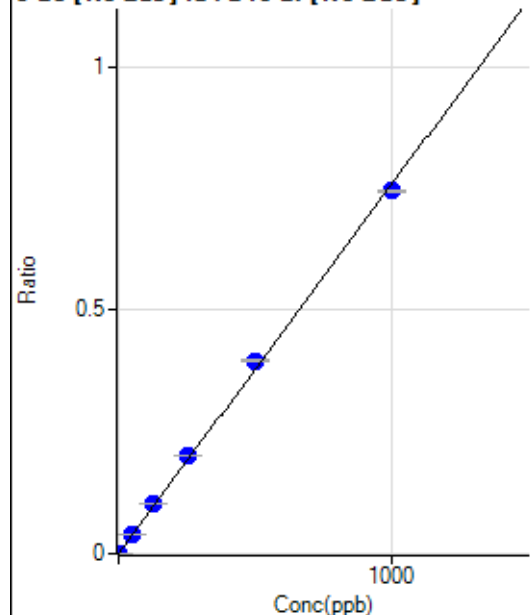


Batch Folder: D:\ICP-MS Data\P7052619-MS.b\
Analysis File: P7052619-MS.batch.bin
DA Date-Time: 2019-05-27 02:45:38
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-05-26 14:20:48
2	004CALS.d	S01	2019-05-26 14:24:24
3	005CALS.d	S02	2019-05-26 14:29:06
4	006CALS.d	S03	2019-05-26 14:33:02
5	007CALS.d	S04	2019-05-26 14:37:13
6	008CALS.d	S05	2019-05-26 14:41:04
7	009CALS.d	S06	2019-05-26 14:44:53
8	010CALS.d	S07	2019-05-26 14:48:40
9	011CALS.d	S08	2019-05-26 14:52:26

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	124.45	0.0000	P	8.3
2	☐	0.100	0.083	293.34	0.0001	P	5.1
3	☐	1.000	0.988	2177.97	0.0008	P	3.0
4	☐	50.000	54.281	110995.74	0.0411	P	0.3
5	☐	125.000	135.036	264614.09	0.1023	P	0.2
6	☐	250.000	266.567	497142.08	0.2019	P	0.5
7	☐	500.000	522.662	959357.65	0.3958	P	0.7
8	☐	1000.000	983.059	1793433.34	0.7443	P	0.3
9	☐			361.12	0.0002	P	19.3

$$y = 7.5710E-004 * x + 4.5520E-005$$

$$R = 0.9994$$

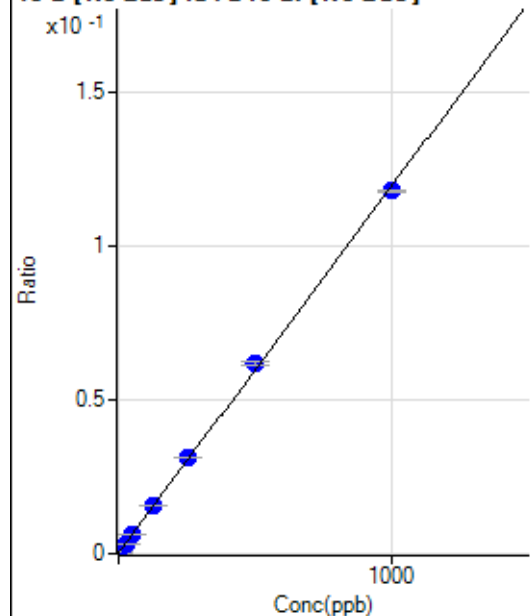
$$DL = 0.01496$$

$$BEC = 0.06012$$

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	575.04	0.0002	P	8.1
2	☐	2.500	2.316	1316.78	0.0005	P	6.4
3	☐	25.000	23.950	8413.78	0.0031	P	3.3
4	☐	50.000	51.541	17152.07	0.0064	P	1.6
5	☐	125.000	128.986	40343.70	0.0156	P	0.5
6	☐	250.000	260.651	77077.13	0.0313	P	1.5
7	☐	500.000	518.447	150409.15	0.0620	P	1.5
8	☐	1000.000	987.565	284316.97	0.1180	P	0.5
9	☐			10520.78	0.0045	P	7.3

$$y = 1.1927E-004 * x + 2.1037E-004$$

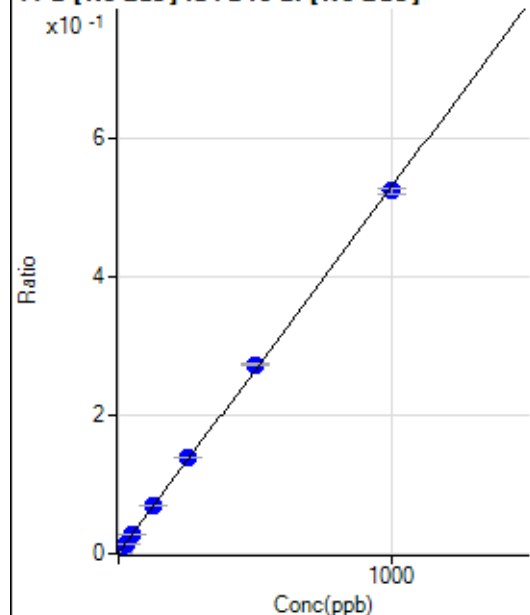
$$R = 0.9997$$

$$DL = 0.4264$$

$$BEC = 1.764$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2591.99	0.0009	P	5.9
2	☐	2.500	2.205	5726.30	0.0021	P	0.9
3	☐	25.000	23.050	36096.71	0.0132	P	0.8
4	☐	50.000	52.430	77479.31	0.0287	P	1.0
5	☐	125.000	129.481	179875.73	0.0695	P	1.4
6	☐	250.000	260.891	342647.74	0.1391	P	1.4
7	☐	500.000	515.417	664107.17	0.2740	P	1.7
8	☐	1000.000	988.937	1264434.35	0.5248	P	1.4
9	☐			46523.09	0.0201	P	7.9

$$y = 5.2967\text{E-}004 * x + 9.4836\text{E-}004$$

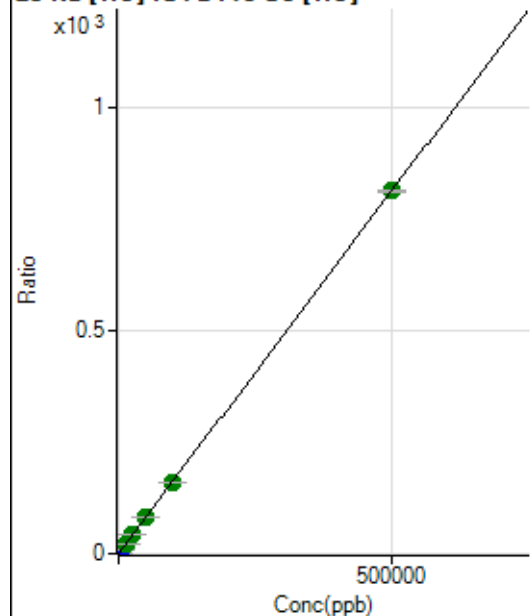
$$R = 0.9997$$

$$DL = 0.3153$$

$$BEC = 1.79$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6696.22	0.0259	P	6.0
2	☐	50.000	44.706	25831.41	0.0987	P	1.0
3	☐	500.000	460.416	201048.16	0.7747	P	1.2
4	☐	5000.000	5119.685	2090282.75	8.3519	P	1.2
5	☐	12500.000	12831.277	4872862.65	20.8929	A	0.1
6	☐	25000.000	25738.642	9473717.57	41.8835	A	0.7
7	☐	50000.000	50984.181	18604893.65	82.9392	A	0.2
8	☐	100000.00	97293.777	35007100.09	158.2504	A	0.6
9	☐	500000.00	500396.45	179880973.4	813.7978	A	0.4

$$y = 0.0016 * x + 0.0259$$

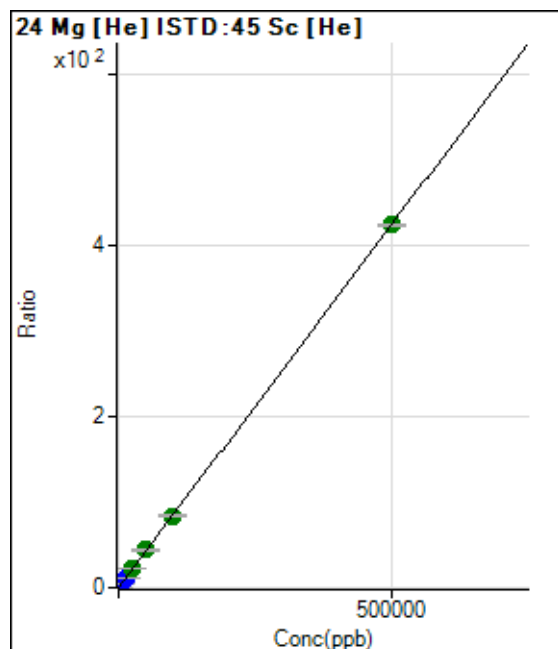
$$R = 1.0000$$

$$DL = 2.862$$

$$BEC = 15.96$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	283.35	0.0011	P	15.9
2	☐	50.000	46.313	10568.05	0.0404	P	2.7
3	☐	500.000	480.664	106032.05	0.4086	P	1.5
4	☐	5000.000	5203.007	1104222.54	4.4119	P	0.4
5	☐	12500.000	13058.323	2582118.35	11.0712	P	0.2
6	☐	25000.000	26244.780	5032785.18	22.2499	A	0.6
7	☐	50000.000	51784.451	9848011.76	43.9010	A	0.5
8	☐	100000.00	99261.961	18615110.14	84.1498	A	0.5
9	☐	500000.00	499890.95	93671737.51	423.7806	A	0.8

$$y = 8.4774\text{E-}004 * x + 0.0011$$

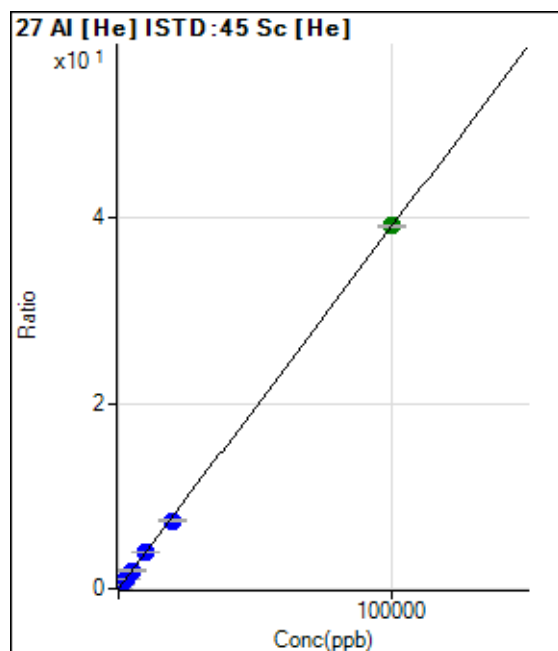
$$R = 1.0000$$

$$DL = 0.6182$$

$$BEC = 1.296$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.33	0.0000	P	99.5
2	☐	2.000	2.172	230.57	0.0009	P	36.5
3	☐	20.000	18.495	1883.53	0.0073	P	5.8
4	☐	1000.000	998.589	97617.32	0.3900	P	0.9
5	☐	2500.000	2521.811	229712.79	0.9849	P	0.9
6	☐	5000.000	5030.850	444427.47	1.9648	P	0.7
7	☐	10000.000	9912.799	868447.48	3.8715	P	0.2
8	☐	20000.000	18837.002	1627441.98	7.3568	P	0.6
9	☐	100000.00	100239.24	8653368.16	39.1485	A	0.4

$$y = 3.9055\text{E-}004 * x + 3.2183\text{E-}005$$

$$R = 0.9999$$

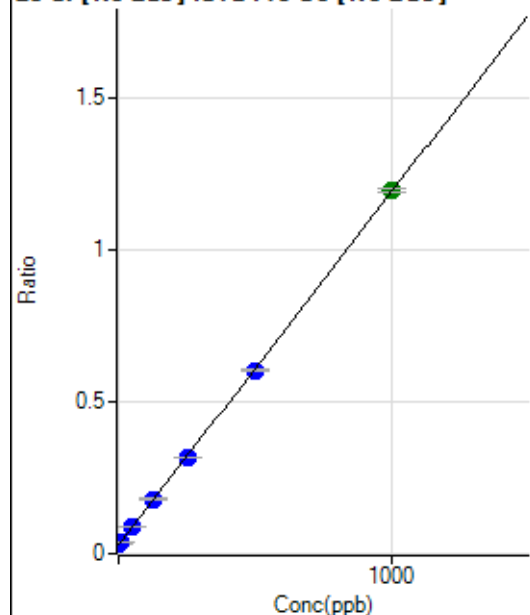
$$DL = 0.246$$

$$BEC = 0.08241$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	162358.58	0.0286	P	0.7
2	☐	1.000	1.933	171118.50	0.0308	P	1.2
3	☐	10.000	9.149	222424.75	0.0392	P	0.4
4	☐	50.000	51.412	485641.62	0.0882	P	0.4
5	☐	125.000	129.064	932126.32	0.1783	P	3.1
6	☐	250.000	246.556	1559817.04	0.3147	P	0.7
7	☐	500.000	494.796	2938669.44	0.6028	P	1.1
8	☐	1000.000	1002.892	5821676.30	1.1924	A	1.1
9	☐			244571.46	0.0521	P	1.5

$$y = 0.0012 * x + 0.0286$$

$$R = 1.0000$$

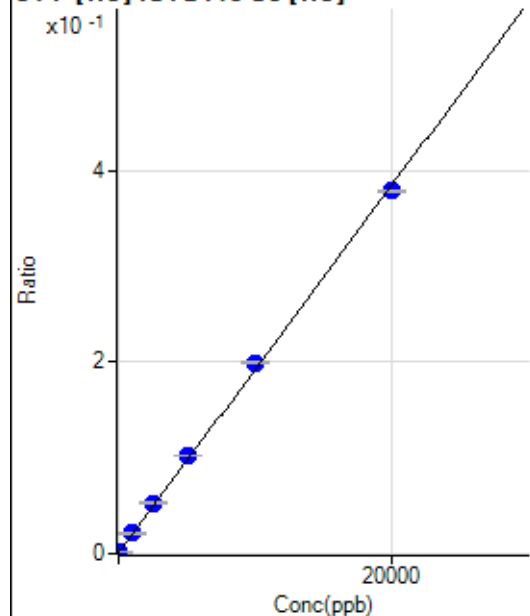
$$DL = 0.5194$$

$$BEC = 24.61$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-15.463	127.79	0.0005	P	3.0
2	☐	0.000	-16.939	122.23	0.0005	P	44.3
3	☐	0.000	32.402	366.69	0.0014	P	7.7
4	☐	1000.000	1062.588	5301.14	0.0212	P	3.5
5	☐	2500.000	2715.953	12338.96	0.0529	P	2.2
6	☐	5000.000	5304.581	23204.90	0.1026	P	1.8
7	☐	10000.000	10352.955	44743.04	0.1995	P	0.7
8	☐	20000.000	19717.254	83874.56	0.3792	P	0.5
9	☐			83.34	0.0004	P	19.8

