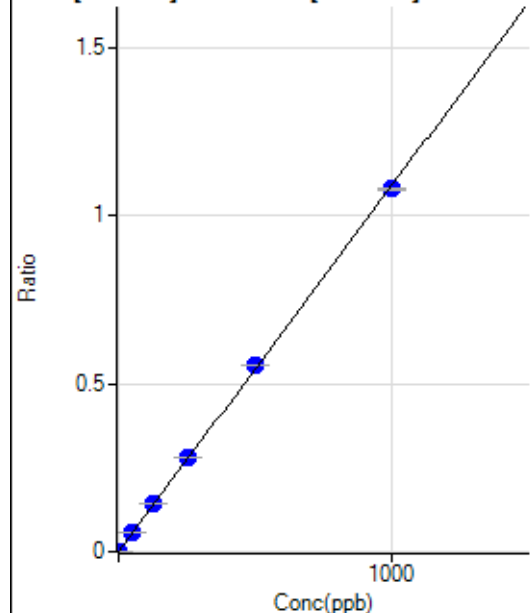


Calibration for 006CAL.S.d

Batch Folder: D:\ICP-MS Data\P7111418-MS.b\
 Analysis File: P7111418-MS.batch.bin
 DA Date-Time: 2018-11-14 13:03:52
 Calibration Title:
 Calibration Method: External Calibration
 VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2018-11-14 12:49:04
2			
3	005CAL.S.d	S02	2018-11-14 12:57:27
4	007CAL.S.d	S03	2018-11-14 13:05:54
5	008CAL.S.d	S04	2018-11-14 13:09:39
6	009CAL.S.d	S05	2018-11-14 13:13:24
7	010CAL.S.d	S06	2018-11-14 13:17:09
8	011CAL.S.d	S07	2018-11-14 13:20:53
9	012CAL.S.d	S08	2018-11-14 13:24:38

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	40.74	0.0000	P	32.1
2	☐	0.100					
3	☐	1.000	1.070	4074.73	0.0012	P	3.7
4	☐	50.000	53.488	197524.14	0.0582	P	1.2
5	☐	125.000	129.878	476105.79	0.1414	P	1.1
6	☐	250.000	257.099	897156.41	0.2798	P	0.4
7	☐	500.000	511.055	1740148.58	0.5562	P	0.3
8	☐	1000.000	991.914	3296656.85	1.0796	P	0.6
9	☐			548.17	0.0002	P	7.3

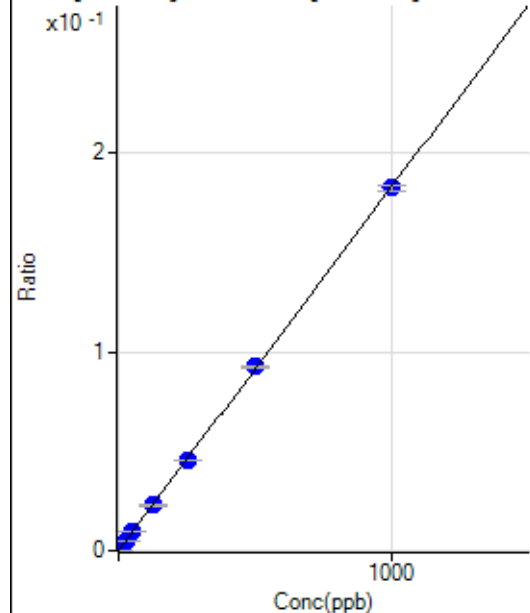
$$y = 0.0011 * x + 1.1940E-005$$

$$R = 0.9999$$

$$DL = 0.01057$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	277.79	0.0001	P	19.3
2	☐	2.500					
3	☐	25.000	25.723	16565.22	0.0048	P	2.5
4	☐	50.000	52.559	32869.85	0.0097	P	2.1
5	☐	125.000	123.914	76555.06	0.0227	P	0.8
6	☐	250.000	248.839	146092.28	0.0456	P	1.4
7	☐	500.000	505.615	289406.00	0.0925	P	0.6
8	☐	1000.000	997.472	557011.53	0.1824	P	1.3
9	☐			10073.19	0.0032	P	12.0

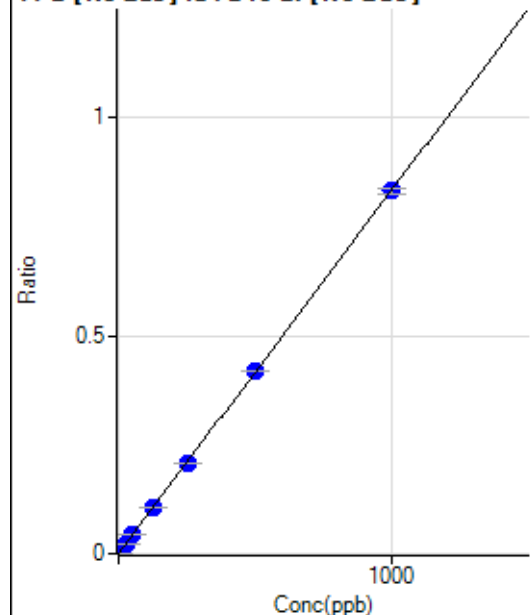
$$y = 1.8279E-004 * x + 8.1352E-005$$

$$R = 1.0000$$

$$DL = 0.2581$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1419.57	0.0004	P	3.8
2	☐	2.500					
3	☐	25.000	25.537	75112.63	0.0217	P	0.6
4	☐	50.000	52.070	148564.66	0.0438	P	0.6
5	☐	125.000	125.241	352767.15	0.1047	P	0.6
6	☐	250.000	247.075	661226.80	0.2062	P	1.0
7	☐	500.000	503.546	1313654.20	0.4199	P	0.5
8	☐	1000.000	998.811	2542127.25	0.8325	P	1.2
9	☐			46322.36	0.0148	P	10.6

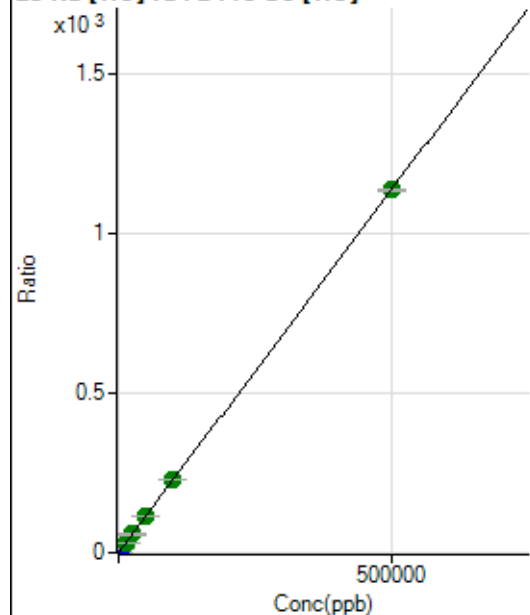
$$y = 8.3306E-004 * x + 4.1550E-004$$

$$R = 1.0000$$

$$DL = 0.05677$$

Weight: <None>

Min Conc: 0

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

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10270.60	0.0306	P	1.8
2	☐	50.000					
3	☐	500.000	487.391	382676.84	1.1388	P	0.3
4	☐	5000.000	4988.171	3543396.70	11.3723	P	0.5
5	☐	12500.000	12607.205	8436077.97	28.6959	A	0.8
6	☐	25000.000	25217.203	16245659.74	57.3676	A	0.6
7	☐	50000.000	51205.702	32616491.01	116.4583	A	0.9
8	☐	100000.00	100514.96	65337400.76	228.5739	A	0.4
9	☐	500000.00	499763.02	371218397.19	1,136.354	A	0.2

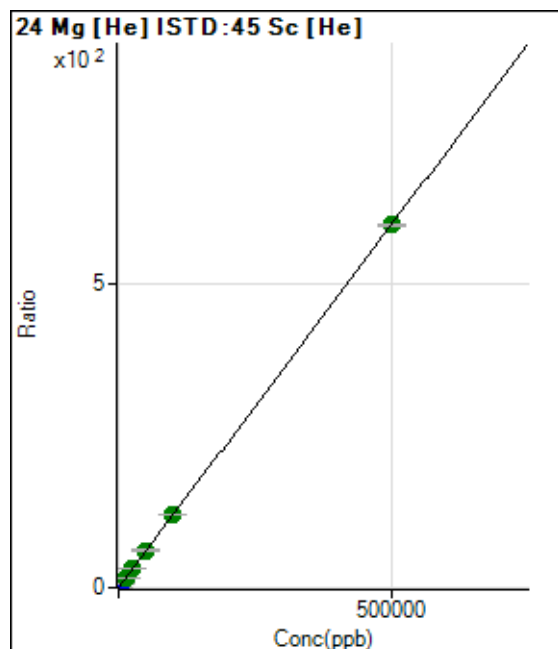
$$y = 0.0023 * x + 0.0306$$

$$R = 1.0000$$

$$DL = 0.7419$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	127.78	0.0004	P	14.7
2	☐	50.000					
3	☐	500.000	499.422	201233.99	0.5988	P	0.3
4	☐	5000.000	5139.019	1918907.81	6.1586	P	0.4
5	☐	12500.000	12783.048	4503416.16	15.3185	A	0.8
6	☐	25000.000	25599.929	8687393.25	30.6772	A	0.4
7	☐	50000.000	51566.271	17306197.09	61.7931	A	1.2
8	☐	100000.00	100393.64	34388551.11	120.3038	A	0.4
9	☐	500000.00	499726.18	195619323.82	598.8306	A	0.7

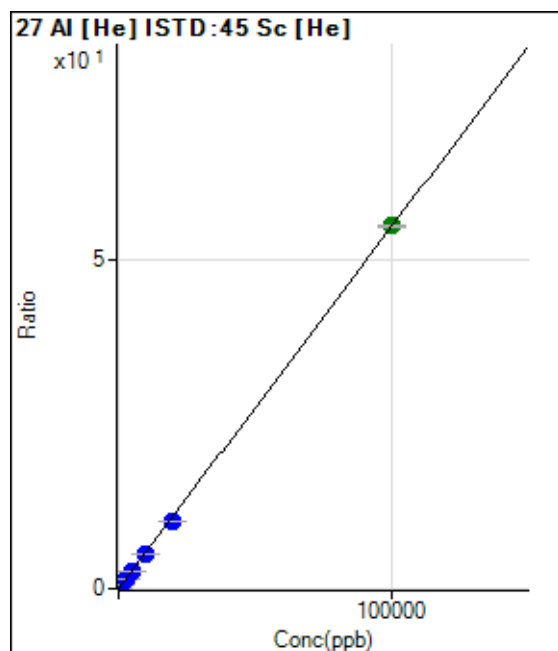
$$y = 0.0012 * x + 3.8037E-004$$

$$R = 1.0000$$

$$DL = 0.1397$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.45	0.0001	P	58.0
2	☐	2.000					
3	☐	20.000	19.125	3586.69	0.0107	P	2.9
4	☐	1000.000	955.415	164143.71	0.5268	P	1.4
5	☐	2500.000	2404.350	389671.20	1.3254	P	1.0
6	☐	5000.000	4805.834	750203.48	2.6491	P	0.4
7	☐	10000.000	9689.474	1495884.10	5.3411	P	0.7
8	☐	20000.000	18727.386	2950769.64	10.3228	P	0.3
9	☐	100000.00	100298.12	18060471.59	55.2853	A	0.3

$$y = 5.5121E-004 * x + 1.3272E-004$$

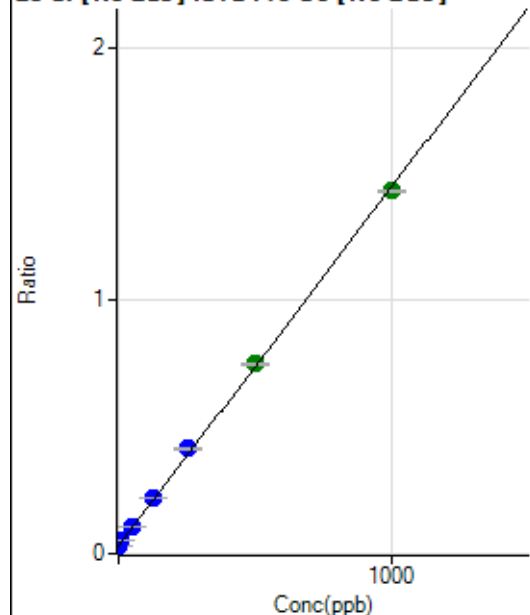
$$R = 0.9999$$

$$DL = 0.4187$$

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	222286.67	0.0300	P	0.3
2	☐	1.000					
3	☐	10.000	15.622	387367.44	0.0521	P	1.0
4	☐	50.000	56.027	770971.13	0.1094	P	0.4
5	☐	125.000	136.395	1523422.54	0.2234	P	0.1
6	☐	250.000	271.116	2641995.16	0.4145	P	1.7
7	☐	500.000	507.355	4697430.97	0.7495	A	0.7
8	☐	1000.000	989.262	8962962.27	1.4330	A	0.2
9	☐			772472.87	0.1102	P	1.4

$$y = 0.0014 * x + 0.0300$$

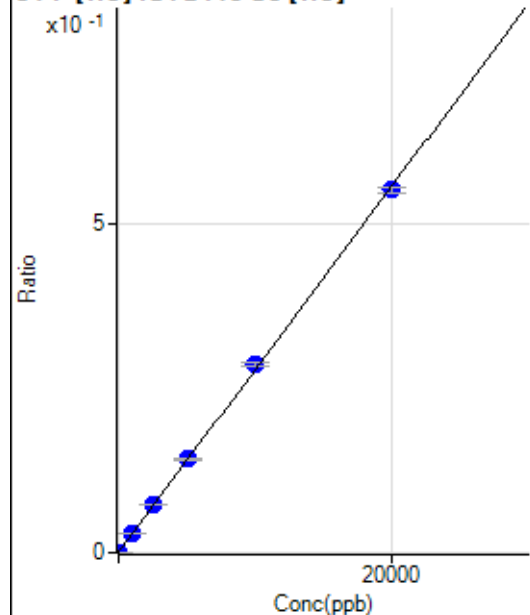
$$R = 0.9997$$

$$DL = 0.1629$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-1.631	188.90	0.0006	P	31.1
2	☐	0.000					
3	☐	0.000	1.631	219.46	0.0007	P	28.4
4	☐	1000.000	1037.399	9178.18	0.0295	P	1.7
5	☐	2500.000	2587.474	21332.67	0.0726	P	1.1
6	☐	5000.000	5105.089	40372.34	0.1426	P	1.3
7	☐	10000.000	10267.557	80132.68	0.2861	P	1.5
8	☐	20000.000	19827.145	157767.95	0.5520	P	1.7
9	☐			266.68	0.0008	P	16.8

