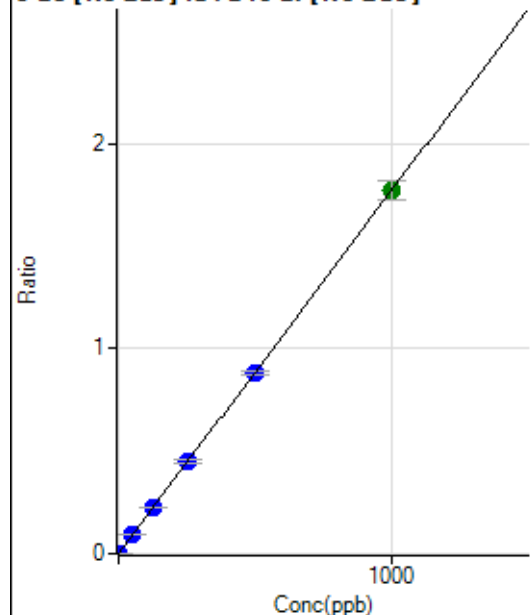


Batch Folder: D:\P8022219-MS.b\
Analysis File: P8022219-MS.batch.bin
DA Date-Time: 2019-02-22 18:43:47
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-02-22 13:22:26
2			
3	005CALS.d	S02	2019-02-22 13:30:01
4	006CALS.d	S03	2019-02-22 13:33:58
5	007CALS.d	S04	2019-02-22 13:37:54
6	008CALS.d	S05	2019-02-22 13:41:47
7	009CALS.d	S06	2019-02-22 13:45:36
8	010CALS.d	S07	2019-02-22 13:49:20
9	011CALS.d	S08	2019-02-22 13:52:54

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	17.78	0.0000	P	30.0
2	☐	0.100					
3	☐	1.000	1.004	1231.19	0.0018	P	7.3
4	☐	50.000	51.456	64032.83	0.0911	P	4.4
5	☐	125.000	127.259	163538.45	0.2252	P	1.8
6	☐	250.000	254.729	331286.67	0.4508	P	4.5
7	☐	500.000	498.537	667974.83	0.8822	P	1.9
8	☐	1000.000	999.194	1337067.96	1.7681	A	5.4
9	☐			194.45	0.0002	P	5.5

$$y = 0.0018 * x + 2.5835E-005$$

$$R = 1.0000$$

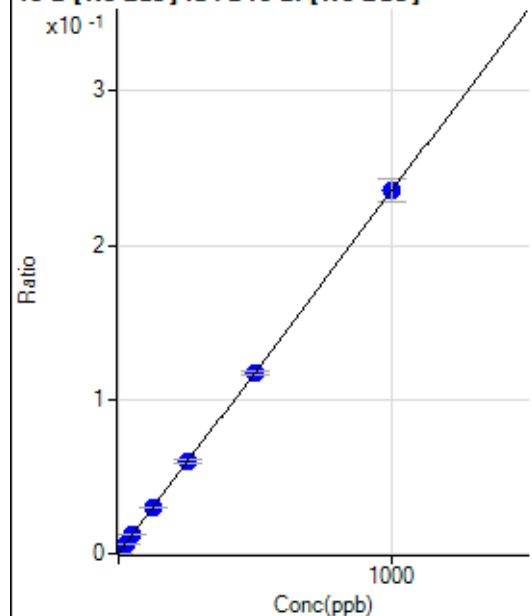
$$DL = 0.01314$$

$$BEC = 0.0146$$

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	130.56	0.0002	P	22.4
2	☐	2.500					
3	☐	25.000	24.226	4020.18	0.0059	P	3.0
4	☐	50.000	52.033	8728.05	0.0124	P	3.1
5	☐	125.000	128.639	22081.72	0.0304	P	0.6
6	☐	250.000	253.858	43965.75	0.0598	P	4.0
7	☐	500.000	496.500	88455.82	0.1168	P	2.0
8	☐	1000.000	1000.248	177735.08	0.2351	P	6.5
9	☐			4873.25	0.0063	P	8.1

$$y = 2.3488E-004 * x + 1.8931E-004$$

$$R = 1.0000$$

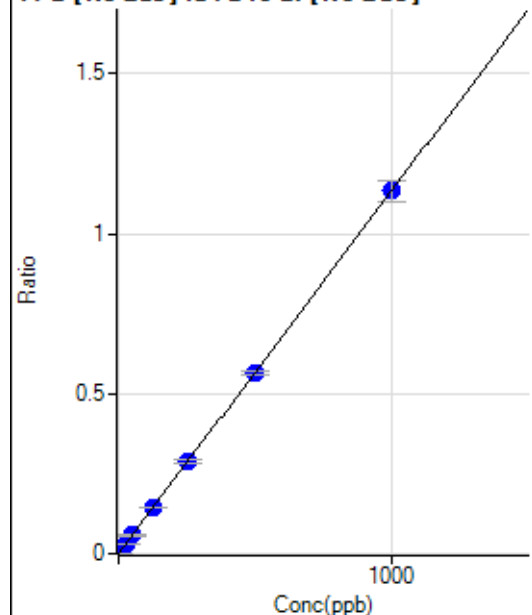
$$DL = 0.5409$$

$$BEC = 0.806$$

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	316.69	0.0005	P	4.2
2	☐	2.500					
3	☐	25.000	25.019	19691.99	0.0288	P	2.7
4	☐	50.000	50.660	40672.69	0.0579	P	4.3
5	☐	125.000	125.744	103799.47	0.1429	P	0.6
6	☐	250.000	253.074	211104.75	0.2872	P	3.2
7	☐	500.000	497.823	427335.76	0.5644	P	2.6
8	☐	1000.000	1000.194	857227.85	1.1335	P	5.5
9	☐			23013.82	0.0296	P	7.2

$$y = 0.0011 * x + 4.5896E-004$$

$$R = 1.0000$$

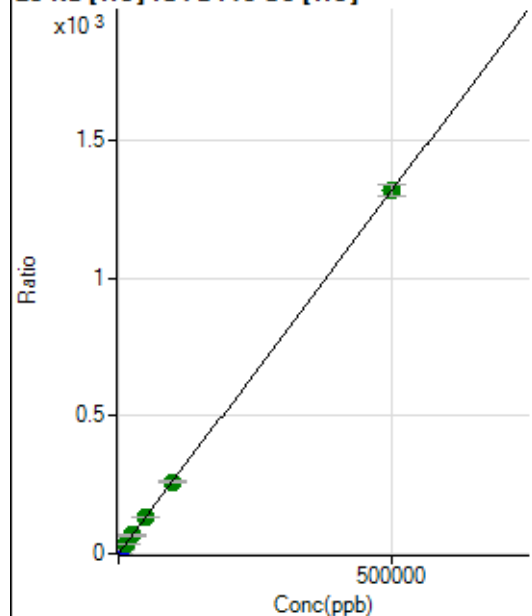
$$DL = 0.05103$$

$$BEC = 0.4051$$

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	8183.26	0.2481	P	3.0
2	☐	50.000					
3	☐	500.000	506.881	51153.86	1.5834	P	2.3
4	☐	5000.000	5332.565	461984.03	14.2963	P	1.3
5	☐	12500.000	13488.680	1175198.27	35.7828	A	1.1
6	☐	25000.000	25383.908	2313677.53	67.1198	A	8.8
7	☐	50000.000	49918.254	4536148.67	131.7535	A	1.1
8	☐	100000.00	98743.391	8854530.15	260.3792	A	2.2
9	☐	500000.00	500212.25	44300397.17	1,318.014	A	3.1

$$y = 0.0026 * x + 0.2481$$

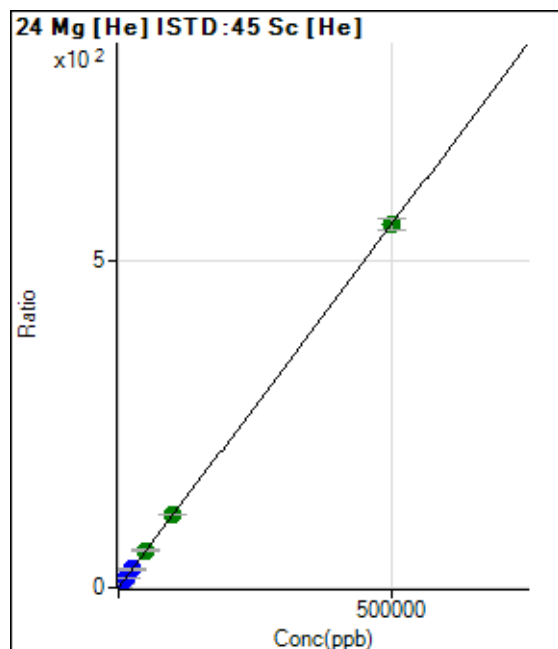
$$R = 1.0000$$

$$DL = 8.592$$

$$BEC = 94.16$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	480.59	0.0146	P	4.2
2	☐	50.000					
3	☐	500.000	531.902	19522.46	0.6043	P	3.1
4	☐	5000.000	5427.641	194938.49	6.0327	P	2.0
5	☐	12500.000	13357.992	486898.86	14.8258	P	1.6
6	☐	25000.000	25365.199	969369.15	28.1393	P	9.8
7	☐	50000.000	51373.508	1961573.74	56.9771	A	1.4
8	☐	100000.00	100842.80	3803420.35	111.8282	A	1.4
9	☐	500000.00	499650.07	18620582.36	554.0225	A	3.3

$$y = 0.0011 * x + 0.0146$$

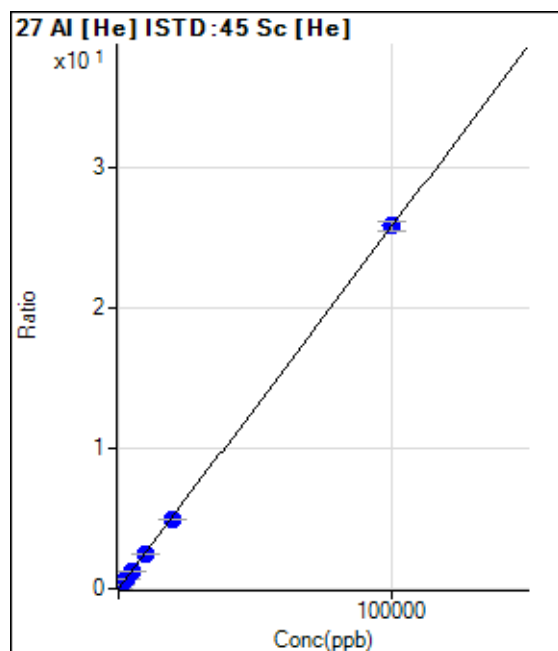
$$R = 1.0000$$

$$DL = 1.652$$

$$BEC = 13.13$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	60.02	0.0018	P	3.9
2	☐	2.000					
3	☐	20.000	19.633	222.56	0.0069	P	11.1
4	☐	1000.000	1032.021	8677.41	0.2685	P	1.2
5	☐	2500.000	2548.976	21694.54	0.6605	P	0.5
6	☐	5000.000	4790.390	42696.99	1.2398	P	10.2
7	☐	10000.000	9622.276	85665.80	2.4885	P	2.1
8	☐	20000.000	19123.621	168146.12	4.9439	P	1.3
9	☐	100000.00	100221.98	870720.79	25.9019	P	2.7

$$y = 2.5843E-004 * x + 0.0018$$

$$R = 1.0000$$

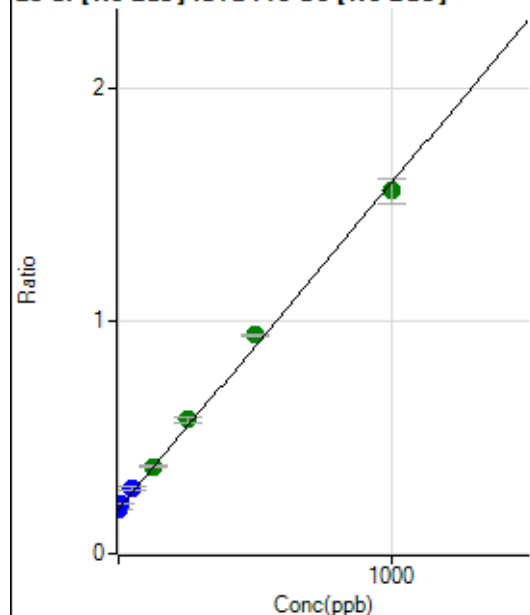
$$DL = 0.8214$$

$$BEC = 7.04$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	461670.60	0.1909	P	3.2
2	☐	1.000					
3	☐	10.000	16.839	504181.85	0.2146	P	3.3
4	☐	50.000	65.397	689796.43	0.2827	P	5.4
5	☐	125.000	131.668	919691.54	0.3756	A	1.0
6	☐	250.000	273.517	1393931.38	0.5745	A	5.1
7	☐	500.000	533.784	2324658.67	0.9396	A	0.7
8	☐	1000.000	975.557	3805488.76	1.5591	A	7.2
9	☐			549406.22	0.2229	P	2.6

$$y = 0.0014 * x + 0.1909$$

$$R = 0.9989$$

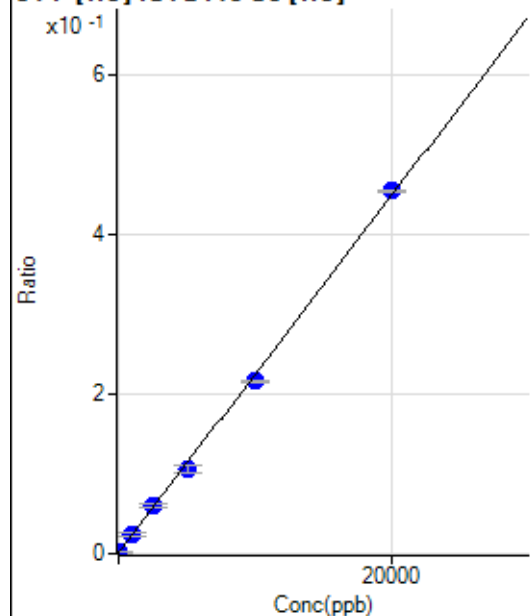
$$DL = 12.99$$

$$BEC = 136.1$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-38.522	8.33	0.0003	P	99.7
2	☐	0.000					
3	☐	0.000	38.522	63.89	0.0020	P	8.2
4	☐	1000.000	1028.127	780.61	0.0241	P	16.4
5	☐	2500.000	2595.542	1944.67	0.0592	P	8.2
6	☐	5000.000	4711.494	3672.86	0.1066	P	9.1
7	☐	10000.000	9598.983	7435.64	0.2160	P	1.2
8	☐	20000.000	20259.286	15461.93	0.4546	P	0.7
9	☐			5.56	0.0002	P	173.2

