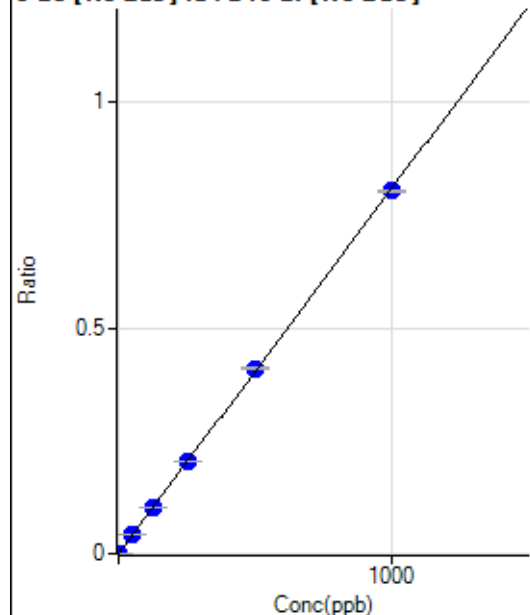


Batch Folder: D:\ICP-MS Data\P7111419-MS.b\
Analysis File: P7111419-MS.batch.bin
DA Date-Time: 2019-11-15 01:19:19
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-11-14 12:31:59
2	004CAL.S.d	S01	2019-11-14 12:35:33
3	005CAL.S.d	S02	2019-11-14 12:40:12
4	006CAL.S.d	S03	2019-11-14 12:44:06
5	007CAL.S.d	S04	2019-11-14 12:48:15
6	008CAL.S.d	S05	2019-11-14 12:52:03
7	009CAL.S.d	S06	2019-11-14 12:55:49
8	010CAL.S.d	S07	2019-11-14 12:59:32
9	011CAL.S.d	S08	2019-11-14 13:03:18

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	120.37	0.0000	P	21.8
2	☐	0.100	0.103	468.54	0.0001	P	11.1
3	☐	1.000	1.037	3676.46	0.0009	P	4.2
4	☐	50.000	51.491	174378.59	0.0417	P	0.1
5	☐	125.000	128.209	416522.85	0.1037	P	0.3
6	☐	250.000	254.027	799620.36	0.2054	P	0.1
7	☐	500.000	508.352	1569509.28	0.4110	P	0.5
8	☐	1000.000	994.341	3050918.33	0.8039	P	0.3
9	☐			679.66	0.0002	P	11.9

$$y = 8.0844\text{E-}004 * x + 2.8756\text{E-}005$$

$$R = 0.9999$$

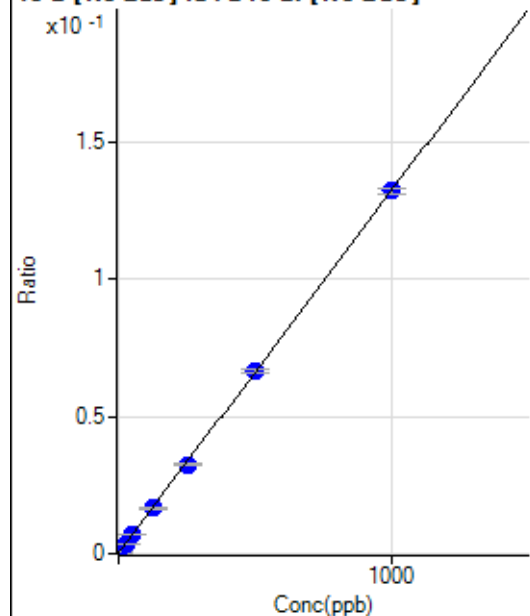
$$DL = 0.02331$$

$$BEC = 0.03557$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1044.53	0.0002	P	23.0
2	☐	2.500	3.423	2936.52	0.0007	P	5.3
3	☐	25.000	26.082	15669.89	0.0037	P	1.5
4	☐	50.000	52.649	30175.48	0.0072	P	1.0
5	☐	125.000	123.203	66424.36	0.0165	P	0.9
6	☐	250.000	244.293	126685.85	0.0325	P	1.9
7	☐	500.000	504.040	255348.04	0.0669	P	2.0
8	☐	1000.000	999.469	502362.70	0.1324	P	1.7
9	☐			6251.52	0.0017	P	5.0

$$y = 1.3218\text{E-}004 * x + 2.4945\text{E-}004$$

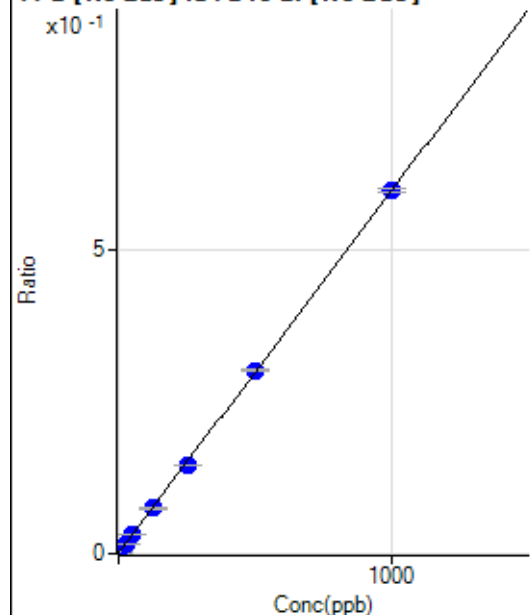
$$R = 1.0000$$

$$DL = 1.301$$

$$BEC = 1.887$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4825.98	0.0012	P	8.2
2	☐	2.500	3.195	12792.01	0.0031	P	2.1
3	☐	25.000	25.724	69881.66	0.0165	P	2.2
4	☐	50.000	51.876	134276.10	0.0321	P	1.5
5	☐	125.000	123.055	299321.40	0.0745	P	1.2
6	☐	250.000	243.749	570191.45	0.1465	P	1.0
7	☐	500.000	503.637	1150911.28	0.3014	P	0.6
8	☐	1000.000	999.874	2266567.41	0.5972	P	1.0
9	☐			28224.62	0.0079	P	7.2

$$y = 5.9614\text{E-}004 * x + 0.0012$$

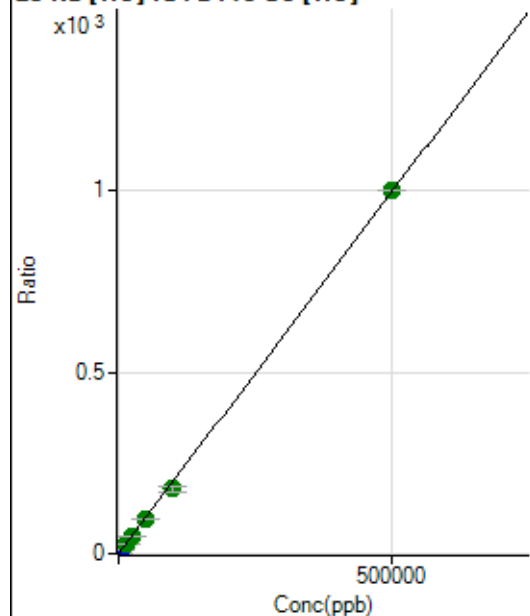
$$R = 1.0000$$

$$DL = 0.4744$$

$$BEC = 1.934$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13506.64	0.0400	P	1.8
2	☐	50.000	46.100	44739.89	0.1317	P	1.5
3	☐	500.000	474.818	337209.41	0.9845	P	1.7
4	☐	5000.000	4898.142	3239020.21	9.7831	P	2.4
5	☐	12500.000	12027.249	7649573.00	23.9639	A	0.5
6	☐	25000.000	23940.339	14894398.08	47.6607	A	0.5
7	☐	50000.000	48258.728	29827392.33	96.0333	A	0.9
8	☐	100000.00	90153.804	60072148.56	179.3684	A	8.8
9	☐	500000.00	502209.21	310039309.7	999.0036	A	0.1

$$y = 0.0020 * x + 0.0400$$

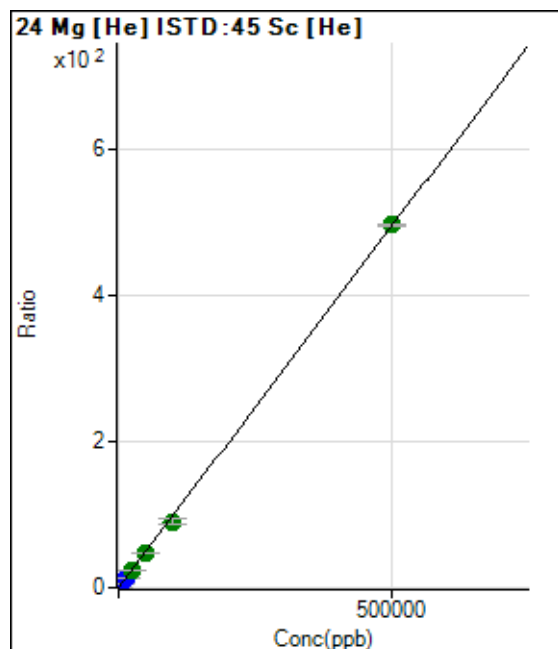
$$R = 0.9998$$

$$DL = 1.067$$

$$BEC = 20.12$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208.34	0.0006	P	3.6
2	☐	50.000	48.754	16576.45	0.0488	P	2.3
3	☐	500.000	509.639	172777.49	0.5044	P	0.4
4	☐	5000.000	4982.381	1630755.44	4.9255	P	2.4
5	☐	12500.000	12297.516	3880229.21	12.1561	P	0.9
6	☐	25000.000	24648.812	7614257.11	24.3648	A	0.4
7	☐	50000.000	48786.997	14977704.33	48.2242	A	1.1
8	☐	100000.00	90624.605	29999901.36	89.5787	A	8.9
9	☐	500000.00	502019.16	154005539.5	496.2225	A	0.9

$$y = 9.8845\text{E-}004 * x + 6.1746\text{E-}004$$

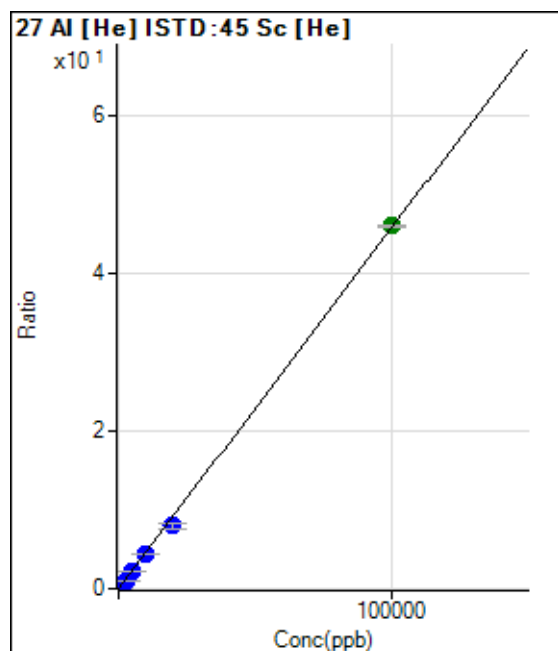
$$R = 0.9998$$

$$DL = 0.06821$$

$$BEC = 0.6247$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	88.89	0.0003	P	14.2
2	☐	2.000					
3	☐	20.000	18.333	2964.30	0.0087	P	7.6
4	☐	1000.000	967.921	146820.67	0.4434	P	2.5
5	☐	2500.000	2350.237	343570.56	1.0764	P	0.9
6	☐	5000.000	4654.521	666097.13	2.1314	P	0.4
7	☐	10000.000	9418.202	1339487.52	4.3126	P	0.5
8	☐	20000.000	17523.427	2687392.10	8.0237	P	8.7
9	☐	100000.00	100574.83	14291698.76	46.0503	A	0.3

$$y = 4.5787\text{E-}004 * x + 2.6341\text{E-}004$$

$$R = 0.9997$$

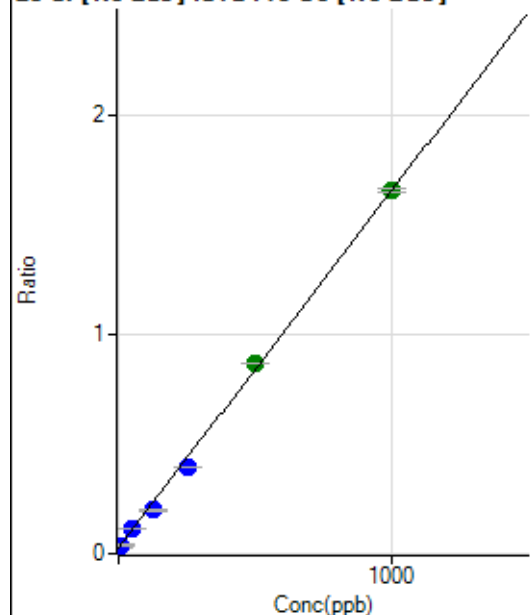
$$DL = 0.2442$$

$$BEC = 0.5753$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	208699.97	0.0275	P	0.6
2	☐	1.000	0.953	219014.71	0.0291	P	1.6
3	☐	10.000	7.208	302469.46	0.0393	P	1.9
4	☐	50.000	50.955	829481.06	0.1106	P	0.9
5	☐	125.000	104.998	1434963.72	0.1986	P	1.4
6	☐	250.000	225.076	2748774.71	0.3943	P	1.3
7	☐	500.000	517.753	6040431.25	0.8712	A	0.2
8	☐	1000.000	999.835	11658358.42	1.6567	A	0.9
9	☐			797682.92	0.1162	P	4.2

$$y = 0.0016 * x + 0.0275$$

$$R = 0.9993$$

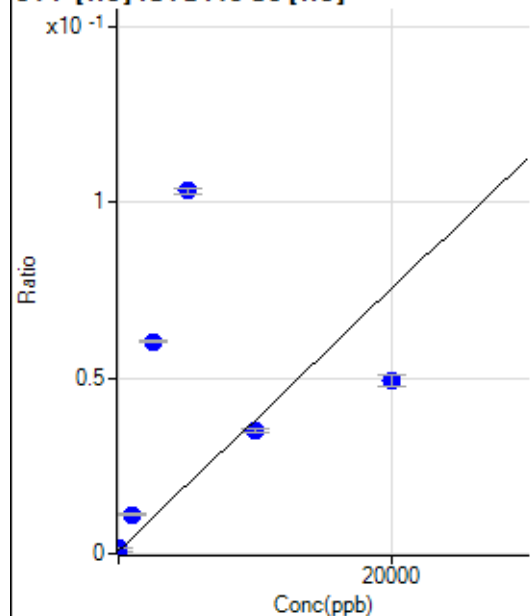
$$DL = 0.3248$$

$$BEC = 16.9$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-126.221	125.00	0.0004	P	30.8
2	☐	0.000	-56.721	213.90	0.0006	P	16.0
3	☐	0.000	182.942	522.25	0.0015	P	4.6
4	☐	1000.000	2723.641	3642.25	0.0110	P	4.6
5	☐	2500.000	15971.839	19288.18	0.0604	P	0.8
6	☐	5000.000	27435.677	32252.47	0.1032	P	1.7
7	☐	10000.000	9219.933	10948.88	0.0352	P	3.3
8	☐	20000.000	13010.952	16556.97	0.0494	P	6.8
9	☐			200.01	0.0006	P	12.1

$$y = 3.7306E-006 * x + 8.4161E-004$$

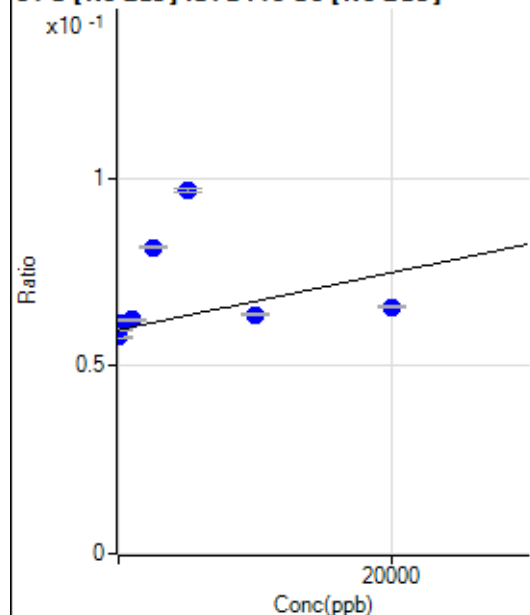
$$R = 0.4168$$

$$DL = 76.53$$

$$BEC = 225.6$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-2614.192	437190.26	0.0577	P	1.0
2	☐	0.000	2483.158	463574.96	0.0616	P	1.7
3	☐	0.000	131.034	460298.61	0.0598	P	0.9
4	☐	1000.000	3529.257	468014.77	0.0624	P	1.3
5	☐	2500.000	28859.641	590342.25	0.0817	P	0.2
6	☐	5000.000	48555.693	674413.78	0.0967	P	1.0
7	☐	10000.000	5279.386	441837.72	0.0637	P	1.2
8	☐	20000.000	8049.966	463294.86	0.0658	P	1.2
9	☐			327773.78	0.0478	P	5.3

