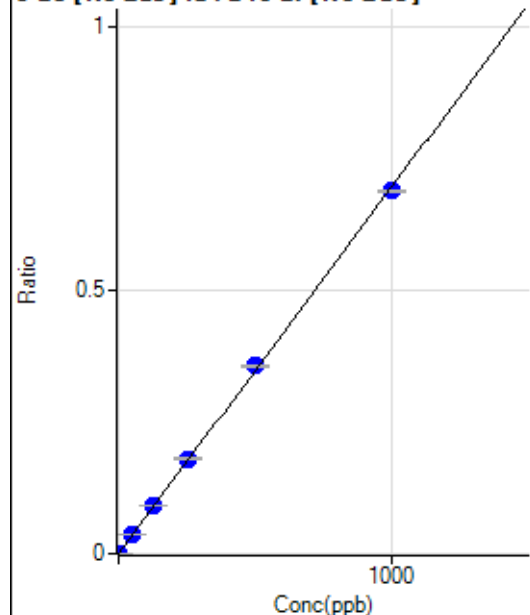


Batch Folder: D:\ICP-MS Data\P7032619 MS.b\
Analysis File: P7032619 MS.batch.bin
DA Date-Time: 2019-03-26 18:42:45
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-03-26 15:47:16
2			
3	005CALS.d	S02	2019-03-26 15:55:45
4	006CALS.d	S03	2019-03-26 15:59:40
5	007CALS.d	S04	2019-03-26 16:03:53
6	008CALS.d	S05	2019-03-26 16:07:42
7	009CALS.d	S06	2019-03-26 16:11:27
8	010CALS.d	S07	2019-03-26 16:15:13
9	012CALS.d	S08	2019-03-26 16:22:53

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	110.00	0.0000	P	11.1
2	☐	0.100					
3	☐	1.000	0.986	5015.34	0.0007	P	2.1
4	☐	50.000	52.791	262921.27	0.0367	P	0.0
5	☐	125.000	130.835	634523.11	0.0910	P	0.8
6	☐	250.000	259.083	1175560.68	0.1801	P	0.7
7	☐	500.000	513.299	2292074.72	0.3568	P	0.6
8	☐	1000.000	990.211	4324139.07	0.6883	P	0.8
9	☐			338.90	0.0001	P	14.4

$$y = 6.9510E-004 * x + 1.5243E-005$$

$$R = 0.9998$$

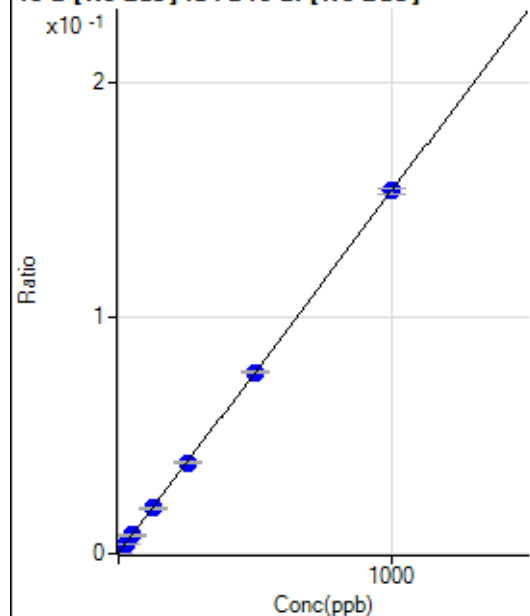
$$DL = 0.007318$$

$$BEC = 0.02193$$

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	1052.86	0.0001	P	2.5
2	☐	2.500					
3	☐	25.000	23.794	27228.09	0.0038	P	1.9
4	☐	50.000	49.782	55829.22	0.0078	P	2.0
5	☐	125.000	123.887	133805.82	0.0192	P	2.3
6	☐	250.000	250.060	251738.10	0.0386	P	2.0
7	☐	500.000	499.586	494061.27	0.0769	P	1.7
8	☐	1000.000	1000.372	966601.82	0.1539	P	1.3
9	☐			15789.40	0.0028	P	4.6

$$y = 1.5366E-004 * x + 1.4587E-004$$

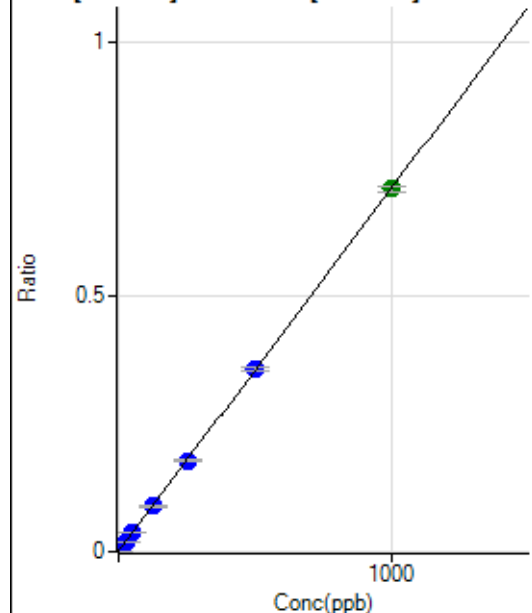
$$R = 1.0000$$

$$DL = 0.07078$$

$$BEC = 0.9493$$

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	4956.58	0.0007	P	5.0
2	☐	2.500					
3	☐	25.000	23.835	126508.62	0.0177	P	0.8
4	☐	50.000	50.147	260745.62	0.0364	P	1.2
5	☐	125.000	124.230	622077.00	0.0892	P	2.9
6	☐	250.000	250.347	1168450.09	0.1790	P	2.1
7	☐	500.000	503.760	2309529.26	0.3595	P	1.9
8	☐	1000.000	998.151	4471231.44	0.7117	A	1.6
9	☐			71447.38	0.0127	P	5.8

$$y = 7.1233\text{E-}004 * x + 6.8666\text{E-}004$$

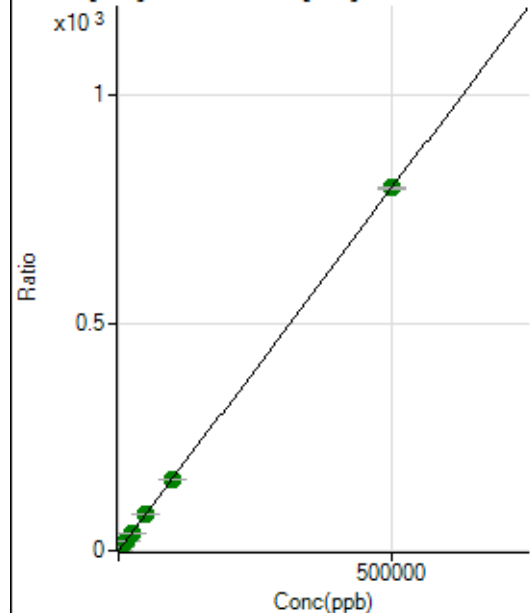
$$R = 1.0000$$

$$DL = 0.1437$$

$$BEC = 0.964$$

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	14490.88	0.0243	P	1.7
2	☐	50.000					
3	☐	500.000	462.815	462730.13	0.7604	P	1.7
4	☐	5000.000	4983.374	4568454.75	7.9505	A	0.9
5	☐	12500.000	12537.525	10770307.10	19.9656	A	0.6
6	☐	25000.000	25019.532	20223442.64	39.8186	A	0.7
7	☐	50000.000	49358.476	40938006.12	78.5304	A	0.8
8	☐	100000.00	97292.821	81547470.57	154.7713	A	0.6
9	☐	500000.00	500603.87	400256364.5	796.2495	A	0.3

$$y = 0.0016 * x + 0.0243$$

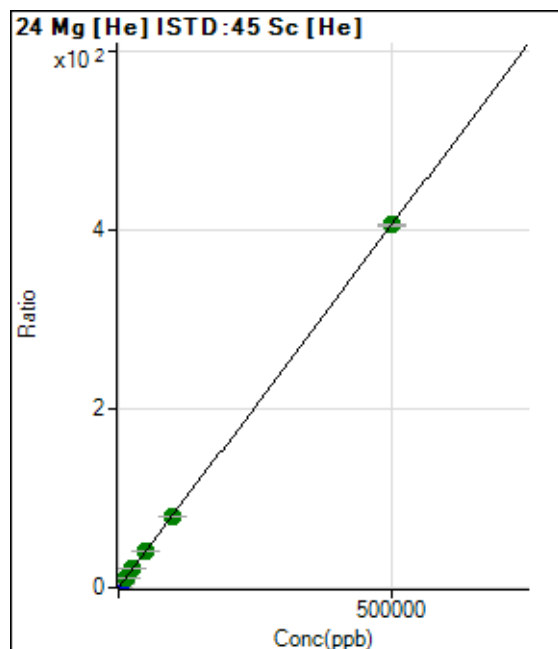
$$R = 1.0000$$

$$DL = 0.7665$$

$$BEC = 15.25$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	280.57	0.0005	P	3.4
2	☐	50.000					
3	☐	500.000	488.235	240880.17	0.3958	P	1.9
4	☐	5000.000	5168.056	2404968.35	4.1856	P	1.6
5	☐	12500.000	12923.016	5645742.96	10.4657	A	0.8
6	☐	25000.000	25431.528	10460227.75	20.5953	A	0.4
7	☐	50000.000	50106.485	21153692.14	40.5775	A	0.6
8	☐	100000.00	98436.496	42000733.58	79.7158	A	1.2
9	☐	500000.00	500268.23	203640546.2	405.1253	A	0.3

$$y = 8.0982\text{E-}004 * x + 4.6961\text{E-}004$$

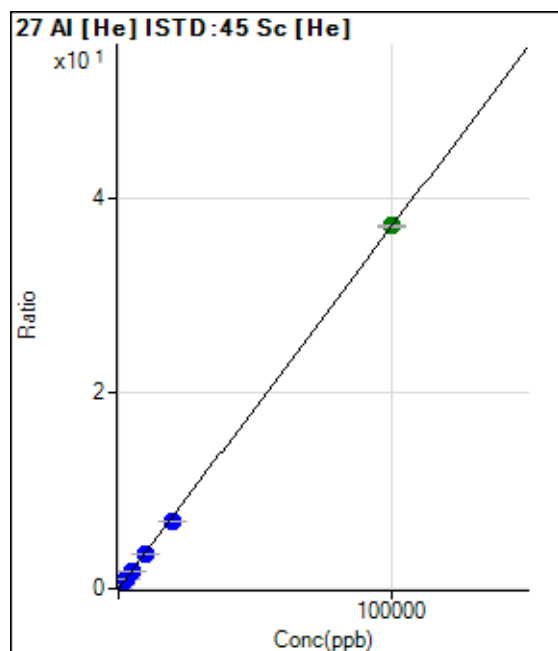
$$R = 1.0000$$

$$DL = 0.0599$$

$$BEC = 0.5799$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0001	P	71.0
2	☐	2.000					
3	☐	20.000	16.228	3703.38	0.0061	P	4.7
4	☐	1000.000	971.997	206939.67	0.3602	P	1.7
5	☐	2500.000	2425.807	484843.87	0.8988	P	1.4
6	☐	5000.000	4851.922	912964.63	1.7976	P	0.6
7	☐	10000.000	9437.069	1822478.69	3.4962	P	1.2
8	☐	20000.000	18798.224	3669372.39	6.9642	P	0.5
9	☐	100000.00	100306.18	18678957.54	37.1602	A	0.4

$$y = 3.7047\text{E-}004 * x + 7.4398\text{E-}005$$

$$R = 0.9999$$

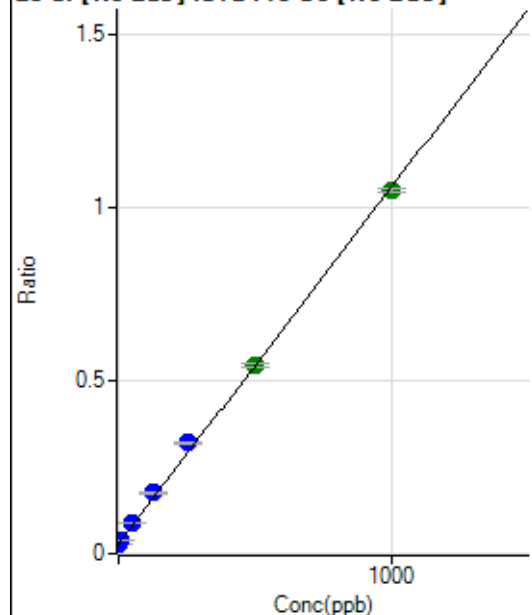
$$DL = 0.4279$$

$$BEC = 0.2008$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	358339.39	0.0290	P	0.7
2	☐	1.000					
3	☐	10.000	9.859	484315.12	0.0391	P	0.6
4	☐	50.000	57.609	1082014.23	0.0883	P	2.3
5	☐	125.000	143.826	2066359.66	0.1771	P	2.6
6	☐	250.000	282.995	3516315.70	0.3204	P	1.2
7	☐	500.000	499.229	5879847.92	0.5431	A	1.6
8	☐	1000.000	989.404	11352077.77	1.0480	A	1.0
9	☐			907292.25	0.0918	P	3.2

$$y = 0.0010 * x + 0.0290$$

$$R = 0.9993$$

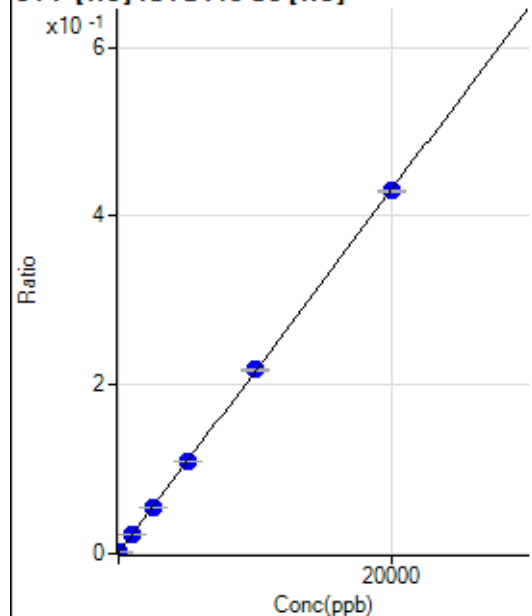
$$DL = 0.6106$$

$$BEC = 28.15$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-24.139	216.68	0.0004	P	0.2
2	☐	0.000					
3	☐	0.000	24.139	852.84	0.0014	P	5.2
4	☐	1000.000	1043.176	13403.78	0.0233	P	1.1
5	☐	2500.000	2530.660	29850.36	0.0553	P	1.4
6	☐	5000.000	5064.630	55793.96	0.1099	P	0.6
7	☐	10000.000	10096.138	113706.29	0.2181	P	1.1
8	☐	20000.000	19929.782	226401.72	0.4297	P	0.5
9	☐			311.13	0.0006	P	12.8

