



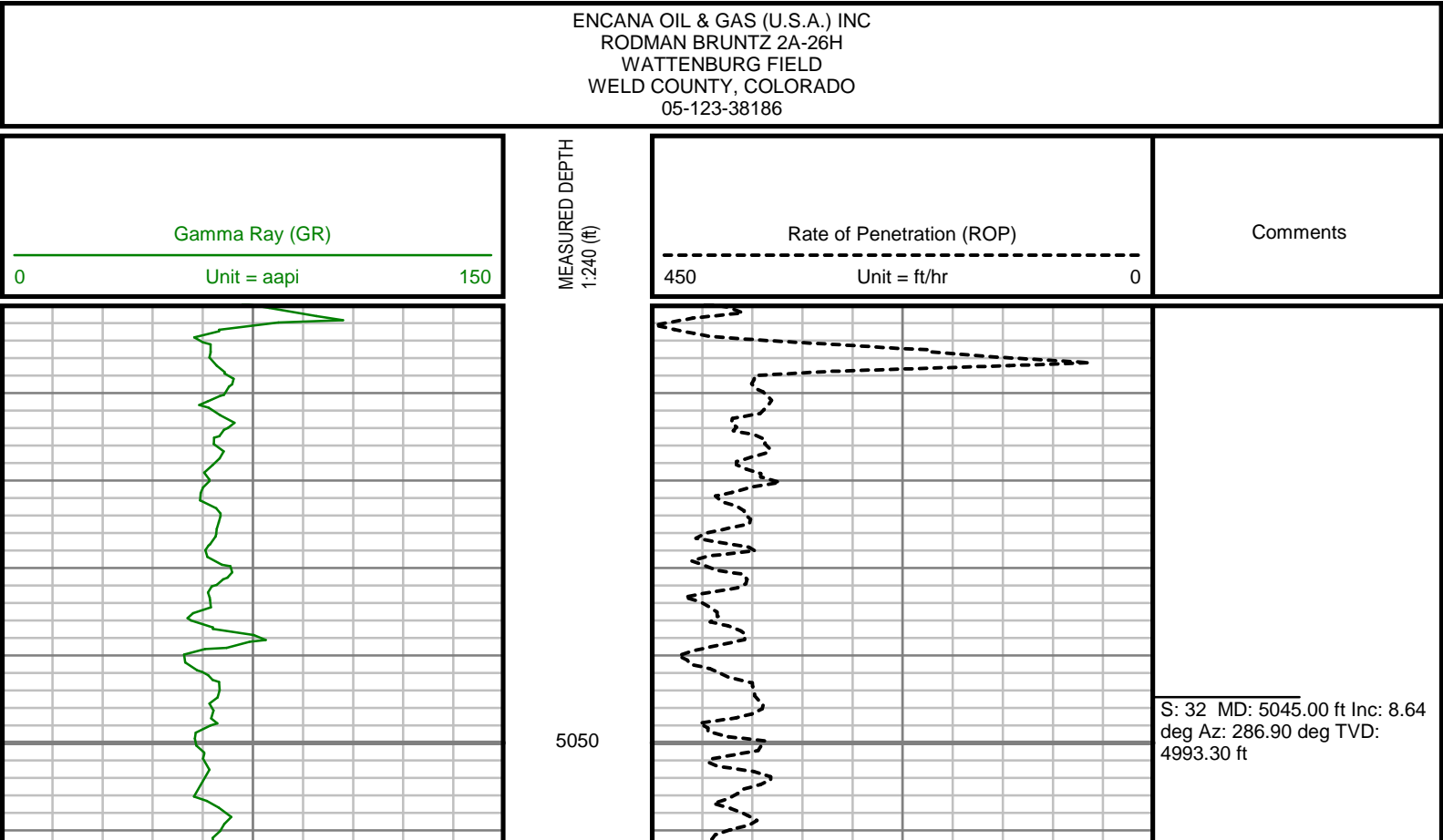
GAMMA RAY

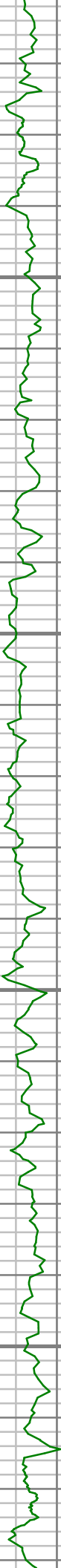
5" = 100' FEET MD

COMPANY : ENCANA OIL & GAS (U.S.A.) INC						COMPANY : ENCANA OIL & GAS (U.S.A.) INC					
WELL : RODMAN BRUNTZ 2A-26H						WELL : RODMAN BRUNTZ 2A-26H					
FIELD : WATTENBURG						FIELD : WATTENBURG					
COUNTY : WELD						COUNTY : WELD					
STATE : COLORADO						STATE : COLORADO					
COUNTRY : U.S.A.						COUNTRY : U.S.A.					
UWI : 05-123-38186						UWI : 05-123-38186					
DEPTH REF. : RKB						RKB to Ground Level					
REF. HEIGHT : 13.000 ft						GROUND LEVEL : 5079.000 ft					
GROUND LEVEL : 5079.000 ft						G.L. to MEAN SEA LEVEL					
DEPTH REF. : RKB						RANGE:66W					
SEC:26						TWP:2N					
WELL LOCATION						OTHER SERVICES					
LAT:40°6'55.764"N LONG:104°44'59.388"W											
N:1285804.51 ft E:3209804.41 ft											
DIRECTIONAL											
ROP											
BOREHOLE RECORD						DEVIATION RECORD					
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft						
12.25	0	1220	0 - 11	0	6750						
8.75	1220	7725	11 - 84	6750	7725						
6.125	7725	14475	84 - 92	7725	14475						
CASING RECORD											
CASING SIZE in	FROM ft	TO ft									
9.625	0	1210									
7	0	7715									
DRILLING CO.: ENSIGN						DISTRICT: CASPER					
RTG: 124						SPUD DATE: 12/18/2013					
LMD UNIT NO.: C-70						LMD START DATE: 12/21/2013					
						LMD END DATE: 12/29/2013					
						TOTAL DEPTH: 14475 ft					

Remarks
ENCANA OIL AND GAS (U.S.A.) INC PRODUCTION AFE# 13175436
SCIENTIFIC DRILLING INTERNATIONAL JOB# 92890
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: CONT = 1011 / MWD EYE = 0120
BIT TO SENSOR OFFSET: SURVEY = 55.38 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-062 / CONT = 786 / MWD EYE = 0380 / GAMMA RAY = 1057
BIT TO SENSOR OFFSET: SURVEY = 56.17 FT. / GAMMA RAY = 46.92 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-077 / CONT = 761 / MWD EYE = 0120 / GAMMA RAY = 1021
BIT TO SENSOR OFFSET: SURVEY = 60.62 FT. / GAMMA RAY = 51.35 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.



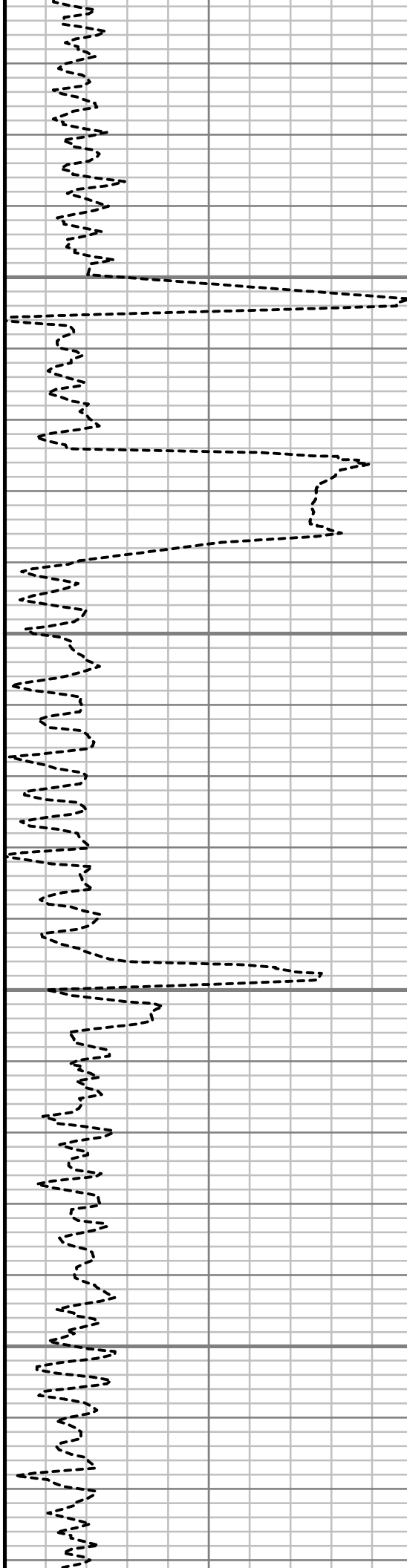


5100

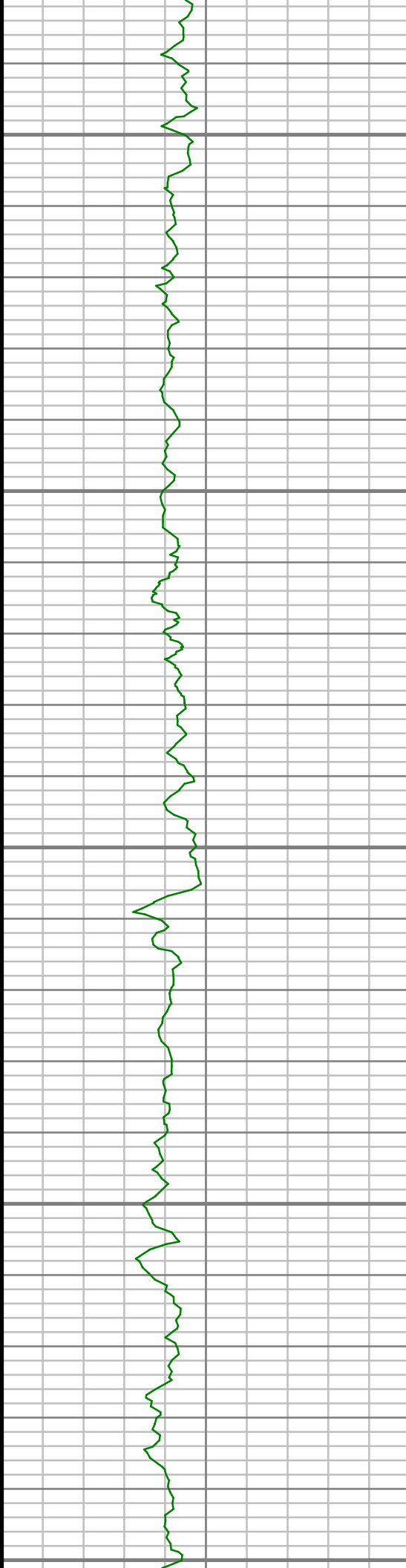
5150

5200

5250



S: 33 MD: 5235.00 ft Inc: 6.64
deg Az: 296.98 deg TVD:
5181.61 ft



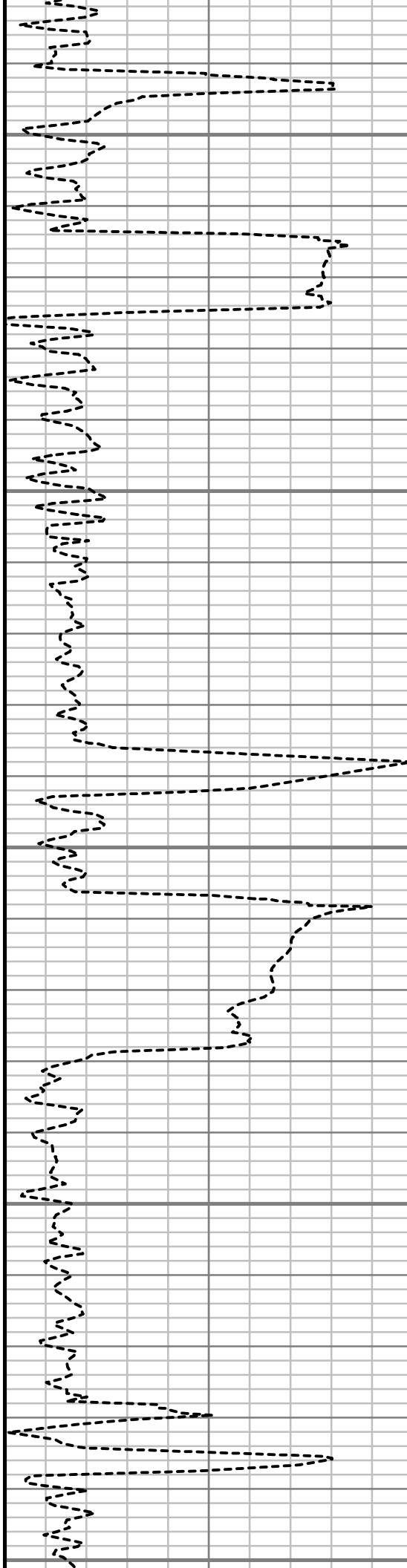
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5350

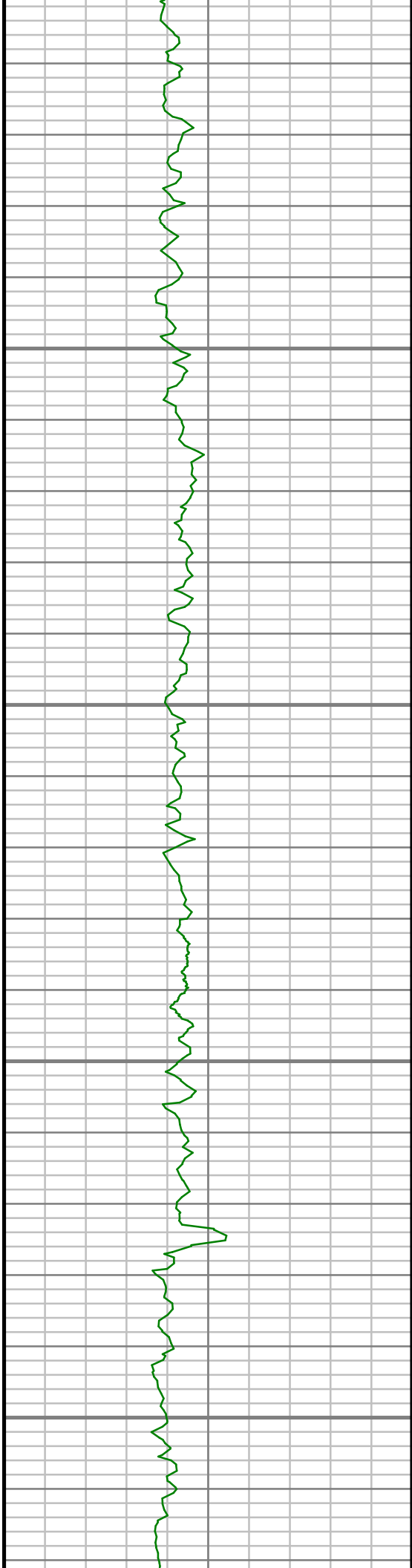
5400

5450

5500



S: 34 MD: 5425.00 ft Inc: 8.53
deg Az: 282.13 deg TVD:
5369.96 ft

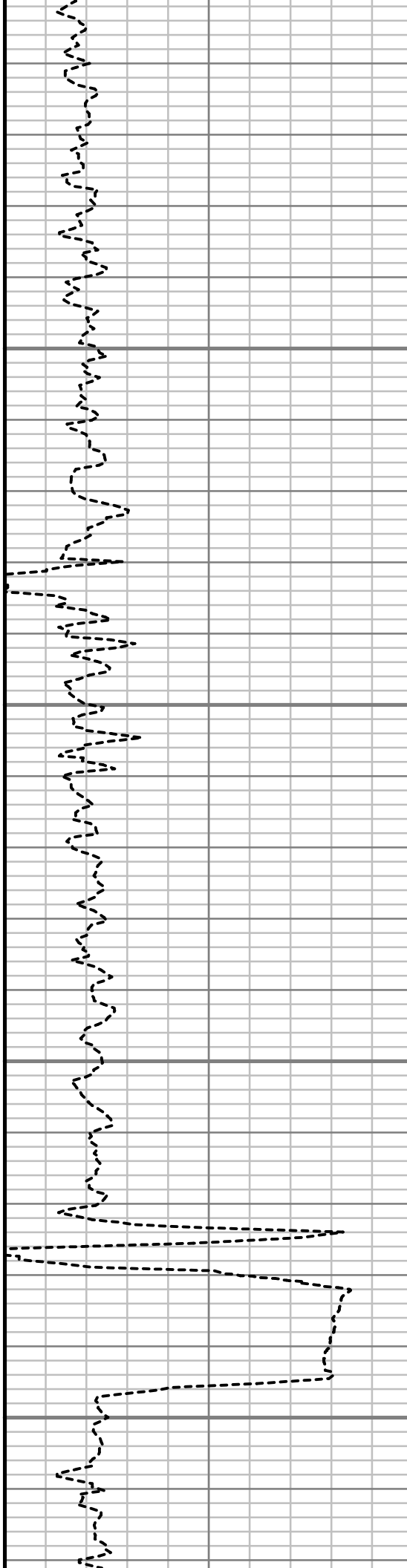


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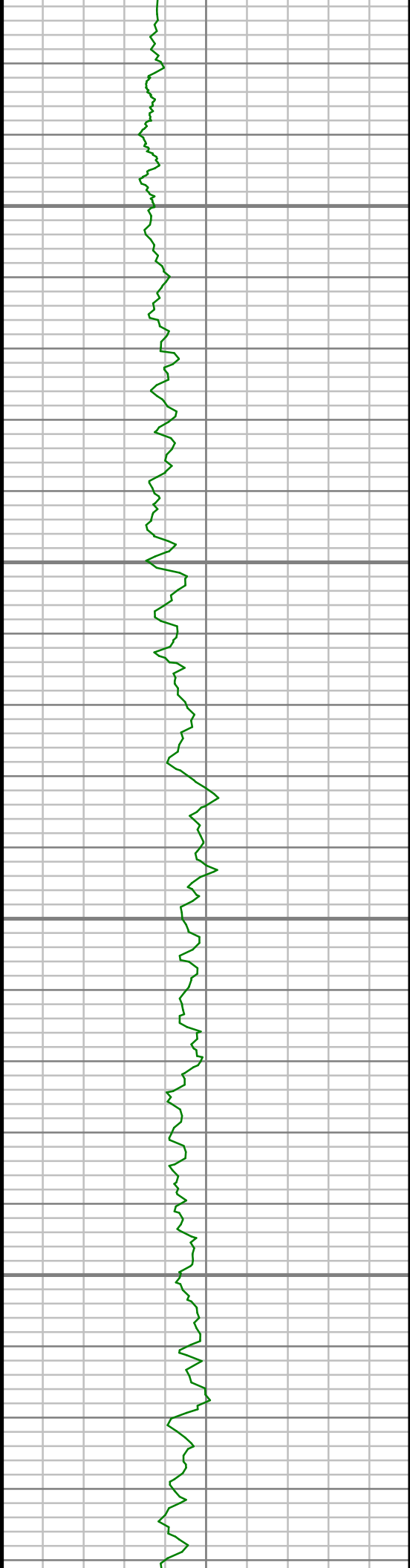
5600

5650

5700



S: 35 MD: 5614.00 ft Inc: 6.96
deg Az: 283.74 deg TVD:
5557.23 ft

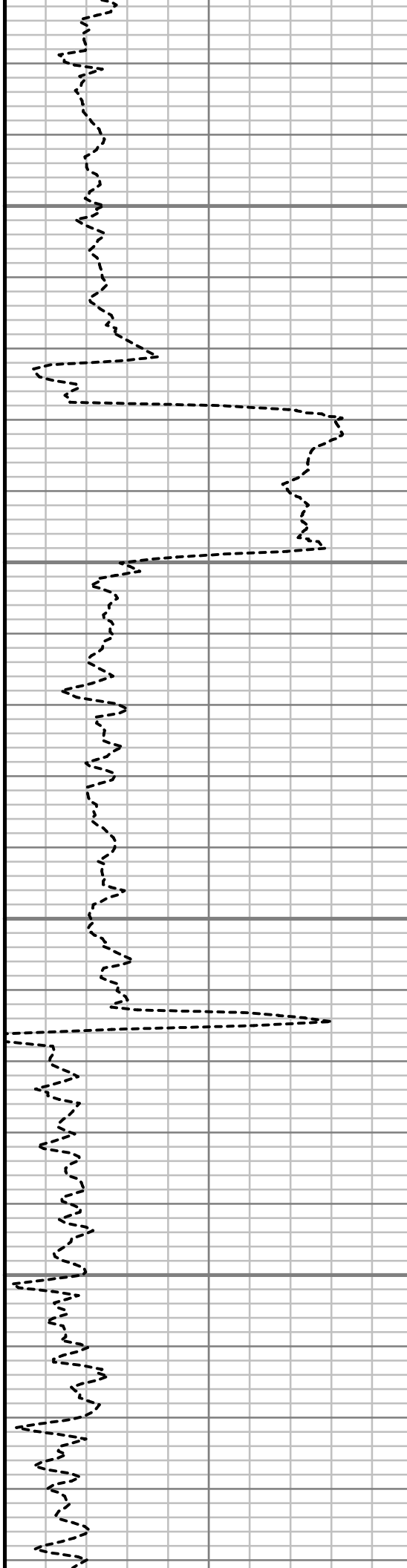


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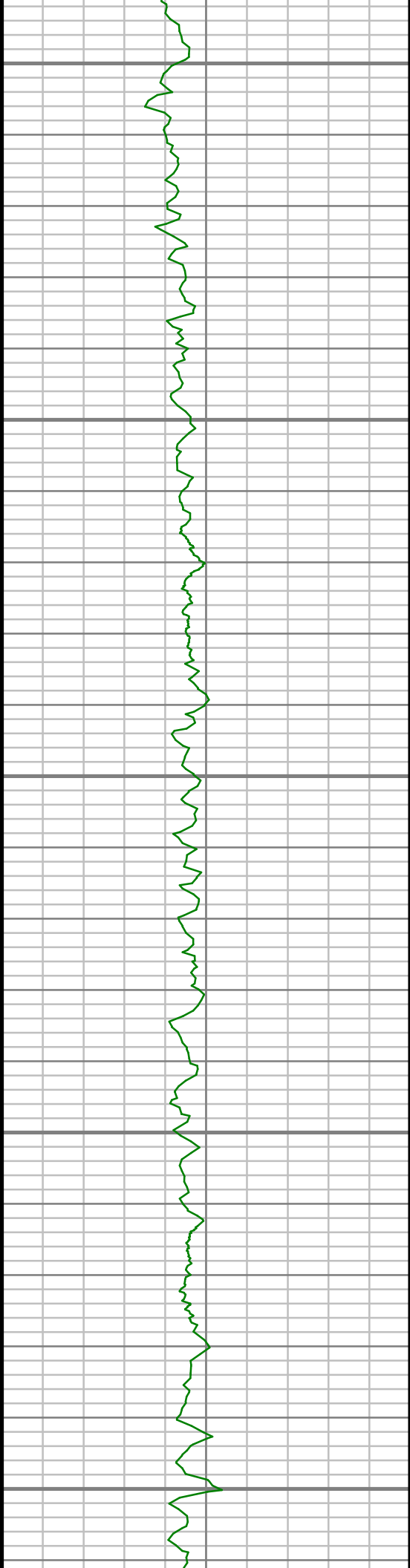
5800

5850

5900



S: 36 MD: 5803.00 ft Inc: 10.78
deg Az: 301.64 deg TVD:
5743.97 ft



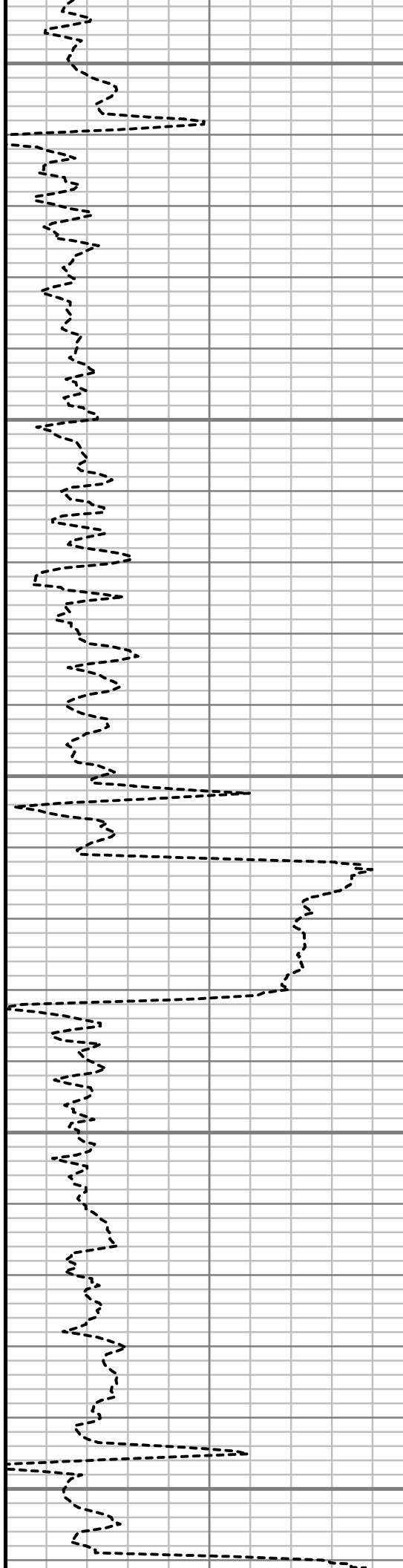
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6000

