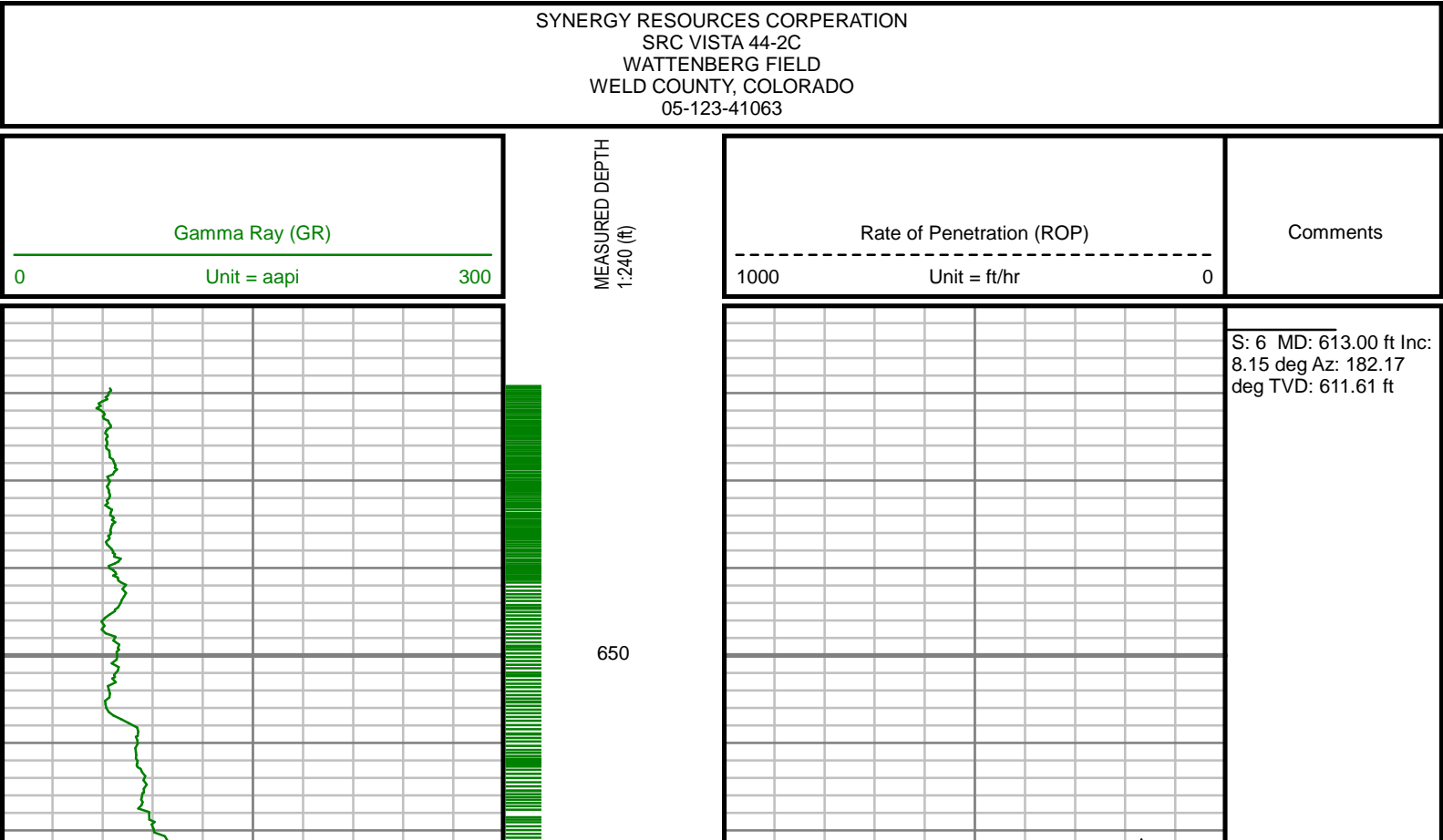
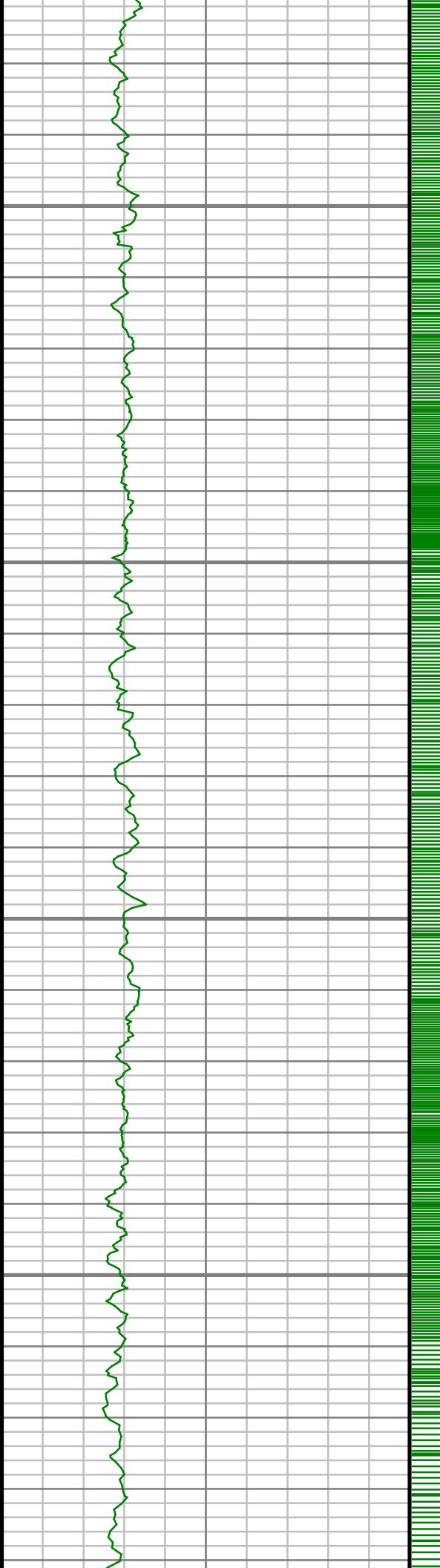


Remarks
SCIENTIFIC DRILLING INTERNATIONAL JOB# 327379
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN # 1: MWD DIRECTIONAL RUN
SENSORS: S / N: EM5 = 964 / MWD EYE = 414
BIT TO SENSOR OFFSET: SURVEY = 55.19 FT.
RUN #2 : MWD / GAMMA RAY LOGGING RUN
SENSORS: S / N: PULSER = 128-253 / MP6 = 159 / EYE =414 / GAMMA RAY = 1434
BIT TO SENSOR OFFSETS: SURVEY = 60.42 FT. / GAMMA RAY = 51.77 FT.
RUN #3 : MWD / GAMMA RAY LOGGING RUN
SENSORS: S / N: PULSER = 78-195 / MP6 = 379/ EYE =165 / GAMMA RAY = 1188
BIT TO SENSOR OFFSETS: SURVEY = 58.85FT. / GAMMA RAY = 50.20 FT.
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions as set out in our current price schedule.





700

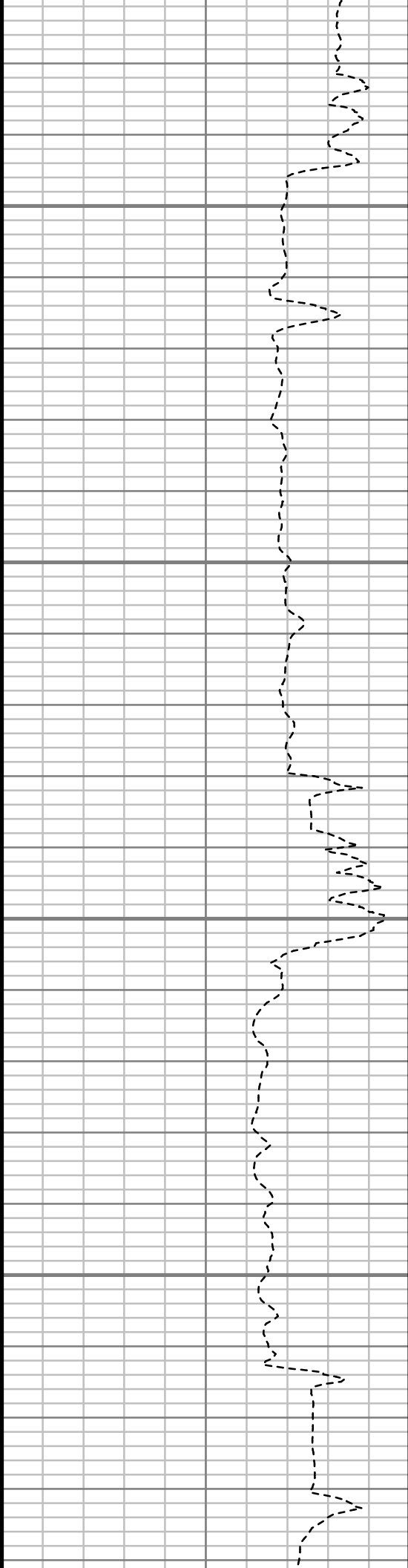
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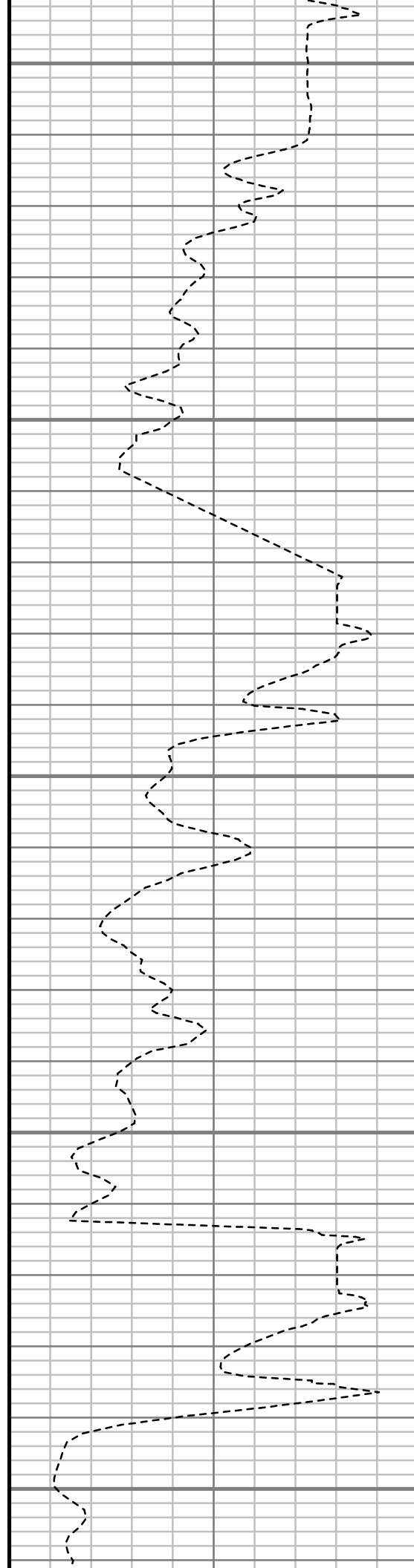
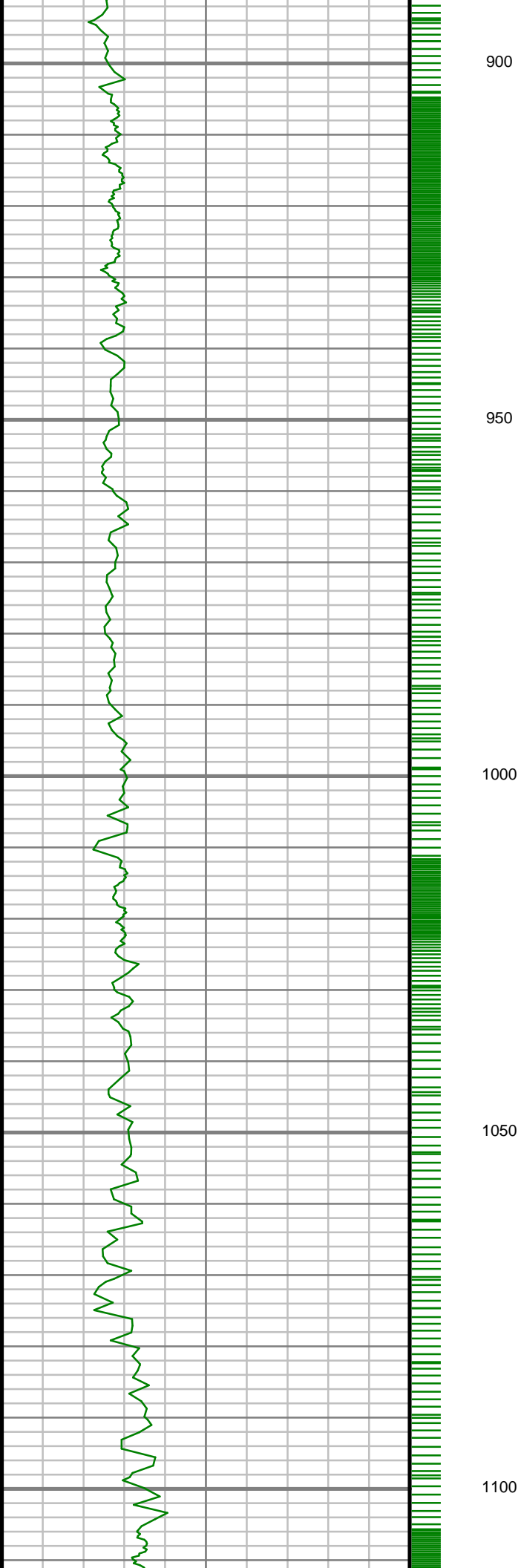
800

850

S: 7 MD: 725.00 ft Inc:
9.25 deg Az: 186.55
deg TVD: 722.32 ft

S: 8 MD: 816.00 ft Inc:
11.17 deg Az: 186.63
deg TVD: 811.88 ft

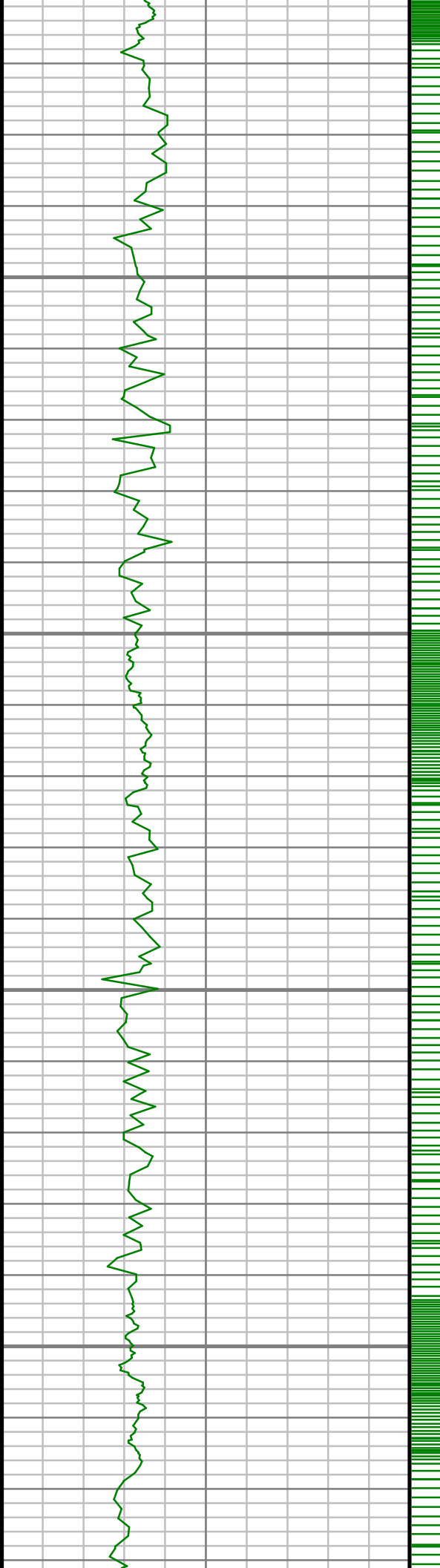




S: 9 MD: 910.00 ft Inc:
13.02 deg Az: 190.50
deg TVD: 903.79 ft

S: 10 MD: 1003.00 ft
Inc: 15.11 deg Az:
194.90 deg TVD:
994.00 ft

S: 11 MD: 1097.00 ft
Inc: 16.44 deg Az:
187.27 deg TVD:
1084.47 ft

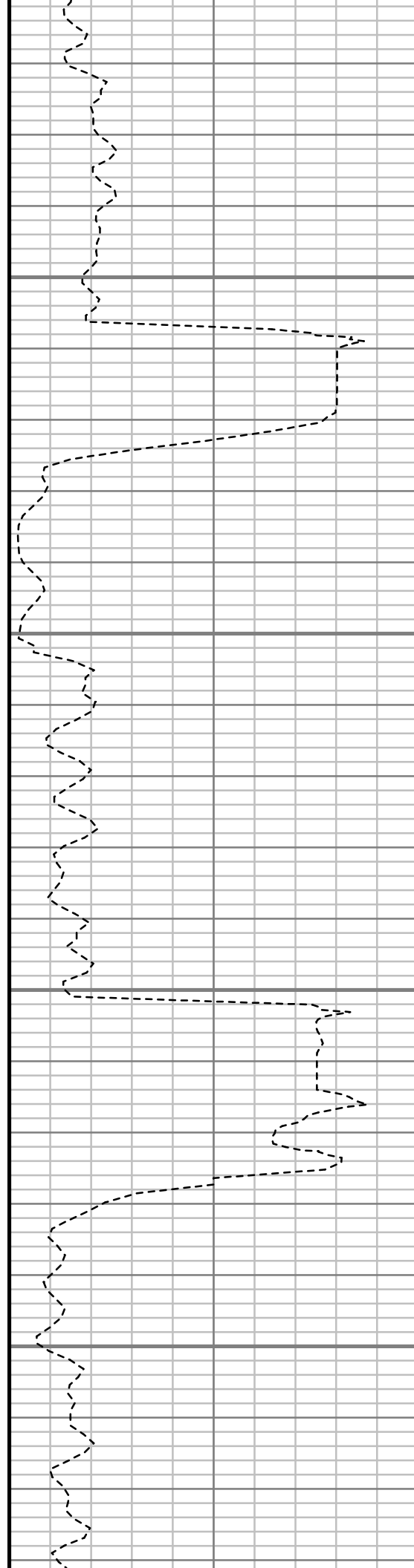


1150

1200

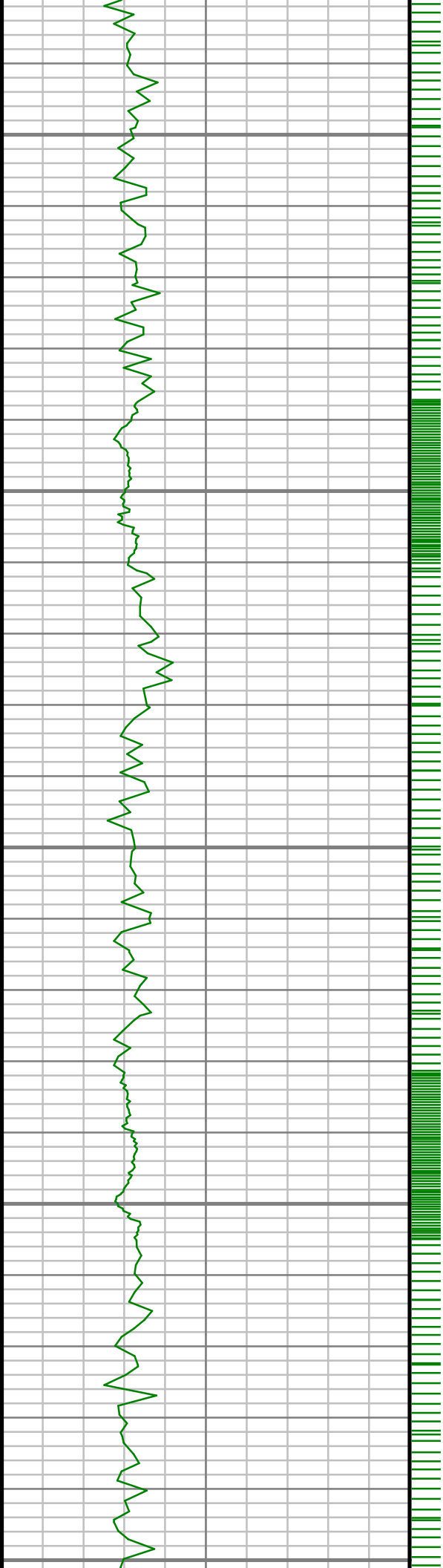
1250

1300



S: 12 MD: 1191.00 ft
Inc: 15.94 deg Az:
182.47 deg TVD:
1174.74 ft

S: 13 MD: 1284.00 ft
Inc: 14.85 deg Az:
185.08 deg TVD:
1264.40 ft



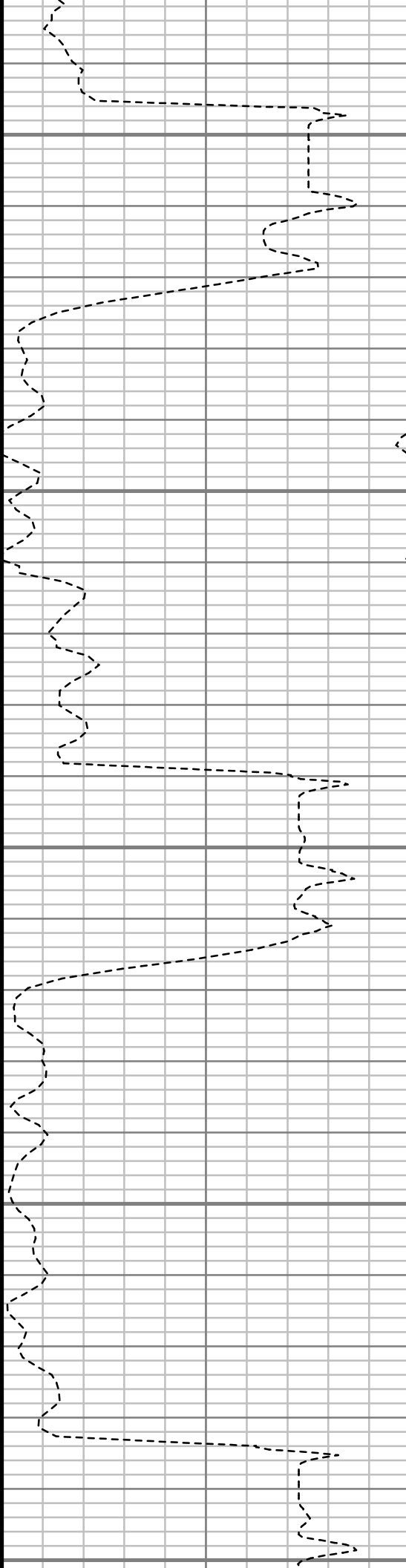
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1400