$$y = 2.1516E-005 * x + 8.8205E-004$$

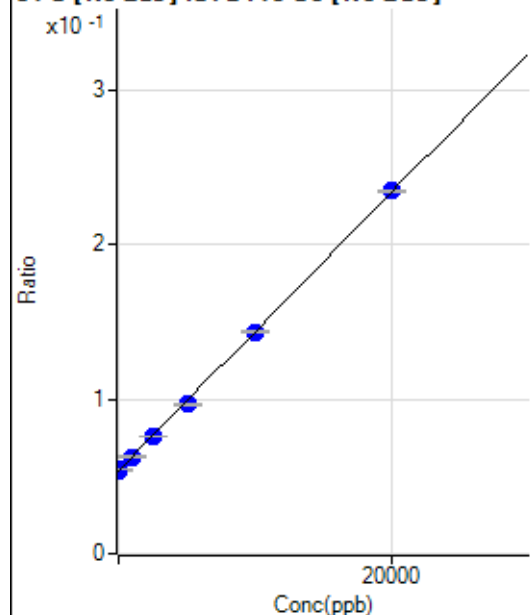
$$R = 1.0000$$

$$DL = 5.099$$

$$BEC = 40.99$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-84.875	656800.62	0.0531	P	0.5
2	☐	0.000					
3	☐	0.000	84.875	676358.10	0.0547	P	1.2
4	☐	1000.000	989.979	769782.04	0.0628	P	1.7
5	☐	2500.000	2419.947	883636.00	0.0757	P	0.3
6	☐	5000.000	4773.712	1063923.68	0.0970	P	1.1
7	☐	10000.000	9972.176	1557389.35	0.1439	P	1.5
8	☐	20000.000	20080.992	2546181.40	0.2351	P	0.2
9	☐			516470.34	0.0523	P	0.5

$$y = 9.0211\text{E-}006 * x + 0.0539$$

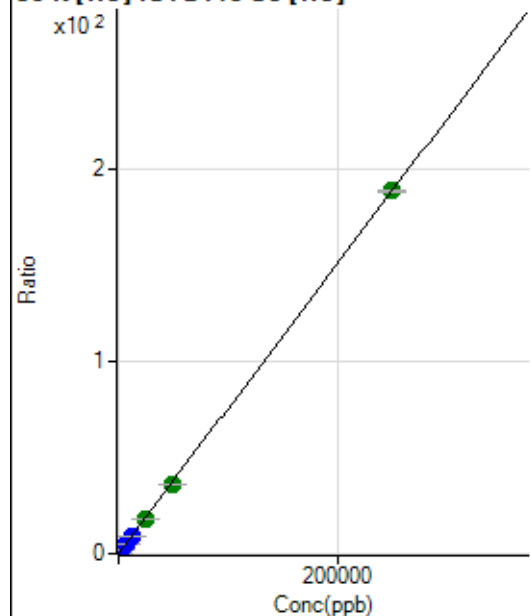
R = 0.9999

DL = 152.5

BEC = 5975

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	28016.27	0.0469	P	4.2
2	☐	50.000					
3	☐	500.000	452.536	235302.07	0.3867	P	1.3
4	☐	2500.000	2492.644	1102344.94	1.9184	P	0.9
5	☐	6250.000	6114.740	2501792.66	4.6378	P	1.5
6	☐	12500.000	12192.808	4673331.27	9.2012	P	0.3
7	☐	25000.000	24091.982	9453999.51	18.1351	A	0.0
8	☐	50000.000	47417.948	18782586.18	35.6482	A	0.9
9	☐	250000.00	250626.12	94611193.78	188.2165	A	0.2

$$y = 7.5080\text{E-}004 * x + 0.0469$$

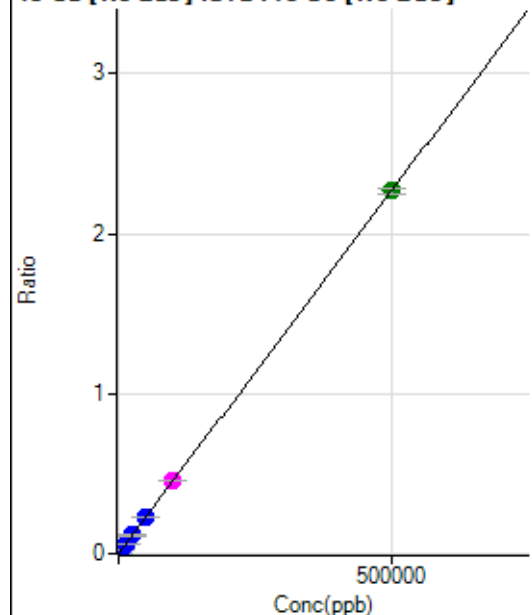
R = 0.9999

DL = 7.938

BEC = 62.46

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	272.24	0.0000	P	25.1
2	☐	50.000					
3	☐	500.000	456.726	25901.38	0.0021	P	0.5
4	☐	5000.000	5029.486	279768.60	0.0228	P	0.7
5	☐	12500.000	12695.046	672007.14	0.0576	P	1.6
6	☐	25000.000	25213.631	1254996.87	0.1144	P	0.5
7	☐	50000.000	50101.447	2460119.39	0.2272	P	0.7
8	☐	100000.00	99810.448	4903686.91	0.4527	M	0.4
9	☐	500000.00	500011.95	22410770.12	2.2677	A	1.5

$$y = 4.5352\text{E-}006 * x + 2.1980\text{E-}005$$

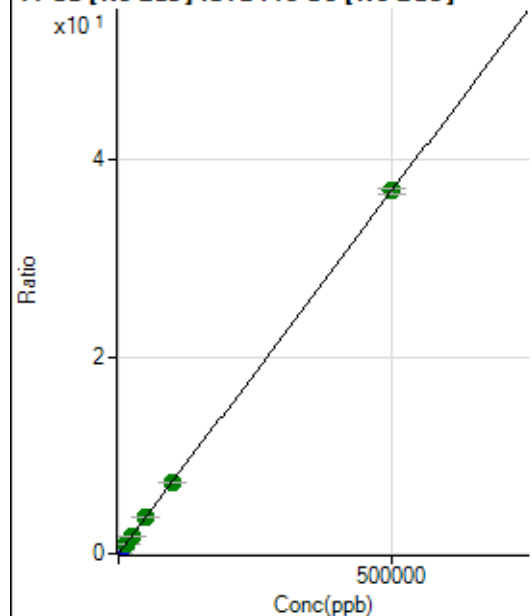
$$R = 1.0000$$

$$DL = 3.646$$

$$BEC = 4.847$$

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	30466.49	0.0025	P	1.3
2	☐	50.000					
3	☐	500.000	458.663	448189.06	0.0362	P	0.6
4	☐	5000.000	4979.341	4520677.44	0.3689	P	1.2
5	☐	12500.000	12246.867	10545946.16	0.9038	A	0.6
6	☐	25000.000	24531.662	19838453.22	1.8080	A	1.0
7	☐	50000.000	49326.270	39327732.83	3.6329	A	1.1
8	☐	100000.00	97670.930	77898389.24	7.1911	A	0.8
9	☐	500000.00	500563.18	364107052.5	36.8440	A	1.9

$$y = 7.3600\text{E-}005 * x + 0.0025$$

$$R = 1.0000$$

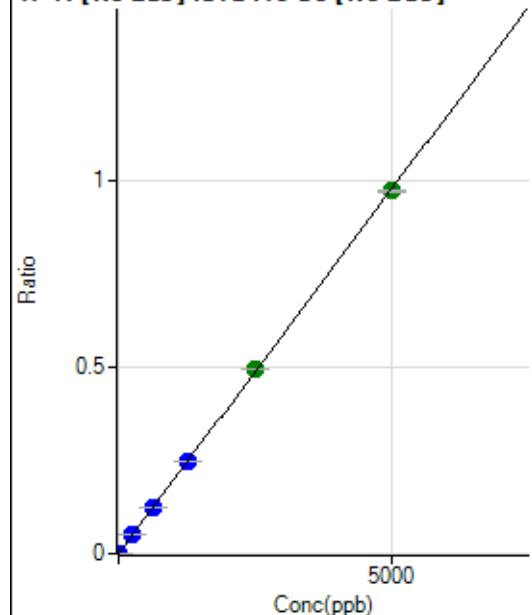
$$DL = 1.288$$

$$BEC = 33.49$$

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	333.35	0.0000	P	10.9
2	☐	0.500					
3	☐	5.000	4.908	12211.07	0.0010	P	0.7
4	☐	250.000	253.385	607560.90	0.0496	P	0.5
5	☐	625.000	637.717	1455568.36	0.1247	P	1.2
6	☐	1250.000	1265.158	2715363.60	0.2475	P	1.2
7	☐	2500.000	2531.026	5359086.71	0.4950	A	0.1
8	☐	5000.000	4978.939	10548610.39	0.9738	A	0.5
9	☐			3472.77	0.0004	P	6.3

$$y = 1.9558\text{E-}004 * x + 2.6957\text{E-}005$$

$$R = 1.0000$$

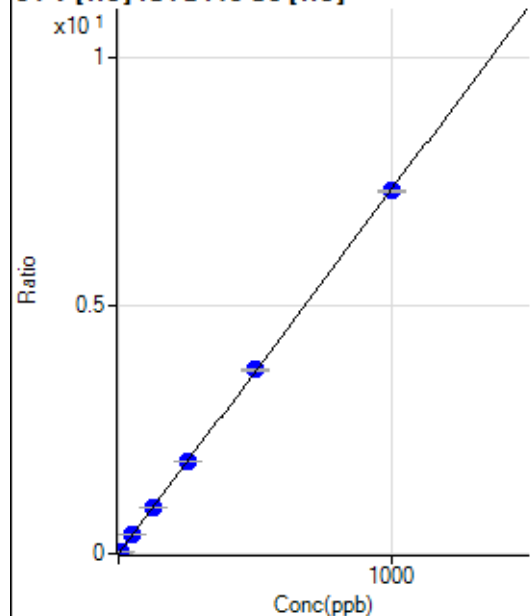
$$DL = 0.04512$$

$$BEC = 0.1378$$

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	15.56	0.0000	P	12.4
2	☐	0.500					
3	☐	5.000	4.874	21748.47	0.0357	P	0.5
4	☐	50.000	50.498	212625.92	0.3700	P	0.6
5	☐	125.000	126.237	498917.97	0.9250	P	0.7
6	☐	250.000	253.824	944605.61	1.8598	P	0.9
7	☐	500.000	505.141	1929351.19	3.7012	P	1.3
8	☐	1000.000	996.295	3846331.30	7.2999	P	0.6
9	☐			518.91	0.0010	P	3.5

$$y = 0.0073 * x + 2.6038\text{E-}005$$

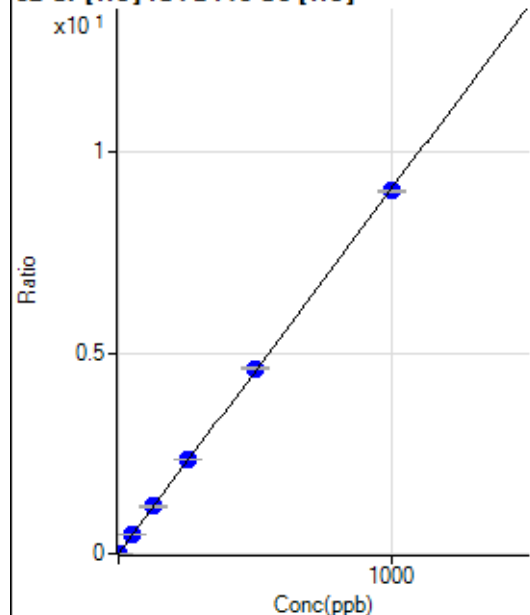
$$R = 1.0000$$

$$DL = 0.001321$$

$$BEC = 0.003554$$

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	2938.13	0.0049	P	1.5
2	☐	0.200					
3	☐	2.000	1.864	13291.71	0.0218	P	0.6
4	☐	50.000	51.699	272494.24	0.4742	P	1.4
5	☐	125.000	128.844	633554.88	1.1746	P	0.7
6	☐	250.000	256.191	1183742.35	2.3306	P	0.2
7	☐	500.000	507.152	2402582.41	4.6089	P	0.5
8	☐	1000.000	994.311	4758630.00	9.0314	P	0.3
9	☐			31516.10	0.0627	P	0.7

$$y = 0.0091 * x + 0.0049$$

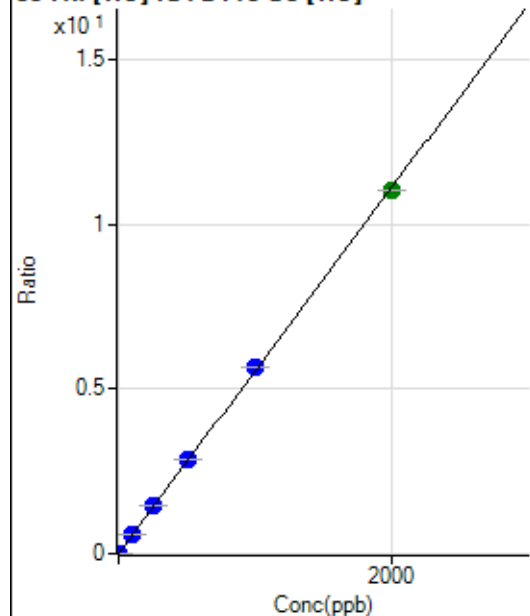
$$R = 0.9999$$

$$DL = 0.02461$$

$$BEC = 0.5417$$

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	92.22	0.0002	P	19.9
2	☐	0.100					
3	☐	1.000	0.981	3409.34	0.0056	P	2.9
4	☐	100.000	103.616	330579.91	0.5754	P	1.8
5	☐	250.000	259.362	776725.68	1.4400	P	0.3
6	☐	500.000	517.673	1459666.32	2.8740	P	0.7
7	☐	1000.000	1022.329	2958592.11	5.6755	P	0.5
8	☐	2000.000	1983.066	5800555.68	11.0089	A	0.1
9	☐			22377.21	0.0445	P	0.2

