

Potassium	%	4.42									
Environmental data											
GR											
Mud weight	ppg	9.8									
Bit size	in	8.5									
Resistivity											
Neutron porosity											
Hole Size	in	N/A									
Mud weight	ppg	N/A									
Temperature	°C	N/A									
Mud salinity	ppk	N/A									
Formation salinity											
Recording rate 1	SEC	N/A									
Recording rate 2	SEC	N/A									
Filtering GR		3pt									
Filtering density		3pt									
Filtering Neutron		3pt									
Company representative	B. Davis	C. Stead	B. Steel								
Schlumberger D&M Personnel	R. Borjas	C. Skiba	M. Amarasena	M. Blacker	C. Cocks						

OTHER SERVICES FOR RUN1 Directional Drilling Directional Surveys Annulus Pressure & Temperature	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
<p>REMARKS: RUN NUMBER 1 Depth is referenced to Driller's Depth .</p> <p>All Data presented is from Real Time Transmission.</p> <p>Gamma Ray is corrected for mud weight, tool size and bit size. Gamma Ray is not corrected for potassium.</p> <p>8-1/2 in. hole was drilled from 645.0m to 2930.0m.</p> <p>POOH to change BHA.</p>	REMARKS: RUN NUMBER	REMARKS: RUN NUMBER

DOWNHOLE EQUIPMENT

6-3/4 in. PowerPulse* 25.81
MDC: V875
MEC: 1281
MDI: 1565
MGR: 146-AA
DHS: 8.0C03

D&I 21.12
GR 20.47
APWD 17.83

6-5/8 in. NM Pony DC 16.52
S/N:ASQ60506

6-5/8 in. NM Float Sub 14.83
S/N: ANA98-007

6-5/8 in. NM Roller Reamer 12.37
S/N: GU2298

7 in. PowerPak* Motor 10.29
A700GT 7:8
S/N: N7310
1.15 deg. Bent Housing

8-1/2 in. Smith PDC Bit 0.22
S616PX 0.00
S/N: JW6578A

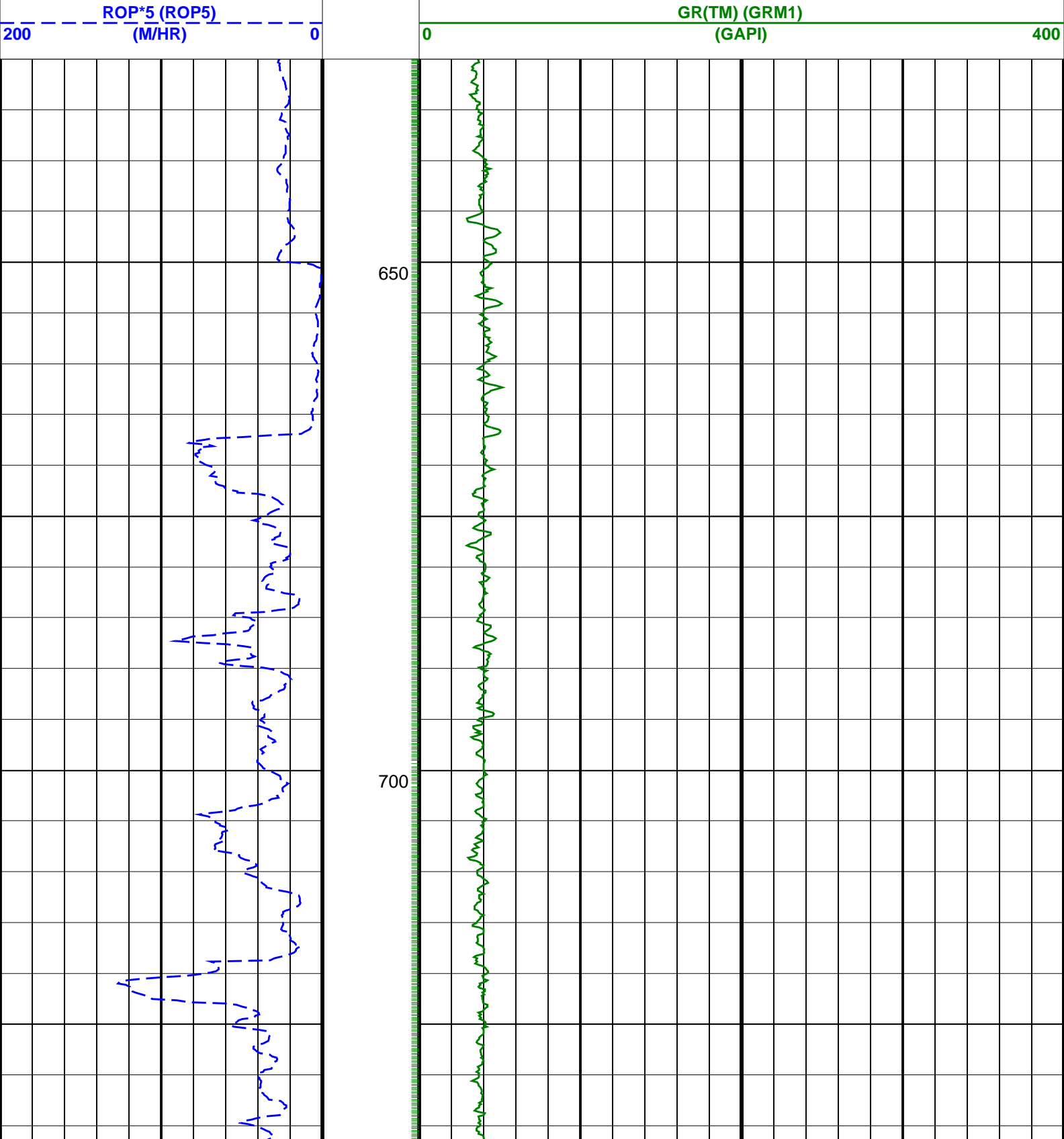
Maximum string diameter 8.50 in.
All lengths in Meters

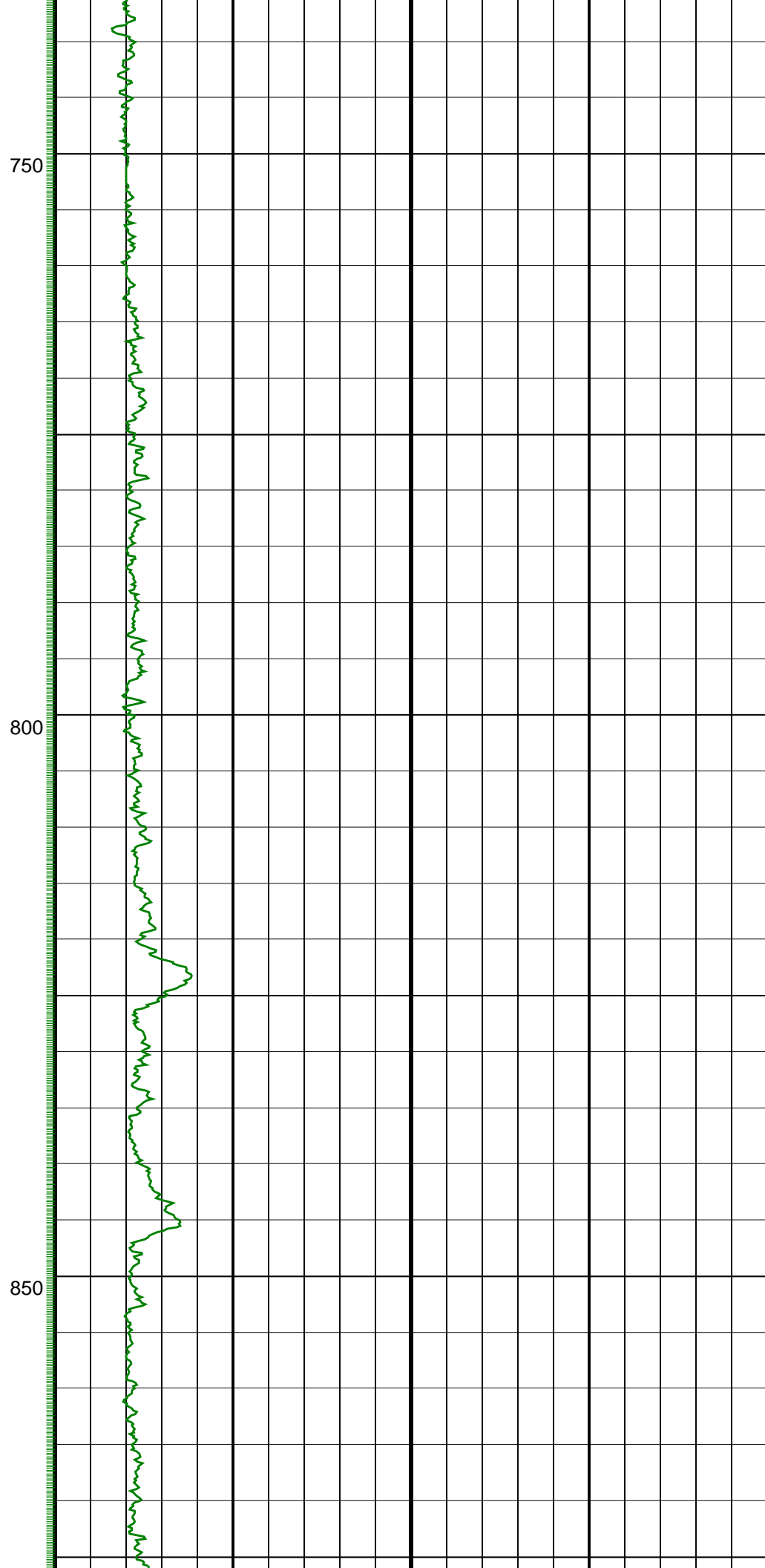
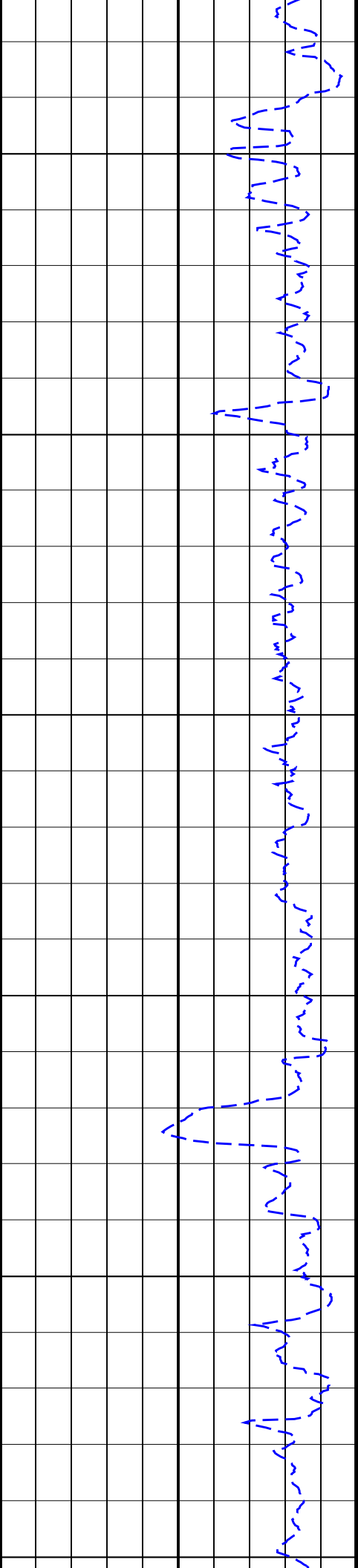
HLA A2B RT GR 1:500 MD

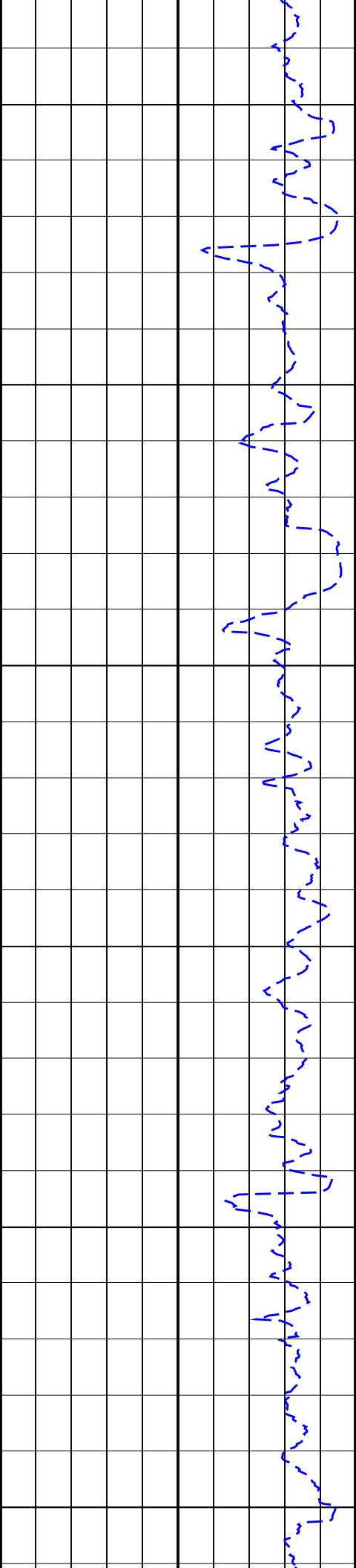
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PIP SUMMARY

