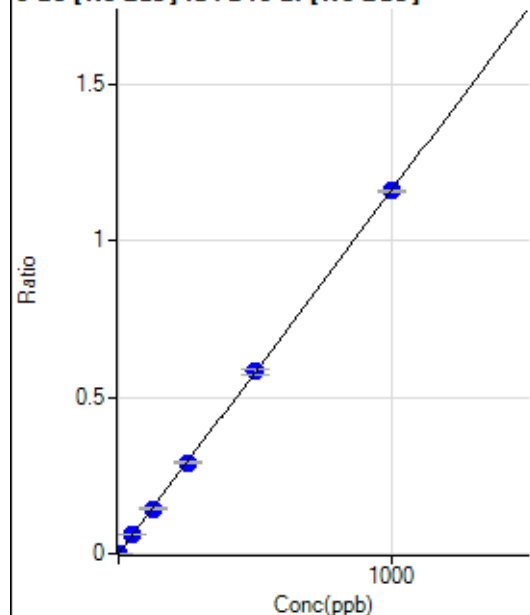


Batch Folder: D:\ICP-MS Data\P7022018 MS.b\
Analysis File: P7022018 MS.batch.bin
DA Date-Time: 2018-02-20 11:56:29
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	S00	2018-02-20 11:50:11
2			
3	007CALS.d	S02	2018-02-20 11:58:24
4	008CALS.d	S03	2018-02-20 12:02:14
5	009CALS.d	S04	2018-02-20 12:06:14
6	010CALS.d	S05	2018-02-20 12:09:59
7	011CALS.d	S06	2018-02-20 12:13:43
8	012CALS.d	S07	2018-02-20 12:17:25
9	013CALS.d	S08	2018-02-20 12:21:08

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	38.89	0.0000	P	24.9
2	☐	0.100					
3	☐	1.000	0.912	1487.15	0.0011	P	10.9
4	☐	50.000	51.703	83136.08	0.0600	P	0.4
5	☐	125.000	124.366	200515.64	0.1443	P	0.7
6	☐	250.000	251.053	390017.85	0.2913	P	3.3
7	☐	500.000	502.071	797598.11	0.5826	P	3.4
8	☐	1000.000	998.695	1525476.15	1.1588	P	0.5
9	☐			257.42	0.0002	P	14.7

$$y = 0.0012 * x + 2.8097E-005$$

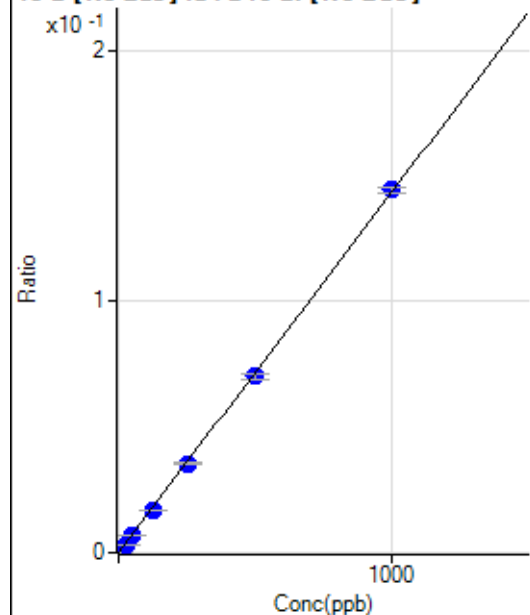
$$R = 1.0000$$

$$DL = 0.01806$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	66.67	0.0000	P	33.7
2	☐	2.500					
3	☐	25.000	21.793	4348.02	0.0032	P	1.7
4	☐	50.000	46.886	9375.49	0.0068	P	2.8
5	☐	125.000	117.153	23393.83	0.0168	P	3.5
6	☐	250.000	246.066	47288.71	0.0353	P	2.5
7	☐	500.000	489.522	96140.76	0.0702	P	3.1
8	☐	1000.000	1007.439	190140.91	0.1444	P	1.7
9	☐			8035.77	0.0063	P	9.9

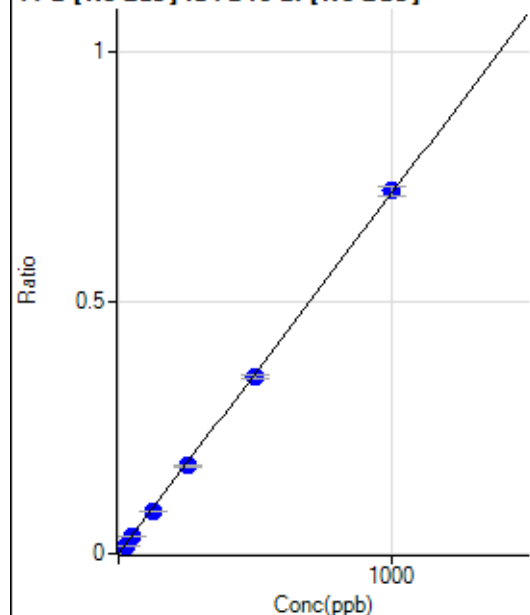
$$y = 1.4333E-004 * x + 4.8242E-005$$

$$R = 0.9999$$

$$DL = 0.3398$$

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	402.80	0.0003	P	14.6
2	☐	2.500					
3	☐	25.000	21.838	21838.71	0.0160	P	2.8
4	☐	50.000	48.040	48124.68	0.0347	P	4.0
5	☐	125.000	118.821	118786.44	0.0855	P	1.3
6	☐	250.000	242.921	233601.69	0.1745	P	3.9
7	☐	500.000	491.470	483098.13	0.3527	P	1.6
8	☐	1000.000	1006.984	950930.42	0.7224	P	2.3
9	☐			39773.17	0.0313	P	11.6

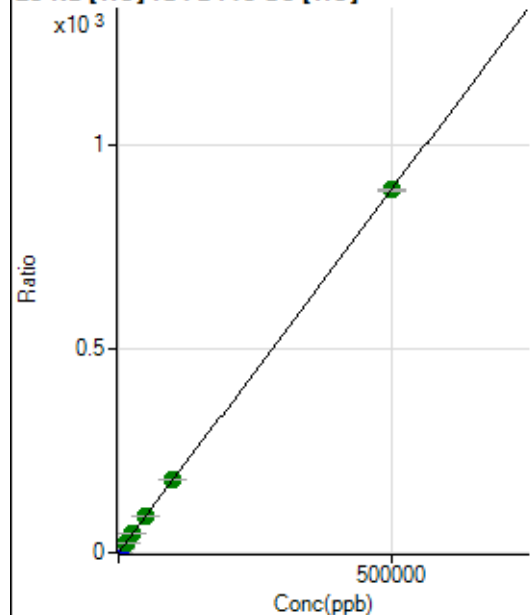
$$y = 7.1710\text{E-}004 * x + 2.9079\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.1779$$

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	18386.82	0.0725	P	3.3
2	☐	50.000					
3	☐	500.000	461.900	228397.08	0.8936	P	1.3
4	☐	5000.000	5051.133	2265563.16	9.0520	P	1.9
5	☐	12500.000	12500.666	5632129.25	22.2952	A	2.4
6	☐	25000.000	25436.232	11080291.05	45.2910	A	0.8
7	☐	50000.000	50487.534	23016020.48	89.8251	A	1.3
8	☐	100000.00	99975.569	44711062.11	177.8009	A	0.9
9	☐	500000.00	499933.83	228139438.4	888.8142	A	0.5

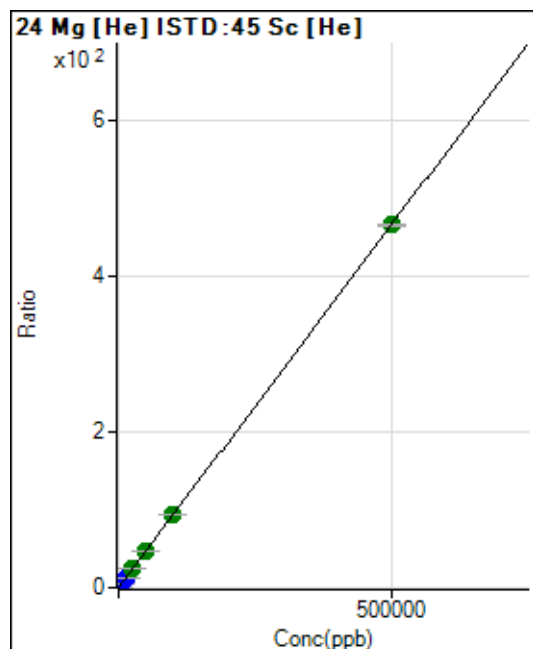
$$y = 0.0018 * x + 0.0725$$

$$R = 1.0000$$

$$DL = 4.018$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	402.80	0.0016	P	12.2
2	☐	50.000					
3	☐	500.000	474.627	113626.07	0.4446	P	1.5
4	☐	5000.000	5100.073	1191787.51	4.7617	P	2.1
5	☐	12500.000	12699.418	2994776.63	11.8546	P	2.1
6	☐	25000.000	25629.467	5852696.70	23.9228	A	0.7
7	☐	50000.000	50746.893	12136840.72	47.3661	A	1.1
8	☐	100000.00	100243.71	23527864.24	93.5638	A	1.1
9	☐	500000.00	499839.13	119747004.0	466.5252	A	0.3

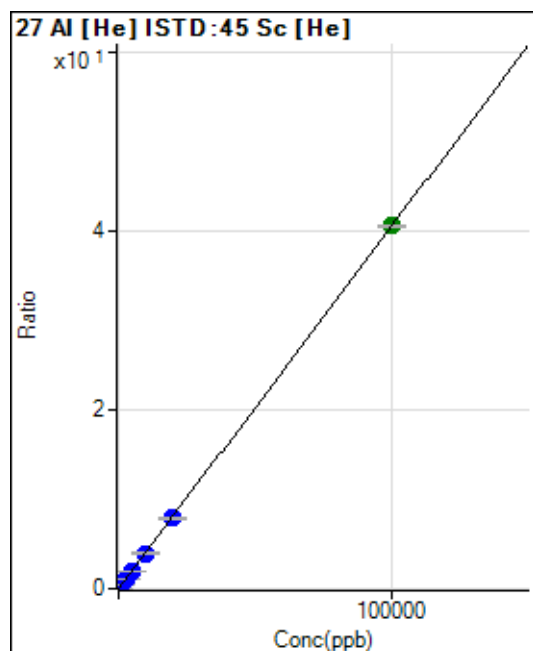
$$y = 9.3335\text{E-}004 * x + 0.0016$$

$$R = 1.0000$$

$$DL = 0.6205$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.56	0.0001	P	14.7
2	☐	2.000					
3	☐	20.000	18.417	1939.09	0.0076	P	6.9
4	☐	1000.000	982.289	99739.93	0.3985	P	1.9
5	☐	2500.000	2425.954	248550.22	0.9840	P	2.8
6	☐	5000.000	4948.270	490988.08	2.0069	P	0.7
7	☐	10000.000	9800.975	1018539.70	3.9749	P	1.0
8	☐	20000.000	19391.836	1977733.99	7.8645	P	0.6
9	☐	100000.00	100146.15	10425108.31	40.6147	A	0.4

$$y = 4.0555\text{E-}004 * x + 1.2029\text{E-}004$$

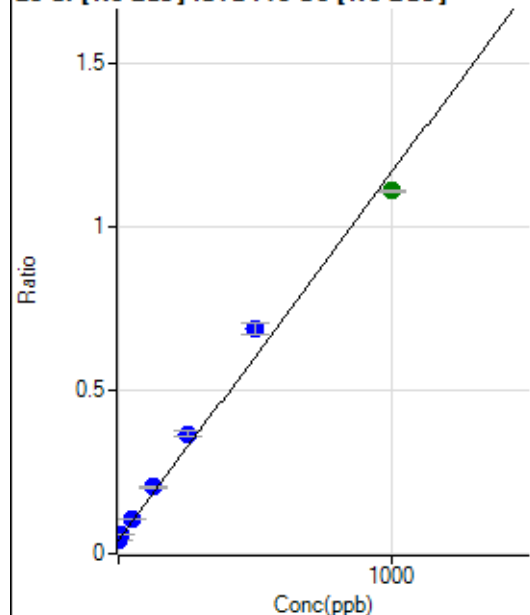
$$R = 1.0000$$

$$DL = 0.1304$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	230843.89	0.0415	P	1.0
2	☐	1.000					
3	☐	10.000	14.522	319682.55	0.0579	P	4.5
4	☐	50.000	56.157	576896.34	0.1047	P	0.8
5	☐	125.000	144.334	1120652.21	0.2040	P	4.4
6	☐	250.000	288.459	1955211.52	0.3663	P	4.3
7	☐	500.000	574.349	3835265.45	0.6881	P	4.7
8	☐	1000.000	950.441	6114139.11	1.1115	A	0.3
9	☐			1222433.89	0.2244	P	1.0

$$y = 0.0011 * x + 0.0415$$

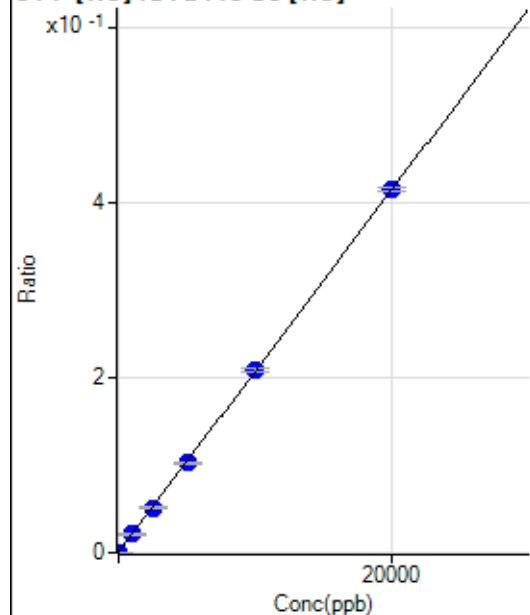
$$R = 0.9948$$

$$DL = 1.158$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-3.893	100.00	0.0004	P	12.9
2	☐	0.000					
3	☐	0.000	3.893	141.67	0.0006	P	7.3
4	☐	1000.000	1004.972	5320.61	0.0212	P	10.4
5	☐	2500.000	2463.856	12981.16	0.0514	P	5.2
6	☐	5000.000	4920.734	25002.36	0.1022	P	1.4
7	☐	10000.000	10018.062	53184.72	0.2076	P	2.0
8	☐	20000.000	20015.055	104168.08	0.4142	P	1.1
9	☐			102.78	0.0004	P	47.0