$$y = 7.6290\text{E-}007 * x + 0.0597$$

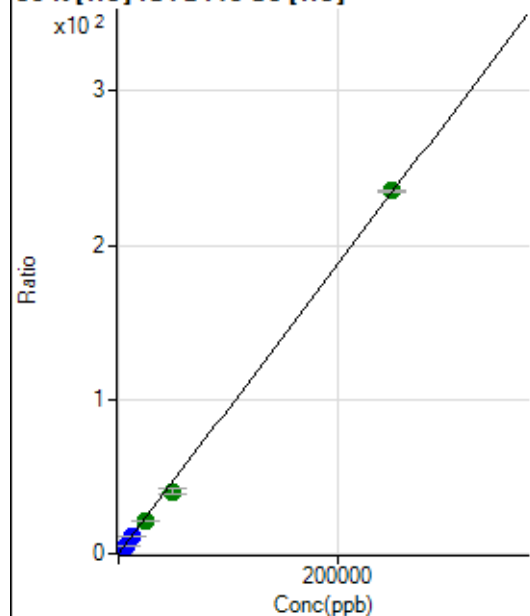
$$R = 0.0900$$

$$DL = 2913$$

$$BEC = 7.825\text{E}+04$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22342.64	0.0662	P	1.5
2	☐	50.000	45.571	36958.14	0.1088	P	0.9
3	☐	500.000	471.470	173643.50	0.5069	P	1.0
4	☐	2500.000	2356.884	751259.95	2.2694	P	3.0
5	☐	6250.000	5860.092	1769674.97	5.5441	P	0.7
6	☐	12500.000	11478.957	3374010.43	10.7964	P	0.2
7	☐	25000.000	22919.704	6675531.53	21.4908	A	0.4
8	☐	50000.000	42973.967	13476199.00	40.2369	A	8.8
9	☐	250000.00	251675.52	73032811.36	235.3246	A	0.6

$$y = 9.3477\text{E-}004 * x + 0.0662$$

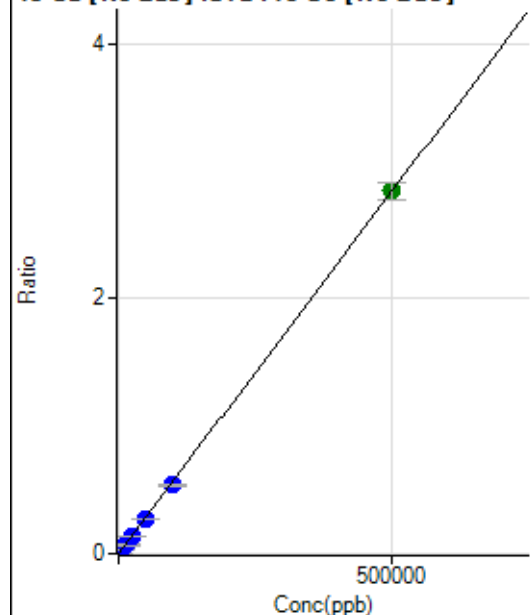
$$R = 0.9996$$

$$DL = 3.292$$

$$BEC = 70.84$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	230.57	0.0000	P	11.5
2	☐	50.000	46.890	2230.81	0.0003	P	4.8
3	☐	500.000	470.872	20784.90	0.0027	P	3.5
4	☐	5000.000	4874.469	207554.67	0.0277	P	0.7
5	☐	12500.000	11962.907	490237.57	0.0679	P	0.5
6	☐	25000.000	23926.822	945961.34	0.1357	P	0.7
7	☐	50000.000	47950.662	1885223.37	0.2719	P	0.3
8	☐	100000.00	94495.486	3770418.36	0.5358	P	0.9
9	☐	500000.00	501374.20	19509320.92	2.8427	A	4.7

$$y = 5.6698E-006 * x + 3.0427E-005$$

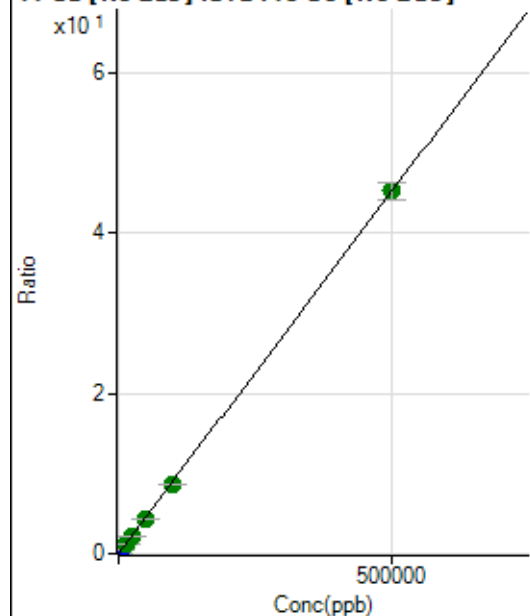
$$R = 0.9999$$

$$DL = 1.85$$

$$BEC = 5.367$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	17942.88	0.0024	P	0.5
2	☐	50.000	49.204	51271.10	0.0068	P	0.7
3	☐	500.000	475.269	348628.12	0.0453	P	0.7
4	☐	5000.000	4889.407	3329903.66	0.4439	P	0.9
5	☐	12500.000	12043.903	7874383.86	1.0900	A	1.0
6	☐	25000.000	24145.051	15216646.00	2.1827	A	0.8
7	☐	50000.000	48592.664	30440962.83	4.3904	A	0.4
8	☐	100000.00	95895.874	60954355.53	8.6620	A	1.1
9	☐	500000.00	501016.83	310535945.8	45.2453	A	4.5

$$y = 9.0302E-005 * x + 0.0024$$

$$R = 1.0000$$

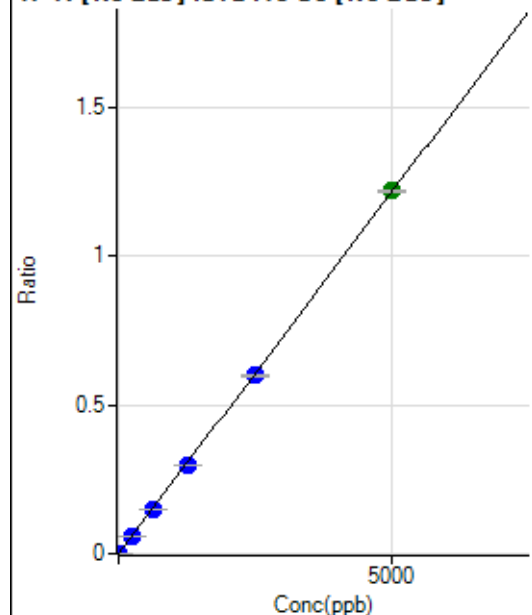
$$DL = 0.3983$$

$$BEC = 26.22$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	19.1
2	☐	0.500	0.535	1091.75	0.0001	P	3.7
3	☐	5.000	5.023	9489.56	0.0012	P	1.5
4	☐	250.000	248.422	451695.67	0.0602	P	0.5
5	☐	625.000	623.823	1092186.01	0.1512	P	0.3
6	☐	1250.000	1230.189	2078256.32	0.2981	P	0.3
7	☐	2500.000	2463.363	4138823.32	0.5969	P	0.2
8	☐	5000.000	5023.497	8566076.84	1.2173	A	0.7
9	☐			2964.30	0.0004	P	5.4

$$y = 2.4231\text{E-}004 * x + 1.5401\text{E-}005$$

$$R = 1.0000$$

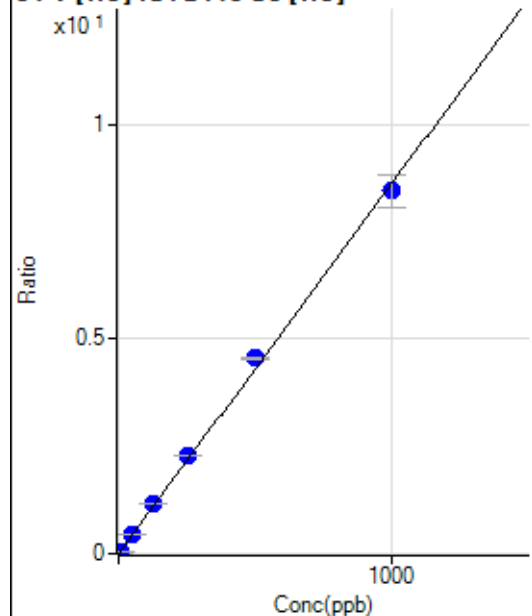
$$DL = 0.03633$$

$$BEC = 0.06356$$

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	30.00	0.0001	P	18.9
2	☐	0.500	0.572	1703.46	0.0050	P	0.9
3	☐	5.000	5.554	16415.98	0.0479	P	1.1
4	☐	50.000	53.611	152879.37	0.4618	P	3.0
5	☐	125.000	133.223	366267.34	1.1475	P	0.8
6	☐	250.000	264.269	711278.31	2.2761	P	0.8
7	☐	500.000	527.929	1412220.22	4.5468	P	0.8
8	☐	1000.000	981.257	2830325.48	8.4511	P	8.8
9	☐			1203.40	0.0039	P	4.5

$$y = 0.0086 * x + 8.8867\text{E-}005$$

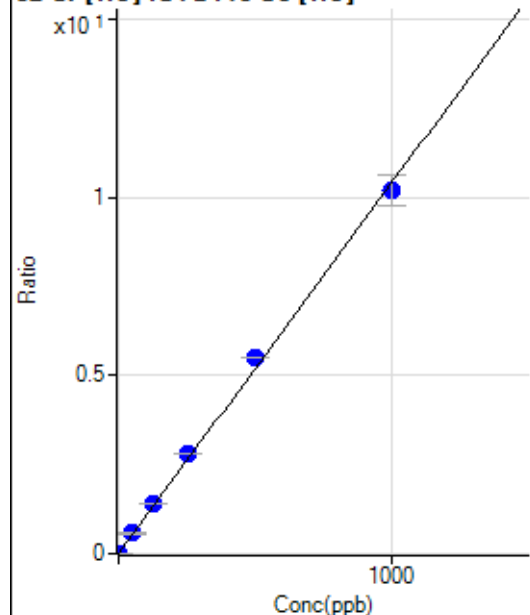
$$R = 0.9993$$

$$DL = 0.005861$$

$$BEC = 0.01032$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	626.69	0.0019	P	4.4
2	☐	0.200	0.210	1372.31	0.0040	P	7.8
3	☐	2.000	2.152	8312.45	0.0243	P	1.9
4	☐	50.000	54.619	188866.01	0.5705	P	2.6
5	☐	125.000	135.807	451874.06	1.4157	P	1.1
6	☐	250.000	268.342	873586.52	2.7954	P	0.7
7	☐	500.000	529.552	1712908.05	5.5148	P	0.7
8	☐	1000.000	979.056	3414552.55	10.1944	P	8.6
9	☐			141657.21	0.4564	P	0.2

$$y = 0.0104 * x + 0.0019$$

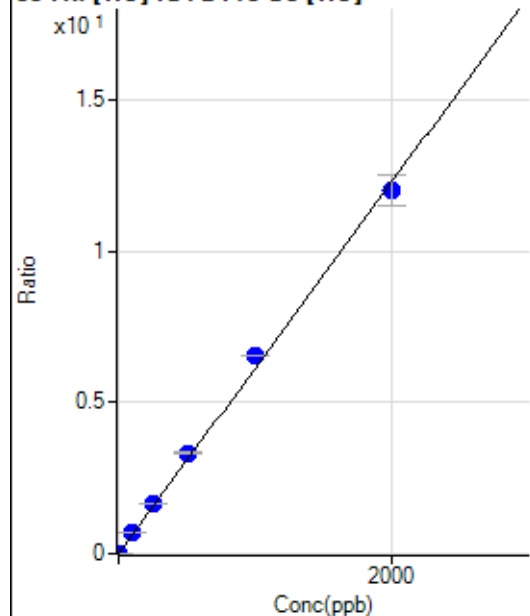
$$R = 0.9992$$

$$DL = 0.02365$$

$$BEC = 0.1784$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	80.00	0.0002	P	19.1
2	☐	0.100	0.113	316.68	0.0009	P	2.5
3	☐	1.000	1.149	2495.80	0.0073	P	4.1
4	☐	100.000	110.032	223723.11	0.6757	P	2.1
5	☐	250.000	272.637	534297.92	1.6739	P	0.7
6	☐	500.000	541.923	1039640.62	3.3269	P	1.3
7	☐	1000.000	1063.997	2028811.62	6.5317	P	0.3
8	☐	2000.000	1954.189	4018691.46	11.9963	P	8.4
9	☐			19678.90	0.0634	P	2.0

$$y = 0.0061 * x + 2.3712E-004$$

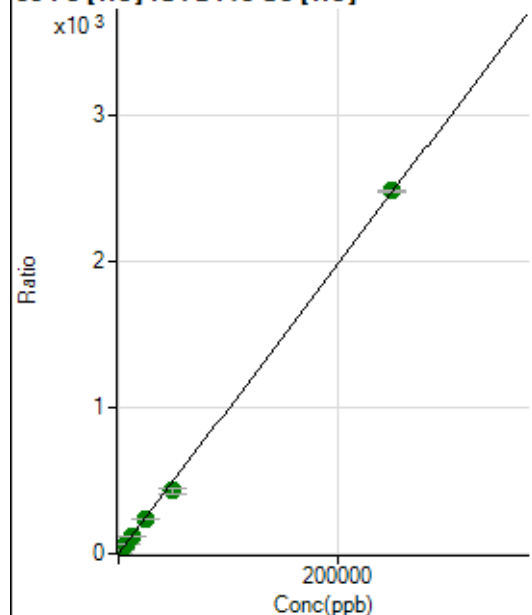
$$R = 0.9990$$

$$DL = 0.02215$$

$$BEC = 0.03863$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4091.42	0.0121	P	5.4
2	☐	5.000	4.849	20401.59	0.0601	P	1.0
3	☐	50.000	50.047	173636.97	0.5069	P	1.5
4	☐	2500.000	2401.978	7866073.50	23.7605	A	2.9
5	☐	6250.000	6038.952	19063185.15	59.7193	A	1.0
6	☐	12500.000	11962.243	36963646.20	118.2830	A	0.9
7	☐	25000.000	23650.576	72627733.10	233.8458	A	1.2
8	☐	50000.000	43781.226	144977336.5	432.8779	A	8.8
9	☐	250000.00	251411.84	771435165.3	2,485.725	A	0.3

$$y = 0.0099 * x + 0.0121$$

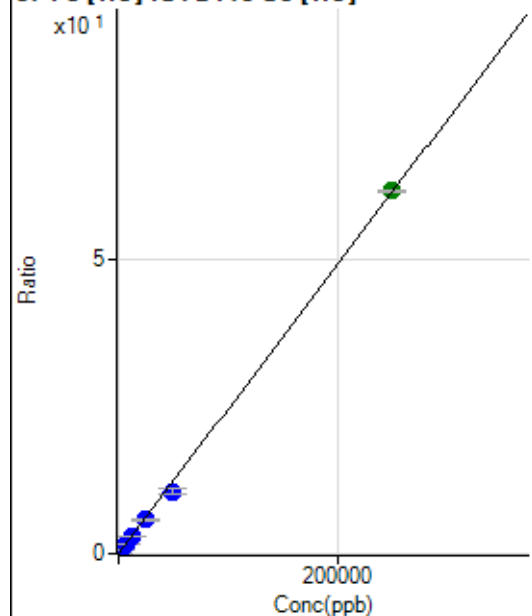
$$R = 0.9997$$

$$DL = 0.1999$$

$$BEC = 1.227$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	272.23	0.0008	P	6.0
2	☐	5.000	4.484	646.33	0.0019	P	6.4
3	☐	50.000	50.564	4511.93	0.0132	P	3.8
4	☐	2500.000	2403.659	194882.97	0.5886	P	2.7
5	☐	6250.000	6054.842	472923.42	1.4816	P	0.6
6	☐	12500.000	11944.069	913078.67	2.9218	P	0.8
7	☐	25000.000	23415.093	1778802.66	5.7272	P	1.1
8	☐	50000.000	43173.956	3536863.85	10.5594	P	8.6
9	☐	250000.00	251557.33	19092941.86	61.5212	A	0.4