$$y = 1.9189E-005 * x + 7.9177E-004$$

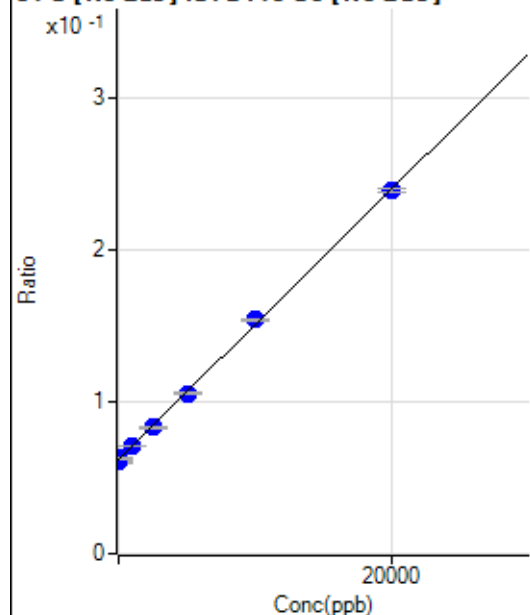
$$R = 0.9996$$

$$DL = 17.27$$

$$BEC = 41.26$$

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	-175.305	343347.72	0.0604	P	0.9
2	☐	0.000	72.879	347828.46	0.0626	P	0.1
3	☐	0.000	102.426	356969.29	0.0629	P	0.3
4	☐	1000.000	1023.898	391380.30	0.0711	P	1.1
5	☐	2500.000	2385.711	435084.45	0.0832	P	0.7
6	☐	5000.000	4882.171	523032.03	0.1055	P	1.7
7	☐	10000.000	10339.783	751899.51	0.1542	P	1.0
8	☐	20000.000	19872.657	1168240.20	0.2393	P	1.1
9	☐			280825.57	0.0598	P	0.8

$$y = 8.9231\text{E-}006 * x + 0.0620$$

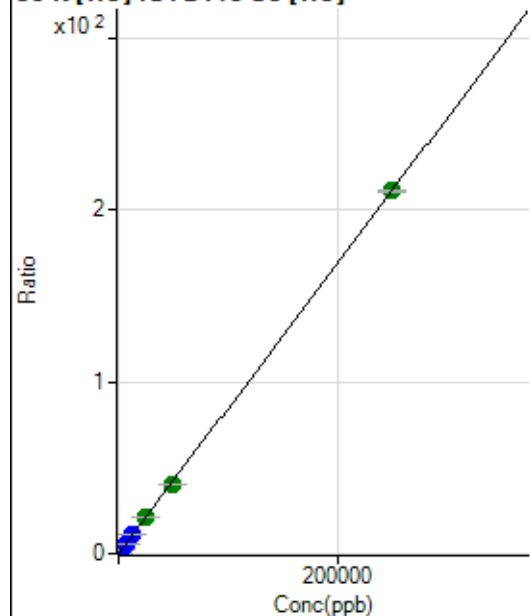
$$R = 0.9997$$

$$DL = 91.89$$

$$BEC = 6944$$

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	16860.24	0.0653	P	3.3
2	☐	50.000	46.099	27281.35	0.1042	P	3.0
3	☐	500.000	458.022	117182.49	0.4516	P	1.9
4	☐	2500.000	2597.929	564663.33	2.2561	P	0.5
5	☐	6250.000	6482.800	1290248.15	5.5322	P	0.4
6	☐	12500.000	12999.578	2494372.95	11.0277	P	0.3
7	☐	25000.000	25418.160	4822942.56	21.5001	A	0.2
8	☐	50000.000	47736.174	8919518.43	40.3206	A	0.4
9	☐	250000.00	250379.25	46684730.91	211.2067	A	0.7

$$y = 8.4329\text{E-}004 * x + 0.0653$$

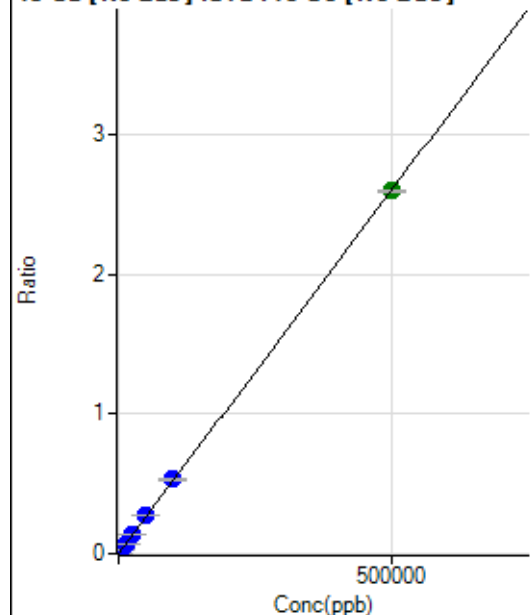
$$R = 0.9999$$

$$DL = 7.774$$

$$BEC = 77.45$$

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	100.00	0.0000	P	14.7
2	☐	50.000	49.708	1536.26	0.0003	P	10.0
3	☐	500.000	484.812	14435.39	0.0025	P	2.7
4	☐	5000.000	5269.522	151171.24	0.0275	P	0.9
5	☐	12500.000	13378.275	364228.33	0.0697	P	0.5
6	☐	25000.000	26570.114	686023.21	0.1384	P	0.6
7	☐	50000.000	52584.671	1335287.78	0.2739	P	0.7
8	☐	100000.00	102234.53	2599483.67	0.5325	P	1.6
9	☐	500000.00	499191.48	12210782.56	2.5999	A	0.4

$$y = 5.2081\text{E-}006 * x + 1.7595\text{E-}005$$

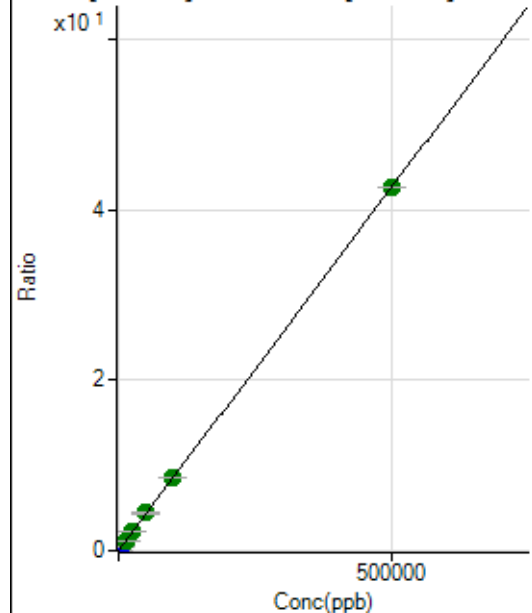
$$R = 1.0000$$

$$DL = 1.493$$

$$BEC = 3.378$$

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	7616.32	0.0013	P	2.0
2	☐	50.000	48.167	30228.97	0.0054	P	0.5
3	☐	500.000	471.570	235599.05	0.0415	P	0.7
4	☐	5000.000	5257.967	2472131.39	0.4491	P	0.1
5	☐	12500.000	13125.999	5848715.93	1.1191	A	0.2
6	☐	25000.000	26242.118	11084106.93	2.2360	A	0.1
7	☐	50000.000	51892.479	21550594.58	4.4203	A	1.2
8	☐	100000.00	101217.89	42087039.13	8.6206	A	1.3
9	☐	500000.00	499486.86	199776741.9	42.5354	A	0.1

$$y = 8.5156\text{E-}005 * x + 0.0013$$

$$R = 1.0000$$

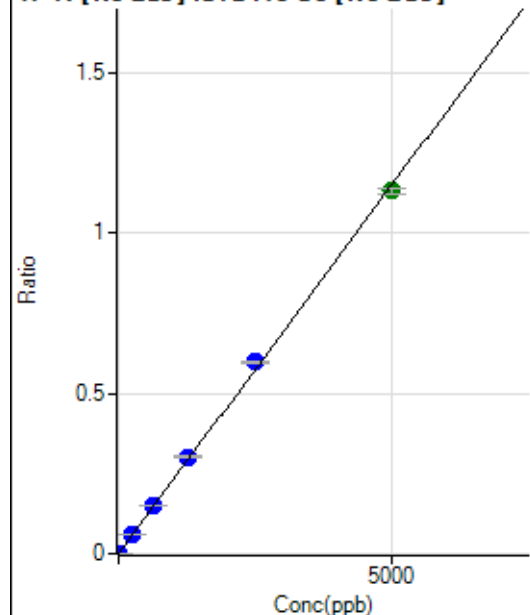
$$DL = 0.9469$$

$$BEC = 15.73$$

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	138.90	0.0000	P	6.6
2	☐	0.500	0.551	838.95	0.0002	P	8.9
3	☐	5.000	5.022	6685.13	0.0012	P	4.3
4	☐	250.000	262.012	331280.28	0.0602	P	1.1
5	☐	625.000	661.534	793902.23	0.1519	P	0.5
6	☐	1250.000	1317.480	1499508.70	0.3025	P	0.4
7	☐	2500.000	2604.888	2915824.54	0.5981	P	0.7
8	☐	5000.000	4925.519	5520885.84	1.1309	A	1.5
9	☐			1855.76	0.0004	P	8.2

$$y = 2.2959\text{E-}004 * x + 2.4428\text{E-}005$$

$$R = 0.9996$$

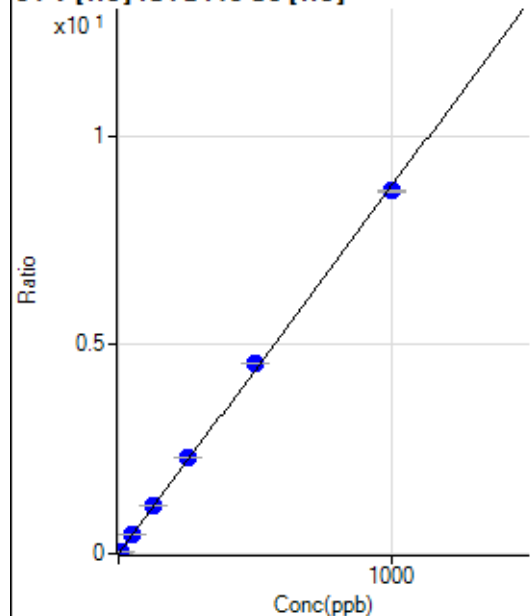
$$DL = 0.02101$$

$$BEC = 0.1064$$

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	7.78	0.0000	P	107.
2	☐	0.500	0.445	1031.16	0.0039	P	6.9
3	☐	5.000	4.920	11227.75	0.0433	P	2.0
4	☐	50.000	52.338	115125.85	0.4600	P	0.9
5	☐	125.000	131.388	269316.79	1.1547	P	0.7
6	☐	250.000	261.884	520589.47	2.3015	P	0.4
7	☐	500.000	517.464	1020125.48	4.5476	P	0.2
8	☐	1000.000	987.382	1919560.34	8.6774	P	0.6
9	☐			388.90	0.0018	P	6.5

$$y = 0.0088 * x + 2.9982\text{E-}005$$

$$R = 0.9997$$

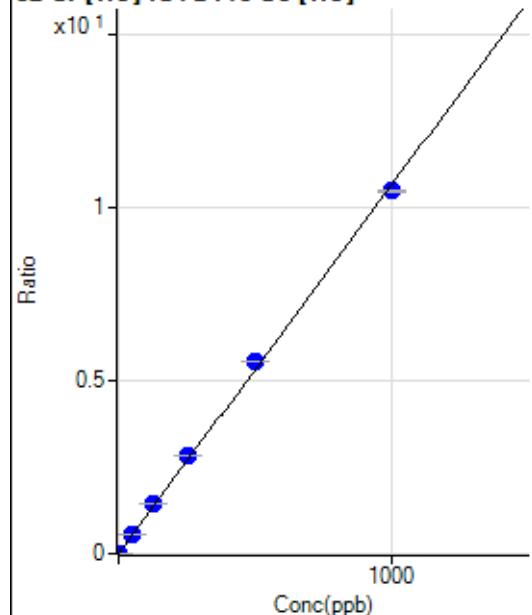
$$DL = 0.011$$

$$BEC = 0.003412$$

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	566.69	0.0022	P	2.4
2	☐	0.200	0.199	1128.95	0.0043	P	2.0
3	☐	2.000	1.939	5916.84	0.0228	P	3.4
4	☐	50.000	53.107	141829.69	0.5667	P	0.7
5	☐	125.000	133.754	332095.16	1.4239	P	0.2
6	☐	250.000	264.348	636064.53	2.8120	P	0.5
7	☐	500.000	521.391	1243650.87	5.5442	P	0.4
8	☐	1000.000	984.468	2315283.73	10.4663	P	0.7
9	☐			15045.63	0.0681	P	1.9

$$y = 0.0106 * x + 0.0022$$

$$R = 0.9995$$

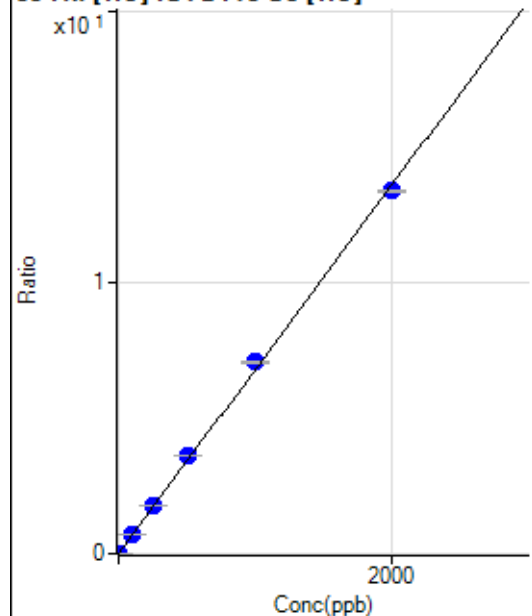
$$DL = 0.01497$$

$$BEC = 0.2066$$

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	44.44	0.0002	P	34.2
2	☐	0.100	0.083	192.23	0.0007	P	6.6
3	☐	1.000	0.982	1774.58	0.0068	P	3.4
4	☐	100.000	105.408	179118.64	0.7157	P	1.2
5	☐	250.000	264.722	419127.82	1.7971	P	0.1
6	☐	500.000	529.817	813497.96	3.5965	P	0.2
7	☐	1000.000	1039.391	1582663.80	7.0554	P	0.2
8	☐	2000.000	1970.740	2959242.53	13.3772	P	0.4
9	☐			10891.96	0.0493	P	1.5

