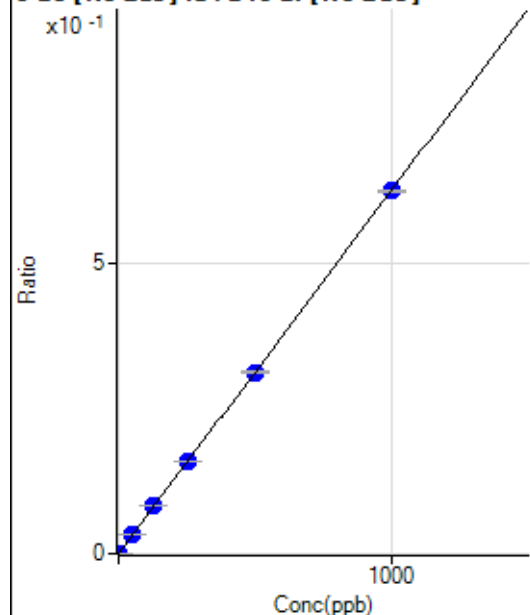


Calibration for 003CALB.d

Batch Folder: D:\ICP-MS Data\P7070219MS .b\
 Analysis File: P7070219MS .batch.bin
 DA Date-Time: 2019-07-03 00:26:21
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-07-02 16:24:20
2			
3	005CALS.d	S02	2019-07-02 16:31:54
4	006CALS.d	S03	2019-07-02 16:35:51
5	007CALS.d	S04	2019-07-02 16:39:48
6	008CALS.d	S05	2019-07-02 16:43:45
7	009CALS.d	S06	2019-07-02 16:47:40
8	010CALS.d	S07	2019-07-02 16:51:35
9	011CALS.d	S08	2019-07-02 16:55:28

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0000	P	28.2
2	☐	0.100					
3	☐	1.000	1.025	405.57	0.0007	P	4.6
4	☐	50.000	54.044	19364.74	0.0338	P	3.4
5	☐	125.000	134.011	49015.55	0.0837	P	1.2
6	☐	250.000	253.279	89219.93	0.1581	P	1.3
7	☐	500.000	498.794	175716.70	0.3114	P	1.0
8	☐	1000.000	998.455	340517.70	0.6233	P	0.8
9	☐			100.00	0.0002	P	12.7

$$y = 6.2420\text{E-}004 * x + 4.7093\text{E-}005$$

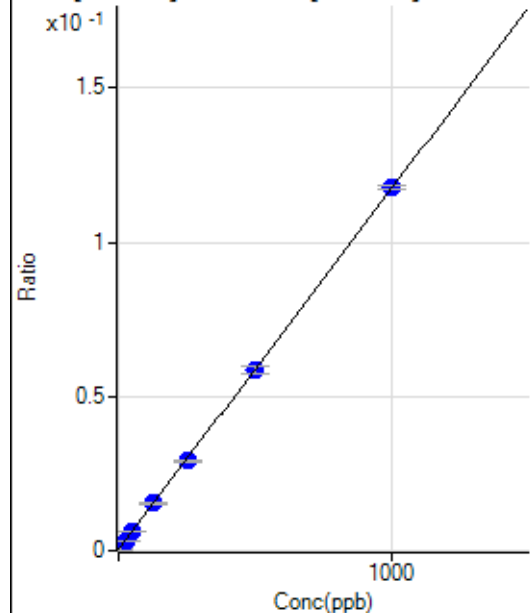
$$R = 1.0000$$

$$DL = 0.0639$$

$$BEC = 0.07545$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	211.12	0.0004	P	39.6
2	☐	2.500					
3	☐	25.000	22.530	1769.61	0.0030	P	3.7
4	☐	50.000	50.688	3608.91	0.0063	P	2.4
5	☐	125.000	128.551	9025.25	0.0154	P	2.2
6	☐	250.000	245.898	16448.40	0.0292	P	1.8
7	☐	500.000	497.717	33098.16	0.0586	P	3.9
8	☐	1000.000	1001.751	64284.30	0.1177	P	1.0
9	☐			4220.19	0.0086	P	8.3

$$y = 1.1710\text{E-}004 * x + 3.5786\text{E-}004$$

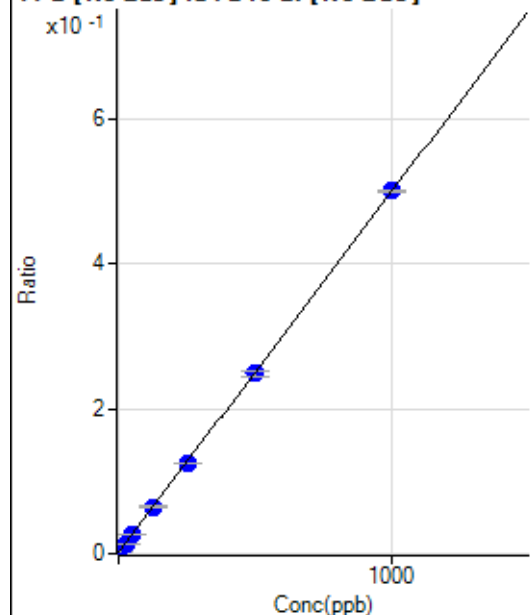
$$R = 1.0000$$

$$DL = 3.634$$

$$BEC = 3.056$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1069.53	0.0018	P	7.2
2	☐	2.500					
3	☐	25.000	22.211	7602.23	0.0129	P	6.0
4	☐	50.000	50.071	15338.87	0.0268	P	5.3
5	☐	125.000	126.145	37864.95	0.0647	P	1.4
6	☐	250.000	247.400	70556.66	0.1251	P	1.6
7	☐	500.000	496.981	140769.96	0.2494	P	3.2
8	☐	1000.000	1002.083	273733.66	0.5010	P	0.5
9	☐			17975.26	0.0368	P	8.4

$$y = 4.9819\text{E-}004 * x + 0.0018$$

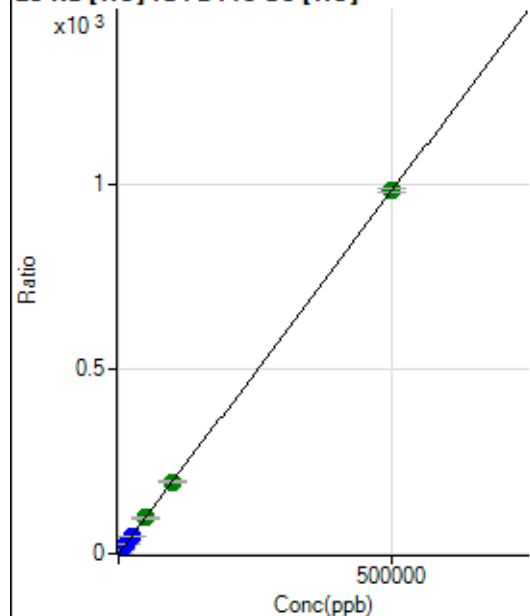
$$R = 1.0000$$

$$DL = 0.7891$$

$$BEC = 3.636$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1380.67	0.0413	P	11.5
2	☐	50.000					
3	☐	500.000	516.157	33942.01	1.0533	P	3.9
4	☐	5000.000	5228.039	342051.27	10.2921	P	0.4
5	☐	12500.000	12998.185	841646.32	25.5274	P	1.3
6	☐	25000.000	24504.898	1522967.83	48.0892	P	0.4
7	☐	50000.000	49121.547	3067886.79	96.3563	A	0.8
8	☐	100000.00	98680.015	6209490.50	193.5279	A	1.8
9	☐	500000.00	500361.84	27548920.0	981.1249	A	0.9

$$y = 0.0020 * x + 0.0413$$

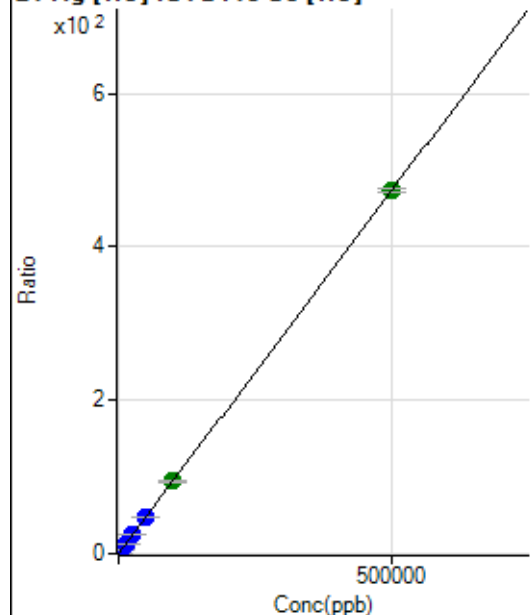
$$R = 1.0000$$

$$DL = 7.262$$

$$BEC = 21.05$$

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	122.23	0.0036	P	24.9
2	☐	50.000					
3	☐	500.000	556.675	17096.44	0.5303	P	4.0
4	☐	5000.000	5420.779	170565.46	5.1325	P	1.2
5	☐	12500.000	13478.674	420570.94	12.7564	P	1.5
6	☐	25000.000	25798.581	773132.76	24.4127	P	0.7
7	☐	50000.000	50347.094	1516820.14	47.6390	P	0.6
8	☐	100000.00	99890.613	3032764.72	94.5141	A	1.3
9	☐	500000.00	499918.50	13281135.5	472.9965	A	1.1

$$y = 9.4614\text{E-}004 * x + 0.0036$$

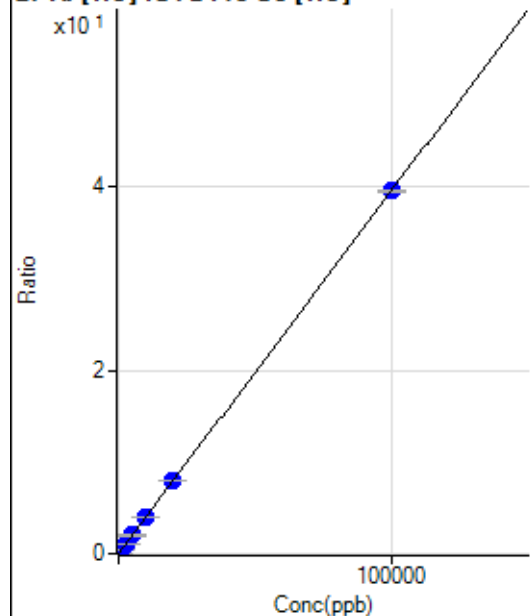
$$R = 1.0000$$

$$DL = 2.885$$

$$BEC = 3.855$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.56	0.0002	P	173.
2	☐	2.000					
3	☐	20.000	20.544	266.68	0.0083	P	20.0
4	☐	1000.000	1081.839	14218.38	0.4278	P	1.1
5	☐	2500.000	2623.818	34201.05	1.0373	P	2.6
6	☐	5000.000	5035.922	63052.91	1.9908	P	2.3
7	☐	10000.000	10096.569	127089.07	3.9913	P	0.1
8	☐	20000.000	20140.828	255456.54	7.9617	P	1.8
9	☐	100000.00	99956.467	1109491.77	39.5122	P	0.3

$$y = 3.9529\text{E-}004 * x + 1.6828\text{E-}004$$

$$R = 1.0000$$

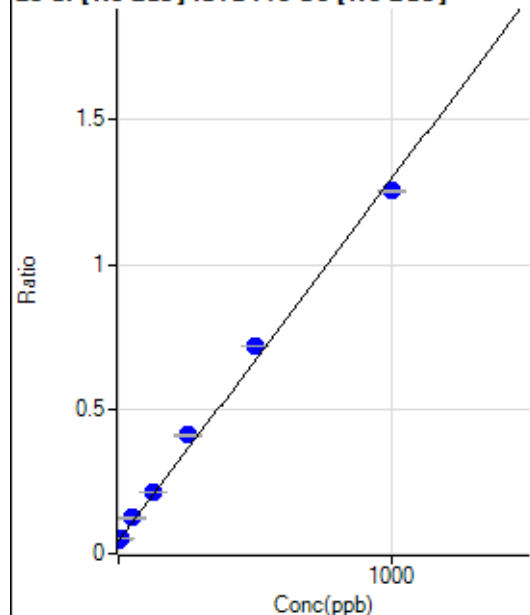
$$DL = 2.212$$

$$BEC = 0.4257$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31990.67	0.0435	P	1.2
2	☐	1.000					
3	☐	10.000	8.883	39631.16	0.0546	P	1.5
4	☐	50.000	63.762	86471.52	0.1232	P	2.9
5	☐	125.000	137.549	156346.80	0.2156	P	0.3
6	☐	250.000	293.086	284779.44	0.4102	P	1.4
7	☐	500.000	538.877	492403.24	0.7177	P	0.4
8	☐	1000.000	967.545	834741.97	1.2540	P	0.7
9	☐			76084.93	0.1291	P	1.5

$$y = 0.0013 * x + 0.0435$$

$$R = 0.9977$$

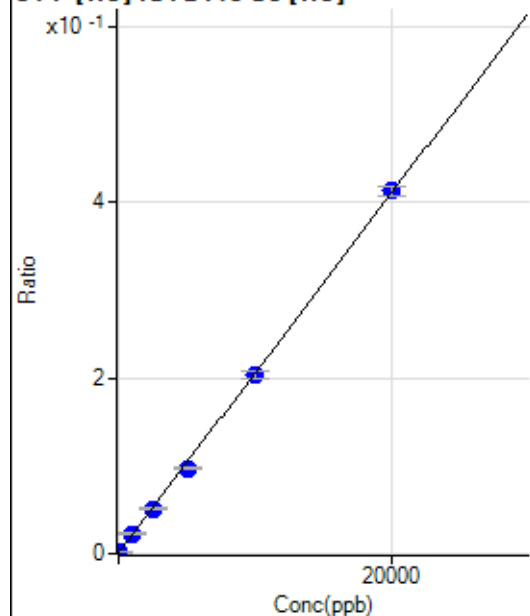
$$DL = 1.25$$

$$BEC = 34.74$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-23.799	16.67	0.0005	P	86.6
2	☐	0.000					
3	☐	0.000	23.799	47.23	0.0015	P	22.1
4	☐	1000.000	1062.867	755.61	0.0227	P	5.7
5	☐	2500.000	2451.972	1686.28	0.0512	P	7.0
6	☐	5000.000	4682.004	3064.34	0.0968	P	2.9
7	☐	10000.000	9915.487	6490.55	0.2039	P	4.2
8	☐	20000.000	20124.616	13242.45	0.4127	P	2.9
9	☐			16.67	0.0006	P	50.5

$$y = 2.0460E-005 * x + 9.8159E-004$$

$$R = 0.9998$$

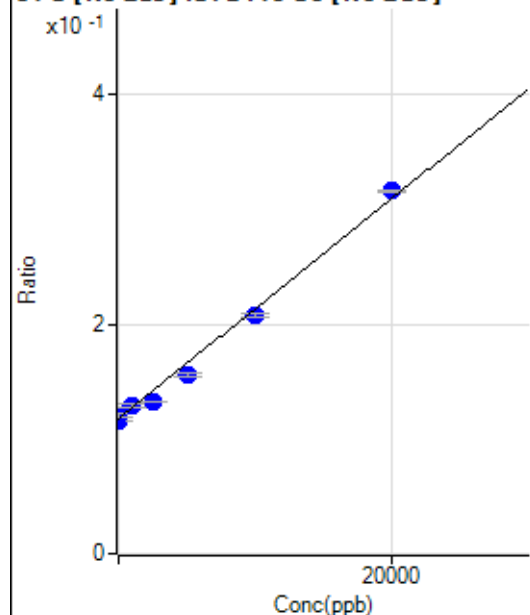
$$DL = 55.25$$

$$BEC = 47.98$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-271.847	84986.29	0.1155	P	0.3
2	☐	0.000					
3	☐	0.000	271.847	87607.03	0.1207	P	2.4
4	☐	1000.000	1165.385	90677.94	0.1292	P	3.4
5	☐	2500.000	1471.603	95866.04	0.1322	P	0.6
6	☐	5000.000	3923.864	108072.92	0.1557	P	1.9
7	☐	10000.000	9365.689	142550.51	0.2078	P	1.4
8	☐	20000.000	20706.470	210625.92	0.3164	P	0.4
9	☐			70157.04	0.1190	P	1.5