$$y = 2.4456E-004 * x + 8.0684E-004$$

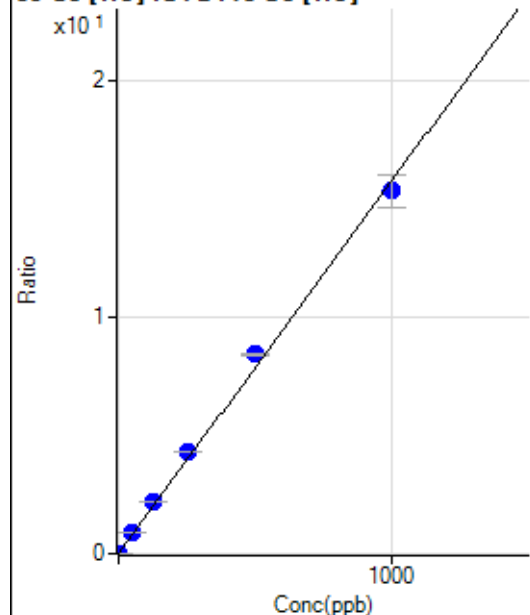
$$R = 0.9996$$

$$DL = 0.5968$$

$$BEC = 3.299$$

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	168.89	0.0005	P	5.5
2	☐	0.100	0.098	692.25	0.0020	P	7.8
3	☐	1.000	1.085	6031.33	0.0176	P	1.4
4	☐	50.000	56.053	292742.72	0.8841	P	2.0
5	☐	125.000	138.755	698340.94	2.1878	P	1.0
6	☐	250.000	273.207	1346033.69	4.3073	P	1.0
7	☐	500.000	535.909	2624041.44	8.4485	P	0.9
8	☐	1000.000	974.222	5143682.81	15.3581	P	8.8
9	☐			11979.48	0.0386	P	1.3

$$y = 0.0158 * x + 5.0048E-004$$

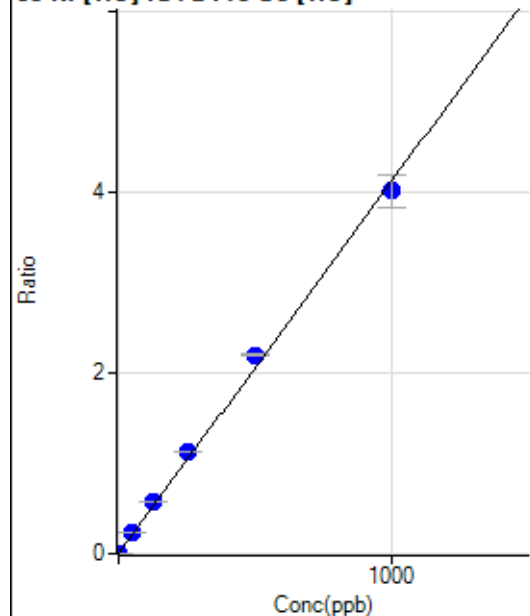
$$R = 0.9987$$

$$DL = 0.005238$$

$$BEC = 0.03175$$

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	53.33	0.0002	P	37.8
2	☐	0.100	0.117	217.78	0.0006	P	11.8
3	☐	1.000	1.097	1603.45	0.0047	P	1.6
4	☐	50.000	56.341	76957.56	0.2325	P	2.8
5	☐	125.000	138.728	182633.85	0.5722	P	0.8
6	☐	250.000	273.416	352348.49	1.1275	P	0.8
7	☐	500.000	534.675	684780.55	2.2047	P	0.9
8	☐	1000.000	974.776	1346125.35	4.0193	P	8.8
9	☐			37786.65	0.1218	P	0.8

$$y = 0.0041 * x + 1.5821E-004$$

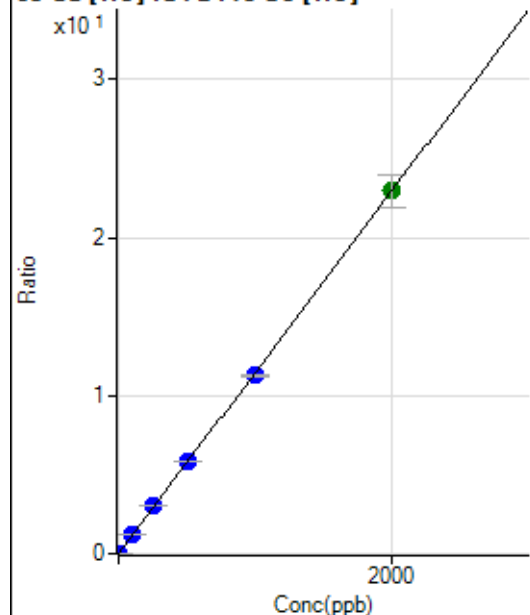
$$R = 0.9988$$

$$DL = 0.04347$$

$$BEC = 0.03837$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	546.69	0.0016	P	10.5
2	☐	0.200	0.218	1396.76	0.0041	P	3.9
3	☐	2.000	2.109	8833.90	0.0258	P	1.6
4	☐	100.000	106.095	403172.54	1.2177	P	2.4
5	☐	250.000	261.611	957675.77	3.0003	P	1.1
6	☐	500.000	509.805	1826611.15	5.8452	P	1.0
7	☐	1000.000	986.317	3511899.81	11.3071	P	1.0
8	☐	2000.000	2002.634	7686545.65	22.9565	A	9.3
9	☐			15255.92	0.0492	P	2.5

$$y = 0.0115 * x + 0.0016$$

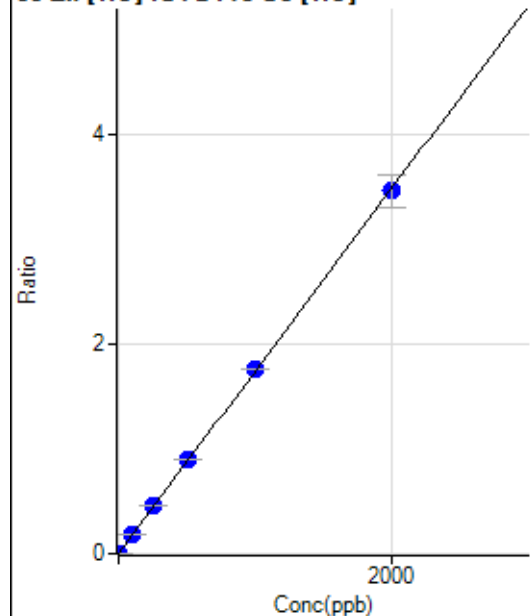
$$R = 0.9999$$

$$DL = 0.04431$$

$$BEC = 0.1413$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	401.12	0.0012	P	4.6
2	☐	0.200					
3	☐	2.000	2.125	1672.34	0.0049	P	0.7
4	☐	100.000	106.778	61816.91	0.1867	P	3.1
5	☐	250.000	262.377	145905.68	0.4571	P	1.3
6	☐	500.000	518.031	281672.22	0.9014	P	1.0
7	☐	1000.000	1011.600	546348.18	1.7590	P	0.7
8	☐	2000.000	1987.806	1157233.88	3.4553	P	8.8
9	☐			24765.59	0.0798	P	1.1

$$y = 0.0017 * x + 0.0012$$

$$R = 0.9999$$

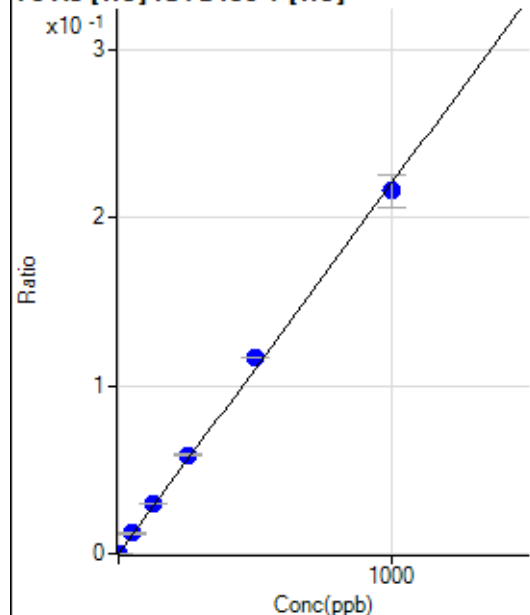
$$DL = 0.0936$$

$$BEC = 0.6843$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15.43	0.0000	P	47.7
2	☐	0.100	0.099	50.62	0.0000	P	24.5
3	☐	1.000	1.094	404.33	0.0003	P	5.9
4	☐	50.000	54.789	18931.53	0.0121	P	2.9
5	☐	125.000	134.027	45363.70	0.0295	P	0.4
6	☐	250.000	267.383	88541.28	0.0589	P	0.4
7	☐	500.000	528.458	174373.14	0.1164	P	0.1
8	☐	1000.000	980.058	345432.62	0.2159	P	8.7
9	☐			172.84	0.0001	P	7.4

$$y = 2.2025\text{E-}004 * x + 9.6501\text{E-}006$$

$$R = 0.9992$$

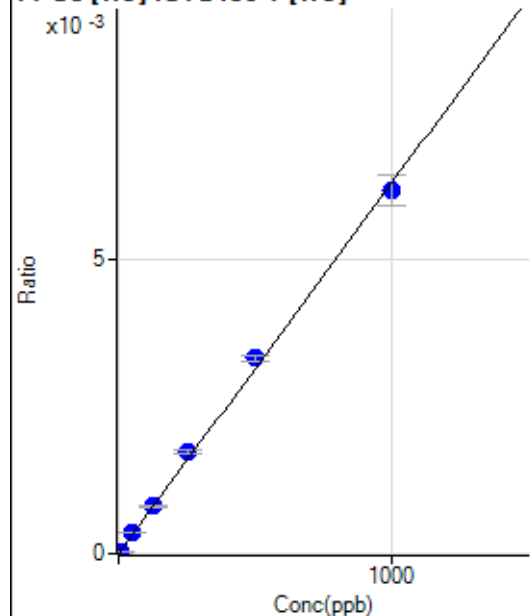
$$DL = 0.06266$$

$$BEC = 0.04382$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.658	6.67	0.0000	P	50.0
3	☐	5.000	6.350	64.45	0.0000	P	32.3
4	☐	50.000	57.032	563.36	0.0004	P	5.0
5	☐	125.000	128.108	1240.07	0.0008	P	2.7
6	☐	250.000	274.651	2601.39	0.0017	P	4.1
7	☐	500.000	527.009	4973.16	0.0033	P	2.6
8	☐	1000.000	979.586	9879.06	0.0062	P	8.4
9	☐			5.56	0.0000	P	35.0

$$y = 6.3006\text{E-}006 * x + 0.0000\text{E+}000$$

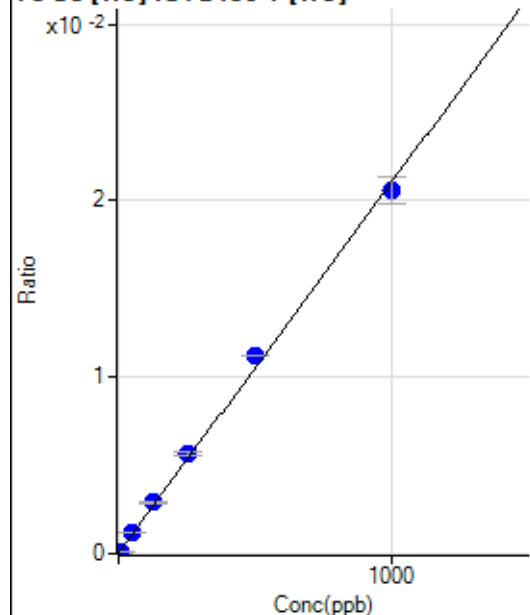
$$R = 0.9991$$

$$DL = 0$$

$$BEC = 0$$

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	70.37	0.0000	P	8.3
2	☐	0.500	0.111	74.69	0.0000	P	10.6
3	☐	5.000	5.520	258.03	0.0002	P	3.5
4	☐	50.000	54.760	1871.13	0.0012	P	1.5
5	☐	125.000	136.943	4482.21	0.0029	P	2.9
6	☐	250.000	267.583	8507.50	0.0057	P	2.3
7	☐	500.000	533.221	16828.35	0.0112	P	0.3
8	☐	1000.000	977.261	32910.11	0.0206	P	7.4
9	☐			72.22	0.0000	P	4.1

$$y = 2.0984\text{E-}005 * x + 4.4137\text{E-}005$$

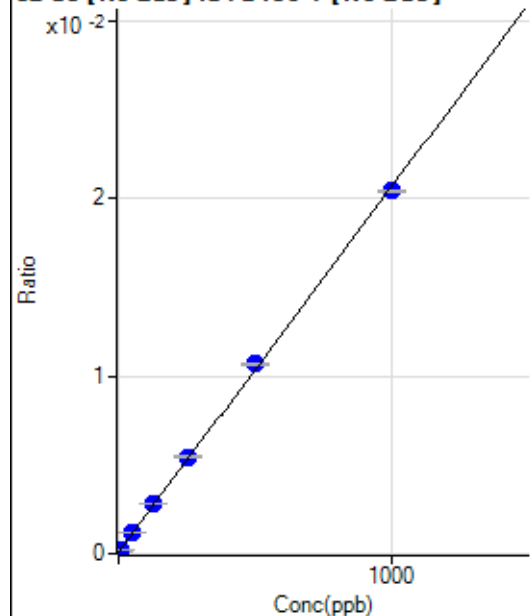
$$R = 0.9990$$

$$DL = 0.5217$$

$$BEC = 2.103$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1065.92	0.0001	P	2.9
2	☐	0.500	0.581	1186.88	0.0001	P	2.1
3	☐	5.000	5.001	2215.89	0.0002	P	1.2
4	☐	50.000	53.359	13055.51	0.0012	P	0.7
5	☐	125.000	132.487	29909.56	0.0028	P	0.7
6	☐	250.000	260.811	57242.44	0.0055	P	0.8
7	☐	500.000	514.750	111265.97	0.0107	P	0.6
8	☐	1000.000	988.818	215541.30	0.0204	P	0.6
9	☐			1026.33	0.0001	P	6.1

$$y = 2.0549\text{E-}005 * x + 9.7216\text{E-}005$$

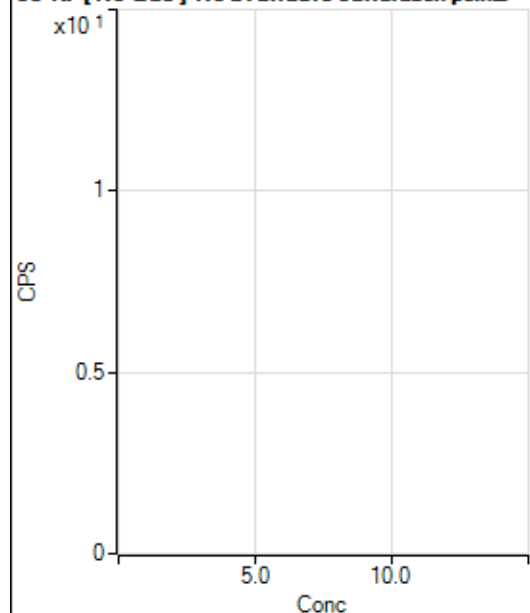
$$R = 0.9998$$

$$DL = 0.4045$$

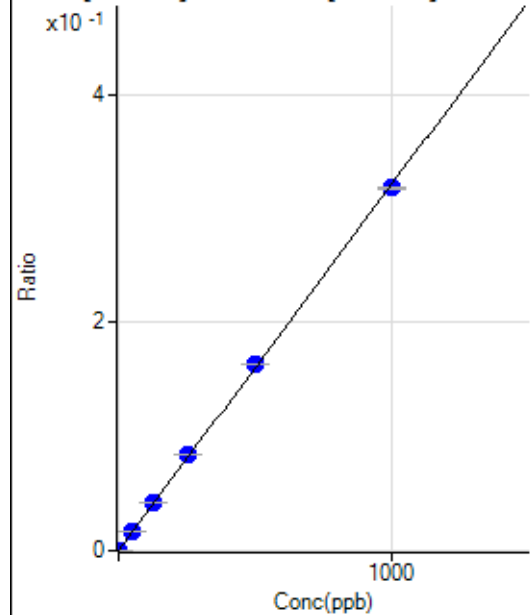
$$BEC = 4.731$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			640.02		P	1.9
2	☐			643.36		P	5.6
3	☐			706.69		P	5.9
4	☐			633.35		P	5.0
5	☐			637.80		P	7.5
6	☐			601.13		P	9.5
7	☐			601.14		P	6.5
8	☐			615.58		P	0.8
9	☐			665.58		P	7.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	969.52	0.0001	P	8.6
2	☐	0.100	0.138	1441.80	0.0001	P	8.5
3	☐	1.000	1.076	4803.75	0.0004	P	1.5
4	☐	50.000	52.112	183804.72	0.0168	P	0.2
5	☐	125.000	132.832	452937.13	0.0427	P	1.1
6	☐	250.000	261.831	882073.60	0.0841	P	0.3
7	☐	500.000	509.823	1705719.77	0.1636	P	0.4
8	☐	1000.000	991.046	3357361.03	0.3180	P	0.5
9	☐			16340.48	0.0016	P	2.7