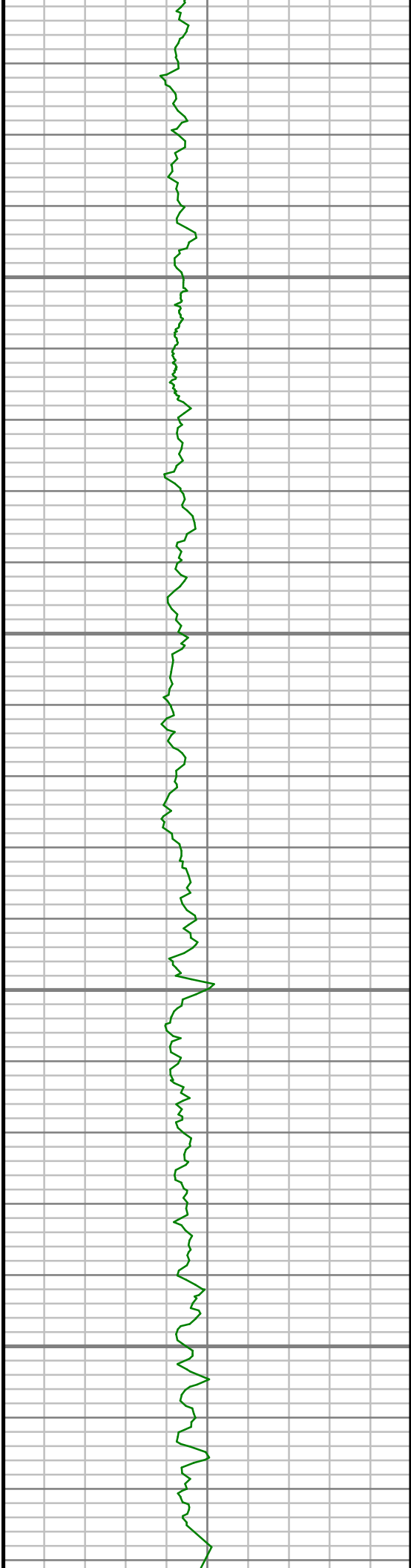
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6100

6150



S: 37 MD: 5993.00 ft Inc: 6.80
deg Az: 302.09 deg TVD:
5931.70 ft

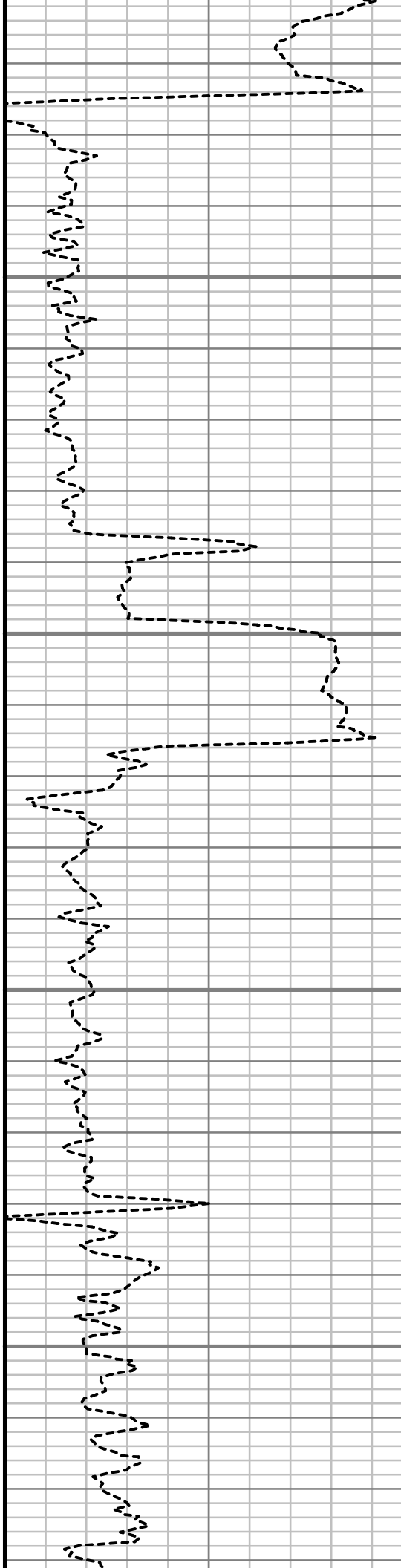


6200

6250

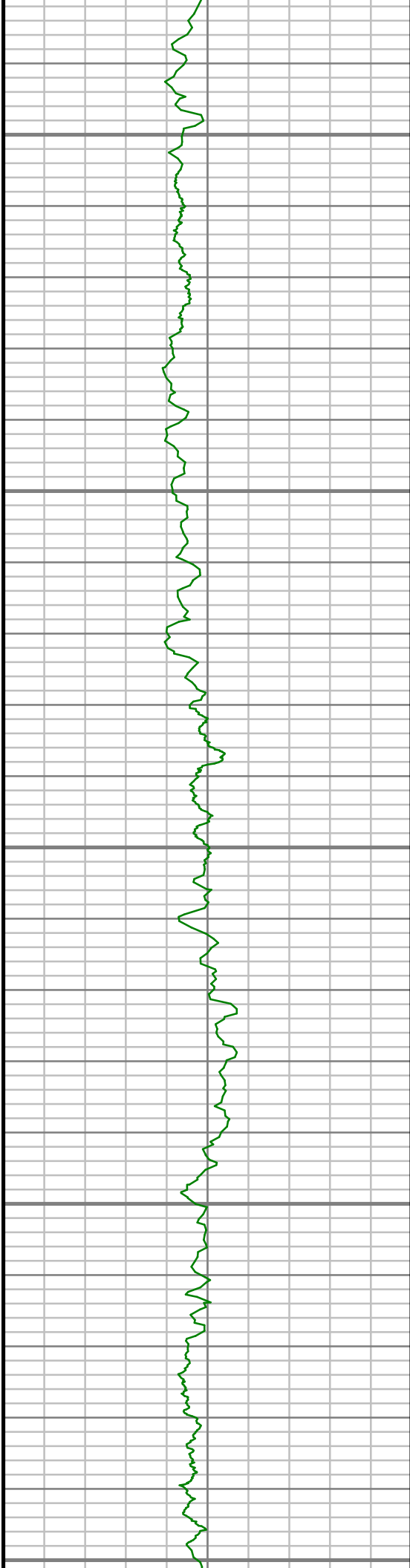
6300

6350



S: 38 MD: 6182.00 ft Inc: 8.11
deg Az: 280.48 deg TVD:
6119.13 ft

S: 39 MD: 6372.00 ft Inc: 6.71
deg Az: 269.43 deg TVD:
6307.55 ft



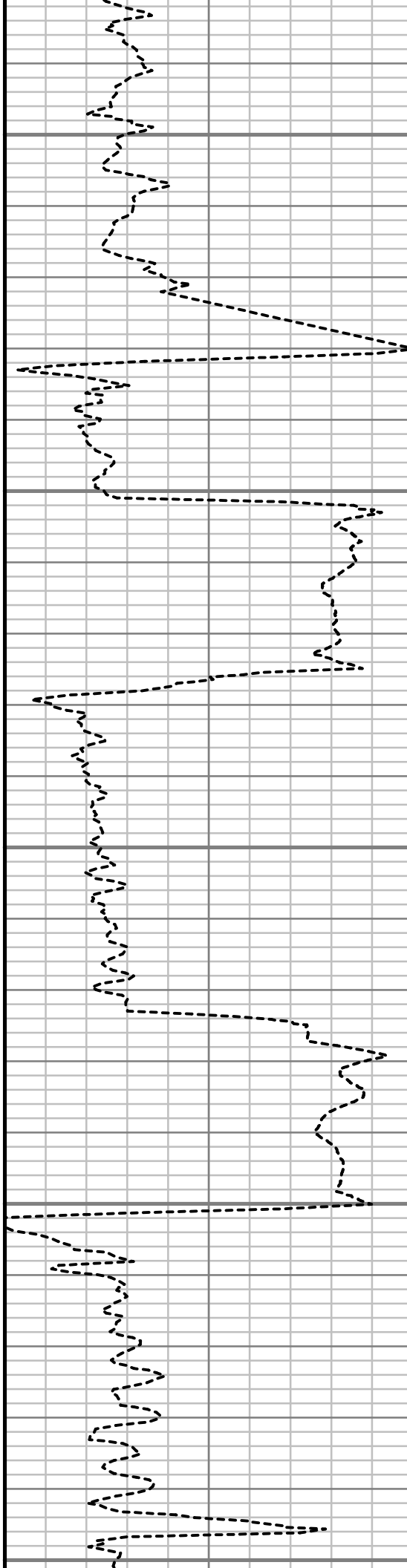
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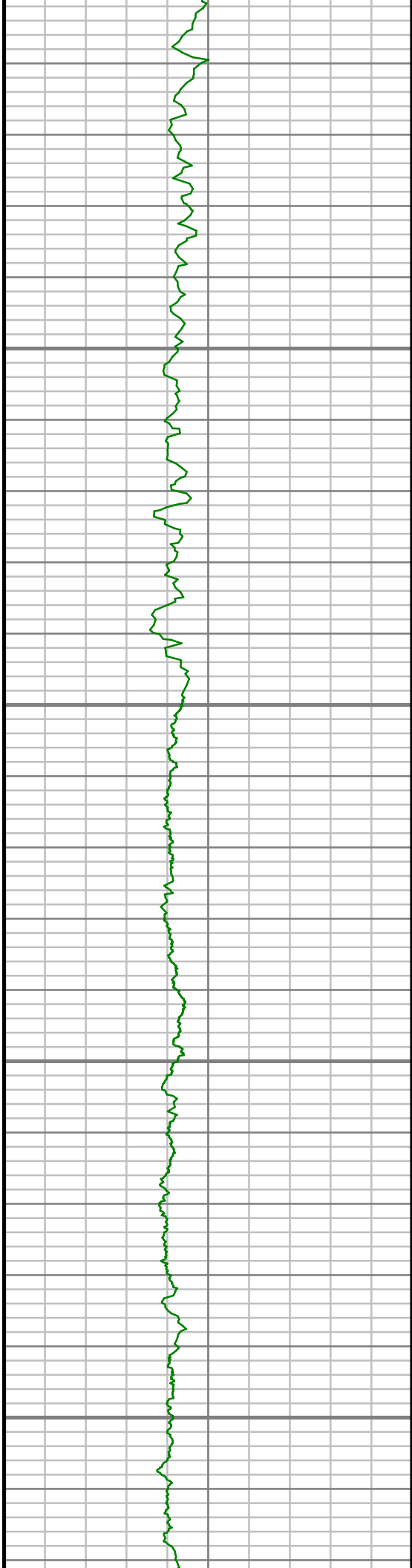
6500

6550

6600



S: 40 MD: 6561.00 ft Inc: 4.53
deg Az: 293.86 deg TVD:
6495.66 ft

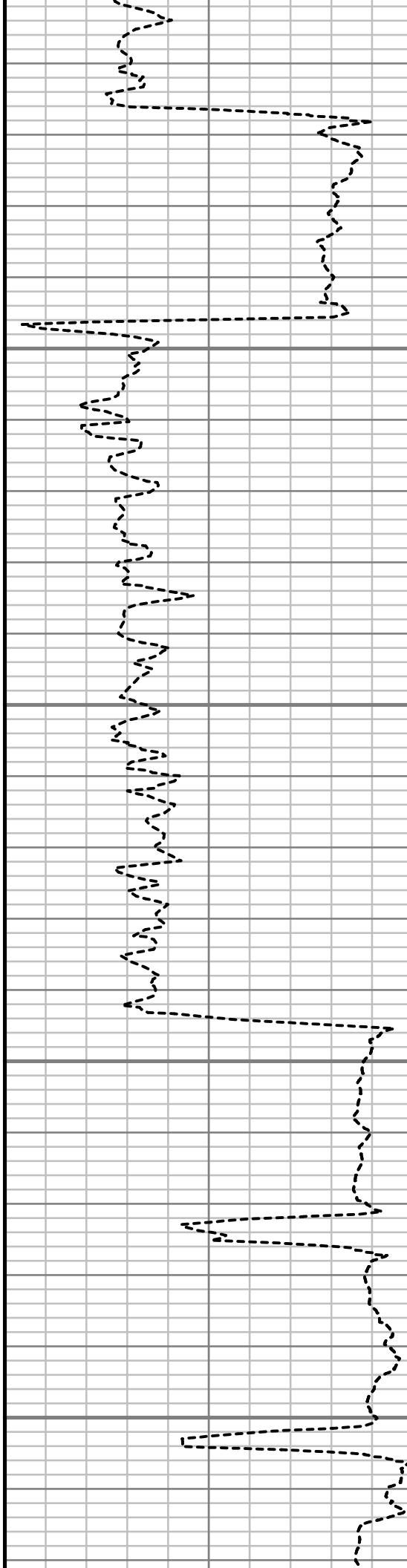


6650

6700

6750

6800

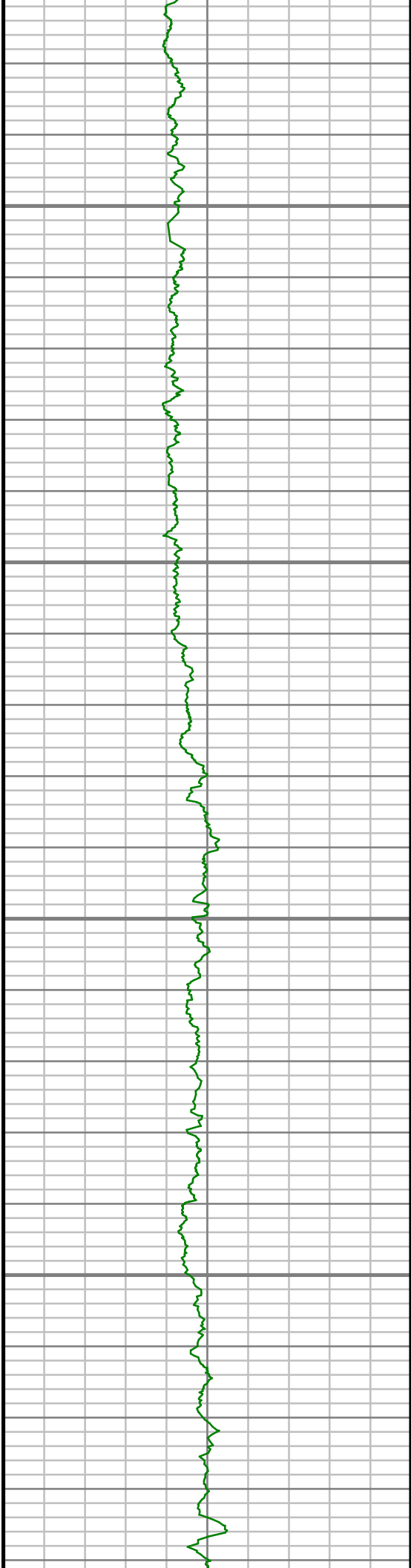


S: 41 MD: 6687.00 ft Inc: 9.53
deg Az: 300.58 deg TVD:
6620.67 ft

S: 42 MD: 6750.00 ft Inc: 8.15
deg Az: 292.32 deg TVD:
6682.92 ft

S: 43 MD: 6781.00 ft Inc: 7.63
deg Az: 272.62 deg TVD:
6713.64 ft

S: 44 MD: 6813.00 ft Inc: 8.61
deg Az: 258.93 deg TVD:
6745.32 ft

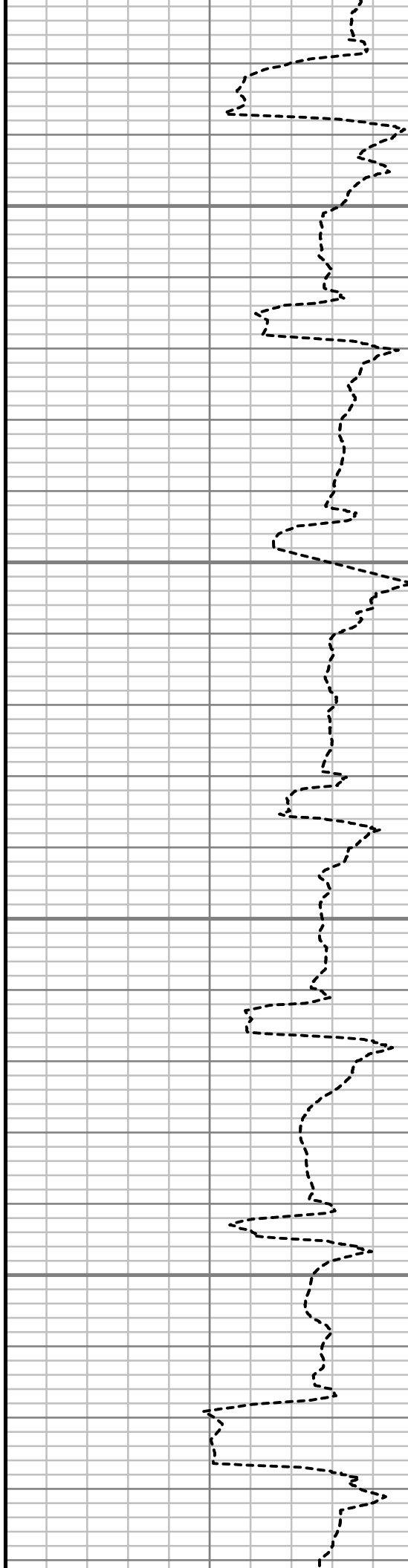


6850

6900

6950

7000



S: 45 MD: 6844.00 ft Inc: 10.15
deg Az: 244.23 deg TVD:
6775.91 ft

S: 46 MD: 6876.00 ft Inc: 12.03
deg Az: 229.05 deg TVD:
6807.31 ft

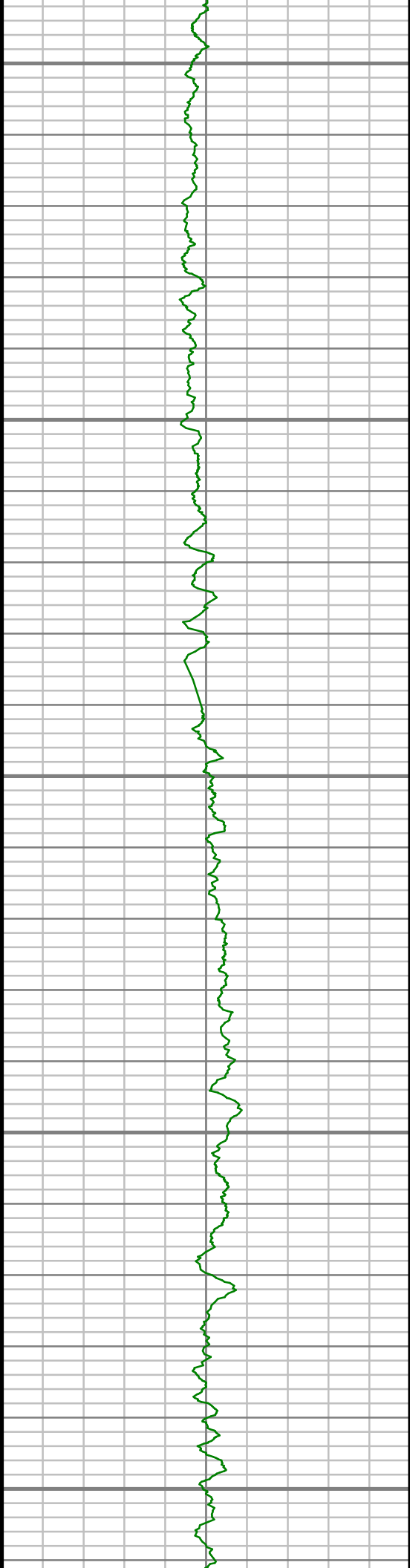
S: 47 MD: 6908.00 ft Inc: 14.58
deg Az: 217.27 deg TVD:
6838.46 ft

S: 48 MD: 6939.00 ft Inc: 18.06
deg Az: 211.16 deg TVD:
6868.21 ft

S: 49 MD: 6971.00 ft Inc: 21.63
deg Az: 206.39 deg TVD:
6898.30 ft

S: 50 MD: 7003.00 ft Inc: 25.19
deg Az: 203.71 deg TVD:
6927.67 ft

S: 51 MD: 7034.00 ft Inc: 27.81
deg Az: 199.48 deg TVD:
6955.41 ft



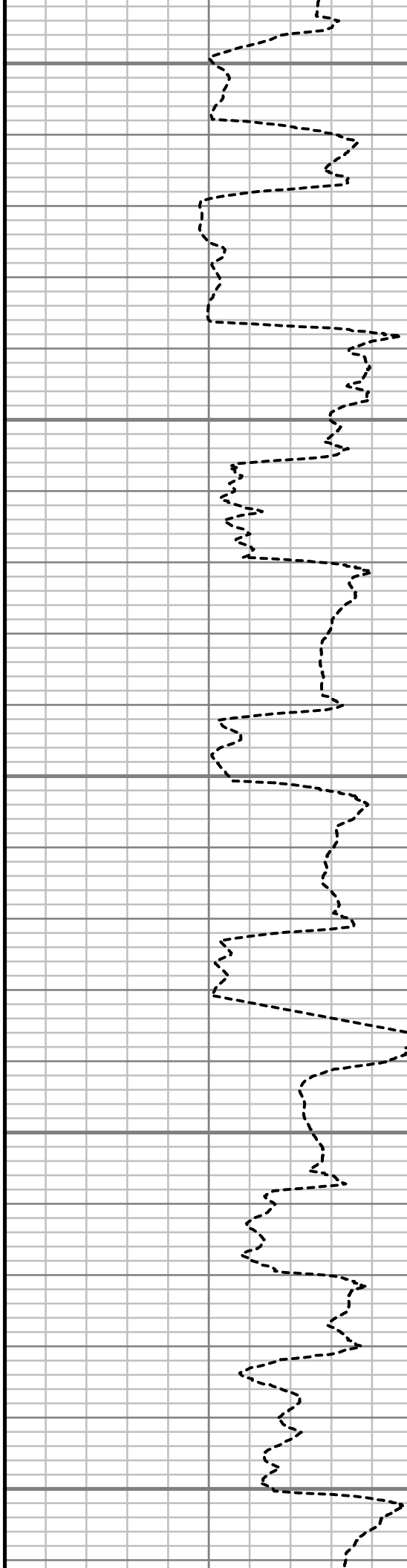
7050

7100

7150

7200

7250



S: 52 MD: 7066.00 ft Inc: 29.55
deg Az: 196.29 deg TVD:
6983.48 ft

S: 53 MD: 7097.00 ft Inc: 29.73
deg Az: 192.41 deg TVD:
7010.43 ft

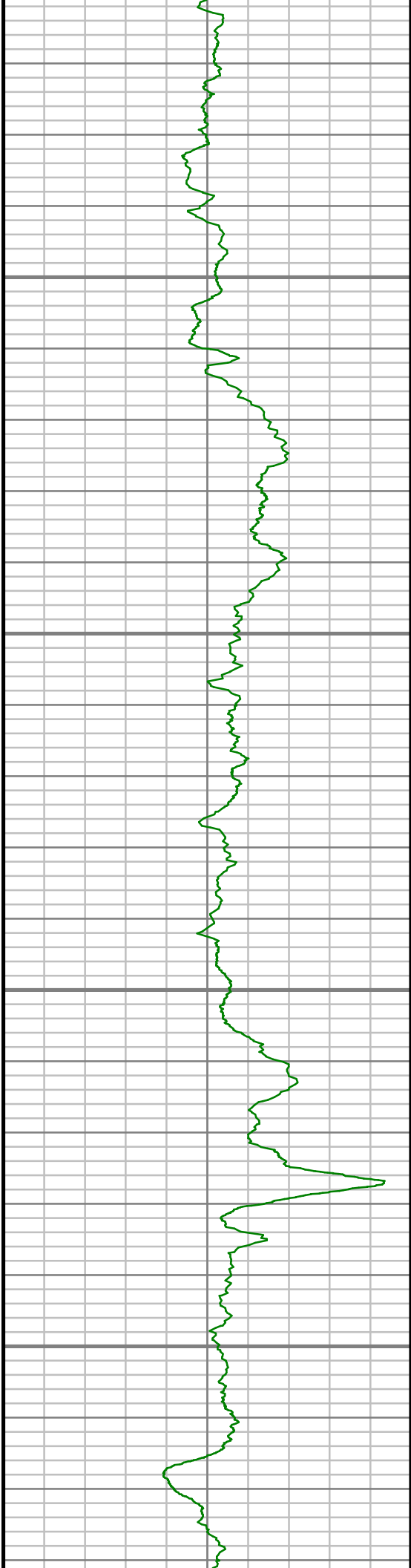
S: 54 MD: 7129.00 ft Inc: 32.00
deg Az: 189.09 deg TVD:
7037.90 ft

S: 55 MD: 7161.00 ft Inc: 35.28
deg Az: 184.66 deg TVD:
7064.54 ft

S: 56 MD: 7192.00 ft Inc: 38.78
deg Az: 184.93 deg TVD:
7089.28 ft

S: 57 MD: 7224.00 ft Inc: 41.57
deg Az: 185.23 deg TVD:
7113.73 ft

S: 58 MD: 7256.00 ft Inc: 43.66
deg Az: 185.36 deg TVD:

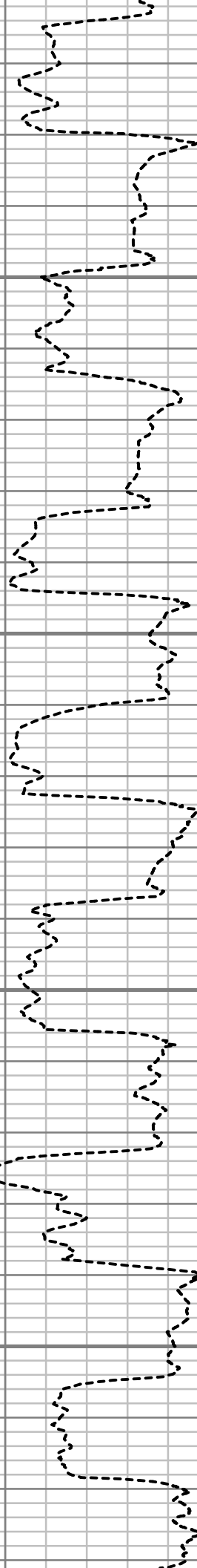


7300

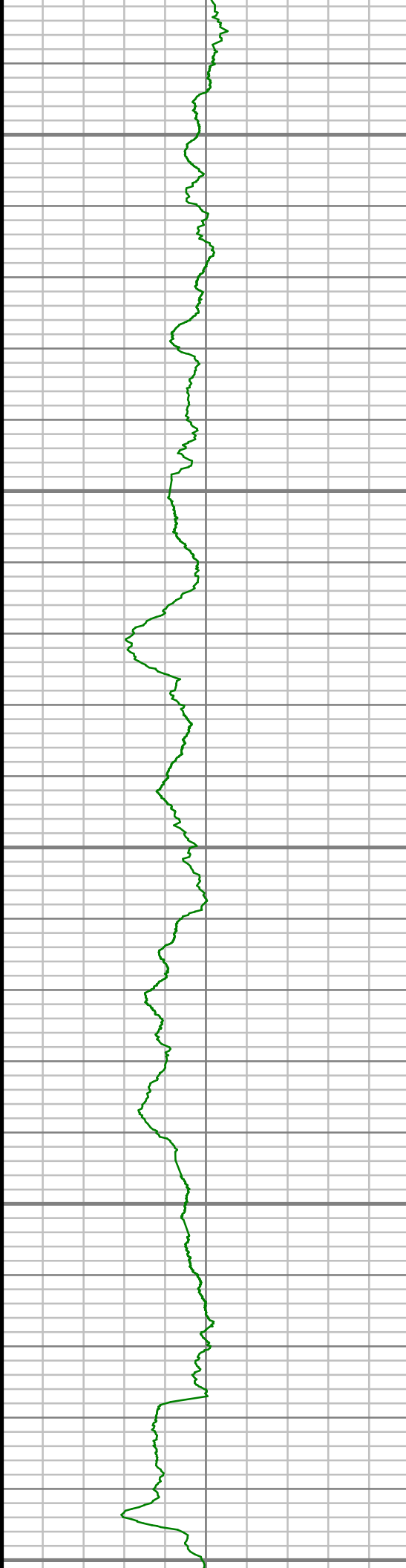
7350

7400

7450



7137.28 ft
S: 59 MD: 7287.00 ft Inc: 46.96 deg Az: 184.23 deg TVD: 7159.08 ft
S: 60 MD: 7319.00 ft Inc: 50.95 deg Az: 184.20 deg TVD: 7180.08 ft
S: 61 MD: 7350.00 ft Inc: 54.41 deg Az: 184.23 deg TVD: 7198.88 ft
S: 62 MD: 7382.00 ft Inc: 57.51 deg Az: 183.62 deg TVD: 7216.79 ft
S: 63 MD: 7413.00 ft Inc: 60.60 deg Az: 182.97 deg TVD: 7232.72 ft
S: 64 MD: 7445.00 ft Inc: 64.02 deg Az: 184.24 deg TVD: 7247.59 ft
S: 65 MD: 7477.00 ft Inc: 66.44 deg Az: 184.53 deg TVD:



7500

7550

7600

7650

7700



deg Az: 181.55 deg TVD:
7260.99 ft

S: 66 MD: 7508.00 ft Inc: 68.97
deg Az: 184.44 deg TVD:
7272.75 ft

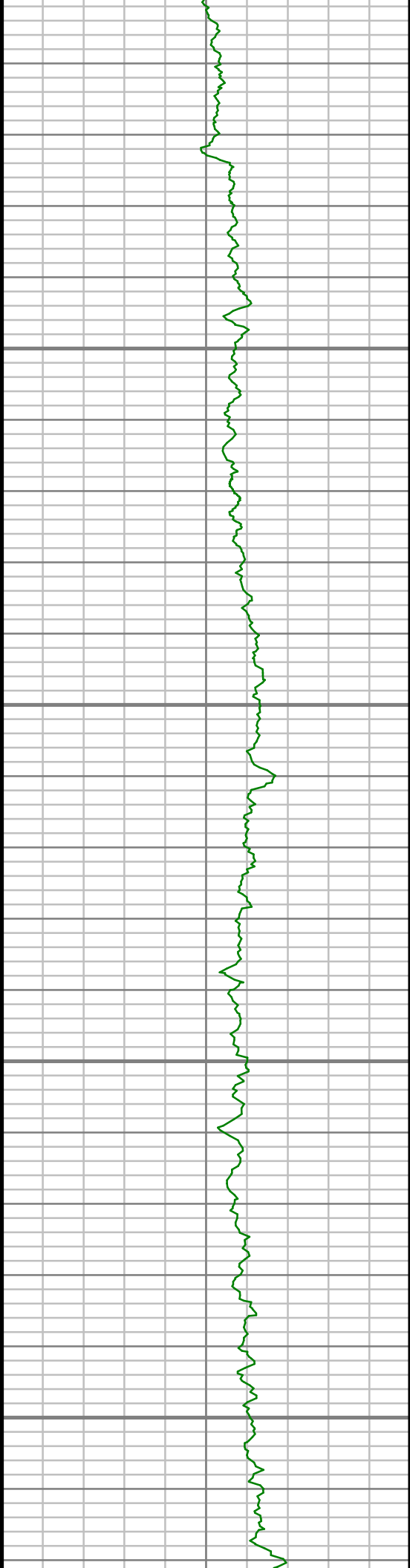
S: 67 MD: 7540.00 ft Inc: 72.85
deg Az: 183.53 deg TVD:
7283.22 ft

S: 68 MD: 7571.00 ft Inc: 76.28
deg Az: 182.12 deg TVD:
7291.46 ft

S: 69 MD: 7603.00 ft Inc: 78.73
deg Az: 181.22 deg TVD:
7298.39 ft

S: 70 MD: 7635.00 ft Inc: 81.18
deg Az: 180.42 deg TVD:
7303.97 ft

S: 71 MD: 7667.00 ft Inc: 84.09
deg Az: 180.44 deg TVD:
7308.07 ft

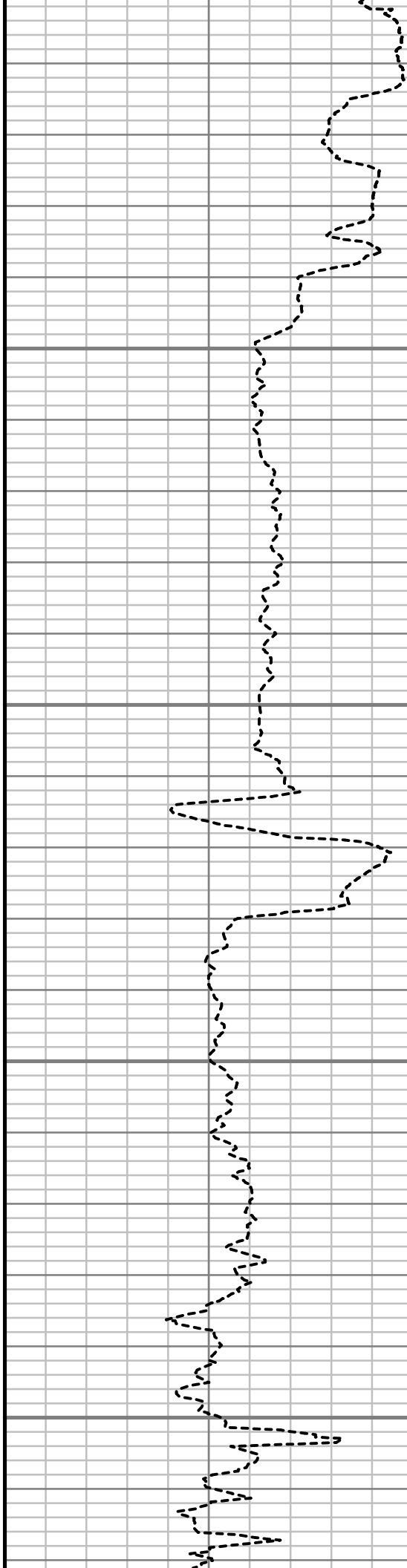


7750

7800

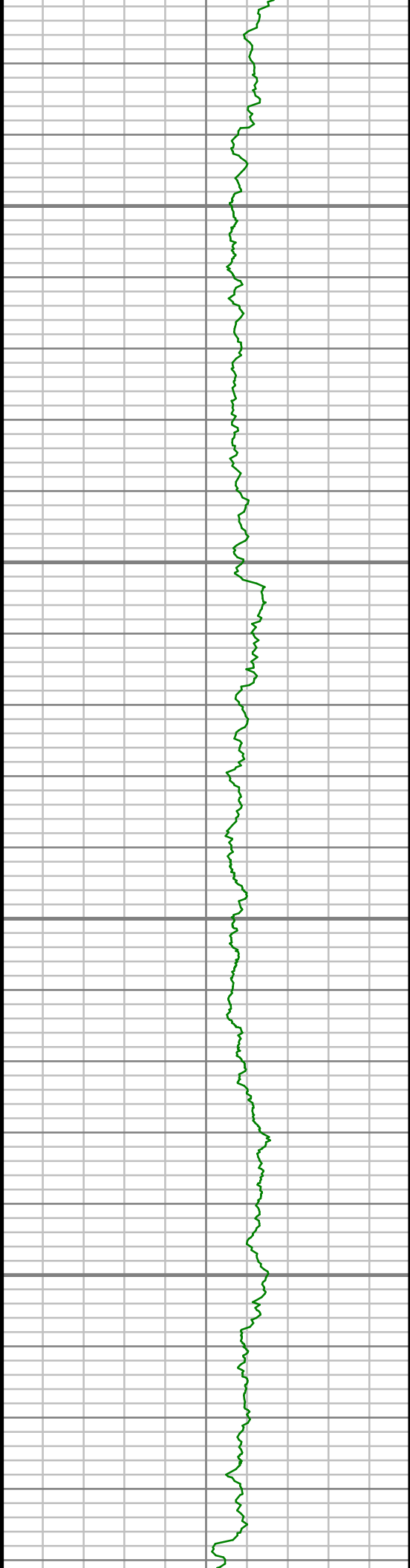
7850

7900



S: 72 MD: 7753.00 ft Inc: 89.16
deg Az: 180.39 deg TVD:
7313.13 ft

S: 73 MD: 7846.00 ft Inc: 88.92
deg Az: 181.31 deg TVD:
7314.68 ft

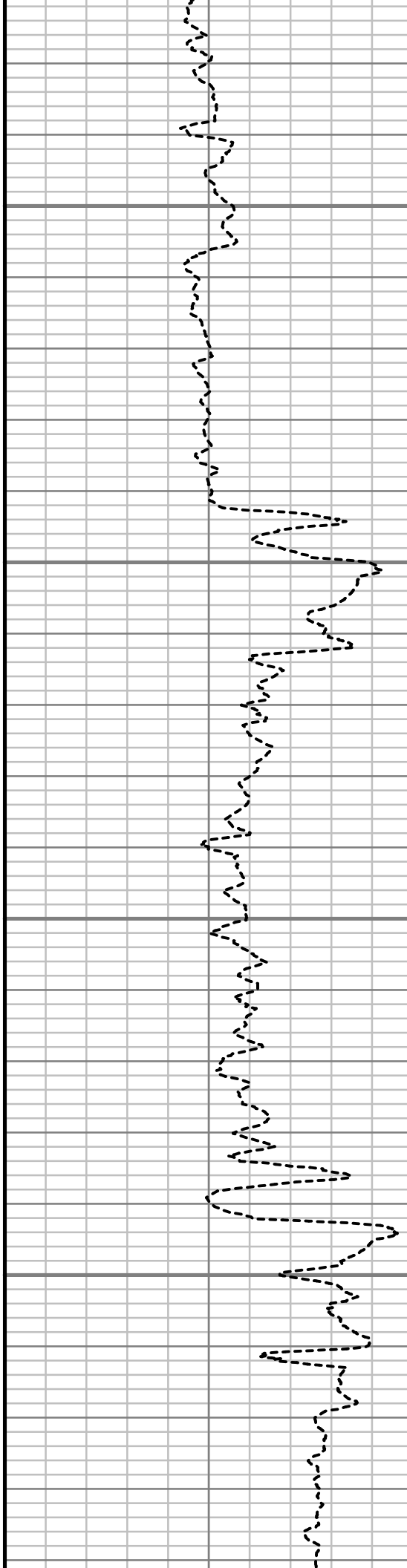


7950

8000

8050

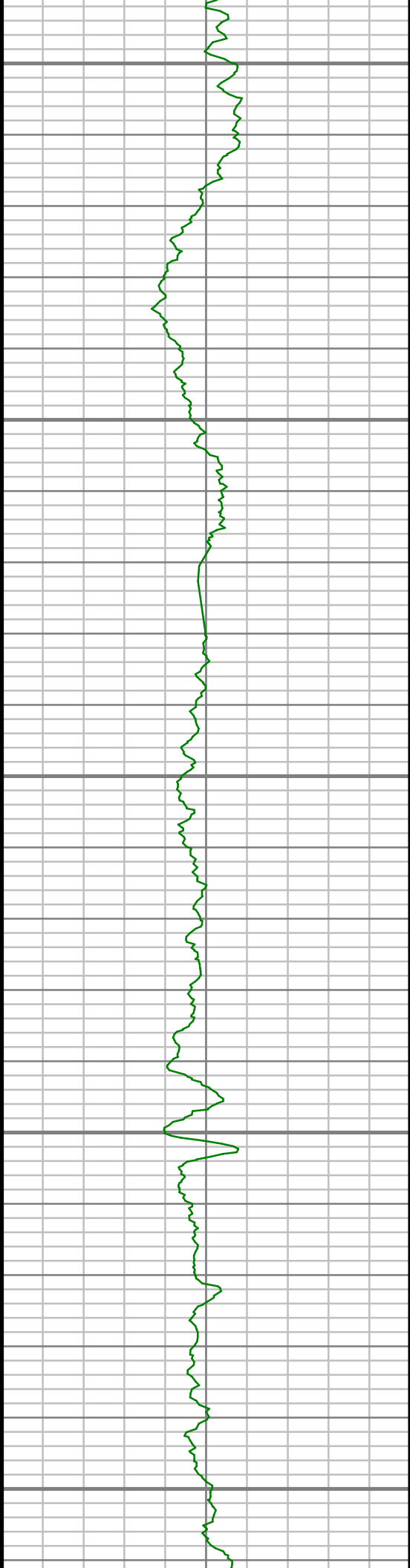
8100



S: 74 MD: 7939.00 ft Inc: 88.09
deg Az: 180.47 deg TVD:
7317.11 ft

S: 75 MD: 8032.00 ft Inc: 89.73
deg Az: 181.93 deg TVD:
7318.88 ft

S: 76 MD: 8125.00 ft Inc: 90.47
deg Az: 182.12 deg TVD:
7318.72 ft



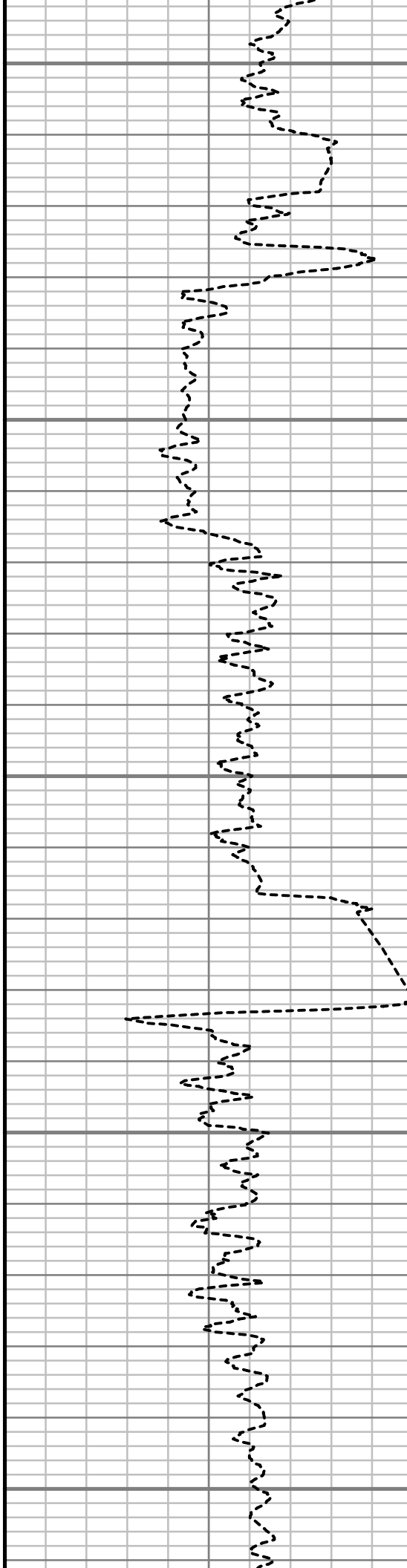
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8200

8250

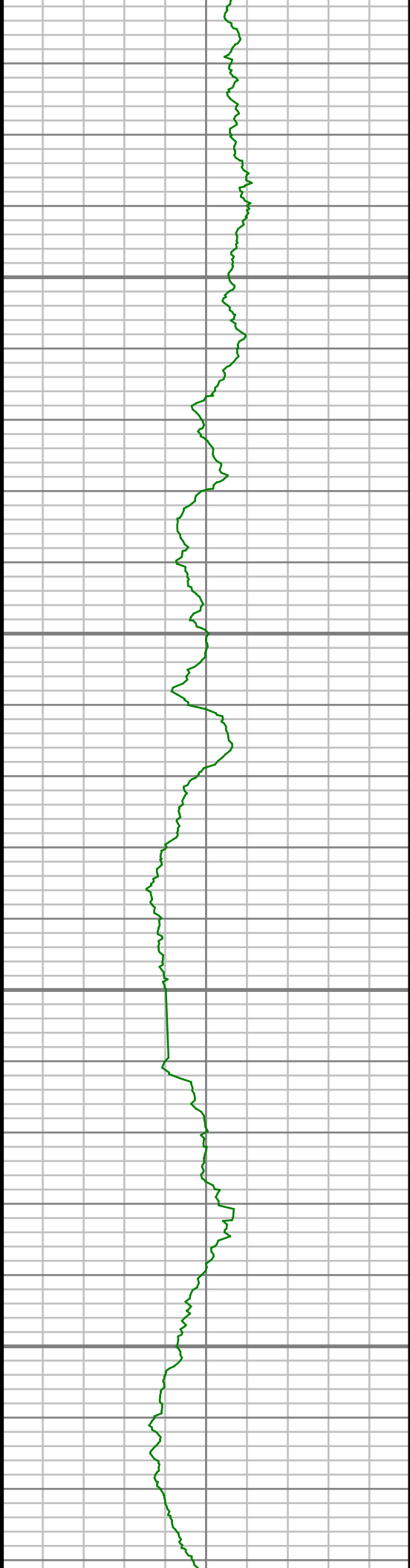
8300

8350



S: 77 MD: 8218.00 ft Inc: 90.64
deg Az: 181.51 deg TVD:
7317.82 ft

S: 78 MD: 8311.00 ft Inc: 90.50
deg Az: 180.99 deg TVD:
7316.90 ft

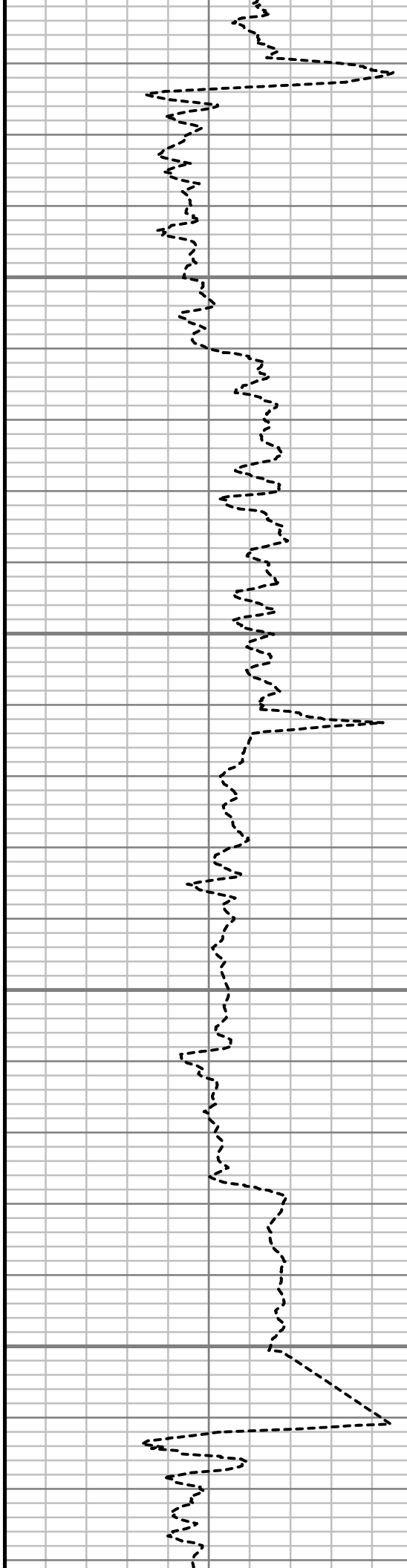


8400

8450

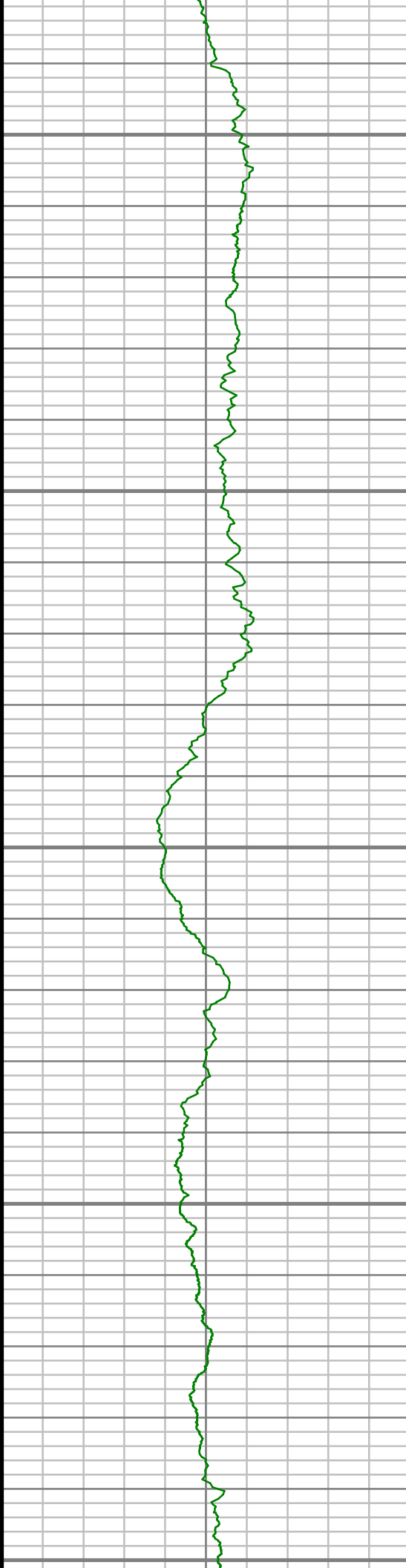
8500

8550



S: 79 MD: 8404.00 ft Inc: 90.44
deg Az: 180.86 deg TVD:
7316.13 ft

S: 80 MD: 8497.00 ft Inc: 90.34
deg Az: 180.35 deg TVD:
7315.51 ft



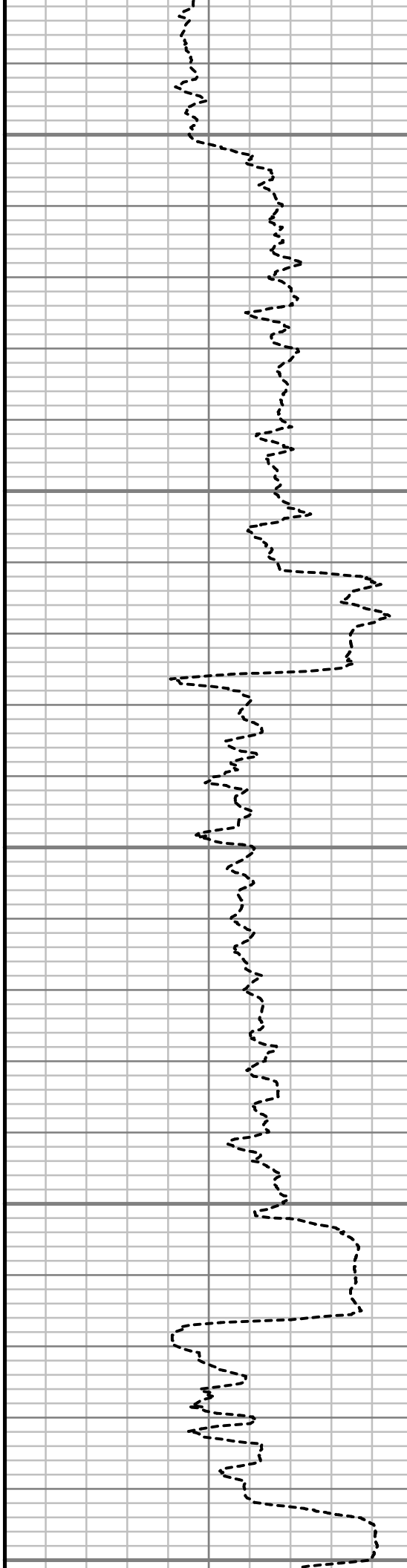
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8650