$$y = 2.7808E-005 * x + 6.0694E-004$$

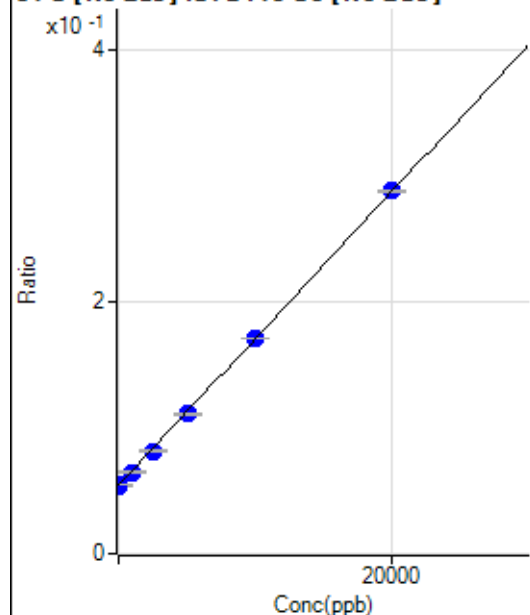
$$R = 0.9998$$

$$DL = 19.42$$

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	-91.713	394576.61	0.0532	P	1.0
2	☐	0.000					
3	☐	0.000	91.713	411128.23	0.0553	P	0.5
4	☐	1000.000	891.927	455325.93	0.0646	P	0.7
5	☐	2500.000	2347.675	556231.49	0.0816	P	1.3
6	☐	5000.000	4847.534	705520.37	0.1107	P	0.3
7	☐	10000.000	10012.096	1070404.32	0.1708	P	0.6
8	☐	20000.000	20056.513	1799663.78	0.2877	P	0.4
9	☐			342156.13	0.0488	P	1.5

$$y = 1.1642E-005 * x + 0.0542$$

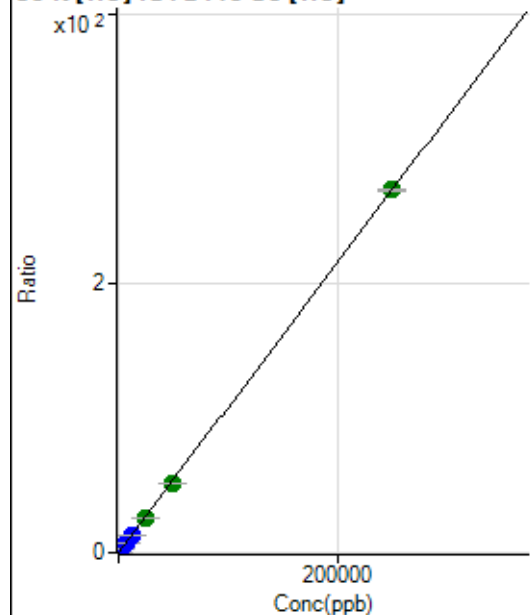
$$R = 0.9999$$

$$DL = 101.1$$

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	22910.21	0.0682	P	0.4
2	☐	50.000					
3	☐	500.000	496.731	202471.76	0.6025	P	1.2
4	☐	2500.000	2458.239	845184.16	2.7125	P	0.6
5	☐	6250.000	6103.927	1950390.91	6.6342	P	0.3
6	☐	12500.000	12169.508	3726417.70	13.1589	P	0.6
7	☐	25000.000	24363.975	7359344.61	26.2765	A	0.7
8	☐	50000.000	47790.085	14714242.17	51.4760	A	0.6
9	☐	250000.00	250526.18	88055167.24	269.5590	A	0.3

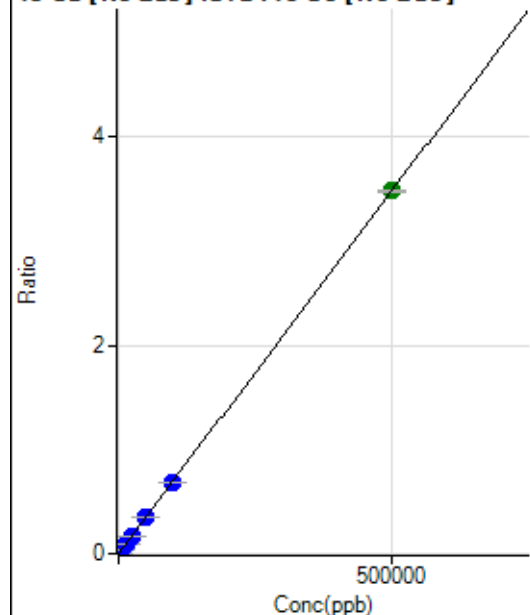
$$y = 0.0011 * x + 0.0682$$

$$R = 1.0000$$

$$DL = 0.8065$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	141.68	0.0000	P	16.0
2	☐	50.000					
3	☐	500.000	484.017	25163.95	0.0034	P	3.1
4	☐	5000.000	4900.284	240260.12	0.0341	P	0.2
5	☐	12500.000	12234.330	580322.88	0.0851	P	0.4
6	☐	25000.000	24422.588	1082796.25	0.1699	P	1.0
7	☐	50000.000	49354.309	2151266.07	0.3432	P	0.3
8	☐	100000.00	97091.980	4223225.35	0.6752	P	0.0
9	☐	500000.00	500682.69	24400035.79	3.4820	A	0.5

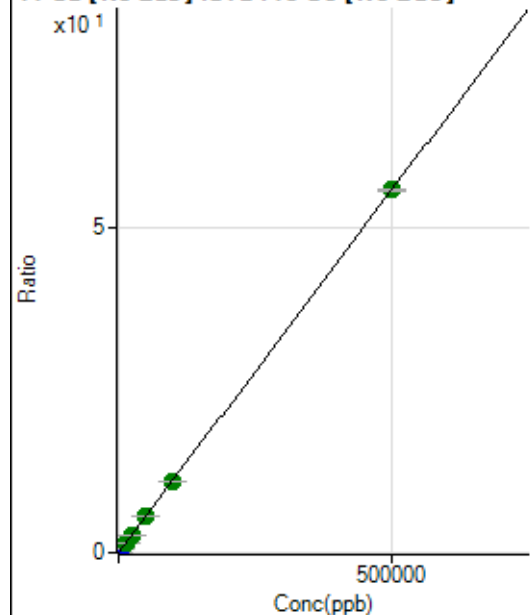
$$y = 6.9544E-006 * x + 1.9099E-005$$

$$R = 1.0000$$

$$DL = 1.321$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	6693.55	0.0009	P	3.0
2	☐	50.000					
3	☐	500.000	483.403	406799.73	0.0547	P	0.0
4	☐	5000.000	4910.898	3858749.96	0.5476	P	0.3
5	☐	12500.000	12209.380	9275311.84	1.3602	A	0.6
6	☐	25000.000	24532.860	17416568.96	2.7322	A	0.6
7	☐	50000.000	49793.033	34746857.37	5.5444	A	0.5
8	☐	100000.00	97919.004	68186023.05	10.9023	A	0.6
9	☐	500000.00	500468.42	390439778.17	55.7183	A	0.7

$$y = 1.1133E-004 * x + 9.0193E-004$$

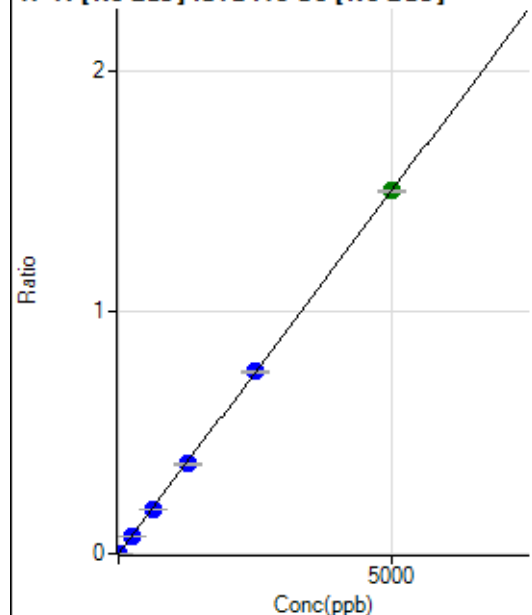
$$R = 1.0000$$

$$DL = 0.7177$$

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	33.33	0.0000	P	25.3
2	☐	0.500					
3	☐	5.000	5.175	11596.75	0.0016	P	4.1
4	☐	250.000	250.527	530491.63	0.0753	P	0.9
5	☐	625.000	619.863	1270248.59	0.1863	P	0.5
6	☐	1250.000	1233.906	2363717.85	0.3708	P	0.7
7	☐	2500.000	2508.368	4723910.96	0.7538	P	0.6
8	☐	5000.000	5000.455	9398187.80	1.5027	A	0.4
9	☐			4489.78	0.0006	P	0.9

$$y = 3.0050E-004 * x + 4.4937E-006$$

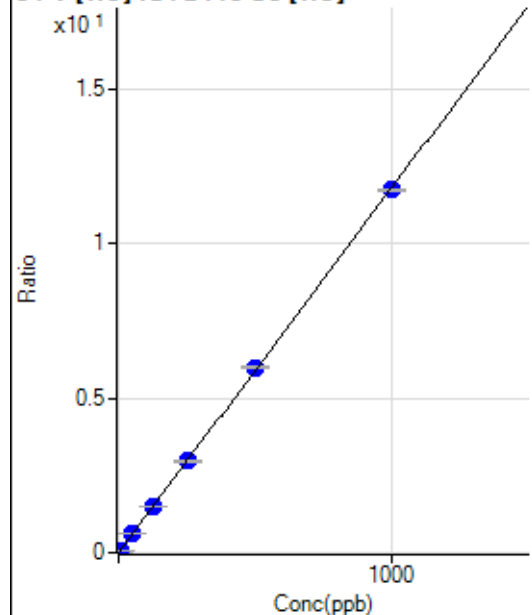
$$R = 1.0000$$

$$DL = 0.01137$$

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	2.22	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	5.039	19975.96	0.0594	P	0.7
4	☐	50.000	51.057	187654.37	0.6022	P	1.0
5	☐	125.000	126.388	438274.86	1.4908	P	0.7
6	☐	250.000	251.219	839143.89	2.9632	P	1.1
7	☐	500.000	508.644	1680378.83	5.9997	P	0.3
8	☐	1000.000	995.147	3355331.27	11.7381	P	0.5
9	☐			1840.15	0.0056	P	3.6

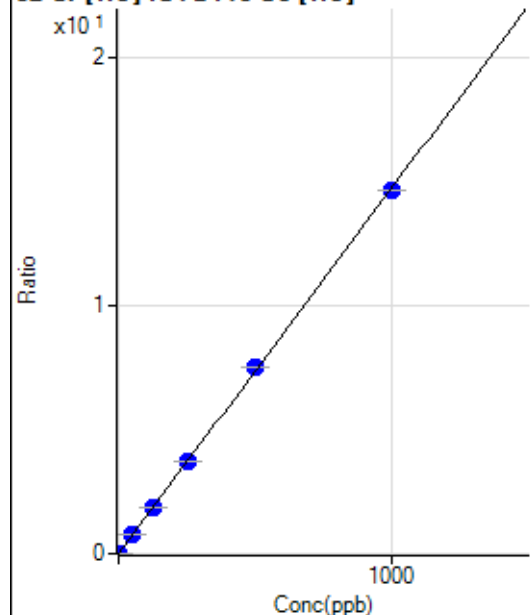
$$y = 0.0118 * x + 6.5682E-006$$

$$R = 0.9999$$

$$DL = 0.001447$$

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	1080.06	0.0032	P	0.8
2	☐	0.200					
3	☐	2.000	2.189	11922.76	0.0355	P	0.7
4	☐	50.000	51.795	238869.08	0.7666	P	0.3
5	☐	125.000	128.042	555755.99	1.8905	P	0.8
6	☐	250.000	254.081	1061421.92	3.7482	P	0.6
7	☐	500.000	510.688	2109063.20	7.5303	P	0.5
8	☐	1000.000	993.165	4185314.84	14.6416	P	0.2
9	☐			220285.42	0.6743	P	0.3

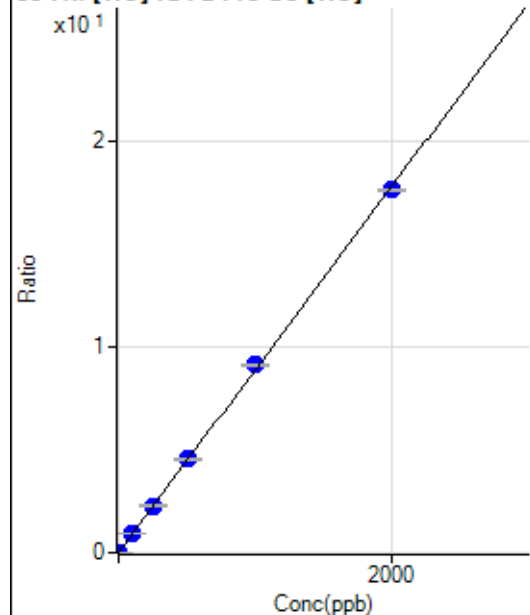
$$y = 0.0147 * x + 0.0032$$

$$R = 0.9999$$

$$DL = 0.005026$$

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	85.56	0.0003	P	10.1
2	☐	0.100					
3	☐	1.000	1.050	3217.07	0.0096	P	4.4
4	☐	100.000	102.446	283397.22	0.9095	P	0.5
5	☐	250.000	257.326	671496.44	2.2842	P	1.1
6	☐	500.000	510.679	1283625.46	4.5328	P	0.9
7	☐	1000.000	1025.901	2550298.66	9.1058	P	0.6
8	☐	2000.000	1983.342	5031983.99	17.6036	P	0.3
9	☐			40240.69	0.1232	P	1.4

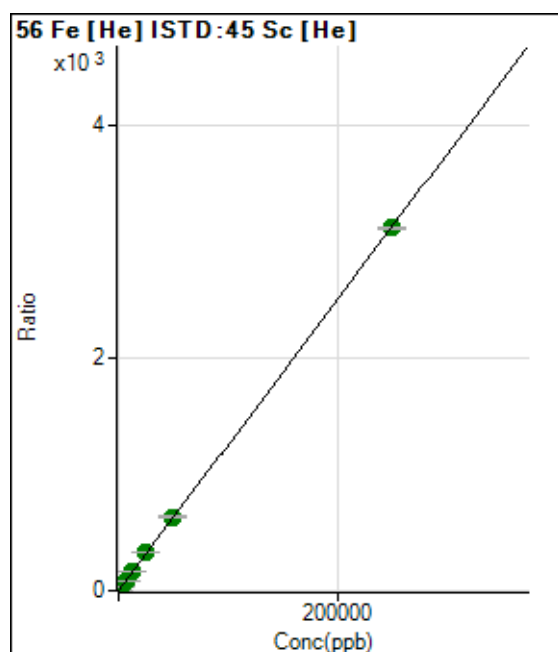
$$y = 0.0089 * x + 2.5483E-004$$

$$R = 0.9999$$

$$DL = 0.008711$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5349.28	0.0159	P	3.2
2	☐	5.000					
3	☐	50.000	53.456	229469.04	0.6829	P	1.0
4	☐	2500.000	2646.886	10295060.07	33.0407	A	0.1
5	☐	6250.000	6579.751	24138607.71	82.1105	A	1.1
6	☐	12500.000	13023.289	46019266.31	162.5056	A	0.7
7	☐	25000.000	26206.498	91580570.57	326.9906	A	0.8
8	☐	50000.000	50838.177	181317646.65	634.3165	A	0.5
9	☐	250000.00	249675.83	1017627807.9	3,115.185	A	0.4

