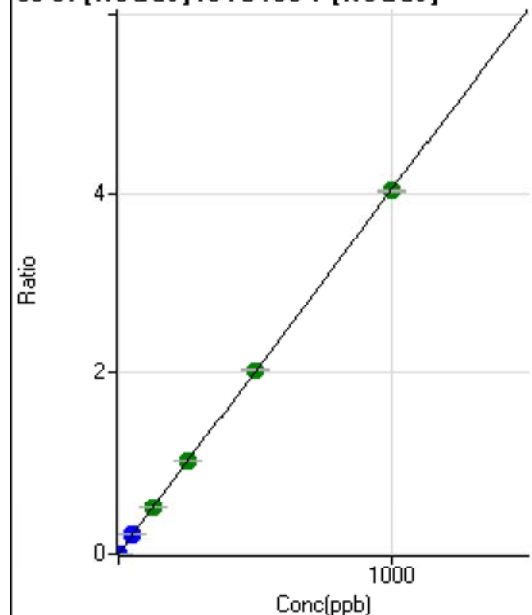
$$y = 4.6469E-004 * x + 8.3955E-005$$

$$R = 1.0000$$

$$DL = 0.09119$$

Weight: <None>

Min Conc: 0

88 Sr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	275.02	0.0000	P	18.1
2	☐	0.100					
3	☐	1.000	1.030	53542.78	0.0042	P	1.3
4	☐	50.000	50.721	2682540.84	0.2052	P	0.4
5	☐	125.000	126.154	6721765.60	0.5104	A	0.4
6	☐	250.000	252.702	13351585.54	1.0224	A	0.8
7	☐	500.000	503.916	26135579.06	2.0388	A	0.7
8	☐	1000.000	997.186	52083248.73	4.0344	A	0.4
9	☐			271982.92	0.0214	P	0.1

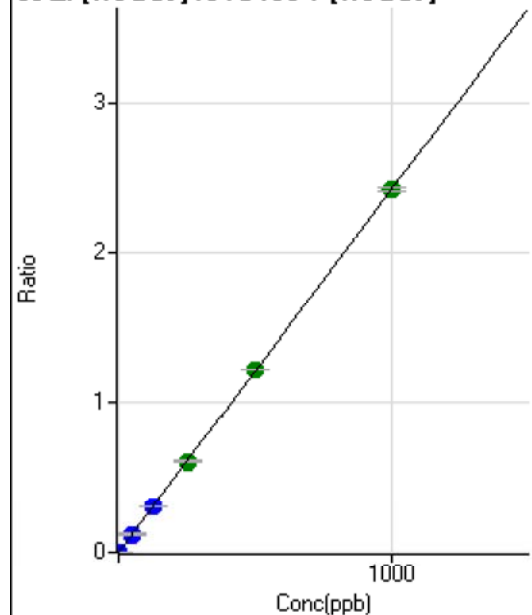
$$y = 0.0040 * x + 2.1075E-005$$

$$R = 1.0000$$

$$DL = 0.002835$$

Weight: <None>

Min Conc: 0

90 Zr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1150.09	0.0001	P	5.8
2	☐	0.100					
3	☐	1.000	1.012	32509.99	0.0025	P	0.6
4	☐	50.000	50.195	1592859.73	0.1219	P	0.6
5	☐	125.000	125.830	4021265.50	0.3053	P	0.4
6	☐	250.000	250.917	7950380.04	0.6088	A	0.5
7	☐	500.000	501.734	15605036.29	1.2173	A	0.1
8	☐	1000.000	998.790	31280413.55	2.4231	A	1.1
9	☐			18003.68	0.0014	P	1.1

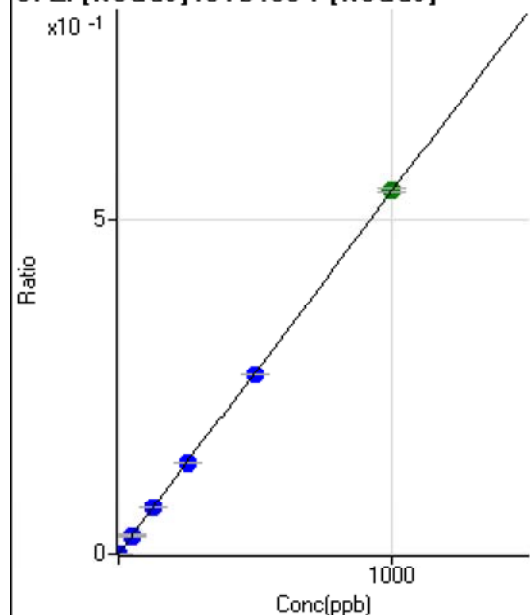
$$y = 0.0024 * x + 8.8173E-005$$

$$R = 1.0000$$

$$DL = 0.006328$$

Weight: <None>

Min Conc: 0

91 Zr [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	175.01	0.0000	P	4.3
2	☐	0.100					
3	☐	1.000	1.053	7432.81	0.0006	P	3.6
4	☐	50.000	50.315	354874.84	0.0272	P	1.9
5	☐	125.000	126.128	896047.56	0.0680	P	0.9
6	☐	250.000	249.544	1757762.50	0.1346	P	0.7
7	☐	500.000	494.871	3421826.03	0.2669	P	0.4
8	☐	1000.000	1002.522	6980187.92	0.5407	A	1.1
9	☐			3809.01	0.0003	P	3.3

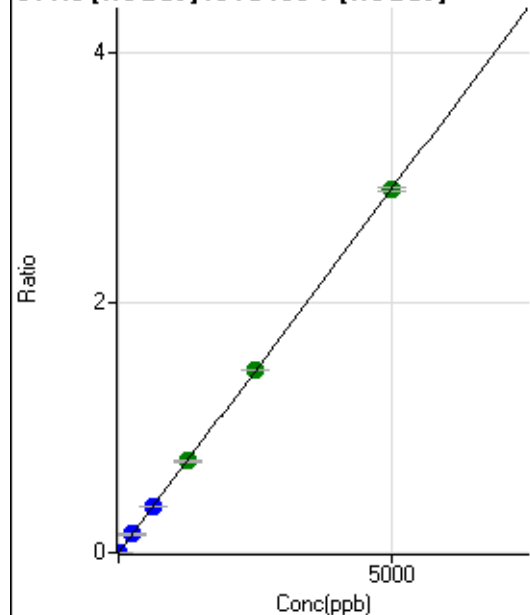
$$y = 5.3935E-004 * x + 1.3415E-005$$

$$R = 1.0000$$

$$DL = 0.003204$$

Weight: <None>

Min Conc: 0

94 Mo [NoGas] ISTD:89 Y [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	450.03	0.0000	P	8.4
2	☐	0.500					
3	☐	5.000	5.081	38207.76	0.0030	P	1.2
4	☐	250.000	251.837	1914389.80	0.1465	P	0.9
5	☐	625.000	630.820	4830650.15	0.3668	P	0.7
6	☐	1250.000	1258.662	9557180.07	0.7319	A	0.7
7	☐	2500.000	2513.925	18738505.80	1.4617	A	0.2
8	☐	5000.000	4990.052	37455119.93	2.9014	A	0.9
9	☐			43737.18	0.0034	P	2.6

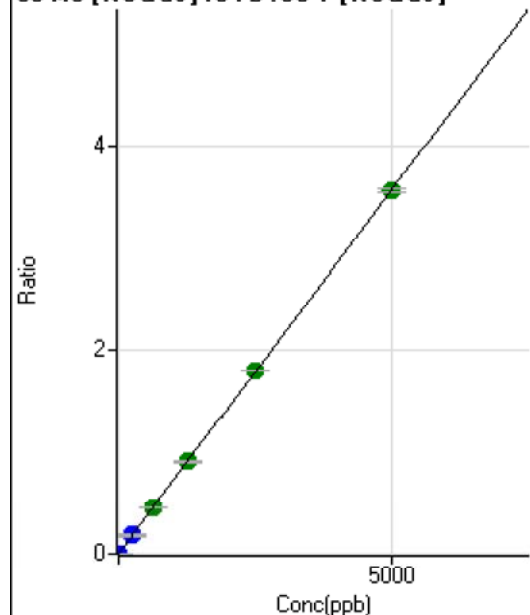
$$y = 5.8143E-004 * x + 3.4500E-005$$

$$R = 1.0000$$

$$DL = 0.015$$

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	63.89	0.0000	P	46.2
2	☐	0.500					
3	☐	5.000	5.048	46108.65	0.0036	P	0.6
4	☐	250.000	251.873	2349317.52	0.1797	P	0.7
5	☐	625.000	631.288	5932440.24	0.4505	A	0.4
6	☐	1250.000	1259.487	11736220.92	0.8987	A	0.8
7	☐	2500.000	2513.082	22988749.65	1.7933	A	0.5
8	☐	5000.000	4990.208	45967592.35	3.5609	A	1.1
9	☐			64571.77	0.0051	P	1.8

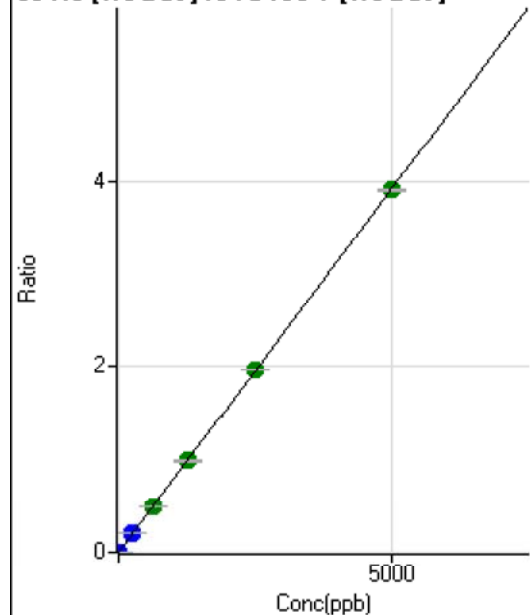
$$y = 7.1357\text{E-}004 * x + 4.9052\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.009523$$