1450

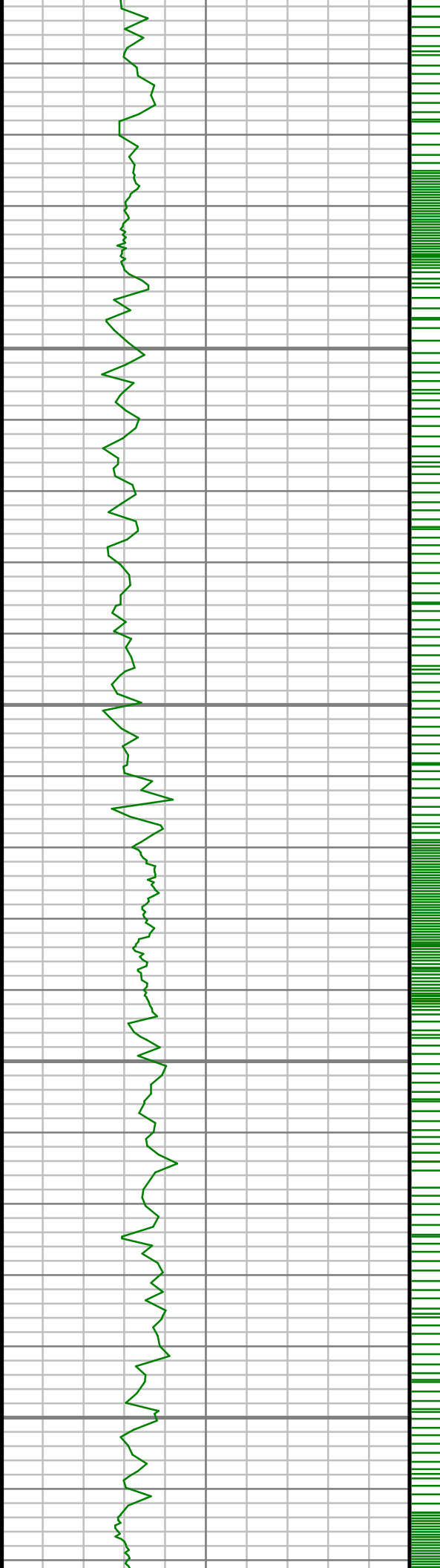
1500

1550



S: 14 MD: 1378.00 ft
Inc: 15.48 deg Az:
186.02 deg TVD:
1355.13 ft

S: 15 MD: 1472.00 ft
Inc: 14.44 deg Az:
189.45 deg TVD:
1445.94 ft



1600

1650

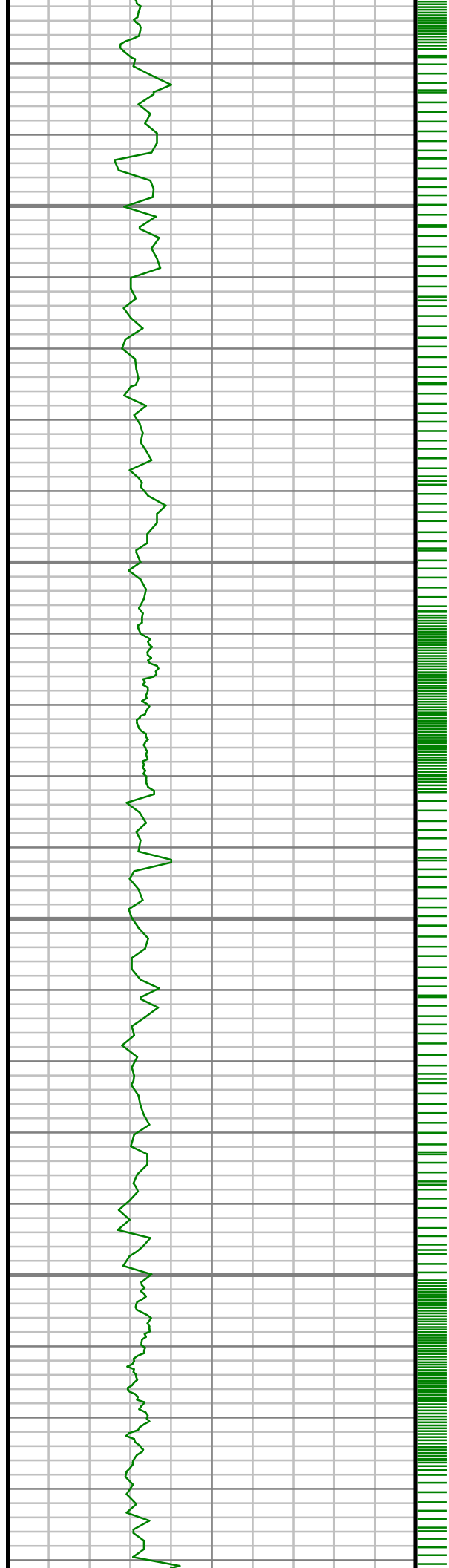
1700

1750

S: 16 MD: 1566.00 ft
Inc: 15.65 deg Az:
190.28 deg TVD:
1536.72 ft

S: 17 MD: 1659.00 ft
Inc: 14.71 deg Az:
188.86 deg TVD:
1626.47 ft

S: 18 MD: 1753.00 ft
Inc: 15.12 deg Az:
189.22 deg TVD:
1717.30 ft

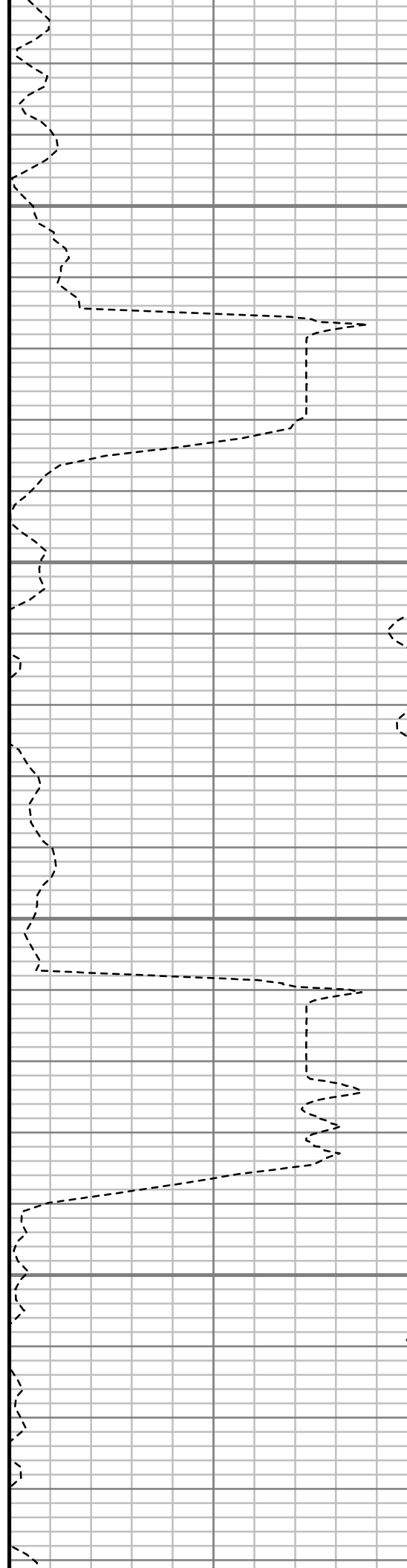


1800

1850

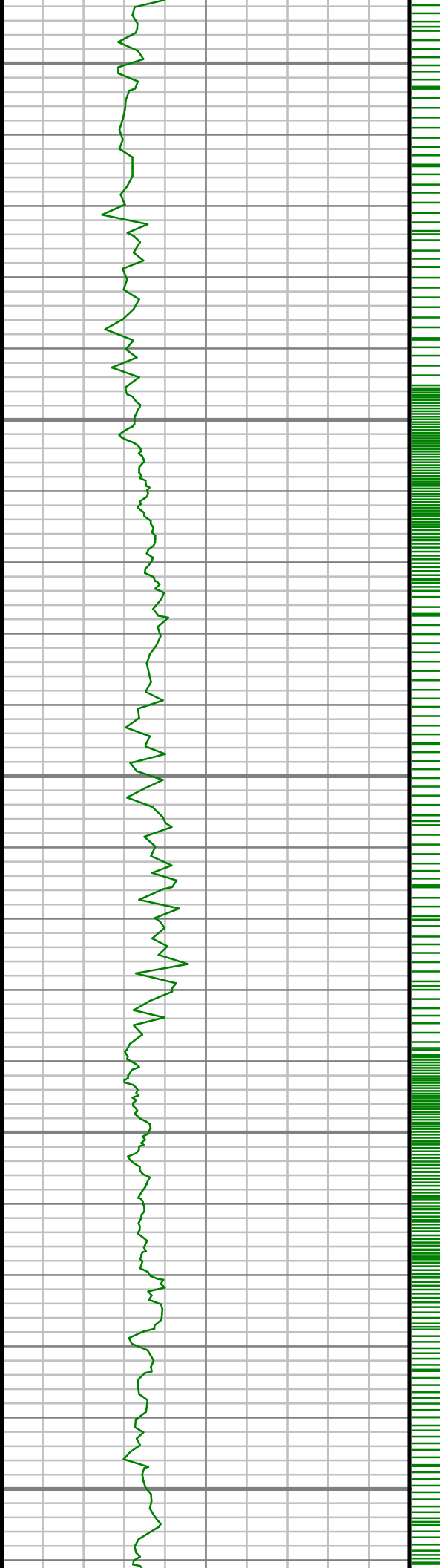
1900

1950



S: 19 MD: 1847.00 ft
Inc: 14.68 deg Az:
187.68 deg TVD:
1808.14 ft

S: 20 MD: 1941.00 ft
Inc: 14.75 deg Az:
187.48 deg TVD:
1899.06 ft



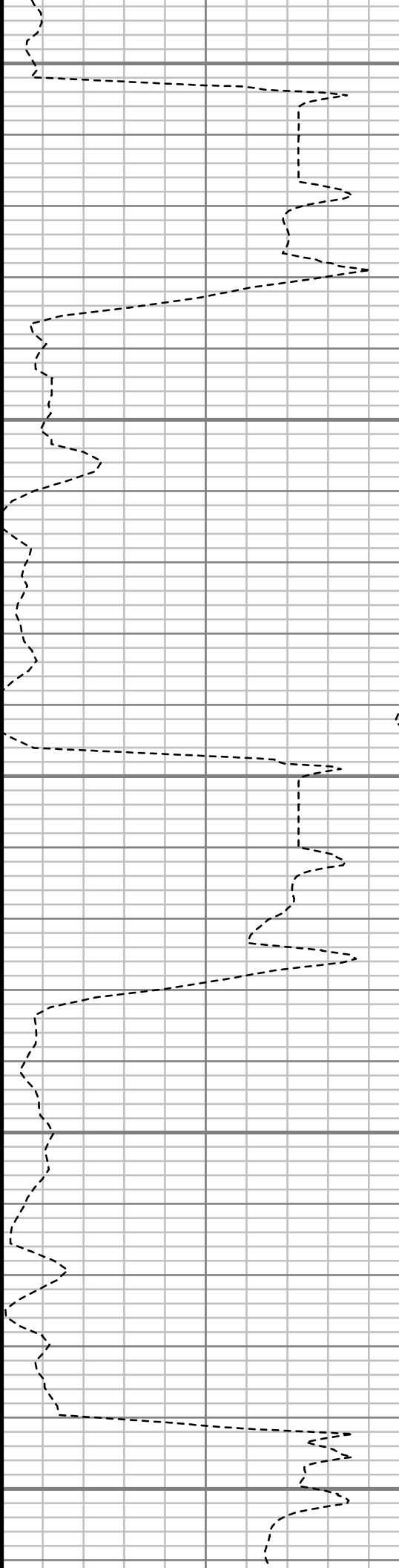
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2050

2100

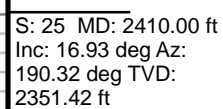
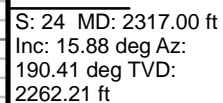
2150