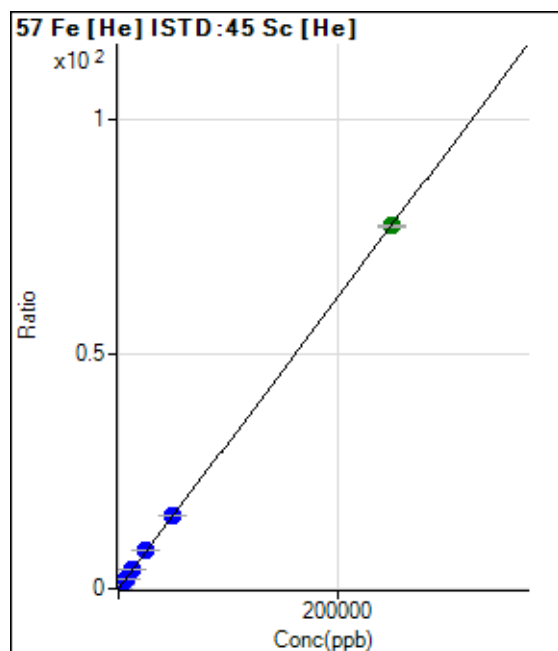
$$y = 0.0125 * x + 0.0159$$

$$R = 1.0000$$

$$DL = 0.1225$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	192.60	0.0006	P	10.1
2	☐	5.000					
3	☐	50.000	53.046	5721.64	0.0170	P	5.7
4	☐	2500.000	2630.683	254486.98	0.8167	P	0.3
5	☐	6250.000	6543.799	597006.61	2.0308	P	1.1
6	☐	12500.000	12967.920	1139511.85	4.0239	P	0.3
7	☐	25000.000	26002.736	2259608.24	8.0679	P	0.9
8	☐	50000.000	50693.760	4495926.37	15.7283	P	0.6
9	☐	250000.00	249728.92	25309914.92	77.4788	A	0.2

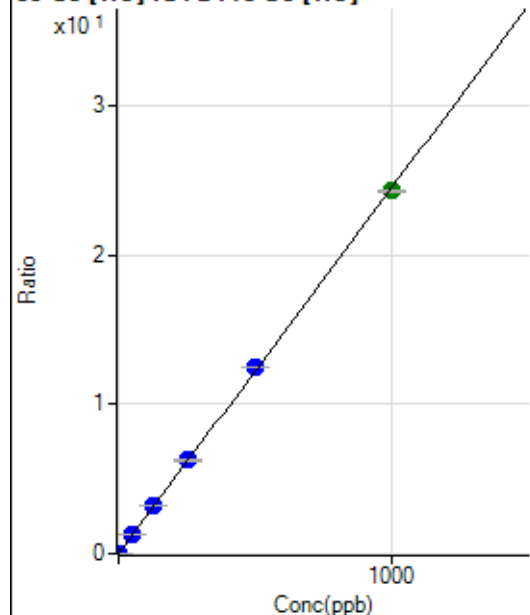
$$y = 3.1025E-004 * x + 5.7317E-004$$

$$R = 1.0000$$

$$DL = 0.5593$$

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	104.45	0.0003	P	32.6
2	☐	0.100					
3	☐	1.000	1.081	8994.02	0.0268	P	2.0
4	☐	50.000	52.843	402979.46	1.2933	P	0.3
5	☐	125.000	129.661	932770.45	3.1729	P	1.1
6	☐	250.000	255.201	1768435.25	6.2448	P	0.4
7	☐	500.000	510.748	3500295.64	12.4977	P	0.5
8	☐	1000.000	992.601	6942582.47	24.2880	A	0.7
9	☐			97909.15	0.2997	P	0.1

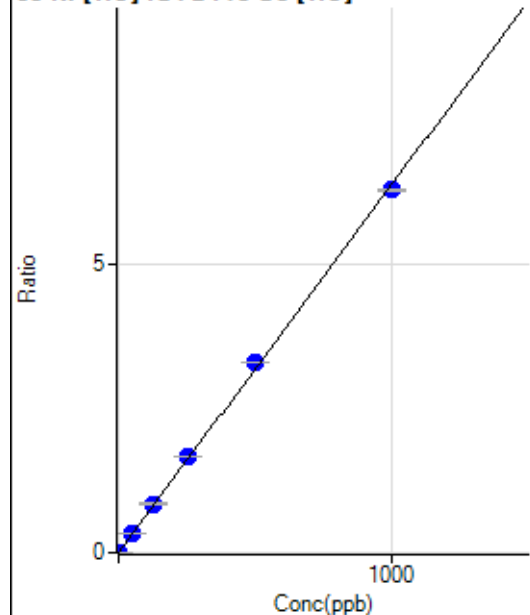
$$y = 0.0245 * x + 3.1142E-004$$

$$R = 0.9999$$

$$DL = 0.01243$$

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	132.23	0.0004	P	4.9
2	☐	0.100					
3	☐	1.000	1.163	2629.17	0.0078	P	3.2
4	☐	50.000	53.966	107547.75	0.3452	P	0.2
5	☐	125.000	132.763	249453.28	0.8486	P	1.5
6	☐	250.000	260.932	472183.50	1.6674	P	0.2
7	☐	500.000	518.931	928644.14	3.3156	P	0.3
8	☐	1000.000	986.633	1801900.65	6.3036	P	0.3
9	☐			76346.19	0.2337	P	0.8

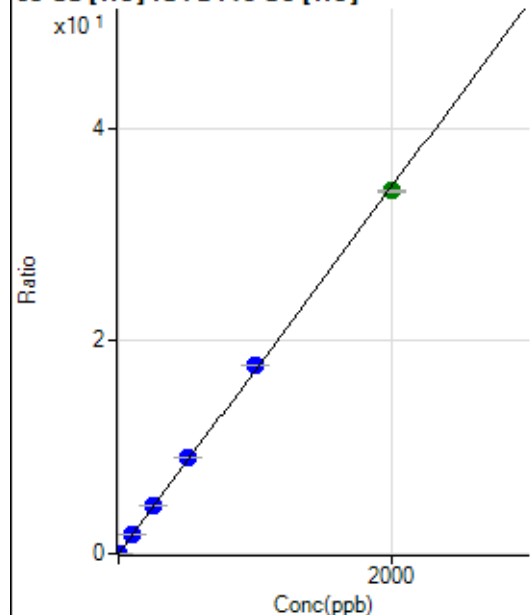
$$y = 0.0064 * x + 3.9385E-004$$

$$R = 0.9997$$

$$DL = 0.008978$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	365.57	0.0011	P	9.7
2	☐	0.200					
3	☐	2.000	2.206	13154.94	0.0391	P	0.9
4	☐	100.000	107.541	578446.25	1.8565	P	0.6
5	☐	250.000	265.180	1345322.86	4.5762	P	1.1
6	☐	500.000	520.509	2543436.82	8.9815	P	0.4
7	☐	1000.000	1029.261	4973841.56	17.7590	P	0.6
8	☐	2000.000	1977.968	9755174.44	34.1270	A	0.4
9	☐			26434.05	0.0809	P	0.9

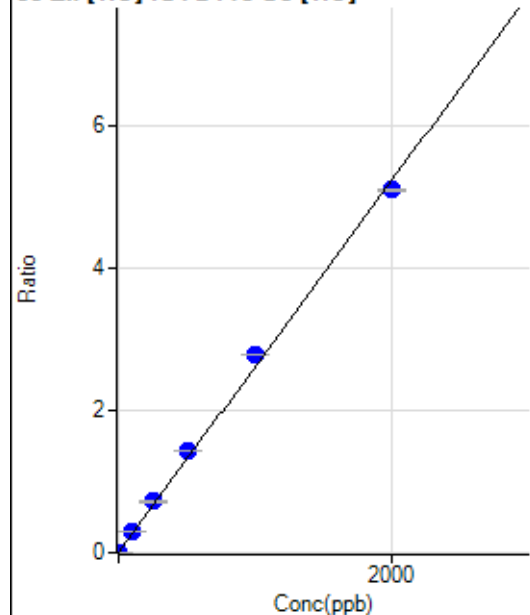
$$y = 0.0173 * x + 0.0011$$

$$R = 0.9998$$

$$DL = 0.01843$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	554.47	0.0017	P	6.0
2	☐	0.200					
3	☐	2.000	2.505	2754.75	0.0082	P	3.3
4	☐	100.000	110.679	90629.01	0.2909	P	0.9
5	☐	250.000	273.612	210679.84	0.7166	P	0.3
6	☐	500.000	544.310	403257.69	1.4240	P	0.2
7	☐	1000.000	1068.139	782208.05	2.7928	P	0.2
8	☐	2000.000	1951.367	1458060.72	5.1008	P	0.3
9	☐			14318.31	0.0438	P	2.6

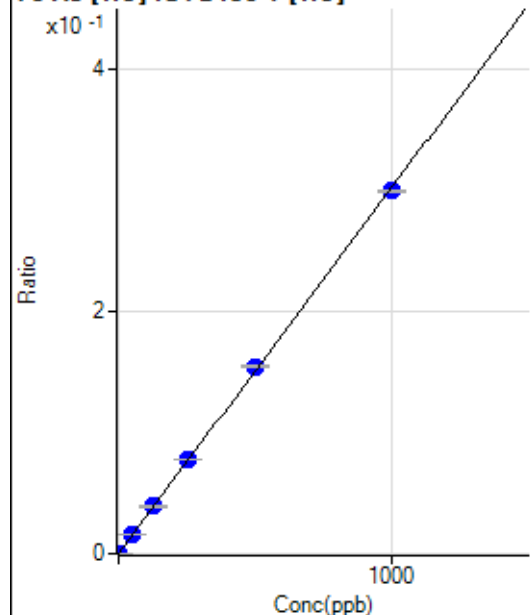
$$y = 0.0026 * x + 0.0017$$

$$R = 0.9988$$

$$DL = 0.1141$$

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	6.79	0.0000	P	68.4
2	☐	0.100					
3	☐	1.000	1.030	566.07	0.0003	P	7.1
4	☐	50.000	52.545	26342.40	0.0158	P	0.7
5	☐	125.000	128.991	61355.12	0.0389	P	0.6
6	☐	250.000	257.304	117781.85	0.0776	P	0.2
7	☐	500.000	511.300	231695.29	0.1542	P	0.8
8	☐	1000.000	991.898	451955.30	0.2991	P	0.4
9	☐			829.66	0.0005	P	4.1

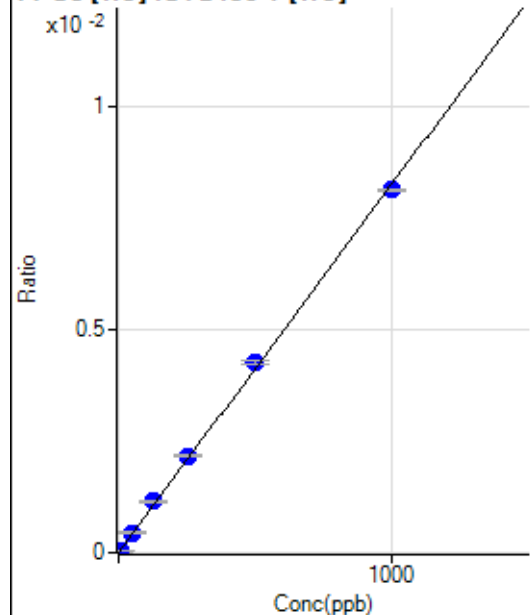
$$y = 3.0153\text{E-}004 * x + 3.7796\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.02572$$

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	2.22	0.0000	P	86.6
2	☐	0.500					
3	☐	5.000	5.542	84.45	0.0000	P	10.0
4	☐	50.000	54.142	743.37	0.0004	P	7.5
5	☐	125.000	139.867	1819.03	0.0012	P	3.0
6	☐	250.000	261.595	3272.65	0.0022	P	2.3
7	☐	500.000	518.917	6424.85	0.0043	P	2.0
8	☐	1000.000	985.575	12268.68	0.0081	P	0.4
9	☐			10.00	0.0000	P	100.2

$$y = 8.2365\text{E-}006 * x + 1.2391\text{E-}006$$

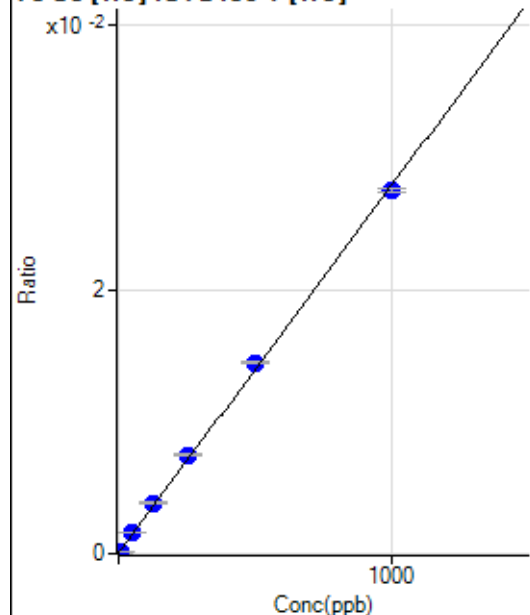
$$R = 0.9996$$

$$DL = 0.3909$$

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	88.27	0.0000	P	22.7
2	☐	0.500					
3	☐	5.000	5.780	378.40	0.0002	P	7.8
4	☐	50.000	54.533	2605.81	0.0016	P	0.2
5	☐	125.000	135.067	6009.93	0.0038	P	3.3
6	☐	250.000	266.378	11334.76	0.0075	P	1.6
7	☐	500.000	517.871	21745.99	0.0145	P	1.4
8	☐	1000.000	985.481	41542.01	0.0275	P	0.9
9	☐			100.00	0.0001	P	8.7