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	125.01	0.0000	P	12.0
2	☐	0.500					
3	☐	5.000	5.059	50799.53	0.0040	P	0.6
4	☐	250.000	251.773	2578711.10	0.1973	P	0.4
5	☐	625.000	629.516	6495892.51	0.4933	A	0.5
6	☐	1250.000	1263.073	12923359.14	0.9897	A	1.2
7	☐	2500.000	2514.128	25253467.92	1.9699	A	0.2
8	☐	5000.000	4989.015	50463556.34	3.9091	A	0.9
9	☐			82166.74	0.0065	P	0.4

$$y = 7.8354\text{E-}004 * x + 9.5868\text{E-}006$$

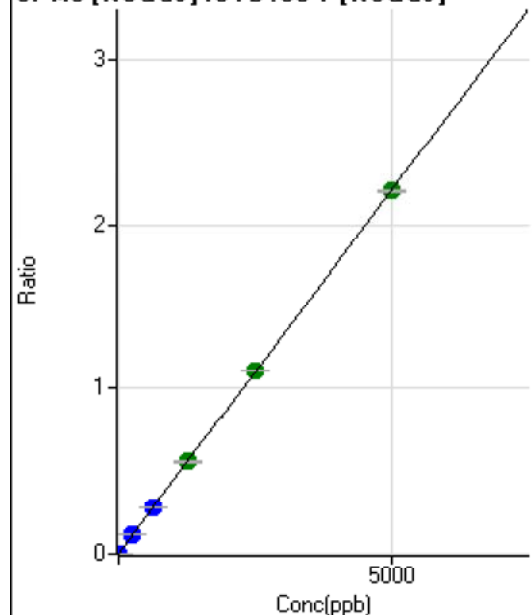
$$R = 1.0000$$

$$DL = 0.004387$$

Weight: <None>

Min Conc: 0

97 Mo [NoGas] ISTD : 89 Y [NoGas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.67	0.0000	P	12.8
2	☐	0.500					
3	☐	5.000	5.062	28635.24	0.0022	P	1.5
4	☐	250.000	252.574	1457575.66	0.1115	P	0.7
5	☐	625.000	628.040	3651503.08	0.2773	P	0.6
6	☐	1250.000	1258.997	7257998.69	0.5558	A	1.4
7	☐	2500.000	2512.835	14221676.53	1.1094	A	0.1
8	☐	5000.000	4990.825	28444019.39	2.2034	A	0.9
9	☐			39968.36	0.0031	P	0.1

$$y = 4.4148\text{E-}004 * x + 5.1125\text{E-}006$$

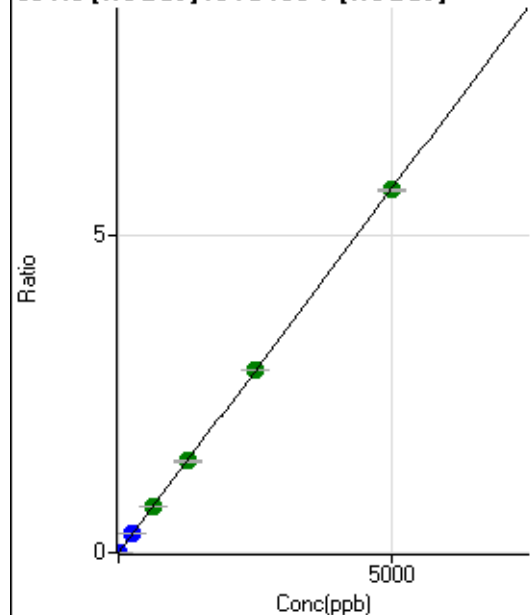
$$R = 1.0000$$

$$DL = 0.004432$$

Weight: <None>

Min Conc: 0

98 Mo [NoGas] ISTD : 89 Y [NoGas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.11	0.0000	P	47.9
2	☐	0.500					
3	☐	5.000	5.043	73903.48	0.0058	P	2.1
4	☐	250.000	253.124	3787770.79	0.2898	P	1.2
5	☐	625.000	627.713	9463762.54	0.7186	A	0.8
6	☐	1250.000	1260.023	18836426.98	1.4425	A	1.1
7	☐	2500.000	2519.377	36974020.97	2.8842	A	0.3
8	☐	5000.000	4987.310	73707356.51	5.7095	A	0.6
9	☐			102705.14	0.0081	P	2.1

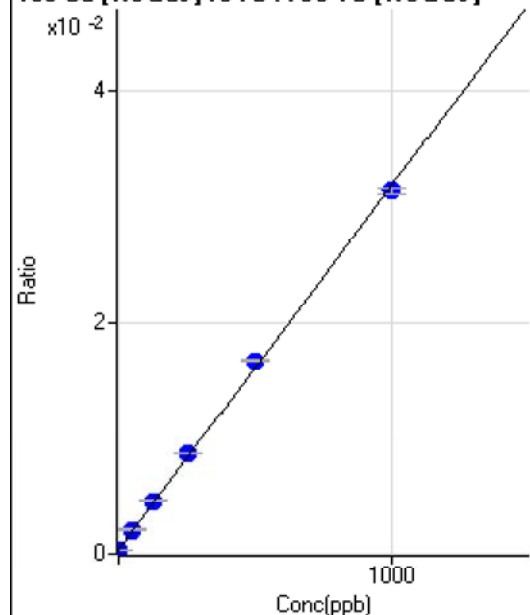
$$y = 0.0011 * x + 8.5303\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.0107$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5601.34	0.0003	P	8.5
2	☐	0.100					
3	☐	1.000	1.662	6385.02	0.0004	P	4.9
4	☐	50.000	55.440	35801.93	0.0021	P	2.1
5	☐	125.000	134.685	79333.67	0.0046	P	0.6
6	☐	250.000	264.770	150800.61	0.0087	P	1.0
7	☐	500.000	518.368	285903.90	0.0166	P	0.9
8	☐	1000.000	985.640	545373.20	0.0313	P	1.5
9	☐			5373.51	0.0003	P	5.4

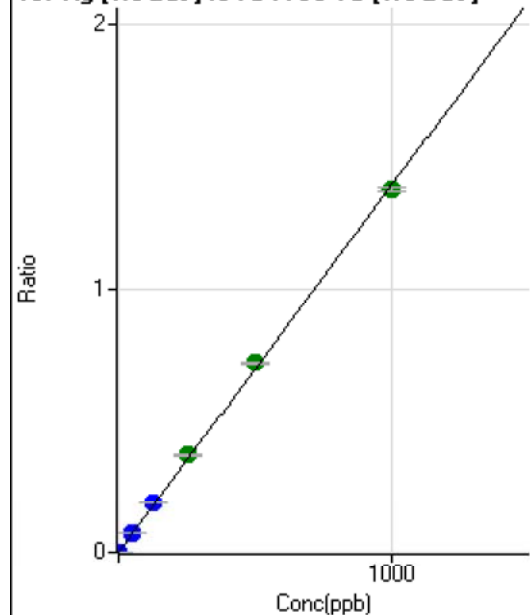
$$y = 3.1465\text{E-}005 * x + 3.2575\text{E-}004$$

$$R = 0.9996$$

$$DL = 2.639$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	94.45	0.0000	P	28.0
2	☐	0.100					
3	☐	1.000	1.077	25406.99	0.0015	P	3.3
4	☐	50.000	54.535	1312683.98	0.0759	P	0.2
5	☐	125.000	134.259	3248422.14	0.1869	P	0.8
6	☐	250.000	264.715	6418085.17	0.3684	A	1.1
7	☐	500.000	515.439	12328701.75	0.7174	A	0.9
8	☐	1000.000	987.218	23911782.48	1.3740	A	1.1
9	☐			3422.79	0.0002	P	7.3

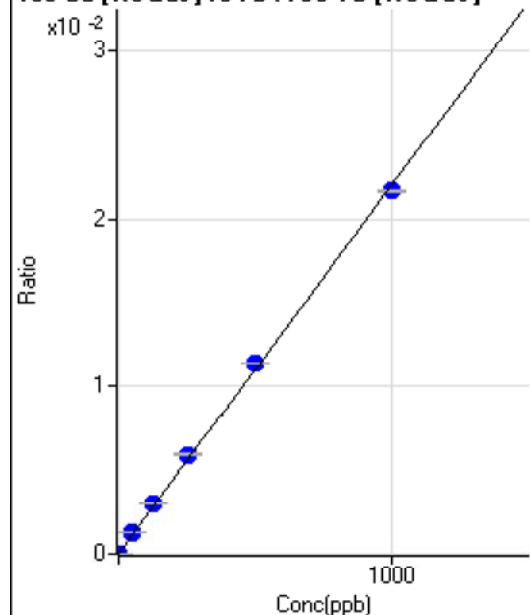
$$y = 0.0014 * x + 5.4915\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.003319$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	15.28	0.0000	P	41.2
2	☐	0.100					
3	☐	1.000	1.049	404.18	0.0000	P	9.7
4	☐	50.000	55.030	20924.08	0.0012	P	0.5
5	☐	125.000	135.715	51850.35	0.0030	P	1.1
6	☐	250.000	268.798	102895.10	0.0059	P	0.9
7	☐	500.000	517.401	195378.71	0.0114	P	0.3
8	☐	1000.000	985.009	376651.97	0.0216	P	0.7
9	☐			122.23	0.0000	P	20.7

