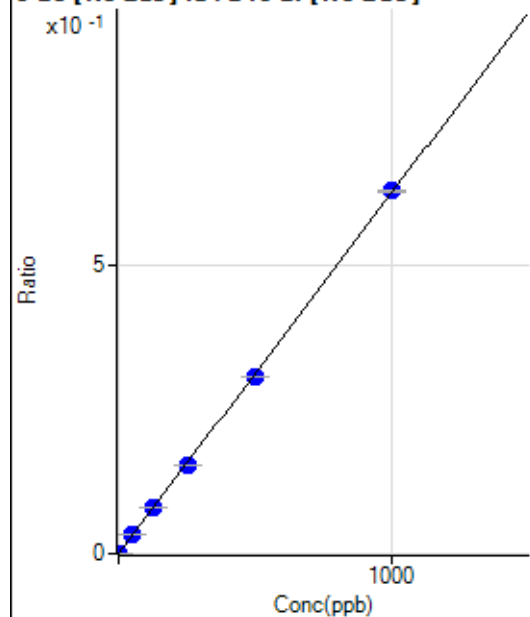


Calibration for 003CALS.d

Batch Folder: D:\ICP-MS Data\P7090619-MS.b\
 Analysis File: P7090619-MS.batch.bin
 DA Date-Time: 2019-09-06 15:43:43
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	002CALB.d	S00	2019-09-06 13:53:46
2	003CALS.d	S02	2019-09-06 13:57:21
3	004CALS.d	S03	2019-09-06 14:02:19
4	005CALS.d	S04	2019-09-06 14:06:30
5	006CALS.d	S05	2019-09-06 14:10:19
6	007CALS.d	S06	2019-09-06 14:14:06
7	010CALS.d	S07	2019-09-06 15:14:59
8	012CALS.d	S08	2019-09-06 15:24:57

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	74.45	0.0000	P	21.3
2	☐	1.000	1.046	3102.59	0.0007	P	2.9
3	☐	50.000	50.990	142870.57	0.0319	P	1.1
4	☐	125.000	127.271	338579.38	0.0795	P	1.7
5	☐	250.000	245.882	582437.30	0.1535	P	0.4
6	☐	500.000	489.357	1111644.62	0.3056	P	0.5
7	☐	1000.000	1006.018	2472410.71	0.6282	P	0.5
8	☐			126.67	0.0000	P	40.8

$$y = 6.2438\text{E-}004 * x + 1.5617\text{E-}005$$

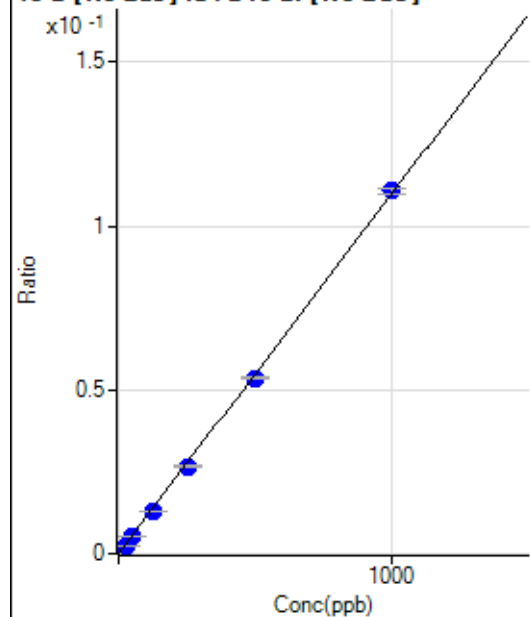
$$R = 0.9999$$

$$DL = 0.016$$

$$BEC = 0.02501$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	386.13	0.0001	P	16.7
2	☐	25.000	21.646	11388.01	0.0025	P	2.0
3	☐	50.000	46.137	23046.04	0.0051	P	2.1
4	☐	125.000	118.619	55740.10	0.0131	P	1.7
5	☐	250.000	241.765	100818.76	0.0266	P	2.8
6	☐	500.000	488.274	195023.59	0.0536	P	1.3
7	☐	1000.000	1008.997	435642.70	0.1107	P	1.7
8	☐			6429.42	0.0016	P	6.3

$$y = 1.0961\text{E-}004 * x + 8.1055\text{E-}005$$

$$R = 0.9999$$

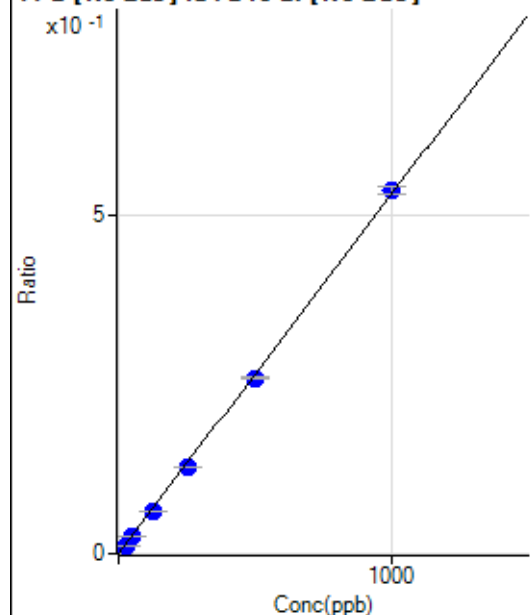
$$DL = 0.3701$$

$$BEC = 0.7395$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1875.19	0.0004	P	5.4
2	☐	25.000	21.931	55745.80	0.0120	P	0.5
3	☐	50.000	47.312	114178.86	0.0255	P	0.6
4	☐	125.000	117.426	266683.01	0.0626	P	1.0
5	☐	250.000	240.721	485175.70	0.1279	P	1.4
6	☐	500.000	488.074	942077.20	0.2589	P	0.8
7	☐	1000.000	1009.441	2106287.55	0.5351	P	2.3
8	☐			29763.46	0.0073	P	3.1

$$y = 5.2972\text{E-}004 * x + 3.9392\text{E-}004$$

$$R = 0.9999$$

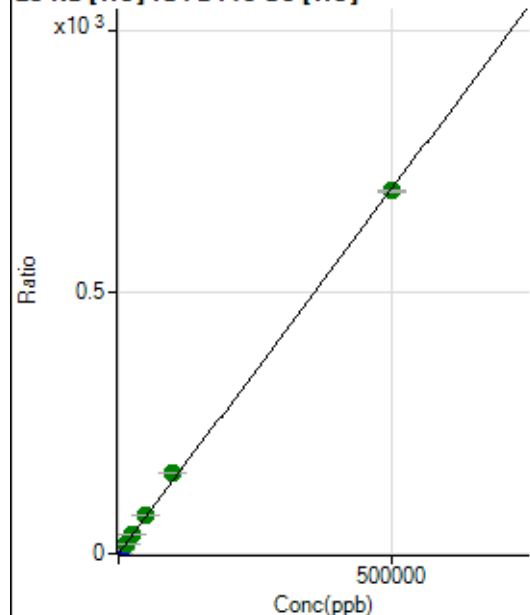
$$DL = 0.1207$$

$$BEC = 0.7436$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	23608.19	0.0478	P	1.4
2	☐	500.000	457.064	333619.41	0.6847	P	11.1
3	☐	5000.000	5311.026	3501696.91	7.4484	P	0.2
4	☐	12500.000	13212.314	8076914.68	18.4584	A	0.2
5	☐	25000.000	26682.418	14773694.43	37.2281	A	0.9
6	☐	50000.000	52519.299	29906642.68	73.2302	A	0.9
7	☐	100000.00	110061.64	68188743.89	153.4119	A	0.3
8	☐	500000.00	497630.74	337816340.88	693.4653	A	0.4

$$y = 0.0014 * x + 0.0478$$

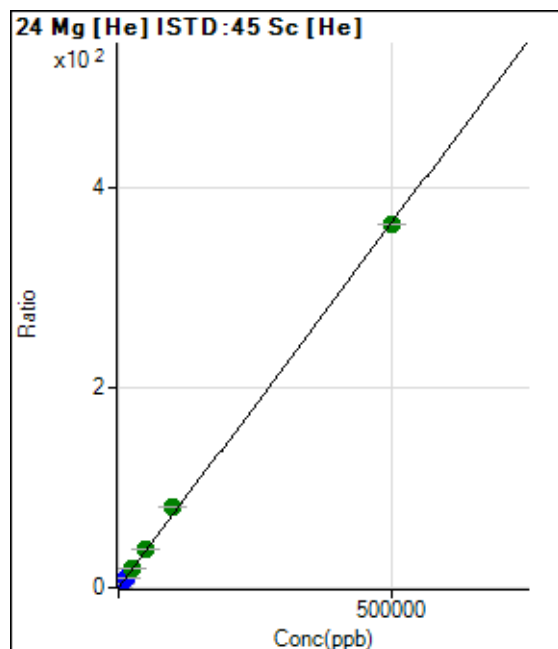
$$R = 0.9998$$

$$DL = 1.459$$

$$BEC = 34.33$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	380.58	0.0008	P	2.4
2	☐	500.000	458.127	163166.56	0.3347	P	14.5
3	☐	5000.000	5436.432	1863444.88	3.9638	P	0.5
4	☐	12500.000	13490.193	4303436.38	9.8347	P	0.4
5	☐	25000.000	27285.722	7893620.05	19.8912	A	1.0
6	☐	50000.000	53474.589	15920331.09	38.9820	A	0.5
7	☐	100000.00	110886.83	35928997.68	80.8337	A	0.7
8	☐	500000.00	497331.81	176606912.28	362.5394	A	0.0

$$y = 7.2897\text{E-}004 * x + 7.7106\text{E-}004$$

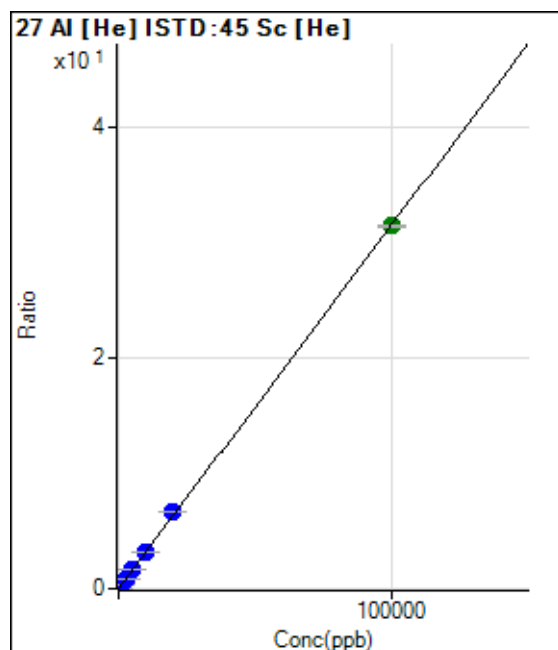
$$R = 0.9997$$

$$DL = 0.0756$$

$$BEC = 1.058$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	52.78	0.0001	P	23.8
2	☐	20.000	16.962	2650.35	0.0054	P	8.0
3	☐	1000.000	1029.848	152327.60	0.3240	P	0.2
4	☐	2500.000	2541.836	349876.40	0.7996	P	0.4
5	☐	5000.000	5088.893	635233.52	1.6007	P	0.5
6	☐	10000.000	9997.469	1284268.09	3.1445	P	0.6
7	☐	20000.000	21005.385	2936515.04	6.6068	P	0.7
8	☐	100000.00	99793.388	15290216.49	31.3874	A	0.8

$$y = 3.1452\text{E-}004 * x + 1.0688\text{E-}004$$

$$R = 0.9999$$

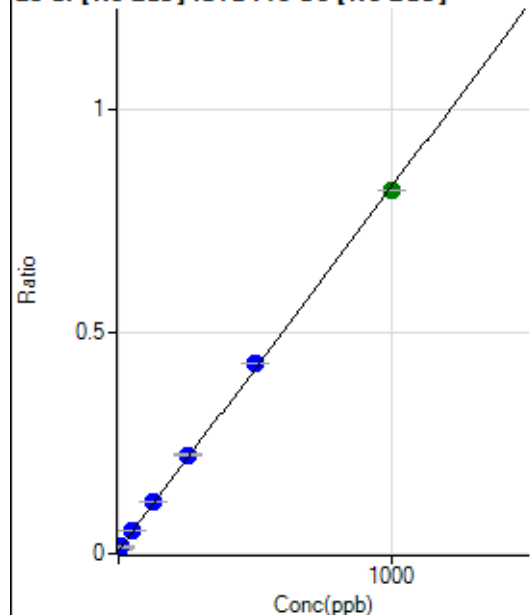
$$DL = 0.2428$$

$$BEC = 0.3398$$

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	84273.28	0.0075	P	1.3
2	☐	10.000	9.333	166769.88	0.0152	P	0.3
3	☐	50.000	53.906	548456.93	0.0517	P	0.9
4	☐	125.000	133.824	1181100.79	0.1171	P	1.4
5	☐	250.000	261.988	2002733.01	0.2220	P	1.3
6	☐	500.000	513.405	3790137.71	0.4278	P	0.4
7	☐	1000.000	989.009	7920774.39	0.8172	A	0.1
8	☐			264172.97	0.0256	P	5.3

$$y = 8.1869\text{E-}004 * x + 0.0075$$

$$R = 0.9998$$

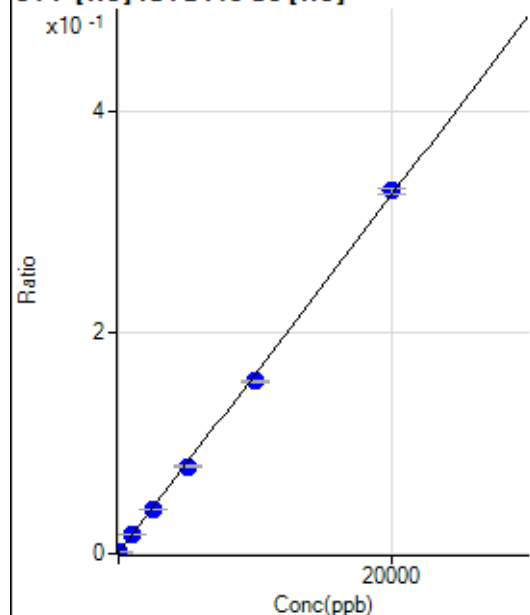
$$DL = 0.3549$$

$$BEC = 9.187$$

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	-20.654	177.79	0.0004	P	2.6
2	☐	0.000	20.654	500.03	0.0010	P	20.1
3	☐	1000.000	1014.608	8055.31	0.0171	P	2.0
4	☐	2500.000	2463.392	17766.82	0.0406	P	1.4
5	☐	5000.000	4841.224	31400.61	0.0791	P	0.9
6	☐	10000.000	9616.153	63907.26	0.1565	P	0.9
7	☐	20000.000	20235.463	146017.46	0.3285	P	1.4
8	☐			255.57	0.0005	P	24.2

$$y = 1.6201\text{E-}005 * x + 6.9481\text{E-}004$$

$$R = 0.9997$$

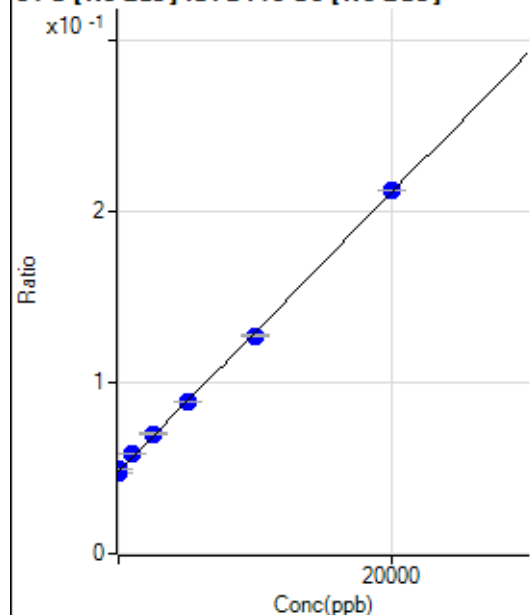
$$DL = 20$$

$$BEC = 42.89$$

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	-129.057	525850.17	0.0469	P	1.0
2	☐	0.000	129.057	539432.84	0.0490	P	0.4
3	☐	1000.000	1289.234	621409.88	0.0585	P	0.0
4	☐	2500.000	2692.813	706031.53	0.0700	P	1.7
5	☐	5000.000	5010.970	802304.04	0.0889	P	0.7
6	☐	10000.000	9723.770	1128962.75	0.1274	P	0.7
7	☐	20000.000	20096.809	2056728.47	0.2122	P	0.1
8	☐			568437.17	0.0551	P	0.2