$$y = 2.2384E-005 * x + 0.0011$$

$$R = 0.9995$$

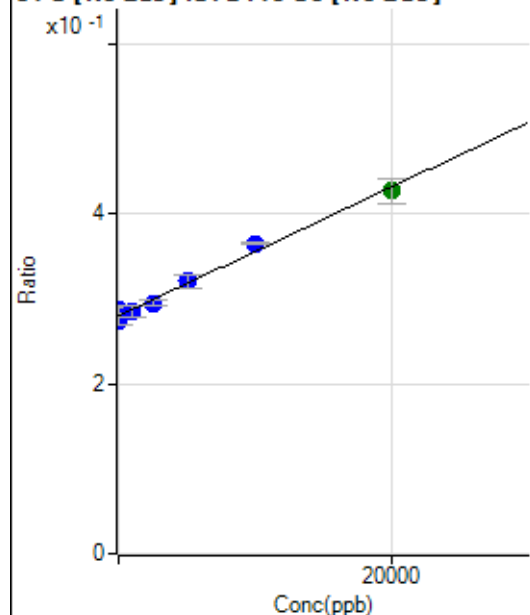
$$DL = 27.87$$

$$BEC = 49.86$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-885.781	660959.45	0.2734	P	3.2
2	☐	0.000					
3	☐	0.000	885.781	674107.96	0.2868	P	2.4
4	☐	1000.000	671.083	695945.67	0.2852	P	5.5
5	☐	2500.000	1941.100	721736.44	0.2948	P	2.5
6	☐	5000.000	5423.782	779502.28	0.3213	P	4.9
7	☐	10000.000	11227.070	903884.11	0.3653	P	0.5
8	☐	20000.000	19366.828	1042588.30	0.4271	A	7.0
9	☐			628088.49	0.2548	P	1.9

$$y = 7.5922\text{E-}006 * x + 0.2801$$

$$R = 0.9937$$

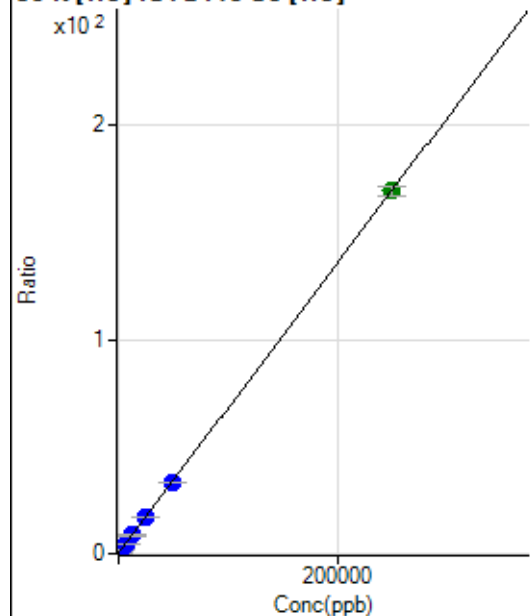
$$DL = 3098$$

$$BEC = 3.689\text{E}+04$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6401.76	0.1940	P	1.9
2	☐	50.000					
3	☐	500.000	519.268	17625.54	0.5455	P	2.2
4	☐	2500.000	2644.378	64113.50	1.9840	P	1.0
5	☐	6250.000	6550.095	151995.27	4.6277	P	0.4
6	☐	12500.000	12357.637	294925.66	8.5587	P	9.4
7	☐	25000.000	24765.270	583745.25	16.9573	P	2.1
8	☐	50000.000	49241.415	1140259.55	33.5248	P	0.9
9	☐	250000.00	250173.32	5698851.08	169.5328	A	2.8

$$y = 6.7689\text{E-}004 * x + 0.1940$$

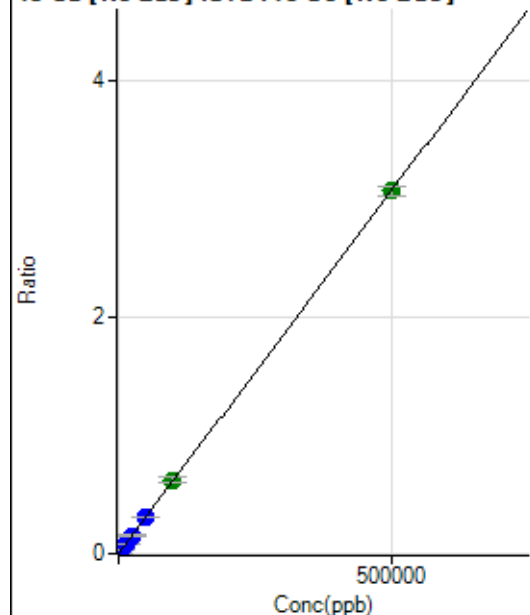
$$R = 1.0000$$

$$DL = 16.3$$

$$BEC = 286.7$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	875.60	0.0004	P	6.1
2	☐	50.000					
3	☐	500.000	486.424	7857.87	0.0033	P	3.5
4	☐	5000.000	4914.465	74403.31	0.0305	P	5.6
5	☐	12500.000	12422.773	187308.85	0.0765	P	2.7
6	☐	25000.000	24993.735	372504.24	0.1536	P	6.0
7	☐	50000.000	49641.036	753795.84	0.3047	P	1.2
8	☐	100000.00	101302.87	1516010.78	0.6214	A	8.0
9	☐	500000.00	499778.43	7551663.64	3.0641	A	3.0

$$y = 6.1302\text{E-}006 * x + 3.6196\text{E-}004$$

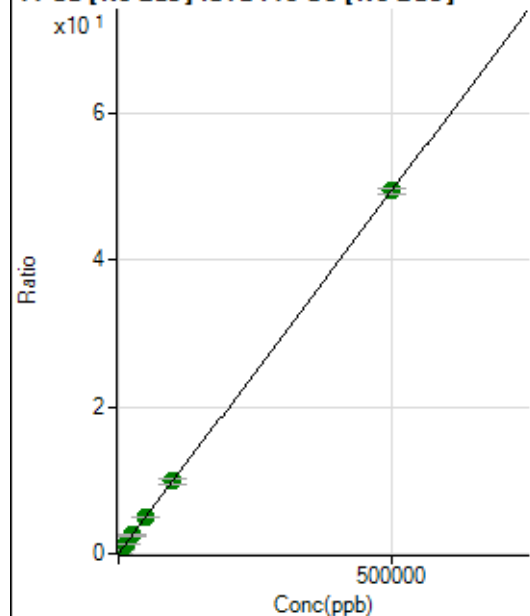
$$R = 1.0000$$

$$DL = 10.74$$

$$BEC = 59.05$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66527.87	0.0275	P	2.7
2	☐	50.000					
3	☐	500.000	496.413	179814.98	0.0765	P	3.3
4	☐	5000.000	5065.153	1287419.08	0.5275	A	5.5
5	☐	12500.000	12465.279	3080064.64	1.2581	A	2.1
6	☐	25000.000	25039.596	6062994.98	2.4994	A	5.7
7	☐	50000.000	49326.506	12115917.32	4.8971	A	1.4
8	☐	100000.00	99517.871	24032977.98	9.8520	A	8.3
9	☐	500000.00	500162.01	121775884.8	49.4039	A	1.9

$$y = 9.8721\text{E-}005 * x + 0.0275$$

$$R = 1.0000$$

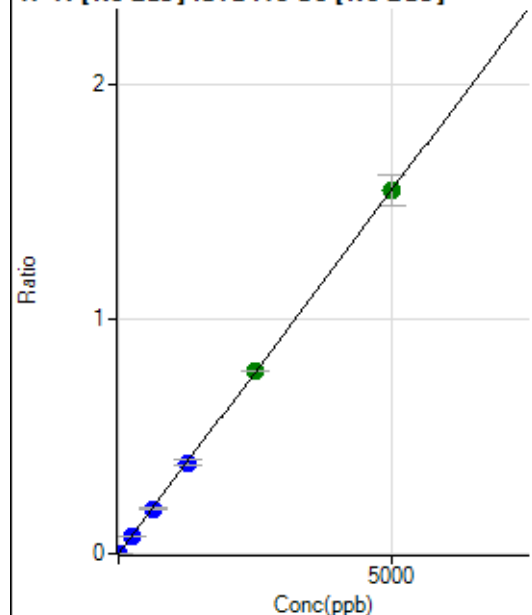
$$DL = 22.49$$

$$BEC = 278.7$$

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	241.68	0.0001	P	8.7
2	☐	0.500					
3	☐	5.000	4.848	3759.02	0.0016	P	5.3
4	☐	250.000	243.982	184571.03	0.0756	P	4.2
5	☐	625.000	617.188	467847.11	0.1911	P	2.0
6	☐	1250.000	1251.856	939949.84	0.3875	P	5.7
7	☐	2500.000	2512.472	1923954.60	0.7776	A	0.8
8	☐	5000.000	4994.578	3770247.39	1.5457	A	8.5
9	☐			891.74	0.0004	P	4.4

$$y = 3.0946E-004 * x + 1.0005E-004$$

$$R = 1.0000$$

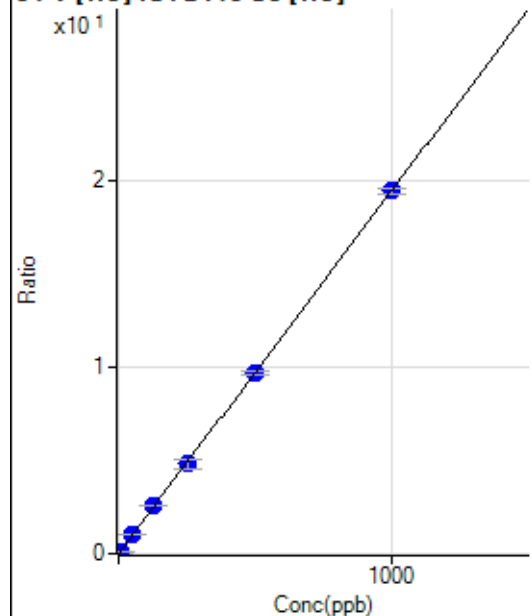
$$DL = 0.08439$$

$$BEC = 0.3233$$

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	33.33	0.0010	P	9.7
2	☐	0.500					
3	☐	5.000	5.197	3304.89	0.1023	P	3.9
4	☐	50.000	52.333	33000.11	1.0212	P	0.9
5	☐	125.000	130.971	83884.96	2.5541	P	0.8
6	☐	250.000	247.717	166379.43	4.8299	P	9.8
7	☐	500.000	498.913	334853.76	9.7266	P	1.5
8	☐	1000.000	1000.250	663182.19	19.4994	P	1.2
9	☐			118.90	0.0035	P	11.3

$$y = 0.0195 * x + 0.0010$$

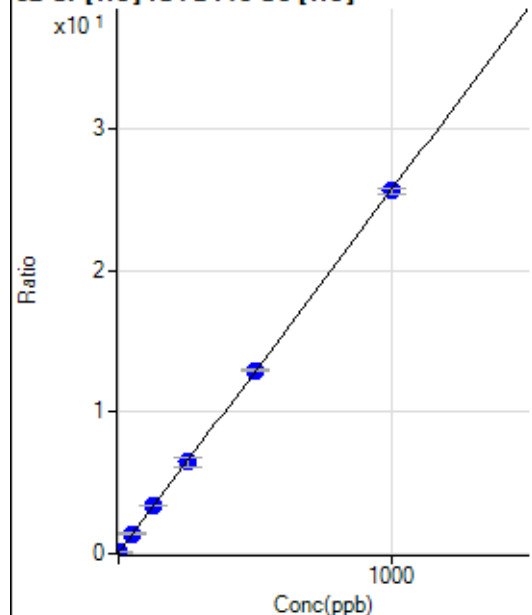
$$R = 1.0000$$

$$DL = 0.01506$$

$$BEC = 0.05182$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2014.62	0.0611	P	5.3
2	☐	0.200					
3	☐	2.000	1.852	3510.50	0.1086	P	4.5
4	☐	50.000	53.057	45984.51	1.4231	P	1.8
5	☐	125.000	132.025	113310.73	3.4501	P	1.0
6	☐	250.000	250.122	223271.29	6.4817	P	9.8
7	☐	500.000	503.207	446822.87	12.9784	P	1.1
8	☐	1000.000	997.336	872726.42	25.6626	P	1.9
9	☐			7853.53	0.2337	P	3.7

$$y = 0.0257 * x + 0.0611$$

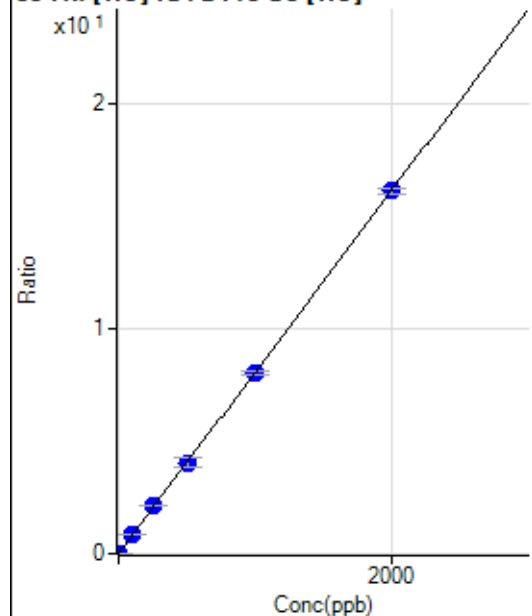
$$R = 1.0000$$

$$DL = 0.3787$$

$$BEC = 2.379$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0024	P	3.4
2	☐	0.100					
3	☐	1.000	1.167	380.01	0.0118	P	9.0
4	☐	100.000	105.974	27685.42	0.8567	P	1.3
5	☐	250.000	262.619	69613.37	2.1195	P	0.6
6	☐	500.000	500.292	138942.29	4.0355	P	10.7
7	☐	1000.000	997.398	276888.30	8.0430	P	1.7
8	☐	2000.000	1999.352	548231.76	16.1203	P	1.6
9	☐			2070.20	0.0616	P	2.4