GR(TM) PIP



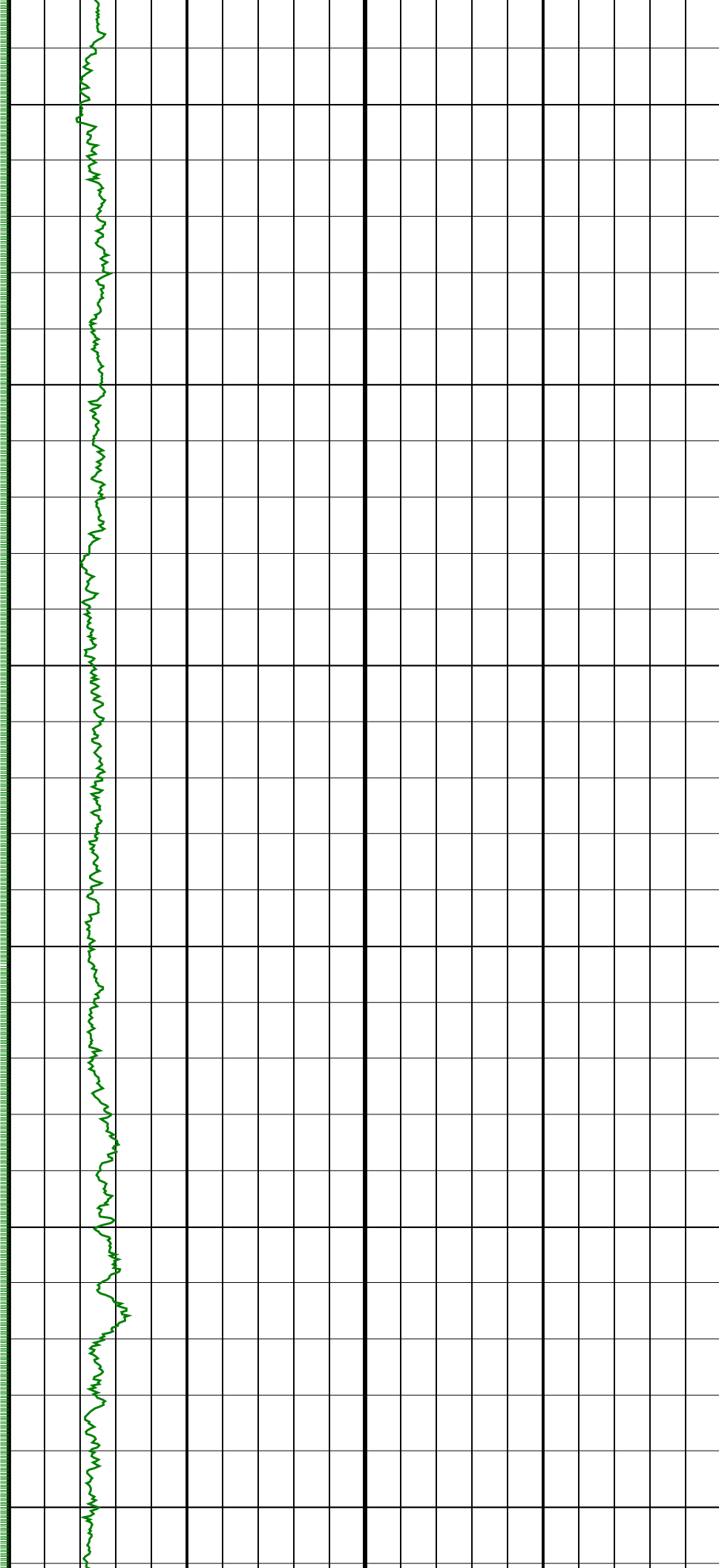


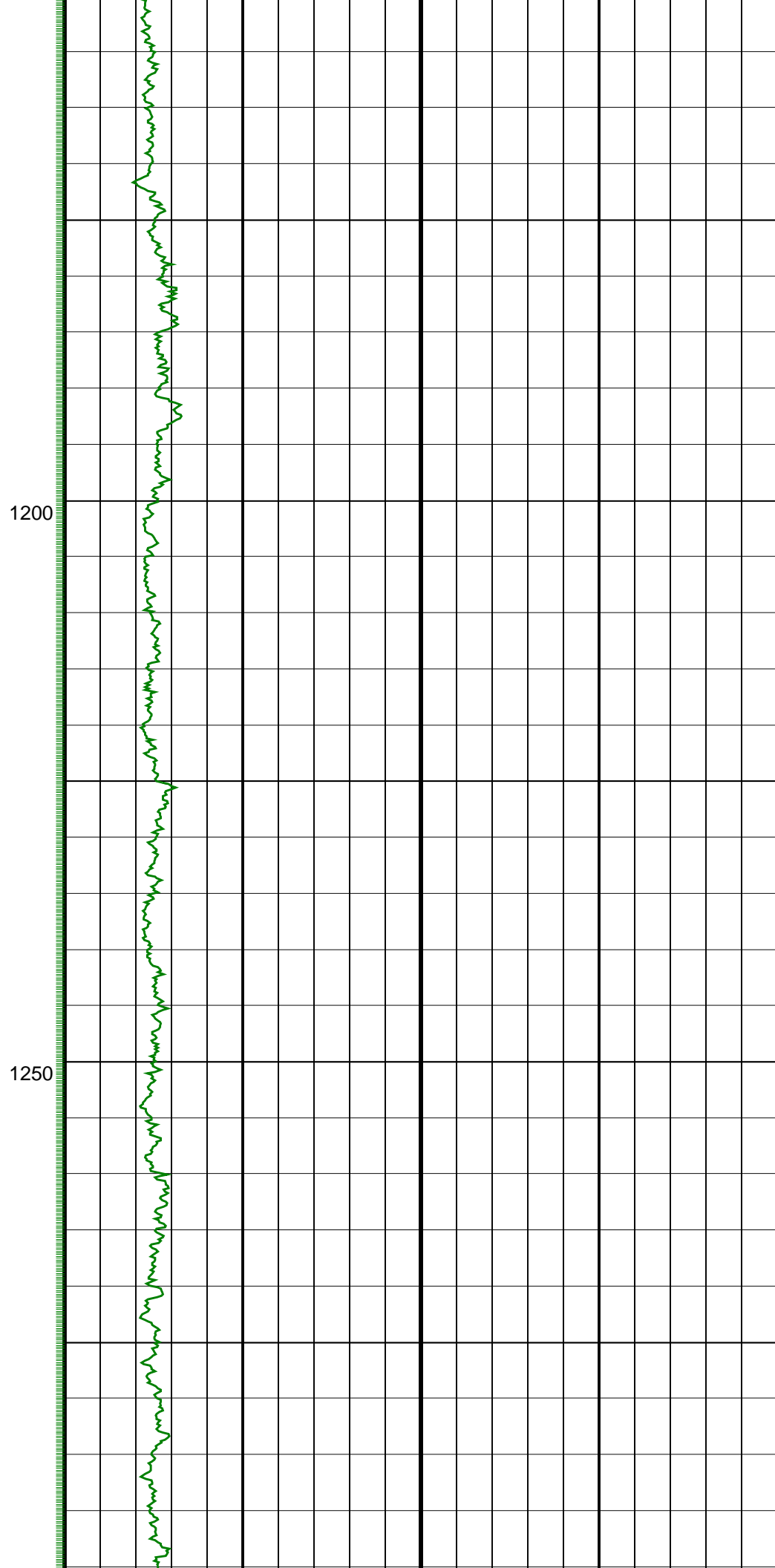
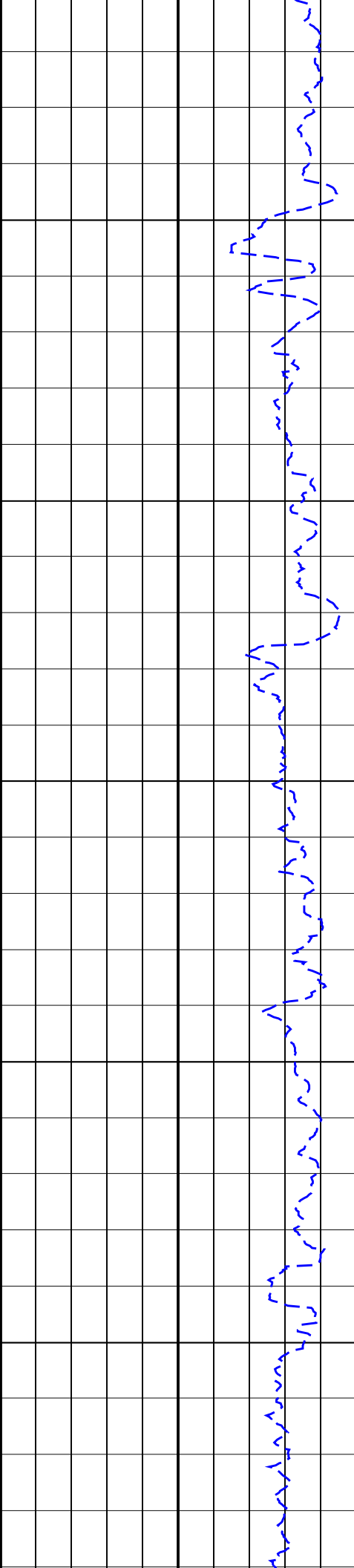


