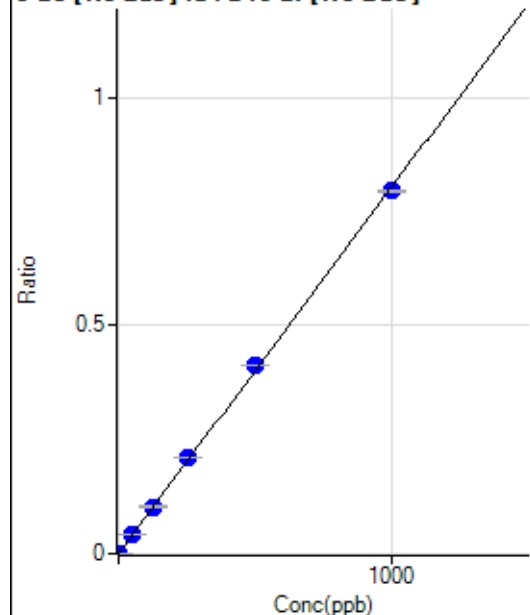


Batch Folder: D:\ICP-MS Data\P7071719EMS.b\
Analysis File: P7071719EMS.batch.bin
DA Date-Time: 2019-07-17 23:09:56
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2019-07-17 22:49:46
2			
3	006CALS.d	S02	2019-07-17 22:57:46
4	007CALS.d	S03	2019-07-17 23:02:00
5	008CALS.d	S04	2019-07-17 23:06:15
6	009CALS.d	S05	2019-07-17 23:10:29
7	010CALS.d	S06	2019-07-17 23:14:40
8	011CALS.d	S07	2019-07-17 23:18:47
9	012CALS.d	S08	2019-07-17 23:22:36

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	46.66	0.0000	P	32.6
2	☐	0.100					
3	☐	1.000	0.991	1107.84	0.0008	P	5.8
4	☐	50.000	51.545	53988.90	0.0414	P	1.7
5	☐	125.000	128.359	133571.47	0.1032	P	0.5
6	☐	250.000	260.668	264617.71	0.2095	P	0.7
7	☐	500.000	513.053	521153.31	0.4122	P	0.2
8	☐	1000.000	990.310	1009045.93	0.7957	P	0.6
9	☐			148.89	0.0001	P	17.8

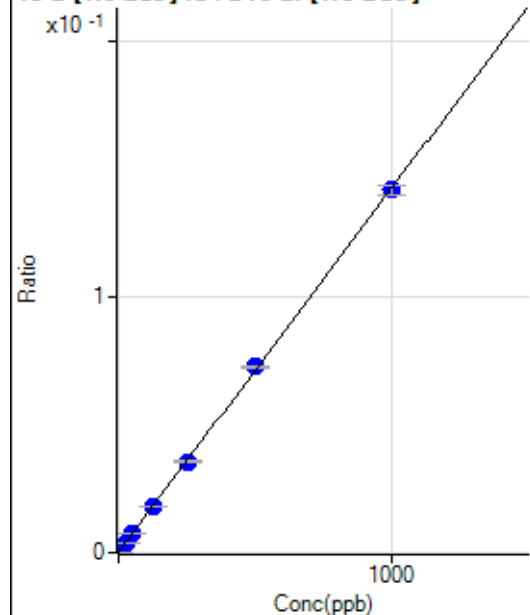
$$y = 8.0344\text{E-}004 * x + 3.6574\text{E-}005$$

$$R = 0.9998$$

$$DL = 0.04449$$

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	322.24	0.0003	P	30.1
2	☐	2.500					
3	☐	25.000	23.057	4692.58	0.0035	P	2.3
4	☐	50.000	51.249	9806.30	0.0075	P	5.3
5	☐	125.000	124.608	23235.26	0.0179	P	2.0
6	☐	250.000	249.210	45020.93	0.0356	P	1.0
7	☐	500.000	508.550	91601.30	0.0725	P	1.1
8	☐	1000.000	995.958	179644.07	0.1417	P	3.0
9	☐			8516.63	0.0073	P	5.4

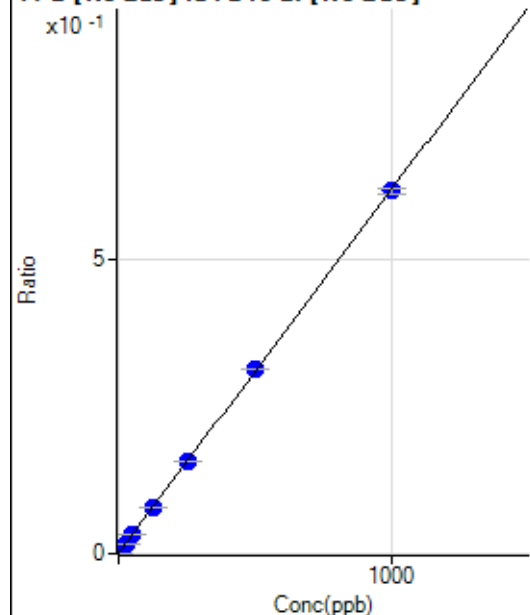
$$y = 1.4198\text{E-}004 * x + 2.5261\text{E-}004$$

$$R = 0.9999$$

$$DL = 1.607$$

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	1614.04	0.0013	P	4.6
2	☐	2.500					
3	☐	25.000	24.185	21582.83	0.0162	P	2.7
4	☐	50.000	49.768	41736.30	0.0320	P	1.3
5	☐	125.000	126.098	102596.51	0.0792	P	0.5
6	☐	250.000	251.867	198352.63	0.1570	P	0.9
7	☐	500.000	506.844	397810.85	0.3147	P	0.3
8	☐	1000.000	996.006	782621.36	0.6172	P	1.7
9	☐			38305.40	0.0328	P	8.1

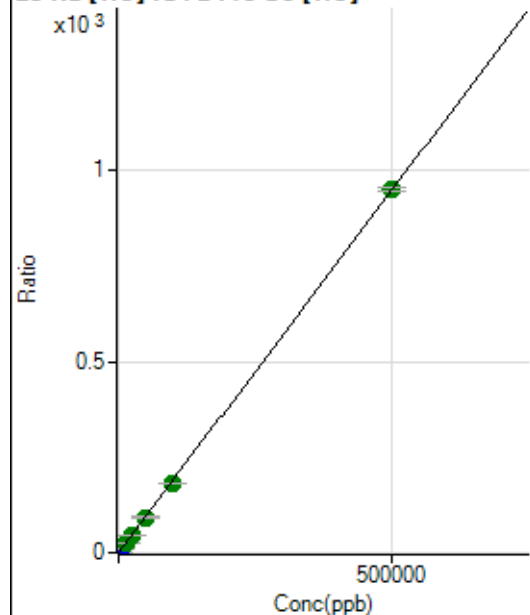
$$y = 6.1836E-004 * x + 0.0013$$

$$R = 1.0000$$

$$DL = 0.2838$$

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	4167.42	0.0402	P	4.3
2	☐	50.000					
3	☐	500.000	520.149	110546.37	1.0268	P	0.8
4	☐	5000.000	5097.148	1035636.80	9.7085	P	1.1
5	☐	12500.000	12491.115	2466764.51	23.7334	A	1.3
6	☐	25000.000	24917.429	4972493.91	47.3037	A	1.3
7	☐	50000.000	48935.928	9834876.52	92.8621	A	1.2
8	☐	100000.00	95590.159	19877238.12	181.3561	A	1.2
9	☐	500000.00	500991.73	103015875.2	950.3240	A	1.2

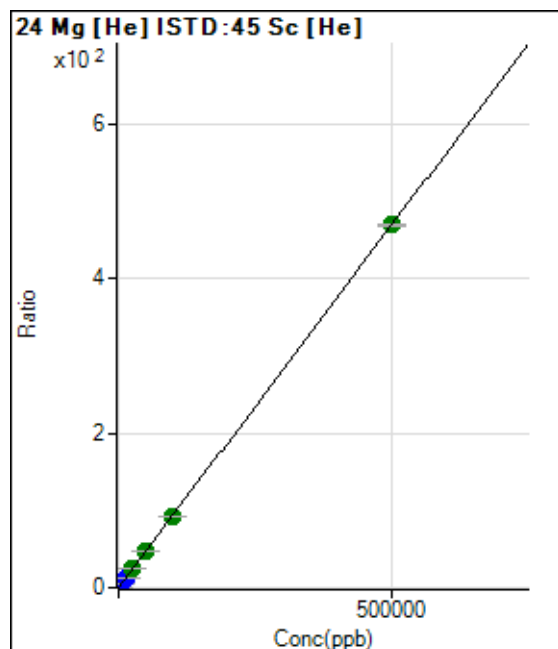
$$y = 0.0019 * x + 0.0402$$

$$R = 1.0000$$

$$DL = 2.74$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	47.22	0.0005	P	45.0
2	☐	50.000					
3	☐	500.000	542.109	54842.73	0.5094	P	0.7
4	☐	5000.000	5215.631	522369.86	4.8971	P	0.8
5	☐	12500.000	12799.292	1248995.95	12.0169	P	1.3
6	☐	25000.000	25420.177	2508745.85	23.8659	A	1.1
7	☐	50000.000	50180.155	4989665.91	47.1115	A	0.7
8	☐	100000.00	97495.460	10032741.54	91.5329	A	0.8
9	☐	500000.00	500452.20	50931451.49	469.8438	A	0.4

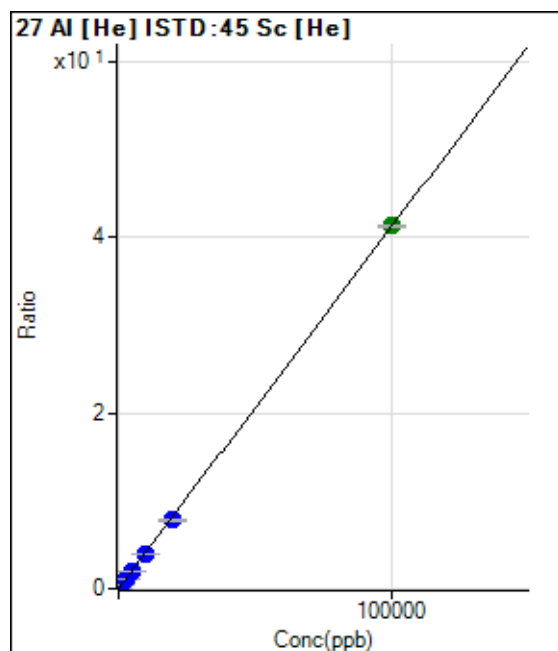
$$y = 9.3884\text{E-}004 * x + 4.5664\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.6559$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0002	P	100.
2	☐	2.000					
3	☐	20.000	20.267	916.73	0.0085	P	4.2
4	☐	1000.000	1001.701	44037.86	0.4129	P	2.1
5	☐	2500.000	2492.600	106751.06	1.0271	P	2.0
6	☐	5000.000	4937.528	213860.30	2.0344	P	0.8
7	☐	10000.000	9732.261	424681.27	4.0099	P	1.1
8	☐	20000.000	18906.961	853858.78	7.7899	P	0.5
9	☐	100000.00	100248.67	4477353.92	41.3029	A	0.5

$$y = 4.1200\text{E-}004 * x + 1.6155\text{E-}004$$

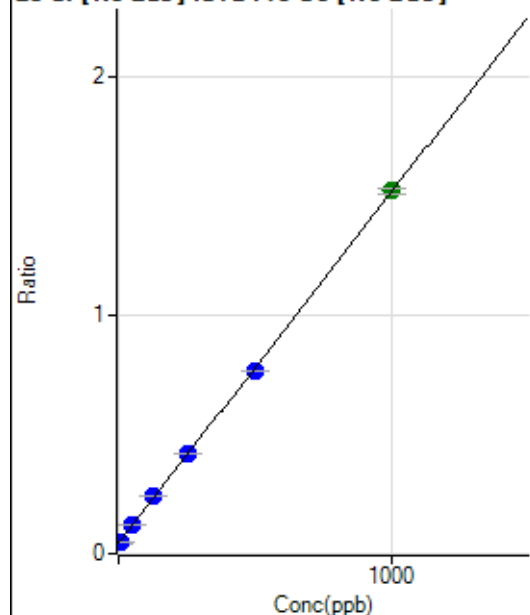
$$R = 0.9999$$

$$DL = 1.181$$

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	91556.91	0.0447	P	2.4
2	☐	1.000					
3	☐	10.000	4.729	112266.20	0.0516	P	0.6
4	☐	50.000	49.616	247579.73	0.1176	P	0.9
5	☐	125.000	132.105	493272.55	0.2388	P	0.2
6	☐	250.000	252.600	862872.60	0.4159	P	0.3
7	☐	500.000	490.391	1599494.01	0.7653	P	0.5
8	☐	1000.000	1003.338	3204902.24	1.5191	A	1.9
9	☐			272254.15	0.1332	P	1.0

$$y = 0.0015 * x + 0.0447$$

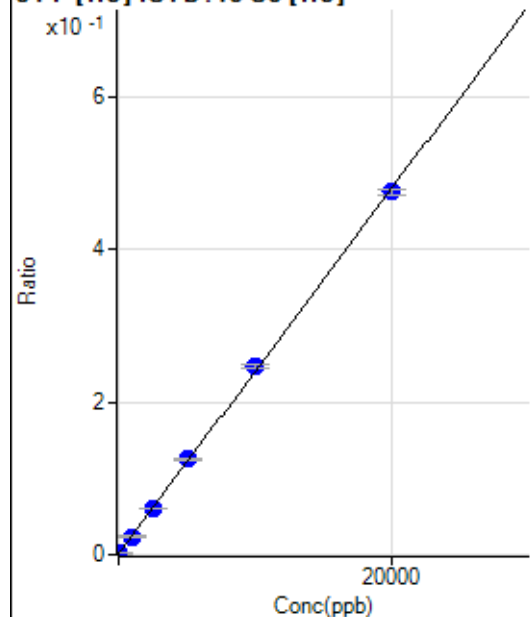
$$R = 0.9999$$

$$DL = 2.218$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	-25.086	41.67	0.0004	P	34.2
2	☐	0.000					
3	☐	0.000	25.086	172.23	0.0016	P	20.3
4	☐	1000.000	953.214	2536.42	0.0238	P	8.3
5	☐	2500.000	2486.917	6284.90	0.0605	P	1.9
6	☐	5000.000	5178.349	13120.13	0.1248	P	2.4
7	☐	10000.000	10268.748	26109.67	0.2465	P	1.7
8	☐	20000.000	19825.013	52072.28	0.4750	P	1.3
9	☐			61.11	0.0006	P	43.1