$$y = 8.1710\text{E-}006 * x + 0.0480$$

R = 0.9997

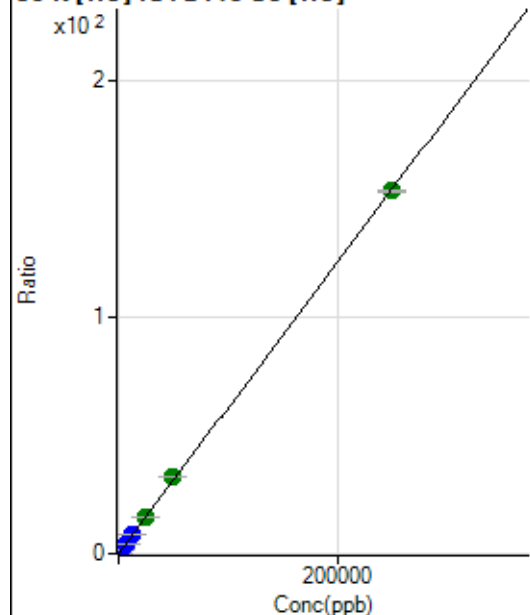
DL = 122.3

BEC = 5873

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	19021.16	0.0385	P	2.1
2	☐	500.000	457.047	155594.86	0.3194	P	10.1
3	☐	2500.000	2536.885	750967.68	1.5974	P	0.7
4	☐	6250.000	6239.793	1694644.98	3.8728	P	0.3
5	☐	12500.000	12574.191	3081689.57	7.7652	P	0.3
6	☐	25000.000	24911.038	6267417.98	15.3460	A	0.4
7	☐	50000.000	52787.013	14434426.88	32.4753	A	0.4
8	☐	250000.00	249447.75	74689353.75	153.3203	A	0.8

$$y = 6.1448\text{E-}004 * x + 0.0385$$

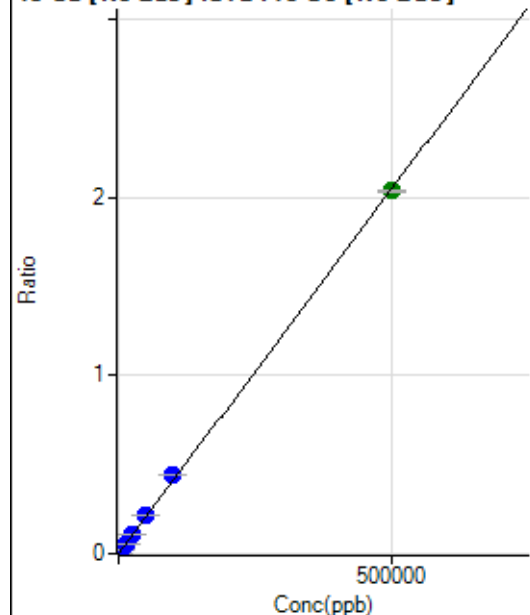
R = 0.9999

DL = 4.003

BEC = 62.72

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	91.67	0.0000	P	39.0
2	☐	500.000	503.608	22751.61	0.0021	P	0.2
3	☐	5000.000	5253.871	228309.80	0.0215	P	0.7
4	☐	12500.000	13323.579	549938.66	0.0545	P	1.3
5	☐	25000.000	26192.692	966802.25	0.1072	P	0.5
6	☐	50000.000	52527.717	1903802.32	0.2149	P	0.4
7	☐	100000.00	109290.87	4333773.54	0.4471	P	0.1
8	☐	500000.00	497806.28	20996146.13	2.0366	A	0.3

$$y = 4.0911\text{E-}006 * x + 8.1617\text{E-}006$$

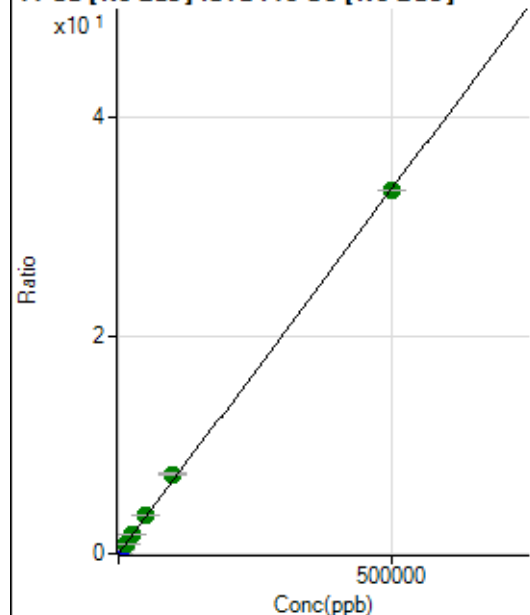
$$R = 0.9998$$

$$DL = 2.337$$

$$BEC = 1.995$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13321.38	0.0012	P	0.8
2	☐	500.000	498.444	379790.94	0.0345	P	0.7
3	☐	5000.000	5298.439	3775684.85	0.3556	P	0.2
4	☐	12500.000	13226.530	8936299.94	0.8859	A	1.7
5	☐	25000.000	26173.032	15804982.12	1.7519	A	0.3
6	☐	50000.000	52256.560	30974965.28	3.4965	A	0.4
7	☐	100000.00	109423.09	70951350.89	7.3203	A	0.2
8	☐	500000.00	497809.92	343292918.78	33.2988	A	0.1

$$y = 6.6888\text{E-}005 * x + 0.0012$$

$$R = 0.9998$$

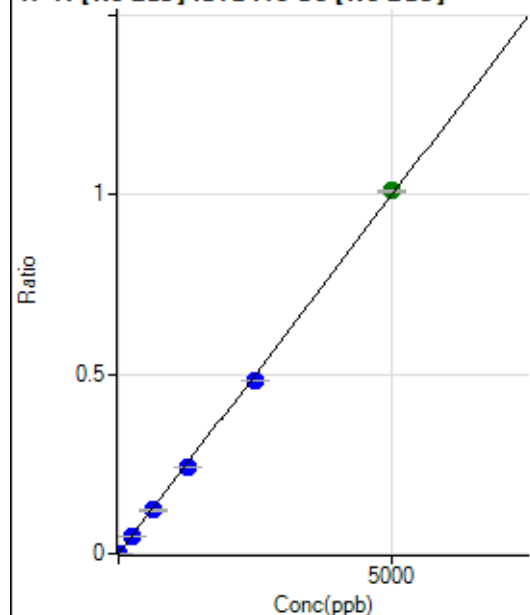
$$DL = 0.4454$$

$$BEC = 17.77$$

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	77.78	0.0000	P	11.5
2	☐	5.000	4.820	10643.15	0.0010	P	4.1
3	☐	250.000	241.204	510579.00	0.0481	P	0.1
4	☐	625.000	606.508	1219578.66	0.1209	P	1.4
5	☐	1250.000	1197.222	2153018.56	0.2386	P	0.2
6	☐	2500.000	2407.751	4251678.48	0.4799	P	0.4
7	☐	5000.000	5062.070	9779799.96	1.0090	A	0.3
8	☐			1619.60	0.0002	P	11.0

$$y = 1.9933\text{E-}004 * x + 6.9368\text{E-}006$$

$$R = 0.9997$$

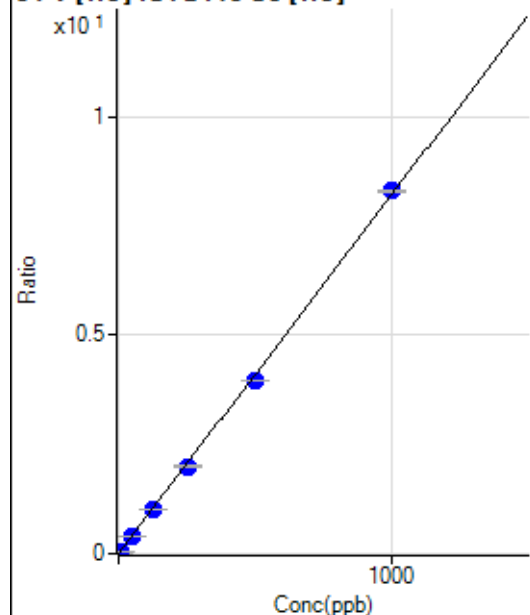
$$DL = 0.01196$$

$$BEC = 0.0348$$

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	6.67	0.0000	P	0.4
2	☐	5.000	4.221	16903.45	0.0347	P	16.8
3	☐	50.000	49.043	189309.89	0.4027	P	0.4
4	☐	125.000	121.533	436648.90	0.9979	P	0.5
5	☐	250.000	243.560	793621.53	1.9998	P	0.6
6	☐	500.000	481.801	1615601.58	3.9559	P	0.8
7	☐	1000.000	1011.194	3690317.10	8.3026	P	0.2
8	☐			613.36	0.0013	P	12.7

$$y = 0.0082 * x + 1.3514\text{E-}005$$

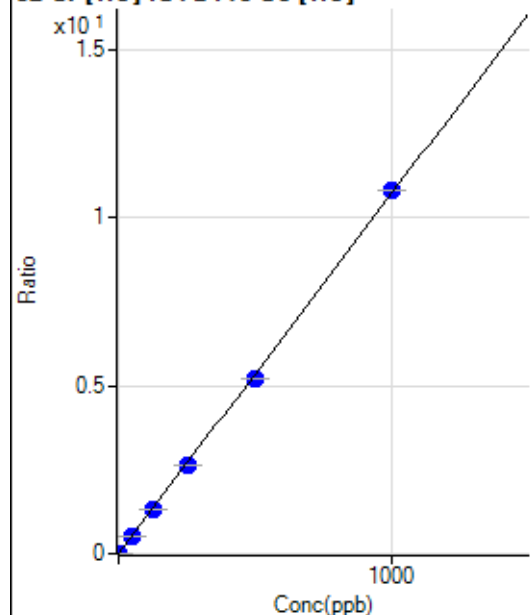
$$R = 0.9997$$

$$DL = 1.936\text{E-}05$$

$$BEC = 0.001646$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	422.23	0.0009	P	4.5
2	☐	2.000	1.633	8949.54	0.0184	P	13.1
3	☐	50.000	49.934	252030.48	0.5361	P	0.4
4	☐	125.000	123.450	579407.88	1.3241	P	0.5
5	☐	250.000	247.043	1051225.38	2.6489	P	0.7
6	☐	500.000	485.542	2125916.76	5.2054	P	0.5
7	☐	1000.000	1008.166	4803777.05	10.8074	P	0.1
8	☐			139080.03	0.2855	P	0.6

$$y = 0.0107 * x + 8.5538E-004$$

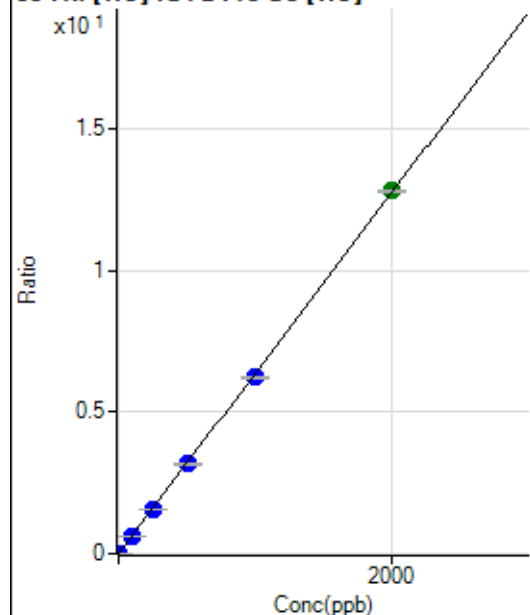
$$R = 0.9998$$

$$DL = 0.01072$$

$$BEC = 0.0798$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	48.89	0.0001	P	10.5
2	☐	1.000	0.856	2701.41	0.0055	P	12.9
3	☐	100.000	99.762	298208.37	0.6343	P	0.5
4	☐	250.000	246.418	685549.08	1.5667	P	0.4
5	☐	500.000	497.350	1254821.20	3.1620	P	0.8
6	☐	1000.000	977.130	2537064.01	6.2122	P	0.6
7	☐	2000.000	2012.557	5687135.47	12.7949	A	0.3
8	☐			19130.42	0.0393	P	1.2

$$y = 0.0064 * x + 9.9056E-005$$

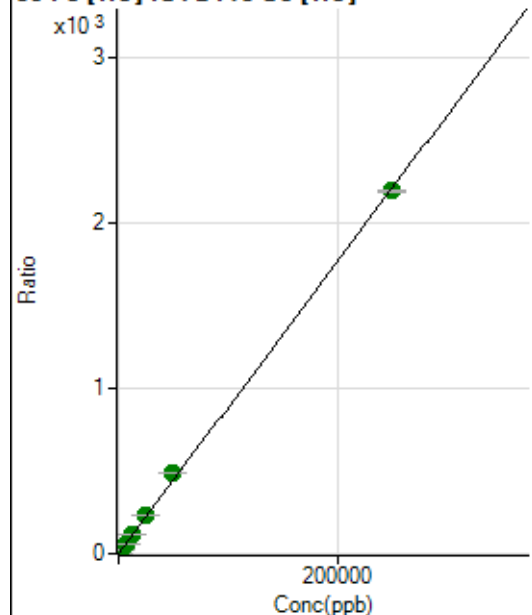
$$R = 0.9999$$

$$DL = 0.00491$$

$$BEC = 0.01558$$

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	2544.73	0.0052	P	3.8
2	☐	50.000	46.533	202384.54	0.4151	P	15.3
3	☐	2500.000	2723.275	11282238.10	23.9993	A	0.7
4	☐	6250.000	6785.096	26161339.94	59.7870	A	0.3
5	☐	12500.000	13610.320	47591383.93	119.9224	A	0.5
6	☐	25000.000	26719.789	96149490.11	235.4268	A	0.5
7	☐	50000.000	54971.076	215280082.59	484.3422	A	0.3
8	☐	250000.00	248762.68	1067721949.7	2,191.793	A	0.8

$$y = 0.0088 * x + 0.0052$$

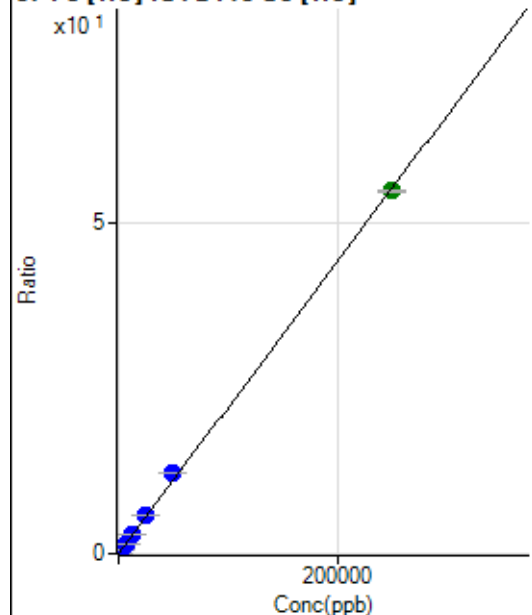
$$R = 0.9998$$

$$DL = 0.06713$$

$$BEC = 0.5852$$

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	55.56	0.0001	P	26.9
2	☐	50.000	46.888	5084.38	0.0104	P	14.6
3	☐	2500.000	2727.989	282302.69	0.6005	P	0.4
4	☐	6250.000	6729.878	648153.18	1.4812	P	0.4
5	☐	12500.000	13553.480	1183788.58	2.9830	P	1.0
6	☐	25000.000	26550.922	2386388.22	5.8435	P	1.2
7	☐	50000.000	55098.277	5389568.29	12.1263	P	1.2
8	☐	250000.00	248758.30	26669967.49	54.7477	A	0.6