8700

8750

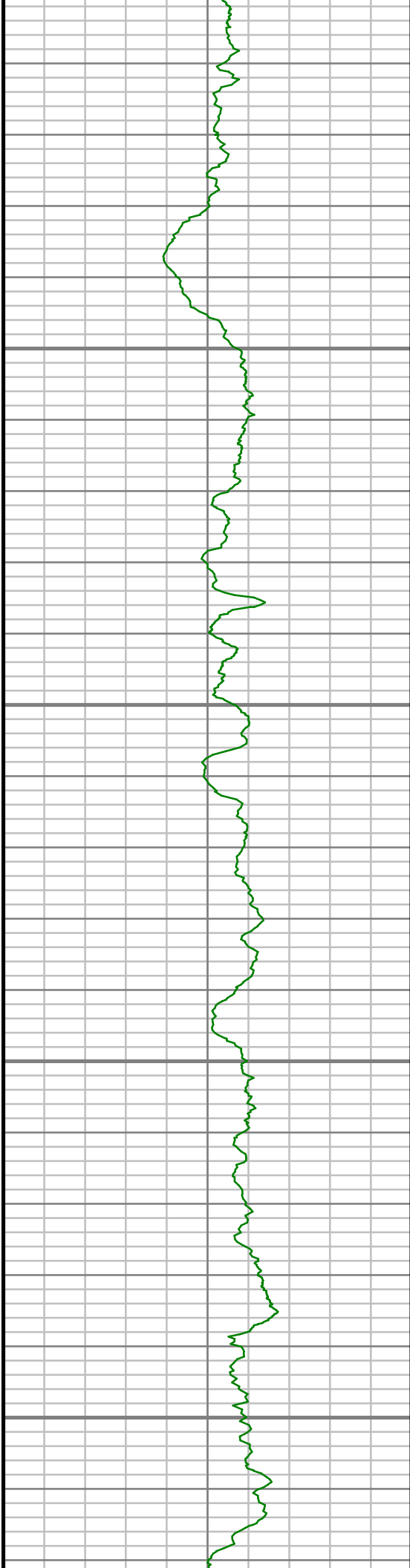
8800



S: 81 MD: 8590.00 ft Inc: 90.13
deg Az: 179.87 deg TVD:
7315.13 ft

S: 82 MD: 8683.00 ft Inc: 90.77
deg Az: 180.39 deg TVD:
7314.39 ft

S: 83 MD: 8776.00 ft Inc: 91.11
deg Az: 181.62 deg TVD:
7312.86 ft

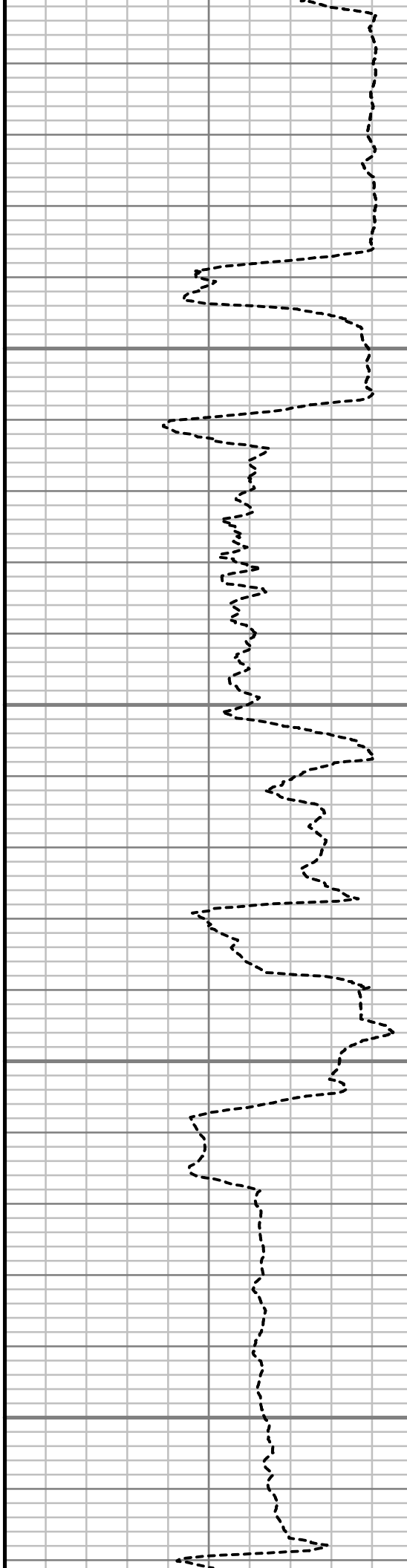


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8900

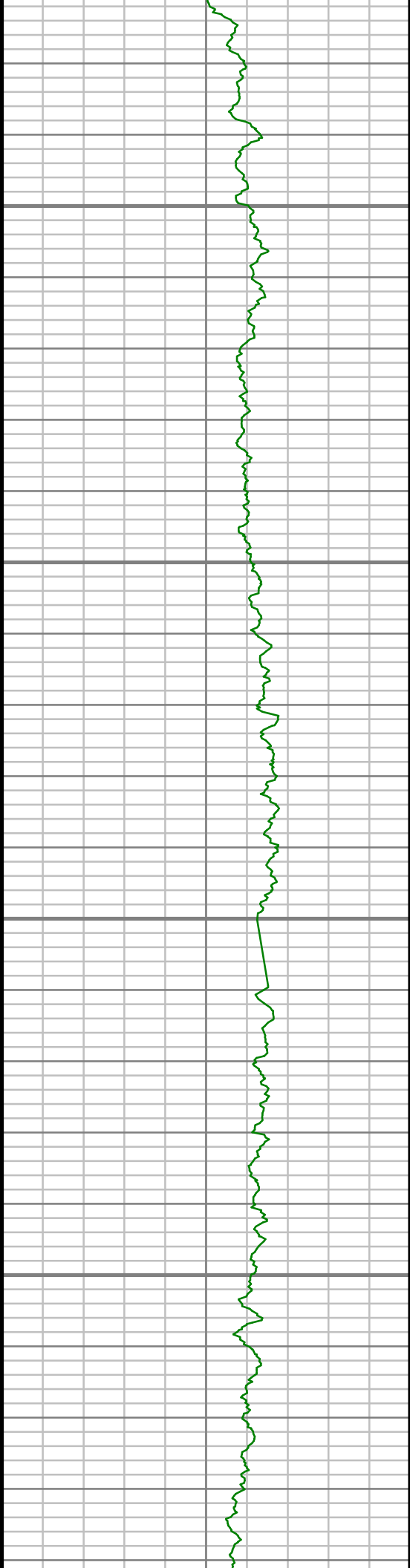
8950

9000



S: 84 MD: 8869.00 ft Inc: 91.21
deg Az: 182.55 deg TVD:
7310.98 ft

S: 85 MD: 8962.00 ft Inc: 90.20
deg Az: 182.94 deg TVD:
7309.84 ft

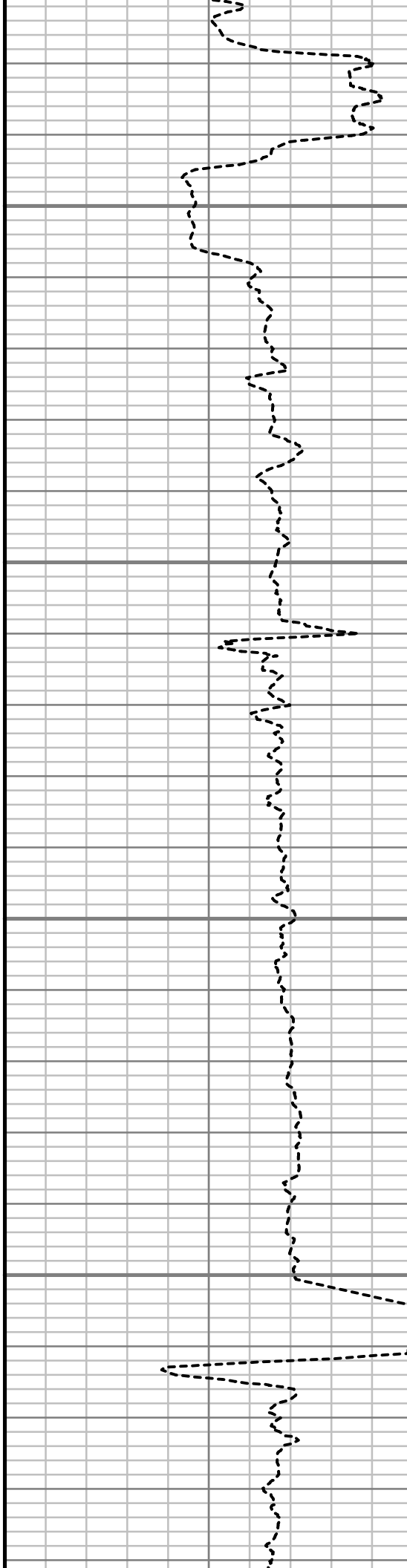


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9100

9150

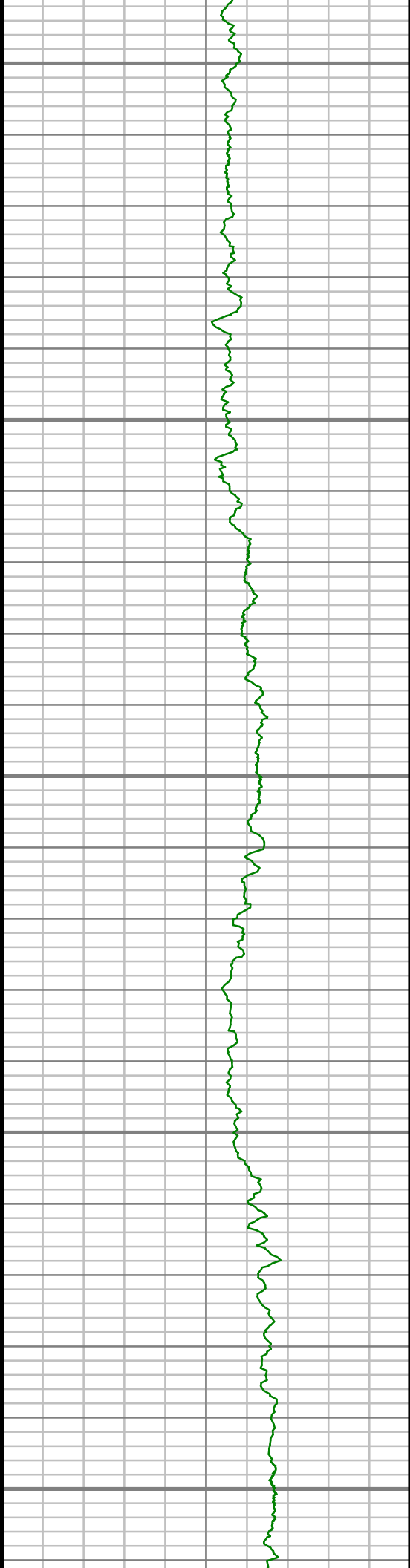
9200



S: 86 MD: 9055.00 ft Inc: 89.36
deg Az: 183.24 deg TVD:
7310.19 ft

S: 87 MD: 9147.00 ft Inc: 89.40
deg Az: 183.08 deg TVD:
7311.19 ft

S: 88 MD: 9240.00 ft Inc: 89.43



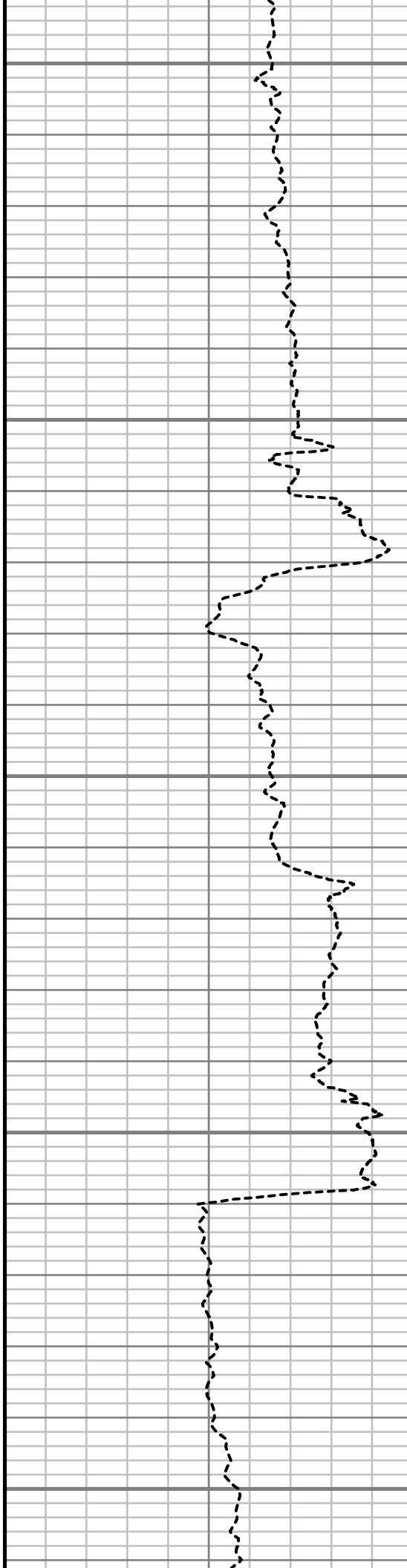
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9300

9350

9400

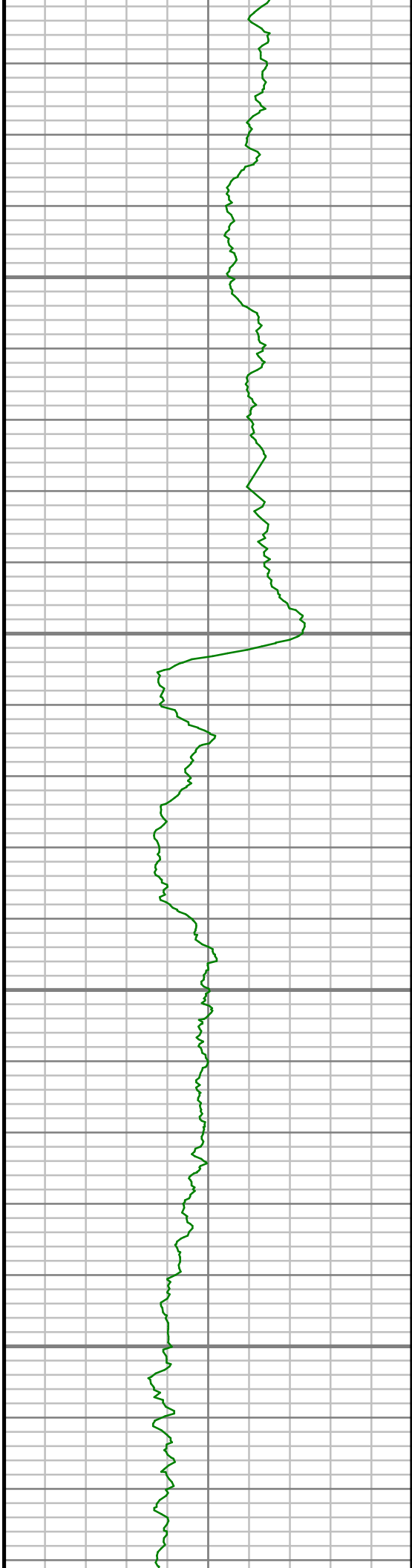
9450



S: 88 MD: 9240.00 ft Inc: 89.13
deg Az: 182.45 deg TVD:
7312.38 ft

S: 89 MD: 9333.00 ft Inc: 89.56
deg Az: 182.42 deg TVD:
7313.45 ft

S: 90 MD: 9426.00 ft Inc: 89.40
deg Az: 181.38 deg TVD:
7314.29 ft

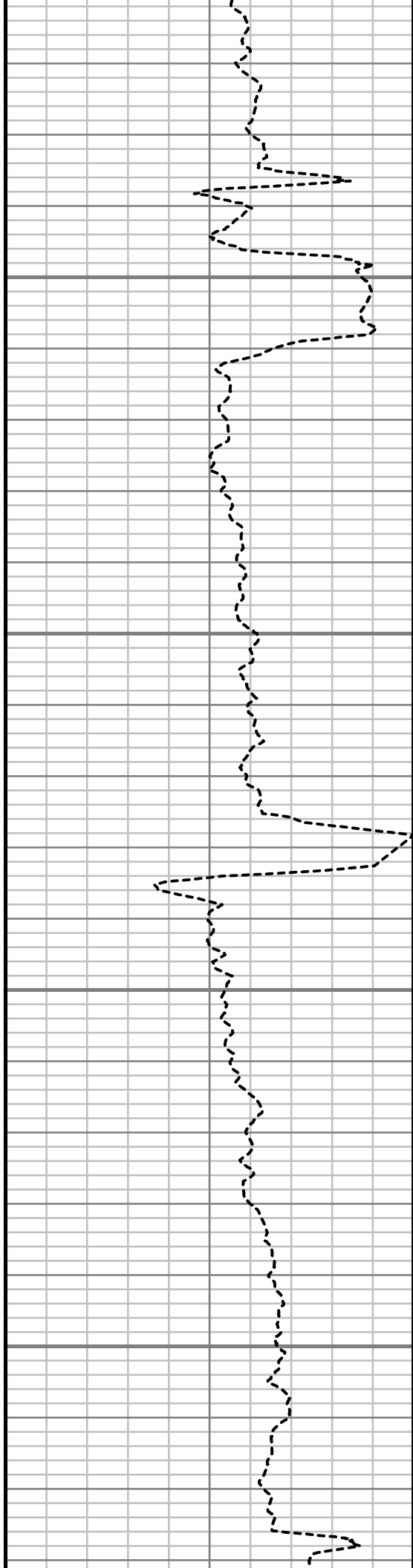


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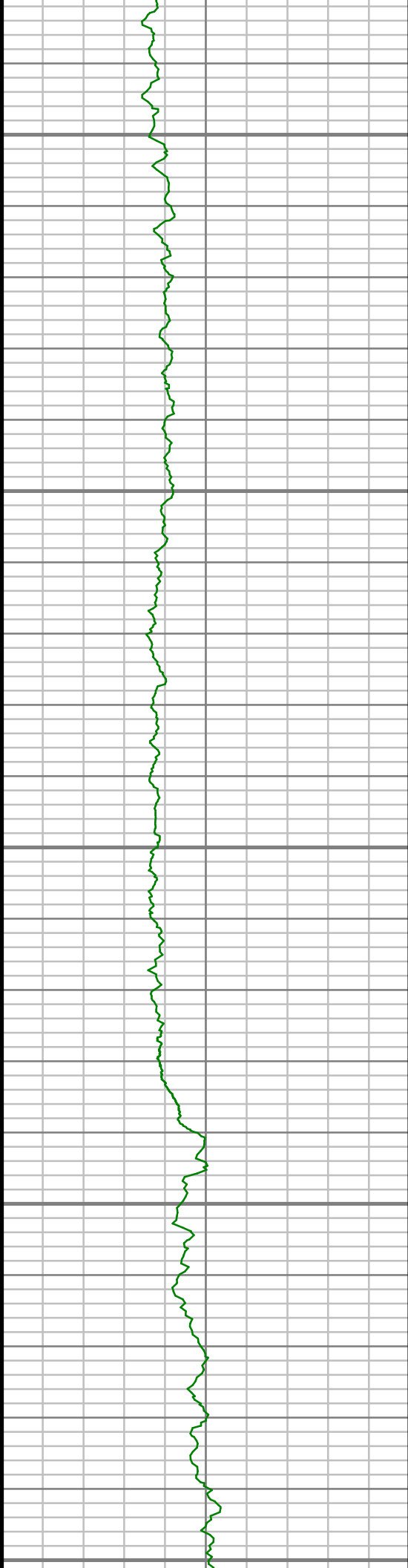
9600

9650



S: 91 MD: 9519.00 ft Inc: 88.63
deg Az: 180.12 deg TVD:
7315.90 ft

S: 92 MD: 9613.00 ft Inc: 89.06
deg Az: 179.91 deg TVD:
7317.79 ft



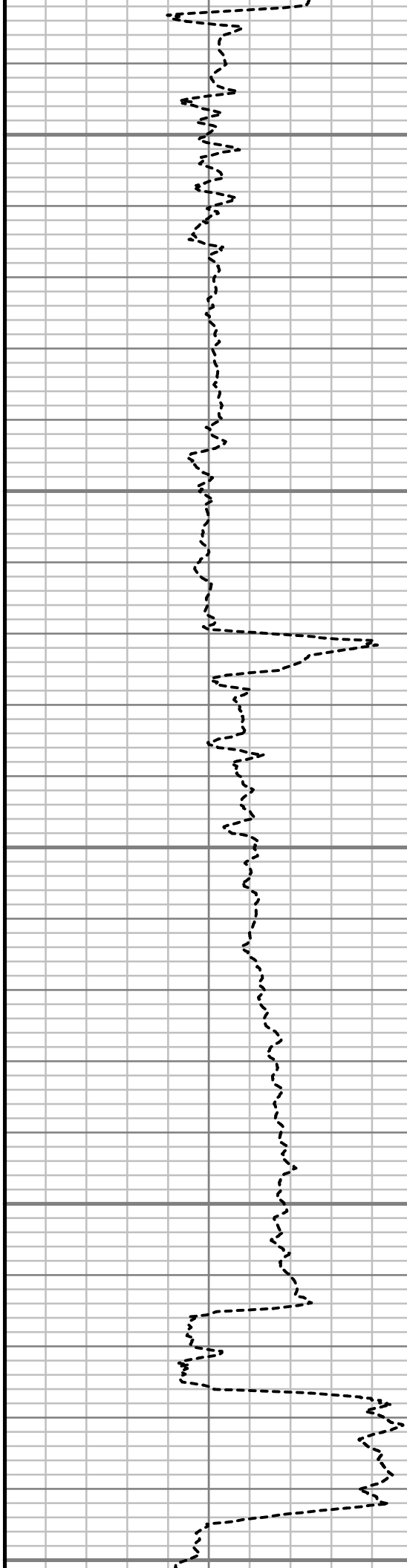
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9750

