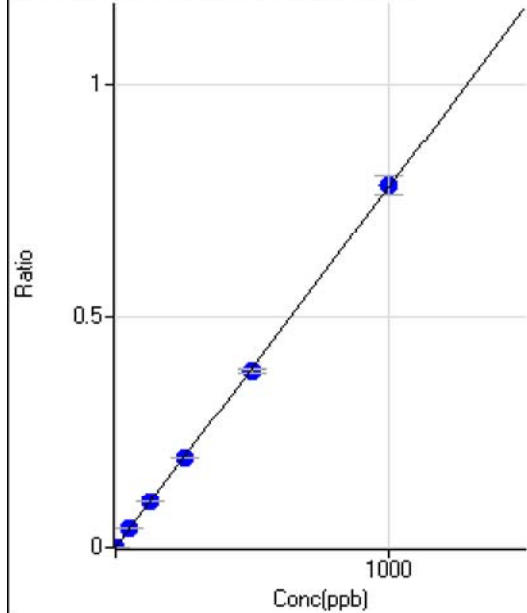


Batch Folder: D:\P8080918-MS .b\
Analysis File: P8080918-MS .batch.bin
DA Date-Time: 2018-08-09 23:23:18
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB P8080918-MS.D	S00	2018-08-09 11:59:22
2			
3	005CALS P8080918-MS.D	S02	2018-08-09 12:06:49
4	006CALS P8080918-MS.D	S03	2018-08-09 12:10:33
5	007CALS P8080918-MS.D	S04	2018-08-09 12:14:16
6	008CALS P8080918-MS.D	S05	2018-08-09 12:17:53
7	009CALS P8080918-MS.D	S06	2018-08-09 12:21:25
8	010CALS P8080918-MS.D	S07	2018-08-09 12:24:53
9	011CALS P8080918-MS.D	S08	2018-08-09 12:28:18

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0001	P	21.0
2	☐	0.100					
3	☐	1.000	0.982	1031.55	0.0008	P	8.8
4	☐	50.000	51.226	49325.73	0.0400	P	1.2
5	☐	125.000	125.858	122604.59	0.0981	P	0.6
6	☐	250.000	249.165	244430.84	0.1941	P	0.2
7	☐	500.000	488.757	490721.10	0.3807	P	1.8
8	☐	1000.000	1005.662	937411.53	0.7832	P	5.4
9	☐			587.06	0.0005	P	17.4

$$y = 7.7876E-004 * x + 7.1785E-005$$

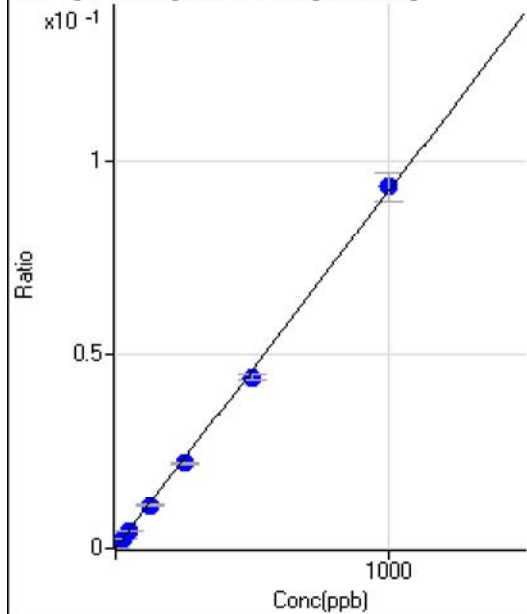
$$R = 0.9999$$

$$DL = 0.05798$$

$$BEC = 0.09218$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.79	0.0001	P	36.6
2	☐	2.500					
3	☐	25.000	24.739	2933.76	0.0024	P	3.4
4	☐	50.000	47.705	5545.79	0.0045	P	5.3
5	☐	125.000	118.854	13796.03	0.0110	P	3.0
6	☐	250.000	239.210	27839.11	0.0221	P	2.5
7	☐	500.000	479.382	56977.31	0.0442	P	3.2
8	☐	1000.000	1013.896	111645.66	0.0934	P	8.1
9	☐			5317.87	0.0044	P	11.8

$$y = 9.1990E-005 * x + 1.0344E-004$$

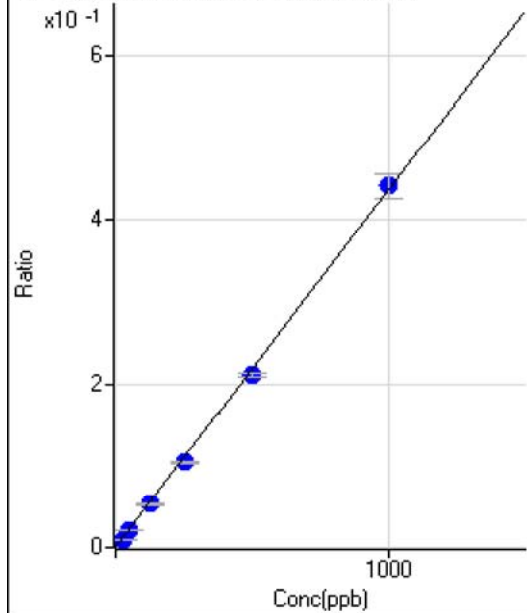
$$R = 0.9996$$

$$DL = 1.236$$

$$BEC = 1.125$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	655.60	0.0005	P	15.6
2	☐	2.500					
3	☐	25.000	22.620	12820.10	0.0104	P	2.3
4	☐	50.000	48.891	26976.21	0.0219	P	1.8
5	☐	125.000	120.430	66323.40	0.0531	P	1.8
6	☐	250.000	238.848	131851.15	0.1047	P	2.9
7	☐	500.000	481.891	271630.18	0.2107	P	2.4
8	☐	1000.000	1012.529	528973.19	0.4422	P	6.7
9	☐			25487.47	0.0213	P	9.1

$$y = 4.3618\text{E-}004 * x + 5.2979\text{E-}004$$

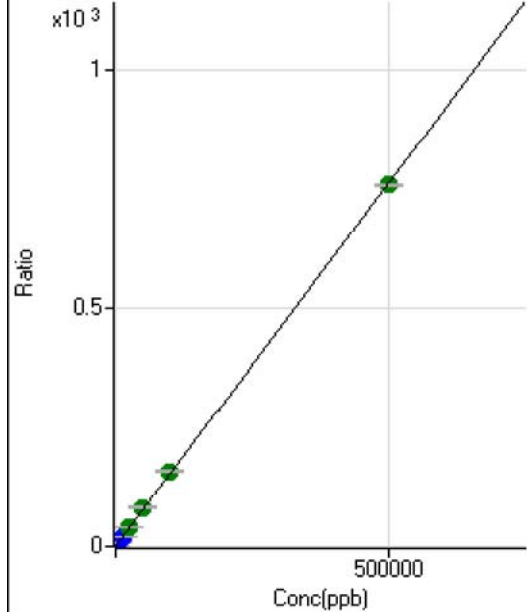
$$R = 0.9997$$

$$DL = 0.5692$$

$$BEC = 1.215$$

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	5629.13	0.1853	P	2.2
2	☐	50.000					
3	☐	500.000	513.953	29676.31	0.9689	P	0.5
4	☐	5000.000	5259.835	252525.39	8.2049	P	1.9
5	☐	12500.000	13345.935	627142.29	20.5337	P	2.0
6	☐	25000.000	26927.135	1263579.84	41.2409	A	0.6
7	☐	50000.000	54066.447	2429093.91	82.6201	A	5.2
8	☐	100000.00	104042.31	4605893.37	158.8180	A	1.4
9	☐	500000.00	498664.77	24371786.83	760.4965	A	0.8

$$y = 0.0015 * x + 0.1853$$

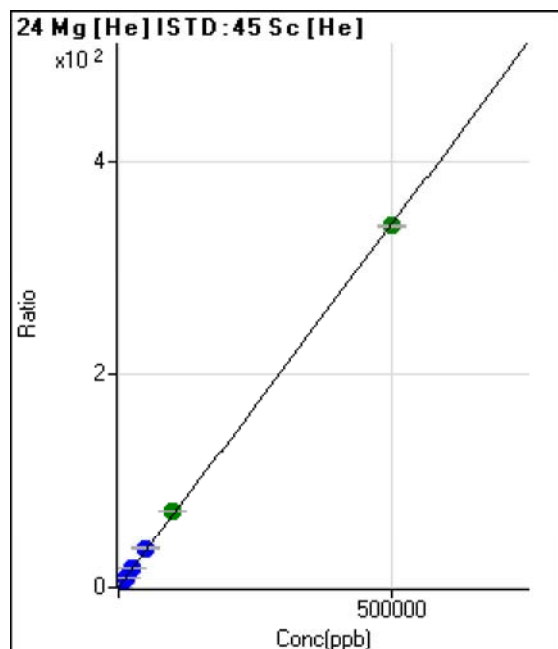
$$R = 0.9999$$

$$DL = 8.093$$

$$BEC = 121.5$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	244.46	0.0081	P	15.6
2	☐	50.000					
3	☐	500.000	518.592	11077.02	0.3617	P	2.6
4	☐	5000.000	5300.122	111507.36	3.6227	P	1.3
5	☐	12500.000	13379.733	278910.10	9.1329	P	2.8
6	☐	25000.000	26554.622	555098.26	18.1180	P	0.9
7	☐	50000.000	53275.522	1068410.32	36.3413	P	5.3
8	☐	100000.00	106046.21	2097715.59	72.3303	A	1.1
9	☐	500000.00	498360.46	10892302.41	339.8839	A	0.9

$$y = 6.8199\text{E-}004 * x + 0.0081$$

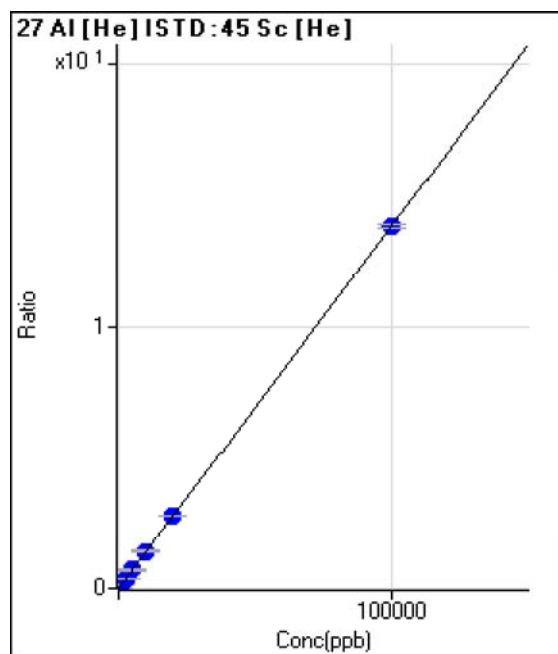
$$R = 0.9999$$

$$DL = 5.553$$

$$BEC = 11.83$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	15.84	0.0005	P	58.2
2	☐	2.000					
3	☐	20.000	23.115	114.20	0.0037	P	6.2
4	☐	1000.000	1009.099	4318.45	0.1403	P	3.2
5	☐	2500.000	2590.712	10978.76	0.3594	P	1.7
6	☐	5000.000	5071.652	21539.27	0.7031	P	1.8
7	☐	10000.000	10266.790	41832.44	1.4227	P	5.0
8	☐	20000.000	20087.086	80712.34	2.7831	P	1.6
9	☐	100000.00	99949.962	443715.78	13.8460	P	1.0

$$y = 1.3852\text{E-}004 * x + 5.2753\text{E-}004$$

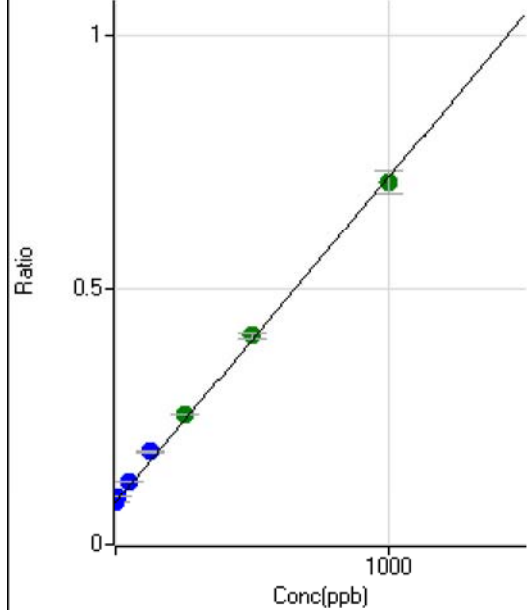
$$R = 1.0000$$

$$DL = 6.655$$

$$BEC = 3.808$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	354923.89	0.0826	P	2.6
2	☐	1.000					
3	☐	10.000	16.381	398854.25	0.0930	P	0.8
4	☐	50.000	64.999	525904.34	0.1241	P	1.4
5	☐	125.000	158.419	791560.00	0.1838	P	1.3
6	☐	250.000	270.872	1112465.19	0.2557	A	0.7
7	☐	500.000	511.875	1820370.46	0.4098	A	2.4
8	☐	1000.000	983.853	2942017.69	0.7115	A	6.4
9	☐			458077.97	0.1078	P	3.6

$$y = 6.3928\text{E-}004 * x + 0.0826$$

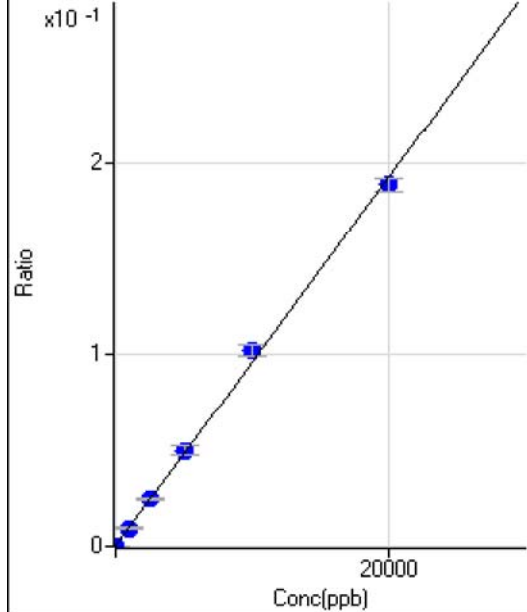
$$R = 0.9993$$

$$DL = 10.15$$

$$BEC = 129.2$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	14.174	8.33	0.0003	P	97.9
2	☐	0.000					
3	☐	0.000	-14.174	0.00	0.0000	P	
4	☐	1000.000	934.294	280.57	0.0091	P	11.4
5	☐	2500.000	2536.876	747.28	0.0245	P	2.4
6	☐	5000.000	5232.029	1541.83	0.0503	P	8.8
7	☐	10000.000	10624.752	3003.24	0.1020	P	5.7
8	☐	20000.000	19628.293	5465.19	0.1884	P	4.0
9	☐			5.55	0.0002	P	86.6

$$y = 9.5898\text{E-}006 * x + 1.3593\text{E-}004$$

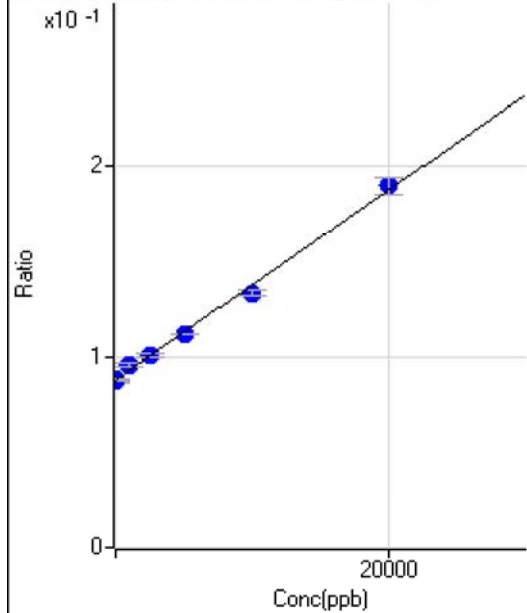
$$R = 0.9991$$

$$DL = 41.65$$

$$BEC = 14.17$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-70.417	376154.43	0.0875	P	3.1
2	☐	0.000					
3	☐	0.000	70.417	378179.29	0.0882	P	0.8
4	☐	1000.000	1520.488	404378.44	0.0954	P	1.7
5	☐	2500.000	2600.424	434070.37	0.1008	P	1.7
6	☐	5000.000	4771.691	485629.47	0.1116	P	0.6
7	☐	10000.000	9101.339	591709.50	0.1332	P	2.5
8	☐	20000.000	20467.831	785218.07	0.1898	P	5.1
9	☐			352888.10	0.0830	P	2.6