$$y = 2.2008E-004 * x + 1.1264E-004$$

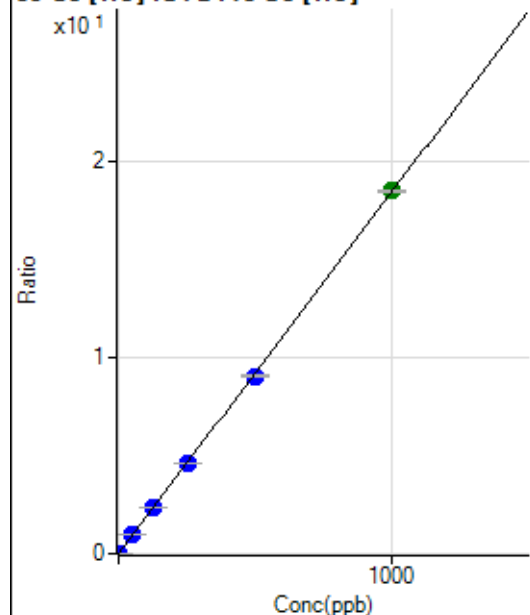
$$R = 0.9998$$

$$DL = 0.4125$$

$$BEC = 0.5118$$

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	91.11	0.0002	P	21.1
2	☐	1.000	0.857	7805.55	0.0160	P	14.4
3	☐	50.000	50.914	442018.64	0.9402	P	0.4
4	☐	125.000	125.963	1017733.72	2.3259	P	0.4
5	☐	250.000	250.396	1834698.46	4.6233	P	1.0
6	☐	500.000	491.956	3709562.20	9.0832	P	0.7
7	☐	1000.000	1003.757	8237056.13	18.5326	A	0.8
8	☐			99296.39	0.2038	P	0.7

$$y = 0.0185 * x + 1.8467E-004$$

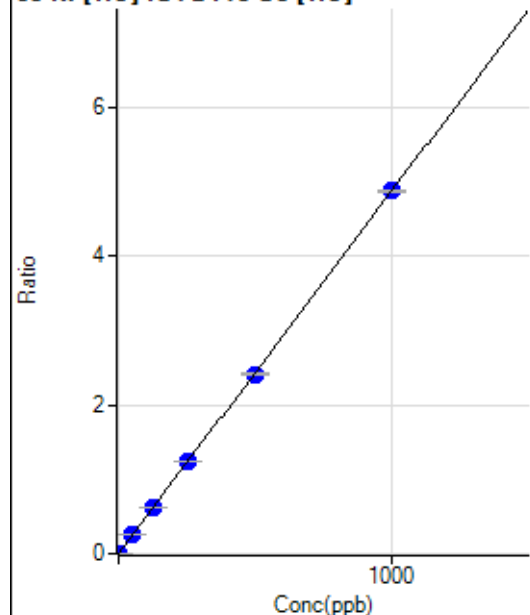
$$R = 1.0000$$

$$DL = 0.00632$$

$$BEC = 0.01$$

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	137.78	0.0003	P	18.1
2	☐	1.000	0.850	2153.53	0.0044	P	17.9
3	☐	50.000	52.042	119200.66	0.2535	P	0.5
4	☐	125.000	127.261	271123.14	0.6196	P	0.3
5	☐	250.000	254.073	490779.68	1.2367	P	1.5
6	☐	500.000	494.868	983631.09	2.4086	P	1.0
7	☐	1000.000	1001.163	2165657.12	4.8725	P	0.6
8	☐			58559.98	0.1202	P	0.5

$$y = 0.0049 * x + 2.7907E-004$$

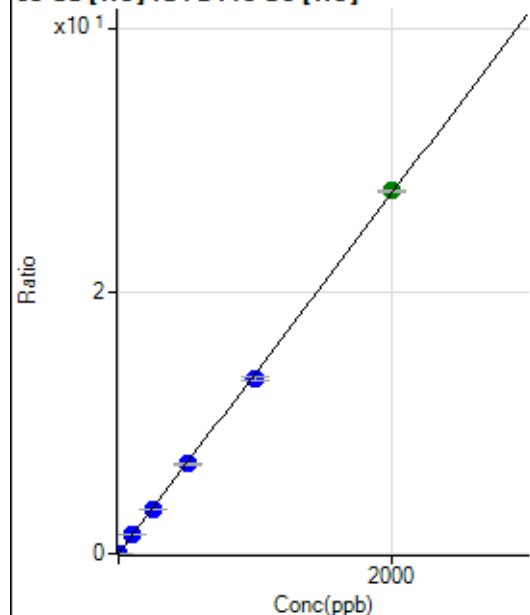
$$R = 1.0000$$

$$DL = 0.03105$$

$$BEC = 0.05734$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1108.95	0.0022	P	7.6
2	☐	2.000	1.715	12564.54	0.0258	P	12.0
3	☐	100.000	102.038	659486.63	1.4028	P	0.7
4	☐	250.000	250.005	1502536.28	3.4338	P	0.5
5	☐	500.000	498.478	2716062.95	6.8443	P	1.3
6	☐	1000.000	971.685	5447581.45	13.3395	P	1.2
7	☐	2000.000	2014.436	12290439.54	27.6521	A	0.6
8	☐			18253.83	0.0375	P	0.8

$$y = 0.0137 * x + 0.0022$$

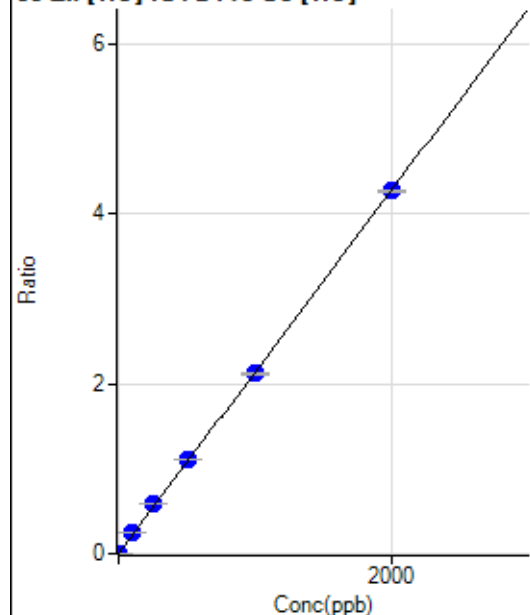
$$R = 0.9998$$

$$DL = 0.03739$$

$$BEC = 0.1637$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	507.80	0.0010	P	8.9
2	☐	2.000	2.481	3085.94	0.0063	P	7.4
3	☐	100.000	111.359	112505.88	0.2393	P	0.8
4	☐	250.000	271.146	254306.80	0.5812	P	0.7
5	☐	500.000	518.510	440681.04	1.1105	P	0.7
6	☐	1000.000	991.215	866583.61	2.1219	P	0.4
7	☐	2000.000	1996.554	1899157.68	4.2729	P	0.8
8	☐			16559.56	0.0340	P	1.3

$$y = 0.0021 * x + 0.0010$$

$$R = 0.9999$$

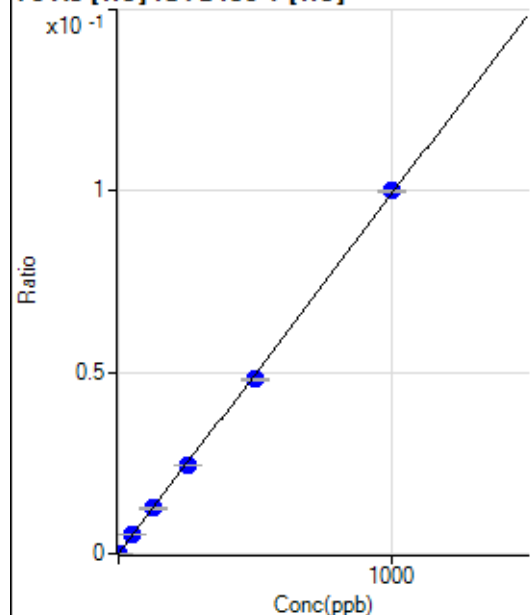
$$DL = 0.1287$$

$$BEC = 0.4807$$

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	12.6
2	☐	1.000	0.849	472.85	0.0001	P	13.3
3	☐	50.000	51.692	27493.28	0.0051	P	0.6
4	☐	125.000	125.801	62584.96	0.0125	P	0.8
5	☐	250.000	244.829	111441.72	0.0243	P	0.4
6	☐	500.000	484.111	224483.53	0.0480	P	0.6
7	☐	1000.000	1009.053	502242.77	0.1001	P	0.3
8	☐			688.91	0.0001	P	7.7

$$y = 9.9179\text{E-}005 * x + 1.5475\text{E-}006$$

$$R = 0.9998$$

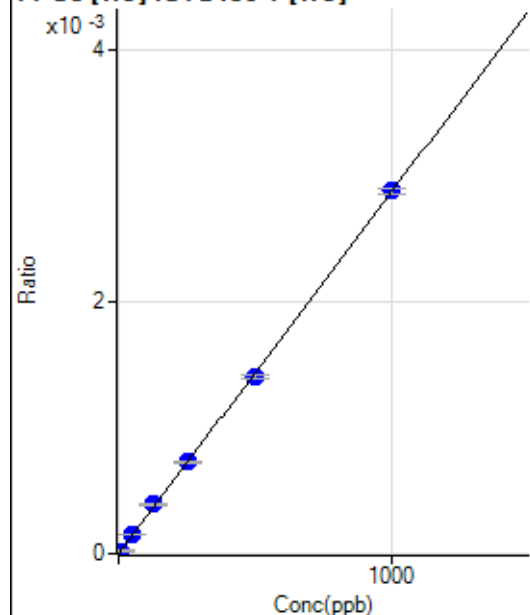
$$DL = 0.005875$$

$$BEC = 0.0156$$

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	☐	5.000	6.999	111.11	0.0000	P	41.7
3	☐	50.000	51.384	790.04	0.0001	P	1.4
4	☐	125.000	136.894	1969.05	0.0004	P	2.2
5	☐	250.000	253.888	3341.55	0.0007	P	2.1
6	☐	500.000	488.495	6550.47	0.0014	P	1.8
7	☐	1000.000	1003.214	14438.52	0.0029	P	1.8
8	☐			8.89	0.0000	P	43.5

$$y = 2.8679\text{E-}006 * x + 0.0000\text{E+}000$$

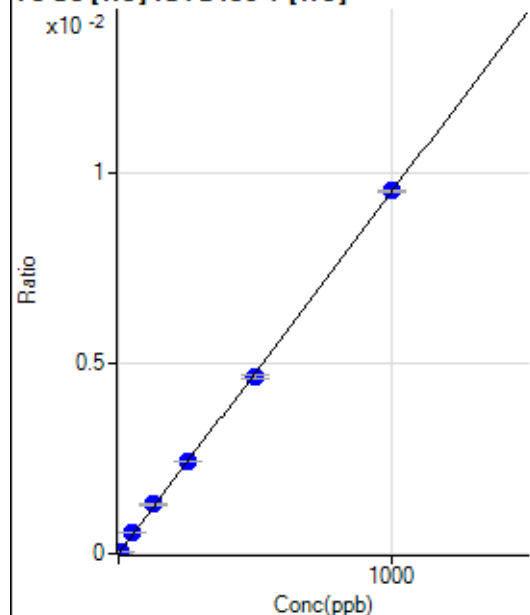
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28.40	0.0000	P	33.4
2	☐	5.000	5.857	335.19	0.0001	P	21.2
3	☐	50.000	56.738	2916.99	0.0005	P	3.9
4	☐	125.000	136.399	6524.98	0.0013	P	2.6
5	☐	250.000	253.241	11064.16	0.0024	P	0.7
6	☐	500.000	488.212	21706.42	0.0046	P	1.5
7	☐	1000.000	1003.317	47860.02	0.0095	P	0.6
8	☐			48.77	0.0000	P	12.5

$$y = 9.5002\text{E-}006 * x + 5.0834\text{E-}006$$

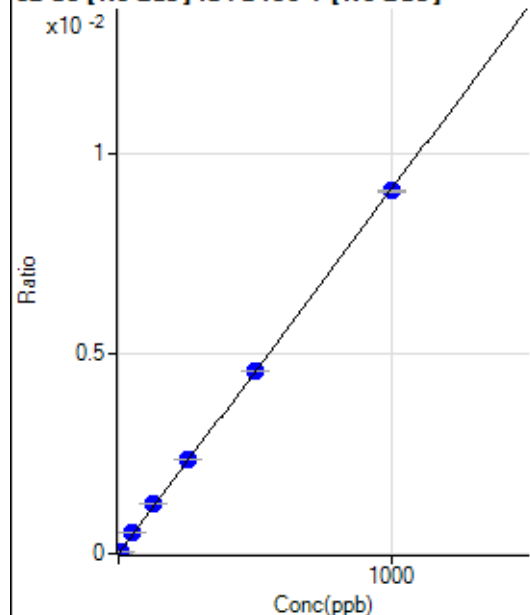
$$R = 0.9998$$

$$DL = 0.5367$$

$$BEC = 0.5351$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.77	0.0000	P	212.
2	☐	5.000	6.262	2382.89	0.0001	P	1.5
3	☐	50.000	56.673	20888.60	0.0005	P	0.8
4	☐	125.000	138.551	48991.26	0.0013	P	1.7
5	☐	250.000	257.276	82408.80	0.0023	P	0.5
6	☐	500.000	501.108	157164.95	0.0046	P	0.3
7	☐	1000.000	995.593	334912.41	0.0091	P	0.7
8	☐			67.73	0.0000	P	47.5

$$y = 9.1169\text{E-}006 * x + 2.7434\text{E-}007$$

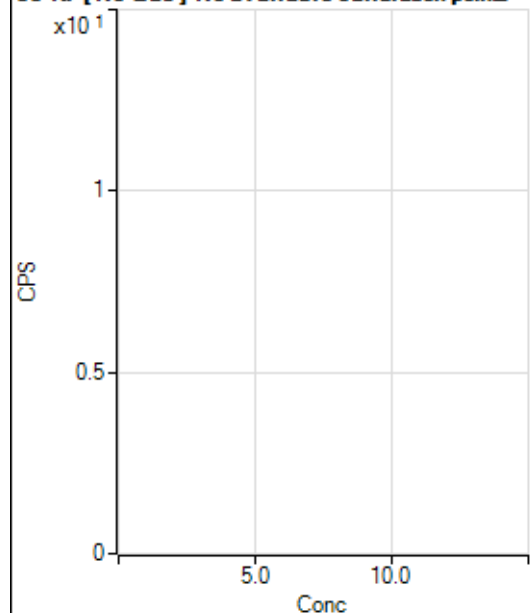
$$R = 0.9999$$

$$DL = 0.1921$$

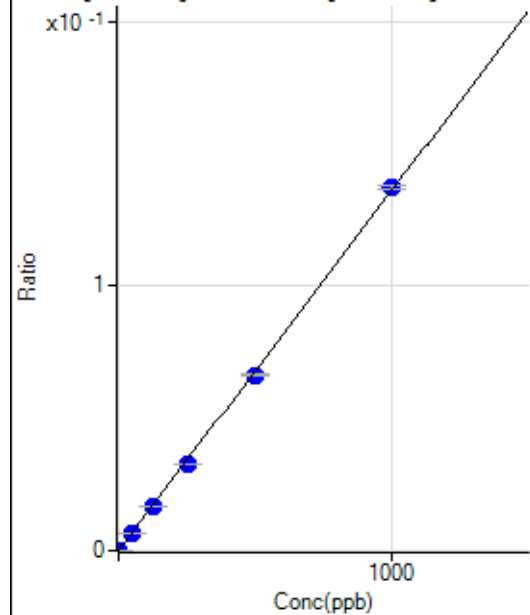
$$BEC = 0.03009$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			391.12		P	7.9
2	☐			351.12		P	6.5
3	☐			375.57		P	5.9
4	☐			378.90		P	3.6
5	☐			328.90		P	10.7
6	☐			340.01		P	15.6
7	☐			368.90		P	8.4
8	☐			413.35		P	2.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	569.48	0.0000	P	3.9
2	☐	1.000	0.978	6073.81	0.0001	P	3.2
3	☐	50.000	48.889	268896.19	0.0067	P	0.4
4	☐	125.000	122.442	645481.32	0.0166	P	2.0
5	☐	250.000	241.474	1152794.70	0.0328	P	0.7
6	☐	500.000	488.096	2281369.95	0.0663	P	0.4
7	☐	1000.000	1008.459	5055242.17	0.1370	P	1.1
8	☐			19744.78	0.0005	P	1.1