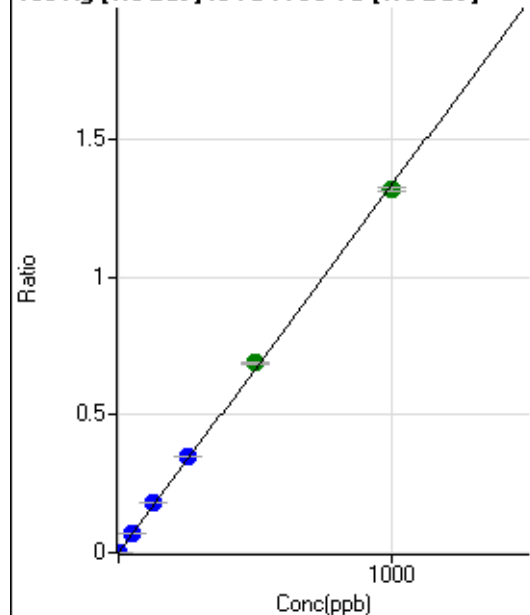
$$y = 2.1971\text{E-}005 * x + 8.8713\text{E-}007$$

$$R = 0.9996$$

$$DL = 0.04995$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	69.45	0.0000	P	34.9
2	☐	0.100					
3	☐	1.000	1.084	24435.72	0.0014	P	0.8
4	☐	50.000	54.310	1250261.92	0.0723	P	0.8
5	☐	125.000	133.978	3100387.79	0.1783	P	0.5
6	☐	250.000	260.546	6041901.31	0.3468	P	0.7
7	☐	500.000	516.400	11813690.19	0.6874	A	0.5
8	☐	1000.000	987.826	22884183.67	1.3149	A	1.1
9	☐			3222.73	0.0002	P	4.7

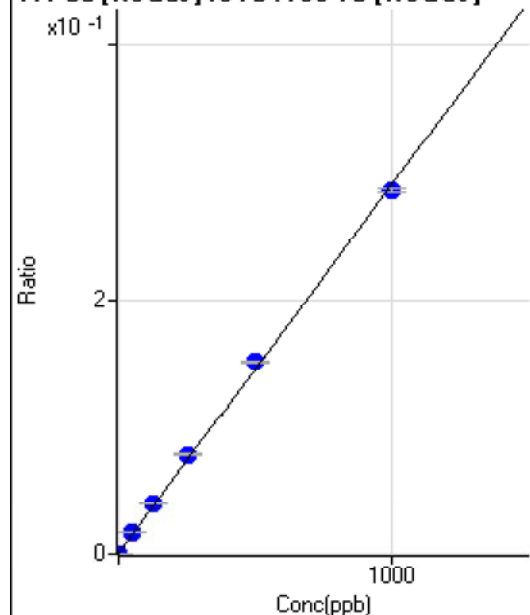
$$y = 0.0013 * x + 4.0433\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.00318$$

Weight: <None>

Min Conc: 0

111 Cd [NoGas] ISTD:159 Tb [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3919.97	0.0002	P	8.4
2	☐	0.100					
3	☐	1.000	1.094	9201.47	0.0005	P	3.0
4	☐	50.000	55.142	280177.36	0.0162	P	0.4
5	☐	125.000	137.381	695781.26	0.0400	P	0.1
6	☐	250.000	267.459	1353643.74	0.0777	P	0.6
7	☐	500.000	519.794	2591604.81	0.1508	P	0.7
8	☐	1000.000	983.933	4964216.04	0.2853	P	1.2
9	☐			4499.55	0.0003	P	4.5

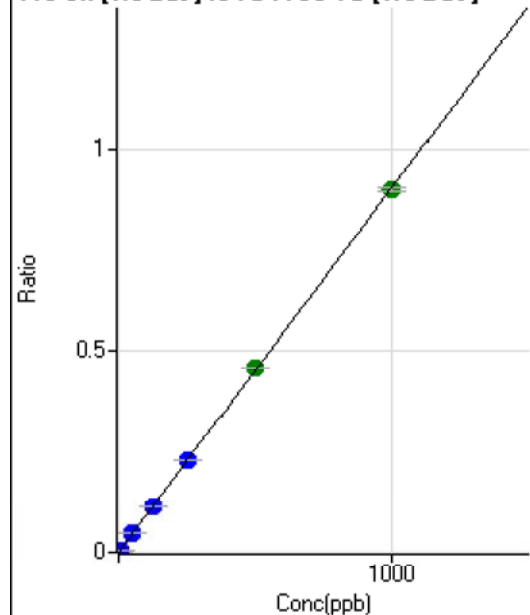
$$y = 2.8968\text{E-}004 * x + 2.2797\text{E-}004$$

$$R = 0.9995$$

$$DL = 0.1979$$

Weight: <None>

Min Conc: 0

118 Sn [NoGas] ISTD:159 Tb [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1300.12	0.0001	P	2.4
2	☐	0.500					
3	☐	5.000	5.067	78488.23	0.0046	P	0.9
4	☐	50.000	51.649	807142.33	0.0467	P	0.3
5	☐	125.000	128.519	2017001.50	0.1160	P	0.5
6	☐	250.000	252.550	3970554.95	0.2279	P	0.4
7	☐	500.000	506.809	7859297.23	0.4573	A	0.6
8	☐	1000.000	995.435	15630296.01	0.8981	A	1.2
9	☐			19425.23	0.0012	P	1.5

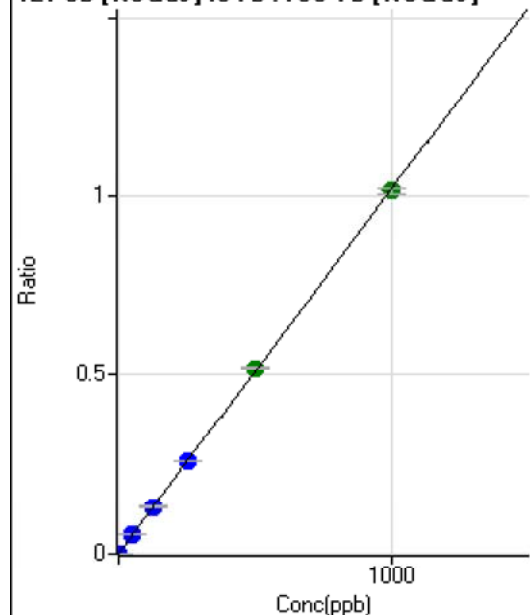
$$y = 9.0219\text{E-}004 * x + 7.5621\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.005941$$

Weight: <None>

Min Conc: 0

121 Sb [NoGas] ISTD : 159 Tb [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	100.01	0.0000	P	13.9
2	☐	0.200					
3	☐	2.000	2.039	35211.89	0.0021	P	1.9
4	☐	50.000	51.542	908809.52	0.0526	P	0.2
5	☐	125.000	129.003	2286417.61	0.1315	P	0.8
6	☐	250.000	252.673	4487555.70	0.2576	P	0.3
7	☐	500.000	508.238	8904767.82	0.5181	A	0.4
8	☐	1000.000	994.635	17646593.80	1.0140	A	1.4
9	☐			23790.46	0.0014	P	2.4

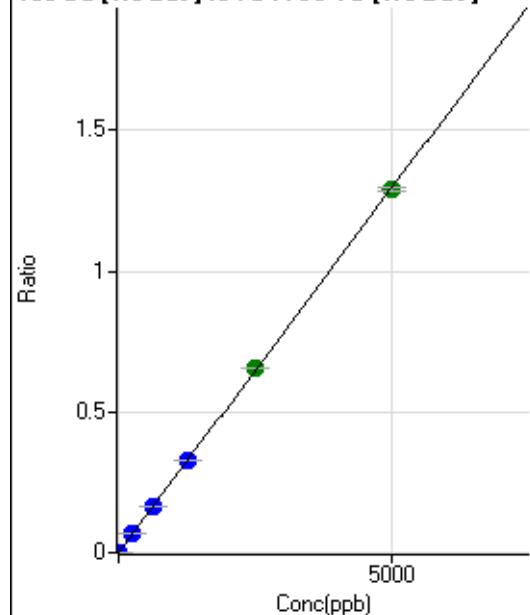
$$y = 0.0010 * x + 5.8139E-006$$

$$R = 0.9999$$

$$DL = 0.00237$$

Weight: <None>

Min Conc: 0

135 Ba [NoGas] ISTD : 159 Tb [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.89	0.0000	P	26.8
2	☐	1.000					
3	☐	10.000	10.077	44090.20	0.0026	P	0.8
4	☐	250.000	256.536	1147734.03	0.0664	P	0.7
5	☐	625.000	642.130	2887777.50	0.1661	P	0.2
6	☐	1250.000	1264.674	5699310.63	0.3272	P	0.5
7	☐	2500.000	2530.671	11250962.40	0.6547	A	0.4
8	☐	5000.000	4978.528	22413275.50	1.2879	A	1.2
9	☐			6657.48	0.0004	P	1.5

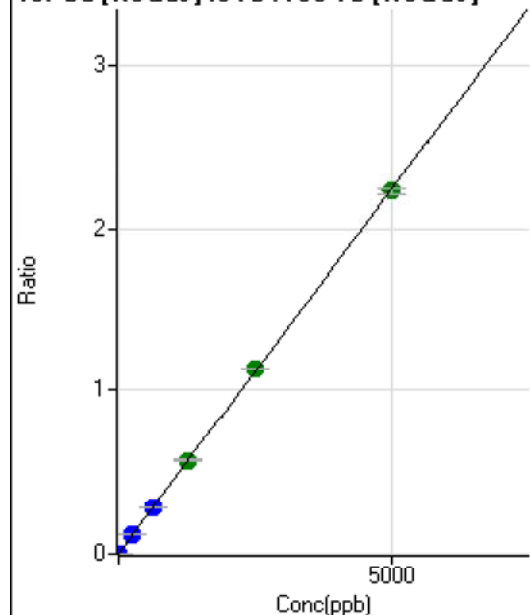
$$y = 2.5869E-004 * x + 3.7139E-006$$

$$R = 1.0000$$

$$DL = 0.01153$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.23	0.0000	P	17.1
2	☐	1.000					
3	☐	10.000	10.285	77935.56	0.0046	P	1.0
4	☐	250.000	256.309	1986919.01	0.1149	P	0.9
5	☐	625.000	645.047	5026526.33	0.2891	P	0.2
6	☐	1250.000	1274.312	9950460.73	0.5712	A	1.2
7	☐	2500.000	2524.634	19448814.67	1.1317	A	0.3
8	☐	5000.000	4978.783	38836796.70	2.2317	A	1.8
9	☐			11399.57	0.0007	P	3.4