$$y = 3.2079\text{E-}004 * x + 8.8418\text{E-}005$$

$$R = 0.9998$$

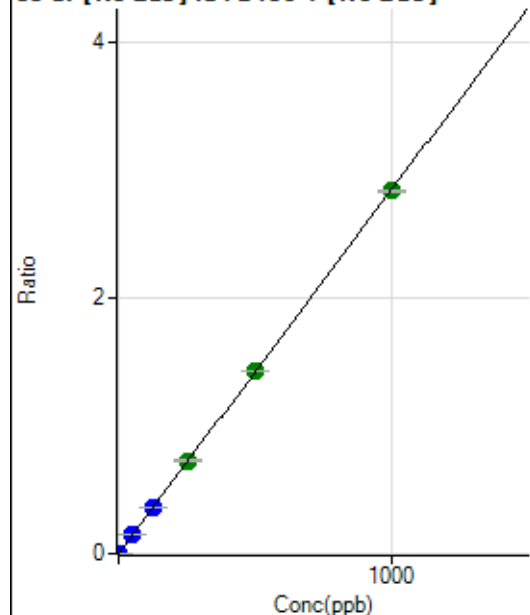
$$DL = 0.07136$$

$$BEC = 0.2756$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	216.68	0.0000	P	11.7
2	☐	0.100	0.096	3175.50	0.0003	P	4.0
3	☐	1.000	1.014	32212.07	0.0029	P	0.4
4	☐	50.000	50.681	1578227.72	0.1443	P	0.8
5	☐	125.000	128.067	3867588.63	0.3646	P	0.2
6	☐	250.000	256.211	7652146.61	0.7294	A	0.3
7	☐	500.000	502.112	14900368.74	1.4295	A	0.2
8	☐	1000.000	996.974	29965201.02	2.8383	A	0.6
9	☐			132497.27	0.0132	P	5.5

$$y = 0.0028 * x + 1.9765E-005$$

$$R = 1.0000$$

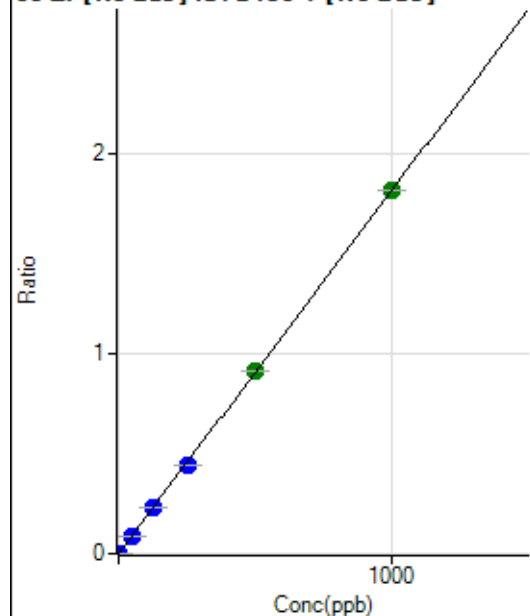
$$DL = 0.002443$$

$$BEC = 0.006943$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	788.94	0.0001	P	15.0
2	☐	0.100	0.084	2439.19	0.0002	P	7.8
3	☐	1.000	0.911	19144.15	0.0017	P	2.4
4	☐	50.000	49.713	988917.76	0.0904	P	0.4
5	☐	125.000	124.981	2410087.32	0.2272	P	0.5
6	☐	250.000	245.396	4679288.34	0.4460	P	0.5
7	☐	500.000	502.490	9519638.41	0.9133	A	0.2
8	☐	1000.000	999.923	19185841.40	1.8173	A	0.1
9	☐			7118.73	0.0007	P	6.0

$$y = 0.0018 * x + 7.1968E-005$$

$$R = 1.0000$$

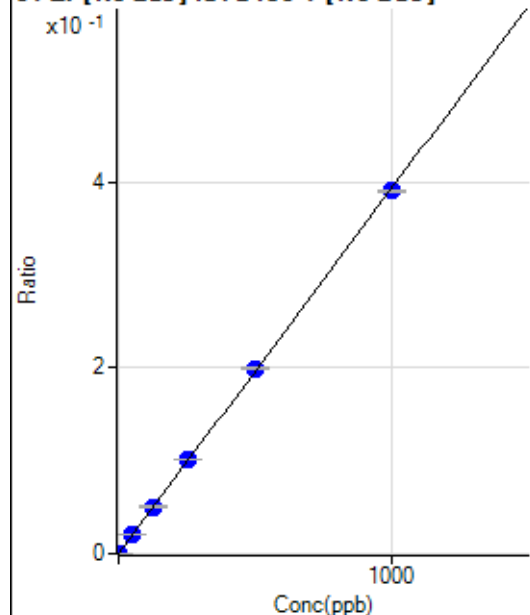
$$DL = 0.01779$$

$$BEC = 0.0396$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	111.11	0.0000	P	30.1
2	☐	0.100	0.106	561.15	0.0001	P	24.9
3	☐	1.000	0.901	4036.85	0.0004	P	2.5
4	☐	50.000	50.945	219104.40	0.0200	P	1.1
5	☐	125.000	128.910	537541.82	0.0507	P	0.7
6	☐	250.000	257.723	1062737.95	0.1013	P	0.8
7	☐	500.000	507.637	2079810.88	0.1995	P	0.4
8	☐	1000.000	993.715	4123411.42	0.3906	P	0.3
9	☐			1636.27	0.0002	P	7.7

$$y = 3.9303\text{E-}004 * x + 1.0130\text{E-}005$$

$$R = 0.9999$$

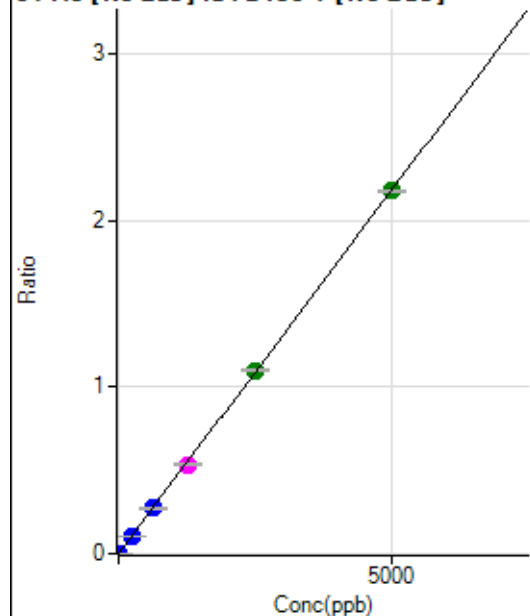
$$DL = 0.02331$$

$$BEC = 0.02577$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	325.02	0.0000	P	12.8
2	☐	0.500	0.463	2519.78	0.0002	P	3.8
3	☐	5.000	4.870	23870.64	0.0022	P	2.1
4	☐	250.000	250.407	1195050.10	0.1093	P	0.5
5	☐	625.000	622.194	2879442.73	0.2715	P	0.5
6	☐	1250.000	1223.793	5600799.39	0.5339	M	1.8
7	☐	2500.000	2526.366	11488147.13	1.1021	A	0.5
8	☐	5000.000	4993.699	22998823.78	2.1785	A	0.6
9	☐			24738.84	0.0025	P	5.1

$$y = 4.3623\text{E-}004 * x + 2.9643\text{E-}005$$

$$R = 1.0000$$

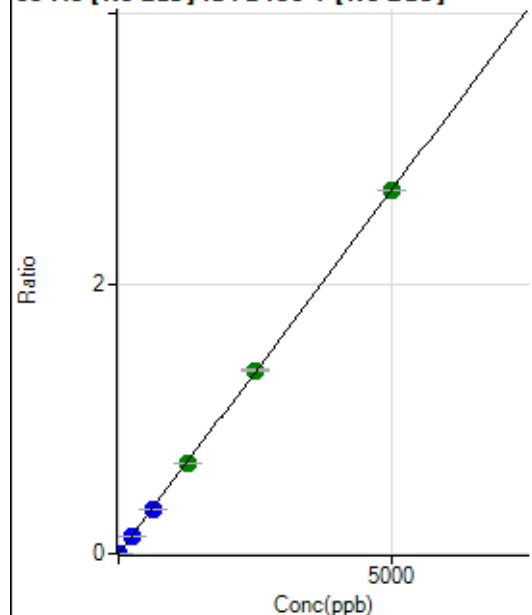
$$DL = 0.02605$$

$$BEC = 0.06795$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	152.78	0.0000	P	12.5
2	☐	0.500	0.500	3075.46	0.0003	P	4.8
3	☐	5.000	4.931	29567.55	0.0027	P	0.8
4	☐	250.000	249.724	1470493.92	0.1345	P	0.6
5	☐	625.000	618.694	3533171.30	0.3331	P	0.4
6	☐	1250.000	1239.910	7002626.11	0.6675	A	0.6
7	☐	2500.000	2523.341	14159599.45	1.3584	A	0.6
8	☐	5000.000	4991.654	28370256.19	2.6872	A	0.2
9	☐			38419.37	0.0038	P	5.5

$$y = 5.3834E-004 * x + 1.3933E-005$$

$$R = 1.0000$$

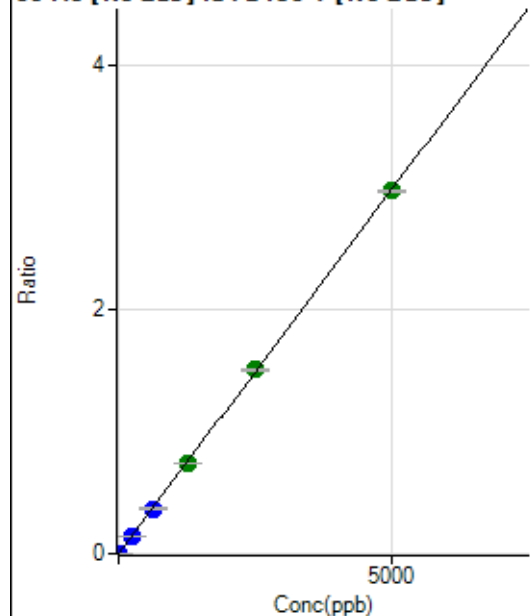
$$DL = 0.009679$$

$$BEC = 0.02588$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.35	0.0000	P	0.2
2	☐	0.500	0.500	3517.26	0.0003	P	6.0
3	☐	5.000	4.938	32874.83	0.0030	P	0.6
4	☐	250.000	250.371	1631217.59	0.1491	P	0.4
5	☐	625.000	619.808	3916052.21	0.3692	P	0.8
6	☐	1250.000	1250.096	7811150.78	0.7446	A	0.2
7	☐	2500.000	2527.819	15693621.88	1.5056	A	0.6
8	☐	5000.000	4986.697	31356548.27	2.9701	A	0.4
9	☐			51413.16	0.0051	P	5.0

$$y = 5.9559E-004 * x + 2.5843E-005$$

$$R = 1.0000$$

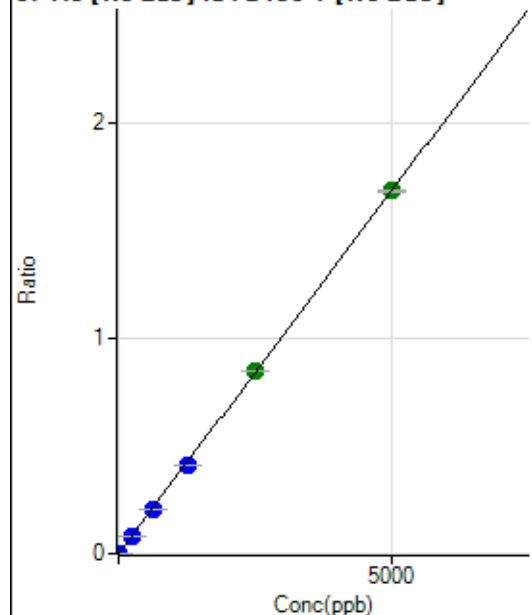
$$DL = 0.0002654$$

$$BEC = 0.04339$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	127.79	0.0000	P	3.6
2	☐	0.500	0.478	1875.19	0.0002	P	3.6
3	☐	5.000	5.011	18802.01	0.0017	P	2.4
4	☐	250.000	248.817	915246.93	0.0837	P	1.1
5	☐	625.000	620.158	2212276.37	0.2086	P	0.8
6	☐	1250.000	1209.806	4268099.36	0.4068	P	0.6
7	☐	2500.000	2519.744	8832471.47	0.8474	A	0.7
8	☐	5000.000	5000.841	17754527.82	1.6817	A	0.5
9	☐			23472.79	0.0023	P	4.8

$$y = 3.3628\text{E-}004 * x + 1.1655\text{E-}005$$

$$R = 1.0000$$

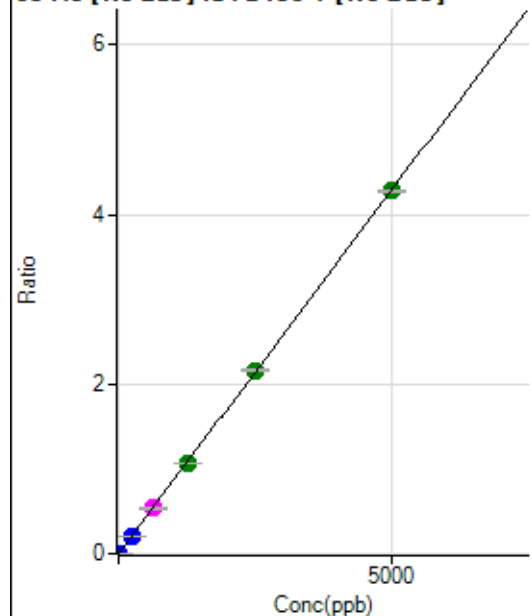
$$DL = 0.003783$$

$$BEC = 0.03466$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	263.90	0.0000	P	14.9
2	☐	0.500	0.523	5137.23	0.0005	P	0.4
3	☐	5.000	4.945	47237.81	0.0043	P	0.6
4	☐	250.000	248.581	2330925.96	0.2131	P	1.3
5	☐	625.000	622.491	5660858.20	0.5337	M	2.1
6	☐	1250.000	1241.548	11165978.72	1.0644	A	0.5
7	☐	2500.000	2522.613	22541993.04	2.1626	A	1.1
8	☐	5000.000	4991.191	45174185.39	4.2788	A	0.9
9	☐			60855.88	0.0060	P	6.0