$$y = 0.0068 * x + 1.7197E-004$$

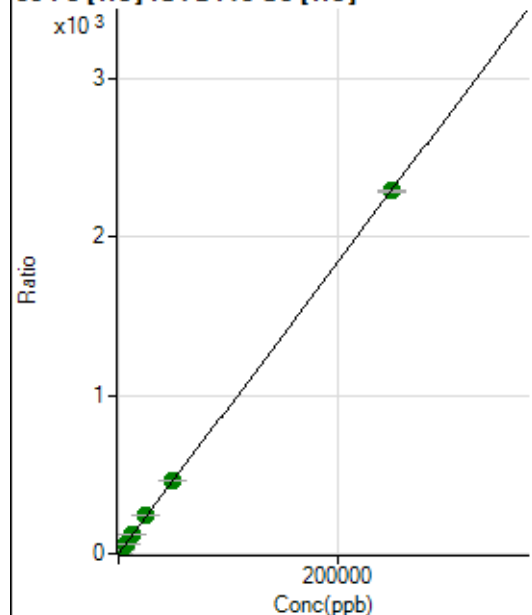
$$R = 0.9996$$

$$DL = 0.02601$$

$$BEC = 0.02534$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3398.64	0.0132	P	2.1
2	☐	5.000	4.851	15091.49	0.0576	P	3.0
3	☐	50.000	50.869	124427.84	0.4794	P	0.7
4	☐	2500.000	2692.946	6181302.28	24.6974	A	1.2
5	☐	6250.000	6808.873	14559407.73	62.4251	A	0.2
6	☐	12500.000	13577.884	28154292.30	124.4717	A	0.7
7	☐	25000.000	26578.678	54652872.05	243.6406	A	0.7
8	☐	50000.000	50179.038	101752166.1	459.9679	A	0.2
9	☐	250000.00	249736.52	505993833.5	2,289.166	A	0.6

$$y = 0.0092 * x + 0.0132$$

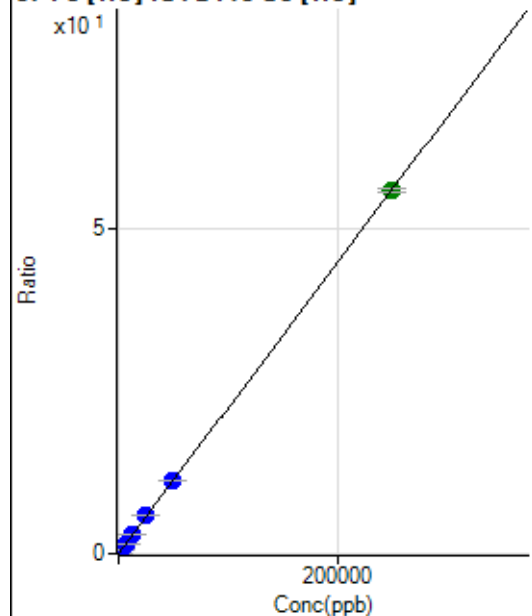
$$R = 1.0000$$

$$DL = 0.09032$$

$$BEC = 1.436$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	153.71	0.0006	P	18.2
2	☐	5.000	4.130	398.17	0.0015	P	15.0
3	☐	50.000	52.504	3207.85	0.0124	P	1.7
4	☐	2500.000	2712.575	152254.36	0.6083	P	1.3
5	☐	6250.000	6830.808	357071.68	1.5310	P	0.7
6	☐	12500.000	13628.517	690792.48	3.0540	P	0.4
7	☐	25000.000	26598.910	1336962.29	5.9600	P	0.4
8	☐	50000.000	50294.709	2492853.96	11.2689	P	0.5
9	☐	250000.00	249708.09	12366372.96	55.9468	A	0.9

$$y = 2.2405E-004 * x + 5.9529E-004$$

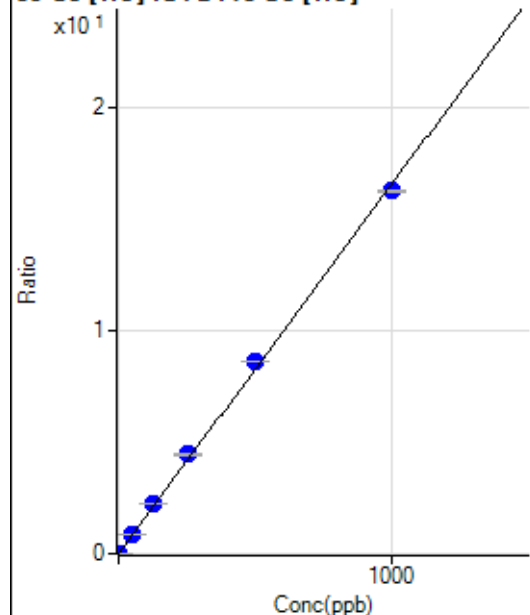
$$R = 1.0000$$

$$DL = 1.454$$

$$BEC = 2.657$$

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	60.00	0.0002	P	24.2
2	☐	0.100	0.102	504.46	0.0019	P	5.0
3	☐	1.000	0.969	4227.35	0.0163	P	5.1
4	☐	50.000	54.123	224507.14	0.8970	P	1.2
5	☐	125.000	135.932	525364.66	2.2526	P	0.4
6	☐	250.000	268.468	1006249.50	4.4486	P	0.3
7	☐	500.000	521.738	1939290.79	8.6452	P	0.2
8	☐	1000.000	982.941	3602934.15	16.2871	P	0.4
9	☐			42367.79	0.1917	P	0.7

$$y = 0.0166 * x + 2.3246E-004$$

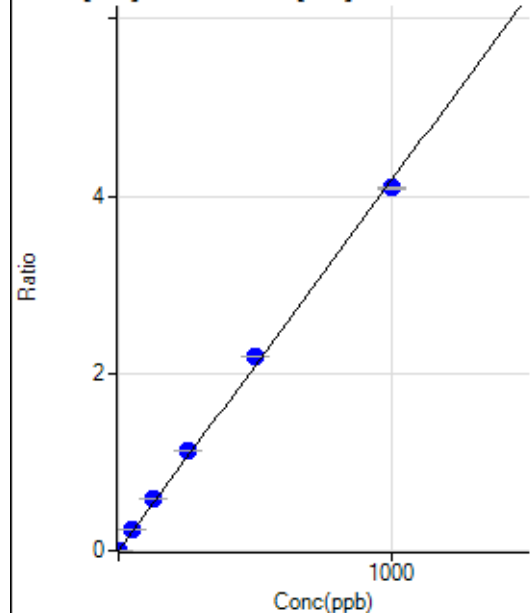
$$R = 0.9994$$

$$DL = 0.0102$$

$$BEC = 0.01403$$

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	76.67	0.0003	P	3.9
2	☐	0.100	0.120	208.89	0.0008	P	2.4
3	☐	1.000	1.034	1196.74	0.0046	P	1.8
4	☐	50.000	55.750	58318.82	0.2330	P	0.1
5	☐	125.000	137.801	134227.21	0.5755	P	0.2
6	☐	250.000	270.953	255898.06	1.1313	P	0.2
7	☐	500.000	526.054	492643.68	2.1962	P	0.2
8	☐	1000.000	979.847	904860.85	4.0904	P	0.3
9	☐			11046.55	0.0500	P	0.9

$$y = 0.0042 * x + 2.9703E-004$$

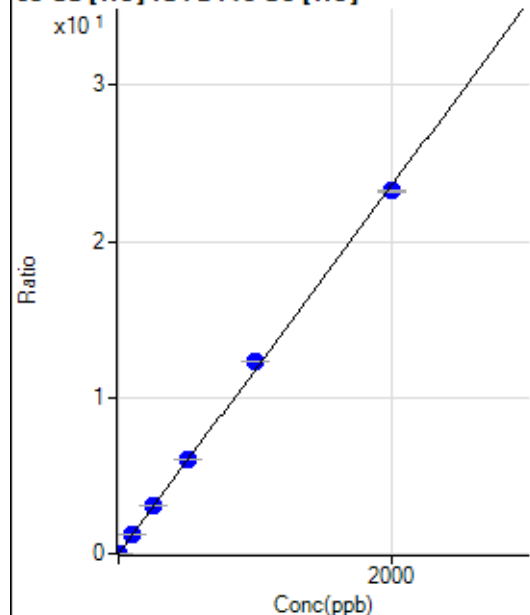
$$R = 0.9992$$

$$DL = 0.008292$$

$$BEC = 0.07116$$

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	507.79	0.0020	P	8.1
2	☐	0.200	0.216	1181.18	0.0045	P	8.7
3	☐	2.000	1.865	6211.42	0.0239	P	3.8
4	☐	100.000	104.267	307838.08	1.2300	P	1.0
5	☐	250.000	259.145	712278.77	3.0540	P	0.2
6	☐	500.000	510.866	1361344.56	6.0186	P	0.5
7	☐	1000.000	1047.106	2766753.99	12.3340	P	0.5
8	☐	2000.000	1972.374	5139049.92	23.2312	P	0.6
9	☐			6174.72	0.0279	P	1.6

$$y = 0.0118 * x + 0.0020$$

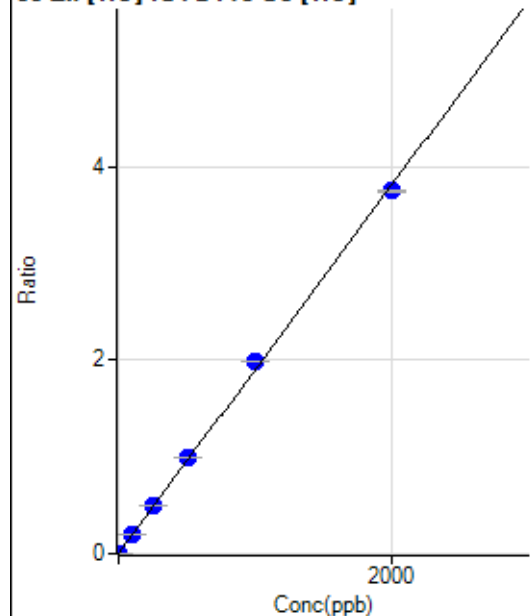
$$R = 0.9996$$

$$DL = 0.04085$$

$$BEC = 0.1671$$

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	324.46	0.0013	P	5.3
2	☐	0.200	0.209	433.35	0.0017	P	18.7
3	☐	2.000	1.887	1257.85	0.0048	P	4.5
4	☐	100.000	104.111	49877.28	0.1993	P	0.9
5	☐	250.000	263.390	117135.88	0.5022	P	0.6
6	☐	500.000	519.483	223785.39	0.9894	P	0.5
7	☐	1000.000	1045.880	446532.99	1.9906	P	0.5
8	☐	2000.000	1970.310	829327.73	3.7490	P	0.6
9	☐			7268.58	0.0329	P	0.6

$$y = 0.0019 * x + 0.0013$$

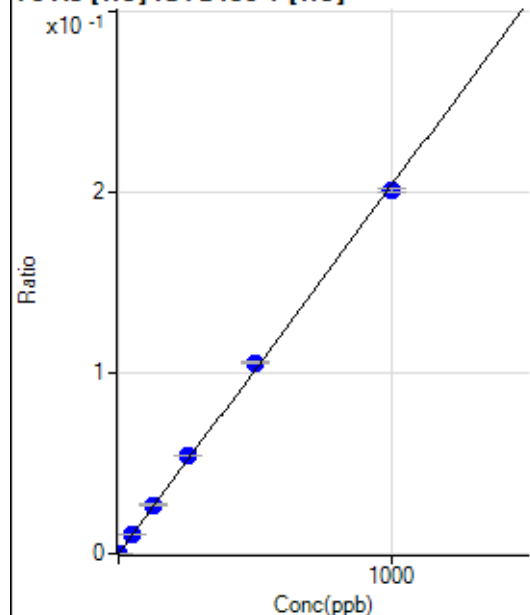
$$R = 0.9996$$

$$DL = 0.1042$$

$$BEC = 0.6607$$

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	1.85	0.0000	P	100.
2	☐	0.100	0.114	35.80	0.0000	P	26.5
3	☐	1.000	0.985	292.60	0.0002	P	6.0
4	☐	50.000	54.088	15568.29	0.0110	P	1.6
5	☐	125.000	132.867	36169.56	0.0271	P	0.6
6	☐	250.000	264.692	69950.32	0.0540	P	0.4
7	☐	500.000	519.488	136306.81	0.1060	P	0.5
8	☐	1000.000	985.395	254208.51	0.2010	P	0.9
9	☐			362.35	0.0003	P	18.1

$$y = 2.0398\text{E-}004 * x + 1.2867\text{E-}006$$

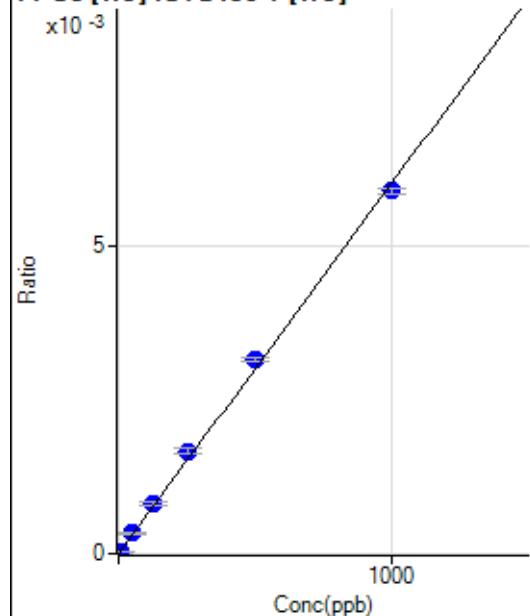
$$R = 0.9996$$

$$DL = 0.01894$$

$$BEC = 0.006308$$

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	0.127	1.11	0.0000	P	173.
3	☐	5.000	4.873	42.22	0.0000	P	24.0
4	☐	50.000	56.301	476.68	0.0003	P	11.3
5	☐	125.000	133.636	1070.06	0.0008	P	8.2
6	☐	250.000	276.566	2149.09	0.0017	P	4.9
7	☐	500.000	523.631	4040.62	0.0031	P	1.5
8	☐	1000.000	980.149	7436.46	0.0059	P	1.5
9	☐			2.22	0.0000	P	86.6

$$y = 5.9991\text{E-}006 * x + 0.0000\text{E+}000$$

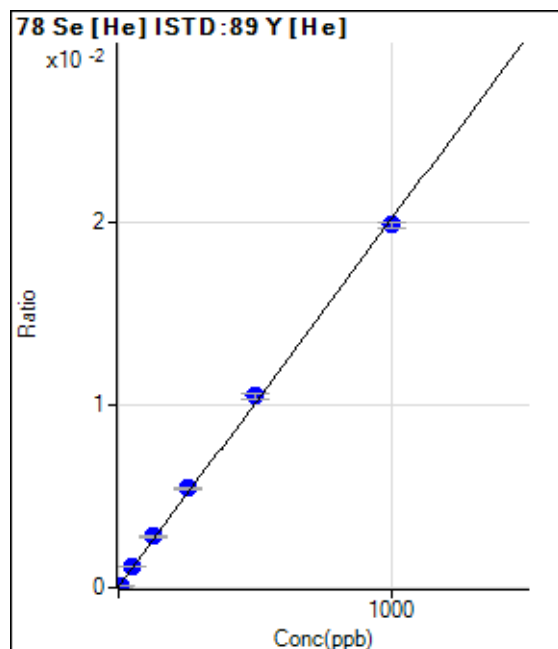
$$R = 0.9992$$

$$DL = 0$$

$$BEC = 0$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	68.52	0.0000	P	4.9
2	☐	0.500	-0.168	64.20	0.0000	P	15.8
3	☐	5.000	4.930	212.35	0.0001	P	3.4
4	☐	50.000	56.016	1659.37	0.0012	P	2.2
5	☐	125.000	137.040	3747.43	0.0028	P	2.9
6	☐	250.000	267.460	7043.12	0.0054	P	1.2
7	☐	500.000	518.950	13510.67	0.0105	P	2.5
8	☐	1000.000	984.355	25142.17	0.0199	P	1.5
9	☐			46.91	0.0000	P	18.5

