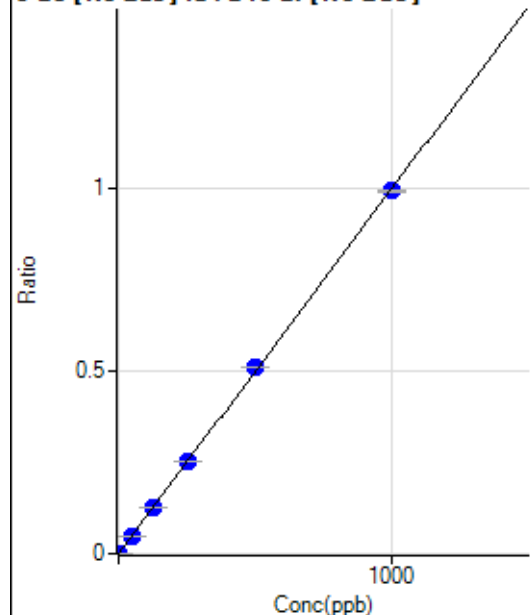


Batch Folder: D:\ICP-MS Data\P7112419-MS1.b\
Analysis File: P7112419-MS1.batch.bin
DA Date-Time: 2019-11-24 20:37:15
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-11-24 15:23:01
2	004CALS.d	S02	2019-11-24 15:26:34
3	005CALS.d	S03	2019-11-24 15:30:48
4	006CALS.d	S04	2019-11-24 15:34:42
5	007CALS.d	S05	2019-11-24 15:38:32
6	008CALS.d	S06	2019-11-24 15:42:21
7	009CALS.d	S07	2019-11-24 15:46:07
8	010CALS.d	S08	2019-11-24 15:49:51

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	32.9
2	☐	1.000	0.880	1902.02	0.0009	P	5.7
3	☐	50.000	48.502	105570.28	0.0485	P	0.4
4	☐	125.000	125.556	259968.75	0.1254	P	0.3
5	☐	250.000	250.986	507621.05	0.2507	P	0.1
6	☐	500.000	509.296	1010508.53	0.5088	P	0.1
7	☐	1000.000	995.111	1924916.88	0.9941	P	0.4
8	☐			309.27	0.0002	P	7.4

$$y = 9.9893\text{E-}004 * x + 2.3412\text{E-}005$$

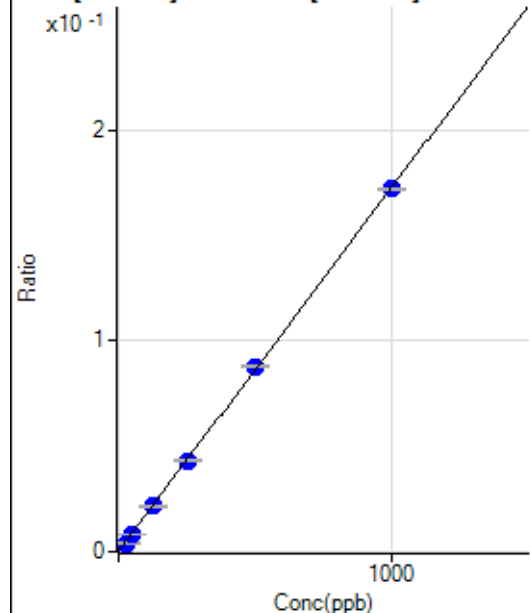
$$R = 0.9999$$

$$DL = 0.02312$$

$$BEC = 0.02344$$

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	491.70	0.0002	P	9.9
2	☐	25.000	22.331	8591.70	0.0041	P	3.3
3	☐	50.000	48.003	18517.50	0.0085	P	1.5
4	☐	125.000	123.198	44474.97	0.0215	P	2.3
5	☐	250.000	248.220	87061.92	0.0430	P	2.1
6	☐	500.000	507.706	174232.64	0.0877	P	1.3
7	☐	1000.000	996.984	333138.54	0.1720	P	0.3
8	☐			4242.45	0.0024	P	11.0

$$y = 1.7233\text{E-}004 * x + 2.3057\text{E-}004$$

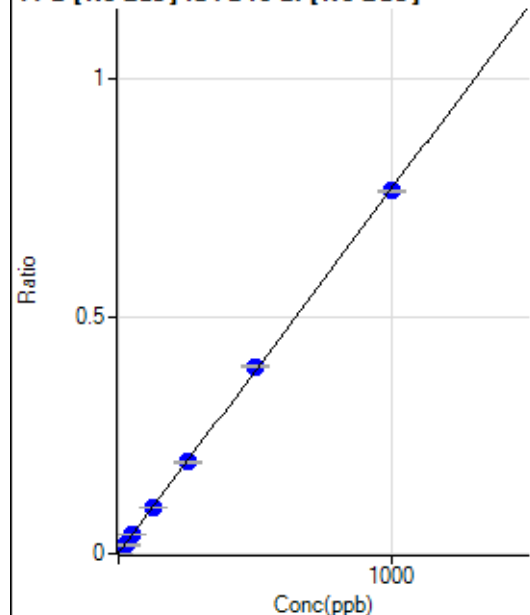
$$R = 0.9999$$

$$DL = 0.3994$$

$$BEC = 1.338$$

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	2644.78	0.0012	P	4.5
2	☐	25.000	22.161	38458.46	0.0183	P	0.9
3	☐	50.000	48.923	84514.62	0.0388	P	1.2
4	☐	125.000	124.606	200854.10	0.0969	P	1.5
5	☐	250.000	250.604	392098.05	0.1937	P	1.7
6	☐	500.000	511.695	782858.94	0.3942	P	1.5
7	☐	1000.000	994.176	1480654.69	0.7646	P	0.4
8	☐			19118.37	0.0106	P	8.4

$$y = 7.6788\text{E-}004 * x + 0.0012$$

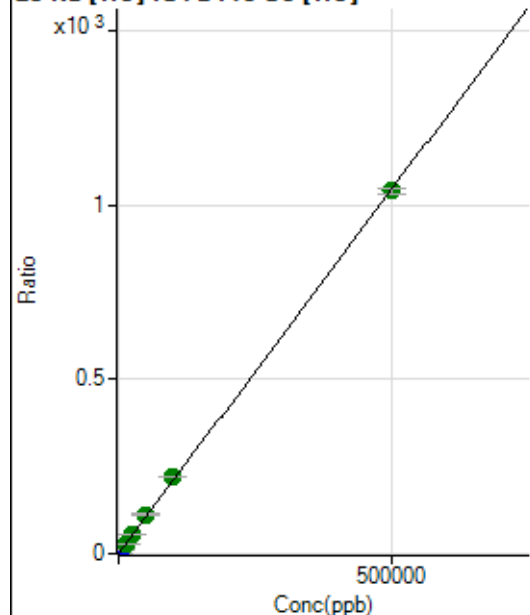
$$R = 0.9999$$

$$DL = 0.22$$

$$BEC = 1.614$$

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	13812.40	0.0735	P	4.6
2	☐	500.000	484.861	208875.72	1.0853	P	1.0
3	☐	5000.000	5102.537	2004903.39	10.7217	P	1.1
4	☐	12500.000	13308.508	4937942.95	27.8464	A	0.2
5	☐	25000.000	26426.075	9808847.53	55.2208	A	1.4
6	☐	50000.000	53994.265	19713417.98	112.7514	A	0.5
7	☐	100000.00	106289.52	38082791.82	221.8838	A	0.2
8	☐	500000.00	498250.14	169235969.0	1,039.846	A	1.3

$$y = 0.0021 * x + 0.0735$$

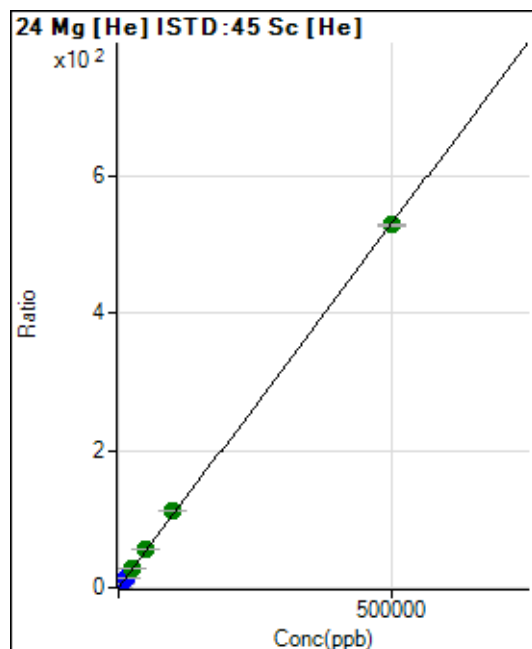
$$R = 0.9999$$

$$DL = 4.874$$

$$BEC = 35.22$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	511.14	0.0027	P	3.9
2	☐	500.000	508.634	104133.33	0.5412	P	1.4
3	☐	5000.000	5075.380	1005179.76	5.3754	P	0.6
4	☐	12500.000	13026.950	2445824.53	13.7929	P	0.6
5	☐	25000.000	26129.507	4914138.09	27.6630	A	0.8
6	☐	50000.000	53204.284	9847671.75	56.3240	A	0.6
7	☐	100000.00	105017.20	19080235.32	111.1724	A	0.9
8	☐	500000.00	498605.72	85906711.64	527.8197	A	0.7

$$y = 0.0011 * x + 0.0027$$

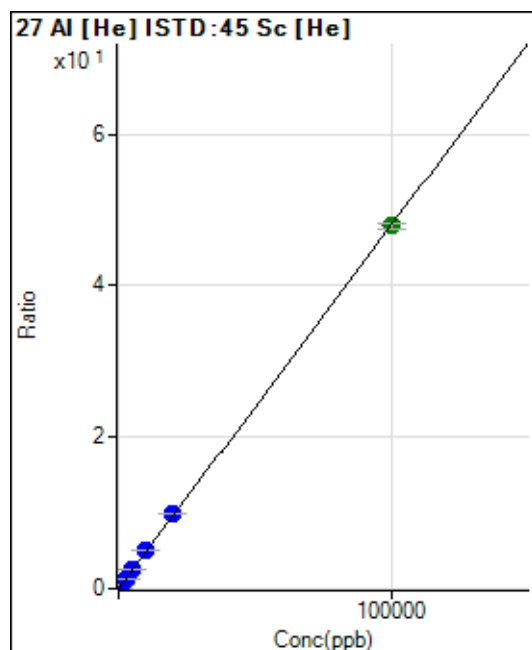
$$R = 0.9999$$

$$DL = 0.2979$$

$$BEC = 2.57$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	27.78	0.0001	P	17.2
2	☐	20.000	20.390	1911.31	0.0099	P	11.7
3	☐	1000.000	1007.492	90498.99	0.4840	P	0.4
4	☐	2500.000	2639.618	224809.04	1.2677	P	0.9
5	☐	5000.000	5251.575	448042.06	2.5221	P	0.4
6	☐	10000.000	10641.122	893493.57	5.1102	P	0.7
7	☐	20000.000	20803.631	1714675.04	9.9905	P	0.5
8	☐	100000.00	99759.017	7796847.40	47.9065	A	1.2

$$y = 4.8022E-004 * x + 1.4782E-004$$

$$R = 1.0000$$

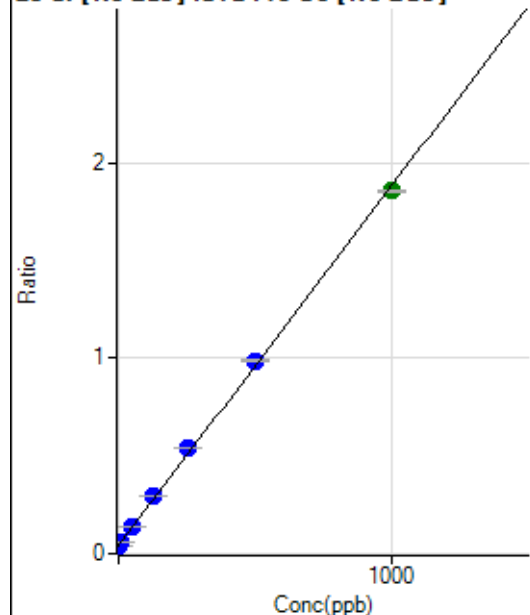
$$DL = 0.159$$

$$BEC = 0.3078$$

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	171177.02	0.0417	P	2.0
2	☐	10.000	7.694	225997.99	0.0558	P	0.9
3	☐	50.000	54.254	586207.14	0.1416	P	1.5
4	☐	125.000	138.378	1182129.19	0.2966	P	0.4
5	☐	250.000	271.291	2102796.21	0.5415	P	1.1
6	☐	500.000	513.481	3782137.63	0.9877	P	0.5
7	☐	1000.000	986.075	6963165.52	1.8584	A	0.2
8	☐			345310.92	0.0976	P	1.6

$$y = 0.0018 * x + 0.0417$$

$$R = 0.9995$$

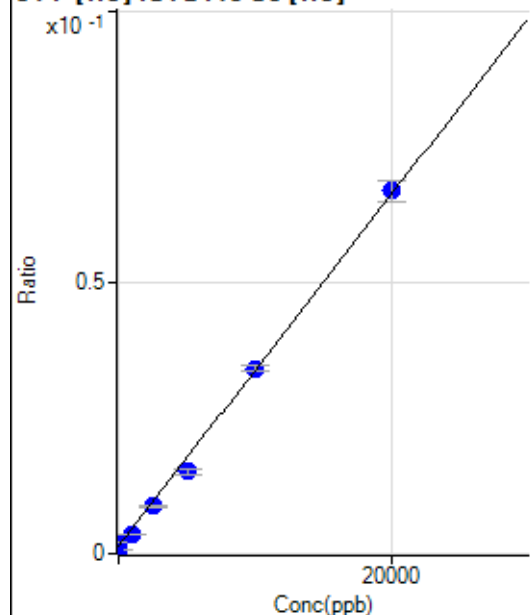
$$DL = 1.325$$

$$BEC = 22.61$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-224.600	127.78	0.0007	P	23.0
2	☐	0.000	224.600	411.13	0.0021	P	11.8
3	☐	1000.000	660.127	663.93	0.0036	P	7.1
4	☐	2500.000	2260.723	1550.15	0.0087	P	5.5
5	☐	5000.000	4212.746	2678.15	0.0151	P	6.3
6	☐	10000.000	10110.329	5981.99	0.0342	P	3.9
7	☐	20000.000	20188.553	11479.79	0.0669	P	5.5
8	☐			130.56	0.0008	P	12.1

