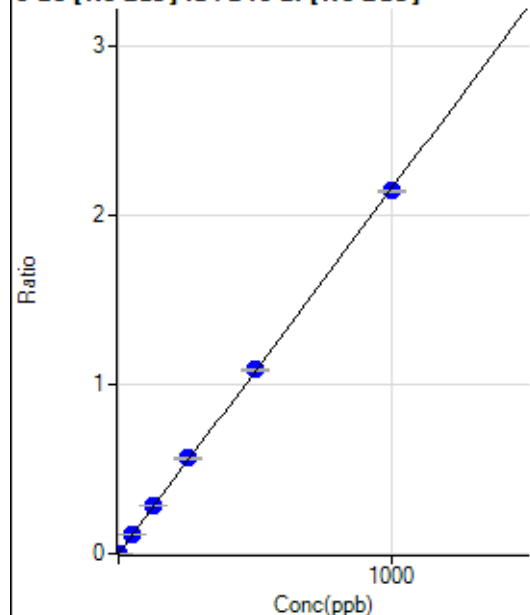


Batch Folder: D:\P8022319 MS.b\
Analysis File: P8022319 MS.batch.bin
DA Date-Time: 2019-02-23 20:13:28
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-02-23 12:59:54
2			
3	005CALS.d	S02	2019-02-23 13:07:30
4	006CALS.d	S03	2019-02-23 13:11:28
5	007CALS.d	S04	2019-02-23 13:15:25
6	008CALS.d	S05	2019-02-23 13:19:20
7	009CALS.d	S06	2019-02-23 13:23:09
8	010CALS.d	S07	2019-02-23 13:26:54
9	011CALS.d	S08	2019-02-23 13:30:32

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	22.22	0.0001	P	47.9
2	☐	0.100					
3	☐	1.000	1.040	768.92	0.0023	P	8.4
4	☐	50.000	53.302	38900.38	0.1151	P	1.5
5	☐	125.000	132.028	99108.55	0.2849	P	0.3
6	☐	250.000	262.367	200881.42	0.5661	P	1.3
7	☐	500.000	503.563	415433.26	1.0866	P	1.0
8	☐	1000.000	994.083	853876.84	2.1449	P	0.6
9	☐			141.12	0.0004	P	9.8

$$y = 0.0022 * x + 6.6378E-005$$

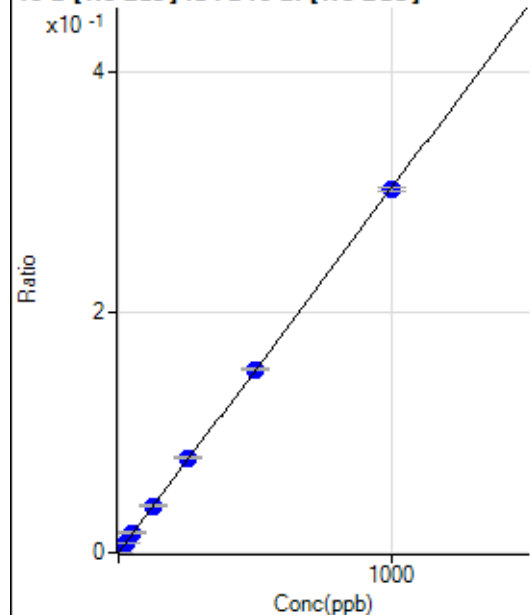
$$R = 0.9999$$

$$DL = 0.04419$$

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	22.22	0.0001	P	77.9
2	☐	2.500					
3	☐	25.000	25.348	2578.12	0.0077	P	5.1
4	☐	50.000	53.634	5518.00	0.0163	P	6.7
5	☐	125.000	128.482	13562.56	0.0390	P	1.0
6	☐	250.000	260.426	28017.24	0.0790	P	2.8
7	☐	500.000	503.337	58330.90	0.1526	P	1.9
8	☐	1000.000	995.100	120044.52	0.3015	P	1.1
9	☐			2667.04	0.0068	P	5.5

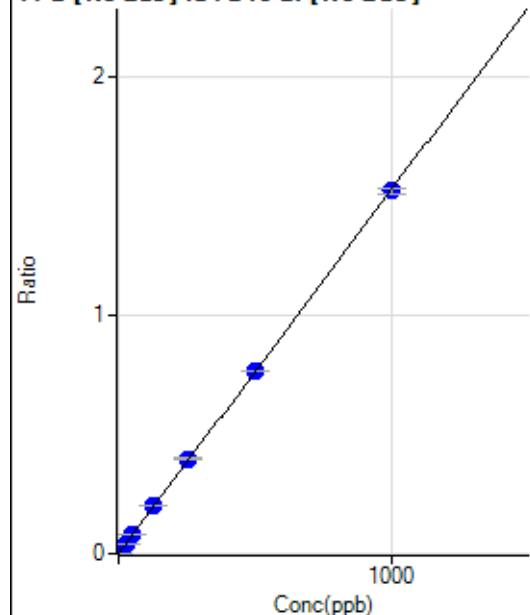
$$y = 3.0296E-004 * x + 6.6506E-005$$

$$R = 0.9999$$

$$DL = 0.5132$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	130.56	0.0004	P	20.0
2	☐	2.500					
3	☐	25.000	24.030	12319.69	0.0370	P	3.6
4	☐	50.000	52.891	27391.00	0.0810	P	2.2
5	☐	125.000	129.952	69033.32	0.1985	P	1.1
6	☐	250.000	259.274	140386.53	0.3956	P	1.7
7	☐	500.000	501.166	292218.95	0.7643	P	0.6
8	☐	1000.000	996.359	604736.79	1.5191	P	1.3
9	☐			13234.46	0.0335	P	7.3

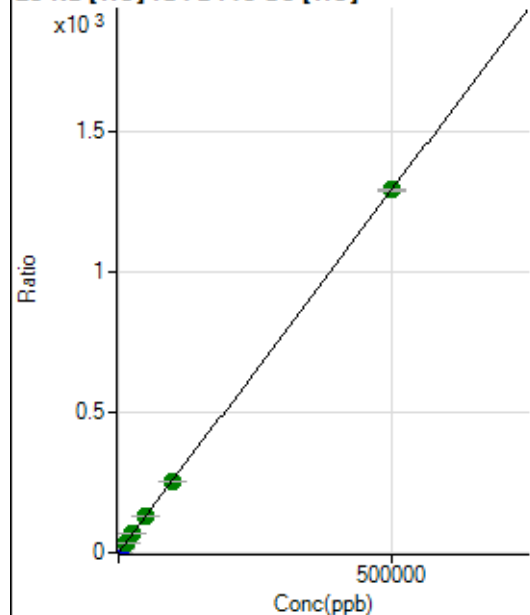
$$y = 0.0015 * x + 3.9037E-004$$

$$R = 0.9999$$

$$DL = 0.154$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	10218.00	0.3268	P	6.7
2	☐	50.000					
3	☐	500.000	470.985	49442.34	1.5423	P	4.0
4	☐	5000.000	5028.724	424863.09	13.3046	P	0.9
5	☐	12500.000	12971.715	1083435.59	33.8035	A	1.6
6	☐	25000.000	25708.689	2164777.72	66.6744	A	2.0
7	☐	50000.000	50007.048	4296401.09	129.3823	A	0.1
8	☐	100000.00	98233.636	8573332.40	253.8429	A	0.8
9	☐	500000.00	500305.08	42213256.85	1,291.487	A	0.7

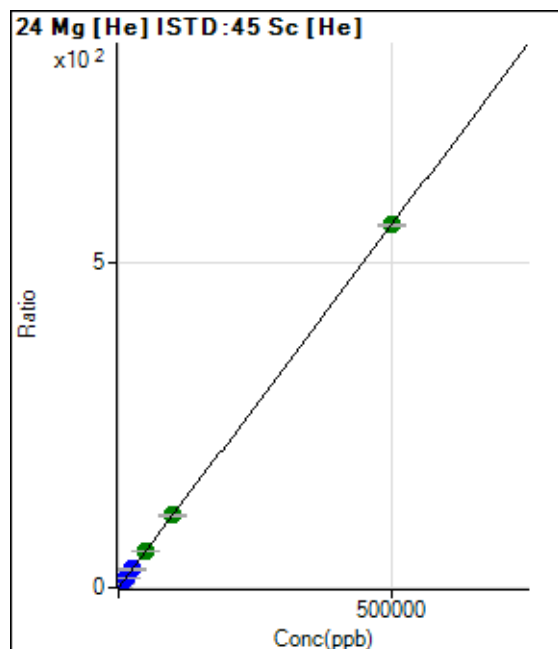
$$y = 0.0026 * x + 0.3268$$

$$R = 1.0000$$

$$DL = 25.33$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	480.58	0.0154	P	7.3
2	☐	50.000					
3	☐	500.000	483.723	17770.12	0.5544	P	5.2
4	☐	5000.000	5051.369	180249.63	5.6444	P	0.3
5	☐	12500.000	12853.420	459573.33	14.3387	P	1.5
6	☐	25000.000	25332.963	917102.35	28.2455	P	1.4
7	☐	50000.000	51007.699	1887996.07	56.8564	A	0.5
8	☐	100000.00	99488.495	3744964.19	110.8816	A	0.8
9	☐	500000.00	499975.55	18211908.74	557.1692	A	0.4

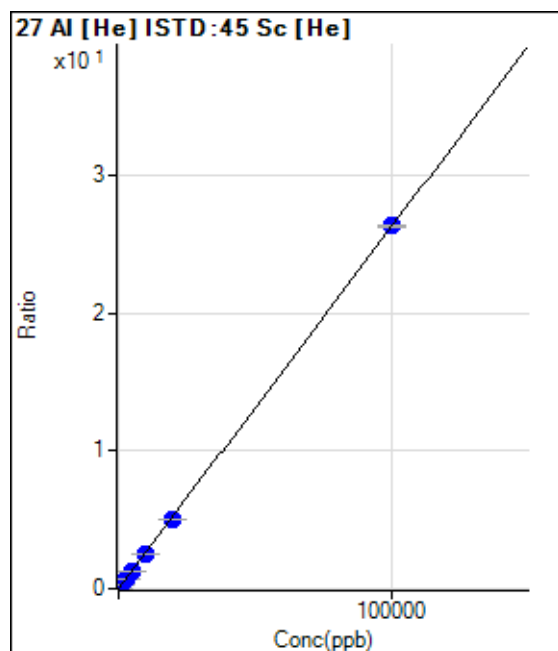
$$y = 0.0011 * x + 0.0154$$

$$R = 1.0000$$

$$DL = 3.02$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	41.68	0.0013	P	29.4
2	☐	2.000					
3	☐	20.000	21.408	221.73	0.0069	P	18.3
4	☐	1000.000	980.058	8253.70	0.2585	P	1.1
5	☐	2500.000	2468.358	20798.86	0.6489	P	1.3
6	☐	5000.000	4913.205	41896.92	1.2903	P	2.0
7	☐	10000.000	9557.133	83304.79	2.5087	P	0.6
8	☐	20000.000	19057.393	168911.15	5.0012	P	0.8
9	☐	100000.00	100238.13	859627.73	26.2995	P	0.5

$$y = 2.6236E-004 * x + 0.0013$$

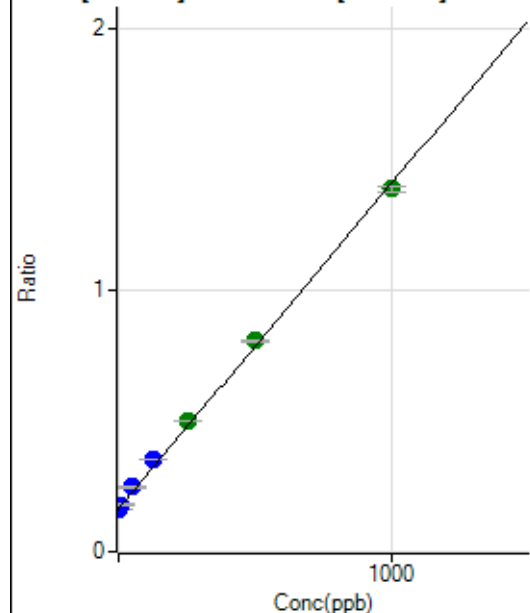
$$R = 0.9999$$

$$DL = 4.48$$

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	360641.13	0.1641	P	0.5
2	☐	1.000					
3	☐	10.000	12.293	391325.78	0.1794	P	1.3
4	☐	50.000	67.920	544366.40	0.2487	P	3.7
5	☐	125.000	152.412	786473.86	0.3539	P	0.6
6	☐	250.000	269.512	1101320.90	0.4998	A	0.1
7	☐	500.000	515.971	1814865.32	0.8067	A	1.1
8	☐	1000.000	982.791	3113511.09	1.3880	A	1.3
9	☐			429559.97	0.1906	P	2.0

$$y = 0.0012 * x + 0.1641$$

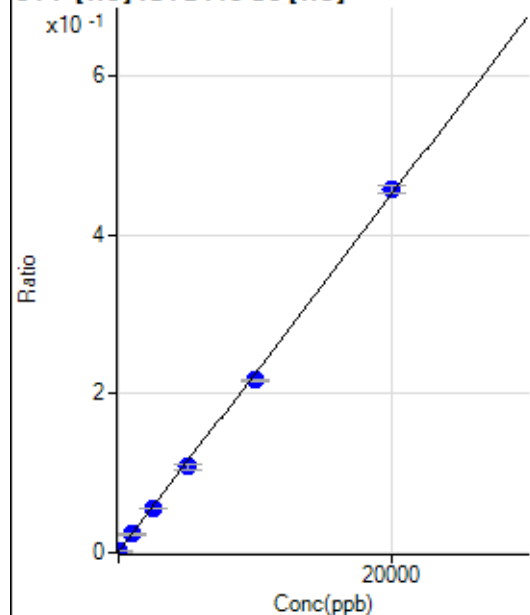
$$R = 0.9994$$

$$DL = 2.14$$

Weight: <None>

Min Conc: 0

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



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	-20.866	16.67	0.0005	P	50.4
2	☐	0.000					
3	☐	0.000	20.866	47.22	0.0015	P	8.8
4	☐	1000.000	981.359	736.16	0.0230	P	9.5
5	☐	2500.000	2432.704	1783.53	0.0557	P	3.6
6	☐	5000.000	4760.677	3506.14	0.1080	P	5.8
7	☐	10000.000	9613.746	7204.94	0.2170	P	0.9
8	☐	20000.000	20262.302	15408.98	0.4562	P	2.1
9	☐			22.22	0.0007	P	57.0

$$y = 2.2466E-005 * x + 0.0010$$

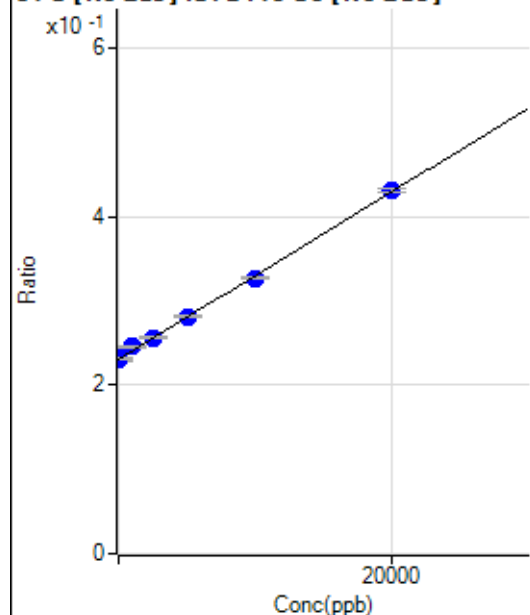
$$R = 0.9996$$

$$DL = 26.58$$

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	-151.462	504454.54	0.2296	P	0.8
2	☐	0.000					
3	☐	0.000	151.462	507259.97	0.2326	P	0.9
4	☐	1000.000	1479.160	537902.16	0.2458	P	0.3
5	☐	2500.000	2580.553	570484.17	0.2567	P	0.9
6	☐	5000.000	5116.656	621311.28	0.2819	P	0.6
7	☐	10000.000	9661.949	735965.15	0.3271	P	0.7
8	☐	20000.000	20105.835	966686.35	0.4309	P	1.1
9	☐			493173.23	0.2188	P	0.8