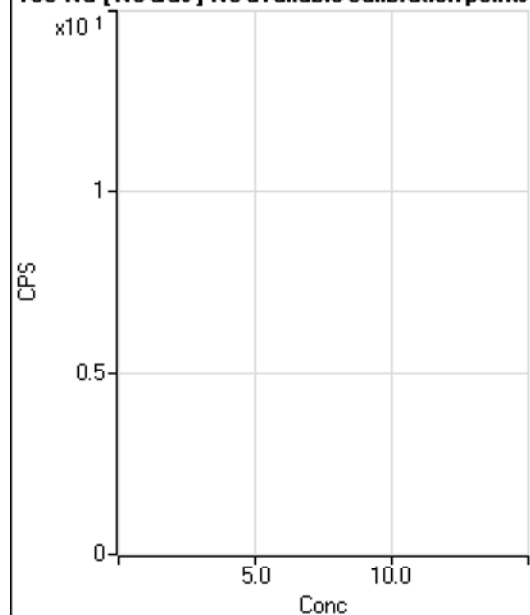
$$y = 4.4825E-004 * x + 4.1985E-006$$

$$R = 1.0000$$

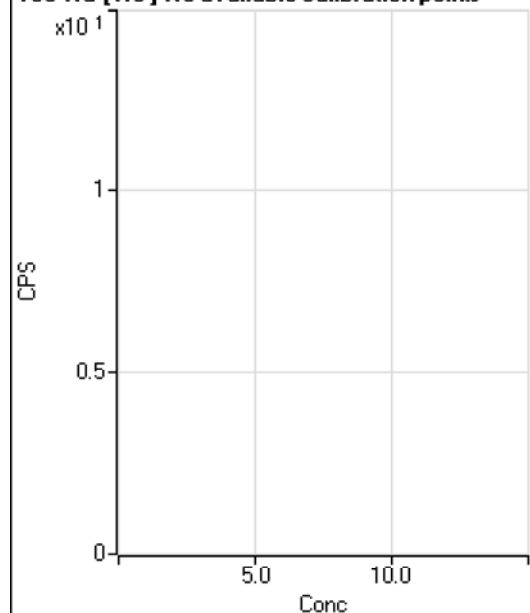
$$DL = 0.004795$$

Weight: <None>

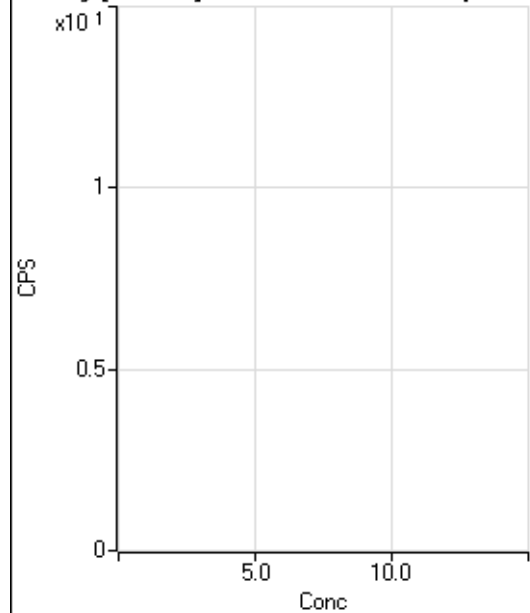
Min Conc: 0

150 Nd [No Gas] No available calibration points

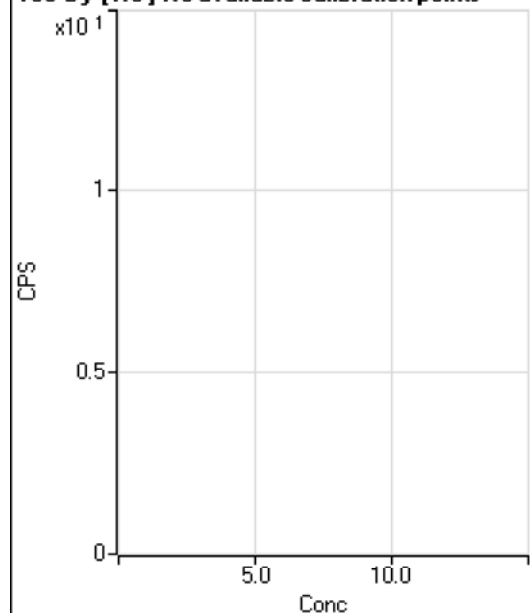
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			4.45		P	86.6
2	☐						
3	☐			13.33		P	50.0
4	☐			86.67		P	40.7
5	☐			224.45		P	6.2
6	☐			415.58		P	12.0
7	☐			802.28		P	8.5
8	☐			1511.25		P	5.1
9	☐			428.91		P	5.5

150 Nd [He] No available calibration points

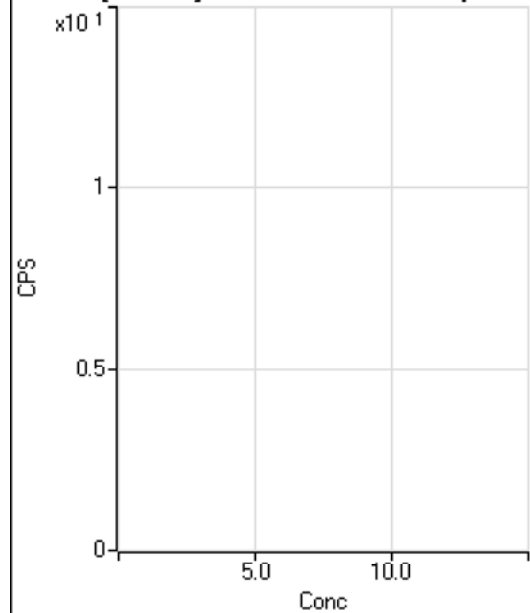
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			5.56		P	91.6
4	☐			7.78		P	49.5
5	☐			23.33		P	28.6
6	☐			60.00		P	5.5
7	☐			86.67		P	15.4
8	☐			151.11		P	12.1
9	☐			164.45		P	8.2

156 Dy [No Gas] No available calibration points

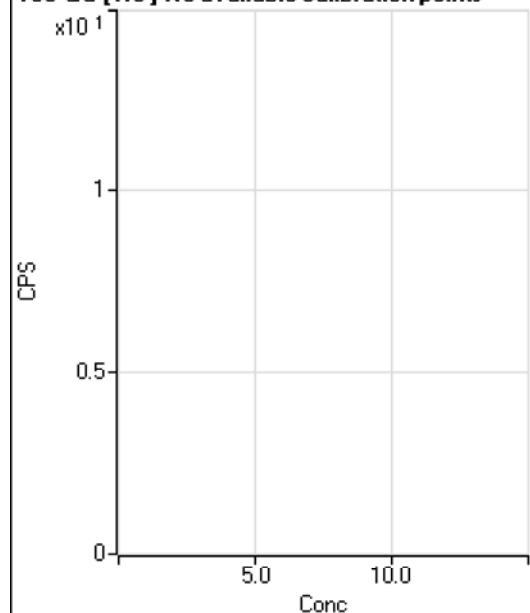
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	114.
2	☐						
3	☐			16.67		P	50.0
4	☐			27.78		P	17.3
5	☐			58.34		P	57.1
6	☐			100.01		P	38.2
7	☐			200.01		P	23.2
8	☐			277.80		P	13.5
9	☐			194.45		P	6.5

156 Dy [He] No available calibration points

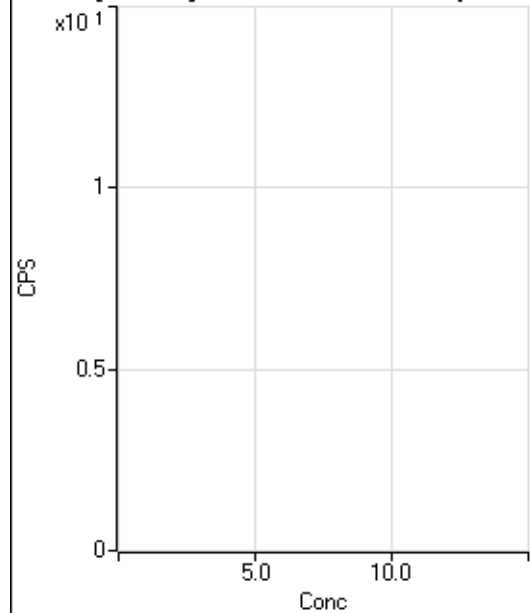
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			4.44		P	43.4
4	☐			14.44		P	35.3
5	☐			42.22		P	44.9
6	☐			63.33		P	5.3
7	☐			127.78		P	11.8
8	☐			224.45		P	12.0
9	☐			88.89		P	11.5

160 Gd [No Gas] No available calibration poin_

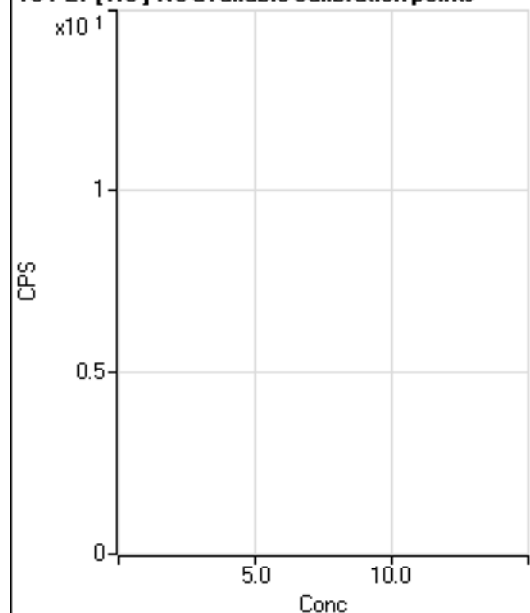
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			127.79		P	3.8
2	☐						
3	☐			130.56		P	18.4
4	☐			119.45		P	4.0
5	☐			141.67		P	5.9
6	☐			141.67		P	15.6
7	☐			172.23		P	7.4
8	☐			236.12		P	5.4
9	☐			294.46		P	36.1