$$y = 3.2442E-006 * x + 0.0014$$

$$R = 0.9990$$

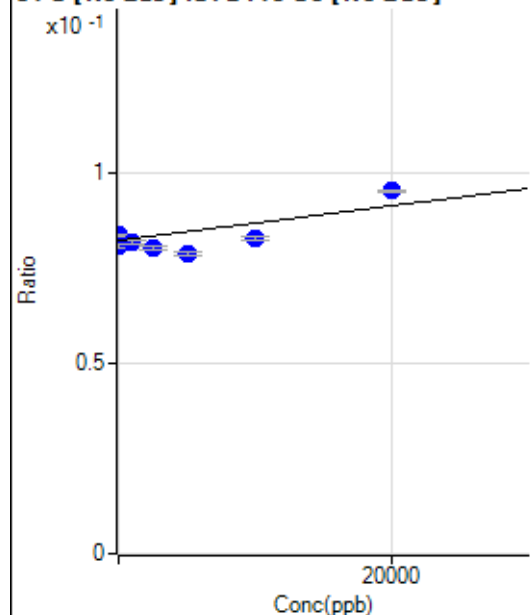
$$DL = 188.5$$

$$BEC = 434.3$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-3034.773	331755.19	0.0807	P	1.0
2	☐	0.000	3034.773	337941.17	0.0835	P	0.3
3	☐	1000.000	-606.807	338800.50	0.0818	P	1.2
4	☐	2500.000	-4172.419	319753.90	0.0802	P	1.5
5	☐	5000.000	-7921.030	304948.09	0.0785	P	1.7
6	☐	10000.000	1183.574	316526.49	0.0827	P	1.4
7	☐	20000.000	28552.863	356188.82	0.0951	P	0.6
8	☐			254169.95	0.0719	P	2.1

$$y = 4.5315\text{E-}007 * x + 0.0821$$

$$R = 0.8285$$

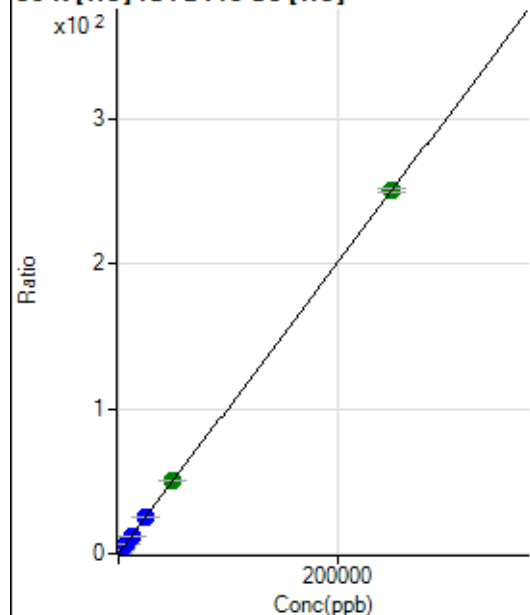
$$DL = 3368$$

$$BEC = 1.812\text{E}+05$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	19115.71	0.1017	P	2.7
2	☐	500.000	467.597	109589.37	0.5695	P	0.5
3	☐	2500.000	2411.845	470148.77	2.5142	P	0.6
4	☐	6250.000	6242.131	1125257.19	6.3456	P	0.5
5	☐	12500.000	12344.815	2211667.32	12.4500	P	0.7
6	☐	25000.000	24904.926	4373477.23	25.0135	P	0.3
7	☐	50000.000	50025.928	8605541.51	50.1415	A	1.2
8	☐	250000.00	250013.22	40718726.26	250.1841	A	0.9

$$y = 0.0010 * x + 0.1017$$

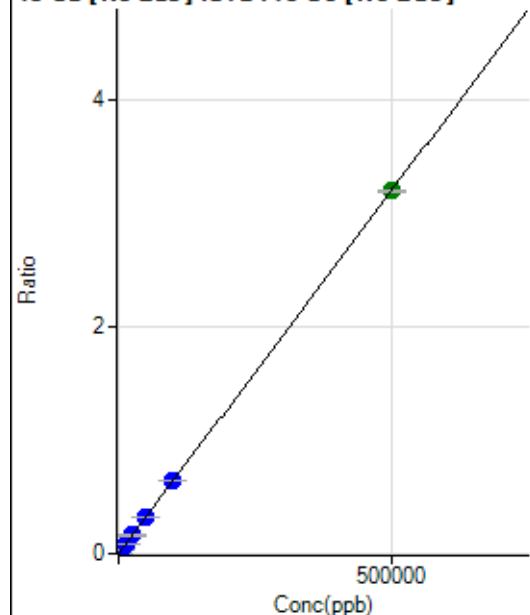
$$R = 1.0000$$

$$DL = 8.301$$

$$BEC = 101.7$$

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	100.01	0.0000	P	50.5
2	☐	500.000	453.308	11830.22	0.0029	P	2.4
3	☐	5000.000	4770.939	126396.68	0.0305	P	0.9
4	☐	12500.000	12554.986	320087.27	0.0803	P	1.0
5	☐	25000.000	25374.183	630187.29	0.1623	P	1.9
6	☐	50000.000	51226.210	1254527.09	0.3276	P	0.4
7	☐	100000.00	100522.95	2408743.63	0.6429	P	0.2
8	☐	500000.00	499755.04	11302927.25	3.1960	A	0.5

$$y = 6.3951\text{E-}006 * x + 2.4312\text{E-}005$$

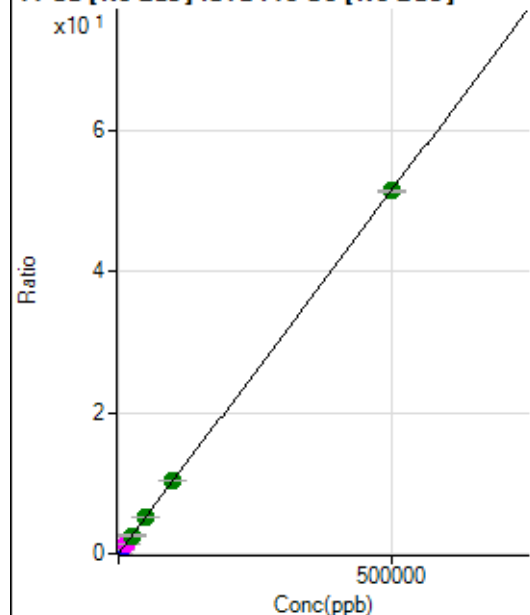
$$R = 1.0000$$

$$DL = 5.758$$

$$BEC = 3.802$$

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	7018.66	0.0017	P	3.1
2	☐	500.000	465.171	200831.55	0.0496	P	1.2
3	☐	5000.000	4770.571	2041195.72	0.4931	P	0.8
4	☐	12500.000	12268.200	5042959.05	1.2654	M	1.6
5	☐	25000.000	25098.137	10045232.60	2.5870	A	1.6
6	☐	50000.000	51199.553	20201374.93	5.2756	A	1.0
7	☐	100000.00	101321.90	39110760.60	10.4385	A	0.5
8	☐	500000.00	499618.88	182009165.1	51.4655	A	0.8

$$y = 1.0301\text{E-}004 * x + 0.0017$$

$$R = 1.0000$$

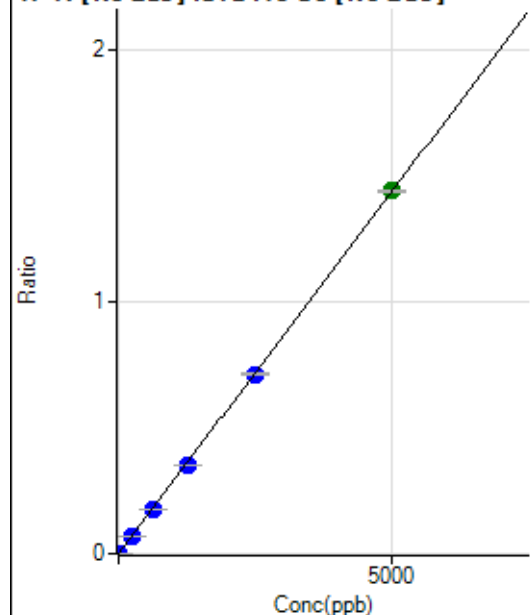
$$DL = 1.522$$

$$BEC = 16.59$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	25.7
2	☐	5.000	4.822	5690.22	0.0014	P	3.5
3	☐	250.000	231.967	276151.79	0.0667	P	0.7
4	☐	625.000	605.908	694336.04	0.1742	P	0.6
5	☐	1250.000	1223.367	1365911.69	0.3517	P	1.5
6	☐	2500.000	2485.529	2736406.29	0.7146	P	1.1
7	☐	5000.000	5017.182	5404823.90	1.4425	A	0.3
8	☐			1664.05	0.0005	P	5.3

$$y = 2.8751\text{E-}004 * x + 1.9596\text{E-}005$$

$$R = 1.0000$$

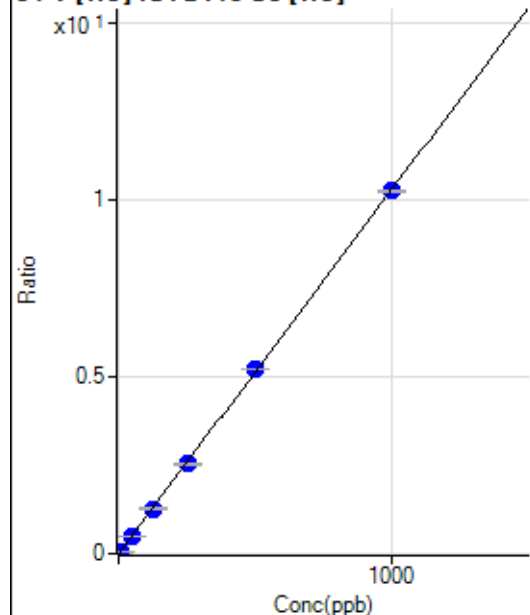
$$DL = 0.05256$$

$$BEC = 0.06816$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5.55	0.0000	P	69.2
2	☐	5.000	5.022	9943.50	0.0517	P	2.0
3	☐	50.000	47.741	91819.35	0.4910	P	0.9
4	☐	125.000	124.185	226493.80	1.2772	P	1.2
5	☐	250.000	247.735	452568.19	2.5479	P	1.6
6	☐	500.000	506.553	910874.64	5.2097	P	0.2
7	☐	1000.000	997.505	1760765.13	10.2589	P	0.3
8	☐			665.58	0.0041	P	7.1

$$y = 0.0103 * x + 2.9544\text{E-}005$$

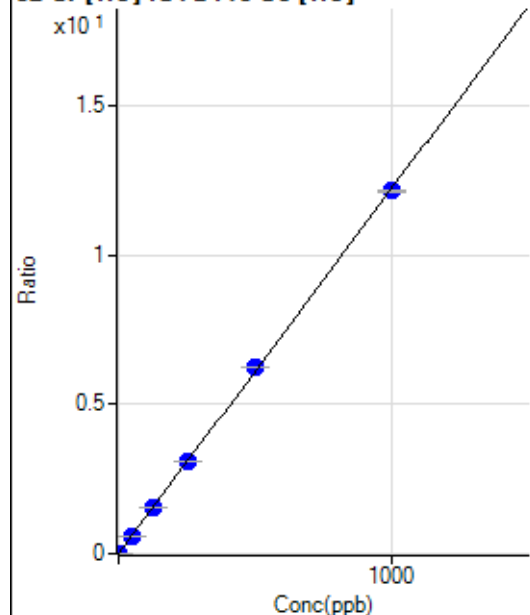
$$R = 1.0000$$

$$DL = 0.005968$$

$$BEC = 0.002873$$

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	738.92	0.0039	P	1.8
2	☐	2.000	1.942	5322.16	0.0277	P	4.1
3	☐	50.000	48.786	112219.98	0.6001	P	0.6
4	☐	125.000	126.072	273914.06	1.5446	P	1.2
5	☐	250.000	251.347	546330.80	3.0755	P	1.0
6	☐	500.000	510.839	1092182.28	6.2467	P	0.3
7	☐	1000.000	994.171	2085851.15	12.1532	P	0.7
8	☐			51982.59	0.3194	P	1.8

$$y = 0.0122 * x + 0.0039$$

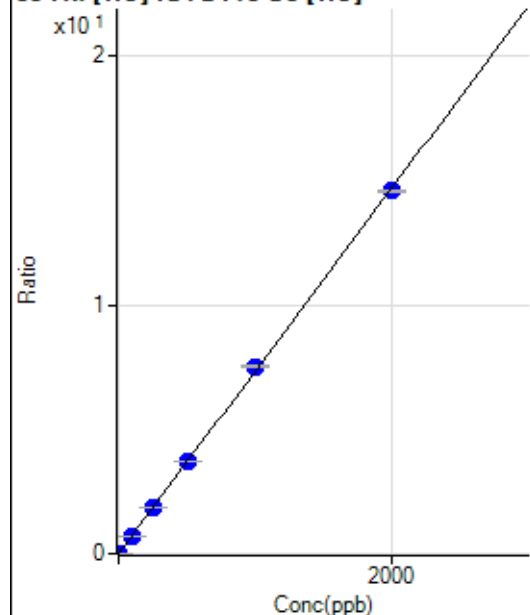
$$R = 0.9999$$

$$DL = 0.01737$$

$$BEC = 0.3218$$

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	38.89	0.0002	P	25.7
2	☐	1.000	1.030	1493.43	0.0078	P	8.0
3	☐	100.000	97.563	133907.65	0.7161	P	1.6
4	☐	250.000	254.029	330580.71	1.8642	P	0.5
5	☐	500.000	503.536	656372.59	3.6950	P	1.0
6	☐	1000.000	1023.233	1312803.33	7.5085	P	0.8
7	☐	2000.000	1987.118	2502656.75	14.5813	P	0.6
8	☐			8408.08	0.0517	P	3.1

