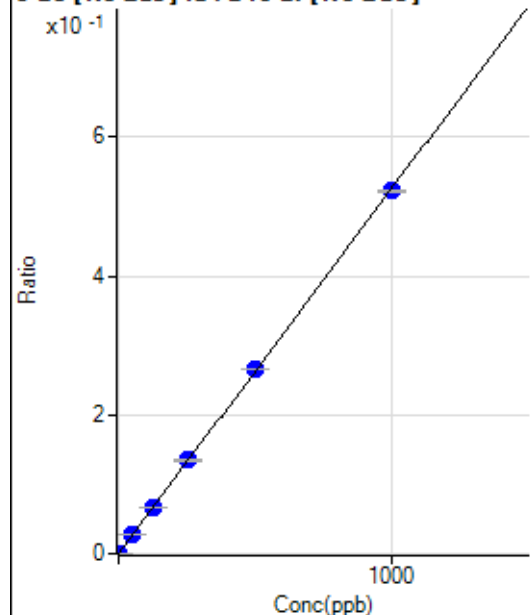


Batch Folder: D:\ICP-MS Data\P7101319 MS.b\
Analysis File: P7101319 MS.batch.bin
DA Date-Time: 2019-10-13 23:33:38
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-10-13 15:40:31
2	004CALS.d	S01	2019-10-13 15:44:04
3	005CALS.d	S02	2019-10-13 15:48:47
4	006CALS.d	S03	2019-10-13 15:52:41
5	007CALS.d	S04	2019-10-13 15:56:36
6	008CALS.d	S05	2019-10-13 16:00:25
7	009CALS.d	S06	2019-10-13 16:04:13
8	010CALS.d	S07	2019-10-13 16:07:58
9	011CALS.d	S08	2019-10-13 16:11:43

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	101.86	0.0000	P	20.2
2	☐	0.100	0.101	285.20	0.0001	P	11.8
3	☐	1.000	0.995	1913.14	0.0006	P	6.0
4	☐	50.000	51.208	90286.09	0.0269	P	1.0
5	☐	125.000	128.744	212929.65	0.0676	P	0.4
6	☐	250.000	256.741	402077.78	0.1349	P	1.1
7	☐	500.000	506.982	773134.36	0.2663	P	0.5
8	☐	1000.000	994.295	1483106.67	0.5223	P	0.7
9	☐			431.50	0.0002	P	16.8

$$y = 5.2523\text{E-}004 * x + 2.9702\text{E-}005$$

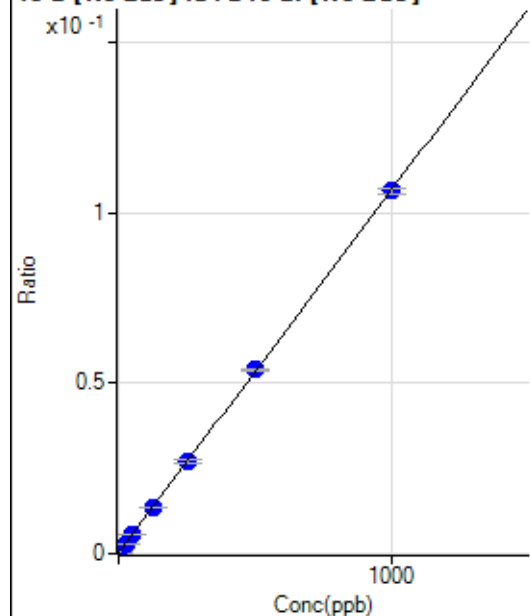
$$R = 0.9999$$

$$DL = 0.03425$$

$$BEC = 0.05655$$

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	902.84	0.0003	P	11.4
2	☐	2.500	2.746	1911.31	0.0006	P	5.3
3	☐	25.000	22.116	9055.81	0.0026	P	2.0
4	☐	50.000	48.474	18158.76	0.0054	P	1.3
5	☐	125.000	123.791	42240.46	0.0134	P	0.9
6	☐	250.000	251.164	80366.87	0.0270	P	3.4
7	☐	500.000	504.255	156356.81	0.0539	P	1.1
8	☐	1000.000	997.881	301944.72	0.1063	P	1.9
9	☐			14855.02	0.0058	P	7.9

$$y = 1.0628\text{E-}004 * x + 2.6360\text{E-}004$$

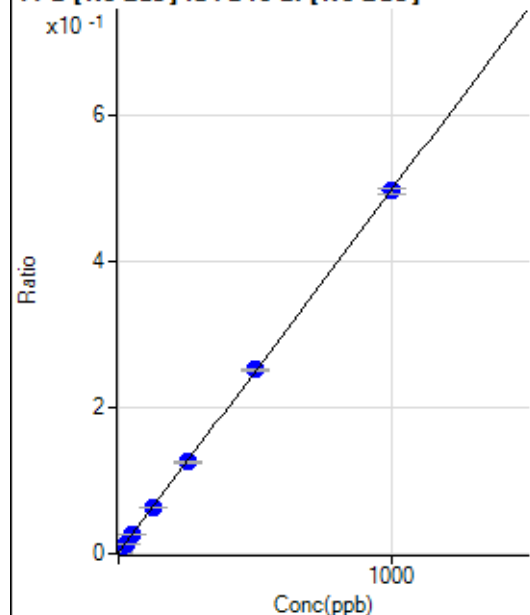
$$R = 1.0000$$

$$DL = 0.8446$$

$$BEC = 2.48$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	4361.90	0.0013	P	0.6
2	☐	2.500	2.461	8575.00	0.0025	P	3.8
3	☐	25.000	22.619	43221.12	0.0125	P	2.9
4	☐	50.000	48.707	85167.83	0.0254	P	2.2
5	☐	125.000	124.242	197721.95	0.0628	P	0.8
6	☐	250.000	250.180	373255.47	0.1252	P	1.9
7	☐	500.000	504.262	728915.11	0.2511	P	1.3
8	☐	1000.000	998.043	1407698.54	0.4957	P	1.9
9	☐			69435.78	0.0269	P	6.0

$$y = 4.9538\text{E-}004 * x + 0.0013$$

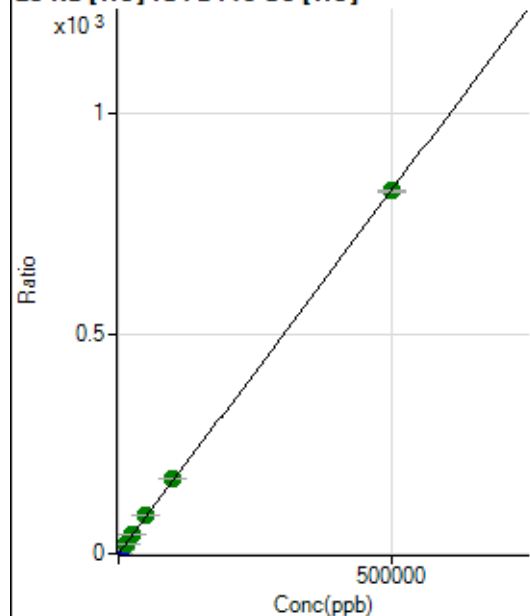
$$R = 1.0000$$

$$DL = 0.04465$$

$$BEC = 2.569$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	12099.81	0.0530	P	2.2
2	☐	50.000	48.852	30373.16	0.1336	P	1.4
3	☐	500.000	504.134	203503.05	0.8855	P	0.5
4	☐	5000.000	5201.965	1851402.04	8.6437	P	0.9
5	☐	12500.000	13111.750	4367169.98	21.7063	A	0.8
6	☐	25000.000	25913.682	8523341.60	42.8481	A	0.3
7	☐	50000.000	51728.103	16832954.20	85.4793	A	0.6
8	☐	100000.00	103023.35	32689068.79	170.1908	A	0.5
9	☐	500000.00	499159.51	149656099.1	824.3895	A	0.7

$$y = 0.0017 * x + 0.0530$$

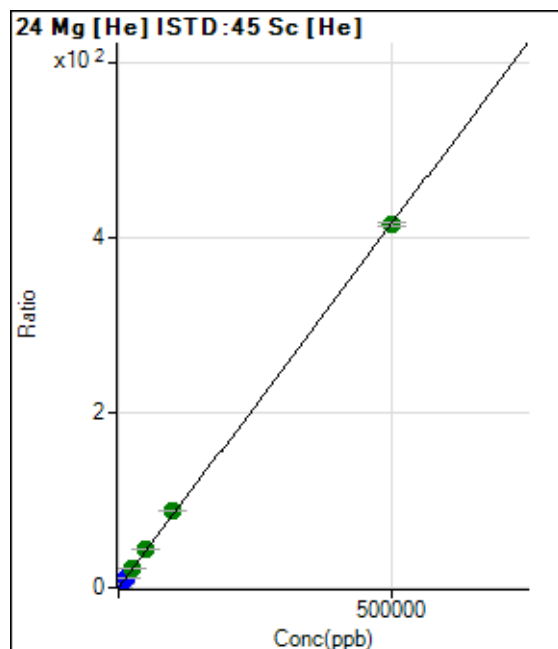
$$R = 1.0000$$

$$DL = 2.068$$

$$BEC = 32.06$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	586.15	0.0026	P	11.7
2	☐	50.000	49.656	9978.74	0.0439	P	3.8
3	☐	500.000	537.230	103387.57	0.4499	P	1.9
4	☐	5000.000	5373.410	958849.35	4.4768	P	1.4
5	☐	12500.000	13446.333	2253135.92	11.1988	P	0.7
6	☐	25000.000	26671.625	4418138.68	22.2110	A	0.6
7	☐	50000.000	53057.220	8700321.46	44.1813	A	0.6
8	☐	100000.00	104835.26	16767004.54	87.2948	A	0.6
9	☐	500000.00	498616.21	75370428.07	415.1810	A	1.1

$$y = 8.3266\text{E-}004 * x + 0.0026$$

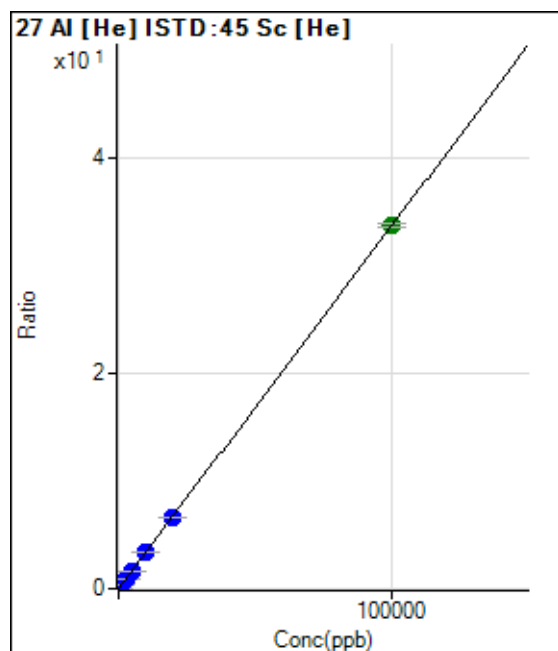
$$R = 0.9999$$

$$DL = 1.083$$

$$BEC = 3.081$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.67	0.0002	P	20.1
2	☐	2.000	1.564	161.12	0.0007	P	13.2
3	☐	20.000	21.226	1686.27	0.0073	P	10.9
4	☐	1000.000	1021.284	73779.82	0.3444	P	1.3
5	☐	2500.000	2549.582	172947.62	0.8596	P	0.4
6	☐	5000.000	5005.898	335687.19	1.6876	P	0.3
7	☐	10000.000	9984.169	662768.26	3.3656	P	0.1
8	☐	20000.000	19757.966	1279217.56	6.6601	P	0.9
9	☐	100000.00	100048.24	6122206.78	33.7242	A	1.0

$$y = 3.3708\text{E-}004 * x + 1.8237\text{E-}004$$

$$R = 1.0000$$

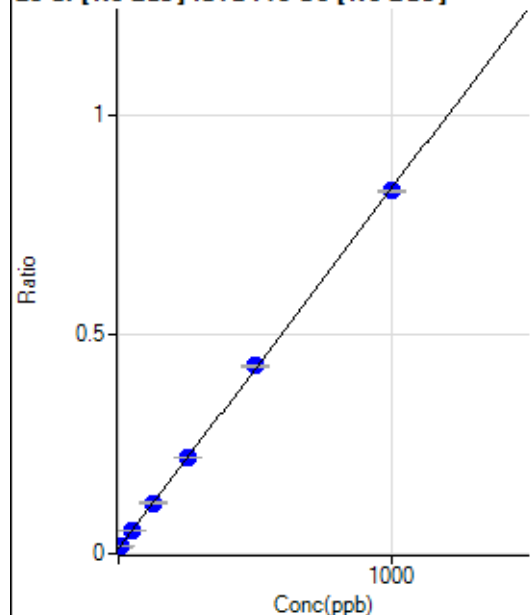
$$DL = 0.3269$$

$$BEC = 0.541$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	65017.19	0.0112	P	1.0
2	☐	1.000	0.756	69152.04	0.0118	P	0.4
3	☐	10.000	9.025	108323.84	0.0186	P	0.7
4	☐	50.000	51.922	302843.56	0.0539	P	0.6
5	☐	125.000	127.923	614702.52	0.1164	P	0.3
6	☐	250.000	255.338	1122115.79	0.2212	P	0.4
7	☐	500.000	508.448	2155031.00	0.4294	P	1.1
8	☐	1000.000	993.990	4119495.62	0.8288	P	0.8
9	☐			263216.61	0.0571	P	0.2

$$y = 8.2257\text{E-}004 * x + 0.0112$$

$$R = 0.9999$$

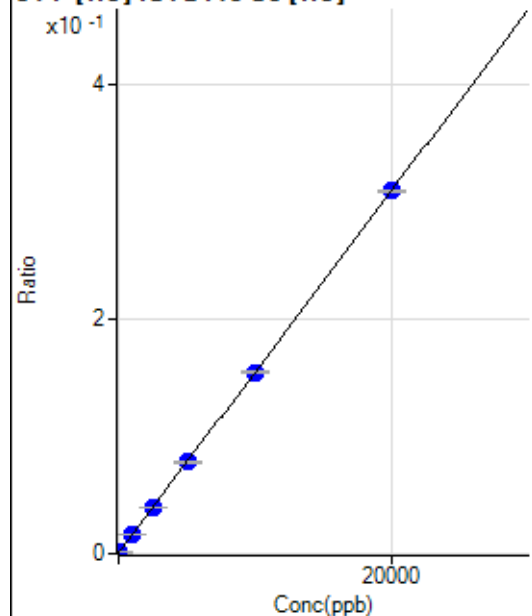
$$DL = 0.4144$$

$$BEC = 13.58$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-21.714	58.33	0.0003	P	79.5
2	☐	0.000	-16.070	77.78	0.0003	P	5.6
3	☐	0.000	37.784	269.46	0.0012	P	13.6
4	☐	1000.000	1022.819	3503.33	0.0164	P	0.2
5	☐	2500.000	2495.549	7857.94	0.0391	P	1.3
6	☐	5000.000	5020.730	15511.41	0.0780	P	1.3
7	☐	10000.000	9996.069	30457.00	0.1547	P	2.1
8	☐	20000.000	19996.198	59312.96	0.3088	P	0.4
9	☐			105.56	0.0006	P	16.7

$$y = 1.5414\text{E-}005 * x + 5.8981\text{E-}004$$

$$R = 1.0000$$

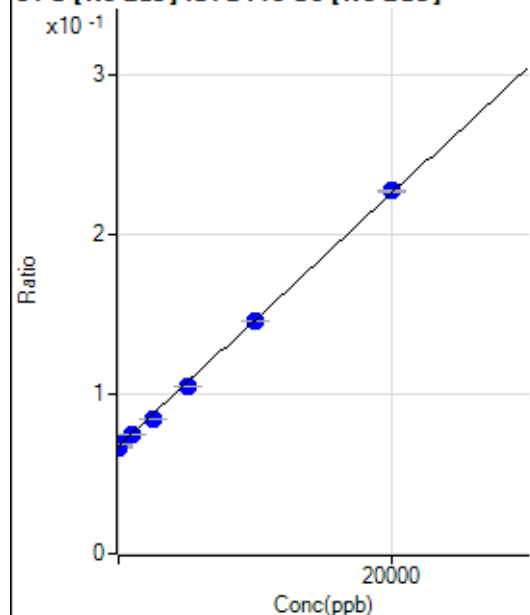
$$DL = 24.76$$

$$BEC = 38.27$$

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	-172.984	384550.46	0.0661	P	0.1
2	☐	0.000	30.472	396871.40	0.0677	P	0.4
3	☐	0.000	142.511	399463.93	0.0686	P	1.2
4	☐	1000.000	922.424	420124.43	0.0747	P	0.5
5	☐	2500.000	2105.244	444123.93	0.0841	P	0.5
6	☐	5000.000	4714.441	531256.67	0.1047	P	0.9
7	☐	10000.000	9885.779	730814.61	0.1456	P	0.1
8	☐	20000.000	20181.724	1128443.43	0.2270	P	0.6
9	☐			320456.60	0.0695	P	0.3