$$y = 9.5783\text{E-}006 * x + 0.1181$$

$$R = 0.9964$$

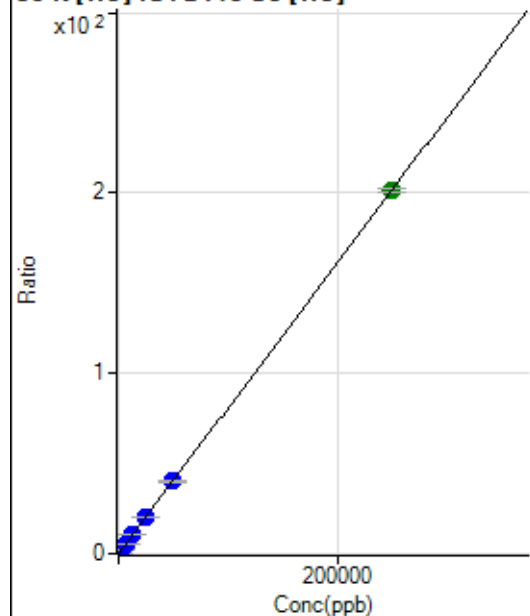
$$DL = 503$$

$$BEC = 1.233\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2669.78	0.0798	P	2.9
2	☐	50.000					
3	☐	500.000	525.653	16201.07	0.5026	P	1.3
4	☐	2500.000	2681.928	74338.86	2.2369	P	1.3
5	☐	6250.000	6653.656	179088.45	5.4314	P	1.1
6	☐	12500.000	12572.987	322793.52	10.1923	P	0.6
7	☐	25000.000	25319.690	650916.06	20.4445	P	1.1
8	☐	50000.000	49897.850	1290276.87	40.2129	P	1.8
9	☐	250000.00	249972.85	5647627.64	201.1341	A	0.9

$$y = 8.0430\text{E-}004 * x + 0.0798$$

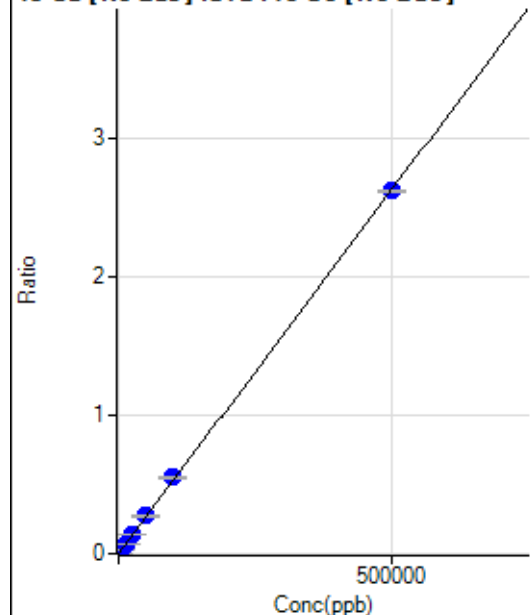
$$R = 1.0000$$

$$DL = 8.638$$

$$BEC = 99.2$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.67	0.0000	P	49.5
2	☐	50.000					
3	☐	500.000	504.604	1939.09	0.0027	P	6.2
4	☐	5000.000	5589.494	20595.57	0.0294	P	3.2
5	☐	12500.000	13405.571	51044.35	0.0704	P	1.3
6	☐	25000.000	25866.366	94271.48	0.1358	P	1.1
7	☐	50000.000	51594.193	185773.98	0.2708	P	0.8
8	☐	100000.00	104757.43	365996.08	0.5498	P	0.8
9	☐	500000.00	498817.23	1543512.25	2.6179	P	0.7

$$y = 5.2482\text{E-}006 * x + 2.2593\text{E-}005$$

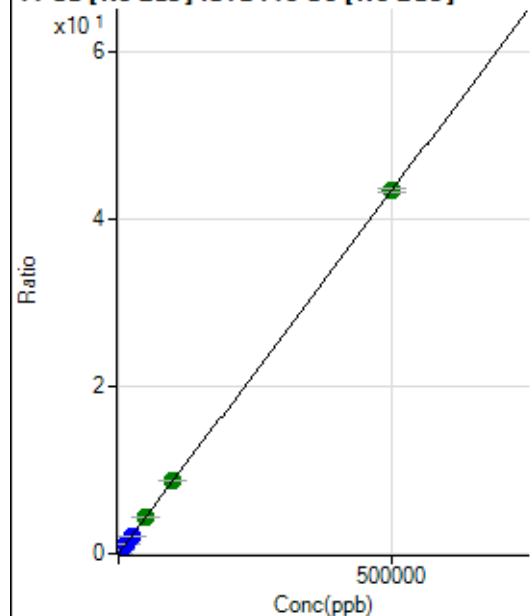
$$R = 1.0000$$

$$DL = 6.39$$

$$BEC = 4.305$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	833.39	0.0011	P	15.5
2	☐	50.000					
3	☐	500.000	489.867	31690.39	0.0437	P	2.7
4	☐	5000.000	5314.171	324503.24	0.4624	P	1.8
5	☐	12500.000	12753.337	803764.51	1.1082	P	0.5
6	☐	25000.000	24544.997	1480148.05	2.1318	P	1.0
7	☐	50000.000	49561.189	2952204.19	4.3034	A	0.9
8	☐	100000.00	100331.67	5798216.53	8.7106	A	0.4
9	☐	500000.00	499990.83	25590467.2	43.4036	A	1.0

$$y = 8.6806\text{E-}005 * x + 0.0011$$

$$R = 1.0000$$

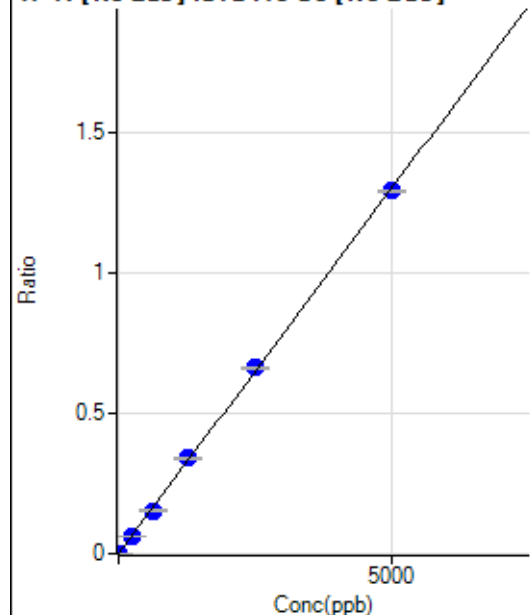
$$DL = 6.079$$

$$BEC = 13.05$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19.44	0.0000	P	99.7
2	☐	0.500					
3	☐	5.000	4.404	852.84	0.0012	P	12.3
4	☐	250.000	242.374	44314.68	0.0632	P	2.6
5	☐	625.000	590.470	111571.80	0.1538	P	1.2
6	☐	1250.000	1311.078	237144.38	0.3415	P	1.2
7	☐	2500.000	2542.149	454234.98	0.6622	P	1.9
8	☐	5000.000	4968.354	861515.36	1.2942	P	0.2
9	☐			225.01	0.0004	P	9.2

$$y = 2.6049\text{E-}004 * x + 2.6545\text{E-}005$$

$$R = 0.9998$$

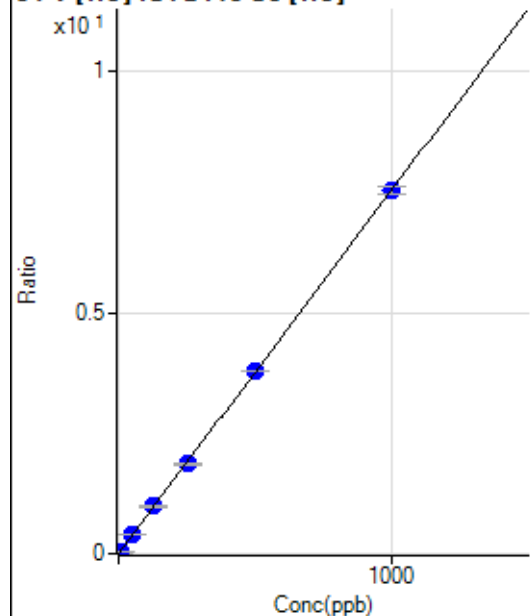
$$DL = 0.3047$$

$$BEC = 0.1019$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	5.447	1322.30	0.0411	P	12.9
4	☐	50.000	52.718	13201.63	0.3972	P	1.0
5	☐	125.000	129.815	32256.54	0.9781	P	1.0
6	☐	250.000	246.448	58804.36	1.8569	P	1.2
7	☐	500.000	503.160	120710.50	3.7911	P	0.5
8	☐	1000.000	998.568	241397.67	7.5238	P	2.2
9	☐			31.11	0.0011	P	26.6

$$y = 0.0075 * x + 3.3616\text{E-}005$$

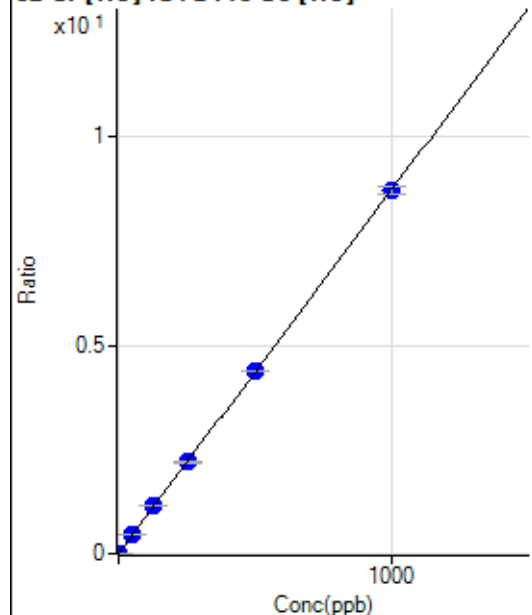
$$R = 1.0000$$

$$DL = 0.02318$$

$$BEC = 0.004462$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	67.78	0.0020	P	16.6
2	☐	0.200					
3	☐	2.000	2.139	667.80	0.0207	P	5.3
4	☐	50.000	52.612	15340.36	0.4615	P	1.6
5	☐	125.000	131.852	38040.31	1.1536	P	1.4
6	☐	250.000	251.475	69621.04	2.1984	P	0.9
7	☐	500.000	502.357	139771.35	4.3897	P	0.5
8	☐	1000.000	997.465	279589.37	8.7140	P	2.0
9	☐			1974.61	0.0703	P	4.0

$$y = 0.0087 * x + 0.0020$$

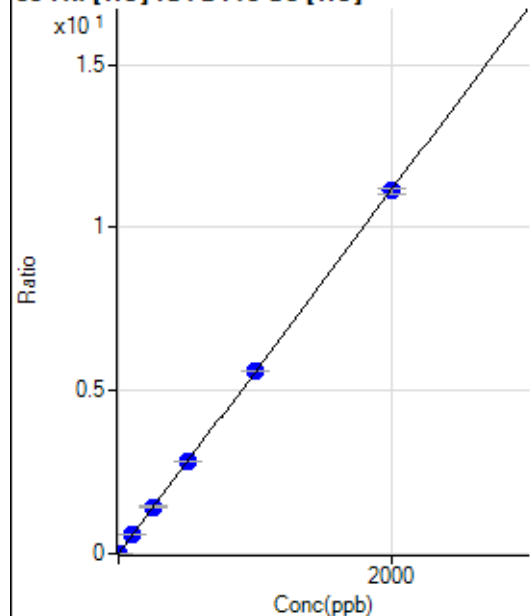
$$R = 1.0000$$

$$DL = 0.1155$$

$$BEC = 0.2317$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.89	0.0003	P	22.4
2	☐	0.100					
3	☐	1.000	0.990	186.67	0.0058	P	12.0
4	☐	100.000	104.000	19283.94	0.5802	P	0.5
5	☐	250.000	258.223	47486.51	1.4403	P	1.6
6	☐	500.000	504.088	89038.37	2.8114	P	0.4
7	☐	1000.000	1006.060	178645.17	5.6107	P	0.6
8	☐	2000.000	1994.720	356928.73	11.1242	P	1.7
9	☐			817.81	0.0291	P	4.9

$$y = 0.0056 * x + 2.6598E-004$$

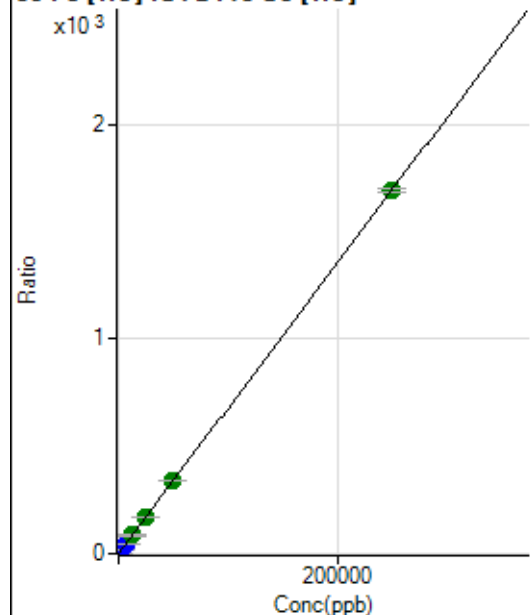
$$R = 1.0000$$

$$DL = 0.03203$$

$$BEC = 0.0477$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	501.88	0.0150	P	18.4
2	☐	5.000					
3	☐	50.000	57.483	13028.30	0.4042	P	2.4
4	☐	2500.000	2746.169	618459.88	18.6090	P	0.4
5	☐	6250.000	6741.041	1505406.49	45.6577	P	1.2
6	☐	12500.000	12624.711	2707530.15	85.4952	A	0.8
7	☐	25000.000	25375.155	5470967.65	171.8268	A	0.6
8	☐	50000.000	50206.336	10908222.4	339.9554	A	1.4
9	☐	250000.00	249900.24	47510905.2	1,692.056	A	1.0

$$y = 0.0068 * x + 0.0150$$

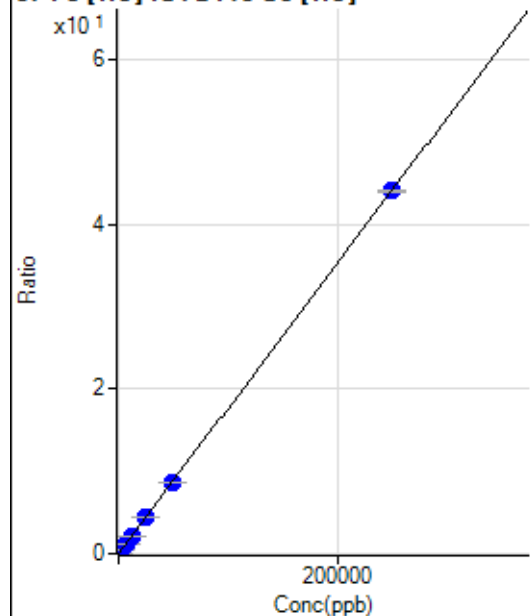
$$R = 1.0000$$

$$DL = 1.221$$

$$BEC = 2.217$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.93	0.0008	P	75.0
2	☐	5.000					
3	☐	50.000	48.107	298.16	0.0092	P	6.0
4	☐	2500.000	2672.341	15656.88	0.4711	P	1.2
5	☐	6250.000	6674.995	38760.86	1.1756	P	1.4
6	☐	12500.000	12446.730	69399.00	2.1915	P	1.5
7	☐	25000.000	24881.243	139453.91	4.3801	P	1.1
8	☐	50000.000	49272.213	278290.59	8.6731	P	1.5
9	☐	250000.00	250147.74	1236310.10	44.0290	P	0.5