$$y = 4.9808\text{E-}006 * x + 0.0879$$

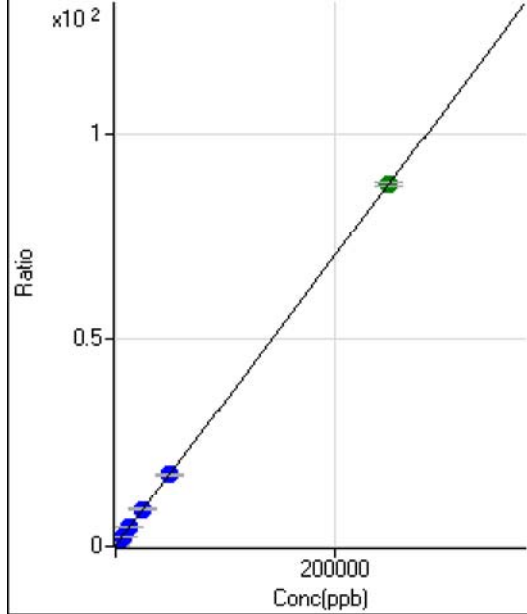
$$R = 0.9979$$

$$DL = 1042$$

$$BEC = 1.764\text{E}+04$$

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	2266.95	0.0748	P	13.5
2	☐	50.000					
3	☐	500.000	479.718	7427.30	0.2426	P	5.3
4	☐	2500.000	2535.196	29618.40	0.9618	P	1.9
5	☐	6250.000	6480.785	71529.66	2.3424	P	3.3
6	☐	12500.000	12797.948	139482.83	4.5528	P	1.4
7	☐	25000.000	25340.110	262857.54	8.9413	P	5.5
8	☐	50000.000	49583.640	505340.31	17.4242	P	1.2
9	☐	250000.00	250028.28	2806027.19	87.5602	A	1.1

$$y = 3.4990\text{E-}004 * x + 0.0748$$

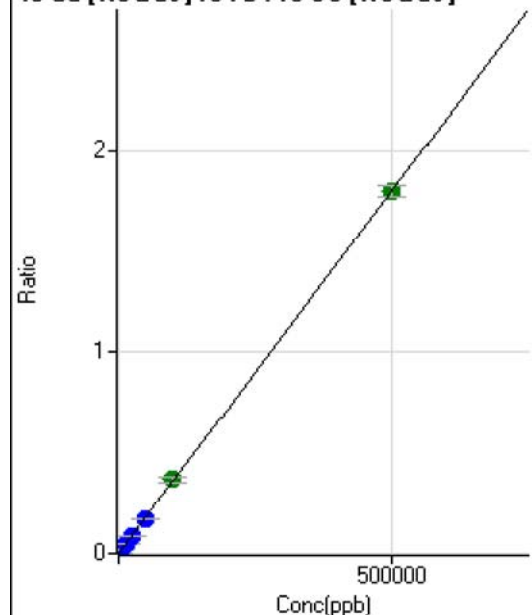
$$R = 1.0000$$

$$DL = 86.35$$

$$BEC = 213.6$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	541.70	0.0001	P	18.7
2	☐	50.000					
3	☐	500.000	480.993	7958.17	0.0019	P	2.6
4	☐	5000.000	4953.910	76014.70	0.0179	P	2.6
5	☐	12500.000	12154.113	188749.01	0.0438	P	1.2
6	☐	25000.000	24257.121	380055.77	0.0874	P	0.9
7	☐	50000.000	48212.317	770797.32	0.1735	P	2.5
8	☐	100000.00	102023.50	1517858.06	0.3671	A	6.1
9	☐	500000.00	499820.33	7640522.22	1.7978	A	3.1

$$y = 3.5966E-006 * x + 1.2635E-004$$

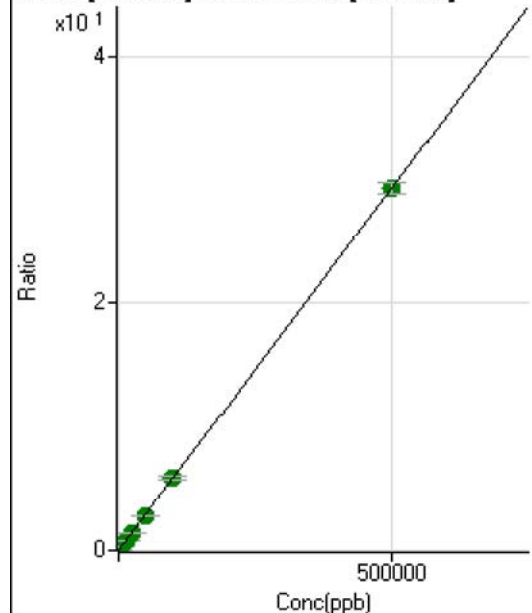
$$R = 1.0000$$

$$DL = 19.71$$

$$BEC = 35.13$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16376.88	0.0038	P	1.5
2	☐	50.000					
3	☐	500.000	462.407	132498.38	0.0309	P	0.9
4	☐	5000.000	5021.594	1262947.48	0.2981	A	2.4
5	☐	12500.000	12482.278	3165991.93	0.7354	A	1.5
6	☐	25000.000	24318.290	6216442.85	1.4291	A	0.3
7	☐	50000.000	48391.655	12616157.14	2.8399	A	1.9
8	☐	100000.00	100646.42	24409053.67	5.9025	A	6.0
9	☐	500000.00	500065.89	124576044.4	29.3117	A	3.0

$$y = 5.8608E-005 * x + 0.0038$$

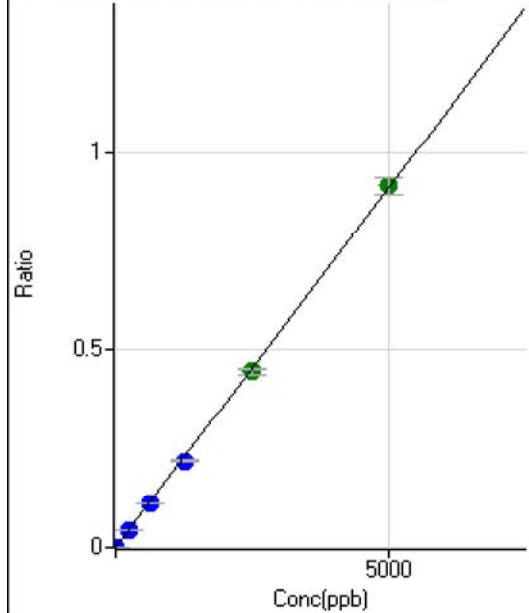
$$R = 1.0000$$

$$DL = 2.96$$

$$BEC = 64.99$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	42.7
2	☐	0.500					
3	☐	5.000	4.548	3653.43	0.0009	P	6.1
4	☐	250.000	246.889	189937.88	0.0448	P	1.5
5	☐	625.000	612.174	478421.85	0.1111	P	1.0
6	☐	1250.000	1214.088	958503.37	0.2203	P	1.3
7	☐	2500.000	2444.812	1970805.25	0.4437	A	3.0
8	☐	5000.000	5038.331	3782672.48	0.9143	A	4.9
9	☐			2030.80	0.0005	P	8.5

$$y = 1.8147\text{E-}004 * x + 2.7058\text{E-}005$$

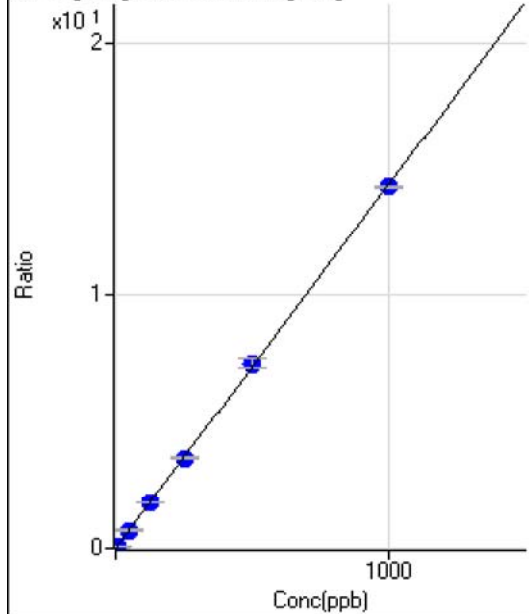
$$R = 0.9999$$

$$DL = 0.1911$$

$$BEC = 0.1491$$

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	12.22	0.0004	P	18.2
2	☐	0.500					
3	☐	5.000	4.715	2091.31	0.0683	P	8.8
4	☐	50.000	49.595	22008.59	0.7151	P	2.6
5	☐	125.000	126.738	55799.75	1.8269	P	1.5
6	☐	250.000	250.466	110598.78	3.6099	P	1.3
7	☐	500.000	508.645	215510.13	7.3306	P	5.4
8	☐	1000.000	995.365	416035.49	14.3449	P	0.9
9	☐			182.23	0.0057	P	10.6

$$y = 0.0144 * x + 4.0340\text{E-}004$$

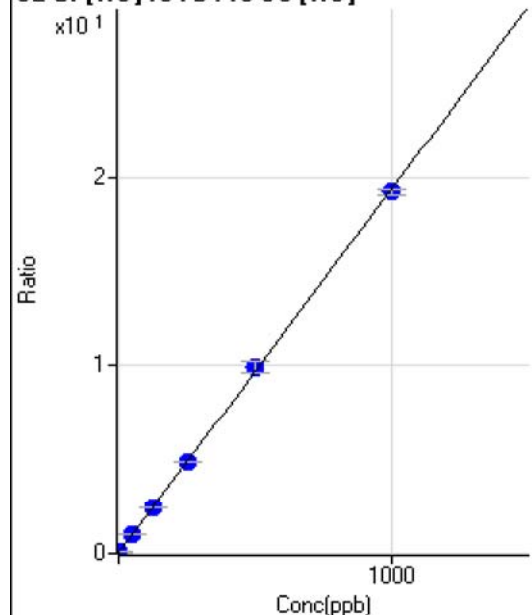
$$R = 0.9999$$

$$DL = 0.01527$$

$$BEC = 0.02799$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	545.58	0.0180	P	5.3
2	☐	0.200					
3	☐	2.000	1.972	1717.92	0.0561	P	1.6
4	☐	50.000	50.661	30696.00	0.9975	P	2.8
5	☐	125.000	126.917	75500.09	2.4720	P	2.0
6	☐	250.000	253.064	150462.51	4.9111	P	1.2
7	☐	500.000	510.752	290828.82	9.8936	P	5.7
8	☐	1000.000	993.585	557688.28	19.2295	P	1.3
9	☐			24116.54	0.7524	P	2.4

$$y = 0.0193 * x + 0.0180$$

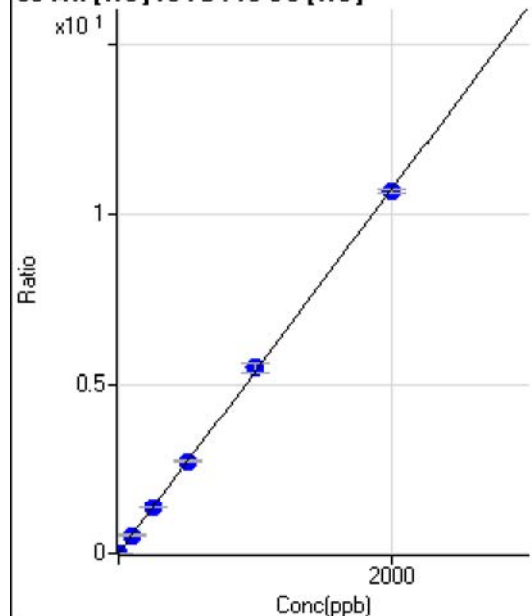
$$R = 0.9999$$

$$DL = 0.1487$$

$$BEC = 0.9293$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	117.78	0.0039	P	16.2
2	☐	0.100					
3	☐	1.000	0.961	276.68	0.0090	P	1.9
4	☐	100.000	99.020	16449.91	0.5346	P	3.8
5	☐	250.000	252.754	41492.74	1.3585	P	1.9
6	☐	500.000	507.596	83463.14	2.7243	P	1.7
7	☐	1000.000	1018.427	160583.02	5.4621	P	5.3
8	☐	2000.000	1988.592	309215.83	10.6617	P	1.2
9	☐			1687.91	0.0527	P	4.5

$$y = 0.0054 * x + 0.0039$$

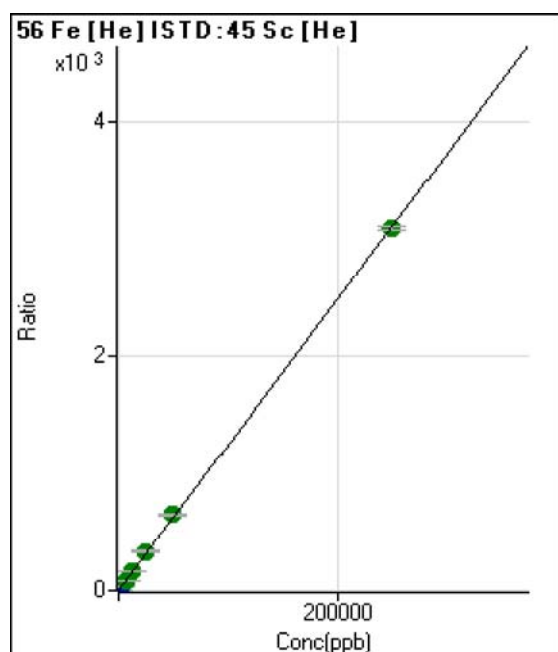
$$R = 0.9999$$

$$DL = 0.3522$$

$$BEC = 0.7245$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1602.00	0.0528	P	10.5
2	☐	5.000					
3	☐	50.000	51.467	21146.16	0.6906	P	2.3
4	☐	2500.000	2643.689	1009756.79	32.8114	P	2.4
5	☐	6250.000	6792.220	2572253.01	84.2168	A	1.8
6	☐	12500.000	13326.860	5061067.01	165.1891	A	1.1
7	☐	25000.000	26651.218	9710283.21	330.2944	A	5.3
8	☐	50000.000	52470.703	18857423.80	650.2298	A	1.4
9	☐	250000.00	249284.40	98989431.84	3,088.995	A	1.2

