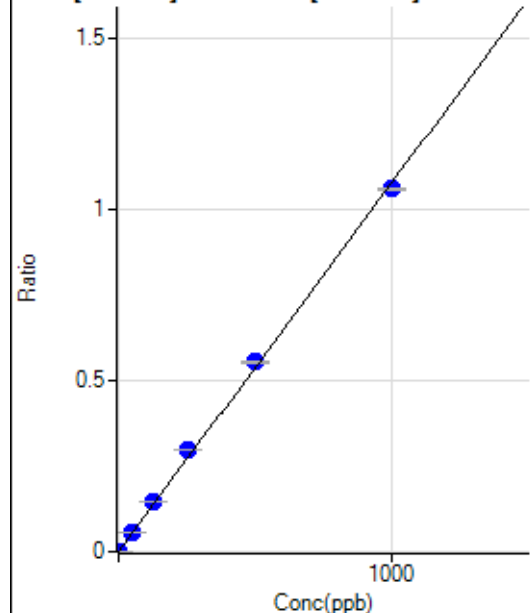


Batch Folder: D:\ICP-MS Data\P7051419-MS.b\
Analysis File: P7051419-MS.batch.bin
DA Date-Time: 2019-05-15 11:24:19
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-05-14 13:34:28
2			
3	005CALS.d	S02	2019-05-14 13:42:15
4	006CALS.d	S03	2019-05-14 13:46:11
5	007CALS.d	S04	2019-05-14 13:50:07
6	008CALS.d	S05	2019-05-14 13:54:00
7	009CALS.d	S06	2019-05-14 13:57:50
8	010CALS.d	S07	2019-05-14 14:01:38
9	011CALS.d	S08	2019-05-14 14:05:24

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.67	0.0000	P	39.6
2	☐	0.100					
3	☐	1.000	0.898	1594.55	0.0010	P	2.8
4	☐	50.000	53.993	91439.72	0.0582	P	1.4
5	☐	125.000	136.200	228027.88	0.1467	P	0.6
6	☐	250.000	275.058	461226.21	0.2962	P	0.5
7	☐	500.000	514.875	861519.63	0.5545	P	0.3
8	☐	1000.000	984.699	1595545.97	1.0604	P	0.4
9	☐			365.57	0.0003	P	6.2

$$y = 0.0011 * x + 2.9072E-005$$

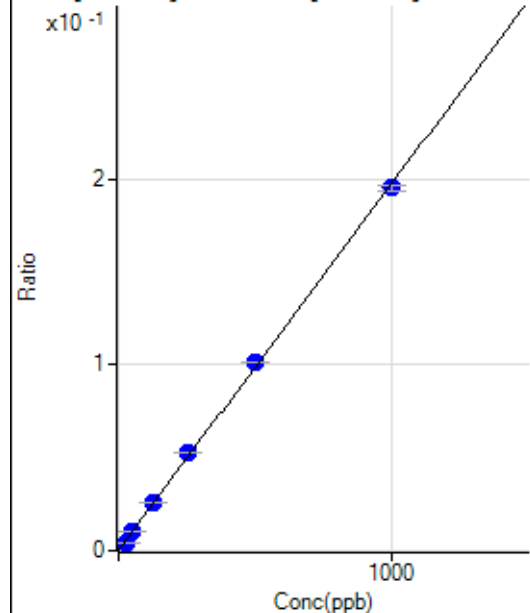
$$R = 0.9995$$

$$DL = 0.03207$$

$$BEC = 0.027$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	452.80	0.0003	P	3.0
2	☐	2.500					
3	☐	25.000	21.717	7304.81	0.0046	P	0.7
4	☐	50.000	50.174	15989.51	0.0102	P	2.5
5	☐	125.000	130.676	40463.29	0.0260	P	2.1
6	☐	250.000	266.195	82109.06	0.0527	P	0.8
7	☐	500.000	512.636	157388.16	0.1013	P	0.5
8	☐	1000.000	988.997	293632.40	0.1952	P	1.8
9	☐			8355.41	0.0060	P	5.7

$$y = 1.9704E-004 * x + 2.8226E-004$$

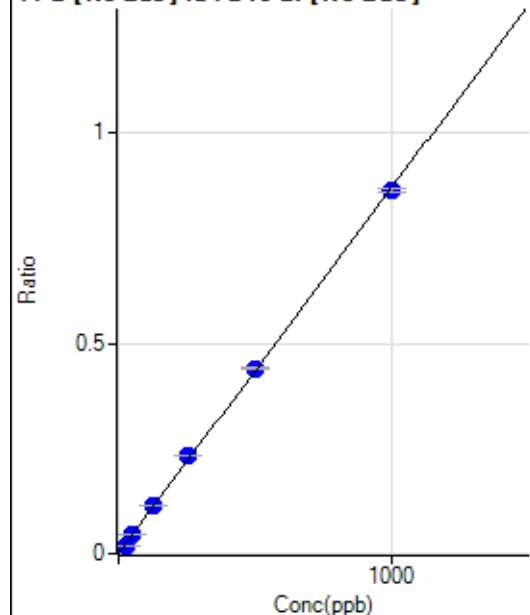
$$R = 0.9997$$

$$DL = 0.1278$$

$$BEC = 1.432$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2002.99	0.0012	P	10.4
2	☐	2.500					
3	☐	25.000	21.301	31603.21	0.0197	P	0.9
4	☐	50.000	50.142	70367.15	0.0448	P	2.9
5	☐	125.000	129.355	176457.92	0.1135	P	0.9
6	☐	250.000	267.959	364054.62	0.2338	P	0.6
7	☐	500.000	506.091	684415.17	0.4405	P	1.0
8	☐	1000.000	992.006	1297291.58	0.8622	P	1.1
9	☐			37010.21	0.0266	P	4.9

$$y = 8.6790E-004 * x + 0.0012$$

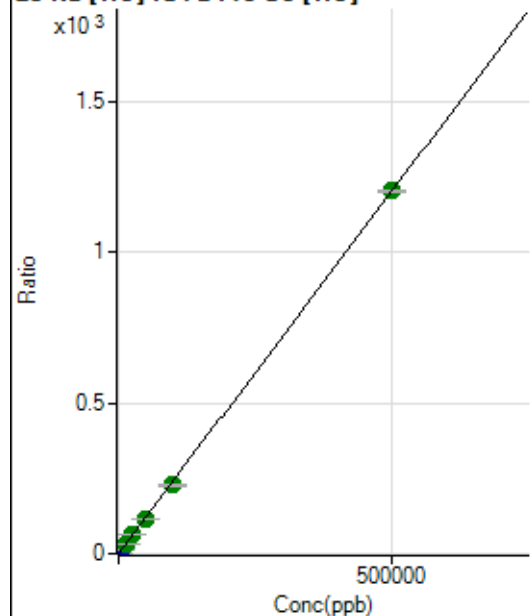
$$R = 0.9998$$

$$DL = 0.4502$$

$$BEC = 1.438$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2205.80	0.0174	P	5.2
2	☐	50.000					
3	☐	500.000	435.176	140216.07	1.0612	P	0.9
4	☐	5000.000	5007.189	1591972.02	12.0281	P	0.7
5	☐	12500.000	12601.762	3922780.21	30.2453	A	0.2
6	☐	25000.000	25992.731	8230287.95	62.3663	A	0.8
7	☐	50000.000	48684.229	15469822.57	116.7965	A	0.9
8	☐	100000.00	95359.116	29372037.11	228.7558	A	2.4
9	☐	500000.00	501007.56	153828453.4	1,201.786	A	0.7

$$y = 0.0024 * x + 0.0174$$

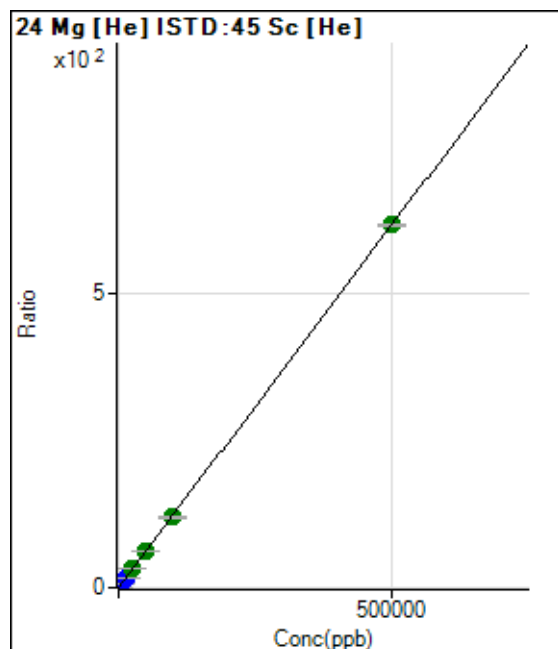
$$R = 0.9999$$

$$DL = 1.131$$

$$BEC = 7.24$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	75.00	0.0006	P	18.7
2	☐	50.000					
3	☐	500.000	461.738	75205.95	0.5692	P	1.2
4	☐	5000.000	5169.904	842706.98	6.3670	P	0.4
5	☐	12500.000	12973.114	2072065.11	15.9761	P	0.8
6	☐	25000.000	26594.815	4321973.66	32.7503	A	0.3
7	☐	50000.000	49782.290	8119600.01	61.3041	A	1.2
8	☐	100000.00	96965.170	15330999.82	119.4065	A	2.7
9	☐	500000.00	500535.50	78896576.07	616.3756	A	0.6

$$y = 0.0012 * x + 5.9023E-004$$

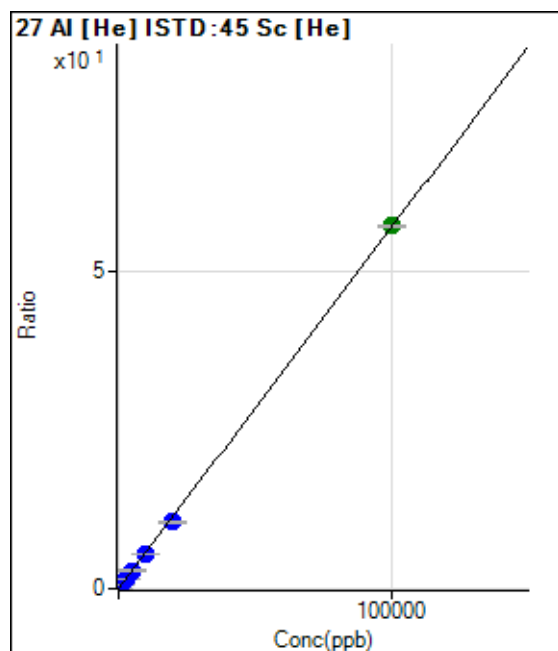
$$R = 1.0000$$

$$DL = 0.2689$$

$$BEC = 0.4793$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.00	0.0002	P	33.8
2	☐	2.000					
3	☐	20.000	16.461	1266.77	0.0096	P	7.0
4	☐	1000.000	971.844	73436.08	0.5548	P	1.2
5	☐	2500.000	2479.584	183564.66	1.4153	P	0.5
6	☐	5000.000	5047.134	380153.09	2.8807	P	0.9
7	☐	10000.000	9400.857	710655.85	5.3654	P	1.1
8	☐	20000.000	18363.986	1345821.01	10.4808	P	1.9
9	☐	100000.00	100385.55	7333369.61	57.2916	A	0.6

$$y = 5.7071E-004 * x + 1.9702E-004$$

$$R = 0.9998$$

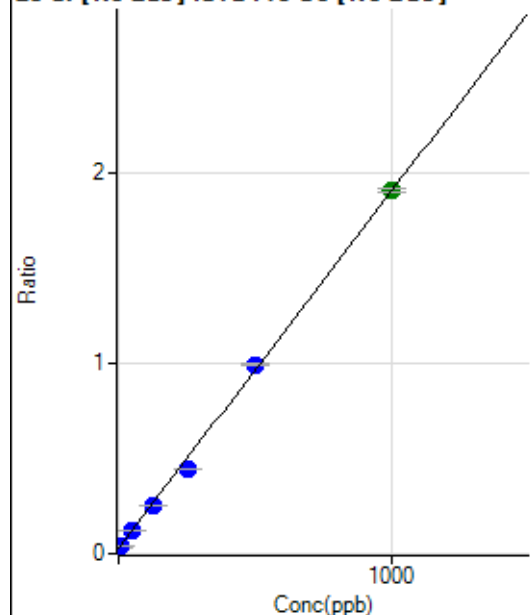
$$DL = 0.3496$$

$$BEC = 0.3452$$

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	81566.95	0.0288	P	0.4
2	☐	1.000					
3	☐	10.000	7.231	118776.78	0.0423	P	2.6
4	☐	50.000	48.451	334985.26	0.1196	P	3.3
5	☐	125.000	119.227	685401.92	0.2523	P	0.9
6	☐	250.000	219.818	1212760.08	0.4408	P	0.5
7	☐	500.000	514.594	2766543.25	0.9934	P	1.0
8	☐	1000.000	1001.075	5132278.37	1.9053	A	1.0
9	☐			410249.04	0.1605	P	2.4

$$y = 0.0019 * x + 0.0288$$

$$R = 0.9994$$

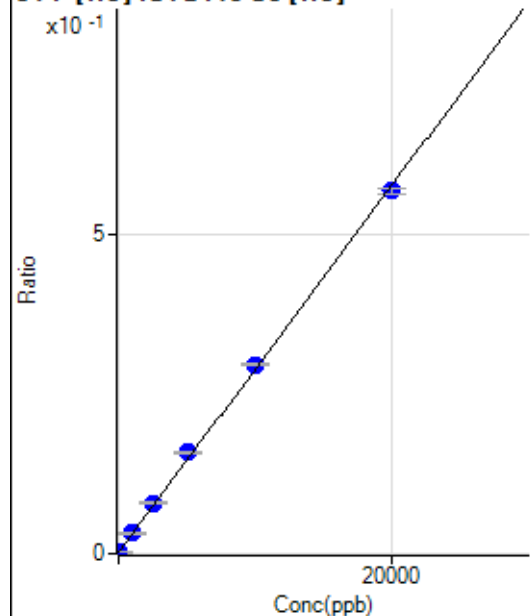
$$DL = 0.1638$$

$$BEC = 15.34$$

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	-27.069	136.12	0.0011	P	15.9
2	☐	0.000					
3	☐	0.000	27.069	347.24	0.0026	P	2.8
4	☐	1000.000	1044.129	4214.67	0.0318	P	3.0
5	☐	2500.000	2683.052	10237.28	0.0789	P	3.3
6	☐	5000.000	5463.725	20957.14	0.1588	P	1.9
7	☐	10000.000	10265.601	39305.46	0.2967	P	0.4
8	☐	20000.000	19726.180	73006.86	0.5685	P	1.8
9	☐			144.45	0.0011	P	26.9

$$y = 2.8727E-005 * x + 0.0018$$

$$R = 0.9995$$

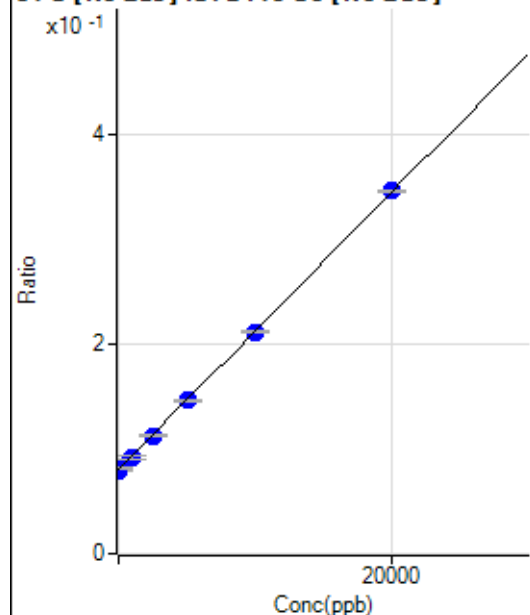
$$DL = 12.67$$

$$BEC = 64.4$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-95.900	225046.43	0.0794	P	0.8
2	☐	0.000					
3	☐	0.000	95.900	229856.42	0.0819	P	2.8
4	☐	1000.000	824.013	256434.36	0.0915	P	3.1
5	☐	2500.000	2404.059	305574.12	0.1125	P	1.9
6	☐	5000.000	4968.261	402881.41	0.1464	P	0.5
7	☐	10000.000	9893.733	589528.28	0.2117	P	0.5
8	☐	20000.000	20081.860	933817.64	0.3467	P	0.5
9	☐			186876.80	0.0731	P	2.3