9800

9850

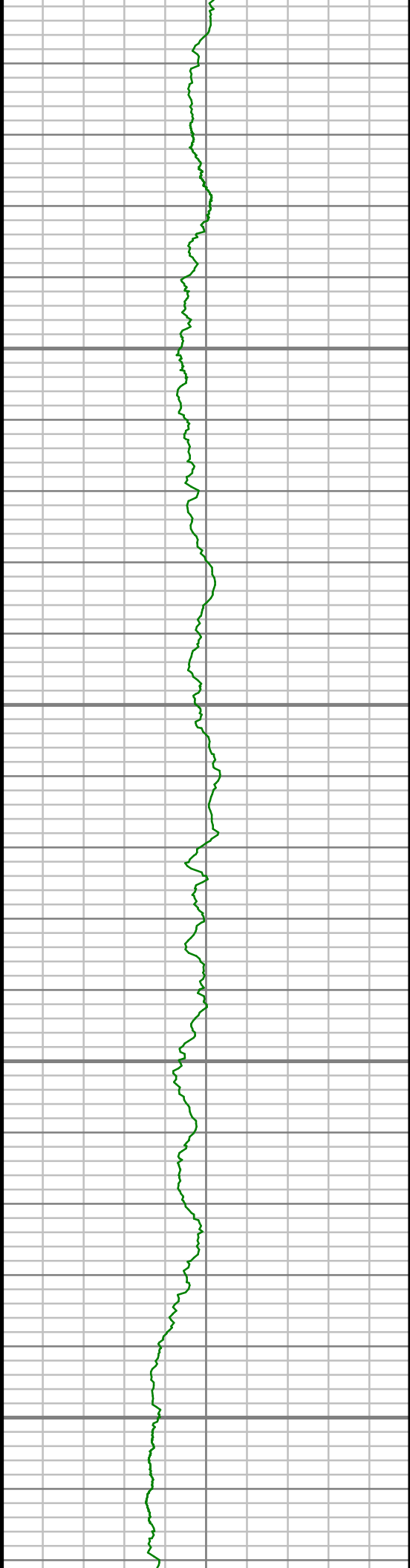
9900



S: 93 MD: 9708.00 ft Inc: 89.33
deg Az: 179.74 deg TVD:
7319.13 ft

S: 94 MD: 9803.00 ft Inc: 89.10
deg Az: 178.90 deg TVD:
7320.43 ft

S: 95 MD: 9898.00 ft Inc: 89.83
deg Az: 178.90 deg TVD:
7320.43 ft

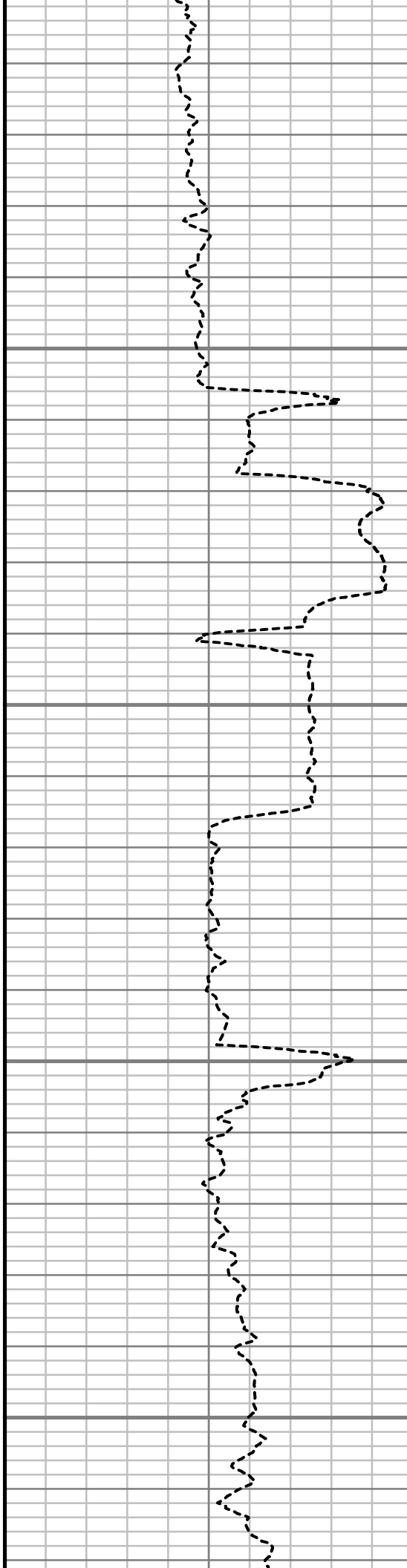


9950

10000

10050

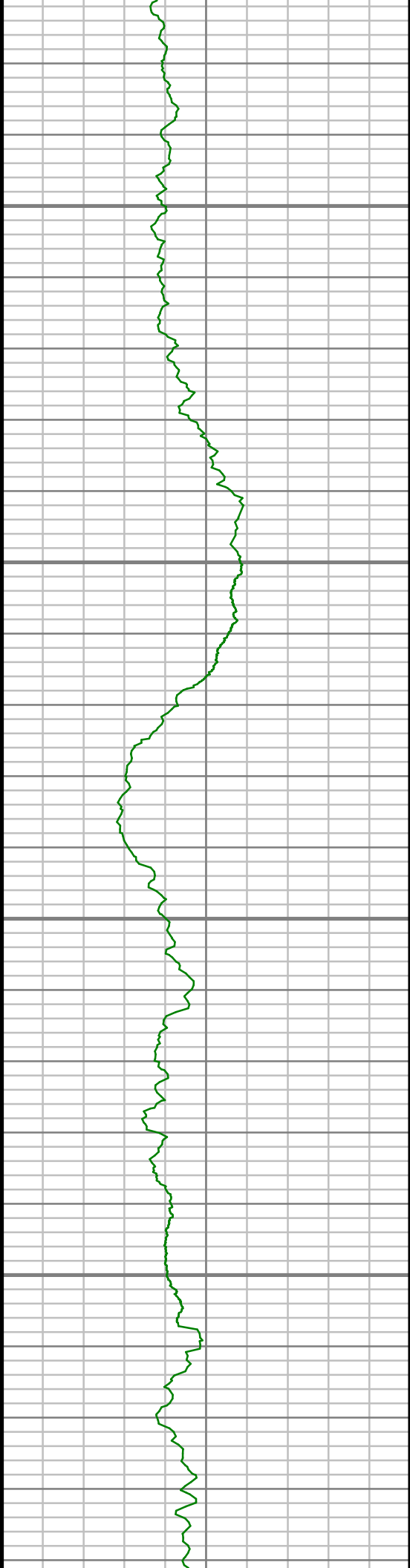
10100



deg Az: 178.60 deg TVD:
7321.32 ft

S: 96 MD: 9993.00 ft Inc: 91.24
deg Az: 179.80 deg TVD:
7320.43 ft

S: 97 MD: 10087.00 ft Inc:
91.65 deg Az: 178.93 deg TVD:
7318.07 ft

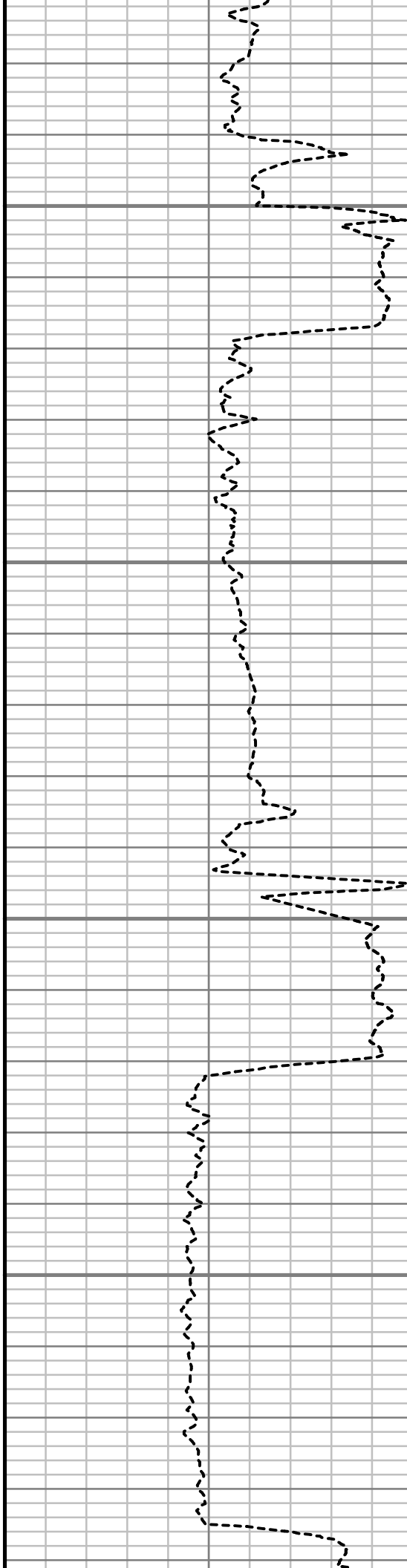


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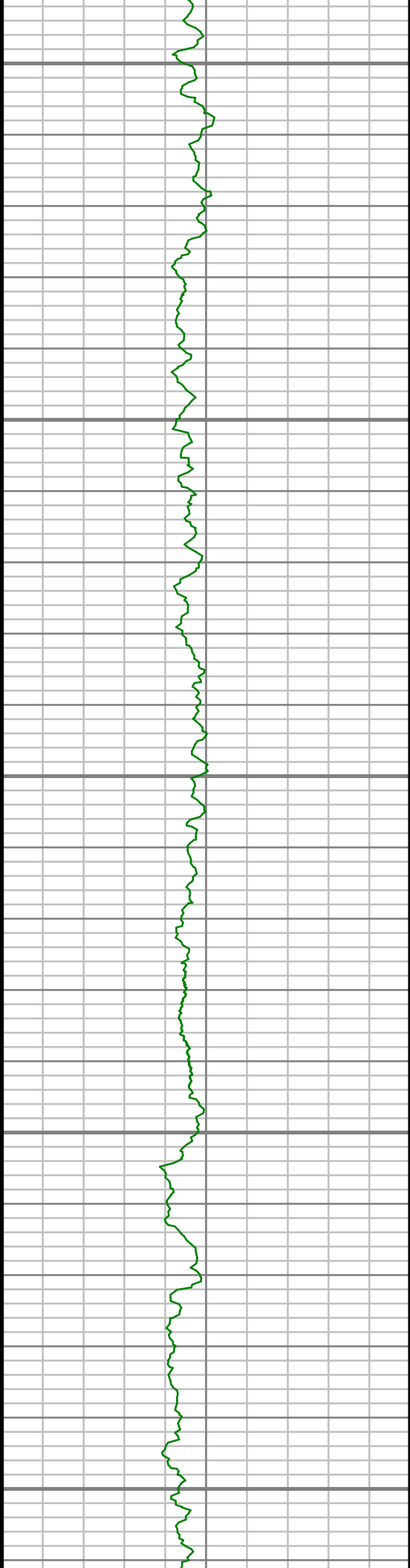
10250

10300



S: 98 MD: 10182.00 ft Inc:
91.77 deg Az: 179.72 deg TVD:
7315.23 ft

S: 99 MD: 10277.00 ft Inc:
90.81 deg Az: 181.05 deg TVD:
7313.09 ft



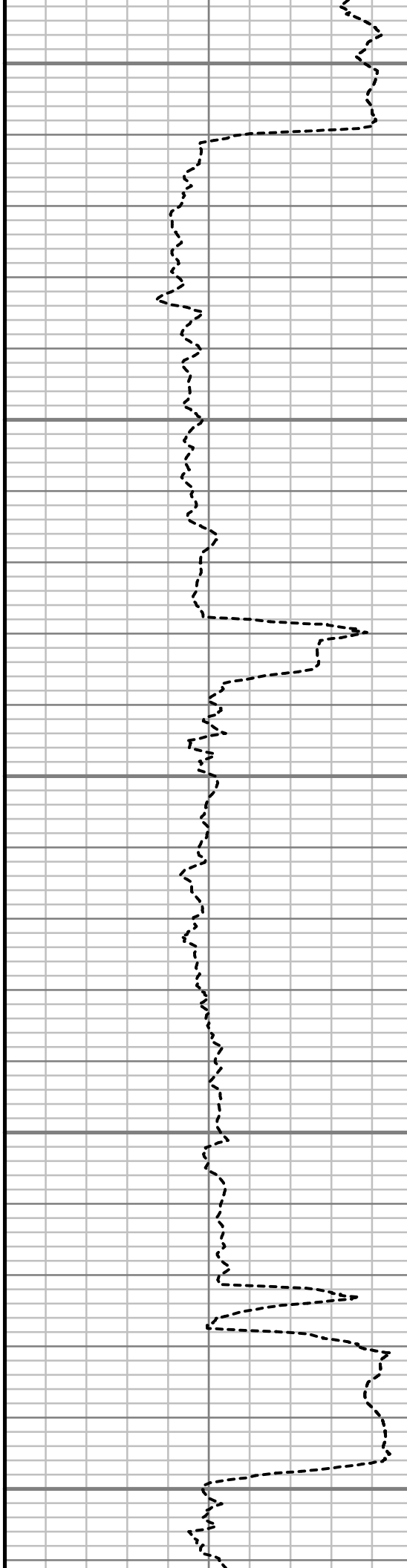
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10400