$$y = 1.3585E-004 * x + 1.3374E-005$$

$$R = 0.9999$$

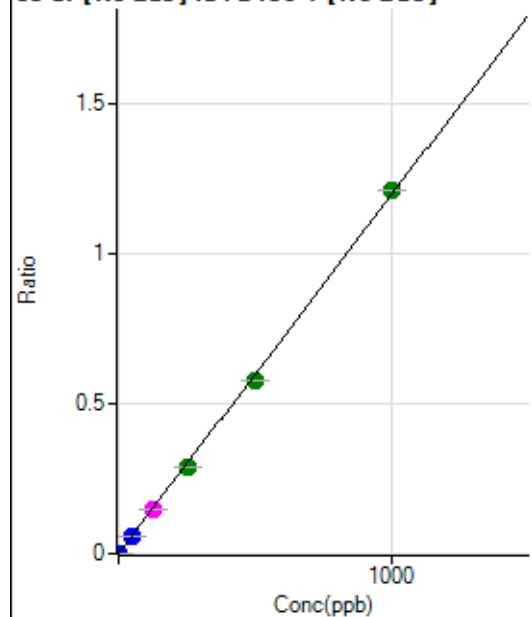
$$DL = 0.01164$$

$$BEC = 0.09845$$

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	122.23	0.0000	P	11.3
2	☐	1.000	0.938	46793.82	0.0011	P	1.8
3	☐	50.000	48.585	2351010.49	0.0582	P	0.8
4	☐	125.000	122.138	5671615.97	0.1463	M	1.6
5	☐	250.000	240.842	10131339.38	0.2884	A	1.0
6	☐	500.000	483.855	19932001.49	0.5794	A	0.3
7	☐	1000.000	1010.791	44661508.64	1.2104	A	0.1
8	☐			171047.34	0.0045	P	1.4

$$y = 0.0012 * x + 2.8730E-006$$

$$R = 0.9998$$

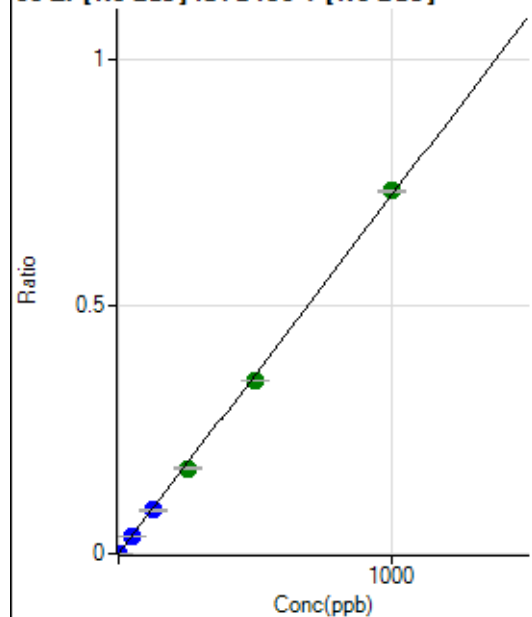
$$DL = 0.0008106$$

$$BEC = 0.002399$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1733.51	0.0000	P	2.8
2	☐	1.000	0.730	23653.68	0.0006	P	4.0
3	☐	50.000	48.212	1413069.28	0.0350	P	0.2
4	☐	125.000	121.336	3410496.12	0.0879	P	1.5
5	☐	250.000	238.495	6071209.21	0.1728	A	0.7
6	☐	500.000	481.294	11996623.53	0.3487	A	0.2
7	☐	1000.000	1012.777	27075378.38	0.7338	A	0.3
8	☐			6398.93	0.0002	P	0.7

$$y = 7.2451E-004 * x + 4.0712E-005$$

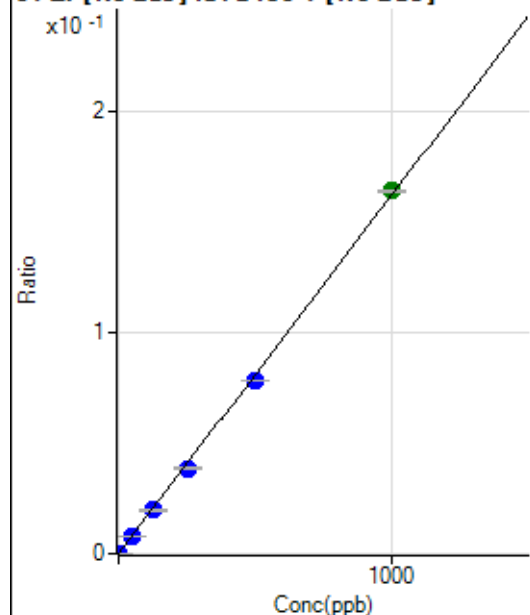
$$R = 0.9997$$

$$DL = 0.004657$$

$$BEC = 0.05619$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	319.46	0.0000	P	16.8
2	☐	1.000	0.696	5006.63	0.0001	P	3.6
3	☐	50.000	48.065	315534.40	0.0078	P	0.3
4	☐	125.000	120.760	760348.16	0.0196	P	1.1
5	☐	250.000	237.980	1357095.68	0.0386	P	0.9
6	☐	500.000	482.441	2693904.58	0.0783	P	0.4
7	☐	1000.000	1012.412	6063275.44	0.1643	A	0.4
8	☐			1383.46	0.0000	P	5.2

$$y = 1.6231E-004 * x + 7.5103E-006$$

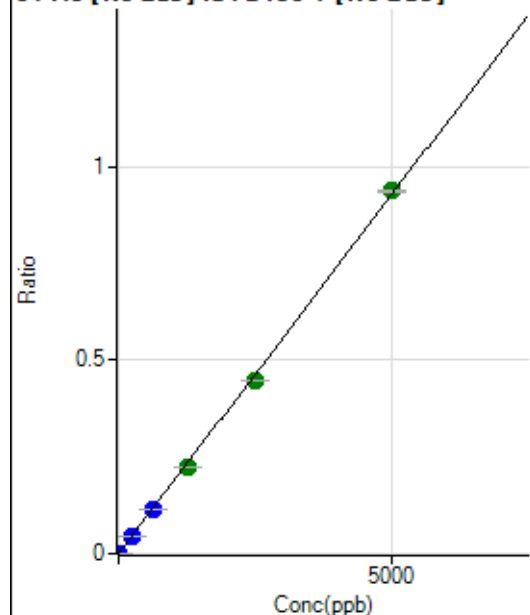
$$R = 0.9997$$

$$DL = 0.02327$$

$$BEC = 0.04627$$

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	594.49	0.0000	P	0.6
2	☐	5.000	4.264	33467.92	0.0008	P	2.4
3	☐	250.000	242.063	1816437.04	0.0450	P	0.3
4	☐	625.000	612.237	4408006.26	0.1137	P	1.6
5	☐	1250.000	1197.591	7810515.80	0.2223	A	0.8
6	☐	2500.000	2419.758	15453868.58	0.4492	A	0.4
7	☐	5000.000	5055.216	34628735.15	0.9385	A	0.5
8	☐			20100.96	0.0005	P	2.0

$$y = 1.8565E-004 * x + 1.3964E-005$$

$$R = 0.9998$$

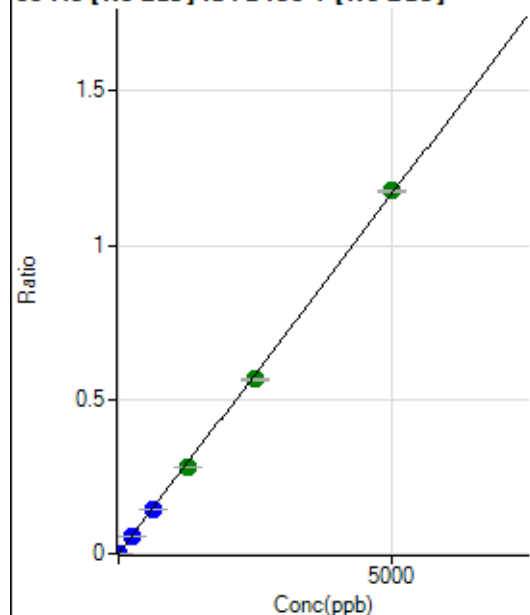
$$DL = 0.00142$$

$$BEC = 0.07522$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0000	P	19.5
2	☐	5.000	4.611	44676.61	0.0011	P	0.9
3	☐	250.000	243.529	2290824.96	0.0567	P	0.5
4	☐	625.000	614.238	5544666.40	0.1430	P	1.9
5	☐	1250.000	1200.420	9816632.86	0.2794	A	0.5
6	☐	2500.000	2427.040	19435620.05	0.5650	A	0.4
7	☐	5000.000	5050.544	43380820.07	1.1757	A	0.4
8	☐			30934.70	0.0008	P	1.8

$$y = 2.3279\text{E-}004 * x + 2.0882\text{E-}006$$

$$R = 0.9998$$

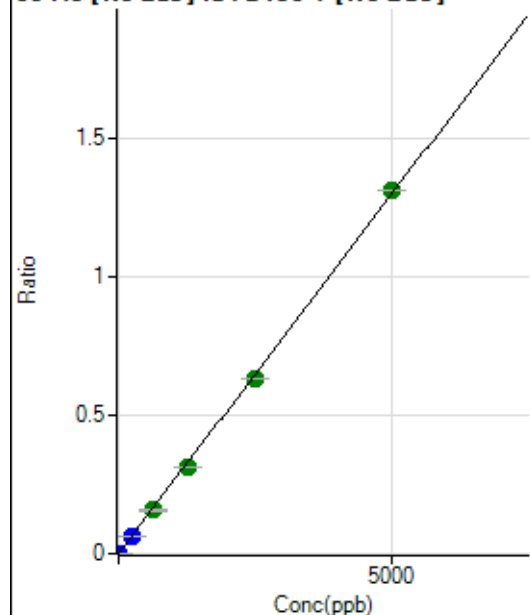
$$DL = 0.005248$$

$$BEC = 0.00897$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	191.68	0.0000	P	19.3
2	☐	5.000	4.504	48754.20	0.0012	P	1.3
3	☐	250.000	242.171	2540287.21	0.0629	P	0.1
4	☐	625.000	607.257	6112358.30	0.1576	A	2.0
5	☐	1250.000	1203.369	10973380.63	0.3124	A	0.2
6	☐	2500.000	2429.897	21697326.01	0.6307	A	0.3
7	☐	5000.000	5049.319	48360410.46	1.3107	A	0.1
8	☐			35211.14	0.0009	P	0.6

$$y = 2.5957\text{E-}004 * x + 4.4981\text{E-}006$$

$$R = 0.9998$$

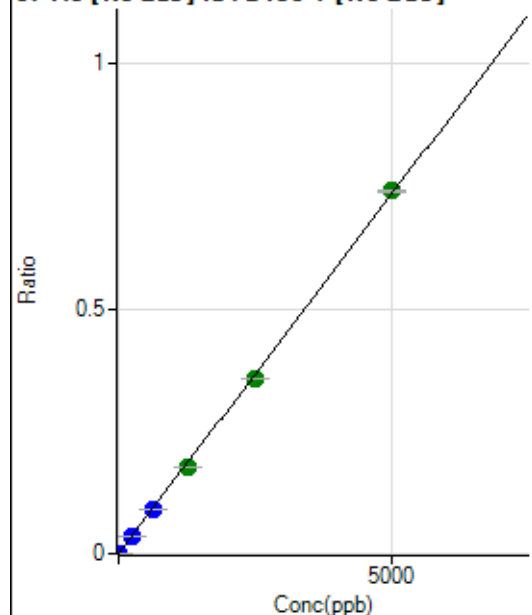
$$DL = 0.01004$$

$$BEC = 0.01733$$

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	69.45	0.0000	P	29.4
2	☐	5.000	4.609	28181.47	0.0007	P	3.8
3	☐	250.000	242.477	1438669.54	0.0356	P	0.5
4	☐	625.000	609.412	3469706.81	0.0895	P	1.4
5	☐	1250.000	1198.834	6183494.45	0.1760	A	0.5
6	☐	2500.000	2432.430	12285493.16	0.3571	A	0.3
7	☐	5000.000	5048.902	27352219.01	0.7413	A	0.7
8	☐			19358.41	0.0005	P	1.4

$$y = 1.4682E-004 * x + 1.6284E-006$$

$$R = 0.9998$$

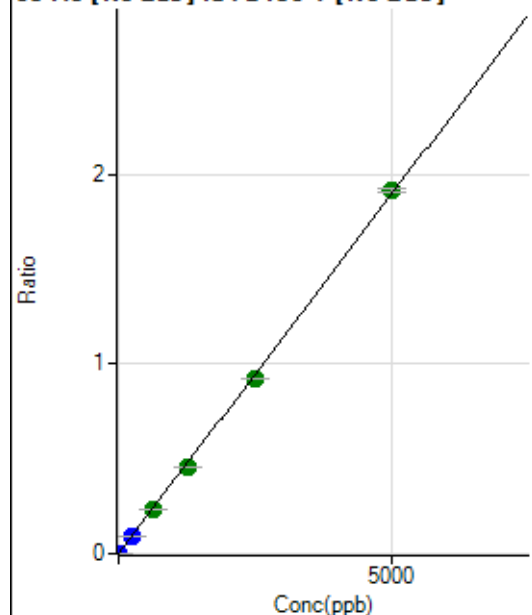
$$DL = 0.009772$$

$$BEC = 0.01109$$

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	111.12	0.0000	P	23.2
2	☐	5.000	4.591	72278.23	0.0017	P	0.5
3	☐	250.000	243.152	3717931.51	0.0920	P	0.3
4	☐	625.000	607.555	8914793.08	0.2299	A	1.5
5	☐	1250.000	1199.389	15943447.23	0.4538	A	0.4
6	☐	2500.000	2431.042	31644253.83	0.9199	A	0.2
7	☐	5000.000	5049.655	70502789.08	1.9108	A	0.9
8	☐			49696.01	0.0013	P	1.4