$$y = 7.9072\text{E-}006 * x + 0.0675$$

$$R = 0.9996$$

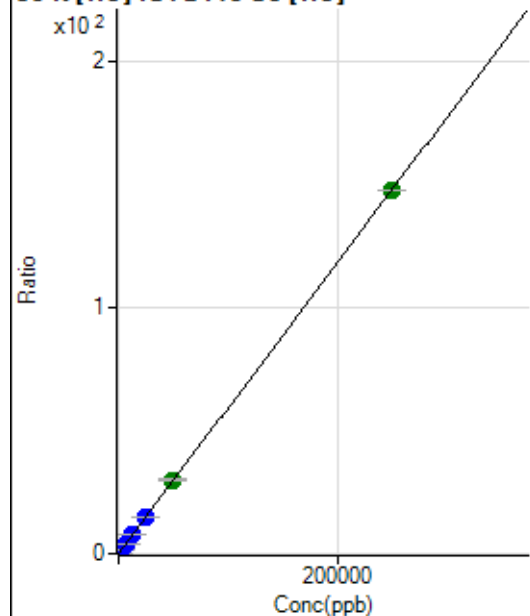
$$DL = 145.8$$

$$BEC = 8531$$

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	9206.04	0.0403	P	2.9
2	☐	50.000	51.938	16112.11	0.0709	P	1.6
3	☐	500.000	497.959	76684.20	0.3337	P	1.3
4	☐	2500.000	2548.091	330198.27	1.5417	P	1.2
5	☐	6250.000	6424.836	769757.18	3.8259	P	0.3
6	☐	12500.000	12744.537	1501737.01	7.5495	P	0.4
7	☐	25000.000	25444.989	2960292.86	15.0328	P	0.3
8	☐	50000.000	50853.674	5762899.65	30.0040	A	0.7
9	☐	250000.00	249767.69	26723815.53	147.2067	A	0.1

$$y = 5.8921\text{E-}004 * x + 0.0403$$

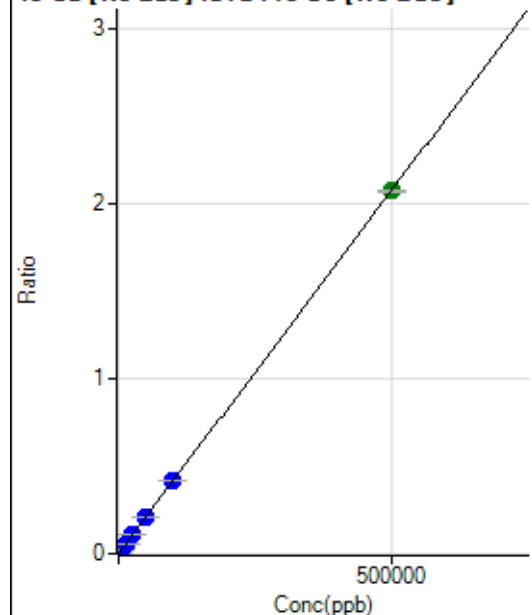
$$R = 1.0000$$

$$DL = 5.873$$

$$BEC = 68.38$$

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	136.12	0.0000	P	12.6
2	☐	50.000	51.709	1397.36	0.0002	P	9.2
3	☐	500.000	501.491	12274.99	0.0021	P	3.6
4	☐	5000.000	5082.573	118840.83	0.0211	P	0.7
5	☐	12500.000	12750.228	279940.74	0.0530	P	0.4
6	☐	25000.000	25511.122	537909.14	0.1060	P	0.4
7	☐	50000.000	51016.102	1064096.71	0.2120	P	0.6
8	☐	100000.00	101276.28	2092016.69	0.4209	P	0.2
9	☐	500000.00	499610.49	9571732.33	2.0763	A	0.2

$$y = 4.1557\text{E-}006 * x + 2.3389\text{E-}005$$

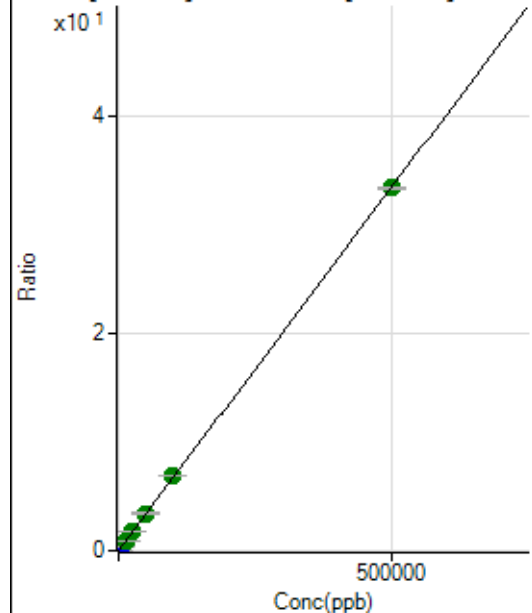
$$R = 1.0000$$

$$DL = 2.13$$

$$BEC = 5.628$$

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	4659.26	0.0008	P	3.8
2	☐	50.000	49.737	24234.55	0.0041	P	1.5
3	☐	500.000	494.179	197546.94	0.0339	P	1.8
4	☐	5000.000	5100.430	1925355.86	0.3426	P	0.5
5	☐	12500.000	12781.886	4527225.41	0.8573	A	0.1
6	☐	25000.000	25639.179	8718969.55	1.7188	A	0.5
7	☐	50000.000	51496.163	17321031.11	3.4514	A	0.5
8	☐	100000.00	102709.97	34211271.25	6.8831	A	0.1
9	☐	500000.00	499268.38	154230713.1	33.4552	A	0.2

$$y = 6.7007\text{E-}005 * x + 8.0073\text{E-}004$$

$$R = 1.0000$$

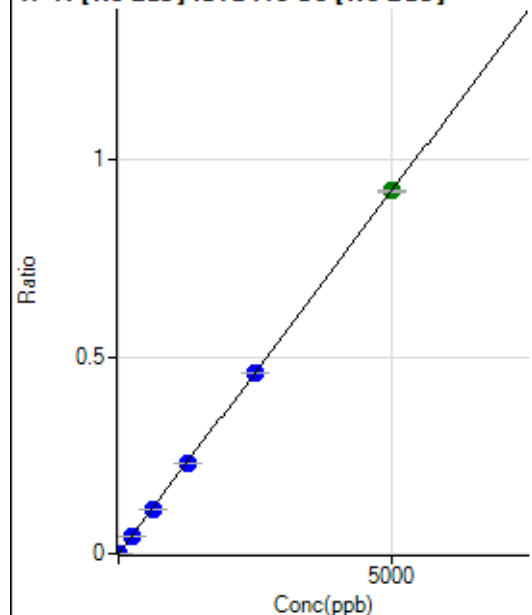
$$DL = 1.377$$

$$BEC = 11.95$$

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	55.56	0.0000	P	8.5
2	☐	0.500	0.507	602.81	0.0001	P	15.7
3	☐	5.000	5.069	5490.14	0.0009	P	3.0
4	☐	250.000	248.351	256952.32	0.0457	P	0.9
5	☐	625.000	620.135	602810.88	0.1141	P	0.3
6	☐	1250.000	1246.807	1164109.34	0.2295	P	0.6
7	☐	2500.000	2496.310	2305842.39	0.4595	P	0.3
8	☐	5000.000	5003.334	4577113.17	0.9209	A	0.5
9	☐			2014.11	0.0004	P	8.1

$$y = 1.8405E-004 * x + 9.5473E-006$$

$$R = 1.0000$$

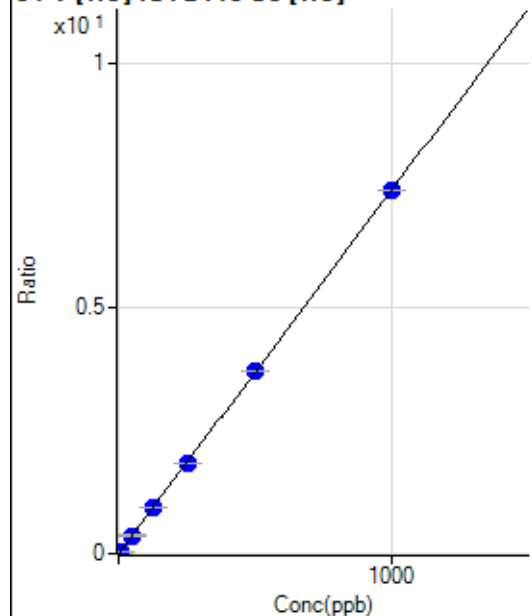
$$DL = 0.01328$$

$$BEC = 0.05187$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6.66	0.0000	P	86.5
2	☐	0.500	0.490	830.03	0.0037	P	8.7
3	☐	5.000	5.132	8730.47	0.0380	P	2.1
4	☐	50.000	50.260	79643.20	0.3718	P	0.8
5	☐	125.000	126.094	187673.72	0.9328	P	1.4
6	☐	250.000	250.161	368117.16	1.8506	P	0.7
7	☐	500.000	502.794	732447.01	3.7195	P	0.2
8	☐	1000.000	998.412	1418636.68	7.3859	P	0.1
9	☐			480.01	0.0026	P	4.2

$$y = 0.0074 * x + 2.9133E-005$$

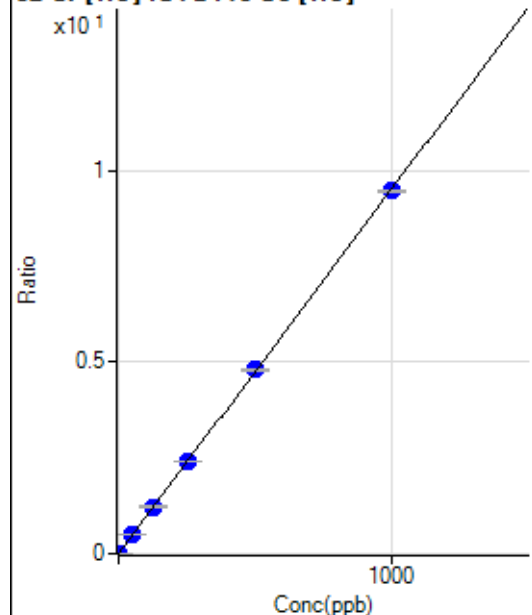
$$R = 1.0000$$

$$DL = 0.01022$$

$$BEC = 0.003938$$

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	354.46	0.0016	P	1.9
2	☐	0.200	0.171	723.36	0.0032	P	2.2
3	☐	2.000	1.992	4710.83	0.0205	P	2.3
4	☐	50.000	51.946	106161.93	0.4957	P	1.4
5	☐	125.000	128.831	246860.84	1.2270	P	1.1
6	☐	250.000	254.679	482191.99	2.4241	P	0.3
7	☐	500.000	505.014	946267.70	4.8052	P	0.5
8	☐	1000.000	995.747	1819500.68	9.4731	P	0.8
9	☐			61890.47	0.3409	P	1.0

$$y = 0.0095 * x + 0.0016$$

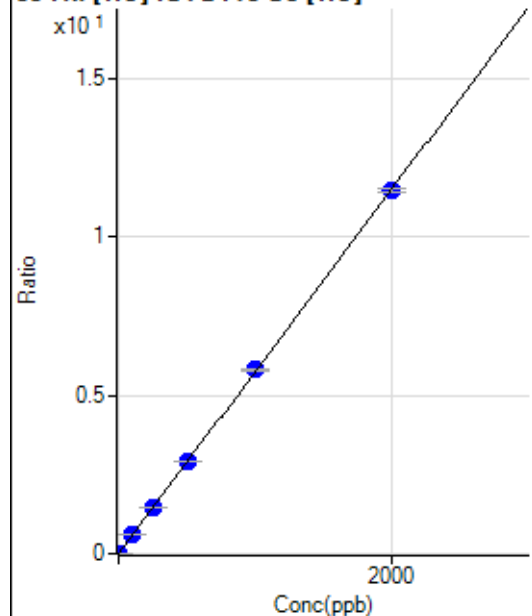
$$R = 1.0000$$

$$DL = 0.009488$$

$$BEC = 0.1631$$

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	27.78	0.0001	P	18.2
2	☐	0.100	0.119	183.34	0.0008	P	15.2
3	☐	1.000	0.980	1321.19	0.0057	P	1.5
4	☐	100.000	102.206	125679.87	0.5868	P	0.9
5	☐	250.000	255.422	294984.95	1.4662	P	1.1
6	☐	500.000	508.367	580458.90	2.9181	P	0.2
7	☐	1000.000	1009.518	1141070.82	5.7946	P	0.7
8	☐	2000.000	1992.361	2196476.82	11.4359	P	0.9
9	☐			7744.36	0.0427	P	1.8

$$y = 0.0057 * x + 1.2153E-004$$

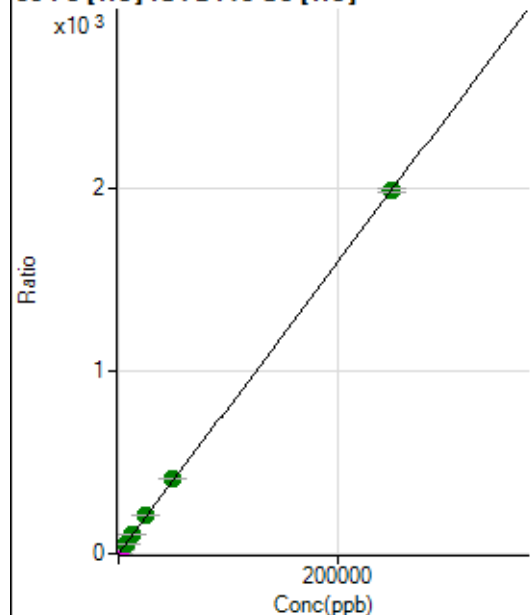
$$R = 1.0000$$

$$DL = 0.01155$$

$$BEC = 0.02117$$

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	2185.41	0.0096	P	5.1
2	☐	5.000	5.360	11886.57	0.0523	P	2.6
3	☐	50.000	54.942	102846.20	0.4475	P	0.6
4	☐	2500.000	2637.441	4505107.80	21.0336	M	1.1
5	☐	6250.000	6624.209	10625671.42	52.8136	A	1.0
6	☐	12500.000	13077.907	20739213.20	104.2584	A	0.2
7	☐	25000.000	26018.795	40844232.40	207.4150	A	0.6
8	☐	50000.000	51413.851	78719029.54	409.8483	A	1.3
9	☐	250000.00	249575.72	361155745.1	1,989.469	A	1.1

$$y = 0.0080 * x + 0.0096$$

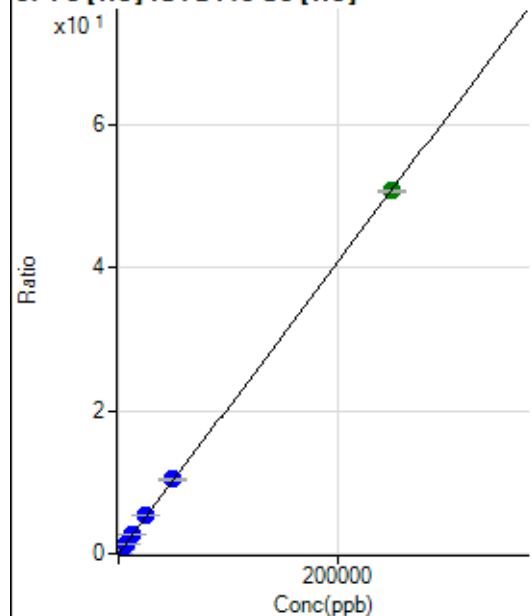
$$R = 1.0000$$

$$DL = 0.1836$$

$$BEC = 1.2$$

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	74.08	0.0003	P	38.3
2	☐	5.000	3.664	242.60	0.0011	P	5.9
3	☐	50.000	53.916	2589.18	0.0113	P	4.4
4	☐	2500.000	2636.683	114698.61	0.5355	P	1.6
5	☐	6250.000	6658.899	272007.64	1.3519	P	0.1
6	☐	12500.000	13130.300	530216.19	2.6655	P	0.4
7	☐	25000.000	25966.354	1037965.51	5.2710	P	0.5
8	☐	50000.000	51166.067	1994838.44	10.3860	P	1.1
9	☐	250000.00	249627.04	9198342.91	50.6697	A	0.8