$$y = 2.0673E-005 * x + 4.7413E-004$$

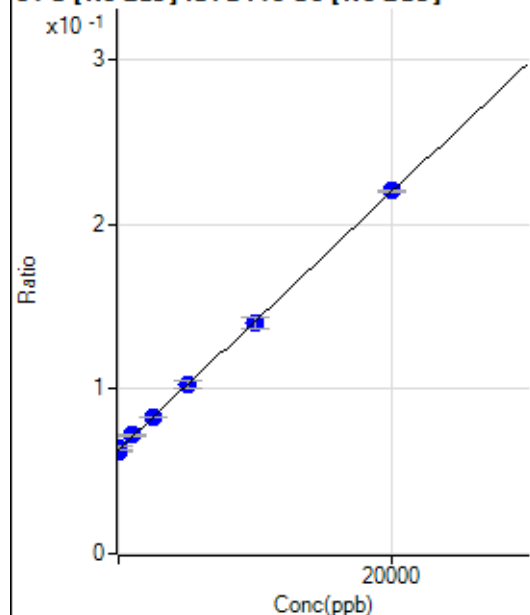
$$R = 1.0000$$

$$DL = 6.607$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-110.767	345936.46	0.0622	P	1.0
2	☐	0.000					
3	☐	0.000	110.767	353296.32	0.0639	P	4.1
4	☐	1000.000	1142.370	396708.57	0.0720	P	0.7
5	☐	2500.000	2536.758	455675.91	0.0829	P	0.9
6	☐	5000.000	5067.142	548639.39	0.1028	P	4.7
7	☐	10000.000	9823.661	780680.87	0.1401	P	4.6
8	☐	20000.000	20059.671	1211829.58	0.2203	P	0.8
9	☐			311574.71	0.0572	P	0.8

$$y = 7.8390\text{E-}006 * x + 0.0631$$

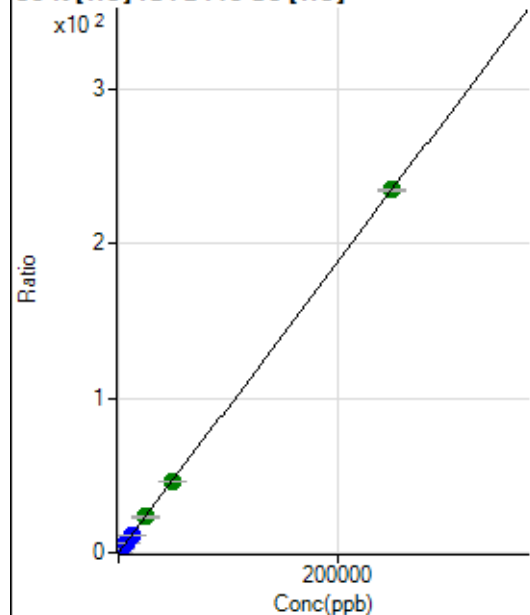
$$R = 0.9999$$

$$DL = 616.8$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27019.94	0.1065	P	3.5
2	☐	50.000					
3	☐	500.000	444.848	133815.26	0.5236	P	1.4
4	☐	2500.000	2423.508	595346.84	2.3786	P	1.5
5	☐	6250.000	6021.073	1452897.92	5.7515	P	2.5
6	☐	12500.000	12362.031	2861477.80	11.6964	P	0.9
7	☐	25000.000	24486.378	5909742.02	23.0635	A	1.1
8	☐	50000.000	48802.030	11532047.31	45.8603	A	1.3
9	☐	250000.00	250304.45	60263084.68	234.7768	A	0.4

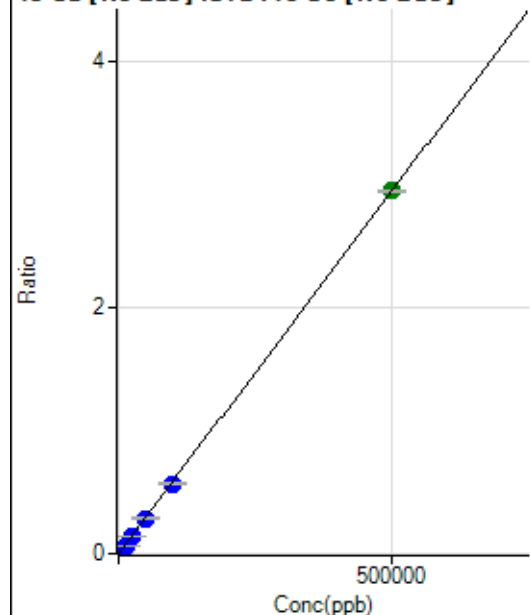
$$y = 9.3754\text{E-}004 * x + 0.1065$$

$$R = 1.0000$$

$$DL = 12.02$$

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	197.23	0.0000	P	17.8
2	☐	50.000					
3	☐	500.000	428.825	14146.18	0.0026	P	4.7
4	☐	5000.000	4752.593	154333.35	0.0280	P	0.7
5	☐	12500.000	11871.700	384173.17	0.0699	P	0.9
6	☐	25000.000	24073.676	756752.28	0.1418	P	4.6
7	☐	50000.000	48074.146	1577502.58	0.2831	P	5.1
8	☐	100000.00	96890.414	3137983.36	0.5705	P	1.0
9	☐	500000.00	500879.07	16065495.32	2.9489	A	0.2

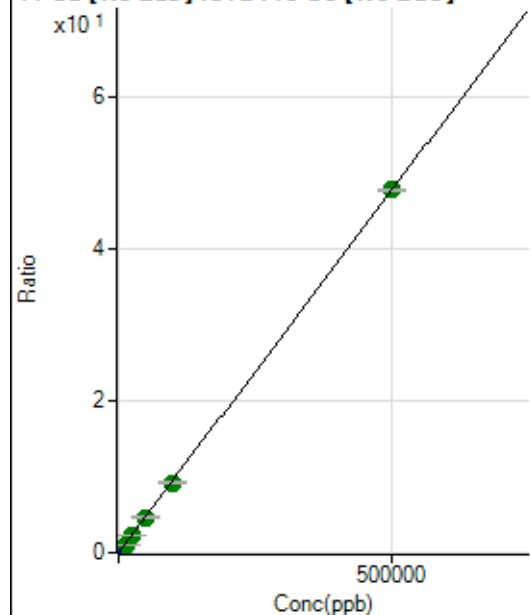
$$y = 5.8875E-006 * x + 3.5491E-005$$

$$R = 1.0000$$

$$DL = 3.216$$

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	16679.54	0.0030	P	0.9
2	☐	50.000					
3	☐	500.000	432.826	244856.37	0.0443	P	3.8
4	☐	5000.000	4770.563	2524354.00	0.4583	P	0.8
5	☐	12500.000	11844.928	6226206.56	1.1334	A	1.1
6	☐	25000.000	23953.592	12217457.04	2.2889	A	4.8
7	☐	50000.000	47964.839	25522223.66	4.5803	A	5.4
8	☐	100000.00	96746.910	50801481.00	9.2355	A	0.7
9	☐	500000.00	500925.19	260440616.9	47.8060	A	0.8

$$y = 9.5429E-005 * x + 0.0030$$

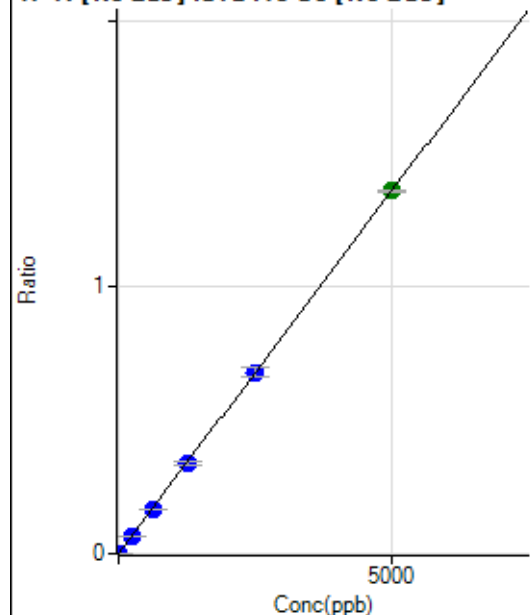
$$R = 1.0000$$

$$DL = 0.8112$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.23	0.0000	P	12.1
2	☐	0.500					
3	☐	5.000	4.537	6918.56	0.0013	P	5.7
4	☐	250.000	246.271	368952.36	0.0670	P	0.9
5	☐	625.000	610.642	912206.28	0.1660	P	0.9
6	☐	1250.000	1241.110	1801495.11	0.3375	P	4.4
7	☐	2500.000	2498.784	3786292.71	0.6794	P	5.1
8	☐	5000.000	5004.813	7485248.69	1.3608	A	0.7
9	☐			1502.92	0.0003	P	5.6

$$y = 2.7189\text{E-}004 * x + 1.7465\text{E-}005$$

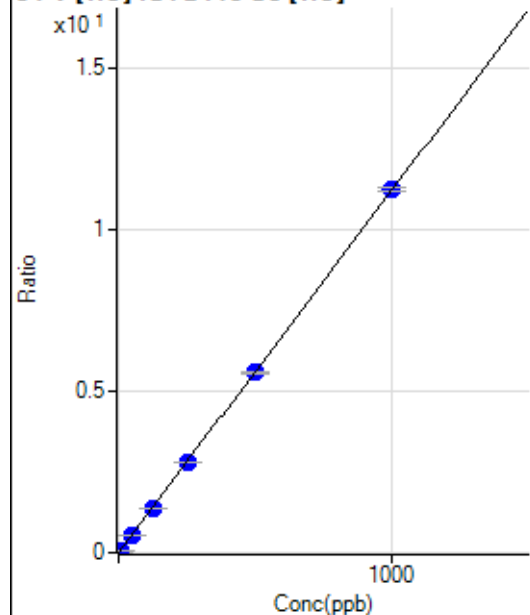
$$R = 1.0000$$

$$DL = 0.0234$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.00	0.0000	P	65.6
2	☐	0.500					
3	☐	5.000	4.446	12716.75	0.0498	P	2.4
4	☐	50.000	48.501	135759.85	0.5424	P	2.7
5	☐	125.000	121.722	343875.85	1.3613	P	2.5
6	☐	250.000	248.180	679017.11	2.7755	P	0.9
7	☐	500.000	496.989	1424208.24	5.5580	P	0.6
8	☐	1000.000	1002.448	2819079.75	11.2106	P	1.1
9	☐			742.25	0.0029	P	13.4

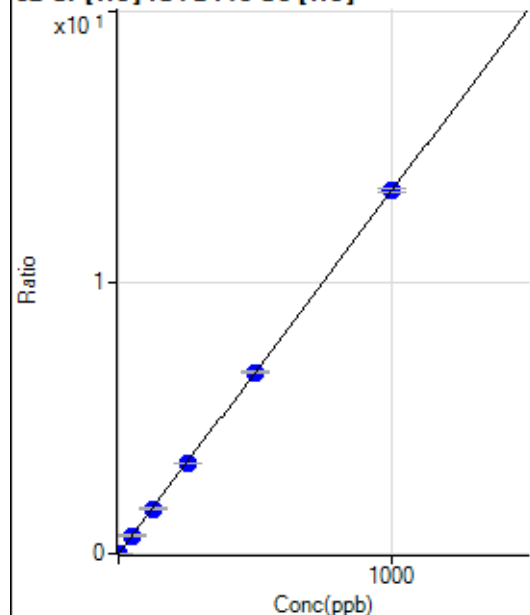
$$y = 0.0112 * x + 3.9257\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.006906$$

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	548.91	0.0022	P	6.8
2	☐	0.200					
3	☐	2.000	2.000	7395.30	0.0289	P	4.1
4	☐	50.000	49.947	167933.46	0.6710	P	2.2
5	☐	125.000	123.202	417293.76	1.6519	P	2.5
6	☐	250.000	249.577	818151.71	3.3442	P	0.8
7	☐	500.000	499.917	1715926.01	6.6964	P	0.8
8	☐	1000.000	1000.375	3369101.79	13.3979	P	1.0
9	☐			66684.43	0.2598	P	0.7

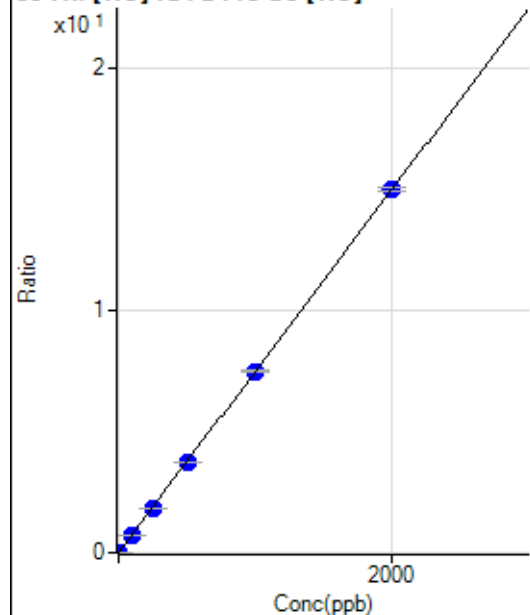
$$y = 0.0134 * x + 0.0022$$

$$R = 1.0000$$

$$DL = 0.0328$$

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	45.56	0.0002	P	38.3
2	☐	0.100					
3	☐	1.000	0.943	1847.93	0.0072	P	2.8
4	☐	100.000	99.200	185652.59	0.7418	P	2.4
5	☐	250.000	245.224	463168.91	1.8334	P	2.2
6	☐	500.000	499.388	913401.27	3.7335	P	0.7
7	☐	1000.000	998.928	1913615.25	7.4680	P	0.8
8	☐	2000.000	2001.326	3762372.93	14.9617	P	1.0
9	☐			12063.98	0.0470	P	0.8

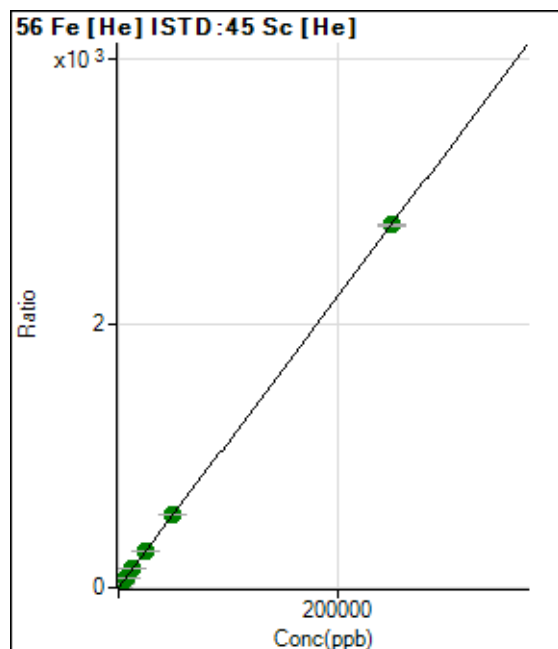
$$y = 0.0075 * x + 1.8011E-004$$

$$R = 1.0000$$

$$DL = 0.02768$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2626.25	0.0103	P	5.1
2	☐	5.000					
3	☐	50.000	47.302	135457.71	0.5300	P	1.0
4	☐	2500.000	2518.837	6927539.62	27.6804	A	2.6
5	☐	6250.000	6234.463	17302649.23	68.4975	A	2.7
6	☐	12500.000	12773.206	34330816.51	140.3272	A	0.7
7	☐	25000.000	25344.859	71344888.63	278.4300	A	1.0
8	☐	50000.000	50317.908	138995247.5	552.7652	A	1.6
9	☐	250000.00	249888.47	704609437.9	2,745.097	A	0.3