$$y = 3.7840E-004 * x + 2.6120E-006$$

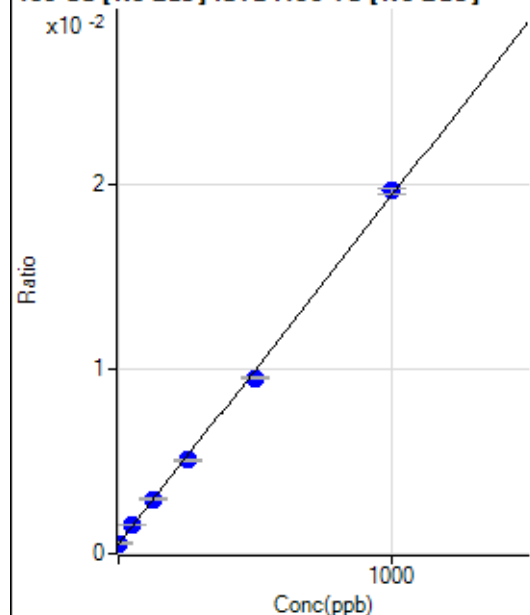
$$R = 0.9998$$

$$DL = 0.004812$$

$$BEC = 0.006903$$

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	18242.94	0.0005	P	2.3
2	☐	1.000	1.805	19030.10	0.0006	P	1.4
3	☐	50.000	52.854	49835.92	0.0015	P	0.7
4	☐	125.000	128.147	93771.09	0.0029	P	1.0
5	☐	250.000	239.902	149951.99	0.0051	P	1.3
6	☐	500.000	475.800	279065.46	0.0095	P	0.7
7	☐	1000.000	1014.088	598199.20	0.0196	P	1.4
8	☐			18001.09	0.0006	P	2.8

$$y = 1.8813\text{E-}005 * x + 5.3703\text{E-}004$$

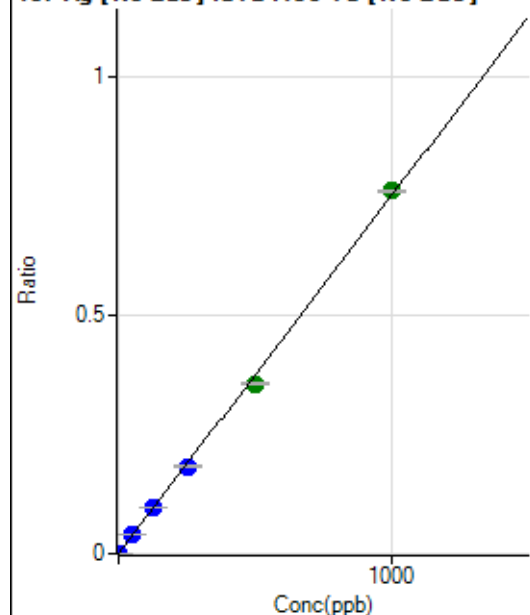
$$R = 0.9995$$

$$DL = 2.01$$

$$BEC = 28.55$$

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	397.25	0.0000	P	12.2
2	☐	1.000	0.955	24330.10	0.0007	P	1.1
3	☐	50.000	52.285	1279809.26	0.0393	P	0.6
4	☐	125.000	127.796	3056925.07	0.0961	P	1.4
5	☐	250.000	243.861	5444731.81	0.1834	P	1.1
6	☐	500.000	474.933	10503487.65	0.3571	A	0.7
7	☐	1000.000	1013.605	23243065.10	0.7621	A	0.7
8	☐			1027.86	0.0000	P	5.2

$$y = 7.5190\text{E-}004 * x + 1.1697\text{E-}005$$

$$R = 0.9995$$

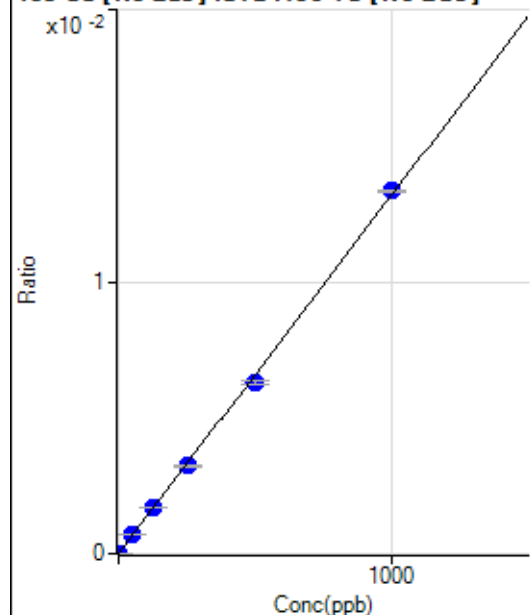
$$DL = 0.005676$$

$$BEC = 0.01556$$

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	33.33	0.0000	P	54.0
2	☐	1.000	0.981	463.91	0.0000	P	15.0
3	☐	50.000	52.480	22547.31	0.0007	P	1.9
4	☐	125.000	129.634	54391.68	0.0017	P	1.4
5	☐	250.000	244.106	95579.52	0.0032	P	0.6
6	☐	500.000	476.861	184909.61	0.0063	P	1.5
7	☐	1000.000	1012.340	407010.64	0.0133	P	0.7
8	☐			90.28	0.0000	P	13.2

$$y = 1.3182\text{E-}005 * x + 9.7839\text{E-}007$$

$$R = 0.9995$$

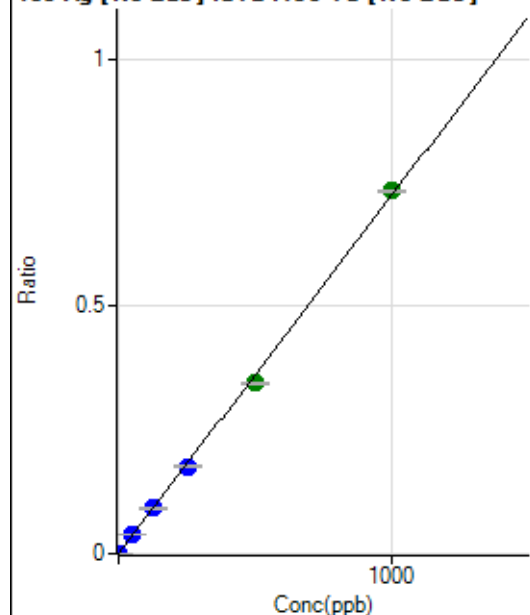
$$DL = 0.1203$$

$$BEC = 0.07422$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	150.01	0.0000	P	10.2
2	☐	1.000	0.957	23239.49	0.0007	P	2.3
3	☐	50.000	52.360	1234161.59	0.0379	P	0.8
4	☐	125.000	127.642	2940324.54	0.0924	P	2.4
5	☐	250.000	244.118	5249353.11	0.1768	P	0.7
6	☐	500.000	475.725	10133049.88	0.3445	A	0.6
7	☐	1000.000	1013.160	22376503.80	0.7337	A	0.9
8	☐			708.38	0.0000	P	19.9

$$y = 7.2418\text{E-}004 * x + 4.4134\text{E-}006$$

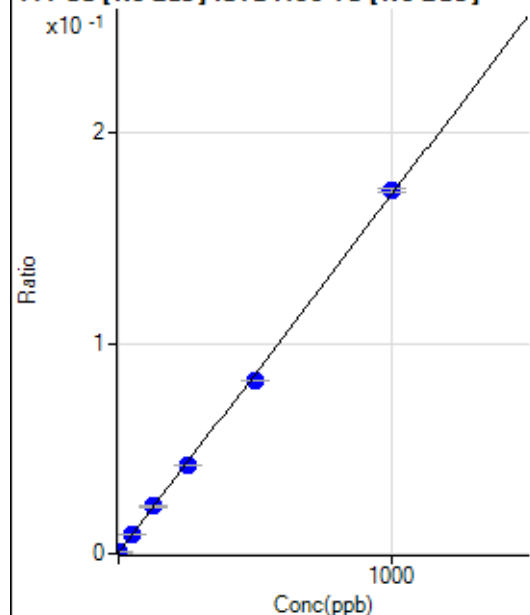
$$R = 0.9995$$

$$DL = 0.001868$$

$$BEC = 0.006094$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12780.06	0.0004	P	2.3
2	☐	1.000	1.110	18832.38	0.0006	P	1.0
3	☐	50.000	52.929	305399.66	0.0094	P	0.3
4	☐	125.000	129.352	712230.82	0.0224	P	2.0
5	☐	250.000	244.584	1247165.65	0.0420	P	0.4
6	☐	500.000	479.949	2413579.22	0.0821	P	0.3
7	☐	1000.000	1010.689	5257351.99	0.1724	P	0.9
8	☐			12907.03	0.0004	P	3.3

$$y = 1.7019\text{E-}004 * x + 3.7622\text{E-}004$$

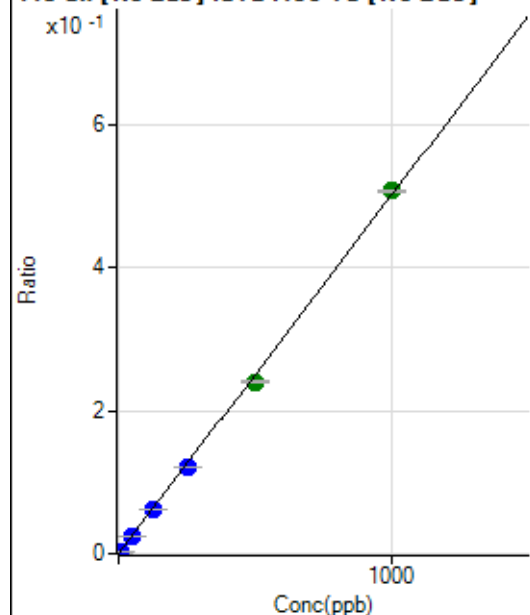
$$R = 0.9997$$

$$DL = 0.1533$$

$$BEC = 2.211$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD :159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	797.28	0.0000	P	1.7
2	☐	5.000	4.836	81536.31	0.0024	P	1.5
3	☐	50.000	49.891	814188.34	0.0250	P	0.4
4	☐	125.000	124.627	1986723.70	0.0625	P	1.7
5	☐	250.000	242.036	3601025.30	0.1213	P	0.7
6	☐	500.000	479.819	7070873.68	0.2404	A	0.2
7	☐	1000.000	1012.135	15464255.90	0.5071	A	0.5
8	☐			4361.99	0.0001	P	1.4

$$y = 5.0097\text{E-}004 * x + 2.3469\text{E-}005$$

$$R = 0.9997$$

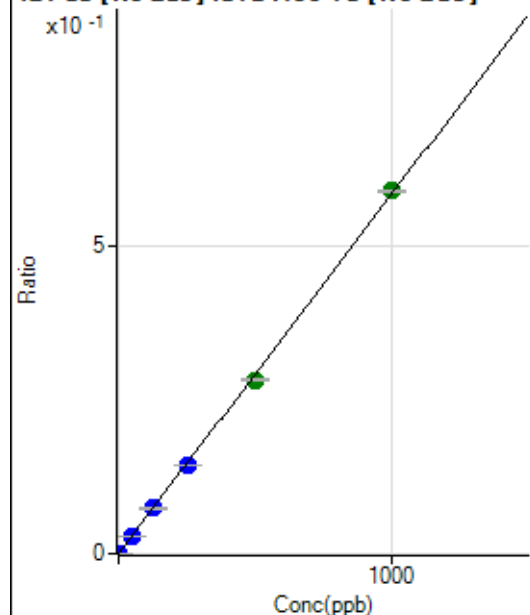
$$DL = 0.002399$$

$$BEC = 0.04685$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	255.57	0.0000	P	5.9
2	☐	2.000	1.872	36579.35	0.0011	P	1.4
3	☐	50.000	50.206	951658.81	0.0292	P	0.3
4	☐	125.000	125.859	2331363.90	0.0733	P	1.8
5	☐	250.000	244.800	4232794.97	0.1426	P	0.3
6	☐	500.000	482.652	8266567.46	0.2811	A	0.8
7	☐	1000.000	1009.856	17933310.47	0.5880	A	0.8
8	☐			18966.29	0.0006	P	3.4

$$y = 5.8229\text{E-}004 * x + 7.5210\text{E-}006$$

$$R = 0.9998$$

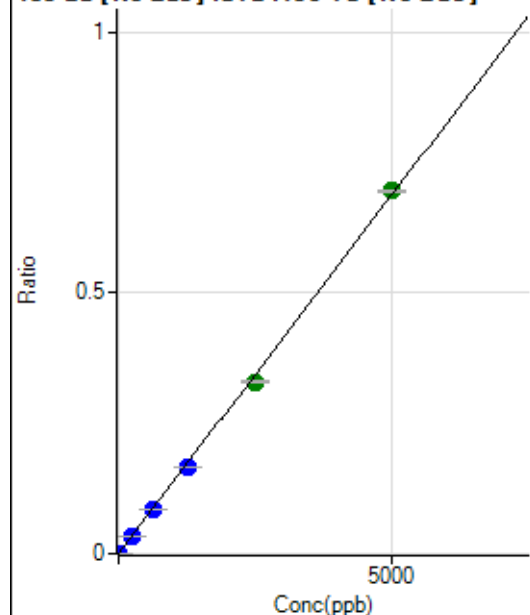
$$DL = 0.00229$$

$$BEC = 0.01292$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	58.34	0.0000	P	13.8
2	☐	10.000	9.786	44879.11	0.0013	P	2.4
3	☐	250.000	247.937	1108935.64	0.0341	P	0.0
4	☐	625.000	619.310	2707269.98	0.0851	P	1.6
5	☐	1250.000	1211.612	4944163.74	0.1665	P	0.1
6	☐	2500.000	2398.402	9694495.27	0.3296	A	0.4
7	☐	5000.000	5061.211	21211819.57	0.6955	A	0.8
8	☐			1539.05	0.0001	P	9.0

$$y = 1.3743\text{E-}004 * x + 1.7167\text{E-}006$$

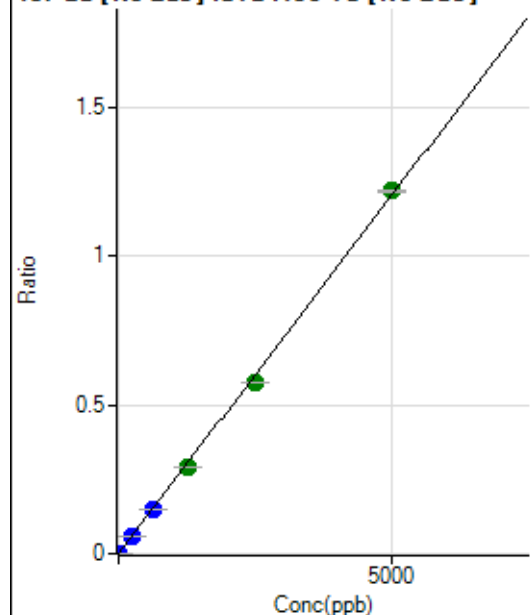
$$R = 0.9997$$

$$DL = 0.005173$$

$$BEC = 0.01249$$

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	52.78	0.0000	P	18.9
2	☐	10.000	9.808	78770.70	0.0024	P	1.1
3	☐	250.000	248.512	1947669.66	0.0598	P	0.0
4	☐	625.000	624.681	4785022.33	0.1504	P	1.9
5	☐	1250.000	1202.380	8597675.89	0.2896	A	0.3
6	☐	2500.000	2392.667	16947234.75	0.5762	A	0.5
7	☐	5000.000	5065.686	37203438.68	1.2199	A	0.6
8	☐			2814.31	0.0001	P	5.7