$$y = 9.9408\text{E-}006 * x + 0.2311$$

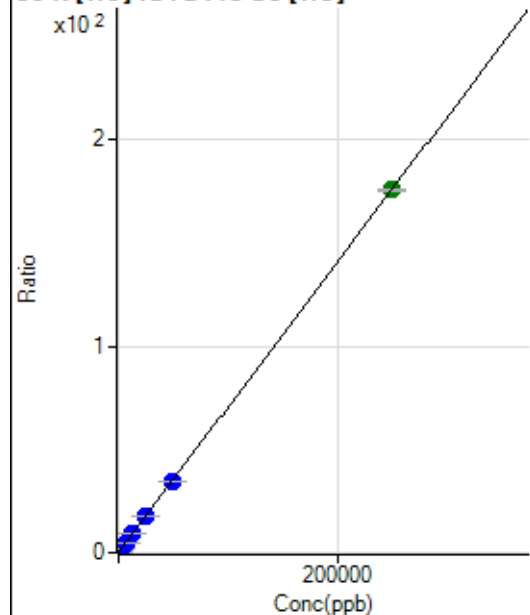
$$R = 0.9994$$

$$DL = 594.9$$

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	6285.00	0.2010	P	7.8
2	☐	50.000					
3	☐	500.000	444.663	16432.45	0.5129	P	5.8
4	☐	2500.000	2523.733	62944.16	1.9711	P	1.2
5	☐	6250.000	6347.902	149139.68	4.6533	P	2.1
6	☐	12500.000	12525.320	291773.18	8.9861	P	1.2
7	☐	25000.000	24748.676	583090.00	17.5594	P	0.9
8	☐	50000.000	48922.254	1165735.14	34.5145	P	0.3
9	☐	250000.00	250236.84	5743464.28	175.7141	A	0.3

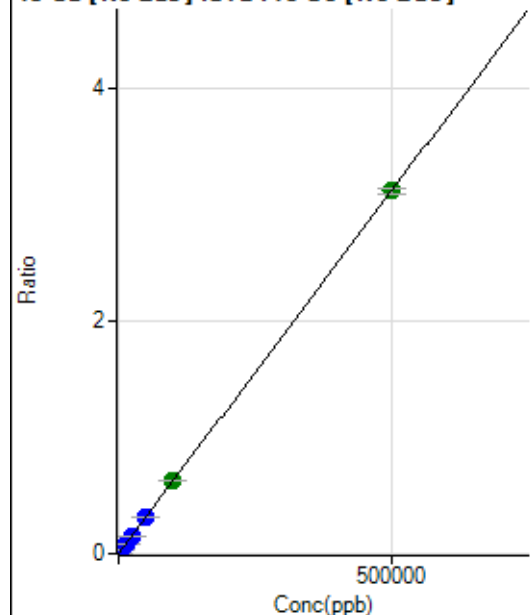
$$y = 7.0139\text{E-}004 * x + 0.2010$$

$$R = 1.0000$$

$$DL = 66.7$$

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	462.24	0.0002	P	1.8
2	☐	50.000					
3	☐	500.000	458.114	6701.70	0.0031	P	1.3
4	☐	5000.000	4876.047	67137.17	0.0307	P	1.3
5	☐	12500.000	12398.223	172612.71	0.0777	P	0.7
6	☐	25000.000	24884.560	343110.84	0.1557	P	0.1
7	☐	50000.000	49259.940	692943.30	0.3080	P	0.6
8	☐	100000.00	100373.13	1407380.10	0.6274	A	0.5
9	☐	500000.00	500008.97	7042149.34	3.1244	A	1.6

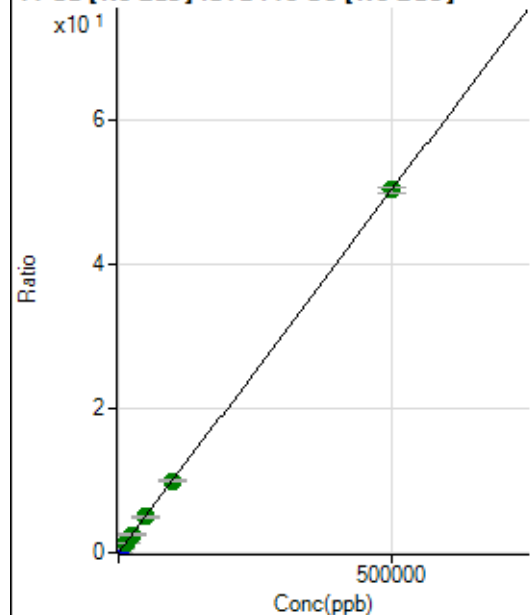
$$y = 6.2483\text{E-}006 * x + 2.1034\text{E-}004$$

$$R = 1.0000$$

$$DL = 1.797$$

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	51259.86	0.0233	P	0.5
2	☐	50.000					
3	☐	500.000	463.279	152319.46	0.0698	P	0.2
4	☐	5000.000	4987.898	1146871.90	0.5240	P	1.1
5	☐	12500.000	12528.771	2846728.40	1.2811	A	1.1
6	☐	25000.000	24896.627	5559084.50	2.5226	A	1.3
7	☐	50000.000	49062.750	11133366.22	4.9486	A	1.3
8	☐	100000.00	98552.255	22243981.06	9.9167	A	1.5
9	☐	500000.00	500387.88	113278851.6	50.2559	A	1.3

$$y = 1.0039\text{E-}004 * x + 0.0233$$

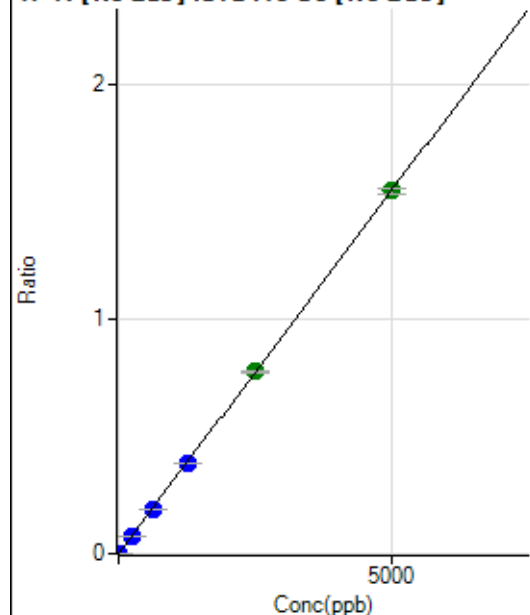
$$R = 1.0000$$

$$DL = 3.212$$

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	158.34	0.0001	P	24.0
2	☐	0.500					
3	☐	5.000	4.477	3175.51	0.0015	P	10.0
4	☐	250.000	247.674	167825.77	0.0767	P	1.4
5	☐	625.000	613.998	422223.90	0.1900	P	0.1
6	☐	1250.000	1243.473	847816.21	0.3847	P	0.6
7	☐	2500.000	2509.260	1746501.17	0.7763	A	1.0
8	☐	5000.000	4998.494	3468506.07	1.5463	A	1.3
9	☐			844.51	0.0004	P	16.3

$$y = 3.0934\text{E-}004 * x + 7.2054\text{E-}005$$

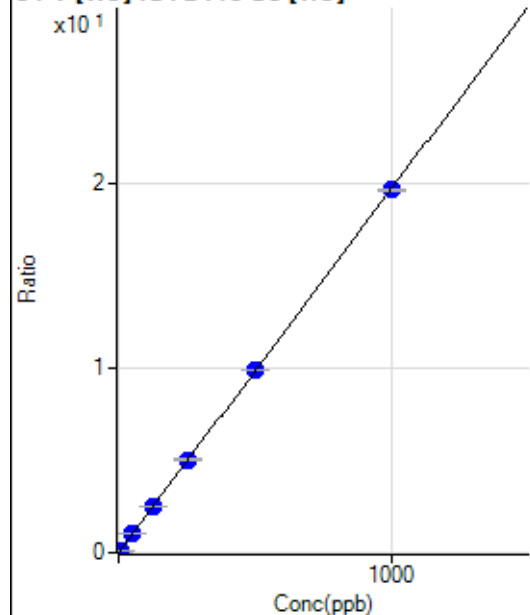
$$R = 1.0000$$

$$DL = 0.1678$$

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	28.89	0.0009	P	43.0
2	☐	0.500					
3	☐	5.000	4.913	3140.41	0.0980	P	6.5
4	☐	50.000	50.658	32005.64	1.0022	P	1.2
5	☐	125.000	127.671	80910.05	2.5244	P	1.2
6	☐	250.000	255.790	164187.69	5.0567	P	1.3
7	☐	500.000	502.718	329974.39	9.9373	P	0.7
8	☐	1000.000	996.827	665480.52	19.7035	P	0.6
9	☐			186.67	0.0057	P	13.3

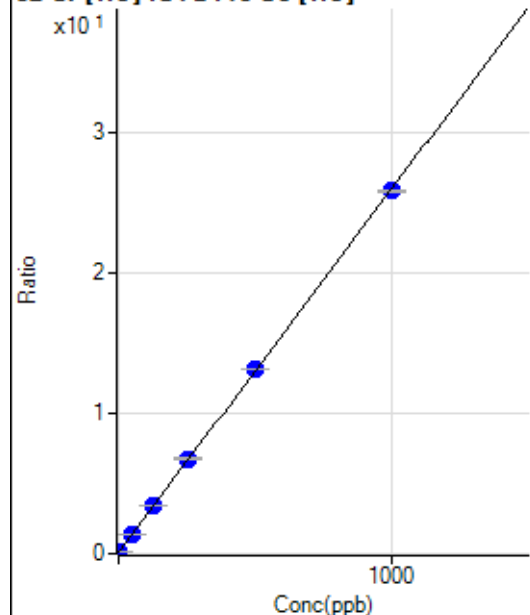
$$y = 0.0198 * x + 9.2192\text{E-}004$$

$$R = 1.0000$$

$$DL = 0.06016$$

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	2284.67	0.0730	P	3.5
2	☐	0.200					
3	☐	2.000	1.755	3795.02	0.1184	P	5.6
4	☐	50.000	51.342	44730.40	1.4007	P	0.2
5	☐	125.000	129.381	109579.41	3.4188	P	0.9
6	☐	250.000	257.274	218381.55	6.7260	P	1.7
7	☐	500.000	505.044	436102.90	13.1332	P	0.6
8	☐	1000.000	995.046	871547.84	25.8045	P	0.2
9	☐			9937.00	0.3040	P	0.7

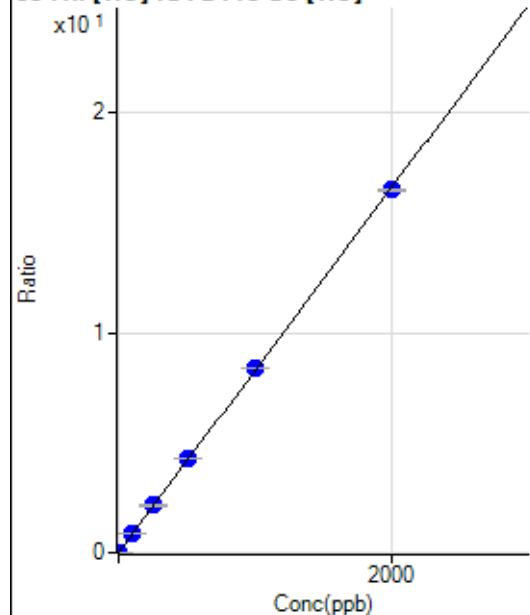
$$y = 0.0259 * x + 0.0730$$

$$R = 0.9999$$

$$DL = 0.2957$$

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	98.89	0.0032	P	7.3
2	☐	0.100					
3	☐	1.000	0.947	352.23	0.0110	P	15.2
4	☐	100.000	101.753	27063.11	0.8475	P	0.1
5	☐	250.000	258.241	68785.20	2.1459	P	1.1
6	☐	500.000	513.814	138535.58	4.2666	P	1.0
7	☐	1000.000	1013.961	279483.99	8.4166	P	0.5
8	☐	2000.000	1988.448	557372.09	16.5025	P	0.3
9	☐			2253.56	0.0689	P	1.4

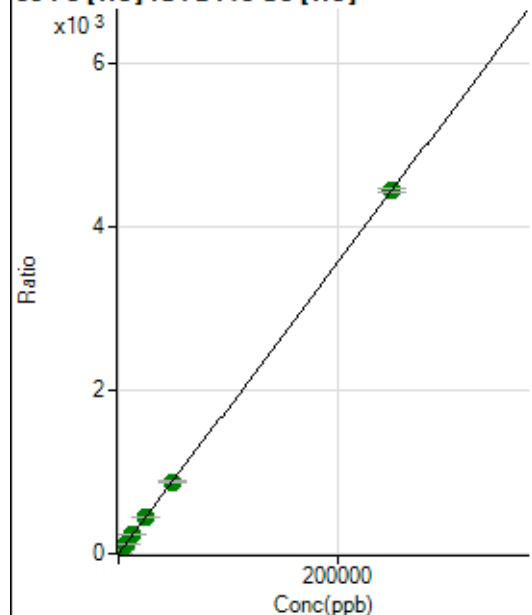
$$y = 0.0083 * x + 0.0032$$

$$R = 0.9999$$

$$DL = 0.0837$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4928.80	0.1576	P	2.8
2	☐	5.000					
3	☐	50.000	52.046	34651.05	1.0816	P	6.1
4	☐	2500.000	2614.930	1487561.39	46.5828	A	0.5
5	☐	6250.000	6538.705	3725826.62	116.2451	A	1.2
6	☐	12500.000	12820.520	7395576.38	227.7717	A	1.4
7	☐	25000.000	25384.360	14970060.99	450.8288	A	0.7
8	☐	50000.000	49588.439	29740157.15	880.5454	A	0.5
9	☐	250000.00	250019.48	145088284.7	4,438.976	A	1.1

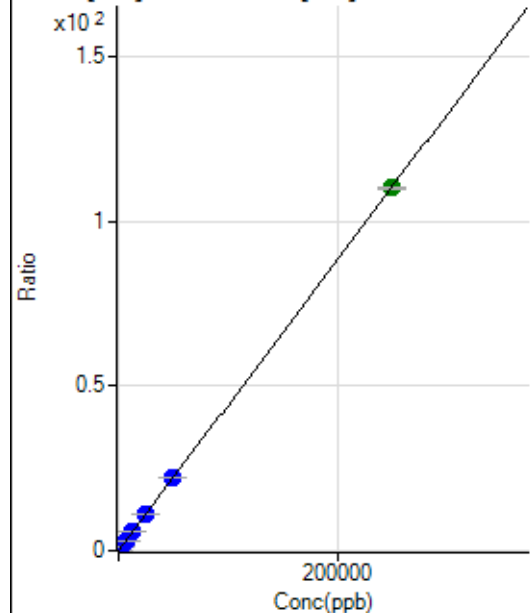
$$y = 0.0178 * x + 0.1576$$

$$R = 1.0000$$

$$DL = 0.7407$$

Weight: <None>

Min Conc: 0

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

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	155.56	0.0050	P	27.3
2	☐	5.000					
3	☐	50.000	54.161	924.14	0.0288	P	9.1
4	☐	2500.000	2564.844	36208.67	1.1339	P	1.4
5	☐	6250.000	6546.807	92518.46	2.8865	P	1.2
6	☐	12500.000	12971.046	185544.80	5.7142	P	0.7
7	☐	25000.000	25591.198	374194.90	11.2689	P	0.6
8	☐	50000.000	49907.375	742089.66	21.9716	P	0.8
9	☐	250000.00	249927.78	3595993.83	110.0103	A	0.5