$$y = 0.0056 * x + 1.5437E-004$$

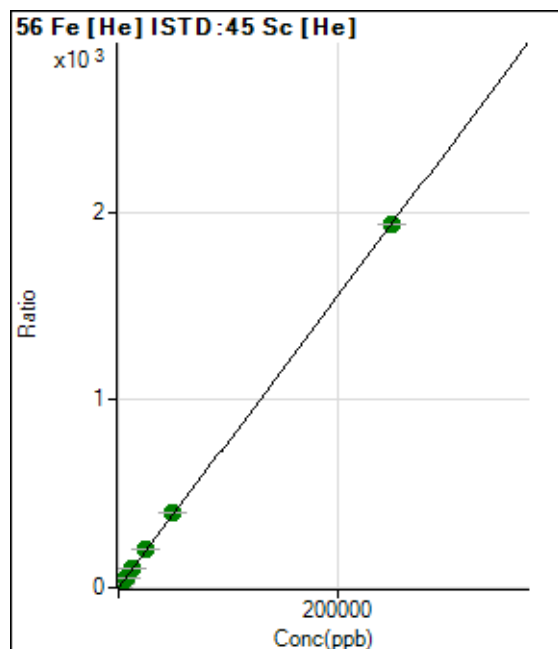
$$R = 0.9999$$

$$DL = 0.01663$$

$$BEC = 0.02781$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	9625.65	0.0161	P	4.9
2	☐	5.000					
3	☐	50.000	51.552	252714.67	0.4153	P	1.3
4	☐	2500.000	2675.254	11911838.69	20.7303	A	1.2
5	☐	6250.000	6700.720	27994153.17	51.8989	A	0.5
6	☐	12500.000	13328.088	52421047.93	103.2138	A	1.2
7	☐	25000.000	26402.783	106582156.0	204.4495	A	0.7
8	☐	50000.000	51463.843	209959617.6	398.4940	A	0.9
9	☐	250000.00	249512.52	971140821.7	1,931.959	A	0.2

$$y = 0.0077 * x + 0.0161$$

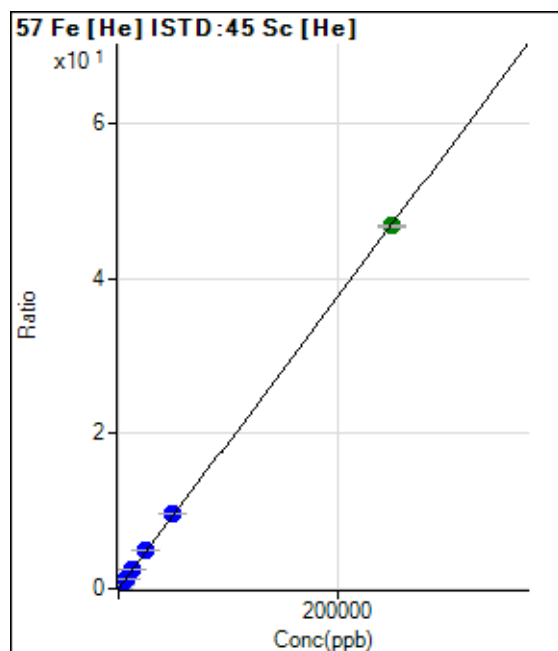
R = 1.0000

DL = 0.3057

BEC = 2.081

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	244.45	0.0004	P	14.0
2	☐	5.000					
3	☐	50.000	53.046	6301.52	0.0104	P	2.7
4	☐	2500.000	2717.905	293029.24	0.5100	P	1.4
5	☐	6250.000	6743.180	682155.58	1.2647	P	0.7
6	☐	12500.000	13474.042	1283247.44	2.5266	P	0.9
7	☐	25000.000	26644.223	2604281.16	4.9959	P	1.2
8	☐	50000.000	52105.764	5147510.76	9.7696	P	0.3
9	☐	250000.00	249351.21	23499741.73	46.7505	A	0.5

$$y = 1.8749E-004 * x + 4.0909E-004$$

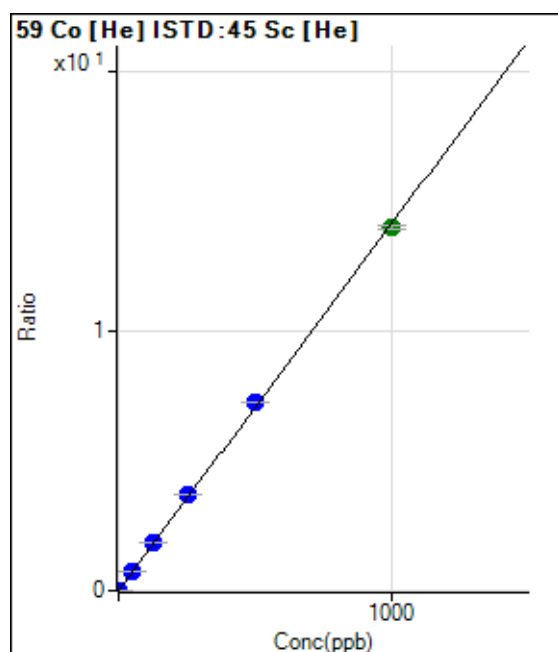
R = 0.9999

DL = 0.9181

BEC = 2.182

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	103.34	0.0002	P	19.8
2	☐	0.100					
3	☐	1.000	0.968	8442.56	0.0139	P	1.1
4	☐	50.000	53.078	431610.71	0.7511	P	1.2
5	☐	125.000	132.143	1008565.38	1.8698	P	0.4
6	☐	250.000	262.818	1888620.41	3.7186	P	1.3
7	☐	500.000	513.730	3789108.63	7.2686	P	0.4
8	☐	1000.000	988.884	7371739.34	13.9913	A	1.1
9	☐			79393.56	0.1579	P	0.3

$$y = 0.0141 * x + 1.7300E-004$$

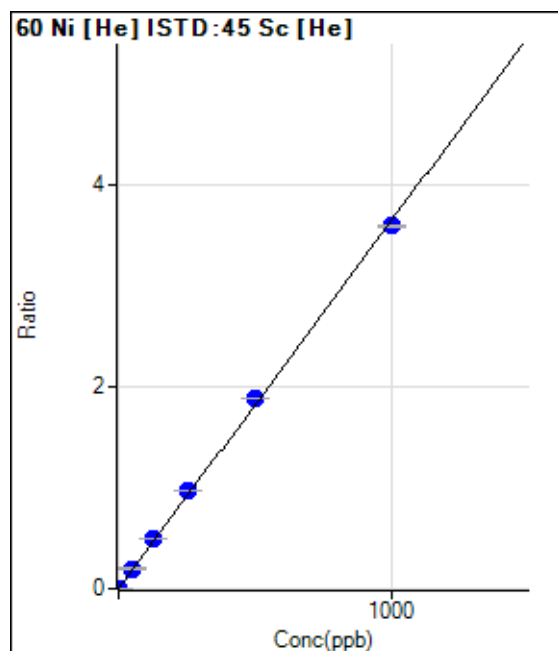
$$R = 0.9998$$

$$DL = 0.007255$$

$$BEC = 0.01223$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	195.56	0.0003	P	8.4
2	☐	0.100					
3	☐	1.000	0.997	2408.01	0.0040	P	2.0
4	☐	50.000	54.419	113980.39	0.1984	P	1.4
5	☐	125.000	134.772	264704.82	0.4908	P	1.8
6	☐	250.000	265.806	491464.99	0.9677	P	0.6
7	☐	500.000	517.618	982170.19	1.8841	P	0.4
8	☐	1000.000	985.797	1890434.40	3.5879	P	0.6
9	☐			20866.18	0.0415	P	1.1

$$y = 0.0036 * x + 3.2729E-004$$

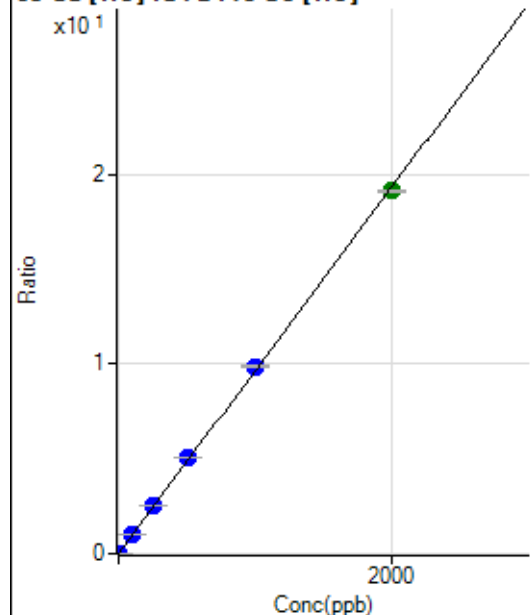
$$R = 0.9996$$

$$DL = 0.0227$$

$$BEC = 0.08993$$

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	1113.40	0.0019	P	6.7
2	☐	0.200					
3	☐	2.000	1.958	12625.62	0.0207	P	2.7
4	☐	100.000	108.573	602899.31	1.0493	P	1.4
5	☐	250.000	266.825	1389483.38	2.5760	P	0.4
6	☐	500.000	527.576	2585898.31	5.0914	P	0.9
7	☐	1000.000	1018.825	5124430.72	9.8306	P	1.0
8	☐	2000.000	1981.162	10071203.95	19.1143	A	0.3
9	☐			13902.34	0.0277	P	1.1

$$y = 0.0096 * x + 0.0019$$

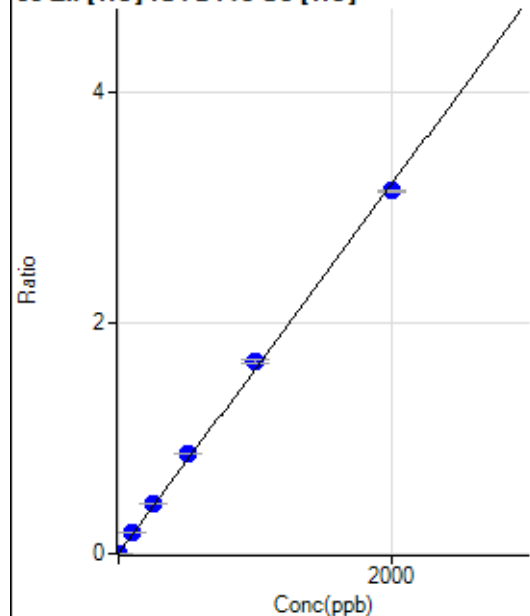
$$R = 0.9998$$

$$DL = 0.03903$$

$$BEC = 0.1932$$

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	446.68	0.0007	P	6.4
2	☐	0.200					
3	☐	2.000	2.162	2563.60	0.0042	P	4.6
4	☐	100.000	109.622	101406.08	0.1765	P	0.1
5	☐	250.000	273.904	237231.14	0.4398	P	0.2
6	☐	500.000	542.742	442228.68	0.8707	P	0.4
7	☐	1000.000	1041.775	870840.74	1.6706	P	1.3
8	☐	2000.000	1964.958	1659907.73	3.1504	P	0.8
9	☐			9397.60	0.0187	P	1.7

$$y = 0.0016 * x + 7.4760E-004$$

$$R = 0.9994$$

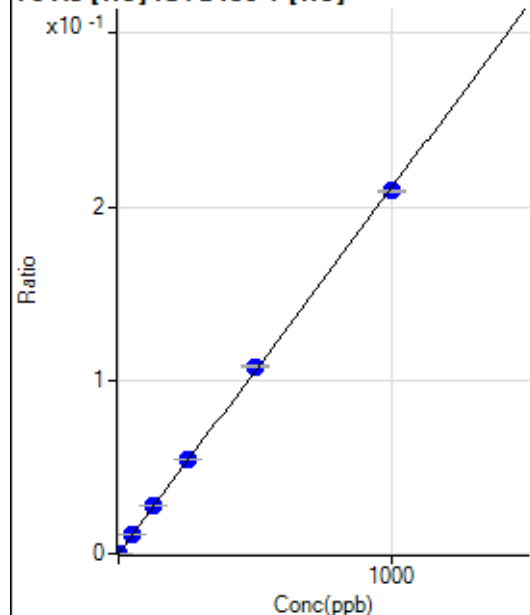
$$DL = 0.08934$$

$$BEC = 0.4664$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10.49	0.0000	P	20.4
2	☐	0.100					
3	☐	1.000	1.000	593.23	0.0002	P	9.9
4	☐	50.000	52.823	29643.82	0.0111	P	1.2
5	☐	125.000	129.341	68682.19	0.0273	P	0.3
6	☐	250.000	256.163	130317.50	0.0540	P	0.7
7	☐	500.000	511.974	264610.59	0.1080	P	0.6
8	☐	1000.000	991.788	516584.08	0.2092	P	0.8
9	☐			575.94	0.0003	P	3.2

$$y = 2.1090\text{E-}004 * x + 3.8729\text{E-}006$$

$$R = 0.9999$$

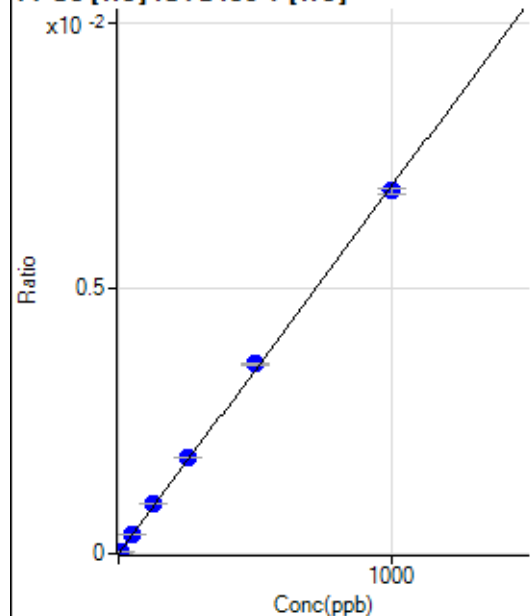
$$DL = 0.01124$$

$$BEC = 0.01836$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	5.067	97.78	0.0000	P	16.5
4	☐	50.000	53.514	984.50	0.0004	P	5.0
5	☐	125.000	134.377	2338.01	0.0009	P	0.8
6	☐	250.000	262.106	4368.51	0.0018	P	1.7
7	☐	500.000	515.858	8733.91	0.0036	P	1.0
8	☐	1000.000	987.696	16851.10	0.0068	P	1.4
9	☐			1.11	0.0000	P	173.