$$y = 2.4081E-004 * x + 1.5554E-006$$

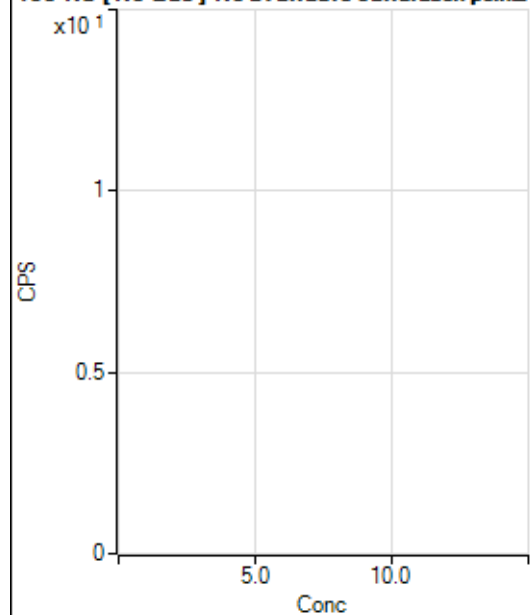
$$R = 0.9996$$

$$DL = 0.003666$$

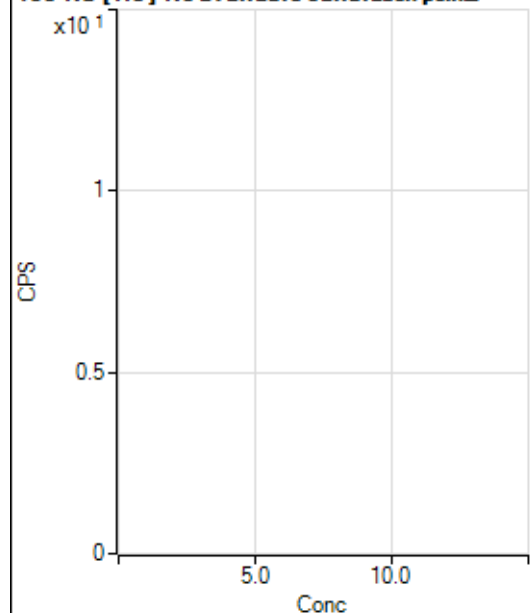
$$BEC = 0.006459$$

Weight: <None>

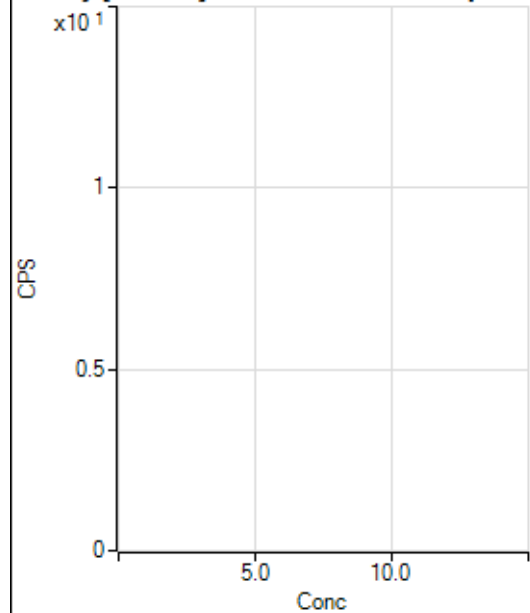
Min Conc: 0

150 Nd [No Gas] No available calibration points

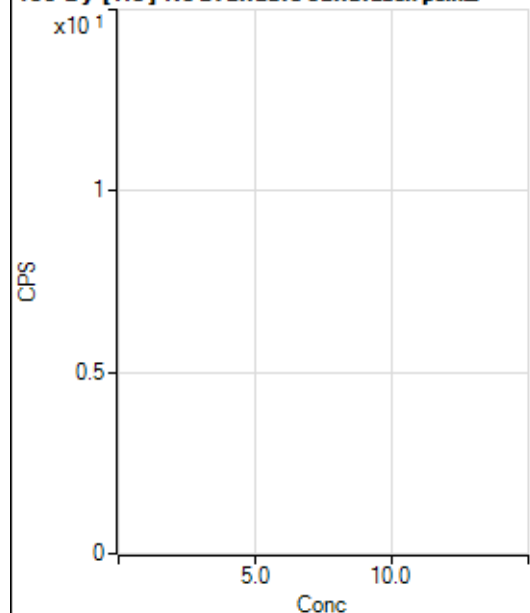
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			13.34		P	86.6
2	☐			17.78		P	21.7
3	☐			106.67		P	6.3
4	☐			242.24		P	5.7
5	☐			426.69		P	21.1
6	☐			860.06		P	4.1
7	☐			1666.83		P	1.2
8	☐			211.12		P	23.3

150 Nd [He] No available calibration points

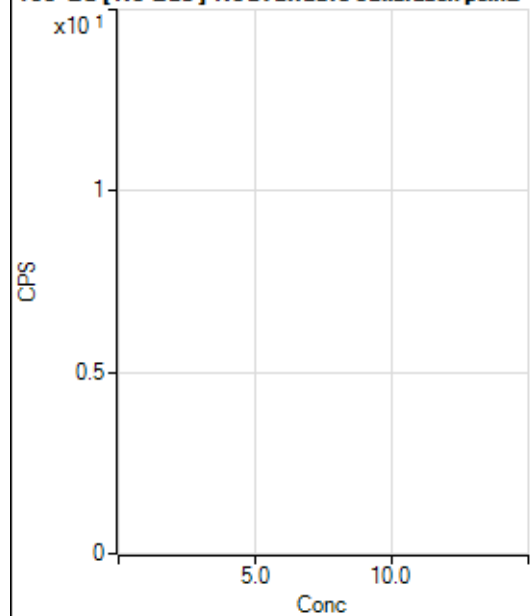
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	43.3
2	☐			25.56		P	71.8
3	☐			33.33		P	0.0
4	☐			33.33		P	17.3
5	☐			50.00		P	11.5
6	☐			72.23		P	7.1
7	☐			123.33		P	12.4
8	☐			74.44		P	24.7

156 Dy [No Gas] No available calibration points

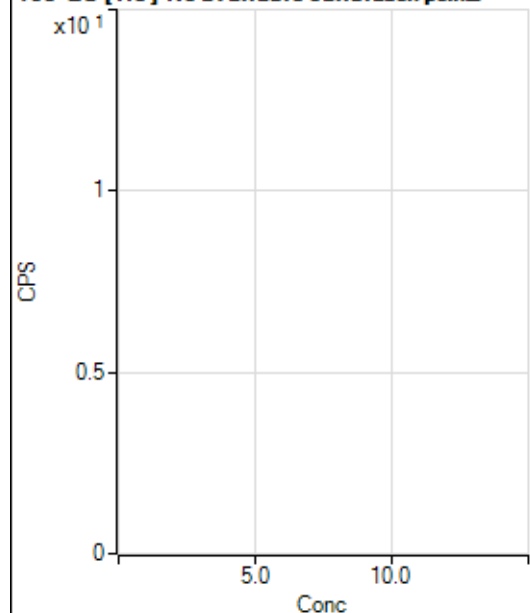
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	52.9
2	☐			25.00		P	0.0
3	☐			52.78		P	24.1
4	☐			116.67		P	43.4
5	☐			130.56		P	16.1
6	☐			202.79		P	23.4
7	☐			316.68		P	7.9
8	☐			86.11		P	11.2

156 Dy [He] No available calibration points

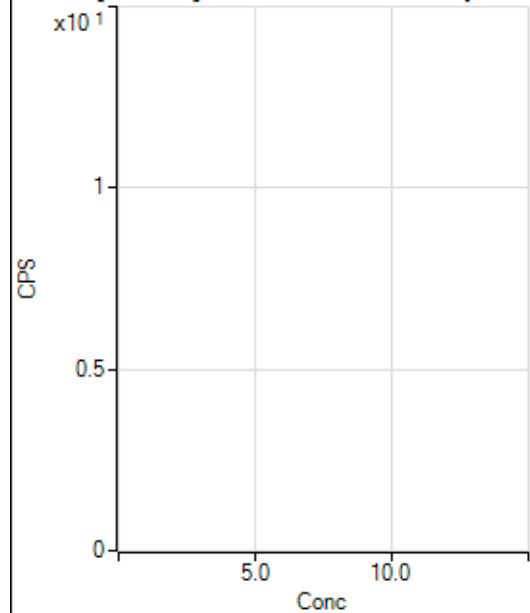
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			31.11		P	34.4
2	☐			41.11		P	20.4
3	☐			67.78		P	14.2
4	☐			68.89		P	5.6
5	☐			94.45		P	4.1
6	☐			193.34		P	12.4
7	☐			334.46		P	19.3
8	☐			66.67		P	0.0

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

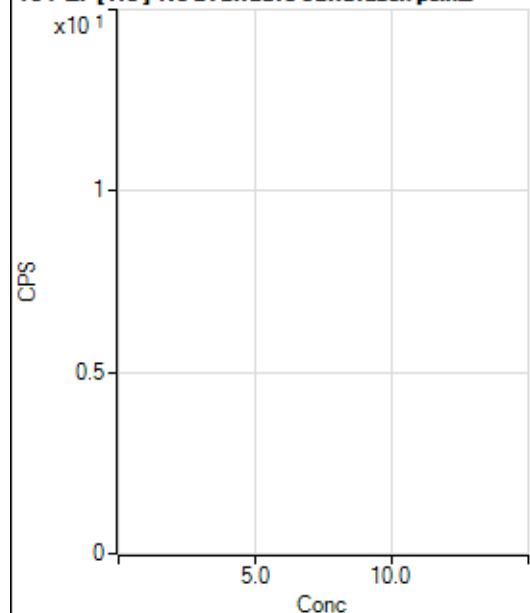
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			216.68		P	10.2
2	☐			219.46		P	15.3
3	☐			191.68		P	15.7
4	☐			219.46		P	15.8
5	☐			227.79		P	18.4
6	☐			205.57		P	23.8
7	☐			236.12		P	20.7
8	☐			225.01		P	31.6

160 Gd [He] No available calibration points

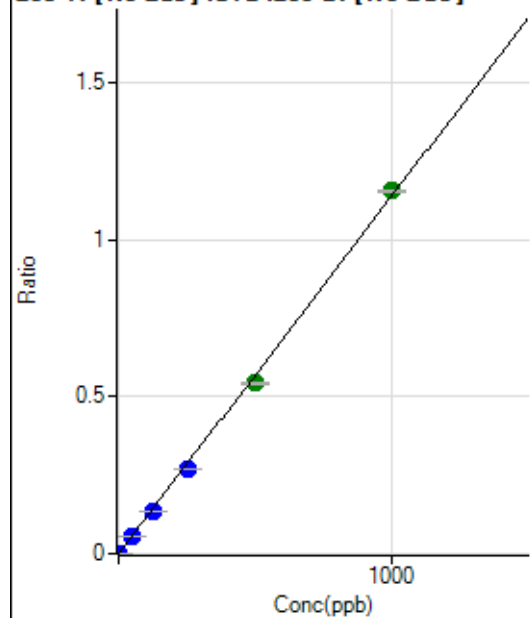
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			388.90		P	3.9
2	☐			396.68		P	4.7
3	☐			397.79		P	14.9
4	☐			374.46		P	15.6
5	☐			373.34		P	8.2
6	☐			395.57		P	8.6
7	☐			443.35		P	0.8
8	☐			417.79		P	15.6

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			152.78		P	30.0
2	☐			130.56		P	25.8
3	☐			138.90		P	30.8
4	☐			147.23		P	19.9
5	☐			125.00		P	17.6
6	☐			136.12		P	39.8
7	☐			163.90		P	35.7
8	☐			191.68		P	15.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			92.23		P	12.7
2	☐			131.11		P	14.7
3	☐			105.56		P	15.6
4	☐			116.67		P	17.8
5	☐			107.78		P	1.8
6	☐			96.67		P	29.9
7	☐			125.56		P	8.1
8	☐			98.89		P	23.9

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	794.51	0.0000	P	13.5
2	☐	1.000	0.900	24670.93	0.0011	P	2.9
3	☐	50.000	46.945	1216496.41	0.0535	P	0.9
4	☐	125.000	119.035	2993490.41	0.1355	P	1.6
5	☐	250.000	237.075	5560630.03	0.2698	P	0.4
6	☐	500.000	477.167	10870984.96	0.5430	A	0.9
7	☐	1000.000	1015.546	22905506.59	1.1557	A	0.5
8	☐			3317.23	0.0002	P	3.5

$$y = 0.0011 * x + 3.3508E-005$$

$$R = 0.9995$$

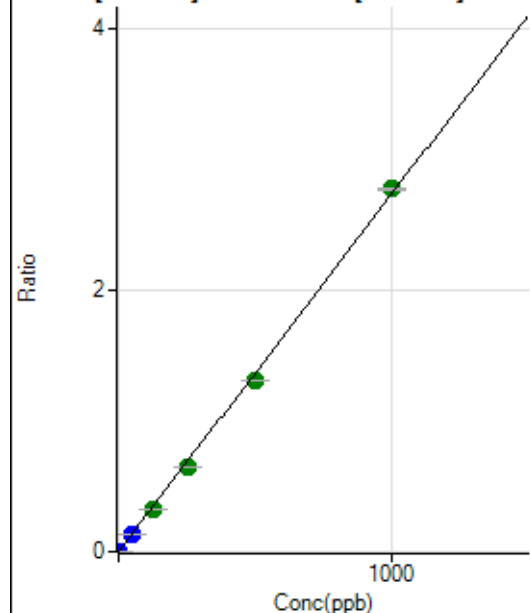
$$DL = 0.01192$$

$$BEC = 0.02945$$

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	1050.09	0.0000	P	13.1
2	☐	1.000	0.900	58507.23	0.0025	P	1.1
3	☐	50.000	47.129	2936925.22	0.1291	P	1.2
4	☐	125.000	117.924	7132173.34	0.3228	A	2.4
5	☐	250.000	234.858	13250323.90	0.6429	A	0.3
6	☐	500.000	479.506	26278565.35	1.3126	A	0.4
7	☐	1000.000	1015.060	55072399.84	2.7786	A	0.8
8	☐			7054.95	0.0004	P	2.6

$$y = 0.0027 * x + 4.4289E-005$$

$$R = 0.9996$$

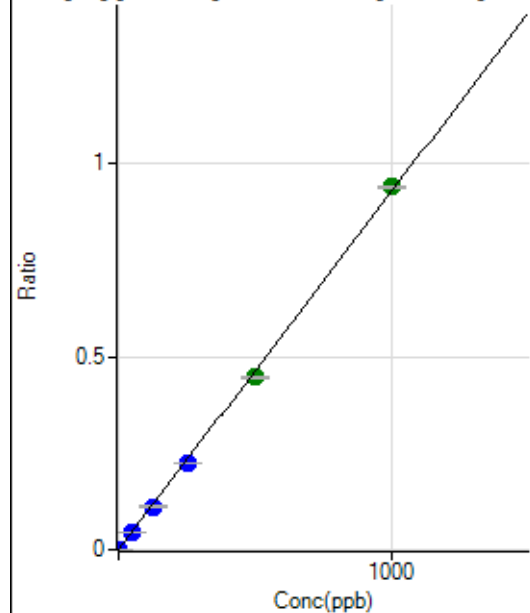
$$DL = 0.006354$$

$$BEC = 0.01618$$

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	1320.48	0.0001	P	6.0
2	☐	1.000	0.905	20885.37	0.0009	P	2.4
3	☐	50.000	47.273	1000066.28	0.0439	P	0.4
4	☐	125.000	120.063	2463901.68	0.1115	P	1.7
5	☐	250.000	239.710	4587584.71	0.2226	P	0.7
6	☐	500.000	480.589	8933420.34	0.4462	A	0.5
7	☐	1000.000	1013.032	18641762.45	0.9405	A	0.5
8	☐			7737.67	0.0004	P	2.6

$$y = 9.2839E-004 * x + 5.5712E-005$$

$$R = 0.9997$$

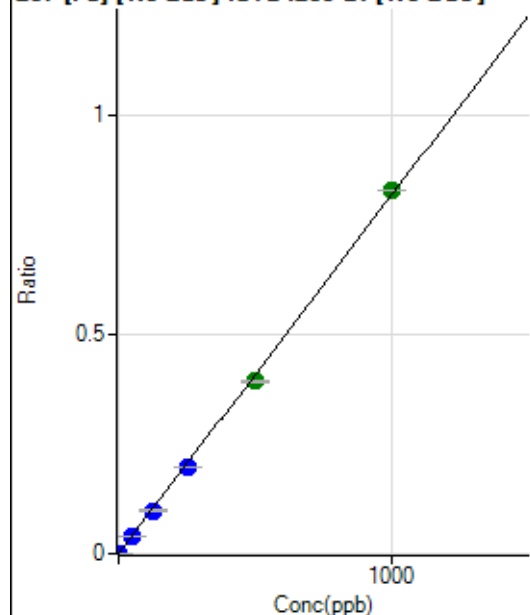
$$DL = 0.01086$$

$$BEC = 0.06001$$

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	1390.86	0.0001	P	7.0
2	☐	1.000	0.889	18294.54	0.0008	P	2.2
3	☐	50.000	47.096	876581.76	0.0385	P	0.3
4	☐	125.000	119.561	2158280.94	0.0977	P	2.0
5	☐	250.000	240.133	4042473.96	0.1962	P	0.8
6	☐	500.000	482.008	7880828.30	0.3937	A	0.9
7	☐	1000.000	1012.288	16384949.33	0.8267	A	0.1
8	☐			6790.84	0.0004	P	1.0