$$y = 2.7846\text{E-}005 * x + 4.9127\text{E-}005$$

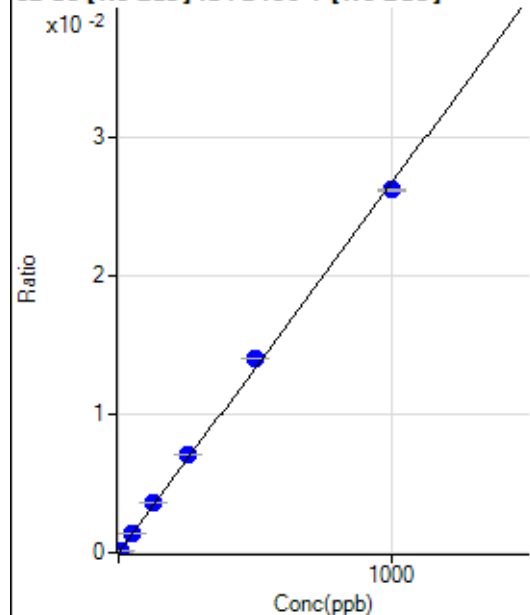
$$R = 0.9996$$

$$DL = 1.199$$

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	-10.59	0.0000	P	-463.
2	☐	0.500					
3	☐	5.000	5.318	1727.37	0.0001	P	1.9
4	☐	50.000	54.038	16907.32	0.0014	P	0.7
5	☐	125.000	134.651	40942.31	0.0036	P	0.8
6	☐	250.000	264.834	76145.54	0.0071	P	0.5
7	☐	500.000	524.959	148590.66	0.0140	P	0.4
8	☐	1000.000	982.402	277298.33	0.0262	P	0.6
9	☐			310.80	0.0000	P	33.1

$$y = 2.6720\text{E-}005 * x - 8.7784\text{E-}007$$

$$R = 0.9994$$

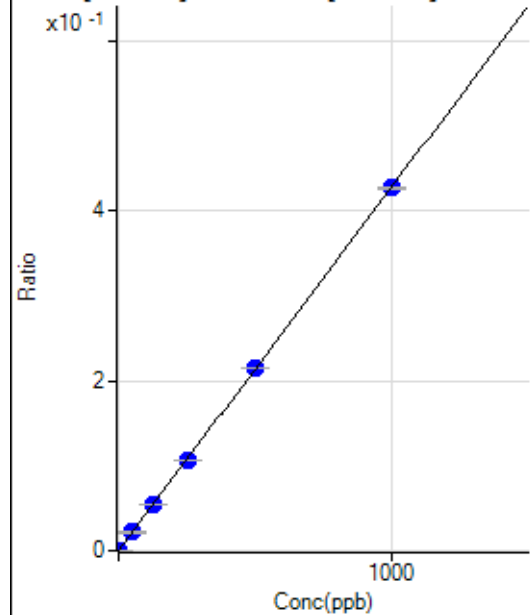
$$DL = 0.4567$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			867.82		P	3.9
2	☐						
3	☐			955.61		P	5.7
4	☐			842.26		P	3.8
5	☐			783.37		P	1.9
6	☐			785.59		P	7.9
7	☐			723.36		P	3.2
8	☐			781.14		P	7.9
9	☐			837.82		P	13.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1364.02	0.0001	P	10.9
2	☐	0.100					
3	☐	1.000	1.061	6932.51	0.0006	P	1.3
4	☐	50.000	50.126	252431.21	0.0215	P	1.5
5	☐	125.000	124.770	608502.86	0.0535	P	0.5
6	☐	250.000	249.740	1150370.51	0.1069	P	0.8
7	☐	500.000	503.662	2282577.76	0.2155	P	0.4
8	☐	1000.000	998.256	4510130.22	0.4269	P	0.4
9	☐			24825.15	0.0021	P	0.7

$$y = 4.2756E-004 * x + 1.1329E-004$$

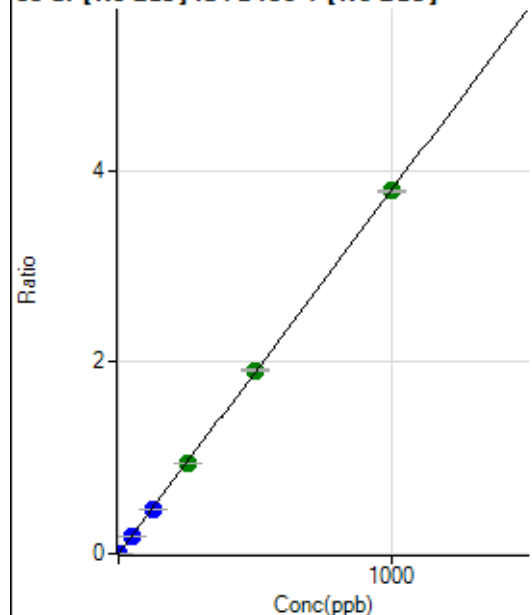
$$R = 1.0000$$

$$DL = 0.08687$$

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	175.01	0.0000	P	21.8
2	☐	0.100					
3	☐	1.000	1.019	47420.86	0.0039	P	2.0
4	☐	50.000	49.374	2193082.71	0.1872	P	0.3
5	☐	125.000	123.338	5322036.53	0.4676	P	0.5
6	☐	250.000	247.749	10107203.87	0.9392	A	0.6
7	☐	500.000	505.075	20283712.95	1.9146	A	0.3
8	☐	1000.000	998.264	39977037.35	3.7842	A	0.2
9	☐			207467.46	0.0179	P	0.5

$$y = 0.0038 * x + 1.4535E-005$$

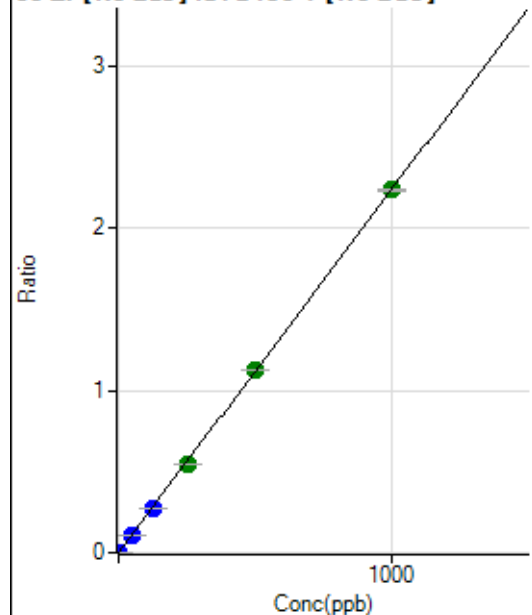
$$R = 1.0000$$

$$DL = 0.002507$$

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	775.05	0.0001	P	2.0
2	☐	0.100					
3	☐	1.000	1.013	28498.57	0.0023	P	0.2
4	☐	50.000	48.973	1283726.74	0.1096	P	0.1
5	☐	125.000	121.979	3105211.03	0.2728	P	0.3
6	☐	250.000	246.194	5924973.57	0.5505	A	0.1
7	☐	500.000	503.560	11928841.67	1.1260	A	0.1
8	☐	1000.000	999.601	23612179.69	2.2351	A	0.4
9	☐			12689.48	0.0011	P	2.0

$$y = 0.0022 * x + 6.4380E-005$$

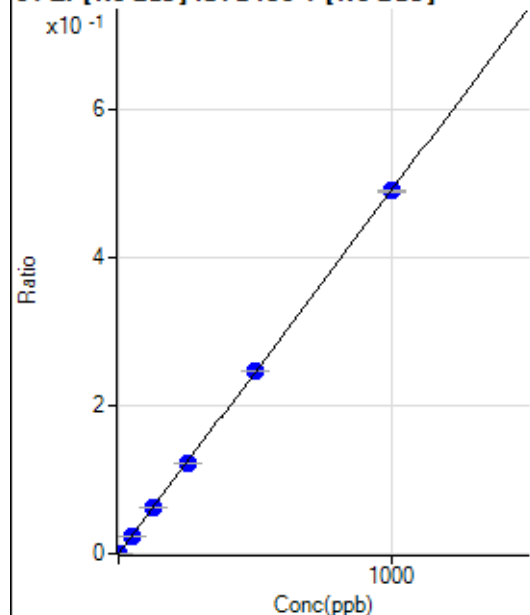
$$R = 1.0000$$

$$DL = 0.001744$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	188.90	0.0000	P	24.4
2	☐	0.100					
3	☐	1.000	1.056	6529.56	0.0005	P	7.8
4	☐	50.000	49.655	285649.92	0.0244	P	0.2
5	☐	125.000	124.992	698276.99	0.0613	P	0.4
6	☐	250.000	249.322	1316749.93	0.1224	P	0.4
7	☐	500.000	503.332	2616577.03	0.2470	P	0.4
8	☐	1000.000	998.521	5176033.06	0.4900	P	0.9
9	☐			2922.65	0.0003	P	8.7

$$y = 4.9068\text{E-}004 * x + 1.5693\text{E-}005$$

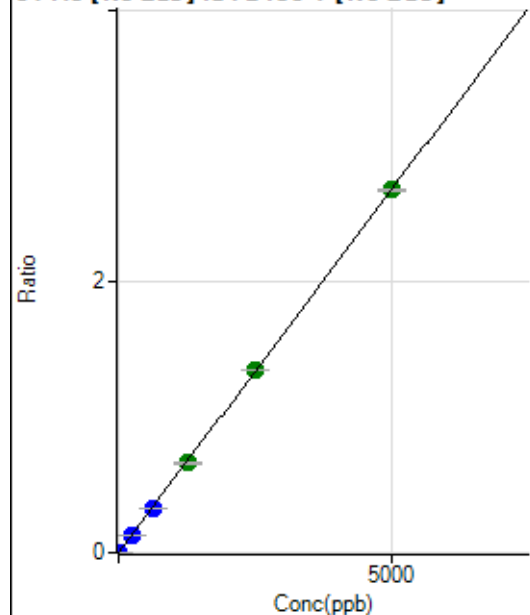
$$R = 1.0000$$

$$DL = 0.02342$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	363.91	0.0000	P	23.1
2	☐	0.500					
3	☐	5.000	4.988	33078.35	0.0027	P	2.4
4	☐	250.000	246.473	1548733.17	0.1322	P	0.6
5	☐	625.000	614.300	3749578.12	0.3294	P	0.5
6	☐	1250.000	1234.367	7123057.28	0.6619	A	0.6
7	☐	2500.000	2512.801	14274028.96	1.3474	A	0.2
8	☐	5000.000	4999.022	28316341.61	2.6804	A	0.7
9	☐			39210.40	0.0034	P	2.1

$$y = 5.3619\text{E-}004 * x + 3.0221\text{E-}005$$

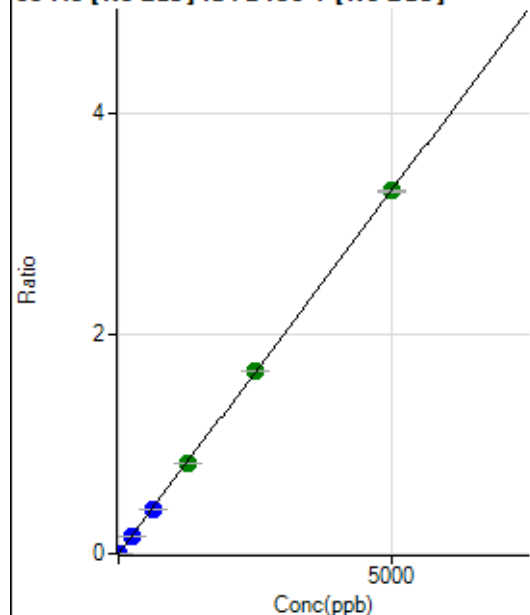
$$R = 1.0000$$

$$DL = 0.039$$

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	33.33	0.0000	P	25.1
2	☐	0.500					
3	☐	5.000	4.989	40338.51	0.0033	P	0.7
4	☐	250.000	246.548	1907966.97	0.1628	P	0.2
5	☐	625.000	615.460	4627078.05	0.4065	P	0.5
6	☐	1250.000	1234.457	8774671.03	0.8153	A	0.4
7	☐	2500.000	2516.985	17612281.99	1.6624	A	0.4
8	☐	5000.000	4996.758	34863730.64	3.3003	A	0.8
9	☐			61759.40	0.0053	P	2.6

$$y = 6.6048\text{E-}004 * x + 2.7689\text{E-}006$$

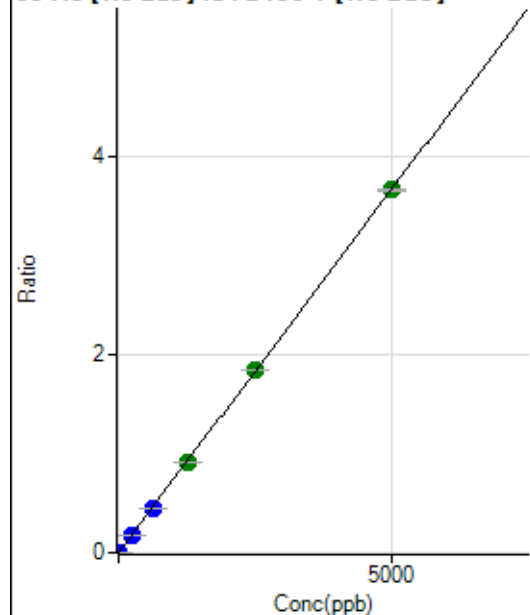
$$R = 1.0000$$

$$DL = 0.003152$$

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	158.34	0.0000	P	23.1
2	☐	0.500					
3	☐	5.000	4.983	44827.06	0.0037	P	2.2
4	☐	250.000	245.321	2106722.62	0.1798	P	0.3
5	☐	625.000	613.475	5117876.85	0.4496	P	0.4
6	☐	1250.000	1237.059	9757242.14	0.9066	A	0.4
7	☐	2500.000	2518.168	19552342.63	1.8456	A	0.3
8	☐	5000.000	4995.826	38678666.14	3.6614	A	0.7
9	☐			77511.02	0.0067	P	0.5

$$y = 7.3289\text{E-}004 * x + 1.3154\text{E-}005$$

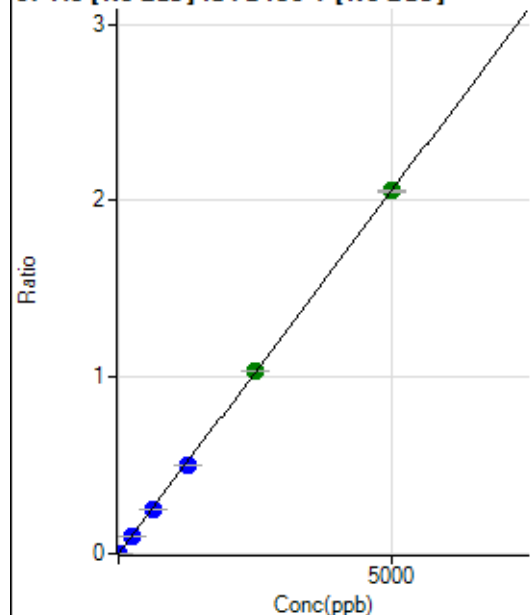
$$R = 1.0000$$

$$DL = 0.01241$$

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	36.11	0.0000	P	13.0
2	☐	0.500					
3	☐	5.000	5.024	25303.85	0.0021	P	1.0
4	☐	250.000	245.738	1184000.73	0.1011	P	0.3
5	☐	625.000	613.766	2872880.79	0.2524	P	0.1
6	☐	1250.000	1221.980	5407846.34	0.5025	P	0.5
7	☐	2500.000	2517.906	10969275.59	1.0354	A	0.1
8	☐	5000.000	4999.669	21718783.82	2.0559	A	0.7
9	☐			37425.29	0.0032	P	0.1