$$y = 8.5727\text{E-}004 * x + 2.4069\text{E-}005$$

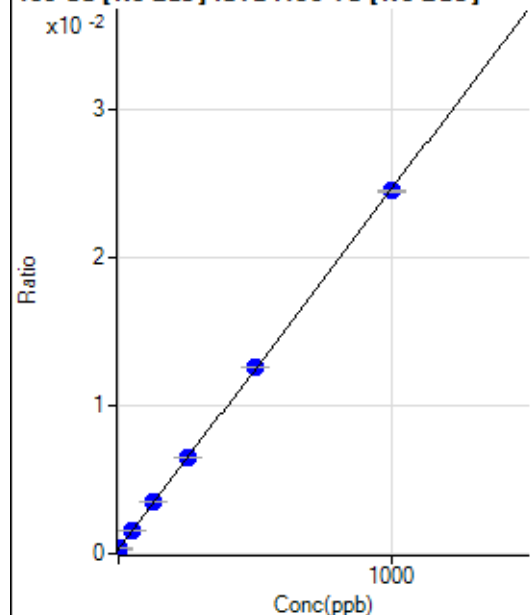
$$R = 1.0000$$

$$DL = 0.01253$$

$$BEC = 0.02808$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3892.35	0.0003	P	4.5
2	☐	0.100	1.040	4178.56	0.0003	P	1.9
3	☐	1.000	1.271	4298.06	0.0003	P	1.3
4	☐	50.000	53.193	20535.11	0.0016	P	2.6
5	☐	125.000	130.598	44092.03	0.0035	P	1.5
6	☐	250.000	253.155	82270.03	0.0065	P	0.4
7	☐	500.000	506.013	159801.01	0.0126	P	0.5
8	☐	1000.000	995.345	313689.48	0.0245	P	0.7
9	☐			3842.37	0.0003	P	4.5

$$y = 2.4290E-005 * x + 3.0465E-004$$

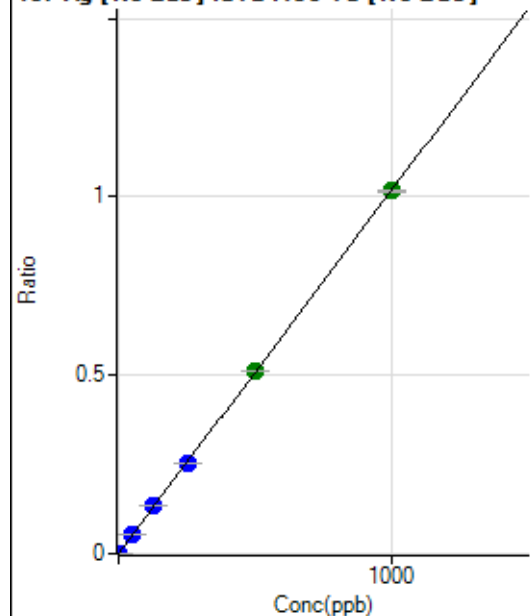
$$R = 1.0000$$

$$DL = 1.682$$

$$BEC = 12.54$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	122.23	0.0000	P	23.6
2	☐	0.100	0.112	1569.59	0.0001	P	2.3
3	☐	1.000	1.091	14355.05	0.0011	P	1.1
4	☐	50.000	53.453	700109.67	0.0544	P	1.2
5	☐	125.000	130.704	1687797.65	0.1331	P	0.8
6	☐	250.000	248.563	3226337.53	0.2531	P	1.1
7	☐	500.000	501.454	6477858.74	0.5106	A	0.3
8	☐	1000.000	998.746	13030441.44	1.0170	A	0.5
9	☐			3397.78	0.0003	P	1.7

$$y = 0.0010 * x + 9.5627E-006$$

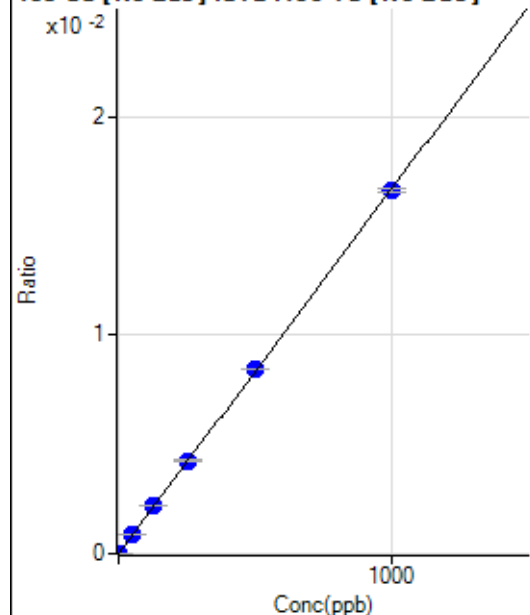
$$R = 1.0000$$

$$DL = 0.006655$$

$$BEC = 0.009392$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	66.8
2	☐	0.100	0.047	26.39	0.0000	P	51.6
3	☐	1.000	1.072	245.84	0.0000	P	17.9
4	☐	50.000	53.207	11438.14	0.0009	P	3.0
5	☐	125.000	130.998	27742.70	0.0022	P	1.7
6	☐	250.000	255.468	54370.77	0.0043	P	0.8
7	☐	500.000	505.160	106983.41	0.0084	P	0.4
8	☐	1000.000	995.143	212836.59	0.0166	P	0.9
9	☐			112.50	0.0000	P	22.1

$$y = 1.6691\text{E-}005 * x + 1.3080\text{E-}006$$

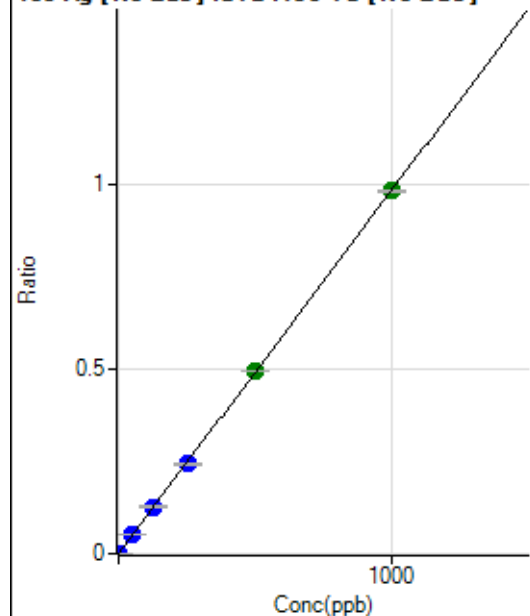
$$R = 1.0000$$

$$DL = 0.1569$$

$$BEC = 0.07837$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	83.34	0.0000	P	25.8
2	☐	0.100	0.104	1377.91	0.0001	P	6.3
3	☐	1.000	1.098	13918.48	0.0011	P	2.0
4	☐	50.000	53.237	673697.09	0.0524	P	0.9
5	☐	125.000	129.222	1612221.02	0.1271	P	1.1
6	☐	250.000	246.962	3097233.79	0.2430	P	0.6
7	☐	500.000	502.034	6266169.85	0.4939	A	0.3
8	☐	1000.000	999.053	12593782.66	0.9829	A	0.7
9	☐			3067.13	0.0003	P	6.9

$$y = 9.8380\text{E-}004 * x + 6.5157\text{E-}006$$

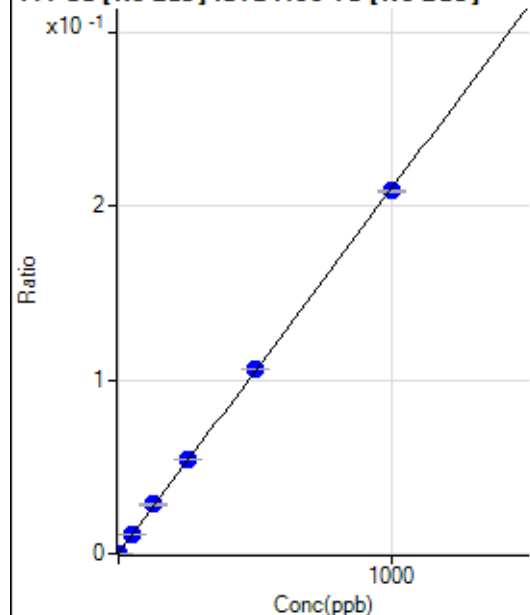
$$R = 1.0000$$

$$DL = 0.005129$$

$$BEC = 0.006623$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1995.62	0.0002	P	4.7
2	☐	0.100					
3	☐	1.000	1.029	4766.17	0.0004	P	1.7
4	☐	50.000	54.225	148340.75	0.0115	P	1.0
5	☐	125.000	133.944	358387.08	0.0283	P	0.8
6	☐	250.000	258.391	693132.95	0.0544	P	0.3
7	☐	500.000	505.668	1348093.31	0.1063	P	0.3
8	☐	1000.000	993.739	2673718.88	0.2087	P	0.8
9	☐			2816.10	0.0002	P	3.9

$$y = 2.0983\text{E-}004 * x + 1.5619\text{E-}004$$

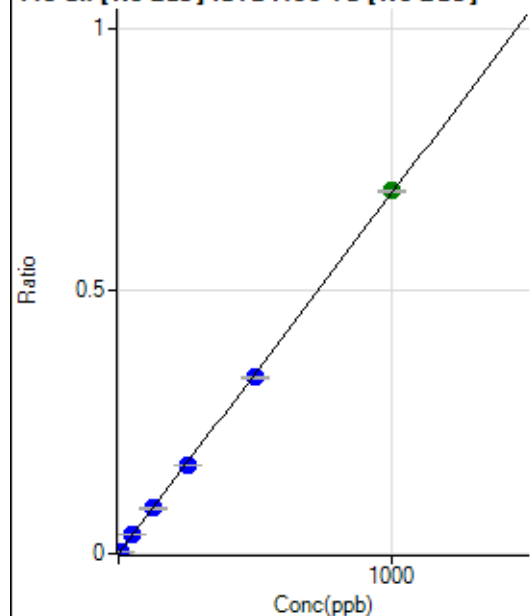
$$R = 0.9999$$

$$DL = 0.1052$$

$$BEC = 0.7444$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	991.75	0.0001	P	4.6
2	☐	0.500	0.520	5501.32	0.0004	P	5.3
3	☐	5.000	5.113	45895.49	0.0036	P	1.4
4	☐	50.000	51.357	453793.65	0.0353	P	0.6
5	☐	125.000	125.344	1090630.56	0.0860	P	0.8
6	☐	250.000	244.373	2136464.17	0.1676	P	1.0
7	☐	500.000	488.805	4252256.39	0.3352	P	0.7
8	☐	1000.000	1006.893	8845254.71	0.6903	A	0.8
9	☐			6165.51	0.0005	P	7.9

$$y = 6.8553\text{E-}004 * x + 7.7610\text{E-}005$$

$$R = 0.9999$$

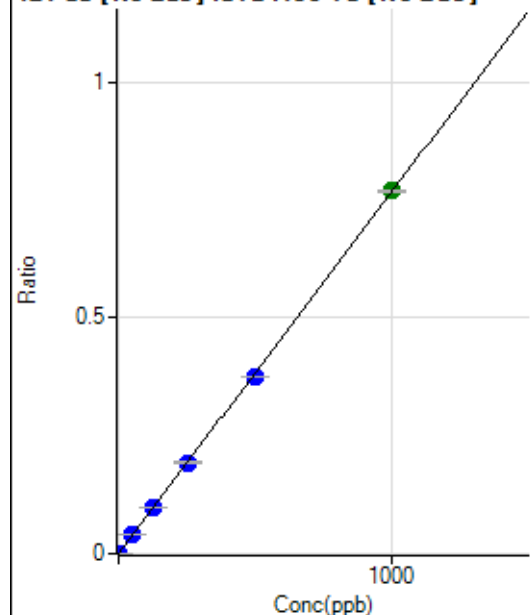
$$DL = 0.01554$$

$$BEC = 0.1132$$

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	138.89	0.0000	P	29.6
2	☐	0.200	0.201	2091.92	0.0002	P	4.3
3	☐	2.000	1.977	19533.60	0.0015	P	2.3
4	☐	50.000	51.353	505993.37	0.0393	P	0.8
5	☐	125.000	128.668	1249871.38	0.0986	P	0.2
6	☐	250.000	252.291	2463341.33	0.1932	P	0.8
7	☐	500.000	490.827	4769461.04	0.3759	P	0.1
8	☐	1000.000	1003.487	9848080.08	0.7686	A	0.5
9	☐			11291.12	0.0010	P	4.6

$$y = 7.6591\text{E-}004 * x + 1.0857\text{E-}005$$

$$R = 0.9999$$

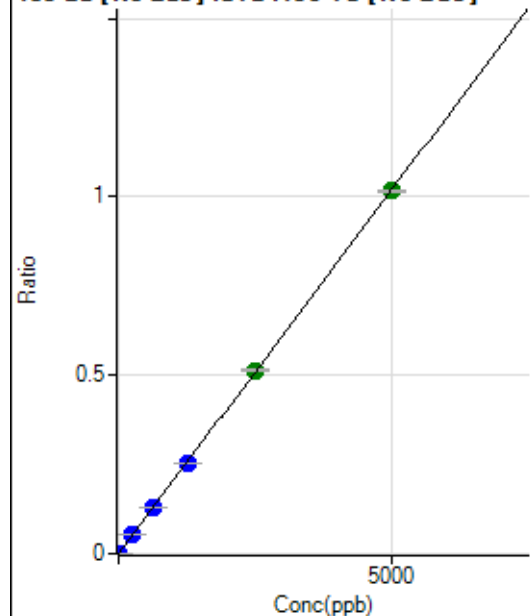
$$DL = 0.01257$$

$$BEC = 0.01418$$

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	102.78	0.0000	P	16.3
2	☐	1.000	0.966	2594.79	0.0002	P	9.0
3	☐	10.000	10.254	26868.53	0.0021	P	1.4
4	☐	250.000	258.520	677618.12	0.0527	P	0.2
5	☐	625.000	631.797	1632712.80	0.1287	P	0.6
6	☐	1250.000	1236.271	3211398.99	0.2519	P	0.7
7	☐	2500.000	2524.806	6527201.41	0.5145	A	0.3
8	☐	5000.000	4989.753	13028003.16	1.0168	A	0.4
9	☐			3856.26	0.0003	P	6.0

$$y = 2.0377\text{E-}004 * x + 8.0391\text{E-}006$$

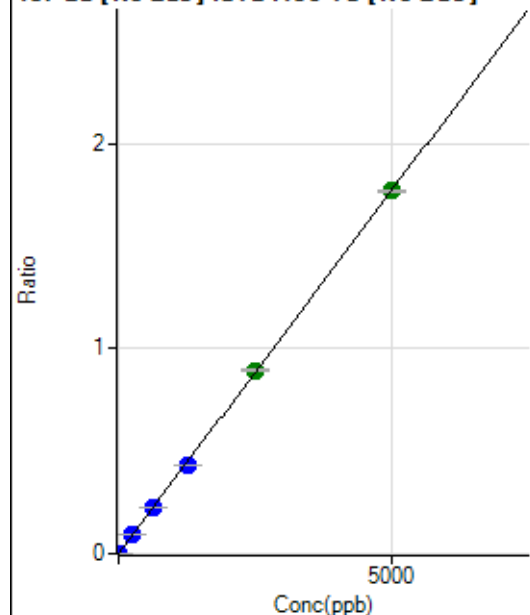
$$R = 1.0000$$

$$DL = 0.01929$$

$$BEC = 0.03945$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	147.23	0.0000	P	17.1
2	☐	1.000	1.017	4709.34	0.0004	P	2.9
3	☐	10.000	10.288	46835.46	0.0037	P	2.4
4	☐	250.000	255.932	1166221.93	0.0907	P	0.6
5	☐	625.000	629.466	2828053.95	0.2230	P	0.3
6	☐	1250.000	1212.625	5476195.91	0.4296	P	0.7
7	☐	2500.000	2521.088	11330612.15	0.8931	A	0.7
8	☐	5000.000	4997.944	22686577.24	1.7706	A	0.4
9	☐			6568.48	0.0006	P	7.9