$$y = 8.1660\text{E-}004 * x + 5.8687\text{E-}005$$

$$R = 0.9997$$

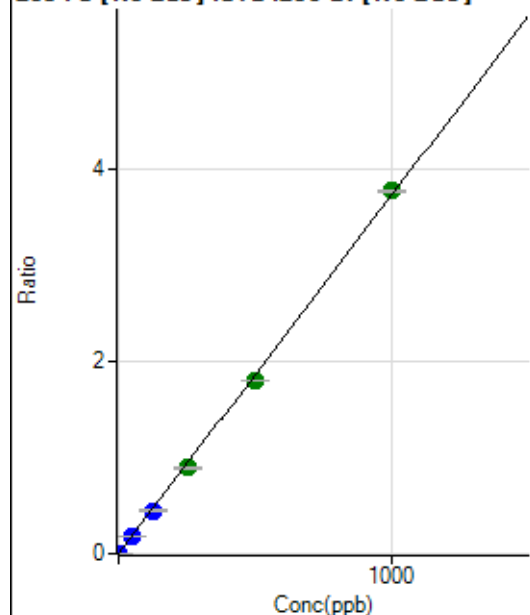
$$DL = 0.01513$$

$$BEC = 0.07187$$

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	4744.89	0.0002	P	5.1
2	☐	1.000	0.904	83060.30	0.0036	P	0.6
3	☐	50.000	47.400	4017187.54	0.1765	P	0.1
4	☐	125.000	120.583	9914102.47	0.4487	P	1.6
5	☐	250.000	239.150	18337424.39	0.8898	A	0.3
6	☐	500.000	481.809	35883272.21	1.7924	A	0.4
7	☐	1000.000	1012.490	74649510.81	3.7664	A	0.4
8	☐			30012.02	0.0017	P	1.9

$$y = 0.0037 * x + 2.0020\text{E-}004$$

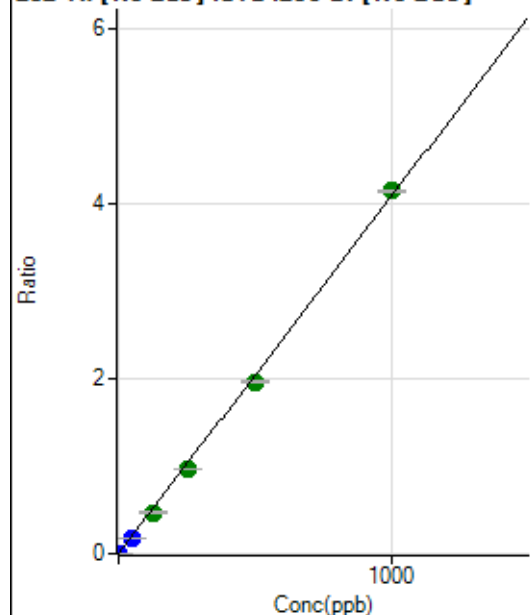
$$R = 0.9997$$

$$DL = 0.00819$$

$$BEC = 0.05382$$

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	3083.80	0.0001	P	5.0
2	☐	1.000	0.624	62373.10	0.0027	P	1.8
3	☐	50.000	45.266	4205841.59	0.1848	P	0.7
4	☐	125.000	115.470	10410610.88	0.4712	A	2.0
5	☐	250.000	235.462	19800752.06	0.9608	A	0.6
6	☐	500.000	480.776	39269473.56	1.9616	A	1.0
7	☐	1000.000	1014.675	82050823.13	4.1398	A	0.4
8	☐			7181.85	0.0004	P	2.5

$$y = 0.0041 * x + 1.3009E-004$$

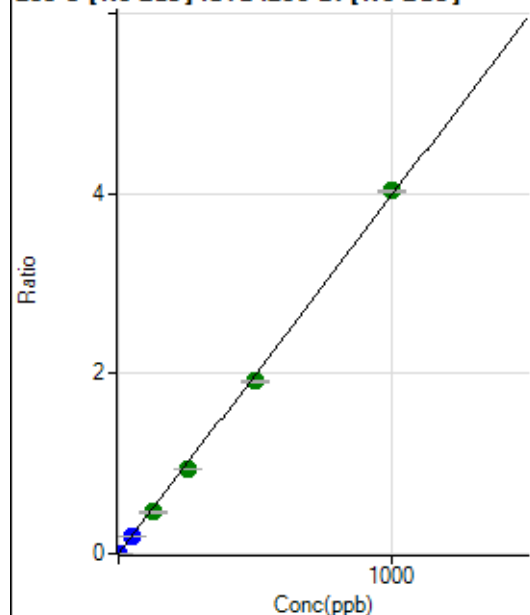
$$R = 0.9996$$

$$DL = 0.004801$$

$$BEC = 0.03189$$

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	4148.08	0.0002	P	3.5
2	☐	1.000	0.856	83463.76	0.0036	P	2.3
3	☐	50.000	45.790	4147855.43	0.1823	P	0.2
4	☐	125.000	116.330	10223327.83	0.4628	A	2.3
5	☐	250.000	236.957	19422834.11	0.9424	A	0.2
6	☐	500.000	482.705	38428544.96	1.9196	A	1.2
7	☐	1000.000	1013.203	79857112.89	4.0291	A	0.5
8	☐			4620.48	0.0003	P	3.7

$$y = 0.0040 * x + 1.7493E-004$$

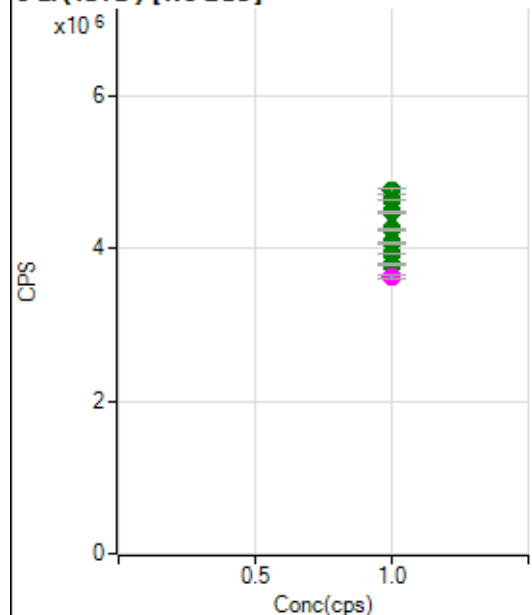
$$R = 0.9997$$

$$DL = 0.004588$$

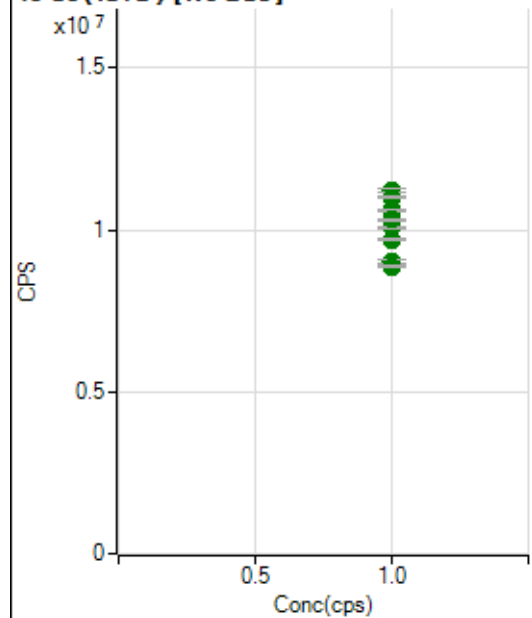
$$BEC = 0.04399$$

Weight: <None>

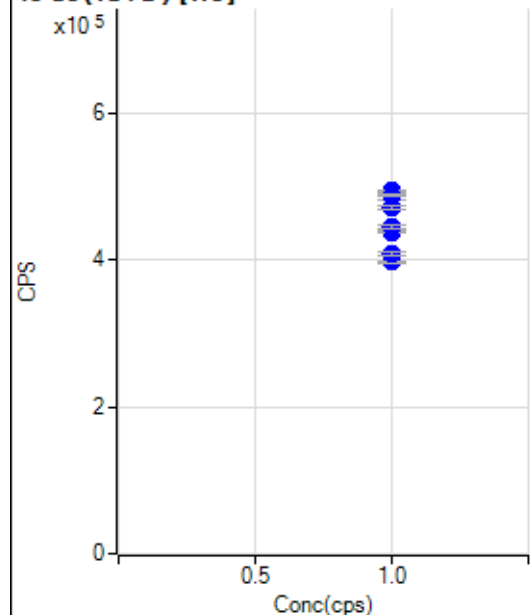
Min Conc: 0

6 Li (ISTD) [No Gas]

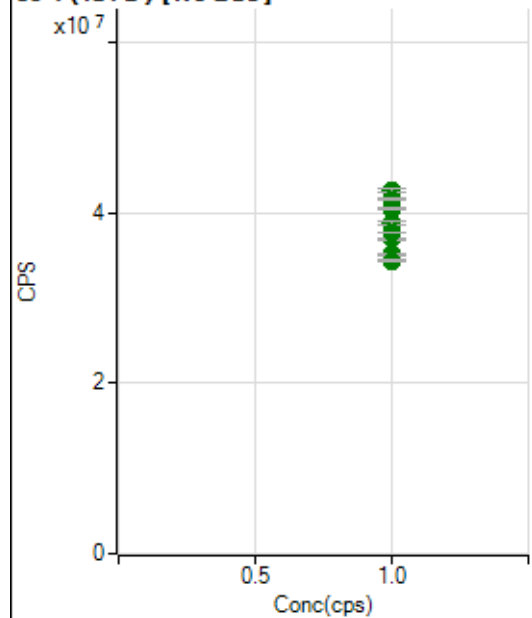
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4758441.89		A	1.3
2	☐	1.000		4641235.41		A	0.2
3	☐	1.000		4485266.64		A	0.7
4	☐	1.000		4260164.70		A	0.7
5	☐	1.000		3793468.03		A	0.9
6	☐	1.000		3638170.74		M	1.1
7	☐	1.000		3936008.64		A	0.2
8	☐	1.000		4073667.84		A	0.5

45 Sc (ISTD) [No Gas]

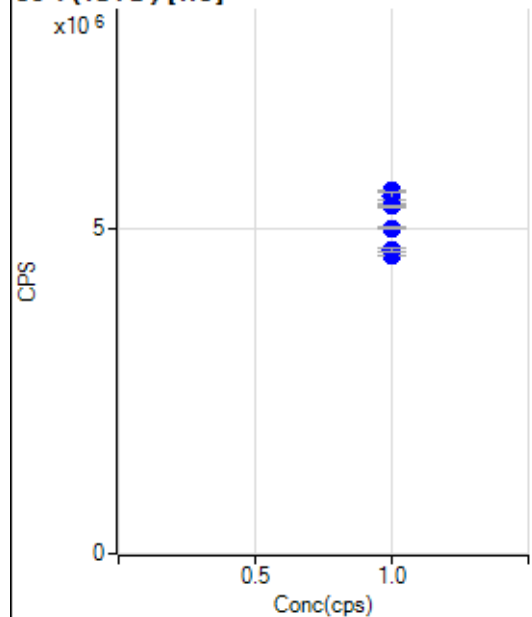
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11204798.86		A	1.1
2	☐	1.000		10999110.40		A	0.5
3	☐	1.000		10618154.40		A	0.8
4	☐	1.000		10087820.88		A	0.5
5	☐	1.000		9021922.42		A	1.3
6	☐	1.000		8858919.82		A	0.7
7	☐	1.000		9692375.48		A	0.5
8	☐	1.000		10309480.79		A	0.2

45 Sc (ISTD) [He]

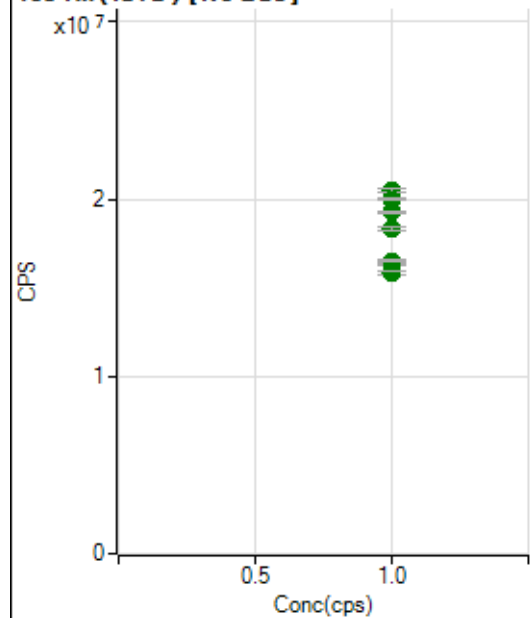
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		493566.57		P	0.4
2	☐	1.000		486512.81		P	2.0
3	☐	1.000		470126.41		P	1.0
4	☐	1.000		437574.80		P	0.4
5	☐	1.000		396862.90		P	0.9
6	☐	1.000		408420.01		P	1.2
7	☐	1.000		444485.26		P	1.0
8	☐	1.000		487138.86		P	0.3

89 Y (ISTD) [No Gas]

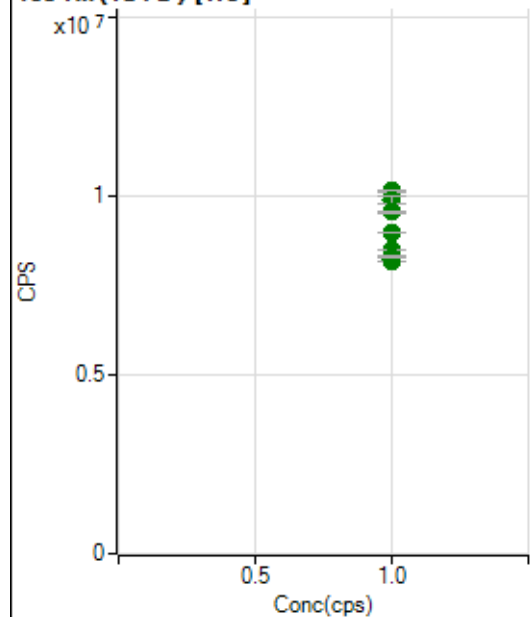
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		42572859.37		A	0.9
2	☐	1.000		41542375.21		A	0.6
3	☐	1.000		40407805.51		A	0.5
4	☐	1.000		38780557.75		A	1.0
5	☐	1.000		35129594.75		A	1.0
6	☐	1.000		34399689.21		A	0.4
7	☐	1.000		36897165.84		A	0.3
8	☐	1.000		37727454.99		A	0.2