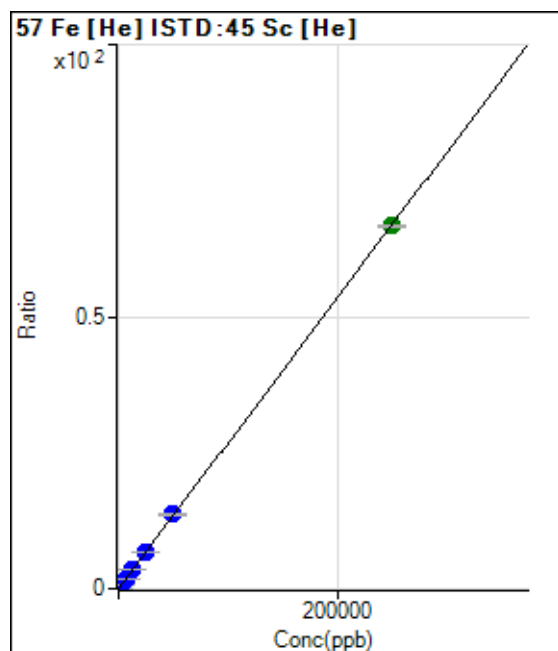
$$y = 0.0110 * x + 0.0103$$

$$R = 1.0000$$

$$DL = 0.1441$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	151.86	0.0006	P	12.9
2	☐	5.000					
3	☐	50.000	49.240	3515.33	0.0138	P	7.6
4	☐	2500.000	2539.059	170020.21	0.6794	P	2.5
5	☐	6250.000	6293.519	425155.35	1.6831	P	2.6
6	☐	12500.000	12754.576	834341.93	3.4103	P	0.5
7	☐	25000.000	25393.051	1739619.73	6.7890	P	0.8
8	☐	50000.000	51023.211	3430165.76	13.6408	P	1.1
9	☐	250000.00	249741.84	17136797.37	66.7647	A	0.6

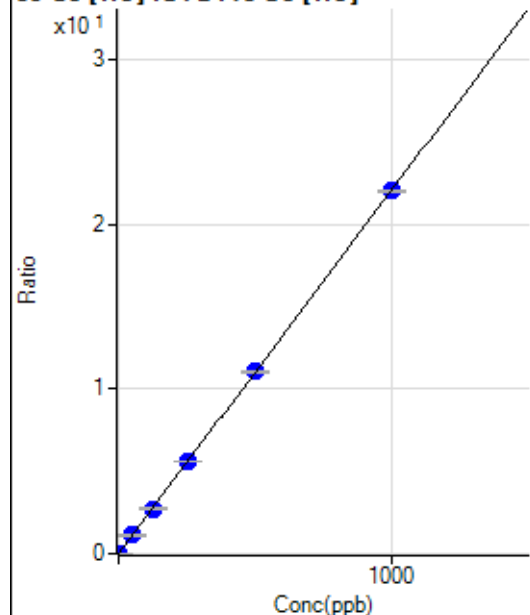
$$y = 2.6733E-004 * x + 5.9797E-004$$

$$R = 1.0000$$

$$DL = 0.8656$$

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	126.67	0.0005	P	24.0
2	☐	0.100					
3	☐	1.000	0.906	5237.69	0.0205	P	4.2
4	☐	50.000	50.338	278224.03	1.1117	P	2.2
5	☐	125.000	123.940	691275.07	2.7364	P	2.3
6	☐	250.000	252.252	1362447.84	5.5688	P	0.1
7	☐	500.000	501.888	2838963.81	11.0794	P	1.1
8	☐	1000.000	998.608	5543433.39	22.0442	P	0.9
9	☐			7335.27	0.0286	P	2.6

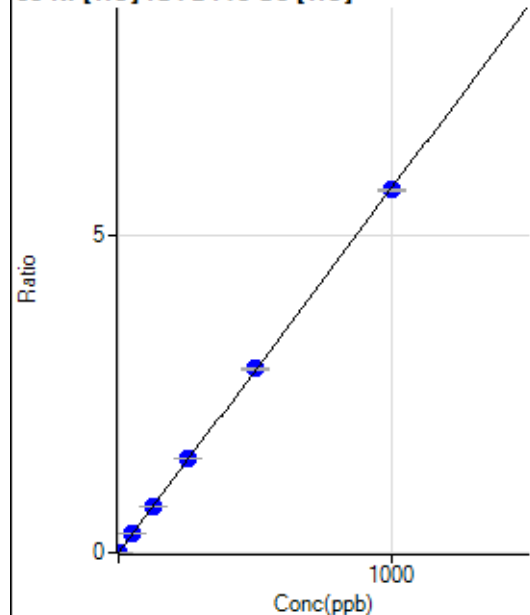
$$y = 0.0221 * x + 5.0042E-004$$

$$R = 1.0000$$

$$DL = 0.01632$$

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	104.45	0.0004	P	22.5
2	☐	0.100					
3	☐	1.000	1.018	1602.34	0.0063	P	3.4
4	☐	50.000	51.766	74682.31	0.2984	P	1.7
5	☐	125.000	126.867	184579.04	0.7307	P	2.4
6	☐	250.000	257.012	362036.56	1.4798	P	0.5
7	☐	500.000	504.527	744274.64	2.9045	P	0.9
8	☐	1000.000	995.662	1441302.38	5.7315	P	0.8
9	☐			18437.33	0.0718	P	1.8

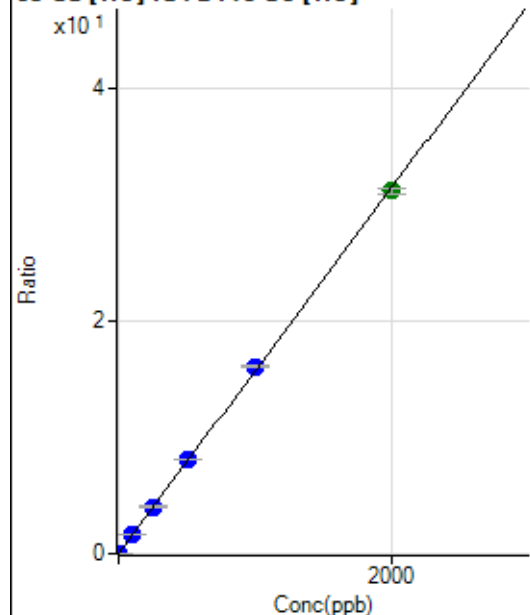
$$y = 0.0058 * x + 4.1073E-004$$

$$R = 1.0000$$

$$DL = 0.04827$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2370.23	0.0093	P	3.8
2	☐	0.200					
3	☐	2.000	1.962	10267.07	0.0402	P	2.1
4	☐	100.000	104.074	411655.15	1.6448	P	2.1
5	☐	250.000	254.397	1012249.60	4.0070	P	2.3
6	☐	500.000	517.776	1992900.09	8.1458	P	0.5
7	☐	1000.000	1022.170	4118370.15	16.0720	P	0.7
8	☐	2000.000	1983.718	7841004.60	31.1820	A	1.3
9	☐			12811.32	0.0499	P	1.0

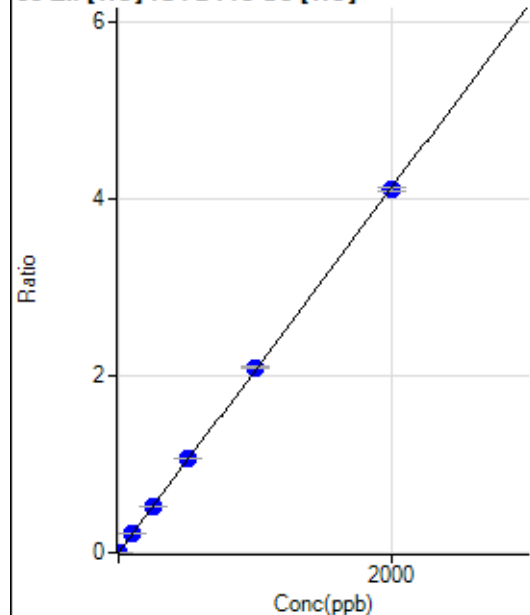
$$y = 0.0157 * x + 0.0093$$

$$R = 0.9999$$

$$DL = 0.06768$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	178.89	0.0007	P	6.5
2	☐	0.200					
3	☐	2.000	2.056	1265.63	0.0050	P	2.2
4	☐	100.000	103.507	53664.89	0.2144	P	1.8
5	☐	250.000	253.814	132574.73	0.5248	P	1.8
6	☐	500.000	514.780	260205.81	1.0636	P	0.4
7	☐	1000.000	1012.929	536097.81	2.0921	P	1.0
8	☐	2000.000	1989.188	1032949.66	4.1078	P	1.2
9	☐			4061.74	0.0158	P	2.2

$$y = 0.0021 * x + 7.0535E-004$$

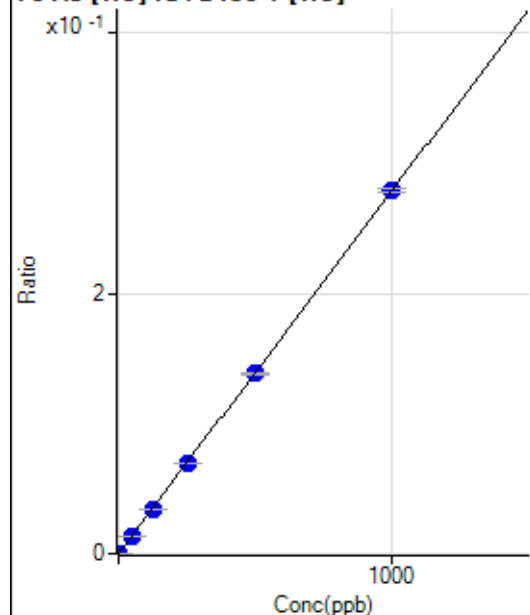
$$R = 0.9999$$

$$DL = 0.06642$$

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	8.64	0.0000	P	68.6
2	☐	0.100					
3	☐	1.000	0.979	374.70	0.0003	P	2.0
4	☐	50.000	49.821	18377.74	0.0139	P	1.6
5	☐	125.000	122.938	45483.78	0.0342	P	0.5
6	☐	250.000	248.290	89781.51	0.0691	P	0.3
7	☐	500.000	498.228	187926.33	0.1387	P	1.1
8	☐	1000.000	1001.580	367421.76	0.2788	P	1.0
9	☐			219.76	0.0002	P	7.1

$$y = 2.7838\text{E-}004 * x + 6.3836\text{E-}006$$

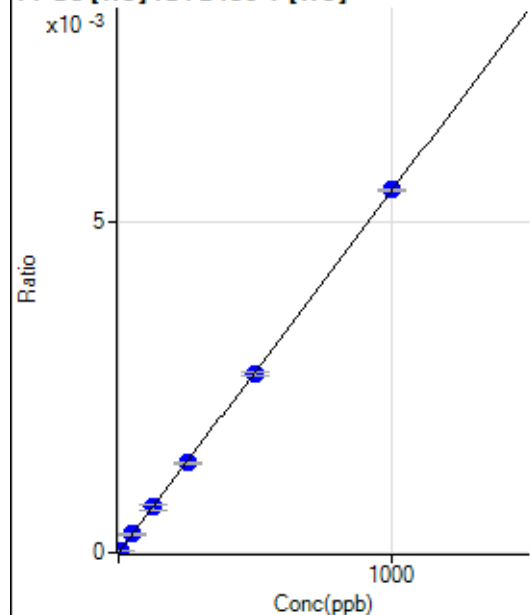
$$R = 1.0000$$

$$DL = 0.04722$$

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	5.326	38.89	0.0000	P	41.4
4	☐	50.000	50.640	366.68	0.0003	P	12.2
5	☐	125.000	125.016	906.71	0.0007	P	10.7
6	☐	250.000	247.362	1754.58	0.0014	P	3.8
7	☐	500.000	494.617	3660.52	0.0027	P	2.2
8	☐	1000.000	1003.315	7221.91	0.0055	P	0.5
9	☐			4.44	0.0000	P	43.1

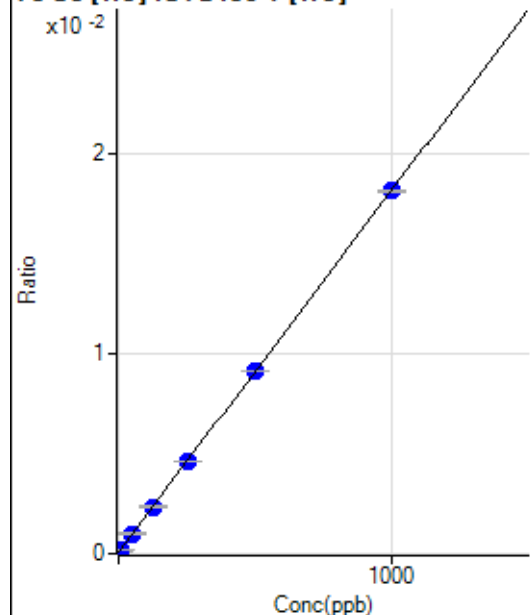
$$y = 5.4622\text{E-}006 * x + 0.0000\text{E+}000$$

$$R = 1.0000$$

$$DL = 0$$

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	96.91	0.0001	P	15.0
2	☐	0.500					
3	☐	5.000	4.273	200.01	0.0001	P	3.8
4	☐	50.000	50.597	1305.63	0.0010	P	8.3
5	☐	125.000	125.535	3108.39	0.0023	P	2.6
6	☐	250.000	250.754	5977.21	0.0046	P	0.1
7	☐	500.000	500.979	12360.28	0.0091	P	0.7
8	☐	1000.000	999.229	23883.88	0.0181	P	0.7
9	☐			98.15	0.0001	P	8.3