$$y = 2.0298E-004 * x + 3.2405E-004$$

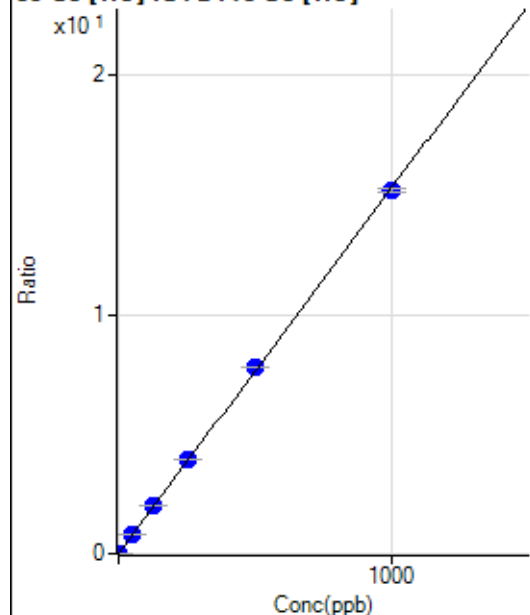
$$R = 1.0000$$

$$DL = 1.836$$

$$BEC = 1.596$$

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	57.78	0.0003	P	11.9
2	☐	0.100	0.100	404.46	0.0018	P	10.1
3	☐	1.000	1.000	3568.27	0.0155	P	2.9
4	☐	50.000	52.808	172778.78	0.8067	P	1.7
5	☐	125.000	130.995	402533.64	2.0007	P	0.6
6	☐	250.000	259.016	786877.86	3.9558	P	0.2
7	☐	500.000	508.978	1530672.32	7.7730	P	0.4
8	☐	1000.000	992.367	2910787.67	15.1550	P	1.1
9	☐			33535.12	0.1847	P	1.0

$$y = 0.0153 * x + 2.5282E-004$$

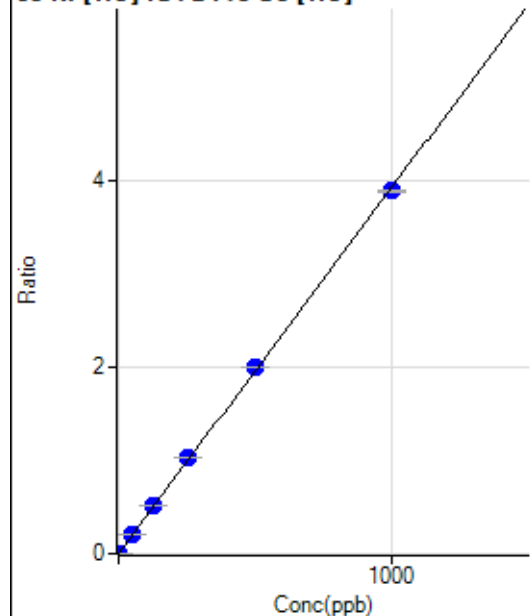
$$R = 0.9999$$

$$DL = 0.005917$$

$$BEC = 0.01656$$

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	78.89	0.0003	P	35.4
2	☐	0.100	0.095	163.33	0.0007	P	23.6
3	☐	1.000	1.081	1054.50	0.0046	P	2.7
4	☐	50.000	53.259	44857.43	0.2094	P	1.8
5	☐	125.000	133.001	105127.66	0.5225	P	0.5
6	☐	250.000	261.100	203977.36	1.0254	P	0.4
7	☐	500.000	509.046	393629.41	1.9989	P	0.4
8	☐	1000.000	991.539	747765.20	3.8932	P	0.7
9	☐			22492.96	0.1239	P	0.2

$$y = 0.0039 * x + 3.4519E-004$$

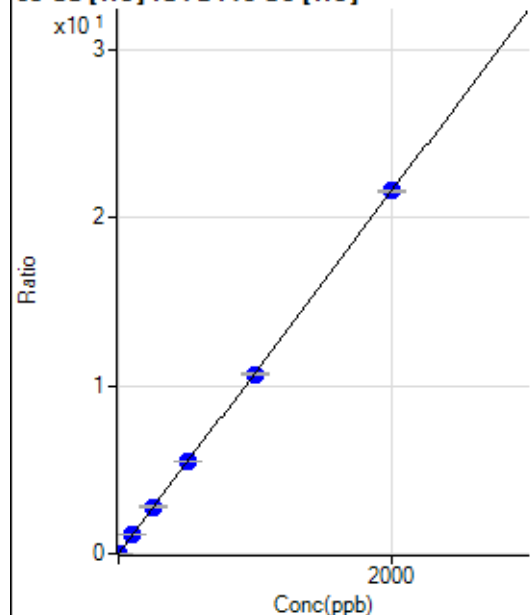
$$R = 0.9999$$

$$DL = 0.09332$$

$$BEC = 0.08792$$

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	644.47	0.0028	P	7.4
2	☐	0.200	0.177	1073.39	0.0047	P	6.9
3	☐	2.000	2.027	5670.08	0.0247	P	1.6
4	☐	100.000	104.545	242000.80	1.1298	P	0.6
5	☐	250.000	259.348	563056.38	2.7986	P	1.2
6	☐	500.000	507.024	1087799.68	5.4686	P	0.6
7	☐	1000.000	990.253	2102698.18	10.6778	P	0.4
8	☐	2000.000	2001.722	4145199.87	21.5815	P	0.5
9	☐			7467.56	0.0411	P	2.1

$$y = 0.0108 * x + 0.0028$$

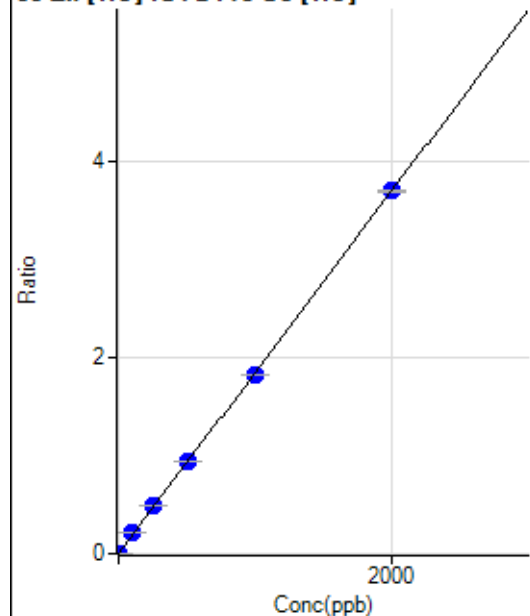
$$R = 1.0000$$

$$DL = 0.05821$$

$$BEC = 0.2616$$

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	435.57	0.0019	P	13.0
2	☐	0.200					
3	☐	2.000	2.129	1342.30	0.0058	P	3.2
4	☐	100.000	113.969	45507.46	0.2125	P	2.1
5	☐	250.000	268.131	100057.56	0.4973	P	1.1
6	☐	500.000	510.327	187935.43	0.9448	P	1.2
7	☐	1000.000	985.013	358771.11	1.8219	P	0.1
8	☐	2000.000	2001.947	710831.56	3.7009	P	0.5
9	☐			8298.03	0.0457	P	1.7

$$y = 0.0018 * x + 0.0019$$

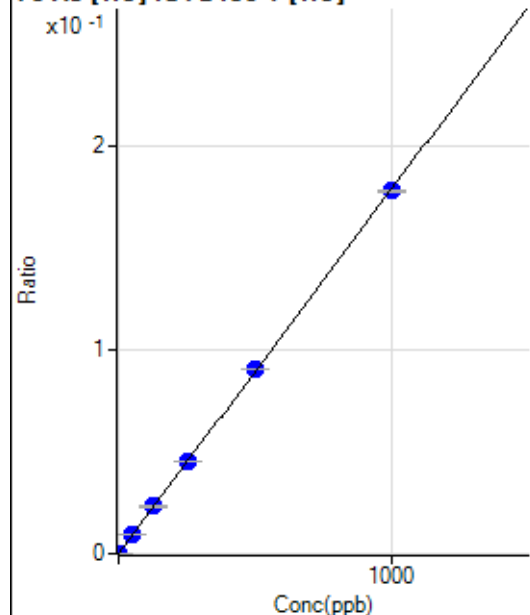
$$R = 0.9999$$

$$DL = 0.4037$$

$$BEC = 1.032$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4.32	0.0000	P	65.6
2	☐	0.100	0.128	30.25	0.0000	P	27.6
3	☐	1.000	1.045	215.43	0.0002	P	12.8
4	☐	50.000	52.525	9995.47	0.0094	P	0.3
5	☐	125.000	129.879	23461.56	0.0233	P	1.8
6	☐	250.000	253.104	45691.19	0.0453	P	1.2
7	☐	500.000	506.487	89425.68	0.0907	P	0.1
8	☐	1000.000	995.244	172168.30	0.1782	P	0.2
9	☐			239.51	0.0003	P	9.0

$$y = 1.7906\text{E-}004 * x + 3.7793\text{E-}006$$

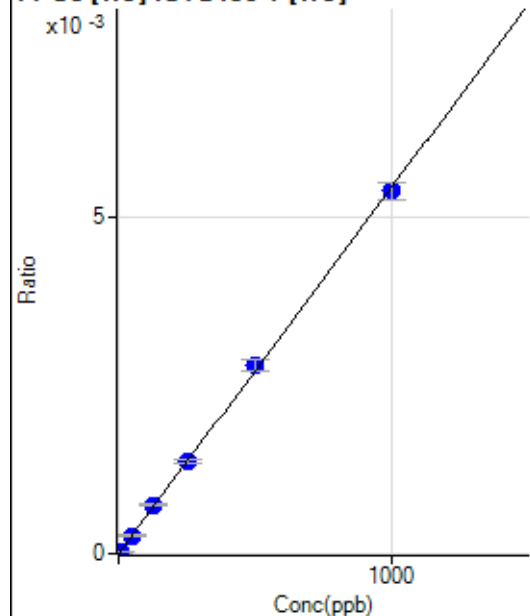
$$R = 1.0000$$

$$DL = 0.04152$$

$$BEC = 0.02111$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500	0.725	4.44	0.0000	P	43.3
3	☐	5.000	5.813	35.56	0.0000	P	23.6
4	☐	50.000	49.159	283.34	0.0003	P	12.6
5	☐	125.000	131.623	720.03	0.0007	P	4.4
6	☐	250.000	251.749	1376.75	0.0014	P	2.9
7	☐	500.000	515.665	2758.08	0.0028	P	6.7
8	☐	1000.000	990.940	5193.24	0.0054	P	4.9
9	☐			1.11	0.0000	P	173.

$$y = 5.4247\text{E-}006 * x + 0.0000\text{E+}000$$

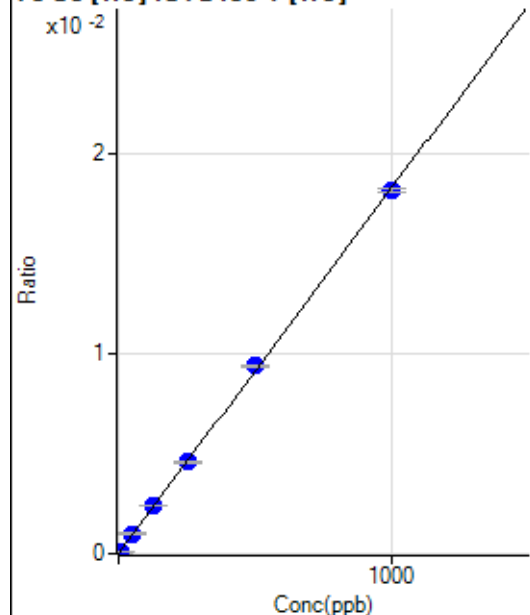
$$R = 0.9998$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	14.20	0.0000	P	49.2
2	☐	0.500	0.546	25.31	0.0000	P	8.5
3	☐	5.000	5.515	127.78	0.0001	P	15.5
4	☐	50.000	54.324	1069.18	0.0010	P	2.6
5	☐	125.000	130.837	2427.38	0.0024	P	2.2
6	☐	250.000	250.947	4641.52	0.0046	P	1.5
7	☐	500.000	512.928	9265.98	0.0094	P	1.4
8	☐	1000.000	992.351	17553.90	0.0182	P	1.0
9	☐			21.60	0.0000	P	30.1

$$y = 1.8298E-005 * x + 1.2409E-005$$

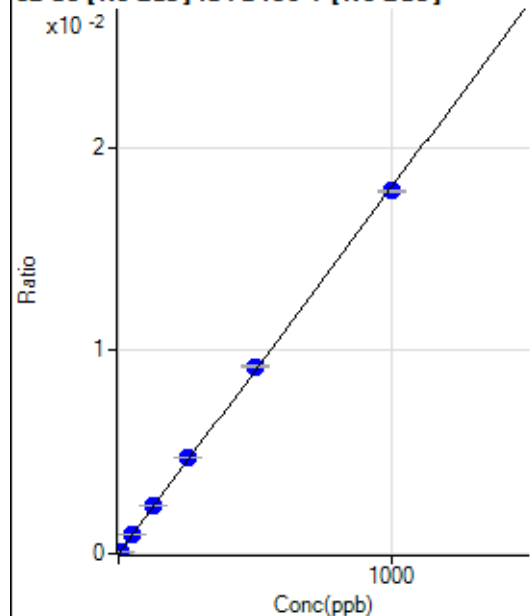
$$R = 0.9999$$

$$DL = 1.001$$

$$BEC = 0.6782$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	55.01	0.0000	P	43.2
2	☐	0.500	0.453	136.34	0.0000	P	47.4
3	☐	5.000	5.562	1055.55	0.0001	P	4.3
4	☐	50.000	53.162	9320.63	0.0010	P	2.6
5	☐	125.000	131.099	21865.36	0.0024	P	0.3
6	☐	250.000	261.889	42249.15	0.0047	P	1.7
7	☐	500.000	511.249	81712.48	0.0092	P	0.2
8	☐	1000.000	990.480	156843.43	0.0179	P	0.3
9	☐			66.62	0.0000	P	73.1

$$y = 1.8042E-005 * x + 5.4288E-006$$

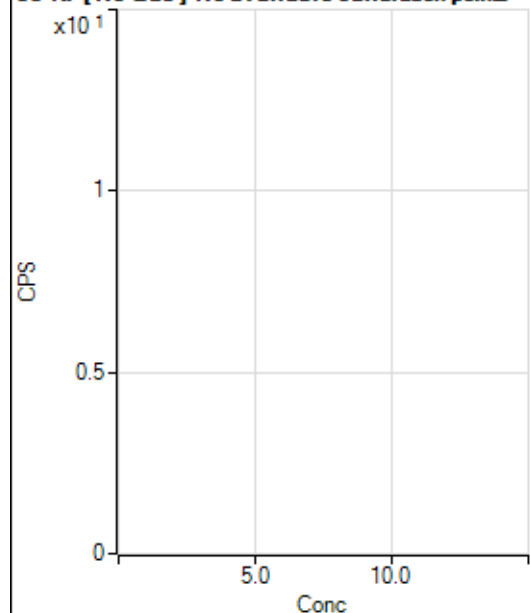
$$R = 0.9998$$

$$DL = 0.3898$$

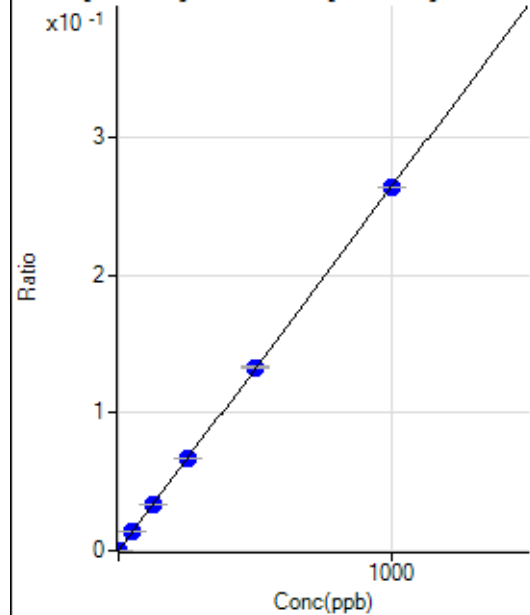
$$BEC = 0.3009$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			554.47		P	5.3
2	☐			556.69		P	6.9
3	☐			573.36		P	3.8
4	☐			547.80		P	8.4
5	☐			488.91		P	6.5
6	☐			567.80		P	9.6
7	☐			493.35		P	5.4
8	☐			508.90		P	8.6
9	☐			536.68		P	5.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	930.62	0.0001	P	8.5
2	☐	0.100	0.170	1369.57	0.0001	P	1.9
3	☐	1.000	0.942	3400.55	0.0003	P	4.1
4	☐	50.000	50.272	129209.70	0.0134	P	0.5
5	☐	125.000	125.603	306884.18	0.0333	P	1.0
6	☐	250.000	251.936	595228.45	0.0666	P	0.5
7	☐	500.000	504.480	1180708.80	0.1334	P	0.4
8	☐	1000.000	997.187	2312159.16	0.2635	P	0.2
9	☐			9859.36	0.0012	P	0.9