$$y = 0.0124 * x + 0.0528$$

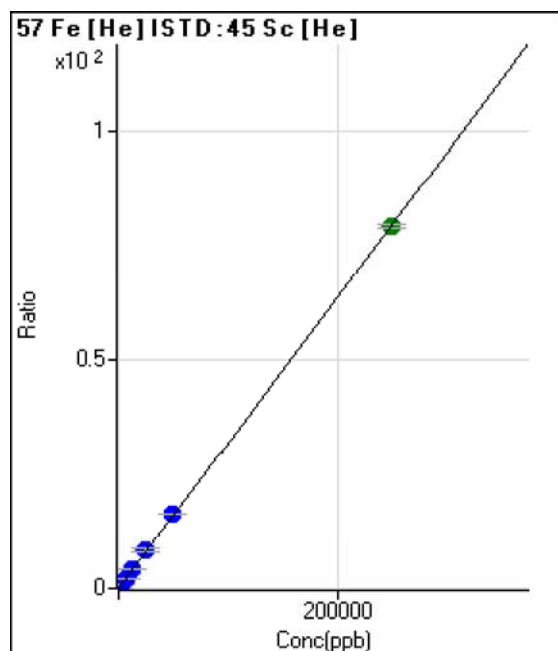
$$R = 0.9999$$

$$DL = 1.348$$

$$BEC = 4.262$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0016	P	26.3
2	☐	5.000					
3	☐	50.000	52.873	564.84	0.0184	P	4.6
4	☐	2500.000	2631.283	25776.18	0.8374	P	2.1
5	☐	6250.000	6557.964	63673.35	2.0847	P	1.9
6	☐	12500.000	13048.423	127030.52	4.1463	P	1.1
7	☐	25000.000	26400.132	246573.32	8.3873	P	5.4
8	☐	50000.000	51639.581	475744.36	16.4043	P	1.4
9	☐	250000.00	249495.63	2539645.57	79.2507	A	1.2

$$y = 3.1764E-004 * x + 0.0016$$

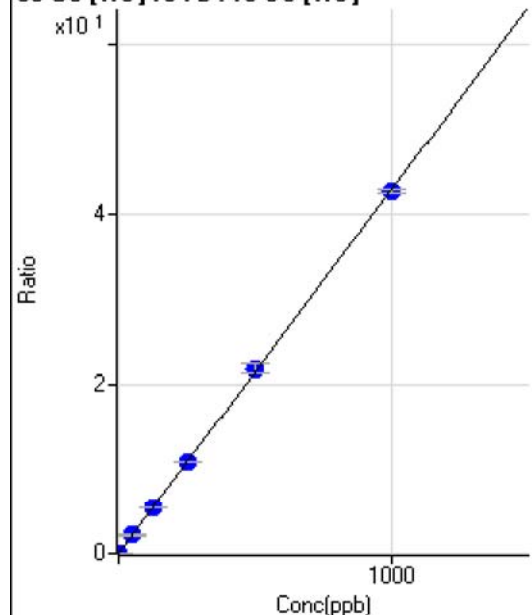
$$R = 1.0000$$

$$DL = 4.072$$

$$BEC = 5.153$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	98.89	0.0033	P	27.8
2	☐	0.100					
3	☐	1.000	0.948	1344.53	0.0439	P	5.9
4	☐	50.000	50.449	66657.55	2.1665	P	3.8
5	☐	125.000	126.142	165295.77	5.4122	P	2.1
6	☐	250.000	252.649	332008.37	10.8367	P	1.1
7	☐	500.000	508.172	640705.34	21.7933	P	5.3
8	☐	1000.000	995.087	1237552.87	42.6718	P	1.2
9	☐			16222.97	0.5063	P	2.4

$$y = 0.0429 * x + 0.0033$$

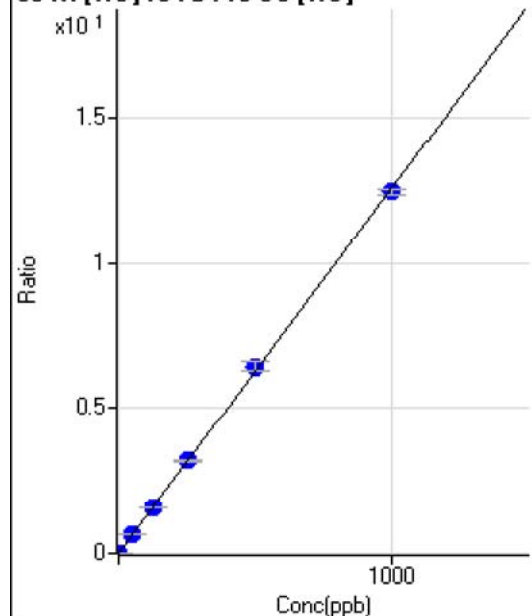
$$R = 0.9999$$

$$DL = 0.06354$$

$$BEC = 0.07608$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	172.23	0.0057	P	12.0
2	☐	0.100					
3	☐	1.000	0.963	544.47	0.0178	P	8.1
4	☐	50.000	51.683	20133.66	0.6543	P	3.0
5	☐	125.000	127.541	49069.57	1.6063	P	0.9
6	☐	250.000	256.137	98657.23	3.2202	P	1.2
7	☐	500.000	512.034	189105.11	6.4317	P	5.0
8	☐	1000.000	992.047	361234.25	12.4558	P	1.3
9	☐			12963.97	0.4045	P	1.4

$$y = 0.0125 * x + 0.0057$$

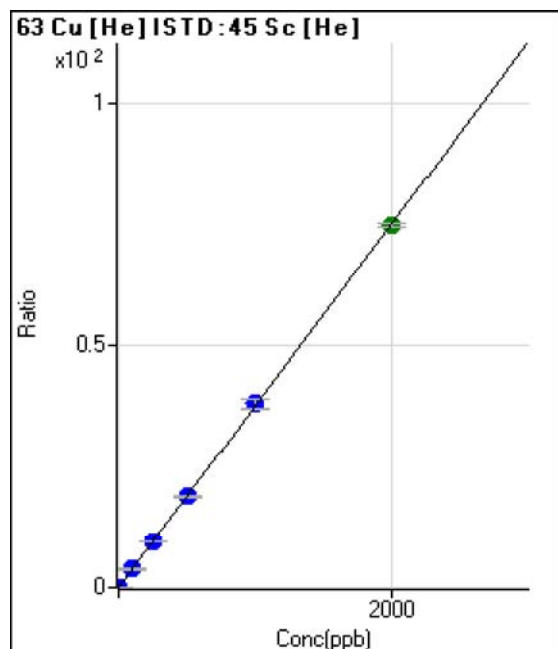
$$R = 0.9999$$

$$DL = 0.1627$$

$$BEC = 0.4525$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	620.03	0.0204	P	6.9
2	☐	0.200					
3	☐	2.000	1.933	2845.90	0.0929	P	2.2
4	☐	100.000	100.133	116199.38	3.7760	P	2.7
5	☐	250.000	252.839	290267.43	9.5034	P	1.6
6	☐	500.000	502.744	578316.26	18.8763	P	1.3
7	☐	1000.000	1012.050	1116505.47	37.9783	P	5.4
8	☐	2000.000	1992.927	2168398.61	74.7670	A	1.2
9	☐			5881.35	0.1835	P	1.8

$$y = 0.0375 * x + 0.0204$$

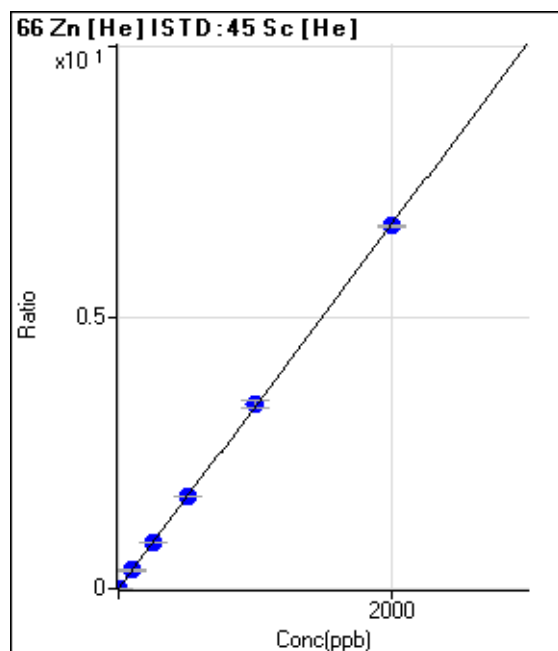
$$R = 1.0000$$

$$DL = 0.1133$$

$$BEC = 0.5447$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	76.67	0.0025	P	28.8
2	☐	0.200					
3	☐	2.000	2.312	314.46	0.0103	P	12.4
4	☐	100.000	100.032	10404.06	0.3381	P	3.3
5	☐	250.000	252.669	25965.59	0.8502	P	2.3
6	☐	500.000	502.755	51753.90	1.6891	P	0.1
7	☐	1000.000	1013.136	100009.19	3.4013	P	5.0
8	☐	2000.000	1992.407	193932.58	6.6865	P	0.5
9	☐			1689.03	0.0527	P	0.9

$$y = 0.0034 * x + 0.0025$$

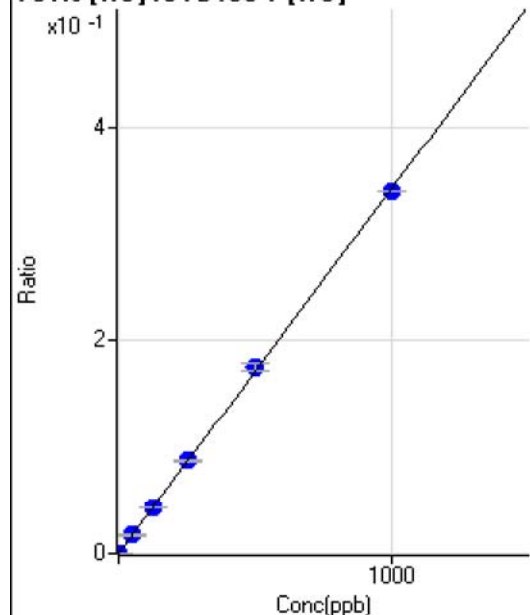
$$R = 1.0000$$

$$DL = 0.6488$$

$$BEC = 0.7503$$

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	2.47	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	0.997	77.16	0.0004	P	12.3
4	☐	50.000	50.275	3798.71	0.0172	P	4.0
5	☐	125.000	125.602	9418.71	0.0431	P	0.4
6	☐	250.000	257.388	19214.07	0.0882	P	1.8
7	☐	500.000	510.225	37170.18	0.1749	P	3.8
8	☐	1000.000	992.951	72226.13	0.3403	P	0.2
9	☐			146.30	0.0006	P	7.9

$$y = 3.4275\text{E-}004 * x + 1.1440\text{E-}005$$

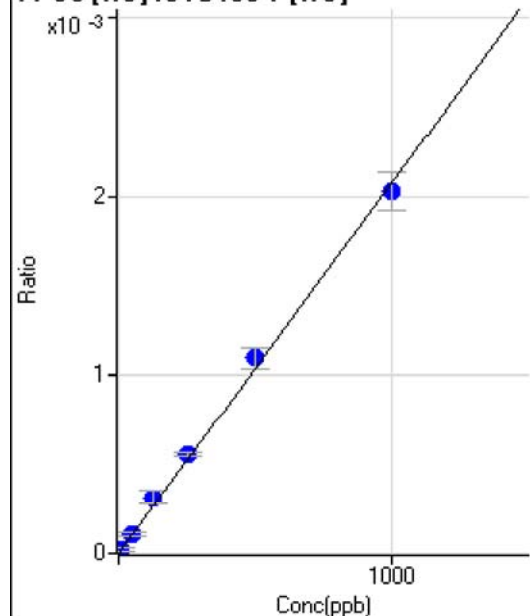
$$R = 0.9999$$

$$DL = 0.08675$$

$$BEC = 0.03338$$

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	9.812	4.44	0.0000	P	114.7
4	☐	50.000	51.012	23.33	0.0001	P	25.1
5	☐	125.000	151.785	68.89	0.0003	P	24.3
6	☐	250.000	270.312	122.23	0.0006	P	4.8
7	☐	500.000	526.984	232.23	0.0011	P	10.8
8	☐	1000.000	978.007	431.12	0.0020	P	10.6
9	☐			1.11	0.0000	P	173.2

$$y = 2.0767\text{E-}006 * x + 0.0000\text{E+}000$$

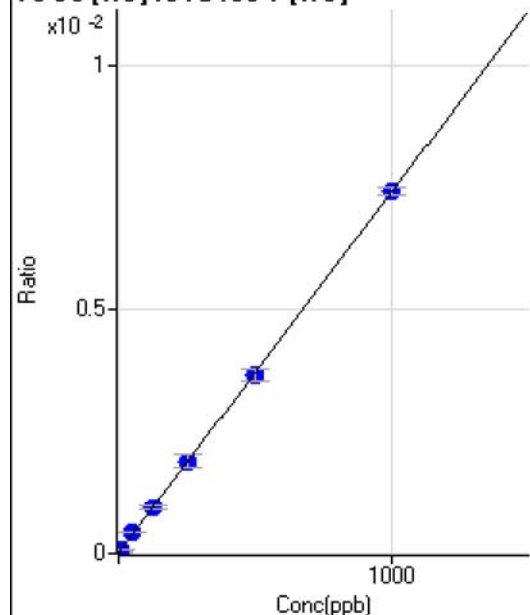
$$R = 0.9990$$

$$DL = 0$$

$$BEC = 0$$

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	3.09	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	7.215	14.81	0.0001	P	12.5
4	☐	50.000	57.093	96.30	0.0004	P	1.8
5	☐	125.000	127.654	209.88	0.0010	P	8.5
6	☐	250.000	255.234	414.21	0.0019	P	14.1
7	☐	500.000	492.595	777.19	0.0037	P	6.3
8	☐	1000.000	1001.696	1576.03	0.0074	P	2.2
9	☐			1.85	0.0000	P	99.7

$$y = 7.3994\text{E-}006 * x + 1.4429\text{E-}005$$

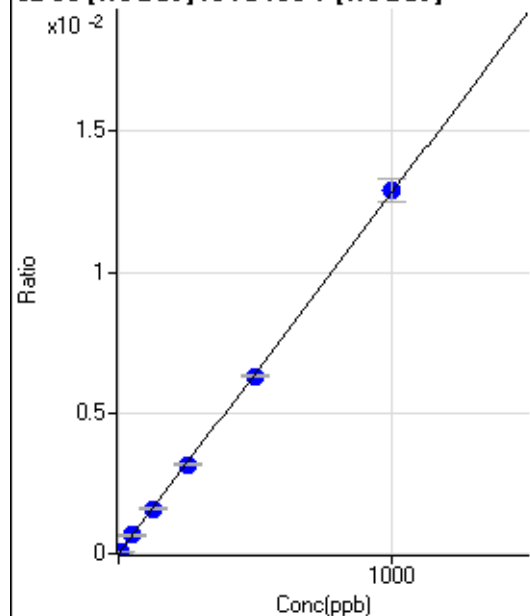
R = 0.9999

DL = 10.13

BEC = 1.95

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	-8.44	0.0000	P	-460.
2	☐	0.500					
3	☐	5.000	4.570	430.51	0.0001	P	8.9
4	☐	50.000	51.009	4880.32	0.0007	P	2.6
5	☐	125.000	124.669	12172.79	0.0016	P	1.5
6	☐	250.000	245.767	24385.97	0.0032	P	1.8
7	☐	500.000	491.526	49975.21	0.0063	P	1.5
8	☐	1000.000	1005.288	96958.90	0.0129	P	6.2
9	☐			48.23	0.0000	P	140.7