$$y = 0.0081 * x + 0.0024$$

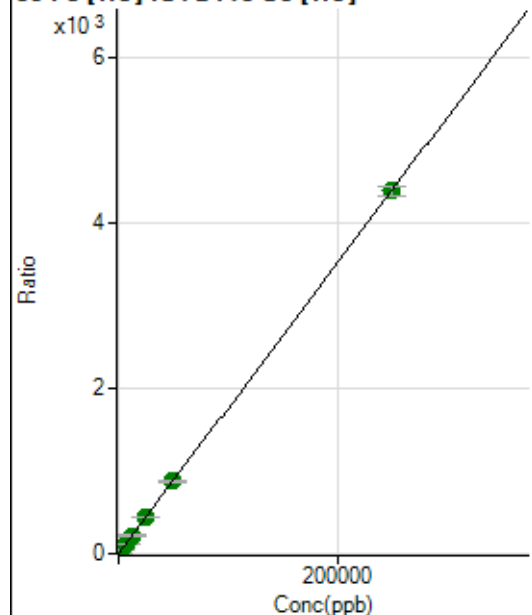
$$R = 1.0000$$

$$DL = 0.03002$$

$$BEC = 0.2925$$

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	4306.35	0.1305	P	3.0
2	☐	5.000					
3	☐	50.000	55.369	35664.59	1.1039	P	2.0
4	☐	2500.000	2715.369	1546767.42	47.8671	A	1.7
5	☐	6250.000	6597.676	3813581.51	116.1186	A	1.1
6	☐	12500.000	12454.778	7542898.55	219.0872	A	10.7
7	☐	25000.000	24934.489	15095294.66	438.4823	A	1.8
8	☐	50000.000	49939.376	29863216.18	878.0716	A	1.4
9	☐	250000.00	250010.09	147784519.9	4,395.342	A	2.3

$$y = 0.0176 * x + 0.1305$$

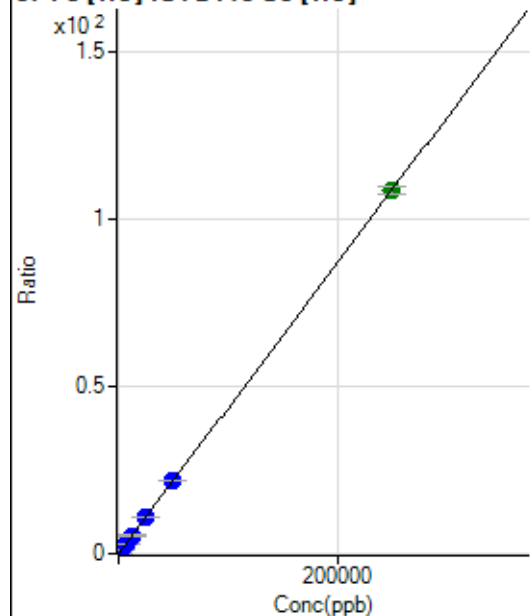
$$R = 1.0000$$

$$DL = 0.658$$

$$BEC = 7.425$$

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	155.56	0.0047	P	17.2
2	☐	5.000					
3	☐	50.000	54.911	922.28	0.0285	P	4.6
4	☐	2500.000	2651.318	37330.34	1.1550	P	1.1
5	☐	6250.000	6659.336	95049.78	2.8940	P	0.3
6	☐	12500.000	12538.256	187385.21	5.4447	P	11.4
7	☐	25000.000	25335.560	378608.91	10.9971	P	1.2
8	☐	50000.000	50439.525	744424.73	21.8891	P	1.6
9	☐	250000.00	249864.87	3645343.54	108.4144	A	2.2

$$y = 4.3387E-004 * x + 0.0047$$

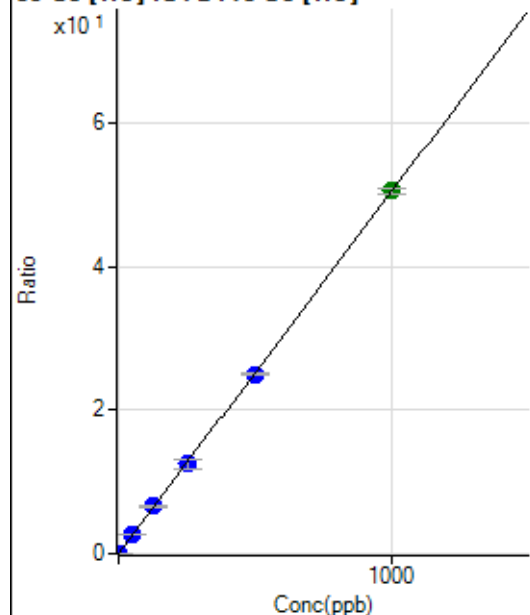
$$R = 1.0000$$

$$DL = 5.588$$

$$BEC = 10.86$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	113.34	0.0034	P	19.2
2	☐	0.100					
3	☐	1.000	0.987	1717.91	0.0532	P	1.1
4	☐	50.000	52.776	86061.74	2.6631	P	0.9
5	☐	125.000	130.296	215770.84	6.5697	P	0.7
6	☐	250.000	248.440	431196.98	12.5235	P	10.6
7	☐	500.000	494.515	858098.82	24.9245	P	1.2
8	☐	1000.000	1002.332	1718032.61	50.5159	A	1.4
9	☐			19289.41	0.5739	P	3.1

$$y = 0.0504 * x + 0.0034$$

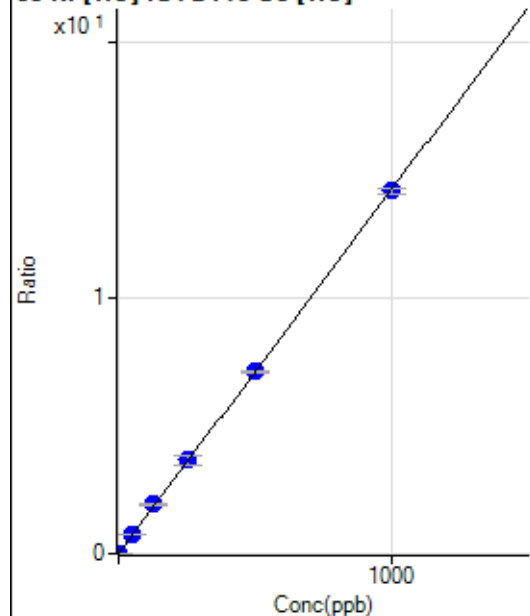
$$R = 1.0000$$

$$DL = 0.03925$$

$$BEC = 0.06823$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	85.56	0.0026	P	50.7
2	☐	0.100					
3	☐	1.000	1.082	581.13	0.0180	P	9.9
4	☐	50.000	54.426	25115.11	0.7771	P	1.2
5	☐	125.000	134.595	62994.20	1.9180	P	0.7
6	☐	250.000	256.264	125747.66	3.6495	P	9.4
7	☐	500.000	500.758	245431.14	7.1289	P	1.4
8	☐	1000.000	996.634	482454.38	14.1858	P	1.4
9	☐			5980.29	0.1779	P	3.0

$$y = 0.0142 * x + 0.0026$$

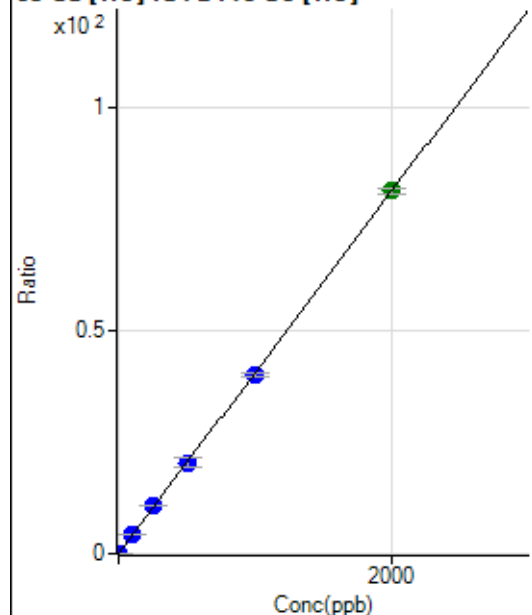
$$R = 0.9999$$

$$DL = 0.2767$$

$$BEC = 0.182$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	395.57	0.0120	P	1.9
2	☐	0.200					
3	☐	2.000	1.981	2984.81	0.0924	P	5.3
4	☐	100.000	106.998	140772.40	4.3563	P	1.4
5	☐	250.000	263.088	351221.31	10.6938	P	0.5
6	☐	500.000	500.653	700616.44	20.3393	P	9.9
7	☐	1000.000	990.283	1384559.22	40.2190	P	2.0
8	☐	2000.000	2002.710	2765918.92	81.3252	A	1.5
9	☐			3667.22	0.1092	P	5.4

$$y = 0.0406 * x + 0.0120$$

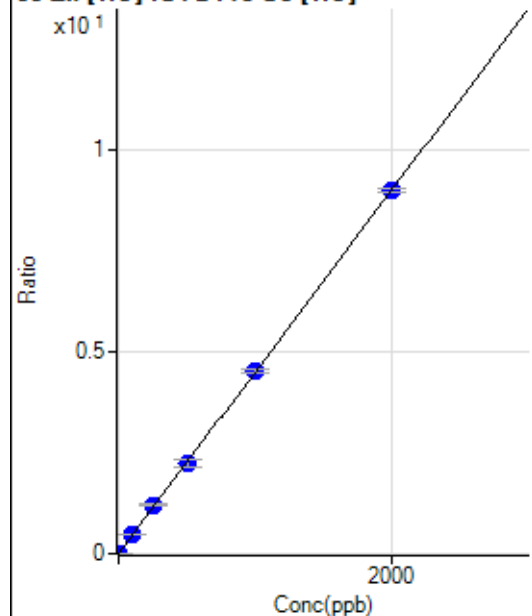
$$R = 1.0000$$

$$DL = 0.01686$$

$$BEC = 0.2953$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	124.45	0.0038	P	5.0
2	☐	0.200					
3	☐	2.000	2.034	417.79	0.0129	P	7.8
4	☐	100.000	106.494	15626.79	0.4835	P	0.8
5	☐	250.000	267.755	39739.21	1.2100	P	1.5
6	☐	500.000	496.918	77249.17	2.2423	P	9.7
7	☐	1000.000	1001.586	155452.19	4.5157	P	2.2
8	☐	2000.000	1997.433	306163.83	9.0018	P	1.2
9	☐			1640.13	0.0488	P	5.7

$$y = 0.0045 * x + 0.0038$$

$$R = 1.0000$$

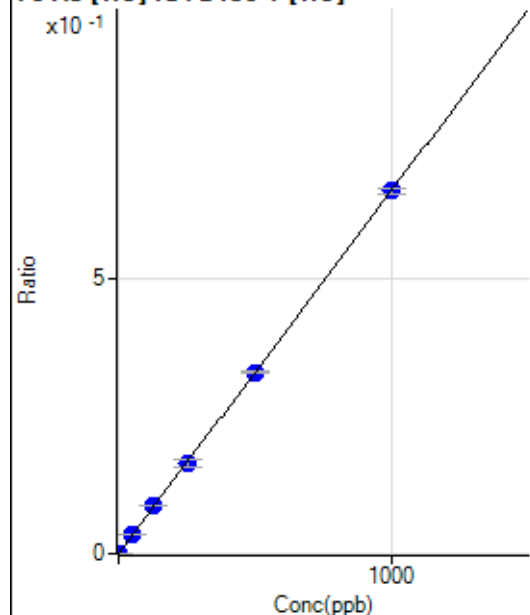
$$DL = 0.1254$$

$$BEC = 0.8372$$

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	11.11	0.0001	P	32.7
2	☐	0.100					
3	☐	1.000	1.006	123.46	0.0007	P	9.5
4	☐	50.000	53.113	5909.95	0.0350	P	0.8
5	☐	125.000	130.532	14995.24	0.0860	P	0.7
6	☐	250.000	248.980	29623.12	0.1640	P	9.8
7	☐	500.000	500.067	59456.20	0.3294	P	1.8
8	☐	1000.000	999.374	118382.68	0.6582	P	1.8
9	☐			166.67	0.0009	P	11.3

$$y = 6.5851E-004 * x + 6.4707E-005$$

$$R = 1.0000$$

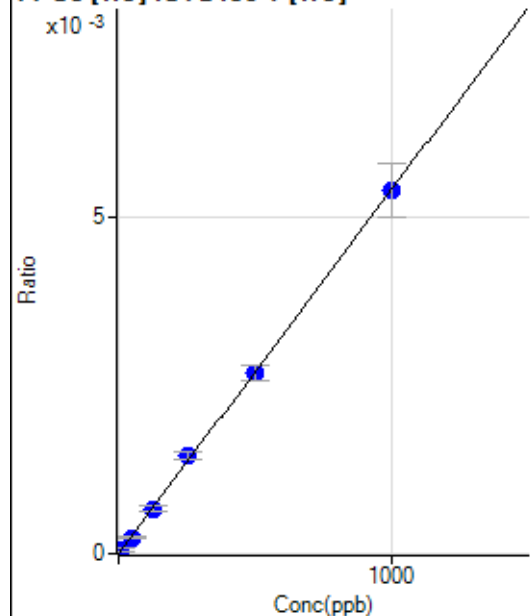
$$DL = 0.09636$$

$$BEC = 0.09826$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	10.892	10.00	0.0001	P	67.4
4	☐	50.000	43.721	40.00	0.0002	P	16.1
5	☐	125.000	123.476	116.67	0.0007	P	15.4
6	☐	250.000	269.297	264.45	0.0015	P	7.1
7	☐	500.000	497.727	486.69	0.0027	P	8.1
8	☐	1000.000	996.787	972.27	0.0054	P	14.8
9	☐			4.44	0.0000	P	173.2

$$y = 5.4223E-006 * x + 0.0000E+000$$

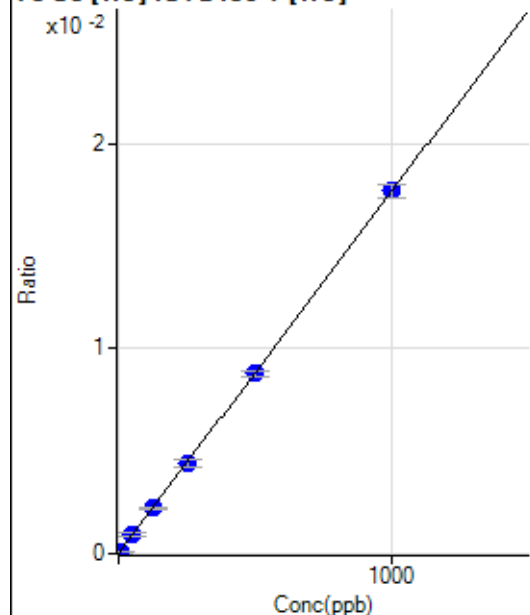
$$R = 0.9997$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2.47	0.0000	P	42.3
2	☐	0.500					
3	☐	5.000	3.720	13.58	0.0001	P	7.0
4	☐	50.000	52.799	159.26	0.0009	P	17.0
5	☐	125.000	124.647	385.81	0.0022	P	3.8
6	☐	250.000	248.587	797.56	0.0044	P	7.3
7	☐	500.000	496.932	1584.67	0.0088	P	3.1
8	☐	1000.000	1001.798	3180.65	0.0177	P	3.4
9	☐			6.18	0.0000	P	12.9