$$y = 2.6417E-004 * x + 9.1814E-005$$

$$R = 1.0000$$

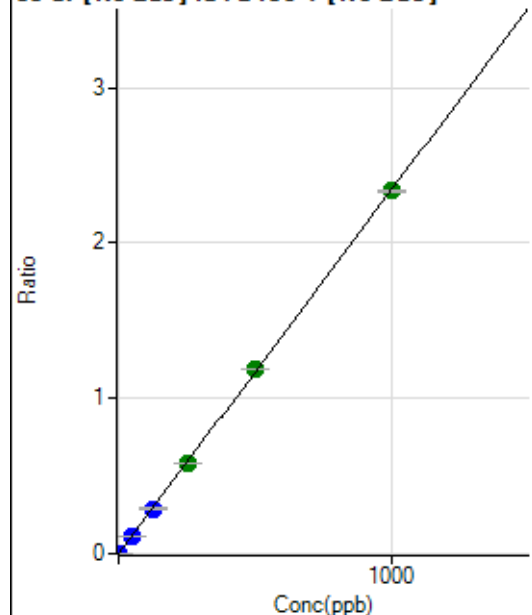
$$DL = 0.08828$$

$$BEC = 0.3476$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	136.12	0.0000	P	9.1
2	☐	0.100	0.093	2322.51	0.0002	P	2.9
3	☐	1.000	0.968	22757.79	0.0023	P	2.0
4	☐	50.000	49.730	1125775.48	0.1165	P	0.7
5	☐	125.000	123.963	2678423.00	0.2904	P	0.4
6	☐	250.000	249.330	5216547.21	0.5841	A	0.1
7	☐	500.000	505.917	10492617.08	1.1851	A	0.4
8	☐	1000.000	997.352	20499270.94	2.3364	A	0.5
9	☐			78205.34	0.0097	P	2.1

$$y = 0.0023 * x + 1.3428E-005$$

$$R = 1.0000$$

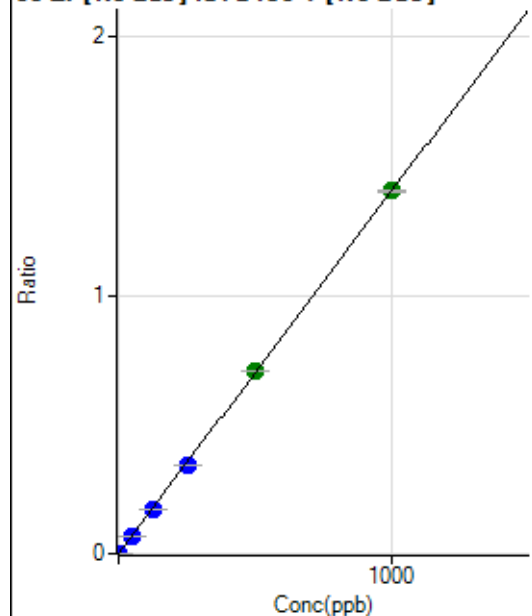
$$DL = 0.001572$$

$$BEC = 0.005732$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	769.50	0.0001	P	7.5
2	☐	0.100	0.078	1852.97	0.0002	P	4.5
3	☐	1.000	0.873	12981.34	0.0013	P	1.1
4	☐	50.000	49.465	671144.09	0.0695	P	0.5
5	☐	125.000	123.069	1592796.23	0.1727	P	0.5
6	☐	250.000	245.263	3073190.15	0.3441	P	0.1
7	☐	500.000	501.802	6232246.67	0.7039	A	0.3
8	☐	1000.000	1000.551	12314540.46	1.4035	A	0.4
9	☐			4798.23	0.0006	P	2.6

$$y = 0.0014 * x + 7.5924E-005$$

$$R = 1.0000$$

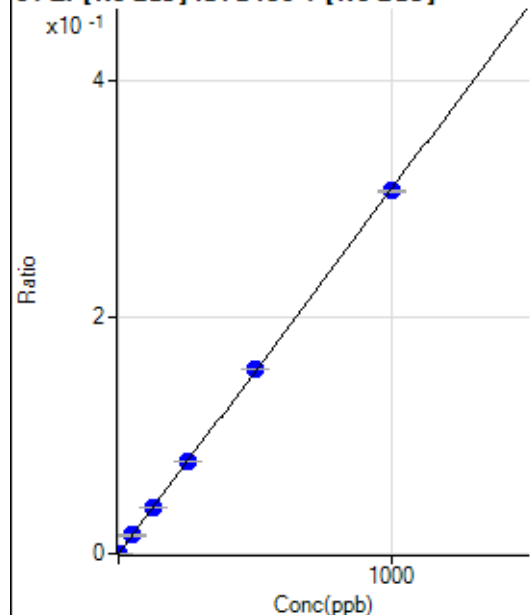
$$DL = 0.01213$$

$$BEC = 0.05413$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125.00	0.0000	P	17.8
2	☐	0.100	0.111	466.69	0.0000	P	13.6
3	☐	1.000	0.832	2678.14	0.0003	P	4.5
4	☐	50.000	50.197	149377.48	0.0155	P	1.9
5	☐	125.000	126.331	358665.37	0.0389	P	0.6
6	☐	250.000	253.353	696398.85	0.0780	P	0.5
7	☐	500.000	507.987	1384055.80	0.1563	P	0.3
8	☐	1000.000	994.992	2686546.37	0.3062	P	0.2
9	☐			1041.75	0.0001	P	9.1

$$y = 3.0772\text{E-}004 * x + 1.2336\text{E-}005$$

$$R = 0.9999$$

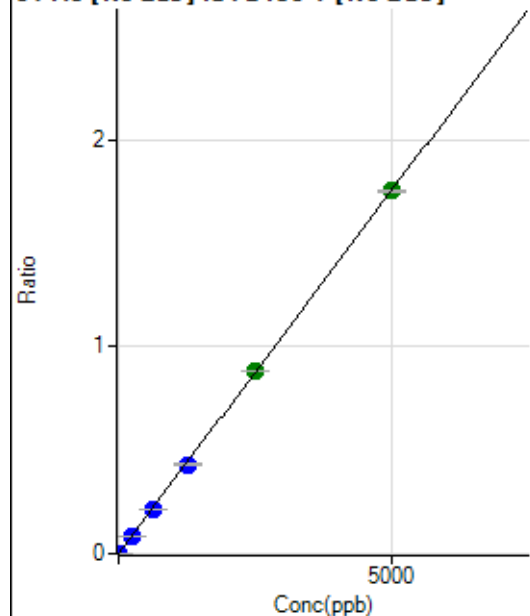
$$DL = 0.02141$$

$$BEC = 0.04009$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	361.13	0.0000	P	7.6
2	☐	0.500	0.494	2094.69	0.0002	P	9.0
3	☐	5.000	4.579	16396.04	0.0016	P	3.7
4	☐	250.000	248.715	843869.45	0.0873	P	0.5
5	☐	625.000	618.446	2002452.80	0.2171	P	1.0
6	☐	1250.000	1230.579	3858018.32	0.4320	P	0.5
7	☐	2500.000	2517.094	7822353.99	0.8835	A	0.6
8	☐	5000.000	4997.192	15390190.10	1.7541	A	0.5
9	☐			13109.26	0.0016	P	4.1

$$y = 3.5100\text{E-}004 * x + 3.5633\text{E-}005$$

$$R = 1.0000$$

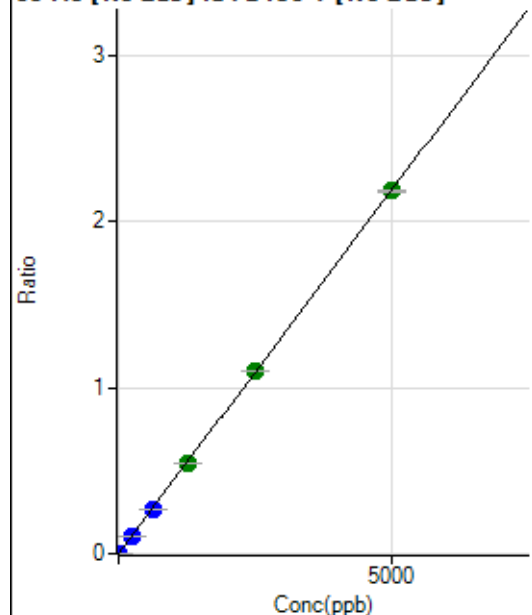
$$DL = 0.02311$$

$$BEC = 0.1015$$

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	144.45	0.0000	P	23.3
2	☐	0.500	0.462	2164.16	0.0002	P	4.8
3	☐	5.000	4.654	20440.29	0.0020	P	1.3
4	☐	250.000	247.933	1047077.56	0.1084	P	0.5
5	☐	625.000	618.224	2491976.31	0.2702	P	0.4
6	☐	1250.000	1244.329	4856840.82	0.5438	A	0.5
7	☐	2500.000	2518.137	9742949.35	1.1005	A	0.6
8	☐	5000.000	4993.300	19146274.38	2.1822	A	0.7
9	☐			20039.78	0.0025	P	1.9

$$y = 4.3701\text{E-}004 * x + 1.4250\text{E-}005$$

$$R = 1.0000$$

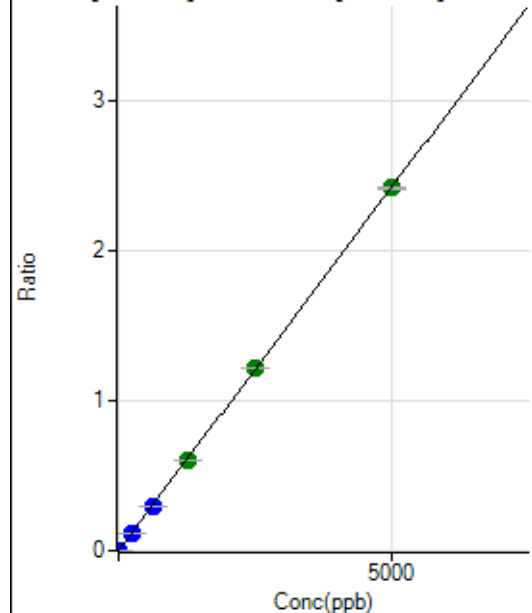
$$DL = 0.02276$$

$$BEC = 0.03261$$

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	247.24	0.0000	P	16.1
2	☐	0.500	0.464	2494.78	0.0002	P	10.3
3	☐	5.000	4.652	22716.02	0.0023	P	1.0
4	☐	250.000	249.283	1166063.10	0.1207	P	0.2
5	☐	625.000	618.071	2759309.69	0.2992	P	0.6
6	☐	1250.000	1243.565	5375847.00	0.6019	A	0.4
7	☐	2500.000	2514.630	10775622.90	1.2171	A	0.6
8	☐	5000.000	4995.196	21213119.92	2.4177	A	0.6
9	☐			21667.06	0.0027	P	3.1

$$y = 4.8400\text{E-}004 * x + 2.4398\text{E-}005$$

$$R = 1.0000$$

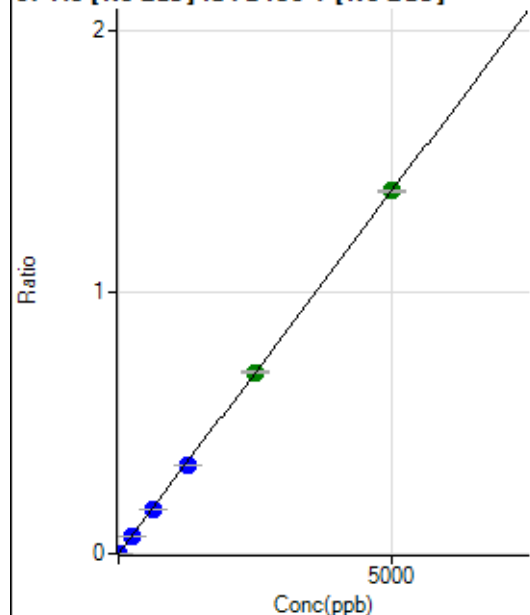
$$DL = 0.02436$$

$$BEC = 0.05041$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	97.23	0.0000	P	34.6
2	☐	0.500	0.423	1269.55	0.0001	P	2.9
3	☐	5.000	4.610	12836.77	0.0013	P	3.8
4	☐	250.000	246.393	659446.24	0.0682	P	0.6
5	☐	625.000	613.835	1568032.38	0.1700	P	0.2
6	☐	1250.000	1218.392	3013780.15	0.3374	P	0.2
7	☐	2500.000	2506.600	6146099.22	0.6942	A	0.8
8	☐	5000.000	5006.178	12164908.95	1.3865	A	0.5
9	☐			12628.37	0.0016	P	1.4

$$y = 2.7695E-004 * x + 9.5913E-006$$

$$R = 1.0000$$

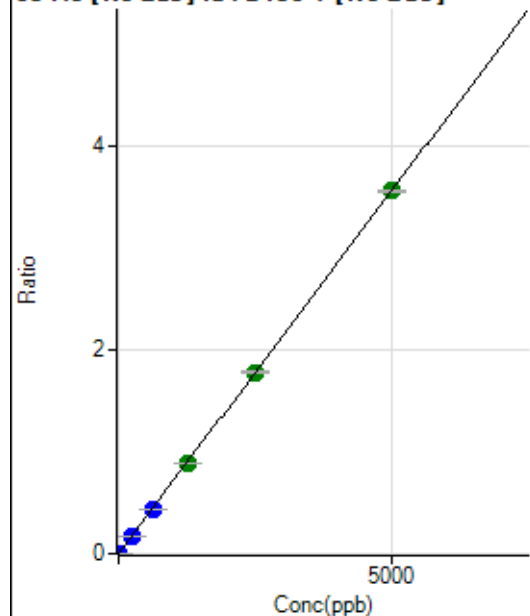
$$DL = 0.03595$$

$$BEC = 0.03463$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	200.01	0.0000	P	4.2
2	☐	0.500	0.466	3517.26	0.0004	P	5.1
3	☐	5.000	4.710	33582.08	0.0034	P	1.6
4	☐	250.000	248.221	1703841.36	0.1763	P	0.2
5	☐	625.000	614.395	4025304.91	0.4364	P	0.6
6	☐	1250.000	1238.638	7858096.36	0.8798	A	0.4
7	☐	2500.000	2505.182	15754584.03	1.7795	A	0.4
8	☐	5000.000	5001.664	31172155.56	3.5528	A	0.7
9	☐			31992.42	0.0040	P	1.2