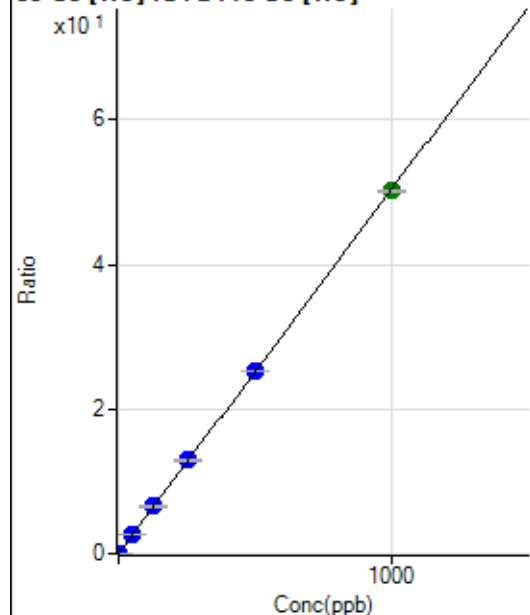
$$y = 4.4015E-004 * x + 0.0050$$

$$R = 1.0000$$

$$DL = 9.277$$

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	98.89	0.0032	P	13.5
2	☐	0.100					
3	☐	1.000	0.992	1702.36	0.0531	P	5.6
4	☐	50.000	51.282	82576.32	2.5859	P	0.4
5	☐	125.000	129.660	209394.63	6.5332	P	1.5
6	☐	250.000	256.442	419453.46	12.9183	P	1.0
7	☐	500.000	503.183	841611.46	25.3449	P	0.4
8	☐	1000.000	996.152	1694586.33	50.1722	A	0.3
9	☐			18999.83	0.5813	P	3.2

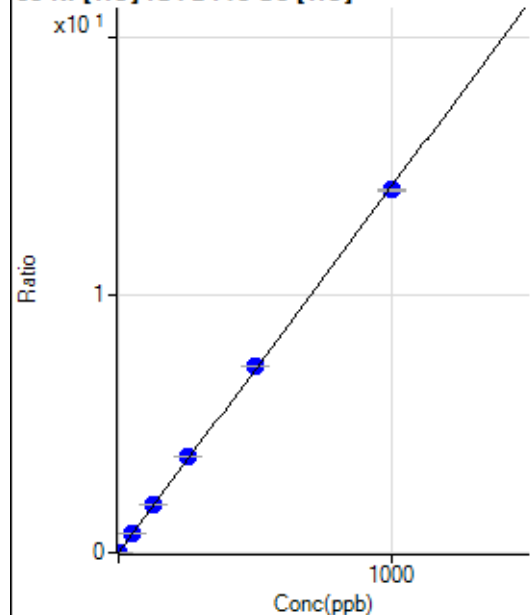
$$y = 0.0504 * x + 0.0032$$

$$R = 1.0000$$

$$DL = 0.02546$$

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	127.78	0.0041	P	14.0
2	☐	0.100					
3	☐	1.000	1.072	617.80	0.0193	P	7.0
4	☐	50.000	52.279	23816.15	0.7458	P	0.9
5	☐	125.000	131.336	59850.51	1.8674	P	2.2
6	☐	250.000	262.709	121157.13	3.7313	P	0.8
7	☐	500.000	510.263	240541.72	7.2436	P	0.3
8	☐	1000.000	990.785	474912.16	14.0611	P	0.2
9	☐			6640.58	0.2032	P	5.0

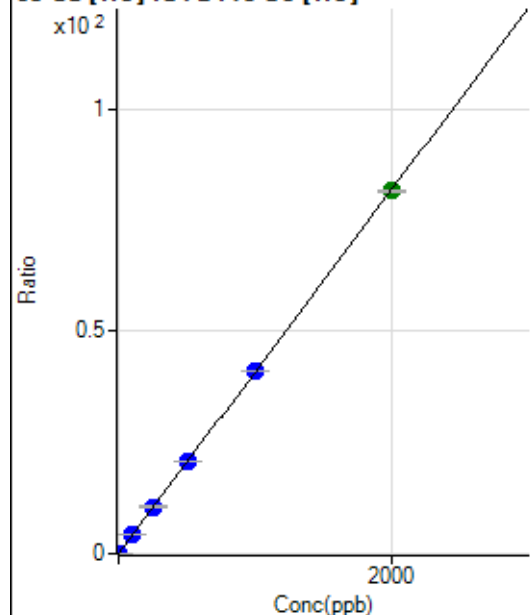
$$y = 0.0142 * x + 0.0041$$

$$R = 0.9998$$

$$DL = 0.1206$$

Weight: <None>

Min Conc: 0

⁶³Cu [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	384.46	0.0123	P	8.0
2	☐	0.200					
3	☐	2.000	1.954	2953.70	0.0921	P	5.2
4	☐	100.000	102.164	133752.17	4.1885	P	1.0
5	☐	250.000	257.009	337113.07	10.5182	P	1.6
6	☐	500.000	506.774	672994.44	20.7279	P	1.7
7	☐	1000.000	1005.388	1365127.50	41.1100	P	0.3
8	☐	2000.000	1994.628	2754247.53	81.5476	A	0.8
9	☐			4733.12	0.1448	P	4.6

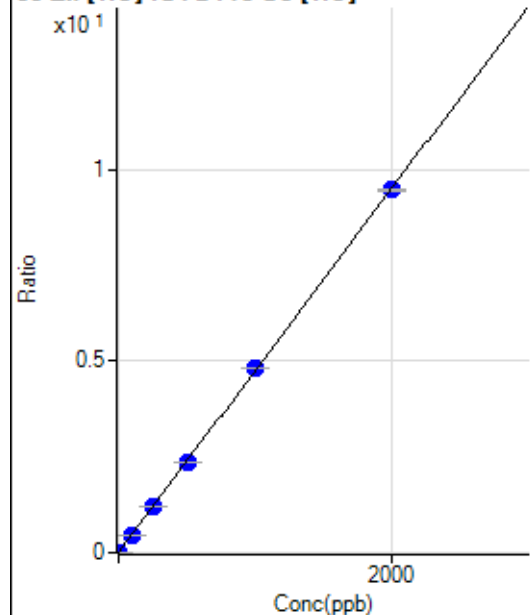
$$y = 0.0409 * x + 0.0123$$

$$R = 1.0000$$

$$DL = 0.07199$$

Weight: <None>

Min Conc: 0

⁶⁶Zn [He] ISTD:45 Sc [He]

	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	214.45	0.0069	P	10.0
2	☐	0.200					
3	☐	2.000	1.628	466.68	0.0146	P	8.5
4	☐	100.000	98.244	15101.77	0.4729	P	1.5
5	☐	250.000	253.103	38703.09	1.2075	P	0.9
6	☐	500.000	494.071	76324.21	2.3506	P	0.9
7	☐	1000.000	1015.344	160167.97	4.8234	P	0.3
8	☐	2000.000	1993.511	319625.58	9.4635	P	0.5
9	☐			2655.86	0.0813	P	2.5

$$y = 0.0047 * x + 0.0069$$

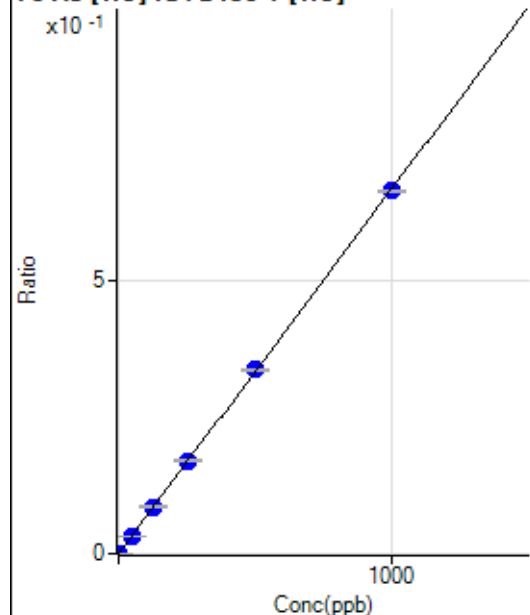
$$R = 0.9999$$

$$DL = 0.4349$$

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	82.8
2	☐	0.100					
3	☐	1.000	0.887	106.17	0.0006	P	26.8
4	☐	50.000	49.622	5575.87	0.0333	P	0.8
5	☐	125.000	129.049	14582.47	0.0864	P	1.8
6	☐	250.000	255.807	29398.59	0.1713	P	0.8
7	☐	500.000	504.869	59460.55	0.3380	P	0.5
8	☐	1000.000	995.626	118998.05	0.6665	P	0.4
9	☐			174.08	0.0010	P	13.1

$$y = 6.6943\text{E-}004 * x + 4.1055\text{E-}005$$

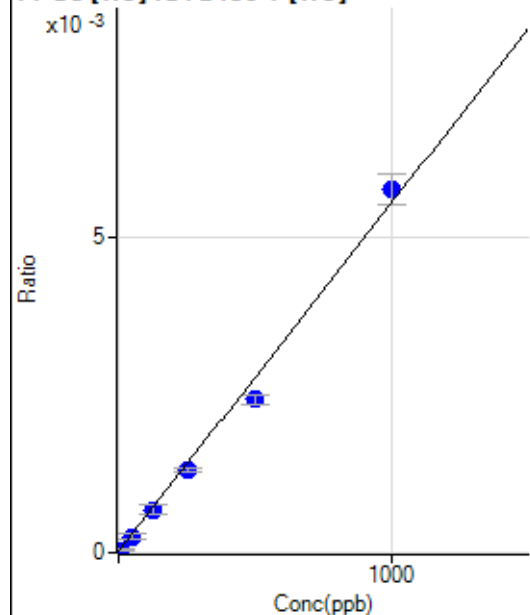
$$R = 1.0000$$

$$DL = 0.1524$$

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	3.33	0.0000	P	0.5
2	☐	0.500					
3	☐	5.000	3.702	6.67	0.0000	P	100.
4	☐	50.000	43.180	43.33	0.0003	P	38.2
5	☐	125.000	119.291	114.45	0.0007	P	21.4
6	☐	250.000	234.733	225.56	0.0013	P	3.7
7	☐	500.000	435.043	425.57	0.0024	P	5.8
8	☐	1000.000	1037.356	1024.50	0.0057	P	8.5
9	☐			1.11	0.0000	P	173.

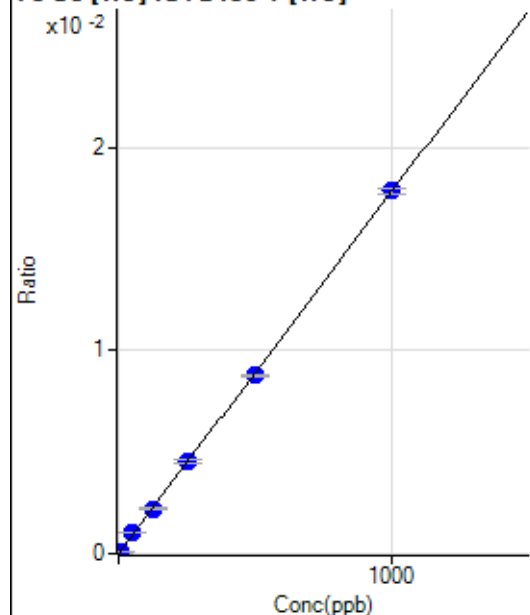
$$y = 5.5130\text{E-}006 * x + 2.0185\text{E-}005$$

$$R = 0.9969$$

$$DL = 0.05997$$

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	1.85	0.0000	P	100.
2	☐	0.500					
3	☐	5.000	2.644	9.88	0.0001	P	24.2
4	☐	50.000	57.145	172.23	0.0010	P	1.2
5	☐	125.000	123.201	371.61	0.0022	P	5.7
6	☐	250.000	255.460	781.51	0.0046	P	4.4
7	☐	500.000	491.356	1538.99	0.0087	P	1.4
8	☐	1000.000	1002.837	3185.58	0.0178	P	1.6
9	☐			7.41	0.0000	P	42.3

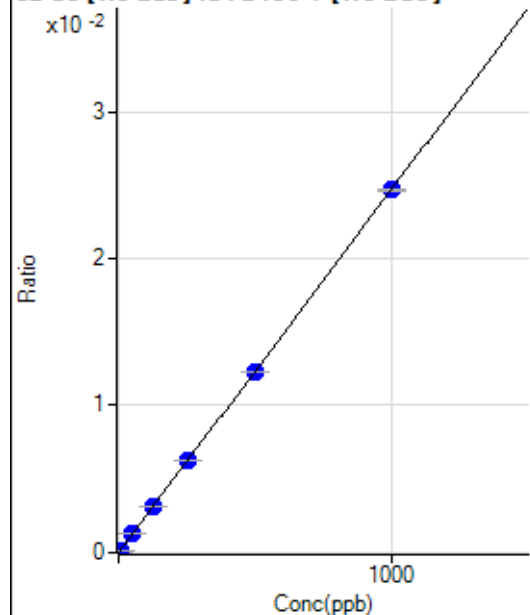
$$y = 1.7782\text{E-}005 * x + 1.1204\text{E-}005$$

$$R = 0.9999$$

$$DL = 1.895$$

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	-54.26	0.0000	P	-56.
2	☐	0.500					
3	☐	5.000	4.900	283.26	0.0001	P	13.9
4	☐	50.000	51.783	3539.08	0.0013	P	2.8
5	☐	125.000	127.791	9019.22	0.0031	P	1.5
6	☐	250.000	254.816	17975.72	0.0063	P	0.8
7	☐	500.000	498.269	36316.71	0.0123	P	0.4
8	☐	1000.000	999.224	72939.39	0.0247	P	0.3
9	☐			13.08	0.0000	P	374.