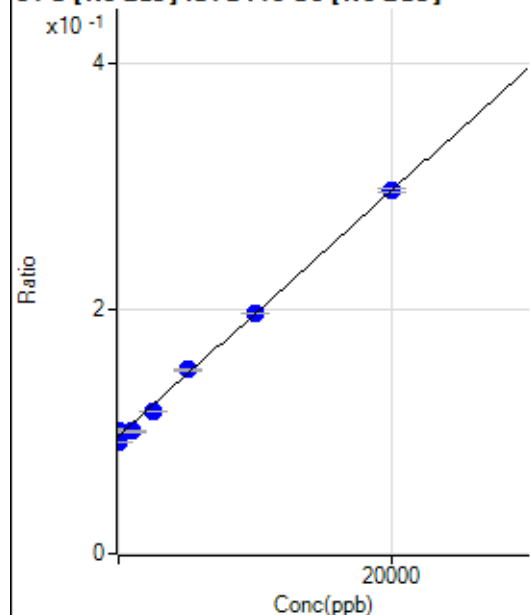
$$y = 2.3909E-005 * x + 0.0010$$

$$R = 0.9998$$

$$DL = 29.03$$

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	498.737	207472.34	0.1012	P	1.6
2	☐	0.000					
3	☐	0.000	-498.737	198421.23	0.0912	P	1.3
4	☐	1000.000	405.978	211165.34	0.1003	P	1.8
5	☐	2500.000	2025.875	240645.46	0.1165	P	0.6
6	☐	5000.000	5416.304	312127.52	0.1504	P	0.7
7	☐	10000.000	10023.320	410766.54	0.1965	P	0.4
8	☐	20000.000	19973.231	624704.54	0.2961	P	0.9
9	☐			180704.09	0.0884	P	0.8

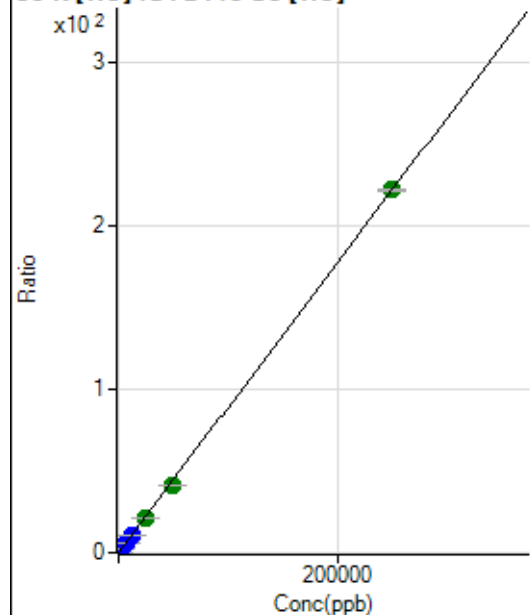
$$y = 1.0008\text{E-}005 * x + 0.0962$$

$$R = 0.9983$$

$$DL = 418.5$$

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	9453.40	0.0913	P	4.7
2	☐	50.000					
3	☐	500.000	488.279	56407.89	0.5239	P	2.3
4	☐	2500.000	2492.623	245304.16	2.2997	P	0.9
5	☐	6250.000	6252.381	585240.71	5.6308	P	1.3
6	☐	12500.000	12498.549	1173649.04	11.1648	P	0.1
7	☐	25000.000	23956.439	2257608.84	21.3163	A	1.1
8	☐	50000.000	46843.638	4558942.29	41.5940	A	1.0
9	☐	250000.00	250735.73	24090760.43	222.2394	A	0.5

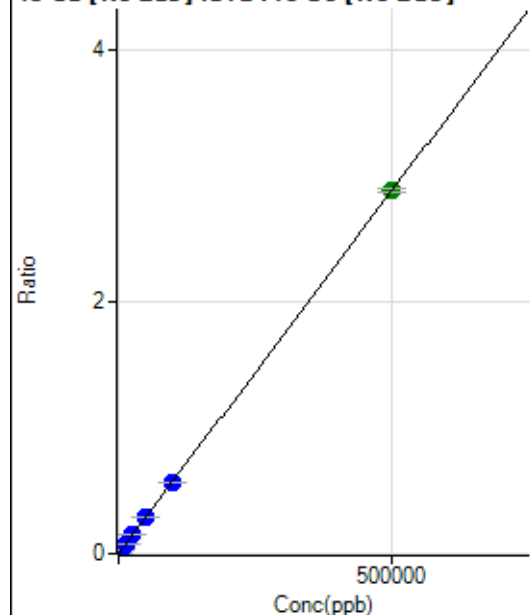
$$y = 8.8599\text{E-}004 * x + 0.0913$$

$$R = 0.9999$$

$$DL = 14.5$$

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	63.89	0.0000	P	30.3
2	☐	50.000					
3	☐	500.000	474.491	6018.12	0.0028	P	4.3
4	☐	5000.000	4975.140	60474.45	0.0287	P	1.4
5	☐	12500.000	12770.538	152175.31	0.0737	P	0.6
6	☐	25000.000	25459.588	304675.75	0.1468	P	0.6
7	☐	50000.000	49919.266	601688.07	0.2879	P	0.4
8	☐	100000.00	97803.198	1189873.17	0.5640	P	0.9
9	☐	500000.00	500417.96	5900102.26	2.8858	A	1.0

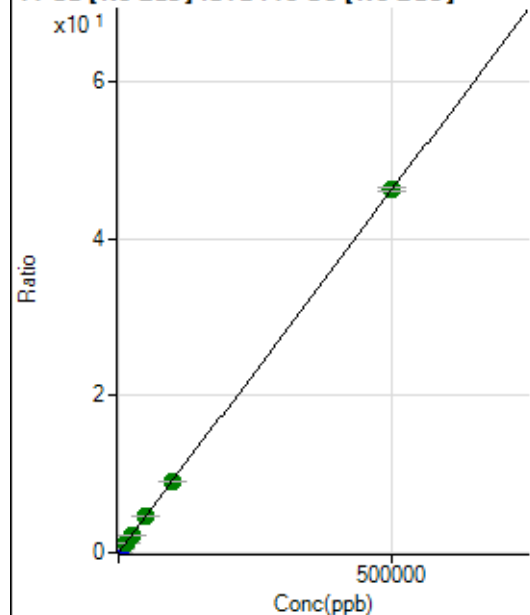
$$y = 5.7667\text{E-}006 * x + 3.1186\text{E-}005$$

$$R = 1.0000$$

$$DL = 4.922$$

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	3936.79	0.0019	P	7.0
2	☐	50.000					
3	☐	500.000	486.435	101894.30	0.0469	P	1.4
4	☐	5000.000	4971.236	970904.90	0.4611	P	0.8
5	☐	12500.000	12447.222	2378810.91	1.1517	A	0.7
6	☐	25000.000	24941.236	4784057.75	2.3058	A	0.4
7	☐	50000.000	49189.352	9500122.69	4.5456	A	0.3
8	☐	100000.00	97537.194	19010808.93	9.0116	A	1.1
9	☐	500000.00	500578.18	94541551.42	46.2412	A	1.2

$$y = 9.2372\text{E-}005 * x + 0.0019$$

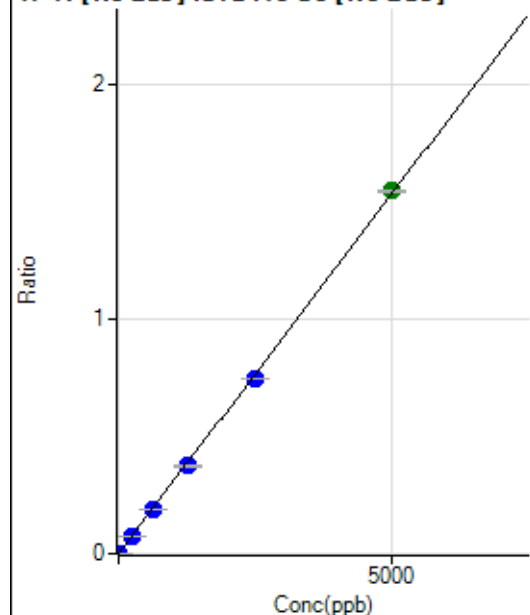
$$R = 1.0000$$

$$DL = 4.353$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	44.44	0.0000	P	44.5
2	☐	0.500					
3	☐	5.000	4.208	2850.39	0.0013	P	4.5
4	☐	250.000	240.941	155426.57	0.0738	P	0.5
5	☐	625.000	608.595	385083.23	0.1864	P	0.8
6	☐	1250.000	1220.344	775540.45	0.3738	P	0.6
7	☐	2500.000	2426.725	1553447.13	0.7433	P	0.4
8	☐	5000.000	5046.556	3260856.41	1.5457	A	0.9
9	☐			697.27	0.0003	P	11.4

$$y = 3.0629E-004 * x + 2.1746E-005$$

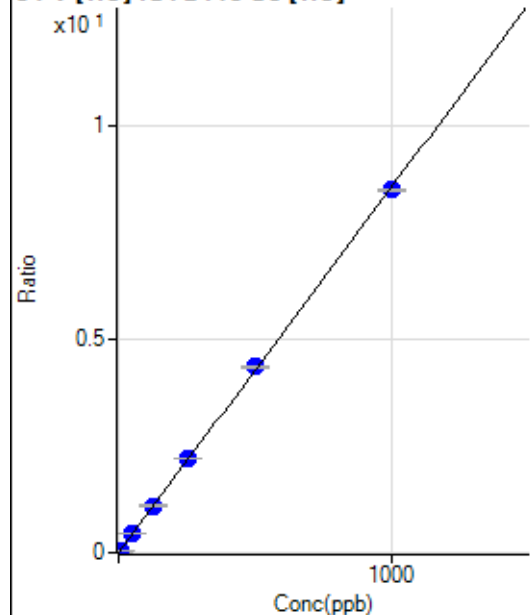
$$R = 0.9998$$

$$DL = 0.09469$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4.44	0.0000	P	43.0
2	☐	0.500					
3	☐	5.000	5.297	4895.32	0.0455	P	3.8
4	☐	50.000	50.597	46292.54	0.4340	P	1.8
5	☐	125.000	128.308	114391.19	1.1006	P	1.4
6	☐	250.000	257.271	231966.70	2.2067	P	0.5
7	☐	500.000	509.757	463073.96	4.3723	P	0.9
8	☐	1000.000	992.859	933477.85	8.5160	P	0.3
9	☐			200.00	0.0018	P	3.6

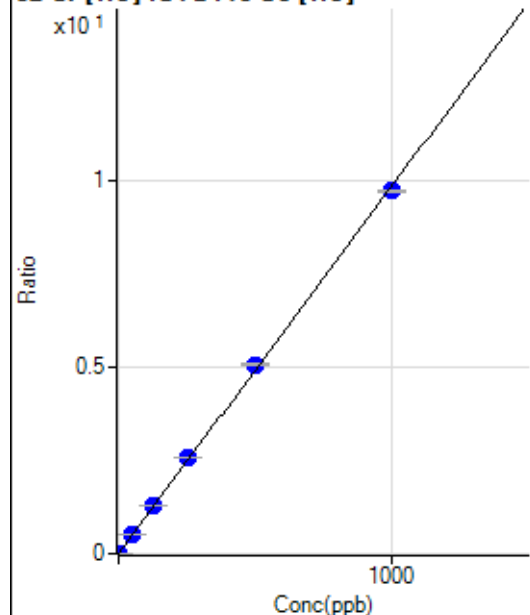
$$y = 0.0086 * x + 4.2845E-005$$

$$R = 0.9999$$

$$DL = 0.006439$$

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	378.90	0.0037	P	11.4
2	☐	0.200					
3	☐	2.000	1.947	2459.13	0.0228	P	4.7
4	☐	50.000	52.063	55137.19	0.5169	P	1.5
5	☐	125.000	130.937	134548.72	1.2945	P	0.9
6	☐	250.000	263.225	273176.76	2.5987	P	0.7
7	☐	500.000	515.016	538140.04	5.0810	P	0.7
8	☐	1000.000	988.341	1068441.88	9.7473	P	0.3
9	☐			19983.73	0.1844	P	1.0

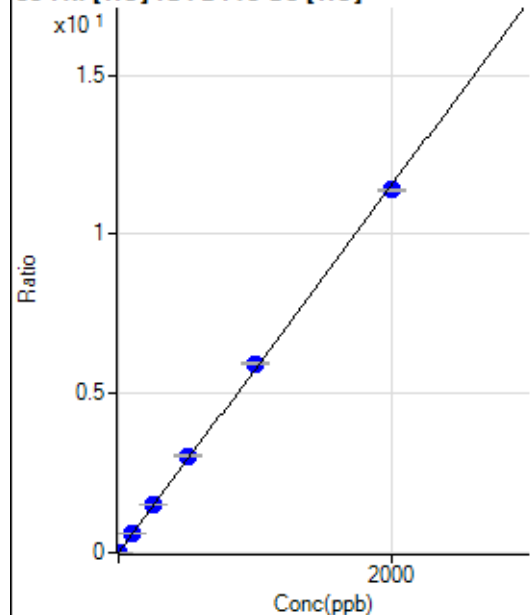
$$y = 0.0099 * x + 0.0037$$

$$R = 0.9997$$

$$DL = 0.1267$$

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	17.78	0.0002	P	57.7
2	☐	0.100					
3	☐	1.000	1.104	704.47	0.0065	P	2.7
4	☐	100.000	104.068	64047.63	0.6004	P	1.1
5	☐	250.000	263.624	158040.87	1.5206	P	1.7
6	☐	500.000	527.174	319623.22	3.0406	P	0.9
7	☐	1000.000	1030.990	629792.09	5.9463	P	0.6
8	☐	2000.000	1975.805	1249054.40	11.3954	P	0.5
9	☐			3628.28	0.0335	P	1.6

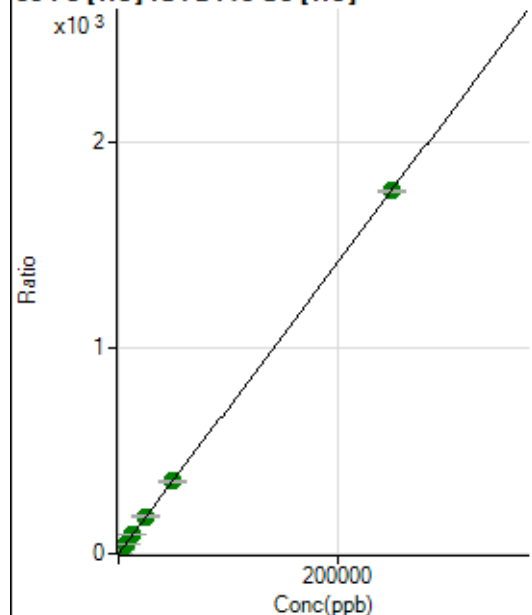
$$y = 0.0058 * x + 1.7195E-004$$

$$R = 0.9997$$

$$DL = 0.05161$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1781.64	0.0172	P	8.2
2	☐	5.000					
3	☐	50.000	60.827	48125.58	0.4470	P	0.7
4	☐	2500.000	2607.977	1967495.67	18.4458	A	1.4
5	☐	6250.000	6527.239	4795693.40	46.1402	A	1.2
6	☐	12500.000	13167.092	9782213.18	93.0590	A	0.9
7	☐	25000.000	25762.902	19282555.29	182.0640	A	0.9
8	☐	50000.000	49814.901	38583267.53	352.0212	A	1.1
9	☐	250000.00	249919.36	191431930.2	1,766.007	A	0.9