$$y = 1.7601E-004 * x + 7.7651E-004$$

$$R = 1.0000$$

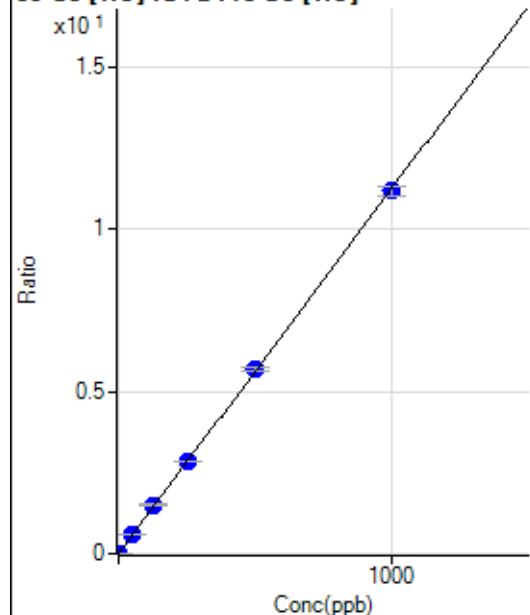
$$DL = 9.926$$

$$BEC = 4.412$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6.67	0.0002	P	49.4
2	☐	0.100					
3	☐	1.000	1.126	414.46	0.0129	P	6.0
4	☐	50.000	53.547	20029.39	0.6026	P	1.2
5	☐	125.000	134.165	49773.09	1.5096	P	1.2
6	☐	250.000	254.520	90688.02	2.8636	P	0.8
7	☐	500.000	506.134	181295.34	5.6944	P	1.2
8	☐	1000.000	994.480	358968.72	11.1884	P	2.4
9	☐			3791.65	0.1350	P	3.8

$$y = 0.0113 * x + 1.9898E-004$$

$$R = 0.9999$$

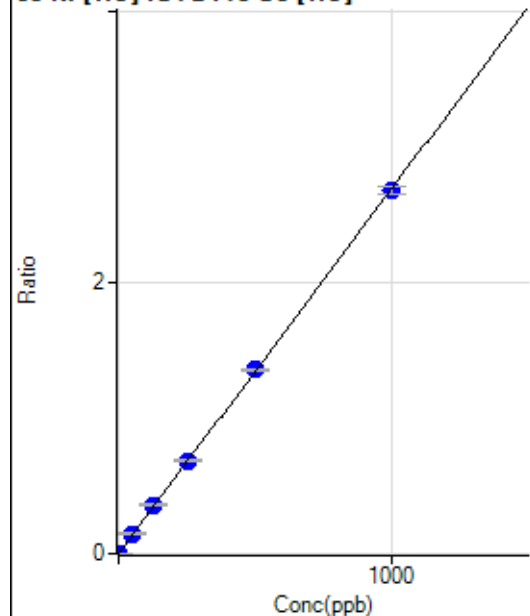
$$DL = 0.02622$$

$$BEC = 0.01769$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10.00	0.0003	P	88.0
2	☐	0.100					
3	☐	1.000	1.044	100.00	0.0031	P	24.3
4	☐	50.000	55.231	4947.58	0.1489	P	2.8
5	☐	125.000	132.771	11783.77	0.3574	P	2.4
6	☐	250.000	254.298	21672.86	0.6843	P	1.6
7	☐	500.000	505.486	43300.51	1.3600	P	0.8
8	☐	1000.000	994.950	85878.38	2.6766	P	2.1
9	☐			1070.06	0.0381	P	12.3

$$y = 0.0027 * x + 2.9792E-004$$

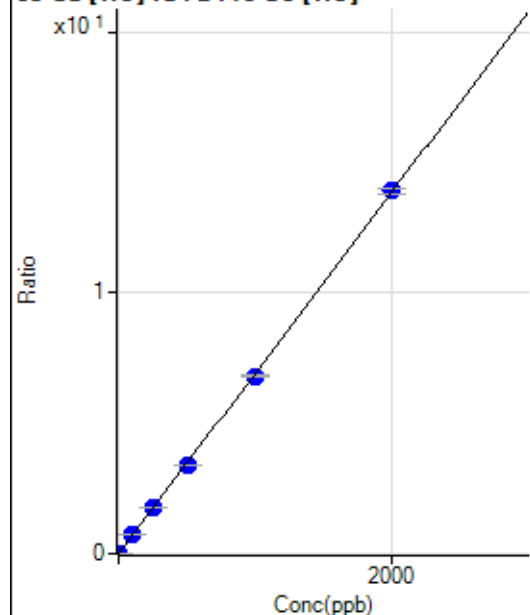
$$R = 0.9999$$

$$DL = 0.2925$$

$$BEC = 0.1108$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.34	0.0019	P	19.5
2	☐	0.200					
3	☐	2.000	2.044	517.79	0.0160	P	5.7
4	☐	100.000	105.232	24284.79	0.7307	P	1.8
5	☐	250.000	259.526	59329.78	1.7993	P	0.8
6	☐	500.000	490.238	107580.67	3.3971	P	1.5
7	☐	1000.000	981.835	216562.62	6.8018	P	0.8
8	☐	2000.000	2010.071	446740.57	13.9230	P	1.6
9	☐			450.02	0.0160	P	17.6

$$y = 0.0069 * x + 0.0019$$

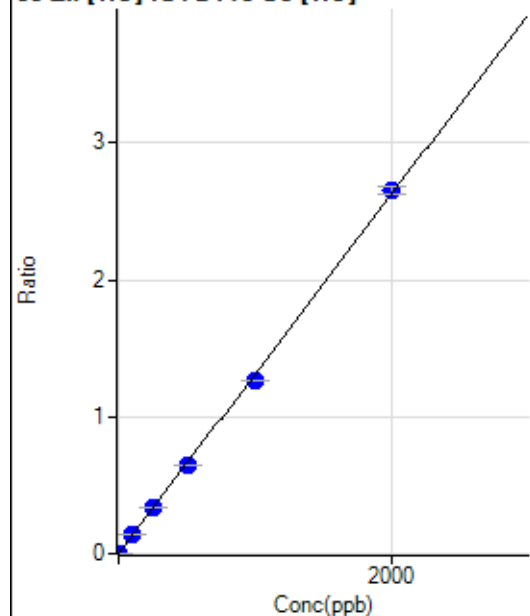
$$R = 0.9999$$

$$DL = 0.1601$$

$$BEC = 0.2737$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	31.11	0.0009	P	50.1
2	☐	0.200					
3	☐	2.000	1.869	108.89	0.0034	P	6.7
4	☐	100.000	101.789	4470.75	0.1345	P	1.0
5	☐	250.000	257.444	11169.96	0.3388	P	2.2
6	☐	500.000	491.748	20470.06	0.6463	P	0.1
7	☐	1000.000	965.951	40398.05	1.2687	P	0.3
8	☐	2000.000	2018.068	85012.08	2.6496	P	2.0
9	☐			507.79	0.0181	P	5.2

$$y = 0.0013 * x + 9.2625E-004$$

$$R = 0.9998$$

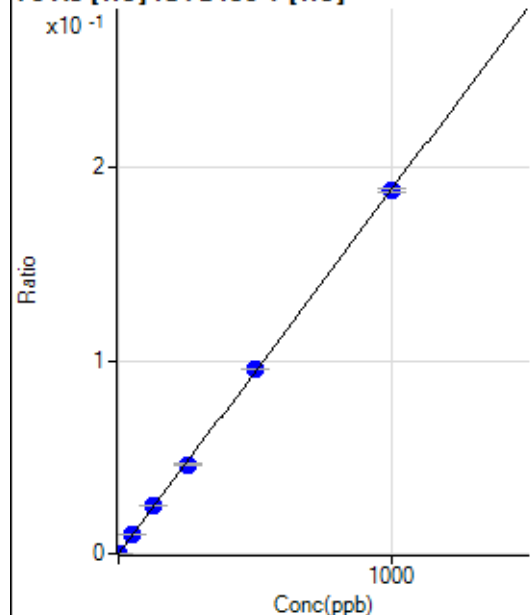
$$DL = 1.061$$

$$BEC = 0.7057$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.100					
3	☐	1.000	1.061	27.16	0.0002	P	27.6
4	☐	50.000	54.699	1439.59	0.0103	P	2.5
5	☐	125.000	132.773	3485.01	0.0250	P	1.4
6	☐	250.000	245.053	6302.65	0.0462	P	0.5
7	☐	500.000	507.001	12802.63	0.0956	P	0.6
8	☐	1000.000	996.530	25713.49	0.1880	P	1.0
9	☐			30.25	0.0003	P	24.7

$$y = 1.8865E-004 * x + 0.0000E+000$$

$$R = 0.9999$$

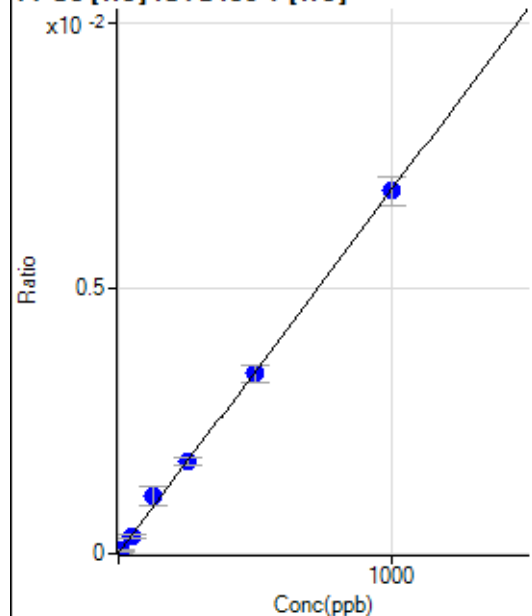
$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	7.214	7.78	0.0001	P	65.2
4	☐	50.000	48.955	47.78	0.0003	P	21.6
5	☐	125.000	157.322	151.11	0.0011	P	30.7
6	☐	250.000	250.487	234.45	0.0017	P	8.4
7	☐	500.000	496.380	455.57	0.0034	P	9.6
8	☐	1000.000	997.689	933.38	0.0068	P	8.0
9	☐			0.00	0.0000	P	

$$y = 6.8357E-006 * x + 7.9574E-006$$

$$R = 0.9994$$

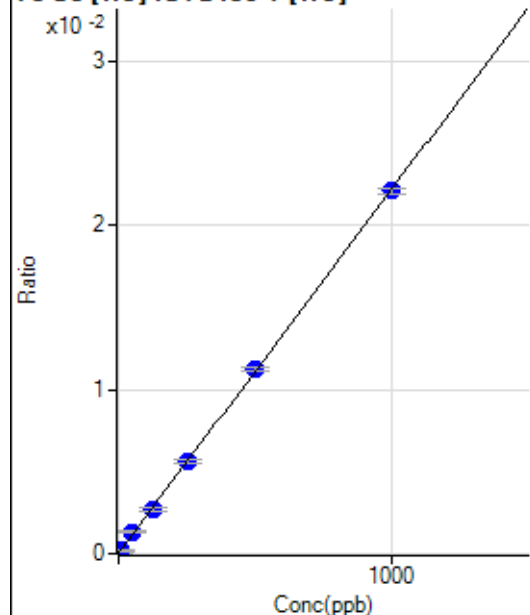
$$DL = 6.049$$

$$BEC = 1.164$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.94	0.0000	P	43.3
2	☐	0.500					
3	☐	5.000	6.430	24.08	0.0002	P	27.6
4	☐	50.000	57.429	182.10	0.0013	P	11.0
5	☐	125.000	118.691	370.38	0.0027	P	7.7
6	☐	250.000	250.857	761.14	0.0056	P	4.9
7	☐	500.000	507.701	1508.11	0.0113	P	2.2
8	☐	1000.000	996.346	3018.86	0.0221	P	1.5
9	☐			7.41	0.0001	P	43.2

$$y = 2.2118\text{E-}005 * x + 3.5201\text{E-}005$$

$$R = 0.9999$$

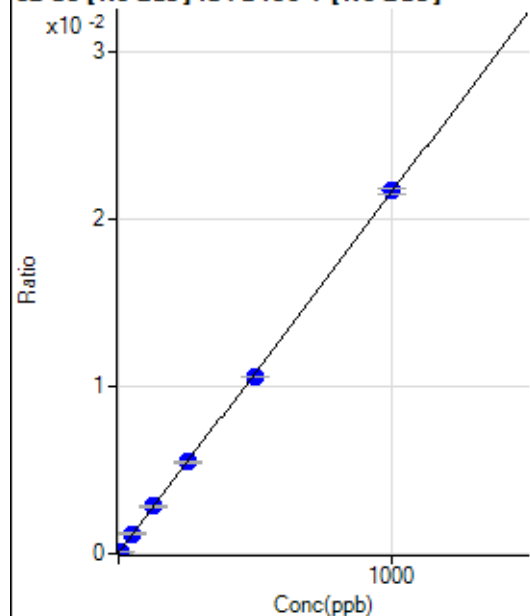
$$DL = 2.069$$

$$BEC = 1.591$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	18.44	0.0000	P	77.1
2	☐	0.500					
3	☐	5.000	4.619	108.28	0.0001	P	4.3
4	☐	50.000	53.791	1039.39	0.0012	P	6.0
5	☐	125.000	129.842	2595.73	0.0028	P	2.8
6	☐	250.000	252.592	4841.75	0.0055	P	1.3
7	☐	500.000	488.458	9503.95	0.0106	P	0.6
8	☐	1000.000	1004.330	18657.05	0.0217	P	1.4
9	☐			7.94	0.0000	P	116.

$$y = 2.1599\text{E-}005 * x + 2.0053\text{E-}005$$

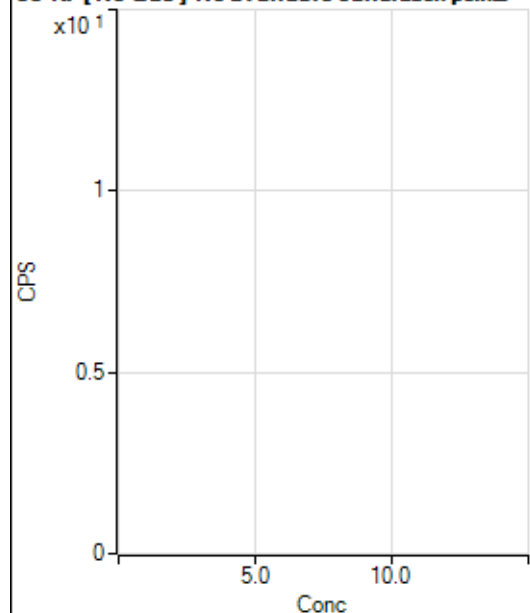
$$R = 0.9999$$

$$DL = 2.147$$

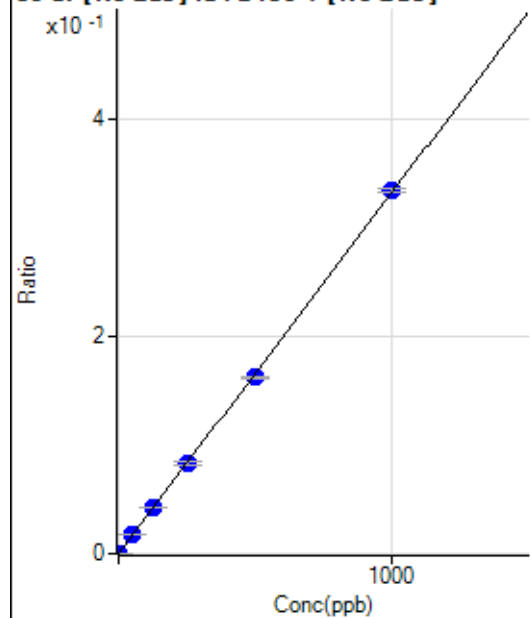
$$BEC = 0.9284$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			28.89		P	17.6
2	☐						
3	☐			41.11		P	20.4
4	☐			35.55		P	47.2
5	☐			44.44		P	49.9
6	☐			31.11		P	12.4
7	☐			25.56		P	39.8
8	☐			34.44		P	55.9
9	☐			45.56		P	30.5