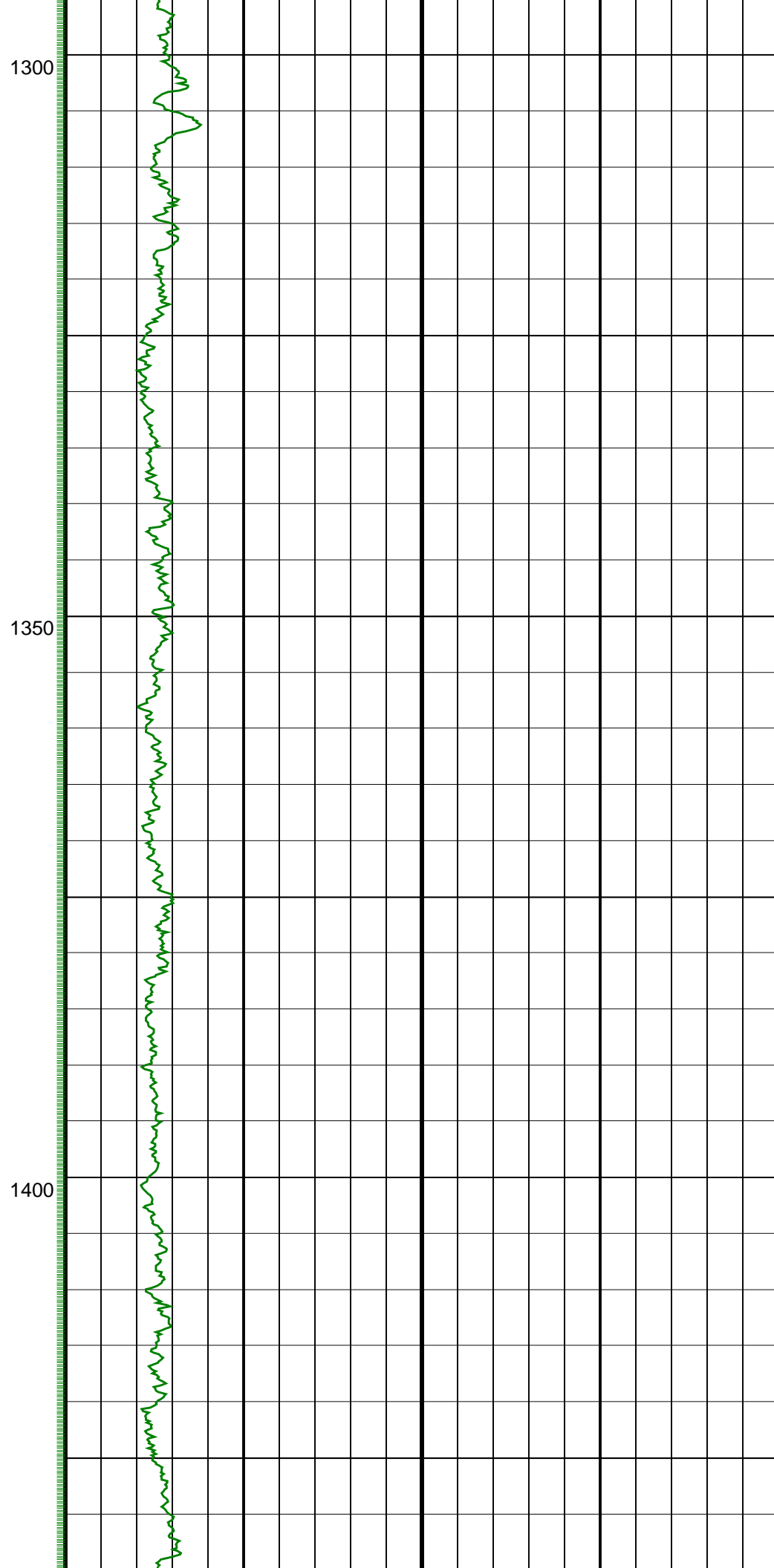
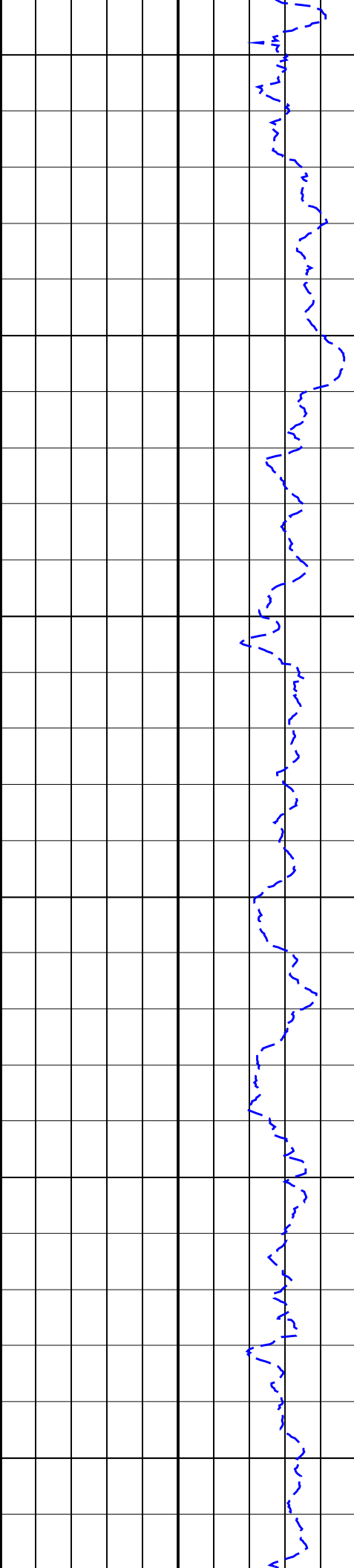
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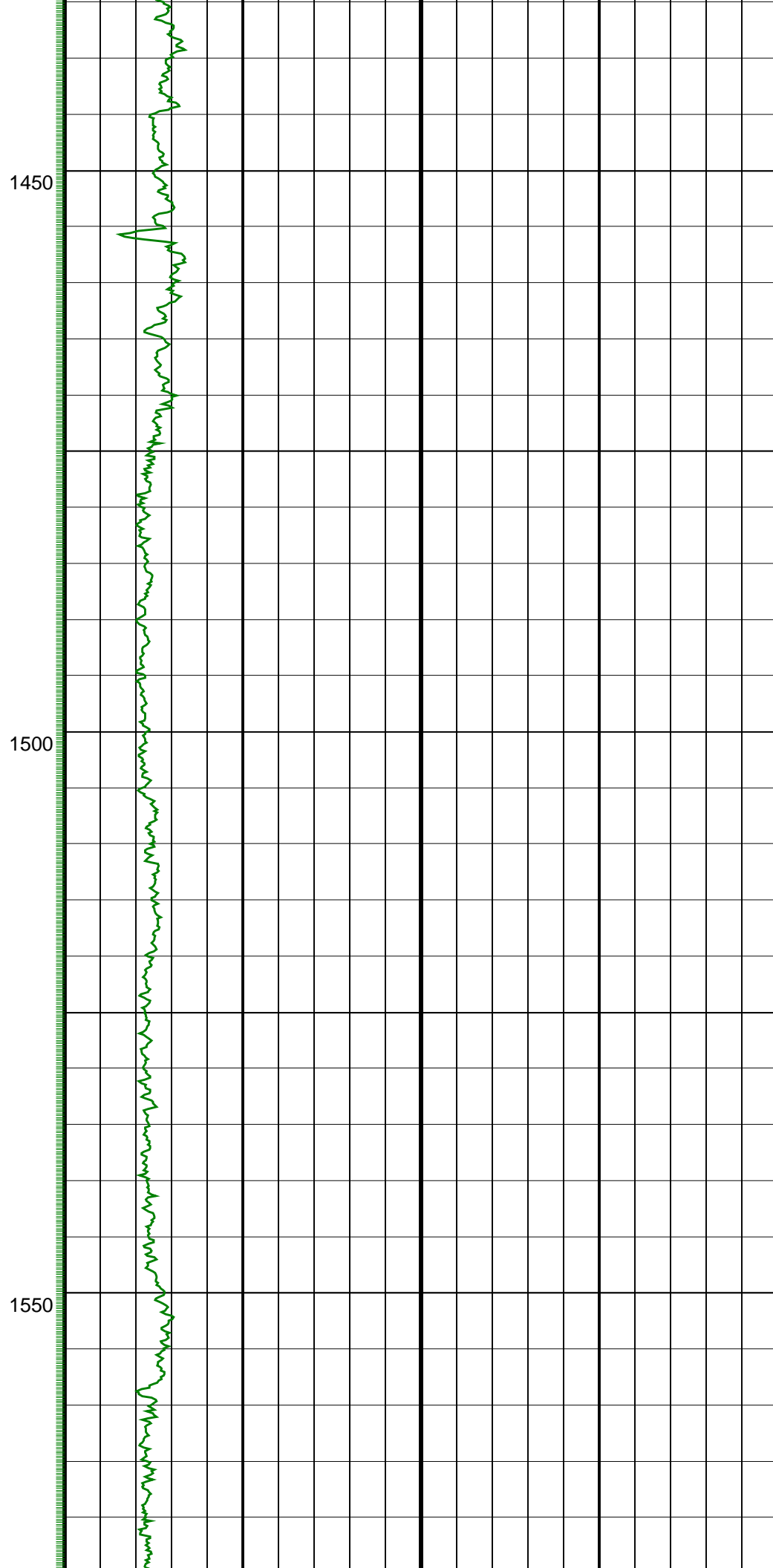
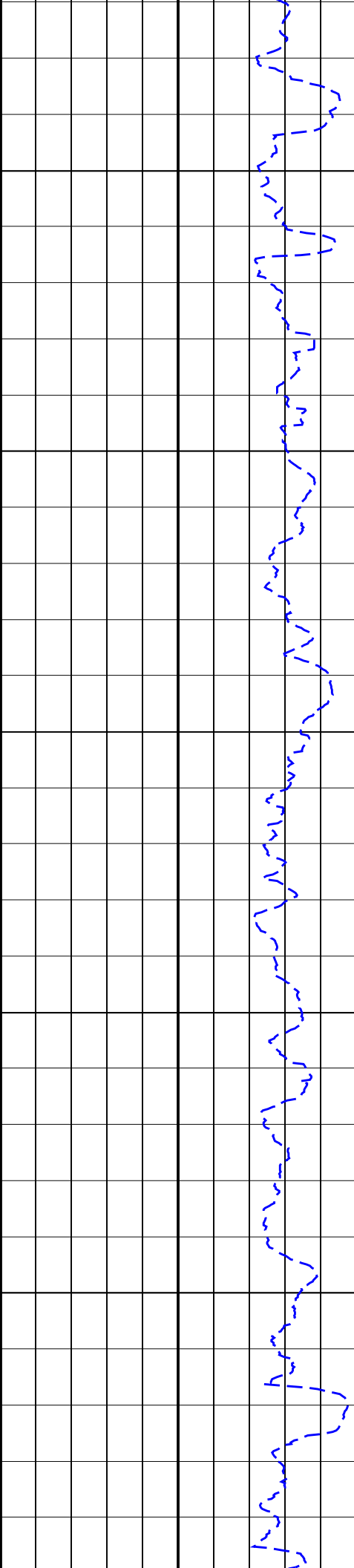
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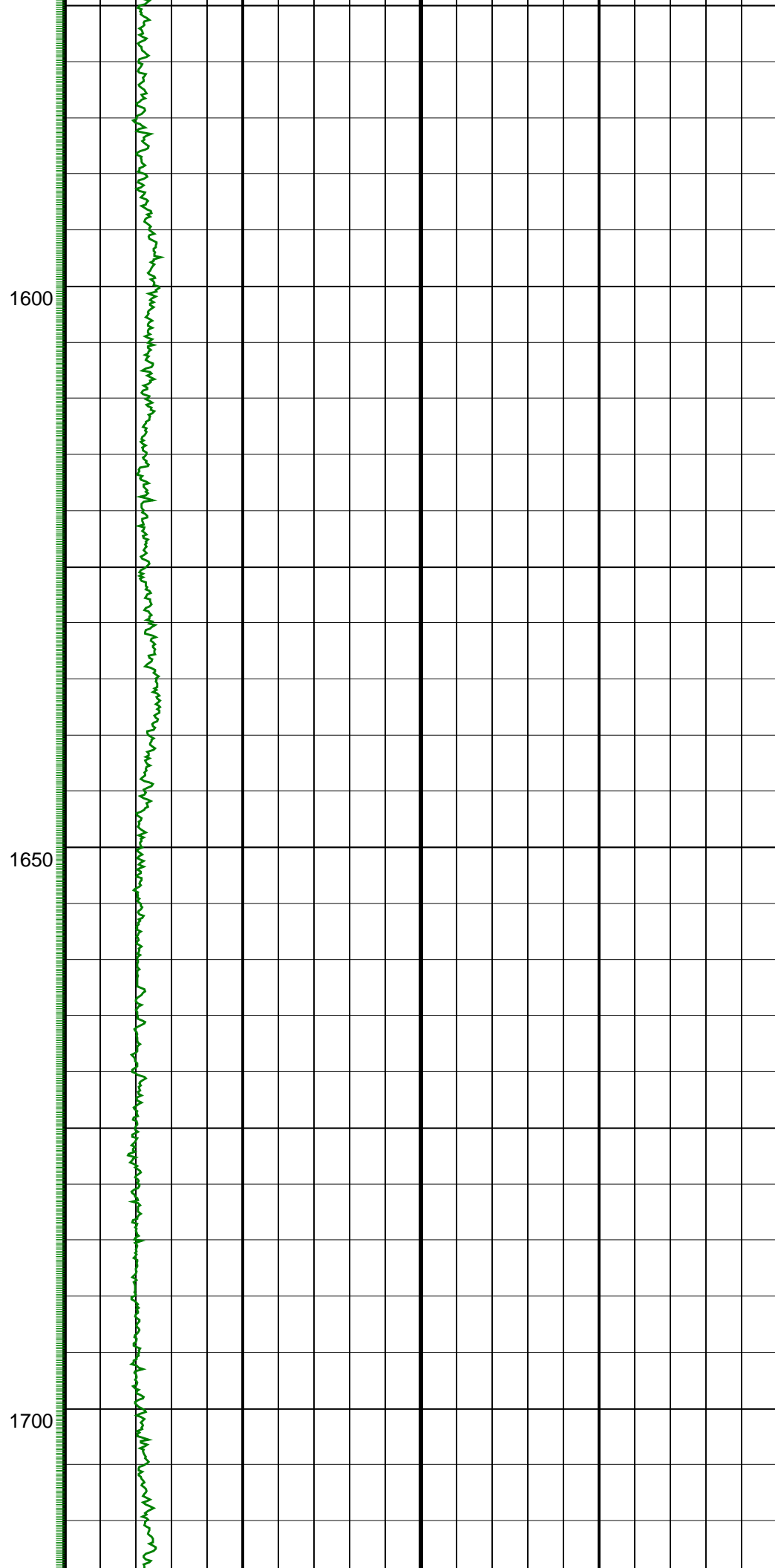
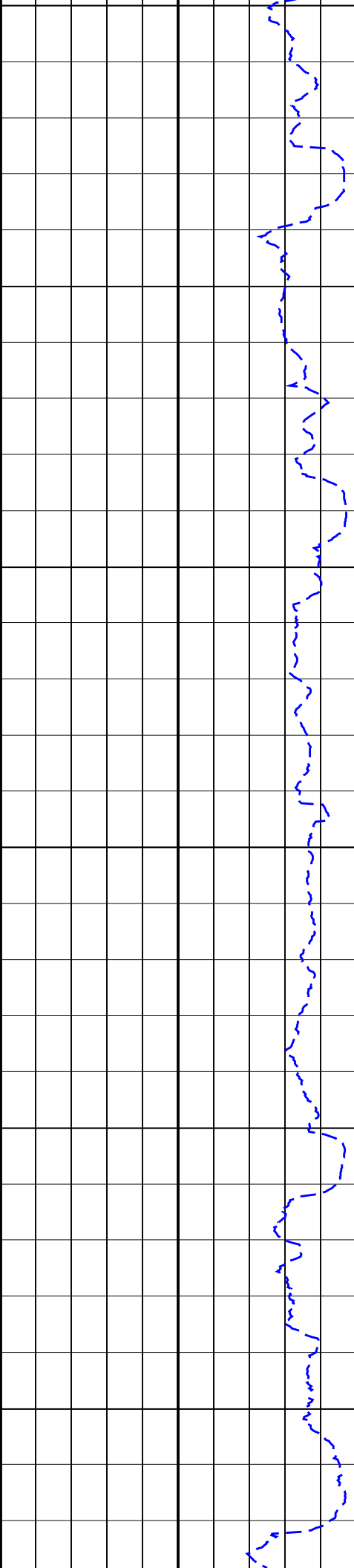
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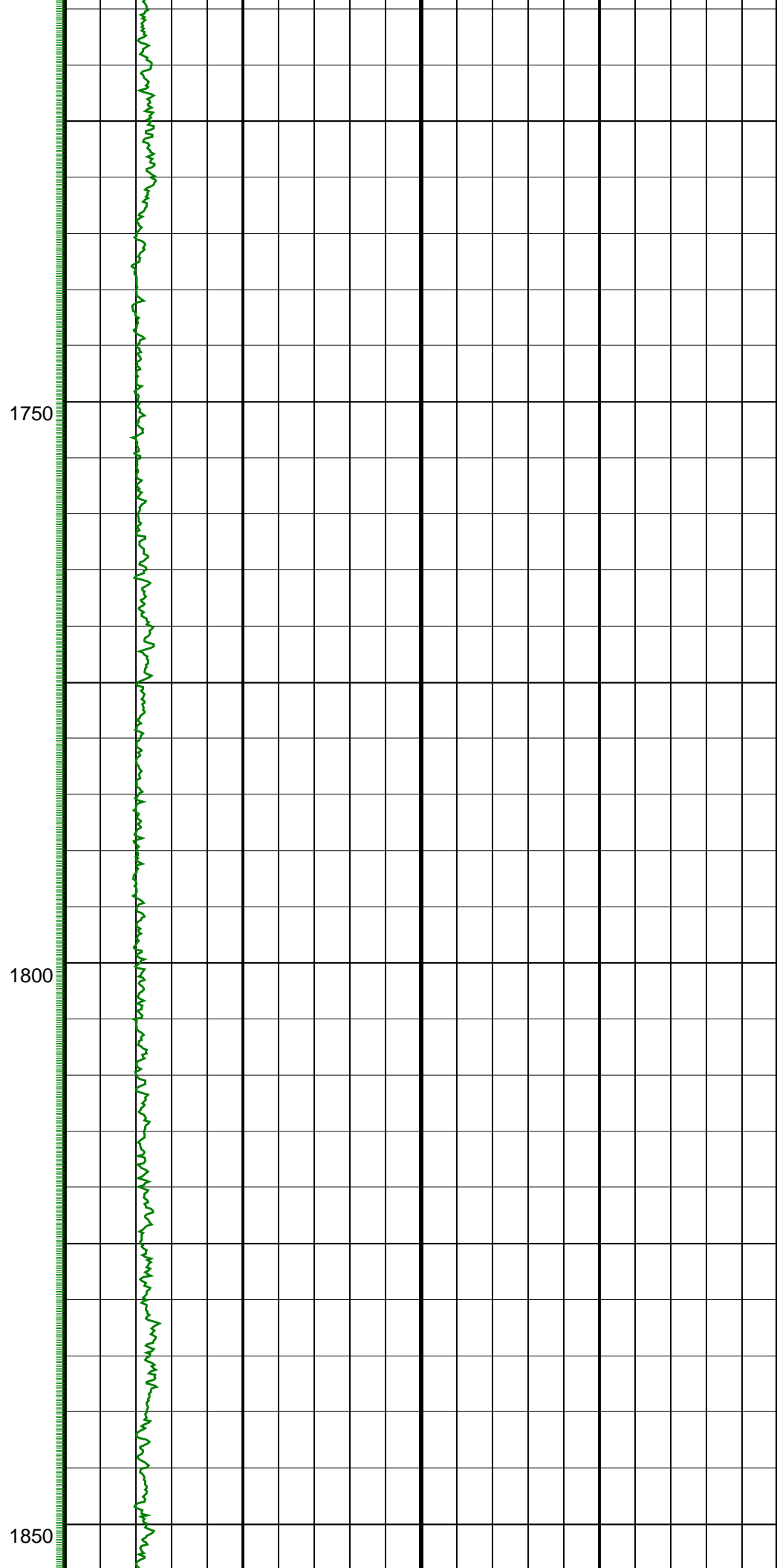
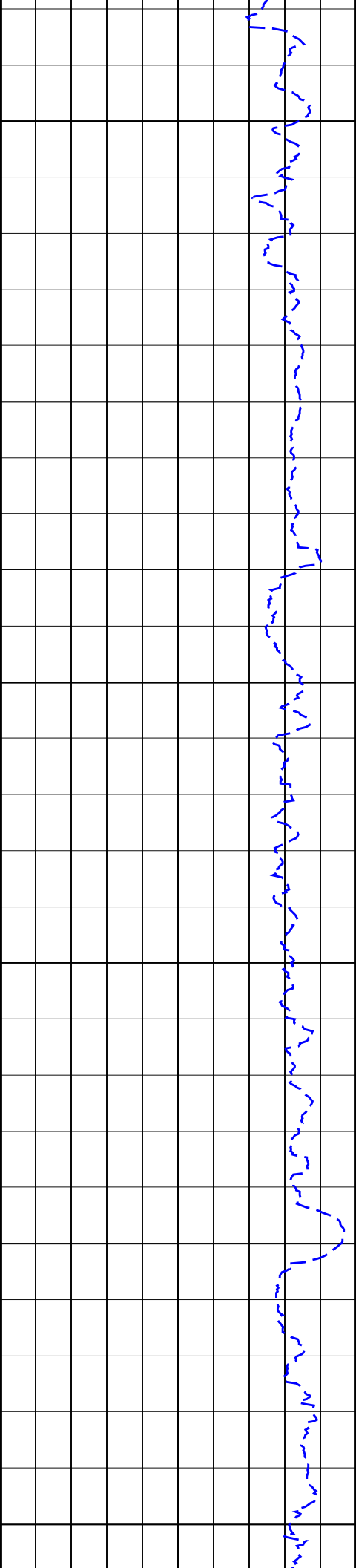