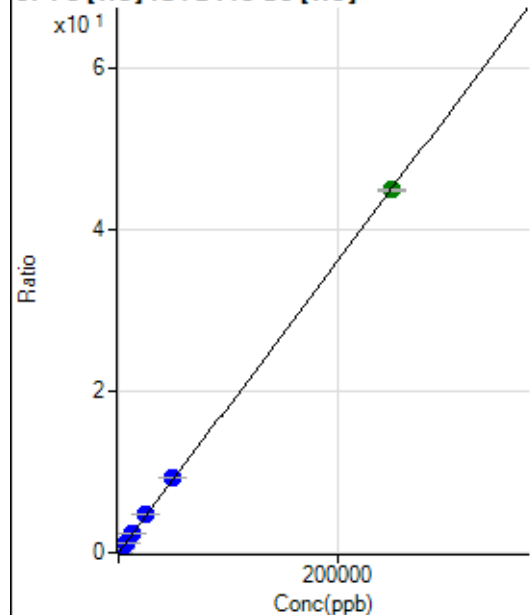
$$y = 0.0071 * x + 0.0172$$

$$R = 1.0000$$

$$DL = 0.6014$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	94.45	0.0009	P	15.2
2	☐	5.000					
3	☐	50.000	55.786	1181.57	0.0110	P	15.7
4	☐	2500.000	2685.611	51735.75	0.4850	P	0.9
5	☐	6250.000	6829.428	128047.64	1.2319	P	0.8
6	☐	12500.000	13646.102	258664.33	2.4607	P	0.4
7	☐	25000.000	26670.948	509282.18	4.8084	P	0.5
8	☐	50000.000	51350.266	1014687.90	9.2570	P	0.3
9	☐	250000.00	249489.20	4875016.49	44.9722	A	0.2

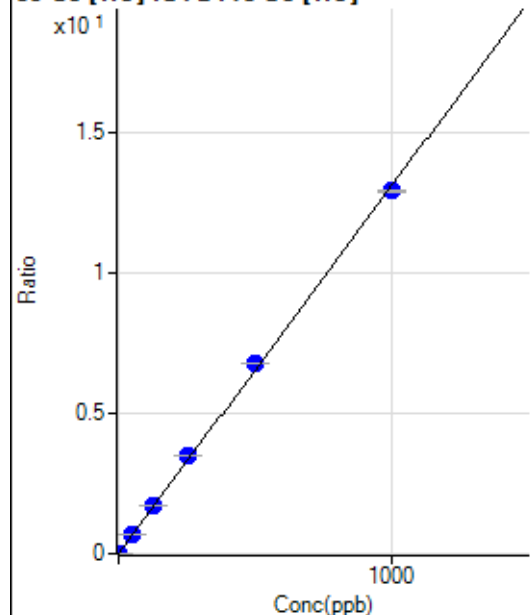
$$y = 1.8025E-004 * x + 9.1138E-004$$

$$R = 1.0000$$

$$DL = 2.301$$

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	12.22	0.0001	P	16.1
2	☐	0.100					
3	☐	1.000	1.045	1483.43	0.0138	P	6.5
4	☐	50.000	52.611	73406.93	0.6882	P	0.9
5	☐	125.000	131.989	179423.34	1.7262	P	0.9
6	☐	250.000	264.901	364182.15	3.4644	P	0.4
7	☐	500.000	516.760	715803.31	6.7582	P	0.6
8	☐	1000.000	986.891	1414763.47	12.9065	P	0.3
9	☐			17275.95	0.1594	P	1.8

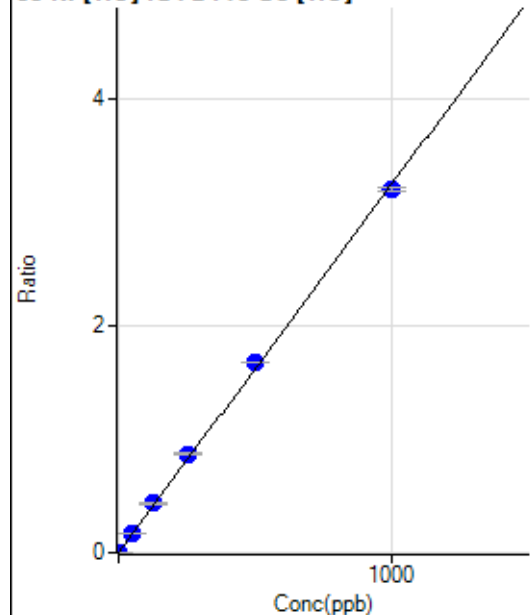
$$y = 0.0131 * x + 1.1801E-004$$

$$R = 0.9997$$

$$DL = 0.004356$$

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	11.11	0.0001	P	121.
2	☐	0.100					
3	☐	1.000	1.105	397.79	0.0037	P	13.8
4	☐	50.000	53.209	18465.12	0.1731	P	0.7
5	☐	125.000	133.341	45069.10	0.4336	P	0.6
6	☐	250.000	267.867	91552.66	0.8710	P	1.1
7	☐	500.000	517.416	178167.93	1.6822	P	0.9
8	☐	1000.000	985.622	351228.26	3.2044	P	1.0
9	☐			6841.70	0.0631	P	3.7

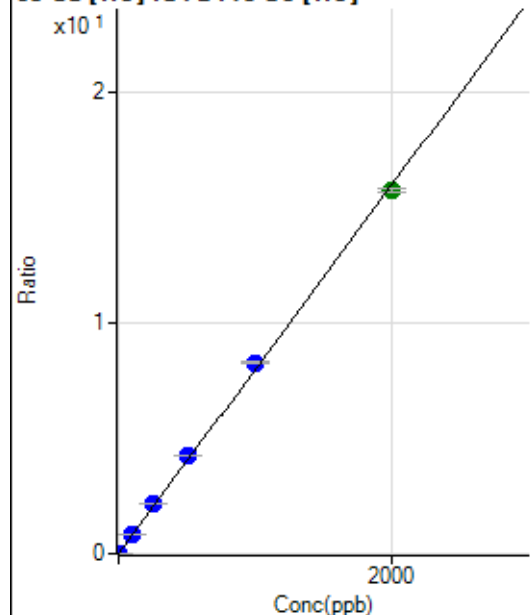
$$y = 0.0033 * x + 1.0700E-004$$

$$R = 0.9996$$

$$DL = 0.1195$$

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	205.56	0.0020	P	15.8
2	☐	0.200					
3	☐	2.000	2.039	1964.61	0.0182	P	6.1
4	☐	100.000	107.999	92104.28	0.8634	P	0.9
5	☐	250.000	268.323	222653.03	2.1422	P	1.5
6	☐	500.000	533.398	447456.63	4.2566	P	0.4
7	☐	1000.000	1038.241	877308.11	8.2834	P	0.8
8	☐	2000.000	1969.840	1722341.45	15.7142	A	1.2
9	☐			2579.16	0.0238	P	0.9

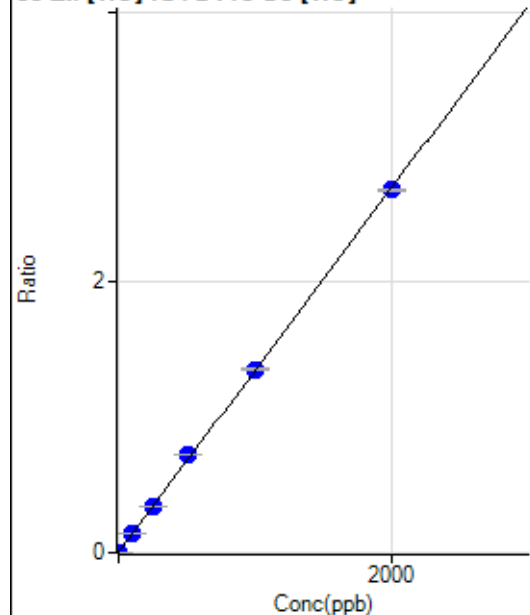
$$y = 0.0080 * x + 0.0020$$

$$R = 0.9996$$

$$DL = 0.1179$$

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	242.23	0.0023	P	6.0
2	☐	0.200					
3	☐	2.000	0.983	394.46	0.0037	P	7.2
4	☐	100.000	98.782	14440.64	0.1354	P	0.4
5	☐	250.000	249.495	35163.52	0.3383	P	1.9
6	☐	500.000	534.014	75841.12	0.7215	P	0.6
7	☐	1000.000	1003.752	143409.38	1.3541	P	0.9
8	☐	2000.000	1989.746	293954.24	2.6819	P	0.9
9	☐			2610.27	0.0241	P	0.4

$$y = 0.0013 * x + 0.0023$$

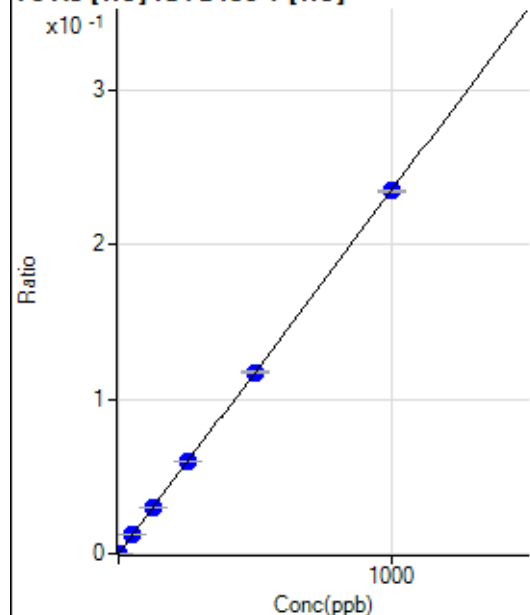
$$R = 0.9998$$

$$DL = 0.3115$$

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	0.62	0.0000	P	173.
2	☐	0.100					
3	☐	1.000	1.160	116.67	0.0003	P	21.3
4	☐	50.000	50.808	5011.40	0.0120	P	1.2
5	☐	125.000	127.336	12428.21	0.0300	P	0.5
6	☐	250.000	254.324	25211.40	0.0599	P	0.7
7	☐	500.000	500.018	49990.43	0.1177	P	0.8
8	☐	1000.000	998.578	100799.22	0.2351	P	0.6
9	☐			140.13	0.0003	P	13.0

$$y = 2.3541\text{E-}004 * x + 1.5000\text{E-}006$$

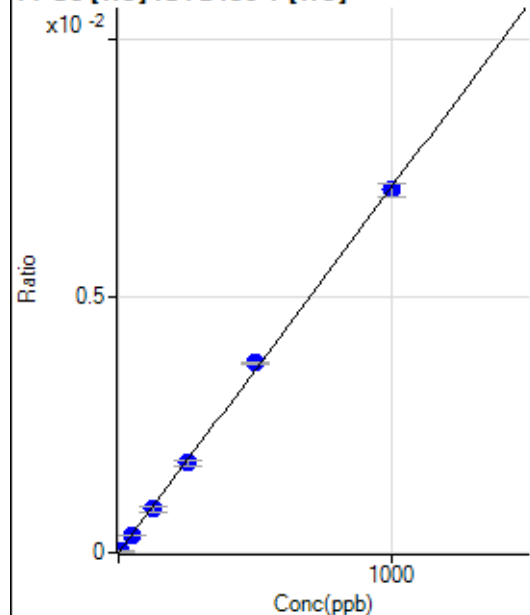
$$R = 1.0000$$

$$DL = 0.03311$$

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	0.00	0.0000	P	
2	☐	0.500					
3	☐	5.000	4.414	13.34	0.0000	P	87.0
4	☐	50.000	46.897	140.00	0.0003	P	8.3
5	☐	125.000	118.454	350.01	0.0008	P	16.2
6	☐	250.000	245.163	735.59	0.0017	P	8.0
7	☐	500.000	518.532	1569.00	0.0037	P	1.5
8	☐	1000.000	992.919	3033.71	0.0071	P	3.7
9	☐			3.33	0.0000	P	0.6

$$y = 7.1253\text{E-}006 * x + 0.0000\text{E+}000$$

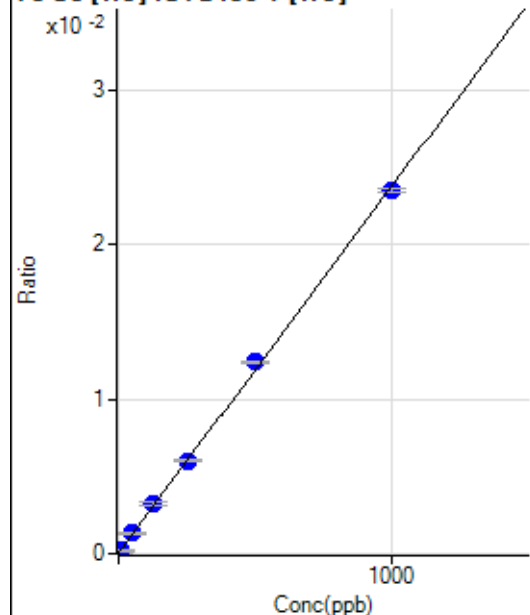
$$R = 0.9997$$

$$DL = 0$$

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	22.22	0.0001	P	46.3
2	☐	0.500					
3	☐	5.000	5.624	79.63	0.0002	P	24.2
4	☐	50.000	54.271	561.12	0.0013	P	6.8
5	☐	125.000	133.100	1328.47	0.0032	P	7.2
6	☐	250.000	250.843	2523.70	0.0060	P	1.9
7	☐	500.000	520.229	5253.46	0.0124	P	1.9
8	☐	1000.000	988.446	10057.24	0.0235	P	0.9
9	☐			32.71	0.0001	P	33.6