$$y = 4.1122\text{E-}004 * x + 2.9990\text{E-}006$$

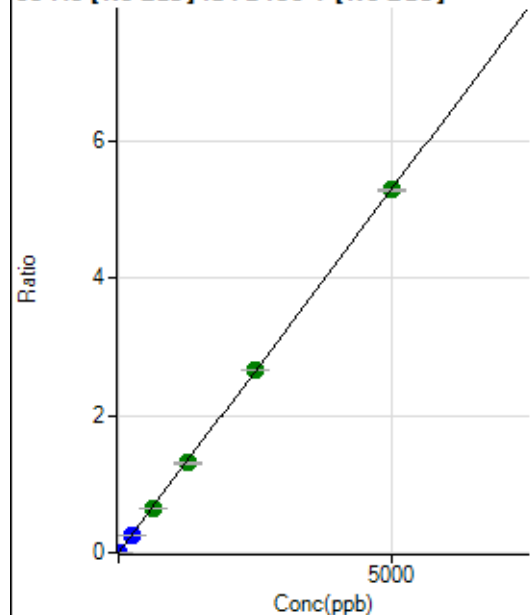
$$R = 1.0000$$

$$DL = 0.002855$$

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	88.89	0.0000	P	14.1
2	☐	0.500					
3	☐	5.000	4.934	64036.41	0.0052	P	0.3
4	☐	250.000	245.791	3051269.95	0.2604	P	0.3
5	☐	625.000	616.704	7437423.08	0.6534	A	0.4
6	☐	1250.000	1232.538	14053963.68	1.3059	A	0.5
7	☐	2500.000	2522.673	28316111.05	2.6728	A	0.1
8	☐	5000.000	4994.277	55899994.31	5.2915	A	0.3
9	☐			95616.87	0.0083	P	0.7

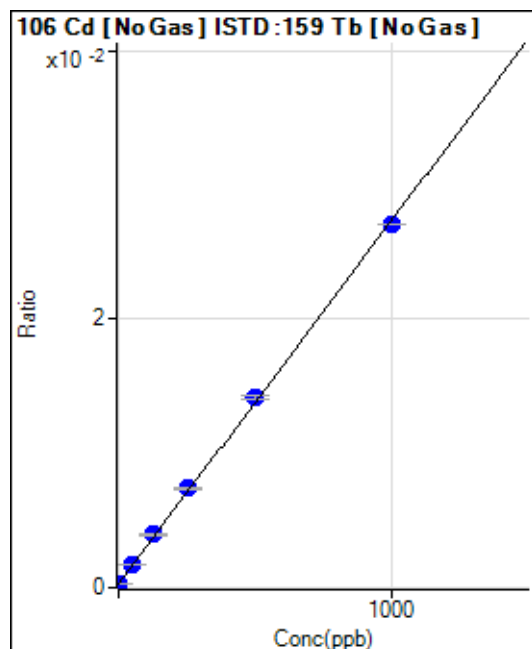
$$y = 0.0011 * x + 7.3823\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.002952$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	4492.56	0.0003	P	4.8
2	☐	0.100					
3	☐	1.000	1.296	5195.62	0.0003	P	2.6
4	☐	50.000	55.164	29102.92	0.0018	P	2.0
5	☐	125.000	135.352	63718.87	0.0039	P	1.4
6	☐	250.000	263.100	116100.17	0.0074	P	1.3
7	☐	500.000	513.538	221933.59	0.0142	P	1.2
8	☐	1000.000	988.403	425471.43	0.0270	P	0.0
9	☐			4462.02	0.0003	P	2.9

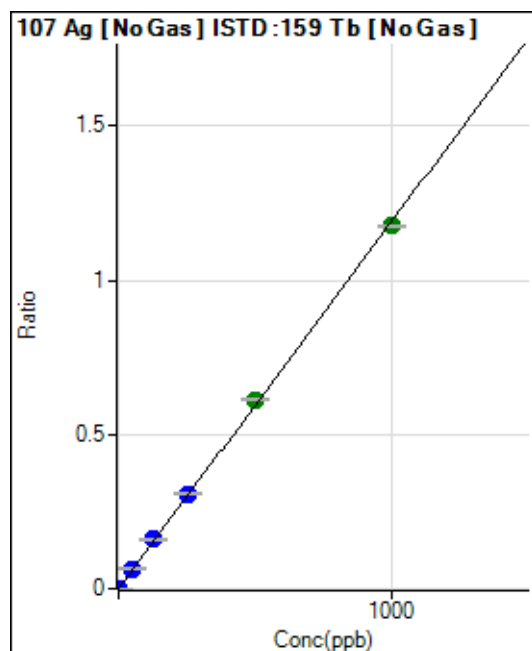
$$y = 2.7068\text{E-}005 * x + 2.7681\text{E-}004$$

$$R = 0.9997$$

$$DL = 1.484$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	80.56	0.0000	P	39.0
2	☐	0.100					
3	☐	1.000	1.134	22546.45	0.0014	P	3.6
4	☐	50.000	54.968	1075575.72	0.0654	P	0.8
5	☐	125.000	134.163	2581532.05	0.1596	P	1.0
6	☐	250.000	258.811	4832750.37	0.3080	P	0.5
7	☐	500.000	515.123	9595619.57	0.6130	A	0.5
8	☐	1000.000	988.842	18520602.67	1.1766	A	0.5
9	☐			4131.36	0.0002	P	3.4

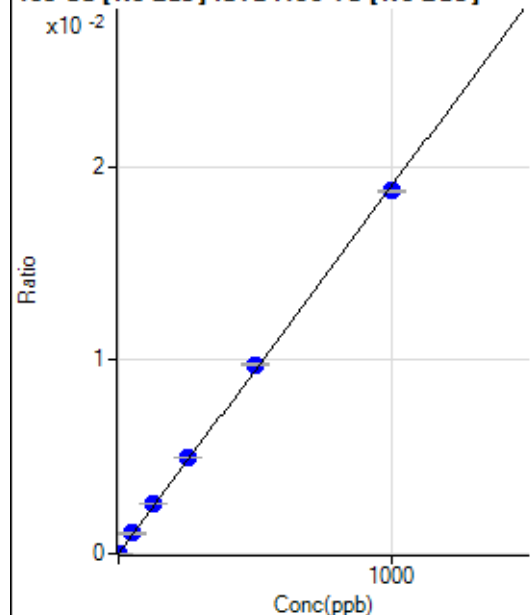
$$y = 0.0012 * x + 4.9620\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.004878$$

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	99.3
2	☐	0.100					
3	☐	1.000	1.181	383.35	0.0000	P	14.6
4	☐	50.000	55.066	17206.54	0.0010	P	0.9
5	☐	125.000	136.271	41860.52	0.0026	P	1.1
6	☐	250.000	261.790	78032.76	0.0050	P	1.1
7	☐	500.000	515.037	153149.82	0.0098	P	0.4
8	☐	1000.000	987.871	295325.12	0.0188	P	0.9
9	☐			104.17	0.0000	P	24.8

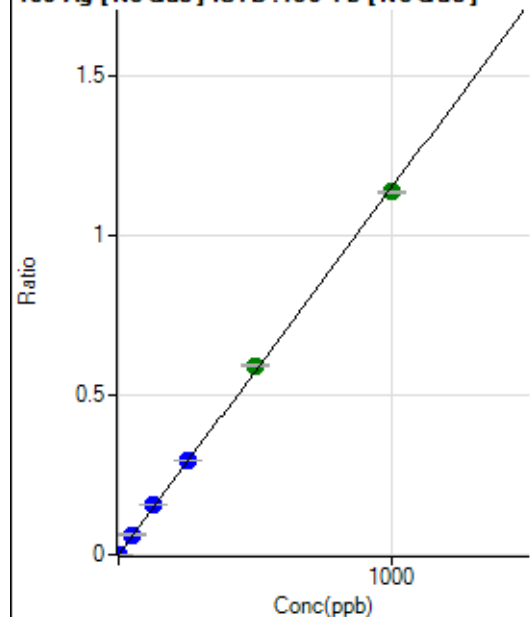
$$y = 1.8993\text{E-}005 * x + 6.0087\text{E-}007$$

$$R = 0.9997$$

$$DL = 0.09426$$

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	58.34	0.0000	P	51.5
2	☐	0.100					
3	☐	1.000	1.122	21575.49	0.0013	P	1.5
4	☐	50.000	54.925	1039627.41	0.0632	P	0.7
5	☐	125.000	134.723	2507735.34	0.1551	P	0.8
6	☐	250.000	258.583	4671020.72	0.2977	P	0.4
7	☐	500.000	515.274	9285801.42	0.5931	A	0.5
8	☐	1000.000	988.755	17914365.85	1.1382	A	0.5
9	☐			3917.37	0.0002	P	5.9

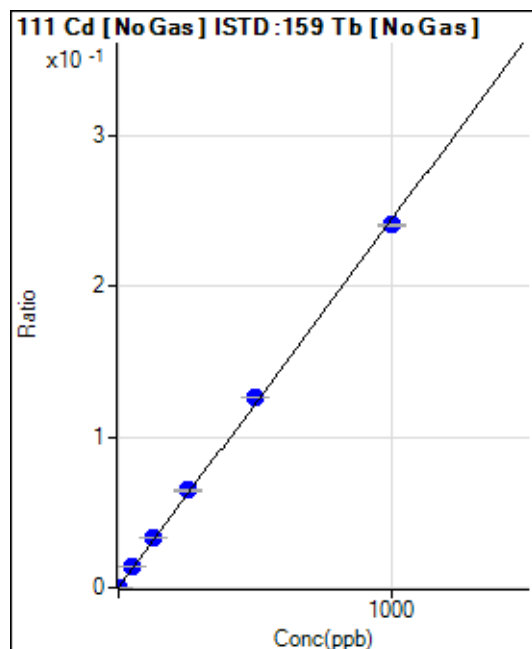
$$y = 0.0012 * x + 3.5973\text{E-}006$$

$$R = 0.9998$$

$$DL = 0.004833$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1352.07	0.0001	P	5.4
2	☐	0.100					
3	☐	1.000	1.119	5928.71	0.0004	P	1.6
4	☐	50.000	55.465	223578.56	0.0136	P	0.8
5	☐	125.000	136.608	539558.72	0.0334	P	0.7
6	☐	250.000	263.913	1010354.80	0.0644	P	0.6
7	☐	500.000	516.765	1972377.25	0.1260	P	0.3
8	☐	1000.000	986.415	3784167.84	0.2404	P	0.3
9	☐			2250.46	0.0001	P	0.4

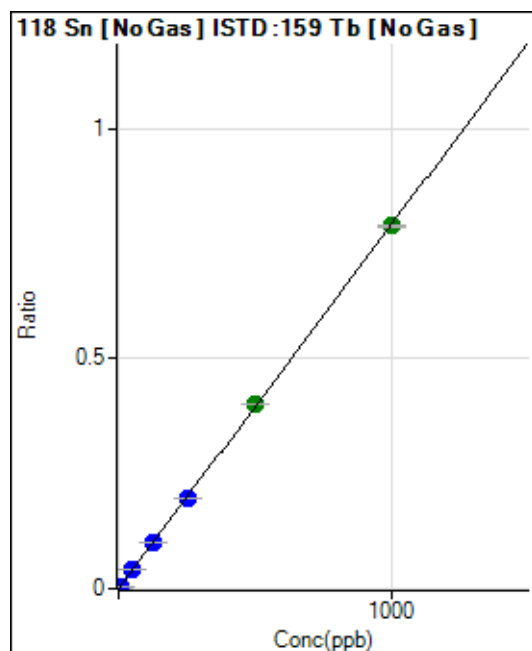
$$y = 2.4364\text{E-}004 * x + 8.3309\text{E-}005$$

$$R = 0.9997$$

$$DL = 0.05572$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	875.07	0.0001	P	8.7
2	☐	0.500					
3	☐	5.000	5.324	71052.56	0.0043	P	1.3
4	☐	50.000	51.675	673065.11	0.0409	P	0.4
5	☐	125.000	127.821	1635970.05	0.1012	P	1.3
6	☐	250.000	249.952	3103757.82	0.1978	P	0.5
7	☐	500.000	506.797	6277219.84	0.4010	A	0.3
8	☐	1000.000	996.175	12404736.82	0.7881	A	0.6
9	☐			19472.54	0.0012	P	2.9

$$y = 7.9109\text{E-}004 * x + 5.3931\text{E-}005$$

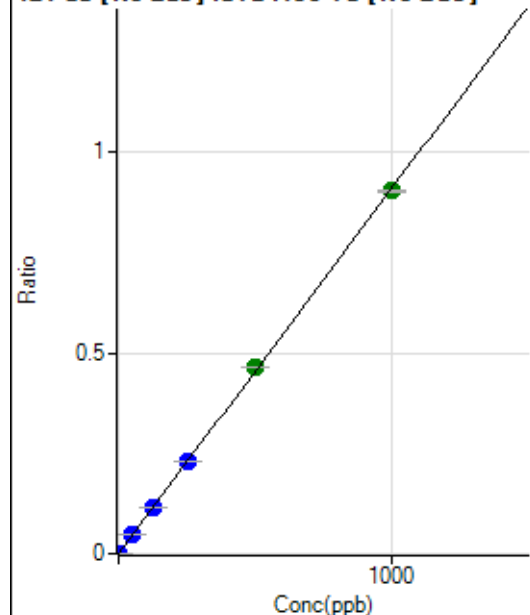
$$R = 1.0000$$

$$DL = 0.01774$$

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	47.22	0.0000	P	27.1
2	☐	0.200					
3	☐	2.000	2.091	31720.26	0.0019	P	1.7
4	☐	50.000	52.098	779208.50	0.0474	P	0.5
5	☐	125.000	128.478	1889645.70	0.1169	P	0.6
6	☐	250.000	252.382	3602287.62	0.2296	P	0.2
7	☐	500.000	509.395	7253270.73	0.4633	A	0.1
8	☐	1000.000	994.167	14232637.99	0.9042	A	0.3
9	☐			24046.49	0.0014	P	1.7

$$y = 9.0954\text{E-}004 * x + 2.9110\text{E-}006$$

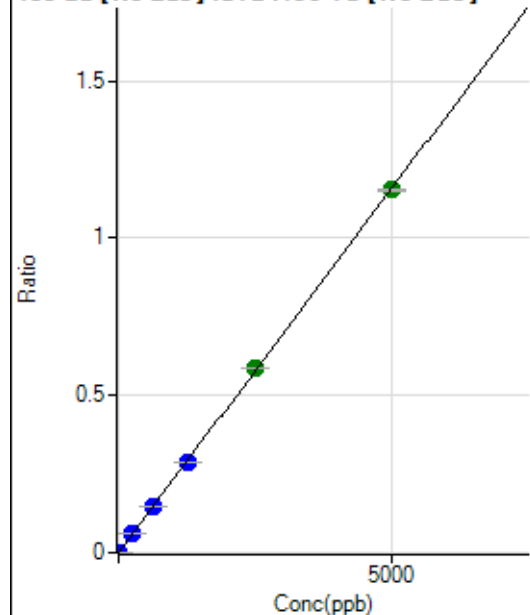
$$R = 0.9999$$

$$DL = 0.002599$$

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	55.56	0.0000	P	46.3
2	☐	1.000					
3	☐	10.000	10.456	40359.68	0.0024	P	1.1
4	☐	250.000	255.917	973715.72	0.0592	P	0.1
5	☐	625.000	634.609	2374438.44	0.1468	P	0.5
6	☐	1250.000	1246.978	4527715.90	0.2885	P	0.7
7	☐	2500.000	2530.253	9165480.07	0.5855	A	0.5
8	☐	5000.000	4984.131	18151622.11	1.1532	A	0.6
9	☐			5115.07	0.0003	P	3.5