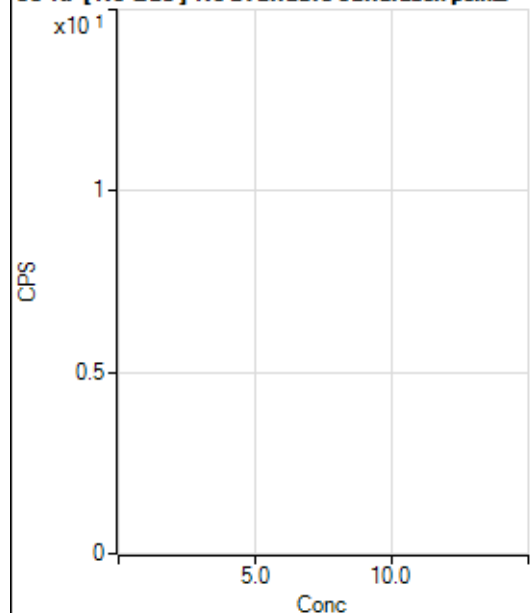
$$y = 2.4705\text{E-}005 * x - 1.9151\text{E-}005$$

$$R = 1.0000$$

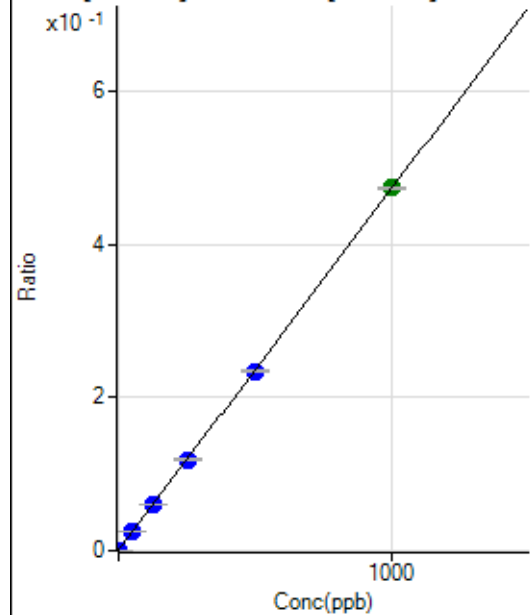
$$DL = 1.321$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			837.82		P	4.6
2	☐						
3	☐			834.49		P	3.4
4	☐			834.48		P	5.0
5	☐			793.37		P	5.9
6	☐			876.71		P	6.3
7	☐			874.49		P	11.2
8	☐			852.26		P	4.6
9	☐			851.15		P	4.5

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1286.23	0.0005	P	7.6
2	☐	0.100					
3	☐	1.000	0.848	2380.87	0.0009	P	6.2
4	☐	50.000	50.733	68693.00	0.0245	P	0.3
5	☐	125.000	125.109	171426.49	0.0596	P	0.5
6	☐	250.000	250.925	341293.85	0.1192	P	1.1
7	☐	500.000	495.263	693672.68	0.2348	P	1.1
8	☐	1000.000	1002.087	1403176.19	0.4745	A	0.5
9	☐			6371.24	0.0022	P	2.3

$$y = 4.7308\text{E-}004 * x + 4.5500\text{E-}004$$

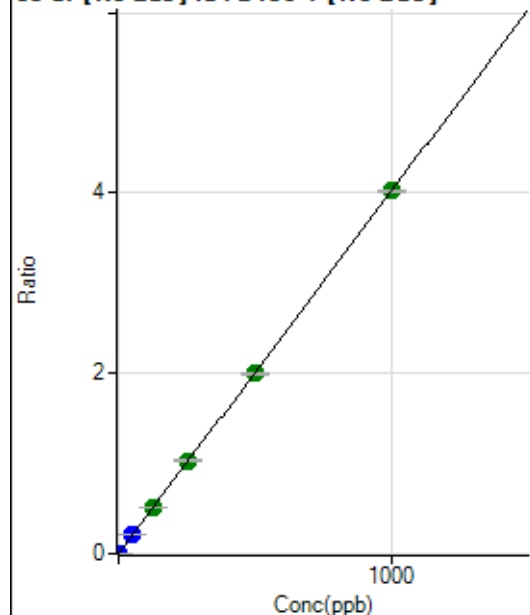
$$R = 1.0000$$

$$DL = 0.218$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	50.00	0.0000	P	17.2
2	☐	0.100					
3	☐	1.000	0.856	9631.61	0.0035	P	5.9
4	☐	50.000	50.629	572263.66	0.2037	P	0.3
5	☐	125.000	126.855	1467163.54	0.5105	A	0.8
6	☐	250.000	255.593	2945494.79	1.0285	A	1.8
7	☐	500.000	496.553	5903895.18	1.9980	A	1.2
8	☐	1000.000	1000.062	11899005.56	4.0240	A	0.4
9	☐			44894.21	0.0154	P	2.8

$$y = 0.0040 * x + 1.7696E-005$$

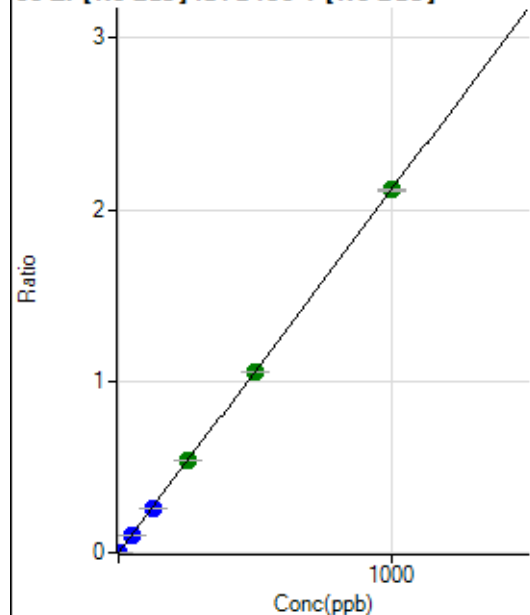
$$R = 1.0000$$

$$DL = 0.002269$$

Weight: <None>

Min Conc: 0

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



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	241.68	0.0001	P	6.5
2	☐	0.100					
3	☐	1.000	0.871	5365.21	0.0019	P	1.5
4	☐	50.000	49.291	293109.26	0.1044	P	0.2
5	☐	125.000	122.822	747020.31	0.2599	P	0.8
6	☐	250.000	254.752	1543694.89	0.5390	A	1.2
7	☐	500.000	498.984	3119236.70	1.0556	A	0.4
8	☐	1000.000	999.628	6253083.13	2.1147	A	0.6
9	☐			1850.21	0.0006	P	3.8

$$y = 0.0021 * x + 8.5462E-005$$

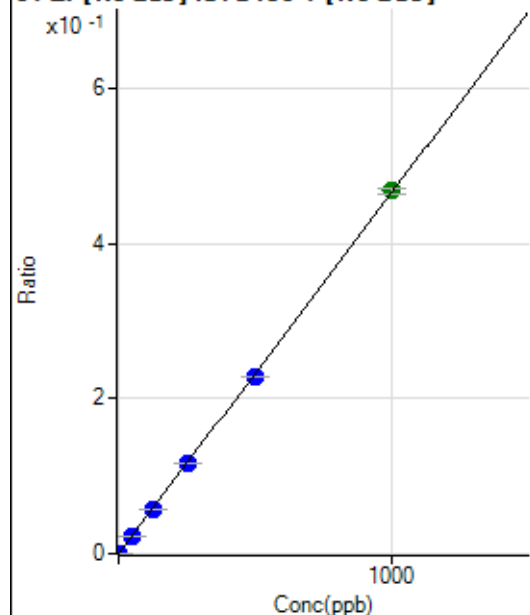
$$R = 1.0000$$

$$DL = 0.007917$$

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	52.78	0.0000	P	63.2
2	☐	0.100					
3	☐	1.000	0.924	1247.35	0.0004	P	12.9
4	☐	50.000	49.253	64472.77	0.0230	P	0.6
5	☐	125.000	123.085	164791.96	0.0573	P	0.5
6	☐	250.000	250.144	333656.79	0.1165	P	1.5
7	☐	500.000	490.237	674591.22	0.2283	P	0.3
8	☐	1000.000	1005.122	1384082.21	0.4681	A	1.3
9	☐			416.69	0.0001	P	20.8

$$y = 4.6566\text{E-}004 * x + 1.8624\text{E-}005$$

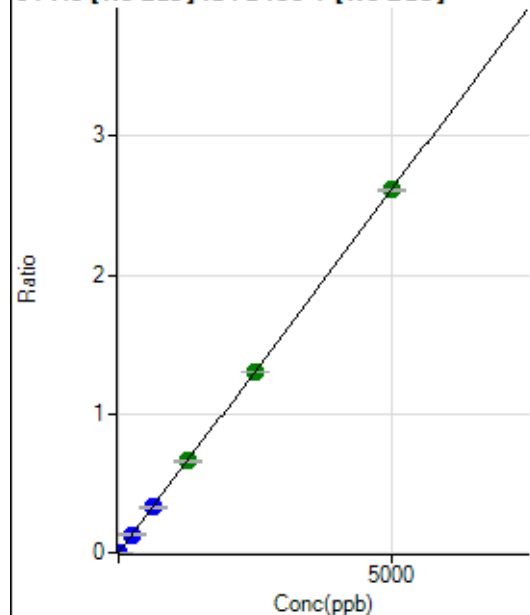
$$R = 0.9999$$

$$DL = 0.07588$$

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	111.12	0.0000	P	51.5
2	☐	0.500					
3	☐	5.000	4.596	6790.90	0.0024	P	1.4
4	☐	250.000	251.303	368900.71	0.1313	P	1.4
5	☐	625.000	623.437	936379.05	0.3258	P	1.1
6	☐	1250.000	1265.697	1894188.54	0.6614	A	1.5
7	☐	2500.000	2493.970	3850552.08	1.3031	A	0.4
8	☐	5000.000	4999.221	7723989.84	2.6121	A	0.4
9	☐			3614.53	0.0012	P	4.5

$$y = 5.2250\text{E-}004 * x + 3.9343\text{E-}005$$

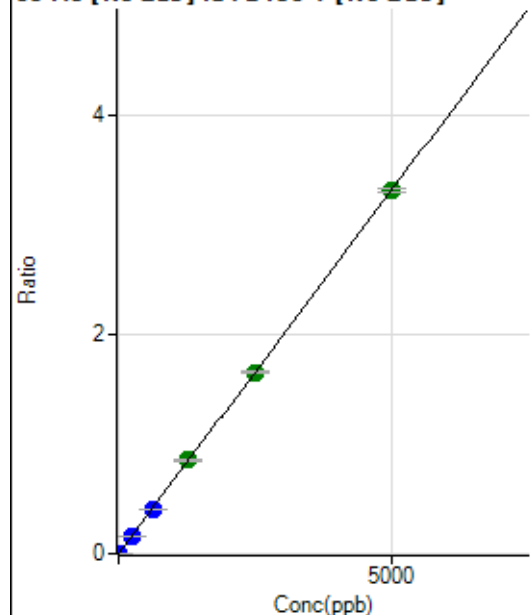
$$R = 1.0000$$

$$DL = 0.1163$$

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	22.23	0.0000	P	43.8
2	☐	0.500					
3	☐	5.000	4.613	8522.50	0.0031	P	1.2
4	☐	250.000	247.567	460558.65	0.1640	P	1.1
5	☐	625.000	618.332	1177132.78	0.4095	P	0.3
6	☐	1250.000	1286.768	2441007.91	0.8523	A	0.7
7	☐	2500.000	2499.612	4891959.61	1.6556	A	1.2
8	☐	5000.000	4991.958	9776422.88	3.3063	A	1.2
9	☐			4717.69	0.0016	P	4.4

$$y = 6.6232E-004 * x + 7.8706E-006$$

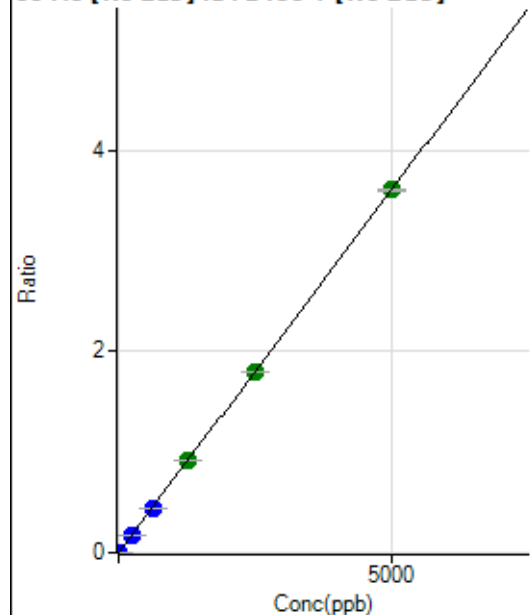
$$R = 1.0000$$

$$DL = 0.01561$$

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	75.01	0.0000	P	37.9
2	☐	0.500					
3	☐	5.000	4.717	9531.58	0.0034	P	2.8
4	☐	250.000	248.540	503020.63	0.1791	P	0.5
5	☐	625.000	619.580	1283110.51	0.4464	P	0.2
6	☐	1250.000	1282.832	2647283.63	0.9243	A	0.4
7	☐	2500.000	2484.666	5289610.62	1.7901	A	0.5
8	☐	5000.000	5000.210	10652390.87	3.6025	A	0.9
9	☐			5481.90	0.0019	P	3.9

$$y = 7.2046E-004 * x + 2.6492E-005$$

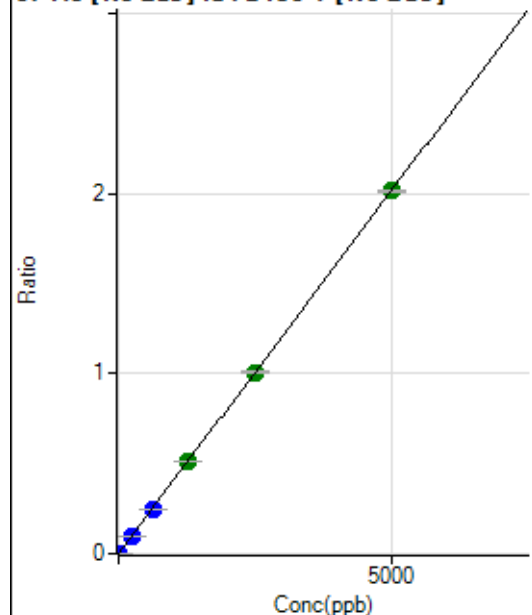
$$R = 1.0000$$

$$DL = 0.0418$$

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	122.23	0.0000	P	44.0
2	☐	0.500					
3	☐	5.000	4.876	5595.85	0.0020	P	3.9
4	☐	250.000	250.517	283991.59	0.1011	P	0.3
5	☐	625.000	620.792	719966.20	0.2505	P	0.4
6	☐	1250.000	1261.692	1458046.04	0.5090	A	0.5
7	☐	2500.000	2501.553	2982167.82	1.0092	A	0.7
8	☐	5000.000	4996.801	5960912.46	2.0159	A	0.6
9	☐			3017.14	0.0010	P	4.9

$$y = 4.0343\text{E-}004 * x + 4.3254\text{E-}005$$

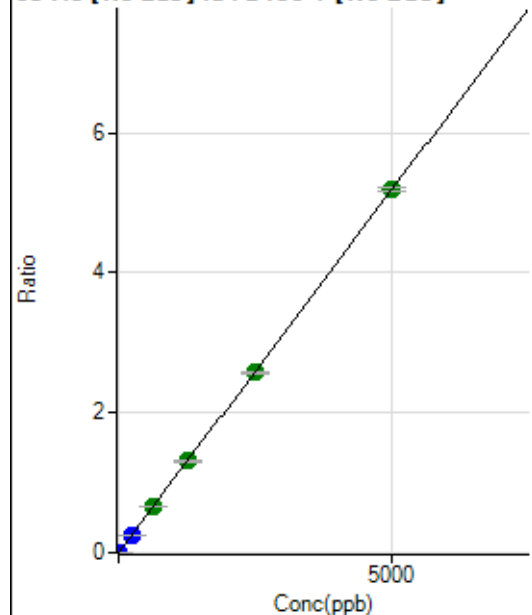
$$R = 1.0000$$

$$DL = 0.1415$$

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	36.11	0.0000	P	35.3
2	☐	0.500					
3	☐	5.000	4.683	13529.59	0.0049	P	0.8
4	☐	250.000	249.102	724485.44	0.2579	P	0.5
5	☐	625.000	630.582	1876700.02	0.6529	A	0.5
6	☐	1250.000	1264.957	3751280.99	1.3098	A	1.1
7	☐	2500.000	2483.450	7598200.86	2.5714	A	1.0
8	☐	5000.000	5003.883	15320060.93	5.1811	A	1.2
9	☐			7224.51	0.0025	P	5.2