$$y = 2.3675E-005 * x + 5.4317E-005$$

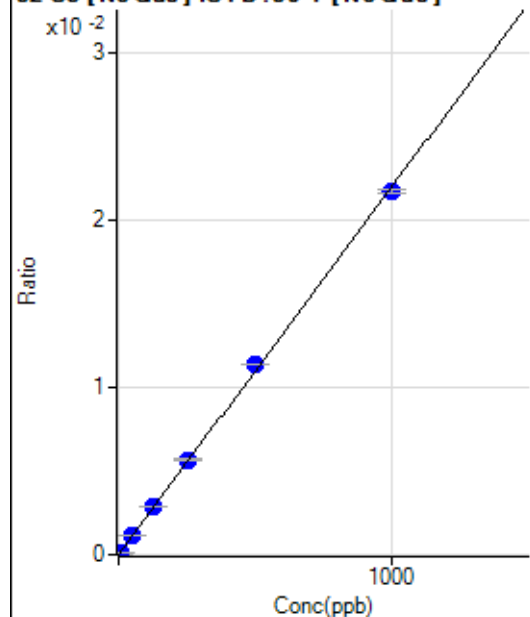
$$R = 0.9997$$

$$DL = 3.186$$

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	15.19	0.0000	P	27.9
2	☐	0.500					
3	☐	5.000	5.259	325.19	0.0001	P	5.2
4	☐	50.000	50.944	2950.17	0.0011	P	0.6
5	☐	125.000	130.200	7360.01	0.0029	P	0.5
6	☐	250.000	258.775	14709.34	0.0057	P	1.6
7	☐	500.000	519.012	29657.69	0.0114	P	0.3
8	☐	1000.000	987.602	57020.42	0.0217	P	1.0
9	☐			70.12	0.0000	P	48.9

$$y = 2.1964E-005 * x + 5.8283E-006$$

$$R = 0.9997$$

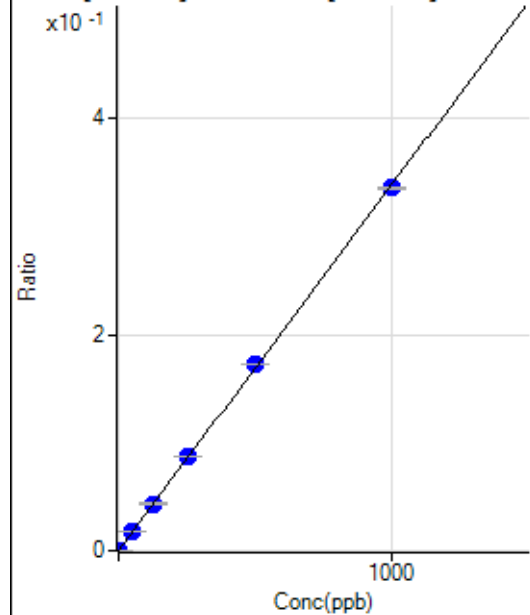
$$DL = 0.2218$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			81.11		P	31.9
2	☐						
3	☐			104.45		P	9.7
4	☐			85.56		P	29.8
5	☐			85.56		P	31.5
6	☐			104.45		P	21.2
7	☐			85.56		P	19.2
8	☐			98.89		P	5.1
9	☐			86.67		P	20.0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	133.34	0.0001	P	12.9
2	☐	0.100					
3	☐	1.000	0.930	980.62	0.0004	P	4.9
4	☐	50.000	50.180	44670.55	0.0170	P	0.6
5	☐	125.000	128.444	111761.11	0.0435	P	0.6
6	☐	250.000	257.970	225804.86	0.0873	P	0.4
7	☐	500.000	510.328	449167.83	0.1727	P	0.3
8	☐	1000.000	992.404	882622.73	0.3359	P	0.2
9	☐			3909.04	0.0016	P	3.1

$$y = 3.3838\text{E-}004 * x + 5.1198\text{E-}005$$

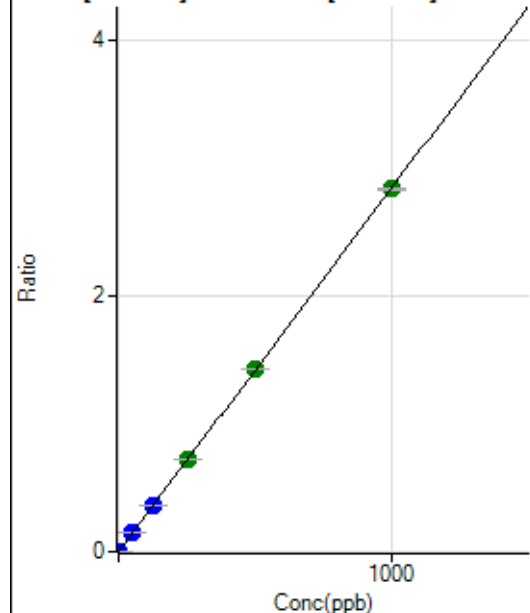
$$R = 0.9999$$

$$DL = 0.05848$$

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	58.33	0.0000	P	24.8
2	☐	0.100					
3	☐	1.000	1.003	7694.03	0.0029	P	6.4
4	☐	50.000	51.262	381810.13	0.1456	P	0.8
5	☐	125.000	128.941	940385.57	0.3661	P	0.6
6	☐	250.000	251.969	1849619.86	0.7154	A	0.4
7	☐	500.000	501.534	3702973.74	1.4240	A	0.4
8	☐	1000.000	998.185	7448313.62	2.8342	A	0.4
9	☐			31858.38	0.0134	P	0.5

$$y = 0.0028 * x + 2.2392E-005$$

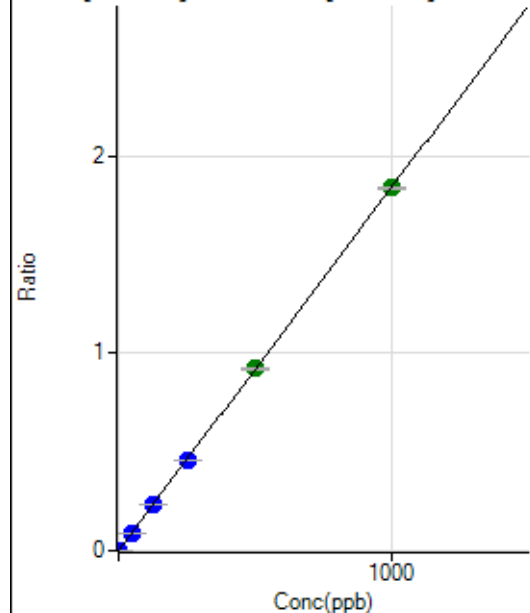
$$R = 1.0000$$

$$DL = 0.00586$$

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	238.90	0.0001	P	18.1
2	☐	0.100					
3	☐	1.000	0.938	4864.89	0.0018	P	5.9
4	☐	50.000	49.447	238647.84	0.0910	P	1.2
5	☐	125.000	126.145	595839.34	0.2320	P	0.1
6	☐	250.000	249.386	1185449.54	0.4585	P	0.1
7	☐	500.000	502.018	2399955.96	0.9230	A	0.7
8	☐	1000.000	999.029	4826513.95	1.8366	A	0.8
9	☐			1361.22	0.0006	P	9.5

$$y = 0.0018 * x + 9.1731E-005$$

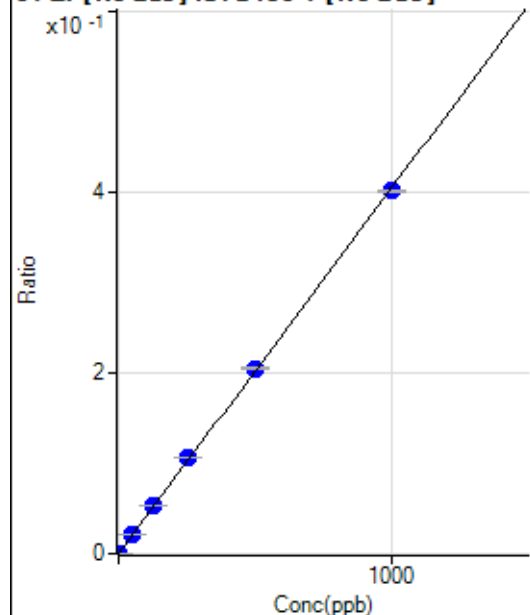
$$R = 1.0000$$

$$DL = 0.02715$$

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	36.11	0.0000	P	13.7
2	☐	0.100					
3	☐	1.000	0.974	1091.75	0.0004	P	8.0
4	☐	50.000	50.700	53740.63	0.0205	P	1.2
5	☐	125.000	129.963	134832.60	0.0525	P	1.1
6	☐	250.000	261.394	272926.82	0.1056	P	0.6
7	☐	500.000	507.646	533098.61	0.2050	P	0.6
8	☐	1000.000	992.673	1053495.15	0.4009	P	0.4
9	☐			252.79	0.0001	P	19.3

$$y = 4.0383\text{E-}004 * x + 1.3865\text{E-}005$$

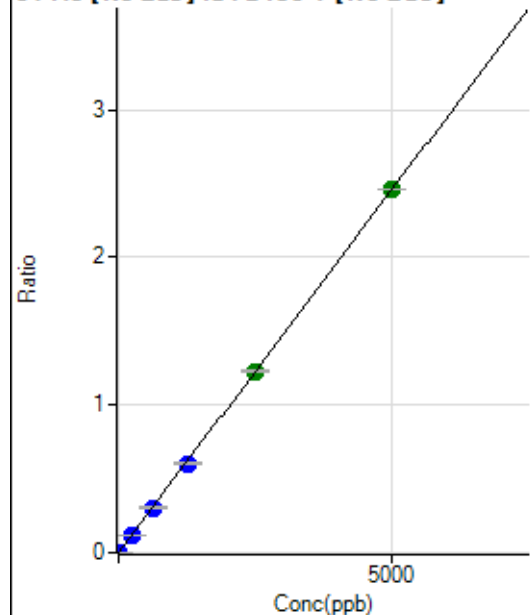
$$R = 0.9999$$

$$DL = 0.01409$$

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	75.00	0.0000	P	62.1
2	☐	0.500					
3	☐	5.000	4.294	5726.41	0.0021	P	2.3
4	☐	250.000	244.669	315057.67	0.1201	P	0.5
5	☐	625.000	622.228	784501.90	0.3054	P	0.4
6	☐	1250.000	1232.366	1563850.82	0.6049	P	0.6
7	☐	2500.000	2501.623	3192953.70	1.2279	A	0.6
8	☐	5000.000	5004.210	6454991.51	2.4563	A	0.1
9	☐			3292.20	0.0014	P	3.7

$$y = 4.9083\text{E-}004 * x + 2.8835\text{E-}005$$

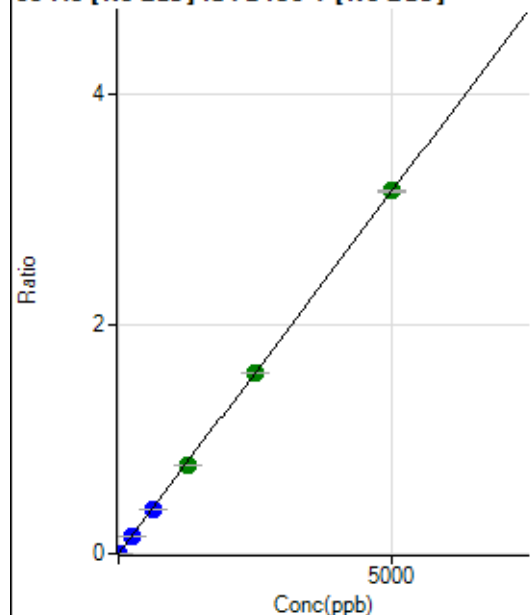
$$R = 1.0000$$

$$DL = 0.1095$$

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	2.78	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	4.299	7266.04	0.0027	P	1.1
4	☐	250.000	244.514	404293.23	0.1541	P	1.1
5	☐	625.000	616.163	997674.25	0.3884	P	0.2
6	☐	1250.000	1220.059	1988445.84	0.7691	A	0.6
7	☐	2500.000	2497.627	4094294.27	1.5745	A	0.3
8	☐	5000.000	5010.052	8300040.38	3.1584	A	0.5
9	☐			4792.66	0.0020	P	4.6

$$y = 6.3041\text{E-}004 * x + 1.0661\text{E-}006$$

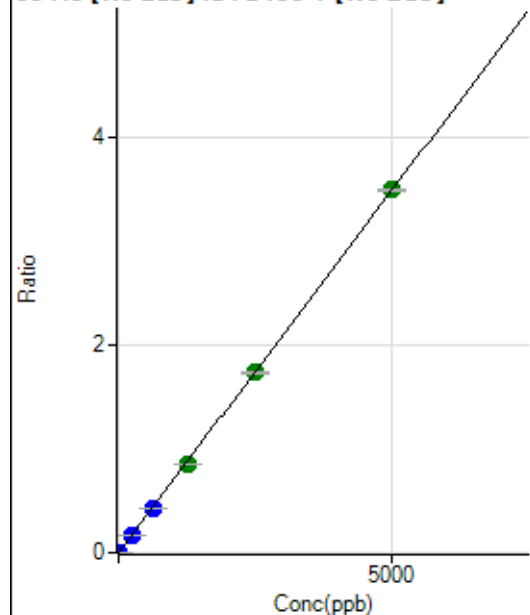
$$R = 1.0000$$

$$DL = 0.008787$$

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	41.67	0.0000	P	0.4
2	☐	0.500					
3	☐	5.000	4.178	7849.71	0.0029	P	0.7
4	☐	250.000	241.864	442354.91	0.1687	P	0.5
5	☐	625.000	615.054	1101503.30	0.4289	P	0.4
6	☐	1250.000	1213.465	2187394.69	0.8461	A	0.5
7	☐	2500.000	2490.966	4516295.98	1.7368	A	0.7
8	☐	5000.000	5015.302	9189589.35	3.4969	A	0.8
9	☐			7366.09	0.0031	P	3.3

$$y = 6.9725\text{E-}004 * x + 1.5995\text{E-}005$$

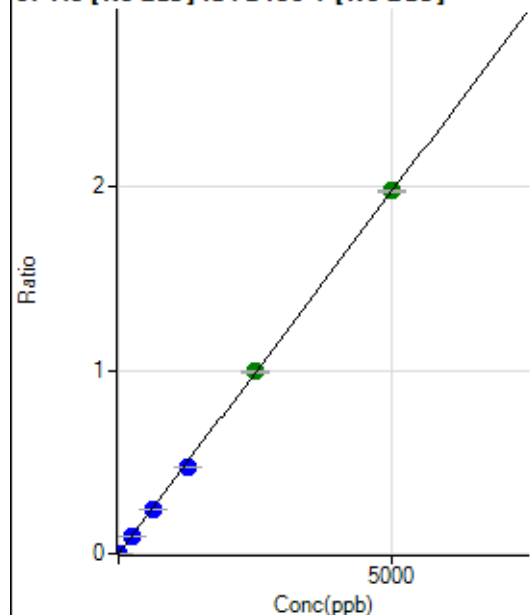
$$R = 1.0000$$

$$DL = 0.0002669$$

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	2.78	0.0000	P	173.
2	☐	0.500					
3	☐	5.000	4.293	4539.81	0.0017	P	3.9
4	☐	250.000	242.434	250762.33	0.0956	P	1.0
5	☐	625.000	615.491	623439.82	0.2427	P	0.3
6	☐	1250.000	1188.019	1211234.29	0.4685	P	0.8
7	☐	2500.000	2511.359	2575332.41	0.9904	A	0.6
8	☐	5000.000	5011.383	5193643.56	1.9763	A	0.5
9	☐			2992.10	0.0013	P	5.3

$$y = 3.9437E-004 * x + 1.0615E-006$$

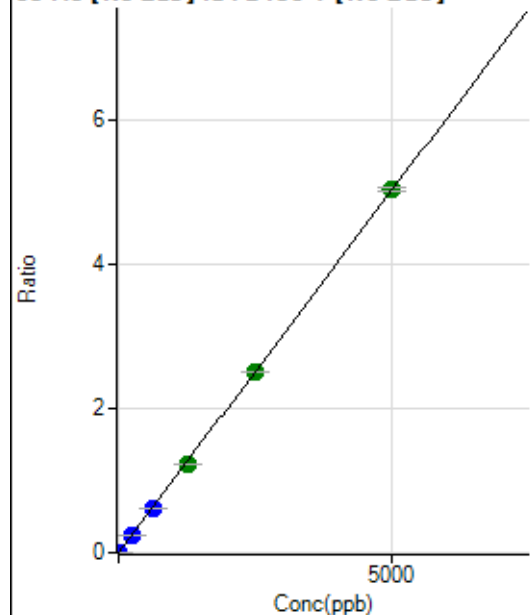
$$R = 0.9999$$

$$DL = 0.01399$$

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	25.00	0.0000	P	33.6
2	☐	0.500					
3	☐	5.000	4.271	11516.24	0.0043	P	3.4
4	☐	250.000	242.537	638621.09	0.2435	P	1.3
5	☐	625.000	611.026	1575549.60	0.6134	P	1.5
6	☐	1250.000	1216.648	3157639.05	1.2214	A	0.5
7	☐	2500.000	2495.052	6513207.48	2.5048	A	0.5
8	☐	5000.000	5012.933	13224646.04	5.0325	A	1.2
9	☐			7293.82	0.0031	P	0.6