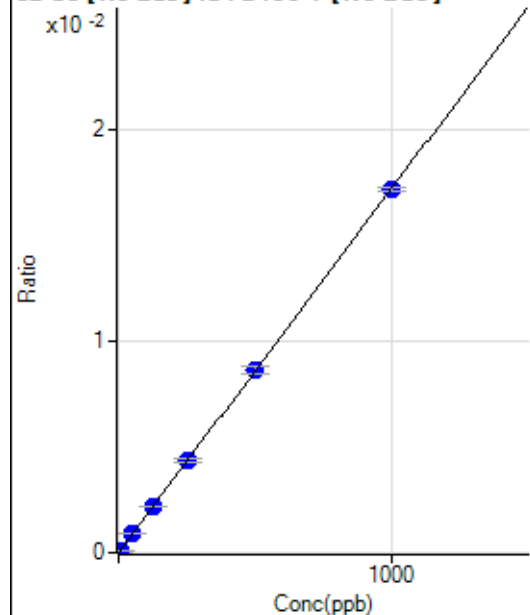
$$y = 1.8066\text{E-}005 * x + 7.1703\text{E-}005$$

$$R = 1.0000$$

$$DL = 1.784$$

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	-8.60	0.0000	P	-808.
2	☐	0.500					
3	☐	5.000	5.053	757.36	0.0001	P	8.2
4	☐	50.000	51.222	7773.49	0.0009	P	1.7
5	☐	125.000	127.164	19266.62	0.0022	P	0.6
6	☐	250.000	255.437	37832.31	0.0044	P	3.9
7	☐	500.000	502.914	77475.51	0.0087	P	3.7
8	☐	1000.000	996.852	152458.25	0.0172	P	1.1
9	☐			147.53	0.0000	P	15.6

$$y = 1.7207\text{E-}005 * x - 9.7132\text{E-}007$$

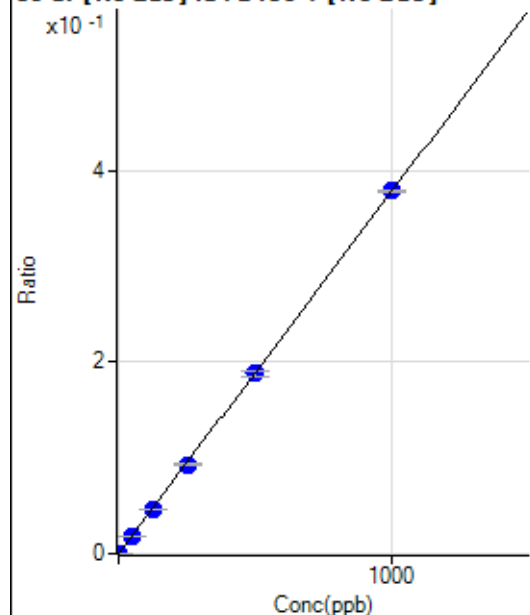
$$R = 1.0000$$

$$DL = 1.37$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	577.82	0.0001	P	0.6
2	☐	0.100					
3	☐	1.000	0.920	3628.40	0.0004	P	6.5
4	☐	50.000	49.354	165141.40	0.0187	P	0.8
5	☐	125.000	122.429	407860.65	0.0463	P	0.9
6	☐	250.000	246.581	802300.45	0.0932	P	3.8
7	☐	500.000	497.810	1683866.33	0.1881	P	3.8
8	☐	1000.000	1002.303	3365284.86	0.3786	P	0.3
9	☐			111158.91	0.0127	P	1.1

$$y = 3.7766\text{E-}004 * x + 6.4523\text{E-}005$$

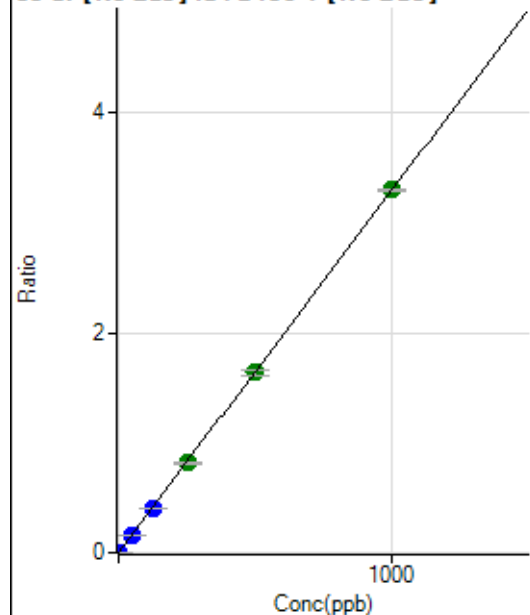
$$R = 1.0000$$

$$DL = 0.002928$$

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	161.12	0.0000	P	38.0
2	☐	0.100					
3	☐	1.000	0.923	26920.57	0.0031	P	5.8
4	☐	50.000	49.557	1439959.68	0.1631	P	0.5
5	☐	125.000	123.638	3583802.77	0.4069	P	1.0
6	☐	250.000	247.046	6998930.97	0.8129	A	3.7
7	☐	500.000	497.661	14662306.93	1.6376	A	3.7
8	☐	1000.000	1002.100	29310173.22	3.2975	A	0.3
9	☐			966423.60	0.1105	P	0.8

$$y = 0.0033 * x + 1.7985\text{E-}005$$

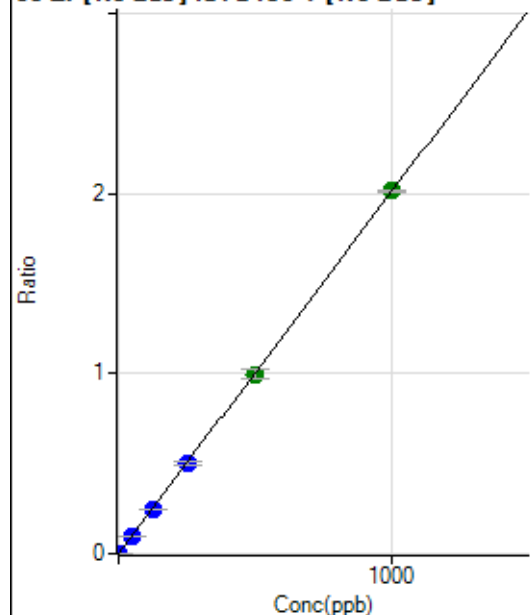
$$R = 1.0000$$

$$DL = 0.006229$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	541.70	0.0001	P	22.7
2	☐	0.100					
3	☐	1.000	0.837	15370.12	0.0017	P	4.6
4	☐	50.000	48.061	853685.74	0.0967	P	1.0
5	☐	125.000	121.296	2148773.07	0.2439	P	0.6
6	☐	250.000	248.475	4300895.45	0.4996	P	4.3
7	☐	500.000	496.389	8933859.05	0.9981	A	4.7
8	☐	1000.000	1002.747	17920139.12	2.0161	A	0.7
9	☐			5860.20	0.0007	P	5.9

$$y = 0.0020 * x + 6.0467E-005$$

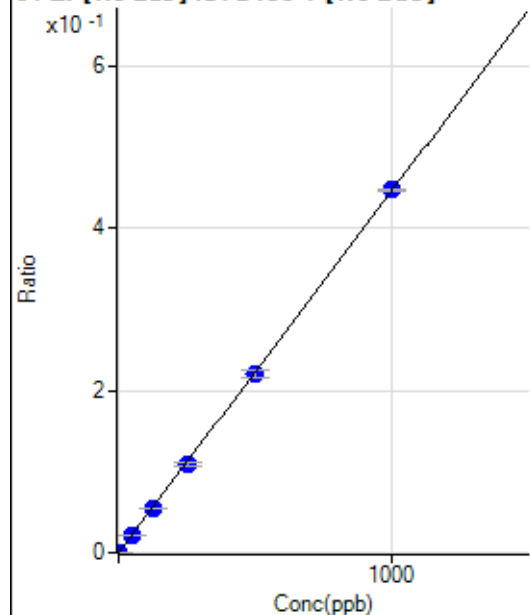
$$R = 1.0000$$

$$DL = 0.02047$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	19.1
2	☐	0.100					
3	☐	1.000	0.886	3592.29	0.0004	P	4.4
4	☐	50.000	48.325	189991.48	0.0215	P	0.6
5	☐	125.000	122.147	478920.22	0.0544	P	1.2
6	☐	250.000	245.989	942440.27	0.1095	P	4.3
7	☐	500.000	495.598	1974590.88	0.2206	P	4.1
8	☐	1000.000	1003.644	3970012.55	0.4466	P	0.9
9	☐			1261.23	0.0001	P	8.1

$$y = 4.4501E-004 * x + 1.3033E-005$$

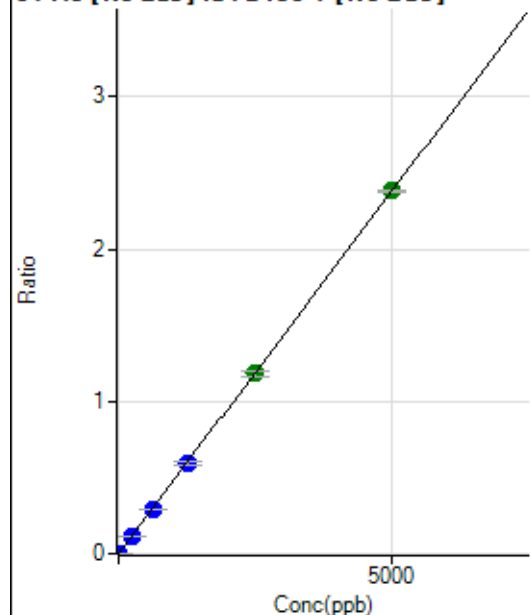
$$R = 1.0000$$

$$DL = 0.0168$$

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	225.01	0.0000	P	19.3
2	☐	0.500					
3	☐	5.000	4.470	18971.74	0.0022	P	1.7
4	☐	250.000	244.560	1027064.58	0.1163	P	1.0
5	☐	625.000	613.135	2568741.07	0.2916	P	0.3
6	☐	1250.000	1249.413	5115374.25	0.5942	P	3.9
7	☐	2500.000	2483.653	10575395.90	1.1811	A	3.7
8	☐	5000.000	5010.076	21178073.04	2.3826	A	0.4
9	☐			15873.37	0.0018	P	2.6

$$y = 4.7555\text{E-}004 * x + 2.5118\text{E-}005$$

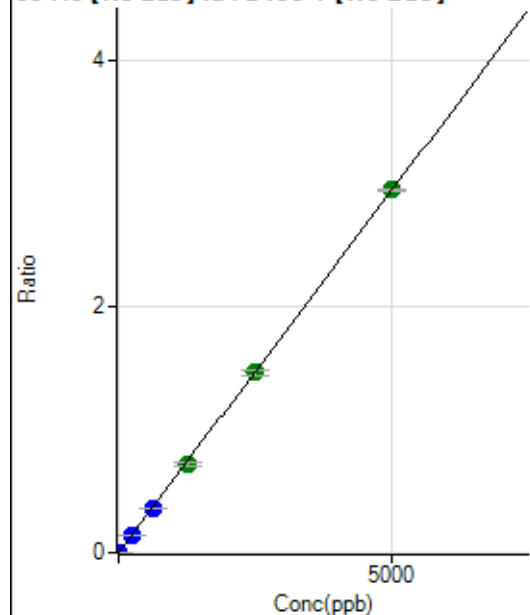
$$R = 1.0000$$

$$DL = 0.03062$$

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	102.79	0.0000	P	37.6
2	☐	0.500					
3	☐	5.000	4.556	23695.50	0.0027	P	4.8
4	☐	250.000	245.557	1274075.68	0.1443	P	0.3
5	☐	625.000	612.961	3172651.41	0.3602	P	1.1
6	☐	1250.000	1230.941	6226485.30	0.7233	A	4.2
7	☐	2500.000	2487.473	13086707.15	1.4616	A	3.7
8	☐	5000.000	5012.756	26181135.66	2.9454	A	0.4
9	☐			24580.26	0.0028	P	3.9

$$y = 5.8759\text{E-}004 * x + 1.1485\text{E-}005$$

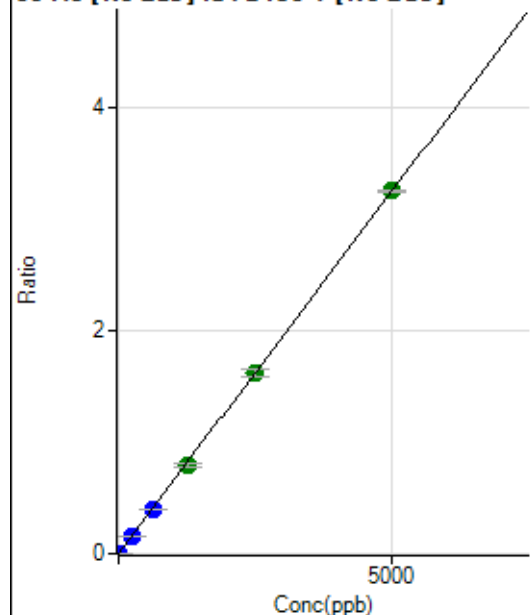
$$R = 1.0000$$

$$DL = 0.02207$$

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	150.01	0.0000	P	5.5
2	☐	0.500					
3	☐	5.000	4.477	25754.60	0.0029	P	6.4
4	☐	250.000	245.495	1407350.26	0.1594	P	0.5
5	☐	625.000	610.382	3490654.11	0.3963	P	1.1
6	☐	1250.000	1230.447	6877251.28	0.7988	A	3.9
7	☐	2500.000	2490.849	14478727.41	1.6171	A	3.7
8	☐	5000.000	5011.517	28919608.98	3.2535	A	0.4
9	☐			31463.52	0.0036	P	1.5

$$y = 6.4921\text{E-}004 * x + 1.6751\text{E-}005$$

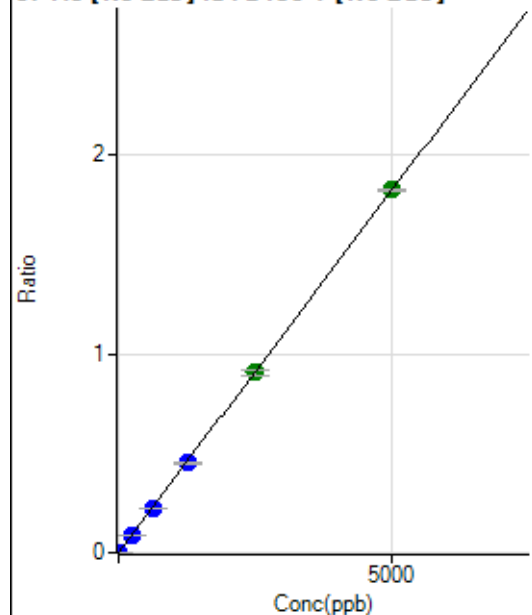
$$R = 1.0000$$

$$DL = 0.004289$$

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	138.90	0.0000	P	51.0
2	☐	0.500					
3	☐	5.000	4.461	14455.08	0.0016	P	7.0
4	☐	250.000	244.216	785702.09	0.0890	P	1.0
5	☐	625.000	604.203	1939151.80	0.2201	P	0.9
6	☐	1250.000	1238.542	3885001.56	0.4512	P	3.7
7	☐	2500.000	2490.160	8123590.29	0.9072	A	3.5
8	☐	5000.000	5010.674	16226490.47	1.8255	A	0.6
9	☐			15205.93	0.0017	P	3.9

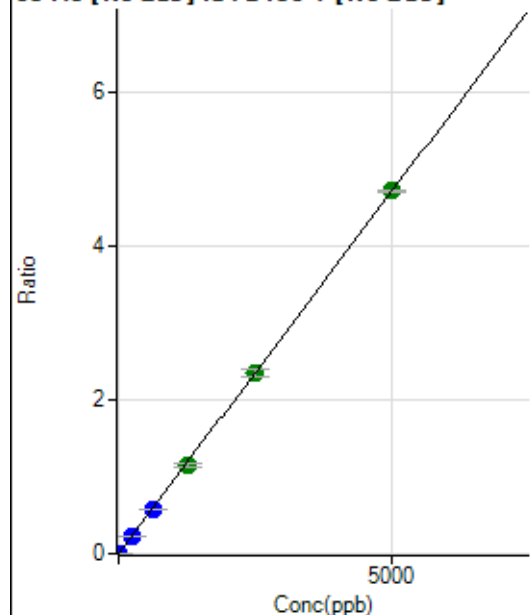
$$y = 3.6433\text{E-}004 * x + 1.5505\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.06511$$

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	197.23	0.0000	P	28.0
2	☐	0.500					
3	☐	5.000	4.449	37071.54	0.0042	P	3.9
4	☐	250.000	245.167	2035149.61	0.2305	P	1.0
5	☐	625.000	613.800	5083217.99	0.5771	P	0.5
6	☐	1250.000	1228.593	9944595.97	1.1550	A	3.5
7	☐	2500.000	2489.864	20957295.78	2.3408	A	3.9
8	☐	5000.000	5012.062	41881975.59	4.7119	A	0.6
9	☐			39308.26	0.0045	P	1.9