$$y = 1.3247\text{E-}005 * x + 0.0806$$

$$R = 0.9999$$

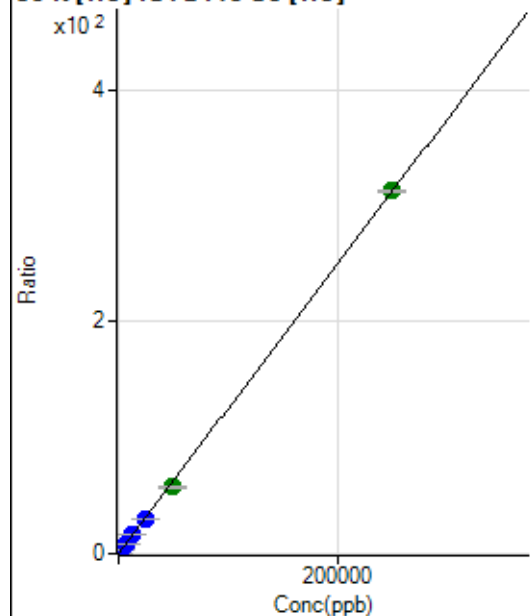
$$DL = 334.2$$

$$BEC = 6086$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8736.23	0.0688	P	1.2
2	☐	50.000					
3	☐	500.000	418.255	77943.45	0.5899	P	1.2
4	☐	2500.000	2426.730	409300.41	3.0923	P	0.6
5	☐	6250.000	6167.720	1005587.47	7.7533	P	0.8
6	☐	12500.000	12656.983	2090167.62	15.8385	P	0.5
7	☐	25000.000	23745.926	3927882.08	29.6546	P	0.9
8	☐	50000.000	45941.096	7358558.76	57.3082	A	2.2
9	☐	250000.00	250932.29	40027885.62	312.7131	A	0.5

$$y = 0.0012 * x + 0.0688$$

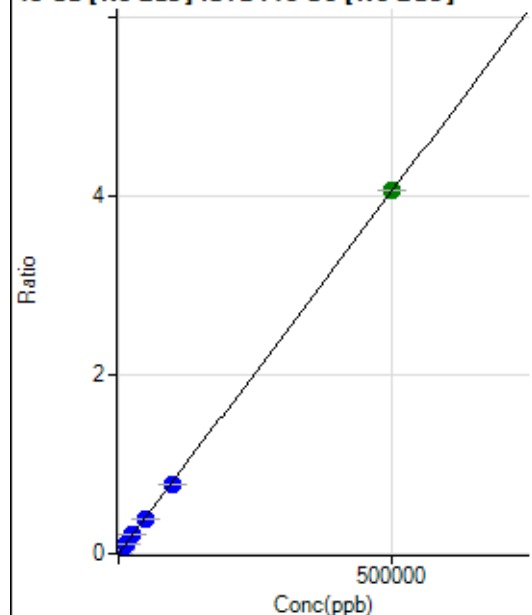
$$R = 0.9998$$

$$DL = 2.036$$

$$BEC = 55.21$$

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	83.34	0.0000	P	9.6
2	☐	50.000					
3	☐	500.000	418.540	9597.92	0.0034	P	4.5
4	☐	5000.000	4788.963	108792.42	0.0388	P	2.3
5	☐	12500.000	12460.847	274372.65	0.1010	P	1.4
6	☐	25000.000	25352.494	565172.32	0.2054	P	0.6
7	☐	50000.000	48139.115	1086240.80	0.3901	P	0.0
8	☐	100000.00	94551.299	2063629.36	0.7661	P	0.3
9	☐	500000.00	501261.37	10381760.65	4.0613	A	0.1

$$y = 8.1020\text{E-}006 * x + 2.9380\text{E-}005$$

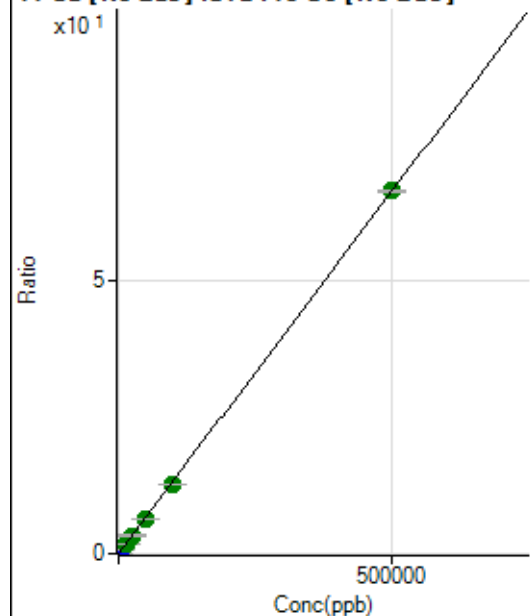
$$R = 0.9999$$

$$DL = 1.048$$

$$BEC = 3.626$$

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	3914.64	0.0014	P	4.3
2	☐	50.000					
3	☐	500.000	416.620	158451.09	0.0565	P	3.2
4	☐	5000.000	4778.501	1773695.33	0.6331	P	2.6
5	☐	12500.000	12354.358	4441224.32	1.6346	A	1.3
6	☐	25000.000	25198.581	9168564.70	3.3327	A	0.3
7	☐	50000.000	47640.521	17543335.29	6.2995	A	0.5
8	☐	100000.00	94699.618	33727239.64	12.5208	A	0.3
9	☐	500000.00	501292.03	169413292.6	66.2728	A	0.3

$$y = 1.3220\text{E-}004 * x + 0.0014$$

$$R = 0.9999$$

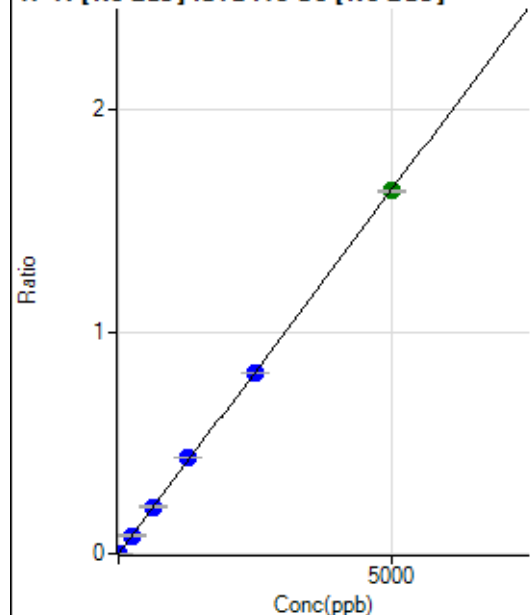
$$DL = 1.337$$

$$BEC = 10.44$$

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	58.34	0.0000	P	43.0
2	☐	0.500					
3	☐	5.000	4.659	4345.26	0.0015	P	3.4
4	☐	250.000	248.718	228530.01	0.0816	P	2.8
5	☐	625.000	647.246	576690.58	0.2123	P	0.9
6	☐	1250.000	1317.130	1188231.05	0.4319	P	0.4
7	☐	2500.000	2485.749	2269892.02	0.8151	P	0.5
8	☐	5000.000	4987.627	4405437.77	1.6355	A	0.5
9	☐			2694.80	0.0011	P	8.2

$$y = 3.2790\text{E-}004 * x + 2.0587\text{E-}005$$

$$R = 0.9999$$

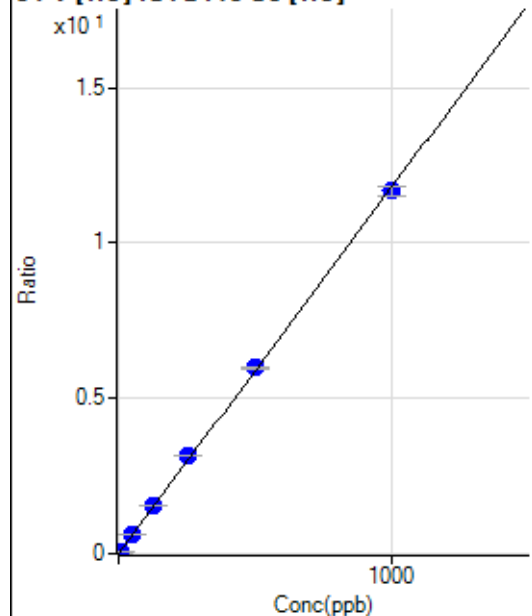
$$DL = 0.08104$$

$$BEC = 0.06278$$

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	4.44	0.0000	P	43.3
2	☐	0.500					
3	☐	5.000	4.652	7248.56	0.0549	P	2.0
4	☐	50.000	51.558	80422.03	0.6076	P	0.8
5	☐	125.000	131.729	201343.38	1.5524	P	0.7
6	☐	250.000	269.864	419693.57	3.1803	P	0.3
7	☐	500.000	507.265	791781.16	5.9779	P	0.8
8	☐	1000.000	990.484	1498737.20	11.6725	P	2.4
9	☐			321.12	0.0025	P	8.1

$$y = 0.0118 * x + 3.4983\text{E-}005$$

$$R = 0.9997$$

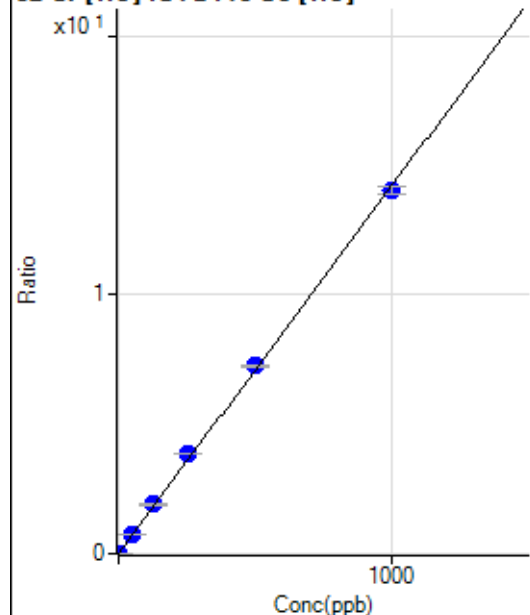
$$DL = 0.003859$$

$$BEC = 0.002969$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	406.68	0.0032	P	4.4
2	☐	0.200					
3	☐	2.000	1.810	3816.10	0.0289	P	1.6
4	☐	50.000	52.510	99043.96	0.7483	P	0.8
5	☐	125.000	133.521	246148.79	1.8979	P	0.7
6	☐	250.000	274.020	513560.24	3.8916	P	0.2
7	☐	500.000	511.370	961512.66	7.2596	P	1.1
8	☐	1000.000	987.120	1799020.44	14.0104	P	2.0
9	☐			11540.21	0.0902	P	0.5

$$y = 0.0142 * x + 0.0032$$

$$R = 0.9996$$

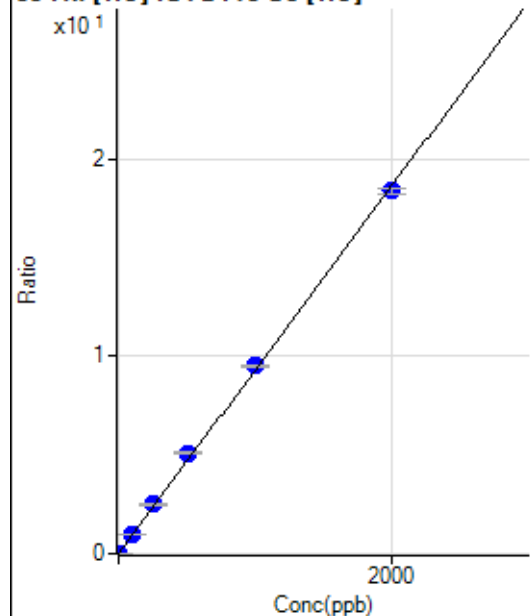
$$DL = 0.02946$$

$$BEC = 0.2257$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	21.11	0.0002	P	48.0
2	☐	0.100					
3	☐	1.000	0.964	1206.73	0.0091	P	5.3
4	☐	100.000	106.056	130608.68	0.9868	P	0.8
5	☐	250.000	267.614	322917.61	2.4898	P	0.9
6	☐	500.000	548.545	673472.34	5.1033	P	0.4
7	☐	1000.000	1021.094	1258254.76	9.4995	P	0.5
8	☐	2000.000	1974.812	2359158.58	18.3720	P	1.8
9	☐			9635.48	0.0753	P	1.8

$$y = 0.0093 * x + 1.6599E-004$$

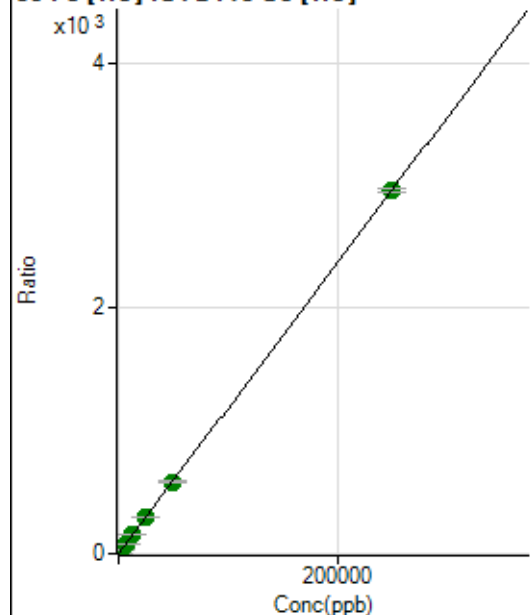
$$R = 0.9996$$

$$DL = 0.02571$$

$$BEC = 0.01784$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2150.22	0.0169	P	4.0
2	☐	5.000					
3	☐	50.000	51.274	82405.77	0.6237	P	0.7
4	☐	2500.000	2631.503	4123673.67	31.1566	A	0.9
5	☐	6250.000	6689.873	10269586.69	79.1811	A	0.5
6	☐	12500.000	13722.036	21430914.13	162.3957	A	0.6
7	☐	25000.000	25500.582	39970833.77	301.7763	A	0.8
8	☐	50000.000	49527.888	75253413.72	586.1017	A	2.5
9	☐	250000.00	249970.95	378613586.2	2,958.030	A	1.1

$$y = 0.0118 * x + 0.0169$$

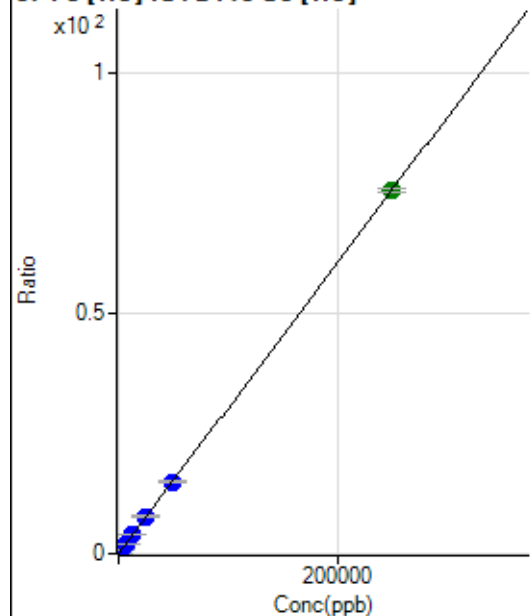
$$R = 1.0000$$

$$DL = 0.1714$$

$$BEC = 1.431$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0005	P	13.9
2	☐	5.000					
3	☐	50.000	53.457	2198.38	0.0166	P	5.1
4	☐	2500.000	2689.915	107367.64	0.8112	P	0.4
5	☐	6250.000	6772.906	264801.53	2.0417	P	1.5
6	☐	12500.000	13846.260	550764.39	4.1735	P	0.1
7	☐	25000.000	25750.014	1027964.94	7.7610	P	0.8
8	☐	50000.000	49528.296	1916758.17	14.9272	P	1.9
9	☐	250000.00	249937.05	9641286.67	75.3258	A	1.2