$$y = 6.9080\text{E-}006 * x + 4.0556\text{E-}007$$

$$R = 0.9997$$

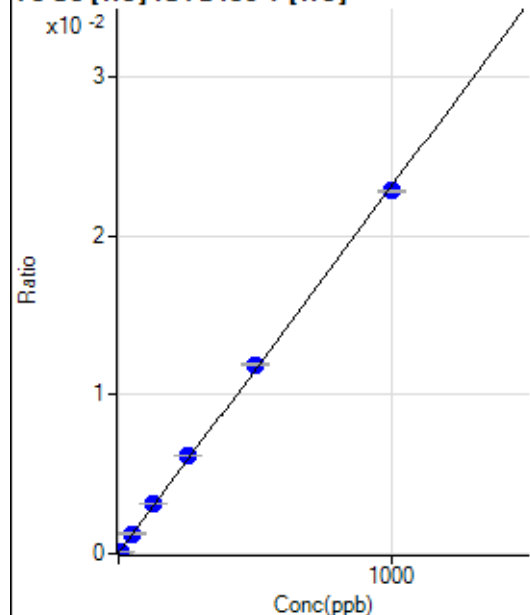
$$DL = 0.3051$$

$$BEC = 0.05871$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	104.32	0.0000	P	26.4
2	☐	0.500					
3	☐	5.000	5.187	437.05	0.0002	P	7.1
4	☐	50.000	53.191	3362.77	0.0013	P	1.3
5	☐	125.000	132.841	7803.40	0.0031	P	0.2
6	☐	250.000	265.270	14836.67	0.0062	P	1.4
7	☐	500.000	514.465	29145.99	0.0119	P	1.4
8	☐	1000.000	987.809	56310.05	0.0228	P	0.8
9	☐			88.89	0.0000	P	3.3

$$y = 2.3043\text{E-}005 * x + 3.8528\text{E-}005$$

$$R = 0.9997$$

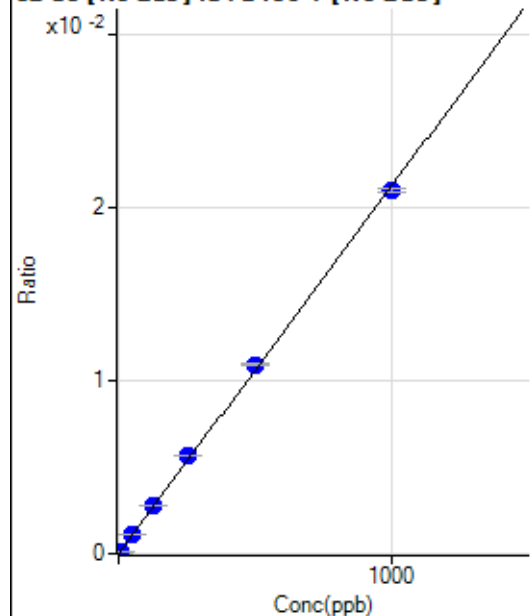
$$DL = 1.322$$

$$BEC = 1.672$$

Weight: <None>

Min Conc: 0

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



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.41	0.0000	P	21.1
2	☐	0.500					
3	☐	5.000	4.914	1871.24	0.0001	P	2.9
4	☐	50.000	53.102	19474.59	0.0011	P	0.5
5	☐	125.000	132.039	46581.64	0.0028	P	0.6
6	☐	250.000	266.743	88526.39	0.0057	P	1.4
7	☐	500.000	515.023	171479.84	0.0109	P	1.1
8	☐	1000.000	987.268	327921.83	0.0209	P	1.2
9	☐			108.93	0.0000	P	25.1

$$y = 2.1201\text{E-}005 * x + 2.9101\text{E-}006$$

$$R = 0.9997$$

$$DL = 0.08703$$

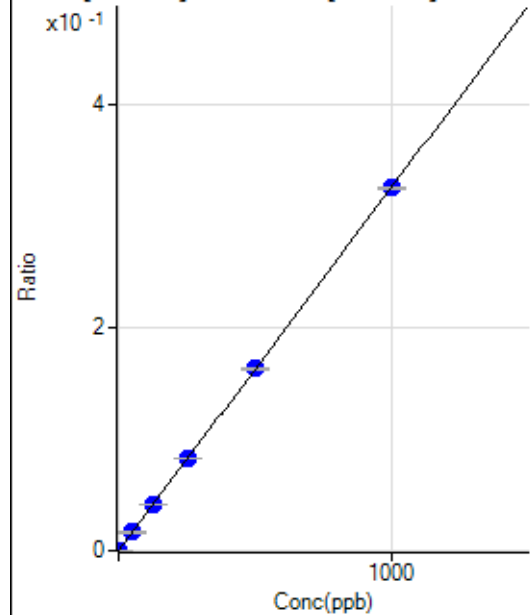
$$BEC = 0.1373$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			616.69		P	4.6
2	☐						
3	☐			668.92		P	2.6
4	☐			645.58		P	4.2
5	☐			623.36		P	8.1
6	☐			541.13		P	2.8
7	☐			587.80		P	4.7
8	☐			626.69		P	13.8
9	☐			587.80		P	4.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1069.53	0.0001	P	9.2
2	☐	0.100					
3	☐	1.000	0.797	5612.44	0.0003	P	3.8
4	☐	50.000	50.110	282570.11	0.0164	P	0.6
5	☐	125.000	124.578	675297.04	0.0406	P	0.6
6	☐	250.000	253.340	1291581.27	0.0825	P	0.5
7	☐	500.000	501.411	2564259.04	0.1633	P	1.4
8	☐	1000.000	998.507	5093770.51	0.3252	P	0.5
9	☐			17586.34	0.0012	P	1.2

$$y = 3.2560E-004 * x + 6.1764E-005$$

$$R = 1.0000$$

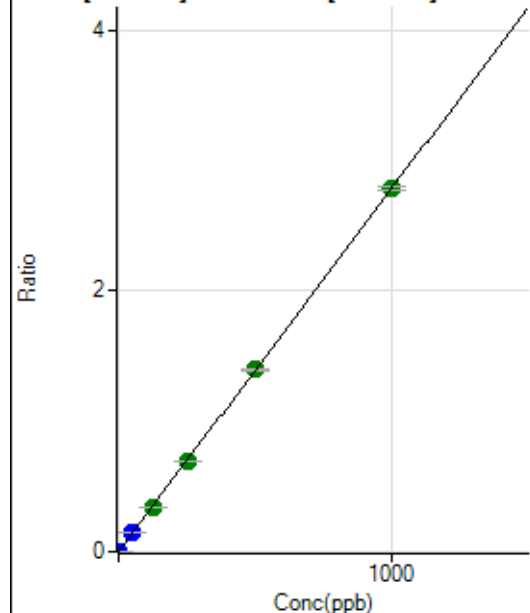
$$DL = 0.05263$$

$$BEC = 0.1897$$

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	130.56	0.0000	P	13.6
2	☐	0.100					
3	☐	1.000	0.821	40065.41	0.0023	P	0.9
4	☐	50.000	50.609	2430131.15	0.1409	P	0.7
5	☐	125.000	123.796	5727104.12	0.3445	A	0.1
6	☐	250.000	250.078	10889459.53	0.6960	A	0.4
7	☐	500.000	501.201	21900490.94	1.3948	A	0.5
8	☐	1000.000	999.500	43572964.52	2.7816	A	1.0
9	☐			145399.75	0.0103	P	1.6

$$y = 0.0028 * x + 7.5403E-006$$

$$R = 1.0000$$

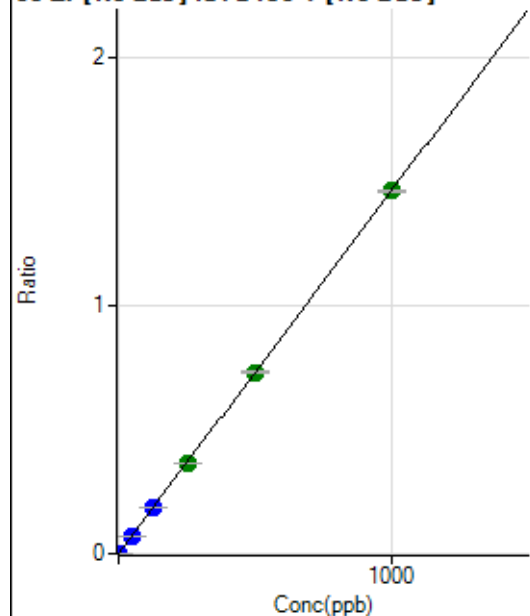
$$DL = 0.001102$$

$$BEC = 0.002709$$

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	1358.46	0.0001	P	5.9
2	☐	0.100					
3	☐	1.000	0.854	23172.26	0.0013	P	2.9
4	☐	50.000	49.969	1260883.39	0.0731	P	0.8
5	☐	125.000	125.149	3040601.22	0.1829	P	1.0
6	☐	250.000	249.957	5714989.10	0.3653	A	0.5
7	☐	500.000	500.494	11481789.75	0.7313	A	1.1
8	☐	1000.000	999.747	22882324.30	1.4607	A	0.4
9	☐			5348.43	0.0004	P	3.0

$$y = 0.0015 * x + 7.8436E-005$$

$$R = 1.0000$$

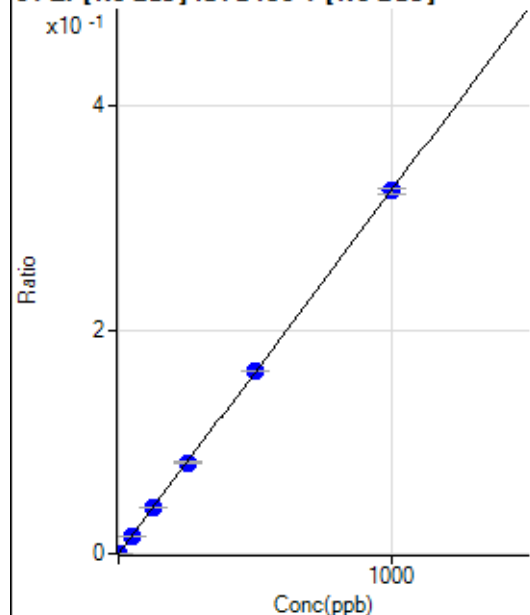
$$DL = 0.0095$$

$$BEC = 0.05369$$

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	297.24	0.0000	P	18.2
2	☐	0.100					
3	☐	1.000	0.888	5342.87	0.0003	P	3.1
4	☐	50.000	49.430	277514.58	0.0161	P	0.6
5	☐	125.000	126.227	682353.88	0.0410	P	1.1
6	☐	250.000	250.684	1275167.95	0.0815	P	1.7
7	☐	500.000	502.761	2566115.53	0.1634	P	0.8
8	☐	1000.000	998.324	5083604.67	0.3245	P	1.3
9	☐			1158.43	0.0001	P	3.1

$$y = 3.2505\text{E-}004 * x + 1.7166\text{E-}005$$

$$R = 1.0000$$

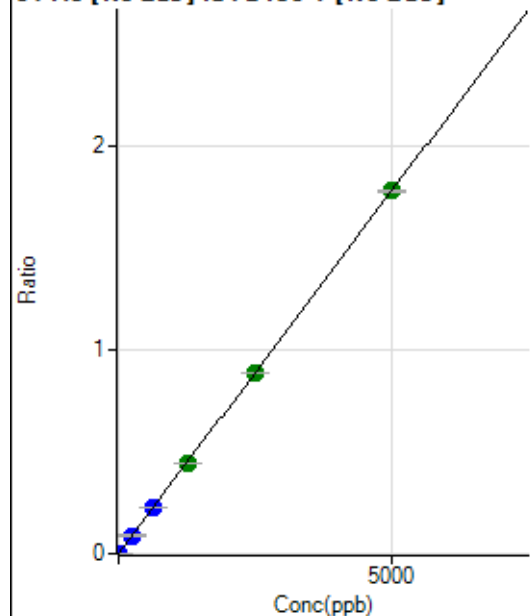
$$DL = 0.0289$$

$$BEC = 0.05281$$

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	536.14	0.0000	P	6.0
2	☐	0.500					
3	☐	5.000	4.586	29052.74	0.0017	P	0.5
4	☐	250.000	251.601	1545359.41	0.0896	P	0.8
5	☐	625.000	629.402	3723876.17	0.2240	P	0.2
6	☐	1250.000	1247.905	6948899.81	0.4441	A	0.7
7	☐	2500.000	2491.290	13920382.77	0.8866	A	0.6
8	☐	5000.000	5004.249	27897245.07	1.7809	A	0.7
9	☐			10195.75	0.0007	P	5.9

$$y = 3.5587\text{E-}004 * x + 3.0952\text{E-}005$$

$$R = 1.0000$$

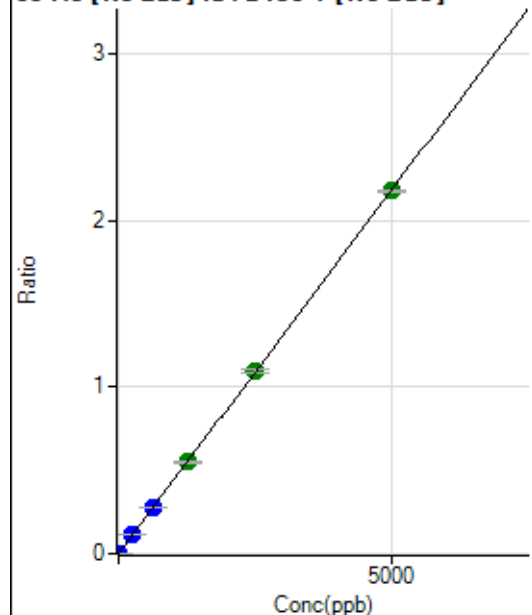
$$DL = 0.01567$$

$$BEC = 0.08698$$

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	127.78	0.0000	P	29.4
2	☐	0.500					
3	☐	5.000	4.720	36160.79	0.0021	P	1.4
4	☐	250.000	253.986	1914888.28	0.1110	P	0.8
5	☐	625.000	633.995	4605159.09	0.2770	P	0.5
6	☐	1250.000	1258.517	8604094.64	0.5499	A	0.9
7	☐	2500.000	2511.767	17231501.60	1.0975	A	1.2
8	☐	5000.000	4990.664	34160033.40	2.1807	A	0.5
9	☐			14371.67	0.0010	P	2.6

$$y = 4.3695E-004 * x + 7.3768E-006$$

$$R = 1.0000$$

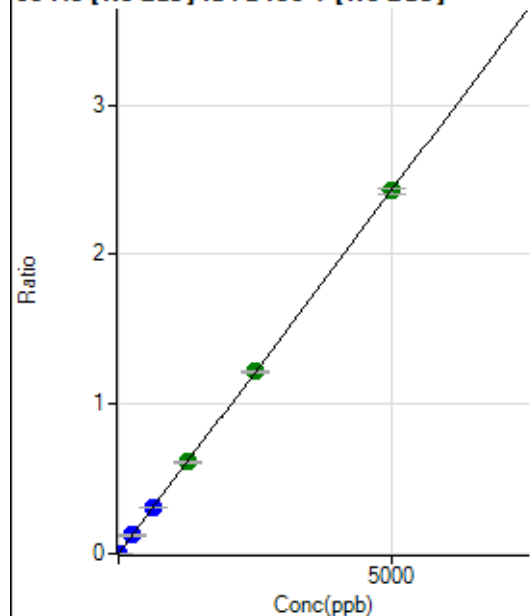
$$DL = 0.01488$$

$$BEC = 0.01688$$

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	252.79	0.0000	P	24.9
2	☐	0.500					
3	☐	5.000	4.659	39773.10	0.0023	P	2.2
4	☐	250.000	251.820	2109776.33	0.1223	P	1.0
5	☐	625.000	625.782	5050914.78	0.3039	P	1.0
6	☐	1250.000	1258.080	9557623.91	0.6109	A	0.6
7	☐	2500.000	2507.039	19111604.07	1.2173	A	1.0
8	☐	5000.000	4994.272	37984180.37	2.4249	A	1.7
9	☐			23417.40	0.0017	P	3.9