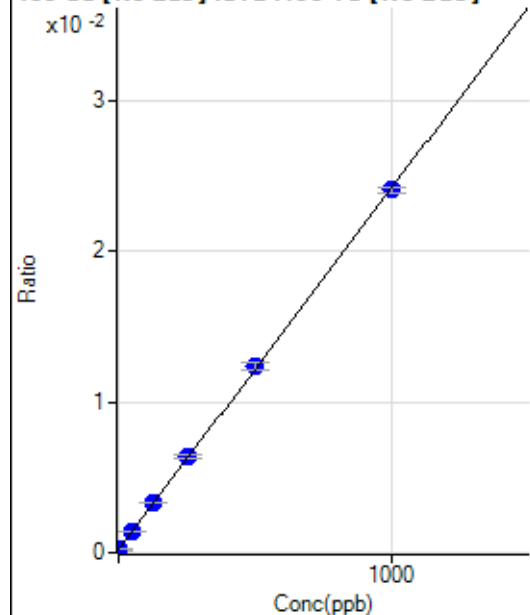
$$y = 9.4010\text{E-}004 * x + 2.2019\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.01969$$

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	2133.59	0.0002	P	11.5
2	☐	0.100					
3	☐	1.000	1.563	2522.56	0.0002	P	2.1
4	☐	50.000	51.940	15189.31	0.0014	P	1.6
5	☐	125.000	127.619	34272.84	0.0033	P	0.4
6	☐	250.000	255.996	64980.61	0.0063	P	4.8
7	☐	500.000	506.328	132846.02	0.0124	P	4.2
8	☐	1000.000	994.912	253666.83	0.0241	P	1.4
9	☐			2039.13	0.0002	P	12.4

$$y = 2.4006\text{E-}005 * x + 1.9962\text{E-}004$$

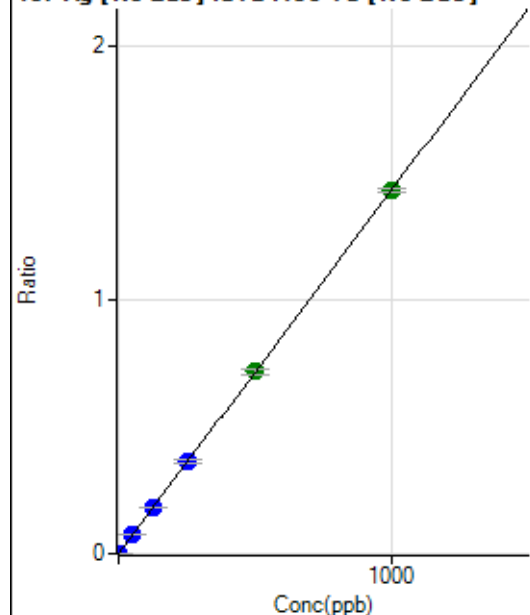
$$R = 1.0000$$

$$DL = 2.874$$

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	75.01	0.0000	P	22.5
2	☐	0.100					
3	☐	1.000	0.784	11983.34	0.0011	P	6.3
4	☐	50.000	51.505	773955.34	0.0737	P	0.5
5	☐	125.000	126.463	1900652.82	0.1810	P	1.0
6	☐	250.000	253.954	3722304.08	0.3634	P	4.1
7	☐	500.000	501.045	7709887.76	0.7170	A	3.7
8	☐	1000.000	998.231	15045734.02	1.4285	A	1.1
9	☐			1352.90	0.0001	P	10.6

$$y = 0.0014 * x + 7.0228E-006$$

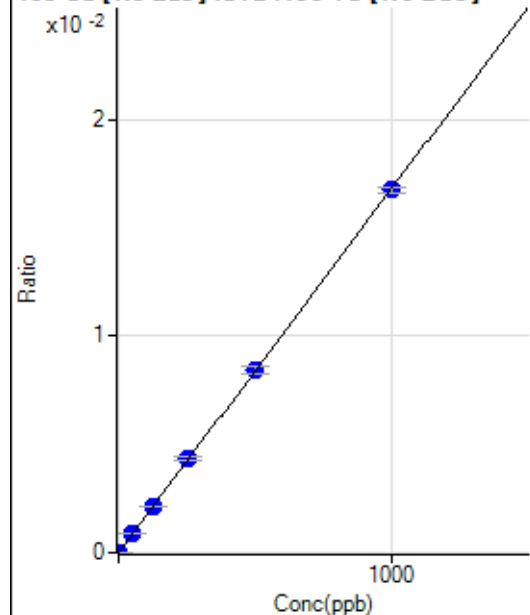
$$R = 1.0000$$

$$DL = 0.003315$$

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	11.11	0.0000	P	78.4
2	☐	0.100					
3	☐	1.000	0.991	187.51	0.0000	P	17.3
4	☐	50.000	51.869	9157.34	0.0009	P	3.0
5	☐	125.000	126.741	22365.22	0.0021	P	0.9
6	☐	250.000	256.715	44169.05	0.0043	P	4.2
7	☐	500.000	501.701	90600.70	0.0084	P	4.3
8	☐	1000.000	997.160	176395.77	0.0167	P	1.3
9	☐			29.17	0.0000	P	62.3

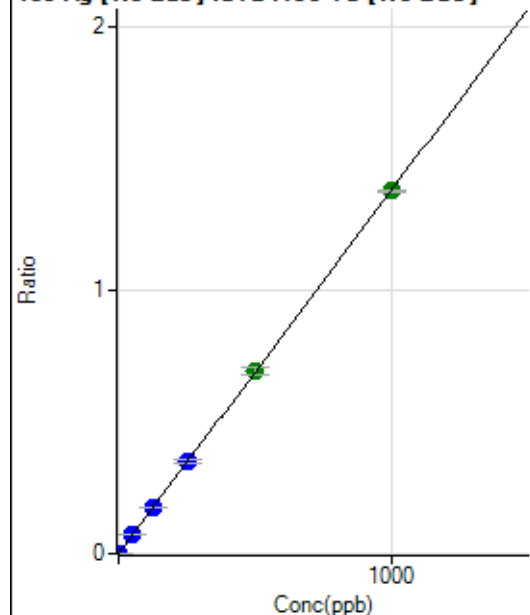
$$y = 1.6794E-005 * x + 1.0420E-006$$

$$R = 1.0000$$

$$DL = 0.1459$$

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	61.11	0.0000	P	42.0
2	☐	0.100					
3	☐	1.000	0.782	11513.47	0.0011	P	5.9
4	☐	50.000	51.130	741358.58	0.0706	P	0.5
5	☐	125.000	125.562	1820939.21	0.1734	P	0.8
6	☐	250.000	254.642	3601886.02	0.3516	P	3.6
7	☐	500.000	500.866	7435672.82	0.6916	A	4.3
8	☐	1000.000	998.280	14518922.89	1.3784	A	0.7
9	☐			1147.32	0.0001	P	9.3

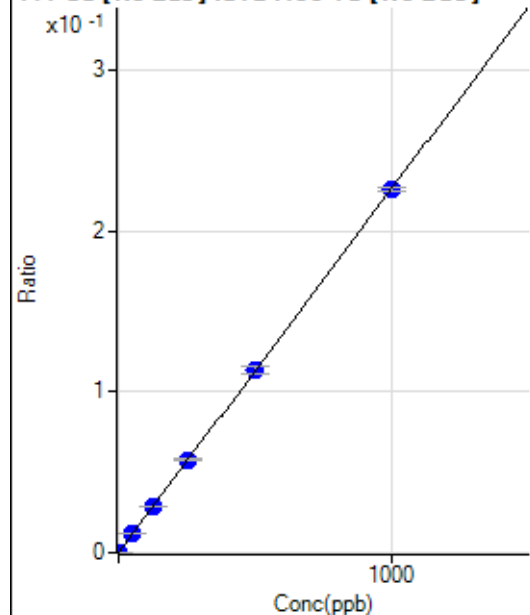
$$y = 0.0014 * x + 5.7255E-006$$

$$R = 1.0000$$

$$DL = 0.005222$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1494.07	0.0001	P	12.1
2	☐	0.100					
3	☐	1.000	1.003	3897.27	0.0004	P	2.5
4	☐	50.000	51.871	124595.97	0.0119	P	0.5
5	☐	125.000	127.002	302997.78	0.0289	P	1.2
6	☐	250.000	255.646	593421.00	0.0579	P	3.9
7	☐	500.000	502.216	1222190.10	0.1137	P	4.2
8	☐	1000.000	997.137	2375794.13	0.2256	P	1.0
9	☐			1743.10	0.0002	P	11.6

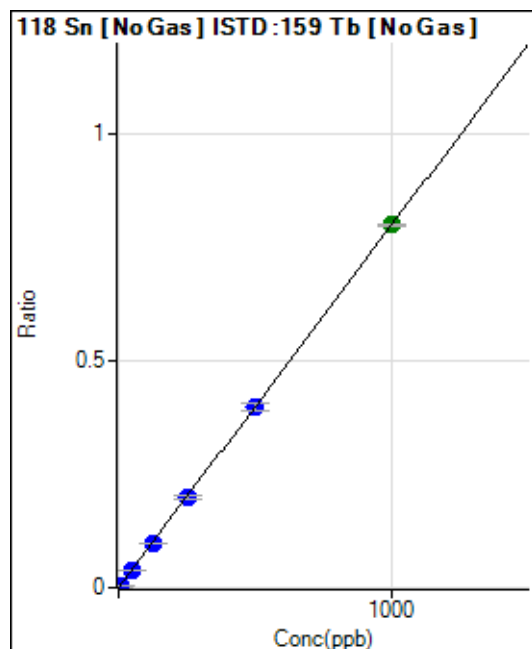
$$y = 2.2607E-004 * x + 1.3979E-004$$

$$R = 1.0000$$

$$DL = 0.2254$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1033.41	0.0001	P	4.5
2	☐	0.500					
3	☐	5.000	4.619	40289.17	0.0038	P	5.2
4	☐	50.000	49.555	417073.23	0.0397	P	0.9
5	☐	125.000	122.895	1033065.16	0.0984	P	0.8
6	☐	250.000	248.708	2037909.49	0.1990	P	4.2
7	☐	500.000	498.978	4290685.60	0.3991	P	4.3
8	☐	1000.000	1001.122	8432801.23	0.8006	A	0.8
9	☐			12058.44	0.0012	P	1.9

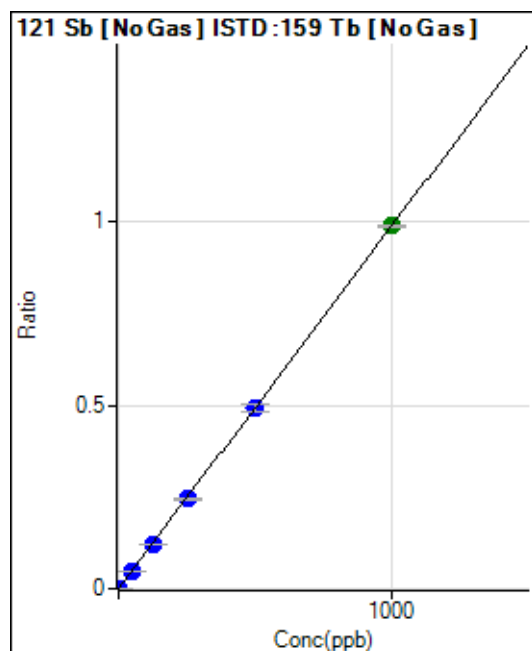
$$y = 7.9961\text{E-}004 * x + 9.6725\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.01637$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0000	P	58.9
2	☐	0.200					
3	☐	2.000	1.809	19085.96	0.0018	P	2.0
4	☐	50.000	48.606	504806.75	0.0481	P	1.0
5	☐	125.000	121.641	1263527.01	0.1203	P	0.3
6	☐	250.000	247.570	2508247.21	0.2448	P	3.5
7	☐	500.000	499.787	5314028.85	0.4943	P	4.4
8	☐	1000.000	1001.204	10429382.26	0.9902	A	0.7
9	☐			26976.93	0.0026	P	3.8

$$y = 9.8896\text{E-}004 * x + 7.2723\text{E-}006$$

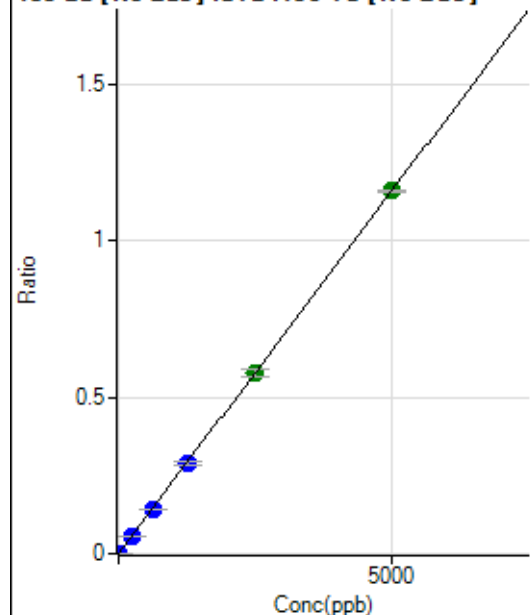
$$R = 1.0000$$

$$DL = 0.013$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30.56	0.0000	P	41.5
2	☐	1.000					
3	☐	10.000	9.175	22557.96	0.0021	P	8.0
4	☐	250.000	248.335	603624.22	0.0575	P	0.5
5	☐	625.000	616.405	1498577.28	0.1427	P	1.1
6	☐	1250.000	1250.642	2965423.03	0.2895	P	4.0
7	☐	2500.000	2489.316	6194940.81	0.5762	A	4.6
8	☐	5000.000	5006.341	12206632.91	1.1589	A	0.7
9	☐			3639.53	0.0004	P	1.6

$$y = 2.3148\text{E-}004 * x + 2.8573\text{E-}006$$

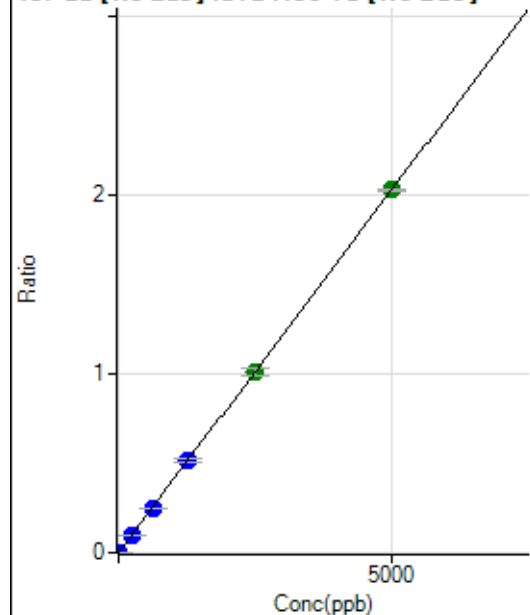
$$R = 1.0000$$

$$DL = 0.01535$$

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	50.00	0.0000	P	44.0
2	☐	1.000					
3	☐	10.000	9.117	39228.91	0.0037	P	4.8
4	☐	250.000	249.641	1061122.48	0.1011	P	0.4
5	☐	625.000	620.581	2638383.24	0.2512	P	0.6
6	☐	1250.000	1263.741	5239671.39	0.5116	P	4.2
7	☐	2500.000	2485.781	10819301.54	1.0062	A	4.0
8	☐	5000.000	5004.246	21337128.60	2.0257	A	0.4
9	☐			5882.04	0.0006	P	0.7