$$y = 3.0138E-004 * x + 5.2468E-004$$

$$R = 1.0000$$

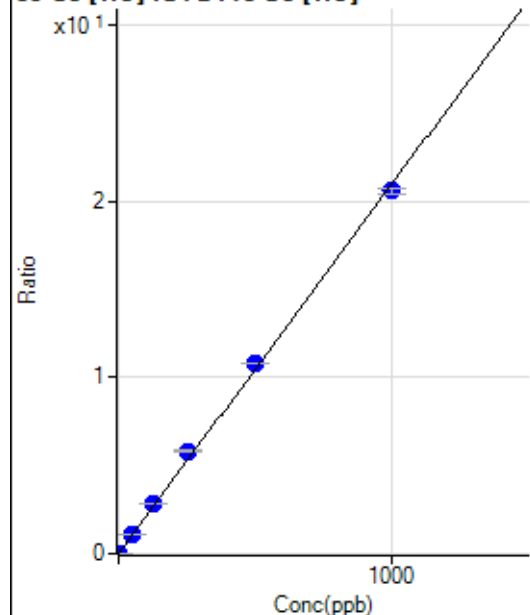
$$DL = 0.727$$

$$BEC = 1.741$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	18.89	0.0001	P	36.8
2	☐	0.100					
3	☐	1.000	0.922	2571.38	0.0195	P	3.2
4	☐	50.000	54.171	150181.98	1.1347	P	0.7
5	☐	125.000	136.836	371716.82	2.8660	P	0.5
6	☐	250.000	278.503	769774.81	5.8331	P	0.4
7	☐	500.000	516.515	1432880.71	10.8179	P	0.5
8	☐	1000.000	982.929	2643523.71	20.5864	P	1.8
9	☐			31377.00	0.2451	P	1.3

$$y = 0.0209 * x + 1.4878E-004$$

$$R = 0.9993$$

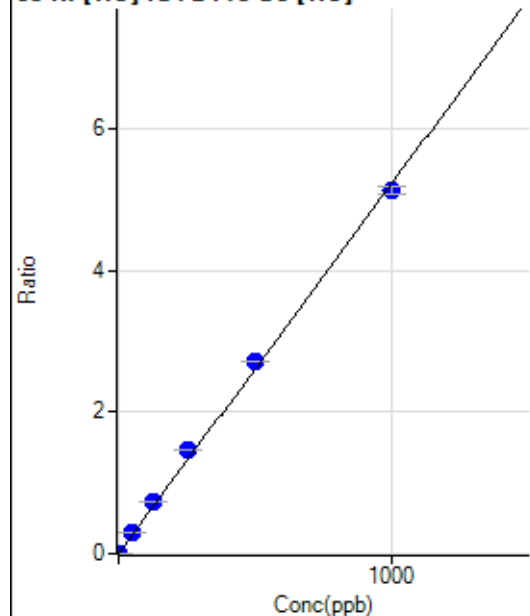
$$DL = 0.007834$$

$$BEC = 0.007104$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	34.44	0.0003	P	14.6
2	☐	0.100					
3	☐	1.000	0.992	720.03	0.0054	P	4.7
4	☐	50.000	55.186	38160.78	0.2883	P	0.4
5	☐	125.000	138.532	93817.41	0.7234	P	0.3
6	☐	250.000	280.355	193148.84	1.4636	P	0.1
7	☐	500.000	518.432	358465.47	2.7063	P	0.2
8	☐	1000.000	981.245	657697.70	5.1219	P	2.0
9	☐			7580.95	0.0592	P	1.4

$$y = 0.0052 * x + 2.7116E-004$$

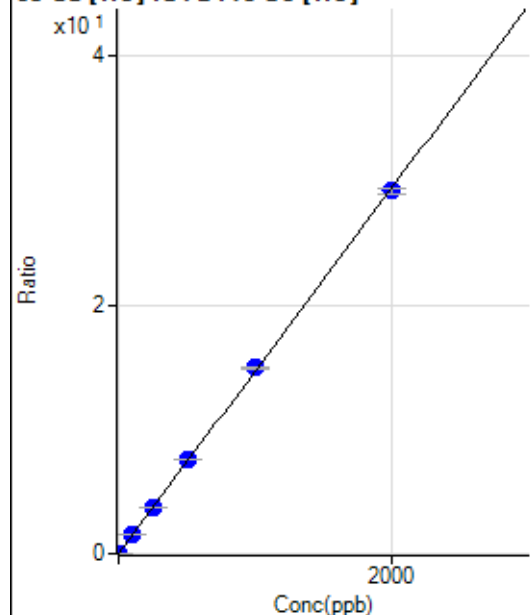
$$R = 0.9992$$

$$DL = 0.0227$$

$$BEC = 0.05195$$

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	171.12	0.0013	P	19.7
2	☐	0.200					
3	☐	2.000	1.848	3766.10	0.0285	P	4.0
4	☐	100.000	101.966	198478.93	1.4996	P	0.7
5	☐	250.000	255.602	487278.54	3.7571	P	0.8
6	☐	500.000	519.274	1007092.21	7.6314	P	0.3
7	☐	1000.000	1016.336	1978190.74	14.9350	P	0.5
8	☐	2000.000	1986.215	3747756.75	29.1860	P	1.9
9	☐			4701.93	0.0367	P	1.5

$$y = 0.0147 * x + 0.0013$$

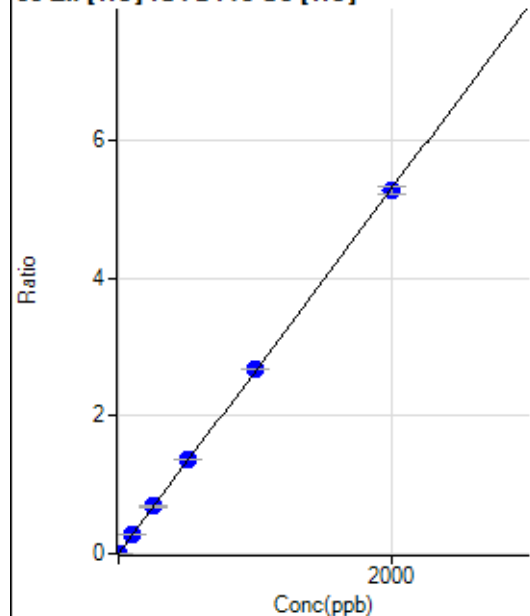
$$R = 0.9999$$

$$DL = 0.05431$$

$$BEC = 0.09174$$

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	234.45	0.0018	P	15.3
2	☐	0.200					
3	☐	2.000	1.912	913.38	0.0069	P	9.0
4	☐	100.000	101.833	35981.07	0.2719	P	2.0
5	☐	250.000	257.769	88891.64	0.6854	P	0.8
6	☐	500.000	513.481	179927.63	1.3634	P	0.4
7	☐	1000.000	1013.332	356153.80	2.6888	P	0.3
8	☐	2000.000	1988.901	677439.64	5.2757	P	2.0
9	☐			6046.89	0.0472	P	2.8

$$y = 0.0027 * x + 0.0018$$

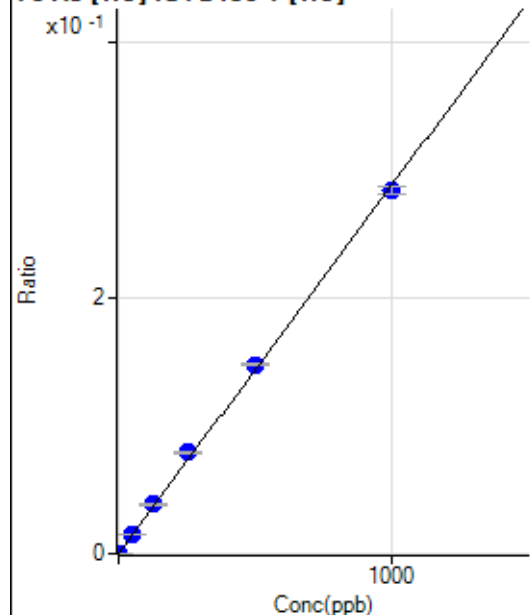
$$R = 0.9999$$

$$DL = 0.32$$

$$BEC = 0.6963$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.47	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	0.948	198.15	0.0003	P	6.2
4	☐	50.000	53.153	11027.71	0.0153	P	0.9
5	☐	125.000	133.530	27258.30	0.0384	P	0.9
6	☐	250.000	274.503	56973.88	0.0789	P	0.9
7	☐	500.000	514.042	106774.92	0.1478	P	0.4
8	☐	1000.000	985.629	199158.91	0.2834	P	2.0
9	☐			256.18	0.0004	P	9.8

$$y = 2.8751\text{E-}004 * x + 3.5831\text{E-}006$$

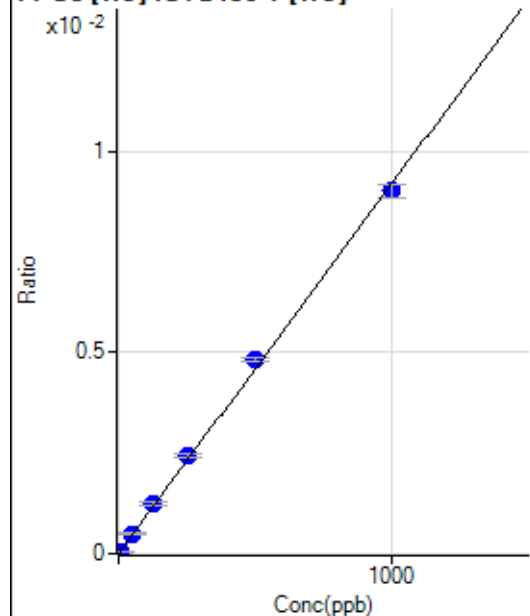
$$R = 0.9995$$

$$DL = 0.03238$$

$$BEC = 0.01246$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.2
2	☐	0.500					
3	☐	5.000	4.551	31.11	0.0000	P	35.0
4	☐	50.000	53.972	358.90	0.0005	P	6.4
5	☐	125.000	135.352	884.49	0.0012	P	10.9
6	☐	250.000	265.008	1759.02	0.0024	P	4.3
7	☐	500.000	526.324	3494.92	0.0048	P	1.6
8	☐	1000.000	981.596	6340.38	0.0090	P	3.6
9	☐			2.22	0.0000	P	86.6

$$y = 9.1886\text{E-}006 * x + 1.6030\text{E-}006$$

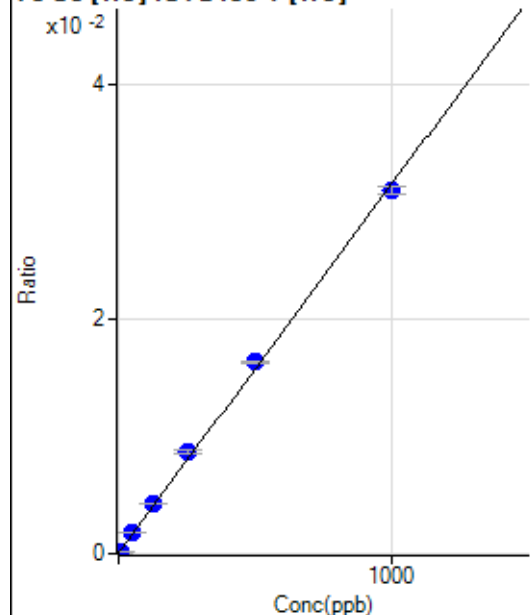
$$R = 0.9993$$

$$DL = 0.9065$$

$$BEC = 0.1745$$

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	27.78	0.0000	P	29.3
2	☐	0.500					
3	☐	5.000	5.034	142.59	0.0002	P	17.8
4	☐	50.000	56.661	1314.89	0.0018	P	6.3
5	☐	125.000	135.254	3048.49	0.0043	P	1.5
6	☐	250.000	275.999	6295.24	0.0087	P	2.7
7	☐	500.000	519.016	11822.77	0.0164	P	1.3
8	☐	1000.000	982.377	21741.01	0.0309	P	2.2
9	☐			30.87	0.0000	P	17.5

$$y = 3.1450\text{E-}005 * x + 4.0413\text{E-}005$$

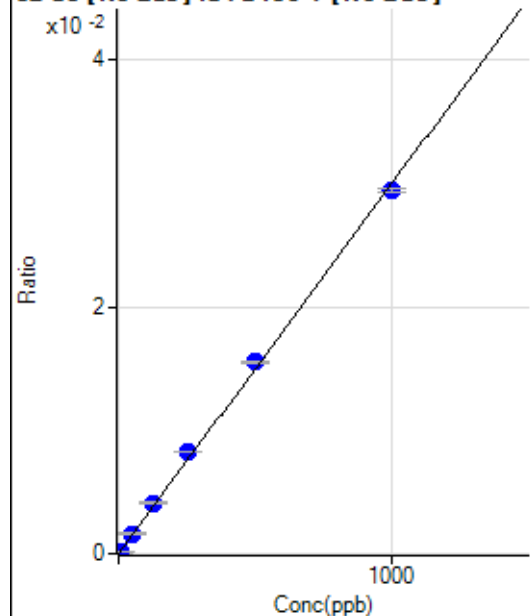
$$R = 0.9993$$

$$DL = 1.131$$

$$BEC = 1.285$$

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	-3.87	0.0000	P	-375.
2	☐	0.500					
3	☐	5.000	5.475	712.99	0.0002	P	4.2
4	☐	50.000	54.526	7095.83	0.0016	P	3.8
5	☐	125.000	137.576	17656.60	0.0041	P	1.3
6	☐	250.000	277.094	35980.39	0.0083	P	0.7
7	☐	500.000	519.978	67999.17	0.0156	P	1.0
8	☐	1000.000	981.437	126139.84	0.0294	P	1.0
9	☐			44.69	0.0000	P	71.1

$$y = 2.9933\text{E-}005 * x - 8.5400\text{E-}007$$

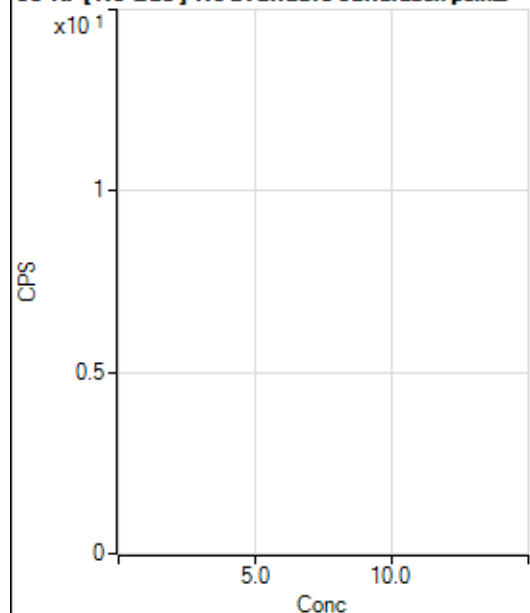
$$R = 0.9993$$

$$DL = 0.3214$$

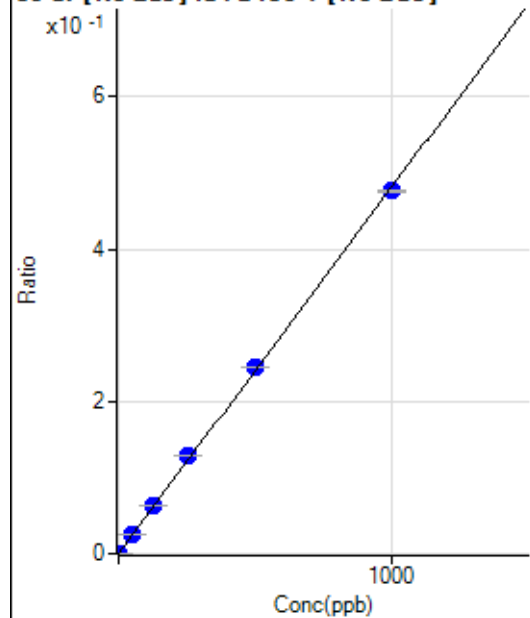
$$BEC = -0.02853$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			246.68		P	2.3
2	☐						
3	☐			172.23		P	7.3
4	☐			212.23		P	7.4
5	☐			221.12		P	6.8
6	☐			214.45		P	3.9
7	☐			203.34		P	19.9
8	☐			252.23		P	6.7
9	☐			268.90		P	15.4