$$y = 1.2823\text{E-}005 * x - 1.1088\text{E-}006$$

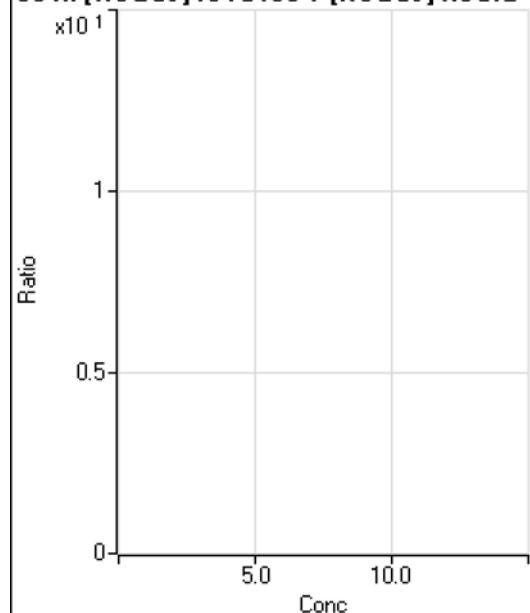
R = 0.9999

DL = 1.195

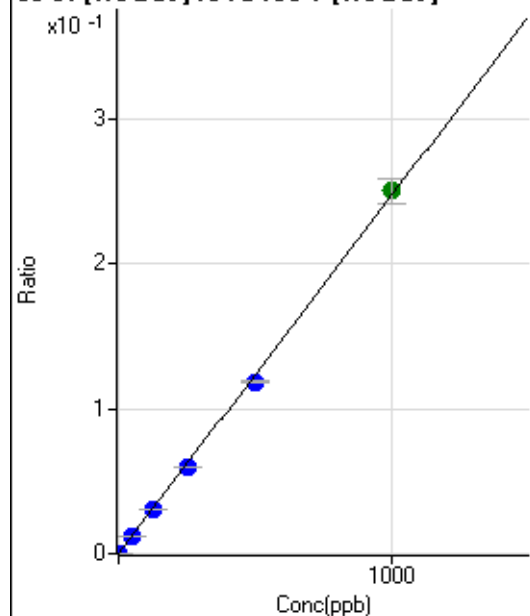
BEC = -0.08647

Weight: <None>

Min Conc: 0

83 Kr [NoGas] ISTD:89 Y [NoGas] No av_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			350.01	0.0000	P	10.3
2	☐						
3	☐			352.23	0.0000	P	13.5
4	☐			354.46	0.0000	P	9.9
5	☐			333.34	0.0000	P	11.7
6	☐			381.12	0.0000	P	8.0
7	☐			354.46	0.0000	P	7.2
8	☐			344.45	0.0000	P	10.8
9	☐			371.12	0.0000	P	14.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	525.04	0.0001	P	23.9
2	☐	0.100					
3	☐	1.000	0.965	2311.42	0.0003	P	6.9
4	☐	50.000	48.302	89666.45	0.0120	P	2.0
5	☐	125.000	121.589	229292.05	0.0301	P	0.9
6	☐	250.000	240.276	459784.28	0.0594	P	1.0
7	☐	500.000	479.468	939383.73	0.1185	P	1.2
8	☐	1000.000	1013.208	1882009.79	0.2502	A	6.6
9	☐			9562.12	0.0013	P	1.2

$$y = 2.4691E-004 * x + 7.0350E-005$$

$$R = 0.9996$$

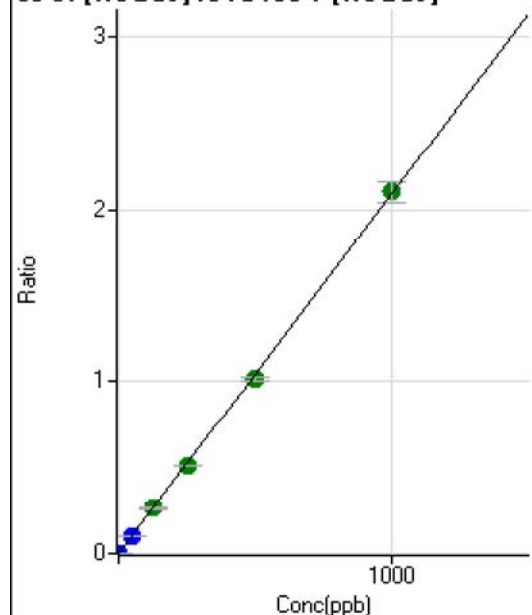
$$DL = 0.2046$$

$$BEC = 0.2849$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	194.46	0.0000	P	9.9
2	☐	0.100					
3	☐	1.000	0.963	15250.74	0.0020	P	2.2
4	☐	50.000	49.991	780082.72	0.1044	P	2.4
5	☐	125.000	125.587	1997724.02	0.2622	A	1.1
6	☐	250.000	244.381	3948989.72	0.5101	A	0.7
7	☐	500.000	486.762	8057369.45	1.0161	A	1.8
8	☐	1000.000	1007.951	15829026.22	2.1040	A	5.7
9	☐			79853.66	0.0105	P	1.9

$$y = 0.0021 * x + 2.6042E-005$$

$$R = 0.9998$$

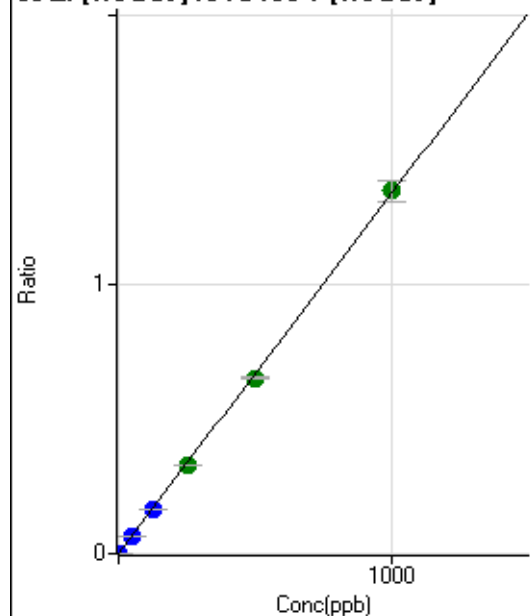
$$DL = 0.003695$$

$$BEC = 0.01248$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	713.95	0.0001	P	9.3
2	☐	0.100					
3	☐	1.000	0.926	9976.28	0.0013	P	2.1
4	☐	50.000	48.419	483967.35	0.0647	P	1.4
5	☐	125.000	122.731	1249387.26	0.1640	P	0.5
6	☐	250.000	245.974	2543001.53	0.3285	A	1.3
7	☐	500.000	487.753	5165510.71	0.6513	A	0.8
8	☐	1000.000	1007.493	10121182.00	1.3453	A	5.7
9	☐			2744.85	0.0004	P	6.3

$$y = 0.0013 * x + 9.5580E-005$$

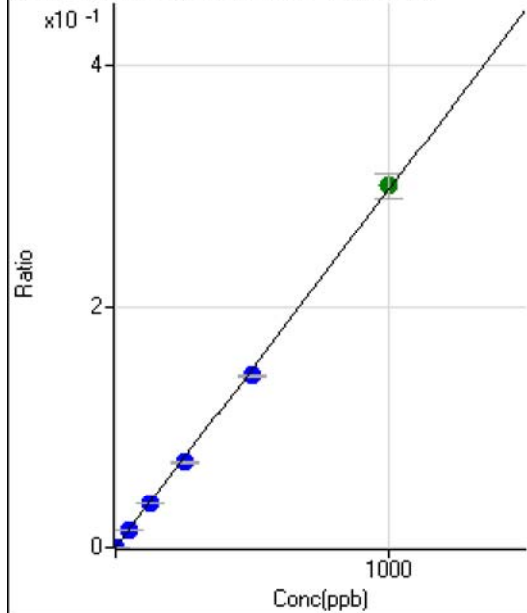
$$R = 0.9999$$

$$DL = 0.01989$$

$$BEC = 0.07159$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	18.5
2	☐	0.100					
3	☐	1.000	0.941	2214.16	0.0003	P	5.1
4	☐	50.000	48.229	107315.39	0.0144	P	0.2
5	☐	125.000	121.835	276122.25	0.0362	P	0.8
6	☐	250.000	238.899	549920.27	0.0710	P	1.4
7	☐	500.000	482.174	1136918.87	0.1434	P	1.3
8	☐	1000.000	1012.172	2263018.63	0.3009	A	6.8
9	☐			627.82	0.0001	P	7.1

$$y = 2.9729\text{E-}004 * x + 1.6006\text{E-}005$$

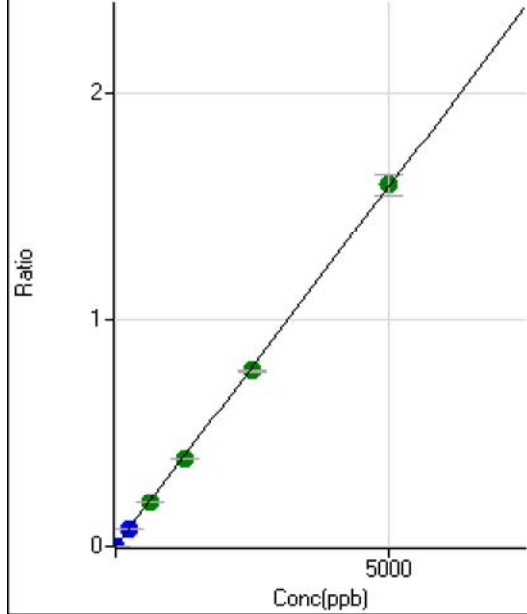
$$R = 0.9997$$

$$DL = 0.02994$$

$$BEC = 0.05384$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	263.90	0.0000	P	29.3
2	☐	0.500					
3	☐	5.000	4.825	11736.22	0.0016	P	1.1
4	☐	250.000	246.804	585848.85	0.0784	P	1.6
5	☐	625.000	623.795	1509067.15	0.1980	A	0.8
6	☐	1250.000	1221.672	3002160.16	0.3878	A	0.9
7	☐	2500.000	2446.156	6157885.69	0.7765	A	1.5
8	☐	5000.000	5034.314	12022151.83	1.5981	A	5.9
9	☐			15976.84	0.0021	P	5.4

$$y = 3.1743\text{E-}004 * x + 3.5250\text{E-}005$$

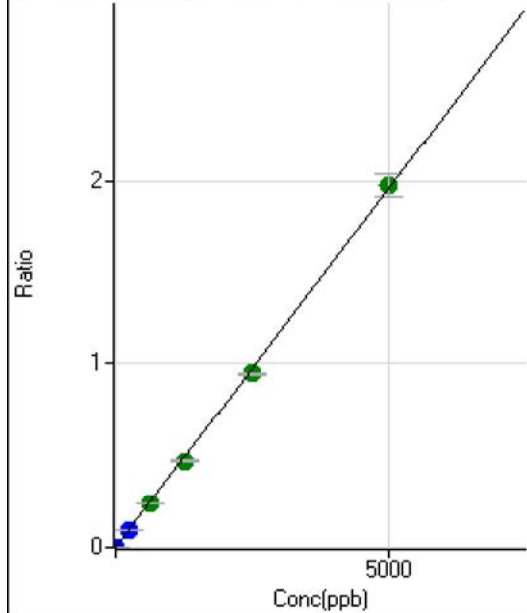
$$R = 0.9999$$

$$DL = 0.09774$$

$$BEC = 0.1111$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	119.45	0.0000	P	16.2
2	☐	0.500					
3	☐	5.000	4.678	13827.07	0.0018	P	3.0
4	☐	250.000	244.806	716013.08	0.0958	P	1.8
5	☐	625.000	620.139	1848895.07	0.2426	A	0.8
6	☐	1250.000	1216.507	3684410.15	0.4760	A	1.5
7	☐	2500.000	2423.105	7518423.26	0.9480	A	1.0
8	☐	5000.000	5047.688	14854709.01	1.9749	A	6.3
9	☐			26293.10	0.0035	P	1.6

$$y = 3.9124\text{E-}004 * x + 1.5989\text{E-}005$$

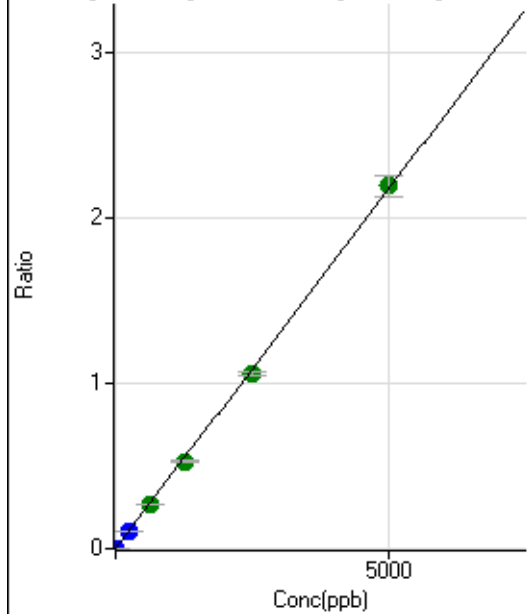
$$R = 0.9998$$

$$DL = 0.01988$$

$$BEC = 0.04087$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	222.24	0.0000	P	32.9
2	☐	0.500					
3	☐	5.000	4.765	15734.85	0.0021	P	1.9
4	☐	250.000	245.993	799348.86	0.1069	P	1.6
5	☐	625.000	624.215	2067371.62	0.2713	A	1.1
6	☐	1250.000	1212.865	4080692.32	0.5271	A	0.8
7	☐	2500.000	2428.169	8368563.82	1.0553	A	2.0
8	☐	5000.000	5045.498	16495805.75	2.1928	A	6.0
9	☐			29335.61	0.0039	P	4.2

$$y = 4.3461\text{E-}004 * x + 2.9678\text{E-}005$$

$$R = 0.9998$$

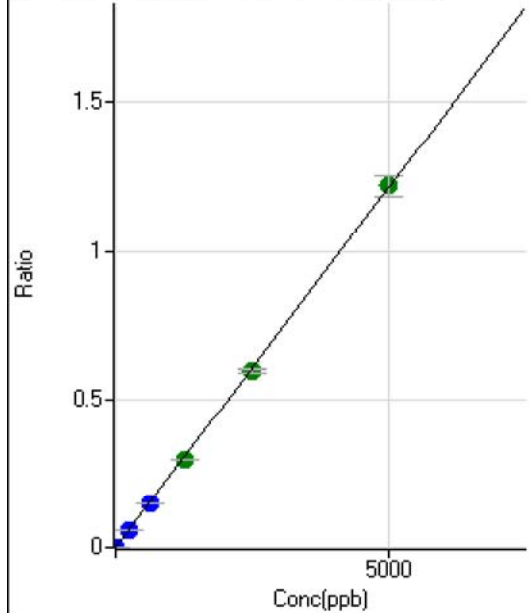
$$DL = 0.0673$$

$$BEC = 0.06829$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.12	0.0000	P	37.4
2	☐	0.500					
3	☐	5.000	4.792	8803.23	0.0012	P	3.9
4	☐	250.000	247.203	448734.20	0.0600	P	2.3
5	☐	625.000	617.076	1141863.46	0.1499	P	0.6
6	☐	1250.000	1224.836	2302480.83	0.2974	A	1.3
7	☐	2500.000	2446.655	4711331.83	0.5941	A	2.0
8	☐	5000.000	5034.094	9195308.97	1.2224	A	6.1
9	☐			16958.49	0.0022	P	0.7

$$y = 2.4282\text{E-}004 * x + 1.1553\text{E-}005$$

$$R = 0.9999$$

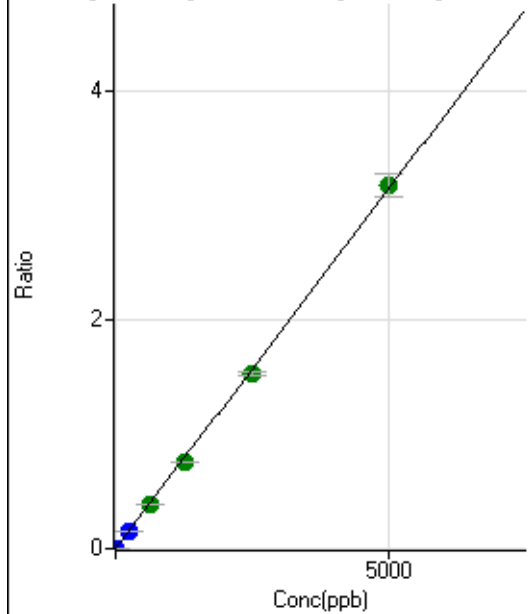
$$DL = 0.05331$$

$$BEC = 0.04758$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0000	P	26.0
2	☐	0.500					
3	☐	5.000	4.704	22374.83	0.0030	P	2.2
4	☐	250.000	245.582	1155609.16	0.1546	P	2.3
5	☐	625.000	617.572	2962410.64	0.3888	A	0.9
6	☐	1250.000	1207.072	5882000.18	0.7599	A	1.2
7	☐	2500.000	2432.894	12145373.27	1.5315	A	1.2
8	☐	5000.000	5045.435	23888204.01	3.1760	A	6.4
9	☐			42576.17	0.0056	P	1.9