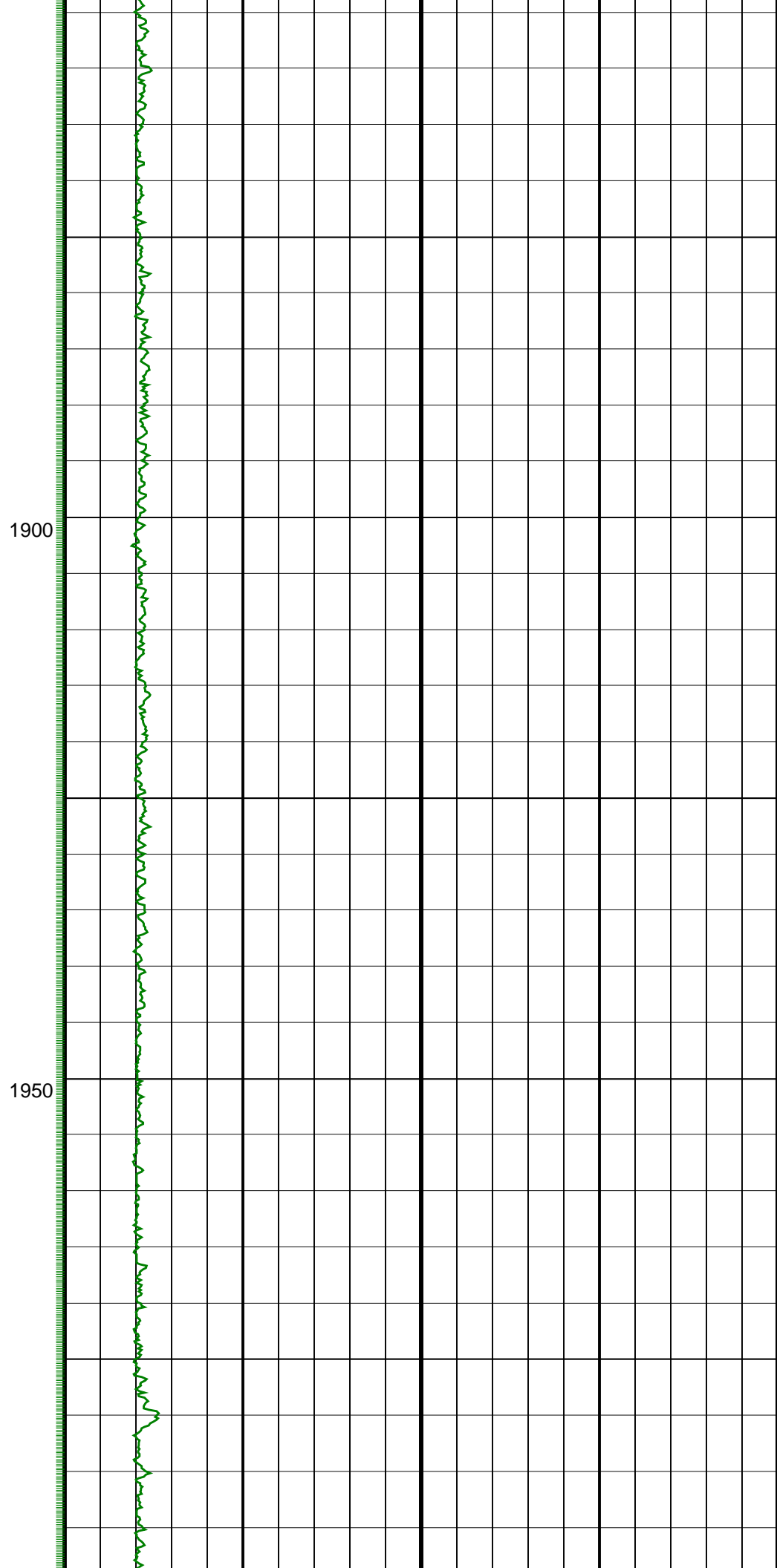
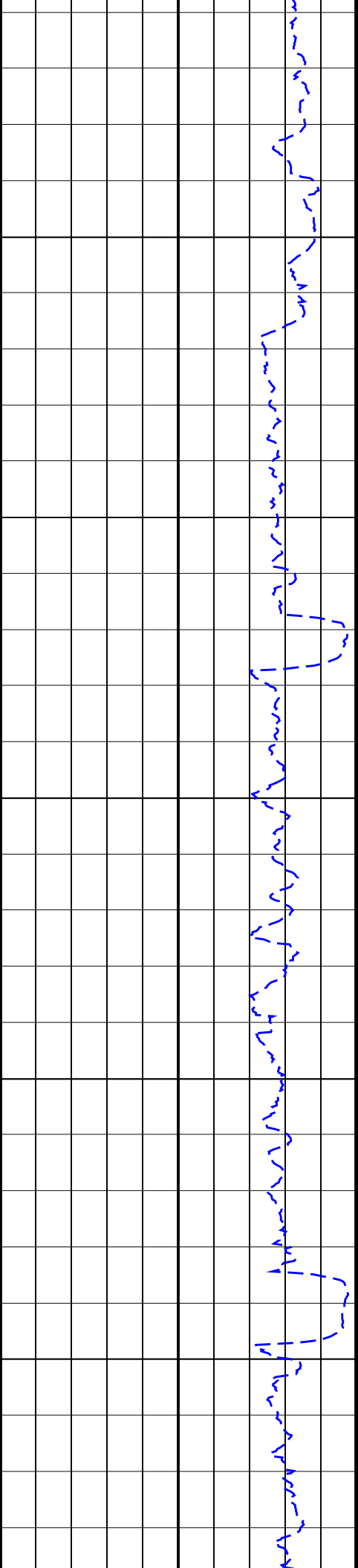