$$y = 0.0073 * x + 2.0681E-004$$

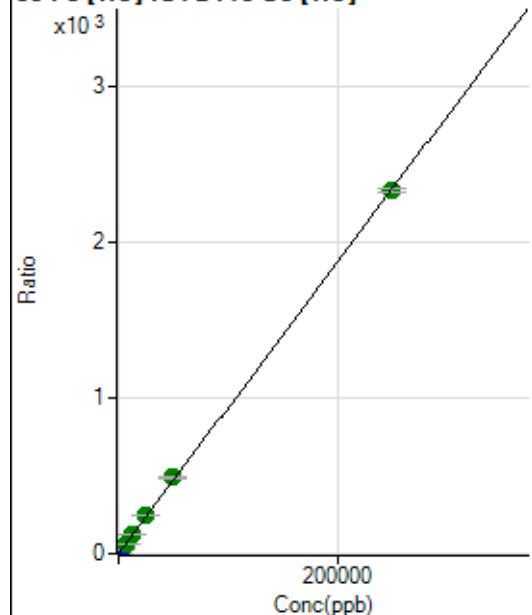
$$R = 0.9999$$

$$DL = 0.02173$$

$$BEC = 0.02818$$

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	4061.78	0.0216	P	3.5
2	☐	50.000	54.438	102027.16	0.5302	P	0.8
3	☐	2500.000	2546.965	4453122.61	23.8142	P	0.2
4	☐	6250.000	6582.352	10907925.13	61.5110	A	0.7
5	☐	12500.000	13246.263	21984054.19	123.7622	A	1.3
6	☐	25000.000	26635.011	43505149.58	248.8338	A	1.2
7	☐	50000.000	52402.333	84018390.76	489.5404	A	0.9
8	☐	250000.00	249309.94	379050638.1	2,328.961	A	1.1

$$y = 0.0093 * x + 0.0216$$

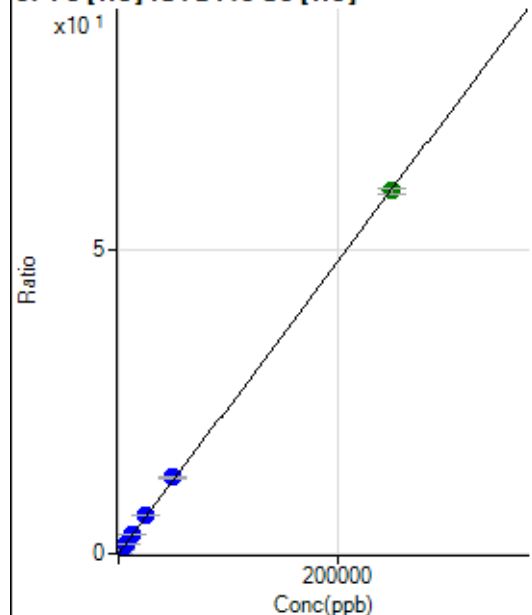
$$R = 0.9999$$

$$DL = 0.2451$$

$$BEC = 2.314$$

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	303.72	0.0016	P	13.4
2	☐	50.000	52.534	2729.95	0.0142	P	0.8
3	☐	2500.000	2559.239	114813.46	0.6140	P	1.1
4	☐	6250.000	6753.263	286838.11	1.6175	P	0.3
5	☐	12500.000	13326.455	566747.69	3.1904	P	0.8
6	☐	25000.000	26815.838	1122125.42	6.4181	P	1.1
7	☐	50000.000	52367.606	2150838.92	12.5322	P	1.1
8	☐	250000.00	249290.39	9708124.29	59.6520	A	1.7

$$y = 2.3928E-004 * x + 0.0016$$

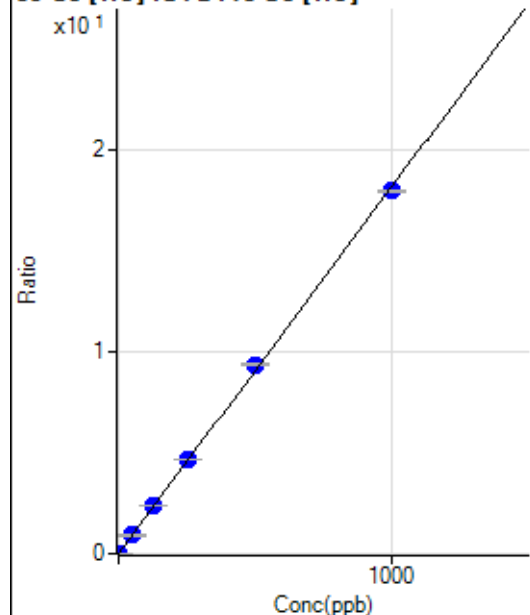
$$R = 0.9999$$

$$DL = 2.719$$

$$BEC = 6.753$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	35.56	0.0002	P	39.3
2	☐	1.000	0.966	3404.90	0.0177	P	2.7
3	☐	50.000	49.995	169408.74	0.9060	P	1.3
4	☐	125.000	130.142	418122.20	2.3580	P	0.7
5	☐	250.000	257.236	827889.52	4.6605	P	1.1
6	☐	500.000	515.489	1632874.26	9.3393	P	0.9
7	☐	1000.000	989.804	3077785.23	17.9325	P	0.4
8	☐			5700.08	0.0350	P	2.5

$$y = 0.0181 * x + 1.8935E-004$$

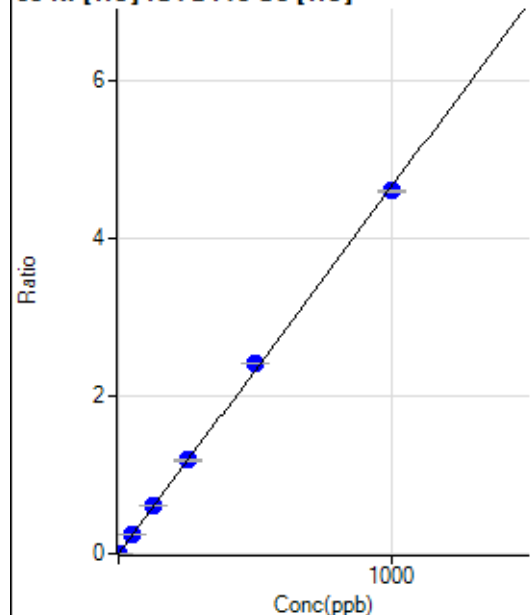
$$R = 0.9998$$

$$DL = 0.01231$$

$$BEC = 0.01045$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	24.44	0.0001	P	31.4
2	☐	1.000	1.020	940.05	0.0049	P	3.0
3	☐	50.000	50.395	43945.85	0.2350	P	0.7
4	☐	125.000	130.315	107723.20	0.6075	P	0.5
5	☐	250.000	255.477	211540.53	1.1909	P	1.4
6	☐	500.000	518.149	422267.16	2.4151	P	0.1
7	☐	1000.000	988.872	791067.90	4.6091	P	0.2
8	☐			14273.79	0.0877	P	2.5

$$y = 0.0047 * x + 1.3007E-004$$

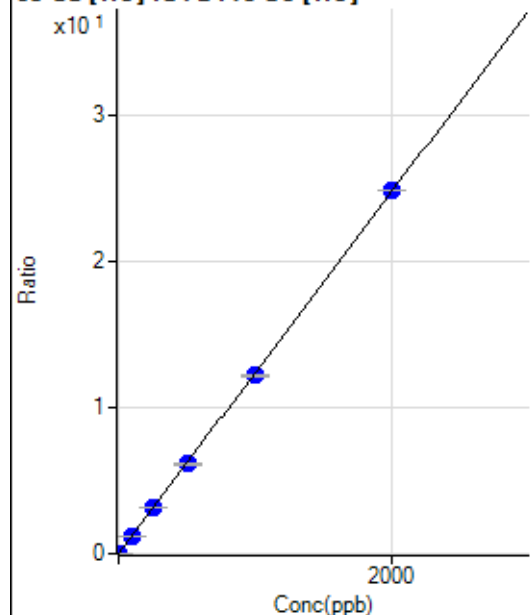
$$R = 0.9997$$

$$DL = 0.02628$$

$$BEC = 0.02791$$

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	357.79	0.0019	P	2.8
2	☐	2.000	1.891	4860.87	0.0253	P	1.7
3	☐	100.000	97.731	226065.58	1.2089	P	1.3
4	☐	250.000	254.466	557633.72	3.1447	P	0.3
5	☐	500.000	497.719	1092232.18	6.1490	P	1.7
6	☐	1000.000	987.360	2132382.50	12.1964	P	0.8
7	☐	2000.000	2006.446	4253616.08	24.7827	P	0.2
8	☐			5850.15	0.0360	P	5.0

$$y = 0.0124 * x + 0.0019$$

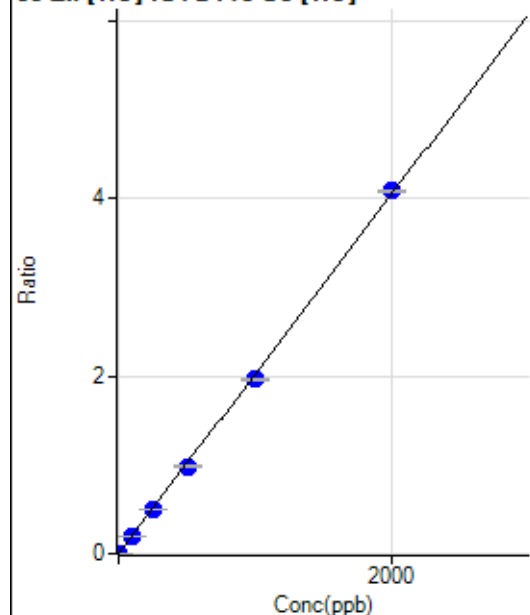
$$R = 1.0000$$

$$DL = 0.01274$$

$$BEC = 0.1542$$

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	303.34	0.0016	P	3.5
2	☐	2.000	1.849	1030.05	0.0054	P	4.3
3	☐	100.000	94.380	35975.60	0.1924	P	0.3
4	☐	250.000	245.009	88106.30	0.4969	P	0.2
5	☐	500.000	485.319	174549.45	0.9826	P	1.4
6	☐	1000.000	969.585	342956.69	1.9615	P	0.5
7	☐	2000.000	2019.783	701010.77	4.0843	P	0.4
8	☐			7085.16	0.0435	P	2.4

$$y = 0.0020 * x + 0.0016$$

$$R = 0.9998$$

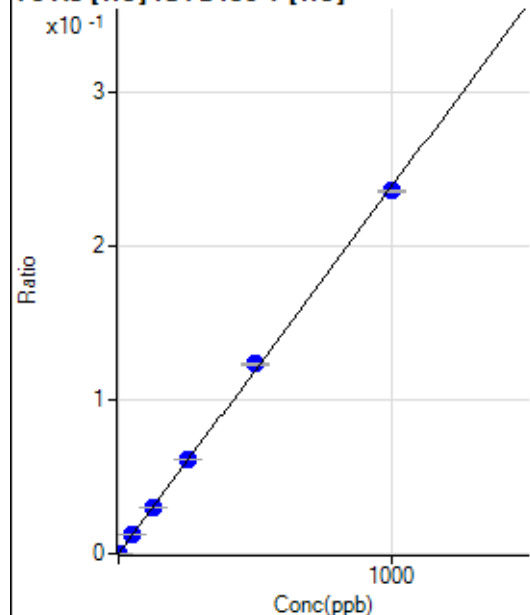
$$DL = 0.0838$$

$$BEC = 0.7987$$

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	9.88	0.0000	P	10.7
2	☐	1.000	1.001	243.83	0.0002	P	6.3
3	☐	50.000	50.525	11512.65	0.0120	P	0.7
4	☐	125.000	127.175	28090.76	0.0303	P	1.3
5	☐	250.000	257.601	56639.92	0.0614	P	0.9
6	☐	500.000	517.767	112868.24	0.1234	P	1.1
7	☐	1000.000	988.918	213996.46	0.2356	P	0.3
8	☐			85.80	0.0001	P	23.7

$$y = 2.3822E-004 * x + 1.0221E-005$$

$$R = 0.9997$$

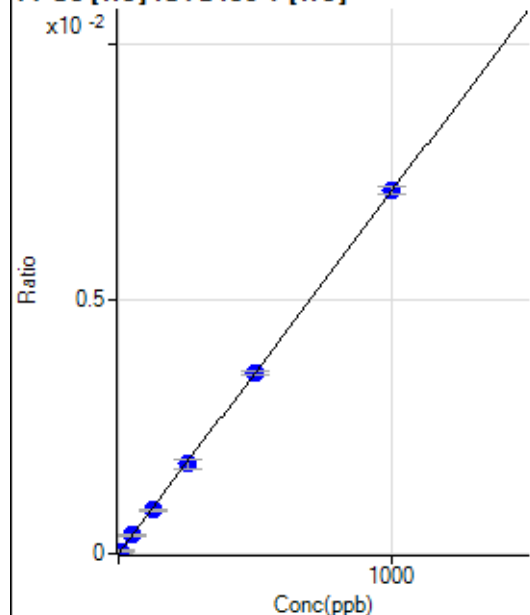
$$DL = 0.01374$$

$$BEC = 0.0429$$

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	1.11	0.0000	P	173.2
2	☐	5.000	7.316	52.22	0.0001	P	40.9
3	☐	50.000	51.018	347.79	0.0004	P	11.5
4	☐	125.000	120.396	794.48	0.0009	P	3.5
5	☐	250.000	247.187	1622.34	0.0018	P	10.8
6	☐	500.000	499.456	3249.30	0.0036	P	2.7
7	☐	1000.000	1001.488	6465.98	0.0071	P	2.2
8	☐			2.22	0.0000	P	86.6

$$y = 7.1079E-006 * x + 1.1465E-006$$

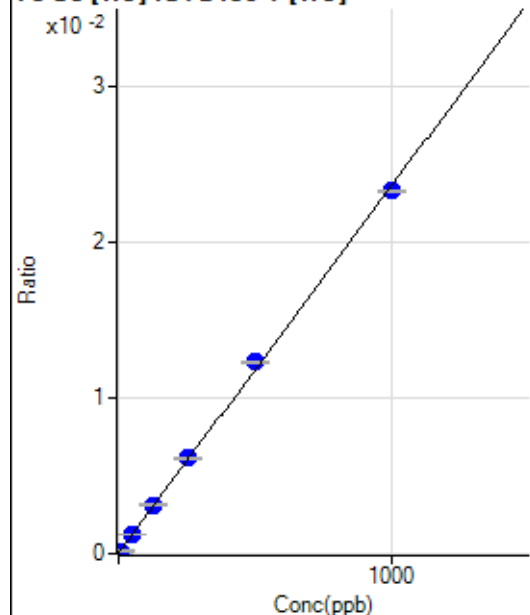
$$R = 1.0000$$

$$DL = 0.8381$$

$$BEC = 0.1613$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	38.27	0.0000	P	22.5
2	☐	5.000	6.152	180.87	0.0002	P	3.1
3	☐	50.000	51.744	1201.30	0.0013	P	3.7
4	☐	125.000	131.895	2913.90	0.0031	P	2.9
5	☐	250.000	258.064	5640.65	0.0061	P	2.1
6	☐	500.000	520.679	11247.02	0.0123	P	0.9
7	☐	1000.000	986.689	21124.67	0.0233	P	0.7
8	☐			64.20	0.0001	P	18.4

$$y = 2.3531\text{E-}005 * x + 3.9587\text{E-}005$$

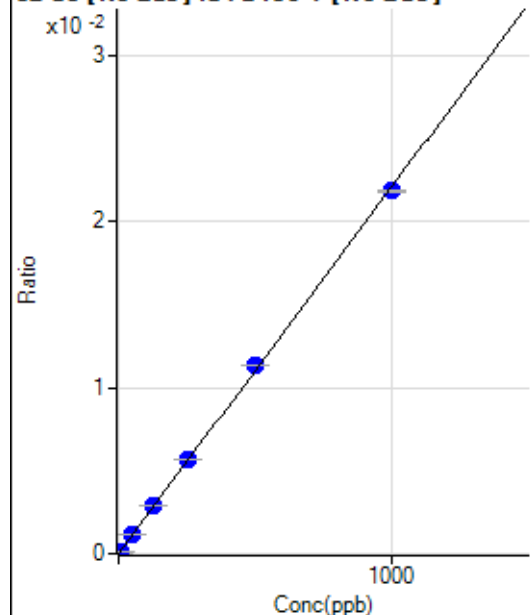
$$R = 0.9996$$

$$DL = 1.137$$

$$BEC = 1.682$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-20.38	0.0000	P	-118.
2	☐	5.000	5.583	797.49	0.0001	P	4.2
3	☐	50.000	50.354	7484.40	0.0011	P	1.9
4	☐	125.000	130.036	18880.87	0.0029	P	1.0
5	☐	250.000	258.561	37482.77	0.0057	P	0.3
6	☐	500.000	514.476	73709.77	0.0113	P	0.6
7	☐	1000.000	989.972	139675.91	0.0218	P	0.4
8	☐			120.58	0.0000	P	26.0

$$y = 2.2048\text{E-}005 * x - 2.9499\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.4771$$