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	355.57	0.0001	P	11.9
2	☐	0.100					
3	☐	1.000	0.875	2189.15	0.0005	P	4.3
4	☐	50.000	51.077	107195.42	0.0246	P	4.1
5	☐	125.000	130.309	269092.47	0.0628	P	1.8
6	☐	250.000	267.420	558324.23	0.1287	P	0.8
7	☐	500.000	508.850	1069589.55	0.2448	P	0.8
8	☐	1000.000	990.503	2045836.16	0.4765	P	0.6
9	☐			9122.66	0.0023	P	0.7

$$y = 4.8094\text{E-}004 * x + 7.9674\text{E-}005$$

$$R = 0.9998$$

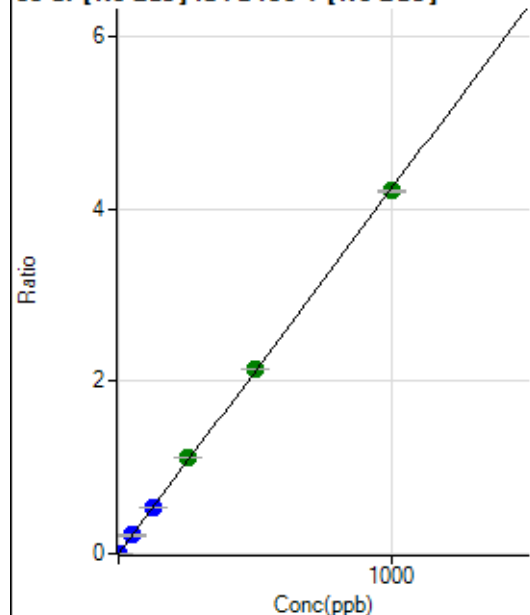
$$DL = 0.0589$$

$$BEC = 0.1657$$

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	86.12	0.0000	P	6.5
2	☐	0.100					
3	☐	1.000	0.879	16368.26	0.0037	P	4.1
4	☐	50.000	50.165	924865.66	0.2126	P	2.6
5	☐	125.000	128.115	2327893.28	0.5428	P	1.4
6	☐	250.000	264.343	4859112.35	1.1200	A	0.5
7	☐	500.000	504.171	9333277.81	2.1362	A	0.4
8	☐	1000.000	993.931	18082690.16	4.2112	A	0.4
9	☐			75247.48	0.0191	P	1.6

$$y = 0.0042 * x + 1.9298E-005$$

$$R = 0.9999$$

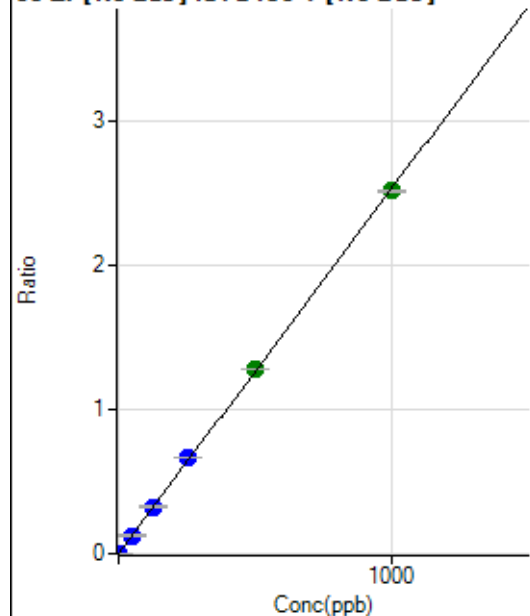
$$DL = 0.0008824$$

$$BEC = 0.004555$$

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	297.24	0.0001	P	4.9
2	☐	0.100					
3	☐	1.000	0.810	9261.70	0.0021	P	0.2
4	☐	50.000	49.926	550270.03	0.1265	P	3.8
5	☐	125.000	128.292	1393591.14	0.3250	P	1.4
6	☐	250.000	261.901	2877740.53	0.6633	P	0.4
7	☐	500.000	504.187	5579046.13	1.2769	A	0.2
8	☐	1000.000	994.524	10814749.11	2.5186	A	0.5
9	☐			3461.66	0.0009	P	6.0

$$y = 0.0025 * x + 6.6599E-005$$

$$R = 0.9999$$

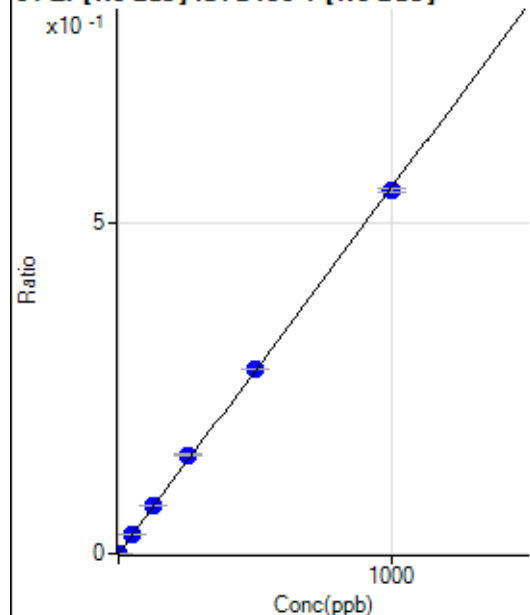
$$DL = 0.00389$$

$$BEC = 0.0263$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	63.89	0.0000	P	14.7
2	☐	0.100					
3	☐	1.000	0.877	2186.37	0.0005	P	2.1
4	☐	50.000	50.980	122870.17	0.0282	P	2.5
5	☐	125.000	131.574	312458.33	0.0729	P	1.0
6	☐	250.000	269.796	648084.87	0.1494	P	0.7
7	☐	500.000	505.959	1223965.84	0.2801	P	0.1
8	☐	1000.000	991.201	2356351.59	0.5488	P	1.2
9	☐			755.61	0.0002	P	15.1

$$y = 5.5364\text{E-}004 * x + 1.4308\text{E-}005$$

$$R = 0.9997$$

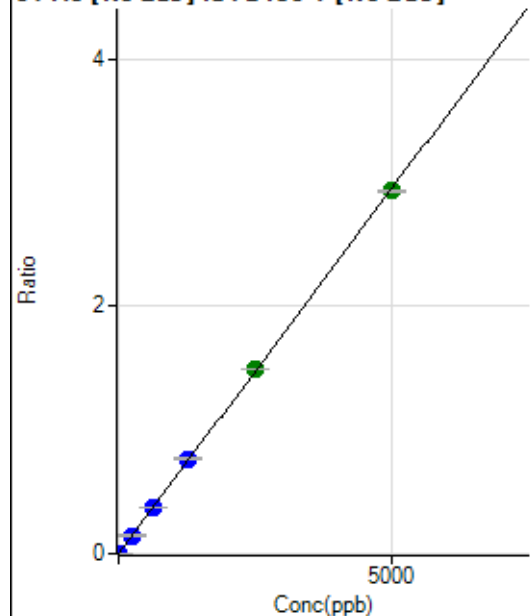
$$DL = 0.01137$$

$$BEC = 0.02584$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	144.45	0.0000	P	37.2
2	☐	0.500					
3	☐	5.000	4.406	11496.71	0.0026	P	4.6
4	☐	250.000	250.211	641755.26	0.1475	P	2.8
5	☐	625.000	639.383	1616171.64	0.3769	P	1.6
6	☐	1250.000	1304.400	3335506.24	0.7688	P	0.5
7	☐	2500.000	2521.798	6494144.07	1.4864	A	0.3
8	☐	5000.000	4973.693	12587282.49	2.9315	A	0.9
9	☐			7830.25	0.0020	P	7.0

$$y = 5.8939\text{E-}004 * x + 3.2381\text{E-}005$$

$$R = 0.9999$$

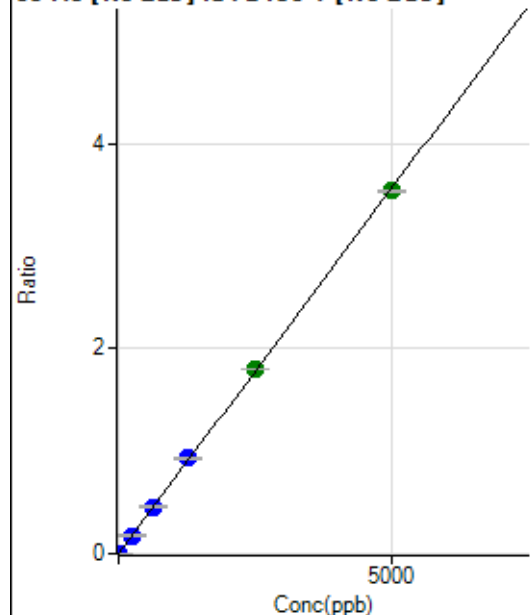
$$DL = 0.06132$$

$$BEC = 0.05494$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	31.8
2	☐	0.500					
3	☐	5.000	4.587	14393.84	0.0033	P	1.1
4	☐	250.000	249.454	773695.58	0.1778	P	2.8
5	☐	625.000	643.047	1965691.75	0.4584	P	1.5
6	☐	1250.000	1304.709	4034744.79	0.9300	P	0.8
7	☐	2500.000	2531.026	7882388.37	1.8041	A	0.8
8	☐	5000.000	4968.581	15207098.78	3.5416	A	0.8
9	☐			12186.22	0.0031	P	6.8

$$y = 7.1279\text{E-}004 * x + 2.1193\text{E-}005$$

$$R = 0.9999$$

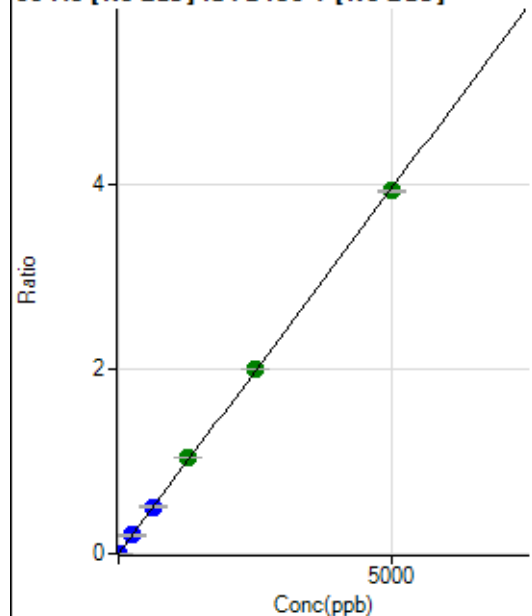
$$DL = 0.02838$$

$$BEC = 0.02973$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	77.78	0.0000	P	38.4
2	☐	0.500					
3	☐	5.000	4.615	16054.04	0.0037	P	2.8
4	☐	250.000	251.355	865814.50	0.1990	P	3.1
5	☐	625.000	641.167	2176889.96	0.5076	P	1.5
6	☐	1250.000	1322.257	4541635.34	1.0468	A	0.7
7	☐	2500.000	2526.220	8738438.39	2.0000	A	0.4
8	☐	5000.000	4966.737	16884173.99	3.9322	A	0.6
9	☐			15762.08	0.0040	P	3.4

$$y = 7.9170\text{E-}004 * x + 1.7457\text{E-}005$$

$$R = 0.9999$$

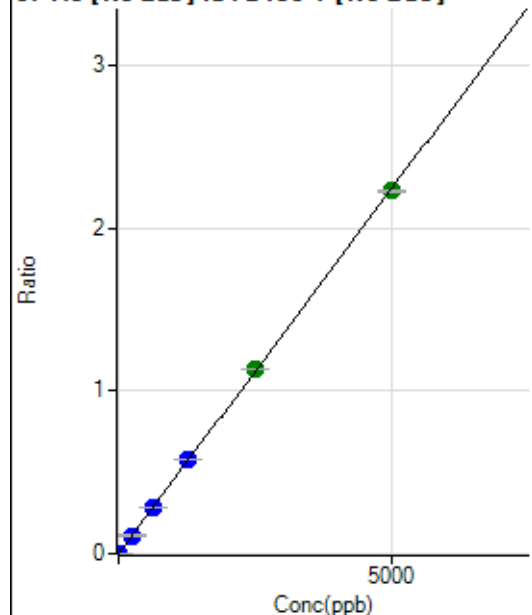
$$DL = 0.02542$$

$$BEC = 0.02205$$

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	33.33	0.0000	P	50.7
2	☐	0.500					
3	☐	5.000	4.666	9172.76	0.0021	P	5.7
4	☐	250.000	248.752	484962.00	0.1115	P	2.9
5	☐	625.000	640.693	1231152.23	0.2871	P	1.3
6	☐	1250.000	1295.037	2517502.96	0.5803	P	0.6
7	☐	2500.000	2527.571	4948278.37	1.1325	A	0.6
8	☐	5000.000	4973.057	9568054.99	2.2283	A	0.6
9	☐			7171.62	0.0018	P	5.3

$$y = 4.4807E-004 * x + 7.4862E-006$$

$$R = 0.9999$$

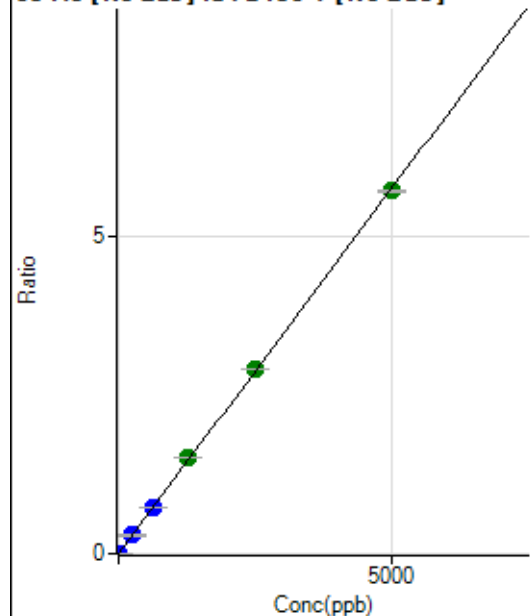
$$DL = 0.02543$$

$$BEC = 0.01671$$

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	150.01	0.0000	P	15.0
2	☐	0.500					
3	☐	5.000	4.688	23737.24	0.0054	P	2.9
4	☐	250.000	250.224	1252626.52	0.2879	P	3.5
5	☐	625.000	636.379	3140175.87	0.7323	P	1.7
6	☐	1250.000	1319.738	6588179.05	1.5186	A	0.2
7	☐	2500.000	2523.684	12687497.68	2.9039	A	0.4
8	☐	5000.000	4969.290	24551784.57	5.7178	A	0.4
9	☐			18178.91	0.0046	P	6.1