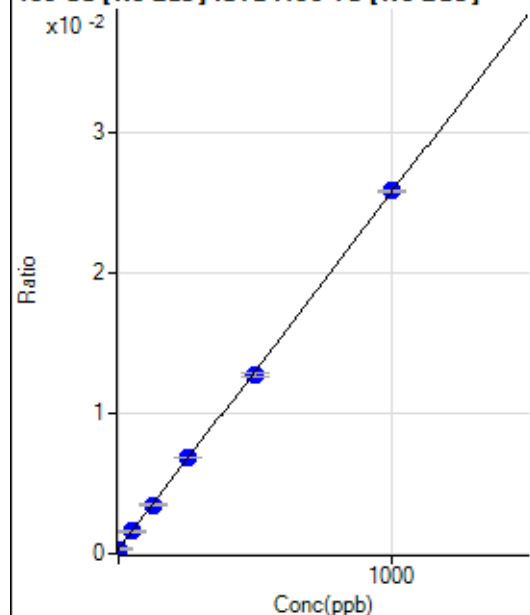
$$y = 0.0010 * x + 9.5998E-006$$

$$R = 1.0000$$

$$DL = 0.009625$$

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	894.51	0.0003	P	5.8
2	☐	0.100					
3	☐	1.000	0.460	919.51	0.0003	P	9.3
4	☐	50.000	49.267	4253.62	0.0016	P	1.8
5	☐	125.000	123.531	9506.36	0.0035	P	2.6
6	☐	250.000	256.913	18596.18	0.0069	P	1.2
7	☐	500.000	488.072	35108.45	0.0127	P	2.2
8	☐	1000.000	1004.457	71204.04	0.0259	P	0.2
9	☐			844.51	0.0003	P	4.5

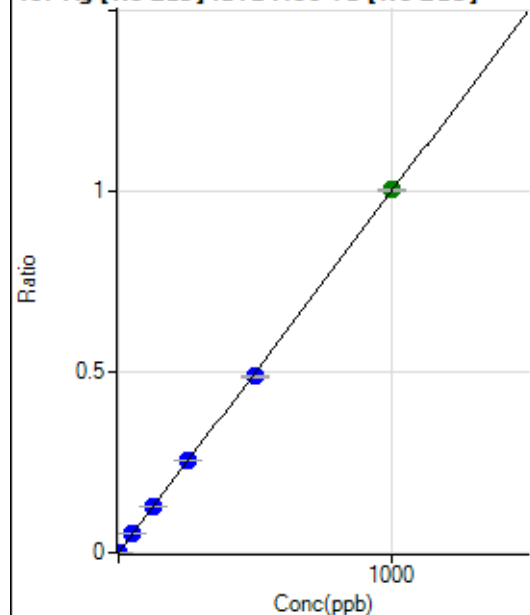
$$y = 2.5412\text{E-}005 * x + 3.2530\text{E-}004$$

$$R = 0.9999$$

$$DL = 2.212$$

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	27.78	0.0000	P	34.9
2	☐	0.100					
3	☐	1.000	1.019	2800.40	0.0010	P	4.1
4	☐	50.000	52.119	140278.44	0.0520	P	1.2
5	☐	125.000	127.145	348160.35	0.1269	P	1.1
6	☐	250.000	255.322	691263.66	0.2548	P	0.2
7	☐	500.000	487.912	1342923.00	0.4868	P	0.9
8	☐	1000.000	1004.340	2760267.49	1.0021	A	0.4
9	☐			241.68	0.0001	P	23.7

$$y = 9.9779\text{E-}004 * x + 1.0111\text{E-}005$$

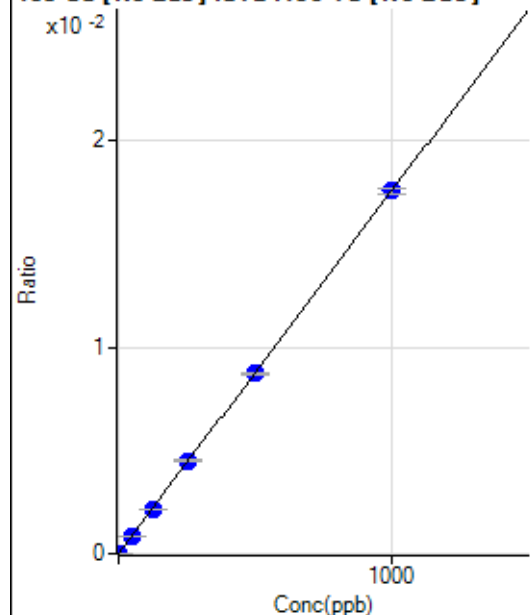
$$R = 0.9999$$

$$DL = 0.01062$$

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	2.78	0.0000	P	86.6
2	☐	0.100					
3	☐	1.000	0.898	45.83	0.0000	P	27.0
4	☐	50.000	49.447	2346.08	0.0009	P	2.4
5	☐	125.000	122.270	5897.18	0.0021	P	2.4
6	☐	250.000	256.501	12230.50	0.0045	P	0.7
7	☐	500.000	496.022	24042.88	0.0087	P	1.1
8	☐	1000.000	1000.733	48429.86	0.0176	P	1.7
9	☐			12.50	0.0000	P	57.9

$$y = 1.7570\text{E-}005 * x + 1.0089\text{E-}006$$

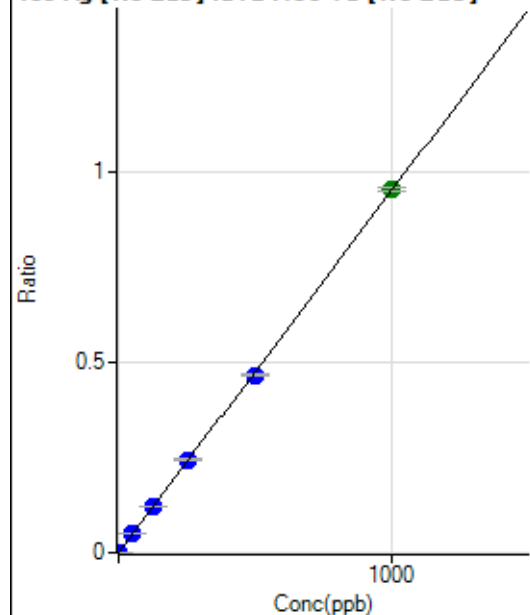
$$R = 1.0000$$

$$DL = 0.1492$$

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	8.33	0.0000	P	0.5
2	☐	0.100					
3	☐	1.000	1.002	2605.92	0.0010	P	1.1
4	☐	50.000	51.909	133020.44	0.0493	P	2.0
5	☐	125.000	126.685	330317.40	0.1204	P	1.4
6	☐	250.000	257.126	662890.40	0.2443	P	0.9
7	☐	500.000	490.592	1285877.04	0.4662	P	0.6
8	☐	1000.000	1002.617	2623946.85	0.9527	A	1.1
9	☐			236.12	0.0001	P	26.9

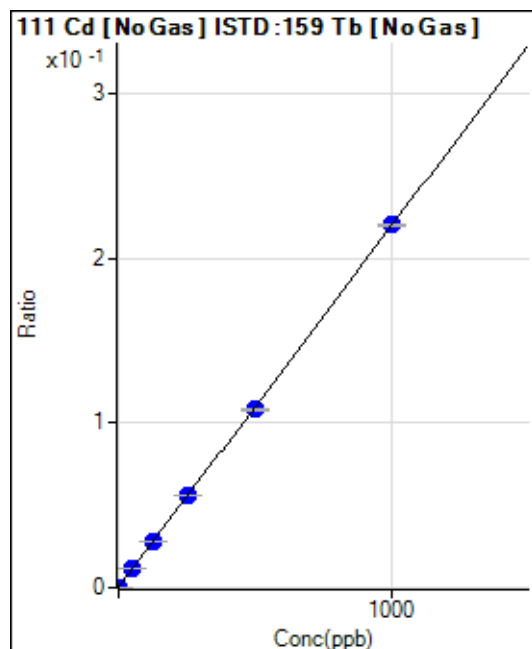
$$y = 9.5017\text{E-}004 * x + 3.0290\text{E-}006$$

$$R = 0.9999$$

$$DL = 4.432\text{E-}05$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	626.99	0.0002	P	5.6
2	☐	0.100					
3	☐	1.000	0.883	1150.49	0.0004	P	8.6
4	☐	50.000	50.440	30451.64	0.0113	P	1.3
5	☐	125.000	124.751	75712.08	0.0276	P	0.9
6	☐	250.000	253.610	151545.89	0.0559	P	0.5
7	☐	500.000	492.128	298368.53	0.1082	P	1.2
8	☐	1000.000	1003.043	606597.13	0.2202	P	0.4
9	☐			694.90	0.0003	P	4.2

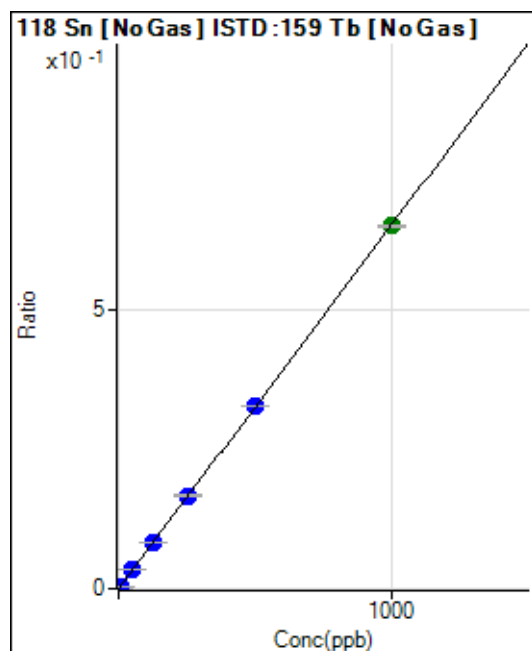
$$y = 2.1933\text{E-}004 * x + 2.2801\text{E-}004$$

$$R = 0.9999$$

$$DL = 0.1748$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	86.12	0.0000	P	14.8
2	☐	0.500					
3	☐	5.000	5.197	9353.51	0.0034	P	2.0
4	☐	50.000	51.122	90220.00	0.0335	P	1.0
5	☐	125.000	126.408	226876.70	0.0827	P	0.8
6	☐	250.000	255.978	454161.61	0.1674	P	0.4
7	☐	500.000	500.973	903585.08	0.3276	P	0.3
8	☐	1000.000	997.786	1796893.68	0.6524	A	0.3
9	☐			750.05	0.0003	P	4.7

$$y = 6.5379\text{E-}004 * x + 3.1313\text{E-}005$$

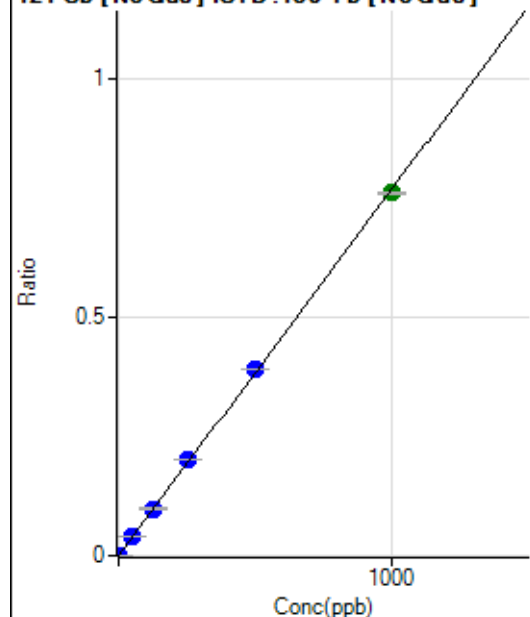
$$R = 1.0000$$

$$DL = 0.02123$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD : 159 Tb [No Gas]