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

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.23	0.0001	P	20.2
2	☐	0.100					
3	☐	1.000	1.033	355.57	0.0004	P	28.1
4	☐	50.000	52.520	15369.84	0.0175	P	5.9
5	☐	125.000	127.011	38792.17	0.0422	P	1.9
6	☐	250.000	249.610	73293.04	0.0829	P	3.1
7	☐	500.000	488.965	145973.92	0.1624	P	1.0
8	☐	1000.000	1005.237	286758.69	0.3337	P	1.1
9	☐			1075.08	0.0014	P	6.5

$$y = 3.3195E-004 * x + 5.1436E-005$$

$$R = 0.9999$$

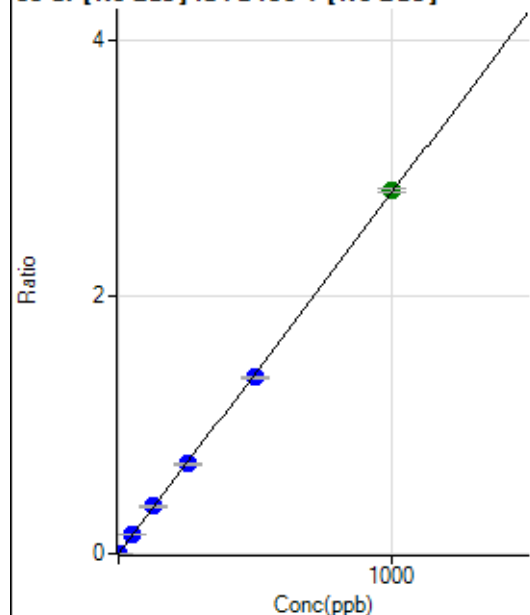
$$DL = 0.09411$$

$$BEC = 0.155$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	0.3
2	☐	0.100					
3	☐	1.000	0.986	2511.44	0.0028	P	3.7
4	☐	50.000	54.095	133739.19	0.1521	P	3.4
5	☐	125.000	130.763	337837.15	0.3676	P	0.5
6	☐	250.000	249.367	619793.70	0.7010	P	1.4
7	☐	500.000	487.884	1233186.41	1.3716	P	0.6
8	☐	1000.000	1005.291	2428344.28	2.8261	A	1.1
9	☐			8736.31	0.0114	P	3.1

$$y = 0.0028 * x + 9.0740E-006$$

$$R = 0.9999$$

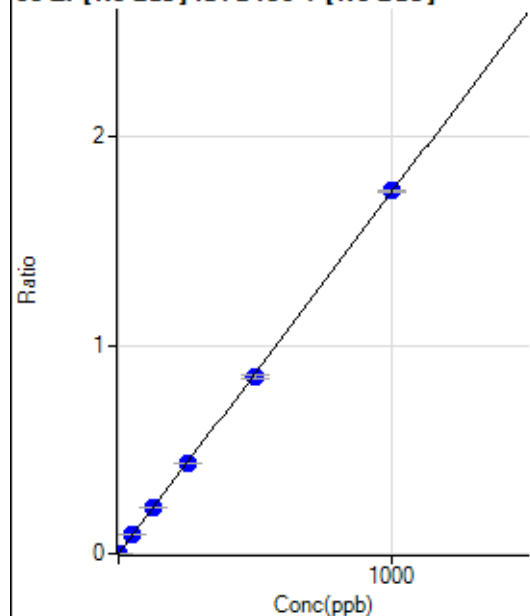
$$DL = 3.175E-05$$

$$BEC = 0.003228$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	63.89	0.0001	P	49.1
2	☐	0.100					
3	☐	1.000	0.970	1580.71	0.0018	P	11.4
4	☐	50.000	53.293	81266.50	0.0924	P	2.7
5	☐	125.000	128.539	204719.48	0.2228	P	0.9
6	☐	250.000	250.065	383111.55	0.4333	P	1.2
7	☐	500.000	490.507	764096.86	0.8499	P	1.5
8	☐	1000.000	1004.123	1494867.09	1.7397	P	0.7
9	☐			358.36	0.0005	P	6.3

$$y = 0.0017 * x + 6.9543E-005$$

$$R = 0.9999$$

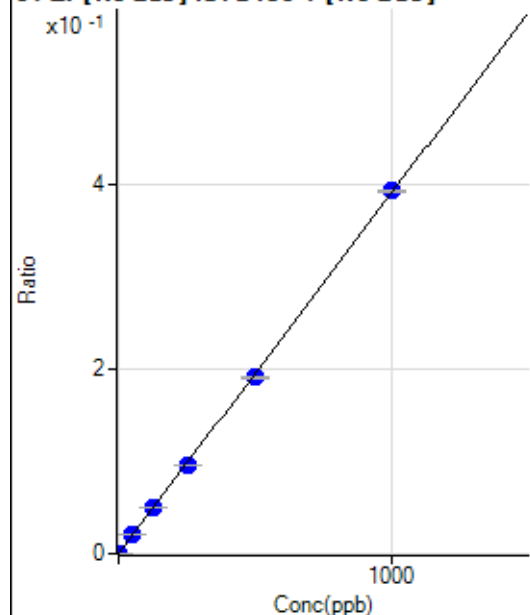
$$DL = 0.05918$$

$$BEC = 0.04014$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	11.11	0.0000	P	43.1
2	☐	0.100					
3	☐	1.000	0.994	361.13	0.0004	P	10.3
4	☐	50.000	52.379	17973.01	0.0204	P	5.9
5	☐	125.000	126.845	45489.85	0.0495	P	0.8
6	☐	250.000	246.898	85180.50	0.0963	P	0.4
7	☐	500.000	488.664	171414.54	0.1907	P	1.1
8	☐	1000.000	1006.094	337285.51	0.3925	P	0.7
9	☐			77.78	0.0001	P	37.8

$$y = 3.9014\text{E-}004 * x + 1.2095\text{E-}005$$

$$R = 0.9999$$

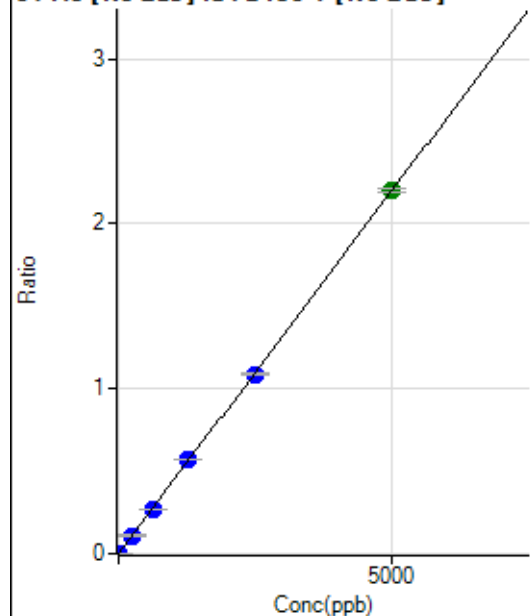
$$DL = 0.0401$$

$$BEC = 0.031$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41.67	0.0000	P	19.9
2	☐	0.500					
3	☐	5.000	4.144	1686.28	0.0019	P	9.7
4	☐	250.000	250.148	96690.24	0.1099	P	3.0
5	☐	625.000	605.326	244427.75	0.2660	P	0.9
6	☐	1250.000	1299.704	504861.64	0.5710	P	0.9
7	☐	2500.000	2473.489	976955.64	1.0867	P	1.3
8	☐	5000.000	5003.282	1888709.09	2.1981	A	0.9
9	☐			619.49	0.0008	P	9.0

$$y = 4.3932\text{E-}004 * x + 4.5385\text{E-}005$$

$$R = 0.9999$$

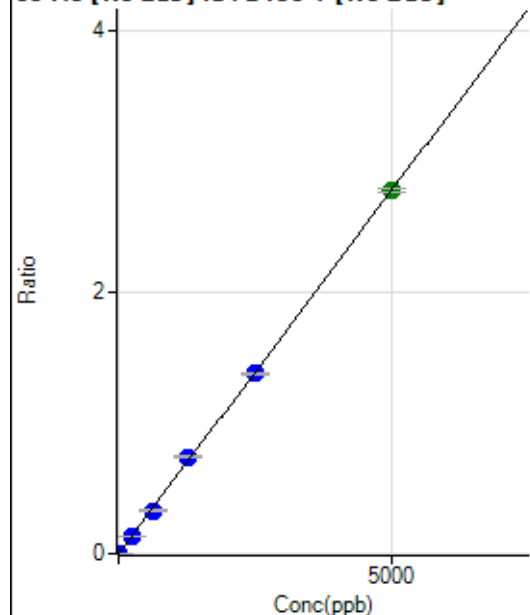
$$DL = 0.06176$$

$$BEC = 0.1033$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.78	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	4.663	2339.19	0.0026	P	5.1
4	☐	250.000	241.150	117600.38	0.1337	P	3.4
5	☐	625.000	594.676	303057.00	0.3298	P	1.4
6	☐	1250.000	1336.823	655405.91	0.7413	P	1.6
7	☐	2500.000	2475.999	1234484.39	1.3731	P	0.9
8	☐	5000.000	4994.528	2379876.62	2.7697	A	1.1
9	☐			841.73	0.0011	P	8.7

$$y = 5.5455\text{E-}004 * x + 3.0177\text{E-}006$$

$$R = 0.9998$$

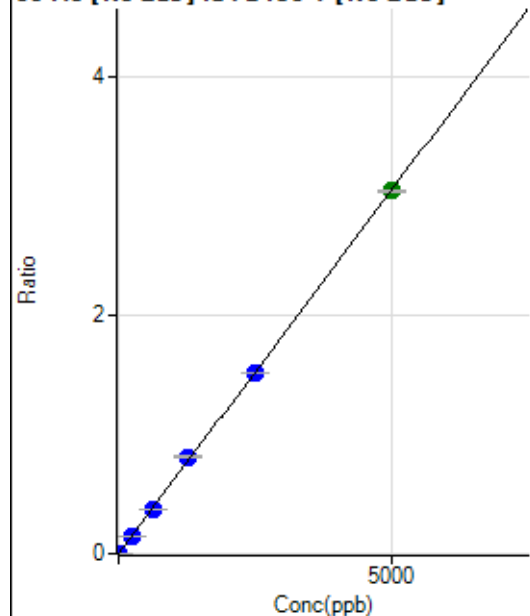
$$DL = 0.02828$$

$$BEC = 0.005442$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	25.00	0.0000	P	57.8
2	☐	0.500					
3	☐	5.000	4.527	2517.01	0.0028	P	7.7
4	☐	250.000	246.389	132134.32	0.1502	P	2.8
5	☐	625.000	597.515	334792.80	0.3643	P	0.7
6	☐	1250.000	1330.137	716982.27	0.8110	P	1.3
7	☐	2500.000	2485.000	1362139.55	1.5150	P	0.7
8	☐	5000.000	4991.082	2614648.89	3.0429	A	0.7
9	☐			1169.55	0.0015	P	17.8

$$y = 6.0966\text{E-}004 * x + 2.7250\text{E-}005$$

$$R = 0.9998$$

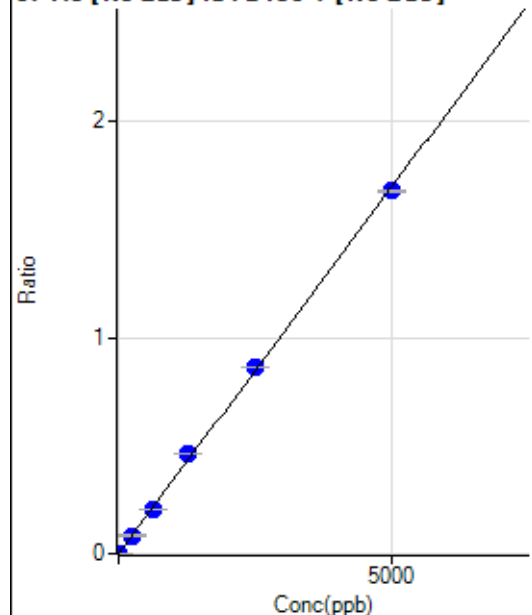
$$DL = 0.07755$$

$$BEC = 0.0447$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	99.8
2	☐	0.500					
3	☐	5.000	4.038	1244.55	0.0014	P	1.5
4	☐	250.000	246.996	73617.58	0.0837	P	3.3
5	☐	625.000	603.105	187835.68	0.2044	P	1.2
6	☐	1250.000	1365.405	409115.09	0.4627	P	0.8
7	☐	2500.000	2545.145	775475.43	0.8625	P	0.9
8	☐	5000.000	4951.464	1441840.93	1.6780	P	0.8
9	☐			458.36	0.0006	P	1.8

$$y = 3.3889\text{E-}004 * x + 9.0749\text{E-}006$$

$$R = 0.9996$$

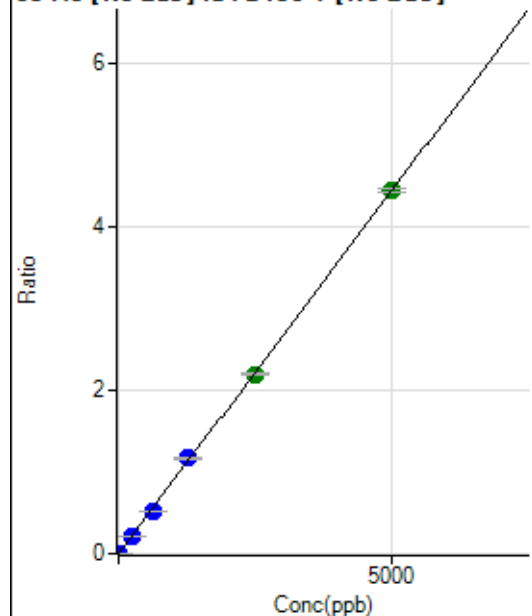
$$DL = 0.08019$$

$$BEC = 0.02678$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	78.0
2	☐	0.500					
3	☐	5.000	4.376	3531.14	0.0039	P	4.0
4	☐	250.000	243.306	189881.72	0.2159	P	3.0
5	☐	625.000	593.619	484077.30	0.5267	P	0.7
6	☐	1250.000	1319.802	1035353.02	1.1711	P	1.6
7	☐	2500.000	2472.022	1972065.13	2.1935	A	1.0
8	☐	5000.000	5000.797	3812734.51	4.4373	A	1.2
9	☐			1277.89	0.0017	P	19.7

$$y = 8.8731\text{E-}004 * x + 2.4184\text{E-}005$$

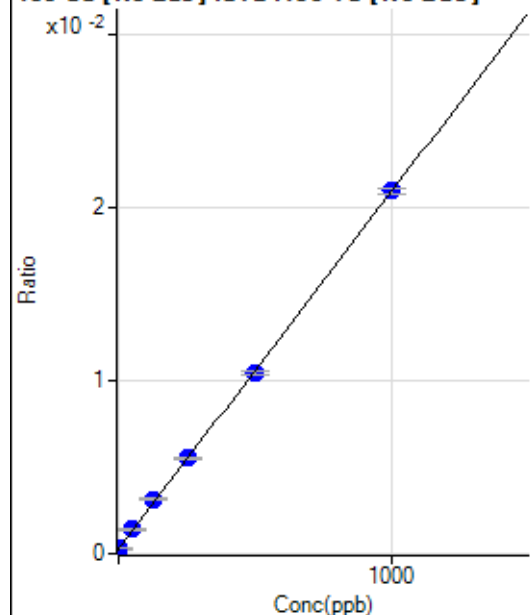
$$R = 0.9998$$

$$DL = 0.06375$$

$$BEC = 0.02726$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	313.90	0.0003	P	26.0
2	☐	0.100					
3	☐	1.000	3.913	400.02	0.0004	P	16.2
4	☐	50.000	54.045	1539.03	0.0014	P	4.4
5	☐	125.000	138.343	3689.54	0.0031	P	3.1
6	☐	250.000	255.138	6440.62	0.0055	P	1.8
7	☐	500.000	490.137	12394.78	0.0104	P	2.0
8	☐	1000.000	1001.774	24460.79	0.0210	P	1.8
9	☐			325.02	0.0003	P	11.0