$$y = 1.7640\text{E-}005 * x + 1.4347\text{E-}005$$

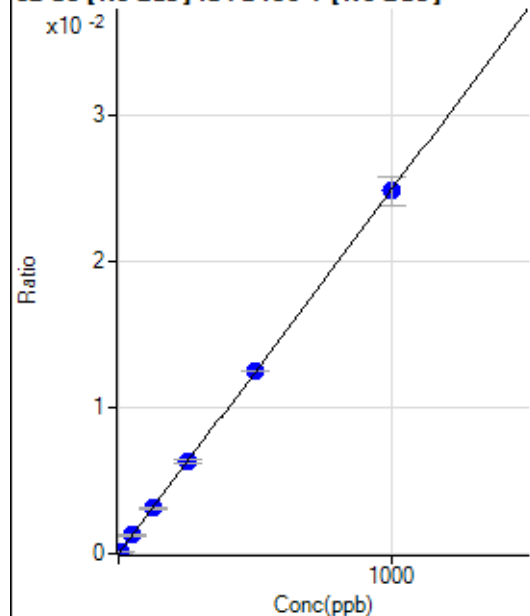
$$R = 1.0000$$

$$DL = 1.033$$

$$BEC = 0.8134$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.17	0.0000	P	1292.
2	☐	0.500					
3	☐	5.000	4.828	360.88	0.0001	P	16.9
4	☐	50.000	50.428	3851.61	0.0013	P	4.3
5	☐	125.000	124.775	9686.92	0.0031	P	2.4
6	☐	250.000	254.340	19623.79	0.0063	P	5.2
7	☐	500.000	502.245	39528.85	0.0125	P	0.8
8	☐	1000.000	997.800	79085.88	0.0248	P	7.7
9	☐			-36.64	0.0000	P	-75.1

$$y = 2.4867\text{E-}005 * x + 1.8942\text{E-}006$$

$$R = 1.0000$$

$$DL = 2.954$$

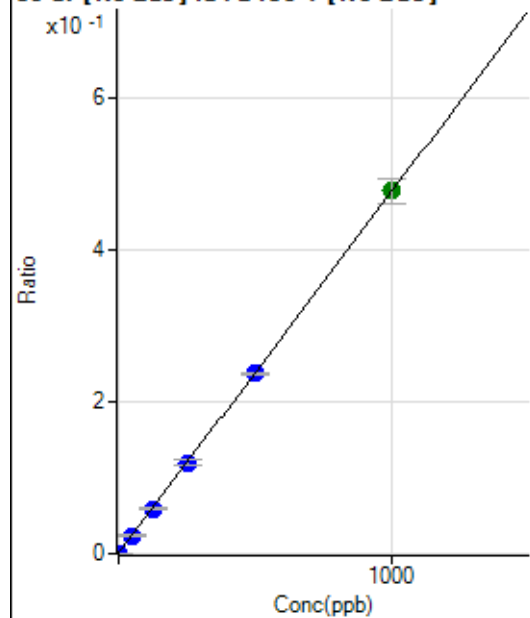
$$BEC = 0.07617$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			857.82		P	10.4
2	☐						
3	☐			847.82		P	4.4
4	☐			827.82		P	2.7
5	☐			934.50		P	9.1
6	☐			913.38		P	9.4
7	☐			873.38		P	5.8
8	☐			875.60		P	6.3
9	☐			922.27		P	1.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1333.46	0.0004	P	4.3
2	☐	0.100					
3	☐	1.000	0.801	2453.10	0.0008	P	3.5
4	☐	50.000	49.384	73398.06	0.0239	P	4.7
5	☐	125.000	122.960	183895.72	0.0589	P	2.1
6	☐	250.000	249.873	369948.72	0.1193	P	6.1
7	☐	500.000	496.415	748626.36	0.2366	P	1.5
8	☐	1000.000	1002.111	1521230.59	0.4771	A	7.0
9	☐			6738.11	0.0021	P	6.6

$$y = 4.7568E-004 * x + 4.4528E-004$$

$$R = 1.0000$$

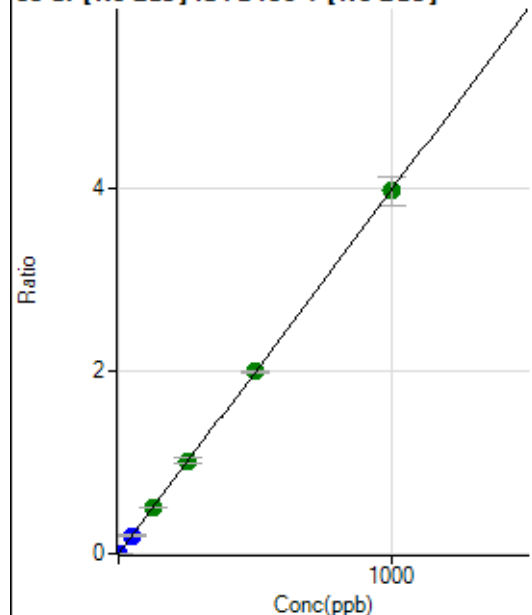
$$DL = 0.1216$$

$$BEC = 0.9361$$

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	83.34	0.0000	P	28.9
2	☐	0.100					
3	☐	1.000	0.846	10079.18	0.0034	P	2.5
4	☐	50.000	49.979	609953.09	0.1989	P	4.8
5	☐	125.000	126.972	1576653.38	0.5053	A	2.5
6	☐	250.000	255.642	3155392.71	1.0174	A	5.6
7	☐	500.000	500.569	6303831.17	1.9921	A	1.4
8	☐	1000.000	998.060	12655580.84	3.9719	A	8.3
9	☐			46257.34	0.0146	P	2.1

$$y = 0.0040 * x + 2.7756E-005$$

$$R = 1.0000$$

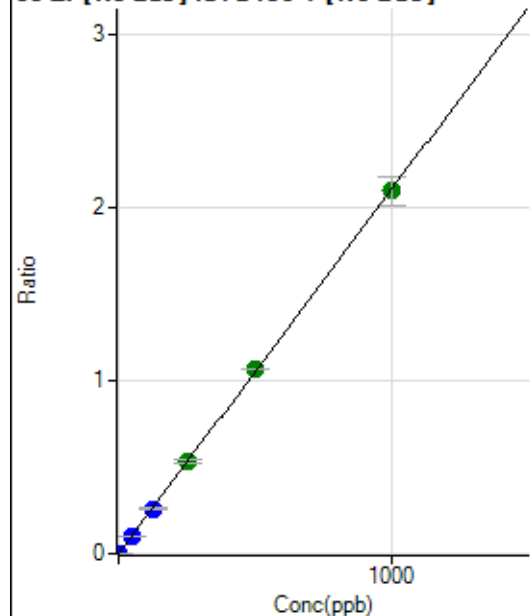
$$DL = 0.006051$$

$$BEC = 0.006975$$

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	272.24	0.0001	P	5.8
2	☐	0.100					
3	☐	1.000	0.918	6004.36	0.0020	P	1.9
4	☐	50.000	48.643	313853.23	0.1024	P	4.7
5	☐	125.000	122.512	803863.13	0.2576	P	2.6
6	☐	250.000	254.475	1659954.46	0.5351	A	4.9
7	☐	500.000	506.189	3367852.29	1.0643	A	0.8
8	☐	1000.000	996.166	6673138.04	2.0943	A	8.3
9	☐			1647.41	0.0005	P	5.8

$$y = 0.0021 * x + 9.0918E-005$$

$$R = 1.0000$$

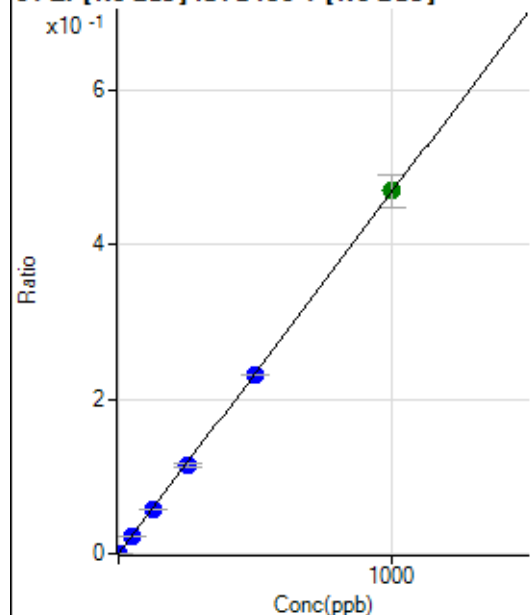
$$DL = 0.007544$$

$$BEC = 0.04325$$

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	55.56	0.0000	P	23.3
2	☐	0.100					
3	☐	1.000	0.890	1286.23	0.0004	P	17.7
4	☐	50.000	48.094	68995.35	0.0225	P	5.5
5	☐	125.000	122.150	178236.78	0.0571	P	3.0
6	☐	250.000	245.553	356195.91	0.1148	P	5.1
7	☐	500.000	494.859	732250.10	0.2314	P	0.9
8	☐	1000.000	1004.134	1495098.30	0.4695	A	9.3
9	☐			355.57	0.0001	P	23.2

$$y = 4.6756E-004 * x + 1.8565E-005$$

$$R = 1.0000$$

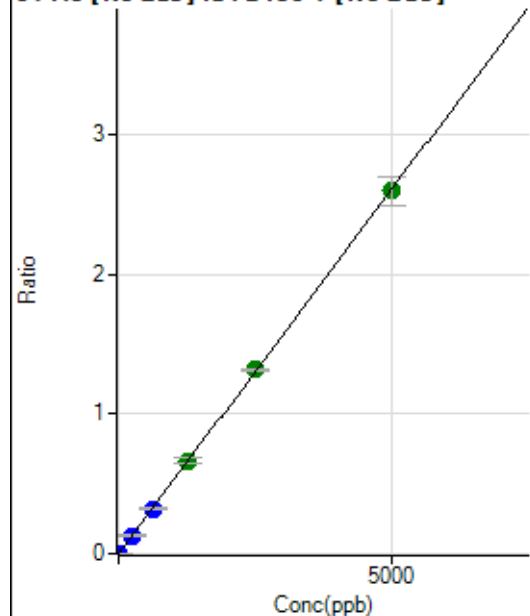
$$DL = 0.02781$$

$$BEC = 0.03971$$

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	138.90	0.0000	P	9.7
2	☐	0.500					
3	☐	5.000	4.620	7296.79	0.0025	P	3.9
4	☐	250.000	245.342	392823.45	0.1281	P	4.9
5	☐	625.000	618.012	1006636.76	0.3226	P	2.6
6	☐	1250.000	1273.280	2061491.02	0.6647	A	5.6
7	☐	2500.000	2525.326	4171666.07	1.3182	A	0.4
8	☐	5000.000	4982.624	8288886.21	2.6009	A	7.8
9	☐			3025.47	0.0010	P	6.2

$$y = 5.2199E-004 * x + 4.6387E-005$$

$$R = 1.0000$$

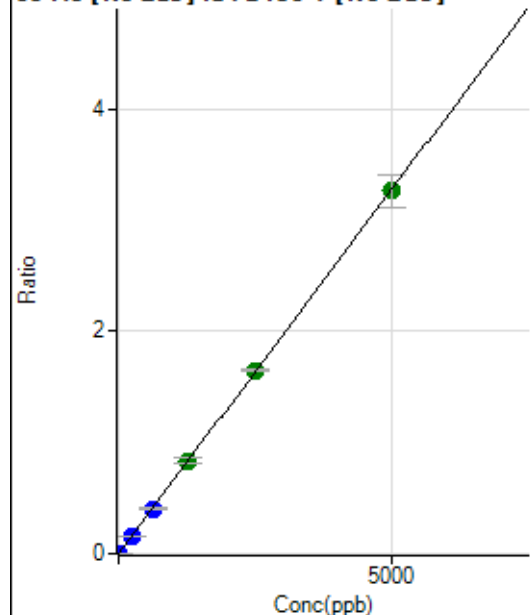
$$DL = 0.02598$$

$$BEC = 0.08887$$

Weight: <None>

Min Conc: 0

95 Mo [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	64.8
2	☐	0.500					
3	☐	5.000	4.759	9317.50	0.0031	P	3.0
4	☐	250.000	244.983	492067.93	0.1605	P	4.2
5	☐	625.000	614.657	1255962.98	0.4025	P	2.3
6	☐	1250.000	1277.658	2595625.38	0.8367	A	5.0
7	☐	2500.000	2521.221	5224987.05	1.6511	A	0.6
8	☐	5000.000	4984.019	10393818.55	3.2639	A	9.2
9	☐			4453.70	0.0014	P	6.2

$$y = 6.5486E-004 * x + 2.1283E-005$$

$$R = 1.0000$$

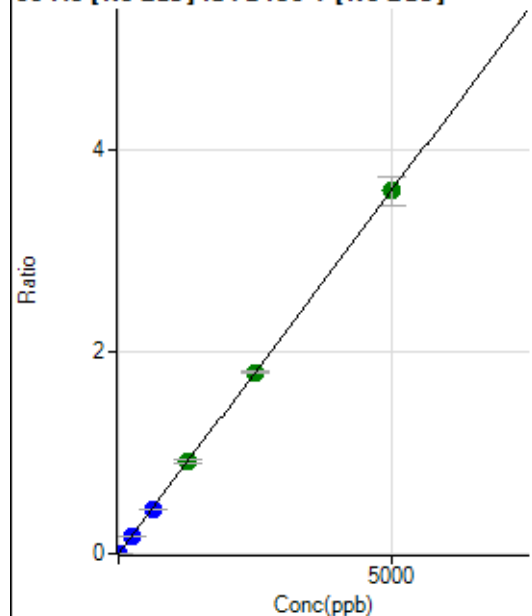
$$DL = 0.06321$$

$$BEC = 0.0325$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	108.34	0.0000	P	25.7
2	☐	0.500					
3	☐	5.000	4.646	10023.55	0.0034	P	7.5
4	☐	250.000	242.083	534433.37	0.1742	P	3.4
5	☐	625.000	611.975	1374150.02	0.4404	P	2.1
6	☐	1250.000	1276.759	2849939.12	0.9188	A	5.2
7	☐	2500.000	2493.996	5679303.25	1.7947	A	0.9
8	☐	5000.000	4998.336	11460170.22	3.5968	A	8.2
9	☐			4942.81	0.0016	P	2.0