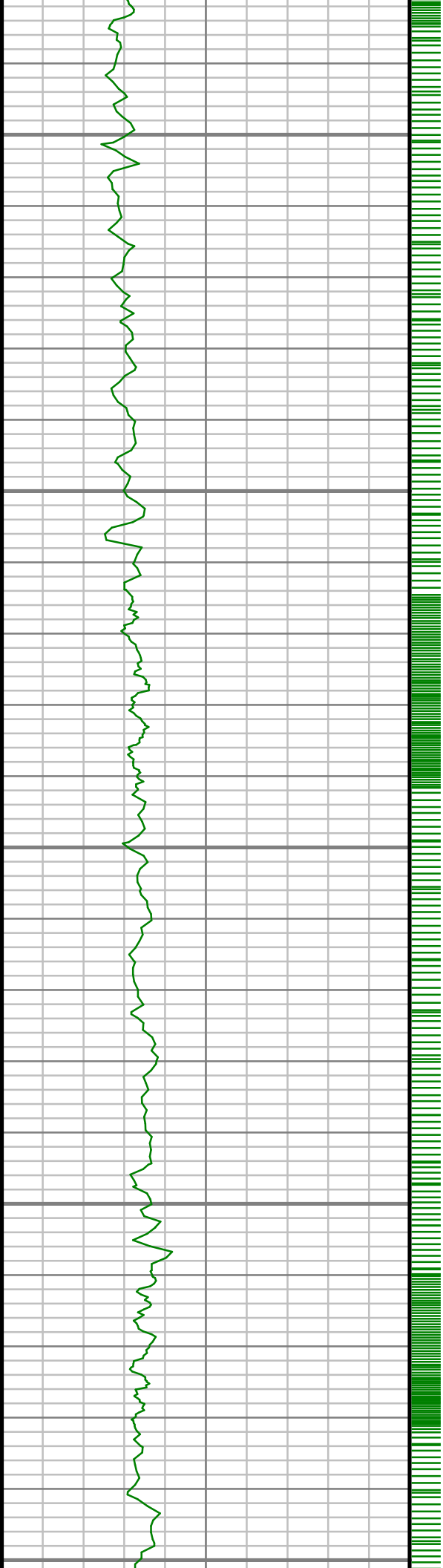
2200



S: 21 MD: 2034.00 ft
Inc: 14.36 deg Az:
190.77 deg TVD:
1989.07 ft

S: 22 MD: 2129.00 ft
Inc: 14.72 deg Az:
192.54 deg TVD:
2081.03 ft





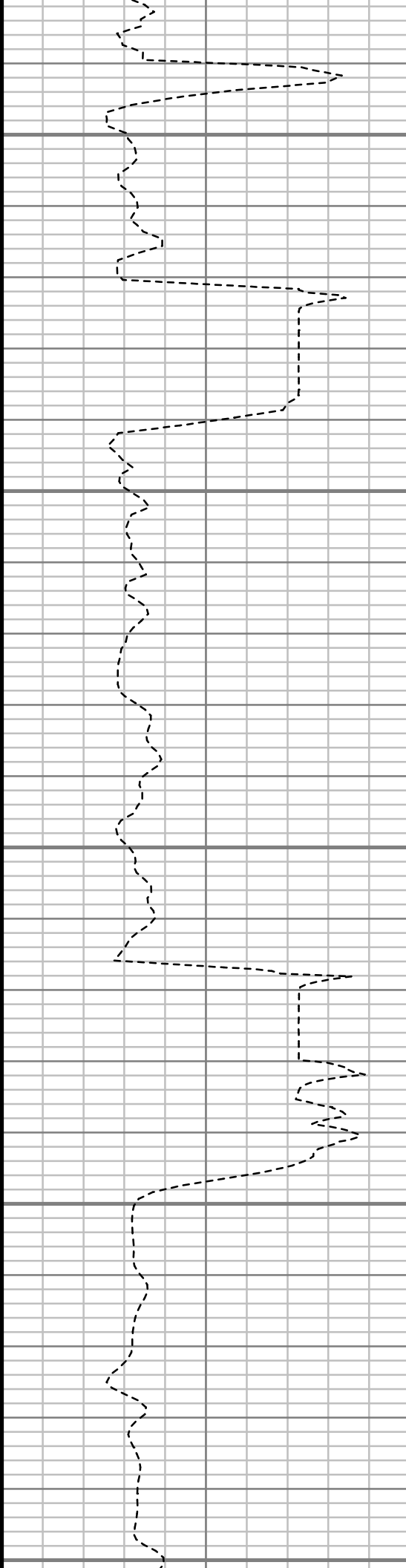
2450

2500

2550

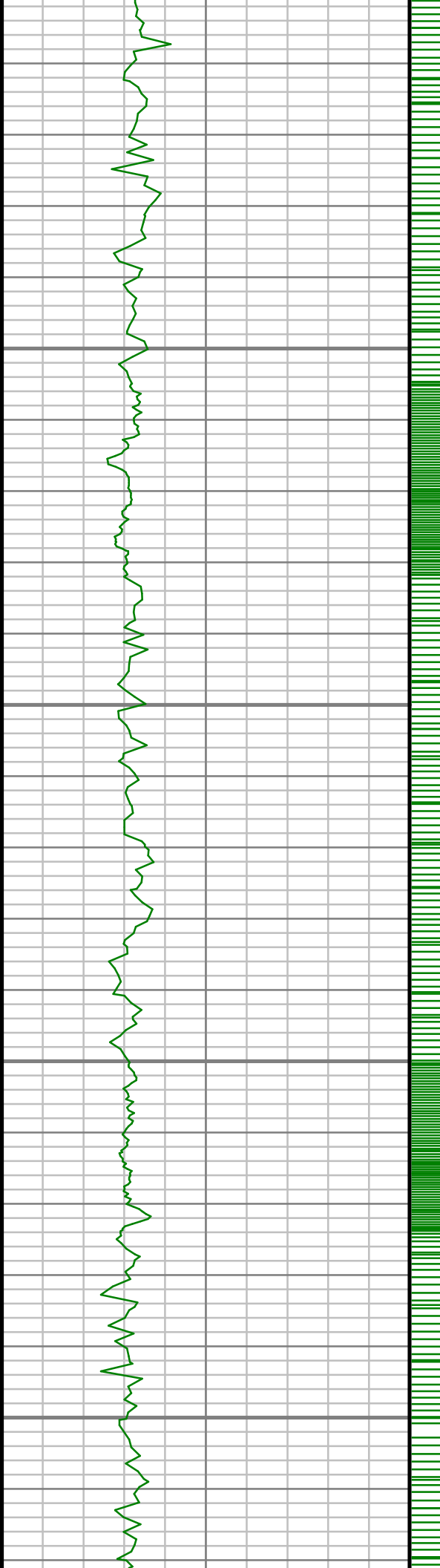
2600

2650



S: 26 MD: 2505.00 ft
Inc: 17.79 deg Az:
188.93 deg TVD:
2442.10 ft

S: 27 MD: 2600.00 ft
Inc: 14.50 deg Az:
190.16 deg TVD:
2533.34 ft

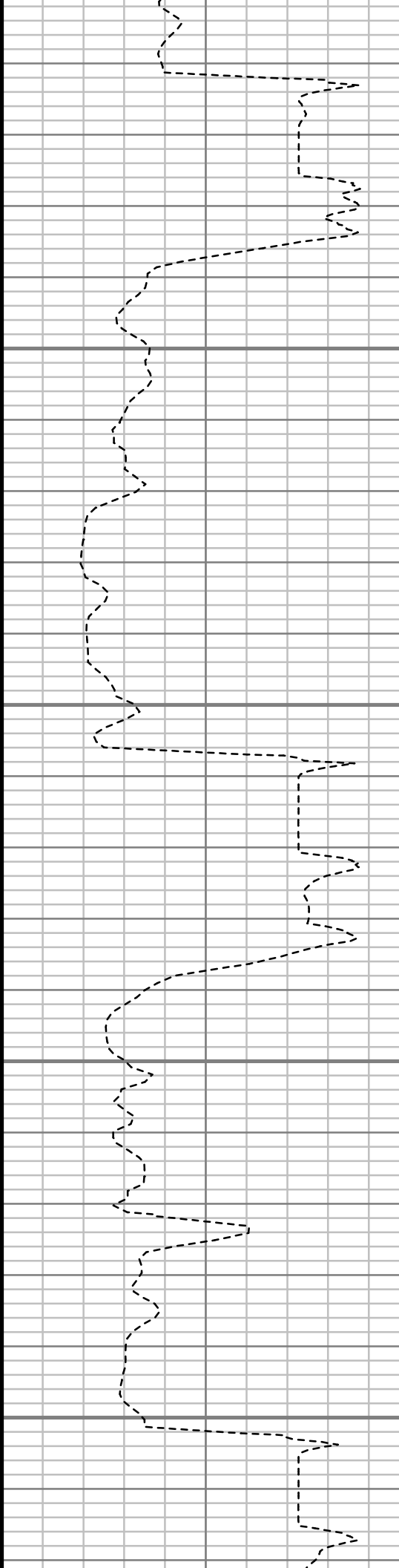


2700

2750

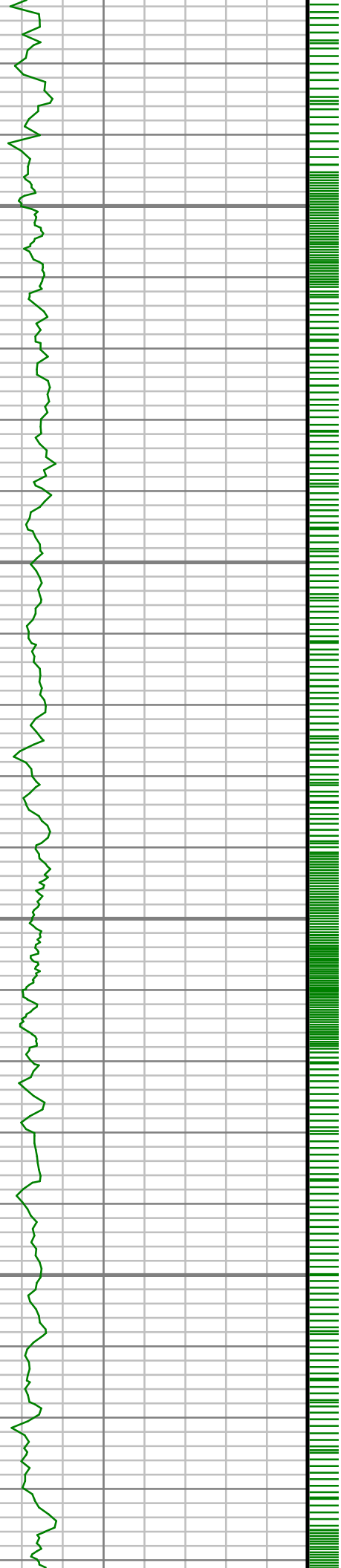
2800

2850



S: 28 MD: 2695.00 ft
Inc: 13.84 deg Az:
188.01 deg TVD:
2625.45 ft

S: 29 MD: 2790.00 ft
Inc: 14.47 deg Az:
190.09 deg TVD:
2717.56 ft

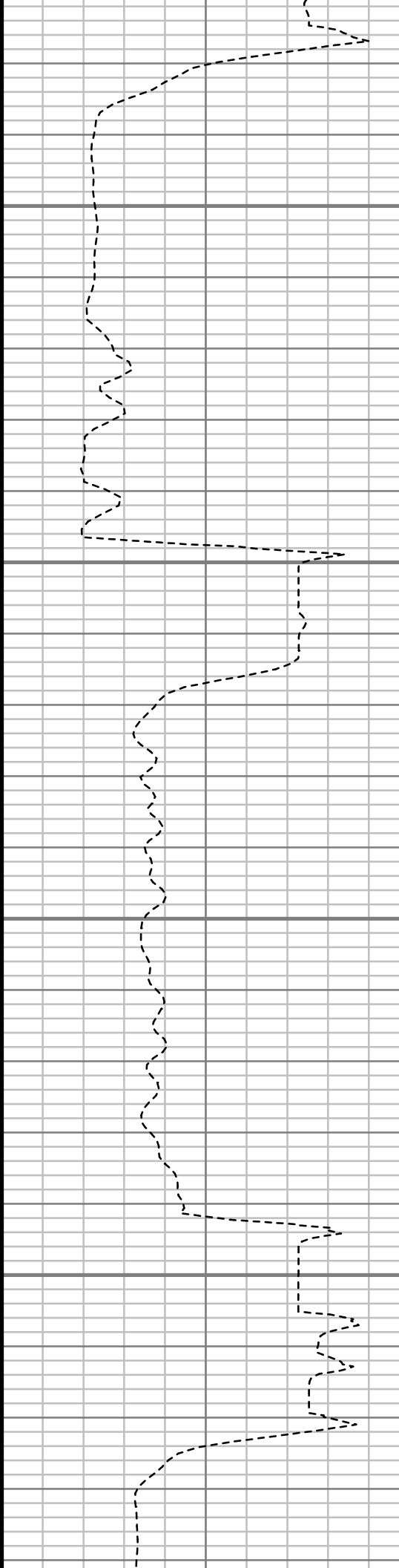


2900

2950

3000

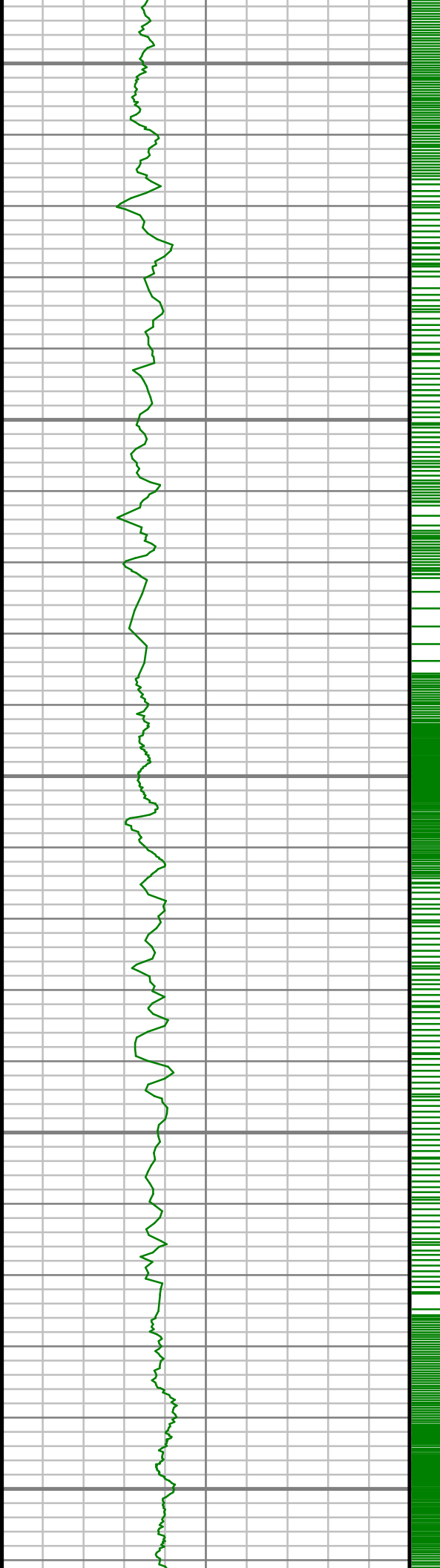
3050



S: 30 MD: 2885.00 ft
Inc: 14.86 deg Az:
190.16 deg TVD:
2809.47 ft

S: 31 MD: 2980.00 ft
Inc: 12.52 deg Az:
188.62 deg TVD:
2901.77 ft

S: 32 MD: 3075.00 ft
Inc: 13.01 deg Az:
188.37 deg TVD:
2994.42 ft



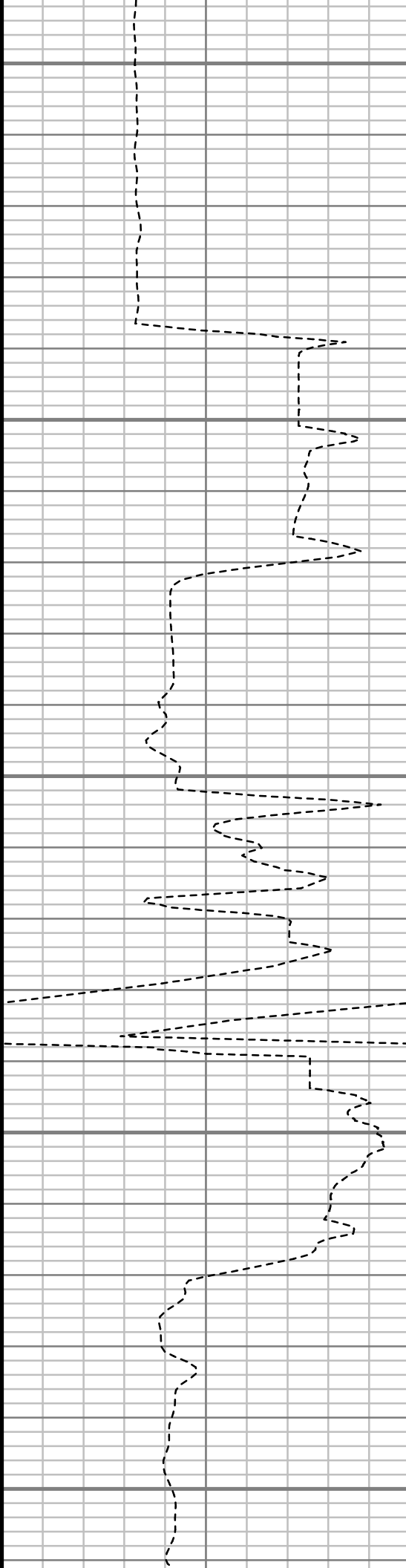
3100

3150

3200

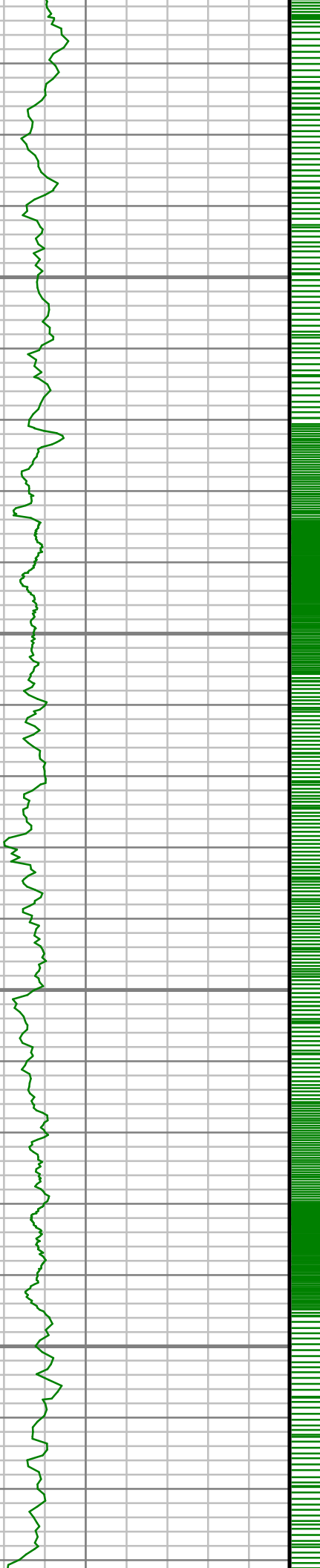
3250

3300



S: 33 MD: 3170.00 ft
Inc: 12.81 deg Az:
187.80 deg TVD:
3087.01 ft

S: 34 MD: 3265.00 ft
Inc: 13.63 deg Az:
188.13 deg TVD:
3179.49 ft



3350

3400

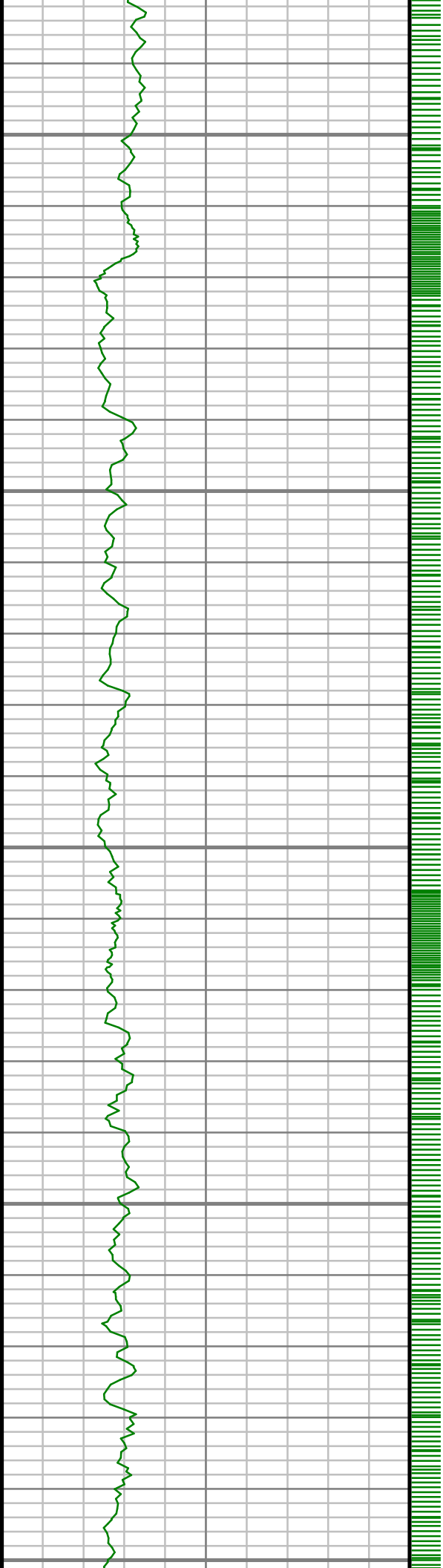
3450

3500



S: 35 MD: 3360.00 ft
Inc: 13.60 deg Az:
189.28 deg TVD:
3271.82 ft

S: 36 MD: 3455.00 ft
Inc: 14.63 deg Az:
190.82 deg TVD:
3363.95 ft



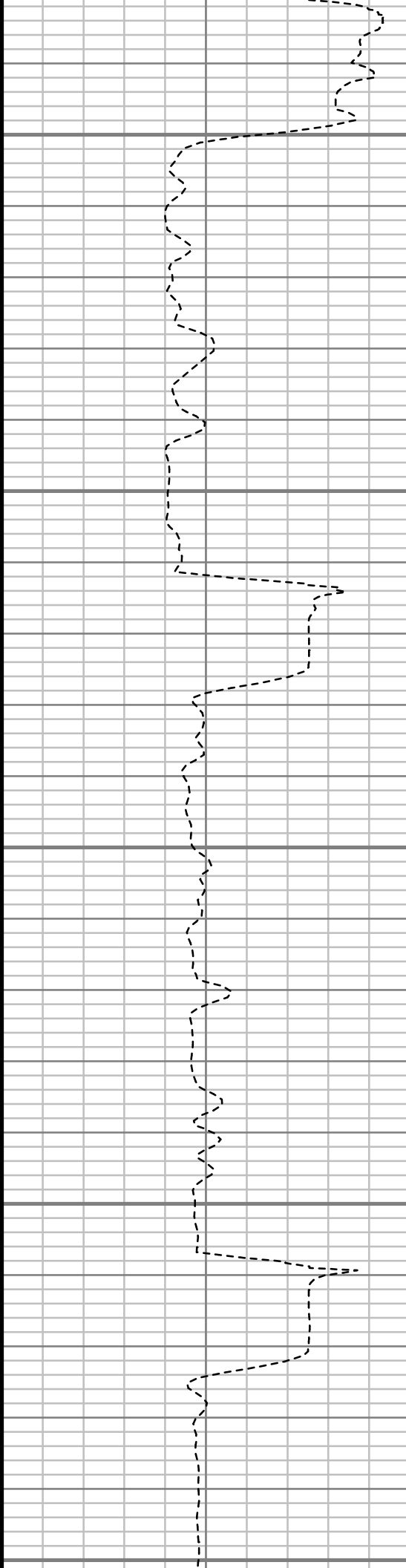
3550

3600

3650

3700

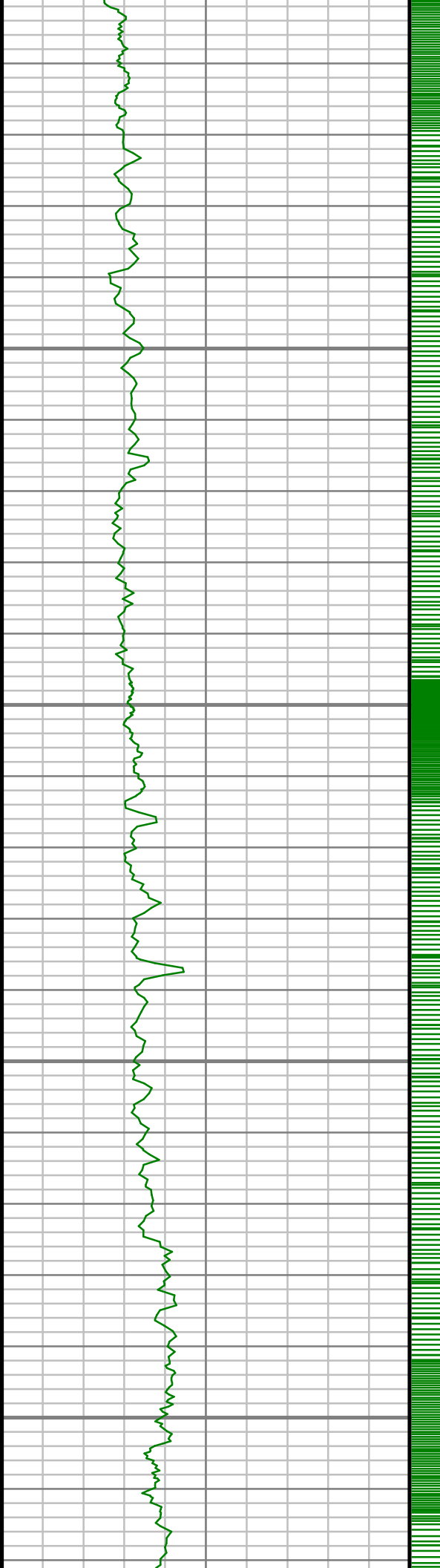
3750



S: 37 MD: 3550.00 ft
Inc: 16.52 deg Az:
191.27 deg TVD:
3455.46 ft

S: 38 MD: 3645.00 ft
Inc: 18.71 deg Az:
192.59 deg TVD:
3546.00 ft

S: 39 MD: 3741.00 ft
Inc: 20.11 deg Az:
191.76 deg TVD:
3636.54 ft

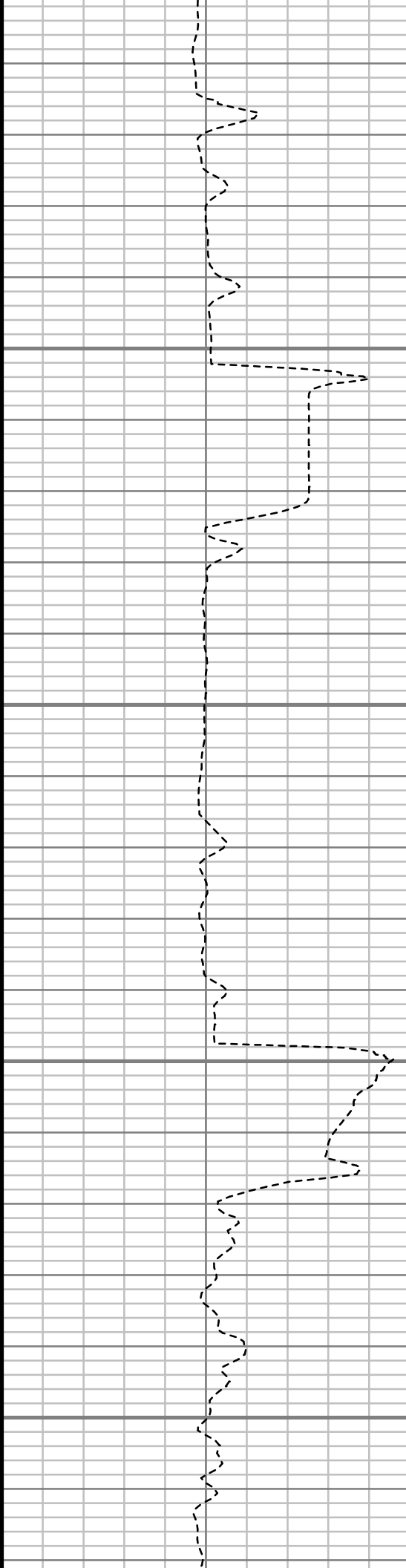


3800

3850

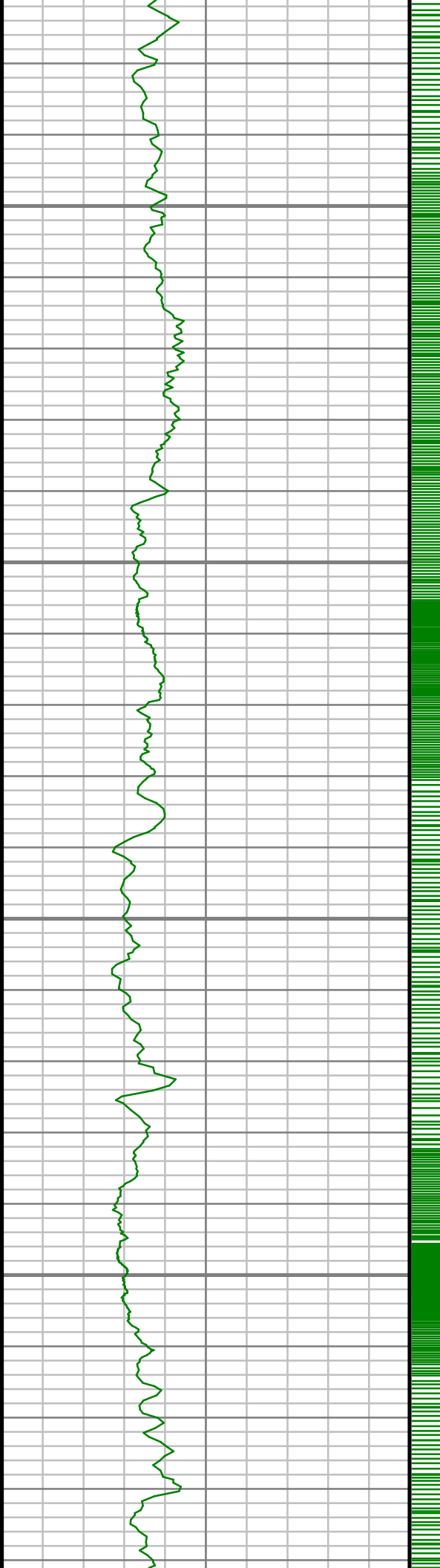
3900

3950



S: 40 MD: 3836.00 ft
Inc: 21.01 deg Az:
192.87 deg TVD:
3725.49 ft

S: 41 MD: 3930.00 ft
Inc: 17.46 deg Az:
187.91 deg TVD:
3814.24 ft



4000

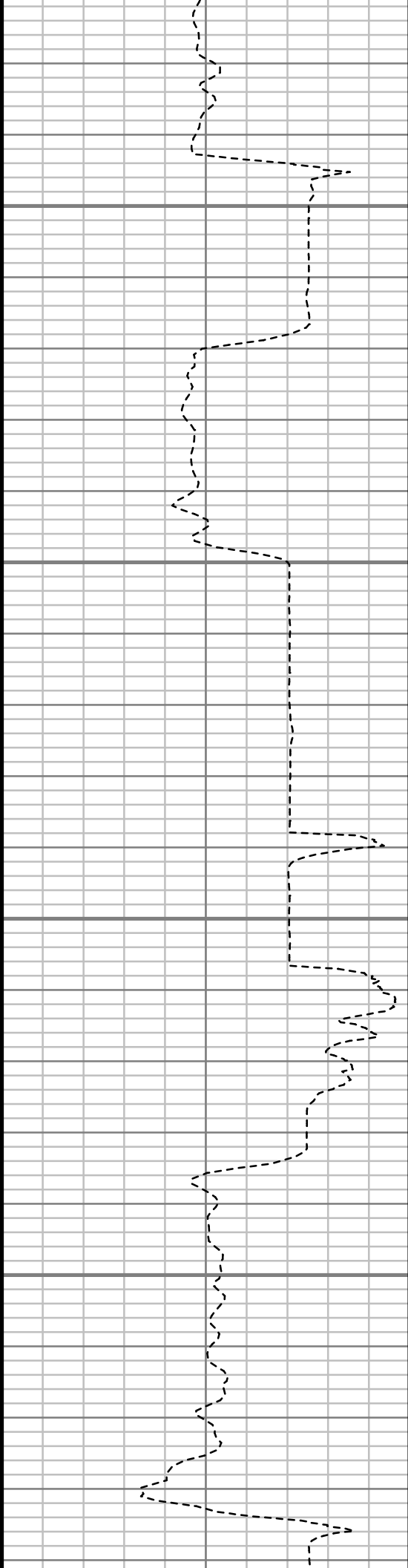
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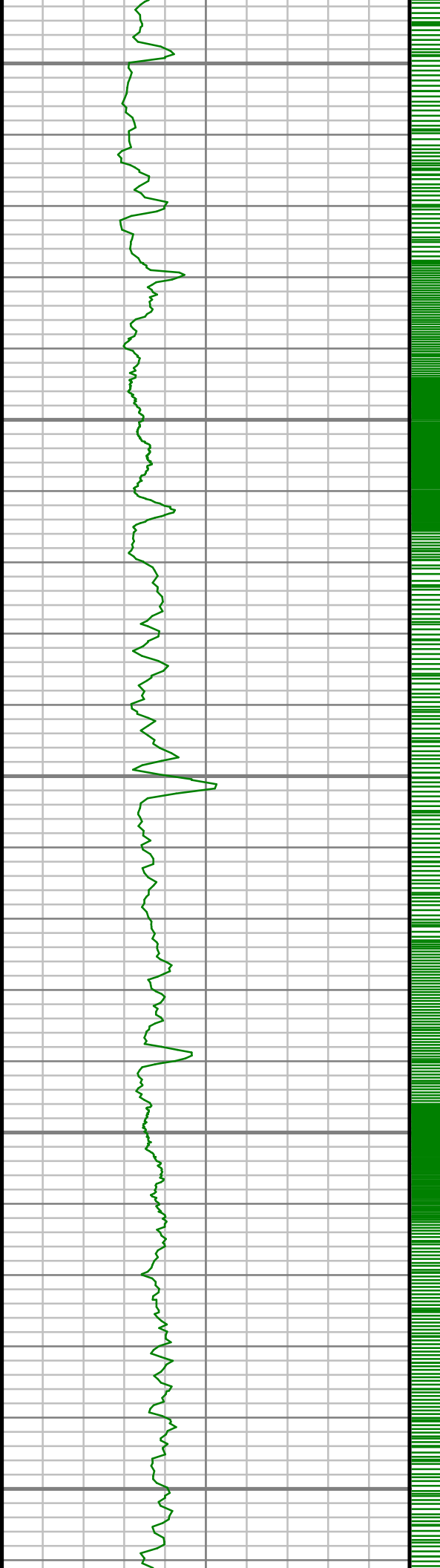
4100

4150

S: 42 MD: 4026.00 ft
Inc: 13.54 deg Az:
184.02 deg TVD:
3906.73 ft

S: 43 MD: 4121.00 ft
Inc: 13.45 deg Az:
183.83 deg TVD:
3999.11 ft





4200

4250

4300

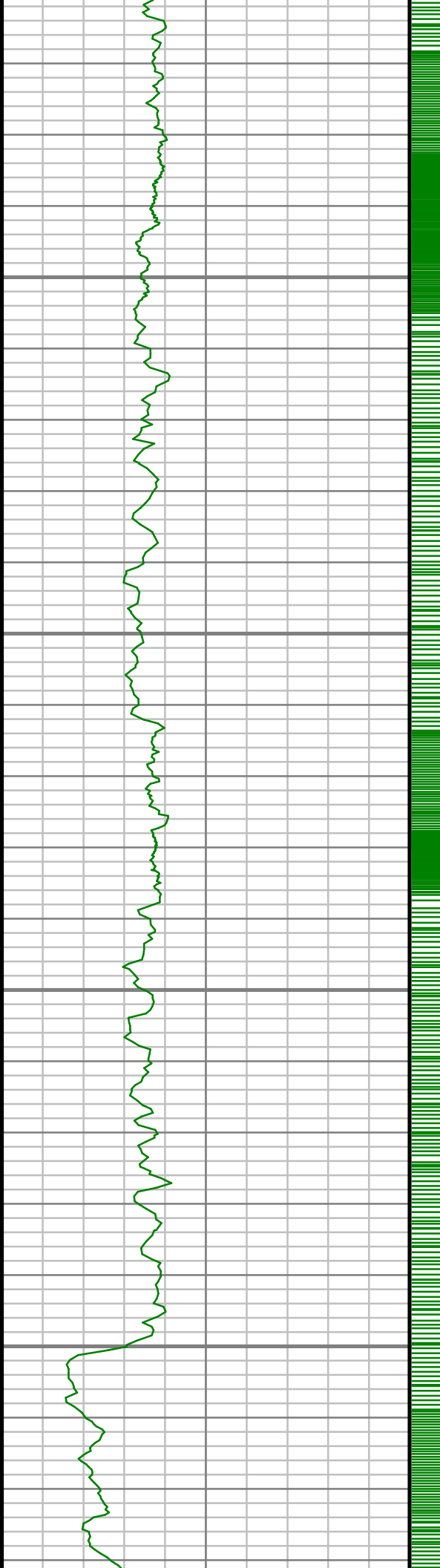
4350

4400

S: 44 MD: 4216.00 ft
Inc: 12.17 deg Az:
192.63 deg TVD:
4091.75 ft

S: 45 MD: 4311.00 ft
Inc: 13.80 deg Az:
194.13 deg TVD:
4184.31 ft

S: 46 MD: 4405.00 ft
Inc: 14.34 deg Az:
193.16 deg TVD:

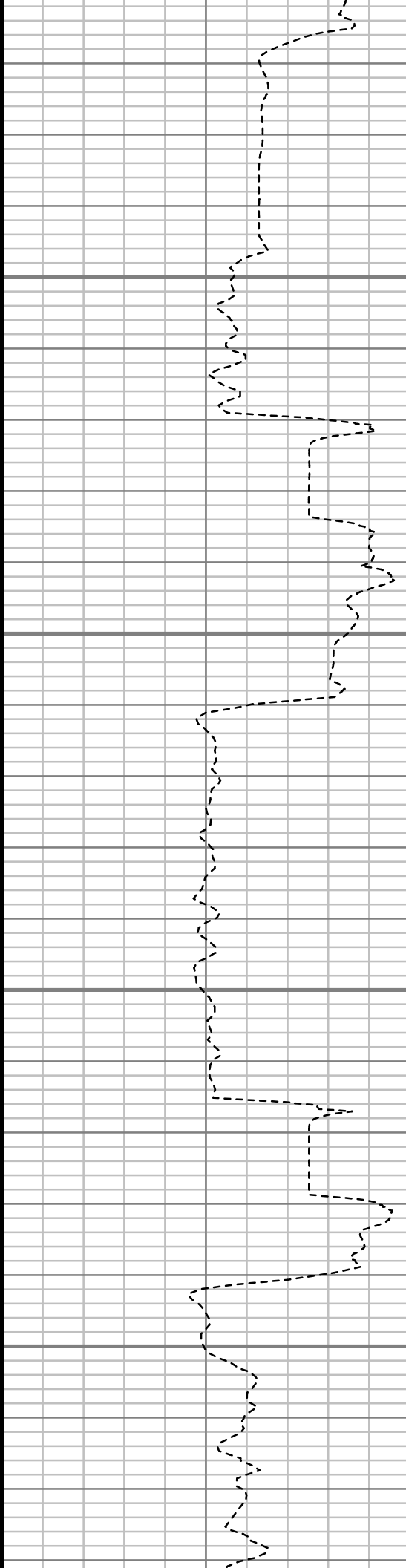


4450

4500

4550

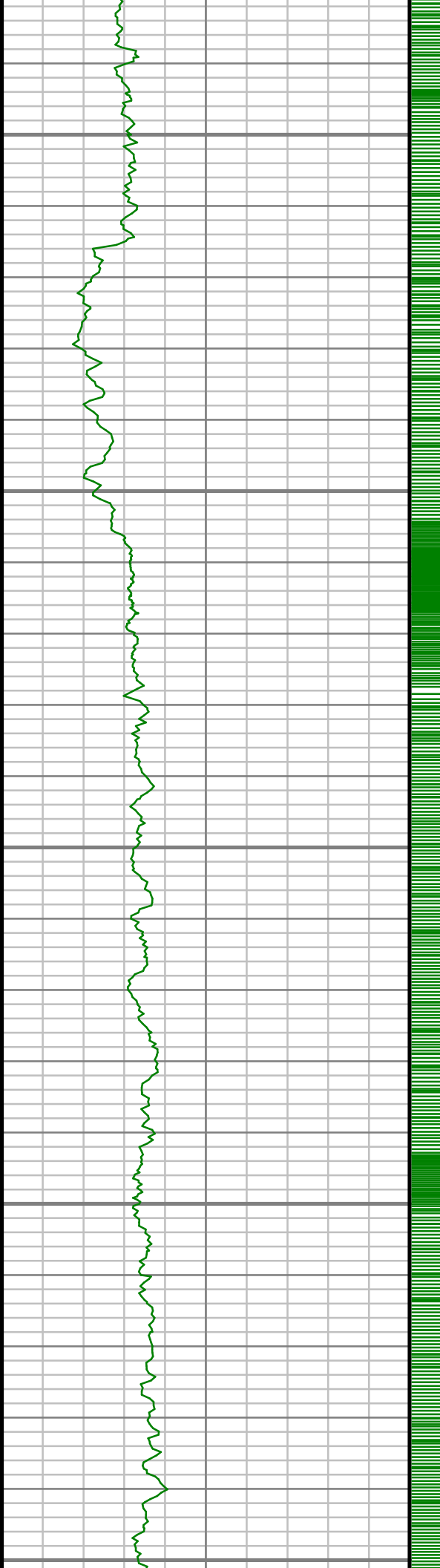
4600



193.16 deg TVD:
4275.49 ft

S: 47 MD: 4501.00 ft
Inc: 15.85 deg Az:
185.55 deg TVD:
4368.19 ft

S: 48 MD: 4596.00 ft
Inc: 15.90 deg Az:
188.42 deg TVD:
4459.56 ft



4650

4700

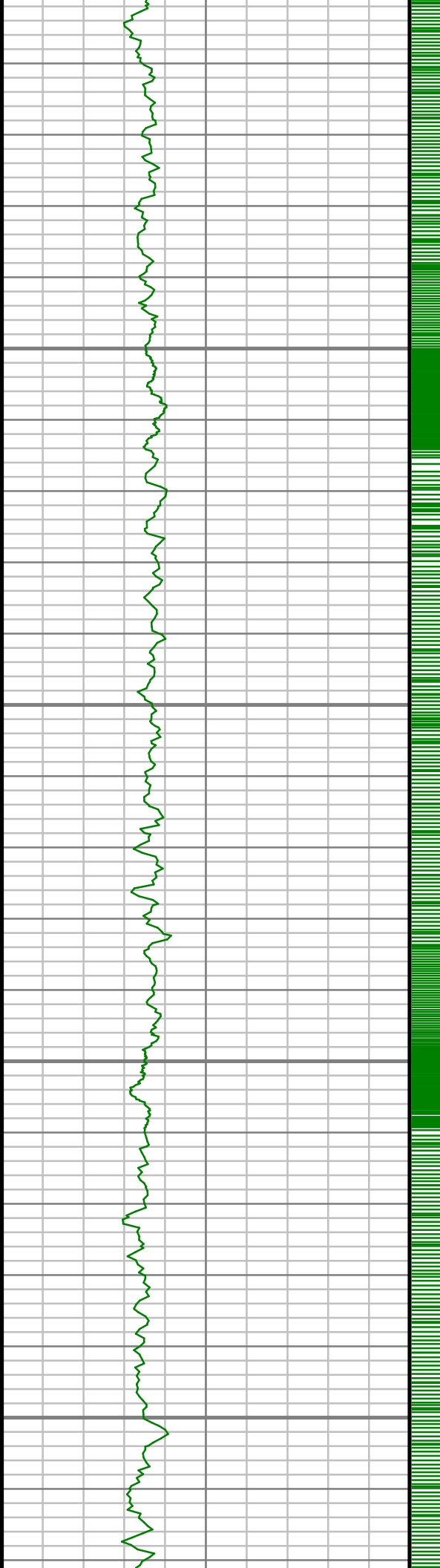
4750

4800

4850

S: 49 MD: 4690.00 ft
Inc: 15.65 deg Az:
188.66 deg TVD:
4550.02 ft

S: 50 MD: 4785.00 ft
Inc: 16.29 deg Az:
193.60 deg TVD:
4641.36 ft

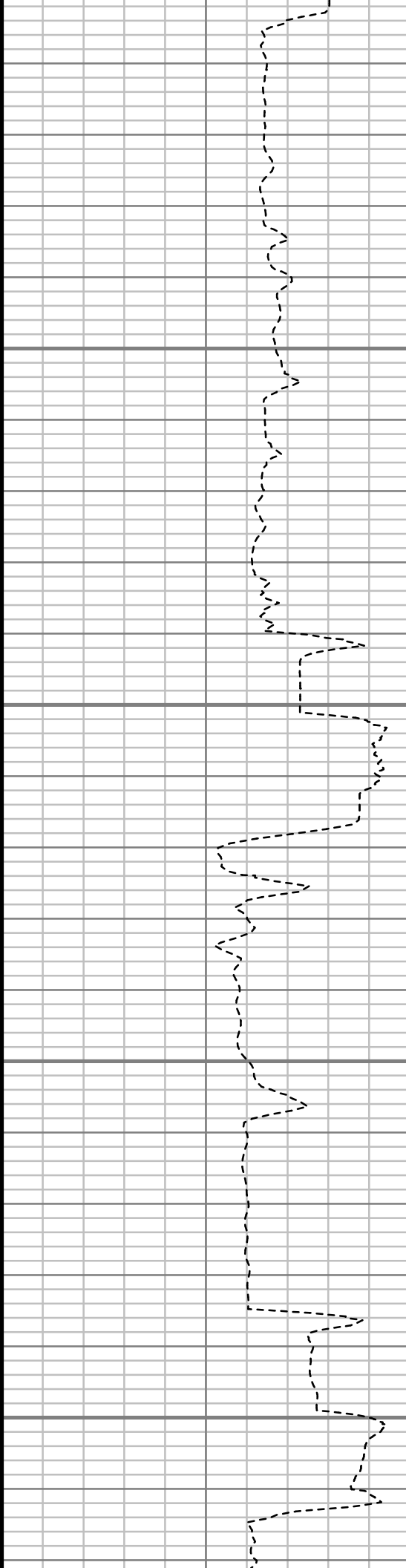


4900

4950

5000

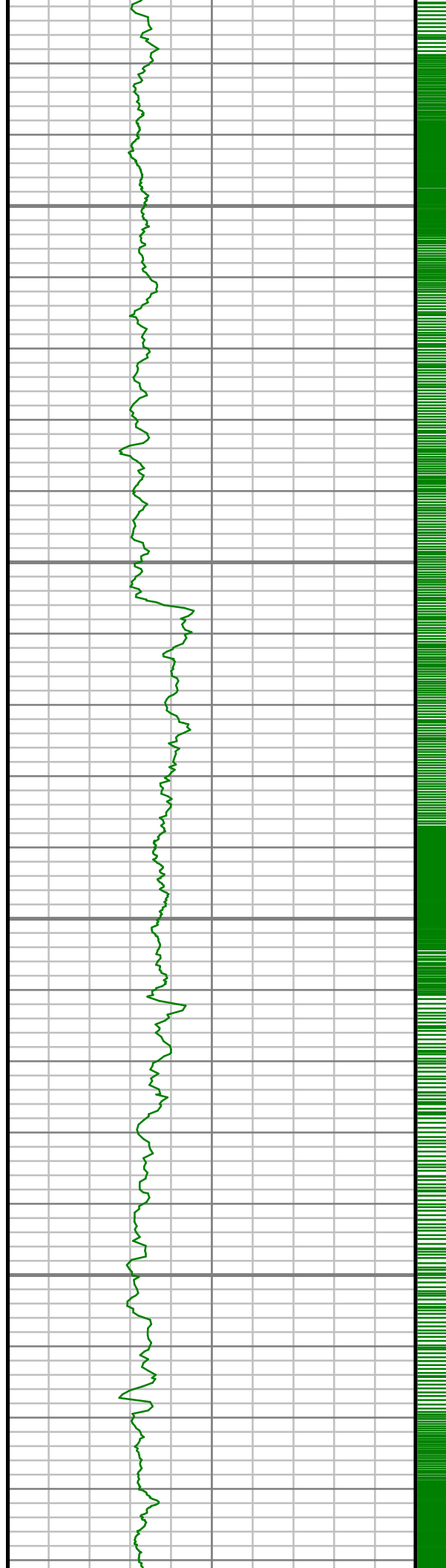
5050



S: 51 MD: 4880.00 ft
Inc: 14.57 deg Az:
194.91 deg TVD:
4732.93 ft

S: 52 MD: 4975.00 ft
Inc: 12.45 deg Az:
191.68 deg TVD:
4825.30 ft

S: 53 MD: 5070.00 ft



5100

5150

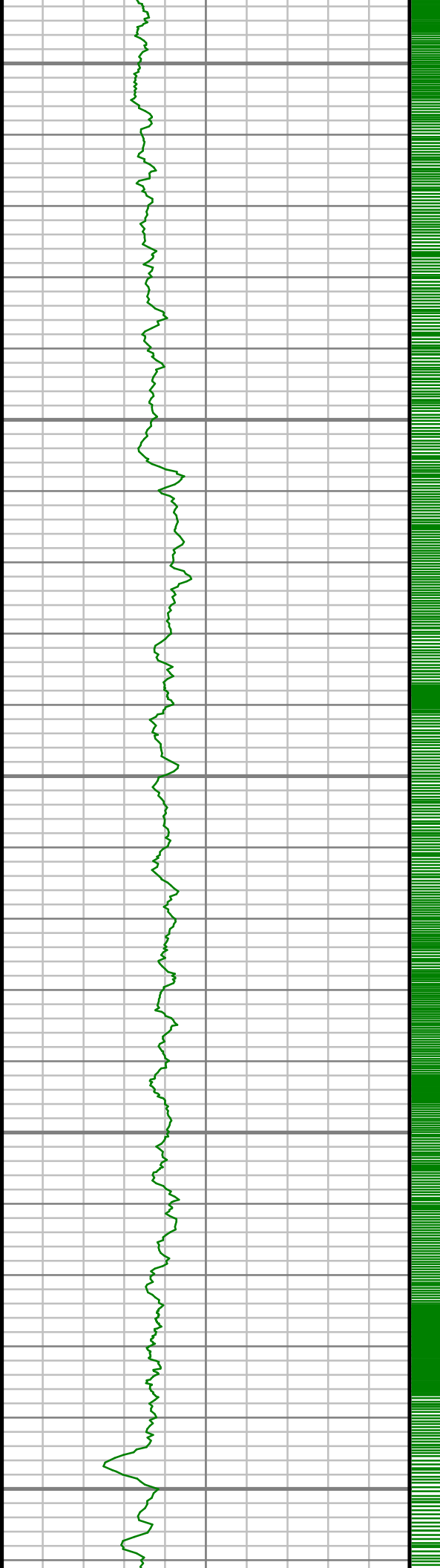
5200

5250

S: 53 MD: 5070.00 ft
Inc: 12.58 deg Az:
194.23 deg TVD:
4918.04 ft

S: 54 MD: 5165.00 ft
Inc: 13.30 deg Az:
198.00 deg TVD:
5010.63 ft

S: 55 MD: 5260.00 ft
Inc: 14.00 deg Az:
194.20 deg TVD:
5102.95 ft



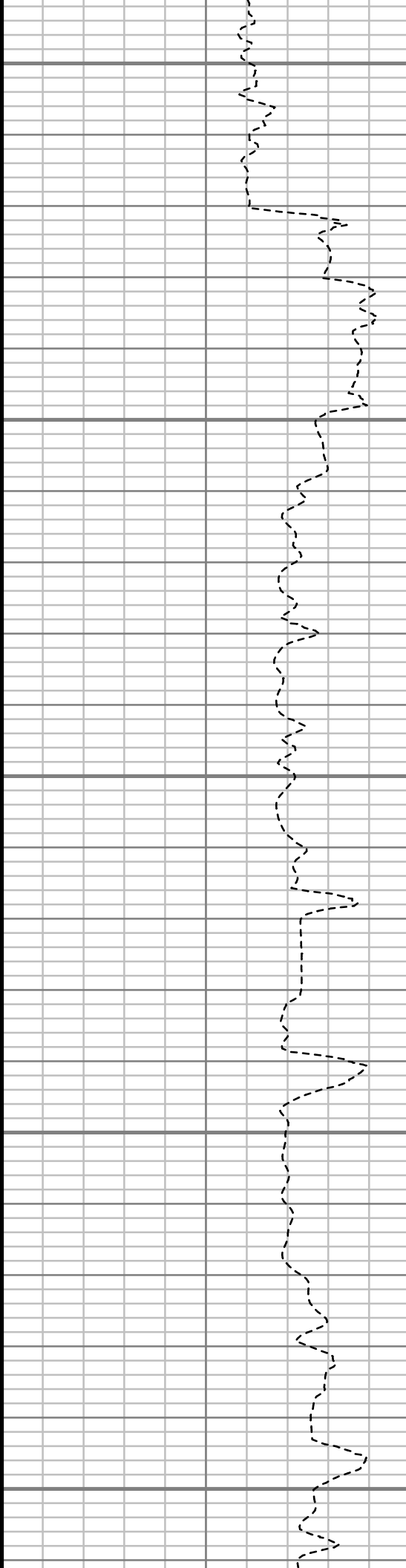
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5350

5400

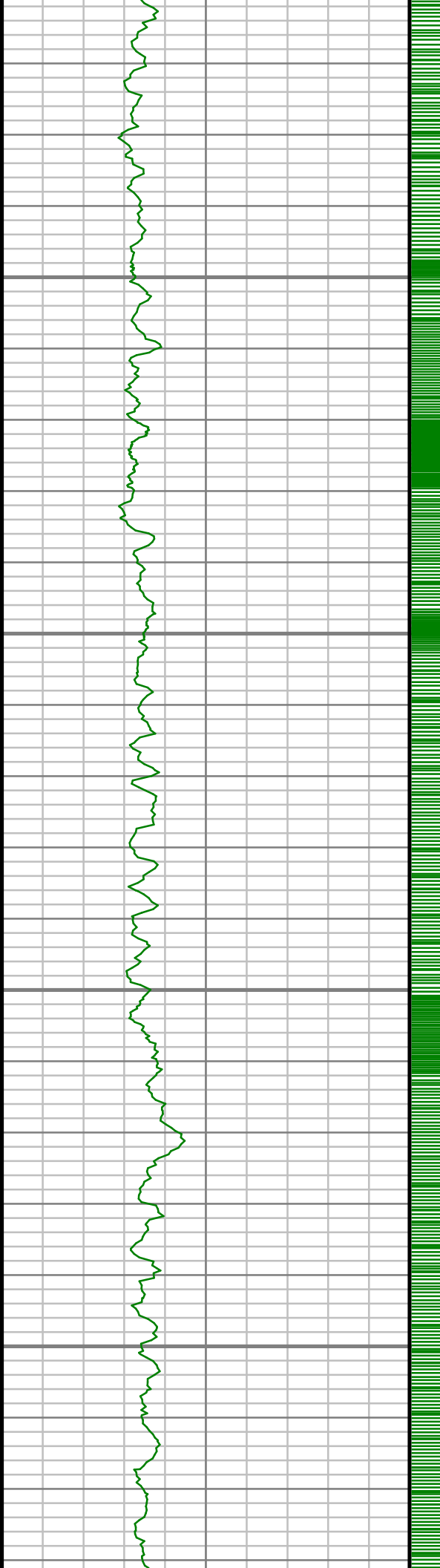
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5500