$$y = 2.0650\text{E-}005 * x + 2.7492\text{E-}004$$

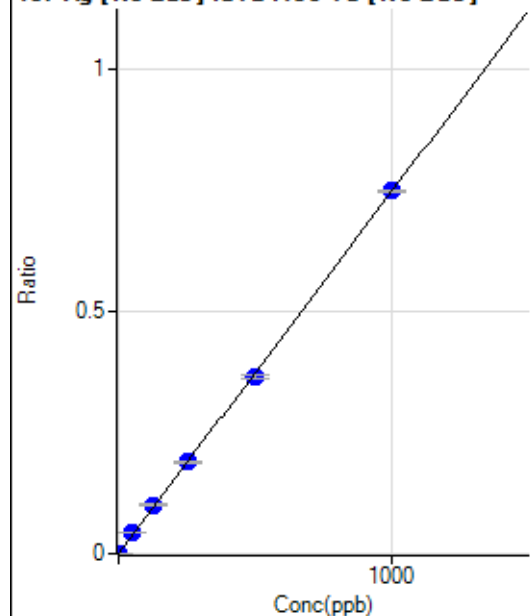
$$R = 0.9998$$

$$DL = 10.38$$

$$BEC = 13.31$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.56	0.0000	P	32.1
2	☐	0.100					
3	☐	1.000	1.002	872.28	0.0008	P	9.6
4	☐	50.000	56.570	46839.44	0.0423	P	2.3
5	☐	125.000	134.898	118856.51	0.1009	P	1.9
6	☐	250.000	253.073	219831.71	0.1892	P	1.2
7	☐	500.000	489.738	436438.34	0.3662	P	1.8
8	☐	1000.000	1002.797	874773.13	0.7497	P	0.7
9	☐			44.45	0.0000	P	28.6

$$y = 7.4760\text{E-}004 * x + 2.6776\text{E-}005$$

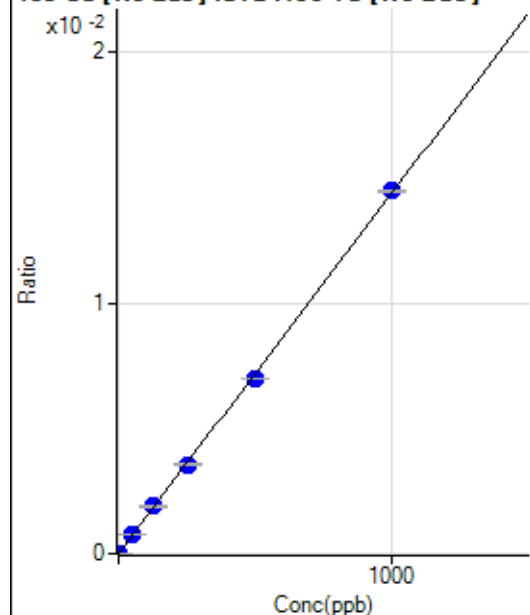
$$R = 0.9999$$

$$DL = 0.03445$$

$$BEC = 0.03582$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.100					
3	☐	1.000	1.462	23.61	0.0000	P	21.5
4	☐	50.000	53.854	856.99	0.0008	P	3.9
5	☐	125.000	132.796	2248.84	0.0019	P	4.1
6	☐	250.000	247.431	4132.64	0.0036	P	2.2
7	☐	500.000	484.977	8310.93	0.0070	P	0.3
8	☐	1000.000	1006.986	16890.89	0.0145	P	0.4
9	☐			2.78	0.0000	P	173.

$$y = 1.4375\text{E-}005 * x + 0.0000\text{E+}000$$

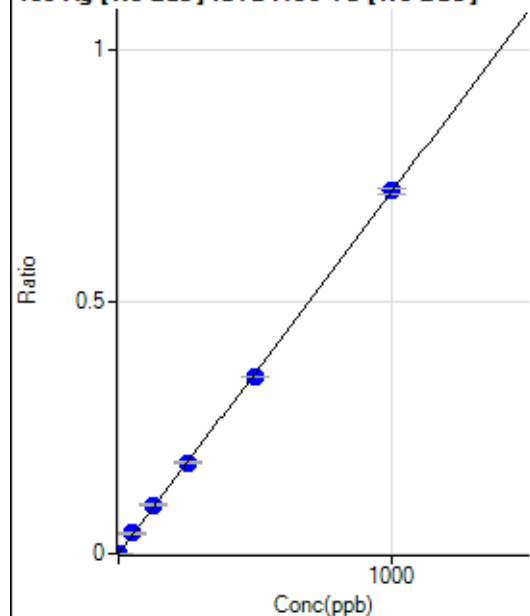
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	99.7
2	☐	0.100					
3	☐	1.000	1.101	900.07	0.0008	P	12.4
4	☐	50.000	56.338	44838.64	0.0405	P	3.0
5	☐	125.000	135.117	114477.29	0.0972	P	0.7
6	☐	250.000	252.593	210986.18	0.1816	P	1.9
7	☐	500.000	488.671	418843.78	0.3514	P	0.6
8	☐	1000.000	1003.435	841769.85	0.7215	P	1.5
9	☐			33.33	0.0000	P	24.8

$$y = 7.1898\text{E-}004 * x + 7.2847\text{E-}006$$

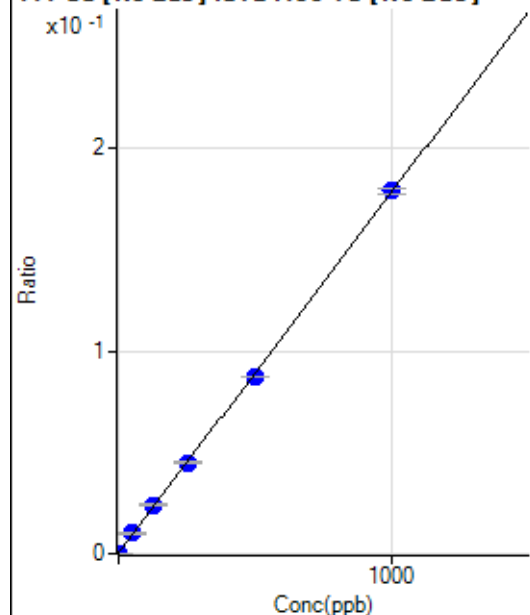
$$R = 0.9998$$

$$DL = 0.03029$$

$$BEC = 0.01013$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	219.74	0.0002	P	26.0
2	☐	0.100					
3	☐	1.000	1.198	456.55	0.0004	P	12.3
4	☐	50.000	56.076	11272.01	0.0102	P	5.2
5	☐	125.000	133.727	28314.25	0.0240	P	1.8
6	☐	250.000	251.151	52236.66	0.0450	P	1.5
7	☐	500.000	488.194	103977.90	0.0872	P	0.4
8	☐	1000.000	1004.220	209098.34	0.1792	P	1.5
9	☐			243.62	0.0002	P	12.2

$$y = 1.7826E-004 * x + 1.9245E-004$$

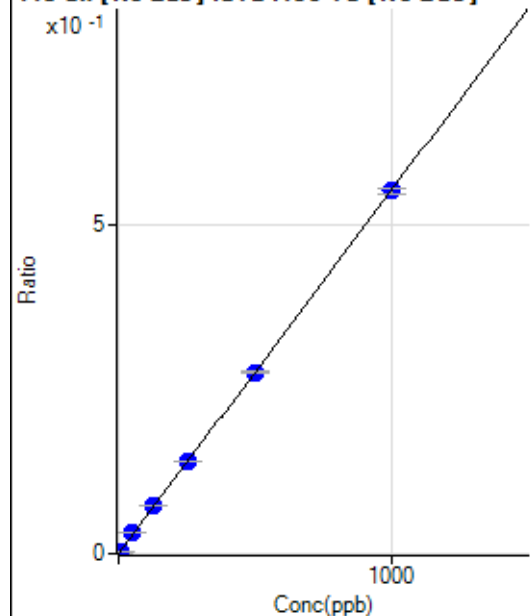
$$R = 0.9998$$

$$DL = 0.8421$$

$$BEC = 1.08$$

Weight: <None>

Min Conc: 0

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

	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	147.23	0.0001	P	46.6
2	☐	0.500					
3	☐	5.000	5.482	3550.60	0.0032	P	7.1
4	☐	50.000	56.461	34654.87	0.0313	P	2.0
5	☐	125.000	133.406	86966.02	0.0738	P	0.8
6	☐	250.000	254.333	163328.51	0.1406	P	0.7
7	☐	500.000	498.820	328519.71	0.2756	P	1.2
8	☐	1000.000	998.131	643302.30	0.5513	P	1.3
9	☐			250.01	0.0002	P	9.0

$$y = 5.5224E-004 * x + 1.2868E-004$$

$$R = 1.0000$$

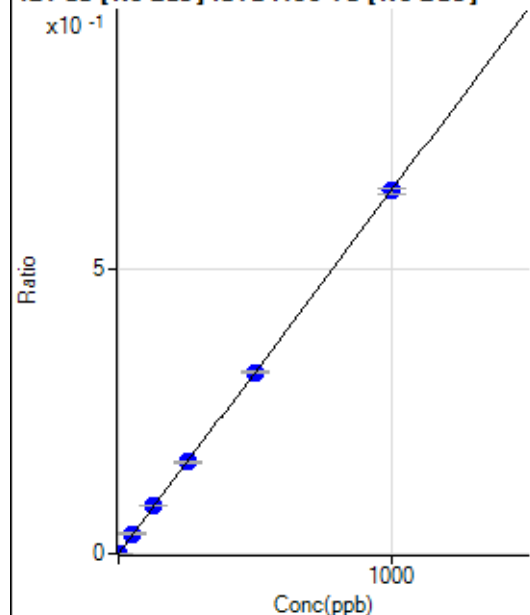
$$DL = 0.3261$$

$$BEC = 0.233$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.67	0.0000	P	86.6
2	☐	0.200					
3	☐	2.000	2.053	1494.59	0.0013	P	1.4
4	☐	50.000	55.343	39208.53	0.0354	P	2.8
5	☐	125.000	132.335	99783.52	0.0847	P	0.7
6	☐	250.000	253.488	188419.21	0.1622	P	2.1
7	☐	500.000	499.035	380632.67	0.3193	P	0.6
8	☐	1000.000	998.427	745379.38	0.6388	P	1.3
9	☐			1011.20	0.0010	P	7.8

$$y = 6.3980E-004 * x + 1.4546E-005$$

$$R = 1.0000$$

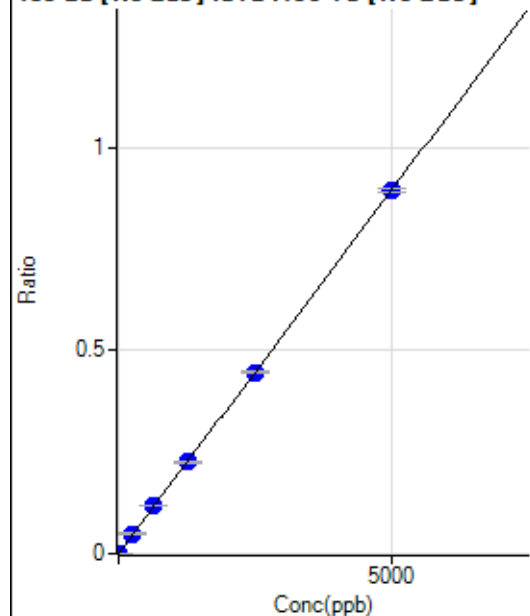
$$DL = 0.05907$$

$$BEC = 0.02274$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8.33	0.0000	P	0.5
2	☐	1.000					
3	☐	10.000	10.489	2119.71	0.0019	P	5.8
4	☐	250.000	275.196	54521.59	0.0493	P	1.9
5	☐	625.000	661.594	139518.23	0.1184	P	0.7
6	☐	1250.000	1261.587	262286.75	0.2258	P	1.9
7	☐	2500.000	2499.090	533165.83	0.4472	P	0.3
8	☐	5000.000	4991.723	1042331.35	0.8933	P	1.1
9	☐			94.45	0.0001	P	30.9

$$y = 1.7896E-004 * x + 7.2917E-006$$

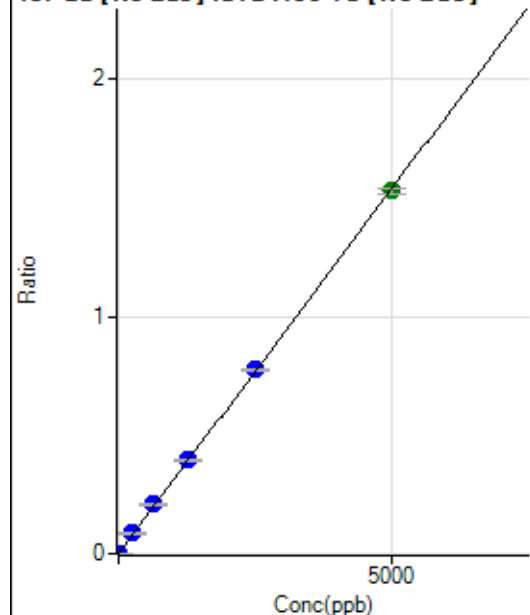
$$R = 1.0000$$

$$DL = 0.0006693$$

$$BEC = 0.04075$$

Weight: <None>

Min Conc: 0

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

	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2.78	0.0000	P	173.
2	☐	1.000					
3	☐	10.000	10.364	3589.51	0.0032	P	5.0
4	☐	250.000	279.492	95121.55	0.0859	P	2.0
5	☐	625.000	672.771	243736.60	0.2069	P	0.9
6	☐	1250.000	1282.573	458111.99	0.3943	P	1.8
7	☐	2500.000	2518.901	923261.90	0.7745	P	0.6
8	☐	5000.000	4974.960	1784745.11	1.5296	A	1.4
9	☐			197.23	0.0002	P	4.9