$$y = 2.0148\text{E-}005 * x + 4.7466\text{E-}005$$

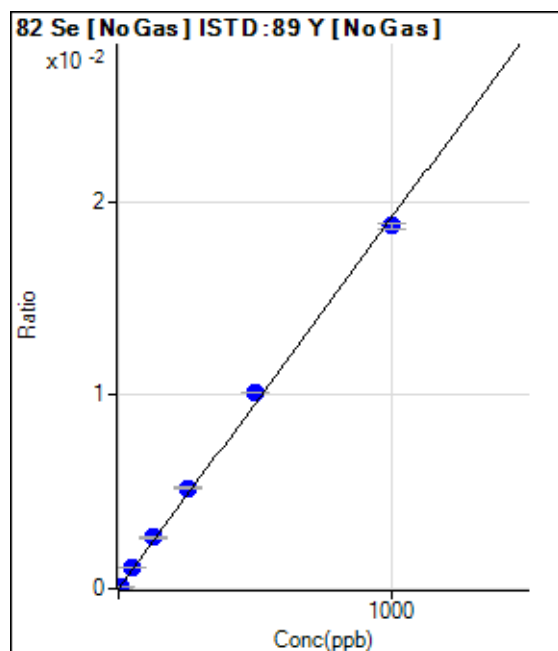
$$R = 0.9995$$

$$DL = 0.3465$$

$$BEC = 2.356$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	-20.17	0.0000	P	-43.
2	☐	0.500	0.949	143.25	0.0000	P	39.3
3	☐	5.000	5.770	985.24	0.0001	P	8.0
4	☐	50.000	55.994	9555.16	0.0011	P	1.9
5	☐	125.000	137.563	22542.90	0.0026	P	0.5
6	☐	250.000	271.413	42812.02	0.0052	P	1.4
7	☐	500.000	528.381	82455.26	0.0101	P	0.7
8	☐	1000.000	978.582	153084.99	0.0188	P	1.5
9	☐			91.56	0.0000	P	54.7

$$y = 1.9187\text{E-}005 * x - 2.2545\text{E-}006$$

$$R = 0.9991$$

$$DL = 0.1545$$

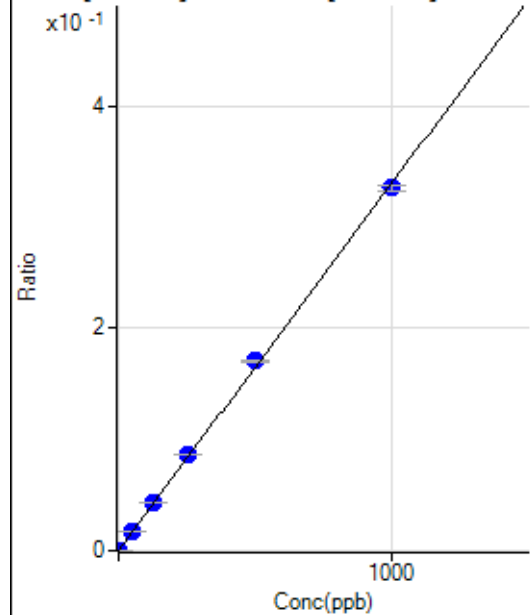
$$BEC = -0.1175$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			388.90		P	6.2
2	☐			330.01		P	19.2
3	☐			366.68		P	15.5
4	☐			317.79		P	11.6
5	☐			305.56		P	10.9
6	☐			282.23		P	7.6
7	☐			284.45		P	8.0
8	☐			255.56		P	5.3
9	☐			316.68		P	11.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	666.71	0.0001	P	3.9
2	☐	0.100	0.055	830.62	0.0001	P	6.7
3	☐	1.000	0.880	3311.66	0.0004	P	7.3
4	☐	50.000	52.230	154193.20	0.0173	P	0.4
5	☐	125.000	129.781	366540.77	0.0429	P	0.5
6	☐	250.000	260.634	707639.04	0.0860	P	0.9
7	☐	500.000	516.210	1385671.71	0.1703	P	0.4
8	☐	1000.000	988.527	2659160.91	0.3261	P	1.5
9	☐			10924.05	0.0014	P	3.5

$$y = 3.2982\text{E-}004 * x + 7.4388\text{E-}005$$

$$R = 0.9997$$

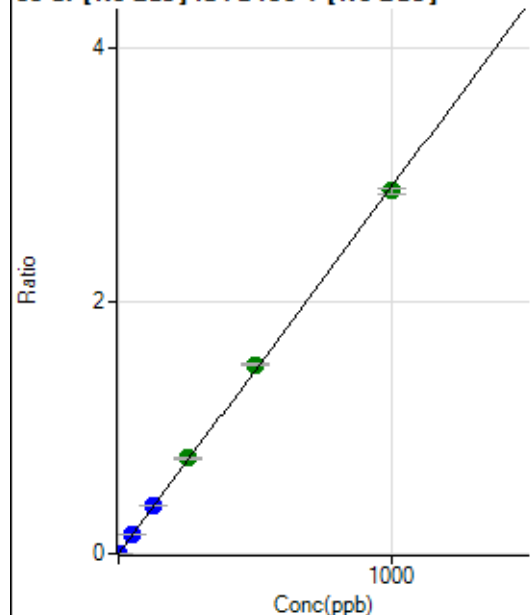
$$DL = 0.02659$$

$$BEC = 0.2255$$

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	94.45	0.0000	P	10.8
2	☐	0.100	0.091	2475.33	0.0003	P	7.9
3	☐	1.000	0.923	24446.70	0.0027	P	1.5
4	☐	50.000	51.855	1342562.01	0.1506	P	0.6
5	☐	125.000	131.232	3258695.49	0.3812	P	0.5
6	☐	250.000	260.094	6214308.51	0.7555	A	0.7
7	☐	500.000	515.261	12176341.94	1.4967	A	0.6
8	☐	1000.000	988.975	23425265.45	2.8728	A	1.6
9	☐			91661.92	0.0118	P	1.5

$$y = 0.0029 * x + 1.0542E-005$$

$$R = 0.9998$$

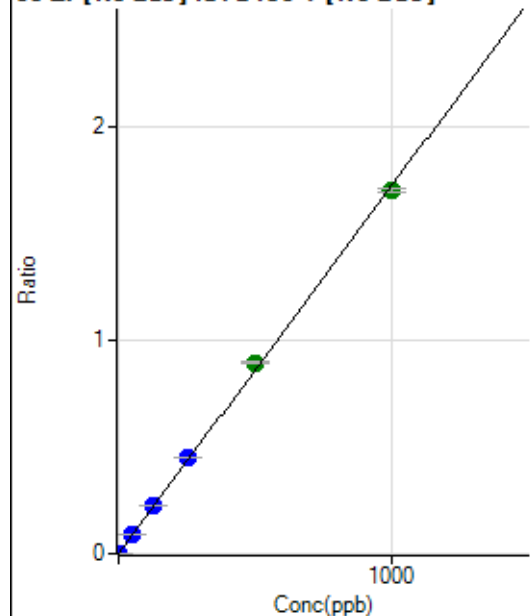
$$DL = 0.001176$$

$$BEC = 0.003629$$

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	763.94	0.0001	P	10.4
2	☐	0.100	0.079	1989.12	0.0002	P	5.3
3	☐	1.000	0.886	14666.32	0.0016	P	1.5
4	☐	50.000	51.947	799581.27	0.0897	P	0.2
5	☐	125.000	130.874	1931063.82	0.2259	P	0.3
6	☐	250.000	262.201	3721772.78	0.4525	P	0.5
7	☐	500.000	518.590	7279645.65	0.8949	A	0.9
8	☐	1000.000	986.823	13884992.15	1.7028	A	1.2
9	☐			3867.38	0.0005	P	6.7

$$y = 0.0017 * x + 8.5259E-005$$

$$R = 0.9997$$

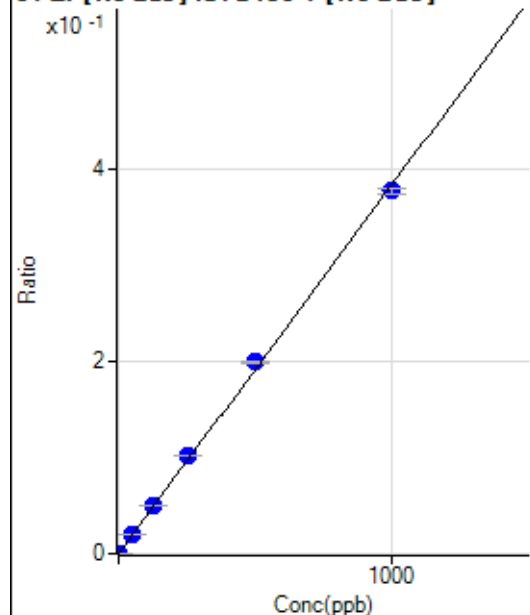
$$DL = 0.01545$$

$$BEC = 0.04941$$

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	194.45	0.0000	P	21.3
2	☐	0.100	0.086	491.69	0.0001	P	12.0
3	☐	1.000	0.890	3292.20	0.0004	P	7.5
4	☐	50.000	52.530	179434.85	0.0201	P	0.8
5	☐	125.000	131.783	431460.27	0.0505	P	0.5
6	☐	250.000	264.955	834534.68	0.1015	P	0.2
7	☐	500.000	520.814	1622238.03	0.1994	P	0.9
8	☐	1000.000	984.880	3074865.65	0.3771	P	1.3
9	☐			758.39	0.0001	P	15.6

$$y = 3.8285\text{E-}004 * x + 2.1674\text{E-}005$$

$$R = 0.9996$$

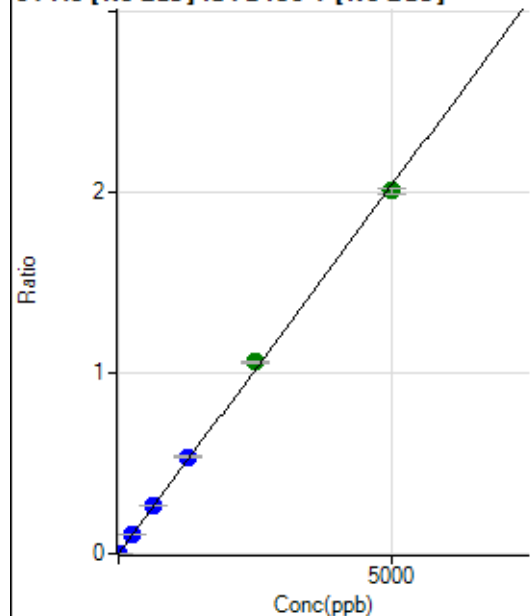
$$DL = 0.03623$$

$$BEC = 0.05661$$

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	305.57	0.0000	P	20.0
2	☐	0.500	0.474	2041.90	0.0002	P	2.0
3	☐	5.000	4.722	17786.74	0.0020	P	3.9
4	☐	250.000	259.901	944005.80	0.1059	P	0.8
5	☐	625.000	660.203	2299490.13	0.2690	P	0.3
6	☐	1250.000	1317.340	4414617.89	0.5367	P	0.6
7	☐	2500.000	2599.998	8617309.48	1.0593	A	0.6
8	☐	5000.000	4928.271	16372185.96	2.0078	A	1.6
9	☐			7496.68	0.0010	P	3.5

$$y = 4.0741\text{E-}004 * x + 3.4103\text{E-}005$$

$$R = 0.9996$$

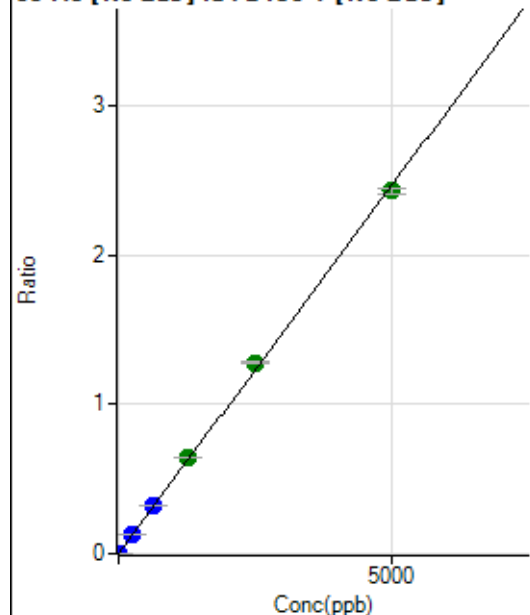
$$DL = 0.05034$$

$$BEC = 0.08371$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	113.90	0.0000	P	28.2
2	☐	0.500	0.507	2361.41	0.0003	P	9.8
3	☐	5.000	4.804	21639.41	0.0024	P	0.2
4	☐	250.000	262.030	1152008.87	0.1293	P	0.6
5	☐	625.000	661.637	2789764.45	0.3264	P	0.4
6	☐	1250.000	1307.216	5303456.46	0.6448	A	0.6
7	☐	2500.000	2599.331	10429684.52	1.2821	A	1.2
8	☐	5000.000	4930.849	19831908.08	2.4321	A	1.6
9	☐			10712.85	0.0014	P	6.3

$$y = 4.9325E-004 * x + 1.2717E-005$$

$$R = 0.9996$$

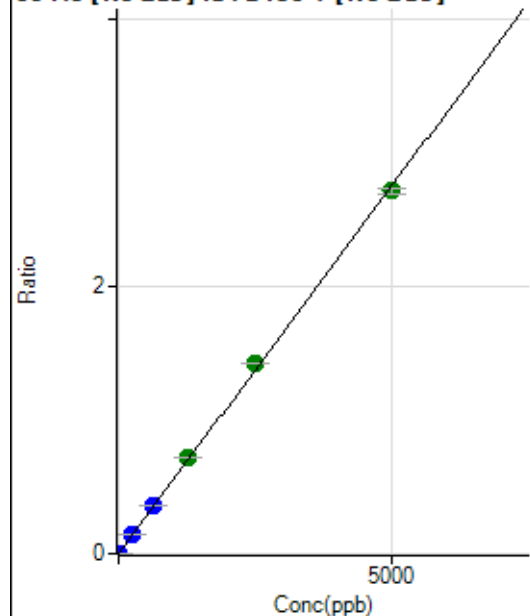
$$DL = 0.0218$$

$$BEC = 0.02578$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0000	P	3.3
2	☐	0.500	0.466	2430.88	0.0003	P	3.1
3	☐	5.000	4.862	24391.10	0.0027	P	1.4
4	☐	250.000	261.148	1278505.62	0.1435	P	0.5
5	☐	625.000	660.059	3099092.60	0.3626	P	0.5
6	☐	1250.000	1307.196	5905598.18	0.7180	A	0.5
7	☐	2500.000	2587.146	11559973.18	1.4210	A	0.5
8	☐	5000.000	4937.188	22112431.57	2.7118	A	1.5
9	☐			14318.89	0.0018	P	2.7