10450

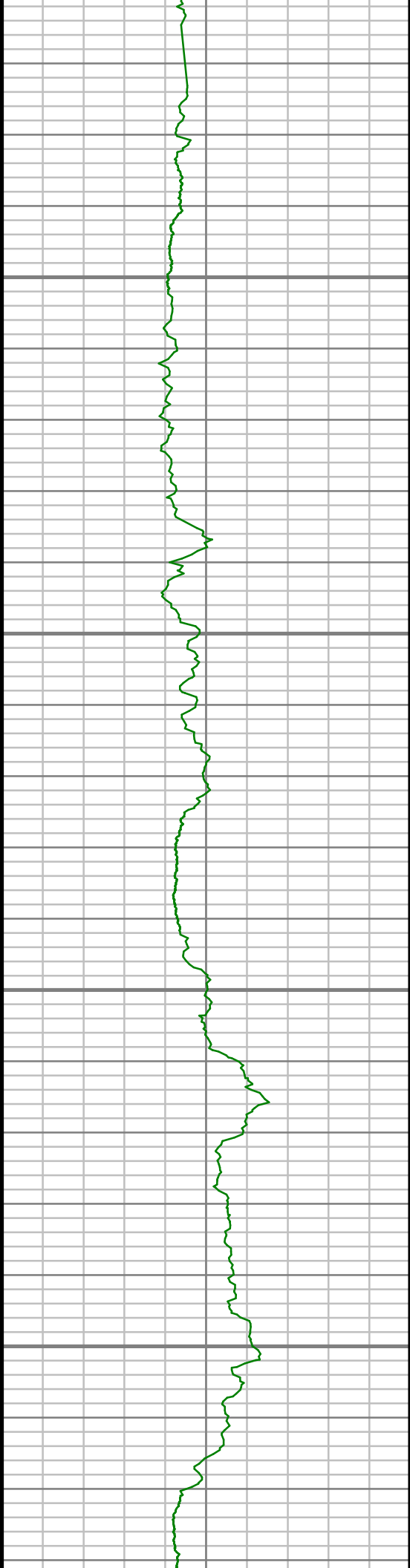
10500

10550



S: 100 MD: 10372.00 ft Inc:
89.00 deg Az: 180.98 deg TVD:
7313.26 ft

S: 101 MD: 10466.00 ft Inc:
87.31 deg Az: 178.77 deg TVD:
7316.29 ft

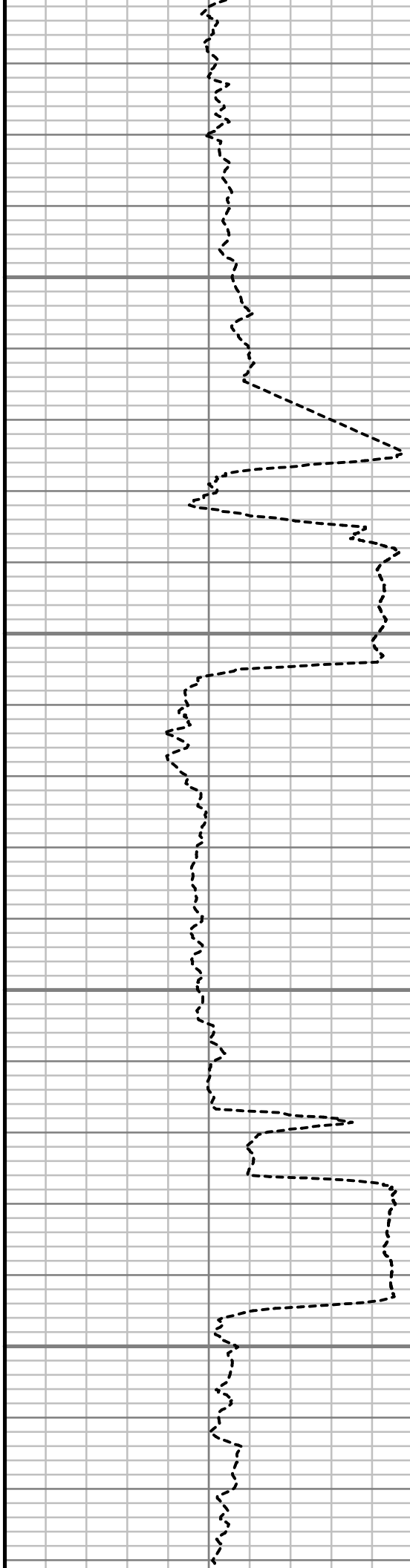


10600

10650

10700

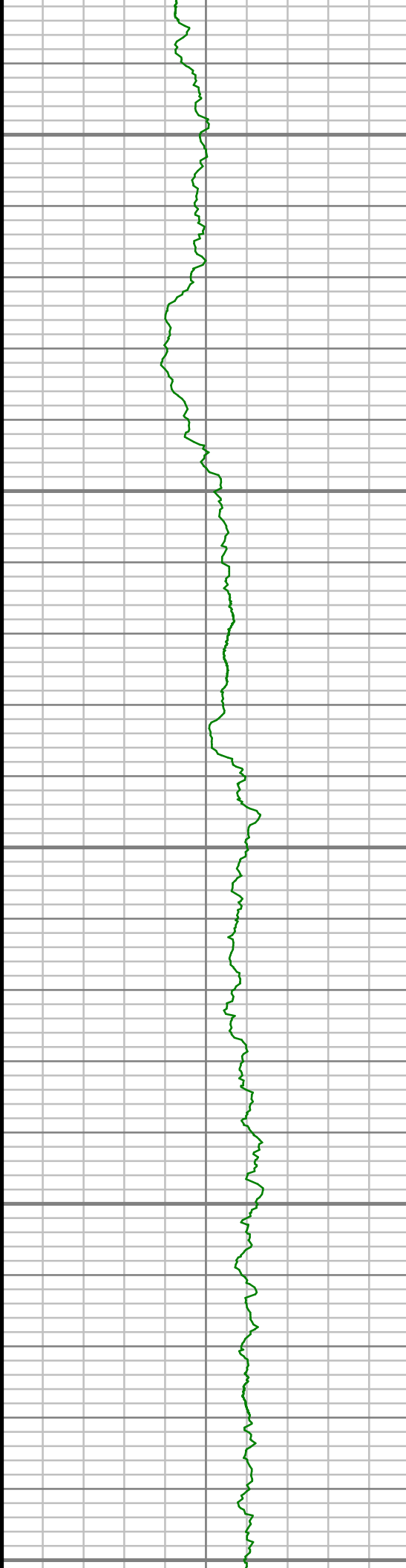
10750



S: 102 MD: 10561.00 ft Inc:
88.92 deg Az: 178.04 deg TVD:
7319.41 ft

S: 103 MD: 10656.00 ft Inc:
91.07 deg Az: 178.05 deg TVD:
7319.42 ft

S: 104 MD: 10751.00 ft Inc:
92.02 deg Az: 179.39 deg TVD:
7316.85 ft



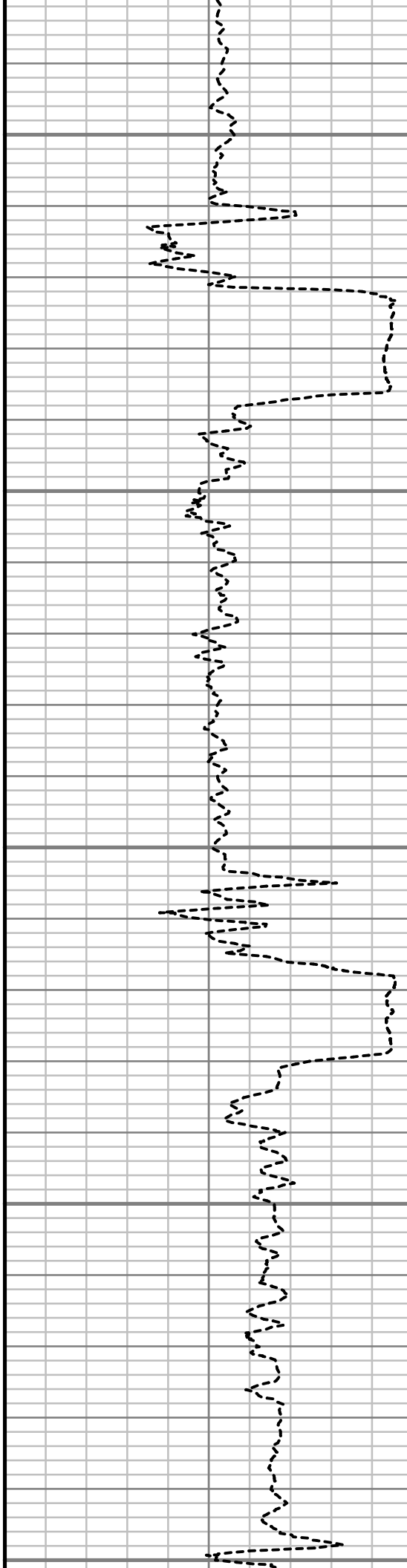
10800

10850

10900

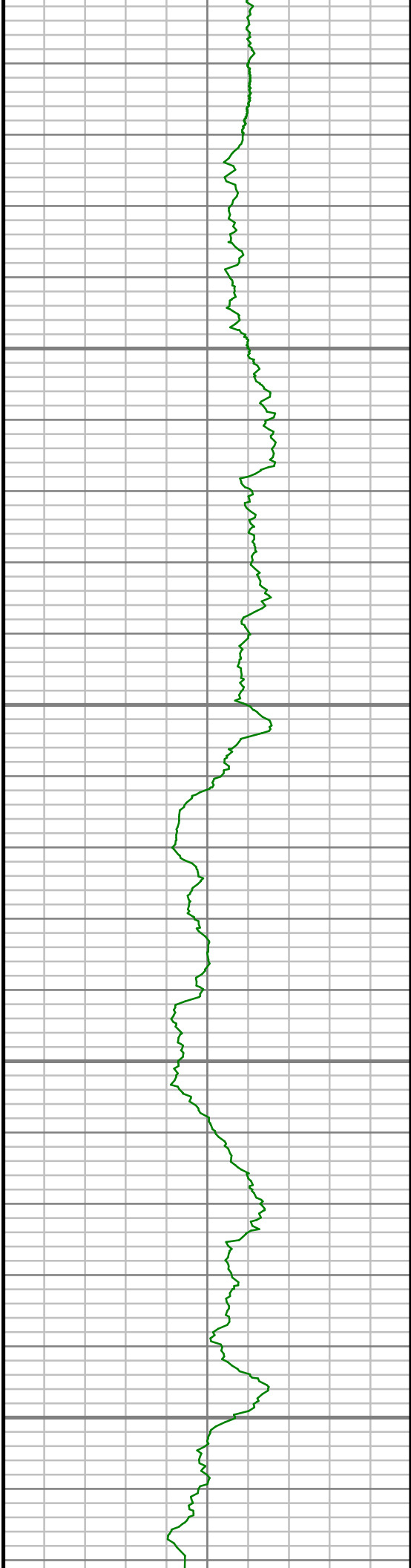
10950

11000



S: 105 MD: 10845.00 ft Inc:
92.08 deg Az: 180.54 deg TVD:
7313.49 ft

S: 106 MD: 10940.00 ft Inc:
90.94 deg Az: 180.72 deg TVD:
7310.98 ft

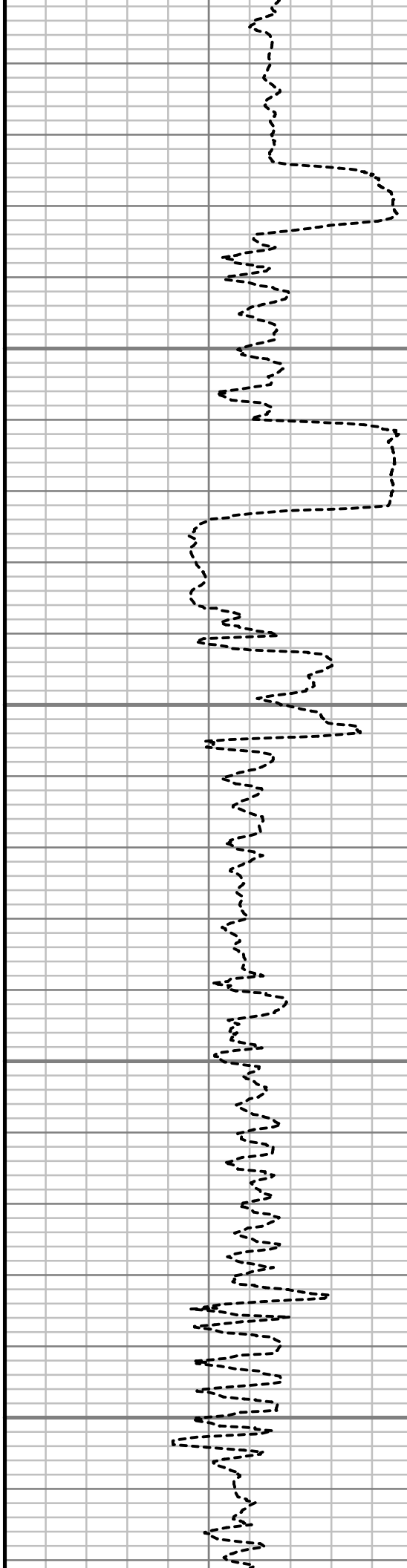


11050

11100

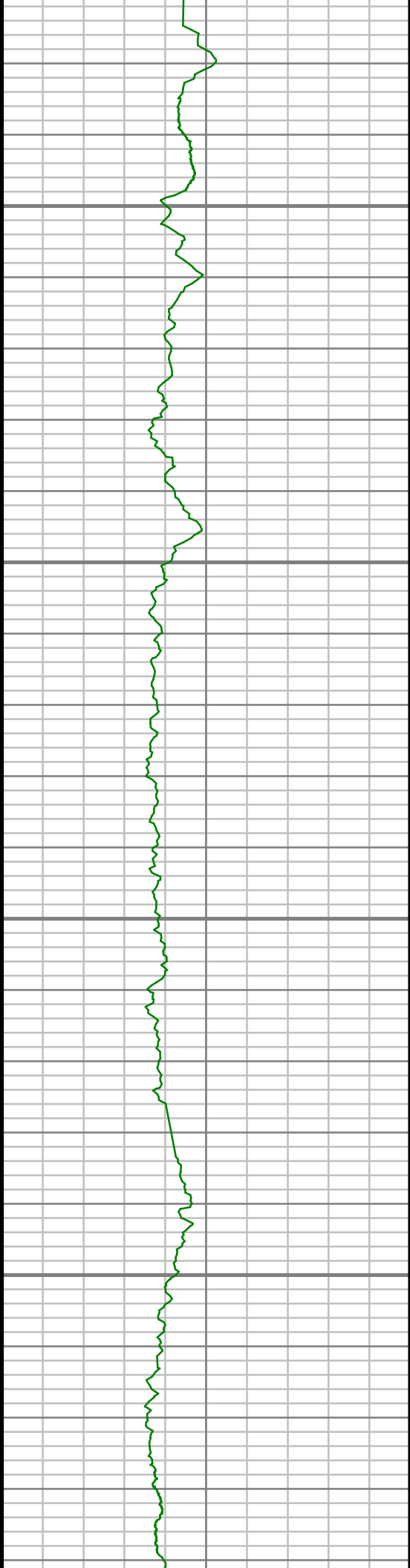
11150

11200



S: 107 MD: 11035.00 ft Inc:
90.10 deg Az: 180.78 deg TVD:
7310.12 ft

S: 108 MD: 11130.00 ft Inc:
88.66 deg Az: 181.69 deg TVD:
7311.15 ft

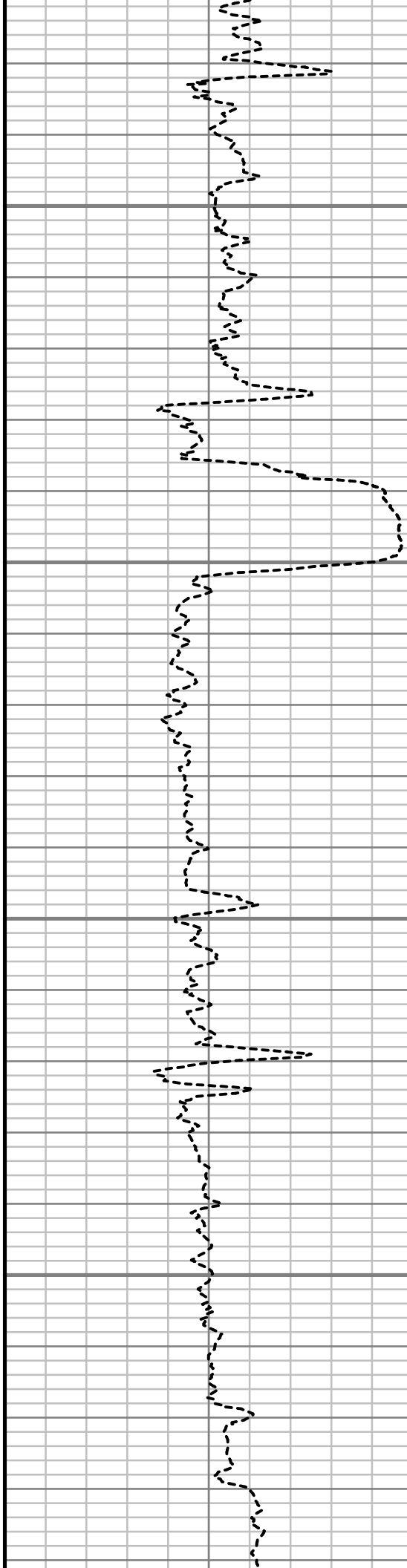


11250

11300

11350

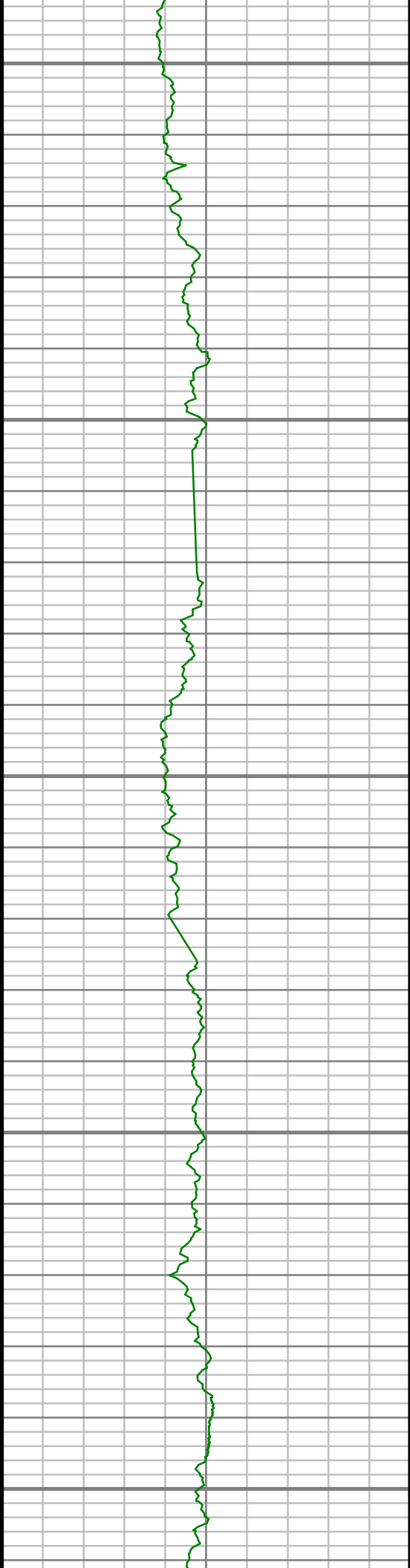
11400



S: 109 MD: 11224.00 ft Inc:
87.72 deg Az: 180.56 deg TVD:
7314.12 ft

S: 110 MD: 11319.00 ft Inc:
89.19 deg Az: 180.22 deg TVD:
7316.68 ft

S: 111 MD: 11414.00 ft Inc:
90.50 deg Az: 179.49 deg TVD:
7316.93 ft



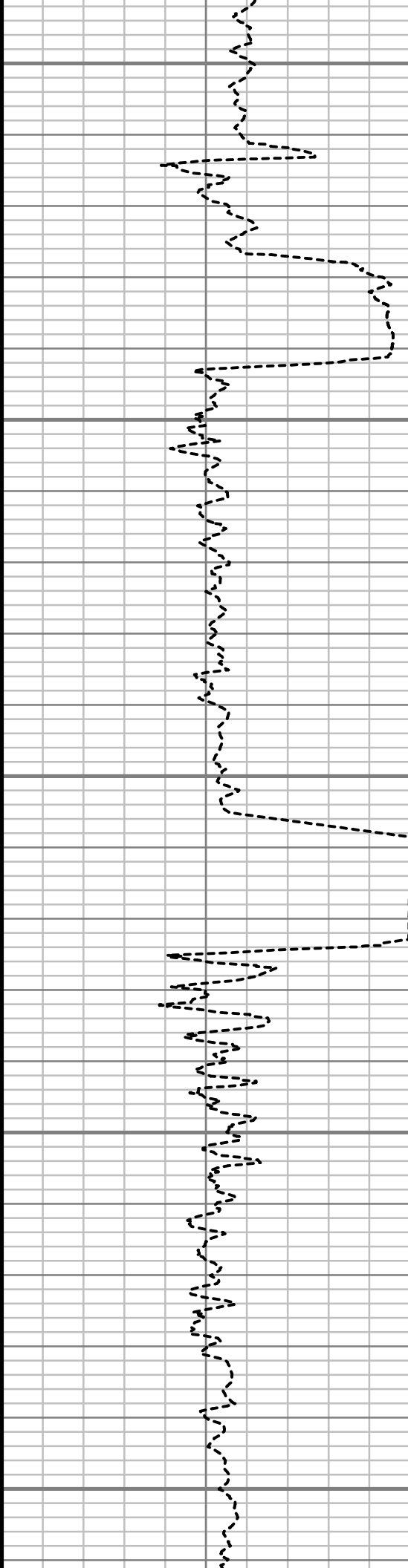
11450

11500

11550

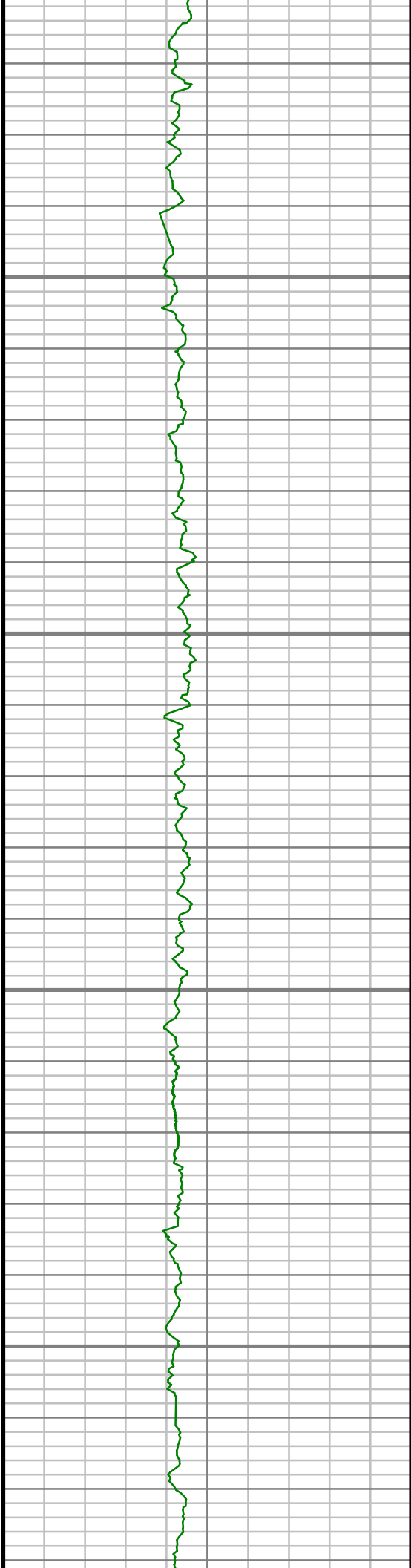
11600

11650



S: 112 MD: 11509.00 ft Inc:
89.97 deg Az: 180.41 deg TVD:
7316.54 ft

S: 113 MD: 11604.00 ft Inc:
90.70 deg Az: 179.70 deg TVD:
7315.98 ft

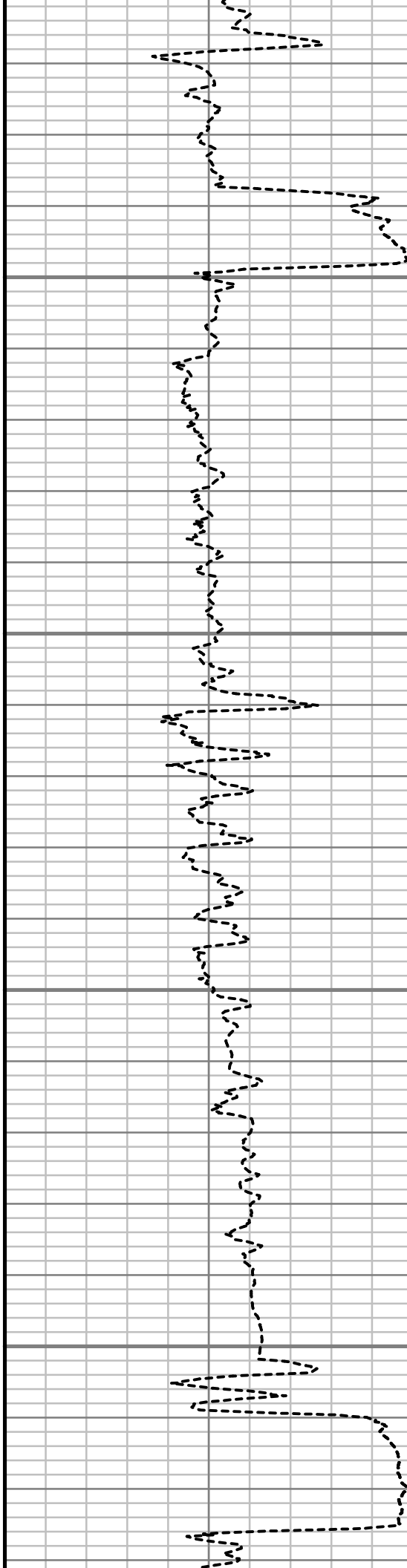


11700

11750

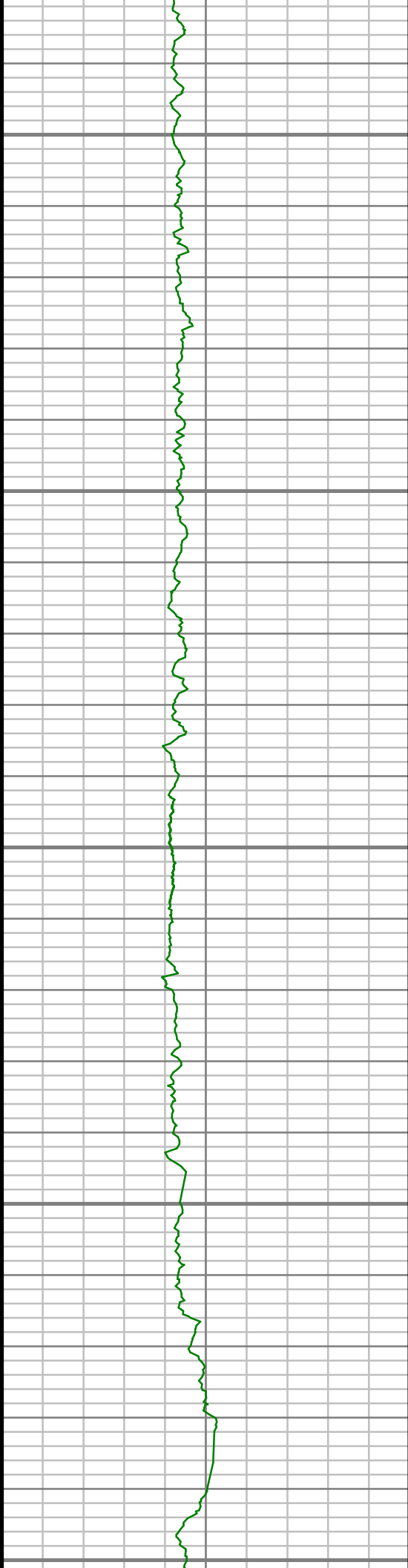
11800

11850



S: 114 MD: 11699.00 ft Inc:
89.66 deg Az: 179.80 deg TVD:
7315.68 ft

S: 115 MD: 11794.00 ft Inc:
90.57 deg Az: 179.31 deg TVD:
7315.48 ft



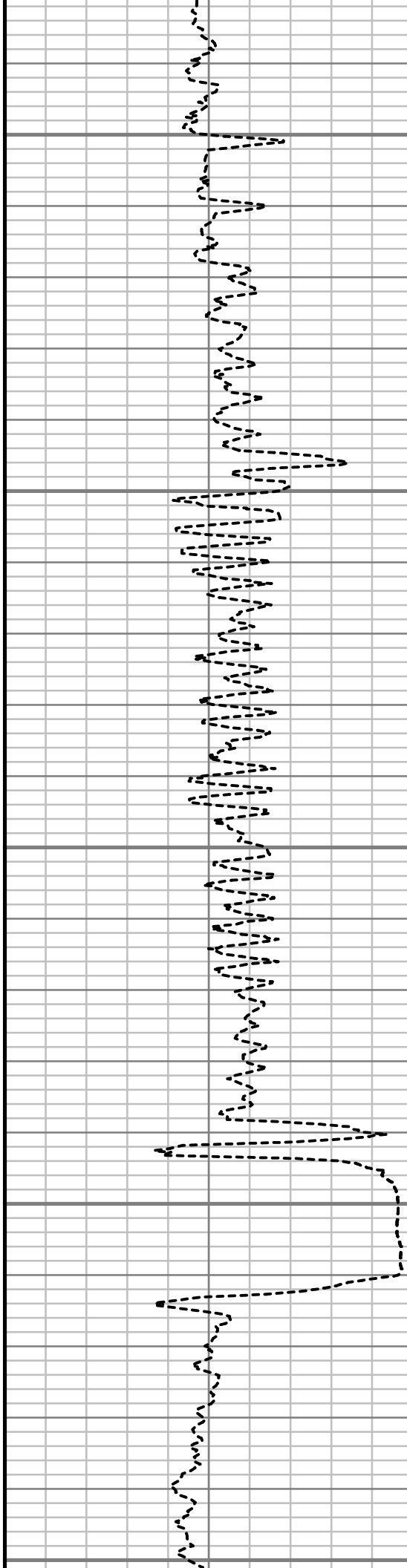
11900

11950

12000

12050

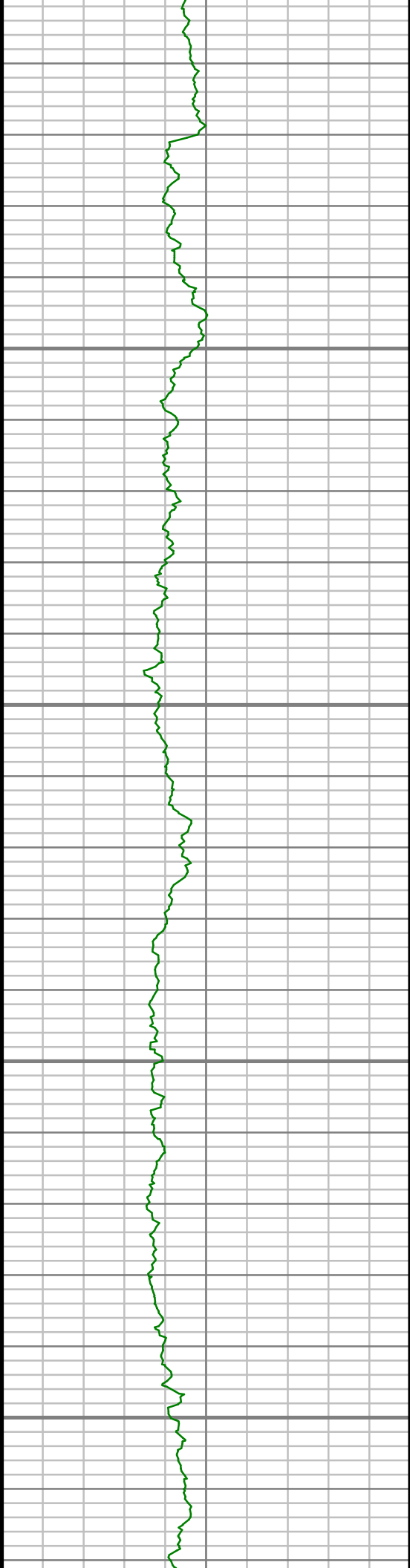
12100



S: 116 MD: 11889.00 ft Inc:
90.13 deg Az: 180.91 deg TVD:
7314.90 ft

S: 117 MD: 11984.00 ft Inc:
90.50 deg Az: 179.61 deg TVD:
7314.37 ft

S: 118 MD: 12078.00 ft Inc:
89.43 deg Az: 180.94 deg TVD:
7314.43 ft

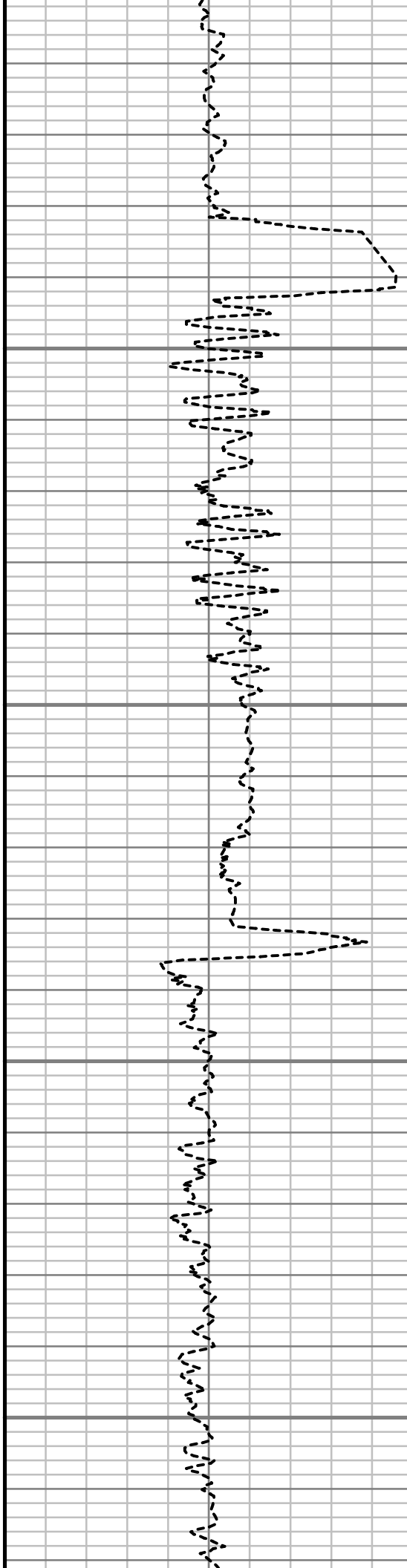


12150

12200

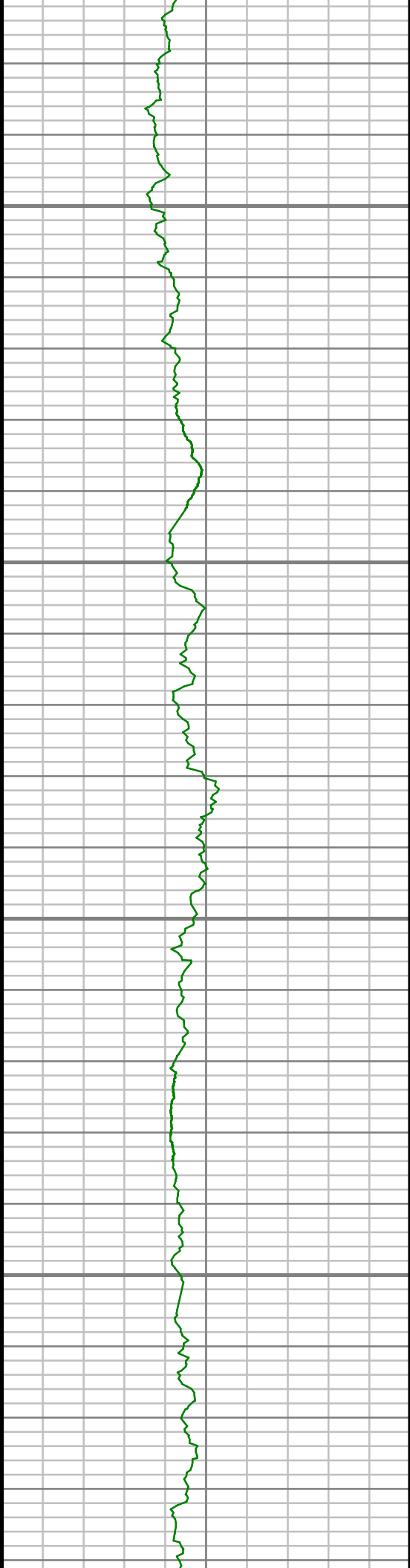
12250

12300



S: 119 MD: 12173.00 ft Inc:
89.20 deg Az: 180.35 deg TVD:
7315.57 ft

S: 120 MD: 12268.00 ft Inc:
90.50 deg Az: 180.41 deg TVD:
7315.82 ft

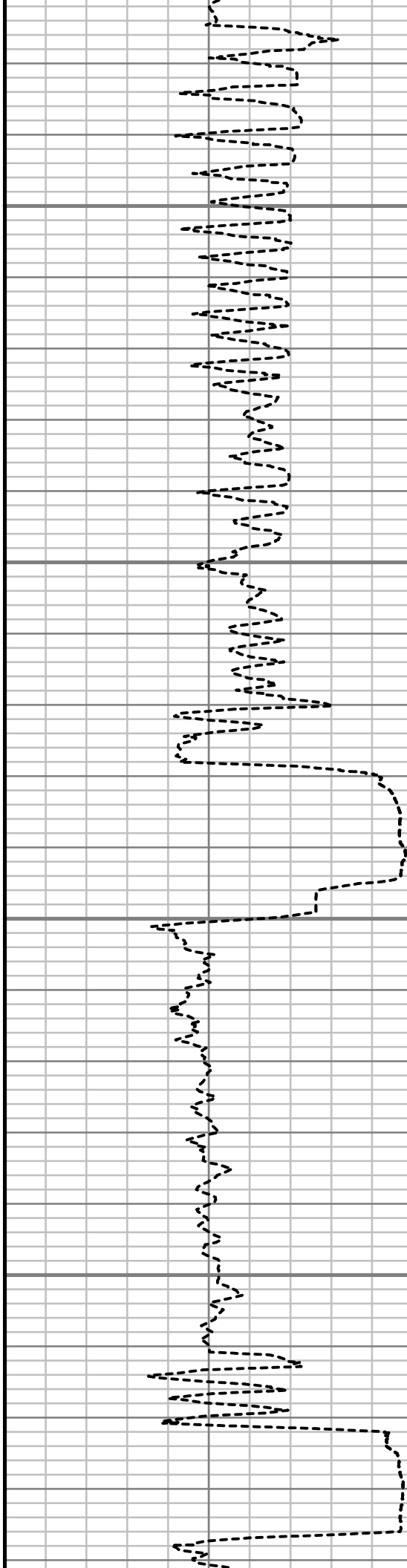


12350

12400

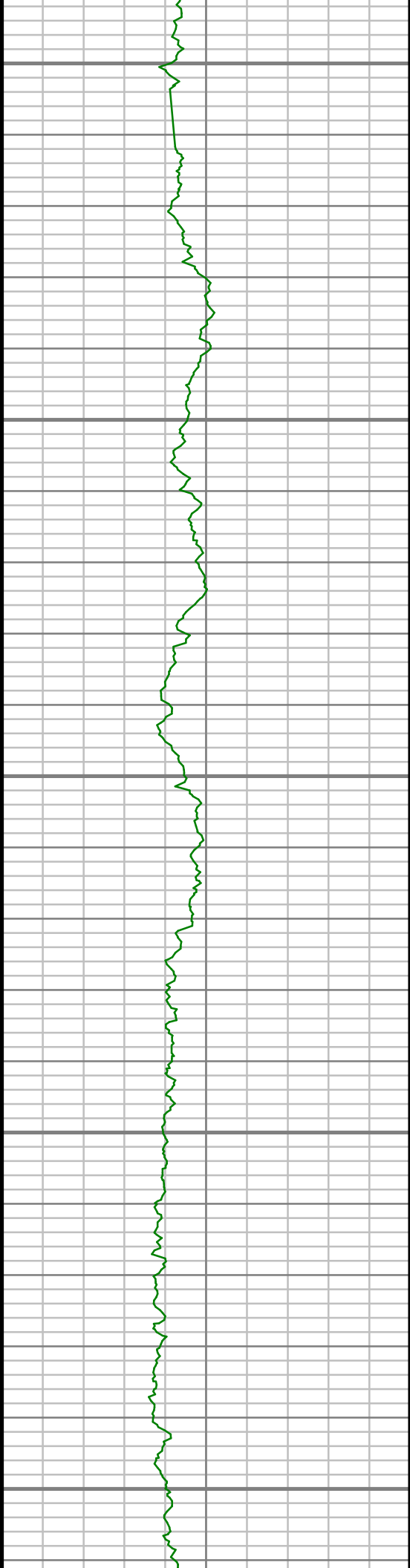
12450

12500



S: 121 MD: 12363.00 ft Inc:
91.01 deg Az: 179.32 deg TVD:
7314.57 ft

S: 122 MD: 12457.00 ft Inc:
90.74 deg Az: 180.91 deg TVD:
7313.14 ft



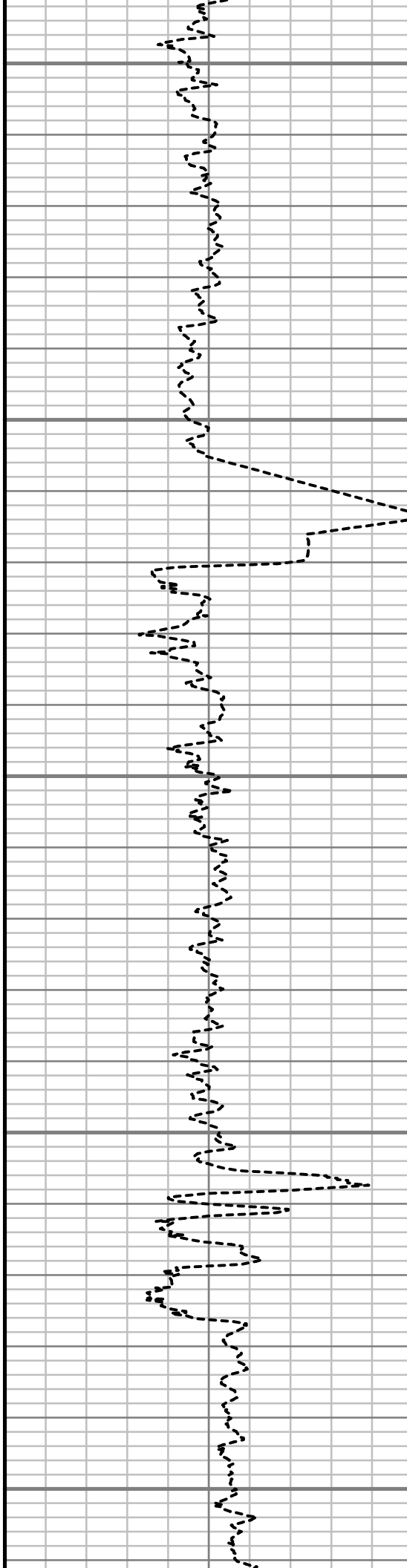
12550

12600

12650

12700

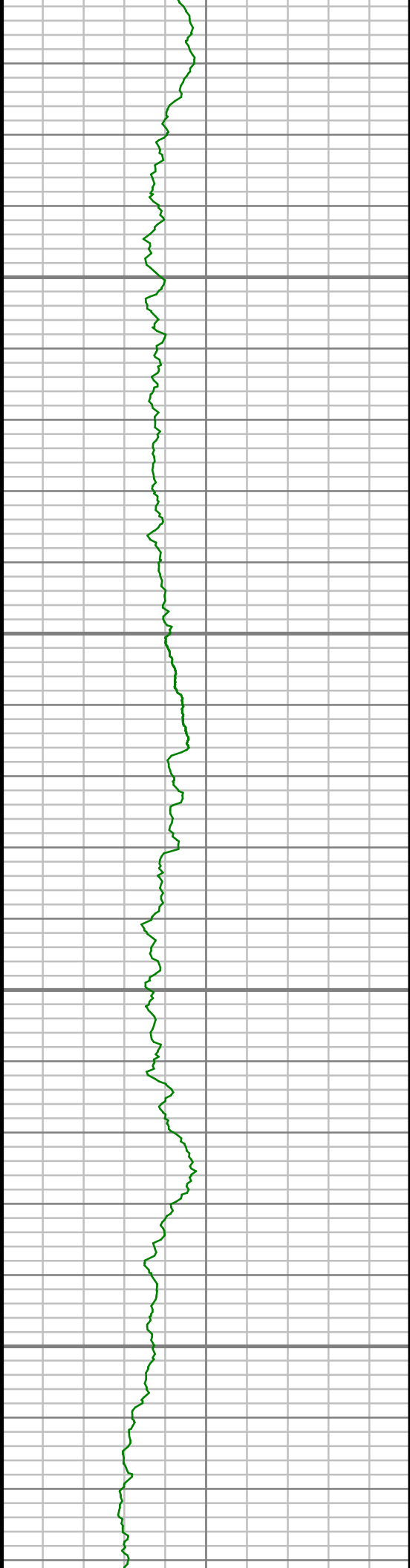
12750



S: 123 MD: 12552.00 ft Inc:
89.03 deg Az: 181.80 deg TVD:
7313.33 ft

S: 124 MD: 12647.00 ft Inc:
88.96 deg Az: 180.82 deg TVD:
7315.00 ft

S: 125 MD: 12742.00 ft Inc:
89.43 deg Az: 180.45 deg TVD:
7316.33 ft

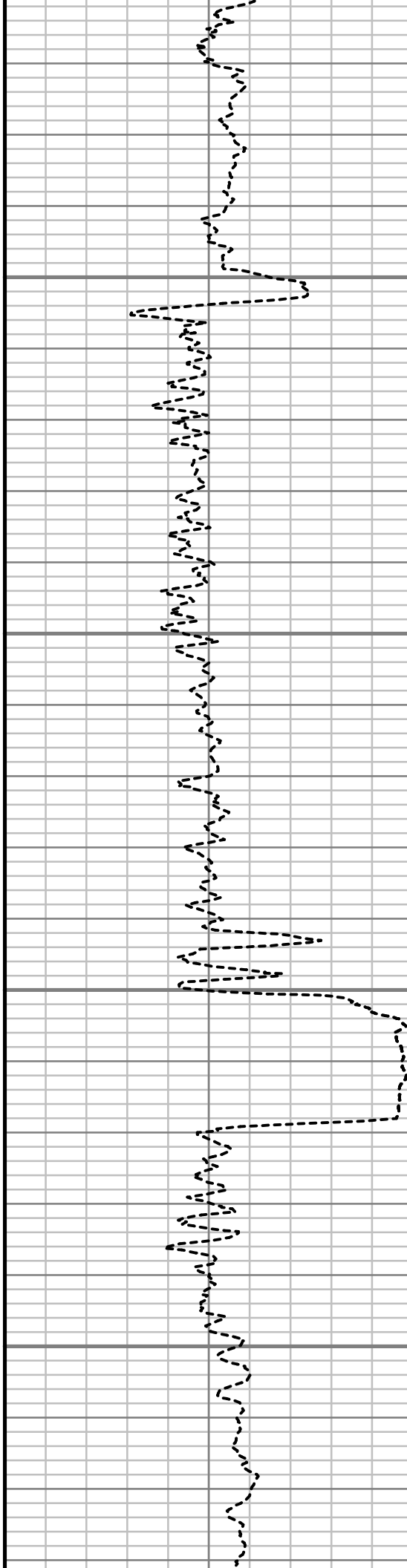


12800

12850

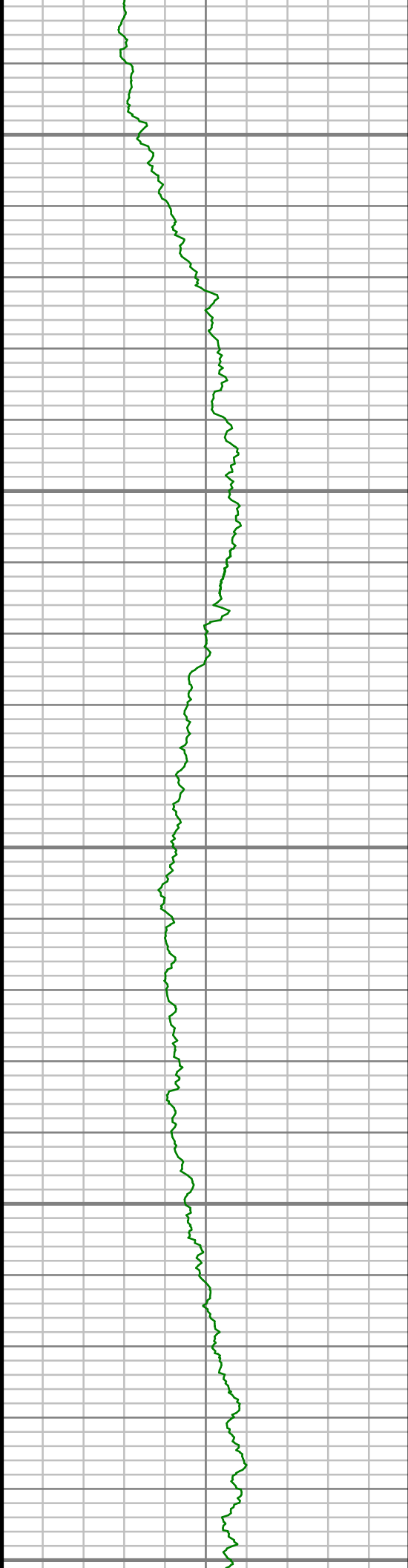
12900

12950



S: 126 MD: 12836.00 ft Inc:
90.94 deg Az: 180.81 deg TVD:
7316.03 ft

S: 127 MD: 12931.00 ft Inc:
88.86 deg Az: 179.89 deg TVD:
7316.20 ft



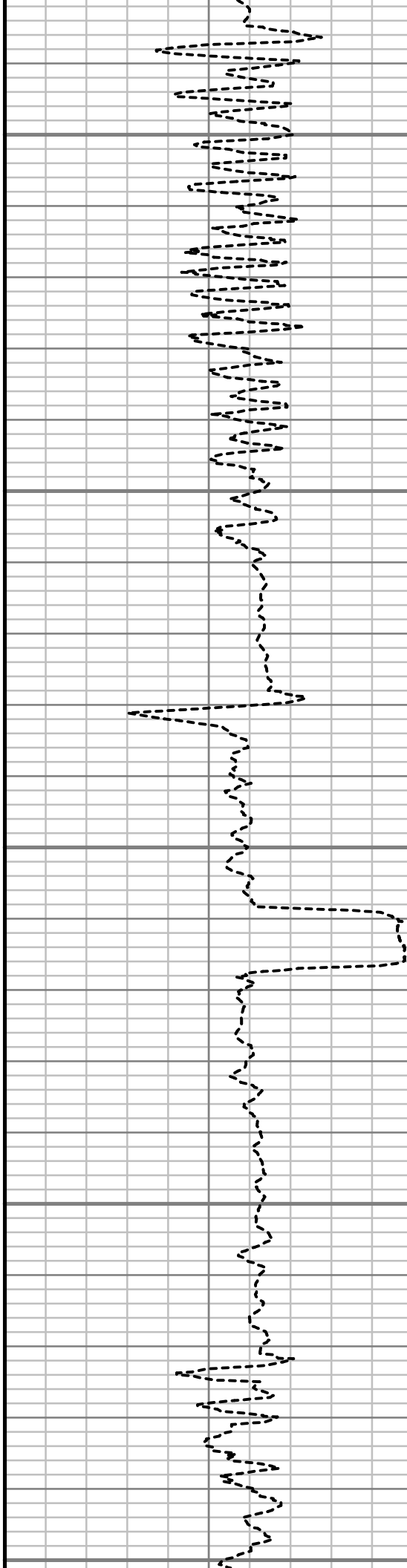
13000

13050

13100

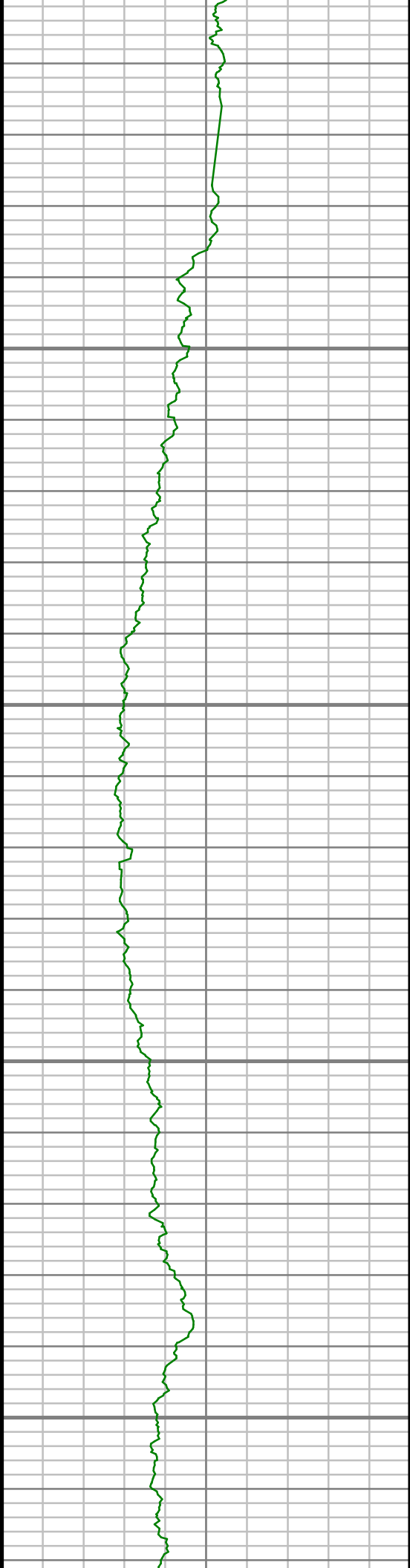
13150

13200



S: 128 MD: 13026.00 ft Inc:
89.23 deg Az: 179.68 deg TVD:
7317.78 ft

S: 129 MD: 13120.00 ft Inc:
90.07 deg Az: 179.58 deg TVD:
7318.36 ft

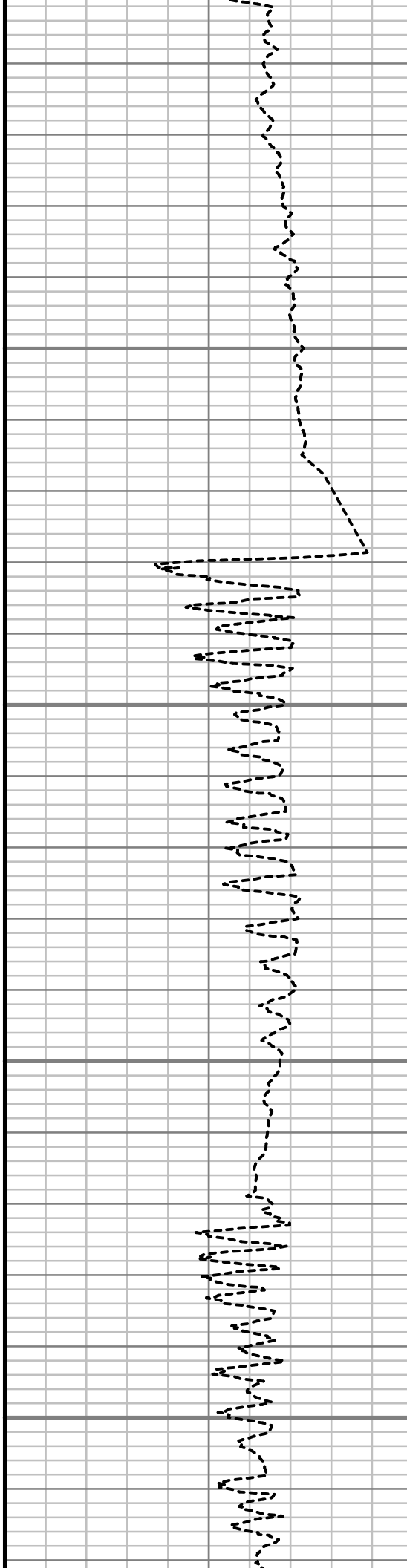


13250

13300

13350

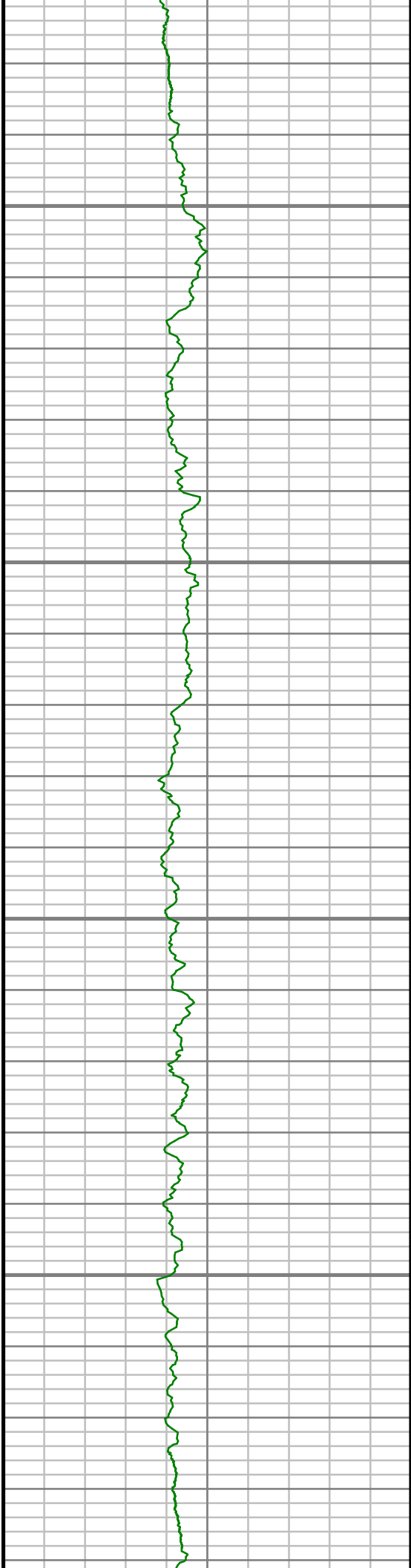
13400



S: 130 MD: 13215.00 ft Inc:
90.81 deg Az: 179.64 deg TVD:
7317.64 ft

S: 131 MD: 13310.00 ft Inc:
90.61 deg Az: 179.09 deg TVD:
7316.47 ft

S: 132 MD: 13404.00 ft Inc:
90.91 deg Az: 178.73 deg TVD:
7315.23 ft

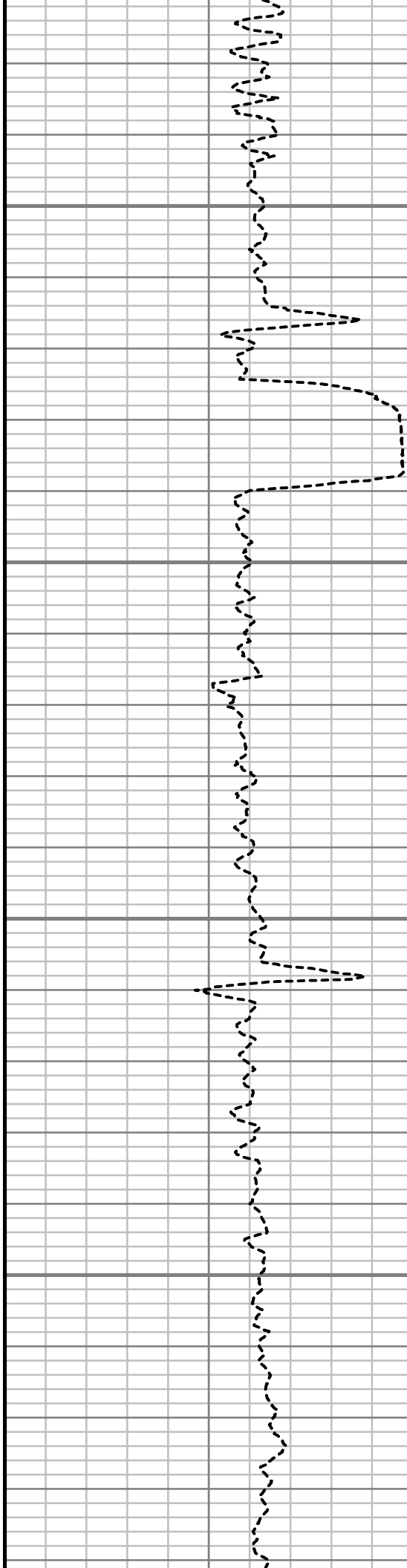


13450

13500

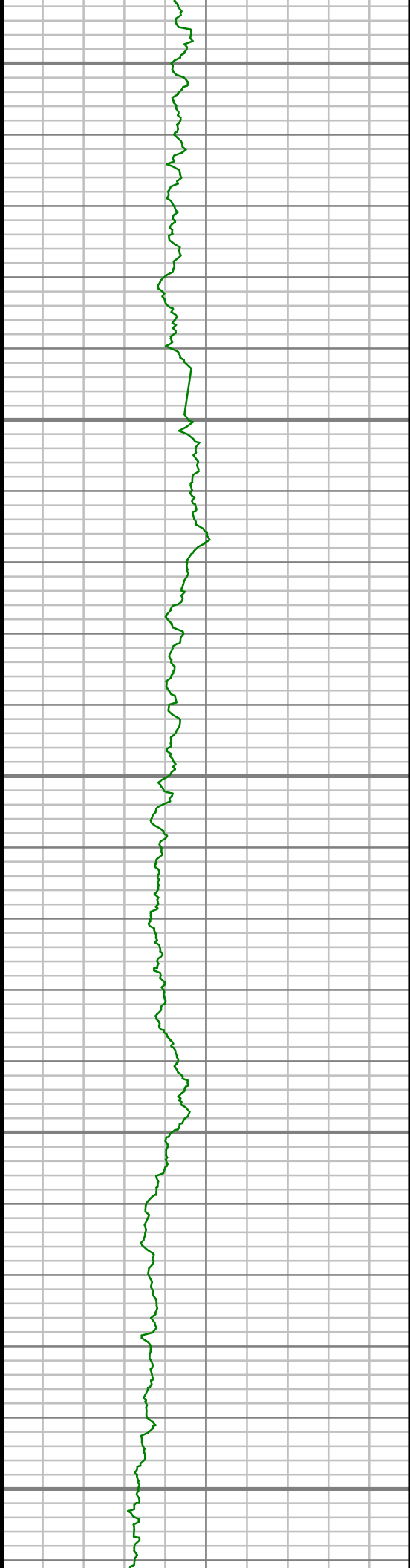
13550

13600



S: 133 MD: 13499.00 ft Inc:
89.97 deg Az: 179.23 deg TVD:
7314.50 ft

S: 134 MD: 13593.00 ft Inc:
90.30 deg Az: 179.40 deg TVD:
7314.28 ft



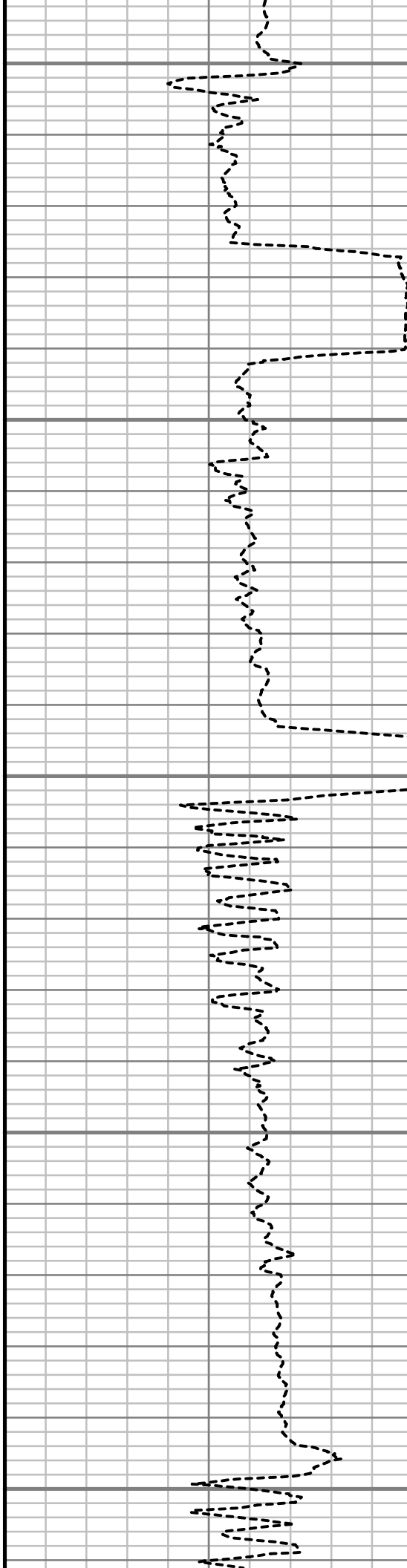
13650

13700

13750

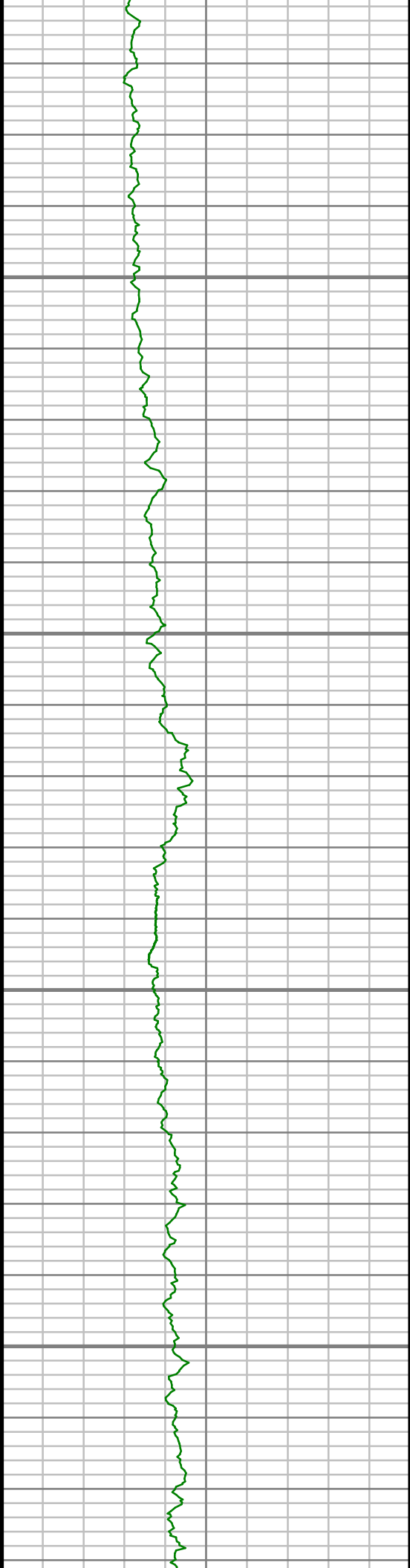
13800

13850



S: 135 MD: 13688.00 ft Inc:
89.09 deg Az: 179.85 deg TVD:
7314.78 ft

S: 136 MD: 13783.00 ft Inc:
89.33 deg Az: 179.87 deg TVD:
7316.09 ft

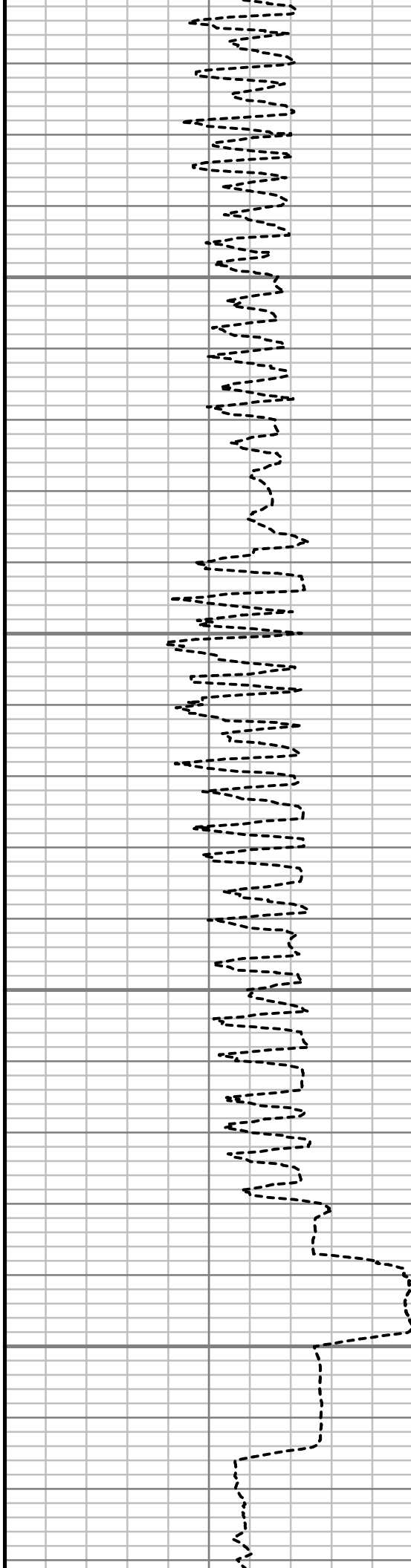


13900

13950

14000

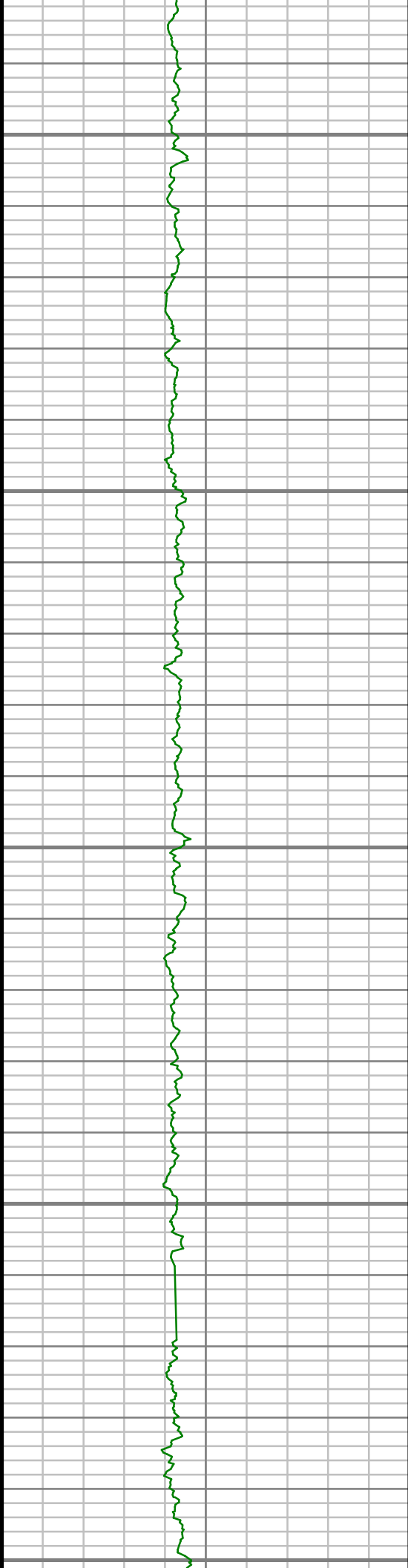
14050



S: 137 MD: 13878.00 ft Inc:
90.00 deg Az: 179.87 deg TVD:
7316.65 ft

S: 138 MD: 13972.00 ft Inc:
90.84 deg Az: 179.82 deg TVD:
7315.96 ft

S: 139 MD: 14067.00 ft Inc:
89.90 deg Az: 179.45 deg TVD:
7315.35 ft



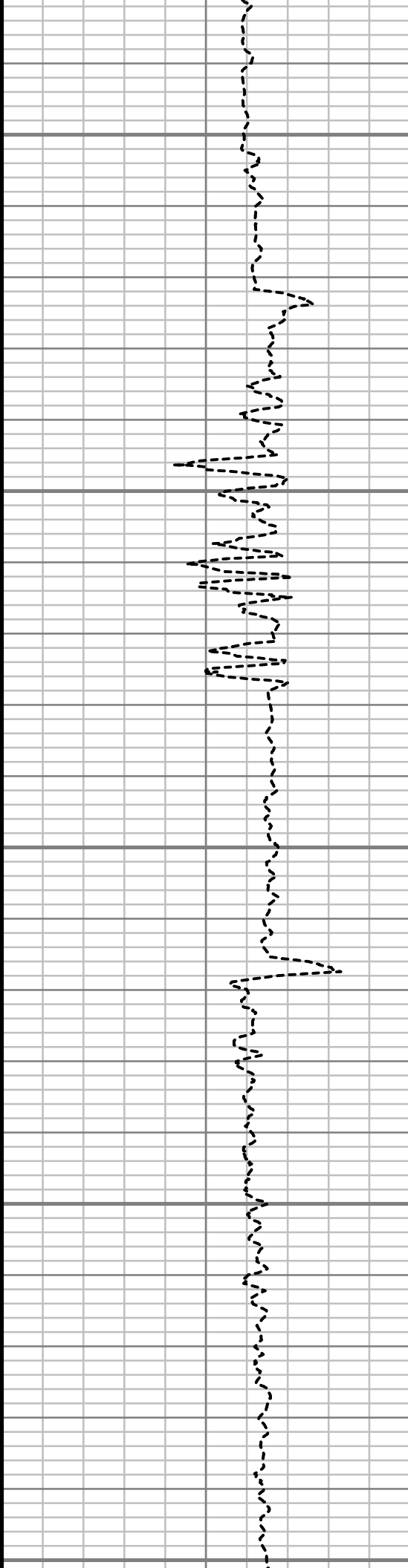
14100