160 Gd [He] No available calibration points

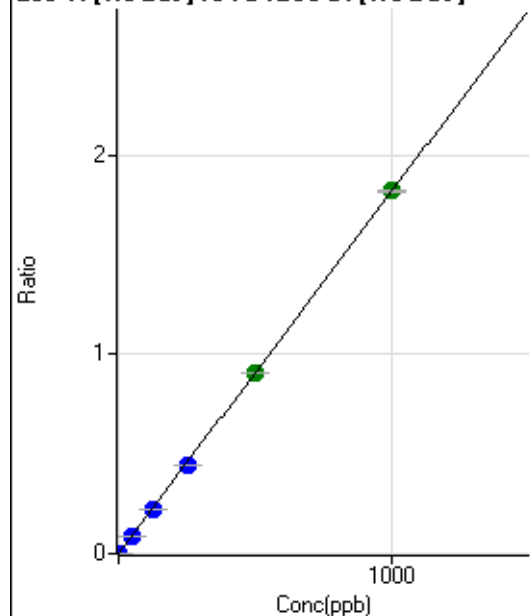
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			193.34		P	11.3
2	☐						
3	☐			200.00		P	13.0
4	☐			181.11		P	9.4
5	☐			204.45		P	18.0
6	☐			202.23		P	7.6
7	☐			215.56		P	23.3
8	☐			207.78		P	5.6
9	☐			273.34		P	12.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			50.00		P	16.7
2	☐						
3	☐			91.67		P	32.8
4	☐			61.11		P	20.8
5	☐			33.33		P	25.0
6	☐			91.67		P	32.8
7	☐			86.11		P	20.1
8	☐			91.67		P	32.8
9	☐			108.34		P	23.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			22.22		P	75.5
2	☐						
3	☐			44.45		P	30.3
4	☐			23.33		P	14.3
5	☐			37.78		P	28.4
6	☐			31.11		P	53.9
7	☐			47.78		P	21.3
8	☐			36.67		P	27.3
9	☐			50.00		P	29.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	186.12	0.0000	P	22.7
2	☐	0.100					
3	☐	1.000	0.975	20574.98	0.0018	P	0.9
4	☐	50.000	49.053	1041804.56	0.0891	P	1.0
5	☐	125.000	123.813	2613763.91	0.2250	P	1.0
6	☐	250.000	245.739	5169819.38	0.4465	P	0.2
7	☐	500.000	498.694	10213766.81	0.9061	A	0.6
8	☐	1000.000	1001.914	20193340.38	1.8203	A	0.5
9	☐			5801.56	0.0006	P	2.2

$$y = 0.0018 * x + 1.5609E-005$$

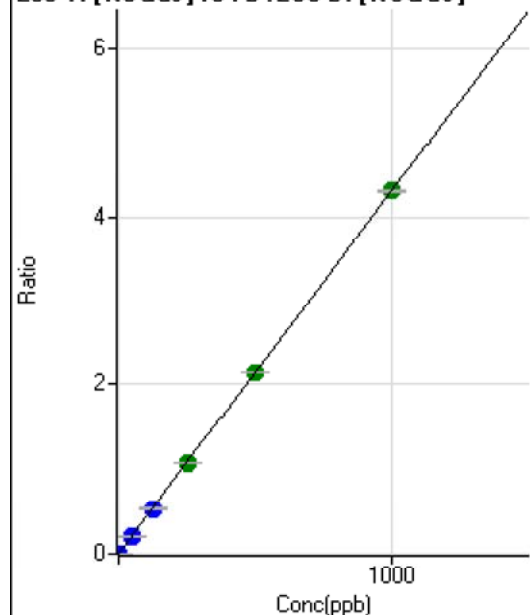
$$R = 1.0000$$

$$DL = 0.005845$$

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	391.69	0.0000	P	22.1
2	☐	0.100					
3	☐	1.000	0.990	49498.82	0.0043	P	1.4
4	☐	50.000	49.452	2490344.89	0.2131	P	0.8
5	☐	125.000	124.513	6232645.36	0.5364	P	0.8
6	☐	250.000	247.273	12335043.24	1.0653	A	0.4
7	☐	500.000	500.279	24295413.74	2.1553	A	0.2
8	☐	1000.000	1000.631	47821688.22	4.3108	A	0.4
9	☐			14021.88	0.0015	P	5.0

$$y = 0.0043 * x + 3.2821E-005$$

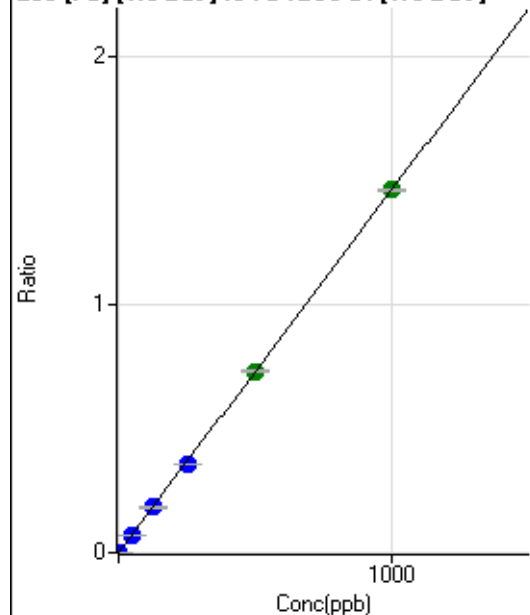
$$R = 1.0000$$

$$DL = 0.005048$$

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	346.31	0.0000	P	13.0
2	☐	0.100					
3	☐	1.000	1.037	17791.98	0.0015	P	1.3
4	☐	50.000	49.371	844300.74	0.0722	P	1.1
5	☐	125.000	124.906	2122917.49	0.1827	P	0.6
6	☐	250.000	244.527	4141430.71	0.3577	P	0.6
7	☐	500.000	500.895	8258762.51	0.7326	A	0.2
8	☐	1000.000	1000.964	16241110.20	1.4640	A	0.6
9	☐			30342.45	0.0032	P	0.8

$$y = 0.0015 * x + 2.9003E-005$$

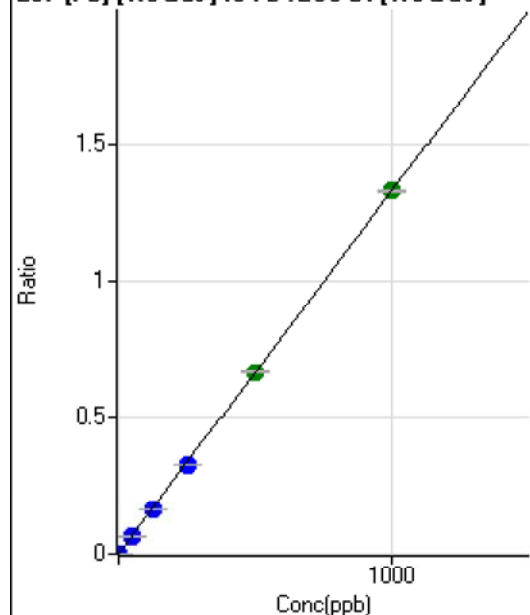
$$R = 1.0000$$

$$DL = 0.007709$$

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	372.24	0.0000	P	7.1
2	☐	0.100					
3	☐	1.000	1.011	15772.70	0.0014	P	1.0
4	☐	50.000	49.336	763951.56	0.0654	P	0.5
5	☐	125.000	124.137	1910351.92	0.1644	P	0.2
6	☐	250.000	244.050	3742395.75	0.3232	P	0.5
7	☐	500.000	501.105	7480720.19	0.6636	A	0.6
8	☐	1000.000	1001.076	14706255.07	1.3257	A	0.6
9	☐			26152.15	0.0027	P	0.8

$$y = 0.0013 * x + 3.1201E-005$$

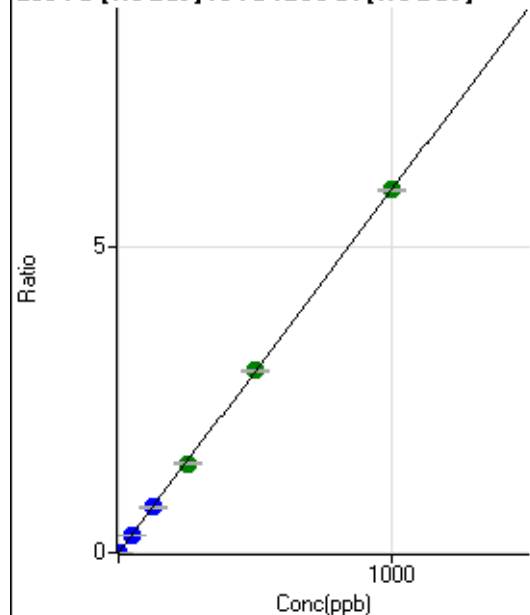
$$R = 1.0000$$

$$DL = 0.004994$$

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	1546.38	0.0001	P	5.2
2	☐	0.100					
3	☐	1.000	1.023	71162.72	0.0062	P	0.9
4	☐	50.000	49.600	3430317.14	0.2935	P	0.7
5	☐	125.000	124.688	8570402.79	0.7376	P	0.2
6	☐	250.000	246.507	16883553.97	1.4582	A	0.4
7	☐	500.000	501.203	33419216.78	2.9646	A	0.2
8	☐	1000.000	1000.331	65637196.84	5.9169	A	0.5
9	☐			119508.52	0.0124	P	0.2