$$y = 4.8553E-004 * x + 1.4598E-005$$

$$R = 1.0000$$

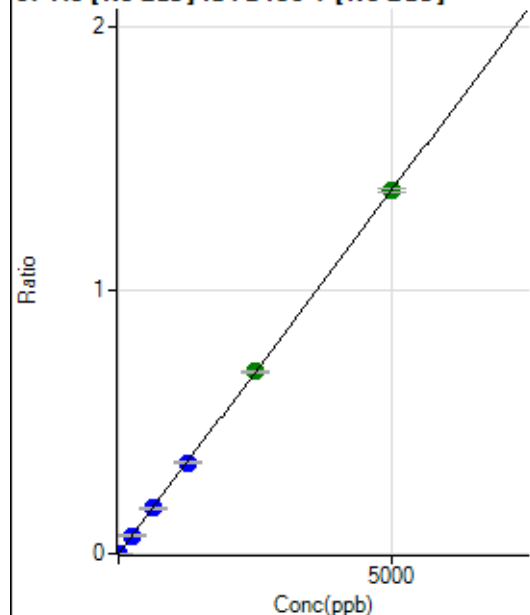
$$DL = 0.02245$$

$$BEC = 0.03007$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.12	0.0000	P	47.8
2	☐	0.500					
3	☐	5.000	4.556	22037.21	0.0013	P	3.2
4	☐	250.000	250.979	1194326.35	0.0692	P	0.4
5	☐	625.000	623.461	2858369.81	0.1719	P	0.9
6	☐	1250.000	1254.306	5412360.62	0.3459	P	1.3
7	☐	2500.000	2507.065	10855546.77	0.6914	A	1.2
8	☐	5000.000	4995.535	21581041.97	1.3777	A	1.2
9	☐			8247.16	0.0006	P	2.8

$$y = 2.7579\text{E-}004 * x + 4.9726\text{E-}006$$

$$R = 1.0000$$

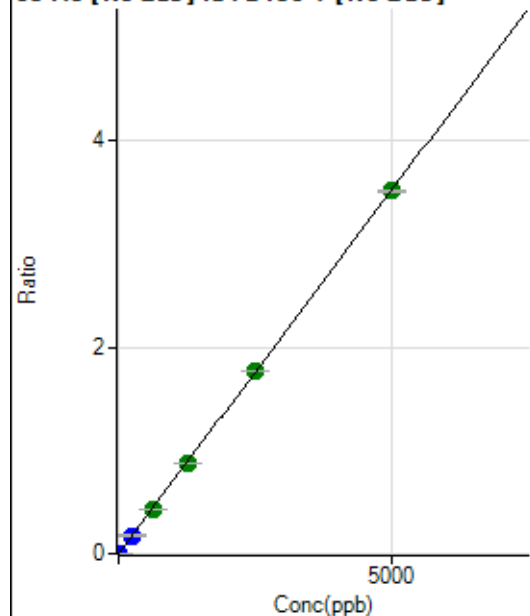
$$DL = 0.02585$$

$$BEC = 0.01803$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	177.78	0.0000	P	24.3
2	☐	0.500					
3	☐	5.000	4.754	58640.81	0.0034	P	0.6
4	☐	250.000	251.254	3051252.19	0.1769	P	1.1
5	☐	625.000	612.396	7165415.70	0.4310	A	0.5
6	☐	1250.000	1247.031	13733635.90	0.8777	A	0.0
7	☐	2500.000	2519.356	27841740.20	1.7733	A	0.4
8	☐	5000.000	4992.577	55046510.26	3.5141	A	0.8
9	☐			20140.04	0.0014	P	3.2

$$y = 7.0385\text{E-}004 * x + 1.0268\text{E-}005$$

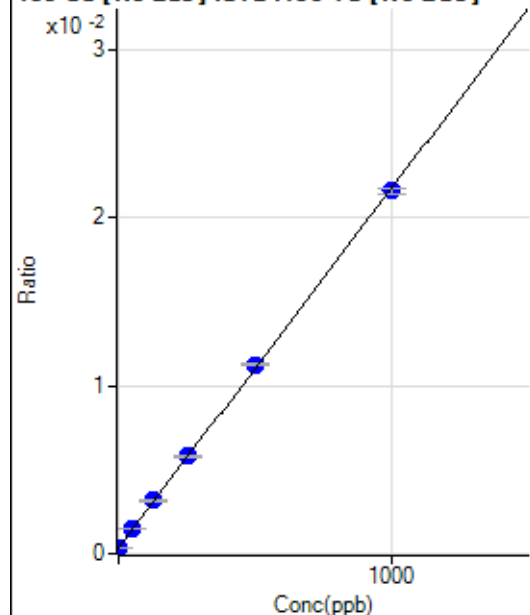
$$R = 1.0000$$

$$DL = 0.01061$$

$$BEC = 0.01459$$

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	7477.28	0.0003	P	2.9
2	☐	0.100					
3	☐	1.000	1.281	8008.15	0.0004	P	1.6
4	☐	50.000	54.586	32471.47	0.0015	P	0.3
5	☐	125.000	130.993	66431.90	0.0032	P	1.5
6	☐	250.000	255.583	120088.25	0.0058	P	1.4
7	☐	500.000	509.657	232388.72	0.0113	P	0.8
8	☐	1000.000	992.797	446869.39	0.0216	P	1.3
9	☐			6462.86	0.0003	P	3.2

$$y = 2.1414\text{E-}005 * x + 3.4607\text{E-}004$$

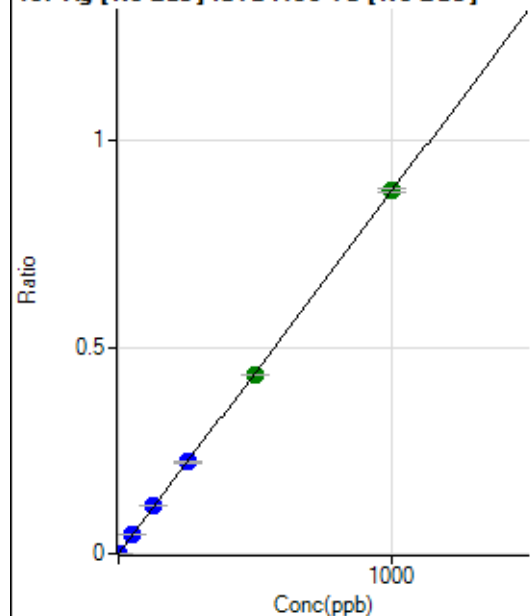
$$R = 0.9999$$

$$DL = 1.426$$

$$BEC = 16.16$$

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	166.68	0.0000	P	35.2
2	☐	0.100					
3	☐	1.000	1.092	20727.05	0.0010	P	2.0
4	☐	50.000	55.535	1044973.85	0.0488	P	0.6
5	☐	125.000	132.894	2459549.21	0.1167	P	1.5
6	☐	250.000	252.455	4573068.46	0.2216	P	1.6
7	☐	500.000	493.441	8938598.20	0.4331	A	0.5
8	☐	1000.000	1001.402	18182300.41	0.8790	A	1.0
9	☐			683.37	0.0000	P	5.0

$$y = 8.7778\text{E-}004 * x + 7.7182\text{E-}006$$

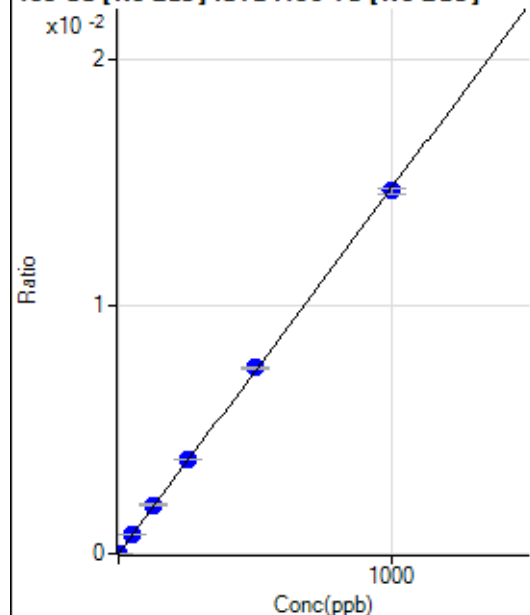
$$R = 0.9999$$

$$DL = 0.009288$$

$$BEC = 0.008793$$

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	11.11	0.0000	P	43.8
2	☐	0.100					
3	☐	1.000	1.070	350.01	0.0000	P	10.7
4	☐	50.000	53.941	17100.88	0.0008	P	0.7
5	☐	125.000	133.926	41746.40	0.0020	P	1.0
6	☐	250.000	258.642	78904.66	0.0038	P	0.4
7	☐	500.000	508.128	155024.65	0.0075	P	1.1
8	☐	1000.000	992.462	303422.36	0.0147	P	1.5
9	☐			44.45	0.0000	P	37.8

$$y = 1.4781\text{E-}005 * x + 5.1487\text{E-}007$$

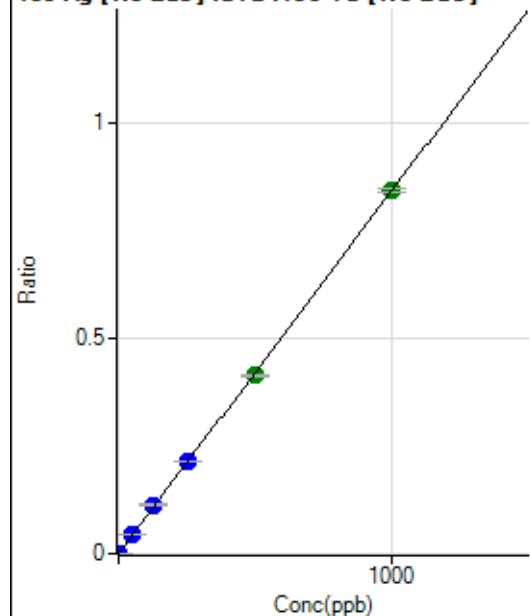
$$R = 0.9999$$

$$DL = 0.04575$$

$$BEC = 0.03483$$

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	100.00	0.0000	P	22.5
2	☐	0.100					
3	☐	1.000	1.075	19536.43	0.0009	P	1.9
4	☐	50.000	55.073	994955.22	0.0464	P	1.3
5	☐	125.000	134.812	2395650.29	0.1136	P	0.9
6	☐	250.000	255.313	4441022.45	0.2152	P	1.3
7	☐	500.000	492.847	8572120.59	0.4154	A	1.2
8	☐	1000.000	1000.768	17446014.80	0.8435	A	1.1
9	☐			538.92	0.0000	P	4.5

$$y = 8.4286\text{E-}004 * x + 4.6332\text{E-}006$$

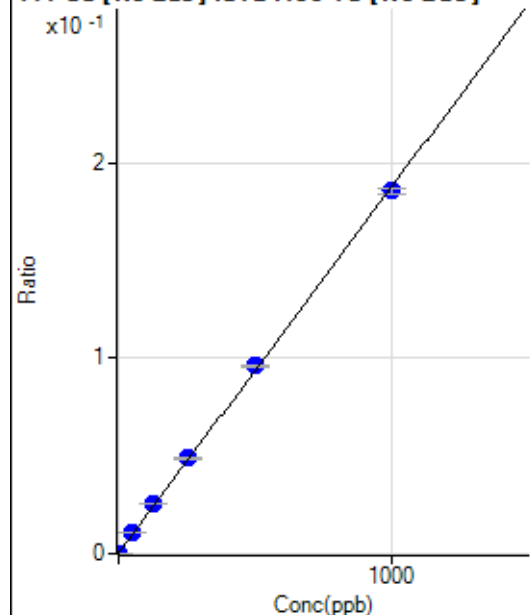
$$R = 0.9999$$

$$DL = 0.003718$$

$$BEC = 0.005497$$

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	5255.49	0.0002	P	2.8
2	☐	0.100					
3	☐	1.000	1.027	9339.10	0.0004	P	2.6
4	☐	50.000	55.128	226543.56	0.0106	P	1.4
5	☐	125.000	135.047	538481.64	0.0255	P	1.0
6	☐	250.000	260.432	1011793.26	0.0490	P	1.7
7	☐	500.000	511.863	1983881.09	0.0961	P	0.4
8	☐	1000.000	989.948	3840531.45	0.1857	P	1.7
9	☐			4744.28	0.0003	P	2.8

$$y = 1.8733\text{E-}004 * x + 2.4324\text{E-}004$$

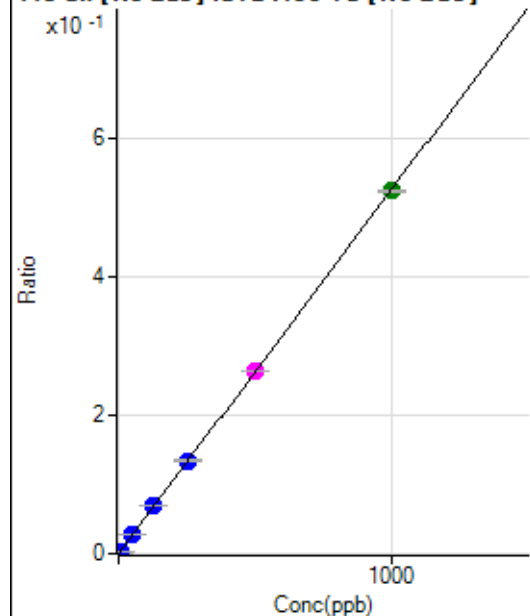
$$R = 0.9998$$

$$DL = 0.1074$$

$$BEC = 1.298$$

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	805.62	0.0000	P	3.4
2	☐	0.500					
3	☐	5.000	5.165	59156.19	0.0028	P	2.8
4	☐	50.000	53.160	601244.22	0.0281	P	1.1
5	☐	125.000	131.117	1457646.77	0.0691	P	2.0
6	☐	250.000	255.443	2778768.42	0.1347	P	1.2
7	☐	500.000	502.560	5466663.79	0.2649	M	0.4
8	☐	1000.000	996.436	10862348.68	0.5252	A	0.6
9	☐			5907.07	0.0003	P	3.8