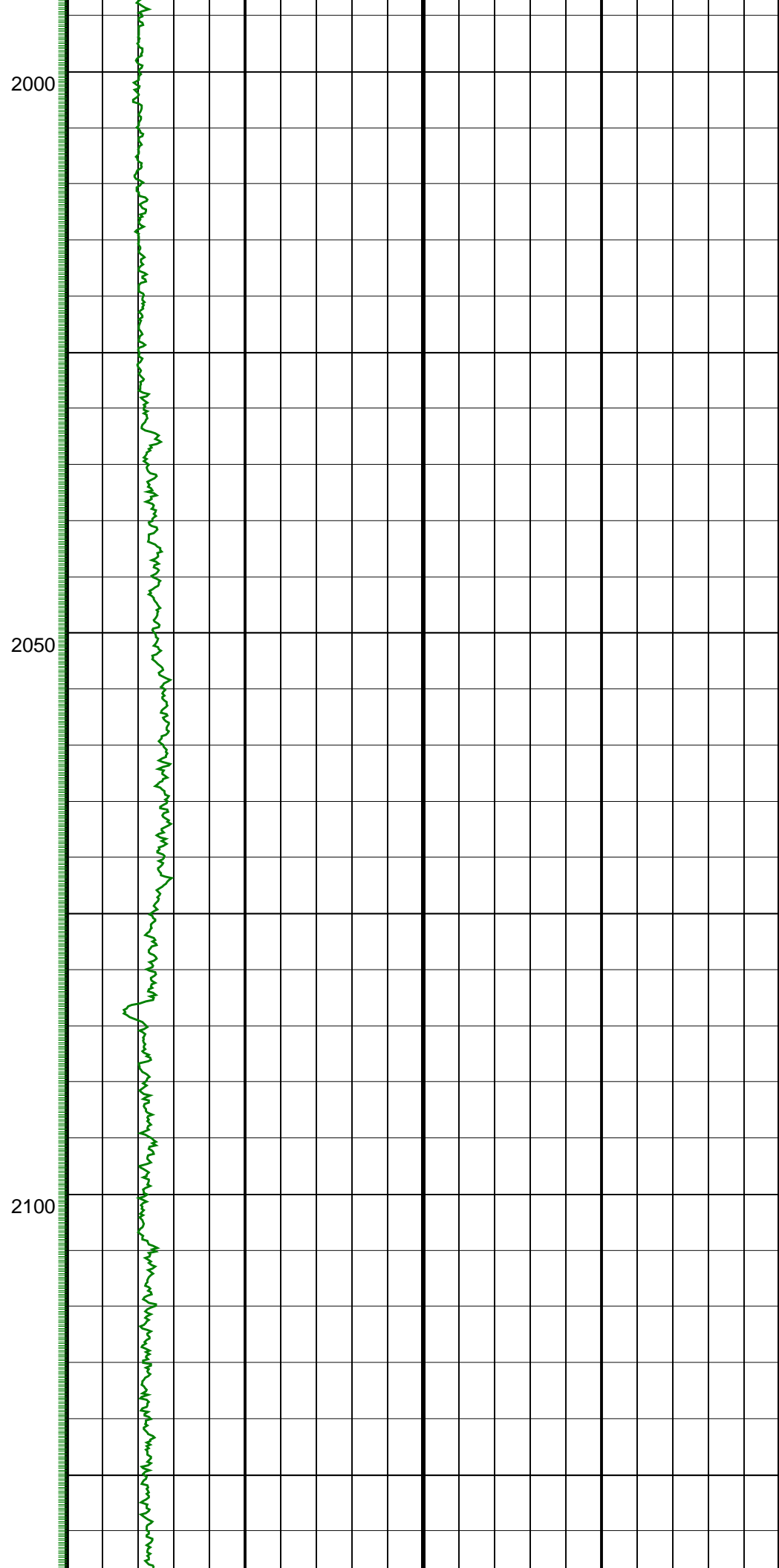
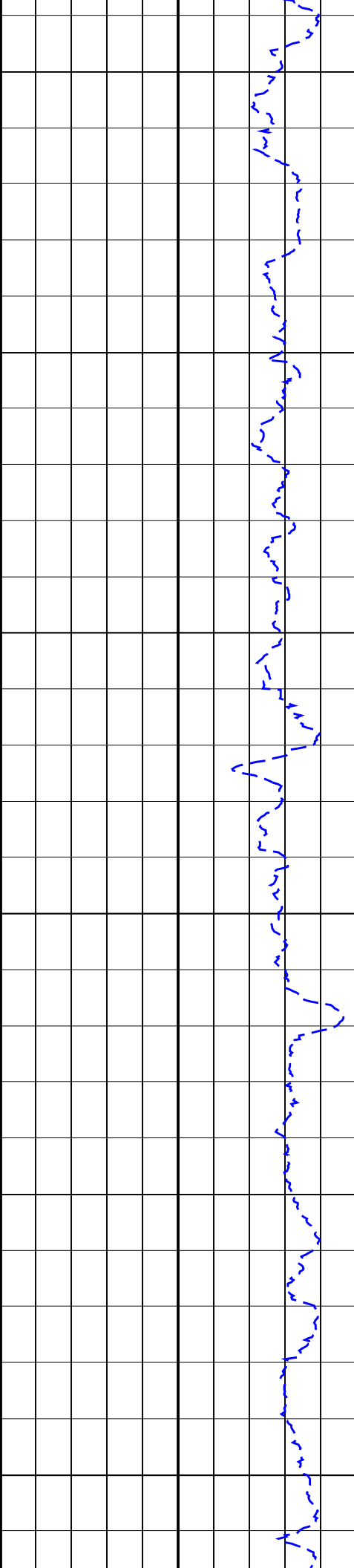


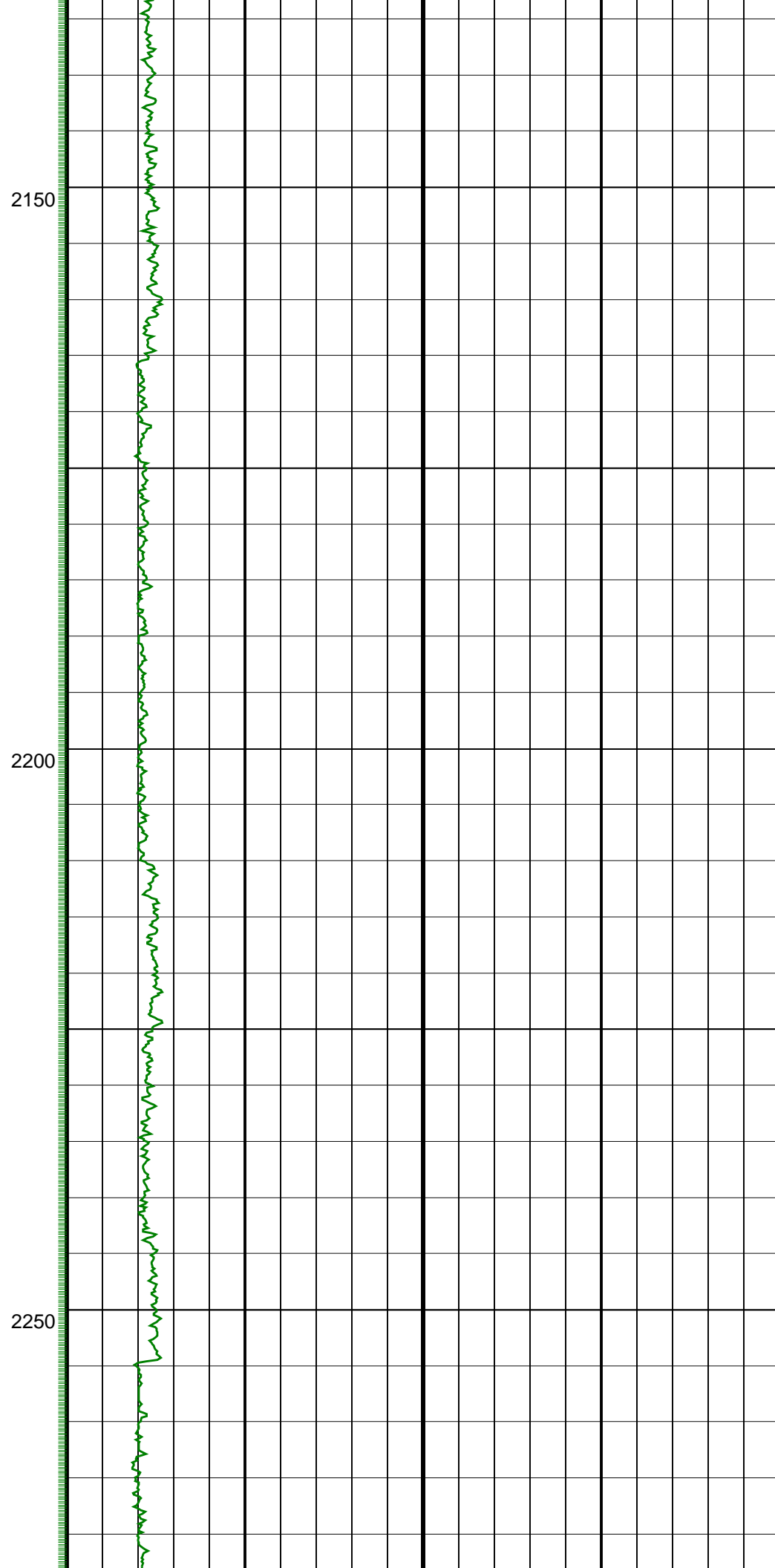
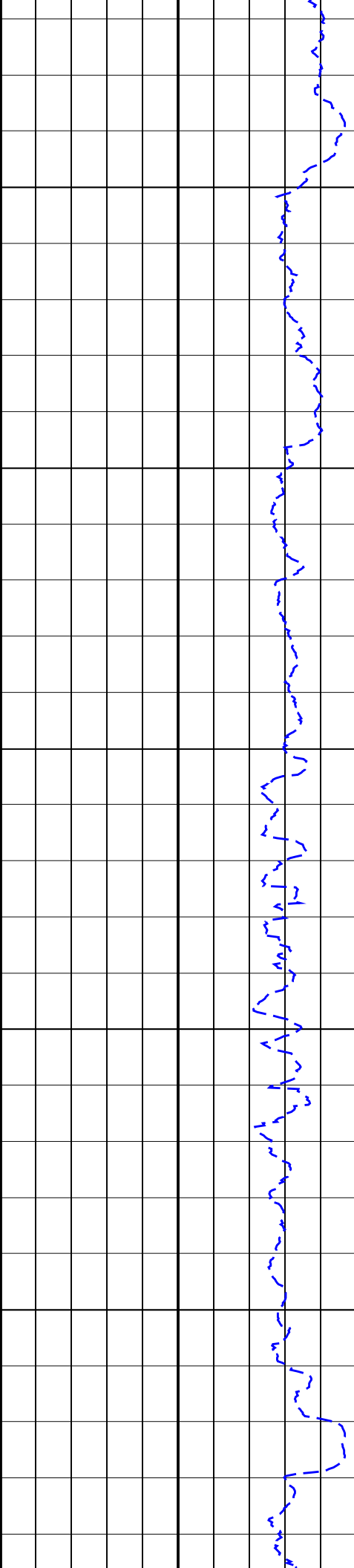