$$y = 7.1958E-004 * x + 3.6095E-005$$

$$R = 1.0000$$

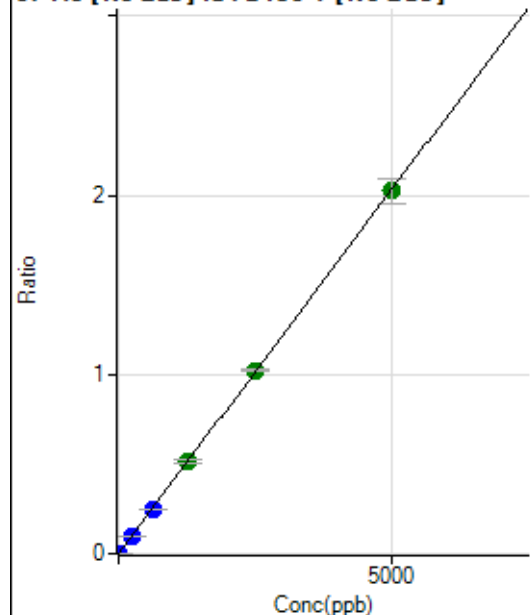
$$DL = 0.03871$$

$$BEC = 0.05016$$

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	102.78	0.0000	P	10.3
2	☐	0.500					
3	☐	5.000	4.643	5701.47	0.0019	P	2.7
4	☐	250.000	241.806	301255.52	0.0982	P	4.1
5	☐	625.000	615.698	780318.98	0.2501	P	1.5
6	☐	1250.000	1269.547	1599533.86	0.5156	A	5.0
7	☐	2500.000	2522.592	3241898.31	1.0245	A	0.9
8	☐	5000.000	4985.390	6454236.47	2.0246	A	7.2
9	☐			2805.99	0.0009	P	1.2

$$y = 4.0610E-004 * x + 3.4333E-005$$

$$R = 1.0000$$

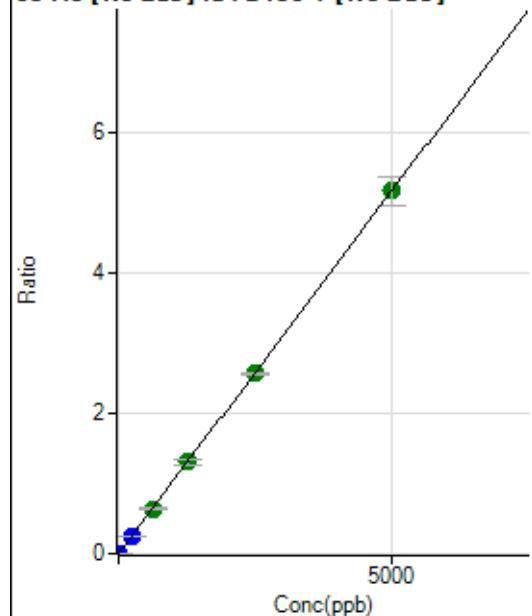
$$DL = 0.026$$

$$BEC = 0.08454$$

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	105.56	0.0000	P	63.1
2	☐	0.500					
3	☐	5.000	4.747	14647.40	0.0049	P	2.8
4	☐	250.000	243.750	771458.75	0.2515	P	3.4
5	☐	625.000	622.396	2003955.02	0.6422	A	2.1
6	☐	1250.000	1263.386	4042869.06	1.3035	A	5.4
7	☐	2500.000	2484.276	8111081.87	2.5630	A	0.8
8	☐	5000.000	5005.153	16454789.95	5.1638	A	8.0
9	☐			6818.71	0.0021	P	4.4

$$y = 0.0010 * x + 3.5285E-005$$

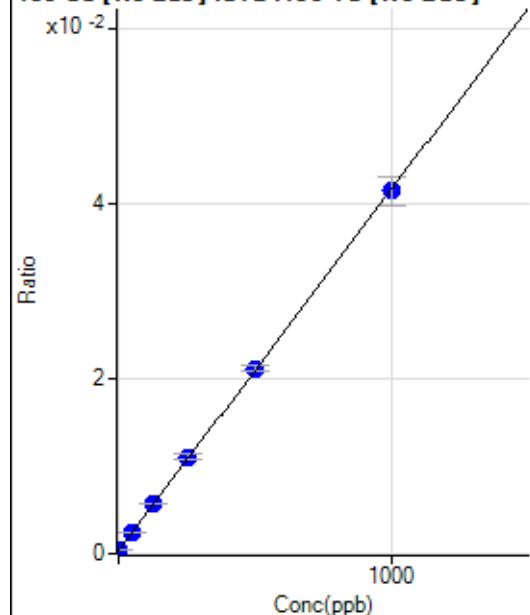
$$R = 1.0000$$

$$DL = 0.06479$$

$$BEC = 0.0342$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	797.28	0.0004	P	8.6
2	☐	0.100					
3	☐	1.000	0.337	805.62	0.0004	P	5.6
4	☐	50.000	51.892	5829.29	0.0025	P	2.1
5	☐	125.000	129.421	13679.67	0.0057	P	2.1
6	☐	250.000	258.933	26849.74	0.0111	P	5.0
7	☐	500.000	503.888	53867.38	0.0212	P	2.6
8	☐	1000.000	995.176	106143.94	0.0415	P	7.9
9	☐			861.18	0.0003	P	6.3

$$y = 4.1342\text{E-}005 * x + 3.5137\text{E-}004$$

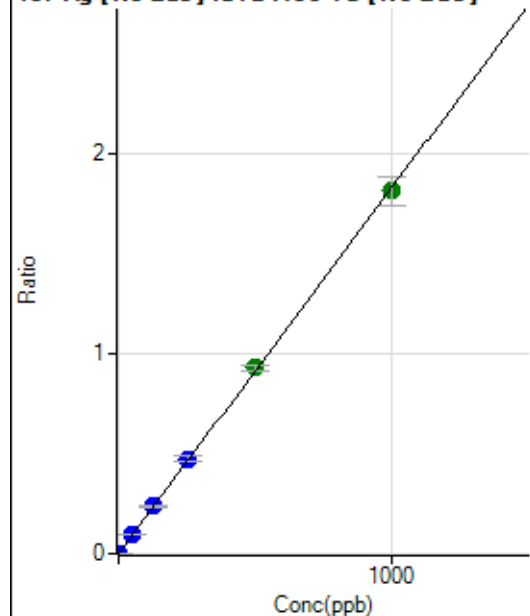
$$R = 0.9999$$

$$DL = 2.193$$

$$BEC = 8.499$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	77.78	0.0000	P	58.3
2	☐	0.100					
3	☐	1.000	1.162	4756.61	0.0022	P	1.6
4	☐	50.000	52.533	224110.92	0.0960	P	2.9
5	☐	125.000	130.238	570972.79	0.2380	P	2.2
6	☐	250.000	260.249	1154286.02	0.4755	P	6.4
7	☐	500.000	508.450	2362348.97	0.9290	A	2.8
8	☐	1000.000	992.431	4638057.92	1.8133	A	8.1
9	☐			916.75	0.0004	P	10.0

$$y = 0.0018 * x + 3.4090\text{E-}005$$

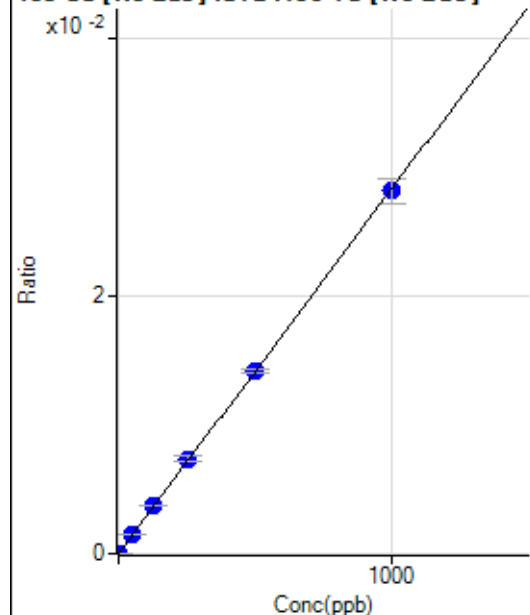
$$R = 0.9999$$

$$DL = 0.03261$$

$$BEC = 0.01866$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	12.50	0.0000	P	33.8
2	☐	0.100					
3	☐	1.000	1.052	77.78	0.0000	P	18.5
4	☐	50.000	53.064	3519.99	0.0015	P	0.7
5	☐	125.000	130.466	8872.56	0.0037	P	1.9
6	☐	250.000	259.563	17849.66	0.0074	P	6.1
7	☐	500.000	503.410	36247.64	0.0143	P	2.1
8	☐	1000.000	995.068	72105.54	0.0282	P	6.6
9	☐			18.06	0.0000	P	66.1

$$y = 2.8302\text{E-}005 * x + 5.5222\text{E-}006$$

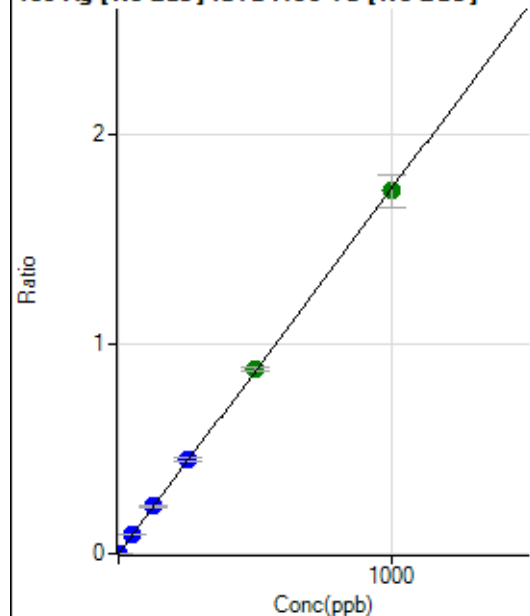
$$R = 0.9999$$

$$DL = 0.1979$$

$$BEC = 0.1951$$

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	77.78	0.0000	P	13.7
2	☐	0.100					
3	☐	1.000	1.151	4481.50	0.0020	P	4.5
4	☐	50.000	52.069	211236.12	0.0905	P	2.3
5	☐	125.000	129.378	539322.39	0.2248	P	2.3
6	☐	250.000	258.684	1091343.45	0.4494	P	5.4
7	☐	500.000	505.634	2233872.10	0.8785	A	2.6
8	☐	1000.000	994.361	4416046.02	1.7276	A	9.2
9	☐			750.06	0.0003	P	19.7

$$y = 0.0017 * x + 3.4345\text{E-}005$$

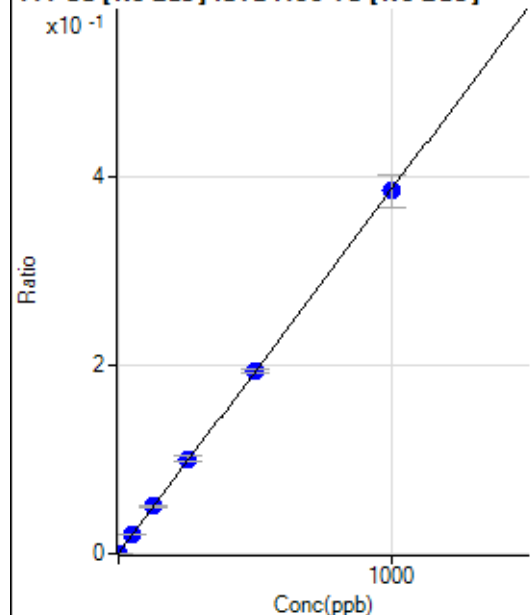
$$R = 0.9999$$

$$DL = 0.008135$$

$$BEC = 0.01977$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	553.51	0.0002	P	8.8
2	☐	0.100					
3	☐	1.000	0.982	1372.04	0.0006	P	4.3
4	☐	50.000	51.446	46844.08	0.0201	P	3.7
5	☐	125.000	128.991	119876.59	0.0500	P	1.9
6	☐	250.000	259.425	243309.02	0.1002	P	6.4
7	☐	500.000	502.092	492755.79	0.1938	P	2.2
8	☐	1000.000	996.027	982032.31	0.3842	P	9.2
9	☐			630.47	0.0002	P	7.0

$$y = 3.8544\text{E-}004 * x + 2.4395\text{E-}004$$

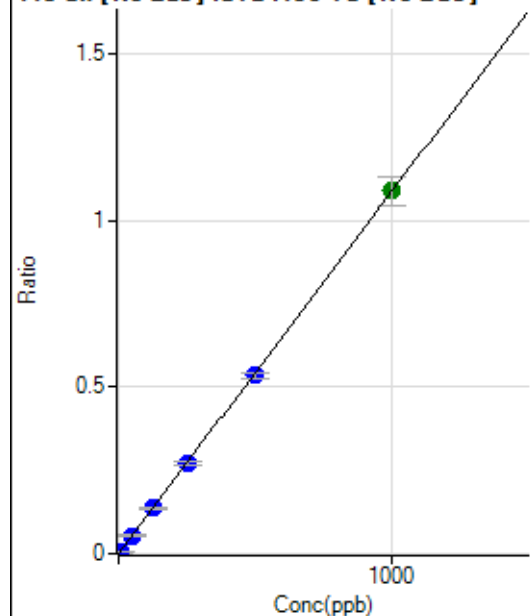
$$R = 0.9999$$

$$DL = 0.1669$$

$$BEC = 0.6329$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	147.23	0.0001	P	13.7
2	☐	0.500					
3	☐	5.000	5.164	12492.43	0.0057	P	1.1
4	☐	50.000	50.168	127170.31	0.0545	P	3.9
5	☐	125.000	125.968	328006.02	0.1367	P	3.1
6	☐	250.000	251.503	662874.13	0.2729	P	5.0
7	☐	500.000	492.733	1359624.60	0.5347	P	2.6
8	☐	1000.000	1003.128	2783698.91	1.0885	A	8.3
9	☐			1522.38	0.0006	P	8.0