$$y = 7.1032E-004 * x + 1.9734E-005$$

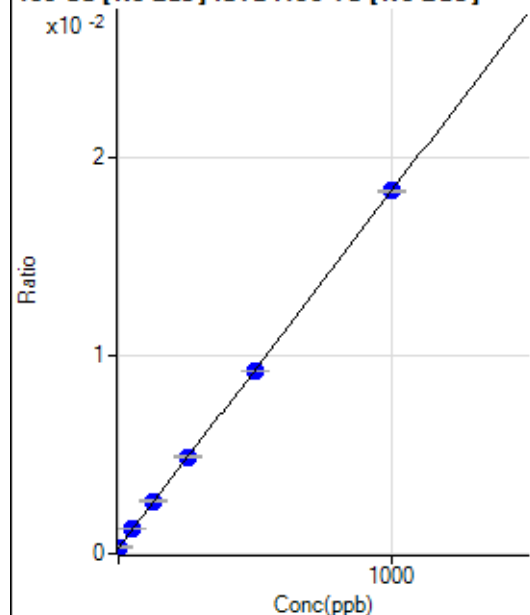
$$R = 1.0000$$

$$DL = 0.003522$$

$$BEC = 0.02778$$

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	4814.91	0.0003	P	2.2
2	☐	0.100	1.186	5056.68	0.0003	P	2.0
3	☐	1.000	2.356	5395.70	0.0003	P	2.6
4	☐	50.000	51.915	19411.14	0.0012	P	1.4
5	☐	125.000	130.479	40667.99	0.0026	P	2.7
6	☐	250.000	255.209	73881.90	0.0049	P	0.7
7	☐	500.000	495.367	138916.07	0.0092	P	0.3
8	☐	1000.000	1000.232	274103.14	0.0183	P	0.6
9	☐			4164.67	0.0003	P	0.9

$$y = 1.7979\text{E-}005 * x + 2.9255\text{E-}004$$

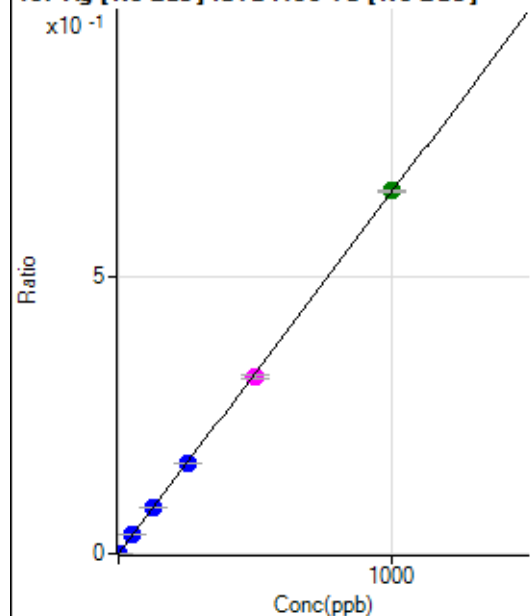
$$R = 1.0000$$

$$DL = 1.053$$

$$BEC = 16.27$$

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	238.90	0.0000	P	7.4
2	☐	0.100	0.116	1450.14	0.0001	P	2.3
3	☐	1.000	1.125	12038.93	0.0007	P	1.6
4	☐	50.000	53.177	548592.16	0.0346	P	0.5
5	☐	125.000	129.836	1303776.12	0.0846	P	0.4
6	☐	250.000	251.214	2476728.03	0.1636	P	0.2
7	☐	500.000	490.093	4820175.98	0.3192	M	2.3
8	☐	1000.000	1003.887	9806032.95	0.6538	A	0.7
9	☐			2430.88	0.0002	P	10.3

$$y = 6.5127\text{E-}004 * x + 1.4517\text{E-}005$$

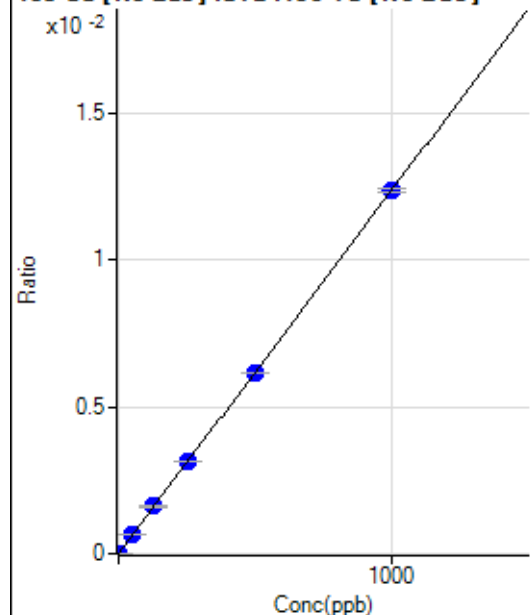
$$R = 0.9999$$

$$DL = 0.004961$$

$$BEC = 0.02229$$

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	5.56	0.0000	P	43.4
2	☐	0.100	0.147	34.72	0.0000	P	18.6
3	☐	1.000	1.088	222.23	0.0000	P	3.3
4	☐	50.000	54.159	10611.12	0.0007	P	2.6
5	☐	125.000	130.349	24855.39	0.0016	P	1.1
6	☐	250.000	252.843	47336.09	0.0031	P	0.5
7	☐	500.000	498.457	93096.31	0.0062	P	0.6
8	☐	1000.000	999.184	185333.45	0.0124	P	0.9
9	☐			72.23	0.0000	P	21.6

$$y = 1.2367\text{E-}005 * x + 3.3775\text{E-}007$$

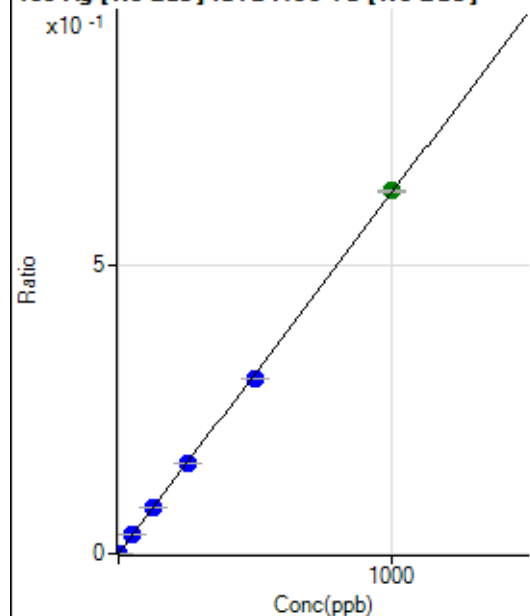
$$R = 1.0000$$

$$DL = 0.03554$$

$$BEC = 0.02731$$

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	152.78	0.0000	P	36.5
2	☐	0.100	0.110	1258.45	0.0001	P	0.8
3	☐	1.000	1.084	11090.92	0.0007	P	2.2
4	☐	50.000	53.757	533262.80	0.0337	P	0.4
5	☐	125.000	129.992	1255270.67	0.0814	P	0.4
6	☐	250.000	251.367	2383278.24	0.1574	P	0.2
7	☐	500.000	484.691	4584626.71	0.3036	P	0.5
8	☐	1000.000	1006.501	9455051.69	0.6304	A	0.4
9	☐			2314.18	0.0002	P	5.4

$$y = 6.2633\text{E-}004 * x + 9.2882\text{E-}006$$

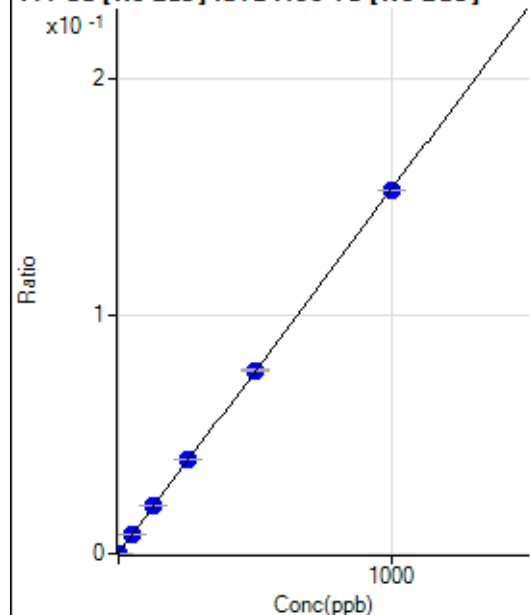
$$R = 0.9998$$

$$DL = 0.01623$$

$$BEC = 0.01483$$

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	3401.27	0.0002	P	2.3
2	☐	0.100					
3	☐	1.000	1.144	6150.87	0.0004	P	2.5
4	☐	50.000	53.113	131963.52	0.0083	P	0.5
5	☐	125.000	131.587	313595.32	0.0203	P	0.7
6	☐	250.000	256.834	598050.40	0.0395	P	0.1
7	☐	500.000	503.306	1166244.45	0.0772	P	0.3
8	☐	1000.000	995.659	2288298.98	0.1526	P	0.1
9	☐			3492.52	0.0003	P	3.0

$$y = 1.5303\text{E-}004 * x + 2.0666\text{E-}004$$

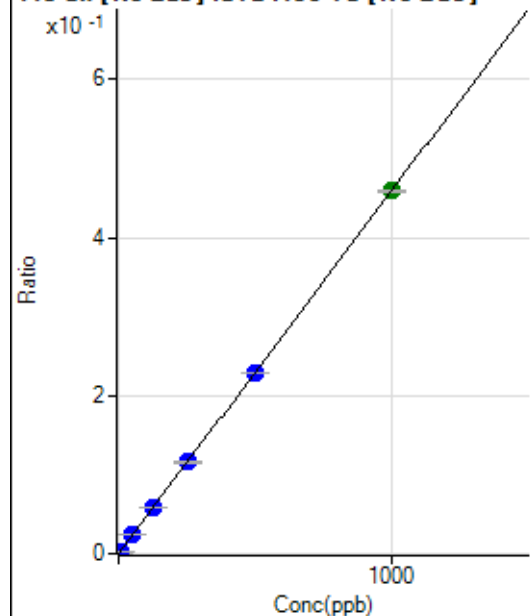
$$R = 1.0000$$

$$DL = 0.09142$$

$$BEC = 1.35$$

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	813.95	0.0000	P	5.0
2	☐	0.500	0.516	4612.05	0.0003	P	8.3
3	☐	5.000	5.179	39074.55	0.0024	P	0.1
4	☐	50.000	51.789	377002.68	0.0238	P	1.1
5	☐	125.000	127.271	900879.23	0.0584	P	0.7
6	☐	250.000	252.180	1752041.81	0.1157	P	1.0
7	☐	500.000	498.186	3452400.30	0.2286	P	0.9
8	☐	1000.000	999.988	6881720.90	0.4588	A	0.6
9	☐			4181.34	0.0003	P	7.0

$$y = 4.5879\text{E-}004 * x + 4.9457\text{E-}005$$

$$R = 1.0000$$

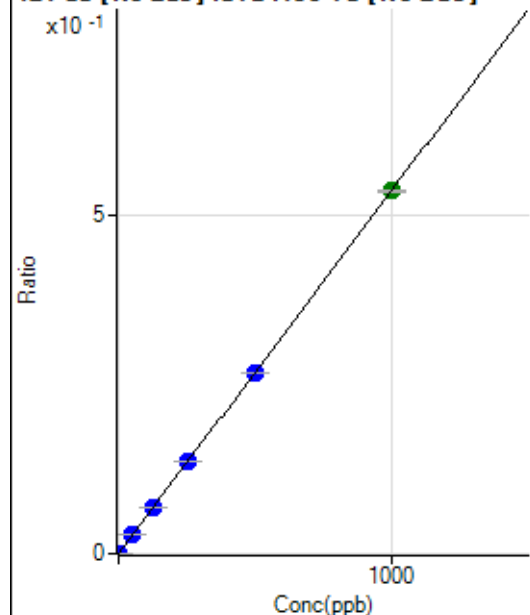
$$DL = 0.01614$$

$$BEC = 0.1078$$

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	250.02	0.0000	P	3.1
2	☐	0.200	0.190	1880.76	0.0001	P	3.7
3	☐	2.000	1.962	17147.09	0.0011	P	0.7
4	☐	50.000	51.233	434129.81	0.0274	P	0.4
5	☐	125.000	127.098	1048171.52	0.0680	P	0.6
6	☐	250.000	252.684	2045980.62	0.1352	P	0.6
7	☐	500.000	498.441	4026254.00	0.2666	P	0.4
8	☐	1000.000	999.785	8020455.47	0.5348	A	0.4
9	☐			12247.43	0.0009	P	4.5

$$y = 5.3486\text{E-}004 * x + 1.5190\text{E-}005$$

$$R = 1.0000$$

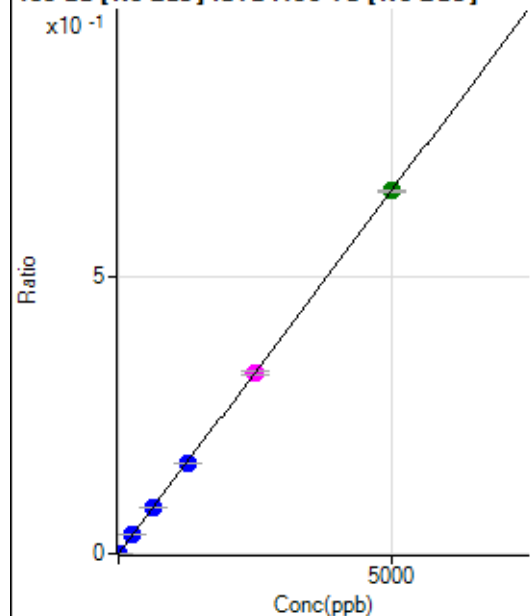
$$DL = 0.002672$$

$$BEC = 0.0284$$

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	52.78	0.0000	P	8.9
2	☐	1.000	1.026	2214.16	0.0001	P	5.5
3	☐	10.000	10.047	21230.77	0.0013	P	3.7
4	☐	250.000	253.595	525486.25	0.0332	P	0.3
5	☐	625.000	636.830	1284658.38	0.0833	P	0.9
6	☐	1250.000	1244.850	2465785.91	0.1629	P	0.6
7	☐	2500.000	2500.357	4940971.07	0.3272	M	1.9
8	☐	5000.000	4999.450	9812136.76	0.6542	A	0.2
9	☐			2578.15	0.0002	P	10.6

$$y = 1.3086\text{E-}004 * x + 3.2064\text{E-}006$$

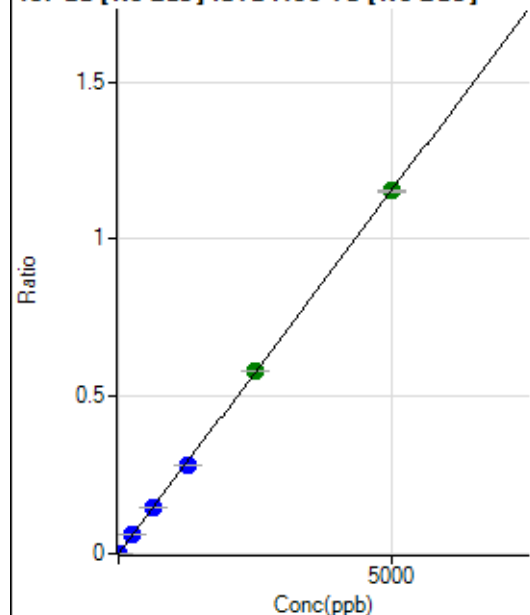
$$R = 1.0000$$

$$DL = 0.006523$$

$$BEC = 0.0245$$

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	58.34	0.0000	P	24.9
2	☐	1.000	0.994	3756.24	0.0002	P	10.4
3	☐	10.000	10.114	37671.42	0.0023	P	1.1
4	☐	250.000	253.103	925198.31	0.0584	P	0.6
5	☐	625.000	626.317	2228975.35	0.1446	P	0.4
6	☐	1250.000	1227.987	4291029.74	0.2835	P	0.4
7	☐	2500.000	2516.237	8772054.36	0.5809	A	0.8
8	☐	5000.000	4997.065	17301568.10	1.1536	A	0.3
9	☐			4159.15	0.0003	P	7.3