$$y = 0.0012 * x + 3.3615E-005$$

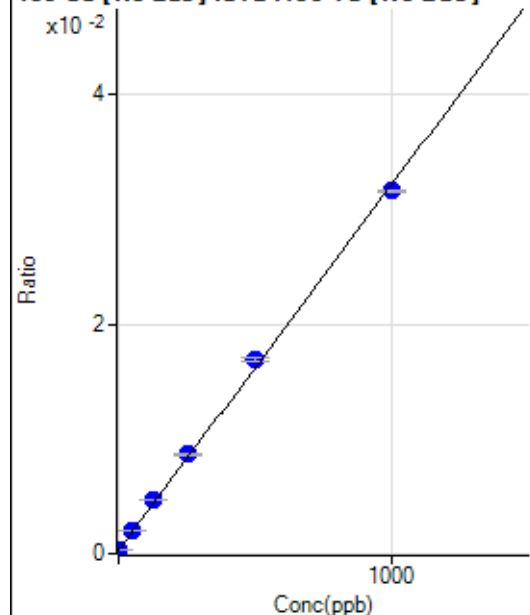
$$R = 0.9999$$

$$DL = 0.01313$$

$$BEC = 0.02921$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1786.31	0.0003	P	0.9
2	☐	0.100					
3	☐	1.000	0.951	1922.43	0.0003	P	7.8
4	☐	50.000	53.299	12069.45	0.0020	P	1.2
5	☐	125.000	138.104	28173.32	0.0047	P	2.3
6	☐	250.000	263.870	53847.58	0.0087	P	1.7
7	☐	500.000	522.498	105947.15	0.0169	P	1.1
8	☐	1000.000	983.481	196959.35	0.0316	P	0.9
9	☐			1789.08	0.0003	P	3.0

$$y = 3.1847\text{E-}005 * x + 2.8596\text{E-}004$$

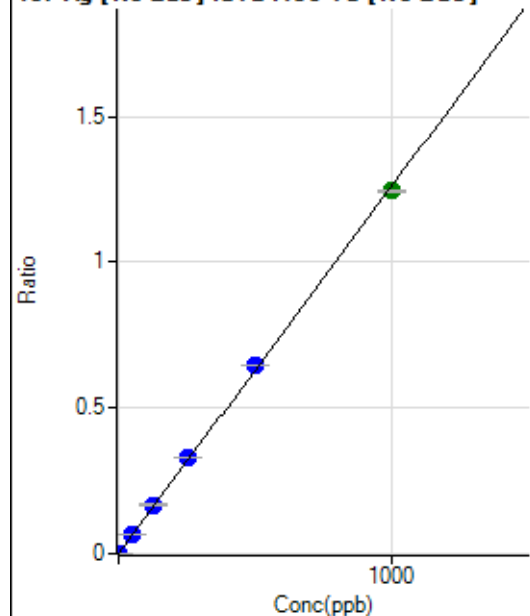
$$R = 0.9995$$

$$DL = 0.2365$$

$$BEC = 8.979$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	38.89	0.0000	P	53.6
2	☐	0.100					
3	☐	1.000	1.045	8041.48	0.0013	P	2.5
4	☐	50.000	52.805	404365.00	0.0665	P	2.8
5	☐	125.000	133.450	1010760.60	0.1680	P	1.3
6	☐	250.000	264.039	2060247.99	0.3325	P	0.1
7	☐	500.000	514.195	4052690.02	0.6475	P	0.6
8	☐	1000.000	988.196	7753805.21	1.2443	A	0.6
9	☐			1450.14	0.0003	P	9.7

$$y = 0.0013 * x + 6.2120\text{E-}006$$

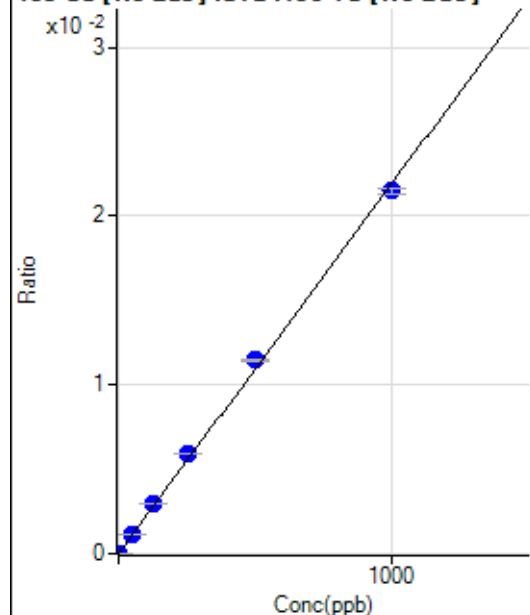
$$R = 0.9997$$

$$DL = 0.007927$$

$$BEC = 0.004934$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2.78	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	0.709	97.23	0.0000	P	10.2
4	☐	50.000	52.856	7043.55	0.0012	P	2.2
5	☐	125.000	134.536	17728.08	0.0029	P	0.8
6	☐	250.000	269.715	36610.03	0.0059	P	0.4
7	☐	500.000	524.495	71910.43	0.0115	P	0.6
8	☐	1000.000	981.489	133969.73	0.0215	P	1.4
9	☐			41.66	0.0000	P	45.7

$$y = 2.1903\text{E-}005 * x + 4.4589\text{E-}007$$

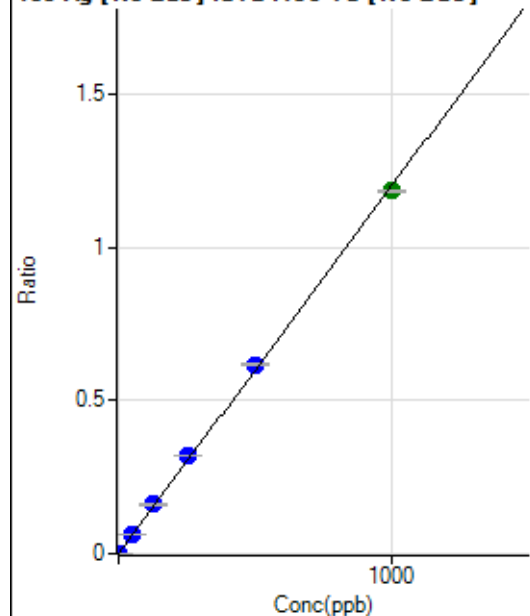
$$R = 0.9993$$

$$DL = 0.05289$$

$$BEC = 0.02036$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0000	P	44.0
2	☐	0.100					
3	☐	1.000	1.066	7816.34	0.0013	P	1.5
4	☐	50.000	52.845	385238.06	0.0634	P	3.2
5	☐	125.000	134.376	968895.14	0.1611	P	2.3
6	☐	250.000	266.248	1977851.47	0.3192	P	0.1
7	☐	500.000	514.825	3863103.04	0.6172	P	0.6
8	☐	1000.000	987.211	7374634.62	1.1834	A	0.4
9	☐			1422.35	0.0003	P	19.2

$$y = 0.0012 * x + 7.5458\text{E-}006$$

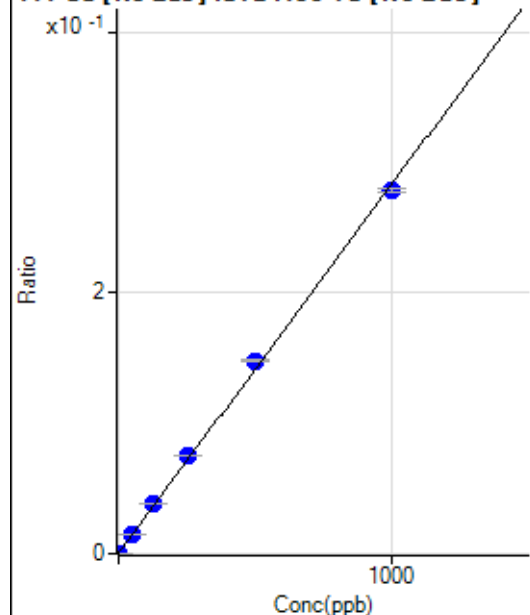
$$R = 0.9997$$

$$DL = 0.008308$$

$$BEC = 0.006295$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1258.19	0.0002	P	0.6
2	☐	0.100					
3	☐	1.000	0.925	2813.87	0.0005	P	6.5
4	☐	50.000	52.681	91755.10	0.0151	P	2.9
5	☐	125.000	135.460	231446.15	0.0385	P	2.1
6	☐	250.000	266.298	467564.80	0.0755	P	0.4
7	☐	500.000	522.793	925986.57	0.1479	P	0.4
8	☐	1000.000	983.088	1732373.45	0.2780	P	1.1
9	☐			1534.31	0.0003	P	2.2

$$y = 2.8258\text{E-}004 * x + 2.0141\text{E-}004$$

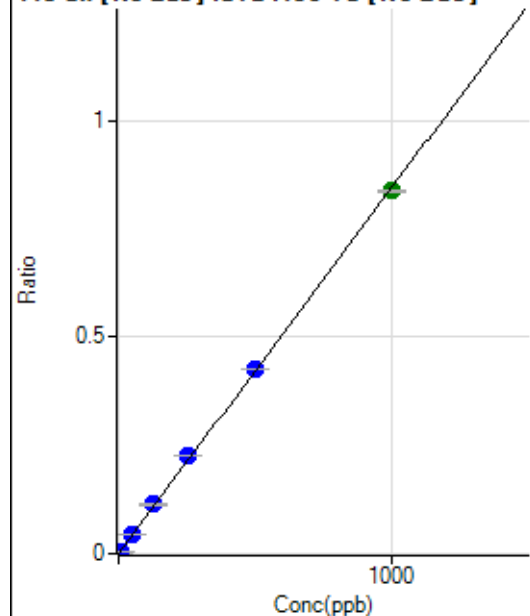
$$R = 0.9994$$

$$DL = 0.0119$$

$$BEC = 0.7128$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	341.68	0.0001	P	8.8
2	☐	0.500					
3	☐	5.000	4.767	24797.60	0.0041	P	3.0
4	☐	50.000	52.524	269766.89	0.0444	P	3.9
5	☐	125.000	134.682	683874.63	0.1137	P	1.3
6	☐	250.000	268.547	1404466.45	0.2266	P	0.5
7	☐	500.000	503.763	2660997.83	0.4251	P	0.3
8	☐	1000.000	992.146	5217015.26	0.8372	A	0.3
9	☐			4703.76	0.0008	P	1.8

$$y = 8.4377\text{E-}004 * x + 5.4709\text{E-}005$$

$$R = 0.9998$$

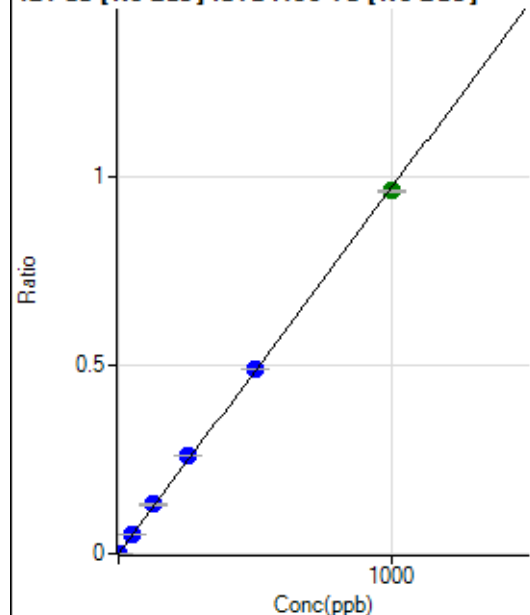
$$DL = 0.01713$$

$$BEC = 0.06484$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.45	0.0000	P	48.2
2	☐	0.200					
3	☐	2.000	1.758	10445.94	0.0017	P	3.8
4	☐	50.000	52.058	306684.60	0.0504	P	2.9
5	☐	125.000	134.135	781497.00	0.1299	P	1.3
6	☐	250.000	268.472	1611345.64	0.2600	P	0.6
7	☐	500.000	505.286	3063307.32	0.4894	P	0.2
8	☐	1000.000	991.495	5983905.21	0.9603	A	0.4
9	☐			8272.26	0.0015	P	9.0

$$y = 9.6849\text{E-}004 * x + 1.5087\text{E-}005$$

$$R = 0.9998$$

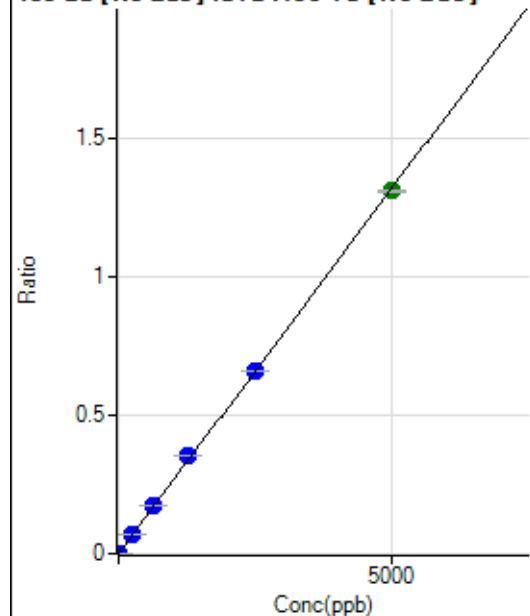
$$DL = 0.02253$$

$$BEC = 0.01558$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.45	0.0000	P	24.3
2	☐	1.000					
3	☐	10.000	9.363	15058.73	0.0025	P	3.1
4	☐	250.000	259.635	416993.83	0.0686	P	3.0
5	☐	625.000	663.325	1053832.49	0.1752	P	0.9
6	☐	1250.000	1336.159	2186841.39	0.3529	P	0.2
7	☐	2500.000	2502.591	4137324.22	0.6610	P	0.1
8	☐	5000.000	4971.893	8182796.71	1.3131	A	0.4
9	☐			1594.61	0.0003	P	12.0

$$y = 2.6411\text{E-}004 * x + 3.1113\text{E-}006$$

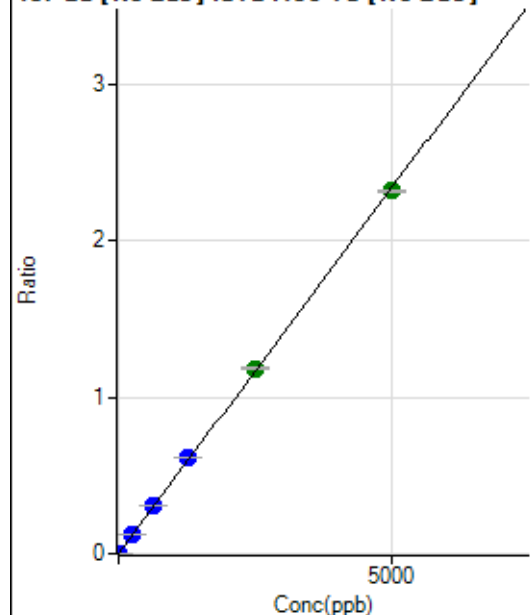
$$R = 0.9998$$

$$DL = 0.008604$$

$$BEC = 0.01178$$

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	16.67	0.0000	P	86.6
2	☐	1.000					
3	☐	10.000	9.285	26400.76	0.0043	P	3.0
4	☐	250.000	255.584	726248.97	0.1194	P	3.0
5	☐	625.000	654.968	1840944.42	0.3061	P	1.3
6	☐	1250.000	1310.266	3794099.61	0.6123	P	0.6
7	☐	2500.000	2536.144	7418097.47	1.1851	A	0.4
8	☐	5000.000	4962.838	14451096.68	2.3191	A	0.6
9	☐			2922.63	0.0005	P	5.4