$$y = 6.2948\text{E-}004 * x + 2.6815\text{E-}005$$

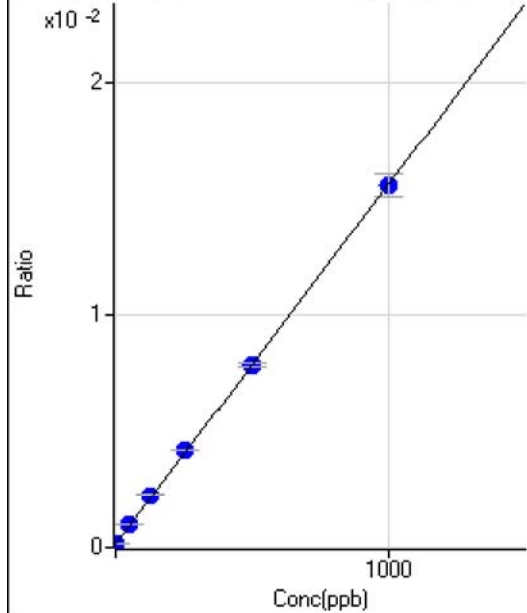
$$R = 0.9998$$

$$DL = 0.03317$$

$$BEC = 0.0426$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1461.27	0.0002	P	10.1
2	☐	0.100					
3	☐	1.000	1.252	1641.86	0.0002	P	5.1
4	☐	50.000	53.381	9537.13	0.0010	P	2.9
5	☐	125.000	136.412	22489.12	0.0023	P	1.9
6	☐	250.000	262.056	43089.48	0.0042	P	1.2
7	☐	500.000	496.684	84340.89	0.0078	P	1.7
8	☐	1000.000	997.048	163342.78	0.0156	P	6.5
9	☐			1577.94	0.0002	P	6.0

$$y = 1.5481\text{E-}005 * x + 1.5033\text{E-}004$$

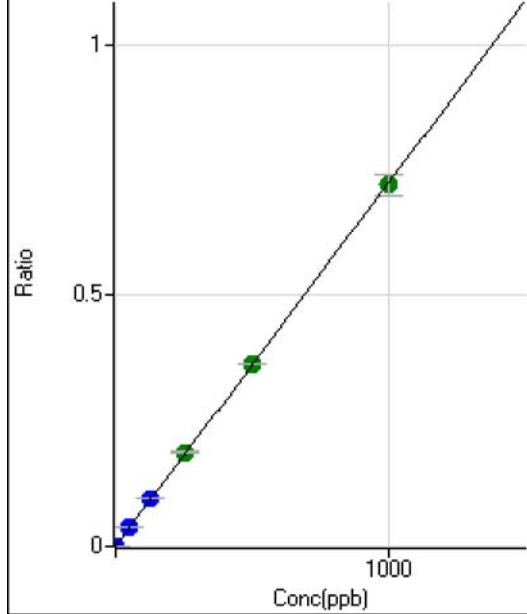
$$R = 0.9999$$

$$DL = 2.951$$

$$BEC = 9.71$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	75.00	0.0000	P	33.3
2	☐	0.100					
3	☐	1.000	1.035	7330.10	0.0008	P	3.6
4	☐	50.000	52.683	372883.37	0.0382	P	1.5
5	☐	125.000	132.011	951129.50	0.0957	P	0.1
6	☐	250.000	260.741	1935092.19	0.1889	A	1.4
7	☐	500.000	501.145	3906904.60	0.3631	A	0.8
8	☐	1000.000	995.732	7563777.77	0.7215	A	5.6
9	☐			875.07	0.0001	P	9.0

$$y = 7.2462\text{E-}004 * x + 7.7057\text{E-}006$$

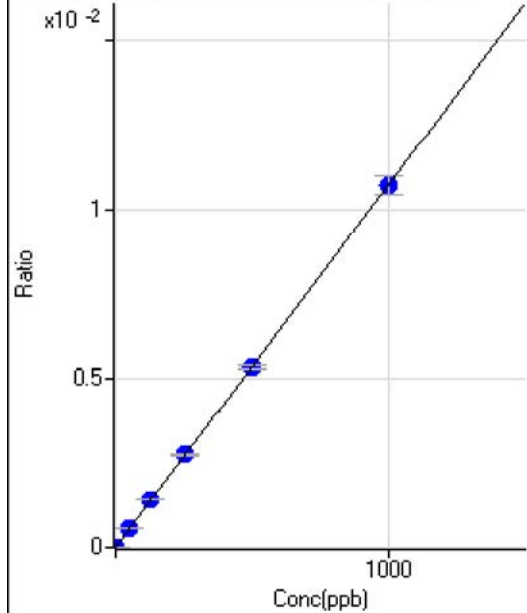
$$R = 0.9999$$

$$DL = 0.01062$$

$$BEC = 0.01063$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.50	0.0000	P	65.7
2	☐	0.100					
3	☐	1.000	0.976	113.89	0.0000	P	17.3
4	☐	50.000	53.280	5599.90	0.0006	P	5.2
5	☐	125.000	132.798	14195.21	0.0014	P	1.3
6	☐	250.000	257.118	28300.84	0.0028	P	1.2
7	☐	500.000	497.383	57491.66	0.0053	P	1.7
8	☐	1000.000	998.390	112457.96	0.0107	P	5.2
9	☐			47.22	0.0000	P	28.5

$$y = 1.0742\text{E-}005 * x + 1.2788\text{E-}006$$

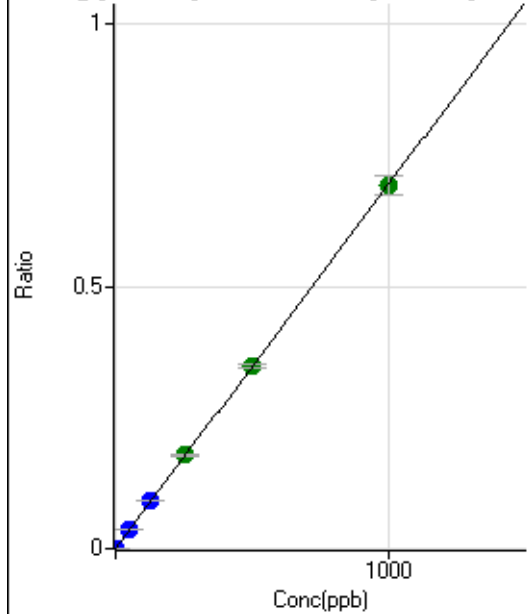
$$R = 0.9999$$

$$DL = 0.2348$$

$$BEC = 0.119$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.67	0.0000	P	53.8
2	☐	0.100					
3	☐	1.000	1.047	7074.41	0.0007	P	3.3
4	☐	50.000	52.833	358356.89	0.0367	P	2.2
5	☐	125.000	131.323	906820.06	0.0912	P	0.5
6	☐	250.000	256.911	1827349.76	0.1784	A	1.8
7	☐	500.000	502.732	3756133.11	0.3492	A	1.8
8	☐	1000.000	995.974	7252059.36	0.6917	A	5.3
9	☐			797.28	0.0001	P	8.4

$$y = 6.9452\text{E-}004 * x + 4.2937\text{E-}006$$

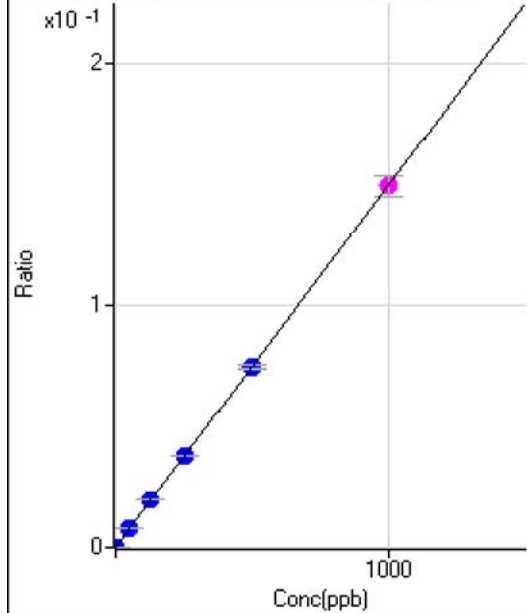
$$R = 1.0000$$

$$DL = 0.009976$$

$$BEC = 0.006182$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1034.97	0.0001	P	9.7
2	☐	0.100					
3	☐	1.000	1.056	2561.37	0.0003	P	1.8
4	☐	50.000	51.879	77026.29	0.0079	P	1.5
5	☐	125.000	130.095	195042.62	0.0196	P	1.3
6	☐	250.000	253.828	390989.75	0.0382	P	1.2
7	☐	500.000	497.462	803797.62	0.0747	P	1.4
8	☐	1000.000	999.581	1572749.34	0.1500	M	5.6
9	☐			1545.14	0.0002	P	5.6

$$y = 1.4998\text{E-}004 * x + 1.0647\text{E-}004$$

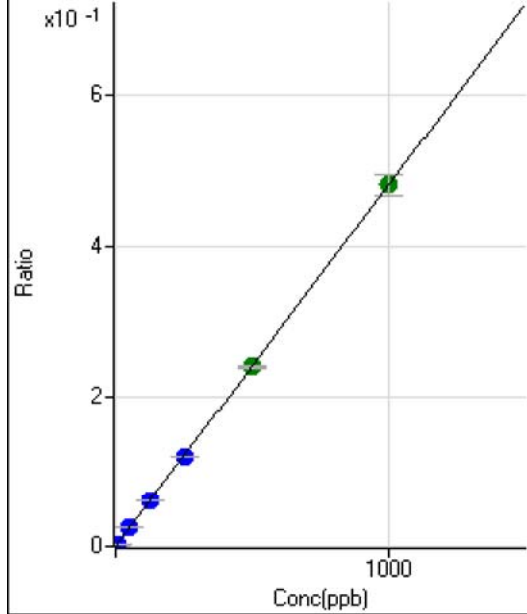
$$R = 1.0000$$

$$DL = 0.2059$$

$$BEC = 0.7099$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1886.33	0.0002	P	1.5
2	☐	0.500					
3	☐	5.000	4.989	25116.48	0.0026	P	4.1
4	☐	50.000	51.278	243068.92	0.0249	P	2.4
5	☐	125.000	127.593	612946.03	0.0617	P	0.3
6	☐	250.000	248.320	1227016.74	0.1198	P	0.9
7	☐	500.000	496.784	2576215.75	0.2395	A	1.6
8	☐	1000.000	1001.640	5059227.50	0.4826	A	5.8
9	☐			25338.80	0.0025	P	5.6

$$y = 4.8166\text{E-}004 * x + 1.9393\text{E-}004$$

$$R = 1.0000$$

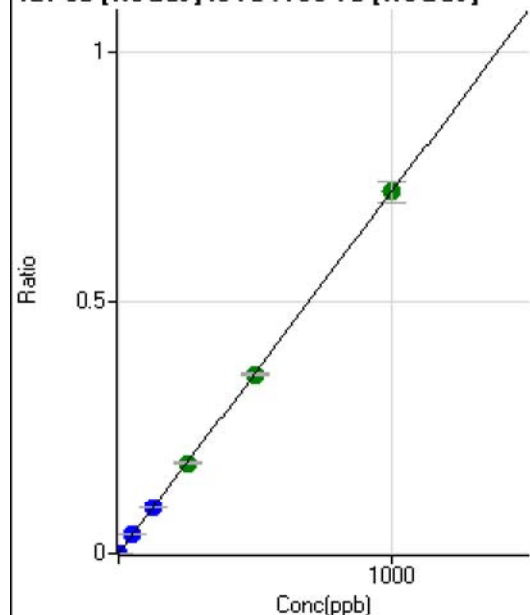
$$DL = 0.01783$$

$$BEC = 0.4026$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	111.12	0.0000	P	25.4
2	☐	0.200					
3	☐	2.000	1.953	13721.50	0.0014	P	2.1
4	☐	50.000	50.947	358661.58	0.0367	P	1.4
5	☐	125.000	128.432	920305.91	0.0926	P	0.2
6	☐	250.000	251.706	1858102.00	0.1814	A	0.4
7	☐	500.000	495.744	3843578.91	0.3573	A	0.9
8	☐	1000.000	1001.225	7563455.72	0.7215	A	5.8
9	☐			20633.38	0.0020	P	1.1

$$y = 7.2065E-004 * x + 1.1407E-005$$

$$R = 1.0000$$

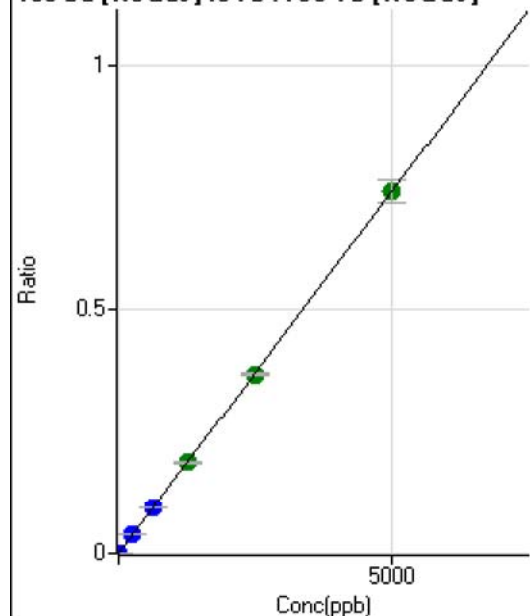
$$DL = 0.01205$$

$$BEC = 0.01583$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72.23	0.0000	P	45.5
2	☐	1.000					
3	☐	10.000	9.726	14052.49	0.0015	P	0.7
4	☐	250.000	256.182	371847.14	0.0381	P	1.5
5	☐	625.000	641.830	948322.09	0.0954	P	0.3
6	☐	1250.000	1263.191	1922557.01	0.1877	A	1.1
7	☐	2500.000	2475.955	3958169.80	0.3679	A	1.7
8	☐	5000.000	5006.312	7797085.16	0.7440	A	6.2
9	☐			1422.37	0.0001	P	7.7

$$y = 1.4860E-004 * x + 7.3993E-006$$

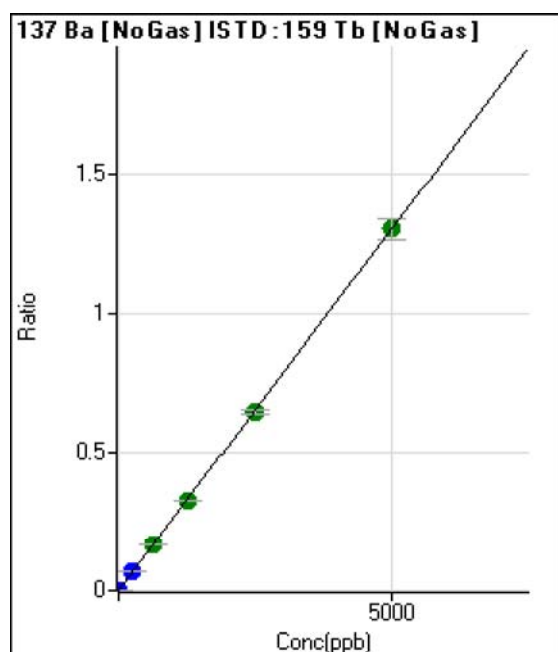
$$R = 1.0000$$

$$DL = 0.06796$$

$$BEC = 0.04979$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	102.78	0.0000	P	11.4
2	☐	1.000					
3	☐	10.000	9.734	24643.17	0.0025	P	1.6
4	☐	250.000	255.506	650515.40	0.0666	P	1.8
5	☐	625.000	648.488	1680773.34	0.1691	A	0.4
6	☐	1250.000	1254.187	3348780.72	0.3269	A	0.6
7	☐	2500.000	2470.184	6927213.44	0.6439	A	1.5
8	☐	5000.000	5010.651	13691730.52	1.3062	A	5.7
9	☐			2480.91	0.0002	P	2.9