$$y = 5.4925E-004 * x + 1.4564E-005$$

$$R = 0.9997$$

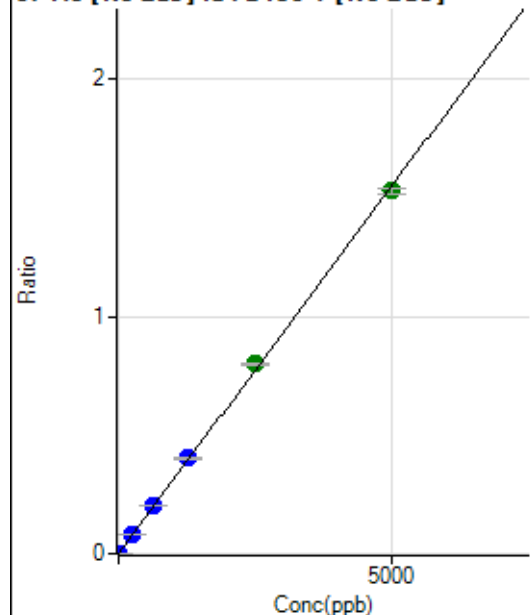
$$DL = 0.002653$$

$$BEC = 0.02652$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	66.67	0.0000	P	12.6
2	☐	0.500	0.520	1511.25	0.0002	P	6.4
3	☐	5.000	4.839	13673.75	0.0015	P	3.0
4	☐	250.000	259.539	716024.86	0.0803	P	0.8
5	☐	625.000	657.589	1739892.31	0.2035	P	0.6
6	☐	1250.000	1302.093	3314786.71	0.4030	P	1.3
7	☐	2500.000	2585.399	6509935.39	0.8002	A	0.8
8	☐	5000.000	4939.727	12467548.37	1.5289	A	1.3
9	☐			6162.69	0.0008	P	3.7

$$y = 3.0952E-004 * x + 7.4382E-006$$

$$R = 0.9997$$

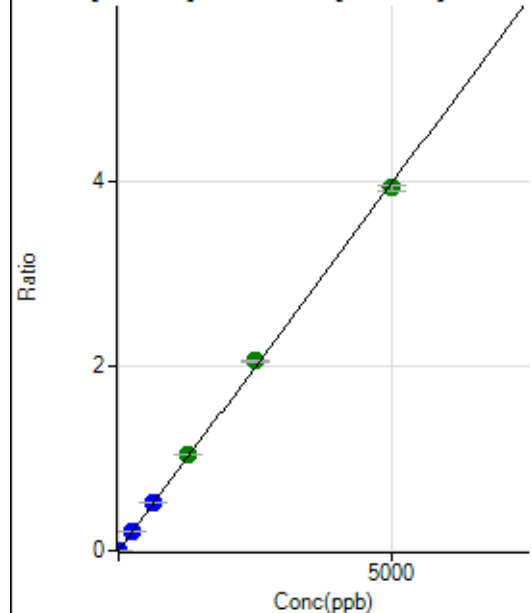
$$DL = 0.009114$$

$$BEC = 0.02403$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.56	0.0000	P	18.8
2	☐	0.500	0.482	3603.38	0.0004	P	6.3
3	☐	5.000	4.888	35559.19	0.0039	P	1.9
4	☐	250.000	261.327	1857178.88	0.2084	P	0.9
5	☐	625.000	659.721	4496620.81	0.5260	P	0.1
6	☐	1250.000	1305.637	8562220.07	1.0410	A	1.2
7	☐	2500.000	2582.377	16750013.91	2.0590	A	0.9
8	☐	5000.000	4939.996	32118544.81	3.9388	A	1.3
9	☐			16373.92	0.0021	P	4.7

$$y = 7.9733E-004 * x + 1.7352E-005$$

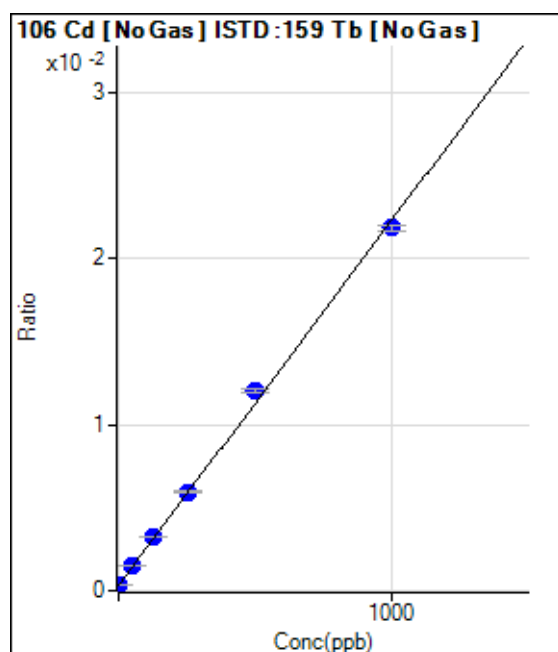
$$R = 0.9997$$

$$DL = 0.01225$$

$$BEC = 0.02176$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3784.00	0.0003	P	9.9
2	☐	0.100	0.151	3784.03	0.0003	P	2.8
3	☐	1.000	0.610	3967.39	0.0003	P	5.1
4	☐	50.000	53.823	18173.40	0.0015	P	5.4
5	☐	125.000	133.462	38935.28	0.0032	P	2.0
6	☐	250.000	256.453	70450.70	0.0059	P	0.9
7	☐	500.000	534.118	142742.69	0.0120	P	1.3
8	☐	1000.000	980.079	261585.26	0.0218	P	1.6
9	☐			3369.99	0.0003	P	0.5

$$y = 2.1966\text{E-}005 * x + 3.0811\text{E-}004$$

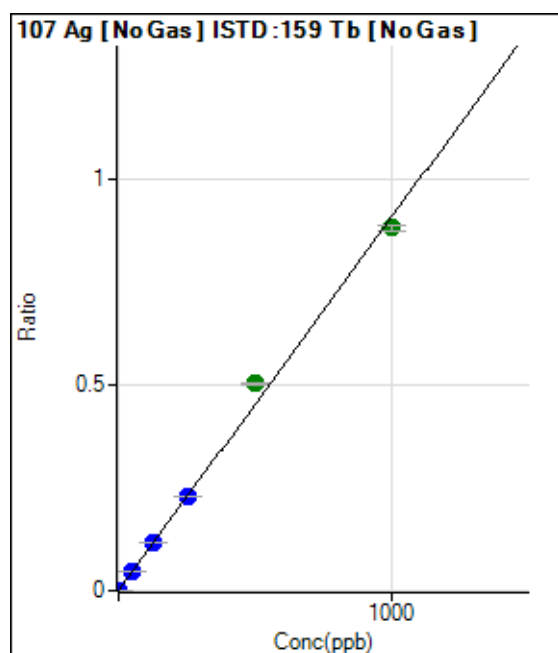
$$R = 0.9991$$

$$DL = 4.164$$

$$BEC = 14.03$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	144.45	0.0000	P	18.4
2	☐	0.100	0.102	1264.00	0.0001	P	12.7
3	☐	1.000	1.028	11666.35	0.0009	P	2.6
4	☐	50.000	53.477	592288.58	0.0486	P	0.4
5	☐	125.000	129.126	1409270.48	0.1173	P	0.5
6	☐	250.000	250.864	2701334.00	0.2278	P	0.6
7	☐	500.000	554.504	5969607.47	0.5035	A	0.9
8	☐	1000.000	971.843	10571873.15	0.8825	A	1.3
9	☐			830.61	0.0001	P	10.4

$$y = 9.0807\text{E-}004 * x + 1.1761\text{E-}005$$

$$R = 0.9979$$

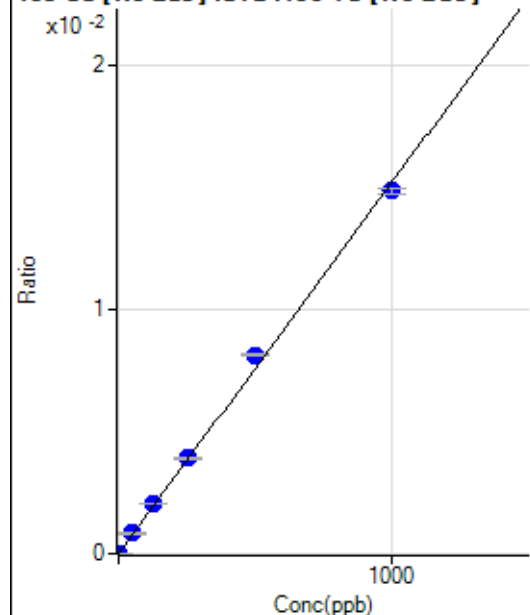
$$DL = 0.007157$$

$$BEC = 0.01295$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	5.56	0.0000	P	114.
2	☐	0.100	0.136	30.55	0.0000	P	15.7
3	☐	1.000	0.876	169.45	0.0000	P	10.0
4	☐	50.000	54.549	10092.66	0.0008	P	0.9
5	☐	125.000	132.949	24234.79	0.0020	P	0.5
6	☐	250.000	257.098	46233.75	0.0039	P	1.6
7	☐	500.000	536.586	96476.82	0.0081	P	1.1
8	☐	1000.000	978.711	177795.19	0.0148	P	1.8
9	☐			38.89	0.0000	P	26.6

$$y = 1.5165\text{E-}005 * x + 4.5194\text{E-}007$$

$$R = 0.9990$$

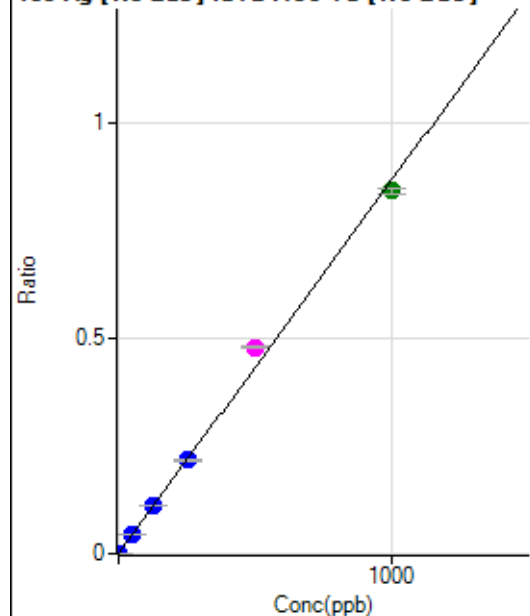
$$DL = 0.1024$$

$$BEC = 0.0298$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.11	0.0000	P	14.7
2	☐	0.100	0.105	1194.55	0.0001	P	4.0
3	☐	1.000	1.049	11291.10	0.0009	P	1.4
4	☐	50.000	53.363	563453.86	0.0462	P	0.1
5	☐	125.000	129.925	1351927.60	0.1125	P	0.9
6	☐	250.000	250.278	2569460.10	0.2167	P	0.6
7	☐	500.000	553.915	5685588.23	0.4796	M	0.9
8	☐	1000.000	972.189	10083151.27	0.8417	A	1.4
9	☐			708.38	0.0001	P	16.8

$$y = 8.6578\text{E-}004 * x + 7.0117\text{E-}006$$

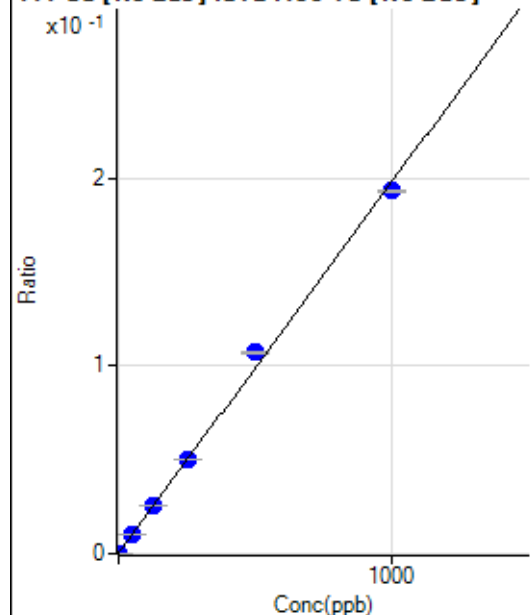
$$R = 0.9980$$

$$DL = 0.003576$$

$$BEC = 0.008099$$

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	2651.85	0.0002	P	10.0
2	☐	0.100	0.091	2841.33	0.0002	P	2.9
3	☐	1.000	0.908	4876.84	0.0004	P	1.1
4	☐	50.000	53.060	130422.73	0.0107	P	0.7
5	☐	125.000	130.008	311180.27	0.0259	P	0.5
6	☐	250.000	253.793	596936.78	0.0503	P	0.9
7	☐	500.000	542.327	1272419.48	0.1073	P	0.9
8	☐	1000.000	977.110	2314536.11	0.1932	P	0.8
9	☐			2612.33	0.0002	P	1.0

$$y = 1.9751E-004 * x + 2.1593E-004$$

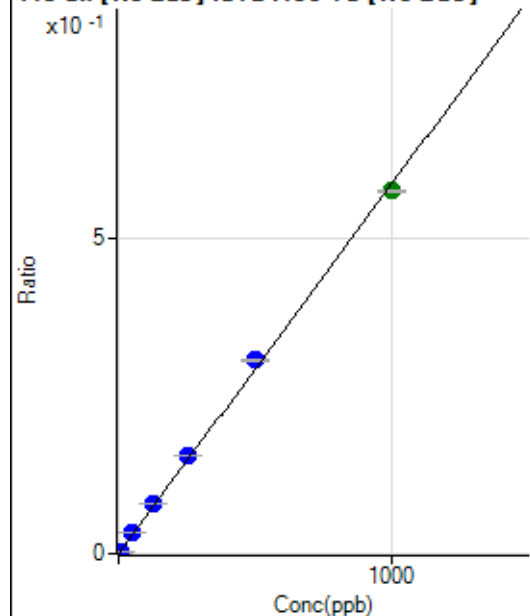
$$R = 0.9987$$

$$DL = 0.3291$$

$$BEC = 1.093$$

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	466.70	0.0000	P	11.1
2	☐	0.500	0.519	4148.04	0.0003	P	3.6
3	☐	5.000	5.170	37788.13	0.0031	P	1.6
4	☐	50.000	54.979	392603.48	0.0322	P	0.4
5	☐	125.000	136.089	957091.45	0.0796	P	0.0
6	☐	250.000	266.583	1849457.05	0.1560	P	0.3
7	☐	500.000	524.234	3635796.00	0.3067	P	0.5
8	☐	1000.000	982.101	6882380.79	0.5745	A	0.9
9	☐			4184.14	0.0004	P	4.6

$$y = 5.8493E-004 * x + 3.8001E-005$$

$$R = 0.9994$$

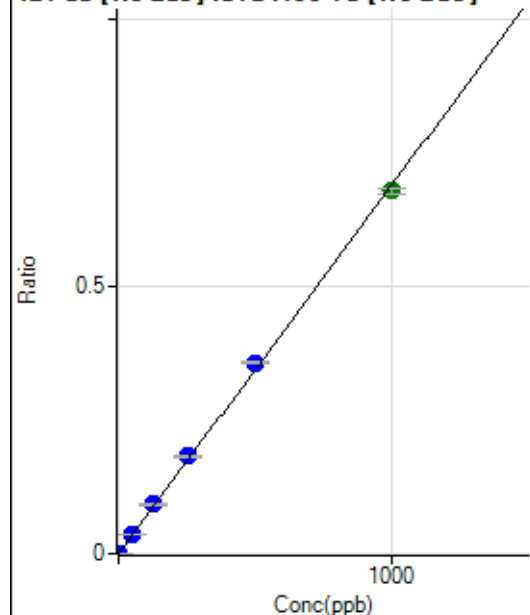
$$DL = 0.02162$$

$$BEC = 0.06497$$

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	119.45	0.0000	P	17.5
2	☐	0.200	0.193	1733.52	0.0001	P	11.0
3	☐	2.000	1.869	16015.28	0.0013	P	1.0
4	☐	50.000	53.878	452842.05	0.0371	P	0.3
5	☐	125.000	133.872	1108759.82	0.0923	P	1.3
6	☐	250.000	264.601	2162145.99	0.1823	P	0.7
7	☐	500.000	519.131	4241136.86	0.3577	P	0.6
8	☐	1000.000	985.482	8135174.84	0.6791	A	1.3
9	☐			11293.91	0.0010	P	1.5