$$y = 5.2702\text{E-}004 * x + 3.7295\text{E-}005$$

$$R = 1.0000$$

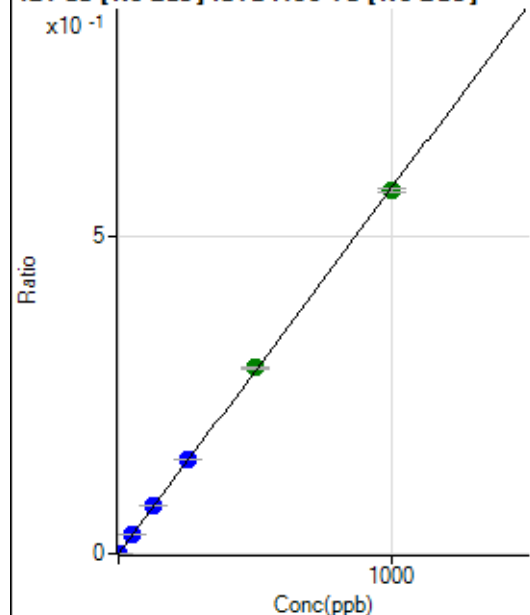
$$DL = 0.007266$$

$$BEC = 0.07077$$

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	69.45	0.0000	P	42.6
2	☐	0.200					
3	☐	2.000	1.953	24218.98	0.0011	P	2.2
4	☐	50.000	53.326	659503.10	0.0308	P	0.4
5	☐	125.000	131.269	1596969.72	0.0757	P	1.3
6	☐	250.000	258.124	3073358.86	0.1489	P	1.4
7	☐	500.000	508.912	6059390.37	0.2936	A	0.9
8	☐	1000.000	992.563	11845214.16	0.5727	A	1.2
9	☐			10557.18	0.0006	P	1.8

$$y = 5.7697\text{E-}004 * x + 3.2200\text{E-}006$$

$$R = 0.9999$$

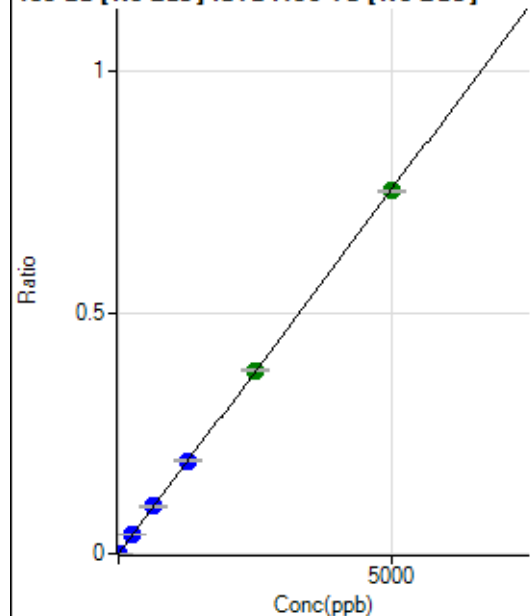
$$DL = 0.007134$$

$$BEC = 0.005581$$

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	33.34	0.0000	P	43.1
2	☐	1.000					
3	☐	10.000	10.065	32592.12	0.0015	P	2.8
4	☐	250.000	261.532	845938.20	0.0395	P	1.2
5	☐	625.000	648.247	2062549.91	0.0978	P	1.3
6	☐	1250.000	1275.894	3973554.25	0.1926	P	1.9
7	☐	2500.000	2517.608	7840403.48	0.3799	A	1.3
8	☐	5000.000	4981.240	15548727.95	0.7517	A	0.5
9	☐			1602.94	0.0001	P	4.9

$$y = 1.5092\text{E-}004 * x + 1.5414\text{E-}006$$

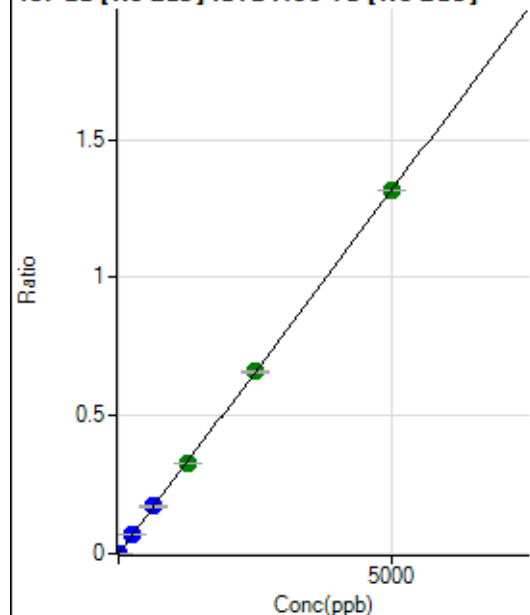
$$R = 1.0000$$

$$DL = 0.01319$$

$$BEC = 0.01021$$

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	44.45	0.0000	P	78.4
2	☐	1.000					
3	☐	10.000	9.976	56343.05	0.0026	P	2.1
4	☐	250.000	262.746	1482503.97	0.0692	P	0.6
5	☐	625.000	651.377	3615159.28	0.1715	P	1.8
6	☐	1250.000	1250.550	6793597.55	0.3292	A	1.0
7	☐	2500.000	2508.188	13625777.73	0.6603	A	1.0
8	☐	5000.000	4991.834	27181096.79	1.3141	A	0.1
9	☐			2814.32	0.0002	P	8.2

$$y = 2.6325E-004 * x + 2.0628E-006$$

$$R = 1.0000$$

$$DL = 0.01843$$

$$BEC = 0.007836$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.22		P	173.
2	☐						
3	☐			8.89		P	43.3
4	☐			75.56		P	31.0
5	☐			186.67		P	6.2
6	☐			371.13		P	6.8
7	☐			731.16		P	12.8
8	☐			1440.13		P	8.1
9	☐			226.68		P	13.5

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			12.22		P	15.7
5	☐			18.89		P	36.7
6	☐			45.56		P	25.7
7	☐			71.11		P	35.5
8	☐			136.67		P	6.5
9	☐			114.45		P	6.1

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐						
3	☐			22.22		P	21.6
4	☐			25.00		P	33.3
5	☐			55.56		P	48.2
6	☐			88.89		P	10.8
7	☐			169.46		P	20.5
8	☐			230.57		P	9.1
9	☐			119.45		P	17.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			6.67		P	50.0
2	☐						
3	☐			7.78		P	65.5
4	☐			25.56		P	60.2
5	☐			64.44		P	44.0
6	☐			78.89		P	17.6
7	☐			164.45		P	8.2
8	☐			271.12		P	9.2
9	☐			61.11		P	6.3

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			66.67		P	33.1
2	☐						
3	☐			86.11		P	14.8
4	☐			122.23		P	41.7
5	☐			136.12		P	36.9
6	☐			127.78		P	29.4
7	☐			125.01		P	20.0
8	☐			127.78		P	24.7
9	☐			175.01		P	37.8

160 Gd [He] No available calibration points

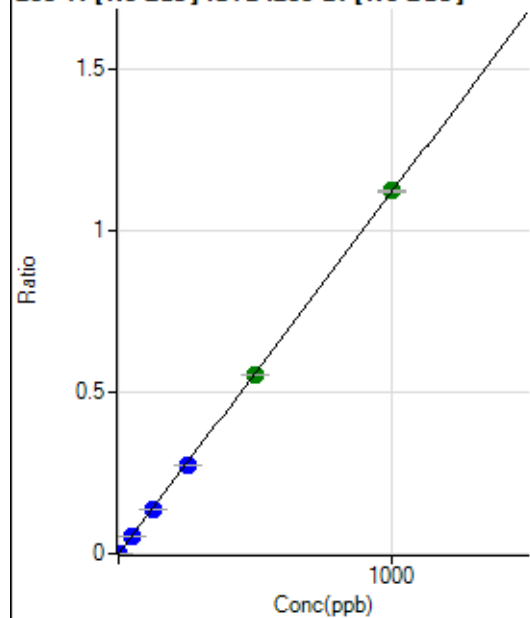
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			266.67		P	16.3
2	☐						
3	☐			316.68		P	4.2
4	☐			327.79		P	3.6
5	☐			296.68		P	2.2
6	☐			254.45		P	2.0
7	☐			317.79		P	5.4
8	☐			270.01		P	12.5
9	☐			320.01		P	1.0

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			36.11		P	35.3
2	☐						
3	☐			83.34		P	34.6
4	☐			55.56		P	37.8
5	☐			61.11		P	28.4
6	☐			55.56		P	34.6
7	☐			94.45		P	35.7
8	☐			77.78		P	40.6
9	☐			66.67		P	33.1

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			24.44		P	31.5
2	☐						
3	☐			32.22		P	21.5
4	☐			33.33		P	60.8
5	☐			40.00		P	46.4
6	☐			48.89		P	10.4
7	☐			43.33		P	15.4
8	☐			30.00		P	19.2
9	☐			54.45		P	24.7

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	455.59	0.0000	P	15.5
2	☐	0.100					
3	☐	1.000	0.872	14105.20	0.0010	P	3.2
4	☐	50.000	48.014	755463.47	0.0537	P	0.8
5	☐	125.000	122.297	1872671.22	0.1368	P	1.6
6	☐	250.000	245.386	3670181.64	0.2745	P	1.0
7	☐	500.000	495.461	7261021.17	0.5543	A	0.7
8	☐	1000.000	1003.860	14182349.62	1.1230	A	0.7
9	☐			1533.49	0.0002	P	2.5

$$y = 0.0011 * x + 3.2067E-005$$

$$R = 1.0000$$

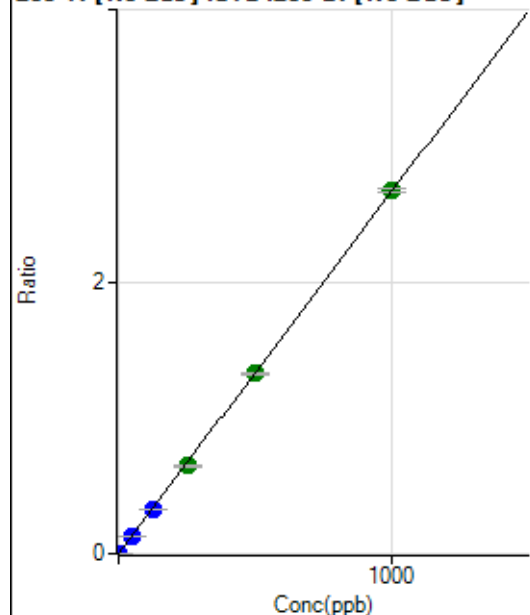
$$DL = 0.01336$$

$$BEC = 0.02867$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1252.89	0.0001	P	10.1
2	☐	0.100					
3	☐	1.000	0.881	34103.16	0.0024	P	0.7
4	☐	50.000	48.657	1822749.04	0.1297	P	1.4
5	☐	125.000	123.534	4503390.33	0.3291	P	1.4
6	☐	250.000	242.483	8633874.24	0.6458	A	0.6
7	☐	500.000	498.333	17386326.60	1.3272	A	0.6
8	☐	1000.000	1002.963	33732927.14	2.6711	A	1.0
9	☐			3770.18	0.0004	P	8.0

$$y = 0.0027 * x + 8.8140E-005$$

$$R = 1.0000$$

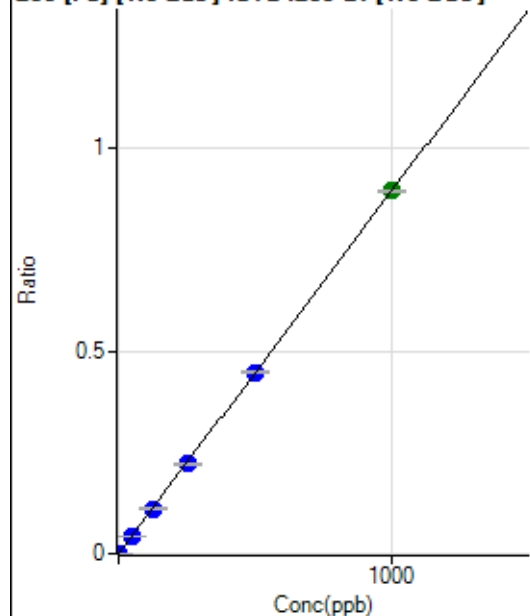
$$DL = 0.01003$$

$$BEC = 0.0331$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	972.29	0.0001	P	4.5
2	☐	0.100					
3	☐	1.000	0.898	12217.00	0.0009	P	0.9
4	☐	50.000	49.085	618596.55	0.0440	P	1.2
5	☐	125.000	124.565	1526877.61	0.1116	P	1.4
6	☐	250.000	246.868	2955278.60	0.2211	P	1.4
7	☐	500.000	499.724	5860784.10	0.4474	P	1.4
8	☐	1000.000	1001.021	11317178.03	0.8961	A	0.8
9	☐			10789.86	0.0011	P	0.5

$$y = 8.9515E-004 * x + 6.8370E-005$$

$$R = 1.0000$$

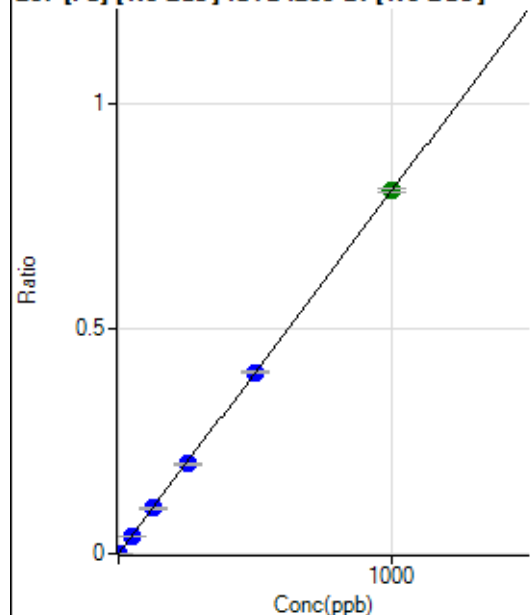
$$DL = 0.0102$$

$$BEC = 0.07638$$

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	829.68	0.0001	P	7.5
2	☐	0.100					
3	☐	1.000	0.877	10725.01	0.0008	P	2.4
4	☐	50.000	49.032	556655.08	0.0396	P	0.1
5	☐	125.000	125.044	1380770.47	0.1009	P	1.3
6	☐	250.000	246.840	2661986.46	0.1991	P	1.6
7	☐	500.000	500.693	5290091.15	0.4038	P	0.8
8	☐	1000.000	1000.487	10189669.79	0.8069	A	1.0
9	☐			8910.63	0.0009	P	1.2

$$y = 8.0642\text{E-}004 * x + 5.8369\text{E-}005$$

$$R = 1.0000$$

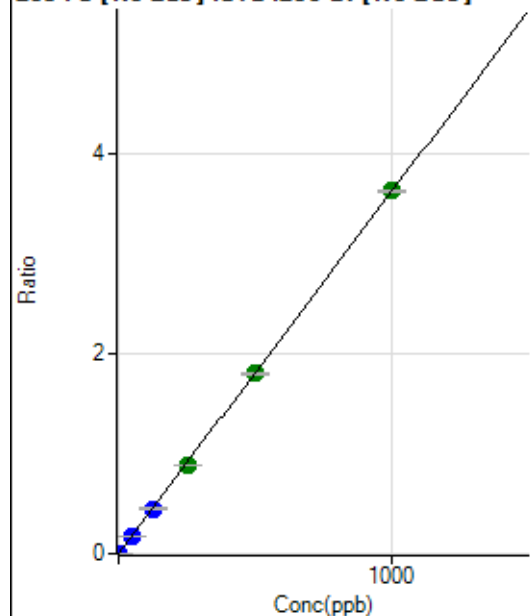
$$DL = 0.01618$$

$$BEC = 0.07238$$

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	3822.56	0.0003	P	1.8
2	☐	0.100					
3	☐	1.000	0.889	48884.58	0.0035	P	1.2
4	☐	50.000	49.105	2504849.34	0.1782	P	0.3
5	☐	125.000	124.510	6177485.13	0.4514	P	1.4
6	☐	250.000	245.195	11880415.43	0.8887	A	0.3
7	☐	500.000	497.534	23618797.64	1.8030	A	0.8
8	☐	1000.000	1002.540	45877111.32	3.6328	A	0.3
9	☐			41908.41	0.0041	P	2.6