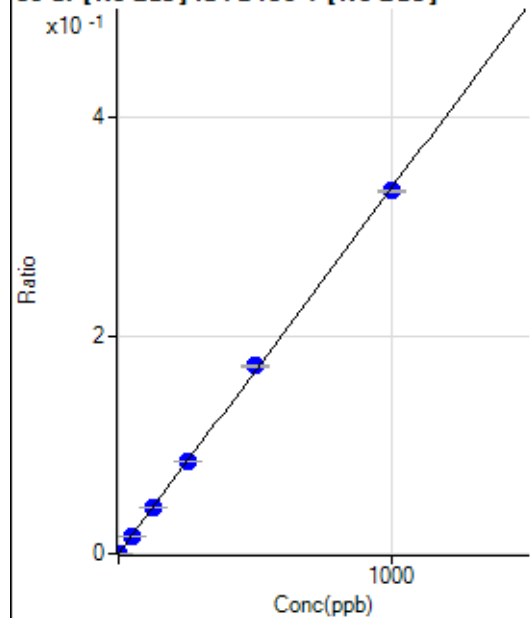
$$BEC = -0.1338$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			572.25		P	0.9
2	☐			495.57		P	5.7
3	☐			510.02		P	4.7
4	☐			500.02		P	1.8
5	☐			531.13		P	4.3
6	☐			490.02		P	4.5
7	☐			518.91		P	6.1
8	☐			533.35		P	3.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	888.95	0.0001	P	16.0
2	☐	1.000	0.936	2939.30	0.0004	P	7.8
3	☐	50.000	48.072	109646.24	0.0162	P	0.2
4	☐	125.000	125.023	276768.84	0.0420	P	0.7
5	☐	250.000	251.460	554600.22	0.0843	P	0.8
6	☐	500.000	513.719	1118593.92	0.1721	P	0.5
7	☐	1000.000	992.869	2127963.42	0.3325	P	0.6
8	☐			9292.24	0.0015	P	3.5

$$y = 3.3474\text{E-}004 * x + 1.2953\text{E-}004$$

$$R = 0.9999$$

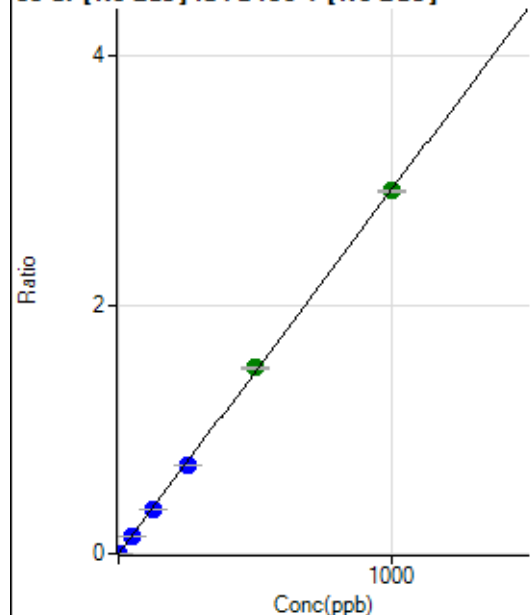
$$DL = 0.1859$$

$$BEC = 0.387$$

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	119.45	0.0000	P	11.1
2	☐	1.000	0.960	18762.99	0.0028	P	1.5
3	☐	50.000	47.649	942328.74	0.1394	P	0.8
4	☐	125.000	122.109	2355093.48	0.3572	P	0.5
5	☐	250.000	242.283	4662728.40	0.7088	P	0.2
6	☐	500.000	510.534	9707573.65	1.4935	A	1.1
7	☐	1000.000	997.142	18669301.46	2.9170	A	0.5
8	☐			74463.79	0.0123	P	2.1

$$y = 0.0029 * x + 1.7399E-005$$

$$R = 0.9999$$

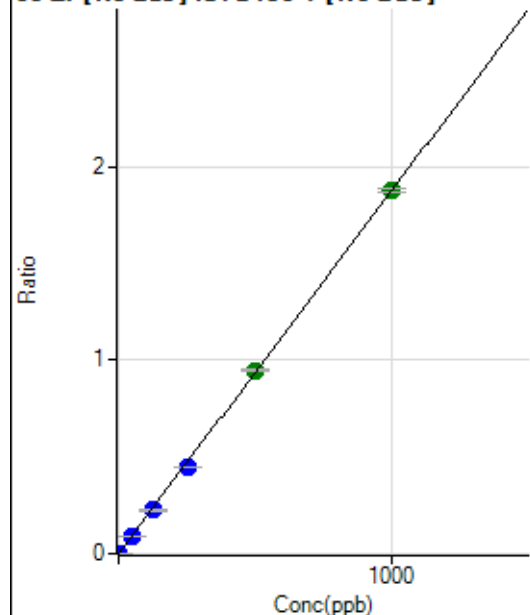
$$DL = 0.001978$$

$$BEC = 0.005948$$

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	425.03	0.0001	P	11.2
2	☐	1.000	0.788	10206.82	0.0015	P	2.6
3	☐	50.000	46.312	586619.18	0.0868	P	0.7
4	☐	125.000	119.383	1474288.25	0.2236	P	1.1
5	☐	250.000	240.664	2965188.98	0.4507	P	0.3
6	☐	500.000	506.183	6161703.87	0.9480	A	0.4
7	☐	1000.000	1000.129	11987054.35	1.8730	A	1.1
8	☐			3344.96	0.0006	P	7.4

$$y = 0.0019 * x + 6.1853E-005$$

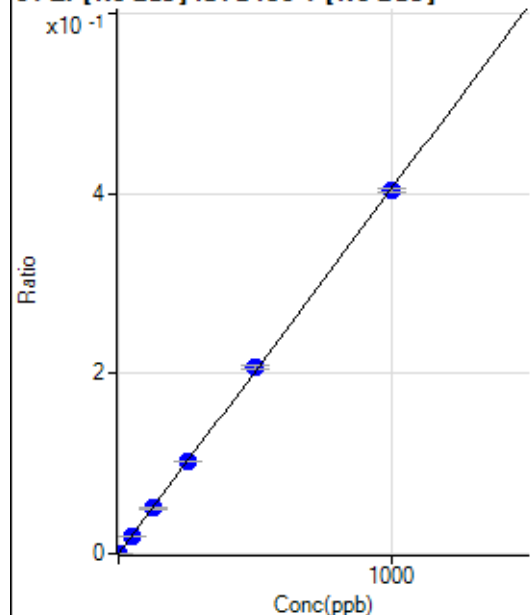
$$R = 0.9999$$

$$DL = 0.01114$$

$$BEC = 0.03303$$

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	91.67	0.0000	P	42.1
2	☐	1.000	0.815	2280.84	0.0003	P	9.1
3	☐	50.000	47.227	129433.61	0.0191	P	0.8
4	☐	125.000	124.122	331664.99	0.0503	P	1.0
5	☐	250.000	252.890	674179.67	0.1025	P	1.1
6	☐	500.000	510.898	1345634.18	0.2070	P	1.1
7	☐	1000.000	994.077	2577983.67	0.4028	P	1.1
8	☐			727.83	0.0001	P	6.8

$$y = 4.0519\text{E-}004 * x + 1.3358\text{E-}005$$

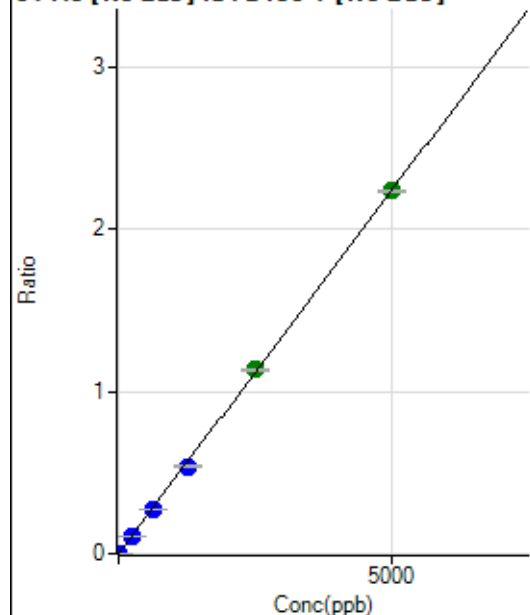
$$R = 0.9999$$

$$DL = 0.04159$$

$$BEC = 0.03297$$

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	222.23	0.0000	P	12.4
2	☐	5.000	4.441	13415.13	0.0020	P	2.1
3	☐	250.000	232.739	704610.47	0.1042	P	0.6
4	☐	625.000	603.441	1781442.08	0.2702	P	0.8
5	☐	1250.000	1202.295	3541670.65	0.5384	P	1.3
6	☐	2500.000	2533.988	7374875.08	1.1346	A	0.4
7	☐	5000.000	4998.490	14324261.26	2.2381	A	0.4
8	☐			11224.29	0.0018	P	4.8

$$y = 4.4774\text{E-}004 * x + 3.2385\text{E-}005$$

$$R = 0.9999$$

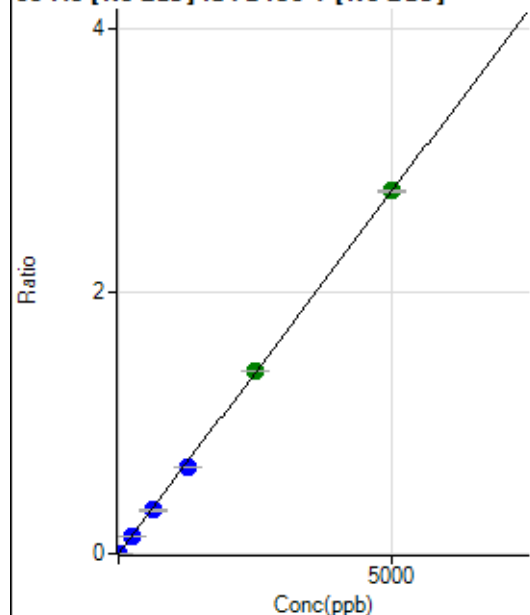
$$DL = 0.02701$$

$$BEC = 0.07233$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	116.67	0.0000	P	26.6
2	☐	5.000	4.518	16688.16	0.0025	P	3.1
3	☐	250.000	232.280	867685.11	0.1284	P	0.4
4	☐	625.000	599.144	2182704.74	0.3311	P	0.7
5	☐	1250.000	1186.521	4313186.94	0.6556	P	0.6
6	☐	2500.000	2521.849	9057686.23	1.3935	A	0.6
7	☐	5000.000	5009.063	17714992.41	2.7679	A	0.4
8	☐			17411.15	0.0029	P	1.9

$$y = 5.5257\text{E-}004 * x + 1.7019\text{E-}005$$

$$R = 0.9999$$

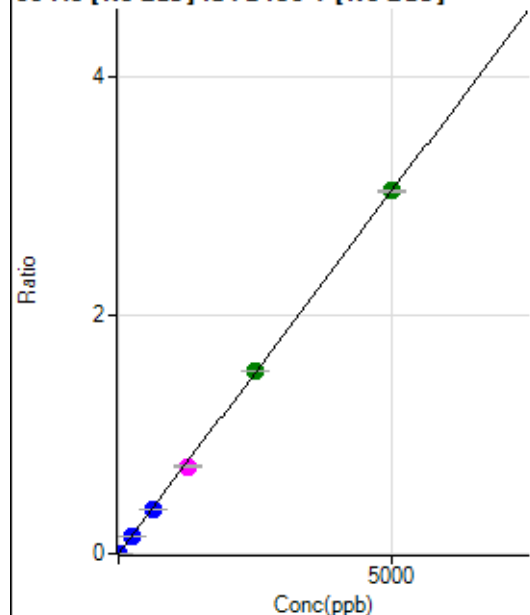
$$DL = 0.02461$$

$$BEC = 0.0308$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	197.23	0.0000	P	13.6
2	☐	5.000	4.661	19002.26	0.0029	P	2.3
3	☐	250.000	234.025	961944.07	0.1423	P	0.9
4	☐	625.000	602.218	2413915.72	0.3662	P	1.2
5	☐	1250.000	1202.420	4809665.21	0.7311	M	2.4
6	☐	2500.000	2521.614	9965153.87	1.5331	A	0.5
7	☐	5000.000	5004.735	19474370.75	3.0428	A	0.9
8	☐			25342.89	0.0042	P	0.4