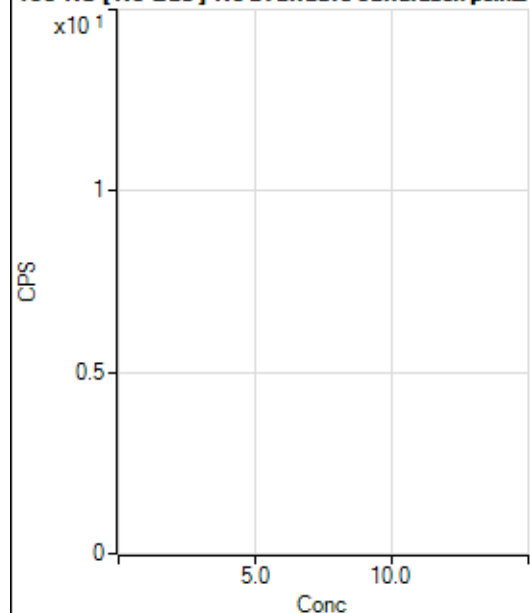
$$y = 4.0480\text{E-}004 * x + 4.6795\text{E-}006$$

$$R = 1.0000$$

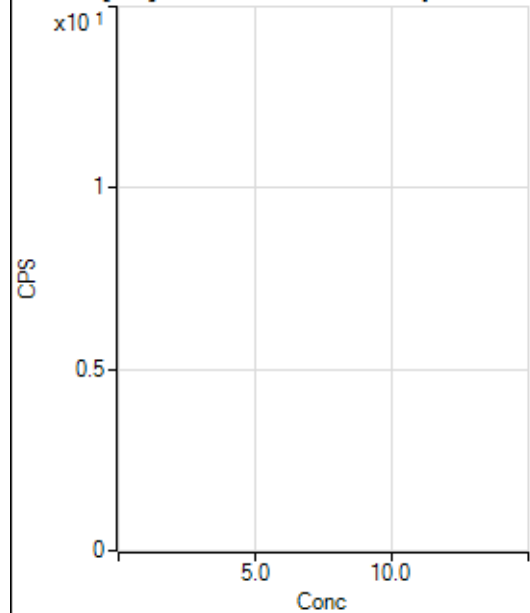
$$DL = 0.01527$$

Weight: <None>

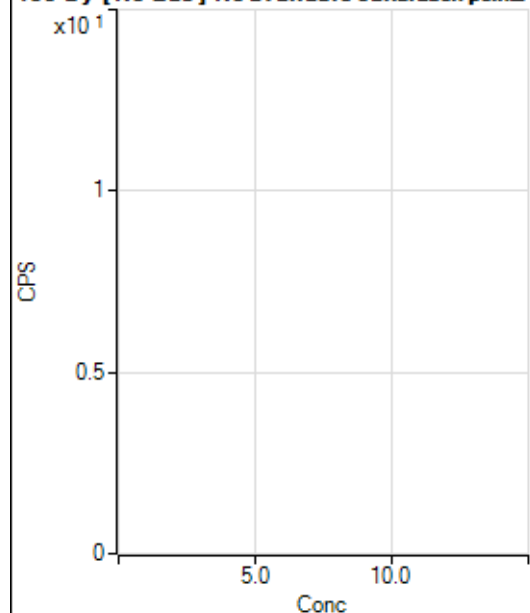
Min Conc: 0

150 Nd [No Gas] No available calibration points

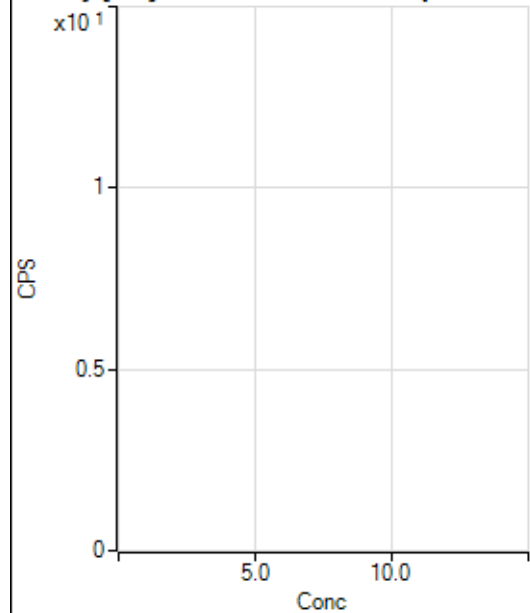
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.2
2	☐						
3	☐			15.56		P	49.5
4	☐			35.56		P	39.0
5	☐			64.45		P	29.9
6	☐			128.89		P	15.8
7	☐			260.01		P	5.1
8	☐			477.81		P	10.5
9	☐			86.67		P	20.4

150 Nd [He] No available calibration points

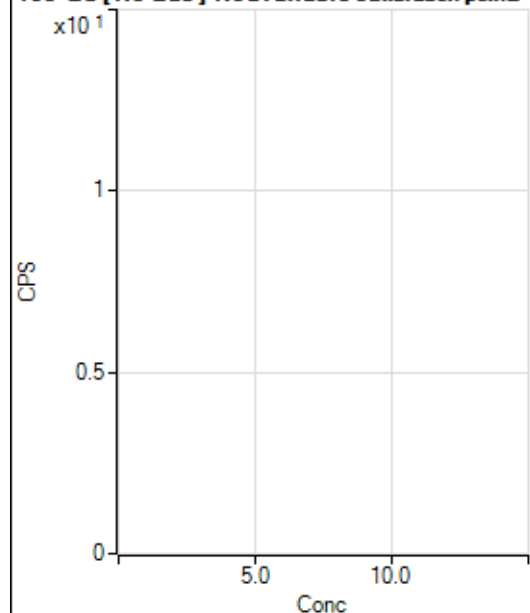
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.2
2	☐						
3	☐			0.00		P	
4	☐			3.33		P	173.2
5	☐			12.22		P	41.7
6	☐			16.67		P	69.3
7	☐			28.89		P	46.6
8	☐			46.67		P	28.6
9	☐			38.89		P	35.7

156 Dy [No Gas] No available calibration points

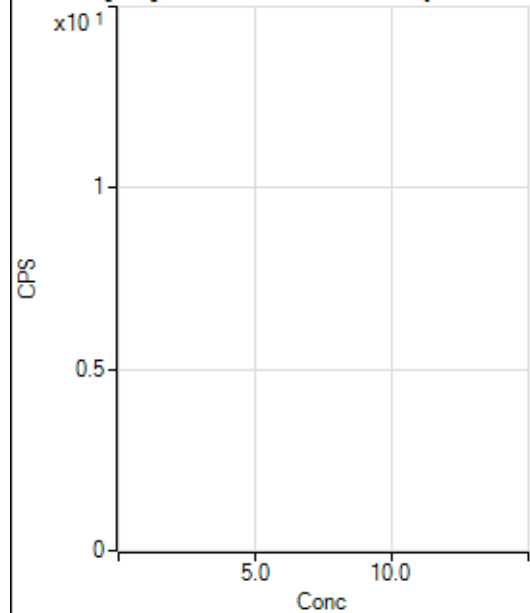
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	173.2
2	☐						
3	☐			8.33		P	100.0
4	☐			33.33		P	0.0
5	☐			22.22		P	78.1
6	☐			38.89		P	96.6
7	☐			75.00		P	55.6
8	☐			147.23		P	6.5
9	☐			83.34		P	20.0

156 Dy [He] No available calibration points

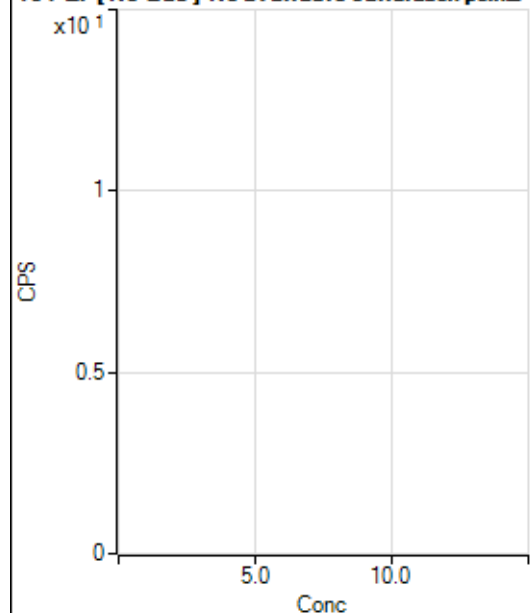
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			4.44		P	43.4
4	☐			5.56		P	34.7
5	☐			10.00		P	33.3
6	☐			18.89		P	44.4
7	☐			37.78		P	13.5
8	☐			77.78		P	15.0
9	☐			31.11		P	6.2

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

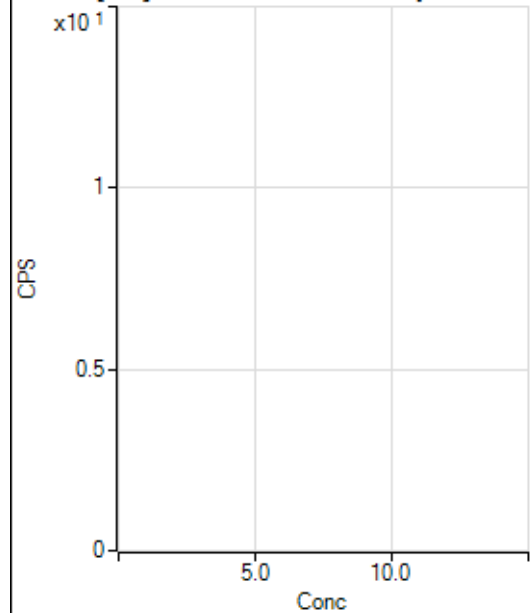
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	88.6
2	☐						
3	☐			38.89		P	32.7
4	☐			58.33		P	24.7
5	☐			33.33		P	25.0
6	☐			47.22		P	44.4
7	☐			52.78		P	50.8
8	☐			66.67		P	25.0
9	☐			77.78		P	6.2

160 Gd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			61.11		P	50.4
2	☐						
3	☐			54.44		P	23.2
4	☐			50.00		P	30.5
5	☐			58.89		P	34.6
6	☐			52.22		P	25.8
7	☐			60.00		P	19.2
8	☐			63.33		P	32.0
9	☐			83.34		P	12.0

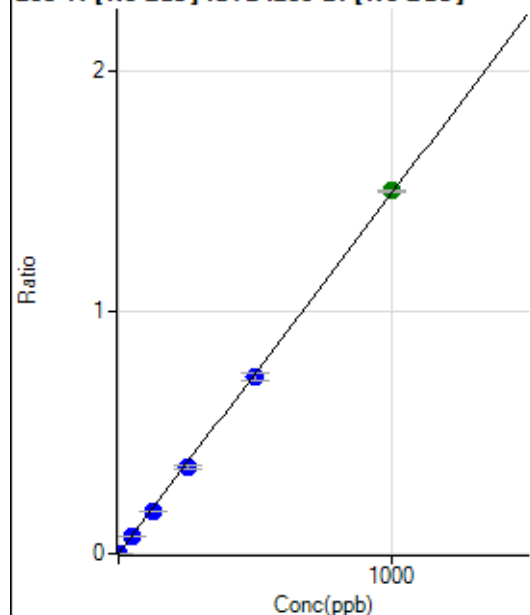
164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			27.78		P	62.5
2	☐						
3	☐			38.89		P	12.4
4	☐			30.56		P	41.7
5	☐			19.45		P	24.7
6	☐			33.33		P	25.0
7	☐			38.89		P	44.6
8	☐			50.00		P	33.3
9	☐			66.67		P	37.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	57.3
2	☐						
3	☐			40.00		P	41.7
4	☐			13.33		P	25.0
5	☐			17.78		P	75.8
6	☐			25.56		P	19.9
7	☐			12.22		P	56.8
8	☐			24.44		P	34.3
9	☐			24.44		P	47.9

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	241.68	0.0000	P	33.6
2	☐	0.100					
3	☐	1.000	0.882	8967.25	0.0013	P	4.9
4	☐	50.000	47.023	456794.94	0.0701	P	1.4
5	☐	125.000	117.183	1136317.26	0.1747	P	1.3
6	☐	250.000	240.647	2252375.07	0.3588	P	4.8
7	☐	500.000	492.378	4731019.55	0.7340	P	4.1
8	☐	1000.000	1007.275	9222493.17	1.5016	A	0.5
9	☐			4528.77	0.0008	P	5.6

$$y = 0.0015 * x + 3.5701E-005$$

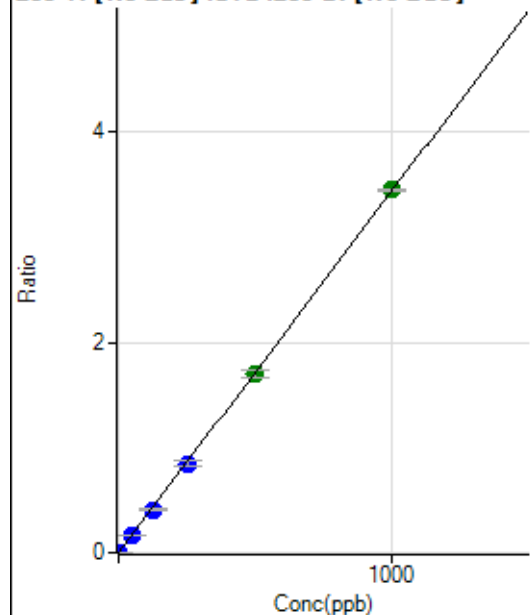
$$R = 0.9999$$

$$DL = 0.02413$$

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	602.82	0.0001	P	22.0
2	☐	0.100					
3	☐	1.000	0.883	20736.32	0.0031	P	3.9
4	☐	50.000	47.965	1073344.49	0.1648	P	0.9
5	☐	125.000	119.750	2674797.78	0.4113	P	1.2
6	☐	250.000	247.280	5331001.90	0.8492	P	5.0
7	☐	500.000	493.771	10927271.08	1.6956	A	4.4
8	☐	1000.000	1004.553	21186010.02	3.4495	A	0.3
9	☐			10582.44	0.0019	P	4.2

$$y = 0.0034 * x + 8.9026E-005$$

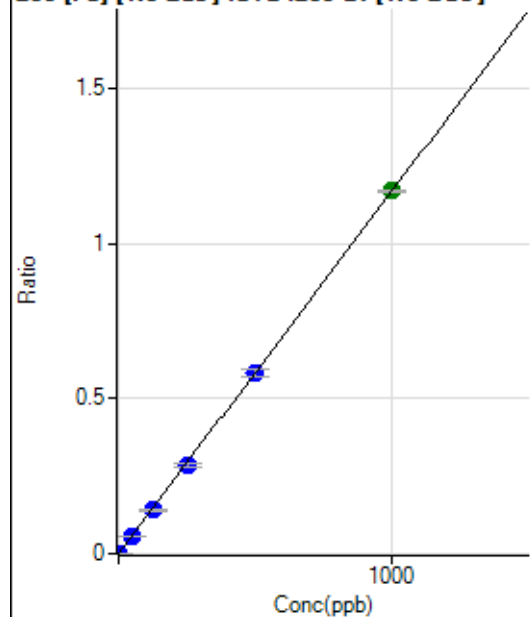
$$R = 1.0000$$

$$DL = 0.01711$$

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	659.30	0.0001	P	7.1
2	☐	0.100					
3	☐	1.000	0.910	7704.30	0.0012	P	3.6
4	☐	50.000	48.414	368887.34	0.0566	P	0.9
5	☐	125.000	119.642	909300.96	0.1398	P	1.0
6	☐	250.000	245.590	1801220.84	0.2869	P	4.6
7	☐	500.000	499.272	3757547.94	0.5831	P	4.9
8	☐	1000.000	1002.215	7188759.59	1.1705	A	0.4
9	☐			14445.25	0.0026	P	0.8