$$y = 3.0746E-004 * x + 2.4448E-006$$

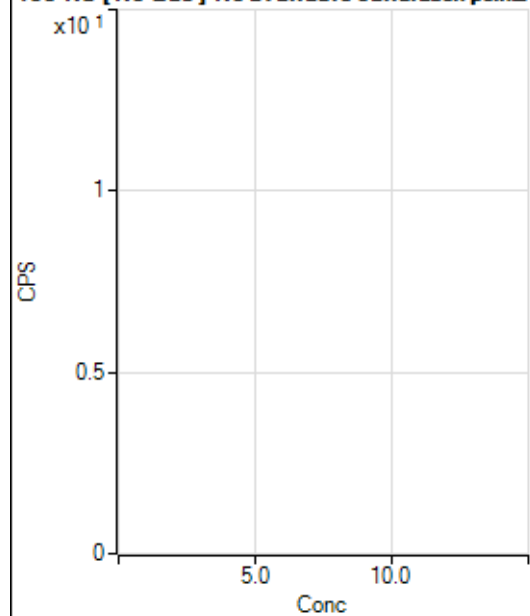
$$R = 0.9999$$

$$DL = 0.04132$$

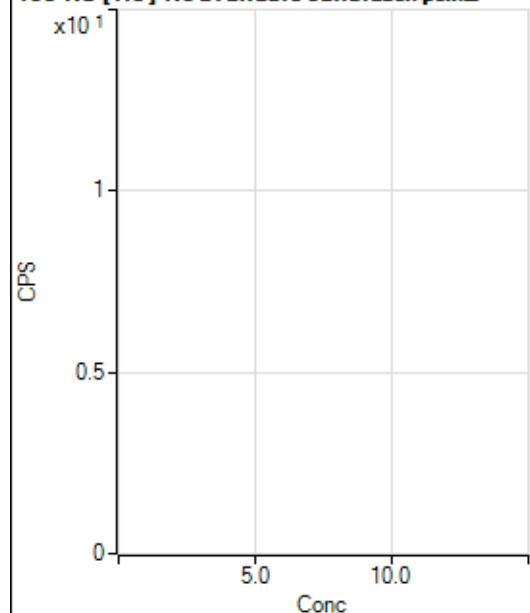
$$BEC = 0.007952$$

Weight: <None>

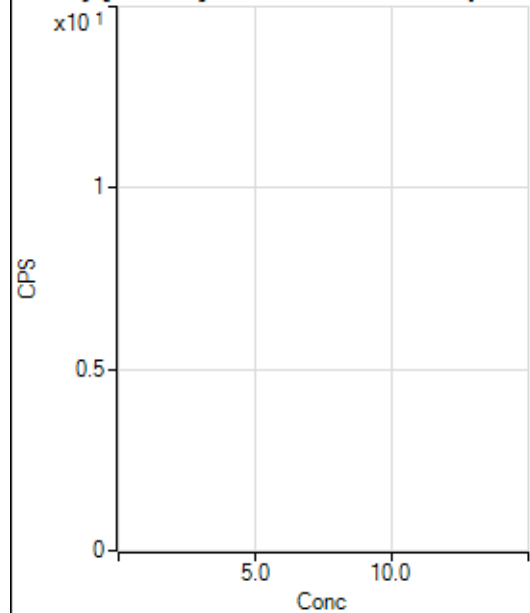
Min Conc: 0

150 Nd [No Gas] No available calibration points

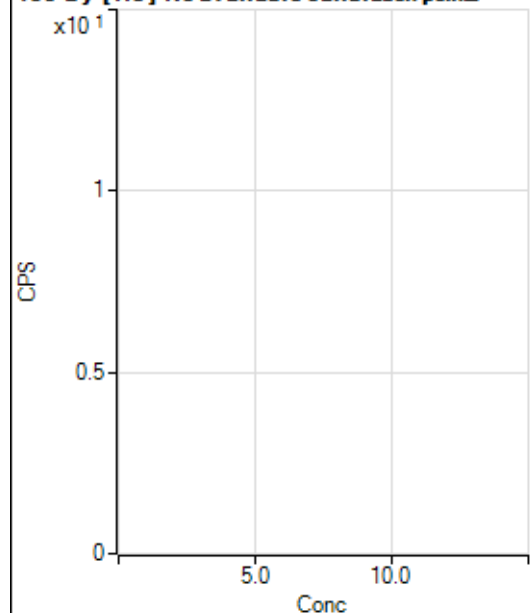
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			2.22		P	173.
4	☐			4.45		P	86.6
5	☐			22.22		P	34.7
6	☐			26.67		P	86.6
7	☐			40.00		P	28.9
8	☐			84.45		P	24.1
9	☐			22.22		P	17.3

150 Nd [He] No available calibration points

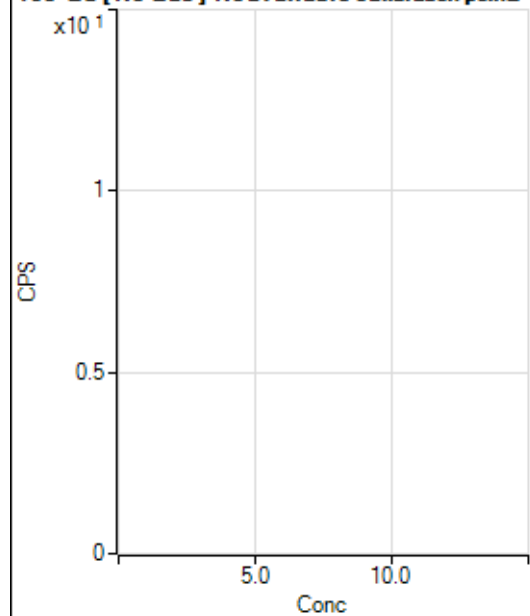
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			1.11		P	173.
6	☐			2.22		P	86.6
7	☐			4.44		P	43.4
8	☐			20.00		P	16.7
9	☐			7.78		P	24.7

156 Dy [No Gas] No available calibration points

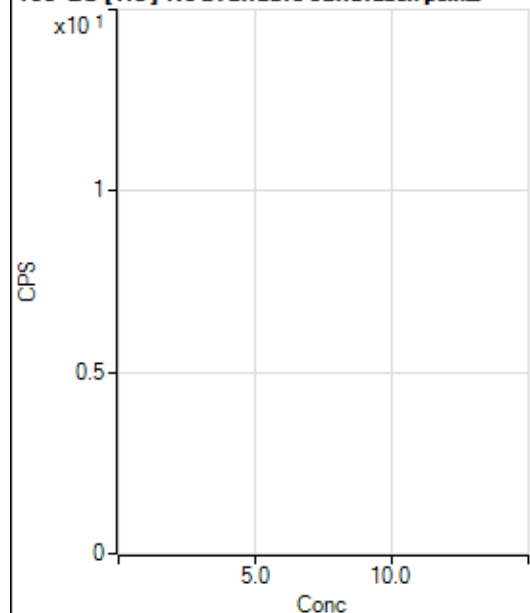
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			0.00		P	
5	☐			2.78		P	173.
6	☐			0.00		P	
7	☐			11.11		P	43.3
8	☐			13.89		P	69.3
9	☐			11.11		P	43.3

156 Dy [He] No available calibration points

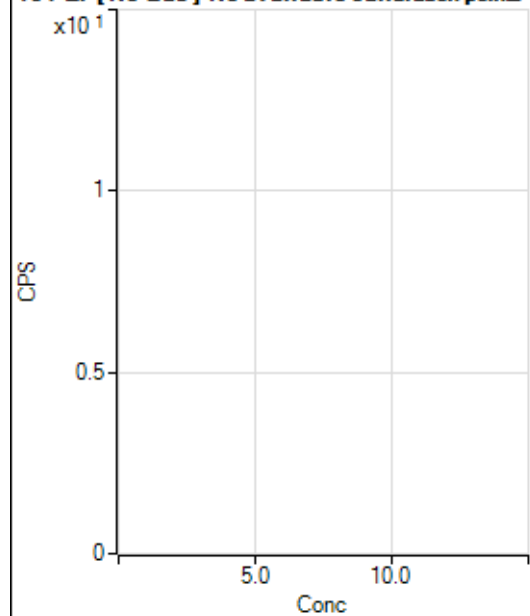
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.
5	☐			3.33		P	0.0
6	☐			3.33		P	100.
7	☐			4.44		P	43.4
8	☐			27.78		P	48.5
9	☐			7.78		P	24.7

160 Gd [No Gas] Noavailable calibration poin_

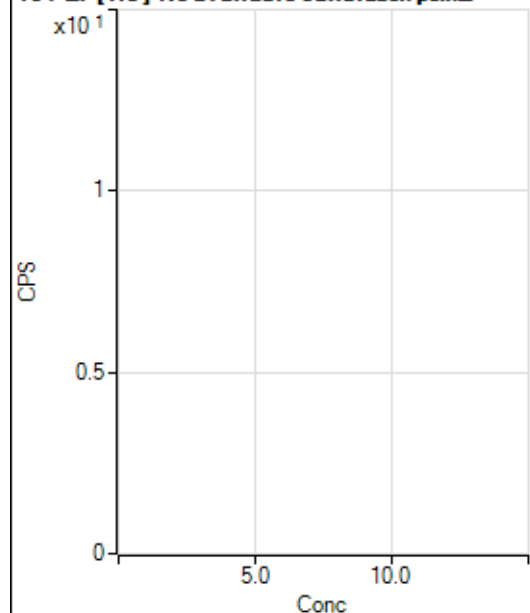
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			2.78		P	173.
2	☐						
3	☐			0.00		P	
4	☐			5.56		P	173.
5	☐			0.00		P	
6	☐			2.78		P	173.
7	☐			5.55		P	86.6
8	☐			5.56		P	173.
9	☐			11.11		P	173.

160 Gd [He] No available calibration points

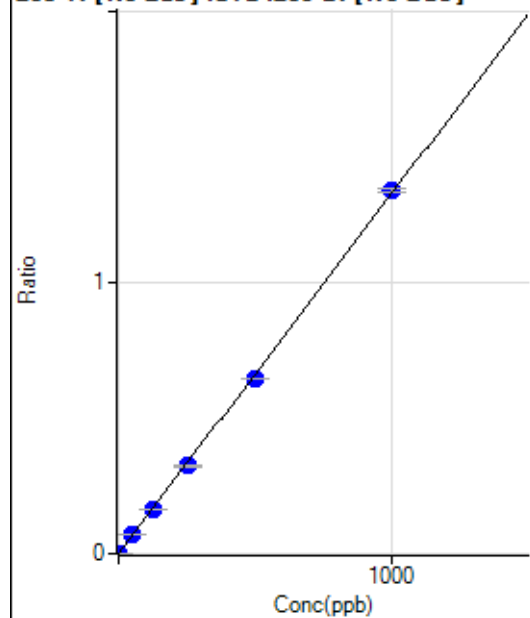
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			13.33		P	50.0
2	☐						
3	☐			13.34		P	43.3
4	☐			18.89		P	36.7
5	☐			11.11		P	45.8
6	☐			14.44		P	13.4
7	☐			22.22		P	31.2
8	☐			13.33		P	25.0
9	☐			17.78		P	65.8

164 Er [No Gas] No available calibration points

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			5.56		P	173.
2	☐						
3	☐			2.78		P	173.
4	☐			5.56		P	173.
5	☐			11.11		P	43.3
6	☐			0.00		P	
7	☐			2.78		P	173.
8	☐			2.78		P	173.
9	☐			11.11		P	114.

164 Er [He] No available calibration points

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			1.11		P	173.
4	☐			1.11		P	173.
5	☐			0.00		P	
6	☐			1.11		P	173.
7	☐			4.45		P	86.6
8	☐			3.33		P	173.
9	☐			3.33		P	100.

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

	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	69.0
2	☐	0.100					
3	☐	1.000	0.882	819.51	0.0012	P	1.8
4	☐	50.000	52.177	46010.94	0.0692	P	0.9
5	☐	125.000	124.868	117165.16	0.1655	P	0.8
6	☐	250.000	244.131	225983.22	0.3235	P	1.0
7	☐	500.000	485.973	458763.32	0.6438	P	0.8
8	☐	1000.000	1008.389	901398.75	1.3359	P	1.1
9	☐			236.12	0.0004	P	22.7

$$y = 0.0013 * x + 4.0170E-005$$

$$R = 0.9998$$

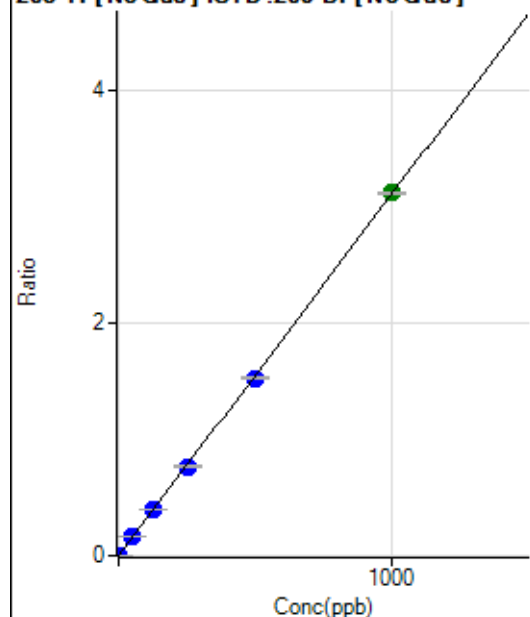
$$DL = 0.0628$$

$$BEC = 0.03032$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	72.23	0.0001	P	18.4
2	☐	0.100					
3	☐	1.000	0.960	2094.70	0.0031	P	4.9
4	☐	50.000	52.157	107922.53	0.1622	P	1.4
5	☐	125.000	127.591	280928.03	0.3967	P	0.9
6	☐	250.000	246.188	534730.17	0.7654	P	1.5
7	☐	500.000	491.560	1088861.51	1.5282	P	0.4
8	☐	1000.000	1004.741	2107510.85	3.1234	A	0.7
9	☐			511.15	0.0009	P	7.3

$$y = 0.0031 * x + 1.0465E-004$$

$$R = 0.9999$$

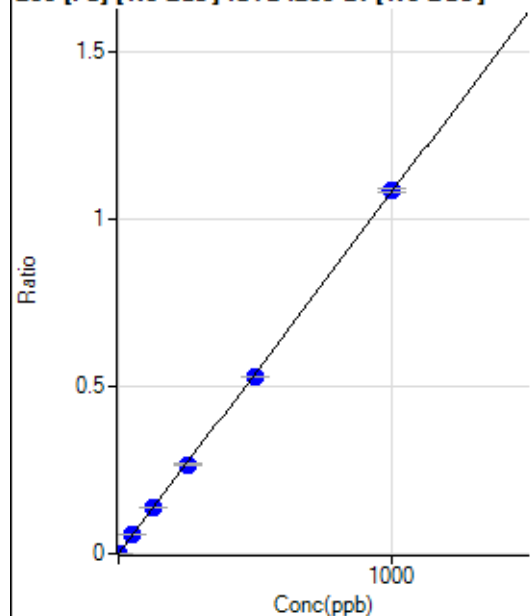
$$DL = 0.01861$$

$$BEC = 0.03366$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	70.37	0.0001	P	36.5
2	☐	0.100					
3	☐	1.000	0.968	777.83	0.0011	P	2.9
4	☐	50.000	52.791	37976.94	0.0571	P	3.0
5	☐	125.000	127.483	97540.54	0.1378	P	1.4
6	☐	250.000	247.353	186662.25	0.2672	P	1.2
7	☐	500.000	491.388	378137.44	0.5307	P	0.2
8	☐	1000.000	1004.518	731892.36	1.0847	P	1.0
9	☐			575.95	0.0010	P	3.0

$$y = 0.0011 * x + 1.0166E-004$$

$$R = 0.9999$$

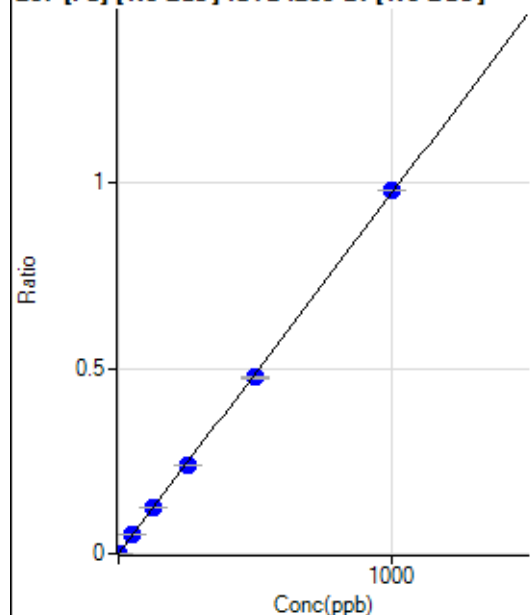
$$DL = 0.1032$$

$$BEC = 0.09415$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	61.11	0.0001	P	24.0
2	☐	0.100					
3	☐	1.000	0.967	698.19	0.0010	P	8.7
4	☐	50.000	51.815	33587.69	0.0505	P	2.7
5	☐	125.000	125.913	86817.30	0.1226	P	0.9
6	☐	250.000	244.684	166393.71	0.2382	P	0.2
7	☐	500.000	488.333	338608.24	0.4752	P	0.1
8	☐	1000.000	1006.958	661121.65	0.9798	P	0.1
9	☐			446.32	0.0008	P	17.0