$$y = 4.6728E-004 * x + 2.6735E-006$$

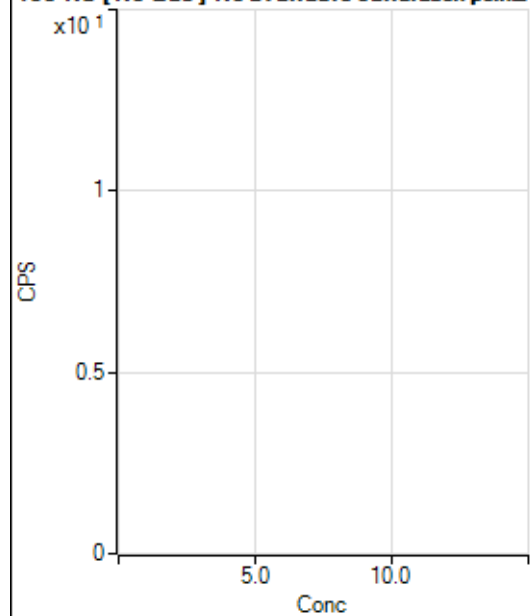
$$R = 0.9999$$

$$DL = 0.01487$$

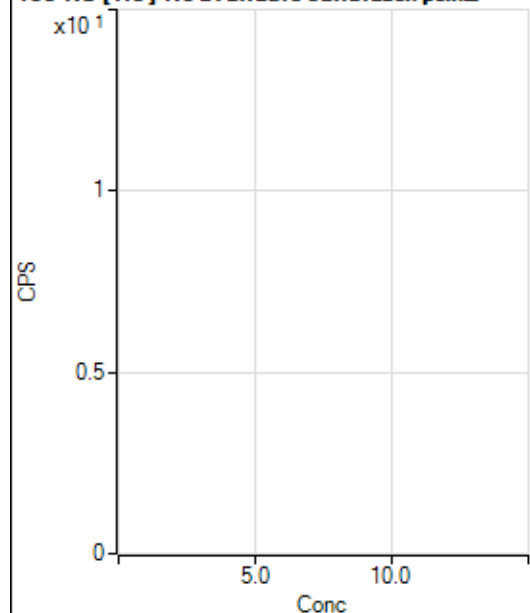
$$BEC = 0.005721$$

Weight: <None>

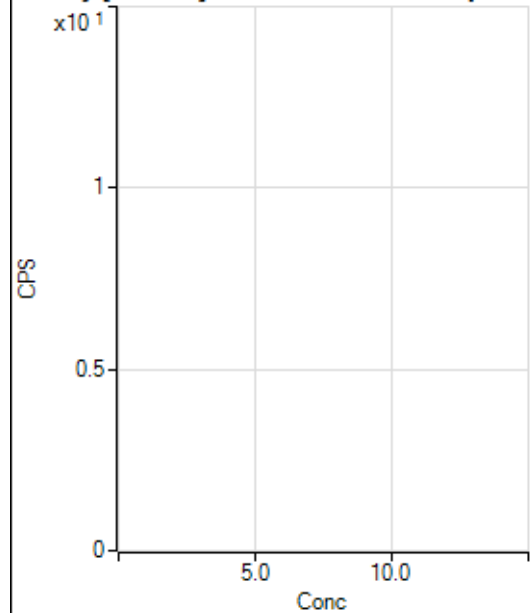
Min Conc: 0

150 Nd [No Gas] No available calibration points

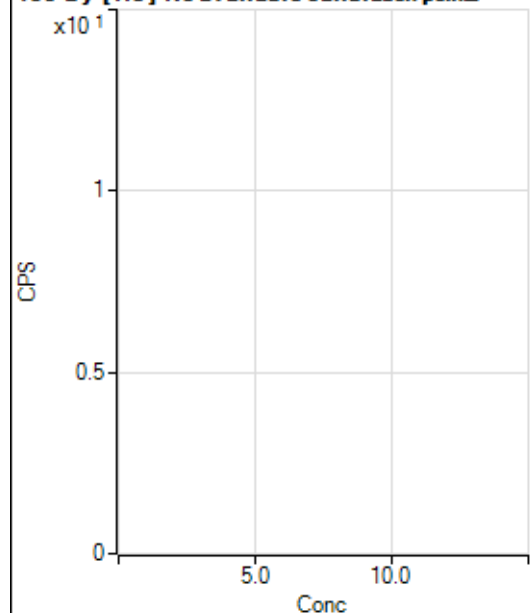
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			2.22		P	173.2
4	☐			42.22		P	24.1
5	☐			122.23		P	22.0
6	☐			197.79		P	21.9
7	☐			348.91		P	23.9
8	☐			704.49		P	6.3
9	☐			126.67		P	27.3

150 Nd [He] No available calibration points

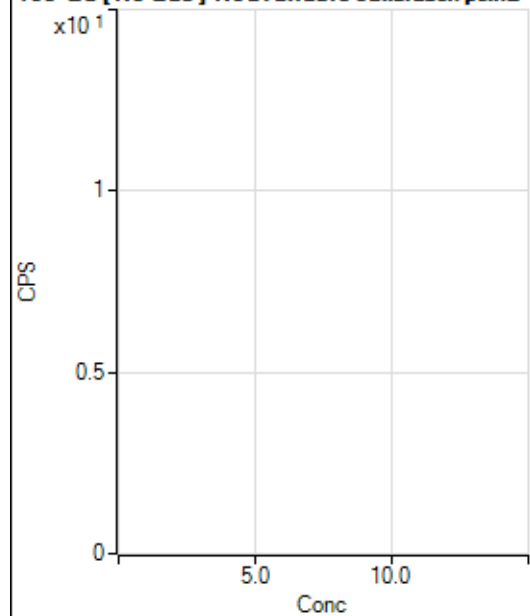
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			2.22		P	173.2
5	☐			20.00		P	33.4
6	☐			22.22		P	22.9
7	☐			43.34		P	26.6
8	☐			75.55		P	17.8
9	☐			68.89		P	5.6

156 Dy [No Gas] No available calibration points

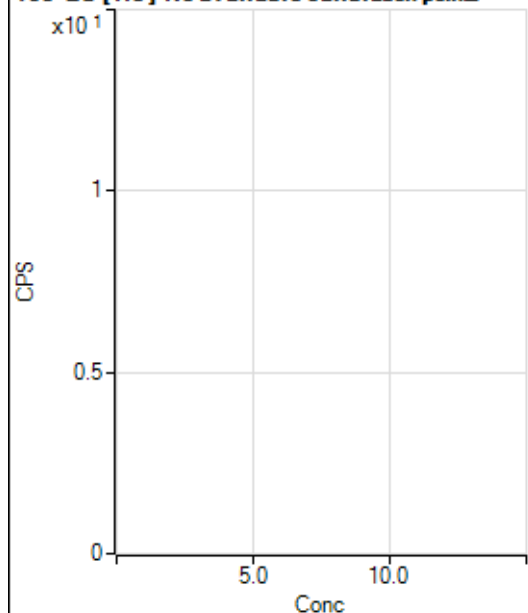
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.56		P	173.2
2	☐						
3	☐			5.56		P	173.2
4	☐			22.22		P	57.3
5	☐			25.00		P	57.7
6	☐			30.56		P	56.8
7	☐			80.56		P	36.3
8	☐			108.34		P	61.1
9	☐			38.89		P	24.7

156 Dy [He] No available calibration points

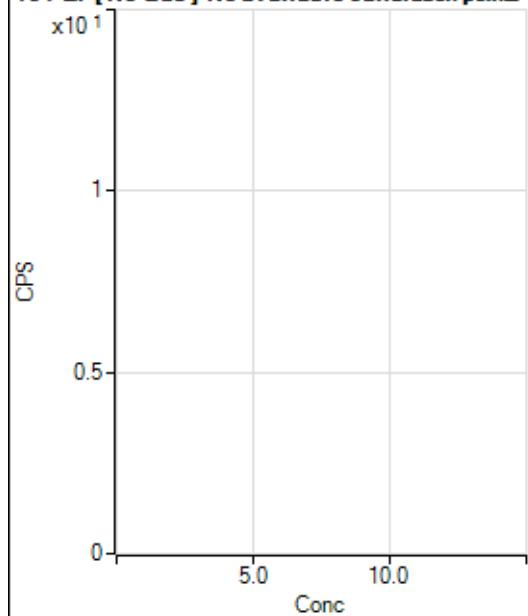
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			4.45		P	86.6
4	☐			7.78		P	24.7
5	☐			27.78		P	42.1
6	☐			58.89		P	31.2
7	☐			100.00		P	15.3
8	☐			154.45		P	25.0
9	☐			30.00		P	50.9

160 Gd [No Gas] Noavailable calibration poin_

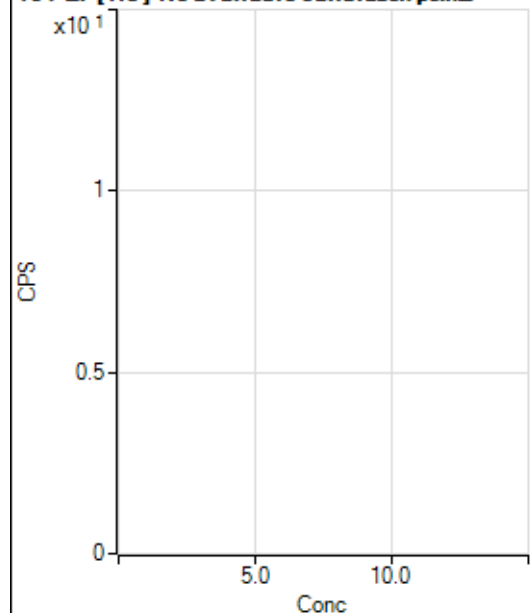
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	13.3
2	☐						
3	☐			19.44		P	65.5
4	☐			33.34		P	66.1
5	☐			30.56		P	83.3
6	☐			38.89		P	44.6
7	☐			22.22		P	108.3
8	☐			38.89		P	53.9
9	☐			72.23		P	26.7

160 Gd [He] No available calibration points

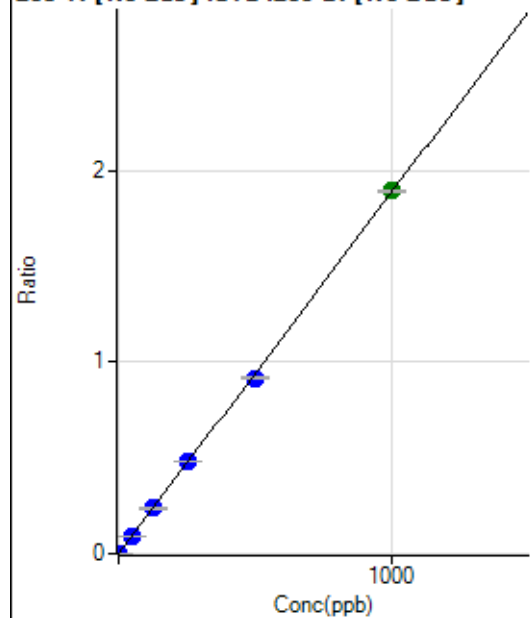
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			90.00		P	25.9
2	☐						
3	☐			74.45		P	9.3
4	☐			85.55		P	35.4
5	☐			84.45		P	21.7
6	☐			118.89		P	6.5
7	☐			95.56		P	25.2
8	☐			102.23		P	18.0
9	☐			118.89		P	19.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐						
3	☐			16.67		P	100.0
4	☐			16.67		P	50.0
5	☐			33.33		P	43.3
6	☐			30.56		P	56.8
7	☐			33.33		P	25.0
8	☐			41.67		P	0.0
9	☐			52.78		P	39.7

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	17.3
2	☐						
3	☐			6.66		P	86.6
4	☐			11.11		P	75.5
5	☐			10.00		P	66.7
6	☐			21.11		P	48.2
7	☐			14.44		P	58.1
8	☐			21.11		P	18.2
9	☐			16.67		P	40.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	102.78	0.0000	P	57.2
2	☐	0.100					
3	☐	1.000	0.848	6699.19	0.0016	P	4.2
4	☐	50.000	48.935	380909.52	0.0922	P	2.9
5	☐	125.000	125.983	964621.09	0.2375	P	1.7
6	☐	250.000	256.951	1989310.33	0.4843	P	0.6
7	☐	500.000	487.002	3728653.43	0.9178	P	0.3
8	☐	1000.000	1004.692	7472718.74	1.8935	A	0.6
9	☐			1600.17	0.0005	P	7.6

$$y = 0.0019 * x + 2.4457E-005$$

$$R = 0.9998$$

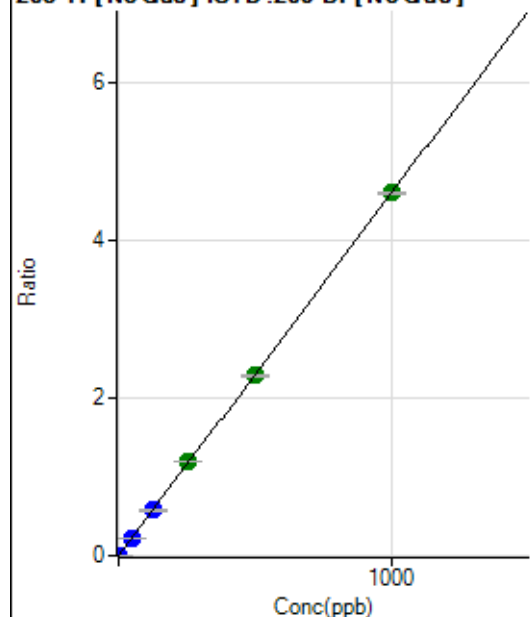
$$DL = 0.02228$$

$$BEC = 0.01298$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	255.57	0.0001	P	24.4
2	☐	0.100					
3	☐	1.000	0.841	16224.49	0.0039	P	0.5
4	☐	50.000	48.712	924754.77	0.2240	P	3.1
5	☐	125.000	124.592	2326872.51	0.5728	P	1.6
6	☐	250.000	258.663	4884430.36	1.1891	A	0.9
7	☐	500.000	495.813	9259077.81	2.2792	A	0.2
8	☐	1000.000	1000.044	18142520.54	4.5970	A	0.4
9	☐			3714.59	0.0011	P	13.8

$$y = 0.0046 * x + 6.0843E-005$$

$$R = 0.9999$$

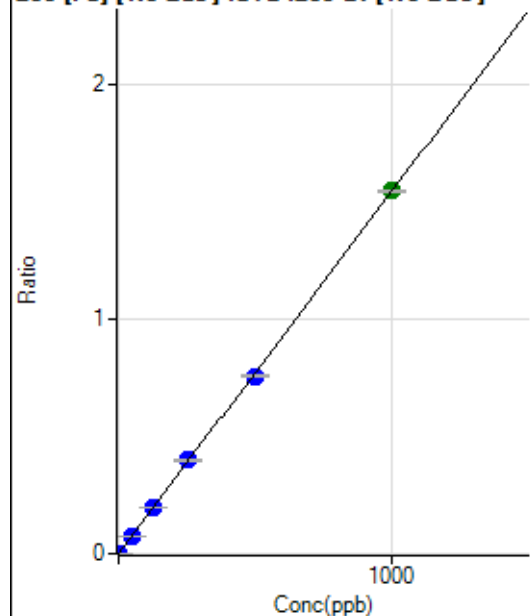
$$DL = 0.009695$$

$$BEC = 0.01324$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	318.53	0.0001	P	12.2
2	☐	0.100					
3	☐	1.000	0.888	5970.02	0.0014	P	1.2
4	☐	50.000	49.181	313259.71	0.0759	P	2.6
5	☐	125.000	127.883	800862.27	0.1971	P	1.5
6	☐	250.000	258.367	1635740.30	0.3982	P	0.8
7	☐	500.000	490.855	3073063.84	0.7565	P	0.3
8	☐	1000.000	1002.161	6094953.32	1.5444	A	0.2
9	☐			7254.02	0.0022	P	3.7