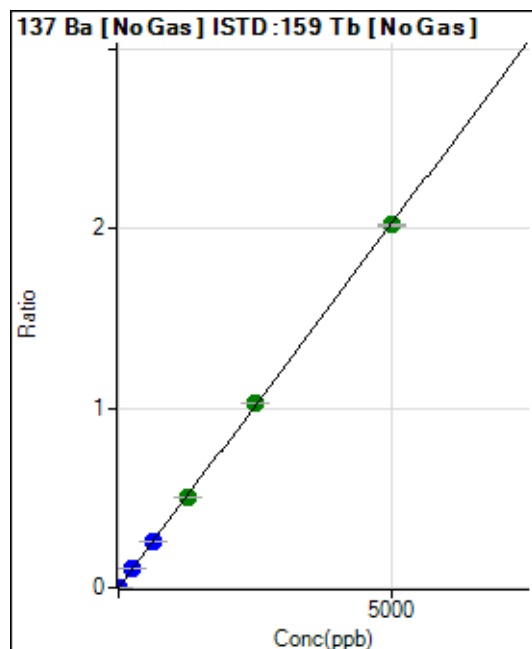
$$y = 2.3138\text{E-}004 * x + 3.4281\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.02057$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	50.00	0.0000	P	16.5
2	☐	1.000					
3	☐	10.000	10.337	69918.09	0.0042	P	1.6
4	☐	250.000	255.860	1707184.82	0.1038	P	0.6
5	☐	625.000	636.059	4173542.97	0.2581	P	0.7
6	☐	1250.000	1249.256	7954821.27	0.5069	A	0.5
7	☐	2500.000	2531.554	16081788.55	1.0272	A	0.3
8	☐	5000.000	4982.733	31824489.95	2.0219	A	0.2
9	☐			8636.38	0.0005	P	6.8

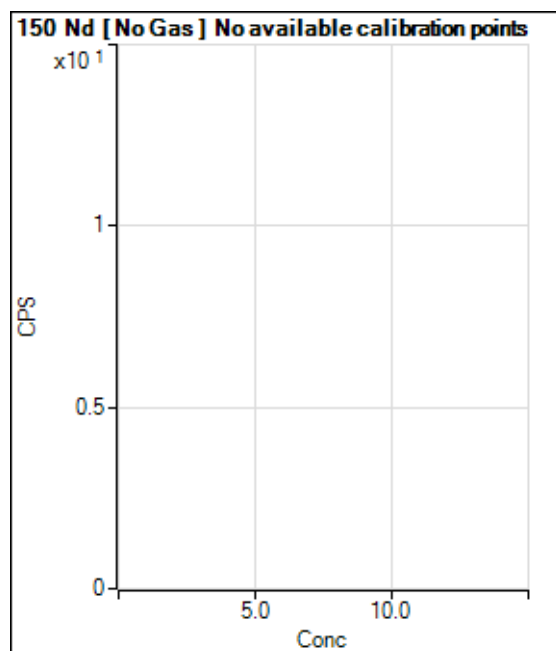
$$y = 4.0578\text{E-}004 * x + 3.0810\text{E-}006$$

$$R = 1.0000$$

$$DL = 0.003767$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐			2.22		P	173.2
2	☐						
3	☐			8.89		P	86.6
4	☐			73.34		P	39.6
5	☐			166.67		P	32.0
6	☐			368.91		P	11.5
7	☐			602.26		P	8.5
8	☐			1155.64		P	7.4
9	☐			304.46		P	18.9

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			3.33		P	100.1
4	☐			8.89		P	57.3
5	☐			32.22		P	41.8
6	☐			31.11		P	22.3
7	☐			73.34		P	23.6
8	☐			90.00		P	16.1
9	☐			137.78		P	7.0

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			16.67		P	50.0
2	☐						
3	☐			11.11		P	114.6
4	☐			36.11		P	26.7
5	☐			22.22		P	21.6
6	☐			58.34		P	51.5
7	☐			105.56		P	43.5
8	☐			261.12		P	7.4
9	☐			147.23		P	34.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			7.78		P	65.5
4	☐			12.22		P	41.7
5	☐			30.00		P	22.2
6	☐			56.67		P	15.6
7	☐			118.89		P	9.8
8	☐			226.67		P	14.9
9	☐			84.45		P	26.9

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			111.12		P	30.3
2	☐						
3	☐			80.56		P	11.9
4	☐			86.12		P	43.6
5	☐			100.00		P	43.3
6	☐			94.45		P	48.6
7	☐			136.12		P	18.7
8	☐			152.79		P	11.4
9	☐			152.79		P	20.7

160 Gd [He] No available calibration points

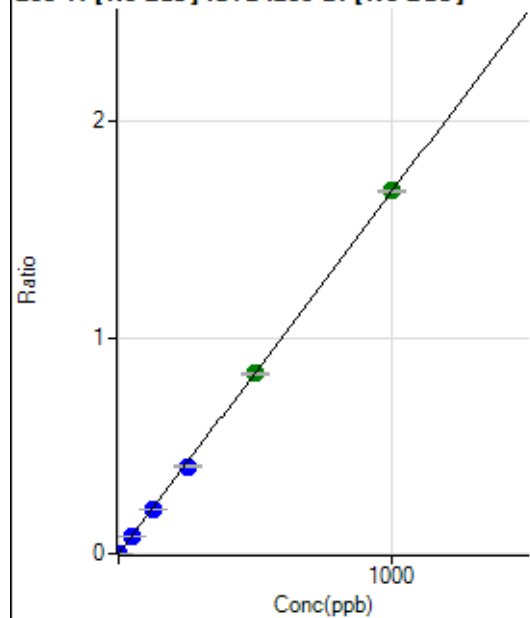
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			182.22		P	5.9
2	☐						
3	☐			193.34		P	6.2
4	☐			205.56		P	15.8
5	☐			170.00		P	7.8
6	☐			205.56		P	13.1
7	☐			176.67		P	8.2
8	☐			218.90		P	17.1
9	☐			282.23		P	4.5

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			75.01		P	29.4
2	☐						
3	☐			94.45		P	22.2
4	☐			47.22		P	27.0
5	☐			55.56		P	37.8
6	☐			58.34		P	14.3
7	☐			52.78		P	59.8
8	☐			63.89		P	19.9
9	☐			111.12		P	11.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			22.22		P	8.7
2	☐						
3	☐			37.78		P	22.2
4	☐			24.44		P	7.9
5	☐			31.11		P	40.6
6	☐			30.00		P	19.2
7	☐			30.00		P	11.1
8	☐			25.56		P	30.1
9	☐			54.44		P	25.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	488.92	0.0000	P	8.2
2	☐	0.100					
3	☐	1.000	0.953	19565.05	0.0016	P	1.8
4	☐	50.000	47.936	950335.42	0.0802	P	0.5
5	☐	125.000	120.702	2348335.19	0.2019	P	0.4
6	☐	250.000	241.751	4542656.74	0.4043	P	0.9
7	☐	500.000	498.899	9243828.59	0.8344	A	0.7
8	☐	1000.000	1003.253	18238035.65	1.6779	A	0.7
9	☐			7852.65	0.0008	P	1.7

$$y = 0.0017 * x + 4.2039E-005$$

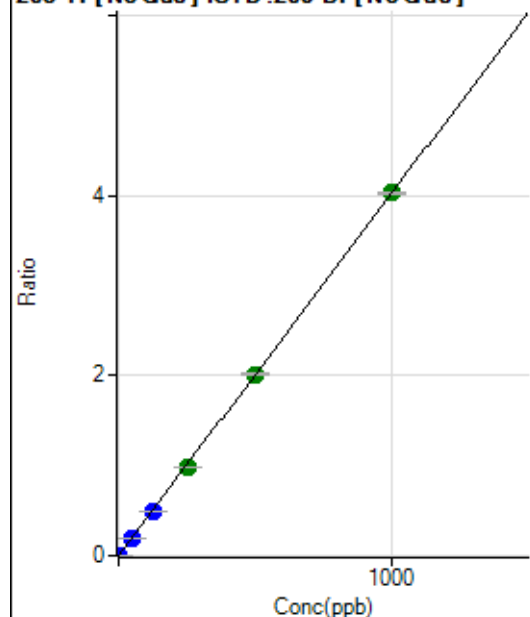
$$R = 1.0000$$

$$DL = 0.00615$$

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	1019.54	0.0001	P	14.2
2	☐	0.100					
3	☐	1.000	0.961	47329.78	0.0040	P	0.8
4	☐	50.000	47.958	2288491.85	0.1932	P	0.8
5	☐	125.000	121.153	5673666.49	0.4878	P	0.6
6	☐	250.000	243.999	11036380.63	0.9824	A	0.7
7	☐	500.000	500.762	22333836.26	2.0160	A	0.9
8	☐	1000.000	1001.703	43833349.24	4.0327	A	0.6
9	☐			19395.48	0.0019	P	3.5

$$y = 0.0040 * x + 8.7710E-005$$

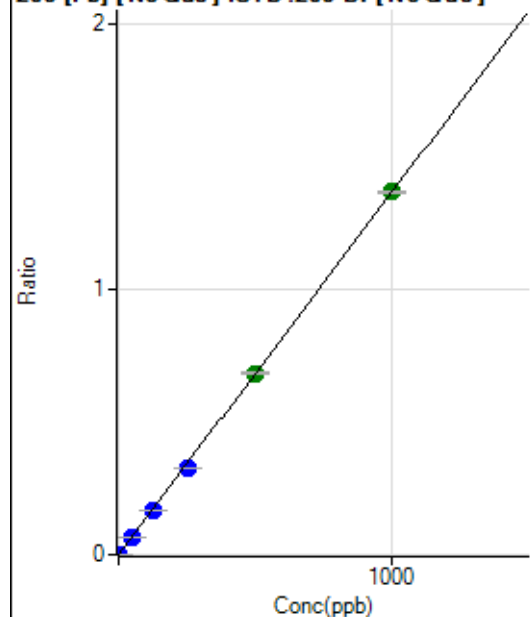
$$R = 1.0000$$

$$DL = 0.009314$$

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	770.42	0.0001	P	4.4
2	☐	0.100					
3	☐	1.000	0.974	16670.14	0.0014	P	1.0
4	☐	50.000	48.015	776646.61	0.0656	P	0.9
5	☐	125.000	121.489	1927918.99	0.1658	P	0.1
6	☐	250.000	240.363	3683623.60	0.3279	P	0.9
7	☐	500.000	501.350	7575681.36	0.6838	A	0.8
8	☐	1000.000	1002.273	14858942.46	1.3670	A	0.4
9	☐			22167.15	0.0021	P	2.0

$$y = 0.0014 * x + 6.6225E-005$$

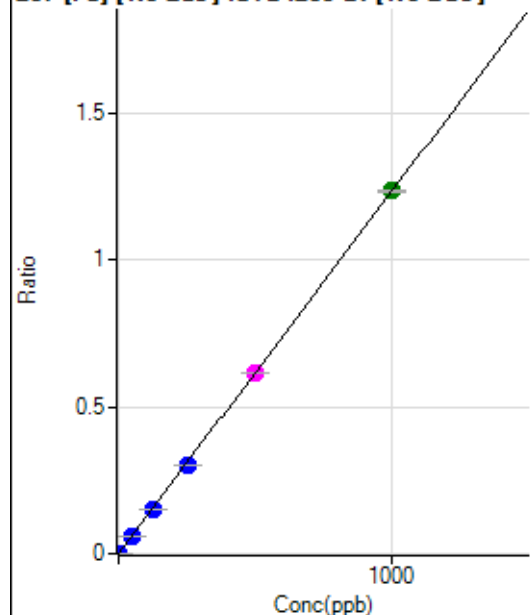
$$R = 0.9999$$

$$DL = 0.006438$$

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	698.19	0.0001	P	8.5
2	☐	0.100					
3	☐	1.000	1.008	15557.61	0.0013	P	1.3
4	☐	50.000	48.238	704567.66	0.0595	P	0.7
5	☐	125.000	121.898	1746767.24	0.1502	P	0.4
6	☐	250.000	243.485	3369560.92	0.2999	P	0.3
7	☐	500.000	499.568	6817038.81	0.6153	M	0.5
8	☐	1000.000	1002.321	13418344.86	1.2345	A	0.4
9	☐			18956.56	0.0018	P	3.0

$$y = 0.0012 * x + 6.0049E-005$$

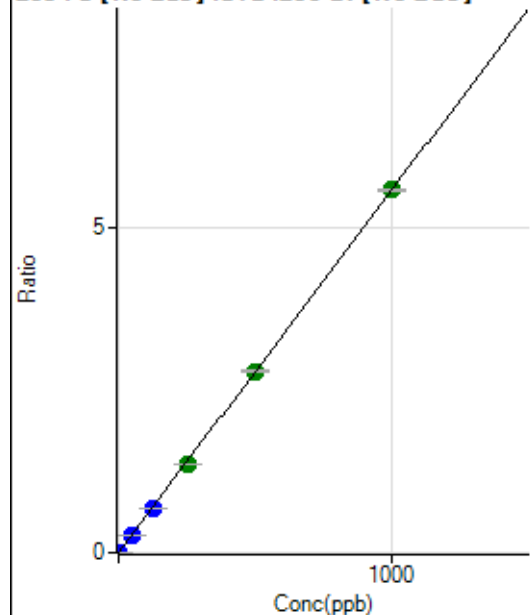
$$R = 1.0000$$

$$DL = 0.01242$$

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	3253.96	0.0003	P	1.7
2	☐	0.100					
3	☐	1.000	0.980	68518.65	0.0057	P	1.2
4	☐	50.000	48.243	3181331.35	0.2685	P	0.3
5	☐	125.000	121.838	7882269.95	0.6777	P	0.2
6	☐	250.000	243.364	15204830.37	1.3534	A	0.5
7	☐	500.000	501.186	30875021.47	2.7869	A	0.6
8	☐	1000.000	1001.549	60532498.00	5.5689	A	0.4
9	☐			87304.17	0.0083	P	1.7