$$y = 2.6067\text{E-}004 * x + 1.0559\text{E-}005$$

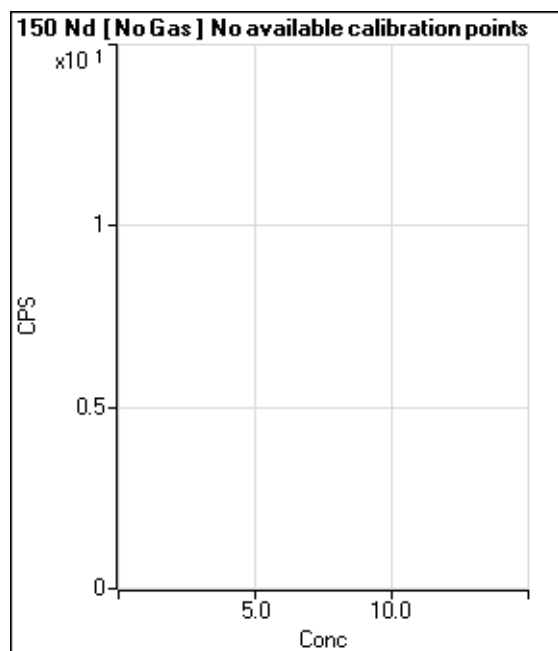
$$R = 1.0000$$

$$DL = 0.01385$$

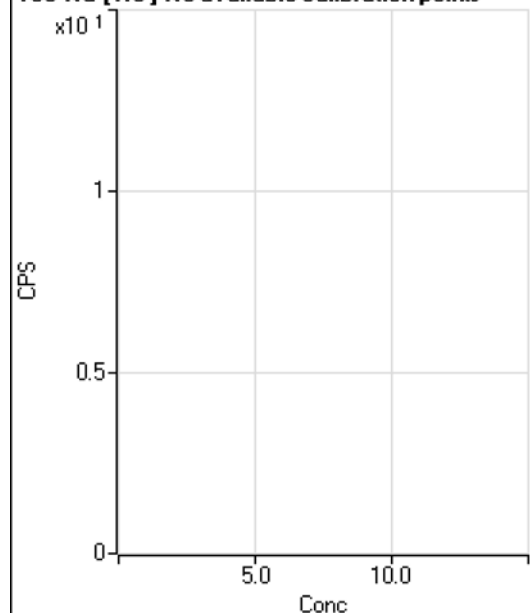
$$BEC = 0.04051$$

Weight: <None>

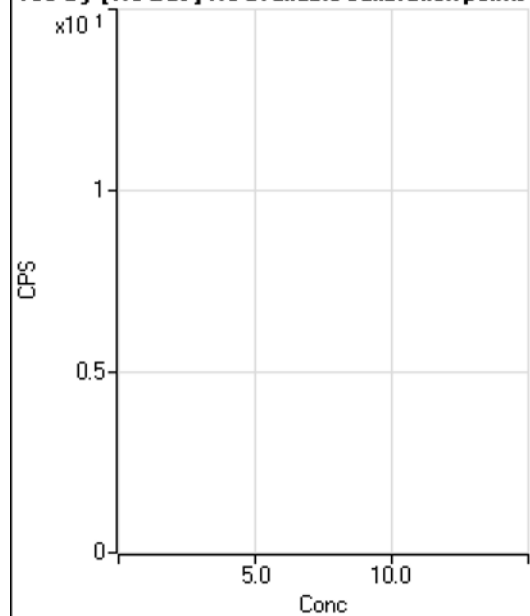
Min Conc: 0



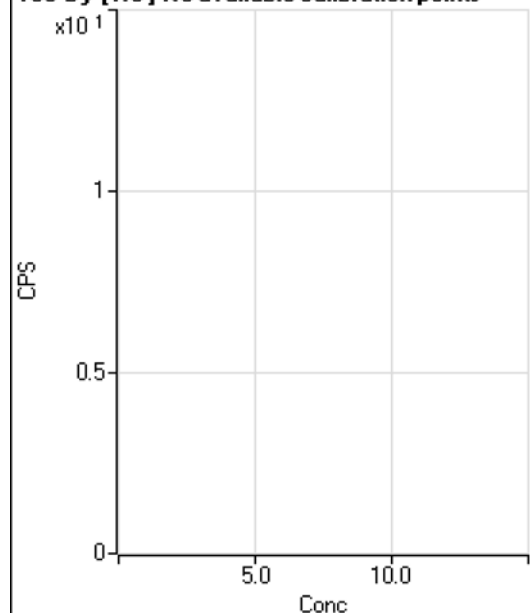
	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			6.67		P	100.0
2	☐						
3	☐			13.34		P	86.6
4	☐			17.78		P	108.2
5	☐			42.22		P	24.1
6	☐			60.00		P	48.4
7	☐			202.23		P	13.3
8	☐			240.01		P	7.3
9	☐			95.56		P	21.3

150 Nd [He] No available calibration points

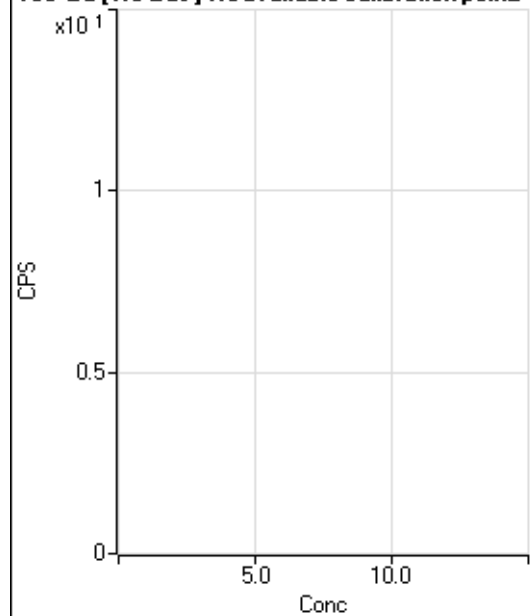
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.2
5	☐			0.00		P	
6	☐			1.11		P	173.2
7	☐			8.89		P	57.3
8	☐			5.56		P	34.7
9	☐			12.22		P	63.0

156 Dy [No Gas] No available calibration points

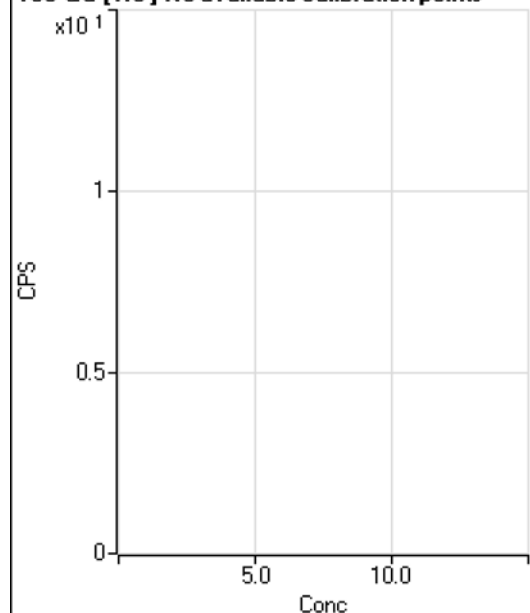
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	107.9
2	☐						
3	☐			19.44		P	49.5
4	☐			11.11		P	43.3
5	☐			44.44		P	43.3
6	☐			33.33		P	50.0
7	☐			69.45		P	18.3
8	☐			122.23		P	40.0
9	☐			77.78		P	32.7

156 Dy [He] No available calibration points

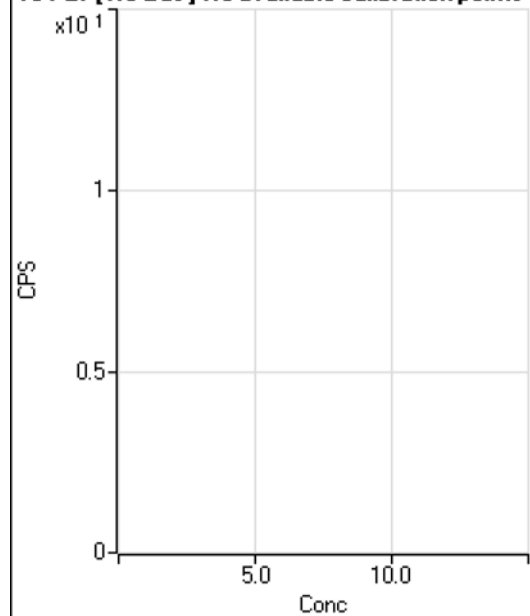
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			1.11		P	173.2
4	☐			4.45		P	86.6
5	☐			1.11		P	173.2
6	☐			4.45		P	86.6
7	☐			10.00		P	66.7
8	☐			10.00		P	33.3
9	☐			10.00		P	0.0

160 Gd [No Gas] No available calibration poin_

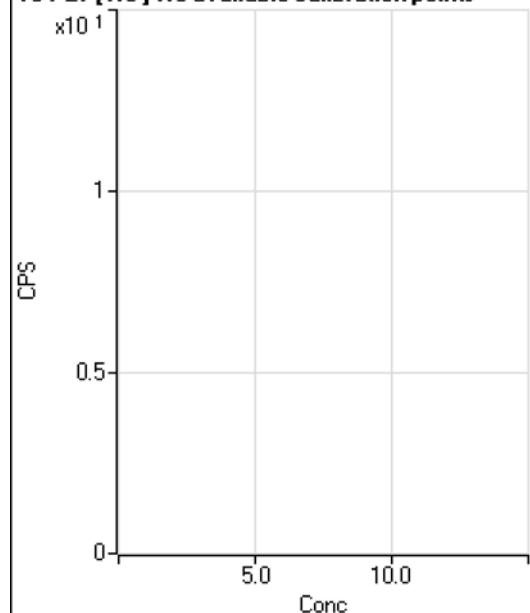
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			52.78		P	32.9
2	☐						
3	☐			63.89		P	49.4
4	☐			66.67		P	45.1
5	☐			38.89		P	61.9
6	☐			58.34		P	37.8
7	☐			69.45		P	66.1
8	☐			102.78		P	28.5
9	☐			86.12		P	20.1

160 Gd [He] No available calibration points

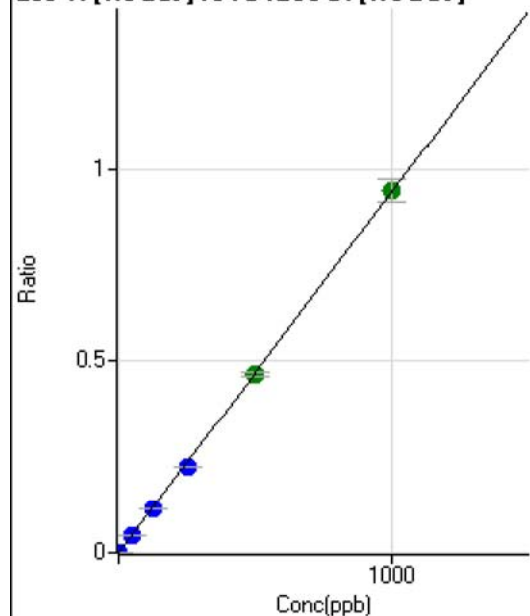
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.89		P	108.3
2	☐						
3	☐			10.00		P	0.0
4	☐			7.78		P	107.8
5	☐			8.89		P	57.3
6	☐			8.89		P	78.1
7	☐			7.78		P	65.5
8	☐			14.44		P	58.1
9	☐			15.56		P	12.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	43.3
2	☐						
3	☐			47.23		P	40.8
4	☐			33.33		P	43.3
5	☐			38.89		P	53.9
6	☐			44.45		P	28.6
7	☐			58.34		P	14.3
8	☐			52.78		P	24.1
9	☐			33.33		P	90.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			6.67		P	50.0
4	☐			2.22		P	86.6
5	☐			4.44		P	43.4
6	☐			3.33		P	100.1
7	☐			7.78		P	65.5
8	☐			11.11		P	45.8
9	☐			14.44		P	35.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	180.56	0.0000	P	12.3
2	☐	0.100					
3	☐	1.000	0.902	5682.08	0.0009	P	3.6
4	☐	50.000	48.722	294244.82	0.0458	P	1.8
5	☐	125.000	122.385	758591.35	0.1150	P	0.9
6	☐	250.000	241.475	1528829.66	0.2268	P	0.4
7	☐	500.000	496.633	3274705.17	0.4665	A	1.9
8	☐	1000.000	1004.206	6469642.03	0.9432	A	6.4
9	☐			4350.96	0.0007	P	6.1

$$y = 9.3917E-004 * x + 2.7647E-005$$

$$R = 1.0000$$

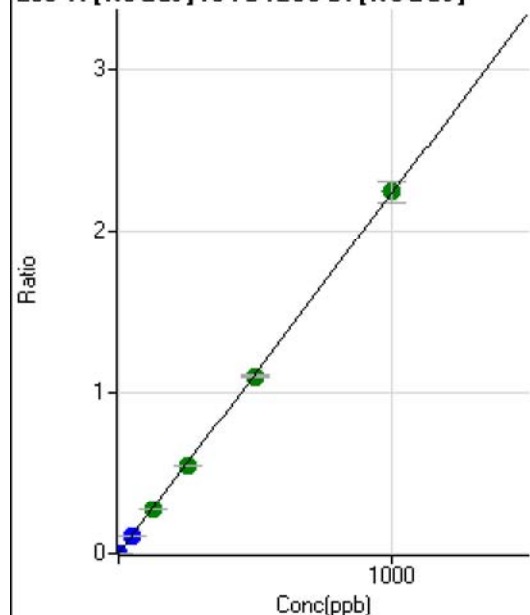
$$DL = 0.01083$$

$$BEC = 0.02944$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	463.92	0.0001	P	16.0
2	☐	0.100					
3	☐	1.000	0.944	14150.21	0.0022	P	2.8
4	☐	50.000	49.316	708323.92	0.1102	P	1.7
5	☐	125.000	124.404	1833724.71	0.2779	A	1.3
6	☐	250.000	245.108	3690355.42	0.5475	A	1.5
7	☐	500.000	491.788	7712435.94	1.0985	A	0.7
8	☐	1000.000	1005.438	15406284.55	2.2457	A	6.1
9	☐			10396.41	0.0016	P	2.6

$$y = 0.0022 * x + 7.1240E-005$$

$$R = 0.9999$$

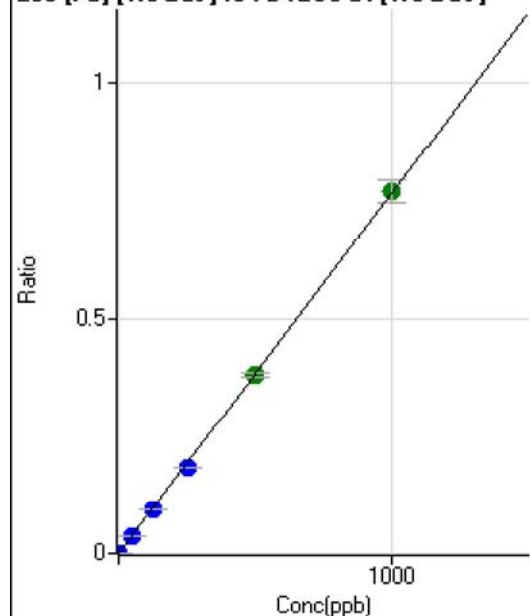
$$DL = 0.01528$$

$$BEC = 0.0319$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	392.61	0.0001	P	14.3
2	☐	0.100					
3	☐	1.000	0.957	5151.21	0.0008	P	2.1
4	☐	50.000	48.693	240224.46	0.0374	P	1.8
5	☐	125.000	121.223	613428.33	0.0930	P	0.5
6	☐	250.000	240.179	1241158.50	0.1841	P	0.7
7	☐	500.000	494.778	2662683.57	0.3793	A	1.5
8	☐	1000.000	1005.604	5287024.08	0.7708	A	6.4
9	☐			31931.44	0.0050	P	2.9