$$y = 6.8909\text{E-}004 * x + 9.7259\text{E-}006$$

$$R = 0.9996$$

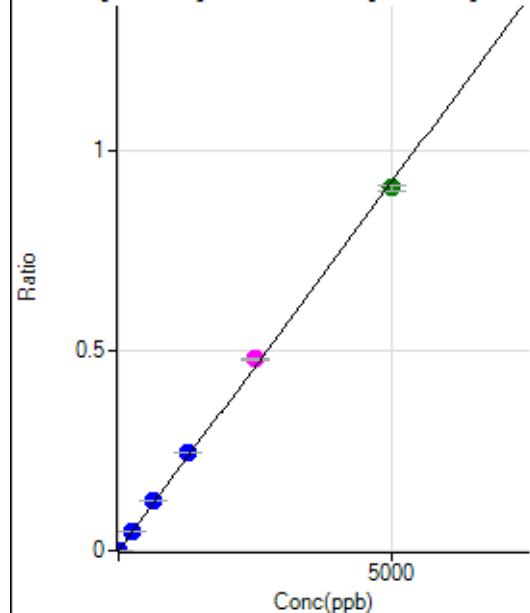
$$DL = 0.007413$$

$$BEC = 0.01411$$

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	38.89	0.0000	P	12.5
2	☐	1.000	1.014	2311.40	0.0002	P	6.6
3	☐	10.000	10.055	22933.67	0.0019	P	3.0
4	☐	250.000	271.233	610333.08	0.0501	P	0.1
5	☐	625.000	672.690	1491764.64	0.1241	P	0.6
6	☐	1250.000	1327.638	2904969.90	0.2450	P	0.2
7	☐	2500.000	2603.475	5695461.54	0.4804	M	0.7
8	☐	5000.000	4921.830	10879526.37	0.9082	A	1.5
9	☐			1541.83	0.0001	P	17.3

$$y = 1.8452\text{E-}004 * x + 3.1670\text{E-}006$$

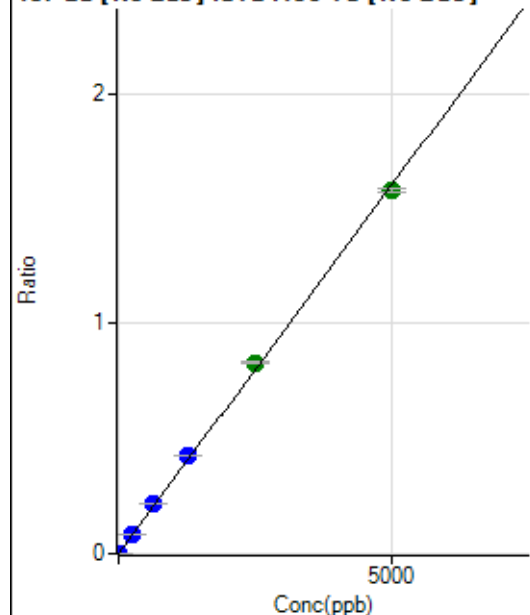
$$R = 0.9995$$

$$DL = 0.006421$$

$$BEC = 0.01716$$

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	66.67	0.0000	P	25.0
2	☐	1.000	0.983	3886.82	0.0003	P	3.3
3	☐	10.000	10.114	40003.13	0.0032	P	1.1
4	☐	250.000	271.227	1058344.66	0.0868	P	0.3
5	☐	625.000	675.982	2599511.54	0.2163	P	0.5
6	☐	1250.000	1332.123	5054468.82	0.4263	P	0.4
7	☐	2500.000	2594.848	9843681.73	0.8303	A	0.7
8	☐	5000.000	4924.611	18877215.35	1.5758	A	1.2
9	☐			2689.28	0.0002	P	8.5

$$y = 3.1998E-004 * x + 5.4287E-006$$

$$R = 0.9996$$

$$DL = 0.01271$$

$$BEC = 0.01697$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			4.45		P	86.6
3	☐			2.22		P	173.
4	☐			86.67		P	33.5
5	☐			140.01		P	14.3
6	☐			322.24		P	12.5
7	☐			542.25		P	8.4
8	☐			1017.85		P	1.4
9	☐			220.01		P	16.9

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐			1.11		P	173.
3	☐			3.33		P	173.
4	☐			7.78		P	24.7
5	☐			14.44		P	58.1
6	☐			31.11		P	12.4
7	☐			45.56		P	18.4
8	☐			106.67		P	3.1
9	☐			87.78		P	14.4

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐			11.11		P	43.3
3	☐			0.00		P	
4	☐			36.11		P	58.1
5	☐			44.44		P	43.3
6	☐			61.12		P	34.3
7	☐			97.23		P	32.5
8	☐			177.79		P	54.7
9	☐			119.45		P	10.7

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐			1.11		P	173.
3	☐			5.55		P	124.
4	☐			16.67		P	40.0
5	☐			28.89		P	37.1
6	☐			52.22		P	24.2
7	☐			127.78		P	12.9
8	☐			211.12		P	23.8
9	☐			37.78		P	27.0

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			38.89		P	24.7
2	☐			47.22		P	27.0
3	☐			66.67		P	12.5
4	☐			44.45		P	28.7
5	☐			58.34		P	14.3
6	☐			69.45		P	38.6
7	☐			111.12		P	33.8
8	☐			47.23		P	56.7
9	☐			125.01		P	29.1

160 Gd [He] No available calibration points

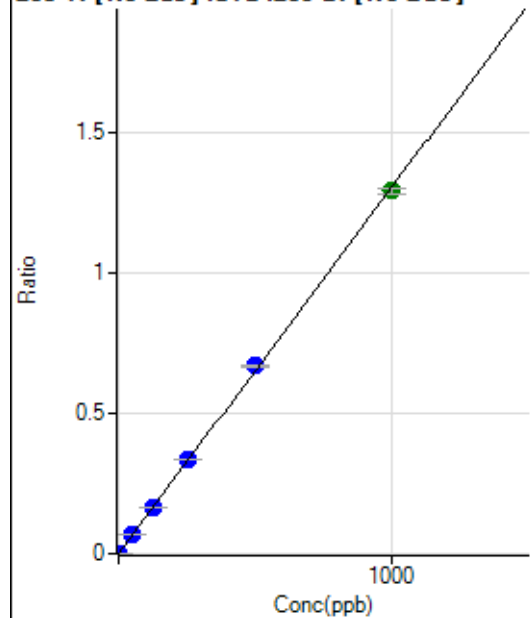
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			192.23		P	4.4
2	☐			183.34		P	8.3
3	☐			168.89		P	22.2
4	☐			155.56		P	8.7
5	☐			165.56		P	5.1
6	☐			154.45		P	13.2
7	☐			184.45		P	2.8
8	☐			192.23		P	5.0
9	☐			207.78		P	4.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.44		P	43.3
2	☐			41.67		P	20.0
3	☐			33.34		P	66.1
4	☐			27.78		P	34.6
5	☐			25.00		P	57.7
6	☐			38.89		P	12.4
7	☐			58.33		P	51.5
8	☐			63.89		P	37.7
9	☐			66.67		P	43.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			12.22		P	41.7
2	☐			22.22		P	34.7
3	☐			21.11		P	18.2
4	☐			16.67		P	20.0
5	☐			16.67		P	40.0
6	☐			15.56		P	12.4
7	☐			22.22		P	8.7
8	☐			28.89		P	43.7
9	☐			50.00		P	24.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	208.34	0.0000	P	14.8
2	☐	0.100	0.090	1175.11	0.0001	P	2.7
3	☐	1.000	0.897	9959.71	0.0012	P	1.4
4	☐	50.000	50.253	540872.55	0.0654	P	0.2
5	☐	125.000	126.981	1345644.46	0.1653	P	0.0
6	☐	250.000	257.107	2701799.19	0.3347	P	0.6
7	☐	500.000	513.031	5322096.00	0.6677	P	1.0
8	☐	1000.000	991.448	10225138.16	1.2904	A	1.3
9	☐			2255.85	0.0003	P	12.5

$$y = 0.0013 * x + 2.4570E-005$$

$$R = 0.9998$$

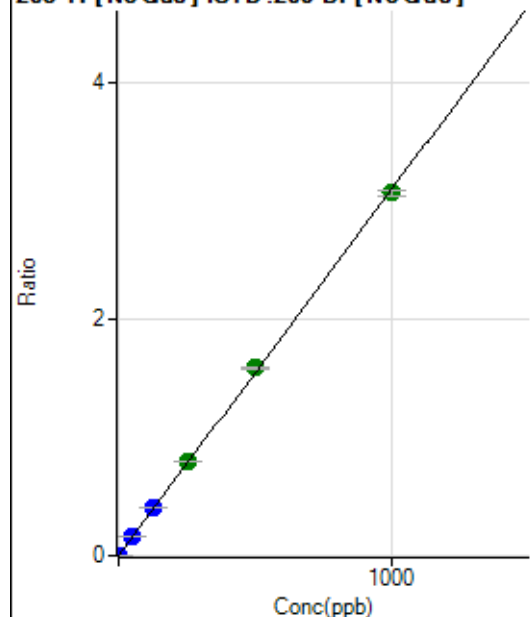
$$DL = 0.008374$$

$$BEC = 0.01888$$

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	641.71	0.0001	P	1.7
2	☐	0.100	0.086	2855.99	0.0003	P	10.1
3	☐	1.000	0.875	23271.26	0.0028	P	4.8
4	☐	50.000	50.748	1300066.68	0.1573	P	0.6
5	☐	125.000	129.420	3264184.73	0.4010	P	0.3
6	☐	250.000	256.393	6412273.32	0.7943	A	0.5
7	☐	500.000	513.645	12681590.74	1.5911	A	0.9
8	☐	1000.000	990.989	24324062.17	3.0697	A	1.3
9	☐			5031.75	0.0007	P	5.5

$$y = 0.0031 * x + 7.5648E-005$$

$$R = 0.9998$$

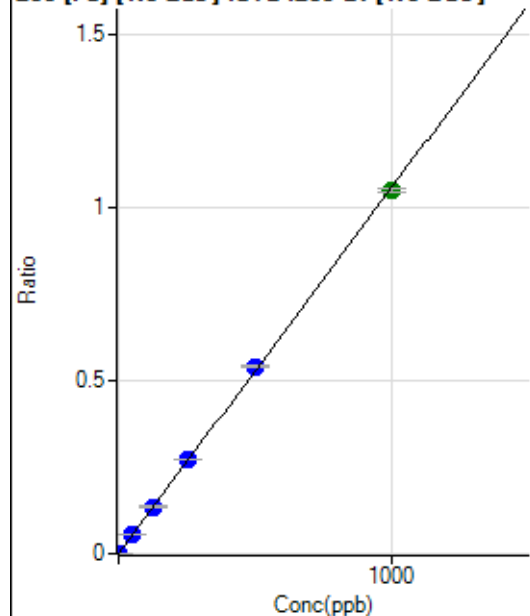
$$DL = 0.001233$$

$$BEC = 0.02442$$

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	300.01	0.0000	P	18.5
2	☐	0.100	0.089	1076.00	0.0001	P	5.4
3	☐	1.000	0.889	8143.46	0.0010	P	4.0
4	☐	50.000	50.663	442635.21	0.0535	P	0.8
5	☐	125.000	128.606	1106093.59	0.1359	P	0.4
6	☐	250.000	256.445	2186918.49	0.2709	P	0.8
7	☐	500.000	512.366	4313456.58	0.5412	P	0.9
8	☐	1000.000	991.722	8300360.66	1.0475	A	1.1
9	☐			8608.59	0.0012	P	2.0

$$y = 0.0011 * x + 3.5375E-005$$

$$R = 0.9999$$

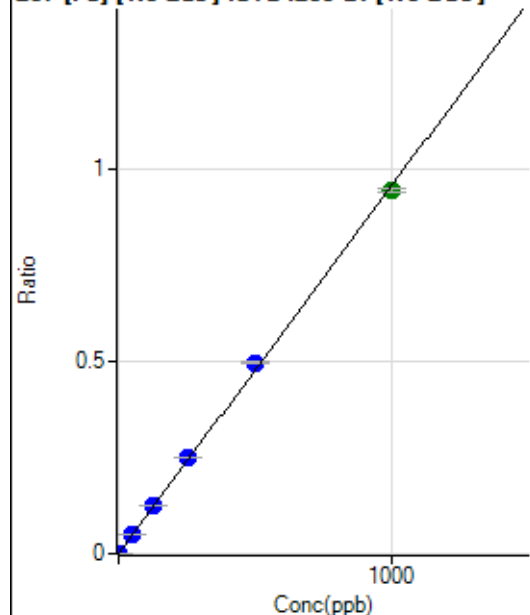
$$DL = 0.01857$$

$$BEC = 0.03349$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	272.23	0.0000	P	4.1
2	☐	0.100	0.092	1000.07	0.0001	P	5.5
3	☐	1.000	0.898	7446.72	0.0009	P	3.5
4	☐	50.000	51.229	405457.03	0.0490	P	0.2
5	☐	125.000	129.516	1009113.13	0.1240	P	0.1
6	☐	250.000	260.178	2010011.18	0.2490	P	0.5
7	☐	500.000	520.090	3966519.47	0.4977	P	0.6
8	☐	1000.000	986.785	7481805.37	0.9442	A	1.2
9	☐			7287.38	0.0011	P	4.6

$$y = 9.5680\text{E-}004 * x + 3.2096\text{E-}005$$

$$R = 0.9996$$

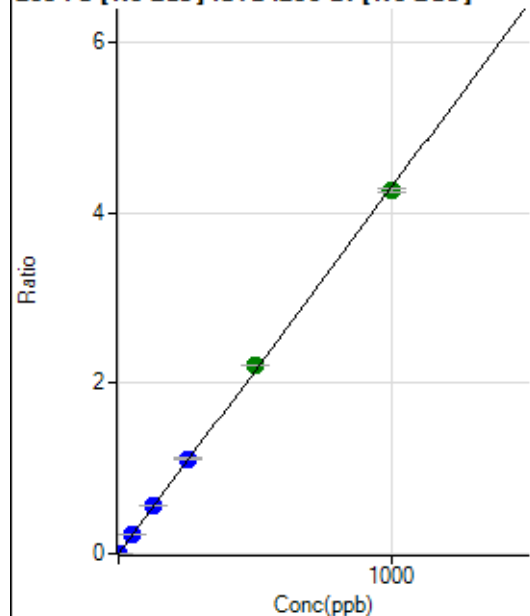
$$DL = 0.004163$$

$$BEC = 0.03354$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1233.39	0.0001	P	7.2
2	☐	0.100	0.089	4394.86	0.0005	P	3.1
3	☐	1.000	0.904	33719.61	0.0040	P	0.8
4	☐	50.000	50.969	1814202.98	0.2195	P	0.3
5	☐	125.000	129.040	4521498.18	0.5554	P	0.1
6	☐	250.000	259.367	9011329.90	1.1162	P	0.3
7	☐	500.000	514.042	17630905.31	2.2120	A	0.5
8	☐	1000.000	990.084	33759580.55	4.2604	A	1.2
9	☐			33641.57	0.0049	P	1.5