$$y = 2.3085E-004 * x + 3.5459E-006$$

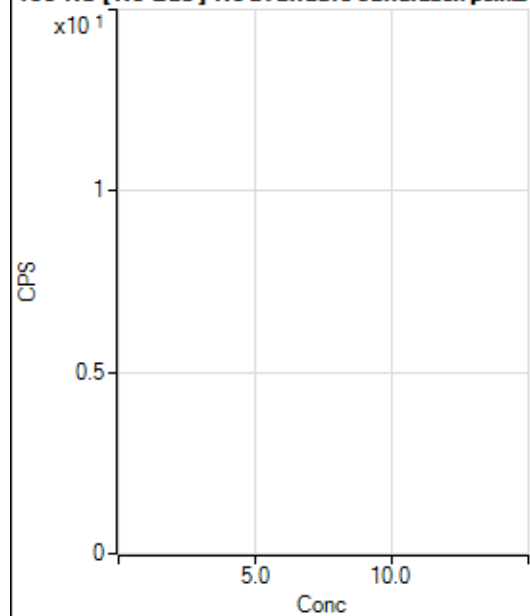
$$R = 1.0000$$

$$DL = 0.01149$$

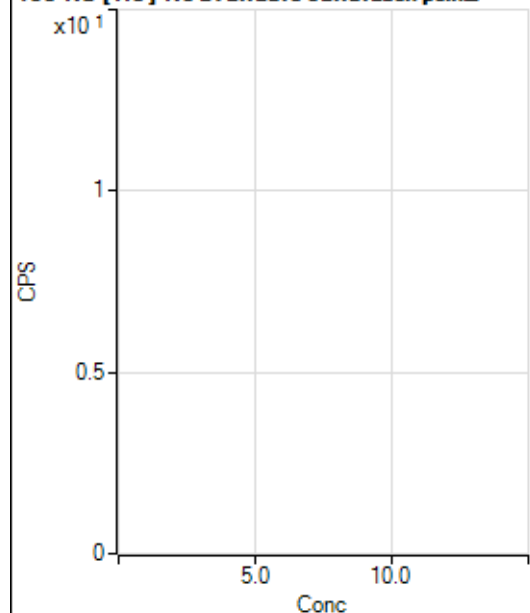
$$BEC = 0.01536$$

Weight: <None>

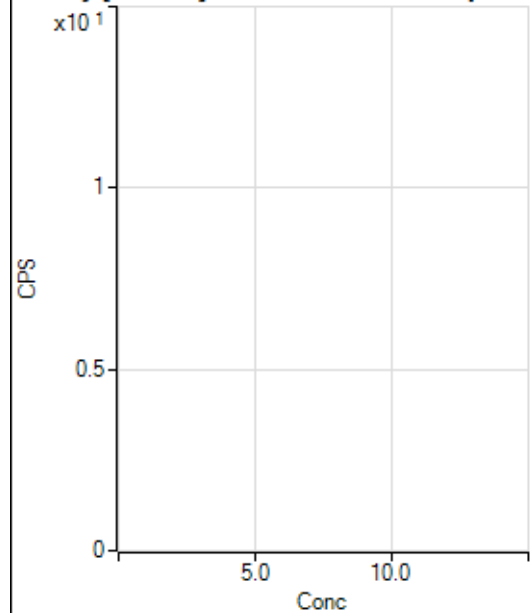
Min Conc: 0

150 Nd [No Gas] No available calibration points

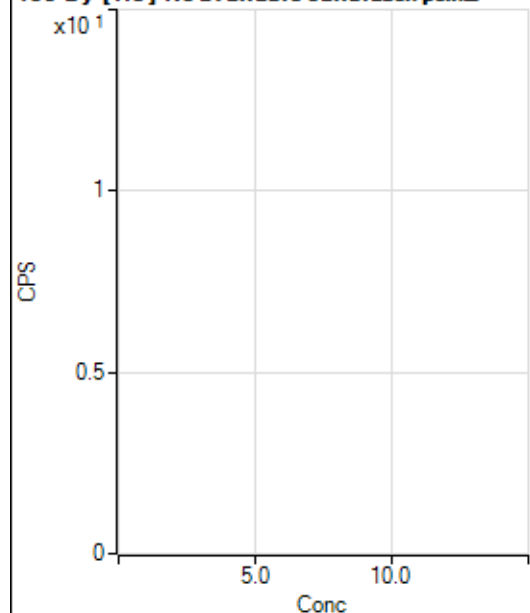
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			11.11		P	91.7
2	☐			4.44		P	173.
3	☐			8.89		P	86.6
4	☐			55.56		P	30.2
5	☐			124.45		P	13.5
6	☐			220.01		P	24.2
7	☐			468.91		P	10.5
8	☐			975.62		P	4.0
9	☐			135.56		P	22.7

150 Nd [He] No available calibration points

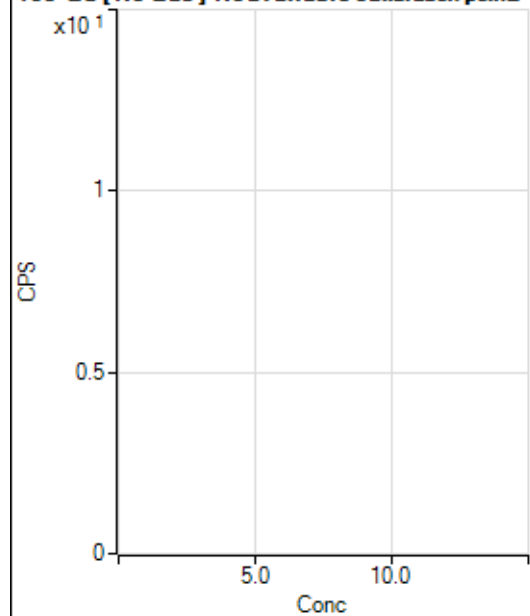
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			15.55		P	44.6
2	☐			14.44		P	35.3
3	☐			10.00		P	88.2
4	☐			18.89		P	44.4
5	☐			14.44		P	13.4
6	☐			23.33		P	28.6
7	☐			36.67		P	32.8
8	☐			81.11		P	28.9
9	☐			47.78		P	28.2

156 Dy [No Gas] No available calibration points

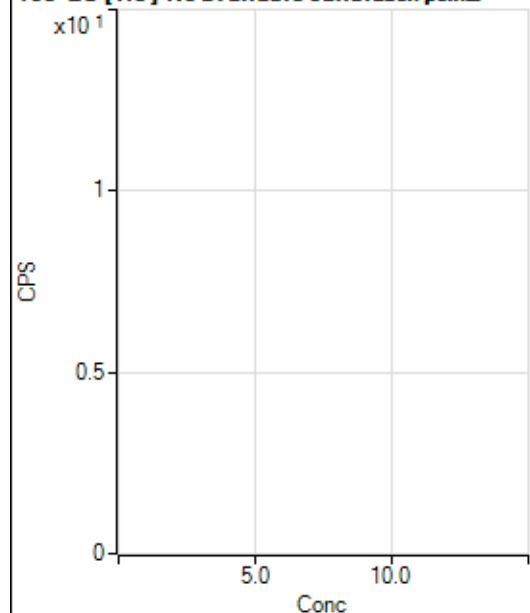
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.56		P	103.
2	☐			33.34		P	43.3
3	☐			25.00		P	88.2
4	☐			22.22		P	21.6
5	☐			94.45		P	51.7
6	☐			75.00		P	19.2
7	☐			138.90		P	39.0
8	☐			194.45		P	23.6
9	☐			52.78		P	71.2

156 Dy [He] No available calibration points

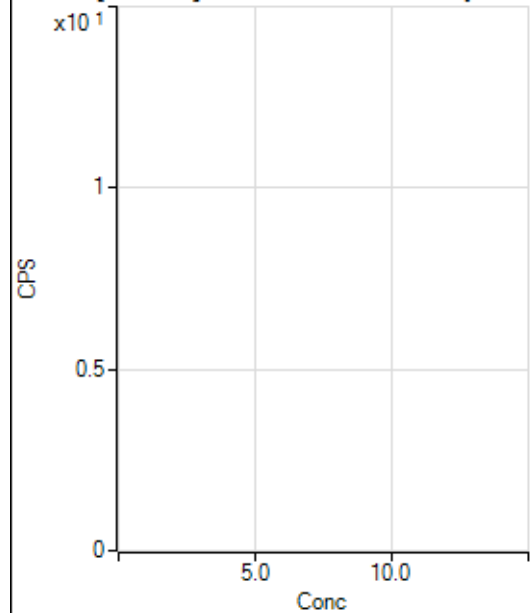
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.67		P	12.5
2	☐			17.78		P	21.7
3	☐			36.66		P	15.7
4	☐			47.78		P	4.0
5	☐			31.11		P	32.7
6	☐			62.22		P	32.7
7	☐			83.34		P	14.4
8	☐			128.89		P	5.4
9	☐			51.11		P	33.5

160 Gd [No Gas] Noavailable calibration poin_

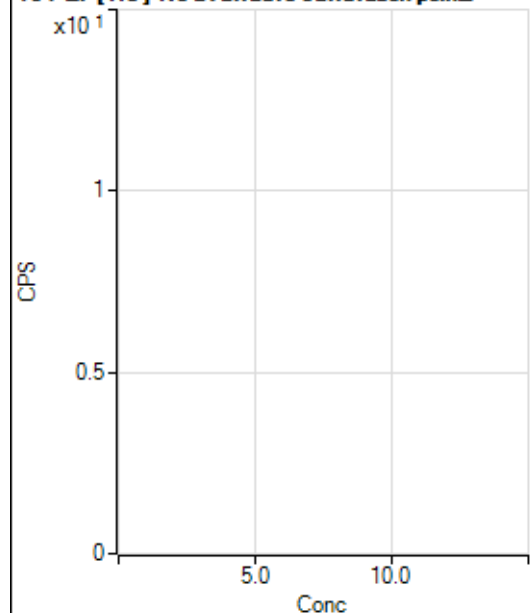
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			122.23		P	21.9
2	☐			108.34		P	13.3
3	☐			80.56		P	11.9
4	☐			111.12		P	15.6
5	☐			91.67		P	15.7
6	☐			83.34		P	20.0
7	☐			97.23		P	34.6
8	☐			119.45		P	14.5
9	☐			88.89		P	28.6

160 Gd [He] No available calibration points

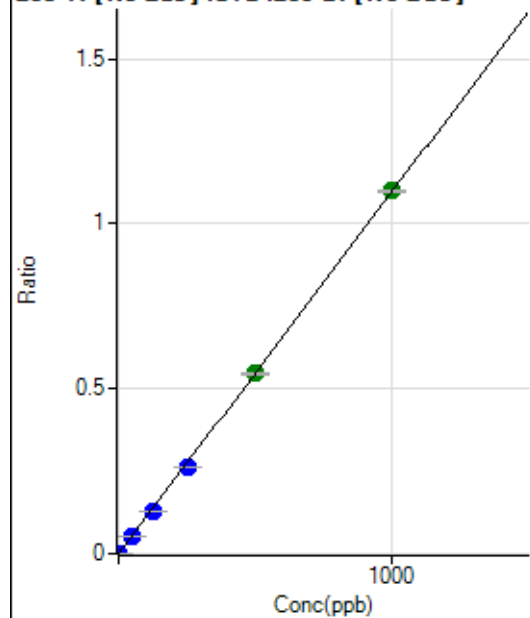
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			146.67		P	6.0
2	☐			167.78		P	1.1
3	☐			165.56		P	4.2
4	☐			144.45		P	24.7
5	☐			188.89		P	11.5
6	☐			171.11		P	4.9
7	☐			152.23		P	1.3
8	☐			156.67		P	13.3
9	☐			133.34		P	9.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			94.45		P	31.0
2	☐			116.67		P	32.7
3	☐			105.56		P	12.1
4	☐			83.34		P	20.0
5	☐			72.22		P	29.0
6	☐			72.23		P	13.3
7	☐			119.45		P	4.0
8	☐			119.45		P	10.7
9	☐			91.67		P	9.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			68.89		P	18.3
2	☐			65.56		P	30.6
3	☐			73.34		P	9.1
4	☐			75.56		P	9.2
5	☐			70.00		P	12.6
6	☐			90.00		P	24.3
7	☐			75.56		P	14.2
8	☐			95.56		P	16.5
9	☐			92.22		P	14.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	930.63	0.0001	P	14.3
2	☐	0.100	0.087	1997.47	0.0002	P	5.3
3	☐	1.000	0.890	11758.46	0.0011	P	2.2
4	☐	50.000	47.798	571180.84	0.0524	P	0.4
5	☐	125.000	118.806	1379915.61	0.1302	P	0.6
6	☐	250.000	239.175	2697707.41	0.2620	P	0.4
7	☐	500.000	498.601	5474489.19	0.5461	A	0.7
8	☐	1000.000	1004.290	10710576.63	1.0999	A	0.6
9	☐			4423.16	0.0005	P	10.6

$$y = 0.0011 * x + 8.4459E-005$$

$$R = 0.9999$$

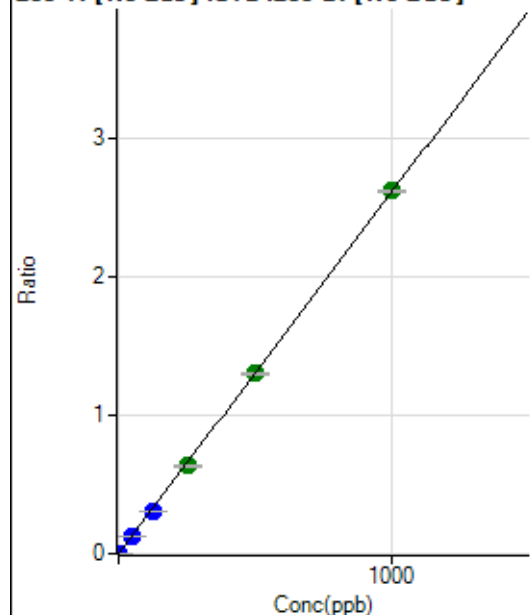
$$DL = 0.03307$$

$$BEC = 0.07712$$

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	1580.72	0.0001	P	12.7
2	☐	0.100	0.093	4292.55	0.0004	P	4.1
3	☐	1.000	0.911	28061.04	0.0025	P	2.6
4	☐	50.000	48.001	1369422.98	0.1257	P	0.4
5	☐	125.000	118.576	3288936.40	0.3103	P	0.4
6	☐	250.000	242.630	6535951.10	0.6348	A	0.7
7	☐	500.000	497.887	13056706.63	1.3025	A	0.6
8	☐	1000.000	1003.802	25569397.97	2.6258	A	0.7
9	☐			10665.94	0.0013	P	8.4

$$y = 0.0026 * x + 1.4348E-004$$

$$R = 1.0000$$

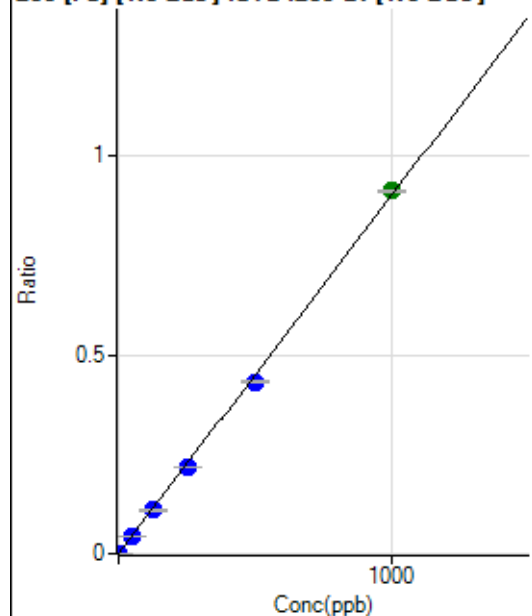
$$DL = 0.02097$$

$$BEC = 0.05485$$

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	1098.23	0.0001	P	4.9
2	☐	0.100	0.078	1890.93	0.0002	P	9.6
3	☐	1.000	0.927	10372.83	0.0009	P	1.7
4	☐	50.000	48.199	473686.25	0.0435	P	0.2
5	☐	125.000	120.901	1154370.42	0.1089	P	0.4
6	☐	250.000	239.951	2224598.40	0.2161	P	0.2
7	☐	500.000	480.405	4335347.87	0.4325	P	0.5
8	☐	1000.000	1012.912	8878310.62	0.9117	A	0.5
9	☐			10925.12	0.0013	P	1.5