$$y = 0.0012 * x + 9.7327E-005$$

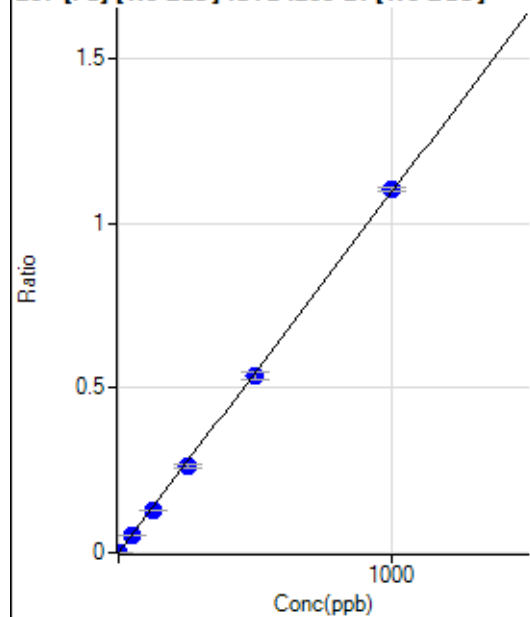
$$R = 1.0000$$

$$DL = 0.01767$$

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	659.30	0.0001	P	6.4
2	☐	0.100					
3	☐	1.000	0.898	7163.28	0.0011	P	6.8
4	☐	50.000	47.846	341280.00	0.0524	P	0.6
5	☐	125.000	117.488	835849.37	0.1285	P	1.0
6	☐	250.000	241.598	1658643.35	0.2642	P	4.6
7	☐	500.000	492.618	3470591.02	0.5386	P	4.6
8	☐	1000.000	1006.839	6759704.78	1.1006	P	0.9
9	☐			12804.68	0.0023	P	1.6

$$y = 0.0011 * x + 9.7349E-005$$

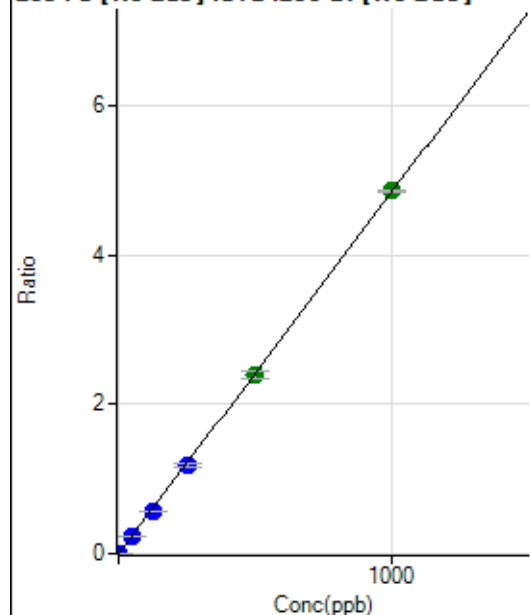
$$R = 0.9999$$

$$DL = 0.01697$$

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	2777.99	0.0004	P	5.2
2	☐	0.100					
3	☐	1.000	0.917	32207.10	0.0049	P	5.8
4	☐	50.000	48.253	1524499.17	0.2341	P	0.7
5	☐	125.000	118.955	3748713.64	0.5764	P	1.0
6	☐	250.000	244.734	7442414.61	1.1854	P	4.7
7	☐	500.000	495.637	15467387.52	2.4003	A	4.7
8	☐	1000.000	1004.341	29870272.48	4.8635	A	0.6
9	☐			58982.89	0.0107	P	1.4

$$y = 0.0048 * x + 4.1017E-004$$

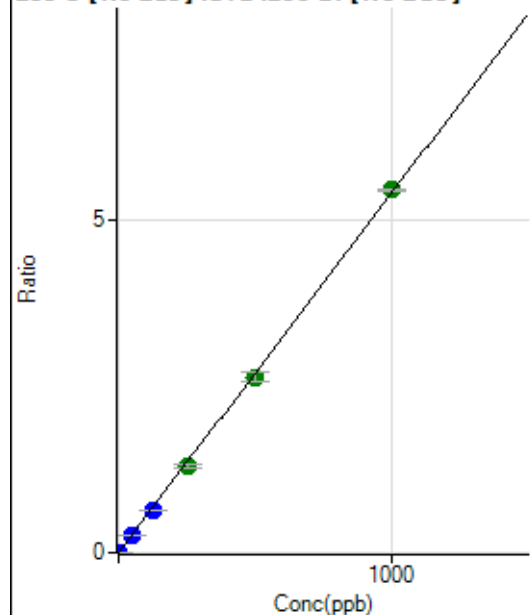
$$R = 1.0000$$

$$DL = 0.01321$$

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	216.68	0.0000	P	13.5
2	☐	0.100					
3	☐	1.000	0.856	30987.84	0.0047	P	5.1
4	☐	50.000	46.873	1652856.67	0.2538	P	1.1
5	☐	125.000	117.994	4154326.61	0.6388	P	1.1
6	☐	250.000	238.749	8114231.17	1.2925	A	4.7
7	☐	500.000	489.387	17070060.28	2.6492	A	5.0
8	☐	1000.000	1009.152	33551704.92	5.4629	A	0.7
9	☐			3345.05	0.0006	P	8.0

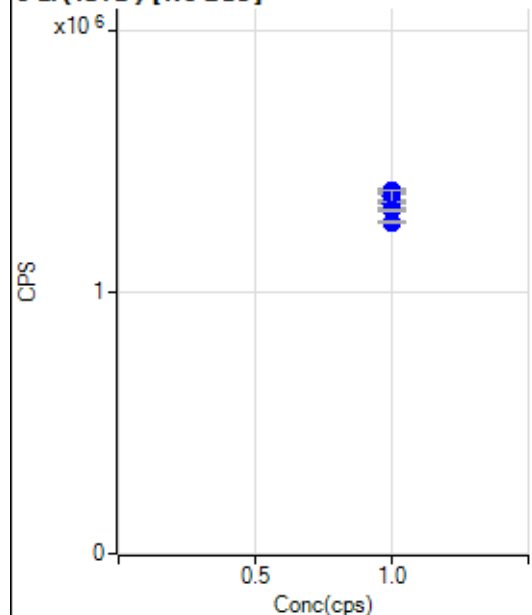
$$y = 0.0054 * x + 3.1976E-005$$

$$R = 0.9998$$

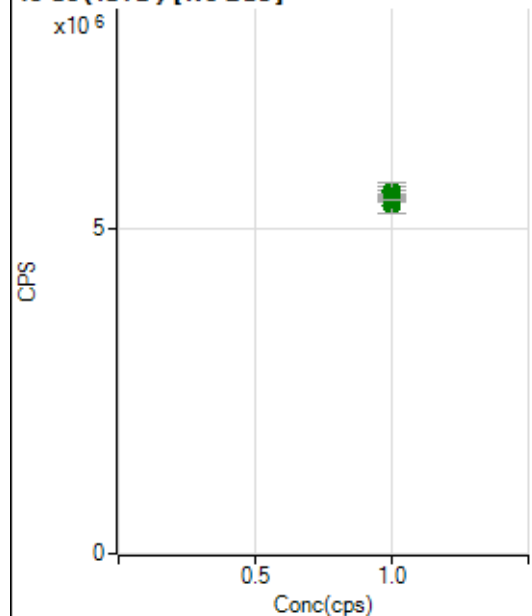
$$DL = 0.002389$$

Weight: <None>

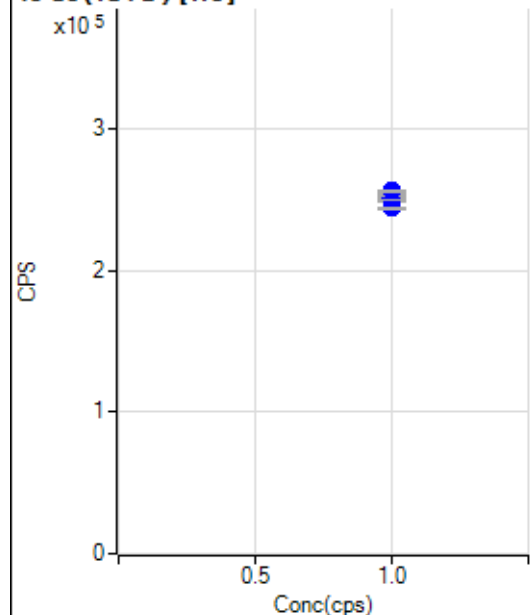
Min Conc: 0

6 Li (ISTD) [No Gas]

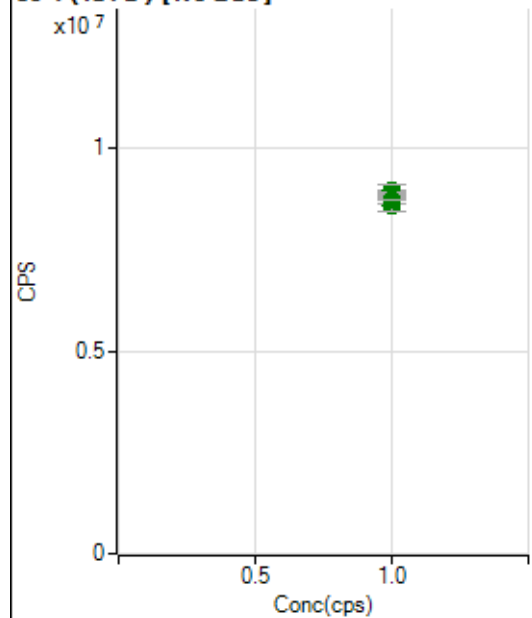
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1384289.08		P	0.8
2	☐	1.000					
3	☐	1.000		1370256.71		P	4.5
4	☐	1.000		1385180.38		P	0.4
5	☐	1.000		1389369.58		P	0.7
6	☐	1.000		1339564.58		P	2.6
7	☐	1.000		1370045.74		P	3.0
8	☐	1.000		1316449.83		P	0.5
9	☐	1.000		1269915.45		P	0.6

45 Sc (ISTD) [No Gas]

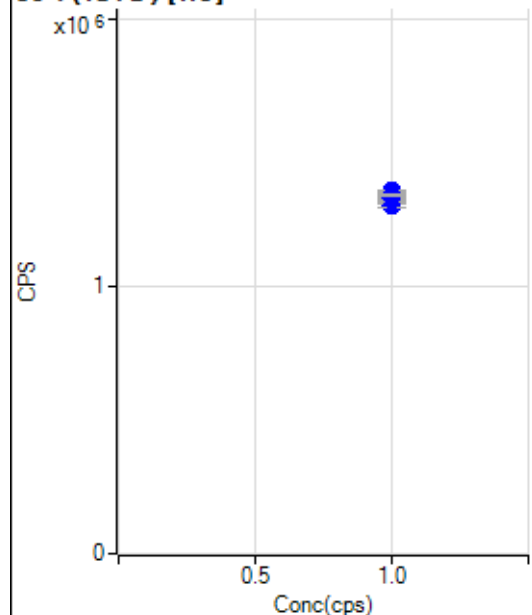
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5562554.20		A	1.0
2	☐	1.000					
3	☐	1.000		5532338.88		A	4.0
4	☐	1.000		5508872.09		A	0.7
5	☐	1.000		5493891.66		A	0.7
6	☐	1.000		5344770.17		A	4.2
7	☐	1.000		5582375.21		A	5.1
8	☐	1.000		5500749.51		A	0.5
9	☐	1.000		5447870.91		A	0.0

45 Sc (ISTD) [He]

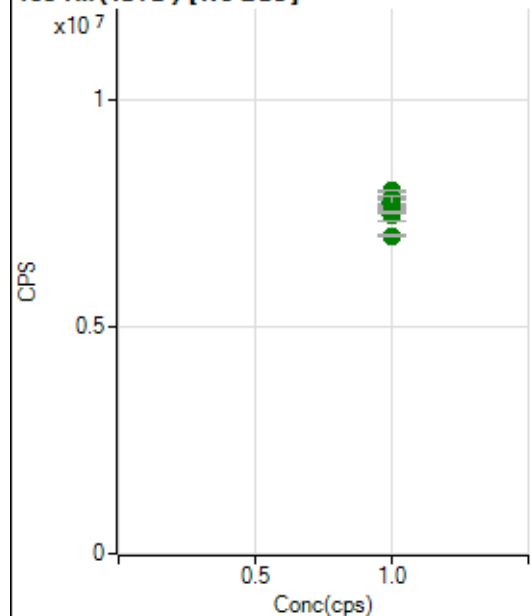
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		253728.17		P	1.6
2	☐	1.000					
3	☐	1.000		255621.44		P	1.6
4	☐	1.000		250322.09		P	1.6
5	☐	1.000		252718.49		P	2.6
6	☐	1.000		244655.49		P	0.6
7	☐	1.000		256258.02		P	1.2
8	☐	1.000		251484.18		P	1.1
9	☐	1.000		256679.19		P	0.6

89 Y (ISTD) [No Gas]

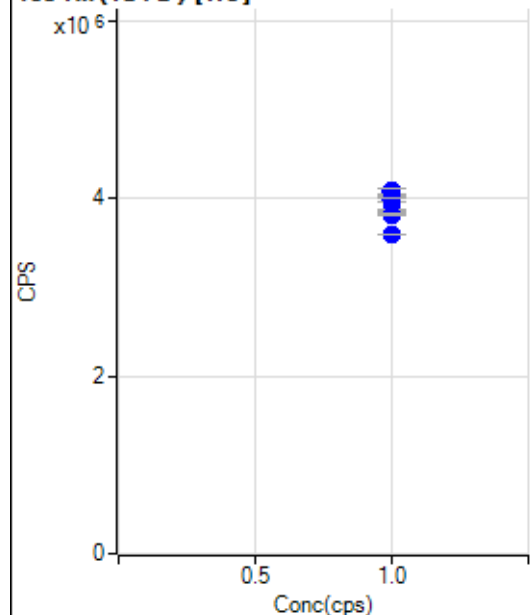
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8955179.80		A	0.3
2	☐	1.000					
3	☐	1.000		8824978.76		A	4.0
4	☐	1.000		8829563.69		A	0.8
5	☐	1.000		8809123.34		A	1.0
6	☐	1.000		8616579.73		A	3.4
7	☐	1.000		8961911.26		A	3.8
8	☐	1.000		8888784.03		A	0.5
9	☐	1.000		8748028.41		A	0.1

89 Y(ISTD) [He]

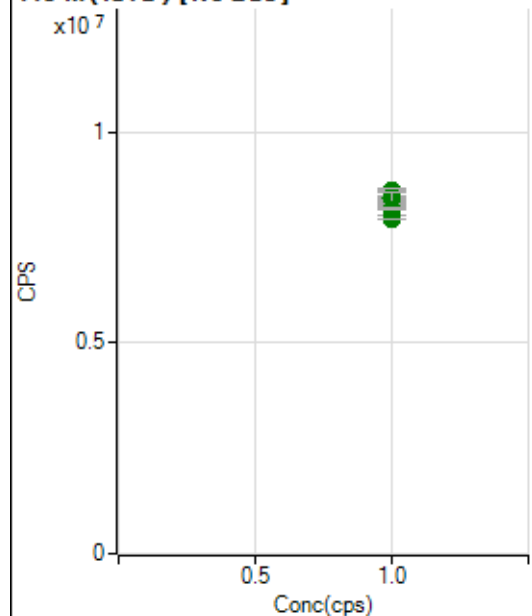
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1352077.45		P	1.1
2	☐	1.000					
3	☐	1.000		1342929.06		P	1.8
4	☐	1.000		1324561.01		P	1.0
5	☐	1.000		1328819.62		P	1.2
6	☐	1.000		1298850.61		P	0.9
7	☐	1.000		1354928.68		P	0.4
8	☐	1.000		1317824.50		P	0.9
9	☐	1.000		1338965.61		P	0.3