$$y = 3.5426E-004 * x + 1.1521E-005$$

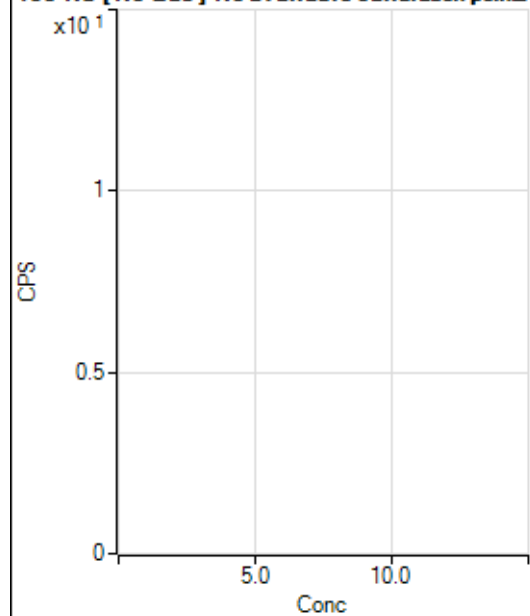
$$R = 1.0000$$

$$DL = 0.01671$$

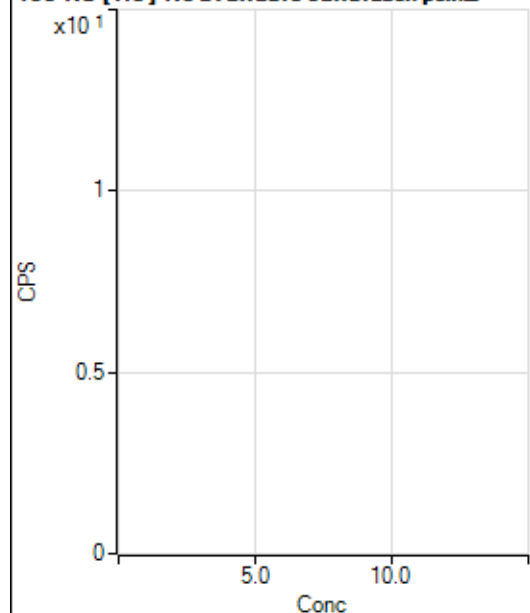
$$BEC = 0.03252$$

Weight: <None>

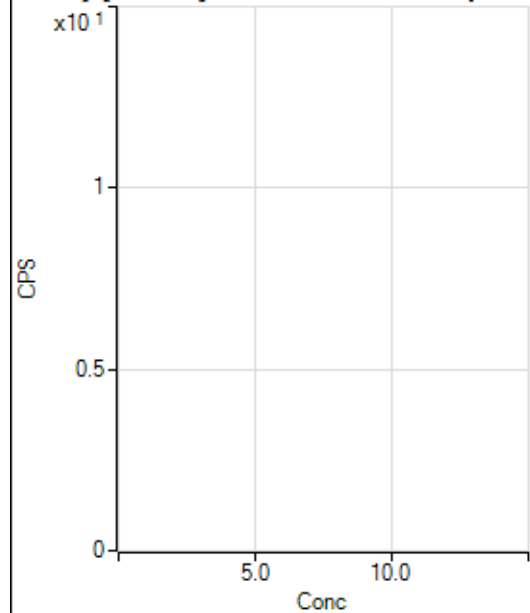
Min Conc: 0

150 Nd [No Gas] No available calibration points

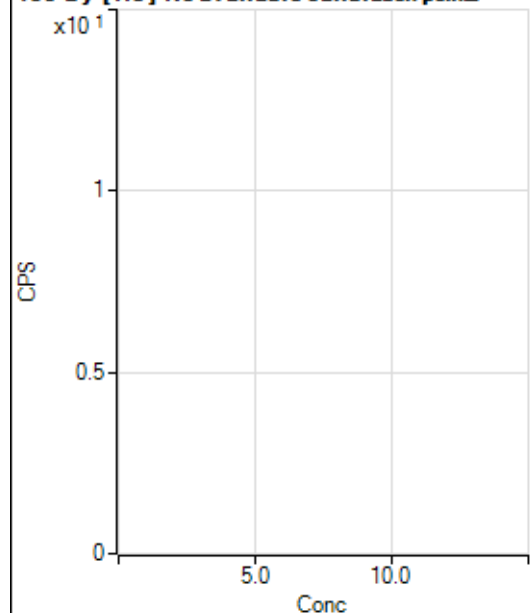
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			6.67		P	100.
3	☐			15.56		P	49.5
4	☐			68.89		P	20.1
5	☐			135.56		P	7.5
6	☐			277.79		P	11.3
7	☐			508.92		P	4.2
8	☐			917.84		P	4.7
9	☐			126.67		P	19.0

150 Nd [He] No available calibration points

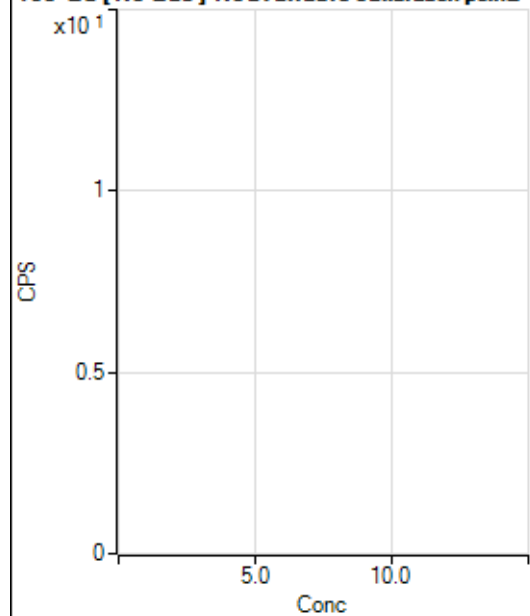
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			7.78		P	89.2
2	☐			7.78		P	65.5
3	☐			6.67		P	100.
4	☐			21.11		P	32.9
5	☐			21.11		P	18.2
6	☐			43.33		P	23.1
7	☐			67.78		P	5.7
8	☐			95.56		P	5.3
9	☐			64.45		P	36.3

156 Dy [No Gas] No available calibration points

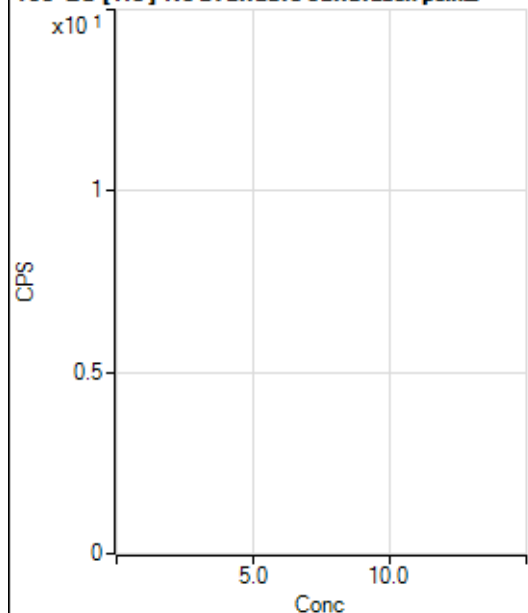
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐			16.67		P	50.0
3	☐			36.11		P	87.4
4	☐			41.67		P	20.0
5	☐			58.33		P	49.5
6	☐			86.11		P	14.8
7	☐			122.23		P	31.5
8	☐			183.34		P	15.7
9	☐			105.56		P	19.9

156 Dy [He] No available calibration points

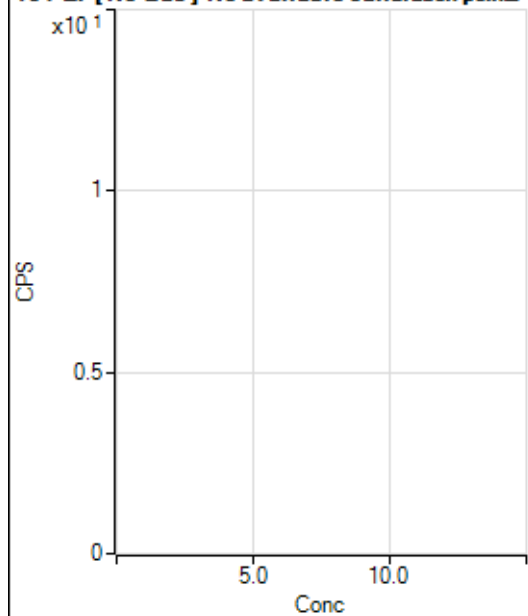
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			24.45		P	28.4
2	☐			23.33		P	49.5
3	☐			21.11		P	45.6
4	☐			37.78		P	28.4
5	☐			72.23		P	16.2
6	☐			87.78		P	8.8
7	☐			151.11		P	24.2
8	☐			247.78		P	12.7
9	☐			36.66		P	31.5

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

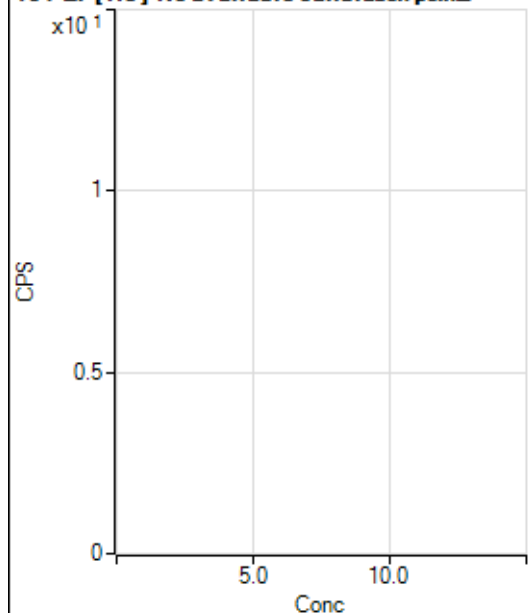
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			102.78		P	32.8
2	☐			119.45		P	4.0
3	☐			77.78		P	44.6
4	☐			130.56		P	22.4
5	☐			122.23		P	19.7
6	☐			111.11		P	8.7
7	☐			125.01		P	6.7
8	☐			108.34		P	42.8
9	☐			125.01		P	30.5

160 Gd [He] No available calibration points

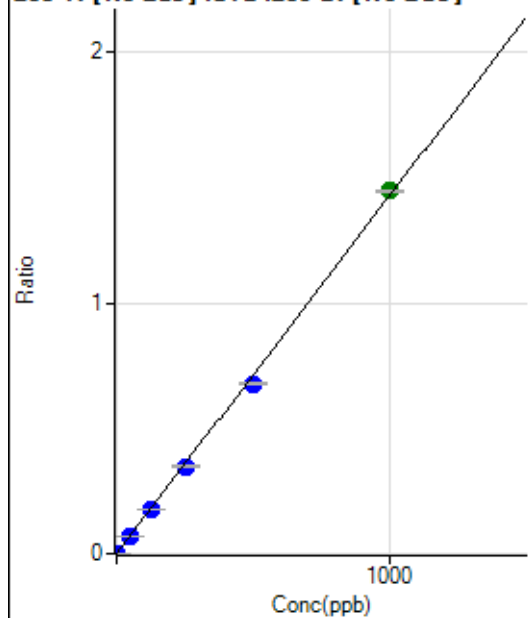
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			265.57		P	18.3
2	☐			261.12		P	8.2
3	☐			256.67		P	8.5
4	☐			255.56		P	12.7
5	☐			285.57		P	8.8
6	☐			261.12		P	6.0
7	☐			276.67		P	3.2
8	☐			258.90		P	7.1
9	☐			244.45		P	0.8

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			91.67		P	24.1
2	☐			108.34		P	15.4
3	☐			127.79		P	10.0
4	☐			100.00		P	38.2
5	☐			125.00		P	43.7
6	☐			133.34		P	6.2
7	☐			91.67		P	27.3
8	☐			125.01		P	20.0
9	☐			130.56		P	28.8

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			53.33		P	10.8
2	☐			55.56		P	22.7
3	☐			61.11		P	22.7
4	☐			65.56		P	12.8
5	☐			81.11		P	39.9
6	☐			72.23		P	39.3
7	☐			74.45		P	2.6
8	☐			72.22		P	10.7
9	☐			57.78		P	8.8

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	455.58	0.0001	P	11.1
2	☐	0.100	0.102	1477.93	0.0002	P	10.8
3	☐	1.000	0.942	10140.42	0.0014	P	3.3
4	☐	50.000	48.898	497669.16	0.0698	P	0.9
5	☐	125.000	123.400	1224826.38	0.1761	P	0.1
6	☐	250.000	244.419	2402284.45	0.3487	P	0.9
7	☐	500.000	475.248	4679636.26	0.6779	P	0.5
8	☐	1000.000	1014.026	9727653.26	1.4463	A	0.5
9	☐			3175.50	0.0006	P	7.8

$$y = 0.0014 * x + 6.2648E-005$$

$$R = 0.9996$$

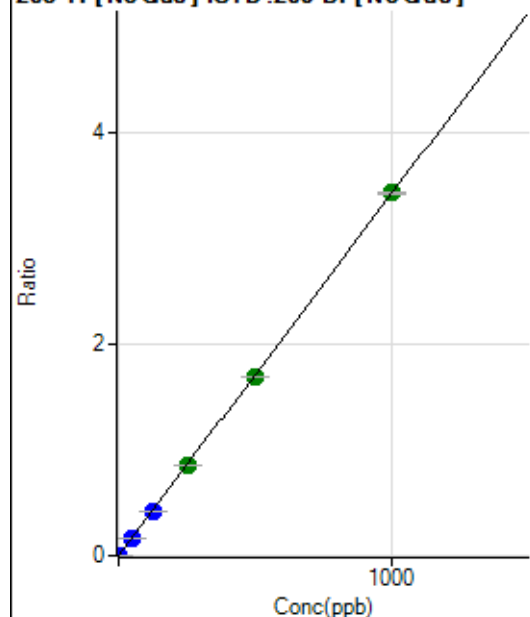
$$DL = 0.01465$$

$$BEC = 0.04393$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	897.29	0.0001	P	3.4
2	☐	0.100	0.089	3042.14	0.0004	P	1.4
3	☐	1.000	0.950	24365.10	0.0034	P	2.8
4	☐	50.000	48.885	1195269.17	0.1676	P	0.3
5	☐	125.000	121.846	2905762.22	0.4177	P	0.1
6	☐	250.000	249.064	5881726.43	0.8536	A	0.7
7	☐	500.000	495.879	11732222.66	1.6994	A	0.1
8	☐	1000.000	1002.744	23113101.04	3.4364	A	0.7
9	☐			7457.97	0.0013	P	3.9

$$y = 0.0034 * x + 1.2343E-004$$

$$R = 1.0000$$

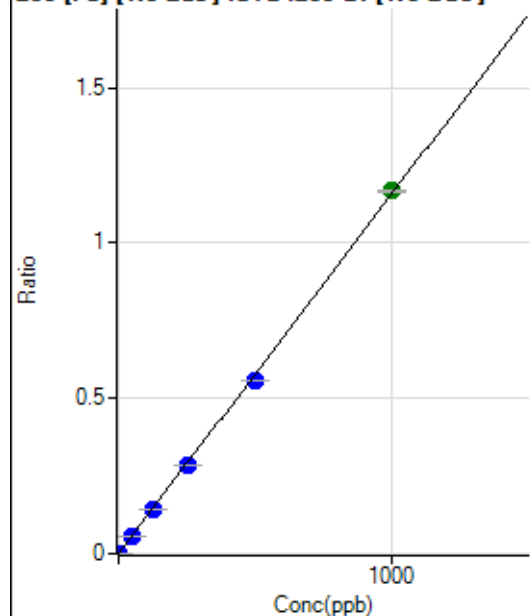
$$DL = 0.003669$$

$$BEC = 0.03602$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	933.40	0.0001	P	11.6
2	☐	0.100	0.073	1516.79	0.0002	P	7.7
3	☐	1.000	0.916	8565.97	0.0012	P	2.7
4	☐	50.000	49.610	409726.93	0.0575	P	0.5
5	☐	125.000	125.295	1008391.90	0.1449	P	0.4
6	☐	250.000	246.949	1967577.98	0.2856	P	0.2
7	☐	500.000	482.085	3847591.43	0.5573	P	0.6
8	☐	1000.000	1009.703	7850313.54	1.1671	A	0.7
9	☐			23128.06	0.0041	P	4.2