$$y = 6.0798\text{E-}004 * x + 2.8735\text{E-}005$$

$$R = 0.9999$$

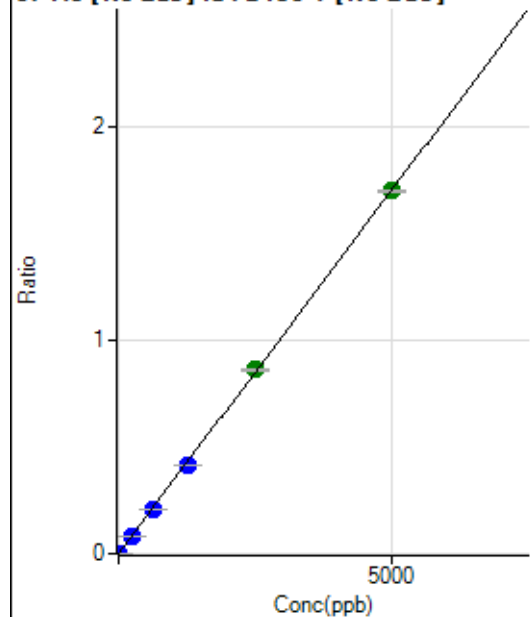
$$DL = 0.01927$$

$$BEC = 0.04726$$

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	119.45	0.0000	P	20.4
2	☐	5.000	4.563	10406.98	0.0016	P	3.0
3	☐	250.000	237.124	544704.58	0.0806	P	0.8
4	☐	625.000	606.969	1359616.11	0.2062	P	1.3
5	☐	1250.000	1219.256	2725284.78	0.4143	P	0.9
6	☐	2500.000	2531.570	5590896.05	0.8601	A	0.4
7	☐	5000.000	4994.799	10861494.34	1.6971	A	0.5
8	☐			10521.00	0.0017	P	1.9

$$y = 3.3976E-004 * x + 1.7370E-005$$

$$R = 0.9999$$

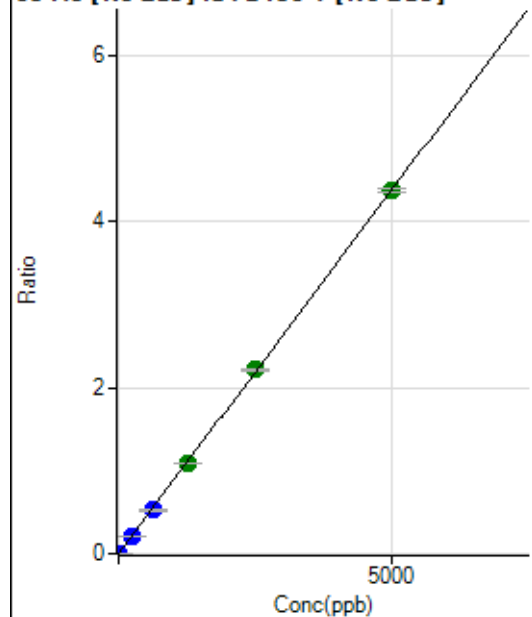
$$DL = 0.03129$$

$$BEC = 0.05112$$

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	180.56	0.0000	P	26.4
2	☐	5.000	4.631	27093.41	0.0041	P	3.4
3	☐	250.000	233.253	1380665.18	0.2043	P	1.0
4	☐	625.000	599.338	3459560.15	0.5248	P	1.4
5	☐	1250.000	1237.077	7125556.24	1.0832	A	0.2
6	☐	2500.000	2531.464	14406921.16	2.2165	A	0.5
7	☐	5000.000	4991.544	27970927.71	4.3704	A	1.2
8	☐			26739.96	0.0044	P	3.8

$$y = 8.7556E-004 * x + 2.6339E-005$$

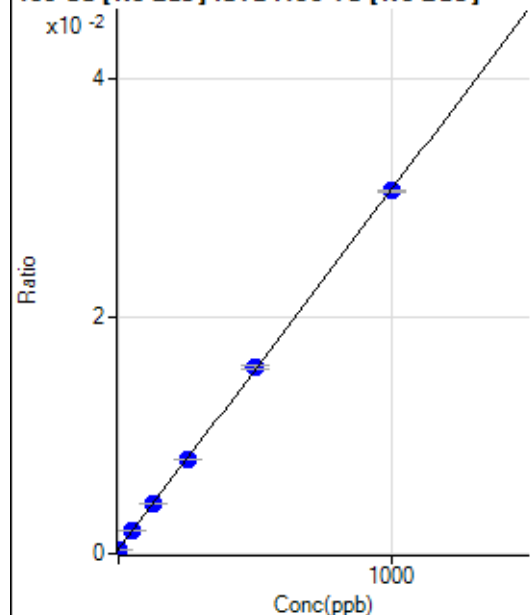
$$R = 1.0000$$

$$DL = 0.02379$$

$$BEC = 0.03008$$

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	2466.97	0.0004	P	6.0
2	☐	1.000	0.421	2458.66	0.0004	P	2.3
3	☐	50.000	50.314	12475.44	0.0019	P	2.7
4	☐	125.000	127.912	27614.00	0.0042	P	1.9
5	☐	250.000	251.224	52079.93	0.0080	P	0.8
6	☐	500.000	506.197	102450.87	0.0157	P	1.9
7	☐	1000.000	996.216	197109.56	0.0306	P	0.3
8	☐			2300.29	0.0004	P	7.9

$$y = 3.0318\text{E-}005 * x + 3.6823\text{E-}004$$

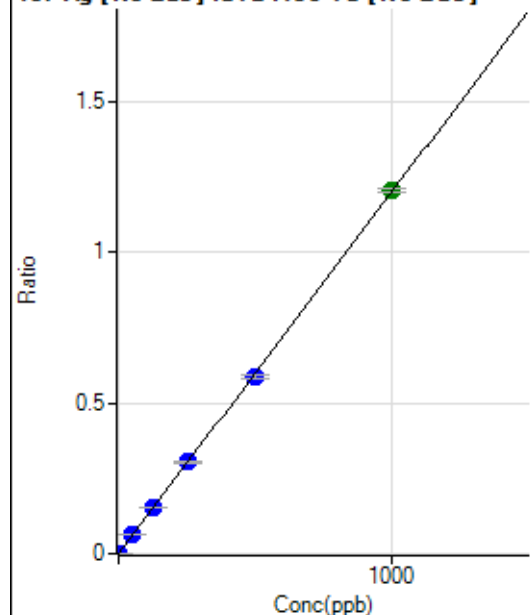
R = 1.0000

DL = 2.203

BEC = 12.15

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	75.00	0.0000	P	38.2
2	☐	1.000	0.879	6874.17	0.0011	P	4.3
3	☐	50.000	51.238	404800.74	0.0615	P	1.0
4	☐	125.000	129.197	1007512.97	0.1549	P	0.8
5	☐	250.000	252.842	1977618.01	0.3032	P	0.2
6	☐	500.000	489.394	3825670.57	0.5869	P	1.2
7	☐	1000.000	1004.006	7762266.06	1.2039	A	1.0
8	☐			1289.01	0.0002	P	11.2

$$y = 0.0012 * x + 1.1182\text{E-}005$$

R = 0.9999

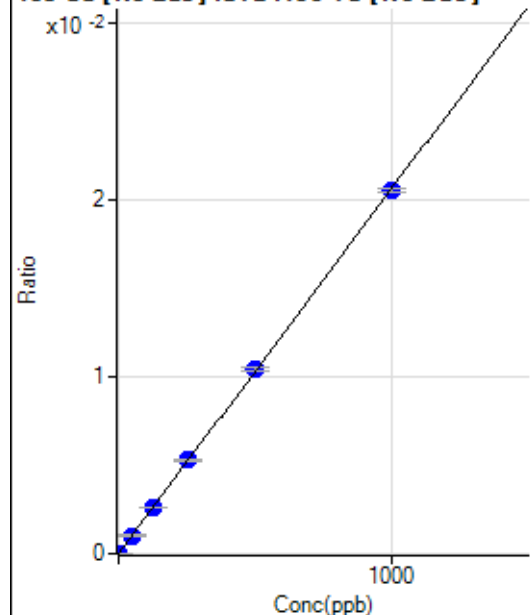
DL = 0.01069

BEC = 0.009325

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	9.72	0.0000	P	49.5
2	☐	1.000	0.817	118.06	0.0000	P	30.0
3	☐	50.000	49.614	6746.18	0.0010	P	1.7
4	☐	125.000	127.522	17103.65	0.0026	P	1.8
5	☐	250.000	256.313	34468.65	0.0053	P	0.6
6	☐	500.000	507.552	68209.34	0.0105	P	2.4
7	☐	1000.000	994.350	132151.53	0.0205	P	1.2
8	☐			40.28	0.0000	P	48.5

$$y = 2.0612\text{E-}005 * x + 1.4512\text{E-}006$$

$$R = 0.9999$$

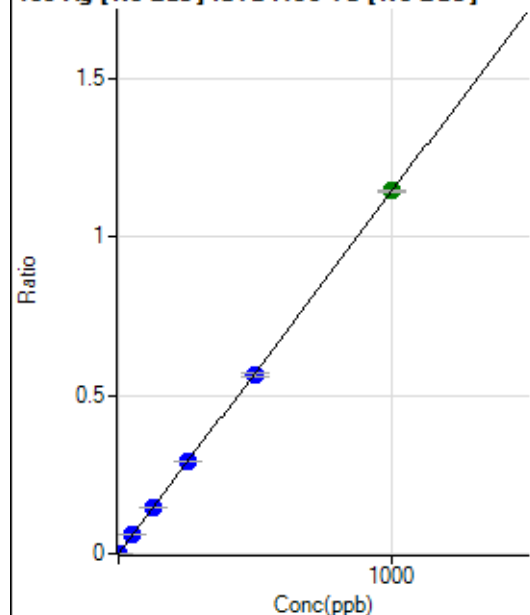
$$DL = 0.1045$$

$$BEC = 0.0704$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	33.33	0.0000	P	25.5
2	☐	1.000	0.848	6287.78	0.0010	P	5.2
3	☐	50.000	51.021	384183.19	0.0583	P	0.1
4	☐	125.000	129.250	960672.68	0.1477	P	0.7
5	☐	250.000	254.251	1895357.10	0.2906	P	0.8
6	☐	500.000	493.170	3674517.79	0.5637	P	1.5
7	☐	1000.000	1001.770	7382166.48	1.1450	A	0.3
8	☐			1322.35	0.0002	P	7.4

$$y = 0.0011 * x + 4.9788\text{E-}006$$

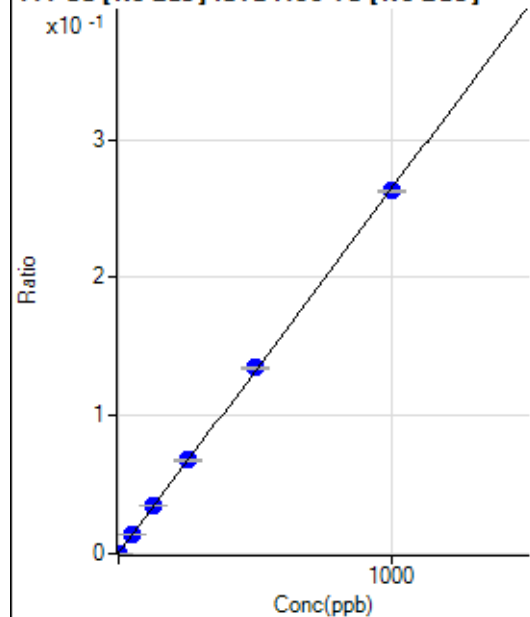
$$R = 0.9999$$

$$DL = 0.003327$$

$$BEC = 0.004356$$

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	1736.74	0.0003	P	6.0
2	☐	1.000	0.946	3285.77	0.0005	P	4.1
3	☐	50.000	50.550	89692.09	0.0136	P	0.6
4	☐	125.000	128.999	223320.52	0.0343	P	0.3
5	☐	250.000	255.497	441964.96	0.0678	P	0.9
6	☐	500.000	508.002	876716.67	0.1345	P	0.1
7	☐	1000.000	994.097	1695062.03	0.2629	P	0.2
8	☐			1994.52	0.0003	P	6.1

$$y = 2.6420\text{E-}004 * x + 2.5923\text{E-}004$$

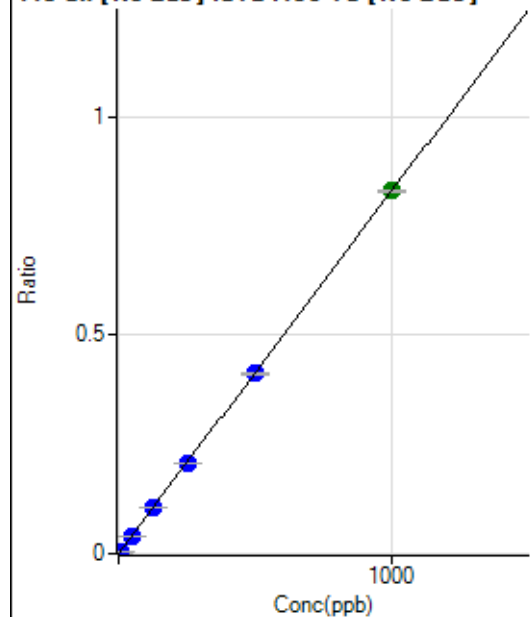
$$R = 0.9999$$

$$DL = 0.1772$$

$$BEC = 0.9812$$

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	686.16	0.0001	P	11.7
2	☐	5.000	4.970	27235.74	0.0042	P	1.6
3	☐	50.000	48.991	268071.99	0.0407	P	2.2
4	☐	125.000	125.032	674451.07	0.1037	P	0.6
5	☐	250.000	250.586	1355081.56	0.2078	P	0.2
6	☐	500.000	498.136	2691609.31	0.4129	P	1.2
7	☐	1000.000	1000.832	5347953.63	0.8295	A	0.2
8	☐			4250.81	0.0007	P	5.9

$$y = 8.2866\text{E-}004 * x + 1.0244\text{E-}004$$

$$R = 1.0000$$

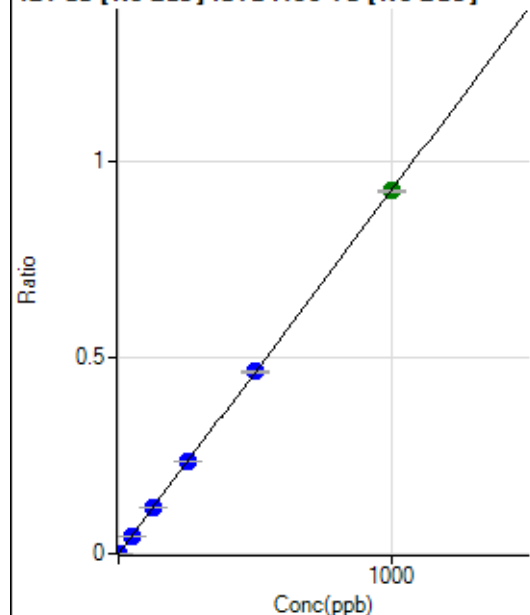
$$DL = 0.04348$$

$$BEC = 0.1236$$

Weight: <None>

Min Conc: 0

121 Sb [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	15.9
2	☐	2.000	1.887	11368.97	0.0018	P	3.1
3	☐	50.000	48.971	299205.71	0.0454	P	1.0
4	☐	125.000	126.317	761787.36	0.1171	P	0.3
5	☐	250.000	253.170	1531331.18	0.2348	P	0.1
6	☐	500.000	501.259	3030237.94	0.4648	P	0.9
7	☐	1000.000	998.465	5969646.10	0.9259	A	0.5
8	☐			5492.99	0.0009	P	6.5