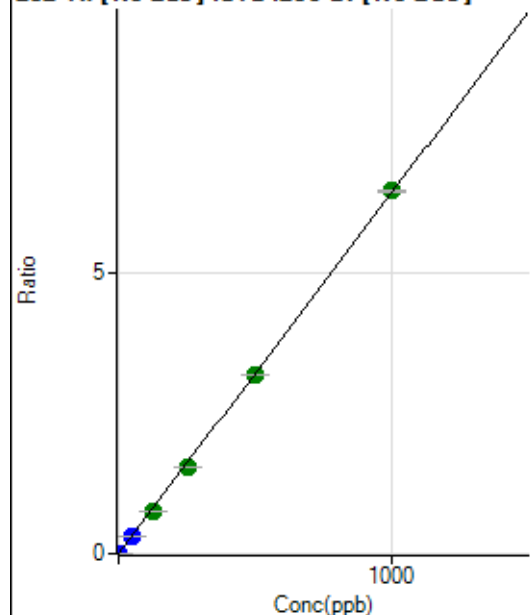
$$y = 0.0056 * x + 2.7978E-004$$

$$R = 1.0000$$

$$DL = 0.002566$$

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	64.82	0.0000	P	17.2
2	☐	0.100					
3	☐	1.000	0.916	70480.04	0.0059	P	0.1
4	☐	50.000	46.035	3506560.81	0.2960	P	0.3
5	☐	125.000	117.545	8789029.65	0.7557	A	0.4
6	☐	250.000	239.508	17298291.94	1.5397	A	0.6
7	☐	500.000	497.123	35405818.38	3.1958	A	0.3
8	☐	1000.000	1005.192	70241102.03	6.4621	A	0.4
9	☐			17421.29	0.0017	P	9.8

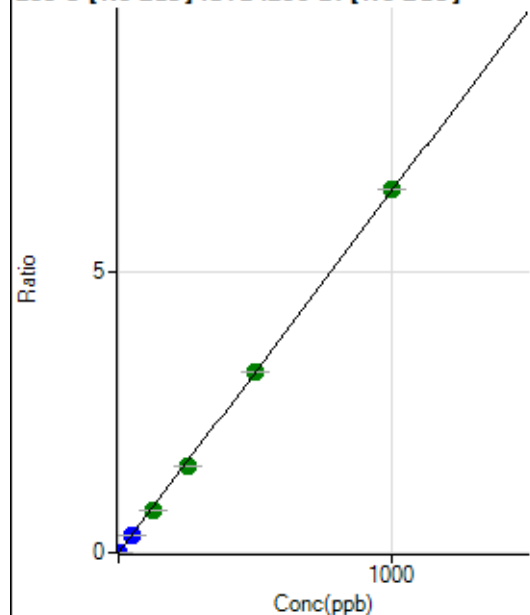
$$y = 0.0064 * x + 5.5688E-006$$

$$R = 0.9999$$

$$DL = 0.0004472$$

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	108.34	0.0000	P	40.1
2	☐	0.100					
3	☐	1.000	0.916	70728.23	0.0059	P	1.1
4	☐	50.000	46.046	3516214.40	0.2968	P	0.3
5	☐	125.000	117.846	8833907.66	0.7595	A	0.2
6	☐	250.000	240.757	17432541.36	1.5517	A	0.5
7	☐	500.000	498.147	35569837.25	3.2105	A	0.1
8	☐	1000.000	1004.329	70359368.93	6.4728	A	0.1
9	☐			13732.88	0.0013	P	3.0

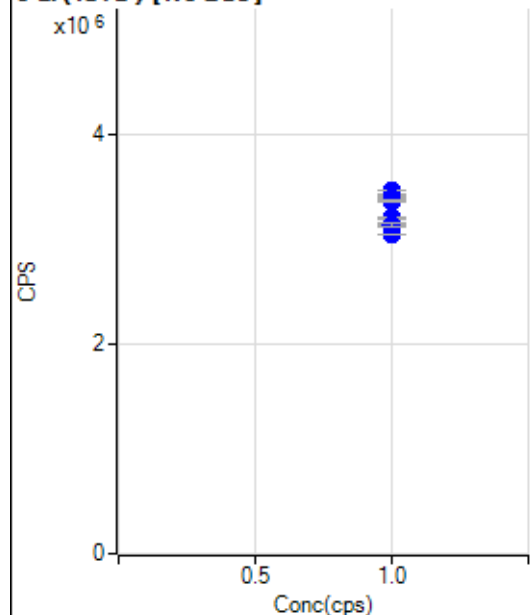
$$y = 0.0064 * x + 9.2995E-006$$

$$R = 0.9999$$

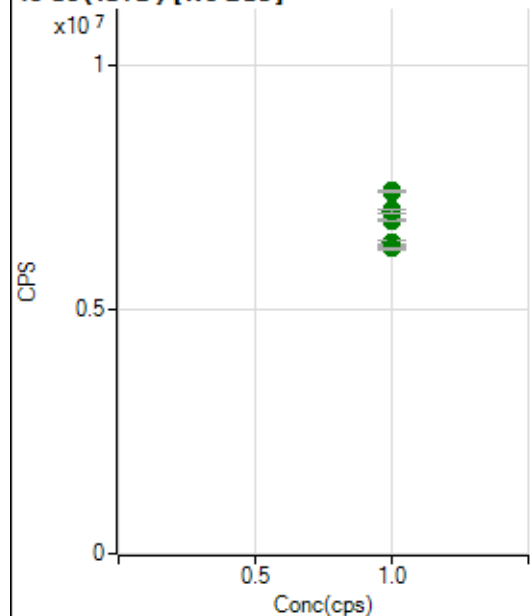
$$DL = 0.001735$$

Weight: <None>

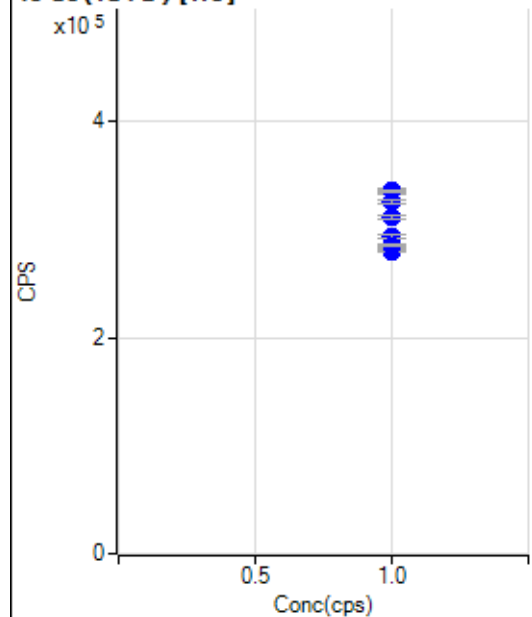
Min Conc: 0

6 Li (ISTD) [No Gas]

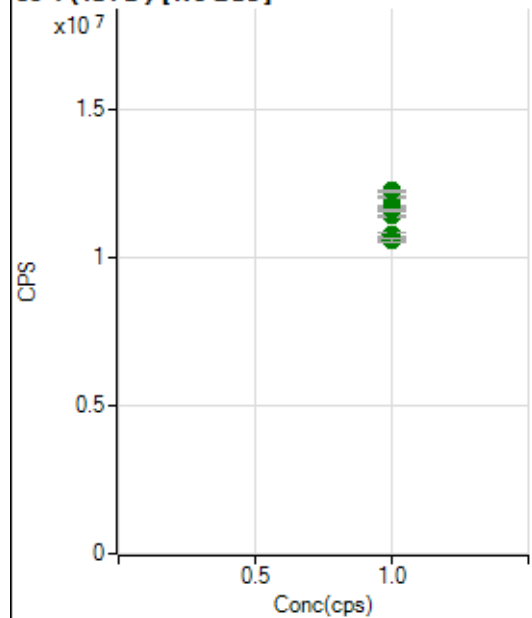
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3416110.05		P	0.5
2	☐	1.000					
3	☐	1.000		3463163.94		P	0.1
4	☐	1.000		3392481.93		P	0.5
5	☐	1.000		3367817.04		P	0.3
6	☐	1.000		3206139.78		P	0.5
7	☐	1.000		3128554.85		P	1.0
8	☐	1.000		3053652.04		P	0.1
9	☐	1.000		3131922.21		P	1.3

45 Sc (ISTD) [No Gas]

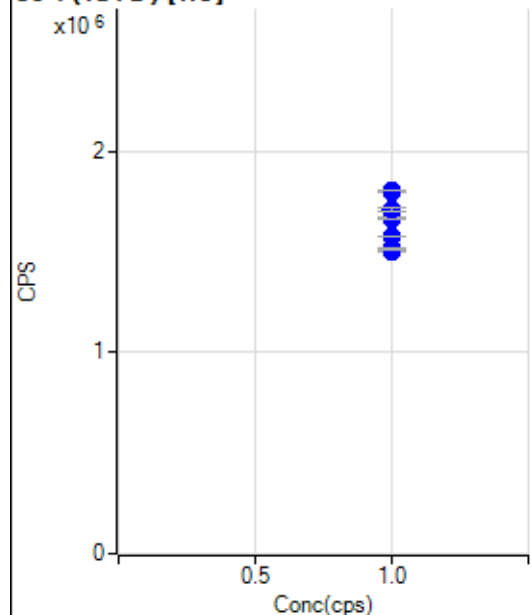
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7421655.37		A	0.5
2	☐	1.000					
3	☐	1.000		7434277.60		A	0.7
4	☐	1.000		7046261.88		A	0.3
5	☐	1.000		6819169.68		A	0.6
6	☐	1.000		6374916.03		A	1.0
7	☐	1.000		6267248.27		A	1.0
8	☐	1.000		6254445.97		A	0.6
9	☐	1.000		7007747.29		A	1.3

45 Sc (ISTD) [He]

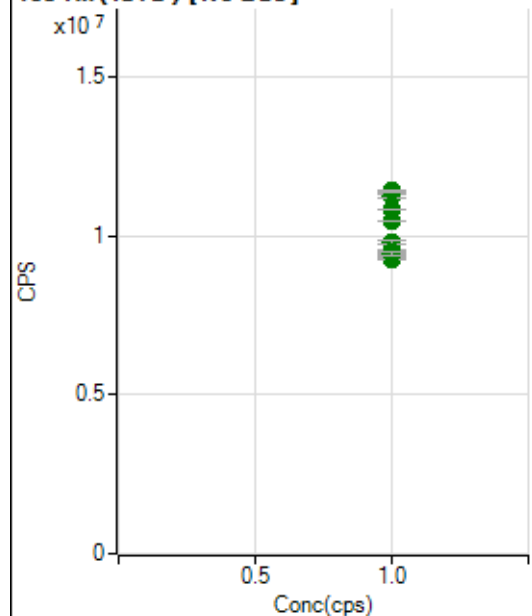
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		335844.22		P	1.1
2	☐	1.000					
3	☐	1.000		336039.98		P	0.7
4	☐	1.000		311587.55		P	0.7
5	☐	1.000		293993.80		P	0.8
6	☐	1.000		283189.69		P	0.4
7	☐	1.000		280082.44		P	0.7
8	☐	1.000		285852.33		P	0.6
9	☐	1.000		326670.59		P	1.2

89 Y (ISTD) [No Gas]

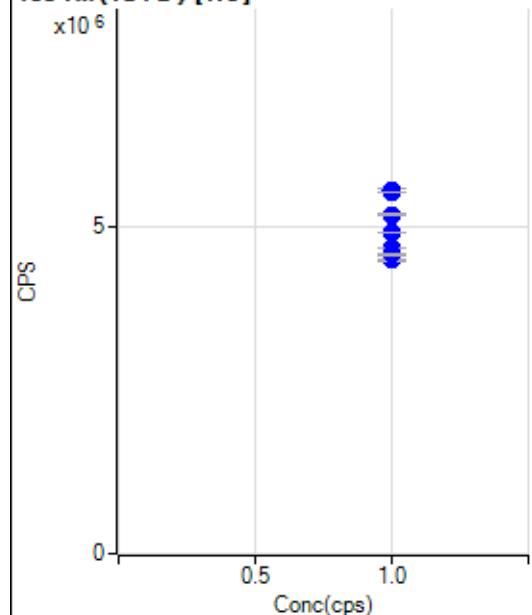
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12039031.49		A	0.3
2	☐	1.000					
3	☐	1.000		12231834.12		A	0.5
4	☐	1.000		11716522.19		A	0.4
5	☐	1.000		11382507.61		A	0.6
6	☐	1.000		10762181.92		A	0.8
7	☐	1.000		10594126.93		A	0.9
8	☐	1.000		10564240.68		A	0.7
9	☐	1.000		11580318.72		A	0.6

89 Y(ISTD) [He]

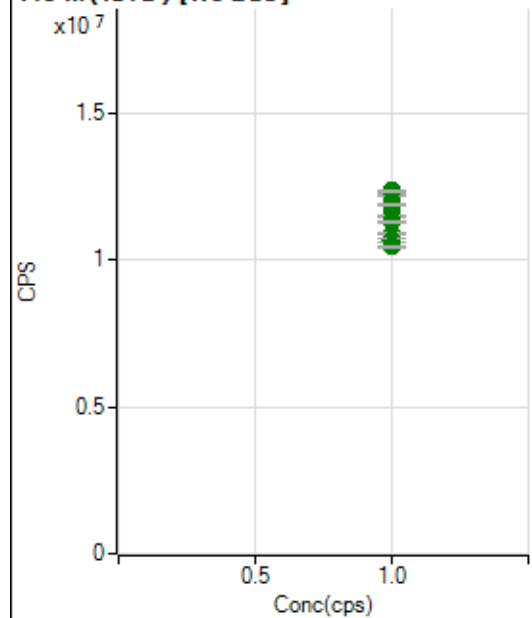
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1795552.11		P	0.5
2	☐	1.000					
3	☐	1.000		1801160.25		P	0.1
4	☐	1.000		1662234.70		P	0.6
5	☐	1.000		1577334.58		P	0.2
6	☐	1.000		1518042.27		P	0.1
7	☐	1.000		1502806.59		P	0.2
8	☐	1.000		1511127.41		P	0.4
9	☐	1.000		1707321.66		P	1.2