$$y = 0.0011 * x + 6.4896\text{E-}005$$

$$R = 1.0000$$

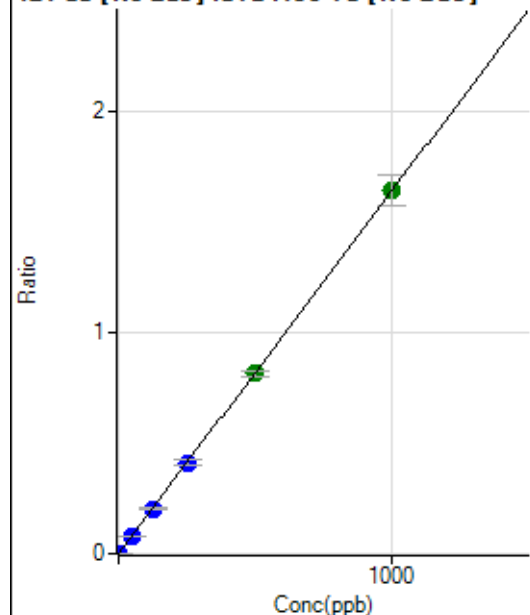
$$DL = 0.02451$$

$$BEC = 0.05981$$

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	100.00	0.0000	P	30.3
2	☐	0.200					
3	☐	2.000	1.918	7027.16	0.0032	P	7.1
4	☐	50.000	49.516	189710.08	0.0813	P	2.8
5	☐	125.000	123.234	485114.77	0.2022	P	2.6
6	☐	250.000	250.608	998282.24	0.4112	P	5.9
7	☐	500.000	497.387	2075038.44	0.8160	A	2.9
8	☐	1000.000	1001.400	4201720.62	1.6429	A	8.3
9	☐			4809.41	0.0019	P	4.0

$$y = 0.0016 * x + 4.4137E-005$$

$$R = 1.0000$$

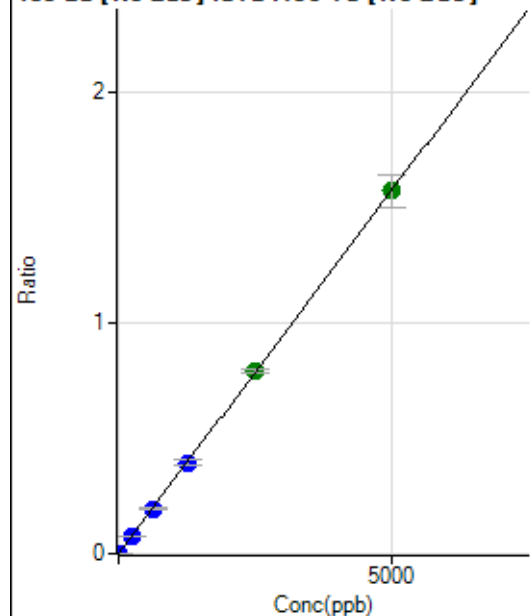
$$DL = 0.02443$$

$$BEC = 0.0269$$

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	27.78	0.0000	P	47.5
2	☐	1.000					
3	☐	10.000	9.990	6957.68	0.0032	P	2.3
4	☐	250.000	246.658	181198.55	0.0776	P	3.7
5	☐	625.000	618.148	466734.16	0.1946	P	3.0
6	☐	1250.000	1253.284	957540.96	0.3945	P	6.4
7	☐	2500.000	2505.770	2005693.43	0.7887	A	2.0
8	☐	5000.000	4997.317	4021488.68	1.5729	A	8.9
9	☐			341.69	0.0001	P	15.7

$$y = 3.1474E-004 * x + 1.2315E-005$$

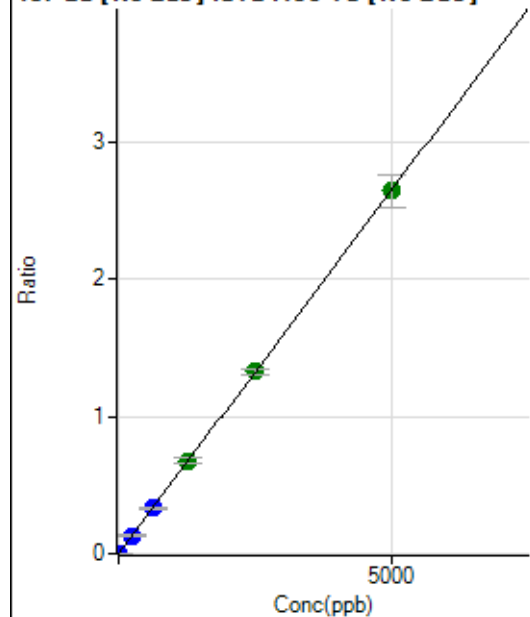
$$R = 1.0000$$

$$DL = 0.05571$$

$$BEC = 0.03913$$

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	38.89	0.0000	P	33.4
2	☐	1.000					
3	☐	10.000	10.338	12111.62	0.0055	P	6.1
4	☐	250.000	251.087	310708.62	0.1332	P	4.1
5	☐	625.000	625.652	795953.85	0.3318	P	2.1
6	☐	1250.000	1281.802	1650043.69	0.6797	A	6.0
7	☐	2500.000	2502.441	3374337.97	1.3269	A	2.5
8	☐	5000.000	4990.692	6765989.39	2.6463	A	8.8
9	☐			602.82	0.0002	P	16.8

$$y = 5.3024\text{E-}004 * x + 1.7190\text{E-}005$$

$$R = 1.0000$$

$$DL = 0.03249$$

$$BEC = 0.03242$$

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	☐						
3	☐			11.11		P	34.6
4	☐			17.78		P	21.7
5	☐			22.22		P	91.6
6	☐			40.00		P	50.0
7	☐			86.67		P	27.7
8	☐			200.01		P	5.8
9	☐			66.67		P	20.0

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	☐			0.00		P	
5	☐			1.11		P	173.2
6	☐			2.22		P	86.6
7	☐			2.22		P	173.2
8	☐			11.11		P	17.3
9	☐			8.89		P	21.6

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	43.3
2	☐						
3	☐			22.22		P	57.3
4	☐			11.11		P	43.3
5	☐			11.11		P	114.6
6	☐			13.89		P	34.7
7	☐			27.78		P	69.3
8	☐			33.33		P	25.0
9	☐			22.22		P	43.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	86.6
2	☐						
3	☐			2.22		P	86.6
4	☐			2.22		P	86.6
5	☐			1.11		P	173.2
6	☐			2.22		P	173.2
7	☐			7.78		P	24.7
8	☐			5.56		P	34.7
9	☐			10.00		P	66.7

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25.00		P	33.3
2	☐						
3	☐			30.56		P	31.5
4	☐			38.89		P	12.4
5	☐			38.89		P	24.7
6	☐			27.78		P	96.4
7	☐			30.56		P	41.7
8	☐			36.11		P	35.3
9	☐			41.67		P	60.0

160 Gd [He] No available calibration points

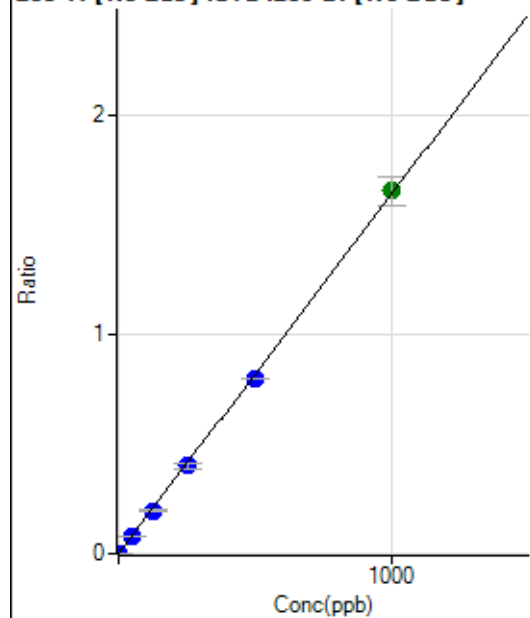
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.1
2	☐						
3	☐			3.33		P	173.2
4	☐			4.45		P	86.6
5	☐			3.33		P	100.1
6	☐			5.56		P	91.6
7	☐			6.67		P	132.3
8	☐			10.00		P	57.7
9	☐			15.56		P	32.7

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	24.7
2	☐						
3	☐			13.89		P	124.9
4	☐			8.33		P	100.0
5	☐			27.78		P	45.8
6	☐			30.55		P	68.6
7	☐			5.55		P	86.6
8	☐			22.22		P	57.3
9	☐			41.67		P	0.0

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			3.33		P	0.0
2	☐						
3	☐			5.55		P	69.3
4	☐			1.11		P	173.2
5	☐			4.44		P	43.4
6	☐			4.44		P	43.4
7	☐			7.78		P	65.5
8	☐			3.33		P	100.1
9	☐			4.44		P	114.6

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19.45	0.0000	P	64.8
2	☐	0.100					
3	☐	1.000	0.888	1658.52	0.0015	P	6.5
4	☐	50.000	47.700	90729.93	0.0783	P	5.6
5	☐	125.000	118.920	236115.18	0.1951	P	3.0
6	☐	250.000	243.969	487985.64	0.4003	P	5.3
7	☐	500.000	486.760	1010210.19	0.7987	P	0.7
8	☐	1000.000	1009.003	2107178.84	1.6555	A	8.0
9	☐			150.01	0.0001	P	20.0

$$y = 0.0016 * x + 1.6966E-005$$

$$R = 0.9998$$

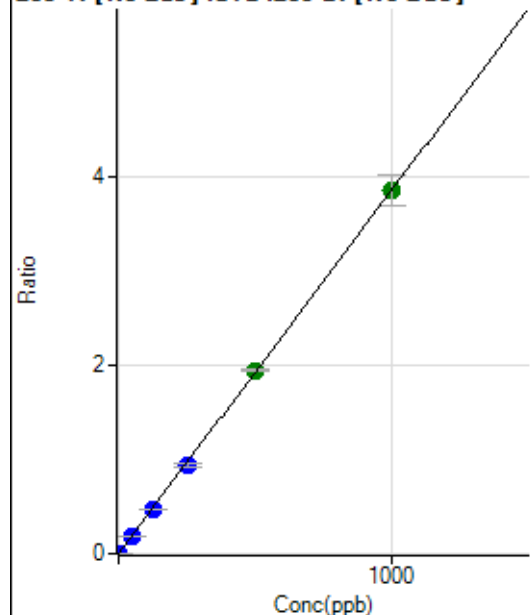
$$DL = 0.02009$$

$$BEC = 0.01034$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	41.67	0.0000	P	19.8
2	☐	0.100					
3	☐	1.000	0.903	3945.25	0.0035	P	10.9
4	☐	50.000	48.651	217461.69	0.1876	P	4.2
5	☐	125.000	121.162	565173.39	0.4670	P	2.6
6	☐	250.000	245.103	1151881.71	0.9447	P	4.6
7	☐	500.000	505.461	2464156.87	1.9482	A	1.1
8	☐	1000.000	999.041	4900138.96	3.8506	A	8.4
9	☐			330.58	0.0003	P	5.6

$$y = 0.0039 * x + 3.6517E-005$$

$$R = 1.0000$$

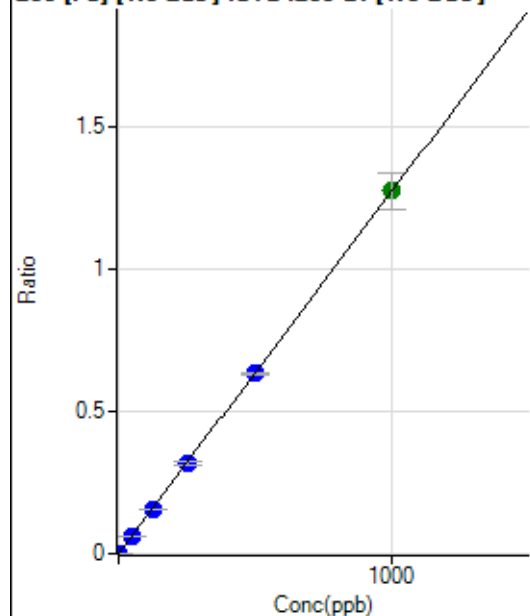
$$DL = 0.005635$$

$$BEC = 0.009474$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	48.15	0.0000	P	12.6
2	☐	0.100					
3	☐	1.000	1.009	1487.18	0.0013	P	5.8
4	☐	50.000	49.205	72553.60	0.0626	P	3.9
5	☐	125.000	122.318	188128.08	0.1555	P	2.8
6	☐	250.000	248.439	385059.14	0.3157	P	3.7
7	☐	500.000	496.996	798804.63	0.6316	P	1.4
8	☐	1000.000	1002.267	1619656.98	1.2736	A	10.1
9	☐			3015.27	0.0025	P	3.3

$$y = 0.0013 * x + 4.2179E-005$$

$$R = 1.0000$$

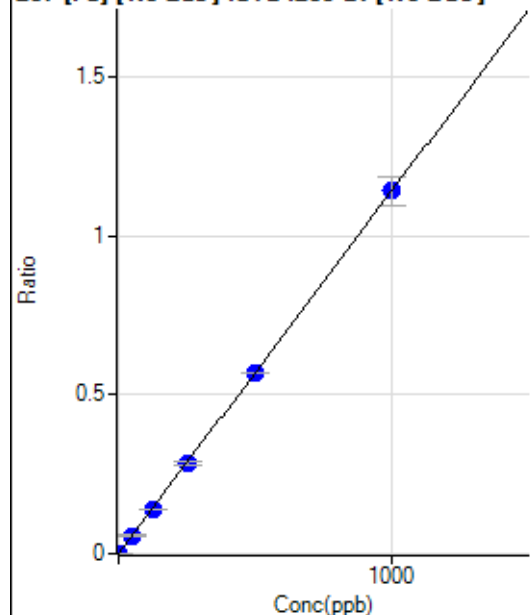
$$DL = 0.01253$$

$$BEC = 0.03319$$

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	55.56	0.0000	P	21.2
2	☐	0.100					
3	☐	1.000	0.900	1207.50	0.0011	P	8.0
4	☐	50.000	49.097	64901.34	0.0560	P	6.3
5	☐	125.000	123.150	169916.85	0.1404	P	2.4
6	☐	250.000	248.908	346007.16	0.2837	P	4.1
7	☐	500.000	498.947	719357.67	0.5687	P	0.9
8	☐	1000.000	1001.076	1452504.13	1.1410	P	7.9
9	☐			2805.97	0.0023	P	9.1