$$y = 7.6641E-004 * x + 6.0274E-005$$

$$R = 0.9999$$

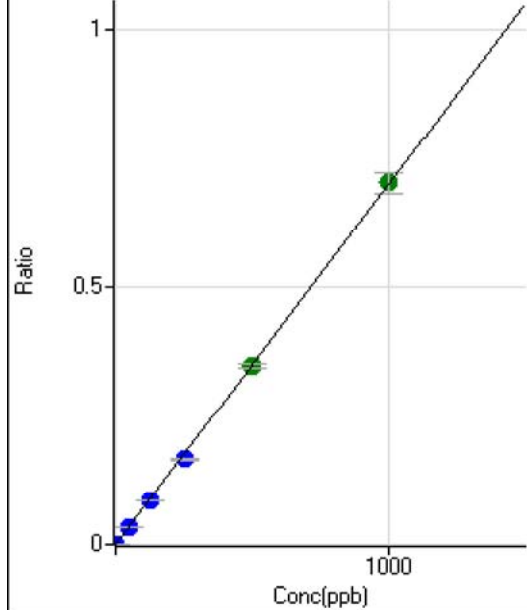
$$DL = 0.0337$$

$$BEC = 0.07865$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	307.42	0.0000	P	8.2
2	☐	0.100					
3	☐	1.000	0.928	4525.01	0.0007	P	1.8
4	☐	50.000	48.334	217799.14	0.0339	P	1.4
5	☐	125.000	120.661	557756.81	0.0845	P	0.5
6	☐	250.000	238.027	1123652.18	0.1667	P	0.7
7	☐	500.000	494.280	2429949.36	0.3461	A	1.9
8	☐	1000.000	1006.479	4835047.74	0.7047	A	6.0
9	☐			27268.72	0.0043	P	1.6

$$y = 7.0016\text{E-}004 * x + 4.7166\text{E-}005$$

$$R = 0.9999$$

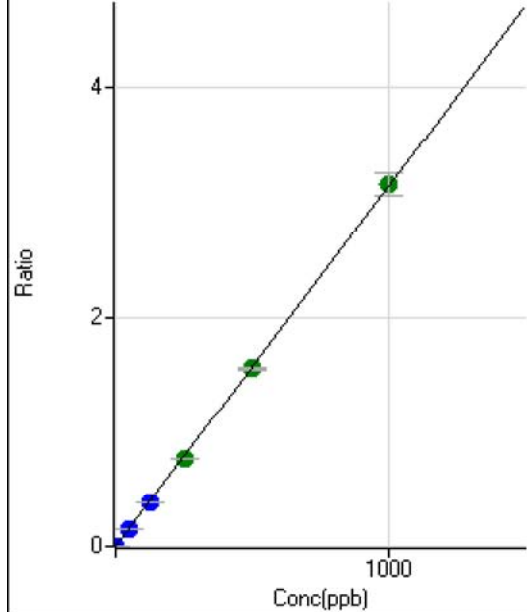
$$DL = 0.01653$$

$$BEC = 0.06736$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1514.91	0.0002	P	11.7
2	☐	0.100					
3	☐	1.000	0.934	20557.10	0.0032	P	1.9
4	☐	50.000	48.443	979647.44	0.1524	P	1.4
5	☐	125.000	121.088	2511806.50	0.3807	P	0.5
6	☐	250.000	243.902	5166746.86	0.7665	A	0.5
7	☐	500.000	493.279	10882182.01	1.5500	A	1.6
8	☐	1000.000	1005.452	21671739.78	3.1592	A	6.3
9	☐			127318.22	0.0199	P	2.6

$$y = 0.0031 * x + 2.3242\text{E-}004$$

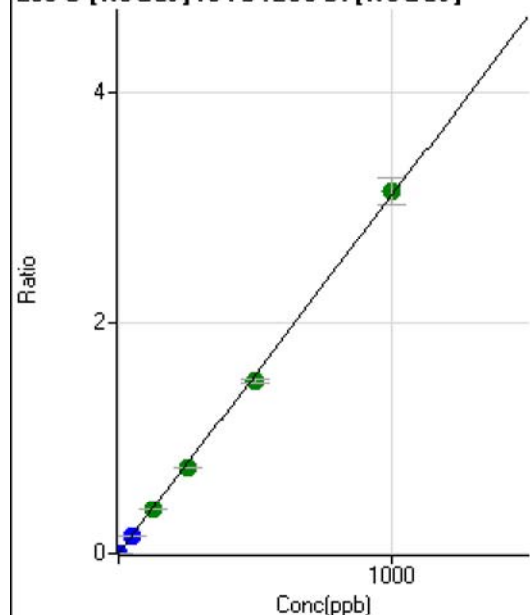
$$R = 0.9999$$

$$DL = 0.02586$$

$$BEC = 0.07398$$

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD:209 Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	269.46	0.0000	P	13.3
2	☐	0.100					
3	☐	1.000	0.922	18906.94	0.0029	P	1.3
4	☐	50.000	47.918	958930.83	0.1492	P	2.2
5	☐	125.000	123.144	2530011.30	0.3834	A	0.4
6	☐	250.000	240.419	5045353.50	0.7485	A	0.5
7	☐	500.000	482.523	10546473.41	1.5022	A	1.8
8	☐	1000.000	1011.470	21591891.63	3.1490	A	7.4
9	☐			2222.52	0.0003	P	6.8

$$y = 0.0031 * x + 4.1351E-005$$

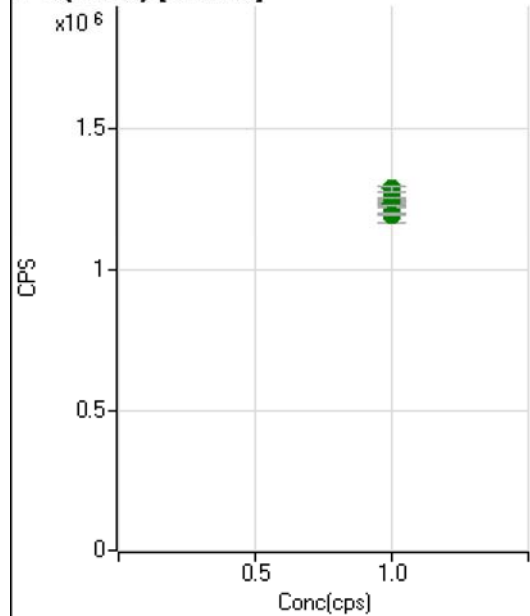
$$R = 0.9997$$

$$DL = 0.005308$$

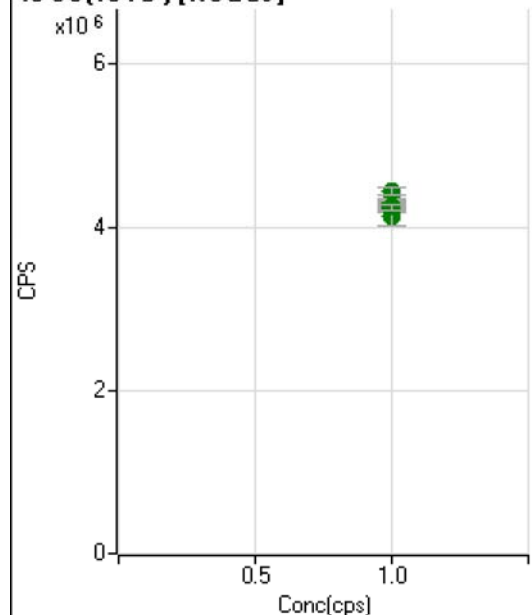
$$BEC = 0.01328$$

Weight: <None>

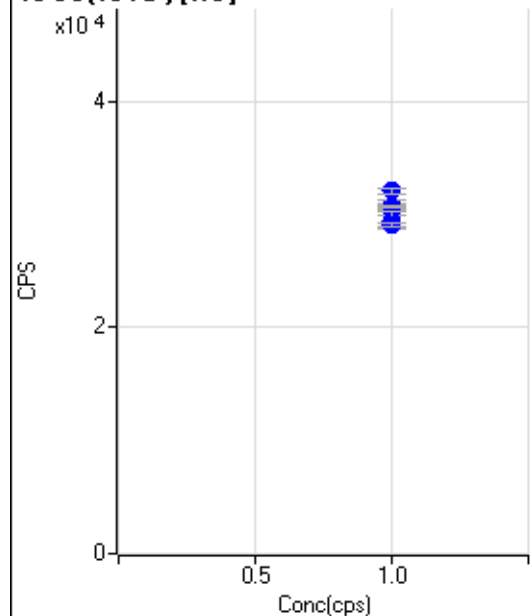
Min Conc: 0

6 Li(ISTD) [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1237224.83		A	0.9
2	☐	1.000					
3	☐	1.000		1233127.49		A	0.3
4	☐	1.000		1234356.93		A	1.4
5	☐	1.000		1249983.89		A	0.2
6	☐	1.000		1259223.89		A	0.1
7	☐	1.000		1289197.58		A	1.3
8	☐	1.000		1199137.07		A	5.3
9	☐	1.000		1197753.70		A	0.6

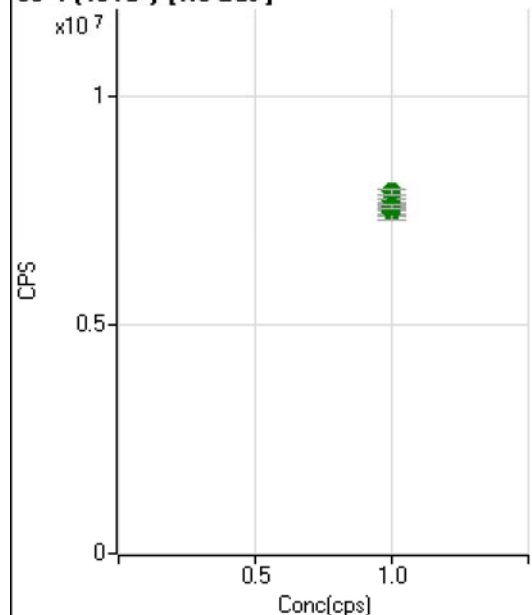
45 Sc(ISTD) [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4300196.58		A	2.6
2	☐	1.000					
3	☐	1.000		4286811.29		A	0.8
4	☐	1.000		4237476.26		A	1.7
5	☐	1.000		4305813.07		A	1.2
6	☐	1.000		4350073.88		A	0.4
7	☐	1.000		4443655.65		A	2.3
8	☐	1.000		4144343.97		A	5.4
9	☐	1.000		4251822.45		A	2.1

45 Sc(ISTD) [He]

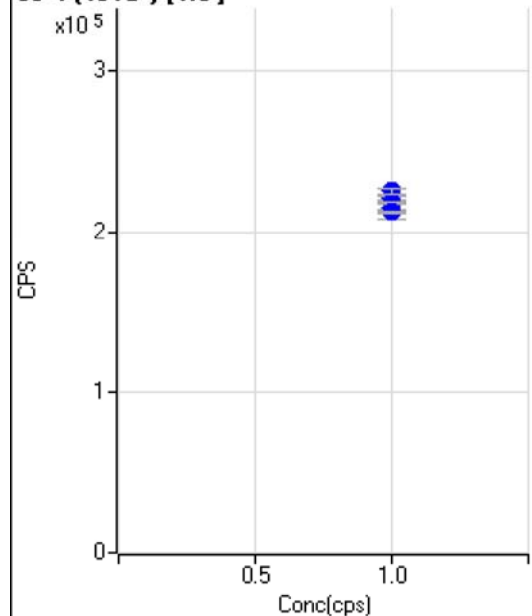
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		30396.38		P	3.2
2	☐	1.000					
3	☐	1.000		30631.25		P	1.9
4	☐	1.000		30787.25		P	2.6
5	☐	1.000		30550.06		P	1.9
6	☐	1.000		30639.26		P	0.9
7	☐	1.000		29451.09		P	5.0
8	☐	1.000		29004.53		P	1.3
9	☐	1.000		32050.08		P	1.7

89 Y (ISTD) [No Gas]

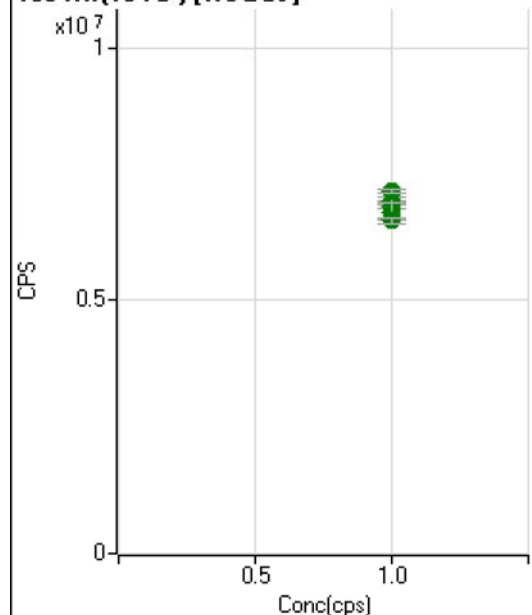


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7471881.83		A	1.0
2	☐	1.000					
3	☐	1.000		7490029.61		A	0.9
4	☐	1.000		7476392.32		A	2.1
5	☐	1.000		7620086.56		A	0.6
6	☐	1.000		7741227.45		A	0.8
7	☐	1.000		7931219.19		A	1.3
8	☐	1.000		7540031.69		A	5.8
9	☐	1.000		7609511.83		A	0.9

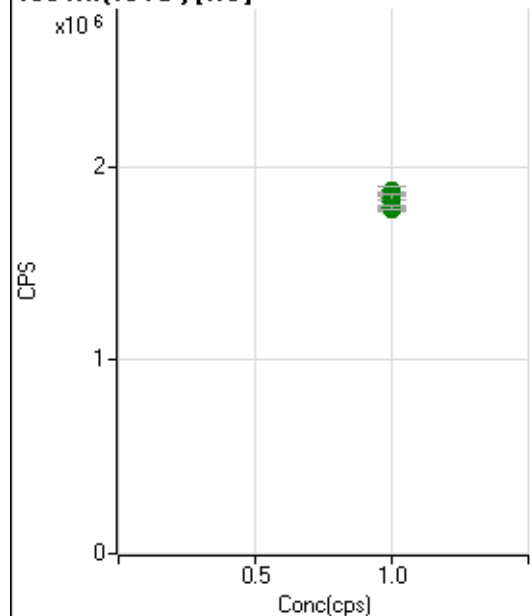
89 Y (ISTD) [He]