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	19.44	0.0000	P	65.0
2	☐	0.200					
3	☐	2.000	2.063	4334.19	0.0016	P	2.3
4	☐	50.000	51.301	106104.97	0.0393	P	0.3
5	☐	125.000	128.063	269456.76	0.0982	P	1.5
6	☐	250.000	261.860	544774.81	0.2008	P	0.5
7	☐	500.000	510.299	1079305.63	0.3913	P	0.3
8	☐	1000.000	991.438	2093817.30	0.7602	A	0.5
9	☐			2739.27	0.0011	P	3.1

$$y = 7.6674\text{E-}004 * x + 7.0585\text{E-}006$$

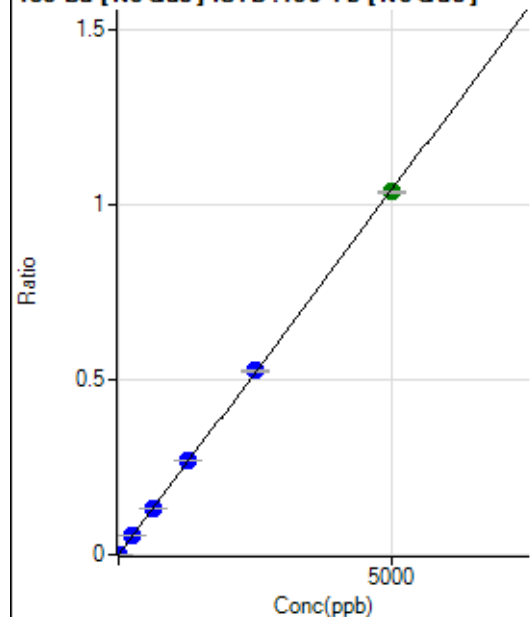
$$R = 0.9998$$

$$DL = 0.01796$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	13.89	0.0000	P	34.4
2	☐	1.000					
3	☐	10.000	10.627	6043.21	0.0022	P	1.2
4	☐	250.000	257.313	144365.70	0.0535	P	0.7
5	☐	625.000	635.098	362538.19	0.1321	P	1.1
6	☐	1250.000	1295.745	731324.86	0.2695	P	0.5
7	☐	2500.000	2519.799	1445826.93	0.5242	P	1.0
8	☐	5000.000	4977.035	2851585.94	1.0353	A	0.6
9	☐			419.47	0.0002	P	28.6

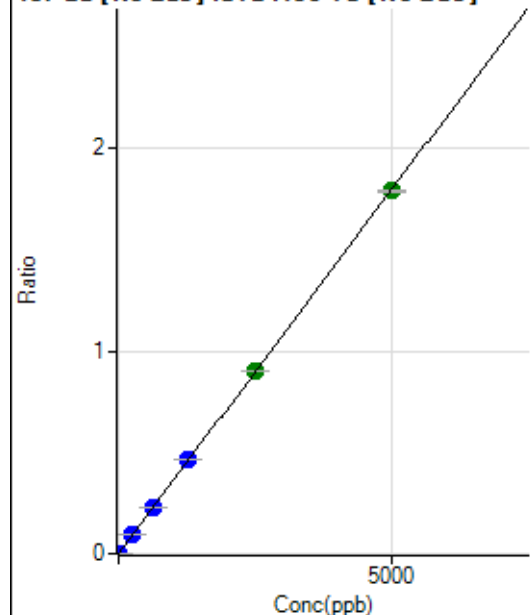
$$y = 2.0801\text{E-}004 * x + 5.0468\text{E-}006$$

$$R = 0.9999$$

$$DL = 0.02506$$

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	8.33	0.0000	P	100.
2	☐	1.000					
3	☐	10.000	10.349	10137.40	0.0037	P	1.8
4	☐	250.000	260.161	251774.08	0.0934	P	0.9
5	☐	625.000	635.000	625302.99	0.2279	P	0.8
6	☐	1250.000	1296.368	1262161.77	0.4652	P	0.5
7	☐	2500.000	2503.562	2478151.75	0.8984	A	0.1
8	☐	5000.000	4984.868	4926851.06	1.7888	A	0.8
9	☐			675.04	0.0003	P	11.7

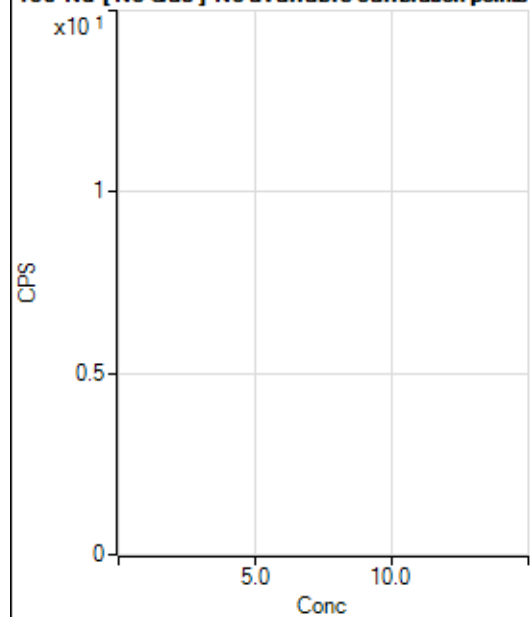
$$y = 3.5884E-004 * x + 3.0329E-006$$

$$R = 1.0000$$

$$DL = 0.02544$$

Weight: <None>

Min Conc: 0

150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			13.34		P	86.6
5	☐			33.33		P	0.0
6	☐			40.00		P	57.7
7	☐			117.78		P	22.9
8	☐			193.34		P	6.0
9	☐			53.33		P	54.5

150 Nd [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			1.11		P	173.
4	☐			1.11		P	173.
5	☐			2.22		P	173.
6	☐			3.33		P	100.
7	☐			20.00		P	50.0
8	☐			24.44		P	56.8
9	☐			26.67		P	12.5

156 Dy [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			2.78		P	173.
2	☐						
3	☐			8.33		P	0.0
4	☐			8.33		P	100.
5	☐			5.55		P	86.6
6	☐			25.00		P	0.0
7	☐			25.00		P	33.3
8	☐			55.56		P	62.4
9	☐			22.22		P	86.6

156 Dy [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	114.
2	☐						
3	☐			0.00		P	
4	☐			2.22		P	86.6
5	☐			6.67		P	50.0
6	☐			11.11		P	17.3
7	☐			37.78		P	18.4
8	☐			57.78		P	35.3
9	☐			12.22		P	126.

160 Gd [No Gas] Noavailable calibration poin_

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐						
3	☐			13.89		P	91.6
4	☐			16.67		P	NaN
5	☐			16.67		P	50.0
6	☐			38.89		P	44.6
7	☐			30.55		P	68.6
8	☐			30.56		P	41.7
9	☐			33.33		P	25.0

160 Gd [He] No available calibration points

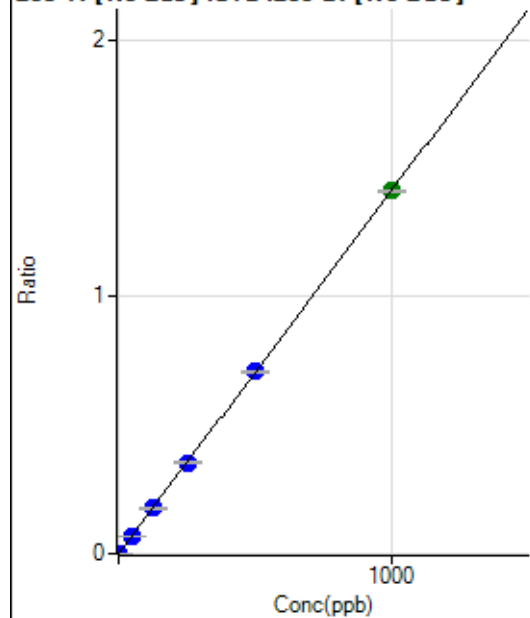
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			40.00		P	36.3
2	☐						
3	☐			37.78		P	27.0
4	☐			41.11		P	36.6
5	☐			36.66		P	15.7
6	☐			37.78		P	22.2
7	☐			44.45		P	15.6
8	☐			40.00		P	8.3
9	☐			52.22		P	13.3

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐						
3	☐			11.11		P	114.
4	☐			13.89		P	34.7
5	☐			25.00		P	66.7
6	☐			13.89		P	69.3
7	☐			13.89		P	91.6
8	☐			2.78		P	173.
9	☐			11.11		P	43.3

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			10.00		P	66.7
2	☐						
3	☐			4.44		P	114.
4	☐			4.44		P	43.4
5	☐			5.55		P	69.3
6	☐			3.33		P	100.
7	☐			2.22		P	86.6
8	☐			10.00		P	33.3
9	☐			7.78		P	89.2

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	111.12	0.0001	P	18.1
2	☐	0.100					
3	☐	1.000	0.907	1980.79	0.0014	P	6.5
4	☐	50.000	48.854	97725.18	0.0691	P	1.0
5	☐	125.000	124.801	246233.12	0.1763	P	0.8
6	☐	250.000	250.846	490725.95	0.3543	P	1.3
7	☐	500.000	500.719	978625.11	0.7072	P	1.8
8	☐	1000.000	999.511	1906178.38	1.4116	A	0.3
9	☐			697.27	0.0006	P	13.7

$$y = 0.0014 * x + 7.7066E-005$$

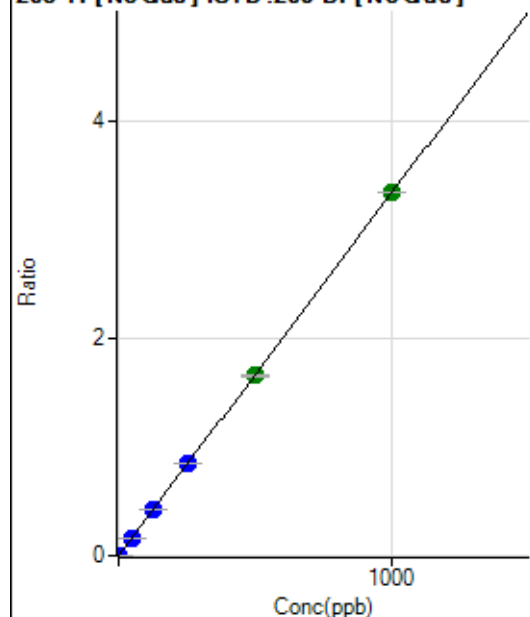
$$R = 1.0000$$

$$DL = 0.0296$$

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	219.46	0.0002	P	11.5
2	☐	0.100					
3	☐	1.000	0.943	4817.74	0.0033	P	2.6
4	☐	50.000	48.485	229303.05	0.1621	P	0.7
5	☐	125.000	125.829	587023.07	0.4204	P	0.8
6	☐	250.000	253.495	1172655.20	0.8467	P	0.6
7	☐	500.000	496.438	2294320.89	1.6580	A	0.4
8	☐	1000.000	1000.880	4513699.75	3.3425	A	0.2
9	☐			1866.89	0.0016	P	0.8

$$y = 0.0033 * x + 1.5235E-004$$

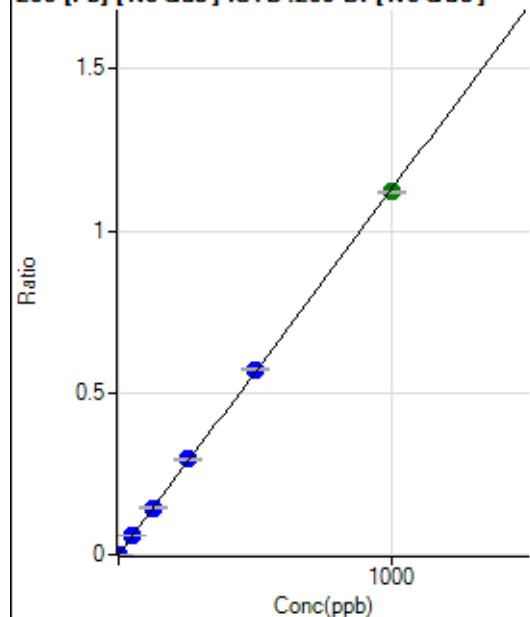
$$R = 1.0000$$

$$DL = 0.01574$$

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	162.97	0.0001	P	24.5
2	☐	0.100					
3	☐	1.000	0.996	1805.73	0.0012	P	1.3
4	☐	50.000	50.322	80508.86	0.0569	P	0.9
5	☐	125.000	128.447	202599.28	0.1451	P	1.1
6	☐	250.000	260.983	408071.66	0.2946	P	0.8
7	☐	500.000	507.575	792826.97	0.5729	P	0.4
8	☐	1000.000	993.020	1513457.38	1.1208	A	0.6
9	☐			1409.37	0.0012	P	4.2

$$y = 0.0011 * x + 1.1300E-004$$

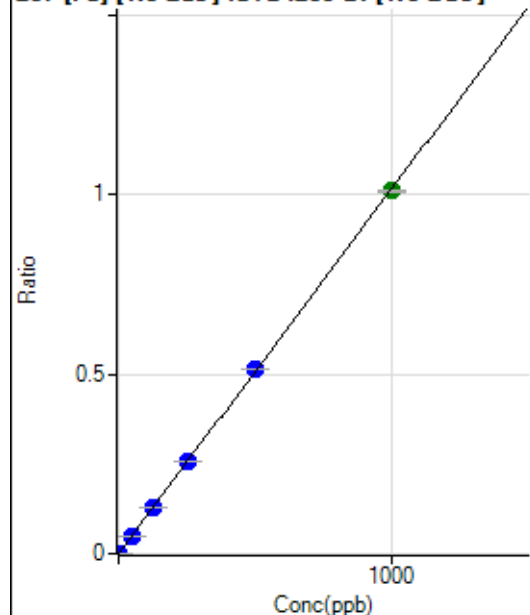
$$R = 0.9999$$

$$DL = 0.07367$$

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	140.75	0.0001	P	7.4
2	☐	0.100					
3	☐	1.000	0.895	1468.64	0.0010	P	8.9
4	☐	50.000	48.744	70134.07	0.0496	P	0.8
5	☐	125.000	125.269	177687.67	0.1272	P	0.3
6	☐	250.000	254.024	357219.98	0.2579	P	0.8
7	☐	500.000	507.580	713032.35	0.5153	P	0.4
8	☐	1000.000	995.233	1364159.42	1.0102	A	0.2
9	☐			1157.49	0.0010	P	4.0

$$y = 0.0010 * x + 9.7671E-005$$

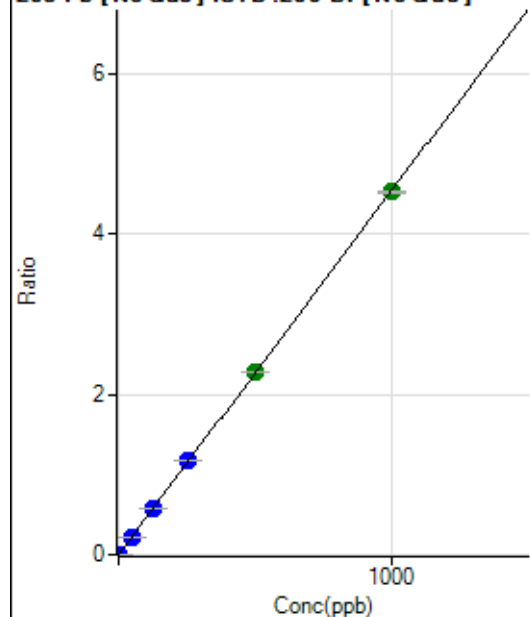
$$R = 0.9999$$

$$DL = 0.02132$$

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	672.25	0.0005	P	6.6
2	☐	0.100					
3	☐	1.000	0.934	6863.87	0.0047	P	0.7
4	☐	50.000	49.582	319034.33	0.2255	P	0.7
5	☐	125.000	127.052	805889.15	0.5771	P	0.1
6	☐	250.000	257.128	1616859.42	1.1674	P	0.2
7	☐	500.000	501.808	3152110.36	2.2778	A	0.2
8	☐	1000.000	997.078	6111179.31	4.5255	A	0.3
9	☐			5276.49	0.0046	P	1.4