$$y = 0.0043 * x + 1.4538\text{E-}004$$

$$R = 0.9998$$

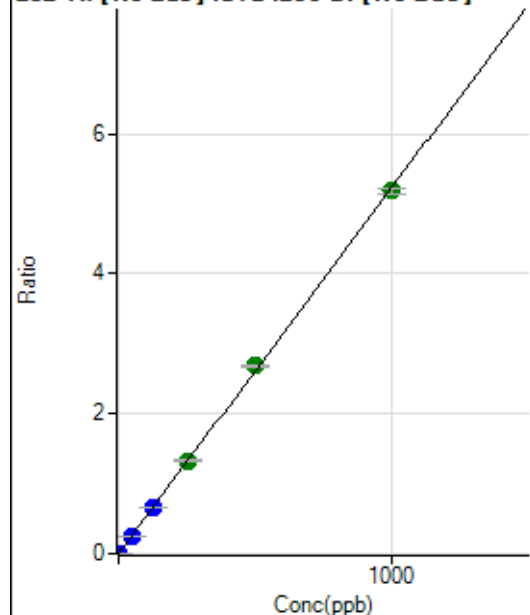
$$DL = 0.00733$$

$$BEC = 0.03379$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	453.73	0.0001	P	5.0
2	☐	0.100	0.080	3902.54	0.0005	P	1.6
3	☐	1.000	0.820	36246.92	0.0043	P	1.0
4	☐	50.000	48.754	2105189.37	0.2547	P	0.3
5	☐	125.000	125.810	5349263.60	0.6571	P	0.2
6	☐	250.000	254.634	10736132.30	1.3298	A	0.6
7	☐	500.000	513.299	21365961.13	2.6807	A	0.6
8	☐	1000.000	992.153	41055203.23	5.1814	A	1.8
9	☐			4336.03	0.0006	P	3.2

$$y = 0.0052 * x + 5.3487E-005$$

$$R = 0.9999$$

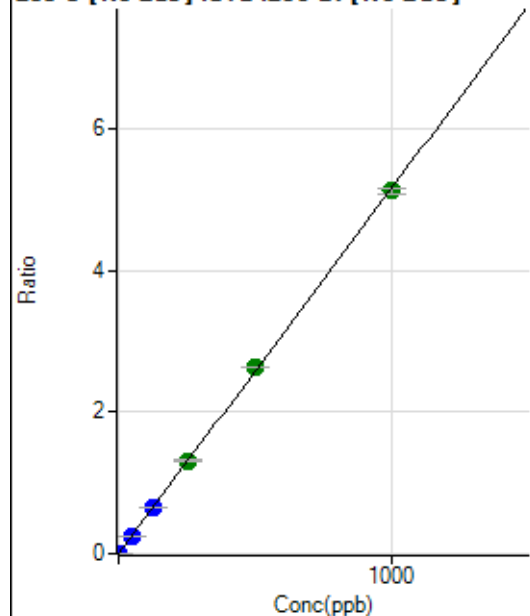
$$DL = 0.001547$$

$$BEC = 0.01024$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	119.45	0.0000	P	21.8
2	☐	0.100	0.086	3797.95	0.0005	P	4.9
3	☐	1.000	0.826	35686.11	0.0043	P	0.3
4	☐	50.000	48.963	2086548.22	0.2524	P	0.5
5	☐	125.000	127.287	5341683.41	0.6561	P	0.0
6	☐	250.000	254.599	10595034.61	1.3124	A	1.2
7	☐	500.000	510.664	20980777.03	2.6323	A	0.9
8	☐	1000.000	993.284	40570327.99	5.1201	A	1.7
9	☐			2489.24	0.0004	P	6.4

$$y = 0.0052 * x + 1.4069E-005$$

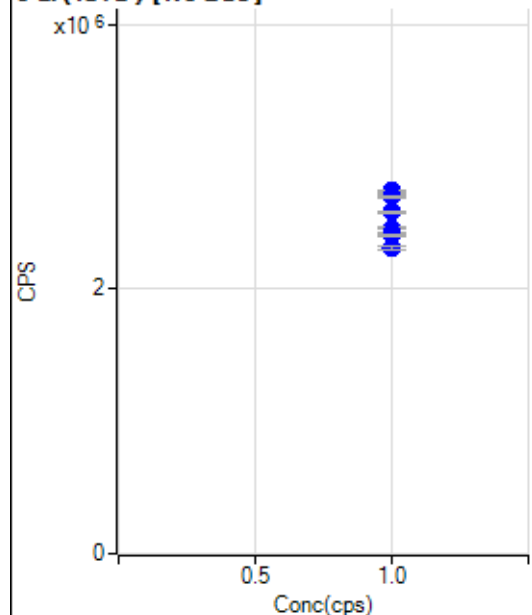
$$R = 0.9999$$

$$DL = 0.001785$$

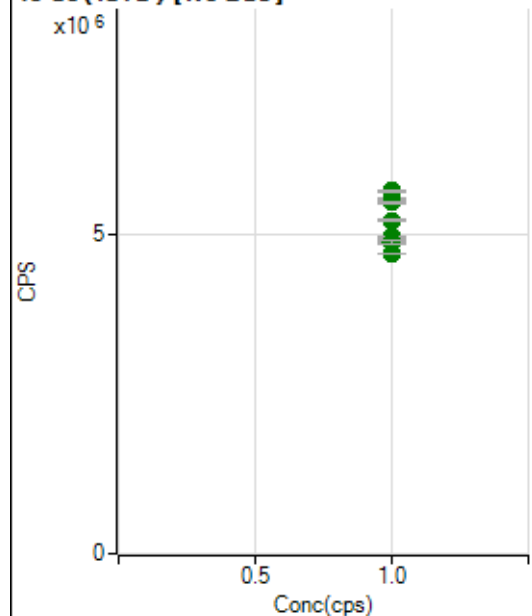
$$BEC = 0.002729$$

Weight: <None>

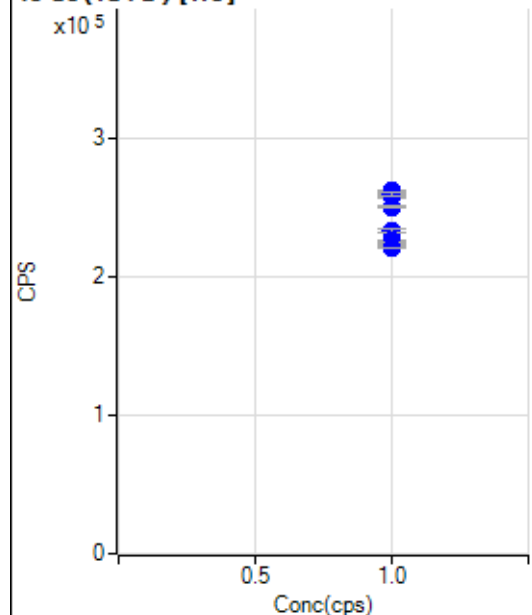
Min Conc: 0

6 Li (ISTD) [No Gas]

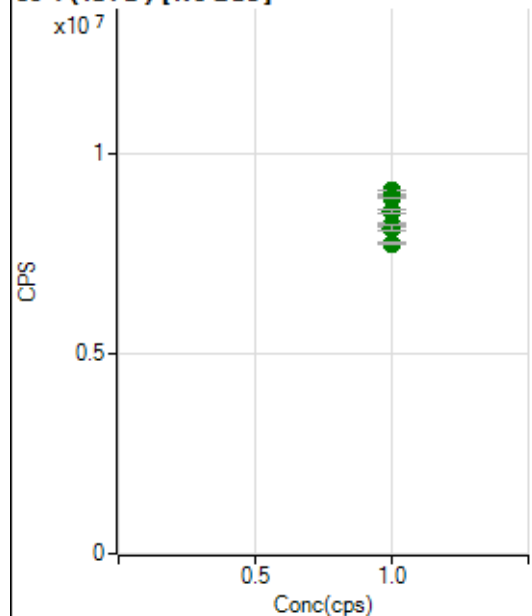
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2733455.04		P	0.4
2	☐	1.000		2706142.56		P	0.5
3	☐	1.000		2743535.90		P	0.4
4	☐	1.000		2697858.84		P	0.2
5	☐	1.000		2587095.30		P	0.5
6	☐	1.000		2462827.04		P	0.9
7	☐	1.000		2424123.87		P	0.4
8	☐	1.000		2409512.15		P	0.6
9	☐	1.000		2312166.11		P	0.6

45 Sc (ISTD) [No Gas]

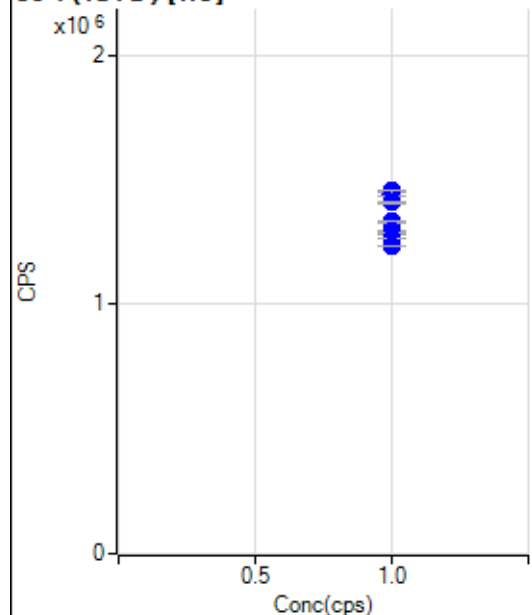
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5685108.29		A	0.4
2	☐	1.000		5555462.45		A	0.3
3	☐	1.000		5677599.52		A	0.3
4	☐	1.000		5504822.35		A	0.5
5	☐	1.000		5226262.36		A	0.8
6	☐	1.000		4957113.09		A	1.1
7	☐	1.000		4875342.34		A	0.3
8	☐	1.000		4882712.31		A	1.4
9	☐	1.000		4696711.44		A	0.1

45 Sc (ISTD) [He]

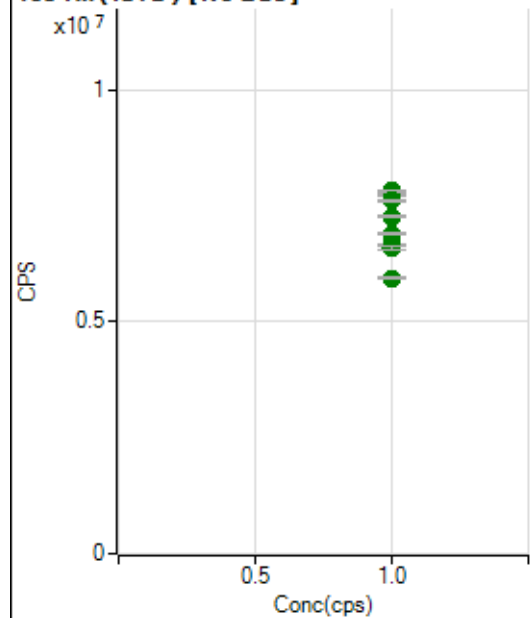
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		258096.78		P	0.8
2	☐	1.000		261846.37		P	0.1
3	☐	1.000		259536.78		P	0.9
4	☐	1.000		250284.52		P	0.6
5	☐	1.000		233229.68		P	0.8
6	☐	1.000		226194.13		P	0.5
7	☐	1.000		224320.14		P	0.5
8	☐	1.000		221217.40		P	0.5
9	☐	1.000		221039.64		P	0.2

89 Y (ISTD) [No Gas]

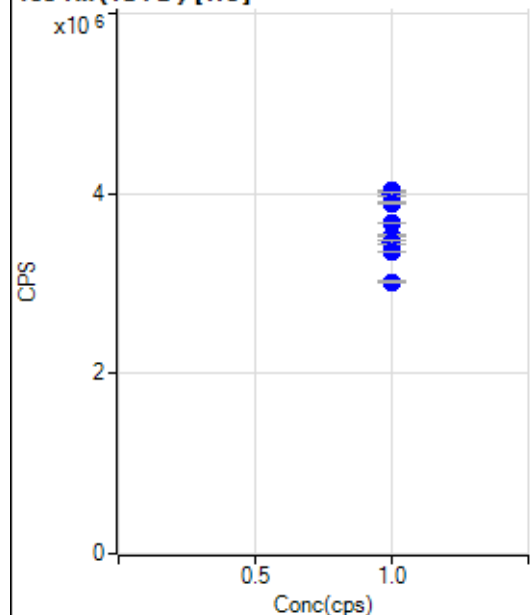
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8964055.29		A	0.7
2	☐	1.000		8980109.31		A	0.6
3	☐	1.000		9084392.99		A	0.2
4	☐	1.000		8912549.66		A	0.2
5	☐	1.000		8548274.11		A	1.1
6	☐	1.000		8225383.63		A	1.0
7	☐	1.000		8135190.44		A	0.8
8	☐	1.000		8155415.43		A	1.5
9	☐	1.000		7753176.76		A	0.6

89 Y(ISTD) [He]

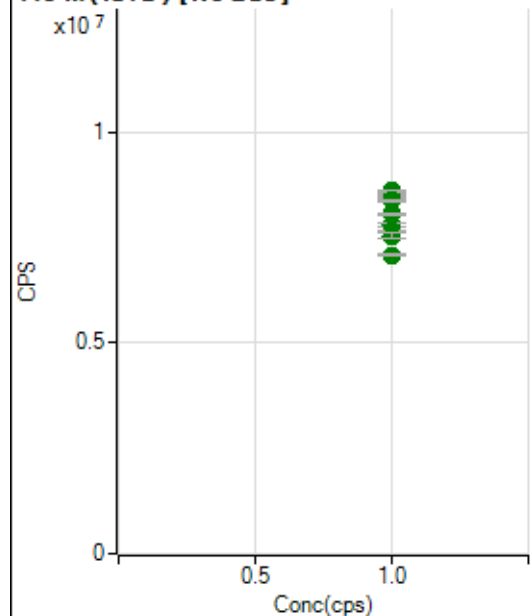
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1443693.81		P	0.6
2	☐	1.000		1456450.31		P	0.1
3	☐	1.000		1446995.38		P	1.3
4	☐	1.000		1410945.95		P	0.8
5	☐	1.000		1334484.66		P	0.7
6	☐	1.000		1295541.07		P	0.7
7	☐	1.000		1286294.16		P	0.3
8	☐	1.000		1264693.51		P	0.1
9	☐	1.000		1235617.51		P	0.4