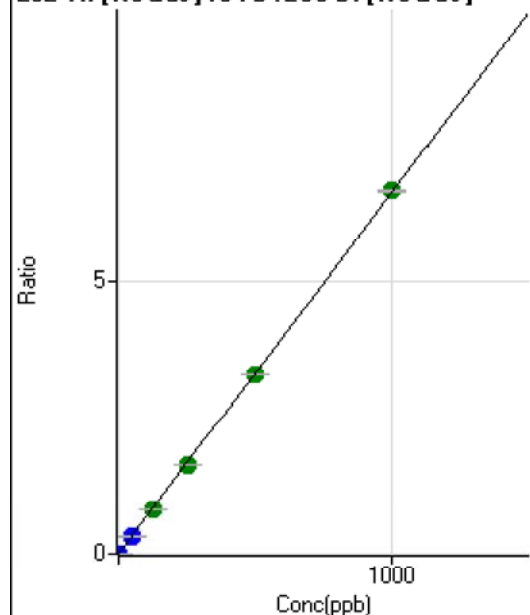
$$y = 0.0059 * x + 1.2955E-004$$

$$R = 1.0000$$

$$DL = 0.003434$$

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	151.86	0.0000	P	15.8
2	☐	0.100					
3	☐	1.000	0.949	72189.52	0.0063	P	2.6
4	☐	50.000	47.441	3654587.47	0.3127	P	0.6
5	☐	125.000	120.209	9205426.94	0.7923	A	0.6
6	☐	250.000	243.538	18585406.66	1.6051	A	0.3
7	☐	500.000	494.534	36742364.71	3.2594	A	0.1
8	☐	1000.000	1005.075	73485065.53	6.6244	A	0.6
9	☐			15326.13	0.0016	P	6.8

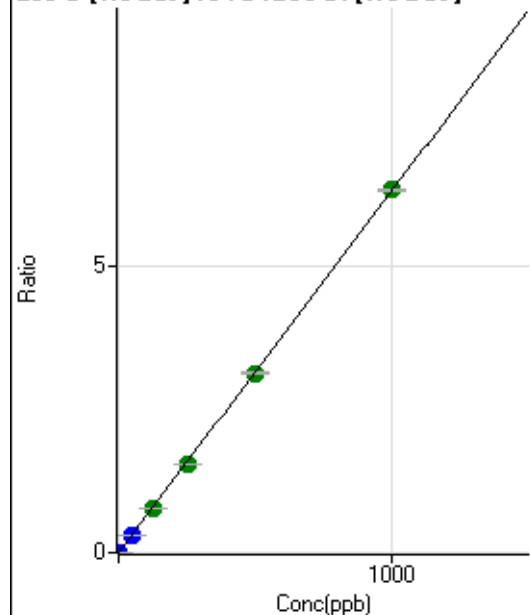
$$y = 0.0066 * x + 1.2716E-005$$

$$R = 1.0000$$

$$DL = 0.0009154$$

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	86.12	0.0000	P	19.6
2	☐	0.100					
3	☐	1.000	0.983	71491.28	0.0062	P	1.0
4	☐	50.000	48.028	3542274.60	0.3031	P	0.5
5	☐	125.000	120.802	8857155.67	0.7623	A	0.6
6	☐	250.000	243.676	17803777.48	1.5377	A	0.9
7	☐	500.000	497.014	35354519.54	3.1363	A	0.5
8	☐	1000.000	1003.697	70260659.90	6.3336	A	0.3
9	☐			13618.77	0.0014	P	0.9

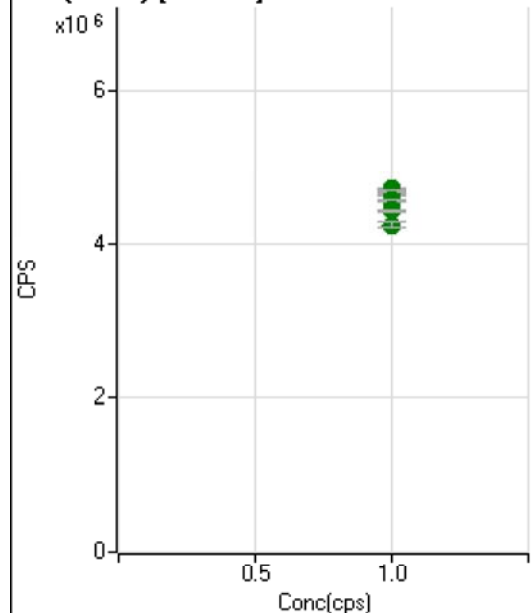
$$y = 0.0063 * x + 7.2102E-006$$

$$R = 1.0000$$

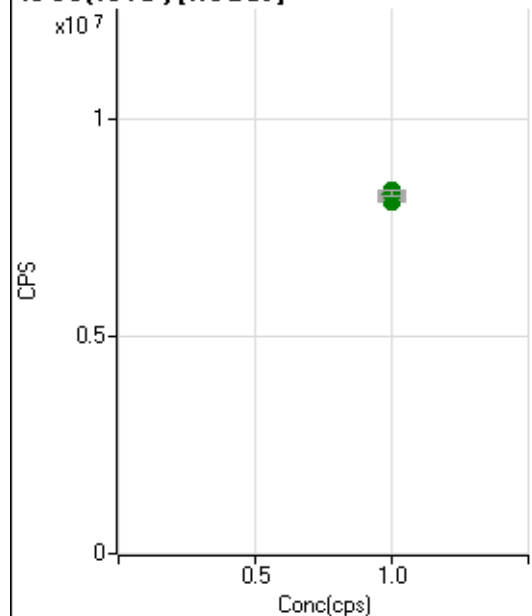
$$DL = 0.0006706$$

Weight: <None>

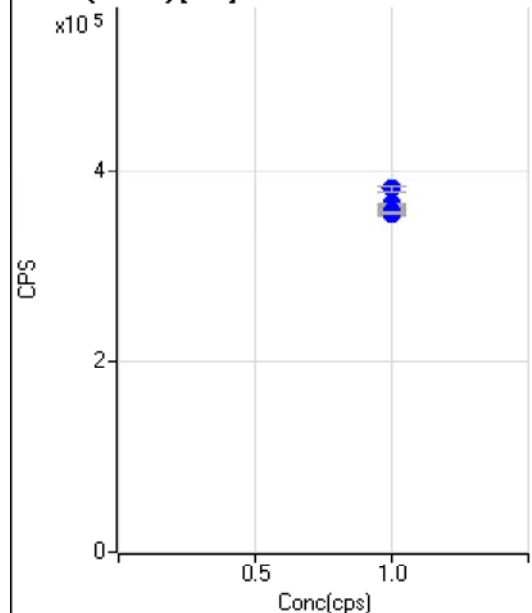
Min Conc: 0

6 Li(ISTD) [No Gas]

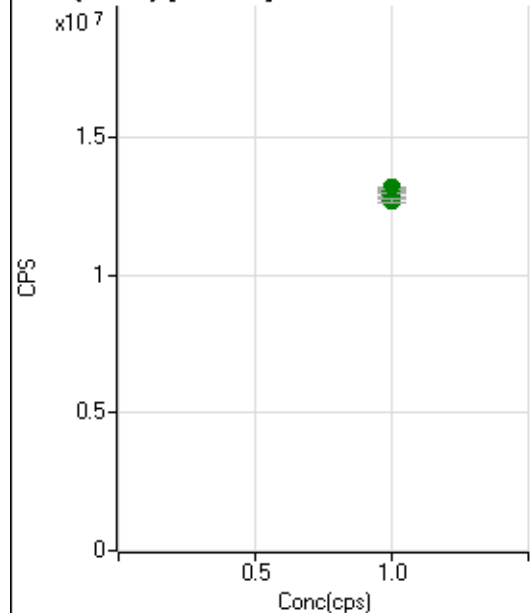
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4621652.29		A	0.2
2	☐	1.000					
3	☐	1.000		4661721.32		A	0.2
4	☐	1.000		4717574.09		A	0.3
5	☐	1.000		4678315.04		A	0.5
6	☐	1.000		4565568.13		A	0.6
7	☐	1.000		4451673.72		A	0.3
8	☐	1.000		4441913.34		A	0.3
9	☐	1.000		4261916.88		A	1.3

45 Sc(ISTD) [No Gas]

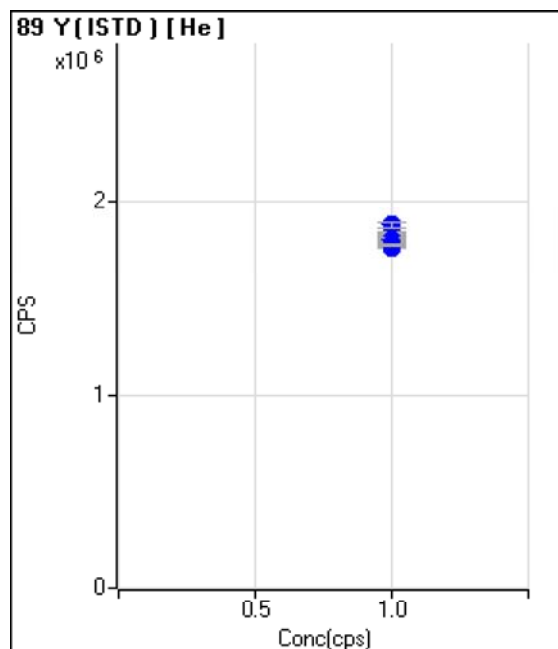
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		8252352.01		A	0.8
2	☐	1.000					
3	☐	1.000		8150063.46		A	0.4
4	☐	1.000		8337576.58		A	0.5
5	☐	1.000		8351870.50		A	0.8
6	☐	1.000		8284619.80		A	0.5
7	☐	1.000		8102585.77		A	0.2
8	☐	1.000		8174628.48		A	0.7
9	☐	1.000		8298946.97		A	1.3