89 Y (ISTD) [He]

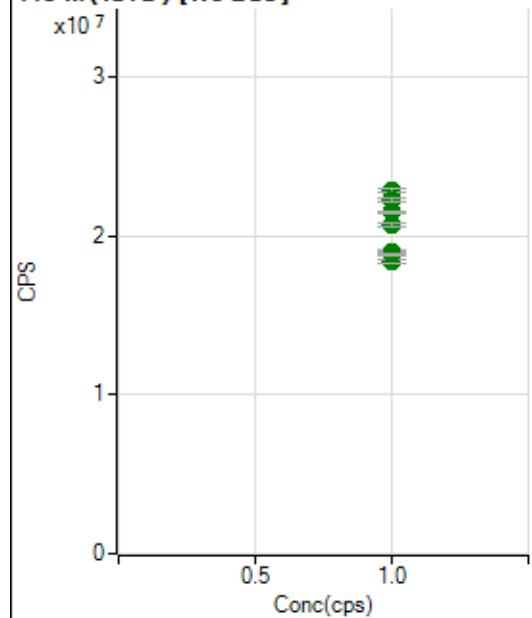
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5586304.36		P	0.3
2	☐	1.000		5504140.19		P	2.0
3	☐	1.000		5361038.15		P	0.7
4	☐	1.000		5015536.59		P	0.2
5	☐	1.000		4589177.95		P	0.3
6	☐	1.000		4675564.23		P	1.5
7	☐	1.000		5018488.54		P	0.5
8	☐	1.000		5352674.78		P	0.5

103 Rh (ISTD) [No Gas]

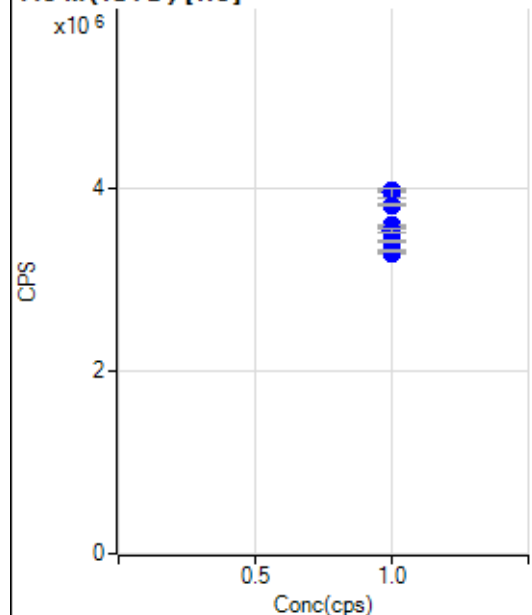
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20467631.36		A	1.2
2	☐	1.000		20002466.94		A	0.2
3	☐	1.000		19300571.96		A	0.6
4	☐	1.000		18307221.94		A	1.4
5	☐	1.000		16336625.89		A	1.2
6	☐	1.000		15841609.90		A	0.9
7	☐	1.000		16505249.15		A	0.5
8	☐	1.000		15974725.70		A	0.2

103 Rh (ISTD) [He]

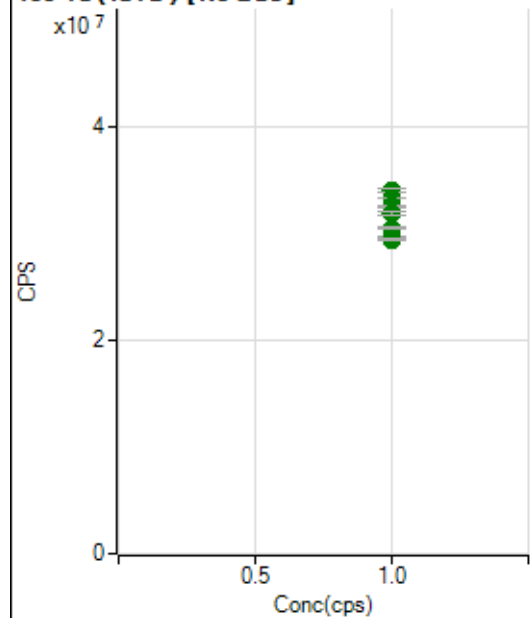
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10153738.74		A	0.5
2	☐	1.000		9891106.17		A	2.0
3	☐	1.000		9565732.77		A	0.8
4	☐	1.000		8984616.60		A	0.4
5	☐	1.000		8191615.78		A	0.2
6	☐	1.000		8227130.43		A	0.9
7	☐	1.000		8504894.45		A	0.1
8	☐	1.000		8299524.39		A	0.8

115 In (ISTD) [No Gas]

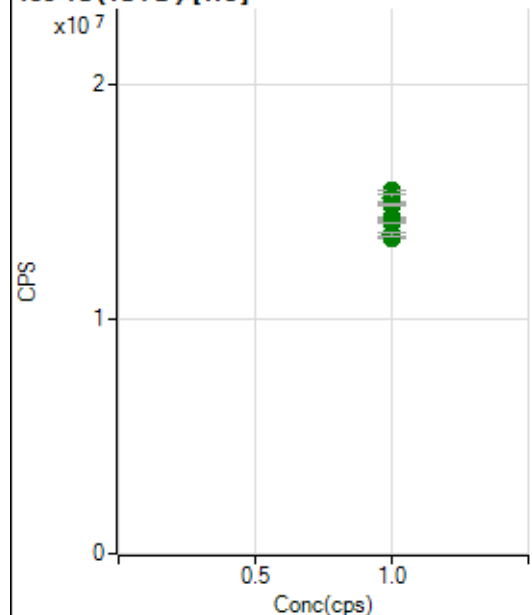
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		22838452.83		A	1.2
2	☐	1.000		22269086.32		A	0.7
3	☐	1.000		21535144.91		A	0.7
4	☐	1.000		20704919.97		A	0.9
5	☐	1.000		18886284.71		A	0.5
6	☐	1.000		18368020.29		A	1.0
7	☐	1.000		19042833.62		A	0.6
8	☐	1.000		18851034.61		A	0.4

115 In (ISTD) [He]

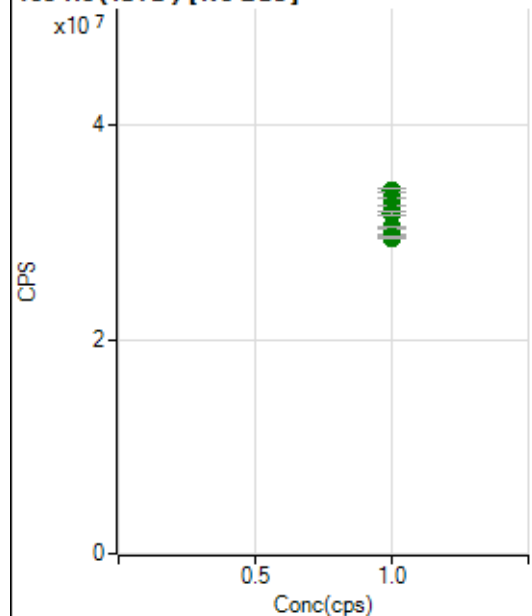
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		3979701.28		P	0.2
2	☐	1.000		3956273.07		P	2.4
3	☐	1.000		3821525.56		P	0.5
4	☐	1.000		3601366.52		P	0.6
5	☐	1.000		3285073.19		P	0.2
6	☐	1.000		3322529.14		P	0.9
7	☐	1.000		3430749.45		P	0.5
8	☐	1.000		3546040.89		P	1.0

159 Tb (ISTD) [No Gas]

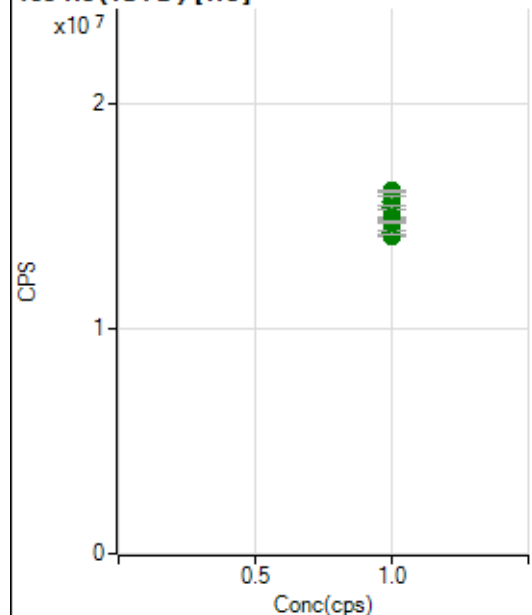
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		33969192.27		A	0.9
2	☐	1.000		33328633.95		A	0.3
3	☐	1.000		32544383.68		A	0.4
4	☐	1.000		31812950.36		A	1.2
5	☐	1.000		29693309.56		A	0.6
6	☐	1.000		29413073.45		A	0.7
7	☐	1.000		30497174.27		A	0.3
8	☐	1.000		29415494.84		A	1.0

159 Tb (ISTD) [He]

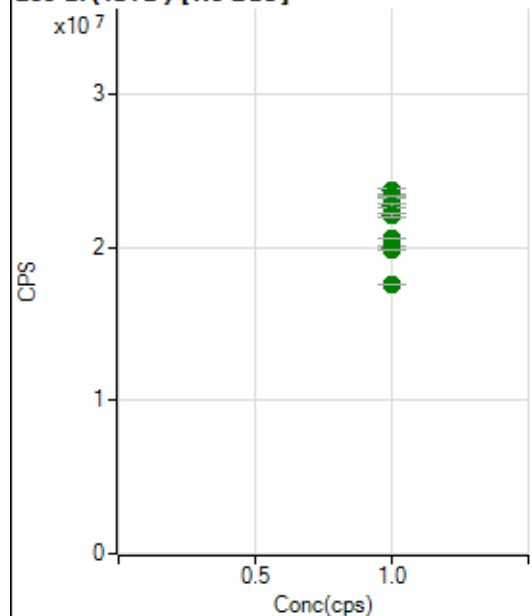
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		15458118.38		A	0.1
2	☐	1.000		15135261.16		A	2.2
3	☐	1.000		14849732.55		A	0.5
4	☐	1.000		14321686.04		A	0.5
5	☐	1.000		13431671.19		A	0.5
6	☐	1.000		13616040.91		A	0.9
7	☐	1.000		14153302.99		A	0.4
8	☐	1.000		14085262.71		A	0.2

165 Ho (ISTD) [No Gas]

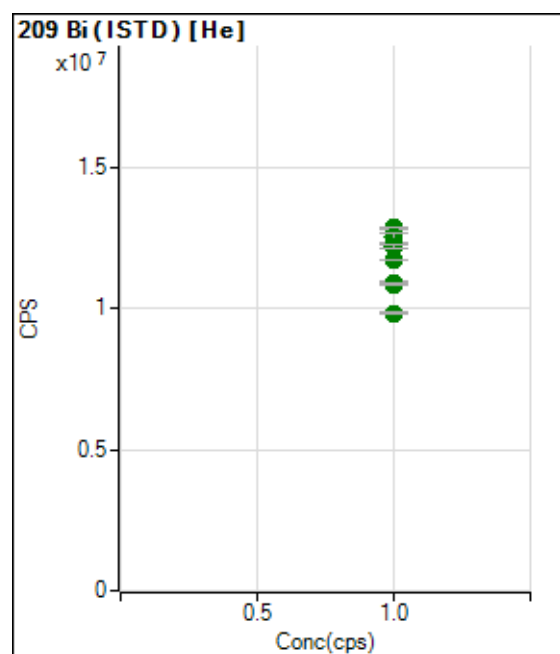
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		33867769.86		A	1.1
2	☐	1.000		33182340.33		A	0.3
3	☐	1.000		32486854.55		A	0.4
4	☐	1.000		31723525.36		A	1.0
5	☐	1.000		29804531.91		A	0.5
6	☐	1.000		29453873.92		A	0.3
7	☐	1.000		30457015.96		A	0.4
8	☐	1.000		29563490.94		A	0.4

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16096374.34		A	0.5
2	☐	1.000		15646030.32		A	2.3
3	☐	1.000		15390891.44		A	1.1
4	☐	1.000		14939957.83		A	0.1
5	☐	1.000		14037527.84		A	0.0
6	☐	1.000		14257549.51		A	1.1
7	☐	1.000		14845796.86		A	0.4
8	☐	1.000		14711858.25		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23711616.59		A	1.4
2	☐	1.000		23320705.49		A	0.6
3	☐	1.000		22758481.05		A	0.7
4	☐	1.000		22096758.28		A	1.4
5	☐	1.000		20609392.75		A	0.4
6	☐	1.000		20020319.84		A	1.0
7	☐	1.000		19819969.57		A	0.2
8	☐	1.000		17607935.85		A	0.3



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		12837012.03		A	0.3
2	☐	1.000		12511061.48		A	2.6
3	☐	1.000		12175664.13		A	1.1
4	☐	1.000		11696137.60		A	0.1
5	☐	1.000		10916650.95		A	0.2
6	☐	1.000		10817677.20		A	0.3
7	☐	1.000		10828291.23		A	0.7
8	☐	1.000		9814067.28		A	0.4

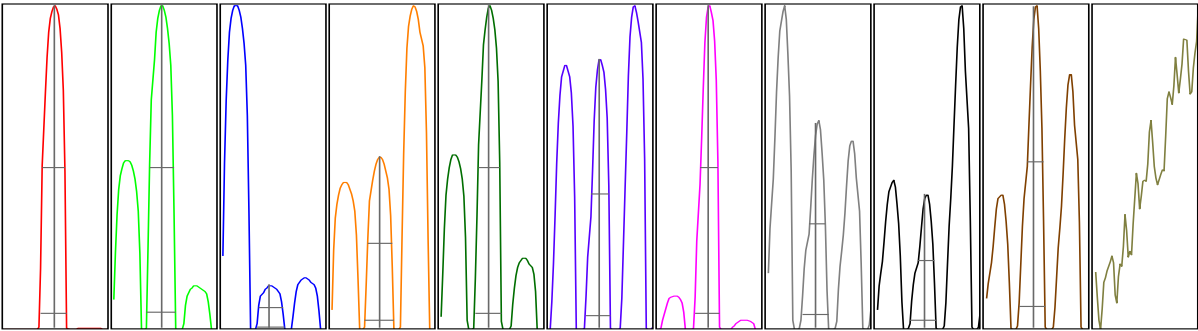
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7090619-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	13659	0.64	5.00		
24	174856	0.30	5.00		
25	23468	0.38	5.00		
26	27831	0.45	5.00		
59	150858	0.19	5.00		
113	23592	0.59	5.00		
115	270405	0.67	5.00		
206	77291	0.32	5.00		
207	70324	0.17	5.00		
208	166329	0.39	5.00		
220	164	3.22			

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
9	13810	13640	13643	13609	13593
24	175430	174947	174422	174221	175262
25	23613	23422	23382	23490	23433
26	27919	27908	27917	27774	27635
59	151066	151169	150527	150943	150583
113	23822	23450	23553	23547	23589
115	273226	269709	270448	270432	268209
206	77137	76975	77548	77285	77509
207	70363	70148	70320	70479	70310
208	165986	167438	166330	165816	166076
220	161	158	172	164	167

Integration Time [sec] = 0.1



Mass	Peak	Axis	Axis	Axis	Width-X%	Width-X%	Width-
	Height	(Actual)	(Required)	(Flag)	(Actual)	(Required)	X% (Flag)
9	22276	9.00	8.9 - 9.1		0.783	0.900	
24	270409	23.95	23.9 - 24.1		0.833	0.900	
25	36406	24.90	24.9 - 25.1		0.823	0.900	
26	42780	25.95	25.9 - 26.1		0.833	0.900	
59	254885	58.95	58.9 - 59.1		0.781	0.900	
113	45537	113.00	112.9 - 113.1		0.726	0.900	
115	525453	115.00	114.9 - 115.1		0.721	0.900	
206	158381	205.95	205.9 - 206.1		0.769	0.900	
207	145054	206.95	206.9 - 207.1		0.733	0.900	
208	348977	207.95	207.9 - 208.1		0.747	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	7.8	V	Deflect	12.8	V
Extract 2	-160.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-75	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	150	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	41722	0.81	
89	50330	0.98	
205	68892	0.69	

Mass	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Replicate 5
	Count	Count	Count	Count	Count
59	41720	41969	42105	41567	41249
89	50167	50398	51125	50159	49799
205	68543	69401	69416	68639	68462

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.1	V	Deflect	1.4	V
Extract 2	-165.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-85	V	Cell Exit	-60	V			

Cell Parameters

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