$$y = 9.2729\text{E-}004 * x + 1.1603\text{E-}005$$

$$R = 1.0000$$

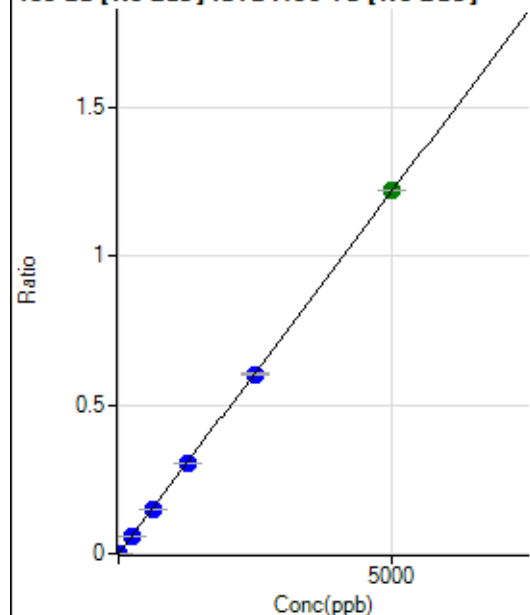
$$DL = 0.005966$$

$$BEC = 0.01251$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	33.8
2	☐	10.000	9.401	14800.24	0.0023	P	1.9
3	☐	250.000	243.616	390261.55	0.0593	P	1.9
4	☐	625.000	621.464	982830.44	0.1511	P	0.5
5	☐	1250.000	1243.329	1972065.26	0.3024	P	1.1
6	☐	2500.000	2473.790	3921768.32	0.6016	P	1.2
7	☐	5000.000	5015.535	7864005.38	1.2197	A	0.1
8	☐			1675.17	0.0003	P	12.0

$$y = 2.4318\text{E-}004 * x + 7.4702\text{E-}006$$

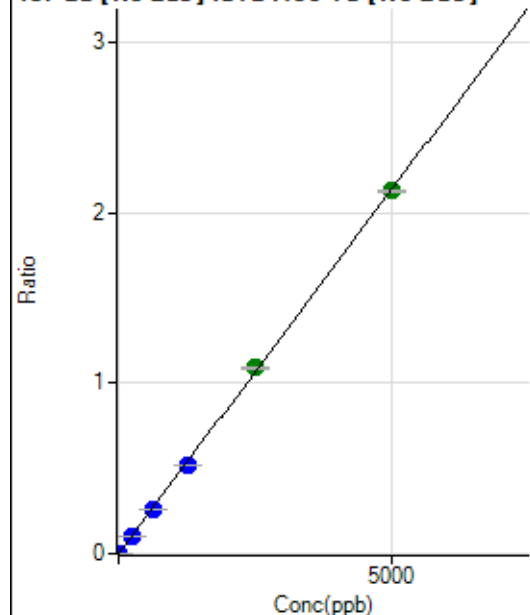
$$R = 1.0000$$

$$DL = 0.03113$$

$$BEC = 0.03072$$

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	52.78	0.0000	P	63.5
2	☐	10.000	9.444	26089.43	0.0040	P	3.5
3	☐	250.000	240.990	678320.18	0.1030	P	1.1
4	☐	625.000	610.531	1696369.18	0.2609	P	1.1
5	☐	1250.000	1215.709	3388215.70	0.5194	P	0.6
6	☐	2500.000	2553.896	7113884.19	1.0912	A	0.6
7	☐	5000.000	4983.885	13729576.87	2.1295	A	0.6
8	☐			2764.29	0.0005	P	8.2

$$y = 4.2727E-004 * x + 7.8621E-006$$

$$R = 0.9999$$

$$DL = 0.03506$$

$$BEC = 0.0184$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			13.33		P	NaN
2	☐			4.45		P	86.6
3	☐			37.78		P	20.4
4	☐			106.67		P	16.5
5	☐			195.57		P	26.0
6	☐			311.12		P	23.5
7	☐			600.04		P	25.0
8	☐			88.89		P	34.6

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.1
2	☐			6.67		P	50.0
3	☐			7.78		P	89.2
4	☐			6.67		P	50.0
5	☐			31.11		P	59.0
6	☐			40.00		P	8.3
7	☐			53.33		P	22.5
8	☐			37.78		P	39.8

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			11.11		P	86.6
2	☐			13.89		P	34.7
3	☐			33.33		P	25.0
4	☐			36.11		P	13.3
5	☐			27.78		P	45.8
6	☐			83.34		P	10.0
7	☐			138.90		P	30.8
8	☐			22.22		P	57.3

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	25.0
2	☐			18.89		P	73.5
3	☐			24.45		P	15.8
4	☐			48.89		P	28.4
5	☐			52.22		P	36.9
6	☐			101.11		P	34.9
7	☐			200.00		P	8.8
8	☐			26.67		P	33.1

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	12.5
2	☐			44.45		P	47.2
3	☐			38.89		P	75.3
4	☐			38.89		P	65.5
5	☐			44.45		P	39.0
6	☐			86.12		P	5.6
7	☐			47.22		P	27.0
8	☐			63.89		P	45.8

160 Gd [He] No available calibration points

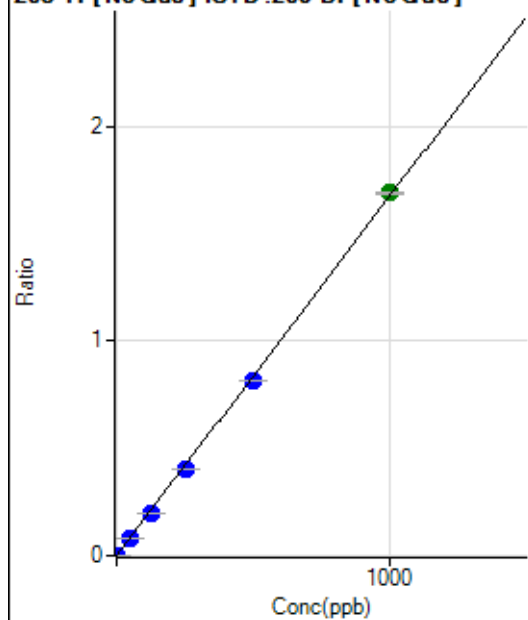
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			125.56		P	25.2
2	☐			138.89		P	13.9
3	☐			133.34		P	17.5
4	☐			157.78		P	12.4
5	☐			127.78		P	9.9
6	☐			130.00		P	32.7
7	☐			138.89		P	15.6
8	☐			136.67		P	2.4

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			41.67		P	20.0
2	☐			33.33		P	25.0
3	☐			30.55		P	15.7
4	☐			61.11		P	28.4
5	☐			36.11		P	58.1
6	☐			52.78		P	32.9
7	☐			61.11		P	15.7
8	☐			63.89		P	41.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			32.22		P	6.0
2	☐			40.00		P	16.7
3	☐			32.22		P	33.3
4	☐			43.33		P	20.3
5	☐			36.67		P	39.6
6	☐			43.33		P	40.7
7	☐			57.78		P	6.7
8	☐			46.67		P	14.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	411.14	0.0001	P	13.5
2	☐	1.000	0.859	5534.74	0.0015	P	3.4
3	☐	50.000	45.823	280466.76	0.0767	P	0.7
4	☐	125.000	118.612	711787.48	0.1985	P	0.8
5	☐	250.000	238.959	1436781.96	0.3997	P	0.6
6	☐	500.000	487.226	2869535.39	0.8149	P	0.1
7	☐	1000.000	1010.155	5718518.31	1.6894	A	0.7
8	☐			1577.94	0.0005	P	8.9

$$y = 0.0017 * x + 1.1275E-004$$

$$R = 0.9998$$

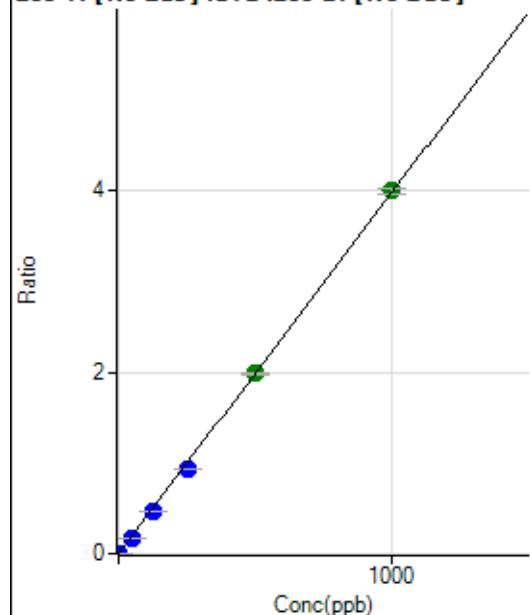
$$DL = 0.02732$$

$$BEC = 0.06742$$

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	544.48	0.0001	P	7.3
2	☐	1.000	0.868	12848.44	0.0036	P	2.5
3	☐	50.000	44.955	653268.92	0.1788	P	0.5
4	☐	125.000	117.053	1668330.06	0.4652	P	0.8
5	☐	250.000	234.026	3342304.31	0.9299	P	0.7
6	☐	500.000	498.669	6976667.00	1.9813	A	0.3
7	☐	1000.000	1005.905	13527579.82	3.9965	A	1.6
8	☐			3586.74	0.0012	P	8.5

$$y = 0.0040 * x + 1.4928E-004$$

$$R = 0.9999$$

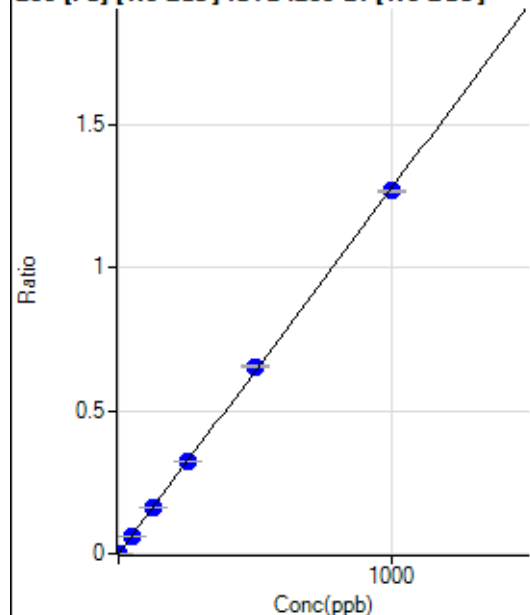
$$DL = 0.008207$$

$$BEC = 0.03757$$

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	713.01	0.0002	P	2.7
2	☐	1.000	0.923	4912.17	0.0014	P	3.0
3	☐	50.000	48.460	227166.16	0.0622	P	0.4
4	☐	125.000	127.052	583311.53	0.1626	P	0.4
5	☐	250.000	253.152	1164104.15	0.3239	P	0.6
6	☐	500.000	511.600	2304013.39	0.6543	P	1.0
7	☐	1000.000	993.233	4299423.80	1.2702	P	0.6
8	☐			14485.98	0.0050	P	1.7

$$y = 0.0013 * x + 1.9554E-004$$

$$R = 0.9999$$

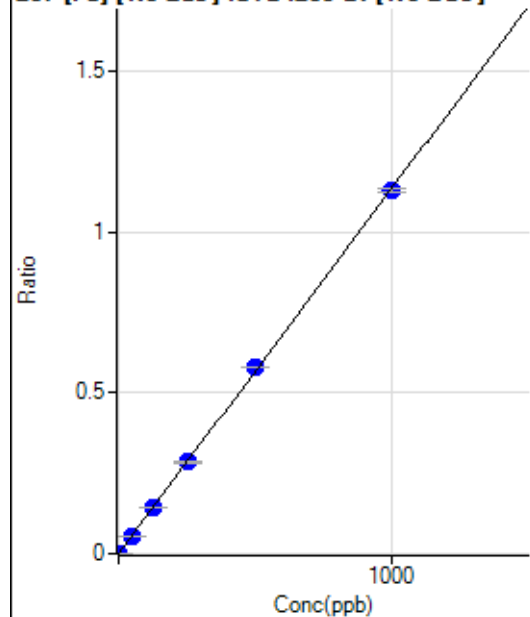
$$DL = 0.01243$$

$$BEC = 0.1529$$

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	651.89	0.0002	P	6.3
2	☐	1.000	0.896	4271.19	0.0012	P	2.8
3	☐	50.000	48.022	199889.61	0.0547	P	1.7
4	☐	125.000	124.433	507239.10	0.1414	P	0.3
5	☐	250.000	250.433	1022484.48	0.2845	P	0.5
6	☐	500.000	511.691	2046013.49	0.5811	P	0.5
7	☐	1000.000	994.216	3820853.65	1.1288	P	1.0
8	☐			12941.77	0.0045	P	2.1

$$y = 0.0011 * x + 1.7881E-004$$

R = 0.9999

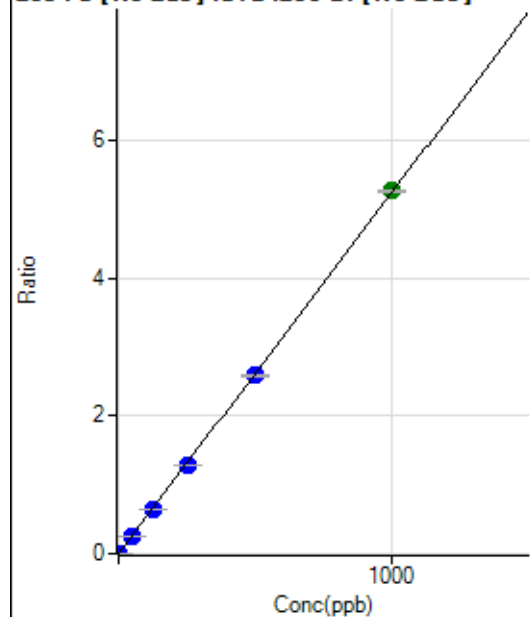
DL = 0.02962

BEC = 0.1575

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	2392.74	0.0007	P	2.5
2	☐	1.000	0.904	19244.87	0.0054	P	3.1
3	☐	50.000	47.083	903541.90	0.2472	P	0.9
4	☐	125.000	122.733	2307488.68	0.6434	P	0.4
5	☐	250.000	244.495	4604499.71	1.2811	P	0.2
6	☐	500.000	493.077	9094827.04	2.5829	P	0.6
7	☐	1000.000	1005.267	17822222.91	5.2653	A	0.8
8	☐			57854.03	0.0200	P	1.1