$$y = 9.0002E-004 * x + 9.9678E-005$$

$$R = 0.9997$$

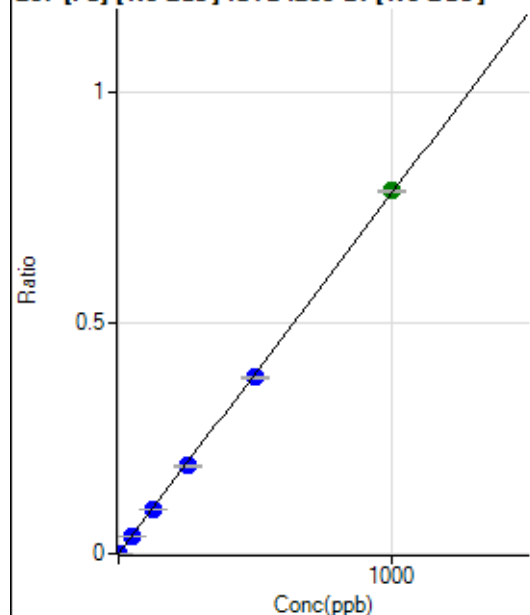
$$DL = 0.01623$$

$$BEC = 0.1108$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1100.08	0.0001	P	8.5
2	☐	0.100	0.077	1774.25	0.0002	P	1.9
3	☐	1.000	0.912	8995.91	0.0008	P	3.8
4	☐	50.000	48.443	412132.99	0.0378	P	0.8
5	☐	125.000	122.250	1010258.15	0.0953	P	0.7
6	☐	250.000	243.172	1951105.56	0.1895	P	0.5
7	☐	500.000	489.601	3823745.95	0.3814	P	0.5
8	☐	1000.000	1007.328	7641135.41	0.7847	A	0.2
9	☐			9724.16	0.0012	P	4.0

$$y = 7.7888\text{E-}004 * x + 9.9841\text{E-}005$$

$$R = 0.9999$$

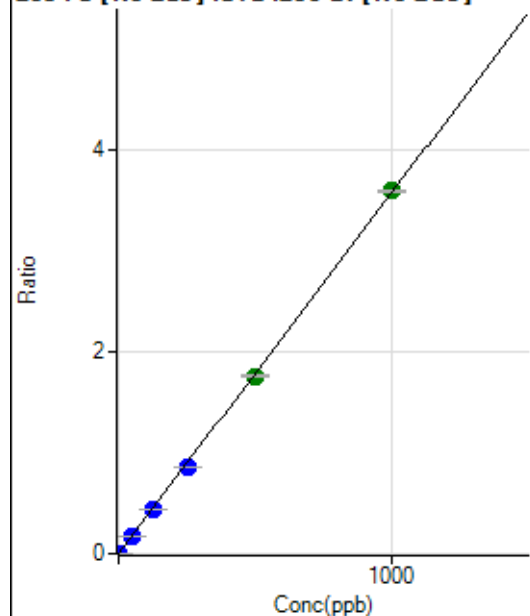
$$DL = 0.0325$$

$$BEC = 0.1282$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3852.16	0.0003	P	2.7
2	☐	0.100	0.083	7176.86	0.0006	P	3.7
3	☐	1.000	0.924	40589.87	0.0037	P	1.3
4	☐	50.000	48.367	1888293.74	0.1733	P	0.4
5	☐	125.000	121.253	4599963.79	0.4340	P	0.3
6	☐	250.000	240.405	8856101.92	0.8601	P	0.2
7	☐	500.000	492.923	17675858.61	1.7633	A	0.4
8	☐	1000.000	1006.487	35055850.61	3.6000	A	0.3
9	☐			42645.70	0.0051	P	2.8

$$y = 0.0036 * x + 3.4963\text{E-}004$$

$$R = 0.9999$$

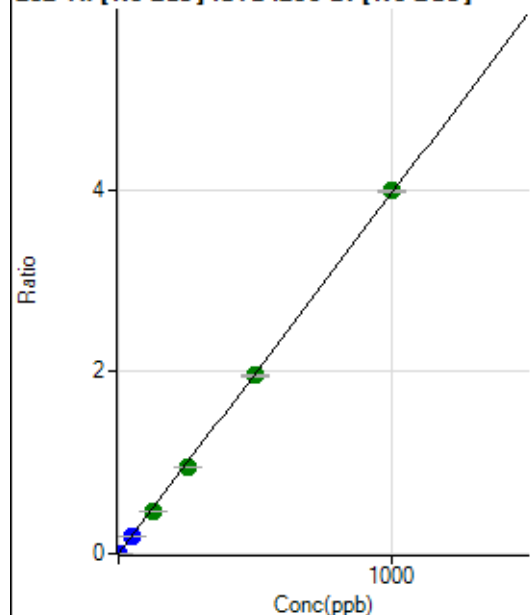
$$DL = 0.007776$$

$$BEC = 0.09776$$

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	2722.59	0.0002	P	6.5
2	☐	0.100	0.079	6240.56	0.0006	P	1.4
3	☐	1.000	0.827	39142.36	0.0035	P	0.8
4	☐	50.000	45.761	1979187.70	0.1817	P	0.7
5	☐	125.000	117.786	4952029.33	0.4672	A	0.3
6	☐	250.000	239.511	9779270.30	0.9498	A	0.9
7	☐	500.000	493.782	19626560.62	1.9579	A	1.0
8	☐	1000.000	1006.845	38872812.91	3.9920	A	0.4
9	☐			13770.66	0.0017	P	7.1

$$y = 0.0040 * x + 2.4709E-004$$

$$R = 0.9999$$

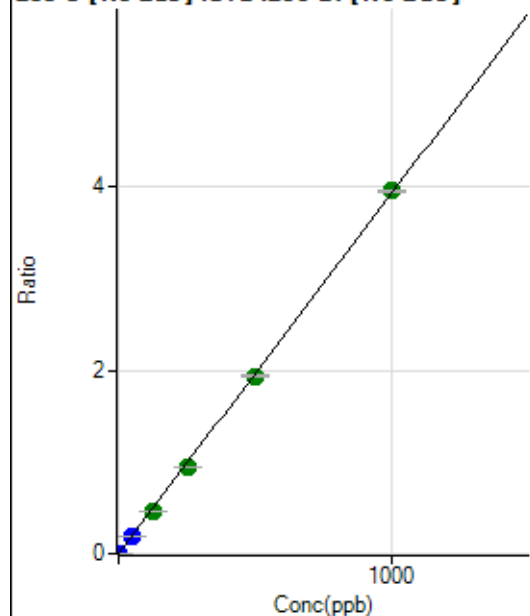
$$DL = 0.01214$$

$$BEC = 0.06232$$

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	2897.69	0.0003	P	7.4
2	☐	0.100	0.091	6904.91	0.0006	P	0.4
3	☐	1.000	0.896	42016.43	0.0038	P	0.1
4	☐	50.000	46.287	1985249.89	0.1822	P	0.3
5	☐	125.000	117.953	4917595.77	0.4640	A	0.6
6	☐	250.000	240.252	9727211.67	0.9448	A	0.8
7	☐	500.000	492.907	19427469.19	1.9380	A	0.6
8	☐	1000.000	1007.050	38553958.15	3.9592	A	0.7
9	☐			10040.46	0.0012	P	6.0

$$y = 0.0039 * x + 2.6300E-004$$

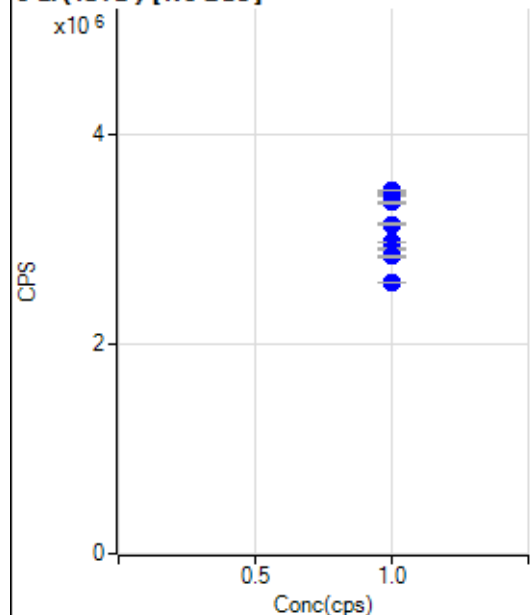
$$R = 0.9999$$

$$DL = 0.01476$$

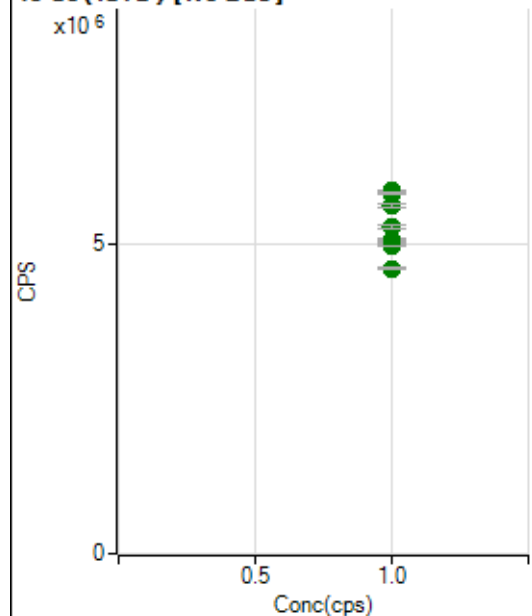
$$BEC = 0.0669$$

Weight: <None>

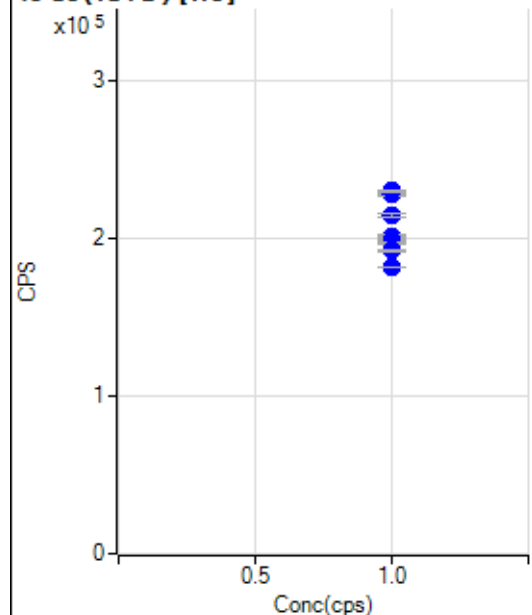
Min Conc: 0

6 Li (ISTD) [No Gas]

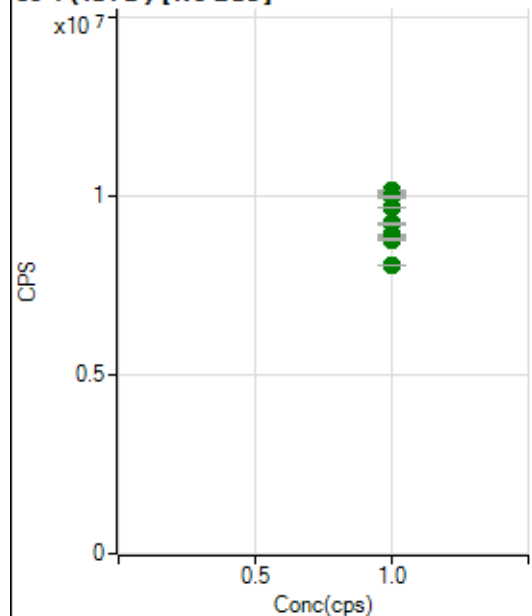
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3426948.87		P	0.7
2	☐	1.000		3440829.71		P	0.5
3	☐	1.000		3463998.49		P	0.2
4	☐	1.000		3353170.16		P	0.5
5	☐	1.000		3147542.21		P	0.6
6	☐	1.000		2981073.88		P	0.1
7	☐	1.000		2903113.81		P	0.7
8	☐	1.000		2839869.47		P	0.7
9	☐	1.000		2580876.47		P	0.0

45 Sc (ISTD) [No Gas]

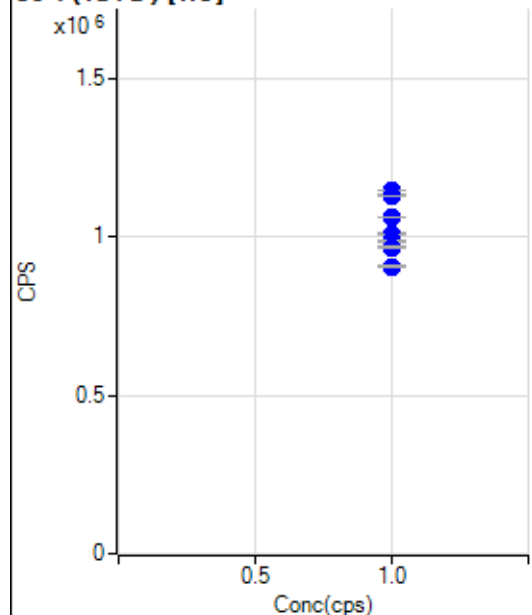
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5818982.90		A	0.1
2	☐	1.000		5862725.87		A	0.5
3	☐	1.000		5824830.60		A	0.2
4	☐	1.000		5620457.90		A	0.8
5	☐	1.000		5280952.07		A	0.7
6	☐	1.000		5072743.64		A	0.6
7	☐	1.000		5018555.32		A	0.2
8	☐	1.000		4970350.80		A	0.3
9	☐	1.000		4610085.13		A	0.3

45 Sc (ISTD) [He]

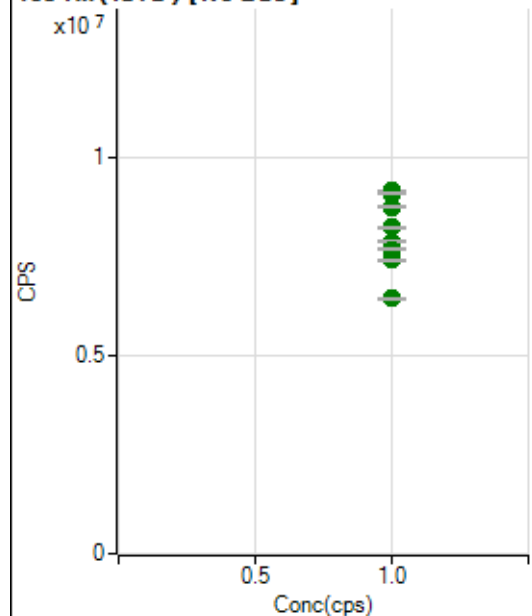
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		228513.37		P	0.2
2	☐	1.000		227309.20		P	1.2
3	☐	1.000		229816.33		P	0.5
4	☐	1.000		214205.04		P	1.2
5	☐	1.000		201197.32		P	0.4
6	☐	1.000		198920.61		P	0.7
7	☐	1.000		196922.44		P	0.3
8	☐	1.000		192075.30		P	0.5
9	☐	1.000		181540.02		P	0.5

89 Y (ISTD) [No Gas]

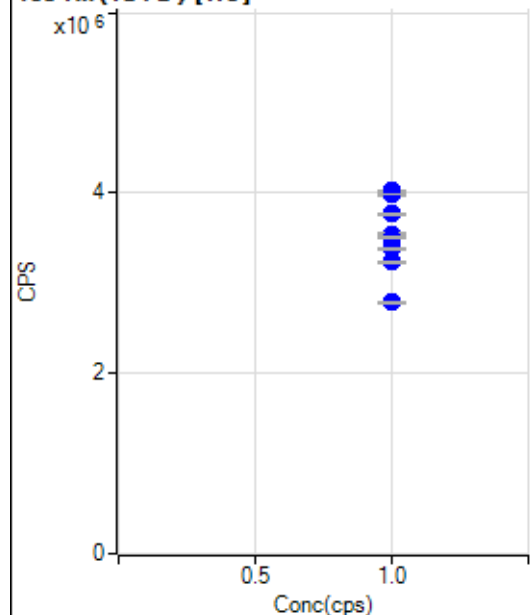
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10135662.28		A	0.2
2	☐	1.000		10017640.27		A	0.2
3	☐	1.000		9980139.64		A	0.3
4	☐	1.000		9662510.76		A	0.3
5	☐	1.000		9223124.24		A	0.6
6	☐	1.000		8931248.27		A	0.2
7	☐	1.000		8853491.26		A	0.3
8	☐	1.000		8774120.77		A	0.4
9	☐	1.000		8073304.46		A	0.2