$$y = 0.0015 * x + 7.5858E-005$$

$$R = 0.9999$$

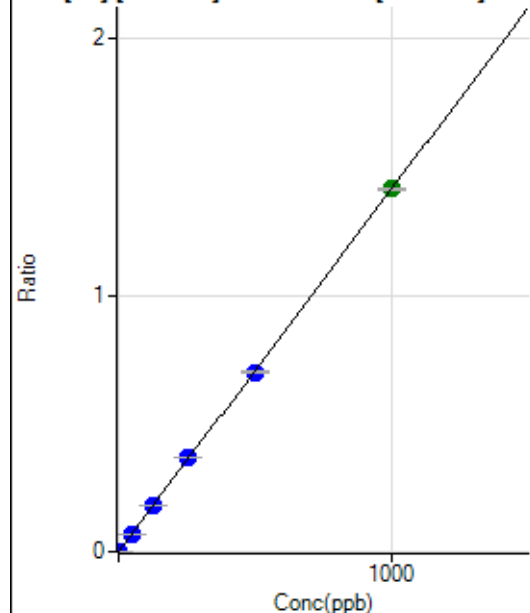
$$DL = 0.01794$$

$$BEC = 0.04923$$

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	275.94	0.0001	P	8.4
2	☐	0.100					
3	☐	1.000	0.841	5186.36	0.0013	P	3.2
4	☐	50.000	49.399	288708.62	0.0699	P	3.3
5	☐	125.000	126.697	728226.67	0.1792	P	0.8
6	☐	250.000	258.438	1501643.58	0.3656	P	0.4
7	☐	500.000	494.578	2841738.43	0.6995	P	0.6
8	☐	1000.000	1000.420	5584014.76	1.4149	A	0.2
9	☐			6392.47	0.0019	P	5.2

$$y = 0.0014 * x + 6.5711E-005$$

$$R = 0.9999$$

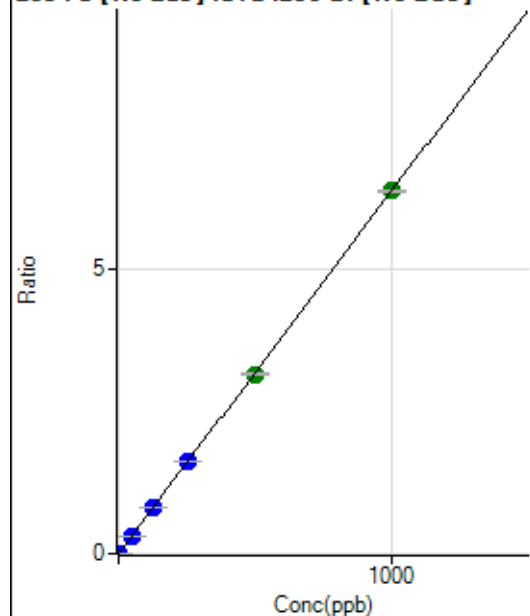
$$DL = 0.01166$$

$$BEC = 0.04646$$

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	1225.99	0.0003	P	1.7
2	☐	0.100					
3	☐	1.000	0.858	23788.64	0.0058	P	1.9
4	☐	50.000	49.059	1292167.47	0.3129	P	2.7
5	☐	125.000	126.194	3268379.15	0.8045	P	1.2
6	☐	250.000	255.345	6685762.92	1.6276	P	0.5
7	☐	500.000	495.366	12825920.60	3.1572	A	0.5
8	☐	1000.000	1000.879	25174498.48	6.3788	A	0.3
9	☐			29022.37	0.0087	P	0.6

$$y = 0.0064 * x + 2.9186E-004$$

$$R = 1.0000$$

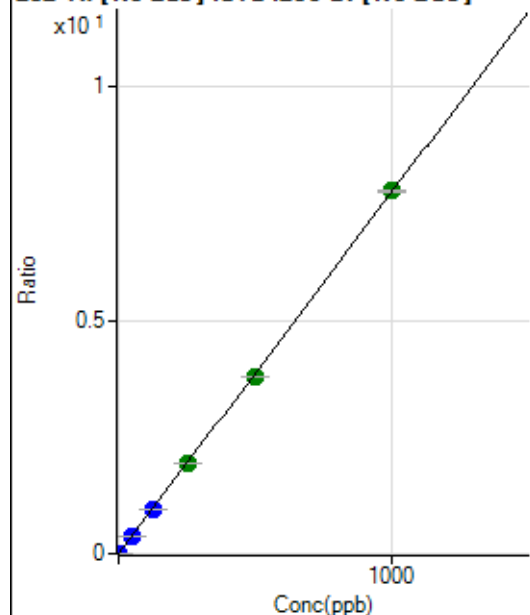
$$DL = 0.00227$$

$$BEC = 0.0458$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	174.08	0.0000	P	22.4
2	☐	0.100					
3	☐	1.000	0.782	25135.65	0.0061	P	1.6
4	☐	50.000	46.297	1477579.39	0.3579	P	3.2
5	☐	125.000	120.978	3798691.46	0.9351	P	1.8
6	☐	250.000	252.259	8009338.37	1.9498	A	0.3
7	☐	500.000	490.526	15402169.79	3.7914	A	0.4
8	☐	1000.000	1004.861	30651744.67	7.7667	A	0.8
9	☐			9444.44	0.0028	P	13.1

$$y = 0.0077 * x + 4.1445E-005$$

$$R = 0.9999$$

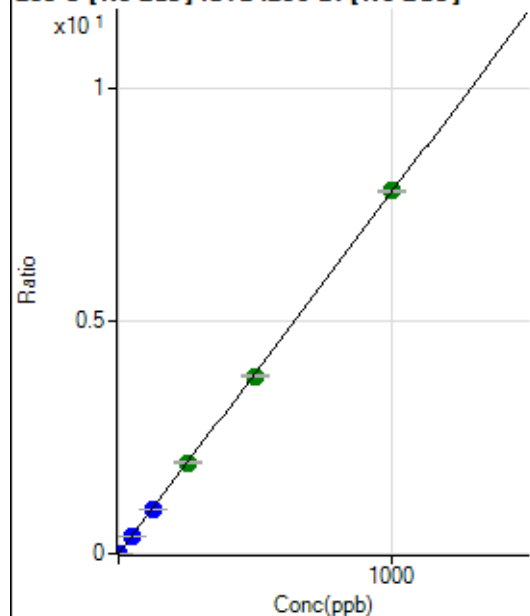
$$DL = 0.003603$$

$$BEC = 0.005362$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	66.67	0.0000	P	32.6
2	☐	0.100					
3	☐	1.000	0.821	26352.51	0.0064	P	2.7
4	☐	50.000	46.923	1502370.84	0.3639	P	2.8
5	☐	125.000	121.509	3827543.27	0.9422	P	1.7
6	☐	250.000	252.262	8035163.03	1.9561	A	0.5
7	☐	500.000	492.125	15502177.43	3.8160	A	0.4
8	☐	1000.000	1003.962	30723231.94	7.7848	A	0.5
9	☐			3722.93	0.0011	P	8.9

$$y = 0.0078 * x + 1.5855E-005$$

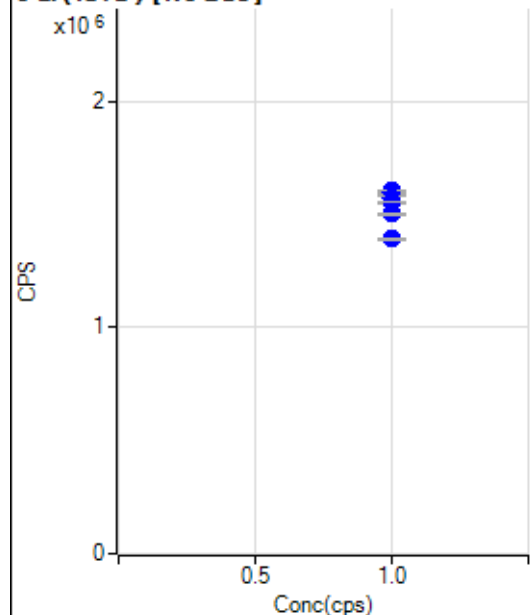
$$R = 0.9999$$

$$DL = 0.002001$$

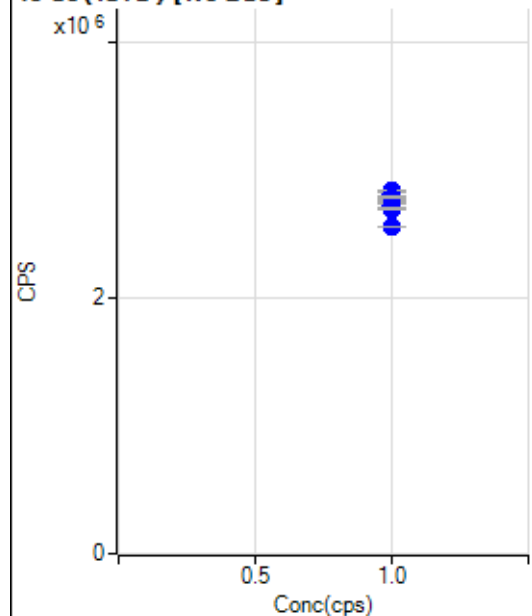
$$BEC = 0.002045$$

Weight: <None>

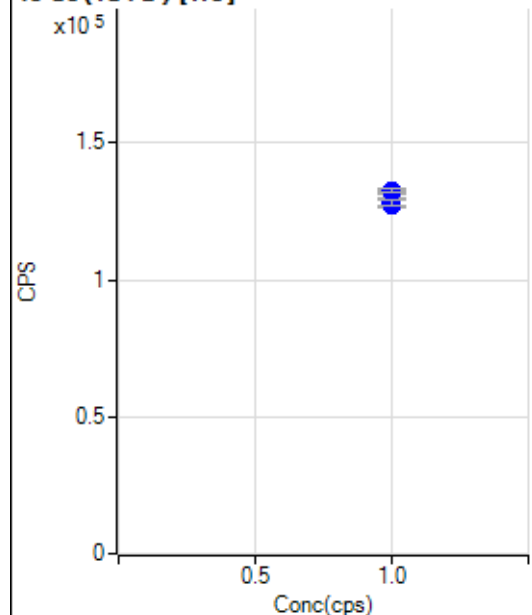
Min Conc: 0

6 Li (ISTD) [No Gas]

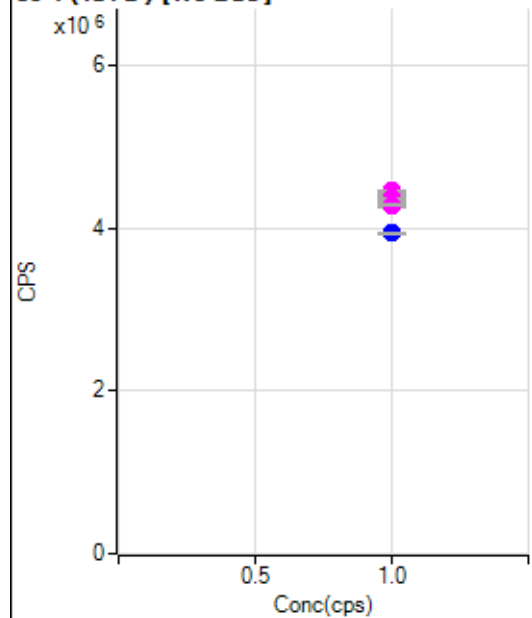
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1604274.29		P	0.2
2	☐	1.000					
3	☐	1.000		1601393.00		P	1.1
4	☐	1.000		1572149.47		P	1.6
5	☐	1.000		1554476.41		P	0.4
6	☐	1.000		1557050.17		P	0.2
7	☐	1.000		1553793.25		P	0.1
8	☐	1.000		1504675.04		P	0.6
9	☐	1.000		1391599.58		P	0.5

45 Sc (ISTD) [No Gas]

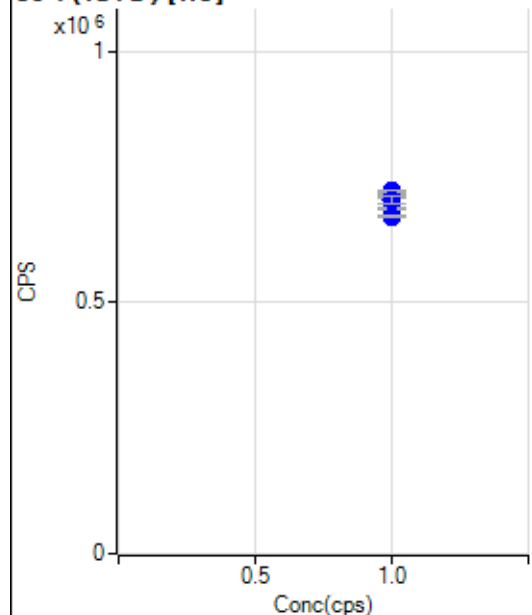
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2835846.55		P	0.4
2	☐	1.000					
3	☐	1.000		2807596.46		P	1.8
4	☐	1.000		2803114.78		P	3.2
5	☐	1.000		2717218.87		P	1.2
6	☐	1.000		2751153.73		P	0.6
7	☐	1.000		2784849.17		P	0.3
8	☐	1.000		2693701.93		P	0.6
9	☐	1.000		2556284.61		P	0.3

45 Sc (ISTD) [He]

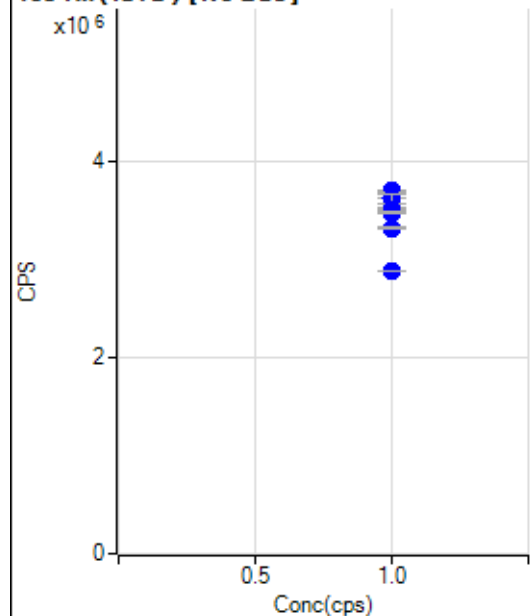
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		126995.06		P	0.6
2	☐	1.000					
3	☐	1.000		132133.33		P	1.0
4	☐	1.000		132358.15		P	0.7
5	☐	1.000		129699.17		P	0.4
6	☐	1.000		131967.98		P	0.1
7	☐	1.000		132458.57		P	1.1
8	☐	1.000		128443.20		P	2.2
9	☐	1.000		128007.97		P	1.4

89 Y (ISTD) [No Gas]

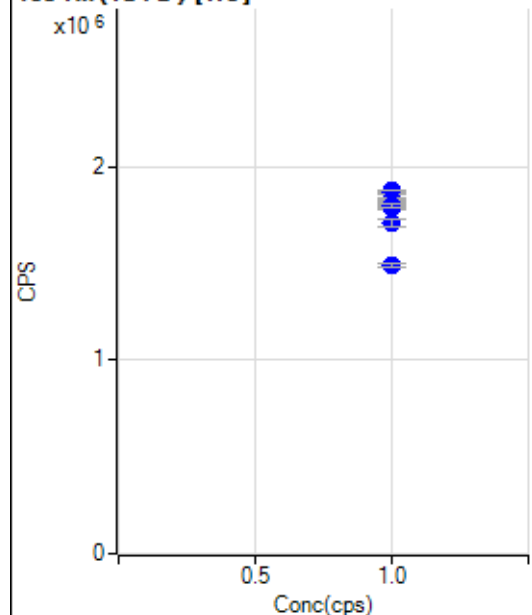
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4464117.15		M	0.8
2	☐	1.000					
3	☐	1.000		4374246.57		A	1.7
4	☐	1.000		4353298.41		M	3.1
5	☐	1.000		4288951.12		M	1.4
6	☐	1.000		4338434.80		M	0.1
7	☐	1.000		4369238.61		M	0.5
8	☐	1.000		4293918.51		M	0.3
9	☐	1.000		3942872.27		P	0.2