$$y = 0.0012 * x + 1.2846E-004$$

$$R = 0.9998$$

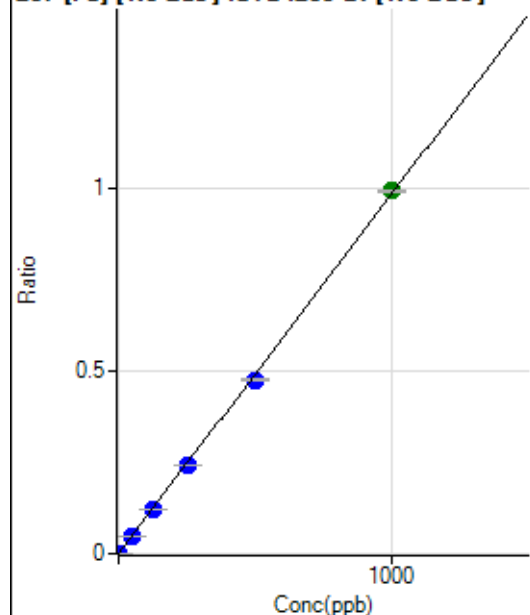
$$DL = 0.03857$$

$$BEC = 0.1111$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	766.71	0.0001	P	7.6
2	☐	0.100	0.098	1437.16	0.0002	P	6.1
3	☐	1.000	0.972	7637.61	0.0011	P	3.4
4	☐	50.000	49.621	347955.54	0.0488	P	1.0
5	☐	125.000	125.327	856452.34	0.1231	P	0.3
6	☐	250.000	245.697	1662256.49	0.2412	P	0.1
7	☐	500.000	483.524	3276858.49	0.4747	P	0.5
8	☐	1000.000	1009.292	6663273.12	0.9907	A	0.5
9	☐			19915.55	0.0035	P	4.2

$$y = 9.8144\text{E-}004 * x + 1.0548\text{E-}004$$

$$R = 0.9998$$

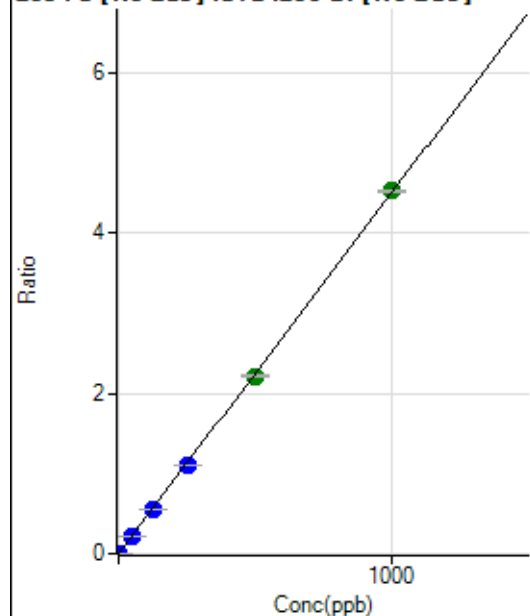
$$DL = 0.02447$$

$$BEC = 0.1075$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3257.66	0.0004	P	5.2
2	☐	0.100	0.083	5843.23	0.0008	P	2.7
3	☐	1.000	0.954	34196.00	0.0047	P	1.1
4	☐	50.000	49.491	1591449.68	0.2232	P	0.4
5	☐	125.000	124.065	3888202.18	0.5589	P	0.0
6	☐	250.000	243.456	7553873.97	1.0963	P	0.2
7	☐	500.000	492.259	15300021.41	2.2162	A	0.5
8	☐	1000.000	1005.649	30449448.01	4.5271	A	0.4
9	☐			90928.36	0.0159	P	4.8

$$y = 0.0045 * x + 4.4821\text{E-}004$$

$$R = 0.9999$$

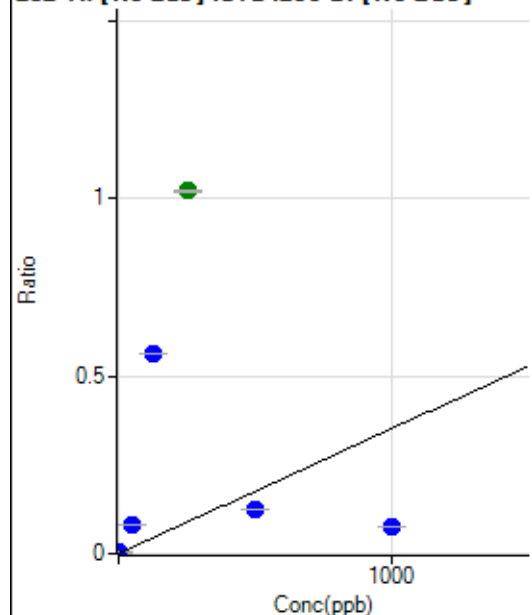
$$DL = 0.01547$$

$$BEC = 0.09958$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1759.44	0.0002	P	11.2
2	☐	0.100	1.125	4537.98	0.0006	P	4.6
3	☐	1.000	11.131	29985.62	0.0042	P	1.1
4	☐	50.000	234.069	588884.04	0.0826	P	0.7
5	☐	125.000	1594.175	3903879.02	0.5611	P	0.3
6	☐	250.000	2901.216	7035081.81	1.0210	A	0.8
7	☐	500.000	359.018	873725.40	0.1266	P	0.8
8	☐	1000.000	214.827	510020.59	0.0758	P	0.6
9	☐			2496.60	0.0004	P	5.4

$$y = 3.5184\text{E-}004 * x + 2.4200\text{E-}004$$

$$R = 0.0197$$

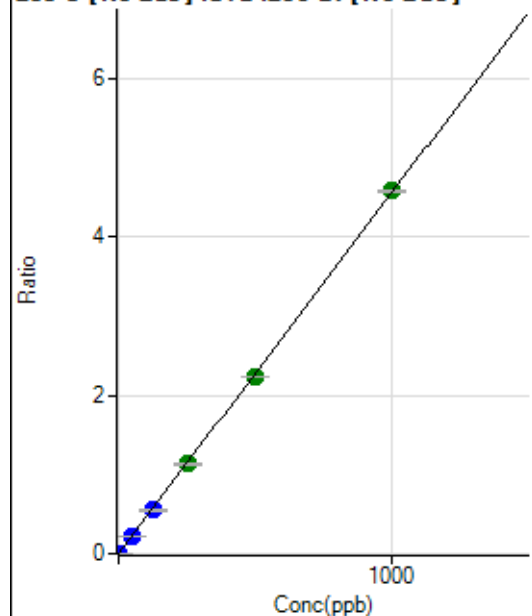
$$DL = 0.2314$$

$$BEC = 0.6878$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2603.15	0.0004	P	4.7
2	☐	0.100	0.088	5404.18	0.0008	P	2.0
3	☐	1.000	0.907	32375.92	0.0045	P	1.2
4	☐	50.000	47.096	1532934.96	0.2150	P	0.7
5	☐	125.000	119.961	3806299.45	0.5471	P	0.3
6	☐	250.000	247.923	7788306.73	1.1303	A	1.1
7	☐	500.000	490.997	15451966.49	2.2382	A	0.5
8	☐	1000.000	1005.796	30836005.03	4.5846	A	0.6
9	☐			7872.22	0.0014	P	7.8

$$y = 0.0046 * x + 3.5817\text{E-}004$$

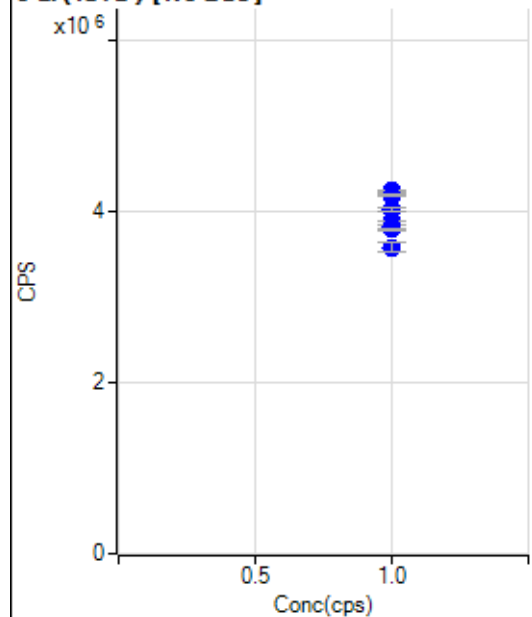
$$R = 0.9999$$

$$DL = 0.01117$$

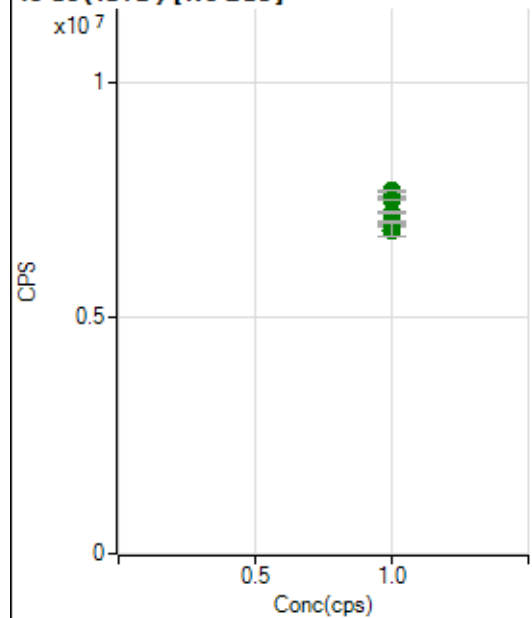
$$BEC = 0.07858$$

Weight: <None>

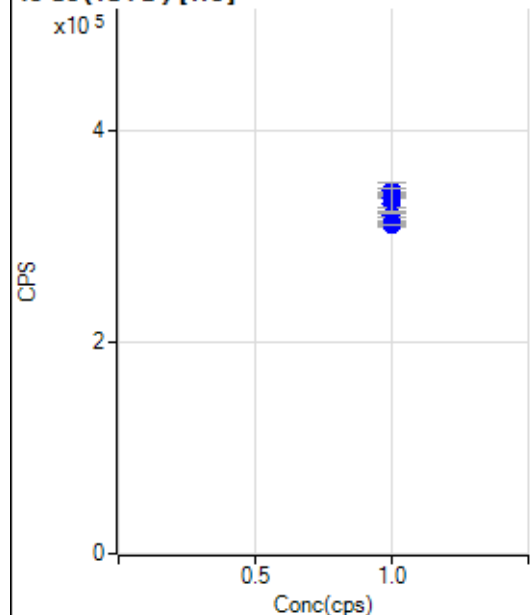
Min Conc: 0

6 Li (ISTD) [No Gas]

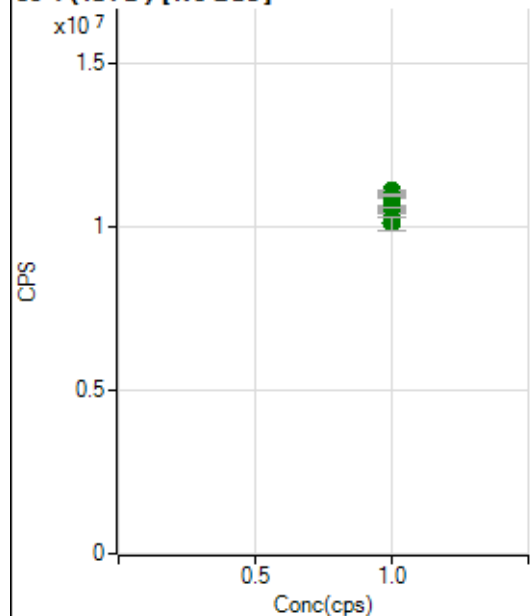
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4186182.85		P	0.2
2	☐	1.000		4184159.66		P	0.7
3	☐	1.000		4238555.77		P	0.4
4	☐	1.000		4186081.64		P	0.6
5	☐	1.000		4017407.33		P	0.8
6	☐	1.000		3893092.10		P	0.2
7	☐	1.000		3818866.12		P	1.1
8	☐	1.000		3795150.67		P	0.5
9	☐	1.000		3580117.34		P	3.5

45 Sc (ISTD) [No Gas]

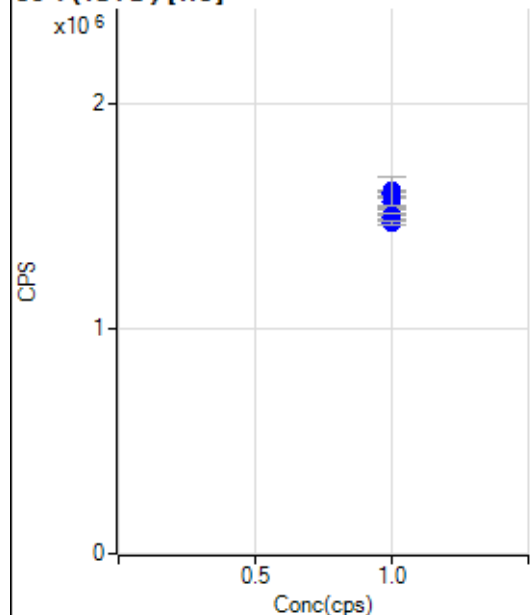
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7576924.56		A	0.3
2	☐	1.000		7527577.60		A	0.9
3	☐	1.000		7698105.55		A	0.8
4	☐	1.000		7501683.07		A	0.4
5	☐	1.000		7224614.05		A	0.5
6	☐	1.000		6971502.41		A	0.3
7	☐	1.000		6933546.25		A	0.3
8	☐	1.000		7037028.28		A	0.1
9	☐	1.000		6872924.72		A	4.7

45 Sc (ISTD) [He]

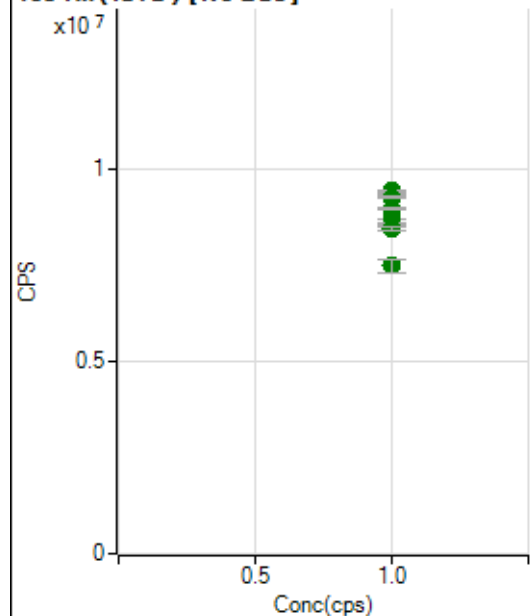
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		337393.33		P	0.5
2	☐	1.000		339615.96		P	0.7
3	☐	1.000		342565.18		P	1.3
4	☐	1.000		331250.73		P	3.2
5	☐	1.000		319215.81		P	1.0
6	☐	1.000		312514.85		P	0.7
7	☐	1.000		310619.30		P	1.7
8	☐	1.000		336516.25		P	8.1
9	☐	1.000		310347.30		P	0.5

89 Y (ISTD) [No Gas]

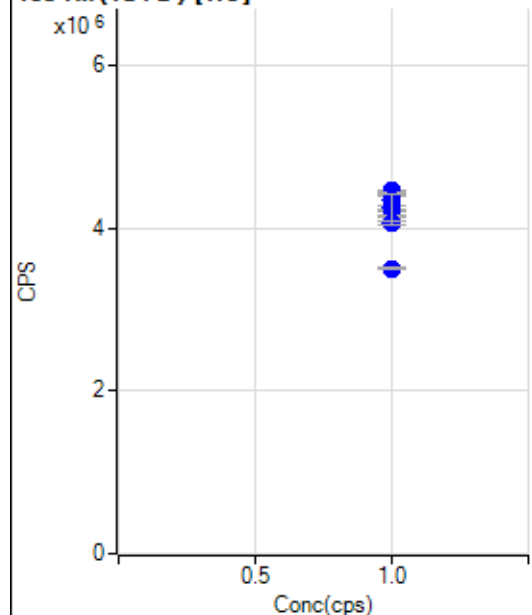
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10964209.14		A	0.2
2	☐	1.000		10872603.17		A	0.5
3	☐	1.000		11081110.53		A	0.2
4	☐	1.000		10937252.20		A	0.4
5	☐	1.000		10607519.49		A	0.2
6	☐	1.000		10490792.76		A	0.2
7	☐	1.000		10423832.00		A	0.9
8	☐	1.000		10557473.87		A	0.2
9	☐	1.000		10081520.20		A	4.1