45 Sc(ISTD) [He]

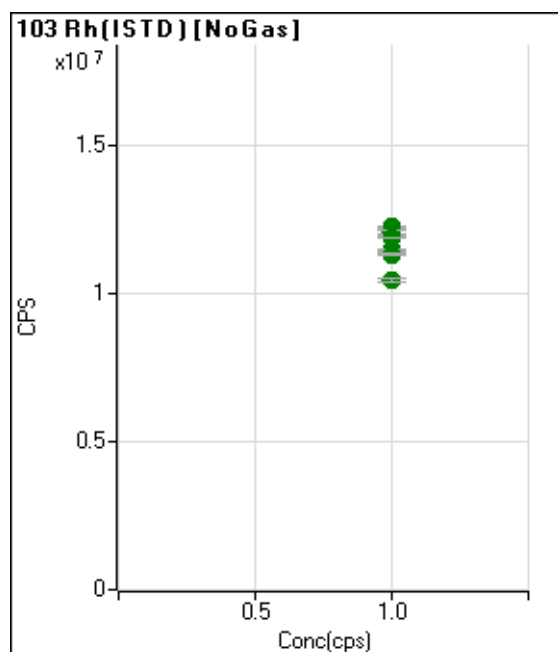
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		360607.92		P	0.6
2	☐	1.000					
3	☐	1.000		358303.81		P	1.0
4	☐	1.000		364418.84		P	0.1
5	☐	1.000		363949.81		P	0.3
6	☐	1.000		356700.00		P	0.9
7	☐	1.000		354007.54		P	0.2
8	☐	1.000		355051.40		P	0.6
9	☐	1.000		380474.25		P	1.8

89 Y(ISTD) [No Gas]

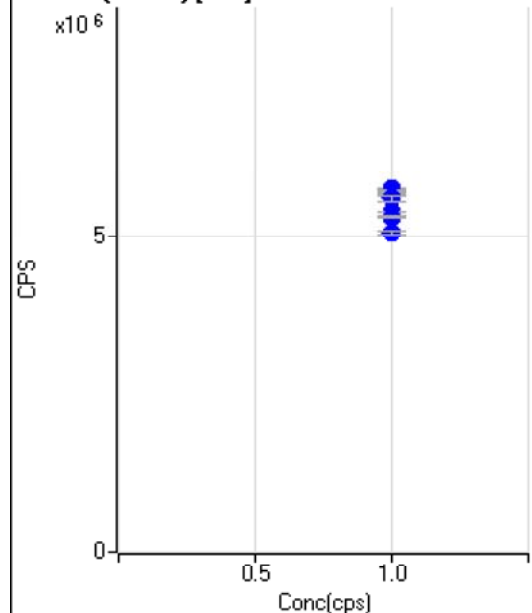
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13043961.61		A	0.5
2	☐	1.000					
3	☐	1.000		12783955.23		A	0.7
4	☐	1.000		13071251.33		A	0.3
5	☐	1.000		13169568.14		A	0.7
6	☐	1.000		13059425.78		A	1.2
7	☐	1.000		12819549.11		A	0.3
8	☐	1.000		12910088.14		A	1.1
9	☐	1.000		12725224.67		A	0.9



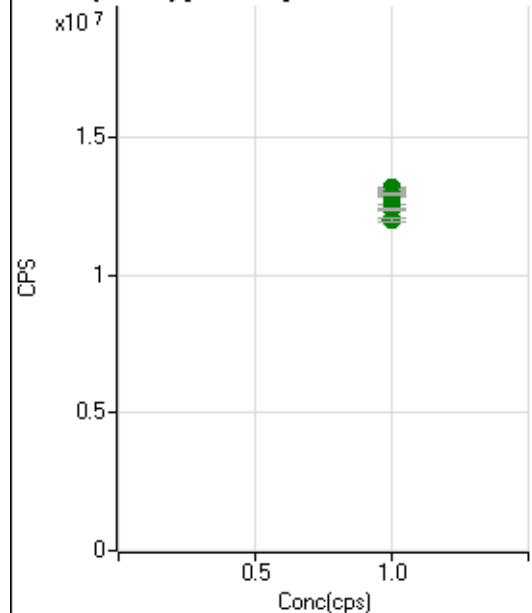
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1816720.11		P	0.8
2	☐	1.000					
3	☐	1.000		1794850.46		P	0.5
4	☐	1.000		1827710.72		P	0.6
5	☐	1.000		1835114.80		P	0.6
6	☐	1.000		1802063.24		P	1.1
7	☐	1.000		1766818.14		P	0.3
8	☐	1.000		1780348.36		P	0.8
9	☐	1.000		1878901.55		P	1.5



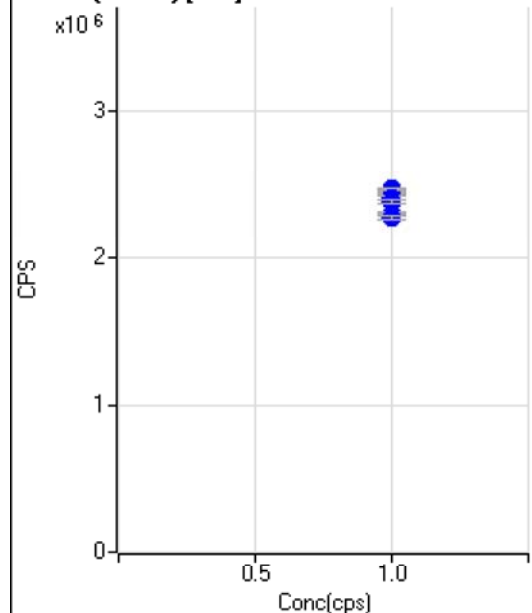
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12252305.22		A	0.7
2	☐	1.000					
3	☐	1.000		11933950.70		A	0.4
4	☐	1.000		12147747.06		A	0.2
5	☐	1.000		12102643.67		A	1.1
6	☐	1.000		11890724.92		A	0.4
7	☐	1.000		11485159.20		A	0.6
8	☐	1.000		11305399.99		A	0.6
9	☐	1.000		10463591.55		A	1.2

103Rh(ISTD) [He]

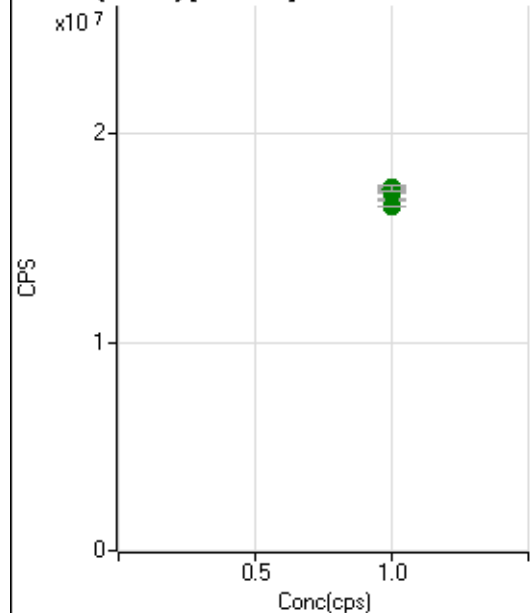
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5742763.25		P	0.5
2	☐	1.000					
3	☐	1.000		5703602.28		P	0.6
4	☐	1.000		5755919.22		P	0.7
5	☐	1.000		5718428.25		P	0.5
6	☐	1.000		5600069.43		P	1.2
7	☐	1.000		5390659.85		P	0.2
8	☐	1.000		5318211.83		P	0.7
9	☐	1.000		5067390.72		P	1.2

115In(ISTD) [NoGas]

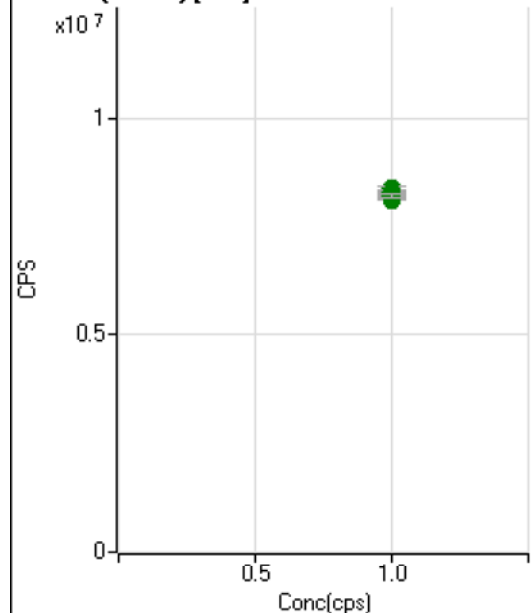
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		13167006.43		A	0.5
2	☐	1.000					
3	☐	1.000		12851159.82		A	0.7
4	☐	1.000		13098283.08		A	0.4
5	☐	1.000		13113469.67		A	0.6
6	☐	1.000		12923580.94		A	0.5
7	☐	1.000		12577532.31		A	0.2
8	☐	1.000		12405006.27		A	0.7
9	☐	1.000		11997601.59		A	0.8

115 In(ISTD) [He]

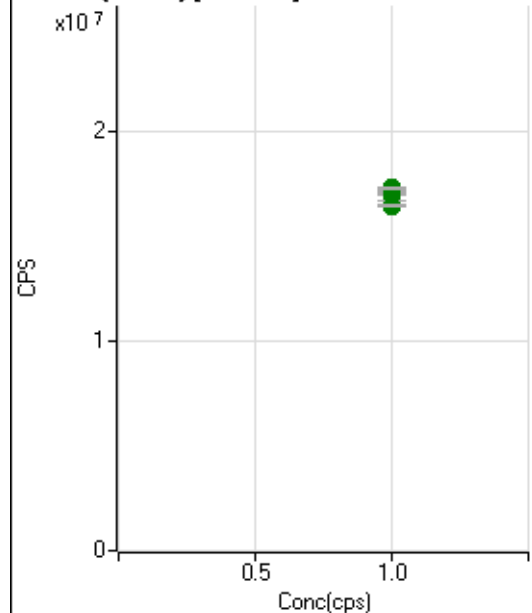
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2444080.10		P	0.6
2	☐	1.000					
3	☐	1.000		2441643.41		P	0.6
4	☐	1.000		2469599.48		P	0.4
5	☐	1.000		2470707.75		P	0.8
6	☐	1.000		2409120.12		P	0.8
7	☐	1.000		2310583.10		P	0.3
8	☐	1.000		2281453.79		P	0.9
9	☐	1.000		2377831.23		P	1.1