$$y = 0.0036 * x + 2.6886\text{E-}004$$

$$R = 1.0000$$

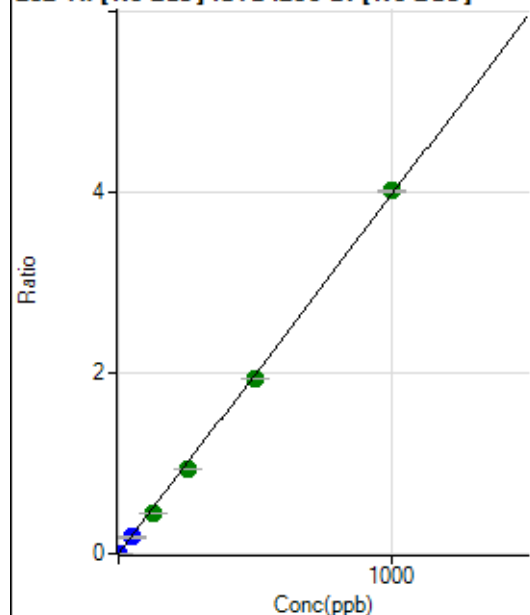
$$DL = 0.004118$$

$$BEC = 0.0742$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	625.96	0.0000	P	10.3
2	☐	0.100					
3	☐	1.000	0.766	43211.23	0.0031	P	0.3
4	☐	50.000	45.634	2548942.53	0.1813	P	0.7
5	☐	125.000	114.695	6235967.15	0.4557	A	0.6
6	☐	250.000	236.604	12565845.42	0.9400	A	0.6
7	☐	500.000	487.733	25382588.53	1.9376	A	0.4
8	☐	1000.000	1010.989	50719856.69	4.0163	A	0.5
9	☐			8289.90	0.0008	P	5.5

$$y = 0.0040 * x + 4.4000E-005$$

$$R = 0.9998$$

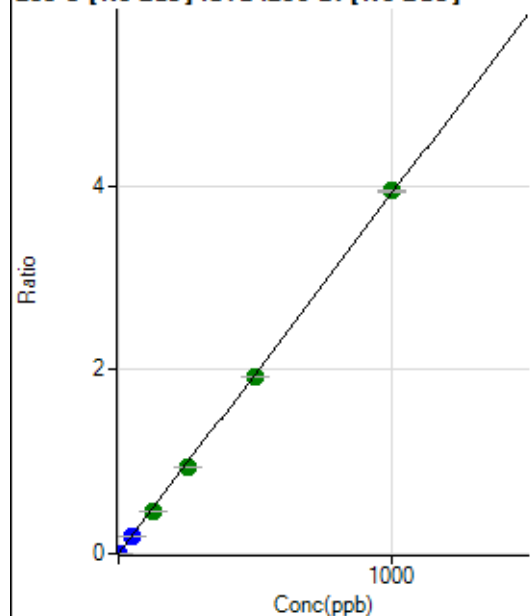
$$DL = 0.003429$$

$$BEC = 0.01108$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	125.01	0.0000	P	13.8
2	☐	0.100					
3	☐	1.000	0.823	45182.93	0.0032	P	2.6
4	☐	50.000	46.012	2528908.61	0.1799	P	0.8
5	☐	125.000	116.237	6219388.64	0.4545	A	0.3
6	☐	250.000	239.036	12493889.69	0.9346	A	0.1
7	☐	500.000	491.095	25152862.02	1.9201	A	0.5
8	☐	1000.000	1008.488	49793585.49	3.9429	A	0.7
9	☐			1202.89	0.0001	P	13.8

$$y = 0.0039 * x + 8.7956E-006$$

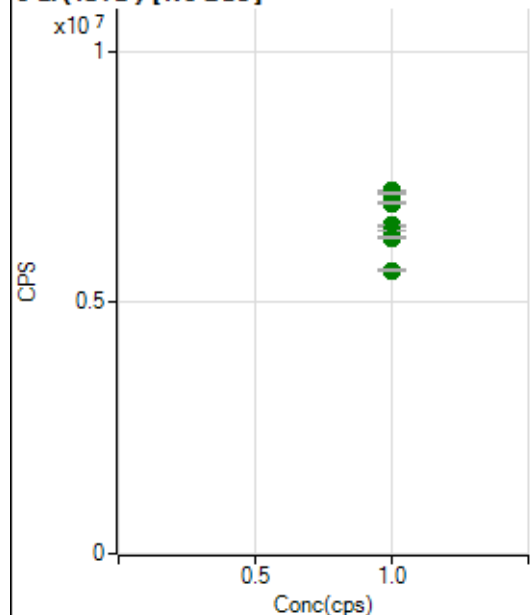
$$R = 0.9999$$

$$DL = 0.000928$$

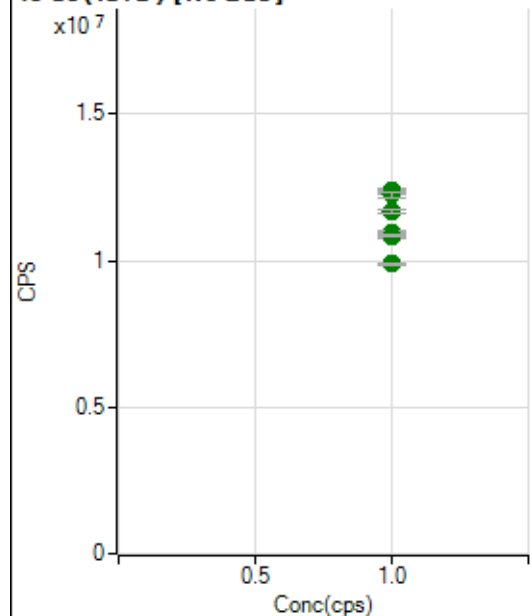
$$BEC = 0.00225$$

Weight: <None>

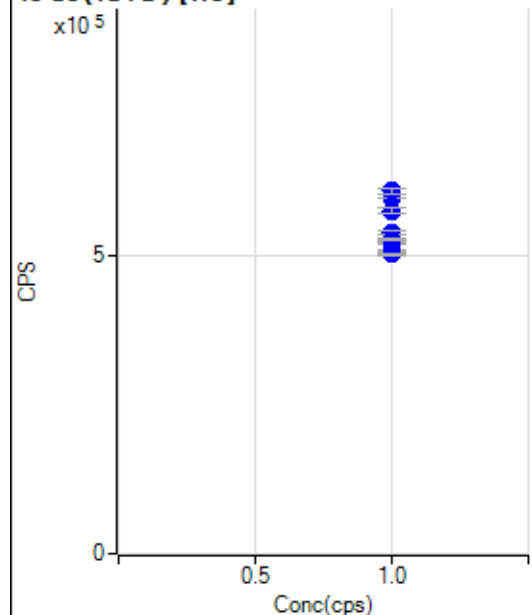
Min Conc: 0

6 Li (ISTD) [No Gas]

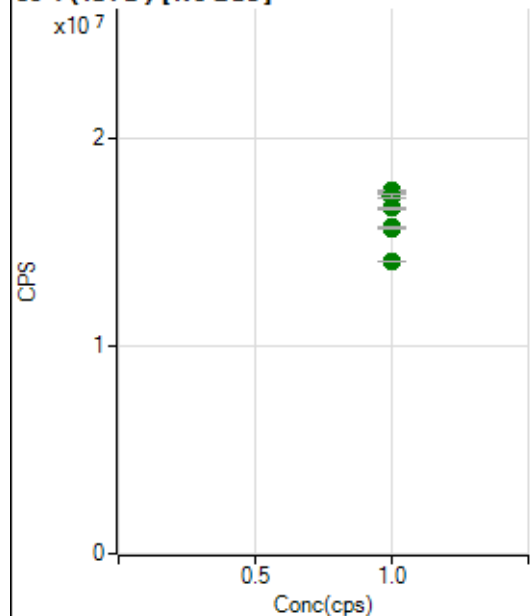
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7217916.17		A	0.2
2	☐	1.000					
3	☐	1.000		7161394.62		A	0.4
4	☐	1.000		7162069.01		A	0.7
5	☐	1.000		6976039.84		A	0.4
6	☐	1.000		6527209.72		A	0.4
7	☐	1.000		6423843.21		A	0.2
8	☐	1.000		6282433.24		A	0.5
9	☐	1.000		5635606.62		A	0.4

45 Sc (ISTD) [No Gas]

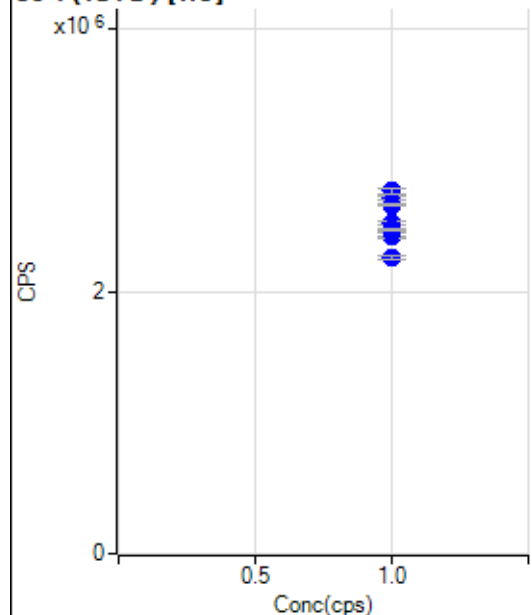
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12361979.44		A	1.1
2	☐	1.000					
3	☐	1.000		12373625.36		A	0.7
4	☐	1.000		12254085.08		A	1.5
5	☐	1.000		11668334.64		A	0.7
6	☐	1.000		10973141.04		A	0.7
7	☐	1.000		10825698.59		A	0.7
8	☐	1.000		10832437.57		A	0.4
9	☐	1.000		9883456.38		A	0.9

45 Sc (ISTD) [He]

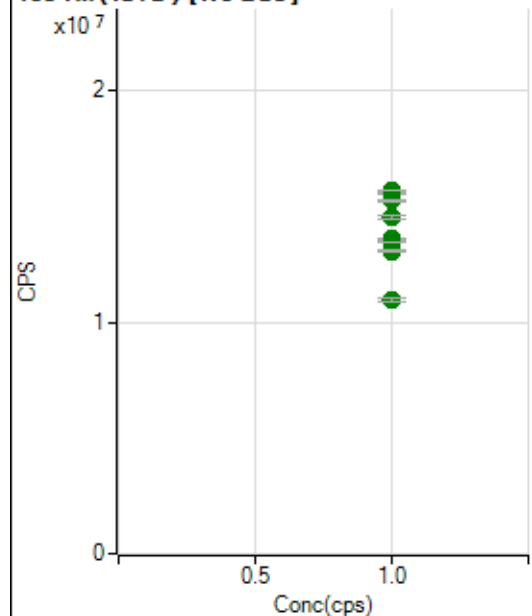
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		597452.78		P	0.2
2	☐	1.000					
3	☐	1.000		608614.85		P	1.3
4	☐	1.000		574670.39		P	1.7
5	☐	1.000		539418.64		P	1.2
6	☐	1.000		507900.40		P	0.4
7	☐	1.000		521308.34		P	0.9
8	☐	1.000		526897.12		P	0.5
9	☐	1.000		502668.01		P	0.8

89 Y (ISTD) [No Gas]

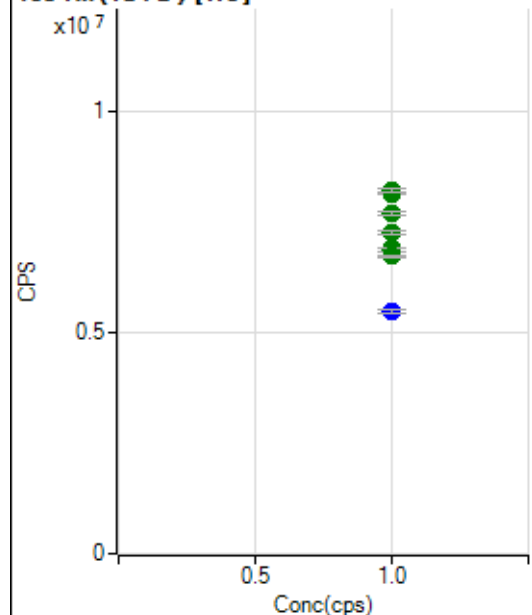
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17319596.27		A	0.3
2	☐	1.000					
3	☐	1.000		17470519.18		A	0.7
4	☐	1.000		17254037.10		A	1.1
5	☐	1.000		16623066.70		A	0.4
6	☐	1.000		15646635.74		A	0.6
7	☐	1.000		15701001.85		A	0.6
8	☐	1.000		15665150.88		A	0.6
9	☐	1.000		14084476.04		A	0.2

89 Y(ISTD) [He]

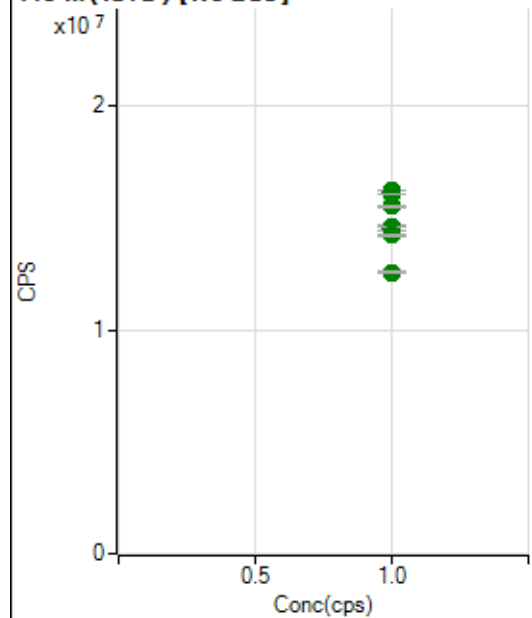
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2709677.04		P	1.0
2	☐	1.000					
3	☐	1.000		2765251.38		P	1.3
4	☐	1.000		2660090.84		P	0.7
5	☐	1.000		2517545.17		P	1.0
6	☐	1.000		2412054.62		P	0.4
7	☐	1.000		2450608.97		P	0.0
8	☐	1.000		2469685.95		P	0.7
9	☐	1.000		2260042.94		P	1.4