S: 56 MD: 5356.00 ft
Inc: 14.33 deg Az:
196.27 deg TVD:
5196.03 ft

S: 57 MD: 5451.00 ft
Inc: 11.15 deg Az:
192.38 deg TVD:
5288.68 ft

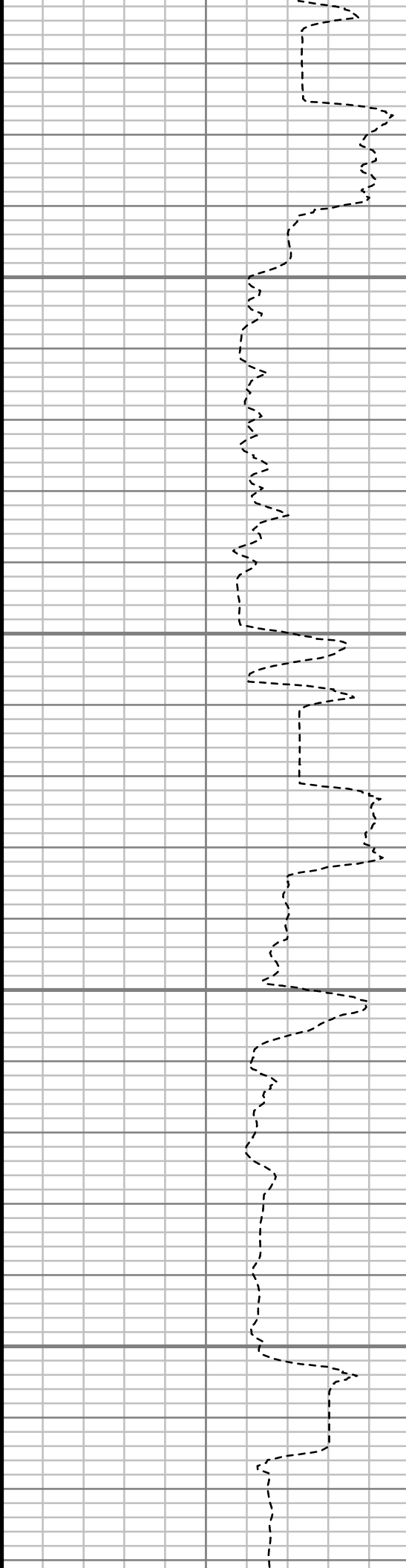


5550

5600

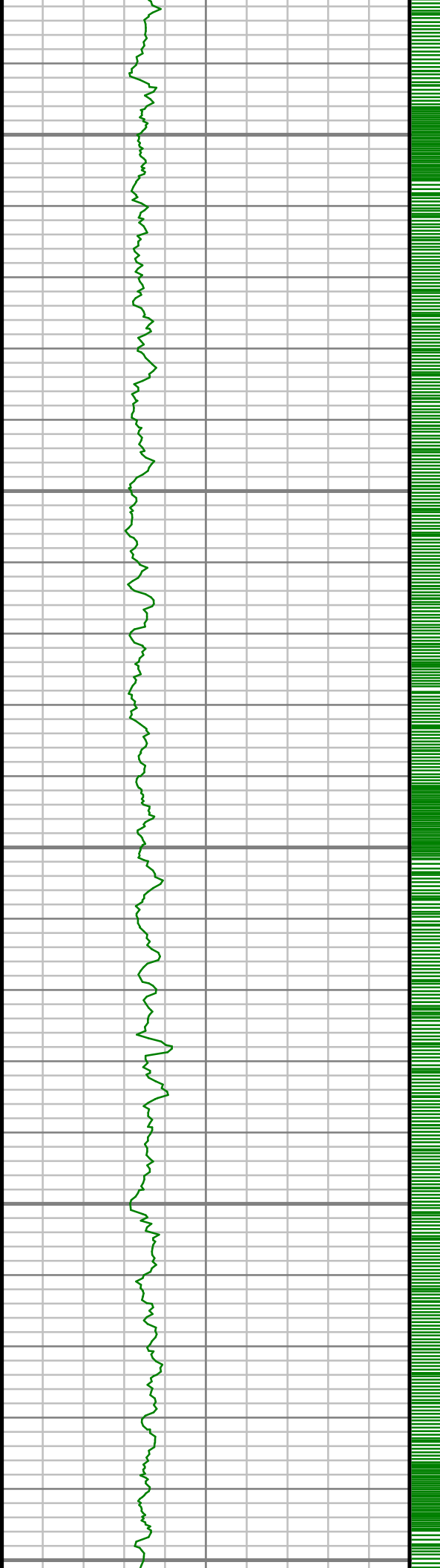
5650

5700



S: 58 MD: 5546.00 ft
Inc: 10.82 deg Az:
197.57 deg TVD:
5381.94 ft

S: 59 MD: 5641.00 ft
Inc: 10.28 deg Az:
190.60 deg TVD:
5475.34 ft



5750

5800

5850

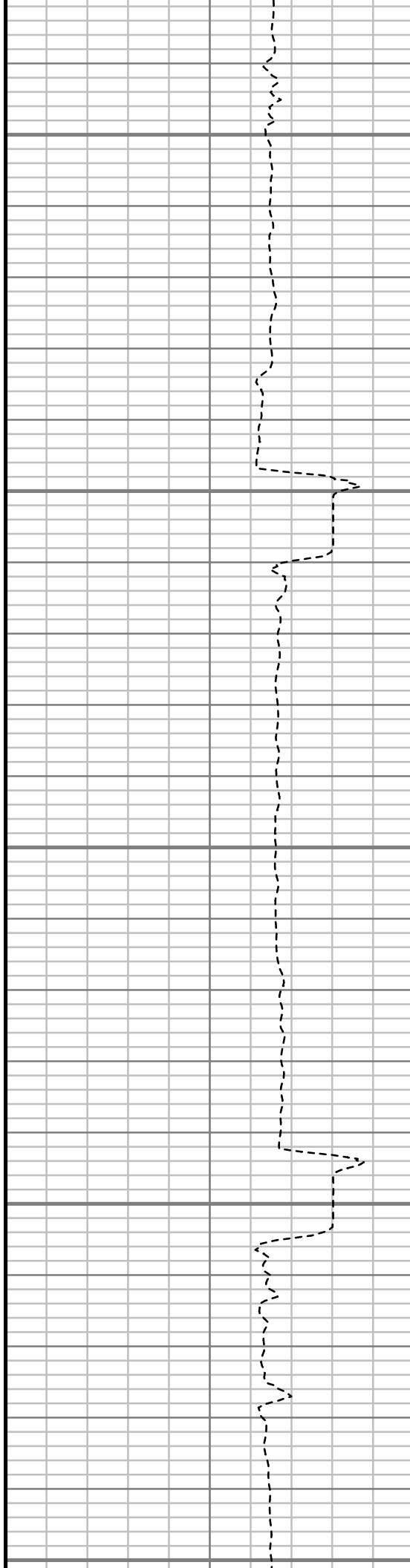
5900

5950

S: 60 MD: 5736.00 ft
Inc: 8.14 deg Az:
187.40 deg TVD:
5569.11 ft

S: 61 MD: 5829.00 ft
Inc: 5.90 deg Az:
187.55 deg TVD:
5661.41 ft

S: 62 MD: 5924.00 ft
Inc: 4.85 deg Az:
186.03 deg TVD:
5755.99 ft



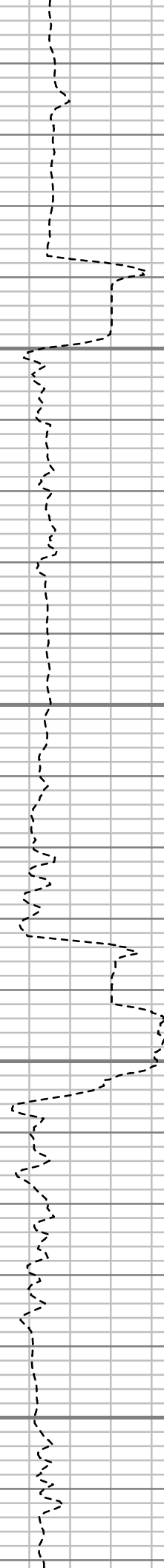


6000

6050

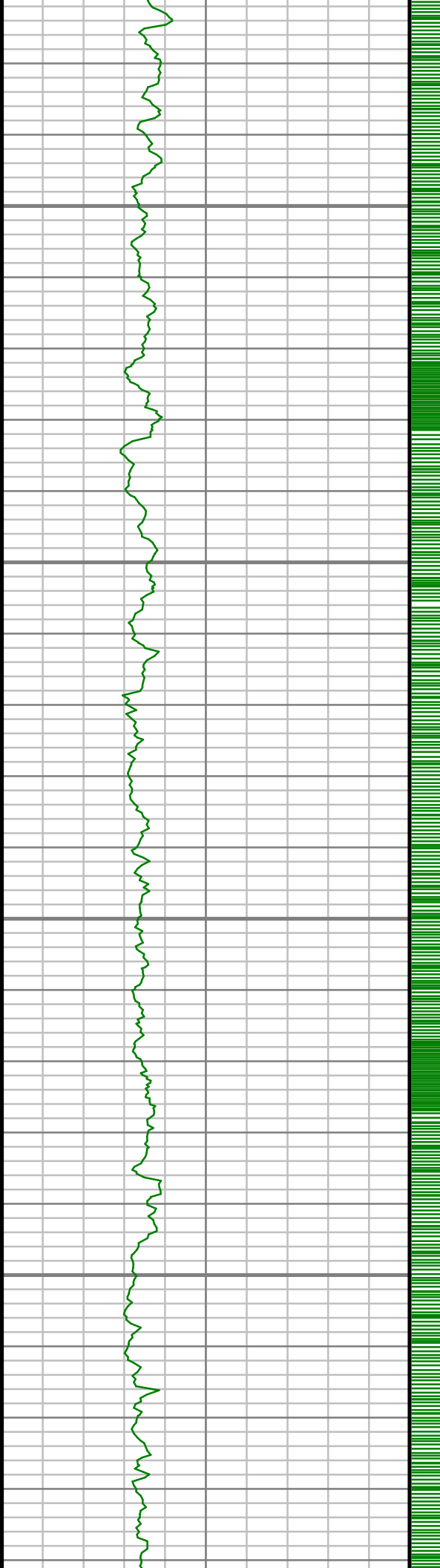
6100

6150



S: 63 MD: 6019.00 ft
Inc: 3.58 deg Az:
181.28 deg TVD:
5850.73 ft

S: 64 MD: 6113.00 ft
Inc: 3.15 deg Az:
207.13 deg TVD:
5944.57 ft



6200

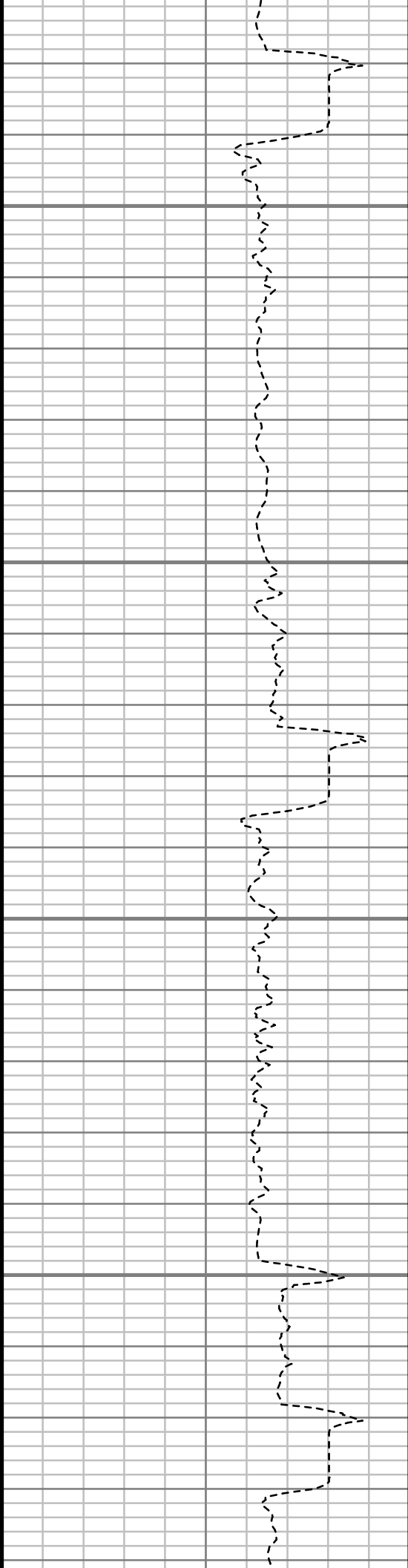
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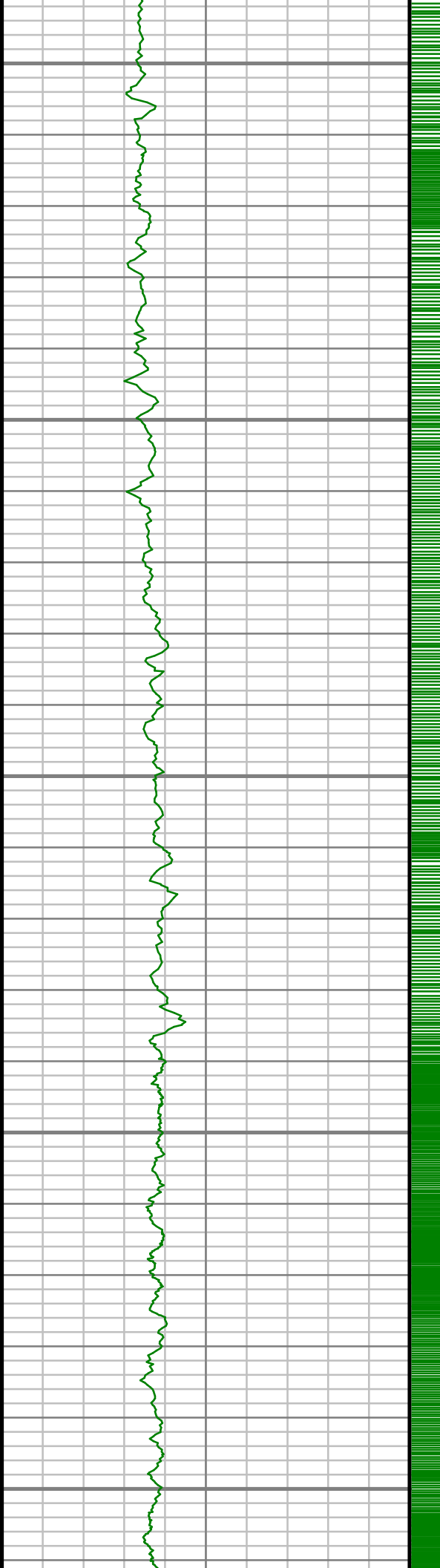
6300

6350

S: 65 MD: 6208.00 ft
Inc: 2.21 deg Az:
193.60 deg TVD:
6039.47 ft

S: 66 MD: 6303.00 ft
Inc: 1.72 deg Az:
197.18 deg TVD:
6134.41 ft





6400

6450

6500

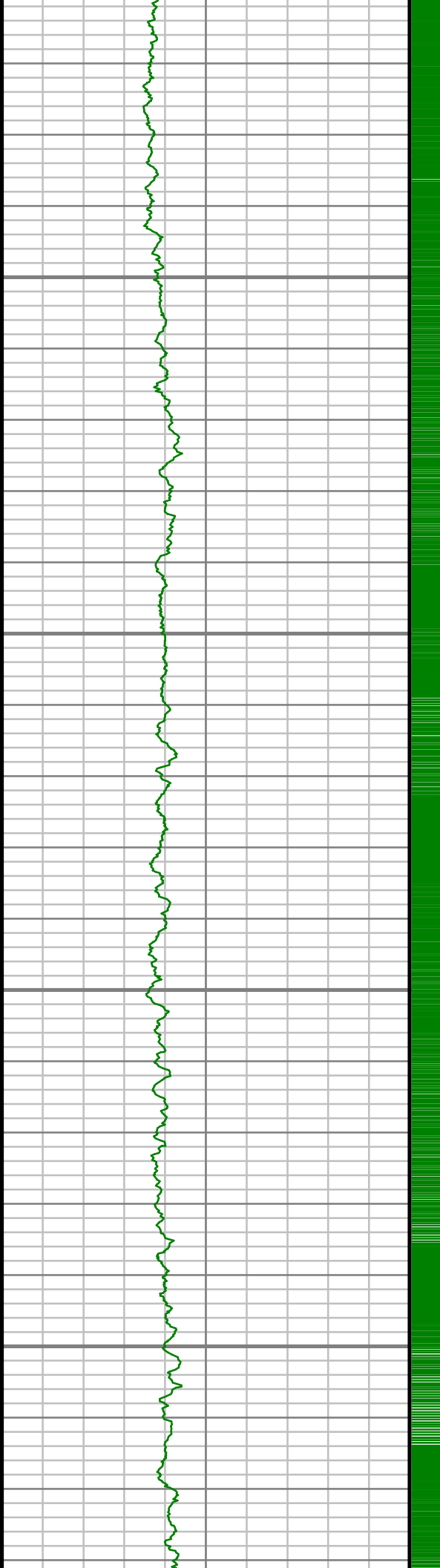
6550

6600

S: 67 MD: 6397.00 ft
Inc: 1.05 deg Az:
185.98 deg TVD:
6228.39 ft

S: 68 MD: 6492.00 ft
Inc: 1.07 deg Az:
208.06 deg TVD:
6323.37 ft

S: 69 MD: 6587.00 ft
Inc: 0.75 deg Az:
187.99 deg TVD:
6418.36 ft

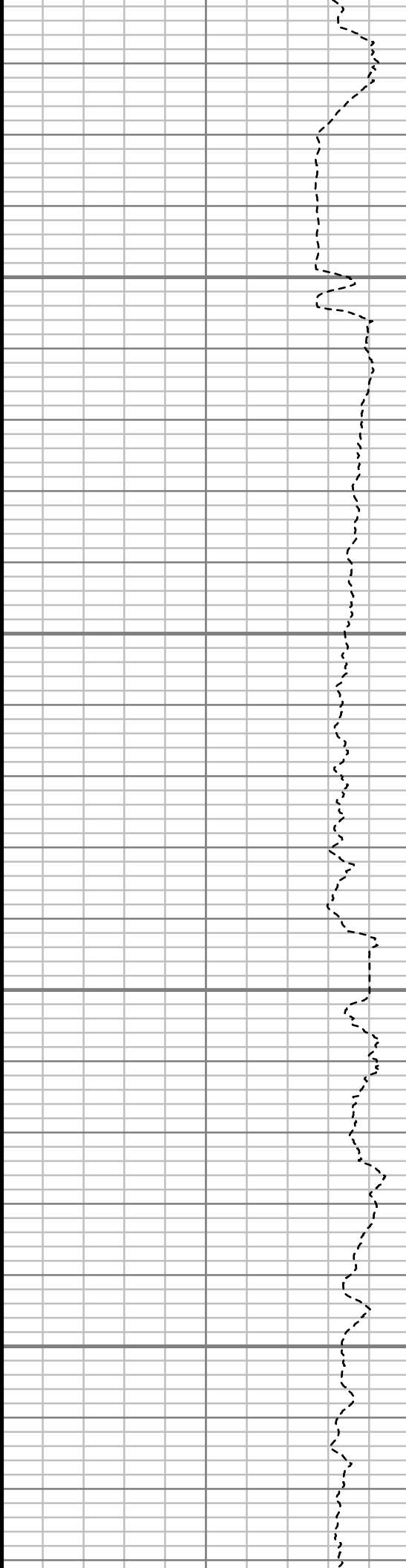


6650

6700

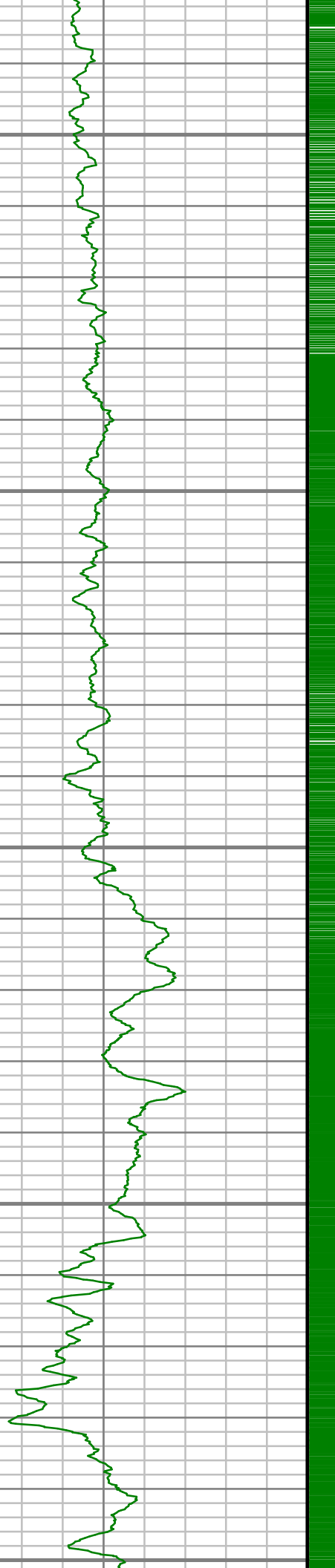
6750

6800



S: 70 MD: 6682.00 ft
Inc: 4.61 deg Az:
100.43 deg TVD:
6513.25 ft

S: 71 MD: 6777.00 ft
Inc: 11.55 deg Az:
88.30 deg TVD:
6607.26 ft



6850

6900

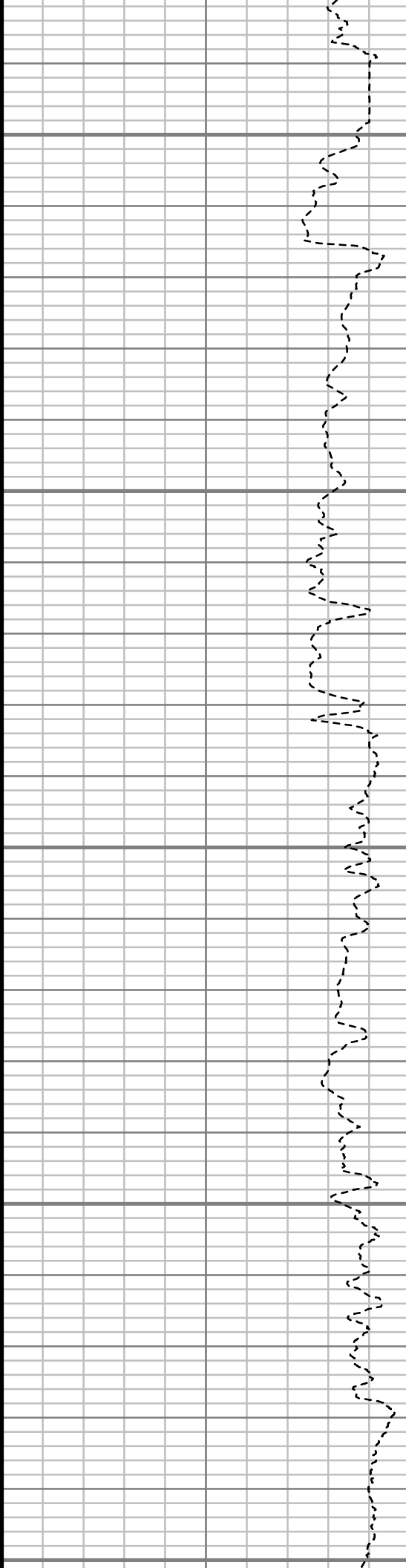
6950

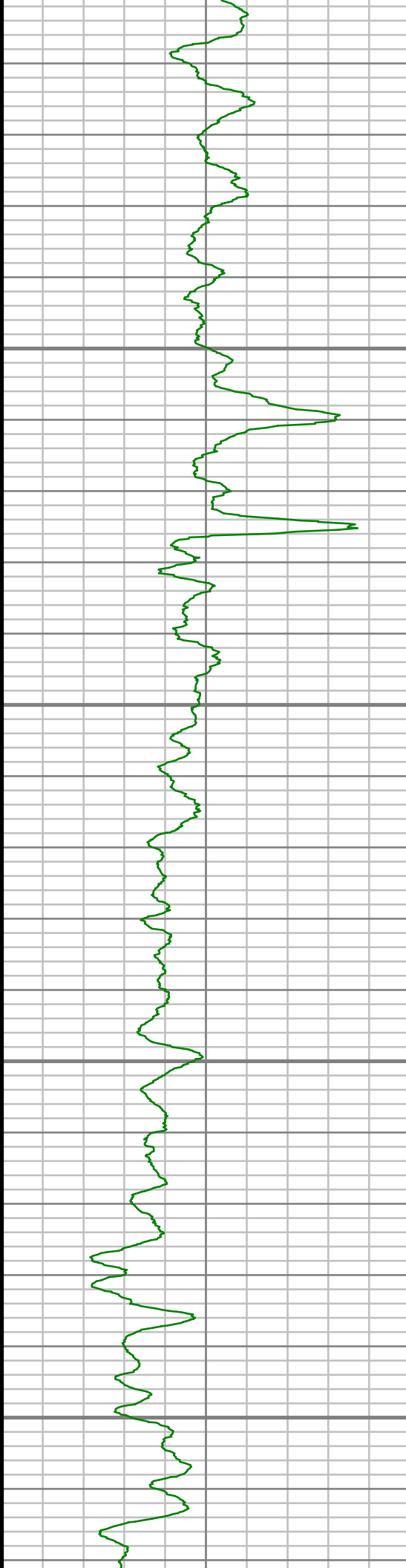
7000

7050

S: 72 MD: 6872.00 ft
Inc: 16.62 deg Az:
91.92 deg TVD:
6699.37 ft

S: 73 MD: 6967.00 ft
Inc: 23.08 deg Az:
93.13 deg TVD:
6788.68 ft



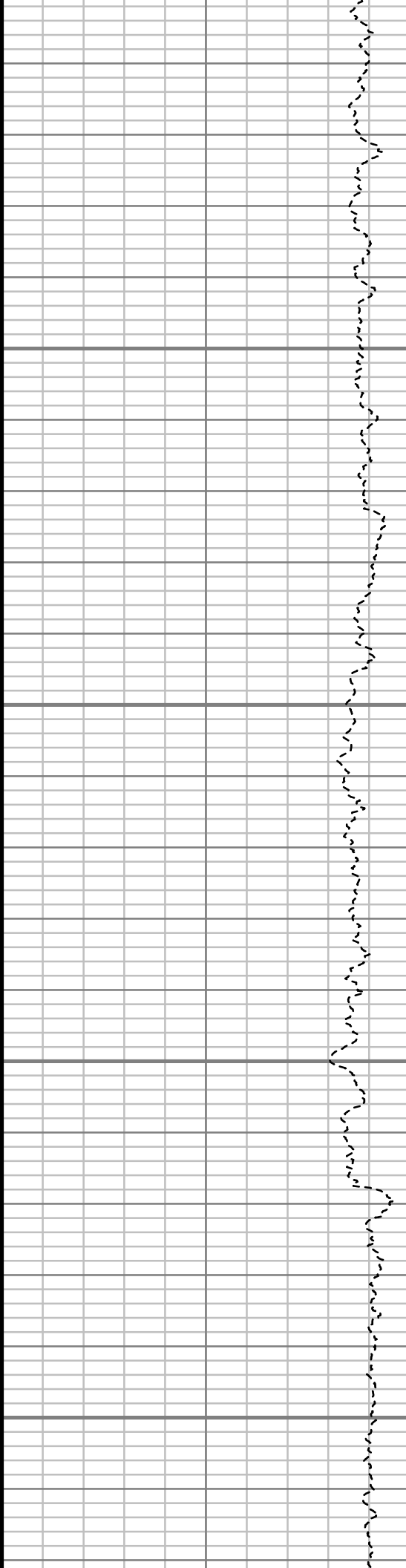


7100

7150

7200

7250



S: 74 MD: 7062.00 ft
Inc: 31.65 deg Az:
91.53 deg TVD:
6872.97 ft

S: 75 MD: 7157.00 ft
Inc: 41.11 deg Az:
91.13 deg TVD:
6949.37 ft

S: 76 MD: 7252.00 ft
Inc: 53.31 deg Az:
91.07 deg TVD:
7013.78 ft



7300

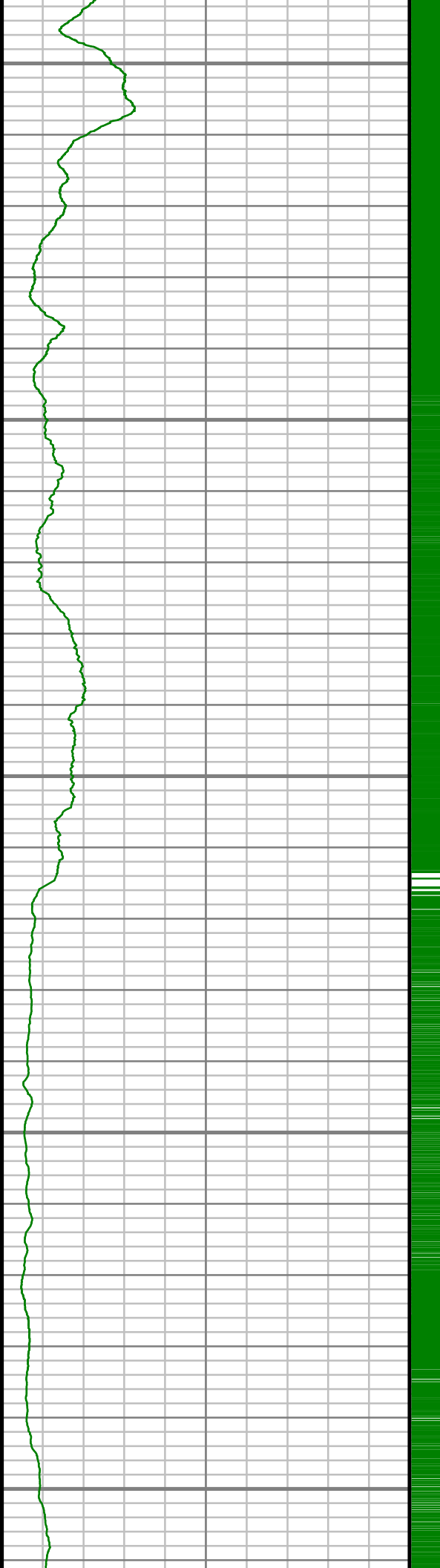
7350

7400

7450

S: 77 MD: 7347.00 ft
Inc: 61.67 deg Az:
94.21 deg TVD:
7064.80 ft

S: 78 MD: 7442.00 ft
Inc: 69.35 deg Az:
95.36 deg TVD:
7104.15 ft



7500

7550

7600

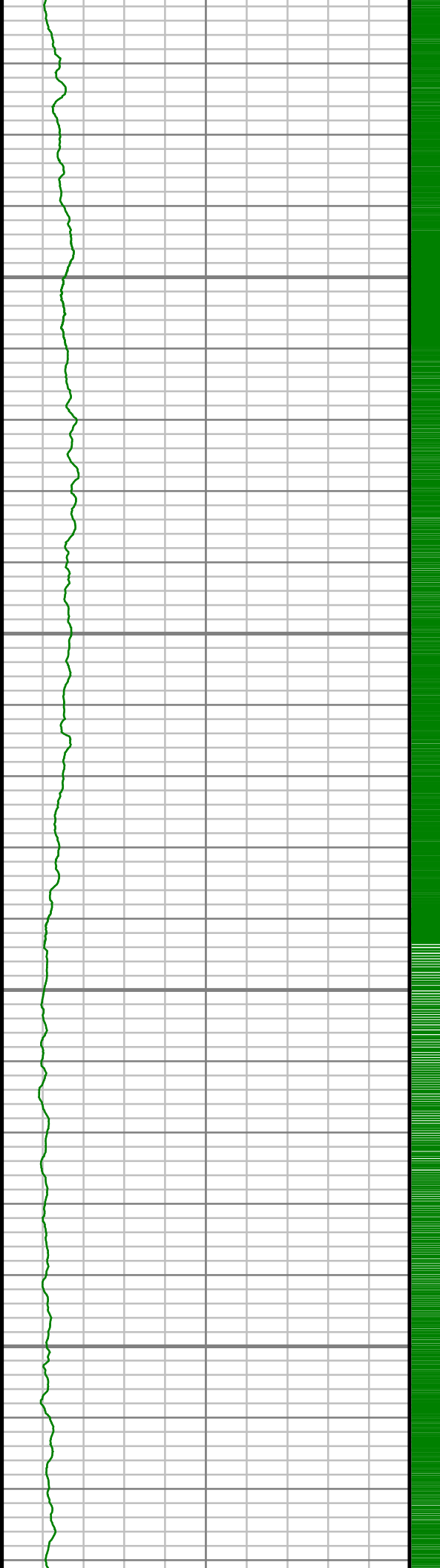
7650

7700

S: 79 MD: 7537.00 ft
Inc: 77.90 deg Az:
93.64 deg TVD:
7130.92 ft

S: 80 MD: 7603.00 ft
Inc: 87.52 deg Az:
92.83 deg TVD:
7139.29 ft

S: 81 MD: 7680.00 ft
Inc: 90.70 deg Az:
91.85 deg TVD:
7140.48 ft

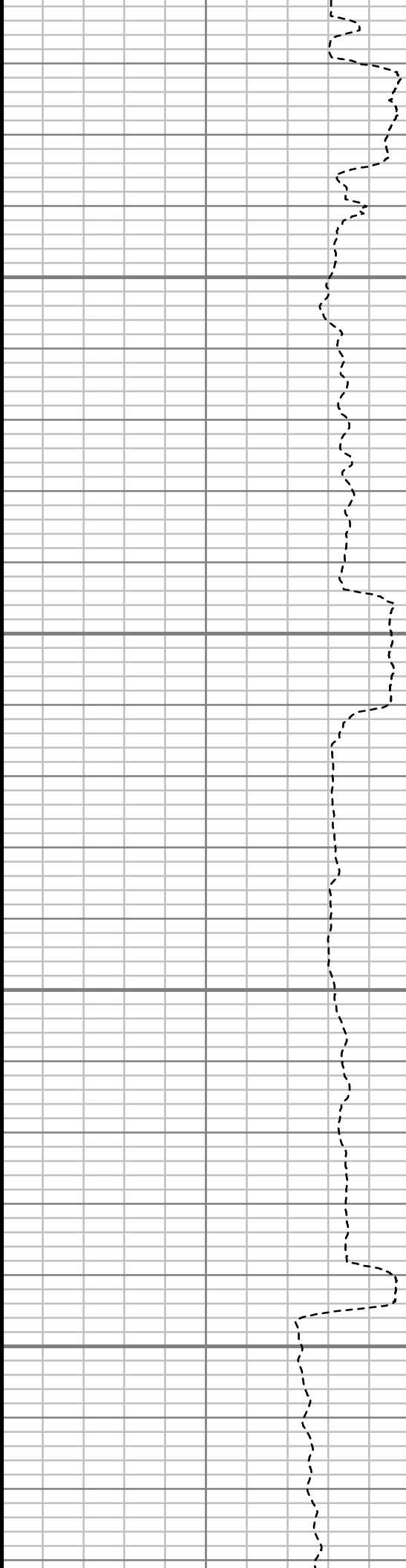


7750

7800

7850

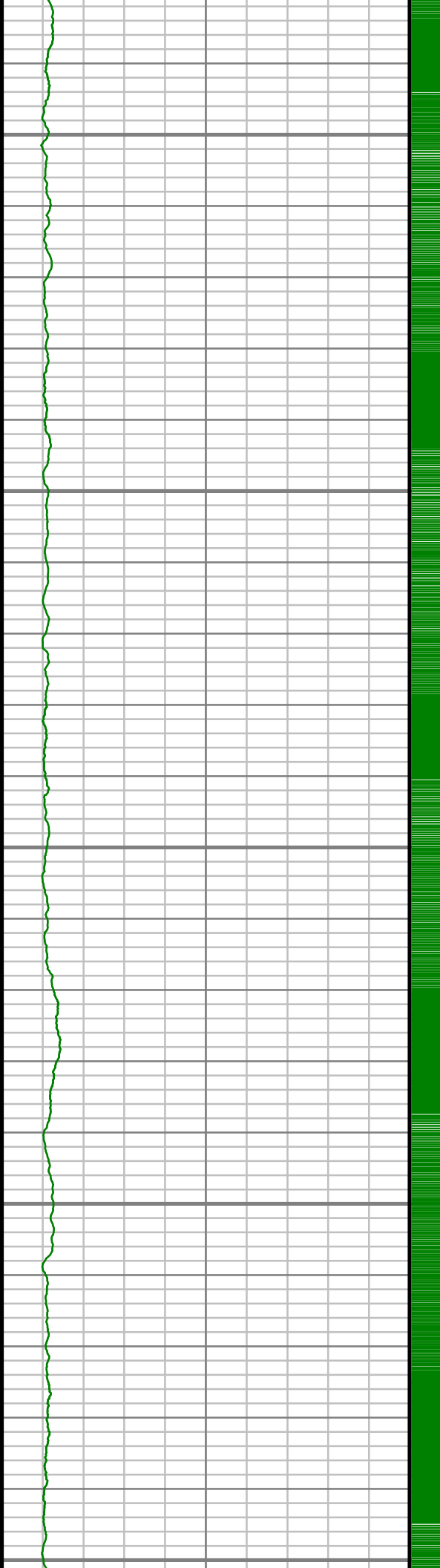
7900



S: 82 MD: 7737.00 ft
Inc: 90.77 deg Az:
92.91 deg TVD:
7139.75 ft

S: 83 MD: 7832.00 ft
Inc: 89.06 deg Az:
91.68 deg TVD:
7139.89 ft

S: 84 MD: 7927.00 ft
Inc: 89.40 deg Az:



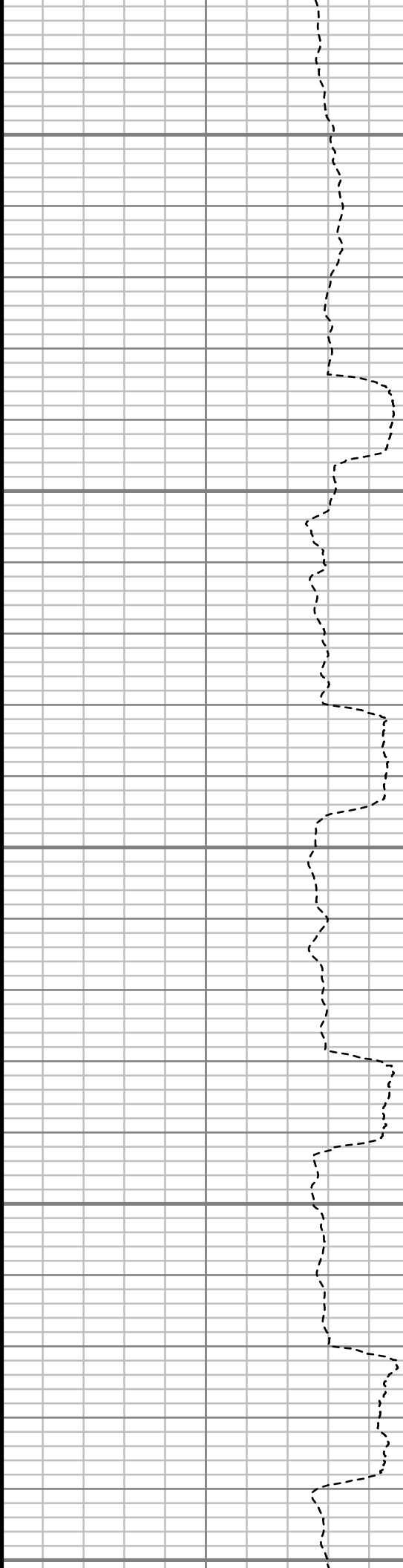
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8000