$$y = 0.0052 * x + 6.5618E-004$$

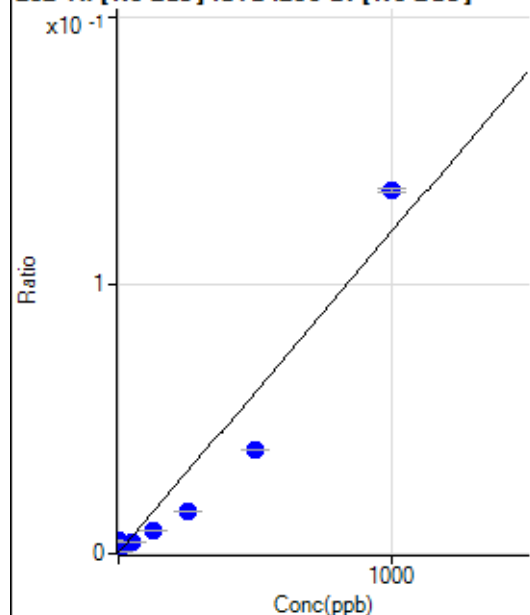
R = 0.9999

DL = 0.009536

BEC = 0.1253

Weight: <None>

Min Conc: 0

²³²Th [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1451.97	0.0004	P	7.9
2	☐	1.000	37.721	17527.09	0.0049	P	0.2
3	☐	50.000	34.905	16703.70	0.0046	P	1.9
4	☐	125.000	70.313	31568.55	0.0088	P	0.6
5	☐	250.000	128.360	56569.71	0.0157	P	1.6
6	☐	500.000	321.468	136699.28	0.0388	P	0.2
7	☐	1000.000	1127.230	457395.87	0.1351	P	1.0
8	☐			1703.87	0.0006	P	4.2

$$y = 1.1953\text{E-}004 * x + 3.9826\text{E-}004$$

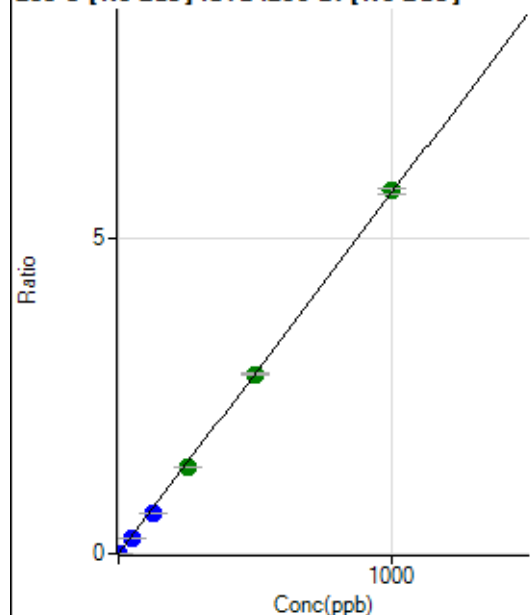
$$R = 0.9702$$

$$DL = 0.7909$$

$$BEC = 3.332$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD :²⁰⁹Bi [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1880.78	0.0005	P	3.5
2	☐	1.000	0.862	19415.37	0.0054	P	1.4
3	☐	50.000	43.624	912059.95	0.2496	P	0.8
4	☐	125.000	113.079	2317015.54	0.6461	P	0.6
5	☐	250.000	237.837	4881938.26	1.3583	A	0.3
6	☐	500.000	496.367	9979433.91	2.8342	A	1.0
7	☐	1000.000	1006.666	19453693.49	5.7474	A	1.4
8	☐			4181.40	0.0014	P	2.0

$$y = 0.0057 * x + 5.1581\text{E-}004$$

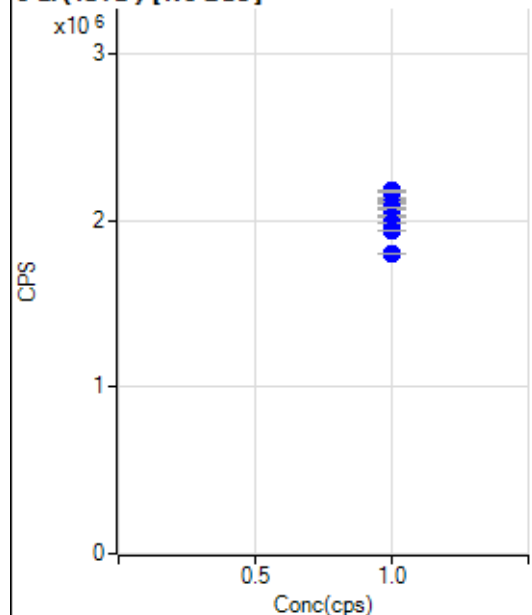
$$R = 0.9999$$

$$DL = 0.009531$$

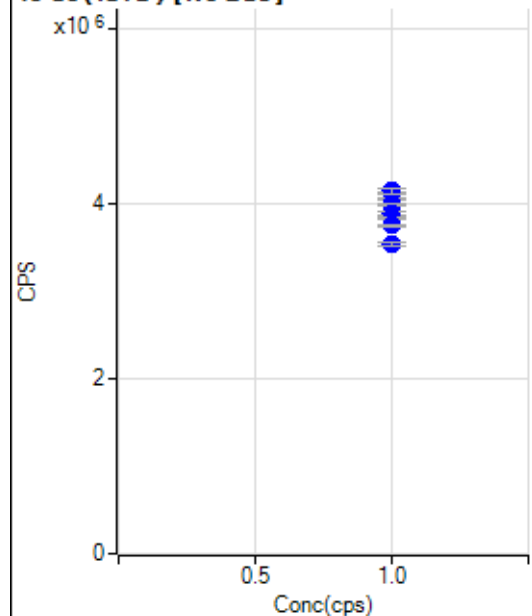
$$BEC = 0.09035$$

Weight: <None>

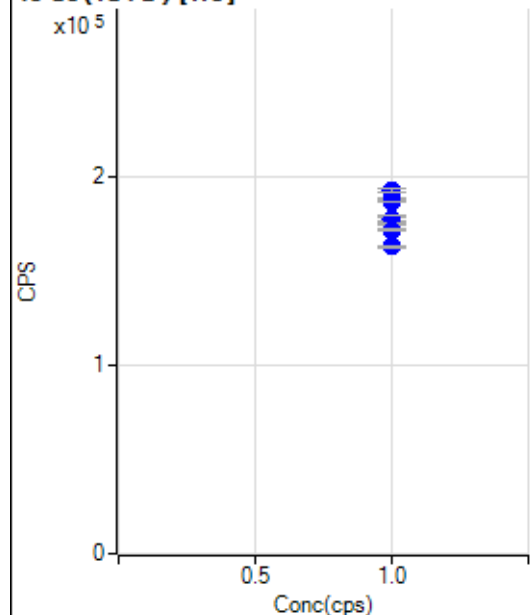
Min Conc: 0

6 Li (ISTD) [No Gas]

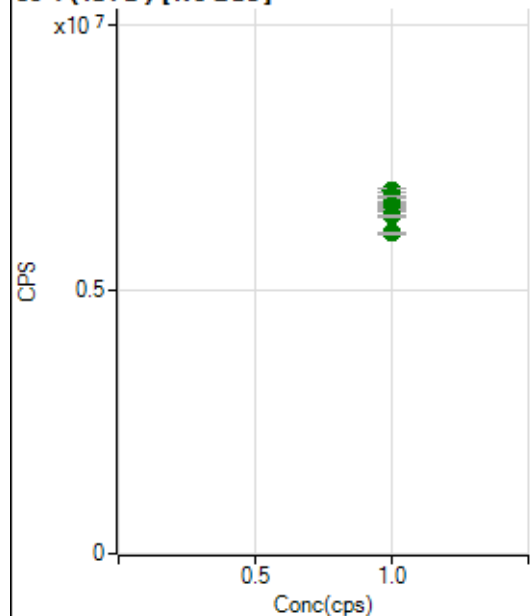
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2133268.44		P	0.5
2	☐	1.000		2106623.88		P	0.6
3	☐	1.000		2177914.03		P	0.8
4	☐	1.000		2072373.77		P	0.2
5	☐	1.000		2024482.78		P	0.5
6	☐	1.000		1986154.83		P	0.0
7	☐	1.000		1936398.42		P	0.2
8	☐	1.000		1800654.02		P	0.5

45 Sc (ISTD) [No Gas]

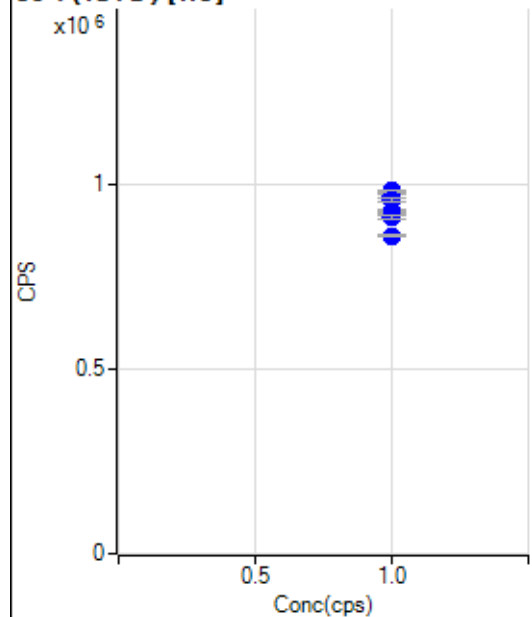
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4108546.58		P	0.4
2	☐	1.000		4047180.56		P	0.4
3	☐	1.000		4139734.86		P	1.3
4	☐	1.000		3985366.88		P	0.4
5	☐	1.000		3883405.56		P	1.1
6	☐	1.000		3829242.92		P	0.4
7	☐	1.000		3746826.13		P	0.3
8	☐	1.000		3536709.41		P	1.0

45 Sc (ISTD) [He]

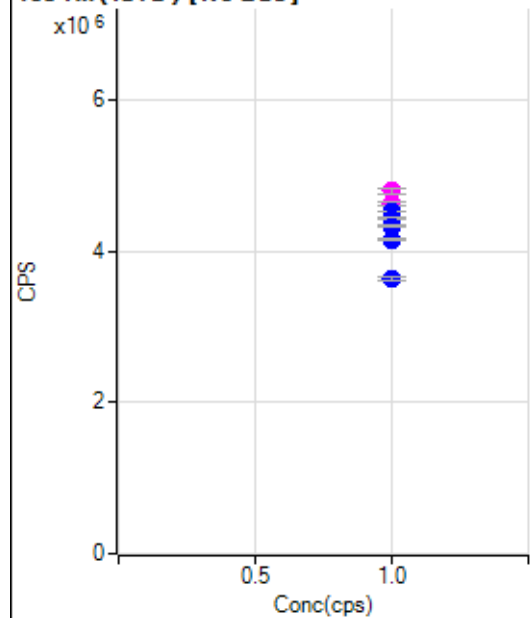
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		187889.98		P	0.5
2	☐	1.000		192442.60		P	1.0
3	☐	1.000		186994.27		P	0.1
4	☐	1.000		177327.57		P	0.9
5	☐	1.000		177654.71		P	1.6
6	☐	1.000		174842.97		P	0.6
7	☐	1.000		171635.45		P	0.8
8	☐	1.000		162766.33		P	1.1

89 Y (ISTD) [No Gas]

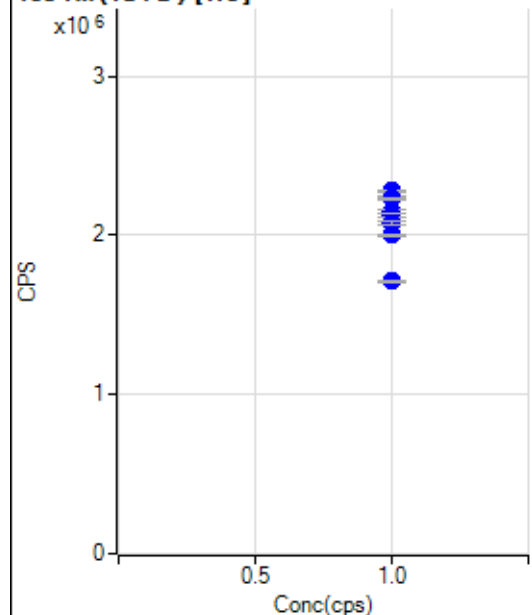
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6867757.53		A	1.0
2	☐	1.000		6638291.50		A	0.5
3	☐	1.000		6759454.07		A	0.7
4	☐	1.000		6592803.16		A	0.9
5	☐	1.000		6578525.04		A	0.4
6	☐	1.000		6499946.22		A	0.2
7	☐	1.000		6400275.32		A	0.4
8	☐	1.000		6073645.05		A	0.4

89 Y (ISTD) [He]

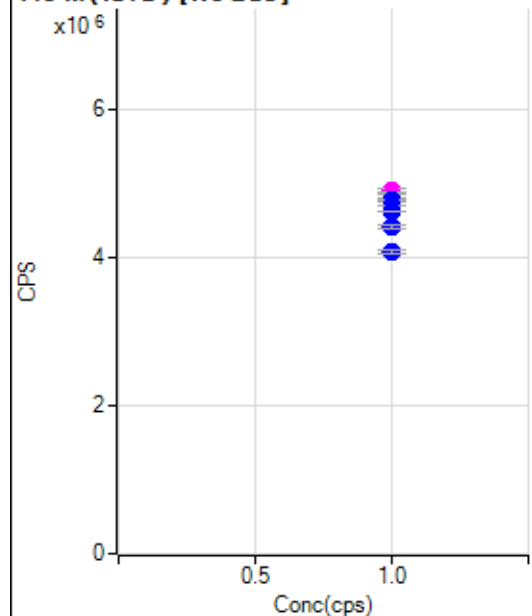
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		966299.77		P	1.1
2	☐	1.000		980975.45		P	0.8
3	☐	1.000		955714.04		P	0.9
4	☐	1.000		926936.86		P	1.1
5	☐	1.000		922836.45		P	0.3
6	☐	1.000		914993.28		P	0.1
7	☐	1.000		908328.68		P	1.0
8	☐	1.000		859444.29		P	0.8