103 Rh(ISTD) [No Gas]

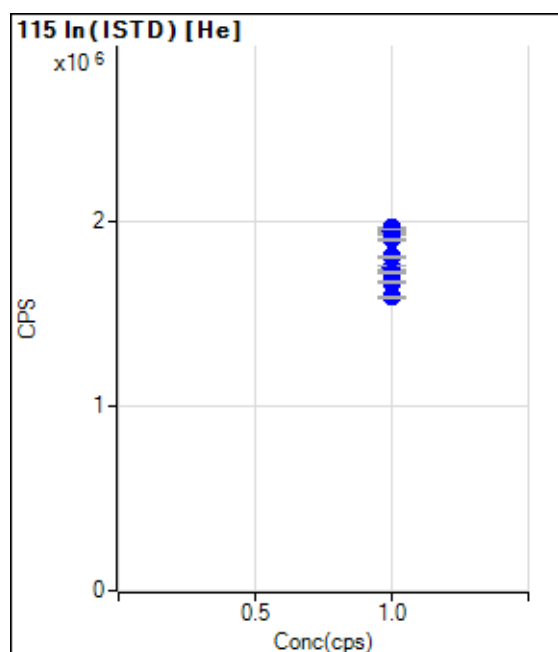
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7795672.92		A	0.6
2	☐	1.000		7739796.88		A	0.6
3	☐	1.000		7826193.40		A	0.2
4	☐	1.000		7615601.74		A	0.3
5	☐	1.000		7262684.28		A	0.5
6	☐	1.000		6894749.03		A	0.5
7	☐	1.000		6682907.35		A	0.3
8	☐	1.000		6602863.91		A	1.1
9	☐	1.000		5946149.79		A	0.7

103 Rh (ISTD) [He]

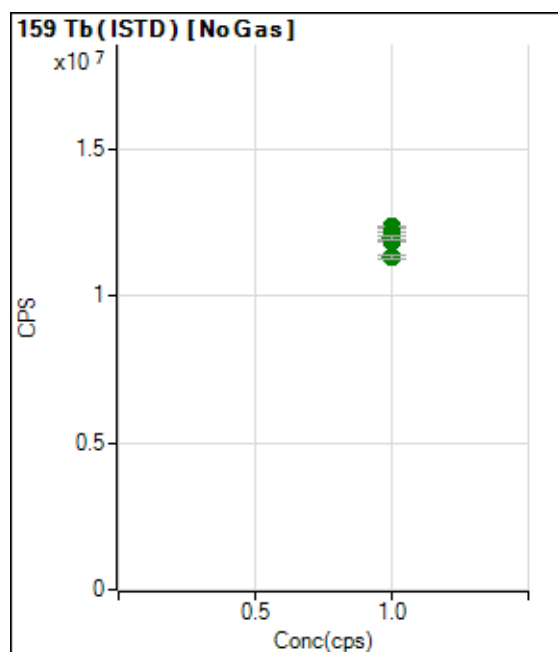
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4002051.15		P	0.8
2	☐	1.000		4031648.38		P	0.2
3	☐	1.000		3997998.24		P	1.3
4	☐	1.000		3898754.49		P	0.7
5	☐	1.000		3671477.51		P	0.4
6	☐	1.000		3533407.86		P	0.6
7	☐	1.000		3463751.20		P	1.1
8	☐	1.000		3357932.66		P	0.2
9	☐	1.000		3021489.50		P	0.6

115 In (ISTD) [No Gas]

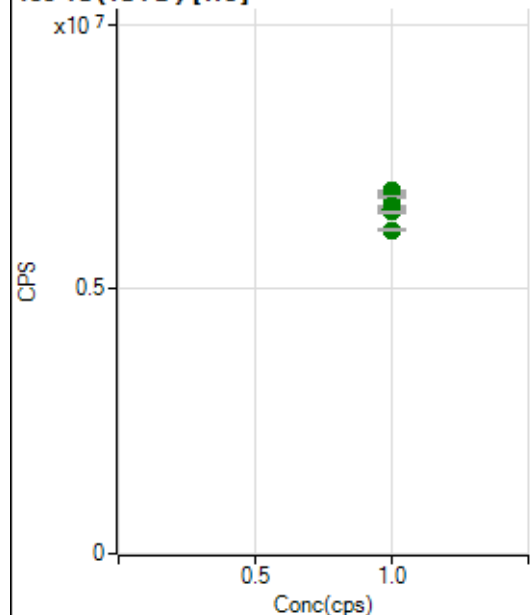
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8494025.19		A	0.6
2	☐	1.000		8425324.26		A	0.5
3	☐	1.000		8603324.52		A	0.5
4	☐	1.000		8374606.08		A	0.4
5	☐	1.000		8060088.77		A	0.4
6	☐	1.000		7803521.81		A	1.0
7	☐	1.000		7641955.60		A	0.5
8	☐	1.000		7541777.48		A	1.9
9	☐	1.000		7086107.01		A	0.5



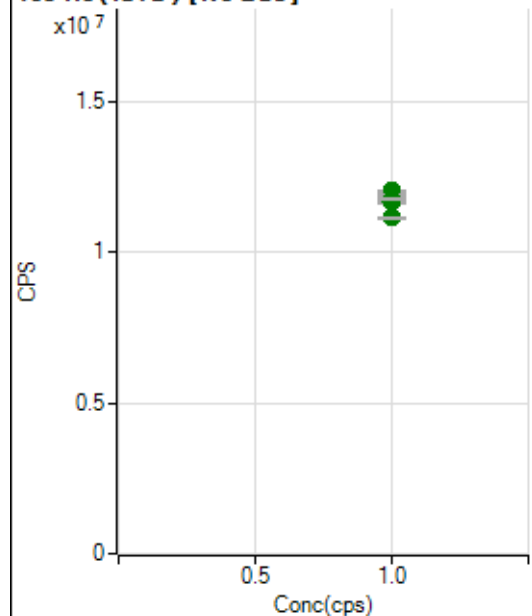
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1941758.33		P	0.4
2	☐	1.000		1961382.87		P	0.3
3	☐	1.000		1939017.31		P	1.5
4	☐	1.000		1899965.94		P	0.3
5	☐	1.000		1805158.98		P	0.9
6	☐	1.000		1745747.59		P	0.8
7	☐	1.000		1719215.75		P	0.8
8	☐	1.000		1665659.57		P	0.7
9	☐	1.000		1587051.33		P	0.4



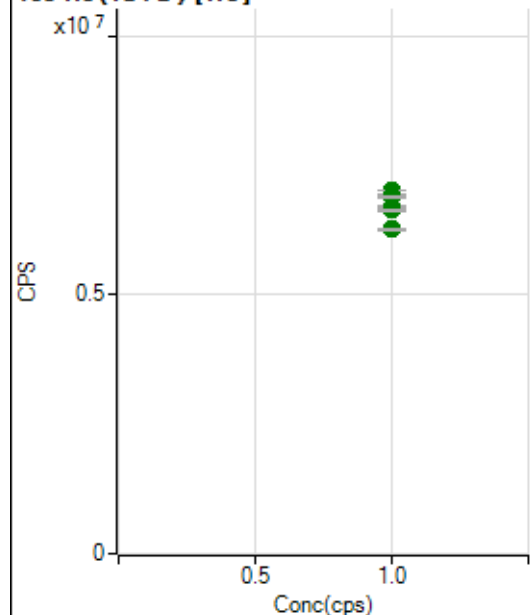
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12280911.21		A	0.2
2	☐	1.000		12151201.77		A	0.3
3	☐	1.000		12339836.76		A	0.4
4	☐	1.000		12193922.73		A	0.1
5	☐	1.000		12017611.90		A	0.2
6	☐	1.000		11857859.41		A	0.8
7	☐	1.000		11855453.71		A	0.4
8	☐	1.000		11980683.71		A	1.3
9	☐	1.000		11344632.05		A	1.1

159 Tb (ISTD) [He]

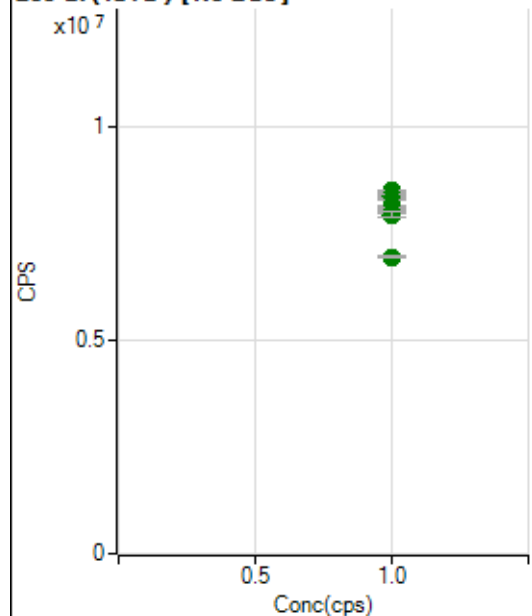
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6850784.90		A	0.3
2	☐	1.000		6831044.41		A	0.3
3	☐	1.000		6808866.29		A	1.0
4	☐	1.000		6748668.23		A	0.7
5	☐	1.000		6562486.22		A	0.8
6	☐	1.000		6493672.47		A	0.5
7	☐	1.000		6498979.41		A	0.8
8	☐	1.000		6446255.81		A	0.3
9	☐	1.000		6105149.28		A	0.5

165 Ho (ISTD) [No Gas]

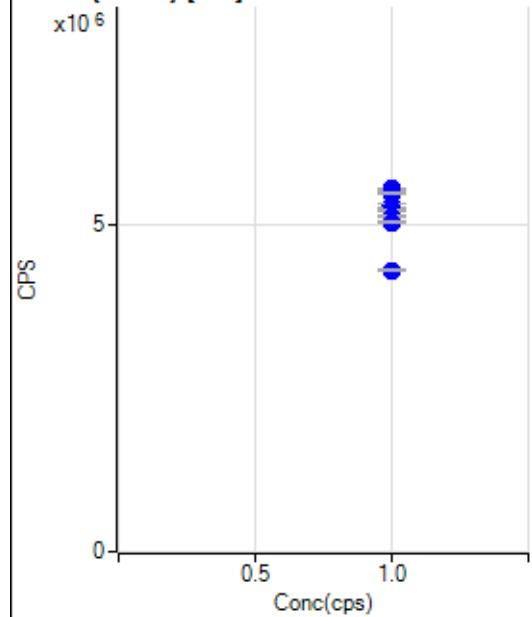
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12028627.18		A	0.5
2	☐	1.000		11851425.18		A	0.4
3	☐	1.000		11977941.93		A	0.2
4	☐	1.000		11898267.37		A	0.5
5	☐	1.000		11727078.12		A	0.1
6	☐	1.000		11729117.62		A	1.2
7	☐	1.000		11658425.17		A	1.0
8	☐	1.000		11755209.46		A	0.9
9	☐	1.000		11153324.12		A	0.6

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7000967.33		A	0.2
2	☐	1.000		6911828.02		A	0.2
3	☐	1.000		6896059.55		A	1.0
4	☐	1.000		6884929.97		A	0.6
5	☐	1.000		6673529.55		A	0.7
6	☐	1.000		6628192.06		A	0.5
7	☐	1.000		6657183.65		A	0.3
8	☐	1.000		6630029.97		A	0.4
9	☐	1.000		6257965.32		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8483322.65		A	0.6
2	☐	1.000		8310582.31		A	0.8
3	☐	1.000		8355425.43		A	0.9
4	☐	1.000		8266606.62		A	0.3
5	☐	1.000		8141054.53		A	0.1
6	☐	1.000		8073512.80		A	0.8
7	☐	1.000		7970581.89		A	0.6
8	☐	1.000		7925062.31		A	1.6
9	☐	1.000		6934420.38		A	0.5

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5531023.18		P	0.2
2	☐	1.000		5546381.93		P	0.1
3	☐	1.000		5489044.64		P	1.2
4	☐	1.000		5472426.44		P	0.7
5	☐	1.000		5286785.48		P	0.8
6	☐	1.000		5220664.33		P	0.4
7	☐	1.000		5121382.29		P	0.7
8	☐	1.000		5041005.03		P	0.4
9	☐	1.000		4303716.60		P	0.3

US EPA Tune Check Sample Report

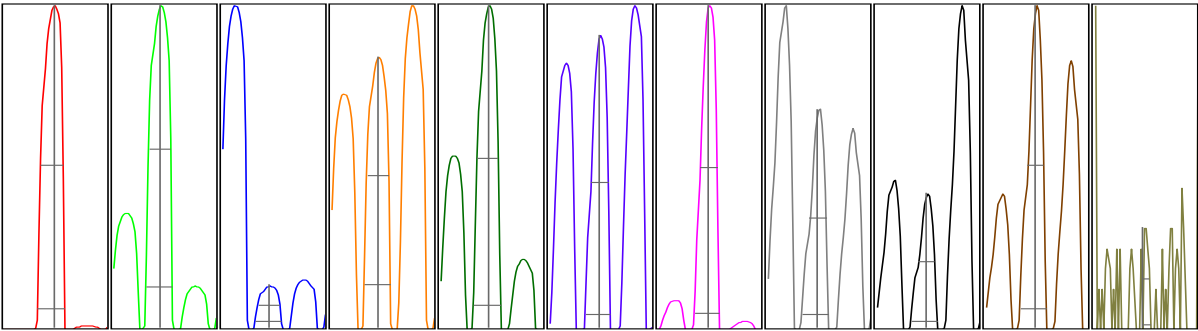
Batch Folder D:\ICP-MS Data\P7052619-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	10950	0.45	5.00	
24	181394	0.30	5.00	
25	24586	0.36	5.00	
26	28454	0.50	5.00	
59	80366	0.34	5.00	
113	10786	0.34	5.00	
115	128717	0.29	5.00	
206	35972	0.50	5.00	
207	32731	0.22	5.00	
208	78113	0.56	5.00	
220	0	34.40		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	10925	11000	10997	10946	10883
24	180966	180697	181929	181811	181567
25	24443	24575	24607	24624	24682
26	28220	28412	28556	28558	28525
59	80026	80172	80636	80629	80367
113	10752	10769	10838	10812	10761
115	128742	128987	129168	128370	128317
206	35779	35873	36225	36087	35896
207	32633	32686	32777	32816	32745
208	77410	78179	78250	78614	78111
220	0	0	0	0	0

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	17587	9.00	8.9 - 9.1		0.787	0.900	
24	292713	23.90	23.9 - 24.1		0.763	0.900	
25	38953	24.90	24.9 - 25.1		0.761	0.900	
26	45106	25.90	25.9 - 26.1		0.757	0.900	
59	137100	58.95	58.9 - 59.1		0.802	0.900	
113	21036	113.00	112.9 - 113.1		0.729	0.900	
115	258255	115.00	114.9 - 115.1		0.724	0.900	
206	73417	206.00	205.9 - 206.1		0.775	0.900	
207	67234	207.00	206.9 - 207.1		0.771	0.900	
208	160478	208.00	207.9 - 208.1		0.772	0.900	
220	0	219.95	-		0.243		

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.9	V	Deflect	13.8	V
Extract 2	-105.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-55	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	190	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	21071	3.35	
89	40070	3.31	
205	34598	2.56	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	20928	21335	22125	20715	20253
89	39937	40692	41974	39149	38599
205	34509	34885	35937	33996	33660

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.3	V	Deflect	2.2	V
Extract 2	-120.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-60	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			