14150

14200

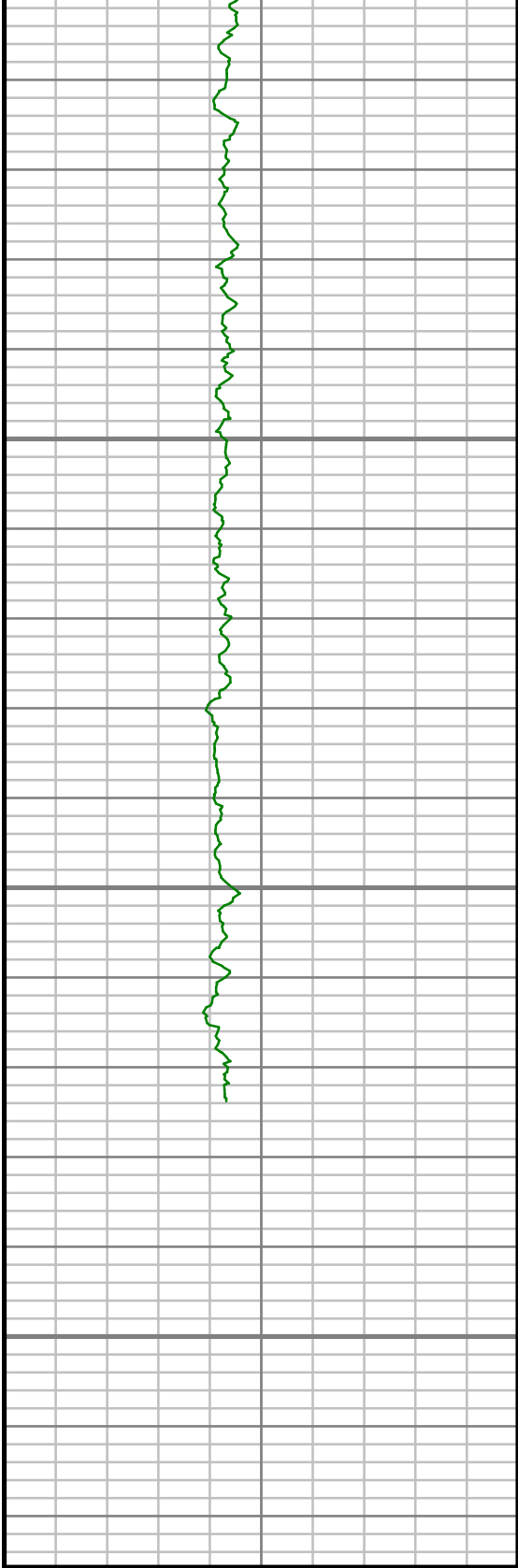
14250

14300



S: 140 MD: 14162.00 ft Inc:
90.24 deg Az: 178.84 deg TVD:
7315.24 ft

S: 141 MD: 14257.00 ft Inc:
89.87 deg Az: 177.98 deg TVD:
7315.15 ft



Gamma Ray (GR)

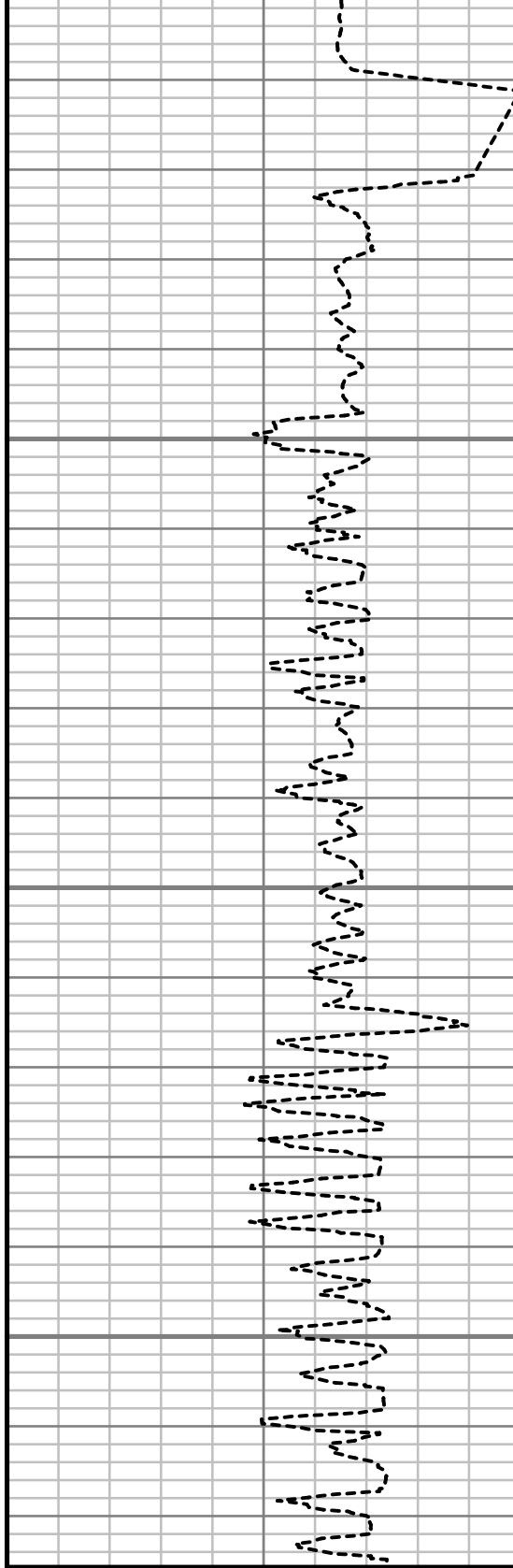
0 Unit = aapi 150

14350

14400

14450

MEASURED DEPTH
1.240 (ft)



Rate of Penetration (ROP)

450 Unit = ft/hr 0

S: 142 MD: 14352.00 ft Inc:
89.70 deg Az: 177.28 deg TVD:
7315.51 ft

S: 143 MD: 14412.00 ft Inc:
90.17 deg Az: 177.32 deg TVD:
7315.58 ft

Comments

Survey Report

Customer Name:	ENCANA OIL & GAS (U.S.A.) INC						
Site Name:	RODMAN BRUNTZ						
Well Name:	RODMAN BRUNTZ 2A-26H						
Survey:	RODMAN BRUNTZ 2A-26H						
Survey Date:	12/16/2013						
Magnetic Declination:	8.53 deg						
North Reference:	True North						
Calculation Method:	Minimum Curvature						
Section (VS) Ref:	0.00N (ft), 0.00E (ft), 180.00Azim (deg)						
MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
238.00	0.44	137.47	238.00	0.68	-0.68	0.62	0.19
331.00	0.38	135.03	331.00	1.16	-1.16	1.08	0.07
424.00	0.46	121.58	423.99	1.57	-1.57	1.62	0.13
517.00	1.19	306.42	516.99	1.20	-1.20	1.16	1.77
610.00	2.72	307.20	609.93	-0.71	0.71	-1.38	1.65
703.00	4.30	314.90	702.75	-4.51	4.51	-5.60	1.77
796.00	5.18	309.23	795.44	-9.62	9.62	-11.33	1.07
889.00	6.23	299.41	887.97	-14.76	14.76	-18.98	1.54

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
982.00	7.43	292.30	980.31	-19.52	19.52	-28.94	1.57
1075.00	7.45	286.66	1072.53	-23.53	23.53	-40.28	0.79
1163.00	7.64	290.61	1159.77	-27.23	27.23	-51.22	0.62
1267.00	7.49	291.84	1262.87	-32.18	32.18	-63.98	0.21
1453.00	7.04	290.68	1447.38	-40.71	40.71	-85.88	0.26
1638.00	6.80	292.70	1631.03	-48.94	48.94	-106.59	0.18
1824.00	9.81	303.62	1815.07	-61.96	61.96	-129.95	1.82
2012.00	11.01	295.32	1999.98	-78.50	78.50	-159.51	1.02
2202.00	11.55	285.25	2186.33	-91.26	91.26	-194.25	1.07
2391.00	9.80	283.08	2372.06	-99.88	99.88	-228.18	0.95
2581.00	9.60	285.66	2559.34	-107.82	107.82	-259.18	0.25
2770.00	8.73	284.75	2745.93	-115.72	115.72	-288.22	0.47
2960.00	8.77	281.94	2933.72	-122.39	122.39	-316.32	0.23
3149.00	8.95	289.86	3120.47	-130.36	130.36	-344.24	0.65
3339.00	9.42	298.85	3308.05	-142.88	142.88	-371.74	0.79
3528.00	9.25	297.72	3494.54	-157.40	157.40	-398.74	0.13
3717.00	8.37	287.48	3681.32	-168.61	168.61	-425.32	0.95
3907.00	8.80	294.88	3869.20	-178.88	178.88	-451.71	0.62
4097.00	7.55	291.84	4057.26	-189.64	189.64	-476.48	0.70
4286.00	9.13	279.69	4244.27	-196.78	196.78	-502.79	1.25

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
4476.00	11.19	290.84	4431.30	-205.88	205.88	-534.88	1.49
4666.00	7.90	288.98	4618.65	-216.68	216.68	-564.46	1.74
4855.00	9.09	289.51	4805.57	-225.90	225.90	-590.82	0.63
5045.00	8.64	286.90	4993.30	-235.06	235.06	-618.63	0.32
5235.00	6.64	296.98	5181.61	-244.20	244.20	-642.09	1.26
5425.00	8.53	282.13	5369.96	-252.14	252.14	-665.66	1.42
5614.00	6.96	283.74	5557.23	-257.81	257.81	-690.48	0.84
5803.00	10.78	301.64	5743.97	-269.81	269.81	-716.67	2.47
5993.00	6.80	302.09	5931.70	-285.12	285.12	-741.34	2.10
6182.00	8.11	280.48	6119.13	-293.49	293.49	-763.94	1.62
6372.00	6.71	269.43	6307.55	-295.82	295.82	-788.21	1.05
6561.00	4.53	293.86	6495.66	-298.73	298.73	-806.09	1.69
6687.00	9.53	300.58	6620.67	-306.06	306.06	-819.64	4.01
6750.00	8.15	292.32	6682.92	-310.41	310.41	-828.26	2.98
6781.00	7.63	272.62	6713.64	-311.33	311.33	-832.35	8.83
6813.00	8.61	258.93	6745.32	-310.97	310.97	-836.82	6.76
6844.00	10.15	244.23	6775.91	-309.34	309.34	-841.56	9.14
6876.00	12.03	229.05	6807.31	-305.93	305.93	-846.62	10.80
6908.00	14.58	217.27	6838.46	-300.53	300.53	-851.58	11.60

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
6939.00	18.06	211.16	6868.21	-293.31	293.31	-856.43	12.51
6971.00	21.63	206.39	6898.30	-283.78	283.78	-861.62	12.23
7003.00	25.19	203.71	6927.67	-272.26	272.26	-866.98	11.61
7034.00	27.81	199.48	6955.41	-259.40	259.40	-872.05	10.42
7066.00	29.55	196.29	6983.48	-244.79	244.79	-876.75	7.22
7097.00	29.73	192.41	7010.43	-229.94	229.94	-880.54	6.21
7129.00	32.00	189.09	7037.90	-213.82	213.82	-883.59	8.87
7161.00	35.28	184.66	7064.54	-196.23	196.23	-885.68	12.77
7192.00	38.78	184.93	7089.28	-177.62	177.62	-887.24	11.33
7224.00	41.57	185.23	7113.73	-157.06	157.06	-889.07	8.74
7256.00	43.66	185.36	7137.28	-135.49	135.49	-891.07	6.54
7287.00	46.96	184.23	7159.08	-113.53	113.53	-892.91	10.94
7319.00	50.95	184.20	7180.08	-89.47	89.47	-894.68	12.47
7350.00	54.41	184.23	7198.88	-64.88	64.88	-896.49	11.16
7382.00	57.51	183.62	7216.79	-38.43	38.43	-898.31	9.83
7413.00	60.60	182.97	7232.72	-11.89	11.89	-899.83	10.13
7445.00	64.02	184.24	7247.59	16.39	-16.39	-901.62	11.24
7477.00	66.44	184.53	7260.99	45.35	-45.35	-903.84	7.60
7508.00	68.97	184.44	7272.75	73.95	-73.95	-906.09	8.15