$$y = 0.0010 * x + 1.2769\text{E-}005$$

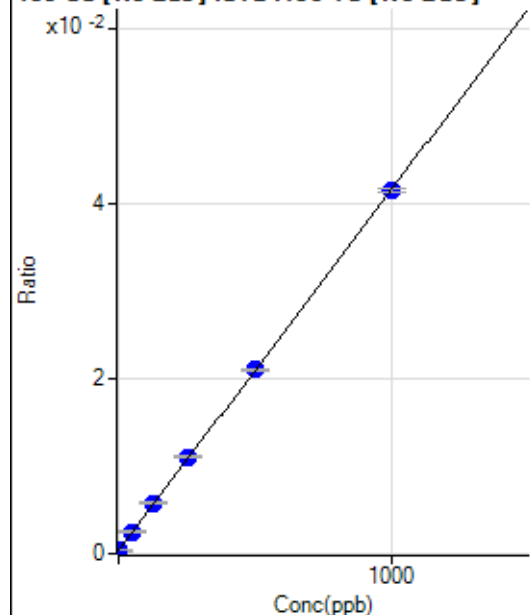
$$R = 1.0000$$

$$DL = 0.01305$$

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	719.50	0.0003	P	22.2
2	☐	0.100					
3	☐	1.000	0.486	755.62	0.0004	P	11.8
4	☐	50.000	51.196	5237.38	0.0025	P	7.7
5	☐	125.000	132.312	12664.85	0.0058	P	2.2
6	☐	250.000	259.713	24425.74	0.0110	P	0.9
7	☐	500.000	500.695	48864.82	0.0210	P	1.5
8	☐	1000.000	996.251	98786.26	0.0414	P	1.0
9	☐			713.95	0.0003	P	11.6

$$y = 4.1238\text{E-}005 * x + 3.3959\text{E-}004$$

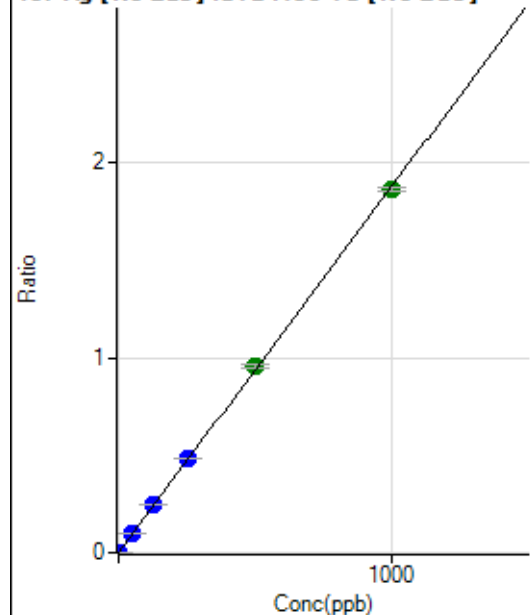
$$R = 0.9999$$

$$DL = 5.494$$

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	63.89	0.0000	P	55.2
2	☐	0.100					
3	☐	1.000	1.064	4250.88	0.0020	P	7.1
4	☐	50.000	52.387	209866.04	0.0982	P	0.5
5	☐	125.000	130.469	534437.30	0.2446	P	1.1
6	☐	250.000	256.860	1064339.52	0.4815	P	0.4
7	☐	500.000	511.576	2232188.42	0.9589	A	1.9
8	☐	1000.000	991.694	4432780.00	1.8588	A	1.0
9	☐			836.18	0.0004	P	10.1

$$y = 0.0019 * x + 3.0293\text{E-}005$$

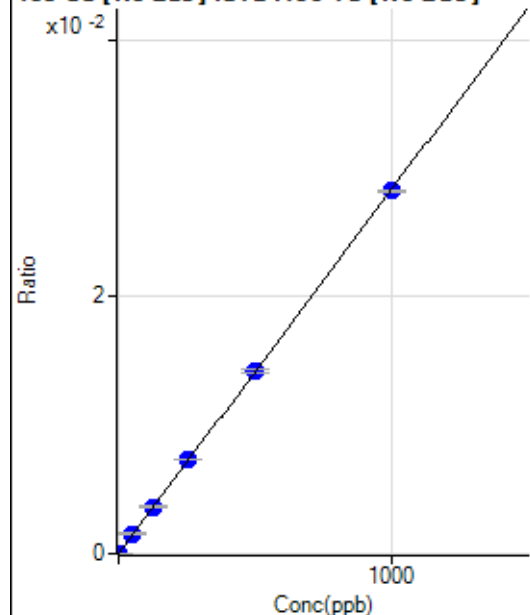
$$R = 0.9999$$

$$DL = 0.02676$$

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	6.94	0.0000	P	91.1
2	☐	0.100					
3	☐	1.000	0.794	54.17	0.0000	P	60.1
4	☐	50.000	54.103	3282.42	0.0015	P	6.6
5	☐	125.000	128.684	7976.14	0.0037	P	1.2
6	☐	250.000	258.876	16225.28	0.0073	P	1.7
7	☐	500.000	501.527	33093.63	0.0142	P	1.9
8	☐	1000.000	996.352	67345.06	0.0282	P	0.7
9	☐			29.17	0.0000	P	57.5

$$y = 2.8340\text{E-}005 * x + 3.2876\text{E-}006$$

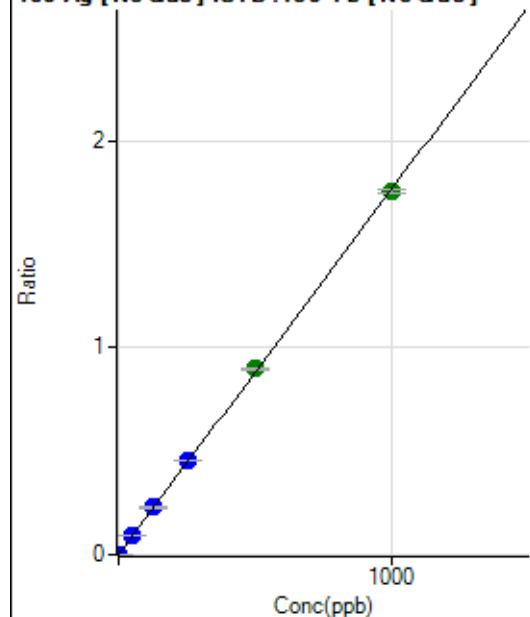
$$R = 1.0000$$

$$DL = 0.3171$$

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	66.67	0.0000	P	26.3
2	☐	0.100					
3	☐	1.000	1.030	3889.64	0.0019	P	1.9
4	☐	50.000	51.912	195975.05	0.0917	P	0.3
5	☐	125.000	129.507	499879.42	0.2288	P	0.9
6	☐	250.000	256.930	1003220.91	0.4538	P	0.5
7	☐	500.000	508.847	2092274.13	0.8988	A	1.4
8	☐	1000.000	993.185	4183330.52	1.7542	A	0.9
9	☐			802.85	0.0004	P	7.6

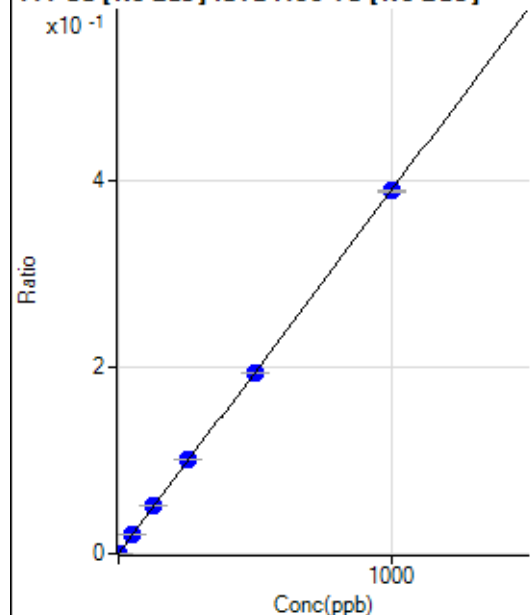
$$y = 0.0018 * x + 3.1540\text{E-}005$$

$$R = 0.9999$$

$$DL = 0.0141$$

Weight: <None>

Min Conc: 0

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	514.06	0.0002	P	20.3
2	☐	0.100					
3	☐	1.000	0.996	1323.00	0.0006	P	1.6
4	☐	50.000	52.188	43845.36	0.0205	P	0.5
5	☐	125.000	130.682	111481.98	0.0510	P	0.8
6	☐	250.000	258.303	222394.26	0.1006	P	0.8
7	☐	500.000	497.575	450662.14	0.1936	P	0.8
8	☐	1000.000	998.317	925618.64	0.3881	P	0.2
9	☐			537.68	0.0002	P	9.9

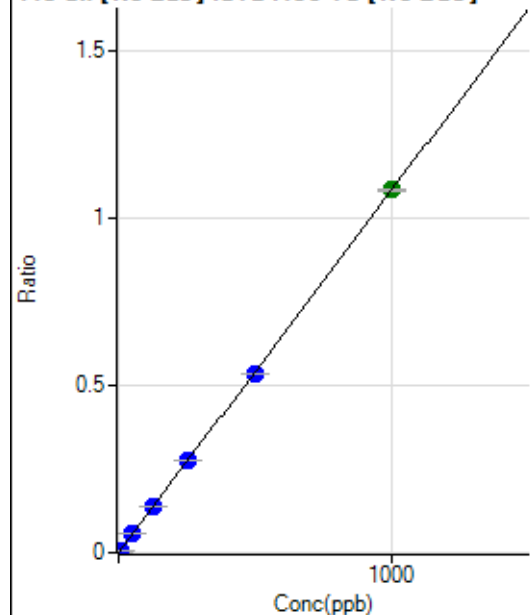
$$y = 3.8855E-004 * x + 2.4265E-004$$

$$R = 0.9999$$

$$DL = 0.38$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD :159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	163.90	0.0001	P	21.6
2	☐	0.500					
3	☐	5.000	5.093	11766.75	0.0056	P	0.5
4	☐	50.000	51.311	119066.17	0.0557	P	2.2
5	☐	125.000	128.167	303902.61	0.1391	P	0.8
6	☐	250.000	253.806	608659.27	0.2753	P	0.9
7	☐	500.000	494.556	1248901.01	0.5364	P	0.4
8	☐	1000.000	1001.309	2589872.52	1.0860	A	0.8
9	☐			1844.66	0.0008	P	13.3

$$y = 0.0011 * x + 7.7212E-005$$

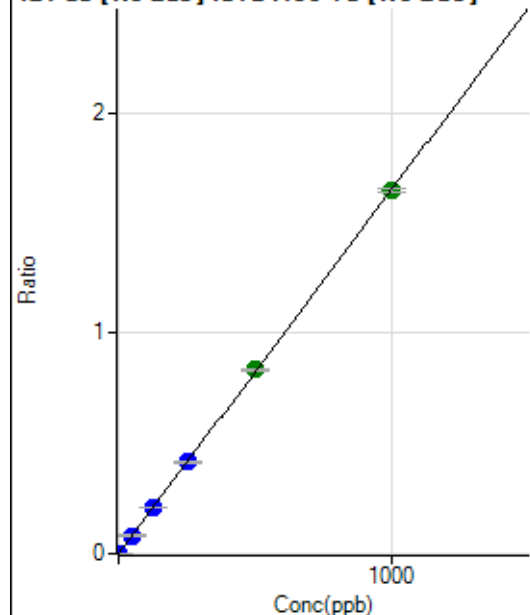
$$R = 1.0000$$

$$DL = 0.04623$$

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	16.67	0.0000	P	49.4
2	☐	0.200					
3	☐	2.000	1.789	6218.42	0.0030	P	5.4
4	☐	50.000	49.945	176085.92	0.0824	P	1.9
5	☐	125.000	124.944	450477.23	0.2062	P	0.1
6	☐	250.000	251.095	915819.09	0.4143	P	0.2
7	☐	500.000	505.261	1940634.38	0.8336	A	1.7
8	☐	1000.000	997.106	3923234.76	1.6451	A	1.2
9	☐			4489.85	0.0020	P	4.0

$$y = 0.0016 * x + 7.8638E-006$$

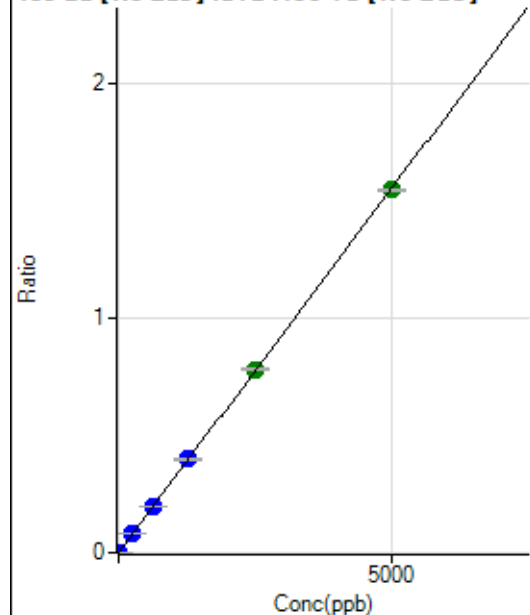
$$R = 1.0000$$

$$DL = 0.00707$$

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	19.45	0.0000	P	26.4
2	☐	1.000					
3	☐	10.000	9.975	6535.25	0.0031	P	0.4
4	☐	250.000	255.762	169928.01	0.0795	P	2.1
5	☐	625.000	635.466	431741.32	0.1976	P	0.6
6	☐	1250.000	1282.565	881506.18	0.3988	P	0.4
7	☐	2500.000	2515.947	1821069.64	0.7822	A	0.9
8	☐	5000.000	4982.289	3694128.95	1.5490	A	0.4
9	☐			500.03	0.0002	P	15.1

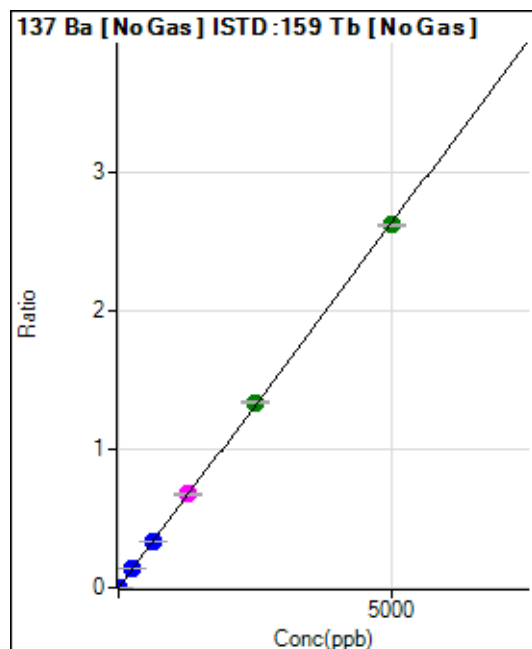
$$y = 3.1091E-004 * x + 9.2040E-006$$

$$R = 1.0000$$

$$DL = 0.02343$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	41.67	0.0000	P	35.1
2	☐	1.000					
3	☐	10.000	9.900	11016.19	0.0052	P	3.5
4	☐	250.000	255.210	287784.13	0.1347	P	0.4
5	☐	625.000	638.263	735993.42	0.3368	P	0.1
6	☐	1250.000	1279.174	1492156.10	0.6750	M	1.0
7	☐	2500.000	2532.558	3111173.64	1.3364	A	0.9
8	☐	5000.000	4974.509	6259847.45	2.6249	A	0.5
9	☐			855.62	0.0004	P	6.3