$$y = 0.0045 * x + 4.6653E-004$$

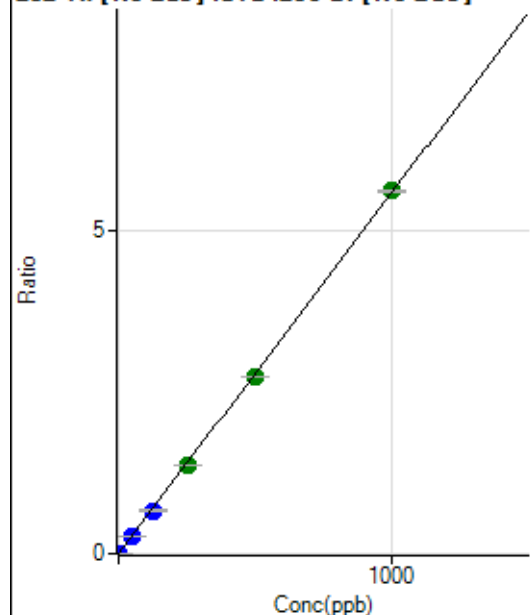
$$R = 1.0000$$

$$DL = 0.02038$$

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	24.08	0.0000	P	114.
2	☐	0.100					
3	☐	1.000	0.808	6587.06	0.0045	P	2.4
4	☐	50.000	47.040	370670.07	0.2620	P	1.2
5	☐	125.000	119.767	931448.03	0.6670	P	0.6
6	☐	250.000	243.641	1879293.18	1.3569	A	0.1
7	☐	500.000	492.071	3792192.97	2.7404	A	0.4
8	☐	1000.000	1006.357	7568246.46	5.6045	A	0.2
9	☐			1550.14	0.0013	P	11.5

$$y = 0.0056 * x + 1.6824E-005$$

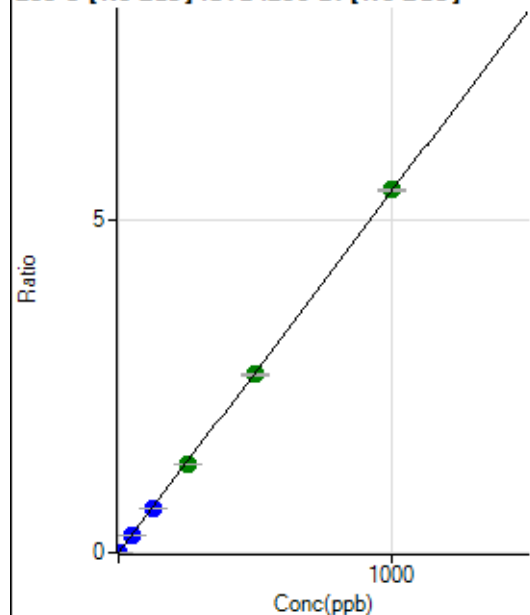
$$R = 0.9999$$

$$DL = 0.01037$$

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	0.00	0.0000	P	
2	☐	0.100					
3	☐	1.000	0.866	6866.04	0.0047	P	2.4
4	☐	50.000	47.356	363925.24	0.2572	P	1.7
5	☐	125.000	121.339	920354.11	0.6591	P	1.2
6	☐	250.000	244.690	1840799.09	1.3291	A	0.2
7	☐	500.000	493.809	3711664.10	2.6822	A	1.0
8	☐	1000.000	1005.013	7371666.74	5.4590	A	0.4
9	☐			436.14	0.0004	P	3.0

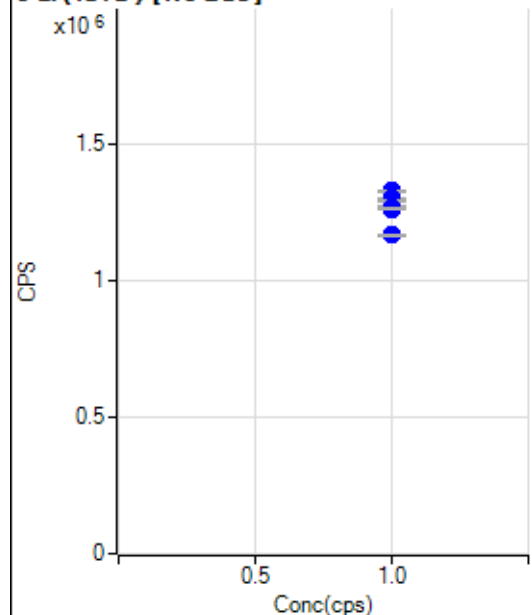
$$y = 0.0054 * x + 0.0000E+000$$

$$R = 1.0000$$

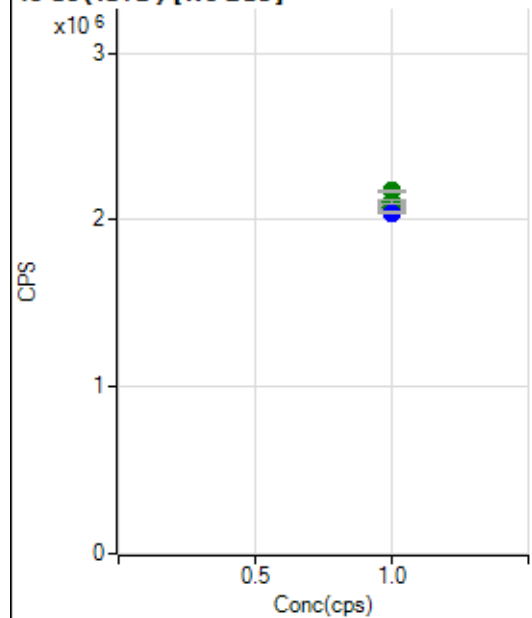
$$DL = 0$$

Weight: <None>

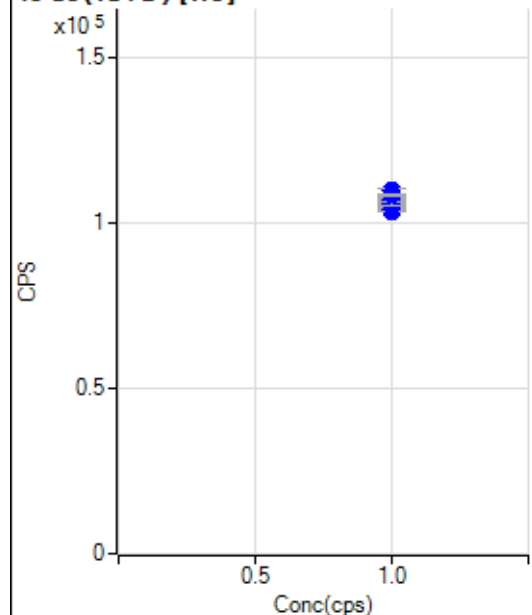
Min Conc: 0

6 Li (ISTD) [No Gas]

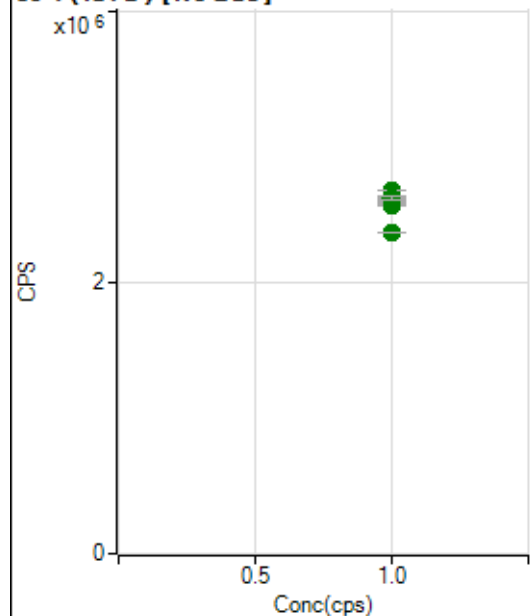
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1275513.32		P	0.2
2	☐	1.000					
3	☐	1.000		1330699.57		P	0.5
4	☐	1.000		1302572.35		P	0.7
5	☐	1.000		1294745.39		P	0.4
6	☐	1.000		1263302.17		P	0.5
7	☐	1.000		1264184.78		P	0.2
8	☐	1.000		1268135.93		P	0.4
9	☐	1.000		1169858.30		P	0.7

45 Sc (ISTD) [No Gas]

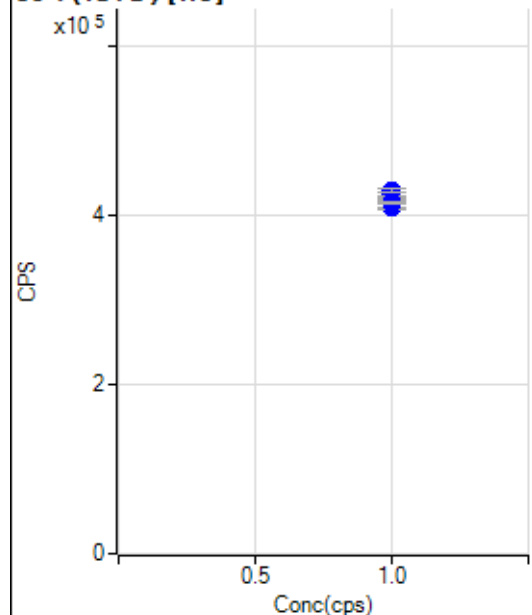
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2049873.29		A	1.1
2	☐	1.000					
3	☐	1.000		2174799.85		A	0.3
4	☐	1.000		2105529.00		A	0.2
5	☐	1.000		2065535.83		A	0.6
6	☐	1.000		2074812.09		A	0.6
7	☐	1.000		2089937.59		A	0.2
8	☐	1.000		2109703.76		A	0.8
9	☐	1.000		2044614.72		P	0.5

45 Sc (ISTD) [He]

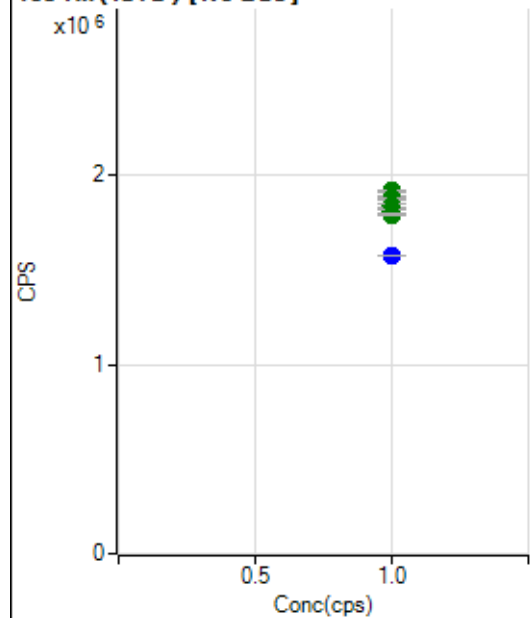
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		103594.28		P	0.7
2	☐	1.000					
3	☐	1.000		107664.40		P	1.3
4	☐	1.000		106677.15		P	1.4
5	☐	1.000		103943.45		P	0.8
6	☐	1.000		105120.75		P	0.4
7	☐	1.000		105918.42		P	1.3
8	☐	1.000		109615.86		P	1.4
9	☐	1.000		108401.97		P	0.8

89 Y (ISTD) [No Gas]

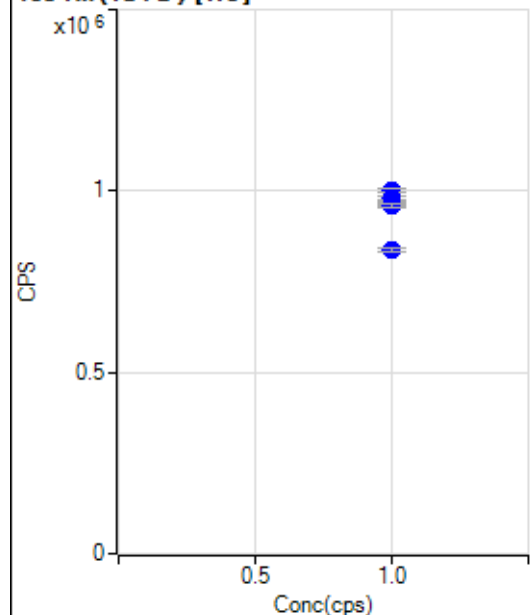
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2605255.99		A	0.4
2	☐	1.000					
3	☐	1.000		2680015.59		A	0.1
4	☐	1.000		2622905.72		A	0.7
5	☐	1.000		2568436.56		A	0.2
6	☐	1.000		2585265.12		A	0.3
7	☐	1.000		2600318.33		A	0.2
8	☐	1.000		2627978.52		A	0.6
9	☐	1.000		2372131.84		A	0.3

89 Y (ISTD) [He]

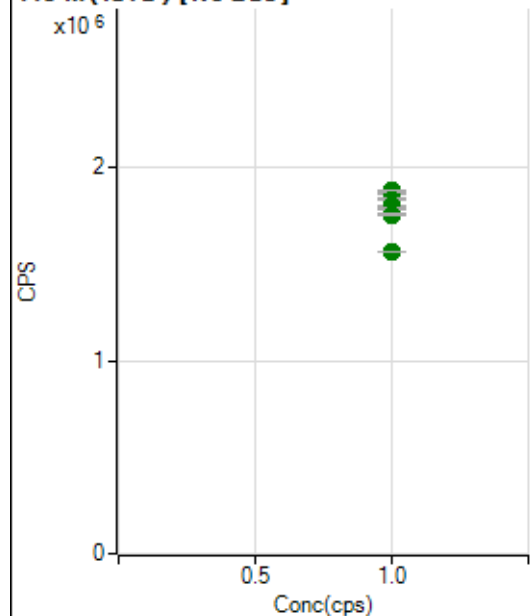
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		408691.39		P	0.6
2	☐	1.000					
3	☐	1.000		425251.20		P	0.8
4	☐	1.000		418925.80		P	0.6
5	☐	1.000		414572.25		P	0.7
6	☐	1.000		421088.62		P	0.4
7	☐	1.000		424699.73		P	0.8
8	☐	1.000		428799.95		P	1.0
9	☐	1.000		415768.49		P	0.6