7540.00	72.85	183.53	7283.22	104.11	-104.11	-908.19	12.45

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
7571.00	76.28	182.12	7291.46	133.95	-133.95	-909.66	11.88
7603.00	78.73	181.22	7298.39	165.18	-165.18	-910.57	8.15
7635.00	81.18	180.42	7303.97	196.68	-196.68	-911.02	8.03
7667.00	84.09	180.44	7308.07	228.41	-228.41	-911.26	9.10
7753.00	89.16	180.39	7313.13	314.23	-314.23	-911.88	5.90
7846.00	88.92	181.31	7314.68	407.21	-407.21	-913.25	1.02
7939.00	88.09	180.47	7317.11	500.16	-500.16	-914.70	1.27
8032.00	89.73	181.93	7318.88	593.12	-593.12	-916.65	2.36
8125.00	90.47	182.12	7318.72	686.06	-686.06	-919.93	0.82
8218.00	90.64	181.51	7317.82	779.01	-779.01	-922.88	0.68
8311.00	90.50	180.99	7316.90	871.98	-871.98	-924.91	0.58
8404.00	90.44	180.86	7316.13	964.97	-964.97	-926.41	0.16
8497.00	90.34	180.35	7315.51	1057.96	-1057.96	-927.39	0.56
8590.00	90.13	179.87	7315.13	1150.96	-1150.96	-927.57	0.56
8683.00	90.77	180.39	7314.39	1243.95	-1243.95	-927.78	0.89
8776.00	91.11	181.62	7312.86	1336.92	-1336.92	-929.41	1.37
8869.00	91.21	182.55	7310.98	1429.84	-1429.84	-932.79	1.01
8962.00	90.20	182.94	7309.84	1522.73	-1522.73	-937.24	1.16
9055.00	89.36	183.24	7310.19	1615.59	-1615.59	-942.25	0.96

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
9147.00	89.40	183.08	7311.19	1707.45	-1707.45	-947.32	0.18
9240.00	89.13	182.45	7312.38	1800.33	-1800.33	-951.81	0.73
9333.00	89.56	182.42	7313.45	1893.24	-1893.24	-955.76	0.47
9426.00	89.40	181.38	7314.29	1986.18	-1986.18	-958.84	1.13
9519.00	88.63	180.12	7315.90	2079.16	-2079.16	-960.06	1.59
9613.00	89.06	179.91	7317.79	2173.14	-2173.14	-960.08	0.52
9708.00	89.33	179.74	7319.13	2268.13	-2268.13	-959.79	0.33
9803.00	89.10	178.90	7320.43	2363.11	-2363.11	-958.67	0.92
9898.00	89.83	178.60	7321.32	2458.09	-2458.09	-956.60	0.84
9993.00	91.24	179.80	7320.43	2553.07	-2553.07	-955.28	1.94
10087.00	91.65	178.93	7318.07	2647.03	-2647.03	-954.24	1.02
10182.00	91.77	179.72	7315.23	2741.98	-2741.98	-953.12	0.84
10277.00	90.81	181.05	7313.09	2836.95	-2836.95	-953.75	1.73
10372.00	89.00	180.98	7313.26	2931.93	-2931.93	-955.44	1.91
10466.00	87.31	178.77	7316.29	3025.88	-3025.88	-955.24	2.95
10561.00	88.92	178.04	7319.41	3120.78	-3120.78	-952.60	1.87
10656.00	91.07	178.05	7319.42	3215.72	-3215.72	-949.36	2.26
10751.00	92.02	179.39	7316.85	3310.66	-3310.66	-947.24	1.72
10845.00	92.08	180.54	7313.49	3404.60	-3404.60	-947.18	1.23
10940.00	90.94	180.72	7310.98	3499.56	-3499.56	-948.23	1.22

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
11035.00	90.10	180.78	7310.12	3594.55	-3594.55	-949.48	0.88
11130.00	88.66	181.69	7311.15	3689.51	-3689.51	-951.53	1.80
11224.00	87.72	180.56	7314.12	3783.45	-3783.45	-953.38	1.57
11319.00	89.19	180.22	7316.68	3878.41	-3878.41	-954.02	1.59
11414.00	90.50	179.49	7316.93	3973.40	-3973.40	-953.78	1.58
11509.00	89.97	180.41	7316.54	4068.40	-4068.40	-953.71	1.12
11604.00	90.70	179.70	7315.98	4163.40	-4163.40	-953.80	1.08
11699.00	89.66	179.80	7315.68	4258.40	-4258.40	-953.38	1.10
11794.00	90.57	179.31	7315.48	4353.39	-4353.39	-952.64	1.08
11889.00	90.13	180.91	7314.90	4448.39	-4448.39	-952.82	1.75
11984.00	90.50	179.61	7314.37	4543.38	-4543.38	-953.25	1.42
12078.00	89.43	180.94	7314.43	4637.38	-4637.38	-953.70	1.82
12173.00	89.20	180.35	7315.57	4732.36	-4732.36	-954.77	0.66
12268.00	90.50	180.41	7315.82	4827.36	-4827.36	-955.40	1.38
12363.00	91.01	179.32	7314.57	4922.35	-4922.35	-955.18	1.27
12457.00	90.74	180.91	7313.14	5016.34	-5016.34	-955.36	1.71
12552.00	89.03	181.80	7313.33	5111.30	-5111.30	-957.61	2.03
12647.00	88.96	180.82	7315.00	5206.26	-5206.26	-959.77	1.03
12742.00	89.43	180.45	7316.33	5301.25	-5301.25	-960.83	0.62

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
12836.00	90.94	180.81	7316.03	5395.24	-5395.24	-961.86	1.65
12931.00	88.86	179.89	7316.20	5490.23	-5490.23	-962.44	2.40
13026.00	89.23	179.68	7317.78	5585.22	-5585.22	-962.08	0.44
13120.00	90.07	179.58	7318.36	5679.21	-5679.21	-961.47	0.90
13215.00	90.81	179.64	7317.64	5774.21	-5774.21	-960.82	0.78
13310.00	90.61	179.09	7316.47	5869.19	-5869.19	-959.77	0.62
13404.00	90.91	178.73	7315.23	5963.17	-5963.17	-957.97	0.50
13499.00	89.97	179.23	7314.50	6058.15	-6058.15	-956.28	1.12
13593.00	90.30	179.40	7314.28	6152.14	-6152.14	-955.16	0.40
13688.00	89.09	179.85	7314.78	6247.14	-6247.14	-954.53	1.36
13783.00	89.33	179.87	7316.09	6342.13	-6342.13	-954.29	0.25
13878.00	90.00	179.87	7316.65	6437.12	-6437.12	-954.07	0.71
13972.00	90.84	179.82	7315.96	6531.12	-6531.12	-953.81	0.89
14067.00	89.90	179.45	7315.35	6626.12	-6626.12	-953.21	1.06
14162.00	90.24	178.84	7315.24	6721.10	-6721.10	-951.79	0.74
14257.00	89.87	177.98	7315.15	6816.07	-6816.07	-949.15	0.98
14352.00	89.70	177.28	7315.51	6910.98	-6910.98	-945.22	0.76
14412.00	90.17	177.32	7315.58	6970.92	-6970.92	-942.39	0.79

5" = 100' FEET MD