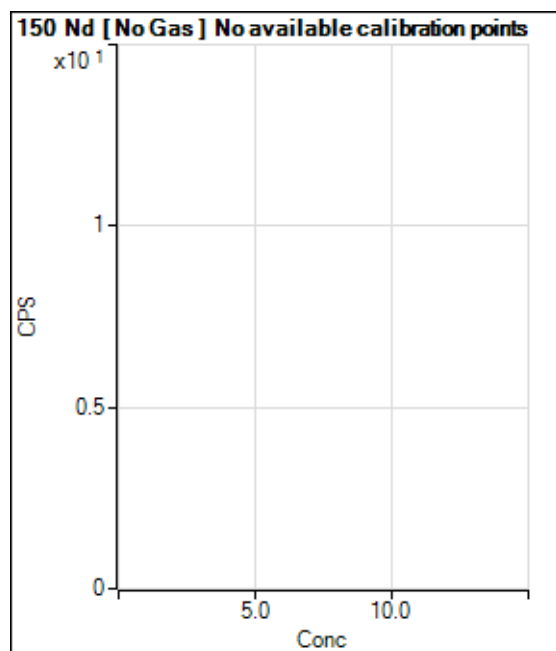
$$y = 5.2768E-004 * x + 1.9699E-005$$

$$R = 0.9999$$

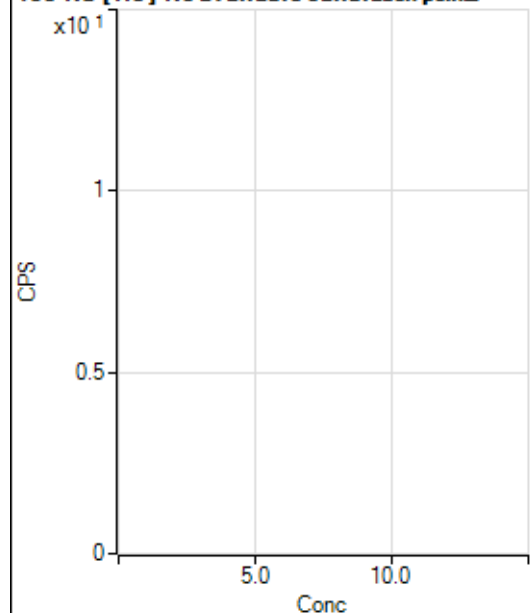
$$DL = 0.03931$$

Weight: <None>

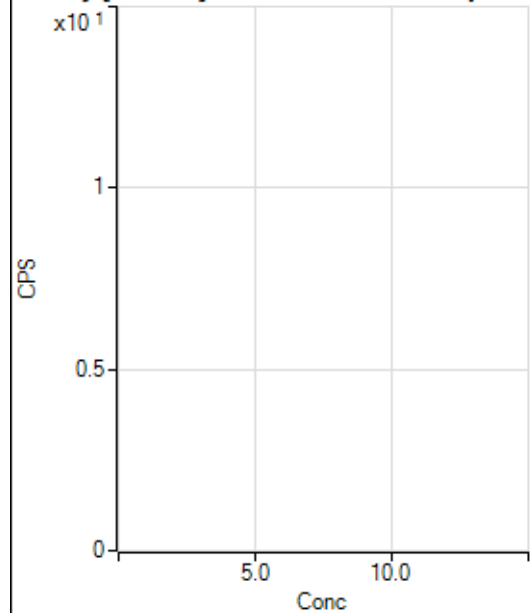
Min Conc: 0



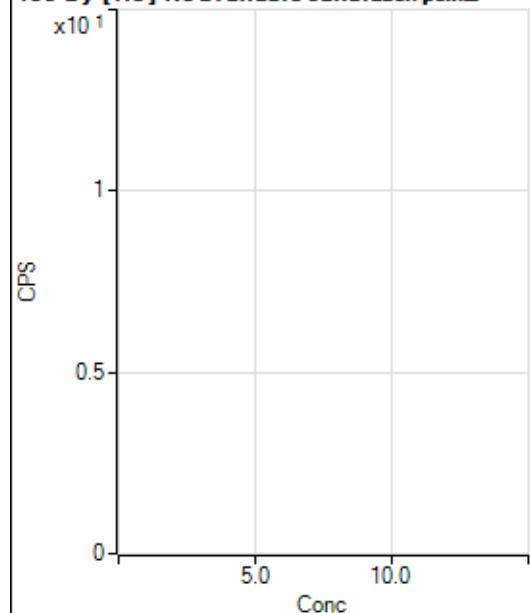
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			17.78		P	57.3
2	☐						
3	☐			13.33		P	50.0
4	☐			13.33		P	50.0
5	☐			44.45		P	17.3
6	☐			40.00		P	50.0
7	☐			91.12		P	18.4
8	☐			157.78		P	20.0
9	☐			71.11		P	19.5

150 Nd [He] No available calibration points

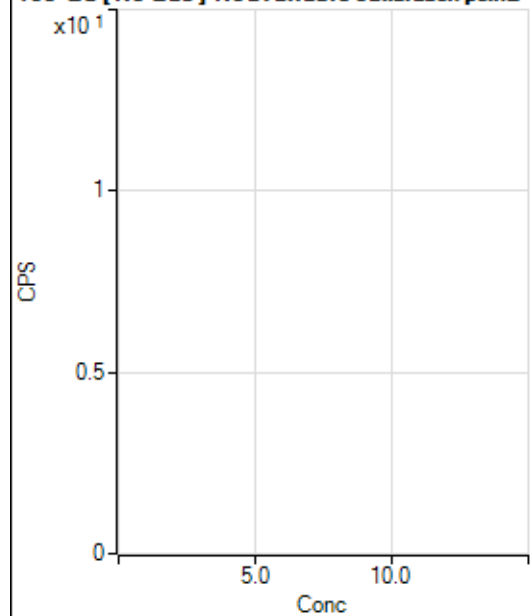
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			0.00		P	
2	☐						
3	☐			0.00		P	
4	☐			1.11		P	173.
5	☐			2.22		P	173.
6	☐			7.78		P	89.2
7	☐			8.89		P	21.6
8	☐			3.33		P	0.0
9	☐			13.33		P	66.1

156 Dy [No Gas] No available calibration points

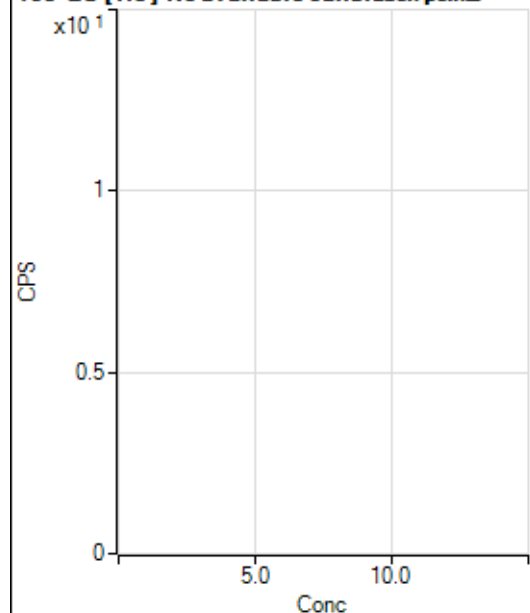
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			5.55		P	86.6
2	☐						
3	☐			19.44		P	65.5
4	☐			30.55		P	15.7
5	☐			25.00		P	57.7
6	☐			16.67		P	50.0
7	☐			36.11		P	58.1
8	☐			44.45		P	57.3
9	☐			52.78		P	36.5

156 Dy [He] No available calibration points

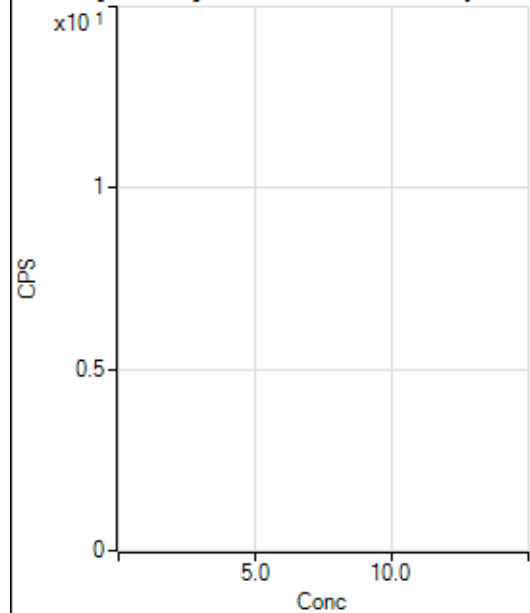
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	100.
2	☐						
3	☐			1.11		P	173.
4	☐			0.00		P	
5	☐			0.00		P	
6	☐			0.00		P	
7	☐			3.33		P	100.
8	☐			2.22		P	173.
9	☐			7.78		P	24.7

160 Gd [No Gas] Noavailable calibration poin_

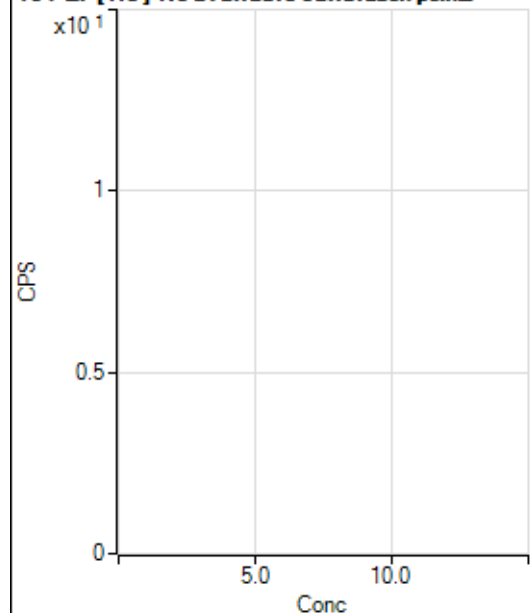
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			19.45		P	24.7
2	☐						
3	☐			8.33		P	100.
4	☐			25.00		P	33.3
5	☐			19.44		P	49.5
6	☐			27.78		P	62.5
7	☐			13.89		P	69.3
8	☐			13.89		P	34.7
9	☐			41.67		P	52.9

160 Gd [He] No available calibration points

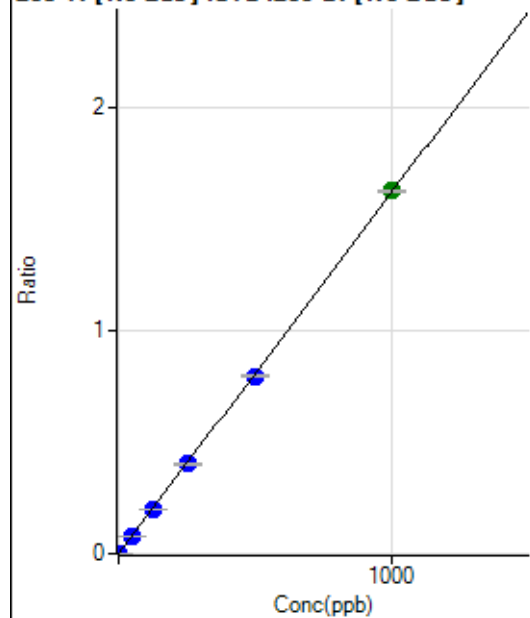
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			3.33		P	0.0
4	☐			5.55		P	69.3
5	☐			4.44		P	43.4
6	☐			6.67		P	132.
7	☐			2.22		P	86.6
8	☐			14.45		P	48.0
9	☐			17.78		P	28.6

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			8.33		P	100.
2	☐						
3	☐			11.11		P	114.
4	☐			25.00		P	0.0
5	☐			16.66		P	86.6
6	☐			16.67		P	132.
7	☐			8.33		P	173.
8	☐			13.89		P	69.3
9	☐			19.44		P	65.5

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐						
3	☐			1.11		P	173.
4	☐			4.44		P	43.4
5	☐			6.67		P	50.0
6	☐			5.55		P	124.
7	☐			1.11		P	173.
8	☐			2.22		P	86.6
9	☐			14.44		P	35.3

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

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	13.89	0.0000	P	70.4
2	☐	0.100					
3	☐	1.000	0.897	1555.74	0.0015	P	6.6
4	☐	50.000	49.229	85462.39	0.0797	P	1.4
5	☐	125.000	122.393	218279.85	0.1981	P	2.4
6	☐	250.000	247.984	445810.25	0.4015	P	1.2
7	☐	500.000	491.705	926638.80	0.7960	P	1.3
8	☐	1000.000	1005.016	1937768.21	1.6270	A	0.5
9	☐			194.45	0.0002	P	5.5

$$y = 0.0016 * x + 1.3189E-005$$

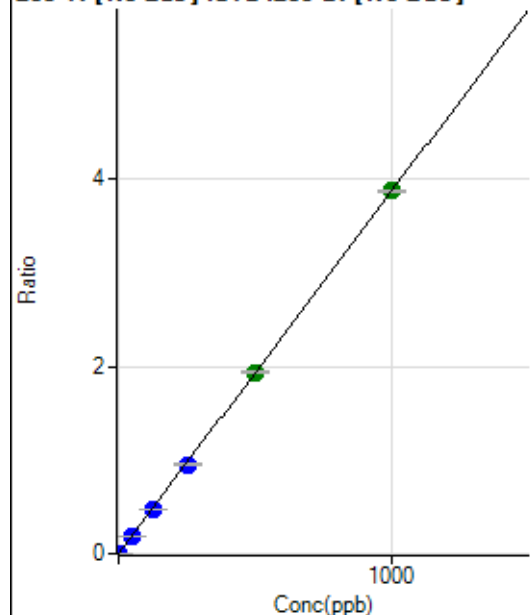
$$R = 0.9999$$

$$DL = 0.01721$$

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	36.11	0.0000	P	57.1
2	☐	0.100					
3	☐	1.000	0.922	3823.00	0.0036	P	8.1
4	☐	50.000	48.930	203109.12	0.1894	P	0.2
5	☐	125.000	121.374	517625.90	0.4698	P	1.4
6	☐	250.000	246.338	1058955.33	0.9536	P	1.3
7	☐	500.000	500.087	2253452.28	1.9358	A	1.2
8	☐	1000.000	1001.379	4616636.34	3.8762	A	0.2
9	☐			413.91	0.0004	P	6.2

$$y = 0.0039 * x + 3.3991E-005$$

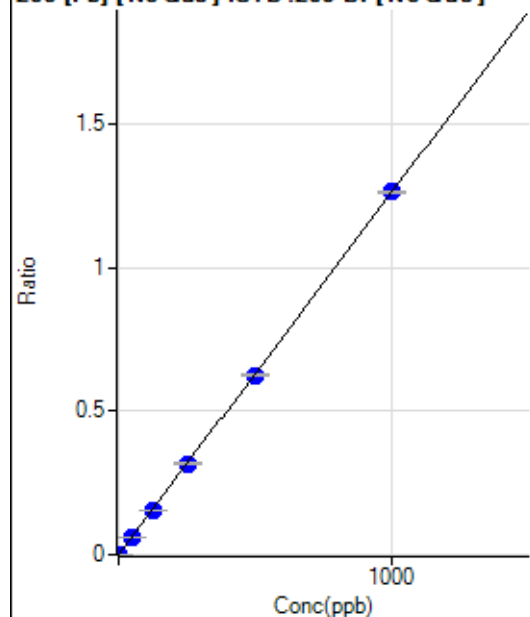
$$R = 1.0000$$

$$DL = 0.01505$$

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	46.30	0.0000	P	60.6
2	☐	0.100					
3	☐	1.000	0.924	1283.45	0.0012	P	7.5
4	☐	50.000	49.842	67371.07	0.0628	P	0.7
5	☐	125.000	123.681	171702.67	0.1559	P	1.1
6	☐	250.000	252.031	352648.14	0.3175	P	0.7
7	☐	500.000	495.354	726491.99	0.6241	P	0.8
8	☐	1000.000	1001.988	1503498.76	1.2623	P	0.6
9	☐			3063.43	0.0028	P	3.4