103 Rh (ISTD) [No Gas]

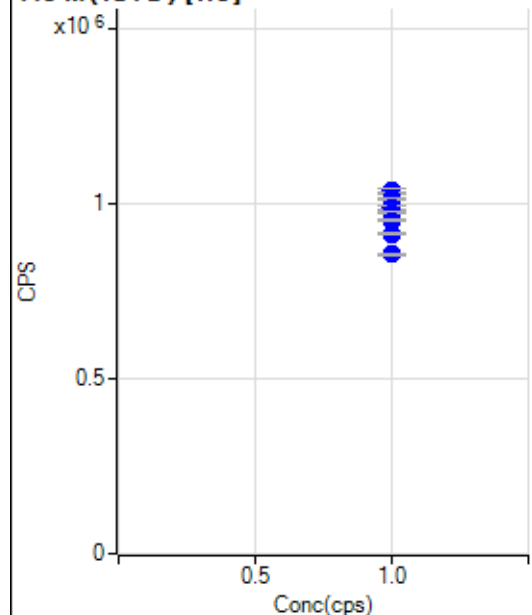
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4804982.57		M	1.9
2	☐	1.000		4631201.80		P	1.2
3	☐	1.000		4647205.36		M	1.1
4	☐	1.000		4525873.02		P	0.1
5	☐	1.000		4439002.18		P	0.9
6	☐	1.000		4339682.69		P	0.8
7	☐	1.000		4154021.79		P	0.5
8	☐	1.000		3638122.87		P	1.3

103 Rh (ISTD) [He]

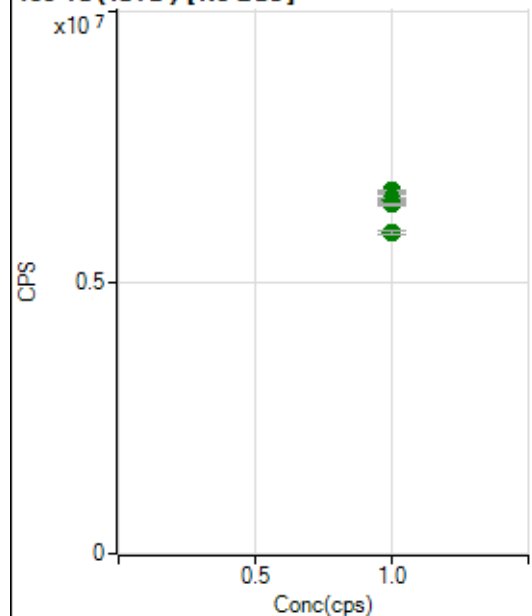
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2247729.97		P	0.4
2	☐	1.000		2279885.87		P	0.7
3	☐	1.000		2232230.00		P	0.7
4	☐	1.000		2151834.90		P	0.8
5	☐	1.000		2130324.00		P	1.0
6	☐	1.000		2076644.29		P	1.0
7	☐	1.000		2000456.26		P	1.1
8	☐	1.000		1710832.65		P	0.6

115 In (ISTD) [No Gas]

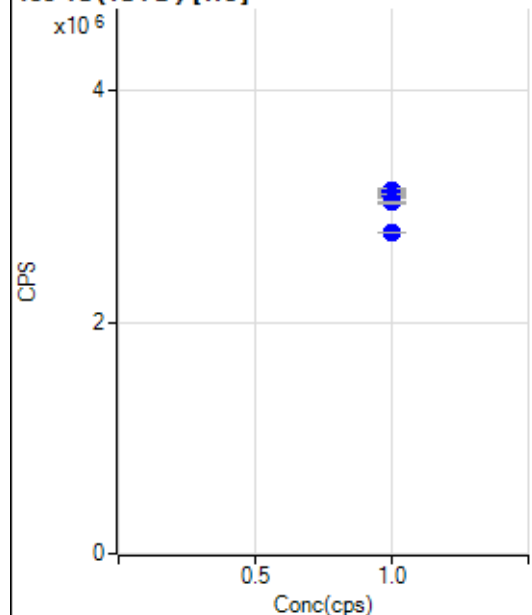
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4895247.19		M	1.4
2	☐	1.000		4797943.39		P	0.3
3	☐	1.000		4864021.35		M	0.6
4	☐	1.000		4764631.76		P	0.5
5	☐	1.000		4691966.15		P	0.3
6	☐	1.000		4620607.37		P	0.1
7	☐	1.000		4414013.64		P	1.1
8	☐	1.000		4073154.44		P	1.1

115 In (ISTD) [He]

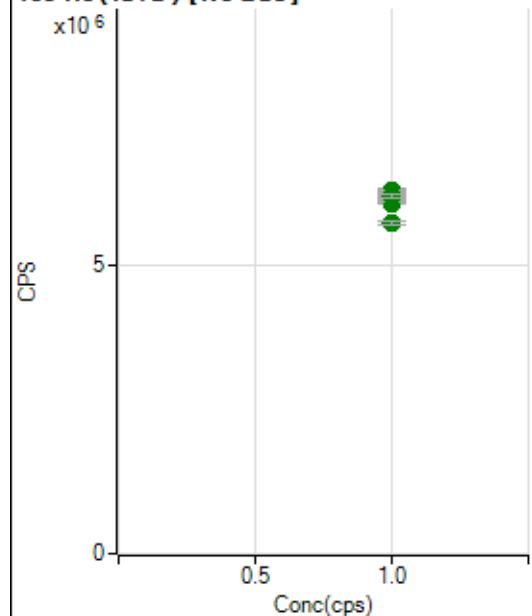
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1027004.77		P	0.2
2	☐	1.000		1036252.85		P	1.0
3	☐	1.000		1014810.29		P	0.6
4	☐	1.000		988329.78		P	0.7
5	☐	1.000		973916.67		P	0.8
6	☐	1.000		952720.61		P	0.6
7	☐	1.000		913415.00		P	0.6
8	☐	1.000		855418.10		P	0.3

159 Tb (ISTD) [No Gas]

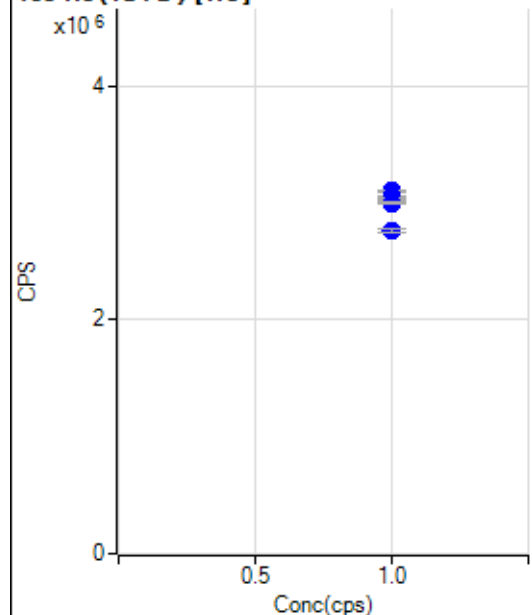
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6700419.62		A	0.5
2	☐	1.000		6453164.77		A	0.3
3	☐	1.000		6587635.04		A	1.2
4	☐	1.000		6503039.56		A	0.6
5	☐	1.000		6522570.67		A	0.8
6	☐	1.000		6519534.70		A	1.1
7	☐	1.000		6447501.02		A	0.4
8	☐	1.000		5935570.88		A	0.8

159 Tb (ISTD) [He]

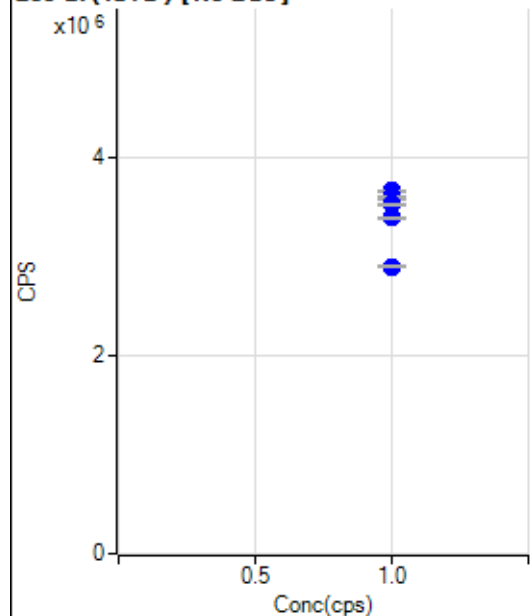
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3095545.58		P	1.4
2	☐	1.000		3125515.02		P	1.2
3	☐	1.000		3136245.72		P	1.3
4	☐	1.000		3075136.38		P	0.3
5	☐	1.000		3095395.55		P	0.4
6	☐	1.000		3087285.37		P	0.9
7	☐	1.000		3035056.93		P	0.7
8	☐	1.000		2774737.98		P	0.2

165 Ho (ISTD) [No Gas]

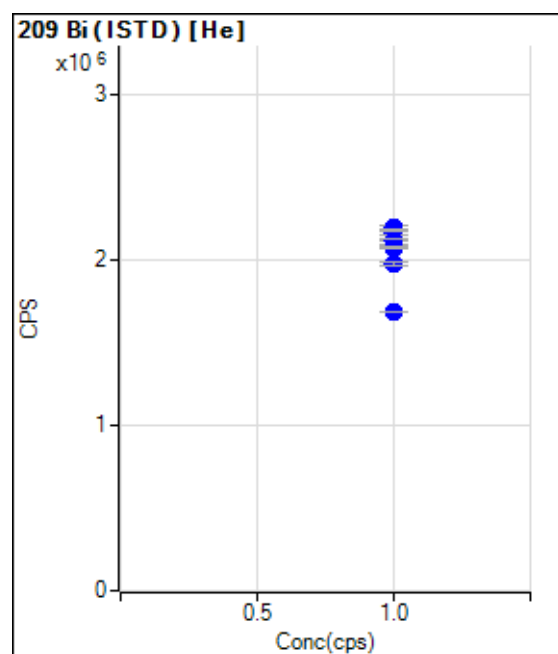
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6066917.93		A	0.5
2	☐	1.000		6119417.02		A	0.5
3	☐	1.000		6277952.09		A	0.9
4	☐	1.000		6209591.41		A	0.3
5	☐	1.000		6204874.45		A	1.7
6	☐	1.000		6267566.94		A	0.8
7	☐	1.000		6179186.68		A	0.9
8	☐	1.000		5727508.72		A	1.0

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3046710.75		P	0.5
2	☐	1.000		3105183.50		P	0.9
3	☐	1.000		3104540.06		P	0.8
4	☐	1.000		3028680.89		P	0.9
5	☐	1.000		3059929.12		P	0.4
6	☐	1.000		3038422.39		P	0.6
7	☐	1.000		2998356.17		P	0.6
8	☐	1.000		2768224.79		P	1.1

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3646547.62		P	0.6
2	☐	1.000		3571971.65		P	0.1
3	☐	1.000		3654640.98		P	0.5
4	☐	1.000		3586341.09		P	0.3
5	☐	1.000		3594247.41		P	0.9
6	☐	1.000		3521231.79		P	0.7
7	☐	1.000		3384944.01		P	0.5
8	☐	1.000		2895440.03		P	1.0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2160559.71		P	0.8
2	☐	1.000		2192029.22		P	1.1
3	☐	1.000		2181265.02		P	0.7
4	☐	1.000		2118290.63		P	0.5
5	☐	1.000		2108888.53		P	1.2
6	☐	1.000		2073326.88		P	0.6
7	☐	1.000		1976329.09		P	0.8
8	☐	1.000		1684427.42		P	0.4

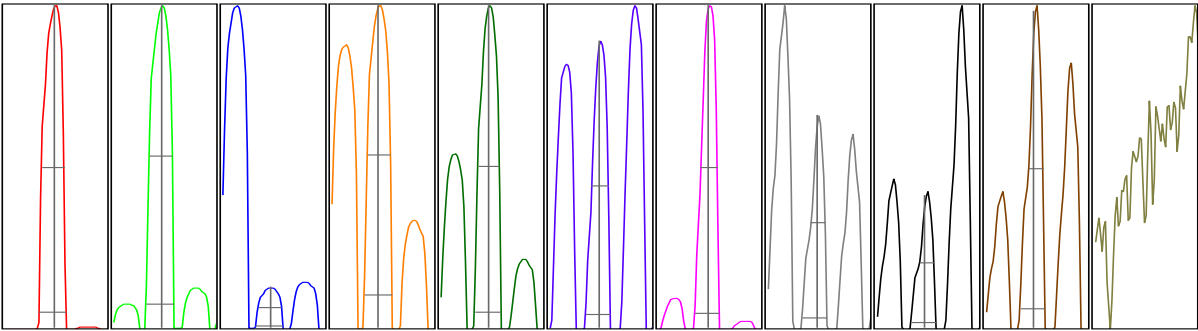
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7112419-MS1.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]					
Mass	Count	RSD%	RSD%	RSD%	
	(Mean)	(Actual)	(Required)	(Flag)	
9	8747	3.27	5.00		
24	689676	3.66	5.00		
25	90273	3.76	5.00		
26	101336	3.95	5.00		
59	53887	3.43	5.00		
113	6191	4.47	5.00		
115	71775	4.77	5.00		
206	13977	3.22	5.00		
207	12877	3.38	5.00		
208	30410	3.31	5.00		
220	76	3.85			

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	9221	8559	8504	8789	8661
24	733523	674653	671696	687729	680779
25	96253	88312	88195	89741	88865
26	108338	99181	98532	100772	99855
59	57098	52920	52507	53697	53214
113	6671	6017	5990	6139	6137
115	77756	70450	69163	71240	70266
206	14773	13756	13705	13891	13759
207	13635	12601	12652	12853	12642
208	32148	29758	29726	30362	30057
220	79	77	75	77	71

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	14333	9.00	8.9 - 9.1		0.784	0.900	
24	1075203	23.95	23.9 - 24.1		0.814	0.900	
25	138875	24.95	24.9 - 25.1		0.790	0.900	
26	158180	25.90	25.9 - 26.1		0.807	0.900	
59	91878	58.95	58.9 - 59.1		0.781	0.900	
113	12610	113.00	112.9 - 113.1		0.717	0.900	
115	147533	115.00	114.9 - 115.1		0.709	0.900	
206	31877	206.00	205.9 - 206.1		0.720	0.900	
207	28225	206.95	206.9 - 207.1		0.724	0.900	
208	67395	207.95	207.9 - 208.1		0.725	0.900	
220			-				

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

Tune Parameters

Plasma Paramters

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

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.3	V	Deflect	14.8	V
Extract 2	-130.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-60	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	170	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	13273	1.25	
89	181983	1.42	
205	11795	1.05	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	13141	13490	13412	13144	13180
89	180674	186180	182594	180924	179543
205	11683	11971	11877	11743	11701

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	8.2	V	Deflect	2.2	V
Extract 2	-140.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

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