89 Y (ISTD) [He]

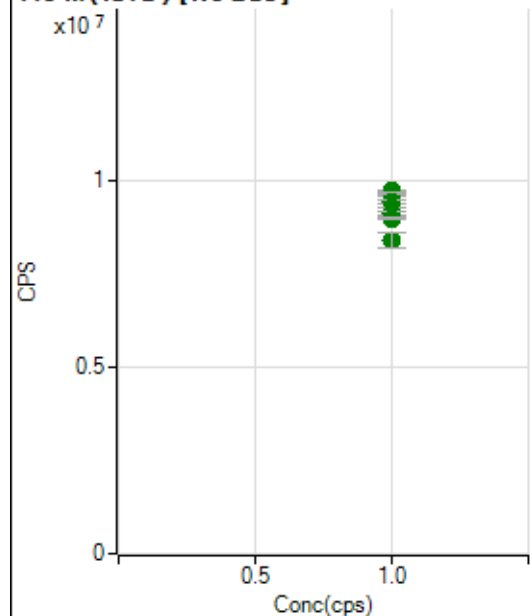
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1595637.20		P	1.4
2	☐	1.000		1608101.48		P	0.6
3	☐	1.000		1612973.62		P	0.6
4	☐	1.000		1568405.43		P	2.6
5	☐	1.000		1536254.42		P	0.4
6	☐	1.000		1503276.89		P	0.4
7	☐	1.000		1498066.52		P	1.5
8	☐	1.000		1607659.85		P	8.0
9	☐	1.000		1468949.28		P	1.2

103 Rh (ISTD) [No Gas]

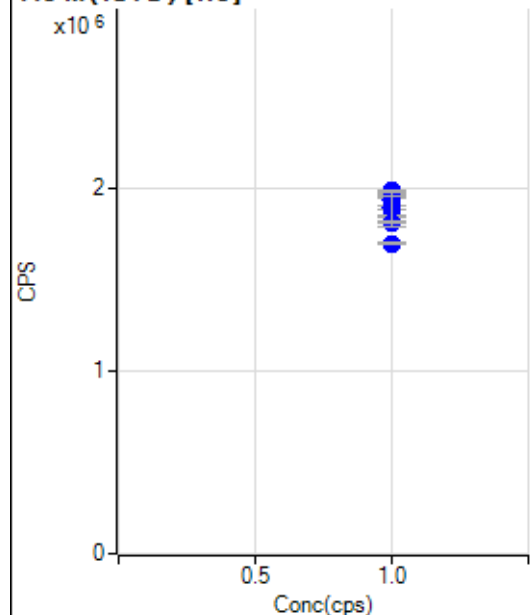
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9320060.19		A	0.4
2	☐	1.000		9306783.11		A	0.9
3	☐	1.000		9427823.30		A	0.6
4	☐	1.000		9267491.87		A	0.1
5	☐	1.000		8955648.64		A	0.5
6	☐	1.000		8712619.81		A	0.2
7	☐	1.000		8570437.87		A	1.0
8	☐	1.000		8436804.88		A	0.8
9	☐	1.000		7490219.35		A	4.8

103 Rh (ISTD) [He]

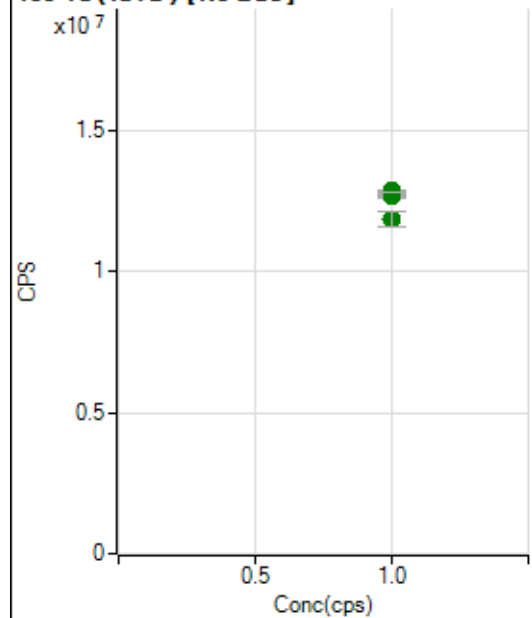
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4398833.34		P	0.7
2	☐	1.000		4458431.74		P	0.8
3	☐	1.000		4423725.91		P	0.9
4	☐	1.000		4347472.19		P	2.8
5	☐	1.000		4222872.92		P	0.6
6	☐	1.000		4146796.61		P	0.3
7	☐	1.000		4067355.84		P	1.0
8	☐	1.000		4257013.90		P	7.9
9	☐	1.000		3507665.26		P	1.2

115 In (ISTD) [No Gas]

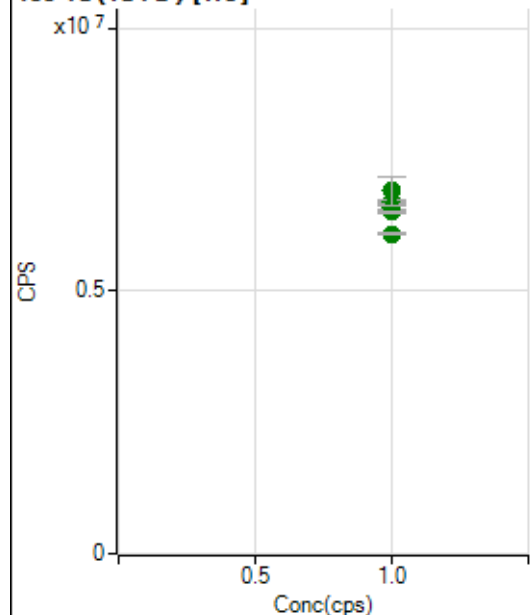
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9673252.04		A	0.7
2	☐	1.000		9625065.73		A	0.9
3	☐	1.000		9734576.91		A	0.7
4	☐	1.000		9689656.43		A	0.5
5	☐	1.000		9436135.37		A	0.7
6	☐	1.000		9280927.72		A	0.4
7	☐	1.000		9122579.12		A	1.2
8	☐	1.000		8985550.02		A	0.6
9	☐	1.000		8425980.95		A	4.9

115 In (ISTD) [He]

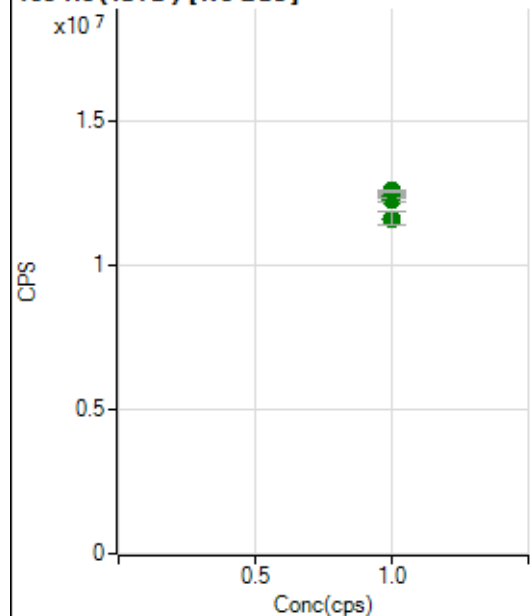
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1956227.69		P	0.9
2	☐	1.000		1984444.24		P	0.5
3	☐	1.000		1979223.01		P	0.5
4	☐	1.000		1930340.62		P	2.5
5	☐	1.000		1884729.45		P	0.3
6	☐	1.000		1848338.14		P	0.4
7	☐	1.000		1804255.71		P	1.4
8	☐	1.000		1897472.05		P	8.8
9	☐	1.000		1697191.59		P	1.0

159 Tb (ISTD) [No Gas]

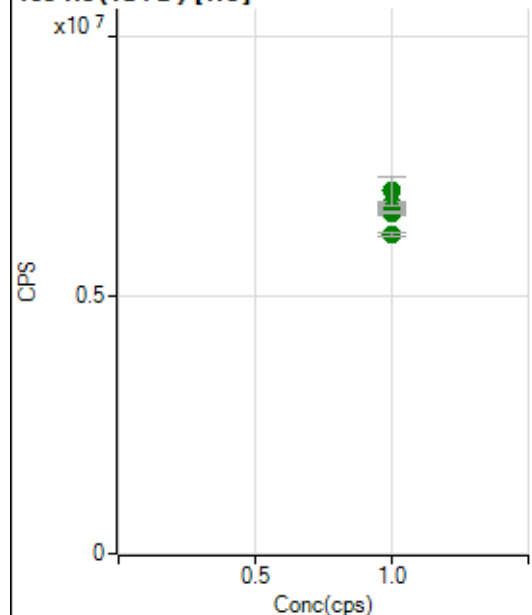
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12776712.59		A	0.7
2	☐	1.000		12667048.84		A	0.8
3	☐	1.000		12810076.34		A	0.4
4	☐	1.000		12861307.73		A	0.3
5	☐	1.000		12681549.67		A	0.5
6	☐	1.000		12747675.51		A	0.5
7	☐	1.000		12686747.31		A	0.6
8	☐	1.000		12813178.56		A	0.2
9	☐	1.000		11864335.38		A	4.2

159 Tb (ISTD) [He]

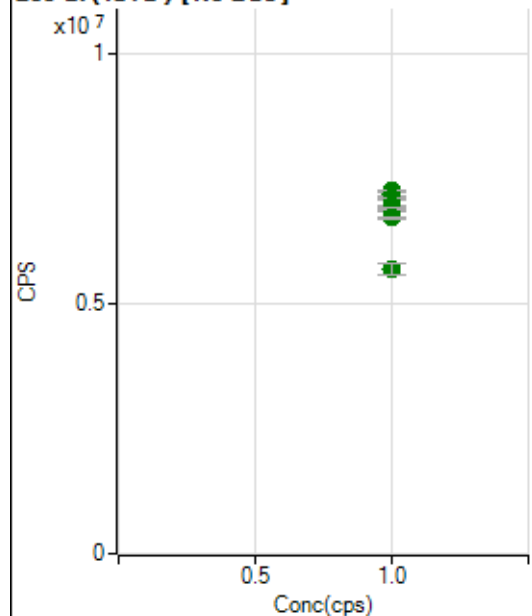
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6644344.62		A	1.1
2	☐	1.000		6662916.29		A	0.5
3	☐	1.000		6684679.97		A	1.2
4	☐	1.000		6575170.25		A	2.3
5	☐	1.000		6535067.27		A	0.1
6	☐	1.000		6530014.83		A	0.2
7	☐	1.000		6499425.04		A	0.5
8	☐	1.000		6901038.37		A	7.8
9	☐	1.000		6085940.67		A	0.6

165 Ho (ISTD) [No Gas]

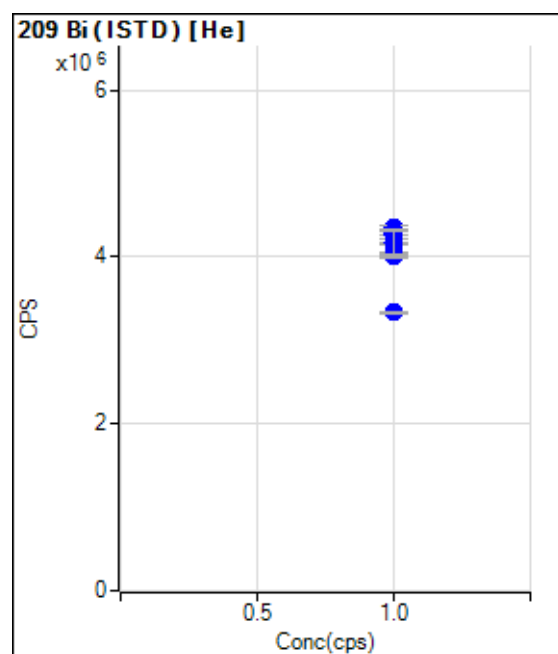
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12502204.27		A	0.1
2	☐	1.000		12295133.26		A	1.1
3	☐	1.000		12517860.26		A	0.7
4	☐	1.000		12546840.04		A	0.4
5	☐	1.000		12398678.49		A	0.3
6	☐	1.000		12500908.78		A	0.4
7	☐	1.000		12429722.67		A	0.7
8	☐	1.000		12602790.56		A	0.4
9	☐	1.000		11650169.10		A	4.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6761862.68		A	1.3
2	☐	1.000		6747960.25		A	0.7
3	☐	1.000		6771407.40		A	1.4
4	☐	1.000		6666309.00		A	3.1
5	☐	1.000		6647306.63		A	0.3
6	☐	1.000		6631974.83		A	0.7
7	☐	1.000		6602049.49		A	0.4
8	☐	1.000		7022143.51		A	8.2
9	☐	1.000		6181068.31		A	0.7

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7268987.39		A	0.8
2	☐	1.000		7118942.95		A	1.2
3	☐	1.000		7211246.97		A	1.5
4	☐	1.000		7129671.21		A	0.4
5	☐	1.000		6957042.95		A	0.1
6	☐	1.000		6890411.98		A	0.5
7	☐	1.000		6903621.56		A	0.4
8	☐	1.000		6726143.65		A	0.4
9	☐	1.000		5709946.65		A	4.4



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4348027.50		P	0.9
2	☐	1.000		4316682.75		P	0.4
3	☐	1.000		4284449.69		P	0.7
4	☐	1.000		4270985.56		P	2.1
5	☐	1.000		4164439.45		P	0.3
6	☐	1.000		4057742.30		P	0.5
7	☐	1.000		4018885.81		P	1.0
8	☐	1.000		4171855.81		P	7.7
9	☐	1.000		3339873.73		P	0.8

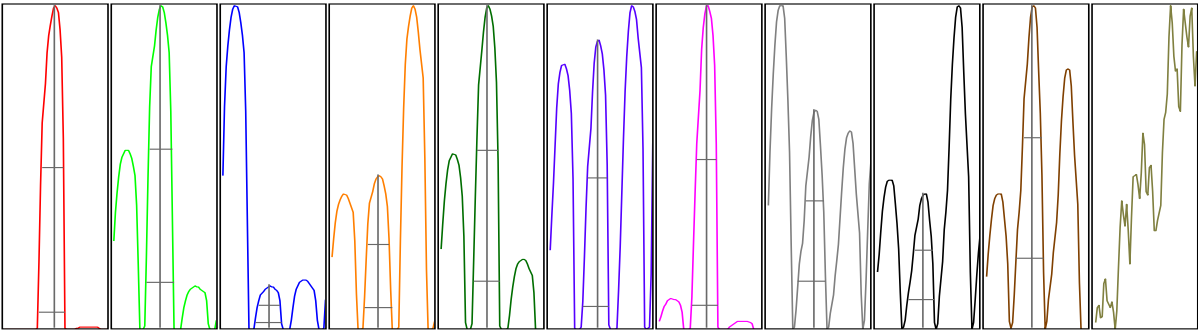
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7111419-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	16236	0.34	5.00	
24	146923	0.52	5.00	
25	19679	0.44	5.00	
26	22987	0.30	5.00	
59	103743	0.41	5.00	
113	13052	0.45	5.00	
115	155570	0.59	5.00	
206	38288	1.01	5.00	
207	39632	0.70	5.00	
208	82387	0.53	5.00	
220	75	5.40		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16169	16205	16253	16239	16315
24	146350	145900	147290	147324	147754
25	19553	19732	19685	19647	19779
26	22897	22958	23036	22974	23072
59	103489	103120	103917	104037	104153
113	13031	12961	13104	13101	13064
115	154713	154843	155234	156210	156849
206	37846	38134	38154	38433	38874
207	39317	39430	39642	39754	40020
208	81859	82049	82458	82614	82957
220	70	70	77	78	78

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	26466	9.00	8.9 - 9.1		0.784	0.900	
24	233298	23.90	23.9 - 24.1		0.797	0.900	
25	31163	24.90	24.9 - 25.1		0.765	0.900	
26	35467	25.90	25.9 - 26.1		0.791	0.900	
59	175766	58.90	58.9 - 59.1		0.754	0.900	
113	23234	112.95	112.9 - 113.1		0.753	0.900	
115	275910	114.95	114.9 - 115.1		0.756	0.900	
206	67743	205.90	205.9 - 206.1		0.793	0.900	
207	61366	206.90	206.9 - 207.1		0.756	0.900	
208	146200	207.90	207.9 - 208.1		0.787	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.6	V	Deflect	14.2	V
Extract 2	-150.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	26802	0.42	
89	23971	0.41	
205	35303	0.50	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	26976	26680	26820	26741	26791
89	24026	24021	23945	24053	23811
205	35532	35412	35231	35272	35068

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.7	V	Deflect	2.4	V
Extract 2	-145.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

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