8050

8100

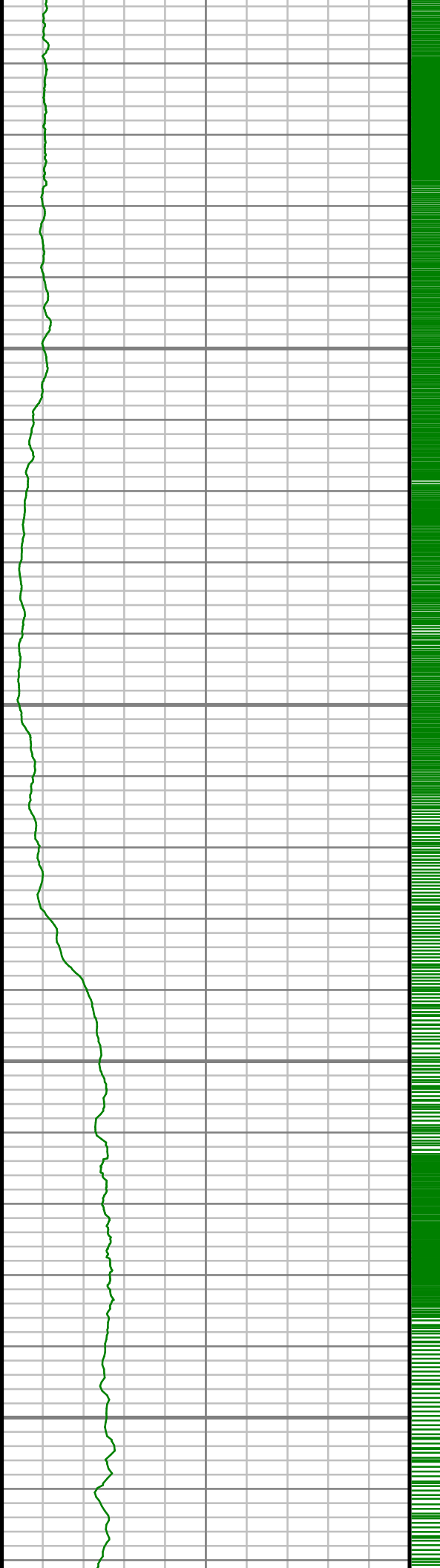
8150



S: 85 MD: 8023.00 ft
Inc: 89.83 deg Az:
90.93 deg TVD:
7141.81 ft

S: 85 MD: 8023.00 ft
Inc: 89.83 deg Az:
90.93 deg TVD:
7141.81 ft

S: 86 MD: 8118.00 ft
Inc: 90.27 deg Az:
92.51 deg TVD:
7141.73 ft



8200

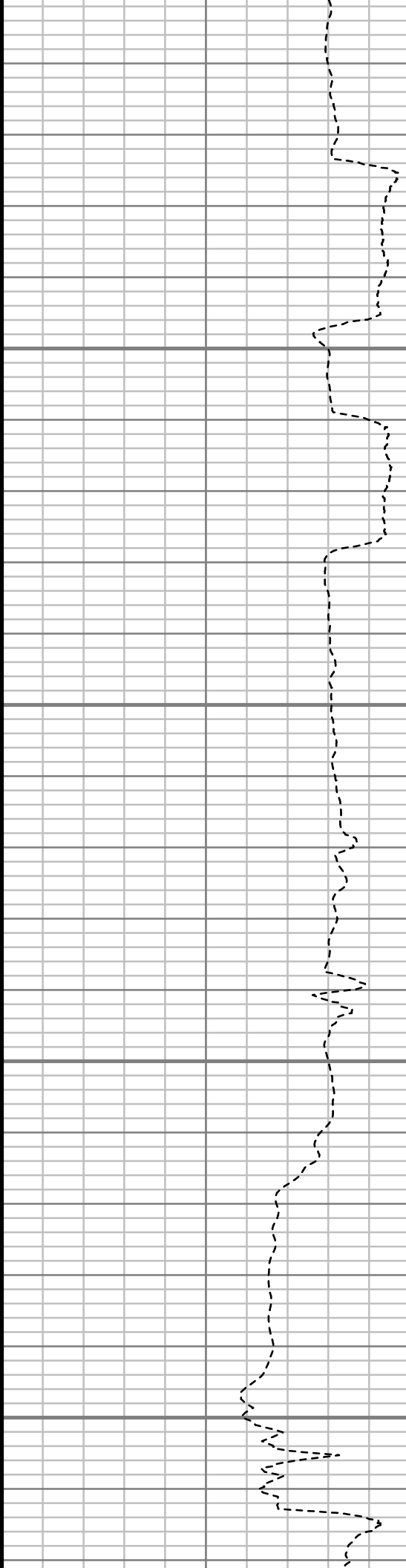
8250

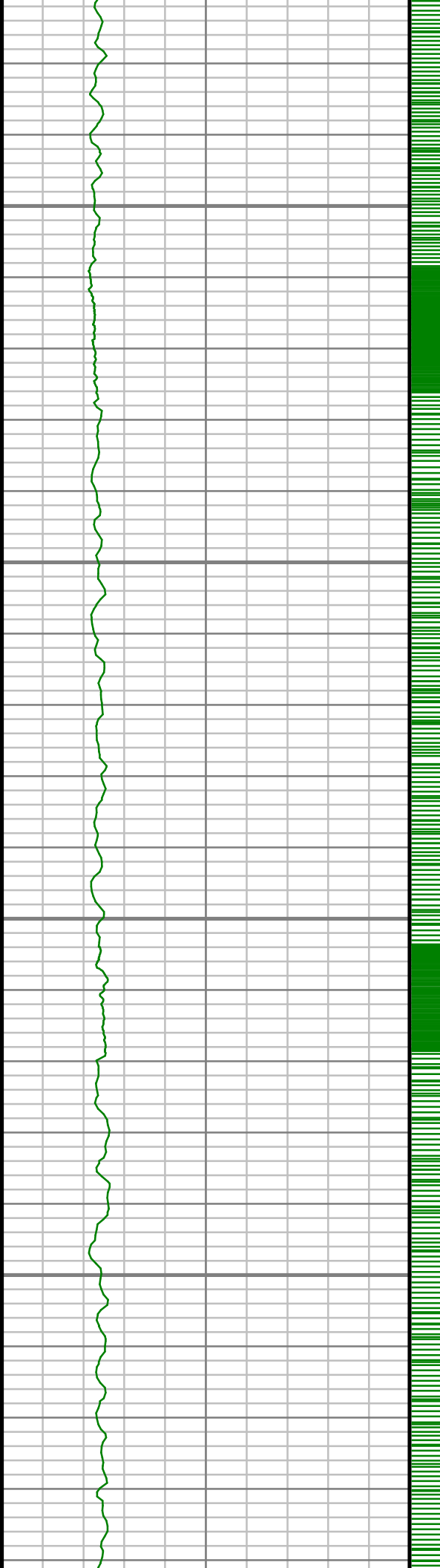
8300

8350

S: 87 MD: 8213.00 ft
Inc: 88.09 deg Az:
92.76 deg TVD:
7143.09 ft

S: 88 MD: 8307.00 ft
Inc: 86.51 deg Az:
92.23 deg TVD:
7147.52 ft





8400

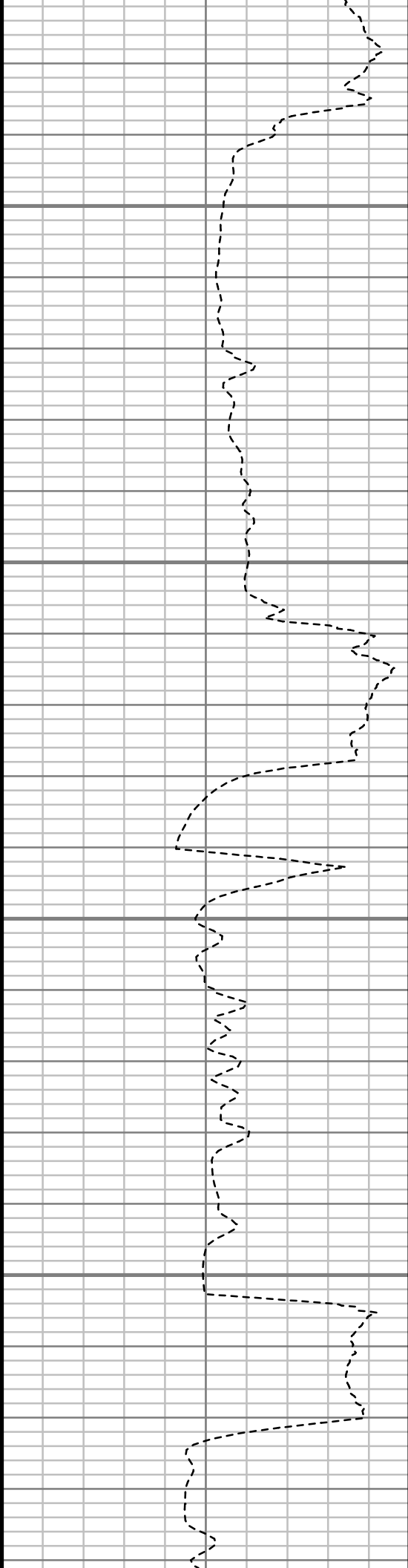
8450

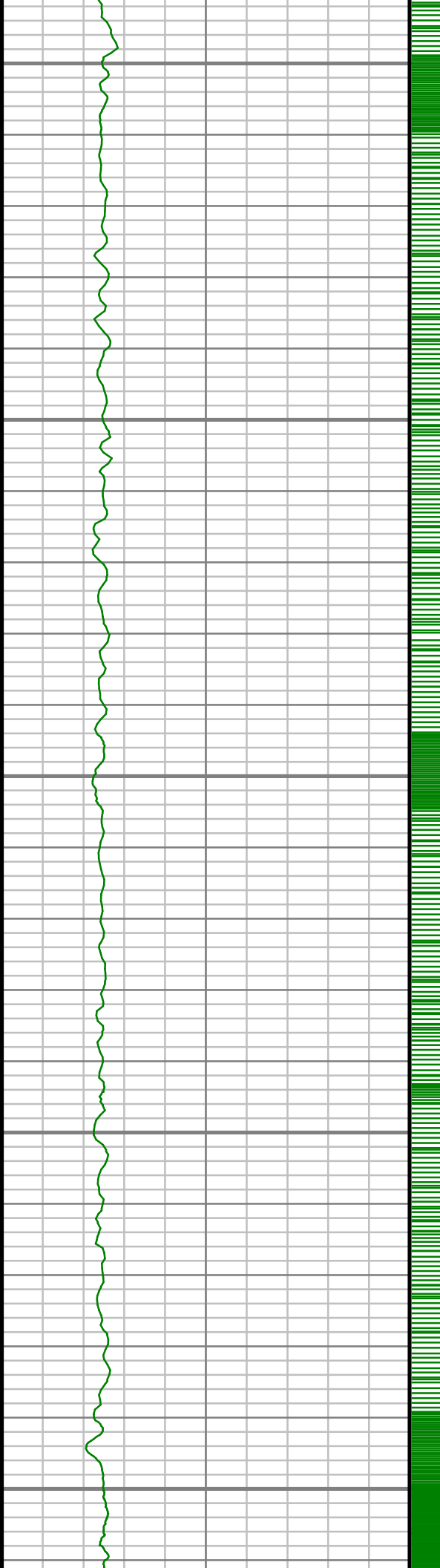
8500

8550

S: 89 MD: 8402.00 ft
Inc: 87.68 deg Az:
91.92 deg TVD:
7152.33 ft

S: 90 MD: 8498.00 ft
Inc: 88.89 deg Az:
91.70 deg TVD:
7155.20 ft





8600

8650

8700

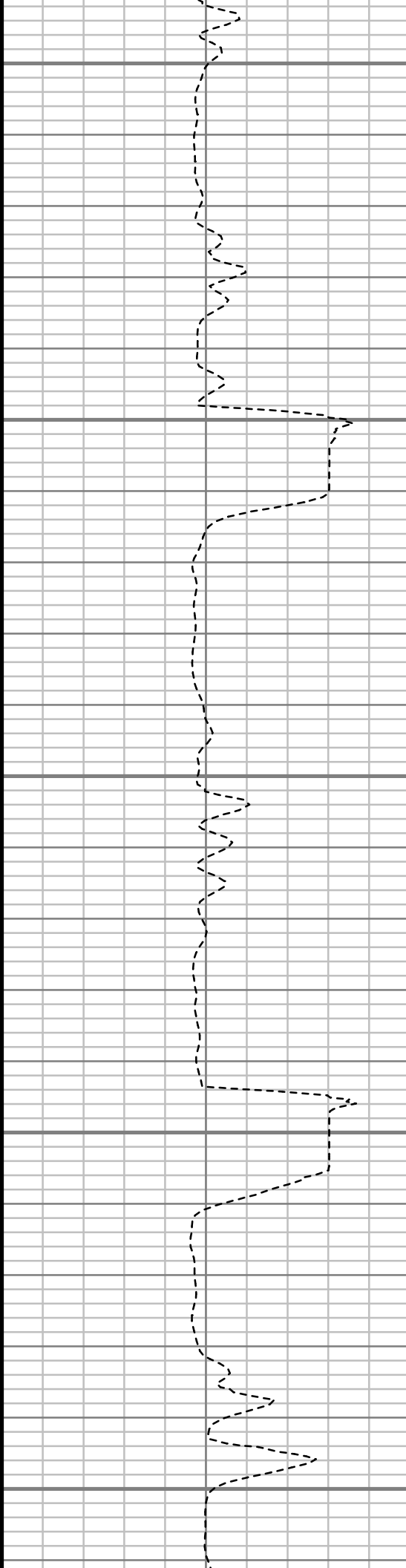
8750

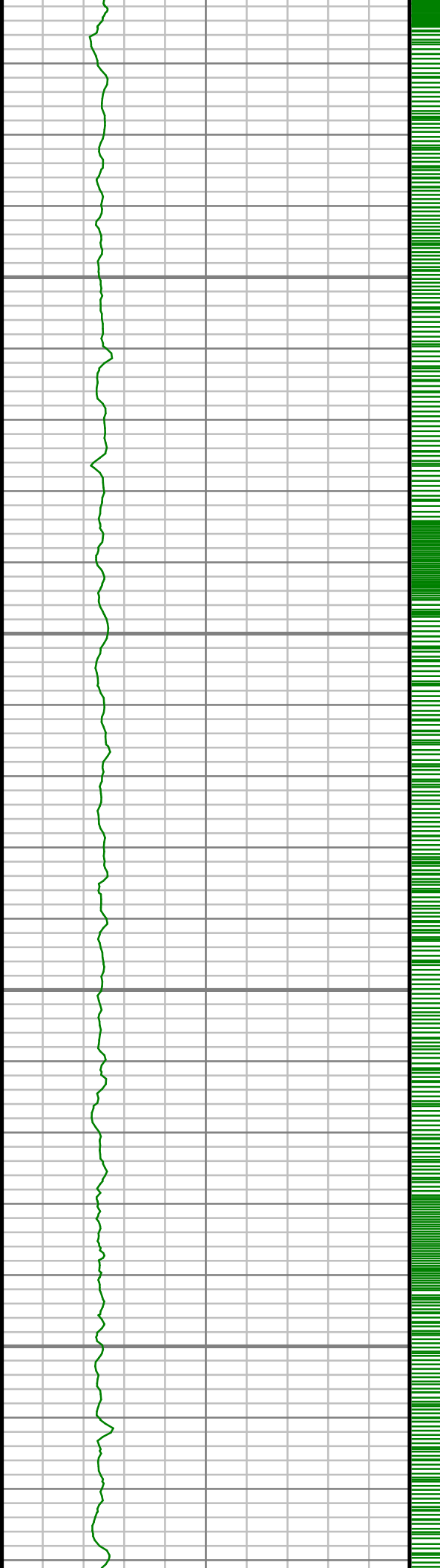
8800

S: 91 MD: 8592.00 ft
Inc: 90.20 deg Az:
91.76 deg TVD:
7155.95 ft

S: 92 MD: 8687.00 ft
Inc: 90.17 deg Az:
91.38 deg TVD:
7155.64 ft

S: 93 MD: 8783.00 ft
Inc: 89.46 deg Az:
90.75 deg TVD:
7155.95 ft



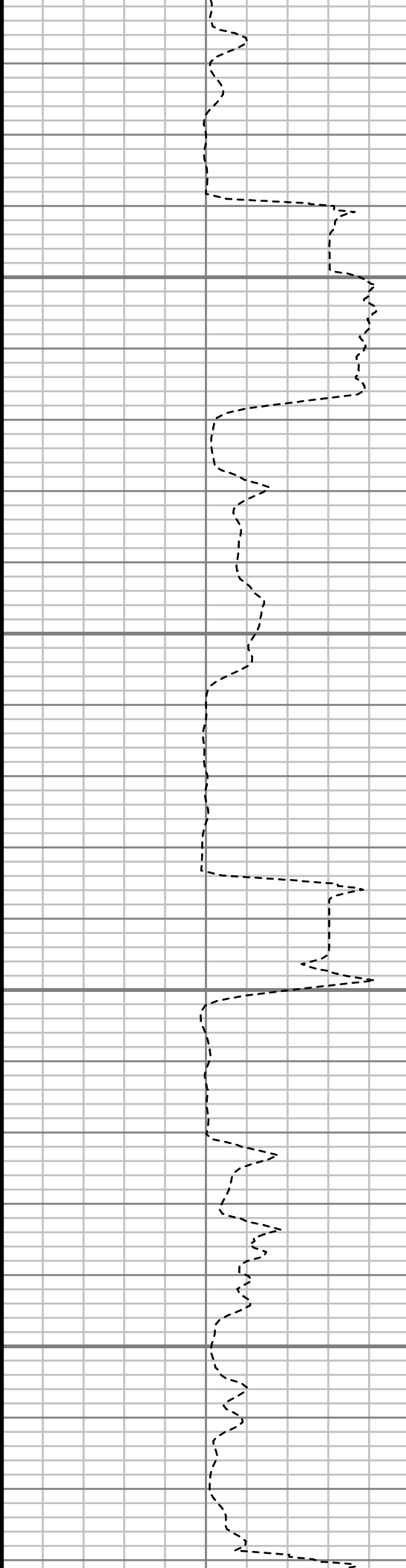


8850

8900

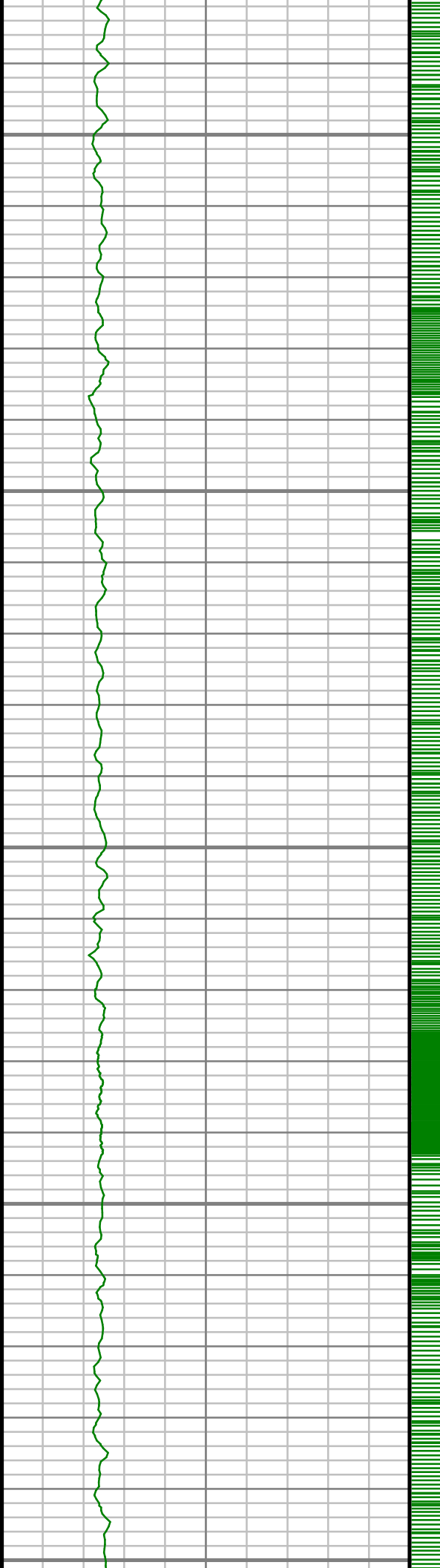
8950

9000



S: 94 MD: 8877.00 ft
Inc: 90.60 deg Az:
90.51 deg TVD:
7155.89 ft

S: 95 MD: 8972.00 ft
Inc: 90.27 deg Az:
89.85 deg TVD:
7155.17 ft



9050

9100

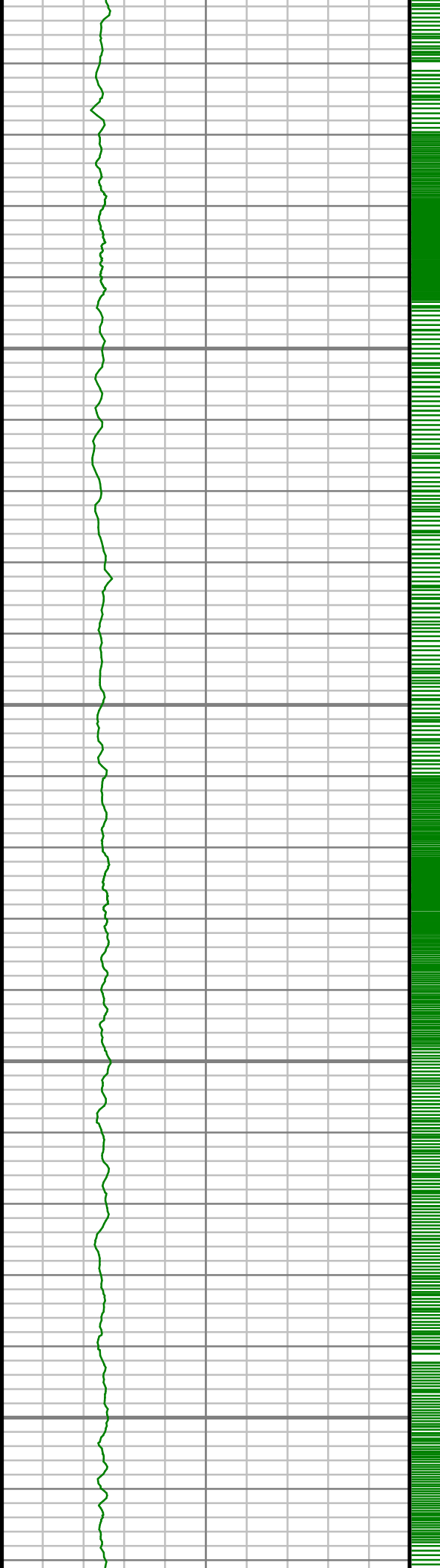
9150

9200

9250

S: 96 MD: 9067.00 ft
Inc: 90.27 deg Az:
89.86 deg TVD:
7154.73 ft

S: 97 MD: 9162.00 ft
Inc: 90.13 deg Az:
89.47 deg TVD:
7154.39 ft

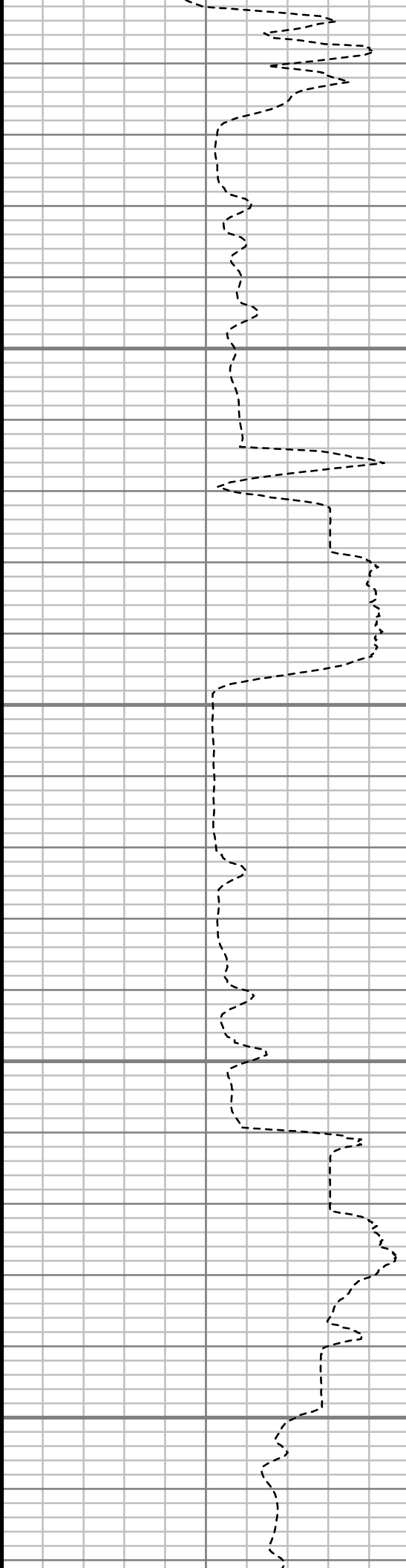


9300

9350

9400

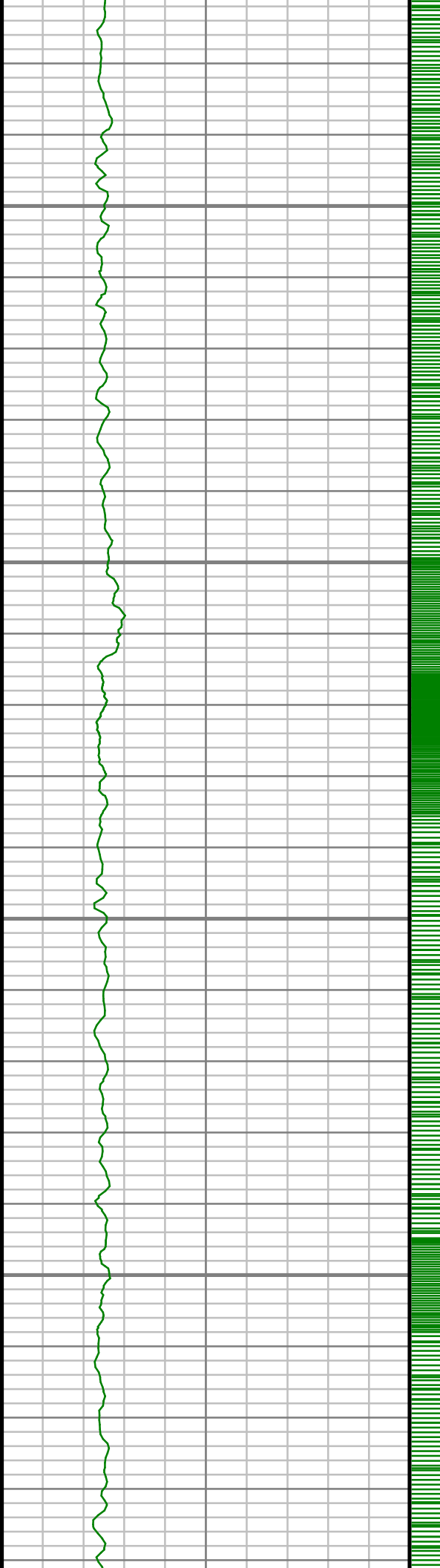
9450



S: 98 MD: 9257.00 ft
Inc: 88.96 deg Az:
88.89 deg TVD:
7155.14 ft

S: 99 MD: 9352.00 ft
Inc: 88.89 deg Az:
88.00 deg TVD:
7156.92 ft

S: 100 MD: 9447.00 ft
Inc: 89.09 deg Az:
86.76 deg TVD:
7158.59 ft

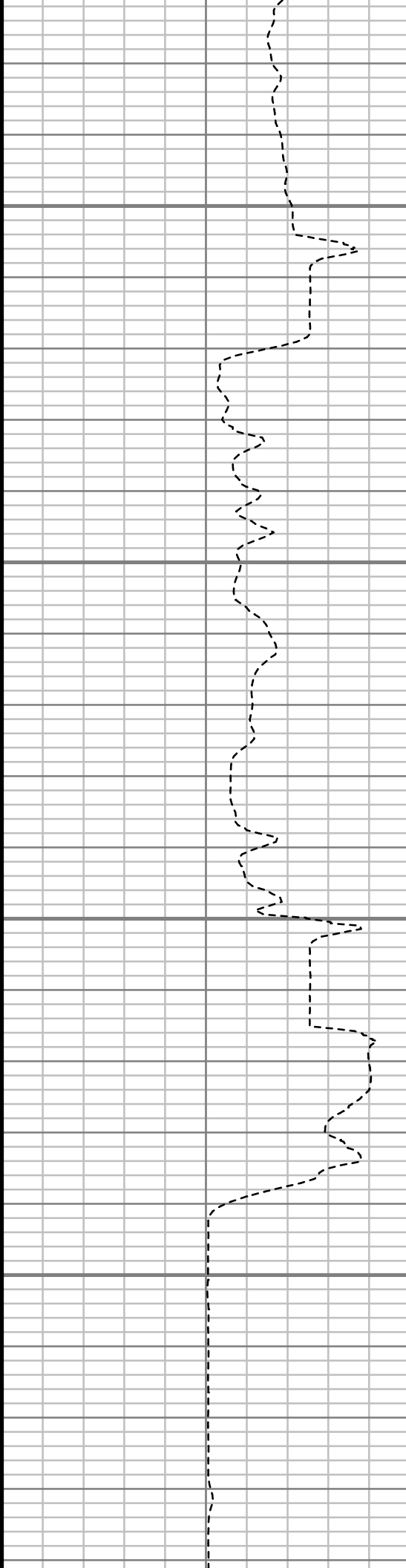


9500

9550

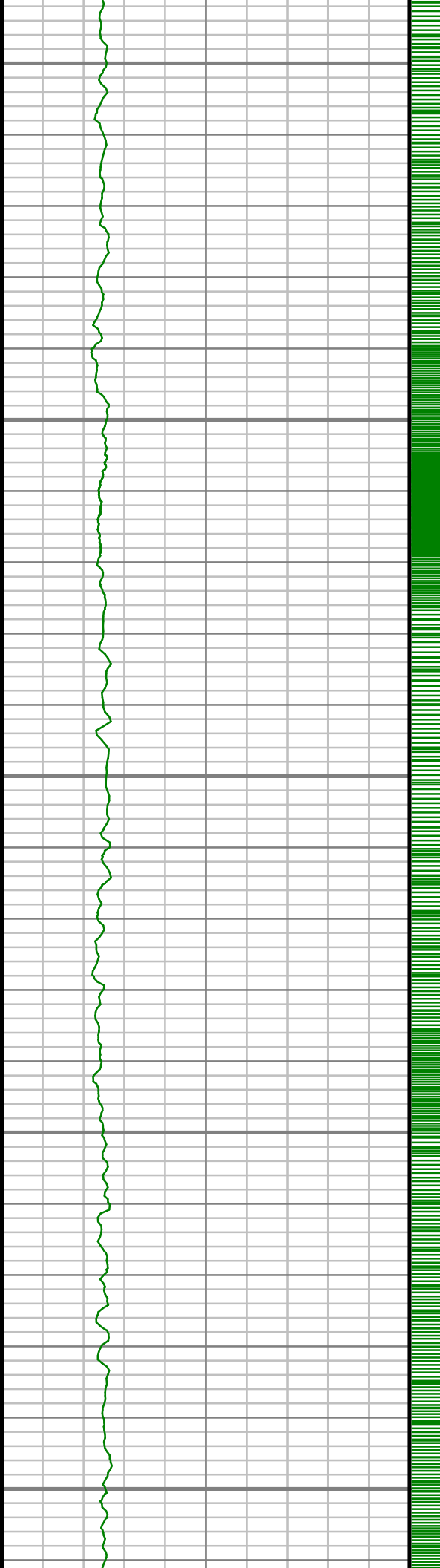
9600

9650



S: 101 MD: 9542.00 ft
Inc: 88.86 deg Az:
86.41 deg TVD:
7160.29 ft

S: 102 MD: 9637.00 ft
Inc: 90.07 deg Az:
86.14 deg TVD:
7161.18 ft



9700

9750

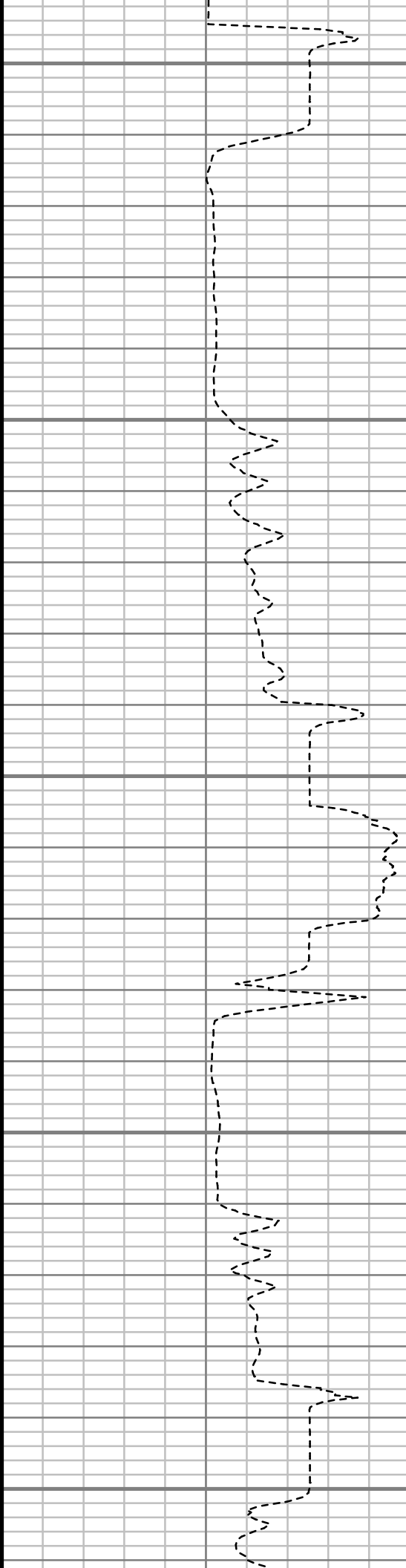
9800

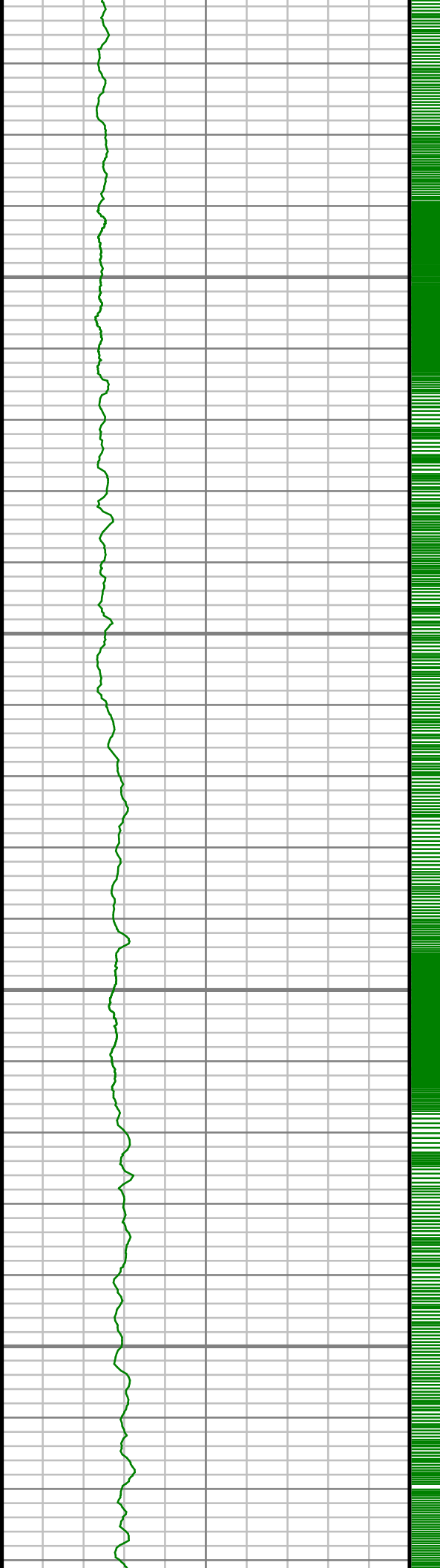
9850

9900

S: 103 MD: 9732.00 ft
Inc: 90.24 deg Az:
85.95 deg TVD:
7160.93 ft

S: 104 MD: 9827.00 ft
Inc: 89.53 deg Az:
86.01 deg TVD:
7161.12 ft



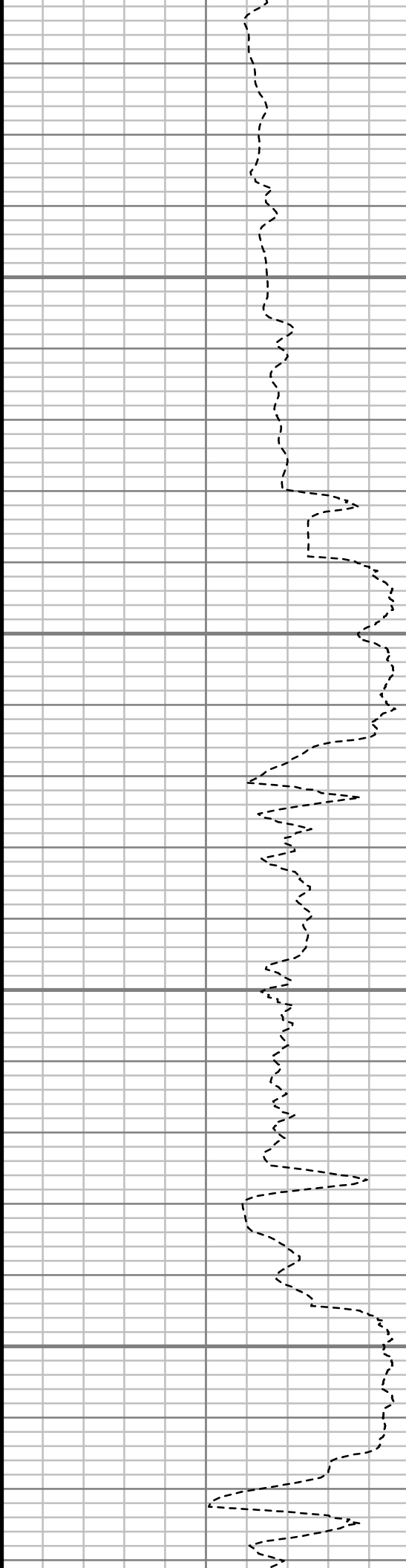


9950

10000

10050

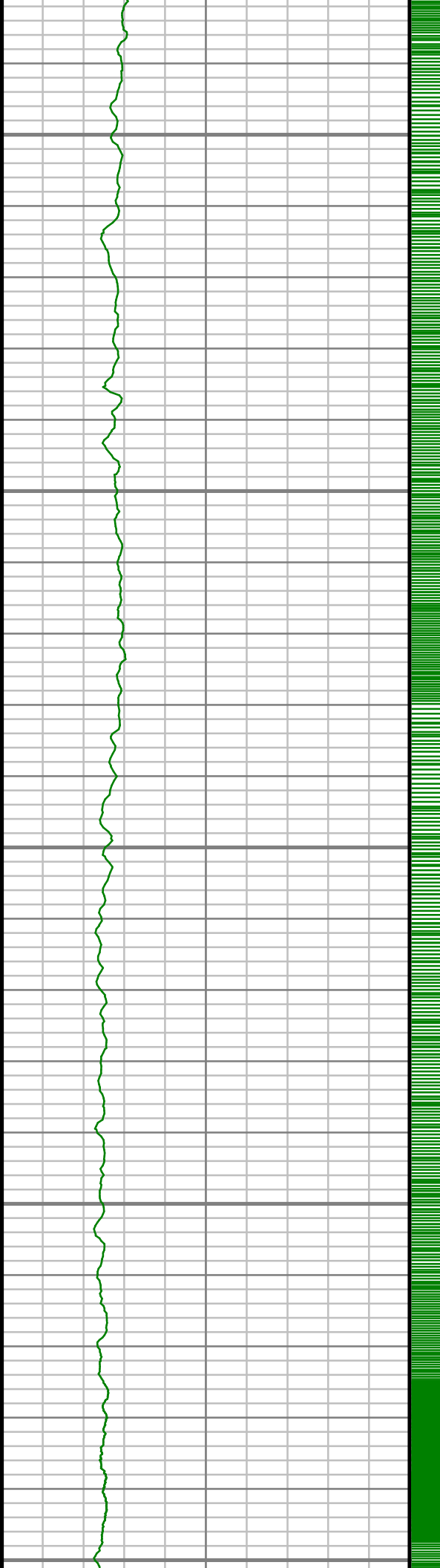
10100



S: 105 MD: 9922.00 ft
Inc: 89.09 deg Az:
85.62 deg TVD:
7162.27 ft

S: 106 MD: 10017.00 ft
Inc: 89.23 deg Az:
87.84 deg TVD:
7163.66 ft

S: 107 MD: 10112.00 ft
Inc: 90.10 deg Az:
87.97 deg TVD:
7164.22 ft



10150

10200

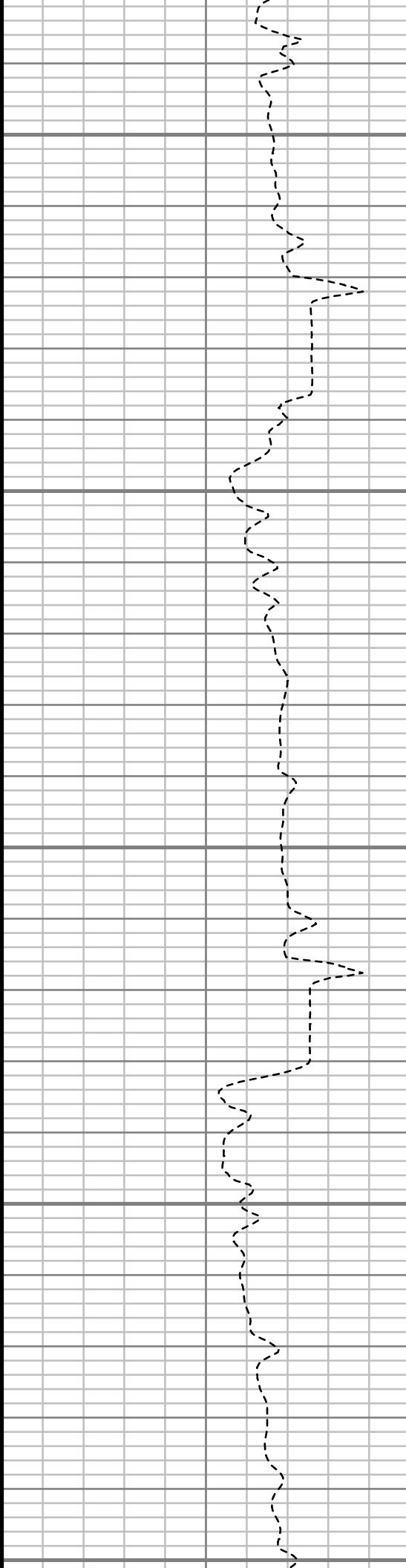
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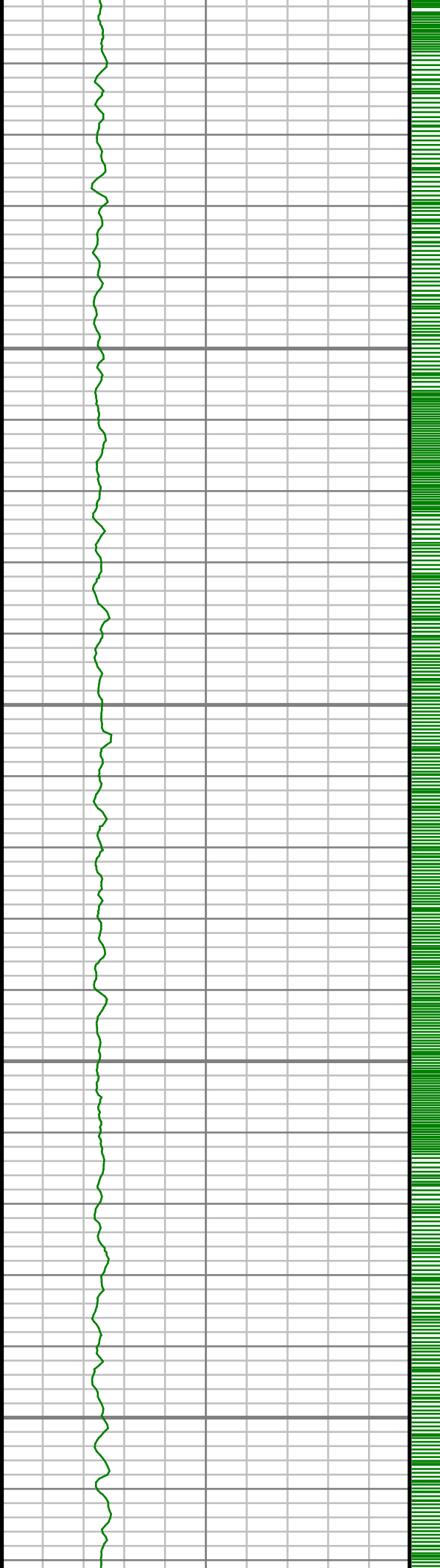
10300