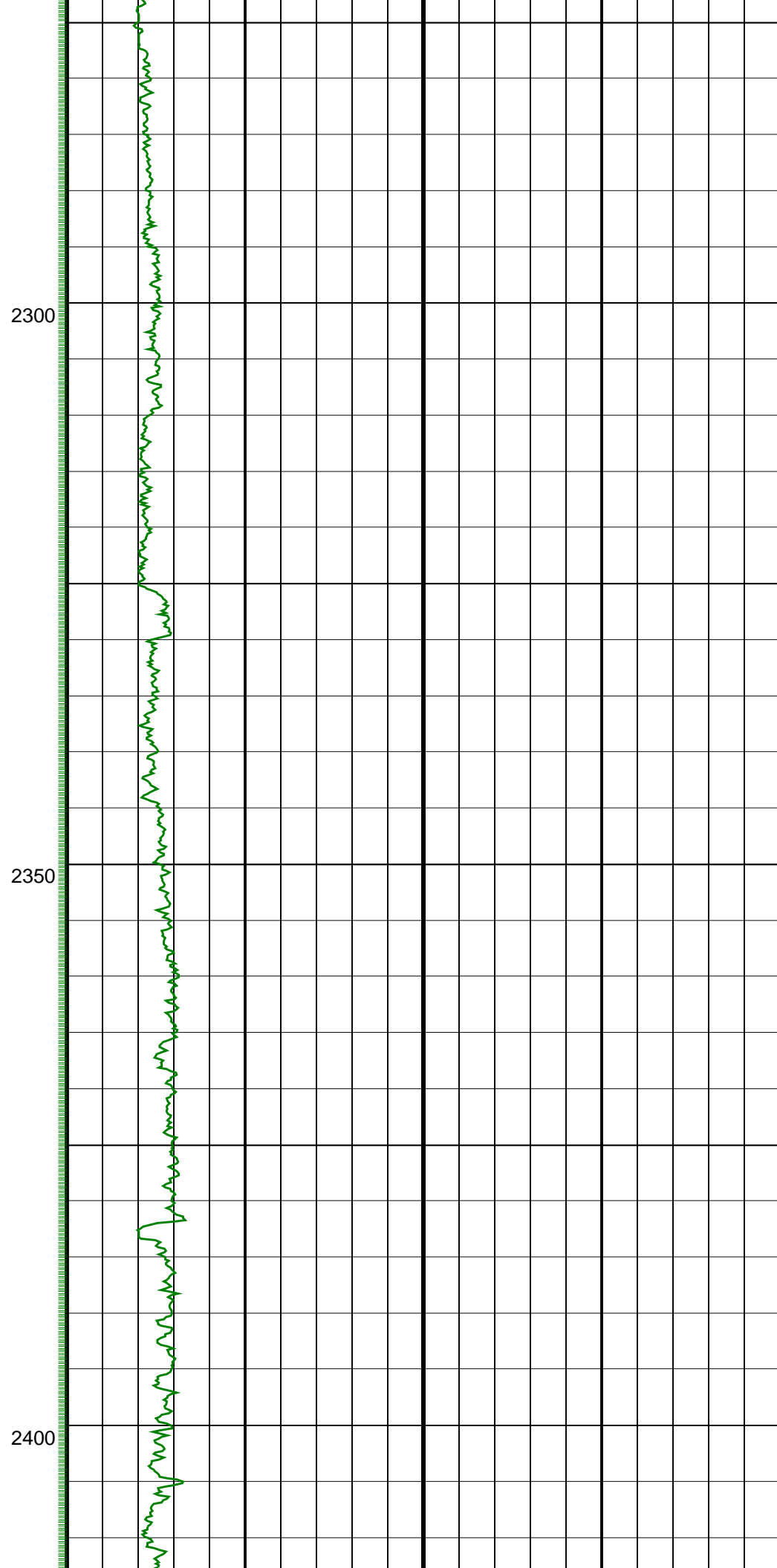
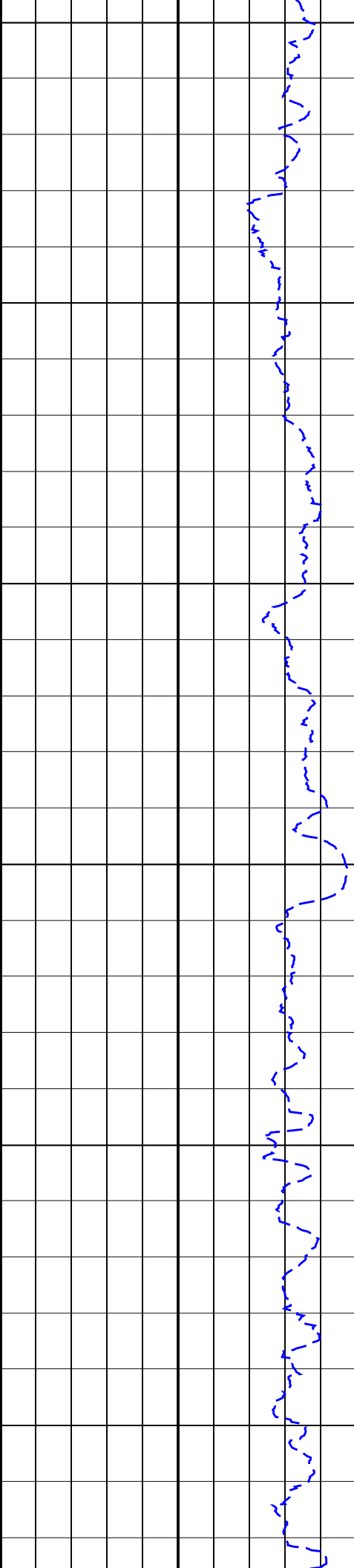


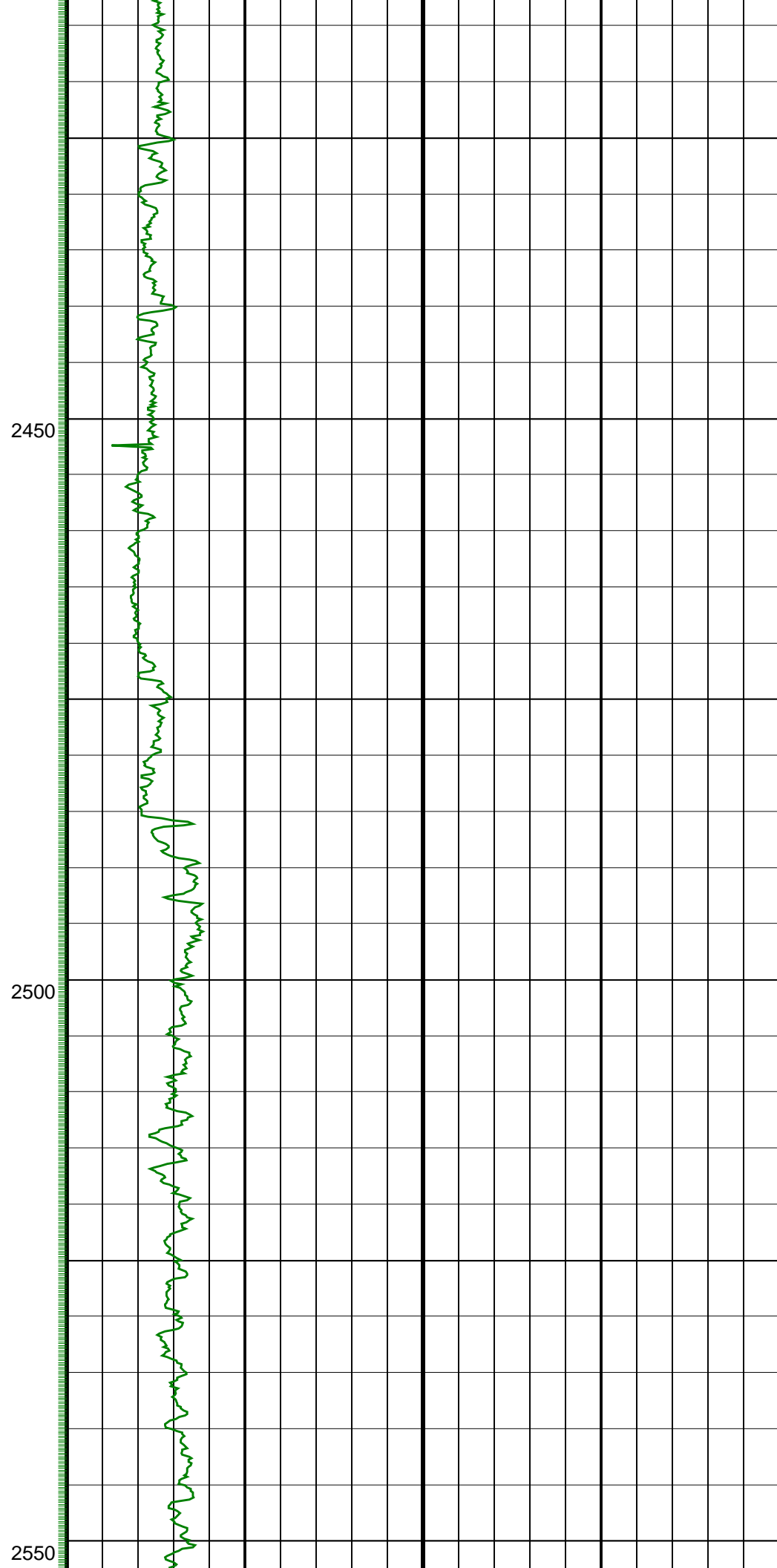
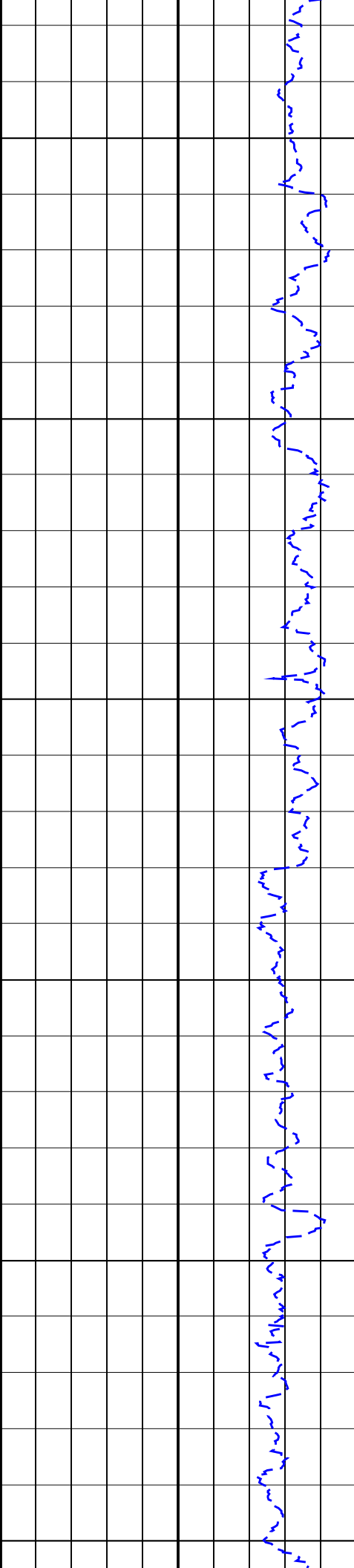