$$y = 9.7296E-004 * x + 8.8464E-005$$

$$R = 0.9999$$

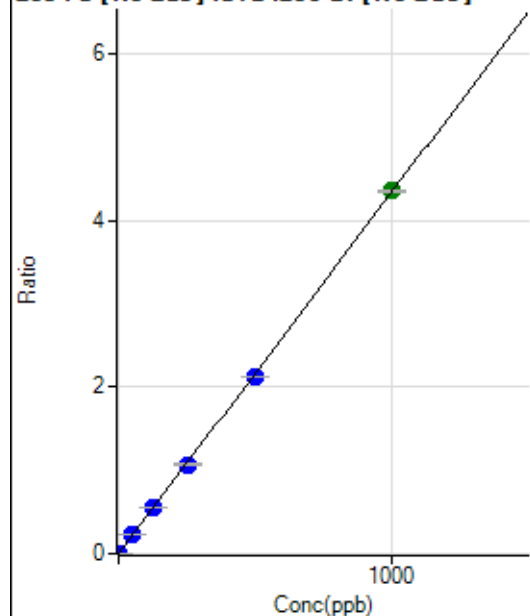
$$DL = 0.06557$$

$$BEC = 0.09092$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	294.45	0.0004	P	14.9
2	☐	0.100					
3	☐	1.000	0.939	3052.08	0.0045	P	1.9
4	☐	50.000	52.354	151263.74	0.2274	P	2.8
5	☐	125.000	127.490	391769.23	0.5532	P	0.4
6	☐	250.000	246.770	747892.92	1.0705	P	0.8
7	☐	500.000	491.127	1517726.66	2.1301	P	0.2
8	☐	1000.000	1004.815	2940192.42	4.3575	A	0.7
9	☐			2187.17	0.0039	P	4.2

$$y = 0.0043 * x + 4.2627E-004$$

$$R = 0.9999$$

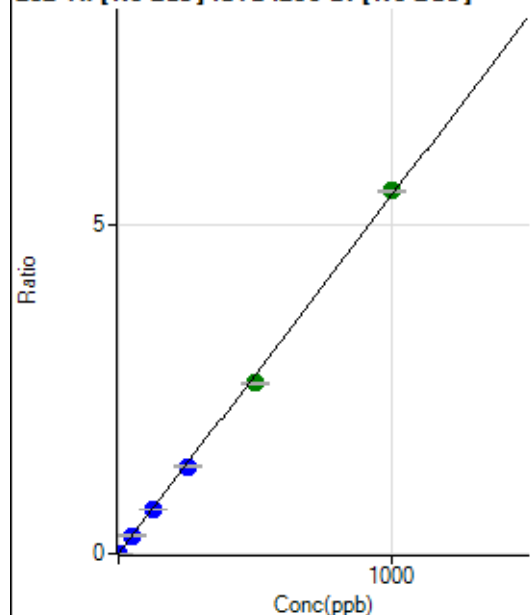
$$DL = 0.04393$$

$$BEC = 0.0983$$

Weight: <None>

Min Conc: 0

232 Th [No Gas] ISTD :209 Bi [No Gas]



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	22.22	0.0000	P	24.2
2	☐	0.100					
3	☐	1.000	0.907	3367.21	0.0050	P	8.0
4	☐	50.000	50.765	183782.43	0.2763	P	2.7
5	☐	125.000	125.505	483736.71	0.6831	P	1.1
6	☐	250.000	243.298	925207.59	1.3243	P	1.1
7	☐	500.000	476.323	1847345.89	2.5926	A	0.5
8	☐	1000.000	1013.413	3721878.06	5.5159	A	0.8
9	☐			411.13	0.0007	P	19.0

$$y = 0.0054 * x + 3.2120E-005$$

$$R = 0.9996$$

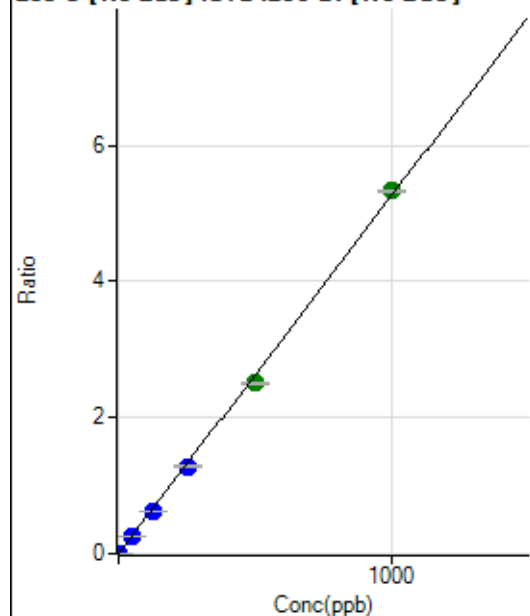
$$DL = 0.004281$$

$$BEC = 0.005901$$

Weight: <None>

Min Conc: 0

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



	R _{jc} t	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.56	0.0000	P	56.6
2	☐	0.100					
3	☐	1.000	0.896	3225.53	0.0048	P	1.1
4	☐	50.000	48.680	170259.67	0.2559	P	1.1
5	☐	125.000	120.526	448632.80	0.6335	P	0.3
6	☐	250.000	244.256	896978.43	1.2839	P	1.1
7	☐	500.000	476.808	1785665.81	2.5062	A	0.8
8	☐	1000.000	1013.657	3595022.13	5.3279	A	0.5
9	☐			202.79	0.0004	P	13.3

$$y = 0.0053 * x + 4.4229E-005$$

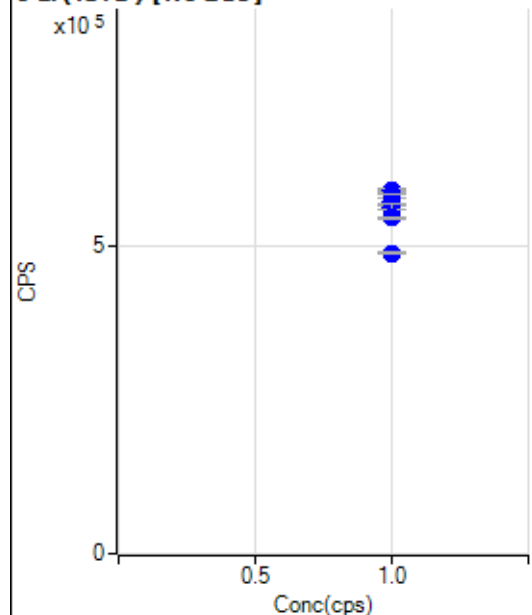
$$R = 0.9996$$

$$DL = 0.01428$$

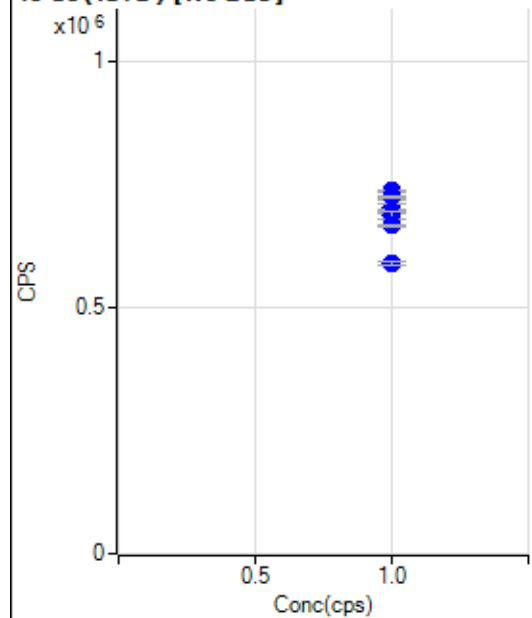
$$BEC = 0.008415$$

Weight: <None>

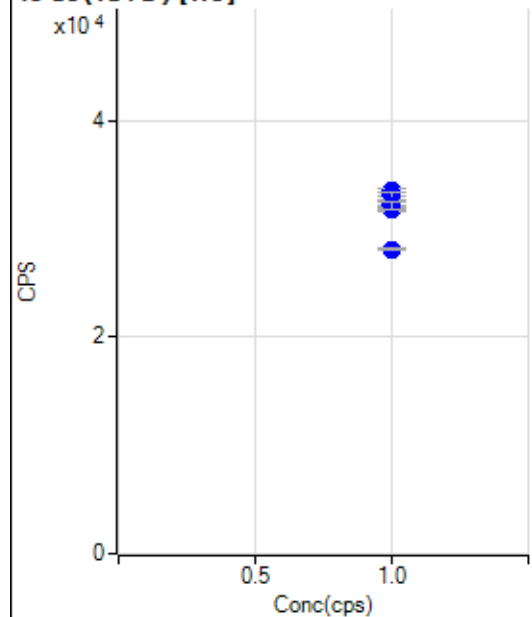
Min Conc: 0

6 Li (ISTD) [No Gas]

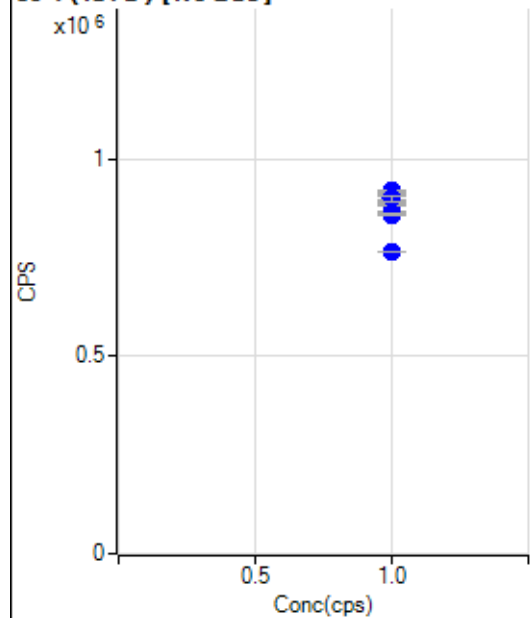
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		590338.49		P	0.5
2	☐	1.000					
3	☐	1.000		590493.68		P	1.1
4	☐	1.000		573493.32		P	2.2
5	☐	1.000		585627.97		P	0.4
6	☐	1.000		564219.39		P	0.9
7	☐	1.000		564330.19		P	1.5
8	☐	1.000		546347.96		P	0.9
9	☐	1.000		489250.98		P	0.8

45 Sc (ISTD) [No Gas]

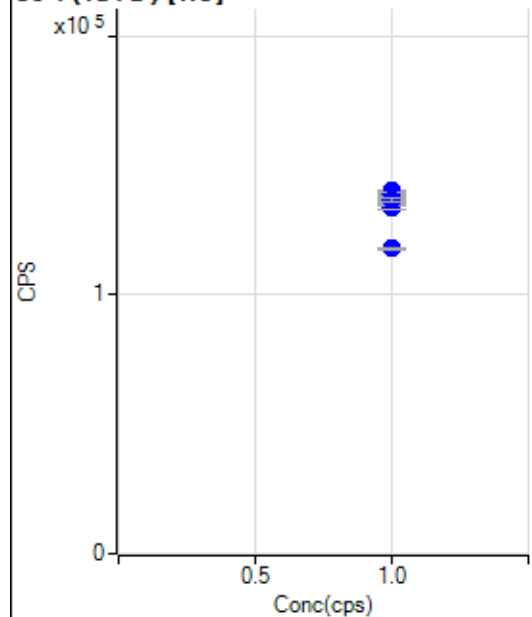
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		735979.85		P	0.7
2	☐	1.000					
3	☐	1.000		726145.83		P	1.9
4	☐	1.000		701902.22		P	2.4
5	☐	1.000		725291.45		P	0.5
6	☐	1.000		694367.87		P	1.2
7	☐	1.000		686107.13		P	2.1
8	☐	1.000		665663.14		P	0.7
9	☐	1.000		589572.96		P	1.1

45 Sc (ISTD) [He]

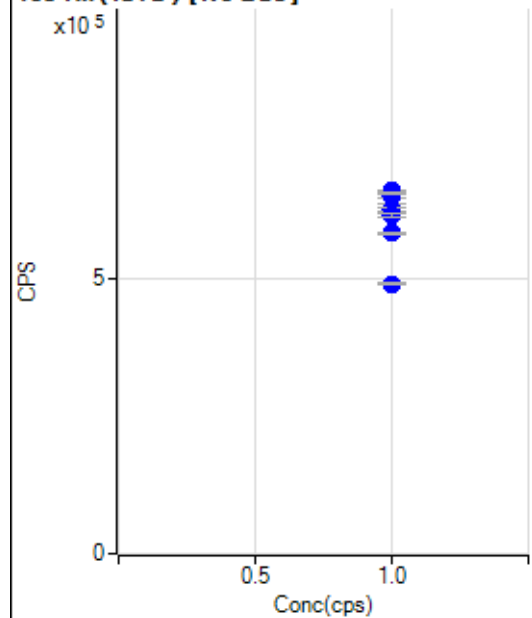
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		33469.09		P	1.2
2	☐	1.000					
3	☐	1.000		32238.53		P	2.1
4	☐	1.000		33235.16		P	1.0
5	☐	1.000		32975.77		P	2.0
6	☐	1.000		31670.64		P	1.1
7	☐	1.000		31842.12		P	1.9
8	☐	1.000		32092.67		P	1.9
9	☐	1.000		28080.07		P	0.7

89 Y (ISTD) [No Gas]

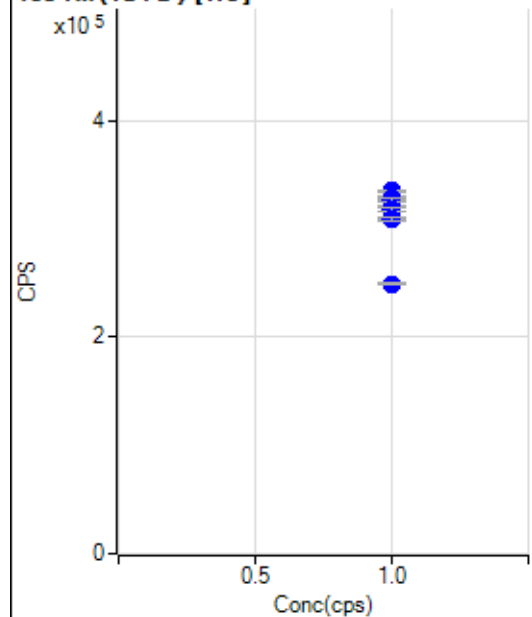
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		918016.76		P	0.3
2	☐	1.000					
3	☐	1.000		903475.03		P	1.2
4	☐	1.000		879913.70		P	2.7
5	☐	1.000		919003.05		P	0.4
6	☐	1.000		884172.24		P	0.9
7	☐	1.000		899166.16		P	1.9
8	☐	1.000		859259.63		P	0.8
9	☐	1.000		765177.09		P	0.2

89 Y(ISTD) [He]

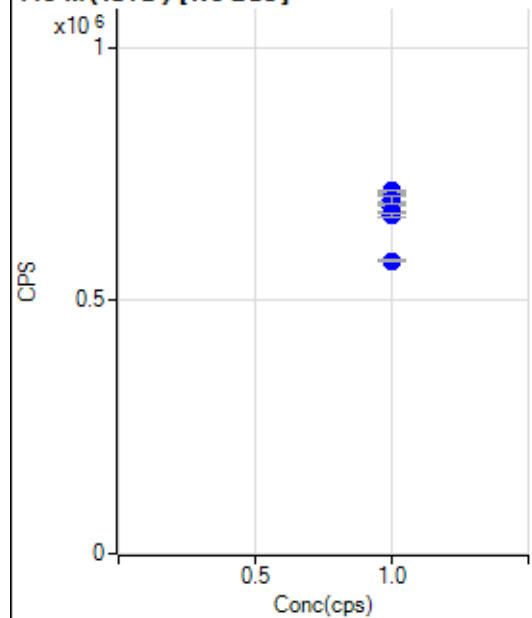
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		140226.61		P	0.5
2	☐	1.000					
3	☐	1.000		135682.90		P	0.3
4	☐	1.000		139501.36		P	0.8
5	☐	1.000		139150.43		P	1.3
6	☐	1.000		136331.54		P	0.8
7	☐	1.000		133855.95		P	1.5
8	☐	1.000		136784.90		P	1.1
9	☐	1.000		118077.86		P	0.6