$$y = 0.0013 * x + 4.3570E-005$$

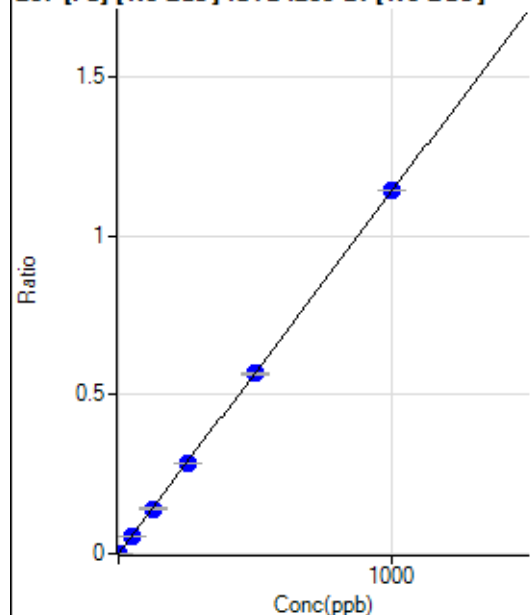
$$R = 1.0000$$

$$DL = 0.06289$$

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	57.41	0.0001	P	28.6
2	☐	0.100					
3	☐	1.000	0.813	1040.82	0.0010	P	3.8
4	☐	50.000	49.994	61100.63	0.0570	P	0.5
5	☐	125.000	124.210	155896.97	0.1415	P	1.0
6	☐	250.000	249.467	315536.61	0.2841	P	0.6
7	☐	500.000	496.782	658601.00	0.5658	P	0.4
8	☐	1000.000	1001.841	1358870.95	1.1409	P	0.1
9	☐			2781.88	0.0025	P	7.1

$$y = 0.0011 * x + 5.4148E-005$$

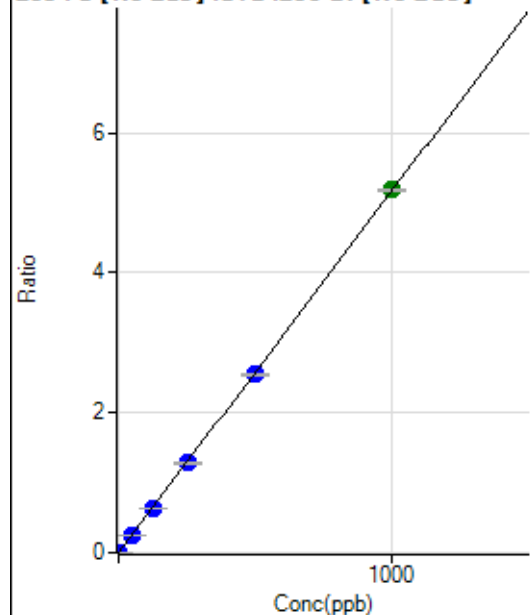
$$R = 1.0000$$

$$DL = 0.04077$$

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	209.26	0.0002	P	16.2
2	☐	0.100					
3	☐	1.000	0.879	5026.50	0.0047	P	5.2
4	☐	50.000	49.278	272755.59	0.2544	P	0.3
5	☐	125.000	122.589	696888.80	0.6325	P	0.5
6	☐	250.000	248.315	1422646.26	1.2811	P	0.9
7	☐	500.000	492.584	2958043.69	2.5411	P	0.4
8	☐	1000.000	1004.467	6171387.64	5.1816	A	0.3
9	☐			12269.35	0.0111	P	0.7

$$y = 0.0052 * x + 1.9763E-004$$

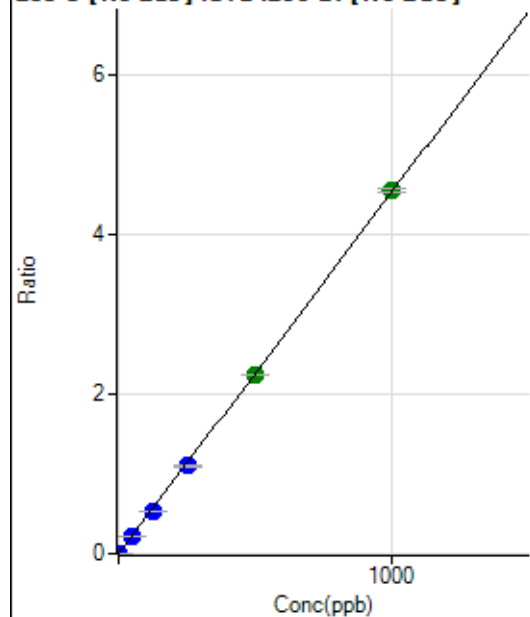
$$R = 1.0000$$

$$DL = 0.01857$$

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	27.78	0.0000	P	44.9
2	☐	0.100					
3	☐	1.000	0.842	4067.54	0.0038	P	1.6
4	☐	50.000	46.843	226920.71	0.2116	P	0.4
5	☐	125.000	118.444	589503.85	0.5351	P	1.2
6	☐	250.000	243.160	1219827.47	1.0985	P	1.5
7	☐	500.000	495.877	2607686.32	2.2402	A	0.8
8	☐	1000.000	1004.749	5406038.14	4.5390	A	1.2
9	☐			241.68	0.0002	P	6.8

$$y = 0.0045 * x + 2.6206E-005$$

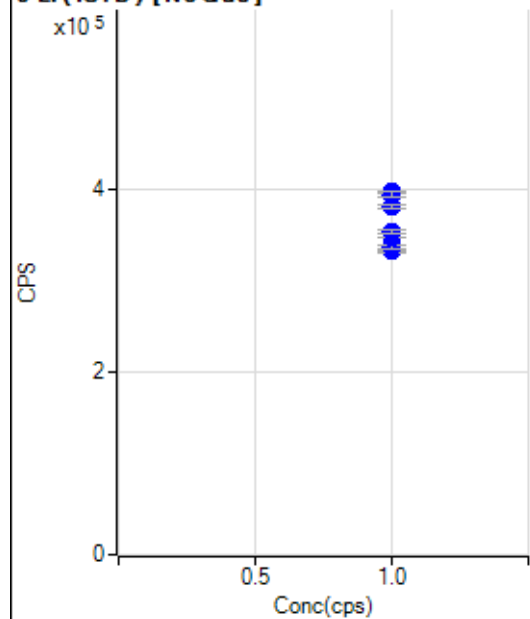
$$R = 1.0000$$

$$DL = 0.007821$$

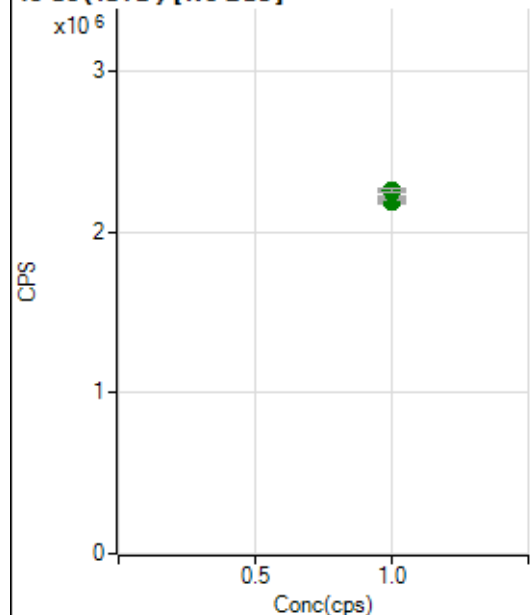
Weight: <None>

Min Conc: 0

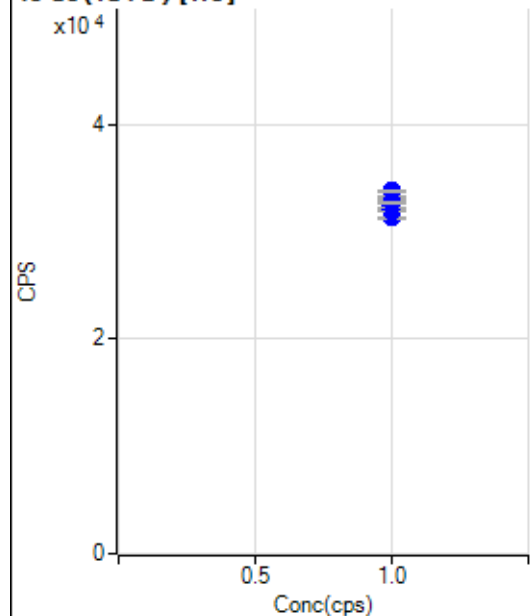
6 Li (ISTD) [No Gas]



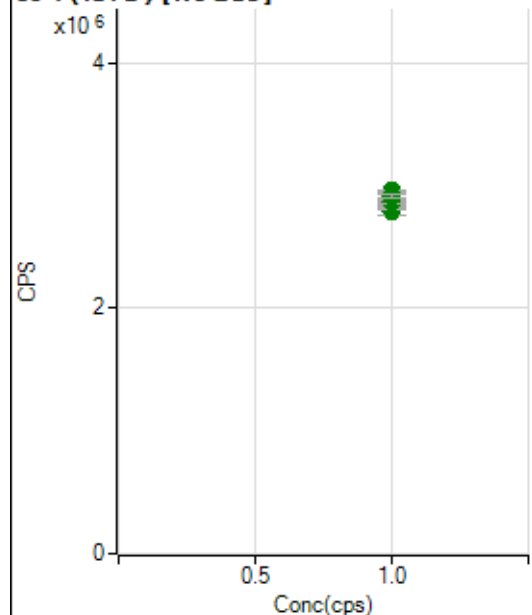
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		334217.13		P	0.6
2	☐	1.000					
3	☐	1.000		332841.71		P	0.5
4	☐	1.000		338084.24		P	0.9
5	☐	1.000		347834.18		P	0.1
6	☐	1.000		354857.65		P	1.5
7	☐	1.000		382353.66		P	1.0
8	☐	1.000		398097.49		P	0.2
9	☐	1.000		394915.56		P	1.6

45 Sc (ISTD) [No Gas]

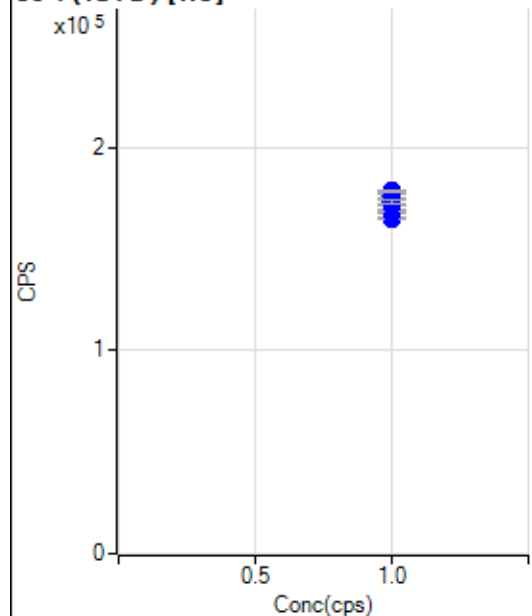
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2197488.16		A	0.6
2	☐	1.000					
3	☐	1.000		2181167.93		A	1.0
4	☐	1.000		2188561.90		A	0.5
5	☐	1.000		2222196.88		A	0.4
6	☐	1.000		2203727.13		A	0.2
7	☐	1.000		2249842.89		A	0.3
8	☐	1.000		2243401.35		A	1.5
9	☐	1.000		2254167.00		A	1.1

45 Sc (ISTD) [He]

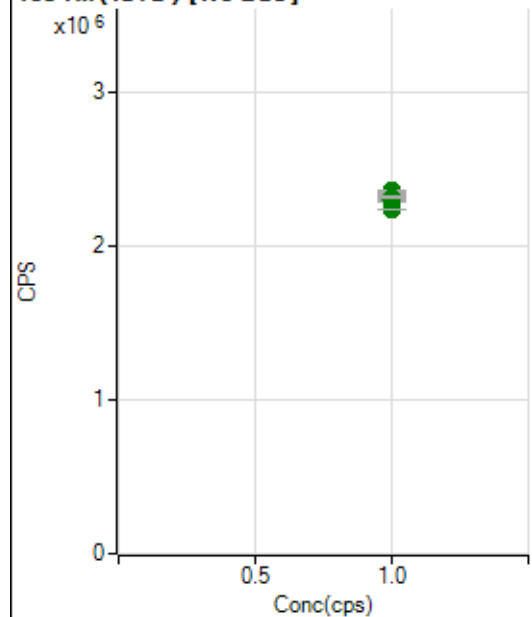
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		31279.41		P	0.7
2	☐	1.000					
3	☐	1.000		32101.38		P	5.0
4	☐	1.000		31934.23		P	0.5
5	☐	1.000		32054.52		P	1.2
6	☐	1.000		32472.12		P	1.1
7	☐	1.000		33207.12		P	0.9
8	☐	1.000		33775.13		P	0.6
9	☐	1.000		32686.98		P	0.8

89 Y (ISTD) [No Gas]

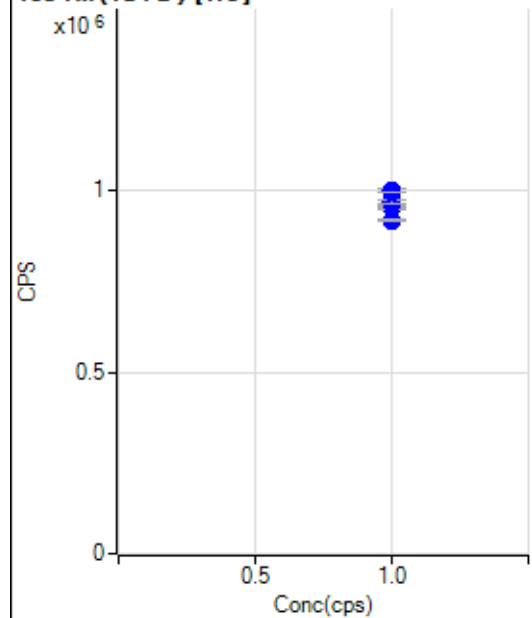
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2827511.07		A	0.6
2	☐	1.000					
3	☐	1.000		2782512.15		A	1.2
4	☐	1.000		2808812.01		A	0.6
5	☐	1.000		2874276.03		A	0.2
6	☐	1.000		2864283.81		A	1.0
7	☐	1.000		2954853.50		A	0.1
8	☐	1.000		2957021.35		A	0.5
9	☐	1.000		2909276.52		A	1.0

89 Y (ISTD) [He]

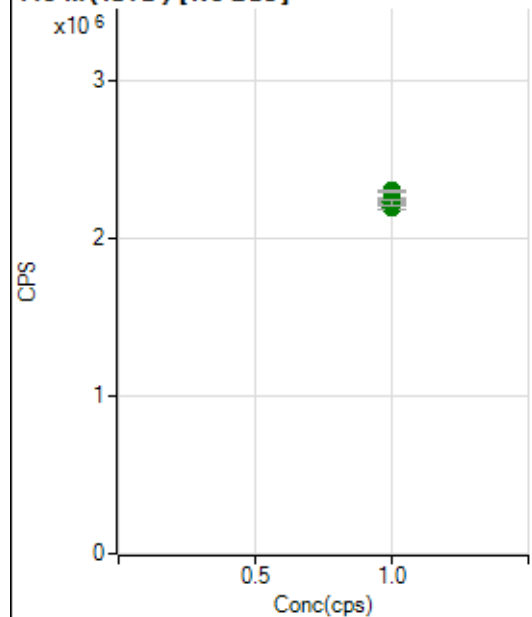
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		164973.92		P	0.5
2	☐	1.000					
3	☐	1.000		168550.42		P	4.4
4	☐	1.000		167645.39		P	0.4
5	☐	1.000		168731.41		P	0.6
6	☐	1.000		171638.29		P	0.5
7	☐	1.000		175909.61		P	0.8
8	☐	1.000		178530.54		P	0.3
9	☐	1.000		172898.87		P	0.9