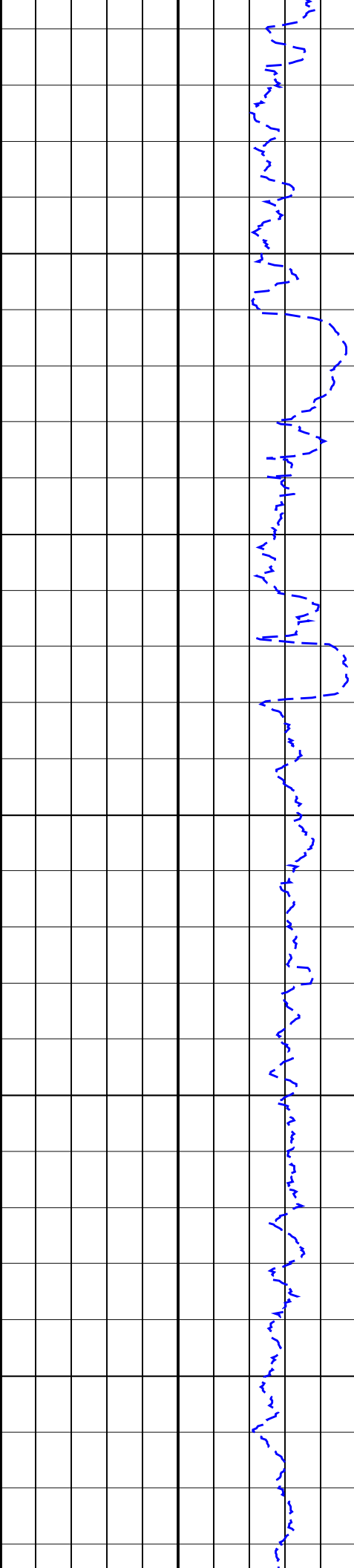






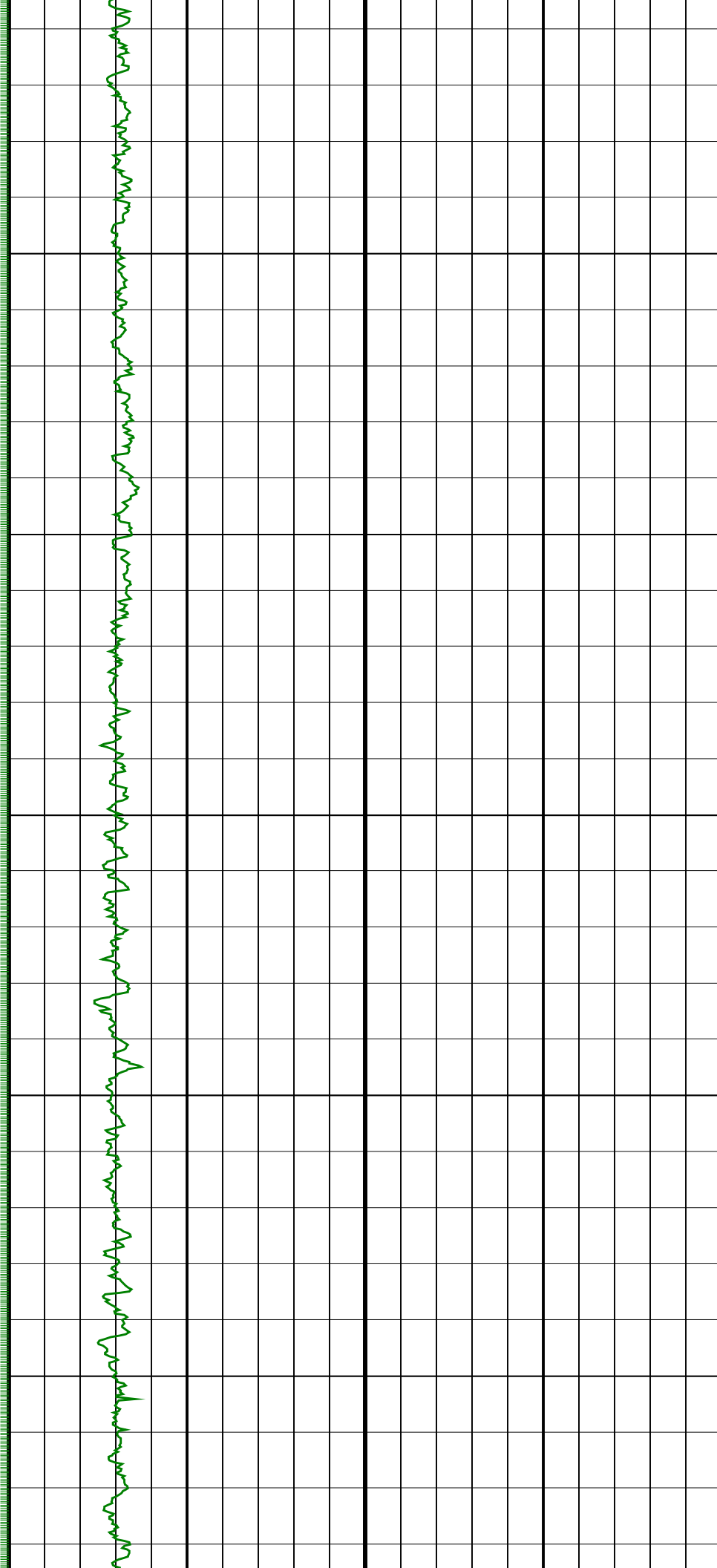


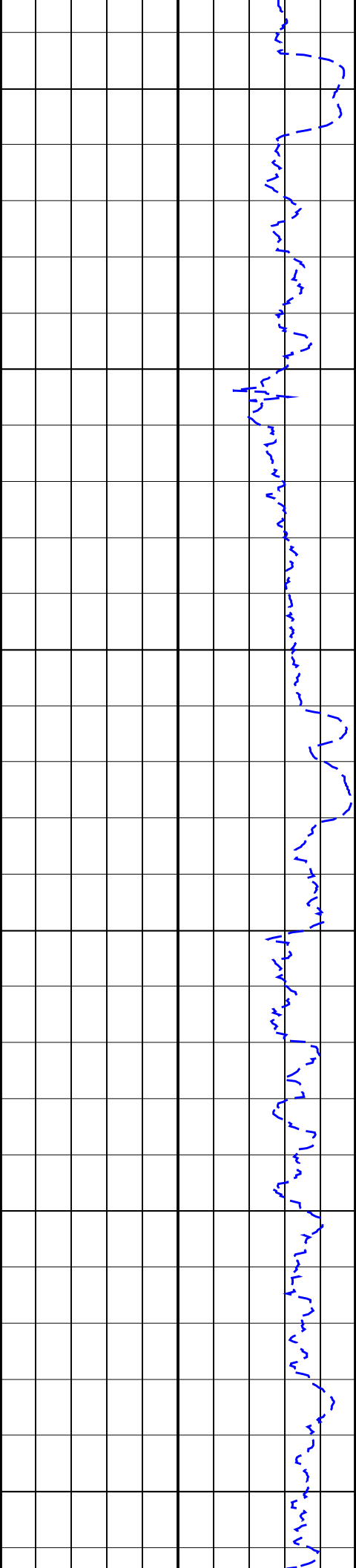




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2650

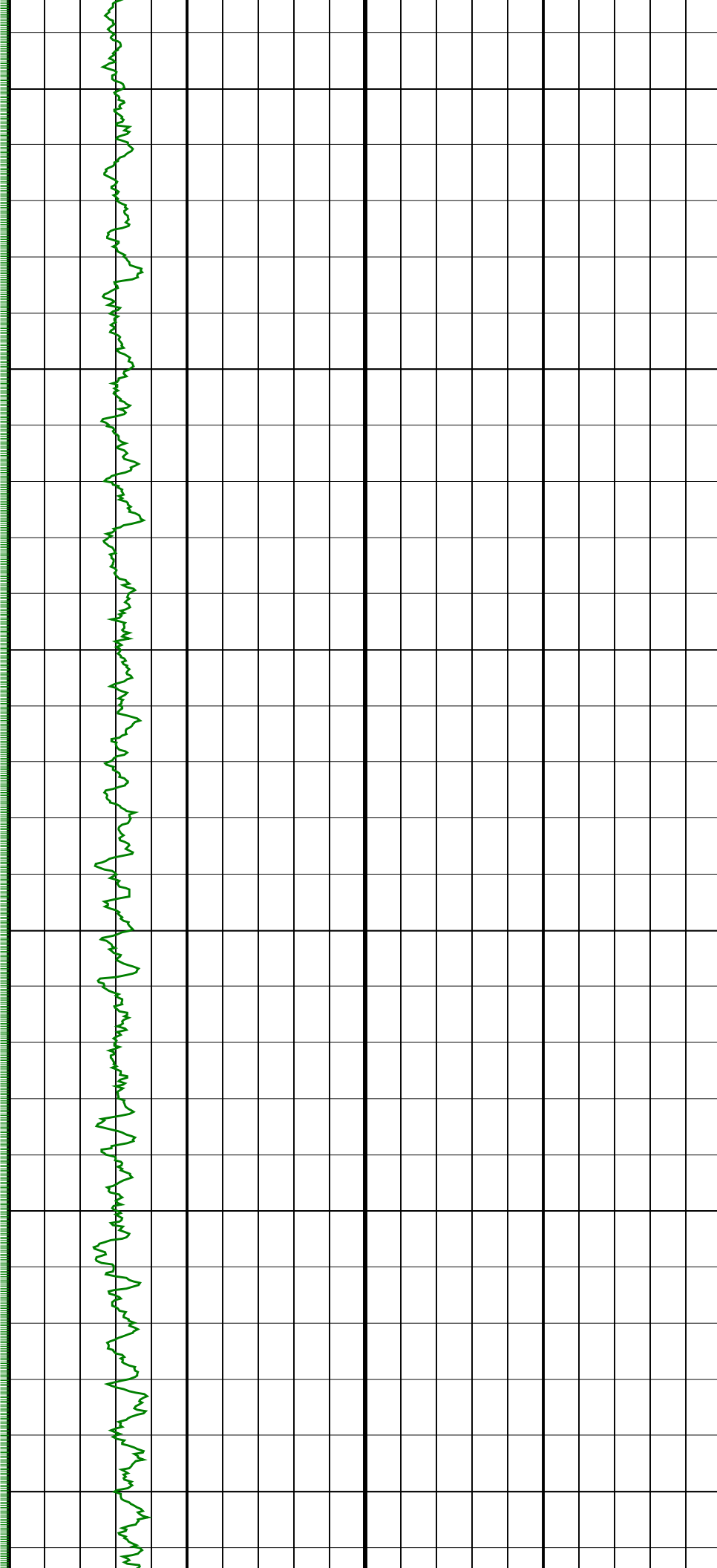


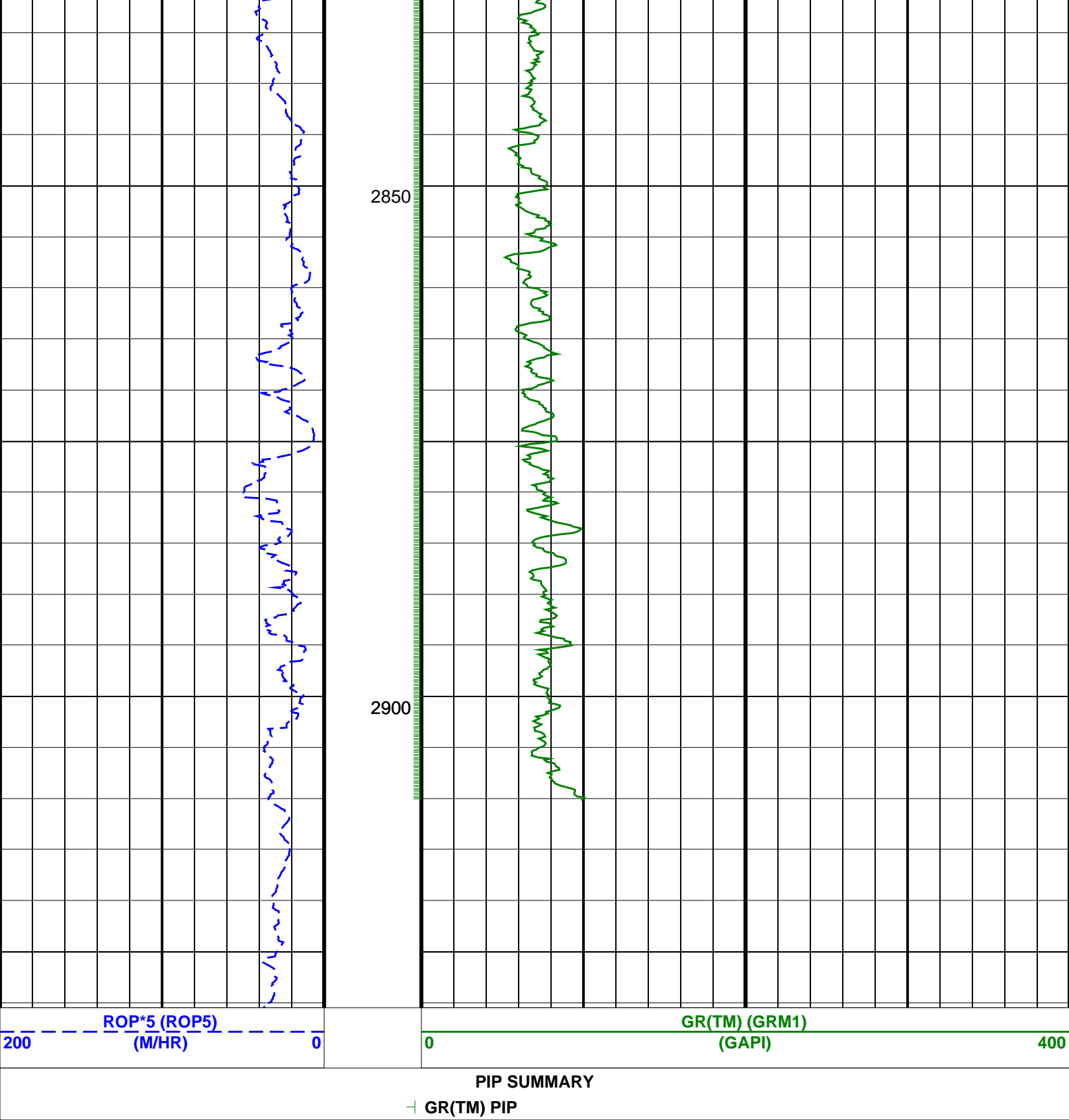


2700

2750

2800





SCHLUMBERGER

Survey report

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Client.....: ESSO Australia Pty. Ltd.
Field.....: Halibut

Well.....: HLA A2B
API number.....: N/A
Engineer.....: RB, MA, CS

RIG.....: ISDL 453
STATE.....: Victoria

Spud date.....: 01-Jan-07
Last survey date.....: 16-Jan-07
Total accepted surveys...: 95
MD of first survey.....: 650.00 m
MD of last survey.....: 3347.00 m

----- Survey calculation methods-----
Method for positions.....: Minimum curvature
Method for DLS.....: Mason & Taylor

----- Geomagnetic data -----
Magnetic model.....: BGGM version 2006
Magnetic date.....: 31-Dec-2006
Magnetic field strength...: 1199.38 HCNT

Depth reference
Permanent datum.....: Mean Sea Level
Depth reference.....: Driller's Depth
GL above permanent.....: -73.00 m
KB above permanent.....: Top Drive
DF above permanent.....: 29.45 m

----- Vertical section origin-----
Latitude (+N/S-).....: -7.44 m
Departure (+E/W-).....: 19.72 m

Magnetic dec (+E/W-).....: 13.23 degrees
Magnetic dip.....: -68.86 degrees

----- MWD survey Reference Criteria -----
Reference G.....: 1000.04 mGal
Reference H.....: 1199.38 HCNT
Reference Dip.....: -68.86 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-).....: 13.23 degrees
Grid convergence (+E/W-)..: -0.82 degrees
Total az corr (+E/W-).....: 14.05 degrees
(Total az corr = magnetic dec - grid conv)
Survey Correction Type ...:
I=Sag Corrected Inclination
M=Schlumberger Magnetic Correction
S=Shell Magnetic Correction
F=Failed Axis Correction
R=Magnetic Resonance Tool Correction
D=Dmag Magnetic Correction