103 Rh(ISTD) [No Gas]

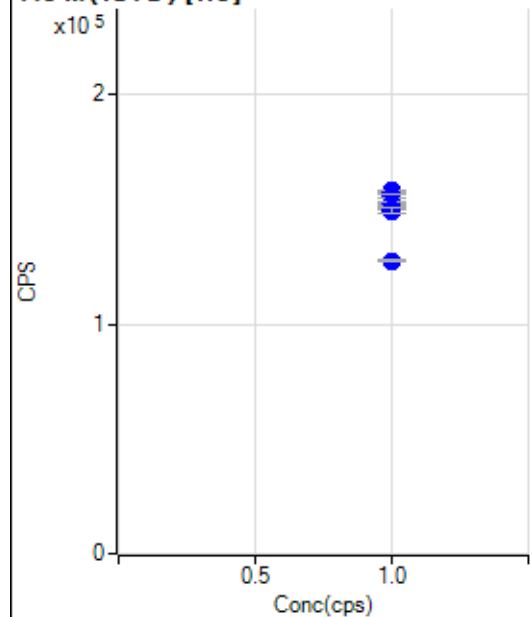
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		661101.90		P	0.6
2	☐	1.000					
3	☐	1.000		650791.07		P	1.1
4	☐	1.000		630040.94		P	1.9
5	☐	1.000		656941.42		P	0.7
6	☐	1.000		625860.29		P	1.0
7	☐	1.000		616875.72		P	1.4
8	☐	1.000		585070.45		P	0.6
9	☐	1.000		491712.74		P	0.6

103 Rh (ISTD) [He]

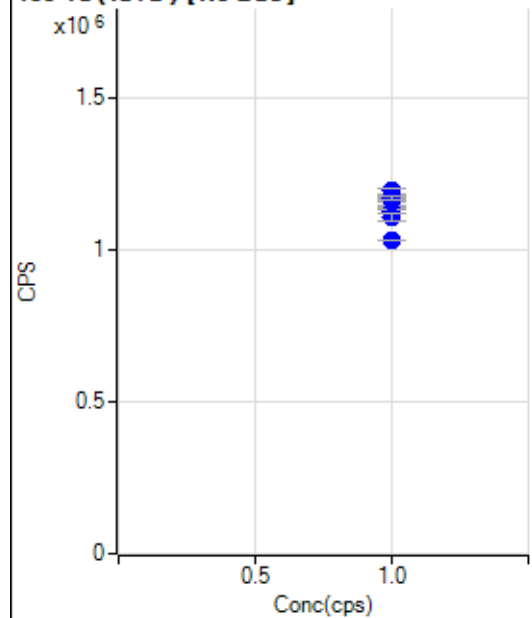
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		334676.83		P	0.7
2	☐	1.000					
3	☐	1.000		320049.36		P	0.3
4	☐	1.000		327943.77		P	0.9
5	☐	1.000		326944.29		P	1.2
6	☐	1.000		317016.16		P	0.9
7	☐	1.000		309467.93		P	0.9
8	☐	1.000		308988.55		P	1.2
9	☐	1.000		248927.07		P	0.6

115 In (ISTD) [No Gas]

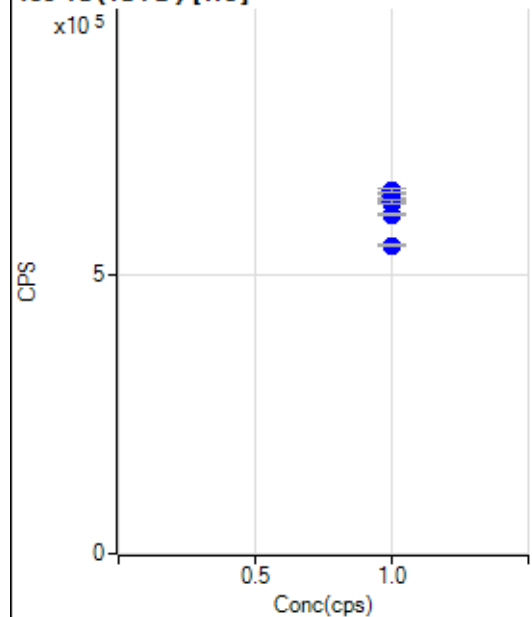
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		711839.55		P	1.1
2	☐	1.000					
3	☐	1.000		700332.82		P	1.1
4	☐	1.000		683069.68		P	2.4
5	☐	1.000		716194.11		P	0.7
6	☐	1.000		690611.98		P	0.7
7	☐	1.000		698546.89		P	1.8
8	☐	1.000		667328.81		P	0.9
9	☐	1.000		578632.62		P	0.4

115 In (ISTD) [He]

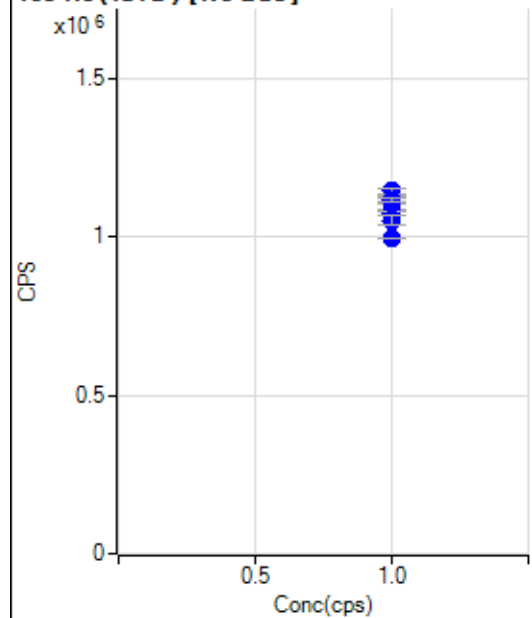
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		158158.21		P	0.8
2	☐	1.000					
3	☐	1.000		152017.26		P	0.2
4	☐	1.000		157427.68		P	0.8
5	☐	1.000		155806.74		P	0.9
6	☐	1.000		152630.24		P	0.7
7	☐	1.000		149115.95		P	1.0
8	☐	1.000		149777.21		P	1.4
9	☐	1.000		127538.12		P	0.6

159 Tb (ISTD) [No Gas]

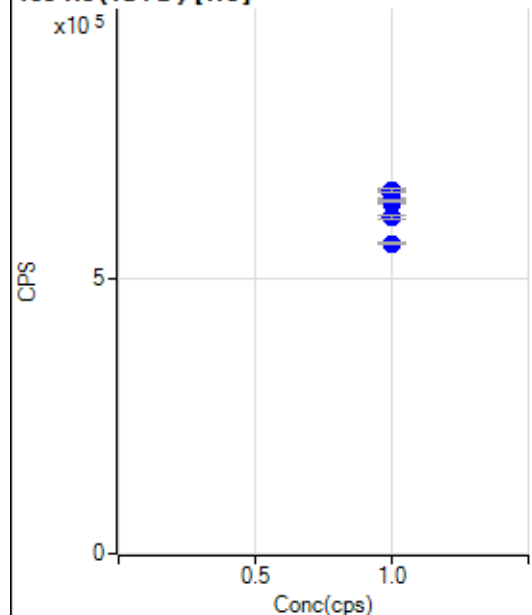
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1142416.32		P	0.5
2	☐	1.000					
3	☐	1.000		1125330.27		P	1.1
4	☐	1.000		1107234.69		P	2.4
5	☐	1.000		1178352.97		P	0.9
6	☐	1.000		1161858.47		P	1.2
7	☐	1.000		1192163.78		P	1.7
8	☐	1.000		1166845.91		P	1.0
9	☐	1.000		1028973.25		P	0.3

159 Tb (ISTD) [He]

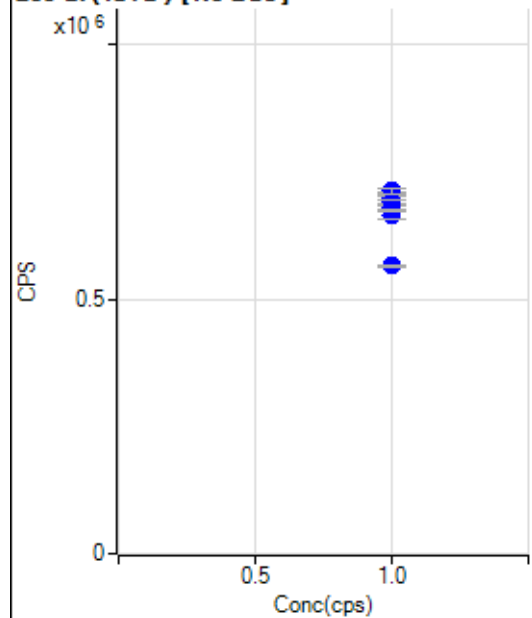
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		630003.91		P	0.4
2	☐	1.000					
3	☐	1.000		608460.13		P	0.6
4	☐	1.000		633147.81		P	0.6
5	☐	1.000		642479.61		P	1.1
6	☐	1.000		638029.52		P	0.5
7	☐	1.000		632496.51		P	1.1
8	☐	1.000		651527.49		P	0.9
9	☐	1.000		553038.40		P	0.5

165 Ho (ISTD) [No Gas]

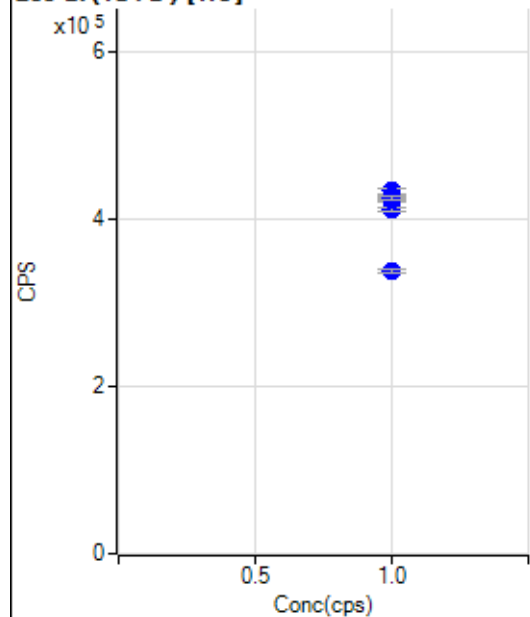
	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1085462.22		P	0.8
2	☐	1.000					
3	☐	1.000		1074920.91		P	1.3
4	☐	1.000		1050899.07		P	2.9
5	☐	1.000		1124260.51		P	0.4
6	☐	1.000		1108070.24		P	0.8
7	☐	1.000		1145633.43		P	1.3
8	☐	1.000		1118192.47		P	1.3
9	☐	1.000		994734.30		P	0.3

165 Ho (ISTD) [He]

	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		637731.35		P	1.0
2	☐	1.000					
3	☐	1.000		610717.63		P	1.1
4	☐	1.000		637053.78		P	0.9
5	☐	1.000		652110.05		P	2.1
6	☐	1.000		644724.61		P	1.0
7	☐	1.000		640869.98		P	0.9
8	☐	1.000		658983.37		P	1.0
9	☐	1.000		562722.44		P	0.6

209 Bi (ISTD) [No Gas]

	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		690913.01		P	0.9
2	☐	1.000					
3	☐	1.000		678212.49		P	1.6
4	☐	1.000		665349.71		P	2.4
5	☐	1.000		708132.99		P	0.6
6	☐	1.000		698684.49		P	0.8
7	☐	1.000		712543.39		P	1.5
8	☐	1.000		674740.16		P	0.7
9	☐	1.000		564810.13		P	0.1

209 Bi (ISTD) [He]

	Rjc t	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		429474.68		P	0.6
2	☐	1.000					
3	☐	1.000		410720.12		P	0.9
4	☐	1.000		428065.14		P	0.4
5	☐	1.000		433369.45		P	1.6
6	☐	1.000		427145.70		P	0.9
7	☐	1.000		422668.53		P	0.9
8	☐	1.000		424544.93		P	1.0
9	☐	1.000		336547.77		P	1.4

US EPA Tune Check Sample Report

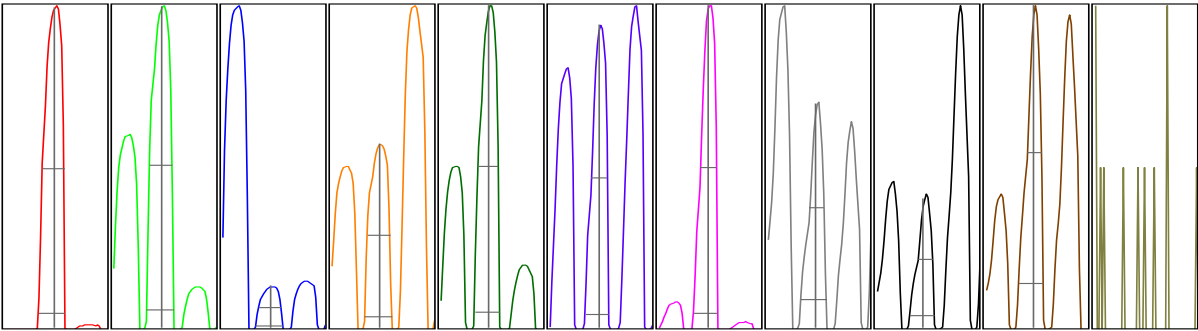
Batch Folder D:\ICP-MS Data\P7070219MS .b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	1761	2.26	5.00	
24	16755	2.09	5.00	
25	2221	1.99	5.00	
26	2509	2.08	5.00	
59	6717	1.80	5.00	
113	836	3.38	5.00	
115	10574	4.90	5.00	
206	2628	1.49	5.00	
207	2498	1.28	5.00	
208	5792	1.43	5.00	
220	0	149.07		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	1801	1761	1799	1731	1712
24	17139	16819	17014	16512	16294
25	2278	2228	2242	2191	2165
26	2571	2499	2552	2477	2445
59	6843	6717	6833	6609	6585
113	859	843	864	817	798
115	11044	10877	10900	10186	9864
206	2650	2635	2668	2624	2565
207	2542	2494	2512	2484	2456
208	5833	5782	5901	5764	5677
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	2960	9.00	8.9 - 9.1		0.770	0.900	
24	27221	23.95	23.9 - 24.1		0.786	0.900	
25	3609	24.95	24.9 - 25.1		0.786	0.900	
26	4075	25.95	25.9 - 26.1		0.782	0.900	
59	12086	58.95	58.9 - 59.1		0.736	0.900	
113	1723	113.00	112.9 - 113.1		0.685	0.900	
115	21579	115.00	114.9 - 115.1		0.702	0.900	
206	5618	205.95	205.9 - 206.1		0.733	0.900	
207	4963	206.90	206.9 - 207.1		0.707	0.900	
208	12340	207.95	207.9 - 208.1		0.706	0.900	
220	0	219.85	-		0.050		

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	7.1	V	Deflect	13.6	V
Extract 2	-80.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-45	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	170	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	1564	0.94	
89	2864	0.46	
205	2313	0.86	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	1547	1585	1568	1554	1567
89	2872	2864	2878	2843	2863
205	2291	2343	2318	2299	2316

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.7	V	Deflect	1.4	V
Extract 2	-90.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-50	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	190	V			