89 Y (ISTD) [He]

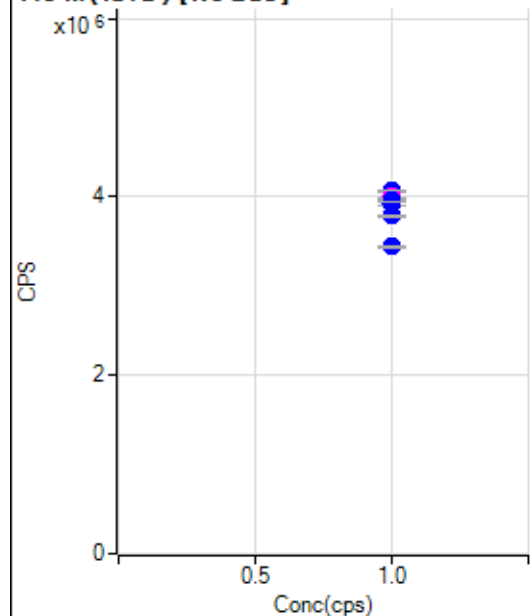
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		687670.57		P	0.6
2	☐	1.000					
3	☐	1.000		717390.64		P	0.6
4	☐	1.000		721442.84		P	0.4
5	☐	1.000		709977.13		P	0.8
6	☐	1.000		721870.48		P	0.1
7	☐	1.000		722468.83		P	0.9
8	☐	1.000		703012.58		P	2.3
9	☐	1.000		671656.09		P	0.8

103 Rh (ISTD) [No Gas]

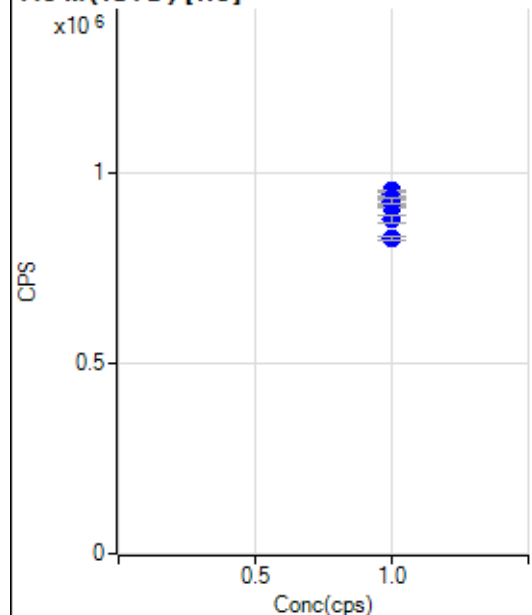
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3704181.46		P	0.3
2	☐	1.000					
3	☐	1.000		3662123.00		P	1.5
4	☐	1.000		3628047.35		P	2.7
5	☐	1.000		3522076.60		P	1.0
6	☐	1.000		3513674.73		P	0.5
7	☐	1.000		3479410.89		P	0.4
8	☐	1.000		3326434.43		P	0.5
9	☐	1.000		2883622.66		P	0.3

103 Rh (ISTD) [He]

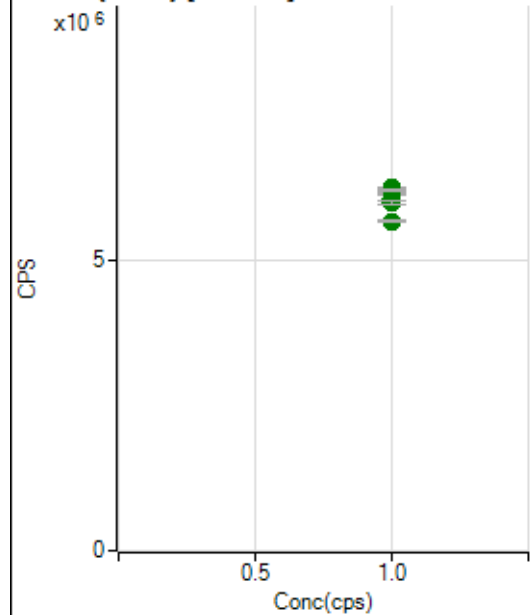
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1789466.36		P	0.8
2	☐	1.000					
3	☐	1.000		1874572.39		P	0.7
4	☐	1.000		1868141.41		P	0.7
5	☐	1.000		1819787.65		P	0.6
6	☐	1.000		1832207.91		P	0.2
7	☐	1.000		1800867.01		P	0.8
8	☐	1.000		1712145.84		P	2.3
9	☐	1.000		1489755.34		P	0.8

115 In (ISTD) [No Gas]

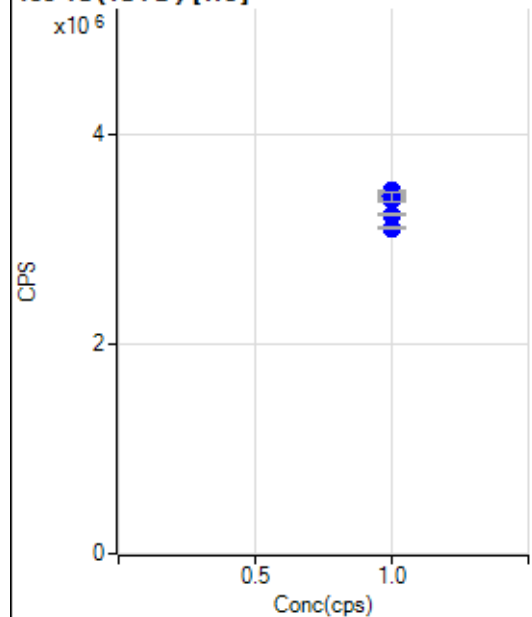
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4065912.98		P	0.5
2	☐	1.000					
3	☐	1.000		4010020.50		P	1.7
4	☐	1.000		4008129.85		M	3.0
5	☐	1.000		3912955.95		P	1.2
6	☐	1.000		3958193.43		P	0.4
7	☐	1.000		3943230.39		P	0.3
8	☐	1.000		3787229.51		P	0.6
9	☐	1.000		3444839.78		P	0.7

115 In (ISTD) [He]

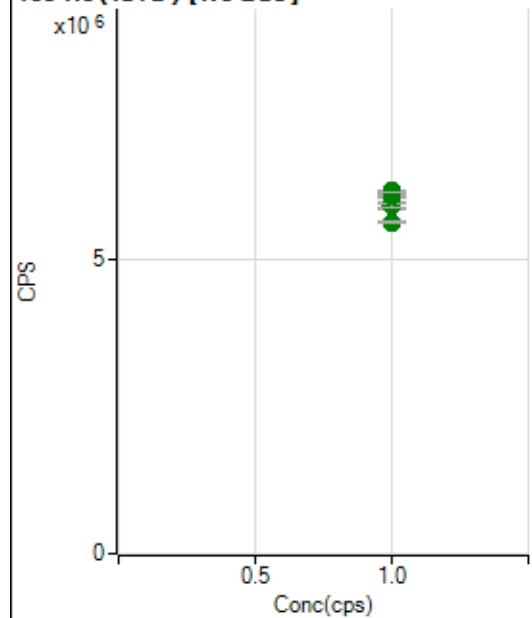
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		909627.59		P	0.5
2	☐	1.000					
3	☐	1.000		945885.32		P	1.0
4	☐	1.000		953170.66		P	0.4
5	☐	1.000		933902.15		P	0.6
6	☐	1.000		937028.63		P	0.0
7	☐	1.000		926091.03		P	1.4
8	☐	1.000		879714.30		P	2.6
9	☐	1.000		829913.91		P	1.0

159 Tb (ISTD) [No Gas]

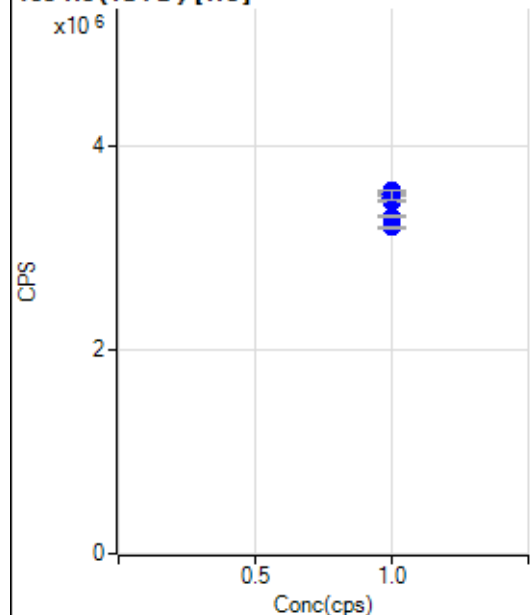
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6246874.77		A	0.7
2	☐	1.000					
3	☐	1.000		6083369.01		A	1.7
4	☐	1.000		6084755.95		A	3.3
5	☐	1.000		6015637.48		A	1.2
6	☐	1.000		6196791.71		A	0.2
7	☐	1.000		6259524.49		A	0.4
8	☐	1.000		6231554.56		A	0.5
9	☐	1.000		5686588.94		A	0.3

159 Tb (ISTD) [He]

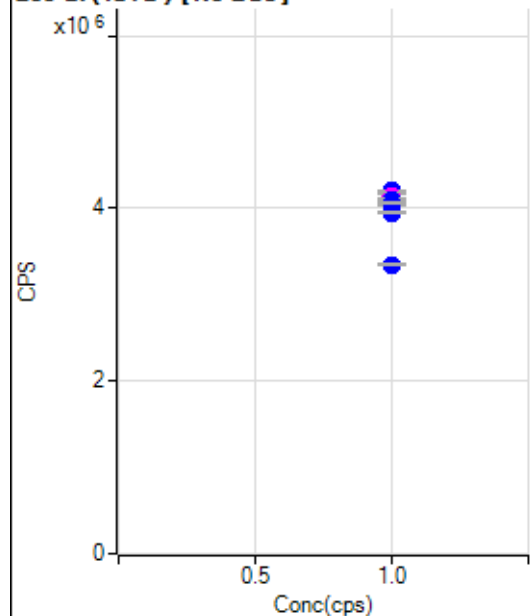
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3231318.84		P	0.6
2	☐	1.000					
3	☐	1.000		3364080.33		P	0.7
4	☐	1.000		3402589.36		P	0.4
5	☐	1.000		3369528.42		P	0.5
6	☐	1.000		3436088.77		P	0.5
7	☐	1.000		3457054.50		P	0.8
8	☐	1.000		3401424.25		P	2.7
9	☐	1.000		3101597.42		P	0.5

165 Ho (ISTD) [No Gas]

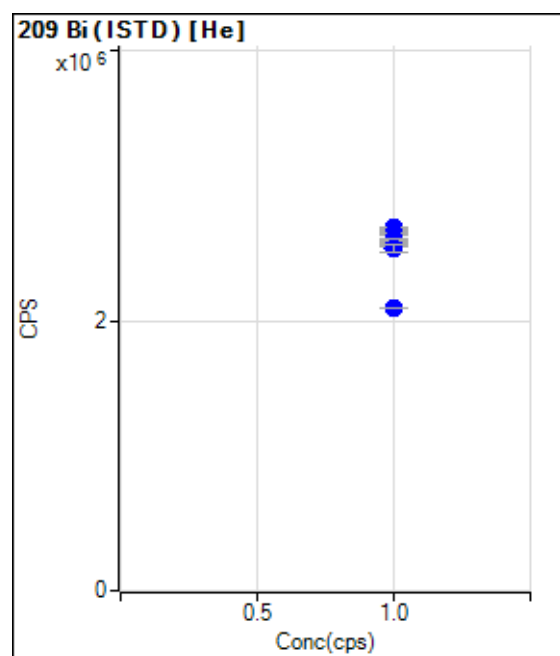
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6112603.78		A	0.4
2	☐	1.000					
3	☐	1.000		5938058.03		A	1.5
4	☐	1.000		5971510.38		A	3.2
5	☐	1.000		5926956.12		A	1.2
6	☐	1.000		6102493.50		A	0.4
7	☐	1.000		6180005.35		A	0.3
8	☐	1.000		6156532.13		A	0.2
9	☐	1.000		5644058.37		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3304670.64		P	0.8
2	☐	1.000					
3	☐	1.000		3456160.96		P	0.5
4	☐	1.000		3484564.98		P	0.7
5	☐	1.000		3460692.76		P	0.6
6	☐	1.000		3532216.23		P	0.4
7	☐	1.000		3554567.76		P	0.5
8	☐	1.000		3517797.48		P	2.5
9	☐	1.000		3195847.42		P	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4200942.30		P	0.7
2	☐	1.000					
3	☐	1.000		4131940.49		P	1.8
4	☐	1.000		4131389.87		M	3.0
5	☐	1.000		4063131.01		P	1.7
6	☐	1.000		4107861.54		P	0.4
7	☐	1.000		4062440.22		P	0.1
8	☐	1.000		3946596.54		P	0.3
9	☐	1.000		3343039.46		P	0.7



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2563069.62		P	1.2
2	☐	1.000					
3	☐	1.000		2663741.16		P	0.3
4	☐	1.000		2687318.90		P	0.5
5	☐	1.000		2641902.13		P	0.3
6	☐	1.000		2642884.47		P	0.2
7	☐	1.000		2603113.12		P	0.8
8	☐	1.000		2531446.98		P	2.4
9	☐	1.000		2097153.30		P	0.3

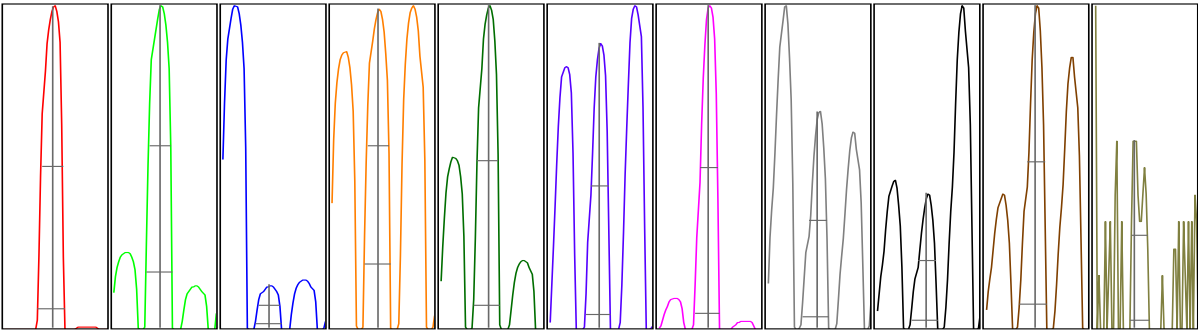
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7051419-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	7967	0.47	5.00	
24	146731	0.42	5.00	
25	19963	0.70	5.00	
26	22762	0.33	5.00	
59	50036	0.47	5.00	
113	7019	0.52	5.00	
115	85005	0.31	5.00	
206	24351	0.24	5.00	
207	22392	0.39	5.00	
208	52665	0.35	5.00	
220	0	58.68		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	8014	7986	7975	7928	7930
24	147607	147013	146484	145990	146560
25	20170	20020	19941	19808	19875
26	22860	22702	22777	22672	22802
59	50381	50079	49957	49735	50027
113	7078	7021	6996	6982	7019
115	85427	85090	84874	84776	84858
206	24308	24346	24423	24281	24399
207	22438	22453	22285	22313	22473
208	52706	52753	52809	52348	52709
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	13637	8.95	8.9 - 9.1		0.777	0.900	
24	239516	23.90	23.9 - 24.1		0.751	0.900	
25	31931	24.90	24.9 - 25.1		0.752	0.900	
26	36892	25.90	25.9 - 26.1		0.748	0.900	
59	87122	58.95	58.9 - 59.1		0.753	0.900	
113	13941	113.00	112.9 - 113.1		0.725	0.900	
115	165811	115.00	114.9 - 115.1		0.729	0.900	
206	48327	206.00	205.9 - 206.1		0.774	0.900	
207	43981	207.00	206.9 - 207.1		0.776	0.900	
208	105377	208.00	207.9 - 208.1		0.781	0.900	
220	0	219.70	-		0.540		

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	7.7	V	Deflect	13.8	V
Extract 2	-95.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	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	190	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	12593	0.81	
89	54898	0.70	
205	23635	0.90	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	12750	12522	12605	12484	12606
89	55574	54708	54808	54797	54603
205	23988	23451	23644	23487	23606

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	8.4	V	Deflect	1.4	V
Extract 2	-105.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-55	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			