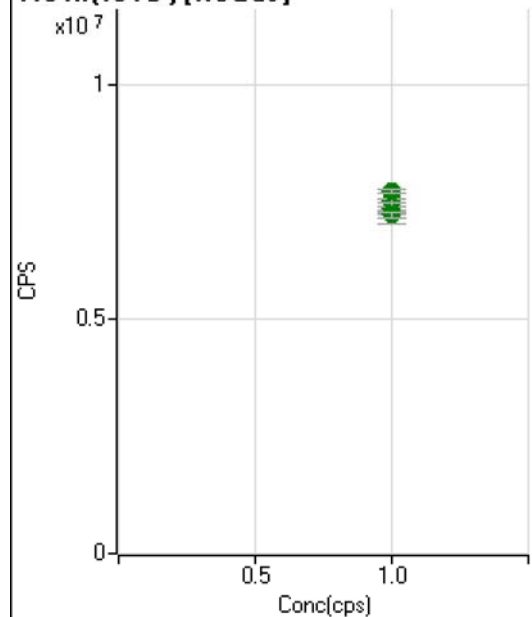
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		215095.08		P	1.7
2	☐	1.000					
3	☐	1.000		218439.89		P	0.2
4	☐	1.000		220392.25		P	1.7
5	☐	1.000		218728.69		P	1.0
6	☐	1.000		217783.42		P	0.6
7	☐	1.000		212758.19		P	4.2
8	☐	1.000		212210.83		P	0.5
9	☐	1.000		225339.83		P	1.9

103 Rh(ISTD) [NoGas]

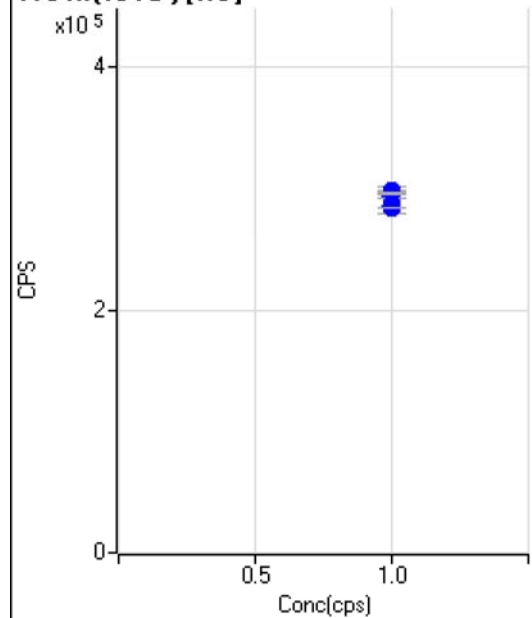
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6913188.70		A	1.6
2	☐	1.000					
3	☐	1.000		6970373.68		A	1.0
4	☐	1.000		6871716.65		A	0.9
5	☐	1.000		6934179.06		A	0.2
6	☐	1.000		7008619.51		A	1.3
7	☐	1.000		7172914.05		A	0.9
8	☐	1.000		6771530.54		A	5.0
9	☐	1.000		6608163.82		A	1.9

103 Rh(ISTD) [He]

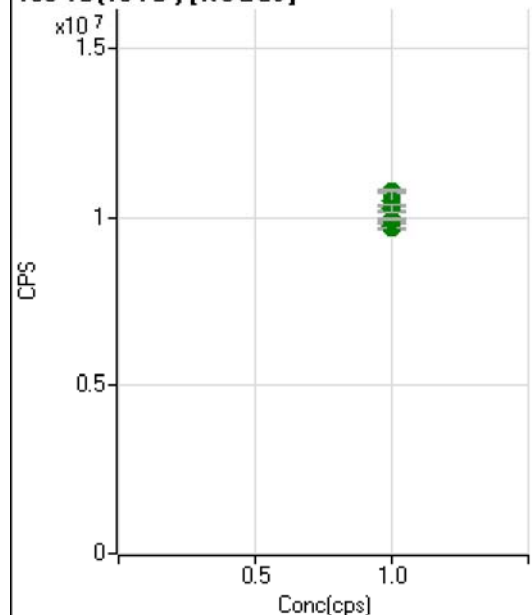
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1847254.36		A	1.8
2	☐	1.000					
3	☐	1.000		1854985.48		A	0.1
4	☐	1.000		1873582.44		A	2.2
5	☐	1.000		1851528.71		A	0.6
6	☐	1.000		1841752.75		A	1.4
7	☐	1.000		1815493.98		A	4.6
8	☐	1.000		1780190.13		A	0.9
9	☐	1.000		1784443.97		A	0.9

115 In(ISTD) [NoGas]

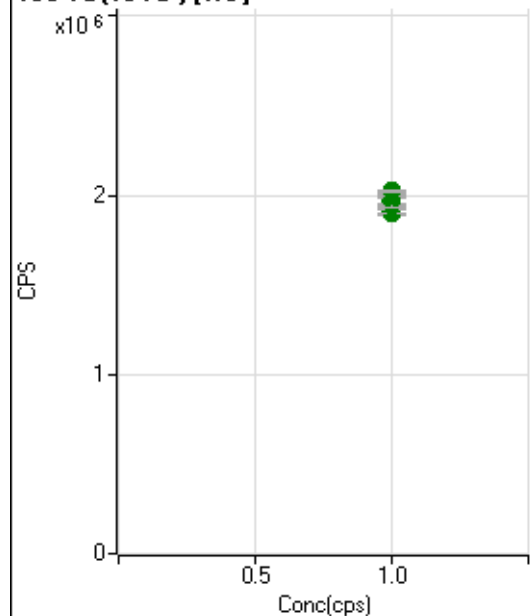
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7387060.27		A	1.2
2	☐	1.000					
3	☐	1.000		7331233.85		A	0.6
4	☐	1.000		7297570.06		A	1.3
5	☐	1.000		7420144.23		A	0.0
6	☐	1.000		7535590.76		A	1.1
7	☐	1.000		7747413.20		A	1.1
8	☐	1.000		7305251.92		A	6.1
9	☐	1.000		7249600.73		A	1.4

115 In(ISTD) [He]

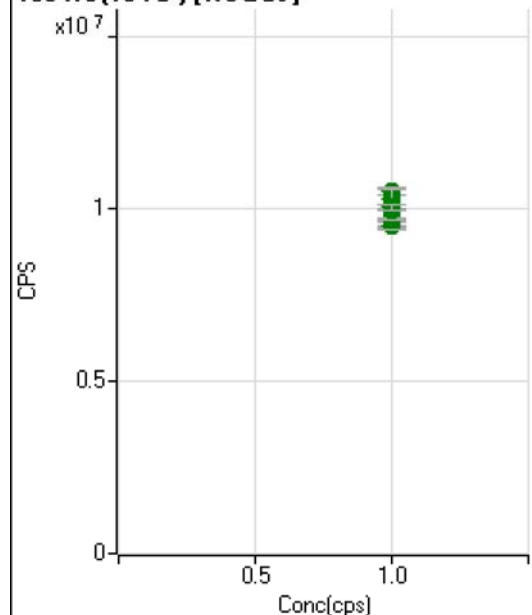
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		295075.08		P	1.9
2	☐	1.000					
3	☐	1.000		297105.16		P	0.9
4	☐	1.000		298559.12		P	2.1
5	☐	1.000		298464.30		P	0.6
6	☐	1.000		295137.57		P	1.4
7	☐	1.000		286495.50		P	4.6
8	☐	1.000		284489.52		P	0.3
9	☐	1.000		297120.55		P	0.4

159 Tb(ISTD) [NoGas]

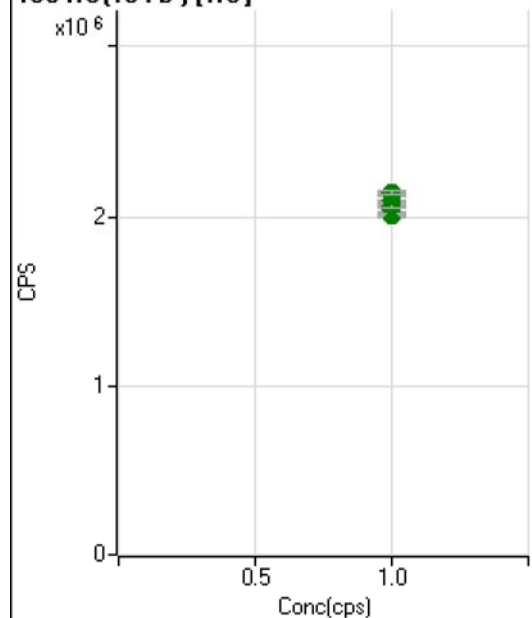
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9727515.62		A	1.2
2	☐	1.000					
3	☐	1.000		9672775.89		A	0.8
4	☐	1.000		9767306.31		A	1.7
5	☐	1.000		9942198.12		A	0.5
6	☐	1.000		10242837.90		A	1.6
7	☐	1.000		10758953.45		A	1.1
8	☐	1.000		10504713.66		A	5.5
9	☐	1.000		10276995.75		A	2.4

159 Tb(ISTD) [He]

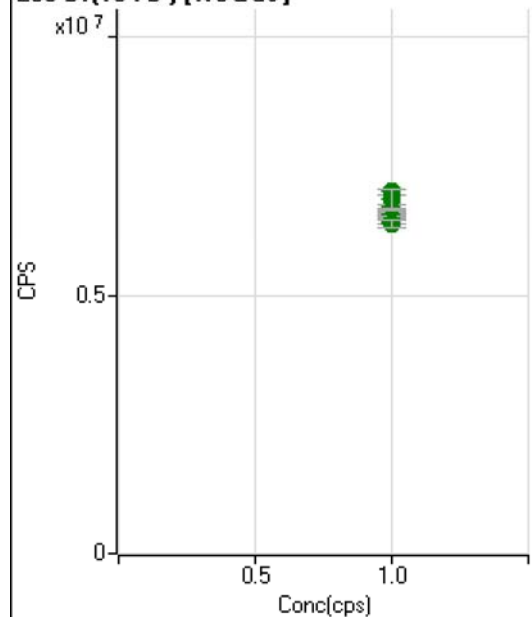
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1911110.72		A	2.1
2	☐	1.000					
3	☐	1.000		1900691.03		A	0.3
4	☐	1.000		1938563.06		A	2.0
5	☐	1.000		1953923.83		A	0.2
6	☐	1.000		1961524.14		A	2.1
7	☐	1.000		1977951.14		A	4.3
8	☐	1.000		1997339.97		A	0.5
9	☐	1.000		2024193.89		A	0.5

165 Ho(ISTD) [NoGas]

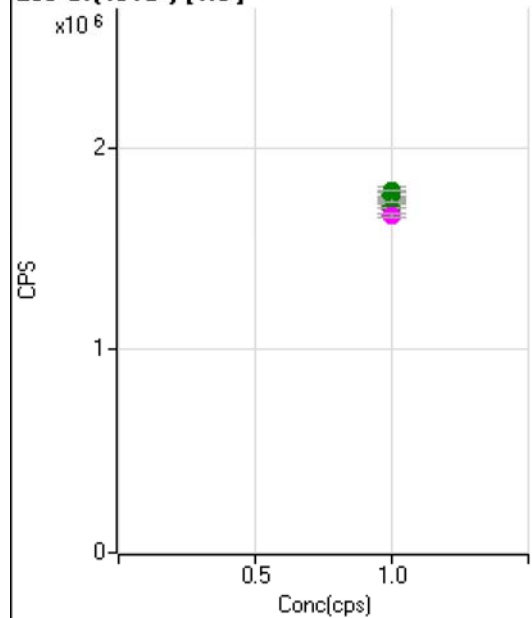
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9499123.74		A	0.9
2	☐	1.000					
3	☐	1.000		9503568.61		A	0.8
4	☐	1.000		9510103.60		A	2.3
5	☐	1.000		9699085.20		A	0.7
6	☐	1.000		9990151.27		A	0.7
7	☐	1.000		10510401.28		A	1.7
8	☐	1.000		10322649.54		A	6.1
9	☐	1.000		10069780.95		A	1.8

165 Ho(ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2014117.40		A	1.8
2	☐	1.000					
3	☐	1.000		2008975.96		A	0.3
4	☐	1.000		2044120.91		A	2.2
5	☐	1.000		2060785.02		A	0.8
6	☐	1.000		2089557.16		A	0.6
7	☐	1.000		2095480.33		A	4.3
8	☐	1.000		2121337.05		A	0.4
9	☐	1.000		2138316.25		A	0.9

209 Bi(ISTD) [NoGas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6521543.93		A	1.8
2	☐	1.000					
3	☐	1.000		6493375.39		A	0.9
4	☐	1.000		6427551.36		A	1.3
5	☐	1.000		6598583.10		A	1.0
6	☐	1.000		6740457.82		A	0.7
7	☐	1.000		7021551.28		A	1.3
8	☐	1.000		6877631.22		A	6.2
9	☐	1.000		6408426.09		A	2.4

209 Bi(ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1691489.64		M	4.6
2	☐	1.000					
3	☐	1.000		1709331.71		A	1.0
4	☐	1.000		1763427.32		A	3.0
5	☐	1.000		1751904.04		A	0.6
6	☐	1.000		1759398.22		A	2.4
7	☐	1.000		1765745.37		A	4.4
8	☐	1.000		1784467.20		A	0.2
9	☐	1.000		1662488.12		M	1.3

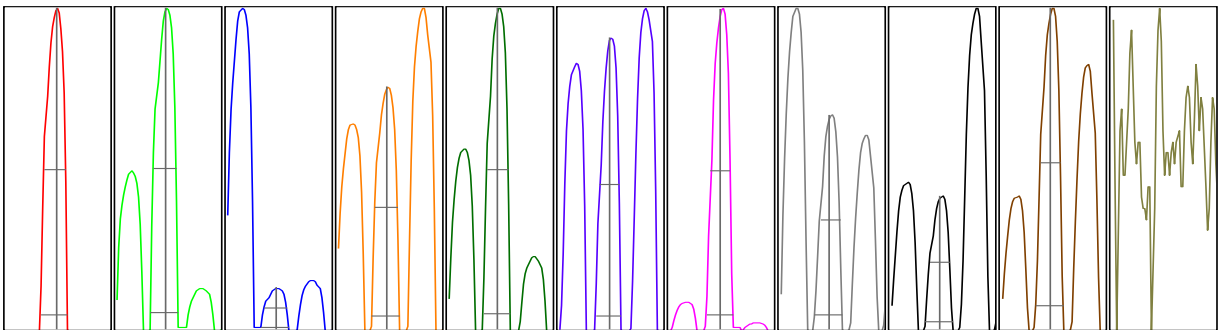
US EPA Tune Check Sample Report

Batch Folder D:\P8080918-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	5641	0.92	5.00	
24	93122	0.74	5.00	
25	12394	0.54	5.00	
26	14459	0.37	5.00	
59	58398	0.51	5.00	
113	8169	0.81	5.00	
115	101536	0.88	5.00	
206	25854	1.02	5.00	
207	23539	1.46	5.00	
208	56091	1.42	5.00	
220	1	27.41		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	5694	5605	5701	5605	5599
24	93693	92260	93618	93539	92501
25	12475	12290	12407	12416	12383
26	14506	14373	14477	14493	14445
59	58360	57918	58494	58716	58502
113	8070	8149	8229	8229	8169
115	101099	100472	102856	101430	101822
206	25779	25454	26013	25871	26151
207	23530	22967	23709	23620	23869
208	55928	54792	56732	56325	56680
220	1	1	1	1	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	9722	9.00	8.9 - 9.1		0.777	0.900	
24	153469	23.95	23.9 - 24.1		0.786	0.900	
25	20405	24.95	24.9 - 25.1		0.787	0.900	
26	24040	25.95	25.9 - 26.1		0.785	0.900	
59	101027	58.95	58.9 - 59.1		0.778	0.900	
113	15328	113.00	112.9 - 113.1		0.729	0.900	
115	188070	115.00	114.9 - 115.1		0.769	0.900	
206	46518	205.95	205.9 - 206.1		0.785	0.900	
207	42247	206.95	206.9 - 207.1		0.773	0.900	
208	101432	207.95	207.9 - 208.1		0.780	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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	11.0	V	Deflect	13.4	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-110	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	7033	0.91	
89	6851	0.93	
205	11756	0.81	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	7035	7136	7035	6976	6986
89	6853	6949	6774	6824	6858
205	11792	11867	11691	11801	11628

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	11.0	V	Deflect	2.2	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-110	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	5.0	mL/min	OctP RF	200	V			