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
1	650.00	44.36	93.34	0.00	610.86	151.86	-52.68	166.06	174.22	107.60	0.00	TIP	None
2	660.87	45.55	97.43	10.87	618.55	159.51	-53.40	173.70	181.73	107.09	8.76	MWD	None
3	690.39	45.60	98.48	29.52	639.22	180.58	-56.32	194.58	202.57	106.14	0.78	MWD	None
4	732.17	46.07	99.66	41.78	668.33	210.55	-61.05	224.18	232.34	105.23	0.71	MWD	None
5	748.47	46.57	99.46	16.30	679.58	222.34	-63.00	235.80	244.07	104.96	0.97	MWD	None
6	777.68	46.49	99.54	29.21	699.68	243.54	-66.50	256.71	265.18	104.52	0.10	MWD	None
7	806.91	46.40	99.58	29.23	719.82	264.72	-70.02	277.60	286.29	104.16	0.10	MWD	None
8	836.00	45.84	99.58	29.09	739.98	285.69	-73.51	298.27	307.20	103.84	0.59	MWD	None
9	865.64	46.02	98.77	29.64	760.60	306.98	-76.91	319.30	328.43	103.54	0.63	MWD	None
10	894.65	45.53	98.59	29.01	780.83	327.77	-80.04	339.85	349.15	103.25	0.53	MWD	None
11	923.87	46.01	97.74	29.22	801.22	348.70	-83.02	360.57	370.00	102.97	0.81	MWD	None
12	952.87	46.90	97.08	29.00	821.20	369.70	-85.73	381.42	390.93	102.67	1.06	MWD	None
13	982.43	46.53	97.04	29.56	841.46	391.20	-88.37	402.77	412.35	102.38	0.38	MWD	None
14	1011.59	47.03	96.95	29.16	861.43	412.43	-90.96	423.86	433.51	102.11	0.53	MWD	None
15	1040.54	47.09	98.00	28.95	881.15	433.60	-93.72	444.88	454.64	101.90	0.81	MWD	None
16	1069.56	46.95	99.63	29.02	900.94	454.83	-96.97	465.85	475.84	101.76	1.26	MWD	None
17	1098.60	46.55	99.63	29.04	920.84	475.98	-100.51	486.71	496.98	101.67	0.42	MWD	None
18	1127.85	46.31	99.70	29.25	941.00	497.18	-104.07	507.60	518.16	101.59	0.26	MWD	None
19	1156.97	45.95	99.54	29.12	961.18	518.17	-107.57	528.30	539.14	101.51	0.40	MWD	None
20	1186.26	45.49	99.30	29.29	981.63	539.14	-111.01	548.98	560.09	101.43	0.51	MWD	None
21	1215.54	46.11	100.03	29.28	1002.04	560.13	-114.53	569.68	581.08	101.37	0.84	MWD	None
22	1244.64	46.11	100.01	29.10	1022.21	581.10	-118.18	590.33	602.04	101.32	0.02	MWD	None
23	1273.79	46.02	99.60	29.15	1042.44	602.09	-121.75	611.01	623.03	101.27	0.32	MWD	None
24	1302.98	45.78	99.87	29.19	1062.75	623.05	-125.30	631.67	643.98	101.22	0.32	MWD	None
25	1332.25	46.49	100.02	29.27	1083.04	644.16	-128.94	652.46	665.08	101.18	0.75	MWD	None
26	1361.43	46.60	99.96	29.18	1103.11	665.34	-132.62	673.32	686.26	101.14	0.12	MWD	None
27	1390.66	46.57	99.61	29.23	1123.19	686.57	-136.23	694.24	707.48	101.10	0.27	MWD	None
28	1419.85	46.24	99.68	29.19	1143.32	707.71	-139.77	715.09	728.62	101.06	0.35	MWD	None
29	1449.14	46.83	99.06	29.29	1163.47	728.97	-143.23	736.06	749.87	101.01	0.77	MWD	None
30	1478.24	46.59	98.73	29.10	1183.43	750.15	-146.50	756.99	771.03	100.95	0.36	MWD	None

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31	1507.45	45.96	98.69	29.21	1203.61	771.25	-149.70	777.85	792.13	100.89	0.66	MWD	None
32	1536.68	45.31	98.22	29.23	1224.05	792.15	-152.77	798.52	813.00	100.83	0.76	MWD	None
33	1565.94	45.25	98.54	29.26	1244.64	812.93	-155.80	819.09	833.78	100.77	0.24	MWD	None
34	1595.14	45.45	98.03	29.20	1265.16	833.70	-158.80	839.65	854.53	100.71	0.43	MWD	None
35	1624.31	45.86	98.57	29.17	1285.55	854.55	-161.81	860.29	875.37	100.65	0.59	MWD	None
36	1653.37	45.43	98.47	29.06	1305.87	875.33	-164.89	880.84	896.14	100.60	0.46	MWD	None
37	1682.74	45.98	98.23	29.37	1326.38	896.34	-167.94	901.64	917.14	100.55	0.60	MWD	None
38	1711.90	46.74	99.29	29.16	1346.50	917.44	-171.15	922.49	938.24	100.51	1.13	MWD	None
39	1741.22	46.42	99.68	29.32	1366.66	938.74	-174.66	943.50	959.53	100.49	0.44	MWD	None
40	1770.47	46.21	99.68	29.25	1386.86	959.89	-178.22	964.35	980.68	100.47	0.22	MWD	None
41	1799.73	45.84	99.63	29.26	1407.17	980.95	-181.75	985.11	1001.73	100.45	0.39	MWD	None
42	1828.90	46.20	99.44	29.17	1427.43	1001.94	-185.23	1005.81	1022.72	100.43	0.40	MWD	None
43	1857.65	46.30	99.56	28.75	1447.31	1022.71	-188.66	1026.29	1043.49	100.42	0.14	MWD	None
44	1886.83	46.11	99.49	29.18	1467.51	1043.77	-192.14	1047.06	1064.55	100.40	0.21	MWD	None
45	1915.82	46.47	99.22	28.99	1487.54	1064.72	-195.55	1067.74	1085.50	100.38	0.43	MWD	None
46	1945.32	46.09	99.02	29.50	1507.93	1086.04	-198.93	1088.79	1106.81	100.35	0.42	MWD	None
47	1974.30	46.92	98.99	28.98	1527.87	1107.06	-202.22	1109.55	1127.83	100.33	0.87	MWD	None
48	2003.63	46.86	99.37	29.33	1547.92	1128.48	-205.63	1130.69	1149.24	100.31	0.29	MWD	None
49	2033.24	46.55	99.17	29.61	1568.22	1150.03	-209.11	1151.96	1170.79	100.29	0.35	MWD	None
50	2061.83	46.22	99.16	28.59	1587.94	1170.72	-212.40	1172.40	1191.48	100.27	0.35	MWD	None
51	2091.25	45.91	98.66	29.42	1608.36	1191.91	-215.68	1193.33	1212.66	100.25	0.49	MWD	None
52	2120.20	45.73	98.89	28.95	1628.53	1212.67	-218.85	1213.84	1233.42	100.22	0.26	MWD	None
53	2149.33	46.24	99.33	29.13	1648.77	1233.62	-222.17	1234.53	1254.36	100.20	0.63	MWD	None
54	2178.65	46.11	99.39	29.32	1669.08	1254.77	-225.61	1255.40	1275.51	100.19	0.14	MWD	None
55	2208.26	45.89	99.57	29.61	1689.65	1276.07	-229.12	1276.41	1296.81	100.18	0.26	MWD	None

56	2237.48	45.67	99.37	29.22	1710.02	1297.01	-232.56	1297.06	1317.75	100.17	0.27	MWD	None
57	2266.81	46.26	99.32	29.33	1730.41	1318.09	-235.99	1317.87	1338.83	100.15	0.61	MWD	None
58	2295.72	46.06	99.20	28.91	1750.44	1338.95	-239.34	1338.45	1359.68	100.14	0.23	MWD	None
59	2324.98	45.86	98.95	29.26	1770.78	1359.98	-242.66	1359.22	1380.71	100.12	0.28	MWD	None
60	2354.24	46.61	99.17	29.26	1791.02	1381.11	-245.99	1380.09	1401.84	100.11	0.80	MWD	None

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
61	2383.14	46.76	99.04	28.90	1810.84	1402.13	-249.31	1400.85	1422.86	100.09	0.19	MWD	None
62	2412.46	46.38	98.87	29.32	1831.00	1423.43	-252.63	1421.88	1444.15	100.07	0.42	MWD	None
63	2441.90	46.19	98.96	29.44	1851.34	1444.70	-255.93	1442.91	1465.43	100.06	0.21	MWD	None
64	2471.01	46.19	99.05	29.11	1871.49	1465.71	-259.21	1463.65	1486.43	100.04	0.07	MWD	None
65	2500.16	46.00	98.99	29.15	1891.71	1486.71	-262.51	1484.40	1507.43	100.03	0.20	MWD	None
66	2529.32	45.79	98.47	29.16	1912.00	1507.64	-265.69	1505.09	1528.36	100.01	0.45	MWD	None
67	2558.52	45.49	98.45	29.20	1932.42	1528.52	-268.76	1525.74	1549.23	99.99	0.31	MWD	None
68	2586.28	46.03	98.46	27.76	1951.79	1548.40	-271.68	1545.41	1569.11	99.97	0.59	MWD	None
69	2616.58	46.66	98.87	30.30	1972.70	1570.32	-274.98	1567.09	1591.03	99.95	0.70	MWD	None
70	2645.77	46.32	98.80	29.19	1992.80	1591.49	-278.24	1588.00	1612.20	99.94	0.36	MWD	None
71	2675.07	46.18	98.36	29.30	2013.06	1612.65	-281.39	1608.93	1633.35	99.92	0.36	MWD	None
72	2704.46	46.81	98.75	29.39	2033.29	1633.96	-284.57	1630.01	1654.67	99.90	0.72	MWD	None
73	2733.62	46.61	98.49	29.16	2053.29	1655.18	-287.75	1651.00	1675.89	99.89	0.29	MWD	None
74	2762.48	46.75	99.41	28.86	2073.09	1676.18	-291.01	1671.74	1696.88	99.88	0.72	MWD	None
75	2791.83	46.58	99.52	29.35	2093.23	1697.53	-294.52	1692.80	1718.23	99.87	0.20	MWD	None
76	2820.99	46.35	99.39	29.16	2113.32	1718.67	-298.00	1713.65	1739.37	99.86	0.26	MWD	None
77	2850.67	46.03	99.24	29.68	2133.86	1740.08	-301.46	1734.78	1760.78	99.86	0.35	MWD	None
78	2879.50	46.15	99.40	28.83	2153.86	1760.85	-304.83	1755.28	1781.55	99.85	0.18	MWD	None
79	2905.21	45.91	99.45	25.71	2171.71	1779.36	-307.86	1773.53	1800.05	99.85	0.29	MWD	None
80	2935.38	45.91	98.61	30.17	2192.70	1801.02	-311.26	1794.93	1821.72	99.84	0.61	MWD	None
81	2964.47	45.88	98.78	29.09	2212.94	1821.91	-314.42	1815.58	1842.61	99.82	0.13	MWD	None
82	2993.32	46.28	98.29	28.85	2232.96	1842.69	-317.50	1836.13	1863.38	99.81	0.56	MWD	None
83	3022.29	46.99	98.42	28.97	2252.85	1863.74	-320.56	1856.97	1884.44	99.79	0.75	MWD	None
84	3051.27	47.44	97.96	28.98	2272.53	1885.00	-323.59	1878.02	1905.70	99.78	0.59	MWD	None
85	3079.59	48.42	97.93	28.32	2291.51	1906.02	-326.50	1898.84	1926.71	99.76	1.06	MWD	None
86	3108.69	49.40	97.56	29.10	2310.63	1927.94	-329.45	1920.57	1948.63	99.73	1.07	MWD	None
87	3137.70	51.16	97.25	29.01	2329.17	1950.23	-332.33	1942.70	1970.92	99.71	1.87	MWD	None
88	3166.46	53.04	97.34	28.76	2346.84	1972.90	-335.21	1965.21	1993.59	99.68	1.99	MWD	None
89	3195.74	53.89	97.23	29.28	2364.27	1996.41	-338.19	1988.55	2017.10	99.65	0.89	MWD	None
90	3224.78	53.92	97.10	29.04	2381.38	2019.85	-341.12	2011.83	2040.54	99.62	0.11	MWD	None

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SCHLUMBERGER Survey Report

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
91	3253.44	54.42	97.03	28.66	2398.15	2043.07	-343.97	2034.89	2063.76	99.59	0.54	MWD	None
92	3282.73	55.34	97.31	29.29	2415.00	2067.00	-346.97	2058.66	2087.69	99.57	0.99	MWD	None
93	3311.71	56.13	96.82	28.98	2431.32	2090.93	-349.91	2082.43	2111.62	99.54	0.93	MWD	None
94	3325.71	56.72	97.11	14.00	2439.06	2102.58	-351.33	2094.01	2123.27	99.52	1.39	MWD	None
95	3347.00	57.20	97.11	21.29	2450.67	2120.41	-353.53	2111.72	2141.10	99.50	0.68	Proj.	TD

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Company: **Esso Australia Pty. Ltd.**

Schlumberger

Well: **HLA A-2B**

Field: **Halibut**

Rig: **ISDL 453**

State: **Victoria**

**Gamma Ray Service
1:500 Measured Depth
Real Time Log**