103 Rh(ISTD) [No Gas]

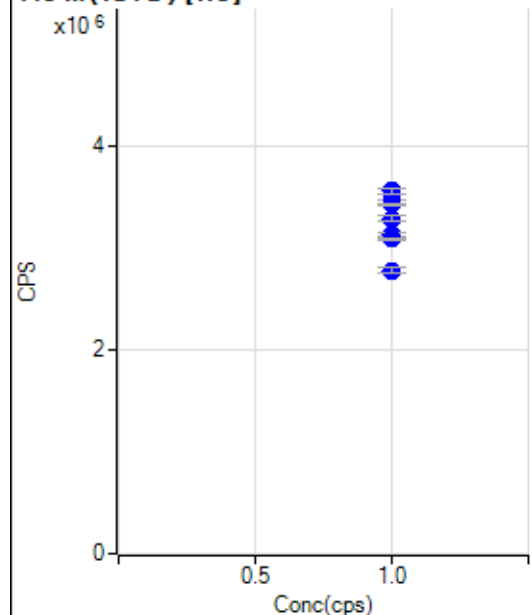
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15559048.09		A	0.5
2	☐	1.000					
3	☐	1.000		15673654.86		A	0.1
4	☐	1.000		15254528.29		A	0.8
5	☐	1.000		14547976.19		A	1.1
6	☐	1.000		13618276.34		A	0.6
7	☐	1.000		13429489.19		A	0.1
8	☐	1.000		13063664.62		A	0.7
9	☐	1.000		10946858.84		A	1.3

103 Rh (ISTD) [He]

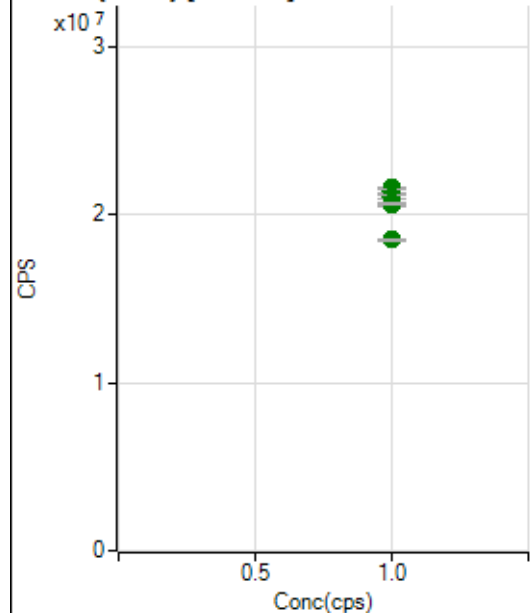
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8102935.36		A	0.2
2	☐	1.000					
3	☐	1.000		8187158.77		A	1.0
4	☐	1.000		7668352.04		A	1.2
5	☐	1.000		7251282.81		A	1.3
6	☐	1.000		6895792.60		A	0.3
7	☐	1.000		6864133.30		A	0.9
8	☐	1.000		6719049.35		A	0.8
9	☐	1.000		5476544.99		P	1.3

115 In (ISTD) [No Gas]

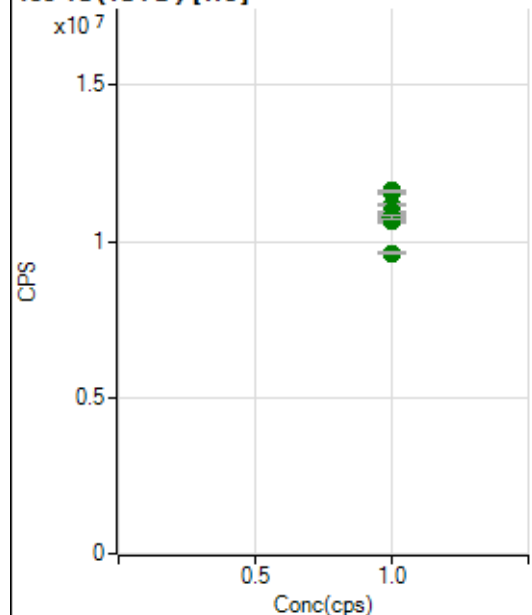
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16149507.23		A	0.8
2	☐	1.000					
3	☐	1.000		16194739.42		A	0.1
4	☐	1.000		16062470.37		A	0.1
5	☐	1.000		15502373.95		A	0.4
6	☐	1.000		14634489.29		A	0.4
7	☐	1.000		14525406.68		A	1.1
8	☐	1.000		14222653.68		A	0.5
9	☐	1.000		12555754.11		A	1.0

115 In (ISTD) [He]

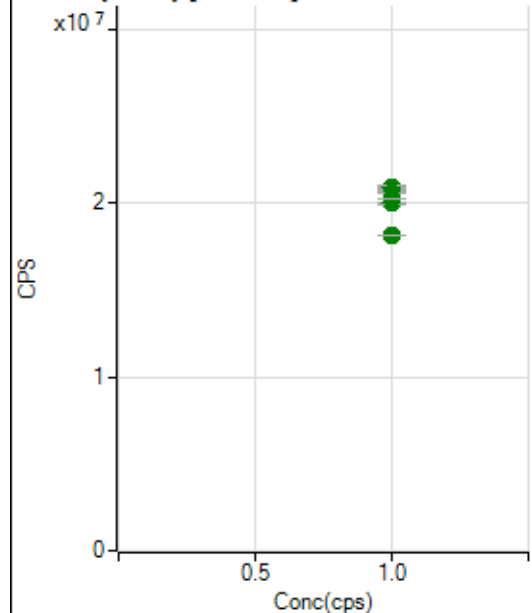
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3468216.61		P	0.2
2	☐	1.000					
3	☐	1.000		3553619.62		P	1.7
4	☐	1.000		3418687.76		P	1.0
5	☐	1.000		3283120.85		P	1.4
6	☐	1.000		3129036.87		P	1.4
7	☐	1.000		3128357.81		P	1.2
8	☐	1.000		3084195.94		P	0.4
9	☐	1.000		2773418.77		P	1.8

159 Tb (ISTD) [No Gas]

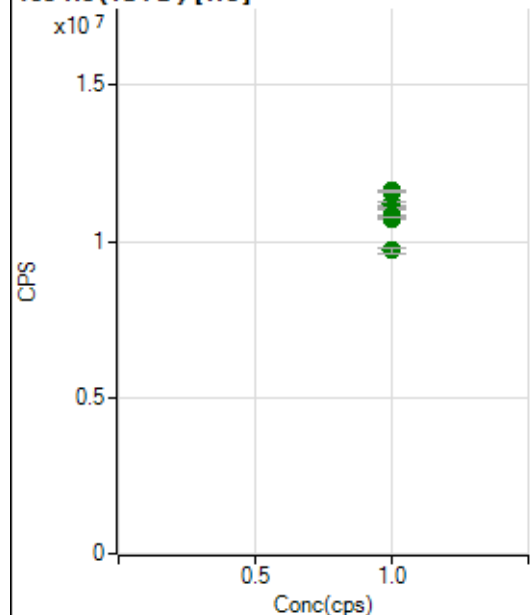
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		21603557.87		A	0.6
2	☐	1.000					
3	☐	1.000		21439638.57		A	1.2
4	☐	1.000		21433231.49		A	0.8
5	☐	1.000		21083759.69		A	1.1
6	☐	1.000		20636653.58		A	0.8
7	☐	1.000		20637343.72		A	1.1
8	☐	1.000		20684090.66		A	1.0
9	☐	1.000		18512476.81		A	0.7

159 Tb (ISTD) [He]

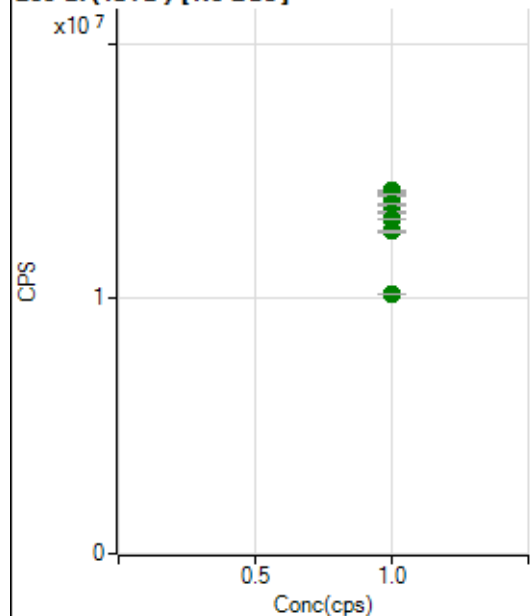
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11569807.61		A	0.9
2	☐	1.000					
3	☐	1.000		11613106.77		A	0.6
4	☐	1.000		11157339.42		A	0.6
5	☐	1.000		10940445.88		A	0.6
6	☐	1.000		10625949.01		A	0.2
7	☐	1.000		10728117.20		A	1.0
8	☐	1.000		10770322.13		A	0.9
9	☐	1.000		9633033.26		A	0.8

165 Ho (ISTD) [No Gas]

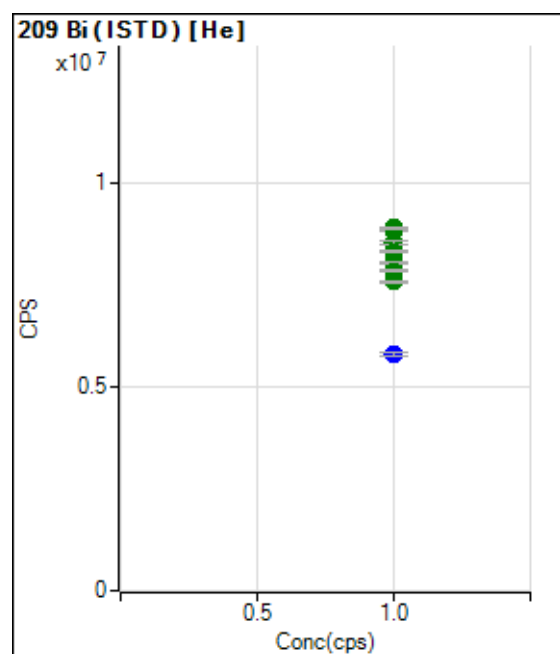
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20811273.73		A	0.4
2	☐	1.000					
3	☐	1.000		20738289.35		A	0.2
4	☐	1.000		20867221.65		A	0.9
5	☐	1.000		20569270.25		A	0.2
6	☐	1.000		19985791.25		A	0.3
7	☐	1.000		20062457.22		A	1.6
8	☐	1.000		20250771.81		A	0.4
9	☐	1.000		18103965.16		A	0.2

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11595414.97		A	0.3
2	☐	1.000					
3	☐	1.000		11619039.27		A	0.5
4	☐	1.000		11222802.05		A	1.0
5	☐	1.000		11036414.42		A	0.6
6	☐	1.000		10721866.23		A	0.7
7	☐	1.000		10812417.34		A	0.3
8	☐	1.000		10793704.70		A	0.1
9	☐	1.000		9713264.37		A	1.6

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		14218761.87		A	0.8
2	☐	1.000					
3	☐	1.000		14006213.82		A	0.3
4	☐	1.000		14057415.21		A	0.7
5	☐	1.000		13685065.63		A	0.1
6	☐	1.000		13368561.19		A	0.5
7	☐	1.000		13099934.53		A	0.3
8	☐	1.000		12628716.20		A	0.3
9	☐	1.000		10143806.31		A	0.1



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8844793.06		A	0.5
2	☐	1.000					
3	☐	1.000		8908983.96		A	0.4
4	☐	1.000		8540951.61		A	0.8
5	☐	1.000		8319460.43		A	0.5
6	☐	1.000		8058323.28		A	0.6
7	☐	1.000		7855348.70		A	0.7
8	☐	1.000		7582216.34		A	0.7
9	☐	1.000		5804947.62		P	1.4

US EPA Tune Check Sample Report

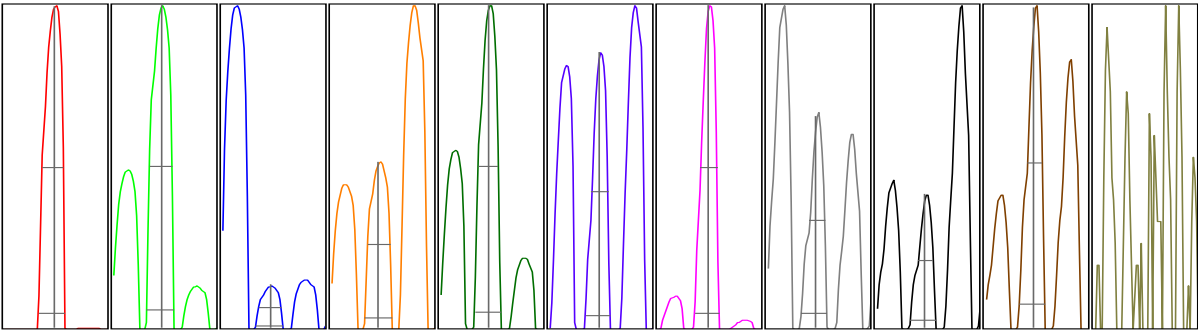
Batch Folder D:\ICP-MS Data\P7032619 MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	26813	0.45	5.00	
24	245391	0.74	5.00	
25	32331	0.76	5.00	
26	37664	0.53	5.00	
59	154867	0.81	5.00	
113	18389	0.83	5.00	
115	211166	0.50	5.00	
206	52803	0.71	5.00	
207	49040	0.43	5.00	
208	115743	0.54	5.00	
220	0	60.71		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	26992	26831	26799	26790	26654
24	247973	243199	245793	245766	244222
25	32738	32384	32162	32210	32160
26	38017	37612	37597	37574	37523
59	156563	155469	154965	153962	153375
113	18614	18412	18410	18305	18203
115	213038	210729	210581	210543	210939
206	52625	52942	52989	53216	52246
207	49246	49109	49129	49028	48687
208	116461	116368	115346	115387	115151
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	45931	9.00	8.9 - 9.1		0.771	0.900	
24	401913	23.95	23.9 - 24.1		0.786	0.900	
25	53547	24.95	24.9 - 25.1		0.786	0.900	
26	61372	25.90	25.9 - 26.1		0.785	0.900	
59	283030	58.95	58.9 - 59.1		0.772	0.900	
113	38849	113.00	112.9 - 113.1		0.718	0.900	
115	446952	115.00	114.9 - 115.1		0.710	0.900	
206	112431	205.95	205.9 - 206.1		0.736	0.900	
207	103434	206.95	206.9 - 207.1		0.729	0.900	
208	247151	207.95	207.9 - 208.1		0.733	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	7.9	V	Deflect	13.8	V
Extract 2	-115.0	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	40304	0.46	
89	34622	0.59	
205	47398	0.58	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	40493	40474	40324	40097	40135
89	34884	34645	34649	34315	34618
205	47875	47336	47349	47174	47253

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	2.0	V
Extract 2	-135.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-65	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			