103 Rh(ISTD) [No Gas]

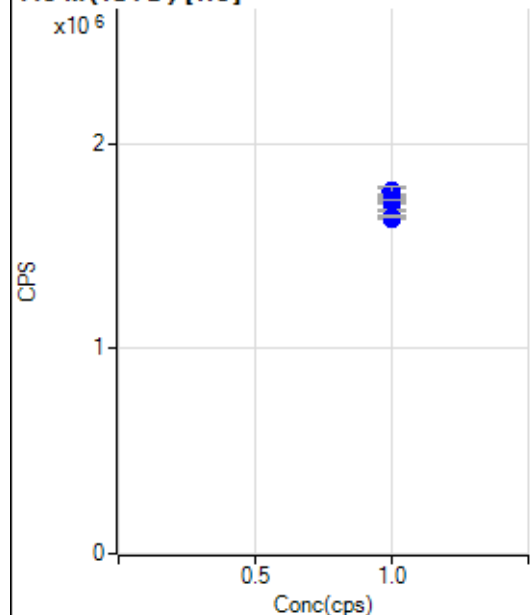
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7994660.42		A	0.4
2	☐	1.000					
3	☐	1.000		7835106.51		A	4.0
4	☐	1.000		7812233.16		A	0.6
5	☐	1.000		7755469.53		A	0.9
6	☐	1.000		7467419.52		A	4.0
7	☐	1.000		7730558.68		A	3.8
8	☐	1.000		7523407.37		A	0.7
9	☐	1.000		7010158.66		A	0.9

103 Rh (ISTD) [He]

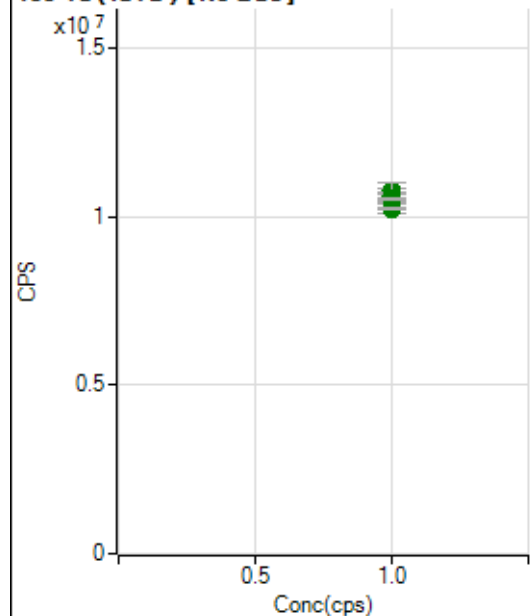
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4089676.43		P	1.3
2	☐	1.000					
3	☐	1.000		4078282.86		P	1.7
4	☐	1.000		3996090.74		P	1.0
5	☐	1.000		4004135.53		P	1.4
6	☐	1.000		3874546.06		P	0.6
7	☐	1.000		4007630.74		P	0.3
8	☐	1.000		3824045.05		P	1.0
9	☐	1.000		3604263.42		P	0.2

115 In (ISTD) [No Gas]

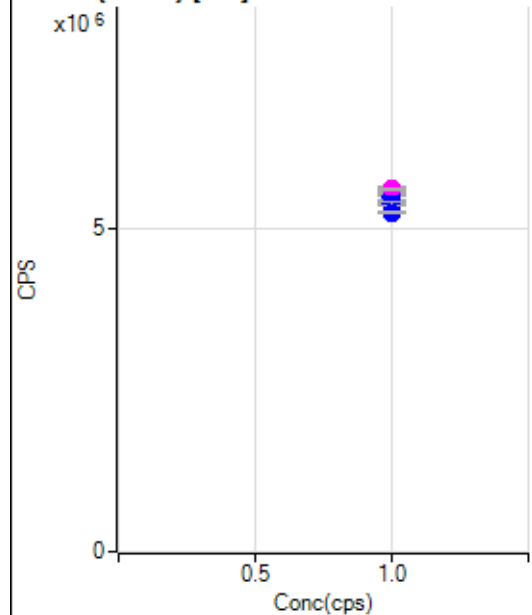
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8610110.64		A	0.0
2	☐	1.000					
3	☐	1.000		8509582.68		A	3.6
4	☐	1.000		8430505.01		A	0.9
5	☐	1.000		8412851.42		A	0.7
6	☐	1.000		8155619.15		A	3.4
7	☐	1.000		8426553.51		A	3.9
8	☐	1.000		8178009.28		A	0.4
9	☐	1.000		7944460.31		A	0.3

115 In (ISTD) [He]

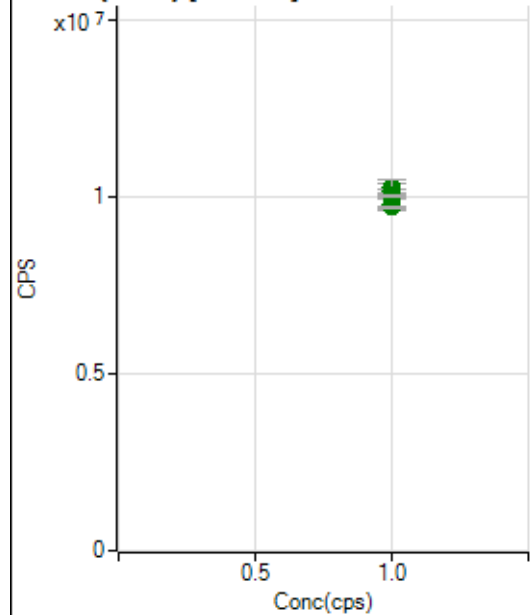
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1768810.40		P	1.4
2	☐	1.000					
3	☐	1.000		1766673.92		P	2.3
4	☐	1.000		1724424.08		P	0.9
5	☐	1.000		1722459.25		P	1.6
6	☐	1.000		1674204.63		P	0.8
7	☐	1.000		1727865.50		P	0.0
8	☐	1.000		1631805.54		P	0.6
9	☐	1.000		1644520.35		P	0.1

159 Tb (ISTD) [No Gas]

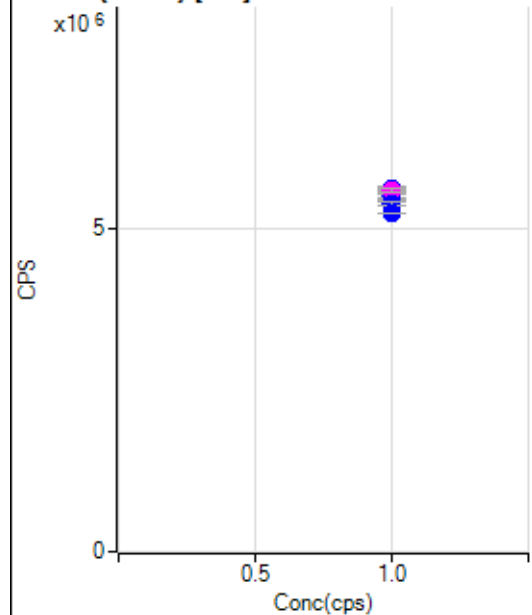
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10684865.33		A	0.4
2	☐	1.000					
3	☐	1.000		10630614.84		A	4.1
4	☐	1.000		10500117.55		A	0.5
5	☐	1.000		10502783.67		A	0.6
6	☐	1.000		10252403.04		A	3.4
7	☐	1.000		10763981.37		A	4.1
8	☐	1.000		10533351.93		A	0.6
9	☐	1.000		10225329.29		A	0.4

159 Tb (ISTD) [He]

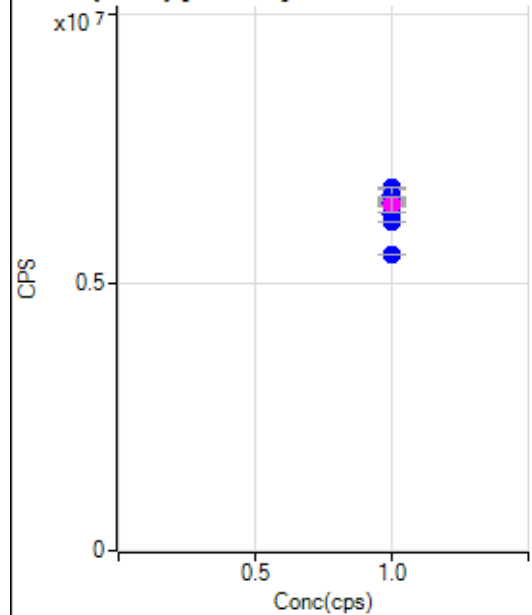
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5616465.06		P	1.3
2	☐	1.000					
3	☐	1.000		5602517.94		P	2.2
4	☐	1.000		5483438.08		P	0.9
5	☐	1.000		5526560.72		P	2.1
6	☐	1.000		5417143.08		P	0.6
7	☐	1.000		5631786.58		M	0.6
8	☐	1.000		5409994.71		P	0.9
9	☐	1.000		5258442.87		P	0.4

165 Ho (ISTD) [No Gas]

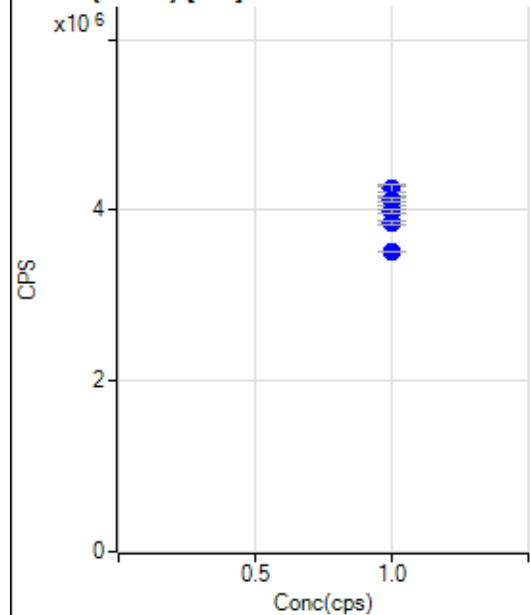
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10209620.98		A	0.2
2	☐	1.000					
3	☐	1.000		10158922.54		A	4.1
4	☐	1.000		10076590.16		A	0.4
5	☐	1.000		10088387.64		A	0.6
6	☐	1.000		9797713.07		A	3.6
7	☐	1.000		10260188.51		A	4.1
8	☐	1.000		10044316.11		A	0.5
9	☐	1.000		9725341.62		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5607162.10		P	0.9
2	☐	1.000					
3	☐	1.000		5596324.85		P	2.1
4	☐	1.000		5449768.63		P	0.9
5	☐	1.000		5491843.15		P	1.7
6	☐	1.000		5386743.81		P	1.1
7	☐	1.000		5590377.80		M	1.0
8	☐	1.000		5381851.66		P	0.9
9	☐	1.000		5231047.04		P	0.3

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6773763.93		P	0.5
2	☐	1.000					
3	☐	1.000		6649830.87		P	4.2
4	☐	1.000		6513879.49		P	1.3
5	☐	1.000		6504212.75		P	1.2
6	☐	1.000		6286823.80		P	4.4
7	☐	1.000		6453070.39		M	4.5
8	☐	1.000		6141842.69		P	0.4
9	☐	1.000		5531584.99		P	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4251499.62		P	1.4
2	☐	1.000					
3	☐	1.000		4249731.26		P	2.2
4	☐	1.000		4128146.05		P	1.5
5	☐	1.000		4113748.31		P	2.7
6	☐	1.000		3987767.51		P	1.1
7	☐	1.000		4123687.41		P	0.6
8	☐	1.000		3855465.81		P	1.4
9	☐	1.000		3520645.22		P	0.3

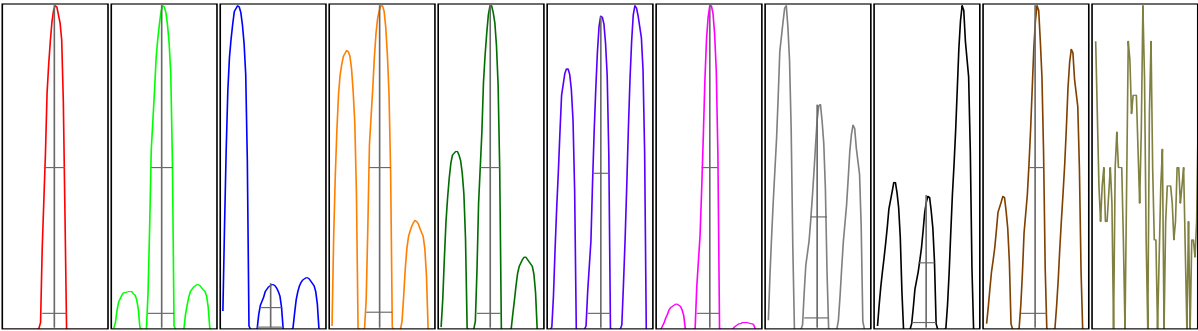
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7022018 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	8928	0.72	5.00	
24	673796	0.33	5.00	
25	91567	0.32	5.00	
26	106397	0.41	5.00	
59	106727	0.30	5.00	
113	12376	0.52	5.00	
115	164095	0.84	5.00	
206	34211	0.64	5.00	
207	30716	0.32	5.00	
208	75111	0.54	5.00	
220	0	35.78		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8837	8928	8990	8987	8897
24	672694	674215	673971	677104	670997
25	91305	91332	91829	91935	91432
26	106219	106430	106226	107122	105990
59	106673	106848	106703	107155	106256
113	12409	12433	12342	12416	12278
115	165727	164316	163806	164649	161978
206	34282	34013	34142	34559	34057
207	30702	30609	30792	30840	30639
208	75161	74864	75256	75667	74605
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	15974	9.00	8.9 - 9.1		0.736	0.900	
24	1155100	23.95	23.9 - 24.1		0.773	0.900	
25	158392	24.95	24.9 - 25.1		0.739	0.900	
26	184169	25.95	25.9 - 26.1		0.768	0.900	
59	194936	59.00	58.9 - 59.1		0.737	0.900	
113	25712	113.05	112.9 - 113.1		0.678	0.900	
115	345113	115.05	114.9 - 115.1		0.677	0.900	
206	75195	206.00	205.9 - 206.1		0.730	0.900	
207	68404	207.00	206.9 - 207.1		0.696	0.900	
208	165639	208.00	207.9 - 208.1		0.753	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.2	V	Deflect	13.6	V
Extract 2	-165.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-75	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	180	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	29234	0.55	
89	93011	0.83	
205	31543	0.58	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	29364	29014	29149	29414	29228
89	93415	91807	92855	93862	93117
205	31754	31253	31557	31625	31528

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	7.7	V	Deflect	2.8	V
Extract 2	-145.0	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			