103 Rh (ISTD) [No Gas]

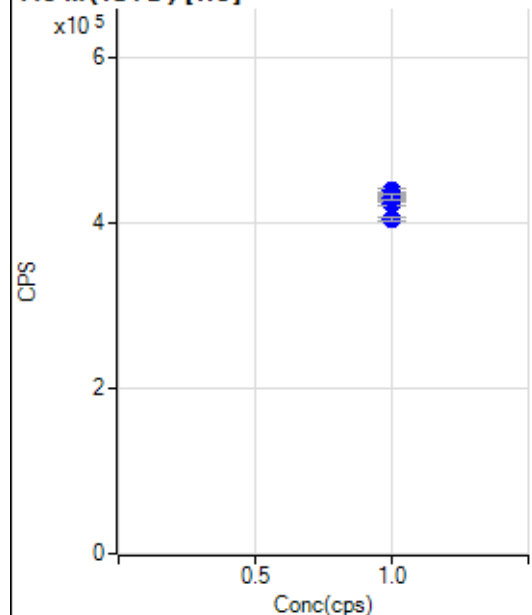
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1890703.86		A	0.7
2	☐	1.000					
3	☐	1.000		1919376.09		A	0.7
4	☐	1.000		1877149.50		A	0.7
5	☐	1.000		1840943.90		A	1.0
6	☐	1.000		1823488.17		A	0.1
7	☐	1.000		1809317.36		A	0.7
8	☐	1.000		1791789.93		A	0.5
9	☐	1.000		1579184.62		P	0.1

103 Rh (ISTD) [He]

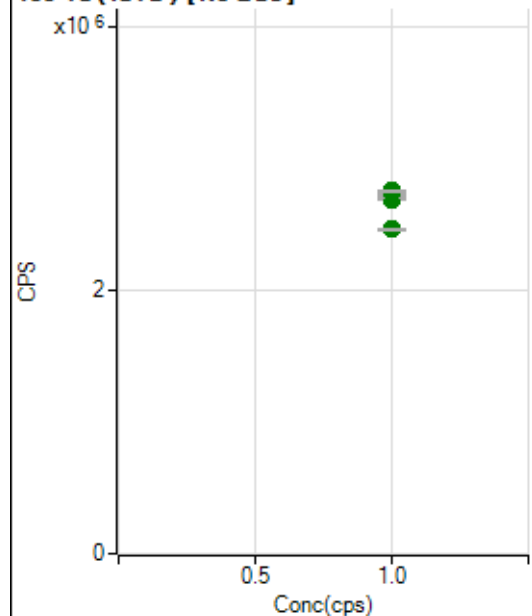
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		963817.57		P	0.7
2	☐	1.000					
3	☐	1.000		1000607.57		P	1.0
4	☐	1.000		983226.71		P	1.0
5	☐	1.000		968334.42		P	0.5
6	☐	1.000		975527.01		P	0.5
7	☐	1.000		965019.22		P	1.1
8	☐	1.000		958022.02		P	1.1
9	☐	1.000		837357.96		P	0.9

115 In (ISTD) [No Gas]

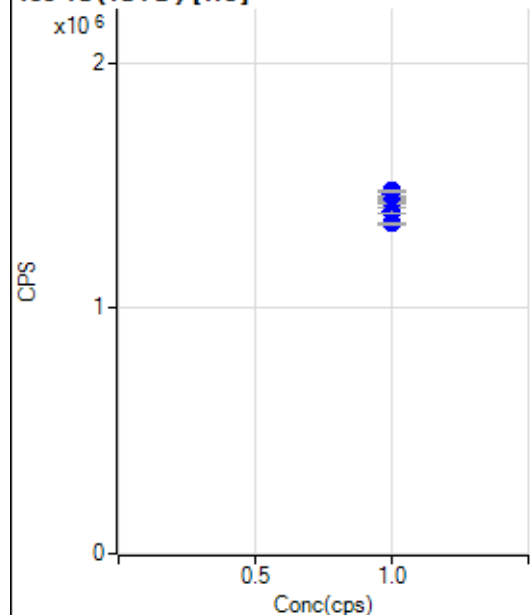
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1867996.07		A	0.6
2	☐	1.000					
3	☐	1.000		1878701.14		A	0.2
4	☐	1.000		1836594.02		A	0.5
5	☐	1.000		1797884.86		A	1.0
6	☐	1.000		1793416.98		A	1.1
7	☐	1.000		1786322.90		A	0.5
8	☐	1.000		1756239.13		A	0.3
9	☐	1.000		1566617.41		A	0.1

115 In (ISTD) [He]

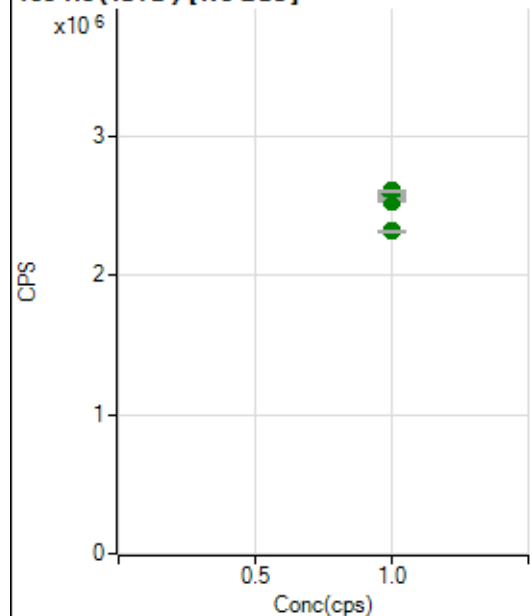
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		423246.18		P	0.9
2	☐	1.000					
3	☐	1.000		438712.14		P	0.9
4	☐	1.000		434754.64		P	1.4
5	☐	1.000		429088.52		P	0.2
6	☐	1.000		433270.73		P	0.2
7	☐	1.000		430440.50		P	1.3
8	☐	1.000		430487.72		P	1.6
9	☐	1.000		404672.23		P	1.1

159 Tb (ISTD) [No Gas]

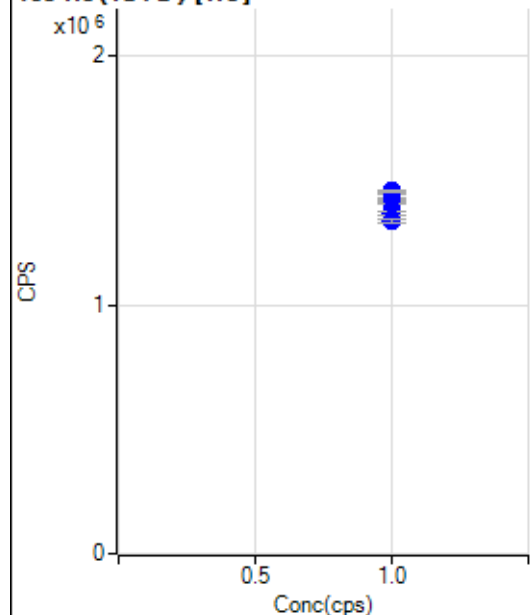
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2750127.42		A	0.5
2	☐	1.000					
3	☐	1.000		2727774.96		A	0.5
4	☐	1.000		2696994.46		A	0.9
5	☐	1.000		2744348.57		A	1.2
6	☐	1.000		2713280.72		A	0.6
7	☐	1.000		2758485.97		A	0.5
8	☐	1.000		2754415.58		A	0.4
9	☐	1.000		2464642.04		A	0.5

159 Tb (ISTD) [He]

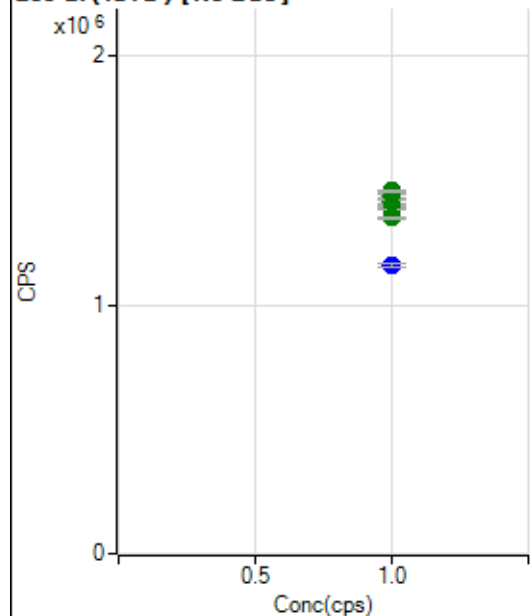
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1397124.87		P	1.3
2	☐	1.000					
3	☐	1.000		1438181.61		P	0.9
4	☐	1.000		1437279.91		P	0.8
5	☐	1.000		1429452.20		P	0.3
6	☐	1.000		1456064.10		P	0.5
7	☐	1.000		1465206.07		P	0.9
8	☐	1.000		1477029.60		P	0.5
9	☐	1.000		1342976.18		P	1.0

165 Ho (ISTD) [No Gas]

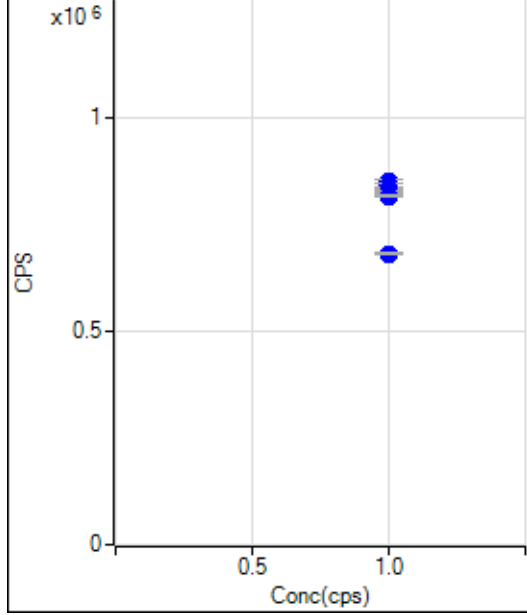
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2564231.96		A	0.8
2	☐	1.000					
3	☐	1.000		2558998.37		A	0.9
4	☐	1.000		2530239.51		A	0.8
5	☐	1.000		2594100.64		A	1.1
6	☐	1.000		2549695.54		A	0.7
7	☐	1.000		2575371.61		A	1.2
8	☐	1.000		2603900.19		A	0.6
9	☐	1.000		2314900.29		A	0.5

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1369652.32		P	1.4
2	☐	1.000					
3	☐	1.000		1417595.90		P	1.4
4	☐	1.000		1419148.73		P	1.0
5	☐	1.000		1407789.15		P	0.2
6	☐	1.000		1431354.28		P	0.4
7	☐	1.000		1447085.97		P	0.4
8	☐	1.000		1459411.09		P	0.8
9	☐	1.000		1339410.01		P	0.8

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1440422.70		A	0.9
2	☐	1.000					
3	☐	1.000		1459244.82		A	0.7
4	☐	1.000		1414907.76		A	0.8
5	☐	1.000		1396508.52		A	1.0
6	☐	1.000		1385015.65		A	0.6
7	☐	1.000		1383817.07		A	0.3
8	☐	1.000		1350384.96		A	0.2
9	☐	1.000		1158366.84		P	1.2

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		821466.44		P	1.3
2	☐	1.000					
3	☐	1.000		849714.31		P	1.1
4	☐	1.000		842363.58		P	1.0
5	☐	1.000		832832.09		P	0.4
6	☐	1.000		833758.40		P	0.2
7	☐	1.000		825285.11		P	0.7
8	☐	1.000		816741.55		P	0.6
9	☐	1.000		682194.03		P	0.8

US EPA Tune Check Sample Report

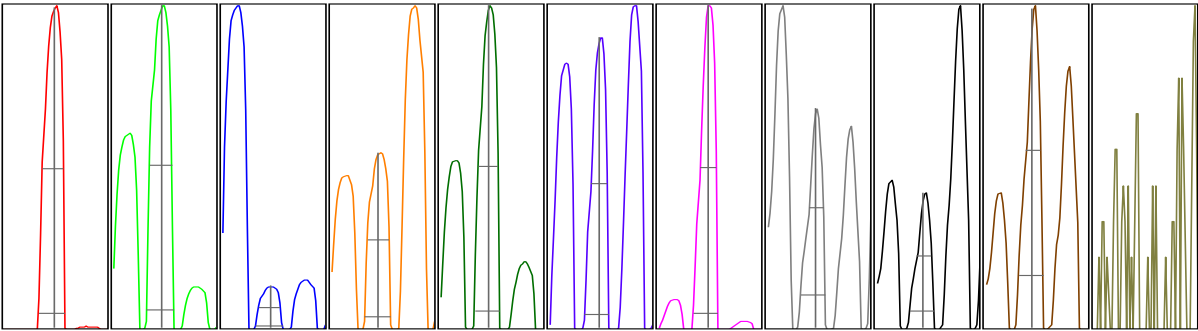
Batch Folder D:\ICP-MS Data\P7071719EMS.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	4937	0.43	5.00	
24	46366	0.15	5.00	
25	6146	0.43	5.00	
26	7009	0.22	5.00	
59	23642	0.43	5.00	
113	2332	0.77	5.00	
115	28319	0.22	5.00	
206	6465	0.59	5.00	
207	6192	0.69	5.00	
208	13941	0.37	5.00	
220	0	50.00		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	4950	4929	4966	4928	4912
24	46385	46454	46380	46351	46257
25	6136	6182	6153	6109	6150
26	7005	7023	7020	7014	6985
59	23594	23788	23706	23563	23558
113	2361	2337	2317	2326	2319
115	28414	28332	28311	28239	28300
206	6494	6504	6471	6442	6412
207	6208	6258	6186	6158	6152
208	13986	14003	13916	13883	13919
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	8412	9.00	8.9 - 9.1		0.770	0.900	
24	76449	23.95	23.9 - 24.1		0.784	0.900	
25	10158	24.95	24.9 - 25.1		0.771	0.900	
26	11590	25.90	25.9 - 26.1		0.742	0.900	
59	42957	58.95	58.9 - 59.1		0.735	0.900	
113	4801	113.00	112.9 - 113.1		0.689	0.900	
115	58073	115.00	114.9 - 115.1		0.711	0.900	
206	13796	205.95	205.9 - 206.1		0.705	0.900	
207	12506	206.90	206.9 - 207.1		0.700	0.900	
208	29709	207.90	207.9 - 208.1		0.701	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	7.8	V	Deflect	13.8	V
Extract 2	-135.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-65	V	Cell Exit	-50	V			

Cell Parameters

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

[He]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)
59	6178	0.77	
89	9642	0.54	
205	5257	0.78	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	6249	6166	6116	6180	6177
89	9732	9626	9602	9642	9609
205	5313	5228	5234	5289	5223

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	7.9	V	Deflect	1.6	V
Extract 2	-145.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

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