10350

S: 108 MD: 10207.00 ft
Inc: 90.81 deg Az:
88.53 deg TVD:
7163.46 ft

S: 109 MD: 10302.00 ft
Inc: 91.31 deg Az:
88.70 deg TVD:
7161.71 ft



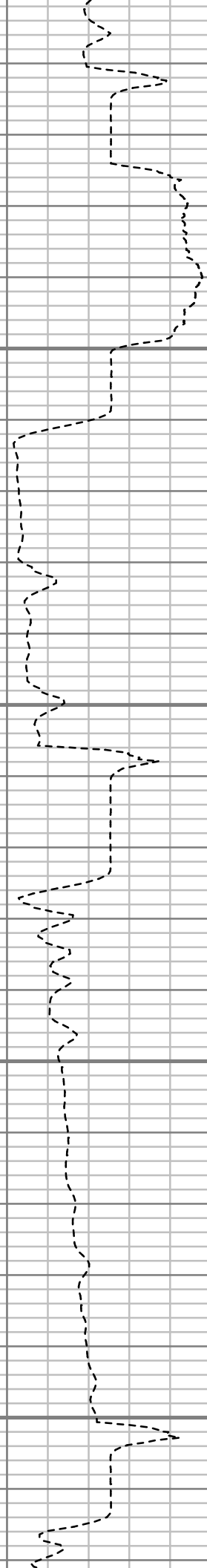


10400

10450

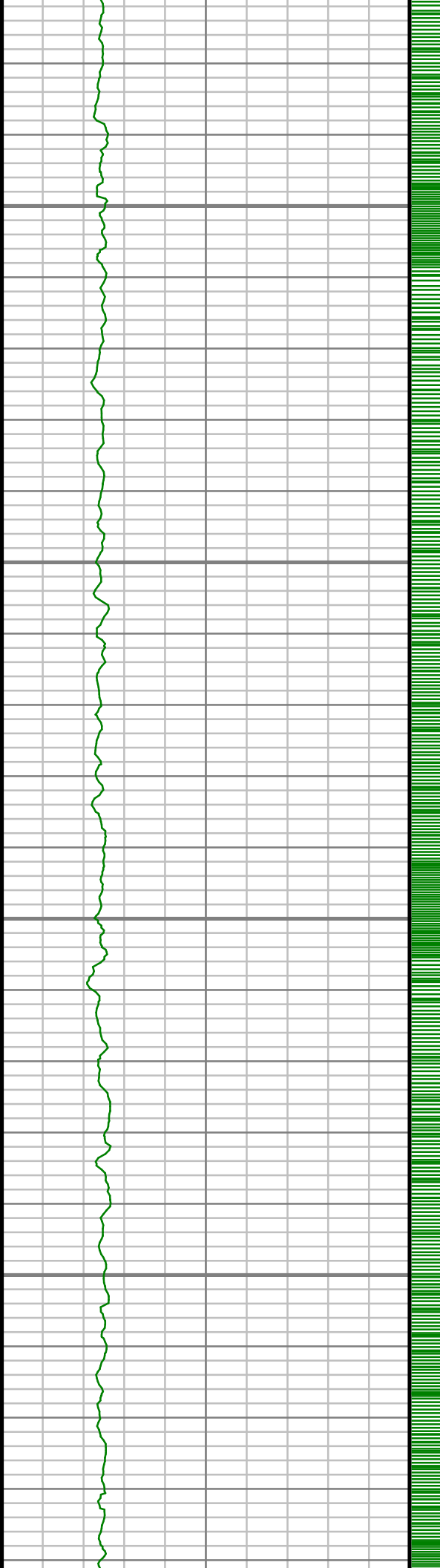
10500

10550



S: 110 MD: 10397.00 ft
Inc: 90.07 deg Az:
88.03 deg TVD:
7160.57 ft

S: 111 MD: 10492.00 ft
Inc: 89.93 deg Az:
87.65 deg TVD:
7160.57 ft



10600

10650

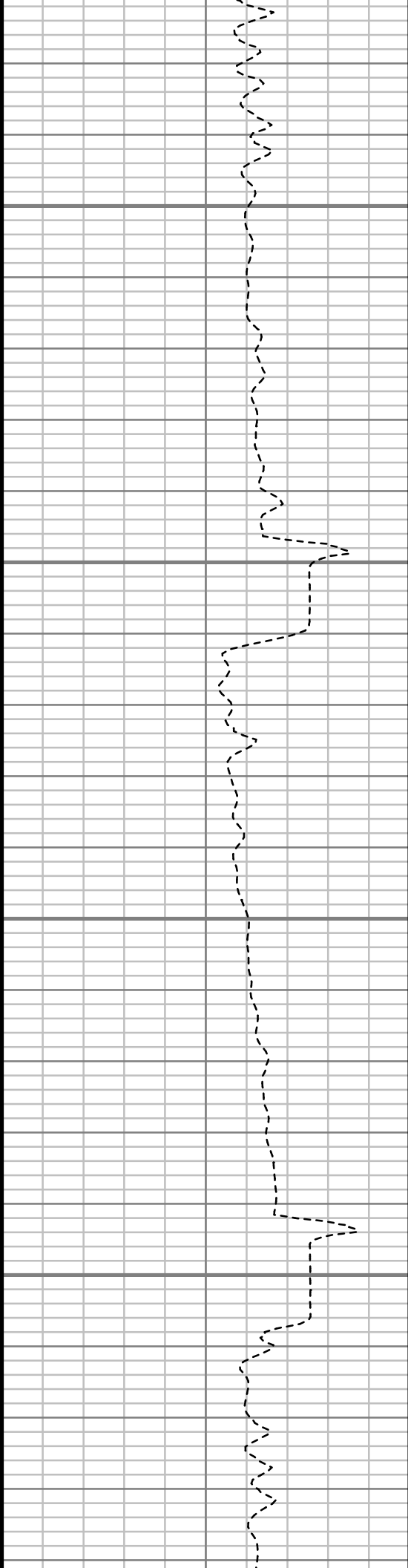
10700

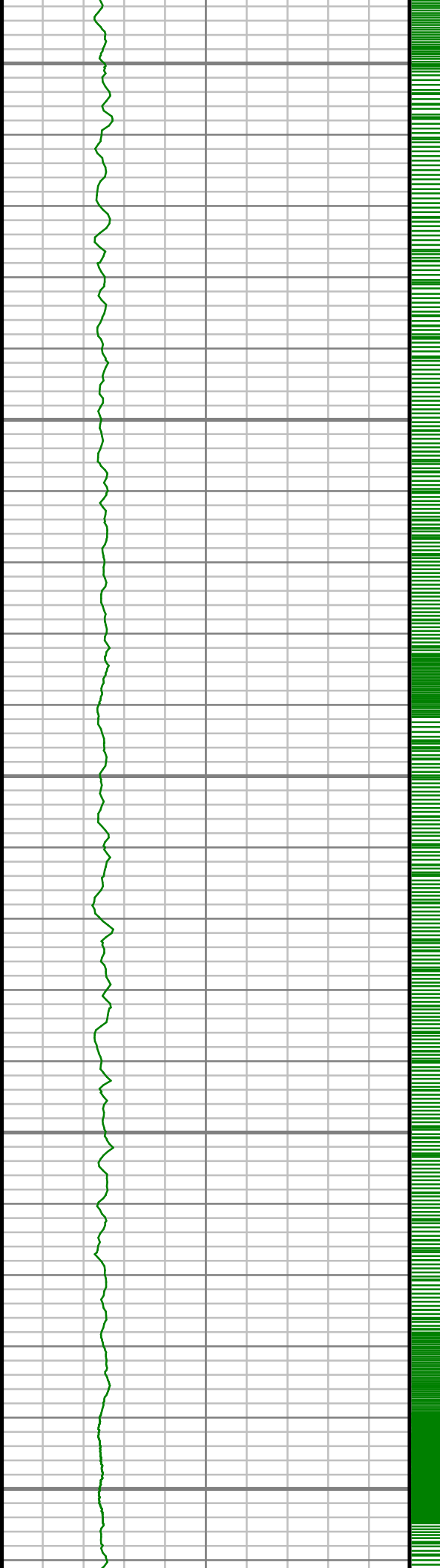
10750

S: 112 MD: 10588.00 ft
Inc: 89.53 deg Az:
87.12 deg TVD:
7161.02 ft

S: 113 MD: 10683.00 ft
Inc: 89.46 deg Az:
86.81 deg TVD:
7161.85 ft

S: 114 MD: 10778.00 ft
Inc: 89.60 deg Az:
86.54 deg TVD:
7162.63 ft





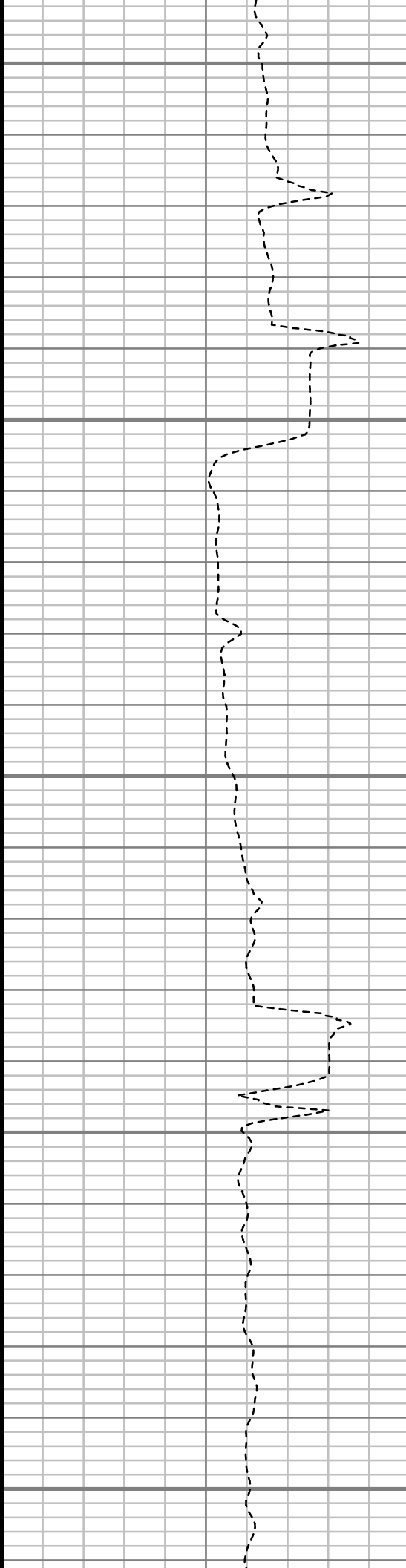
10800

10850

10900

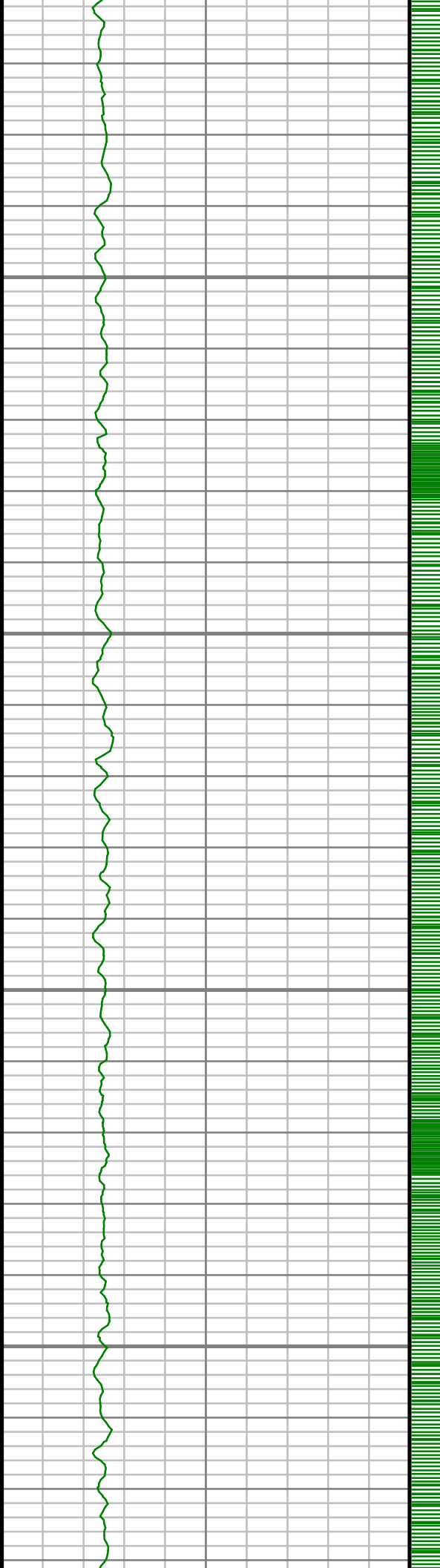
10950

11000



S: 115 MD: 10873.00 ft
Inc: 89.80 deg Az:
86.52 deg TVD:
7163.13 ft

S: 116 MD: 10968.00 ft
Inc: 90.17 deg Az:
86.15 deg TVD:
7163.16 ft

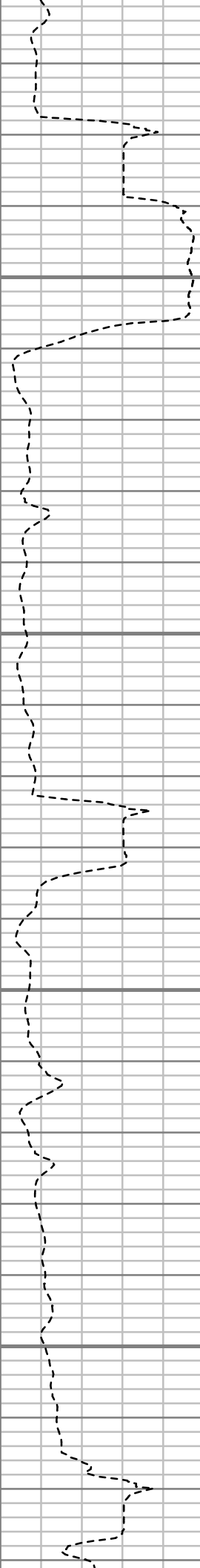


11050

11100

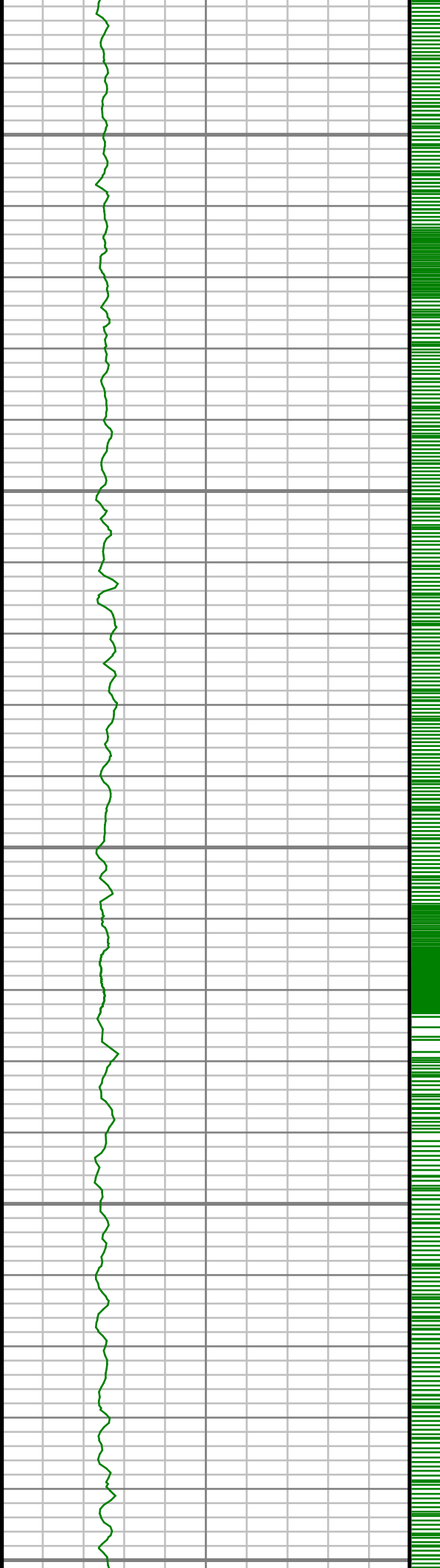
11150

11200



S: 117 MD: 11063.00 ft
Inc: 90.07 deg Az:
87.33 deg TVD:
7162.97 ft

S: 118 MD: 11157.00 ft
Inc: 90.07 deg Az:
87.00 deg TVD:
7162.86 ft



11250

11300

11350

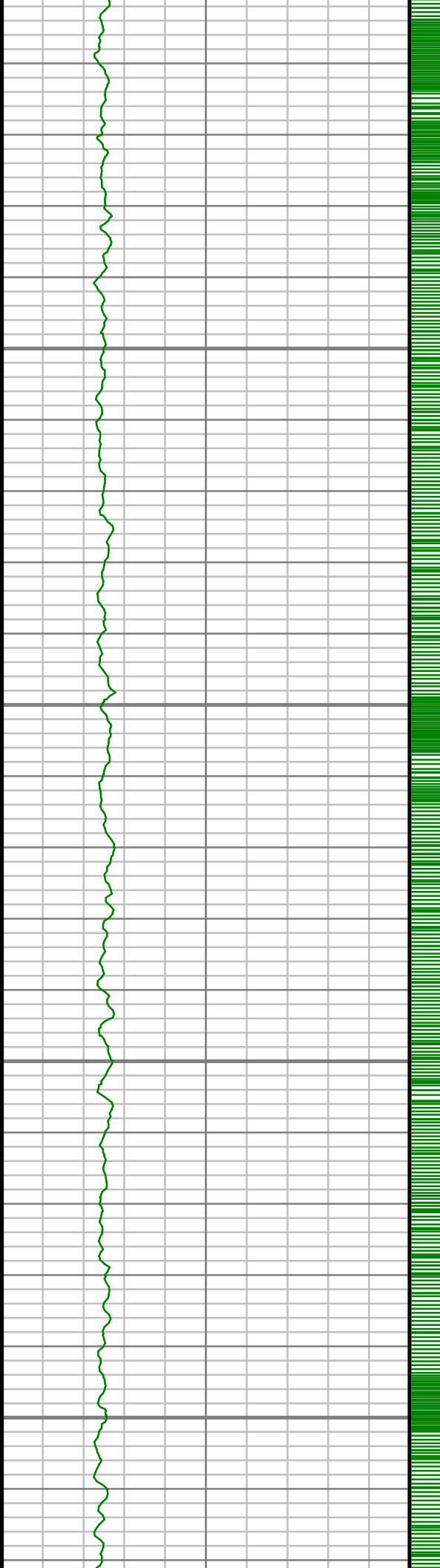
11400

11450

S: 119 MD: 11252.00 ft
Inc: 90.07 deg Az:
86.84 deg TVD:
7162.75 ft

S: 120 MD: 11347.00 ft
Inc: 89.70 deg Az:
85.95 deg TVD:
7162.94 ft

S: 121 MD: 11442.00 ft
Inc: 90.20 deg Az:
86.48 deg TVD:
7163.02 ft

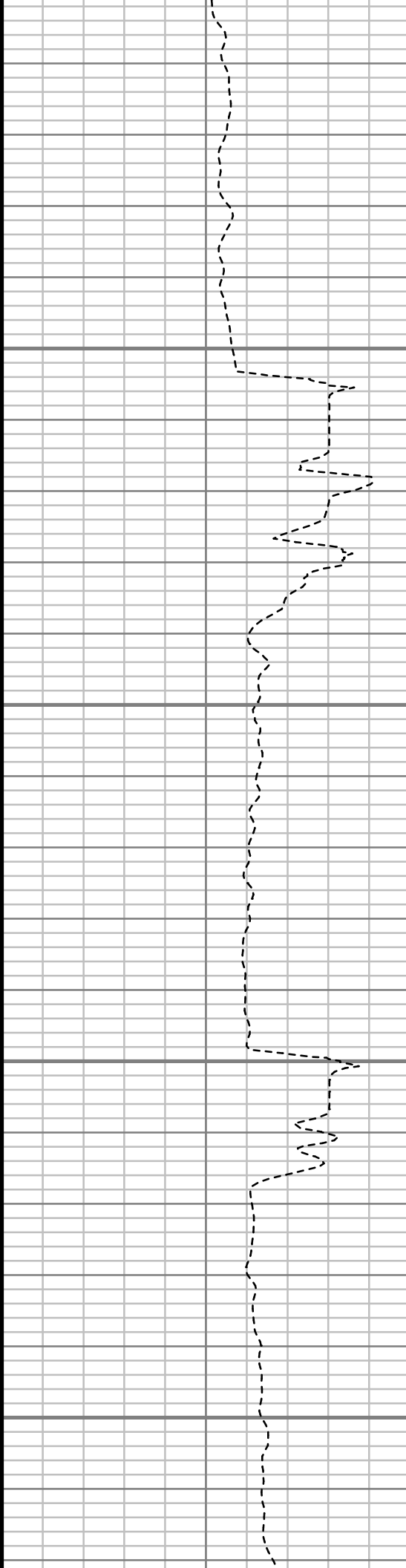


11500

11550

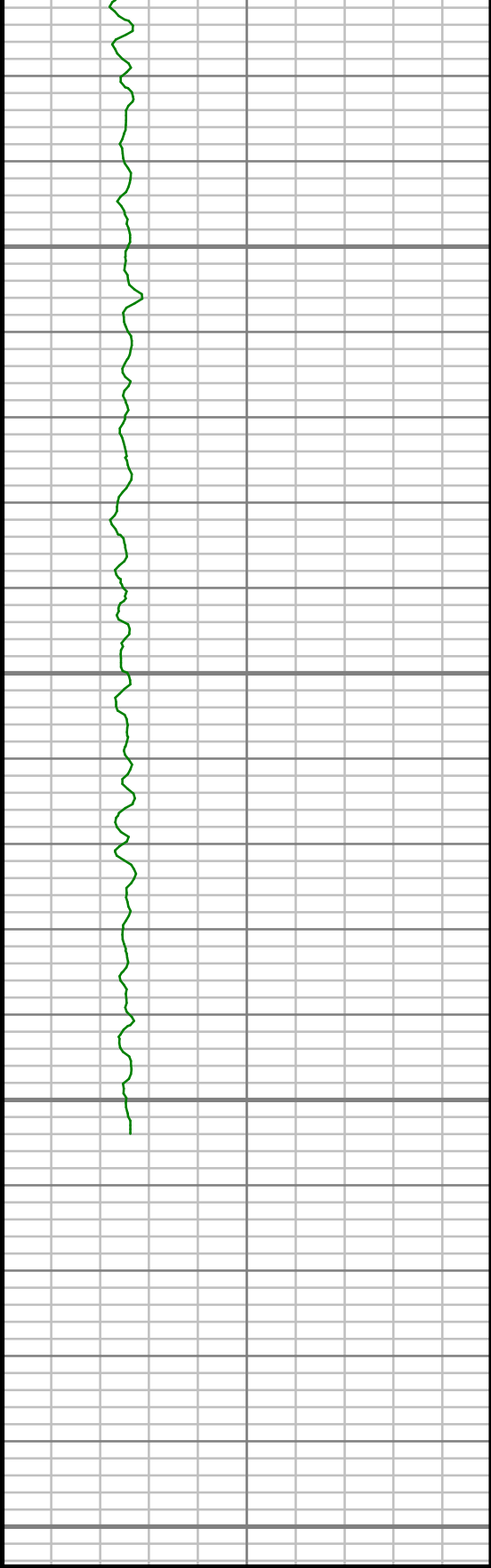
11600

11650



S: 122 MD: 11537.00 ft
Inc: 89.83 deg Az:
86.04 deg TVD:
7163.00 ft

S: 123 MD: 11632.00 ft
Inc: 89.70 deg Az:
85.44 deg TVD:
7163.39 ft



Gamma Ray (GR)
Unit = aapi
0 300

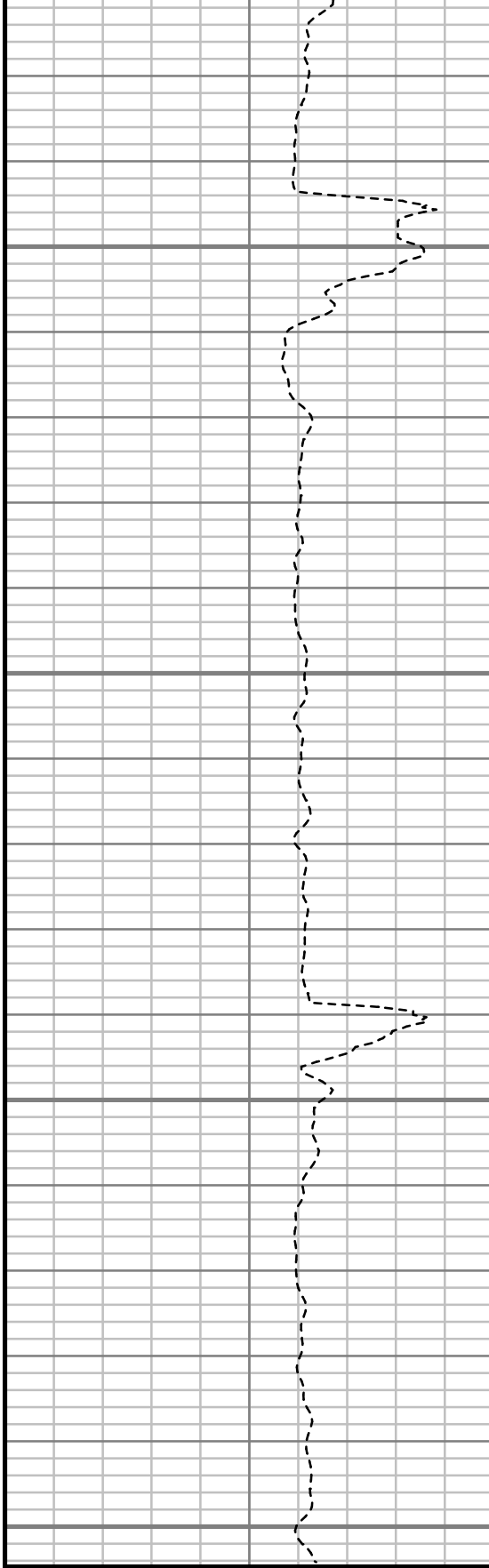
11700

11750

11800

11850

MEASURED DEPTH
1:240 (ft)



S: 124 MD: 11727.00 ft
Inc: 89.90 deg Az:
85.20 deg TVD:
7163.72 ft

S: 125 MD: 11794.00 ft
Inc: 89.53 deg Az:
85.14 deg TVD:
7164.05 ft

Rate of Penetration (ROP)
Unit = ft/hr
1000 0

Comments

5" = 100' FEET MD