159 Tb(ISTD) [NoGas]

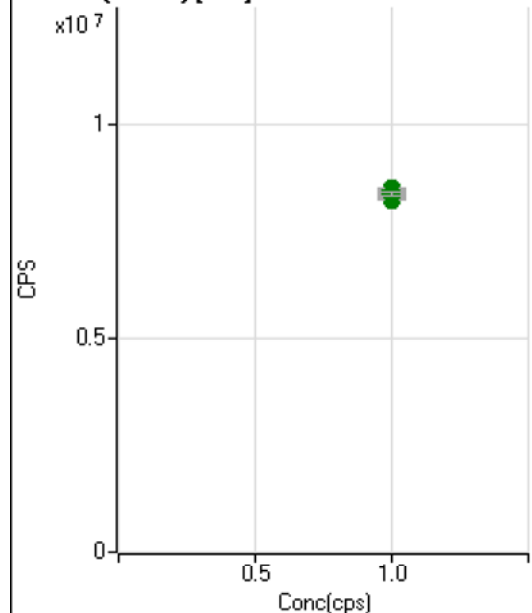
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		17191050.99		A	0.6
2	☐	1.000					
3	☐	1.000		16889540.30		A	0.5
4	☐	1.000		17293536.97		A	0.3
5	☐	1.000		17384083.91		A	0.4
6	☐	1.000		17420874.05		A	0.9
7	☐	1.000		17186103.22		A	0.6
8	☐	1.000		17404702.52		A	1.4
9	☐	1.000		16561334.47		A	0.1

159 Tb(ISTD) [He]

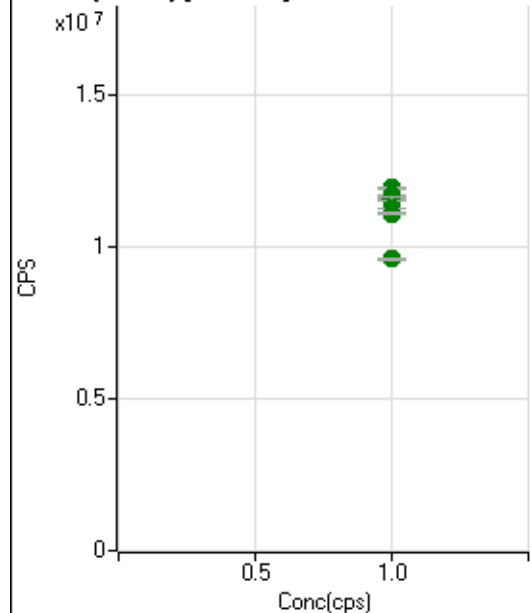
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8267592.79		A	0.3
2	☐	1.000					
3	☐	1.000		8154903.49		A	0.1
4	☐	1.000		8256597.86		A	0.4
5	☐	1.000		8369979.60		A	1.0
6	☐	1.000		8287898.49		A	1.0
7	☐	1.000		8118419.39		A	0.5
8	☐	1.000		8232564.53		A	0.5
9	☐	1.000		8213949.11		A	1.1

165 Ho(ISTD) [NoGas]

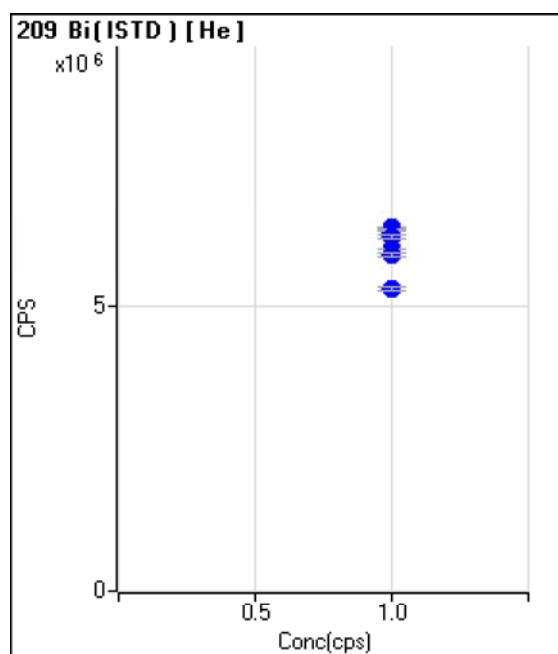
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		17051625.56		A	0.8
2	☐	1.000					
3	☐	1.000		16654011.14		A	0.1
4	☐	1.000		17112782.68		A	0.4
5	☐	1.000		17275817.40		A	0.6
6	☐	1.000		17240131.81		A	1.3
7	☐	1.000		17030027.98		A	0.3
8	☐	1.000		17218687.88		A	0.6
9	☐	1.000		16428542.73		A	0.6

165 Ho(ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		8449709.94		A	0.7
2	☐	1.000					
3	☐	1.000		8254230.29		A	0.4
4	☐	1.000		8430522.93		A	0.7
5	☐	1.000		8513609.87		A	0.8
6	☐	1.000		8477660.50		A	0.9
7	☐	1.000		8264343.49		A	0.5
8	☐	1.000		8412566.12		A	0.3
9	☐	1.000		8379263.28		A	1.0

209 Bi(ISTD) [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		11933736.21		A	0.7
2	☐	1.000					
3	☐	1.000		11513467.88		A	0.4
4	☐	1.000		11687773.16		A	0.4
5	☐	1.000		11618733.02		A	0.4
6	☐	1.000		11578796.22		A	0.6
7	☐	1.000		11272627.06		A	0.1
8	☐	1.000		11093373.45		A	0.6
9	☐	1.000		9608137.71		A	0.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6327768.24		P	1.0
2	☐	1.000					
3	☐	1.000		6280006.64		P	0.9
4	☐	1.000		6359131.43		P	0.5
5	☐	1.000		6325680.25		P	0.7
6	☐	1.000		6200693.17		P	1.2
7	☐	1.000		5993144.29		P	0.1
8	☐	1.000		5901853.24		P	0.8
9	☐	1.000		5287977.32		P	1.2

US EPA Tune Check Sample Report

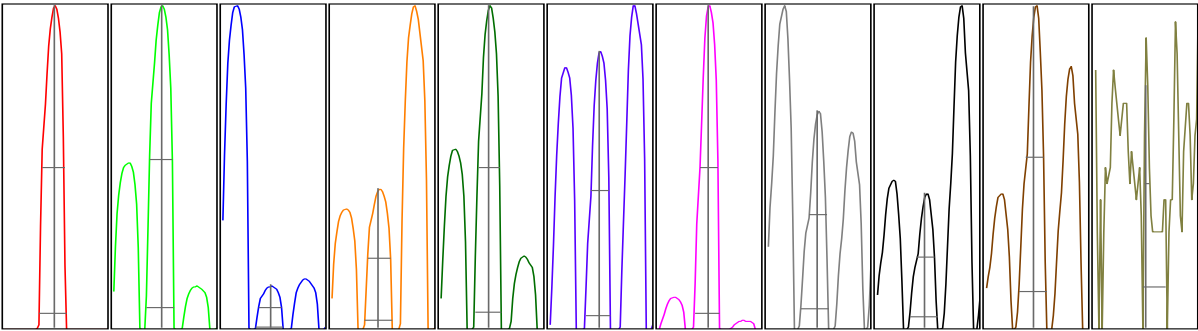
Batch Folder D:\ICP-MS Data\P7102218-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	26926	0.60	5.00	
24	204857	0.55	5.00	
25	27221	0.68	5.00	
26	31605	0.78	5.00	
59	186605	0.47	5.00	
113	23168	0.79	5.00	
115	272628	0.75	5.00	
206	71888	0.97	5.00	
207	67025	1.00	5.00	
208	154362	0.91	5.00	
220	0	46.95		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	27035	26863	26714	27130	26889
24	206178	205314	203367	205355	204073
25	27473	27277	27046	27279	27030
26	31966	31695	31314	31574	31476
59	187275	187141	185410	187289	185909
113	23457	23150	22961	23189	23082
115	275312	273196	269810	273218	271605
206	72775	72048	70856	72075	71684
207	68099	67132	66373	66960	66561
208	156031	154722	152186	154744	154130
220	0	0	1	1	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	45840	9.00	8.9 - 9.1		0.781	0.900	
24	329774	23.95	23.9 - 24.1		0.812	0.900	
25	44069	24.95	24.9 - 25.1		0.787	0.900	
26	50971	25.90	25.9 - 26.1		0.787	0.900	
59	318568	58.95	58.9 - 59.1		0.783	0.900	
113	43464	113.00	112.9 - 113.1		0.730	0.900	
115	516842	115.00	114.9 - 115.1		0.729	0.900	
206	136349	206.00	205.9 - 206.1		0.792	0.900	
207	123531	206.95	206.9 - 207.1		0.792	0.900	
208	293583	207.95	207.9 - 208.1		0.784	0.900	
220	1	220.05	-		0.672		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.0	V	Deflect	13.8	V
Extract 2	-155.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-80	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	46649	0.31	
89	23129	0.46	
205	59302	0.42	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	46527	46640	46559	46629	46891
89	22998	23121	23068	23278	23179
205	58923	59429	59196	59549	59412

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	7.2	V	Deflect	2.4	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-75	V	Cell Exit	-60	V			

Cell Parameters

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