103 Rh (ISTD) [No Gas]

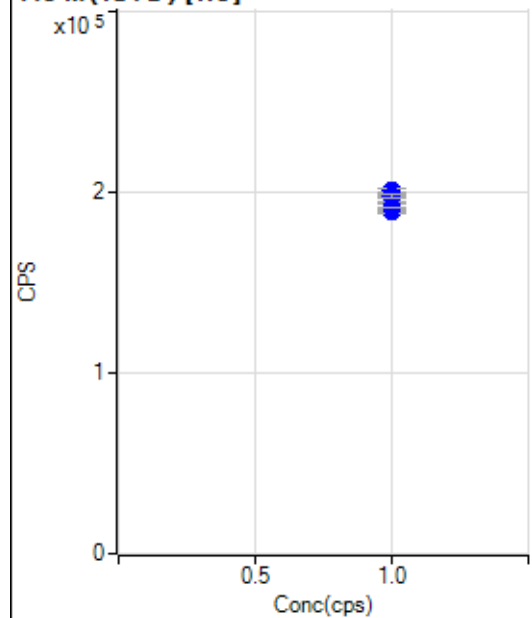
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2315335.62		A	1.2
2	☐	1.000					
3	☐	1.000		2298144.45		A	1.3
4	☐	1.000		2328429.04		A	0.9
5	☐	1.000		2323707.15		A	1.1
6	☐	1.000		2317770.58		A	0.8
7	☐	1.000		2353818.91		A	0.6
8	☐	1.000		2313639.27		A	0.4
9	☐	1.000		2233186.36		A	0.2

103 Rh (ISTD) [He]

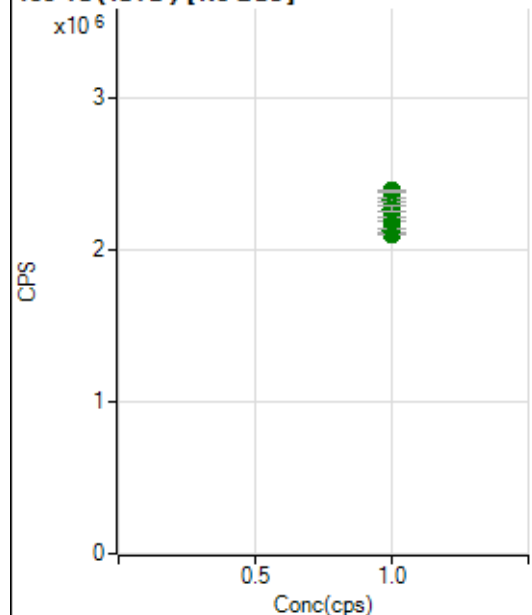
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		952871.76		P	0.6
2	☐	1.000					
3	☐	1.000		972562.41		P	4.4
4	☐	1.000		961549.58		P	0.3
5	☐	1.000		967280.69		P	1.1
6	☐	1.000		969768.01		P	0.8
7	☐	1.000		998675.91		P	1.0
8	☐	1.000		994394.93		P	0.1
9	☐	1.000		917878.62		P	0.9

115 In (ISTD) [No Gas]

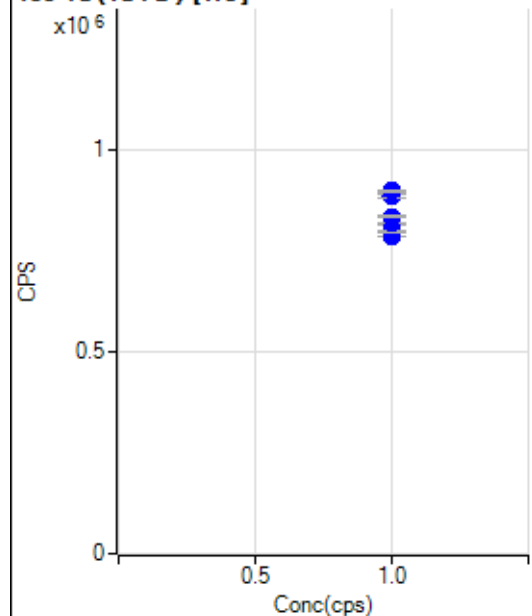
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2211679.08		A	0.9
2	☐	1.000					
3	☐	1.000		2195344.52		A	1.2
4	☐	1.000		2217743.30		A	0.4
5	☐	1.000		2247381.60		A	0.4
6	☐	1.000		2227903.00		A	1.2
7	☐	1.000		2296517.09		A	0.6
8	☐	1.000		2292073.10		A	0.4
9	☐	1.000		2223464.09		A	1.4

115 In (ISTD) [He]

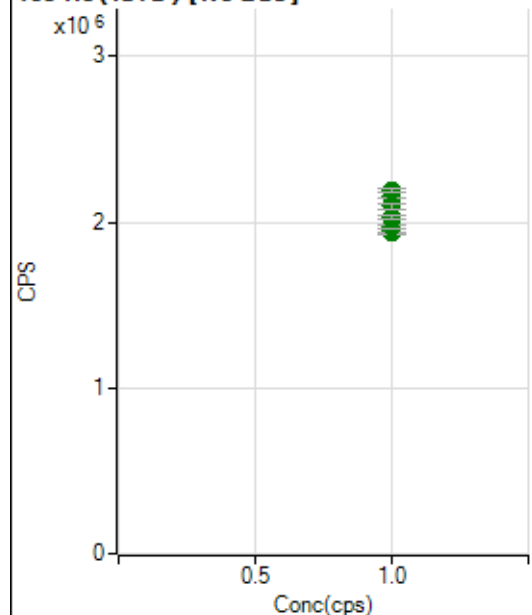
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		189418.82		P	0.8
2	☐	1.000					
3	☐	1.000		193281.51		P	4.8
4	☐	1.000		190871.24		P	0.6
5	☐	1.000		193794.97		P	0.8
6	☐	1.000		194279.92		P	0.4
7	☐	1.000		200516.57		P	1.1
8	☐	1.000		197752.79		P	0.6
9	☐	1.000		191374.62		P	0.1

159 Tb (ISTD) [No Gas]

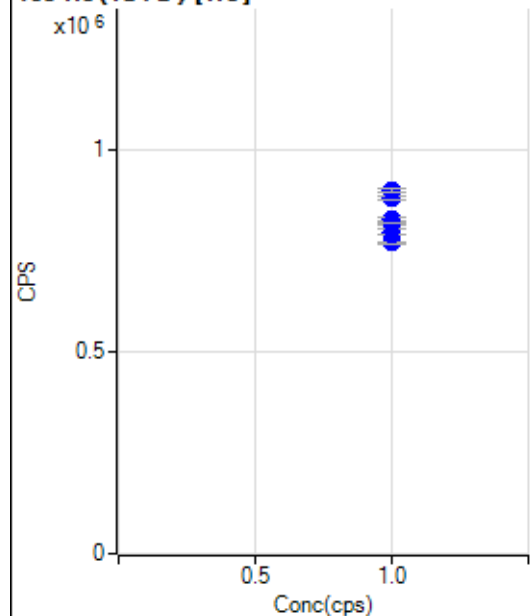
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2118401.15		A	1.5
2	☐	1.000					
3	☐	1.000		2101000.96		A	0.7
4	☐	1.000		2136685.90		A	0.5
5	☐	1.000		2185148.21		A	0.4
6	☐	1.000		2210580.69		A	0.2
7	☐	1.000		2328200.55		A	1.2
8	☐	1.000		2384806.91		A	0.7
9	☐	1.000		2268838.47		A	1.7

159 Tb (ISTD) [He]

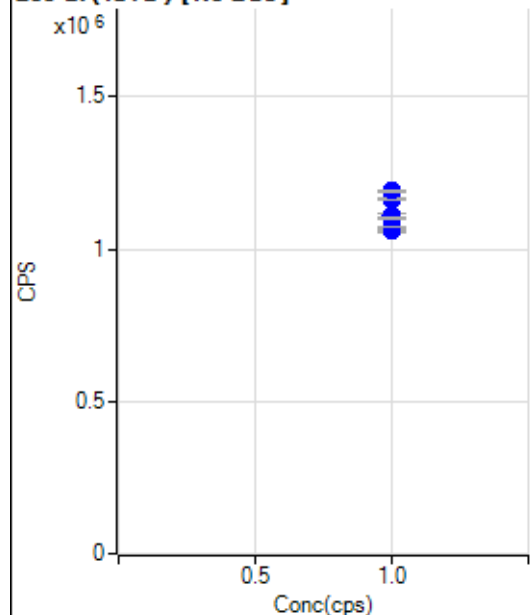
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		784672.06		P	0.1
2	☐	1.000					
3	☐	1.000		799713.68		P	3.9
4	☐	1.000		797849.30		P	0.6
5	☐	1.000		818559.90		P	0.3
6	☐	1.000		835293.29		P	0.6
7	☐	1.000		885414.69		P	0.9
8	☐	1.000		898939.01		P	0.3
9	☐	1.000		835785.77		P	0.2

165 Ho (ISTD) [No Gas]

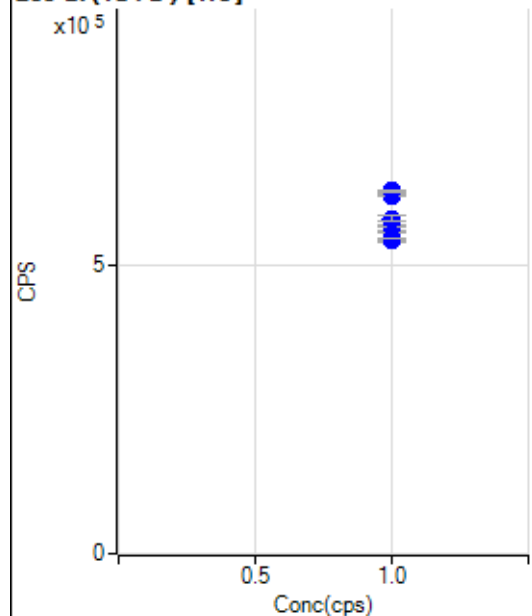
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1946458.07		A	1.0
2	☐	1.000					
3	☐	1.000		1931711.94		A	0.2
4	☐	1.000		1975688.17		A	1.2
5	☐	1.000		2019100.74		A	0.4
6	☐	1.000		2029887.74		A	0.7
7	☐	1.000		2160808.90		A	1.6
8	☐	1.000		2187843.69		A	0.9
9	☐	1.000		2094229.58		A	1.3

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		769234.42		P	0.6
2	☐	1.000					
3	☐	1.000		793101.12		P	5.0
4	☐	1.000		789367.27		P	0.3
5	☐	1.000		803519.88		P	0.4
6	☐	1.000		827918.82		P	1.5
7	☐	1.000		880271.29		P	1.1
8	☐	1.000		897860.86		P	1.0
9	☐	1.000		819764.14		P	0.2

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1057919.03		P	1.1
2	☐	1.000					
3	☐	1.000		1061959.80		P	0.8
4	☐	1.000		1072210.71		P	0.3
5	☐	1.000		1101745.36		P	0.8
6	☐	1.000		1110539.02		P	0.9
7	☐	1.000		1164064.29		P	0.6
8	☐	1.000		1191038.24		P	0.5
9	☐	1.000		1101750.75		P	1.0

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		541742.46		P	0.8
2	☐	1.000					
3	☐	1.000		554465.87		P	4.8
4	☐	1.000		555530.32		P	0.6
5	☐	1.000		565028.42		P	0.3
6	☐	1.000		579816.54		P	1.4
7	☐	1.000		619476.92		P	0.6
8	☐	1.000		627164.23		P	0.4
9	☐	1.000		545895.92		P	0.2

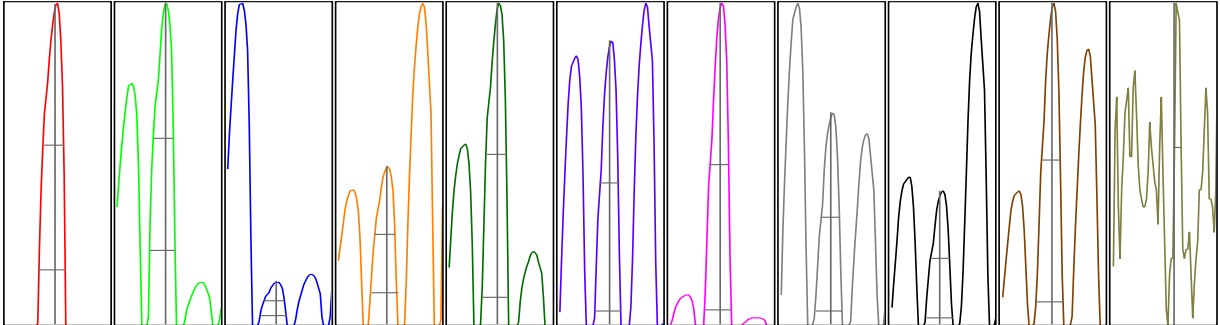
US EPA Tune Check Sample Report

Batch Folder D:\P8022319 MS.b
Report Comment
Instrument Name G8403A JP17141814

[No Gas]				
Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	3012	1.05	5.00	
24	38056	0.51	5.00	
25	5443	1.12	5.00	
26	6561	0.72	5.00	
59	30994	0.80	5.00	
113	2915	0.72	5.00	
115	34490	0.43	5.00	
206	4802	0.60	5.00	
207	4361	0.93	5.00	
208	10255	0.87	5.00	
220	1	19.18		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	2989	3056	3031	3009	2977
24	37799	38111	38186	38268	37915
25	5397	5512	5508	5397	5402
26	6522	6590	6613	6580	6502
59	30663	31036	31278	31162	30829
113	2900	2945	2921	2919	2891
115	34440	34613	34534	34605	34258
206	4767	4819	4799	4840	4783
207	4330	4373	4342	4426	4333
208	10212	10209	10315	10378	10161
220	1	2	2	2	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	5348	8.95	8.9 - 9.1		0.746	0.900	
24	68864	23.95	23.9 - 24.1		0.722	0.900	
25	9391	24.95	24.9 - 25.1		0.740	0.900	
26	10967	25.95	25.9 - 26.1		0.743	0.900	
59	56666	58.95	58.9 - 59.1		0.753	0.900	
113	5730	113.00	112.9 - 113.1		0.734	0.900	
115	67103	115.00	114.9 - 115.1		0.765	0.900	
206	9162	206.00	205.9 - 206.1		0.773	0.900	
207	8248	206.95	206.9 - 207.1		0.771	0.900	
208	19843	208.00	207.9 - 208.1		0.772	0.900	
220	3	220.35	-				

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
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.6	V	Deflect	14.8	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-120	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	5704	0.69	
89	2311	1.13	
205	4094	1.05	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	5752	5734	5700	5681	5654
89	2315	2333	2312	2330	2267
205	4093	4149	4047	4125	4058

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Plasma Mode		HMI	Aerosol Dilution		HMI-8			

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	10.6	V	Deflect	3.2	V
Extract 2	-250.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-120	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	5.0	mL/min	OctP RF	200	V			