$$y = 0.0011 * x + 4.8776E-005$$

$$R = 1.0000$$

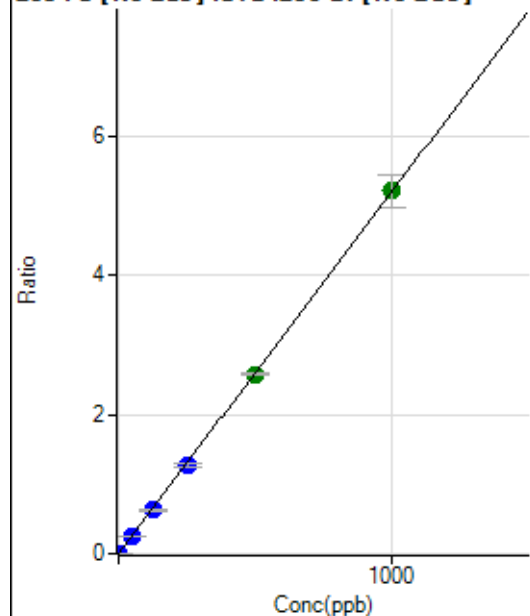
$$DL = 0.02727$$

$$BEC = 0.04279$$

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	255.57	0.0002	P	5.3
2	☐	0.100					
3	☐	1.000	0.940	5726.63	0.0051	P	8.6
4	☐	50.000	48.644	292881.55	0.2526	P	4.6
5	☐	125.000	121.124	760800.92	0.6287	P	2.6
6	☐	250.000	245.877	1555784.35	1.2760	P	4.7
7	☐	500.000	496.181	3256723.32	2.5748	A	1.1
8	☐	1000.000	1003.493	6626128.84	5.2072	A	8.7
9	☐			12245.31	0.0100	P	2.2

$$y = 0.0052 * x + 2.2396E-004$$

$$R = 1.0000$$

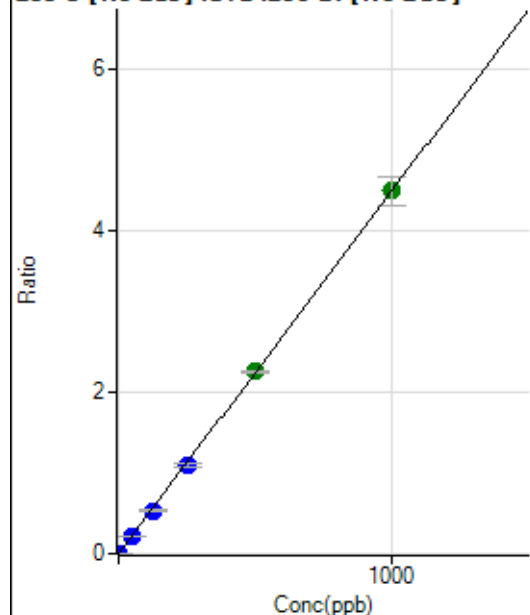
$$DL = 0.006927$$

$$BEC = 0.04316$$

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	25.00	0.0000	P	32.4
2	☐	0.100					
3	☐	1.000	0.899	4553.83	0.0041	P	2.3
4	☐	50.000	46.752	242784.76	0.2094	P	5.1
5	☐	125.000	118.366	641565.58	0.5302	P	3.1
6	☐	250.000	243.032	1327240.15	1.0887	P	5.0
7	☐	500.000	502.654	2847832.70	2.2516	A	1.4
8	☐	1000.000	1001.407	5710464.54	4.4858	A	7.7
9	☐			166.68	0.0001	P	20.1

$$y = 0.0045 * x + 2.1858E-005$$

$$R = 1.0000$$

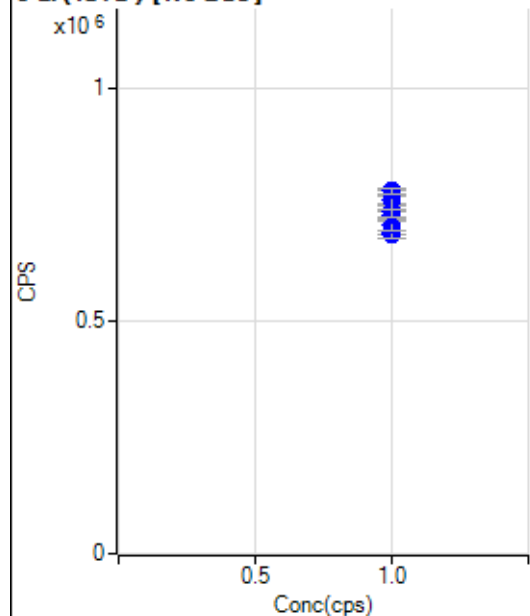
$$DL = 0.004746$$

$$BEC = 0.00488$$

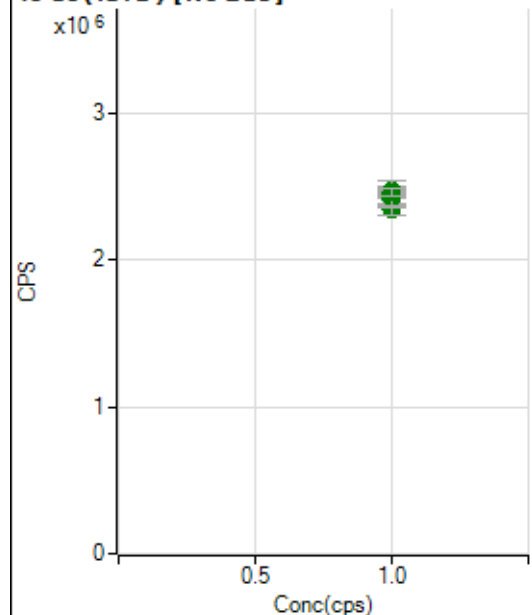
Weight: <None>

Min Conc: 0

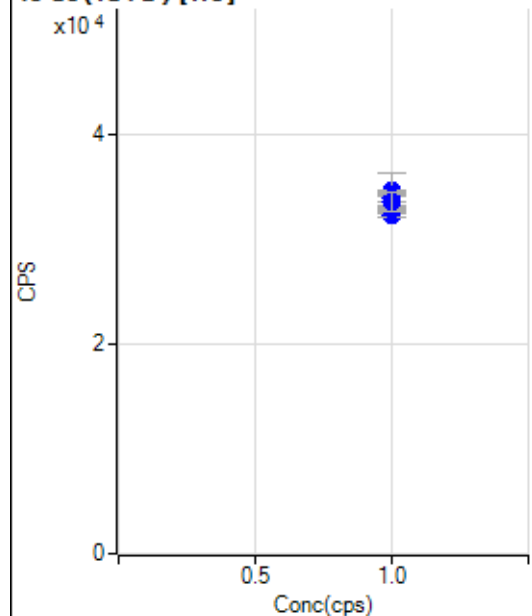
6 Li (ISTD) [No Gas]



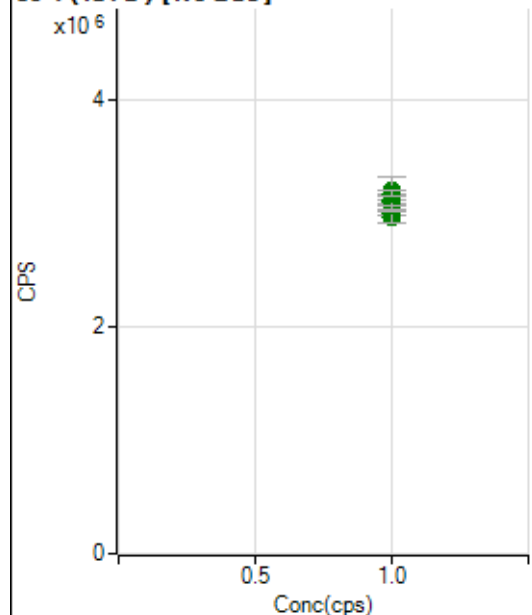
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		689816.55		P	1.3
2	☐	1.000					
3	☐	1.000		683988.25		P	2.3
4	☐	1.000		703741.28		P	3.3
5	☐	1.000		726334.62		P	2.1
6	☐	1.000		735727.26		P	3.6
7	☐	1.000		757396.02		P	2.4
8	☐	1.000		757726.24		P	5.6
9	☐	1.000		778237.24		P	1.3

45 Sc (ISTD) [No Gas]

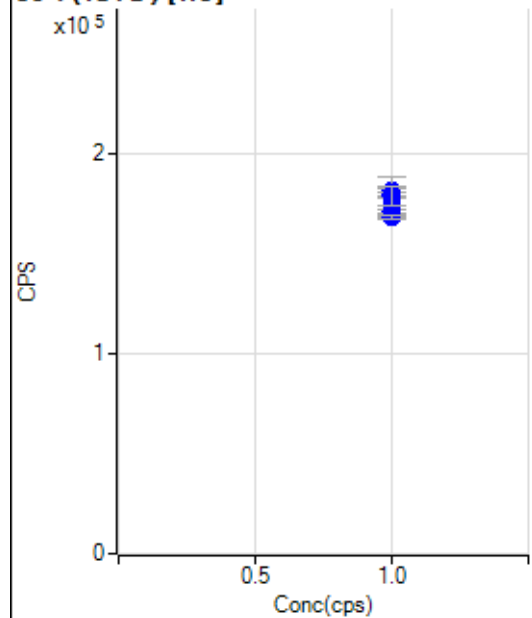
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2419334.47		A	2.7
2	☐	1.000					
3	☐	1.000		2351600.96		A	3.2
4	☐	1.000		2444575.83		A	4.7
5	☐	1.000		2448994.46		A	2.3
6	☐	1.000		2430129.35		A	4.8
7	☐	1.000		2474276.55		A	0.7
8	☐	1.000		2449926.07		A	7.8
9	☐	1.000		2465436.45		A	1.8

45 Sc (ISTD) [He]

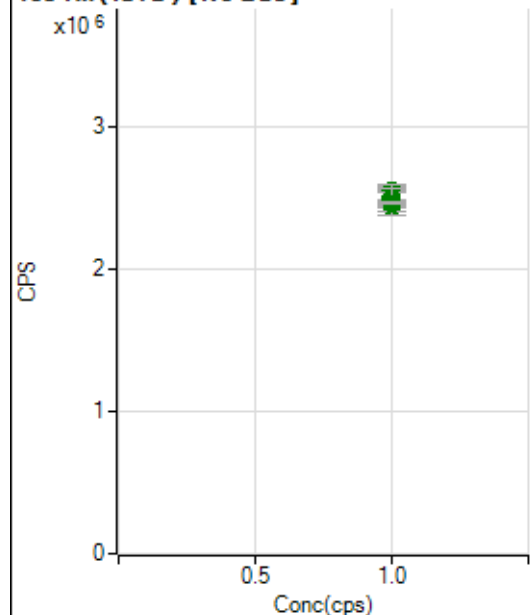
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		32991.14		P	1.1
2	☐	1.000					
3	☐	1.000		32311.69		P	1.1
4	☐	1.000		32318.45		P	1.3
5	☐	1.000		32844.06		P	0.8
6	☐	1.000		34662.12		P	9.6
7	☐	1.000		34432.39		P	1.6
8	☐	1.000		34015.80		P	1.9
9	☐	1.000		33648.54		P	5.3

89 Y (ISTD) [No Gas]

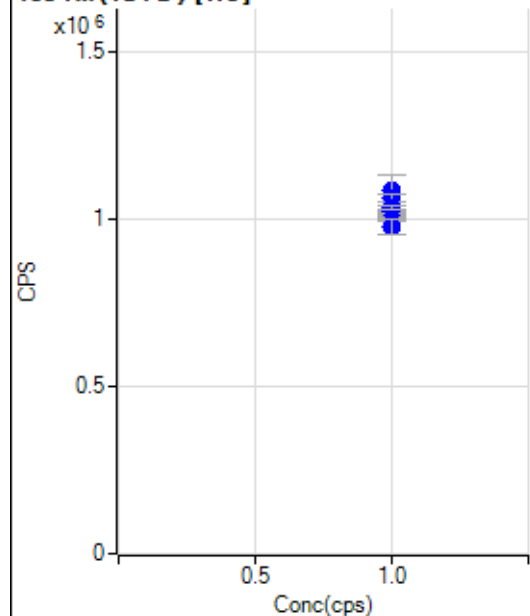
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2995678.91		A	1.2
2	☐	1.000					
3	☐	1.000		2971332.77		A	3.7
4	☐	1.000		3069931.97		A	3.8
5	☐	1.000		3121049.15		A	2.0
6	☐	1.000		3106888.74		A	4.7
7	☐	1.000		3164634.15		A	0.8
8	☐	1.000		3200349.74		A	8.1
9	☐	1.000		3179777.11		A	2.0

89 Y (ISTD) [He]

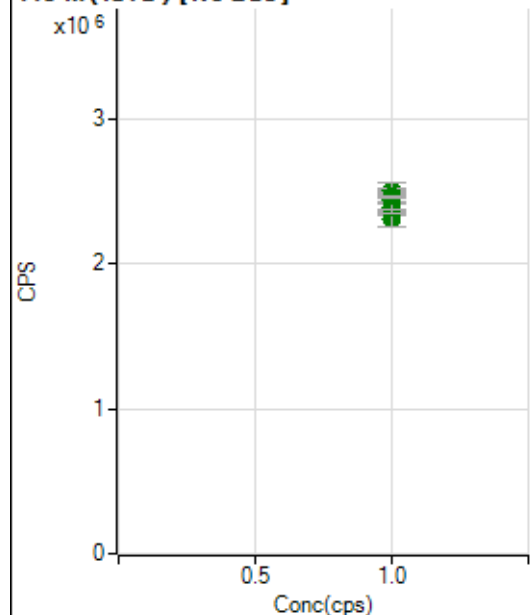
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		171515.18		P	1.0
2	☐	1.000					
3	☐	1.000		169716.38		P	1.0
4	☐	1.000		168651.11		P	1.3
5	☐	1.000		174318.11		P	0.4
6	☐	1.000		181559.99		P	8.2
7	☐	1.000		180575.37		P	2.6
8	☐	1.000		179894.11		P	1.4
9	☐	1.000		178879.00		P	5.5