89 Y (ISTD) [He]

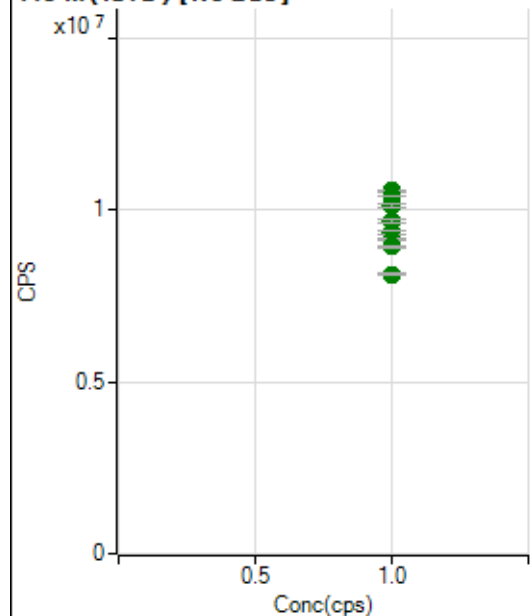
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1143464.47		P	0.2
2	☐	1.000		1129783.31		P	0.1
3	☐	1.000		1127798.89		P	0.4
4	☐	1.000		1062341.07		P	0.2
5	☐	1.000		1008755.52		P	1.1
6	☐	1.000		1008092.75		P	0.2
7	☐	1.000		986004.89		P	0.5
8	☐	1.000		966093.47		P	0.2
9	☐	1.000		906024.58		P	0.8

103 Rh (ISTD) [No Gas]

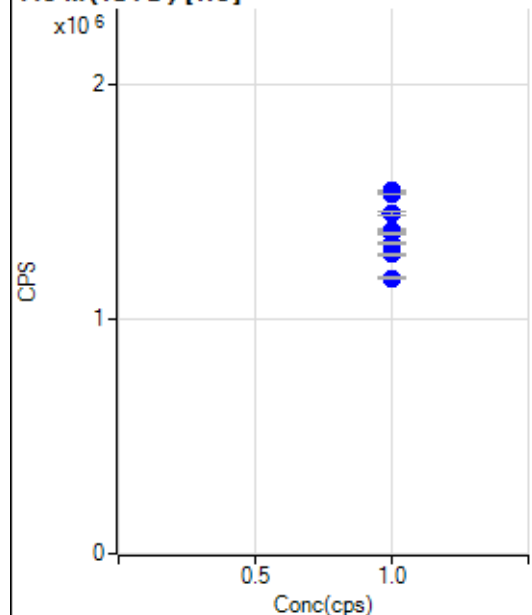
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		9156509.23		A	0.3
2	☐	1.000		9122210.53		A	0.3
3	☐	1.000		9087216.44		A	0.6
4	☐	1.000		8755486.57		A	0.3
5	☐	1.000		8228476.66		A	0.9
6	☐	1.000		7863667.62		A	0.6
7	☐	1.000		7691845.66		A	0.4
8	☐	1.000		7413139.14		A	0.4
9	☐	1.000		6437134.60		A	0.2

103 Rh (ISTD) [He]

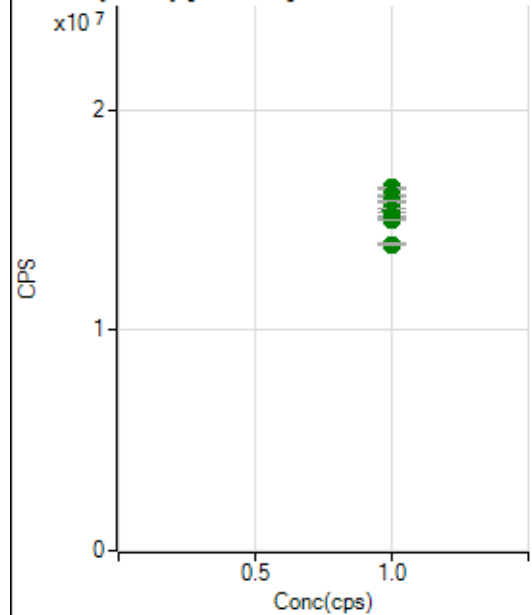
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4023696.85		P	0.6
2	☐	1.000		3982068.27		P	0.6
3	☐	1.000		3987370.98		P	0.3
4	☐	1.000		3766720.39		P	0.6
5	☐	1.000		3549105.57		P	0.5
6	☐	1.000		3502146.82		P	0.7
7	☐	1.000		3382718.87		P	0.7
8	☐	1.000		3236518.63		P	0.4
9	☐	1.000		2793609.06		P	0.7

115 In (ISTD) [No Gas]

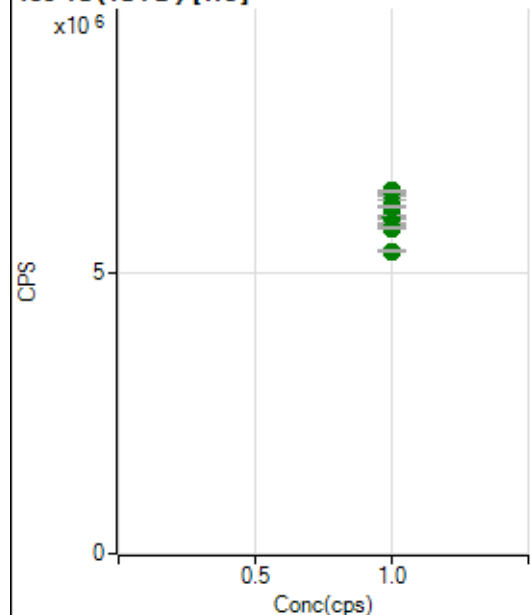
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10557131.89		A	0.2
2	☐	1.000		10413560.88		A	0.2
3	☐	1.000		10415604.99		A	0.1
4	☐	1.000		10127243.98		A	0.7
5	☐	1.000		9671511.70		A	0.8
6	☐	1.000		9341705.58		A	0.7
7	☐	1.000		9135195.68		A	0.7
8	☐	1.000		8929161.35		A	0.3
9	☐	1.000		8140756.25		A	0.2

115 In (ISTD) [He]

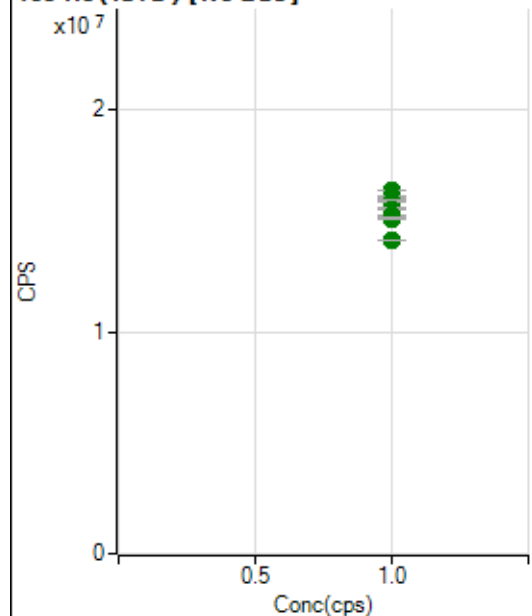
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1549260.01		P	0.6
2	☐	1.000		1540843.40		P	0.0
3	☐	1.000		1532600.86		P	0.1
4	☐	1.000		1452256.87		P	1.3
5	☐	1.000		1379854.36		P	0.6
6	☐	1.000		1368895.74		P	0.8
7	☐	1.000		1325590.53		P	1.0
8	☐	1.000		1278648.56		P	0.4
9	☐	1.000		1176939.95		P	0.7

159 Tb (ISTD) [No Gas]

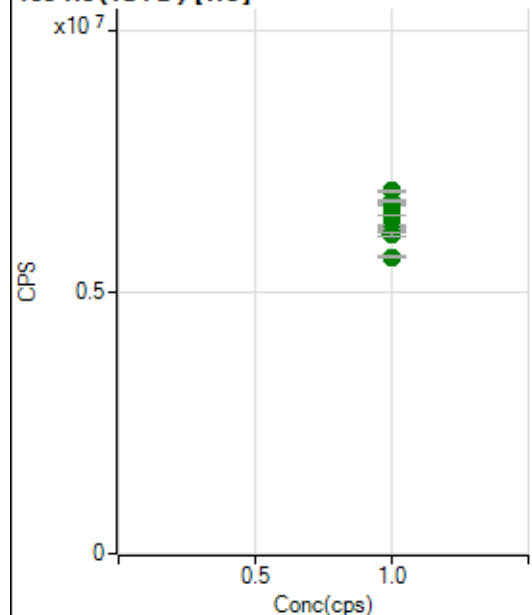
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16458414.06		A	0.2
2	☐	1.000		16109366.98		A	0.4
3	☐	1.000		16110056.29		A	0.5
4	☐	1.000		15833787.26		A	0.4
5	☐	1.000		15415987.96		A	0.9
6	☐	1.000		15136936.86		A	0.3
7	☐	1.000		15101701.30		A	0.3
8	☐	1.000		14998346.03		A	0.2
9	☐	1.000		13893967.85		A	0.3

159 Tb (ISTD) [He]

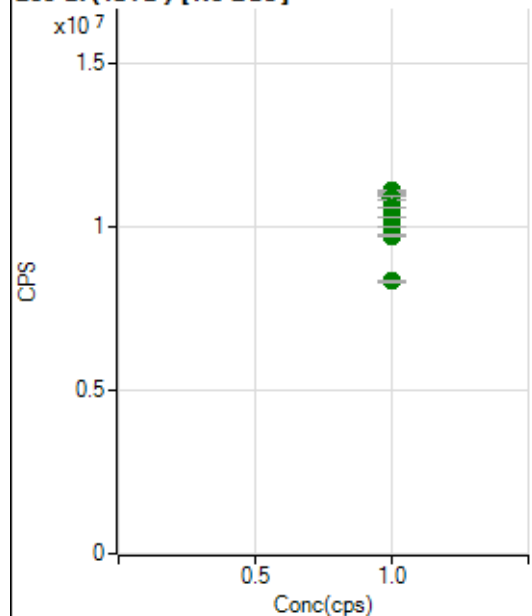
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6302022.06		A	0.1
2	☐	1.000		6390292.61		A	0.6
3	☐	1.000		6461741.85		A	0.7
4	☐	1.000		6177029.35		A	0.2
5	☐	1.000		5975968.73		A	0.8
6	☐	1.000		5985730.74		A	1.0
7	☐	1.000		5884518.31		A	0.6
8	☐	1.000		5803968.32		A	0.9
9	☐	1.000		5380375.20		A	0.6

165 Ho (ISTD) [No Gas]

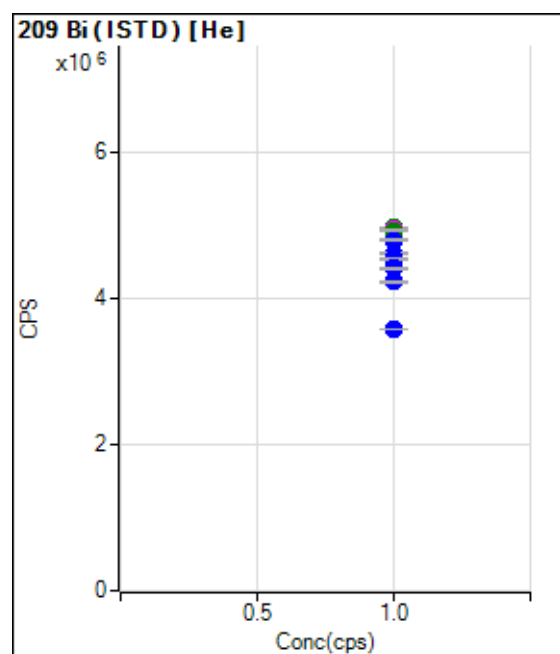
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16366958.87		A	0.1
2	☐	1.000		16092078.31		A	0.8
3	☐	1.000		16109346.37		A	0.2
4	☐	1.000		15909793.41		A	0.5
5	☐	1.000		15538926.04		A	0.7
6	☐	1.000		15218300.16		A	0.6
7	☐	1.000		15240107.46		A	0.8
8	☐	1.000		15137760.75		A	0.4
9	☐	1.000		14119393.55		A	0.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6943581.70		A	0.3
2	☐	1.000		6672128.03		A	0.4
3	☐	1.000		6749785.11		A	0.4
4	☐	1.000		6469499.42		A	0.3
5	☐	1.000		6278744.98		A	0.6
6	☐	1.000		6285291.30		A	0.3
7	☐	1.000		6198968.38		A	0.4
8	☐	1.000		6108882.76		A	0.9
9	☐	1.000		5681391.79		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11018057.68		A	0.1
2	☐	1.000		11116626.50		A	0.1
3	☐	1.000		11105225.67		A	0.4
4	☐	1.000		10894453.86		A	0.7
5	☐	1.000		10598904.77		A	0.4
6	☐	1.000		10296094.50		A	0.2
7	☐	1.000		10024602.91		A	0.4
8	☐	1.000		9737897.70		A	0.6
9	☐	1.000		8340158.90		A	0.2



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4973544.13		A	0.2
2	☐	1.000		4948191.35		M	0.1
3	☐	1.000		4937127.98		A	0.4
4	☐	1.000		4800795.41		P	0.6
5	☐	1.000		4615172.88		P	0.6
6	☐	1.000		4548057.78		P	0.7
7	☐	1.000		4418666.81		P	0.7
8	☐	1.000		4237428.75		P	0.5
9	☐	1.000		3589185.88		P	0.4

US EPA Tune Check Sample Report

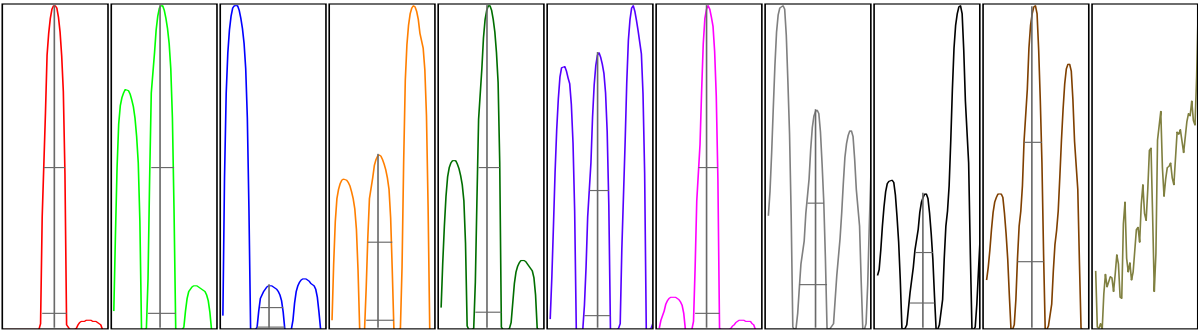
Batch Folder D:\ICP-MS Data\P7101319 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	9365	0.38	5.00	
24	110550	0.38	5.00	
25	14866	0.26	5.00	
26	17449	0.46	5.00	
59	74710	0.38	5.00	
113	12569	0.56	5.00	
115	144814	0.49	5.00	
206	45600	0.23	5.00	
207	45481	0.61	5.00	
208	99035	0.69	5.00	
220	131	3.59		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9362	9364	9351	9423	9325
24	110666	110581	110553	111052	109896
25	14829	14905	14894	14883	14822
26	17386	17479	17480	17550	17350
59	74385	74522	74937	75057	74648
113	12536	12619	12553	12658	12480
115	144712	144868	145170	145610	143710
206	45672	45697	45633	45565	45431
207	45298	45762	45524	45716	45102
208	99111	99571	98952	99613	97928
220	125	137	133	128	134

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	15735	9.00	8.9 - 9.1		0.741	0.900	
24	173071	23.90	23.9 - 24.1		0.827	0.900	
25	23276	24.90	24.9 - 25.1		0.800	0.900	
26	27032	25.90	25.9 - 26.1		0.832	0.900	
59	124100	58.90	58.9 - 59.1		0.779	0.900	
113	22929	112.95	112.9 - 113.1		0.766	0.900	
115	266580	114.95	114.9 - 115.1		0.737	0.900	
206	84682	205.95	205.9 - 206.1		0.764	0.900	
207	76763	206.90	206.9 - 207.1		0.744	0.900	
208	182673	207.90	207.9 - 208.1		0.760	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	6.1	V	Deflect	12.0	V
Extract 2	-110.0	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	150	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	18392	0.29	
89	24382	0.27	
205	34086	0.57	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	18388	18461	18359	18425	18326
89	24323	24409	24312	24475	24393
205	34006	34389	33951	34169	33917

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	6.1	V	Deflect	1.2	V
Extract 2	-110.0	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			