103 Rh(ISTD) [No Gas]

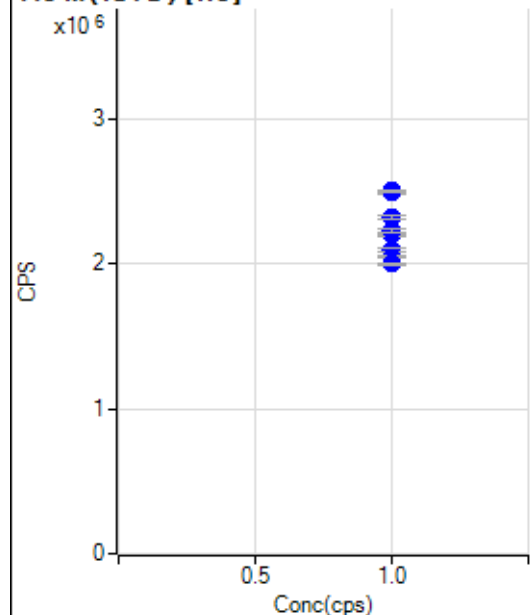
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11239479.24		A	1.2
2	☐	1.000					
3	☐	1.000		11408919.70		A	0.4
4	☐	1.000		10820561.18		A	0.2
5	☐	1.000		10467668.29		A	0.3
6	☐	1.000		9787177.39		A	1.0
7	☐	1.000		9490889.97		A	0.8
8	☐	1.000		9261575.21		A	0.7
9	☐	1.000		9433105.94		A	0.7

103 Rh (ISTD) [He]

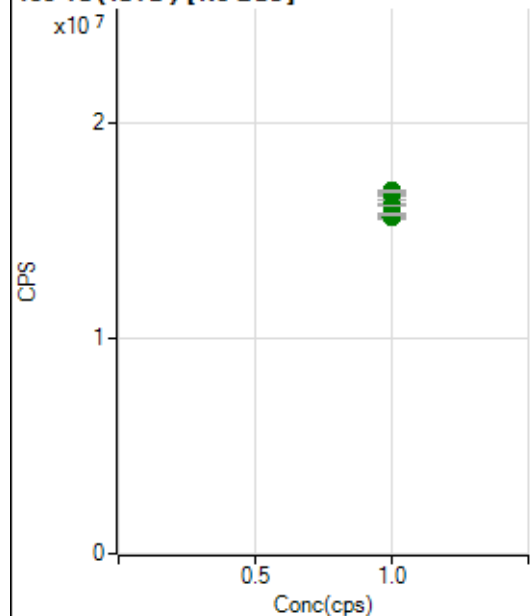
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5540616.86		P	1.1
2	☐	1.000					
3	☐	1.000		5525545.06		P	0.2
4	☐	1.000		5172911.73		P	0.6
5	☐	1.000		4902466.25		P	0.4
6	☐	1.000		4679214.41		P	0.1
7	☐	1.000		4545076.22		P	0.1
8	☐	1.000		4483396.57		P	0.5
9	☐	1.000		4574157.92		P	0.9

115 In (ISTD) [No Gas]

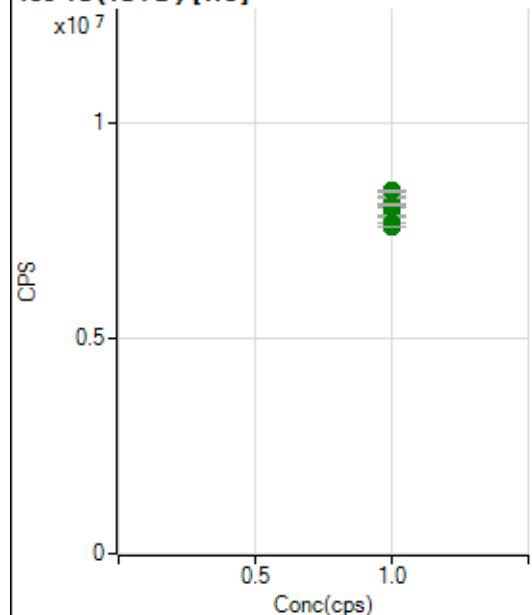
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		12206481.73		A	0.6
2	☐	1.000					
3	☐	1.000		12352422.50		A	0.5
4	☐	1.000		11881637.97		A	0.7
5	☐	1.000		11519856.15		A	0.6
6	☐	1.000		10894085.41		A	0.7
7	☐	1.000		10655349.22		A	1.2
8	☐	1.000		10459770.45		A	0.7
9	☐	1.000		11306009.57		A	0.3

115 In (ISTD) [He]

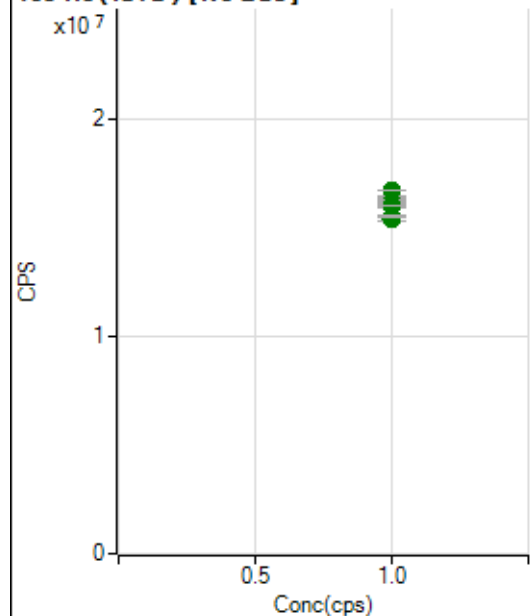
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2493186.90		P	0.5
2	☐	1.000					
3	☐	1.000		2503736.06		P	0.3
4	☐	1.000		2321903.85		P	0.7
5	☐	1.000		2198283.23		P	0.5
6	☐	1.000		2097708.99		P	0.8
7	☐	1.000		2048441.76		P	0.5
8	☐	1.000		1999874.13		P	0.4
9	☐	1.000		2234197.43		P	1.0

159 Tb (ISTD) [No Gas]

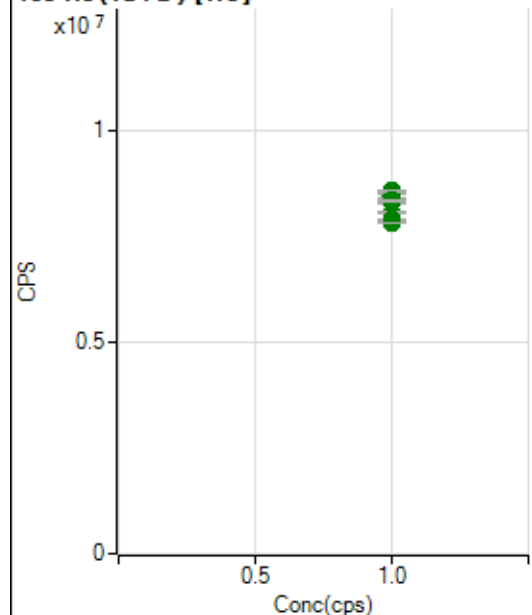
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16227971.29		A	0.4
2	☐	1.000					
3	☐	1.000		16657757.67		A	0.9
4	☐	1.000		16442989.48		A	0.4
5	☐	1.000		16170319.20		A	0.2
6	☐	1.000		15692506.85		A	0.2
7	☐	1.000		15655054.63		A	0.9
8	☐	1.000		15740171.29		A	0.7
9	☐	1.000		16859076.00		A	0.2

159 Tb (ISTD) [He]

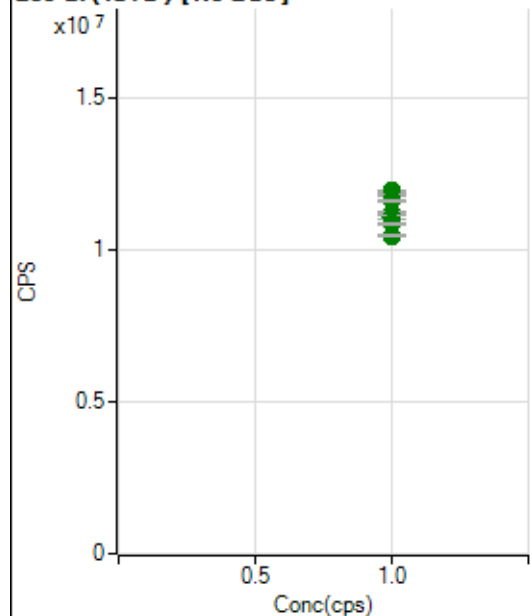
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8304696.89		A	0.7
2	☐	1.000					
3	☐	1.000		8431274.39		A	0.2
4	☐	1.000		8092249.60		A	0.9
5	☐	1.000		7843783.08		A	0.3
6	☐	1.000		7689206.76		A	0.0
7	☐	1.000		7608202.80		A	0.2
8	☐	1.000		7584528.85		A	0.1
9	☐	1.000		8094761.48		A	0.5

165 Ho (ISTD) [No Gas]

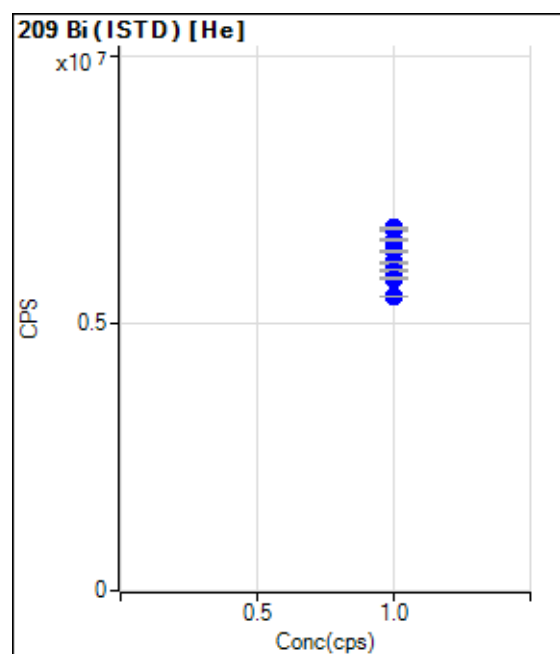
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		16000366.16		A	0.8
2	☐	1.000					
3	☐	1.000		16382713.39		A	1.0
4	☐	1.000		16209699.84		A	0.6
5	☐	1.000		15993597.93		A	0.1
6	☐	1.000		15470234.20		A	0.3
7	☐	1.000		15407164.41		A	1.1
8	☐	1.000		15492068.23		A	0.4
9	☐	1.000		16666573.29		A	0.1

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8472133.00		A	0.7
2	☐	1.000					
3	☐	1.000		8590305.57		A	0.2
4	☐	1.000		8314943.69		A	0.2
5	☐	1.000		8065625.50		A	0.6
6	☐	1.000		7901302.80		A	0.1
7	☐	1.000		7854713.01		A	0.4
8	☐	1.000		7840872.80		A	0.3
9	☐	1.000		8368167.24		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11631134.97		A	0.7
2	☐	1.000					
3	☐	1.000		11957146.77		A	0.7
4	☐	1.000		11848293.02		A	0.6
5	☐	1.000		11630908.30		A	0.2
6	☐	1.000		11234864.69		A	0.5
7	☐	1.000		11078969.28		A	1.3
8	☐	1.000		10869871.22		A	0.6
9	☐	1.000		10462109.84		A	0.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		6760963.02		P	1.4
2	☐	1.000					
3	☐	1.000		6783136.91		P	0.5
4	☐	1.000		6554717.96		P	0.9
5	☐	1.000		6345727.61		P	0.7
6	☐	1.000		6142213.38		P	0.5
7	☐	1.000		5983091.23		P	0.1
8	☐	1.000		5831371.86		P	0.4
9	☐	1.000		5501794.85		P	0.6

US EPA Tune Check Sample Report

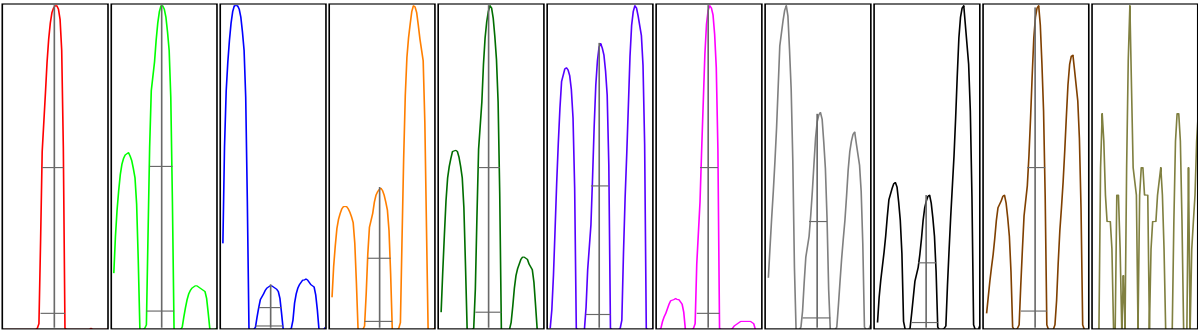
Batch Folder D:\ICP-MS Data\P7111418-MS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	16848	0.19	5.00	
24	139884	0.22	5.00	
25	18570	0.28	5.00	
26	21405	0.26	5.00	
59	131783	0.34	5.00	
113	17642	0.61	5.00	
115	211840	0.56	5.00	
206	57992	0.27	5.00	
207	53059	0.16	5.00	
208	125979	0.22	5.00	
220	0	64.95		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	16888	16830	16821	16880	16823
24	140344	139482	139800	139950	139846
25	18613	18497	18599	18610	18532
26	21469	21404	21433	21401	21318
59	132353	131535	132001	131862	131165
113	17798	17629	17690	17577	17516
115	213295	210858	212888	211492	210668
206	58131	57758	58066	58104	57901
207	53183	53000	53041	53096	52974
208	126183	125562	125918	126281	125952
220	0	0	0	0	1

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	28561	9.00	8.9 - 9.1		0.739	0.900	
24	228439	23.95	23.9 - 24.1		0.785	0.900	
25	30725	24.95	24.9 - 25.1		0.785	0.900	
26	35299	25.95	25.9 - 26.1		0.784	0.900	
59	232722	58.95	58.9 - 59.1		0.774	0.900	
113	34910	113.00	112.9 - 113.1		0.713	0.900	
115	418637	115.00	114.9 - 115.1		0.687	0.900	
206	113285	206.00	205.9 - 206.1		0.807	0.900	
207	103308	207.00	206.9 - 207.1		0.775	0.900	
208	249680	208.00	207.9 - 208.1		0.777	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	7.2	V	Deflect	14.6	V
Extract 2	-120.0	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	200	V			

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	33470	0.24	
89	18211	0.43	
205	48757	0.30	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	33538	33471	33516	33488	33336
89	18300	18213	18266	18179	18097
205	48878	48759	48858	48776	48512

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	7.4	V	Deflect	2.0	V
Extract 2	-115.0	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			