103 Rh (ISTD) [No Gas]

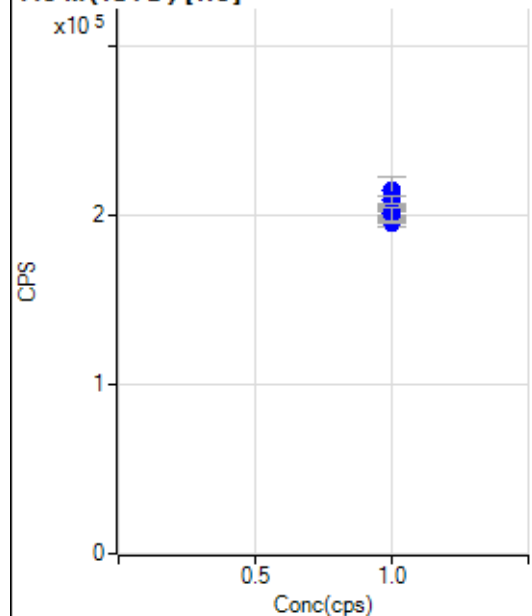
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2464823.95		A	1.4
2	☐	1.000					
3	☐	1.000		2430526.81		A	4.6
4	☐	1.000		2490312.99		A	5.1
5	☐	1.000		2503231.96		A	2.6
6	☐	1.000		2511383.63		A	5.6
7	☐	1.000		2547509.19		A	1.1
8	☐	1.000		2500662.60		A	7.9
9	☐	1.000		2459817.98		A	0.5

103 Rh (ISTD) [He]

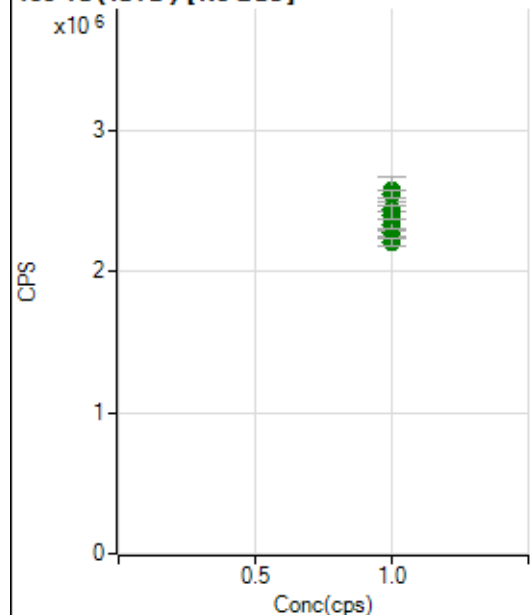
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		1018066.56		P	1.2
2	☐	1.000					
3	☐	1.000		1000109.95		P	1.4
4	☐	1.000		998959.84		P	0.8
5	☐	1.000		1022322.48		P	0.7
6	☐	1.000		1083129.55		P	8.5
7	☐	1.000		1061411.89		P	2.1
8	☐	1.000		1034084.89		P	1.2
9	☐	1.000		976508.71		P	4.3

115 In (ISTD) [No Gas]

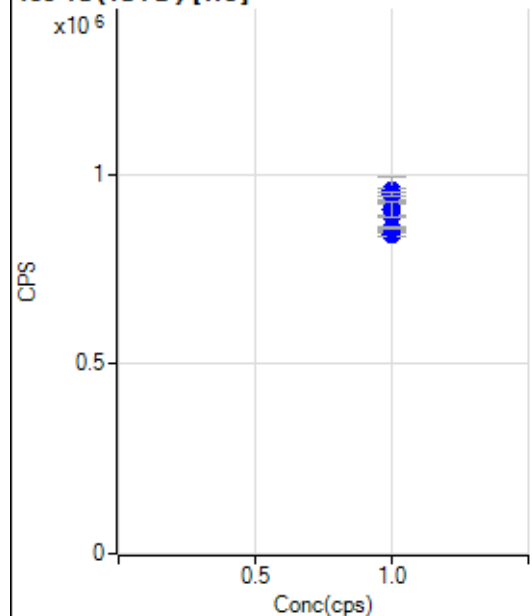
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2346692.82		A	0.9
2	☐	1.000					
3	☐	1.000		2311106.63		A	4.3
4	☐	1.000		2396152.57		A	3.3
5	☐	1.000		2445999.13		A	2.8
6	☐	1.000		2441650.00		A	5.5
7	☐	1.000		2506687.20		A	1.2
8	☐	1.000		2466981.77		A	7.4
9	☐	1.000		2464805.22		A	0.7

115 In (ISTD) [He]

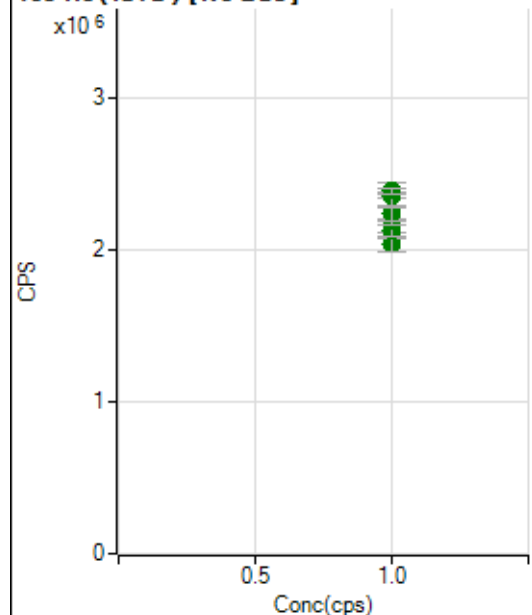
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		199163.33		P	0.8
2	☐	1.000					
3	☐	1.000		195344.29		P	3.0
4	☐	1.000		196436.79		P	1.1
5	☐	1.000		201185.45		P	1.4
6	☐	1.000		214124.67		P	7.7
7	☐	1.000		208617.92		P	2.3
8	☐	1.000		200742.39		P	1.0
9	☐	1.000		200550.46		P	4.0

159 Tb (ISTD) [No Gas]

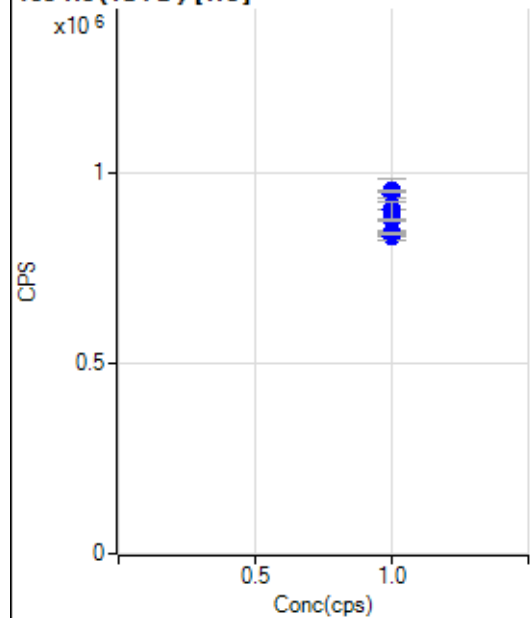
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2267886.56		A	1.7
2	☐	1.000					
3	☐	1.000		2204652.55		A	2.8
4	☐	1.000		2335296.30		A	2.9
5	☐	1.000		2399972.52		A	2.4
6	☐	1.000		2432634.08		A	5.1
7	☐	1.000		2543697.04		A	1.9
8	☐	1.000		2569070.40		A	8.2
9	☐	1.000		2548309.39		A	1.9

159 Tb (ISTD) [He]

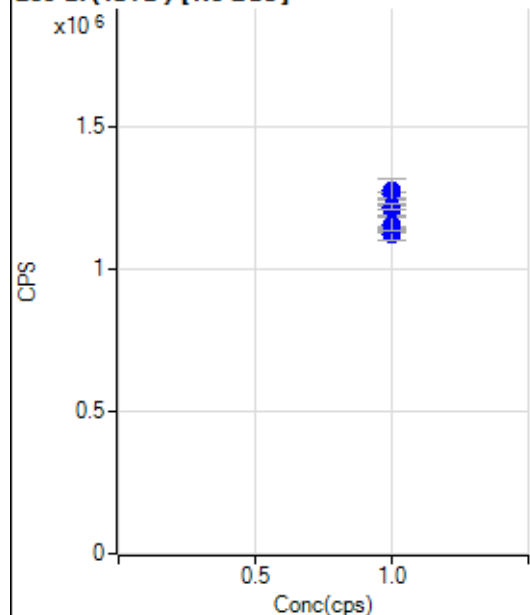
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		856375.99		P	0.8
2	☐	1.000					
3	☐	1.000		844022.85		P	1.2
4	☐	1.000		859466.51		P	0.7
5	☐	1.000		890617.93		P	0.7
6	☐	1.000		956818.01		P	7.5
7	☐	1.000		949874.96		P	3.3
8	☐	1.000		947502.14		P	0.8
9	☐	1.000		907742.09		P	4.7

165 Ho (ISTD) [No Gas]

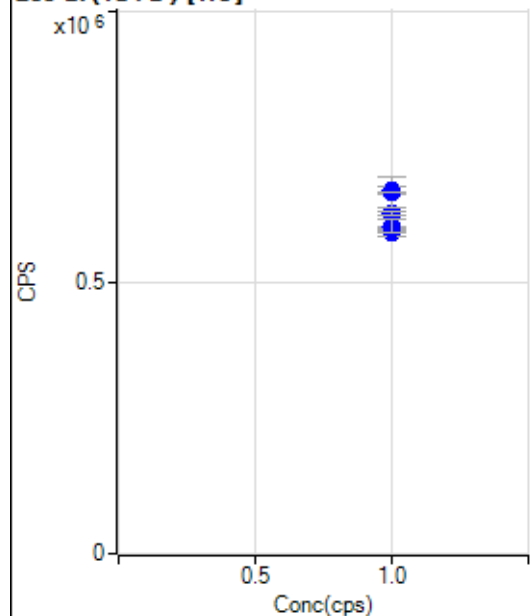
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		2095644.69		A	1.6
2	☐	1.000					
3	☐	1.000		2036333.64		A	4.2
4	☐	1.000		2133895.99		A	3.5
5	☐	1.000		2187763.50		A	2.1
6	☐	1.000		2243070.34		A	4.3
7	☐	1.000		2363154.85		A	1.4
8	☐	1.000		2361452.20		A	6.9
9	☐	1.000		2390729.20		A	1.9

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	1.000		837853.66		P	1.9
2	☐	1.000					
3	☐	1.000		832088.56		P	2.3
4	☐	1.000		841741.95		P	0.7
5	☐	1.000		875674.01		P	0.6
6	☐	1.000		942248.46		P	8.7
7	☐	1.000		945089.42		P	2.2
8	☐	1.000		951625.01		P	0.8
9	☐	1.000		902430.63		P	5.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1141036.42		P	1.3
2	☐	1.000					
3	☐	1.000		1124807.76		P	4.0
4	☐	1.000		1160808.18		P	4.1
5	☐	1.000		1210682.54		P	2.9
6	☐	1.000		1220867.96		P	4.3
7	☐	1.000		1264942.70		P	1.4
8	☐	1.000		1277545.72		P	7.0
9	☐	1.000		1221143.23		P	1.6

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		597731.03		P	1.0
2	☐	1.000					
3	☐	1.000		591982.01		P	2.2
4	☐	1.000		597927.12		P	0.6
5	☐	1.000		626557.50		P	0.7
6	☐	1.000		665238.64		P	8.6
7	☐	1.000		668345.20		P	2.1
8	☐	1.000		665082.91		P	0.2
9	☐	1.000		603950.24		P	4.6

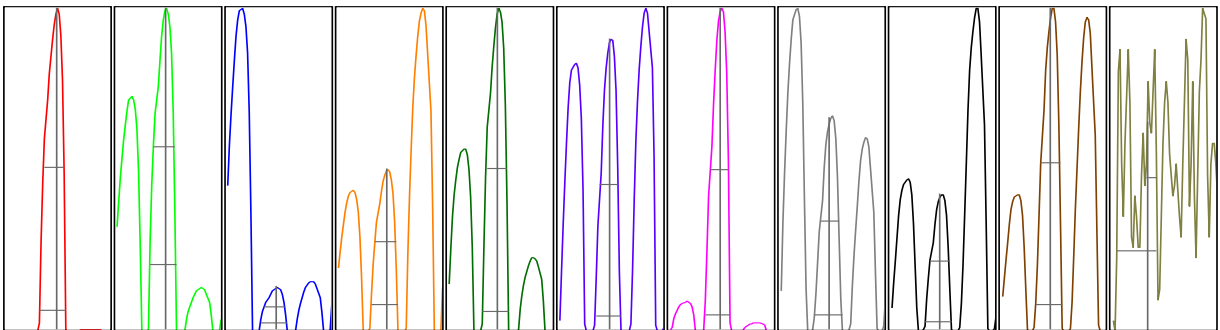
US EPA Tune Check Sample Report

Batch Folder D:\P8022219-MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	4626	1.00	5.00	
24	47328	1.10	5.00	
25	6471	0.95	5.00	
26	7641	2.02	5.00	
59	32883	1.24	5.00	
113	3107	0.57	5.00	
115	37814	0.36	5.00	
206	5030	0.68	5.00	
207	4560	0.78	5.00	
208	10659	1.14	5.00	
220	2	7.35		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	4649	4680	4642	4562	4597
24	47710	47788	47584	46613	46945
25	6484	6540	6503	6378	6449
26	7742	7805	7704	7492	7463
59	33106	33374	32943	32307	32685
113	3129	3111	3098	3082	3113
115	37855	37716	37939	37628	37931
206	5069	5039	5050	5003	4986
207	4573	4614	4552	4534	4525
208	10679	10752	10787	10493	10584
220	2	2	2	2	2

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	8479	9.00	8.9 - 9.1		0.737	0.900	
24	84713	23.95	23.9 - 24.1		0.735	0.900	
25	11372	24.95	24.9 - 25.1		0.738	0.900	
26	13054	25.95	25.9 - 26.1		0.744	0.900	
59	60778	58.95	58.9 - 59.1		0.734	0.900	
113	6179	113.00	112.9 - 113.1		0.728	0.900	
115	74639	115.00	114.9 - 115.1		0.720	0.900	
206	9669	205.95	205.9 - 206.1		0.772	0.900	
207	8749	206.95	206.9 - 207.1		0.732	0.900	
208	20682	207.95	207.9 - 208.1		0.738	0.900	
220	2	219.60	-		1.132		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.8	V	Deflect	14.8	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-120	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	5897	1.40	
89	2526	1.17	
205	4390	0.80	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	5976	5873	5805	5991	5841
89	2561	2505	2505	2555	2502
205	4448	4382	4373	4391	4355

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	9.8	V	Deflect	3.6	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-120	V	Cell Exit	-60	V			

Cell Parameters

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